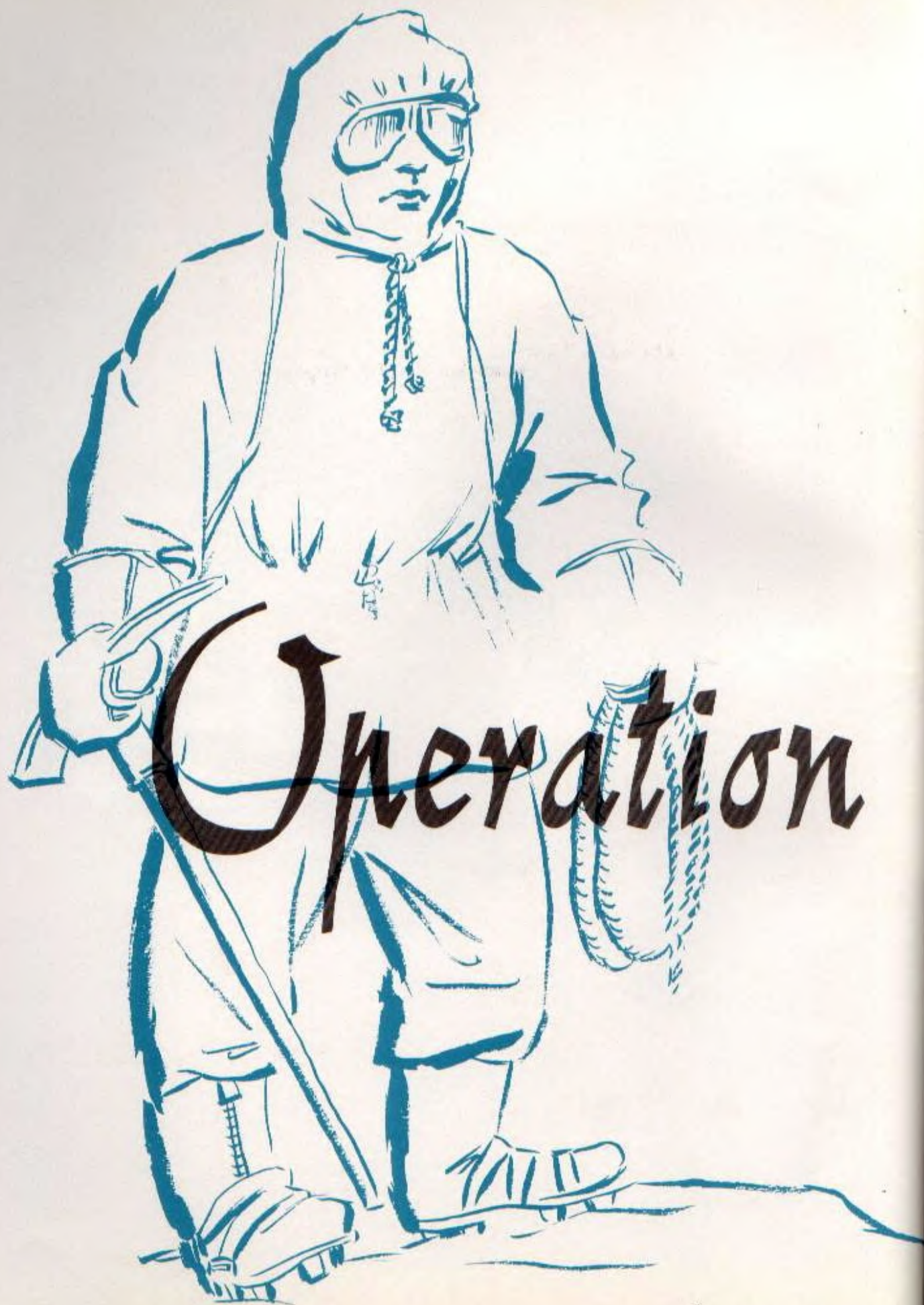




THE STORY OF
TASK FORCE 43

FIRST PHASE: 1955-56



Operation



DEEPFREEZE

1955-56

THE CHRONICLE OF TASK FORCE 43
AND ITS SERVICE TO SCIENCE
IN THE FIRST PHASE OF A PROJECT
OF FOUR YEARS' DURATION

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for the men of Task Force 43
of the United States Navy*

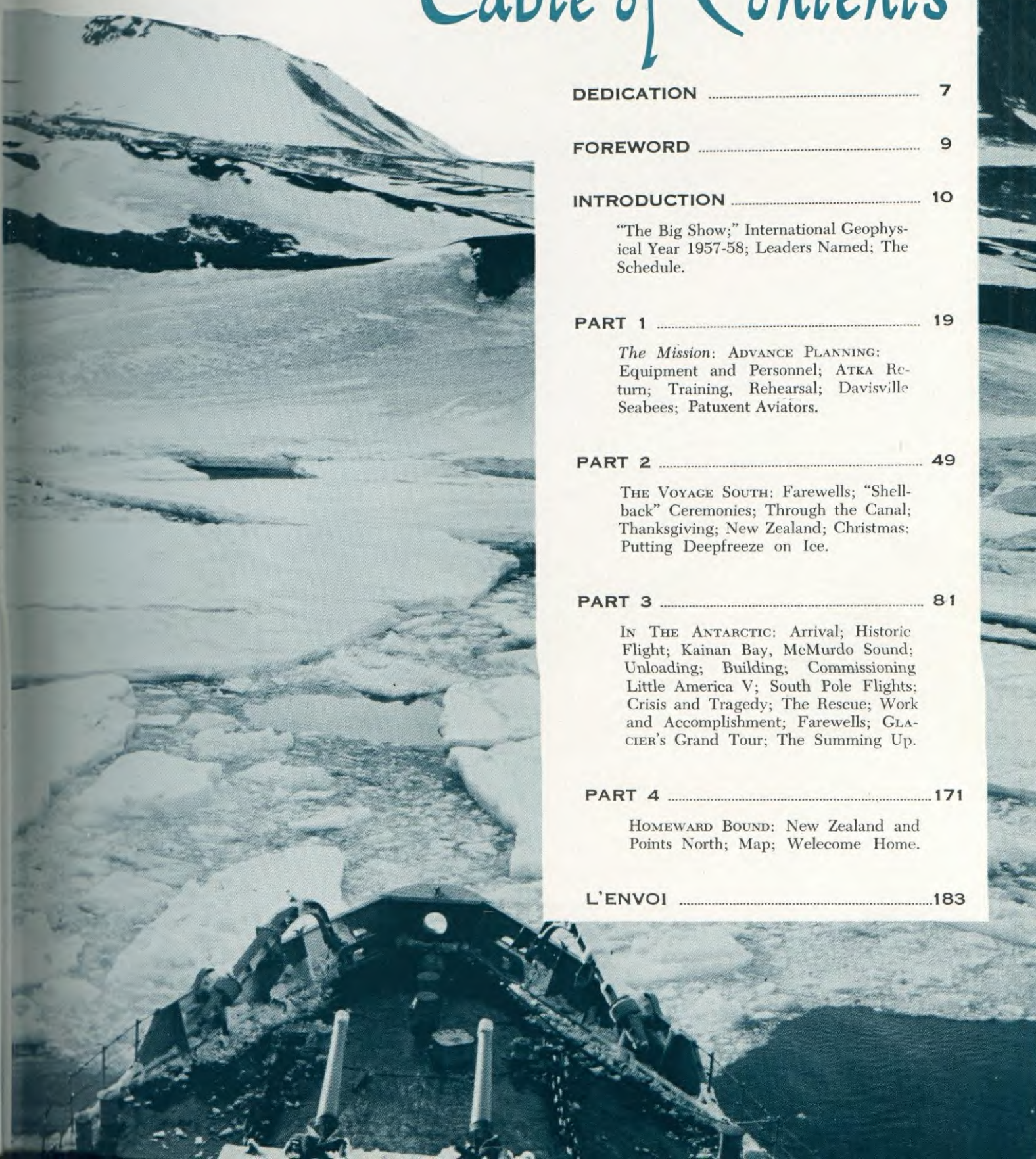
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OPERATION DEEPFREEZE

First Phase: 1955-56

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Dedicated to

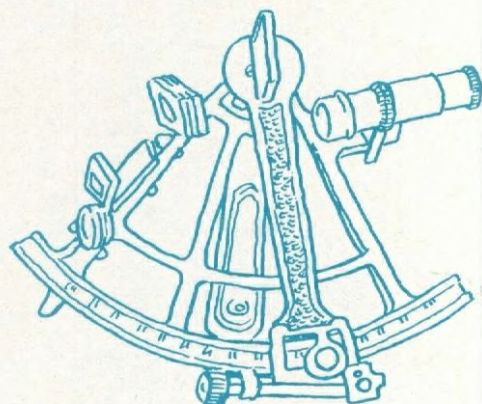


THE "STARS AND STRIPES" WHIPPING OVER LITTLE AMERICA V AND THE MEN WHO PUT IT THERE

THE MEN

WHO MAN THE SHIPS

OF ALL the Men-o-War's-men who have gone down to the sea in ships since biblical times, one group stands apart.



That group numbers a few thousand Navymen who have sailed through the roarin' Forties, the furious Fifties, the shriekin' Sixties and further, to that strange and eerie land at the earth's bottom — the icy continent of Antarctica.

To one group of such men, the sailors of Task Force 43, this book is dedicated as a lasting memento to high adventure and scientific achievement.





THIS IS HOW THE SOUTH POLE LOOKS TO THE AERIAL PHOTOGRAPHER AS HE GRINDS OUT FILM FOOTAGE ON HIS



Where there is only **NORTH**

THE MEN in Task Force 43 can take extreme pride in laying the foundation stone for any achievements that may be made by American scientists during the International Geophysical Year, 1957-58.

Their sphere of operation, the white silent continent of Antarctica. No longer unknown, it has become a household name through exploits of Task Force 43.

The authors of this book have sought to convey the attitude of close teamwork that existed between the staff, the surface units, the air squadron, and the construction group that set out from peaceful America to build shelters and airstrips for further phases of Operation Deepfreeze and the IGY.

While it was impossible to publish a picture and a story of each participant, an effort has been made to carefully screen the thousands of pictures taken during Phase One and come up with this selected group which best tells the Deepfreeze Story.

"The



NEIGHBORING BASES FOR IGY STUDIES 



U.S.A.



U.K.



FRANCE



JAPAN



U.S.S.R.



NORWAY



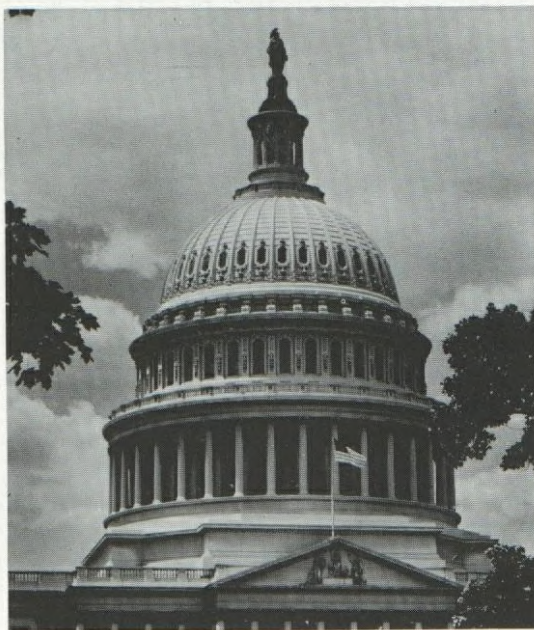
CHILE



ARGENTINA

BIG SHOW"

Staged by 40 Nations,
it will make studies
of the Earth Sciences
from Pole to Pole



INTERNATIONAL GEOPHYSICAL YEAR 1957-58

7 BASES: Little America V; Williams Airpfac; Byrd Station. Proposed: South Pole; Knox Coast; Cape Adare (with N.Z.); Weddell Sea.

12 BASES under U.K. flag (2 not shown).
3 BASES under Australia (A). (1 not shown).
5 BASES under New Zealand (NZ). (3 not shown).

3 BASES (1 not shown): Existing station on Adélie Coast; proposed station inland.

ONE BASE on Prince Harald Coast (proposed).

3 BASES: one on Queen Mary Coast; one in Wilkes Land, one in Queen Maud Land, proposed.

ONE BASE on Princess Martha Coast (proposed).

9 BASES (3 not shown): 3 on Palmer Peninsula; 3 in South Shetland Islands. All existing.

10 BASES (2 not shown): One on Weddell Sea, one in South Orkney Islands, 6 on Palmer Peninsula, all existing.

THE INTERNATIONAL Geophysical Year had all the earmarks of a "big show" from its inception. About forty nations planned to carry out earth science studies from the North Pole to the South Pole and at points between.

The United States accepted the task, with eight other members of the United Nations, to carry out scientific projects in the Antarctic, Mother Earth's least known area. Studies, if successful, would advance world knowledge of meteorology, glaciology, ionospheric physics, geomagnetism, aurora and air glow, cosmic rays, seismology and gravity.

When President Eisenhower announced to the nation in March, 1955, that America would take part in the International Geophysical Year (1957-58), he set in motion the machinery necessary to make the venture a success.

He gave the U. S. Navy the job of supporting U. S. scientists and named Rear Admiral Richard E. Byrd, USN, (Ret.), as Officer in Charge of the venture. Captain (now Rear Admiral) George J. Dufek, USN, was named Commander of Task Force 43 and Commander, U. S. Naval Support Forces, Antarctica. The force was immediately tagged "Operation Deepfreeze."

