From: Commanding Officer
To: Chief of Naval Operations
Via: (1) Commander Carrier Division ONE
      (2) Commander SEVENTH Fleet
      (3) Commander, Naval Forces, Far East
      (4) Commander in Chief, U.S. Pacific Fleet

Subj: Action Report for the period 1 October to 31 October 1951

Ref: (a) OpNav Instruction 3480.4

Encl: (1) CVG 5 Action Report for the period 1 October to 31 October 1951

1. In accordance with reference (a), the action report for the period, 1 through 31 October, 1951, is hereby submitted.

PART I Composition of Own Forces and Mission:

1. At various times during the period of this report, Task Force 77 was composed of the following units: USS ESSEX (CV-9), ComCarDiv ONE, RADM J. PERRY, USN embarked; USS BON HOMME RICHARD (CV-31), ComCarDiv THREE, RADM W. G. TOMLINSON, USN, and RADM J. J. CLARK, USN embarked; USS BOXER (CV-21), USS ANTIETAM (CV-36), USS NEW JERSEY (BB-62) VADM H. M. MARTIN, ComSEVENTH Fleet embarked; USS HELENA (CA-75), ComCruDiv THREE, RADM R. E. LIBBY, USN, embarked; USS TOLEDO (CA-133) ComCruDiv FIVE, RADM F. MOOSBROGER, USN, embarked; USS LOS ANGELES (CV-135), and units of Destroyer Division 31, 32, 91, 171, 172, and Escort Destroyer Division 12, 21.

2. During the subject period, the USS ESSEX (CV-9) operated off the east coast of Korea in accordance with CTF 77 Operations Order No. 22-51, plus supplemental plans and orders issued during the period.

The mission of TF 77 was, primarily, to support the United Nations ground forces in Korea, which was advancing north of the 38th parallel. The support missions included close support, deep support, armed and photographic reconnaissance, interdiction of enemy supply lines, and strikes against enemy installations.

PART II CHRONOLOGY:

The period 21-30 September, 1951 was spent in yard overhaul at Yokosuka Naval Base, Yokosuka, Japan.

1 October. 0600, pursuant to Com SEVENTH Fleet confidential dispatch 130008Z of September, 1951, underway from Yokosuka, Japan in company with USS HELENA (CA-75), 1100, effected rendezvous with CertDesDiv 21. Conducted AA firing practice and training exercises.

2 October. Conducted flight familiarization operations. Conducted AA firing practice, and training exercises.
3 October  1420, effected rendezvous with Task Force 77 in operating area.
    1700, RADM J. J. CLARK, USN, relieved RADM W. G. TOMLINSON, USN,
    as ComCarDiv THREE.  No air operations.

4 October  Task Force replenished.  Conducted Air Operations.

5 October  Conducted Air Operations.

6 October  Conducted Air Operations.  1657, 1 AD-4, BU NO. 123945, (pilot,
    LTJG TEAGUE) was hit by 40mm AA fire over CU 5168.  Plane was
    observed to crash and explode.  Pilot presumed killed in action.
    ENS.  J. W. ROCHE, VF-172, made 39,000th landing on ESSEX.

7 October  Conducted Air Operations.  1600, RADM J. J. CLARK, USN, ComCarDiv
    THREE assumed tactical command of Task Force 77.

8 October  Task Force replenished.  Conducted AA firing exercise.

9 October  Conducted Air Operations.

10 October Conducted Air Operations.

11 October Conducted Air Operations.

12 October Task Force replenished.

13 October  Due to poor weather over the target area, all Air Operations
    were cancelled with the exception of CAP, ASP, and weather reconnaiss.

14 October  Due to poor weather over target area, all Air Operations
    were cancelled with the exception of CAP, ASP, and weather reconnaissance.
    Late in the afternoon, the Task Force replenished.

15 October  Conducted Air Operations.  USS ANTIETAM (CV-36) joined Task Force.

16 October  Conducted Air Operations.  1546, F2H-2, BU NO. 124951, was hit by
    AA fire at CU 2335.  Plane was observed to crash and explode.  Pilot
    (LCDR OXLEY) presumed to be killed in action.

17 October  Task Force replenished.  Conducted AA firing practice.  2040,
    RADM J. PERRY, USN, ComCarDiv ONE, relieved RADM J. J. CLARK, USN,
    ComCarDiv THREE as OTC.

18 October  Conducted Air Operations.

19 October  Conducted Air Operations.  Weather over target area caused can-
    cellation of Air Operations after 1000.  Task Force replenished
    in the afternoon.  CinCPacFlt and Com7thFlt came aboard for a
    short visit with ComCarDiv ONE.

