From: Commanding Officer, U.S. PRINCETON (CV-37)
To: Commander Task Force SEVENTY-SEVEN

Subj: Close Air Support Reports; submission of

Ref: (a) CTF-77 Conf. Dispatch 1901232 of November 1950

Encl: (1) Combat Air Support Reports for Period 21 December through 22 December 1950

1. Enclosure (1) is forwarded herewith in accordance with reference (a).

[Signature]

R. L. COOMBS, Jr.
By direction.

Copy to:
ComCardDiv FIVE
A large concentration of troops and trucks was seen moving south on the coastal road from Hongwon DV 1231 to Chakto-ri CV 3607. Four trucks were destroyed and one truck was probably destroyed along this road. One large building was napalmed and destroyed in Hongwon. Two unidentified ships were sighted in a cove at CV 3706. They were thought to be enemy.
CV 7030 - Heavy movement (apparently civilian) was sighted moving through Oro-ri towards Hungnam. In Oro-ri two pigs, were lightly damaged and two oxen and carts were destroyed by strafing.

Gasoline drums at CV 7316 were napalmed and strafed. Fifty drums were left burning. A large three story building was bombed at CV 7614. Four direct hits caused half of the building to collapse. This area was also strafed and 100 barrels of gasoline were left burning. At CV 7007, a 1½ ton flat-bed truck was strafed and destroyed.
One warehouse was napalmed and left burning at CV 9614. The tracks at each end of a railroad tunnel at CV 9613 were destroyed by bombing. Troops at CV 8817 and CV 8815 were bombed, napalmed, and strafed. Twenty troops were killed. Five ox carts were strafed and destroyed at CV 8918 and CV 8618. A ½ mile long railroad tunnel at CV 3508 was bombed and napalmed. The damage was light.

**12-21-50**  
(date)

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<th>TIME</th>
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<td>AD-4</td>
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<td>Lazarus</td>
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The controller ordered the strike to hit an enemy Command Post in the center of Mungung. Light 2000's and 24, 100's G.P. bombs were used, and an estimated 30 buildings were destroyed. The Command Post was damaged extensively.

**12-21-50**  
(date)

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<td>F4U-4</td>
<td>R.C. HERALD</td>
<td>CAIN FOURTEEN</td>
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Three bomb hits were made on a tunnel entrance at CV 9013. The damage could not be determined. A small town at CV 9517 was napalmed and strafed. One warehouse and six buildings were destroyed. Five buildings were probably destroyed. Troops were strafed at CV 9221 and ten were killed. CV 7816—Two warehouses were destroyed by napalm and strafing.
PART III (Cont'd)

(U.S.S. PRINCETON (CV-37)
FLIGHT POST OFFICE
SAN FRANCISCO, CALIFORNIA)

CLOSE AIR SUPPORT SUMMARY

12-21-50
(date)

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RESULTS, AREA, COMMENTS

Area CV 7030 - Two oxen and two carts were destroyed by strafing. One building in the same area was lightly damaged.

12-21-50
(date)

<table>
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RESULTS, AREA, COMMENTS

CV 7620 - 350 to 500 fuel drums were napalmed, bombed, and strafed, an estimated 50 percent were destroyed. CV 9517 - The town of T'oejo was bombed, napalmed, and strafed. One fire was started, but other damaged was undetermined. CV 7620 - 125 metal cans, 2\(\frac{1}{2}\)' by 2\(\frac{1}{2}\)' in size, were hit by strafing. The cans emitted a white smoke, but no fire resulted.

12-21-50
(date)

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X-SECRET

B-III-103
U.S.S. PRINCETON (CV-37)
FLIGHT POST OFFICE
San Francisco, California

CLOSE AIR SUPPORT SUMMARY

RESULTS, AREA, CONTENTS

CV 7914 - Buildings, warehouses, and a hospital were bombed, napalmed and strafed. The hospital was damaged extensively, 50 to 60 buildings were destroyed, and 3 to 4 warehouses were destroyed. The airfield at Yonpo was bombed and strafed, and 1200 barrels of fuel were destroyed.

12-21-50
(date)

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RESULTS, AREA, CONTENTS

CV 7718 - The town of Sinbok-ri was napalmed, bombed, and strafed. An estimated 35 buildings were destroyed and 20 troops were killed. Yonpo Airfield was bombed and strafed, and two to three thousand barrels of fuel were hit.

12-21-50
(date)

<table>
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<td>F9F</td>
<td>A.R. HARRIS</td>
<td>JUNGHIRE</td>
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</table>

RESULTS, AREA, CONTENTS

Yonpo Airfield - Seventy cases of rockets were exploded by strafing. One gun emplacement was damaged. Strafing caused fourteen fires among oil and gas drums.
U.S.S. PRINCETON (CV-37)
FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

CLOSED AIR SUPPORT SUMMARY

12-21-50
(date)

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<td>.D-4</td>
<td>A.F. CLAPP</td>
<td>LADARUS</td>
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**RESULTS, AREA, Comments**

Napalmed and bombed possible troop movement along the road between CV 3920 and CV 3717. The results could not be determined because of darkness.

12-22-50
(date)

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**RESULTS, AREA, Comments**

Two trucks were destroyed with napalm at DV 1032. The village of Sinf'o was strafed and four buildings were destroyed. One truck was destroyed by bombing at DV 4649. Heavy troop and truck movement was sighted in Fakchong, DV 3232 - two troops were killed by bombing. DV 3336 - a truck and compound were left burning after a napalmed and strafing attack. One truck was destroyed by strafing at DV 4048. DV 6749 - bombed and strafed a small village in this area; the town was left burning and two trucks were destroyed.

12-22-50
(date)

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Heavy concentrations of troops and apparent civilians were seen in Chipyong - CV 6511. The area was napalmed, rocketed, bombed, and strafed. Fifty troops were killed, 4 blocs were destroyed, and an unknown number of personnel were probably killed. Large numbers of troops were moving towards the coast from this area and from CV 7005.

12-22-50
(date)

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<td>P-9F</td>
<td>J.H. ROECKE</td>
<td>U.G.AHLE</td>
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50 to 60 drums of oil were strafed and destroyed at CV 7607

12-22-50
(date)

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<td>A-4D, F4U-4</td>
<td>R.C. MASTICK</td>
<td>L. LEAR</td>
</tr>
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</table>

CV 6712 - Bombed and napalmed a village in this area. The results were inconclusive because the town had already been hit. CV 7712 - 20 buildings in this town were destroyed by napalm. CV 5300 - 18 buildings were destroyed or probably destroyed by napalm, rockets, bombs, and strafing. CV 6020 - One large and three small buildings were destroyed by direct bomb and napalm hits. The target assignment by Lazarus was too slow.
PART III (Cont'd)

(Enclosure (1) to CO,
PRINCETON ltr ser 016
dt 26 Dec 1950)

U.S.S. PRINCETON (CV-37)
FLEET POST OFFICE
San Francisco, California

CLOSE AIR SUPPORT SUMMARY

12-22-50
(date)

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<td>AD-4</td>
<td>U.S. stehen</td>
<td>Lazrus</td>
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RESULTS, AREA, CONTENTS:

CV 7612 - Napalm, bombed, rocketed, and strafed three small
villages in this area. An estimated 30 buildings were destroyed
or damaged.

12-22-50
(date)

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<td>G.H. COGAN</td>
<td>JOIN FOURTHER</td>
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</table>

RESULTS, AREA, CONTENTS:

CV 8214 - Mortar emplacements were strafed, bombed, and napalmed.
One emplacement and its crew were destroyed. The controller re-
ported good hits on other emplacements in the area. Communications
were average to poor, but control was effective.

12-22-50
(date)

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</table>
Part III (Cont'd)

U.S.S. ENTERPRISE (CV-65)
FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

CLOSE AIR SUPPORT SUMMARY

12-22-50
(date)

RESULTS, AREA, COMMENTS

CV 6013 - This target had been hit previous to our arrival. Bombs and napalm destroyed an additional ten buildings. CV 6710 - a small town at this point was left 75 percent destroyed by this and previous strikes. CV 6305 - Light damage was registered on a bridge after near misses by 1000 lb. G.P. bombs.

12-22-50
(date)

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<td>QUAGMIRE</td>
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RESULTS, AREA, COMMENTS

CV 7607 - Strafed and destroyed 200 drums of gas and oil.

12-22-50
(date)

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RESULTS, AREA, COMMENTS

CV 7618 - An estimated 200 barrels of oil were destroyed by napalm, bombs, and strafing. The strike worked with naval gunfire support to destroy this target.
PART III (Cont'd)

(Inclusion (1) to CO,
Philadelphia 1tn ser 016
Dtd 25 Dec 1950)

U.S.S. PRINCETON (CV-37)
FLIGHT POPT OFFICE
SAN FRANCISCO, CALIFORNIA

CLOSED AIR SUPPORT SUMMARY

12-22-50
(date)

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RESULTS, ADDITIONAL COMMENTS

CV 3812 - Strafed supply carts in this area and started two fires among the carts. Twelve buildings were left burning after a bombing run at CV 3713. The straw burned strangely and may have been camouflage for supplies. A village at CV 8015 was bombed and napolmed. Several buildings were left afire.

12-22-50
(date)

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<td>Lazarus</td>
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RESULTS, ADDITIONAL COMMENTS

Strafed, bombed, and napolmed small villages in the following areas: CV 9013, CV 9021, CV 9921, DV 0421, and DV 0322. These towns had been previously hit by other strikes; however, two large buildings were destroyed at DV 0421, twelve buildings were left burning at CV 9921, and a railroad station was burned at DV 0322.

12-22-50
(date)

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<td>2</td>
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U.S.S. PRINCETON (CV-37)
FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

CLOSE AIR SUPPORT BULLETIN
RESULT, AREA, CONTENTS

On 12-22-50, a building and haystack at CV 6733 were destroyed by napalm.
Both were left burning and probably destroyed. CV 9036 - buildings and troops
were bombarded, rocketed, and napalmed and several direct hits were
registered. Six buildings were left burning. The controller directed the
strike to a Command Post at CV 936. Bombing and napalm destroyed four
small buildings. Buildings in the Hamhung area were strafed, but the
damage could not be evaluated.

12-22-50
(date)

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<td>LADAMOS</td>
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RESULT, AREA, CONTENTS

On 12-22-50, CV 8830 - CV 7235 - CV 7550 - 500#/ G.P. bombs were dropped on
highway bridges and intersections at these areas. The damage
could not be determined due to the 6 to 12 hour delay fuzes on
the bombs. Buildings were hit in the town of Sinhun and fires
were started. Twelve buildings at CV 6733 were left burning after
strafing and bombing runs.

12-22-50
(date)

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RESULT, AREA, CONTENTS

In conjunction with naval gunfire, eight buildings at CV 7925
were destroyed. This village was believed to contain troops.
The railroad yards, northeast of Hamhung were bombed. Warehouses and flat cars were in this area. 50 barrels of fuel on
the flat cars were destroyed by burning.

CONFIDENTIAL
B-III-115
## CLOSE AIR SUPPORT SUMMARY

### 12-22-50 (date)

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### RESULTS, AREA, CONTENTS

A village at LV 0444 was bombed, napalmed, and strafed. One warehouse was partly destroyed, fifteen buildings were left afire, and an estimated 15 troops were killed.

### 12-22-50 (date)

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### RESULTS, AREA, CONTENTS

LV 3722 - Several buildings, thought to contain troops were napalmed, bombed, and strafed. Four buildings were probably destroyed. 20 to 30 people were sighted on a road in reconnaissance area five. They were strafed, but the results were undetermined.

### 12-22-50 (date)

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**Enclosure (1) to CO, PRINCETON ltr ser 016 dtd 26 Dec 1950**

**U.S.S. PRINCETON (CV-37)**

FLEET POST OFFICE
San Francisco, California

**CLOSE AIR SUPPORT SUMMARY**

**PART III (Cont'd)**

SECRET
PART III (Cont'd)  

(Enclosure (1) to CO,  
PRINCETON ltr ser 016  
dtd 26 Dec 1950)  

U.S.S. PRINCETON (CV-37)  
FLEET POST OFFICE  
SAN FRANCISCO, CALIFORNIA  

CLOSE AIR SUPPORT SUMMARY  
RESULTS, ANLS, COMMENTS  

CV 8089 - railroad cars in a village were napalmed with the result that several fires broke out. Actual damage could not be determined. The road from CV 1835 to BV 0733 was bombed and strafed. Small arms fire was directed against the strike at Tongyong-ri. CV 8933 - a village was bombed, napalmed, and strafed, the fires which resulted indicated fuel supplies probably destroyed.
From: Commanding Officer, U.S.S PRINCETON (CV-37)
To: Commander Task Force SEVENTY-SIX

Subj: Combat Air Support Reports; submission of

Ref: (a) CTF-77 Conf. dispatch 190123Z of November 1950

Encl: (1) Combat Air Support Reports for period 1 January
through 3 January 1951

1. Enclosure (1) is forwarded herewith in accordance with reference (a).

W. O. GALLERY

R. E. COCHRAN, Jr.,
By direction.

Copy to:
ComCarDiv ONE
ComCarDiv FIVE

(Encl (1) to CO PRINCETON (CV37)
CONF ltr rser 03 dtd 5 Jan 1951)

CONFIDENTIAL
CLOSE AIR SUPPORT SUMMARY

1-1-51
(date)

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RESULTS, AREA, COMMENTS

CV 9621 - Bombed and rocketed a railroad bridge with the result that one span was damaged extensively and the tracks were destroyed. A highway bridge at DT 8209 was bombed and rocketed.

F SECRET

B-III-118
The damage was light. CT 8517 - A bridge at this point was bombed and rocketed. The bridge approaches were damaged lightly. CT 7804 to CT 8006 - Troops, pillboxes, and trenches were hit with napalm, bombs, HVNR, and strafing. The area was well saturated, but the damage could not be determined.

1-1-51
(date)

CONTROLLER: ROLLER SKATE ONE
AIRCRAFT: B-47
FLIGHT LEADER: H.G. CARLSON
CONTROLLER: MOSQUITO INDISTINCT

RESULTS, AREA, COMMENTS

Controller Roller Skate One directed the strike against a railroad tunnel at DV 3333. 1000lb G.P. bombs and HVNR effectively blocked both ends of the tunnel. The controller reported that a 25 car train was in the tunnel. DV 3636-20 boxcars were bombed, strafed and rocketed. An estimated 10 cars were destroyed while the remainder were either damaged or left burning. In this same area, a warehouse was strafed and left burning. DT 1218 - The village of Yangsu was bombed and rocketed. Large fires were started and an estimated 20 blgs. were destroyed. DT 1417 to DT 1523 - Six to eight villages in the valley were strafed, bombed, napalmed and rocketed. Twenty buildings were destroyed and twelve large fires were started.

1-1-51
(date)

CONTROLLER: MOSQUITO SHOVEL
AIRCRAFT: B-47
FLIGHT LEADER: K.S. VARNET
CONTROLLER: MOSQUITO TUMBLE BEE

RESULTS, AREA, COMMENTS

CS 6395 - Strafed, napalmed, and bombed buildings and troops along the road in this area. An estimated 50 troops were killed and 7 to 10 buildings were destroyed.
**PART III (Cont'd)**

(Ancl (1) to CU PRINCETON (CV37)
CunP ltr ser 03 dtd 6 Jan 1951
Cont'd)

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<td>F4U-4</td>
<td>C.E. CRAVEN</td>
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**RESULTS, AREA, COMMENTS**

**DT 1275** — A concrete bridge at this point was hit with 500-lb and 100-lb G.P. bombs. The damage was light. Bldgs. at CT 8672 were bombed and strafed. One warehouse was destroyed, two large bldgs. were damaged extensively, and a haystack containing supplies was left burning. A bridge at DT 1583 was bombed and rocketed, but no damage resulted.

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**RESULTS, AREA, COMMENTS**

Villages from CT 8360 to CT 7826 were bombed, strafed, and rocketed. Twelve bldgs. were destroyed and others were left burning. Damage to troops in the area could not be determined. Two of the pilots in this strike reported automatic weapons fire.

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**RESULTS, AREA, COMMENTS**

**CT 2710** — A small concentration of trucks, artillery pieces, and troops were located at a small village in this area. Bombs, HVAR, and strafing destroyed four trucks and seven buildings. Four artillery pieces were extensively damaged, but damage to the troops could not be determined.
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RESULTS, AREA, COMMENTS

CU 8628 - A highway bridge at this point was probably destroyed by bombs and HVAR. CU 5174 - Two hits by bombs and HVAR were registered on the side and approaches of a highway bridge. A railroad bridge at CU 9226 was damaged lightly by HVAR. A highway bridge at CU 9721 was damaged lightly by one direct bomb hit. Strafed and destroyed two ox carts at CU 8230. Strafed and destroyed 2 horses at CU 6985.

CS 7295 - 26 snipers and 1 field piece were destroyed by bombing, strafing, and HVAR. This was UN equipment abandoned on the road after an ambush by CCF forces the preceding night.

CS 3375 - A troop concentration of unknown strength was reported by the controller to be moving through the valley at this point. The valley was flanked by two villages. Bombs, napalm, HVAR, and strafing left both villages burning. Damage to the troops could not be determined.
PART III (Cont'd)

(Enclosure 1 to C^n PRINCETON (CV37)
Conf 1tr ser 03 dtd 6 Jan 1951
Cont'd)

1-3-51
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**RESULTS, AREA, COMMENTS**

This strike was pre-briefed to hit command posts in the village of Hoeyang GT 7885. Bombs, napalm, HVNR and surafing destroyed three fourths of the city, destroyed one command post, and damaged extensively a second command post.

1-3-51
(date)

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**RESULTS, AREA, COMMENTS**

**US 2390** - In conjunction with other planes of the strike, mass enemy troop movements were bombed, rocketed, and strafed. 30 to 50 troops were killed, three bldgs. containing troops and supplies were destroyed, and one truck was destroyed. **US 9557** - Bombed, strafed and rocketed troops reported in this area. The damage was not determined. **US 1278** - Bombed and destroyed a bldg. having a radio antennae.

1-3-51
(date)

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**RESULTS, AREA, COMMENTS**

**US 9358** - Bombed, napalm, and strafed troops in this area. The damage could not be determined. **US 9663** - Bombed the town of Pungsuwon. Three buildings were left burning.
1-3-51
(date)

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RESULTS, AREA, COMMENTS

Bldgs. and troops in area DS 2390 were hit with bombs, HVAR and strafing. Other planes of the strike hit this same concentration. Three bldgs. were destroyed, five bldgs. were damaged extensively and 10 troops were killed. It is probable that other troops were hit. DS 2296 - horses, bldgs. and troops were bombed and strafed. It was estimated that 3 horses were killed and several bldgs. were damaged. DS 2398 - Strafed a troop concentration in this area with the result that nine were killed and others were probably killed.
PART III (Cont'd)

(Enc I) to UC PRINCETON (CV37)
CONF ltr ser 03 dtd 6 Jan 1951
Cont'd)

1-3-51
(date)

TAKE OFF: NO. OF : TYPE OF:
TIME: AIRCRAFT: AIRCRAFT: FLIGHT LEADER : CONTROLLER

0840 : 4 : AD-4 : E. C. HARRIS : SPECIAL MISSION

RESULTS, AREA, COMMENTS

This strike was pre-briefed to hit command posts in the village of Heeyang CT 7885. Bombs, napalms, HV.R and strafing destroyed three fourths of the city, destroyed one command post, and damaged extensively a second command post.

1-3-51
(date)

TAKE OFF: NO. OF : TYPE OF:
TIME: AIRCRAFT: AIRCRAFT: FLIGHT LEADER : CONTROLLER

1200 : 7 : FAU-4 : X. S. VANHETE : MOSQUITO TUMBLEWEED

RESULTS, AREA, COMMENTS

BS 2390 - In conjunction with other planes of the strike, mass enemy troop movements were bombed, rocketed, and strafed. 30 to 50 troops were killed, three bldgs. containing troops and supplies were destroyed, and one truck was destroyed. BS 9557 - Bombed, strafed and rocketed troops reported in this area. The damage was not determined. BS 1278 - Bombed and destroyed a bldg. having a radio antennae.

1-3-51
(date)

TAKE OFF: NO. OF : TYPE OF:
TIME: AIRCRAFT: AIRCRAFT: FLIGHT LEADER : CONTROLLER

1200 : 4 : AD-4 : R.T. PHILLIPS : MOSQUITO COTTONSEED

RESULTS, AREA, COMMENTS

BS 9358 - Bombed, napalmed, and strafed troops in this area. The damage could not be determined. BS 9663 - Bombed the town of Pungsuwon. Three buildings were left burning.
From: Commanding Officer, USS PRINCETON (CV-37)  
To: Commander Task Force SEVENTY-SEVEN  

Subj: Combat Air Support Report; submission of  

Ref: (4) CTF-77 Conf. Dispatch 190123Z of November 1950  

Encl: (1) Combat Air Support Report for 5 January 1951  

1. Enclosure (1) is forwarded herewith in accordance with reference (a).  

R. O. GALLERY  
R. J. COOPER, Jr.,  
By direction,  

Copy to:  
ComCardDiv ONE  
ComCardDiv FIVE  

CONFIDENTIAL  

(Encl (1) to CO PRINCETON (CV37)  
Conf 1TR ser 04 dtd 10 Jan 1951)  

COMM AIR SUPPORT SUMMARY  

1-5-51  
(date)  

TAKE OFF: NO. OF: TYPE OF:  
TIME: AIRCRAFT: AIRCRAFT: FLIGHT LEADER: CONTROLLER  
SPECIAL 2  

RESULTS, AREA, COMMENTS  

AS 0465 - Large enemy troop concentrations were bombed, napalmed, rocketed, and strafed. These enemy forces were in attack upon UN troops. Enemy casualties were large, 1 bldg. was destroyed and 4 bldgs. were damaged. As 2037 - People were seen moving south in this area. They were dressed as civilians and had packs on their backs. They were walking in a single file on both sides of the road. Their identity could not be determined.
Take Off: No. Of: Type Of:                
Time: Aircraft: Aircraft: Flight Leader: Controller: 

0840: 3: AD-4: S. R. Parmer: MOSQUITO COTTONWOOD

Results, Area, Comments

DS 0261 to CS 0268 - a heavy enemy troop concentration was attacking our forces in this area. The controller estimated the enemy concentration at 3000 to 4000 troops and civilians. The strike bombed, napaled, strafed and rocketed the area inflicting heavy losses. The enemy attack was turned back and 4 buildings were destroyed.

0840: 4: FJU-4: R. I. Knoten: MOSQUITO TOWNSEND

Results, Area, Comments

Two school-houses were destroyed at CS 6300 and CS 5779 by napalm and bombing. A small village at CS 5586 was bombed and strafed. Ten buildings were destroyed and 1 tractor was destroyed.

1200: 10: FJU-4: K. S. Vanmeter: COTTONWOOD

Results, Area, Comments

CS 9755 - Bombed, rocketed, napaled, and strafed troops in this area. The troops were dug in and the damage could not be determined.
From: Commanding Officer, USS PRINCETON (CV-37)  
To: Chief of Naval Operations  
Via: (1) Commander Carrier Division FIVE  
(2) Commander Task Force SEVENTY-SEVEN  
(3) Commander SEVENTH Fleet  
(4) Commander Naval Forces Far East  
(5) Commander in Chief, U.S. Pacific Fleet  

Subj: Action Report for the period 18 January 1951 through 15 February 1951  

Ref: (a) CNO rest ltr Op345 ser 1197P34 of 3 August 1950  

Encl: (1) Comm-Line Armed Recco Plan #3 P. 24  
(2) CVG 19 conf ltr ser 02 of 7 January 1951 - Action Report for period 18 January 1951 through 15 February 1951  

1. In accordance with reference (a) the action report for the period 18 January 1951 through 15 February 1951 is hereby submitted.  

PART I  Composition of Own Forces:

In accordance with Cm7thFlt secret dispatch 150446Z of January, the USS PRINCETON (CV-37) with ComCarDiv FIVE and Carrier Air Group NINETEEN embarked, departed Sasebo Harbor, Kyushu, Japan. The time of departure was approximately 1000 on 18 January 1951. In company with the USS PRINCETON (CV-37) was DesDiv III composed of the USS WILSTONE (DD-716), USS CHANDLER (DD-717), USS HAMNER (DD-716), and USS CHEVALIER (DDR-805).  

At 0710, 19 January 1951, the PRINCETON and DesDiv III rendezvoused with Task Force SEVENTY-SEVEN at Latitude 37°56'N and Longitude 129°35'E. TF 77 was composed of four aircraft carriers: the USS PHILIPPINE SEA (CV-47), USS VALLEY FORGE (CV-45), USS PRINCETON (CV-37), and USS LEYTE (CV-32) with various heavy support and screening ships.  

Upon rejoining the force, ComCarDiv FIVE, in the PRINCETON, resumed the duties of Commander Task Force SEVENTY-SEVEN,
relieving CorDiv ONE. This change in command was directed by CINCPACFLT, conf dispatch 161420Z of January.

Mission:

At this time, Task Force SEVENTY-SEVEN was operating in accordance with CorDiv ONE's Operation Order No. 4-50. This operation order continued in effect until 4 February 1951; at which time, Operation Order No. 1-51 was originated by Commander Task Force SEVENTY-SEVEN. Operation Order No. 1-51, placed in effect by CTF 77 restricted dispatch 0323502Z of February, provided that the task force would perform close air support, reconnaissance, interdiction, and air bombardment missions. These missions were to be conducted in order to destroy the enemy forces, installations, and communications in support of the United Nations Forces.

The carrier air groups were to:

1. Provide air support to the East Coast of Korea, to support friendly troop operations, and to interdict enemy supply lines as directed in coordination with the FIFTH Air Force in Korea.

2. Be prepared to provide air cover for Task Group 79.1.

3. Protect the force against air, surface, and subsurface attacks.

4. Conduct photo and visual reconnaissance as necessary.

Throughout the period covered by this report, FIFTH (FIFTH Air Force in Korea) and Task Force SEVENTY-SEVEN complemented the work of each other through cooperation in the use of all information relative to hitting the enemy where it hurt him most.

A liaison group, known as JOC (Joint Operations Center), had been established at Taegu, Korea, for the purpose of coordinating air operations between FIFTH and Task Force SEVENTY-SEVEN. CDR. R. V. NORMAN, Commander, Air Group 41A, FIFTH, was ordered to Taegu as representative of the Task Force, relieving CDR Ralph WATSON, Commander, Air Group 32V, FIFTH.

JOC initiated and disseminated air plans, FIFTH air intentions, special target information, grid coordinates of the TIC's, and the grid locations of the latest dump targets. This information was used daily by the planners of the task
force. In return, CTF 77 dispatched daily summaries of targets attacked, damage to targets, enemy troop movements, supply activity, and special targets.

The close air support strikes of Task Force SIXTY-SEVEN used the following procedure throughout this period. Upon departure from the ship, the strike group formed up and proceeded to a pre-arranged rendezvous point. In the meantime, a liaison pilot flew from directly to the front line area. Here, on designated frequencies, the liaison pilot contacted various "mosquito" air controllers or tactical ground control posts (T.G.P.). Thus, by the time the strike planes arrived, the liaison pilot had cleared the radio channels, determined the needs of the various controllers, and solicited the assignment of targets. In the event that the T.G.P. had no targets or communications were such that it was impossible to contact a T.G.P., then the strike group attacked pre-assigned last resort dump targets.

The reconnaissance and night heckler planes found good targets along the railroads and highways advised by CCW to be the enemy's main supply and communication routes. Enclosure (1) is a copy of these routes.

Commencing 26 January 1951, a coordinated program of interdiction was initiated. The primary targets of the pre-briefed interdiction strikes were highway and railroad bridges on the main enemy supply routes. Occasionally, tunnel blocking was successfully attempted. Photo reconnaissance by P5B-2 aircraft was valuable to the interdiction program in obtaining target information prior to the strike, and assessment of the damage after the attack.

PART II Chronological Order of Events:

18 January 1951 -

The USS PRINCETON departed Sasebo Harbor, Kyushu, Japan in company with DesDiv 111, which was composed of four destroyers. This group of ships proceeded to rendezvous point with Task Force SIXTY-SEVEN off the North Korean Coast, conducting AI practice firing enroute.

19 January 1951 -

The USS PRINCETON rendezvoused with Task Force SIXTY-SEVEN at 0719. Close air support missions were flown in an area about twenty-two miles east of Wonju. A total of 13 FJ-4's and 7 AD's were launched for these missions and made
an estimated 124 runs on the targets. The estimated damage was 50 to 60 buildings destroyed and many fires started in the village of Oktun-yi (DS 6206). The "Mosquito" controller reported 2 large buildings and several smaller buildings containing troops destroyed at Yongtan-yi (DS 6436).

The combat air patrol consisted of 6 F7F CAP and 6 F9F TARDAP, the latter covering the airfields of Wonsan, Sandok, Yonpo, Hamhung West, and the close air support missions.

20 January 1951 -

Close air support missions were flown in the Wonsan and Tanyang areas, along with armed reconnaissance flights on routes Green 1, Brown 1 and Brown 2. A total of 17 F4U’s, 7 AD’s and 2 T9F’s were launched for these missions and an estimated 123 runs were made on the targets. Liaison planes accompanied the close air support strikes. Difficulty was encountered in contacting the controllers and some strikes were not under the direction of a controller for this reason.

The estimated damage was 70% of three villages (DR 3681 to DR 3866) destroyed; two buildings destroyed and two others damaged at DT 7901; and railroad track destroyed near the approach to a railroad bridge at DT 6818.

Combust air patrol (ten F9F sorties) was flown throughout the day.

21 January 1951 -

A predawn heckler flight, two F4U-5N’s and two AD-H’s, covering Green 1, and Brown 1 and Brown 2 and an anti-submarine patrol, two AD’s, were the only flights launched. All other flights were cancelled due to unfavorable weather conditions. An estimated 11 runs were made on the targets by the heckler flight.

The estimated damage was a locomotive at CV 3231 and two of six boxcars destroyed at CV 9829 by strafing.

22 January 1951 -

Task Force SEVENTY-SEVEN replenished at sea.

23 January 1951 -

Strong enemy resistance was being built up around the
Wonsan, Kangnung, Pyongchang and Suwon areas. In an effort to weaken this resistance by close air support, Heckler and armed reconnaissance missions, 26 F4U's, 13 AD's and 12 P9F's were launched. An estimated 330 runs were made on the targets. Heckler and armed reconnaissance flights flew scheduled interdiction routes believed to be in use by the enemy.

The estimated damage was 45 houses destroyed and 15 others damaged in a village (DS 4921 to DS 4926), reported containing supplies; 70% of a village (DS 1742), reported containing troops, destroyed; one large building (DS 9178) destroyed; one span of a wooden bridge (DT 4473) probably destroyed; the approach to a highway bridge (DT 2207) made impassable; and one truck (CS 9098) destroyed.

Photo reconnaissance was made of airfields at Wonsan, Sondok, Yongpo and Hamhung West by 2 P9F-2P's.

AD-4W's flew anti-submarine patrol throughout the day.

24 January 1951 -

Close air support missions were flown in the Yongvol and Chunjunjin areas, 22 F4U's and 14 AD's were launched and an estimated 360 runs were made on the targets. All close air support strikes were under the direction of a controller.

The estimated damage was 60 buildings destroyed and 20 others damaged in Chunjunjin (DS 8694); two buildings (DS 8696) destroyed; 15 troops killed in a troop concentration (DS 7694) by bombing and strafing; haystacks (DS 8382) containing supplies destroyed; and four buildings (DS 8966) probably destroyed.

Three combat air patrols, 2 F4U's each, and 3 anti-submarine patrols, 2 AD-4W's each, were flown throughout the day.

25 January 1951 -

In an effort to maintain maximum air support for a U.N. drive to the north, 26 F4U's, 20 AD's and 6 P9F's were launched for close air support, Heckler, and armed reconnaissance missions. An estimated 367 runs were made on the targets. Heckler and armed reconnaissance routes flown covered enemy roads and railroads in the central sector of Korea.

The estimated damage was 4.0% of Pyongch'ong (DS 4635)
destroyed; 25% to 30% of Yondon-ni reported by a controller as destroyed; a large building (CS 0442) destroyed; 12 buildings probably destroyed in two villages (DS 7570); in the villages of Kusan-ni (DS 8777) and Kunsan-ni (DS 8674), 25 buildings believed destroyed; railroad tracks and 3 railroad cars (CT 5270) destroyed; one building (CT 5050) destroyed; one truck (CV 7529) destroyed; also nine trucks destroyed and the approach to a bridge (CS 6056) made impassable.

During flight operations four anti-submarine patrol sorties were flown.

26 January 1951 -

Armed reconnaissance flights in the Ichon, Hungnam and Yongwol areas were flown along with close air support strikes as directed by controllers. 31 F4U's, 16 AD's and 3 F9F's were launched, and made an estimated 545 runs on the targets. Many of the close air support strikes were conducted in areas where U.N. troops were in direct contact with the enemy.

Enemy strong points at CS 5023 and CS 5922 were neutralized effectively. The controller reported that the advance which had been held up was able to move forward. Ten fires were started in three villages around CS 4533. An estimated ten troops were killed at CS 4233. Enemy forces along a ridge (CS 4723) were neutralized, allowing U.N. forces to continue their advance. Several buildings were damaged and four others left burning at CS 4430. Troops dug in at CS 4028 were attacked, but results were unobserved. Two buildings of a command post were destroyed and a gun emplacement was damaged at CS 4923. Caves at DS 4219 containing troops and supplies were attacked, but results were unobserved. Taegonni at DS 7535 was 75% destroyed. Fires were started in Chumunjin at DS 5524. 12 buildings containing troops and supplies were destroyed in a village at CS 4345. On the road from Hamhung to the Choshin Reservoir one truck was destroyed and four others were damaged. In Hamhung, four excairtos were destroyed and three oxen were killed. A wooden bridge at CS 9293 was extensively damaged.

A photo reconnaissance flight over the bridges along the road from Pukchong to Anbyon was made by a F9F-2P.

Throughout the day 12 F4U-4's were launched to fly combat air patrol and 6 AD-4's were launched for anti-submarine patrol.
27 January 1951

Continuing to give maximum support to the U.N. offensive, close air support, Reckless and armed reconnaissance strikes were flown in the Chochon, Humchon, Icheon and Wonson areas. 33 F4U's, 19 AD's and 8 F9F's were launched and made an estimated 567 runs on the targets. Liaison planes accompanied each close air support mission and all such strikes were under the direction of a controller. Reckless and armed reconnaissance flights were made along scheduled interdiction routes.

Strikes hitting within a 15 mile radius from Kojeon-ni (CS 5435) concentrated on enemy ground forces and villages estimating damage at 20 troops killed; troop shelters, 14 buildings and 60% of a village (CS 6243) destroyed; and 5 gun emplacements and 12 buildings damaged. Strikes working within 15 miles of Pyongch'ang (DS 4635) estimated damage at 31 buildings destroyed, 15 to 20 buildings damaged and 1 village set afire. Estimated damage in other areas was as follows: supply camp (CS 9152) 50% destroyed; 2 large buildings (CS 9262) destroyed; 4 buildings (DS 0163) left burning; 15 to 20 troops, a tank and 3 vehicles (CT 8052) destroyed; and the approach to a bridge (CV 6030) extensively damaged.

Photo reconnaissance flights were flown by 2 F9F-2P's over the road bridges from Hamhung to Pukchong and over Wonsan Harbor.

AD-AW's were launched on 2 anti-submarine patrols during flight operations.

26 January 1951

Close and deep air support strikes in the areas of Kojeon, Wonju and Suniu were flown along with bridge strikes in the Sinpo area. 31 F4U's, 21 AD's and 4 F9F's were launched and made an estimated 634 runs on the targets. Armed reconnaissance flights flew the scheduled interdiction routes.

At DS 0736 five buildings were left burning. Two gun emplacements were destroyed, one at CS 1551 and one at DV 3332. An oil storage tank and 2 buildings were damaged at DV 2432. An area at DS 5353, containing 200 troops, was attacked, leaving 15 known to be dead. A village was 40% destroyed at CS 3232. A railroad bridge and a highway bridge were destroyed at DV 2532. A warehouse was damaged and 3 buildings were destroyed at DV 2332. Two gun emplacements
at DV 3132 were knocked out. 15 huts were destroyed at
DS 4656. A concrete highway bridge at DT 3669 was destroyed.
At DV 3032, two buildings were destroyed and one other was
damaged. A 3 inch gun emplacement was destroyed at DV 2930.

The first bridge strike destroyed 9 spans of a railroad
bridge at DV 4547 and 3 spans of a highway bridge at DV 6932.
The approach to the highway bridge was also damaged. The
second bridge strike scored damaging hits on a railroad
bridge at DV 0021, but the bridge was not put out of service.
Two locomotives and four railroad cars were damaged and four
buildings and six railroad cars were destroyed by the second
bridge strike.

Photo reconnaissance flights of 2 F9F-2P's were flown
over bridges on Green 2 and over the bridge strikes.

Combat air patrol, 12 F4U's, an anti-submarine patrol,
6 AD-4W's, were flown during the flight operations.

29 January 1951 -

Close and deep air support strikes were flown in the
areas north of Suwon, Kangdong and Hongchon in support of
the continued UN offensive. A bridge strike was made in
the Anyon area, 30 F4U's, 17 AD's and 3 F9F's were launch-
ed and made an estimated 401 runs on the targets.

In the village of Hwachon-ni at CT 9565, 3 buildings
were destroyed. At CU 6937, 3 gun emplacements were silenced.
A large building at DT 3035 was damaged extensively. A build-
ing at DT 4537 was destroyed. In the village of Kammie-ri
at DS 5244, 20 buildings were left burning. 10 buildings
were left burning in the village of Pangal-ni at DS 5040.
At DS 0272, Hongchon was left with 14 buildings burning and
one large building extensively damaged. A truck and troop
concentration at CT 6279 was attacked and one gun replace-
ment was destroyed. 15 buildings in Kangwoon at DS 9175
were destroyed. At CT 5765, a railroad bridge was exten-
sively damaged and 5 buildings were destroyed. At Sinho-ni
located at CU 5065, 5 troops were killed and one mortar
was destroyed at CV 6729. At CU 4965, 15 to 20 troops were
killed and 5 oxcarts were destroyed by strafing. The bridge
strike scored damaging hits on railroad bridges at CU 7122
and CT 5225. Both bridges remained serviceable.

A photo reconnaissance flight, 2 F9F-2P's, was flown
on the bridges on routes Black 1, Green 1, Brown 6, and
Brown 7.
Four anti-submarine sorties were launched during flight operations.

30 January 1951 -

Bridge strikes were the missions of the day for which 23 F4U's and 12 AD's were launched and made an estimated 235 runs on the targets. Three bridge strikes were flown.

The first strike destroyed a highway bridge approach at DT 5941, and the approach to a railroad bridge at the same location. The tracks at both ends of the railroad bridge were also destroyed. The second strike damaged a highway bridge at DT 5254, but it remained serviceable. A railroad bridge at DT 9241 was also damaged. The third strike damaged the approach to a highway bridge at DT 4665.

31 January 1951 -

The USS PRINCETON, USS JUMEAU and four destroyers left TF 77 for replenishment at sea.

1 February 1951 -

Close air support, armed reconnaissance, attack and a bridge strike were flown, with 21 F4U's, 17 AD's and 4 F9F's launched, making an estimated 275 runs on the targets. All close air support strikes were under the direction of a controller. The close and deep air support missions operated over the Wonson, Pyongchang and Kangnung areas.

The estimated damage was one building (DT 4372) destroyed and two buildings (DT 4372) damaged; one truck destroyed and six fires started in Koa-ni (CV 5950); and two trucks and three ox carts destroyed along with 10 troops killed at DV 3536.

2 February 1951 -

A bridge strike in the vicinity of Harun, was flown along with close air support, armed reconnaissance and attack flights, in the vicinities of Suwon, Pyongchang, Hongjon and Kangnung.

21 F4U's, 12 AD's and 4 F9F's were launched and made an estimated 275 runs on the targets. Close air support strikes were under the direction of a controller.

The estimated damage was 12 buildings (DS 2177), containing troops destroyed and 4 others set afire by bombs,
napalm, and strafing; 8 buildings in the villages of Kon-
jian-ni (DS 5335) and Kinjian-ni destroyed by bombs, rockets, and strafing; 6 buildings set afire in Gro-ri (CV 6536); troops entrenched on a ridge (DS 5343) attacked with 20 troops being killed; one soldier killed (DS 5345); a bul-
dozer (CV 6533) extensively damaged; and a railroad bridge (DV 5941) had one span damaged and the tracks destroyed, putting the bridge out of service.

A photo reconnaissance flight, 3 F9F-2P's, flew routes Green 6, Brown 1 and Green 3, covering the bridges on these routes.

3 February 1951 -

Close and deep air support strikes in the vicinity of Saseon, Pyongch'ang, and Hamhung, and a bridge strike in the vicinity of Hatorong-ni were flown with 15 F4U's and 10 AD's being launched. An estimated 261 runs were made on the targets.

The estimated damage was one truck (CV 7320) and 2 trucks (CV 6512) destroyed; a village (DS 4037) of 15 to 20 buildings destroyed; 2 villages (DS 0838) burned, strafed and rocketed, resulting in 12 buildings being destroyed; and entrenched troops in two areas (DS 5345) and (DS 0936) attacked. The area was well covered, but results were unobserved. The bridge strike hit a railroad bridge and a highway bridge at CV 5841, damaging the railroad bridge but missing the highway bridge.

A photo reconnaissance flight, four photo planes with 4 F9F escorts, covered all bridges from the Fusen Reservoir to Chori and all bridges on route Green 6 from Kilchu to Tanchon.

A predawn anti-submarine flight was flown.

4 February 1951 -

Task Force SEVENTY-SEVEN replenished at sea.

5 February 1951 -

A bridge strike in the Choshin Reservoir area along with close air support and armed reconnaissance strikes near Konjian-ni, Kaichon, Pangnim-ni, Kangnung and Wonsan were flown. 30 F4U's and 19 AD's were launched and made an estimated 490 runs on the targets. Most close air support strikes were in areas where U.N. troops were in direct
contact with the enemy. For this reason all close air support missions were under the direction of a controller.

The estimated damage was five fires started in Sagamani (DS 5462); 12 buildings destroyed in a village (DS 8153); heavy destruction in a village (DT 3057); 2 buildings located on a ridge (DS 5479) destroyed by bombs; and 7 buildings destroyed and 5 damaged at CS 1845. The area contained troops, but casualties were undetermined. Entrenched troops were attacked at 5 points (DS 5537 to CS 5540, DS 1655 to DS 1665, CS 4137, DS 5241, and DS 5942). The areas were well covered with bombs, napalm, and strafing, with undetermined results. Two camouflaged trucks later observed to be dummies were strafed at CU 7326. One span and the approach to a highway bridge (CU 5565) was destroyed.

Two photo reconnaissance flights, 3 F9F-P's and 3 escorts, covered the bridges which had been hit on routes Green 1, Black 1, Brown 1, and Brown 6. They also took a 1/50,000 strip of route Brown 1 from the G каждин Reservoir to Hangham and from Fusen Reservoir to Chori; and a 1/50,000 strip from Khichu to Funken.

Combat air patrol, 10 sorties, and anti-submarine patrol, 6 sorties, were flown.

6 February 1951 -

Scheduled close air support flights were cancelled due to unfavorable flying conditions over the target areas. An armed reconnaissance flight flew routes Brown 6 and Brown 7. 4 F9F's were launched and made an estimated 32 runs on the targets. Strafing attacks killed an estimated 20 enemy troops (EV 0962).

A photo reconnaissance flight, 2 F9F-2P's and escorts, covered bridges along routes Green 2, Green 3, and Green 6.

Anti-submarine patrol was flown by 2 AD-4W's.

7 February 1951 -

Armed reconnaissance and heckler flights along routes Brown 1, 2, 6, and 7, with two bridge strikes in the areas of Chum-gan-ni and Yon-dae-ri comprised the day's offensive operations. 12 F4U's, 16 AD's and 6 F9F's were launched for the strikes and made an estimated 267 runs on the targets.

The estimated damage was a locomotive (DV 6072) destroyed and a tank car (DV 6072) derailed; one locomotive
(DV 6863) destroyed by an attack upon the locomotive and
6 railroad cars, while damage to the cars was undetermined;
3 trucks (EB 5119) destroyed by strafing; one truck destroy-
ed and 4 damaged by bombs and strafing at CV 8160; one truck
destroyed (CV 5095); 2 vehicles destroyed (DV 0727); 15 troops
killed and 5 ox carts destroyed by strafing along route Brown
7; 2 spans, the tracks and the ties of a railroad bridge
(DV 6754) destroyed by the first bridge strike; and 4 spans
of a railroad bridge (DV 2532) destroyed by the second bridge
strike.

Anti-submarine patrol was flown by 2 AD-4's during the
afternoon.

8 February 1951 -

Task Force SEVENTY-SEVEN replenished at sea.

9 February 1951 -

Due to unfavorable weather conditions over the target
areas, the only strike flown was a special strike on rail-
road tunnels in the vicinity of Sinpo, Songjin and Pukchong.
2 F4U-5N's and 4 AD-4's were launched and made an estimated
95 runs on the targets.

The tunnels (EV 0281, EV 0482, DV 8973, and DV 3332),
reported containing troops and supplies, were bombed and
strafed. The railroad tracks leading into them were dam-
aged, but other than this the damage could not be determined.

Anti-submarine patrols, 4 sorties, were flown through-
out the day.

10 February 1951 -

The strikes flown included a special mission on troop
concentrations, close and deep air support and a bridge
strike. 22 F4U's, 11 AD's and 4 F9F's were launched and
280 runs were made on the target.

The estimated damage was 13 buildings destroyed by
bombs, napalm, rockets, and strafing, in a village (DS 0071);
5 buildings destroyed at DS 0075; 8 buildings destroyed at
DS 1278; several buildings destroyed at DS 0878 by bombs and
strafing; one building (CS 9970) and 3 buildings (CS 9565)
destroyed by bombs; 7 buildings in a village (CS 9969) de-
stroyed; a three story building (DT 0199) attacked with 75% 
hits being scored by rockets and 20MM, casualties were undeter-
mined; 3 locomotives destroyed by strafing (one each at
CS 6078, CS 7190, and CT 4232; one T34 tank destroyed by 4 6.5 ATAR's; entrenched troops and gun emplacements at three points (CS 6444, DT 5050 and along the Han River) attacked with bombs, rockets, napalm and strafing with controller estimating 50 troops killed and one gun emplacement destroyed; and, one span and the south approach of a highway bridge (CT 7984), destroyed, by the bridge strike using 2000 pound G.P. bombs.

Combat air patrol, anti-submarine patrol and a photo reconnaissance flight were flown.

11 February 1951 -

Close air support in the vicinity of Seoul, deep air support in the areas of Wonsan, Hamhung and the Choshin Reservoir and two special mission flights in the Hochyonni area were conducted. 20 F4U's 18 AD's and 17 F9F's were launched and made an estimated 592 runs on the targets.

The estimated damage was 2 trucks damaged at DV 3735; 20 railroad cars damaged in the marshalling yard at Pukchong; some buildings and trackage damaged in a marshalling yard (DV 3835); a camouflaged locomotive and boxcar destroyed at CT 6201; 2 buildings destroyed and 3 buildings left burning at DS 3858. These buildings contained troops and the casualties were heavy. 8 buildings containing troops were left burning; a village (CS 5544) left with four buildings burning; 25 to 30 barracks near Hungnam bombed, rocketed, and strafed, resulting in 12 buildings damaged; a warehouse left burning at DV 9277; at CT 6023, one building destroyed; one building damaged at CS 5639; a village (CV 7318) left with several buildings damaged; 3 barracks (HA 1700) bombed and napalmed, resulting in 2 being destroyed; 5 oxcarts destroyed from CU 5053 to CU 5087; troops and equipment attacked at several points (DS 4547, CU 6825, CU 4989 to CU 5084, CT 6201, CT 6023, CT 4509, and CS 5639) resulting in 55 troops and 35 horses being killed; one span of a highway bridge destroyed at CV 6618; 2 T34 tanks damaged by ATAR's at CT 7884; and at Hochyonni a highway bridge slightly damaged.

Photo reconnaissance flights, 3 F9F-2's, covered routes Green 2, Green 3, Brown 2 and Brown 6 for damage assessment on the bridges.

12 February 1951 -

Task Force SEVENTY-SEVEN replenished at sea.
13 February 1951 -

The USS PRINCETON, in company with DesDiv 111 less the USS WILTSIE, was en route for its scheduled availability.

14 February 1951 -

The USS PRINCETON, in company with DesDiv 111, continued en route Yokosuka, Japan.

15 February 1951 -

The USS PRINCETON arrived Tokyo Bay.

PART III Performance of Ordnance Material and Equipment:

A. Maintenance of Ordnance:

(1) The general performance of ordnance equipment for the period covered by this report was very good. No serious casualties occurred on any of the gun batteries. The fire control equipment, and particularly the radar units, suffered the greatest number of casualties; however, the trend of casualties even here was downward as compared to the initial experience, immediately after the ship was reactivated. There is no doubt that frequent exercise of the various units, a better preventive maintenance program, and the procedure of keeping F.C. radars in a standby status on condition watches were the reasons for the downward trend.

(2) Condition watch 5"/38 ready guns were regularly shifted to prevent the breech block closing springs from taking a permanent set.

(3) The after portion of the ship experiences excessive vibration whenever speeds of 20 knots and better are maintained. This vibration has been great enough to be detrimental to the operation of both the Mk. 56 and Mk. 63 GFCS installed aft. As a comparison the after Mk. 56 GFCS has experienced twice as many failures as did the forward Mk. 56 GFCS, where practically no vibration occurs. The vibration has caused brackets, 5/8" steel bolts, synchro shafting and amplifier mountings to snap off. It has necessitated the ship's force to schedule a weekly screw tightening program in place of the normal monthly program. A letter is now in the process of being prepared to the Bureau of Ordnance describing the above condition.
(4) Although no extremely cold weather nor extensive precipitation was encountered during the period of this report, temperatures did range as low as 18°F, and snow conditions were encountered which prevailed up to 12 hour periods. A high standard of operational readiness was maintained throughout the period. This standard may be credited to regular transmission checks and systematic exercise of equipment through its full operational limits in addition to proper lubrication in accordance with the cold weather provisions of OD 3000, Revision B.

B. Ammunition expended - during period of this report.

<table>
<thead>
<tr>
<th>Bombs</th>
<th>Fuses</th>
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<tbody>
<tr>
<td>2000# GP</td>
<td>AN-M100A2</td>
</tr>
<tr>
<td>1000# GP</td>
<td>AN-M101A2</td>
</tr>
<tr>
<td>500# GP</td>
<td>AN-M102A2</td>
</tr>
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<td>250# GP</td>
<td>AN-M103A1</td>
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<tr>
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<td>M115</td>
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<tr>
<td>260# FR 8/3</td>
<td>M116</td>
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<td>M117</td>
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<td></td>
<td>M139A1</td>
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<td>M157</td>
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<td></td>
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<tr>
<td>Nitric Acid</td>
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Rockets

<table>
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<th>Aircraft Ammunition</th>
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</thead>
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<tr>
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<td>11.75 Tiny Tim</td>
</tr>
<tr>
<td>Cal. .50</td>
<td>6.5&quot; ATAR Head</td>
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<tr>
<td>A/C Parachute</td>
<td>5&quot; Rocket Head Mk.6</td>
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<tr>
<td></td>
<td>5&quot; Motor</td>
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<tr>
<td>flares Mk. 6</td>
<td>Rocket Fuze M149</td>
</tr>
<tr>
<td>A/C Parachute</td>
<td>3.25&quot; Rocket Motor</td>
</tr>
<tr>
<td>flares Mk. 8</td>
<td>3.50&quot; Head Mk. 8 (Solid)</td>
</tr>
</tbody>
</table>

C. Cold Weather Protection for Gun Crews:

Heavy winter clothing provided for the gun and director crews is unsatisfactory. The arctics provided are definitely inadequate in providing warmth for the feet. Heavy woolen socks which were issued cannot be worn inside of shoes because of their bulk. The alternative of wearing the woolen socks inside of the arctics without shoes does not keep the feet warm either. The combination leather and woolen mittens provide necessary warmth except where men are handling cold steel, e.g., hand wheels. Although necessary for protection of the crews from the cold, parkas have not been issued because of insufficient supply. Even less the cumbersome parkas, the clothing in general is too bulky for quick and efficient handling of directors, guns and ammunition.
Recommendations:

1. Increase the allowance of Gun Sights Mk. 15 for CV's from one to two.


3. Investigate the cause of the extreme vibration on the after section of the ship and also the possibility of remounting, reinforcing or relocating the after GFCS Mk. 56 and Mk. 63.

4. Develop a warmer, less bulky cold weather clothing outfit for gun and director crews.

PART IV Resume of Battle Damage - Own and Enemy:

A. Own - The ship sustained no battle damage.

B. Enemy - For damage inflicted upon the enemy see enclosure (2).

PART V Personnel, Performance and Casualties:

A. Casualties:

There were no personnel casualties suffered by ship's company during these operations. See enclosure (2) for Air Group NINETEEN casualties.

B. Performance:

The performance of personnel during the period of this report was excellent. It is considered that the training received by both officers and enlisted men "on the job" during the continuous operations produced highly satisfactory results. In most instances, both officer and enlisted personnel have acquired much valuable professional background and operating "know-how" that could only be gained in such a short period of time by actual continuing combat operations.

PART VI Operations:

A. Communications:

Radio—Atmospheric disturbances and interference from the ship's own electronic equipment caused many NDT RATT
FOX numbers to be missed at night. Difficulty was experienced by this ship in trying to obtain the missing numbers from other major ships in the force. It is recommended that a survey be taken of all major ships copying the NDT RATT FOX to determine if they also have difficulty at night with this circuit. It is further recommended that a system be instigated to rerun important high precedence traffic utilizing a pre-determined time delay before retransmission.

Visual--No comment.

Crypto--The crypto board was able to handle all encrypted traffic without difficulty. However, in view of numerous mechanical failures experienced with the ECM's it is recommended that each carrier division flagship be allowed one qualified CRF repairman. This repairman would be available to repair ECM's of other ships operating with the carrier division flagship.

B. Intelligence:

The AIO store room (P-201-IL) does not provide sufficient stowage space for the intelligence material required by the type of operations now in progress. It is recommended that additional stowage facilities be provided all CV's being readied for service to accommodate the large quantities of charts, recognition equipment, target dossier, and photographic files necessary for intelligence work.

The AUS I552 and 542 map series were used during this period and are still being evaluated. Present indications are that this chart has great value for ground plotting and for briefing purposes. However, the texture of the paper used does not stand the rough handling received by charts in aircraft, and tends to tear easily. Also, pilots have difficulty in determining altitudes as they must follow contour lines rather than the color codes previously used.

C. Photo:

It is recommended that the K-3A Houston Machine for developing 16mm gun camera and motion picture film be completely overhauled and defective parts replaced before a ship leaves the Navy yard after being reactivated. Present operational work load required of this machine is heavy and it is essential that this machine be in perfect operating condition.

A few reserve rated personnel received in the photo lab do not meet the requirements of their job code numbers. It
is recommended that reserve rated personnel be given refresher courses when they are called back to active duty. It is also recommended that a rated man with a job code number for Photographic camera repairman be included in the allowance of a CV type carrier to keep the photographic equipment in operating condition for present heavy operational work load.

It is recommended that the Aerial Film Dryer (Smith Automatic Navy stock 18-D-796, now on present allowance list be replaced by the Army type A-10 (or equivalent) Aerial Film Dryer. The present dryer is incapable of handling the present operational work load, whereas the Army A-10 is capable of handling the same work in two-thirds the time.

When the photo lab began processing the present operational work load it was discovered that the main power cable did not have sufficient carrying capacity to accommodate the load required of the equipment being used. This caused continual overload on the circuit and a heavier cable had to be installed.

D. Engineering:

On 5 February 1951 this ship sustained a steering casualty which sent the rudder hard over without rudder control. This casualty resulted from the failure of the follow-up assembly, and was caused by the parting of a follow-up rod at a universal joint, due to the dropping out of a lock pin. The pin is not tapered and is kept in place only by the end of a small hexagon socket head screw which looks in a shallow groove in the pin's mid-section. The commanding officer has recommended to BuShips that a more reliable design be installed.

Electronics:

The SX Radar system was inoperative for approximately 50% of the time covered by this report. The primary source of difficulty with this equipment was faulty components. Vacuum tubes comprised the greatest single source of trouble. Lack of essential electronics maintenance repair parts (peculiar) on board hindered repair of the equipment. Two Philco engineers were assigned to this ship by ComScrvPac to assist ship's force in making necessary repairs to provide satisfactory operation of this equipment. By the end of the period covered by this report, the ship succeeded in providing SX Radar service commensurate with it designed capabilities.
Recommendations:

It is recommended that Electronic Maintenance Repair Parts Allowance for complex equipment, such as the SX, be increased to provide a greater variety of essential "peculiar" items.

Damage Control: No Comments.

3. Air Department:

1. Catapult operations were not as heavy during this period due to a lighter schedule of jet flights. Catapult shots by type were: 158 F9F, 71 AD, 30 F4U, 5 TBM, totaling 264 compared to 435 for the last operating period. During morning operations of 19 January 1951, the No. 1 oil gear pump on the port catapult froze leaving only three (3) pumps for port catapult operations. This pump will be replaced during next upkeep and maintenance period.

During pre-dawn heckler launch on the morning of 3 February 1951, one (1) AD-4N received a cold shot due to a broken bridle. The cause of the accident has not been determined at this writing. The plane had been properly tensioned on the catapult, the bridle and hold back unit were visually inspected for proper position and tension by the catapult chief. The gross load of the aircraft was 19,350 pounds and all bridle to be used for the launch had been visually inspected ten (10) hours prior to the launch and placed along the deck edge. The bridle used had no visible broken wires prior to the shot. Upon firing the catapult, the tension ring broke and sparks were observed in the shuttle area. The plane moved forward in a three point attitude and stopped approximately one plane length forward of the proper position. This broken bridle struck and ruptured the belly tank and a large quantity of gasoline poured out on deck. No fire resulted.

Deck launches this period by type were: 463 F4U, 285 AD, and 14 TBM, totaling 767 with no accidents occurring. The AD type carried everything but the kitchen sink. On some special strikes, their loading consisted of 2-2000# G.P. bombs, 1-1000# G.P. bomb, 8-250# G.P. bombs, 4-EVAR type rockets, and a full load of ammunition; this brought the gross weight slightly over 22,000 pounds.

 Arrested landings for the period by type were: 154 F9F, 506 F4U, 341 AD, and 19 TBM totaling 1020 with minimum repairs to the machinery necessary. One (1) AD-4 was landed
aboard on 9 February 1951, with no hook due to malfunctioning of the equipment. A minor barrier crash resulted. On 11 February 1951, another AD after being damaged by AA fire over the target and using all methods available to lower the landing gear with no success, was landed aboard with the gear up. The resultant damage to the aircraft and flight deck were minor.

During this period the walkie-talkie sets which were ordered at San Diego were received. They were to be used between primary fly and flight deck control officers during deck operations while jet aircraft were turning up. The sets were modified by the Naval Electronics Service Unit, Naval Air Station, San Diego to be worn as a belt, using headset and lip mike, and with an aerial that could be clipped to the clothing of the user. The operation of these sets proved most satisfactory with the important exception that the pre-set frequency of 140.58 MCo cannot be used to any extent because it is the guard frequency. The use of this interfered too much with C.I.C. operations throughout the task force, shore stations when close in, and other aircraft. It is recommended that these sets be pre-set to the assigned land-launch frequency of each carrier, or that a set be provided in which any crystallization changes may be made by each operating activity. The use of direct communication with control officers on the flight deck would definitely speed up normal operations and would be an invaluable aid during emergencies such as fires or crashes. The walkie-talkie in the present form does not fulfill this requirement.

During this period, several opportunities for the removal of snow and ice on the flight deck were encountered. All present means aboard were utilized in order to determine the most effective methods for varied conditions. For unobstructed areas, the use of the tractor rigged as a snow plow followed by the tractor rigged with rotary snow brush proved very effective for the removal of dry or wet snow. In obstructed areas around aircraft, tie-downs, etc. plane handling crews with individual snow shovels working from the center outboard removed the snow fairly rapidly. The use of jet aircraft proved very effective also. By swinging the tail of idling jets while pushing them aft cleared the deck of icy patches left by the snow plow and brush and proved most effective in drying the deck. The jet was also found useful for the initial removal of snow. However, the tail must be swung, stopped, and more power added for a blasting effect to remove the snow. This is generally slower than the use of the snow plows and brushes.
2. The constant use of bomb skids, hoists and handling equipment and the rough treatment this equipment receives, due to changes in schedules calling for rapid handling of ordnance loads, necessitates a system of overhauling and repairing this equipment be set up to keep it in operable condition. The allowance of handling equipment will have to be increased to operate under present conditions. Normally it is necessary to have bombs fused and on skids for two strikes. A sudden change in schedule or loading calls for the use of another set of bomb skids as time normally is not available to unload skids and replace the bomb loads. Under these conditions, it is suggested the allowance be increased to 150 Mk. 1 skids with various types of adapters and 25 Mk. 8 type skids.

Repeated handling of parachute flares, due to flight cancellations, caused damage to the flare and has resulted in the parachute pulling out during catapult shots in two instances. This is caused by the cardboard seal at the after end of the flare which retains the parachute becoming weakened. This can be remedied by the use of masking tape to strengthen the seal.

Continued trouble was had with reworked rockets, mainly due to the pigtails coming apart. This trouble is especially applicable to the F9F aircraft because of the high flight speeds. New rockets arriving in the area should eliminate this problem.

The Mark 5 rocket launchers on F4U-4 aircraft have begun cracking and breaking from prolonged use. The planes are loaded with the wings folded and the weight, especially in the case of 100% bombs on adapters, acts with a strong moment force and puts considerable strain on the launchers. However, it is pointed out these planes and launchers are about six years old which probably contributes to the failures.

Considerable experimentation was done with napalm tanks, igniters and mixing equipment to obtain perfect napalm and to eliminate dud bombs. A modification was made to the Mark 1 hopper so that xylenol can be added to the gasoline at the same time as the napalm powder. This is accomplished by using a xylenol feeder tank which has a means of controlling and measuring the flow of xylenol through a line with a valve control, leading from the feeder tank into the gasoline line at the base of the napalm hopper. The xylenol is drawn into the gasoline line by eduction, the rate of flow of the xylenol being controlled by the valve in the line. Thus the percentages of xylenol and napalm, as given in OP 1361, can be varied
to give the desired consistency of napalm jelly for the various temperatures encountered. In this procedure the napalm powder and xylenol are well mixed at the hopper, resulting in good agitation of the mix and rapid jelling.

An occasional dud napalm bomb was caused by the .033 gauge arming wire, which is used with the Mk. 157 fuze, breaking due to the fact the wire was not getting a straight pull-out on dropping. This was remedied by running the .068 gauge arming wires from the arming plate through the tank suspension lugs to the fuze. This assures a straight pull-out of the .033 gauge arming wires in the fuzes upon dropping, and with this procedure very few duds are encountered due to breakage of the .033 gauge arming wires.

Due to the large work load of the aviation ordnance personnel it is believed that the ordnance complement should be increased. Although loading can be handled with the present complement; very little time is available for repair and upkeep work, and time is not available to give the men training courses in all phases of ordnance work. Replenishment day does not give much opportunity for rest and upkeep work, as it normally involves a large amount of work for the ordnance crews.

F. Navigation:

During the subject period of operations, excessive difficulty was had in the maintenance of the DBE-Loran. The equipment was out of commission practically the entire operating period despite the expenditure of very large amounts of labor in attempts to repair it. The DBE Loranz was repaired just prior to entering port on 16 February 1951.

Because of poor weather and the failure of the DBE Loranz there were periods as long as forty-eight (48) hours where navigation of the ship was on a dead-reckoning basis. Radar was of great aid during this period of bad weather in checking the dead-reckoning plot.

W. O. GALLERY
From: Commanding Officer, U.S.S. PRINCETON (CV-37)
To: Chief of Naval Operations

Via: (1) Commander Carrier Division FIVE
(2) Commander Task Force SEVENTY-SEVEN
(3) Commander SEVENTH Fleet
(4) Commander Naval Forces Far East
(5) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 23 February 1951 through 6 April 1951

Ref: (a) CNO rest 1tr Op 345 ser 1197P34 of 3 August 1950

Incl: (1) Air Intelligence Organization Chart P. 2
(2) Intelligence Assignments P. 2
(3) CVG 19 conf 1tr 023 of 20 April 1951 - Action Report for the period 25 February 1951 through 2 April 1951 P. 28

1. In accordance with reference (a) the action report for the period 23 February through 6 April 1951 is hereby submitted.

PART I Composition of Own Forces:

Pursuant to Com7thFLt secret dispatch 181316Z of February 1951, the USS PRINCETON (CV-37), with ComCarDiv FIVE and CVG NINETEEN embarked, departed Yokosuka, Honshu, Japan on 23 February 1951 in company with DesDiv 111.

On 25 February 1951 the USS PRINCETON and DesDiv 111 rendezvoused with Task Force SEVENTY-SEVEN. Task Force SEVENTY-SEVEN was composed of three aircraft carriers, the USS PRINCETON (CV-37), the USS VALLEY FORCE (CV-45) and the USS PHILIPPINE SEA (CV-47), along with various heavy support and screening ships.

Upon completion of conference with ComCarDiv ONE, ComCarDiv FIVE assumed command of Task Force SEVENTY-SEVEN.

On 26 March 1951 the USS BOXER (CV-21) joined TF 77 relieving the USS VALLEY FORCE (CV-45).
Mission:

The mission of this force as set forth in CTF 77 Op Order No. 1-51 was to perform close air support, reconnaissance, interdiction, air bombardment missions in order to destroy enemy forces, communications, and installations in support of United Nations Forces.

PART II Chronological Order of Events:

23 February - 25 February

The USS PRINCETON with DesDiv 111 departed Yokosuka and proceeded to the operating area. Upon arrival the USS PRINCETON rendezvoused with Task Force SEVENTY-SEVEN.

26 February -

Flying close air support, bridge strikes, armed reconnaissance and naval gun fire spot, 26 F4U's, 21 AD's, and 10 F9F's were launched and made an estimated 389 runs on the targets. Armed reconnaissance flew from Wonsan to Pukhong, from Pukhong to Songjin, from Songjin to Chongjin and from Hamhung to Pukhong to UV 4098. Most flights were not under the direction of a controller.

Striking the east coast from Pyongchang on the south to Chongjin on the north and inland as far as Seoul, the strikes destroyed 1 truck, 2 ox carts, 3 T34 tanks, 1 span each of 2 highway bridges, 2 warehouses, 75% of a village at CS 3155, 2 mortar emplacements, 2 gun positions, 5 buildings, 1 jeep and 2 railroad tracks. Damaged were 1 ox cart, 1 railroad handcar, 3 highway bridges, and 4 railroad bridges. Probably damaged were 2 T34 tanks and 3 buildings.

A photo reconnaissance flight, 1 F9F photo and 1 F9F escort, was flown covering supply routes from Chongjin to MA 5575.

Combat air patrol, 12 F4U's, and anti-submarine patrol, 6 AD's were flown throughout the day.

27 February -

Unfavorable weather conditions over the target area forced cancellation of flights except for pre-dawn heckler and anti-submarine patrol flights. 2 F4U's and 4 AD's were launched and made an estimated 6 runs on the targets. Strikes were vectored by the USS MANCHESTER to Hamhung and Sinpo which were bombed through the overcast with unobserved results.
28 February -

Continued unfavorable weather conditions forced the cancellation of flights except for the pre-dawn heckler and anti-submarine flights. Two F4U's and 4 AD's were launched and made an estimated 40 runs on the targets.

Flying from Songjin to Chongjin, the heckler flight destroyed 1 truck and damaged 1 locomotive, 4-5 railroad cars and 2 trucks. Tanchon and Songjin were bombed but the results were unobserved.

1 March -

The USS PRINCETON replenished at sea.

2 March -

In order to furnish interdiction strikes, armed reconnaissance flights, naval gun fire spot, and photo reconnaissance missions, 26 F4U's, 16 AD's and 14 F9F's were launched. An estimated 304 runs were made on the targets

Hitting the Kilchu area and north from Hapsu estimated damage to the enemy was as follows: destroyed 3 buildings, 1 span of a highway bridge, 2 spans of a railroad bridge, and 5 luggers; damaged 3 spans of a highway bridge, 1 span of a railroad bridge, 1 warehouse and 1 truck; probably destroyed 4 buildings, 2 warehouses and 15-20 troops.

Two photo reconnaissance flights covered the bridges from Pusan to Chongjin.

Naval gun fire spot was flown for the bombardment group in the Wonsan area.

3 March -

Continuing interdiction strikes, armed reconnaissance flights, naval gun fire spot and photo reconnaissance missions along the eastern coast of Korea, 34 F4U's, 21 AD's and 16 F9F's were launched. An estimated 405 runs were made on the targets.

Attacking in the Iwon, Kilchu area and along the coast from Wonsan to Chongjin damage to the enemy was estimated as follows: destroyed 2 warehouses, 3 trucks, 1 span each of two railroad bridges, and 2 spans of a highway bridge; damaged 4 railroad cars, 2 locomotives, and 2 warehouses; probably killed 10-15 troops.
Three photo reconnaissance flights cover the Wonsan area; transport routes from Wonsan to Pukchong, from Hungnam to Changjin and from Pukchong to Songjin and the Chosun Reservoir.

CAP and ASP were flown during the day.

Mr. William H. Graham, civilian war correspondent, was killed when the plane in which he was riding crashed into the water on takeoff. The pilot, LCIR FRUEDE of VC-190, was rescued by the helicopter in less than 2 minutes after the plane hit the water.

4 March -

Interdiction strikes hitting tunnels and bridges, armed reconnaissance flights, photo reconnaissance missions and heckler missions were flown. Thirty-five F4U's, 21 AD's and 20 F9F's were launched and made an estimated 538 runs on the targets.

Attacking tunnels, bridges and enemy activities on the east coast supply routes from Wonsan to Changjin, damage to the enemy was as follows: destroyed 4 oxcarts, 3 trucks, 2 warehouses, 1 span of a railroad bridge, 50% of a railroad bridge, 1 span of a highway bridge and 2 spans of a wooden highway bridge; damaged 5 tunnels, railroad tracks at several points, 2 locomotives, 2 jeeps, 3 buildings and 1 truck; probably destroyed 4 boxcars, 1 jeep, 1 building, 1 truck and 2 warehouses; killed 10-15 horses and 15-20 troops.

Three photo reconnaissance missions covered beaches at Songjin, Tanchon, Songeun-ni; the highway bridge at Hambung; routes from Kowon to Kau-Ri; and supply routes leading south and west from Wonsan.

Naval gun fire spot at Wonsan and CAP were also flown during the day.

5 March -
The USS PRINCETON replenished at sea.

6 March -

Unfavorable weather conditions limited air operations to a single heckler strike from Pukchong to Changjin. Two F4U's and 3 AD's were launched and made an estimated 32 runs on the targets.

Estimated damage was as follows: destroyed 1 truck, 1 warehouse, 1 train of 8 to 10 cars, and 1 span of a highway bridge; killed 5 exart drivers and 2 oxen.
7 March -

Continued interdiction strikes on the east coast supply lines, along with heckler strikes, armed reconnaissance strikes and photo reconnaissance missions were flown. For all air operations, 37 F4U’s, 27 AD’s and 10 F9F’s were launched and made an estimated 265 runs on the targets.

Striking in the Hambung, Kilchu areas, from Wonsan to Chongjin and from Wonsan to Kangdong estimated damage to the enemy was as follows: destroyed 1 truck, 2 oxcarts, 1 section railroad track, 1 span each of two highway bridges, and 1 span each of 2 railroad bridges; damaged 1 span each of 2 highway bridges and 1 span each of 2 railroad bridges; probably destroyed 1 truck.

Two photo missions covering bridges between Songjin and Chongjin were flown incomplete due to unfavorable weather conditions. CAP and ASP were flown throughout the day.

8 March -

Continued interdiction strikes on east coast supply routes, heckler strikes, armed reconnaissance strikes and photo reconnaissance missions were flown. Thirty-three F4U’s, 28 AD’s and 14 F9F’s were launched and made an estimated 368 runs on the targets.

Attacking in the Kilchu, Chunwonjong areas and from Fukshong to Chongjin, estimated damage to the enemy was as follows: destroyed 5 trucks, 3 ox carts, 1 supply dump, 4 buildings, 5-6 railroad cars, 1 span each of two railroad bridges, and the approaches of 1 railroad bridge; probably destroyed 4-5 ox carts, 19 buildings and 1 train.

Photo reconnaissance coverage of the transportation system and coast around Chongjin was flown. ASP and CAP were flown throughout the day.

Lcdr John J. Magda, commanding officer of VF-191, was killed in action when his plane crashed into the sea off Tamochon. The cause of the crash is unknown.

9 March -

After a pro-down heckler strike of 4 aircraft, 2 F4U’s and 2 AD’s, which bombed Sinpo, and an ASP flight of 2 AD’s, the PRINCETON proceeded to replenish at sea.

Lt(jg) H. C. Cook of VC-3 was reported missing in action after he crashed into the sea at Latitude 39-57 N, Longitude 128-56 E. The cause of the crash is unknown.
10 March -

Unfavorable weather conditions delayed flight operations. Interdiction strikes, close air support strikes, naval gun fire spot and photo missions were flown. Sixteen F4U's, 7 AD's and 4 F9F's were launched and made an estimated 251 runs on the targets.

The interdiction strikes in the Iwon, Sinchong-ni areas and the close air support strikes in the Hajihi-ni, Chonjin-ni areas inflicted damage to the enemy as follows: destroyed 1 span of a railroad bridge, damaged approaches to a railroad bridge and probably destroyed 1 warehouse. The controllers reported good coverage for all CAS flights.

A photo reconnaissance mission covered the routes between Songjin and Chonjin for damage assessment.

ResCap was flown with negative results over DV 630477, 15 miles east of Pukchon, where USS William H. PATTON crashed due to unknown causes.

11 March -

Unfavorable weather conditions again delayed flight operations. Interdiction strikes, hecker strikes and photo reconnaissance missions were flown. Seventeen F4U's, 9 AD's and 4 F9F's were launched and made an estimated 165 runs on the targets.

Striking in the Songchon area and Songchon-ni area, damage to the enemy was as follows: destroyed 1 vehicle, 1 jeep, 2 trucks, and 1 span of a railroad bridge; damaged the approach to a bridge; probably destroyed 6-7 buildings.

Two photo missions covered the following areas: bridges from Chosin Reservoir to Pungnam, DV 630477 where a pilot was lost the day before, and Tanchon and Pukchon. ResCap was flown with negative results over the area where the pilot was lost.

12 March -

Continuing interdiction strikes, armed reconnaissance strikes, naval gun fire spot and photo reconnaissance missions, 50 F4U's, 24 AD's, and 17 F9F's were launched and made an estimated 331 runs on the targets.

Striking in the Songchon, Ulyong, Chosin Reservoir areas and along the central front to Seoul. Damage to the enemy was estimated as follows: destroyed 1 building, 7 boxcars, 4 trucks, several sections
of railroad track, and 1 span each of 2 railroad bridges; damaged 1
excurt, 2 vehicles, and 1 span of a railroad bridge; probably destroyed
1 heavy mobile gun and 30–38 buildings; killed 11 troops.

Photo reconnaissance covered transportation routes south from
Wonsan, the coastal areas north of Hungnam, and bridges from Kilchu to
Tochon.

Naval gun fire spot was flown for the bombardment group at Wonsan.
CAP and ASP were flown throughout the day.

13 March –
The USS PRINCETON replenished at sea.

14 March –

Furnishing interdiction strikes, close air support, naval gun
fire spot,黑客 fighter flights, photo reconnaissance, anti-submarine patrol
and combat air patrol, the PRINCETON launched 37 F4U's, 16 AD's and 12
F9F's. An estimated 331 runs were made on the targets.

Striking in the Hooyong, Rumsong, Hongwon areas, along the
eastern front areas, from Wonsan to Pukchong and from Hakalwoo-ri to
Tochon, damage to the enemy was estimated as follows: destroyed rail-
road tracks at 3 points, 30% of a highway bridge, 2 spans in a highway
bridge and 2-3 spans in a highway bridge; damaged 2 buildings; probably
destroyed 4 buildings; killed 50 troops.

Two photo reconnaissance missions were completed as assigned.
One covered railroads leading to Kilchu, the other covered airfields
in the Wonsan–Hungnam area.

15 March –

Continuing the interdiction strikes of the east coast supply
routes the PRINCETON launched 33 F4U's, 20 AD's and 12 F9F's. An es-
timated 306 runs were made on the targets.

Striking in and around Kilchu damage to the enemy was estimated
as follows: destroyed 4 trucks, 1 lumber supply dump, 2 spans each
of 2 railroad bridges, the approach to a railroad tunnel and the mouth
of a railroad tunnel, which was sealed, damaged 1 section of railroad
track.

Two photo reconnaissance missions covered target in the Kilchu
area for damage assessment. Naval gun fire spot was furnished the
USS MISSOURI. CAP and ASP were flown throughout the day.
16 March -

The PRINCETON continued its pounding of the enemy's east coast supply routes. A total of 32 F4U's, 18 AD's and 14 F9F's were launched for interdiction strikes, photo reconnaissance, CAP, ASP and naval gunfire support. An estimated 328 runs were made on the targets.

Striking in the Kilchu, Yuyong-dong and Changjin areas, damage to the enemy was estimated as follows: destroyed 1 exorcet, 10 railroad cars, railroad track at 15 points, 1 span of a highway bridge, 2 spans of a railroad bridge, and 1 span each of two railroad bridges; damaged 1 warehouse, 1 railroad car, and 1 span of a railroad bridge; probably destroyed 1 truck, 4 buildings 2 warehouses.

Two photo missions were flown. One mapped a strip from IV 0580 to IV 1493. The other was incomplete due to weather. Naval gunfire spot was flown for the USS MISSOURI.

17 March -

The PRINCETON launched a total of 46 F4U's, 29 AD's and 19 F9F's for interdiction strikes, close air support, photo reconnaissance, naval gunfire spot, CAP and ASP. An estimated 460 runs were made on the targets.

Striking in the Pachunjang, Pukchong, Choshin Reservoir areas and along the central and eastern front damage to the enemy was estimated as follows: destroyed 4 railroad cars, 3 buildings, 2 tanks, railroad tracks at 5 points, 2 wagons, 2 spans each of 2 highway bridges, 1 span of a highway bridge, 1 span of a railroad bridge and 4 spans of another railroad bridge, damaged 1 span of a highway bridge and 3 spans of a railroad bridge; probably destroyed 6 buildings and 1 section of railroad track; killed 3 mules, 1 horse and 12-13 troops.

Three photo missions were flown. One covered the enemy gun emplacements at Wonsan. One covered bridges in the Hwanghung area for damage assessment. The third was incomplete due to weather.

Naval gunfire spot was flown for the shelling of troop concentrations in Anbyon.

18 March -

The USS PRINCETON replenished at sea.
19 March –

Furnishing close air support and interdiction strikes the PRINCETON launched 33 F4U's, 23 AD's and 16 F9F's and made an estimated 349 runs on the targets.

Striking from the Choshin Reservoir south to Sachang-ni, in the Huichon area and along the front north of Seoul and Yangyang, damage to the enemy was estimated as follows: destroyed 3 camouflaged vehicles, 1 truck, 2 buildings, 6 railroad cars, 1 span of a railroad bridge, and 1 span each of 2 highway bridges; damaged 2 trucks, 17 buildings and 2 spans of a highway bridge; probably destroyed 5-6 supply piles and 12 buildings; killed between 80 and 90 troops.

Two photo missions were flown. One covered highway bridges and gun emplacements from Wonsan to Kangdong. The other covered railroads in the Hamhung area.

Naval gunfire spot was flown for the USS MISSOURI. CAP and ASP were flown throughout the day.

20 March –

The PRINCETON furnished close air support, interdiction strikes, photo reconnaissance, CAP and ASP. A total of 40 F4U's, 25 AD's and 16 F9F's were launched and made an estimated 378 runs on the targets.

Striking in the area around and south of the Choshin Reservoir and along the eastern front, damage to the enemy was estimated as follows: destroyed 1 truck, 23 buildings, 1 section of pipeline, 40-50 ox carts, 1 section of railroad track and 2 spans of a railroad bridge; damaged 1 truck, 5 railroad cars, 2 buildings, 1 section of railroad track and 3 warehouses; killed between 120-170 troops.

Naval gunfire spot was flown for shore bombardment in the Songjin area. Three photo reconnaissance missions were completed. CAP and ASP were flown throughout the day.

21 March –

The PRINCETON launched a total of 39 F4U's, 32 AD's and 16 F9F's in order to furnish close air support, interdiction strikes, photo reconnaissance, CAP and ASP. An estimated 470 runs were made on the targets.

Interdiction strikes in the Songjin and Hamhung to Pusan Reservoir areas and close air support along the front north of Seoul caused damage to the enemy estimated as follows: destroyed 3 trucks, 10 ox carts,
15 buildings, 1 railroad bridge, 1 warehouse, sections of railroad tracks at 18 points, 2 gun emplacements and 1 highway bridge; damaged 2 trucks, 1 oxcart, 5 buildings, 1 railroad bridge and 1 highway bridge; probably destroyed 5 trucks and 40-50 buildings; killed between 250 and 300 troops.

Two photo reconnaissance missions were flown and completed. One covered the transportation systems north of Hamhung to CV 6177. The other covered from Tanchon to Songjin.

22 March -

The USS PRINCETON replenished at sea.

23 March -

Launching a total of 26 F4U's, 15 AD's and 12 F9F's the PRINCETON continued its interdiction of the eastern supply routes of Korea. An estimated 311 runs were made on the targets.

Striking from Hapsu to Kilchu and in the area south of Kilchu, damage to the enemy was estimated as follows: destroyed 5 oxcarts, 1 tractor, 4 railroad cars, 1 locomotive, 1 truck, 4 buildings, railroad tracks at 8 points, 1 span each of 3 railroad bridges and 3 spans of a highway bridge; damaged 1 railroad car and 1 span to a railroad bridge; probably destroyed 2 buildings.

Naval gunfire spot was flown for the ST PAUL in the Wonsan area. Two photo missions were completed in the Chongjin area. CAP and ASP were flown throughout the day.

24 March -

Launching a total of 25 F4U's and 17 AD's the PRINCETON furnished close air support and interdiction strikes to the day's war effort. An estimated 258 runs were made on the targets.

Striking Songchow-Songjin areas and along the front north of Seoul damage to the enemy was estimated as follows: destroyed 2 buildings and 2 artillery pieces; probably destroyed 6 trucks and 1 locomotive; killed at least 10 troops.

Naval gunfire spot was flown for the ST PAUL in the Songjin area. CAP and ASP were flown throughout the day.

25 March -

Due to unfavorable conditions all flight operations were cancelled.
26 March -

The USS PRINCETON replenished at sea.

27 March -

Unfavorable weather conditions forced the cancellations of all flights except CAS and ASP. Launching 12 F4U's and 12 AD's an estimated 193 runs were made on the targets.

Furnishing the CAS along the front north of Chucho, north of Zangsong and north of Seoul the controllers reported good coverage for all strikes. The ASP was flown throughout the day.

28 March -

Unfavorable weather conditions forced the cancellation of all air operations.

29 March -

Unfavorable weather conditions forced the cancellation of all air operations.

30 March -

Launching a total of 45 F4U's, 35 AD's and 8 F9F's the PRINCETON furnished close air support along with a continuation of the interdiction of the enemy supply routes. An estimated 560 runs were on the targets.

Striking in the area south of Wonsan and along the eastern front damage to the enemy was estimated as follows: destroyed 7 trucks, 10 buildings, 2 to 3 railroad cars, 3 spans of a railroad bridge and 2 spans of another railroad bridge; damaged 7 trucks, 10 buildings and 2 warehouses; probably destroyed 12 trucks, 35 to 40 buildings and 1 warehouse; killed between 40 and 50 troops.

Two photo missions were flown and completed, covering the bridges on the railroad south of Songjin. Naval gunfire spot was flown for the bombardment group in Wonsan Bay. CAP and ASP were flown throughout the day.

31 March -

Furnishing close air support, interdiction strikes and RosCap to a group of тряпко U.S. Rangers, a total of 41 F4U's, 18 AD's and 18 F9F's were launched. An estimated 521 runs were made on the targets.
Striking in the Songjin area, south of Wonsan, near and in Kansong and at CT 9575, where the U.S. Rangers were trapped, estimated damage was as follows: destroyed 4 trucks, 40 to 45 buildings, 7 mortars and 2 spans and the bypass of a highway bridge; damaged 3 trucks and 8 to 10 buildings; killed 55 to 55 troops 6 miles.

Three photo missions were flown and completed covering the supply routes along the northeast coast of Korea. CAP and ASP were flown throughout the day.

1 April -

Moving the interdiction strikes to the north the PRINCETON launched 30 F4U's and 21 AD's. An estimated 329 runs were made on the targets.

Striking the transportation systems around Chongjin, Songjin, and Kilchu damage to the enemy was estimated as follows: destroyed 5 trucks, 1 building, 4 railroad cars, railroad tracks at 19 points, railroad switchers at 5 points, 1 railroad water tank and 1 railroad bridge; damaged 5 buildings, 1 truck and railroad track at 3 points.

ResCap was flown over LTJG W.C. WINDSON of VA 702 stationed aboard the USS BOXER. LTJG WINDSON bailed out of his AD-4 about 15 miles northwest of Kilchu after being hit by enemy AA fire. The PRINCETON's helicopter, piloted by LTJG J.L. BLADES of HU-1, traveled 20 miles inland to effect the rescue and safe return of the downed pilot.

CAP and ASP were flown throughout the day.

2 April -

Launching a total of 44 F4U's, 25 AD's and 10 F9F's the PRINCETON furnished close air support to the advancing United Nations forces along with interdiction strikes against enemy supply routes. An estimated 583 runs were made on the targets.

Striking from Wonsan to Pyonggang, from Wonsan to Kangyong and along the front in the Chunchon and Yangyang areas, damage to the enemy was estimated as follows: destroyed 8 trucks, 1 jeep, 4 buildings, 15 mortars, 1 locomotive, railroad tracks at 18 points and spans of 2 railroad bridges; damaged 4 trucks; probably destroyed 5 trucks, and 3 railroad cars. Planes from the PRINCETON also destroyed 1 helicopter which crashed behind enemy lines while rescue work on 31 March.
A photo mission was flown and completed for damage assessment on bridges along the northeastern supply routes of the enemy. CAP and ASP were flown throughout the day.

3 April -

The USS PRINCETON replenished at sea.

4 April -

Unfavorable weather conditions forced cancellation of all air operations on 4 April at which time the USS PRINCETON departed the operating area and proceeded to Yokosuka, Honshu, Japan. On 6 April the PRINCETON arrived Yokosuka for scheduled availability and recreation.

PART III  Performance of Ordnance Material and Equipment:

4. Maintenance of Ordnance:

(1) The general performance of the ordnance equipment for the period covered by this report was very good. No casualties were experienced on the 5"/38 or 20MM gun mounts and only minor casualties occurred on the 40MM mounts. Fire control casualties were normal in number. At this time, it may be said that by following instructions on winterizing equipment, as laid down in various ordnance pamphlets and ordnance data booklets, this vessel has experienced satisfactory performance of all ordnance equipment throughout the past winter months.

(2) The most serious fire control casualty occurred on the after GFCM Mk 56, located in the vicinity of the port gallery deck. This casualty, the exact nature of which has not been determined, limited automatic fuse settings to a maximum value equivalent to 8,000 yards of range on the after port 5"/38 single mounts for a period of five (5) weeks of operation. To date, this casualty has not been eliminated. GE engineers are assisting ship's force in locating the trouble.

(3) When this vessel was recommissioned, two (2) GFCM Mk 56 replaced the two (2) previously installed GFCM, Mk 57. The new systems are far more complex and require a great deal more maintenance by highly qualified personnel. It is felt that the present allowance of four (4) FT's is not adequate to service the electronic equipment assigned to the fire control division including the two (2) GFCM, Mk 56 mentioned above. It is recommended that the present allowance of four (4) FT's be increased to six (6) for the presently installed equipment.
(4) The fire control radar Mk 25 located in the forward Gun Director Mk 37 was discovered to have a considerable quantity of water in the wave guide. This water apparently gained entrance via an improperly installed radar antenna flexible wave guide seal.

(5) Approximately five (5) percent of the 250# bombs dropped on targets requiring skip bombing technique resulted in cases bursting or low order detonations. Some of these malfunctions were probably due to the excessive speed of the dropping aircraft; others due to the bombs' thin case.

(6) Numerous 250# and a few 500# GP bombs have loose base plates and as a result the tail vane cannot be tightened, making it necessary to survey the bombs. Indications are that the bombs are not getting a thorough inspection after being overhauled. Approximately fifty (50) percent of all bombs received on board to date have an excessive amount of grease in the fuse cavities.

(7) The bomb elevators were not designed for constant use, as is necessary for the present type of operations, and therefore require very frequent and regular maintenance with replacement of parts, mainly automatic switches of all types.