(Continued on page 13)

EARTH-SCIENCE STUDIES:



SCIENTISTS to study the weather and what "makes" it, dig deep into the glacial ice, and probe prehistoric mys-



teries in rock formations. Phase I to be for quick survey, second phase for specialists to make exhaustive data-hunt.



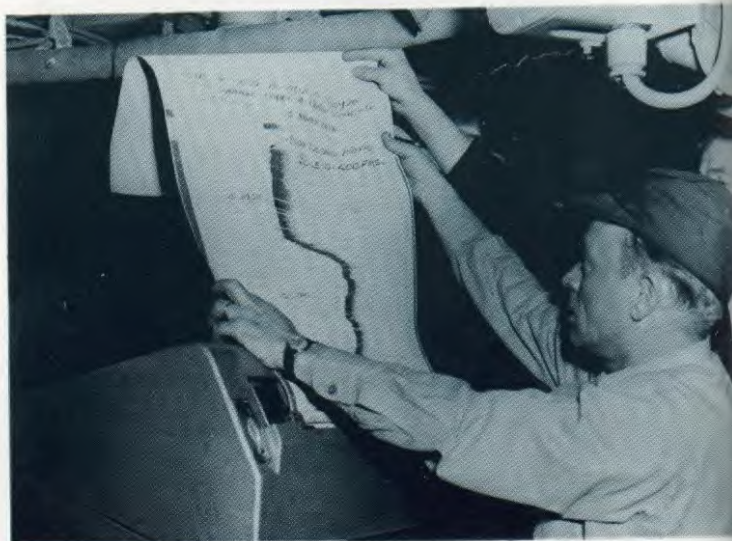
PREVIEW of equipment for CTF. Left, Rochus Vogt of Chicago University's Institute for Nuclear Studies explains



machine for cosmic ray studies; right, James H. Willet of Navy Hydrographic Office demonstrates electronic devices.



DAVEY JONES' Locker comes in for investigation, too. Standard oceanographic methods will be used plus some



new ones like this precision depth recorder (right), built by science specialists of New York's Columbia University.



VETERAN icebreaker of Coast Guard, EASTWIND, recalled from "Dewline" duty and dispatched to antipodal regions.

Leaders Are Named, Force Is Dubbed

In choosing these leaders the President and the Navy chose two close personal friends and two of the nation's top experts on Antarctic matters. Their paths had crossed and criss-crossed many times over the sixteen-year span when Captain Dufek was navigator on Admiral Byrd's old square-rigged flagship USS BEAR on the 1939-41 expedition.

Adding still further strength at the top of the organization, the Navy named Captain G. L. Ketchum as Deputy Task Force Commander and Coast Guard Captain C. W. Thomas as Chief of Staff.

VETERANS OF THE ICE

With this nucleus, other top-notch officer and enlisted personnel were ordered to the staff on a volunteer basis. Many had logged at least one previous trip to the Antarctic.

The Task Force staff set to work in Washington's Old Post Office building and grew steadily from March to October, 1955, when it reached ceiling strength.

Meantime, the Air Development Squadron (VX-6) went into commission at the Naval Air Station, Patuxent River, Maryland, and the Mobile Construction Battalion (MCB [Special]) came into its own at Davisville, Rhode Island. Both had hand picked crews.

Thus began the big task of gearing for a supporting role in "The Big Show" itself — I.G.Y. 1957-58.



RADM RICHARD E. BYRD, usn (Ret.) polar pioneer and veteran of four previous Antarctic expeditions, was designated Officer in Charge of Operation Deepfreeze by President Eisenhower.



RADM GEORGE J. DUFEK, usn (Ret.) no stranger to the Antarctic, was named Commander of Task Force 43 and Commander of U.S. Naval Support Forces, Antarctica, postponing retirement.



RADM RICHARD E. BYRD CHECKS POSITION OVER POLE DURING 1947 OPERATION HIGHJUMP



REMINDEES of the past. Left, Captain R. E. Scott's ship "Terra Nova"; right, commemorative cross for Scott and members of his group who perished on return from Pole.

U. S. ANTARCTIC EXPEDITIONS

- 1820 — Palmer Peninsula discovered by Captain Nathan B. Palmer.
- 1840 — Captain Charles Wilkes led first U. S. Naval expedition to continent.
- 1929 — Commander Richard E. Byrd established Little America I; flew over South Pole.
- 1934-35 — Second Byrd Expedition explored 450,000 sq. miles; Byrd wintered over.
- 1940 — Third Byrd Expedition charted Ross Sea.
- 1946-47 — U. S. Navy Expedition Operation Highjump, charted most of coastline, polar areas.
- 1948 — CDR Finn Ronne led an expedition which photographed over 450,000 sq. mi. by air.
- 1954-55 — Scouting expedition by USS *ATKA*.
- 1955-56 — U. S. Navy Expedition, Operation Deep-freeze I.

POLAR EXPERTS GUIDE FIFTH U.S. EXPEDITION:

COMMAND GROUP included two polar experts. Captain Ketchum, Deputy Task Force Commander, veteran of many Arctic and Antarctic experiences, had commanded an Antarctic expedition. Captain Thomas is known as a top ice navigator.



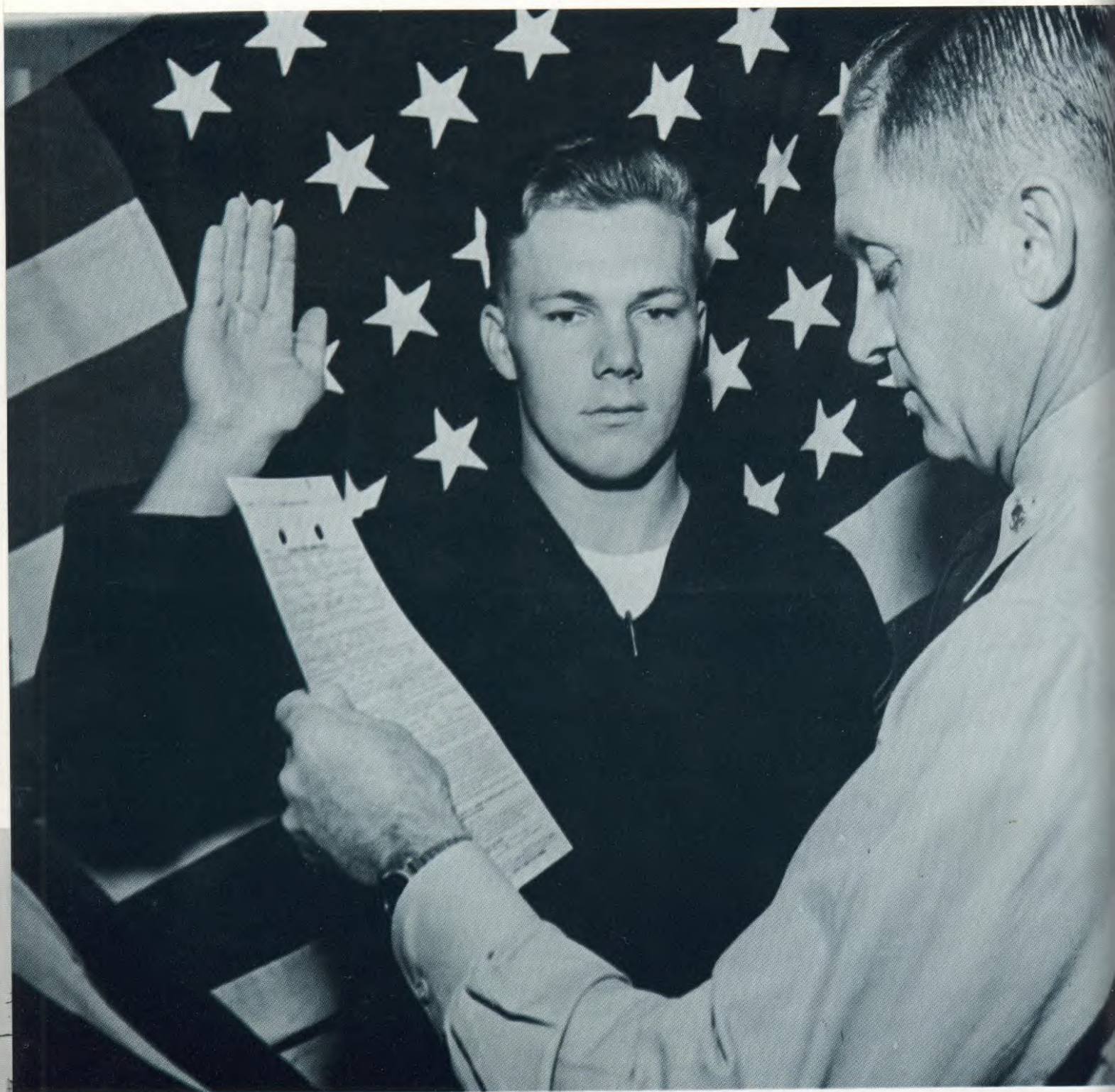
CAPTAIN C. W. THOMAS, USCG



CAPTAIN G. L. KETCHUM, USN



SPECIALISTS in their field. Head of VX-6, CDR Gordon K. Ebbe, USN, upper left; upper right, CAPT D. L. Cordiner (Operations), CDR P. W. Frazier (Ship Operations), LCDR D. F. Kent (Logistics), all members of CTF Staff. Lower left, CDR Herbert Whitney, CO of MCB (Special); right, seismologist priest of Boston College, Reverend Daniel J. Linehan.



FIRST RE-ENLISTMENT is sworn in. Charles L. Oliver, ABAN, says "I do" as Lt. Dan Slosser, Executive Officer of MBC (Special), administers oath. When the expedition

was announced early in 1955 there were 15 volunteers for each billet. As one high-ranking officer commented, "the spirit of adventure has not left the Navy." Indeed it hadn't!

EVERYONE WANTED TO GO:

Operation Deepfreeze

(COMPLETE SCHEDULE)

PHASE I (1955-56)

NOVEMBER – Task force departs for New Zealand rendezvous of ships, planes.

DECEMBER – Assault on Antarctica by ships, planes; landings at Kainan Bay, McMurdo.

JANUARY, FEBRUARY – Building operations at Little America V, Hut Point; explorations in Marie Byrd Land; flights over Pole. Planes depart for home.

MARCH, APRIL – Ships depart, leaving behind wintering-over party.

PHASE II (1956-57)

OCTOBER – Wintering-over party prepares for task force; airstrips readied, overland transportation to Byrd Station.

NOVEMBER – Task force departs with scientists to man bases. Ships, planes land Antarctica late December early January.

FEBRUARY – Ships depart for home, leaving scientists, operations crews.

MARCH – Aircraft flies home.

PHASE III (1957-58)

NOVEMBER – Task force departs to resupply bases at Antarctica by overland trail parties and air drop.

FEBRUARY – Ships, planes return home.

PHASE IV (1958-59)

NOVEMBER – Task force departs for Pole.

JANUARY – Personnel, equipment evacuated by ships, planes. Operation Deepfreeze, in support of IGY, concluded.



SEABEE welder, one of 114 enlisted men in the Mobile Construction Battalion (Special), practices assembling art.

VX-6 OFFICERS AND PERSONNEL STAND BY ONE OF THE TWO P2V NEPTUNES THAT MADE HISTORY



THE MISSION



The Mission:

ADVANCE PLANNING

THE BIG PICTURE OF "THE BIG SHOW"

THE STAFF's earliest undertaking was to estimate what was needed in the way of ships and equipment to put the venture over. They worked closely with the National Science Foundation and with the scientific representatives of other government agencies to learn just what the scientists needed to make their job a success at Antarctica.

Plans were made, revised, re-revised and re-revised. Details were endless.

But every time paper work became monotonous there was a pleasant interruption. An amateur radioman in New Jersey wrote in saying he had "DX'd with an earlier Antarctic expedition and couldn't wait to swap QSL cards with this one." A twelve-year-old made the same request of Admiral Byrd. A Michigan dog-ranch owner offered to furnish dogs at \$100 apiece, then buy them back after the expedition at the same price — said if he could be allowed to go on the expedition, he'd furnish his dogs free!

Then, too, the old-timers would take advantage of a quiet office to reminisce and share their ice experiences.

POLAR SHOPPING LIST

When the first estimates were in, the staff planners decided they needed two ice breakers (USS EDISTO which was in service and the brand new USS GLACIER which was just about ready for commissioning); two attack-type cargo ships (USS ARNEB, flagship, and USS WYANDOT); a fleet-type

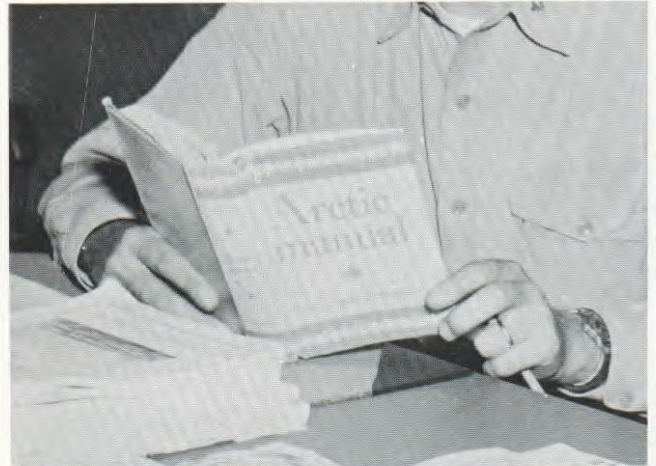
tanker (USS NESPELEN); and two smaller, towable oilers (YOG-70) and (YOG-34).

