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U.S.S. MARCUS ISLAND (CVE 77)

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1080
c/o Fleet Post Office,
San Francisco, California

MAY 2 1945

C-C-N-F-I-D-E-N-T-I-A-L

From: Commanding Officer.
To : Commander in Chief, UNITED STATES FLEET.
Via : (1) Commander Task Unit 52.1.2 (26 March - 29 April incl) and
Commander Task Unit 51.1.2 (21-25 March, inclusive)
(Commander Carrier Division TWENTY-FOUR).
(2) Commander Task Group 52.1
(Commander Escort Carrier Force, Pacific Fleet).
(3) Commander Task Force 52.
(Commander Amphibious Group ONE).
(4) Commander Task Force 51.
(Commander Amphibious Forces, Pacific Fleet).
(5) Commander FIFTH Fleet.
(6) Commander in Chief, Pacific Fleet.

Subject: Action Report - Capture of Okinawa Gunto - Phases ONE and TWO.

Reference: (a) Pacific Fleet Confidential Letter 1 CL-45.

Enclosures: (A) Subject Action Report.
(B) Composite Squadron EIGHTY-SEVEN Squadron Commander's and
ACA-1 Reports.
(C) Composite Spotting Squadron ONE ACA-1 Reports.

1. Enclosures (A), (B) and (C), Action Reports, are forwarded
herewith.

H. V. Hopkins
H. V. HOPKINS.

Copies to:

Cominch (1)
CincPac (3)
ComAirPac (1)
CTG 51.1 (ComPhibsGroup 7) (1)
CTF 55 (ComPhibsGroup 12) (1)

C-O-N-F-I-D-E-N-T-I-A-L

ENCLOSURE (A)

C-O-N-F-I-D-E-N-T-I-A-L

PART I.

(A) The U.S.S. MARCUS ISLAND, as a member of Task Group 52.1 and Task Unit 52.1.2 during the period 26 March - 28 April 1945, provided direct support and patrols prior to, during and subsequent to the landings made on the various islands of Okinawa Gunto. On 13 March a rehearsal of patrols and a simulated attack were conducted with Task Group 51.1. The ship, with VC-87 attached, engaged in support missions until 5 April. After the 5th of April, when VOC-1 replaced VC-87, naval gunfire spotter sorties comprised the major effort of the ship's aerial activities. On the afternoon of the 13th of April and during the 14th and 15th of April Sakashima Gunto airfields were neutralized. A fighter sweep was conducted against Minami Daito, during a fueling period on the 18th of April.

PART II.

(A) This ship operated under the command of Task Unit 52.1.2 (Rear Admiral Felix B. Stump, USN). The composition of the task unit consisted of the following: CVE's, U.S.S. MARCUS ISLAND (Flagship), PETROF BAY, RUDYERD BAY, SAGINAW BAY, SARGENT BAY, TULAGI and WAKE ISLAND; DD's, U.S.S. CAPPS, EVANS, J. D. HENLEY, BOYD, BRADFORD; DE's, U.S.S. Wm. SIEVERLING, U.M. MOORE, K.C. CAMPBELL, GOSS, SEDERSTROM, FLEMING, TISDALE, EISILE. The U.S.S. WAKE ISLAND withdrew for repairs the evening of the 3rd of April and the U.S.S. TULAGI operated independently throughout the operation. On the 31st of March the following changes took place in the composition of the Task Unit: the U.S.S. RUDYERD BAY, U.S.S. Wm. SIEVERLING, U.S.S. GOSS, U.S.S. FLEMING, U.S.S. EISILE and the U.S.S. SEDERSTROM withdrew from the formation. The U.S.S. DENNIS and the U.S.S. O'FLAHERTY joined the formation.

(B) 13 March - Underway to conduct rehearsal exercises in Leyte Gulf with CTG 51.1. Launched two groups of 2 VT each for local Anti-Submarine Patrol. Launched three groups of 2 VT each for convoy Anti-Submarine Patrol, and one group of 4 VF for local Combat Air Patrol. In addition launched one group of 4 VF as a simulated Attack Group and 1 VT, which flew to Samar airdrome for a replacement plane. At 2043 anchored in berth 890 Tarraguna Anchorage, Leyte Gulf.

14 March - At 0758 underway to assigned anchorage, berth 42, Leyte Gulf, where at 1031 ship anchored.

15-20 March - Received 43,604 gallons of fuel oil, aviation stores, ordnance equipment and 2 L5-B aircraft from the U.S. Army. Conducted ship's overhaul and general upkeep.

21 March - Formed Task Unit 51.1.2 consisting of the following ships: CVE's, U.S.S. MARCUS ISLAND, SAVO ISLAND, and ANZIO; DD's, U.S.S. BOYD, and BRADFORD; DE's, U.S.S. KELLER, NEWMAN, TABBERER, MITCHELL and TAYLOR. At 1018 underway from San Pedro Bay, Leyte Gulf, the Philippines. Task Unit 51.1.2 proceeded independently during the day and at 2152 joined Task Unit 51.1.1. Mission was to provide air cover for Task Unit 51.1 (Western Islands Attack Force) from Leyte Gulf, the Philippine Islands to the objective area, Okinawa Gunto, the Nansei Shoto. Enroute to the objective area launched 64 Combat Air Patrol, 28 Anti-Submarine Patrol and 1 Tow plane. On three occasions planes conducted simulated enemy air attacks, and interceptions by the Combat Air Patrol were effected. Anti-aircraft exercises were conducted on one occasion.

(C) The mission of this ship was to provide air services in support of the Amphibious Forces during the assault and occupation of Okinawa Gunto. This ship operated in accordance with instructions as set forth in the following:

Commander FIFTH Fleet Operation Order No. A1-45.
Commander Task Force 51 Operation Plan No. A1-45.
Commander Task Group 52.1 Operation Plan No. 2-45.
Commander Carrier Division TWENTY-FOUR Operation Order No. 1-45.

(D) See paragraph A.

(E) No enemy forces were encountered other than enemy aircraft.

PART III:

- A. - In the following chronological list of events, all patrols were routine unless indicated otherwise. All times are Item (-9).

26 March 1945.

- 0545 - Launched 8 VF for local Combat Air Patrol. One VF, with power failure, was ditched and a relief launched. The pilot was rescued uninjured by the U.S.S. BRADFORD (DD 545) and returned to the ship at 1130.
- 0715 - Joined Task Unit 52.1.2. Task Unit 51.1.2 thereupon dissolved. During 26 March until 1930 Item the Task Unit remained under the tactical command of Rear Admiral Henderson (ComCarDiv 25). From L-6 to L-1 day the task unit operated in an area south of Okinawa, 30-60 miles from the southern point between bearings of 135° and 220°. Night retirements were made as far as 90 miles between the same bearings. See Part III (C). Launched 4 VT as Smokers to cover the landings of the 77th Infantry Division in Kerama Retto. The landings were unopposed and no smoke was laid.
- 0800 - Launched a local Combat Air Patrol of 4 VF.
- 0930 - Launched a Direct Support Group of 3 VT and 4 VF. The VF dropped napalm bombs, the VT dropped 100 lb. G.P. and fired rockets on the village of Aware, Tokashiki Shima, Kerama Retto. Twelve to fourteen small thatched huts were blown up. The napalm bombs started one brisk fire in the village.
- 1130 - Launched a local Combat Air Patrol of 4 VF.
- 1530 - Launched a local Combat Air Patrol of 8 VF.
- 1740 - Received a replacement VF from the U.S.S. ANZIO.
- 27 March 1945.
- 0500 - Launched a target Anti-Submarine Patrol of 6 VT.
- 0545 - Launched a local Combat Air Patrol of 4 VF.
- 0730 - Launched a Direct Support Group of 4 VF. The fighters strafed caves and trenches in the hilly area approximately 2500 yards east of Yontan Airfield. No definite results were observed.
- 1000 - Launched a target Anti-Submarine Patrol of 6 VT.
- 1230 - Launched a local Combat Air Patrol of 4 VF.
- 1330 - Launched a Direct Support Group of 4 VF. The fighters carried one 250 pound G.P. bomb each. Two or three houses were hit and destroyed in the village of Dakushuku, about 1000 yards east of Kajena Airfield, and a large barracks building was damaged by one bomb. Numerous houses were strafed.
- 1515 - Launched a target Anti-Submarine Patrol of 6 VT.

28 March 1945.

- 0545 - Launched a local Combat Air Patrol of 8 VF.
- 0830 - Launched a local Combat Air Patrol of 4 VF and local Anti-Submarine Patrol of 2 VT.
- 1000 - Launched a Direct Support Group of 8 VT with one-half the planes carrying 4-500s and one-half carrying 10-100s plus 8 rockets. Caves, gun emplacements and trenches were damaged, but specific results were difficult to determine as the ceiling was 1200 feet and pilots pulled up into the clouds.
- 1200 - Launched a Direct Support Group of 12 VF armed with 250 pound G.P. bombs. A beached possible MTB was straddled by two near misses near the village of Tauji. At least a dozen buildings were destroyed in the same village and many more were damaged by strafing.
- 1515 - Launched 8 VT for Direct Support. Southern Okinawa was bombed with good results. Two factories were hit with bombs and seriously damaged and numerous houses in and around the village of Minatoga were destroyed. One low wooden building, when hit with a rocket, exploded with much black smoke.

29 March 1945.

- 0500 - Launched a target Combat Air Patrol of 12 VF. Four planes covered shipping. The remaining eight planes searched for enemy aircraft which were reported to have landed on Okinawa during the previous night. Lt.(jg) J. T. Sely with his wingman Ensign W.K. Smith spotted an Oscar headed west from Okinawa, with two bombs under his wings. Gaining rapidly on the Oscar, they observed the Jap rock his wings, jettison his bombs and start a slow turn back towards Yontan Airfield on Okinawa. Both planes made runs on the Oscar constantly overrunning, but smoking the engine and riddling the fuselage. The Oscar made several circles over the field losing altitude all the time and finally crash landed off the runway. The pilot of the Oscar took no evasive or offensive action. This performance would indicate a most inexperienced enemy pilot. A Nell was flamed at Naha Airfield and an apparently operational Zeke was strafed by other fighters of the group.
- 0730 - Launched a Direct Support Group of 8 VT. Kume Shima was attacked but worthwhile targets could not be found. A damaged radio station was hit with a rocket, starting a fire and several houses were destroyed in a small village on the south shore of the island. Planes were then directed by Commander Support Air to bomb Naha Airfield. Plane revotments were hit but no operational enemy planes were seen to have been damaged.

29 March 1945 (Cont'd).

- 1230 - Launched a VT photo plane and a VF as fighter cover. A ceiling of 1500 feet prevented runs being made at the desired altitude. However, 6 runs were made over Katchinhanto Peninsula on the northern shore of Nakagusuku Bay and the negatives were dropped the following morning to be picked up by the U.S.S. ESTES (AGC 12).
- 1330 - Launched a Direct Support Group of 8 VT. With a ceiling of 1000 feet and below and bombs fuzed with instantaneous nose and non-delay tail, only level area bombing was attempted. Targets of opportunity in southern Okinawa were assigned. Two villages were bombed, starting numerous fires. Reinforced caves were also attacked with bombs and rockets.
- 1515 - Launched a Direct Support Group of 8 VF. The planes carried 250 pound bombs but all were jettisoned owing to the low ceiling. Naha Airfield was strafed but no operational planes were observed.

30 March 1945.

- 0820 - Commenced fueling and taking on aviation gasoline from the U.S.S. ASHTUBULA (AO 51).
- 0830 - Launched a local Combat Air Patrol of 4 VF and local Anti-Submarine Patrol of 2 VT.
- 1000 - Launched a Direct Support Group of 8 VT. Targets in the city of Naha were assigned. A large L shaped warehouse was hit by one 500 pound G.P. bomb, causing a large fire. A small building was demolished and a power plant, large concrete building and empty gun emplacement were damaged.
- 1048 - Completed taking on fuel and aviation gasoline.
- 1200 - Launched a Direct Support Group of 12 VF armed with 250 pound G.P. bombs. Buildings in the town of Yonabaru on the west coast of Okinawa were attacked. Definite results were hard to ascertain. A building that appeared like a barracks was damaged and one near miss on a bridge probably caused damage. A low ceiling of clouds prevented pilots from making accurate runs and picking out single targets.
- 1515 - Launched a Direct Support Group of 4 VT armed with 4 - 500 pound G.P. The planes attacked the city of Naha, making a direct hit on a radio tower, 2 direct hits on the transmitter station and caused serious damage to the administration building about 100 yards west of the radio tower. The radio tower, one of two, about 400 feet high was seen to topple over.

31 March 1945.

0545 - Launched a Direct Support group of 6 VT and one Air Coordinator. A bridge 1500 yards northeast of Katena Airfield was attacked. No direct hits were scored, but near misses may have caused some damage. Three houses close to the bridge were hit and destroyed. The Commander Support Air released the Support group for the attack when 15 minutes were left of the assigned time on station, causing haste in selecting the target and making the runs.

0730 - Launched a Direct Support group of 12 VF. Two divisions, armed with Napalm bombs flamed an area about 500 feet long south of Yontan Airfield where AA emplacements had been seen. A barracks and several buildings in Tokashi were also flamed by the third division. All bombs except possibly one were believed to have exploded.

0830 - Launched a local Combat Air Patrol of 4 VF and local Anti-Submarine Patrol of 2 VT. Also launched 1 VT with 1 VF as cover for photographic purposes. Five runs were made of the west coast of Okinawa from Naha Airfield extending 5 miles to the north. The raw negatives were dropped for pick up by the U.S.S. ESTES (CTF 52).

1515 - Launched a local Combat Air Patrol of 4 VF and local Anti-Submarine Patrol of 2 VT.

1700 - Launched 1 VF for message drops on all carriers of the Task Unit.

1 April 1945.

0500 - Launched a Direct Support group of 12 VF. All planes patrolled west of Okinawa. No vectors were given.

0730 - Launched one photographic VT and one VF as cover. Four strips were made of the south and southwest beaches of Ie Shima Island and the negatives dropped for pick up by CTF 53 in the U.S.S. PANAMINT. Also launched at 0730, 9 VT and one Air Coordinator. The planes arrived on station shortly after the landings on Okinawa had been made. No enemy opposition could be observed. Three tanks were seen, which hid under trees. The immediate area was hit by 2 - 500 pound bombs but results could not be determined. Artillery emplacements were bombed a mile east of Yontan Airfield. Two direct hits were scored. Four buildings were also destroyed in the same area.

1200 - Launched 2 VT with 6th Division Infantry Marine Artillery Spotters and 12 VF for direct support. The fighters carried 250 pound bombs and attacked a radar installation, destroying it with a direct hit. Defense installations in the heights overlooking Yontan Airfield from the east were also bombed and strafed. Exact damage was undetermined. The Artillery Spotters planes, with no bombs but 8 rockets, attacked gun positions northeast of Yontan Airfield.

1 April 1945 (Cont'd).

1430 - Launched 2 VT with Marine Artillery Spotters. After being released from station, buildings were hit in the village of Hizaonna on the east coast of Okinawa.

1515 - Launched a local Combat Air Patrol of 4 VF.

2 April 1945.

0545 - Launched 2 VT with Artillery Spotters and 8 VF for local Combat Air Patrol. The 2 VT upon being relieved on station fired 8 rockets apiece at trenches and caves in the hills east of Yontan Airfield.

0730 - Launched 2 VT with artillery spotters and 4 VT for Direct Support. The artillery spot VT took no offensive action. The 4 VT bombed and rocketed trenches and caves near the village of Metaniche, northeast of Yontan Airfield.

1000 - Launched 2 VT with Artillery Spotters. Each plane, after being relieved on station, fired 8 rockets apiece at houses in the village of Ishikawa on the east coast of Okinawa.

Four VF were also launched at this time for target Combat Air Patrol. One plane was hit by anti-aircraft fire and made a forced landing about ten miles north of Okinawa. The pilot was rescued, uninjured, by the U.S.S. CALHOUN (DD 801).

1200 - Launched a Direct Support group of 4 VT, 1 VT with Artillery Spotter and 8 VF for local Combat Air Patrol. The Direct Support dropped their bombs and fired their rockets in the hilly cave area 2 miles east of Yontan airfield. A radar screen on top of a low 100 ft. building was toppled over and one hit was made on the building. The VT spotter hit a damaged factory south of Sunan village with 2 rockets.

1310 - Launched a Direct Support group of 4 VF and 4 VT. Caves were bombed and rocketed in the hilly area east of Yontan Airfield.

1415 - Launched an Air Coordinator and 2 VT with Artillery Spotters. The Air Coordinator put bombs and rockets on an enemy emplacement on the top of a hill. The Artillery Spotters rocketed some small buildings on the east coast of Okinawa near the village of Hizona.

1515 - Launched a Direct Support Group of 4 VF. One fighter exploded two mines close to the shore off Maeta Saki. Their 250 pound bombs were dropped on Imatomari. With 20 VT and 4 other VF the small village of Imatomari, about six miles north of the beachhead, was completely fired and destroyed.

3 April 1945.

- 0545 - Launched a local Combat Air Patrol of 8 VF, local Anti-Submarine Patrol of 2 VT and 1 VT with Artillery Spotter.
- 0830 - Launched 1 VT photo and 1 VF for cover. Four strips were taken of Katchin Hanto on the east coast of Okinawa. The negatives were dropped for pick up by CTF 53.
- 1000 - Launched a Direct Support group of 4 VF and 1 VT with Artillery Spotter. The fighters, with 250 pound G.P. attacked Nakawa village on the west coast of the narrow peninsula dividing northern and southern Okinawa. Fifteen to twenty shacks and buildings were flamed and one barracks in the same place was hit.
- Launched a target Combat Air Patrol of 4 VF.
- 1115 - Launched 1 VT as Air Coordinator. A truck was strafed and 100 pound G.P. bombs were dropped on possible small boat sheds near the town of Kin.
- 1200 - Launched a local Anti-Submarine Patrol of 2 VT.
- 1330 - Launched 1 VT with Artillery Spotter.
- 1515 - Launched a local Combat Air Patrol of 4 VF.
- 1736 - Ship went to General Quarters. Two bogies were on the radar screen. One pilot, Lt.(jg) Varley W. Groves was making message drops on the ships of the Task Unit, so was not with his division when at 1736, he heard of the close proximity of bogies. He climbed as rapidly as possible and at 4000 feet saw a bogey at 9000 feet, about seven miles south of the formation. The bogey began a dive to the deck, and Grove noticed three or four friendly VF on the tail of the plane. He dove and closed the group, recognizing the plane as a radial engine Judy, painted a greenish brown color. Making repeated runs on the Judy which went into violent evasive maneuvers, Groves was handicapped by having the two bulbs on the gun sight inoperative. Groves had fired 900 rounds when he was forced to break off the attack by the AA fire from his Task Unit's screen.
- 1744 - For about one minute a dog fight could be seen low over the water, five miles astern, relative bearing 160°. Four VF of the Combat Air Patrol were alternately making runs on the Jap plane, a radial engine Judy, which was going into violent evasive maneuvers. The Jap kept coming close to the formation and when a mile astern, bearing 135°, the plane banked to the left and headed directly at a DD of the screen or one of the CVEs on the starboard quarter. At 1745 the DD the U.S.S. CAPPS and a DE opened fire and immediately after the plane had banked to the left toward the formation a direct hit was scored on the right wing, causing the plane to crash into the sea. (See photographs).

3 April 1945 (Cont'd).

1744 - At the same time two planes approached the port quarter of the (Cont'd) formation at approximately 4000 feet and attacked the U.S.S. WAKE ISLAND. One plane narrowly missed the ship in a suicide attack, striking the water off the port bow. The second plane, slightly behind the first plane, was off the starboard beam of the U.S.S. WAKE ISLAND when the first plane crashed. The second plane immediately did a left wingover and dove on the U.S.S. WAKE ISLAND grazing the starboard side at the water line. A bomb exploded causing a rupture in the skin of the ship. (See Photographs).

4 April 1945.

0545 - Launched a local Combat Air Patrol of 4 VF.

0830 - Launched 2 VT to deliver three Marine Artillery observers to Yontan Airfield.

0840 - Launched 1 OY with Army Artillery Spotter as pilot to land at Yontan Airfield.

0845 - Landed 2 FM-2 as replacement planes from the crippled U.S.S. WAKE ISLAND.

1200 - Launched a local Combat Air Patrol of 4 VF and local Anti-Submarine Patrol of 2 VT. Also launched one VT photographic plane and one VF for fighter cover. Low obliques were taken of Ie Shima.

1330 - Launched a Target Combat Air Patrol of 4 VF.

1515 - Launched a local Anti-Submarine Patrol of 2 VT.

2300 - Left formation in company with the WILLIAM SIETTERLING (DE 440) and the U.S.S. O'FLAHERTY (DE 340) enroute to Kerama Retto for the purpose of rearming.

5 April 1945.

0545 - Joined company with the U.S.S. MAKIN ISLAND.

0620 - Launched a local Combat Air Patrol of 4 VF. Launching delayed 40 minutes because of inclement weather. Planes landed on the U.S.S. RUDYERD BAY at 0915.

0810 - Anchored in berth K-99, Kerama Kaikyo, Kerama Retto. Loaded ammunition.

1500 - Completed rearming.

1515 - Received verbal orders from CTG 52.1 to swap VC-87 for VCC-1 on the U.S.S. WAKE ISLAND which was then in Kerama Kaikyo, Kerama Retto for temporary repairs.

5 April 1945, (Cont'd).

1600 - VC-87 left this ship to go aboard the U.S.S. WAKE ISLAND and VOC-1 reported aboard for duty from the U.S.S. WAKE ISLAND.

1010 - Underway in company with the U.S.S. WILLIAM SIEVERLING (DE 440) and the U.S.S. O'FLAHERTY (DE 340) to rejoin Task Unit 52.1.2.

6 April 1945.

0508 - Rejoined Task Unit 52.1.2, ComCarDiv 25 in tactical command until 1550 when ComCarDiv 24 assumed tactical command.

0530 - Launched a local Combat Air Patrol of 4 VF.

0600 - Launched a local Anti-Submarine Patrol of 2 VT.

0730 - Launched a local Combat Air Patrol of 4 VF.

0830 - Launched a local Combat Air Patrol of 4 VF and local Anti-Submarine Patrol of 2 VT.

0915 - Launched a target Anti-Submarine Patrol of 4 VT.

1200 - Launched a local Combat Air Patrol of 8 VF and local Anti-Submarine Patrol of 2 VT.

1515 - Launched a local Combat Air Patrol of 4 VF and local Anti-Submarine Patrol of 2 VT.

During the afternoon received 11 fighters formerly flown by VOC-1 on the U.S.S. WAKE ISLAND, from the following ships: USS PETROF BAY-4; U.S.S. MAKIN ISLAND - 4; U.S.S. SAGINAW BAY - 2 and the U.S.S. RUDYERD BAY - 1. Delivered 11 planes in the following manner: 3 VT to the U.S.S. SANTEE; 5 VF to the U.S.S. PETROF BAY; 2 VF to the U.S.S. SAGINAW BAY and 1 VF to the U.S.S. RUDYERD BAY.

1905 - Landed 2 VF of the RUDYERD BAY, because of a deck crash on parent ship.

7 April 1945.

0445 - U.S.S. TULAGI in company with the U.S.S. U.M. MOORE and the U.S.S. O'FLAHERTY rejoined formation.

0530 - Launched 5 VF as Spotters. No spotting services were required. Upon being relieved the planes attacked a ridge 700 yards east of the village of Dakeshi. Each plane fired six rockets at gun emplacements and entrenchments.

0631 - Fueled the U.S.S. DENNIS (DE 405).

7 April 1945 (Cont'd).

- 0730 - Launched 5 VF as Spotters. No spotting services were required and no strike was made. Also returned 2 U.S.S. RUDYERD BAY VF to parent ship.
- 1000 - Launched 6 VF as Spotters. Services as spotters were not required. Two planes, orbiting over the water two miles north of Zamba-Misaki, saw a plane being taken under AA fire by surface vessels. Diving down to 700 feet altitude to investigate, the plane under fire turned out to be a F4U. To show the friendly surface forces that they were firing on a friendly plane they flew wing on the F4U. Both planes were also taken under AA fire and crossing Zamba-Misaki towards Yontan Airfield, ground forces took the planes under AA fire. The F4U is not believed to have been hit, but both planes from this ship were damaged, one landing and ground looping on Yontan, the other making a crash landing near the Katena Airfield. The plane landing at Yontan was subsequently repaired and returned to the ship. The plane which crash-landed at Katena was a total loss. The pilot suffered lacerations on the forehead, a splinter in one eye and shrapnel in the right thigh. After a period of convalescence the pilot was returned to the ship on the 17th of April.
- 1200 - Launched 5 VF as Spotters and 2 VT for local Anti-Submarine Patrol. No spotting services were required of the 5 VF. Upon being relieved the planes attacked Ie Shima, burning a truck and destroying 2 brick buildings. Another building was damaged and caves and gun emplacements were rocketed and strafed.
- 1215 - U.S.S. SARGENT BAY (CVE 83), U.S.S. GOSS (DE 444) and the U.S.S. DENNIS (DE 405) left formation.
- 1330 - Launched a target Combat Air Patrol of 4 VF.
- 1430 - Launched 5 VF as Spotters. No spotting services were required and no strike was made.
- 1515 - Launched a Direct Support Group of 4 VF and 2 VT. A knoll covered with caves and entrenchments was attacked. The area was covered with smoke and dust making results of attack uncertain.
- 1850 - Task Unit 52.1.2 commenced retirement on course 105° (T) to fueling rendezvous.

8 April 1945.

Oilers not at designated rendezvous point.

- 0705 - U.S.S. ATTU (CVE 102), U.S.S. WATERMAN (DD 740), U.S.S. CARBIERE (DE 438) joined formation.
- 0845 - Launched a local Combat Air Patrol of 4 VF and 2 VT to be delivered, one to the U.S.S. RUDYERD BAY, and one to the U.S.S. SAGINAW BAY.

8 April 1945 (Cont'd)

0915 - Launched 4 VT to make a search of 4 sectors between the limiting bearings of 065° (T) and 145° (T) to a distance of 100 miles in search of oilers.

0950 - Received 10 replacement planes from the U.S.S. ATTU. One VF, pilot injured, landed on the U.S.S. SAGINAW BAY. On take off the cockpit enclosure blew off and caused a severe gash on the pilot's head.

1427 - Joined Task Unit 50.18.17.

1519-1645 - Fueled and took on aviation gasoline from the U.S.S. GUADALUPE (AO 32). Received 255601 gallons of fuel oil and 23667 gallons of aviation gasoline.

1645 - Launched a local Anti-Submarine Patrol of 4 VF. The ship was in the process of being fueled and VF were catapulted when the course of the formation was 95° out of the wind, making it impossible to launch VT.

2002 - Task Unit 50.18.47 left formation.

9 April 1945.

0500 - Launched a target Combat Air Patrol of 8 VF.

0730 - Launched a target Combat Air Patrol of 4 VF.

1000 - Launched 1 VT to go to Yontan Airfield and pick up salvaged radio gear and the pilot from the VF which had made a forced landing there on the 7th of April. One of the VF pilots returned with the VT at 1600. The other pilot was transferred to the U.S.S. COMFORT as a convalescent.

1200 - Launched a local Combat Air Patrol of 4 VF, local Combat Air Patrol of 4 VF and a target Combat Air Patrol of 4 VF.

1515 - Launched a local Combat Air Patrol of 8 VF.

10 April 1945.

0530 - Launched 4 VF as Spotters and 1 VT for Target ASP, Special Mission. The weather closed in. The ceiling over the island lowered to about 200 feet, and planes were ordered back to base. Target missions for the remainder of the day were out in Condition 11.

0830 - Launched a local CAP of 4 VF.

1147-1210 - Fueled the U.S.S. SIEVERLING (DE 441).

1246 -1320 - Fueled the U.S.S. EVANS (DD 552).

1515 - Launched a local CAP of 4 VF.

11 April 1945.

- 0045 - U.S.S. RUDYERD BAY (CVE 81), U.S.S. DENNIS (DE 405) and the U.S.S. K. C. CAMPBELL (DE 443) rejoined formation. Owing to inclement weather early morning launchings were cancelled.
- 0845 - Launched a Direct Support group of 4 VF and 2 VT. No targets were assigned and planes returned to base having made no attacks. Also launched 4 VF for target CAP, 1 VT for target ASP, and 1 VT to Yontan Airfield with a pilot as passenger to pick up and return with the plane which on 7 April had made an emergency landing.
- 1000 - Launched a target CAP of 4 VF.
- 1115 - Launched a target ASP of 1 VT.
- 1200 - Launched a target CAP of 4 VF and local ASP of 2 VT.
- 1330 - Launched a target CAP of 4 VF.
- 1415 - Launched 1 VF as Spotter and 1 VT for target ASP. The services of the spotter were not required.
- 1515 - Launched a local Combat Air Patrol of 4 VF. Planes were given vectors to intercept bogies in the area but no tally-ho was made.