B. Ammunition expended - during period of this report:

<table>
<thead>
<tr>
<th>Bombs</th>
<th>Fuses</th>
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<tbody>
<tr>
<td>2000 lb GP</td>
<td>AN-M103A1</td>
</tr>
<tr>
<td>1000 lb GP</td>
<td>AN-M103A1</td>
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<tr>
<td>1000 lb SAP</td>
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<td>500 lb GP</td>
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<td>Bomb Ejector</td>
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<td>Napalm Thickener</td>
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<td>AN-M219</td>
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<td>HVAR</td>
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5" Motor 1480  Aircraft Ammunition
3"5 Rocket Motor 104
3"5 Road Mk 8 Solid 7  30MM Aircraft 119,774
Fuzo Rocket
Mk 172 38 A/C Parachute
Fuzo Rocket
Mk 149 1247 A/C Parachute
Flares Mk 8 186
Flares Mk 8 8

PART IV Resume of Battle Damage - Own and Enemy:

A. Own - The ship sustained no battle damage.

B. Enemy - For damage inflicted upon the enemy see enclosure (3).

PART V Personnel, Performance and Casualties:

A. Casualties:

There were no personnel casualties suffered by ship's company during those operations. See enclosure (3) for Air Group HN 3 casualties.

B. Performance:

The performance of personnel during the period of this report was excellent.

PART VI Special Comments:

A. Operations:

1. Air Operations:

Due to the limited information derived from a surface navigation chart laid on the BRT in Air Operations, an aeronautical chart of the target area, covered with a sheet of plexiglass mounted on a hinge, was laid on the chart table, and a parallel motion protractor was installed in order to obtain quicker and more accurate information. All bearings and distances from Point Oboe were thus readily obtainable. An overlay with rocco routes, dump targets, jg points, and the current bombino was placed over the aeronautical chart, thereby keeping this vital information current as well as readily accessible. The BRT with surface chart is now used for surface information only, such as: ship's bearing and distance from Point Oboe, and the locations of various other shipping in the area plus their movements. This system has proven to be very satisfactory.
To provide a ready reference for flight information and to eliminate unnecessary voice communications, an edge lighted status board was installed in Air Operations facing the entrance to CIC. The back of this status board was covered with plywood in order that the readability from within CIC would be facilitated. The procedure for its use is as follows: the daily hops are listed by Air Operations with launch time, recovery time, event number, number and type of aircraft scheduled, mission, and flight leader's call. CIC lists the control ship and control channel for each hop. As flights are launched, the launch time is erased and an arrow drawn in its place to signify that all planes for that flight are airborne. The number launched is then corrected if it differs from the number scheduled. When planes are shifted to the control frequency, the letter "S" is placed in front of the arrow (S→) indicating to CIC that the planes have shifted frequencies. This method requires no voice transmissions between Air Operations and CIC. When planes are returning, and shifted from control ships to Land/Launch frequency, Air Operations assumes positive control, and the frequency shift designation (S), launch arrow, and the landing time are erased, and L/H placed alongside the returning flight. As flights are recovered, they are completely erased from the status board. This system has proven very satisfactory for the purpose for which it was designed.

2. Intelligence:

a. Charts:

(1) The following is an evaluation of the charts now in use by the pilots of Carrier Air Group NINETEEN, and is based on a poll conducted among approximately 80% of the pilots on board. The charts in use by the Air Group are the World Aeronautical Chart (scale 1:1,000,000), the Pilotage chart (scale 1:500,000), the Aeronautical Approach Chart (scale 1:250,000), the AMS Map series L-552 (scale 1:250,000), and the AMS series L-751 (scale 1:50,000).

(2) Probably the most popular of the above charts is the Pilotage Chart (scale 1:500,000), since it combines, in the newer issues, a well presented UTM grid, ground elevation represented by color variations, and a convenience in size not afforded by the larger 1:250,000 scale charts.

(3) In some cases (CAS, recce of small area, etc.) more detail and a larger scale are necessary, and many pilots are using a 1:250,000 scale chart for such work.
There is a divided opinion, however, which chart (the Aeronautical Approach Chart or the AMS Map Series L-552 is the better for this purpose. Some pilots prefer using the Aeronautical Chart because of the elevation presentation in color, while other pilots have accepted the L-552 Map for its greater detail and accuracy, regardless of its many physical drawbacks.

(4) The world Aeronautical Charts (WAC) receive a limited amount of use for long range navigation and for orientation purposes when pilots are new in the area. The AMS Map series L-751 (scale 1:50,000) has proven valuable for briefing purposes, and for pinpointing pre-briefed targets where photo coverage is not available.

(5) The pilots' criticism of the charts are included below for information and consideration of possible revisions to charts in the future.

(a) General suggestions applicable to all charts

(1) Add compass roses to charts.
(2) Add more scales to charts.
(3) Print all charts with UTM grid.
(4) Use a plastic material on which a grease pencil may be used without harming the chart permanently.
(5) Indicate elevations in feet rather than meters.
(6) Standardize names used on charts or include both names.

(b) WAC (scale 1:1,000,000)

(1) Indicate major railroads and highways more clearly.
(2) Use same color ink on all printings. There is some confusion in reading elevations by color variation because of this discrepancy.

(c) Pilotage Chart (scale 1:500,000)

(1) Make greater distinction between railroads and highways.
(2) Again the color variations from chart to chart cause confusion in reading elevations.
(3) Coast line blends too well with the water, consequently coastal features are lost and exact positioning becomes difficult.
There is a divided opinion, however, which chart
(the Aeronautical Approach Chart or the ANS Map Series
L-552) is the better for this purpose. Some pilots
prefer using the Aeronautical Chart because of the
elevation presentation in color, while other pilots
have accepted the L-552 Map for its greater detail and
accuracy, regardless of its many physical drawbacks.

(4) The world Aeronautical Charts (WAC) receive a limited
amount of use for long range navigation and for orien-
tation purposes when pilots are now in the area. The
ANS Map series L-751 (scale 1:50,000) has proven va-
uable for briefing purposes, and for pinpointing pro-
briied targets where photo coverage is not available.

(5) The pilot’s criticism of the charts are included below
for information and consideration of possible revisions
to charts in the future.

(a) General suggestions applicable to all charts

(1) Add compass roses to charts.
(2) Add more scales to charts.
(3) Print all charts with UTM grid.
(4) Use a plastic material on which a grease pencil
may be used without harming the chart perma-
nently.
(5) Indicate elevations in feet rather than meters.
(6) Standardize names used on charts or include
both names.

(b) WAC (scale 1:1,000,000)

(1) Indicate major railroads and highways more
clearly.
(2) Use same color ink on all printings. There is
some confusion in reading elevations by color
variation because of this discrepancy.

(c) Pilotage Chart (scale 1:500,000)

(1) Make greater distinction between railroads and
highways.
(2) Again the color variations from chart to chart
cause confusion in reading elevations.
(3) Coast line blends too well with the water, con-
sequently coastal features are lost and exact
positioning becomes difficult.
(d) Approach Charts (scale 1:250,000)

(1) This chart lacks detail on small roads, hills, towns, and other ground features which it should have for accurate reporting of locations attacked.

(c) AMS Map series L-552 (scale 1:250,000)

(1) Use a good grade of paper on succeeding issues. The present paper tears after only a few missions.

(2) Make designations for bridges, tunnels, roads, and railroads more outstanding.

(3) The coloring of the chart is perhaps its most serious drawback. Grid lines, small towns, secondary roads, etc., do not stand out against the green background. The red dotted representation of the main highways disappears under red light used by the night fighters. The shadows on the hills are such that the sun would be from the north, which confuses recognition of ground features.

(4) The detail and accuracy of this map, combined with the color code elevation system of the aeronautical charts, and printed on a more durable paper would make an ideal chart for use by naval aviators.

(6) Comments by the Jet Fighter Squadron are included separately because of the specialized type of mission they perform.

(a) The maps presently used by this Squadron are:

(1) 1,500,000 Pilots, (2) 1,250,000 Approach and (3) the 1,250,000 L-552. The L-552 is used very extensively by the majority of pilots who have accepted it as accurate and reliable. The remarks of this report should be considered in the light of the assignments of the F9F which has been low-level, armed reconnaissance over the main lines of travel.

(b) The main criticism seems not to be with the L-552 itself, but rather the physical handling of the charts in the cockpit. This is due to the size of the map and also due to the fact that one flight may require the use of 2 or 3 charts. It has been suggested that strip maps be printed to facilitate handling. Also, the need for some sort of a folder is apparent.
A folder in which charts are folded and acetate covered so that pertinent information can be noted in grease pencil while in flight would be preferable. Possibly the type of paper should be of better quality, having more resistance to folding and rough usage. Another suggestion for improving readability is to bring out coordinate lines and designations through the use of contrasting color lines. The present printing is difficult to read quickly because the coordinate lines blend into the green contour shadings.

(b) Personnel allocation, recommendations:

(1) As the direct result of four (4) months operations in the Korean combat area it is recommended that the air intelligence section on board CV class ships be augmented as indicated:

(a) That an allowance of five (5) officers, qualified for ship air intelligence duties be established for a CV class ship, and that these officers be on board prior to the departure of this class ship from the continental United States for any forward combat area.

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<thead>
<tr>
<th>No.</th>
<th>Rank</th>
<th>Qualifications</th>
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<tbody>
<tr>
<td>1</td>
<td>Lt.</td>
<td>Ship's Air Intelligence Officer</td>
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<td>1</td>
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<td>Ship's Photo Interpreter</td>
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<td>1</td>
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<td>Ship's Air Intelligence Off.</td>
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<td>Ens.</td>
<td>Asst. Ship's Air Intelligence Off.</td>
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(b) That the Air Group be provided with an Air Group Intelligence Officer of the rank of Lt. or LCDR and that each squadron (less composite units assigned) be provided with a non-flying Air Intelligence Officer of the rank of Lt. (jg) or Ens. This supplement would normally allow five (5) AIO's for a carrier air group.

(c) That the qualifications of the officers listed in (a) and (b) above prior to assignment be as follows:

(1) Ship's Air Intelligence Officer—graduate of Naval Intelligence School, Anacostia, D.C., (6 months intelligence course or 8 weeks air intelligence course) or the Commander Air Force Pacific Fleet Air Intelligence School, N.A.S., Alameda, California.

(2) Ship's Photo Interpreter—graduate of a PI school.

(3) Assistant Ship's Air Intelligence Officers and Air Group Intelligence Officers—
graduates of Naval Intelligence School, Annapolis, D.C. (8 weeks air intelligence course) or the Commander Air Force Pacific Fleet Air Intelligence School, M.A.S. Alameda, California.

(d) It is further recommended that officers considered qualified by their commanding officer (ship or air group as applicable) as Air Intelligence Officers, have an entry to that effect placed in their official record and that a code number be assigned for this qualification. This entry would aid the Bureau of Naval Personnel, as well as individual commands, in the selection and assignment of such officers, and in filling any authorized allowance with qualified personnel.

(e) That an additional allowance of four (4) enlisted men be established to serve as intelligence office personnel; this allowance to be as follows:

1 Quartermaster - 3rd class
1 Yeoman - 2nd class
2 Yeoman Stokers

(2) Although the allowance recommended above represents a radical increase in the present allowance of one (1) Lieutenant, it is considered well justified, and vitally essential under present combat operating conditions. The intelligence process is not a part-time job in any sense of the word. It not only requires the full attention of every officer assigned to air intelligence duties, but requires a 24-hour day in order to function properly and coherently. The organization of the Air Intelligence section on board this ship requires the full services of the assigned ship's AIO's in order to prepare flash reports, daily air intelligence summaries, situation and flak plotting, correction, and maintenance of intelligence publications, pilot interrogation, and the preparation of target briefing material. On board the PRINCETON, the Air Intelligence section is fully responsible for the adequacy, and correctness of all air intelligence data that is disseminated to Squadron AIO's.

See enclosures (1) and (2) for Section Organization and Assignments.
3. Communications:

In order to provide more working space for the Crypto personnel, it has become necessary to relocate the Crypto Room from compartment B-0207-C to the after end of compartment B-0101-CL. This arrangement has proven most satisfactory in that the heavy volume of traffic can now be handled with comparative ease. However, it has "spread" the Main Communication Section over three docks.

It is recommended that Radio One, Main Communication Office, and Crypto Room be relocated in adjacent compartments with access between compartments on board this class ship. By separate correspondence, above recommendation will be forwarded via official channels to the Bureau of Ships. Such relocation would provide a more efficient organization of the Communication Section of the Operations Department, and result in a decrease in personnel requirements. Additional files now required and much duplication of effort could be eliminated by such relocation.

4. Meteorology:

On the whole, weather conditions caused a marked decrease in the number of days with favorable flying conditions, as compared with previous action periods. Cloud cover increased and visibility decreased as the winter monsoon began to give way to the summer monsoon.

The following general summary indicates average weather conditions experienced:

(a) During the first half of the period, precipitation was usually in the form of light snow. During the latter half of the period, precipitation form changed to rain or drizzle with occasional light snow.

(b) Toward the end of the period, the frequency of fog over the cold water off the northeast coast of Korea showed a marked increase. There were eleven days during the period when visibility was reduced below 5 miles due to fog, haze or precipitation.

(c) Maximum temperature experienced was 60 degrees F.; minimum temperature was 15 degrees F.; daily average temperature was 41 degrees.

(d) Highest wind velocity logged was 49 knots; lowest velocity was calm. Average velocity for the period was 17 knots and predominant direction was WNW.
The average water temperature in the operating area was 42.5 degrees F. The maximum water temperature logged was 58 degrees F. and the minimum was 34 degrees F. Water temperature showed a marked difference depending upon the location of the ship.

At times, atmospheric static, cw interference, and fading signals made it impossible to obtain any weather information via HATTY for several hours. It is recommended that transmission power of AIF Tokyo be increased, as this station is the primary source of weather information in the Korean area.

Recommendations:

It is strongly recommended that all carriers, especially flagships, be provided with radio facsimile equipment as soon as possible. Such equipment will aid forecasters in the Korean area immeasurably.

3. Engineering:

(1) Damage Control - no comments

(2) Main Propulsion - With jet planes on board, it is necessary to steam eight boilers quite frequently, which prevents any boiler cleaning while underway. Therefore, it is necessary to enter port periodically to permit boiler cleaning and repair work.

(3) Electrical - no comments

(4) Electronics -

(a) **Model AN/SPS-6B Radar**

The general performance of the AN/SPS-6B radar, for the period covered by this report, was good. Its performance could be considered excellent except for the fact that the antenna stalls when relative winds blow across the deck at forty-five knots or greater. Numerous performance checks have been made by the ship's force in an effort to improve the rotational stability of the antenna in high winds. The antenna drive system, and its associated control circuits, are considered to be operative in accordance with design specifications.
(b) **Mark V IFF Equipment**

A Model AN/UPA-3 antenna is installed for operation with the Mark V IFF system. This antenna, as in the case of the AN/SPS-63 antenna, stalls in relative winds of forty knots or greater. Performance checks indicate that the antenna drive system is operating in accordance with designed specifications.

Two antennas are installed for operation with the Mark V IFF system. The AN/UPA-3 antenna is slaved to the SX radar antenna when IFF presentation is desired on the SX scope. The AN/SPS-63 antenna supports a small R.F. radiator as an integral part of the antenna, and is used when IFF presentation is desired with the AN/SPS-63 scope. Since both antennas become inoperative in relatively high winds, the Mark V IFF system, as well as the AN/SPS-63 radar, is rendered useless. This is considered a dangerous situation, particularly when aircraft equipped with Mark V IFF are airborne.

**Recommendations:**

It is recommended that wind tunnel tests be performed on subject antennas and corrective action be promulgated to the fleet in the form of Field Changes.

(5) **Radio Communications**

Considerable communication difficulties, in the form of severe receiver interference, have been encountered during the period covered by this report. The source of the radio interference, for the most part, is known to originate on board. Due to the heavy demand on radio communication facilities, equipment suspected of generating the noise could not be shut down for adequate inspection.

C. **Air Department**

(1) Catapult operations during the period of this report were heavier than normal due to an increase in the use of jet type aircraft. The total number of shots for this period was 489 as compared with 284 for the last operating period. Catapult shots by type were 288 F9F's, 63 AD's, 112 F4U's, and 6 TBM's. During a pre-dawn heckler launch on the morning of 31 March, one (1) AD-4 with a gross weight of 20,000 pounds received a cold shot due to a broken bridles. This was the third accident of this nature during pre-dawn catapult launches. All three accidents have been with AD type aircraft. Fortunately, however, all three aircraft have
stopped approximately one-half way down the catapult track. Although it has not been definitely determined, it is believed that the last accident was caused by one loop of the bridie being above the shuttle when the catapult was fired.

(2) The total number of deck launches for the period was 1,253. Deck launches by type were 750 F4U’s, 485 AD’s, and 18 TBH’s. One AD-4Q, loaded for a strike mission and grossing 22,240 pounds, became airborne at the number one elevator in a semi-stalled attitude. The pilot continued to increase the nose attitude until the aircraft stalled and crashed into the water just forward of the port bow. The pilot was recovered and returned to the ship by helicopter within two (2) minutes after the crash. However, the crash proved fatal for a civilian who was an authorized passenger aboard the plane. The deck run was started at 580 feet with 44 knots of wind across the deck.

(3) Arrested landings for the period totaled 1,741. Landings by type were 287 F9F’s, 864 F4U’s, 566 AD’s, and 24 TBH’s. On 26 February, one (1) F9F was successfully landed with the tail hook in the stowed position after all attempts to lower the hook had failed. The pilot, instructed to land in a very tail low attitude, caught the number 2 cross deck pendant.

(4) On 27 February while the guns of an F4U-5N were being cleared on the hanger deck prior to a hydraulic check, one (1) round of 20mm ammunition was fired from each outboard gun, resulting in extensive damage to two (2) aircraft. Fortunately, there were no personnel injuries. The accident was caused by the failure of the ordnancemen to follow known safety precautions.

W. O. Gallery
Copy to:

CNO (advance)
CinCPacFlt (advance)
ComNavFo (advance)
Com7thFlt (advance)
ComAirPac
CTF 77 (advance)
ComCarDiv ONE
ComCarDiv THREE
ComCarDiv FIVE
CO, USS PHILIPPINE SEA
CO, USS BOXER
CO, USS BOX RICHARD
CO, USS ESSEX
CAG 2
CAG 5
CAG 11
CAG 19
CAG 19X
CinPac Evaluation Group (5)
From: Commanding Officer, U.S.S. PRINCETON (CV-37)  
To: Chief of Naval Operations  
Via: (1) Commander Carrier Division FIVE  
(2) Commander Task Force SEVENTY-SEVEN  
(3) Commander SEVENTH Fleet  
(4) Commander Naval Forces, Far East  
(5) Commander in Chief, U.S. Pacific Fleet

Subject: Action Report for the period 16 April through 22 May 1951

Ref: (a) CNO rest ltr Op 345 ser 1197F34 of 3 August 1950

Enclosure: (1) CVG 19 conf ltr ser 030 of 23 May 1951 – Action Report for period 3 April through 19 May 1951
(2) Target photographs
(3) Deception brochure

1. In accordance with reference (a), the action report for the period 16 April 1951 through 22 May 1951 is hereby submitted.

PART II Composition of ON Forces:

Pursuant to CTF 70.14 conf dispatch 150326Z of April 1951, the USS PRINCETON (CV-37), with ComCarDiv FIVE and CVG NINETEENTH embarked, departed Yokosuka, Kanagawa, Japan on 16 April 1951 in company with DesDiv 11.

On 18 April 1951, the PRINCETON and DesDiv 11 rendezvoused with Task Force 77. Task Force 77 was composed of three aircraft carriers, the USS PRINCETON (CV-37), the USS PHILIPPINE SEA (CV-47), and the USS BOXER (CV-21), along with various heavy support and screening ships.

On 19 April 1951, ComCarDiv FIVE assumed command of Task Force 77, relieving ComCarDiv THREE.

On 6 May 1951, RADM G.R. Henderson relieved RADM R.A. Ofstie as ComCarDiv FIVE and as Commander Task Force SEVENTY-SEVEN.

The mission of this force, as set forth in CTF 77 Op order No. 1-51, was to perform close air support, reconnaissance, interdiction, and air bombardment missions in order to destroy enemy forces, communications, and installations in support of United Nations Forces.

PART II Chronological Order of Events:

16 April through 17 April –
CONFIDENTIAL

The USS PRINCETON with DesDiv 11 departed Yokosuka and proceeded to the operating area, conducting AA practice firing en-route.

18 April -

The USS PRINCETON rendezvoused with Task Force 77. Arriving only in time to participate in the afternoon strikes, the PRINCETON launched 7 F9F's, 6 AD's, and 13 F4U's for interdiction strikes in the Hamhung-Hungnam area. Damage to the enemy was estimated as follows: destroyed 12 oxcarts, 1 truck, 4 railroad cars, 6 buildings and 1 span of a railroad bridge; probably destroyed 1 railroad car and 1 building; damaged 3 boats and the approach to a railroad bridge.

19 April -

The PRINCETON launched a total of 4 F9F's, 8 AD's, and 11 F4U's, but inclement weather conditions forced all but 2 F9F's to abort their missions. Striking from Tanchon to Songjin, these planes inflicted damage to the enemy estimated as follows: destroyed 6 buildings and 1 oxcart; probably destroyed 2 trucks. After cancelling all other flight operations, the USS PRINCETON proceeded to replenish at sea.

20 April -

Furnishing CAS for advancing UN troops and interdiction strikes against the east coast supply routes of the communists, the USS PRINCETON launched 12 F9F's, 26 AD's, and 42 F4U's.

Strikes along the front near Chorwon and in the Wonsan area inflicted damage to the enemy estimated as follows: destroyed 7 oxcarts, 1 truck, 30-35 buildings, 2 vehicles, 1 span of a railroad bridge, and 2 spans of another railroad bridge; probably destroyed 3 trucks, 8 buildings, 1 vehicle and 1 warehouse; damaged 3 trucks, 1 section of railroad track and the approaches to a railroad bridge; killed 3 horses and an estimated 50 troops.

CAP and ASF were flown throughout the day.

21 April -

The USS PRINCETON launched 18 F9F's, 35 F4U's, and 24 AD's to furnish interdiction strikes in the area south of Wonsan and CAS along the front near Chorwon.

Damage inflicted upon the enemy was estimated as follows: destroyed 3 warehouses, 2 vehicles, 1 oxcart, 7 supply piles, 50-55 buildings, railroad track at 5 points, 1 span on each of 4 railroad bridges, and 1 span of a highway bridge; probably destroyed 5 railroad cars, 1 gun position, 15-20 buildings, 1 truck and 3-4 haystacks; damaged 2 oxcarts and 8 buildings.

Three photo missions were flown covering Songjin, Chongjin, and the transportation system near the Chosin Reservoir.
CONFIDENTIAL

CAP was flown throughout the day.

ENS Richard M. RUPPENTHAL, of VF-192, ditched his F4U at DU 1303 after mechanical failure presumably caused by enemy AA fire. Helicopter rescue efforts proved unsuccessful. ENS R. M. RUPPENTHAL is listed as missing in action.

22 April -

Furnishing interdiction strikes and CAS in support of United Nations Forces, the USS PRINCETON launched 18 F9F's, 25 AD's, and 39 F4U's.

Attacks in the Hamhung, Yonghung, and Wonsan areas and along the front near Kumhwa and the Hwachon Reservoir inflicted damage to the enemy estimated as follows: destroyed 6 ox carts, 3 vehicles, 3 railroad cars, 60 to 65 buildings, railroad track at 4 points, 1 warehouse, 4 trucks, 5 hay stacks, 1 railroad bridge and 1 span on each of 2 highway bridges; probably destroyed 4 buildings and 1 railroad car; damaged 1 span of a highway bridge; killed 150 to 175 troops.

Three photo missions covered the Wonsan, Hamhung, and Kilchu areas.

CAP and ASP were flown during the day.

LT A.R. TIFFANY, of VC-3, was lost when his F4U-5N crashed at 38°53' N and 127°27' E. The cause of the accident is unknown.

23 April -

The USS PRINCETON, after replenishing at sea, launched 15 F4U's and 8 AD's in response to the urgent need for CAS against the new communist offensive. The flight striking along the central front, inflicted damage to the enemy estimated as follows: destroyed 4 railroad cars and 6 gun positions; killed an estimated 250 to 300 troops.

CAP was flown throughout the afternoon.

24 April -

The PRINCETON launched 22 F9F's, 25 AD's, and 40 FLU's. All AD's and FLU's were utilized for CAS in an effort to help UN troops contain the onrushing communist armies. The F9F's flew armed recce and photo reconnaissance missions.

Strikes along the central front and in the Wonsan-Hamhung area inflicted damage to the enemy estimated as follows: destroyed 43 buildings, 20 to 25 fuel drums, 4 mortar positions, 3 machine gun positions, 1 truck and 3 ox carts; probably destroyed 3 trucks; damaged 2 mortar positions; killed from 390 to 400 troops.
Two photo missions covered the Hanhung area and the transportation routes leading north to the Chosin Reservoir.

CAP was flown throughout the day.

The PRINCETON proceeded to replenish in the late afternoon and early evening.

25 April -

Continuing to provide a maximum CAS effort for withdrawing UN troops, the PRINCETON launched 3 F9F's, 28 AD's, and 26 F4U's.

These planes, striking along the entire front, inflicted damage to the enemy as follows: destroyed 82 buildings, 9 haystacks, 1 gun position, 1 warehouse, 1 storage tank; damaged 1 span of a highway bridge; inflicted casualties estimated to be between 600 and 800. 

One photo mission covered bridges on the railroad running west from Kowon.

CAP and ASP were flown throughout the day.

The PRINCETON replenished during the evening.

26 April -

The PRINCETON launched 24 AD's, 34 F4U's, and 14 F9F's in its continued effort to provide maximum CAS.

Attacks along the front lines and along the transportation routes to the front inflicted damage to the enemy as follows: destroyed 80-90 buildings, 2 warehouses, 6 boats and 3 ox carts; probably destroyed 3 buildings and 1 truck; damaged 10-15 buildings; inflicted an estimated 100 casualties upon the enemy.

CAP was flown throughout the day.

The PRINCETON replenished during the evening.

27 April -

Furnishing CAS for the withdrawing UN troops, the PRINCETON launched 30 F4U's, 26 AD's, and 6 F9F's. So 3 CAS flights performed their mission in smoke and haze which limited visibility to less than 1 mile.

Strikes along the front and on the supply routes leading to the front caused damage to the enemy estimated as follows: destroyed 70-80 buildings and 10 piles of supplies;
probably destroyed 30 buildings and 2 railroad cars; damaged 2 buildings; inflicted an estimated 500-500 casualties upon the enemy.

In an effort to sustain operations, the PRINCETON replenished in the evening.

28 April -

Air operations were cancelled due to inclement weather.

29 April -

The PRINCETON launched 16 F9F's, 22 AD's, and 37 F4U's in order to continue the relentless attacks upon the advancing communists.

Strikes along the front and supply routes near the front caused damage to the enemy estimated as follows: destroyed 60-70 buildings, 1 straw stack, 45-50 fuel drums, 3 oxcart and 3 villages; probably destroyed 11 buildings; damaged 30 buildings; inflicted an estimated 125 casualties upon the enemy.

Two photo missions were flown covering Wonsan Harbor and airfields in the Hamhung area.

CAP and ASP were flown throughout the day.

ENS Thomas C. BIESTERVELD, of VF-193, parachuted from his F4U after the aircraft was hit by AA. Mosquito Cottensoot 5 reported the pilot landed uninjured at DT 1723, 4 miles east of the Hwachon Reservoir. Helicopter rescue attempts failed to locate the pilot. He was apparently captured.

30 April -

The PRINCETON launched 26 F9F's, 36 AD's, and 44 F4U's in order to furnish CAS and interdiction strikes in support of withdrawing UN troops.

Strikes along the front from Seoul to the Hwachon Reservoir and in the Kowon area inflicted damage to the enemy estimated as follows: destroyed 4 locomotives, 30-35 boxcars; 100 buildings; 50-75 fuel drums, 1 truck, 2 oxcart, 2 barracks, 2 gun emplacements; 50 feet of railroad track, and 1 haystack; probably destroyed 5 boxcars; 19 buildings, 1 truck, and 1 gun emplacement; damaged 3 locomotives; 6 buildings and 3 villages; inflicted an estimated 300-325 casualties upon the enemy. The Hwachon Reservoir dam was also attacked with rockets and 2000-pound bombs, but only superficial damage resulted.

Two photo missions covered the Chongjin area and from Wonsan to Kowon.
24 AD's, and 34 FAU's in strikes against the enemy transportation system in the Songjin, Kilchu, and Sinpungni areas.

Damage to the enemy was as follows: destroyed 36-38 buildings, 2 buses, 1 railroad car, 2 excavators, sections of railroad track at 9 points, 2 trucks, 10-15 haystacks, 1 gun position, 2 complete bridges, 1 span of each of 3 bridges, and the approaches to 4 other bridges; probably destroyed 6 buildings, 5 excavators and 1 span of a bridge; damaged 1 bridge; killed 2 camels.

Two photo missions were flown covering Kilchu to Kapsan and Kilchu to Chongjin.

CAP was flown throughout the day.

4 May -

The PRINCETON replenished at sea.

5 May -

The PRINCETON launched 16 F9F's, 29 AD's, and 40 FAU's in order to furnish interdiction strikes against the enemy supply routes and CAS for the Eighth Army.

Strikes in the Kowon and Yongchung areas, along the front north of Seoul and in the eastern front areas inflicted damage to the enemy estimated as follows: destroyed 2 excavators, 37-40 buildings, 2 pillboxes, 5 railroad cars, 20-22 trucks, 2 factory buildings, 1 span on each of 4 railroad bridges and 1 span of a highway bridge; probably destroyed 2 excavators, 7 buildings, 2 railroad cars and 3 supply piles; damaged 3 trucks and 1 factory type building; inflicted an estimated 50 casualties upon the enemy.

Two photo missions covered railroad bridges from Tokcheon to Sunchon and the Hwachon Reservoir Dam.

CAP and ASP were flown throughout the day.

6 May -

In order to furnish CAS and interdiction strikes along with defensive flights, the PRINCETON launched 14 F9F's, 30 AD's and 24 FAU's.

Strikes on the transportation system from Songjin to Wonsan and along the front east from the Hwachon Reservoir inflicted damage upon the enemy estimated as follows: destroyed 30-33 buildings, 4 railroad cars, 1 fuel dump, 200 bags of supplies, 3 half-trucks, 3 trucks, 5 excavators, 2 spans of one railroad bridge, 1 span of another railroad bridge, and 1 span of a highway bridge; probably destroyed 37-43 buildings; damaged 4 railroad cars, 1 locomotive, and 2 railroad bridges.
Two photo missions were flown covering the area from Songjin to Hongwon and a railroad bridge 10 miles west of Sunchon.

CAP and ASP were flown throughout the day.

ENS Gerald J. SULLIVAN, of VF-191, was lost when his F9F exploded in the air after being hit by AA fire near Koto-ri. ENS SULLIVAN was seen leaving the plane before the explosion, but no parachute was seen to stream.

LTJG Kenneth A. WADE, of VF-191, crash-landed his F9F at P'ohang after running out of fuel. He had been sent to P'ohang because the tail hook of his F9F would not lower for carrier landing. The pilot was unhurt.

7 May -

The PRINCETON launched 18 F9F's, 29 AD's, and 43 F4U's in order to furnish maximum CAS for advancing UN troops.

Strikes in the Inje and Kansong areas inflicted damage to the enemy estimated as follows: destroyed 80-83 buildings, 21 oxcarts, 3 supply piles, 1 gun position, and 5 trucks; probably destroyed 1 building, 1 gun emplacement, and 3 trucks; damaged 5-8 buildings and 12 oxcarts.

Three photo missions were flown covering bridges in the Sunchon area, Kumsong to Hongwon and Hoeryang to Anbyon.

CAP and ASP were flown throughout the day.

ENS Lowell R. BREWER, of VF-191, was lost when his F9F crashed after a strafing run at Ichon. The cause of the crash was unknown.

8 May -

The USS PRINCETON replenished at sea.

9 May -

Unfavorable weather conditions delayed air operations until 1330 at which time the PRINCETON launched 9 AD's and 9 F4U's for CAS. These planes striking along the front in the Inje area inflicted damage to the enemy estimated at 15-20 buildings destroyed and 3-4 troops killed.

10 May -

Continued unfavorable weather conditions delayed air operations until 1600 at which time the PRINCETON launched 12 AD's and 6 F4U's for two CAS missions.
Two photo missions were flown covering the area from Songjin to Hongwon and a railroad bridge 10 miles west of Sunchon.

CAP and ASP were flown throughout the day.

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CAP and ASP were flown throughout the day.

1 May -

Furnishing a torpedo attack against the Hwachon Reservoir dam along with interdiction strikes and CAS, the PRINCETON launched 22 F9F's, 20 AD's, and 30 F4U's.

Strikes in the Sarchon, Hwachon Reservoir area and along the front above Seoul inflicted damage to the enemy estimated as follows: destroyed 65-70 buildings, 11 trucks, 3 railroad cars, and 1 flood gate of the Hwachon Reservoir dam; probably destroyed 27 buildings, 2 gun emplacements and 1 supply dump; damaged 3 buildings, 1 truck and another flood gate of the above dam; inflicted an estimated 25 casualties upon the enemy.

Two photo missions covered the Chumonjang area and transportation facilities in the Hambung area.

CAP was flown throughout the day. The PRINCETON replenished during the evening.

2 May -

Continuing to furnish CAS and interdiction strikes, the PRINCETON launched 18 AD's, 3 F9F's and 18 F4U's.

Attacks in the Wonsan, Hungnam areas and along the front above Seoul inflicted damage to the enemy estimated as follows: destroyed 12 trucks, 30 buildings, 14 ozarts, 1 warehouse, 1 tank trap, 2 gun emplacements and 1 jeep; probably destroyed 5 buildings; damaged 15 railroad cars and 1 highway bridge; inflicted 50 casualties upon the enemy.

One photo mission covered the area west from Kowon and the area north of Pyonyang.

CAP and ADV evaluation were flown throughout the day.

The PRINCETON replenished during the evening.

ENS L. Soberski, of VF-191, was hit by AA fire near Wonsan. Although nearly blinded by fragments of his shattered canopy, ENS Soberski, with the aid of his wingman successfully landed his F9F back aboard the PRINCETON.

ENS Fred St. Newman, of VF-152, ditched his F4U in the water at CU 7745 in Wonsan Bay after his engine lost oil pressure and his belly tank exploded from unknown causes. The pilot was recovered safely by helicopter immediately after ditching.

Moving to the north, the PRINCETON launched 12 F9F's,
Strikes along the front in the Inje area inflicted damage to the enemy estimated at 2 buildings and a supply mile destroyed. However, poor visibility over the targets made it impossible to assess the true extent of the damage.

11 May

In order to furnish CAS and interdiction strikes, the PRINCETON launched 16 F9F's, 27 AD's, and 33 F4U's.

Attacks hitting the railroads leading into Pyongyang from the north and furnishing CAS along the front in the Chunchon and Inje areas inflicted damage to the enemy estimated as follows: destroyed 25 buildings, 1 gun position, 1 vehicle, and 1 span of a railroad bridge; damaged 1 span on each of 2 railroad bridges and 200 feet of the approach to a railroad bridge; inflicted 8 casualties upon the enemy.

Two photo missions were flown covering bridges from Pukchang to Songjin and the Kangdong area.

Naval gunfire spot was flown in the Wonsan area. CAP and ASP were flown throughout the day.

LT Franklin METZNER, of VC-35, crashed on take-off from Kangnung airfield after landing there earlier due to mechanical failure. LT METZNER, and his crewman, Chief R. M. GREEN, received only minor injuries.

12 May

The PRINCETON launched 16 F9F's, 22 AD's, and 41 F4U's as it continued pounding the enemy's supply routes and front line troops.

Furnishing the interdiction strikes in the Yangdok area and the CAS missions along the front from Inje to Chunchon, CVG 19 inflicted damage to the enemy estimated as follows: destroyed 5 trucks, 50-52 buildings, 2 ox carts, 10-15 railroad cars, railroad track at 6 points, 1 wagon, 2 gun emplacements, 2 spans of a railroad bridge; and the approaches to two other railroad bridges; probably destroyed 3 trucks, 2 buildings and 1 railroad car; damaged 4 buildings and 1 span on each of two railroad bridges; killed 1 camel and 10-15 troops.

Three photo missions were flown covering railroad bridges from Anbyon to Yongpyong-ni and bridges and roads in the Yonghung area.

Naval gunfire spot was flown for the Songjin bombardment group. CAP and ASP were flown throughout the day.
ENS Robert D. Jackson, of VF-192, ditched his F4U in the ocean near Chodo-ni after his plane lost oil pressure. ENS Jackson was recovered by the USS Orleck DD-856.

13 May -

Continuing to hamper the enemy's effort to resupply his front line troops and to strike at those troops, the PRINCETON launched 20 F9F's, 24 AD's, and 35 F4U's for interdiction strikes and CAS missions.

The attacks on the supply routes in the Yangdok, Pachunjang, and Iwon areas and the CAS along the front in the Chunchon, Kangyong and Inje areas inflicted damage to the enemy estimated as follows: destroyed 95-96 buildings, 2 gun positions, 6 ox-carts, 1 group of fuel drums, 1 truck, 1 trailer, 13 railroad cars, 2 groups of supplies, 1 40 foot boat, 2 spans on each of 2 railroad bridges, 4 spans of a railroad bridge by-pass, and 100 to 200 feet of another railroad bridge by-pass; probably destroyed 6 buildings, 1 truck, and 1 group of supplies; damaged 4 buildings, 1 span of a railroad bridge and the approach to a railroad bridge; killed 5-10 troops and 7 camels.

Two photo missions were flown covering bridges in the Pachunjang, Taepyong-ni, and Majon-ni areas.

Naval gunfire spot was flown for the Songjin bombardment group. CAP and ASP were flown throughout the day.

14 May -

The USS PRINCETON replenished at sea.

15 May -

Unfavorable weather forced the cancellation of all air operations.

16 May -

Unfavorable weather conditions delayed flight operations until 1700 at which time the PRINCETON launched 9 F9F's, 9 AD's, and 13 F4U's for CAP, ASP, and interdiction strikes in the Yonghung area. Damage inflicted upon the enemy was estimated as follows: destroyed 8 buildings, 4 railroad cars and 20 feet of railroad track; probably destroyed 1 truck.

Two photo missions were flown. One aborted due to weather. The other covered bridges in the Pyongyang area.
17 May -

In order to continue blunting the enemy's supply routes, the PRINCETON launched 12 F9F's, 13 AD's, and 13 F4U's. Pilots returning from strikes in the Yenching to Hamhung area estimated the damage as 1 truck destroyed and 3 highway bridge bypasses, 1 railroad bridge bypass, and 1 section of highway made impassable.

One photo mission was flown covering the Hamhung area. CAP was flown throughout the period of air operations.

At the conclusion of air operations, the PRINCETON departed Task Force 77 and proceeded toward Yokosuka, Hanshin, Japan.

18 May -

In order to bring Task Force 77 up to maximum strength for support of hard pressed UN troops, the PRINCETON returned to the operating area.

Furnishing CAS against the Communist offensive, the PRINCETON launched 6 F9F's, 33 AD's, and 39 F4U's. Strikes along the front and on supply routes leading to the front inflicted damage to the enemy estimated as follows: destroyed 100 trucks abandoned by UN forces, 8 buildings, 2 locomotives, 20 railroad cars containing munitions and fuel, and 5 gun emplacements; probably destroyed 2 gun emplacements; damaged 1 gun emplacement; inflicted an estimated 75-96 casualties upon the enemy.

Two photo missions were flown covering the transportation facilities in the Haeju and Pyongyang areas.

CAP and ASP were flown throughout the day.

CDR. R. C. MERRICK, commanding officer of CVG-19, was lost when his AD crashed at GS 6076 after being hit by AA fire.

LT H. M. HAWKINS, of VF-87, was lost after bailing out of his F4U at DS 0595. Attempts at helicopter rescue were unsuccessful.

19 May -

The PRINCETON launched 23 F9F's, 23 AD's, and 20 F4U's for interdiction strikes and CAS missions against the enemy. Strikes in the front line areas and along supply routes to the front inflicted damage to the enemy estimated as follows: destroyed 12-15 railroad cars, 1 warehouse, 1 barracks, 20-25 abandoned friendly vehicles, 1 tank, and 1 jeep; probably destroyed 35-45 buildings; killed 1 troop.

Three photo missions were flown covering supply routes from Harhung to Wonsan and south to the front.
The PRINCETON departed the force and proceeded toward Yokosuka, Honshu, Japan.

20-21 May -

The PRINCETON proceeded toward Yokosuka, conducting AA practice firing enroute.

22 May -

The PRINCETON arrived Yokosuka, Honshu, Japan for scheduled availability and recreation.

PART III - Performance of Ordnance Material and Equipment:

A. Maintenance:

(1) The general performance of the ordnance equipment for the period covered by this report was very good. Only routine maintenance repair was required on all gun mounts. Material failures for this period were considered normal in number and type; the majority of casualties being to Fire Control and Fire Control Radar equipment. Casualties were fewer in number than during previous colder operating periods. This was considered normal in view of more favorable weather.

(2) Particularly noteworthy during this operating period was the outstanding operational performance of the two GFCs IX.56, which was manifested in the high state of readiness of the equipment and by rapid target acquisition. This performance is accredited equally to the excellent preventative maintenance system established and the increased proficiency of the operating crews resulting from the current training program. De-energizing the after GFCs IX.56 when ship speed exceeded twenty-five (25) knots materially reduced the number of casualties attributed to excessive vibration.

(3) The IX.25 Radar installed in Director 51 (forward IX.37 Director) gave a generally unsatisfactory performance throughout the period covered by this report. Analysis indicated that overall poor material condition of the equipment was the cause rather than the failure of any one unit or the long hours of necessary operation of the equipment. During previous operating periods the Condition III watch was maintained almost continually in Director 51, however, a
recent procedural change resulted in the Condition III watch being set alternately in Director 51 and Director 53 for two (2) day periods. It is believed that this new procedure will allow proper preventative maintenance to be held on the equipment concerned and thus eliminate probable causes of future failures in this system.

B. Deck Evolutions:

(1) Deck evolutions (i.e., fueling, ammunition replenishing, etc.) during the period of this report were continued under excellent operational conditions. The operations of the task force require many transfers at sea from the fantail (frame 207), after transfer station, and forward burtoning station. These evolutions have been executed with the minimum amount of difficulty and an insignificant number of material failures. Due to constant inspection and immediate repair of all equipment, the deck gear has been ready for immediate use at all times.

(2) The ammunition replenishment reached a new peak of efficiency on 28 April 1951, when a rate of one-hundred-sixty-six and two-tenths (166.2) tons per hour was established in transferring two-hundred-twenty-eight (228) tons aboard from the U.S.S. PARICUTIN (AE-13).

C. Ammunition Expended: - during period of this report.

<table>
<thead>
<tr>
<th>Bombs</th>
<th>Fuze</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 lb GP</td>
<td>214 AN-M103A1</td>
</tr>
<tr>
<td>1000 lb GP</td>
<td>309 AN-M139A1</td>
</tr>
<tr>
<td>500 lb GP</td>
<td>327 AN-M140A1</td>
</tr>
<tr>
<td>250 lb GP</td>
<td>944 AN-M163</td>
</tr>
<tr>
<td>100 lb GP</td>
<td>3833 AN-M100A2</td>
</tr>
<tr>
<td>350 lb DB</td>
<td>4 AN-M101A2</td>
</tr>
<tr>
<td>260 lb Frag.</td>
<td>4540 AN-M102A2</td>
</tr>
<tr>
<td>Bomb Ejector</td>
<td>AN-M166</td>
</tr>
<tr>
<td>Cartridge Mk. 1</td>
<td>206 ML15</td>
</tr>
<tr>
<td>ML16</td>
<td>4</td>
</tr>
<tr>
<td>ML17</td>
<td>30</td>
</tr>
<tr>
<td>ML25A1 (6 hr)</td>
<td>23</td>
</tr>
<tr>
<td>Jap Manufactured</td>
<td>AN-M1230</td>
</tr>
<tr>
<td>Napalm Tanks</td>
<td>1552 T4El</td>
</tr>
<tr>
<td>Napalm Thickner</td>
<td>57,540 ML57</td>
</tr>
</tbody>
</table>

Torpedoes

Mk. 13 8
### Rockets

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Aircraft Ammunition</th>
</tr>
</thead>
<tbody>
<tr>
<td>645 ATAR Head</td>
<td>835</td>
<td>20MM Aircraft</td>
</tr>
<tr>
<td>570 Head LVAR Mk.6</td>
<td>1338</td>
<td>Calibre .50</td>
</tr>
<tr>
<td>570 Motor</td>
<td>2170</td>
<td>A/G Parachute</td>
</tr>
<tr>
<td>375 Head Mk.8</td>
<td>4</td>
<td>Flares Mk.6</td>
</tr>
<tr>
<td>3725 Motor</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Fuze Rocket Mk 149</td>
<td>1338</td>
<td></td>
</tr>
</tbody>
</table>

**D. Recommendations:** None.

### PART IV Resume of Battle Damage - Own and Enemy:

A. Own - The ship sustained no battle damage.

B. Enemy - For damage inflicted upon the enemy see Enclosure (1).

### PART V Personnel, Performance, and Casualties:

A. Casualties:

There were no personnel casualties suffered by ship's company during these operations. See Enclosure (1) for Air Group NINETEEN casualties.

B. Performance:

The performance of personnel during the period of this report was excellent.

### PART VI Special Comments:

A. Operations:

1. Aerology:

   During this period the summer monsoon became well established. In the operating area, days with persistent advection fog and low ceilings were more numerous than during previous action periods. Many scheduled flights were cancelled or delayed because of poor visibility and/or low ceilings either over the force or in the target area. On one replenishment day the fog lasted all day and was so thick that visibility was seldom greater than 200 yards.

   In addition to the fog, pilots were further plagued by heavy haze and smoke in the vicinity of the front lines which often reduced visibility to less than one mile.
On several days this haze and smoke layer extended to 10,000 feet, or higher, and was brought out into the operating area by westerly winds.

Some statistics for the period follow:

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum temperature</td>
<td>71°F</td>
</tr>
<tr>
<td>Minimum temperature</td>
<td>47°F</td>
</tr>
<tr>
<td>Average temperature</td>
<td>56°F</td>
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<tr>
<td>Max. Sea temperature</td>
<td>66°F</td>
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<tr>
<td>Min. Sea temperature</td>
<td>42°F</td>
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<tr>
<td>Avg. Sea temperature</td>
<td>55°F</td>
</tr>
<tr>
<td>Max. Wind velocity</td>
<td>40 kts</td>
</tr>
<tr>
<td>Min. Wind velocity</td>
<td>3 kts</td>
</tr>
<tr>
<td>Avg. Wind velocity</td>
<td>14.6 kts</td>
</tr>
<tr>
<td>Prevailing wind direction</td>
<td>SW</td>
</tr>
</tbody>
</table>

2. Intelligence:

a. Target photographs:

Since the naval air operations in Korea are such that they require a pilot to become familiar with up to four targets each day, it is advisable that he be furnished a picture of his target to carry with him in his plane as an aid in target recognition and identification. It had been the practice to furnish such a picture to each pilot just prior to the strike briefing and to explain all target information (location, description, elevation, etc.) orally in the brief. As a result of the pilots inability to absorb and retain the details of several targets along with general information and instructions, he was forced to write them on his knee pad along with a maze of other information.

It therefore was advisable that this information be furnished to the pilot in printed form and included with the target photograph. To do this, a 4" X 9" sheet of white paper with the details of the target typed on it, was mounted on a piece of heavy cardboard along side of the 9" X 9" target photograph. The two were photographed as a unit and reproduced on a 7" X 10" piece of paper. This size was chosen in order that one copy could be retained in a cardex file for ready reference. Each such "target card" was given a negative number to facilitate ordering photographs should the same target be attacked at a later date. Should later photography show new construction such as a bridge bypass, which would change the appearance of the target, a new card is made up to replace the old outdated one.
Photographs for these "target cards" are selected for clarity and the presence of good recognition features. Whenever available, an oblique photograph is used in preference to a vertical, since it shows much more of the surrounding terrain which is important in locating the target. A typical photograph given to strike pilots is appended as Enclosure (2).

b. Deception brochure:

A brochure was prepared to acquaint the relieving pilots of Air Group 19 with deception techniques used by the Communists in North Korea. This brochure accompanies this report as Enclosure (3). The material was collected from intelligence reports and sightings reported by pilots of Air Group 19. It is considered that this intelligence brochure shortens the indoctrination period required by new pilots by enabling them to recognize camouflaged targets more easily.

B. Engineering:

1. Damage Control - no comments.
2. Main Propulsion - no comments.
3. Electrical - no comments.
4. Electronics - no comments.

C. Navigation:

1. During the period of the report weather was poor on the average for celestial observations either because of cloud cover or very poor horizons. Less than fifty percent of morning and evening positions were from star sights because of the poor weather.

2. The DEE Loran could have been of great value during this period except that it was out of commission during the greater part of the time despite the expenditure of a great deal of effort by a G.E. Electronics Technician and three Chief Electronics Technicians.

3. It is recommended that the DEE Loran be redesigned so as to provide much greater reliability and also to improve accessibility for maintenance.

D. Supply - no comments.
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D. Supply - no comments.
Statistics do not, of course, tell the whole story, but it is interesting to compare the above figures with some others at hand.

During her entire combat life of two years in the last war, the ESSEX (officially termed "The Fightingest Ship in the Navy") dropped a total of 4,143 tons of bombs including Napalm. This was for the period 6/43 to 8/45, a total of twenty-four months. In this period the ESSEX also fired a total of 3,112 rockets and dropped 83 torpedoes not included in the above tonnage.

Other figures at hand indicate that Air Group Eleven during nine (9) months in the PHILIPPINE SEA off Korea dropped a total of 2,120 tons of bombs plus 54 tons of napalm. In the same period Air Group Eleven fired 11,898 rockets and 1,176,732 rounds of ammunition.

W. O. GALLERY
Copy to:

CMO (advance)
CinCPacFlt
ComNavFE
Com7thFlt
ComAirPac
CTF 77
ComCarDiv THREE
ComCarDiv FIVE
C.O., USS PHILIPPINES SEA
C.O., USS BOXER
C.O., USS BOX HOME RICHARD
C.O., USS BSEMK
CAG 5
CAG 19
CAG 101
CAG 102
CinCPac Eval Grp
From: Commanding Officer, U.S.S. PRINCETON (CV-37)
To: Chief of Naval Operations
Via: (1) Commander Carrier Division FIVE
      (2) Commander Task Force SEVENTY-SEVEN
      (3) Commander SEVENTH Fleet
      (4) Commander Naval Forces, Far East
      (5) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 31 May 1951 through 3 July 1951

Ref: (a) CNO rest ltr Op 345 ser 1197P34 of 3 August 1950

Encl: (1) Hydraulic Lift Photo P. 76

1. In accordance with reference (a) the Action Report for the period 31 May 1951 through 3 July 1951 is hereby submitted.

PART I Composition of Own Forces:

Pursuant to Com7thFlt secret dispatch 2900502 of May 1951, the USS PRINCETON (CV-37), with ComCarDiv FIVE and CVG NINETEEN embarked, departed Yokosuka, Honshu, Japan.

The new CVG NINETEEN was composed of VF-23, VF-371, VF-821, VA-55, VC-3, VC-61, VC-11, and VC-35.

On 1 June 1951, the USS PRINCETON (CV-37) rendezvoused with the USS ZELLAR (DD-777) and the USS FOREST ROYAL (DD-872) and proceeded to the operating area, conducting refresher flights enroute.

On 2 June 1951, the USS PRINCETON (CV-37) and the destroyer escort rendezvoused with Task Force 77.

Task Force 77 was composed of three aircraft carriers, the USS PRINCETON (CV-37), the USS BOXER (CV-21), and the USS BON HOMME RICHARD (CV-31), along with various heavy support and screening ships.

Upon completion of a conference with ComCarDiv FIVE, ComCarDiv FIVE assumed command of Task Force 77.
MISSION:

The mission of this force, as set forth in CTF 77 OpOrder No. 2-51, was to perform close air support, reconnaissance, interdiction, and air bombardment missions in order to effectively support United Nations ground operations.

PART II Chronological order of Events:

31 May - 1 June

The USS PRINCETON departed Yokosuka, Honshu, Japan and proceeded to the operation area, conducting refresher flights en route.

2 June

Shortly after rendezvousing with TF 77 the PRINCETON commenced air operations. Launching the first aircraft at 1330, the PRINCETON furnished interdiction strikes in the Iwon area and close air support strikes along the eastern front. Damage inflicted upon the enemy was estimated as follows: destroyed 3 buildings and railroad track at one point; damaged the approaches to 2 railroad bridges; killed an estimated 4 oxen and 6 troops.

Two photo missions covered the Songjin area and the Wonsan area. Naval gunfire spot was flown for the forces at Songjin and at Wonsan.

A total of 32 planes was launched. The last plane was recovered at 1659.

3 June

Starting the day with a pre-dawn heckler launch, the PRINCETON proceeded to furnish interdiction strikes in the Pachunjang and Tanchon areas and close air support along the central front. Damage inflicted upon the enemy was estimated as follows: destroyed 5 trucks, 1 oxcart, 2 railroad cars and a railroad bridge; probably destroyed 3 trucks; killed 6 oxen.

Three photo missions were flown covering the Kilchu, Yonghung and Kowon areas. CAP and ASP were flown throughout the day.

A total of 94 planes was launched. The last plane was recovered at 1530. After the last recovery the PRINCETON proceeded to replenish at sea.
4 June -

Launching the first plane at 0900, the PRINCETON furnished interdiction strikes in the Iwon and Songjin areas and close air support in the Hwachon area throughout the day. Damage inflicted upon the enemy was estimated as follows: destroyed 6 railroad cars, 2 buildings, 8 camouflaged vehicles, 1 highway bridge and the approaches to two railroad bridges; probably destroyed 1 building; damaged 2 sections of railroad track. Four hits were made inside of a tunnel with undetermined results.

Two photo missions were flown. One covered the Churordonjang area while the other covered from Yangdok to Yonghung. Naval gunfire spot was flown for the forces at Wonsan and Songjin. CAP and ASP were flown throughout the day.

A total of 103 planes was launched. The last recovery was made at 2035.

5 June -

In order to continue blasting the enemy's supply routes and to furnish close air support to advancing United Nations Forces, the PRINCETON conducted air operations throughout the day, with the first launch being made at 0900. Interdiction strikes in the Yonghung and Sinpo areas and close air support in the Kumbha area inflicted damage to the enemy estimated as follows: destroyed 15 buildings, 1 gun position, 1 railroad car, 1 span of a highway bridge, 1 span of a railroad bridge and 1 section of highway; probably destroyed 4 buildings; damaged 5 railroad cars, 1 section of a railroad bypass, and 2 highway bridges; inflicted an estimated 75 casualties upon the enemy.

Two photo missions were flown in the Hungnam area. Naval gunfire spot was flown for the forces in the Wonsan area. CAP and ASP were flown throughout the day.

A total of 92 planes was launched. The last recovery was made at 2027.

ENS Philip S. RANDOLPH, of VF-23, was lost when his F9F crashed into the after end of the flight deck. The resulting fire burned 8 members of the PRINCETON crew. Two men, Harry D. NUTT; AM3A and Richard ROTEILLA, BM3 were burned fatally. One man, Frank HROVAT, AB3 was burned critically. Five men, William H. CORNELIUS, SA, Merle G. SNELLING, CMS3, William E. FLANNERY, AN, John HENDERSON, SA, and George L. ROBBINS, Jr. ABAN, received minor burns.
Two of these men were blown overboard and were rescued by helicopter and destroyer.

6 June -

Launching the first plane at 0900 the PRINCETON began a day of interdiction strikes in the Kilchu and Singosan areas and close air support in the Kumbwa area. Damage inflicted upon the enemy was estimated as follows: destroyed 4 buildings, 2 spans of a railroad bridge and 1 span each of 3 highway bridges; damaged 2 railroad bridges; killed 1 oxen. Three highway bridges were seeded with delay fused bombs.

Three photo missions were flown covering the Hagaru-ri, Wonsan and Chuuronjang areas. Naval gunfire spot was flown for the forces at Wonsan and Songjin. CAP and ASP were flown throughout the day.

A total of 94 planes was launched. The last aircraft was recovered at 2331.

ENS Bruce R. WAGNER, of VA-55, ditched his AD in the sea after engine failure. The pilot was recovered and returned to the ship by helicopter.

7 June -

The USS PRINCETON replenished at sea.

8 June -

Launching the first plane at 0430, the PRINCETON spent the day pounding the enemy with interdiction strikes in the Kilchu and Kowon areas and close air support missions in the Chorwon, Kumbwa and eastern front areas. Damage inflicted upon the enemy was estimated as follows: destroyed 8 buildings, 4 railroad cars, 2 fuel dumps, 1 section of railroad track, a section of highway at each of 4 points, 2 railroad bridge bypasses, and 3 highway bridge bypasses; probably destroyed 2 buildings; damaged 4 railroad cars, 2 warehouses, and 1 span each of a highway bridge and a railroad bridge; inflicted an estimated 27 casualties upon the enemy.

Three photo missions were flown covering the Hagaru-ri area, the Wonsan area and the Chuuronjang area. Naval gunfire spot was flown for the forces at Wonsan and at Songjin. CAP and ASP were flown throughout the day.
A total of 109 planes was launched. The last plane was recovered at 1653.

9 June -

Beginning with a heckler launch at 0430, the PRINCETON furnished interdiction strikes in the Singosan, Kowon, Yangdok and Majon-ni areas and close air support in the Chorwon area. Damage inflicted upon the enemy was estimated as follows: destroyed 1 truck, 1 oxcart, 1 railroad car, railroad track at 5 points, 1 building, 2 gun positions, 4 supply dumps, 1 tank, 1 warehouse, 1 railroad bridge bypass, 1 span of a railroad bridge, 1 highway bridge and a section of highway at each of 5 points; probably destroyed 10 to 15 railroad cars, and 2 buildings; damaged 1 truck, 3 oxcarts and 2 railroad cars and 1 span each of 2 highway bridges, and a railroad bridge; inflicted an estimated 27 casualties upon the enemy.

Three photo missions covered the Wonsan area, the Hamhung area and from Wonsan to Pyonggang. Naval gunfire spot was flown for the forces at Songjin. A message pickup and drop test flight was flown in the Wonsan area. CAP and ASP were flown throughout the day.

A total of 106 planes was launched. The last recovery was made at 1638.

10 June -

At 0400 the first launch, consisting of 3 aircraft assigned a heckler mission, was made. One F4U5N, piloted by LT. C.W. CHAPMAN of VC-3, crashed on take off due to mechanical failure. LT. CHAPMAN was recovered by a destroyer.

CDR C.R. STAPLER, CAG-19, and R.L. BLAZEVIC ATL1, were lost when their AD4Q crashed north of Kumsong at CT 7756. CDR STAPLER parachuted from the plane, but BLAZEVIC was not seen to leave the plane. The cause of the crash is unknown. CDR STAPLER’S wingman flew rescue over the location until running low on fuel at which time he landed at K-13.

At 1100 3 planes were launched for rescue over CDR STAPLER. These also landed at K-13 after searching the area with negative results.

Total aircraft launched was 6, none of which were recovered aboard the PRINCETON. After the 1100 launch, air operations were canceled due to inclement weather over the beach and the PRINCETON proceeded to replenish at sea.
11 June -

Commencing with the first launch at 0900 the PRINCETON furnished interdiction strikes in the Kowon area and close air support in the Chorwon area. Damage to the enemy was estimated as follows: probably destroyed 1 gun emplacement; damaged 2 RR bridges, 8 to 10 small boats and the approach to a highway bridge; cratered a highway at 1 point.

Two photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces in Wonsan and Songjin area. CAP and ASP were flown throughout the day.

A total of 53 planes was launched. The last plane was recovered at 2030.

12 June -

Unfavorable weather conditions restricted air operations throughout the day. In spite of this the PRINCETON furnished close air support in the Pyonggang area. These flights destroyed 7 trucks, 1 ammunition dump, 4 artillery pieces and 1 automatic weapon and probably destroyed 21 buildings.

Naval gunfire spot was flown for the force at Wonsan. CAP and ASP were flown throughout the day.

A total of 43 planes was launched. The first plane was launched at 0830 and the last plane was recovered at 2342.

13 June -

Launching the first aircraft at 0400 the PRINCETON spent the day furnishing interdiction strikes in the Munchon, Yangdok and Majon-ni area and close air support in the Pyonggang and Kumsong areas. Damage to the enemy was estimated as follows: destroyed 1 tank, 2 gun positions, 1 span of a RR bridge and 1 highway bridge; cratered a highway at 2 points; inflicted an estimated 100 casualties upon the enemy.

Three photo missions were flown covering enemy supply routes. CAP and ASP were flown throughout the day.

A total of 108 planes was launched. The last plane was recovered at 2230.

14 June -
During the morning the PRINCETON replenished at sea. Upon the completion of replenishment the PRINCETON furnished interdiction strikes in the Kowon area and close air support along the western front lines. Known damage to the enemy consisted of: 1 span of a RR bridge being destroyed.

One photo mission was flown for target evaluation. CAP and ASP were flown throughout the afternoon.

A total of 32 planes was launched. The first was launched at 1530 and the last was recovered at 2000.

15 June -

The PRINCETON continued to furnish interdiction strikes against the enemy and close air support strikes for advancing United Nations Forces. Strikes in the Songjin area and along the central front inflicted damage upon the enemy estimated as follows: destroyed 4 RR cars, 5 anti-tank guns, 5 buildings, 2 spans of a highway bridge and 3 mortar positions; blocked one end of a tunnel; broke RR track at 1 point; probably destroyed 9 RR cars and 1 warehouse; damaged 2 RR cars and 3 anti-tank guns; killed 5 oxen and an estimated 15 troops.

One photo mission was flown during the day. CAP and ASP were flown throughout the day.

A total of 58 planes was launched. The first was launched at 0600 and the last recovered at 1630.

16 June -

Unfavorable weather conditions over Korea restricted the PRINCETON's strikes to close air support along the central front. Damage to the enemy was estimated as follows: destroyed 2 artillery pieces and 2 ammunition dumps; damaged 1 artillery piece; inflicted an estimated 85 casualties upon the enemy.

One photo mission was flown for target evaluation. CAP and ASP were flown throughout the day.

A total of 64 planes was launched. The first was launched at 0600 and the last recovered at 1630.

17 June -

The PRINCETON continued to cut the enemy's supply routes with interdiction strikes in the Iwon, Sinpyong and Songjin areas.
Close air support of United Nations Forces was also furnished. The damage inflicted upon the enemy was estimated as follows: destroyed 31 to 32 buildings, 13 sampans, 1 supply dump, 1 machine gun, 3 spans of a RR bridge, 1 span of a RR bridge, and the approaches to a RR bridge; probably destroyed 2 buildings and 4 sampans; damaged 5 buildings, 3 RR cars, 3 to 4 sampans and a RR bridge. A section of highway was cratered at 2 points and then sowed with butterfly bombs at 3 points.

Three photo missions were flown for damage assessment and target evaluation. CAP and ASP were flown throughout the day. NGF spot was flown for the forces at Wonsan and Sŏngjin.

A total of 100 planes was launched. The first launch was at 0430 and the last recovery at 1737.

18 June -

Commencing with a heckler strike, launched at 0410, the PRINCETON furnished interdiction strikes in the Sŏngjin, Oro-ri, Sinpo and P’ukch’ŏng areas throughout the day. Damage to the enemy was estimated as follows: destroyed 1 truck, 7 buildings, 7 gun emplacements, 5 ox carts, 1 sampan, 2 spans each of 3 RR bridges, 1 span each of 3 RR bridges, and 1 span of a highway bridge; probably destroyed 3 gun positions and 4 sampans; damaged 1 building; 11 sampans, 3 RR bridges and 1 highway bridge; cratered a highway at one point; killed from 6-8 oxen.

Three photo missions were flown during the day covering interdiction targets along enemy supply routes. Naval gunfire spot was flown for the forces at Wonsan and at Sŏngjin. CAP and ASP were flown throughout the day.

A total of 100 planes was launched. The last aircraft was recovered at 1944.

19 June -

During the morning and early afternoon the PRINCETON replenished at sea. Upon the completion of replenishment a bridge strike was launched. Hitting near Sŏngjin the strike was able to destroy 1 RR bridge. A photo mission, CAP and ASP were also flown.

A total of 29 planes was launched. The first launch was at 1730 and the last recovery was at 2041.

20 June -
The PRINCETON continued to pound the enemy's supply routes with interdiction strikes in the Songjin, Tanchon, Churronjiang, Yangdok and Majon-ni areas. Damage was estimated as follows: destroyed 1 span each of 4 RR bridges, 2 spans of 1 RR bridge, 50 feet of RR track, 2 RR cars, 4 trucks and 6 carts; probably destroyed 3 RR cars; damaged 1 locomotive and 1 span each of 2 RR bridges; killed 11 oxen and 5 troops. Highways were cratered at several points and these areas were sowed with butterfly bombs.

Two photo missions were flown for target evaluation. Naval gunfire spot was flown for the forces at Songjin. CAP and ASP were flown throughout the day.

A total of 127 planes was launched. The first plane was launched at 0910 and the last plane was recovered at 2337.

ENS John MOODY, of VF-871, parachuted from his F4U over Wonsan Bay after being hit by AA fire. ENS MOODY was rescued by helicopter and returned to the ship.

LT Royce CARRUTH, of VF-821, was lost when his plane crashed and exploded near Sinp'yong. The crash was believed caused by AA fire.

21 June -

The PRINCETON furnished interdiction strikes in the Tanchon, Yangdok and Majon-ni areas in a continued effort to stop the enemy's supply activities. Close air support of United Nations ground forces along the Western front was also furnished. Damage inflicted upon the enemy was estimated as follows: destroyed 3 buildings, 4 oxecarts, 1 fuel dump, 5 trucks, and 1 span each of 2 RR bridges; probably destroyed 6 trucks; damaged 4 buildings, 1 tunnel entrance and the approaches to 2 RR bridges. Highways were cratered at 4 points and these areas were sowed with butterfly bombs to discourage repair activities.

Three photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces at the bombline. CAP and ASP were flown throughout the day.

A total of 114 planes was launched. The first plane was launched at 0910 and the last was recovered at 2330.

22 June -

The PRINCETON spent the day furnishing interdiction strikes in the Tanchon, Kilohu, Yangdok and Majon-ni areas and close air support along the eastern front.
Damage inflicted upon the enemy was estimated as follows: destroyed 12-15 buildings, 3 warehouses, 1 truck, 1 oxcart, 30 feet of RR track, 2 RR bridges, 1 span of one RR bridge and 2 spans of another RR bridge; probably destroyed 2 buildings; inflicted an estimated 5-10 casualties upon the enemy. Highways were cratered and sowed with butterfly bombs at several points.

Three photo missions were flown covering enemy supply routes along the east coast of Korea. Naval gunfire spot was flown for the forces at Wonsan. CAP and ASP were flown throughout the day.

A total of 97 planes was launched. The first plane was launched at 0910 and the last plane was recovered at 2344.

23 June -

The USS PRINCETON replenished at sea.

24 June -

Commencing the day with the first launch at 0410 the PRINCETON continued to furnish interdiction strikes against the enemy supply routes in the Yangdok, Majon-ni and Kowon areas and close air support along the central front lines. Damage to the enemy was estimated as follows: destroyed 1 warehouse, 100 feet of RR track, 15 buildings, and 1 highway bridge; damaged 3 warehouses, 1 RR bridge and 1 highway bridge. Highways were again cratered and sowed with butterfly bombs at several points.

Three photo missions were flown for target evaluation. CAP and ASP were flown throughout the day.

A total of 90 planes was launched. The last recovery was made at 1746.

25 June -

Continuing to smash the highways near Yangdok and Majon-ni, to break the RR lines along the east coast, and to furnish close air support to United Nation forces along the eastern front, PRINCE TON strikes caused damage to the enemy estimated as follows: destroyed 3 gun positions, 3 RR cars, 2 trucks, 20 buildings, 3 warehouses, 3 carts and 1 RR bridge; probably destroyed 1 gun position, damaged 1 RR bridge and 2 warehouses. Highways were cratered and sowed with butterfly bombs at several points.

Three photo missions were flown for damage assessment and target evaluation. CAP and ASP were flown throughout the day.
A total of 84 planes was launched. The first plane was launched at 0415 and the last plane was recovered at 1737.

LTJG John LARVA, of VA-55, crashed in his AD at K-18 airfield after being hit by AA fire. LTJG LARVA was uninjured. The AD was a strike.

26 June -

The PRINCETON furnished interdiction strikes in the Kilchu, Changjon, Yangdok and Majon-ni areas along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 25 buildings, 7 supply dumps, 1 warehouse, and 2 spans of a RR bridge; damaged 11 buildings, 2 RR cars, 1 gun emplacement and 1 supply dump. Highways were cratered and sowed with butterfly bombs at several points.

Three photo missions were flown covering enemy supply routes and activities. CAP and ASP were flown throughout the day.

A total of 89 planes was launched. The first plane was launched at 0410 and the last recovered at 1736.

27 June -

The USS PRINCETON replenished at sea.

28 June -

The PRINCETON furnished interdiction strikes in the Pukchong, and Majon-ni areas along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 12-13 carts, 25 buildings, 25 gun positions, 3-4 warehouses, 5 trucks, 1 fuel dump, 1 highway bridge and 1 span of one RR bridge; probably destroyed 8-10 buildings and 2 trucks; damaged 4 carts, 2 buildings and 2 RR bridges. Highways were cratered and sowed with butterfly bombs at several points.

Four photo missions were flown for target evaluation and damage assessment. CAP and ASP were flown throughout the day.

A total of 97 planes was launched. The first plane was launched at 0910 and the last plane was recovered at 2042.

LTJG Harley HARRIS, of VA-55, was lost when his AD crashed and exploded at BU 9826. The cause of the crash is unknown.

29 June -
The PRINCETON furnished interdiction strikes in the Pukhong, Koyo, Yangdok and Majon-ni areas along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 20 buildings, 2 gun emplacements, 4 warehouses and 3 trucks; probably destroyed 1 warehouse and 2 trucks; damaged 18 buildings and 1 tunnel. Highways were cratered and sowed with butterfly bombs at several points.

Five photo missions were flown covering enemy supply routes in central Korea and beaches south of Wonsan. Naval gunfire spot was flown for the force Wonsan. CAP and ASP were flown throughout the day.

A total of 99 planes was launched. The first plane was launched at 0910 and the last plane was recovered at 2343.

30 June -

Commencing air operations at 0910, the PRINCETON furnished interdiction strikes in the Hamhung, Kilchu, Yangdok and Majon-ni areas and close air support along the eastern front lines. Damage inflicted upon the enemy was estimated as follows: destroyed 21 trucks, 2 gun positions, 1 command post, 9 buildings, 1 cart, 1 fuel tank, and 1 span of a RR bridge; probably destroyed 5 buildings and 3 vehicles; damaged 6 trucks, 1 gun position, 4 buildings and 6 RR cars; inflicted an estimated 90 casualties upon the enemy. Highways were cratered and sowed with butterfly bombs at several points.

Five photo missions were flown for target evaluation and to complete the beach study south of Wonsan. NGF spot was flown for the forces at Wonsan and at the bombline. CAP and ASP were flown throughout the day.

A total of 102 planes was launched. The first plane was launched at 0910 and the last plane was recovered at 2358.

LTJG Gordon C. GEORGE, of VF-871, ditched his F4U in the ocean near the bombline after being hit by AA. LTJG GEORGE was recovered by the USS LOS ANGELES.

1 July -

The PRINCETON replenished at sea and then departed Task Force 77 for Yokosuka, Honshu, Japan.

2-3 July -

The PRINCETON proceeded to Yokosuka and arrived on the morning of 3 July for scheduled availability and recondition.
The PRINCETON furnished interdiction strikes in the Pukhoong, Koyo, Yangdok and Majon-ni areas along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 20 buildings, 2 gun emplacements, 4 warehouses and 3 trucks; probably destroyed 1 warehouse and 2 trucks; damaged 18 buildings and 1 tunnel. Highways were cratered and sowed with butterfly bombs at several points.

Five photo missions were flown covering enemy supply routes in central Korea and beaches south of Wonsan. Naval gunfire spot was flown for the force Wonsan. CAP and ASP were flown throughout the day.

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Commencing air operations at 0910, the PRINCETON furnished interdiction strikes in the Hamhung, Kilchu, Yangdok and Majon-ni areas and close air support along the eastern front lines. Damage inflicted upon the enemy was estimated as follows: destroyed 21 trucks, 2 gun positions, 1 command post, 9 buildings, 1 cart, 1 fuel tank, and 1 span of a RR bridge; probably destroyed 5 buildings and 3 vehicles; damaged 6 trucks, 1 gun position, 4 buildings and 6 RR cars; inflicted an estimated 90 casualties upon the enemy. Highways were cratered and sowed with butterfly bombs at several points.

Five photo missions were flown for target evaluation and to complete the beach study south of Wonsan. NGF spot was flown for the forces at Wonsan and at the bombline. CAP and ASP were flown throughout the day.

A total of 102 planes was launched. The first plane was launched at 0910 and the last plane was recovered at 2358.

LTJG Gordon C. GEORGE, of VF-371, ditched his F4U in the ocean near the bombline after being hit by AA. LTJG GEORGE was recovered by the USS LOS ANGELES.

1 July -

The PRINCETON replenished at sea and then departed Task Force 77 for Yokosuka, Honshu, Japan.

2-3 July -

The PRINCETON proceeded to Yokosuka and arrived on the morning of 3 July for scheduled availability and recreation.
It was found that it is not necessary to remove the motor-generator from its mounting on the director pedestal; the old assembly was removed and a new one installed in less than one (1) hour's time). The presence of dirt and grease was also discovered in the assembly.

c. The casualty to the Mark 56 Director was a shorted 450 volt, D.C., commutator in the motor-generator set. The short was caused by the presence of carbon between the commutator segments. The entire armature assembly had to be replaced in restoring the casualty. The presence of dirt and grease was also discovered in the armature assembly and the brush-holder assemblies.

d. Maintenance instructions for both of these types of amplydine motor-generators call for a semi-annual inspection or an inspection upon completion of 600-hours of operation in the case of the Mark 37 Director. This ship does not consider this to be a satisfactory maintenance schedule. Condition III Watches have been stood on both the Mark 37 and 56 systems on this ship throughout a seven (7) month operating period. A more frequent inspection of the above motor-generators would probably have prevented the foregoing described casualties.

c. It is therefore recommended that any ship which operates under similar conditions should inspect amplydine motor-generators monthly.

B. Fire Control Radar Maintenance Report:

(1) Examination of the BuShip Monthly Radar Performance Report indicates that very few ships employ fire control personnel to maintain their fire control radars. This function has been assigned instead to Electronic Technicians. Since the fire control organization of this ship maintains the majority of installed fire control radars, it is considered that the manner in which this was accomplished and the experience gained will prove of interest to other commands.

(2) This ship has the following Fire Control Radars presently installed:

a. Two (2) Mark 25, Mod 2 radars
b. Five' (5) Mark 34, Mod 2 radars
c. Two (2) Mark 34; Mod 3 radars
d. Two (2) Mark 35, Mod 2 radars

The Mark 35 Radars were installed as part of the GFGS Mark 56 when the ship was recommissioned in August 1950. All other radars were installed and were on board prior to June, 1949 when the PRINCETON was decommissioned.
(3) The Mark 35 Radars have been maintained by fire control personnel since installation. The original maintenance group consisted of one (1) FTC graduate of Class "B" FT school and one (1) TF3 graduate of Class "A" FT school at the General Electric Factory, Pittsfield, Mass. At the present time, both systems are in charge of an FC2 graduate of Mark 56 school who has two (2) third-class and two (2) seaman strikers under his supervision. These personnel have all been trained in maintenance of the equipment itself.

(4) There has been a minimum of casualties to the Mark 35 Radars in spite of the great number of hours they have been operated during the past seven (7) months. Below are listed the hours of operation which have occurred since installation.

<table>
<thead>
<tr>
<th></th>
<th>Forward System:</th>
<th>After System:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiate Hours:</td>
<td>411</td>
<td>309</td>
</tr>
<tr>
<td>Computer Hours:</td>
<td>451</td>
<td>331</td>
</tr>
<tr>
<td>Standby Hours:</td>
<td>2645</td>
<td>2120</td>
</tr>
</tbody>
</table>

Both radars have been out of commission at various times but for periods not longer than three (3) days at any one time. This latter condition has occurred twice (2) on the forward system, and once (1) on the after system.

(5) Both radars have been kept at peak operating performance because of the maintenance program employed. Condition III watches have been stood on the GFCS Mark 56 since last December. The watch is rotated every two (2) days between the forward and after systems. The two (2) days "off" period is used for preventive maintenance. Not only is the "Check-off List for Periodic Maintenance" given in the December, 1949 GE Ordnance Bulletin closely adhered to, but the ship also has a rigid program for checking tubes, inspecting and tightening terminal lugs, etc. This latter program was necessitated by the vibration problem present in the after radar control room which causes an abnormal amount of tube failures, plus a continual cracking and crystallization of resistors and the shorting of numerous leads. Searching and elimination of these conditions has proven that the time and effort involved is highly worthwhile. It is considered to be the only solution to proper operation of the GFCS Mark 56.

(6) Until recently, all Mark 34 and 25 Radars were maintained by Electronics Technicians.
Due to the fact that these radars are operated solely by fire control personnel, it was decided that the latter should perform all maintenance on them. One (1) FTSN, a graduate of a Class "A" FT School and one (1) FC3 were assigned to work with the ET's on the Mark 34 Radars while one (1) FC3 and one (1) SN were assigned to assist in the maintenance of the Mark 25 Radars. Both "on-the-job" and "formal" training programs were set up. In less than six (6) weeks time, the Mark 34 Radars were being maintained solely by fire controlmen. This released three (3) ET's for other work. At present, one (1) ET is used with the two (2) fire controlmen in maintenance of the Mark 25 Radars.

(7) Although there was a shortage of trained personnel for fire control radar maintenance, i.e., FT School Graduates, the above program was inaugurated without encountering any major problems. It demanded much concentration and instruction, plus a high degree of enthusiasm. The FTC placed in charge of fire control radar maintenance has been largely responsible for its success. A rotation plan to send fire control personnel to FT School has been inaugurated. FT Graduates will be used primarily for fire control radar maintenance upon their return to this command.

(8) The conclusions reached therefore are:

a. Fire Control Radars can and should be maintained by fire control personnel.

b. It is not mandatory to have qualified FT's. Qualified FT's are necessary only to inaugurate a fire control radar maintenance program including the instruction required to qualify additional fire controlmen as necessary to implement the program.

c. Operating performance of the fire control radars has definitely improved since being maintained by fire control personnel.

d. Inauguration of a long range training program is considered a must and involves keeping personnel in school at all times.

e. Continual preventive maintenance is the only solution to complete and constant combat readiness.

C. Deck Evolutions:

Deck evolutions (i.e., fueling, ammunition replenishing, etc.) during the period of this report were conducted under excellent operational conditions.
The operations of the task force require many transfers at sea from the fantail (frame 207), the aft transfer station, and the forward burtoning station. These evolutions have been executed with the minimum amount of difficulty and an insignificant number of material failures. Due to constant inspection and immediate repair of all equipment, the deck gear has been ready for immediate use at all times.

D. Ammunition Expended: during period of this report.

<table>
<thead>
<tr>
<th>Bombs</th>
<th>Fuzes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 lb GP</td>
<td>AN-M103A1 213</td>
</tr>
<tr>
<td>1000 lb GP</td>
<td>AN-M139A1 2693</td>
</tr>
<tr>
<td>500 lb GP</td>
<td>AN-M140A1 12</td>
</tr>
<tr>
<td>250 lb GP</td>
<td>AN-M168 3916</td>
</tr>
<tr>
<td>100 lb GP W/F</td>
<td>AN-M100A2 6002</td>
</tr>
<tr>
<td>350 lb DB</td>
<td>AN-M101A2 406</td>
</tr>
<tr>
<td>220 lb Frag</td>
<td>AN-M102A2 537</td>
</tr>
<tr>
<td>260 lb Frag</td>
<td>M115 24</td>
</tr>
<tr>
<td>500 lb Cluster M28</td>
<td>M116 18</td>
</tr>
<tr>
<td></td>
<td>M117 7</td>
</tr>
<tr>
<td></td>
<td>AN-Mk230 4</td>
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<tr>
<td></td>
<td>M157 1364</td>
</tr>
<tr>
<td></td>
<td>M146 156</td>
</tr>
</tbody>
</table>

Napalm

| Jap Manufactured Napalm Tanks | 625 |
| Napalm Thickener              | 29890 |

Aircraft Ammunition

| 20MM Aircraft | 114907 |
| Calibre .50   | 472665 |
| A/G Parachute |       |
| Flares Mk 6   | 196    |

Rockets

| 3"5 Head Mk 8 | 6 |
| 3"25 Motor    | 10 |
| 5"0 Head Mk 6 | 636 |
| 6"5 Head      | 319 |
| 5"0 Motor     | 987 |
| Fuze Rocket Mk 149 | 637 |

PART IV Resume of Battle Damage - Own and Enemy:

A. Own:

1. The ship sustained no battle damage.
2. Damage sustained by Air Group NINETEEN was:
Failed to return to friendly base

<table>
<thead>
<tr>
<th>Type A/C</th>
<th>Damaged beyond local repair transferred or held for repair elsewhere</th>
<th>Jettisoned or salvaged after return to base</th>
<th>Damaged from mission, repaired OB</th>
</tr>
</thead>
<tbody>
<tr>
<td>F9F</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>F1U-4</td>
<td>2</td>
<td>0</td>
<td>33</td>
</tr>
<tr>
<td>AD-4</td>
<td>3</td>
<td>1</td>
<td>30</td>
</tr>
</tbody>
</table>

B. Enemy:

<table>
<thead>
<tr>
<th>TARGETS</th>
<th>DESTROYED</th>
<th>PROB. DEST.</th>
<th>DAMAGED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammo Dumps</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Barracks</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Buildings</td>
<td>260</td>
<td>109</td>
<td>43</td>
</tr>
<tr>
<td>Command Post</td>
<td>1</td>
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<td>1</td>
</tr>
<tr>
<td>Factories</td>
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<td>3</td>
</tr>
<tr>
<td>Field Pieces</td>
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<td>1</td>
</tr>
<tr>
<td>Fuel Dumps</td>
<td>6</td>
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</tr>
<tr>
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<td>56</td>
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<tr>
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</tr>
<tr>
<td>Junks</td>
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<td>0</td>
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</tr>
<tr>
<td>Locomotives</td>
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<td>3</td>
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<tr>
<td>Lumber Stacks</td>
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<tr>
<td>Motor Trawler</td>
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<tr>
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<td>Pack Animals</td>
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</tr>
<tr>
<td>RR Bridges</td>
<td>37</td>
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<td>34</td>
</tr>
<tr>
<td>RR Cars</td>
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<td>48</td>
<td>150</td>
</tr>
<tr>
<td>RR Tracks (outs)</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sampans</td>
<td>19</td>
<td>4</td>
<td>26</td>
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<tr>
<td>Supply dumps</td>
<td>17</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Tanks</td>
<td>3</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Trucks</td>
<td>46</td>
<td>14</td>
<td>35</td>
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<tr>
<td>Troops</td>
<td>620</td>
<td>325</td>
<td>0</td>
</tr>
<tr>
<td>Tunnel (entrance)</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Vehicles</td>
<td>5</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>Warehouses</td>
<td>12</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

PART V Personnel, Performance, and Casualties:

A. Casualties:

1. Ship's Company:

CONFIDENTIAL
Harry D. NUTT AM2A - Fatally Burned
Richard ROTZELLA BM3 - Fatally Burned
Frank HROVAT AB3 - Critically Burned
William H., CORNELLUS SA - Minor Burns
Morrie G. SNEILING GTM1 - Minor Burns
William E. FLANNERY AN - Minor Burns
John HENDERSON SA - Minor Burns
George L. ROBBINS, Jr. ABAN - Minor Burns

The above casualties were the result of the F9F crash of 5 June.

2. Air Group NINETEEN:

16 May: The first casualty suffered by the new Air Group NINETEEN was LT H.M. HAWKINS of VF-87L who was lost after bailing out of his F4U on 16 May. This casualty was reported in the 16 April - 22 May Action Report and is included in this report because LT HAWKINS was a member of the new Air Group NINETEEN.

5 June: Ensign Phillip S. RANDOLPH, Jr., 507825/1310 of VF-23 hit the ramp in his F9F on a late afternoon recovery. His plane exploded on impact and his body was not recovered.

10 June: Commander Charles R. STAPLER, 82333/1310 and Raymond L. BLAZEVIC, ATL, 870-41-43, crewman, were shot down by enemy AA while on a pre-dawn 'heckler' mission. Commander STAPLER bailed out of his AD4Q and was seen to land uninjured but BLAZEVIC was not seen to leave the plane. Commander STAPLER and BLAZEVIC are listed as missing.

20 June: Lieutenant Royce (n) CARRUTH, 363563/1315, of VF-82L was shot down in his F4U-4 by AA fire and was not seen to bail out. The plane crashed and exploded on impact.

24 June: Commander R.C. MUELLER, 85350/1310 of VF-23 was slightly injured by shrapnel and shattered plexiglass about the arms and face when enemy AA holed the canopy of his F9F while on a recon mission over Korea.

28 June: LTJG Harley S. HARRIS, 513064/1310 of VA-55 was shot down over Korea in his AD during a strafing run. The plane burned on impact and LTJG HARRIS is presumed dead.

B. Performance:

The performance of personnel during the period of this report was excellent.
The following dispatches were received that commended the performance of pilots and units of this Air Group during this period:

1. COMCRUDIV 5 Restricted dispatch 230821Z of June 1951 to CTF 77: "THE PROMPT ACTION OF PASSBOOK 23 AND PASSBOOK 3005 WAS WONDERFUL TO BEHOLD X THE DOWNED YOUNG PILOT OWES HIS LIFE TO THEIR EXCELLENT PERFORMANCE OF DUTY".

2. CTF 77 dispatch 060930Z of June 1951 to USS PRINCETON CV-37. "LIEUT TAYLOR FLIGHT LEADER OF HIWAY INTERDICTION STRIKE TODAY DID EXCELLENT JOB OF LEADING HIS FLIGHT THROUGH DIFFICULT WEATHER TO ASSIGNED TARGET AREA AND DISPLAYED THOROUGH WORKMANSHIP IN BRIDGE BUSTING AND ROAD CRATERING".

PART VI Special Comments:

A. Aerology:

Climatological data indicated that the summer months offered poorer flying conditions in the Korean area than any other season; and the first two weeks of June lived up to what had been expected. However, the last two weeks of June offered some excellent flying conditions.

On the whole, ceilings were lower (due to terrain features) and visibility poorer (due to smoke and haze) over the target areas than in the operating area. The mobility of the force enabled it to avoid the frequent fog patches and shower areas off the Korean NE coast.

Data for the period of this report:

- Maximum Temperature: 79°F
- Minimum Temperature: 55°F
- Average Temperature: 67°F
- Maximum Water Temperature: 72°F
- Minimum Water Temperature: 54°F
- Average Water Temperature: 65°F
- Maximum Wind Velocity: 35 kts
- Minimum Wind Velocity: CALM
- Average Wind Velocity: 11 kts
- Prevailing Wind Direction: SSW

B. Navigation:

Horizons for celestial observations continued generally poor during the period of this report causing a good deal of scatter in the star sights that were obtained.
The DEE Loran plus radar ranges proved to be the primary means of determining position because of the generally poor horizons mentioned in the above paragraph. The DEE operated perfectly throughout the period indicating that the extensive work performed on the equipment prior to the period of this report had produced results.

C. Air Group NINETEEN:

1. Tactics:

   a. For better control of departing flights the Group adopted the procedure of taking departure as a single unit and then detaching on their separate missions upon making a landing. This cleared the scopes in CIC and made for better flight discipline and control.

   b. The policy of complete flak suppression during napalm drops was practiced with favorable results, i.e., none of our aircraft was lost on napalm runs during this period. The procedure we followed was to utilize the F4U-4 with its 6-50 calibre machine guns as a strafing weapon immediately prior to napalm run and then use 2 F4U flying loose wing on the aircraft making the drop, all aircraft strafing during the run.

2. General Topics:

   a. Our striking power with the F4U-4 is jeopardized by the lack of sufficient bomb racks for the rocket stations. The Mk 5 bomb adapters we have on hand are not satisfactory due to their age and lack of selective arming. We should have 8 for each F4U-4 aboard, total 256, but at present have only 75; many of which fail in flight and cause hung bombs to be brought back aboard. To remedy this situation VF-521 has developed a field fix for the rack to allow for selective arming which had been submitted for approval through the chain of command.

   b. VA-55 has developed the use of the K-25 package camera by installing it on the outer station of the starboard wing of their AD's. This camera has provided some fine strike damage photos.

D. Air Department:

1. Deck Handling:

   Catapult operations for this period were the heaviest encountered thus far this cruise, due to an increased use of jets. Catapult shots by type were: 668 F9F, 82 AD, 77 F4U, and 10 TBM; totaling 837 compared with 531 for heaviest previous period.

   Following a pre-dawn launch on the morning of 10 June 1951,
an F4U-5NL was flown into the water approximately 1/2 mile ahead of the ship. The plane was carrying two droppable fuel tanks and burst into flames upon contact with the water. The pilot was recovered very shortly thereafter by plane guard destructor with only minor injuries.

The jet blast deflectors have been used for all jet launches since installation of new type inserts on 15 May 1951. The inserts have been subjected to 563 full power blasts for a total time of 139 minutes and 9 seconds on the port and 486 full power blasts for a total time of 89 minutes and 45 seconds on the starboard. The new type inserts are highly satisfactory, with no noticeable structural defects to date.