Demands for shipping space soon exceeded the bottoms available and the MTS cargo ship GREENVILLE VICTORY was engaged. Later the Coast Guard icebreaker EASTWIND joined the expedition.

The icebreaker USS ATKA returned in April, 1955, from a survey trip to the Antarctic to report that the anticipated landing site at Little America in the Bay of Whales had broken off and floated out to sea, but that another suitable ice shelf for



NERVE CENTER of the task force was Admiral Dufek's Washington office, hub of activity for nearly a whole year.



COMMON SIGHT throughout task force headquarters. With polar projects infrequent, veterans had to bone up.

THE SECRETARY OF DEFENSE

Washington

October 21, 1955

My Dear Admiral Byrd:

By direction of the President of the United States, and upon the recommendations of the Chairman, Joint Chiefs of Staff, the Secretary of the Navy, and the Chief of Naval Operations, you are designated Officer in Charge, U.S. Antarctic Programs. In this capacity you will consider yourself the senior U.S. representative charged with maintaining effective monitoring over those political, scientific, legislative, and operational activities which comprise the total U.S. Antarctic Program. You will report to the Secretary of Defense and through him to the Operations Coordinating Board on matters pertaining to the U.S. Antarctic Program.

You will advise the Operations Coordinating Board in the preparation of its over-all plans for the implementation of U.S. Antarctic policy. You will assist the Secretary of Defense and his assistants and the Secretaries of appropriate military departments in the development of necessary legislative programs, including the establishment in concert with other departments of the government of a permanent unit for Antarctic activity, and you will also provide technical and scientific advice on Antarctic matters to the operating agencies conducting U.S. Antarctic activities.

In addition, in respect to specific operations and expeditions in the U.S. Antarctic Program, you will advise the military commanders thereof in the preparation of plans and as to the technical suitability of their plans and projected operations. You will insure that such operations and expeditions, the public information program relating thereto, and the scientific endeavor involved, shall be correlated. You will advise the appropriate military commanders and, as appropriate, the Secretary of Defense, and other elements of the Department of Defense if, in your judgment, the technical aspects of such plans and operations require modifications or adjustments. You are authorized to request and have access to and to examine any or all documents, staff studies, plans or public releases which may be relevant to your mission.

You will make recommendations to the Secretary of Defense concerning such additional or supplementary action with respect not only to the expeditionary activities, but to all related matters concerning the Antarctic when, in your judgment, such recommendations will, if adopted, further the U.S. Antarctic Program.

You are authorized such personal staff as may be approved by the Chief of Naval Operations and are further authorized to undertake such travel including participation in the Antarctic expeditionary activities of the U.S. Government as you may deem necessary to accomplish this mission.

Sincerely Yours,

Signed/Reuben E. Robertson, Jr.
Deputy

Rear Admiral Richard E. Byrd, USN (Ret)
831 Old Post Office Building
Washington 25, D.C.

off-loading the ships had been discovered at Kainan Bay in the Little America area.

While the staff wrestled with myriad problems in Washington, the planes of VX-6 were winterized and their crews trained. The Seabees at Davisville displayed their classic "can-do" spirit and set a strenuous training pace.

SHOES AND SHIPS . . . AND SNOW SHOVELS

The problem of Logistics would have baffled any group not familiar with Antarctica and its cruel weather conditions.

Ordinary tractors wouldn't do. They had to be especially rigged for cold-weather operations. Clothing had to be ordered for the shipboard group; different clothing for the aviators; and still different clothing for the construction crews and the reconnaissance parties. An entirely different outfit was required for the wintering party. Double food provisions were ordered to feed a traditionally hungry crew in Antarctica. Plans for Antarctic buildings had specifications to include adequate living conditions for 150 men in the wintering over parties who would be subjected to minus 100° temperatures, plus 100-knot winds and three months of total darkness. These are a few examples. (Continued on page 34)

DIRECTIVE from Pentagon to Admiral Byrd designating him Officer in Charge of U.S. Antarctic Programs and outlining his official duties and areas of activity therein.

A BEHIND-THE-SCENES GLIMPSE OF STAGING OPERATIONS ON THE FOLLOWING PAGES



WALT DISNEY Studios plunged deep into heraldry to design a coat-of-arms for the men of Task Force 43. To the Washington headquarters came Erwin L. Verity, Walt

Disney production manager, for conferences on the design. After many tries, punctuated by popularity polls, the insigne you see on page 3 was selected and drawn in color.



ASSAULT CARGO SHIP ARNEB NAMED CTF FLAGSHIP



FLEET TANKER NESPELEN, 800,000 GALLONS



ICEBREAKER EDISTO RECALLED FROM "DEWLINE"



USNS GREENVILLE VICTORY, BIG CARGO SHIP

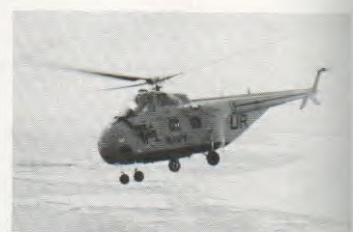


TOWABLE OILER AND SECOND AKA, WYANDOT

PLANES OF THE AIR UNIT:



SKYMASTER, wheel-equipped R5D, a 4-motor workhorse for long-range reconnaissance and photo missions.



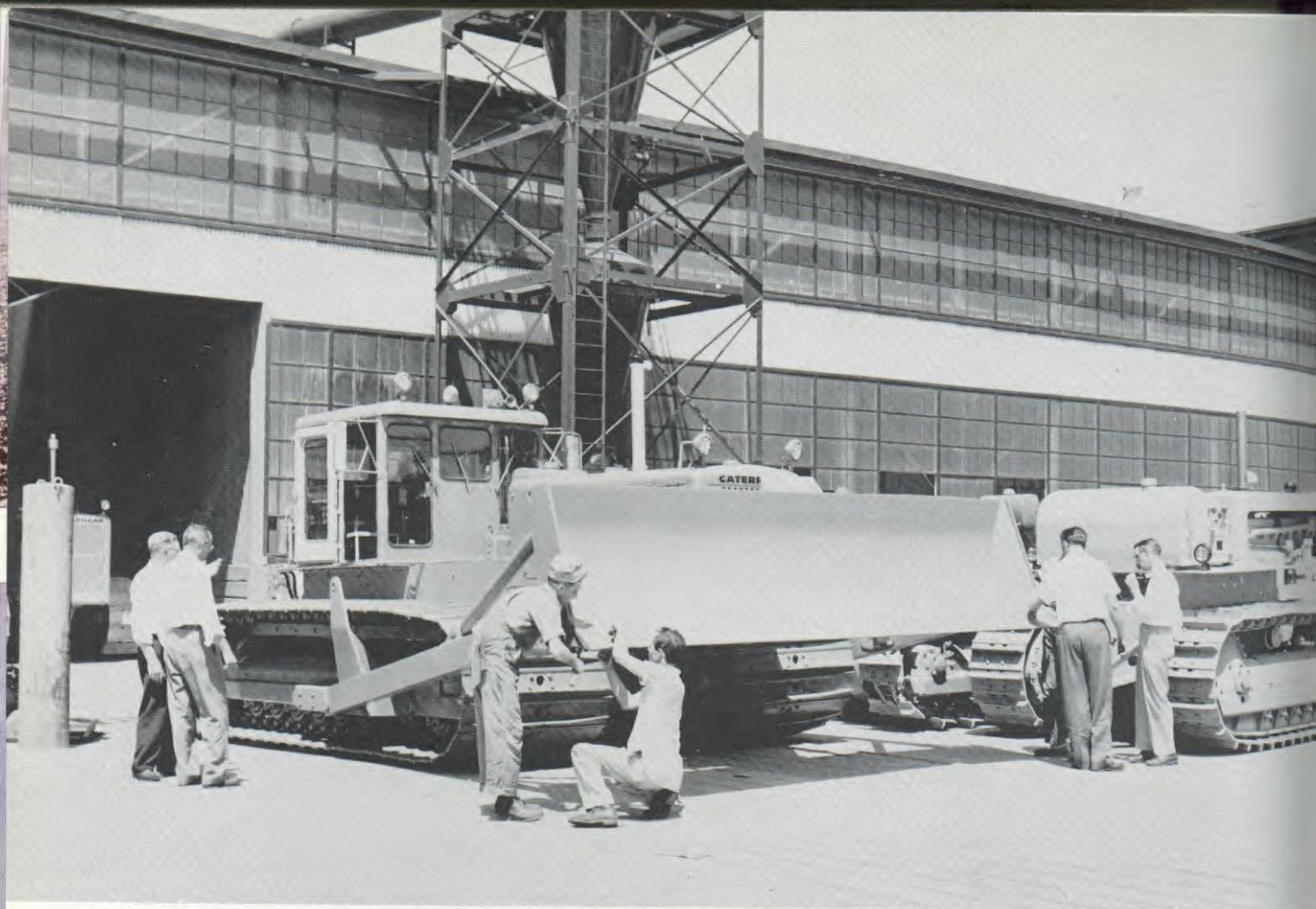
ALL TYPES for all jobs. Fast, long-range P2V and fence-hopping helicopter, top. Below, Albatross, Dakota.



USS GLACIER (AGB-4), NEWEST AND FINEST OF ICEBREAKERS, DOUBLED AS AN AIRCRAFT CARRIER

DE HAVILLAND OTTER, UTILITY PLANE, IS AT HOME IN THE AIR, ON LAND AND ON THE SNOW





READYING D-8 CATERPILLAR TRACTOR AT PEORIA FACTORY FOR SHIPMENT TO DAVISVILLE CENTER

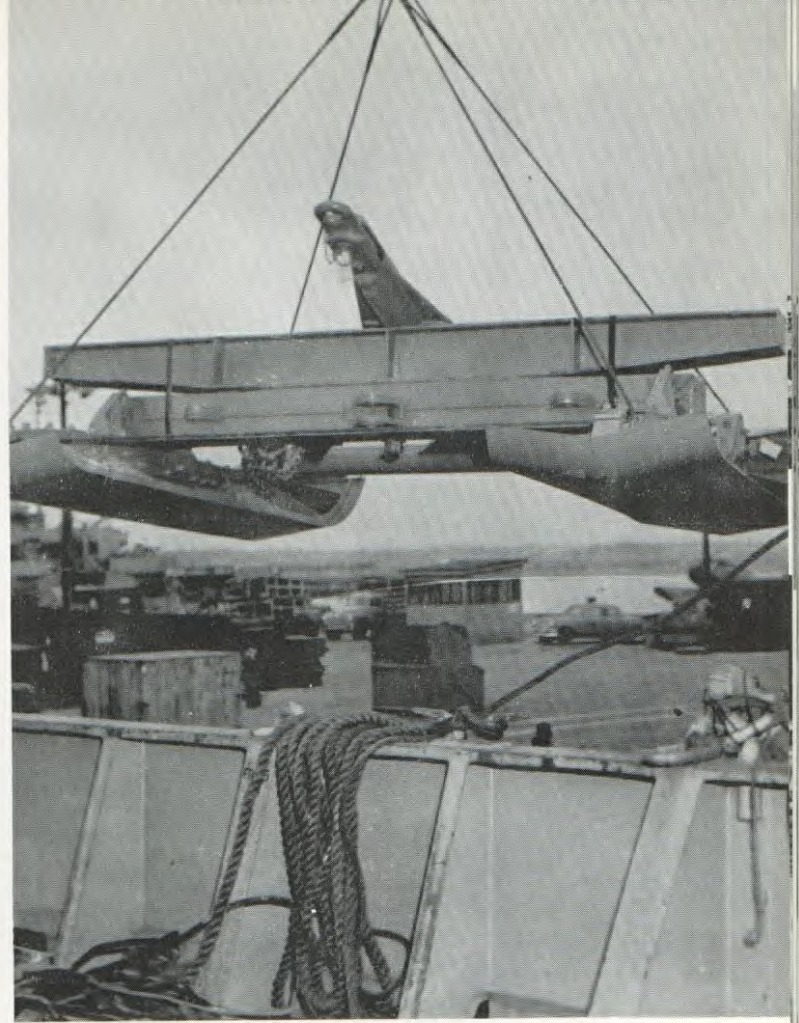
AND THE MOBILE CONSTRUCTION BATTALION: _____



MCB EQUIPMENT included everything from 35-ton giant tractors to bamboo trail flagpoles. Tucker Sno-Cat is unloaded, left; this polar station wagon had a baby sister



dubbed the "snow kitten." Right, a hard-working midget called the Cary-Lift was used for jobs where space was at a premium, such as loading up this Mark III water carrier.



WINTERIZED for 70° below, this tractor and its heavier teammates, the big Caterpillar D-8s, were able to operate on a 24-hour day schedule in the rugged Antarctic conti-

ment. The Caterpillar company helped train about 60 Seabees in service, maintenance and operating techniques. At right, heavy-duty snow sled used for bulky transport.