20 October  Conducted Air Operations.
21 October Conducted Air Operations.

22 October Conducted Air Operations.

23 October Task Force replenished.

24 October Conducted Air Operations.

25 October Conducted Air Operations. On shot number 2225 of the port catapult, the catapult fired and immediately cutoff. The cross head travelled approximately 36 inches. F2H-2, BU No. 124959, was unable to stop, and went over the port bow. Pilot, (LTJG DOSS) was recovered by Essex helicopter, no injuries sustained. LT W. BAYLANT VF-54 made the 40,000th landing on the Essex.

26 October Conducted Air Operations. 0930, AD-4, BU No. 123921, was hit by AA fire at CV8701. Plane was ditched at sea, and pilot (LTJG BUJES) was rescued by USS CONWAY.

27 October Task Force replenished. Conducted AA firing practice.

28 October Conducted Air Operations, F4U-4B, BU No. 62960, was hit by AA fire at BU 7056. Plane was observed to crash and burn. Pilot, (ENS BATTM) presumed to be killed in action. Essex steamed 50,000 miles since re-commissioning.

29 October Conducted Air Operations. The following dispatch was received from CTF 77, "ESSEX SPECIAL STRIKE GROUP TODAY OUTPERFORMED THE MAN WHO WROTE THE BOOK X WELL DONE!"

30 October Conducted Air Operations. The following dispatch was received from Commander, Air Group FIVE, "AT 1546 USS ESSEX LANDED THE LAST PLANE OF THE LAST FLIGHT TO PARTICIPATE IN THE SECOND BATTLESHIP WHICH IS NEARING COMPLETION X IT IS A PRIVILEGE TO BE A PART OF A GREAT FIGHTING TEAM AND SHARE IN ACCOMPLISHMENT MADE POSSIBLE BY TIMELESS EFFORT PATIENCE, AND COOPERATION X AIR GROUP FIVE WISHES TO EXPRESS HER RAIDE IN BEING A PART OF ESSEXVILLE."

31 October Task Force replenished. 1528, RADM J. J. CLARK, USN, ComCarDiv THIRTEEN assumed tactical command of TF 77, 1545, pursuant to Com SEVENTH FIt confidential dispatch 250616Z took departure from Task Force 77 for Yokosuka, Japan for rest, recreation, and upkeep.

PART III ORDNANCE:

1. Expenditure of Air Ordnance
   See enclosure (1)

2. Expenditure of Ship's Ordnance for training:
   
   20 MM 7,985
   3"50 Cal 1,286
   5"38 Cal 246

a. Parachute Flares.

No parachute flares were used as jury rig for single suspension mentioned in previous report was considered unreliable for catapulting and it is usual practice to catapult pre-dawn and night hawkler aircraft.

b. Working Spaces.

The ship's aviation ordnance crew is badly in need of work and stowage space to be used as a spare parts and tool issue room. The ship's aviation ordnance crew is required to supply the Air Group with all turnover material, yet does not have an adequate space to use as a spare parts and issue room. 20 MM space to be used when 20 MM batteries are removed as indicated in Shipalt No. 225.

c. Hung Ordnance

This vessel has experienced many cases of hung ordnance, wherein it has been impossible for the pilots to expend all bombs or rockets, and have landed aboard with one or more. In several cases, the impact of an arrested landings has jarred the bomb or rocket loose from the rack and caused it to travel up the deck as far as the forward elevator. This is exceedingly dangerous, especially in view of the fact that generally, there are parked aircraft, forward on the flight deck, with ordnance loaded for the next strike.

4. Confirmed effort will be made by this command to eliminate malfunctions in bomb racks. However it has been noted in Action Reports of other carrier that difficulties with hung bombs have been experienced by all units even since the Korean hosilities commenced. In view of the seriousness of this situation it is recommended that prompt action at departmental level be taken to improve reliability of bomb racks provided Naval Aircraft.

PART IV. BATTLE DAMAGE:

1. Ship

No battle, or voyage, damage was sustained by the ship.

2. Damage inflicted on the enemy

See enclosure (1)

3. Damage inflicted on ESSEX aircraft.

See enclosure (1)

PART V PERSONNEL PERFORMANCE AND CASUALTIES:

1. Performance.

Performance of duty and morale has been excellent.
2. Casualties.

a. Ship's Company.

There were no casualties to ship's company personnel.

b. Air Group FIVE

Casualties in Air Group FIVE are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Serial No.</th>
<th>Service</th>
<th>Fate</th>
</tr>
</thead>
<tbody>
<tr>
<td>OXLEY, I. B.</td>
<td>LCDR</td>
<td>165618</td>
<td>USN</td>
<td>Killed in action.</td>
</tr>
<tr>
<td>TEAGUE, C. I.</td>
<td>LTJG</td>
<td>465417</td>
<td>USN</td>
<td>Killed in action.</td>
</tr>
<tr>
<td>BATEMAN, R. A.</td>
<td>ENS</td>
<td>538138</td>
<td>USNR</td>
<td>Killed in action.</td>
</tr>
</tbody>
</table>

There were no wounded or missing.