Deck launches for this period by type were: 839 F4U, 527 AD, and 19 TBM; totalling 1385. Lighter winds were encountered this period necessitating longer deck runs for heavily loaded aircraft. Deck runs up to 800 feet were given AD type aircraft loaded for bridge strikes when wind was 30 knots or slightly less.

 Arrested landings for this period by type were: 674 F9F, 915 F4U, 615 AD, and 29 TBM; totaling 2,233 with only minor repairs to the machinery necessary.

During this period, the PRINCETON experienced her most serious accident since recommissioning. On the evening of 5 June 1951 with the sun low on the horizon and directly ahead of the ship, an F9F settled in the groove and received an early wave-off from the landing signal officer. The pilot failed to take the wave-off until late in the approach, at which time the plane was low and slow. The plane hit the starboard side of the ramp about amidships of the aircraft and exploded, starting a large fire on the after starboard side of the flight deck, the catwalk and fantail. The pilot was not recovered. Eight (8) flight deck personnel were injured, two (2) of whom later succumbed to extreme second and third degree burns. Repair Eight and Repair One fire fighting crews did an excellent job of extinguishing the intense fire and cleaning away debris. Remaining airborne aircraft were given a "charlie" nine (9) minutes after the tragic accident occurred. Enlarged photographs of the accident have been placed on the fantail below stenciled warnings (previously posted) as a grim reminder to personnel of the hazards of "sky larking" on the fantail during landing operations. This accident emphasizes the necessity for all flight deck personnel to wear full clothing (sleeves rolled down, helmets fastened, gloves on, etc.) during flight operations as protection against flash fires. Most of the burns suffered
in this accident were on normally exposed skin areas such as face, neck and wrists. The most severely burned had their clothing burned off to a large extent. Others escaped more serious injury because they were wearing their required clothing in a proper manner. It is mandatory that all personnel on the flight deck keep sleeves rolled down and helmets fastened while landing or launches are being conducted.

On the afternoon of 29 June, one (1) F9F landed in a violent skid causing starboard landing gear to collapse.

2. Aircraft Servicing - Ordnance:

Experiments were conducted in mixing napalm with the idea of eliminating or reducing the use of xylenol during warm weather. It was determined that to obtain the proper gel and the necessary speed of gel formation, approximately the same quantity (3/4ths of 1% by volume) of xylenol is required REGARDLESS OF THE WEATHER CONDITIONS. To obtain the consistency of gel desired, the quantity of napalm powder will vary from 4.5% to 6% by weight depending on the quality of the powder mix.

The specially constructed napalm jettisoning chute at the after port corner of the flight deck is being improved. Thin metal tanks tend to flatten out and engage the knife edge at the bottom of chute at a speed too slow to split the tank sufficiently. The new chute will have rollers and be three (3) feet longer, which will enable the tank to gain speed before engaging the knife edge, resulting in complete splitting and sinking of the tank.

A Mk 24 mine was accidentally released from a Douglas Bomb Ejector during a catapult shot and pulled over the side by the tail of the aircraft, resulting in a major overhaul for the aircraft and a lost mine. The cause of the accidental release was undetermined, but is believed due to inertia of worn, moving parts of the ejector.

Due to several instances of pilots inadvertently returning to the ship with hung ammo on main bomb racks, especially at night, it is again recommended that a separate manual release be installed for the Douglas Bomb Ejector and the two (2) Mk 51 wing racks in the AD type aircraft. With the present Salvo release, no control is retained over the separate racks and all three stations must be released in order to jettison load on any one rack. For night work especially, it is desirable to actuate the manual release on all stations loaded with ordnance items prior to
landing aboard. The standard policy of manually clearing all main racks that contain ordnance items prior to landing aboard could be more practically enforced (without unnecessarily jettisoning external fuel tanks), if this change is incorporated.

As on past cruises, several items of hung ordnance tore off on arrested landings of aircraft. The bomb disposal crews stationed at strategic locations on the flight deck, properly disposed of the damaged ordnance items in a speedy and efficient manner, without injury to personnel or damage to the ship.

Pictures of hydraulic lift for external gas and napalm tanks (described in Action Report for period 16 April - 22 May) are included as enclosure (1) to this report. This lift, designed and fabricated by ship's personnel has been of great value in transferring full tanks from one aircraft to another. Not one case of ruptured tanks has been experienced during transfer while using this lift. One of the most desirable and useful features of this lift is that tanks may be removed from AD aircraft and reinstalled on F4U's in one simple operation, due to variable height and tilt of the lift.

### 3. Accumulation of Ammunition Expended 12/5/50-7/3/51:

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<td>Mine MK 24</td>
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Accumulation of Ammunition Expended (Cont’d)

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<td><strong>Total Weight</strong></td>
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Copies to:

CNO (advancd) (1)
CinCPacFlt (3)
ComNavFE (2)
Com7thFlt (1)
ComAirPac (10)
CTF 77 (1)
ComCarDiv THREE (1)
ComCarDiv FIVE (1)
CO, USS PHILIPPINE SEA (1)
CO, USS BOXER (1)
CO, USS BON HOMME RICHARD (1)
CO, USS ESSEX (1)
CAG 5 (1)
CAG 19 (5)
CAG 101 (1)
CAG 102 (1)
CinCPac Eval Grp (5)
From: Commanding Officer, U.S.S. PRINCETON (CV-37)
To: Chief of Naval Operations
Via: (1) Commander Carrier Division FIVE
     (2) Commander Task Force SEVENTY-SEVEN
     (3) Commander SEVENTH Fleet
     (4) Commander Naval Forces, Far East
     (5) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 12 July 1951 through 12 August 1951

Ref: (a) CNO rest ltr Op 345 ser 1197P34 of 3 August 1950

1. In accordance with reference (a) the action report for the period 12 July 1951 through 12 August 1951 is hereby submitted.

PART I Composition of Own Forces:

Pursuant to CTF 77 confidential dispatch 072136Z of July 1951, the USS PRINCETON (CV-37), with ComCarDiv FIVE and CVG NINETEEN embarked, departed Yokosuka, Honshu, Japan and proceeded to the operation area. On 14 July the PRINCETON rendezvoused with Task Force 77.

Task Force 77 was composed of three aircraft carriers, the USS PRINCETON (CV-37); the USS BOXER (CV-21), and the USS BON HOMME RICHARD (CV-31), along with various heavy support and screening ships.

During the evening of 14 July ComCarDiv FIVE assumed command of Task Force 77, relieving ComCarDiv THREE.

MISSION:

The mission of this force, as set forth in CTF 77 Operations Order No. 22-51, was to perform close air support, reconnaissance, interdiction, and air bombardment missions in order to effectively support United Nations ground operations.
Four photo missions were flown for target evaluation and damage assessment. Naval gunfire spot was flown for the forces at Wonsan. CAP and ASP were flown throughout the day.

A total of 93 planes was launched. The first plane was launched at 0800 and the last plane was recovered at 2338.

17 July

In a continuing effort to stop the enemy supply activities, the Princeton furnished interdiction strikes in the Songjin, Singosan, Yangdok, and Majon-ri areas. Close air support was also furnished the Eighth Army along the central front lines. Damage inflicted upon the enemy was estimated as follows: destroyed 10 to 12 buildings, 2 vehicles, 2 mortar positions, 1 artillery position, and 1 ammunition dump; probably destroyed 2 mortar positions; damaged 4 buildings. Three railroad bridges were made impassable while railroad tracks were broken at one point and highways were cratered at several points.

Four photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces at Wonsan. CAP and ASP were flown throughout the day.

A total of 63 planes was launched. The first plane was launched at 0845 and the last plane was recovered at 2351.

18 July

The Princeton furnished interdiction strikes in the Wonsan, Kilchu, Yangdok, and Majon-ri areas along with close air support in the Kumsong area. Damage inflicted upon the enemy was estimated as follows: destroyed 8 gun positions, 1 railroad car, 1 supply pile, 1 oxcart, 9 buildings, 4 trucks, and 1 vehicle; probably destroyed 3 buildings, 1 mortar position, 1 truck and 2 vehicles; damaged 6 gun positions, 5 railroad cars, 4 boats, and 3 trucks. Three railroad bridges were made unusable and railroad tracks were damaged at two points. One highway bridge was damaged and highways were cratered and sowed with butterfly bombs at several points.

Three photo missions were flown over key bridges along enemy supply routes in northeastern Korea. Naval gunfire spot was flown for the forces in Wonsan. CAP and ASP were flown throughout the day.
PART II  Chronological Order of Events:

12 - 13 July

The USS PRINCETON departed Yokosuka, Honshu, Japan for the operation area. Bad weather forced the cancellation of scheduled gunnery practice and refresher flights.

14 July

The USS PRINCETON rendezvoused with Task Force 77. Scheduled afternoon strikes were cancelled due to unfavorable weather conditions.

15 July

Commencing air operations at 0830, the PRINCETON furnished interdiction strikes in the Hongwon and Tanchon areas. Strikes inflicted damage upon the enemy estimated as follows: destroyed 7 buildings and damaged 7 railroad cars. Highways were cratered at several points.

Two photo missions were flown for target evaluation. CAP and ASP were flown throughout the day.

A total of 50 planes was launched. The last recovery was made at 2032.

LTJG V. H. SCAFFER, Jr., of VF 821, parachuted from his F4U offshore in the vicinity of Kangnung. He was forced to leave the plane when his wheels would not lower and hung ordnance made a wheels-up landing impossible. He was recovered by a small boat from the beach.

16 July

The PRINCETON furnished interdiction strikes in the Yonghung area and strikes on Hodo Pando in support of United Nations surface forces laying siege to Wonsan. Damage to the enemy was estimated as follows: destroyed 11-13 buildings, 9 gun positions, 4 trucks, 1 command post, 8 railroad cars and one group of dummy trucks and guns; damaged 4 ox carts, 8 buildings, 2 gun positions, 3 trucks, and 4 railroad cars; inflicted an estimated 13 casualties upon the enemy. Highways were cratered and sowed with butterfly bombs at several locations.
A total of 107 planes was launched. The first plane was launched at 0845 and the last plane was recovered at 2338.

LT Frank MARTIN III, of VF 871, was lost when his F4U failed to complete the pull-up from a napalm run. The plane crashed and burned at CT 805440.

19 July

The USS PRINCETON replenished at sea.

20 July

Inclement weather forced the cancellation of all air operations.

21 July

Inclement weather over the target area restricted air operations to CAP, ASP, weather recce and target towing missions. The PRINCETON conducted AA firing practice during the afternoon.

A total of 26 planes was launched. The first plane was launched at 0600 and the last plane was recovered at 1933.

22 July

Launching the first plane at 0415, the PRINCETON furnished interdiction strikes in the Wonsan, Sepo-ri, Yangdok and Majon-ni areas, along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 3 railroad cars, 1 oxcart, 19-24 buildings, 1 gun position, and 1 warehouse; probably destroyed 1 oxcart, 15 buildings, and 5 warehouses; damaged 12-13 buildings; inflicted an estimated 60 casualties upon the enemy. Three highway bridges were made unusable and one railroad bridge was destroyed. Railroad tracks were damaged at one point and highways were cratered and sowed with butterfly bombs at several points.

Four photo missions were flown for damage assessment and for target evaluation. Naval gunfire spot was flown for the forces at Songjin. CAP and ASP were flown throughout the day.

A total of 100 planes was launched. The last plane was recovered at 1758.
Ensign John P. MOODY, Jr., of VF 871, was lost when his F4U exploded and burned after being hit by AA fire at CT 7952. The pilot was not seen to leave the plane.

23 July

The PRINCETON furnished interdiction strikes in the Hodo Pando, Singosan, Yangjok and Majon-ni areas, along with close air support along the eastern front lines. Damage inflicted upon the enemy was estimated as follows: destroyed 38 buildings, 2 vehicles, 2 trucks, 1 gun position, 1 warehouse, and 4-6 fishing boats; probably destroyed 2 buildings; damaged 15 buildings, 1 armored vehicle, 1 truck, and 2 ox carts. Several spans of 2 highway and 2 railroad bridges and the approaches to 2 railroad bridges were destroyed. Highways were cratered and sowed with butterfly bombs at several points.

Four photo missions were flown for target evaluation and damage assessment. Naval gunfire spot was flown for the forces at Songjin. CAP and ASP were flown throughout the day.

A total of 95 planes was launched. The first plane was launched at 0430 and the last plane was recovered at 1955.

24 July

The PRINCETON, making use of the continuing good weather, pounded the enemy with interdiction strikes in the Kowon, Tongchon, Yangjok, and Majon-ni areas along with close air support along the eastern front lines. Damage inflicted upon the enemy was estimated as follows: destroyed 8 buildings, 7-11 trucks, 2 warehouses, 8 ox carts, and 17 oxen; probably destroyed 1 truck and 2 vehicles; inflicted an estimated 35 to 55 casualties upon the enemy. Several spans were knocked out of 2 highway bridges and the approaches to 2 highway bridges were destroyed. The approaches to 2 railroad bridges were also destroyed. Highways were cratered and sowed with butterfly bombs at several points.

Five photo missions were flown covering enemy supply routes in northeast Korea. Naval gunfire spot was flown for the forces at Songjin. CAP and ASP were flown throughout the day.

25 July

The USS PRINCETON replenished at sea.
26 July

Attempting to maintain breaks in the enemy supply routes, the PRINCETON furnished interdiction strikes in the Songjin, Kowoh, Yangdok, and Majon-ni areas along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 1 vehicle, 3 buildings, 1 gun position and 1 railroad car; probably destroyed 5 vehicles, 1 building, 20-30 oxecarts, 1 troop shelter and 1 railroad car; inflicted an estimated 10 casualties upon the enemy. Railroad tracks were destroyed at 1 point and damaged at 2 points. Two railroad bridges and the approach to one highway bridge were damaged. Highways were cratered and sowed with butterfly bombs at several points.

Three photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces at Songjin and Wonsan. CAP and ASF were flown throughout the day.

A total of 97 planes was launched. The first plane was launched at 0900 and the last plane was recovered at 2312.

27 July

The PRINCETON furnished interdiction strikes in the Songjin, Modo Pando, Singosan, Yangdok, and Majon-ni areas, along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 3 trucks, 35-47 buildings, 1 supply pile, 12-18 oxen, 6 oxecarts, 1 gun position, 8 vehicles, 2 mulcs, and 1 sampan; probably destroyed 1 building and 1 warehouse; damaged 6 buildings, 1 vehicle and 2 sampans; inflicted 5 casualties upon the enemy. Two railroad bridges were destroyed and a third was damaged beyond use. Two highway bridges were also destroyed. Highways were cratered and sowed with butterfly bombs at several points.

Four photo missions were flown for target evaluation. Naval gunfire spot was flown for the forces at Wonsan and Songjin. CAP and ASF were flown throughout the day.

A total of 96 planes was launched. The first plane was launched at 0900 and the last plane was recovered at 2400.

ENS Robert A. BEAVERS, of VA 55, ditched his AD in the ocean near Kosong after the plane had lost oil pressure. ENS BEAVERS was recovered safely.
LT W.L. KILLINGSWORTH, of VF 371, ditched his F4U at CU 8244 after his plane's rudder control surfaces had been shot away by AA. The pilot was recovered by helicopter from TE 95.21.

28 July

The PRINCETON continued to harass the enemy with interdiction strikes in the Iwon and Majon-ni areas. Damage inflicted upon the enemy was estimated as follows: destroyed 18 trucks, 5 railroad cars; 3 vehicles, 7 oxcarts and 5 oxen; probably destroyed 10 trucks, 2 gun positions, and 1 oxcart; damaged 8 trucks and 1 locomotive. One railroad bridge was destroyed and another was damaged. A railroad tunnel and a mine were seeded with delay fused bombs.

Two photo missions were flown for damage assessment. Naval gunfire spot was flown for the forces at Songjin. CAP and ASP were flown throughout the day.

A total of 57 planes was launched. The first plane was launched at 0900 and the last plane was recovered at 2000.

LTJG B.B. LLOYD, of VF 23, was lost when his F9F crashed and burned at CU 3830 after being hit by AA fire. The pilot was not seen to leave the plane. Later strikes searched the area unsuccessfully for evidence of LTJG LLOYD.

29 July

The USS PRINCETON replenished at sea. Upon the completion of replenishment AA firing was conducted.

30 July

The PRINCETON furnished interdiction strikes in the Kilchu, Pyongchon, Yangdok and Majon-ni areas, along with close air support for United Nations Forces along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 1 ammunition dump, 2 supply piles, 9 buildings, 5 trucks, 6 oxcarts, 10 railroad cars and 1 oxen; probably destroyed 8 camouflaged supply piles; damaged 4 trucks, 4 oxcarts and 3 railroad cars; inflicted an estimated 57-65 casualties upon the enemy. Two spans were knocked out of one railroad bridge and two other railroad bridges were damaged. Railroad tracks were broken at 3 points and highways were cratered and sowed with butterfly bombs at several points.
Three photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces at Wonsan. CAP and ASP were flown throughout the day.

A total of 88 planes was launched. The first plane was launched at 0430 and the last plane was recovered at 1721.

LTJG Donald V. RAY, of VF 821, was lost when his F4U crashed shortly after take-off. The area of the crash was searched but the pilot was not recovered.

31 July

Inclement weather limited air operations to weather recco, ASP and tow planes for AA practice firing. The PRINCETON replenished during the morning. During the afternoon eight planes were launched. The first plane was launched at 1230 and the last plane was recovered at 1923.

1 August

Bad flying conditions again limited air operations to weather recco and ASP flights. A total of 4 planes was launched. The weather recco destroyed 2 trucks, damaged 2 other trucks and destroyed 1 oxcart in the Majon-ni area. The first plane was launched at 1530 and the last plane was recovered at 1830.

2 August

Inclement weather conditions restricted air operations. One event containing 24 planes was launched at 0845. This launch included an interdiction strike in the Majon-ni area, a close air support mission along the eastern front lines, and an ASP flight. Damage inflicted upon the enemy was estimated as follows: destroyed 4-6 gun positions, 1 supply dump, 3 buildings, 2 trucks, and 5 vehicles; probably destroyed 1-3 gun positions and 2 trucks; damaged 3-5 vehicles.

After taking off, the weather closed in over the force and forced all planes to land at K-18. The planes returned aboard after the weather cleared during the afternoon. The last plane was landed at 1703.

3 August

Inclement weather again forced a delay in flight operations. A weather recco was launched at 0730, but not until 1630 was the only strike of the day launched. Hitting near Sinchang and along
the eastern front lines, the strike inflicted damage to the enemy estimated as follows: destroyed 1 artillery piece, 1 gun position and 3 buildings; damaged 2 buildings; broke railroad track at 2 points.

A total of 26 planes was launched. The last plane was recovered at 2018.

4 August

With clearing weather, the PRINCETON furnished interdiction strikes in the Hongwon, Myongchon, Yangdok and Majon-ni areas along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 25-34 buildings, 2 oxen, 1 truck, and 1 supply dump; probably destroyed 2 ox carts, 1 truck and 1 jeep; damaged 2 ox carts, 13 buildings and 1 gun position; inflicted an estimated 3 casualties upon the enemy. Railroad tracks were broken at 4 points. Several spans were dropped on 3 railroad bridges and the approaches were damaged on 3 others. Three highway bridges were damaged and highways were cratered and sowed with butterfly bombs at several points.

Four photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces at Wonsan. CAP and ASP were flown throughout the day.

A total of 98 planes was launched. The first plane was launched at 0915 and the last plane was recovered at 0019.

5 August

During the morning, the PRINCETON replenished. Upon completion of replenishment, the PRINCETON commenced air operations in order to take advantage of the good weather.

Interdiction strikes in the Sinpo area and close air support along the eastern front lines inflicted damage upon the enemy estimated as follows: 4 trucks destroyed, 1 truck probably destroyed, 2 gun positions damaged and RR track broken at 5 points.

Two photo missions were flown for target evaluation. Naval gunfire spot was flown for the forces at Wonsan. CAP and ASP were flown throughout the afternoon.

A total of 37 planes was launched. The first plane was launched
at 1600 and the last plane was recovered at 2345.

6 August

The PRINCETON furnished interdiction strikes in the Kilchu, Kowon, Yangdok and Majon-ni areas along with close air support along the eastern front lines. Damage to the enemy was estimated as follows: destroyed 5 bunkers, 7-8 buildings, 1 gun position, 2 oxen, and 1 truck; probably destroyed 1 RR car, 1 building, 1 vehicle and 2 trucks; damaged 13 railroad cars, 1 locomotive, and 2 guns positions; inflicted an estimated 35 casualties upon the enemy. One span was destroyed in each of 2 railroad bridges and the approaches were damaged to 3 RR bridges. One span was destroyed in a highway bridge, 1 span was probably destroyed in another highway bridge and the approaches to a third highway bridge were damaged. Highways were cratered and sowed with butterfly bombs at several points.

Three photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces at Wonsan. GIP and ASF were flown throughout the day.

A total of 89 planes was launched. The first plane was launched at 0915 and the last plane was recovered at 2344.

7 August

The PRINCETON furnished interdiction strikes in the Kilchu, Songjin, Kowon and Majon-ni areas. Damage to the enemy was estimated as follows: destroyed 4 trucks, 2 warehouses, 4 vehicles, 19-22 buildings, 4 oxen, 2-8 mortar positions, 7 railroad cars, 6-7 supply piles, and 1 camouflaged object; probably destroyed 3 buildings and 4 supply piles; damaged 2 trucks, 2 warehouses, 1 gun position, 2 vehicles, 5 ox carts and 12 railroad cars. One span was destroyed in each of two railroad bridges and a third railroad bridge was damaged. Railroad tracks were broken at one point. Two to four spans of one highway bridge were destroyed, one span was destroyed in a second highway bridge and a highway bridge bypass was destroyed. Highways were cratered and sowed with butterfly bombs at several points.

Four photo missions were flown over northeastern Korean supply routes. Naval gunfire spot was flown for the forces at Wonsan. GIP and ASF were flown throughout the day.

A total of 101 planes was launched. The first plane was launched at 0915 and the last plane recovered at 2245.
LTJG D.J. TEMPESTON, attached to CVG 19 Staff, ditched his AD in Wonsan Harbor after being hit by AA fire. The pilot was recovered by surface craft and returned to the PRINCETON.

8 August

Inclement weather conditions forced the cancellation of the regular flight schedule, and the PRINCETON replenished at sea. Upon the completion of replenishment, a weather recco and ASP flights were launched. The weather recco, covering from Wonsan to Hamhung, destroyed 10 trucks and damaged 10 trucks.

A total of 4 planes was launched. The first plane was launched at 1230 and the last plane was recovered at 1601.

9 August

The PRINCETON furnished interdiction strikes in the Kilchu, Wonsan, Iwon, Yangdok and Majon-ni areas. Damage to the enemy was estimated as follows: destroyed 2 trucks, 2 railroad cars, 6 buildings, 4 oxen, 1 oxcart, 3 warehouses and 6-7 supply piles; damaged 2 railroad cars, 6 oxcarts and 1 factory type building; inflicted 6 casualties upon the enemy. Two railroad bridges were destroyed and two others were damaged. Five highway bridges were made unusable and 5 others were damaged.

Three photo missions were flown for damage assessment and target evaluation. Naval gunfire spot was flown for the forces at Wonsan. CAT and ASP were flown throughout the day.

A total of 93 planes was launched. The first plane was launched at 0615 and the last plane was recovered at 1704.

LTJG J.C. HUGHES, Jr., of VF 821, was lost when his F4U crashed and exploded at CU 520395 after being hit by AA fire.

10 August

The PRINCETON furnished close air support along the eastern front lines and armed recco of east coastal supply routes. These flights destroyed 1 railroad car and 1 AA position, damaged 1 railroad car and 10 AA positions, and broke RR track at 1 point.

A total of 22 planes was launched. The first plane was launched at 0500 and the last plane was recovered at 0914.
Upon the completion of flight operations, the PRINCETON departed Task Force 77 for Yokosuka, Honshu, Japan.

11-12 August

The PRINCETON proceeded to Yokosuka conducting AA firing practice enroute. On 12 August the PRINCETON arrived Yokosuka, Honshu, Japan.

PART III - Performance of Ordnance Material and Equipment:

A. General Comments:

The performance of the ship's ordnance equipment was generally less proficient than during similar previous periods of operation. A flux of serious casualties occurred which resulted in one or more major units of the ship's armament to be totally or partially out of commission during the entire period of this report.

Two quad 40MM mounts, a 5"/38 twin, and a 5"/38 single suffered serious hydraulic casualties in the form of blown seals. Other hydraulic leaks occurred which were a continual maintenance problem. All mounts on which these casualties occurred have either frequent or constant use as "ready" mounts during Condition III gun watches.

The most serious casualty of the period (and most costly — $14,000) was a faulty gyro in Director #54, the director for the Mk. 56 GFCS located on the port quarter. As in past casualties on this system, the failure of the gyro is attributed to the excessive vibration to which this equipment is constantly subjected (previous Action Reports have referred to a constant maintenance problem presented by the vibration of the ship at high speeds). It is considered noteworthy that the ship's fire controlmen were able to replace the defective gyro underway satisfactorily.

An increased number of minor casualties also occurred during the period covered by this report which were attributed directly to the additional operation of the equipment in July. These casualties were in the nature of failures and malfunctions in the 20MM and 40MM extractors and 20MM face pieces.

B. Fire Control Radar Maintenance Report:

Report on Bakelite Type Switches in Computers Mk. IA:

This ship has experienced three casualties to bakelite type switches in the Computer Mk. IA since recommissioning.
The latest casualty was the disintegration of the "Hand-Auto on Switch", Ordn Dwg #209480-9. The bottom part of the switch had broken apart in Computer #4. Fortunately no parts fell into the computer unit. All of these casualties have been in the nature of disintegration of the bakelite type material.

The bakelite type material appears to have become more fragile than is characteristic of the material normally. At present there is no positive indication as to the cause of the casualties, but their replacement by switches constructed of different material - less fragile particularly - is recommended. It has been suggested that the preservation measures taken during the period of inactivation of this ship may be instrumental in causing these casualties. At present there is no evidence to support this claim or are adequate means available to make appropriate tests.

Report of casualties to Gun Sights Mk. 20 as a result of jet aircraft warm-up:

During flight operations it has been a practice of the Air Department to "Spot" one (1) F9F "Panther" jet aircraft in the vicinity of the after starboard 20MM battery. As a result the Mark 20 Gun Sights are subjected to extreme heat. A visible effect of this condition has been the blistering of the coating on the Sky Filter. It is believed that several of the gyro casualties that have occurred are also a result of the exhaust heat from the jet aircraft. An example of this casualty would be Ship's Mount #219. This mount, when exposed to exhaust blasts from jet aircraft, heated to the point where it could not be touched without burning the hands. At this time all of the grease liquified and ran off the gun and mechanisms. It is recommended that carriers experiencing this trouble install a type of shield to deflect the jet blast in order to minimize the number of casualties due to excessive exhaust heat.

C. Deck Evolutions:

Deck evolutions (i.e., fueling, ammunition replenishment, etc.) during the period of this report were conducted under excellent operational conditions. Even though the demand on the gear remained as intense as during other periods of operation, the evolutions were executed with the minimum amount of difficulty and insignificant number of material failures. Due to constant inspection and immediate repair of all equipment, the deck gear has been ready for immediate use at all times.
D. Ammunition Expended - during period of this report:

<table>
<thead>
<tr>
<th>BOMBS</th>
<th>FUSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 lb GP</td>
<td>AN-M103A1</td>
</tr>
<tr>
<td>1000 lb GP</td>
<td>AN-M139A1</td>
</tr>
<tr>
<td>500 lb GP</td>
<td>AN-M140A1</td>
</tr>
<tr>
<td>250 lb GP</td>
<td>AN-M168</td>
</tr>
<tr>
<td>100 lb GP</td>
<td>AN-M100A2</td>
</tr>
<tr>
<td>350 lb DB</td>
<td>AN-M101A2</td>
</tr>
<tr>
<td>220 lb Frag</td>
<td>AN-M102A2</td>
</tr>
<tr>
<td>Bomb Ejector</td>
<td>M115</td>
</tr>
<tr>
<td>Cartridge Mk 1</td>
<td>M117</td>
</tr>
<tr>
<td></td>
<td>M125A1 (2 Hr)</td>
</tr>
<tr>
<td></td>
<td>M125A1 (6 Hr)</td>
</tr>
<tr>
<td></td>
<td>M125A1 (12 Hr)</td>
</tr>
<tr>
<td></td>
<td>M125A1 (24 Hr)</td>
</tr>
<tr>
<td></td>
<td>M125A1 (36 Hr)</td>
</tr>
<tr>
<td></td>
<td>AN-M230</td>
</tr>
<tr>
<td></td>
<td>50-E4</td>
</tr>
<tr>
<td></td>
<td>M157</td>
</tr>
<tr>
<td></td>
<td>M146</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>NAPALM</th>
<th>GENERAL AMMUNITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jap Manufactured</td>
<td>5&quot;/38 Projectile</td>
</tr>
<tr>
<td>Napalm Tanks</td>
<td>5&quot;/38 Powder</td>
</tr>
<tr>
<td>Napalm Thickner</td>
<td>40MM HEIT-SD</td>
</tr>
<tr>
<td></td>
<td>40MM HEIT-3N</td>
</tr>
<tr>
<td></td>
<td>40MM BL&amp;T</td>
</tr>
<tr>
<td></td>
<td>20MM HSL</td>
</tr>
<tr>
<td></td>
<td>20MM HET</td>
</tr>
<tr>
<td></td>
<td>20MM BL&amp;T</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART IV Resume of Battle Damage - Own and Enemy:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Own:</td>
</tr>
<tr>
<td>1. Ship - The ship sustained no battle damage.</td>
</tr>
<tr>
<td>2. Air Group NINETEEN -</td>
</tr>
</tbody>
</table>
A. (Cont'd)

<table>
<thead>
<tr>
<th>Type A/C</th>
<th>Failed to return to friendly base</th>
<th>Jettisoned or salvaged after return to base</th>
<th>Damaged beyond local repair transferred or held for repair elsewhere</th>
<th>Damaged from mission repaired on board</th>
</tr>
</thead>
<tbody>
<tr>
<td>F9F</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>F4U</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>AD</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>38</td>
</tr>
</tbody>
</table>

TOTAL: 84 Planes Hit

B. Enemy:

<table>
<thead>
<tr>
<th>Destroyed</th>
<th>Probably Destroyed</th>
<th>Damaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammo Dump</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Buildings</td>
<td>243</td>
<td>13</td>
</tr>
<tr>
<td>Bunkers</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Command Posts</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Factories</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Field Pieces</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Gun Emplacements</td>
<td>49</td>
<td>9</td>
</tr>
<tr>
<td>Highway Bridges</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Highways Cratered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highways Seededs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landslides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locomotives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lumber Stacks</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Motor Trawlers</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Oil Drums</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Oxcarts</td>
<td>60</td>
<td>16</td>
</tr>
<tr>
<td>Oxen</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Pack Animals</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Revetments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railroad Bridges</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Railroad Cars</td>
<td>56</td>
<td>18</td>
</tr>
<tr>
<td>Railroad Tracks (Cuts)</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Sampans</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Supply Dumps</td>
<td>37</td>
<td>4</td>
</tr>
<tr>
<td>Troops</td>
<td>450</td>
<td>10</td>
</tr>
<tr>
<td>Trucks</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Tunnel (Entrance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicles</td>
<td>34</td>
<td>9</td>
</tr>
<tr>
<td>Warehouses</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Weather Stations</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
The above damage list does not include a complete estimate of
damage done by CAS flights where damage is particularly non-assess-
able.

PART V: Personnel Performance and Casualties:

A. Casualties:

1. Ship’s Company – there were no personnel casualties suffered
   by the Ship’s Company during these operations.

2. Air Group NINETEEN –

   18 July: LT Frank MARTIN III, 290500/1315, of VF 871, was
   presumably shot down by enemy AA while on a close air support
   napalm run. His F4U exploded on impact with a ridge and he was not
   seen to leave the plane.

   22 July: CDR A.L. MALTSBY Jr., 095255/1310, Acting Air
   Group Commander, was hit by enemy AA air-burst while on a strike
   mission. The port flap of his AD-4 was blasted off and the cock-
   pit canopy was shattered. Commander MALTSBY suffered minor facial
   lacerations.

   27 July: ENS John P. MOODY Jr., 537909/1315, of VF 871, was
   hit by enemy AA while on a close air support mission and his F4U
   exploded in mid-air. He was not seen to bail out.

   28 July: LTJG B.B. LLOYD, 522110/1310, of VF 23, was on an
   armed reconnaissance mission in an F9F when he was hit by AA
   and set on fire. His plane crashed and exploded on impact and he was
   not seen to bail out.

   30 July: LTJG D.V. RAY, 420969/1315, of VF 821, entered a
   spin and then a progressive stall in his well-loaded F4U during
   an attempted rendezvous. The plane exploded on impact with the
   water and his body was not recovered.

   7 August: LTJG F.H. MERSCHON Jr., 471124/1315, of VF 821,
   was on a close air support mission when enemy AA shattered the
   canopy of his F4U. LTJG MERSCHON was injured in the left eye
   but was able to return to the force and land safely aboard the
   ready carrier.

   9 August: LTJG James C. HUGHES Jr., 521553/1310, of VF 821,
   was on an assigned strike mission when his F4U was hit by enemy AA.
   He attempted to fly to the coast line but enroute he burst into
   flames. His plane dove into the ground from four thousand feet.
He was not seen to leave the plane.

3. Performance:

   1. Ship -

   The following dispatch was received from Commander Naval Forces, Far East:

   "THROUGHOUT THE LONG WINTER SPRING AND SUMMER THE PERFORMANCE OF PRINCETON OFF THE EAST COAST OF KOREA HAS BEEN CONSISTENTLY SUPERIOR X WHEN THE GOING WAS TOUGH ASHORE PRINCETON RESPONDED WITH REDOUBLED EFFORTS IN SUPPORT OF UN GROUND FORCES X WHEN EAST COAST RAILROADS GOT AMBITIOUS IT WAS PRINCETON WHICH PROMPTLY SENT PLANES TO STOP SUCH BUSINESS X THE SHIP AND ITS CREW ARE JUSTLY PROUD VETERANS OF THE KOREAN WAR X BEST LUCK ALWAYS VADM C T JCY SENDS X PARA X 72 HOURS PRIOR ARRIVAL CONCLUS THIS DISPATCH DECLASSIFIED ACCORDANCE ART Ø418-3 USN SECURITY MANUAL"

   2. Air Group NINETEEN -

   The following dispatch was received from Commander Naval Forces, Far East:

   "IT IS WITH GREAT PRIDE THAT COMNAVAIR CONGRATULATES THE OFFICERS AND MEN OF AIR GROUP 19 FOR THE OUTSTANDING MANNER IN WHICH YOU GAVE CLOSE AIR SUPPORT TO TROOPS OF THE UNITED NATIONS ASHORE AND INTERDICTED THE RAIL AND HIGHWAY NETS OF NORTHEAST KOREA X THIS IN THE FACE OF A DETERMINED ENEMY AND THE ADVERSE WEATHER OF THE SEASON X THE HIGH TRADITIONS OF AIR GROUP 19 WERE MOST WORTHILY UPHELD BY ITS SECOND CONTINGENT X BEST LUCK TO YOU ALL X VADM C T JCY SENDS X PARA X 72 HOURS PRIOR ARRIVAL CONCLUS THIS DISPATCH DECLASSIFIED ACCORDANCE ART Ø418-3 USN SECURITY MANUAL"

PART VI Special Comments:

A. Operations:

   1. Aerology

   During this period the summer monsoon was well established. Persistent advection fog caused cancellation of scheduled flights due to poor visibility and ceilings in the operating area. In one case the fog persisted for two full days. Considerably more flights were cancelled during this period than the previous one due to poor weather over the target area. Mostly this poor weather was associated with east-west troughs and/or fronts which were part of weather
systems to the north. Some statistics for the period follow:

- Maximum temperature: 86°F
- Minimum temperature: 65°F
- Average temperature: 76°F
- Maximum sea temperature: 84°F
- Minimum sea temperature: 64°F
- Average sea temperature: 74°F
- Maximum wind velocity: 36 Kts
- Minimum wind velocity: Calm
- Prevailing wind direction: SSW

- 10 marginal flying days
- 3 bad flying days
- 13 good flying days

2. Photography

The ship’s Photographic Officer recommended to the Intelligence Officer of CTF 77 that all gun camera film, black and white, be forwarded unprocessed to the Naval Photographic Center as soon as possible after exposure. The only exception to this is the black and white gun camera film that has immediate Intelligence value. This film, upon request of the Intelligence Officer, could be processed aboard. The above procedure was included in CTF 77 Operations Order No. 22-51.

This procedure made possible a more expeditious transfer of gun camera film to the Naval Photographic Center for PIO and training film requirements. It also saved an estimated 11 manhours per day for more essential photographic work. In addition, when this film was processed aboard, the facilities available caused numerous scratches and abrasions on the film, which after being viewed numerous times in different ready rooms was unusable for PIO release or insertion in training films.

The Photographic Laboratory, while in the forward area, operated on a 3 section basis, 24 hours a day. The work was divided as follows:

- **Section I - Flight deck crew**, usually 5 men, covered all flight operations during flight quarters.

- **Section II - Day laboratory crew**, usually 6 men, handled all laboratory operations.

- **Section III - Night laboratory crew**, usually 5 men, handled
the printing of fighter photographic sorties flown during the day.

The following is a resume of work accomplished from 5 December 1950 through 10 August 1951, while in the forward area:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerial negatives processed</td>
<td>11,128</td>
</tr>
<tr>
<td>Still negatives processed</td>
<td>5,290</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16,518</strong></td>
</tr>
<tr>
<td>Prints made from aerial negatives (10 x 10)</td>
<td>123,127</td>
</tr>
<tr>
<td>Prints made from still negative contacts</td>
<td>26,035</td>
</tr>
<tr>
<td>Prints made from still negative enlargements</td>
<td>7,295</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>157,458</strong></td>
</tr>
</tbody>
</table>

Total gun camera and other 16mm film processed: 63,000 feet

3. Communications

The delivery of Basegrams to this ship in the operating area was considered to be unsatisfactory. The non-delivery of important General Messages created confusion at the first of the month as to which Crypto System was effective.

It is recommended that General Messages be transmitted to the carriers utilizing the NDT RATT Circuit. The carrier can relay these General Messages to other units of TF 77 via guard mail. This would insure a complete file of General Messages at all times.

B. Engineering - Electronics:

Continued difficulty was encountered with the v.h.f./u.h.f. antenna installation. As previously reported, these antennas are adversely affected by stack gases and heat. The present antennas, located as they are above the stack, require removal and overhaul approximately every two weeks to maintain them at a usable efficiency. This is not practical during normal operations, hence the over-all efficiency of the subject communication system drops far below the desired level of performance.

It is recommended that a more efficient type v.h.f./u.h.f. antenna be designed that is not subject to heat and moisture deterioration.

C. Air Department:

1. Deck Handling
Catapult operations continued heavy for this period. Catapult shots by type were: 503 F9F, 92 AD, 92 F4U, and 12 TBM; totaling 701.

The jet blast deflectors, with the new type inserts, have continued to operate highly satisfactorily, with no noticeable structural defects to date. Since the installation of the new type inserts on 15 May 1951, the port deflector has been subjected to 811 full power blasts for a total time of 210 minutes and 4 seconds and the starboard deflector to 746 full power blasts for a total time of 141 minutes and 4 seconds.

Deck launches for this period by type were: 510 F4U, 347 AD, and 16 TBM; totaling 873.

Aircatc landings for this period by type were: 501 F9F, 595 F4U, 431 AD, and 28 TBM; totaling 1,555 with only minor repairs to arresting gear machinery necessary.

On 23 July, one F9F jet from the U.S.S. BON HOMME RICHARD with only 600 lbs. of fuel remaining and unable to operate the arresting hook due to anti-aircraft fire damage, was successfully landed aboard this ship with no hook. The aircraft was arrested by numbers four (4) and five (5) barriers with only minor damage to the wheel fairings and knoes. The nose wheel was on the deck with the oleo depressed as the aircraft passed through the number two (2) barrier. It appeared that the sharp-edged nose wheel doors cut the webbing before the lifter straps could actuate the double barrier pendant.

On 27 July, one F9F jet pilot after experiencing difficulty in keeping his tail hook down, placed the battery switch in the off position on the downwind leg. Throughout the approach and cut, the hook bounced and remained in the streamed position. The aircraft entered the barriers with the nose wheel approximately two (2) feet off the deck and at a slight angle from the normal fore and aft position. The nose wheel was sheared and minor damage to the wheel fairings occurred upon successful arrestment of the aircraft by numbers two (2) and four (4) barriers.

The PRINCETON "Anti-Noise" campaign for flight deck operations has proved highly successful. During the early phases of the present cruise, commencing October 1950, a system was devised and carried out in Primary Fly to eliminate all unnecessary transmission over the "Bull Horn". By thorough indoctrination and training of all flight deck talkers and control officers, full utilization of the sound powered phones and thorough training of directors was accomplished which eliminated the majority of "Bull Horn" trans-
missions. Standard phraseology was also cut to a minimum without changing the order or meaning. Several examples are as follows: "Standby to start engines" is used and carries the same meaning to flight deck personnel and plane captains as "Check lines, chocks, and all loose gear about the decks. Standby to start engines."; "Red Flag. Helicopter aft." carries the same meaning as "Red Flag. Last plane landed. Standby to land the helicopter aft."

The "Bull Horn" is used only for the routine orders, for directions of an urgent nature, and for emergencies.

2. Aircraft Service

The reason for the release failures of the Mark 55 bomb rack with the resulting hung ordnance falling off the rack upon arrested recoveries was firmly determined during this period. Corrosion from exposure to salt air, dust, and grime in the numerous moving parts caused the release mechanism to fail even though the release solenoid had withdrawn the plunger. This resulted in the bombs falling off on arrested landings without damage to the rack after all methods to shake the bombs off in the air had failed. Experiments with the use of light lubricants to combat the corrosion proved highly successful. Several thousand bombs have been dropped from the Mark 55 bomb racks since commencing the use of light lubricants with practically no failures.

Numerous rockets were returned by jet type aircraft during this period. The type pigtail used on the Mark 10 motors would either part on the catapult shot or while the aircraft was flying at high speeds. This was eliminated by using masking tape to lash the excess length of the pigtail securely to the rocket motor. The type pigtails used on the Mark 2 motors are much stronger and are able to withstand the catapult shots and high speeds of the jets.

An F4U-4 type aircraft returned from a strike with complete hydraulic failure in the port wing due to flak parting the hydraulic line in that wing. The 50 caliber guns were in the battery position when the ordnanceman, in clearing the guns, raised the cover, removed the unfired ammunition, and was in the process of removing the back plate when the mid-gun fired one round. The direct cause for the gun firing was undetermined. Fortunately, there were no injuries to personnel. However, slight damage occurred to an F4U-type aircraft spotted forward.

3. Accumulation of Ammunition Expended-December 5, 1950 to August 10, 1951:

21
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY</th>
<th>LBS WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>100# G.P.</td>
<td>16,188</td>
<td>1,926,372</td>
</tr>
<tr>
<td>250# G.P.</td>
<td>5,213</td>
<td>1,376,322</td>
</tr>
<tr>
<td>260# Frag</td>
<td>13,438</td>
<td>3,547,632</td>
</tr>
<tr>
<td>220# Frag</td>
<td>374</td>
<td>82,654</td>
</tr>
<tr>
<td>500# Butterfly</td>
<td>186</td>
<td>73,842</td>
</tr>
<tr>
<td>500# G.P.</td>
<td>1,840</td>
<td>973,350</td>
</tr>
<tr>
<td>1000# S.A.F.</td>
<td>9</td>
<td>8,991</td>
</tr>
<tr>
<td>1000# S.C.</td>
<td>6</td>
<td>6,684</td>
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<tr>
<td>1000# G.P.</td>
<td>2,160</td>
<td>2,255,640</td>
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<tr>
<td>2000# G.P.</td>
<td>858</td>
<td>1,380,380</td>
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<tr>
<td>350# D.B.</td>
<td>4</td>
<td>1,404</td>
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<tr>
<td>Napalm Bombs</td>
<td>4,222</td>
<td>3,217,840</td>
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<tr>
<td>EVAR's</td>
<td>7,913</td>
<td>1,107,820</td>
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<tr>
<td>ATAF's</td>
<td>1,668</td>
<td>233,520</td>
</tr>
<tr>
<td>3&quot; Mk 1 Ht.</td>
<td>19</td>
<td>1,026</td>
</tr>
<tr>
<td>3&quot; Mk 8 Ht.</td>
<td>123</td>
<td>9,880</td>
</tr>
<tr>
<td>11.75</td>
<td>10</td>
<td>12,530</td>
</tr>
<tr>
<td>Torpedoes Mk 13</td>
<td>3</td>
<td>17,350</td>
</tr>
<tr>
<td>Tetrahérons</td>
<td>18</td>
<td>1,710</td>
</tr>
<tr>
<td>Mk 24 Minc</td>
<td>1</td>
<td>683</td>
</tr>
<tr>
<td>.50 Cal Ctgts</td>
<td>2,591,637</td>
<td>777,934</td>
</tr>
</tbody>
</table>

**Total weight: 17,840,322 pounds**

**D. Supply:**

1. **Ship's Store**

   During the final month of operations in the forward area, the ship's store stock levels were brought down to a stock sales ratio of 1:3. In addition, all foreign merchandise remaining aboard which could not be disposed of prior to the ship's arrival in continental United States was returned to the Central Purchasing Office Tokyo, which accepted the merchandise on the basis of 90% of cost. The other 10%, amounting to about $500, was expended as a price reduction survey.

   A scarcity of vending machine cups was experienced during this period. This was apparently caused by a failure of supplying activities to anticipate a heavy seasonal demand.

2. **Aviation Supply**
The final period of operations was marked by a gradual tapering of procurement, restowing of the ready issue storeroom, and continuing improvement of stock and equipage records. Regular issues of materials continued at a high rate for all types of aircraft supported. When word was received on our date of departure, cancellation of all outstanding requisitions was immediately requested. Shipments of aviation materials arriving prior to the ship's departure were diverted to other local users. Critical and essential materials needed by the companion carriers were off-loaded as transportation permitted. Other materials requested by the carriers were off-loaded at ASB, Yokosuka for further shipment. All materials in short supply, as indicated by ASB and ComFairJap, were off-loaded at Yokosuka. These included many section A materials, some buoys, engines, QEC's, engine cradles and section B spares for the F4U, AD, F9T-2B, F9T-2F and cameras.

A list of spares and other critical items needed was submitted by the ESSEX. These items were shipped prior to the PRINCETON's departure from Yokosuka.

Preparations for stateside off-loading of obsolete materials were all initiated at this time.

3. General Stores

Upon the receipt of word to return to the States all outstanding requisitions were screened and instructions were dispatched to have material delivered direct to the Naval Ship Yard, Puget Sound. Outstanding requisitions for material in the forward area were cancelled by dispatch.

Prior to departure all freight in the area was received aboard and instructions given for handling of future incoming freight for this vessel.

Items of a critical nature were off-loaded to other ships present as requested. Other items in excess of needs were prepared for off-loading upon arrival in the States. All work on equipage, spare parts, and electronics inventories was stepped up with the aim of completing these inventories prior to arrival in the States.

E. Air Group NINETEEN:

1. Tactics

a. It is evident by the combat damage received that our tactics need revision to counteract the enemy's increased anti-
aircraft activity.

2. General Comments

a. The striking power of the propeller aircraft of the group during this period was hampered by material failures which no amount of maintenance could prevent. The aircraft were just plain war-weary. This was continually evidenced by bomb rack failures, hydraulic leaks, and aborted hops due to rough running engines that had seen too many full throttle jinxing departures and approaches in the target areas.

PAUL D. STROOP

Copies to:

CNO (advance)
CinCPacFlt
ComNavFE
Com7thFlt
ComAirPac (10)
CTF 77
ComCarDiv THREE
ComCarDiv FIVE
CO, USS BOXER
CO, USS HORN HEEF RICHARD
CO, USS ESSEX
CO, USS INDIAN TAN
CAG 5
CAG 19
CAG 101
CAG 102
CinCPac Eval Grp (5)
From: Commanding Officer, USS PRINCETON (CV-37)
To: Chief of Naval Operations
Via: (1) CTF 77 (2)
      (2) Com7thFlt
      (3) ComNavFE
      (4) CinCPacFlt

Subj: Action Report for the period of 14 April 1952 through 16 May 1952

Ref: (a) OpNav Instruction 3460.4
     (b) CVG 19 Confidential ltr ser 012 of 16 May 1952 - Air Attack Reports for the period 1 May through 13 May 1952

1. In accordance with reference (a) the Action Report for the period 14 April 1952 through 16 May 1952 is hereby submitted.

PART I Composition of Own Forces

Pursuant to CTF 77 Confidential dispatch 220458Z of April 1952, the USS PRINCETON (CV-37), with CVG 19 embarked, departed Yokosuka, Honshu, Japan and proceeded to the operating area via Okinawa. On 30 April the PRINCETON rendezvoused with TASK FORCE 77.

TASK FORCE 77 was composed of four Aircraft Carriers, the USS PRINCETON (CV-37), the USS BOXER (CV-21), the USS PHILIPPINE SEA (CV-47), and the USS VALLEY FORGE (CV-45), along with various heavy support and screening ships.

MISSION:

The mission of this force, as set forth in CTF 77 OpOrder No. 22-51, second revision, was to conduct a systematic program of air and surface interdiction, provide close air support of ground operations, assist in maintaining control of vital sea areas and operate as a fast carrier task force when directed, in order to support UN Forces in Korea and to support the policy of the United States in the Far East.
PART II  Chronological Order of Events.

14-17 April

Arrived Yokosuka, Honshu, Japan. Granted dock side availability for voyage repairs.

18 April

Moored outer harbor in a ready carrier status.

19-20 April

Underway off Eastern Coast of Honshu, Japan conducting refresher flights.

21-24 April

Moored outer harbor Yokosuka in a ready carrier status.

25-26 April

Departed Yokosuka, Honshu, Japan and proceeded to Okinawa.

27-28 April

Operating off Okinawa, a total of 158 sorties were flown to provide CAP, ASP, Close Air Support, Photo, Strike and Tactical Air Coordination Missions for a joint Army, Air Force, and Navy amphibious training operation.

Departed Okinawa on the afternoon of 28 April for the operating area.

29 April

Enroute operating area and TASK FORCE 77.

30 April

Rendezvoused TASK FORCE 77 early in the morning and proceeded to replenish at sea.

The first launch of the helicopter resulted in the loss of the helicopter off the port bow. The pilot and the two passengers were recovered unharmed.

Shortly after the crash and while alongside the USS CAGAFON (AO-52), the PRINCETON had an electrical fire in engine room number one (1) and lost steering control temporarily, resulting in a minor collision with the CAGAFON.
1-2 May

Conducted air operations off northeastern Korea. Day and night attacks were made from Hanhun to Songjin. 185 sorties were conducted during the period.

3-4 May

Air operations were restricted due to replenishment on the Third, and due to adverse weather on the Fourth. A limited number of attacks were made between Wonsan and Songjin. 90 sorties were conducted during the period.

5-6 May

Conducted air operations off northeastern Korea. Both day and night attacks were made from Wonsan to Chongjin. 181 sorties were conducted during the period.

One F4U-4 was lost due to mechanical malfunctioning. The pilot was recovered unharmed.

7 May Replenished at sea.

8-10 May

Conducted air operations off northeastern Korea. Day and night attacks were made from Wonsan to Chongjin. 289 sorties were conducted during the period.

11 May Replenished at sea.

12-13 May

Conducted air operations off northeastern Korea. Day and night attacks were made from Wonsan to Chongjin. 287 sorties were conducted during the period.

One F4U-4 was lost due to enemy action. The pilot was recovered unharmed.

14-15 May

Departed TASK FORCE 77 and proceeded to Yokosuka, Honshu, Japan.

16 May

Arrived Yokosuka, Honshu, Japan for a period of rest and recreation.

PART III Ordnance.

1. Performance

SECURITY INFORMATION
There were no casualties to ordnance equipment during this period. The following casualties occurred to fire-control equipment:

(a) After MK 37 director - This vessel experienced a casualty which caused the MK 25 Mod 2 radar on the after MK 37 director to be inoperative for approximately 1½ days. The solenoid control switch C-02653, which shifts the antenna from spiral to conical scan, was defective, and the automatic radar tracking feature would not track in automatic because the antenna would not remain in conical scan. Repair consisted of cleaning and adjusting contacts in the solenoid control switch. The excessive time required to effect repair was due to high winds and darken ship. Details will be covered in the Radar Monthly Performance and Operational Report.

(b) Forward MK 56 director Radar MK 35 Mod 2 - This casualty occurred in the automatic frequency control circuits of the MK 35 radar in the forward MK 56 director. Approximately 10 hours of working time were required to restore the casualty, which was due to change of value of several resistors in the discriminator.

(c) After GFCS MK 56 - This vessel formerly experienced severe casualties due to vibration in radar room 54, compartment C-0204-C. In some instances, welded mountings were shaken off bulkheads. Shock mountings (ShipAlt CV 135) were installed during yard overhaul. There have been no major casualties traceable to vibration since that time.

(d) Casualty to 40MM Director MK 51 Mod 6, GFCS MK 63, Ship’s No. 41 - As a result of ship collision, the director foundation and surrounding structure were damaged. The director system and MK 34 radar suffered no casualties and remained operable. Structural damage to the director foundation caused the roller path to be positioned out of alignement with the horizontal reference plane. New roller path data is required to determine the amount of shimming necessary to reorient the director in the horizontal reference plane.

40MM director MK 51 Mod 6 GFCS MK 63, Ship’s No. 419 - During a yard period the foundation and pedestal of this director were strengthened and reinforced in an effort to eliminate excessive vibrations experienced at operating speeds. This modification caused the vibrations to be transmitted to the director tracking head, rendering the MK 15 sight 100 percent inoperative. During the latest yard period the director with modified pedestal was removed and a new director was installed on the strengthened foundation. A complete evaluation report was made to the Bureau of Ordnance and activities concerned by means of CO ltr CV37/X10 Serial 776 dtd 21 April 1952. Since the
vibration still exists and to a degree that is detrimental to the fire control system, the MK 15 gunsight has been removed to prevent its destruction. A director MK 51 open ring sight has been installed as a substitute. A pair of MK 37 binoculars were mounted for use with the ring sight to facilitate acquisition of visual targets beyond 6000 yards range. Two firing runs (Uncle Type) were made with satisfactory results using the director as modified to control the mounts.

2. Aviation:

(a) More than 50 percent of the aircraft parachute flares (ANM426) used during this period failed to operate satisfactorily. The flares are of an old lot, manufactured in 1943. However, one was broken down to see if the cause of the failures could be determined. It was noted that the copper tear-wire connecting the hang-wire and tear-wire cord was bent and kinked, and the knot in the cord tying into the tear-wire was loosely connected. Also, in some flares the indentations in the flare case, which prevent the stabilizer chute cover from coming out until the flare is released, were slightly dented. This slight indentation could allow the stabilizing chute to fall out on a hard catapult shot. An experiment was conducted on a daylight flight, using three flares as received and three in which the cord had been securely retied, the tear-wire had been replaced with new wire of the same diameter without kinks and the indentations had been corrected. On the experimental flight all three of the modified flares functioned perfectly. Two of the three dropped as received failed. Close observations made as the flares were released on this flight indicate that the wire and knot are the principle causes of the failures of this type flare. However, cancelled operations did not permit additional use of the flares for thorough evaluation of the modifications. This modification can be accomplished locally. An RUDAOE is being submitted.

(b) Bomb Racks and Launchers:

(1) The Aero 14A racks have proved to be very satisfactory as to loading and operation, however, the following parts are critical items and in short supply:

a. **Arming solenoid** - Aero 14A bomb rack
   R94MGX14D65

b. **Release solenoid** - Aero 14A bomb rack
   R94S-50A70B68

(c) The following 20MM gun parts are considered critical supply items and have hampered operations involving the guns in many instances:
(1) Link chutes, 20 MM outboard
   R.H. R94C-291200
   L.H. R94C-291205

(2) Chargers, Aero 13A, 20MM - R94-C-78550

(3) Gun circuit relay delay, RI7R-5852-150

(4) Four-way valve, R94-V-10000

(5) Pressure switch, Aero 2 A R94-8-300505

(d) Out of 4732 bombs carried, 47, or 1.01% were
   not dropped due to malfunctioning of release units. Of this
   total, three (3) malfunctions occurred on Mark 8 Mod 2 shackles
   with AN-A2A release units; twenty-seven (27) on Aero 14A
   launchers; twelve (12) on Mark 51 racks, and the remaining
   five (5) on Mark 55 racks.

3. Recommendations:

   It is recommended that 1½ ordnancemen per plane be
   established as the minimum allowance for squadrons deployed
   to WesPac.

B. Expenditure:

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>8</td>
<td>2000½ GP</td>
<td>25467</td>
<td>20MM HEI; M97</td>
</tr>
<tr>
<td>315</td>
<td>1000½ GP</td>
<td>25331</td>
<td>20MM INC; M96</td>
</tr>
<tr>
<td>510</td>
<td>500 GP</td>
<td>23343</td>
<td>20MM APT; M95</td>
</tr>
<tr>
<td>1463</td>
<td>250 GP</td>
<td>74974</td>
<td>Link, 20MM M3 or M8E1</td>
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<td>2244</td>
<td>100 GP</td>
<td>92115</td>
<td>Cal. .50 APT M8</td>
</tr>
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<td>12</td>
<td>220/260½ FRAG</td>
<td>92115</td>
<td>Cal. .50 INC. M1</td>
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<td>54</td>
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<td>46060</td>
<td>Cal. .50 API-T, M20</td>
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<tr>
<td>2629</td>
<td>AN-Ml39A1</td>
<td>209390</td>
<td>Link, Cal. .50 M2</td>
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<td>18</td>
<td>AN-Ml46</td>
<td>1320</td>
<td>lbs., Napalm Type 1 or M3</td>
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<td>AN-Ml66(T51/El)</td>
<td>29</td>
<td>Igniter M15</td>
</tr>
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<td>64</td>
<td>AN-Ml68(T91/El)</td>
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<td>Igniter, M16</td>
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<td>706</td>
<td>AN-Mc 219</td>
<td>32</td>
<td>Gas Tank</td>
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<tr>
<td>3724</td>
<td>AN-Ml00A2 (ND)</td>
<td>18</td>
<td>A/C Parachute Flare AN-M26</td>
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<tr>
<td>510</td>
<td>AN-Ml01A2 (.025)</td>
<td>151</td>
<td>Bomb Ejtr. Ctf. Mk1</td>
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<td>321</td>
<td>AN-Ml02A2 (.025)</td>
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</tbody>
</table>

PART IV  Battle Damage

A. Own

The ship sustained no battle damage. See reference (b),
Air Attack Reports 1-52 through 66-52, for the battle damage
sustained by PRINCETON aircraft.
B. Enemy

See reference (b), Air Attack Reports 1-52 through 66-52, for damage inflicted upon the enemy.

PART V Personnel Performance and Casualties.

A. Performance

Personnel performance has been very satisfactory and morale has been high. The general mess feeds well and constant efforts are made for improvement. A liberal liberty policy is maintained in port. Ship's disciplinary infractions are much less numerous than when in CONUS. Incoming first class mail was received every three (3) or four (4) days on the line.

Due to the implementation of the Japanese peace treaty, rest camp facilities are being sharply curtailed. When indicated, three day general leave privileges are being granted in lieu of the rest camps. While more expensive, this is considered satisfactory.

Since leaving the Navy Yard on 1 February, the ship has practiced a voluntarily controlled fresh water program with no assigned water hours. Water rationing has not been necessary for nearly four months of operating. The gallon per man per day consumption of fresh water is widely publicized throughout the ship and can be quite closely controlled by regularly informing the crew of the per man consumption necessary to avoid controlled water hours. If the ship can continue this practice during the forthcoming hot summer weather, this program will have proved completely successful.

The "Princeton Varicities", initiated during the ship's previous Far Eastern cruise, has been continued at sea. This program, broadcast by LEX to all ship's spaces at 1800, is generally listened to by all hands. It sets forth the days news, the latest reports on the days operations over Korea, matters of an administrative or informative nature desired for statement or discussion, and finally a question and answer period. The latter has proved of great interest to all hands and tends to circulate ship's news, to correct the circulation of misinformation and to air the minor items of gripes and discontent which can be corrected by general knowledge of their existence. The "Varicities" program is an established institution of the ship and her crew.

A troupe of four VALLEY FORGE officers, transported by helicopter, contributed an excellent show to all hands in Hangar Bay One (1) while on the line.
SECURITY INFORMATION

Inter-division softball competition is in progress while in port. The ship's baseball team is receiving solid support. It is hoped that the above mentioned plus a program promoting civilian show troupes on board and daily bus tours to surrounding points of interest in Japan will generate a corresponding decrease in VD casualties.

2. Casualties

There were no battle casualties suffered by either ship or air group personnel.

During the replenishment of 7 May 1952, EARLY, Kenneth P., 735 34 50, Sa, USN, suffered a traumatic amputation of the right foot when he became entangled in a rapidly running line and was carried against a fair-lead block on deck with sufficient violence to sever his right foot.

PART VI Special Comments

A. Meteorology

1. Weather Conditions

During this operating period the summer monsoon season began. Flying conditions were average to good, except for one instance when fog persisted throughout most of the day. Haze was prevalent during the period although on only three days did it restrict visibility to less than seven (7) miles.

2. Communications

Facsimile reception in general was satisfactory although considerable interference from CW transmission occurred.

Radio-teletype reception was poor due to atmospheric interference.

B. AIR GROUP NINETEEN

1. Personnel

During this first period of combat operations, Air Group personnel performance was excellent and morale outstanding. Pilots exhibited a high degree of flight proficiency as evidenced by the absence of any prop barrier crashes and only two minor barrier engagements; one due to a parted wire, the other the result of a no-flap landing.
SECURITY INFORMATION

No personnel casualties occurred and only two (2) aircraft were lost at sea; one a ditching, the other a bailout. Both pilots were recovered uninjured.

A summary of pilots and pilot time lost to the Air Group from 1-14 May 1952 is as follows:

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Death</td>
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<td>Psychological</td>
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</tr>
<tr>
<td>Injury</td>
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<td>Illness</td>
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<tr>
<td>Disposition</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
</tbody>
</table>

*Pilots grounded for colds for a period of two (2) days each.

2. Operations.

From 1 May through 14 May 1952, Carrier Air Group SIXTEEN flew 951 sorties for a total of 2325.5 hours during ten (10) operating days. All regularly scheduled missions, plus two (2) additional night hooler missions, were flown.

Operations during the period were primarily of an interdiction nature, with railroad bridges, fills, track, and rolling stock as the main targets.

In low density flak areas bombing was done by divisions in rotation, with the division leader notifying the strike leader as he commenced his attack. Each plane in the division then made an individual glide bombing run from 6,000' - 8,000', released at 2,500' - 3,000', and recovered above 1,500'. One division always stayed on top to spot possible flak opposition and the drops of the division bombing. Directions of dive and recovery were varied. For missions in high density flak areas, coordinated attacks were made, using the VF aircraft for flak suppression. Flights were always briefed as to the direction of run, retirement, and rendezvous, and all were varied. Out-of-the-sun runs were favored. Standard releasing altitudes of 2,500 - 3,000 feet and pull outs by 1,500 feet were followed.

Damage assessment was made after all runs had been completed by both visual inspection and the use of the K-25 camera.
One week prior to joining TF-77, six pilots were sent to the U.S.S. Valley Forge (CV-45) to fly indoctrination flights with ATC-1 squadrons. This method of indoctrination of selected pilots proved to be most beneficial and a great deal was learned about tactics, task force operating procedures, and the everyday mechanics of conducting routine missions.

Four pilots of CVC-19, one each from VF-192 and VA-195 and two from VF-193, were loaned to ATC-1 for the operating period to help alleviate the critical personnel shortage created by heavy losses suffered.

Air Group NINETEEN adopted the method of a master flight schedule previously used by Carrier Air Group FIFTEEN. This system combines the full day's flight operations for all squadrons on one schedule and contains the following information:

1. Event Number
2. Type Mission
3. Launch and Land Time
4. Pilots
5. Squadron
6. Voice Call
7. Plane Assignment
8. Briefing Ready Rooms and Times
9. Strike Leaders

Largely as a result of this centralization, no scheduling problems were encountered and the Air Group was able to meet all assigned missions with ease.

Additional planes from VF-192 were scheduled with the VC-3 night hecklers, as approved by CTF 77, and their success indicates that an increase in night missions will result in added locomotive, rolling stock, and vehicular kills.

It was found during night heckler missions that motor convoys and trains could be detected at a considerable distance at altitudes of 1000 - 3000 feet above the terrain, depending on the visibility. Initial night attacks on targets known to be defended by AA batteries often meet with little or no AA fire, but subsequent attacks resulted in a rapid build up of AA as batteries were manned and put into action.

On the night of 12-13 May, CTF 77 executed Operation Insomnia, a series of highly successful night attacks. The success of Operation Insomnia was due in some measure to a departure from a scheduled routine in operations and the element of surprise thus gained. It is recommended that more effort be made to avoid a set pattern in TASK FORCE Operations. With four (4) large carriers now available in the area this could easily be accomplished. Variations in schedule could well include periodic operation of the four carriers in the
SECURITY INFORMATION

TASK FORCE at one time. Heavy strikes might be scheduled on
profitable targets, particularly those protected by heavy
flak concentrations.


Squadron aircraft availability was high. No unusual
maintenance problems were encountered.

4. Electronics.

It is believed that the effectiveness of ASP flights
would be greatly increased by consistent use of the AN/APR 9
ECM receiver in conjunction with the AN/APS 20 radar. Because
only about 10 percent of the ASP flights are flown in company
with an aircraft carrying the AN/APR 9, a large number of con-
tacts have disappeared upon investigation with no positive
evaluation possible. Since the AN/APR 9 provides a good means
of positive evaluation on submarine contacts and is equipped
with multiple tuning units which cover the existing radar
frequency bands, it is recommended that the AN/APR 9 be in-
corporated in the AEW aircraft if at all possible.

Many of the APX-6 IFF sets have been found to contain
faulty holding clamps for the high voltage rectifier and modul-
ator tubes. Replacements of these tubes, which may be necessary
after only a few carrier landings, have required approximately
two (2) man-hours per plane.

The nose sections of two APS-31B radomes were lost in
flight causing damage to the antenna. Flight limitations
were not being exceeded at the time the accidents occurred.
RUDEE's have been submitted. These accidents revealed a
critical shortage of APS-31B spares and the fact that a parts
catalog or allowance list is not available has made requisi-
tioning and replacement of spare parts almost impossible.

VC-3 detachment EASY has had several APX-6 impact
destructor switches actuated on carrier landings. It is
believed that the swing or whipping motion that may result
from a rough carrier landing is responsible for the uninten-
tional destruction of the equipment. At the present time, an
investigation is being made to determine more conclusively
the cause and the possibility of correcting this situation.

5. Survival

MK III exposure suits were issued to approximately
95 percent of the pilots prior to deployment. Ninety percent
were fitted at that time and the remainder while enroute to
Pearl Harbor. All remaining pilots were issued suits and fitted prior to departing Yokosuka for the combat area.

The following recommendations and comments are submitted regarding the HK III exposure suits:

a. The inside liner should be manufactured in short, medium, and long sizes to fit pilots satisfactorily. Due to variations in physiques, the single size presently issued is not comfortable for all pilots. Primarily the discomfort results from the short length between shoulder and crotch, especially when sitting.

b. Wrist and neck seals are easily torn.

c. G-suit hose-fitting is not available.

d. Gloves are not satisfactory. They cause excessive perspiration of the hands in flight, and afford very little protection in the water.

e. About 25 percent of the suits had to be repaired prior to use due to manufacturer’s leaks which were discovered when the suits were water tested.

f. Boots included with the HK III suit are unsatisfactory for travel on foot. It is suggested that the MI insulated rubber boot be substituted.

g. Legs of the outside suit should be made longer. It is impossible to fit long-legged men in the prescribed manner with the present leg-length of the suit.

The ADSK-1 droppable survival kit is designed for cold weather conditions and must be modified for summer conditions. Also, all equipment in the kit should be packed in a knapsack to facilitate removal from the kit and to enable the pilot to travel with his survival gear.

Rations should be replaced in the HK-2 raft.

C. CIC

1. Radars

(a) SX - The SX Radar is the best all-purpose radar except for jets and was in use continuously during operations. Preventive maintenance checks were made during replenishment days.

(b) SPS-6B - The SPS-6B radar is the most reliable radar for long range air search of jets.

(c) SG - The SG radar is very good for medium and short range surface search, and has proved satisfactory for radar navigation. The Fire Control Radar has also been used in navigation and anchoring. It is suggested that when using the Fire Control Radar for this purpose, distinct reference points should be selected. Then the radar should be locked on and the range and bearing used for a fix.
It is advisable, however, to check these fixes at frequent intervals with a surface search radar fix.

2. Communications (CIC)

Communications during this period of operations has been satisfactory. The TDQ transmitters were used as the primary means of communication and the AN/ARQ as the secondary.

The URD has been working very well and has as much range as any receiver now being used.

3. Air Control

Each Air Controller has been assigned an Air Control Team consisting of four (4) men, as follows:
(1) RHI Operator and Talker; (2) CAP Plotter on Air Status Board; (3) Strike Plotter on Air Status Board;
(4) Plotter and Talker on Vertical Air Plot. This system has worked exceptionally well and the air picture has been timely and accurate at all times.

4. Training

Prior to joining TF 77, the CIC Officer, one Air Controller and the Assistant Air Operations Officer were sent to the U.S.S. VALLEY FORGE (CV-45) for indoctrination in task force operational procedures and doctrines. The experience gained proved to be a great help toward making a smooth entrance into the task force combat operations. It is recommended that ships joining the task force for the first time make every effort to gain this type of training.

D. Communication

1. Personnel

The problem created by the shortage of qualified personnel is critical and will be intensified by additional losses during the next six months. Unless qualified personnel losses are met with replacement, communication functions will be effected adversely. In spite of the satisfactory and constant improvement of strikers as a result of the on-the-job training program, the supply of personnel is exceeded by the loss of those in the higher rates. To meet circuit commitments during this period of operations, it was necessary to utilize maintenance personnel as watchstanders. Further commitments or unreplaced losses would necessitate a watch and watch.

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SECURITY INFORMATION -13-
It is felt that the following recommendations would be of wide benefit in this area in that they would fit in with personnel limitations:

a. GUAM 'GEORGE' FOX transmissions should be held to 18 words per minute. At present the speed of transmission runs from 22 to 28 W.P.M. Shipboard personnel could be used to better advantage at this suggested speed because it would provide a standard of ability for strikers to meet before being placed on a circuit and it would negate the necessity of placing a well trained circuit operator on a FOX schedule. Many of the smaller ships have made numerous requests for re-transmission and repetitions from the larger fleet units, imposing an even larger traffic burden on already overcrowded circuits.

b. Since all ships and commands afloat in the Far East area are required to maintain a FOX guard, it is felt that a R.A.T.T. broadcast from radio GUAM would be of distinct advantage. The establishment of such a circuit probably would eliminate the need of Radio GUAM utilizing an overflow circuit for individual fleet units. Circuit B-32 has been used by Radio GUAM as an overflow circuit for this command. Much difficulty was experienced in copying this broadcast because of weak signal strength during morning broadcasts. When afternoon and evening broadcasts were made, they were generally better, although far below the desirable standard of reception. It has been noted that slack periods exist from time to time on the 'C' FOX broadcasts, some as long as two hours. After one of these slack periods, this command was requested to come up on the overflow circuit to copy with difficulty traffic that could have been sent during the slack period on B-32.

2. Equipment

The loss of seven (7) antennas forward, incidental to contact with the C.G.P.O.N., resulted in slight curtailment of two-way communications, but all commitments were met. All of the receivers and three transmitters (2 TDQ's and 1 TCQ) in Radio Two were affected. An extension to the AN/ARC-1 in Flag Plot was laid out to Air Operations. This permitted shifting the TCQ (Radio 7) utilized by Air Operations to the control of CIC.

At the time the ESSEX's letter regarding the corrective measures taken for separating burtoning lines and antenna counterbalances was received, this vessel had completed a similar modification of antenna counterbalances for trial purposes. However, instead of placing a bolt directly under the counterbalance extension (where it is right-angled), the lower bolt was replaced in its original position with a locking key, and a chain affixed to the counterbalance itself. This chain is utilized for raising and lowering the counterbalance and also for holding it in
k. Catwalk at Frame 15 demolished.

Damage to the load center panel caused by the short circuit was repaired by ship's force. Bus connections and connection studs were burned off, making it impossible to determine the cause of the short circuit.

It is believed to have been caused by a loose connection. Failure of the circuit breaker (ACB Type AL-2N, 1600 amperes) feeding the panel to open and isolate the short circuit aggravated the casualty and led to the temporary loss of steering control. Later examination of this circuit breaker revealed its contacts were fused together.

2. Personnel

The shortage of experienced petty officers in engineering ratings is becoming progressively more acute. A vigorous training program is being prosecuted in an attempt to alleviate the situation, but lectures, training films, and "on-the-job" training cannot completely substitute for practical experience. The prosecution of an effective routine maintenance and repair program with the few experienced personnel now available poses a very serious problem.

F. Gunnerery

1. Replenishment at Sea

During the period covered by this report, no two replenishments have been completely alike in their methods of rigging for fueling or receiving ammunition.

For fueling at sea, the Elkomain method was introduced for trial and comparison with the Elwood method. Rigging arrangements on this ship have been modified until the Elkomain rig compares favorably with the Elwood method both in convenience and time spent in rigging and unrigging. The Elkomain rig requires less effort and personnel than the Elwood rig, and may be cast off much more quickly than the latter. Principal difficulties are the lack of suitable locations for securing the hose inhaul block and the hose riding line, especially at the forward fueling station. The rig for the gasoline hose differs very little from the method used by this ship for the Elwood method, as the inhaul block is hung from the two steam wrench whip in the same place normally used to secure the Elwood high wire.

For ammunition replenishment, an attempt was made to increase loading rates by the use of various rigs leading from the hangar deck opening at frame 72 on this ship to the No. 4 hatch of the ammunition ship. The overhead at this station
was locally strengthened and a strong padeye installed to receive a wire-span and trolley rig from the ammunition ship. This rig was tested statically with a 6000 lb weight and was used on replenishments on 3 May and 7 May. Information was obtained from the U.S.S. VALLEY FORGE (CV-45) as to the type of rig they were using at this station, and an arrangement similar to theirs has been made up and put into service at this station, with the modified house-fall method of cargo transfer in mind. A six-inch steel ring is suspended 36" below the overhead from the above mentioned padeye by a 3/4" diameter chain. The ring is restrained from moving outboard by two 3/4" wire straps running to padeyes in the hangar deck overhead at frames 70 and 74. The ring is restrained from moving upward by a 7/8" wire strap shackled to a new padeye on deck. The block sent over by the replenishment vessel for the modified house-fall rig is secured to this suspended ring, and is thereby positioned to permit easy landing of loads without striking the roller curtain at the top of the hangar deck opening, and to allow liberal station keeping. The accommodation ladder stowed outboard at this point is lowered below deck edge line and secured to normal securing brackets, where it is safely out of the way and remains conveniently located for rigging upon entering port. This station has been used successfully with the modified house-fall rig on two occasions, handling approximately 15 tons per hour.

C. Intelligence

1. Photographic Interpretation

A. Working Conditions

At present, all photographic interpretation work is being done in the Air Intelligence Office. This space is unsatisfactory at best due to the large number of ship and air group personnel required to use the office, and the tremendous volume of photography involved in everyday operations in this area.

It is highly recommended that some space be set aside and designated for use by the PI Teams being assigned to carriers operating in WesPac.

B. K-25 Photography

The value of K-25 photography as used during this tour is doubtful. Good quality K-17 photography at a scale of 1/5000 is far superior for damage assessment and for ascertaining rail cuts.
C. Tornaids

The consensus of opinion among the pilots on the subject of tornaids seems to be that, except for specific targets, they are of little value. The flak indicated on the tornaids is subject to change from day to day and better flak briefings are given by AIO's using 1/50,000 maps of the routes with the current flak plotted on them. Most of the pilots have 1/250,000 charts covered with acetate and are using these in preference to tornaids. This can be attributed to the fact that most tornaids are approaching a scale of 1/50,000 and lose, in copying, considerable detail which appears on maps. In the case of specific targets, i.e., bridges, industrial areas, supply dumps, etc., it is understood that target pictures and/or mosaics are of great value and can be used to good advantage.

2. Briefing and debriefing

Ready room display space for maps and charts and other intelligence briefing materials is wholly inadequate. Squadron air intelligence officers have improvised with temporary displays that are satisfactory. However, it is recommended that a minimum of three (3) permanent map boards be installed in each ready room for briefing.

Due to the schedules that are being flown, it has been necessary to set apart a section of the ready rooms for debriefing. It is felt that prior to deployment each ready room should have rods installed for curtains so that simultaneous briefing and debriefing operations can be conducted in the same ready room.

II. Photo Lab

1. The Photographic Laboratory during the past operation has experienced the most difficulty with the A-10-A Aerial Film Dryer, Stock No. E13-D-791-200. An electrician was needed almost continuously to keep the dryers operating efficiently. It is recommended that heavy duty switches replace those currently in use and that spare parts be made available as soon as possible. No instruction booklets were received with the dryers.

2. The spaces allotted the Photographic Laboratory on the modern type CV carrier are not adequate to accommodate the equipment assigned. Storage of large items such as aerial cameras and camera cases offer a major problem. Without "borrowing" space from other departments, efficient storage is practically impossible.
3. Due to the increase of copy work necessitated by photographic intelligence, it is recommended that some space be assigned to the Photo Lab to be used as a copy room. At present the copying is being done in the office of the Photo Lab, thus hindering the operation of other photographic work.

4. In the forward area the Photographic Laboratory operated on a 24 hour, 3 section basis; a flight deck crew, a day crew and a night crew.

5. The work accomplished during the past operating period is as follows:

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</tr>
<tr>
<td>8 x 10 - 50</td>
<td>9 x 9 - 40,608</td>
</tr>
<tr>
<td>9 x 9 - 6696</td>
<td>11 x 14 - 200</td>
</tr>
</tbody>
</table>

**MOTION PICTURES - 16MM**

- B & W - 6700'
- Color - 5750'

I. Medical

The health of the crew has remained at a high level. There was one major accident: EARLY, K. P., SN, USN, 1st Division received amputation traumatic, right foot, while working on high line at Forward Ammunition Transfer Station on 7 May 1952, (replenishment day). There were 104 Venereal Disease admissions to the sick list during the subject period.

J. Supply

Replenishment of aircraft stores was made for the first time at sea by this ship. The USS JUPITER had the stores ready on deck, and the transfer was made expeditiously. Approximately 6 tons (332 line items) were transferred in a period of 31 minutes using one transfer station.

The allowance of 38 inch catapult sheaves (Section D) appears to be adequate, however, procurement of these items is almost impossible. It is recommended that a definite policy be established whereby these spares may be procured to fill allowance, or that special support procedures be promulgated if it is not intended to procure further spares for the currently installed type pending availability of the later type being installed as part of the 27A conversion.
SECURITY INFORMATION

A request for a shift-over valve to replace an installed component vital to steering control was sent by Priority dispatch 25 April. It was necessary to request special assistance of ComServPac on 10 May when no definite action had been taken 15 days later. The valve was reported available by PSNS Bremerton, on 14 May, and is being traced for delivery in satisfactory manner at present.

PAUL D. STROOP

Copies to:

CNO (2) (Advance)
CinCPacFlt (5) (Advance)
ComAirPac (10)
ComFairAlameda (1)
CinCPacFlt Evaluation Group (5)
ComNavyFE (1) (Advance)
Com7thFlt (1) (Advance)
CTF 77 (2)
ComFairJap (1)
ComCarDiv ONE (1)
ComCarDiv THREE (1)
ComCarDiv FIVE (1)
U.S.S. ESSEX (CV-9) (1)
U.S.S. BOXER (CV-21) (1)
U.S.S. BON HOMME RICHARD (CV-31) (1)
U.S.S. KEARSARGE (CV-33) (1)
U.S.S. ORISKANY (CV-34) (1)
U.S.S. VALLEY FORGE (CV-45) (1)
U.S.S. PHILIPPINE SEA (CV-47) (1)
ATG 1 (1)
CVG 2 (1)
CVG 11 (1)
CVG 19 (1)
Naval War College (1)
CONFIDENTIAL
SECURITY INFORMATION

12 JUL 1952

From: Commanding Officer, USS PRINCETON (CV-37)
To: Chief of Naval Operations
Via: (1) Commander Task Force SEVENTY-SEVEN (2)
(2) Commander SEVENTH Fleet
(3) Commander Naval Forces, Far East
(4) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 2 June 1952 through 28 June 1952

Ref: (a) OpNav Instruction 3150.4
(b) CVG-19 conf ltr ser 023 of 28 June 1952 (Air Attack Reports for period 4 June through 25 June 1952)

1. In accordance with reference (a), the Action Report for the period 2 June 1952 through 28 June 1952 is hereby submitted.

PART I Composition of Own Forces

According to CTF 77 Restricted dispatch 291054Z of May 1952, the USS PRINCETON (CV-37), with Carrier Air Group NINETEEN embarked, departed Yokosuka, Honshu, Japan and proceeded to the operating area. On 4 June the PRINCETON rendezvoused with TASK FORCE 77.

TASK FORCE 77 was composed of four aircraft carriers, the USS PRINCETON (CV-37), the USS BOXER (CV-21), the USS PHILIPPINE SEA (CV-47), and the USS VALLEY FORGE (CV-45), along with various heavy support and screening ships. The USS EUN HOMMICH (CV-31) relieved the USS VALLEY FORGE (CV-45) midway in the operating period.

MISSION:

The mission of this force, as set forth in Commander Task Force SEVENTY-SEVEN Operation Order No. 22-51 (2nd Revision), was to conduct a systematic program of air and surface interdiction, provide close air support of ground operations, assist in maintaining control of vital sea areas and operate as a task carrier task force when directed, in order to support UN Forces in Korea and to support the policy of the United States in the Far East.

CONFIDENTIAL
SECURITY INFORMATION
PART II Chronological Order of Events.

2-3 June

Departed Yokosuka, Honshu, Japan and proceeded to the operating area and TASK FORCE 77.

4-6 June

Conducted air operations off Northeastern Korea. Attacks were made from Wonsan to Chongjin. Two hundred ninety five sorties were flown during the period.

On 4 June one AD-4 of VA-195 spun in due to low speed and high rate of turn while approaching the Carrier for landing. The pilot, LT W. T. DAKIN, was recovered immediately by helicopter.

On 6 June one AD-4 piloted by LT D. J. TERNYSON of VA-195 on a rail interdiction strike was hit by enemy fire while in a bombing run. The plane crashed, exploded and burned, leaving no chance for survival.

7 June

Replenished at sea.

8-10 June

Conducted air operations off Northeastern Korea. Attacks were made from Wonsan to Songjin. Two hundred thirty two sorties were flown during the period.

On 8 June one AD-4NL of VC-35 crashed into the sea while returning from a combat weather reconnaissance mission; the cause of the crash is undetermined. The pilot, LT R. E. GARVER and the crewman, A. E. HUDELL, ATJ, were given no chance for survival.

One F4U-4 of VF-192 experienced engine failure while entering the groove for a landing. A normal water landing was effected and the pilot, LCDR G. G. STRUCEL, was recovered uninjured by helicopter.

One F4U-4 piloted by LTJG E. M. CROW of VF-193 crashed into the sea on take-off; the crash apparently was due to power failure. The ship's helicopter was unsuccessful in rescue due to the pilot's injuries. LTJG CROW was picked up by the USS GURKE (DD-783) and was transferred to the Naval Dispensary, Fleet Activities, Sasebo, for treatment.

On 9 June one AD-4 piloted by ENS F. L. LOFTON of VA-195 was hit by enemy ground fire while on a combat mission. The resulting engine failure forced the pilot to ditch in the vicinity of Wonsan. ENS LOFTON was rescued uninjured by the helicopter from LST 799.

SECURITY INFORMATION
One F4U-4 of VF-192 presumably was hit by enemy ground fire while in a bombing run causing engine failure. The pilot, LT G. V. NICHOLS, ditched the aircraft off Mayang-do and was rescued uninjured by the helicopter from the USS IOWA (BB-61).

10 June one F4U-4 of VF-192 presumably was hit by enemy ground fire while in a bombing run and lost power. The pilot, ENS R. N. HANSON, made a water landing south of Hungnam and was picked up uninjured by the helicopter from IST 799.

11 June

Replenished at sea.

12-14 June

Conducted air operations off Northeastern Korea. Attacks were made from Wonsan to Songjin. Three hundred five sorties were flown during the period.

On 12 June one AD-4 of VA-195, piloted by LT R. L. JACKSON was hit by enemy ground fire while in a bombing run on a rail interdiction strike. The aircraft crashed leaving no chance for survival.

On 13 June one F4U-5N of VC-3 was hit by enemy ground fire while on a night armed reconnaissance mission. The pilot, LT R. J. HUMPHREY, bailed out of the aircraft over land after it was observed burning. The helicopter crew of IST 799 observed the aircraft wreckage, an open parachute and what appeared to be a body under the parachute. Rescue attempts were prevented by intense small arms fire. LT HUMPHREY is listed as missing in action.

One F4U-4 of VF-193 was hit by enemy ground fire while in a bombing run on a rail interdiction mission. The pilot, LTJG C. K. AIFORD, bailed out over land after the aircraft caught fire. He was picked up by the helicopter from IST 799. LTJG AIFORD sustained minor burns and a leg injury.

A second F4U-4 of VF-193 was hit by enemy ground fire while in a bombing run on the same interdiction mission. The aircraft caught fire and the pilot, LTJG W. F. MOORE, was forced to ditch in Wonsan harbor. He was rescued uninjured by the helicopter from IST 799.

On 14 June one F9F-2 of VF-191, piloted by LTJG R. CROSS, was hit by enemy ground fire in a bombing run on a rail interdiction mission. The aircraft continued in its dive and exploded on impact, leaving no chance for survival.

15 June

Replenished at sea.
16-17 June

Conducted air operations off Northeastern Korea. Attacks were made from Kilchu to Wonsan. Three hundred thirty-one sorties were flown during the period.

On 16 June while in a bombing run on Kowon, one AD-4 piloted by LTG W. A. BUTTLAR of VA-195 was damaged by a close air burst from an enemy ground battery. The pilot was forced to ditch north of Wonsan due to engine failure. Rescue was effected by the helicopter from LST 799. LTG BUTTLAR received lacerations of the face from a shattered canopy.

19 June

Replenished at sea.

20-21 June

Conducted air operations off Northeastern Korea. Attacks were made from Hamhung to Anbyon. Two hundred thirty-nine sorties were flown during the period.

On 20 June one F9F-2 of VF-191, piloted by CDR J. SWEENEY was ditched on take-off due to malfunction of the electric trim-tab control. The pilot was recovered uninjured by the ship's helicopter.

22 June

Replenished at sea.

23 June

Conducted air operations off Northeastern Korea.

On 23 June TASK FORCE 77 in coordination with the FIFTH AIR FORCE began a series of attacks upon the major hydroelectric plants in North Korea. CDR N. A. MacKINNON led twelve AD-4's from VA-195 and CDR J. SWEENEY led twelve F9F-2's from VF-191 in an attack upon the Suiho hydroelectric plant on the Yalu River. The attack was made in coordination with AD's and F9F-2's from the USS BOXER (CV-21) and USS PHILIPPINE SEA (CV-47), and was followed by attacks made by the FIFTH AIR FORCE. The target was reported as destroyed.

At the same time the Suiho plant was being attacked, CDR W. DENTON, Commander Air Group NINETEEN, led three AD-4's from Va-195, twenty-four F4U-4's from VF-192 and VF-193 and a flight of F9F-2's from the BON HOMME RICHARD (CV-31) in an attack on the Kyosen Number Three hydroelectric plant. The target was reported as heavily damaged.

A total of 69 sorties was flown during the day.
24 June

Conducted air operations off Northeastern Korea.

Continuing the attacks upon the North Korean power plants, CDR N.A. MacKINNON led fifteen AD-4's from VA-195 and fourteen F4U-4's from VF-193 in an attack on Fusen Number One hydroelectric plant, damaging the target severely. LCDR J.H. DINNEEN led fourteen F4U-4's from VF-192 and ten F9F-2's from VF-191 and inflicted minor damage on Fusen Number Two hydroelectric plant. LCDR DINNEEN also led the same F4U-4's in an attack which damaged Fusen Number Three hydroelectric plant.

CDR E.H. PARKER led seventeen F4U-4's from VF-192 and VF-193 in an attack on Kyosen Number Three hydroelectric plant. The target received minor damage. CDR William DENTON led twelve AD-4's from VA-195 and seven F9F-2's from VF-191 in an attack upon Fusen Number One hydroelectric plant, destroying the target.

A total of 125 sorties was flown during the day.

The box score results for the two-day period were two plants destroyed, two heavily damaged, and three lightly damaged.

On 24 June one F4U-4 piloted by LT H.S. BARBOUR of VF-192 was hit by enemy ground fire while on a strike mission. Engine failures resulted and the pilot made a water landing off Chaho (DV 5465). LT E.BROUR was rescued uninjured by the helicopter from the USS HELEN (CG-75).