STAFF, CTF43



SURFACE UNIT



**AIR UNIT
(VX-6)**



**CONSTRUCTION UNIT
(MCB-Special)**

.....	36	82
3 ICEBREAKERS: USS Glacier (AGB-4); USS Edisto (AGB-2); USCGC Eastwind (WAGB-279).....	49	593
2 CARGO SHIPS: USS Arneb (AKA-56); USS Wyandot (AKA-92).....	32	398
1 OILER: USS Nespelen (AOG-55).....	7	122
1 MSTC CARGO SHIP: USNS Greenville Victory (TAK-239) ..	15	40
2 R4D (Ski-equipped "Dakotas").....		
2 R5D (Wheel-equipped "Skymasters").....		
7 HO4S-3 (Helicopters).....		
4 UC-1 (DeHavilland "Otters").....		
2 P2V (Ski-equipped "Neptunes").....		
2 UF-1 (Triphibian "Albatrosses").....		
Total Air Unit.....	44	226
Base Construction Personnel.....	7	114
Airfield Construction Personnel.....	4	36
	194	1611



THE USS ATKA (AGB-3), VETERAN OF MANY POLAR EXPEDITIONS, RETURNS FROM THE ANTARCTIC

THEN IN APRIL THE USS ATKA CAME HOME

THE first American expedition to the Antarctic in seven years was made by the USS Atka (AGB-3) to seek out suitable base sites. Typical of such plans which "gang aft agley," the Bay of Whales site where Little America IV had been located was gone, washed out to sea. But thirty miles to the east was an acceptable site on Kainan Bay. With loads of reconnaissance data aboard, Atka returned.



TORONTO, CANADA



ILLINOIS



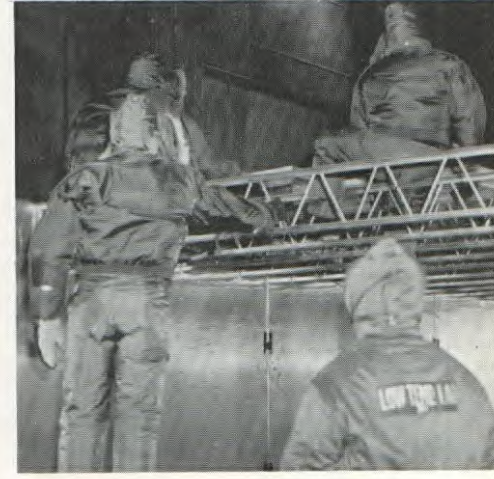
MISSISSIPPI



NEW HAMPSHIRE



CONNECTICUT



MICHIGAN



RHODE ISLAND



WASHINGTON, D. C.



ANTARCTICA

FROM the Dominion a wizard of a plane, the UC-1 Otter and from the Midwest, giant tractors. The Delta region launched the finest U. S. icebreaker and from New England came steely huskies and husky steel huts. In Detroit Seabees built a house, in Providence they knocked one down in a test air drop. In D.C. plans were hatched; on Ross Island a penguin egg went through same metamorphosis.

**... AND PLANS
TOOK SHAPE
IN MANY PLACES**

Men and Huskies Are Toughened Up



TRAINING ended in reward. For the men the guerdon was an upped rating, as with H. G. McEntee, RD2; CDR E. H. Maher, GLACIER CO, does the honors. For man's best



friend, a kind word and two squares a day were standard kudos. Master Sergeant Hendrik "Dutch" Dolleman, veteran Antarctic dog driver, makes friends with one of huskies.



PUSHUPS FOR OUT-OF-PRACTICE MUSCLES. THE ANTARCTIC, HARD TASKMASTER, DEMANDS FITNESS



DOG DAYS at Wonalancet, New Hampshire. Training frisky Eskimo puppies into mature sled dogs for trail rescue was no cinch for man or beast. At left, three drivers,



dog-lovers extraordinary, adjust strange new harnesses for greater comfort. Time out is called as huskies rest from pulling ensign-loaded training "sled" on wheels.



HERO'S REWARD for Turk. Ensign David E. Baker rigs the young huskies into pulling harness for his debut as lead dog. The dogs, only 28 of whom made the grade, left

for the Antarctic with their four drivers to be on hand for rescue and reconnaissance. They were used where heavy track vehicles would bog down in snow and ice.

THE MISSION CONTINUED

They Talked About the Weather . . .



W. H. TUREGANO, SKC, OF THE EDISTO



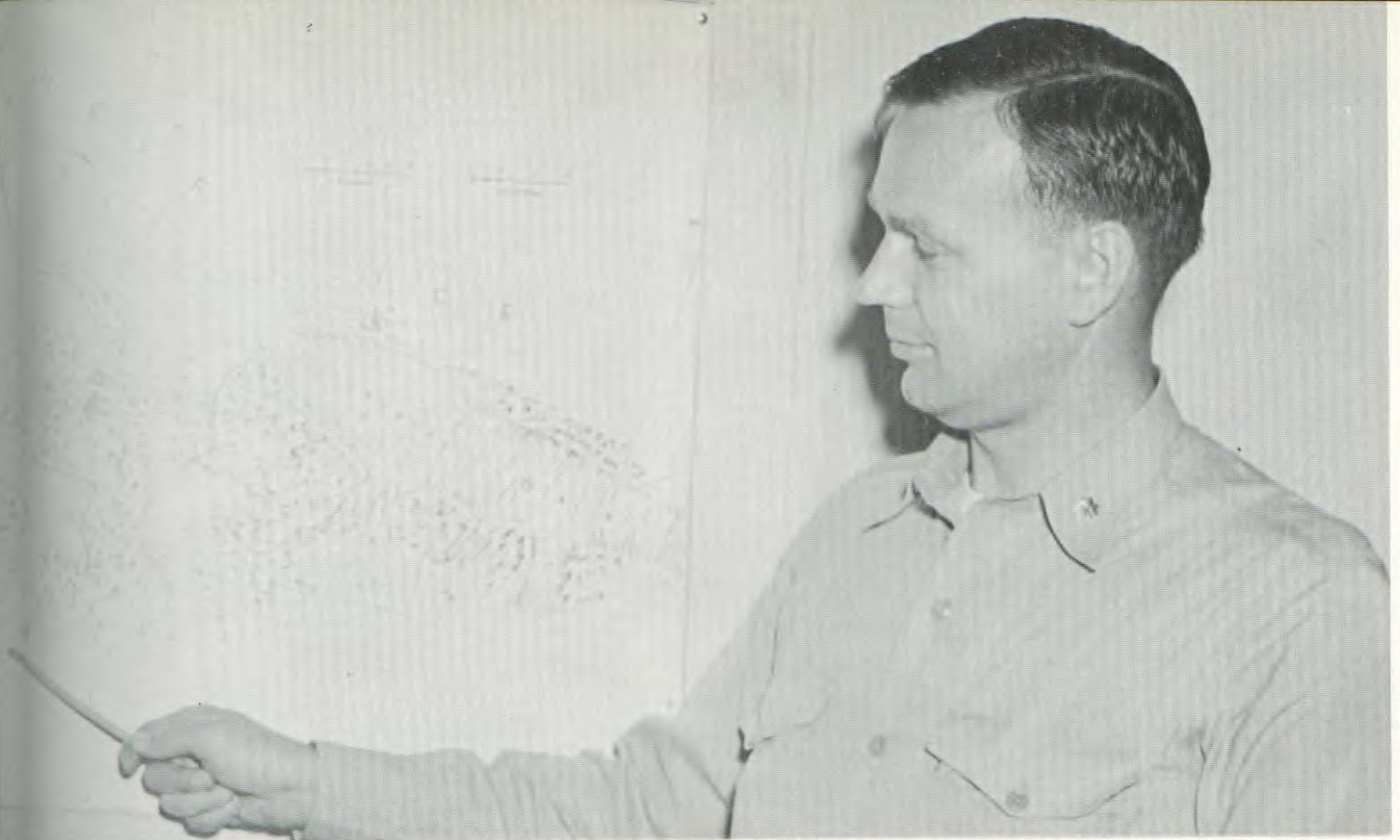
CDR GORDON K. EBBE, CO OF VX-6, RIGHT,

. . . AND DID SOMETHING ABOUT IT, TOO



CLOTHING for sealing out the cold, holding in the heat. Starting from scratch (literally), is the heavy knit under-clothing. Regulation fatigues come next. Then, comes

outer windproof foul-weather clothing. For extreme blustery weather ski suit with parka is worn. Models, C. H. Holland, ck1; K. D. Barton, AK1; W. L. Davis, BMC.



DISCUSSES WHAT'S IN THE WIND AS HE ANALYZES ANTARCTIC WEATHER MAP FOR LTCOL H. R. KOLP



FIRST AID for frostbite. Simulated case of severe freeze treated by GLACIER medical officer LT Joseph A. Fleetwood, Jr. assisted by Wesley R. Hudson, Hospital

Corpsman. Treatment, including injection to prevent blood coagulation and gangrene, relieved blackened "hemorrhagic blistering and edema" faked on victim's hand.

THE MISSION CONTINUED

"House Beautiful" for 75 Below Zero

HOUSING was torture-tested to the cracking point. In July heat the Detroit Arsenal was turned into a refrigerated laboratory to test buildings, the men who would erect them, and the clothing they would wear. One dozen Seabees working at -65° assembled a 20 x 40 ft. prefabricated "Clement hut" in 90 man hours, with 50 more hours for meals and rest.



COLD-WEATHER GEAR ISSUED WELL IN ADVANCE



FLOOR PANELS are placed on 6 x 6 stringers. Structures known as "Clement Huts" were designed to stand up under

100-knot winds and minus 100° cold. Their use, to form a 36-house village for the wintering-over polar party.

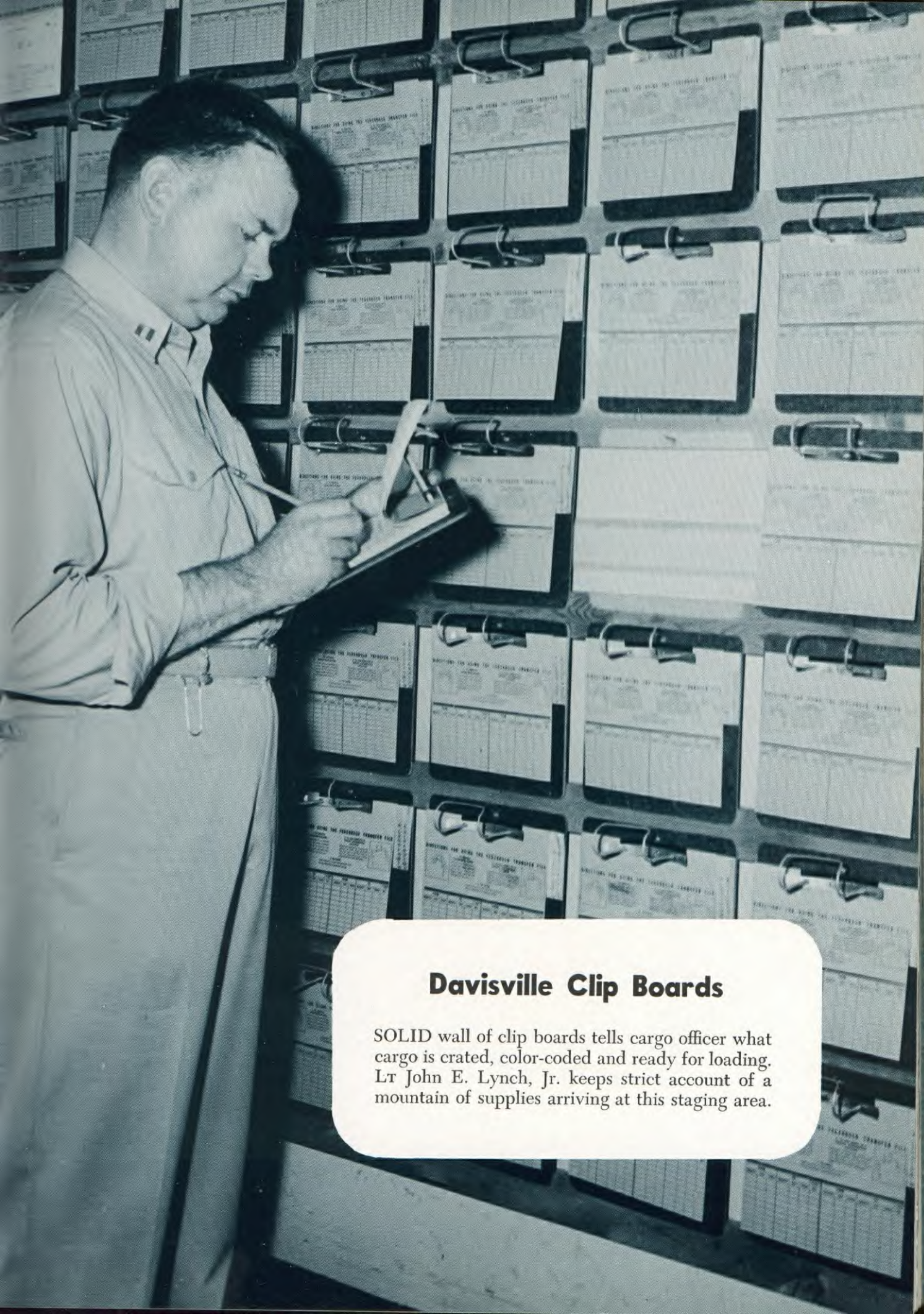


TEST ERECTION of hut. MBC(Special) group passes roof panels over roof trusses at left. Final step of test,



center, finds Seabee adjusting gasoline heater. Right, wall chips are hammered in place at outside joints of hut.