12 April 1945.

- 0530 - Launched 5 VF as Spotters. Spotting services were not required. After being relieved and having rendezvoused, the pilots rocketed and strafed at least 15 trucks on a road southeast of the town of Karader. In addition two small thatch-roofed buildings were set on fire.
- 0730 - Launched 5 VF as Spotters, 4 VF for target CAP and 1 VT for target ASP. One of the Spotters called 8 salvos for a DD. Another pilot found some boat caves, which he attacked with six rockets and strafed, with no observed damage to the caves.
- 1000 - Launched 5 VF as Spotters. No spotting services were required. The planes attacked Ie Shima with rockets and strafing, damaging entrenchments and gun positions.
- 1115 - Launched 1 VT for target ASP and 1 VT for transfer to the U.S.S. RUDYERD BAY. The target ASP pilot landed on the U.S.S. RUDYERD BAY and picked up the pilot of the plane which was transferred.
- 1200 - Launched 5 VF as Spotters and 2 VT for local ASP. One Spotter had called 3 salvos when "Flash Red" was announced, and no further services were given.

12 April 1945 (Cont'd).

1415 - Launched 5 VF as Spotters and 1 VT for target ASP. The Spotters had just reached the objective area when "Flash Red" was called. Lieutenant C.S. Longino, USNR, orbiting Nagasaki Bay happened to look up and back towards 5 o'clock and saw a Val 2000 feet above making a dive at him. Lieutenant Longino is uncertain what maneuvers he went through but in a few seconds he found himself on the tail of the Val. He fired two bursts causing the engine to smoke. Overrunning the Val, he did a tight wing-over and at a 90° deflection, got in a good burst, and saw the cockpit of the Val envelope in flames, and crash into the sea.

Lieutenant Longino had rendezvoused with two other Spotters, Lieut.(jg) W. A. Foley and Lieut.(jg) W. H. Bethea about 5 minutes after he splashed the Val. Orbiting 10 miles south of Okinawa they were directed to investigate a bogey, which turned out to be a PBM, 20 miles south of Okinawa. Immediately after the interception of the PBM a destroyer was seen to open up on a low flying plane which was at about 500 feet. The three planes dove down from 4000 feet, Lieutenant Longino and Lieut.(jg) Foley coming in from astern the Val, and Lieut.(jg) Bethea from nearly headon. The Val hit the deck and went into a slow right turn. Lieut.(jg) Bethea did a tight wingover and came in on the starboard quarter of the Val and gave him a long burst from 400 feet, hitting the cockpit and fuselage. The Val got closer to the water, dipped his right wing, and crashed.

The other two spotters rendezvoused shortly after this, and the 5 VF attacked with rockets, gun emplacements just north of the town of Shikimbaru.

1515 - Launched a target CAP of 4 VF.

13 April 1945.

0609-0651 - Fueled the U.S.S. CARTER (DD 550).

0730 - Launched a Direct Support Group of 4 VT and 4 VF for target CAP. The Direct Support planes attacked Ie Shima with 3 - 500 pound G.P. bombs each, hitting revetments and caves and destroying a two story frame house.

1000 - Launched a target CAP of 4 VF.

1200 - Launched a local ASP of 2 VT, target CAP of 4 VF and 2 VF as Spotters. Also delivered 1 FM-2 to the U.S.S. PETROF BAY and 1 F6F-5N to the U.S.S. SANGAMON.

1400 - Launched 12 VF armed with 6 rockets apiece for a special strike against Ishigaki Airfield. In company with 9 VT and 4 VF from the U.S.S. PETROF BAY, the airfield was given a good going over. A Zeke, a Betty and 2 single engine planes were flamed, 5 additional planes were damaged by strafing and rocket fire. The A.A. fire was moderate of medium caliber, many bursts being parachute streamers.

13 April 1945 (Cont'd).

1530 - Launched a local CAP of 4 VF. During the night Task Unit 52.1.2 was on a course of 239° (T) enroute to an operating area southeast of Sakishima Gunto.

14 April 1945.

0545 - Launched a local CAP of 8 VF and local ASP of 2 VT.

1200 - Launched a target CAP of 4 VF to cover Miyako Island and 4 VF to cover Ishigaki Island.

1430 - Launched a Direct Support Group of 6 VT and 8 VF. The VT carried 4 - 500 pound G.P. bombs and the VF 6 - 5" H.E. rockets. The bombers cratered the west strip of Nobara Airfield with 14 bombs. The fighters rocketed the dispersal area south of the west strip of Nobara Airfield and flamed one twin-engined bomber. The VF then attacked Hirara Airfield flaming 3 single engined planes and damaging 3 others.

1532 - The U.S.S. TULAGI (CVE 72), U.S.S. U.M. MOORE (DE 442), U.S.S. GOSS (DE 444), U.S.S. Wm. SIEVERLING (DE 441) and U.S.S. W.K. CAMPBELL (DE 443) left the formation.

1600 - Launched a local CAP of 4 VF.

1740 - Launched 4 VF as Dumbo cover. One U.S.S. MAKASSAR STRAIT VF pilot had been seen six miles south of Ishigaki Island in a life raft. the Dumbo PBM was forced to return to base, being low on gasoline. The four fighters orbited the raft however, 2 VF remaining over the pilot until dusk to prevent the Japs sending a small boat out and capturing the pilot, and the other 2 VF returning back to the ship at 1920. The two remaining VF, when the raft and the pilot were no longer visible, on their own initiative, proceeded to conduct an intruder strike on Ishigaki Airfield, which prevented enemy air activity from this field. The two planes were landed back aboard one and a half hours after sunset.

15 April 1945.

0500 - Launched a twelve plane fighter sweep of the Ishigaki airfields, Ishigaki, Miyara and the grass field 2 miles north of Ishigaki. Revetments and AA emplacements were rocketed and strafed at all fields. Attacking at close to 0600, the lack of visibility made picking out of specific targets guess work and damage to parked planes was undetermined. However, one single engine plane was seen to burn. Anti-aircraft fire was intense to moderate, of medium and heavy caliber over both Ishigaki and Miyara Airfields. Ensign Michael E. Krainz, attacking Ishigaki Airfield, was hit pulling out of a dive, the engine caught on fire, and the plane crashed into the water about 400 yards south of the village of Ishigaki. There was no evidence of the pilot having survived.

15 April 1945. (Cont'd).

- 0730 - Launched a strike of 5 VT and 8 VF against Ishigaki airdrome. The bombers dropped 4 - 500 pound G.P. bombs apiece on the Northeast-Southwest runway. The fighters rocketed and strafed A.A. emplacements and plane revetments, resulting in destruction of a Judy and damage to a Val.
- 1215 - Launched a local Combat Air Patrol of 4 VF.
- 1500 - Launched a local CAP of 4 VF, a local ASP of 2 VT and a fighter sweep of 8 VF. The fighter sweep attacked Ishigaki Airfield and the grass field 2 miles to the north. No operational planes were seen, so A.A. emplacements were rocketed and strafed. One plane was found near the town of Ishigaki about 2 miles from the airfield. It was strafed and started smoking.
- 1920 - U.S.S. MAKASSAR STRAIT (CVE 01) and the U.S.S. DENNIS (DE 405) left the formation.

16 April 1945.

- 0530 - Launched 5 VF as Spotters and 4 VF armed with napalm bombs. One Spotter, working with the U.S.S. CALLAGHAN (DD 792) called fire at trenches and gun emplacements south of the front lines on Okinawa. Another Spotter working with the U.S.S. BIRMINGHAM (CL 62) called fire on Ie Shima where camouflaged gun emplacements were destroyed and a large fire was started. The other three Spotters did no spotting but one fired 6 - 5" H.E. rockets at an AA emplacement making one direct hit.

The VF with napalm bombs attacked a wooded area on the west coast of Ie Shima in preparation for the landing that followed shortly afterward. One bomb was not seen to explode, one landed in the water, but the other two hit in the assigned area causing a large fire and much flame and black smoke. The VF then strafed eight hundred yards inland from the landing area as the landing craft approached the beach. There was so much smoke and dust over the area that specific targets were not visible. When about to return to base the pilots heard that bogies were approaching from the north. Heading north at 5000 feet the VF intercepted 2 Kates on a southerly course below at 1000 feet. Diving down Lieut. (jg) E. W. Olszewski, USNR, came in behind the Kate on the left, gave it 2 bursts when closing from 400 to 100 feet and saw flames shoot out from the cowling. The plane rolled to the left and crashed in the water. The Kate on the right hand, when the attack commenced, dropped a large bomb, dipped its nose slightly and then regained level flight. On their second run the first two pilots started the engine smoking a white smoke, and the second two pilots flamed the plane which rolled over on the right wing and crashed into the sea. Return fire was seen to come from the rear of the cockpit of the second Kate. The muzzle flame was rather large and not very rapid. The pilots estimated the rate of fire to be about two rounds a second. The planes, painted a splotchy green, made no evasive maneuvers whatsoever.

16 April 1945 (Cont'd).

0730 • Launched 5 VF as Spotters. As the target area was in condition "Flash Red" no spotting was accomplished. The planes however made an attack on emplacements and caves on Motobu Peninsula in the area where the Marines were receiving resistance. Several direct hits were observed.

1000 - Launched 5 VF as Spotters. One pilot working with the U.S.S. PORTER (DD 579) called fire on a Jap troop concentration about a mile south of the front lines. Good results were observed. Another pilot called fire for the U.S.S. LONGSHAW (DD 559) where trenches and artillery emplacements were taken under fire, behind the Jap lines. A third pilot called fire for the U.S.S. CALLAGHAN (DD 792) which shelled enemy positions in the hills one-half mile south of the town of Shuri.

Upon being relieved on station, the pilots rendezvoused and attacked the troop concentration which had been shelled by the U.S.S. PORTER. Pilots rocketed and strafed with unobserved results.

1200 - Launched 5 VF as Spotters. One VF had a jammed rudder tab and returned to base. Of the four VF at the target area, only one was used as a spotter. The U.S.S. CALLAGHAN shelled artillery emplacements northeast of the town of Kamizato.

1219-1331 - Fueled the U.S.S. EVANS (DD 552).

1430 - Launched 1 VT with 3 ferry pilots. Plane landed on the U.S.S. NATOMA BAY (CVE 62). Three of the planes landed back with 2 replacement planes. One pilot ferried a VT to the U.S.S. PETROF BAY (CVE 80). Also launched at 1430, 5 VF as Spotters. Pilots called fire for the U.S.S. BIRMINGHAM (CL 62), U.S.S. PORTER (DD 579) and the U.S.S. LONGSHAW (DD 559). The area south of the front lines on Okinawa was bombarded. Two of the planes made individual attacks, firing 6 rockets apiece at caves south of the front lines and getting 2 direct hits.

17 April 1945.

0530 - Launched 6 VF as Spotters and 4 VT for Direct Support. The spotters called fire for the U.S.S. ST. LOUIS (CL 49), the U.S.S. BILOXI (CL 80) and the U.S.S. LONGSHAW (DD 559). Three of the spotters did not call fire. The ships bombarded enemy positions south of the front lines. The 6 VF rendezvoused and made a rocket and strafing attack on the hill area of eastern Ie Shima, where the Japs were entrenched. Two tombs were assigned as a target, and 10 direct hits by rockets were observed.

The Direct Support VT dropped 3 - 500 pound G.P. bombs apiece on artillery emplacements just south of the town of Takeshi. Six direct hits were made, destroying the positions.

17 April 1945 (Cont'd).

- 0730 - Launched 6 VF as Spotters. Two pilots called fire for the U.S.S. ST. LOUIS (CL 49) and the U.S.S. BILOXI (CL 80). Truck parks, caves and entrenchments were shelled.
- 1000 - Launched a Direct Support Group of 4 VT. Armed with 3 - 500 pound G.P. bombs an enemy strongpoint in the Japanese lines near Yonabaru Airfield was attacked and 9 hits in the target area were counted.

Also launched at 1000, 6 VF as Spotters. One pilot called fire for the U.S.S. ST. LOUIS (CL 49) which shelled a supply dump area 3 miles south of the lines. The other planes stood by, observed, but the ships to which they were assigned did no firing.

- 1200 - Launched 5 VF as Spotters. Pilots called fire for the U.S.S. ST. LOUIS (CL 49) and the U.S.S. CALLAGHAN (DD 792) and the U.S.S. LONGSHAW (DD 599). The 2 destroyers shelled the area immediately behind the Jap front lines and the cruiser fired at supply areas, starting fires and crumbled a cement wall several miles south of the combat area.

Four of the Spotters rocketed and strafed the hilly area on the eastern end of the island of Ie, where a concrete blockhouse was hit by rockets.

- 1330 - Launched a target CAP of 8 VF. No vectors were given or contacts made.

- 1430 - Launched 6 VF as Spotters. Pilots called fire for the U.S.S. PORTLAND (CA 33), the U.S.S. PORTERFIELD (DD 692) and the U.S.S. CALLAGHAN (DD 792). The U.S.S. PORTERFIELD shelled the encircled enemy on Motobu Peninsula, delivery area fire. The U.S.S. PORTLAND shelled the area south of the front lines, knocking out several trucks and four houses. The U.S.S. CALLAGHAN shelled the area immediately behind the Jap lines.

- 1515 - Launched a Direct Support flight of 4 VT. Emplacements on a ridge just south of the Jap lines on Okinawa were bombed with 3 - 500 pound G.P. bombs by each plane. All but three bombs were in the assigned area.

Commenced retirement to the fueling rendezvous.

18 April 1945.

- 0520 - Launched a twelve plane fighter sweep to attack Minami Daito and destroy any enemy aircraft discovered, and radio and AA facilities. One VT accompanied the sweep for navigational and photographic purposes. During the first run one of our planes was hit by AA fire, the pilot making a water landing. During the second run another plane was hit just pulling out of a dive at 1500 feet. This plane nosed over and crashed, burning 500 yards off the southern tip of Minami. The pilot was not seen to survive. Two other planes were hit, one being holed in the wing and the other having the cockpit canopy

18 April 1945 (Cont'd).

0520 - shattered, causing small lacerations in the pilot's right shoulder.
(Cont'd)

Finding no aircraft at Minami Daito, the planes shot their remaining rockets at Kita Daito, a small island 5 miles to the north of Minami. The AA fire at Kita was as severe as at Minami. Another plane was badly hit in the accessory section, but the pilot, Lieutenant Commander W. F. Bringle, USN, nursed the plane back to base, where he made an extraordinarily excellent landing, having no throttle or propeller pitch control. The throttle linkage was cut leaving the engine setting at 38 inches of manifold pressure and 1500 R.P.M.

A PBM Dumbo arrived at Minami Daito and, directed by the VT which had orbited the survivor of the VF which had made a water landing 4 miles south of the island, rescued the pilot in his raft. In doing so the PBM came under fire from shore batteries on Minami Daito.

The VT, returning to base, landed on the U.S.S. PETROF BAY (CVE 80) owing to fueling operations on his own carrier.

0850 - The U.S.S. SARGENT BAY (CVE 83), U.S.S. M.R. NAWMAN (DE 416) and the U.S.S. R. F. KELLER (DE 419) joined formation.

0852-1047 - Received 354376 gallons of fuel oil.

0852-1347 - Received 75500 gallons of aviation gasoline.

1505 - Launched 1 VT as a Tow plane and 4 VF as local CAP.

1605-1724 - Conducted anti-aircraft and gunnery exercises.

19 April 1945.

0440 - Rear Admiral F. B. Stump assumed tactical command of Task Unit 52.1.2.

0530 - Launched 6 VF as Spotters. Fire was called for the U.S.S. BIRMINGHAM (CL 62). Six direct hits were scored on an artillery emplacement on a ridge one half mile south of the front line. Fire also called for the U.S.S. PAUL HAMILTON (DD 590) and the U.S.S. LONGSHAW (DD 559). An artillery emplacement was silenced and a cave area was damaged.

Also launched 6 VT at 0530 as Smokers. Smoke was to be laid on the south shore of Okinawa to cover a demonstration landing. None of the smoke tanks functioned properly. (See Part VIII, paragraph 15).

19 April 1945 (Cont'd)

0715 - Launched a Strike of 10 VF. Joining 30 VF and 36 VF launched from Task Unit 52.1.2 and led by Lieutenant Commander W. F. Bringle of VCC-1, the strike attacked trenches, caves and gun positions in an area south of the town of Oroku. Eight fires were started and damage to enemy positions was extensive.

Also at 0715 launched 6 VF as Spotters. Fire was called for the U.S.S. BIRMINGHAM (CL 62), U.S.S. R. P. LEARY (DD 664), U.S.S. PAUL HAMILTON (DD 590) and the U.S.S. LONGSHAW (DD 559). Artillery emplacements, a fortified hill top and troop concentrations were bombarded.

After being relieved on station, pilots rendezvoused and rocketed and strafed a mile east of the town of Chinkuto hitting one concrete house with six rockets and an artillery emplacement with 4 more rockets.

1000 - Launched 6 VF as Spotters. Fire was called for the U.S.S. WEST VIRGINIA (BB 48), U.S.S. BIRMINGHAM (CL 62), U.S.S. H. L. EDWARDS (DD 663), U.S.S. R. P. LEARY (DD 664) and the U.S.S. LONGSHAW (DD 559). Gun positions, caves and revetments south of the front lines were wounded.

1020 - The U.S.S. BALL (DE 402) and the U.S.S. ROWELL (DE 403) joined the disposition.

1200 - Launched 6 VF as Spotters. Fire was called for the U.S.S. WEST VIRGINIA (BB 48), U.S.S. H.L. EDWARDS (DD 663) and the U.S.S. CALLAGHAN (DD 792). A direct hit was made on an observation post and artillery emplacement. The town of Kibara was shelled starting numerous fires.

Also launched at 1200 2 VT for local ASP.

1415 - Launched 6 VF as Spotters. Planes had no sooner reached the target area when they were directed to return to base because of a cold front and the low ceiling over the land.

1515 - Launched a local ASP of 2 VT.

2200 - U.S.S. SAGINAW BAY (CVE 83) and the U.S.S. L'FLAHERTY (DE 340) left the formation.

20 April 1945.

0656-0730 - Fueled the U.S.S. CAPPS (DD 550).

0730 - Launched a target CAP of 4 VF.

0830 - Launched a local CAP of 4 VF and 1 VF as Air Coordinator. At first the Coordinator controlled 4 VT each from the U.S.S. BUNKER HILL, the U.S.S. SHAMROCK BAY and the U.S.S. FANSHAW BAY. Trenches and artillery positions on a hill just south of the lines were bombed. Later with 16 SB2Cs from the U.S.S. BUNKER HILL 2 barracks and trenches in the town of Awashi were destroyed. The Air Coordinator himself strafed and flamed a camouflaged storage area.

20 April 1945 (Cont'd).

- 1000 - Launched a target CAP of 4 VF and a Direct Support Group of 4 VT. The VT armed with 10 - 100 pound G.P. bombs and 8 - 5" H.E. rockets, bombed a storage area 700 yards east of the town of Chikuto exploding an ammunition dump and gasoline stores.
- 1200 - Launched a local CAP of 4 VF, a target CAP of 4 VF and a Direct Support Group of 4 VF. The Direct Support VF carried 1 - 250 pound G.P. bomb each and attacked, in conjunction with 4 VT from the U.S.S. SARGENT BAY, gun positions. All bombs were in the target area. Later 3 - 50-60 foot barges were rocketed and strafed on the south shore of Naha Ko. One barge exploded and one sank.
- 1515 - Launched a local CAP of 4 VF and a target CAP of 4 VF.
- 1549-1627 - Fueled the U.S.S. BRADFORD (DD 545).
- 2200 - U.S.S. PETROF BAY (CVE 80) and the U.S.S. BULL (DE 402) left the formation.
- 2345 - The U.S.S. SAGINAW BAY (CVE 82) and the U.S.S. O'FLAHERTY (DE 340) rejoined the formation.

21 April 1945.

- 0515 - Launched a local CAP of 4 VF and 5 VF as Spotters. Fire was called for the following: U.S.S. ST. LOUIS (CL 49) which shelled gun positions on a ridge just southeast of Yonabaru Airfield; U.S.S. BIRMINGHAM (CL 62) which shelled caves at the bottom of a ridge, getting 10 direct hits; U.S.S. H. L. EDWARDS (DD 663) which fired general area neutralization fire to the west of and in the town of Kakazu; U.S.S. W. D. PORTER (DD 579) which shelled a personnel concentration with unobserved results.
- 0730 - Launched a Direct Support Group of 4 VF and 4 VT and 5 VF as Spotters. The Direct Support planes bombed, rocketed and strafed, with 8 U.S.S. LUNGA POINT VT, the town of Awachi. A hangar-like building west of the town and a barracks south of the same town were destroyed.
- The Spotters called for the following: U.S.S. ST. LOUIS (CL 49) which shelled and silenced with 15 salvos 2 coastal defense positions; U.S.S. H. L. EDWARDS (DD 663) which shelled but missed 2 artillery positions, and later shelled the east end of the town of Shuri with neutralization fire; U.S.S. W. D. PORTER (DD 579) which blew up one large blockhouse, and damaged troop emplacements; U.S.S. ROCKS (DD 804) which fired at and silenced some mortar positions southeast of Tanabaru.
- 1000 - Launched 5 VF as Spotters. Fire was called for the following: U.S.S. ST. LOUIS (CL 49) which made 2 direct hits on a concrete emplacement on the ridge southeast of Kibara; U.S.S. BIRMINGHAM which fired a few rounds at an artillery emplacement on the ridge east of Dakeshi with no noticeable effect; U.S.S. H. L. EDWARDS (DD 663) which smashed 2 trucks and hit trenches near the town of Kibara; U.S.S. W. D. PORTER (DD 579) which fired 4 rounds but did not hit an artillery position; U.S.S. ROCKS (DD 804) which fired at and destroyed an artillery emplacement.

21 April 1945 (Cont'd).

- 1200 - Launched 5 VF as Spotters. Pilots conducted fire call for the following: U.S.S. MOBILE (CL 63), which hit and destroyed 3 pillboxes north of the town of Shuri; U.S.S. ST. LOUIS (CL 49) which made 1 near miss on coastal defense gun positions; U.S.S. BIRMINGHAM (CL 62), which made 4 hits on a hill north of Shuri damaging revetments and the U.S.S. ROCKS (DD 804), which made 1 hit on a gun position north of the town of Kochi, and fired neutralization fire just south of the front lines.
- 1415 - Launched 5 VF as Spotters. Fire was called for the following: U.S.S. BIRMINGHAM (CL 62), which shelled what appeared to be caissons under a ridge south of Awachi and also made a direct hit on a mortar position; U.S.S. ST. LOUIS (CL 49), which got 3 direct hits on gun positions north of Funakasi; U.S.S. MOBILE (CL 63), which conducted area fire on the fortified ridge south of Awachi and made 2 direct hits on blockhouses; U.S.S. H.L. EDWARDS, which shelled entrenchments near the town of Yonawa.
- 1515 - Launched a Direct Support Group of 4 VT and 4 VF. The town of Itokazu was attacked with excellent results. Several large buildings were destroyed and a gas dump fired, causing flames to shoot up 250 feet and smoke soared up to 4000 feet.

22 April 1945.

- 0515 - Launched 4 VT for Direct Support and 5 VF as Spotters. Fire was called for the U.S.S. CALLAGHAN (DD 792), which shelled with neutralization fire the area just north of Yonabaru Airfield. Fire was also called for the U.S.S. ST. LOUIS (CL 49). A gun emplacement was demolished with 2 hits and an underground cave was hit with 1 shell.

At approximately 0705, Lieutenant (jg) George W. Zackman, USNR, was believed to have crashed in a midair collision with an Air Coordinator from the U.S.S. SARGENT BAY (CVE 83). The actual crash was not reported to have been seen, but his plane, flaming, was seen immediately after the crash at 1500-2000 feet. The air in the vicinity of the plane was saturated with plane parts. Zackman and his plane hit the ground approximately 3/4 of a mile from the front lines within enemy territory.

The 4 Direct Support VT bombed and fired rockets at the southern end of the town of Awachi, burning and destroying what was reported to be an enemy personnel concentration.

- 0530 - U.S.S. PETROF BAY (CVE 80) and the U.S.S. BULL (DE 902) joined the disposition.

22 April 1945 (Cont'd).

- 0730 - Launched 5 VF as Spotters. Fire was called for the following ships: U.S.S. MOBILE (CL 63) which shelled gun emplacements 3 miles south of the front lines making several hits, the Spotter seeing Japs running out of the emplacement to other cover; U.S.S. ST. LOUIS (CL 49) which caved in four revetments west of Yonabaru; U.S.S. BARTON (DD 722) which shelled at but made no direct hits on recetments and artillery emplacements on the jill just west of the town of Shuri; U.S.S. PRESTON (DD 795) which made 15-20 hits on trenches a mile west of Yonabaru.
- 1000 - Launched 6 VF as Spotters. Pilots worked for the following ships: U.S.S. CALLAGHAN (DD 792) which destroyed 12 houses in the town of Onago; U.S.S. MOBILE (CL 63) which made 2 direct hits on cave entrances one half mile east of Shuri; U.S.S. BARTON (DD 722) which damaged a concrete emplacement alongside the west side of Machinato Airfield; U.S.S. ST. LOUIS (CL 49) which shelled coastal defense gun positions, making no direct hits; U.S.S. BARTON (DD 722) which shelled the town of Asa, south of Machinato Airfield scoring two hits on gun positions and 12 fuel storage tanks were hit 3 times, starting a large fire.
- 1200 - Launched 5 VF as Spotters. Pilots spotted for the following: U.S.S. ST. LOUIS (CL 49) which shelled west of the town of Tomasu making 4 direct hits on gun emplacements; U.S.S. MOBILE (CL 36) which provided neutralization fire on the ridge south of Awachi; U.S.S. CALLAGHAN (DD 792) which shelled and made 10 direct hits on concrete gun emplacements 600 yards south of the front lines. The pilot made 4 strafing runs on reported mortar positions with no definate results. One pilot, with no spotting assignment, made a small boat sweep around the southern coast of Okinawa. Eight M.T.B. well camouflaged, hidden on the shore, were strafed. No fires were started, but one boat was seen to smoke.
- Also launched at 1200 4 VF as local CAP and 2 VT as local ASP.
- 1415 - Launched 5 VF as Spotters. Spotting was provided for the following ships: U.S.S. CALLAGHAN (DD 792) which shelled emplacements just south of the front lines near the town of Tanabaru. No direct hits were observed; U.S.S. MOBILE (CL 63) which made 2 direct hits on a supply dump on the main road east of Neha City; U.S.S. ST. LOUIS (CL 49) which shelled camouflaged caves in a ridge just west of the town of Yonawa; U.S.S. BARTON (DD 722) which put in 15-20 shells among trenches and emplacements in and just east of the town of Onaga.
- 1515 - Launched a Direct Support Group of 4 VT. With 8 VT and 4 VF from other carriers of the Task Unit, the village of Kokuda was rocketed, strafed and bombed, and sand-bagged positions were destroyed.
- 1621-1659 - Fueled the U.S.S. EVANS (DD 552).

22 April 1945 (Cont'd).

1036 - Withdrew from Task Unit 52.1.2 in company with the U.S.S. ROWELL (DE 403). Proceeded to join the U.S.S. MAKIN ISLAND (CVE 93) enroute to the Kerama Retto for rearming and reprovisioning.

23 April 1945.

0530 - Launched 4 VF as local CAP. Planes landed at 0915 on the U.S.S. PETROF BAY.

0745 - Anchored in berth #9, Kerama Retto. During the day loaded dry provisions, aviation stores and ammunition.

1750 - Underway in company with the U.S.S. MAKIN ISLAND (CVE 93), U.S.S. BULL (DE 402) and the U.S.S. ROWELL (DE 403). Proceeded to rejoin Task Unit 52.1.2 in operating area southeast of Okinawa Jima.

24 April 1945.

With the U.S.S. ROWELL (DE 403) left the U.S.S. MAKIN ISLAND (CVE 93) and proceeded independently.

0255 - Rejoined Task Unit 52.1.2.

0530 - Launched a local CAP of 8 VF.

0915 - Landed 4 VF which had been launched on 23 April and remained overnight on the U.S.S. PETROF BAY (CVE 80). Also landed 4 VF from the U.S.S. MAKASSAR STRAIT, which ship had entered Kerama Retto during the morning.

1000 - Launched a local CAP of 4 VF, and landed 6 VF from the U.S.S. FANSHAW BAY, for exchange of planes. Planes received from the U.S.S. MAKASSAR STRAIT (CVE 91) had ARC-1 radio equipment with MHF. Planes given in exchange did not have MHF.

1120 - Launched the 6 replacement planes for the U.S.S. MAKASSAR STRAIT (CVE 91).

2123 - U.S.S. SARGENT BAY (CVE 83) and the U.S.S. J.D. FENLEY (DD 553) left formation.

25 April 1945.

0350 - U.S.S. MAKASSAR STRAIT (CVE 91) and the U.S.S. DENNIS (DE 405) rejoined formation.

0530 - Launched 5 VF as Spotters. Fire was called for the following: U.S.S. CALLAGHAN (DD 792) which shelled 2 revetments and an observation post getting 5 direct hits; U.S.S. BARTON (DD 722) which shelled a camouflaged emplacement, getting 1 direct hit. Communications could not be established with three other ships. Four of the pilots made rocket and strafing attacks which resulted in one tank or truck being damaged, and possible damage to 2 M.T.B.s on the southeast shore of Okinawa.

