

U.S.S. KEARSARGE (CVS-33)
c/o Fleet Post Office
San Francisco, California

CVS33/3120
11:RBL:rw
Ser: 0130
15 June 1963

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From: Commanding Officer, USS KEARSARGE (CVS-33)
To: Distribution List

Subj: Report of Project Mercury MA-9 Recovery Operation during the
period of 19 April to 16 May 1963; forwarding of

Ref: (a) USS KEARSARGE ser 0200 of 19 November 1962

Encl: (1) Report of the Project Mercury MA-9 Recovery Operation

1. A report of USS KEARSARGE (CVS-33) deployment to the Mid-Pacific area during the period 19 April - 16 May 1963 in connection with the Project Mercury MA-9 Recovery Operation is forwarded as enclosure (1).
2. The report has been tailored to present a compendium of pertinent facts and information that relate to each of the phases of the operation. As many of the background details of MA-9 were similar to those of MA-8, they are not repeated in this report. Reference (a) forwarded the report of KEARSARGE participations in MA-8 and the recovery of CDR SCHIRRA and Sigma 7 capsule. Areas have been flagged where particular attention should be focused to adequately support operations of this type.
3. The successful conclusion of the MA-9 operation in the recovery of the astronaut, Major L. Gordon COOPER, U. S. Air Force, and the Faith 7 capsule by KEARSARGE is indicative of the enthusiasm, motivation, and esprit de corps aboard KEARSARGE. The acceleration and success of future events in our nation's Man in Space Program depended on the success of MA-9.


E. P. RANKIN

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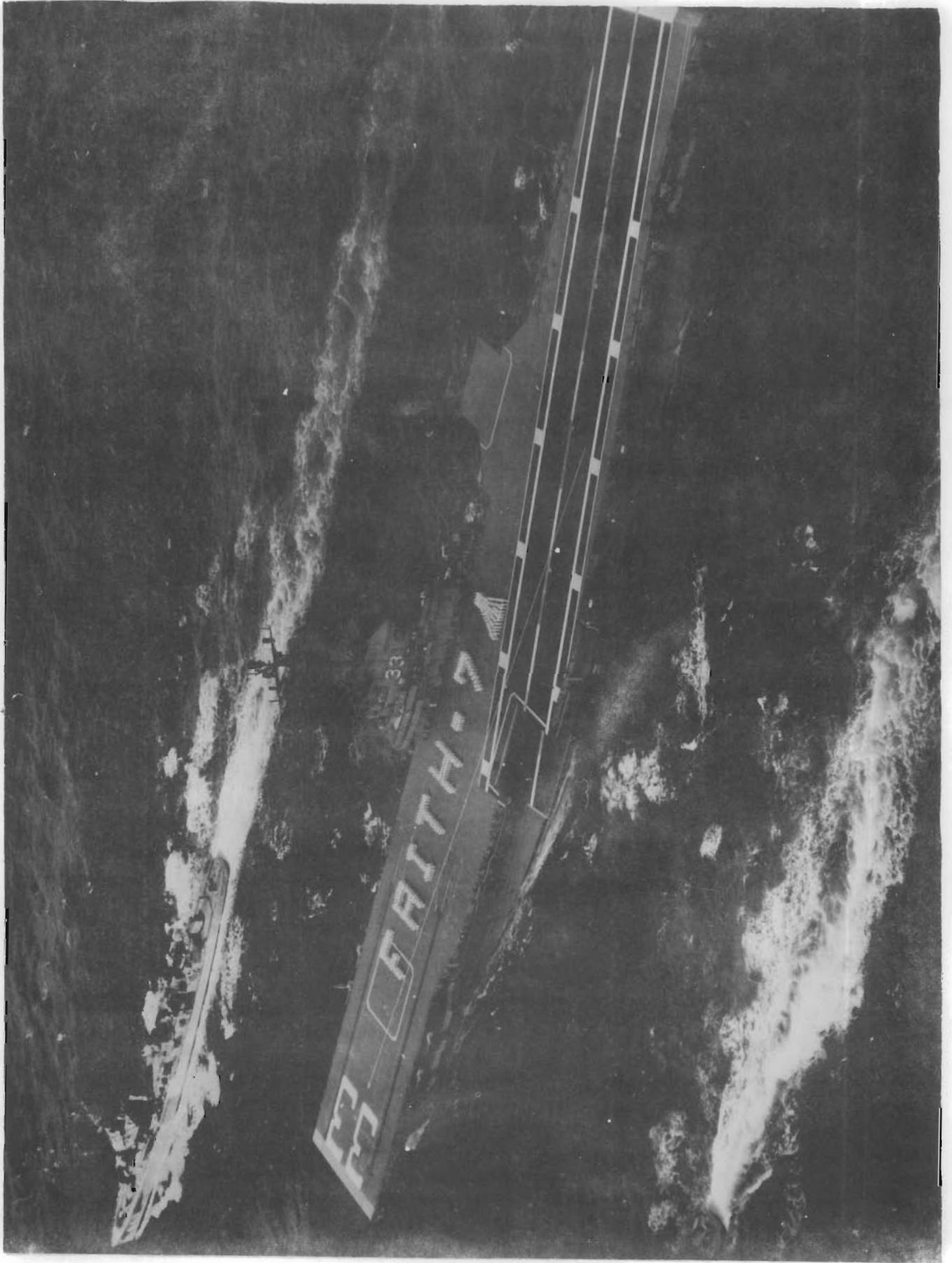
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CHRONOLOGY

APRIL

- 18 Departed Long Beach for San Diego. Loaded CVSG-53 aboard.
- 19 Departed San Diego for Pearl Harbor. Directed CHOP to CTF 31 for special operations.
- 23 Released from special operations. Enroute Pearl Harbor.
- 24-28 Enroute Pearl Harbor.
- 29-30 Pearl Harbor.

MAY

- 1-3 At sea for rehearsal, 175 miles NNW of Oahu.
- 4-9 Pearl Harbor. Embarked CTG 130.1 (COMDESFLOTFIVE), NASA and Press Personnel.
- 10-13 Enroute recovery area.
- 14-15 On station recovery area.
- 16 At 1301 recovered Major Gordon L. COOPER, USAF, Astronaut and Faith 7 capsule.
- 16-17 Enroute Pearl Harbor.
- 18 Disembarked Major COOPER at 1225 via helicopter to HICKAM AFB. At 1500 entered Pearl Harbor.

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SECTION I - NARRATIVE

a. PREPARATIONS AND REHEARSAL

KEARSARGE was designated in January 1963 to be the major unit in the Pacific Recovery Force, TF 130, for MA-9. MA-9 was scheduled to occur in early April but a 6 week postponement was announced in February 1963. This delay permitted KEARSARGE to depart on her WESTPAC deployment via Hawaii almost on schedule.

The preparation efforts for MA-9 had the important advantage of one additional factor that was unknown for MA-8; the experience of having done this before. It was this prior experience that permitted the luxury of being able to take a second look at everything that was planned, and worked the magic of making what had been the untried before, almost routine now.

The task organization for MA-9 remained basically as it had been before for MA-8, with Rear Admiral C. A. BUCHANAN, USN, Commander Hawaiian Sea Frontier, as Commander, Project Mercury Recovery Force, Pacific, CTF 130, and Captain T. S. KING, Jr., USN, Commander Destroyer Flotilla FIVE, as Commander, Mid-Pacific Area Recovery Group, CTF 130.1.

KEARSARGE with Commander Carrier Division FIFTEEN (embarked) departed Long Beach on 18 April, and sailed from San Diego on 19 April with CVSG-53 and detachments of VAW-11 and VA-22 embarked. Rear Admiral C. A. KARABERIS, USN, Commander Carrier Division FIFTEEN, and his staff would temporarily disembark at Pearl while KEARSARGE was engaged in the Mercury operation.

Shortly after rounding Point Loma at San Diego, COMCARDIV FIFTEEN as CTG 14.7 with forces assigned, was directed to report to CTF 31 for ASW operations. This diversion from the original enroute plan provided valuable training in ASW operations. During the 5 days of around the clock operations that followed, 227 sorties for a total of 674 flight hours were flown. On 23 April the force was released from CTF 31 and directed to proceed to Pearl Harbor.

Enroute to Pearl the special communications equipment that had been installed for MA-8, and which had been inactive for several months, was brought on line with NAVCOMMSTA Wahiawa. These tests were commenced on 20 April with the assistance of one officer and two enlisted personnel from Naval Communications Station, Wahiawa riding KEARSARGE. An average of 23 hours per day contact was maintained with the Naval Communications Station for several days. Intermittant outages then began to occur with the AN/FRT-39 transmitting equipment. The material difficulty was isolated, but this experience emphasized the need for having aboard quick-change units to replace defective units. Upon arrival at Pearl, the spare units were provided and they proved their worth by the excellent performance and reliability of the AN/FRT-39 equipment from then on, and through the conclusion of MA-9.

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Also aboard KEARSARGE enroute to Pearl was UDU-1, a six man swimming team. Commencing in March this team had practiced and trained with the designated helicopter crews of HS-6 at Cape Canaveral and San Diego.

Shortly after arrival in Pearl on the morning of 29 April, various ship's officers were engaged in meetings and conferences with representatives from NASA, the press and the Navy commands that were involved in the recovery preparations. The ship had re-activated its special task group of officers that were assigned to act as coordinators for Project Mercury. Fortunately, several of these officers had acted in this same capacity during MA-8. Those who were new to this group quickly learned their responsibilities through study of the previous recovery operation and from the knowledge of their experienced associates.

One of the first conferences was on communications procedures and circuits. A resume was presented by the Commanding Officer of NAVCOMMSTA, HONO, of the increased capabilities that had been incorporated in the vast network required to provide current information to the multitude of stations and units involved. The recovery forces for MA-9 had grown in size and complexity to provide the world coverage needed in this multi-orbital flight.

On the 30th of April a pre-rehearsal conference was held aboard KEARSARGE by CTG 130.1 with the senior representatives from all units of the MIDPAC Recovery Force attending. After the formal briefing by the CTG 130.1 (COMDESFLOT FIVE) representatives a discussion period was held to iron out gray areas of responsibility and control of aircraft.

For the full dress rehearsal, KEARSARGE with CTG 130.1 embarked, departed Pearl on 1 May with a reduced complement of CVSG-53 aircraft aboard and proceeded to an area 175 miles NNW of Oahu. In company were two destroyers, USS BOLE and USS FLETCHER, who would be with KEARSARGE for the remainder of the MA-9 operation. Four other destroyers in groups of two had preceded to areas to the north and south of the area assigned KEARSARGE. KEARSARGE launched 3 helicopters and 2 EA-1E aircraft for two rehearsals; one rehearsal to test procedures for a destroyer recovery, the other to test procedures for locating the capsule some distance from KEARSARGE. Five Air Force aircraft participated in the rehearsals as a part of the total recovery effort. The first rehearsal phase indicated a need for refinements in communications and aircraft control procedures. These changes were incorporated prior to the next phase some hours later. This next and final phase was satisfactory in all respects from KEARSARGE's point of view. Points for further refinement of the recovery force procedures were incorporated at the rehearsal critique which followed the Task Groups' return to Pearl.

Two national network radio and TV teams were aboard KEARSARGE for these rehearsals and photographed background coverage needed for their presentations to audiences during the actual recovery operation.

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During the remaining days in port, 3-9 May, all the final preparations were completed. NASA and the press pool representatives came aboard on the 9th, and Commander Destroyer Flotilla FIVE as CTG 130.1, and staff, came aboard on the morning of the 10th. KEARSARGE departed Pearl Harbor at 1100 local time 10 May for the recovery area. Enroute to the first assigned area with two destroyers, the newly acquired crewmembers from NASA and the press were welcomed and indoctrinated. For the most part these procedures would be more accurately described as the renewal of old acquaintances since a good portion of these guests had sailed on KEARSARGE for MA-8 and the recovery of CDR SCHIRRA. It was a pleasure to see them again and their prior knowledge of the procedures established for their welfare, enabled a rapid and effortless integration into our family.

The total guest list for MA-9 included 65 officers, men, and representatives of NASA, the press, the staff of CTG 130.1 and other Navy organizations. Air Group aircraft flown aboard for the recovery were: 10 S-2F, 5 EA-1E, 2 SH-34G, 7 SH-3A and 2 C-1A. A third C-1A had experienced an engine seizure, requiring an engine change, during turn-up at NAS Barbers Point for the fly aboard on 10 May. This development, however, did not work a hardship since the COD requirements were less demanding than on MA-8, and were efficiently handled by the two C-1A's aboard and supplemented when required by S-2F's.

Prior to arriving on station BOLE and FLETCHER were refueled, and early on the morning of the 13th, a COD (C-1A) aircraft was sent to Midway Island to deliver press material for delivery to Press Center Honolulu. The following day all aircraft were launched to ensure that they and the flight deck equipment were in readiness.

The special communications equipment was functioning as specified.

On the night of the 13th the count down was proceeding according to schedule. New energy sparked the activity aboard ship as word was flashed of the dramatic events unfolding at the Cape. The press spaces were alive from the noise and the numbers of press members and their assistants that were present. This activity was reflected all through the ship until the early hours of the 14th, when slowly it ebbed and was replaced by suspense, and finally disappointment, as MA-9 was held, and then scrubbed for 24 hours.

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b. THE RECOVERY

The one day delay weighed on the imagination, but it did provide a respite to catch up on several small details that had been pressed out of the way for lack of time. All shipboard equipment was again checked and discussions were held with key officers to refine established procedures. As evening of the 14th approached all personnel eagerly awaited the start of the count-down at Cape Canaveral.

Word was passed over the ship's announcing system that Faith Seven was launched at 0205 Midway time 15 May, after only one short delay. From then on the course of action for KEARSARGE was a matter of complying with the existing operations orders of CTF 130 and CTG 130.1 as word on the progress of the flight was received. KEARSARGE took position in area 4-1, and then moved to area 7-1 as COOPER passed the retro-fire point on the fourth orbit. As KEARSARGE departed for area 22-1, another one hundred miles to the west of area 7-1, it appeared that this might be another "text book" flight. Enroute to area 22-1 FLETCHER and BOLE were again refueled to provide them with maximum endurance capability at their assigned positions 50 miles distant from KEARSARGE.