PART VI COMMENTS:

1. Engineering.

a. The Engineering Department experienced no casualties during this operational period.

b. Steaming data.

(1) Miles steamed 11,838
(2) Average Speed 16 Knots
(3) Fuel oil received from tankers (gallons) 1,999,538
(4) Fuel oil delivered to destroyers (gallons) 373,283
(5) Fuel oil consumed by ESSEX (gallons) 1,768,134

c. Recommendations.

A change of location was made of Ready Room #2, which was found to be impractical for use as a Ready Room due to the necessity of having to use the tables and chairs in order to serve six meals a day, in the wardroom space. Ready Room #2 and its equipment was relocated in the Wardroom lounge, and the Wardroom lounge and its equipment, including tables and chairs, were arranged in the space formerly occupied by the Ready Room equipment. The new location of the Ready Room provides much better facilities as well as isolation and availability twenty-four hours a day.

2. Supply.

a. Aviation Supply.

(1) Support from the USS JUPITER and Aviation Supply Branch, Yokosuka, has been highly satisfactory on allowance list items. Approximately 90% of AOG items stem from unforeseen requirements for items not in the allowance lists. Where such items are required more than once, usage data is forwarded to the JUPITER with request that she stock such items.
(2) Cooperation between vessels of the Task Force on furnishing emergency requirements continues to be good.

(3) The Section A allowance of flight deck clothing is inadequate. Each man concerned requires a minimum of two jerseys rather than one, especially during warm weather when perspiration necessitates frequent laundering.

(4) Squadrons deploying to the forward area should make every effort to have a full allowance of Section H, U, and winter flight clothing items before embarking aboard ship, as provided in ACL-21-51.

(5) The present allowance of wings, stabilizers, ailerons, and rudders should be increased three times and stowed aboard carriers before leaving the United States. Damage from enemy anti-aircraft fire and operational losses have created a critical condition on aircraft surfaces.

(6) Five major Section B allowances are being carried for aircraft now assigned to CAG-5 (F9F-2; F4U-4B; AD-4; P2H-2; H03S-1). In addition four minor Section B allowances are aboard for the various configurations of basic types (AD-4L, N2, W; AD-2, J, E; F9F-2P; F4U-4NL). No great stowage problem has presented itself, although it has been necessary to unpack and rebox the major portion of items received.

(7) Local construction of additional tire racks to provide stowage for the wartime allowance was necessary in storeroom 0-403-A.

b. G.S.K.

(1) The system of replenishing G.S.K. stores in this area by Mobile Support is considered excellent. The USS CASTOR issues stores within one day after the presentation of requisitions. By using the GSM Catalogue published by COMSERVRON 3, only materials carried by the CASTOR are ordered from this ship. These are either delivered or cancelled, thereby, reducing paper work and duplication of effort. NIS items are re-ordered from PROCO through COMSERVRON 3. To date there have been very few items requiring this action.

(2) The replenishment of Electronic and BuShip Machinery Spare Parts has not been as prompt as others. However, the LEAGUE ISLAND, CHIMON, and ELECTRON have furnished parts carried with a minimum of delay. The system of replenishment, presently in effect, requires that all requisitions be placed on the AG's. Approximately 30% of the items required have been furnished. For items NIS on the AG's, new requisitions are cut on Fleet Activities, Yokosuka. If still not available, another requisition must be prepared and submitted to SERVRON 3, or COMSERDIV 31, for forwarding to PROCO. This duplication of paper work tends to delay in the majority of replenishing that must come from the States, which because of distance alone requires considerable pipeline time for the item needed. It is suggested that a catalogue of all spares carried by these supply ships be promulgated and that stocks be maintained accordingly. When it is known that a particular item is not carried by AG's in this area, it could then be requisitioned immediately from PROCO.

(3) Exchange of type spares between carriers has helped greatly and to date no major equipment has become inoperative because of lack of spares.
(4) The stowage of foul weather clothing has presented a definite problem to this ship. A-305½-A (Foul Weather Gear Storeroom) should be equipped with bins and racks similar to a flight clothing storeroom. Under the present stowage arrangement of this compartment, receipt, stowage and issue is difficult and is considered unsatisfactory.

(5) Departmental Budgets have been established, in accordance with Afloat Accounting Memorandum No. 1. In setting up these budgets, the following departmental percentages were established.

| Administrative | 6% |
| Operations     | 8% |
| Air            | 15%|
| Gunnery        | 10%|
| Engineering    | 33%|
| Navigation     | 7% |
| Supply         | 11%|
| Medical        | 9% |
| Dental         | 4% |
| C.O.'s Reserve | 15%|

(6) Close supervision in conformity with regulations has been maintained on charges against these budgets and each department is required to stay within their budgetary limitations.