25 June

Conducted air operations off Northeastern Korea. Attacks were made from Mongun to Anbyon. Sixty-seven sorties were flown during the period.

26-28 June

Upon completion of replenishment 26 June, departed TASK FORCE 77 and proceeded to Yokosuka, Honshu, Japan for scheduled availability and recreation.

PART III  Ordinance

4. Performance

1. Ship:

The only casualty experienced during this period was to the forward main battery fire control director MK 37, which was inoperative for one week. The director was out of commission due to a faulty train pinion gear. It was determined that a star locking washer had not been properly crimped into place causing the locking nut at the coupling end of the worm gear to
come loose. Repairs to this casualty were made by lapping the worm and bronze meshing gear. Twelve hours of machine shop time and approximately 200 man hours were expended in the repair work.

2. Aviation:

At the beginning of the period, premature release of 250 pound bombs from MK 55 bomb racks was experienced during catapult launches of the F9F-2. This fault was eliminated by filing down the cut in the release trigger arm assembly to a ninety degree angle.

Catapulting of F4U-4's loaded with a 1000 pound bomb on the MK 8 Mod 2 shackle has resulted in a disfiguration of the shackles and a difficulty in releasing the bomb. It is recommended that a 500 pound bomb be the maximum load on the MK 8 Mod 2 shackle for catapult launch of the F4U-4.

Of the 7,143 bombs carried only fifty-six or 0.78 percent were hangups.

Hung Ordnance Report:

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<th>MK8 MOD2</th>
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Disposition of Hung Ordnance:

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SECURITY INFORMATION -6-
### B. Aviation Ordnance Expenditure:

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<td>K23</td>
<td>AN-M146, Fuze</td>
</tr>
<tr>
<td>617</td>
<td>K28</td>
<td>AN-M166 (T5E1)</td>
</tr>
<tr>
<td>434</td>
<td>K29</td>
<td>AN-M168 (T9E1)</td>
</tr>
<tr>
<td>1415</td>
<td>K30</td>
<td>Fuze AN-M 219</td>
</tr>
<tr>
<td>3795</td>
<td>K35</td>
<td>AN-M100/A2 (ND)</td>
</tr>
<tr>
<td>705</td>
<td>K36</td>
<td>AN-M101/A2 (0.025)</td>
</tr>
<tr>
<td>770</td>
<td>K37</td>
<td>AN-M102/A2 (0.025)</td>
</tr>
<tr>
<td>7</td>
<td>K38A</td>
<td>M115 (4-5)</td>
</tr>
<tr>
<td>5</td>
<td>K39A</td>
<td>M116 (4-5)</td>
</tr>
<tr>
<td>7</td>
<td>K42D</td>
<td>AN-M124 (12 hr)</td>
</tr>
<tr>
<td>8</td>
<td>K42E</td>
<td>AN-M124 (24 hr)</td>
</tr>
<tr>
<td>17</td>
<td>K43F</td>
<td>M125 (36 hr)</td>
</tr>
<tr>
<td>3453</td>
<td>K49D</td>
<td>Primer Detonator M14 (0.01)</td>
</tr>
<tr>
<td>5570</td>
<td>K51</td>
<td>Arming Wire M11 (Single)</td>
</tr>
<tr>
<td>12690</td>
<td>K52</td>
<td>Arming Wire M22 (Double)</td>
</tr>
<tr>
<td>18</td>
<td>L1</td>
<td>3.5&quot; Solid Rocket, Complete Rd.</td>
</tr>
<tr>
<td>54</td>
<td>L6</td>
<td>Anti-tank Rocket, A/C 6.5&quot; (ATAR)</td>
</tr>
<tr>
<td>42269</td>
<td>M1</td>
<td>20MM HEI, M97</td>
</tr>
<tr>
<td>42266</td>
<td>M2</td>
<td>20MM INC, M96</td>
</tr>
<tr>
<td>38570</td>
<td>M3</td>
<td>20MM AP-T, M95</td>
</tr>
<tr>
<td>134125</td>
<td>M4</td>
<td>Link, 20MM M8/M8E1</td>
</tr>
<tr>
<td>169540</td>
<td>M6</td>
<td>Cal. .50 API, M8</td>
</tr>
<tr>
<td>169540</td>
<td>M7</td>
<td>Cal. .50 INC, M1</td>
</tr>
<tr>
<td>84770</td>
<td>M8</td>
<td>Cal. .50 API-T, M20</td>
</tr>
<tr>
<td>424400</td>
<td>M9</td>
<td>Link, Cal. .50 A/C M2</td>
</tr>
<tr>
<td>1811</td>
<td>N1</td>
<td>Napalm, Type 1 or M3</td>
</tr>
<tr>
<td>47</td>
<td>N2</td>
<td>Igniter, WP M15/M215</td>
</tr>
<tr>
<td>47</td>
<td>N4</td>
<td>Igniter, WP M16/M216</td>
</tr>
<tr>
<td>75</td>
<td>N6</td>
<td>Fuze, M157</td>
</tr>
<tr>
<td>68</td>
<td>N7</td>
<td>Gas Tank, F51 Type</td>
</tr>
<tr>
<td>110</td>
<td>N10</td>
<td>Xylenol</td>
</tr>
<tr>
<td>67</td>
<td>P7</td>
<td>Flare, A/C AN-M26</td>
</tr>
<tr>
<td>20</td>
<td>P9</td>
<td>Light Float, A/C AN-MK6</td>
</tr>
<tr>
<td>5</td>
<td>P2</td>
<td>Flare, A/C MK 5 Mod 9</td>
</tr>
<tr>
<td>234</td>
<td>P38</td>
<td>Bomb Ejtr. Ctg. MK1</td>
</tr>
</tbody>
</table>
PART IV Battle Damage

A. Own

The ship sustained no battle damage. See reference (b), Air Attack Reports 67-52 through 161-52, for the battle damage sustained by PRINCETON aircraft.

B. Enemy

See reference (b), Air Attack Reports 67-52 through 161-52, for damage inflicted upon the enemy.

PART V Personnel

A. Personnel Count:

During the operating period the average on-board count was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Officer</th>
<th>Enlisted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship’s Company</td>
<td>114</td>
<td>1952</td>
<td>2066</td>
</tr>
<tr>
<td>Marine Detachment</td>
<td>2</td>
<td>61</td>
<td>63</td>
</tr>
<tr>
<td>Air Group</td>
<td>145</td>
<td>628</td>
<td>773</td>
</tr>
<tr>
<td></td>
<td>261</td>
<td>2651</td>
<td>2912</td>
</tr>
</tbody>
</table>

There continued to be a shortage of petty officers in the following ratings: QM, GM, TE, RM, PN, MM, BT, EB, IC, FP and HI.

The following rates in excess of allowance were made available to COMAIRAC for transfer: five AD1, ten AD3, one PR1, two AM1, five AM3 and six PM3. Of these, three AD1, six AD3, one AM1 and three AM3 are scheduled for transfer to Carrier Air Group NINETEEN, currently embarked, upon reporting of non-rated reliefs.

B. Personnel Performance:

Ship’s company and Air Group personnel performance for this period was excellent. Pilots exhibited the highest degree of flying proficiency as evidenced by the fact that there were a minimum of barrier accidents, no major flight deck accidents and keen competition for all flights. Ordnance, maintenance and aircraft crews continued their past outstanding performances.

The following dispatches concerning the performance of TASK FORCE 77 and the PRINCETON were received during the action period:

1. FROM: CHIEF OF NAVAL OPERATIONS
   TO: OTF 77/CG 1st MAIR AIR WING

"IT WAS WITH GREAT PRIDE THAT I READ THE DISPATCH AND NEWS REPORTS OF THE MAGNIFICENT ACCOMPLISHMENT OF YOUR FORCES IN THE SUPERB
ATTACKS UPON THE NORTH KOREAN POWER INSTALLATIONS X THE EXCELLENT PERFORMANCE OF DUTY AND HIGH COMBAT EFFECTIVENESS DEMONSTRATED BY YOUR FORCES AND PARTICULARLY THE PILOTS INVOLVED IN THE ACTUAL COMBAT ARE DESERVING OF THE HIGHEST PRAISE AND INSPIRATION TO OUR OWN PEOPLE AND A WARNING TO THE ENEMY OF HIS INEVITABLE DEFEAT X WELL DONE"

(2) FROM: CTF 77
TO: TF 77

"FOLLOWING RECEIVED FROM CINCPACFLT X MY CONGRATULATIONS ON YOUR SUCCESSFUL STIKES ON THE NORTH KOREAN POWER COMPLEX X THEY DEMONSTRATE WHAT DETERMINED AND WELL TRAINED SQUADRONS CAN DO IN A COORDINATED INTERSERVICE EFFORT WHICH HAS BEEN PRECEDED BY CAREFUL PLANNING X WELL DONE TO NAVY AIR FORCE AND MARINE UNITS WHO PARTICIPATED WITH A PARTICULAR PLENT ON THE BACK TO THE AD PILOTS WHO DELIVERED THE INITIAL BLOW THE SUIHO PLANT WHO WERE PREPARED TO FACE HEAVY MIG OPPOSITION X TO WHICH COMSEVENTHFLT REPLIAD QUOTE X ON BEHALF OF ALL NAVY AND MARINE PARTICIPANTS IN POWER COMPLEX STRIKES YOUR 250201Z IS ACKNOWLEDGED WITH DEEP GRATITUDE X RADM SORRELL AND PILOTS JOIN ME IN ASKING ONLY FOR MORE TARGETS X SIGNED CLARK"

(3) FROM: COMNAVFE
TO: COM7THFLEET/CTF 77

"IT IS WITH THE UTMOST PLEASURE THAT I PASS ALONG THE FOLLOWING MESSAGE FROM CINCPAC FOR PUBLICATION TO THE OFFICERS AND MEN OF ALL UNITS PARTICIPATING X QUOTE I WISH TO EXPRESS MY DEEP ADMIRATION AND TO EXTEND MY FULLEST CONGRATULATIONS TO YOU FOR THE HIGH DEGREE OF PROFESSIONAL COMPETENCE EXHIBITED BY ALL ELEMENTS OF YOUR COMMAND IN THE ATTACK ON THE NORTH KOREAN HYDROELECTRIC SYSTEM X THE RESULT OF THE ATTACK CONTRIBUTED MATERIALLY TO THE REDUCTION OF THE ENEMY'S WAR MAKING POTENTIAL X THE COOPERATION AND COORDINATION BETWEEN NAVAL MARINE AND AIR FORCES LEFT NOTHING TO BE DESIRED AND PERMITTED OF A MOST SUCCESSFUL OPERATION IN SPITE OF LAST MINUTE CHANGES IN TIME OF ATTACK X PARA X IT GIVES ME GREAT PLEASURE TO COMMEND SUCH A COMPETENT AND DEPENDABLE NAVAL COMPONENT WHICH HAS CONTRIBUTED SO MUCH TO THE SUCCESSFUL ACHIEVEMENTS OF THE UNITED NATIONS COMMAND AND WHICH INSURES..."
SUCCESSFUL ACCOMPLISHMENT OF ALL ASSIGNED MISSIONS IN THE FUTURE X PARA X I REQUEST THAT MY DEEP APPRECIATION FOR THE SPLENDID EFFORTS IN WHICH ATTACK ON THE HYDROELECTRIC SYSTEM WAS CONDUCTED BE CONVEYED TO ALL MEMBERS OF YOUR COMMAND X UNQUOTE X PARA X I SHALL LIKE TO ADD THAT MY HEART SWELLS WITH PRIDE IN YOUR SUPERB PERFORMANCE X TO ALL HANDS A MUCH DESERVED WELL DONE X VICE

ADM. R. P. BRiscoe

(4) FROM: CTF 77 TO: TF 77

"PERSONAL FOR ADMIRALS BRISCOE, CLARK AND SOUTHWORTH FROM LT GEN. WYLAND PRELIMINARY REPORTS INDICATE THAT YESTERDAY'S INITIAL AIR ATTACKS ON OTHER NORTH KOREA HYDROELECTRIC POWER COMPLEXES ACHIEVED COMPLETE SURPRISE AND SUCCESS IN THE FACE OF A HIGHLY DANGEROUS COMMUNIST DEFENSIVE POTENTIAL X I FEEL SURE THAT TODAY'S AIR ATTACK WILL COMPLETE THE DESTRUCTION OF THEIR VITAL TARGETS X THIS CONSTITUTES A FITTING CLIMAX TO TWO YEARS OF COORDINATED AND APPLIED AIR POWER AND MAY BE TAKEN AS A GENTLE HINT OF MORE TO COME IF THE COMMIES WANT IT THAT WAY X THE PLANNING, COORDINATION AND INTEGRATED EXECUTION WHICH WENT INTO YESTERDAY'S OPERATION IS AN EXCELLENT EXAMPLE OF INTER-SERVICE TEAM PLAY X PLEASE ACCEPT MY HEARTIEST CONGRATULATIONS AND SINCERE THANKS FOR THE PART DONE BY THE MAGNIFICENT AIR CREWS OF TF 77 X I FEEL THAT THE AIRBOYS WHO PARTICIPATED IN THE SUISHO SHOW WITH THE DISTINCT POSSIBILITY OF HEAVY MIG OPPOSITION DESERVE SPECIAL CREDIT"

(5) FROM: CTF 77 TO: PRINCETON (CV-37)

"YOUR SHIP AND AIR GROUP HAVE PERFORMED LIKE THE VETERANS THEY ARE DURING THEIR PAST TWO DAYS X I AM PROUD OF THEM X ALSO I AM PROUD OF THE OFFICERS AND MEN ON DECK AND THE ENGINE ROOM IN THE SUPPLY AND MEDICAL DEPARTMENTS AND ALL DEPARTMENTS IN THE SHIP"

(6) FROM: CTF 77 TO: PRINCETON/BOXER

"MY REGARDS FOR BOXER AND PRINCETON AND THEIR AIR GROUPS HAS BEEN CONSISTENTLY HIGH X PAST TWO DAYS PERFORMANCE RISES THAT OPINION FROM EXCELLENT TO OUTSTANDING X OUR LOSSES HAVE BEEN GREAT BUT THESE SACRIFICES ARE ENDURABLE IN VIEW OF THE GAINS WE ARE MAKING X SECURITY INFORMATION -10-"
SECURITY INFORMATION

TOWARD ULTIMATE VICTORY ARE THE EFFORTS OF ALL PERSONNEL IN EVERY PART OF THE SHIP ARE CUSTOMARILY COMMENDABLE BUT TODAY I SALUTE THOSE SPLENDID PILOTS WHO CARRY OUT THESE HAZARDOUS MISSION OVER HOSTILE TERRITORY.

C. Morale

Morale of both Ship's Company and Air Group Personnel continued to be high. The delivery of mail this period compared with that of the last operating period has been very poor. The reason for the decrease in deliveries is not known; replenishment has taken place regularly throughout the period.

The Ship's Company and Carrier Air Group NINETEEN Personnel have contributed $2,941.00 to Navy Relief. This figure represents slightly more than one dollar per man for the average complement.

D. Casualties

Ship's company Personnel suffered no casualties during the period. The following casualties were incurred by Air Group NINETEEN personnel:

6 June 1952: LT D. J. TERRYNS, 455330/1310 USN, VA-195, was reported killed in action when his AD-4 crashed and burned while on a rail interdiction strike. Cause of the crash was enemy ground fire.

8 June 1952: LT R. E. GLIVER, 471255/1310 USN, VC-35 and C. E. RUDDELL, AT3 631-99-52 USN, VC-35, were reported killed in action when the AD-4NL in which they were flying crashed into the sea while returning from a combat mission. The cause of the crash is undetermined.

12 June 1952: LT R. L. JACKSON, 390291/1315 USNR, VA-195, was reported killed in action when his AD-4 was hit by enemy ground fire and crashed while on a rail interdiction strike.

13 June 1952: LT R. J. HUMPHREY, 347094/1315 USNR, VC-3, was reported missing in action after he bailed out of his F4U-5N while on a night combat mission. His aircraft was hit by enemy ground fire.

14 June 1952: LTJC R. CROSS, 508342/1310 USN, VE-191, was reported killed in action when his F9F-2 was hit by enemy ground fire and crashed while on a rail interdiction strike.

Three pilots were grounded and three were hospitalized for short periods of time, primarily for minor contusions incurred during ditchings and bail-outs.

A summary of Air Group NINETEEN's casualties for the operating period is as follows:
Killed in Action Pilots 4
Killed in Action Crewmen 1
Missing in Action Pilots 1
Psychological Injury 2
Disposition Board Total 14

PART VI Special Comments

A. Aerology

Summer monsoon prevailed for the entire period. Flying conditions were average to good, except for one day (15 June) when fog persisted throughout the afternoon. Haze occurred on the 7th, 8th, 15th, 16th, 21st, and 22nd, but visibility was never less than five miles.

B. Air Group NINETEEN

1. Operations

From 3 June through 25 June 1952, Carrier Air Group NINETEEN flew 1,589 sorties for a total of 3,957 hours during seventeen operational days. All assigned commitments were met.

Operations during the first half of the period from 4 June to 14 June were entirely of a rail interdiction nature, with rail bridges, fills, tracks and rolling stock being the primary targets.

During the second half of the period from 14 June to 26 June strike tactics were altered. The size of strike groups was increased with deck load strikes being launched in lieu of the smaller elements previously used. The emphasis on rail interdiction decreased with supply areas, troop concentrations and storage areas along the rail routes becoming the primary target.

It was noted that, although the rail strikes during the first part of the period were productive of results and many rail cuts were made, repairs were effected almost immediately and that the desired result, interdiction of the enemy supply lines, was probably not too successful. In addition, the important rail centers and marshalling yards were protected by increasing amounts of AA with corresponding increases in damage to and loss of aircraft. A pattern of operation had been established which must have enabled the enemy to predict with fair accuracy the hours and days of operations. This type of operation did not take advantage of the effect of surprise and mobility inherent in a carrier task force. During the latter part of the operating period a change in operational pace was instituted. Selected targets were attacked with larger groups of aircraft and schedules were changed to avoid setting a pattern. The outstanding example of this change in operations was of course the
SECURITY INFORMATION

A series of attacks on the North Korean power plant complexes. Carrier Air Group NINETEEN took part in this operation as indicated in the table below:

<table>
<thead>
<tr>
<th>Date and Time</th>
<th>Aircraft</th>
<th>Target</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>231600I</td>
<td>3 AD-4</td>
<td>Kyosen Number Three hydroelectric plant DV 775952</td>
<td>Heavily damaged</td>
</tr>
<tr>
<td></td>
<td>24 F4U-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>231600I</td>
<td>12 AD-4</td>
<td>Suiho hydroelectric plant XD 663797</td>
<td>Destroyed</td>
</tr>
<tr>
<td></td>
<td>12 F9F-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240930I</td>
<td>15 AD-4</td>
<td>Fusen Number One hydroelectric plant CV 779670</td>
<td>Heavily damaged</td>
</tr>
<tr>
<td></td>
<td>14 F4U-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240930I</td>
<td>14 F4U-4</td>
<td>Fusen Number Two hydroelectric plant CV 806621</td>
<td>Minor damage</td>
</tr>
<tr>
<td></td>
<td>10 F9F-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240930I</td>
<td>14 F4U-4</td>
<td>Fusen Number Three hydroelectric plant CV 8056</td>
<td>Damaged</td>
</tr>
<tr>
<td>241630I</td>
<td>17 F4U-4</td>
<td>Kyosen Number Three hydroelectric plant DV 775952</td>
<td>Minor damage</td>
</tr>
<tr>
<td>241630I</td>
<td>12 AD-4</td>
<td>Fusen Number One hydroelectric plant CV 779670</td>
<td>Destroyed</td>
</tr>
<tr>
<td></td>
<td>7 F9F-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is considered that the attacks listed above by Air Group NINETEEN were outstanding in that each attack was successful and resulted in considerable damage to the target. Although all the targets attacked were extremely important and were protected by concentrations of AA, aircraft losses were minimized due largely, it is believed, to the element of surprise. In the two days operations by four carrier air groups only two aircraft were damaged sufficiently to cause forced landings, and the two pilots were recovered. It is recommended that attacks of this nature and pattern of operations be conducted when feasible. The effect on pilot morale and the enthusiasm for the attacks on the North Korean power plants were most noticeable.

The "Insomnia" Operation is another type of operation which achieved surprise and success. It is recommended that this operation be repeated at irregular intervals when conditions are favorable for success.
The air group rendezvous doctrine was changed slightly during this period with excellent results in expediting the rendezvous and departure of the strike group for the target area. All aircraft participating in the strike rendezvoused at one altitude in the assigned sector. Each aircraft followed the one ahead and rendezvoused with the lead plane at which time a separation, slightly back and outboard, was made between squadrons. This helped pilots who were launched later to locate their own strike element quickly. It was found that this method, as compared to that of assigning different altitudes for each squadron, saved five to ten minutes on rendezvous time.

Minor changes to the USF-4 break-up doctrine were also incorporated in that the squadron circle of 800 feet was done away with. Also, a right-hand orbiting turn was made when the air group had the starboard sector. Instead of making the break of divisions away from the force and feeding in singly, a full division was brought in along the starboard side of the carrier and the break was made up wind, with the option of the division leader to break two or four aircraft as the pattern required.

Tactics used on targets that required flak suppression and coordinated attacks by type aircraft were changed with very beneficial results. The tactics adopted were to assign each squadron specific targets, direction of dive and pull-out. Jet aircraft were assigned the initial run, followed by the prop VF loaded with VT and flak suppression bombs. All hit targets known or suspected to contain AA gun positions and control stations. Subsequent runs by VF and VL aircraft, in that order, hit the primary target. A division of prop VF was sometimes left at altitude over the target to spot and suppress any AA batteries not previously pin-pointed and to assess target damage. Standard release and pull-out altitudes were followed on all attacks.

During all strikes in the target area short color code radio calls were used for intra-group communication and identification. Each plane was identified by its squadron color and a number, because standard tactical calls were found to be too long for rapid identification and communication during the time attacks were developing and in progress.

ASP gator missions were flown by VF, VFN, and AD aircraft during this operating period. VF and VFN were used at times when a strike mission would have been short its assigned number of attack planes.

Briefing was normally held one and one-half hours prior to launch time. However, for special strikes involving coordination of jets, prop VF and VL with special and/or multiple target assigned, the strike leader conducted a briefing of the
strike element leaders the evening before, if a dawn launch, or three hours prior to launch time if the strike were scheduled in the day. Strike tactics and target assignments were decided in this general brief. Detailed operational and intelligence briefings were then conducted by the element leaders in their respective ready rooms.

Use of the K-25 camera for damage assessment was discontinued, primarily because of the high vulnerability of the camera plane during the low altitude runs necessary for good pictures. Target damage assessment using the K-17 camera has been tried at a higher altitude. However, only a fair quality of pictures has been obtained. Evaluation of the F-56 camera is being contemplated for the next operating period.

2. Maintenance

Aircraft availability has been outstanding. No unusual maintenance problems were encountered.

All squadrons have suffered from a shortage of Section B allowance list items of high usage. Very few priority A and AG items have been received while in the forward area.

It is recommended that new RB 19R-2 spark plugs be supplied in the combat area in lieu of overhauled plugs. The overhauled spark plugs require changing every sixty hours and a large percentage are unfit for installation when received. RUDMs are being prepared.

3. Survival

The following recommendations have been made by downed pilots upon their return:

a. Each pilot should be provided with a survival radio. Air Force usage thus far has proved that they are an invaluable aid in effecting rescue of downed pilots.

b. Signal mirrors should be attached to the Mac West life jacket as a standard piece of equipment to insure that they are available to the pilot should he be unable to float his life raft.

c. Smelling salts or ammonia capsules carried in the helicopter would be a welcomed relief for dazed pilots after rescue. Ammonia Inhalant, Ironic 1/3cc, Stock No. 1-060-875 has been found satisfactory for such use.
d. Helicopters have been found extremely difficult to sight from above. Vivid markings would aid the friendly RESCIP in directing the helicopter and decrease the hazard of inadvertent strafing due to poor visibility.

This command has lost sixteen aircraft, five pilots and one crewman during the tour just completed. Five of these personnel losses offered no chance for survival. Recovery of downed personnel was made possible by excellent ditching or bail-out procedure, well-coordinated RESCIP procedures and the outstanding efforts of helicopter crews.

C. Air Department

1. Arresting Gear

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Landings since recommissioning</td>
<td>17,830</td>
</tr>
<tr>
<td>Total Number of Landings</td>
<td>34,604</td>
</tr>
<tr>
<td>Number of Landings this operating period</td>
<td>1,655</td>
</tr>
<tr>
<td>Number of deck pendants used</td>
<td>13</td>
</tr>
<tr>
<td>Number of barrier cables used</td>
<td>None</td>
</tr>
</tbody>
</table>

Barricade Crash of 9 June 1952: at 15081 on 9 June 1952, F9F-2, Bureau Number 123031, piloted by LT. Charles H. M., made what appeared to be a normal approach. He then received what appeared to be a late wave-off, and, in trying to take it, mushed toward the port side of the flight deck. The plane then dived for the barrier area, tore out the Davis webbings of barriers two and three without actuating these barriers and engaged the barricade at approximately a forty-five degree angle. In the course of the engagement the plane swung around to an athwartship's position due to the port tip tank striking the port barricade stanchion. Slack take-up of the barricade was about twenty-five feet and actual runout about fifty feet. The port stanchion was rendered temporarily inoperative. Repairs were effected by ship's force in two days. The barricade webbing was surveyed. A barricade and deck arresting landing was effected.

2. Catapult

Number of Catapult shots this quarter...1361

Starboard Catapult...600
Port Catapult........761

One "no cut-off" shot was made due to the shearing of the cut-off linkage pin; the machine was thoroughly inspected and the pin replaced. No other damage was apparent.
Two oil-gear pumps are being replaced on the starboard catapult. One pump has a frozen bearing and the other pump has a very low output.

No visible damage to the jet blast deflectors is apparent at the end of this quarter and series of shots.

At 0537Z on 20 June 1952, an F9F-2, Bureau Number 127140, piloted by CDR J. (n) SHENNAN, crashed into the water upon take-off from the port catapult. The accident was caused by improper functioning of an electric trim-tab control and not the fault of the catapult shot.

D. Combat Information Center

1. Radar

The performance of both the SX and SPS-6b was excellent. Both were in operation continuously except for short periods required for preventative maintenance.

The SX was used for OAP control. Inasmuch as jet intercepts were made within fifty miles, the SX was satisfactory.

The SPS-6b has been detecting returning jets ten miles farther out than SX, although neither radar could be relied on for more than sixty percent pick up of two F9F's beyond forty-five miles.

For tracking returning strikes, an SPS-6b (MK-2) operator tracked actual radar contacts, while a Mark V IFF operator used an SX console to cover any returning group not detected by the SPS-6b operator. The RCO coordinated the plotting on the main air display.

Use of the field change which tilts the SX pattern indicated the following: a one to two degree tilt will result in a marked improvement in the detection of aircraft during periods of heavy trapping; some improvement was noted in tracking very high aircraft.

2. Training

Formal training, exclusive of on-the-job training, was scheduled regularly, but only one subject or teaching unit could be covered thoroughly each week. The only means of obtaining complete attendance was to schedule one CIC watch section each instruction period. Formal class room instruction was required to complete or improve the on-the-job training.
Communications

Communications for the second tour of combat duty were satisfactory but some problems continue to exist.

First, the acute shortage of personnel continues to curtail the maximum efficiency of the communication section. Qualified circuit operators are few and their tasks many. Non-rated strikers are used in a constant state of training and schooling but they lack necessary experience. Maintenance personnel are still, of necessity, used on the watch bill and their repair work effected during off-watch hours. Personnel are at an absolute minimum to meet present communication commitments, and several qualified personnel will be leaving the ship during the next two months. Some replacements are, therefore, mandatory for continued combat operations.

Numerous frequency shifts during the period on circuit D-188 have been necessitated by enemy interference, but this station has been able to maintain satisfactory communications. There were an estimated seventy-five shifts requiring approximately five minutes each to regain contact with other stations.

The traffic load passing through main communications has been relatively normal for a carrier without a staff embarked. During this period, there were 373 outgoing messages and 336 incoming, making a total of 2409, excluding relay traffic.

It was noted that during the latter part of the period the "George Fox" broadcast from Radio Guam slowed to eighteen to twenty words per minute. This has been a great help to our station, for relatively "green" operators are able to copy the schedule. The slow-down has noticeably reduced the number of requests for repetitions from smaller units and operators previously burdened with such requests are now able to keep the traffic moving at a faster rate on crowded circuits.

The four-carrier operations during the latter part of the period naturally boosted traffic loads, especially on circuit T6 (Ultra High Radio Teletype). Lack of circuit discipline caused some delay, but this condition corrected itself with time and a large volume of traffic was handled expeditiously.

A definite need exists for a qualified crypto machine repairman. This ship has had crypto machine failures the last two times on the line, and on one occasion, no classified traffic could be handled for two days. If it is impracticable
to assign one qualified crypto repair man to each CV type carrier, it is recommended that each carrier division staff have assigned as part of their permanent allowance, one qualified crypto repair man. This would insure that ships operating on line would always have a crypto repair man readily available.

F. Gunnery Department

Replenishments during the period covered by this report have been characterized by the further development of the cargo handling station at frame 72, starboard side, hangar deck. The modified house-fall rig was used on this station four times for ammunition, and once for provisions. On two occasions, the USS RAINIER (AE-5) was unable to rig in the house-fall manner and a Manila high line and trolley rig were used. Light, bulky material was handled in an efficient manner; the additional station is proving itself of material benefit in expediting the replenishment operation.

Fueling at sea evolutions have been uneventful. The Elwood method of fueling rig has been used exclusively.

G. Intelligence

1. Combat Reports

It is recommended that all forms used in the combat area be made up in a stencil form such as the air attack report and mission log. Under present conditions entirely too much time is being consumed in retyping reports which require a large number of copies. The workload on the yeoman could be greatly reduced by the use of these stencil forms. The reports that at present are consuming the most time in preparation are: Aircraft and Crew Survival Report (OpNav Form 3480.6); Aircraft Vulnerability Report (OpNav Form 3480.5); and the Aircraft Availability Report (OpNav Form 3430.2). It is recommended that these three report forms be the first to be made into stencils, to be followed by the remainder of the forms used in combat.

2. Charts and Maps

During the past two operating periods, the AAS Series L751 map (scale 1:50,000) has been used extensively for flak briefings and for cockpit charts for division leaders assigned to pin-point targets. The contours and vivid colors of the maps make them preferable in many cases to photographic overlays. It is recommended that a large supply of these maps be maintained at all times.
The predominant system used by the pilots in preparing cockpit charts has been to encase two 1:250,000 aeronautical approach charts in an acetate folder. The acetate used is 1/32 inch thick and each folder is divided into four parts (eight panels) to provide easy handling in the plane. Small acetate templates with properly scaled UTM Grid are used to procure a six digit coordinate. This system is highly recommended.

3. Training

It has been found that there is a deficiency in pilot training in "Seeing from Aircraft" and in the detection of camouflage. In Korea every target of value is extensively camouflaged and it has been found that it takes a considerable amount of time and experience before an untrained pilot can detect camouflaged targets. It is felt that a well-supervised course of study in "Seeing from Aircraft" and camouflage detection should be incorporated into the pre-deployment pilot training syllabus. Such a training course would reap great profits in the combat area. A course of this type could well be fitted into the close air support training course to a more extensive degree than it is at present, and should be followed up by constant training under the supervision of the squadron and air group intelligence officers.

4. Photo Interpretation

During this period of operation, the program of area cutting was reduced in favor of pinpoint demolition of lucrative targets such as transportation facilities, mining areas, and supply depots. This shift required the preparation of photographic mosaics both for briefing purposes and for target identification; the resultant was a tremendous increase in the work load of the PI Team, and a taxing of PI facilities to the maximum.

The inadequate space and shortage of personnel presents a real problem. Photo interpretation work in the Air Intelligence Office is constantly interrupted by the demands of intelligence. Space is not available to utilize the enlisted assistants as fully as they might be and therefore there is a considerable amount of time wasted. It is felt that minimum facilities should include two large chart tables, four four-drawer file cabinets, and approximately 150 cubic feet of storage space for supplies. Special attention should be paid to lighting, using overhead fluorescent lights and adjustable draftsmen's desk lamps.
SECURITY INFORMATION

The K-25 strike camera was abandoned during the period in favor of a K-17 camera with a twenty-four inch focal length lens. It was hoped that the increased focal length and negative size would produce better results at less danger to the pilot since they would not be required to fly as low. However, the system of installation and mounting of the K-17 allows camera vibrations causing image movement resulting in poor picture definition thereby nullifying any advantages gained.

H. Medical

The health of the crew has remained at a high level. There were 113 Venereal Disease admissions to the Sick List during the subject period.

PAUL D. STROOP

Copies to:

CNO (2) Advance
CinCPacFlt (2) Advance
CinCPacFlt Evaluation Group
ComNavFa (1) Advance
ComSEVENTHFlt (1) Advance
CTF 77 (1) Advance
ComAirPro (5)
ComServPro
ComFair(Japan)
ComFair(Ale)adore
Naval War College
ComCarDiv 1
ComCarDiv 3
ComCarDiv 5
ComCarDiv 15
ComCarDiv 17
USS ESSEX (CV-9)
USS CONROGA (CV-14)
USS BOXER (CV-21)
USS BON HOMME RICHARD (CV-31)
USS KEARSARGE (CV-33)
USS ORISKANY (CV-34)
USS ANTITAN (CV-36)
USS VALLEY FORGE (CV-45)
USS PHILIPPINE SEA (CV-47)
USS BATLILI (CVL-29)
USS RENDOV. (CVE-114)
USS BAIROKA (CVE-115)
USS BADOGO STR.IIT (CVE-116)
USS SICILY (CVE-118)
USS POINT CRUZ (CVE-119)
Carrier Air Group 2
Carrier Air Group 5
Carrier Air Group 7
Carrier Air Group 11
Carrier Air Group 15
Carrier Air Group 17
Carrier Air Group 19
Carrier Air Group 101
Carrier Air Group 102
Carrier Air Task Group 1
Carrier Air Task Group 2
CO, FairBeTuPro (2)
CO, Composite Squadron 3
CO, Composite Squadron 11
CO, Composite Squadron 35
CO, Composite Squadron 61
SECURITY INFORMATION

U.S.S. PRINCETON (CV-37)
Fleet Post Office
San Francisco, California

DCT/nls
CV37/A16-13
Serial: 0172

SECURITY INFORMATION

From: Commanding Officer, USS PRINCETON (CV-37)
To: Chief of Naval Operations
Via: (1) Commander Task Force SEVENTY-SEVEN
     (2) Commander SEVENTH Fleet
     (3) Commander Naval Forces, Far East
     (4) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 4 July 1952 through 6 August 1952

Ref: (a) OpNav Instruction 3480.4
     (b) CVG-19 conf 1tr ser.030 of 4 August 1952 (Air Attack
         Reports for the period 7 July through 3 August 1952)

1. In accordance with reference (a) the Action Report for the period
   4 July 1952 through 6 August 1952 is hereby submitted.

PART I . GENERAL NARRATIVE

On 4 July, pursuant to CTF 77 confidential dispatch 010642Z of
July 1952, the USS PRINCETON with Carrier Air Group Nineteen
embarked departed Yokosuka, Honshu, Japan and proceeded to the
operating area. On 6 July the PRINCETON rendezvoused with Task
Force 77.

Task Force 77 was composed of four aircraft carriers, the
USS PRINCETON, USS BOXER, USS PHILIPPINE SEA and the USS BON
HOLME RICHARD, with various heavy support and screening ships.
The USS PHILIPPINE SEA was relieved by the USS ESSEX midway in
the operating period.

The mission of this force was as set forth in Commander
Task Force 77 Operations Order No. 22-51 (Second Revision).

Throughout the period of this report the Princeton air
group flew close air support missions, interdiction strikes,
and strikes against supply dumps, billeting areas and industrial

SECURITY INFORMATION
targets, along with various type sorties in support and defense of United Nations Naval Forces.

The interdiction strikes continued to be made against North Korean east coast and trans-peninsular railroads. Daylight strikes were directed against bridges, marshalling yards and sections of track which were difficult to repair. Night hekler and dawn recco flights were made in an attempt to catch the enemy trains and trucks on the move.

Due to the rather static conditions which existed along the front lines close air support missions were limited. A few were flown to maintain a state of readiness should a need for close air support arise.

More and more, the major effort shifted to targets of a strategic nature: power plants, mining activities, fact; ies, supply storage areas, et cetera.

Attacks were continued against the hydro-electric complexes in an effort to obtain complete destruction. In spite of a major shift of enemy AA in defense of these plants the attacks were pressed home with a great degree of success. At the same time thermo-electric plants were brought under attack in the major industrial cities along the east coast of Korea with good results.

On 11 July, a joint Navy, Air Force and Marine attack was made against industrial targets in Pyongyang, capital of North Korea. Participating in the attack, which developed into one of the major air efforts of the Korean War, the PRINCETON launched a deck load strike of Panthers, Corsairs, and Sky- raiders with good results against the assigned targets. Only one PRINCETON aircraft was lost in this well coordinated attack against heavily defended targets.

Attacks were also made against industrial targets along the East Coast of Korea, an example of which was the attack of 28 July on the Khilchu magnesite plant and associated facilities. A total of thirty-eight aircraft, thirteen AEs and twenty-five F4Us, in two strike groups dropped forty tons of bombs and rockets on the targets, resulting in sixty percent destruction of the magnesite plant, complete destruction of a thermo- electric plant which furnished power to the magnesite plant, major damage to a barracks area and three to five cuts in the main railroad bridge leading south from Khilchu. Other attacks against similar industrial and mining activities throughout northeast Korea were equally successful.
SECURITY INFORMATION

In addition to the major strikes, the Princeton furnished naval gunfire spot flights for surface units blockading the coast and CAP and ASP flights in defense of the Force.

Two successful rescue operations resulted when two Corsair pilots were forced to bail out over enemy territory after their planes were so heavily damaged by flak that engine failure resulted. One pilot landed about twenty miles northeast of Hamhung late in the afternoon. A rescue attempt was made that afternoon but failed due to adverse weather and darkness. A second and successful rescue attempt was made as soon as weather permitted the following morning. The second pilot bailed out ten miles east of Kilchu and was picked up about two hours later. In both instances adverse weather and active enemy opposition were encountered. The cooperation of the USS Iowa and the USS Helena which furnished the helicopters, the team work of the RESCAP members from Air Group Nineteen, and the survival techniques and procedures of the downed pilots were considered outstanding in both cases.

On 3 August, upon completion of flight operations, the Princeton departed Task Force 77 and proceeded to Yokosuka, Honshu, Japan for a period of rest and recreation.

PART II  CHRONOLOGICAL ORDER OF EVENTS

4 - 6 July

Enroute operating area.

7 - 9 July

Conducted air operations off Northeast Korea. Three hundred fourteen sorties were flown, 212 of which were offensive.

10 July

Replenished.

11 - 13 July

Conducted air operations off Northeast Korea. One hundred seventy-six sorties were flown of which 117 were offensive.

14 July

Replenished.
15 - 16 July

Conducted air operations off Northeast Korea. Sixty-one sorties were flown of which twenty-six were offensive.

17 July

Replenished.

18 July

Inclement weather conditions forced the cancellation of all air operations.

19 - 20 July

Conducted air operations off Northeast Korea. Seventy-eight sorties were flown, 59 of which were offensive.

21 July

Replenished.

22 - 24 July

Conducted air operations off Northeast Korea. Three hundred fifty-eight sorties were flown, 220 of which were offensive.

25 July

Replenished.

26 - 28 July

Conducted air operations off Northeast Korea. Two hundred fifty-three sorties were flown, 162 of which were offensive.

29 July

Replenished.

30 July - 3 August

Conducted air operations off Northeast Korea. Three hundred twenty-six sorties were flown, 236 of which were offensive.

4 - 6 August

Departed Task Force 77 and proceeded to Yokosuka, Honshu, Japan.
SECURITY INFORMATION

PART III  ORDNANCE

A. Performance

1. Ship's

One ordnance casualty was incurred during the period: the left two barrels of 40MM quad mount number 410 were damaged and thrown out of alignment in both train and elevation when an F4U crashed into the mount. The spring-carriage and housing are sprung to such an extent that replacement of the entire mount is necessary.

One fire control equipment casualty also occurred when the turning fork assembly (Y4701) of the port after MK 56 system ceased to function due to an open coil. Since the necessary spare part is not included on the ship's allowance list, the director was out of operation for six days pending replacement of the necessary mechanism.

The results of the preventive maintenance program and on-board training of maintenance personnel is reflected in the low incidence of casualties and the excellent over all performance of fire control equipment.

2. Aircraft

Some difficulty has been encountered with the electrical lead to the Douglas bomb ejector rack on the AD-4's. It is recommended that a quick-disconnect lead, instead of the present screw on type, be installed.

Hang Ordnance Report: 4 July through 6 August 1952

<table>
<thead>
<tr>
<th>Type</th>
<th>AERO 14A</th>
<th>MK 8 MOD 2</th>
<th>MK 51</th>
<th>MK 55</th>
<th>Doug. Bomb Ejector</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>100# Frags</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>250# Frags</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>500# Frags</td>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
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<tr>
<td>1000# Frags</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2000# Frags</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>15</td>
<td>2</td>
<td>28</td>
</tr>
</tbody>
</table>
Disposition of hung ordnance:

<table>
<thead>
<tr>
<th>Type</th>
<th>Later manual release</th>
<th>Releases by jerking</th>
<th>Remaining on racks</th>
<th>Drop offs on landing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>100# Frags</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>250#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500#</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>1000#</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2000#</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Of the 5,005 bombs carried, a total of twenty-eight bombs or .559 percent hung up.

B. Expenditure

Total Ammunition Expended 4 July through 3 August 1952

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>204</td>
<td>K1</td>
<td>2000&quot; GP</td>
</tr>
<tr>
<td>383</td>
<td>K2</td>
<td>1000&quot; GP</td>
</tr>
<tr>
<td>740</td>
<td>K3</td>
<td>500&quot; GP</td>
</tr>
<tr>
<td>1934</td>
<td>K4</td>
<td>250&quot; GP</td>
</tr>
<tr>
<td>511</td>
<td>K5</td>
<td>100&quot; GP</td>
</tr>
<tr>
<td>8</td>
<td>K8</td>
<td>350# DB AN-MK 54</td>
</tr>
<tr>
<td>1102</td>
<td>K9</td>
<td>220/260# Frag</td>
</tr>
<tr>
<td>150</td>
<td>KL2</td>
<td>100# INC Cluster</td>
</tr>
<tr>
<td>2</td>
<td>KL4</td>
<td>Cluster Adaptor</td>
</tr>
<tr>
<td>4</td>
<td>KL4B</td>
<td>Bomb, Frag M33, W/fuze ML30 (T4)</td>
</tr>
<tr>
<td>14</td>
<td>KL4C</td>
<td>Bomb, Frag. M33, W/fuze ML3 (T49)</td>
</tr>
<tr>
<td>1189</td>
<td>K19</td>
<td>Fuze, Nose; AN-M103Al</td>
</tr>
<tr>
<td>1704</td>
<td>K20</td>
<td>Fuze, Nose; AN-M139Al</td>
</tr>
<tr>
<td>509</td>
<td>K21</td>
<td>Fuze, Nose; AN-M140Al</td>
</tr>
<tr>
<td>92</td>
<td>K23</td>
<td>Fuze, Nose; AN-146</td>
</tr>
<tr>
<td>28</td>
<td>K25</td>
<td>Fuze, Nose; VT, T90</td>
</tr>
<tr>
<td>165</td>
<td>K26</td>
<td>Fuze, Nose; VT, T50El</td>
</tr>
<tr>
<td>994</td>
<td>K29</td>
<td>Fuze, Nose, VT, AN-M168(T91El/91)</td>
</tr>
<tr>
<td>305</td>
<td>K30</td>
<td>Nose Fuze, AN-MK 219</td>
</tr>
<tr>
<td>3547</td>
<td>K35</td>
<td>AN-M100A2(ND)</td>
</tr>
<tr>
<td>743</td>
<td>K36</td>
<td>AN-M101A2 (.025)</td>
</tr>
<tr>
<td>587</td>
<td>K37</td>
<td>AN-M102A2 (.025)</td>
</tr>
<tr>
<td>2</td>
<td>K39</td>
<td>ML16 (4-5)</td>
</tr>
</tbody>
</table>
SECURITY INFORMATION

Total Ammunition Expended 4 July through 3 August 1952 (Cont.)

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>K48</td>
<td>Hydrostatic Fuze, Tail AN-MK 230</td>
</tr>
<tr>
<td></td>
<td>K49C</td>
<td>Primer Detonator, M14 (0.1)</td>
</tr>
<tr>
<td>1337</td>
<td>L6A</td>
<td>6.5 Head, (ATAK) MK2</td>
</tr>
<tr>
<td>1372</td>
<td>L8B</td>
<td>5.0 Rocket Motor MK 10-5</td>
</tr>
<tr>
<td>1372</td>
<td>L9</td>
<td>Fin Assembly for 5.0 MK 2 &amp; 10</td>
</tr>
<tr>
<td>59297</td>
<td>M1</td>
<td>20MM HEI, M97</td>
</tr>
<tr>
<td>52794</td>
<td>M2</td>
<td>20MM INC, M96</td>
</tr>
<tr>
<td>46093</td>
<td>M3</td>
<td>20MM AP-T, M95</td>
</tr>
<tr>
<td>154361</td>
<td>M4</td>
<td>Link, 20MM M8 or M3 El</td>
</tr>
<tr>
<td>47920</td>
<td>M6</td>
<td>Cal. .50 API, M8</td>
</tr>
<tr>
<td>47920</td>
<td>M7</td>
<td>Cal. .50 INC M1</td>
</tr>
<tr>
<td>23960</td>
<td>M8</td>
<td>Cal. .50 API-T M20</td>
</tr>
<tr>
<td>119700</td>
<td>M9</td>
<td>Link, Cal. .50 A/C M2</td>
</tr>
<tr>
<td>276500</td>
<td>M10</td>
<td>Cal. .50 Belted, (2-2-1, Napalm Type 1 or M3</td>
</tr>
<tr>
<td>4730</td>
<td>N1</td>
<td>Igniter, WP, M15 or M215</td>
</tr>
<tr>
<td>88</td>
<td>N2</td>
<td>Igniter, WP, M16 or M216</td>
</tr>
<tr>
<td>176</td>
<td>N6</td>
<td>Fuze, M157, W/Burster CS71</td>
</tr>
<tr>
<td>98</td>
<td>N7</td>
<td>Gas Tank MK 12</td>
</tr>
<tr>
<td>65</td>
<td>N10</td>
<td>Xylencol</td>
</tr>
<tr>
<td>18</td>
<td>P2</td>
<td>Parachute Flare MK 5</td>
</tr>
<tr>
<td>8</td>
<td>P3</td>
<td>Parachute Flare MK 6</td>
</tr>
<tr>
<td>16</td>
<td>P4</td>
<td>Parachute Flare MK 8-1</td>
</tr>
<tr>
<td>90</td>
<td>P7</td>
<td>Parachute Flare, AN-M26</td>
</tr>
<tr>
<td>46</td>
<td>P13</td>
<td>Drift Signal, AN-MK 5</td>
</tr>
<tr>
<td>65</td>
<td>P38</td>
<td>Bomb Ejtr. Ctg. MK 1</td>
</tr>
<tr>
<td>10</td>
<td>P39</td>
<td>Bomb Ejtr. Ctg. MK 2</td>
</tr>
<tr>
<td>50</td>
<td>U38</td>
<td>Destructors</td>
</tr>
</tbody>
</table>

PART IV  BATTLE DAMAGE

A. Own

The ship sustained no battle damage. See reference (b), Air Attack Reports 162-52 through 280-52, for the battle damage sustained by Princeton aircraft.
B. Enemy

See reference (b), Air Attack Reports 162-52 through 280-52 for the damage inflicted upon the enemy.

PART V PERSONNEL

A. Personnel Count

The average on-board count for the reporting period was:

<table>
<thead>
<tr>
<th></th>
<th>Officers</th>
<th>Enlisted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship's Company</td>
<td>120</td>
<td>2024</td>
<td>2144</td>
</tr>
<tr>
<td>Marines</td>
<td>2</td>
<td>67</td>
<td>69</td>
</tr>
<tr>
<td>Air Group</td>
<td>139</td>
<td>650</td>
<td>789</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>261</td>
<td>2741</td>
<td>3002</td>
</tr>
</tbody>
</table>

The following rates were transferred:

one YNTC(A), one AB2(T), one BTG2, one MML2, one MU2(T)
two BM3, one BTG3, one HM3, one MML3, three MU3, one SN
one SHSN, eleven SA and one FA.

The following rates were received:
eleven SN, one MUSN, one HN, eight SA, two FN, one FA
and one ATAN.

B. Personnel Performance

It is considered that the Princeton reached the highest level of operating efficiency during this tour particularly as regards personnel performance. The serious handicap of shortage in petty officer ratings has been overcome, to a large extent, by the effective combination of a vigorously prosecuted training program and practical experience. A great many non-rated men are now effectively and efficiently taking the place of petty officers.

The pilots exhibited the highest degree of flying proficiency as evidenced by the fact that there were a minimum of barrier accidents, no major flight deck accidents, and keen competition for all flights. Ordnance, maintenance, and aircraft ground crews continued to give outstanding performances,
SECURITY INFORMATION

The following dispatches concerning the performance of the Princeton were received during the operating period:

FROM: USS ALSTEDE
TO: CTF 77

"TRANSFERRED 57.8 GROSS TONS TO PRINCETON IN 23 MINUTES X AVERAGE RATE 150.7 TONS PER HOUR X THIS BETTERS ALL PREVIOUS RATES AND MADE POSSIBLE BY EXCELLENT COOPERATION AND STATION KEEPING PRINCETON"

FROM: COMAIRPAC
TO: USS PRINCETON

"RECORD PROVISIONING RATE INDICATED ALSTEDE 140220Z NOTED WITH PLEASURE X WELL DONE TO PRINCETON AND ALSTEDE X SIGNED VADM H.L. MARTIN"

C. Morale

The morale of personnel remained high throughout the period, which lasted thirty-four days. It was noted, however, that within both the air group and ship evidences of personnel fatigue developed in the last ten days of operations. It is recommended that for full-out operations "on the line" three weeks be selected as the optimum, when other considerations permit, in preparing schedules.

The vigorous and successful conduct of rescue operations has been a most important factor in maintaining pilot morale. Five Princeton pilots were shot down within enemy held territory during the last month. There was no chance of survival for three who crashed with their aircraft but the other two who landed by parachute were returned expeditiously through the combined efforts of a RESCAP and helicopters dispatched by the USS IOWA and the USS HELENA.

Some factors contributing to high morale were regular concerts by the ship's band and entertainment by a recently organized string band. A program of recorded music also has been provided over the RBO system; the record library was made up on a loan basis by the ship's complement.

D. Training

During the past operating period on-board training and educational services have reached an all time high both in volume and personnel participation. This fact may be noted by reviewing the monthly training and quarterly U.S.A.F.I. reports.
One important innovation in relation to training is the instigation of a more stringent on-the-job training program. This program has been carried out principally through use of on-the-job checkoff sheets which have been expanded for each rate and now include functions peculiar to this class of ship.

Considerable difficulty has been experienced in obtaining training materials, textbooks and training devices in the Japan area. It is recommended that more materials be made available for quick delivery at the various bases in Japan. More up to date training films are needed to replace those which are definitely out-dated.

II. Casualties

Ship's company personnel suffered no casualties during the period. The following casualties were incurred by Air Group Nineteen personnel:

11 July 1952: Lldr L.J. DUTEMPLE, VA-195, was reported missing in action when his AD-4 crashed while on a strike on Pyongyang. Cause of the crash was enemy ground fire.

13 July 1952: Lt H.B. BARBOUR, VF-192, was wounded in the left arm by small arms fire while on a close air support mission. Lt BARBOUR made an emergency landing at K-52.

22 July 1952: Lt H.S. SCHLOER, VF-192, received wounds on his face and shoulder when his F4U was hit by enemy ground fire. Lt SCHLOER made an emergency landing at K-18.

27 July 1952: Ens P.D. SKINNER, VF-191, was killed when his F9F2 crashed in the sea after a mid-air collision while on a CAP flight.

1 August 1952: Lt(jg) O.B. HOLMAN, VA-195, was killed in action when his AD-4 crashed into the sea following a strafing run. The cause of the crash is believed to have been enemy ground fire.

3 August 1952: Lt W.E. FULLMAN II, VF-193, was killed in action when his F4U-4 crashed while on a bridge strike. Cause of the crash is believed to have been enemy ground fire.

During this period seven pilots were grounded and three were hospitalized for short periods of time, primarily for minor contusions and shrapnel wounds incurred as a result of ditchings, bailouts, and anti-aircraft fire.

ALL PRE-JAN 1956 HSV DOC DECLASSIFIED. AUTH: CNO LIB SECRET 0090333/653776 "INCREASE/DECLASS NAVAL RECORDS"
Summary of pilots lost from the Air Group from 4 July to 6 August 1952:

Deaths  Pilot 3
Aircrewsman 0
Missing in Action - Pilot 1
Psychological 0
Injury 6
Disposition Board 0
Total 10

PART VI SPECIAL CONTENTS

A. Carrier Air Group NINETEEN

1. Operations

During the period 4 July through 6 August, Carrier Air Group NINETEEN flew 1,567 sorties for a total of 3,836.5 hours during 18.5 operational days. All assigned commitments were met, the only cancellations being due to non-operational weather over the target area. The Air Group was unable to operate a total of 3.5 days. An average of seventy-seven sorties per day was flown by the Air Group. The average number of flights for the jet pilots was twenty, and for prop pilots 10.3. Average time in the air was 31.8 hours per pilot.

Strike tactics varied with the schedules and targets assigned. By launching larger strike groups the force was able to hit heavily defended targets, such as Chosen #1 hydroelectric plant and Pyongyang, in spite of intense anti-aircraft fire encountered. Strikes from this group had a normal composition of from eight to twelve jet aircraft for initial flak suppression, twelve to twenty-eight Corsairs for secondary flak suppression and/or bombing, and eight to fourteen AD's for the major bombing effort. Coordination of the strike elements was achieved by launching the conventional prop aircraft about one-half hour before the jet launch and effecting a rendezvous of the two types about ten to fifteen miles from the target area. This enabled all aircraft to proceed to the target and execute the attack as one tactical unit. It is recommended that on strikes against such targets one carrier launch maximum effort for any given strike.

The use of jet aircraft for flak suppression was substantially increased during this period of combat and
the overall effectiveness of flak suppression materially increased by the use of up-to-date flak studies and target photographs in briefings. In cases where anti-aircraft gun positions were difficult to pin-point due to terrain or camouflage, the wide area coverage of the VT fuzed 260 pound fragmentation bomb afforded sufficient blast effect to provide effective suppression. However, where the individual AA positions were prominent and easily detected, the 6.5 inch anti-tank and five-inch HVAR rocket proved best, both in actual damage to the positions and in adverse psychological effect on the enemy ground troops.

Efforts to increase the size and effectiveness of night heckler missions were continued with good results. A ten-plane launch composed of two F4U-4's from VF-192 with qualified night pilots, four F4U-5N's from VC-3, and four AD-4NL's of VC-35 proved most successful. This launch of ten aircraft in five sections provided, in addition to the obvious advantage of greater intruder potential, more rapid and comprehensive weather reconnaissance of the target areas assigned to early morning strike groups.

The importance of good photo coverage for planning and executing all strikes cannot be over-emphasized, both for target identification and the accurate location of AA positions in the area.

During this period of operations, target assignments were varied and it was obvious that the Task Force Commander was continually searching for lucrative targets. This variation in attacks heightened pilot interest and enthusiasm. It is also believed that employing the element of surprise served to reduce losses as well as insure more effective use of available force.

The rail interdiction program appears to be decreasing in effectiveness. The combination of AA defense at key locations and rapid repairs of rail cuts has reduced the time rail lines are out of commission and has given the enemy a relatively free period of operation each night. It is recommended that considerably more emphasis be placed on night operations, at the same time shifting from rails to locomotives and rolling stock as targets, keeping a few hecklers over the target area all night long whenever operating conditions permit.

From observation it appears that the highway system is being improved, particularly bridges; and that
truck traffic is increasing. If interdiction of supply lines is to be effective, it is believed that more emphasis could be placed on attacking and harassing highway traffic, particularly at night.

Increased AA defense at the partially destroyed power plant sites is an indication of the importance placed by the enemy on these installations and the necessity for effecting repairs. Periodic surveillance and attacks to keep the power plants out of commission are strongly recommended. In order to make these attacks yield the maximum result at the least cost to ourselves, it is recommended that coordinated flak suppression flights be scheduled on those targets where AA is expected. Jets can be employed here. The attacks should also be concentrated and heavy with at least twelve or more aircraft using heavy bombs (at least five-hundred pound bombs and preferably one-thousand or two-thousand pound bombs).

2. Maintenance

The usual amount of ignition trouble was encountered at the commencement of this tour. This trouble is believed to be aggravated by pin-wheel operations.

The use of overhauled RB-19 spark plugs has resulted in additional ignition trouble throughout the tour. No new RB-19-2 spark plugs have been received aboard. Reworked plugs have been averaging only sixty hours instead of the prescribed 120 hours. It is strongly recommended that only new spark plugs be stocked in the forward area.

The availability of spare parts in the aviation supply system is the largest maintenance difficulty. Some aircraft are operating without APX-6's, auto-pilots, auto-cowls, auto-oil coolers, G-2 compasses, degreaser units or turn-and-bank indicators. Others are often down for night or instrument flying because of instrument inadequacies. Schedules have only been met by shifting instruments from planes which were down for other reasons. Several days availability was lost because flaps, ailerons, cylinders, push rod packings, rocker box cover gaskets and windshields were not available.

In view of the present pattern of Task Force 77 operations it is felt that time would be saved if tools and a small selected list of spare parts for the F9F, F4U, and AD were made available at MCs.
3. Electronics

The CV allowance of electronics equipment should include two sets of UPM-8 (APX-6 test equipment). This increase in allowance is deemed necessary due to the slow replacement of spare parts for this equipment.

The principal electronics discrepancies for the reporting period have occurred with VHF transceivers. These discrepancies were primarily intermittent fading and cutting out of both transmitted and received signals. This intermittent fading occurred, to a varying extent, in all three of the AEW configured aircraft. The cause of this fading and cutting out was found to be corroded antenna and ground leads. The discrepancy was corrected by a general cleaning and burnishing of all antenna and ground connections. A policy of more frequent inspections of such connections has been instituted and should prevent recurrence of this discrepancy.

4. Survival

The following report is a compilation of comments and recommendations of the survival officers of the squadrons and staff of this command:

VF-191 has produced locally a small knapsack for the PK-2 raft container. All survival gear in the raft kit is placed in the knapsack for immediate removal. The pack has been colored green for summer use and the squadron has recommended white for winter use.

Two pilots of VF-192 received wounds in flight during dive bombing runs. One received a small arms wound in the arm. He stopped bleeding by the use of a locally made tourniquet carried in the cockpit. It was made in the parachute loft of one and one-half inch webbing, approximately thirty-six inches long, folded over and sewn to a one-fourth inch width, with a five inch loop in one grid for easy application. Instruction in the proper use of the tourniquet has been given by the flight surgeon of this command. A second cockpit aid is the installation of two cc ammonia ampules (each pilot also carries a one-third cc ammonia capsule), to be used in case of dizziness or weakness in flight. The flight surgeon also has given instruction in the proper use of this item.
VF-193 has had three pilots down in enemy territory (two of them during this operating period). Two of these had modified AN/CRC-7 radios. They both expressed the opinion that the noise on "receiver" was too loud, even to the extent of giving their position away to the enemy. One did not use his radio for that reason, whereas the other expressed a high opinion of its general value. It was found in the single case in which the AN/CRC-7 was used that the battery did not last longer than approximately one hour. It is recommended that new batteries be supplied to assure longer life for the radios. The MK. III mirror was used by the pilot mentioned above who did not use his radio. The RESCAP leader stated that "it looked like a search light and could definitely not be mistaken for a water reflection."

VA-195 has installed snaps on the left shoulder harness six inches above the shoulder strap adjustment buckle, and a ring on the oxygen trunk near the quick-release fitting. By hooking the ring into the snap the weight of the oxygen trunk is taken off the mask, making it more comfortable to wear.

Pilots of VA-195 report that backaches occur when the metal plate formed sponge-rubber back-pad is used and recommend that its use be discontinued. They further recommend a considerable increase in the allotment of life vest compasses (Stk #R-18-C-1530-200) to the supporting ship. Loss by ditchings and bail-outs has resulted in a serious shortage of this item for re-outfitting of pilots for return to flying. This same comment holds true for other items of light gear and personal safety and survival equipment such as sheath knives, .38 caliber pistols, flashlights, penlights and helmets.

In accordance with a proposed technical order in BuAer letter 54438, web tabs have been attached to the parachute quick-adjust buckles of squadrons of this command. They have been found highly effective for quick release of the parachute harness and it is believed that they would be especially helpful when in the water where the buckles are especially hard to loosen.

Modified AN/CRC-7 radios have been installed in all PK-2 raft kits possible. One hundred percent installation will be completed as soon as the remaining quantity of radios required is received.

Many pilots of this command, acting on recommendations of pilots who have been on the ground in Korea or hit by AA fire,
now wear their oxygen masks (hose unattached), two-lensed goggles, and a wrapped neck scarf during their runs over the target for maximum protection from fire, splintered canopy and flak. A second (usually darker) plastic lens is worn over the goggles to prevent, as much as possible, splintering that could damage the eyes.

B. Operations Department

1. Aerology

   a. General Weather Summary

   Weather conditions throughout most of the operating period were influenced by weak high pressure cells with a stationary front extending along the Japanese Islands. Rain, fog, and increased cloudiness resulting from a northerly movement of this front restricted operations on 9, 10, and 15 through 18 July. During the period 28 through 31 July, operations were again curtailed by rain, poor visibility, and low clouds, a result of the rapidly deepening low that formed in the region of the Pan Tao Peninsula and moved eastward. The vortex of this storm passed over the operating area on 30 July.

   b. Equipment

   Experiments in tracking the target reflector RR-29/AM were unsatisfactory due to the fact that the minimum range of the SK radar is too great (approximately three miles). Satisfactory tracking of the reflector target ML307B/AP was accomplished, using fire control radar.

   c. Communications

   Guam radio-teletype reception was good, however, coverage of Korean reports was poor.

   Tokyo radio-teletype reception was fair except when a front existed between Tokyo and the operating area. Coverage of Korean reports was good.

   Facsimile reception in general was good with the exception of interference from CW transmissions.

2. Air Operations

   Air operations has revitalized its instrument training program in order to maintain proficiency among the
ship's company aviators. The Instrument Board planned a series of lectures on flight procedures, the subject matter being extracted from pertinent portions of the Navy "All Weather Flight Manual". In addition, a comprehensive flight check sheet was edited and a sixty question written examination prepared on CAR and the flight procedure syllabus.

During replenishment and foul weather operating days ship's company aviators are briefed on instrument flying with particular emphasis on airways flying.

Effective instrument cards are held by all ship's aviators who were attached to this command prior to deployment from the United States. Two aviators who have reported for duty while in the forward area are now in the process of preparing for the written examination. These officers will be processed through the flight syllabus during the in-port period.

3. Combat Information Center

a. Equipment Performance:

The performance of the SX and SPS-6b radars has been excellent. The maintenance opportunity afforded each replenishment day was ample to keep the gear in top operating condition. In spite of the obvious advantages of the SX as an all purpose radar, the SPS-6b is far superior to it for air search especially where jet aircraft are concerned.

Ducting effect has been observed more frequently during this period than on previous operating tours. This phenomena usually occurs at altitudes below four thousand feet. On several occasions two aircraft have been tracked out to 140 miles by radar and kept in contact with Mark X IFF up to 160 miles. Surface contacts have been picked up at ranges up to ninety miles.

RHI information has been reliable but the limited range of this gear (thirty-five to forty-five miles) is considered to be a very serious handicap in the effective interception of high speed, high altitude aircraft.

b. Operating Procedures

It has been found by experience that a four section, six-hour watch is the optimum for continuity and peak individual performance. This schedule places the watches on a meal to meal basis. The watch sections stand the same watch for four days then rotate, usually on a replenishment day.
SECURITY INFORMATION

The "middleman" feature of the AEW aircraft has proved invaluable on days when weather conditions over targets is marginal and frequent weather reports are needed from recco planes. Furthermore, during rescue operations the use of this gear has enabled the controlling ship to attain information with a speed not possible otherwise because of the distance involved. Usually a destroyer exercised control over the ASP aircraft but during the above mentioned usage of "middleman" it has been found more efficient to turn control over to the strike control ship.

c. Training

In order to promote mutual appreciation of other department's problems and limitations, CIC Watch Officers stand a daily watch on the bridge. At the present time two CIC officers have qualified as OOD; two more will be qualified in the near future. The ultimate goal is to have as many CIC officers as possible qualified as OOD. In addition, officers qualified as OOD stand watches in CIC as Surface Watch Officer and Gunnery Liaison Officer. An increase in coordination efficiency between the bridge and CIC may be attributed to this program.

For this operating period and during replenishment days, all radar equipment has been secured for periods of one to two hours for purposes of conducting passive ECM drills and operator training. Although interference has been noted from the radar of other ships in the force, this type of training has proved beneficial to both operators and equipment.

4. Communications

Several factors contributed to the success of communications operations during this period. One of the most important of these factors was the changing of George Fox broadcast speed of transmission from 25 words per minute to 22 words per minute since it permitted the department to utilize as watchstanders many men not qualified to operate on the former frequency. Furthermore, the release of experienced personnel made possible by this change has permitted the department to place more men back on the nets.

In order to distribute the work load within the Task Force, larger units have assumed guard on various circuits at the direction and discretion of the Task Force Commander.
SECURITY INFORMATION

This move has obviated duplication of effort in many instances. It has worked out very satisfactorily and is a partial solution to the personnel shortage.

The Task Force RATT has proved to be a most valuable circuit even though its maximum efficiency has not been reached. Alert handling and strict circuit discipline have keynoted RATT operations. However, the number of units on a RATT net and the fact that it is a simplex circuit prevent traffic from moving with optimum speed and efficiency. Furthermore, these factors have created frequent circuit tie-ups and transmission errors. It is suggested that tapes be cut for every dispatch wherever practicable.

On-board training has proved insufficient to fill gaps created by the loss of experienced personnel. It is hoped that school quotes requested from ComAirPac for QM, RM, and TE ratings will be approved. If this approval is secured the personnel concerned will be sent to the training center a month before the ship's arrival in the United States and thus will be available to the ship upon completion of scheduled yard availability.

5. Intelligence

a. Photo Interpretation

The volume of work required of the Photo Interpreter during this operating period was considerably less than that of preceding periods. This was due primarily to the inclement weather which prevailed in the operating area. The decrease in preparation and use of turrets was a second contributing factor. However, target and flak mosaics were prepared and reproduced on a continuing basis.

The following method of plotting AA gun positions for jet flak suppression was employed during the last part of the period: rather than placing the symbol directly over the position, it is plotted in the immediate vicinity and connected to the position by a narrow line, thus enabling the pilot to get a view of the actual position and adjacent terrain.

This system, devised in conjunction with the Commanding Officer of VF-191, has received favorable comments from the pilots involved.

C. Gunnery Department

Performance of deck-seamanship evolutions and gunnery exercises has been excellent. The shipboard training
program has been an effective aid in increasing the proficiency of the crews.

Replenishments during the period covered by this report have been characterized by efficiency and high average rate of loading. The message received from the USS ALSTEDE (see PART V) after one replenishment indicates the high caliber of these operations.

The Princeton has fueled destroyers on nineteen separate occasions during this period, all but three of these being after "darken ship”. The following lighting arrangements have been found desirable:

1. Red light every twenty feet along ship-to-ship distance line (for station keeping).
2. Red light on each saddle of fueling hoses (for use of fueling crew).
3. Red light on material being transferred by high line.
4. Green light showing outboard on tip of each fueling boom (for fore-and-aft station keeping).

The above lights are all one-cell life-jacket flashlights with painted lenses. They are turned on just prior to use. For deck working lights, which are held to a minimum, red-lensed battle lanterns and flashlights are used. They are not permitted to show outboard. Destroyers have no difficulty keeping station, hoses are always properly positioned, control of material being transferred is sure and no violation of "darken ship" is committed.

D. Air Department

Helicopter Unit NINE of HU-1 based aboard the Princeton flew for this period a total of 119.2 hours in twenty-six flying days for what is believed to be a new record. No missions were aborted and one hundred percent availability was maintained at all times. The unit accomplished the rescue of one Princeton pilot, following a water landing. During the last two operating periods Commander Task Force 77 has assigned a duty helicopter for each replenishment day, utilizing, on a rotational basis, each of the helicopter units with the Task Force. The continued employment of this system is highly recommended in that it affords maximum maintenance time on non-duty days.
E. Navigation Department

During the period of this report an intensive program for the training of underway deck watch officers was started. Until this time few ship's company line officers had any opportunity for the needed experience to qualify as Officers of the Deck underway. A situation had developed where a small staff of well trained underway Deck Watch Officers were the only ones gaining ship handling ability. This group totaled fifteen watch standers with the following departmental breakdown:

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>ELIGIBLE WATCH OFFICERS</th>
<th>ACTUAL WATCH OFFICERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td>(Incl. Nav.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Gunnery</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>15</td>
</tr>
</tbody>
</table>

It is apparent, that the Gunnery Department was the one whose officers were given the greatest opportunity for valuable ship control experience required for command. The twenty ship's company aviators eligible for watch standing (Lcdr and below) all had time-consuming primary duties in CIC, Air Plot, Air Intelligence, or on the flight deck. Of those, only one had been allowed to stand watches on the bridge, as well as in Air Plot.

In an effort to correct the above situation the following program for the training of underway Deck Watch Officers is being conducted for eligible line officers from Ensign to Commander:

1. Study program of all applicable publications, regulations, and fleet letters.
2. Maneuvering board.
3. Communications, with emphasis on use of tactical circuits.
4. Radar capabilities and application.
5. Engineering Plant—capabilities and limitations.
6. Familiarization tours and instruction on the navigation bridge.
7. Emergency bills.
8. Steering gear—including a complete tour of the system and practical instruction at the helm.
SECURITY INFORMATION

The self-study is prosecuted concurrently with lectures and practical work. A quiet, unoccupied sea cabin in the island is used as an ideal retreat for study and a library of pertinent reading matter is made available there. Practical experience is made possible by the assignment of five candidates to the watch bill as a third JOOD on a day-to-day basis. Frequency of the watch is necessarily less than that of the regular watch bill and each candidate is assigned watches which normally will not interfere with his primary duty.

Under the guidance of the Officer of the Deck, every opportunity is taken to qualify the candidate at each function of the watch. To give the officer an immediate feeling of progress and realization of the problems of ship handling he is allowed to maneuver the ship. The process is then one of "make you learn" as opposed to learning by observation.

The number of OOD's is drawing ahead of the Bureau of Personnel's detaching orders and a back log of qualified officers who can be "put on ice" has developed. Senior officers aboard who had never stood a bridge watch are gaining experience; they hear their own voices raised in command, conning a large ship. With the responsibility of "having the deck" comes the increase in abilities and self-confidence in ship handling needed by our Navy today.

F. Medical Department

The general health of the crew continued at its previous excellent level. There were no serious diseases or injuries. Three wounded pilots were returned aboard for care. There were sixty-eight admissions to the sick list for venereal diseases during the period of this report. A series of venereal disease and First Aid lectures were given and approximately ninety-eight percent of the total ship's company and air group personnel attended.

G. Chaplain

The following program of religious activities was carried out during the operating period: An evening prayer was offered nightly at 1900 with Catholic and Protestant Chaplains alternating. Two Protestant and three Catholic services were conducted on Sundays. Daily masses and confessions were held for men of the Catholic faith, with religious instruction classes conducted Monday through Friday. Protestant Divine Services were held daily and Bible classes were conducted three days per week.

SECURITY INFORMATION 22
A memorial service for personnel lost during the operating period was held upon departure from the Task Force.

Although a Hammond organ and permanent public address system are installed for hangar deck services, operations with the Task Force at times precluded any use of these facilities. The problem was resolved by conducting services in the crew's library and messing compartments.

The Catholic Chaplain has instituted French classes five days per week in addition to educational consultation and coaching in various subjects.

The Protestant Choir, composed of officers and men of the ship's company and air group, continued to provide religious music for services and secular music for ship's entertainment. The choir and its individual members will present a program at the Ernie Pyle Theater in Tokyo under the auspices of the Army Special Services while in port.

PAUL D. STROOP

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ComCarDiv 17
USS ESSEX (CV-9)
USS TICONDEROGA (CV-14)
USS BOXER (CV-21)
USS JOHN HOMES RICHARD (CV-31)
USS Kearsarge (CV-33)
USS ORISKANY (CV-34)
USS ANTITAM (CV-36)
USS VALLEY FORGE (CV-45)

USS PHILIPPINE SEA (CV-47)
USS BATAAN (CVL-29)
USS RENDOVa (CVE-114)
USS BAIROKA (CVE-115)
USS RADOENG STRAIT (CVE-116)
USS SICILY (CVE-118)
USS POINT CRUZ (CVE-119)
Carrier Air Group 2
Carrier Air Group 5
 Carrier Air Group 7
Carrier Air Group 11
Carrier Air Group 15
Carrier Air Group 17
Carrier Air Group 19
Carrier Air Group 101
Carrier Air Group 102
Carrier Air Task Group 1
Carrier Air Task Group 2
CO, FairBeTuPac (2)
CO, Composite Squadron 3
CO, Composite Squadron 11
CO, Composite Squadron 35
CO, Composite Squadron 61
U.S.S. PRINCETON CV-37
AND
CARRIER AIR GROUP NINETEEN
ACTION

REPORT

16 AUG 1952 TO 20 SEP 1952

SECURITY INFORMATION
U.S.S. PRINCETON (CV-37)  
Fleet Post Office  
San Francisco, California  

SECURITY INFORMATION

From:  Commanding Officer, U.S.S. PRINCETON (CV-37)  
To:  Chief of Naval Operations  
Via:  (1) Commander Task Force SEVENTY-SEVEN  
(2) Commander SEVENTH Fleet  
(3) Commander Naval Forces, Far East  
(4) Commander in Chief, U.S. Pacific Fleet  

Subj:  Action Report for the period 16 August 1952 through 20 September 1952  

Ref:  (a) OpNav Instruction 3480.4  
(b) CVG-19 conf ltr ser 036 of 20 September 1952  
(Air Attack Reports for the period 16 August through 17 September 1952)

1. In accordance with reference (a) the Action Report for the period 16 August 1952 through 20 September 1952 is hereby submitted.

PART I  GENERAL NARRATIVE

On 16 August, pursuant to Commander Task Force SEVENTY-SEVEN confidential dispatch 080022 of August 1952, the U.S.S. PRINCETON with Carrier Air Group NINETEEN embarked departed Yokosuka, Honshu, Japan and proceeded to the operating area. On 18 August the PRINCETON rendezvoused with Task Force SEVENTY-SEVEN.

Task Force SEVENTY-SEVEN was composed of four aircraft carriers, the USS PRINCETON, USS BOXER, USS ESSEX and the USS BISMARK BAY, with various heavy support and screening ships. The USS BOXER was relieved by the USS KOBE, RELIC early in the operating period.

The mission of this force was as set forth in Commander Task Force SEVENTY-SEVEN Operations Order No. 22-51 (Second Revision).
Throughout this period of combat operations the PRINCETON furnished strikes against industrial targets, supply areas, troop concentration areas, and the transportation system of North Korea. In addition to the strikes, close air support, naval gunfire spot, electronics counter-measures, combat air patrol, anti-submarine patrol, and photographic and visual reconnaissance missions were flown in support and defense of the United Nation Forces in Korea.

The major efforts were directed against enemy supply activities, including storage areas, transportation facilities to these areas and the few industries remaining in North Korea. Strikes against these targets took the PRINCETON aircraft from coast to coast and from the front lines to the Manchurian and Russian Borders.

On 20 August the PRINCETON launched a deck load strike against a large supply area at Chang-e-yong-ni on the West Coast of Korea. In a coordinated Navy, Air Force and Marine attack within easy range of the large enemy concentration of MIG-15 fighters, PRINCETON pilots attacked their targets with excellent results. Twelve Panther Jets from the PRINCETON were engaged by six MIG's for five minutes. The MIG attacks were easily countered and no damage was sustained by the PRINCETON planes.

A similar coordinated Navy, Air Force and Marine attack was made on Pyongyang, the capital of North Korea, on 29 August with equally good results.

On the first of September a strike was flown against the Anji synthetic oil plant, which is located four miles from Manchuria and only eight miles from Russia. In the attack, which caught the enemy so much by surprise that no opposition was offered, the PRINCETON planes inflicted heavy damage upon the plant.

Flying even closer to the Manchurian border on 13 September, an attack was made on the city of Hoeryong, located on the border and one of the main gateways into Korea from Manchuria. Two maximum effort launches were directed against storage areas, factories, transportation facilities and barracks areas in the city with very good results. The only opposition encountered was meager small arms fire.

During the period strikes of smaller size were launched against lumber mills, mines, brick plants, cement factories,
power plants, boat factories, supply storage areas and troop concentrations throughout North Korea.

The enemy railroad lines along the east coast were under constant attack by the PRINCETON Air Group. Bridges and sections of the railroad difficult to repair were hit again and again in an effort to stop the enemy's flow of supplies. Night heckler and daylight armed reconnaissance missions were flown in an effort to catch the enemy trains and trucks on the move.

During the seventeen days that flight operations were conducted 1807 sorties were flown and about 1200 tons of ordnance were dropped on the targets. Three Corsairs and one pilot were lost due to enemy action and one Corsair and one pilot were lost due to operational causes during the period.

PART II CHRONOLOGICAL ORDER OF EVENTS

16 - 17 August

Departed Yokosuka, Honshu, Japan. Enroute Task Force SEVENTY-SEVEN via Tsugaru Strait.

18 - 19 August

Joined Task Force SEVENTY-SEVEN. No Air operations due to adverse weather conditions.

20 - 21 August

Conducted air operations. Two hundred nine sorties were flown.

22 August

Replenished at sea.

23 August

Conducted air operations. Eighty sorties were flown.

24 - 25 August

No air operations due to adverse weather conditions.
26 August
Replenished at sea.

27 - 29 August
Conducted air operations. Two hundred Twenty-three sorties were flown.

30 August
Replenished at sea.

31 August

Captain . R. HOLLINGSWORTH, U.S. Navy, relieved
Captain Paul D. STROOP, U.S. Navy, as Commanding Officer
of the PRINCETON. No air operations due to adverse weather
conditions.

1 - 2 September
Conducted air operations. Two hundred forty-two sorties
were flown.

3 - 4 September
No air operations due to adverse weather conditions.

5 September
Replenished at sea during the morning. Conducted air
operations during the afternoon. Forty-one sorties were
flown.

6-7 September
Conducted air operations. One hundred seventy-eight
sorties were flown.

8 September
Replenished at sea.

9-10 September
Conducted air operations. Two hundred fifty-one sorties
were flown.
Information

11 September

Replenished at sea.

12-14 September

Conducted air operations. Three hundred seventy-five sorties were flown.

15 September

Replenished at sea.

16-17 September

Conducted air operations. Two hundred eight sorties were flown.

Departed Task Force SEVENTY SEVEN at the completion of air operations.

18-20 September

Proceeded to Yokosuka, Honshu, Japan.

PART III ORDNANCE

A. Performance

1. Ship's

a. Fire Control Equipment

The following casualties to fire control equipment were caused by a tropical storm (HART) on 2-3 September even though Typhoon Condition I (modified) was set and all prescribed precautions were taken:

(1) GFGS IX 63, radar IX 34, system #41 - This system required approximately three days of extensive drying before being restored to operation. Although the amount of water actually entering the compartment was negligible, critical components of the system became water-soaked from condensation of moisture in the atmosphere. The present ventilation is inadequate; the moisture entered through the natural exhaust vent during the storm.
(2) GFC3 MK 63, radar Mk 34, system #42 - This system became completely water-soaked due to entry of salt water into the compartment through the natural exhaust vent. No water-tight fittings were provided for this opening. Extensive drying procedures were employed, however, the system lost an indicator unit in the Mk 34 radar due to water entering plastic enclosed power cables.

(3) GFC3 MK 56 director #52 - Secant attenuator R2452 and cosine attenuator R2451 in the MK 56 Mod 2 director burned out due to salt water corrosion in the director itself. The Type 1F Synchro receiver also suffered casualty due to salt water corrosion. This corrosion resulted from salt water spray received during the storm.

The magnetrol Type 2J51 V1121 in the Mk 35 radar proved defective and required replacement. The cause of the casualty has not yet been established. This has been reported to the Inspector of Naval Ordnance in the GFC3 Mk 56 Casualty Report.

(4) The following casualty was encountered in the after Mk 37 director: The stabilizing fields in the cross-level motor Model 5EBY79AB7, Assembly Dwg. BuOrd #297749, G.E. #T-5818120, burned out and rewinding of the motor was required. Considerable difficulty was encountered in repairing this motor as no prints of the motor are carried on board. An excessive amount of time was required to restore this motor to operating condition because of insufficient technical reference material.

b. Ordnance Equipment

The following casualties were encountered:

(1) The elevation motors of 40LM mounts numbers 41 and 43 were out of commission due to a short in the wiring. This was caused by excessive salt water moisture resulting from heavy weather.

(2) The elevation power unit of 40LM mount number 416 also sustained a casualty. The cause has not been definitely established, however, present estimate of the damage is such that it is believed the ship's force will be able to effect repairs.
c. Recommendations:

One possible solution for preventing future casualties of the types listed in sub-paragraphs 1, 2 and 2 above is to equip the natural exhaust vents with watertight hatches that can be secured during stormy weather.

2. Aircraft

a. 20MM Guns

Outboard link chutes and outboard gun mounts for AD-4 aircraft have been ordered but not received. (These parts are virtually unobtainable in the forward area).

Outboard gun mounts on AD-4 aircraft have been cracking. It is recommended that guns with cracked or damaged mounts not be fired due to the fact that the gun charger will not remain properly engaged with the breechlock to insure positive safetying of the gun.

b. Test of New Firebomb, Igniter and Fuze.

Fifty Mk 78 Mod 1 firebombs together with M-173 fuzes and M-23 igniters were tested during this operating period. These were found to be inferior to the old Mk 78 Mod 0 firebomb, M-157 fuze and M-15 and M-16 igniter combination in that:

1) The fuzing operation takes thirty to thirty-five percent longer when the Mk 78 Mod 1 firebomb is used.

2) The igniter adapters on the Mk 78 Mod 1 firebomb itself, because of their location, are readily susceptible to damage which cannot be repaired quickly, if at all.

3) The M-173 fuze has a tendency to "bind" in the M-23 igniter, making it difficult to seat the fuze fully.

4) When the M-173 fuze is fully seated in the M-23 igniter, it is possible for the fahnestock clip to jam the vanes of the fuze, thus preventing arming.

Further details are contained in a report submitted by this command to COLUMBIA THREE.
SECURITY INFORMATION

c. Hung Ordnance Report

<table>
<thead>
<tr>
<th>Type Ordnance</th>
<th>AERO 14 A</th>
<th>Mk 8 Mod 2</th>
<th>Mk 51</th>
<th>Mk 55</th>
<th>Ejector</th>
<th>Totals</th>
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<tbody>
<tr>
<td>100#</td>
<td>5</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
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<td>Frags</td>
<td>3</td>
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<td>5</td>
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<tr>
<td>250#</td>
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<tr>
<td>Incend.</td>
<td>21</td>
<td>1</td>
<td>12</td>
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<td>34</td>
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Disposition of hung ordnance.

<table>
<thead>
<tr>
<th>Type Ordnance</th>
<th>Later manual release</th>
<th>Release by jerking</th>
<th>Remaining on racks</th>
<th>Drop offs on landing</th>
<th>Totals</th>
</tr>
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<tbody>
<tr>
<td>100#</td>
<td></td>
<td></td>
<td>8</td>
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<td>Frags</td>
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<td>Napalm</td>
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<td>Incend.</td>
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</table>

Of the 6739 bombs carried, a total of thirty-four bombs or .50 percent hung up.

B. Expenditure

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>160</td>
<td>2000# GP</td>
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<td>585</td>
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<td>932</td>
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<td>2247</td>
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<td>1526</td>
<td>100# GP</td>
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<tr>
<td>QUANTITY</td>
<td>DESCRIPTION</td>
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<tr>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>6</td>
<td>350# Depth Bomb AN-Mk 54</td>
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<tr>
<td>603</td>
<td>220/260# Frag</td>
</tr>
<tr>
<td>388</td>
<td>100# INC Cluster</td>
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<tr>
<td>788</td>
<td>Fuze, Nose, AN-M103A1</td>
</tr>
<tr>
<td>3841</td>
<td>Fuze, Nose, AN-M139A1</td>
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<tr>
<td>1012</td>
<td>Fuze, Nose, AN-M140A1</td>
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<tr>
<td>212</td>
<td>Fuze, Nose, VT, T50E1</td>
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<tr>
<td>49</td>
<td>Fuze, Nose, VT, T50E4</td>
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<td>247</td>
<td>Fuze, Nose, VT, AN-M166 (T91E1/91)</td>
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<tr>
<td>16</td>
<td>Nose Fuze, AN-Mk 219</td>
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<tr>
<td>4639</td>
<td>AN-M100A2 (ND)</td>
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<tr>
<td>998</td>
<td>AN-M101A2 (.025)</td>
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<tr>
<td>688</td>
<td>AN-M102A2</td>
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<td>6</td>
<td>Hydrostatic Fuze, AN-Mk 230</td>
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<td>Primer Detonator ML4 (.01)</td>
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<tr>
<td>98</td>
<td>3.5&quot; Rocket Head Solid Mk 8 Mod 1</td>
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<td>93</td>
<td>3.25&quot; Rocket Motor Mk 16 Mod 5 W/fin</td>
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<td>1164</td>
<td>6.5&quot; Head (ATAR) Mk 2</td>
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<td>5.0&quot; Rocket Motor Mk 10-5</td>
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<td>55643</td>
<td>20LM HEI, M97</td>
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<td>55638</td>
<td>20LM INC, M96</td>
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<td>43782</td>
<td>20LM-AP-T, M95</td>
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<td>153453</td>
<td>Link, 201N, LHEI (M10)</td>
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<tr>
<td>36080</td>
<td>Cal. .50, API, M8</td>
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<tr>
<td>90200</td>
<td>Link, Cal. .50, A/O M2</td>
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<td>322300</td>
<td>Cal. .50 Belted, (2-2-1)</td>
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<tr>
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<td>Igniter, WP, M16 or M216</td>
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<td>Fuze, M157, W/Burster C8R1</td>
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<td>Gas Tank, F51 Type</td>
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<td>Igniter, M23</td>
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<td>79</td>
<td>Parachute Flare, Mk6</td>
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<td>Parachute Flare, Lk 8 Mod 2</td>
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<td>89</td>
<td>Signal, Drift, (N) AN-Mk 5</td>
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<tr>
<td>238</td>
<td>Bomb Ejector, Ctg. Lk 1</td>
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</tbody>
</table>
SECURITY INFORMATION

PART IV BATTLE DAMAGE

A. Own

The ship sustained no battle damage. See reference (b), Air Attack Reports 281-52 through 393-52 for battle damage sustained by PRINCETON Aircraft.

B. Enemy

See reference (b), Air Attack Reports 281-52 through 393-52 for damage inflicted upon the enemy.

PART V PERSONNEL

A. Personnel Count

The average on board count was:

<table>
<thead>
<tr>
<th></th>
<th>Officers</th>
<th>Enlisted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship's Company</td>
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<td>2022</td>
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<tr>
<td>Marine Detachment</td>
<td>2</td>
<td>59</td>
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<td>Air Group</td>
<td>134</td>
<td>654</td>
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<tr>
<td></td>
<td>266</td>
<td>2735</td>
<td>3001</td>
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The following rates were transferred (transients not included):

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<tr>
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<tr>
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</tr>
<tr>
<td>GM1</td>
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The following rates were received for duty (transients not included):

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</thead>
<tbody>
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</tr>
<tr>
<td>YNC</td>
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<td></td>
</tr>
<tr>
<td>BTC</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Transient Personnel

On occasion the PRINCETON has been requested to transport enlisted personnel to the operating area for further transfer to
other ships. On other occasions enlisted personnel for ships not present in Task Force SEVENTY-SEVEN have been transferred from replenishment ships to the PRINCETON to await arrival of the ship to which they had been ordered to duty. A draft of sixty-seven enlisted men was received from the U.S.S. CIMARRON (AO-22) on 22 August for further transfer to the U.S.S. IOWA (BB-61). This draft was transferred on 29 August. The majority of men in this draft had not been paid in over a month, although an average of about twenty days had been spent at receiving stations in Japan. On the previous trip to the line 181 men were aboard for periods of three to eleven days under similar conditions. Initially, the Welfare Fund extended funds to provide these men with needed cigarettes, soap, razor blades and other health and comfort items. As the men continued to remain beyond their expected departure their pay records were opened and they were paid. The berthing of large drafts of transients presents a serious problem during operational periods. Hangar deck areas and spaces below deck where cots could be set up during peace-time steaming were used at night for aircraft servicing, arming and maintenance.