25 April 1945 (Cont'd)

- 0730 - Launched 5 VF as Spotters. Fire was called for the following ships: U.S.S. BARTON (DD 722) which destroyed 5 houses, and made a direct hit and 3 near misses in a supply area; U.S.S. PORTER (DD 579) which destroyed 1 truck in a revetment and made 2 hits on revetments; U.S.S. HAMILTON (DD 590) which made several near misses on gun emplacements.
- 0900 - Launched 4 U.S.S. MAKASSAR STRAIT VF for local CAP. Pilots landed on parent ship.
- 1000 - Launched a target CAP of 4 VF and 5 VF as Spotters. The Spotters called fire for the following: U.S.S. CALLAGHAN (DD 792) which fired but 5 rounds at an emplacement on a hill east of the south end of Kahazu, scoring no hits; U.S.S. BARTON (DD 722) which fired at artillery positions west of Yonabaru, knocking camouflage down revealing 2 guns, one of which was destroyed with a direct hit; U.S.S. HAMILTON (DD 590) which fired at camouflaged artillery positions a mile south of Machinato Airfield and made 3 or 4 direct hits.
- Four Spotter pilots rocketed and strafed various targets flaming 2 small houses and damaged gun emplacements at 2 different places.
- 1200 - Launched 5 VF as Spotters. Fire was called for the following: U.S.S. BARTON (DD 722) which made 1 direct hit and 3 near misses on what appeared to be supply dumps and 2 direct hits on caves; U.S.S. LAWS (DD 558) which fired 8 salvos at a pillbox and trenches but made no hits and neutralized an area at the end of China-Saki; U.S.S. HAMILTON (DD 590) which fired 50 rounds of neutralization fire just west of Machinato Airfield; U.S.S. ST. LOUIS (CL 49) which fired 30 rounds of neutralization fire east of the town of Shuri. All five pilots made rocket and strafing attacks. A small ammunition dump and 4 vehicles were destroyed. Three vehicles, 2 buildings, a pillbox and supply piles were damaged. Four Jap soldiers were strafed and killed.
- 1230 - Launched a target CAP of 8 VF.
- 1415 - Launched 5 VF as Spotters. Fire was called for the following: U.S.S. CALLAGHAN (DD 792) which for one and a half hours attempted to hit artillery emplacements covered with burlap and straw on a hill west of Yonabaru. Three out of five shells appeared to be duds. Finally one hit and several near misses were made on the emplacement; U.S.S. HAMILTON (DD 590) which made 2 hits on one gun emplacement and then shelled the town of Kurare. (The pilot dropped one wing tank three quarters full of gas on the town to help spread the fires started by the phosphorous shells); U.S.S. ST. LOUIS (CL 49) which conducted neutralization fire south of the town of Shuri. The Spotter pilots strafed and rocketed targets of opportunity flaming 1 truck, damaging 3 others and putting four rockets in a barracks or shed.

25 April 1945 (Cont)

1415 - On return to base, while coming up the groove approximately 100 yards astern of the fantail, one VF experienced power failure and settled, hitting the water. The pilot had no difficulty getting out of his plane, and was picked up uninjured, after 12 minutes, by the U.S.S. BOYD (DD 544).

26 April 1945.

- 0304 - U.S.S. SARGENT BAY (CVE 83) and the U.S.S. HENLEY (DD 553) rejoined the formation.
- 0530 - Launched 1 VT for target ASP and 5 VF as Spotters. Fire was called for the following: U.S.S. HAMILTON (DD 590) which shelled caves in a mound east of Machinato Airfield making several damaging hits. Four other ships assigned to the Spotters were not on station. The five Spotters made rocket and strafing attacks concentrating on 2 large sheds one half mile south of Shuri, scoring at least 6 hits.
- 0730 - Launched 1 VT for target ASP and 5 VF as Spotters. Fire was called for the following: U.S.S. BEALE (DD 471) which shelled a gun position a mile west of Yonabaru but made no direct hits; U.S.S. BARTON (DD 722) which shelled 5 gun positions, 1 pillbox and caves, the gun positions being silenced and the pillbox destroyed and one shell made a direct hit in a cave; U.S.S. HAMILTON (DD 590) which caved in the sides of 2 caves. One pilot spotted for ground artillery directing several hits on enemy artillery emplacements. After spotting, the pilots rocketed and strafed targets of opportunity. Two trucks were destroyed, two fuel dumps fired, mortar positions and warehouses were damaged.
- 0900 - Launched 1 VT with a passenger to be left on the U.S.S. SAGINAW BAY (CVE 82) and press release material to be left at Yontan Airfield.
- 1000 - Launched 1 VT for target ASP, 8 VF for target CAP and 5 VF as Spotters. The Spotters called fire for the following: U.S.S. BEALE (DD 471) which shelled gun emplacements and made 1 direct hit on a gun emplacement on the ridge west of Yonabaru; U.S.S. HAMILTON (DD 590) which shelled caves south of Machinato Airfield and hit and collapsed three of them. One pilot called for ground artillery. A small hill, one and a half miles south of the Japanese lines, and pockmarked with caves, was shelled effectively.
- Having been relieved the pilots fired rockets at and strafed targets of opportunity, damaging from 4 to 6 trucks, and firing at caves and gun emplacements.
- 1200 - Launched 1 VT for target ASP and 5 VF as Spotters. Spotters called fire for the following: U.S.S. BEALE (DD 471) which fired in salvo at 3 large gun emplacements making no direct hits but hitting 2 smaller emplacements close by; U.S.S. HALL (DD 583) which shelled pillboxes and caves on a ridge west of Yonabaru; U.S.S. PRESTON (DD 795) which provided neutralization fire in a troop and mortar area southwest of Yonabaru; U.S.S. HAMILTON (DD 590) which flamed houses in the village of Kura; U.S.S. HUTCHINS (DD 476) which fired at reported gun positions east of Shuri causing no visible damage.

26 April 1945 (Cont'd).

1415 - Launched 1 VT for target ASP and 5 VF as Spotters. Fire was called for the following: U.S.S. BEALE (DD 471) which provided neutralization fire one half mile west of Yonabaru; U.S.S. HALL (DD 583) which fired at some large gun emplacements 2 miles south of the Japanese lines but were unable to make any direct hits; U.S.S. PRESTON (DD 795) which shelled and hit caves and trenches, flushing 5 Japs out of one cave; U.S.S. HAMILTON (DD 590) which fired about 50 rounds with good effect on a hill, trenches and caves south of Machinato Airfield.

Pilots after their spotting period, fired rockets at and strafed caves and gun positions. An unidentified installation and a house were also hit.

27 April 1945.

0800 - Launched a local ASP of 4 VT.

0810 - Task Unit 52.1.2 joined Task Unit 50.18.6.

0856-1046 - Fueled and received aviation gasoline from the U.S.S. MANATEE (AO 58).

1250 - Launched 9 VF with Spotter replacement planes to be delivered to the U.S.S. FANSEAW BAY (CVE 70). 4 VT accompanied the VF to return with VF pilots as passengers. Six U.S.S. FANSEAW BAY VF were delivered to this ship.

1500 - Launched 1 VT with spare aircraft parts to be delivered to the U.S.S. TULAGI. Also launched 8 VF for local CAP at 1500. At this time the U.S.S. RUDYERD BAY (CVE 81) and the U.S.S. DENNIS (DE 405) joined the formation.

1601 - Exercised at torpedo defense, firing at a towed sleeve.

28 April 1945.

0530 - Launched 1 VT for target ASP and 4 VF as Spotters. The Spotters called fire for the following: U.S.S. BEALE (DD 471) which hit 2 gun emplacements and neutralized an area where gun flashes had been seen; U.S.S. BARTON (DD 722) which fired at gun emplacements south of Yonabaru Airfield but made no hits; U.S.S. LAWS (DD 558) which shelled newly dug revetments and made several near misses. The U.S.S. BIRMINGHAM (CL 62) failed to come up on the air in time to fire.

The four pilots fired rockets at and strafed targets of opportunity on the southern end of Okinawa. What appeared to be storage piles under canvas and a gun emplacement were hit and damaged.

28 April 1945 (Cont'd).

0730 - Launched 1 VT for target ASP, 8 VF for target CAP and 3 VF as Spotters. Fire was called for the following: U.S.S. BARTON (DD 722) which fired 20 salvos at and neutralized emplacements on a ridge one half mile south of Yonabaru; U.S.S. LAWS (DD 558) which made 6 direct hits on a large factory and three direct hits on gun emplacements, destroying one large one and one small one; U.S.S. BIRMINGHAM (CL 62) which fired at 18 revetments, in 10 of which guns could be seen and destroyed four.

Two of the Spotter pilots made attacks with rockets and strafing. Two artillery emplacements were seriously damaged with direct hits and a barracks type building was hit twice with rockets. In addition 3 storage piles were burned and destroyed.

1000 - Launched 1 VT for target ASP and 3 VF as Spotters. No spotting was conducted owing to the presence of enemy aircraft in the vicinity and the condition of "Flash Red". Caves with a narrow gauge railway leading into them on the southeast coast of Jinasaki were rocketed and strafed. Four rockets were seen to disappear in the cave.

1200 - Launched 1 VT for target ASP, 8 VF for target CAP and 3 VF as Spotters. Spotters called for the following; U.S.S. BARTON (DD 722) which took under fire high ground west of the village of Roi and made several direct hits on gun emplacements; U.S.S. LAWS (DD 558) which fired 80 rounds pulverized a ridge wouth of Macinato Airfield and destroyed 2 gun emplacements, 3 caves and 2 houses; U.S.S. BIRMINGHAM (CL 62) which took under fire trenches and personnel area, getting many effective hits. One pilot made an attack with his rockets getting 6 hits on a blockhouse.

1415 - Launched 1 VT for target ASP and 4 VF as Spotters. Pilots spotted for the following: U.S.S. LEARY (DD 664) which fired neutralization fire at trenches and gun emplacements west of Yonabaru village; U.S.S. BARTON (DD 722) which made several direct hits on caves in a hillside west of Yonabaru; U.S.S. LAWS (DD 558) which neutralized a trench and artillery emplacement area south of Macinato Airfield, and made 1 direct hit on a pillbox. The ship assigned to the fourth pilot was controlled by an artillery observer. Three Spotter pilots made individual attacks. Two large buildings were damaged when hit by six rockets. A cave was also damaged by direct rocket hit.

1515 - Launched a target CAP of 4 VF. Planes orbited until 1800 when given a vector by a radar picket station, the U.S.S. WADSWORTH (DD 516). Planes climbed from 8 to 11 thousand feet and were given another vector. Two bogies were spotted 15,000 feet, 11 o'clock, 8 miles. Still climbing the first section of the division closed faster than the second. When 800' behind and 6 o'clock below, Lieutenant Commander W. F. Bringle, USN, the division leader, fired a burst at the Val on the port hand hitting the port wing root which immediately flamed, and flame came out from under the fuselage. The plane nosed over at once and,

28 April 1945 (Cont'd).

1515 - out of control, crashed into the sea. The pilot was probably
(Cont'd) killed on the first burst. Almost simultaneously Lieut.(jg)
W. C. McKeever, USNR, took under fire the second Val on the
starboard hand. He also opened fire from 800 feet and his
first burst started the Val's engine smoking. The Val nosed
over slightly and started a turn to starboard. McKeever had
to pull up to the right to avoid hitting Lieutenant Commander
Bringle who had slid over in front of him. Both planes pulled
up and over to the left away from the Val. McKeever turned
sharply back to the right and dove down in a 30° dive after the
Val, which was streaming smoke. He got in two bursts from behind,
10° deflection, closing from 100 feet. The Val flamed again
momentarily.

The second section leader Lieut.(jg) J. M. Dennison, USNR, cut
over to the right and closed the range getting in a 30° deflection
shot at the Val, which flamed it again momentarily. Lieut.(jg)
McKeever got back on the tail of the Val and both planes pulled out,
one to starboard and one to port. In doing so Lieut.(jg) C. P.
Skelly, USNR, was given an opportunity to close in from the rear,
and fire several short bursts. He overshot and also pulled up to
the right. The Val attempted to pull up into the two planes which
had pulled up to the right, saw they were too far away and
continued in a loop, leveling off in a 30° dive. The plane, now
with the bottom of the fuselage enflamed, appeared to be wobbly
and only partially under control. McKeever got back on the tail
of the Val again, and gave 4 or 5 short bursts following him down
to 6,000 feet. The Val then nosed straight over and crashed in
the sea.

No bombs were seen on the planes and no return fire was received.

1615 - Launched 4 VF for target CAP. The division was orbited on station
approximately 40 miles north of Aguni Shima. The Fighter Director
on the radar picket ship, the U.S.S. ROBERT H. SMITH (DM 23)
vectored the division due north, and the division climbed to
19,000 feet. Three Vals, in a Vee were spotted heading south at
17,000 feet. Making a 180° turn and diving from the sun,
Lieutenant F. S. Schauffler, USNR, made the first pass at the
leader of the Vals but remained above them to see what action they
would take.

The leader of the Vals shook his stick violently back and forth
and the three plane Jap division opened out and down. Lieut.(jg)
T. H. McManus made the next run, fired two long bursts at the right
hand Val in a high side run. No hits were observed. He pulled
up to the left and saw the left hand Val turn southeast in a slight
dive. He pushed over and got on the tail of the Val and closed to
about 900 feet, gave two medium bursts and could see gasoline
spilling from the left wing tank. The Val pushed over steeply.
McManus overran him. Doing a half roll he got back on the tail
of the Val but was out of range. He closed again and saw hits
on the fuselage and it appeared tracers bounced off the fuselage
around the pilot's cockpit. Schauffler seeing McManus alone after

28 April 1945 (Cont'd).

1615 - the Val followed him, and as the Val dove to the east, he closed (Cont'd) and made three passes. For four minutes both planes made passes going down to 1200 feet. The Val skidded and jinxed up and down attempting to spoil the aim of the two pilots after him. Finally McManus got within 200 feet and as he fired saw large pieces of the Val's belly come off. The plane skidded off on the right wing, which hit the water, and the plane broke up in pieces. This plane was seen to jettison a bomb about 4 feet long with a large round tail. Return fire from the rear of the cockpit was also experienced but no hits were made.

Lieut. (jg) R.V.B. Yentzer made the third run and followed the the right hand Val down and to the west in a 35° dive. With his first burst the right wing root was blazed. They dove to 10,000 feet where the Val lost speed and leveled off somewhat. Yentzer over shot to the right, pulled up and looked down to see the Val crash into the sea.

When Yentzer followed the right hand Val in a dive the leading Val dove onto Yentzer's tail. Lieut. (jg) W. A. Foley, USNR, the fourth pilot in turn got on the leading Val's tail and closing rapidly gave the Val 5 or 6 bursts from 900 to 300 feet, and directly astern. The Val's belly tank blazed after the first burst. Then the whole fuselage burst into flames, and broke into two parts. The air was full of 4" x 4" thin silver cardboard square discs, apparently "window". The pilot of this plane was shot as he started to climb out on the left wing root. His chute opened and the two planes circled the chute temporarily. As they were doing so, they saw another Val, at the same altitude, 5,000 feet on an opposite course. Both planes whipped over to the left as the Val tried to turn into them, and both got in a 90° deflection burst. The Val was hit, and black smoke began to pour out from his engine, and it went into a Split-S ending up in a 40° dive. Both pilots got back on his tail, and fired several more bursts. The Val burst into flames, got out of control and crashed into the sea.

This plane was seen to jettison a bomb. All the Vals were of a greenish brown splotchy color.

SUMMARY OF SORTIES

TARGET MISSIONS:

	VC-87	252		
	VOC-1	<u>531</u>		
TOTAL		783		
			<u>VC-87</u>	<u>VOC-1</u>
DIRECT SUPPORT (Primary Mission)			162	112
DIRECT SUPPORT (After Spotting)				125
SPOTTERS (No Direct Support)				132
TARGET CAP			36	136
TARGET ASP			18	17
LOCAL ASP AND LOCAL CAP			120	158
MISCELLANEOUS (Smokers, Message Drop Artillery Spotter, Transfer of Planes, etc.)			31	38
			372	718
			367	

GRAND TOTALS:

DIRECT SUPPORT	399
SPOTTERS (No Direct Support)	132
TARGET CAP	172
TARGET ASP	35
LOCAL ASP AND LOCAL CAP	278
MISCELLANEOUS	69

GRAND TOTAL ALL SORTIES.

1085

U.S.S. MARCUS ISLAND (CVE 77)

PART III (B)

WEATHER SUMMARY FOR OPERATING AREA
FROM 21 MARCH TO 28 APRIL, 1945

- 21 March: Average wind north-northeast 14 knots, highest hour 25 knots.
Sunrise to 1600: High broken, low scattered clouds. Ceiling and visibility unlimited.
1600 to 1800: Intermittent rain. Low stratus overcast. Ceiling 800 feet. Visibility 2 to 6 miles in rain.
- 22 March: Average wind northeast 19, highest hour 21 knots.
Sunrise to 0900: Scattered showers. Broken cumulus at 1500 feet. High scattered clouds. Visibility 6 to 12 miles.
0900 to 1800: High broken, low scattered clouds. Ceiling and visibility unlimited.
- 23 March: Average wind northeast 12 knots, highest hour 15 knots.
Sunrise to 1300: Scattered to occasionally broken cumulus at 2500 feet. Visibility unlimited.
1300 to 1500: Scattered showers. Ceiling 1200 feet. Visibility 4 to 6 miles in showers, otherwise unlimited.
1500 to 1800: Broken altocumulus at 10,000 feet. Broken cumulus 3000 feet. Visibility unlimited.
- 24 March: Average wind northeast 17 knots, highest hour 21 knots.
Sunrise to 1500: Scattered cumulus. Ceiling and visibility unlimited.
1500 to 1800: Broken cumulus, few cirrus. Ceiling 2500 feet. Visibility 12 miles. Light rain near sunset.
- 25 March: Average wind north-northeast 15 knots, highest hour 16 knots.
Sunrise to sunset: Broken low clouds; ceiling 3500 feet. Visibility 12 miles.
- 26 March: Average wind north-northeast 13 knots, highest hour 19 knots.
Sunrise to 1100: Overcast to broken low clouds. Widely scattered showers. Ceiling 3000 feet. Visibility 6 to 12 miles.
1100 to sunset: Scattered cumulus. Ceiling and visibility unlimited.

- 27 March: Average wind east-southeast 17 knots, highest hour 21 knots.
 Sunrise to 1500: Broken cumulus, scattered cirrostratus becoming altostratus. Ceiling 2500 feet. Visibility unlimited.
 1500 to 1800: Scattered cumulus, broken altocumulus. Ceiling 7000 feet. Visibility unlimited.
- 28 March: Average wind northeast 6 knots, highest hour 9 knots.
 Sunrise to sunset: Scattered high and low clouds. Ceiling and visibility unlimited.
- 29 March: Average wind north-northeast 7 knots, highest hour 10 knots.
 Sunrise to 0900: High overcast. Low scattered. Ceiling and visibility unlimited.
 0900 to 1400: Broken low clouds. Ceiling 3500 to 5000 feet. Visibility unlimited.
 1400 to 1800: Overcast stratus and stratocumulus. Occasional light rain. Ceiling 800 to 1000 feet. Visibility 1 mile in rain, otherwise 6 miles. Operations carried out in open areas.
- 30 March: Average wind east-southeast 19 knots, highest hour 20 knots.
 Sunrise to 1200: Broken low clouds. Ceiling 4000 feet. Visibility 12 miles.
 1200 to 1800: Overcast stratus and stratocumulus. Intermittent rain. Ceiling 1200 feet. Visibility 6 miles. Ceiling 800 feet and visibility 1 mile in rain. Operations carried out in open areas.
- 31 March: Average wind east 11 knots, highest hour 16 knots.
 Sunrise to sunset: Broken cumulus and stratocumulus. Ceiling 2500 to 3500 feet. Visibility unrestricted.
- 1 April: Average wind northeast 15 knots, highest hour 18 knots.
 Sunrise to sunset: Scattered cumulus. Scattered high clouds late in afternoon. Ceiling and visibility unlimited.
- 2 April: Average wind east-northeast 15 knots, highest hour 17 knots.
 Sunrise to sunset: Broken stratocumulus. Ceiling 3000 feet. Visibility unrestricted.

- 3 April: Average wind east-northeast 13 knots, highest hour 15 knots.
 Sunrise to 0900: Broken cumulus and stratocumulus. Occasional light rain. Ceiling 3000 feet. Visibility 12 miles.
 0900 to sunset: Scattered cumulus, few high clouds. Ceiling and visibility unlimited.
- 4 April: Average wind north 12 knots, highest wind 18 knots.
 Sunrise to 1300: Clear. Ceiling and visibility unlimited.
 1300 to sunset: Broken cumulus. Ceiling 3000 feet. Visibility 12 miles.
- 5 April: Average wind 19 knots, highest hour 27 knots.
 Sunrise to sunset: Overcast stratus and stratocumulus. Intermittent light rain. Ceiling 2500 feet. Visibility 4 to 8 miles.
- 6 April: Average wind north 12 knots, highest hour 15 knots.
 Sunrise to sunset: Overcast stratocumulus. Ceiling 3500 feet. Visibility 12 miles. Intermittent light rain in early morning.
- 7 April: Average wind east-northeast 7 knots, highest hour 10 knots.
 Sunrise to sunset: Broken altocumulus, scattered cumulus. Ceiling 7000 feet. Visibility 12 miles.
- 8 April: Average wind east-northeast 12 knots, highest hour 14 knots.
 Sunrise to 0800: Broken cumulus. Scattered altocumulus. Ceiling 2500 feet. Visibility 12 miles.
 0800 to sunset: Scattered cumulus. Visibility 12 miles.
- 9 April: Average wind east-southeast 14 knots, highest hour 15 knots.
 Sunrise to 0900: Broken stratocumulus. Scattered altostratus. Ceiling 4000 feet. Visibility 12 miles.
 0900 to sunset: Broken altocumulus, scattered stratocumulus. Ceiling and visibility unlimited.
- 10 April: Average wind south-southwest 13 knots, highest hour 16 knots.
 Sunrise to 0900: Overcast high clouds. Lower scattered. Ceiling unlimited.
 0900 to 1500: Overcast altocumulus and altostratus. Ceiling 9000 feet.
 1500 to sunset: Overcast cumulus and stratus. Intermittent light rain. Ceiling 800 feet. Visibility 2 to 5 miles in rain. Target patrols and strikes cancelled due to poor weather over target. Local patrols called in at 1700 Item.

- 11 April: Average wind north 17 knots, highest hour 20 knots.
- Sunrise to 0800: Low overcast. Intermittent light rain.
Ceiling 800 feet. Visibility 2 miles in rain.
- 0800 to 1200: 1100 feet ceiling. 6 miles visibility.
- 1200 to sunset: Broken high and low clouds. Ceiling 2500 to
3500 feet. Visibility 12 miles.
Local and target missions delayed until 0830.
- 12 April: Average wind north-northeast 10 knots, highest hour 13 knots.
- Sunrise to sunset: Few low clouds. Ceiling and visibility
unlimited.
- 13 April: Average wind east 5 knots, highest hour 7 knots.
- Sunrise to 1200: Scattered cumulus at 3000 feet. Ceiling and
visibility unlimited.
- 1200 to 1800: Broken altocumulus, scattered cumulus. Ceiling
7500 feet. Visibility 12 miles.
- 14 April: Average wind east-northeast 11 knots, highest hour 14 knots.
- Sunrise to 1200: Broken altocumulus and altostratus, scattered
cumulus. Ceiling 7500 feet. Visibility 12
miles.
- 1200 to sunset: Scattered cumulus at 2000 feet. Ceiling and
visibility unlimited.
- 15 April: Average wind east-northeast 9 knots, highest hour 13 knots.
- Sunrise to sunset: Scattered cumulus at 2000 feet. Ceiling and
visibility unlimited.
- 16 April: Average wind east-northeast 6 knots, highest hour 7 knots.
- Sunrise to sunset: Scattered cumulus at 2000 feet. Ceiling
and visibility unlimited.
- 17 April: Average wind east-northeast 6 knots, highest hour 8 knots.
- Sunrise to sunset: Scattered cumulus at 3000 feet. Ceiling and
visibility unlimited.
- 18 April: Average wind east 10 knots, highest hour 12 knots.
- Sunrise to 1200: Low scattered clouds. Ceiling and visibility
unlimited.
- 1200 to sunset: Few cumulus. Scattered cirrus increasing.
Ceiling and visibility unlimited.

- 19 April: Average wind south-southwest 18 knots, highest hour 22 knots.
- Sunrise to 1500: Scattered high and low clouds. Ceiling and visibility unlimited.
- 1500 to sunset: Increasing altocumulus, altostratus, and stratocumulus. Ceiling 7000 feet, lowering to 4000 feet. Frontal passage at 1805 accompanied by light rain and 2000 feet ceilings with visibility 2 miles. Winds shifted from southwest 16 knots to northwest 15 knots.
- 20 April: Average wind 18 knots from north-northeast, highest hour 21 knots.
- Sunrise to 1500: Scattered altocumulus with few cumulus, becoming clear after noon. Ceiling unlimited. Visibility 10 to 12 miles.
- 1500 to sunset: Mostly clear, few stratocumulus. Moderate haze. Visibility lowering to 5 miles.
- 21 April: Average wind northeast 10 knots, highest hour 14 knots.
- Sunrise to sunset: Scattered high thin cirrus. Scattered to broken cumulus at 3000 feet. Ceiling variable 3000 feet to unlimited. Visibility 12 miles.
- 22 April: Average wind east 8 knots, highest hour 12 knots.
- Sunrise to 0900: Scattered cumulus. Ceiling and visibility unlimited.
- 0900 to 1500: Broken cumulus. Ceiling 2500 to 3000 feet. Visibility 12 miles.
- 1500 to sunset: Scattered cirrus, scattered cumulus. Ceiling and visibility unlimited.
- 23 April: Average wind southeast 9 knots, highest hour 16 knots.
- Sunrise to 0900: Overcast altostratus and altocumulus. Scattered cumulus. Ceiling unlimited. Visibility 10 miles.
- 0900 to 1300: Overcast altostratus and altocumulus. Visibility 8 miles. Broken cumulus with ceiling 2500 to 3500 feet.
- 24 April: Average wind west-southwest 9 knots, highest hour 13 knots.
- Sunrise to 1600: Altostratus overcast. Scattered cumulus. Ceiling 8000 feet. Visibility 10 miles. Occasional light rain.
- 1600 to sunset: Overcast altostratus, broken cumulus and stratus, continuous rain. Ceiling 600 to 800 feet. Visibility 2 to 6 miles. All local and target missions landed and cancelled prior to 1600 Item.

25 April: Average wind west-southwest 11 knots, highest hour 14 knots.

Sunrise to 0900: Overcast cumulus at 2000 to 2500 feet.

Visibility 8 to 10 miles.

0900 to sunset: Altocumulus and altostratus overcast.
Scattered cumulus. Ceiling and 7000 feet.
Visibility 12 miles.