As Faith Seven approached orbit 22 on the morning of 16 May, disturbing information reached the ship. Due to a failure of part of the electrical system in the capsule, the astro gyro system was inoperative and out of stabilization. This required attitude correction, roll-rate, and retro-fire to be accomplished manually. The astronaut was capable of performing these procedures and the GO decision for orbit 22 was given. CTG 130.1 and the Commanding Officer of KEARSARGE were advised that this condition, i.e., manual control, could result in an excessive landing error, possibly as much as 200 miles.

As Major COOPER approached the retro-fire position for the end of the flight, he was briefed on manual retro-fire procedures by LTCOL GLENN from a tracking ship near Japan. At 1145 shortly before retro-fire, KEARSARGE's air operations commenced with the launching of two angel helos and 2 EA-1E for Middle Man relay duties. The S2F search aircraft on the hanger deck were manned and ready for launch in the event Faith 7 was not immediately located upon impact.

At 1145 the astronaut reported he had positioned the capsule in its re-entry attitude and was ready to retro-fire manually. At 1205 the report was received that retro-fire had occurred on schedule at 1203 and 45 sec, by signal from LTCOL GLENN, and that the capsule had commenced re-entry. The three recovery helos were launched immediately. First radar by KEARSARGE occurred at 1218, 184 miles bearing 291°. All radar operators later reported they held a definite target on their scopes with a long tail (possibly caused by ionization). The drogue parachute deployed at 40,000 ft altitude, and at 1220 a sonic boom was heard. CIC reported they were continuing to track Faith Seven and were vectoring the recovery helos toward an intercept position. At 1221 one of the recovery helos reported the parachute in sight about 6 miles distant. KEARSARGE had turned left from 120 to 300°, building up speed to 30 knots. All aircraft and helos were cautioned to remain clear of the area beneath the capsule as it became apparent the capsule would again land close to the ship. Ship speed was reduced to 20 knots and the bow brought further left to 245° to head slightly left of the point of impact.

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The flight deck was crowded with spectators watching Faith Seven swing gently beneath its chute. Finally the capsule splashed into the cooling waters of the Pacific at 1226, 8,800 yds distance almost directly ahead of KEARSARGE. Swimmers were in the water one minute later, as soon as the chute had blown clear of the capsule. Major Gordon COOPER established radio contact with the ship, and reported all was well. He desired to remain in the capsule until it was brought aboard. He also reported he could communicate with the swimmers by shouting and that they informed him the flotation collar was being installed and the ship would soon arrive.

KEARSARGE further reduced speed as she was maneuvered through a right turn into the wind to position the capsule about 300 to 400 feet abeam to starboard. The whaleboat was lowered at 1245, came under No. 3 elevator, and quickly retrieved the end of a 1000' nylon line from the ship. In a moment it was on its way to the capsule, riding smoothly in the slick made by KEARSARGE backing down. The seas became rougher with waves of 6-8 feet and 15 knots of wind as the boat approached the bobbing capsule and attached the line at 1250. Mr. John GRAHAM of NASA briefed Major COOPER and went through a check-off list with him prior to being brought aboard. By gently casting the ship about 30° to starboard from the point it was stopped, KEARSARGE put the capsule in the lee and maintained a slick as it was hauled beneath the ship's crane. At 1258 Faith Seven was hooked on the crane and hoisted clear of the water. It came to rest on the number three elevator at 1301, having completed a journey of almost 600,000 miles; more than the distance to the moon and return. Position of recovery was latitude 27°-22.6'N, longitude 176°-35.3'W. The last page of this narrative gives a resume of the sequence of events from retro-fire until Major COOPER is out of capsule.

The hatch on Faith Seven was blown off on signal from Mr. GRAHAM as soon as the capsule had been positioned and the special handling crew had moved away from it. Mr. GRAHAM, Doctor UPP, and Doctor POLLARD were the first to talk to Major COOPER through the hatch. He indicated again that he was in satisfactory physical condition. A red carpet was rolled out to the capsule and side boys stood by. At 1311, astronaut Gordon COOPER stepped down and was properly piped aboard.

He was physically weak and unsteady, an anticipated reaction from the long hours in a cramped position, but he acknowledged the cheers and the applause of the ship's crew and visitors. He was quickly greeted by Commander TG 130.1, the Commanding Officer, and other ship and staff officers as he was being escorted to the sick bay to begin the medical tests by NASA physicians. Here he also received the congratulatory call from the President and Mrs. Cooper.

A few hours after Faith Seven had been inspected, a COD flight was launched to Midway Island to deliver special instrumentation from the capsule and press material. Faith Seven remained aboard KEARSARGE for its return to Pearl Harbor, and after the initial preparations were completed following its recovery, it was placed on display for all hands to see.

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Examinations of the astronaut confirmed that he was in excellent physical condition. After these examinations he was taken to the Admiral's cabin, dined on steak and turned in for a sound sleep. The next day he breakfasted with the Commanding Officer and CTG 130.1, had lunch in the CPO mess and then joined the officers in the wardroom for dinner. The press and their photographers were given an ample opportunity to cover the presentation by the Commanding Officer of a plaque to commemorate the occasion and a key to the "floating city" of KEARSARGE. Following this dinner he spoke to the First Class Petty Officers and then to the crew who was gathered on the hangar deck. Here he took the occasion to personally thank each member of the swimming team who were the first to have arrived at the scene of his landing.

Early on the morning of 18 May the two C-1A's were launched to HICKAM AFB with the NASA and press people aboard. Major COOPER departed the ship by SH-3A helicopter at 1225 to drop a wreath on the Arizona Memorial commemorating Armed Forces Day, and landed at HICKAM at 1300 for alohas, reunion with his family, a parade through Honolulu, and a reception at Iolani Palace with the Governor, before departing for Houston that evening.

KEARSARGE entered Pearl Harbor once again with its banner, "CANAVERAL TO KEARSARGE" displayed on its starboard side. Newly painted beneath "MA-8" was a banner for "MA-9". KEARSARGE had proved that her success in October was not all luck by this repeat performance to become the only two time veteran Project Mercury recovery unit.

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Resume of Events from Retro-fire to On-Scene Recovery
Termination. All Times Midway Local (Zone - X Ray, +11)

- 1203 - Begin retro-fire sequence.
- 1205 - Coastal monitor has green light on retro-fire.
- 1205 - Retro-fire occurred on time. Attitude good.
- 1206 - Astronaut reports good attitude.
- 1207 - Retro-fire occurred at 1203.45. Landing estimated to occur at 1224.14. Astro controlling with fly by wire system. Cape predicts capsule should impact near nominal landing area.
- 1210 - Launched 3 recovery helos (SH-3A).
- 1215 - Blackout time at 1214.30. Range tracker lost radar contact at 1214.46.
- 1218 - KEARSARGE has radar contact bearing 291°, 184 miles.
- 1219 - Drogue parachute deployed at 40,000 ft.
- 1220 - Sonic boom heard.
- 1221 - Last radar position was 61 miles 290° from KEARSARGE.
- 1221 - SH-3A (helo) has parachute in sight.
- 1223 - All helos have capsule in sight. Altitude about 4000 ft.
- 1225 - Helos are circling capsule as it descends.
- 1226 - Capsule in the water.
- 1227 - Swimmers jumped from first helo to affix flotation collar.
- 1228 - KEARSARGE 4 miles from capsule. Communications established with astronaut.
- 1228 - Major COOPER reports he feels fine. Requests estimate of time before capsule will be on deck of KEARSARGE. Informed COOPER it will be about 25 minutes.
- 1229 - Major COOPER desires to remain in capsule and be picked up by KEARSARGE.
- 1231 - Flotation collar half on. Capsule steady in water, tilting about 20° angle.
- 1233 - Astro reports he has communications with swimmers. They are shouting back and forth through top hatch.

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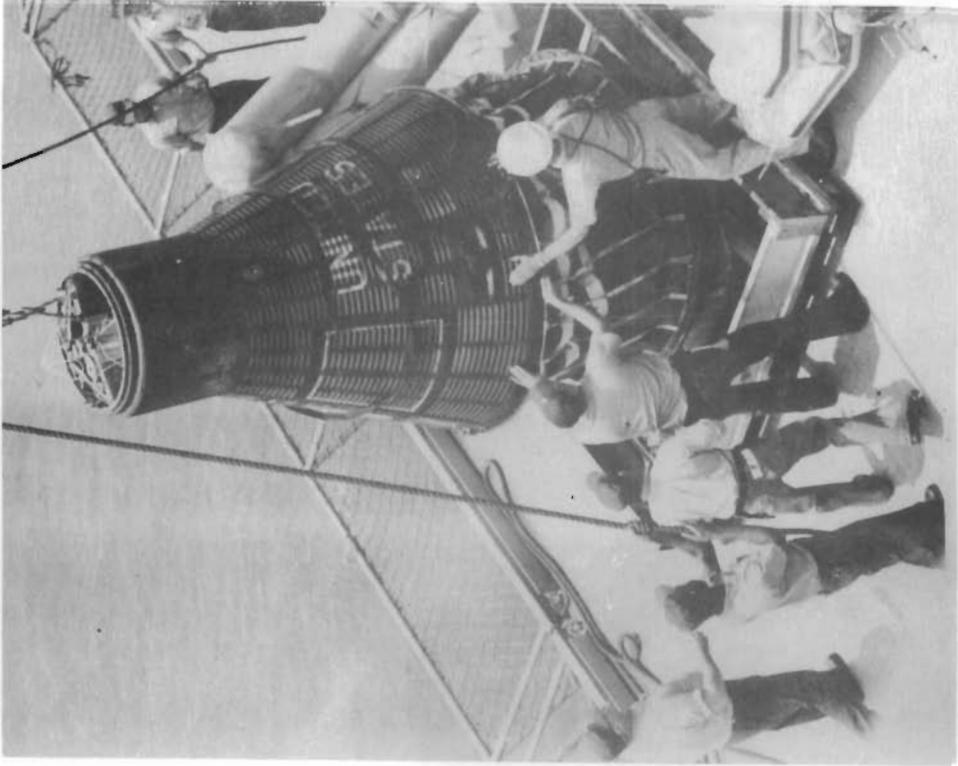
- 1234 - Flotation collar installed. Capsule erect in water. Astro reports he is comfortable.
- 1235 - KEARSARGE slowing and commencing approach. Astro talking freely.
- 1240 - Astro reports he is fine. Says he may be a little bent over when he emerges from capsule since he has been in it so long.
- 1240 - 1 red and 1 green flare at capsule, signal that astro will remain in capsule to await surface craft pickup.
- 1241 - Second helo dropping swimmers to recover capsule antenna can. All land based aircraft released. Astro reports he is still comfortable.
- 1245 - Put whale boat in water.
- 1246 - Whale boat retrieved nylon line from No. 3 elevator to take to capsule.
- 1247 - NASA representative, Mr. John GRAHAM, is talking with astronaut and going over check-off list with him prior to being hoisted aboard.
- 1248 - Motor whale boat approaching capsule about 500 feet from No. 3 elevator off starboard beam.
- 1250 - Recovery line attached to capsule. Line crew at crane commencing to heave in on line to bring capsule to ship.
- 1258 - Capsule under the number three elevator. Crane hook attached to capsule.
- 1300 - Capsule clear of water.
- 1301 - Faith Seven on deck.
- 1303 - Ship's crew laying out red carpet on elevator for astronaut.
- 1306 - NASA personnel inspecting capsule. Exit hatch blown open.
- 1307 - Mr. GRAHAM and Dr. UPP (LTCOL, USAF) talking to astro. Helmet visible in hatch.
- 1308 - Whaleboat retrieving swimmers.
- 1311 - Major Gordon COOPER steps on deck of KEARSARGE. He is piped aboard and accorded appropriate side honors. Greeted by CTG 130.1 and C.O.
- 1315 - Astro escorted to sick bay for Medical examination and physical debriefing.
- 1325 - Project Mercury Test 125 recovery completed. Forces directed to proceed to port. Capsule will be delivered to NASA authorities at Pearl by KEARSARGE.



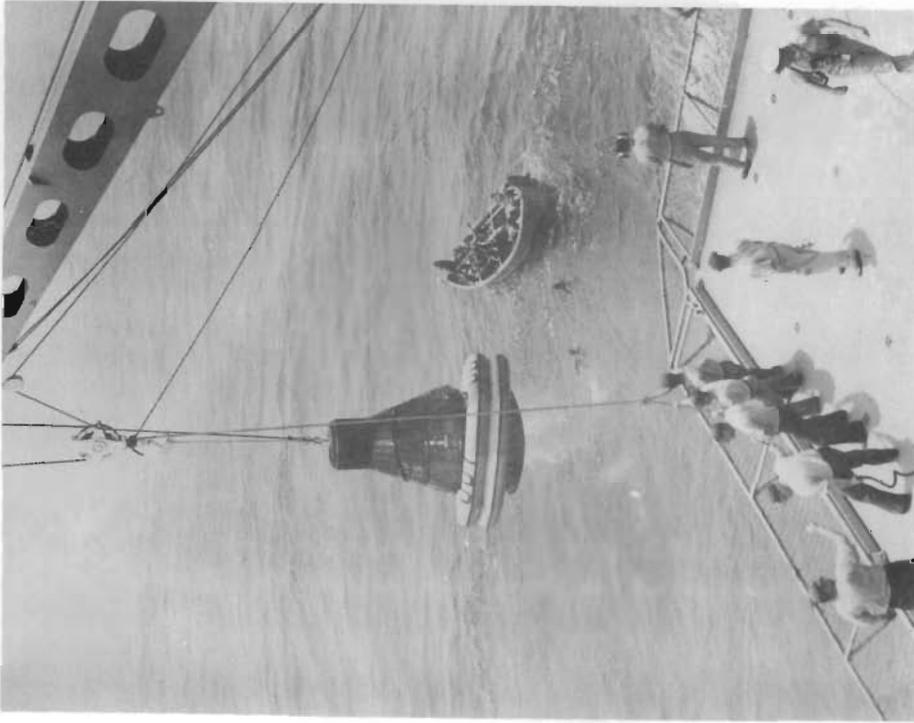
Motor Whaleboat follows capsule as it is hauled towards Kearsarge.