Davisville Clip Boards

SOLID wall of clip boards tells cargo officer what cargo is crated, color-coded and ready for loading. Lt John E. Lynch, Jr. keeps strict account of a mountain of supplies arriving at this staging area.



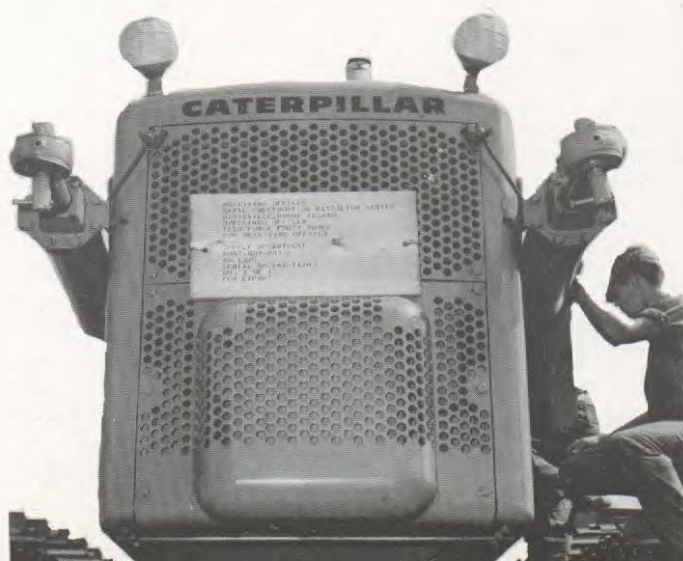
"CAN DO" pays off as Seabees Jack Steward, BU3, Robert Norwood, BU2, and Richard Prescott, BU3, construct one of ten dog sleds to be used at Pole for rescue, reconnaissance.

Davisville is the Focal Point for Equipment, Supplies

By June 1 the staff had completed the operations plan and the aviators and engineers were settled down to a brisk training routine.

There were modifications to be made; there were early oversights to correct; there was more training to be completed (like teaching sailors to work with sled dogs — or vice versa); the gear was assembled at Davisville and marked for loading; there were still more changes, but a schedule was finally nailed down. (For that schedule, turn to page 36.)

WAREHOUSING boxed food provisions to await loading at dock aboard ships. Hustling equipment and supplies from terminal to warehouse went on around clock. Each crate and box was color coded, stenciled with loading data. ➔





DOUBLE-CHECK before loading. Stephen C. Barker, ск3, eyes pots and pans. Medical supplies get once-over by Kenneth Aldridge, HMC, and Lt E. N. Ehrlich, Deep-freeze medic. Chicken wire for snow tunnels inventoried.



MORE TONS of equipment, supplies enter the mammoth warehouses at Davisville. Fork-lift operators and Navy storekeepers began working far into the night as the departure date moved closer.



TIMETABLE FOR Operation Deepfreeze PHASE I

This is the schedule that finally emerged during the staging operations for Deepfreeze. Did we make it? For the answer, continue with us as we relate the saga of Task Force 43.

1. Icebreakers load all equipment and supplies required for preliminary operation in the Antarctic at Davisville, R. I., prior to October 30 and sail from Boston or Norfolk soon after.

2. Cargo ships, oiler, TAK load cargo at Davisville and bulk petroleum at Norfolk and put to sea as follows:

NESPELEN, November 6

ARNEB, WYANDOT, TAK, November 13.

3. Insure timely delivery of YOG-70 at Panama (from Seattle) to meet icebreakers.

4. Icebreakers arrive Panama November 6 and depart for Port Lyttelton, N.Z., November 8, towing YOG-70.

5. NESPELEN arrive Panama November 12 and depart November 14 for Port Lyttelton.

6. ARNEB, WYANDOT, TAK arrive Panama November 19 and depart November 21 for Port Lyttelton.

7. Icebreakers arrive Port Lyttelton December 1 and sail for Scott Island December 3. From December 3 to December 25, icebreakers reconnoitre the pack ice in the Ross Sea and take air rescue stations for the flight of aircraft.

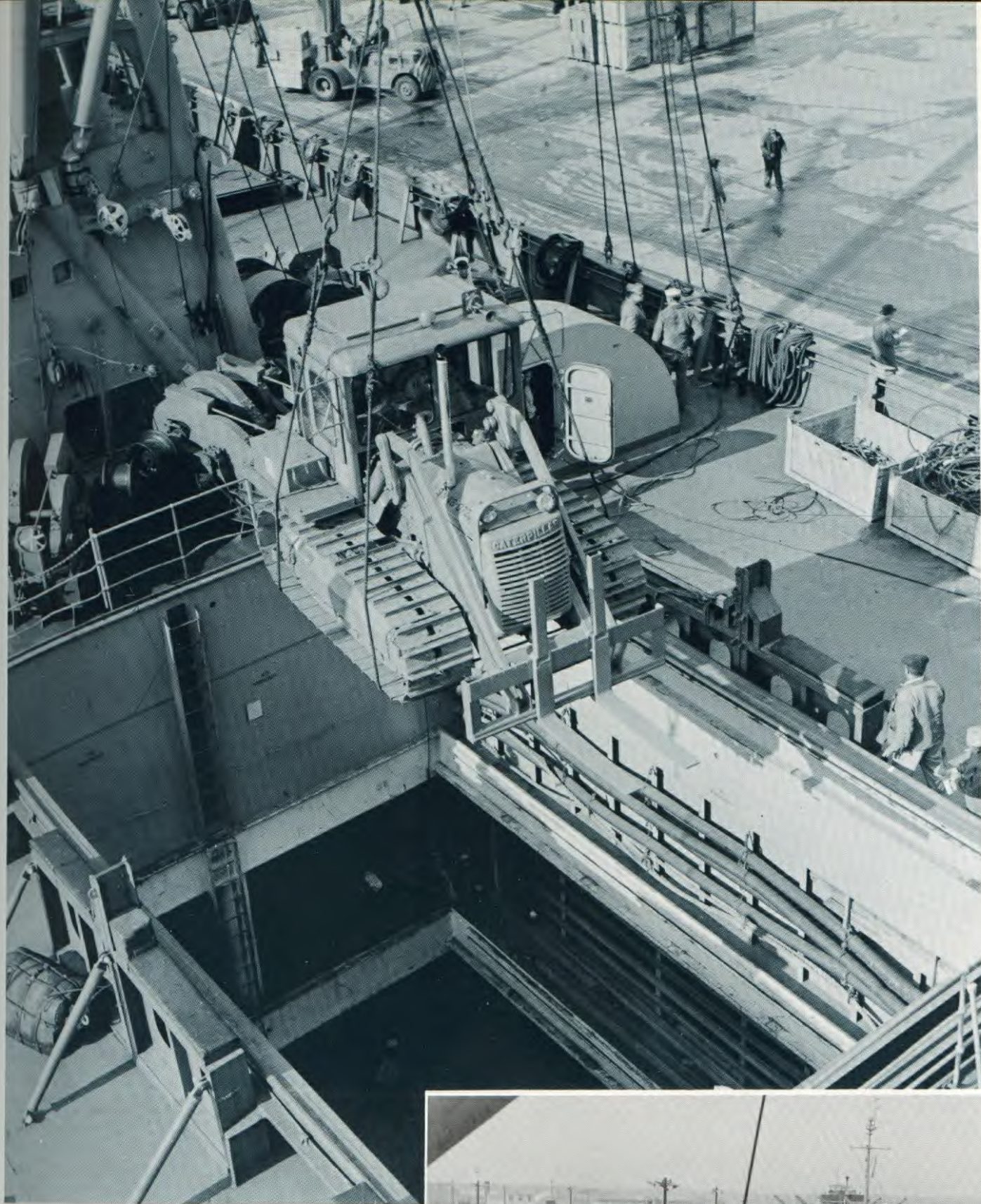
8. AKA'S, AOG and TAK arrive Port Lyttelton December 10.

9. AKA's and TAK leave Port Lyttelton December 13 for ocean (plane guard) stations Baker and Charlie; NESPELEN, towing YOG-70, depart same day for Campbell Island, (station Able).

10. VX-6 have aircraft ready at Christchurch (Harewood Field), N.Z., December 13 for flight south. (Continued on page 38)



SYMBOL of Operation Deepfreeze, the penguin, beginning to take shape on bridge of YOG-34 under artistic hands of Norman L. Boyd, SN. Two YOG served as fuel farm.



DOWN THE HATCH goes a Caterpillar tractor as the WYANDOT receives cargo from crowded dockside. Jumbo fork lift trucks brought supplies to ships, 30-ton ship's cranes swung cargo on board and down into waiting storage areas in hold.





HUSKIES, 28 of 'em went aboard the EDISTO in Boston. Unlike other cargo they got personal service all the way.

11. Planes fly soon afterward to Antarctica over ocean picket stations described above, landing on skis.

12. Icebreakers, AKA's, TAK, AOG rendezvous at Scott Island Christmas Day. Icebreakers take over tow of YOG-70 from NESPELEN.

13. On arrival at McMurdo Sound ARNEB deliver LCVP and helicopter which she has ferried south to USS 'GLACIER.

14. Arrive Little America station, Kainan Bay. Off-load supplies, commence building housing, radio station, garage, supply storage, etc. Prepare landing strip at McMurdo Sound to accommodate VX-6 aircraft on wheels from New Zealand. Reconnaissance (trail) party depart Little America Station to blaze and mark safe trail to Byrd Station in Marie Byrd Land, 500 miles away.

15. In late February, when winter sets in, task force depart to avoid the danger of ships becoming frozen in. Leave wintering over parties (approximately 150 men total) and sail for United States via New Zealand. VX-6 planes fly out.

16. April, 1956, Task Force returns to United States, makes plans for Phase Two beginning in fall of 1956.

CARGOES POUR



FUEL OIL is loaded. The USS WYANDOT takes on her share of the 15,170 drums of fuel oil to be used down at

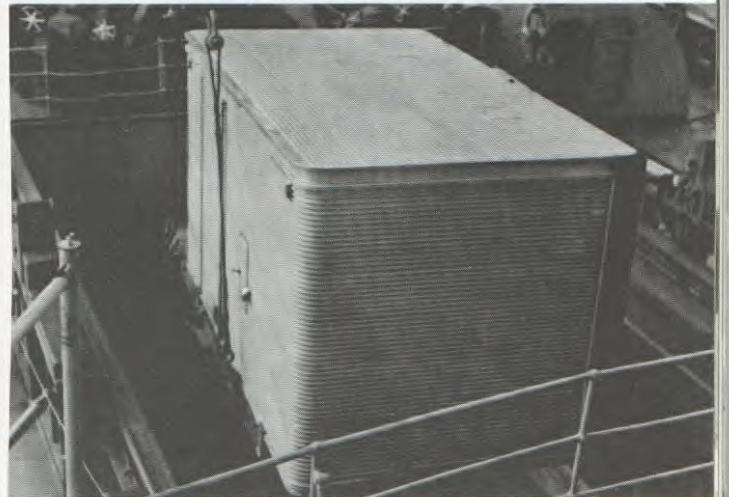
ABOARD STEADILY



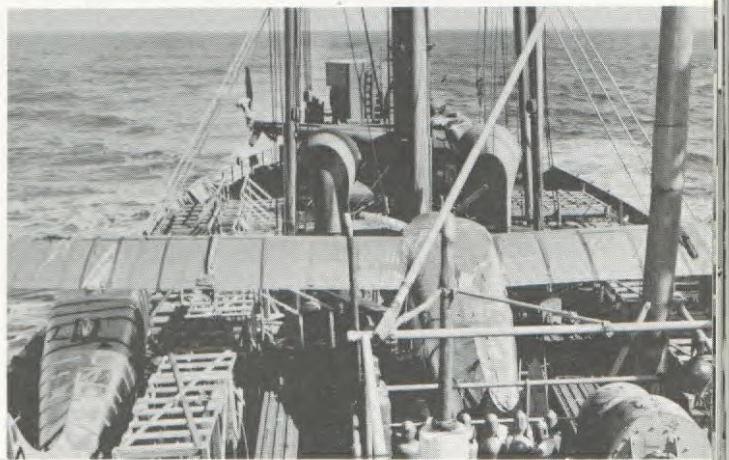
Antarctica. The NESPELEN carried 800,000 gallons of aviation gasoline and the two towable tankers many more.



FROZEN FOOD packages go aboard the WYANDOT. This was the best-fed expedition ever to embark to Antarctica.



SPIRITS, strong ones, go down the hatch for medicinal purposes in what is frivolously called a "booze locker."



PLANES nested snugly on deck for the voyage south, al fresco. Waterproof paper covered every inch of Otters.

READY-TIME AT BOSTON, NORFOLK

THE ARNEB, WYANDOT, and GREENVILLE VICTORY were loaded at Davisville; EDISTO, GLACIER and the EASTWIND took cargo at Boston, NESPELEN docked at Norfolk. Then WYANDOT dropped down to Norfolk to take on about 2,500 pounds of philatelic mail. Left, Harold Roody, TESN, displays some of mail, greatest deluge of stamp-fan posting ever to hit.



FIRST-DAY covers, highly prized by philatelists, on their way to Antarctic for postmarking. Part of the 2,500 pounds of mail is loaded aboard the WYANDOT at Norfolk.

HELICOPTERS were bedded down on deck with minimum of covering since they were in use nearly all the way.



Eagle's Nest on the Patuxent

UPSTREAM from the Chesapeake the Naval Air Station was in full swing with VX-6 readying for flight. First arrival, this helicopter piloted by Lt H. S. Todd and LCDR R. G. Graham. "Windmills" were errand boys of the force.