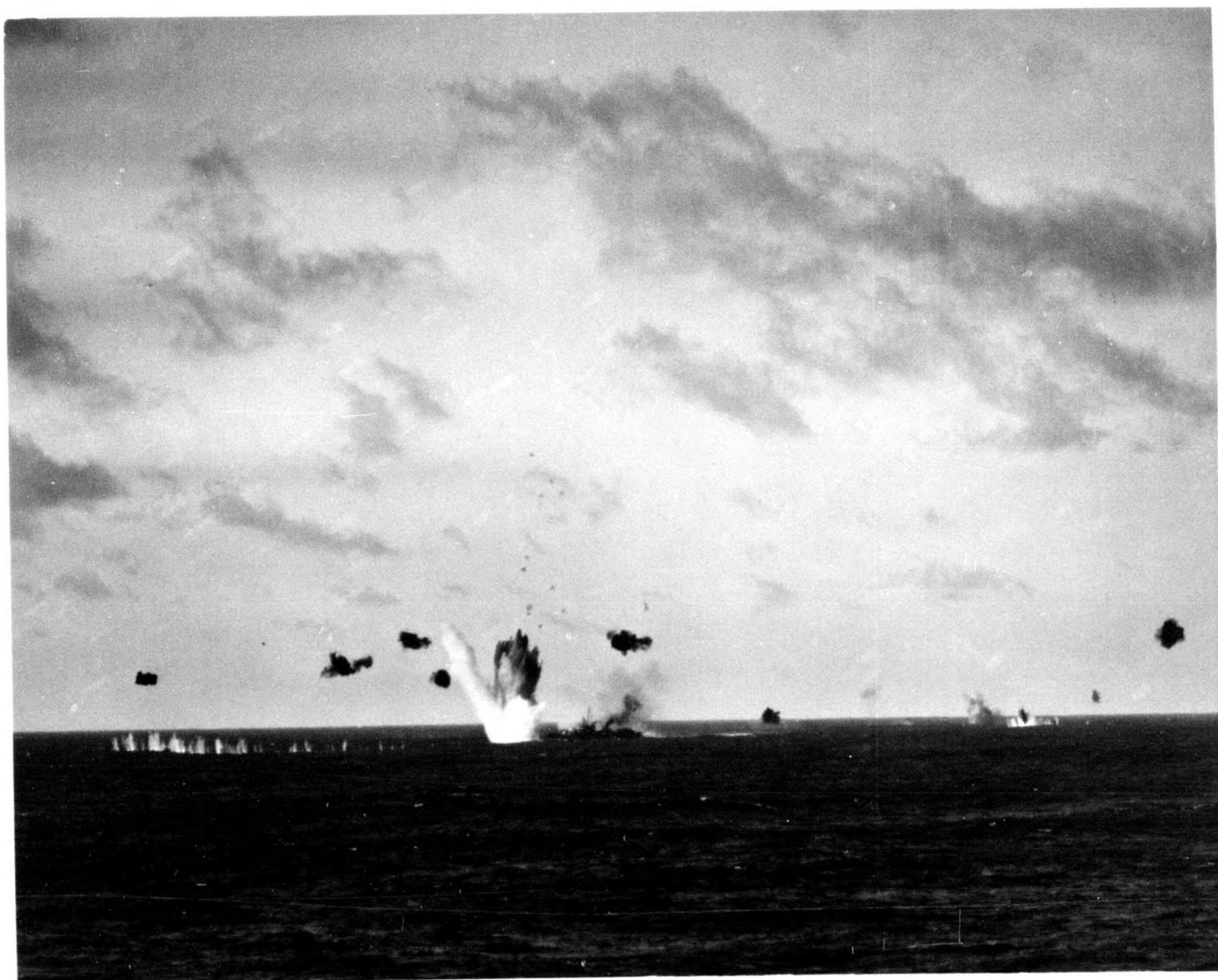
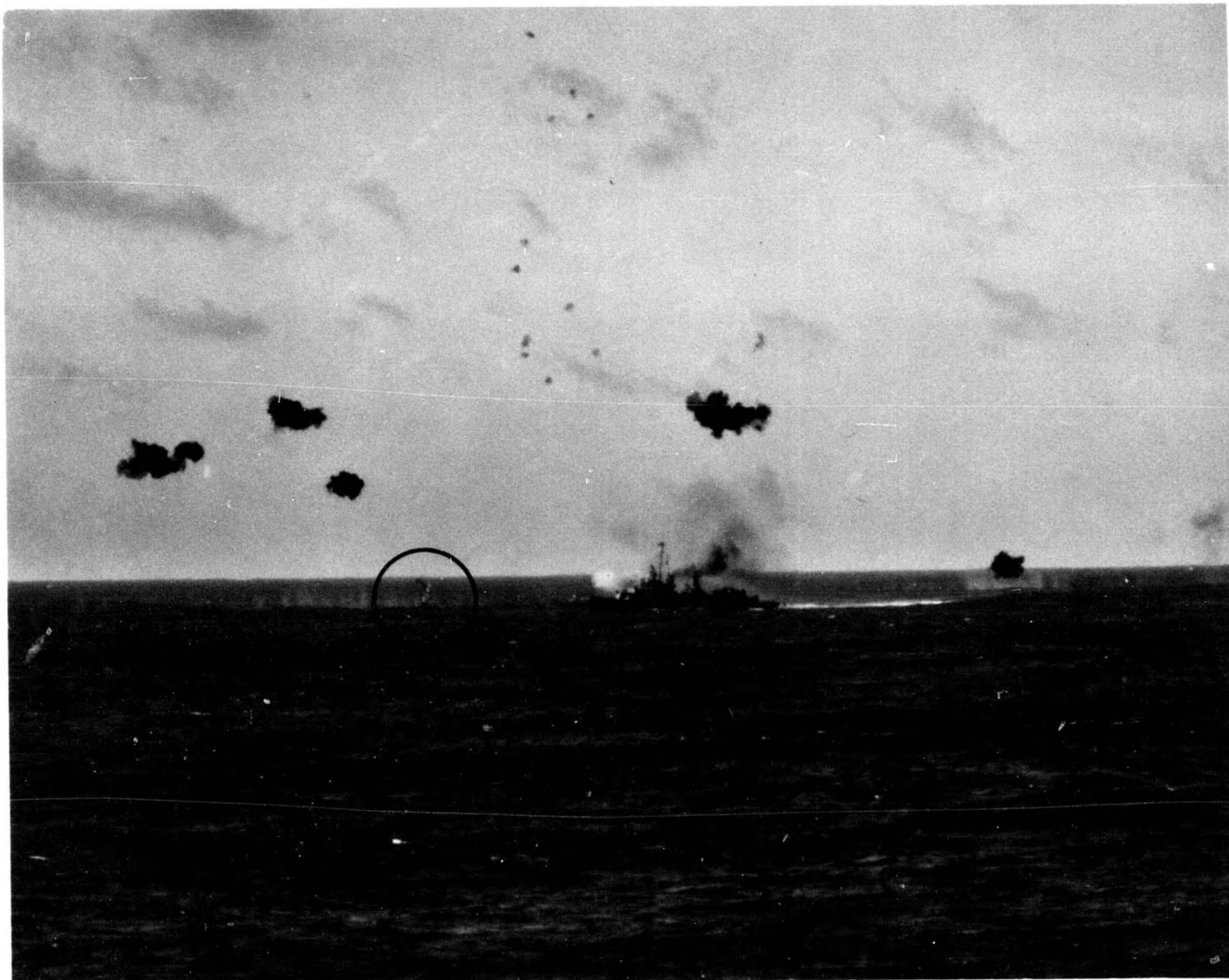
26 April: Average wind west-northwest 7 knots, highest hour 8 knots.

Sunrise to sunset: Overcast altostratus, scattered cumulus,
intermittent light rain. Ceiling 7500 feet.
Visibility 2 to 5 miles in rain, otherwise 6
to 8 miles.

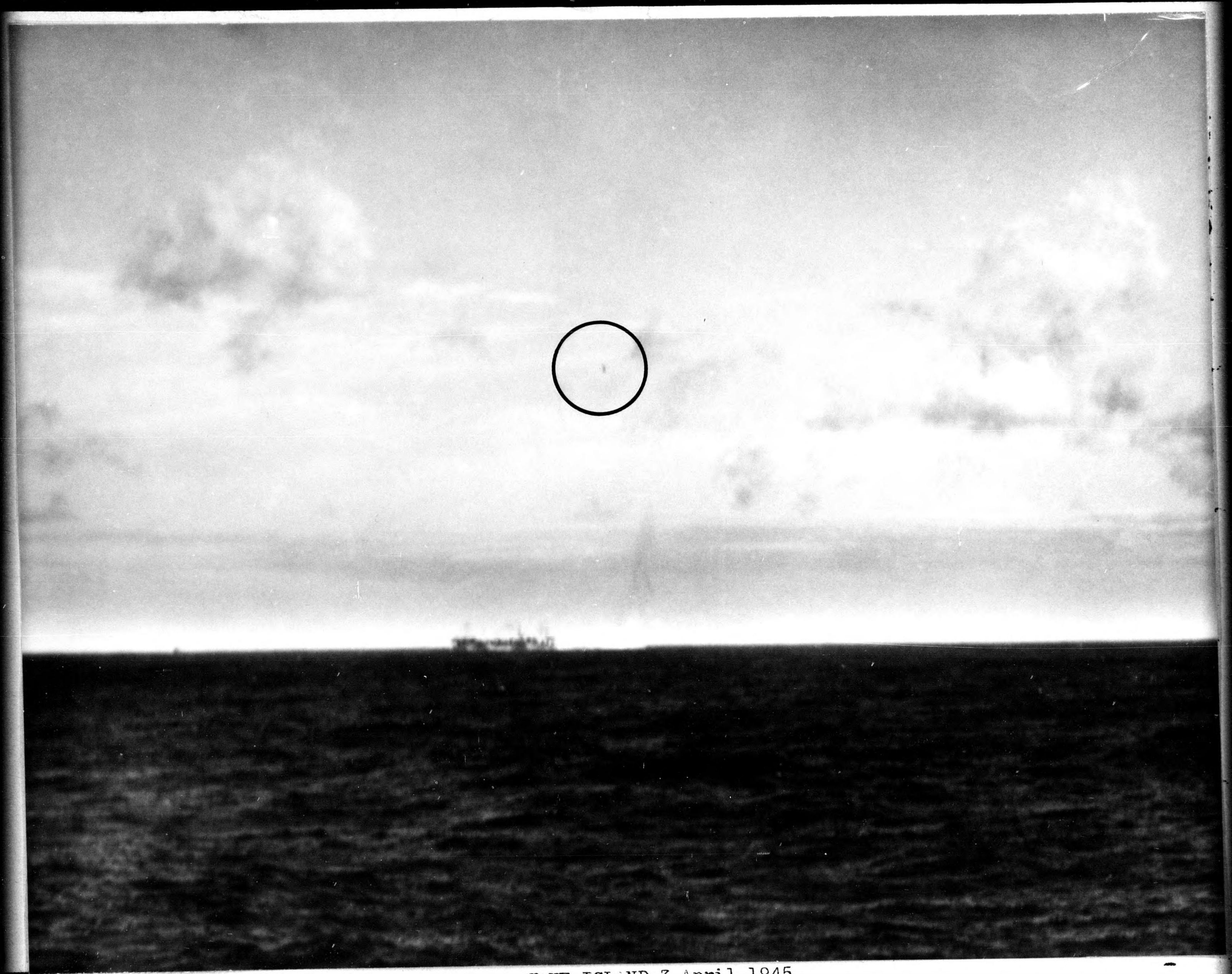
27 April: Average wind northeast 13 knots, highest hour 22 knots.

Sunrise to 1100: Scattered altocumulus, scattered cumulus.
Ceiling unlimited. Visibility 12 miles.

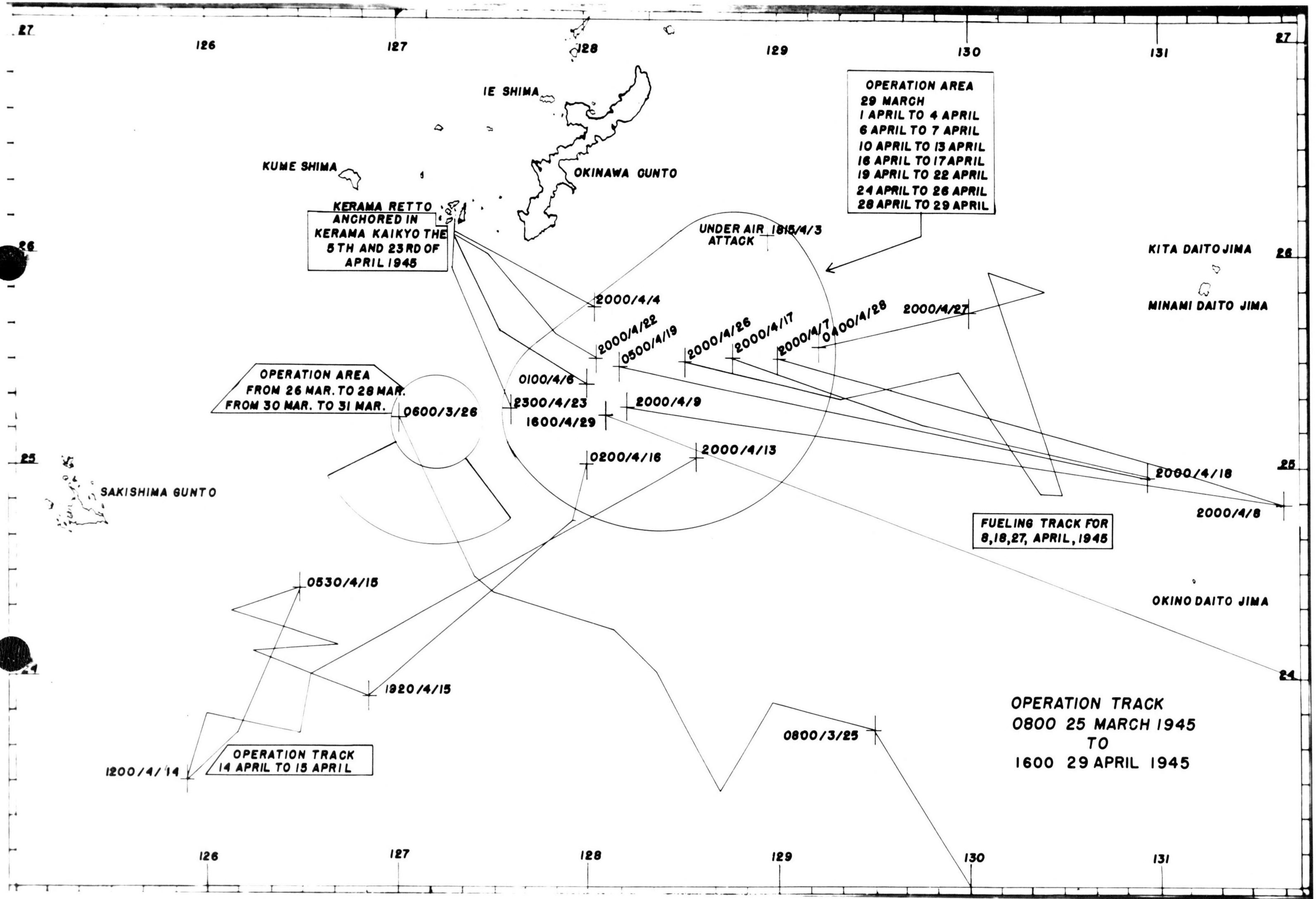
1100 to sunset: Scattered cirrus. Broken cumulus with few
widely scattered showers. Ceiling 1500 to
2000 feet. Visibility 10 to 12 miles.



Jan radial engine JUDY just after having been hit by A/A fire
crashing into the sea ahead of the USS CAPPS (DD 550). 3 April 1945.



POINT ISLAND 3 April 1945



OPERATION AREA
 29 MARCH
 1 APRIL TO 4 APRIL
 6 APRIL TO 7 APRIL
 10 APRIL TO 13 APRIL
 16 APRIL TO 17 APRIL
 19 APRIL TO 22 APRIL
 24 APRIL TO 26 APRIL
 28 APRIL TO 29 APRIL

KERAMA RETTO
 ANCHORED IN
 KERAMA KAIKYO THE
 5TH AND 23RD OF
 APRIL 1945

OPERATION AREA
 FROM 26 MAR. TO 28 MAR.
 FROM 30 MAR. TO 31 MAR.

UNDER AIR 1815/4/3
 ATTACK

FUELING TRACK FOR
 8, 18, 27, APRIL, 1945

OPERATION TRACK
 14 APRIL TO 15 APRIL

OPERATION TRACK
 0800 25 MARCH 1945
 TO
 1600 29 APRIL 1945

KUME SHIMA

IE SHIMA

OKINAWA GUNTO

KITA DAITO JIMA

MINAMI DAITO JIMA

SAKISHIMA GUNTO

OKINO DAITO JIMA

27 126 127 128 129 130 131 27

25 25

24 24

126 127 128 129 130 131

PART IV

A. 2.

AVIATION ORDNANCE PERFORMANCE REPORT

BOMBS

1. During the Okinawa operation the following bombs were dropped:

(a) By VC-87

AN-M64 (500# G.P.)	--	155
Mk. 54 (350# Depth Bomb)	--	0
AN-M57 (250# G.P.)	--	57
AN-M30 (100# G.P.)	--	400
Fire Bombs (Napalm)	--	16

Of the General Purpose bombs dropped, there were no reported duds.

Of the Fire bombs dropped, there was one reported possible dud.

(b) By VQC-1

500# G.P.	--	108
350# Depth Bomb	--	0
100# G.P.	--	199
250# G.P.	--	9
Fire Bombs	--	4

Of the General Purpose bombs and fire bombs dropped there were no reported duds.

FUZES

1. Selective fuzing has been used throughout all operations. The nose fuze has always been instantaneous. VC-87 used the AN-Mk 219 nose fuze; VQC-1, the AN-M103A1. In no case has there been any signs of malfunctions.

2. It is felt that the Navy type fuze, the AN-Mk219 is a better fuze. It is much sturdier in construction than the AN-M103A1. Employing the 219, however, the Mk. 4 auxiliary booster must be used. These boosters have always been available.

3. The tail fuzing has been either a (.01) second delay or a (.025) second delay. The 500 pound G.P. used the AN-M101A2 tail fuze while the 250 pound and 100 pound G.P. uses the AN-M100A2. There have been no duds reported using these fuzes. On one strike, 8 - 500 pound G.P.s were fuzed with the AN-M116 tail fuze using the (8-11) second delay. One hundred percent detonations were reported. Results were unobserved because of the nature of the attack and retirement.

ROCKETS

1. During this operation, VC-87 used rockets which had been procured from the U.S.S. SIERRA, ammunition ship at Manus, Admiralty Islands. These were 3.25" rocket motors Mk 7 - BuOrd DN No. 394630, Contract NOrd - 4765 Lot 118. These rocket motors proved unsatisfactory yielding 20% duds out of 350 fired. Absence of ventilation resulting in high humidity and temperature in rocket stowage spaces undoubtedly contributed to this poor performance. Recommendations for better rocket stowage facilities with adequate ventilation have been submitted. A sample of these motors is being retained for turn in to an ammunition depot for further test and examination.
2. The zero-length lug bands furnished with these motors were too small to fit the original launcher rails of the TBM-3. All TBM-3s had been received with the rear post lug band support tongue filed down however, so there was little difficulty in hanging these rockets. The launcher rails on rocket equipped FM-2's contained all authorized modifications when received, but these motors would not fit the rails without further filing of the support tongue. Such modification would have dangerously weakened this part due to lightness and brittleness, and was not attempted.
3. Upon rearming, a new set of motors and bodies were received, the motors having a larger lug band. The motors fitted easily on both the rocket equipped FM-2 and the TBM-3.
4. It is recommended that all five inch explosive rocket bodies be shipped with the steel conical nose plug inserted. Some lots of bodies did not include this plug.
5. Only a negligible number of Mk. 1 rocket bodies were reported duds when the Mk. 146, non-delay base fuze with no nose fuze was employed. Numerous duds were reported, however, when the base fuze Mk. 157, .02 second delay was used with no nose fuze. The exact number or percentage is not known because all hits were not observed. Addition of the Mk. 149 nose fuze resulted in apparent 100% detonations. Because of the shortage of steel, conical nose plugs, cast iron shipping slugs were substituted where the base fuze alone was employed. It is believed that failures may have been the result of breakage of this plug and possibly the rocket body due to mushrooming effect prior to detonation of the .02 second delay fuze. There, however, is also the possibility of fuze failures. These duds were among bodies with fuze lots; 87, 99 and 94. These fuzes were from ammunition lots RBCC-25 F.M.-45 and RBCC-18-C-45.
6. Formerly all Air Coordinator flights have used the 5" H.E. Mk. 1 rocket body. Recently 100-Mk. 6 FS smoke rockets and 100 - Mk. 155 nose fuzes were received. Six of these rockets have been used and were reported to be very satisfactory for ground target marking.
7. The shear wire situation has been critical. No. 10 soft guage copper wire is recommended but many times is unobtainable. This wire should be shipped in rolls to all aviation activities employing rockets. The amount shipped with the motors is adequate only if all rockets loaded are fired. Those carried on Anti-Submarine Patrol are rarely fired and must be rewired each time they are landed.

ROCKETS (Cont'd)

ROCKETS FIRED

VC-87 - 448 - 5" H.E. - No solid heads expended.
VOC-1 - 1222 - 5" H.E. - No solid heads expended.

NAFALM BOMBS

1. Results with napalm fire bombs have been very satisfactory. Out of 20 bombs mixed and sent off, there has been one possible reported dud, an average of only five percent.

2. All bombs were mixed in the 58 gallon wing tank using 21 lbs. of Napalm per bomb. In all cases, two fuzes were used; one in the filler cap and one in a tubular bracket welded on the after end of the tank.

3. The white phosphorous, E4R1 detonator was used with the M-3 all-ways fuze. Four of the bombs were positively armed.

4. The Mk. 1 Mod. 0 incendiary mixer recommended by BuOrd proved unsatisfactory. The main trouble encountered consisted of the gasoline backing up into the hopper, soaking into the Napalm, and eventually overflowing. All efforts to prevent this were unsuccessful.

5. The mixer devised on this ship by Gasoline Officer, Lt. (jg) Schaefer, has been very effective and has yielded highly satisfactory results. This mixer draws the napalm from a hopper by action of a venturi, which breaks the napalm down into a powder and induces it into the 58 gallon droppable tank. Agitation by air is continued until thorough mixing has taken place and the desired consistency attained. (See sketch attached Part VIII).

6. The Napalm powder used has been of two types, namely, A and C. Type A Napalm thickener was from lot 529, contract No. W-30-070-CWS-339; Type C from lot 1292-1300, contract No. N.Y.-5-133. Both types made by the Imperial Paper and Color Corp.

7. A complete description with drawings, operating procedure, and safety precautions is being forwarded under separate cover to ComAirPac and BuOrd.

EXPENDED

VC-87

16 Napalm bombs - 436 pounds Napalm.
32 E4R1 igniters - Result - one possible dud.

VOC-1

4 Napalm bombs - 84 pounds Napalm.
8 E4R1 igniters - Result - no duds.

GUNS, FIRE CONTROL EQUIPMENT, BOMB-BAYS, ETC.

1. The .50 caliber machine gun has given only a few minor troubles. The main cause of stoppages has been link jams. This has been minimized by installing improved link chutes. Blowing out blast tubes was stopped completely by using star washers and set screws in the gun mounts.

2. The Mk. 8 gun sight is too large but still a good sight. All sights have installed ladder reticules for rocket firing.

3. There have been no cases of rocket rail failures. There have been a few cases of short circuits in the station distributor boxes.

4. The bomb-bay of the TBMs have been maintained in excellent condition and have yielded good over-all results. The Mk. 4 bomb shackle has been the source of some trouble. On few occasions the solenoid has burned out or the shackle has been weakened and bombs have fallen out. By completely checking out the bomb-bays before each loading, this has been minimized.

5. All torpedo equipment has been installed ready for instant use.

6. The AN-N4 gun camera was not extensively used. When in use results have been only fair. The AN-N4 is gradually being replaced by the AN-N6 which is built to better withstand the weather in tropical climate.

7. Turret troubles have been very minor.

SMOKE TANKS

1. The results from smoking were unsatisfactory. Nine smoke tanks, Mk.5 M3 were expended. Only 30% gave any results, and those unsatisfactory.

2. There were many reasons contributing to their failure. Ship and Squadron personnel had no previous experience with smoke tanks. The smoke tanks, themselves, were over a year old. A thorough investigation by Lt. Harlow of the staff of ComEsCarPac revealed that equipment had been properly maintained and loading procedure correct according to existing published instructions.

3. Below is a list of improvements which should be effective:

- a. Draw all new necessary smoke equipment.
- b. Make the following improvement to the TBM-3 bomb bay; put a small sheave in the roof of the bomb-bay directly over the gate valve lever. Run the Pull wire directly from the lever, over the sheave, to the after compartment. This will afford greater leverage in opening the gate valve. A new "lock" positive can then be installed.
- c. A longer gate valve lever should be provided to decrease the force necessary to open the valve. The present lever arm is about 2" long. A 6" arm is recommended.
- d. Trouble is encountered when the gate valve is opened once and allowed to spring shut. By inserting a copper sleeve in the valve stem and adjusting it so the gate valve closes fully but not all the way into its seat, it is felt the valve will open with more ease.
- e. A graphite grease may help if put on the gate valve disclosure.

4. These recommendations are being forwarded to the Bureau of Ordnance.

AMMUNITION

1. There has been no trouble with the .50 caliber ammunition used in this ship. The ammunition has been factory belted; 2 armor piercing or armor-piercing-incendiary; 2 incendiary and 1 tracer.

EXPENDED

VC-87	-	49,890 rounds	.50 cal.
VOC-1	-	120,000 rounds	.50 cal.

PART IV

B. 8. ENEMY ANTI-AIRCRAFT PERFORMANCE.

1. Enemy anti-aircraft fire was encountered over all targets.

(a) OKINAWA -- Anti-aircraft fire was experienced over Okinawa for approximately the first week of operations. During this period it was inaccurate, of moderate intensity, and of all calibers. Phosphorous bursts were noted on two occasions. After the first week an occasional burst of AA fire was noticed. The enemy appeared to be careful to fire only from behind planes that were going away. Thus the AA positions, well camouflaged, were seldom discovered. An FM-2 on patrol over Okinoerapu Jima was hit in the oil tank while in level flight at an unstated altitude, and the pilot was forced to ditch the plane. Source of the fire was not observed.

(b) SAKISHIMA GUNTO -- Both Ishigaki and Miyako Jimas were well defended with anti-aircraft fire. The AA was intense, accurate and of all calibers. Many phosphorous bursts with parachute streamers were observed at from 3000 to 5000 feet, causing no damage. The parachutes were about 2 feet in diameter.

One plane was lost and 2 were damaged over Ishigaki Jima. The plane that was lost was hit at 1200-1500 feet while retiring and climbing after the pullout of a dive attack.

Both other planes were hit after pullouts and during retirement at approximately 2200 feet altitude. Very little tracer ammunition was observed, making the location of AA emplacements difficult. Most heavy caliber guns appeared to be concentrated in the middle area of the island about 1500 to 2000 yards from the airfields and light and medium caliber along the coastline.

(c) MINAMI DAITO -- Only one strike was conducted over this island and the small island to the north, Kita Daito. AA fire was exceedingly effective being of all calibers, most intense and accurate. Of a twelve plane fighter sweep, two planes were lost, one was seriously damaged and one was damaged to a moderate extent. Large caliber fire commenced when the planes were at 6000-7000 feet before the final push over in the dive. Again little tracer ammunition was observed. Three of the four planes hit were during their pull outs and retirement. One plane was hit in its dive of 60° at about 2000 feet.

It was noted at the Sakashima island, Daito island and Okinawa that there were numerous empty AA emplacements clearly discernable at high altitude. At Ishigaki many AA positions were in clumps of trees or bushes definitely limiting the zone of fire but making for excellent concealment.

PART VI (B) AIR OPERATIONS

1. Table of sorties and plane availability by days.

Daily Totals of Sorties (planes omitted not reaching target).