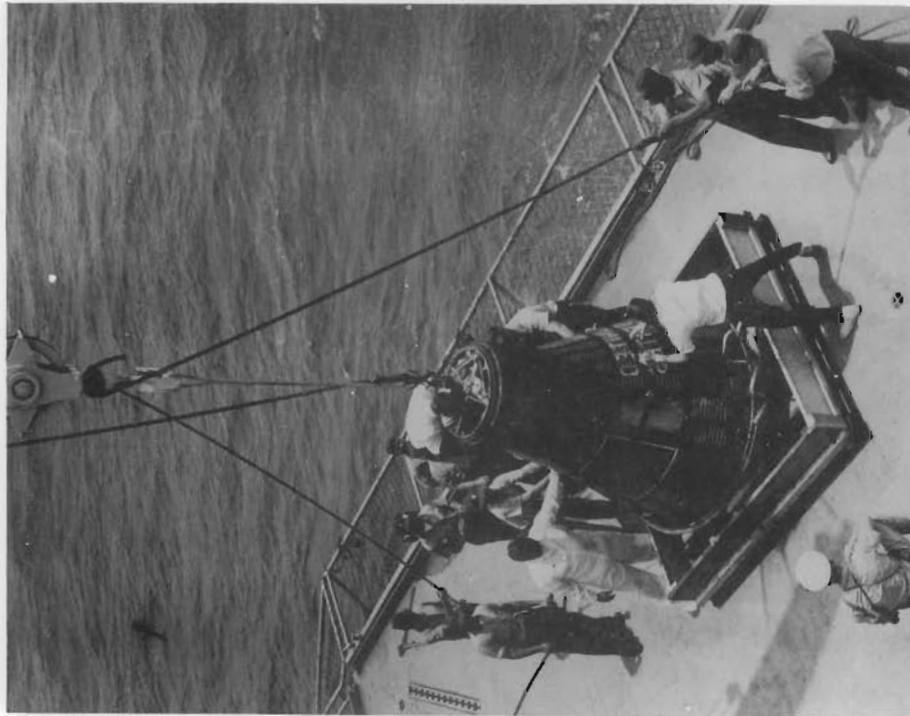
Faith Seven is hoisted clear of the Pacific. Whaleboat standing by.



Flotation collar removed, capsule is lowered onto pallet.



Capsule is positioned over number three elevator.



NASA and McDonnell representatives instal safety strap prior to blowing hatch open.



Astronaut Gordon Cooper is assisted by NASA doctors as he emerges from Faith Seven.



Walking red carpet, Astronaut Cooper is properly piped aboard.



Major Gordon Cooper dines in the chief's mess with Captain E. P. Rankin.



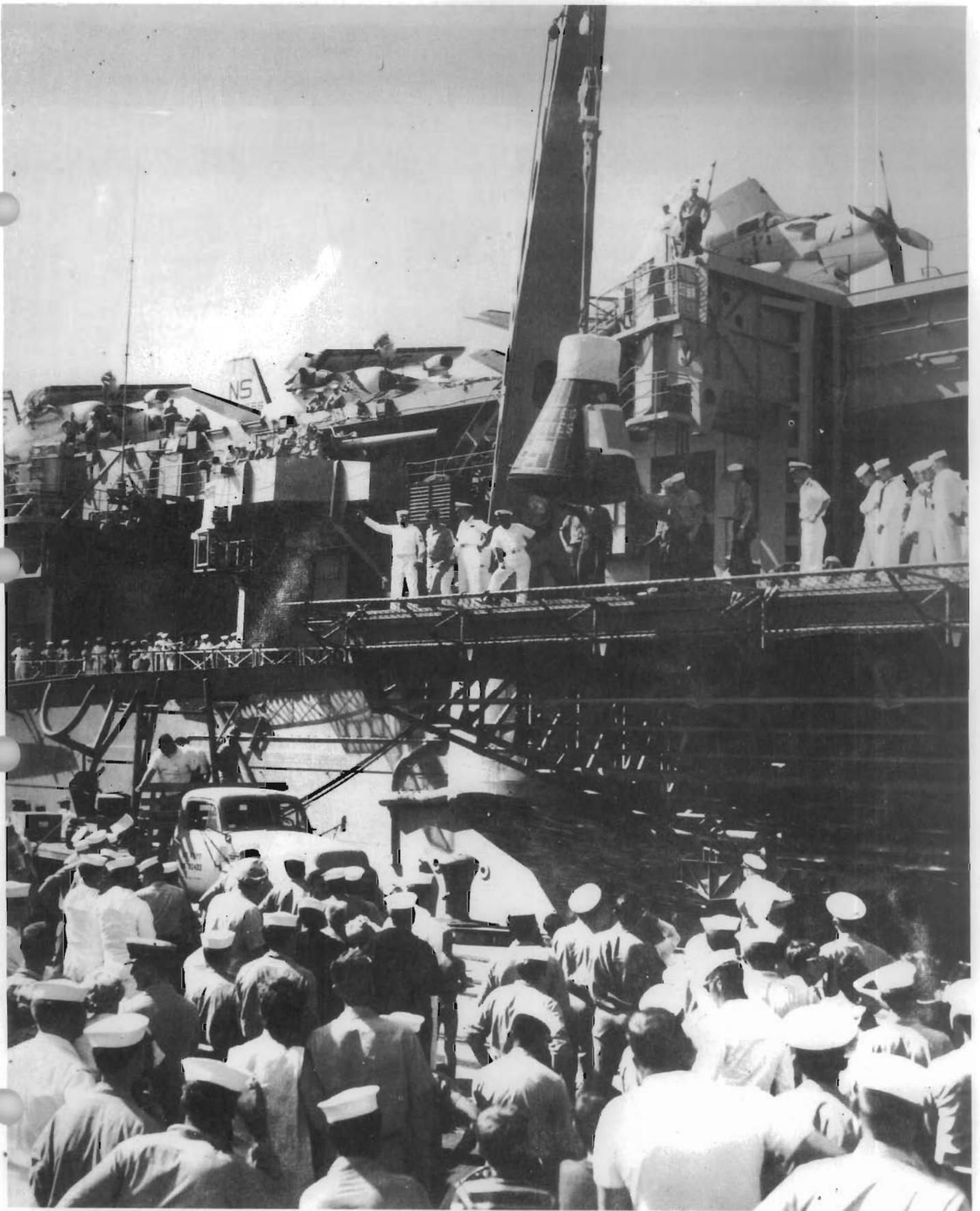
Captain Rankin presents Major Cooper with plaque in wardroom mess.



Major Cooper departs Kearsarge by helicopter for Hickam AFB, Hawaii.



Kearsarge returns to Pearl Harbor, Hawaii with banner on starboard side.



Faith Seven is off-loaded at Pearl Harbor to continue its journey to Cape Canaveral.

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SECTION II - DEPARTMENTAL AND SPECIAL REPORTS

a. ELECTRONICS

1. GENERAL

The majority of the equipment on board was from the MA-8 mission. Enclosure (1) to this section is a list of the equipment for MA-9 that is not part of the normal ship's allowance. This installation provided brute force communications capabilities with 8 teletype (60wpm) channels and three voice slots. The AN/FRT-39 transmitter has a 12 kilocycle band width with 10 kilowatts of power into a discone-discage antenna which presents a standing wave ratio of better than four to one. The TD/410 multiplexing equipment accepts the tones from the AN/FGE-60 and the three voices from the radio phone units or ship's telephones and modulates the transmitter. The receiving section uses a R-390 receiver with the CV-157 single side band converter. The TD-411 demultiplexer receives the audio from the single side band converter and transmits the voices and tones to their respective units. This package permits four, three kilocycle duplex channels simultaneously.

The voice channels on the ship were tied to five pre-wired radio phone units that were installed strategically in the ship. Two telephone lines were connected to the TA-401B/U voice terminal equipment permitting the communication package to be used throughout the ship. Audio lines were in from aerology for the transmission of facsimile.

The radio press arrived with two Collins KWM-2 single side band trans-receivers. There were used on the O7 level with three vertical doublet antennas. The radio press transmitted directly to San Francisco with excellent results. A cable was installed from the O7 level to number three elevator but could not be used because of noise pickup during the operation of high power radar. //

An AN/ARC-27 trans-ceiver was installed at number three elevator with a local handset. It was used to effect communications with the capsule during recovery.

The radio phone units C-745/FRT-15 were installed as follows: One at sickbay, one at number three elevator, two in flag plot, one at flight deck control and one in ready room one at the communications control.

2. PROBLEMS EXPERIENCED

a. While enroute from Long Beach to Pearl the communication package was placed in operation. After about two days of operation the AN/FRT-39 could not be kept in operation because of material difficulties. The tests were continued on the ship's transmitters with two channels available. On arrival Pearl, NavCommSta technicians from the transmitter site repaired the transmitter. Failure occurred again, and a decision was made to supply the ship with 12 spare transmitter drawers from their site. These drawers and two well qualified transmitter technicians from NavCommSta Hono were aboard during MA-9. With these assets the ship was prepared to replace the transmitter drawers rather than trouble shoot the individual circuits if a failure occurred. Subsequently, one failure occurred of about one hour duration.

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b. Some interference was experienced while operating the AN/FRT-39. The receiving antennas located near the transmitting antenna were not used since the static discharge neon lamps glowed continually. Sufficient antennas were available to receive good signals.

c. During communications transition periods static bursts of noise were detected over a large portion of the high frequency radio band. It appeared that the static electricity would build up on objects near the transmitting antennas and then discharge to ground. This effect would appear and disappear at random.

d. Four hours prior to the recovery, MDS (minimum discernable signal) readings were taken on all the radars. They were above standards, and the AN/SPS-43 radar held the capsule at 184 miles.

e. The AN/SPS-12 failed, with a defective T-R tube and receiver crystal. The AN/SPA-50 radar repeater located in flag plot failed about six hours prior to the recovery. The repeater was installed by ship's force two weeks prior to the mission. No spare parts had been received prior to departure from Long Beach and none were available in Pearl Harbor for this equipment. Transistors were removed from one circuit and installed in the other, but the repeater failed again.

3. SPECIAL ASSISTANCE

Five NavCommSta Hono personnel were aboard to direct the operation of the special communications package. LTJG ANSELM, RMC R. J. BLANEY, and RMC R. L. CASSIDY boarded the ship in the states for the pre-checkout of the circuit. ETR2 T. BINGHAM and ETN3 P. SCHARFFE, technicians from the transmitter site at NavCommSta Hono boarded the ship prior to departing for the MA-9 recovery. Their close supervision of the communications package and ability to coordinate efforts with NavCommSta Hono with a common goal of perfect communications provided outstanding circuits.

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4. SPECIAL EQUIPMENT EMPLOYED

(a) FURNISHED BY CNO

- (1) AN/FRT-39C, 10kw PEP, Radio Transmitter
- (1) Discone-Discage Antenna, with coaxial lines and switch
- (1) AN/FGC-60(v) 8 channel audio frequency terminal equipment
- (1) Dummy radio frequency load, TER-5000, 50 ohm in
- (2) R-390A/URR radio receiver
- (2) CV-157/URR single side band converter

(b) ON LOAN FROM OTHER ACTIVITIES

- (3) AN/UGC-6B Teletype Set - Long Beach NSY
- (3) TT-176/UG Teletype Page Printer - Long Beach NSY
- (2) TT253/UG Teletype Repref - Long Beach NSY
- (2) TT-253/UG Teletype Reperf - BuShips
- (6) C-745/FRT-15 Remote Control Units - BuShips
- (1) R-390A/URF radio receiver - Pearl NSY
- (1) CV-157/URR single side band converter - Pearl NSY
- (1) PP-765A/U Power Supply teletype - Pearl NSY
- (2) SB-1203/UG TTY patch box - Pearl NSY
- (1) 52 audio jacks - Pearl NSY
- (1) 26 direct current jacks - Pearl NSY
- (2) CY-597A/G equipment cabinet bays - Pearl NSY
- (4) AM-413D/G audio Amplifiers - BuShips --- two were used
- (2) TD-410B/U multiplexers - NavCommSta Hono
- (2) TA-401B/U Voice terminals - NavCommSta Hono
- (2) TD-411B/U De-multiplexer - NavCommSta Hono
- (1) AN-GRM-33 Frequency Spectrum Analyzer - NavCommSta Hono
- (1) Mod 524D Frequency Counter with HP-525 freq converter - BuShips
- (3) Frequency Isolation Filters (4 to 27 mcs) INDMAN 14 design - 2 NEL San Diego, 1 INDMAN 14
- (1) AN/FRT-39 12 spare drawers - NavCommSta Hono

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b. COMMUNICATIONS

1. GENERAL

Valuable experience gained during MA-8 was our most important asset. Because of this, no major communications problems were encountered.

2. PERSONNEL

CR Division personnel assumed their duties in a two section watch during the entire recovery period. The majority of the radiomen were aboard for MA-8, and were well familiar with the pace of operations. EPDOPAC provided 12 TAD radiomen that did not arrive until the day before KEARSARGE departed Pearl for the recovery area. This did not allow sufficient training time, since none of these men had prior shipboard experience. Personnel were stationed in each transmitter room for the purpose of continuously checking all circuits for transmitter and receiver tuning. One officer was also on watch in Radio 1, in addition to regular Main Comm watches.

3. EQUIPMENT AND CIRCUITS

All equipment functioned in a normal manner. FRT-39 transmitter material difficulties are mentioned in the Electronics Section. The four WRR-2/single-sideband receivers on board were reserved for the most important SSB circuits, as the R-390 receivers (with the CV-591 SSB converters) were found to be poor substitute for SSB reception. On-line termination was effected 100% of the time, so consequently CW ship/shore was not used. All MF/HF transmitters were constantly in use because of the large number of these circuits required. The Task Force Recovery Common net linking all MidPac and WestPac units was highly effective in MA-9, due to special attention given to antenna selection and receiver tuning. In MA-8, this circuit had been a major source of trouble.