VX-6 CO greets pilots. CDR Ebbe, second from left, welcomes LTJG Eugene D. Ellena, LCDR Joseph W. Ent-

rikin, and Lt Harold S. Todd under the shadow of the long-range P2V-2 which they will shepherd to the Antarctic.

Brisk Was the Word for VX-6

THREE MEN on an Albatross. Inspecting electrical fittings on UF-1 engine in VX-6 hangar at Patuxent River.



◀ THE CTF IS WELCOMED ABOARD AT PATUXENT

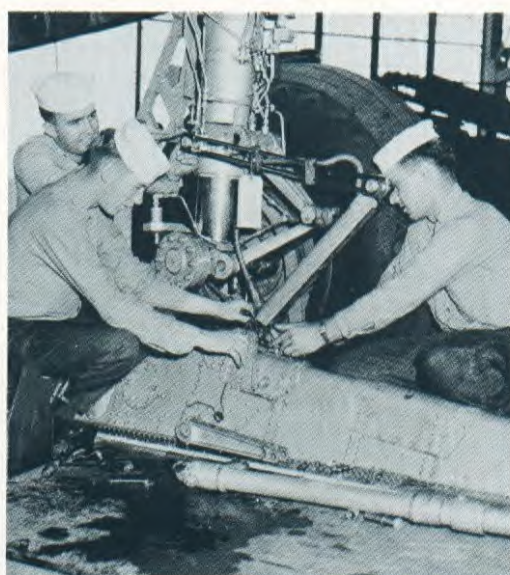


JATO, jet assist take-off, gets P2V off the ground in a hurry. Above, members of VX-6 being instructed in proper installation of Jato bottles carried on racks at side of plane. Only the larger planes carried this equipment.

NEPTUNE crewman, one of seven, stands beside survival kit used by Antarctic fliers. Kits came in handy. ➤



WINTERIZING, CHECKING PLANES:



SHOEING PLANE for the icefields. Left, M. C. Thomas, AM2, R. M. Ritter, ADAN, P. R. Selinsky, AM2, begin job. Center, now the other foot. Then the job gets bigger.

Right, LTJG Ellena instructs Erwin B. Hartford, AD2, Fredrick F. Ferrara, ADC, Francis Q. Winkley, and Alvar R. Garcia, AN, on installing skis on long-range craft.



THE UC-1 OTTER OUTFITTED WITH SKIS FOR ICE LANDINGS. FOUR OF THESE PLANES WENT SOUTH FIRST 'COPTER ASSIGNED SQUADRON ARRIVES

PLANE CAPTAIN WATERPROOFS OTTER FOR POLE

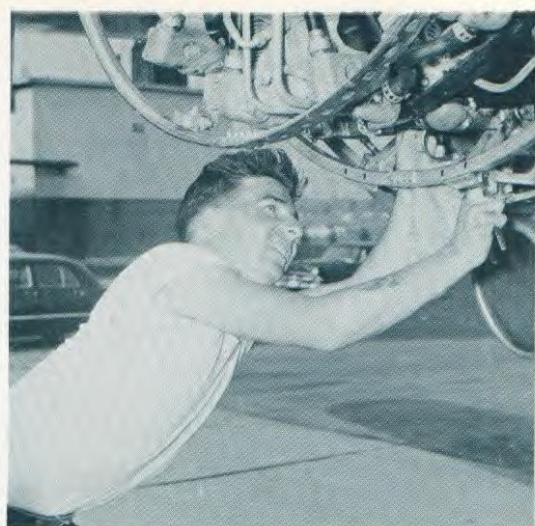




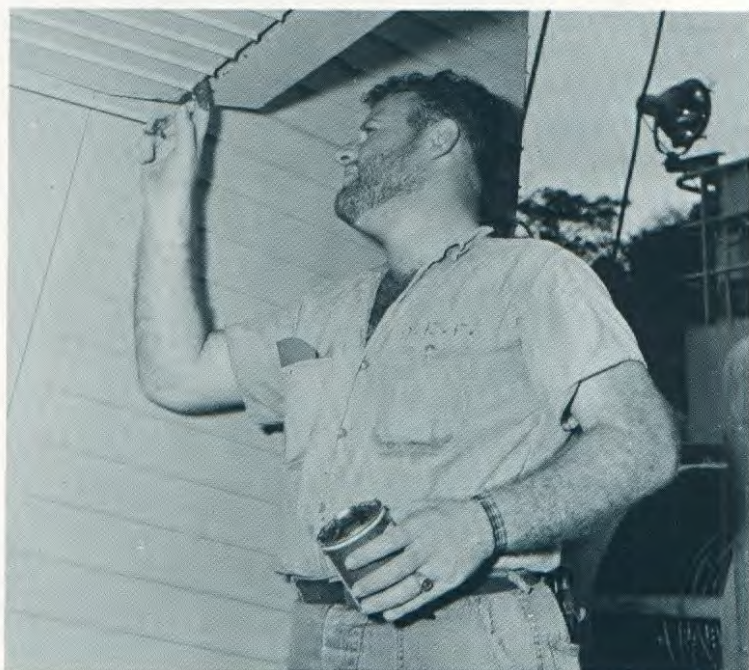
TINKERING as jump-off time neared. E. M. Lile, AE3, checks batteries of R4D at left as J. A. Franzoni, ADAN,



and R. L. Holland, SN, test prop on stand for proper pitch. Right, James Arnold, ADAN, works on R5D engine on ramp.



EXPOUNDING PRINCIPLES OF MAGNETIC DETECTOR

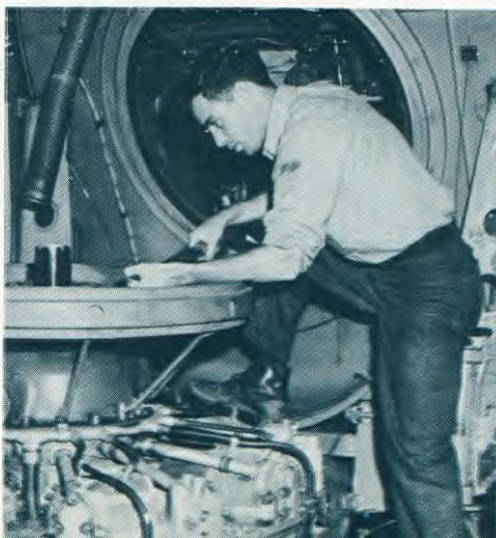


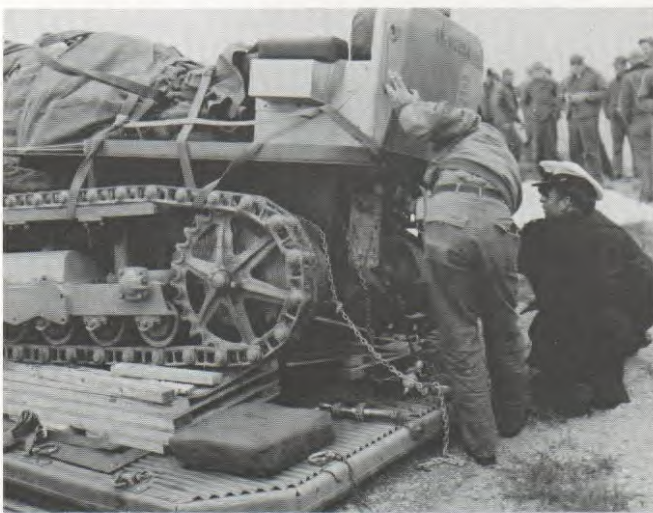
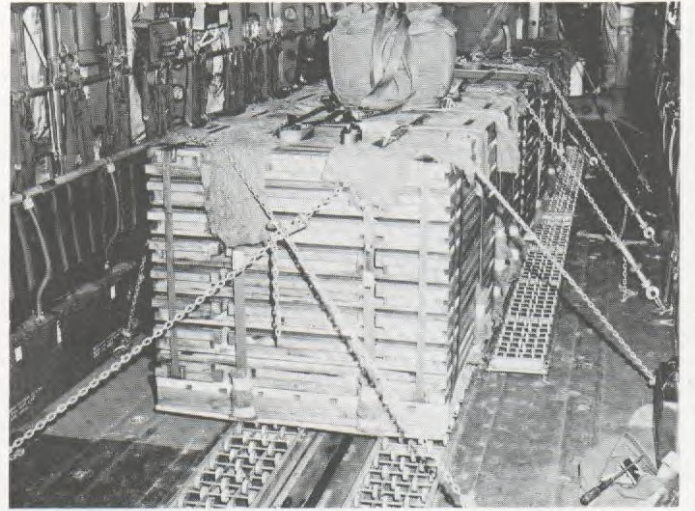
PLANE GETS WATERPROOF CAULKING TREATMENT

'COPTERS serviced by crewmen. Left, M. Baronick, AD1, L. E. Justice, AD3, Whittaker, AD1, and H. B. Brown, AD3,



assemble clutch and fan mechanism. Center, F. T. Hooper, AD3, inspects fan housing before assembly. Right, OK!





HOW AIR-DROP TESTS WERE MADE

BIG C-124 made available by USAF takes on D-2 tractor (1) for test air drop. Equipment is heavily padded and tightly secured to huge skid. (2) Air drop experts prepare package of Seabee building materials and larger pre-

fab housing (3) Latter is heavily crated and lashed to roller tracks of plane. (4) and (5) show results of drop. Test drops were dress rehearsals for parachuting materiel into polar regions beyond the reach of tractor service.

ONE LAST POINT – MORALE

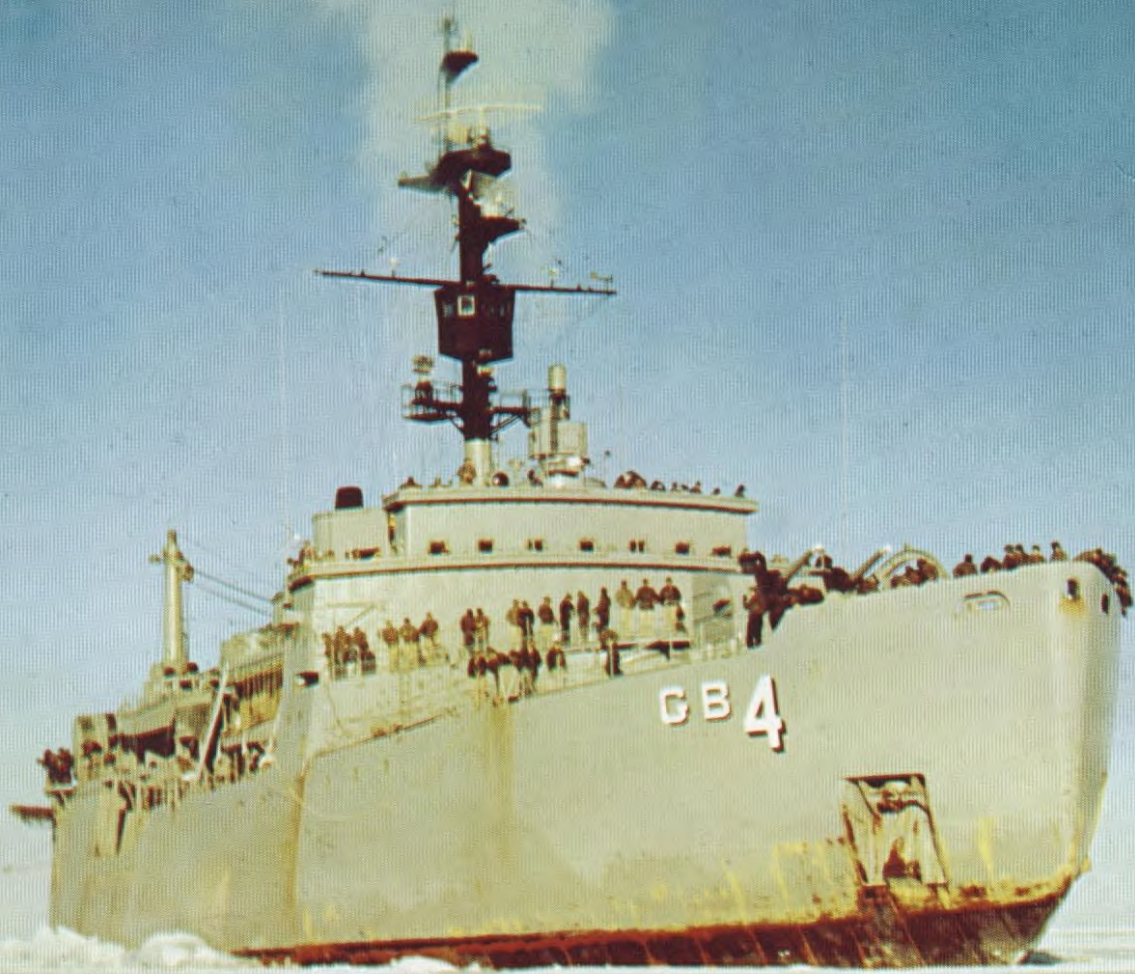


PRE-DEPARTURE ceremony in Admiral Byrd's office. The Fleet Reserve Association Gold Button award was presented to the outstanding recruiter (center) who will be in wintering-over party at McMurdo Sound in Antarctica.

USNR FLAG flown at commissioning of Little America Five. Captain Hilliard B. Holbrook, branch ROA head, stands at right holding Reserve Officers Association flag while CDR Moore (in uniform) accepts the honor.