DATE	Availability		At Target			Ships:		OTHER	
	VF	VT	VF	VT	CAP	Search	A.S.P.	VF	VT
March									
21	20	12					4	4	
22	20	12					20	4	
23	20	12					4	8	
24	20	12					12	4	
25	18	12					24	4	
26	18	12	4	3			24		4
27	18	11	8				8	18	
28	19	12	12	16			12	2	
29	19	12	16	16	8				3
30	19	12	12	12			4	2	
31	18	11	12	7			8	4	3
April									
1	18	12	12	14	12		4		2
2	17	12	8	22	4		16		
3	17	12		1	4		16	2	5
4	20	12			4		8	4	
5	20	11					4		
6	20	8					24	12	14
7	18	9	30	2	4			4	2
8	27	7				4	4	4	3
9	26	7			16		12	2	1
10	26	7			4		8	1	
11	27	7	4	2	16		4	5	2
12	27	6	25		8			6	

DATE	Availability		At Target:			Search		Ships:		OTHER	
	VF	VT	VF	VT	CAP	VT	CAP	A.S.P. VT	VF	VT	
April											
13	26	6	13	4	12		4	2		2	
14	28	6	8	6	8		12	2		4	
15	25	3	28	5			8	2			
16	27	6	27								2
17	27	6	23	12	8						1
18	24	6	12	1			4				
19	23	6	38	9				4			
20	23	6	5	4	16		8				
21	23	6	33	8			4				
22	23	6	26	8			4	2			
23	22	6					4				
24	23	6			4		8				
25	22	6	29		12						
26	22	6	25		8			5			1
27	19	6					8	4		9	5
28	18	6	17		24					4	

2. Table of bombs, rockets, torpedoes, and mines dropped at the target by strike (include strafing sorties).

DATE	TIME OF LAUNCH	TARGET ATTACKED		SORTIES AT		BOMBS, ROCKETS, TORPEDOES AND MINES		FUZING	
		GENERAL	SPECIFIC	TARGET	VF	VT	NUMBER AND TYPE	NOSE	TAIL
March 26	0930	Okinawa	Buildings - huts	4	3	22	40 Napalm 5" H.I. Rockets	W.P. Igniter Mk. 3	Non-Delay
						29	100 lb. G.P.	Inst.	Non-Delay
27	0730	Okinawa	Trenches - Caves	4			Strafe		
27	1330	Okinawa	Barracks Houses	4		40	Strafe and 4x250 lb. G.P.	Inst.	Non-Delay
						40	100 lb. G.P.	Inst.	Non-Delay
28	1000	Okinawa	Gun Emplacements		8	16	500 lb. G.P.	Inst.	.025
						29	5" H.E. Rockets		Non-Delay
28	1200	Okinawa	Possible MTB Numerous buildings	12		12	250 lb. G.P.	Inst.	Non-Delay
						16	500 lb. G.P.	Inst.	.025
28	1515	Okinawa	2 Factories 6-8 houses		8	35	100 lb. G.P.	Inst.	Non-Delay
						28	5" H.E. Rockets		Non-Delay
29	0500	Okinawa	Naha Airfield	12			Strafe		
29	0730	Okinawa	Radio Tower Naha Airfield	8			Strafe		
29	1330	Okinawa	Buildings Gun positions		8	8	100 lb. G.P. 500 lb. G.P.	Inst.	Non-Delay .025
						252	5" H.E. Rockets		Non-Delay
29	1515	Okinawa	Naha Airfield	8			Strafe		
30	1000	Okinawa	Naha City		8	16	100 lb. G.P. 500 lb. G.P.	Inst.	Non-Delay .025
						20	5" H.E. Rockets		Non-Delay

DATE	: TIME OF : : LAUNCH :	TARGET ATTACKED		SORTIES AT		BOMBS, ROCKETS, TORPEDOES AND MINES		BUZING	
		GENERAL	SPECIFIC	TARGET	VF	VF	NUMBER AND TYPE	NOSE	TAIL
March			: Building						
30	: 1200	: Okinawa	: Yonabaru	: 12		: 11	: 250 lb. G.P.	: Inst.	: Non-Delay
			: Village						
30	: 1515	: Okinawa	: Radio tower						
			: and trans-		: 4	: 10	: 500 lb. G.P.	: Inst.	: .025
			: mitter.						
31	: 0545	: Okinawa	: Bridges and			: 30	: 5" H.E. Rockets		: Non-delay
			: houses.		: 7	: 29	: 500 lb. G.P.	: Inst.	: .025
31	: 0730	: Okinawa	: Barrackes						
			: and	: 12		: 11	: 400 lb. Napalm	: W.P. Igniters	
			: buildings					: MK-3	
April			: Possible tanks			: 40	: 100 lb. G.P.	: Inst.	: Non-delay
1	: 0730	: Okinawa	: trucks - Gun		: 10	: 24	: 500 lb. G.P.	: Inst.	: .025
			: positions			: 56	: 5" H.E. Rockets		: Non-delay
1	: 1200	: Okinawa	: Dugouts						
			: and	: 12		: 8	: 250 lb. G.P. and	: Inst.	: Non-delay
			: caves				: strafe		
1	: 1200	: Okinawa	: Artillery						
			: emplacements:		: 2	: 16	: 5" H.E. Rockets		: Non-delay
1	: 1430	: Okinawa	: Buildings			: 2	: 16	: 5" H.E. Rockets	: Non-delay
2	: 0545	: Okinawa	: Trenches			: 34	: 5" H.E. Rockets		
			: and		: 6	: 19	: 100 lb. G.P.	: Inst.	: Non-delay
			: caves			: 8	: 500 lb. G.P.	: Inst.	: .025
2	: 1000	: Okinawa	: Buildings			: 2	: 16	: 5" H.E. Rockets	: Non-delay
2	: 1200	: Okinawa	: Buildings			: 38	: 5" H.E. Rockets		: Non-delay
			: Radar		: 5	: 2	: 500 lb. G.P.	: Inst.	: .025
			: Facilities			: 30	: 100 lb. G.P.	: Inst.	: Non-delay

DATE	: TIME OF :		TARGET ATTACKED		SORTIES AT :		BOMBS, ROCKETS, TORPEDOES :		FUZING	
	: LAUNCH :	GENERAL	: SPECIFIC	: TARGET	VF	VT	NUMBER AND TYPE	: NOSE	TAIL	
April	:	:	:	Buildings	:	:	:45	: 100 lb. G.P.	:Inst.	: Non-delay
2	: 1315	: Okinawa	: Caves	:	:	7	:52	: 5" H.E. Rockets	:	: Non-delay
2	: 1515	: Okinawa	: Buildings	: 4	:	:	: 3	: 250 lb. G.P. & Strafe	:Inst.	: Non-delay
3	: 1000	: Okinawa	: Buildings	:	:	:	:	:	:	:
	:	:	: & Barracks	: 4	:	:	: 4	: 250 lb. G.P.	:Inst.	: Non-delay
	:	:	: Trucks	:	:	:	:10	: 100 lb. G.P.	:Inst.	: Non-delay
3	: 1115	: Okinawa	: Boat Sheds	:	:	1	: 8	: 5" H.E. Rockets	:	: Non-delay
7	: 0530	: Okinawa	: Trenches	:	:	:	:	:	:	:
	:	:	: Gun	: 5	:	:	:30	: 5" H.E. Rockets	:	: Non-delay
	:	:	: Emplacements	:	:	:	:	:	:	:
7	: 1200	: Ie Shima	: Trucks	:	:	:	:	:	:	:
	:	:	: 2 buildings	:	:	:	:	:	:	:
	:	:	: caves	: 5	:	:	:29	: 5" H.E. Rockets	:	: Non-delay
7	: 1515	: Okinawa	: Caves	:	:	:	:10	: 100 lb. G.P.	:Inst.	:
	:	:	: Extrenchments	: 4	:	2	: 2	: 500 lb. G.P.	:Inst.	:
	:	:	:	:	:	:	:10	: 250 lb. G.P.	:Inst.	: .025
	:	:	:	:	:	:	:	: 5" H.E. Rockets	:	: Non-delay
12	: 0530	: Okinawa	: 15 trucks	: 5	:	:	:25	: 5" H.E. Rockets	:	: Non-delay
12	: 0730	: Okinawa	: Boat caves	: 1	:	:	: 6	: 5" H.E. Rockets	:	: Non-delay
12	: 1000	: Ie Shima	: Gun Emplace-	:	:	:	:	:	:	:
	:	:	: ments - En-	: 5	:	:	:24	: 5" H.E. Rockets	:	: Non-delay
	:	:	: trenchments	:	:	:	:	:	:	:
12	: 1415	: Okinawa	: Gun Emplace-	: 5	:	:	:26	: 5" H.E. Rockets	:	: Non-delay
	:	:	: ments	:	:	:	:	:	:	:

DATE	TIME OF LAUNCH	TARGET ATTACKED		SORTIES AT		BOMBS, ROCKETS, TORPEDOES AND MINES		FUZING	
	LAUNCH	GENERAL	SPECIFIC	TARGET	VF	VT	NUMBER AND TYPE	NOSE	TAIL
April 13	0730	Ie Shima	Entrenchments			4	9 : 500 lb. G.P.		8 sec.
13	1200	Ie Shima	100 foot building			1	6 : 5" H.E. Rockets		Non-delay
13	1400	Ishigaki Shima	Ishigaki Airfield			12	70 : 5" H.E. Rockets		Non-delay
14	1430	Miyako Shima	Nobara and Hirara Airfields			6	24 : 500 lb. G.P. 46 : 5" H.E. Rockets	Inst.	.01 delay Non-delay
15	0500	Ishigaki Shima	3 Airfields			12	66 : 5" H.E. Rockets		Non-delay
15	0730	Ishigaki Shima	Ishigaki Airfield			8	20 : 500 lb. G.P. 45 : 5" H.E. Rockets	Inst.	.01 sec. Non-delay
15	1500	Ishigaki	Ishigaki Airfield			8	36 : 5" H.E. Rockets		Non-delay
16	0545	Ie Shima	Wooded Beach Area			4	4 : Napalm		
16	0730	Okinawa	Motobu Peninsula Emplacements			5	29 : 5" H.E. Rockets		Non-delay
16	1000	Okinawa	Troop Concentration			5	30 : 5" H.E. Rockets		Non-delay
17	0530	Ie Shima	Gun Emplacements			6	29 : 5" H.E. Rockets		Non-delay

DATE	: TIME OF :		TARGET ATTACKED		: SORTIES AT :		BOMBS, ROCKETS, TORPEDOES		: FUZING	
	: LAUNCH :	GENERAL	: SPECIFIC	: TARGET	: VF	VT	: NUMBER AND TYPE	: NOSE	TAIL	
	:	:	:	:	:	:	:	:	:	
April	:	:	: Artillery	:	:	:	:	:	:	:
17	: 0530	: Okinawa	: Emplacement	:	:	4	: 12 : 500 lb. G.P.	: Inst.	: .01 sec.	
17	: 1000	: Okinawa	: Entrenchments	:	:	4	: 12 : 500 lb. G.P.	: Inst.	: .01 sec.	
17	: 1200	: Ie Shima	: Pillboxes	:	4	:	: 23 : 5" H.E. Rockets	:	: Non-delay	
17	: 1515	: Okinawa	: Blockhouses	:	:	4	: 12 : 500 lb. G.P.	: Inst.	: .01 sec.	
18	: 0520	: Minami Daito	: A.A. Positions	:	12	: 1	: 64 : 5" H.E. Rockets	:	: Non-delay	
19	: 0715	: Okinawa	: Trenches	:	:	:	:	:	:	
19	: 0715	: Okinawa	: Gun Positions	:	10	:	: 41 : 5" H.E. Rockets	:	: Non-delay	
19	: 0715	: Okinawa	: Caves	:	:	:	:	:	:	
20	: 1000	: Okinawa	: Entrenchments	:	4	:	: 18 : 5" H.E. Rockets	:	: Non-delay	
20	: 1000	: Okinawa	: Ammo. Dump and Gasoline Stores	:	:	4	: 32 : 5" H.E. Rockets	:	: Non-delay	
20	: 1200	: Okinawa	: Gun Positions	:	5	:	: 4 : 250 lb. G.P.	: Inst.	: .01 sec.	
21	: 0730	: Okinawa	: 2 Barges	:	:	:	:	:	:	
21	: 0730	: Okinawa	: Barracks and Buildings	:	4	: 4	: 40 : 100 lb. G.P.	: Inst.	: .01 sec.	
21	: 0730	: Okinawa	: Awacki	:	:	:	: 48 : 5" H.E. Rockets	:	: Non-delay	
21	: 1515	: Okinawa	: Town of Itokagu	:	4	:	: 4 : 250 lb. G.P.	: Inst.	: .01 sec.	
21	: 1515	: Okinawa	: Gas Dump	:	4	: 4	: 20 : 100 lb. G.P.	: Inst.	: .01 sec.	
				:			: 8 : 500 lb. G.P.	: Inst.	: .01 sec.	

DATE	: TIME OF: LAUNCH :	TARGET ATTACKED		SORTIES AT		BOMBS, ROCKETS, TORPEDOES AND MINES NUMBER AND TYPE	FUZING	
		GENERAL	SPECIFIC	TARGET	TARGET		NOSE	TAIL
				VF	VE			
April 22	: 0515	: Town of Awacki OKINAWA	: Houses : Gun : Emplacements	:	: 4	: 39 : 100 lb. G.P.	: Inst.	: .01 sec.
22	: 1515	: Okinawa	: Caves and : Emplacements	:	: 4	: 40 : 100 lb. G.P.	: Inst.	: .01 sec.
25	: 0530	: Okinawa	: Trucks : Supply dumps	: 5	:	: 24 : Rockets 5" H.E.	:	: Non-delay
25	: 0730	: Okinawa	: Trucks : Gun : Emplacements	: 5	:	: 24 : Rockets 5" H.E.	:	: Non-delay
25	: 1000	: Okinawa	: Vehicles : Ammo dumps : Emplacements	: 5	:	: 22 : Rockets 5" H.E.	:	: Non-delay
25	: 1200	: Okinawa	: Pillboxes : caves	: 5	:	: 30 : Rockets 5" H.E.	:	: Non-delay
25	: 1415	: Okinawa	: Trucks : Barracks	: 5	:	: 24 : Rockets 5" H.E.	:	: Non-delay
26	: 0530	: Okinawa	: 2 large sheds : Gun : Emplacements	: 5	:	: 30 : Rockets 5" H.E.	:	: Non-delay
26	: 0730	: Okinawa	: 2 Trucks : Warehouse - 2 : fuel (dumps)	: 5	:	: 30 : Rockets 5" H.E.	:	: Non-delay
26	: 1000	: Okinawa	: 4-6 Trucks : Gun : Emplacements	: 3	:	: 18 : Rockets 5" H.E.	:	: Non-delay
26	: 1200	: Okinawa	: 1 Truck : Pillboxes : Supplies	: 5	:	: 28 : Rockets 5" H.E.	:	: Non-delay

3. Own losses and rescue operations.

a. Aircraft - Pilots and aircrewmembers lost.

DATE	TIME OF LAUNCH	TYPE AIRCRAFT	CIRCUMSTANCES, PLACE, AND CAUSE OF PLANE LOSS	NO. PILOTS LOST	NO. AIR CREW LOST	NO. PILOTS SAVED	NO. AIR CREW SAVED
March 25	:0905	: FM-2	: Lat. 23-35N. Long. 129-22.3 E. Power Failure on Take off. Cause Undetermined	: 1	: -	: -	: -
March 25	:1535	: FM-2	: Landing gear gave way - Crashed on deck. Lat. 24-22.5N. Long. 127-37.9E	: -	: -	: 1	: -
March 26	:0545	: FM-2	: Power failure after take-off. Lat. 25-29.3 N. Long. 127-00.2 E.	: -	: -	: 1	: -
April 2	:1000	: FM-2	: Flying target C.A.P. Lat. 27-15 N. Long. 128-40E.	: -	: -	: 1	: -
April 7	:1000	: FM-2	: Friendly ground A.A.	: -	: -	: 1	: -
April 15	:0500	: FM-2	: Sweep of Ishigaki airfield Cause A.A.	: 1	: -	: -	: -
April 18	:0520	: FM-2	: Sweep of Minami Daito Cause - enemy AA.	: 1	: -	: -	: -
April 18	:0520	: FM-2	: Sweep of Minami Daito Cause - enemy AA.	: -	: -	: 1	: -
April 22	:0515	: FM-2	: Pilot spotting for N.G.F. Midair collision - Okinawa	: 1	: -	: -	: -
April 25	:1415	: FM-2	: Engine failure - final approach landing circle, Southeast Okinawa	: -	: -	: -	: 1

PART VI (B)

3 (b) RESCUE OPERATIONS

- 25 March Ditching immediately after take-off, pilot was seen by observers on this ship to have no difficulty extracting himself from the plane. As the ship passed close by the plane, a MK-4 smoke light was dropped close by. The pilot was swimming vigorously away from the plane with inflated Mae West. His face was covered with blood. Before a DE of the screen could reach the pilot and effect a rescue, he had disappeared from sight.
- 26 March Ditching following take-off. Pilot, uninjured, had no difficulty getting from plane. The pilot experienced considerable difficulty in the darkness locating the lock pin lanyard in the CO2 bottle of his one man life-raft. After some six minutes he succeeded in inflating the raft and was subsequently picked up successfully by a destroyer of the screen. This experience emphasizes the necessity of each pilot being checked out blindfolded on the procedure of inflating his life raft. The weight of his water-soaked back-pack dangerously reduced the pilot's buoyancy during his efforts to inflate the raft.
- 2 April Anti-aircraft fire from Okinoerabu Jima forced a water landing ahead of a radar picket Destroyer. Before the landing, radio ~~VHF~~ communications were established between plane and ship, and ship headed into the wind. Pilot, uninjured, was rescued without difficulty.
- 18 April Anti-aircraft fire caused a ditching at Minami Daito. Pilot had no difficulty getting out of plane, and inflating life raft. A PBM Dumbo arrived on the scene $1\frac{1}{2}$ hours later and was directed by an orbiting VT to the downed pilot. Under fire from shore batteries a successful rescue was effected.
- 25 April An engine failure was experienced in an FM-2 making the final approach to landing aboard. Pilot had no difficulty in getting out of plane. The Mae West inflated perfectly but the life raft partially inflated, probably because of a loose connection between the CO2 bottle and the connection valve of the raft. A destroyer of the screen effected a successful rescue after 12 minutes.

4. Damage to enemy.

a. Enemy planes destroyed in combat on land or water and enemy ships sunk, probably sunk, and damaged by strikes.

DATE	TIME OF LAUNCH	LOCATION	ENEMY A/C DESTROYED		ENEMY SHIPPING	
			IN AIR	GROUND OR WATER	SUNK	PROBABLY SUNK
March 28	1200	Okinawa	- - -	- - - - -	- -	Beached possible P.T. destroyed
March 29	0730	Okinawa	One Oscar	1 Nell	- -	- - - - -
April 12	1415	Okinawa	Two Vals	- - - - -	- -	- - - - -
April 13	1400	Ishigaki A/D	- -	4 S/E 2 T/E	- -	- - - - -
April 14	1430	Miyako Shima	- -	3 S/E 1 T/E	- -	- - - - -
April 15	0500	Ishigaki	- -	1 S/E	- -	- - - - -
April 15	0730	- - - - -	- -	1 S/E	- -	- - - - -
April 15	1500	Ishigaki Jima	- -	1 S/E	- -	- - - - -
April 16	0545	20 miles North of Okinawa	Two Kates	- - - - -	- -	- - - - -
April 20	1200	Naha Ko	- - -	- - - - -	Two Barges	- - - - -
April 28	1515	20 miles North of Kume Shima	Two Vals	- - - - -	- -	- - - - -
April 28	1615	45 miles N.W. of Ie Shima	Four Vals	- - - - -	- -	- - - - -

SUMMARY OF DAMAGE TO THE ENEMY

	<u>VC-87</u>	<u>VOC-1</u>
Planes airborne, destroyed - - - - -	1	10
Planes on the ground, destroyed - - - - -	2	11
Planes on the ground, damaged - - - - -		9
Buildings destroyed (including barracks, thatched houses and huts).	131	38
Buildings damaged		19
Radio and Radar Stations destroyed	4	
Ammunition or gasoline sumps destroyed	1	3
Power Station destroyed	1	
M.T.B. destroyed (probably operational)	1	
M.T.B. damaged		2
Tanks destroyed	3 probable	
Trucks or vehicles destroyed		9
Trucks or vehicles damaged		26
Supply Dumps destroyed		3
Pillboxes or blockhouses destroyed		3
Pillboxes or blockhouses damaged		13
Barges destroyed		2

In addition many storage piles, gun emplacements and caves were damaged.

PART VI

B. 4(b)

DAMAGE TO LAND TARGETS

- 26 March - Target - Houses and buildings in the village of Aware, Tokeshiki Jima, Kerame Retto. Twelve houses and buildings were destroyed.
- 28 March - Target - Barracks and buildings in the village of Dakashaku, Okinawa Jima. One barracks was damaged and several houses were destroyed.
- 28 March - Target - Defense installations east of Yontan Airfield, Okinawa Jima. Trenches and revetments were damaged.
- 28 March - Target - Town of Tokuji, Okinawa Jima. One large, 12 small buildings were destroyed. Also destroyed 1 possible Motor Torpedo Boat. It is possible claim of damage may be duplicated by VC-93 based on the U.S.S. PETROF BAY (CVE 80).
- 28 March - Target - Buildings in southern Okinawa Jima. One factory was destroyed, another was seriously damaged. Several large and numerous small buildings were destroyed.
- 29 March - Target - Naha and Yontan Airfields, Okinawa Jima. Strafed revetments flaming one Nell. Several buildings were strafed.
- 29 March - Target - Kume Jima and Naha Airfield, Okinawa Jima. Radio tower and numerous buildings damaged and several buildings destroyed in Kume Jima. Bombed, strafed and rocketed Naha Airfield, causing moderate damage to revetments.
- 29 March - Target - Southeast coast of Okinawa Island. Buildings, gun positions and installations damaged.
- 29 March - Target - Naha Airfield, Okinawa. Strafed and destroyed a tank. Airfield facilities damaged.
- 30 March - Target - Gun positions and buildings, Naha, Okinawa. A probable warehouse was destroyed, AA positions were damaged and a power plant was probably damaged.
- 30 March - Target - Bridge and buildings in the town of Yonabaru, Okinawa. Two bombs hit near the bridge but damage was problematical. Buildings and a barracks were probably damaged.
- 30 March - Target - Radio facilities, in outskirts of Naha city, Okinawa. One radio tower was toppled over, the transmitter station and administration building were razed. Possible duplication of claims by VC-96 on the U.S.S. RIDYERD BAY (CVE 81) and VCC-1 on the U.S.S. WAKE ISLAND (CVE 65).
- 31 March - Target - Bridge north of Katena Airfield, Okinawa. Bridge was not damaged but houses in the immediate vicinity were destroyed.

DAMAGE TO LAND TARGETS (CONT'D)

- 31 March - Target - AA positions southwest edge of Yontan Airfield and the village of Tokeshi, Okinawa. Seven and possibly eight fire bombs effectively burned out the AA position area. Barracks and several small buildings were flamed in the village of Tokeshi.
- 1 April - Target - Gun and other ground defense installations, east, northeast and north of Yontan airfield, Okinawa. Two direct hits were made on empty AA positions. A near miss may have caused minor damage on a concrete artillery emplacement. Three Jan tanks hidden under a grove may have been damaged. Six trucks also hidden were strafed, damage uncertain.
- 1 April - Target - Defense installations on a ridge northeast Yontan Airfield, Okinawa. Trees and undergrowth prevented damage assessment. A radar station, a secondary target was destroyed by a direct hit.
- 2 April - Target - Caves, trenches and gun positions central Okinawa. With 12 VF of the U.S.S. SARGENT BAY (CVE 83) and 8 VT of the U.S.S. PETROF BAY (CVE 80) participating in the attack, results were difficult to observe.
- 2 April - Target - Defense installations east of Yontan Airfield. A radar station was found and, in conjunction with 12 VF of the RUDYERD BAY (CVE 81), was destroyed. Other defense positions were damaged but it could not be observed to what extent.
- 2 April - Target - Caves and underground positions in the ridges east of Yontan airfield. Eight VT of the U.S.S. SARGENT BAY (CVE 83) and 8 VF of the U.S.S. PETROF BAY (CVE 80) participated in the attack causing substantial damage to the targets.
- 2 April - Target - Village of Imatomari, Okinawa and floating mines. Buildings and supply dumps were destroyed. Eight VF of the U.S.S. SARGENT BAY, 8 VT of the U.S.S. PETROF BAY and 4 VT of the U.S.S. RUDYERD BAY participated in the attack. Two drifting mines were strafed and blown up.
- 3 April - Target - Small boat shelters and ground installations, central Okinawa. Boat shelters were strafed but no damage could be ascertained. In the village of Makama about 20 buildings, including 3 possible barracks were destroyed. Four VF and 4 VT from an unknown carrier also participated.
- 7 April - Target - Gun emplacements and entrenchments 700 yards east of the town of Dakeshi, Okinawa. Targets were rocketed and strafed. Moderate damage was observed.
- 7 April - Target - Trucks, buildings and caves on Ie Jima. One truck was flamed and 2 brick buildings were destroyed. Another building was damaged.

DAMAGE TO LAND TARGETS (CONT'D)

- 7 April Target -- Caves and entrenchments one mile east of the town of Shuri. Target area was hit effectively but smoke and dust made damage assessment uncertain.
- 12 April Target -- Buildings southeast of the town of Karader and trucks. Pilots fired rockets and strafed trucks in revetments damaging at least 14. No trucks caught on fire but one was smoked. Two small buildings were set afire.
- 12 April Targets -- Gun emplacements and entrenchments on Ie Shima. Several direct rocket hits were observed on gun positions causing some damage.
- 12 April Target -- Gun emplacements, north of the town of Shikimbaru. Two direct hits by rockets were scored on one emplacement.
- 13 April Target -- Buildings, caves and revetments, Ie Jima. A two-story frame house was destroyed and caves and revetments were hit, causing serious damage.
- 13 April Target -- Ishigaki airfield, Sakashima Gunto. With the mission of neutralizing enemy aircraft and facilities, a Betty, another twin-engine, and a Zeke and 3 single-engine planes were destroyed. In addition 5 more planes were damaged. Installations and AA emplacements were also rocketed and strafed and damaged.
- 14 April Target -- Airfield facilities and aircraft Miyako Jima, Sakashima Gunto. VF cratered the west strip of Nobara airfield. VF rocketed and strafed reveted planes, flaming a Betty and a Tojo and 2 other single-engine aircraft. Three other planes were strafed and damaged.
- 15 April Target -- Aircraft and facilities Ishigaki Jima. Attacking before the sun was up, made the selection of specific targets difficult, and damage assessment undetermined. One single-engine plane was seen to burn.
- 15 April Target -- Ishigaki airfield, Ishigaki Jima. The runway was well cratered. Six planes were strafed resulting in destruction to a Judy and damage to a Val.
- 15 April Target -- Ishigaki airfield. One operational plane was found, smoked and destroyed. AA positions were rocketed and strafed, but damage was unobserved.
- 16 April Target -- Landing beach area on the southwest shore of Ie Jima. Of four Napalin bombs, 2 hit the target area setting on fire a wooded area close to the beach.
- 16 April Target -- Caves on Motobu peninsula, Okinawa. Several direct rocket hits were observed probably causing damage.
- 17 April Target -- Tombs on the eastern end of Ie Shima. Ten direct hits were observed causing considerable damage.
- 17 April Target -- Artillery emplacements south of the town of Takeshi. Six 500 lb. G.P. bomb hits destroyed several emplacements.

DAMAGE TO LAND TARGETS (CONT'D)

- 17 April Target - Enemy facilities near Yonabaru airfield. Nine hits in the target area were counted, causing considerable damage.
- 17 April Target - Blockhouse on Ie Jima. The blockhouse was hit by rockets and believed destroyed.
- 17 April Target - Ridge emplacements, Okinawa. Nine bombs were placed in the target area but definite damage could not be observed.
- 18 April Target - Aircraft radio and AA facilities, Minami Daito. Four apparently unoperational planes were strafed. A warehouse was hit by four rockets, causing serious damage. Two AA emplacements were hit by rockets, but damage was undetermined. On Kita Daito one AA emplacement was believed destroyed, another damaged.
- 19 April Target - Gun emplacements and trenches, south of the town of Oroku, Okinawa. In conjunction with 66 planes from other ships enemy positions were seriously damaged.
- 19 April Target - Buildings and artillery emplacement. One concrete building was demolished with six rockets. The artillery emplacement was damaged by 4 rocket hits.
- 20 April Target - Storage area near the town of Chikuto, Okinawa. Gasoline supplies and an ammunition dump were exploded.
- 20 April Target - Artillery positions and shipping in Naha Ko. Fighters bombed the artillery positions in conjunction with 4 VT of the U.S.S. SARGENT BAY. All bombs were in the target area. Also with the U.S.S. SARGENT BAY VT 3 50-60 foot barges were rocketed and strafed in Naha-Ko. Two barges exploded and sank.
- 21 April Target - Building in the town of Awadu, Okinawa. A hangar like building and a barracks were destroyed. Eight VT of the U.S.S. LUNGA PT. participated in the attack.
- 21 April Target - Supplies and buildings in the town of Itakazu, Okinawa. Two large buildings were destroyed and a gas dump fired.
- 22 April Target - Personnel concentration in the town of Awacki, Okinawa. Buildings and entrenchments were hit by over 30 100 lb. G.P. bombs. Damage was extensive. Enemy personnel casualties could not be observed.
- 22 April Target - Village of Kokuda, Okinawa. About 6 buildings, huts and sandbagged positions were hit by bombs and destroyed.
- 25 April Target - Motor torpedo boats and vehicles Okinawa. One tank or truck was hit by 2 rockets causing serious damage. Two M.T.B.s were strafed and damaged.
- 25 April Target - Buildings and gun emplacements Okinawa. Two gun emplacements were rocketed and hit, causing some damage. Two small houses were also set on fire.

DAMAGE TO LAND TARGETS (CONT'D)

- 25 April Target - Those of opportunity on Okinawa. Five VF on individual attacks fired a small ammunition dump and destroyed 4 trucks. Three other vehicles, two buildings, a pillbox and supplies piled under tarpaulins were damaged.
- 25 April Target - Vehicles and shed, Okinawa. One truck was flamed and 3 others damaged. A long shed was damaged by four rocket hits.
- 26 April Target - Buildings, Okinawa. Two large sheds south of the town of Shuri were hit by 6 rockets and seriously damaged.
- 26 April Target - Those of opportunity, Okinawa. Two trucks were hit by rockets and destroyed. Two small fuel dumps were fired, mortar positions and a warehouse were hit and damaged.
- 26 April Target - Vehicles and caves, Okinawa. Four to six trucks were rocketed and strafed, damaging all of them. Several caves and entrenchments were also damaged.
- 26 April Target - Caves and gun positions and buildings. Rockets and strafing were directed at cave entrances, causing undetermined damage. A building and an unidentified installation were damaged when hit by rockets.
- 28 April Target - Gun emplacements, trenches and storage piles Okinawa. One gun emplacement was damaged by a direct hit by a rocket. Three storage piles were hit by rockets and strafed, but damage was uncertain. Trenches were strafed.
- 28 April Target - Artillery emplacements, a building and storage areas. Two artillery emplacements were hit by rockets and must have been seriously damaged. Two rocket hits on a barracks type building caused damage. Three storage piles were set on fire and destroyed.
- 28 April Target - Caves on the southeast coast of Okinawa. A narrow gauge railway leading into the caves and the entrance to the caves was hit and damaged. Four rockets disappeared in the entrance to one cave.
- 28 April Target - Blockhouse, southern Okinawa. Six direct hits were scored on the blockhouse, causing serious damage, if not destroying it.
- 28 April Target - Buildings and blockhouse, Okinawa. Two large buildings were damaged when hit by 6 rockets, and a direct hit into a cave probably caused damage. The blockhouse was hit by six rockets and destroyed.

PART VI (B) BATTLE DAMAGE TO OWN AIRCRAFT
3 (c)

- 2 April Anti-aircraft fire from Okinoerabu Jima 40 miles north of Okinawa, hit the engine, pierced the oil tank and caused the plane to be ditched. Plane was an FM-2.
- 7 April Two FM-2s were damaged by friendly AA fire. One plane was a total loss making a crash landing. The other plane had a six inch length puncture in the gasoline tank, the windshield was damaged and fuselage holed.
- 15 April In a bombing attack on Ishigaki airfield, Ishigaki Jima, Sakashima Gunto, a V_t was hit by AA fire causing a large hole in the port wing stub, and the fuselage and outboard wing panel were covered with shrapnel holes. A shell believed to be about the size of a 40mm made a direct hit. Plane was struck.
- 15 April Two FM-2s were hit over Ishigaki airfield, Ishigaki Jima, Sakashima Gunto. One plane crashed into the sea. The other plane suffered damage to the port wing stub and outboard panel necessitating a wing change.
- 18 April In a fighter sweep over Minami Daito, 4 FM-2s were hit by AA fire, causing the loss of one pilot and its plane in a crash, loss of another plane and damage to the two other planes. One plane's cockpit canopy was shattered, causing lacerations on the pilot's right shoulder. The other plane suffered damage to the accessory section, cowling, engine mount, and the oil tank and ADI tanks were holed.

PART VI

B. 5. Night Operations.

No particular difficulty was experienced in pre-dawn launchings - either catapult or deck take-off. Night landings were conducted on two separate occasions. On 3 April with no moon and ceiling of 1000 feet a 4 plane local CAP was brought aboard with no casualties, as well as a TBM from the RUDYERD BAY. On 14 April the YE brought back 2 planes from over fifty miles away. With no moon the night was dark. Truck lights were blinked for ship identification. All landings were made in good order.