4. TRAFFIC FLOW

All DD's in the Task Group sent their ship/shore traffic via Task Group CW net to the carrier for relay on the NavOpNet channel. This caused severe overloading of the CW net, and created a backlog of high precedence traffic at peak periods. Generally, traffic flow was smooth. Most voice transmissions received on ckt 12 were backed up on RATT (Circuit 13), and again minutes later on the Fleet Broadcast.

5. PRESS TRAFFIC

A total of 417 press messages were sent from KEARSARGE. Originally, one 60 WPM RATT press circuit was planned, which proved adequate for most of the time, running from T-72 until return to port. For the few hours following the capsule pickup, another 60 WPM channel had to be activated. Two radiomen were utilized as tape-cutters, and handled the traffic flow smoothly.

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c. COMBAT INFORMATION CENTER

1. MISSION

CIC's functions during the recovery of the MA-9 capsule were to control the assigned aircraft, afford safe separation in both VFR and IFR weather and plot all available information to enable the position of the capsule to be determined.

2. FORCES

The following aircraft were involved in the recovery:

2 HC-54, 4 JC-130 (AF), 1 HU-16(N) (search and homing aircraft).
6 EC-121(N), 2 KC-135(AF) (aircraft assigned radar, radio relay and telemetry).
2 EA-1E(N)* (AEW Middleman and Helo control aircraft).
3 SH-3A(N)* (pick-up aircraft)

*Launched from KEARSARGE

3. CONCEPT OF OPERATIONS

All aircraft other than those launched from KEARSARGE had assigned stations for the recovery. The Air Force search aircraft equipped to home on the SARAH beacon contained in the capsule, were the primary locating units. Upon the receipt of a calculated landing position for the capsule, the search aircraft were to steer for that position and switch to the homing mode of their UHF radios. This necessitated switching from UHF to VHF for air control. Separate air controllers were used for each air control frequency to avoid loss of communications with aircraft not switching radios. The other aircraft in the area relayed the astronaut voice circuit to the communications center at Wahiawa and recorded the telemetry signals from the capsule. The AEW aircraft were to be launched 30 minutes prior to impact and positioned to take immediate control of the helicopters if the landing area was beyond radar range of KEARSARGE. Helicopters were to be launched 10-15 minutes after retro fire (about 5-10 minutes before impact) to expedite recovery in the event the capsule was sighted visually from the ship. Provisions were made for the AEW aircraft to use Middleman and Bellhop if the range of the impact area from the ship was too great for normal radio reception. The primary means of receiving information during recovery was to be the UHF and VHF control frequencies. An important secondary system was an HF frequency link, with the helicopter co-pilot acting as narrator. During the phase when the helicopter pilot was talking to the astronaut on UHF, the co-pilot was to report the progress of the swimmers and the activity around the capsule.

4. RECOVERY

Net recorders were assigned to copy voice communications received over UHF, VHF, and HF air control circuits and the SSB command net. Messages were pre-numbered and labeled with the circuit name. Carbon paper was used to provide Flag with a copy of each message for reconstruction and record

purposes. Information was usually duplicated over several circuits, so a supervisor was assigned to sort and filter the voluminous flow of incoming traffic. A complete plot of ship and aircraft positions, bearings reported, Datums, etc. was maintained on the DRT. The plotting sheet had previously been marked with search areas, ship and aircraft stations and the expected capsule re-entry track. Shortly before re-entry, all personnel on radar scopes were given the expected approach bearing of the capsule and a count-down was commenced to the expected time of radar detection. At 1218, one minute later than expected, the radar operators using the SPS-43 radar detected the capsule on the briefed bearing. It plotted:

<u>True Bearing</u>	<u>Miles</u>	
291°	184	Radar on 11
290°	140	sec. sweep
290°	112	
290°	84	
290°	61	

The capsule disappeared on all radars for 3-4 minutes, probably because of its elevation and proximity to the ship. At 1220 the SPS-8 height finding operator detected the capsule and parachute 283° true, 4 mile range and 11,000 ft. altitude. He tracked it until impact.

5. POST EVALUATION

Using the re-entry curves in the NASA sighting guide, the capsule was at an altitude of 150,000 ft. at initial radar detection. Initial speed, computed from radar pips versus antenna rotation rate, was 13,000 knots. The information obtained from radar detection of the capsule was superior to the MA-8 shot when the radar operators temporarily failed to continuously plot the path of the capsule. On this recovery the re-entry was carefully observed on the SPA-50 large display radar repeater and the size and shape of the pips were outlined in grease pencil. The first pips detected had a transparent appearance and they became more dense as the capsule closed. A very distinct pip shape was noted as in the following tracing:

o-----Sweep center



Actual size

SPA-50 on 350 mile range scale

SPS-43 Radar

112 Mile Range

The transparent appearance and unusual pip shape are believed to have resulted from radar returns on the ionization created by the capsule during re-entry.

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6. RECOMMENDATIONS

The following is a list of recommendations gained during rehearsals and two actual recoveries. Most of these were in effect for MA-9.

- a. A representative of Aircraft Carrier CIC attend Air Force pilots briefings if possible to assure uniformity of recovery instructions.
- b. Assign a man to filter and report important message traffic to CIC Officer and CIC Watch Officer. The volume of traffic makes it impossible to read all messages and monitor operations.
- c. Rig a handset with a long extension for use by the officer reporting to the Bridge and Flag Plot. KEARSARGE CIC used a long extension connected to the 42 MC and left the Bridge and Flag Plot selectors down during the entire recovery. The long handset extension allowed the CIC evaluator to observe the re-entry on the SPS-50 then move to the air controllers with the most current information.
- d. Disseminate capsule sighting data to all lookouts and CIC personnel.
- e. Assign IFF codes to correspond with station numbers or aircraft mission.
- f. Be flexible. Additional aircraft and changes of aircraft stations will occur until recovery.
- g. Have search plans prepared in advance and pilots briefed for contingency recovery operations.
- h. Synchronize all clocks prior to re-entry and record re-entry information.
- i. Have fun.

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d. ADMINISTRATIVE AND PUBLIC INFORMATION

1. GENERAL

Although Project Mercury continued to levy an extremely high work load on the Administrative and Public Information organization, past experience from the MA-8 operation was most beneficial in keeping required activity well in hand and to a minimum. Additionally, the large number of personnel both from KEARSARGE and TAD personnel embarked, who had participated in the previous test proved to be helpful.

Information received from other commands, including NASA and CTF 130 prior to the MA-9 test was, in general, more complete and timely than on the previous test. The existence of information including names and numbers of personnel to embark, and requirements of these personnel, was undoubtedly the most important single factor in the improved efficiency of this operation.

The Administrative Assistant and the Public Information Officer shared the duties of Press Coordinator. CTF 130 also embarked a PIO representative to assist as required.

Seven of the thirteen press personnel embarked for the test had been aboard KEARSARGE previously, either for Test MA-8 or for background work for the test. The familiarity of these representatives with the ship, its layout and available working areas materially reduced the problems and confusion which existed on the previous shot.

2. GUESTS

There were no major problems with personnel embarked for the MA-9 test. Sixty-Five people embarked as follows:

DESFL0T 5 - 7 Officers, 16 Enlisted
NASA - 14
McDonnell Aircraft - 2
Communications Personnel - 1 Officer, 2 CPO's
UDU-1 Swimmers - 7 Enlisted
CTF 130 PIO - 1 Officer
UTRON ONE Photographers - 2 Enlisted
Press - 13

The ship riders who had participated in the recovery of CDR SCHIRRA were able to orient those members of their own organization who had not ridden KEARSARGE previously.

After the recovery of CDR SCHIRRA on Test MA-8 approximately 20 additional NASA personnel, mostly those having VIP status, flew aboard KEARSARGE from Midway. NASA elected not to follow this procedure for the MA-9 Test, as Major COOPER would be aboard for only 48 hours. This was beneficial as the ship had to travel about 1000 miles in 42 hours to

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to meet the reception schedule in Hawaii, and would be out of range of Midway for COD runs before personnel would arrive at Midway.

3. PROCEDURES

Inasmuch as the problem of unfamiliar personnel was minimized by the presence of a well oriented "team", working procedures were quickly established.

a. As soon as practicable after arrival of the guests, they were assembled for a briefing pertaining to the ship's routines, rules, regulations, and personal services available, including meal hours, laundry, recreational activities and other pertinent information.

b. General information booklets were furnished to all personnel not regularly assigned to the ship.

c. Office spaces were allocated for the use of the press and NASA representatives. Since COMDESFL0T 5 and his staff did not require the flag office spaces, these spaces were made available to NASA and the press. In addition, one of the ready rooms was used as a teletype room. The press room was immediately adjacent to the NASA recovery room in order that the press representatives would be available to the NASA Public Information Officers.

d. Enlisted messengers were assigned to the press and NASA offices throughout the operation. Their primary duties included the logging and delivery of outgoing and incoming press messages. Men for these watches were supplied from throughout the administrative organization.

e. All press messages were handled on a first-come-first-served basis in order that no friction should develop between the representatives of the press. Each page of copy was treated as a separate story in order that the information could be sent as it was received rather than waiting until one whole story had been transmitted before beginning another. Each writer was provided a file of his own material after it had been transmitted.

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PUBLIC INFORMATION

1. GENERAL

Public Information activities concerning the MA-9 test began several weeks prior to KEARSARGE's deployment in April. This consisted, for the most part, of assisting media representatives who came aboard to film and record background material for later use.

NASA regulations appeared to have been eased somewhat in the area of pre-test publicity for the primary recovery vessel. The press, radio and television all published, through interviews, our upcoming participation prior to our departure from CONUS.

The ship hosted several small groups during its pre-test stay in Pearl Harbor. This effort was limited due to our operational commitments but proved very successful.

A port of call booklet for Hawaii was published by the PIO and distributed to the crew. The 32-page production was complete with photographs of special interest sights and recommended attractions of the island.

2. PROCEDURES

Publications during our Mercury participation included:

a. Project Mercury "Welcome Aboard" booklet. This 22 page booklet was distributed to all guests who were aboard for the test. Its purpose was to familiarize guests with the ship and its principal officers, its policies, and ship's service facilities available to them, as well as the telephone numbers of key personnel and shipboard activities.

b. Press Kit. A KEARSARGE Press Kit was constructed and distributed to the press pool representatives. The usual photographs and biographies were supplemented by a roster of key personnel from the ship, Air Group, and Underwater Demolition Team. Information concerning the type of aircraft involved was also included.

c. Daily News Bulletin. The morning news bulletin, "The Morning Kay", was published daily while at sea. Supplementing the wire service copy, editorials by the staff covered many phases of the test.

The Public Information Officer and his staff of four were available at all times to assist members of the press and personnel from the Administrative (X) Division were assigned to members of the pool to assist with camera equipment, etc. Fleet Home Town News Center held the ship and Air Group rosters and released a master story upon our successful recovery. "Home Towners" were also released for active participants in the recovery, i. e. boat crew, pilots, etc.

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Photo releases as well as printed releases were sent to media in our homeport area of Long Beach and to selected military publications.

The PIO and Admin Assistant worked closely with the NASA, PAO, and the press pool in all phases concerning Public Information and media relations. This proved very successful and created a harmonious atmosphere for all concerned.

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e. NAVIGATION

1. NARRATIVE

Navigation for MA-9 was routine. There was good LORAN coverage most of the way out to station. The skies were partly cloudy on most mornings and evenings, but sights on sufficient stars were obtained to have accurate position information.

KEARSARGE arrived on station 4-1 on the morning of 13 May and remained there until the 16th. A weak but usable signal from 2L7 was a valuable addition to celestial data. The moon was in the waning gibbous phase during this period, being at last quarter on the 16th, so it was possible to take sun-moon fixes during the morning hours of the 14th, 15th, and 16th, and to confirm the accuracy of the LORAN line, which ran in a generally SE-NW direction. Strong northerly current was experienced during the 13th, 14th, and 15th, a consistent drift of about six or seven-tenths of a knot throughout the entire day. This current ceased when KEARSARGE left station 4-1 for station 7-1, and the currents thereafter were extremely weak.

On the morning of 16 May, the sky was almost completely covered with a high overcast and broken low clouds. Morning twilight sights were taken on Jupiter, Saturn, and the moon. They were considered so poor, however, that the DR position, which was in close agreement with sounding data from the bank at 27°N, 175-30W, was carried instead. During the morning, the cloud coverage was almost 100%, but some sun lines were taken. They and lines on 2L7 were close to the DR. A fair sun-moon fix was obtained at 1015(x) and an excellent sun-moon-LORAN fix was obtained at 1053(x). Current had been nearly negligible. A sun line at 1149 fell through the DR.

At 1208 KEARSARGE passed through the programmed recovery point, headed into the wind (090°). Word had been received that retrofire and capsule positioning would be manual control and that there was a possibility of an overshoot up to 200 miles. At 1211 a calculated landing position was received which estimated landing a few miles short. The ship reversed course, and at 1221 the capsule came into sight about 4½ miles bearing southwest from the ship. It impacted 8,800 yards away at 1225 and the ship commenced maneuvering to approach for recovery.

LAN occurred at 1242 when the ship was about 1000 yards from the capsule, and an accurate latitude was thereby established. At 1320 with the ship still dead in the water at the capsule's impact position, an accurate sun line was taken through a partial break in the very thick overcast. This and a nearly parallel 2L7 LORAN line crossed the latitude line at the same point, establishing very accurately the impact position at 27-22.6N, 176-35.3W.

After capsule pick-up, KEARSARGE sailed directly to Pearl Harbor. Navigation was routine except that the skies remained nearly overcast the entire time.

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2. COMMENTS

Celestial navigation was used as the primary means. Weather was excellent until the 16th. To increase the accuracy of celestial navigation, the Navigator took a series of three, four, or five shots and averaged them. The Nautical Almanac and H.O.-214 were used.

LORAN coverage was fair in this location, 2L7 being available as a sky wave at night and as a weak ground wave by day. Sky waves were not used because of their suspected inaccuracy. Every opportunity was taken to confirm the accuracy of the ground waves. They were found to be extremely accurate over the entire period that we were in the recovery area and were used with confidence.