THE VOYAGE SOUTH



The Voyage

SOUTH

THE WARM-UP BEFORE THE BIG FREEZE-UP

BY THE STANDARD of assault tactics the steaming formation of Task Force 43 ships was unorthodox. Before the last ship reached Panama the first ships were well past the equator and headed for New Zealand.

This unusual sailing schedule was necessary for two reasons; logistical and operational. Planners figured ships could best be loaded individually at the Davisville Seabee Center with less confusion than trying to load all ships at once.

So while reconnaissance tractors, trail provisions, airfield equipment and other Antarctic necessities were loaded on the icebreakers *GLACIER* and *EDISTO*, other ships lay in the Portsmouth and Boston Navy yards, licking wounds received in the Arctic while they supported the Distant Early Warning (DEW) radar project in the summer of '55.

Advance planning had paid off. The gear — equipment, supplies, food and clothing — had been so arranged in Davisville's mammoth warehouses that they were segregated for individual ships. Further, they were marked by codes and colors so what would be unloaded on the ice shelf last would be loaded on the ships first, and vice versa. This, then, was the logistical need for a staggered departure.

CHOP FOR ALL SHIPS

Operationally, the icebreakers had to load and sail first so they could penetrate the pack ice, explore the landing sites and then lead the thinner skinned ships through.

By November 14 all ships had been loaded, two icebreakers were at sea with small tankers (YOG's) in tow and it was departure day for *ARNEB*, flagship of Task Force 43, and the *WYANDOT*.

Norfolk's Pier Five bristled with activity when at noon that day Rear Admiral Dufek entertained the nation's top Navy, science, congressional and government Antarctic planners.

Rear Admiral Richard E. Byrd, dean of American Polar exploration who was to fly down later, pledged to the departing crews, to visitors assembled, and to the nation through national news media representatives present, that Operation Deepfreeze signalled the start of a permanent Antarctic program. He stressed the values of the IGY science studies to the nation and to the world, commended the pioneering spirit of all participants, and wished Godspeed to the departing task force ships. *(Continued on page 51)*

CAPTAIN'S INSPECTION ABOARD THE WYANDOT



FOR FAMILIES, A FIVE-MONTH SEPARATION:



MUSIC AND GRINS speed the parting task force. At left, Navy band from USS Iowa played at dock as GLACIER



departed Boston. Right, E. O. Crandall, AD2, in Otter UC-1 surrounded by well-wishing members of VX-6 families.



PACKED AND READY TO ROLL ARE THESE MEN OF R5D SKYMASTER VX-6 GROUP LINES UP BEFORE ONE OF TWO P2V NEPTUNES TO GO





ARNEB AND WYANDOT GET GOLD-BRAID SENDOFF BY ADMIRAL BYRD AT NORFOLK'S PIER NO. FIVE

A Sendoff to Be Remembered

Admiral Byrd was followed at the microphone by General Graves B. Erskine of the Defense Department, Dr. Laurence M. Gould of the National Science Foundation, and by Admiral Jerauld Wright, Atlantic Fleet Commander, who included a message from the Chief of Naval Operations in his remarks. In all, some twenty flag officers plus members of Congress and other dignitaries took part in the sendoff.

With all ships at sea and planes of Air Development Squadron Six revved up for departure the first casualty occurred. EDISTO wired an emergency appendectomy had been done successfully on board and that the patient had been flown by helicopter to a Naval hospital ashore.

Within the same twenty-four hours the Task Force Commander received a dispatch that one of VX-6's triphibian planes had lost one of its two engines 310 miles out of Midway but LCDR Robert E. Graham, the pilot, had made it safely in to that Pacific outpost and was waiting for a replacement engine.

While the long-range Neptunes and R5D Sky-masters of VX-6 had taken a more direct course from Patuxent River, Maryland, to the Antarctic, the triphibians and R4D Dakotas of the squadron

had followed a most unique flight path. Because of their Antarctic modifications (skis, special science and photographic equipment, etc.), they had to fly in shorter legs. So on November 12 they took off for New Zealand via Moffet Field, California, Whidbey Island (Seattle, Washington); Kodiak and Adak, Alaska; Midway Island; Barber's Point, Hawaii; Canton Island; Nandi Fiji, and Auckland, New Zealand. This was the first time Navy planes (or any planes, for that matter) had ever flown from America to the Antarctic continent by way of Alaska. *(Continued on page 55)*

DEEPFREEZE pilots all. Left to right, RADM George J. Dufek, CTF, LCDR Henry D. Jorda, flight officer, LCDR John H. Torbert, electronics officer, LCDR John F. Donovan, aerology officer, just prior to VX-6 departure.





Crossing "The Line"
OR
POLLIWOGS
INTO
SHELLBACKS



DAVEY JONES HIMSELF, LCDR T. J. SCHERMERHORN,
XO OF GLACIER, PLAYS BIG ROLE IN CEREMONY



3. ABOARD ROYAL OPERATING TABLE



4. INTO THE DRINK BACKWARDS FOR POLLYWOG



1. A SHELLBACK SINCE '36, CTF DUFEK PRESIDES AS NEPTUNE ON ARNEB



2. BAILIFF READS CHARGES AS ROYAL UNDERTAKER LEADS EACH POLLYWOG FORWARD TO FACE THE SHELLBACK COURT



5. RUNNING PADDLE-RIDDEN GAUNTLET TO HOME PLATE

6. EX-POLLYWOG BECOMES TRUSTED SHELLBACK AS KING NEPTUNE AND HIS COURT OFFICIALLY WELCOME HIM IN

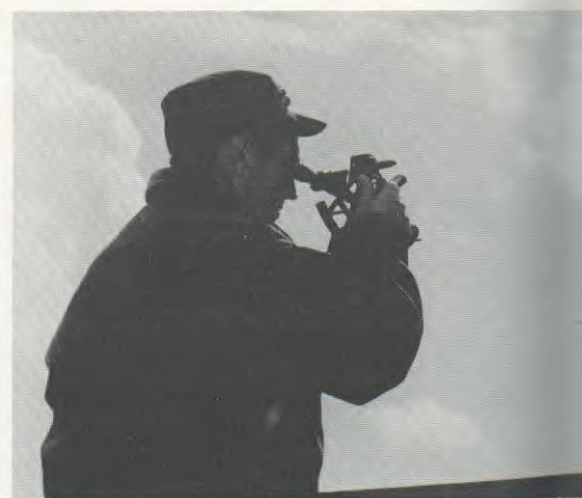




LUCKY SEAMAN to draw a billet on the newest, most modern icebreaker. When the GLACIER came off the building ways in Pascagoula, Mississippi she was the most powerful breaker and the largest this side of the Iron Curtain. Her modern hospital, insulated hull, and ultramodern living conditions have made her the envy of officers and enlisted men alike.



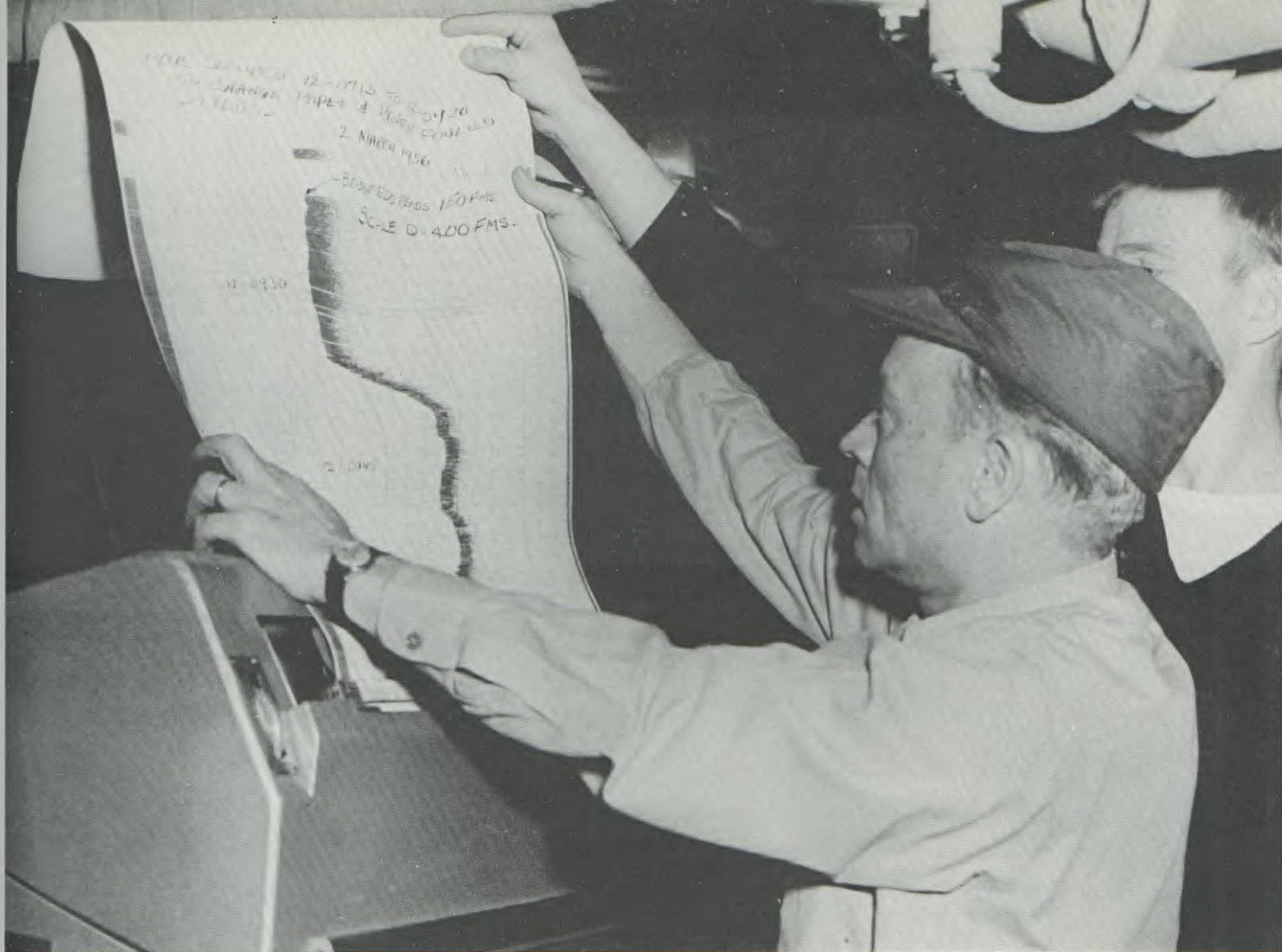
AEROGRAPHERS AND WEATHER BALLOON



TAKING SEXTANT READING OF SUN

A REGULAR TEMPERATURE READING





PRECISION DEPTH RECORDER CHART CHECKED BY BUSHIPS' H. P. SHIPLEY AND JOSEPH HANDLEY, QM3

Science Takes Over

Scientists embarked in the surface ships began to take readings with their complicated equipment. Ships followed tracks five miles apart so hydrographic experts could record temperatures, currents and depths during the 10,000-mile passage.

Before the last ships reached New Zealand they had discovered undersea mountains whose peaks soared more than a mile above the ocean floor.

Studies of sea temperatures, taken as deep as 900 feet by bathythermograph, provided information on currents, buoyancy conditions for submarines, and the speed of sound in water at varying temperatures.

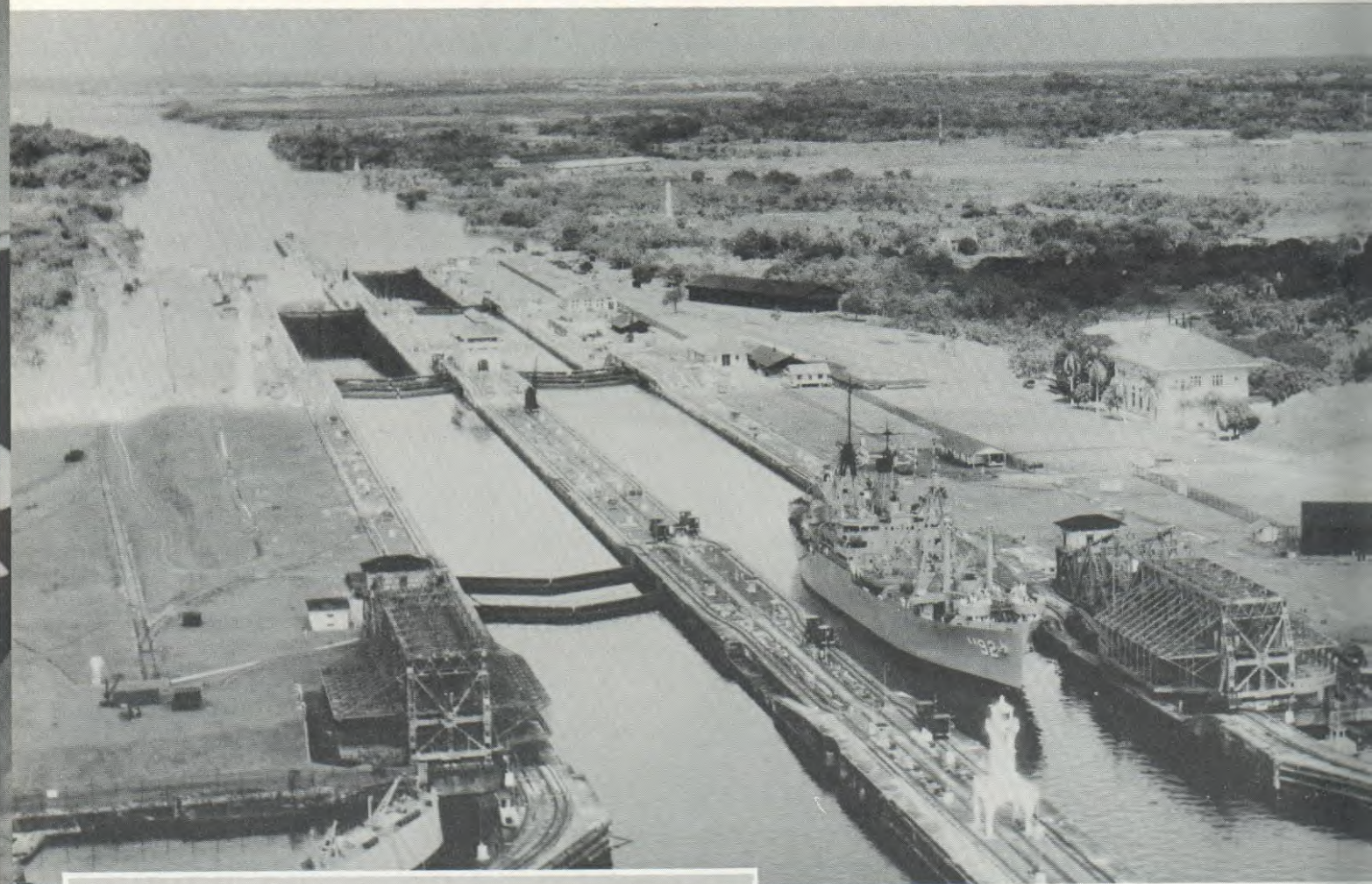
A cosmic ray laboratory was rigged on the fantail of the flagship in an effort to locate the geomagnetic equator. This information was vital to the IGY studies, especially in the fields of solar activity and satellite launchings.