C. Performance

During this last operating period on the line personnel performance was excellent. The pilots exhibited the highest degree of flying proficiency, as evidenced by the fact that there were no barrier accidents, no major flight deck accidents and keen competition for all flights. Ordnance, maintenance and aircraft crews continued their past outstanding performances.

D. Morale

While operating on the line, athletics were curtailed by lack of space and time. Weight lifting, bag punching and ball throwing were available. Calisthenics were scheduled for the baseball squad on the flight deck. A big interest was shown by the crew in judo, and this was practiced on improvised mats on the hangar deck when room was available. The Forward Decontamination Room was used by aviators for work-outs and steam baths.

E. Casualties

One pilot was lost to enemy action; one pilot was killed in an operational accident; eleven pilots were grounded and three were hospitalized for short periods of time.

Summary of pilots lost from the Air Group from 16 August to 20 September 1952:
12 September: LT(jg) H. V. WESTERVILT, VF-192, was killed in action when his F4U-4 crashed into a hillside following a bombing run on an industrial target near Kowon. The cause of the crash is believed to have been enemy ground fire.

17 September: LT O. F. WILLIAMS, VF-193, was killed when his F4U-4 crashed on take-off. The aircraft exploded and burned on contact. The pilot was not recovered.

Ship's company personnel suffered no casualties during this period.

PART VI SPECIAL OCCURRENCE

A. Air Department

1. Catapults

An effort was made to use the new F9F Forged Eye Pendant (R90NAF-313949-1) and the pendant arrester as described by F4B Catapult Bulletin No. 93. The latter was fabricated by the ship's force as directed. The results were as follows:

ea. Pendant No. 1 - The first pendant lasted for one shot. It was badly smashed and kinked by the plane's tail skag. It was also creased on one of the small securing eyes by the tail skag. The skag sustained a similar crease.

b. Pendant No. 2 - The second pendant lasted for two shots. The first shot resulted in damage to the fuselage of the plane. The second resulted in damage to the plane's inboard flap, and the pendant was smashed and kinked near the forged eye by the tail skag. It was then decided that the pendant arrester as described by F4B Catapult Bulletin No. 93 is entirely unsatisfactory. Due to the design of the arrester the pendant is free to flip forward, forged eye end over. This results in damage to the airplane first, and then damage to the pendant by the skag.
SECURITY INFORMATION

The catapult crew designed and built a different type of arrester. This arrester lasted for eleven shots before breaking. The results were encouraging but further experimentation is necessary before making a full report. One problem which will have to be solved regardless of the arrester used is the denting of the catapult track plates due to the considerable weight of the F9F forged eye pendant. This problem may be overcome by the installation of heavier plates.

2. Arresting Gear

Frequent delays in recovering jet aircraft have been encountered due to the tail hook of the jets engaging the webbing of the Davis Barriecde when the jets are_taxing forward after recovery. The metal basket used by the hookman to secure the tail hook has been employed in order to lock the tail hook while the plane is in the gear, but the advantage gained is offset due to the increase in interval required between jet landings.

On several occasions where a jet aircraft has landed directly on a yielding element it has caused the yielding element housing to collapse sufficiently to bind the yielding element arm in a locked down position. To release the arm it has been necessary to chisel away the protruded steel. A method is now being devised whereby an electric drill fitted with a rough back wheel can be used to grind away the protruded steel thus saving several man-hours.

3. Gasoline Handling

At 07341 on 7 September 1952 gasoline ignited under a VA-type aircraft parked next to the ship antenna abreast the after edge of number one elevator. The aircraft had developed a leak in the defueling valve and was dripping on the wheels of a bomb lying under the aircraft awaiting a loading crew. An ordnanceman went to the airplane to move the bomb and as he reached for the bomb skid handles the gasoline ignited.

The fire was extinguished and an investigation revealed that an induced current strong enough to produce a onesixth inch spark was present in aircraft parked within less than eight feet of the antennae when in the upright position and energized. With the antennae in the horizontal position, the plane parked next to the antennae had an induced current strong enough to produce a small spark. The aircraft parked over the area where the gasoline ignited was not grounded.

The following safety precautions have been taken to minimize the possibility of igniting gasoline or firing ammunition by current induced from high frequency transmitting antennae:

SECURITY INFORMATION
a. Positively insure that the T2J transmitter and the TBM transmitter located in Radio II and the one TBM transmitter located in Radio III are secured. This automatically de-energizes the two whip antennas starboard side forward and the one whip antenna starboard side aft that have been causing the induced current difficulty.

b. Make a positive ground wire check on each aircraft prior to servicing.

The F9F tip tank fuel caps have in many instances failed to seal properly and thus have caused an excessive amount of gasoline spillage. The use of masking tape over the caps has reduced the spillage and loss of caps when catapulted, but a positive sealing cap would be more desirable.

Gasoline spillage has been encountered on the AD-6 type aircraft when filling the wing tanks due to air being entrapped in the tank baffles and then bubbling up causing the tank to overflow. This became a serious problem when refueling several aircraft after a strike in preparation for the next operation.

4. Ordnance Handling

a. For more safe and efficient handling of loaded bomb skids on the flight deck, the following recommendations are made:

(1) That the solid aluminum ramp for the upper (or after) end of the jet barricade be made three-fourths inch higher and with a more gradual incline (about twenty degrees). With the present degree of incline there is a strong tendency for the brakes on the bomb skid to hit the top of the ramp or to drag across the nylon edge of the barricade after the wheels of the skid have crossed the apex of the present style ramp.

(2) That a ramp of similar type be made available for crossing the Davis Barriers and such conventional barriers as have no trough in the flight deck to accommodate them.

Bomb skid ramps of boiler plate, fabricated on board, have been used to some extent for pushing bomb skids across the barriers. During respot, however, it is inevitable that aircraft and tractor also cross these ramps. The resultant distortion soon negates the value of the ramps for bomb handling purposes.
B. The following safety orders are in effect and compliance enforced in order to minimize accidental gun firings and attendant fire and explosive hazards:

1. Only qualified personnel will check or work on aircraft machine guns. During operations each type squadron or detachment shall have a reliable petty officer in charge at all times; this petty officer shall exercise positive control in the assignment of personnel for making pre- and post-flight inspections.

2. Personnel working on machine guns will do so in teams only, with at least one person who is thoroughly checked out in the cockpit and armament system of the particular type gun on each team while checking guns. No one is to be permitted in the cockpit who is not well checked out. Should it be necessary to release the bolts or breech-blocks to battery or cycle the guns during performance of assigned work, the man in the cockpit, who is to do the releasing or cycling, will inspect personally each and all guns to insure that they are clear of ammunition immediately prior to operation. In no case will this rule of personal inspection be disregarded.

3. At no time will a live round be charged into the chamber of a gun aboard ship, except in the case of specially authorized test firing.

4. No work shall be performed on any one gun until all guns in the aircraft have been cleared of ammunition.

5. All gun and armament switches, charging controls and gun chambers shall be checked visually for proper position and clearance before loading the ammunition into the feedway or winding in the feed mechanism.

6. In the operating area, ammunition will be fed up to the feedway or wound in ONLY when the aircraft is readied for the next flight that day. Ammunition will be removed from the feedway and the feed mechanism will have tension and loose rounds removed at all other times. Bolts and breech-blocks normally shall be in the battery position. When readying aircraft guns for operations, they shall be inspected to see that they are in battery prior to placing ammunition in the feedway or tensioning the feed mechanism, except on aircraft where the chargers have a tendency to creep back. A loaded gun will not be charged on board.
7. In checking the operation of a gun, live ammunition will never be used.

8. Each returning aircraft will be met and checked immediately after being spotted to insure that all switches are off and each gun’s chamber is clear, that ammunition is pulled back from the feedway so that it cannot possibly slip back, and that all chargers are in the "SAFE" position. A visual check will be made on each gun prior to removing ammunition, feed mechanism or lifting cover. If the gun appears to be jammed, but something, (e.g., screwdriver, etc.) ahead of the bolt or breech block in such a manner that the gun cannot possibly fire until the aircraft is pointed in a "safe" direction and the jam cleared. The feed mechanism shall be removed from 20MM cannons then checking for a clear chamber.

9. Stockpiling of ordnance in an assembly or breakout area is prohibited, except in amounts necessary to meet scheduled operations. An effort will then be made to segregate the types, and they shall be placed so that rapid movement and jettisoning are possible.

10. Bombs normally shall be hung or loaded on aircraft that are parked on the flight deck. Exceptions may be made by the Aircraft Service Officer or Air Ordnance Officer to hang bombs on aircraft spotted on the hangar deck to maintain scheduled operations. Bombs shall not be loaded on aircraft to meet schedules any earlier than necessary prior to the flight. Incendiary or butterfly clusters, and bombs having long delay fuzes will never be loaded on the hangar deck, nor will aircraft ever be sent to the hangar deck with this type of load. All bombs will normally be removed from aircraft prior to sending them to the hangar deck. In a case where it is necessary to send a loaded aircraft below it will be unloaded at the earliest possible moment. All bombs and rockets will be moved from spare aircraft if the aircraft is not going out on the next scheduled flight.

11. Bombs shall not be fuzed in magazines, or in or near breakout or assembly areas but shall be fuzed prior to, or immediately after loading on racks or shackles. Nose fuzes normally shall not be inserted until after bomb suspension, to avoid handling damage.
the Air Force concept of requiring all Group I Staff Aviators concerned with air operations to fly regularly with the groups under their control be adopted. It is felt that this would be beneficial to both the air groups and carrier division commander in that the latter would have members of his own staff who could provide him with realistic, first hand information as to the status, conduct, and effectiveness of current air operations.

Experience has proved that the time-tested battle concept of concentration of forces still holds true and that the size and importance of the target must be the determining factors in selecting the tools to do the job. This group has found that large strike groups, concentrating on a selected target during a short period of time, will do more damage and suffer fewer losses than the same number of planes, in smaller elements, attacking the same target over an extended period of time. These results are attributed to adequate flak suppression made available to the bombers, dispersal of anti-aircraft fire by the multiplicity of attacking planes and the inability of the enemy to bolster his existing defenses before the target is destroyed.

Flak suppression tactics by jet aircraft and secondary flak suppression by prop aircraft, diving from ninety degrees to one hundred eighty degrees at variance with the bombing run, were continued on all strikes with highly successful results. It was noted that about forty percent of the flak sighted on the approach to large and heavily defended targets was rendered inactive and held down from the time of the jet run-in until completion of the strike and retirement from the target area.

During the latter half of this period, spare aircraft were launched on all strikes, thereby adding to the strength and composition of the strikes and eliminating the unnecessary work of resupplying and de-arming these aircraft.

Several strikes completed their missions within two hours after being launched. This reduction of flight time is recommended whenever possible as it helps aircraft maintenance, reduces flight fatigue, and eliminates not-too-productive and often costly post-strike reconnaissance.

Coastal familiarization flights were scheduled for both VFN and VM detachments during the mornings of days that the USS PRINCETON was the late carrier. This scheduling did not interfere with the night heckler missions and was extremely beneficial to the individual pilots of both detachments in
reorienting themselves to the coastline, terrain, location of cities, and general layout of target areas, thus increasing the efficiency of their night missions. It is recommended that new groups schedule this type familiarization flight for the night teams as early as possible after arriving in the area.

Since Communist supply traffic now moves almost exclusively at night, a successful prosecution of interdiction warfare requires night flights. In fact, the limited success of the interdiction program to date seems to be caused by three conditions: (1) the enemy's rapid repair of bridges and rail lines; (2) the enemy's effective use of tunnels and caves for daytime shelter of trains and trucks; and, (3) our own small night attack effort. We can only alter the third condition. In the past, night flights from our carriers have destroyed impressive numbers of trucks and trains. The actual slowdown of the enemy supply system by the night hookers' harassment alone cannot be measured. It is known, however, that the mere presence of night planes overhead causes trucks to scatter from the roads, extinguish their lights, and stop, while trains usually take cover in tunnels and lose boiler power. Thus, from the offensive standpoint, night sorties are extremely valuable. It is realized, moreover, that with the present daytime workload, the scale of desired night operations necessarily is limited by the length of time that deck crews and support personnel reasonably can be expected to work on a continuing basis.

Carrier break-up doctrine has varied between USF-4 and ATP-1. Both have their advantages. However, ATP-1 is preferred by this Air Group.

Strict radio discipline during RESCAPS and a definite assignment of channels to be used by the RESCAP division and strike group have contributed in large measure to the success of these missions. Accurate plotting of the coordinates of the downed pilot and prompt escort of the helicopter to the scene by assigned aircraft cannot be overemphasized.

2. Electronics

IFF APX-6 Unit: An extremely high number of condensers, both in the I.F. strip and the high voltage circuit, have continued to short out. Accordingly, the following recommendations are proposed:

a. That a condenser of higher quality be used in these circuits.
That fuse ratings be lowered to protect the bleeder resistor network in the high voltage circuit when the above mentioned high voltage circuit condensor shorts out.

**UPN-8 Unit:** This unit, used for testing the AFX-6 aircraft, has not proved practical for shipboard use, due to the inconvenient location of the power outlets and also the lack of spare parts for maintenance. Accordingly, it is recommended that UPN-4 shop test equipment be made available for shipboard use.

**3. Survival**

The AN/GRC-7 radars have proved unreliable and unsatisfactory. Of the thirty-five radars and fifty batteries received by this command, only nineteen radars were found to be operational and twenty-one batteries strong enough to transmit. In periodic inspection of radars previously issued, many have been found to be inoperative due to dead batteries. Only one pilot has had any success with the radio when down, and his last only one hour. Pilots naturally have developed a lack of confidence in these instruments because of their repeated failure during emergencies. Again, it is recommended that a reliable lightweight radio, such as the Air Force URC-4, be made available for Navy combat pilots.

Until just recently, this command carried an ADSK-1 droppable survival kit on an outboard wing station of one A.D. aircraft in each strike group. During a recent strike, the parachute from one of these kits suddenly left its container and blossomed, throwing the plane out of control and very nearly forcing the pilot to bail out in order to save himself. At the time he was over heavily populated enemy territory and probably would not have been recovered. The survival officer of the Air Group personally had supervised the packing of the chutes the previous evening and is completely satisfied that the parachute container was correctly closed and secured and the kit properly hung on the aircraft. The cause of the chute opening is not known; the pilot stated he had received no enemy ground fire which could have been responsible for the accident. Since this was the second such incident of inadvertent release, these kits are no longer carried on each hop but are kept available for immediate loading should the necessity for their use arise.

Pilots recommend that the wingman of a pilot who has had his aircraft damaged in flight call immediately on the...
radio to determine his physical condition. This has proved helpful in three cases where the pilot was in a minor state of shock immediately after an anti-aircraft hit and was called upon by his wingman to institute emergency proceedings. One pilot that bailed out states that he was in such a state of mind that he might have gone down with the plane had such a call not been made.

This command has a doctrine of saving two guns during every strike for possible RESCARE use. This has proved invaluable in the four cases in which pilots have parachuted into enemy territory and have been protected until recovered by helicopter. It also is necessary for the protection of the helicopter during its flight to and from the position of the downed pilot.

A majority of the pilots of this Air Group wear the "G-suit" on their strike missions. It has been commented on many times as being an excellent item for flotation when in the water. Several pilots have used it in that manner and have stated that it materially aided them in remaining afloat. This was particularly true in two cases where the Mae West did not inflate properly due to faulty CO2 bottles.

Further investigation is indicated for a satisfactory solution to the problem of carrying survival gear on the person. The wearing of the Air Force G-1 Survival Vest under the Mae West has made it difficult for pilots to reach across the body with the right hand to pull the D-ring of their parachute when bailing out. Many pilots have indicated a desire for some type of back-pack such as that used during World War II.

This command has lost four aircraft and two pilots during the tour just completed. One pilot was lost in combat and the other operationally on take-off, with no chance for survival in either case. The two pilots who were recovered left their aircraft in each case by parachute, one landing in the sea and the other on land in Korea. Recovery was made possible by the excellent bailout procedure of the pilots, well coordinated RESCARE procedures, and the outstanding efforts of the helicopter crews.

The policy of wearing goggles at all times while over enemy territory has proved to be sound. At least three cases of flying glass from broken windshields occurred in which the pilots eyes were protected from otherwise
dangerous glass splinters in the cockpit.

Difficulty was experienced by one pilot in reaching the D-ring after bailout from a F4U-5N. This same difficulty was experienced by another pilot earlier in the cruise. It is recommended that pilots be instructed to grasp the riser holding the D-ring with the left hand prior to jumping, thus assuring easy access to the ring. While both hands will be needed to get into position for the jump, the pilot should be able to grasp the left riser just before jumping.

The oxygen mask flutter valve has been found to be sticking at times when it becomes dirty. This can be alleviated by washing with plain water. None of the special washing compound is available and the ship has no allowance for obtaining it.

Buffet (hard-top) helmets should be improved for comfort and fit. This might be done by designing an adjustable lining. Goggles should be designed to fit the helmet, rather than the face.

VA-195 has recently started wearing "G-suits". The present plug-in fitting on the AD type aircraft has been found unsatisfactory because of the protrusion of the base which is in the direct path of the left hand when reaching the left console where trim tabs, emergency hydraulic pump, tailwheel lock, and other important controls are located. This could be greatly improved simply by lowering the disconnect trunk about eight inches.

4. Maintenance

During this period, ignition troubles have been greatly reduced by improved pilot technique during periods of engine idling. Most ignition trouble was encountered by failures of ignition harnesses rather than plug fouling. Reconditioned RB 19-R2 plugs have averaged about sixty hours service on AD's and about 120 hours on F4U's. New RB 19-R2 plugs have been received and installed for sixty to seventy hours in the AD's without giving any trouble.

An electrical fire occurred in an AD while in flight which necessitated securing both generators and the battery during instrument weather conditions. The remaining instruments available for flight were the altimeter, rate of climb indicator, airspeed indicator, and standby compass.
These instruments are considered to be inadequate for successful instrument flight. It is recommended that the turn and bank indicator be of the vacuum type, thereby giving the pilot a partial panel for instrument flight in the event of an electrical failure.

Morale has been high and has contributed materially to the excellent availability during this operating period. The following are availability percentages by squadrons:

- VF-191 and VC-61 (F9F's) 99.5%
- VF-192 and VC-3 (F4U's) 95.7%
- VF-193 (F4U's) 99.7%
- VA-195, VC-11, and VC-35 (AD's) 96.3%

Complete test equipment for checking auto-pilots, G-2 compasses and other electronic and vacuum instruments is not yet available although these test instruments have been on order for several months. The absence of this test equipment forces a "trial and error" method of trouble-shooting.

Overall supply and cooperation by the Supply Department of the ship have been excellent; only a few AOG items have slowed supply service. High usage of bullet proof glass and all sections of windshields for F4U's and AD's depleted the onboard allowance early in the tour, and several days of availability were lost while planes were AOG for these items. One AD wrap cowl was completely blown off by fleck and another damaged beyond repair. The cowl is not a section B allowance list item and parts of it are not carried in the Naval supply system. This item was replaced from duds, but several days were lost while duds were being located.

All gyro instruments are critical in this area and replacements are seldom available except on an AOG basis and then they are generally procured from the continental United States.

5. Awards

In the past, a great many of the awards have been delayed until just prior to the ship's departure from the Far East and in some cases until after the ship's arrival in the states. It is felt that this delay has removed the incentive factor from the basic concept of awards. Accordingly, it is strongly recommended that the authority to present strike/flight awards be delegated to Carrier Division Commanders.
After two such failures, there were no spare connectors available, so repairs were effected by splicing the RG/U to the teflon. Upon inspection of the teflon cable, it was noticed that the teflon itself was apparently deteriorating. Dark spots that penetrated to varying depths had formed on the outside of the teflon. Shipboard checks were unable to prove that these spots decreased the insulating properties of the cable. After the fifth failure, ship's force bypassed the teflon sections with RG 27/U by splicing at the junction box at the foot of the mast. Prior to eliminating the teflon cable runs, seventy-five percent of all SX outage time was a result of modulation pulse cable failures. No such failures have occurred since the teflon has been bypassed. Recommendations will be forthcoming after an investigation by the overhaul activity during the vessel's next availability in the San Diego Area.

D. Gunnery Department

1. Personnel

The performance of fire control equipment during this period was very good in spite of the reduced number of fire control ratings on board. It is believed that this fine performance is due in part to the training program inaugurated immediately after this vessel was reactivated some two years ago. It has not been until recently, however, that this long-range program has commenced to pay off.

In spite of the intense training program any further reduction in fire control ratings would be detrimental to the performance of the fire control equipment on board this vessel. The ship has a complement of fifteen fire control ratings in the chief, first class and second class petty officer grades. There is a total of four ratings in these grades on board (two first class and two second class petty officers); roughly twenty-seven percent of allowance.

2. Deck Scamanship

On 8 September, the provisioning from the U.S.S. GRAFTIAS (AF-29) was characterized by the highest rate yet attained on the modified house-fall rig at berth No. 72. This was achieved by the exclusive use of specially made six foot by six foot nets with short buckets. This station handled sixty-five loads in an hour, the loads being from six hundred to one thousand pounds. It is estimated that
and Commanding Officers of carriers for presentation immediately following the strike or flight which fulfilled the requirements for the award, and that awards for bravery and distinguished achievement be presented by appropriate authority as soon after their occurrence as practicable. It is felt that this could not only give the recipients a "lift" at the correct psychological moment, but also would provide colorful and newsworthy items for public information releases.

Because of the intense, accurate, and stubborn anti-aircraft defense which all groups have been encountering recently on their strikes against the enemy, and in order to provide an equitable basis for strike/flight awards among the Navy, Marine Corps, and Air Force, it is recommended that the present requirement of twenty missions for an Air Medal be reviewed. It is felt that ten strike flights is a more appropriate number. It is further recommended that the Distinguished Flying Cross be awarded for the successful completion of forty-eight and one hundred combat missions. During the 1950-1951 cruise Air Group NINETEEN pilots flew an average of forty-nine combat missions per pilot; during the current cruise the average will be about forty-seven combat missions per pilot.

Of the forty pilots who are presently on their second tour in the combat zone, seven have completed one hundred missions or more, however, Distinguished Flying Crosses for only two of the seven have been approved to date. Only five additional Distinguished Flying Crosses have been approved for other Air Group NINETEEN pilots.

In regards to the VC pilots, who are engaged solely in night flying, it is recommended that a different scale be used in determining awards due to the added hazards involved. It is felt that ten strike flights for each Air Medal and twenty-strike flights for each Distinguished Flying Cross would be more appropriate. Of the twelve VC night pilots assigned, the average number of combat flights is seventeen, and only six will have completed twenty missions or more by the scheduled termination of the cruise.

C. Engineering Department

Three failures have occurred in the SX Radar modulator pulse cables during this operating period making a total of five similar casualties since the ship's deployment to MASPAC. Each has occurred in or near the junction box at the base of the mast where the RG 27/U connects with the teflon cable or at the connectors at the base of the igloo.
twenty-six tons per hour rate was attained.

On 29 August, sixty-eight personnel were transferred to the U.S.S. ROGERS (DD-876) in one hour and thirty-nine minutes, all after dark. Red-lensed waterproof flashlights were used on the hook, the transfer chair, the men's life jackets, and the transfer stations.

During the Typhoon Karen encountered on 16-19 August, No. 8 life raft, located at frame No. 7, port side was carried away. As the bow of the ship plunges, water jets up from the flare of the bow, striking these rafts with tremendous force. In order to prevent the loss of more life rafts, the remainder were removed from their racks and secured to the overhead near the centerline in the protected part of the forecastle. As soon as the ship enters port, an investigation will be made to see if the rafts can be secured to the racks in some other manner since the present method is not satisfactory during heavy weather.

E. Medical

1. The general health of the crew continued at its previous excellent level. Some tension and anxieties of an operational fatigue nature are beginning to manifest themselves among both Ship's Company and Air Group Personnel. There were no serious diseases or injuries. There were twenty-eight surgical operations performed during this period.

2. The venereal disease rate has remained at a high level. There were sixty-nine admissions to the sick list for venereal disease and one hundred-thirty-five were treated as outpatients for non-gonococcal urethritis.

3. There were two casualties which were the results of the mission of the ship.

F. Operations Department

1. Aerology

a. General

Throughout the period of this report, the ENDEAVOUR operated under the influence of weak high pressure cells with average to good flying conditions except for the following:
Typhoon "Karen". Typhoon "Karen" moved northward through the East China Sea on 16 August, into the Yellow Sea on 17 August and across Korea, emerging in the region of the 38th Parallel, at 2000I on 18 August. The Task Force was in the southern sector of "Karen" and encountered heaviest seas and highest winds after the passage of the center two hundred miles to the North. The maximum wind velocity encountered was southwest forty-two knots at 0430I on 19 August. Winds of gale force (thirty-four knots) began at 0330I and ended 1530I 19 August 1952.

Tropical storm "Mary". Tropical storm "Mary" moved inland over China from the Bashi Channel on 2 September, then north-east over the Yellow Sea and entered sea in the region of the 37th Parallel at 1500I on 3 September. It emerged at the 39th Parallel at about 2100I. A secondary "Eye" formed at 38 degrees north 130.5 degrees east at 0900I 3 September. This secondary "Eye" rapidly intensified then moved northeast. The Task Force was located in the northern sector of each "Eye" encountering winds of gale force (thirty-four knots) at 1310I 3 September and ending at 0750I 4 September 1952. A maximum wind of seventy-four knots occurred at 2000I 3 September. Both "Eyes" passed approximately twenty to thirty miles south of Task Force.

b. Communications

Fassimile - Reception in general was good with the exception of interference from CW transmission and during periods when the ship was in the area of storms.

Radio-teletype, Guam - Reception was good but coverage of the Korean area in broadcasts was incomplete for our purposes.

Radio-teletype, Tokyo - Reception was good except when storms or active fronts existed between Tokyo and the operating area. Coverage of Korean area reports by Tokyo was good.

c. Rawins (upper air winds taken by radar)

The Mark 37 and Mark 56 Directors were used with success for Rawins.
2. Combat Information Center

a. Training

(1) During the period covered by this report, an all-out effort was exerted to train all officers and men in jobs for which they were not already qualified. The future loss of experienced and key personnel was a prime consideration in this program.

(a) Four CIC Watch Officers were qualified as Underway OOD's. Two more stood numerous JOOD watches underway.

(b) All CIC Officers were qualified as CIC Watch Officers during flight operations.

b. Air Control

(1) It has been found expedient to monitor the transfer of all aircraft taking off from this ship to the frequency assigned for CAP, ASP or Strike Control when assigned to another ship. This insures, in the absence of an AC net, that the transfer is effected satisfactorily. Many times this monitoring prevents the aircraft from returning to land-launch frequency and reporting that they were unable to contact their controller. This was especially true during the first launch of the day.

3. Air Intelligence

a. General

Permanent briefing boards, preferably sliding panels, should be installed in all ready rooms. There should be a minimum of eight panels, at least three feet by five feet.

Due to the crowded conditions on board, it is necessary that the squadron air intelligence officers keep their equipment in their respective ready rooms. Some provision should be made for stowage of maps, photos, and classified reference material for ready accessibility. A chart table with a three-tumbler lock and file drawers would provide the stowage space needed, as well as much needed working space.
As has been stated before in previous action reports, this Air Group has been using maps and charts enclosed in plexiglass envelopes. These have been used for five months and have given excellent results. The plexiglass is still in excellent condition and from all appearance will give many more months of service.

AAS Series L751 (Scale 1:50,000) maps have been used almost exclusively in briefings. Flight leaders and alternate flight leaders have been provided with plastic envelopes into which are placed the 1:50,000 maps of the target area, making it possible to use a grease pencil to plot flak. It is recommended that the approach to the target area be included in this folder in order to show the area in which flak concentrations exist. This aids the flight leader in planning his approach, attack, orbit of the area, and retirement.

When there are alternate or secondary targets, the maps are put back to back and placed in the same envelope. The flight leader then has pertinent information on both targets instantly available.

It is very helpful to all pilots to have a picture of the target area. However, it is recommended that the photography show sufficient detail or be enlarged to a size suitable for pin-pointing specific targets.

During this period of operations, photo coverage of targets has been excellent. By this coverage, briefing and debriefing have been made much easier and target assignment and damage assessment more accurate.

b. Photo Interpretation

During this period, a method of making flak studies was adopted which is both easier and faster than previous methods. This consisted of plotting the flak, by tail sectors, on AAS Series L751 (scale 1:50,000) maps and reproducing them photographically. Since only a day or two is required from the time the photography is taken until finished studies are distributed, the information presented is more timely. This method is considered superior to the previous mosaic type tournids.

G. Supply

F4U wing panels, F9F wing fold cylinders and F9F tip
tank caps are in extremely short supply, but unecasing maintainance and steady follow-up have enabled the planes to be "up" on time. The role of LSO Guam in intercepting and filling LSO Yokosuka "passes" to LNO Oakland is not to be underestimated. Several times Guam action on "A" priorities averted LNO's in the operating area during this period.

W. R. ROLLINGSWORTH

Copies to:

CNO (2) Advance
CINCPACFLT (2) Advance
COMNAVSEVENTHFLT (1) Advance
CIFTF 77 (1) Advance
CINCPACFLT Evaluation Group
ComAirPac (5)
ComServPac
ComFairJapan
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ComCarDiv 5
ComCarDiv 15
ComCarDiv 17
USS ESSEX (CV-9)
USS TICONDEROGA (CV-14)
USS BOXER (CV-21)
USS BON HOMME RICHARD (CV-31)
USS KEARSARGE (CV-33)
USS ORISKANY (CV-34)
USS ANTILLES (CV-36)
USS V. I. L. S. FORGE (CV-45)

USS PHILIPPINE SEA (CV-47)
USS BATLIO (CVL-29)
USS RENOVA (CVE-114)
USS BAIROKU (CVE-115)
USS JOHN C. STUART (CV-116)
USS SICILY (CVE-118)
USS POINT CRUZ (CVE-119)
Carrier Air Group 2
Carrier Air Group 5
Carrier Air Group 7
Carrier Air Group 11
Carrier Air Group 15
Carrier Air Group 17
Carrier Air Group 19
Carrier Air Group 101
Carrier Air Group 102
Carrier Air Task Group 1
Carrier Air Task Group 2
CO, FairBcTuPac (2)
CO, Composite Squadron 3
CO, Composite Squadron 11
CO, Composite Squadron 35
CO, Composite Squadron 61
U.S.S. PRINCETON (CV-37)
Fleet Post Office
San Francisco, California

From: Commanding Officer, U.S.S. PRINCETON (CV37)
To: Chief of Naval Operations
Via: (1) Commander Task Force SEVENTY-SEVEN
     (2) Commander SEVENTH Fleet
     (3) Commander Naval Forces, Far East
     (4) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 28 September 1952 through 18 October 1952

Ref: (a) OpNav Instruction 3480.4
     (b) CVG-19 conf ltr ser 038 of 16 October 1952 (Air Attack Reports for the period 5 October through 16 October 1952)

Encl: (1) Statistical Summary and Final Recommendations for USS PRINCETON Far Eastern Tour, April through October 1952

1. In accordance with reference (a) the Action Report for the period 28 September 1952 through 18 October 1952 is hereby submitted.

PART I GENERAL NARRATIVE

On 28 September 1952 the U.S.S. PRINCETON with Carrier Air Group NINETEEN embarked, departed Yokosuka, Honshu, Japan and proceeded to rendezvous with Naval Amphibious Forces carrying the 19th Regimental Combat Team for participation in landing exercise Seadog One. This exercise was conducted on 29 September 1952 but only twenty-six sorties were flown due to inclement weather.

At the conclusion of Seadog One, the PRINCETON returned to Yokosuka for two days before departing for the operating area, (in accordance with CTF-77 confidential dispatch 27/1326Z of September 1952). On 4 October 1952 the PRINCETON rendezvoused with Task Force SEVENTY-SEVEN.

SECURITY INFORMATION
Task Force SEVENTY-SEVEN was composed of four aircraft carriers: PRINCETON, ESSEX, BON HOMME RICHARD and Kearsarge with various heavy support and screening ships.

The mission of this force was as set forth in Commander Task Force SEVENTY-SEVEN Operations Order No. 22-51 (Second Revision).

Throughout this period of combat operations the PRINCETON furnished strikes, close air support, naval gunfire spot, electronics counter-measures, combat air patrol, anti-submarine patrol, and photographic and visual reconnaissance missions in support and defense of United Nations Forces in Korea.

A continued program of maximum effort against the enemy's supply, storage, industrial, and transportation facilities key-noted the first half of this operating period. From 11 through 15 October the emphasis changed to relentless close air support, naval gunfire spot, and strategic strike missions along the East Korean coastal areas in preparation for and support of a Joint Amphibious Landing Exercise in the Kojo area, "D-Day" of which was to be simulated on 15 October 1952.

On 7 October, in the face of increased and intense enemy anti-aircraft opposition, PRINCETON aircraft flew numerous close air support missions over United Nations front-line troops. On the same day, together with other aircraft of Task Force SEVENTY-SEVEN and Fifth Air Force fighter-bombers, PRINCETON pilots delivered a concentrated bombing attack on Yongpyong-ni in Communist Korea. The PRINCETON flights distinguished themselves by systematically destroying transformer stations, railroad bridges, radar positions, and other key targets in these as well as on other operations.

On 8 October, a similar coordinated Navy and Air Force attack was made on Kowon, North Korean rail center, with equally good results.

United Nations carrier based aircraft encountered increased enemy jet-interceptor opposition during this period. Russian built MIG-15's were especially numerous over the Wonsan area and ranged as far south as Kojo in their almost daily sallies. On 7 October, PRINCETON aircraft returning from strikes had three encounters with the swept-wing Communist planes. One Corsair pilot was forced to bail-out after his plane had been damaged by a MIG just north of Wonsan. He was recovered from the ocean nearly drowned and subsequently died. Another group of Communist
fighter planes making passes on PRINCETON attack bombers found
the going much rougher when at least one of the AD's was able
to turn into the MIGS and return the fire.

Increased friendly jet combat air patrol by PRINCETON and
Task Force SEVENTY-SEVEN aircraft reduced the MIG hazard. On
8 October, enemy interceptors were sighted but no attacks were
sustained.

On 9 October, PRINCETON aircraft struck the East Coast Korean
City of Wonsan. The concrete paved Wonsan Airfield was rendered
completely useless by over eighty direct bomb hits. Highways
in the vicinity were also torn along key points with as many as
thirty-five hits in a target area.

On the same day, two more important railroad bridges as well
as numerous railroad cars were destroyed by PRINCETON strike
pilots. The Hecklers too had a field day by destroying over
fifty of almost five hundred trucks found along Communist supply
routes.

Beginning on 12 October, designated as "D-3" day, PRINCETON
aircraft with other planes of Task Force SEVENTY-SEVEN began a
series of close air support and naval gunfire spot missions in
preparation for the forthcoming "landing". Strikes and close air
support flights stifled ensay daylight activity in the "Objective
Area" while the naval gunfire spot sorties accurately guided the
big guns of the fleet in suppressing Communist emplacements and
other targets. These concentrated efforts continued through the
next day.

On 14 October, the ship replenished at sea during the morning,
then continued to participate in the blanket coverage of the
"Objective Area" during the afternoon and evening. Communications
and transport facilities which abetted the overall Communist
position were also bombarded.

On "D-Day" with troops ready to simulate a landing, the in-
tensive preparations of Task Force SEVENTY-SEVEN were voided by
inclement weather. Rough seas and poor visibility frustrated
efforts to attack and suppress areas around the designated
"Landing Beach."

During the fourteen days that flight operations were conducted
868 sorties were flown and about 675 tons of ordnance were drop-
ped on targets. Two Corsairs and two pilots were lost due to
enemy action.
SECURITY INFORMATION

On 16 October, a ceremony was held honoring the pilots and aircrew of the PRINCETON. Present at this ceremony were Captain U.R. HOLLINGSWORTH, PRINCETON Commanding Officer and Captain P.D. STROOP, whom he relieved. Vice Admiral J.J. CLARK, Commander SEVENTH FLEET, made the presentation of medals and awards. At the conclusion of the ceremony, PRINCETON departed the operating area for CONUS via Yokosuka.

PART II  CHRONOLOGICAL ORDER OF EVENTS

29 September

Departed Yokosuka, Honshu, Japan. Conducted air operations off Chigasaki Beach, Honshu, Japan in support of Amphibious Operation Seadog One.

Due to inclement weather only twenty-six sorties were flown.

30 September - 1 October

Moor'd to Buoy 11 Yokosuka Harbor.

2 - 3 October

Enroute Task Force SEVENTY-SEVEN. Conducted gunnery exercises 3 October.

4 - 5 October

Conducted air operations. One hundred sixty-four sorties were flown.

6 October

Replenished at sea. Conducted gunnery exercises.

7 - 9 October

Conducted air operations. Two hundred ninety-nine sorties were flown.

10 October

Replenished at sea. Conducted gunnery exercises.

11 - 13 October

Conducted air operations. Two hundred twenty-five sorties were flown.
SECURITY INFORMATION

14 October

Replenished at sea during morning. Conducted air operations. Sixty-five sorties were flown.

15 October

Conducted air operations in support of Joint Amphibious Training Exercise. Due to adverse weather conditions only forty-one sorties were flown.

16 - 18 October

Proceeded to Yokosuka, Honshu, Japan to await further routing CONUS. Conducted ferry of aircraft. Forty-eight sorties were flown.

PART III  ORDNANCE

A. Performance

1. Ship's

a. Fire Control Equipment

Performance of fire control equipment during this period of operation was excellent. No serious casualties were encountered. The manning of directors and gun mounts is on a rotational basis. Condition III watches are organized so that only half of the fire control and ordnance equipment is in service at a time. This arrangement provides maximum Condition III coverage and allows time for the preventive maintenance that is necessary for efficient operation of fire control equipment.

b. Ordnance Equipment

The only serious ordnance equipment casualty of the period occurred in the Mark 12 Mod 1 training mechanism of 5"/38 mount No. 56. Trouble was detected when, during a transmission check conducted with Mark 56 director No. 54, the mount did not follow signals in automatic or local control. Investigation disclosed that the training worm gear was moving back and forth on its bearings and that the training worm collar adjustment had no effect on the lost motion.
The complete cause of the difficulty has not been determined at this time, but it is believed that the thrust bearings are worn and are not holding the worm gear properly. Additional investigation and repair by tender personnel may be necessary, although it is believed that the repair is within the capacity of the ship's force.

2. Aircraft

It was noted in several instances that on F4U-4 aircraft equipped with Aero 14A launchers arming wires pulled out of the arming solenoid upon take-off. Investigation revealed that these accidents were the result of bombs swaying on the racks. Since it is impossible to tighten the sway braces on the Aero 14A launcher with wings folded (as the F4U wings are during loading), it is recommended that the Fastock clips on the arming wires be installed in such a manner that slack will be left in the wire. This measure should eliminate the difficulty.

One hundred pound type G.P. bombs were used extensively during the early part of the cruise for rail cut strikes. On several occasions pilots reported direct hits between rails with no apparent damage resulting. Better results were obtained using 250 pound G.P. or larger bombs.

Pilots also reported instances of 5.0" rockets with the 6.5" ATAR head attached being erratic in flight. During the latter part of the cruise the 5.0" ATAR was used and gave better results.

It is recommended that aviation ordnancemen who are to be deployed with an air group be assigned to their squadrons three to four months in advance of the deployment date of the unit. This procedure would not only permit better individual training but provide the men with vital experience in working together as a team. It is also recommended that all men assigned as aviation ordnance strikers be trained in the appropriate class "A" school.
3. Hung Ordnance Report-28 Sept to 18 Oct 1952:

<table>
<thead>
<tr>
<th>Type Ordinance</th>
<th>AEC 14A</th>
<th>Mk 6 Mod 2</th>
<th>Mk 51</th>
<th>Mk 55</th>
<th>Elector</th>
<th>Totals</th>
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<tbody>
<tr>
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<td></td>
<td>2</td>
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<td>4</td>
</tr>
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<td>7</td>
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<td></td>
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<tr>
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<td></td>
<td></td>
<td>1</td>
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<tr>
<td></td>
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<td>9</td>
<td>0</td>
<td>16</td>
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Disposition of Hung Ordnance:

<table>
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<tr>
<th>Type Ordinance</th>
<th>Later manual release</th>
<th>Release by jerking</th>
<th>Remaining on racks</th>
<th>Drop offs on landing</th>
<th>Totals</th>
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</thead>
<tbody>
<tr>
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<td>3</td>
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<td>Napalm Incend.</td>
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<td>1</td>
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<td>0</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>16</td>
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Of the 3,693 bombs carried a total of sixteen bombs or .43 percent hung up.

4. TOTAL AVIATION ORDNANCE EXPENDED 28 SEPT THROUGH 18 OCT 1952

<table>
<thead>
<tr>
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<td>1000# GP</td>
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<td>427</td>
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<td>874</td>
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<td>220/260# Frag</td>
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<td>64</td>
<td>K19</td>
<td>Fuze; Nose; AN-M103A1</td>
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<tr>
<td>3124</td>
<td>K20</td>
<td>Fuze; Nose; AN-M139A1</td>
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TOTAL AVIATION ORDNANCE EXPANDED 23 SEPT THROUGH 16 OCT 1952
(Continued)

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<td>Fuze, Nose, AN-M140A1</td>
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<td>K23</td>
<td>Fuze, Nose, AN-M146</td>
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<td>Fuze, Nose; VT, T50E1</td>
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<td>K35</td>
<td>AN-M100A2 (ND)</td>
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<td>AN-M101A2 (.025)</td>
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<td>219</td>
<td>K37</td>
<td>AN-M102A2 (.025)</td>
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<td>10</td>
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<td>3.5&quot; Rocket, Smoke, Complete Rd.</td>
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<tr>
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<td>3.5&quot; Head, Mk 6 (FS, VP or PWP)</td>
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<td>AN-Mk 155</td>
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<td>L6A</td>
<td>6.5&quot; Rocket Head, (ATAR) Mk 2</td>
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<td>L6B</td>
<td>5.0&quot; Rocket Head, (ATAR) Mk 25</td>
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<td>L8B</td>
<td>5.0&quot; Rocket Motor, Mk 10-5</td>
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<td>663</td>
<td>L9</td>
<td>Pin Assembly for 5.0&quot; Mk2 &amp;</td>
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<td>20MM INC, M96</td>
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<td>20MM AP-T, M95</td>
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<td>M4</td>
<td>Link, 20MM HETE1 (M10)</td>
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<td>Signal, Drift, (N) AN-Mk 5</td>
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<td>131</td>
<td>P38</td>
<td>Bomb Ejtr. CtG., Mk 1</td>
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</tbody>
</table>

PART IV  BATTLE DAMAGE

A. Own

The ship sustained no battle damage. See reference (b), Air Attack Reports 394-52 through 452-52, for battle damage sustained by PRINCETON aircraft.

B. Enemy

See reference (b), Air Attack Reports 394-52 through 452-52 for damage inflicted upon the enemy.
PART V PERSONNEL

A. Performance

Performance of Ship's Company and Air Group personnel was outstanding.

B. Casualties

Ship's Company personnel suffered no casualties.

Two pilots were lost to enemy action; five pilots were grounded for short periods of time; two pilots were wounded in action.

4 October: LTJG Carl B. AUSTIN, VA-195, was wounded in action when his AD was hit by ground fire while he was participating in a close air support mission near Nop'yon. He suffered fragmentation wounds in the left side of the neck.

7 October: ENS Conrad L. NEVILLE, VF-192, was killed in action when his F4U was hit by enemy ground fire while he was participating in a close air support mission. The aircraft crashed leaving no chance of survival.

7 October: ENS John R. SHAUGHNESSY, VF-193, died as a result of enemy action after his F4U was attacked by a MIG-15 in the vicinity of Hungnam. ENS SHAUGHNESSY parachuted into the water and was recovered by the USS BOYD (DD-544). However, he had become entangled in his parachute shrouds and underwater rescue was necessary. Then recovered his condition was grave. He died shortly after being rescued.

16 October: LT Charles G. HAMM, VF-191, was wounded in action when his F9F was hit by ground fire while he was participating in an armed reconnaissance mission. He suffered fragmentation wounds in both legs.

Summary of pilots lost from the Air Group from 4 October 1952 to 16 October 1952:

<table>
<thead>
<tr>
<th>Category</th>
<th>Cases</th>
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</tr>
<tr>
<td>Injury</td>
<td>2</td>
</tr>
<tr>
<td>Disposition Board</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4</td>
</tr>
</tbody>
</table>
PART VI SPECIAL COMMENTS

A. Air Group NINETEEN

1. Operations

During the period 4 October through 16 October 1952, Carrier Air Group NINETEEN flew 805 sorties totaling 1,915 flying hours during eleven operational days. The average number of flights per pilot was twelve for jets and 5.8 for prop pilots. Average time in the air was 17.2 hours per pilot.

Operations during the first half of this period consisted of interdiction strikes on bridges and key targets in the enemy's communication and supply routes and destructive blows against concentrations of supplies and troops in areas south of Wonsan. During the latter half of the period emphasis was shifted to close air support missions on the western front and strikes in and around the areas of the Joint Amphibious Training Exercise on the east coast.

Several close air support missions were flown along the front lines in central and western sectors of the battle line. All flights in these areas were controlled by Air Force and Marine controllers. These controllers found it difficult at times to assign targets and expedite Navy missions due to the lack of forward controllers or mosquito escorts. Consequently, many missions were forced to orbit during a major portion of their scheduled time over target. It is recommended, therefore, that some targets of secondary importance well beyond the front lines in enemy territory be available to controllers for secondary assignment in order that close air support flights will not be delayed in their missions. It is also recommended that a definite sector of the front be assigned to the Navy for close air support in order to expedite missions, more thoroughly familiarize pilots with a definite area, and increase the overall efficiency of the mission and damage to the enemy.

Several attacks by enemy MIG-15's were encountered by PRINCETON strike groups in the Wonsan and Hungnam areas. The group doctrine of jet cover was immediately put into effect. Eight to twelve F9F aircraft were scheduled to accompany each major strike in this area. The jet cover was placed about one thousand to two thousand feet above the base
element of AD's which were flanked by close support VF propeller aircraft. Unscheduled post-strike reconnaissance flights were discontinued and the strike group remained intact and returned to the force as one element immediately after completion of a strike.

 Strikes that were escorted by jet cover were not attacked at any time by enemy MIG's. The enemy seemed reluctant to oppose this type of a formation and preferred to jump a single division or less, making only one pass then breaking away sharply and leaving the area immediately. MIG attacks encountered were all in the Wonsan and Hungnam areas and were against flights unescorted by jet cover. Flights assigned northern coastal targets without cover successfully carried out their missions without enemy air opposition. This information indicates that the MIG's may operate only under the positive radar control which is available to them in the Wonsan-Hungnam area.

 VF-192 augmented the VC-3 team on night heckler missions whenever day strike commitments permitted in order to effect a six-plane flight for each launch. No difficulty was experienced in conducting these missions although several were flown in adverse weather. The radar installation in the F4U-5N gave the plane only a slight advantage over the F4U-4 for heckler missions and this advantage was limited to orientation at the coastline during bad weather. The "VF" and assistance from shipboard radar proved adequate for over-water navigation of the F4U-4 at night and no special equipment was required for air to ground attacks in the objective area. All pilots had had an average of four night carrier landings prior to deployment and, although in some instances the pilots had made no other night landings until they flew a dusk heckler mission three or four months later, no difficulty was experienced in coming aboard. It is felt that a pilot who has made four or more familiarization landings at night and has been engaged in nearly continuous day operations is capable of landing aboard at night with little difficulty—even though several months may have elapsed since his last night landing. This belief is substantiated by the fact that day pilots who had been flying regularly experienced less difficulty in coming aboard at night than night pilots who had not flown for several days. In this connection, it was also found that scheduling the night team pilots for day missions, to compensate for the relatively infrequent night operations, greatly aided their proficiency in the use of their primary weapons.
2. Maintenance

Very few maintenance problems were encountered during this tour in the operating area. There is still a shortage of some section "B" items, however, and only a few priority orders are being delivered by COD planes.

During the first operating period on the line many ignition system malfunctions were encountered. It was determined that a high percentage of these malfunctions was due to high engine temperatures brought about when pilots failed to open cowl flaps after landing and before shutting down the engines. Ignition troubles were reduced materially by turn-up of all aircraft on the flight deck for a thorough engine check following pinwheel operations. In several cases ignition trouble was caused by oil in the distributor and overhauled RB 19-R2 plugs.

The AD's and F9F's had few hydraulic difficulties, but about thirty-five percent of all discrepancies on the F4U's were hydraulic. Many of these malfunctions were due to line failures. All the unloader valves (N83 BLS-2535) received by the ship in one shipment were faulty and frequent changing of these valves was necessary until the stock became depleted. Because of the rather high incidence of hydraulic malfunctions on the F4U's, particular attention was given to the CO2 emergency systems and the skid plates in the wheel wells were kept well greased. However, there were no failures in the emergency systems.

The most frequent engine trouble was encountered in the rocker-box cover gaskets and push-rod packings. By using two rocker-box cover gaskets instead of one, the useful life of a given rocker-box cover gasket was lengthened.

High operation oil temperatures were encountered in a few cases in the F4U's when the oil cooler shut-off valves stuck in the closed position. This trouble was due to infrequent use and was corrected by periodic checks, and cycling at least every sixty-hour check.

It was found that locally made metal or canvas boots used to cover the F4U brake hydraulic reservoirs prevented hydraulic fluid from being sprayed about the cockpit on catapult shots.
SECURITY INFORMATION

B. Gunnery Department

Attention is drawn to the lack of a satisfactory covering for interior steel decks. Decks at present are painted. In areas of heavy traffic the decks must either be left bare or painted every week. The non-skid treads laid during the last major overhaul lasted approximately four months. It is recommended that a survey of available plasits and similar materials now on the market be made to find a non-inflammable, tough, light, chemical resistant deck covering that can stand normal shipboard usage.

C. Medical Department

The health of the crew continued at its previous excellent level. There were no serious diseases or accidents. Two pilots were killed due to enemy action;

There were ten admissions to the Sick List for venereal disease.

Basic work, that is, X-rays, Blood Kaths, EKG's were completed on all officers for their Annual Physical Examinations.

There were four patients transferred from other ships for medical treatment; two cases were operated for appendicitis.

There were five major surgical procedures accomplished.

Infectious Hepatitis still remains one of the leading diseases. There were six admissions to the Sick List for this disease.

W. R. ROLLINGSWORTH

SECURITY INFORMATION 13
SECURITY INFORMATION

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CINCPACFLT Evaluation Group
ComAirPac (5)
ComServPac
ComFairJapan
ComFairAlameda
Naval War College
ComCarDiv 1
ComCarDiv 3
ComCarDiv 5
ComCarDiv 15
ComCarDiv 17
USS ESSEX (CV-9)
USS TICONDEROGA (CV-14)
USS BOXER (CV-21)
USS BON HOMIE RICHARD (CV-31)
USS KEARSARGE (CV-33)
USS ORISKANY (CV-34)
USS ANTIETAM (CV-36)
USS VALLEY FORGE (CV-45)
USS PHILIPPINE SEA (CV-47)
USS BATAAN (CVL-29)
USS RENDOVA (CVE-114)
USS BAIROKO (CVE-115)
USS BADOENG STRAIT (CVE-116)
USS SICILY (CVE-118)
USS POINT CRUZ (CVE-119)
Carrier Air Group 2
Carrier Air Group 5
Carrier Air Group 7
Carrier Air Group 11
Carrier Air Group 15
Carrier Air Group 17
Carrier Air Group 19
Carrier Air Group 101
Carrier Air Group 102
Carrier Air Task Group 1
Carrier Air Task Group 2
CO, Pacific TuPac (2)
CO, Composite Squadron 3
CO, Composite Squadron 11
CO, Composite Squadron 35
CO, Composite Squadron 61
STATISTICAL SUMMARY

AND

FINAL RECOMMENDATIONS

- USS PRINCETON (CV-37)

- FAR EASTERN TOUR

APRIL through OCTOBER 1952
A. Air Department—(Statistics for period 14 April through 16 October 1952)

1. Catapults

   a. Total Shots - 3,217
      Day Live Shots - 2,991
      Night Live Shots - 216
      Dead Load Shots - 0
      No Load Shots - 10

   b. Pump Attrition

      All the below pumps were replaced by SRF, Yokosuka. None of the port pumps required replacement.

      Starboard pump No. 1 was replaced on 2 July 1952 after 1,967 shots.
      Starboard pump No. 2 was replaced on 2 July 1952 after 1,616 shots.
      Starboard pump No. 3 was replaced on 13 August 1952 after 1,764 shots.
      Starboard pump No. 4 was replaced on 13 August 1952 after 2,287 shots.

   c. Forged-Eye F9F Pendent (R9ONAF-313949-1)

      Experiments were made with the new forged-eye F9F pendant and the arrestor described in H4B Catapult Bulletin No. 92. These instruments were found to be generally unsatisfactory. Somewhat more success was achieved by use of an arrestor designed by the crew. A full report is being made by HUDH.

   d. New Launching Pressure System

      The new launching pressure system (described by H4B Catapult Bulletin Nos. 88 and 92 - 100) was instituted during the first part of September, 1952. This system is most satisfactory and a considerable improvement over former methods. It is flexible and materially reduces the possibility of error, particularly on night launches.

2. Arresting Gear

   a. Total Landings - 7,338
      Day - 7,257
      Night - 81

   Enclosure (1)
b. Total Barrier and Barricade Engagements - 13

Prop Barrier - 6
Jet Barrier - 6
Jet Barricade - 1

c. Description of Barricade Engagement

On 9 June 1952 at 1508 I an F9F-2 (Bureau No. 123031) made what appeared to be a normal approach. The pilot received a late wave-off, which he attempted to take. The plane, however, began to stall and was consequently brought into the deck and the Barricade.

The resulting engagement tore out the Davis Webbing on B2 and B3 but did not actuate the barriers. The aircraft's port tip-tank struck the port barricade stanchion and the plane engaged the barricade at a forty-five degree angle. A barricade arrested landing was effected: the airplane came to rest in an athwartships attitude abreast the forward edge of the deck-edge elevator. The pilot was uninjured.

d. General Comments

The crew has become adept in the maintenance and operation of the barricade. It has been found that most of the attrition on barricade webbings is due to routine deck traffic.

3. Aviation Ordnance

a. Equipment

The present allowance of rocket launcher firing circuit test kits is five for every twenty aircraft. It is felt that an allowance of six for every twenty aircraft would be more in keeping with actual operating conditions in the forward area.

It has been found that the present allowance of sixteen Mark 8 Mode 0 bomb skids is inadequate for operations in the forward area. An allowance of at least twenty, and preferably twenty-four, is considered more desirable.
b. Total Aviation Ordnance Expended 30 April through 15 October 1952.

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<td>16</td>
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<td>1994</td>
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<td>Fuze, Nose, VT, AN-M166 (T5LE1)</td>
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<td>Fuze, Nose, AN-Mk 219</td>
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<td>2705</td>
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<td>7</td>
<td>K37</td>
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<td>K38</td>
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<td>K39</td>
<td>M116 (4-5)</td>
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<tr>
<td>17</td>
<td>K41E</td>
<td>M123A1 (24 hr)</td>
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<td>16</td>
<td>K42C</td>
<td>M124A1 (6 hr)</td>
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<td>L2A</td>
<td>3.5&quot; Rocket, Smoke, Complete Rnd.</td>
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<td>AN-Mk 155</td>
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Enclosure (1)
### SECURITY INFORMATION

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<td>172;800</td>
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<td>20MM-AP-T, L95</td>
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<td>P2</td>
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<td>Flare, Parachute, Mk 6</td>
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<td>913</td>
<td>P38</td>
<td>Bomb Ejector Cartridge, MK1</td>
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</table>

Approximately eleven million pounds (5500 tons) of aviation ordinance, costing about $3,616,000, were expended. In comparison, during the FRINCETO N'S first combat tour in the Korean War, 17,840,322 pounds (8,920 tons) of aviation ordinance were expended from 5 December 1950 to 10 August 1951.

c. Personnel

It was found that the allowance of AOs for the VC-35 Detachment (using VAN aircraft) was inadequate to meet the demands of operating schedules and conditions in the forward area. This situation, however, was very satisfactorily remedied by consolidating the VC-35 Ordnancemen with VA-195 Ordnancemen under the direction of the senior Chief Aviation Ordnanceman. The solution also increased the overall productivity of current on-board man power and proved extremely practicable and workable.
4. Gasoline

This ship has experienced considerable delays in connecting aviation gasoline hoses when preparing to replenish from Fleet Tankers (AO's). Among discrepancies noted were:

a. Heavily rusted couplings
b. Steel blank flanges and steel bolts.
c. Bolts and nuts with damaged threads.
d. Defective quick-release couplings.
e. Jury-rigged tricing gear.
f. Excessive amounts of trapped gasoline in the delivery hoses.
g. Quick-disconnect couplings attached to the hoses with the handles on the bottom.

It is recommended, therefore, that AO's sustaining Task Force SEVENTY-SEVEN be furnished good quick-disconnects and brass bolts and nuts for servicing aircraft carriers.

During large scale defueling operations, and especially in heavy weather and typhoon conditions, the defueling pumps have proved inadequate. A larger capacity fuel pump or vacuum set-up for the present fuel system should be devised to enable all stations to de-gas simultaneously.

The total amount of aviation gasoline (130/145) burned for the period was 3,398,180 gallons. The total amount of lubrication oil (Navy Spec 1120) used was 21,589 gallons.

5. Flight Deck

Nylon tie-down lines, as developed by the USS VALLEY FORGE, have been used extensively on jet type aircraft throughout this cruise. It has been found that they offer faster action, more strength, and far more durability than the tie-down reel or twenty-one thread line. It is recommended that nylon tie-down lines be manufactured and put on the allowance list for all CV-9 and CV-27-A class carriers.

6. Aircraft Maintenance

No unusual difficulties were encountered during the past tour of operations. Quick engine change units were kept built-up and ready for installation at all times. Spare parts were always accessible and the number of AOG aircraft was
SECURITY INFORMATION

kept to a minimum. Cooperation between the Air Group and V-4 Division maintenance crews was splendid and a high availability of aircraft was maintained during the entire tour.

QUICK ENGINE CHANGE UNITS BUILT-UP

R-3350-26W  6
R-2800-18W  11
R-2800-32W  2

AERIAL PROPPELLERS ASSEMBLED AND ISSUED

12

HAMILTON STANDARD PROPPELLERS REPLACED

F4U-4  17
F4U-5  2

7. Rolling Stock Maintenance

Difficulty was experienced in obtaining certain spare parts for tractors and ZEKELY three-wheeled jeeps. Spark plugs for these vehicles were extremely hard to obtain, but plugs on hand were kept in a usable condition. Other small items, such as carburetor kits, points, condensers, and coils, were also hard to obtain.

8. Aircraft Electronics Maintenance

Aircraft Electronics Technicians experienced difficulty in obtaining vacuum tubes for the UPM-8 test equipment used to maintain the IPX-6 Mark 10 identification equipment.

No spare replacement parts could be obtained for the TS-419-U electronics signal generator. No replacement equipment was available either, with the result that emergency repairs had to be done with similar parts from other units.

The maintenance of the AN/APS-31B radar equipment was slowed down and made difficult by the lack of proper test bench components. Time delay in the arrival of these parts placed a burden on maintenance personnel and added to the department's work load.
### SECURITY INFORMATION

#### 9. HU-1 Unit NINE

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<tr>
<th>Month</th>
<th>Flights</th>
<th>Hours</th>
<th>Availability</th>
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**Average**

#### B. Air Group NINETEEN

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<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>Sept</th>
<th>Oct</th>
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<td>1024</td>
<td>673</td>
<td>439</td>
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<td><strong>1107</strong></td>
<td><strong>1537</strong></td>
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<td><strong>1321</strong></td>
<td><strong>353</strong></td>
<td><strong>8143</strong></td>
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**Total Combat**  6470
**Total Non-Combat** 1673
**Total** 8143

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Enclosure (1)
2. Intelligence

When deployed, the Air Group had a full complement of Air Intelligence Officers. At the end of the second tour on the line the Air Intelligence Officer of Fighter Squadron 192 returned to the United States for discharge. Due to the Air Group's heavy flight schedules, the vacating of the billet put an unnecessarily heavy work load on the other squadron Intelligence Officers and the CVG Air Intelligence Officer. It is recommended that all Air Intelligence Officers being deployed have sufficient obligated service to insure that they will complete the cruise.

It is also recommended that all Air Intelligence Officers report to their squadrons at least three months prior to deployment to WesPac. Such a measure should insure the acquisition of pre-deployment intelligence materials and the completion of prescribed lectures and training for the pilots.

In the case of Air Intelligence Officers that have had no previous operational experience, it is further recommended that the program of sending these officers to one of the carriers in the operating area one month in advance be continued. If possible, these officers should spend the majority of this advance period with the units they are to relieve. This indoctrination would give them access to the most experienced carrier in the operating area and would provide ample time to arrange for future transfer of necessary operational intelligence materials.

During the first tour on the line Ready Room Three installed a curtain on rods to screen off the rear part of the ready room. Chairs were placed in a square in this area and it has since been used for de-briefing. The arrangement has proved highly satisfactory and permits the conducting of simultaneous briefings and de-briefings in the same ready room without interference.

Ready Room One, used by the jet squadron, also was set-up with a briefing and de-briefing area in the rear of the ready room. This arrangement has been made because approximately seventy-five percent of all jet hops are composed of eight planes or less. The rear rows of seats have been turned so that they face aft and thereby provide ample space for these small briefings. The set up also provides the Air Intelligence Officer with a permanent working area.

Some provision should be made for Squadron Air Intelligence Officers to have two-drawer file safes in their
ready rooms for Secret and Confidential materials. Squadrons should requisition these safes well in advance of deployment.

3. Pilot Survival

a. Briefing

Survival hints were made a part of the briefing for each mission of this command. The hints covered survival equipment and techniques together with the best available information and procedures regarding evasion and escape. If for no other reason, these daily hints were considered extremely valuable in that they kept the pilots continually survival-conscious.

b. The ADSK-1 Droppable Survival Kit

This kit should be issued as a summer kit only. The necessary gear to modify it for winter use can then be issued in less quantity and placed in the kits to modify them for winter use. This procedure would also result in a saving of the kits and gear.

The .30 caliber carbine contained in the kit could well be replaced with a rifle such as the Air Force "Hornet".22 caliber. This change would give lower costs for both weapons and ammunition. If such substitution is not feasible, then the carbine might well be modified for better packing by the method used by the USS USSAX and recommended in their Action Report for the period 18 July - 4 September 1952.

Five of these kits were dropped by this command during the period in the forward area. None were recovered to determine the damage, if any, resulting to the contents. All were dropped either accidentally or jettisoned to save the aircraft.

A container for the gear should be included as part of the kit. Such containers, which could also be used for knapsacks, were manufactured by the ship's paraloft out of light weight canvas, thirty-six inches long and 13.5 inches in diameter with a zipper opening.

c. The AN/CRC-7 and AN/PRC-17 Survival Radios

These radios are considered to be too bulky to
serve satisfactorily for all-purpose survival. They are not well adapted for carrying on the person along with the other gear that is required. In addition, much difficulty has been experienced in keeping them operating. It is again recommended they be replaced with a lighter and more compact radio that can be carried comfortably on the person. The pilots feel such a radio would be much more suited to survival purposes and that personal issue would result in greater reliability due to the better care given it by the man to whom it is issued.

d. Carrying of Survival Gear:

Further consideration regarding the carrying of survival gear is indicated. A method of carrying the necessities for survival on the person is mandatory, particularly in the Korean Theater of combat. Pilots feel that since the period on the ground immediately after bailing out is so critical, there is not enough time to go through a paraRAFT and pick up all the needed equipment. Many have suggested the back pack, such as was used in World War II, as a possible answer.

The supporting carrier should be issued greater quantities of those items which are generally lost after a bailout or ditching, such as helmets, gloves, sheath knives, and compasses. Pilots find it difficult to obtain a re-issue after return to the ship due to the limited quantities allowed on board as reserve stock.

e. PK-2 Raft

Rations and hand paddles should be put back into the paraRAFT kit. Hand paddles are particularly needed, especially during the winter months when the water is extremely cold.

VF-191 developed a small knapsack for the PK-2 that is placed within the container itself. It holds all the gear of the kit and is easily removed, assuring the pilot the immediate availability of all his equipment if time is limited. It is recommended that it be colored green for summer use and white when snow is on the ground.

f. Other Recommendations:

The pilots have recommended that signal mirrors be made a part of the standard equipment of the Mae West life jacket. Most of them have modified their present Mae Wests to carry a mirror.
SECURITY INFORMATION

A locally manufactured tourniquet and an ammonia capsule have been placed in the cockpit of each plane for emergency use. One pilot was wounded in the arm by small arms fire and made use of the tourniquet to stop the bleeding. The tourniquet is made of webbing about thirty-six inches long with a five-inch loop on one end for easy one-handed application to an arm or leg. The pilot who was injured stated that one-hand application was quite simple because of the loop.

Some pilots have made a practice of wearing their goggles, unattached oxygen masks, and scarves during their runs for greater protection from flak or pieces of plexiglass in the event of a hit in the windshield. Several have stated that such a practice saved them from more serious injury when they were hit.

Summer flight suits and anti-blackout suits were found to be excellent camouflage aids when on the ground. Our downed pilots wore both suits and used the one that blended best with the terrain. The anti-blackout suits were also found to be excellent flotation gear in the water.

g. Helicopters:

It is recommended that helicopters have some kind of distinguishing painting for better visibility from above. RESCAP pilots experienced difficulty at times in keeping the helicopter in sight when accompanying it in for a rescue. One suggestion is that bright spots be painted on the rotor blades, a step which would appear to make colored circles when a helicopter is in flight.

Pilots have recommended that the rescue helicopter carry smelling salts to aid pilots in counteracting faintness or dizziness after pickup and a blanket to help the rescued pilot stay warm after a water rescue.

It is strongly recommended that helicopters and ships be made available in the general area of strikes, especially when the strikes are conducted at a long distance from the carrier. On strikes conducted in the northern area of Korea, pilots were, on occasion, at such a great distance from helicopter assistance that recovery would have been delayed for some time.

Web tabs have been installed on parachute harness buckles (as outlined in the proposed technical order...
of BuAer letter 54438) and found to be very helpful. Pilots who ditched following installation of tabs reported a greater ease in loosening the harness because of the tabs.

h. Survival Exposure Suit MK III.

Many pilots have voiced complaints concerning various features of the Mk III exposure suit. One major complaint concerns the bulkiness of the suit. It is doubted that much can be done to eliminate the bulkiness, have the suit do the job for which it is designed and still allow the pilot any freedom of movement in his plane. It is believed however, that the new Mk IV suit will answer most of the complaints satisfactorily.

i. Comments:

Fundamentals should never be overlooked in survival. All-pilot meetings were held at the beginning of each tour on parachute descent and landings, getting out of the parachute, ditching, inflation of life vests, helicopter techniques, and evasion and escape techniques.

Since entering combat operations this command has suffered the loss of twelve personnel, has two missing in action, and has had twenty-three instances of pilot recoveries after aircraft have been shot down. One pilot lost was recovered following a successful bailout from his plane but succumbed to asphyxiation by drowning shortly after his recovery. It is felt that these losses would have been higher were it not for the excellent training, teamwork, and courage shown by downed pilots, RESCAP pilots, and helicopter pilots.

The pre-deployment survival training with the bailout trainer proved of immense value to pilots who were forced to jump. It is recommended that indoctrination and practice in the use of survival gear, particularly signaling devices, be periodic and involve field problems whenever practicable.

Pilots have shown a high interest in survival and evasion and escape during the period this command has been in combat. This interest is only natural since it is vital to their successful return if they should be forced down in the water or in enemy territory. The consensus of pilot opinion is that as much time as possible should be allotted to survival and escape and evasion pre-deployment training.
SECURITY INFORMATION

has to date processed, typed and forwarded approximately 650 requests for ship’s company personnel for change of duty, schools, shore duty, and overseas shore duty.

2. Marine Detachment

The Marine Detachment has realized practically a one hundred percent turnover of enlisted personnel during the period covered due to the Marine Corps’ policy establishing the tour of sea duty as two years. Of the sixty-four enlisted personnel comprising the detachment, forty-five have been transferred to the continental United States for reassignment, while forty-six others have been received as replacements. Of those persons remaining in the detachment who were aboard the ship when it departed the United States for the Western Pacific area, eleven are either presently awaiting execution of detachment orders or were aboard only a short time prior to PRINCETON’s departure from the United States.

During the period covered by this report, the Marine Department has had eighteen promotions:

One First Lieutenant to Captain
One Second Lieutenant to First Lieutenant
One Staff Sergeant to Technical Sergeant
Seven Sergeants to Staff Sergeants
Four Corporals to Sergeant
Four Privates First Class to Corporal

In addition, three enlisted personnel have been recommended and accepted for officer candidacy.

3. Religious Activities

With both a Catholic and a Protestant Chaplain on board, the spiritual needs of the ship were ministered to adequately. In addition, members of the Church of Latter Day Saints organized themselves into an active group. Total services were held as follows: Catholic, 251, Protestant, 191, Latter Day Saints, 31. The two Chaplains alternated in offering an evening prayer at the commencement of the nightly news broadcast each evening in the combat area. Various discussion groups were held, including a series of twelve forums on the religious, psychological and economic aspects of family life.

Enclosure (1)
4. Morale

Morale is considered to have been very high throughout the operating period. The long periods on the line curtailed many recreational activities. Movies were shown nightly with two showings given each night that operations prohibited use of the hangar deck. Upon the formation of the O-L Division, the band was relieved of lookout duties and able to perform more often. The band played a total of 137 concerts on board. In port, full use was made of the special service hotels; approximately six hundred enlisted and 230 officer reservations were utilized. Tours to places of interest in Japan were organized, including a two-day climbing trip to Mount Fuji. An intra-division/squadron athletic tournament was organized; and competition was provided in softball, baseball, golf, swimming, horse shoes, and tennis.

5. Public Information

The volume of work in the public information field has been steadily increasing. To provide for more effective public relations, the command has established a Public Information and Morale Board consisting of one Lieutenant Commander from the ship's company, one Lieutenant Commander or Lieutenant from the Air Group when embarked, and two ship's company junior officers. This board further serves as the Awards Board. The following material was prepared:

One hundred sixteen Daily Press dispatches
Thirty-five General Feature stories
One hundred twelve Fleet Hometown News stories
Every crew member aboard will have a hometown forwarded prior to arrival in the United States.
Seventy-eight Fleet Hometown News still pictures
Forty-four general still pictures
Twelve issues of "Slipstream", the Ship's newspaper.
One hundred seventeen issues of the Morning Press News

Enclosure (1)
6. Information and Education:

The Information and Education Program has almost tripled in activity during the period covered by this report. The ship is a USAF testing center, and 203 men are currently enrolled in USAF correspondence and self-teaching courses. About 215 General Education Development Test batteries (one thousand separate tests) have been administered. The Chief of Naval Personnel, in a letter dated 10 September 1952, commented favorably upon this large volume of educational work.

D. Dental Department

The activity of the Dental Department was of routine nature during this period. All demands upon the department were satisfied, and a good coverage of ship's complement plus air group was attained. In spite of an over full appointment schedule, the demand for treatment was at no time so overwhelming that thorough, high grade dentistry had to be sacrificed for speed.

The following statistics indicate a good average for the dental facilities and conditions prevailing in this type ship, and are commensurate with the time available after deductions for drills, training programs, and other non-productive intervals:

<table>
<thead>
<tr>
<th></th>
<th>During Period</th>
<th>Average per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients treated</td>
<td>1582</td>
<td>264</td>
</tr>
<tr>
<td>Visits</td>
<td>3923</td>
<td>654</td>
</tr>
<tr>
<td>Restorations</td>
<td>2705</td>
<td>451</td>
</tr>
<tr>
<td>Extractions</td>
<td>457</td>
<td>91</td>
</tr>
<tr>
<td>Gingival pathology cases</td>
<td>116</td>
<td>19</td>
</tr>
</tbody>
</table>

Seven patients were treated and returned to other ships in the force.

The only weak link in treatment occurred in the prosthetic phase of dentistry, since all such cases had to be referred to shore establishments. The dental prosthetic department of the U.S. Naval Hospital, Yokosuka, cooperated to the limit of its capacity throughout the period but was able to complete only about seventy-five percent of the prosthetic requests.

At the midway point of this period an exceptionally high incidence of gingival pathology was noted. Treatment for
these cases is time consuming, and danger of contamination is greatly enhanced aboard ship via coffee mases, crowded spaces, et cetera. In seeking the cause, it was ascertained that only a very hard nylon-type tooth brush was available aboard ship. Instruction in proper tooth-brush technique was, therefore, instituted. Subsequently, and with the arrival of a softer type brush, a fifty percent decrease in gingival treatment requirements was noted. It is felt that this program was well worth the time and trouble, and is recommended for the consideration of other units.

E. Engineering Department

1. Statistics (Period 14 April-16 October 1952)

- Miles traveled (engine miles) . . . . . . . . . 54,360
- Gallons of fuel oil used. . . . . . . . . . . . . 10,997,775
- Barrels (42 gallon) of fuel oil used . . . 240,423
- Gallons of fresh water used. . . . . . . . . . . . 20,006,615
- Gallons (by meter) of fresh water made 13,223,705
- Average water consumption (in gallons)
  per day per man . . . . . . . . . . . . . . 19.26
- Number of days on water rationing. . . . . . . 18

2. Personnel

The Engineering Department has maintained an excellent state of readiness. Some difficulties are present, however, in the personnel set-up. The on-board personnel in the Electrical Division has been less than necessary for efficient operation. Boiler maintenance, an around-the-clock job in port, has prevented some of the men of "B" Division from having a normal amount of liberty since that division also is under-manned. The operating schedules and the necessity of split plant operation do nothing to alleviate this situation. Furthermore, the capacity of the evaporators coupled with the limited storage available for food and fresh water (5.6 days for the former and 2.7 days for the latter) leaves a very small margin of safety.

3. VHF/UHF Antennae

During the initial part of the last operating period the ship experienced considerable difficulty with VHF/UHF communications. The largest percentage of these difficulties was a result of shielding of the antennae in use by the ship's structure. A strong, clear signal would fade, or sometimes

SECURITY INFORMATION

During the latter period of Air Operations some signs of operational fatigue were observed, that is, increased anxiety as to minor physical complaints and more frequent request for temporary grounding. It is felt, however, that this anxiety is no more in excess than that shown by similar groups undergoing final operations, and that the leadership and understanding were outstanding. Morale among the pilots remained very high. This Air Group has suffered the loss of eleven pilots and one crewman killed and two pilots missing in action. Nine pilots were returned to the ship for medical treatment for enemy-inflicted wounds. There were 114 pilots temporarily grounded, three appeared before a disposition board, two were permanently grounded, one required retraining within the Squadron, one was returned to the United States for retraining and one pilot declined further aviation assignments.

LT R.S. GRAHAM, MC USN, ComNavFLE Staff, visited the ship on 20 September 1952 in relation to Venereal Disease problems encountered in the Japan area.

During the ship's period in port from 20 September 1952 to 28 September 1952, eighty-five personnel gave blood to the Blood Bank at U.S. Naval Hospital, Yokosuka, Japan.

It is felt that a combat period of three weeks is the optimum period. After this length of time minor accidents are more prevalent on the part of both Air Group and Ship's Company—especially flight deck handling crews.

It is felt that more equitable rotation could be exercised in the assignment of Medical Guard. During the ship's last rotation in port, PRINCETON had the Medical Guard for the last two nights in port and on the first day of return after thirty-five days on the line. This, regardless of the fact that a Hospital Ship was anchored in the stream.

H. Navigation Department

The various journeys "to and from" were uneventful and unnoteworthy in a navigational sense. In the Operation Area, LORAN was used extensively and successfully, and use of the DRT, during operations of a nature to prohibit an accurate "manual" DR plot, was noted as valuable and surprisingly accurate.

SECURITY INFORMATION -20- Enclosure (1)
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Security Information

Actual employment during the dates of 14 April through 18 October was as follows:

- On the line: 108 days
- Enroute (to and from) Yokosuka and Operating Area: 30 days
- Alongside Piedmont Pier, Yokosuka: 31 days
- Moored to buoy, Yokosuka: 20 days
- Anchored, Yokosuka: 5 days

The Officer of the Deck training program may be of interest to other commands. The PRINCETON emerged from the enviable position of having only one officer fully qualified to stand OOD watches in a fast carrier Task Force, to the enviable one of having seventeen officers fully qualified. Over twice that number of Junior Officers received extensive experience. This program, aimed at the qualification of OOD's and the rounding out of qualifications for more senior officers, consisted of an organized program of practical instruction combined with related study and actual experience for both Ship's Company officers and interested members of the Air Group. The program was built around an "OOD Instruction Folder", promulgated by the Navigator, which consisted of three parts:

1. A study guide section covering:
   - Applicable Publications.
   - Maneuvering Board.
   - Communications (interior and exterior).
   - Radar (practical usage).
   - Engineering, Plant Capabilities.
   - Navigation Bridge Familiarization.
   - Emergency Bills.
   - Steering Gear.
   - Air Operations.
   - Supply.
   - Relationship between the Commanding Officer, Executive Officer, OOD, Conning Officer, CIC Watch Officer, Engineering Officer of the Watch, etc.
   - The Log.
   - Administration of the Watch.

2. A guide to administration of the watch.

3. An Emergency Bill folder, listing specific action for designated emergencies.
By supplementing this folder with tours, lectures, and actual experience, a large number of officers were trained together, and a high degree of interest was maintained.

The program was considered a success on this ship, and it has received considerable recognition throughout Task Force SEVENTY-SEVEN, AirPac, and the Pacific Fleet.

I. Operations Department

1. General

During Ready Carrier periods in port, it is recommended that refresher air operations, anti-aircraft firing, air to air gunnery, Ground Controlled Intercept exercises with the Air Force, et cetera, be conducted while the ship is enroute to the operating area. This program can be accomplished by sailing one to two days ahead of the assigned schedule, thereby not only giving the ship and air group a longer unbroken maintenance, upkeep, and rest and recreation period, but also presenting to the operating area a ship and air group recently refreshed in all respects and ready to return to full scale operations.

Upon the arrival of the PRINCETON, in Yokosuka, the ship had no copies of Commander Task Force SEVENTY-SEVEN's current Operation Order, Carrier Division Instructions, or Commander SEVENTH Fleet's Operation Order. Copies of Commander Task Force SEVENTY-SEVEN Operation Order and Commander SEVENTH Fleet Operation Order were finally obtained from the AMITELAI, but not in sufficient quantity to satisfy the needs of the ship newly arrived in the area.

Recommendation:

a. That each carrier enroute to operate with Task Force SEVENTY-SEVEN pick up in Pearl Harbor ten copies of Commander Task Force SEVENTY-SEVEN Operation Order, one copy of Commander SEVENTH Fleet Operation Order, and five copies of COMCARDIV ONE, THREE, and FIVE Standard Operating Instructions. Upon the return of the ship to Pearl Harbor, the subject publications would be turned in for re-issue to the next deploying carrier.

b. If the above recommendation is not practical, it would seem wise to insure that each carrier being relieved have on board the number of recommended copies ready
SECURITY INFORMATION

to turn over immediately to the relieving carrier.

c. Regardless of how many copies of each publication are issued, one copy of each should be issued to each carrier on a permanent custody basis.

Throughout the entire period of operation in Korean waters all carrier division staffs held daily conferences for one Ship’s officer and one Air Group officer. This daily conference was of inestimable value to the Ship and Air Group and it is strongly recommended that this practice be continued by all carrier division staffs as long as feasible.

Each time this ship returned to Yokosuka for availability, and rest and recreation a conference with Commander Fleet Air Japan was arranged by dispatch to take place on the day of arrival in port. The ship in turn prepared a complete list of items to be discussed, broken down by departments, which was distributed to all attending parties at the beginning of the conference. This system proved fruitful to both the ship and ComFairJapan Staff and is recommended for all carriers operating in the Korean area.

2. Aerology

a. Weather

With the exception of days when the ship was under the influence of frontal systems or storms, flying conditions were average to good. Storms occurred on the following dates: 28 through 31 July, 19 August (typhoon "Karen"), 22 and 23 August, 3 and 4 September (typhoon "Mary"), and 10 and 11 September 1952.

<table>
<thead>
<tr>
<th>Maximum temperature</th>
<th>87 degrees F. (25 July 1952)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum temperature</td>
<td>47 degrees F. (4 May 1952)</td>
</tr>
<tr>
<td>Average temperature</td>
<td>71 degrees F.</td>
</tr>
<tr>
<td>Maximum sea temperature</td>
<td>86 degrees F. (16 Aug 1952)</td>
</tr>
<tr>
<td>Minimum sea temperature</td>
<td>44 degrees F. (4 May 1952)</td>
</tr>
<tr>
<td>Average sea temperature</td>
<td>71 degrees F.</td>
</tr>
<tr>
<td>Maximum wind velocity</td>
<td>74 knots (3 September 1952, Typhoon &quot;Mary&quot;)</td>
</tr>
<tr>
<td>Minimum wind velocity</td>
<td>calm</td>
</tr>
<tr>
<td>Average wind velocity</td>
<td>11.6 knots</td>
</tr>
<tr>
<td>Prevailing wind direction</td>
<td>southerly</td>
</tr>
</tbody>
</table>

SECURITY INFORMATION -23- Enclosure (1)
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Maximum temperature - 87 degrees F. (25 July 1952)
Minimum temperature - 47 degrees F. (4 May 1952)
Average temperature - 71 degrees F.
Maximum sea temperature - 86 degrees F. (16 Aug 1952)
Minimum sea temperature - 44 degrees F. (4 May 1952)
Average sea temperature - 71 degrees F.
Maximum wind velocity - 74 knots (3 September 1952, Typhoon "Mary")
Minimum wind velocity - calm
Average wind velocity - 11.6 knots
Prevailing wind direction - southerly
b. Communications

Facsimile-reception in general was good. There was some interference from CW transmissions and during periods when the ship was in the area of a storm.

Reception of radio-teletype, Guam, was good but coverage of Korean area in weather broadcasts was incomplete for our purposes. Radio-teletype, Tokyo, reception was good except when storms or active fronts existed between Tokyo and the operating area. Coverage of Korean area reports by Tokyo was good.

The Mk 37 and Mk 56 directors were successfully used for rawins (upper winds taken by radar).

The radiosonde receiver was given a complete check while in port (August). Performance of the radiosonde receiver since the check has been very good.

c. Comments and Recommendations

It was possible to receive Guam (radio-teletype) approximately ninety percent of the time, although Guam did not have all the desirable reports. It was not possible to receive Tokyo (radio-teletype) all the time, although that station transmitted the maximum number of reports. Tokyo was received sixty percent of the time.

All weather information obtained from a de-brief after a PRINCETON strike was always sent to Commander Task Force SEVENTY-SEVEN but de-brief weather from the other carriers was not exchanged between the carriers or sent to the PRINCETON by the Task Force Commander. It is recommended that all debrief weather be exchanged between carriers within the Task Force.

The ship failed to receive CTG 95,11 (carrier force off the west coast of Korea) three and six hour reports. This group was in a position to report frontal systems approaching from the west before reaching Korea.

Radio facsimile reception was as noted above. Data, however, was a bit old. The information being transmitted was for the use of the fleet--primarily the fleet off Korea. In view of this, more detail and accuracy should
be shown in this area. Moreover, a speed-up in obtaining, analyzing, and transmitting data is necessary to make up-to-date information available. It is understood that this is being attempted with the establishment of a Fleet Weather Central at Yokosuka, Japan.

It is recommended that each carrier, as it comes out to this area, have its Aerological Officer visit the Fleet Weather Central at Yokosuka to obtain the latest information on radio and facsimile schedules, as well as other sources of weather information. It is imperative to obtain latitude and longitude positions of reporting ships and current code names for areas covered by established aircraft weather reconnaissance.

3. Combat Information Center

A new technique for radar piloting and navigation during Sortie and Entry has been experimented with and proved effective. Very accurate ranges and bearings can be obtained continually by using both Mk 25 radars, one radar being kept locked on a target while the other is being reacquired to a new target. Selection of targets that are isolated and can be used in critical periods, such as shallow water passes, narrow channels, or approaches to anchorages is the most important consideration in using this method of radar piloting. Surface search radar, however, should be used at all times to check the accuracy of fixes obtained by the Mk 25 and to provide information in the event of failure of the Mk 25 system.

The URD (VHF/DF) equipment has been utilized with excellent results to assist in identification and location of strikes and friendly aircraft.

In an effort to promote a more efficient relationship between CIC and Officers of the Deck, five CIC Officers have been qualified as Officers of the Deck Underway and the remainder are in the process of qualifying. It is planned that all Officers of the Deck will become qualified as CIC Surface Watch Officers.
mastic tube carriers in use at the present time are not considered adequate. Average tube carrier life in the operating area is approximately six weeks. Twelve of these carriers were overhauled by the joint efforts of the Sail Locker and Cobbler Shop personnel in an effort to obtain a more suitable closing cover. They were not successful, however, despite the reasonable amount of care that was exercised in the handling of these carriers; the metal container invariably cut through the leather hinge and finally severed it. It is believed that with a quick-release metal cap—either threaded or snap-in type—the useful life of the pneumatic carrier would be increased ten-fold.

d. Visual Communications

Since the FOX flag was in constant use, it was found helpful to rig two additional halyards. These halyards, one port and one starboard, were rigged from the radar platforms directly down to the after end of the flag bags and well clear of the yardarm halyards. They are used exclusively for the FOX flag and insure no interference with flaghoist signals.

Greater use is recommended of the flashing light and "Nancy" in the transmission of administrative traffic. They would serve to lighten the circuit load and, in many cases, expedite the delivery of radio traffic. To make full use of these methods, it is necessary to insure that all CWO's are fully indoctrinated and that originators are familiar with the relative speed of visual and radio transmissions after consideration of the precedence and group count involved.

In order to insure positive liaison between the Conn, CIC, and the Signal Bridge and to insure a minimum of interference with other stations, these three stations were set up separately on the IX circuit. As a result, use of the 23 and 24MG units was reduced to a minimum. The noise level on the bridge was reduced and prompt verification of all tactical signals to the OOD was accomplished with a minimum of interference and effort on the part of all concerned. Furthermore, the IX talker on the Signal Bridge intercepted all formation and maneuvering data, thereby providing at all times an accurate surface plot for the use of the Signal Bridge.
The following figures represent the volume of traffic handled by visual means during the period 15 April - 15 October 1952:

<table>
<thead>
<tr>
<th></th>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>236</td>
<td>156</td>
</tr>
<tr>
<td>May</td>
<td>338</td>
<td>258</td>
</tr>
<tr>
<td>June</td>
<td>291</td>
<td>260</td>
</tr>
<tr>
<td>July</td>
<td>447</td>
<td>336</td>
</tr>
<tr>
<td>August</td>
<td>343</td>
<td>337</td>
</tr>
<tr>
<td>September</td>
<td>245</td>
<td>270</td>
</tr>
<tr>
<td>October</td>
<td>150</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>2050</td>
<td>1670</td>
</tr>
</tbody>
</table>

Grand Total 3720

e. Post Office

(1) Statistical Summary

Incoming: 1922 mail bags containing:

over one-half million letters.
34,000 parcels and newspapers.

Outgoing: 2910 mail bags containing:

over 600,000 letters and small parcels.
450 large items (such as cases of china).

Stamp Sales: $17,483.26

Money Order Sales: $424,336.06

(2) Recommended Operating Procedures

The word was passed on the LMC at 1600 as to mail closing time the day prior to replenishment.

An available area on the hangar deck was roped off and division signs suspended to facilitate and expedite sorting of incoming replenishment day mail. Members of the Marine Detachment and Division Mail Petty Officers assisted in the sorting. The average replenishment mail measures 324 cubic feet.
Money orders were sold in the wardroom as well as at the Post Office throughout payday.

5. Photo Interpretation

The large distribution of photography required of each carrier during the entire 1952 cruise has imposed a tremendous work load on both the photographic laboratory and the photo interpretation unit. As a result, the quality of the prints turned out has been greatly reduced and the Photo Interpreter has not been able to utilize the material received from other ships.

It is recommended that only a selected distribution be made to the various staffs and that none, except on unusual occasions, be made to other ships. The only need for other ships' photography has been in the preparation of target mosaics for briefing purposes. This need would be entirely eliminated if the Photo Interpreter on the staff of the Task Force Commander could furnish these mosaics with the target plan or if the various ships were assigned targets covered by their own photography. This system was successfully implemented during the last part of the cruise.

It is believed that a reduction in the present distribution would result in a saving of time and funds and would greatly increase the efficiency of the Photo Interpreter and Photographic Laboratory.

6. Photographic Laboratory.

During the 1952 tour of duty in the Far East, the Photographic Laboratory of the USS PRINCETON has experienced difficulty with the A-10A Aerial Film Dryers (Stock No. M38-D-791-2). The original switches burned out in a very short time and were replaced by heavy duty switches furnished by the Ship's Electrical Shop. Eventually the new switches also burned out and as a final solution "500 V 30 AMP" switches were attached to the bulkhead adjacent to the dryers. This arrangement solved the problem but proved to be very impractical.

The furnishing of photographs for the ship's Cruise Book and the Public Information Office plus the unexpected arrival of "VIPs" and survey groups necessitated a large expenditure of flash bulbs.

For the report of one survey group flash photographs were taken requiring over 150 flash bulbs.
Money orders were sold in the wardroom as well as at the Post Office throughout payday.

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SECURITY INFORMATION -29- Enclosure (1)
On certain items such as Sonne Paper, 16mm movie film; enlarging paper (used for flak turrets and K-25 negatives), hypo, developers D-72 and D-19, the allowance had to be exceeded to furnish the necessary photographs required by the Air Intelligence Office. A recommended allowance for the Korean Area has been submitted by this command.