Bottom navigation was used when available, but except for the early morning of 16 May was of no use in the recovery areas.

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f. AIR DEPARTMENT

1. GENERAL

There were no unusual problems encountered during this operation. Air operations proceeded smoothly and all launches and recoveries were made without incident. The ship deployed from Pearl Harbor with 10 S-2F's, 5 EA-1E's, 7 SH-3A's, 2 SH-34G's and 2 C-1A's. The total onboard count of aircraft was six (6) less than the previous MA-8 operation.

2. OPERATIONS

The S-2F's were to be utilized for long range contingency search operations if required. They were all spotted on the hangar deck, two in bay one, one in bay two and the remainder in bay three. EA-1E type aircraft were to be used for normal radar search and communication relay. Three were spotted on the flight deck, one on each catapult with the third just aft of the starboard catapult. The remaining two EA-1E's were spotted in hangar bay two. Two SH-34G's were used as rescue helicopters and were spotted forward on the flight deck. Of the 7 SH-3A helicopters on board, four were spotted with rotors spread on the flight deck aft and two were placed behind the island in a folded condition. The seventh was spotted forward in hangar bay one. The first two SH-3A's on the flight deck were to be employed as primary astronaut recovery vehicles. The third was to provide photographic coverage and the fourth was used as a standby aircraft for the launch. The remaining two helicopters behind the island were to be used for contingency operations if required. The two C-1A's were spotted forward in hangar bay one for easy access to the flight deck and to facilitate fly off of NASA and press personnel.

All "go" and contingency aircraft were placed in Condition II one hour prior to scheduled retro-fire. All "go" aircraft on the flight deck were turned up and completely checked out at least once prior to the actual launch. The two "go" EA-1E's and the rescue helicopters were launched just prior to the retro-fire. The three "go" SH-3A's were launched five (5) minutes after retro-fire and were in communication with and circling the capsule on impact. The early launch of the SH-3A's allowed the ship to head immediately for the predicted impact area and facilitated recovery operations. Capsule recovery was made by the ship's crane located aft of #3 elevator. The aircraft were recovered shortly after capsule retrieval.

3. DEVIATIONS

Although three (3) C-1A's were assigned for the operation only two were utilized. The third C-1A was down for engine change at NAS Barbers Point. This caused no problem as onboard S-2F's were used for back up.

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COMMENT

The reduced number of aircraft plus the removal of all ship's boats, except two motor whale boats and one 40' personnel boat, allowed for more flexibility in aircraft movement. Further, access routes to sick bay were less encumbered and capsule working space was increased. An additional bonus was obtained in better vantage points for press and photographic coverage.

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g. GUNNERY

1. GENERAL

Gunnery Department MA-9 preparation commenced shortly after the successful MA-8 recovery. Participating members of the recovery team compared notes and discussed procedures to be used in the next operation. The NASA Post Retrieval Procedures Manual for MA-9 was studied by all supervisory personnel as soon as it became available. Insofar as possible, crew members who had participated in the MA-8 recovery were used in identical tasks for MA-9.

2. PREPARATION

Upon arrival in Pearl Harbor on the 29th of April arrangements were made to obtain the special MA-9 equipment not held on board and to secure the use of a practice capsule. The hoisting straps issued to KEARSARGE were the identical straps used in the MA-8 recovery; and one was oil stained, one had been used to pick up practice capsules and only one was new and therefore acceptable for use on the actual spacecraft in accordance with established doctrine. Since KEARSARGE had sent on to the Museum at the US Naval Academy the original hoisting strap used in MA-8, we were limited to only three straps. The Capsule flotation collar provided for practice was punctured, its CO2 bottles discharged and was delivered unfolded and dirty in a cardboard box. MA-9 Task Force rehearsal was held on the 1st and 2nd of May. The practice capsule was not placed in the water at that time because of an unfavorably rough sea. After return to Pearl Harbor on the 3rd the practice capsule was placed in the water to rehearse techniques. At the first hoist with the ship's B&A crane the skirt failed and the heat shield hung by only a small retaining wire. The skirt area was full of black water and the skirt material had disintegrated from exposure to salt water and lack of proper care and maintenance.

The motor whaleboat crews were exercised in their procedures and ship-to-boat communications were checked while in Pearl Harbor. Several practice hoists were made with another practice capsule.

3. REHEARSAL

KEARSARGE set sail with CTG 130.1 embarked on 10 May 1963 for the MA-9 recovery area. All equipment was re-checked for readiness. A 40 x 7 foot banner was prepared with the legend "MA-9" to be appended to our large "Canaveral to KEARSARGE" banner. In addition, a red carpet was made to use in the welcome aboard ceremony for the astronaut. On Monday, 13 May a complete rehearsal of the ship's recovery procedure was held. The practice capsule together with the repaired flotation collar was placed in the water by the B&A crane. For the practice pick-up the motor whale boat was launched and proceeded to the number three elevator where it received the 3 inch nylon line. This line was reeved through a block near the head of the crane and hand tended on deck. The line was attached to the capsule by boat, the capsule hauled in under the crane and the

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special nylon hoisting strap attached to its lifting bail. The training capsule was then hoisted aboard the number three elevator and set down on the training pallet. During its period in the water the practice flotation collar had lost all CO2 from the lower segment, having in excess of one dozen patched holes. The whaleboat was recovered and the practice completed.

4. RECOVERY

Thursday, 16 May dawned slightly hazy with a 6 foot sea running. After refueling two destroyers, the deck divisions laid out their special equipment in the vicinity of the No. 3 elevator. At 1205 word was received that the retro sequence had occurred on time and that KEARSARGE would be the retrieving ship. The capsule was spotted coming down about 4 miles distant. Upon arrival in the immediate area the No. 3 elevator was lowered, a working bight of about 100 feet of nylon line was faked down on the platform, the special pallet built by the ship's carpenter for the capsule was put in place under the crane head. The motor whale boat was launched and proceeded around to the elevator, just as practiced. It received the nylon line and headed toward the capsule. After the boat left the slick created by ship's backing down, the seas were rough and high and the boat's advance was slow. The radios were drowned out by heavy spray. Helicopter-dropped swimmers had attached a flotation collar to the spacecraft. The astronaut, Major COOPER, requested to remain inside until aboard the KEARSARGE. When the boat arrived alongside the capsule, the bow hook tried to attach the shepherd's crook to the hoisting bail, but since he was experiencing some difficulty, one of the swimmers standing on the flotation collar took the pole and made the hookup. The capsule was then drawn under the ship's crane by the line handlers on the 3 inch nylon line. The hook was lowered and a swimmer attached the special 6 inch hoisting strap. At this time a combined swell system produced a trough which brought the line up taut suddenly. All components held and the capsule was hoisted aboard as quickly as possible. A crane with a higher speed whip would have reduced the strain on components at this time. The spacecraft was placed on mattresses in the pallet; the flotation collar was quickly removed by cutting the retention cable with a large bolt cutter, and a special lanyard was attached to the hatch removal handle. All hands cleared the area directly in front of the hatch (facing inboard from the No. 3 elevator) and the hatch was blown. NASA medical teams went forward to examine the astronaut. During this interval the red carpet mentioned above was tacked down from the capsule to the inboard lip of the elevator, quarterdeck stanchions were positioned, two sideboys, a boatswains mate and an officer of the deck took their positions. Upon emergence, the astronaut was piped aboard in nautical style. The spacecraft was moved inboard to permit the McDonnell Engineers to remove special instrumentation. After this it was brought back out on the elevator, washed with fresh water and brought inboard again for viewing by the crew and for further assignments and checks.

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5. BOAT OFFICER COMMENTS

With the capsule and swimmers positioned about 500 feet on the starboard beam, the recovery motor whale boat was put in the water. Clearing the port side boat pocket was met without difficulty, however, moderate to heavy seas did hamper maneuverability to some extent.

The first problem encountered by the recovery boat was the complete loss of all radio communications with the ship. Flight deck communication headsets, previously tested with excellent results, were saturated with salt water, as were other backup communication systems, and lost their transmitting and receiving capabilities. From this point on, all communication with the ship depended solely on signalmen. The high state of training received by the boat crew, however, overcame this handicap and proceeded without difficulty.

The hookup of the nylon retrieving line to the capsule was performed with little difficulty. On the first approach, all retrieving evolutions, as well as the recovery of three swimmers, was accomplished. The boat and crew then trailed the capsule as it was reeved in by hand, recovered the remaining two swimmers, and made the final capsule hookup to the crane.

Upon request, the boat then returned to the impact area in hopes of finding the ejected cannister. A thorough search, hampered to a great extent by heavy seas, failed to recover or gain any significant information concerning the whereabouts of the cannister.

Upon completion of the search, two of the swimmers initially picked up by the boat went into the water and were picked up by helo. The failure of radio communications with the ship forced the boat to stand clear an excessive amount of time and rough seas caused the boat to take a considerable amount of water. Upon signal, the coxswain made an excellent approach to the port side and the boat was secured to the sea-painter. Shortly thereafter, the boat was hoisted clear of the water and made ready for sea.

The lack of a slick or lee coupled with 6-8 foot seas and 15 knots of wind did hamper the ease with which a capsule recovery of this type can be made and further demonstrated the overall proficiency and state of training of the boat crew.

6. GENERAL COMMENTS

a. An evolution such as Project Mercury is far too important to receive anything less than the best efforts of all concerned. This includes those to whom falls the less glamorous tasks of preparing and caring for training equipment.

b. Helicopter discipline during this recovery was completely satisfactory from the standpoint of boat interference and noise level. More attention by one of the helicopters could have been devoted to recovering

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the parachute cannister and tending the two swimmers who had been deployed to recover it. By the time the whale boat had completed its mission with the space craft and proceeded to the vicinity of the cannister it had sunk.

c. A minimum of 1,000 feet of 3 inch nylon line should be on hand for recoveries such as this. The two six hundred foot lengths which were procured for MA-8 were spliced together to form one line. This was good working length for the MA-9 recovery and was easily handled both on deck and in the water.

d. Although three different types of transmitter-receivers were on hand in the whale boat and on board the KEARSARGE, all failed to function due to the heavy soaking they received in the whale boat, and visual signal methods had to be employed. A waterproof radio communication system to the boat would have been helpful.

e. A high speed crane would be a highly desirable feature on board recovery ships to ease the initial shock of the hoist during periods of high seas.

f. All recovery techniques employed during MA-9 were satisfactory. Publications issued by NASA were very complete and adequate in all respects.

g. The AN/ARC-27 UHF transmitter/receiver setup on No. 3 aircraft elevator to communicate directly with the astronaut inside the spacecraft worked very well. The post flight and pre-egress check-off lists were completed expeditiously. Consequently, the hatch removal (by external activation of the hatch detonator) was executed almost immediately after the capsule was placed on the storage pallet.

h. Communications between the recovery station on No. 3 elevator and the bridge were conducted via the LJV sound powered circuit. As in the MA-8 operation this method was completely satisfactory.

7. RECOMMENDATIONS

a. Project Mercury training and special equipments should be carefully inspected by responsible, conscientious personnel, prior to issue to fleet units.

b. The minimum length for the 3 inch in-haul line used in a CVA/CVS recovery should be 1,000 feet.

c. Further investigations be made concerning suitable two way radio communication for the recovery motor whale boat.

d. Dye marker cannisters should be removed in the water, as was done during this recovery. This produces a much cleaner working area for the post-retrieval teams.

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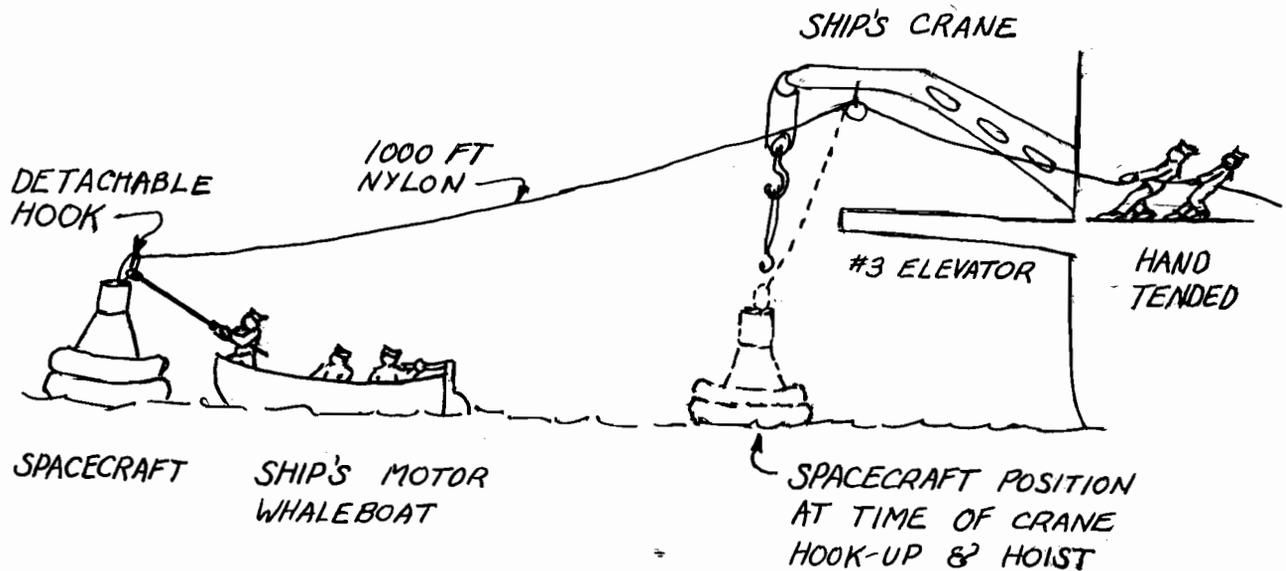
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e. Direct communication between the NASA and ship personnel outside the capsule and the astronaut inside of the recovery station should be set up using the AN/ARC-27 UHF radios available in naval aircraft usually on board the carrier.