(7) The conservation of critical items as contained in the Pacific Supply Line Publication of CINCPACFLT/CONSERVFAC of October 1951 has been rigidly enforced. All stub requisitions for these items are carefully screened by the Supply Department, and requests of unusual quantities are required to be justified.

c. Disbursing

(1) It has been noted that monetary requirements for pay days are considerably less when at sea than those pay days held in port or just prior to entering port. The monthly average of all disbursements to the crew on pay rolls is approximately $275,000.00 of which $265,000.00 was by cash. Total of pay day at sea was approximately $70,000.00; prior to the arrival in port, the total was $115,000.00. Cooperation of all hands has been most favorable in using the method of paying an even sum to the lowest five dollars, which speeds up pay lines and saves many man hours. This method also reduces the chance of error as only the five and ten dollar denominations are required.

(2) While in port, a change station for exchanging Yen for MPC's is set up each day. The change station for the crew is located at one of the regular paying stations and in the wardroom for officers. It has been found satisfactory to sell Yen in units of five and twenty dollars.

d. Ship's Store

(1) Sales for this period total approximately $45,000.00. This is the largest sales volume recorded in a single month's operation since commissioning. Sales during the forthcoming holiday period are expected to increase this volume.
(2) Support received from the USS CASTOR and Fleet Activities, Yokosuka has been generally excellent. All material requisitioned has been received with the exception of a few minor items.

(3) Experience indicates that the following items are in short supply in the forward area and should be stocked to capacity by ships departing continental United States for the forward area:

Buttons
Uniform Accessories
Chocolate Syrup
Lighter Flints
Hat Frames

(4) The operation of the laundry is continuing on a 24 hour basis, 5 days a week. These operating hours are considered superior to the previous 7 day round the clock week, inasmuch as, a savings of approximately 35,000 gallons of fresh water per week has been realized, and time is now available for maintenance and upkeep of the operating machinery.

(5) The system of cigarette rationing mentioned in the previous report has been discontinued.

(6) Hours of operation in the Ship's Store activities have been established for the purpose of offering as nearly continuous service as possible. Hours of operations are as follows:

<table>
<thead>
<tr>
<th>Ship's Store</th>
<th>Activity Days</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Monday through Saturday</td>
<td>0900 to 1100 and 1300 to 1600</td>
</tr>
<tr>
<td></td>
<td>Sunday</td>
<td>1300 to 1500</td>
</tr>
<tr>
<td>#2</td>
<td>Monday through Saturday</td>
<td>1300 to 1600 and 1830 to 2030</td>
</tr>
<tr>
<td></td>
<td>Sunday</td>
<td>1830 to 2030</td>
</tr>
<tr>
<td>Service</td>
<td>Tuesday, Thursday, Saturday</td>
<td>1300 to 1630</td>
</tr>
<tr>
<td>Store #1</td>
<td>Monday, Wednesday, Friday</td>
<td>1330 to 1630 and 1830 to 2030</td>
</tr>
<tr>
<td></td>
<td>Sunday</td>
<td>1300 to 1530</td>
</tr>
<tr>
<td>Service</td>
<td>Monday, Wednesday, Friday</td>
<td>1300 to 1630</td>
</tr>
<tr>
<td>Store #2</td>
<td>Tuesday, Thursday, Saturday</td>
<td>1330 to 1630 and 1830 to 2030</td>
</tr>
<tr>
<td></td>
<td>Sunday</td>
<td>1830 to 2030</td>
</tr>
</tbody>
</table>

(7) Operating equipment has been running continuously with the exception of a few minor breakdowns in the laundry and scda fountain. In these instances, repairs have been effected by Ship's Force without delay.

(8) The installation of a shirt folding unit in the laundry is considered highly desirable. A unit of this type was removed during the 27-A conversion. The installation of this item would improve the finishing operation and contribute to the saving of man hours.
(9) Abnormal temperatures in bulk storeroom B-406-A have caused a general deterioration of stock stowed in this space. Laundry supplies have hardened thereby, making them difficult to use. Temperatures recorded in this storeroom during the months of July, August, and September averaged 110° F. Ventilation improvements in this space are necessary before it can be properly utilized as a satisfactory storeroom for Ship's Store Stock.

(10) In addition to the security measures prescribed by the BuSandA Manual and other current directives the following measures have been inaugurated and are believed to be of value in further safeguarding the stock and monies of the Ship's Store Activities.

a. No money is left overnight in the cash registers of any of the activities.

b. Cash drawers are left open when the activity is not in operations.

c. Night lights are installed in the Ship's Stores and Ship's Service Stores and are left burning all night.

d. Inspections are conducted nightly by the Duty Supply Officer at 2200 and 2400 of all Ship's Store spaces.

e. Two (2) group 3 locks are installed on each door to the Ship's Store spaces.

e. Commissary

(1) Commissary has been generally satisfactory. Support from the AF's has been excellent. However no information as to fresh provisions carried by these ships is available. This has resulted in an occasional shortage of fresh provisions in the General, and other messes. In this connection none of these shortages are considered serious.