PART VI (B)

6. One search was conducted on the 8th of April. Mission was to locate oilers. Four VT flew 100 miles, each VT covering 17° sectors between the bearings of 070° (T) and 140° (T). Results of the search were negative.
7. Five photographic sorties were conducted.

29 March

Katchin Hanto was mapped at a scale of 1/2181 from 1500 feet from TBM-3P with a F56 camera at an exposure of f5.6 at 1/225 sec. using a yellow filter. Low altitude was due to low ceiling plus a .8 cloud cover haze covered the area and a 5 knot headwind was present. All runs were flown northwest at 130 knots indicated speed. Parts of the area were completely covered by low laying clouds which were approximately 200 feet below our altitude or at 12 to 13 hundred feet. Map was flown from 1315 to 1410. The desired 60% forward overlay was not possible at the 2 second interval lowest speed on intervalometer supplies. Runs as follows: - Number of runs - 7.

Run #1 - 4 exposures.
Run #2 - 8 exposures.
Run #3 - 38 exposures.
Run #4 - 34 exposures.
Run #5 - 35 exposures.
Run #6 - 39 exposures.
Run #7 - 31 exposures.

31 March

Low oblique photographs were taken of the area around Naha Airfield, west coast of Okinawa. Primary object of mission was to spot caves in side of the precipice. Mission was flown at various altitudes from 200' to 500', with distance from shore line varying from 500' to 1000'. All exposures were made while flying from South to North.

Run #1 - 41 exposures.
Run #2 - 21 exposures.
Run #3 - 11 exposures.
Run #4 - 37 exposures.

31 March

Naha Airfield was mapped in 5 runs at 1300 feet from TBM-3p with a F56 camera at an exposure of f5.6 at 1/225 sec. using a yellow filter. A general overcast over the area plus a .9 cloud cover made low altitude necessary. A scale of 1/1890 was maintained throughout flight. Clouds varied in altitude from 1300 to 1000 feet. Map was flown from 0910 to 1100. A 3 second interval at 120 knots was used. Runs were as follows:

Run #1 - 19 exposures at course 028°
Run #2 - 25 exposures at course 186°
Run #3 - 25 exposures at course 060°
Run #4 - 25 exposures at course 214°
Run #5 - 21 exposures at course 050°

PART VI (B) 7 CONTINUED

3 April

Nakagusuki-Wan Peninsula was mapped at a scale of 1/5000 from 3400 feet from a TBM-3P. Some low laying clouds were present at about 2800 feet which did not materially interfere with the success of the mission. About .6 cloud coverage was overhead at about 3600 feet but the terrain below was very bright. The mission was flown from 1010 to 1115. A 60% forward overlap and a 30% sideward overlap was maintained - Runs as follows:

Run #1 - 24 exposures at course 140°
Run #2 - 20 exposures at course 330°
Run #3 - 23 exposures at course 140°
Run #4 - 17 exposures at course 330°

4 April

High and low oblique photographs were taken of Ie Shima and Ie Shima Airfield, also photographs were made of Yontan Airfield to show work being carried on by ground forces on said Airfield. All exposures made at Ie Shima were made at very low altitude, 100'-250'. One strip of verticals was made depicting Ie Shima Airfield. All exposures made at Yontan Airfield were low obliques.

Run #1 - 100 exposures*
Run #2 - 67 exposures*
Run #3 - 48 exposures* (obliques of Ie
Run #4 - 85 exposures* Shima)
Run #5 - 62 exposures*
Run #6 - 84 exposures (verticals of Ie
Shima Airfield)
Run #7 - 100 exposures (high and low
obliques of Yontan)

Photographs were taken with F56 camera 8 $\frac{1}{4}$ " lens - yellow filter at 1/225 - f8 Super XX film.

PART VI

B. 8.

AIR OPERATIONS

1. The compliment of aircraft during the first fourteen (14) days of the period was 20 FM-2 and 12 TBM-3. Thereafter it was 6 TBM-3 and 28 FM-2 equipped with MHF (ATB-ARB) radio gear for naval gunfire spotting communications. This latter compliment was never adequately filled because of an initial shortage of MHF radio equipment and inability to replace losses. The number of FM-2 aircraft on board varied between twenty-four (24) and twenty-nine (29). The number equipped for spotting varied between eleven (11) and eighteen (18).

2. Both squadrons based aboard during this period had previous combat experience. VC-87 had very limited air operations on this ship prior to commencing this operation. VOC-1 came aboard late one afternoon on very short notice and commenced regular operations with a pre-dawn flight the following morning. In each case, squadron and ship's personnel made the necessary adjustments rapidly and with no interference or delay in flight operations.

3. FM-2 aircraft on board after 5 April were equipped variously with ARC-1(VHF) and ARB-ART(MHF) radio equipment, ART-1 alone, and ARC-4. This lack of standardization plus shortages of VHF crystals covering frequencies used for LCAP, TCAP and support missions made specialization of the flights necessary. This constituted a difficult problem and an extra arduous task for flight deck and maintenance personnel. However, careful accounting of all fighters, modification of flight deck spotting and launching procedures and careful scheduling of flights made the meeting of all commitments possible. Although spotting planes were often required to be launched within one-half hours time after landing and many flew three flights per day because of lack of radio spares, no flight requirements were left unfilled.

4. In contrast with previous operations catapult launching of a majority of VF was necessary because of the deck spot required and the additional plane loading of radio equipment and rockets. During the period a total of 852 catapult launchings were made with a daily average of 21.8. On 17 April 52 catapult launchings were made. 540 VF launchings were catapulted, 454 were flown away. The average catapult launching interval for VF was 54 seconds. All TBM-3 aircraft were catapulted, a total of 312, with an average interval of 62.2 seconds. The above intervals are an average of all catapult launchings made with no deductions for delays not attributed to the actual catapult launching operations. With such deductions made the interval for VF was approximately 44 seconds, the average for VT approximately 53 seconds. A total of 1314 landings were made. There were three barrier crashes, all FM-2, one of which resulted from a broken tail hook and necessitated an engine change. Four cases of FM-2 drag link damage occurred on landing. One FM-2 landing gear failure attributed to pilot error resulted in a strike. Three water landings were made by FM-2s in the vicinity of the ship with the loss of one pilot. Two were made shortly after take-off and one during approach for a recovery. Two were the result of complete engine failure and one undetermined.

5. The total number of landings made since commissioning is 4840, the total catapult launchings is 2022. This has been accomplished during an operating period of 12 months.

PART VI

B. 8.

AIRCRAFT MATERIAL

1. The revised allowance lists (section B and C) for both the TBM-3 and the FM-2 have been more than adequate to meet our needs. The new lists issued recently by the Bureau should do much to eliminate the dead stock. Our issues were confined to an estimated 15% of our total stock. They consisted mostly of structural items, engine accessories, instruments, and certain wearing parts such as cylinders, valves, gaskets, seals, etc. It has been more expeditious as a rule to issue an assembly for replacement rather than some small part to put the plane in commission. This is, of course, in accordance with standard maintenance doctrine. The engineering division has constantly repaired and returned to store replaced assemblies. As a result of salvage from stricken aircraft certain items in stock have increased in number during the current operations. This is especially true of instruments. At Leyte a quantity of good instruments equal to about three times our current stock was turned in.

2. Packing facilities do not exist aboard ship to properly pack items such as radio material, instruments, parachutes, etc., to protect them for turn in from rain and salt water. As a result most items of this nature were retained although of no value to the ship, as it was felt they might be damaged in shipment ashore or stowage if handled as salvage.

3. Stores were supplied from several land based supply points and from the YF 746, USS GRUMIUM, and U.S.S. FORTUNE. In all cases excellent service was received. YF 746, the USS GRUMIUM and the USS FORTUNE, all afloat issue activities, were extremely cooperative and deserve special comment for the fine job they are doing.

PART VI

B 8.

AIRCRAFT MAINTENANCE

1. At the start of this operation this ship had a complete turn over of VT from TBM-1Cs to TBM-3s and a partial turn over of VF from early model FM-2s to FM-2s with water injection and rocket equipment. This introduced new equipment and new problems but caused no serious maintenance difficulties.

2. (a) The main new feature of the FM-2 was the water injection (R-1820-56W) engine. It is felt that this water injection equipment is just additional weight and an additional source of trouble of minor nature. This equipment was very seldom if ever used during the period of this report. Information regarding the manifold pressure regulator was inadequate for maintenance purposes. As a general practice the quickest and most satisfactory solution of any troubles consisted of removal of the entire water injection system from the plane. VC-87 definitely preferred to have water injection removed from the planes.

(b) One tail hook failure was experienced resulting in a barrier crash and a subsequent engine change. The break occurred on the eleventh carrier landing, which was at the throat of the hook. Inspection of the break classified this as 100% material failure, and is believed to be an isolated case. An RUDM has been submitted.

(c) Relocation of the check valve, for the wing flaps, from behind the cockpit as in earlier models to the engine mount was discovered by this activity only after malfunctioning of the wing flaps in flight. A new engine had just been installed in this plane, mounted on a quick engine change unit from stock, and assembled for earlier model plane.

3. Regarding the TBM-3 - Oil leaks of all types comprised the main maintenance troubles. Excepting two generator oil seal failures, all oil leaks were of a minor nature. Otherwise the TBM-3 was very satisfactory, maintaining practically 100% availability throughout the operation. Its added power over the TBM-1C's was a source of pleasure particularly on low wind launching conditions.

PART VI

D.

COMBAT INFORMATION CENTER

a. General

- (1) During the first two days at sea CIC enlisted personnel were in Condition Two Mike, with each of three sections standing approximately eight hours daily. On the third day, March 23, combat zone watch was set. This consisted of a day team of 18 men on duty from morning General Quarters until the end of flight operations and a night team of eight men taking over about one hour after sunset and continuing on watch until General Quarters the following morning. While it is felt that all radar operators should be capable of performing any job in CIC, the experience of the MARCUS ISLAND in this and previous operations has demonstrated the worth of night and day teams and of dividing the day team into SK and SG groups while in the combat zone.

For readiness for prolonged operations, it is recommended that additional CIC personnel be allowed, at least on flagships. Radarmen are required to stand 12 to 14 hours daily during practically the whole period, in this case 38 days, and efficiency is lowered accordingly. In the combat area three ship's officers were on duty in CIC and another at the visual control station during flight operations. One officer, was on watch from 2100 until morning General Quarters. This system was arrived at after much experimentation and with due consideration of the requirements to be met.

- (2) This ship has SG, SK and SQ radars. The SG was used for surface tracking, navigation, station-keeping, and, less frequently, for weather observation. The SK was used for air search and fighter direction. The SQ is set up on a portable mount for emergency. It was not required during this operation. Except in one case of the operation when SK performance was slightly substandard due to a defective tube, both SG and SK radar operation and performance was excellent. The unusually sensitive BL equipment on this ship, together with the operators' alertness and training, enabled the MARCUS ISLAND to determine as friendly many contacts reported as bogey by other ships. This was especially true of contacts at medium and long range. Likewise, SG operators demonstrated their ability to estimate accurately the number of ships in a surface contact.

During the preliminary and approach phases of this operation high altitude calibration runs were made at 20,000 and 25,000 feet. This was done because of the fact that during the Lingayen and Zambales operations on several occasions planes were sighted visually at high altitudes, estimated at 20,000 feet, without being detected by any of the ships' radars. The results observed tended to confirm what had long been suspected, that a single plane could approach at a high altitude with a good chance of not being detected at all, particularly after it had closed within the range where it was above the beam of the SK antenna. A copy of the revised fade chart made after the high altitude calibration flights is enclosed. (Appendix 1).

To attempt to meet the need for an effective radar zenith watcher to detect planes approaching above the limits shown on the SK fade chart, Commander Carrier Division TWENTY-FOUR endeavored to secure an airborne (AIA) type air interception set, AN/APS-6. The desired equipment was not obtainable but as a substitute AN/APS-4 (ASH) equipment was installed in the port catwalk forward, with radome pointing vertically and on approximate level with the flight deck. The indicator was installed in #2 Radar Room, located off the catwalk adjacent to the equipment. A sound power phone provided communications via the JL circuit with CIC, Flag Bridge, and the visual fighter director-gunnery control station. The design limitations of this equipment are such that it is believed it was not of any great value in this operation, except to point out the requirements for a satisfactory zenith watcher. The antenna search pattern was limited to a fan-shaped area extending at the sides to 15 degrees above the horizon but capable of getting down to only about 60 degrees above the horizon forward and astern. While the APS-6 covers a cone-shaped area from 30 degrees above the horizon to the zenith, it still does not completely cover the area above the SK search pattern. Another limitation of the experimental installation was that the maximum plane detection range of four miles and the type of presentation did not give information rapidly and accurately enough to be usable.

There is an immediate and urgent need of a zenith watcher to cover the area not now covered by either SQ or SK radars in order to combat current Jap suicide attacks. It is recommended that this equipment have the following characteristics: It should have an antenna coverage from 15 degrees above the horizon to the zenith; which could be accomplished by using a rotating parabolic antenna with a manual tilt control similar to that on the ASG radar. The equipment should have a PPI type of presentation for simplicity, giving relative bearings, which would be more useful in case of attack from overhead than true bearings. Such an arrangement would enable the operator to read bearing and range directly from the PPI and elevation from the tilt indicator, reporting promptly directly to gunnery control and the visual fighter director. IFF information should also be available for maximum value. The equipment should have as great a range as possible, preferably at least 15 to 20 miles, so as to provide an overlap with the coverage provided by the SK. It is suggested that some modification of either the SQ or ASG radars would supply this important need for added air search coverage.

(3) IFF Performance

During the entire operation ten MARCUS ISLAND planes were reported showing as bogeys and five others with "weak lights". Five of the bogeys were caused by tube failures; two by broken connections in the set, one by defective wiring in the plane, and two by oil collecting on the antenna insulator. Two cases of incorrect coding were reported, one caused by a broken coding gear and the other by a worn coding switch. The five cases of "weak lights" were caused by slowly failing tubes. Six failures were reported by the deck check crew, all resulting from tube failures. Three reports from pilots

stated that IFF was received on the VHF receiver. This trouble is extremely difficult to eliminate because of the close proximity of the two sets in the plane. In each case the IFF frequency range was decreased.

Tube replacement in the air was made possible by including a kit of spare tubes in each TBM IFF installation. The kit contained four tubes, one of each type used in the upper unit of the set.

Radiomen were instructed in locating dead tubes, however, there were no reports of tube replacement in the air.

During this operation several types of local interference were quite annoying to the operators of the ship's SK at times when aircraft were taking off and landing, particularly when on our own deck. The first and least severe, ordinary ignition interference, produces frequent random hash on both SK scopes. The second type, G-band transponder interference, first appeared when the G-band of the APX-1 and APX-2 equipments was tuned to the SK frequency. It is caused by local G-bands being energized and responding to triggering sources other than our own SK. It appears on the SK "A" scope as closely spaced, unsynchronized square waves, and on the PPI as radial spokes through 360 degrees. This interference recurs at a frequency of 5 cycles per second, the "time sharing" frequency of the APX-1 and APX-2 equipments. At times it is very difficult to see through it. Avoidance of all G-band operation on the SK frequency when in the vicinity of the formation or on deck appears to be the only solution. The third and most severe type of interference, A-band transponder interference, is caused by energized A-band transponders on our own deck being triggered by sources other than our own BL. This results in intense grass or random pulses on the SK "A" scope at all bearings whenever the BL system is operative. This renders our own IFF system partially and sometimes almost entirely ineffective. The only real solution to this problem seems to lie in measures to limit or avoid operation of A-band transponders in planes on deck. Supervised allocation of BL frequencies within a given task group may perhaps be of some benefit. When a single plane is taking off all three types of interference decrease noticeably as the plane leaves the deck, or else is confined to a small sector, decreasing to a negligible value as the plane leaves the formation.

(4) Radar Maintenance

Sustained operation of both air and surface search radars and their associated IFF equipments was obtained during this operation. Early in the operation the SK was secured briefly to replace a transmitting tube which prematurely had partially failed so that performance had fallen below normal. After the replacement was made, in one instance aircraft were observed at 172 miles together with normal IFF return. The SG operated continuously for over 800 hours except for a short period when it was secured to replace tubes in anticipation of their failure.

Radar Maintenance (Cont'd).

The policy of Commander Carrier Division TWENTY-FOUR in securing all except two air search radars at night was a great help in maintaining a program of preventive maintenance, including the replacement of tubes before they fail, which resulted in a very satisfactory standard of performance.

- (5) CIC communications both internal and external, were satisfactory though always a problem as in other operations. During the latter part of the operation, internal communications were much improved due to the limiting of the use of the 20MC "squawk box" during flight operations to urgent communications with the bridge or flag plot. A continuous flow of information to flag plot, flag bridge, open bridge, gunnery control and the visual fighter director was maintained over the JL circuit, with CIC talker-plotters located on the open bridge and at the gunnery control-visual fighter director station. However, the JL talker was unable to get important information to the Flag, Captain, and Officer-of-the Deck, all at the same time, or in a sufficiently short time, and the system was not entirely satisfactory. A better method should be devised. It is not felt that the substitution of the 20MC would suffice since there is a natural tendency for everything in CIC to stop and stand still when the Admiral, Captain or Chief of Staff calls down over the Squawk box. Previously, a JF circuit was installed for direct communication between officers in CIC and flag plot when use of the "squawk box" would be undesirable.

The only important external communication difficulty was that some planes, mostly from this ship, had ARC-4 radio equipment with only four VHF channels while most of those used in the operation had ARC-1 sets with ten channels. However, it is assumed that this difficulty will dissolve as all ships are supplied with new planes. As usual there were many unnecessary transmissions and exhibitions of poor radio procedure, notably on the IFD and guard channels. There were times during the first few days of the operation when channels were very crowded and the CAP was shifted from one frequency to another to obtain a channel that could be used effectively.

VHF communications with aircraft were at no time as difficult as on previous operations where channels were crowded with much more traffic than they could bear. MHF communication with planes was not used, except by Commander Carrier Division TWENTY-FOUR. Air operational traffic was successfully handled over TBS-2. A VHF channel for inter-fighter director communications is recommended, reserving MAN equipment, which has never functioned satisfactorily aboard this ship, for secondary use.

(b) Fighter Direction.

- (1) The MARCUS ISLAND was primary fighter director ship throughout this operation, except on March 26, April 6, 7 and 23 when the SAGINAW BAY had fighter direction duty. If the MARCUS ISLAND did not "see" a bogey reported by another ship it was the practice to give a CAP division an initial vector in the direction of the reported bogey and then turn over control to the ship having the best information on the bogey. Though the SAGINAW BAY was assigned visual fighter direction duty, the MARCUS

Fighter Direction (Cont'd).

ISLAND visual fighter director station on the gunnery control platform was manned at all times during daylight hours. On several occasions the visual fighter director was able to direct the "snapper patrol" to pilots who had crashed in the water near the formation, thus expediting their location and rescue.

- (2) Though this ship conducted many more bogey interceptions than during any previous operation, only on one day, April 3, was a bogey actually identified as enemy. Following is a chronological account of the events that afternoon:

1721 - SAGINAW BAY reported Raid 1 at 000-30, course 175, angels 2. MARCUS ISLAND vectored fighters from SARGENT BAY (Farmer 6) to intercept.

1722 - MARCUS ISLAND reported bogey 015-20, course 150, speed 180.

1729 - Farmer 6 tallyhoed a TBM, which was not believed to be the bogey.

1731 - MARCUS ISLAND reported bogey changed course to 110 and gave Farmer 6 vector of 060.

SAGINAW BAY and RUDYERD BAY reported bogey 045-28. MARCUS ISLAND did not see this bogey.

1734 - MARCUS ISLAND reported Raid 2 at 340-18, course 160, speed 180, angels 2.

1736 - MARCUS ISLAND fighters (Shasta 6) vectored 000.

1738 - Shasta 6 tallyhoed Judy at 359-9. The fighters flamed the enemy plane but it did not crash into the water off our starboard quarter until taken under fire by screening vessels.

1742 - Farmer 3 from the SARGENT BAY, controlled by the WAKE ISLAND, reported one Zeke splashed.

1745 - Two enemy planes approaching the formation from astern at 4000 feet attempted suicide dives on the WAKE ISLAND. The plane approaching from port hit the water about 250 feet ahead of that ship while the one approaching on the starboard side narrowly missed the ship and crashed close aboard on the starboard side. The immediate explosion caused serious underwater damage necessitating the retirement of the WAKE ISLAND from the operation. It is believed that the bandits approached at about 1000 feet and climbed to 4000 or 5000 when within 25 miles of the formation.

1747 - A bogey reported at 030-25, course 130, speed 240, angels 1.5 by MARCUS ISLAND was designated Raid 3. This bogey appeared to orbit before closing and after several radical course changes finally faded 070-50 on course 350.

Fighter Direction (Cont'd).

1839 - SARGENT BAY reported bogey 348-48, course 180, speed 180.

1844 - SAGINAW BAY fighters controlled by RUDYERD BAY tallyhoed at 345-32 and two minutes later reported splashing one Zeke.

On four other days attempts were made to intercept bogeys which appear likely to have been Jap snoopers;

26 March 1945.

1737 - MARCUS ISLAND saw bogey 350-67, two planes, angels 6 or 7. ESTES (AGC 12) confirmed. MARCUS ISLAND fighters (Shasta 1) controlled by SAGINAW BAY were vectored 350-BU-Ag7. A good interception seemed to have been made but for ten minutes there was a merged plot on a 180 course with no tallyho.

1806 - Shasta 1 was steered 060 and bogey was no longer seen.

1811 - The bogey reappeared, crossing to the south on course 100.

1812 - Shasta 4 was vectored 150-Ag4 by WAKE ISLAND but the bogey was too fast and got outside the fighters. There was no tallyho.

1829 - Farmer 6 from SARGENT BAY was vectored 050 by MARCUS ISLAND and the sections stacked at angels 9 and 7 in an orbit 15 miles from base. The bogey opened very rapidly on course 020 and no tallyho was made.

This bogey made a complete 360 degree circle around the formation and was last seen at 345-66 after coming closest to the task unit at 100-18. (See enclosed photograph of vertical plot taken at 1838). Appendix 2.

28 March 1945.

1631 - Bogey, 1-2 planes, 250-60, angels 10.

1632 - MARCUS ISLAND vectored SARGENT BAY fighters (Farmer 8) 260-BU-Ag 12. Bogey faded shortly thereafter and reappeared at 252-43, only to fade after one plot.

1636 - Bogey reappeared inside friendlies at 250-34. Communication with Farmer 8 was lost and he did not acknowledge reciprocal vector.

1637 - SAGINAW BAY took control of Farmer 8.

1640 - Bogey faded 245-20 reappearing 020-29 at 1653 and last seen at 010-51 at 1700. (See enclosed photo - Appendix 3).

The tactics and speed of this bogey indicate that it may have been a high altitude snooper like the one described above which completely circled the formation two days earlier at almost the same time of day. From the photograph of the vertical plot it appears that the bogey maintained a course of 080 until over the formation, then turned and opened to the north on 005.

Fighter Direction (Cont'd).

31 March 1945.

1725 - Bogey 351-60, Ag 10, course 120, speed 225.

1726 - MARCUS ISLAND vectored PETROF BAY fighters (Legion 4) 000.
Bogey changed course to 230, then to 270.

1740 - Legion 4 vectored 290; then 270 at 1743.

The fighters were close behind the bogey for forty miles on a 270 heading but could not close to less than four miles. No tallyho. After both bogey and friendlies faded at 303-65 the fighters were orbited several minutes and then steered home at 1756.

(3) Though prepared for phantom surface targets by the article, "The Ghost of Nansei Shoto", in the March issue of CIC, fighter direction personnel were surprised and perplexed by "ghost" targets which appeared on the SK on three occasions. On April 14 at 0901 a bogey of weak strength, confirmed by other ships, appeared for three minutes at 280-20 showing no apparent motion. A division of CAP was vectored out but no tally-ho resulted after a complete search of the area. Two divisions of returning TCAP were vectored to search the area also with the same negative results. At 0931 the phantom appeared again at 268-28 miles. A fifteen minute search by the CAP produced nothing, neither in the air nor on the surface. At 0956 the indication faded at 305-22. The possibility of this being window is discounted as no bogey contacts had been made in the area. Investigation also eliminated the possibility of side-lobing accounting for the phantom.

On April 16 at 1130 a single bogey plot of weak strength was obtained at 032-38 on a course of 070, speed 35 knots. These facts were confirmed by other ships in the task unit. A thorough search of the area produced no tallyho but an object was sighted which fell past the planes. It was described as "A blue-yellow object which resembled either twisted metal or a poncho from a life raft". A second and last plot on the bogey was obtained at 043-43 at 1143.

At 1725 a bogey indication of weak strength appeared at 035-35 on course 100 at 35 knots. The pip faded and reappeared intermittently for several ships for a period of twenty minutes. A search by the CAP again resulted in no tallyho, but a yellow object was sighted on the water. (No further description is available). Lack of further details prevents the drawing of any conclusions other than to suggest that these phantom bogeys may have been balloon-borne radar reflectors.

(4) Following is a table showing fighter direction activity in the MARCUS ISLAND. Not included are interceptions conducted by other ships of the unit and instances where the CAP was sent in the direction of a bogey reported by another ship and orbited until the bogey was confirmed as friendly. Included are only actual interceptions attempted by MARCUS ISLAND. All times given are "Item". All pickup range and altitude estimates are from SK radar. Columns 4, 5, 6 and 7 show

Fighter Direction (Cont'd).

estimated evaluation of bogey based on track and fade chart. Where there were two possible altitude estimates both are shown. Columns 8, 9 and 11 show the actual number, height and identification of the bogey as reported by the CAP. Column 12 indicates the base ship of the CAP division directed in the interception.

DATE	INITIAL CONTACT		BOGEY INFORMATION				TALLY-HO REPORT				FIGHTERS' BASE SHIP
	Time	Posit	No	Ag	Gs	Sp	No	Ag	Posit	Remarks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
3/24	1503	188-70	1	8		180	1	8	120-45	PB4Y2	MARCUS
3/25	1206	240-73	1	8		140	1	7	200-35	B-24	SAVO
	1335	130-70	2	7/8	270	180	1	3	175-45	B-24	ANZIO
	1640	208-31	1	3			1	1	170-18	TBM	MARCUS
3/26	0715	082-55	1	5	260	200	2	3	190-17	FM-2	MARCUS
	1737	350-67	2	7		180	Bogey opened. CAP could not overtake				SARGENT
3/27	0640	070-25	1	2/5	270	150	1	3	105-21	TBM	MARCUS
	0630	030-30	1	2	240		1	5.5		TBM	RUDYERD
	0830	290-35	1	2		130	1	1.5	270-25	TBM	SAGINAW
	0900	120-15	1	2		140	1	2	110-10	TBM	SAGINAW
	1245	300-30	1	1/5		140	1	2	290-10	TBM	WAKE
	1355	030-35	1	3		120	1	2.5	020-12	TBM	MARCUS
	1615	322-38	1	2/7			1	2	270-40	TBM	PETROF
3/28	0610	255-20	1	2	290		1	2.5	292-13	TBM	MARCUS
	1245	090-45	1	2		160	1	2	110-20	PB4Y	TULAGI
	1255	270-35	1	2		150	1	2	270-15	TBM	TULAGI
3/29	0553	345-25	1	3	090		1	Unidentified; lost in clouds and AA over Kerama Retto			SAGINAW
	1319	012-78	3/4	8/10	230	180	1	9	345-40	PB4Y2	WAKE
	1700	245-55	1	5	090		1	2	230-15	TBM	PETROF

DATE	INITIAL CONTACT		BOGEY INFORMATION				TALLY-HO REPORT				FIGHTERS' BASE SHIP
	TIME	POSIT	No.	Ag	Cs	Sp	No	Ag	Posit	Remarks	(12)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
3/31	1103	080-11	1	2	250	160	1	2	170-10	TBM	MARCUS
	1520	250-39	1	H1	050	250				Bogey faded; no tallyho.	MARCUS
	1602	180-25	1	H1	060	180				Bogey merged with other friendlies; no tallyho	MARCUS
	1725	351-60	1	10	120	160				Bogey outran friendlies. No. tallyho	PETROF
4/2	1827	335-70	1	11	120					Bogey opened; no tallyho	TULAGI
4/3	0649	142-38	1	2	000	150	1	2	100-28	TBM	RUDYERD
	1227	275-35	1	4/7	230	150	1	3	248-38	TBM	RUDYERD
	1420	306-28	1	1/4	300	180				Bogey opened; CAP could not catch	SARGENT
	1721	000-30	1	2	175		1	2	015-20	TBM	SARGENT
	1734	340-18	2	2	160	180	2	2	350-0	1 Judy slashed MARCUS by CAP and DD; other ships controlled additional CAP div.	
4/4	0817	255-22	1	2	070	180	1	2	250-15	TBM	TULAGI
	0942	040-25	1	2	280	180	1	2	000-13	TBM	SARGENT
4/6	1733	288-72	1	5	100	180	4		290-43	F6F	SARGENT
	1702	045-45	3	3	210	240				Bogeys went into AA area over Okinawa. CAP could not follow.	
4/7	1211	097-61	1		270	200	4	5	102-26	F6F	
	1147	055-36	1	2	245	120	1	2	035-25	PBY	PETROF
	1303	322-22	1	2	150		1		310-10	TBM	PETROF
	1515	070-45	1	3/4	180	160	1	4	095-17	TBM	SAGINAW
	1825	325-38	1		090		1	1.5		PBM	SAGINAW
4/8	0657	333-30	1	2	120				350-15	TBM	SAGINAW
	1037	130-30	1	2/4						PB4Y2	PETROF
	1054	252-75	1	7/8	070	160	1	7.5	245-45	PB4Y2	MARCUS

DATE	INITIAL CONTACT		BOGEY INFORMATION				TALLY-HO REPORT				FIGHTERS' BASE SHIP
	Time	Posit	No	AG	Cs	Sp	No	Ag	Posit	Remarks	(12)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
4/9	1028	235-35	1	2	140					Bogey opened. Cap orbited, then returned to base	MAKASSAR
	1325	180-15	1	2	040	150	1	2	130-10	PBM	MAKASSAR
4/11	0938	350-50	1	4	?	?				Original report was "Sally" sighted visually. CAP orbited 350-25, then returned to base.	MAKASSAR
	1045	073-39	1	2	320	190	1	2	020-35	C-54	TULAGI
4/12	0541	041-46	1	3	210	200	1	3	070-14	FM-2	PETROF
	0614	302-31	1	1	300	150	1	2	275-35	TBM	TULAGI
	0847	133-72	1	8	330	180	1	6	120-37	Identified as "Constellation"; probably C-54.	TULAGI
	1715	220-11	1	1	070	150	1	5.5	150-7	TBM	PETROF
4/13	0857	310-38	1	2	140	160	1		282-23	PBM	PETROF
4/14	1113	205-62	1	4/5	030	190	1	4	190-33	PB4Y	MAKASSAR
	0901	280-20	1	1	110	50				Phantom target	SAGINAW
	0931	268-28	1	1	030	40				Phantom target	MAKASSAR
4/15	1159	103-31	1	2	220	180	1	4	130-22	PB4Y	MAKASSAR
	1556	077-61	1	5/6	280	170	1	6.5	070-38	PBM	RUDYERD
4/16	0549	158-57	1	5/6	280	170	1	5	185-45	PBM	PETROF
4/22	1238	312-38	1	4	130	180	1	4	330-14	PBM	PETROF
4/23	0737	187-27	1	2	Orb.	180	2	10.5	180-32	F4U	MARCUS
4/24	1042	185-47	1	4	270	140				Bogey opened; did not chase	SARGENT
	1225	105-32	1	3	290	150	1	5.5	100-19	C-54	PETROF
4/25	1605	095-64	1	4.5	180	160	1	2	080-46	PBM	MAKASSAR
4/28	0659	322-41	1	6	110	130	1	6	330-21	PBM	SARGENT

Fighter Direction (Cont'd)

- (5) While this ship was afforded unusual opportunity for fighter direction due to the large number of friendly bogeys, it is suggested that rotation of fighter direction duty among all the carriers in a task unit is a more desirable arrangement. As the flagship must be informed of the air situation at all times it is always in a position to take over an interception whenever necessary, yet it seems wise to give all ships as much experience as possible in controlling interceptions. Previous operations have demonstrated that most intercept officers need as much experience as possible, yet in this operation the MARCUS ISLAND conducted at least 90% of the total interceptions. This was fine from the standpoint of this ship but does not seem best from a broader viewpoint.