CAPSULE RECOVERY PROCEDURE



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~~CONFIDENTIAL~~h. SUPPLY1. GENERAL

MA-9 served to prove that the wisdom of redeploying KEARSARGE as a recovery unit after MA-8 was a very wise one. All of the special electronics equipments, the 2700 detail repair parts which were never off-loaded, as well as nylon line, cradles, flotation gear and other special material purchased for MA-8 was amortized over this second recovery. While \$8,500 was required in direct support of MA-8, only \$2,800, mostly in photographic consumable materials, was required for MA-9. Not a single long breath on a needed shortage appeared. There was not a single CASREP and not a single AOCF Aircraft. The FAITH 7 support picture was a comparatively easy one.

2. HOTEL SERVICES

As before, the reputation of the KEARSARGE for spirit, hospitality and wardroom gastronomic delights was at stake. The attitude of stewards again was peerless. The personnel responsible took pride in producing the special services freely given, the Baked Alaska and the rare steaks and roast beef. NASA and the press remain our friends. The extra loading of VIP guests required some additional stewards from other sources, promised help from EPDOPAC was tardy but arrived in the nick of time. Barbers Point was uncomplaining and generous in their cooperation.

Commissary did their usual outstanding job aided by newly rehabilitated mess decks providing individual seating pleasure for all hands at 4 man tables, each color-coded to the several mess deck areas. SCHOLL packs of 5 gallons of milk have finally arrived at Pearl, eliminating the mess of 1/2 pint cartons and their expense besides. A favorite here is fresh pineapple and cottage cheese. Loading of commissary items as well as all stores had to be achieved by man power and ship's crane while at Pearl Harbor Shipyard, Berths Bravo.

3. SUPPLY PROBLEMS

Transportation and equipment services in support of a carrier at Pearl Harbor need to be reappraised. The services of shipyard mobile crane, for example, were quoted at an unrealistic price of \$60 per hour and far out of OPTAR range. There is no conveyor belt equipment available at the Bravo piers at Pearl Harbor. The allowance for transportation vehicles was provided. However, the pool could not furnish substitute vehicles for maintenance breakdowns which lost 6 days and handicapped logistic support. Fork trucks also were not available at the shipyard and the ship used its own on the docks.

The Sales Division of Supply was fully stocked with photographic supplies and met the tremendous demand with equanimity. Astronaut lighters and stationery faced incessant demand. Top-off is recommended before leaving CONUS as Hawaiian prices are 15-20 per-cent higher on most purchases because of freight charges to Hawaii.

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i. MEDICAL

1. GENERAL

The Medical Department of the USS KEARSARGE (CVS-33) consisted of a Senior Medical Officer (LCDR), an Assistant Medical Officer (LT), two Flight Surgeons (LT's), a Medical Administrative Officer (LTJG), and twenty-three Hospital Corpsmen.

The ship departed Long Beach, California on 18 April 1963, and proceeded to the Naval Air Station, North Island, San Diego, California, where CVSG-53 consisting of VS-21, VS-29, HS-6 and detachments of VA-22 and VAW-11 personnel, aircraft and equipment embarked. The ship departed San Diego on 19 April 1963, for Pearl Harbor, Hawaii to participate in the MA-9 recovery, arriving on 29 April 1963.

2. LOGISTICS

The department was fully equipped for WestPac deployment. There were no additional requirements.

3. PROJECT MERCURY

On 6 May 1963, twelve chests of NASA medical equipment arrived aboard and was stored in the sick bay ward. An inventory of these chests was furnished the Medical Department and two Hospital Corpsmen were familiarized with the contents of each chest in the event of emergency break-out.

On 10 May 1963 the Medical Department was visited by the NASA Medical Team: CAPT R. A. POLLARD, MC, USA, (Physician in charge); LTCOL UPP, MC, USAF (Surgeon); and CAPT BOLLINDER, MC, USA (Anesthesiologist). It was determined that only the Treatment Room and Sick Officer's Quarters would be required on the recovery day unless emergency surgical procedures were needed.

On the day of recovery no routine sick call was held and only emergencies were seen. This posed no difficulty and all hands gave excellent cooperation. When the astronaut came aboard five corpsmen were available on elevator #3, two to assist in extracting the astronaut from the capsule, one with an emergency ECG machine and two in the immediate background with a stokes stretcher and portable oxygen resuscitator.

The recovery was uneventful and the astronaut was brought to the sick bay examining room for a thorough physical examination, laboratory tests, X-ray, and ECG. He spent a total of 3 hours in the Sick Bay, then proceeded to the Admiral's cabin for further medical debriefing.

Sufficient Medical Department personnel were designated to cover the following spaces in sick bay: laboratory, X-ray and ECG, Pharmacy, treatment room and operating room. In addition, two corpsmen were assigned for the emergency break-out of the NASA medical chests and four

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stretcher bears were standing by on the ward. All doors to sick bay were guarded by marines and only authorized personnel were admitted to the sick bay area.

An active blood donor program had been in effect for the past six months. The requirement for standby donors posed no problem. A total of ten men were designated as emergency donors. Four of these men were on standby in the sick bay during recovery.

4. CONCLUSION

No significant problems were encountered during this recovery. Medical Department personnel were utilized much more extensively on this recovery than during the MA-8 recovery. The full utilization of Medical Department personnel and equipment resulted in a saving of NASA support personnel and costs involved in transporting extra medical supplies and personnel.

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j. AIR GROUP

1. GENERAL

Initial planning and preparation for the MA-9 Operation presented no major problems and the Air Group was well versed on the recovery techniques and search plans. The majority of Air Group personnel on board during the MA-9 operation were also present for the MA-8 recovery which gave us a hard core of trained personnel.

2. SQUADRON PARTICIPATION

a. HS-6's participation in the MA-9 Mercury shot covered a period of two and one half months from 1 March to 16 May 1963. In early March the squadron selected four astronaut recovery teams who engaged in an intensive training program with the two swimmer teams of UDT-12. This training consisted of day and night recovery training, working out standard as well as several contingency rescue methods. In early April three recovery teams traveled to Cape Canaveral, Florida for further training with NASA personnel. Upon arrival in the Hawaiian area, further rehearsals were conducted one week prior to the orbital flight. On the actual recovery three helicopters were launched. The first contained the primary UDT teams which fixed the flotation collar on the capsule. The second helo carried the back-up swimmer team. The third helo carried NASA and press photographers. Upon water entry of the capsule, both swimmer teams were deployed from the helos to attach the flotation collar and to retrieve additional equipment. In addition to the primary recovery evolutions, HS-6 further provided many utility services for transfer of personnel and photography.

b. VS-29 flew 23 sorties in support of MA-9 recovery operations. This included flights to and from NAS Barbers Point, search rehearsal and flights to Midway Island. Contingency search plans were prepared and all pilots briefed in case the location of the capsule could not be determined after it landed. During orbits numbers four and seven all pilots and crewmembers stood by in the ready room in flight gear. At retro-fire time in the final orbit all flight crews were in their aircraft on the hangar deck and were secured when the capsule was sighted visually. During the recovery operations six aircraft and twenty pilots were based ashore at NAS, Barbers Point. During the MA-9 recovery period, 1 May to 18 May 1963, VS-29 flew a total of 46.2 hours at a cost of \$575.47 for fuel and oil and \$257.26 for equipment support. Five aircraft were maintained aboard KEARSARGE and no major maintenance problems were encountered. Approximately 96.0 man hours were expended by VS-29 Maintenance Department personnel during the transfer/acceptance check of C-1A BuNo 146024. The aircraft was inducted into check on 6 May and the work was conducted by AMD Barbers Point with assistance from VS-29. Spark plug problems occurred on the starboard engine during

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the all shops turn-up and were corrected prior to the 1.5 hour test flight on 9 May 1963. All systems checked well and no major discrepancies were noted on this flight. On 10 May the port engine seized as the aircraft was taxied from the chocks for fly aboard KEARSARGE. All indications in the cockpit were normal at the time of seizure and internal breakdown is suspected. The aircraft was turned back to NAS Barbers Point custody on 10 May 1963.

c. VS-21. During the MA-9 recovery period 11-18 May, VS-21 was on board KEARSARGE with five aircraft, 21 pilots and 96 men. Flight operations in connection with this at sea period were as follows:

<u>Date</u>	<u>Sorties</u>	<u>Hours</u>	<u>Mission</u>
14 May	4	6.7	MA-9 Communication and IFF Check.
17 May	1	3.7	S-2F to Hickam and Barbers Point with passengers.
18 May	1	1.5	C-1A to Hickam and Barbers Point with passengers.

During the period that space capsule "Faith 7" was in orbit, five aircraft and crews were in a condition II standby for SAR contingency operations for orbits 4, 7, and 22. Contingency SAR plans were promulgated by reference (a) which was based on proposals drawn up by the CVSG-53 ASW Tactical Board.

A C-1A aircraft BuNo. 146032 was in physical custody of VS-21 during MA-9 operations for maintenance and operation. This aircraft had just completed PAR at NAS North Island and presented no maintenance problems during MA-9 operations.

d. VAW-11 Detachment RCMEO. Between 29 April and 16 May, VAW-11 Det. "R" with five EA-1E's aboard, accumulated a total of 43.6 hours in the rehearsals for and in the actual recovery of "Faith 7". The detachment flew 24 sorties and made 19 final landings aboard the KEARSARGE during this same period. Trips to and from Barbers Point accounted for 14 hours of the total flight time.

On the day of the recovery, two detachment aircraft were launched as standbys to control SH-3A's from HS-6 into the impact area. Additional pilots were flown in the co-pilot position in the aircraft to function as navigators in the event of a search having to be made if for any reason Major Cooper did not land in the immediate area of the carrier. Because of the timely firing of the retro rockers and the precise ship handling of the KEARSARGE the detachment's function in the entire recovery was one of a two plane airborne standby.

Rehearsals went smoothly and the actual recovery proceeded as planned. Electronic equipment in the EA-1E's was at peak performance level, and the detachment remains confident that its contingency mission could have been accomplished successfully if the recovery had not gone as planned.

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3. SUMMARY

	<u>CIA</u>	<u>VS-21*</u>	<u>VS-29</u>	<u>HS-6</u>	<u>VAW-11 Det. "R"</u>
Sorties	16	17	23	56	24
Hours	12	38	46	83	46
Cost \$	180	746	833	2450	1028

*Totals here include flight time to and from Barbers Point which was not included in paragraph 2c above.

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U.S.S. KEARSARGE (CVS-33)
c/o Fleet Post Office
San Francisco, California

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KEAR 1321
O11:DFP:rw
28 January 1963

USS KEARSARGE NOTICE 1321

From: Commanding Officer, USS KEARSARGE (CVS-33)
To: Distribution List

Subj: Project Mercury Liaison Officers; assignment of

1. Purpose. To promulgate specific duty assignments for KEARSARGE Liaison Officers in Project Mercury Test MA-9.

2. Responsibilities. The assigned Liaison Officers provide liaison and originate directives, instructions and operation orders as required.

3. Duty Assignments. The below listed officers are assigned to duties as described herein:

a. MA-9 Project Coordinator - LCDR ZAGORSKI

(1) Coordinate planning in connection with KEARSARGE participation in Project Mercury Test MA-9.

(2) Originate KEARSARGE Operation Order for Test MA-9.

(3) Delegate assignments to other assigned project assistants as required.

b. NASA Liaison Officer - Operations Officer

(1) Conduct liaison with NASA representatives as required.

c. Communication and Electronics Installation Coordinator - Electronics Officer

(1) Coordinate installation of communication and electronics equipment to assure readiness for Test MA-9.

d. Press Coordinator - LT PARKER

(1) Coordinate arrangements for embarkation of assigned press representatives.

(2) Coordinate requirements of embarked press representatives with other ship's officers as required.

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KEARNOTE 1321
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- e. Berthing and Messing Coordinator - Wardroom Mess Treasure/CMAA
 - (1) Arrange berthing and messing for embarked officer/enlisted personnel.
 - f. Public Information Coordinator - LTJG McKINLEY
 - g. Medical Department Coordinator - Senior Medical Officer
 - h. Photography Coordinator - LTJG PETRUSKA
 - i. Additional junior officers will be designated to coordinate other requirements of embarked personnel as necessary.
4. Cancellation. This notice will be cancelled when KEARSARGE participation in Test MA-9 is complete and for record purposes on 15 May 1963.

E. P. RANKIN

J. N. DURIO
By direction

Distribution List:
AIRLANT/AIRPAC CV SHIP INST 5605.1
LIST I (CASE A)
Each Officer Concerned

Enclosure (1)

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UNITED STATES PACIFIC FLEET
U.S.S. KEARSARGE (CVS-33)
CARE OF FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

181700Z April 1963

OPERATION ORDER
USS KEARSARGE NO. 301-63

Ref: (a) COMHAWSEAFRON OPLAN 101-63
(b) COMHAWSEAFRON OPORD 301-63
(c) COMDESFLOT FIVE OPORD 301-63

Time Zone: Use time zone Zero (Zulu) for operations

Task Organization:

(a) Operations Department	CDR D. S. BEDSOLE, USN
(b) Navigation Department	CDR L. W. BROWN, USN
(c) Air Department	CDR R. L. SMITH, USN
(d) Gunnery Department	LCDR F. L. CRUMP, USN
(e) Engineering Department	CDR H. C. STAUFFER, USN
(f) Supply Department	CDR W. O. FOULKES, USN
(g) Medical Department	LCDR S. MARKARIAN, USNR
(h) Dental Department	CDR M. ZUSTIAK, USN
(i) Communications Department	LCDR R. J. DESROSIERS, USN
(m) COMCARASAIRGRU FIFTY THREE	CDR C. B. HAMILTON, USN

1. GENERAL SITUATION

Project Mercury, a part of the U. S. space program being conducted by the National Aeronautics and Space Administration (NASA), has progressed to the manned, orbital flight phase of increased duration which requires planned landings in pre-selected areas of the Atlantic and Pacific Oceans. MA-9 is scheduled to be a twenty-two orbit mission, launched from Cape Canaveral at 1200Z time on launch date. In support of this mission, the Commander in Chief, U. S. Pacific Fleet has designated Commander, Hawaiian Sea Frontier as Commander Task Force 130, and has directed him to plan and conduct recovery operations of the space craft and its occupant utilizing forces assigned. Commander, Destroyer Flotilla FIVE, has been designated as CTG 130.1 and will direct the recovery operations of the space craft and its occupant in the prime recovery areas. CTG 130.1 will be embarked in USS KEARSARGE. This operation order provides for the assemble of equipment, training of personnel, and operations in support of references (a), (b), and (c) (and the revisions thereto).

a. FRIENDLY FORCES. As set forth in reference (a).