(2) The following schedule of meal hours has been maintained in the General Mess.

<table>
<thead>
<tr>
<th>Meal</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>0545</td>
</tr>
<tr>
<td></td>
<td>These hours fluctuate to accommodate 0645 flight operation schedules.</td>
</tr>
<tr>
<td>Dinner</td>
<td>1130</td>
</tr>
<tr>
<td>Supper</td>
<td>1630</td>
</tr>
</tbody>
</table>

Experience indicates that it takes approximately 2 hours for all hands to pass through the mess line, be served, eat, and vacate the messing areas, although the standard on other type ships is about one hour.

(3) The practice of serving sweet rolls, jam and coffee one half hour before flight quarters when early morning flights are scheduled, also the serving of cakes, or toast and jam 15 minutes after late flight quarters to the flight deck crew both have enabled the meal hours to remain reasonably steady yet flexible enough to conform to flight operations. This procedure is proving to be highly satisfactory to both the Air Group and Ship's Company. Night rations averaged 50 per night for the last month.

(4) Hot soup is now being served to all flight deck and weather deck personnel. This innovation has also been met with enthusiasm.
3. Air Department

a. Catapult and arresting gear.

(1) Catapult and arresting gear operation was normal during the period of this report with the following exceptions:

(a) On shot number 2134, port catapult, five out of the nine bolts which secure the cable tensioner cylinder to the elbow at the base of the dome, sheared off. It was necessary to remove the elbow in order to extract the severed sections of the bolts, replace them with new bolts and reinstall. Time required was four hours, during which time the catapult was out of commission. Cause of the failure was apparently due to metal fatigue. Bolts have also been replaced on the starboard catapult, although there was no indication of weakening.

(b) On shot number 2225, port catapult, the machine fired and immediately cut off. The F2H, Banshee, spotted on the catapult, received enough power to break the tension ring and start down the catapult track, but has insufficient power to take off. The pilot was unable to break to a stop and went over the bow, port side, and in to the water. The pilot was actually in the water a total of one minute and fifteen seconds before being picked up by the ESSEX helicopter, and was on deck within three minutes from the time he went over the bow. The cause of the catapult failure was due to a break in the catapult electrical firing circuit, immediately after the main piston valve opened. The break in the circuit, caused an immediate cutoff, allowing the crosshead to travel a total of only thirty-six inches. It is anticipated that all switches on the port catapult will be replaced with new ones, after which a series of no load and dead shots will be made prior to launching any more aircraft.

b. Towing Bars.

(1): The large variety of aircraft aboard this vessel requires several different types of tow bars for handling of aircraft. The standard Universal Tow Bar is used for tail towing AD-3, AD-4, and F4U aircraft, and also for forward towing of all AD, F4U, and F9F type aircraft. The F2H can be towed forward only after modification of the tow bar. Since nearly all towing on a carrier deck is from the rear, a special tow bar was necessary for use in tail towing the F9F, and another for the F2H. This was accomplished, by modifying the standard Universal Tow Bar. When they were modified, they can no longer be used for towing any other way. Modification of the F2H type was described in the previous action report.

When AD-2 aircraft were received as replacement, another problem arose in that it has a different type of tail wheel assembly which sits lower on the deck and when a Universal Tow Bar was used, interference was experienced with the tail hook. This required still another type of tow bar. All together, it has been found necessary to use three different type of tow bars, in addition to the Universal Tow Bar.

Because of the heavy service the tow bar receive during operations, the attrition rate is high. A maintenance crew of three men is required just to maintain the tow bars in serviceable condition. Before deployment from the Continental Limits, a vessel of this type should be equipped with a minimum of 45 Universal Tow Bars, and 5 each of the special types needed for handling those aircraft which can not be handled with the Universal Bars. (Total 60)
AIR DEPARTMENT Operating Data

Arrested landings 1556
Catapult Shots 762
Starboard Catapult 487
Port Catapult 275

Gasoline, (gallons) 824,647
LubOil, Symbol 1120 (gallons) 4,693
LubOil, Symbol 1010 (gallons) 3,265

4. Navigation

Ship's position was obtained primarily by celestial observations. Weather conditions permitted sights to be taken seventy percent of the time.

Radar fixes were obtained frequently. This method of navigation proved very effective, and it was found that once the problem of using mountain ranges and land masses in obtaining radar positions was understood, radar fixes almost coincided with those obtained by celestial means.