The following film and paper were expended to Air Intelligence and Photo Squadron VC-61, Detachment "E" during this cruise:

**NEGATIVES**

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 x 9</td>
<td>19,530</td>
</tr>
<tr>
<td>8 x 10</td>
<td>317</td>
</tr>
</tbody>
</table>

**PRINTS**

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 x 9</td>
<td>168,522</td>
</tr>
<tr>
<td>8 x 10</td>
<td>5,275</td>
</tr>
</tbody>
</table>

**16mm Type G Magazines (Exempted to VF-191, VF-192, VF-193, VA-195)**

Black and White - 1,562
Color - 479

J. Supply Department

1. Summary Data:

   a. Aviation spare parts and material

      Number of individual requests from squadrons per month: 852
      Number of such requests filled from stock on board per month: 799
      Number of such requests passed to other sources supply:

      | Allowance list items: 19 | Non-allowance list items: 45 |
      | % efficiency, over-all: 84.8% | % efficiency for allowance list items: 97.5% |

      Major components issued operating period:

      | Engine(s): 21 | Wing(s): 13 | Propeller(s): 21 |

SECURITY INFORMATION -30- Enclosure (1)
b. General Stores and non-aviation repair parts

Individual issues per month... 1705
Monthly average of items received aboard from all sources:

General stores... 215
Ship's repair parts... 65
Electronics parts... 515

c. Commissary

Receipts at sea... 708 tons
Receipts in port... 693 tons

Ration data:

Value rations served $677,751.83
Value stores consumed $677,751.83
Average cost of ration 1.2554

d. Ship's Store and C&SS:

**Ship's Store**

<table>
<thead>
<tr>
<th>Description</th>
<th>Average per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash from sales</td>
<td>$35,494.00</td>
</tr>
<tr>
<td>Sales at cost price</td>
<td>$29,752.00</td>
</tr>
<tr>
<td>Inventory at cost price</td>
<td>$48,279.00</td>
</tr>
<tr>
<td>Stock-sales ratio</td>
<td>1.62</td>
</tr>
<tr>
<td>Net Profit</td>
<td>$4,097.00</td>
</tr>
<tr>
<td>Profit percentage</td>
<td>13.8%</td>
</tr>
</tbody>
</table>

**Clothing & Small Stores**

<table>
<thead>
<tr>
<th>Description</th>
<th>Average per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash from sales</td>
<td>$11,146.00</td>
</tr>
<tr>
<td>Inventory</td>
<td>$31,669.00</td>
</tr>
<tr>
<td>Stock-sales ratio</td>
<td>2.8</td>
</tr>
</tbody>
</table>

2. Foreign Merchandise

A conservative policy of buying foreign merchandise was followed. Relatively small quantities of each item were ordered, then re-ordered if demand warranted. That no single item should exceed five hundred dollars on any one order regardless of the unit price, was the rule of thumb followed. The three sources of foreign merchandise employed
were: purchases from Central Purchasing Office, CHQ, Far East Command, Tokyo (interpreted by NSSO to be equivalent to purchases from Army Exchanges); purchases from International Merchandise Co., Yokohama, on MCAB orders not exceeding $500; and transfers from Ship's Stores ashore and other ships. Statistics on foreign purchases are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total foreign merchandise procured</td>
<td>$50,000</td>
</tr>
<tr>
<td>Purchases from Central Purchasing Office</td>
<td>$15,000</td>
</tr>
<tr>
<td>Purchases from International Mise Co.</td>
<td>$14,000</td>
</tr>
<tr>
<td>Receipts by transfer from other Supply Officers</td>
<td>$21,000</td>
</tr>
<tr>
<td>Total markdowns taken on n/dse procured</td>
<td>500</td>
</tr>
</tbody>
</table>
U.S.S. PRINCETON (CVA-37)
Fleet Post Office
San Francisco, California

From: Commanding Officer, U.S.S. PRINCETON (CVA-37)
To: Chief of Naval Operations
Via: (1) Commander Task Force SEVENTY-SEVEN
(2) Commander SEVENTY SEVEN Fleet
(3) Commander Naval Forces, Far East
(4) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 8 March 1953 through 3 April 1953

Ref: (a) OpNav Instruction 3480.4
(b) CVC-15 conf ltr scr 06 of 23 March 1953 (Air Attack
Reports for the period 13 March through 18 March 1953)
(c) CVC-15 conf ltr scr 08 of 6 April 1953 (Air Attack
Reports for the period 21 March through 26 March 1953)
(d) CVC-15 conf ltr scr 09 of 8 April 1953 (Air Attack
Reports for the period 29 March through 31 March 1953)
(c) CinCPacFLT Instruction 3040.1

1. In accordance with reference (a) the Action Report for the
period 8 March 1953 through 3 April 1953 is hereby submitted.

PART I GENERAL NARRATIVE

During the period covered by this report the U.S.S. PRINCETON
(CVA-37) operated as a unit of Task Force SEVENTY-SEVEN.

Task Force SEVENTY-SEVEN was composed of the carriers U.S.S.
THEODORE (CVA-34) with ComCardDiv FIVE, RADM R. F. HICKELLY, embarked, U.S.S.
VINCENNES FORCE (CVA-45) with ComCardDiv THREE, RADM A.
SCOTTIEN, embarked, U.S.S. PHILIPPINE SEA (CVA-47), and U.S.S.
PRINCETON (CVA-37) along with various heavy support and screening
crafts.

The mission of this task force was as set forth in CTF
SEVENTY-SEVEN Operation Order No. 2-52.

Various missions were flown by PRINCETON aircraft during this
period: Strikes were launched against the enemy's supply and
troop concentration areas, industrial targets, and transportation...
SECURITY INFORMATION

Facilities; Close Air Support, Night Interdiction, Electronic Countermeasures, Photography, and Armed Reconnaissance sorties were conducted almost daily; Combat Air Patrol and Anti-Submarine Patrol operations were carried out every day of flight operations.

On 9 March 1953, prior to joining the main body of the Task Force, Air Group FIFTEEN participated in a joint air defense exercise with the FORTY-FIRST Air Defense Division of the Japanese Air Defense Force. Two strikes of approximately twenty aircraft each were launched by the PHIBCHOCTH to make simultaneous "attacks" on Johnson Air Force Base. Air Force fighter aircraft conducted interception exercises against the Navy flights after which the strike groups returned aboard.

PART II  CHRONOLOGICAL ORDER OF EVENTS

2 March

Departed Yokosuka, Honshu, Japan. Conducted non-combat refresher air operations. Eighty-four sorties were flown.

9 March

Conducted joint air defense exercise in conjunction with the FORTY-FIRST Air Defense Division of the Japanese Air Defense Force. Fifty-three sorties were flown. Returned to Yokosuka.

10 - 12 March

Enroute to Task Force SEVENTY-SEVEN via Van Diemen Straits in accordance with Commander Task Force SEVENTY-SEVEN's order, dispatch 051006Z March 1953. Scheduled gunnery exercises were cancelled due to inclement weather.

13 March

Rendezvous with Task Force SEVENTY-SEVEN. Only thirty-six sorties flown due to prevailing weather conditions.

14 March

Conducted air operations. One-hundred-seventeen sorties were flown with primary effort devoted to the destruction of supply and troop concentrations in the front line area.

15 March

Replenished at sea. Conducted anti-aircraft firing exercises.
16 – 18 March

Conducted air operations. Flew 232 sorties. Attacks were concentrated on rear area supply storage shelters and vehicles.

19 March

Replenished at sea. Conducted anti-aircraft firing exercises.

20 March

Air Operations were cancelled because of bad weather.

21 March

Conducted air operations. Flew 103 sorties. Two major coordinated strikes with aircraft from the PRINCETON, ORISKANY, and PHILIPPINE SEA participating were launched against industrial targets in the Chongjin area. Heavy damage was inflicted upon warehouses and a mining and ore processing plant in that area; and a munition dump was destroyed.

22 – 23 March

Conducted air operations. A major portion of the 211 sorties flown were in close and deep support of U.N. front line troops.

24 March

Replenished at sea. Scheduled gunnery drills were cancelled because of inclement weather.

25 – 26 March

Weather conditions limited air operations to a minimum. A total of fourteen sorties were flown consisting entirely of close air support and reconnaissance missions.

27 – 28 March

Air operations were devoted to concentrated attacks on a major supply complex located approximately ten miles north of the eastern main line of resistance. Aircraft from the ORISKANY and PHILIPPINE SEA joined PRINCETON planes in saturating the one-and-one-half mile square area. Two-hundred-sixteen sorties were flown.

SECURITY INFORMATION 3
29 March

Replenished at sea. Scheduled anti-aircraft firing drills were cancelled as result of prolonged replenishment activities.

30 - 31 March

Two hundred eleven sorties were flown. MFR 15 aircraft continued to attack the supply and troop concentrations attacked on 27 and 28 March. On March 30 the pre-dawn hecklers took advantage of increased enemy rail and truck activity to score many kills.

1 - 3 April

Enroute from operating area to Yokosuka, Honsha, Japan via Van Dienen Straits.

PART III ORDNANCE

A. Performance and Casualties

1. Ship's

a. Fire Control Equipment

Performance of fire control equipment during this period was excellent. No serious casualties were encountered. The banking of directors and gun mounts during Condition XIII watches is on a rotational basis in order to provide maximum Condition III coverage and to allow time for the preventative maintenance that is necessary for efficient operation of fire control equipment.

b. Ordnance Equipment

The only serious casualty to ordnance equipment for the period occurred in the fuze-setting indicator-regulator (M 9 Mod l) of 5"/38 mount No. 57. The trouble was detected during a transmission check when it was found that the fuze-setting indicator-regulator was operating erratically in "automatic." Upon inspection, it was found that the micro-overload switch assembly (#66) was not functioning properly due to the open wiring of the winding assembly (#165), and that one right hand contact assembly (#25) was not functioning properly due to defective supports. The defective parts were replaced with spares and adjusted. The instrument was energized and tested. Erratic operation in "automatic" still prevailed. Upon further inspection, it was found that the springs (Ord. Dwg #212927 - 3 and 9) of the plate assembly (#48) were broken.
SECURITY INFORMATION

The control head assembly (#22) was removed and disassembled; the broken springs were removed and replaced with spares; and the control head was reassembled. Operation was then satisfactory.

c. Ordnance Expenditure

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>113</td>
<td>DL</td>
<td>5&quot;/38 Projectile, AAC</td>
</tr>
<tr>
<td>113</td>
<td>DC</td>
<td>Cartridge, Full; Non-Flashless</td>
</tr>
<tr>
<td>623</td>
<td>HL</td>
<td>40 MM Cartridge, HCt-SD (UG Lots)</td>
</tr>
</tbody>
</table>

2. Aircraft

c. Difficulties were encountered with the Acro 14-A rack. There were only six instances, however, of malfunction directly attributable to mechanical failure of this rack.

b. During this operating period VF-153 put the finishing touches on a complete working model of the F9F-5 "Fire Control System", including APG-30. Accurate maintenance records, parts usage, and trouble shooting data is being compiled and will be released at a later date. See Part VI section A.2.3, page 18.

c. The presence of two jet squadrons aboard demands high-speed re-arming. To improve the efficiency of this operation, it is felt that an increase in the squadron personnel allowance is required. Therefore, four additional A6A/Ms or AN'S have been requested.

d. The difficulties encountered in re-arming are being smoothed out as new and inexperienced men become integrated to their respective ordnance divisions.

3. Wing Ordnance and Ammo Stopage Report*

<table>
<thead>
<tr>
<th>Type</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>100# GP</td>
<td>Acro 14A</td>
</tr>
<tr>
<td>250# GP</td>
<td>Acro 14A</td>
</tr>
<tr>
<td>250# GP</td>
<td>Acro 14A</td>
</tr>
<tr>
<td>500# GP</td>
<td>NK 51</td>
</tr>
<tr>
<td>500# GP</td>
<td>Douglas Bomb</td>
</tr>
<tr>
<td>1000# GP</td>
<td>NK 51</td>
</tr>
</tbody>
</table>

SECURITY INFORMATION
SECURITY INFORMATION

<table>
<thead>
<tr>
<th>Type</th>
<th>Ordnance</th>
<th>Manual by</th>
<th>Releases</th>
<th>Dropoffs</th>
<th>Remaining</th>
<th>Rack</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000# GP</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td></td>
<td>Douglas Bolo Ej.</td>
</tr>
<tr>
<td>FAPAII</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td></td>
<td>IX 51</td>
</tr>
<tr>
<td>HVAR</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>14</td>
<td></td>
<td>Acre 14A</td>
</tr>
</tbody>
</table>

* Of 4,497 bombs expended, 0.8% hung and 0.3% were returned aboard.

1. .50 cal. Machine Guns
   (a) .50 cal. Rounds expended 64,440
   (b) Number of stoppages 17
   (c) Average One stoppage per 3,790 rds.

2. 20mm Machine Guns
   (a) 20mm Rounds expended 99,866
   (b) Number of stoppages 45
   (c) Average One stoppage per 2,219 rds.

4. Total Ammunition Expended 13 March Thru 31 March 1953

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>K1</td>
<td>2000# GP</td>
</tr>
<tr>
<td>442</td>
<td>K2</td>
<td>1000# GP</td>
</tr>
<tr>
<td>314</td>
<td>K3</td>
<td>500# GP</td>
</tr>
<tr>
<td>2,432</td>
<td>K4</td>
<td>250# GP</td>
</tr>
<tr>
<td>511</td>
<td>K5</td>
<td>100# GP</td>
</tr>
<tr>
<td>28</td>
<td>K6</td>
<td>1000# SAP</td>
</tr>
<tr>
<td>8</td>
<td>K7</td>
<td>500# SAP</td>
</tr>
<tr>
<td>4</td>
<td>K8</td>
<td>350# DEATH BOMB, AN-IX 54</td>
</tr>
<tr>
<td>680</td>
<td>K9</td>
<td>220/260# FUG,</td>
</tr>
<tr>
<td>13</td>
<td>K19</td>
<td>FUZE, HOSE, AN-1103A1</td>
</tr>
<tr>
<td>2,350</td>
<td>K20</td>
<td>FUZE, HOSE, AN-1139A1</td>
</tr>
<tr>
<td>1,165</td>
<td>K21</td>
<td>FUZE, HOSE, AN-1140A1</td>
</tr>
<tr>
<td>317</td>
<td>K26</td>
<td>FUZE, HOSE, VT, T50E1</td>
</tr>
<tr>
<td>4</td>
<td>K27</td>
<td>FUZE, HOSE, VT, T50E4</td>
</tr>
<tr>
<td>1,211</td>
<td>K30</td>
<td>FUZE, HOSE, AN-IX 219</td>
</tr>
<tr>
<td>1,211</td>
<td>K31</td>
<td>ANTI-PERSCH BOMB FUZE IX</td>
</tr>
<tr>
<td>3,399</td>
<td>K35</td>
<td>AN-1100A2</td>
</tr>
<tr>
<td>286</td>
<td>K36</td>
<td>AN-1101A2 (.025)</td>
</tr>
<tr>
<td>444</td>
<td>K37</td>
<td>AN-1102A2 (.025)</td>
</tr>
<tr>
<td>26</td>
<td>K40</td>
<td>FUZE, TAIL, 11.17 (4-5)</td>
</tr>
<tr>
<td>11</td>
<td>K42C</td>
<td>FUZE, TAIL, 11.24/Al (6 hr)</td>
</tr>
<tr>
<td>11</td>
<td>K42D</td>
<td>FUZE, TAIL, 11.24/Al (12 hr)</td>
</tr>
<tr>
<td>28</td>
<td>K43C</td>
<td>FUZE, TAIL, 11.25/Al (6 hr)</td>
</tr>
<tr>
<td>32</td>
<td>K43D</td>
<td>FUZE, TAIL, 11.25/Al (12 hr)</td>
</tr>
</tbody>
</table>
PART IV  BATTLE DAMAGE

A. Own

The ship sustained no battle damage. See references (b), (c), and (d) for battle damage sustained by PRINCETON Aircraft.

B. Enemy

See references (b), (c), and (d) for damage inflicted upon the enemy.

PART V  PERSONNEL PERFORMANCE AND CASUALTIES

A. Performance

Performance of Ship's Company and Air Group personnel was outstanding.
B. Breakdown of Ship's Complement

The average on board count during the period was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Officers</th>
<th>Enlisted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship's Company</td>
<td>119</td>
<td>2,056</td>
<td>2,175</td>
</tr>
<tr>
<td>Marine Detachment</td>
<td>2</td>
<td>61</td>
<td>63</td>
</tr>
<tr>
<td>Air Group</td>
<td>131</td>
<td>1,635</td>
<td>1,766</td>
</tr>
<tr>
<td></td>
<td>272</td>
<td>2,752</td>
<td>3,004</td>
</tr>
</tbody>
</table>

C. Training and Education

1. A series of lectures is being given for all personnel who are making their first cruise to the Far East aboard the Princeton. Lectures on the following subjects are included in this program:

- General Orientation
- Recreation and Athletics
- Korean Situation
- Berthing and Ship's Cleaning Policies
- Sex Education
- Legal Matters
- The Supply Department
- Religion
- Educational Opportunities
- Medical Orientation
- Responsibilities of Citizenship
- Military Personnel in Japan
- Dental Hygiene
- Personal Matters
- Ship's Regulations
- Air Department Safety
- Marriage and Family Life

2. There is an acute shortage of Electronic Technicians aboard the Princeton. The situation on board this vessel, in fact, seems to be more critical than on other AIRCRAFT CVA'S. The following table, compiled from the monthly equipment trouble reports for February 1953, will illustrate this point:

<table>
<thead>
<tr>
<th>Comparison of ET Strength of Various CVA's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>VICTORY FORGE</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

SECURITY INFORMATION
A rigorous shipboard training program is being pursued aboard the PRINCETON to help overcome the ET shortage. A method of instruction similar to that outlined in the "Junior Officers Note Book" has been established. A man first completes a course on the equipment on which he is working, and, then, is started on a course covering a different type apparatus. After completion of the second course, trainees are assigned to work on equipment of the type they have recently finished studying.

3. The PRINCETON's outstanding school education program is being continued with excellent results.

D. Morale

1. During the period covered by this report the morale of both the air group and ship's company was outstanding. A number of reasons can be given for this high state of morale:

a. The short period served on the line during
SECURITY INFORMATION

this tour.

b. The low accident and casualty rate among pilots and aircrew personnel.

c. The excellent work of the Ship's Company. The outstanding work of the flight and hangar deck crews and the Supply Department eased considerably the work of the Air Group and promoted a greater harmony among all personnel.

d. The ship's policy of providing three showings of the evening movie; this arrangement enabled most personnel to see one showing regardless of other duties.

c. The excellent food served in both the ship's general mess and the officer's wardroom.

2. The medical Officer's report for this period highlights the advisability of shorter tours of operations. This report states:

"A comparison of the morale, low accident rate, and general physical status of the crew and air group pilots with our observations during our last deployment points significantly to the fact a three week period of combat is the optimum efficient time for this type of operation."

3. About sixty percent of the ship's company enlisted personnel are making their second cruise aboard the PRINCETON in Korean Waters. A smaller but significant percentage (twelve percent) are making their third cruise. There are indications that a third cruise reduces morale—a point which is evidenced by the large number of unauthorized absences in COINUS among men who knew they were going to make their third cruise.

4. Every effort is being made to provide for the recreation needs of the crew within the limits imposed during Air Operations. Band concerts are held on the mess deck whenever bomb break-out will permit. Three movies are shown nightly. The responsibility for planning and producing "Happy Hours" is being rotated among the Departments.

5. Because the letter recommending renewal of ship's bands from naval vessels (except in a temporary duty status) originated from this command, a summary of the band's activities is included in the current action report:
E. Casualties

1. Ship's Company personnel suffered no casualties.

2. One pilot was lost to enemy action; one pilot was wounded in action; sixteen pilots were grounded for short periods of time; three pilots were grounded pending medical evaluation.

   a. On 17 March 1953, ENS Joseph HALL, VF-153, crashed in his F9F-5 while on a Recco Mission north of Tanchon. Rescues failed to locate either aircraft or pilot.

   b. On 22 March 1953, LT C.B. PURCELL, VF-152, received wounds on the left fore-arm from enemy automatic weapons fire while on a Close Air Support Mission. He made an emergency landing on K-18, and was subsequently returned aboard.

F. Medical Department Statistical Summary of Air Group and Ship's Company:

1. Admission to sick list; enlisted 65
2. Admission to sick list; officers 7
3. Total visits to sick call 1,727
4. Minor injuries treated 21
5. Major injuries treated 5
6. Minor surgical procedures 24
7. Major surgical procedures 6
8. Pilots killed, enemy action, not recovered 1
9. Pilots temporarily grounded, medical reasons 16
10. Pilots injured, enemy action, recovered 1
11. Pilots permanently grounded, pending medical, evaluation 3
12. Average number days grounded 2.8
13. Crewman grounded, medical reasons 0

Venerable Disease Cases and Non-Specific Urethritis:

1. Gonorrhea 20
2. Chanoroid 19
3. Syphilis 0
4. Non-Specific Urethritis following sexual exposure 37
5. Penicillin tablets issued during last period in port 5,109
SECURITY INFORMATION

PART VI SPECIAL COMENTS

A. Air Group FIFTEEN

1. Operations

a. General

Air Group FIFTEEN with attached VC détachments flew 1,154 sorties for a total of 2,457 hours during 10.5 operational days of this combat tour. One-hundred-thirty-seven sorties for a total of 249 hours were flown during preparatory non-combat operations on 8 and 9 March 1953. Four days in the combat area were utilized for replenishment; inclement weather conditions precluded operations on an additional 4.5 days.

Offensive and defensive efforts by sortie and aircraft type are as follows:

<table>
<thead>
<tr>
<th>STRIKES</th>
<th>F9F5</th>
<th>F4U4</th>
<th>F4U5N</th>
<th>AD4</th>
<th>AD4W</th>
<th>AD4N</th>
<th>F9FP</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECO</td>
<td>106</td>
<td>151</td>
<td>24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>153</td>
</tr>
<tr>
<td>CLOSE AIR SUPPORT</td>
<td>172</td>
<td>31</td>
<td>32</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>63</td>
</tr>
<tr>
<td>CAP</td>
<td>172</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>173</td>
</tr>
<tr>
<td>PHOTO &amp; PHOTO ESCORT</td>
<td>39</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>81</td>
</tr>
<tr>
<td>ECM</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>ASP</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>18</td>
<td>19</td>
<td>-</td>
<td>-</td>
<td>37</td>
</tr>
<tr>
<td>RESCAP</td>
<td>16</td>
<td>186</td>
<td>25</td>
<td>221</td>
<td>19</td>
<td>33</td>
<td>42</td>
<td>1,154</td>
</tr>
</tbody>
</table>

Offensive operations during the period were primarily devoted to deep support and interdiction. Supply and troop concentrations, vehicles, and rolling stock constituted the principal targets. Some close air support missions were flown by F4U's and AD's with good to excellent results.

b. Flak Suppression Tactics

Flak suppression by the jets was effectively utilized on heavily defended targets. A typical strike force of this type would consist of ten AD's, ten F4U's, and eight jet's. It was found most effective to have the jet's rendezvous with the props in the near vicinity of the target (jets being eighteen to twenty thousand feet and the props at twelve-thousand feet). Immediately preceding the
prop attack the jets would come down to the props level and commence their runs by division. The first props would push over almost simultaneously with the jets. The jets would pull up sharply after their run and come down again behind the last props thus covering them in their pull-outs. Flak suppression was effective and appeared to reduce the quantity and quality of flak encountered.

c. Jet Flight Planning

In spite of the high fuel consumption rate of the F9F-5 very little difficulty has been experienced in completing assigned missions with adequate fuel remaining. In accomplishing this, however, certain procedures must be considered. The conclusions of this group as a result of the first period of operation on the line were:

1. Rendezvous after launch should be conducted at low altitude (five-thousand feet or below) at low power settings. This procedure considerably reduces the time required for rendezvous. To further facilitate rendezvous when both jet squadrons are flying, the rendezvous sector has been divided in half with one squadron using the clockwise half at odd altitudes and the other the counterclockwise half at even altitudes. Pilots taking off in the latter part of the flight should use high power settings, build up speed, locate flight and "zoom" into position. The last plane should report "all aboard" when all planes obviously have the flight in sight (not when all planes are joined up in parade formation) and then effect a running rendezvous toward the target.

2. Cruise Control must be mastered by every pilot in the flight. An early return to the ship might be necessitated by one low fuel state. The difference between VLR and VME is essential knowledge. The technique of "killing time" without using fuel must be mastered. Procedures used by jets of Air Group FIFTEEN are roughly as follows:

Thirty-five minutes for rendezvous, climb and cruise to target area at twenty-thousand feet.

Twenty to thirty minutes in the target area.

Thirty to forty minutes to return to the force and land using VME power settings.

Flights generally have arrived over the force five to ten minutes prior to recovery time with a minimum of 1,400 pounds of fuel remaining.
(3) Pitching deck technique - A pitching deck can materially increase the recovery time due to the number of wave-offs necessitated. In order to keep this time to a minimum, it is mandatory that pitching deck technique be understood thoroughly by pilots, ISE's, and ship's personnel. Pilots must master the technique of landing from a somewhat higher, earlier out position. Diving for the deck must be continually guarded against.

d. Day Familiarization Missions for Night Pilots

Night pilots were given three daylight missions over the beach for familiarization. These proved to be of immense help. This policy is recommended for all new night pilots.

c. Flying Own Aircraft

Almost without exception, pilots of the jet squadrons have flown planes of their own squadrons. This is very desirable from a standpoint of both pilot and crew morale. Rendezvous is somewhat complicated by this procedure, however, since time will not allow spotting the planes in the right order for launch.

f. Increase in Ordnance Load for A4N's

ComAirPac Restricted dispatch 180121Z of March 1953, raised the catapult restrictions on the A4N to 25,000 pounds gross. Local restrictions were raised to 22,000 pounds gross from 20,500 pounds gross. This allows a load of one 500 pound GP, five 250 GP and four 260 pound frags.

g. Ailcron Snatch in F4U's

During this period ten cases of ailcron snatch were encountered by the F4U squadron. Each of these occurred after the two outboard Aero 14 rocket launchers had been removed, but with the base still attached. One case was at 270 knots and the others were from 320 to 380 knots. Angle of dive varied from thirty to seventy degrees. Loads varied from no load to 1,500 pounds. There seems to be a definite possibility that the cause is structural warping which is little affected by changes in rigging or trim. Study of this problem is being continued.
2. Maintenance and General Discussion of Equipment
   a. Aircraft Engines, Air Frames, and Accessories

(1) R-3350 Engines

A major difficulty experienced with the R-3350 engines installed in the AD aircraft has been oil leakage around the pushrod housings. The only remedy so far has been continuous replacement of housings and packings. Propeller changes on these aircraft have been exceedingly difficult. The retaining nut is installed so tightly on these aircraft that all of the special hand tools were broken in an attempt to remove one prop recently and it was necessary to manufacture a special wrench in the ship’s machine shop in order to remove the prop. Suitable tools should be made available at the squadron level for the proper performance of work that the squadron is expected to perform. (See Part VI Section G, Supply Department, for further discussion)

(2) F4U4 Engine Maintenance

Magnets and spark plugs have been the source of the major portion of the powerplant troubles in F4U aircraft during this tour.

(3) Jet Engine Changes

Two jet engine changes were accomplished during the tour; one for overspeeding at altitude and the other for repeated hot starting and curling of the turbine blades. The first change was difficult as no suitable engine stand was available. One stand is now available and it is hoped that a second will be available soon. One jet engine will be due for change during the coming in port period; this engine operated with a minimum amount of trouble for the full three-hundred hours.

(4) Jet Fuel Evaluation

In view of the conflicting information presently available concerning the use of alcohol as an auto-acceleration deterrent, the two jet squadrons have adopted different operating practices in order to evaluate first hand the value of using alcohol. One squadron uses no alcohol in the fuel (three of their planes use the older type high pressure fuel pumps), but oil is mixed in the fuel of these planes for lubricating purposes. The other squadron is using
alcohol in the fuel, and is also adding oil in an effort to forestall corrosion in the fuel system. The latter squadron has changed two malfunctioning fuel controls during this tour. One of these was disassembled, under the direction of the Pratt and Whitney Service Representative and inspected for evidence of corrosion. No corrosion was present although the one case cannot be considered to be conclusive. The investigation is being continued.

(5) F9F-5 Tail Hook Points

Contrary to predictions and expectations, the F9F-5 squadrons have experienced no serious hook point trouble. Only one hook has failed during this tour and it was damaged during take-off due to accidental extension and subsequent contact with the catapult toe fitting. Incorporation of F9F Aircraft Service Change No. 156 evidently has aided materially in the prevention of hook point failures. Each point is inspected carefully after each arrested landing; one squadron makes a practice of greasing the points prior to every takeoff. During the period of this report twenty-eight hook points have been replaced.

(6) F2H Tip Tank Leakages

Three tip tanks on the F9F's have had to be changed because of cracking in the sheath which carries the wires to the running light. Evidence of the failure appears as fuel leakage through the light itself.

(7) Shorts in F9F and AD Batteries

A recent check of the batteries used in the F9F's and AD's revealed that approximately one third have shorts between the terminals and case. This matter has just come to light and as yet the reason for the difficulty has not been determined.

(8) Master Aircraft Status Board

At the start of the operating period a Master Aircraft Status Board was erected on the hangar deck opposite the deck edge elevator. Such a board was recommended during the ORI. Previously the status board had been located in the compartment immediately aft of Flight Deck Control and was of little use to anyone. The board is manned by a talker during flight quarters. The talker is in continuous contact with both Flight Deck and Hangar Deck Control by means of sound-powered telephones. The operation of the board is still in the fluid stage with various procedures being tested in order to arrive at one that will be most beneficial to all concerned.
(9) Oxygen Recharge Equipment

Two replacement oxygen recharge pumps, ordered in 1952, to replace the worn out pumps presently on board, have not been received to date. Only one transfer pump is in a usable condition, with a maximum pumping capacity of 2,100 pounds. Keeping the oxygen carts filled with this one usable pump has made the workload of the oxygen transfer shop exceedingly high. Three oxygen carts are used to fill the bottles in the F9F-5 and F4U-4 type aircraft. Oxygen bottles from the AD aircraft are removed from the aircraft and filled in the transfer shop.

b. Electronics

Performance of electronics equipment during this period generally has been good to excellent. The following are discrepancies noted and recommendations for improvement.

(1) APG-30 Unit of the Acro 5A Fire Control System

There is a great need for a complete bench test setup for the APG-30 and Acro 5A Fire Control System as a unit. The Air Group with the invaluable assistance of NAESU Technicians has assembled the necessary test set-up but part of it is not included in the normal GVA allowance.

Contrary to previous reports on APG-30 projects the equipment will maintain alignment for a considerable number of carrier landings and does not require a prohibitive number of man hours devoted to maintenance. Maintenance and usage data will be the subject of a special report to BuAer after the next tour on the line.

(2) AN/ARC-1

The critical shortage of AN/ARC-1 spares may impair aircraft availability at any time. The reconditioned AN/ARC-1 sets are not holding up as well as could be expected and with few if any spares available an aircraft must be downed until the necessary repairs can be effected. Commander Fleet Air, Japan, is providing an additional three AN/ARC-1 sets to alleviate the shortage prior to the ship's return to the combat area.

During this first tour the F4U squadron attributed over one-third of its malfunctions to electronic discrepancies. The fact that this squadron has less than one-half of its allowance of electronics technicians has aggravated the situation.
(3) **ECM Equipment**

It is highly recommended that the AN/APA-70 be replaced in the AD4N aircraft by a PPI type presentation equipment for use on ECM missions. The present equipment necessitates the aircraft's turning toward the detected station to take bearings and in the majority of cases these stations immediately realize they have been detected and cease transmitting. The PPI scan would eliminate this turn to a station and increase the effectiveness of ECM missions a great deal.

(4) **APS-31B Test Equipment**

An adequate source of power for checking the APS-31B radar on the flight deck is not readily available aboard. The only two outlets suitable for this operation are on the hangar deck adjacent to No. Three Elevator.

It is recommended, therefore, that each team equipped with the APS-31B be issued as team equipment a waukeeshaw or mobile power unit capable of the sustained high power output necessary to ground check this radar.

C. **Aerial Photographic Equipment**

The VC-61 detachment has experienced considerable difficulty with its K-38 thirty-six inch focal length cameras. The major difficulty encountered was repeated camera malfunction when a 390 foot film roll was used. This necessitated the use of two-hundred foot rolls and, consequently, limited photographic capabilities. This problem has been taken up with Commander Fleet Air, Japan. A complete check of cameras and magazines is being made by Fleet Air Japan personnel.

3. **Survival**

During our first tour on the line, the Air Group was fortunate enough not to have to make practical use of any of its emergency survival equipment. All pilots returned aboard safely or made successful forced landings in friendly territory except in one case and there no chance for survival was possible.

a. **Mark IV Exposure Suit**

The Air Group's greatest survival difficulty occurred with the Mark IV exposure suit. Delivery was not made until the week of final deployment from the United States, leaving no time for fittings and exchanges.
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It is recommended that suits be issued to squadrons at least three months before final deployment to ensure the correct fit for each pilot or aircrewman.

It was also found that many of the sizes issued in the Mark IV suit were impossible to fit to the person for whom they were measured. This was especially true in the larger sizes (44 and 48). In two cases it necessitated the using of an older Mark III suit in order to get a complete or comfortable fit. Therefore, it is recommended that if the Mark IV suit is to be "tailored" to each pilot's measurements, a more careful study be made of sizes in the larger suits to insure the proper fitting.

b. PSK-1 Kits

Another difficulty encountered was the lack of PSK-1, Personnel Survival Kits, in the forward area. In order to reduce the equipment a pilot would have to carry, the Air Group had planned to replace the water distiller in the pararaftr with the PSK-1 kit. However, since only forty-five kits were received from Commander Fleet Air, Japan, it was necessary to set-up a locally designed kit from whatever equipment the ship's Supply Officer was able to locate. We recommend that PSK-1 kits either become a permanent part of the parachute and pararaftr and remain with the squadrons, or else be collected from each ship returning to the States and issued to the replacement Air Group.

c. PRC-17 Survival Radio

The PRC-17 Transceiver was tested and found to be very effective. It was inserted in the pararaftr in place of the radar reflector. The squadron parachute riggers constructed canvas bags with shoulder straps for the PRC-17 receiver and the PSK-1 kits. This would enable the downed pilot to have quick access to all his survival gear in an emergency.

4. Air Intelligence

a. AIO Advance Forward Area Tour

The Air Group was very fortunate in being able to send the Air Group Intelligence Officer and three of the four Squadron Air Intelligence Officers on the advance tour of the forward area. The lessons learned were invaluable since the Air Group had no Intelligence personnel with previous Korean duty. It is recommended, however, that the advance
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party be sent out at least two months previous to the final deployment to enable the Air Intelligence Officers to make use of the lessons learned before the final departure from the States.

d. **Briefing Spaces**

The briefing space in Ready Rooms One, Three and Four is adequate for the type of operations being conducted in Korea. However, the space in Ready Five is entirely too small for effective briefings especially during the period when exposure suits must be worn. Tha debriefing space in Ready Rooms One and Five is not adequate and it would be highly desirable to have a central room on the 02 level to be used by both jet squadrons for debriefing purposes.

c. **Briefing Aids**

In order to facilitate speed in the preparation of briefings, one squadron Air Intelligence Officer designed a loose-leaf binder of acetate envelopes. The daily brief notes and the standing notes could then be clipped and inserted under the proper headings in the binder. Any additions to these notes could be put on in grease pencil and removed when no longer needed. This system tended to eliminate the preparation of long handwritten notes before each briefing.

d. **Maps, Charts, and Target Photographs**

The following information reflects pilot preference after experimenting with various combinations of charts, maps and photographs during this first combat tour:

(1) **AMS L552 series 1:250,000 scale**

This series is preferred and most generally used by all pilots of the Air Group; they consider it better than the USAF Approach Chart for identifying terrain features. (It should be noted, however, that pilots engaged in night flying prefer the USAF Approach Chart because its shaded terrain features more nearly duplicate radar presentation than do those of the AMS L552).

Since the two types of charts have different systems of terrain identification it is recommended that use of the AMS charts be emphasized considerably more in the pre-deployment training. Furthermore, it is strongly recommended that more emphasis be placed on pre-deployment map reading utilizing the AMS L552 series.
(2) **AMS L552 Series Plastic Terrain Model**

These charts have been very valuable in terrain identification and familiarization during this first period of orientation. Some flight leaders have experimented with cockpit use of single sections covering their target area. Aside from the cumbersome nature of these charts they have been found extremely useful in the cockpit, carried on a limited basis.

(3) **Target Photographs**

Target photographs are excellent in most cases and are of immense help in target identification. Commander Task Force SEVENTY-SEVEN's present system of target mosaic preparation and distribution is considered outstanding. The only difficulty encountered is in photographs of area containing no prominent identification features. Due to the nature of camouflaged supply areas and similar targets presently under attack, the large scale photograph is necessary for pinpointing individual targets. It is felt that a second mosaic of smaller scale covering the general target area would be desirable for briefing purposes, and in some instances for cockpit use. This type of mosaic would apply particularly to jet strikes.

B. **Air Department**

1. **Training**

   a. During this period the Air Department has conducted an intensive training program for its crew.

2. **Aviation Gasoline**

   a. An improved method of receiving aviation gasoline is being practiced. A Robb six-inch quick-release coupling assembled with two intermediate lengths of hose between the quick-release coupling and the ship's filling connection is used. Tankers are required to furnish a six-inch blank flange only. By using this procedure leakage does not occur, less difficulty is encountered in hooking-up, and the weight of the tanker hose is much less.

B. An alcohol and aviation lube oil mixture is being used by VF-151. Three gallons aviation lube oil and one gallon alcohol are mixed by hand and added to the main fuel cell. It is expected that this mixture may help reduce incidents of auto-acceleration and corrosion in the fuel supply system.
c. Total aviation gasoline used this period on the line was 732,674 gallons, alcohol 355 gallons, aviation lube oil 2,476 gallons.

3. Flight Deck

During the period of this action report, this ship experimented with sewing bright yellow patches on the plane director's foul weather jackets on the front, back, and bottom of the arms. Pilots reported the directors were very easily picked out even in the crowded areas of the flight deck. It is recommended that in periods of cold weather all personnel on the flight deck have the patches and markings identifying their work sewn on their jackets to enable the proper personnel to locate easily those required.

4. Maintenance

a. The V-4 Division has been hampered in its efforts to build quick change units of J48P6 engines because of a temporary shortage of adapter rings for the engine stands. Rings are on order, however, and delivery is expected in the near future.

b. Engines built up and issued to squadrons during this period include 1 R2800-18, 1 R2800-32 and 2 J48P6. Three Hamilton Standard propellers for F4U aircraft and two aero-products propellers for AD aircraft were built up and made ready for issue.

c. The aviation metal shop manufactured hardware for approximately 144 nylon tie-down straps, altered nine tow-burs to permit towing F9F aircraft from astern, repaired the right wing stub and changed outer panels on F9F-5 BuNo 125973, in addition to the repair of wing flaps, rudders, elevators and trim tabs, and the fabrication and installation of a hangar deck status board and a Flight Deck Control plane spotting trayplate.

d. The oxygen transfer equipment is worn out and in constant need of repair. The ship expects to receive a new unit from the ORISKANY upon her departure from WestPac.

e. Three "BuNo 40" series towing tractors became unserviceable during the period; a cracked cylinder block, a housing, and a deck-edge elevator accident produced the casualties. Spare parts such as ignition coils, condensers,
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distributor caps, breaker points, and fuel pumps are
difficult to obtain and as a result automotive equipment tends
to be out of commission for long periods.

5. Catapults: Reported in accordance with reference
   (6).

a. Statistics

   (1) Total Live Shots 768

   Day Live Shots 741
   Night Live Shots 27
   Dead Load Shots 0
   No Load Shots 1

   (2) Breakdown of Catapult Shots

<table>
<thead>
<tr>
<th>Port</th>
<th>Std</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day Shots</td>
<td>347</td>
<td>394</td>
</tr>
<tr>
<td>Night Shots</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>No Load Shots</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   (3) Types of Aircraft Catapulted

<table>
<thead>
<tr>
<th>Type Aircraft</th>
<th>Port</th>
<th>Std</th>
<th>Brolles</th>
<th>Expd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F9F-5</td>
<td>333</td>
<td>386</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>F9F-2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td>18</td>
<td>7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>F4U-5N</td>
<td>7</td>
<td>12</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>TBM</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>360</td>
<td>408</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

b. Forged Eye F9F Pendant: (R90-NAF-31349-1)

   (1) An average of sixty-four shots was
       obtained from the Bungee Pendant Arresters constructed accord-
       ing to NAF Drawing specifications "Nr 314239". They were
       found to be good for over three-hundred shots. The only
       pendants lost over the bow resulted from the tail skag not
       being in the retracted position. It is recommended that
       the tail skags continue to be placed in the retracted
       position for catapulting.
c. **Pump History**

This ship was recommissioned 23 August 1950, with all used pumps installed in the catapults. Pumps failed and were replaced in this sequence:

<table>
<thead>
<tr>
<th>Catapult</th>
<th>Pump Number</th>
<th>Date Failed</th>
<th>Number of Shots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>1</td>
<td>14 Sep 1950</td>
<td>17 Dead Loads</td>
</tr>
<tr>
<td>Port</td>
<td>1</td>
<td>19 Feb 1951</td>
<td>433</td>
</tr>
<tr>
<td>Port</td>
<td>3</td>
<td>11 Apr 1951</td>
<td>502</td>
</tr>
<tr>
<td>Port</td>
<td>2</td>
<td>20 Dec 1951</td>
<td>1353</td>
</tr>
<tr>
<td>Port</td>
<td>4</td>
<td>25 Jan 1952</td>
<td>1383</td>
</tr>
<tr>
<td>Stdb</td>
<td>2</td>
<td>30 Mar 1953</td>
<td>3765</td>
</tr>
<tr>
<td>Stdb</td>
<td>1</td>
<td>3 Jul 1951</td>
<td>1330</td>
</tr>
<tr>
<td>Stdb</td>
<td>4</td>
<td>3 Jul 1951</td>
<td>1432</td>
</tr>
<tr>
<td>Stdb</td>
<td>3</td>
<td>24 Jan 1952</td>
<td>2007</td>
</tr>
<tr>
<td>Stdb</td>
<td>2</td>
<td>28 Jun 1952</td>
<td>3367</td>
</tr>
<tr>
<td>Stdb</td>
<td>1</td>
<td>28 Jun 1952</td>
<td>2467</td>
</tr>
<tr>
<td>Stdb</td>
<td>3</td>
<td>8 Aug 1952</td>
<td>1748</td>
</tr>
<tr>
<td>Stdb</td>
<td>4</td>
<td>8 Aug 1952</td>
<td>2481</td>
</tr>
<tr>
<td>Stdb</td>
<td>1</td>
<td>7 Feb 1953</td>
<td>1644</td>
</tr>
<tr>
<td>Stdb</td>
<td>1</td>
<td>14 Feb 1953</td>
<td>50</td>
</tr>
<tr>
<td>Stdb</td>
<td>1</td>
<td>31 Mar 1953</td>
<td>510</td>
</tr>
<tr>
<td>Stdb</td>
<td>2</td>
<td>31 Mar 1953</td>
<td>2334</td>
</tr>
</tbody>
</table>

**Condition of Pumps now in use**

<table>
<thead>
<tr>
<th>Catapult</th>
<th>Pump Number</th>
<th>Number of Shots</th>
<th>Out-put every 40 sec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>1</td>
<td>5,385</td>
<td>4.5&quot; should be replaced</td>
</tr>
<tr>
<td>Port</td>
<td>2</td>
<td>3,765</td>
<td>Failed</td>
</tr>
<tr>
<td>Port</td>
<td>3</td>
<td>5,316</td>
<td>5.75 inches</td>
</tr>
<tr>
<td>Port</td>
<td>4</td>
<td>3,735</td>
<td>6 inches</td>
</tr>
<tr>
<td>Stdb</td>
<td>1</td>
<td>510</td>
<td>Failed</td>
</tr>
<tr>
<td>Stdb</td>
<td>2</td>
<td>2,334</td>
<td>Failed</td>
</tr>
<tr>
<td>Stdb</td>
<td>3</td>
<td>1,946</td>
<td>6 inches</td>
</tr>
<tr>
<td>Stdb</td>
<td>4</td>
<td>1,792</td>
<td>5 inches</td>
</tr>
</tbody>
</table>

d. **General Comments**

(1) Since 1 January 1953, after having made change number thirty-six (which increased the maximum launching pressure to 4,000 psi.) 1,230 shots have been made on the port catapult and 1,140 on the starboard catapult. Four-hundred-eighty (480) of these launches were made at maximum firing pressure; two-hundred-eighteen (218) shots on the port and two-hundred-sixty-two (262) on the starboard machine. As a result of high pressure shots and

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excessive vibrations this ship has experienced these malfunctions:

(a) Due to Excessive Vibration:

(1) Braces break loose as frequently as every three days and have to be re-welded.

(2) Needles in pressure gauges vibrate loose and give incorrect readings (One accumulator and cable tensioner gauge broke completely off).

(3) The entire crosshead must be slugged down daily after a normal day of operations.

(4) Leads in the electrical controllers have been broken loose.

(b) As a result of high pressures:

(1) Leaks at the base of the accumulator around the composite valve and pumps.

(2) Excessive wear on shuttle slippers.

(3) Expansion of the piping of the main gravity return line. (Caused by large volume of oil displaced plus excessive oil slippage through the three-way valve; due to too rapid crosshead retractions).

(4) Prestone is lost from the atmospheric vent on the runaway shot preventor after fast retractions. (As much as two gallons per machine is lost on a normal day of operations).

(5) Pieces of metal are chipping out of crosshead.

(6) The entire machine vibrates (two hours after a twenty plane launch at pressures of 3700 psi. and over, the temperature of the sump tank oil was recorded as 58°C).

(7) Oil is absorbing large quantities of air causing excessive foaming.
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c. Recommendations

(1) It is recommended that advisibility of sustained operations with F9F-5 Aircraft and the type H Mark 4B Catapult be further investigated.

6. Arresting Gear

a. Statistics

(1) Total Landings 1,190
   Day landings 1,182
   Night landings 8
   Jet Landings 698
   Prop landings 492

(2) Total Barrier and Barricade Engagements
   Prop Barrier 5
   Jet Barrier 4
   Jet Barricade 2

(3) Average Wind 35 knots.

(4) Average Runout
   Jets 132
   Props 103

b. Description of barricade engagements

(1) On 21 March 1953, at 1825I, an F9F-5 (BuNr 125961) appeared to make a normal approach. On landing the tail hook hit the ramp of the flight deck causing it to lock in the "up" position. The plane proceeded up-deck and bounced over barriers number two (2) and three (3), but did engage the barricade which functioned properly. The plane sustained slight damage. There was no injury to the pilot or flight deck personnel and no damage to other aircraft. The barricade webbing was replaced and ready deck re-established in ten (10) minutes.

(2) On 13 March 1953, at 1708I, an F9F-5 (BuNr 126159), appeared to make a normal approach and received a cut from the LSO. The plane made a hard landing breaking the tail hook and then proceeded up-deck engaging barriers number two (2) and three (3) and the barricade, which functioned normally. The Davis Webbing and barricade were replaced and ready deck re-established in nine (9)
minutes. There was no injury to the pilot or flight deck personnel and no damage to other aircraft.

c. Description of Gear-up Landing

(1) On 22 March 1953, at 1552L, an AD4NA (BuNo 126911) made an emergency gear-up landing on this ship. The plane engaged cross deck pendant number two (2) and an arrested landing was effected. The under side of the plane sustained slight damage but the pilot was uninjured. Numbers seven (7) and eight (8) cross deck pendants were damaged and had to be replaced.

d. General Comments

(1) The remainder of arresting gear operations during this tour have been relatively routine with only the normal maintenance problems. Judging from its performance thus far the Mark 5 arresting gear appears to be adequate for operations with F9F-5 aircraft.

C. Gunnery Department

1. Deck Seamanship Evolutions

All operations have been performed with the highest regard for safety and speed. Personnel, both old and new, have responded with a commendable amount of initiative and a tireless effort to the demands of these operations. The per-hour tonnage handled has remained at a very high level in both ammo and provisioning handling. It is anticipated the previous high rates attained by this ship will be maintained as weather conditions improve and the new hands become better acquainted with their respective tasks.

2. Recommendations

It is suggested that the various AO's operating in the Korean area standardize fueling rigging (easing-out hooks, span-wire seizings, etc.) for purposes of more rapid refueling operations. Specifically, it is recommended:

a. That hooks all be of uniform size and spaced approximately ten feet from the end of the AO's outboard length of fueling hose.

b. That the necessary span-wire seizings to the fueling hoses be spaced three feet apart on the same length of hose.
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c. And that these seizings be led clear of all other lines.

D. Engineering Department

1. Electronics

a. During the period of this report, there was a major casualty in the YE-2 which gave erratic performance although front-panel indications were normal. An inspection of the Sarce rotating joint of the antenna revealed severe corrosion. High winds and cold weather delayed further work on the apparatus until the ship's arrival in port.

b. The AN/SPS-6B radar has a false echo on all bearings between 4,000 and 6,000 yards on long pulse; thus it presented a doughnut on all PPI's. The 1850-ohm resistor recommended in the July 1950, ELECTRON (p. 23) did not correct the defect. A new pulse transformer (T-109) has been ordered on priority "A" but has not been received. Dragging and side lobing on this radar are still problems. An expanded metal skirt on the antenna gave some small improvement but is inadequate for continuing operations.

c. ShipAlt CV345 (Installation of UHF Radio Equipment) has not been completed in that the CU-255/URR multicouplers are not installed. When the conversion from VHF to UHF is made, present antenna facilities may be inadequate. This problem is being made the subject of separate correspondence.

d. The PRINCETON is operating two TBS's in parallel on the primary tactical circuit. There are now no blind spots in the radiation pattern. The connection is made by a patch cord between chest set jacks on the bridge remotes. A disadvantage is that if one TBS is turned off, the other TBS keys continuously.

e. During the period of this report, ship's force repaired one AN/ARC-1 for a destructor.

2. Auxiliaries

An insulation break-down in the number six main-feed booster-pump caused a zero ground, and consequently burned out the motor. Ship's force is rewinding the motor. Separate correspondence (Material Analysis Card) covers trouble report.
SECURITY INFORMATION

E. Medical Department

1. Medical Department supplies were adequate and there was no significant break-down of equipment.

2. There is a shortage of Hospital Corpsmen on board and it has been a difficult problem to fulfill all the requirements of the department with only seventy-six percent of allowance on board.

3. Medical Department evaluation of Air Group and Ship's Company: the health and morale of the crew and air group has been excellent. The epidemic of upper respiratory infections so prevalent during the ship's deployment has now disappeared.

(For Medical Department Statistical Summary, and morale recommendations see Section V).

F. Operations Department

1. Acrology

a. Summary of Weather Conditions

High pressure prevailed over the operating area most of this period except when low pressure systems passed over area on the following days: 8 March (1001.3 MB. Low), 12 March (1007.6 MB. Low), 19 March (1001.8 MB Low), and 25 March (972.0 MB. Low).

The average temperature in the area was forty-eight degrees Fahrenheit; the average sea temperature was fifty-three degrees Fahrenheit; the average wind velocity was fifteen knots, and the prevailing wind direction was West.

b. Communications

Facsimile was received from Fleet Weather Central Yokosuka, Japan on 4,545 KC and 9,427.5 KC. There was very good reception on both these frequencies except on rare occasions when atmospheric conditions caused interference.

Radio-Telotyope-AIE (Tokyo) reception and coverage was satisfactory on 6,850 KC days and 5,479 KC at night except on occasions when frontal weather existed between the operating area and Tokyo. At those times AIE (Guam) was received on 8,105 KC and 13,007.5 KC days and 5,452.5 KC at night.
SECURITY INFORMATION

with satisfactory results.

2. CIC

a. Radar Navigation

The technique of radar plotting and navigation using the MK 25 fire-control radar for sortie and entry was continued during this period with very satisfactory results. A permanent navigation team is assigned to this detail, and while their work is paralleled by conventional surface search radar navigation, fire-control fixes are relied upon for such operations as approaching buoys and anchorages where fine accuracy is required.

b. Training Program and Personnel Problems

In anticipation of the future loss of key personnel, a training program has been followed with the object of qualifying CIC Officers to perform a variety of jobs from Surface Watch Officer to Air Controller. At the same time, enlisted personnel have been systematically rotated through all watch-standng positions in order that they obtain proficiency at varied operations. Elsewhere in the field of training, further effort was made to qualify CIC Officers as underway OOD's. A number of meetings between CIC Watch Officers and Deck Watch Officers were held to iron out minor difficulties and to promote a better understanding of the problems involved in each watch. Close liaison and maximum cooperation have been the goals.

Due to a personnel shortage a six-hour, three-section watch schedule was tried on a tentative basis early in this period. However, it proved less satisfactory than a six-hour, four-section watch. The latter, used now for a considerable period of time, has been found to produce the optimum in efficiency and continuity.

c. Vertical Plot on Navigation Bridge

A new service extended by CIC is the maintenance of a vertical plot on the bridge for the Captain's evaluation during general quarters. Raid information is plotted on a thirty inch square plexiglass arrangement by a radarman permanently assigned to this general quarters station. He monitors the 81JS sound-powered circuit and is supplied with information by a talker in CIC.

SECURITY INFORMATION 31
the post office of the U.S.S. PRINCETON conducted business as follows:

1. Stamp sales in the amount of $1,510.00
2. Money order sales in the amount of $83,586.09
3. Total mail handled 552 bags

4. Intelligence

a. The ship's Air Intelligence Office encountered no great difficulties in the initial period of the present tour. Cooperation between the Intelligence Officers of the Air Group and the Ship's Air Intelligence Officers has been and continues to be excellent.

b. The following factors have contributed to the case with which this office was able to operate during the first combat tour:

1. Half of the staff, both officers and enlisted men have made at least one previous cruise in an Air Intelligence capacity.
2. Pre-deployment requirements were easily met through the excellent services of Commander Air Foroc, Pacific Fleet Intelligence and Air Navigation Offices.
3. Ship's Air Intelligence Officer and four of the Air Group Intelligence team made an advanced tour of combat activities, returning to the ship during its stay at Pearl Harbor.
4. The turnover of current Intelligence materials by the U.S.S. Kearsarge (CVA-33) Air Intelligence Officers was complete; excellent cooperation was given. The coordination of this program by Commander Fleet Air, Japan AIO and the additional aid provided through the ComNavJAPAN AIO and Air Navigation Officer also were excellent.

Escape and Evasion information was given to the Air Group by the ComNavFE Air Intelligence Officer enroute from Yokosuka to the operating area. This period is considered the best for conducting lectures of this nature.
c. Operating Procedures

The operation of the ship's Air Intelligence Office generally is in consonance with procedures employed by other CVA's currently assigned to Task Force SEVENTY-SEVEN. The present program of target mosaic preparation and distribution referred to on page 22, paragraph (3), of this report has standardized and greatly simplified requirements for target graphics. Large mosaics are provided for briefing and eight by ten inch reproductions are provided for each pilot. A.I.S. L751 Series 1:50,000 scale charts are issued to each pilot for use in briefing and in the cockpit.

Flak plots are maintained on 1:50,000 and 1:250,000 scale charts. The 1:50,000 scale charts are set-up in nine-sheet sections, covered by acetate and backed with heavy paper. Although these are more cumbersome than the four-sheet plots used by most carriers, it is felt that the added coverage of areas surrounding any specific target is invaluable.

See Air Group FIFTEEN Air Intelligence section, page 21, paragraph d., for map and chart preferences of Air Group pilots.

d. Air Intelligence Rate for Enlisted Personnel

The enlisted men who are attached to the Air Intelligence Office are not required to be of any particular rate or designator, although it is the practice to train Yeomen and Quartermasters for this duty. It is the opinion of the Ship's Company Air Intelligence Officers that this arrangement, prevalent throughout the service, is highly unsatisfactory. There are a number of reasons for this opinion not the least of which is the fact that while the men become highly skilled specialists in the field of Air Intelligence, they fail to become developed in their respective rates. The result is that they must perform intensive outside study for all their advancement examinations.

It is recommended, therefore, that a permanent "Air Intelligence Specialist" rate be created within the Naval Service. Such a rate would not only eliminate the shortcomings of the present specialist arrangement, but would stimulate interest in the field of Air Intelligence in a continuing number of men of superior caliber.
5. Photo Interpretation

It is again recommended that distribution of photography to other carriers in the local area be discontinued except on special occasions. The present system whereby target mosaics are submitted by each ship and negatives of selected targets are kept on file makes such distribution entirely unnecessary. In addition to the time and materials expended, the storage problem is considerable.

This unit has used the six-inch K-17 camera in an effort to plot photography more accurately. Single exposures are made at the beginning and end of each K-38 run. The resulting small scale photography makes plotting relatively easy on occasions when the pilot is a victim of false orientation.

6. Supply Department

1. General

The overall aviation supply situation has been good. There were only six cases of ACGG's during this period. Of these, four ACGG's for a period of twenty-four days were the result of non-allowance items; only two ACGG's for a period of two days were the result of allowance items. All non-allowance items were obtained from ad ad aircraft aboard.

2. Aero Products Prop Shaft Nut Wrench

Stocks of Aero Products Prop shaft nut wrench (287-APD-6500685) were exhausted by excessive breakage in use. Three were broken in removing one prop from an AD barrier engagement. Two others were broken without budging the nut of another AD prop, and a wrench borrowed from the ORISKANY was permanently deformed with no more success. While in the early cases it is impossible to evaluate what effect improper seating of the wrench may have had on the failures, in the last four cases maximum precautions against seating or cocking the tool were taken and there is no doubt that tool failure occurred when working to overcome an initial torque application far in excess of the two thousand foot pounds prescribed for installation of the nut. The nut most difficult to unseat (referred to above) finally yielded to a special tool with internal teeth machined from heavy boiler plate welded on the toothless stub of the former tool. It is recommended that application of excessive torques to AD prop shaft nuts (possibly by the use of "Sweeney" hydraulic wrenches) be carefully avoided in order that aloft maintenance may be
performed with the tools provided. Requisitions for newer, and presumably stronger, Acro Products wrenches (R67-APD-6501411) have been filled uniformly to date by the substitution of the 6500685 wrench.

PART VII SUMMARY OF RECOMMENDATIONS

Personnel Performance

Reference Page 10, Para. 7 (Length of combat Tour)

A comparison of the morale, low accident rate, and general physical status of the crew and air group pilots with our observations during our last deployment points significantly to the fact that a three week period of combat is the optimum efficient time for this type of operation.

Air Group FIFTEEN

Reference Page 14, Para. 1,e,(1),(2), and (3) (Jet Flight Planning)

Rendezvous after launch should be conducted at low altitude and at low power settings.

Cruise control must be mastered by every pilot........

...it is mandatory that pitching deck technique be understood thoroughly by pilots, LSO's, and ship's personnel.

Reference Page 15, Para. 1,d. (Dry Familiarization Missions for Night Pilots)

Giving night pilots daylight recom missions over the bench for familiarization is recommended.

Reference Page 16, Para. 2,a, (1) (Propeller changes to AD Aircraft)

Suitable tools should be made available at the squadron level for the proper performance of work that the squadron is expected to perform. (Also see Supply Department recommendation Page 35, Para. 2).

Reference Page 18, Para. b.(1) (Test equipment for Acro 5A Fire Control System)

There is a great need for a complete bench test set-up for the APC-30 and Acro 5A Fire Control System as a unit.
Reference Page 19, Para. b.(3) (ECM Equipment)

It is highly recommended that the AN/APA-70 be replaced in the AD4N aircraft by a PPI type presentation equipment for use on ECM missions.

Reference Page 19, Para. b.(4) (APS-31B Test Equipment)

It is recommended that each team equipped with the APS-31B be issued as team equipment a wakeshaw or mobile power unit capable of the sustained high power output necessary to ground check this radar.

Reference Page 19, Para. 3.a. (Mark IV Exposure Suit)

It is recommended that (exposure) suits be issued to squadrons at least three months before final deployment.

...it is recommended that if the Mark IV suit is to be "tailored" to each pilot's measurements, a more careful study be made of sizes in the larger suits to insure proper fitting.

Reference Page 20, Para. 3.b. (PSK-1 Survival Kits)

We recommend that PSK-1 kits either become a permanent part of the parachute and pararaft and remain with the squadrons, or else be collected from each ship returning to the States and issued to the replacement Air Group.

Reference Page 20, Para. 4.a. (AIO Advance Forward Area Tour)

It is recommended that the advance party (AIO) be sent out at least two months previous to the final deployment to make use of the lessons learned before the final departure from the States.

Reference Page 21, Para. c. (Intelligence Briefing Space)

...it would be highly desirable to have a central room on the 02 level to be used by both jet squadrons for debriefing purposes.

Reference Page 21, Para. d. (Use of A/B5 L552 Series Charts)

...it is recommended that use of the A/B5 charts be emphasized considerably more in the pre-deployment map reading, utilizing the A/B5 L552 series.
Reference Page 21, Para. d.(3) (Target Mosaics)

It is felt that a second mosaic of smaller scale covering the general target area would be desirable for briefing purposes, and in some instances for cockpit use. This type of mosaic would apply particularly to jet strikes.

Air Department

Reference Page 23, Para. 3 (Distinguishing patches for flight deck personnel's foul weather gear)

It is recommended that in periods of cold weather all personnel on the flight deck have the patches and markings identifying their work sewn on their jackets to enable the proper personnel to locate easily those required.

Reference Page 24, Para. 5.b.(1) (Use of F9F Forged Eye Pendant R90-NAF-31349-1)

It is recommended that the (F9F) tail skags continue to be placed in the retracted position for catapulting (use of Forged Eye F9F Pendant (R90-NAF-31349-1).

Reference Pages 24 to 27, Paras. a,b,c,d and e (Advisability of sustained operations with F9F-5 aircraft and the type H Mark 4B Catapult)

It is recommended that advisability of sustained operations with F9F-5 aircraft and the type H Mark 4B Catapult be further investigated.

Gunnery Department

Reference Page 28, Para. 2 (Rigging for refueling at sea)

It is suggested that the various A0's operating in the Korcan area standardize fueling rigging (casing-out hooks, span-wire seizing, etc.) for purposes of more rapid refueling operations. Specifically, it is recommended:

a. that hooks all be of uniform size and spaced approximately ten feet from the end of the A0's outboard length of fueling hose;

b. that the necessary span-wire seizings to the fueling hose be spaced three feet apart on the same length of hose;

Reference Page 28, Para. 2 (Rigging for refueling at sea)
SECURITY INFORMATION

1. and that these scizings be led clear of all other lines.

Operations Department

Communications

Reference Page 32, Para. 3c (Pneumatic Tubes)

It is recommended that the double-ended type of carrier be furnished for longer life and trouble free service.

Intelligence

Reference Page 34, Para. 4d (Air Intelligence Rate for Enlisted Personnel)

It is recommended that a permanent "Air Intelligence Specialist" rate be created within the Naval Service.

Photo Interpretation

Reference Page 35, Para. 5

It is recommended that distribution of photography to other carriers in the local area be discontinued except on special occasions.

Supply Department

Reference Page 35, Para 2 (ID prop shaft nut wrenches)

It is recommended that application of excessive torques to ID prop shaft nuts (possibly by the use of "Swenson" hydraulic wrenches) be carefully avoided in order that afloat maintenance may be performed with the tools provided.

W. R. HOLLINGSWORTH

SECURITY INFORMATION 39
# SECURITY INFORMATION

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**W. R. Hollingsworth**

W. R. HOLLINGSWORTH
U.S.S. PRINCETON CVA-37
AND
CARRIER AIR GROUP FIFTEEN
ACTION REPORT

13 April 1953 to 19 May 1953
From: Commanding Officer, U.S.S. Princeton (CVa-37)
To: Chief of Naval Operations
Via: (1) Commander Task Force SEVENTY-SEVEN
     (2) Commander SEVENTH Fleet
     (3) Commander Naval Forces, Far East
     (4) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report of the USS Princeton (CVa-37) and CARRIER AIR GROUP 15; submission of

Ref: (a) OPNAV Instruction 3480.4
     (b) CVG-15 conf ltr ser 013 dtd 29 April 1953 (Air Attack Reports for 17, 19, 20, 21 April 1953)
     (c) CVG-15 conf ltr ser 014 dtd 5 May 1953 (Air Attack Reports for 23, 24, 25 April 1953)
     (d) CVG-15 conf ltr ser 017 dtd 11 May 1953 (Air Attack Reports for 27, 28 April 1953 and 1, 2 May 1953)
     (e) CVG-15 conf ltr ser 022 dtd 20 May 1953 (Air Attack Reports for 3, 5, 6, 9 May 1953)
     (f) CVG-15 conf ltr ser 023 dtd 20 May 1953 (Air Attack Reports for 13, 14 May 1953)

Encl: (1) Action Report; 13 April 1953 through 19 May 1953

1. In accordance with reference (a), the action report of the USS Princeton (CVa-37) and CARRIER AIR GROUP 15 for the period 13 April 1953 through 19 May 1953 is submitted as enclosure (1).
ACTION REPORT
U.S.S. PRINCETON (CV-37)
CARRIER AIR GROUP 15
13 April 1953 through 19 May 1953

PART I GENERAL NARRATIVE

During the period covered by this report the U.S.S. PRINCETON (CV-37) operated as a unit of Task Force SEVENTY-SEVEN.

Task Force SEVENTY-SEVEN was composed of the aircraft carriers U.S.S. ORISKANY (CV-34), U.S.S. VALLEY FORGE (CV-45), U.S.S. PHILIPPINE SEA (CV-47), U.S.S. BOXER (CV-21), and U.S.S. PRINCETON (CV-37), along with various heavy support and screening ships.

Commander Carrier Division FIVE was embarked on the U.S.S. ORISKANY (CV-34). Commander Carrier Division THREE was embarked on the U.S.S. VALLEY FORGE (CV-45) from 13 April to 12 May and on the U.S.S. PRINCETON (CV-37) from 12 May until 19 May. Commander Carrier Division ONE was embarked on the U.S.S. BOXER (CV-21).

The mission of this Task Force was as set forth in CTF SEVENTY SEVEN Operation Order No. 2-52.

Various missions were flown by PRINCETON aircraft: strikes were launched against the enemy's supply and troop concentration areas, industrial targets, mining locations and transportation facilities; close air support, night interdiction, electronic countermeasures, photography and armed reconnaissance sorties were flown almost daily; combat air patrol and anti-submarine patrol operations were carried out during each day of flight operations.
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PART II  CHRONOLOGICAL ORDER OF EVENTS

13 April - Departed Yokosuka 1600I for operating area.

14-15 April - EnROUTE to operating area. Gunnery exercises scheduled for 15 April were cancelled due to inclement weather.

16 April - EnROUTE to operating area. Conducted non-combat refresher air operations. Ninety-one sorties were flown.

17 April - Rendezvoused with Task Force SEVENTY-SEVEN at 0500I. One hundred and seven sorties were flown by PRINCETON aircraft. The primary targets were troop and supply build-up areas in close proximity to the front lines. Heavy vehicle traffic moving south was attacked by night hecklers who destroyed many trucks.

18 April - Replenished at sea. Conducted anti-aircraft firing exercises.

19 April - Conducted air operations. One hundred and nine sorties were flown. Morning hecklers attacked vehicles in the vicinity of Hamhung and northward along the coast. Close air support and Cherokee strikes were launched against enemy personnel and supply areas along the front lines.

20 April - Conducted air operations. One hundred and eighteen sorties were flown. Weather minimized the operations of morning hecklers. Most of the day's strikes were diverted by bad weather from front line areas to rear area supply concentrations.

21 April - Conducted air operations. One hundred and fourteen sorties were flown. PRINCETON pilots attacked approved targets of their own choosing and struck heavily against supply and industrial areas along the northeastern coast of Korea. In addition to these strikes, two close air support and one naval gun-fire spot missions were flown. Pre-dawn hecklers again attacked vehicles on the coastal routes during the morning.

22 April - Replenished at sea. AA firing exercises were cancelled due to extended replenishment activities. Commander Carrier Division THREE, RADM A. SOUCÉK, USN, relieved Commander Carrier Division FIVE, RADM R. F. HICKEY, USN, as Commander Task Force SEVENTY-SEVEN.

23 April - Conducted air operations. One hundred and twelve sorties were flown. PRINCETON planes again concentrated on large troop and supply build-up areas along the central front.
Close air support missions were directed against the enemy central front line positions. The evening hecklers found little vehicular traffic along the coastal roads and railroads.

24 April - Conducted air operations. Flew 119 sorties. Close air support strikes dealt heavy blows to enemy positions along the eastern and central sectors of the front lines. Other strikes hit supply concentrations and coastal defense guns in the Wonsan area. Evening hecklers attacked heavy traffic west of Wonsan.

25 April - Conducted air operations. One hundred and eight sorties were flown. PRINCETON aircraft again struck coastal defense guns that had been shelling friendly islands and ships in the Wonsan area. Mortar and artillery positions as well as personnel shelters and trenches were attacked by close air support strikes on the central front.

26 April - Replenished at sea. Conducted anti-aircraft firing exercises.

27 April - Conducted air operations. Ninety-nine sorties were flown. Morning hecklers found several large vehicle movements and destroyed many trucks in the area northwest of Hamhung; a large supply and billeting area was attacked by jet fighters; close air support strikes attacked enemy front line positions.

28 April - Air operations were limited due to inclement weather. Sixty-four sorties were flown. Pre-dawn attack planes continued their efforts against supply trucks enroute to the front. Weather forced morning strikes to alternate targets.

29 April - Air operations were curtailed due to weather conditions. Four weather reconnaissance sorties were flown.

30 April - Replenished at sea. Conducted anti-aircraft firing exercises.

1 May - Conducted air operations. One hundred and thirteen sorties were flown. Coastal defense guns at Wonsan and on Hodo Pando Peninsula bore the brunt of PRINCETON aircraft attacks. Night hecklers destroyed at least twenty trucks and damaged as many more in the Wonsan area.

2 May - Conducted air operations. Ninety-one sorties were flown. Cherokee strikes against personnel and supply shelters obtained excellent results. Poor weather conditions hindered operations of the evening hecklers although considerable traffic was observed.
SECURITY INFORMATION

3 May - Conducted air operations. Launched 105 sorties. PRINCETON planes concentrated on billeting and industrial areas near Hungnam. In addition to these strikes, close air support and naval gun-fire spotting missions were flown. One afternoon strike was diverted to the troublesome coastal defense gun positions on Hodo Pando Peninsula. Night attack planes devoted their efforts to large movements of trucks approaching Wonsan from the West and North.

4 May - Replenished at sea. Gunnery exercises were cancelled due to inclement weather.

5 May - Conducted air operations. Flew 111 sorties. Traffic on the coastal routes was found to be very light by the early morning hecklers. Numerous strikes were launched against Hodo Pando and Wonsan coastal defense installations.

6 May - Conducted air operations. Flew 101 sorties. Targets attacked included a mining area, supply and troop concentrations, and front line positions. Two strikes against the Komdok mining area destroyed a processing plant, several other buildings, and started many fires. Cherokee and close air support strikes effectively demolished supply shelters and artillery positions in proximity to the front lines.

7 May - Air operations were limited by bad weather. Nineteen sorties, including weather reconnaissance and defensive missions, were flown.

8 May - Replenished at sea. Gunnery exercises were cancelled due to inclement weather.

9 May - Conducted air operations. Eighty-two sorties were flown. Weather caused the cancellation of several events. Offensive effort was limited to attacks on supply areas in east and central Korea and to deep and close support of front line troops.

10 May - Air operations were limited by weather to defensive missions. Twenty-six sorties were flown.

11 May - Weather conditions again limited air operations to defensive missions only. Eleven sorties were flown.

12 May - Replenished at sea. Commander Carrier Division THREE, RADM A. SOUCEK, and staff embarked. Gunnery exercises were cancelled due to inclement weather.

13 May - Conducted air operations. One hundred and thirteen sorties were flown. Continued bad weather caused most flights
to be diverted to alternate targets. Strikes were launched against troop and supply shelters along the northeast coast and coastal defense guns in the Wonsan-Hodo Pando areas were heavily hit.

14 May - Conducted air operations. One hundred and seventeen sorties were flown. Supply areas again were the primary targets as PRINCETON aircraft struck Pachunjang, Wonsan, and Osan-ni concentrations with good results.

15 May - RADM R. E. BLICK relieved RADM A. SOUCZEK aboard this vessel as Commander Carrier Division THREE. Replenished at sea. 1649I detached from Task Force SEVENTY-SEVEN. Enroute to Sasebo, Kyushu, Japan. Commander Carrier Division ONE, RADM W. D. JOHNSON, USN, relieved Commander Carrier Division THREE, RADM A. SOUCZEK, USN, as Commander Task Force SEVENTY-SEVEN.

16 May - 0700I arrived Sasebo, Kyushu, Japan for additional reprovisioning. 1830I underway enroute Hong Kong, B.C.C. via Formosa Strait.

17 May - Enroute Hong Kong. Captain O. C. GREGG, USN, assumed Command of the PRINCETON, relieving Captain W. R. HOLLINGSWORTH, USN.

18 May - Enroute Hong Kong.

19 May - 1300I arrived Hong Kong, B.C.C.
PART III ORDNANCE

A. Ship

1. Performance

   a. Fire control and ordnance equipment functioned efficiently during this period. There were no casualties to equipment. This performance is attributed to the extensive preventative maintenance program stressed on this vessel.

2. Expenditures

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Code</th>
<th>Description</th>
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<tr>
<td>85</td>
<td>D1</td>
<td>5&quot;/38 Projectile, AAC</td>
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<tr>
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<td>134</td>
<td>D8</td>
<td>Cartridge, Full, Non-flashless</td>
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</table>

B. Aviation

1. Performance

   a. Difficulty has been encountered with Aero L4A bomb racks in use on the F9F, AD, and F4U. In accordance with Task Force SEVENTY-SEVEN directives, the racks are now disassembled after each malfunction and a report is made on the failure. It has been found that bent and broken sears and defective arming solenoids are causing the most trouble. Improvements that could be made on the rack include:

      (1) Provision for latching and releasing the rack from either side. When the rack is mounted on the starboard wing, personnel must reach over the bomb load to latch the rack. Similarly, there should be provisions for tightening the sways braces from either side of the rack.

      (2) A simple jettison release (either solenoid or manual wire) is needed to jettison hung ordnance due to malfunction of the sear or solenoid.

      (3) A modification of the Aero L4A rack, to provide access ports for limited lubrication, maintenance, and inspection. A RUMM together with pictures is being prepared for submission.

   It is believed that the proposed modifications will neither structurally weaken the rack nor adversely affect its flight characteristics.
SECURITY INFORMATION

Aero 14A racks, while an improvement over previous racks, are generally not sturdy enough to stand up under the rigorous conditions that must be imposed upon them. Bombs up to, and including five-hundred pounds must be supported on taxing aircraft with the wings in folded position, on catapult launches and on arrested landings.

b. Some difficulty was experienced with rusting in the Aero 14 rocket launcher solenoid. It is believed that this rusting was caused by moisture entering the launcher when the wings were in the folded position. As a preventative measure, a cover was designed by AOG BISCH of VF-152 and manufactured in the parachute loft from waterproof material. The cover can be easily slipped over the launcher when not in use and is secured at the after end by ties.

c. Upon trying to hang the Mark 78 napalm tanks on the centerline stations of AD4NA aircraft, it was discovered that the suspension lugs could not be hung on the Douglas bomb ejector suspension hooks. This was due to the armor plate interfering with the unusually wide suspension lugs of the napalm tanks. Cutting a 5/8 inch by 7/8 inch slot in the armor plate on each side of the suspension hook access ports was found to allow bind-free hangings.

d. One accidental discharge of 20MM machine gun was encountered during the arrested landing of an F9F-5. The gun fired one round due to a defective four-way solenoid valve (R 94 V 10000). The four-way valve failed to supply hydraulic pressure to the Aero 2B pressure switch holding chargers in the "safe" position. The hard landing was believed to have dislodged the sear momentarily permitting the gun to fire one round. The four-way valve worked intermittently when checked and appeared to be sticking. It will be forwarded to Inspection and Overhaul Activity for inspection.

e. The pigtail electrical connection for rockets is the weakest link in the rocket firing system. The high speeds of the F9F whip the wires into pieces or saw the wires at the rocket base. Several methods of shortening the wires to prevent whipping have been tried with varying success. The method now in use is to scotch tape the excess wire to the rocket base allowing just enough wire to plug in the rocket. It is recommended that a spring clip, similar to a Fahnstock clip, be developed to clip the excess wire to the rocket base to prevent whipping.

f. A few cases of bomb fins turning at high speeds have been encountered. The fins seem to be tight on the bomb prior to loading and are re-checked after being hung.
SECURITY INFORMATION

When the fin turns in either direction, the arming wire is pulled and the fuze becomes armed. It is recommended that during manufacture a pin be welded on the bomb tail and that a slot be cut in the tail fin cone to prevent the fin from turning, even if it becomes loose.

k. The Bomb Skid (Mark 1 Mod 1) hold down assemblies (S/N R94-Bu0-423858-1 and R94-Bu0-423857-1) have a high rate of attrition due to their constant use and especially hard usage during replenishment. Requested replacements have had a web arrangement furnished as a substitute that does not last as long or hold the load as well as hold-down chains.

h. Bomb elevators #3 and #4 have developed excessive clearances in the track shoe after 115 days of service. The clearance of the shoes does not allow the platform to remain level which causes difficulties in loading and unloading the elevator due to the tipping caused with various bomb loads.

i. Each arming wire comes with a tag wired onto the swivel. Each tag must be removed before use and this procedure slows down re-arming time, with the attendant tag disposal problem. It is recommended that only one tag for each bundle of wires be furnished.

j. A detonator removal tool has been designed to remove stuck detonators when the fuze is removed and the detonator remains in the bomb. Information and pictures of this tool have been forwarded to Naval Aviation News for publication.

2. Expenditures

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1043</td>
<td>H1</td>
<td>40MM CARTRIDGE, HEIT-SD (UG LOTS)</td>
</tr>
<tr>
<td>32</td>
<td>H4</td>
<td>40MM CARTRIDGE, HEIT-(DI)-SD</td>
</tr>
<tr>
<td>132</td>
<td>K1</td>
<td>2000# GP</td>
</tr>
<tr>
<td>541</td>
<td>K2</td>
<td>1000# GP</td>
</tr>
<tr>
<td>492</td>
<td>K3</td>
<td>500# GP</td>
</tr>
<tr>
<td>3432</td>
<td>K4</td>
<td>250# GP</td>
</tr>
<tr>
<td>789</td>
<td>K5</td>
<td>100# GP</td>
</tr>
<tr>
<td>8</td>
<td>K6</td>
<td>1000# SAP</td>
</tr>
<tr>
<td>4</td>
<td>K7</td>
<td>500# SAP</td>
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<tr>
<td>22</td>
<td>K8</td>
<td>350# DEPTH BOMB, AN-Mk 54</td>
</tr>
<tr>
<td>950</td>
<td>K9</td>
<td>220/260# FRAG</td>
</tr>
<tr>
<td>263</td>
<td>K12</td>
<td>100# INC Cluster, AN-M12</td>
</tr>
<tr>
<td>6</td>
<td>K19</td>
<td>FUZE, NOSE, AN-M103A1</td>
</tr>
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</table>

SECURITY INFORMATION
<table>
<thead>
<tr>
<th>Quantity</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3357</td>
<td>K20</td>
<td>FUZE, NOSE, AN-M139A1</td>
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<tr>
<td>2409</td>
<td>K21</td>
<td>FUZE, NOSE, AN-M140A1</td>
</tr>
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<td>168</td>
<td>K26</td>
<td>FUZE, NOSE, VT, T50E1</td>
</tr>
<tr>
<td>136</td>
<td>K27</td>
<td>FUZE, NOSE, VT, T50E4</td>
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<td>206</td>
<td>K30</td>
<td>FUZE, NOSE, AN-Mk 219</td>
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<td>206</td>
<td>K31</td>
<td>ANTI-PERSON BOMB FUZE</td>
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<tr>
<td>5345</td>
<td>K35</td>
<td>AN-M100A2 (ND)</td>
</tr>
<tr>
<td>496</td>
<td>K36</td>
<td>AN-M101A2 (.025)</td>
</tr>
<tr>
<td>565</td>
<td>K37</td>
<td>AN-M102A2 (.025)</td>
</tr>
<tr>
<td>8</td>
<td>K42C</td>
<td>FUZE, TAIL M124/Al (6 hr)</td>
</tr>
<tr>
<td>4</td>
<td>K43A</td>
<td>FUZE, BOMB TAIL M125A1 (1 hr)</td>
</tr>
<tr>
<td>4</td>
<td>K43B</td>
<td>FUZE BOMB TAIL M125A1 (2 hr)</td>
</tr>
<tr>
<td>49</td>
<td>K43C</td>
<td>FUZE TAIL M125/Al (6 hr)</td>
</tr>
<tr>
<td>69</td>
<td>K43D</td>
<td>FUZE TAIL M125/Al (12 hr)</td>
</tr>
<tr>
<td>22</td>
<td>K48</td>
<td>FUZE BOMB TAIL (HYDROSTATIC), AN-Mk 230</td>
</tr>
<tr>
<td>23</td>
<td>L1</td>
<td>3.5&quot; ROCKET, SOLID, Complete Rd.</td>
</tr>
<tr>
<td>208</td>
<td>L5</td>
<td>5&quot; HAVAR, Complete Rd.</td>
</tr>
<tr>
<td>198</td>
<td>L6</td>
<td>Anti-Tank Rocket, A/C 6.5&quot; (ATAk)</td>
</tr>
<tr>
<td>62210</td>
<td>M1</td>
<td>20MM HEI, M97</td>
</tr>
<tr>
<td>53913</td>
<td>M2</td>
<td>20MM INC, M96</td>
</tr>
<tr>
<td>44329</td>
<td>M3</td>
<td>20MM AP-T, M95</td>
</tr>
<tr>
<td>160063</td>
<td>M4</td>
<td>Link, 20MM M8/M8E1</td>
</tr>
<tr>
<td>18714</td>
<td>M6</td>
<td>Cal..50 API, M8</td>
</tr>
<tr>
<td>18714</td>
<td>M7</td>
<td>Cal..50 INC, M1</td>
</tr>
<tr>
<td>9357</td>
<td>M8</td>
<td>Cal..50 API-T, M20</td>
</tr>
<tr>
<td>46785</td>
<td>M9</td>
<td>Link, Cal..50 A/C M2</td>
</tr>
<tr>
<td>119400</td>
<td>M10</td>
<td>Cal..50 Belded, (2-2-1)</td>
</tr>
<tr>
<td>4135</td>
<td>N1</td>
<td>Napalm Type 1 or M3</td>
</tr>
<tr>
<td>93</td>
<td>N2</td>
<td>Igniter, WP, M15 or M215</td>
</tr>
<tr>
<td>93</td>
<td>N4</td>
<td>Igniter, WP, M16 or M216</td>
</tr>
<tr>
<td>102</td>
<td>N7</td>
<td>Gas Tank Mk 12</td>
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<tr>
<td>58</td>
<td>N10</td>
<td>Xylanol</td>
</tr>
<tr>
<td>84</td>
<td>P2</td>
<td>Parachute Flare Mk 5</td>
</tr>
<tr>
<td>98</td>
<td>P3</td>
<td>Parachute Flare Mk 6</td>
</tr>
<tr>
<td>8</td>
<td>P9</td>
<td>LIGHT, FLOAT, A/C AN-Mk 6</td>
</tr>
<tr>
<td>11</td>
<td>P13</td>
<td>SIGNAL, DRIFT, (N), AN-Mk 5</td>
</tr>
<tr>
<td>299</td>
<td>P38</td>
<td>BOMB EJECTOR CARTRIDGE, Mk 1</td>
</tr>
<tr>
<td>40</td>
<td>P43</td>
<td>CARTRIDGE ENGINE IGNITER TYPE 2</td>
</tr>
</tbody>
</table>
3. Hung Ordnance and Ammunition Stoppage

a. Statistics

<table>
<thead>
<tr>
<th>Type Ordnance</th>
<th>Later Manual Releases</th>
<th>Drop Offs on Landing</th>
<th>Remaining on Racks</th>
<th>Type Rack</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATAK</td>
<td>12</td>
<td>**14</td>
<td>Aero 14A</td>
<td></td>
</tr>
<tr>
<td>HVAR</td>
<td>16</td>
<td>**16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100# G.P.</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>250# G.P.</td>
<td>12</td>
<td>1</td>
<td>3 (*8)</td>
<td></td>
</tr>
<tr>
<td>INCENDIARY</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>350# ADB</td>
<td>1</td>
<td>1</td>
<td>MK 51</td>
<td></td>
</tr>
<tr>
<td>500# G.P.</td>
<td>2</td>
<td>*2</td>
<td>MK 51</td>
<td></td>
</tr>
<tr>
<td>1000# G.P.</td>
<td>1</td>
<td>*1</td>
<td>Douglas Bomb Ejector</td>
<td></td>
</tr>
</tbody>
</table>

*Not considered hung ordnance because bomb racks had not been energized.

**Four percent of all rockets carried were returned with broken pigtails (mainly the result of high speeds). One per cent carried were returned as duds.

b. Twenty millimeter guns have averaged one stoppage per eighteen-hundred rounds. This performance, though below the average set during our first tour on the line, was considered satisfactory. Continued efforts will be made to improve the performance efficiency rate.

The fifty caliber gun performance during this period was excellent. An average of one stoppage per 3,500 rounds was established.

c. In view of the above ordnance equipment malfunctions, reports (including history, analysis, and beneficial suggestions encompassing proven maintenance procedures, effective ground test of components, and recommended design changes) are being prepared for submission in the form of RUDM's and RUDACO's.
PART V  PERSONNEL PERFORMANCE AND CASUALTIES

A. Performance

Performance of Ship's Company and Air Group personnel was outstanding.

B. Complement

1. The average on board count was as follows:

<table>
<thead>
<tr>
<th>Flag</th>
<th>Ship's Co.</th>
<th>CVG-15</th>
<th>Marines</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Officers</td>
<td>*30</td>
<td>118</td>
<td>129</td>
<td>2</td>
</tr>
<tr>
<td>Enlisted</td>
<td>*70</td>
<td>2,075</td>
<td>627</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Flag personnel are included in the total average for the period on a three-day adjusted basis.

2. There continues to be a critical shortage in the assignment of personnel to fill the authorized allowance of the following enlisted ratings:

RDC, RDL, RD2; FT (all pay grades); ETC, ET1, ET2; TEC, TE1, TE2; YN1, YN2; SKC, SK1, SK2; MMC, MM1, MM2; BT1, BT2; FPL, FP2; EMC, EM1, EM2; IC1, IC2; PH1, PH2; HM2; TN, TA

This command is aware that the shortage of petty officers is servicewide, and the on-the-job-training program continues in effect as one means of alleviating this shortage.

3. The following number of personnel were transferred and received:

<table>
<thead>
<tr>
<th>Received</th>
<th>Transferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CPO</td>
<td>1 PO1</td>
</tr>
<tr>
<td>3 PO3</td>
<td>10 PO3</td>
</tr>
<tr>
<td>2 SN</td>
<td>2 SN</td>
</tr>
<tr>
<td>1 SA</td>
<td>3 SA</td>
</tr>
</tbody>
</table>

C. Training and Education

The "I and E" program on the PRINCETON is at present specializing in increasing the education of all non-high school graduates. A brief summary of the program which has been undertaken is as follows:
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<td>3 (*8)</td>
<td>&quot;</td>
</tr>
<tr>
<td>250# G.P.</td>
<td>1</td>
<td>1</td>
<td></td>
<td>&quot;</td>
</tr>
<tr>
<td>INCENDIARY</td>
<td>1</td>
<td></td>
<td></td>
<td>&quot;</td>
</tr>
<tr>
<td>350# ADB</td>
<td>1</td>
<td>1</td>
<td></td>
<td>MK 51</td>
</tr>
<tr>
<td>500# G.P.</td>
<td>2</td>
<td>*2</td>
<td></td>
<td>MK 51</td>
</tr>
<tr>
<td>1000# G.P.</td>
<td>1</td>
<td>*1</td>
<td></td>
<td>Douglas Bomb Ejector</td>
</tr>
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</table>

*Not considered hung ordnance because bomb racks had not been energized.

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The fifty caliber gun performance during this period was excellent. An average of one stoppage per 8,500 rounds was established.

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SECURITY INFORMATION

All non-high school graduates on board have been divided into three groups. The first group consists of personnel who have completed the tenth grade or higher, the second consists of those personnel who have completed from seventh to ninth grades, and the third group consists of those personnel who have completed the sixth grade or below. These personnel have been given lectures by the Educational Officer telling them of opportunities, necessity, and facilities for increasing their education. The personnel are then interviewed individually and a series of USAFI courses are laid out for them. They are checked from time to time for progress and encouraged to stay with their studies by the Educational Officer. Those of the lower grade groups are divided among various officers who help counsel each individual. Great interest is shown by the men.

D. Morale and Welfare

1. In general the morale of all personnel including the Air Group pilots was excellent during the normal period of three weeks; however, due to the extended time in the operating area, increased fatigue was noticed in the crew and pilots, especially in the first three days after the extension. Pilot casualties were excessive during this period: of the total of seven men lost, four were lost during the extension period. Losses such as these tend to lower the morale of all hands. A tour of three weeks is considered to be the optimum time for a tour of duty on the line.

