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 PHILLIPPINE SEA and the USS BON HOPE RICHARD, with various heavy support and screening ships. The USS PHILLIPPINE 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
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 heckler and dawn recoo 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, factories, supply storage areas, et cetera.

Attacks were continued against the hydro-electric complexes in an effort to obtain total 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 Skyraiders 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 Kilchu magnesite plant and associated facilities. A total of thirty-eight aircrews, thirteen ADs 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 thermelectric 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 Kilchu. 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.
SECURITY INFORMATION

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 overall 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.

Hung Ordnance Report: 4 July through 6 August 1952

<table>
<thead>
<tr>
<th>Type</th>
<th>AERO 14A</th>
<th>MK &amp; MOD 2</th>
<th>MK 51</th>
<th>MK 55</th>
<th>Ejector</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>100# Frags</td>
<td>2</td>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>250# Frags</td>
<td>3</td>
<td>6</td>
<td></td>
<td>10</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>500# Frags</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>1000#</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2000#</td>
<td>5</td>
<td>6</td>
<td>0</td>
<td>15</td>
<td>2</td>
<td>28</td>
</tr>
</tbody>
</table>

SECURITY INFORMATION
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>
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<td>500#</td>
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<tr>
<td>1000#</td>
<td></td>
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<td></td>
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</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# GP</td>
</tr>
<tr>
<td>383</td>
<td>K2</td>
<td>1000# GP</td>
</tr>
<tr>
<td>740</td>
<td>K3</td>
<td>500# GP</td>
</tr>
<tr>
<td>1934</td>
<td>K4</td>
<td>250# GP</td>
</tr>
<tr>
<td>511</td>
<td>K5</td>
<td>100# 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>K12</td>
<td>100# INC Cluster</td>
</tr>
<tr>
<td>2</td>
<td>K14</td>
<td>Cluster Adaptor</td>
</tr>
<tr>
<td>4</td>
<td>K14B</td>
<td>Bomb, Frag M83, W/Fuze M30 (T48)</td>
</tr>
<tr>
<td>14</td>
<td>K14C</td>
<td>Bomb, Frag, M83, W/ Fuze M13(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>
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<tr>
<td>3547</td>
<td>K35</td>
<td>AN-M100A2(ND)</td>
</tr>
<tr>
<td>843</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>M116 (4-5)</td>
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</tbody>
</table>
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>18</td>
<td>K49C</td>
<td>Primer Detonator, M14 (0.1)</td>
</tr>
<tr>
<td>2596</td>
<td>K49D</td>
<td>Primer Detonator, M14 (0.01)</td>
</tr>
<tr>
<td>1337</td>
<td>L6A</td>
<td>6.5 Head, (ATAR) MK2</td>
</tr>
<tr>
<td>1372</td>
<td>L8B</td>
<td>5.0 Rocket Motor MK10-5</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 M8El</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, (2-2-11; 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 CSR1</td>
</tr>
<tr>
<td>98</td>
<td>N7</td>
<td>Gas Tank MK 12</td>
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<td>65</td>
<td>N10</td>
<td>Xylencol</td>
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<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.
SECURITY INFORMATION

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>Total</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 BM2, 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 W 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.
The 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 obtain-
ing 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.

E. Casualties

Ship's company personnel suffered no casualties during
the period. The following casualties were incurred by Air Group
Nineteen personnel:

11 July 1952: LORR L.V. 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.S. 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 FAU was hit by enemy
ground fire. LT SCHLOER made an emergency landing at K-18.

27 July 1952: KMS F.D. SCHISHER, VF-191, was
killed when his F9F2 crashed in the sea after a mid-air collision
while on a CAP flight.

1 August 1952: LTJG C.B. ROYAL, 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. FULLLAN 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,
bailout, and anti-aircraft fire.
Summary of pilots lost from the Air Group from 4 July to 6 August 1952:

Deaths Pilot 3
Aircrewman 0
Missing in Action - Pilot 1
Psychological Injury 0
Disposition Board 0
Total 10

PART VI SPECIAL CONTENTS

A. Carrier Air Group NINETEEN

I. 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 HV/R 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 LSTs.
3. Electronics

The GV 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-1586-200) 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.
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 COD; two more will be qualified in the near future. The ultimate goal is to have as many CIC officers as possible qualified as COD. In addition, officers qualified as COD 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.
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 quotas requested from ComAirPac for QM, RN, and EB 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 (Incl. Nav,)</td>
<td>33</td>
<td>3</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.
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 OOD 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 backlog 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.
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 were 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.

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USS BOXER (CV-21)
USS EON 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 BATAAN (CVL-29)
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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, FairBeTuPac (2)
CO, Composite Squadron 3
CO, Composite Squadron 11
CO, Composite Squadron 35
CO, Composite Squadron 61

PAUL D. STROOP