Loran was employed less frequently, but it was proved that this method could be used with a fair degree of reliability at night.

5. Air Intelligence

a. Use of Frisket Paper

Air Group FIVE has been operating in the forward area, for two 30 day periods, and is still using the original chart issue. As far as can be determined the charts show all indications of being fully useable for another operating period.

Frisket covering allows pilots to use and erase soft lead or grease pencil markings. Charts not covered by Frisket seldom lasts one operational period. It is recommended that all charts be covered with frisket paper before arriving in the combat area.

6. CIC

The field alteration allowing the search antenna of the SX-2 antenna to be tilted has been accomplished and the operation of radar is being checked. Already improved detection of jet aircraft has been noticed and it is hoped that continued and marked improvement in this problem will be realized.

Trapping of radar and radio transmission continues to be a much noticed phenomena. A recent example was establishing loud and clear communications on the primary CI net (a UHF frequency) between the ESSEX and the NEW JERSEY at 45 miles.
Strike control of returning aircraft is one of the most important single features of the air control picture in the present operation. Thorough briefing and practice by both Air Groups and CIC personnel prior to deployment will be of real aid to strike control personnel and will eliminate to a large degree needless intercepts.

The three AN/ARC-1's installed for CIC use in the 27-A conversion have worked very poorly. This appears to be due to low modulation of the transmitter because of losses in the line from the broadcast through the CIC Communications System, the patching switches in Radio I, and the individual adapters in Radio VII.

Ship's force constructed a simple amplifier and installed it in one of the AN/ARC-1 adapters in Radio VII. This amplifying has improved the performance of this AN/ARC tremendously and has increased the range of the equipment to that of TDQ. When parts are available, additional amplifiers will be made and installed on the remaining two AN/ARC's.

7. Communications

a. With the experience of one period of operations as the greatest single asset, communications during this second period produced considerably more gratifying results. In general, many of the problems of a technical nature remained the same as before. Certain improvement, however, in this as well as other phases of communications have been rather marked. Close supervision and a continuous "on-the-job" training program have been directed toward the avoidance of repetitious errors and so-called communications "BUSTS". Radio supervisors, for example, have through experience and the exercise of good judgement learned to utilize more fully the facilities and equipment available to them. When regular transmission channels, for the heavy load of outgoing traffic imposed upon a task force flagship, have for some reason been closed to them, supervisors (and operators) have been quick to request special speed circuits with shore stations for the relay of messages.

Procedures for message handling, particularly in Main Communications Station, although not fool-proof by any stretch of the imagination, have been reasonably standardized. Routing of high precedence and action traffic has been a great deal more satisfactory than during the period covered by the previous action report. Concomitantly, the volume of traffic increased an estimated 15 to 20% over the volume of the previous period.

b. The situation in regard to CW and voice circuits as described in the previous report has remained unchanged. The same problems exist, although personnel have increased their efficiency in surmounting the difficulties encountered. As an example, the stationing of a log-watch in the pilot house on the secondary tactical circuit, has lessened the confusion in ship control that results from merely loud-speaker "monitoring." In addition, the primary tactical circuit, under the present arrangement, is the responsibility of the Junior Officer-of-the-Deck. Especially during flight deck operations the noise level is of such proportions as to demand that a receiver head-set be worn for both circuits in order to hear the broadcast tactical signals. Chest-sets with extended leads have been prepared by the Technicians so that the operators of both the primary and secondary tactical circuits have freedom of movement on the bridge. A log of traffic on the primary tactical circuit is maintained in CIC.
c. Although not completely dependable, the ship-to-shore radiotelephone circuit established toward the close of the previous operating period has proved a boom to communications and the clearing of outgoing traffic by a flagship maintaining ship-to-shore guard for the Task Force. Its performance is not dependable to the extent that atmospherics and frequent shifting among the frequencies assigned have interfered with its functioning smoothly and uninterruptedly. In the first place, the circuit has been shared with another Task Force Command; the allocation deterrent factor. The most recurrent difficulties have occurred from about sunset to midnight in this area.

d. Jamming, (intentional), although continuing in about the same degree as previously report for CW circuits, has appreciably increased on HF and VHF frequencies. A number of reports has been submitted to the force commander concerning foreign language jamming interference.

e. Due to the average loss of between two to three hours' transmission time each twenty-four hour period—predominantly on Radio II transmitters, an alterative request is being prepared for the installation of motor-driven equipment to control remotely (preferably in Radio Central) the rigging of forward and after whip antennae. At present, this is a manual operation performed by flight deck personnel.

f. The ship successfully transmitted by facsimile the photo news coverage of CinCPacFlt's 19 October visit to the Task Force. Transmission to Pearl Harbor (Radio photo unit number 4) was successful on the first run, whereas transmission to San Francisco (Radio photo unit number 2) was completed only after three repetitions of schedules arranged with unit number 2 over a period of approximately twenty-four hours.

g. The organization and assignment of personnel during this period has become fairly stabilized. A policy of rotating telean (TE) rates within communications has been initiated. It is intended to further this program by making monthly exchanges within the division to include the postal clerks as radio and Main Communications personnel. A policy of exchange between signalmen and quartermasters (QM rates) has been in effect for over six months.