2. MISSION

The mission of the USS KEARSARGE for this operation is to participate in and provide support for Project Mercury as directed by CTF 130 and CTG 130.1 in the recovery of the space craft and its occupant.

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3. EXECUTION

The primary tasks assigned to the USS KEARSARGE consist of the coordination and control of air and surface search and recovery operations in assigned landing areas, and the safe delivery of the spacecraft and occupant to a location and activity as directed by CTF 130. A secondary task, if required, is assigned to coordinate and control contingency air and surface search and recovery operations as directed by CTF 130.

a. OPERATIONS WILL:

- (1) Plan and coordinate KEARSARGE's participation.
- (2) Ensure photographic coverage.
- (3) Provide helo transfers (if required) and COD flights for embarked NASA representatives.
- (4) Provide and brief lookouts for recovery.
- (5) Conduct air operations as directed.
- (6) Provide weather information in accordance with Annex A of reference (b).

b. NAVIGATION WILL:

- (1) Provide navigational charts of the local and recovery areas.
- (2) Ensure watch personnel are trained and proficient in group operations.

c. AIR WILL:

- (1) Conduct training and test flight operations as directed.
- (2) Assist Gunnery Department in recovery team training as necessary.
- (3) As coordinated with Gunnery Department be prepared to hoist capsule aboard using the ship's mobile crane in the event KEARSARGE is designated recovery ship. (This is secondary method to the ship's crane).
- (4) Designate capsule working space.
- (5) Designate a route to Sick Bay for the astronaut and ensure that it is unobstructed.
- (6) Designate a route from Sick Bay and/or the Flight Deck to Flag in-port cabin.
- (7) Coordinate fresh water wash down of the capsule with Engineering Department.
- (8) Designate and rope off when directed, safe vantage points from which personnel may view recovery operations.

d. GUNNERY WILL:

- (1) Develop and test capsule recovery technique in coordination with NASA representatives.
- (2) Assume custody and provide adequate storage of retrieval equipment as directed.
- (3) In coordination with Air Department conduct recovery team training.
- (4) Provide motor whale boats with crew for capsule recovery.
- (5) Provide team to render safe all explosive fittings that may be in space craft after recovery.
- (6) Provide and maintain post-retrieval equipment.

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(7) Provide Marine sentries as requested by NASA representatives.

(8) Commanding Officer, Marine Detachment control security for personnel authorized access to certain areas as designated by NASA team leader.

e. ENGINEERING WILL:

(1) Provide fresh water for capsule wash down if KEARSARGE is designated recovery ship.

f. SUPPLY WILL:

(1) Assist all departments in procuring necessary equipment and supplies.

(2) Provide billeting spaces for NASA, medical, news and other embarked personnel.

g. MEDICAL WILL:

(1) Provide personnel and assist NASA Medical Team as required.

(2) Provide working space, equipment storage, and medical supplies as required.

h. DENTAL WILL:

(1) Assist Medical Department as required.

i. COMMUNICATIONS WILL:

(1) Provide communications as required by references (a), (b), and (c).

j. COMCARASAIRGRU FIFTY-THREE WILL:

(1) Provide aircraft and helicopter services for capsule recovery.

(2) Assume maintenance and provide qualified crews when directed for two additional TF aircraft.

(3) Provide COD services as directed.

(4) Provide aircraft and/or helicopter services for training and testing when directed.

k. ALL DEPARTMENTS WILL:

(1) Ensure personnel, spaces and machinery are in a high state of readiness to provide services as required.

(2) Provide assistance to news media representatives and NASA representatives as required.

x. COORDINATING INSTRUCTIONS

(1) Detailed tasks in accordance with Annex B of this Operation order.

(2) This operation order is effective upon receipt for planning and for operations when signalled. This operation order ceases to be effective upon completion of operations and release of assigned units or when directed and may be destroyed by burning without report.

(3) For contacts with unidentified or hostile aircraft, submarines or submerged objects, action shall be in accordance with the current revision of CINCPACFLT INST 03300.2 and COMASWFORPAC INST 03360.2.

(4) SAR in accordance with Annex S, COMHAWSEAFRON OpOrder 201A-62.

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4. COMMAND AND SIGNAL

a. Communications in accordance with references (b) and (c) and Annex C of this operation order.

b. Succession to command in accordance with U. S. Navy Regulations for U. S. Units.

E. P. RANKIN
CAPTAIN, U. S. NAVY
COMMANDING OFFICER
U.S.S. KEARSARGE (CVS-33)

ANNEXES

- *A - Schedule of Events
- B - Roster KEARSARGE's Coordinating Officers
- C - Communications
- *D - Billeting Assignments
- X - Distribution

AUTHENTICATED

D. S. BEDSOLE
COMMANDER, USN
OPERATIONS OFFICER

*These ANNEXES were promulgated and distributed separately as changes occurred. They are not a part of this enclosure.

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UNITED STATES PACIFIC FLEET
U.S.S. KEARSARGE (CVS-33)
CARE OF FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

OPERATION ORDER
USS KEARSARGE NO. 301-63

ANNEX B

ROSTER KEARSARGE'S COORDINATING OFFICERS

1. Concept

a. In order to ensure coordinated effort in support of this operation order, specific duties are assigned to KEARSARGE Officers for Project Mercury.

b. Detailed duties in accordance with KEARSARGE NOTICE 1321 of 28 January 1963, where applicable.

2. Duty Assignments

a. Planning and NASA Liaison Officer	CDR BEDSOLE
b. Coordinator	LCDR ZAGORSKI
c. Electronic Equipment	LT CORSNITZ
d. Communications	LCDR DESROSIERS
e. Capsule Recovery Training	LCDR CRUMP
f. Capsule Equipment	LCDR BRADFORD
g. Medical	LCDR MARKARIAN
h. Press Coordinator	LT PARKER
i. Berthing and Messing	ENS GREER
j. Public Information	LTJG MCKINLEY

E. P. RANKIN
CAPTAIN, U. S. NAVY
COMMANDING OFFICER
U.S.S. KEARSARGE (CVS-33)

Authenticated

D. S. BEDSOLE
COMMANDER, USN
OPERATIONS OFFICER

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UNITED STATES PACIFIC FLEET
U.S.S. KEARSARGE (CVS-33)
CARE OF FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

OPERATION ORDER
USS KEARSARGE NO. 301-63

ANNEX C

COMMUNICATIONS

1. Communications for Recovery Task Force will be in accordance with ANNEX C of COMHAWSEAFRON OpOrder 301-63.
2. For the Operations in the local area KEARSARGE will use frequencies as specified in ANNEX C of COMFAIRHAWAII INST 02410.1M.
 - a. Specific frequencies for special events will be promulgated as necessary for each specific event.

E. P. RANKIN
CAPTAIN, U. S. NAVY
COMMANDING OFFICER
U.S.S. KEARSARGE (CVS-33)

Authenticated:

D. S. BEDSOLE
COMMANDER, USN
OPERATIONS OFFICER

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OPERATION ORDER
USS KEARSARGE NO. 301-63

APPENDIX I TO ANNEX C

RECOVERY FORCE COMMUNICATIONS CIRCUITS

NOTE: FREQUENCIES BELOW 400 IN MCS, ABOVE IN KCS.

CKT NR	FREQ	DESIG	EMIS	NAME OF CIRCUIT
12	3088	E20F	V	TASK FORCE 130 PRIMARY COMMAND AND CONTROL NET.
	5715	E32.3L	SSB	
	6701	E32.3P		
	8972	E32.3R		
	11195	E32.3W		
(P)13231		E32.3Y		
	15061	E32.3Z		
	17985	E30N		
	23245	E32.3AB		
13	FRT-39 AND FGC-60 TO BE SET UP PER NAVCOMMSTA HONO			
14	3237	C3.30G	CW	TASK GROUP 130 COMMON
	6318	C3.30L		
	4625	C30.2C	V	
	8000	C30.1D		
	12215	C30.1E		
	17510	C30.2F		
15	3191	C1A	RATT	MESSAGE AND PRESS TO CVS
	3146	A30A	60WPM	
	6229	A30I		
	8294	A30N		
16	2252	C30.1A	V	VOICE COORDINATION CKT FROM DD TO CVS
	3261	C30.1B		
17	304.2MCS	C25AS	V	AIR/GROUND COMMAND AND CONTROL FOR AIRCRAFT
	3102	E9A		
	5072.5	GLH		
	277.8	C25AC	V	PRIMARY MANEUVERING
	4825	C1G		
	2410	C10B		
	VAR	A1/A2	CW	SHIP SHORE
	296.8		V	
	15016			
	226.2			

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OPERATION ORDER
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CKT NR	FREQ	DESIG	EMIS	NAME OF CIRCUIT
	VAR	B30	RATT	FLEET BCST
	500	L2A	CW	DISTRESS
	8364	L2C		
	243.0	L2E	V	AERO EMERGENCY
	121.5	L2D		
	6723	E19.4C	V	SHIP AIR ACTIVITIES
	3109	E19.4A		ATC CKT
	9035	E11L	CW	
	4710.5	E11F		

Authenticated:

D. S. BEDSOLE
COMMANDER, USN
OPERATIONS OFFICER

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UNITED STATES PACIFIC FLEET
U.S.S. KEARSARGE (CVS-33)
CARE OF FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

OPERATION ORDER
USS KEARSARGE NO. 301.63

ANNEX X

DISTRIBUTION

Operations	(10)
Navigation	(2)
Air	(4)
Gunnery	(4)
Engineering	(3)
Supply	(4)
Medical	(4)
Dental	(2)
COMCARASAIRGRU 53	(7)
Administration	(6)

Copy to:
COMASWFORPAC
COMHAWSEAFRON (3)
COMDESFLOT FIVE (3)
COMFAIRHAWAII
COMCARDIV ONE FIVE

E. P. RANKIN
CAPTAIN U. S. NAVY
COMMANDING OFFICER
U.S.S. KEARSARGE (CVS-33)

Authenticated:

D. S. BEDSOLE
COMMANDER, USN
OPERATIONS OFFICER

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PROJECT MERCURY RECOVERY FORCE, PACIFIC

TF 130	Project Mercury Recovery Force, Pacific	Commander Hawaiian Sea Frontier/CTF 130 RADM C. A. BUCHANAN
a. TG 130.1	Mid-Pacific Area Recovery Group	Commander Destroyer Flotilla FIVE CAPT T. S. KING, Jr.
(1) TU 130.1.1	Area 3-2, 8-1, 18-2 Recovery Unit	Commander Destroyer Division 153 CAPT R. A. HUBBARD
TE 130.1.1.1	Area 3-2, 8-1, 18-2 Surface Search and Recovery Element USS TAUSSIG (DD-746) USS JOHN W. THOMASON (DD-760) (COMDESDIV 153 embarked)	COMDESDIV 153 CAPT R. A. HUBBARD CDR O. K. HALLAM CDR F. A. MITCHELL
TE 130.1.1.2	Area 3-2, 8-1, 18-2 Land Based Air Search Element	Assigned by Pacific Air Rescue Center (USAF)
(2) TU 130.1.2	Area 4-1, 7-1, 22-1 Recovery Unit	COMDESFLOT FIVE CAPT T. S. KING, Jr.
TE 130.1.2.1	Area 4-1, 7-1, 22-1 Surface Search and Recovery Element USS KEARSARGE (CVS-33) (COMDESFLOT FIVE embarked) USS FLETCHER (DD-445) USS JOHN A. BOLE (DD-755) CARASAIRGRU 53 VS-21 VS-29 HS-6 VAW-11 Det. "R"	COMDESFLOT FIVE CAPT T. S. KING, Jr. CAPT E. P. RANKIN CDR C. R. LANGER CDR T. C. YOUNG CDR C. R. HAMILTON CDR R. S. BROOKS CDR H. G. McGRATH CDR R. R. RILEY LCDR J. H. BAUERFIEND
TE 130.1.2.2	Area 4-1, 7-1, 22-1 Land Based Air Search Element. Three JC-130, Two HC-54 One HU-16	Assigned by PACAIRRESCEN (USAF)
(3) TU 130.1.3	Area 5-1, 6-1, 20-1, 21-1 Recovery Unit	Commander Destroyer Division 252 CAPT A. T. EMERSON

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TE 130.1.3.1 Area 5-1, 6-1, 20-1, 21-1
Surface Search and
Recovery Element

USS LOFBERG (DD-759)
USS EPPERSON (DD-719)
(COMDESDIV 252 embarked)

TE 130.1.3.2 Area 5-1, 6-1, 20-1, 21-1
Land Based Air Search
Element. One HC-54,
One JC-130

COMDESDIV 252
CAPT A. T. EMERSON

CDR W. R. HARTMAN
CDR T. A. BUSH, Jr.

Assigned by
PACAIRRESCEN (USAF)

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DECLASSIFIED

DECLASSIFIED

~~CONFIDENTIAL~~

GUESTS ON BOARD KEARSARGE FOR PROJECT MERCURY TEST MA-9

NAME OF GUEST

ACTIVITY REPRESENTED

John GRAHAM
LCOL C. W. UPP, USAF
CAPT R. D. BOLINDER, USA
C. C. FILLEY
CAPT R. POLLARD, USA
E. WULFEKUEHLER
B. JAMES
K. R. HAUGEN
S. E. PARDEN
J. OTTINGER
E. EDMONDS
J. MONCRIEF
E. V. RICHARDSON
W. TAUB
S. MILLER
M. JAMIESON

NASA (Team Leader)
NASA (Team Doctor)
NASA (Team Doctor)
NASA (Recovery Engineer)
NASA (Recovery Physician)
NASA (McDonnell Spacecraft Engineer)
NASA (PAO Representative)
NASA (Recovery Engineer)
NASA (McDonnell Spacecraft Mechanic)
NASA (PAO Film Movement Coordinator)
NASA (Photographer)
NASA (Photographer)
NASA (Photo Courier)
NASA (Photographer)
NASA (PAO Representative)
NASA (Artist)

CAPT T. S. KING, Jr., USN
CDR P. L. NUSCHKE, USN
LTCOL S. E. COLTHORPE, USAF
LCDR W. P. PRICE, USN
LT A. E. ABELE, USN
LT P. R. GIVEN, USN
LTJG J. S. LANE, USN

DESFLOT FIVE
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DESFLOT FIVE

LCDR M. A. MICHAEL, Jr., USN

CTF 130 Public Information Rep.