(c) Radar Countermeasures

(1) Window

On March 28 at 1100 several ships in TU 52.1.1 and TU 52.1.2 concurred in possible window to the northeast. At 1110 window was visible on the SK from 010 to 048 and from 55 to 65 miles. As it moved to the east it thinned out and covered a wide area. Just before fading entirely at 1157 the window was spread over an area 30 degrees wide, with its center at 030-65. The wind during the time the window was seen averaged 12 knots from 301. There were a lot of weak IFF indications in the same area.

On 6 April at 0341 a 1-2 plane bogey appeared 027-52, course 220, speed 120. At 0410 the bogey reversed course to 010 after closing to 270-10. At 0432 when the bogey had opened to 352-32 window was observed. The operator reported eight or ten traces caused by window from 350-32 to 355-45. (See enclosed photo taken at 0439 - Appendix 4). The bogey disappeared in the window but at 0448 reappeared at 325-20 where it orbited for five minutes before taking course 200. When at 285-18, the bogey turned to 120, approaching to 250-6 at 0502. From this point the bogey opened on a northwesterly course to 45 miles, then changed course to 045 and disappeared almost at the point where originally picked up. The bogey's angels were estimated at 3 or 4. The window drifted on a course of 160 and was observed at 0450 from 355-25 to 000-35.

Sketches showing the change in character of the window (see Appendix 5) indicate that at first the pic appeared to indicate a single plane at 32 miles with a group of four to six planes beyond and a single plane at 45 miles. By 0500 the farthest indication had faded but the nearer single and group indications were still very prominent. Both now bore about 000-18 to 000-25. By 0510 the indications had faded greatly and drifted to 005. By this time they no longer resembled planes, instead appearing as two weak, diffused targets at about 15 miles. By 0520 there were only two small weak indications.

Radar Countermeasures (Cont'd).

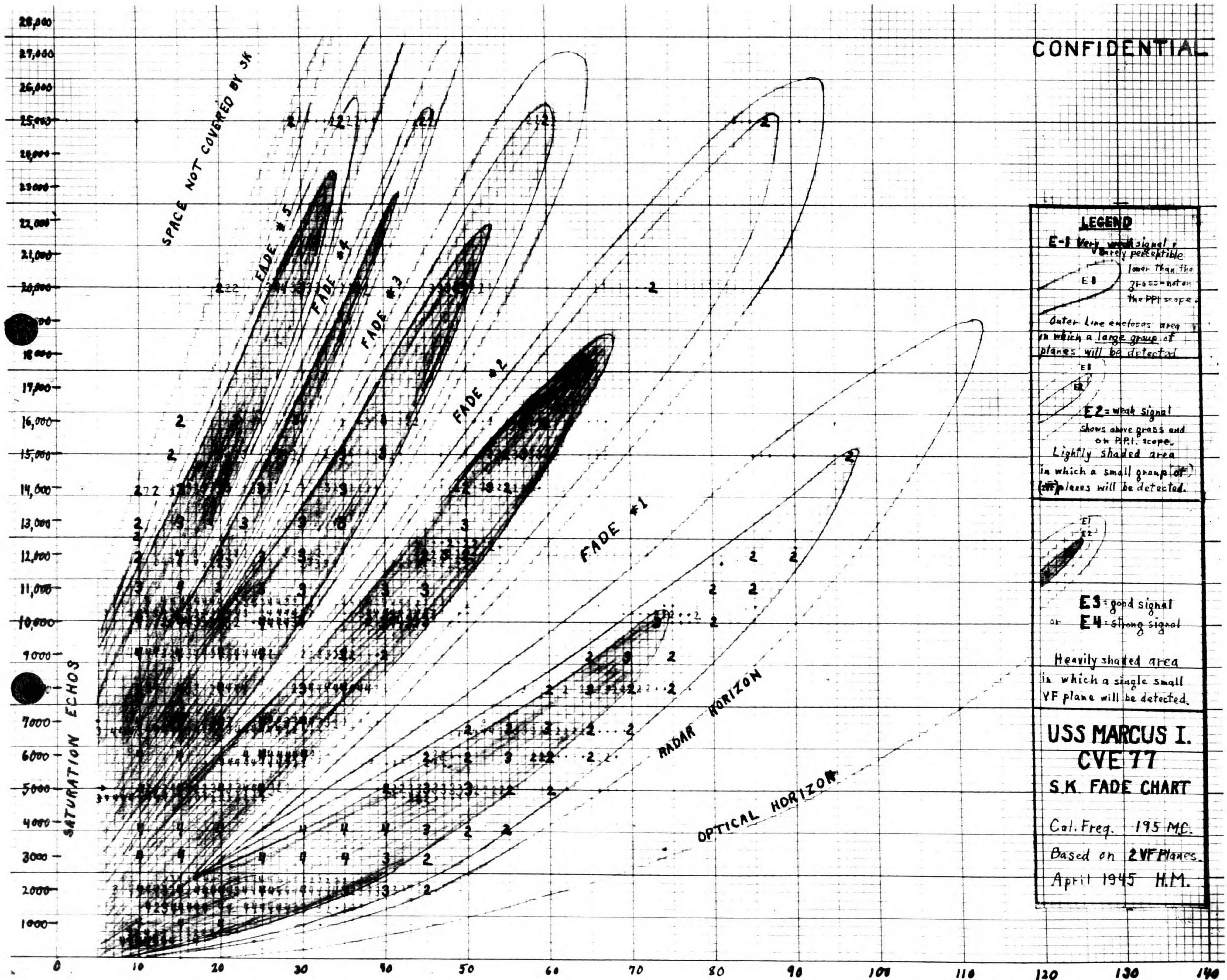
the nearer at 010-12, and by 0530 both had faded entirely. At this time the wind was ten knots from 310.

When a bogey was reported dropping window early on the morning of April 12, the SK was placed in operation at 0400, having been secured for the night. Window was visible immediately at 295-15. The bogey could be seen closing the ship and passed directly over the formation. Window was again dropped at 120-7 and 110-15. At that point the bogey changed course to 350 to a point bearing 030-20 from the formation where window was dropped again. From that point the bogey opened on course 030, changing first to 000 and then to 300, finally fading at 010-45. At this time the wind was 15 knots from 040. At 0410 the ship's position was 128 degrees 16 minutes east and 25 degrees 20 minutes north. All window had faded by 0445.

The only conclusion that can be drawn by the MARCUS ISLAND is that the dropping of window by the Japs was useless since it was immediately recognized and no difficulty was experienced in reading through it. As in the only other instances of enemy use of window observed by this ship, the window appeared to be dropped by one plane, at most two, while on a snooping mission, apparently in an effort to prevent being tracked. Speedy high altitude snooners present an infinitely greater tracking and interception problem than the use of window.

RCM receiving equipment was installed just previous to the operation but there was not enough time to install the RCM antennas so the spare IFF antenna of the ABK was used. It gave satisfactory coverage on most frequency ranges but the equipment was found to give **satisfactory performance only when the SK was not operating**, as the numerous harmonics and images from the SK blocked the RCM from reception on many frequencies. When proper antennas and wave traps can be installed performance will be improved. When the SK was secured it was found possible to use the BL section of the SK antenna as a directional antenna to determine the bearing from which signals were being received. Several intercepts of enemy airborne radar were made on the 150 to 160 megacycle band.

CONFIDENTIAL



LEGEND

E-1 Very weak signal
barely perceptible
lower than the
20-500 notch
the PPI scope.

E0
Outer Line encloses area
in which a large group of
planes will be detected

E2 = weak signal
shows above grass and
on PPI scope.
Lightly shaded area
in which a small group of
planes will be detected.

E1
E2

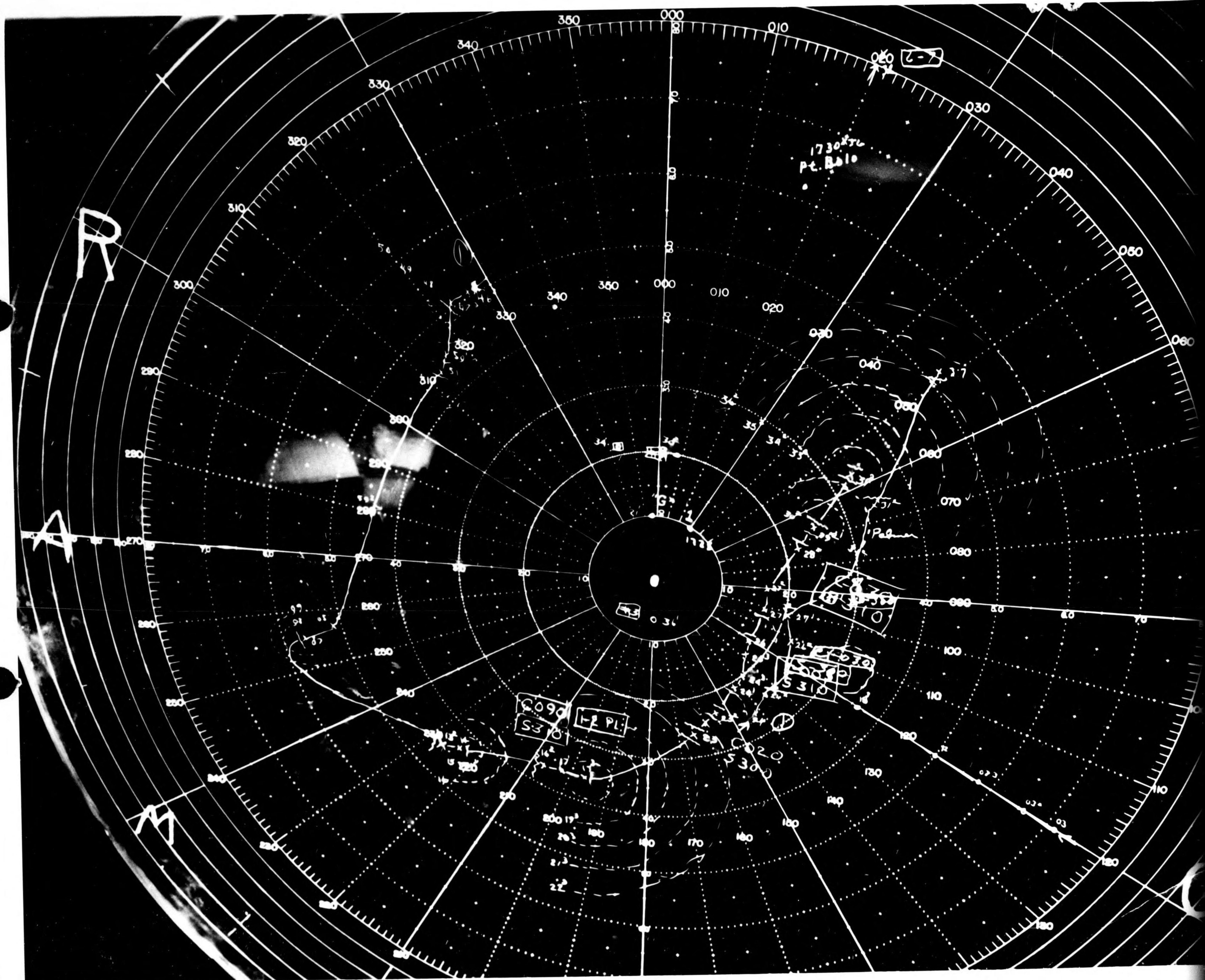
E3 = good signal
or **E4** = strong signal

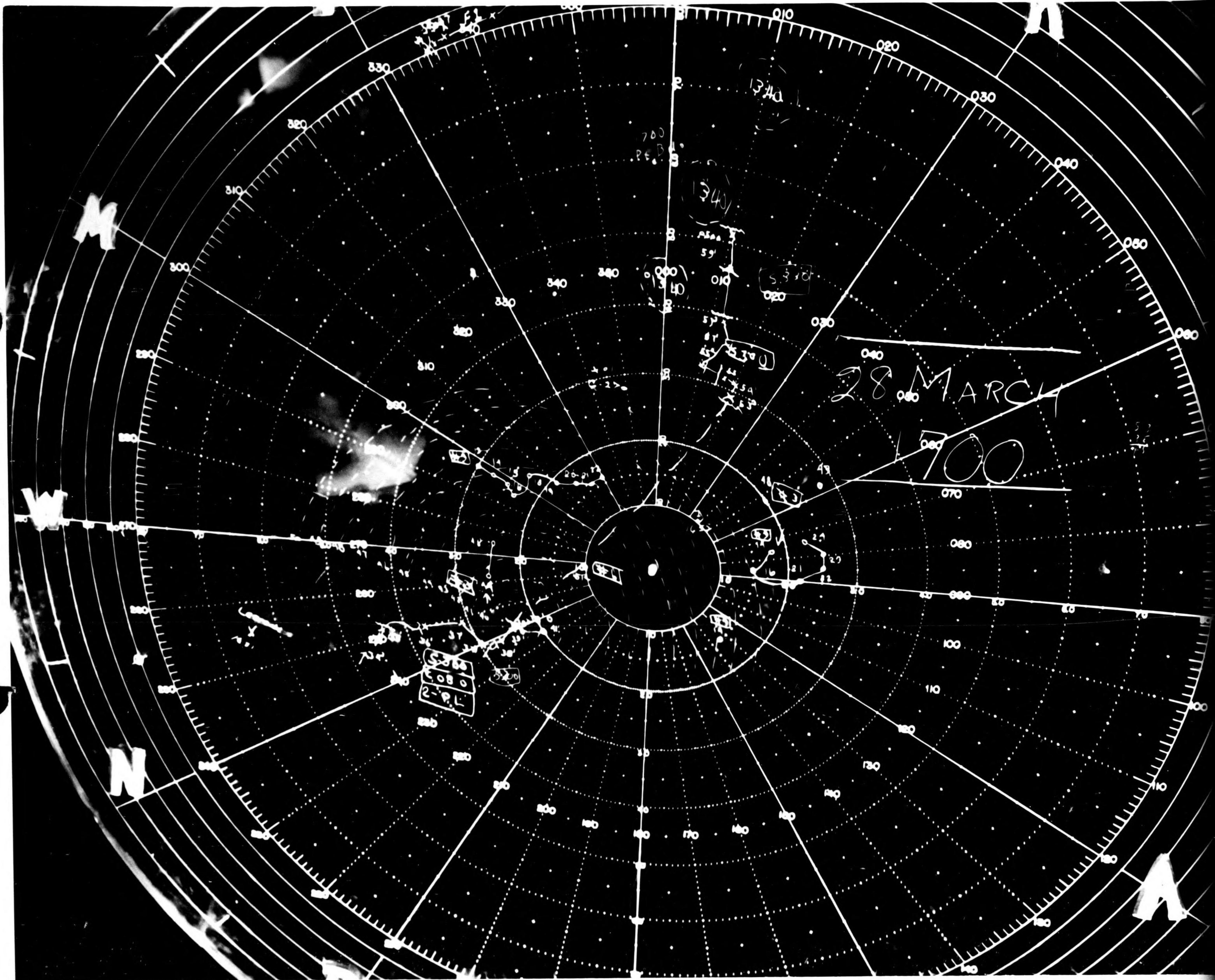
Heavily shaded area
in which a single small
VF plane will be detected.

USS MARCUS I.
CVE 77
S.K. FADE CHART

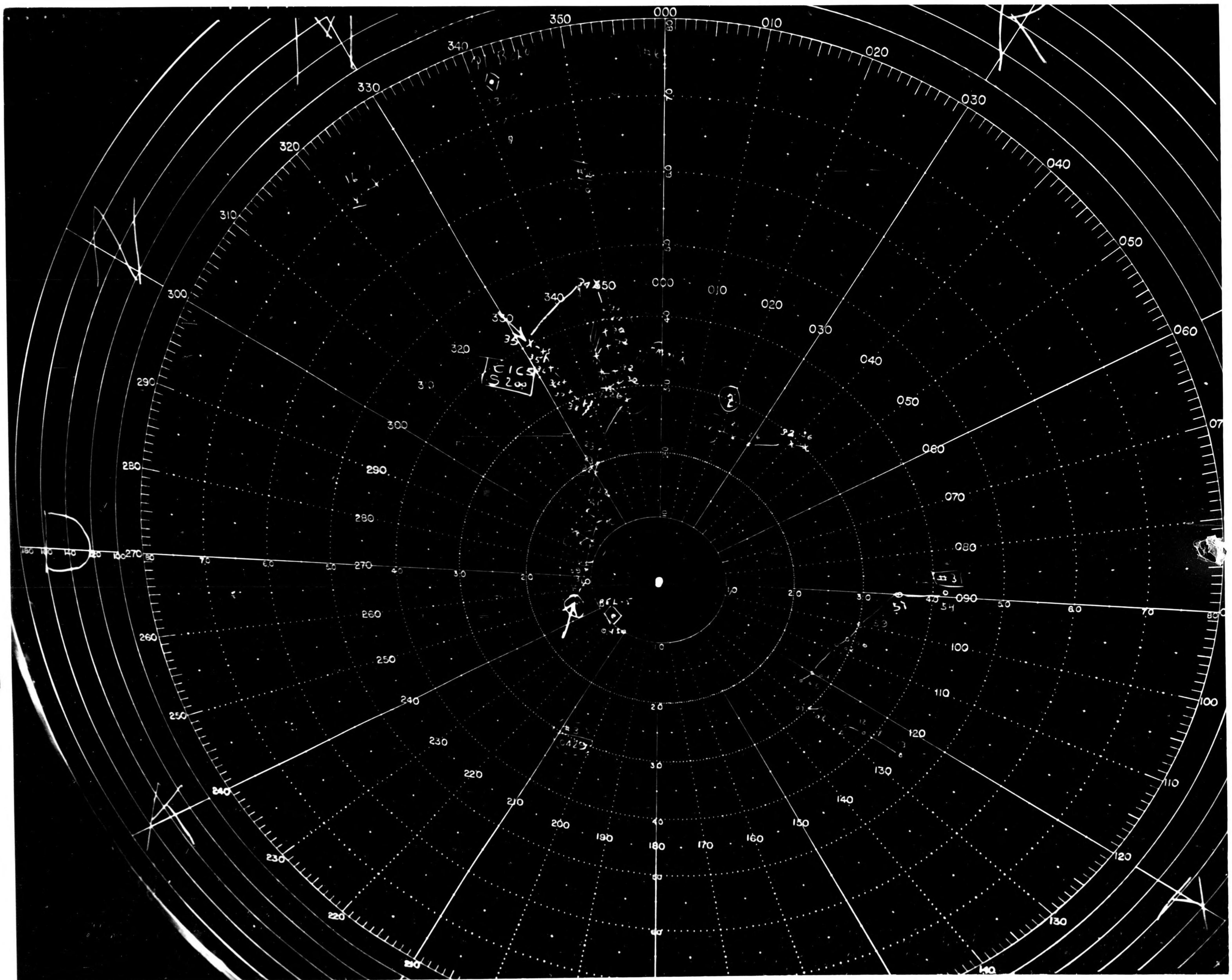
Cal. Freq. 195 MC.
Based on 2VF Planes.
April 1945 H.M.