Although the total number of personnel has been reduced by transfers since the last report, sixty-eight (68) ship's personnel in the OR division and twenty-six (26) in the OS division augmented by twelve (12) staff personnel have been adequate. It has been attempted to emphasize training so that, if required, adjustments in the event of minimal losses can be made without seriously affecting the efficiency of communications.

8. Aerology

a. Communications

(1) Facsimile.

NDT(Radio Photo Unit #5, Tokyo) was copied with reception as noted below.

01001 (1600Z) 700 mb chart (0300Z) Very Poor
Surface Chart (0600Z) Very Poor

13
0500I (2000Z) 700 mb prog chart  Very poor
Briefing chart NR3  Very poor

0900I (0000Z) 300 mb prog chart  Very good
300 mb chart (0300)  Very good

1430I (0530Z) Surface Prog Chart  Very good
700 mb Chart (prog)  Very good

1900I (1000) Surface chart (0000Z)  Very good
Briefing chart NR1  Very good
300 mb chart  Very good

a. Little of the facsimile data was used during this period.
b. Interference caused by ship's own transmitter and aircraft engines
   was the main problem during the day; atmospheric interference during the
   night.
c. Surface chart (1800Z), briefing chart NR4, 850 mb chart (1500Z),
   700 mb chart (1500Z) and 500 mb chart (1500Z) if practicable should be trans-
   mitted by NDT.
d. The Ship's electronics shop is constructing a converter which will
   enable present facsimile equipment to receive AACS Tokyo.
d. During the first part of the period the 0000Z chart and a forecast
   was transmitted to the USS BON HOMME RICHARD with excellent results obtained.

(2) Radioteletype

a. The installation of another teletype in the Aerological Laboratory enabled both AACS Guarm (AIE) and AACS Tokyo (ATF) to be copied
   simultaneously. This acted as insurance against outages and resulted in better
   than 90% reception.

b. Occasionally Taego (KMPO) was copied to obtain Korean weather
   more rapidly. A time saving of from 15 to 45 minutes resulted, but reception
   was generally poor (less than 25%) and in order not to miss the Korean weather
   entirely, Tokyo was always copied.

(3) Radio (CW)

a. The radio man stationed in the Aerological Office kept the
   teletype and facsimile tuned and during periods of RATT outages copied CW.

(4) Radio (Voice)

a. During the period two speakers located in the Aerological Laboratory were connected to the switchboard in Radio 1 via the two (2)
   facsimile trunk lines. It is planned to patch in appropriate VHF channels
   so that weather information from CAP, mSP, and strike groups can be heard in
   Aerological Laboratory thereby eliminating some of the delay and the possibility
   of garbling in relaying through CIC.
b. Weather Reports

(1) Ships.

The hourly weather reports from ships located along the Korean east coast continue to be very important. Their value could be greatly increased if qualified weather observers were stationed on these ships.

(2) Pilots

Numerous pilot weather report summaries (0000-0400I) from the Korean area are received via teletype during the morning, but too late to brief early morning flights. Action has been taken by CTF 77 to have these reports relayed as soon as possible to the operating carriers.

c. Equipment and Supplies.

(1) All aerological equipment operated satisfactorily during the period.

(2) A pneumatic tube between the aerological Laboratory and Main Communications Station is considered a "must" to reduce delays and save man hours in handling about 150 weather messages daily. An alteration request is being submitted requesting such installation.

(3) An additional means of communications with the Open Bridge, Captain's Plot, Flag Plot, CiC, Air Operations, and Main Communications Station is considered very desirable. At present, the ship's service phone is all that is available. An outlet on one of the MG circuits is considered to be the most desirable solution. An alteration request is being submitted requesting such an installation.

(4) Four RawIN soundings were taken daily to an average height of about 30,000 feet. The RR-32/AM reflector (Navy stock R-16-R-3580-fish net-pyramid base, 52 inches square) was used in conjunction with Mark 37 directors and Mark 25 radar, and occasionally the Mark 56 director and Mark 35 Mod 2 radar.

(5) There is, at present, no helium in the forward area, and only about 89 full bottles remain aboard. Daily consumption averages about 2.5 bottles.

Typhoon "Ruth" which passed over southern Japan on the 14th then Northeastward along the west coast of Japan caused overcast skies in the operating area on the 14th and moderate to rough seas on the 15th and 16th with very little increase in the wind. Low ceilings in the target area required cancelling of Air Operations on the 14th.