2. Band Activities:

   1 Morning Colors
   29 Rehearsals (Concert and Dance Band)
   15 Concerts (Average attendance 50 men)
   8 Replenishment Serenades
   4 Divine Services (5 musicians)

3. An enlisted hobby shop was established in April from Recreation Council Funds. An initial grant of $100 for tools to be loaned out on custody slips was made and a $300 revolving fund was established to provide a continuing supply of hobby kits. These kits are sold at cost plus a small mark-up to provide damage and loss to inventory. The first order of merchandise was sold out in three days. As a result of the interest shown, an additional sum of $700 was voted by the Recreation Committee to be added to the revolving fund making a total of $1,000.

4. A pamphlet containing information on Hong Kong, its history, points of interest and shopping guides was prepared.
and distributed. Additional information on shopping, prepared by the Supply Officer, was printed in the Slipstream, the ship's daily paper.

E. Public Information Activities

1. Operational press dispatches 27
2. Feature release stories 17
3. Feature release pictures 47
4. Hometown stories 10
5. Hometown pictures 77
6. Tape recorded interviews (hometown) 13
7. Tape recorded interviews (documentary) 1
8. Hometown roster stories 901

F. Casualties

1. Ship's Company

   a. On May 13, MILLIGAN, W.E., AB3, V-2 Division suffered minor injuries to his knee and ankle when run over by an F9F-5 as he was inserting a tension ring on the hold back unit of the starboard catapult.

2. Air Group

   a. On April 21, LTJG C. J. CLARKSON, 522112, USN, VF-153, was hit by flak and ditched in Wonsan Harbor. The pilot was recovered although he received minor facial lacerations.

   b. On April 23, LTJG A. M. CLEMMONS, 395099, USN, VF-154, was listed as missing while on a recce hop south of Tanchon. The plane was believed to have been hit by anti-aircraft fire.

   c. LTJG L. L. QUEEL, 540032, USN, VF-153, was killed on April 25, when his plane crashed and sank on a catapult shot.

   d. On April 28, LTJG R. J. LEAR, 498753, USN, VF-154, was listed as missing after his plane exploded and burned over Hodo Pando. Probable cause was enemy AA.

   e. On the evening of May 1, LT V. MAHONEY, VC-35, received multiple minor injuries when his plane crashed on the flight deck during a night landing.
ENS W. M. QUINLEY, 554755, VF-152, was listed as missing May 5 on a naval gun-fire spotting mission over Wonsan. The flight encountered heavy flak and his plane was observed burning on the ground.

On May 6, LT L. R. RICKEY, 414319, VF-152, was listed as missing following a strike south of Wonsan. His plane was believed to have been hit by AA.

On May 6, ENS F. E. PAINTER, 553412, VF-153, was killed while ditching in the Sea of Japan. His plane was hit by anti-aircraft fire while on a strike north of Tanchon. The plane disintegrated upon impact and the pilot was not recovered.

On May 13, LTJG R. C. CLINITE, 521337, of VF-153, was drowned following a seemingly successful bailout. The plane was hit by AA fire while on a reconn mission south of Wonsan and although the ejection bailout in Wonsan Harbor was successful, the pilot failed to get clear of his chute upon entry into the water. His body was recovered.

G. Medical Dept. Statistical Summary of Air Group and Ship's Company:

- Admissions to sick list, enlisted: 103
- Admissions to sick list, officers: 12
- Admissions to pinnacle list, enlisted: 15
- Patients admitted to sick list by transfer from other ships: 2
- Minor injuries treated: 46
- Major injuries treated: 4
- Minor surgical procedures: 84
- Major surgical procedures: 7
- Total visits to sick call: 2366
- Pilots killed, enemy action, not recovered: 3
- Pilots killed, enemy action, recovered: 1
- Pilots killed, not result of enemy action, not recovered: 1
- Pilots missing, enemy action: 2
- Pilots injured, enemy action, recovered: 1
- Pilots temporarily grounded, medical reasons: 9
- Pilots permanently grounded, pending medical evaluation: 2
- Crewmen grounded, medical reasons: 0
- Average number of days grounded: 8.55
Venereal Disease Cases and Non-specific Urethritis:

<table>
<thead>
<tr>
<th>Disease</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonorrhea</td>
<td>19</td>
</tr>
<tr>
<td>Chancroid</td>
<td>10</td>
</tr>
<tr>
<td>Syphilis</td>
<td>0</td>
</tr>
<tr>
<td>Non-specific Urethritis following sexual exposure</td>
<td>94</td>
</tr>
<tr>
<td>Penicillin tablets issued during the last period in port</td>
<td>4553</td>
</tr>
</tbody>
</table>
PART VI SPECIAL COMMENTS

A. Carrier Air Group FIFTEEN

1. Operations

   a. Flight Analysis

      (1) The Air Group flew a total of 1,772
      sorties for a total of 3,918 hours during the eighteen operational days.

      (2) Breakdown of sorties:

      | Type    | Strikes | Recco | CAS | CAP | PHOTO | ECM | ASP | NGF | TARCAP | TOTAL |
      |---------|---------|-------|-----|-----|-------|-----|-----|-----|--------|-------|
      | F9F-5   | 431     | 55    | -   | 381 | 33    | -   | -   | 4   | 904    |
      | F4U-4   | 198     | -     | 61  | 4   | -     | -   | -   | 33  | 6      | 301   |
      | F4U-5N  | -       | 49    | -   | -   | -     | -   | 1   | -   | 50     |
      | ADMNA   | 204     | -     | 90  | -   | -     | -   | 45  | 4   | 344    |
      | ADAG    | -       | -     | -   | -   | -     | -   | 59  | -   | 59     |
      | AD4N    | -       | 23    | -   | -   | -     | 8   | 14  | -   | 45     |
      | F9F-5P  | -       | -     | -   | 69  | -     | -   | -   | -   | 69     |
      | TOTAL   | 833     | 127   | 151 | 385 | 102   | 8   | 118 | 38  | 10     | 1772  |

b. The majority of the strikes were coordinated attacks consisting of AD's, F4U-4's as the main strike group and F9F-5's for flak suppression.

c. Results of close air support missions have improved during this period due to familiarization both with front line areas and "mosquito" control procedures.

d. Anti-aircraft fire encountered on most targets appears to have increased in quantity and effectiveness. A great deal of small arms and machine gun fire was encountered by night hecklers during attacks on truck convoys.

e. On all strikes the flak encountered was much less effective when jet flak suppression was present. Jet flak suppression is a "must" on heavily defended targets if the mission is to be carried out successfully.

f. Defensive maneuvering at high altitude is considerably more important when flying over an overcast than when VFR. Apparently radar controlled guns are reluctant to give their positions in clear weather.
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      | F4U-4 | 198     | -     | 61  | 4    | -     | -   | 33  | 6   | 50     | 301    |
      | F4U-5N| -       | 49    | -   | -    | -     | -   | -   | 1   | -      | 50     |
      | A4NA  | 204     | -     | 90  | -    | -     | -   | 45  | 4   | -      | 344    |
      | A4W   | -       | -     | -   | -    | -     | -   | 59  | -   | -      | 59     |
      | A4N   | -       | 23    | -   | -    | -     | 8   | 14  | -   | -      | 45     |
      | F9F-5P| -       | -     | -   | 69   | -     | -   | -   | -   | -      | 69     |
      | TOTAL | 833     | 127   | 151 | 385  | 102   | 8   | 118 | 38  | 10     | 1772   |

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   e. On all strikes the flak encountered was
      much less effective when jet flak suppression was present.
      Jet flak suppression is a "must" on heavily defended targets
      if the mission is to be carried out successfully.

   f. Defensive maneuvering at high altitude is
      considerably more important when flying over an overcast than
      when VFR. Apparently radar controlled guns are reluctant to
      give their positions in clear weather.
g. Particular care must be exercised when dropping incendiary clusters. Due to the lack of trajectory, and slow decent, when they are released they seem to form a cloud of little bombs. This increases the hazard of the succeeding planes flying into these bombs particularly if released in a dive. Tactics recommended for releasing incendiaries are: crossing the target in a relatively slow speed, shallow glide in nearly a line abreast. Results of this Air Group with incendiaries have been dubious. One squadron, after dropping 96 incendiary clusters, has not observed even one satisfactory resulting fire.

h. ASP tactics employed were the usual twenty mile box search, however, in a few instances the thirty mile barrier patrol was set up to provide voice relay between control ships and strike groups over the beach. "MIDDLEMAN" was not used. "BELLHOP" was utilized frequently and it's reception was reported good in most cases.

2. Electronics

a. Generally speaking, the majority of electronics equipment operated has performed satisfactorily with only normal maintenance being required.

b. Although the acquisition of much needed AN/ARC-1 spares has provided relief for critical shortages, the maintenance problem continues to increase tremendously. Tube usage is considered excessive due to bad tubes. Out of approximately 1,100 64X5 tubes drawn from supply, only three out of every fifteen were usable. This is probably due to the fact that many of the tubes received have been in storage from six to nine years. The 64X5 and the 5,654 tubes, which have proved very satisfactory when used, are not available in any quantity. The AN/ARC-1 equipment in use is requiring frequent alignment due to the deterioration of stability brought on by the age of the equipment.

c. APG-30 continues to give very satisfactory service. The Chief in charge of the V-4 Division aviation electronics shop has built a portable alternator for injecting four hundred cycle alternating current into the aircraft for line maintenance on APG-30. This has proved very helpful and is an excellent example of the initiative displayed by the ship in helping to solve our problems. It is felt that authorizing a ship's allowance of two spare sets of APG-30 would effectively keep jet aircraft in an up status where otherwise they would be downed. Removal of the APG-30 equipment necessitates grounding of the plane because of weight and balance effects. With spares available an immediate switch could be made allowing the plane to make the next launch.
d. Caution is being emphasized to ordnance and maintenance personnel working around the nose of the F9F-5. Several cases have occurred where the directional coupler of the APO-30 have been jarred or slightly damaged. Because of the critical dimensions involved, slight damage is enough to seriously impair the efficiency of the gear. No couplers have been available to repair damaged ones, and the gear has to be operated without a coupler. Because of a lower impulse return a much more sensitive receiver adjustment is needed. This can be so critical as to cause a lock-on on clouds.

e. The night hookers from VC-3 are encountering a great increase in jamming on all VHF channels used over the beach. It has been taking about fifteen minutes for the jammer to get on frequency and when the planes are separated on the longer reccos routes the jamming has been about 75% effective. The jammer appears to be an automatic keying transmitter.

f. APS-19 radar has proven extremely effective for search operation but has been relatively useless on intercepts since it is so delicate on that position as to be unable to stand catapult shots or arrested landings.

g. Although the F4U5N aircraft being operated by VC-3 have recently undergone overhaul, the shielded wiring throughout the planes is breaking down. About fifty feet of wiring in each plane has had to be replaced due to the shielding crumpling.

h. The electronics equipment on the AD4W aircraft has held up very well. There has been only one major discrepancy. This was high voltage arcing within the APS 20 transmitter. The 8000 volt pulse across the primary of T2701 (pulse transformer) arced over to leads A, B, C, D, and E from J-2703 inside transmitter, breaking down the installation on all five leads and welding them together. Correction of this discrepancy entailed removal of the ART-26 (Relay Transmitter) ART-26 rack, R-142 (Radar Receiver), the duplexer, APA 81 power supply and the radar transmitter housing and the rewiring of the transmitter. This arcing also caused the rectifier tubes in the modulator to burn out (filaments to open) and the magnetron to be rendered defective.

3. Aerial Photography

a. The number of photo missions assigned daily varied from four to eight. Eight missions can be handled by the three aircraft assigned if maintenance problems are routine; however, five to six missions daily appears to be the optimum number for general practice.
machine. Substitute "homo-made" ink mixtures have not been too successful. The ideal ink would have adhering qualities, penetration qualities, and fast-drying characteristics. It is recommended that the possibilities of obtaining such an ink be investigated.

4. Air Intelligence

a. The Air Group Air Intelligence team continued to function smoothly with the ship's AI organization. No especially difficult problems were encountered.

5. Survival

a. During the period covered by this report, four successful water ditchings were made. In three out of the four instances the Mark IV exposure suit was worn and proved extremely satisfactory. It is felt, however, that the following modifications should be made.

(1) The inside snaps should be made stronger or replaced by a zipper. There have been many instances of the snaps open after the suit was put on.

(2) The knee hinges of the liner should be lowered on most suits from one to two inches.

(3) The attachment of the knit ankle is too small. To get their feet through the binding many of the pilots have had to cut it.

(4) The side pocket openings need to be changed so that small articles will not fall out when the pilot sits down.

b. The use of the exposure suit was made optional when the water temperature approached 60°F. The water usually reaches this temperature around the first of May.

c. There have been several instances in the Korean area where pilots have been lost because they could not be spotted by rescuers. It is highly recommended that all squadrons adopt the use of a brightly colored fluorescent cloth survival scarf.

d. During this period several casualties occurred as a result of ditchings and bail-outs. One pilot made what appeared to be a successful ejection bail out, only to be drowned when he was unable to get clear of his chute in the water. The chute acted as a sail and pulled the pilot across...
the water for approximately three minutes. Another pilot, after being hit by flak, made a water ditching that was observed to be correct in speed, altitude, and attitude. However, the plane broke apart upon impact and the pilot was lost. In a third case, a jet pilot made a successful water ditching despite complete hydraulic failure and inability to get his air-speed below 170 knots.

d. There were also two instances of planes going into the water on catapult shots. In the first case the pilot managed to hold the plane level and was recovered immediately. On the second ditching, however, the pilot made a shallow turn in a low wind condition and the plane stalled wing down and cartwheeled. The pilot was not recovered.

6. Miscellaneous

a. The incidence of auto-acceleration has decreased considerably with the advent of warmer weather. The altitude of maximum occurrence has moved from approximately 20,000 feet to approximately 30,000 feet. The relative merits of using alcohol is discussed under maintenance.

b. Considerable gasoline spillage resulted from the difficulty in determining the amount of fuel in jet tip tanks when refueling. This condition resulted in tip-tanks frequently being "short" due to the reluctance of the fueling detail to take a chance of spilling gasoline. This problem was solved by providing each plane captain with a dip-stick. A non-ferrous metal handle is attached to prevent falling into the tank.

c. Four F4U-5N belly tanks were torn open by the bridle during catapult shots at the beginning of this tour. However, increasing the pressure on the shots from 2300 lbs to 2800 lbs has solved this problem.

d. With the advent of warmer weather it was found necessary to shorten the "turn up" time for props to prevent fouled plugs.

B. Air Department

1. Flight deck

a. The current landing weight of F9F-5 aircraft in conjunction with hook point contour and increased hook point deck impact forces have caused flight deck planking in the landing area to corrode rapidly. Frequent inspections and repairs of the landing area (No. 2 crossdeck pendant to
SECURITY INFORMATION

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SECURITY INFORMATION 22 Enclosure (1)
SECURITY INFORMATION

No. 9 crossdeck pendant primarily, are conducted to prevent excess dock erosion with subsequent hook point and hook shank failures due to hook point engaging flight dock tie-down cleats, cross-dock pendant chafing plates and other metal protuberances in the landing area. This vessel has replaced an average of two thousand (2000) lineal feet of flight deck planking after each twenty (20) days of air operations. During Air Group qualifications, however, this is increased considerably due to heavier fuel loads and inherent heavy landings.

b. During the last Navy Yard Availability in Yokosuka, Japan, a total of three thousand (3000) feet of teak-faced laminated Fir planking was installed using Minnesota Mining Company Caulking Compound specification 93517-e. Current operations have caused this caulking compound to fail, possibly due to its coefficient of elasticity. Non-turning and partially turning aircraft wheels passing over this elastic compound cause it to be pulled from between the deck planking to a depth of three quarters (3/4) of an inch. The moisture seal is destroyed by this action. It is believed this defect can be partially corrected by applying this caulking compound flush with the deck plank surface, or one sixteenth (1/16) of an inch below the planking surface. BuShips has been advised.

c. During recent operations it has been a policy to notify jets in the air to take a longer interval when the forward area of the flight deck is spotted full of aircraft. This allows jets to be taken to the hangar deck via number two (2) elevator with a minimum number of wave-offs and less consumption of fuel prior to landing aboard.

2. Arresting Gear

a. Statistics:

(1) Landings:

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day Landings</td>
<td>1525</td>
</tr>
<tr>
<td>Night Landings</td>
<td>48</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1573</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jet Landings</td>
<td>1039</td>
</tr>
<tr>
<td>Prop Landings</td>
<td>524</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1573</td>
</tr>
</tbody>
</table>

(2) Barrier and Barricade Engagements:

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prop Barrier</td>
<td>1</td>
</tr>
<tr>
<td>Jet Barrier and Barricade</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3</td>
</tr>
</tbody>
</table>
(3) Average Wind: 36 Knots

(4) Average Runout:

Jets 131 ft.
Props 99 ft.

b. Description of Barricade Engagements:

(1) On 20 April 1953, at 0936I, F9F-5, BuNo 126224 appeared to make a normal approach. On landing plane engaged number three (3) cross deck pendant pulling out approximately fifteen (15) feet. The tail hook shoe broke allowing the plane to proceed up the deck engaging barriers number two and three, which functioned normally. The Davis Webbing was replaced and ready dock re-established in five (5) minutes. There was no injury to the pilot or flight dock personnel nor to other aircraft.

(2) On 1 May 1953, at 0950I, F9F-5, BuNo 125937 made a normal approach but upon landing the tailhook hit the deck hard and locked in the up position. The plane proceeded up-deck engaging barriers number two and three and the barricade, which functioned normally. There was no injury to the pilot or flight dock personnel nor to other aircraft. The Davis Webbing and Barricade Webbing was replaced and ready dock re-established in nine (9) minutes.

(3) On 1 May 1953, at 2218I, AD4N, BuNo 126926 appeared to make a normal approach, upon receiving a cut from the Landing Signal Officer, the plane descended slowly failing to touch the dock. The landing gear engaged barriers number four (4) and five (5), causing the plane to turn over. The pilot was injured, but no flight dock personnel were injured. Other aircraft were damaged. Supporting pendant shear pins were replaced and ready dock re-established in eight (8) minutes.

c. General Comments

1. The remainder of arresting gear operations during this period have been relatively routine with only normal maintenance problems.
3. Catapult
   
a. Statistics:
   
   (1) Day Shots 1072
       Night Shots  76
       Dead Load Shots 0
       No Load Shots 0
       TOTAL   1148

   (2) Break Down of Catapult Shots:

<table>
<thead>
<tr>
<th></th>
<th>Port</th>
<th>Std</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>518</td>
<td>554</td>
<td>1072</td>
</tr>
<tr>
<td>Night</td>
<td>49</td>
<td>27</td>
<td>76</td>
</tr>
<tr>
<td>Dead Load Shots</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No Load Shots</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>567</td>
<td>581</td>
<td>1148</td>
</tr>
</tbody>
</table>

(3) Types of Aircraft Catapulted:

<table>
<thead>
<tr>
<th>Type A/C</th>
<th>Port</th>
<th>Std</th>
<th>Bridles</th>
<th>Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td>F9F-5</td>
<td>508</td>
<td>525</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>AD</td>
<td>53</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>F4U-5N</td>
<td>2</td>
<td>51</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TBM</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>567</td>
<td>581</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

b. General Comments

(1) Catapult maintenance during this period was comparatively minor. Those problems which were encountered were a direct result of vibration and use of high pressures.

(2) The high pressure oil line from the composite valve to the piston side of the piston valve (stdb catapult) developed a serious leak at the composite valve and was found to be cracked directly behind the flare. It is believed that this crack was the result of excessive vibration plus normal fatigue of the tubing. Replacement of this line from sparc tubing stock on board, including shaping and flaring was accomplished by the ship's force, without difficulty, subsequent operations proved this line to be satisfactory.
(3) A number of braces on both catapult engines frequently vibrated loose and had to be re-welded. Shuttle slippers were found to be excessively worn after 300 launches, making replacement necessary.

(4) Low wind conditions made necessary an increasingly larger number of launches at the maximum firing pressure, 4000 psi, putting an increased load on the catapults. However, availability of both catapults was considered very good during this period.

4. Hangar Deck

a. Three fires occurred on the Hangar Deck during this tour on the line. The fires were of a minor nature and the alertness of handling crews prevented them from becoming more serious. Of interest is the fact that all three fires were of an electrical nature:

(1) Auxiliary Power Unit
(2) F4U-5 electrical wiring fire
(3) F9F-5 battery cable

b. The Hangar Deck Sprinkler System was inadvertently actuated once during this tour on the line. To prevent a re-occurrence, guards have been built over the releasing mechanism.

This guard consists of a metal strap about two inches wide covering the "start" buttons in the sprinkler booths. The strap is hinged at one end and has a handle at the opposite end. The opening end is secured by a light wire seal which can be broken when force is applied to the handle.

5. Maintenance

a. During this reporting period, maintenance work consisted largely of building up engines and propellers to a ready-for-issue condition, and cannning or packaging material in class 265 for turn-in to overhaul activities. A total of four (4) R2800-16W engines were built up on quick engine change stands, of which three (3) were issued. One (1) R3350-26W engine was issued, and five (5) J48-P-6 engines were built up, of which four (4) were issued. Five (5) propellers, four (4) F4U and one (1) AD, were assembled to replace RF1 propellers issued to the squadrons.
b. An additional ten-ton capacity spur gear chain hoist was installed in hanger bay 2 to facilitate engine and propeller changes by lessening the amount of respotting necessary for maintenance work.

c. AD4N BuNr 126926 was stricken and stripped of usable and repairable items, and the remainder jettisoned. This plane was damaged beyond repair in a landing accident. In the same accident the vertical fin of AD-4N BuNr 126927 was badly damaged, and the damaged fin was removed entirely and repaired using structural parts and undamaged skin from both airplanes. Some difficulty was experienced in folding the wings of BuNr 126926, and portions of wing skin had to be cut away to obtain access to the hinge pins. It is suggested that hinge pin access doors might be provided in order to permit retracting the pins manually when the hydraulic system is damaged. This would save a great deal of time in clearing the flight deck.

d. A report was made previously concerning failures occurring in the AN3150 batteries used in the F9F and AD aircraft. The initial diagnosis was that a shorting of the battery from the terminals to the case was occurring and imposing a continuous drain on the battery. The cause of this trouble now appears to be largely the result of corrosion in and around the terminals at the points where they pass through the case. In some instances, however, it appears that some internal shorting might also exist.

This difficulty has been experienced with all makes of batteries in use. Gill batteries predominate both in number in use and in number giving trouble. Incorporation of the procedures outlined in ComAirPac CATE 24 seems to offer the best solution to prevent the corrosion around the terminals. Furthermore, while the bulletin applies specifically to Gill batteries, it should prove helpful on other makes as well. Its directives will be incorporated aboard this ship into new batteries before they are placed in service. Exercise of extreme care to maintain the top of the battery absolutely dry at all times should, it is believed, materially reduce corrosion. A RUDABE has been submitted covering the problem.

e. None of the oxygen received on board has been tested and tagged for chlorinated hydrocarbon contamination in accordance with BuAer T. C. 89-52. A program has been established in the ships oxygen shop for testing and tagging. The facilities of this shop have been improved by the acquisition of an additional transfer unit from the USS ORISKANY (CVA-34), prior to her departure for the CONUS, and reworking of the existing unit.
j. Availability for the period was considered to be excellent. The maximum availability for the period computed in accordance with the Naval Air Warfare Reporting Manual is listed below:

<table>
<thead>
<tr>
<th>Squadron</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF-152</td>
<td>87.4%</td>
</tr>
<tr>
<td>VF-153</td>
<td>94.2%</td>
</tr>
<tr>
<td>VF-154</td>
<td>91.6%</td>
</tr>
<tr>
<td>VA-155</td>
<td>93.0%</td>
</tr>
<tr>
<td>VC-3</td>
<td>88.3%</td>
</tr>
<tr>
<td>VC-11</td>
<td>88.5%</td>
</tr>
<tr>
<td>VC-35</td>
<td>87.5%</td>
</tr>
<tr>
<td>VC-61</td>
<td>89.6%</td>
</tr>
</tbody>
</table>

Excluding those sorties cancelled either by weather or higher authority, the squadrons flew practically all of their scheduled sorties. The table below indicates the percentage of sorties flown of those scheduled as explained above:

<table>
<thead>
<tr>
<th>Squadron</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>VF-152</td>
<td>99.6%</td>
</tr>
<tr>
<td>VF-153</td>
<td>97.9%</td>
</tr>
<tr>
<td>VF-154</td>
<td>99.7%</td>
</tr>
<tr>
<td>VA-155</td>
<td>95.6%</td>
</tr>
<tr>
<td>VC-3</td>
<td>95.8%</td>
</tr>
<tr>
<td>VC-11</td>
<td>96.7%</td>
</tr>
<tr>
<td>VC-35</td>
<td>93.6%</td>
</tr>
<tr>
<td>VC-61</td>
<td>100%</td>
</tr>
</tbody>
</table>

This shows that the squadrons are maintaining an excellent availability of aircraft to meet their schedule commitments.

k. A total of thirteen aircraft required replacement through loss or damage during the tour. Only two aircraft were off-loaded: an AD-4NA damaged in battle and an F9F-5 damaged in a barrier crash.

l. An R-2800-32W engine installed in a VC-3 aircraft required changing after only 65.7 hours because of failure to release from low blower. The engine used excessive oil and deposits of foreign matter were found in the blower outlets. This engine had been in a built-up QEC for approximately seven months prior to installation in the aircraft. Failure of three engine driven hydraulic pumps (S/N R86-VI-AA20334R) was experienced by VC-3. Replacement pumps were apparently over age as the seals were deteriorated and the pumps had apparently been improperly assembled during over-haul. RUDMs were submitted on the pumps.

m. Material support during this period was considered excellent. Twenty ACOGs were experienced for a total of fifty-three aircraft days. Of these, six were for allowance items for five aircraft days, and fourteen were for non-allocation items for forty-eight aircraft days. Two aircraft are still ACOG for non-allocation items not available in the forward area.
6. Aviation Gasoline

a. During this period the tankers have delivered Avgas at an average rate of 50,000 to 60,000 gallons per hour. Quantities used this period were:

- Gasoline Aviation: 761,628 Gals.
- Lube Oil (Aviation 1100): 6,000 Gals.
- Alcohol (Methanol): 920 Gals.

b. Several leaks in the flight deck risers occurred and were repaired by thorough cleaning and application of metal repair compound (Smooth-On) over which a neoprene gasket and brass cover were placed. These leaks are believed to be due to excessive vibration resulting in metal fatigue around the silver solder joints.

c. Several cases of fuel nozzle valve seat gaskets failing to seat properly have occurred, causing constant seepage. This condition is due to wear from constant use and was corrected partially by replacement of gaskets by gaskets of local manufacture, and replacement of nozzles.

d. The forward electrical fuel pump was replaced during this period with a newly overhauled pump. The pump seals were worn beyond maximum limits and no replacement seals were available for this type pump. It is believed the old pump was an obsolescent pump, as there were no prints or part numbers on the neoprene spring loaded seals installed. The new pump is equipped with standard Duro-Seal shaft seals that are listed as standard equipment in the Bureau of Ships Allowance Lists.

7. Air Department Safety

a. A never-ending safety campaign is being carried out among Air Group and Ship's Company personnel. The campaign has been to make each man safety-conscious.

b. For the benefit of all hands there appears a safety note in each Plan of the Day. These notes reflect violations of safety orders, previous accidents, and unsafe practices. It is felt that there are many personnel aboard the ship who have no realization of the inherent dangers in the handling of aircraft, gasoline, and ordnance.

c. Maximum use of the bull-horn is made to warn personnel on the Flight Deck, catwalks, and island structure when planes land with hung ordnance.
d. Close lid on is maintained between Primary Fly and the Conning Officer. The Conning Officer warns Primary Fly of impending ship's movements and this is relayed to Flight Deck personnel. With the heavy topside weights present and resultant heel in high speed turns, there is real danger to aircraft and personnel on the Flight Deck.

C. Engineering Department

1. Electronics

a. Electronics equipment operated normally except for the SX radar. The train ampidyne of this radar failed completely at 1400 on 13 May. When disassembled, it proved to be damaged beyond repair; there were no spares on board. A very satisfactory repair was accomplished, however, by running a lead from a 24" searchlight to the ampidyne terminal strip and connecting it to the proper terminals. The 120 volts DC available at the searchlight operated the antenna very smoothly at 3 RPM, and the equipment was back in operation by 2130. A detailed report will be forwarded to ComAirPac and BuShips.

D. Operations Department

1. CIC

a. CIC operations during the subject period proceeded in a generally normal and routine manner. A new policy of on-the-job training was instituted whereby first class petty officers relieved officers on the regular surface watch. The procedure has proved very satisfactory, both from the standpoint of training and efficiency.

2. Communications

a. Radio

(1) During the early part of this tour an Air Intelligence circuit, C 3.1 G, was set up and operated from Air Operations. Later on it was discontinued because the flagship did not have adequate equipment to maintain it. From a communications standpoint this circuit was easily kept up. There was also a perceptible decrease in high precedence messages concerning last minute intelligence information, diversions, and loading. Whenever equipment is available it is recommended that this circuit be set up.
(2) Several gunnery exercises were controlled on the gunnery coordination net rather than the usual towing frequency. This practice is recommended in all cases. During one exercise it was noted that a considerable delay was caused by crowded circuit conditions. After the controlling station established contact with the tow plane he was frequently interrupted by radio checks, tuning, and cutting in. Leaving the towing frequency to the plane and OTC exclusively would eliminate the interference. Since the gunnery coordination net is guarded continuously there would be a minimum amount of checks and calls at the scheduled time of exercise.

(3) Experience with Trout has varied from unsatisfactory to excellent. The equipment is used on a T/GZ transmitter which should be adequate for the job. The fact that some found the signals quite satisfactory seems to be proof enough. Undoubtedly the relatively few failures encountered were either in the particular aircraft or some phenomena of atmospherics.

(4) With the arrival of ComCarDiv THREE, this ship set up ship-to-shore relay on a duplex teletype circuit. A three-way patch plug was made to enable a T-6 teletype operator to receive hard copy from a ship in the force and at the same time cut a tape for relay to shore without changing patches on the TD.

(5) The TT23/SG panel has only two power outlets from the AN/SGG1 terminal set. Since one goes to the Model 19 there is only one left for the Model 14 or the TD. To save the operator a constant trip to the TT23/SG panel to change patches, a three-way plug connects the two in series. From the power outlet a lead goes to the Model 14, then to the TD, and back to power.

b. Visual

(1) During this period more than four-hundred visual messages addressed to this ship were handled and an additional one hundred visual messages were relayed for other units of the Task Force. These statistics show a slight but noticeable increase in the volume of traffic handled over our previous operating period in the combat area. Nancy gear is used almost every night.
c. Post Office

(1) During this period the Post Office handled the following:

(a) Mail
   - Outgoing  241 bags
   - Outsides  423 units
   - Incoming  321 bags

(b) Stamps
   - $4,589.00

(c) Money Orders
   - $81,351.00

(d) Class Easy
   - Mag's  19
   - Fees   $22.58

3. Photo Lab

There seems to be an ever increasing demand for the use of 390 foot rolls of film. This ship does not have the processing equipment nor the printer to accommodate a 390 foot roll of film. In order to use this film, it is necessary to cut the film before developing, thereby losing several exposures on each end of the cut roll.

4. Aerology

a. High pressure dominated the operating area most of the period with resulting good weather, except for the following periods in which low pressure cells influenced the area: 15 April, 28 April, 7 May, 11 May and 12 May.

E. Gunnery Department

1. Ammunition replenishment

a. It has been this ship's experience that the rate of replenishing at sea depends largely on the rigging and organization of the ComServPac replenishing ship. The U.S.S. FIREDRAKE (AE-4) is cited as being the outstanding replenishment vessel serving TF 77. Rates of transfer of 220 and 200 tons of ammunition per hour were obtained while alongside the FIREDRAKE.
F. Supply Department

1. The supply of photo consumables fell critically low by the end of April, with on-the-line resupply of approximately 7,000 lbs of paper, film and chemicals required to maintain full photo mission capability for the extended period from 4 to 15 May. In this crisis, the supply support was outstanding—ComFairJap, the USS JUPITER (AVS 8), NAS and NOACT Atsugi and the VR23 Cod Unit all rising to the occasion with peak performances. Deliveries commenced the third day after a request was initiated, and in seven days total quantities of all items ordered were on board.

2. Non-section items continue as a major headache in ACOG procurements. During the period, 16 of 23 downed planes resulted from this cause. No one specific comment is possible as fixes were effected by manufacture on board, dud salvage as directed by ComFairJap, substitution, juggling, supply from CVAs in company, repair, and even redesign in one minor instance.

3. The R86-EC-1273-1A engine driven generator called out in the FLU-4 Baker allowance as replacing the R86-EC-1298-1A is not designed to run in the same speed range as the latter, and burns out almost immediately. Although on hand, no more EC-1273-1As are being issued for this application.

4. Great difficulty was experienced in getting requisitions to the JUPITER; a long three-part dispatch was sent as a last resort thirty hours before replenishment on the line after guard mail and courier had failed. This situation was principally caused by this CVA not knowing the JUPITER’s movements. It is recommended that the responsible command distribute at practicable intervals short range schedules of the JUPITER’s location to all carriers and tenders in NavFE (our courier went right past enroute to Yokosuka while the JUPITER lay in Pohang).

5. NAS Alameda quoted ComAirPac 182209Z March noteal to the PRINCETON on 7 May as the reason for not supplying fifty-nine hook points. An AirPac transmission notifying the ships in NavFE of this action may have been missed, but thorough search has not revealed it. ComFairJap has co-ordinated action in exchanging annealed for unannealed points, but has not allocated area stocks of this item automatically, nor is it recommended that such action be taken. It is recommended that ships be informed directly of cancellations affecting any outstanding requisitions.
6. Electronics spare parts requisitions, bearing DDDs to correspond to ship's sailing schedule, have been re-
turned cancelled with the notation "Resubmit items NIS after (date)". This status information is entirely unsatisfactory, particularly when coupled with a loading schedule jammed against the ship's departure date with no intervening period to locate zero balance items through other channels. Status copies in some instances were received in the mail after the ship's departure from port for a two months period. Several zero balances in tubes and other fast moving parts were carried to sea. While unquestionably a more aggressive ship's program would have netted better results, it is recommended that NIS requisitions be forwarded or cancelled by the electronics supply ship within forty-eight hours (in-
cluding weekends) of receipt.

7. The ship, for the first time in the Far East, had to cut down on night rations when a two weeks extension on the line completely disrupted commissary planning. Sandwiches were substituted for the hot meals previously served as the meat, vegetable, and fruit rations drew perilously close to the ration limit. No danger of over expenditure exists at the end of the tour, but the importance of daily control is obvious. The double entree system was continued in the general mess with better results from increased experience and a continuation of favorable comments from the crew.

8. A ship's store bazaar was held on 21 and 22 April that grossed over $5,000 from the sale of Japanese merchandise. The space in the forward armory, O2 level, was too small for adequate display of merchandise. Plans for holding future bazaars in the parachute loft are being developed with the cooperation of the Air Department and Air Group. (The band room, where last cruises successful bazaars were held, has been coverted into a living space and is no longer available.)
PART VII Recommendations

A. Ordnance

1. Reference page 6, paragraphs 1.21 to 1.3 - Improvements suggested for Aero 14A bomb rack.
   a. Provision for latching and releasing the rack from either side.
   b. A simple jettison release......to jettison hung ordnance.
   c. A modification......to provide access parts for limited lubrication, maintenance, and inspection.

2. Reference page 7, paragraph e. - Pigtail electrical connection for rockets.
   a. A spring clip, similar to a Fahnstock clip, should be developed to clip the excess wire to the rocket base to prevent whipping.

3. Reference page 7, paragraph f. - Bomb fins turning at high speeds.
   a. During manufacturing a pin could be welded on the bomb tail and a slot cut in the tail fin to prevent the fin from turning, even if it becomes loose.

4. Reference page 8, paragraph i. - Arming wire tags.
   a. One tag is sufficient for each bundle of wires.

B. Personnel Performance and Casualties

1. Reference page 13, paragraph D.1. - Length of tours.
   a. A tour of three weeks is considered to be the optimum time for a tour of duty on the line.

C. Special Comments - Air Group FIFTEEN

1. Reference page 20, paragraph d. - Photo plane cameras:
   a. The feasibility of installing a rotating mount in the forward camera bay of the F9F-5P should be investigated.
2. Reference page 20, paragraph h. - Film marking ink.
   
a. It is recommended that the possibilities of obtaining an ink that has adhering, penetration, and fast-drying characteristics be investigated.

3. Reference page 21, paragraph 5.a.(1) through (4). - Mark IV Exposure Suit Modifications.
   
a. The inside snaps should be made stronger or replaced by a zipper.
   
b. The knee hinges of the liner should be lowered on most suits from one to two inches.
   
c. The attachment of the knit ankle is too small.
   
d. The side pocket openings need to be changed so that small articles will not fall out when the pilot sits down.

4. Reference page 21, paragraph c. - Spotting of downed pilots.
   
a. It is recommended that all squadrons adopt the use of a brightly colored flouescent cloth survival scarf.

D. Air Department

   
a. Hinge pin access doors might be provided in order to permit retracting the pins manually when the hydraulic system is damaged.

E. Supply Department

1. Reference page 34, paragraph 4. - Communications with the USS JUPITER.
   
a. It is recommended that the responsible command distribute at practicable intervals short range schedules of the JUPITER's location to all carriers and tenders in NAVF.

2. Reference page 34, paragraph 5. - Cancellation of Requisitions.
   
a. Ships should be informed directly of cancellations affecting any outstanding requisitions.

   a. NIS requisitions should be forwarded or cancelled by the electronics supply ship within forty-eight hours (including weekends) of receipt.
SECURITY INFORMATION

CNO (2) Advance
CINCPACFLT (2) Advance
CINCPACFLT EVALUATION GROUP
COMNAVFE (1) Advance
COMNAVFE EVALUATION GROUP
COMSEVENTHFLT (1) Advance
CTF 77 (1) Advance
COMAIRPAC (5)
COMSERVPAC
COMFAIRCALIFORNIA
COMFAIRHAWAII
COMFAIRJAPAN
NAVAL WAR COLLEGE
COMCGRDIV ONE
COMCGRDIV THREE
COMCGRDIV FIVE
COMCGRDIV FIFTEEN
COMCGRDIV SEVENTEEN
USS ESSEX (CVA-9)
USS YORKTOWN (CVA-10)
USS RANDOLPH (CVA-15)
USS HANCOCK (CVA-19)
USS BOXER (CVA-21)
USS BON HOMME RICHARD (CVA-31)
USS KEARSARGE (CVA-33)
USS ORISKANY (CVA-34)
USS LAKE CHAMPLAIN (CVA-39)
USS VALLEY FORGE (CVA-45)
USS PHILIPPINE SEA (CVA-47)
USS BATAAN (CVL-29)
USS PENDOVA (CVE-114)
USS BATHOKE (CVE-115)
USS BADGNO STRAIT (CVE-116)
USS SICILY (CVE-118)
USS POINT CUNO (CVE-119)
CARRIER AIR GROUP TWO
CARRIER AIR GROUP FIVE
CARRIER AIR GROUP SEVEN
CARRIER AIR GROUP NINE
CARRIER AIR GROUP ELEVEN
CARRIER AIR GROUP FIFTEEN
CARRIER AIR GROUP NINETEEN
CARRIER AIR GROUP ONE HUNDRED ONE
CARRIER AIR GROUP ONE HUNDRED TWO
CARRIER AIR TASK GROUP ONE
CARRIER AIR TASK GROUP TWO
From: Commanding Officer, USS PRINCETON (CVA-37)
To: Chief of Naval Operations
Via: (1) Commander Task Force SEVENTY-SEVEN
      (2) Commander SEVENTH Fleet
      (3) Commander Naval Forces, Far East
      (4) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report of the USS PRINCETON (CVA-37) and CARRIER AIR GROUP FIFTEEN; submission of

Ref: (a) CPNAV Instruction 3480.4
     (b) CVG-15 conf ltr ser 026 of 29 June 1953 (Air Attack Reports for 11, 12, 13, 14 June 1953)
     (c) CVG-15 conf ltr ser 027 of 29 June 1953 (Air Attack Reports for 15, 16, 17, 18 June 1953)
     (d) CVG-15 conf ltr ser 029 of 8 July 1953 (Air Attack Reports for 24, 25, 29, 30 June 1953)
     (e) CVG-15 conf ltr ser 033 of 12 August 1953 (Air Attack Reports for 1, 2, 3, 5, 7 July 1953)
     (f) CVG-15 conf ltr ser 034 of 12 August 1953 (Air Attack Reports for 8, 9, 10, 11, 12, 13 July 1953)
     (g) CVG-15 conf ltr ser 035 of 12 August 1953 (Air Attack Reports for 14, 15, 16, 17, 18, 19 July 1953)
     (h) CVG-15 conf ltr ser 036 of 12 August 1953 (Air Attack Reports for 20, 22, 23, 24 July 1953)
     (i) CVG-15 conf ltr ser 037 of 12 August 1953 (Air Attack Reports for 25, 26, 27 July 1953)

Encl: (1) Action Report; 9 June 1953 through 3 August 1953

1. In accordance with reference (a), the action report of the USS PRINCETON (CVA-37) and CARRIER AIR GROUP FIFTEEN for the period 9 June 1953 through 3 August 1953 is submitted as enclosure (1).
SECURITY INFORMATION

CNO (2) Advance
CINCPACFLT (2) Advance
CINCPACFLT EVALUATION GROUP
COMNAV (1) Advance
COMNAV EVALUATION GROUP
COMSEVENTHFLT (1) Advance
CTF 77 (1) Advance
CTF 92
COMAIRPAC (5)
COMSERYVAC
COMFAIRALAMEDA
COMFAIRHAWAII
COMFAIRJAPAN
NAVAL WAR COLLEGE
COMCARDIV ONE
COMCARDIV THREE
COMCARDIV FIVE
COMCARDIV FIFTEEN
COMCARDIV SEVENTEEN
USS ESSEX (CV-A-9)
USS YORKTOWN (CV-A-10)
USS RANDOLPH (CV-A-15)
USS HANCOCK (CV-A-19)
USS BOXER (CV-A-21)
USS KEARSARGE (CV-A-33)
USS ORISKANY (CV-A-34)
USS LAKE CHAMPLAIN (CV-A-39)
USS PHILIPPINE SEA (CV-A-47)
USS BATAAN (CVL-29)
USS RENDOVA (CVE-114)
USS NAIROBI (CVE-115)
USS BADGENG STRAIT (CVE-116)
USS SICILY (CVE-118)
USS POINT CRUZ (CVE-119)
CARRIER AIR GROUP TWO
CARRIER AIR GROUP FIVE
CARRIER AIR GROUP SEVEN
CARRIER AIR GROUP NINE
CARRIER AIR GROUP ELEVEN
CARRIER AIR GROUP FIFTEEN
CARRIER AIR GROUP NINETEEN
CARRIER AIR GROUP FOURTEEN
CARRIER AIR GROUP TWELVE
CARRIER AIR TASK GROUP ONE
CARRIER AIR TASK GROUP TWO

CO, FAIRBETUPAC (2)
CO, COMPOSITE SQUADRON THREE
CO, COMPOSITE SQUADRON ELEVEN
CO, COMPOSITE SQUADRON THIRTY-FIVE
CO, COMPOSITE SQUADRON SIXTY-ONE
ACTION REPORT
U.S.S. PRINCETON (CVA-37)
CARRIER AIR GROUP 15
9 June 1953 through 3 August 1953

SECURITY INFORMATION

PART I. GENERAL NARRATIVE

During the period covered by this report the USS PRINCETON (CVA-37) operated as a unit of Task Force SEVENTY-SEVEN.

Task Force SEVENTY-SEVEN was composed of the carriers USS BOXER (CVA-21), USS PHILIPPINE SEA (CVA-47); USS LAKE CHAMPLAIN (CVA-39) and USS PRINCETON (CVA-37), along with various heavy support and screening ships.

The above mentioned carriers operated with the Task Force during the following dates within the duration of the period reported on:

USS LAKE CHAMPLAIN (CVA-39):
- 13 June to 27 June 1953;
- 13 July to 28 July 1953;
- 1 August to 3 August 1953.

USS PHILIPPINE SEA (CVA-47):
- 9 June to 4 July 1953;
- 17 July to 28 July 1953.

USS BOXER (CVA-21):
- 9 June to 19 June 1953;
- 4 July to 3 August 1953.

Commander Carrier Division ONE was embarked in the USS LAKE CHAMPLAIN (CVA-39). Commander Carrier Division THREE was embarked in the USS PHILIPPINE SEA (CVA-47) from 9 June to 21 June 1953, and in the USS PRINCETON (CVA-37) from 22 June 1953, through the end date of this report.

The mission of this task Force was set forth in Commander Task Force SEVENTY-SEVEN Operation Order No. 2-52.

The period covered in this action report is an especially significant one for several reasons. It is believed to be the longest sustained combat operation conducted continuously at sea by any aircraft carrier during the Korean Conflict. Furthermore, and of greater
importance, on two separate occasions, the combat sortie record for aircraft carriers is believed to have been broken when one hundred seventy-two and one hundred eighty-four sorties were launched during two single days' operations. Lastly, this report includes the final phases of the war, down to the signing of the truce, during which period three thousand four hundred twenty-one sorties were flown; two million seventy thousand gallons of aviation gasoline, five million three hundred thousand gallons of fuel oil, two thousand seven hundred tons of ammunition and five hundred twenty tons of provisions were transferred at sea; and a record rate of two hundred fifty seven tons per hour, for transfer of ammunition at sea, was established.
PART II  CHRONOLOGICAL ORDER OF EVENTS

9 June - Departed Yokosuka, Honshu, Japan. Recovered thirty-six PRINCE- 
TON aircraft from Naval Air Station, Atsugi.

10 June - Enroute Task Force SEVENTY-SEVEN.

11 June - Joined Task Force SEVENTY-SEVEN. RADM W. N. JOHNSON, Commander 
Carrier Division ONE, embarked on the USS LAKE CHAMPLAIN (CVA-39), 
was Commander Task Force SEVENTY-SEVEN. Flew 135 sorties. 
Re-armed.

12 June - Flew sixty-eight sorties. Re-fueled.


14 June - Flew 152 sorties. Re-fueled.

15 June - One hundred eighty-four sorties flown -- a number believed to 
be a new one day record for carrier aircraft sorties. Re-armed.

16 June - Flew 110 sorties. Re-fueled.

17 June - Flow thirty-six sorties. Re-armed.

18 June - No air operations due weather.

19 June - Flew seventy-three sorties.

20 June - No air operations due weather. Re-armed.

21 June - No air operations due weather.

22 June - No air operations due weather. Two F4U-5N aircraft were sent 
to K-14 for Seoul night air defense operations. Commander 
Carrier Division THREE, RADM R. E. BLICK, USN and staff embarked 
this vessel.

23 June - No air operations due weather.

24 June - Flew ninety sorties.

25 June - Flew 172 sorties. RADM R. E. BLICK, USN, Commander Carrier 
Division THREE, relieved RADM W. N. JOHNSON, USN, Commander 
Carrier Division ONE, embarked on the USS LAKE CHAMPLAIN (CVA-39) 
as Commander Task Force SEVENTY-SEVEN.
26 June - No air operations due weather.

27 June - No air operations due weather. Received freight from other vessels.

28 June - No air operations due weather.

29 June - Flew seventy-six sorties.

30 June - Re-provisioned; re-armed; re-fueled. LT BORDELOI of VC-3, TAD to Seoul Defense, shot down two YAK-18 aircraft during a night intercept flight.

1 July - Flew 108 sorties.

2 July - Flew forty-one sorties. Re-armed and re-fueled.

3 July - Flew eighty sorties. Re-armed and re-fueled. VADM J. J. CLARK, Commander SEVENTH Fleet, visited this ship via helicopter from the USS NEW JERSEY (BB-62).

4 July - No air operations due weather.

5 July - Flew forty-three sorties. Re-armed and re-fueled. VADM J. J. CLARK, Commander SEVENTH Fleet, visited this ship via helicopter from the USS NEW JERSEY (BB-62). LT BORDELOI shot down his third and fourth "Badcheck Charlie" over Seoul.

6 July - Flew four sorties.

7 July - Flew fifty-five sorties.

8 July - Flew 162 sorties. Re-fueled.

9 July - Flew thirty-four sorties. Re-fueled; re-armed; received aviation supplies.

10 July - Flew fifty-two sorties. Re-provisioned.

11 July - Flew ninety-six sorties. Re-fueled; re-armed.

12 July - Flew 122 sorties.

13 July - Flew sixty sorties. Re-fueled and re-armed.

14 July - Flew thirty sorties. VADM J. J. CLARK, Commander SEVENTH Fleet, visited this ship via helicopter from the USS NEW JERSEY (BB-62).
SECRET

SECURITY INFORMATION

RADM W. N. JOHNSON, USN, Commander Carrier Division ONE, embarked on the USS LAKE CHAMPLAIN (CVA-39), relieved RADM R. E. BLICK, USN, Commander Carrier Division THREE, as Commander Task Force SEVENTY-SEVEN.

15 July - Flew thirty-four sorties.

16 July - Flew 119 sorties. IT BORDELAN of VC-3, TAD to Seoul Night Defense Command, shot down a fifth night intruder to become the first Navy (and propeller) ace of the Korean war.

17 July - Flew twenty-six sorties. Re-armed.

18 July - Flew thirty-three sorties. Re-fueled.

19 July - Flew eighty-seven sorties. Re-armed.

20 July - Flew twenty-nine sorties. Re-provisioned.

21 July - Flew three sorties. Re-fueled.

22 July - Flew sixty-three sorties.

23 July - Flew 136 sorties. Re-fueled and re-armed.

24 July - Flew 168 sorties. Re-fueled.

25 July - Flew 147 sorties. Re-armed.

26 July - Flew 167 sorties. Re-fueled and received aviation supplies.

27 July - Flew 124 sorties. Re-armed. The Korean Truce was signed at 1000I; the cease fire was set for 2200I.

28 July - No air operations were conducted. Re-fueled. RADM R. E. BLICK, USN, Commander Carrier Division THREE, relieved RADM W. N. JOHNSON, Commander Carrier Division ONE, as Commander Task Force SEVENTY-SEVEN.

29 July - Flew nine sorties. Special search flights for downed USAF RB-50 and gunnery were conducted.

30 July - Flew twenty sorties. Gunnery and special search and rescue missions were conducted.

31 July - No air operations conducted. Re-fueled and re-provisioned.

SECRET

SECURITY INFORMATION 5 of 53 Enclosure (1)
1 August - Departed Task Force, enroute Yokosuka, Honshu, Japan. Three aircraft from VC-35 were launched for ferry to Japan. RADM W. N. JOHNSON, Commander Carrier Division ONE, relieved RADM R. E. BLICK, Commander Carrier Division THREE, as Commander Task Force SEVENTY-SEVEN.

2 August - Enroute Yokosuka, Honshu, Japan.

3 August - Arrived Yokosuka, Honshu, Japan.
PART III ORDNANCE

A. Ship

1. Performance

a. Fire Control equipment

Fire control equipment functioned in a satisfactory manner during this period. The three following equipments sustained disorders which were repaired aboard by ship's personnel (Equipment failure reports, where applicable, are being submitted through established channels):

(1) Director 52 (GFC5 MK 56 MOD, 2 Serial #50):
This director oscillated and hunted in elevation when the radar-optical switch was "in radar". When the radar-optical switch was "in optical" however, the disorder occurred only intermittently. Upon investigation, it was discovered that the cable terminal tubes had been packed improperly and, therefore, were not watertight. Water from the cockpit had, as a result, leaked into the cockpit junction-box. An investigation of the cockpit junction-box was made through the slip-rings and it was found that the "E2333-3" and "E2333-5" leads indicated a reading of one megohm to ground. Lead "E2333-3" was disconnected and taped with the result that approximately seventy per cent of the oscillation in elevation was removed. Lead "E2333-5" was then cleared at the key -- an action which removed the remaining oscillation in the elevation ampdyne circuit. Finally, after satisfactory ground and static tests were made, the system was energized and operated normally.

(2) Director 54 (GFC5 MK-56, MOD 2):
This director would not respond in elevation to a signal from either the console controls or the optical control tracking unit. A ground, caused by worn insulation on the coaxial cable leading out of the terminal tube, was found to cable "15GSMF12, S.N.S.N. 15-0-12201-650". This cable is between terminal board "E1551" and "E2196". In order to repair the system, new packing was placed around the defective cable. After all the leads had been re-connected and a check for grounds had been made, the system operated normally again.

(3) Director 419 (GFC5 MK-63) and 40 MM mounts 416 and 419:
During transmission checks it was found that 40 MM mounts 416 and 419 would not follow Director 419 (GFC5 MK-63) in elevation. The casualty was a result of a burned out elevation synchro transmitter. Because of excessive vibration, the screw (ord dwg #146426-648)
SECURITY INFORMATION

securing the brush cover to the elevation synchro transmitter had fallen out and allowed the brush cover to come in contact with the rotor brushes. The rotor supply was, thereby, shorted and the elevator synchro transmitter burned out. The synchro was replaced and normal operation restored.

b. Ordnance Equipment

Firing exercises were held during this period on 29 and 30 July. No casualties occurred. The maintenance and upkeep of ordnance equipment has been especially stressed throughout the period of this report because of the increased seasonal humidity and inclement weather.

2. Expenditures

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>161</td>
<td>D1</td>
<td>5&quot;/38 Projectile, AAC</td>
</tr>
<tr>
<td>2,317</td>
<td>HL</td>
<td>40 MM HEIT-SD</td>
</tr>
</tbody>
</table>

E. Aviation

For ordnance performance and expenditures by the Air Group (CVC-15) see PART VI, Section 4.
PART IV  BATTLE DAMAGE

A.  Own

The ship sustained no battle damage. See references (b) through (i) for battle damage sustained by PRINCETON aircraft.

B.  Enemy

See references (b) through (i) for damage inflicted upon the enemy.
PART V PERSONNEL PERFORMANCE AND CASUALTIES

A. Performance

1. The performance of Ship's Company and Air Group personnel was outstanding.

B. Compliment

1. The average on-board count during the period was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Officer</th>
<th>Enlisted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship's Company</td>
<td>118</td>
<td>2,088</td>
<td>2,206</td>
</tr>
<tr>
<td>Marine Detachment</td>
<td>2</td>
<td>62</td>
<td>64</td>
</tr>
<tr>
<td>Air Group</td>
<td>122</td>
<td>624</td>
<td>746</td>
</tr>
<tr>
<td>Flag</td>
<td>29</td>
<td>79</td>
<td>108</td>
</tr>
</tbody>
</table>

Total 3,124

2. During the period the following promotions and advancements took place:

   One to Commander
   Three to Lieutenant Commander
   One to Lieutenant
   Four to Lieutenant (junior grade)
   Four to Warrant Officer (pay grade W-3)
   Two to Chief Petty Officer (acting appointments)

3. During the period there were no critical shortages in any rating that prevented this vessel from accomplishing its mission.

C. Replenishment

1. The irregular scheduling of replenishment and the consequent mustering of working parties on short notice required departments to keep their working party muster lists current at all times. Alternates were listed to provide for the contingency of a watch of a particular man on the working party coinciding with the time of replenishment. Despite the fact that all available personnel from offices and supply divisions were placed on working parties, the demands made on the Engineering, Deck, and Air Divisions have been great, especially when it is noted that furnishing personnel for the working parties is but one phase of the replenishment responsibilities.
of these departments. This additional load is more difficult to absorb when replenishment is conducted at night between operating days.

2. The results of night replenishments on the Engineering Department are summarized below:

   a. Ammunition and provision replenishment required the service of approximately two hundred men. Inasmuch as the striking below of ammunition and provisions is generally an all-night evolution, the services of these men are lost to the department the following day as well. The divisions hardest hit during these evolutions are the Boiler Division and, to a lesser degree, the Main Engines Division. The personnel allowance of these divisions affords a watch on a four-hours-on and eight-hours-off basis. Any material reduction in personnel, such as is required during unscheduled replenishments, requires these divisions to resort to a watch and watch basis, resulting in a noticeable lowering of watch standing efficiency. This adverse condition is further aggravated in the Boiler Division inasmuch as the number of personnel left to stand watches when steaming on eight boilers is considerably below that considered necessary for efficient and safe operations.

   b. It is apparent that the adverse working conditions caused by unscheduled replenishment operations are a major element in the lowering of efficiency. It is felt that the resultant lowering of watch standing efficiency was a contributing factor to two serious casualties suffered within this reporting period. In order to maintain satisfactory safety standards, non-scheduled replenishment and night replenishment should be kept to a minimum.

D. Statistics of Public Information and press activities:

1. Public Information Releases:

   124 Hometown news stories (to PHTNC)
   146 Hometown news photos (to PHTNC)
   56 News dispatches (by radio)
   16 News features
   41 Photos
   18 Hometown radio interviews
   52 Daily newspaper published
   53 Daily radio newscasts

2. At the request of Commander Naval Forces, Far East the following dispatches and public information messages were sent out
SECURITY INFORMATION

on the emergency water landing made by ENS R.W. TURNER and his subsequent recovery by the USS FLETCHER (DDE-445):

2001262 July 1953
2302142 July 1953
2404362 July 1953
2505322 July 1953
2306462 July 1953

3. LT G. P. MORDELMAN, who had been on loan to the Fifth Air Force in Korea, returned back aboard. He had become the Navy's first Prop Ace of the Korean Conflict. He was received aboard by "Five" marine sideboys, the band, signs and banners of welcome, and personally greeted by the Commanding Officer. Movies and still pictures were taken.

4. Band activities:

13 Concerts - average attendance 80 men
25 Concerts for replenishment ships
6 Morning Colors
8 Divine Services (5 musicians)
1 Division Party (7 musicians)
1 Welcoming first PRINCETON Ace back aboard

E. Morale and Welfare

1. In general the morale of all personnel aboard including that of the Air Group pilots was excellent in spite of the prolonged tour at sea. The unpredictable nature of flight operations due to poor weather conditions did, however, adversely affect morale for short periods of time. The fourth-day replenishment schedule which allowed pilots to relax periodically was sorely missed by the Air Group. It is felt that this schedule should be used whenever operations permit. (For further comment see Medical Department Report, PART VI, Section E).

F. Casualties

1. Ship's Company

a. On 1 July, WATSON, T.B., AB3, serial number 297-24-21, USN, was fatally injured when the flywheel on a portable hydraulic test stand which he was servicing disintegrated. Partial decapitation caused almost immediate death.
2. Air Group

a. On 1 July, LT W.A. JENSEN, 429203/1315, USNR, of VF-152, ditched after his aircraft was hit by enemy anti-aircraft fire. He suffered possible compression fracture of a lumber vertebra and was admitted to the U.S. Naval Hospital, Yokosuka, Japan, on 8 July 1953, without being returned to this command.

b. On 2 July, LTJG C. BENAS, 521247/1310, USN, of VF-153, received lacerations about the face and neck when his aircraft was hit by an enemy AA fire. LTJG BENAS flew his damaged plane back to the PRINCETON and received treatment aboard.

c. On 14 July, LTJG J.L. PAWER, 452883/1310, USN, Flag Lieutenant of ComCarDiv THREE, was killed when the AD4N which he was flying on a routine ASP escort flight failed to pull out of a practice rocket run.

d. On 19 July, ENS R.W. TURNER, 554759/1325, USNR, of VF-152, crashed into the water on take-off. He received comminuted fractures of the left humerus, radius, and ulna. Because of the fractures, he was unable to be hoisted by the helicopter and was taken from water by the crew of a whaleboat from the USS FLETCHER (DDE-415). He remained aboard the FLETCHER overnight and was transferred back to the PRINCETON on the following morning for further treatment. It is anticipated that he will be transferred shortly to the U.S. Naval Hospital at Yokosuka for physio-therapy and other convalescent care.

e. On 20 July, LCDR Charles Wray JONES, 99776/1310, USN, Operations Officer of CVG-15 Staff, was killed when his F9F crashed into a hillside apparently after having been hit by flak.

f. On 26 July, LT W.C. BLACKFORD, 453727/1315, USNR, of VF-152, was shot down and presumed killed in action while on a reconnaissance mission over enemy territory.

(For Medical Department Statistical summaries see PART VI, Section E).
SECURITY INFORMATION

PART VI SPECIAL COMMENTS

A. Air Group

1. Composition of Air Group FIFTEEN:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Type</th>
<th>Aircraft on Board</th>
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<tbody>
<tr>
<td>Carrier Air Group FIFTEEN</td>
<td></td>
<td>11 June 1 July 15 July 28 July</td>
</tr>
<tr>
<td>CDR John E. PARKS, USN</td>
<td></td>
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<tr>
<td>Fighter Squadron 152</td>
<td>F4U-4</td>
<td>16 14 14 15</td>
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<tr>
<td>LCDR Robert STANEK, USN</td>
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<td>Fighter Squadron 153</td>
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<td>16 13 11 11</td>
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<tr>
<td>LCDR Gerald E. MILLER, USN</td>
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<td>Fighter Squadron 154</td>
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<td>LCDR Bruce A. BELL, USNR</td>
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<td>Attack Squadron 155</td>
<td>AD-4</td>
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<td>LCDR Ray S. OSTERHOUT, USN</td>
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<tr>
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<td>F4U-5N</td>
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<td>LT Guy BORDELOM, USN, C-in-C</td>
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<td>LT Joseph FERCE, USNR, C-in-C</td>
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<tr>
<td>LCDR G.A. WHITE, USN, C-in-C</td>
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2. Summary of Flights: June 11 - 3 August 1953

- VF 153, VF 154, VF 152, VC 3, VA 155, VC 35, VC 11, VC 61.
- Defensive:
  - CAP: 140, 145, 147, 148, 149, 56, 287
  - ASP: 23, 31, 56, 56
  - ASP-Esc: 23, 31, 56, 54
- Total: 140, 147, 148, 149, 23, 31, 56, 397

SECURITY INFORMATION 14 of 53 Enlosure (1)
SECURITY INFORMATION

(Summary of Flights Continued)

<table>
<thead>
<tr>
<th>Mission</th>
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<th>VA 155, VC 35, VC 11, VC 61</th>
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<td>5</td>
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<tr>
<td>Total</td>
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</table>

| MISC: |                             |                            |
| SAR   | 2                            | 6                          |
| Training | 10                        | 11                         |
| Ferry | 10                           | 11                        |
| Slowtime | 8                         | 3                          |
| Total | 6                            | 19                         |

TOTAL SORTIES 946, 974, 587, 26, 610, 98, 69, 103, 3,421

ABORTS 15, 10, 10, 2, 8, 2, 47

TOTAL 961, 984, 597, 28, 618, 98, 69, 105, 3,468

Average Flights Per Pilot 51.8, 50, 31.4, 5.6, 26.8, 20.4, 12.6, 26.2

3. Operations

a. Offensive operations during the period consisted almost wholly of close air support for propeller aircraft and strikes against supplies and troop concentrations in the Cherokee areas close behind the lines for the jets. Close air support took priority, however, and several times jets were diverted from their primary targets to that type of mission. Some effort was also expended against airfields, roads, and bridges in North Korea. No missions coordinating jets with props were flown this period. Night heckler sorties were very limited because of inclement weather.
SECURITY INFORMATION

b. Shortly before the USS PRINCETON's return to the line this period, the peace talks at Panmunjom took a very favorable turn and there arose the possibility of an early truce. The change in offensive strategy of Task Force SEVENTY-SEVEN was occasioned by the United Nations maximum effort to stabilize the main line of resistance in the face of strong enemy efforts to push the lines farther south before the signing of the truce.

(1) Two results of the maximum effort were:

(a) An increase in the average number of scheduled sorties per day from 110 to 165.

(b) Full flight schedules every day, with replenishing being done in the operating area at night or during inclement weather.

c. Air Group FIFTEEN and attached VC detachments flew 3,439 combat sorties during this combat tour. It is believed that an all time record was set on 15 June 1953, when the Air Group flew 184 combat sorties. On this same day VF-154 flew fifty-four jet combat sorties—also believed to be a record for a squadron in one day. These records were made possible only because of high aircraft availability and highly efficient, hard working, flight, hanger deck, and ordnance crews.

d. Ditchings:

(1) During this period two jets on different occasions ditched off shore from K-18 because of inclement weather. The circumstances in each case, however, were similar. The flights were diverted to K-18—in one case due to a broken hook point and in the other due to adverse weather in the operating area. At the time of the diversions the K-18 weather, as reported by the K-18 tower, was within acceptable limits. However, upon arrival the pilots found conditions considerably worse than reported (the tower continued to report the original weather conditions). The actual state of the weather encountered during the approach was very poor. There was a fifty to seventy-five foot ceiling, and visibility was only one-eighth of a mile. Since the aircraft had descended from altitude, low fuel states precluded their proceeding to another field.

(2) The result was that, after several unsuccessful passes at the field, one pilot in each flight was forced to ditch while the remaining twelve pilots landed safely. A further handicap during low ceiling and visibility approaching is the thirty-five foot high sand dunes at the approach end of the K-18 runway. The pilots

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Enclosure (1)
flying low to maintain contact with the water are unable to see over the sand dunes in time to become oriented for a safe landing. Steps have been taken to get the extension of the runway marked out to the beach. This arrangement would enable the pilot to line up with the runway without actually seeing it. The fact still remains, though, that the primary cause of these accidents was the erroneous weather reports received from Korea. Had the true weather condition been known in time both flights could have been diverted to an all weather field.

(3) The second ditching was done after an aircraft experienced a fuel exhaustion flameout. One interesting note on this ditching: while the fuel gauge indicated two hundred pounds of fuel remaining after flameout, the pilot had to let down to fifty feet before seeing the water because visibility was lowered to less than fifty yards. Upon seeing the water he leveled off high for touchdown and began to settle. By utilizing his "Shot Gun" ignition he lighted off and advanced his throttle. There was enough residual fuel left in the system to give him approximately fifty percent BFM which definitely checked his rate of decent and possibly saved him from making a fatally hard landing.

(4) It was noted that in the ditchings described the nose fairings came loose from the locked position. In the first case it moved forward two or three inches and in the second case about a foot. It seems the downward force of a water landing had a tendency to break off the nose section of the F9F. (It has been observed that nose sections coming off on arrested landings have, in most cases, been accompanied by a hard landing). On a previous ditching the nose section was observed to come off completely resulting in nearly complete disintegration of the plane and loss of the pilot.

e. There is a tendency on the part of pilots doing close air support to break at the same point and follow the flight path of the preceding plane to the target. The dangers of affording enemy gunners this advance information on one's position are obvious. On several occasions heavy flak concentrations were seen at the leader's break point at about the time the next plane would have been there had he used the same break point.

f. When the USS LAKE CHAMPLAIN (CVA-39) joined the task force, four division leaders were exchanged with VA-45 from that ship for three days. This exchange system is believed to be the best so far used to familiarize new groups with the Korean operating procedures. It is better than having a flight from the "new" group rendezvous in the air with a flight from the "old" group and be led to the target. The briefing and debriefing is much more valuable when
all pilots of the strike are present. Informal pre-briefing and having strike leaders join the new group the day prior to scheduled combined air operations proved very valuable.

g. During this period only one case of aileron snatch was encountered in F4U-4's. It is believed that this decrease in the incidence of aileron snatch is the result of several corrective measures. However, the specific reason for aileron snatch has not yet been definitely determined. All pilots have been cautioned: to use a dive speed below 360 knots; to be smoother on controls in the dive; and to be more meticulous about trim in dives. The installation of wing trim tab "A/N VS 55016" did not completely solve the aileron snatch problem; rather, it was in a plane that had had this change incorporated that the one case of aileron snatch was encountered.

h. It has been found that little fuel can be saved in the F9F-5 by climbing to altitude in excess of ten thousand feet when operating within a small radius of action. Most likely more fuel will be burned in the climb than will be saved at altitude. Only when long range flights are scheduled is it necessary to go to higher altitudes.

i. The force was hampered by low overcasts in the target area throughout the entire tour. Since a maximum effort was being exerted at this time, and since targets were often obscured by low clouds, flights would climb through the weather at the force, report over the approximate target area, be directed to their drop point by radar control stations, and would drop on signal from the ground controller. While the results obtained cannot be accurately assessed, such bombing tactics undoubtedly have at least a psychological and harassing effect on the enemy.

j. On numerous occasions squadrons have found it necessary to make IFR let-downs upon their return to the force due to conditions of extremely low visibility and ceilings. The results of a study of carrier controlled let-down procedures is being made the subject of separate correspondence.

k. Bombs were preferred over HVAR's and ATAR's as weapons against most recce targets encountered by both jet squadrons during this period. Mixed loads of bombs and rockets were not found satisfactory. Rockets were preferred only for special targets such as tanks, tunnels, or caves. The twenty millimeter gun has been found to be the most effective weapon against trucks and ox carts.

l. On 23 June, two pilots and aircraft of VC-3 were deployed to K-6 to intercept enemy night hackers. During the period

SECURITY INFORMATION 18 of 53 Enclosure (1)
1 to 20 July 1953, LT BORDETON of VC-3, was credited with destroying five enemy night hecklers. LT BORDETON stated that when he reported contact with the enemy night hecklers they began to take violent evasive action—an indication that either they or their ground controllers are monitoring our radio frequencies.

m. The AD-4W aircraft with "APS-20" radar has proved to be a very effective plane for search and rescue work. The utilization of the radar operator for navigation purposes insures a full and thorough coverage of the search area in a minimum of time. The "APS-20" was used by PRINCETON planes in the effective rescue of a downed BOXER pilot on 19 June 1953, during inclement weather.

n. Photography

(1) Photographic missions for this period consisted primarily of the mapping of areas of the Cherokee sector and of the airfields of North Korea. Very little bomb damage assessment photography assignments were received.

(2) Low overcasts placed restrictions on approximately forty per cent of the photo missions. With the procurement of the K-22 and/or the K-17-6B cameras, low altitude oblique photography might be obtained when cloud cover made vertical photography impossible. It is known that the development and procurement program for these cameras is well underway and no further comment will be made here.

(3) In contrast to the first period, cameras and related equipment stood up remarkably well. Magazine failures of the K-38 camera (after home-made modifications and adjustments) were practically non-existent. The light, flimsy construction of the magazine was made the subject of a RUDM.

(4) Because of the type of mapping assignments received, the large 595 foot film roll was used almost exclusively. The winding mechanism of the magazine does not seem designed well enough to overcome the inertia of this mass without adjustment of the clutch system. No further troubles, however, were experienced.

(5) The Image Motion Compensator, as originated by Detachment Mike of the USS PHILIPPINE SEA (CVA-47) was manufactured and installed in each of the three photo planes. The Dog Detachment version of the compensator differs slightly from the original in the electric drive mechanism. It has operated continuously and successfully since its installation.
4. Ordnance

a. The twenty millimeter gun performance was considered outstanding during this tour. Structural failure of armament parts was the only problem encountered. Reports, where applicable, are being submitted through established channels. Due to the heavy operational schedule, maintenance was difficult during the day and almost all maintenance was accomplished by night ordnance crews.

b. The "Aero 14A" bomb rack situation now appears to be good. Periodic inspection and lubrication has improved their performance. Further shortages are not anticipated. Although some Aero 14A parts are not available, it is believed that present spare parts and a small number of Aero 14A racks in stock will suffice. Fighter Squadron 152 reported a twenty-five per cent increase in reliability of these racks on F4U-4 aircraft by the use of the canvas covers reported in the previous Action Report.

c. One squadron reports that only limited maintenance of the "MK6 Model O" AFCS has been necessary this tour. Parts usage has been almost negligible on the manual part of the system; only minor adjustments have been required. Pilots check the system on every flight.

d. Hung ordnance in the form of rockets with broken pigtails has been a big headache. In spite of all the precautions and devices that were used, this problem seems to persist. Some rockets have dropped off on arrested landings. When the Aero 14A and 14B rack with hung rocket (HVFR or ATAR) is subjected to an arrested landing and drops ordnance, the shear pin in the bomb rack is always changed to prevent future malfunctioning.

e. Twenty Millimeter Guns

(1) The use of a safety block or yoke has continued to be a time saver as well as an excellent safety device for the twenty millimeter guns. The safety block is inserted between the gas cylinder yoke and the retraction push rods. Thus, the breech block is prevented from going to battery in event of the inadvertent release of the sear. No appreciable permanent driving spring set has resulted from the use of the safety block. However, leaving the feed mechanisms continually "wound in" may result in the eventual loss of tension and thus cause jams at the feed mouth.

(2) Considerable trouble has resulted due to the rusting of twenty millimeter guns on the AD4NA aircraft. The rusting of "Aero 13A" gun chargers is due to the water based Hydrolube. Use
of this Hydrolube makes it necessary to frequently replace the charger seals. This is a constant problem. A report via established channels is being made.

f. In two instances jettisoned unarmed ordnance has exploded on contact. Both cases occurred over water. One 250 pound GP was fused Inst/ND. One 500 pound GP was fused Inst/.01. The cause has not been determined.

g. Total Ammunition Expended 11 June through 27 July 1953:

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<th>Quantity</th>
<th>Code</th>
<th>Description</th>
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<td>350# DEPTH BOMB, AN-MK 54</td>
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h. Ordnance Expended per Squadron:

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<tr>
<td>20MM</td>
<td></td>
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<td></td>
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<td>11</td>
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</tr>
<tr>
<td>50 CAL</td>
<td>145,295</td>
<td>138,124</td>
<td>39,290</td>
<td>13,760</td>
<td>7,070</td>
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</tr>
<tr>
<td>5&quot; HVAR</td>
<td>242</td>
<td>208</td>
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</tr>
<tr>
<td>LEAFLETS</td>
<td>8</td>
<td>7</td>
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<td></td>
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</table>
1. Hung Ordnance:

<table>
<thead>
<tr>
<th>Type A/C</th>
<th>Type Ordnance</th>
<th>Releases by Jerking</th>
<th>Drop Offs on Landing</th>
<th>Remaining on Racks</th>
<th>Type Rack</th>
</tr>
</thead>
<tbody>
<tr>
<td>F9F-5</td>
<td>100#</td>
<td></td>
<td></td>
<td>8</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>&quot;</td>
<td>250#</td>
<td></td>
<td></td>
<td>10</td>
<td>&quot;</td>
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<tr>
<td>&quot;</td>
<td>260#</td>
<td></td>
<td></td>
<td>6</td>
<td>&quot;</td>
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<tr>
<td>F4U-4</td>
<td>250#</td>
<td></td>
<td></td>
<td>3</td>
<td>&quot;</td>
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<tr>
<td>AD-4N</td>
<td>250#</td>
<td></td>
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<td>&quot;</td>
</tr>
<tr>
<td>&quot;</td>
<td>260#</td>
<td></td>
<td></td>
<td>1</td>
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</tr>
<tr>
<td>AD-4NA</td>
<td>250#</td>
<td></td>
<td></td>
<td>1</td>
<td>&quot;</td>
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<tr>
<td>F9F-5</td>
<td>ATAR</td>
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<td>30</td>
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<td>&quot;</td>
<td>HVAR</td>
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<td>F4U-4</td>
<td>ATAR</td>
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<td></td>
<td>8</td>
<td>&quot;</td>
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<tr>
<td>F4U-5N</td>
<td>ATAR</td>
<td></td>
<td></td>
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<td>MK9</td>
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<tr>
<td>AD-4N</td>
<td>3.5 ARS</td>
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<td>1</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>AD-4N</td>
<td>ATAR</td>
<td></td>
<td></td>
<td>1</td>
<td>Aero 14A</td>
</tr>
</tbody>
</table>

(1) Aero 14A rack malfunctions in most cases were due to failures within the aircraft's electrical system. Structural failures of Aero 14A racks resulted in only .06 per cent of all bombs carried being returned aboard.

(2) Of all rockets carried five per cent were returned aboard due to broken pig tails, two per cent due to dud rocket motors and .007 per cent due to pigtail plugs vibrating loose from their receptacles. Four rockets fell off as the shear pins of the Aero 14A broke on arrested landings.

(3) Fifty caliber guns averaged one stoppage per each six thousand rounds fired.

(4) Twenty millimeter guns averaged one stoppage each seventeen hundred rounds fired.

5. Maintenance and Material

a. Routine checks and corrective maintenance comprised the major work-load during this tour on the line. Maximum effort and night replenishment by the Task Force made maintenance difficult and required sound planning and excellent night maintenance crews to obtain the required availability.
The installation of the main accessory drive gear bearing contributed to the continued problem of the intake ducts. The intake ducts were found to have been the prior use of the aircraft additive by one of the squadrions.

1. "J48G4A" engine had been charged because of large nicks found in the compressor. This engine had only one hundred hours of operation and had no noticeable nicks on previous inspections. The breathing season revealed that pieces of metal, such as screws, arming wire, and debris, had entered the engine.

2. "J48G4A" engine had been charged because of large nicks found in the compressor. This engine had only one hundred hours of operation and had no noticeable nicks on previous inspections. The breathing season revealed that pieces of metal, such as screws, arming wire, and debris, had entered the engine.

3. The intake ducts were found to have been the prior use of the aircraft additive by one of the squadrions.

4. "J48G4A" engine had been charged because of large nicks found in the compressor. This engine had only one hundred hours of operation and had no noticeable nicks on previous inspections. The breathing season revealed that pieces of metal, such as screws, arming wire, and debris, had entered the engine.

5. "J48G4A" engine had been charged because of large nicks found in the compressor. This engine had only one hundred hours of operation and had no noticeable nicks on previous inspections. The breathing season revealed that pieces of metal, such as screws, arming wire, and debris, had entered the engine.

6. "J48G4A" engine had been charged because of large nicks found in the compressor. This engine had only one hundred hours of operation and had no noticeable nicks on previous inspections. The breathing season revealed that pieces of metal, such as screws, arming wire, and debris, had entered the engine.

7. "J48G4A" engine had been charged because of large nicks found in the compressor. This engine had only one hundred hours of operation and had no noticeable nicks on previous inspections. The breathing season revealed that pieces of metal, such as screws, arming wire, and debris, had entered the engine.

8. "J48G4A" engine had been charged because of large nicks found in the compressor. This engine had only one hundred hours of operation and had no noticeable nicks on previous inspections. The breathing season revealed that pieces of metal, such as screws, arming wire, and debris, had entered the engine.
are operated daily. Regular exercise of the hydraulic units seems to keep seals in better condition and reduces the number of leaks experienced.

g. Wingfold cylinders on two AD aircraft had to be replaced as a result of failure during the folding operation while the wings were carrying an excessive ordnance load.

h. One F9F, while being towed with the wings folded, was blown over by the blast from another F9F and required a wing change. The F9F-5 is not very stable when subjected to a large side airload when the wings are in the folded position, and extreme care should be exercised to prevent such situations arising.

i. Aircraft handling accidents were materially reduced over the preceding tour. This fact is especially noteworthy in view of the increased night handling brought about by night replenishment. Continued vigilance on the part of flight and hangar deck crews is necessary if such accidents are to be kept to a minimum.

j. No hook point failures occurred. One F9F squadron has completed well over 1,900 arrested landings without a single failure. This squadron continues the practice of greasing the hook point before each flight and follows up with a close inspection for chipping and cracking following each landing. The crossdeck pendants are greased daily. A total of seventy-three hook points and sixteen shanks were issued for F9F aircraft. These were changed largely because the units had reached their maximum permissible number of engagements.

k. Other major parts issued for F9F aircraft included: seven starters, 150 low pressure fuel filters, eight tip tanks, fourteen aileron boost solenoids, two rudders, and five elevators.

l. There were two carburetors, seven hook shanks, eighteen hook points, two magneto, three wings, four elevators, and two propellers issued for AD aircraft. Two propellers, four carburetors, one wing, two elevators, and five tailhooks were issued for the F4U's. A total of 139 main landing gear tires were issued for F9F aircraft, six for the F4Us, and four for the ADs. One aircraft battery was issued during the period.

m. Some difficulty is still being experienced in obtaining spots for full power turn-ups of prop planes and for such operations as drop checks, wing changes, and engine changes. Cooperation between ship and air group personnel, however, is excellent.
n. The substitution of night replenishment for fourth day replenishment somewhat hampered maintenance work because of the time during which lights were off on the hangar deck. In spite of this fact, all squadrons and VC detachments maintained their usual high standards of availability. As computed in accordance with the Naval Air Warfare Reporting Manual, availability was as follows:

\[
\begin{array}{ccccccccc}
VF-152 & VF-153 & VF-154 & VF-155 & VC-3 & VC-11 & VC-35 & VC-61 \\
95.6\% & 96.6\% & 95.2\% & 97.6\% & 90.3\% & 100\% & 98.0\% & 96.5\% \\
\end{array}
\]

The ratio of missions regularly scheduled to those flown by their own aircraft is shown below, expressed on a percentage basis:

\[
\begin{array}{ccccccccc}
97.9\% & 90.8\% & 102.9\% & 97.9\% & 100\% & 100\% & 100\% & 100\% \\
\end{array}
\]

o. Material support and cooperation from the ship's supply department continues to be excellent both in the spare parts available and the procurement of ACOG items. The following is a breakdown of the ACOG's experienced during this period:

<table>
<thead>
<tr>
<th>Model</th>
<th>Nomenclature</th>
<th>Stock Number</th>
<th>Allowance</th>
<th>Plane Days</th>
<th>ACOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD-4W</td>
<td>Tube Assembly</td>
<td>R82-DQ-5265548</td>
<td>Non-Allow</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>F9F-4</td>
<td>Control Assembly</td>
<td>R82-CV-48600</td>
<td>Non-Allow</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>F9F-5</td>
<td>Stabilizer Assembly</td>
<td>R83-CV-40010</td>
<td>Non-Allow</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>F9F-5</td>
<td>Valve Assembly</td>
<td>R83-AP-25400-20</td>
<td>Allowance</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>F9F-5</td>
<td>Valve Assembly</td>
<td>R83-AP-25400-20</td>
<td>Allowance</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>F9F-5F</td>
<td>Inverter</td>
<td>R17-I-7476-1</td>
<td>Non-Allow</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>F9F-5</td>
<td>Cylinder Assembly</td>
<td>R85-FW-136918</td>
<td>Allowance</td>
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</tr>
<tr>
<td>F9F-5</td>
<td>Thermostat</td>
<td>R17-VCH-49892</td>
<td>Non-Allow</td>
<td>2</td>
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</tr>
<tr>
<td>AD-4NA</td>
<td>Cylinder Assembly</td>
<td>R82-DG-525155-17</td>
<td>Allowance</td>
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<td>AD-4N</td>
<td>Indicator</td>
<td>R88-I-1325-15</td>
<td>Allowance</td>
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</tr>
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<td>Indicator</td>
<td>R88-I-1651-100</td>
<td>Allowance</td>
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</tr>
<tr>
<td>F9F-5</td>
<td>Cover Assembly</td>
<td>R85-FW-151979</td>
<td>Non-Allow</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>AD-4</td>
<td>Wing Assembly</td>
<td>R82-DG-5260004-534</td>
<td>Allowance</td>
<td>16</td>
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</tr>
<tr>
<td>F9F-5N</td>
<td>Rod Assembly</td>
<td>R82-CV-4860001</td>
<td>Non-Allow</td>
<td>4</td>
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</tr>
<tr>
<td>AD-4N</td>
<td>Indicator</td>
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<td>Allowance</td>
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</tr>
<tr>
<td>F9F-5</td>
<td>Cover Assembly</td>
<td>R85-DW-151979</td>
<td>Non-Allow</td>
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</tr>
<tr>
<td>F9F-5</td>
<td>Valve</td>
<td>R83-AP-13701-20</td>
<td>Allowance</td>
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</tr>
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<td>Valve</td>
<td>R83-AP-13701-20</td>
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<tr>
<td>F9F-5</td>
<td>Valve</td>
<td>R83-AP-13701-20</td>
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<td>F9F-5</td>
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<td>R85-FW-136918</td>
<td>Allowance</td>
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</tbody>
</table>
The FASRON Detachment at K-18 has rendered invaluable assistance to the Air Group pilots and aircraft on numerous occasions and is performing an excellent job with the limited facilities it has at hand. On one occasion, the Marine detachment from K-13 also did an excellent job of replacing both wings on an F9F (BuNo. 126170) after it had been severely damaged by enemy fire. This job was done overnight.

6. Aircraft Damage:

a. Combat Loss of Aircraft:

<table>
<thead>
<tr>
<th>Date</th>
<th>Unit</th>
<th>Type A/C</th>
<th>BuNo</th>
<th>Cause</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/1/53</td>
<td>VF-152</td>
<td>F4U-4</td>
<td>80822</td>
<td>Enemy Anti-Aircraft Fire</td>
<td>L</td>
</tr>
<tr>
<td>7/16/53</td>
<td>VA-155</td>
<td>AD4</td>
<td>126904</td>
<td>A/A Fire. Pilot Bailed Out</td>
<td>L</td>
</tr>
<tr>
<td>7/20/53</td>
<td>VF-153</td>
<td>F9F-5</td>
<td>125557</td>
<td>Enemy Anti-Aircraft Fire</td>
<td>L</td>
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<td>F4U-4</td>
<td>81834</td>
<td>Enemy Anti-Aircraft Fire</td>
<td>L</td>
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b. Damage Inflicted by Enemy to Own Aircraft:

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<tr>
<th>Date</th>
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<th>Type A/C</th>
<th>BuNo</th>
<th>Cause</th>
<th>Code</th>
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<td>6/14/53</td>
<td>VF-152</td>
<td>F4U-4</td>
<td>97086</td>
<td>Small Arms Fire</td>
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<td>6/14/53</td>
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<td>F9F-5</td>
<td>126207</td>
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<td>6/15/53</td>
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<td>124452</td>
<td>Small Arms</td>
<td>D3</td>
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<td>D3</td>
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<td>6/16/53</td>
<td>VF-153</td>
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<td>6/17/53</td>
<td>VF-153</td>
<td>F9F-5</td>
<td>126239</td>
<td>Small Arms</td>
<td>D3</td>
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<td>6/25/53</td>
<td>VC-3</td>
<td>F4U-5N</td>
<td>124452</td>
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<td>D3</td>
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<td>7/1/53</td>
<td>VC-3</td>
<td>F4U-5N</td>
<td>122038</td>
<td>Small Arms</td>
<td>D3</td>
</tr>
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<td>7/1/53</td>
<td>VF-152</td>
<td>F4U-4</td>
<td>82117</td>
<td>Automatic Weapons</td>
<td>D3</td>
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<td>7/2/53</td>
<td>VF-153</td>
<td>F9F-5</td>
<td>125577</td>
<td>Automatic Weapons</td>
<td>D3</td>
</tr>
<tr>
<td>7/2/53</td>
<td>VF-153</td>
<td>F9F-5</td>
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<td>D3</td>
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<tr>
<td>7/3/53</td>
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<td>F9F-5</td>
<td>125956</td>
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<td>D2</td>
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<tr>
<td>7/3/53</td>
<td>VF-154</td>
<td>F9F-5</td>
<td>126251</td>
<td>Bomb Blast</td>
<td>D3</td>
</tr>
<tr>
<td>7/6/53</td>
<td>VF-154</td>
<td>F9F-5</td>
<td>125543</td>
<td>Bomb Blast</td>
<td>D2</td>
</tr>
<tr>
<td>7/9/53</td>
<td>VC-3</td>
<td>F4U-5N</td>
<td>122038</td>
<td>Small Arms</td>
<td>D3</td>
</tr>
<tr>
<td>7/11/53</td>
<td>VF-154</td>
<td>F9F-5</td>
<td>126235</td>
<td>Automatic Weapons</td>
<td>D3</td>
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<td>7/11/53</td>
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<td>F9F-5</td>
<td>126238</td>
<td>Small Arms</td>
<td>D3</td>
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<tr>
<td>7/18/53</td>
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<td>F9F-5</td>
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<td>7/19/53</td>
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<td>F9F-5</td>
<td>126170</td>
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<tr>
<td>7/24/53</td>
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<td>F9F-5</td>
<td>125952</td>
<td>Small Arms</td>
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<td>7/24/53</td>
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<td>7/25/53</td>
<td>VF-153</td>
<td>F9F-5</td>
<td>126243</td>
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c. Operational Loss of Aircraft:

<table>
<thead>
<tr>
<th>Date</th>
<th>Unit</th>
<th>Type A/C</th>
<th>BuNo</th>
<th>Cause</th>
<th>Code</th>
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<td>6/13/53</td>
<td>VF-153</td>
<td>F9F-5</td>
<td>125573</td>
<td>Ditched, Low Fuel</td>
<td>L</td>
</tr>
<tr>
<td>7/9/53</td>
<td>VF-153</td>
<td>F9F-5</td>
<td>125462</td>
<td>Ditched, Flame Out</td>
<td>L</td>
</tr>
<tr>
<td>7/12/53</td>
<td>VA-155</td>
<td>AD4</td>
<td>125757</td>
<td>Crashed</td>
<td>L</td>
</tr>
<tr>
<td>7/19/53</td>
<td>VF-152</td>
<td>F4U-4</td>
<td>81331</td>
<td>Crashed on take-off</td>
<td>L</td>
</tr>
<tr>
<td>7/25/53</td>
<td>VA-155</td>
<td>AD4</td>
<td>126922</td>
<td>Ditched due to engine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>trouble</td>
</tr>
</tbody>
</table>

7. Air Intelligence

a. General

(1) During this tour the Air Intelligence team continued to operate effectively and smoothly, and its relations with the ship's intelligence personnel were excellent. Despite the rather heavy briefing schedule brought about by the continuous all-out effort of the Task Force, the lessons learned during the first two tours were put to effective use.

b. Maps

(1) The preponderant scheduling of propeller close air support and jet Cherokee missions during this period presented somewhat of a map problem. To provide a suitable target chart of each corps area and annotated with the current bombline and prominent terrain features used by CAS controllers. These were carried by many CAS flight leaders.