Appendix 1





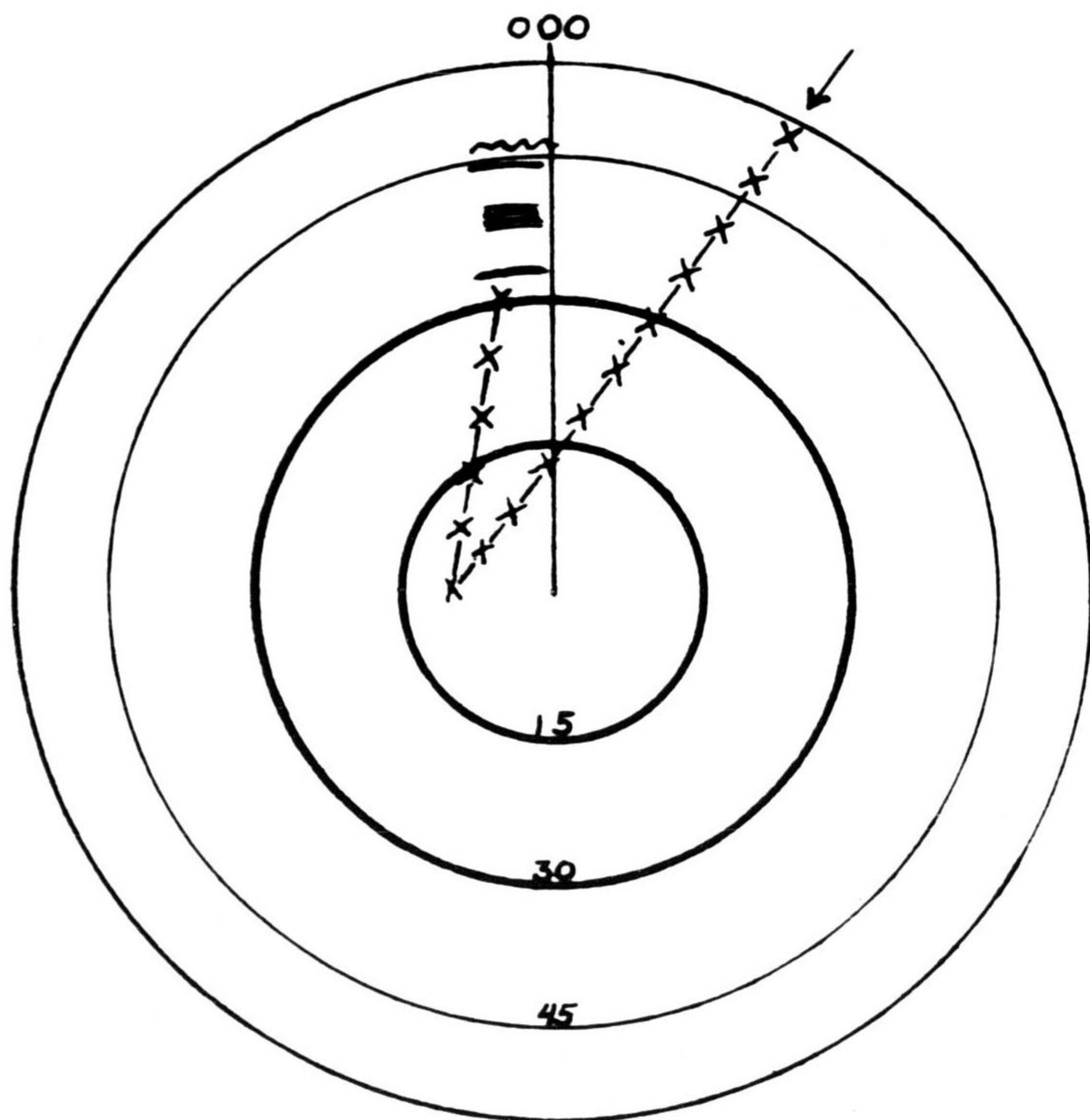
APPENDIX 3



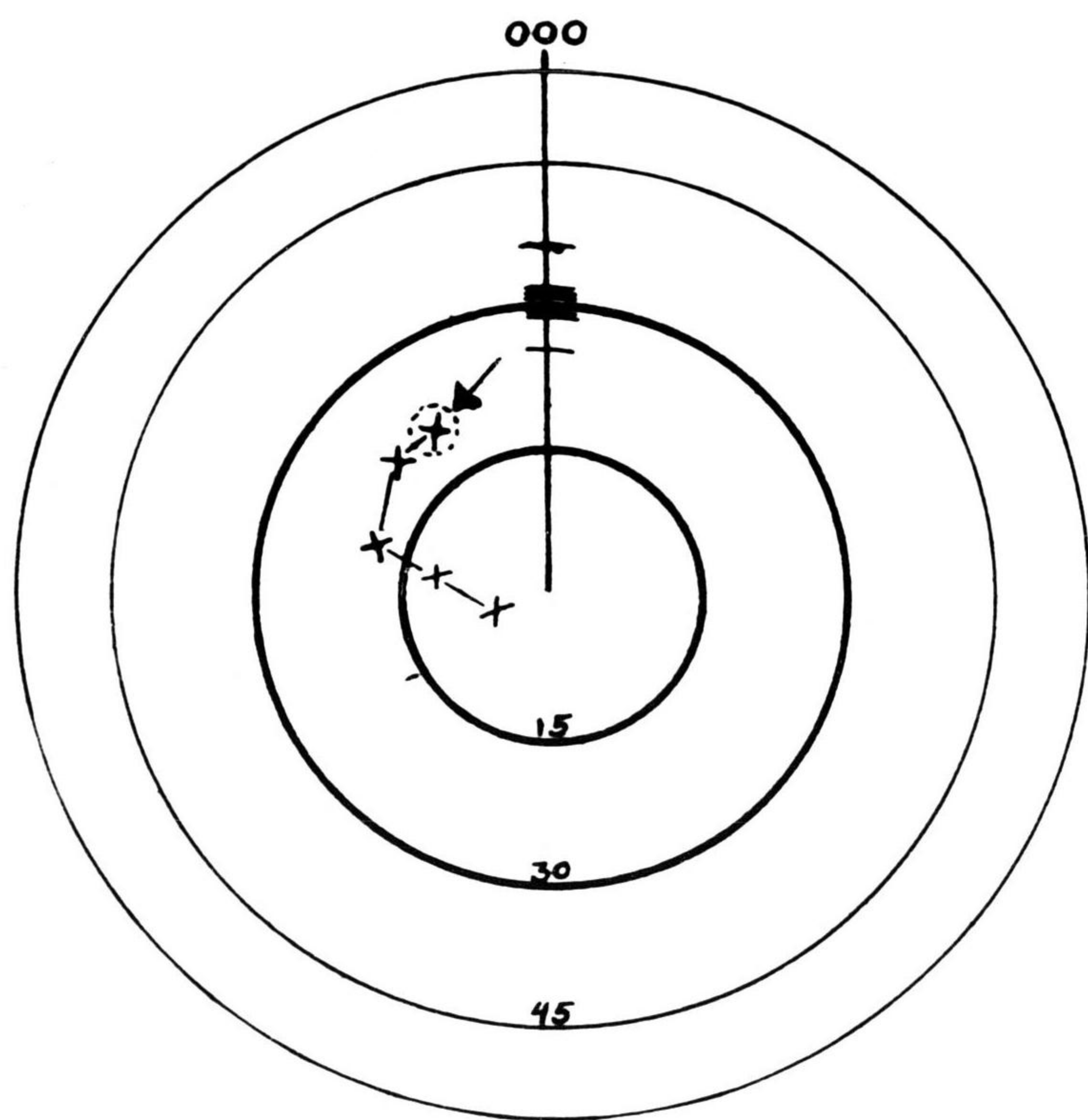
Appendix 4

U.S.S. MARCUS ISLAND
P.P.I. Display of "WINDOW"
 6 APRIL 1945

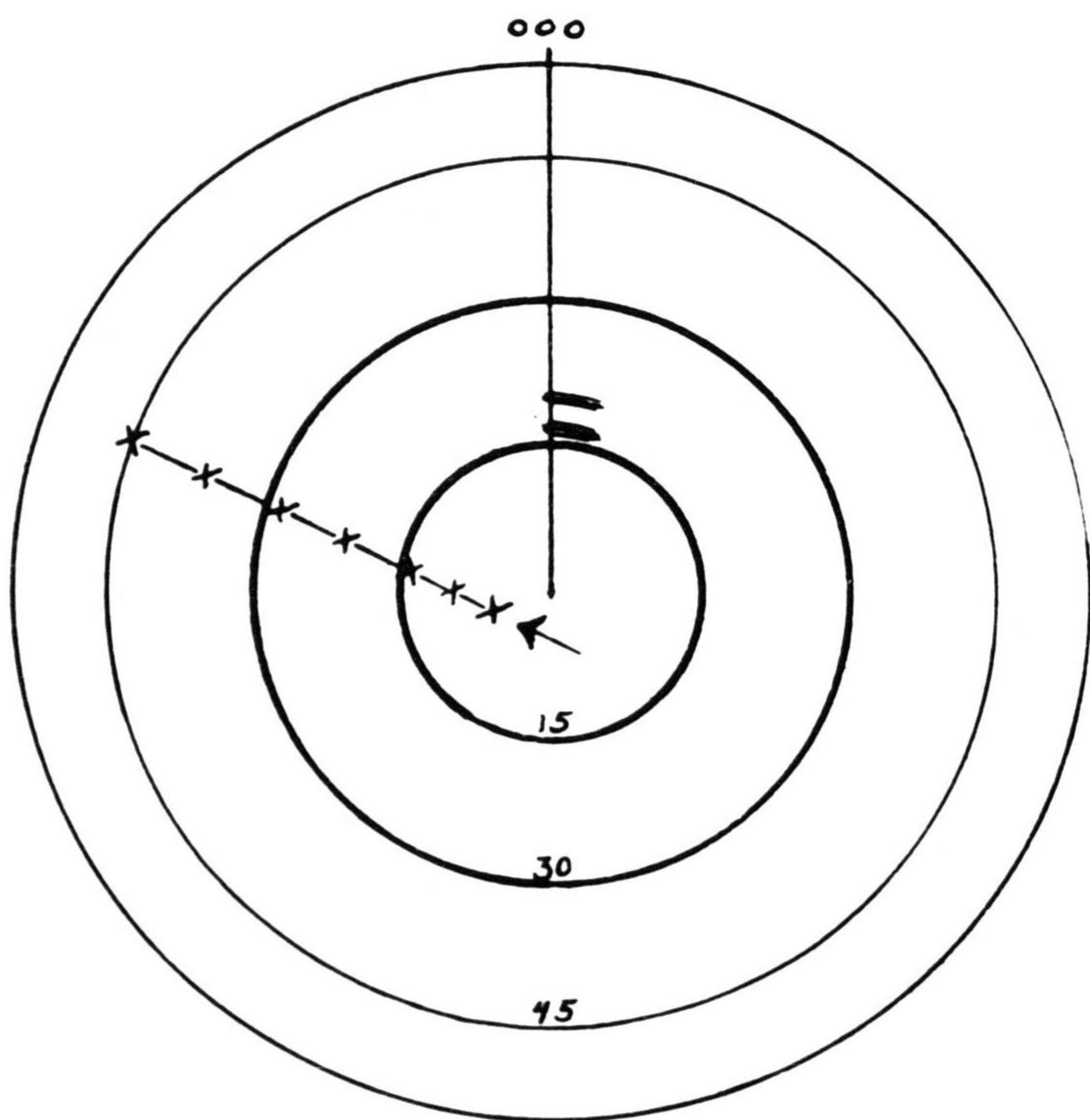
0341 To 0445



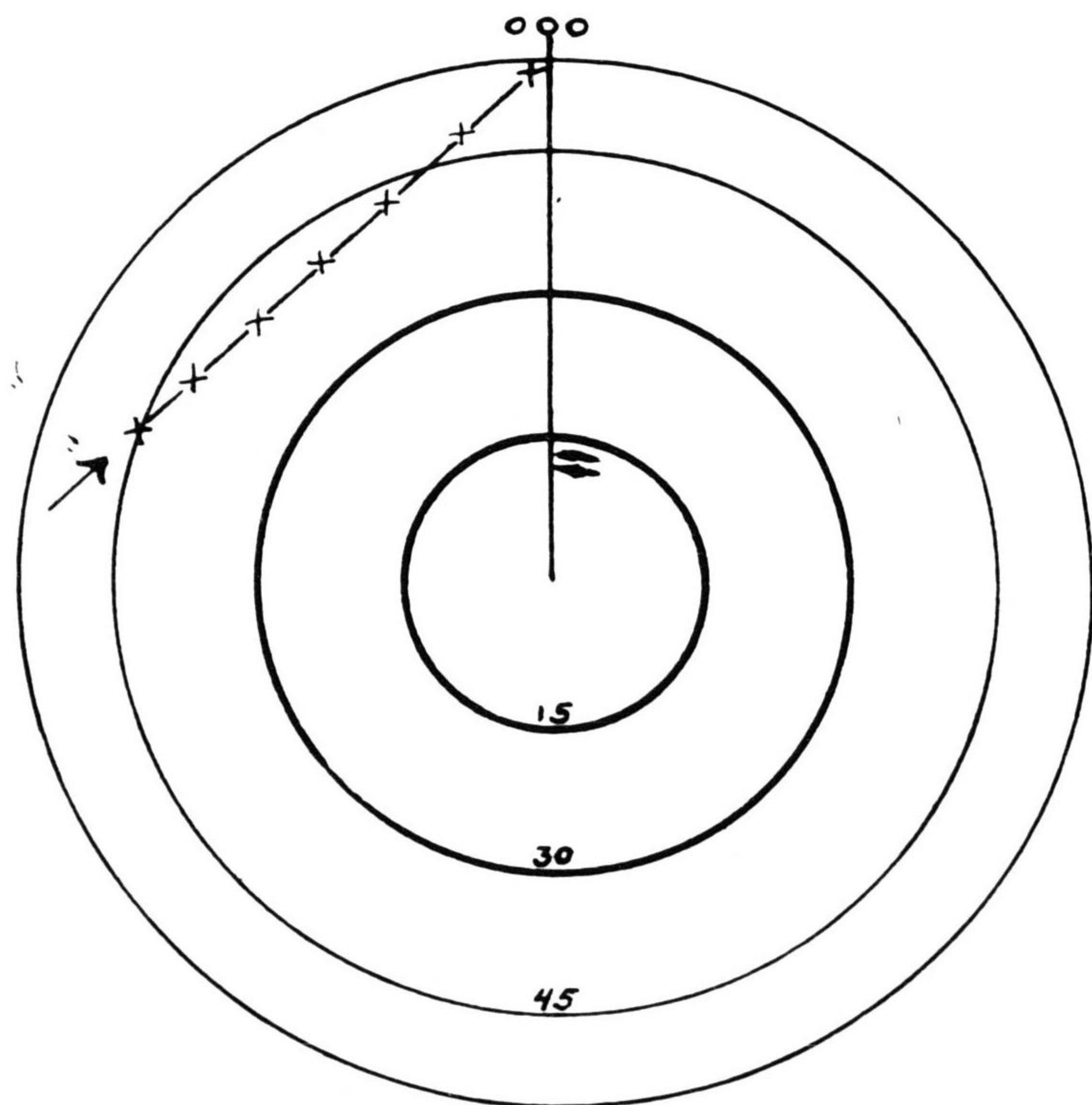
0445 To 0500



0500 To 0510



0510 To 0520



5. 1/2

AIRCRAFT RADIO

D. 2.

(1) VHF

(a) During the first 10 days of this operation ARC-4 transmitting and receiving equipment was used in all aircraft. VHF performance was above the average experienced in other operations up to this date. Of the ten troubles reported, two were complete receiver failures caused by electrical breakdown; five were weak or dead on one channel only, caused by shifting of tuning adjustments from vibration, and in one case a defective crystal; one was severe fading probably caused by atmospheric conditions; and two reported having poor over-all performance were found to be in good condition when checked in the ship. The latter reports may have been the result of disadvantageous relative positions of parties communicating, excessive distance, low altitude, or atmospherics, or a combination of these factors.

(b) During the last 22 days of this operation, a varying percentage of fighter aircraft were equipped with ARC-1, thirty troubles were reported with VHF. Of these 11 (30%) were out on one channel; (27%) were noisy; 5 (11%) were not able to receive on any channel; 3 (10%) were weak on all channels, and one was caused by a bad microphone.

This inadequate performance resulted in part from having had no past experience with ARC-1, lack of operating spare parts, necessitating cannibalization of one of the very few spare sets, and the fact that spare sets obtained were 100% defective, showing signs of corrosion and rough treatment. These sets were brought aboard by VC-87, from the U.S.S. SALAMAUA. During the period of transit they were moved four times and reportedly stores ashore under unfavorable conditions.

(2) MHF

(a) The ATB-ARB combination was very reliable. In spite of the fact that the ship was not prepared to service the equipment and ship's personnel had no previous experience with it, little trouble was experienced after the first day.

(3) ZBX

(a) Seven failures of ZBX homing receiver were reported during the entire operation. Five were caused by tube failure in flight, one by a broken antenna, and one tuning dial locknut vibrated loose, causing detuning of set.

(4) ASB RADAR

(a) Two cases of jittery time trace were reported, one caused by a warm antenna switching unit, and one by an intermittent transmitter. No case of complete failure.

On 27 March, three of this ship's planes returning individually, from TASF were reported as bogies. Two, upon landing, were found to be equipment failures. The third, showing lights to base was vectored out, prior to landing and checked in the air. The IFF was found to be functioning properly.

In order to reduce the number of needless alerts and the waste of combat air patrol effort and effectiveness occasioned by such failures, a recommendation was submitted to CTU 52.1.2 that all single planes returning from the objective area report to CTC when within YE range giving their YE sector, angles, ETA, and, if known, improper functioning of IFF. Home bases would often times have such planes friendly where as others would not. It was further recommended that single planes join with multi-plane formations prior to returning, if possible. This procedure was incorporated in CTU 52.1.2 instructions for this operation and resulted in a substantial reduction in the number of "friendly bogies".

PART VI

D. 5.

ENGINEERING OPERATIONAL REPORT

1. While underway during this operation, the following derangements and material failures have occurred in the Engineering Department:

(a) No. 4 boiler. Two handhole plates in economizer outlet header developed very bad leaks. Seats were scored to the extent that all efforts to make them tight failed. The handhole plates were welded into the header and boiler placed back in service.

(b) No. 2 main condenser. Leaky tubes developed in the condenser twice, necessitating the securing of the main engine, aft, to make repairs. The first time, four leaky tubes were plugged; and the second time one leaky tube was plugged.

(c) No. 1 H.P. air compressor. The 4th stage air cylinder head was found to be cracked between water-cooling chamber and air passage, allowing water to leak into air cylinder when securing, and blowing cooling water out of water jacket when operating. Attempts to repair this failed.

(1) Considerable trouble has also been experienced with valves of all stages. There has been a tremendous demand for air due to the necessity of catapulting fighter planes as well as the torpedo planes, since the catapult air accumulators had to be "bled down" to launch fighter planes, and immediately afterwards charged up to full capacity for launching torpedo planes. Normally, high pressure air must be cut in to the L.P. air system for degassing planes. All planes on hangar deck are at all times degassed, and the L.P. air compressors are of insufficient capacity to meet these demands.

(d) Condensate filters. The 3 $\frac{1}{2}$ " globe valve in re-circulating line of No. 3 filter failed. The seat of the valve body broke in two parts, allowing water to pass through. Valve could not be repaired, but was replaced by a similar valve removed from the fresh water tank filling line to B-405-W. Filling line was blanked off. Two filter packs in the 2nd pass of No. 3 filter were replaced. Spring-holding pin had come loose, allowing packs to disintegrate.

(e) Airplane elevators. No. 1 elevator failed. An open lead was found in "slack cable" switch, and in locking bar switch. Elevator control start-stop switches were grounded out from water due to improper drainage of switch box. Drain lines have been enlarged and all push button stem guides extended, with an overlapping shield on push buttons to prevent entry of water into switches.

(f) Main engines. Both main engines are in need of overhaul; requiring new piston rings as well as general check for clearances of all bearings, and wearing surfaces.

ENGINEERING OPERATIONAL REPORT (CONT'D)

(g) Brick work is in very poor condition in No. 3 boiler - showing a crack and bulge in back wall.

(h) Ice machines. Both ice machines have given considerable trouble. Knocks developed due to excessive clearances; valves badly worn and condensers badly fouled.

2. To date, this vessel has steamed 63,458 miles since replacement of piston rings, (with the exception of three cylinders), and a total of 89,345 miles since Commissioning.

3. During the past nine (9) months, this vessel has been underway 170 days (4,080 hours); and at anchor 98 days (2,358 hours).

PART VI.

(E) Fueling and Provisioning: During the operation, this ship was fueled by fleet oilers four times and discharged oil to the escorts on fifteen occasions. Standard rigs were used in all instances. On Saturday, 28 April, the U.S.S. BOYD (DD 544) was ordered alongside for provisions. The customary rig was used, except three bags were used alternately making the transfer of stores continuous. In all, one officer and baggage, seven and a half tons of stores and GSK stock and one ton of aviation supplies including 2 FM2 propellers were transferred. Since this was the first time that a wholesale provisioning evolution had been attempted by this ship, the time required is listed below:

- 0618 - Heaving line passed from MARCUS ISLAND to BOYD.
- 0622 - Whip secured.
- 0625 - First load of provisions taken aboard BOYD.
- 0727 - Last load of provisions and GSK stock aboard BOYD.
- 0738 - Last load of aviation supplies, officer and baggage, received by BOYD.
- 0740 - All lines clear.

MEDICAL DEPARTMENT OPERATIONS REPORT

1. (a) The general health of ship's personnel throughout this operation has been excellent. No combat casualties have been sustained, and there have been no serious injuries from any cause. For the first two weeks a sharp increase in cases of upper respiratory infection was noted. These were apparently induced by the abrupt change to a cooler climate and were all mild, except for one case complicated by a virus pneumonia but now recovering.

Also notable has been the increase frequency of acute appendicitis. Six cases have been treated, three from among ship's company and three from vessels of the screen. Five of these required operations, and all experienced uneventful recoveries. Every case followed an acute nose and throat infection and seemingly developed as a secondary complication.

Average number of bed patients, from 21 March through 29 April, has been 5.5.

(b) The analysis of Squadron VOC-1 (squadron completing operations with this ship) are as follows.

During the occupation of Okinawa, the squadron lost five pilots and three were injured. Of the five pilots who were lost, two were shot down by enemy anti-aircraft, one suffered a mid-air collision, and two were lost as a result of operational accidents.

The injuries were from widely different causes. One pilot received superficial wounds in his right upper arm when his plane was hit by enemy anti-aircraft fire. Another pilot was reported shot down by friendly anti-aircraft fire over the beach and received several lacerations of his forehead, a small shrapnel wound in the right thigh, and a bruised left elbow and knee. The third pilot was injured when the cockpit enclosure of his plane was in a shallow dive. He suffered a deep laceration through the left eyebrow and upper eyelid which severed the supraorbital nerve, and is still grounded as of this date.

The morale of the squadron has been excellent throughout the operation. The loss of five pilots has been taken remarkably well. The extremely rapid and unexpected transfer to a new ship at the height of the campaign of VOC-1 has had very little effect. But, at present, as the operation progresses, and as the flying time has reached and passed the 100 hour mark for each fighter pilot, there is a natural need for a normal rest period which should be provided. Little or no relaxation can be had even with reduced operations while one is still in the operating area subject to immediate call. Evidence of the above has been noticeably seen in that the carrier work has fallen off; the landings are not as precise as they were and there has been an increase in number of wave offs.

To compare the present operation with those that we have previously participated in, a chart has been prepared and it should be noted that since 11 February 1945 until 29 April 1945 each fighter pilot has had 200 hours of combat flying with only six days of rest.

In view of the exceptional requirement of spotting over enemy held areas where the anti-aircraft fire is a constant hazard, and with the factors mentioned above, it is strongly recommended by the squadron flight surgeon with full concurrence of the senior medical officer of the ship that a period of two weeks complete relief from combat flying be made available. This should be shore base rehabilitation with a relief of all combat flying.

SQUADRON VOC-1

OPERATION	DAYS IN COMBAT	SORTIES	TOTAL HOURS	AVERAGE NO. COMBAT HRS. FOR EACH VT PILOT	PILOTS KILLED OR MISSING
OKINAWA Mar. 25-Apr. 3. Apr. 6-29	33	1200	4206.1	109	5
IWO JIMA Feb. 11-Mar. 12	30	1157	3226.1	91	1
LUZON Jan. 3-21. 1945	18	506	1711.6	50	1

PART VIII - COMMENTS, LESSONS LEARNED, ETC.

1. This operation differed from others in which this ship participated chiefly in the length of the period of sustained offensive action against the enemy, which extended, for this ship, over a period of thirty-four (34) days. Target missions were omitted on only three days, two of which were given entirely to rearming, provisioning, and exchanging squadrons, and one to fueling. Offensive missions were carried out on other fueling days.

2. The efficiency and morale of both ship and squadrons personnel continued high throughout the entire period in spite of long and heavy operating schedules. From 26 March through 28 April, a total of 1085 sorties were flown of which 783 were over the target and 302 local. Excellent material performance and efficiency also continued throughout the operation. FM-2 and TBM-3 aircraft gave a consistently satisfactory performance, the FM-2 in the face of high time on some planes and engines. Average availability of aircraft was 96.5% for FM-2 and 97.3% for TBM-3. The only consistent source of trouble with the FM-2 was the manifold pressure regulator on the R1820-56W engine. Total inexperience on the part of maintenance personnel plus inadequate maintenance instructions were considered partially responsible. The AD I installation of the FM-2 is considered of little value by the pilots, mainly because of its limited altitude range. It was not used during this operation and amounted to only an additional weight and maintenance problem.

3. Numerous minor oil leaks of all types were experienced in all TBM-3 requiring constant checking and attention. Some carburetor trouble, not of a serious nature, was experienced, centered around mixture control.

4. The sudden acquisition of ATB-ATR and ARC-1 radio equipment in the FM-2 aircraft assigned to VOC-1 precipitated maintenance problems which remained critical throughout the remainder of the operation and resulted in a slightly lower standard of performance than expected. No operating spares were received with either equipment and ARC-1 spare sets were almost 100% defective. Lack of qualified personnel who were familiar with this equipment contributed to the acuteness of the situation and greatly increased the work load.

5. On the whole, deficiencies in personnel allowances for CVEs, especially in the Air Department, continue to be acute. Recommendations covering this subject have been previously made.

6. Atmospheric conditions appear to greatly effect VHF communications, often adversely. However, there is a general lack of knowledge concerning the nature of such effects. Further information concerning atmospheric conditions is urgently desired and, it is believed, could be used toward greatly improving VHF performance, or toward better understanding of its limitations.

7. Inadequate ventilation and high humidity of rockets stowage spaces is believed to have contributed greatly to the high percentage (twenty percent) of misfires of Mk. 7 rocket motors procured at Manus from the USS SIERRA, carried on board since early October 1944. This failure is believed to be the result of rapid deterioration of the black powder igniter because of excessive moisture. Samples of this lot have been retained and will be turned into an ammunition depot for further examination and test. Mk. 7 rocket motors subsequently received were satisfactory with only a negligible number of duds. Rocket motors are still received with old type rocket rail lug bands installed rather than lug bands for the zero-length launcher.

PART VIII - COMMENTS, LESSONS LEARNED, ETC (cont.)

8. During this operation a quantity of Mk. 1 H.E. rocket bodies with the Mk. 157 .02 second delay were obtained and at the same time the supply of conical steel nose plugs was exhausted with no replacements available. The cast iron shipping plugs were substituted when delay was desired. A very large number of duds was reported, the exact percentage not being known because of failure to observe all hits. It is believed that these failures may have resulted from breakage of the cast iron plug on impact and possible rupture of the case itself from mushrooming effect during the penetration permitted by the .02 second delay base fuze. The use of the Mk. 149 instant nose fuze eliminated these duds. No rockets were fired with this fuze unarmed. It is recommended that consideration be given shipping HE rocket bodies with the conical steel nose plug inserted.
9. The supply of shear wire shipped with rocket motors is entirely inadequate. Rockets carried on anti-submarine patrols are generally not expended. Large quantities of shear wire are expended through replacing such wires after arrested landings. Additional shear wire should be furnished activities employing rockets. Bomb arming wire has been used with no reported failures or damage to launchers and is considered a satisfactory substitute for the ten gauge soft copper arming wire.
10. Six FS smoke rockets were employed by the Air Coordinator for target marking with satisfactory results. These rocket bodies were not available in time for more extensive use.
11. Results obtained from napalm bombs have been excellent. Effective fires were started when hits were obtained. Drops were all made from altitudes in the vicinity of one hundred feet. Most targets were inflammable buildings. The pilots had no previous experience, but the number of hits was fair.
12. Bombs were mixed in the 58 gallon tank using 21 pounds of napalm per bomb. The M1 Mod 0 was previously found to be unsatisfactory. A mixer designed and constructed by the ship's gasoline officer provides an effective mix at the rate of fifteen minutes per bomb. This mixer reduces the napalm particles to a powder which is injected into the gasoline and mixed by air. No Xylenol is used. Mixing is done on the number six sponson aft of the door.
13. During this operation twenty napalm sorties were ordered. Information regarding one flight of four planes was received in the night and mixing of the napalm was accomplished on the sponson without aid of lights. Two heavy fires were started by this strike. One bomb was ineffective due to a drop in the water. One possible dud and no "fire balls" were reported out of twenty napalm bombs dropped during this operation. Two E4R1 igniters were used on each bomb; one in the filler cap and one in a tubular bracket welded on the after end of the tank.
14. A description of the mixer employed along with drawings is attached to this part. It is also being forwarded to ComAirPac and BuOrd.
15. Out of nine smoking sorties attempted, six tanks failed completely and three were partial failures. The age of the FS mixture (twelve months) with resultant corrosion of tanks and fouling of the exhaust gate valve is believed largely responsible. In addition inexperience on the part of maintenance and loading personnel, pilots and operating crews probably contributed to this failure, although directions for maintenance, loading and operation were properly carried out.

PART VIII - COMMENTS, LESSONS LEARNED, ETC (cont.)

16. After the smoking mission instruction in the loading, operation and maintenance of smoking equipment was given all personnel concerned by a BuOrd representative attached to ComEsCarPac, and additional written instructions on handling of smoke were received from ComEsCarPac. It is considered advisable to have tanks flushed and refilled if not used within a period of from six to nine months, to prevent corrosion and subsequent fouling of valves. These tanks had been on board for a period of slightly over twelve months. Efforts were made in port to obtain overhaul service or replacement tanks, but neither were available.

17. Problems involving flight deck handling, spotting, and launching were complicated by lack of uniformity in the radio and rocket launching equipment in the fighters which were variously equipped with ARC-1 plus ART-ARB(MHF) radio gear, ARC-1 gear alone, and ARC-4; some with rocket launchers and some without. In addition, lack of sufficient frequency crystals to equip all planes for all missions made it necessary to divide and specialize certain groups of planes for spotting, others for LCAP, still others for TCAP, and a fourth for support and strikes, or various combinations of these missions.

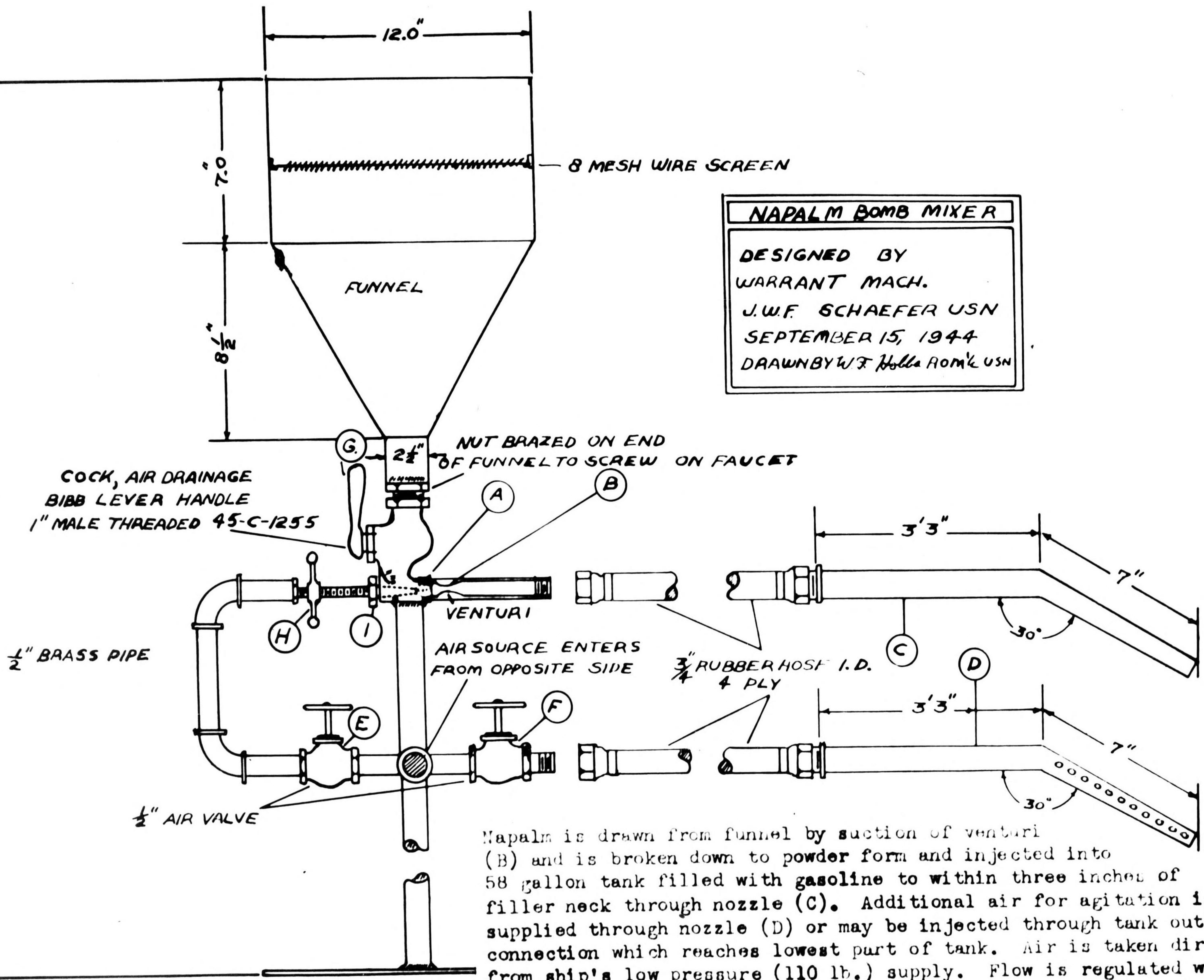
18. This situation plus frequent schedule changes made it necessary to continuously maintain a large number of fighters on the flight deck in such a manner that sufficient planes of the desired combination could be launched on short notice. This was accomplished by spotting all fighters at an oblique angle along either edge of the flight deck with the center open for taxiing. Torpedo planes as necessary were also spotted on the flight deck in a fore and aft position. This arrangement permitted selection of any combination of planes for catapult launching.

19. The pre-dawn ditching experience of an FM-2 pilot emphasizes the importance of frequent instruction and practice in ditching procedure and in operation and use of emergency equipment carried in aircraft. This pilot had trouble in the dark locating the lock pin lanyard of the CO2 bottle in the one man raft and determining how to pull it. He had previously been instructed and checked in this procedure both during training and after reporting to the squadron. His situation became acute as his back pack became water soaked and, although his life vest was fully inflated, reduced his buoyancy to the extent that the seas broke over his head continually. He was dangerously near exhaustion before he succeeded in inflating the raft. The need for including blind-fold practice in ditching instruction and check-outs is indicated by this experience. It should also be noted that the weight of a water-soaked back-pack may dangerously reduce the buoyancy of an individual in rough water.

NAPALM BOMB MIXER

DESIGNED BY
WARRANT MACH.
J.W.F. SCHAEFER USN
SEPTEMBER 15, 1944
DRAWN BY W.F. HULLA ROM 6 USN

OVERALL HEIGHT



Napalm is drawn from funnel by suction of venturi (B) and is broken down to powder form and injected into 58 gallon tank filled with gasoline to within three inches of filler neck through nozzle (C). Additional air for agitation is supplied through nozzle (D) or may be injected through tank outlet connection which reaches lowest part of tank. Air is taken direct from ship's low pressure (110 lb.) supply. Flow is regulated with air valves (E) and (F). Air agitation is continued until desired thickness of mixture is obtained (about ten minutes).