LTJG ANSELME, USN
CPO BLANEY, USN
CPO CASSIDY, USN

NAVCOMMSTA HONO
NAVCOMMSTA HONO
NAVCOMMSTA HONO

J. CAMPBELL
Fred DIETERICK
Jack REYNOLDS
R. STANKUS
Ken ALLEN
N. ALLEY
Nat FARBMAN
H. GEORGES
Bob MILLER
R. HARBISON
C. PAGE
John FINNEY
R. DIGHTON

CBS Radio Commentator
CBS Cameraman
CBS Soundman
CBS Radio Engineer
Fox Movietone newsreel
Telenews Cameraman
Life Cameraman
Associated Press
United Press International
San Bernadino Sun Telegram
Los Angeles Examiner
New York Times
Associated Press

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Enclosure (4)

DECLASSIFIED

~~DECLASSIFIED~~

~~CONFIDENTIAL~~

NAME OF GUEST

ACTIVITY REPRESENTED

HAMEL, L. (n), USN
ALLEN, T. F., USN
SAILLANT, R. E., USN
SWIFT, B. L., USN
WHETZEL, H. H., USN
ALLARD, R. L., USN
NICKELSON, R. G., USN

UDU-1
UDU-1
UDU-1
UDU-1
UDU-1
UDU-1
UDU-1

CARLISLE, R. A., USN
ECHOLS, P. L., USN

UTRON-1
UTRON-1

McCAFFERY, J. H., USN
BELCHER, B. E., USN
LAAKSONEN, W. H., USN
TESSER, R. S., USN
SLATER, D. E., USN
MULLIS, K. W., USN
PEARSON, K. B., USN
SHIRLEY, G. N., USN
AMAGO, E. M., USN
CORLEY, G. B., USN
WATKINS, J. M., USN
MURCURIO, A. A., USN
KINGMAN, R. (n), USN
WESTERNMYER, E. J., USN
CURTIS, J. H., USN

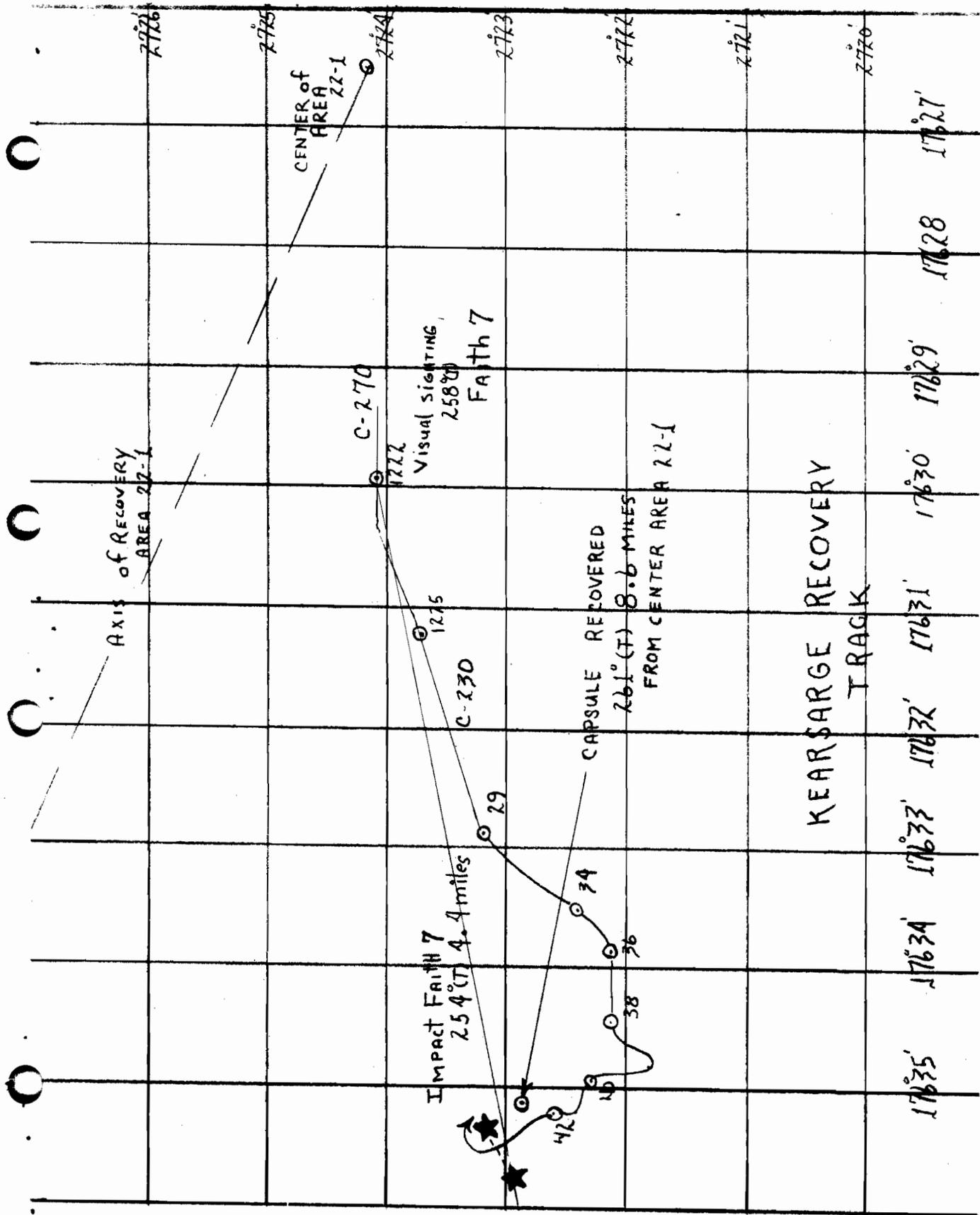
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Enclosure (4)

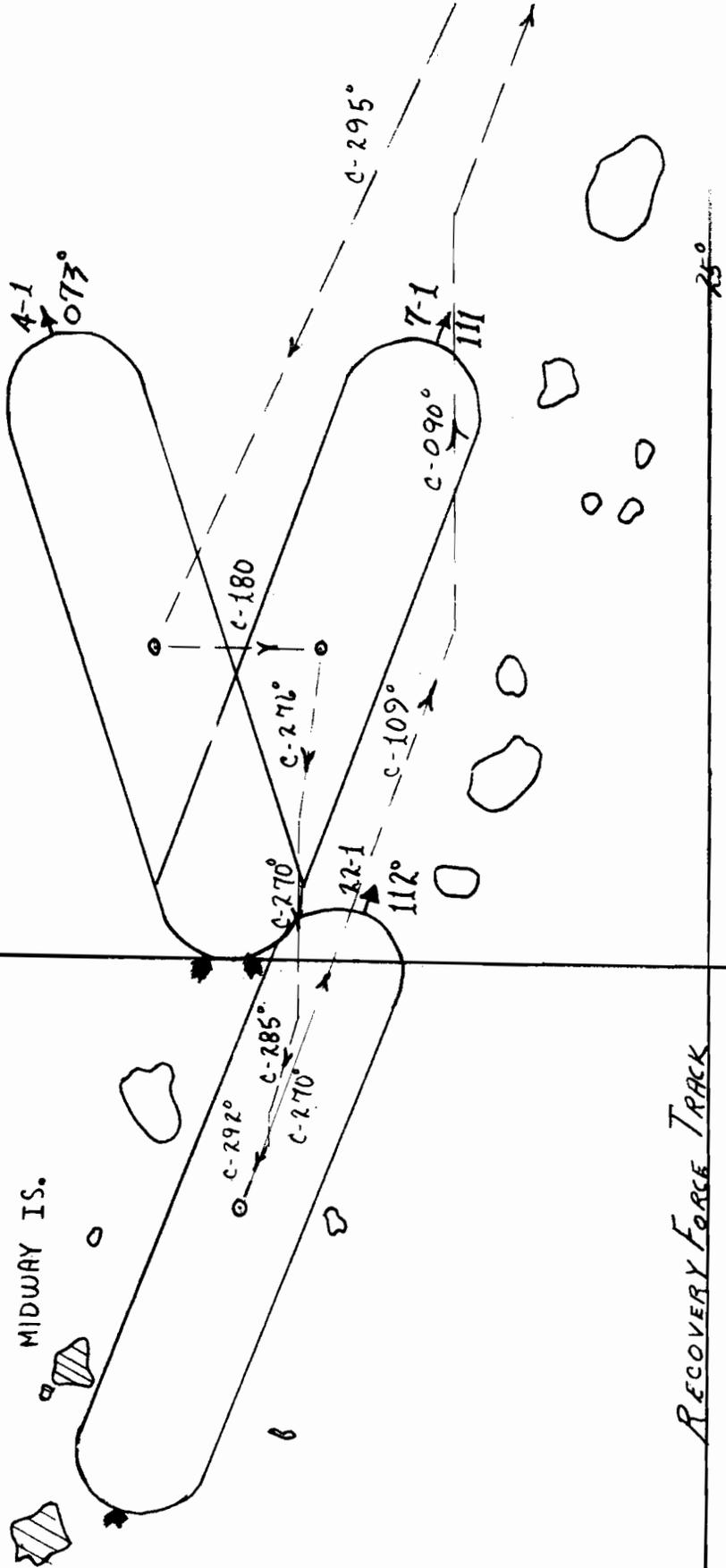
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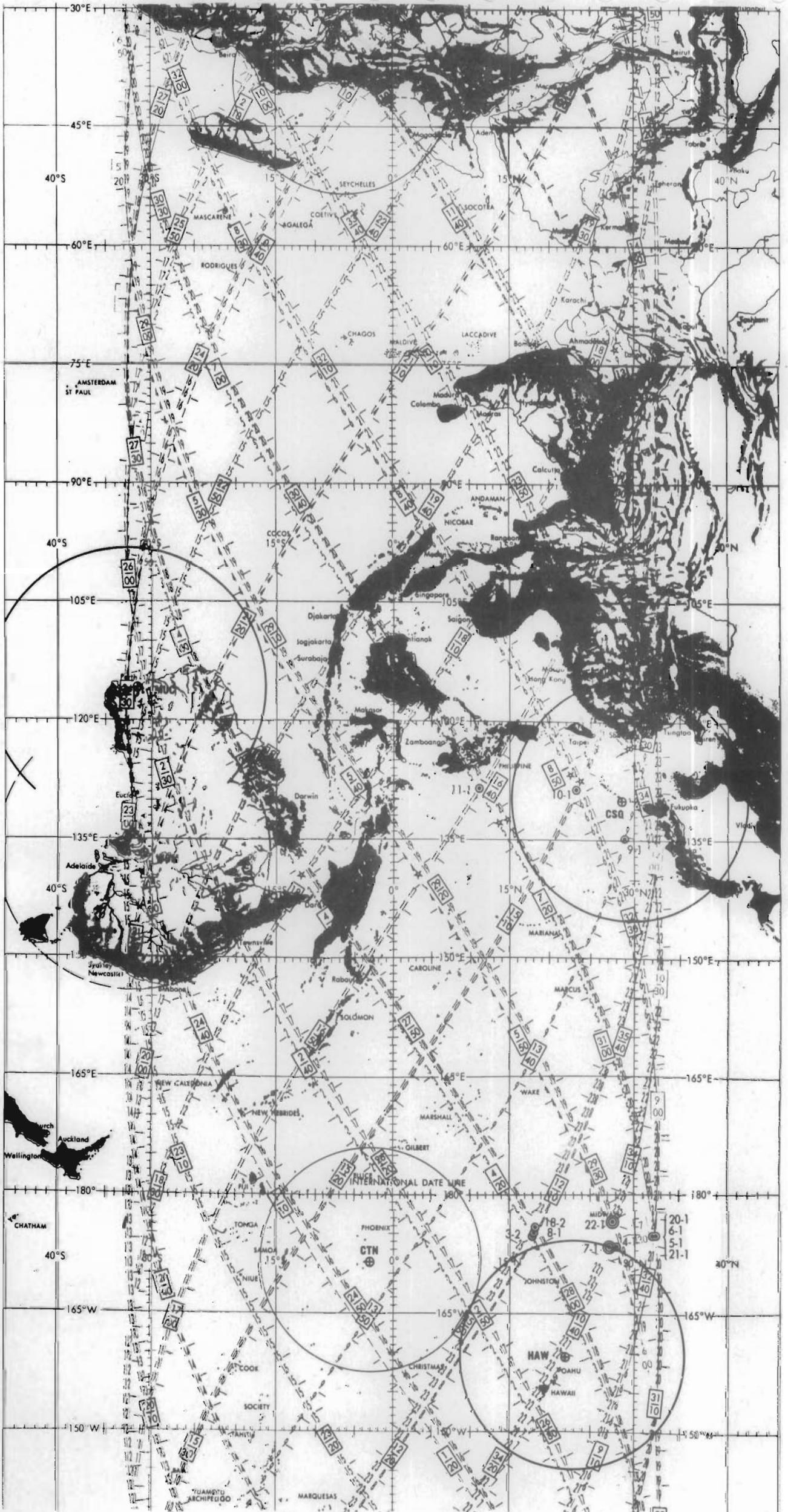


178 177 176 175 174 173 172 171 20°



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ENCLOSURE (7)



LEGEND

- Command Site (coverage limits)*
- Mission Control Site (coverage limits)*
- Site with Radar only (coverage limits)*
- Primary Retro-sequence Initiation Points*
- Planned Retro-sequence Initiation Points*
- Primary [Go-No Go] Landing Areas*
- Planned Landing Areas*
- Scale of Equator 1:52,000,000