This operating period saw the first real invasion, of the operating area, of cold dry air from Siberia.

The first outbreak occurred late October 18th when a weak cold front with little associated weather passed over the force. Temperatures dropped to 56 degrees. This front on passing over the relatively warm water of the Sea of Japan rapidly developed a wave to the northeast of the force.
Low ceilings and rain from this wave moved over the force early the 19th and continued until early the 21st. Fog developed over the cold water area of northwest sea of Japan early the 19th causing the four early missions to be cancelled. The force was moved south into warmer water, out of the fog, and operations were continued.

The second outbreak of cold air occurred October 24th with the passage of a weak cold front. Temperatures dropped to the low 50's and westerly winds of 30 to 35 knots were experienced. This primary front developed considerable thunderstorm activity over Korea, and covered the higher mountains with snow. Considerable shower activity occurred over the force as well as westerly winds of 30 to 40 knots behind the front. CAVU weather occurred shortly after passage of the secondary front. Temperatures behind the front fell to the middle 40's.

Low ceilings with rain developed in the southern part of the operating area on the 23rd when the semi-permanent front, to the south of Japan, moved northward to southern Japan as a warm front, causing widespread cloudiness and rain over Japan and southern sea of Japan.

Light winds (4 to 8 knots) prevailed on the 28th, 29th and 30th when high pressure was centered over the sea of Japan.

9. Photography

a. Personnel

(1) Personnel allowance, on board, and squadron personnel assigned to the photographic laboratory:

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<th>Allowance</th>
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</tr>
<tr>
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b. Personnel assignments within the Photographic Unit.

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c. Production Period

(1) First Period 24 August through 19 September 1951

Total Number of Photographic Missions Flown 73
Total Number of rolls filed 122
Average number exposures per roll 39
Total Number of negatives used 4,799
Total Number of prints made 43,201

Average time to develop and wash 67 Min 1 hour 07 Min.
Average time to dry 30 Min 2 hour 07 Min.
Average time for first set of grease pencil marked prints delivered to P.I. Officer 1 hr 30 Min 3 hour 37 Min.
Average time to mark one (1) roll of film(Computed from time of delivery to film marking, to time returned for distribution printing) 2 hr 46 Min 6 hour 23 Min.
Average time for set of marked prints to P.I. Officer (after receiving marked film from film marking) 1 hr 52 Min 8 hour 15 Min.

All work completed and ready for mailing by 1000 the following day.

(2) Second Period 4 October through 30 October 1951

Total Number of Photographic Missions Flown 68
Total Number of rolls filed 101
Average number exposures per roll 60
Total Number of negatives made 6,280
Total Number of prints made 55,048
Average time to develop and wash 69 Min 1 Hr 9 Min
average time to dry 30 Min 1 Hr 39 Min
average time for first set of grease 2 Hr 20 Min 3 Hr 59 Min
pencil marked prints delivered to P.I.
officer.
average time to mark one (1) roll of film 2 Hr 19 Min 6 Hr 18 Min
(Computed from time of delivery to film
marking to time returned for distribution
printing)
average time for set of marked prints to 2 Hr 26 Min 8 Hr 44 Min
Flag(after receiving marked film from
film marking)
Average time for set of marked prints 2 Hr 33 Min 11 Hr 17 Min
to P. I. Officer (after marked film
from film marking)

All work completed and ready for mailing by 1000 following day.

PRODUCTION RECORD FOR 1st and 2nd PERIODS 24 AUGUST THROUGH 30 OCTOBER 1951

Total number of missions flown 141
Total number of rolls filed 223
Total number of negatives used 11,079
Total number of prints made 98,249
Average number of exposures per roll 49½

RECORD OF K-25 CAMERAS FOR 2nd PERIOD 4 OCTOBER THROUGH 30 OCTOBER 1951

Rolls Taken 76
Total possible exposures 1,520
Total exposures taken 1,161
Total usable exposures 804
Total unusable exposures 359
Total prints filed 113
Rolls not usable due to 9
improper techniques.

Distribution:

CNO (Advance, airmail) (2) USS PHILIPPINE SEA (CV-47)
COMAIRPAC (Advance, airmail) (2) USS VALLEY FORGE (CV-45)
CINCPACFLT (Advance, airmail) (2) USS BON HOMME RICHARD (CV-31)
COMCARDIV ONE USS ANTIETAN (CV-36)
CONSEVENTHFLT CVG 5 (5)
COMNAVYE CVG 11
COMCARR DIV THREE CVG 15
COMCARR DIV FIVE CVG 101
USS BOXER (CV-21) CVG 102
USS PRINCETON (CV-37) AIR TASK GROUP ONE