(2) An additional briefing aid was a strip map of the bombline area constructed of 1:50,000 Army Map Service charts. The chart covered all areas of CAS operations and was annotated with the current bombline, anti-aircraft positions, terrain features, "K" and "A" fields, corps and division level headquarters, Tactical Air Direction Center, "MFQ" (Ground Radar Controlled Drop) controllers, etcetera. This chart has proved invaluable in briefing as well as de-briefing during current operations.

(3) The majority of pilots began their original tour using the AMS "1552" series map. The disadvantage of having elevations in meters and light grid lines in this map is overcome by the ease of readability due to north lighting. This map is still preferred by most pilots.
(4) The AMS "L552" terrain map has been used for many briefings. Flak, furthermore, is plotted in the ready room on the AMS "L552" series. In addition a single sheet of the terrain map series has been used to brief each pilot individually. Each pilot is, therefore, able to see a closeup, in three dimensions, of exactly where his target is located in relation to the surrounding terrain. This method actually lessens the briefing time required and enables the pilots in the back row to get a "front row" briefing.

(5) The U.S. Navy flight chart "NC Miscellaneous 156 A2-1 'Takoprint'", has been used somewhat by squadrons during this tour for evaluation purposes. The results obtained with this durable chart have been excellent. The map folds compactly without surface cracking and grease pencil marks may be wiped off with a cloth. The map provides excellent coverage on one sheet. The shading on this map is also good.

c. In preparing map folders for the pilots, scotch tape was used at the beginning of the cruise. It was found, however, that it tended to crack and discolor. Since then it has been replaced by "Mystick" type ordnance tape and this tape has proved highly satisfactory.

d. The use of 1:30,000 target photographs inaugurated during this tour on the line has proved to be of tremendous value. This scale photography is of value to the squadron intelligence officer and to the pilot because:

(1) It provides an accurate, easily read map. This quality is especially important in the low rice paddy areas where rivers and roads may have changed positions.

(2) It shows the target location in relation to predominant terrain features which may not be shown on 1:50,000 photography due to the size of the area covered.

(3) The 1:50,000 photograph, however, is still a necessary part of the briefing and flight. It is used to locate buildings, roads, and terrain features not readily visible in the smaller scale photography.

e. Availability of more bomb damage assessment photographs would be a great boost for the pilots' morale. In addition it would be a basis for an analysis of present attack procedures and tactics based on target damage.
(4) The AMS "L552" terrain map has been used for many briefings. Flak, furthermore, is plotted in the ready room on the AMS "L552" series. In addition a single sheet of the terrain map series has been used to brief each pilot individually. Each pilot is, therefore, able to see a closeup, in three dimensions, of exactly where his target is located in relation to the surrounding terrain. This method actually lessens the briefing time required and enables the pilots in the back row to get a "front row" briefing.

(5) The U.S. Navy flight chart "NC Miscellaneous 156 A2-l 'Takoprint'' has been used somewhat by squadrons during this tour for evaluation purposes. The results obtained with this durable chart have been excellent. The map folds compactly without surface cracking and grease pencil marks may be wiped off with a cloth. The map provides excellent coverage on one sheet. The shading on this map is also good.

c. In preparing map folders for the pilots, scotch tape was used at the beginning of the cruise. It was found, however, that it tended to crack and discolor. Since then it has been replaced by "Mystick" type ordnance tape and this tape has proved highly satisfactory.

d. The use of 1:30,000 target photographs inaugurated during this tour on the line has proved to be of tremendous value. This scale photography is of value to the squadron intelligence officer and to the pilot because:

(1) It provides an accurate, easily read map. This quality is especially important in the low rice paddy areas where rivers and roads may have changed positions.

(2) It shows the target location in relation to predominant terrain features which may not be shown on 1:50,000 photography due to the size of the area covered.

(3) The 1:50,000 photograph, however, is still a necessary part of the briefing and flight. It is used to locate buildings, roads, and terrain features not readily visible in the smaller scale photography.

e. Availability of more bomb damage assessment photographs would be a great boost for the pilots' morale. In addition it would be a basis for an analysis of present attack procedures and tactics based on target damage.
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3. Electronics

a. In general, overall performance of electronics equipment has been good to excellent for the entire operating period.

b. The procurement of ruggedized "6AD 5" tubes has improved the operational availability of the "AN/ARC-1" considerably and discrepancies have been reduced a great deal.

c. It is impossible to over-emphasize the necessity for properly functioning ADF equipment when working jets close to their maximum endurance and under varying weather conditions. The PRINCETON is equipped with only a fifty watt homon beacon. This beacon has caused undue headaches on many occasions due to short range and being blanked out by other stronger stations close to the same frequency. The inability of incoming aircraft to receive the beam causes many avoidable radio transmissions in requests and answers to "steers". Under IFR conditions the situation gets very critical when each division of jets must be very carefully tracked on radar until visual contact is made with the force. To a fast moving jet at high altitude, "ZB" is of use only in bringing flights close to the force, and other means of navigation are necessary when these flights get inside the radar screen in low visibility. The USS LAKE CHAMPLAIN (CVA-39) is equipped with a five hundred watt homon beacon and the pilots who have been in the air with this ship has the ADF guard report that this makes the difference between wondering around on "ZB" and calling for "steers", or being able to home on the force and being certain of navigation when over an overcast. It is, therefore, recommended that the type homon gear installed on the USS LAKE CHAMPLAIN (CVA-39) be installed in other CVA's.

d. The "AN/APG 30" has withstood an average of slightly over ten catapult shots and arrested landings between bench adjustments. Approximately two and one-half man hours of maintenance is required per ten catapult shots and arrested landings. Predominant failures have been due to:

   (1) Tubes: Three or four particular tubes, for which rugged versions are manufactured but not easily available, have caused the most trouble.

   (2) Lock-On sensitivity adjustment: As an experiment, this unit wired one plane so that the lock-on sensitivity could be adjusted in the cockpit during flight. The pilot would then get a lock-on at a range fifty per cent greater than with the gear installed in any other plane. The gear in this plane has not required re-alignment since the "fix" was installed although it has taken more than
thirty catapult shots and landings. A comprehensive report on all operational aspects of the APC 30 is nearly complete and will be given full distribution by separate correspondence.

a. The performance and availability of the "ARN-6", "APR-2" and "APX-6" has been excellent.

9. Survival

a. Ditchings

(1) There were four cases of water ditchings during this tour on the line: Two were made by F9F-5 pilots due fuel exhaustion, one by an F4U pilot due to battle damage, and one by an AD pilot due to engine failure. In all except one case the emergency survival gear used functioned successfully. In the one instance the HRC-17 radio failed to operate due to a large amount of water and mold inside the case. From all indications the seepage occurred sometime prior to the ditching and steps are now being taken to check all transceivers for the possible cause.

(2) The F4U pilot mentioned above, received a back injury during his ditching. The pilot apparently leveled off too high due to slick sea conditions and an oil obscured windshield and received a badly wrenched back.

(3) In the case of the AD pilot, the ditching was made after an attempted emergency landing on Yodo Island. After overshooting on his first approach the engine failed completely and the ditching was made without incident.

b. Bailouts

(1) During this tour one successful bailout occurred. An AD, after being hit by flak on a CAS mission, suffered such severe elevator damage that level flight could only be maintained by full forward stick pressure and a speed of less than eighty-five knots. After reaching friendly territory the pilot was able to hold the forward pressure while climbing from the cockpit and made a successful low altitude bailout. He landed near a minefield area but remained stationary until rescued by helicopter.

c. Survival Kits

(1) The "FSK-1" survival kits which were received were placed in the life rafts in place of certain gear that was considered unnecessary in the Korean area. The plastic containers in these
kites have frayed and torn with normal wear. It is recommended that a stronger material be used for these containers and that one PSK-1 be issued each pilot for personal care.

d. Exposure suits

(1) It is felt that exposure suits should be returned to the United States for renovation as soon as possible after the completion of the winter phase of the tour. They are serving no useful purpose in the forward area and are deteriorating in stowage.

10. Air Group Personnel

a. Morale

(1) Despite a fifty-two day tour on the line (during which an all-out effort was made and frequent replenishments were conducted during both day and night) the morale of the officers and men of the Air Group remained at a high level. All personnel proved equal to the requirements of the sustained effort. Nevertheless, a tremendous strain was imposed upon the pilots during these operations.

(2) The pilot fatigue resultant from a continued six hour per day per pilot routine was supposed to have been relieved by the frequent cancellations of events due to bad weather. This situation, however, was deceiving. Actually, whether or how the pilots flew the mission for which they were scheduled, they underwent the major part of the strain and the entire portion of the preparations necessary to each flight, since for every mission scheduled, pilots reported for briefings and suited-up in anticipation of the flight. If, however, the event had been postponed they were placed on one hour notice. This last condition only increased the strain for each individual in what is a most difficult part of each mission - the waiting to man aircraft. Fatigue, consequently, was not relieved at all, but increased instead by the nervous tension of being "on call". For these reasons, it is recommended that for tours of over twenty days on the line that definite breaks in operations be scheduled for carriers. These breaks could be alternated between various CVWAs. It is felt that scheduling of definite rest periods would prove greatly beneficial to pilots and improve both their morale and flying efficiency; it is, furthermore, the opinion of this command that it is fallacious reasoning to look upon events cancelled or set on stand-by basis as restful or beneficial to the pilots.

(3) It has been found that morale is higher among all personnel when they are kept informed of what "their" planes and "their" pilots are doing to the enemy. This information has been disseminated by information sheets, newspapers, lectures, and radio news programs.
b. Training

(1) During the last rating examination a total of 337 men took tests. Of this number 204 or 60.8 per cent passed. However, due to lack of quotas only 118 or 35.1 per cent of those having passed were finally rated.
B. Air Department

1. Aircraft Handling

a. No new or unusual problems were encountered in the handling of aircraft. Equipment failure reports, where applicable, are being submitted through established channels.

b. In spite of the handling and spotting problems present during the period of "maximum effort", the fact that plane directors and plane handling crews have become very experienced minimized delays.

c. Another contributing factor to the success of deck handling crews in meeting the heavy demands during this period was the ideal schedule. It required a minimum number of re-spots and enabled the plane handlers to develop a set routine.

d. It is understood that a test project is underway to evaluate the necessity of greasing cross deck pendants daily. This daily application of grease causes the Fly III landing area to become extremely slippery and creates a hazardous condition for the chock men during deck launches of propeller aircraft. The condition was aggravated during this tour on the line since the "maximum effort" type of operations being conducted offered no opportunity to scrub down the Fly III area.

e. The effect of jet blast on the flight deck continues to create a serious problem. The heat from these blasts melts the pitch between the deck planking and causes the caulking to loosen. When possible, jets are parked outboard for turn up; but with large launches some planes must be parked fore-and-aft. The melted pitch not only causes the flight deck to deteriorate, but results in a slippery deck which is hazardous to personnel and moving planes.

2. Aviation Ordnance

a. The bomb elevators installed on this ship were not designed to carry heavy loads for such prolonged periods as are required by flight operations in Task Force 77. The track guide-shoes have become worn beyond the adjustment tolerances of the electric stop switches, and the car tilts toward the side with too heavy loads. This situation causes the car to stop either two inches too high or two inches too low. Temporary repairs by the ship's force have been accomplished and new track shoes will be installed during navy yard availability.
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b. Planes being towed over bomb elevator hatches have sprung the hatches to the point where they are no longer water tight. During heavy rains elevator switches and relays have short circuited. Water drains on the bomb elevator coming are of three-quarter inch pipe and become clogged with debris adrift on the flight deck. Larger drains of one and one half to two inch pipe would facilitate water run-off during rainy periods and increase the effectiveness of the bomb elevators.

c. The lug channel of the Mark I Bomb Skid has a tendency to fail due to breakage or bending after hard usage; it thereby allows five hundred pound and one thousand pound bombs to slide forward on the skid while being moved on the flight deck. It is recommended that the lug channels be strengthened with angle irons, or that they be manufactured of heavier gauge metal.

d. Rocket pigtails continue to break at high speeds, causing dud rocket motors. A satisfactory method of preventing the pigtails from breaking has not been devised.

e. When accelerating bombs for high speed aircraft a modified tail-fin locking-nut must be used. This nut employs four Allen Head set-screws that require excessive time to tighten; however, the use of the extended-reach Allen Wrench (approximately fifteen inches long with a "T" handle) has solved this problem.

3. Aircraft Maintenance

a. Due to the long stretches of bad weather encountered during this tour, aircraft shop loads were less than normal. Few periods were devoted to the painting of spaces and the overhauling of equipment.

b. A fatal accident marred an otherwise perfect safety record when the engine flywheel on a portable hydraulic test stand (Model 8278 139, Serial #N288S-21172, manufactured by Wisconsin Motor Corporation) disintegrated while the machine was being serviced. A report of unsatisfactory or defective material (USS PRINCETON (CVA-37) RUDM, Serial 1-53) has been submitted.

c. One R-2800-16 engine and one Hamilton Standard 24E60 propeller were built up during the period to replace engines issued by the Supply Department.
4. Automotive Maintenance

a. Routine servicing and upkeep were sufficient to keep eight tractors in service throughout the tour. Two tractors with cracked rear axle housings are being returned to the ComFairJapan pool for overhaul. Mobile electric power plants required only routine servicing.

5. Aviation Gasoline

a. The plug-valves of the aviation gasoline system have required constant care and regular lubrication. It has been necessary to drain the station filters daily to remove grease and particles that have been picked up internally from plug valves.

b. Refueling at sea has been uneventful. A six-inch flange-type hose has been used to take gasoline aboard. The rate of receiving gasoline has been approximately forty thousand gallons per hour. As specified in Commander Air Force, Pacific Fleet Instruction 09150,1 of 12 February 1953, maximum head pressures during refueling are 10.9 pounds per square inch forward and 8.9 pounds per square inch aft. The rate of flow realized during the fueling of inner tanks has been the determining factor in fueling the outer tanks so that the system will not be filled to greater than ninety-five percent of capacity.

c. Through the efforts of the gasoline officer, a mechanical cam device for attachment to the Robb Quick Release Coupling has been evaluated. This device provides for automatic actuation of the quick-release coupling in an emergency. To effect a breakaway only the hose messenger pelican hook is released. As the ships separate the coupling clears the side and then breaks automatically clear of the ship. This procedure prevents gasoline spillage on the deck. A report of the device, with pictures and detailed description, is being forwarded separately (Commanding Officer, U.S.S. PRINCETON (CVa-37). 1tr CVA37/30, L9-2 ser 2567 of 3 Aug 1953).

d. To strike below aviation lube oil during replenishment, a rectangular funnel is fitted in the deck filler. A portable ramp is placed alongside. The filler plugs of the drums are removed and replaced by a pipe nipple, globe valve, and ninety degree elbow. The drums are then rolled up the ramps and the vent plug removed. The valve at the bottom is opened and air pressure is applied through the vent plug opening thereby permitting four drums to be emptied simultaneously.
(4) Number of above shots at maximum pressure (4,000 lbs. psi)

<table>
<thead>
<tr>
<th>Port</th>
<th>739</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stbd</td>
<td>923</td>
</tr>
<tr>
<td>Total</td>
<td>1,662</td>
</tr>
</tbody>
</table>

b. Due to critical wind conditions, three-fourths of all launches were made at a maximum firing pressure of four thousand pounds per square inch. This procedure greatly increased oil leaks and other routine maintenance problems. However, the only major repair necessary during this period was the installation of a new oil gear pump on the starboard catapult which was accomplished at sea by the ship's force. The entire change of pumps was completed within ten hours. The use of a hydraulic type track-oiler, manufactured by the catapult crew from an aircraft hydraulic accumulator, proved highly efficient. Track lubrication was improved with the result that shutter slipper wear decreased and resulted in less frequent changing of slipping.

c. The launching capacity of the Type H Mark 4B Catapult during this period was often inadequate for scheduled ordnance loadings of the F37-5. This inadequacy was due to higher seasonal temperatures and resultant marginal winds.

d. In general, the availability of both catapults was excellent during this operating period.

7. Helicopter Operation

a. An analysis of summer weather in the operating area shows that it would be impossible in some conditions of air density and wind velocity to hoist a survivor from the water with the normal plane guard loading of a helicopter. It is recommended that all helicopter units flying H035-1 helicopters and based aboard ship in the Korean area reduce their gasoline loads and strip the helicopters in no-wind or light-wind conditions. The wind is a critical factor (the lift of the helicopter is increased about one hundred pounds per five knots of wind velocity) and at this time of the year there are many operating days with no wind. The high humidity in this area during the summer months further reduces the lift of the helicopter. The condition of lowest lift would make hovering the helicopter dangerous and hoisting a survivor impossible with normal plane guard loading.
C. Engineering Department

1. Engineering plant maintenance and repair, particularly in regards to boilers, has been a continuing problem due to the lack of equipment availability.

2. Two policies were established in an effort to alleviate the situation:

   a. The Officers-of-the-Deck were trained to be alert for changing operational and weather conditions (in relation to engineering plant requirements).

   b. At the beginning of each bridge watch the situation was analyzed, decisions were made, the Officer-of-the-Watch was called, and the problems involved were discussed.

   c. These policies not only have maintained good liaison between the bridge and main control, allowing the Officer-of-the-Watch to take full advantage of operating conditions, but also have brought about the timely securing of boilers, and availability for repair and maintenance for as much as four hours per day.

3. Boiler Tube Casualty

   a. At about 0209 on 23 June 1953, while steaming at 110 R.P.M., the number three ship's boiler suffered a tube failure. At the time of the casualty, boilers numbers one, three, five and eight were on the line in a split plant arrangement. Investigation revealed that the last tube (a one inch generating tube in the cut-off (C) row, the one most removed from the boiler burners) had sheared off flush with the exterior surface of the mud drum. Further investigation disclosed that eight additional tubes were in various stages of deterioration apparently due to external corrosion. The questionable condition of these tubes led to the decision to plug and mechanically rupture four tubes. The remaining four are also being scheduled for replacement as soon as possible.

   b. Upon the conclusion of the temporary repairs outlined above, the boiler was given a hydrostatic test of 750 pounds. This test revealed an additional leak in number twelve economizer element approximately two inches from the header in a "no flame" area. No external tube corrosion was apparent. The defective element was plugged and, after a satisfactory hydrostatic test, was placed back in service. It did appear, however, that this element had been leaking for some time prior to the rupture of the one inch generating tube. Frequent subsequent daily inspections have failed to indicate any unusual condition.
4. On 14 July 1953, the distillate from the number two set of evaporators indicated excessive salinity. By 19 July 1953, the salinity reached such a proportion that further distillation to ship's tanks was no longer acceptable. The unit was secured and investigation revealed that one section of the tube sheet surface on the after part of the distiller-condenser was considerably pitted. This same erosion had, in addition, eroded the inner surface of the tube where it entered the tube sheet causing the tube's failure. Removal of the tube and plugging of the holes was necessary in order to effect a positive seal. Although zins are checked every thirty days, this experience points up to the desirability of more frequent and closer inspections of zins throughout the plant. This point is especially true when operating under the severe operation conditions imposed by long periods on the line with minimum maintenance time available.

D. Gunnery

1. Replenishment at sea

   a. Daylight replenishments

      (1) Daylight replenishments were carried out in a routine manner.

   b. Night replenishments

      (1) Night replenishments were carried out on numerous occasions. Fueling and gasoline transfers were conducted by the "span wire", "modified span wire", and "oiler inhaul" methods. Of these, the "span wire" method is undoubtedly the most satisfactory for night operations.

      (2) An occasional night of low visibility created some difficulties when either the "modified span wire" or "inhaul" methods were used. The oilers, furthermore, encountered special difficulty in coordinating the handling of the inhaul line with the hook-up crews in the darkness. A further encumbrance has been the small working space at the after fueling station on this vessel. This small area made a safe hook-up of the oiler inhaul virtually impossible at night.

   c. Night re-arming

      (1) No serious problems were encountered in night re-arming. A program of "safety first" was emphasized and the rate
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of transfer of ammunition was, consequently, slightly lower than the
normal daylight rate.

(2) Standard signals and markings as prescribed
in NWP-38 were used.

d. The PRINCETON replenished on all but fifteen of
the fifty-six days covered by this report.

e. Record replenishment

(1) On 13 July 1953, the PRINCETON replenished
from the USS FIREDRAKE (AE-14). Ammunition and other supplies were
transferred to this vessel at a rate of 257.4 tons per hour—a rate
believed to be a record one for this sort of operation.

2. Ordnance and Fire Control

a. Firing exercises were held on 29 and 30 August.
See Part III, ORDNANCE.

E. Medical Department

1. Supplies and Equipment

a. No shortage of Medical Department supplies occurred
and there was no significant breakdown of equipment.

2. Medical Department Evaluation of Ship's Company and Air
Group:

a. The morale of the ship's company and air group
pilots has been excellent in spite of the extended period on the
line. This period has been depressing not only because of its
length, but because normal replenishment day periods of relaxation
have been missed, and weather has been of such a poor caliber that
at times lethargy has been noted.

b. It is still felt that a three-week assignment on
the line is the optimum period of deployment. Also day replenishment
periods offer a certain longed for relaxation that has been greatly
missed in the night replenishment program.
F. Operations Department

1. Aerology

a. There are two wind direction indicating systems and three wind intensity indicating systems installed in this vessel. The readings obtained from the wind indicators when connected to the port or starboard wind vanes and anemometers located on the yardarms, have been found to be dissimilar when one system is compared with the other under identical conditions. In addition, under certain temperature conditions, variations have been found between the wind intensity readings obtained from the indicators and the actual relative wind conditions existing at the forward end of the flight deck. Furthermore, it has been observed that considerable differences in simultaneous wind readings obtained from two or more carriers have been reported at various times when weather conditions do not appear to warrant it.

b. With the critical need for accurate true and relative wind direction and intensity indicators, this command began taking wind direction and intensity readings under various weather conditions using the regular wind indicator systems and simultaneously comparing them with those obtained from a portable anemometer positioned at the leading edge of the flight deck. The differences which were found to exist between the wind indicator readings and actual relative wind over the flight deck were determined as being a result of the following:

1) Wind direction differences apparently were caused by the turbulence effect of the island structure.

2) Wind intensity differences apparently were caused by a shallow and strong temperature inversion existing near the surface. This type of inversion exists whenever the sea water temperature is less than the air temperature, resulting in lighter winds over the flight deck than at the height of the yardarm anemometers.

c. As a result of an analysis of the above readings the following correction factors which enable the observer of the various wind indicators to determine the corrected reading for the actual relative wind direction and intensity over the flight deck have been obtained and are used on this ship:

1) Wind Direction

The following correction factors should be applied to the readings of the relative wind direction indicators to obtain the correct relative wind direction over the flight deck:
<table>
<thead>
<tr>
<th>Indicator Reading</th>
<th>Port System</th>
<th>Starboard System</th>
</tr>
</thead>
<tbody>
<tr>
<td>000-019</td>
<td>- 06</td>
<td>/ 06</td>
</tr>
<tr>
<td>020-034</td>
<td>- 10</td>
<td>/ 04</td>
</tr>
<tr>
<td>035-049</td>
<td>- 13</td>
<td>/ 00</td>
</tr>
<tr>
<td>050-129</td>
<td>unreliable</td>
<td>/ 00</td>
</tr>
<tr>
<td>130-159</td>
<td>unreliable</td>
<td>- 05</td>
</tr>
<tr>
<td>160-199</td>
<td>/ 10</td>
<td>- 10</td>
</tr>
<tr>
<td>200-229</td>
<td>/ 05</td>
<td>unreliable</td>
</tr>
<tr>
<td>230-309</td>
<td>00</td>
<td>/ 13</td>
</tr>
<tr>
<td>310-325</td>
<td>- 04</td>
<td>/ 10</td>
</tr>
<tr>
<td>325-339</td>
<td>- 04</td>
<td>/ 06</td>
</tr>
<tr>
<td>340-359</td>
<td>- 06</td>
<td></td>
</tr>
</tbody>
</table>

(2) Wind Intensity

Except for calm wind conditions, the following correction factors should be applied to the readings of the wind intensity indicators to obtain the correct relative wind intensity over the flight deck, whenever the temperature differences (in degrees Fahrenheit) indicated below exist between the air and water:

<table>
<thead>
<tr>
<th>Temperature Difference</th>
<th>*Correction Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-) - 0</td>
<td>-1</td>
</tr>
<tr>
<td>1 - 2</td>
<td>-2</td>
</tr>
<tr>
<td>3 - 7</td>
<td>-3</td>
</tr>
<tr>
<td>8 - 11</td>
<td>-4</td>
</tr>
<tr>
<td>12 - 15</td>
<td>-5</td>
</tr>
</tbody>
</table>

*Note - An additional correction factor of plus two (\(\frac{1}{2}\)) knots should be applied to the windward anemometer when the relative wind is between 10 and 25 degrees on the bow.

d. In view of the above information, it is recommended that all aircraft carriers ascertain whether similar correction factors are required for their wind indicating systems and that after each periodic overhaul a recheck of the correction factors be made. It is further recommended that corrected relative wind direction and intensity indicator readings always be reported by aircraft carriers whenever comparisons are made.

2. Combat Information Center

a. The notable feature of this period was the large amount of flying conducted in weather unfavorable to air operations. To cope with this difficulty a foul weather set-down procedure was
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developed to accomplish the safe recovery of aircraft. Flights were let down in sequence by divisions from a point located at a distance approximately one mile for each thousand feet of break-up altitude plus five miles. Standard rates of descent used were two thousand feet per minute for propeller aircraft, and four thousand feet per minute for jet aircraft with rate of descent reduced to standard rate at lower altitudes. This procedure proved very satisfactory and was carried out in weather in which the ceiling was as low as five hundred feet and in which visibility was reduced to as little as two thousand yards.

b. An exercise for the evaluation of air defense performance (Exercise Adroit) was conducted on three occasions. The success of task force elements in detecting and tracking jet aircraft, determining altitude, and acquiring the aircraft with fire control radar were used as a measure of force efficiency. The procedure involved vectoring a division of F9F's out 125 miles from the task force and having them return without IFF. By recording the times of initial pick-up and lock-on, a group of data was obtained by which efficiency in air defense fundamentals could be accurately evaluated.

c. Further training was afforded CIC officers by the setting up of a program whereby they were required to stand six watches on the bridge as Junior Officers of the Watch. The JOCW on one watch was left permanently unassigned and has been filled alternately by two CIC officers. This arrangement has proved very satisfactory from the standpoint of further acquainting CIC officers with the elements of ship handling and maneuvering during air operations.

3. Electronics

a. The absence of scheduled replenishment days allowed no opportunity for necessary preventive maintenance on primary radar equipment and VHF antennas. Continuous corrective maintenance was performed on equipment with no undue hardship inflicted on either personnel or plant.

b. The VHF/UHF antenna and transmission line system presented a problem of insulation deterioration which resulted from moisture, salt, and stack gases. The transmission line couplings at the foot of the foremost are highly susceptible to moisture penetration and were the cause of periodic breakdowns in VHF communications. This problem was overcome by wrapping the entire coupling joints with rubber tape and then wiping them with plastic cement. The VHF antennas, although cleaned externally at daily intervals, suffered insulation breakdowns whenever the ship entered a fog bank or area.
of high humidity from a comparatively dry area. The only solution to such a condition was to remove the antennas singly and completely dismantle and clean the internal spacers and surfaces. This can be, and was accomplished under conditions of continuous operation; although, from the point of view of personnel safety, such procedure is not recommended as routine maintenance. A higher degree of sealing for VHF antennas, however, is recommended. The UHF antennas, are completely inaccessible during operations at sea, and at the completion of forty-five days operation, nine of the thirteen UHF antennas installed were either open or shorted internally. It is recommended that UHF extension arms be hinged at the mast in order that they may be lowered for maintenance work.

c. The excessive vibration to which Radio III is subjected resulted in a casualty to the power supply chassis of a TCK transmitter. Investigation of the breakdown revealed that the aluminum chassis was cracked and shattered in several places as though crystallization had occurred. A new chassis was constructed on board.

d. Two identical casualties occurred in the one thousand volt winding of the low voltage armature of the motor generator associated with the TBM transmitter in Radio III. The actual cause is not known. The most logical assumption, however, is that it was an insulation breakdown resulting from age and storage. The lack of a spare necessitated rewinding the armature on board.

e. Daily lectures were given to technicians and familiarization tours and explanatory talks were given to new SA ratings in the division.

4. Photographic Laboratory

a. Photographic reconnaissance planes from unit "Dog" of VC-61 flew a total of thirty-nine sorties and obtained a total of 4,417 exposures during the period. The chief difficulty experienced in processing the film arose from the fact that the laboratory is not equipped to process four hundred foot rolls. These rolls have to be cut in half and only one roll can be processed at a time.

b. Another difficulty encountered is due to the fact that the laboratory possesses only one "Aloa" dryer. This dryer broke down on two occasions during the period and is a source of constant maintenance troubles. The cut-back in distribution requirements (from six to two) allowed the photographic section to get all its work out on time, however, in spite of the breakdowns.
5. Remarks on Replenishment Procedures

a. The time required to prepare a carrier for re-arming, provisioning, and re-fueling and to make it ready again for flight operations after the completion of these evolutions is a major planning consideration. The personnel required for working parties in many instances are the same men who may have just completed work with air operations and who will again be required at their stations for the operations which follow replenishment. Preparations required for re-fueling on the other hand, involve little time and few personnel.

b. An analysis of the replenishments conducted during the period of this report resulted in the following conclusions being drawn with respect to the time and work load factors involved:

(1) Re-arming

(a) Preparation

1. Involves removal of about thirty aircraft from hangar bays one and two to the flight deck with attendant interruption of maintenance. The time required to complete the evolution is about one and one-fourth hours.

2. The assembly of a two hundred man working party requires about forty-five minutes.

(b) After Prep hauled down

1. The assembly and stowage of miscellaneous ammunition requires about two hours for each hour alongside the ammunition ship based on an average arming rate.

2. Aircraft respotting for the next launch can commence at about one-half the ammunition stowage time and be completed simultaneously therewith.

3. Re-arming for the next launch normally cannot be commenced until after ammunition stowage is completed inasmuch as the same personnel are required for both evolutions. An average time interval between leaving the ammunition ship until aircraft can be ready for the next launch is three and one-half hours.
(2) Provisioning

(a) Preparation

1. Involves clearing of the starboard half of bays number one and two and nearly all of bay number three. The time required to accomplish this is about one and one-fourth hours.

(b) After Prep hauled down

1. The striking below of provisions from accumulation points in hangar bay number three requires about two hours. Re-spotting for next launch cannot commence before one hour after leaving the provisioning ship.

2. The time required to be ready for the next launch after provisioning will normally be two hours.

(3) Re-fueling

(a) Preparation

1. Involves respotting of about five aircraft to clear the starboard side of bay one. The time required is negligible.

2. The superheat in the boilers must be lowered from 850°F, full power condition, to 600°F, in order to allow for stopping engines if required during the approach to the replenishment vessel. Time required to accomplish this is a minimum of thirty-five minutes. One hour notice is desirable to comply with safe engineering practice.

(b) After Prep hauled down

1. Aircraft can be ready for launch on completion of re-fueling.

2. Superheat must again be raised to 800°F, and additional boilers cut in to have full power available. Time required is thirty-five minutes to one hour.

(c. It is recommended that due consideration be given to appropriate time and workload factors in planning replenishment operations, particularly for aircraft carriers when operating with a task force.

48 of 53 Enclosure (1)
G. Navigation Department

1. Standard Tactical Diameter for Fast Carrier Operations

   a. The operations of this ship with Task Force SEVENTY-SEVEN have demonstrated that turns made with a standard tactical diameter of one thousand five hundred yards are undesirable and that turns made with an increased diameter are essential to the efficient conduct of present day fast carrier operations. The heavier aircraft now in use and the increased bomb loads have increased carrier top side weight to such an extent that the degree of heel in a standard turn is so excessive that all aircraft maintenance and respotting must be stopped until a turn is completed. Some of the unacceptable conditions which result therefrom and which seriously interfere with the meeting of scheduled operations are as follows:

   (1) Aircraft must be secured with additional tie down lines over and above the three tie down reels normally used during air operations. (The high center of gravity of the jet type aircraft with folded wings renders them unstable. In one instance three tie down reels failed and an F9F-5 airplane would have gone over the side if it had not been stopped by falling against another plane.)

   (2) All movements of automotive equipment must be stopped and all portable maintenance equipment secured.

   (3) Re-arming and re-fueling operations are either stopped or retarded.

   (4) Aircraft which have been placed on hydraulic wing jacks for routine maintenance are endangered.

   (5) Personnel are exposed to additional hazards when the deck is wet.

   b. The limited endurance of jet aircraft requires frequent launch and recovery operations and a proportionate increase in the number of formation turns into and out of the wind. The loss of efficiency which results from the frequent stoppage of work as outlined above is unacceptable. Turns of increased diameter must be employed in the interest of personnel and material safety and in order to obtain uninterrupted flight and hangar deck operations.

   c. Experience with the use of a 2000 yard tactical diameter, which was recommended by this command and directed to be used for standard turns by Commander Task Force 77 on 27 June 1953, proved it to be highly satisfactory. It is recommended that a tactical diameter of 2000 yards be adopted as standard for all fast carrier operations.
2. Lighting for Night Replenishment Operations.

a. The operations during this period afforded the most concentrated and varied experience with night replenishment of the Korean War. The procedures involved became commonplace with practice and were refined and modified by the lessons learned by experience. In general, the special lighting prescribed by NWP-38 for tackle and gear at transfer stations was found to be satisfactory. However, no provision was made for the lighting of the delivering ships which would serve as aids to the receiving ships in making approaches and in keeping station alongside. In an attempt to develop a suitable lighting system for these purposes, this command recommended to Commander Task Force SEVENTY-SEVEN the evaluation of the following lighting arrangements on replenishment and receiving vessels:

(1) One dim red light located on the main deck of the delivering ship, at a point opposite the desired position of the bridge of the receiving ship, so as to reflect outward and downward at the deck edge at an angle of approximately $45^\circ$. (This light not only indicates the best position for the receiving ship, but serves to eliminate the tendency toward vertigo which results from observing a single light, for protracted lengths of time.)

(2) Another dim red light, similarly rigged, located as far forward as practicable, to indicate the fore and aft axis as well as the side of the replenishment ship.

(3) Two dimmed lights, of the same intensity as those described in paragraph 360 of NWP-38, rigged on top of each of the afterking posts of the delivering ship to form a wardship range of lights. (These two lights provide a means for detecting the relative fore and aft movement of the two ships.)

(4) Two dim red lights located forward on the replenishing side of the receiving ship to form a range of lights along the fore and aft axis. (These lights, and the one described in sub-paragraph (b) above, provide an indication of the movement of the bows of the two ships, toward or away from each other. On this ship, the forward deck edge lights on the flight deck serve this purpose.)

(5) For approaches to the replenishment ship; the screened wake light and the red truck lights of the replenishment vessel. (These lights, in conjunction with the station keeping lights prescribed above, provide the orientation and depth perception necessary to make night approaches with confidence. On the contrary, particularly on dark or foggy nights, the stern light and/or unscreened deck flood lights are too bright in contrast to the other lights on the replenishment ship which are essential to proper orientation.)
b. In view of the unprecedented opportunity which was afforded the units of Task Force SEVENTY-SEVEN to replenish at night and to develop these improvements in the lighting systems for approach and station keeping, it is recommended that the above lighting measures be adopted for standard use.

H. Supply Department

1. The department functioned normally throughout this extended period although the length of time on the line proved to be the most severe test of "staying power" sustained by it to date. Only two items ran critically low: tires and tubes for the F9F aircraft.

2. One hundred fifty-one F9F main landing gear tires were expended in the forty-three operating days covered by this report. It is considered that the principal factor in the unexpectedly high usage of these items was the use of K-18 as a "weather alternate" landing field at times when the Task Force was fogged in. The K-18 runways are composed of worn Marston Matting which rips tires to shreds. The acute shortage was relieved by prompt action on the part of the USS BOXER (CVA-21). A re-supply from the USS JUPITER (AVG-3) has subsequently been received.

3. Because of the need for optimum coordination and cooperation between Task Force ships during the period of maximum effort, a conference was requested by the PRINCETON and convened by Commander Carrier Division ONE. Attending were the Supply Officers of all four CVAs on the line and the Staff Supply Officers of Commander Carrier Division ONE and THREE. An agenda was drawn up and agreements were reached upon the following subjects:
   a. Demand channels.
   b. Logistic communication procedures.
   c. Responsibility for action.

The minutes of the meeting are in the possession of Commander Carrier Division ONE and the USS LAKE CHAMPLAIN (CVA-39), and an early amplification of the Logistic Annex to the Task Force Operation Order is anticipated. It is recommended that a program to insure maximum continuity of effort and information on immediate logistic programs between the relieving Task Force Command Staffs and major units within the Force be pursued.
PART VII RECOMMENDATIONS:

1. Page 24 (VI, A, 5, d)
   a. It is recommended that:

   (1) Blast shields be rigidly inspected for signs of deterioration to reduce the possibility of pieces coming loose and entering the intake ducts.

   (2) That flight deck personnel conduct continuous policing of the flight deck, particularly in the drain scuppers.

   (3) That ordnance personnel police the area for pieces of arming wire before leaving a job.

   (4) That squadron personnel of the flight deck also continually police the area for pieces of metal that could be blown or sucked into engine intake ducts.

2. Page 30 (VI, A, 8, c)
   a. It is recommended that the type hoist gear installed in the USS LAKE CHAMPLAIN (CVA-39) be installed in all other CVA's.

3. Page 32 (VI, A, 9, c)
   a. It is recommended that a stronger material be used for FSK-1 survival kit containers and that one FSK-1 be issued each pilot for personal care. A RUDM is being submitted.

4. Page 32 (VI, A, 10, a(2))
   a. It is recommended that, for a tour of over twenty days on the line, and when operations permit, an occasional break in operations be scheduled.

5. Page 35 (VI, B, 2, c)
   a. It is recommended that the lug channels (of the Mark I Bomb Skid) be strengthened with angle irons, or that they be manufactured of heavier gauge metal. An RUDAE is being submitted.

6. Page 38 (VI, B, 7, a)
   a. It is recommended that all helicopter units flying H3S-1 helicopters and based aboard ship in the Korean area reduce their gasoline loads and strip the helicopters in no-wind or light-wind conditions.
7. Page 44 (VI, F, 1, d)
   a. It is recommended that all aircraft carriers ascertain whether similar correction factors are required for their wind indicating systems and that after each periodic overhaul a re-check of the correction factors be made. It is further recommended that corrected relative wind direction and intensity indicator readings always be reported by aircraft carriers whenever comparisons are made. A letter is being submitted to Commander Air Force, Pacific Fleet on this subject.

8. Page 46 (VI, F, 3, b)
   a. It is recommended that UHF extension arms be hinged at the mast in order that they may be lowered for maintenance.

9. Page 48 (VI, E, 5, c)
   a. It is recommended that due consideration be given to time and workload factors in planning all replenishment operations.

10. Page 49 (VI, G, 1, c)
    a. It is recommended that a two thousand yard tactical diameter be adopted as standard for all fast carrier task force operations. A letter is being submitted on this subject to the Chief of Naval Operations.

11. Page 51 (VI, G, 2, b)
    a. It is recommended that a standard lighting system for the purpose of assisting receiving ships in making approaches and in station keeping during night replenishment be incorporated in NMF-38 for use by all naval vessels.

12. Page 51 (VI, H, 3)
    a. It is recommended that a program to insure maximum continuity of effort and information on immediate logistic programs between the relieving Task Force Command Staffs and major units within the task force be pursued.
SECURITY INFORMATION

CAG-2
CAG-5
CAG-7
CAG-9
CAG-11
CAG-15
CAG-19
CAG-14
CAG-12
C.TG-1
CATC-2
CO, VC-3
CO, VC-11
CO, VC-35
CO, VC-61

AUTHENTICATED:

[Signature]

JAMES GAGNON
LCDR, USNR
Flag Secretary
From: Commanding Officer, USS PRINCETON (CVA-37)  
To: Chief of Naval Operations  
Via: (1) Commander Task Force SEVENTY-SEVEN  
     (2) Commander SEVENTH Fleet  
     (3) Commander Naval Forces, Far East  
     (4) Commander in Chief, U.S. Pacific Fleet  

Subj: Final Action Report and Statistical Summary of the USS PRINCETON (CVA-37) and CARRIER AIR GROUP FIFTEEN for period January to September 1953; submission of  

Ref: (a) NMF 10-1, Operational Reports  

Encl: (1) Action Report; 14 August 1953 through 3 September 1953  
      (2) Statistical Summary; January through September 1953  

1. In accordance with reference (a), the Action Report of the USS PRINCETON (CVA-37) and CARRIER AIR GROUP FIFTEEN for the period 14 August 1953 through 3 September 1953 is submitted as enclosure (1).  

2. The Statistical Summary for the period January through September 1953 is submitted as enclosure (2).  

[Signature]
SECURITY INFORMATION

CNO (2) Advance
CINC PACFLT (2) Advance
CINC PACFLT EVALUATION GROUP
COMNAVSUR (1) Advance
COMNAVSUR EVALUATION GROUP
COMSEVENTHFLT (1) Advance
CTF-77 (1) Advance
CTF-92
COMAIRPAC (5)
COMSEVPAC
COMFAIRLAMEDA
COMFAIRHAWAII
COMFAIRJAPAN
NAVAL WAR COLLEGE
COMCIV DIV ONE
COMCIV DIV THREE
COMCIV DIV FIVE
COMCIV DIV FIFTEEN
COMCIV DIV SEVENTEEN
USS ESSEX (CVA-9)
USS YORKTOWN (CVA-10)
USS RANDOLPH (CVA-15)
USS HANCOCK (CVA-19)
USS BOXER (CVA-21)
USS KEARSARGE (CVA-33)
USS ORISKANY (CVA-34)
USS LAKE CHAMPLAIN (CVA-39)
USS PHILIPPINE SEA (CVA-47)
USS BATAAN (CVL-29)
USS RENDova (CVE-114)
USS BATROKO (CVE-115)
USS BADOENG STRAIT (CVE-116)
USS SICILY (CVE-118)
USS POINT CRUZ (CVE-119)
CARRIER AIR GROUP TWO
CARRIER AIR GROUP FIVE
CARRIER AIR GROUP SEVEN
CARRIER AIR GROUP NINE
CARRIER AIR GROUP ELEVEN
CARRIER AIR GROUP FIFTEEN
CARRIER AIR GROUP NINETEEN
CARRIER AIR GROUP FOURTEEN
CARRIER AIR GROUP TWELVE
CARRIER AIR TASK GROUP ONE
CARRIER AIR TASK GROUP TWO

CO, FAIRESTPAC (2)
CO, COMPOSITE SQUADRON THREE
CO, COMPOSITE SQUADRON ELEVEN
CO, COMPOSITE SQUADRON THIRTY-FIVE
CO, COMPOSITE SQUADRON SIXTY-ONE
Subject: ACTION REPORT of U.S.S. PRINCETON (CVA-37) and CARRIER AIR GROUP FIFTEEN for period 14 August 1953 through 3 September 1953

PART I GENERAL NARRATIVE

During the period covered by this report the USS PRINCETON (CVA-37) operated as a unit of Task Force SEVENTY-SEVEN.

Task Force SEVENTY-SEVEN was composed of the carriers USS LAKE CHAMPLAIN (CVA-39), USS KEARSARGE (CVA-33), USS BOXER (CVA-21), and USS PRINCETON (CVA-37), along with various heavy support and screening ships.

The above mentioned carriers operated with the Task Force during the following dates:

U.S.S. LAKE CHAMPLAIN (CVA-39):
14 August to 17 August 1953;
1 September to 3 September 1953.

U.S.S. BOXER (CVA-21):
24 August to 3 September 1953.

U.S.S. KEARSARGE (CVA-33):
14 August to 23 August 1953.

Commander Carrier Division ONE was embarked in the USS LAKE CHAMPLAIN (CVA-39) and Commander Carrier Division THREE was embarked in the USS PRINCETON (CVA-37) throughout the period of this report.

The mission of this Task Force was set forth in Commander Task Force SEVENTY-SEVEN Operation Order Number 2-52.

This report covers the PRINCETON’s last tour in Korean waters during the 1953 cruise.

The Air Group, seasoned by six months of combat duty, maintained a high degree of operational readiness although air operations were limited to defensive and training flights. Emphasis was placed on gunnery training.
The ship conducted nine firing exercises during the period. The end of the Korean conflict and the forthcoming return of the ship to the United States contributed toward a particularly high state of morale.
SECURITY INFORMATION

PART II  CHRONOLOGICAL ORDER OF EVENTS

14 August - Departed Yokosuka, Honshu, Japan. Recovered five PRINCETON aircraft from Naval Air Station, Atsugi.

15 August - Enroute Task Force SEVENTY-SEVEN.

16 August - Joined Task Force SEVENTY-SEVEN, RADM W. D. JOHNSON, USN, Commander Carrier Division ONE, embarked in the USS LAKE CHAMPLAIN (CVA-39) was Commander Task Force SEVENTY-SEVEN.

17 August - VADM J. J. CLARK, USN, Commander SEVENTH Fleet, visited this ship for the purpose of presenting awards to members of the staff, ship, and air group for meritorious achievements in the Korean Conflict. RADM R. E. BLICK, USN, Commander Carrier Division THREE, relieved RADM W. D. JOHNSON, USN, as Commander Task Force SEVENTY-SEVEN. The ship refueled.

18 August - Flew forty-nine sorties.

19 August - Flew forty-five sorties. Conducted gunnery exercises.

20 August - Refueled. Conducted gunnery exercises.

21 August - Flew forty-eight sorties. Conducted gunnery exercises.

22 August - No air operations or gunnery exercises were conducted because of non-operational weather.

23 August - No air operations or gunnery exercises were conducted because of non-operational weather.

24 August - Rearmed; refueled; reprovisioned. Conducted gunnery exercises.

25 August - No air operations or gunnery exercises were conducted because of non-operational weather.

26 August - Flew fifty-one sorties.

27 August - Flew forty-nine sorties. Conducted gunnery exercises.

28 August - Refueled. Conducted gunnery exercises.

29 August - Flew thirty sorties. Conducted gunnery exercises.

Lieutenant General Samuel E. ANDERSON, USAF, Commanding General, FIFTH AIR Force, and party embarked via aircraft to

SECURITY INFORMATION 3 of 19 Enclosure (1)
visit RADM R. E. BLICK, USN, Commander Carrier Division THREE and Commander Task Force SEVENTY-SEVEN, embarked in the PRINCETON. LT. GEN. ANDERSON was conducted on an informal inspection of the ship and observed air operations. LT. GEN. ANDERSON and his party departed via aircraft in the afternoon.

30 August — Steamed in company Task Force SEVENTY-SEVEN.

31 August — Conducted gunnery exercises.

1 September — Refueled. RADM W. D. JOHNSON, USN, Commander Carrier Division ONE, relieved RADM R. E. BLICK, USN, Commander Carrier Division THREE, as Commander Task Force SEVENTY-SEVEN. The PRINCETON was detached from Task Force SEVENTY-SEVEN to proceed to San Diego, California via: Yokosuka, Honshu, Japan; Pearl Harbor, T.H.; and Alameda, California. Forty-five PRINCETON aircraft were launched and ferried to Naval Air Station, Atsugi for transfer. Two forced landings were made from this flight: One AD crash landed in a rice paddy near Atsugi; one F4U made a wheels-up emergency landing on O-Shima Island. Both pilots were recovered uninjured; the aircraft were salvaged.

2 September — Enroute Yokosuka. Conducted gunnery exercises.

3 September — Arrived Yokosuka.
SECURITY INFORMATION

PART III  ORDNANCE

A.  Ship

1.  Performance

   a.  Fire Control Equipment

      (1) One major casualty occurred to fire control equipment during this period. During a tracking run on a radar sleeve it was noted that computer Number Two was not following properly in "range automatic". The computer was shifted to manual rate control of range. When this was done, the range rate control line locked and could not be turned either way with the range knob. Investigation revealed what appeared to be a hanger-screw loose in the bottom of the computer.

      (2) To determine the location of the casualty the shaft connectors between the range section and "JDR" clutch were broken. After this fracture the range hand-crank turned freely, but the line leading to the "JDR" clutch still remained frozen. The clutch was then removed and found to be defective. After a new clutch was installed the mechanism functioned properly.

   b.  Ordnance Equipment

      (1) Nine firing exercises were conducted during this period (see Part II, Chronological Order of Events). No major casualties occurred.

      (2) Baker, George, and Oboe type runs were conducted during firing exercises.

2.  Expenditures

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<td>D10</td>
<td>5&quot;/38 Cartridge, Short, Flashless</td>
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<td>42</td>
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SECURITY INFORMATION
2. Expenditures (Cont'd)

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<td>Signal, Practice bomb, MK4 MODS</td>
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<td>Link, 20mm Disintegrating Belt, M8 or M10</td>
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B. Aviation

For Ordnance and Expenditures by the Air Group (CVG-15) see Part VI, Section A.
PART IV BATTLE DAMAGE: None
2. Statistics on band activities:
   3. Divine Services (5 musicians)
   6. Concerts (band alone) (average attendance: eight)
   15. Concerts (before movies)
   2. Official honors
   1. Inspections and award ceremonies
   1. Happy Hour
   4. Replenishment Serenades

3. Public Information Activities:
   3. Hometown news stories (to FHTNC)
   178. Hometown news pictures (to FHTNC)
   19. Daily newspapers published
   20. Daily radio newscasts

E. Casualties

1. Two major injuries were treated aboard during this period:

   a. CAMP, George D., SN, USN, was transferred aboard on 16 August, from the USS LOFBERG (DE-759). This patient had fallen down a ladder and sustained a fractured right ulna and radius earlier on the same day aboard the LOFBERG. The fracture was reduced by manipulation under general anesthesia and a cast was applied. It is expected that CAMP will be transferred U.S. Naval Hospital San Diego for further treatment.

   b. HUGHES, William L., AA, USN, received a lacerated wound on the lower part of his left leg when a jet blast blew him into a tractor on PRINCETON's flight deck. After his wound had been sutured and dressed, the patient was treated for shock and hospitalized for ten days. No additional treatment outside of this command will be necessary.

2. No deaths were sustained either by Ship's Company or the Air Group during the period.

(For Medical Department Statistical Summaries see Part VI, Section F).
PART VI  SPECIAL COMMENTS

A. Air Group

1. Composition of Air Group FIFTEEN:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Type</th>
<th>Pilots on Board</th>
<th>Aircraft on Board</th>
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<tbody>
<tr>
<td>Carrier Air Group FIFTEEN</td>
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<td>15 Aug</td>
<td>31 Aug</td>
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<tr>
<td>LCDR John E. PARKS, USN</td>
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<tr>
<td><em>Fighter Squadron 152</em></td>
<td>F4U-4</td>
<td>15</td>
<td>15 Aug</td>
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<td>LCDR Robert STAMEK, USN</td>
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<tr>
<td>LT Guy BORDERLON, USN,</td>
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<tr>
<td><em>Fighter Squadron 153</em></td>
<td>F9F-5</td>
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<td>16 Aug</td>
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<td>LCDR Gerald E. MILLER, USN</td>
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<td><em>Fighter Squadron 154</em></td>
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<td><em>Attack Squadron 155</em></td>
<td>AD-4</td>
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<td>23 Aug</td>
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<td>LCDR Ray S. OSTERKOUHT, USN</td>
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SECURITY INFORMATION

10 of 19

Enclosure (1)
1. Composition of Air Group FIFTEEN: (Con't)

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<th>Unit</th>
<th>Type</th>
<th>Pilots on Board</th>
<th>Aircraft on Board</th>
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<td>Composite Squadron 35</td>
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<td>LT John C. HOLLOWAY, USN, Officer-in-Charge</td>
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2. Operations:

   a. The majority of all sorties conducted during this period were training and proficiency flights. Normal combat air patrol and anti-submarine patrol missions were also conducted during flight operations. Night operations were not scheduled during this period.

   b. Numerous coordinated attacks on the Task Force were conducted by large segments of the air group during the past tour. Intercept or CAP flights were deployed by the force as air defense against the "aggressor" elements. These exercises were, generally, quite successful.

   c. For maximum operating efficiency in coordinated attacks it is recommended that the flight leaders of the various elements coordinate pull-out altitudes, attack directions, and timing prior to take-off and that a single strike leader, with positive control over all elements, be assigned to coordinate the attack.

3. Summary of flights 14 August to 3 September 1953:

<table>
<thead>
<tr>
<th>F9F</th>
<th>F4U</th>
<th>F4UN</th>
<th>AD</th>
<th>ADN</th>
<th>ADW</th>
<th>F9FP</th>
<th>Total</th>
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<td>2</td>
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<td>63</td>
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<td>Intercept</td>
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<td>57</td>
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<td></td>
</tr>
<tr>
<td>AGP</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td></td>
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<td>5</td>
<td>67</td>
<td>11</td>
<td>9</td>
<td>317</td>
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</table>
4. Total ammunition expended 14 August to 3 September 1953 (all in training exercises):

a. Bombs and Rockets:

<table>
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<tr>
<th>Dropped</th>
<th>Hung</th>
<th>Type Rack</th>
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<tr>
<td>2.25 SCAR's</td>
<td>37</td>
<td>1*</td>
</tr>
<tr>
<td>Bombs Minature MK23</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Bombs WSP 100#</td>
<td>30</td>
<td>0</td>
</tr>
</tbody>
</table>

b. Machine Guns:

20mm 3,575 rounds expended
Average stoppage: one per 1,200 rounds fired
*dud rocket

5. Maintenance and Material

a. Maintenance work during this period was of a routine nature.

b. Availability during the period was as follows:

<table>
<thead>
<tr>
<th>A/C</th>
<th>Stock Number</th>
<th>Allowance</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD-4NA Idler</td>
<td>R82-DG-2270276</td>
<td>Non-Allow</td>
<td>10 days</td>
</tr>
<tr>
<td>AD-4NA Rod</td>
<td>R82-DG-2273435</td>
<td>Non-Allow</td>
<td>10 days</td>
</tr>
<tr>
<td>AD-4NA Bracket</td>
<td>R82-DG-4270726</td>
<td>Non-Allow</td>
<td>since 8/17/53</td>
</tr>
<tr>
<td>AD-4NA Bracket</td>
<td>R82-DG-2265273</td>
<td>Non-Allow</td>
<td>since 8/17/53</td>
</tr>
<tr>
<td>AD-4NA Hinge</td>
<td>R82-DG-5258879</td>
<td>Non-Allow</td>
<td>since 8/17/53</td>
</tr>
<tr>
<td>F9F-5 Regulator</td>
<td>R83-MR-14600-5-3-2</td>
<td>Allowance</td>
<td>9 days</td>
</tr>
<tr>
<td>F9F-5 Thermostat</td>
<td>R17-VCH-49892</td>
<td>Non-Allow</td>
<td>since 8/18/53</td>
</tr>
<tr>
<td>F9F-5 Thermostat</td>
<td>R17-VCH-49894</td>
<td>Non-Allow</td>
<td>since 8/18/53</td>
</tr>
<tr>
<td>AD-4N Indicator</td>
<td>R88-I-2069-035</td>
<td>Allowance</td>
<td>8 days</td>
</tr>
</tbody>
</table>

*Although there were only three aircraft affected by ACOG's, two of these are still grounded because of non-availability of parts. The non-availability of these parts has adversely affected the availability rates of the squadrons concerned.
6. Intelligence

a. No special problems were encountered by the Air Intelligence organizations. One squadron intelligence officer received T.D. orders during the period. His work, however, was adequately covered by the other intelligence officers.

7. Escape and Evasion and Survival

a. The barter kits returned by pilots at the end of the cruise revealed that a more substantial kit must be devised. Not only did the plastic bags used tear and split, but many items, including wrist watches, fountain pens, and compasses were damaged extensively. The small plastic compasses in seventy per cent of the cases were cracked beyond usefulness. It is recommended that a more substantial kit be devised. A RUM is being submitted on this subject.

b. During this period there were two aircraft ditchings. In both cases the pilots were uninjured and no survival equipment was required.

B. Air Department

1. Aircraft Maintenance

a. The decrease in air operations brought about by the Korean truce made it possible to devote time and manpower to the reconditioning of shop spaces and equipment. A long range program for the overhaul of all shop and hangar deck equipment was started.

b. Three engine changes were made (one due to high engine time, two others to barrier engagements). The changes included one "R2800-18", one "R2800-32", and one "R3350-26". One "A-642-G8" propeller and one "24460-159" propeller were also changed.

2. Automotive Maintenance

a. Various repairs were made during the period on automotive equipment. One tractor engine was completely rebuilt; two reconditioned tractors were exchanged for two requiring major repairs; all tractors and "Hystu" fork lifts were repainted.
3. Catapults and Arresting Gear Equipment
   
a. Summary of catapult shots:

<table>
<thead>
<tr>
<th>Port</th>
<th>Std</th>
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<th>Bridles Expended</th>
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<tr>
<td>HOF-5</td>
<td>83</td>
<td>93</td>
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<tr>
<td>TBM</td>
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<td>5</td>
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<tr>
<td>Total</td>
<td>91</td>
<td>93</td>
<td>189</td>
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</tbody>
</table>

b. Landing Statistics:

(1) Landings:

   Propeller  94
   Jet         153
   Total       247

(2) Barrier Engagements:

   Propeller  1
   Jet         0
   Total       1

C. Engineering Department

1. Four casualties to the engineering plant occurred during this period:

   a. On 17 August, a twenty-four inch carbon searchlight became inoperative. A description of the casualty and repair is covered in Trouble Report number 2-54.

   b. On 17 August, a surface inspection of Number 2 high-pressure air compressor indicated that the bearings and reduction gears were faulty. These gears and bearings were replaced from spares. A description of the casualty and repair is covered in Trouble Report number 2-54.

   c. On 23 August, a one-inch generating tube (number 26, AA row) in Number 3 boiler was found to be leaking. Further investigation revealed sixteen additional one-inch generating tubes in various stages of deterioration due to external erosion. These tubes (numbers 18 to 34, AA row) were mechanically ruptured and plugged. A description of the casualty and repair is covered in Trouble Report number 2-54.
d. On 1 September, an oil failure casualty was sustained in number 14 forced-draft blower. A description of the casualty and repair is covered in Trouble Report number 2-54.

D. Gunnery Department

1. Replenishment at sea

   a. Replenishment at sea was conducted in a normal manner during this period. No night replenishments were conducted.

2. Ordnance and Fire Control

   a. See Part III, Section A.
E. Medical Department

1. General Comment

   a. In general, the morale of all personnel including the Air Group was excellent during this period. The venereal disease incidence rate of this ship continues to be a problem, however. This ship has conducted extensive lectures, shown venereal disease films, and stationed a Hospital Corpsman on the Quarter Deck to issue penicillin tablets to those persons returning from liberty and to advise men who have been exposed, immediately to wash their sex parts with soap and water. Condoms have been made available at the gangway to men going on liberty. In spite of all of these measures, this ship is among the top fifty of over two thousand ships and stations in venereal disease incidence rate. An average of five thousand to six thousand tablets of penicillin are issued to the crew in a ten day stay in port. This rate of issue exceeds the normal use of four tablets per person per month.

2. Statistical Summaries

   a. Medical Department Statistical Summary of Ship's Company and Air Group:

   (1) Admissions to Sick List (Enlisted).......................... 79
   (2) Admissions to Sick List (Officers).......................... 2
   (3) Total visits to Sick Call.................................. 2,034
   (4) Patients received from other ships.......................... 7
   (5) Patients transferred to Hospital............................ 1
   (6) Minor injuries treated..................................... 65
   (7) Major injuries treated..................................... 2
   (8) Number of shipboard injuries resulting in death.......... 0
   (9) Number of persons died of disease........................ 0
   (10) Minor surgical procedures................................ 52
   (11) Major surgical procedures................................ 4

   b. Venereal Disease:

   (1) Urethritis, Non-specific, following sexual exposure...... 52
   (2) Gonorrhea.................................................. 16
   (3) Chancroid.................................................. 14
   (4) Syphilis.................................................. 0
   (5) Other Venereal Disease................................... 0
   (6) Number of penicillin tablets issued in port (8 days).... 4,617
SECURITY INFORMATION

c. Medical Statistical Summary of Air Group Pilots:

(1) Planes lost, operational, pilots not recovered.............0
(2) Planes lost, operational, pilots recovered...............0
(3) Planes lost, operational, pilots injured..................0
(4) Pilots temporarily grounded for medical reasons........2
(5) Pilots permanently grounded pending medical evaluation...0
(6) Average number of days pilots grounded...................3 1/2

F. Operations Department

1. Aerology

   a. There was a marked improvement in the reception of
      A.I.F. radio teletype during this period.

   b. Facsimile reception continued to be good.

   c. Rawin results were also good. The maximum altitude
      was 65,640 feet. No Radiosonde was taken.

2. Intelligence

   a. No special problems were encountered by the ship's
      Air Intelligence Office. One ship's intelligence officer received TAD
      orders during the period (along with a squadron A.I.O.) and is expected
      back in November.

   b. Previous reference has been made to the need for an
      air intelligence rate within the Naval Service. Recent advancement
      examinations confirm the necessity for this rate. The men who work through-
      out the Navy in shipboard intelligence offices, with air group intelligence
      teams, and in shore based intelligence installations are drawn from
      various rates. Most of them are sent to at least one Intelligence or
      Photo Interpretation school. They become integral parts of intelligence
      organizations and highly specialized in this field with little opportunity
      to maintain proficiency in rate. Consequently, their chances for advance-
      ment are considerably reduced. It is, therefore, recommended that an
      air intelligence rate be instituted within the Naval Service. The
      establishment of this rate would not only benefit the men working in
      intelligence and photo interpretation units, but would serve to create a
      permanent corps of these specialists for a field which has increased
      in both scope and size.
3. Organization

a. On 25 August 1953, the O-L Division was incorporated into the O-I Division. This change was accomplished in order to bring the existing organization into conformance with that shown in Change No. 8 to Commander Air Force, Pacific Fleet Standard Ship's Organization Book.
PART VII SUMMARY OF RECOMMENDATIONS:

1. Page 11 (VI, A, 2, a)
   a. For maximum operating efficiency in coordinated attacks it is recommended that the flight leaders of the various elements coordinate pull-out altitudes, attack directions, and timing prior to take-off and that a single strike leader, with positive control over all elements, be assigned to coordinate the attack.

2. Page 13 (VI, A, 7, a)
   a. It is recommended that a more substantial barter kit be devised.

3. Page 17 (VI, F, 2, b)
   a. It is recommended that an air intelligence rate be established.
U.S.S. PRINCETON (CVA-37)

STATISTICAL SUMMARY

FAR EASTERN TOUR

JANUARY THROUGH SEPTEMBER 1953
U.S.S. PRINCETON (CVA-37)

STATISTICAL SUMMARY

FAR EASTERN TOUR

JANUARY THROUGH SEPTEMBER 1953
A. Administrative Department

1. Personnel

a. Average On-Board Count:

<table>
<thead>
<tr>
<th></th>
<th>Officer</th>
<th>Enlisted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship's Company</td>
<td>119</td>
<td>2,070</td>
<td>2,189</td>
</tr>
<tr>
<td>Marine Detachment</td>
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<tr>
<td>Air Group</td>
<td>113</td>
<td>632</td>
<td>745</td>
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<td>Flag</td>
<td>26</td>
<td>74</td>
<td>102</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>262</strong></td>
<td><strong>2,839</strong></td>
<td><strong>3,101</strong></td>
</tr>
</tbody>
</table>

2. Training and Education:

a. A total of fifty-three batteries of four tests each for first year college level examinations were administered during the cruise. A total of one hundred forty-seven batteries of five tests each for high school level examinations were also administered.

b. The command administered two hundred ninety-eight tests, including both high school and first year college level examinations, during the month of July 1953. This amount exceeded the former record of two hundred eighty-four given in July 1952.

c. During this cruise 1,146 men were examined for advancement in rating. Forty-eight percent of these men passed their examinations successfully.

3. Band Activities during the cruise:

26 Divine Services (5 musicians)
50 Concerts (band alone) (average attendance, 67)
35 Concerts (before movie)
7 Official honors
4 Inspections and award ceremonies
3 Happy Hours
62 Replenishment serenades
40 Morning Colors
17 Division parties
11 Miscellaneous activities (playing while entering and leaving port; greetings; farewells)
2 Memorial services
A. Public Information Activities during the cruise:

200 Hometown news stories (to FHTNC)
469 Hometown news pictures (to FHTNC)
89 News dispatches (by radio)
34 News feature stories
56 Homestown radio interviews (to CINCPACFLT)
138 Daily newspapers published
145 Daily radio newscasts (PRINCETON VARIETIES)

1 Magazine Article

B. Air Group Statistical Data:

1. Summary of Total Aircraft Sorties:

<table>
<thead>
<tr>
<th>STRIKE</th>
<th>FEB</th>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUGUST</th>
<th>SEPTEMBER</th>
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<td></td>
<td>610</td>
<td>445</td>
<td>421</td>
<td>529</td>
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<td>926</td>
<td>1,410</td>
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2. Monthly sorties by type:

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TOTAL
SORTIES
THIS MONTH 308 136 26 205 39 34 22 820
### MARCH

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<th>F4UN</th>
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**TOTAL SORTIES**

THIS MONTH: 625 | 235 | 26 | 252 | 35 | 20 | 43 | 1,306

PREVIOUS MONTH: 766 | 26 | 205 | 39 | 34 | 22 | 820

GRAND TOTAL: 1,003 | 121 | 52 | 457 | 74 | 54 | 65 | 2,126

### APRIL

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**TOTAL SORTIES**

THIS MONTH: 501 | 195 | 34 | 203 | 39 | 33 | 35 | 1,040

PREVIOUS MONTH: 1,003 | 421 | 52 | 457 | 74 | 54 | 65 | 2,126

GRAND TOTAL: 1,504 | 616 | 86 | 660 | 113 | 97 | 100 | 3,166

SECURITY INFORMATION 3 of 17

Enclosure (2)
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TOTAL SORTIES
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SORTIES 1,504 616 86 660 113 37 100 3,166
GRAND
TOTAL 1,978 785 104 831 138 120 148 4,104

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TOTAL SORTIES
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PREVIOUS
SORTIES 1,978 785 104 831 138 120 148 4,104
GRAND
TOTAL 2,779 1,032 122 1,078 172 144 190 5,514

SECURITY INFORMATION 4 of 17
Enclosure (2)
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**TOTAL SORTIES**

**THIS MONTH**: 1,155

**344**: 8

**365**: 63

**45**: 54

**2,034**: 1

**PREVIOUS**

**SORTIES**: 2,772

**1,052**: 122

**1,078**: 172

**141**: 190

**5,514**: 5

**GRAND**

**TOTAL**: 3,934

**1,376**: 130

**1,443**: 235

**186**: 244

**244**: 7

**7,548**: 7

### AUGUST-SEPTEMBER

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**TOTAL SORTIES**

**THIS MONTH**: 165

**49**: 5

**67**: 11

**11**: 9

**317**: 2

**PREVIOUS**

**SORTIES**: 3,934

**1,376**: 130

**1,443**: 235

**186**: 244

**7,548**: 7

**GRAND**

**TOTAL**: 4,099

**1,428**: 132

**1,510**: 246

**197**: 253

**7,865**: 7

3. Casualties for 1953 cruise:

   a. **VF-152 (FAU-4 Aircraft)**

   5 May: ENS W. W. QUINLEY, USNR; shot down by AA fire; killed in action.

**SECURITY INFORMATION**

5 of 17

Enclosure (2)
SECURITY INFORMATION

6 May: LT R. RICHEY, USNR; missing on flight over Wonsan; listed missing in action.

26 July: LT W. C. BLACKFORD, USNR; shot down by AA fire; killed in action.

b. VF-153 (F9F-5 Aircraft)

17 March: ENS J. HALL, USNR; shot down by AA fire; listed missing in action.

25 April: ENS L. L. QUIEL, USNR; crashed and killed on take-off.

6 May: ENS F. E. PAINTER, USNR; shot down by AA fire; killed in action.

13 May: LTJG R. C. CLINTON, USN; killed in action; drowned after bailout.

20 August: LCDR C. M. JONES, USN; hit by AA fire; killed in action.

c. VF-154 (F9F-5 Aircraft)

23 April: ENS A. M. CLEMONS, USNR; hit by AA fire; killed in action.

28 April: LTJG R. J. LEAR, USN; hit by AA fire; killed in action.

d. VA-155 (AD-4 Aircraft)

12 August: LT J. L. PAINTER, USN (ComCardDiv THREE Staff); crashed and killed at sea during a routine ASP escort flight.

4. Pilot Survival for 1953 cruise:

19 April: ENS B. SUTHERLIN, USNR; ditched in an F9F-5 on take-off; rescued by CVA-37 helicopter.

21 April: LTJG C. J. CLARKSON, USN; ditched in an F9F-5 after being hit by AA fire; rescued by LST 735 helicopter.

3 May: LT E. B. PURCELL, USNR; ditched in an F4U-4 after being hit by AA fire; rescued by LST 735 helicopter.
3 May: ENS H. E. Emmick, USNR; ditched in an AD-4 following engine failure; rescued by CVA-37 helicopter.

13 June: LT J. F. Lasserter, USN; ditched in an F9F-5 due low fuel state; rescued by K-18 helicopter.

1 August: LT W. A. Jensen, USNR; ditched in an F4U-4 after being hit by AA fire; rescued by LST 799 helicopter.


16 August: LT J. F. Kickerton, USN; bailed out from an AD-4 after receiving enemy AA fire; rescued by Air Force helicopter.

19 August: ENS R. W. Turner, USNR; crashed in an F4U-4 on take-off; rescued by DD-445 and CVA-37 helicopter.

25 August: LTjg R. A. Courtney, USNR; ditched in an AD-4 after battle damage; rescued by LST 788 helicopter.

1 September: LT R. L. Hall, USN; crash landed an AD-4 in a Japanese rice paddy due low fuel state; recovered uninjured.

1 September: LCDR F. Killkullen, USNR; made wheels up landing in an F4U-4 on Okinawa Island due to engine trouble; recovered uninjured.

*There were no known cases of pilots landing behind enemy lines and surviving. There were seven instances of planes crashing behind enemy lines; but in six cases the pilots were not observed to have left their planes before the crashes occurred. In the other case, neither the pilot nor the crash were observed nor was the wreckage located later.

5. Maintenance and Material

a. No unusual or extraordinary maintenance problems were encountered during the cruise. Overhauled sparkplugs presented the most recurrent difficulty in the operation of the propeller aircraft; malfunctioning fuel controls were the largest cause of trouble in the jet aircraft. Some of the most frequently used major items are itemized below:

(1) Engines:

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Enclosure (2)
(1) Engines: (Cont'd)

R2A-18W 8  
R2A-32W 3

(2) Carburetors:

For R3350-26WA 13  
For R2A-18W 6  
For R2A-32W 0  

(3) Fuel Controls: 34

(4) Magneto:

R-3350-26WA 6  
R2A-18W 9  
R2A-32W 0

(5) F9F-5 Tip Tanks:

Port 21  
Starboard 13

(6) Tires:

F9F-5 329  
AD 32  
F4U 16

b. Supply support during the entire period was excellent. The "ACOG's" experienced during the period have been itemized in the individual Action Reports for the various tours of this cruise.

c. Availability:

(1) The availability of all squadrons remained relatively high during the entire cruise. As computed in accordance with the Naval Air Warfare Reporting Manual, availability for the four tours was as follows:

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<td>90.0%</td>
<td>100%</td>
<td>98.0%</td>
<td>95.6%</td>
</tr>
<tr>
<td>4th tour</td>
<td>94.5%</td>
<td>93.2%</td>
<td>95.6%</td>
<td>89.7%</td>
<td>94.7%</td>
<td>100%</td>
<td>83.3%</td>
<td>95.1%</td>
</tr>
<tr>
<td>Cruise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>93.0%</td>
<td>94.7%</td>
<td>94.3%</td>
<td>93.7%</td>
<td>75.8%</td>
<td>95.9%</td>
<td>90.7%</td>
<td>94.1%</td>
</tr>
</tbody>
</table>

Enclosure (2)
(2) During this cruise the squadron availability was also computed on a percentage basis established on a ratio of missions regularly scheduled for a squadron to those flown by its own aircraft:

<table>
<thead>
<tr>
<th>Tour</th>
<th>VF-152</th>
<th>VF-153</th>
<th>VF-154</th>
<th>VA-155</th>
<th>VC-3</th>
<th>VC-11</th>
<th>VC-35</th>
<th>VC-61</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st tour</td>
<td>98.2%</td>
<td>98.2%</td>
<td>99.8%</td>
<td>98.0%</td>
<td>96.0%</td>
<td>98.0%</td>
<td>95.3%</td>
<td>100%</td>
</tr>
<tr>
<td>2nd tour</td>
<td>99.6%</td>
<td>97.9%</td>
<td>99.7%</td>
<td>95.6%</td>
<td>95.6%</td>
<td>96.7%</td>
<td>92.6%</td>
<td>100%</td>
</tr>
<tr>
<td>3rd tour</td>
<td>97.9%</td>
<td>90.8%</td>
<td>102.3%</td>
<td>97.9%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>4th tour</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Cruise average</td>
<td>98.9%</td>
<td>96.7%</td>
<td>100.6%</td>
<td>97.9%</td>
<td>97.9%</td>
<td>98.6%</td>
<td>97.2%</td>
<td>100%</td>
</tr>
</tbody>
</table>

6. Ordnance

a. The sum total of ordnance expended was approximately 9,665,528 pounds.

b. Hung Ordnance (all causes):

<table>
<thead>
<tr>
<th>Type</th>
<th>Manual Releases</th>
<th>Drop-Off By Jerking</th>
<th>Drop-Off On Take-Off</th>
<th>Drop-Off On Landing</th>
<th>Remaining Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>100#</td>
<td>4</td>
<td>1</td>
<td>11</td>
<td>34</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>250#</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>2</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>260#</td>
<td>3</td>
<td></td>
<td>2</td>
<td>1</td>
<td>Douglas</td>
</tr>
<tr>
<td>500#</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>MK 51</td>
</tr>
<tr>
<td>500#</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>Bomb Ej.</td>
</tr>
<tr>
<td>1,000#</td>
<td>6</td>
<td></td>
<td></td>
<td>2</td>
<td>MK 51</td>
</tr>
<tr>
<td>1,000#</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>Douglas</td>
</tr>
<tr>
<td>2,000#</td>
<td>3</td>
<td></td>
<td></td>
<td>1</td>
<td>Bomb Ej.</td>
</tr>
<tr>
<td>Napalm</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>Douglas</td>
</tr>
<tr>
<td>HVAR</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>ATAR</td>
<td></td>
<td></td>
<td></td>
<td>46</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>3.5&quot; AR</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>ATAR</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>MK 9</td>
</tr>
<tr>
<td>INC</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>Aero 14A</td>
</tr>
<tr>
<td>ADB</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

(i) Of 23,429 bombs and flares carried, .26 percent were hung.
(2) Of 1,591 rockets carried, 7.6 per cent were hung. (Of all rockets carried, five per cent were returned aboard due to the slipstream breaking off the rocket pigtales. Numerous devices were tried in an effort to reduce the breaking of the pigtales. For the most part these devices proved to be impractical or ineffective).

(3) The twenty millimeter guns averaged one stoppage per 1,200 rounds fired.

c. The performance of the "Aero 14A" rack improved considerably during this cruise after limited lubrication and preventative maintenance check procedures were adopted. It was found that the shear pin should be changed whenever the rack was subjected to an arrested landing while a rocket was attached to it. Frequent failures of the rack components were reduced due to the consignment of necessary parts to this command by Commander Fleet Air Japan.

7. Damage analysis

a. Flak damage to own aircraft: F9F-5 FAU AD-A

<table>
<thead>
<tr>
<th>Type</th>
<th>P9F-5</th>
<th>FAU</th>
<th>AD-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorties</td>
<td>3,664</td>
<td>1,293</td>
<td>1,672</td>
</tr>
<tr>
<td>Hits</td>
<td>35</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Hits per one hundred sorties</td>
<td>0.9%</td>
<td>1.14%</td>
<td>0.177%</td>
</tr>
<tr>
<td>Aircraft lost</td>
<td>8</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Aircraft lost (one hundred sorties)</td>
<td>0.021%</td>
<td>0.35%</td>
<td>0.11%</td>
</tr>
</tbody>
</table>

b. Damage Inflicted on Enemy:*  

<table>
<thead>
<tr>
<th>Enemy Aircraft</th>
<th>Destroyed</th>
<th>Damaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enemy Aircraft</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Trucks</td>
<td>353</td>
<td>194</td>
</tr>
<tr>
<td>Buildings</td>
<td>891</td>
<td>340</td>
</tr>
<tr>
<td>Boxcars</td>
<td>149</td>
<td>261</td>
</tr>
<tr>
<td>Troop and Supply Areas</td>
<td>269</td>
<td>355</td>
</tr>
<tr>
<td>Gun Positions</td>
<td>144</td>
<td>89</td>
</tr>
<tr>
<td>Oxycars</td>
<td>64</td>
<td>40</td>
</tr>
<tr>
<td>Boats</td>
<td>28</td>
<td>77</td>
</tr>
<tr>
<td>Railcuts</td>
<td>157</td>
<td>72</td>
</tr>
<tr>
<td>Roadcuts</td>
<td>4,835 yds.</td>
<td>1,130 yds.</td>
</tr>
<tr>
<td>Trenches</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Locomotives</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Airfields</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Power Plants</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Command Positions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Enclosure (2)
The above mentioned damaged assessment represents an estimate of the actual damage inflicted on the enemy during the operational period. Only those instances where damage could be assessed by the pilots or confirmed by controllers were used in this table. There were numerous camouflaged targets identified as personnel shelters, supply dumps, etc., which were attacked with heavy damage resulting, but no confirmed damage assessment could be tabulated. There were also over seventy "MFQ" ground radar controlled drops where weather precluded any type of damage analysis.

C. Air Department Statistical Summary:

1. Catapults

   a. Breakdown of Catapult Launches:

<table>
<thead>
<tr>
<th></th>
<th>Port</th>
<th>Std</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day Launches</td>
<td>1,865</td>
<td>2,247</td>
<td>4,112</td>
</tr>
<tr>
<td>Night Launches</td>
<td>1,951</td>
<td>2,307</td>
<td>4,258</td>
</tr>
</tbody>
</table>

   b. Types of Aircraft Catapulted:

   | Type A/G       | No.  | Port | Std | Bridges Expe|d |
   |----------------|------|------|-----|-------------|
   | F9F-5          | 3,065| 1,300| 2,136| 37          |
   | F2H-2          | 3    | 1    | 2   | 0           |
   | F9F-2          | 5    | 4    | 1   | 0           |
   | AD             | 164  | 114  | 50  | 9           |
   | F4U-5N         | 93   | 14   | 79  | 6           |
   | F4U-4          | 9    | 2    | 7   | 0           |
   | TBk            | 28   | 16   | 12  | 4           |
2. Arresting Gear

a. Breakdown of Landings:

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day Landings</td>
<td>6,918</td>
</tr>
<tr>
<td>Night Landings</td>
<td>56</td>
</tr>
<tr>
<td>Jet Landings</td>
<td>3,818</td>
</tr>
<tr>
<td>Prop Landings</td>
<td>2,156</td>
</tr>
</tbody>
</table>

Total Landings: 6,974

b. Total Barrier and Barricade Engagements:

(1) Jet barrier and barricade: 29
(2) Prop barrier: 8

Total: 37

c. Average aircraft runout: Jets - 129 feet; Props - 99 feet

3. Aircraft Maintenance

a. Engines built up:

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2800-16W</td>
<td>7</td>
</tr>
<tr>
<td>R2800-32W</td>
<td>3</td>
</tr>
<tr>
<td>R3350-26WA</td>
<td>3</td>
</tr>
<tr>
<td>J48-P6-A</td>
<td>15</td>
</tr>
</tbody>
</table>

Total: 28

b. Propellers built up:

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>24360</td>
<td>9</td>
</tr>
<tr>
<td>H-642</td>
<td>2</td>
</tr>
</tbody>
</table>

Total: 14

4. Automotive Maintenance

a. Tractors repaired: 10

b. Fork Lifts repaired: 3

Enclosure (2)
5. Aviation Gasoline

a. The aviation gasoline, lube oil, and alcohol systems have operated with few difficulties during this entire cruise; however, it was necessary at times to renew some components of the systems to insure continuance of proper operation.

b. The sixty mesh strainer baskets in the pump room were replaced with eighty mesh screens during the cruise.

c. The fuel station filters were drained daily to remove any sediment or water which might have accumulated in the strainers. This procedure was used due to the constant lubrication of the system plug-valves which removed any lubricant that might have gone into the system.

d. The forward electric gasoline pump was replaced due to leaking seals for which no replacement parts were available. Both inert transmitter analyzer units have been inoperative. No corrective measures were taken due to inexperienced personnel. The portable analyzers were used during the entire cruise.

e. The meters required maintenance due to the failure of rotors to operate. To correct this malfunction, the top plates were removed and penetrating oil was worked in and around the rotor shafts and bearings.

f. The aviation lube oil system and the alcohol system have caused no difficulties.

g. This vessel has delivered the following amounts of aviation gasoline, alcohol, and "1100" aviation lube oil to the Air Group during this period:

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aviation Gasoline</td>
<td>4,279,229 gals.</td>
</tr>
<tr>
<td>1100 Lube Oil</td>
<td>8,776 gals.</td>
</tr>
<tr>
<td>Alcohol</td>
<td>1,762 gals.</td>
</tr>
</tbody>
</table>

D. Engineering Department

1. Maintenance

a. Since the ship's departure from Alameda on 24 January 1953, a total of forty-two days have been made available for engineering maintenance. These periods were allocated as follows: one nine day period; one seven day period for docking and shaft repairs; two ten day periods;
and one six day period. Ship Repair Facility, Yokosuka, Japan, provided excellent facilities in every case. There were no repair facilities available to the ship, however, during its six day stay in Hong Kong.

b. Availability periods of seven or eight days are not worth-while for adequate maintenance work; no major repair can be undertaken with any assurance of completion in such a short time. Vital repairs were accomplished in short periods during this cruise, but only by much round-the-clock work at sea and during liberty hours in port. Improper short cuts taken to beat the time element inevitably invite serious mechanical derangement.

c. If operating conditions had permitted, four upkeep periods of ten to twelve days each would have paid far higher dividends in useful maintenance and rest for the crew than the same total number of upkeep days taken in the sequence described above.

2. Statistics:

Miles Steamed..............................58,897
Fuel Used Underway......................10,713,286 gals.
Received from tankers (fuel)............9,223,723 gals.
Refueling time................................56.5 Hours
Receiving rate (average)...............2,864.6 Gallons per minute
Fuel transferred to DD's..................242,852 gals.
Average transfer rate to DD's...........61,446 Gallons per hour
Time to fuel DD's.........................43.5 Minutes
Water distilled............................13,341,844

E. Gunnery Department

1. Statistical Summary for 1953 cruise:

   a. Underway replenishments..............77
   b. Transfers of freight and personnel 106
   c. Combatant ship fuelings at sea........14
SECURITY INFORMATION

and one six day period. Ship Repair Facility, Yokosuka, Japan, provided excellent facilities in every case. There were no repair facilities available to the ship, however, during its six day stay in Hong Kong.

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Refueling time..........................56.5 Hours
Receiving rate (average)............2,664.6 Gallons per minute
Fuel transferred to DD's..............242,852 gals.
Average transfer rate to DD's.......61.446 Gallons per hour
Time to fuel DD's......................43.5 Minutes
Water distilled........................13,304,844

E. Gunnery Department

1. Statistical Summary for 1953 cruise:

   a. Underway replenishments 77
   b. Transfers of freight and personnel 106
   c. Combatant ship fuelings at sea 14
2. Ship ordnance expended for 1953 cruise:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>897</td>
<td>D1</td>
<td>5&quot;/38 Projectile, AAC</td>
</tr>
<tr>
<td>8</td>
<td>D2A</td>
<td>5&quot;/38 Projectile, FCL (VT), (SD)</td>
</tr>
<tr>
<td>1,009</td>
<td>D8</td>
<td>Cartridge, Full, Non-Flashless</td>
</tr>
<tr>
<td>2</td>
<td>D10</td>
<td>5&quot;/38 Cartridge, Short, Flashless</td>
</tr>
<tr>
<td>104</td>
<td>D12B</td>
<td>5&quot;/38 Projectile, FCL (WT) (Non-Frag) (NSD)</td>
</tr>
<tr>
<td>14,086</td>
<td>H1</td>
<td>40MM Cartridge, HE(1)-SD</td>
</tr>
<tr>
<td>2,616</td>
<td>H2</td>
<td>40MM Cartridge HE(1)-SD</td>
</tr>
<tr>
<td>352</td>
<td>H4</td>
<td>40MM Cartridge, HE(1)-(D1)-SD</td>
</tr>
<tr>
<td>32</td>
<td>H5</td>
<td>40MM Cartridge, BL and T</td>
</tr>
</tbody>
</table>

F. Medical Department

1. Statistical Summary 1953 cruise:

   (1) Admissions to sick list (enlisted) ..................... 635
   (2) Admissions to sick list (officers) .................... 53
   (3) Total visits to sick call ............................. 14,577
   (4) Minor injuries treated ............................... 288
   (5) Major injuries treated .............................. 15
   (6) Minor surgical procedures .......................... 451
   (7) Major surgical procedures .......................... 35
   (8) Pilots killed, enemy action, not recovered .......... 6
   (9) Pilots injured, enemy action, recovered .......... 5
   (10) Pilots missing, enemy action ....................... 2
   (11) Pilots killed, not result of enemy action, not recovered .......... 2
   (12) Pilots killed, enemy action recovered ............ 1
   (13) Patients received from other ships ................. 17
   (14) Pilots temporarily grounded, medical reasons ... 59

2. Venereal Disease Cases and Non-Specific Urethritis

   (1) Gonorrhea ............................................. 127
   (2) Chancroid .......................................... 104
   (3) Syphilis ............................................. 2
   (4) Non-specific urethritis, following sexual exposure .. 294
   (5) Number of penicillin tablets issued .................. 21,601

3. Experience during this cruise and the 1952 cruise in the Far East has indicated the necessity for a quick-release type of parachute Two PRINCETON pilots who might otherwise have been safely recovered, drowned because of entanglement in their parachutes during these cruises.

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Enclosure (2)
SECURITY INFORMATION

G. Supply Department

1. Summary Data:

a. Aviation spare parts and material:

Number of individual requests from squadrons per month... 825
Number of such request filled from stock on board per month... 771
Number of such requests passed to other sources supply... 22
Allowance list items... 32
Non-allowance list items... 93.5%
Per cent efficiency, over-all... 97.4%
Per cent efficiency for allowance list items... 49
Major components issued during operating period:
Engine... 9
Wings... 13
Propellers... 115

b. General Stores and non-aviation repair parts:

Individual issues per month... 1924
Monthly average of items received aboard from all sources:
General Stores... 163
Ship's repair parts... 111
Electronics parts... 115

c. Commissary:

Receipts at sea... 1,040 tons
Receipts in port... 457 tons
Ration data:
Value stores consumed... $556,463.30
Average cost of ration... 1.2253

d. Ship's Store and G&SS:

<table>
<thead>
<tr>
<th>Ship's Store</th>
<th>Average per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash from sales... 35,163.29</td>
<td></td>
</tr>
<tr>
<td>Sales at cost price... 29,972.33</td>
<td></td>
</tr>
<tr>
<td>Inventory at cost price... 44,156.99</td>
<td></td>
</tr>
<tr>
<td>Stock-sales ratio... 1.44</td>
<td></td>
</tr>
<tr>
<td>Net profit... 3,835.07</td>
<td></td>
</tr>
<tr>
<td>Profit percentage... .11%</td>
<td></td>
</tr>
</tbody>
</table>

SECURITY INFORMATION 16 of 17 Enclosure (2)
Security Information

Clothing and Small Stores

<table>
<thead>
<tr>
<th>Description</th>
<th>Average per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash from sales</td>
<td>$9,902.79</td>
</tr>
<tr>
<td>Inventory</td>
<td>32,627.98</td>
</tr>
<tr>
<td>Stock-sales ratio</td>
<td>3.3</td>
</tr>
</tbody>
</table>

2. Foreign Merchandise

a. A conservative policy of buying foreign merchandise was followed during this cruise. Relatively small quantities of each item were ordered and then reordered if demand warranted. A rule of thumb, developed on the prior cruise, of making no single line item purchases of more than $500.00 was followed, and this rule is recommended as a sound guide for other ships of like complement. One exception to the above practice was made during the Hong Kong visit when $20,000.00 was expended for wood products, linen, leather goods and popular priced jewelry. The sources of foreign merchandise purchased during this cruise were: the Central Purchasing Office, GHQ, Far East Command, Tokyo and Hong Kong; purchases from International Merchandise Co., Yokohama; and transfers from Ship's Stores ashore and other ships.

b. Statistics on foreign purchases:

- Total foreign merchandise procured: $67,168.21
- Purchases from Central Purchasing Office: $34,453.40
- Purchases from International Mds.: $31,952.25
- Receipts by transfer from other Supply Officers: $762.56
- Total markdowns taken on mds., procured: $336.44