When the flagship reached Panama the lead icebreakers with their YOG's in tow had crossed the equator and reported "All aboard are Shellbacks." (Continued on page 58)

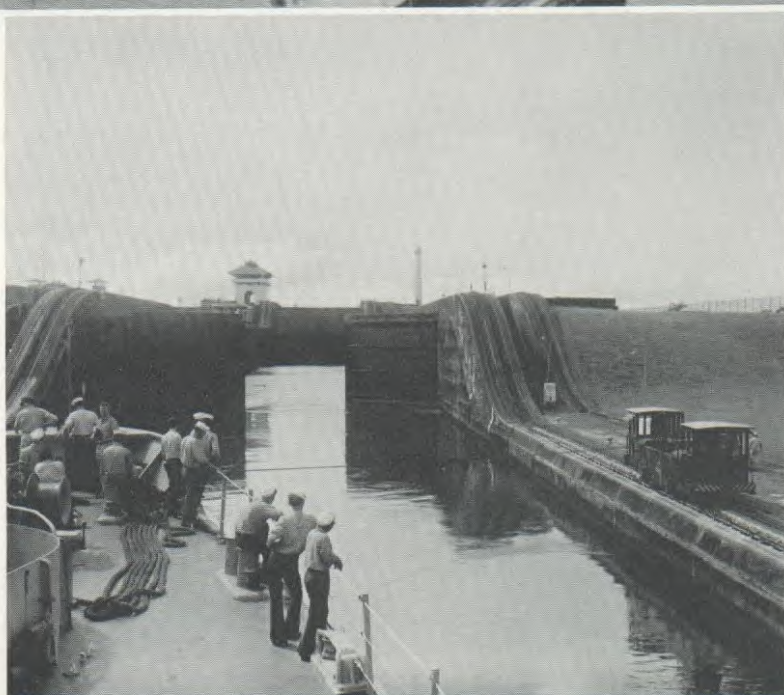


KYTOON BALLOON SLOWLY BECOMES AIRBORNE

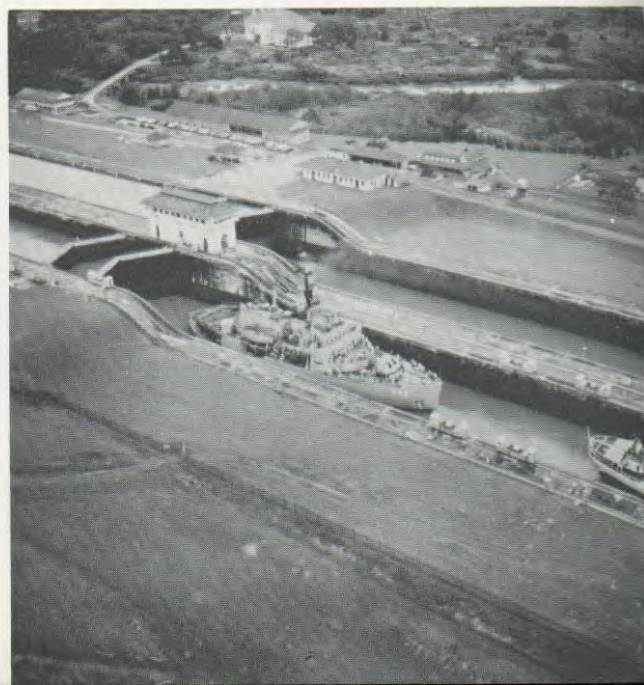
TRANSITING THE CANAL, HARD WORK FOR SOMEBODY:

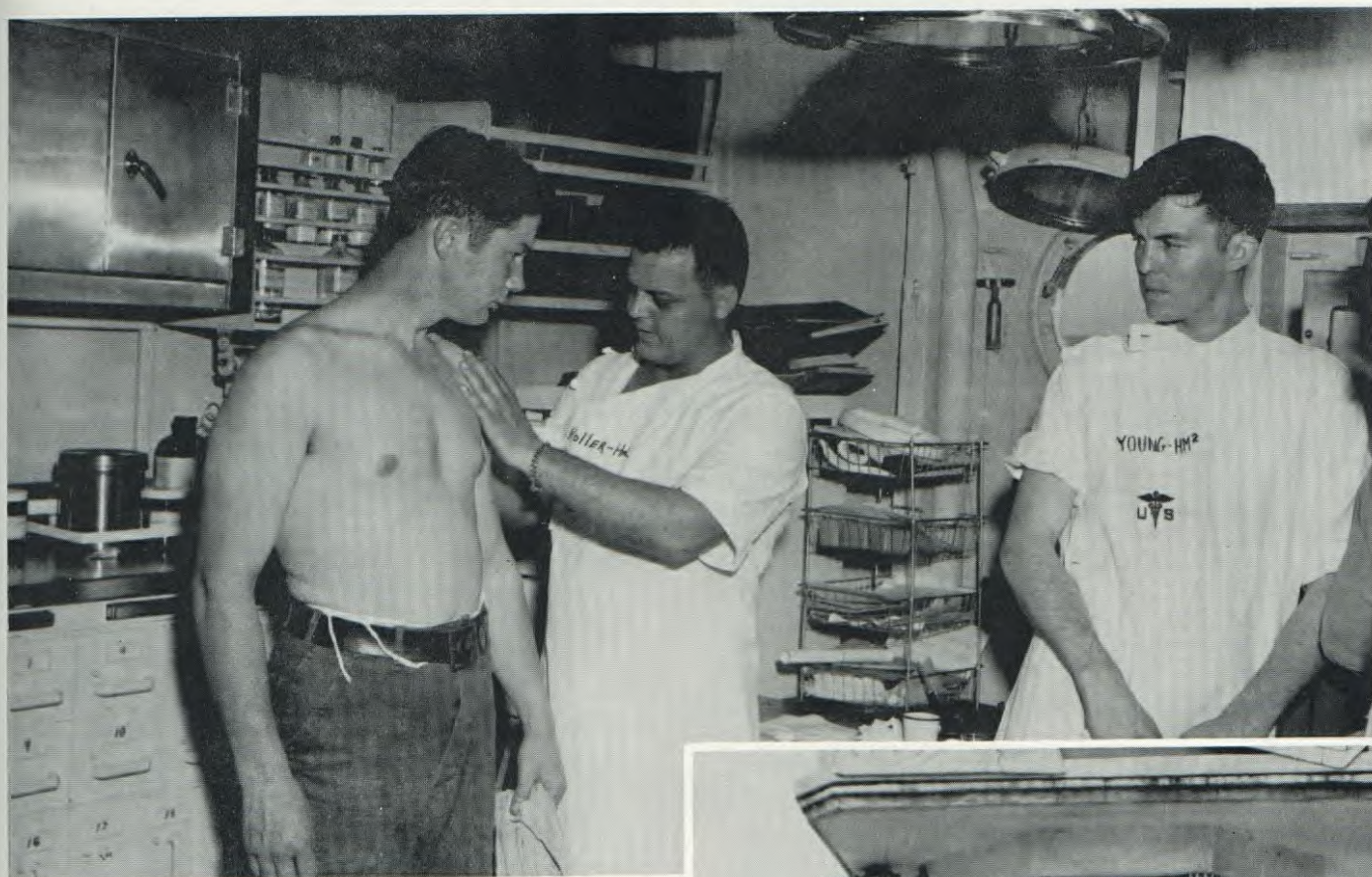


LOCKS of the Panama Canal are flooded to allow the passage of WYANDOT (top). USS NESPELEN (below) is towed through first lock of Canal as sight-seers rubberneck.



GLACIER noses her way through Miraflores Lock during her first passage through the 50-mile length of Canal. ➡





LIBERTY in Panama followed the trip through Canal. Top, seaman gets shots in sick bay prior to shoving off on the town. Hospital Corpsmen Koller and Young officiate.

STREET-CORNER Baedeker in Panama City; Panamanian policeman directs George L. Byrd, air squadron barber. →



AND SO TO SCHEDULE



CHB-3 commendation by Admiral Dufek to John T. Meckley, SN, en route to Antarctica after passage through Canal.

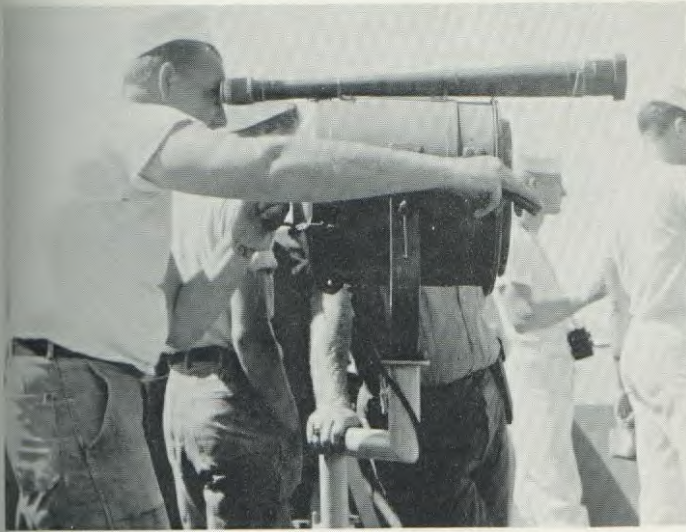


INSPECTION aboard the GLACIER on the way South. Whitejackets stand at attention as CDR E. H. Maher, CO of the icebreaker, goes down the starched line in review.

Deepfreeze sailors went the ways of all past sailors in the open city of Panama. Recruits heard with interest the fast con talk of the hackies and were tempted by the secretive sales pitches of swarthy bistro salesmen who pushed "hot diamonds just smuggled in by a merchantman" which in reality could be duplicated for two bits at the Woolworth store down the street.

Sailors bought or rejected "Chanel Number Five perfume at Paris prices for your 'Chica' back home, Senor." Camera shutters clicked as rapidly recording the tropic way of life as they had during the ships' passage through the locks of the Big D.tch.

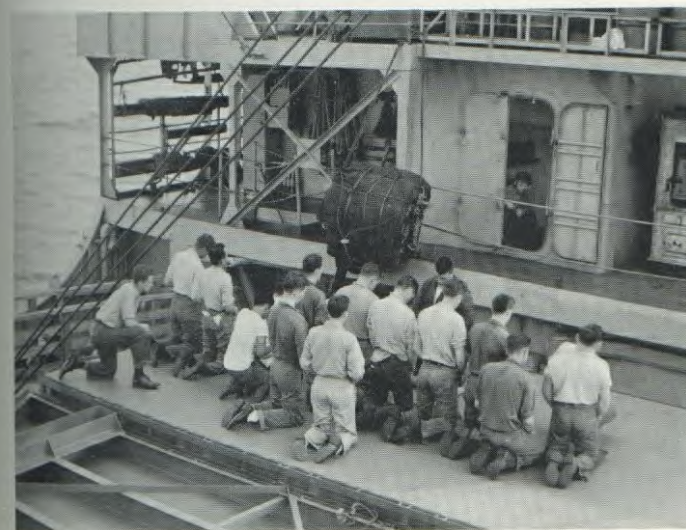
Broke and contented crews were happy when whistles heralded the departure of their ships from the easy-going tropical liberty port and the start of the three-week, 6,500-mile trip to New Zealand, knowing they would be paid again before arrival.



SHIP-TO-SHIP SIGNAL WITH FLASHING LIGHTS



SPLITTING PANAMA BAMBOO FOR TRAIL FLAGS



TIME OUT FOR ROSARY SERVICE ON THE ARNEB



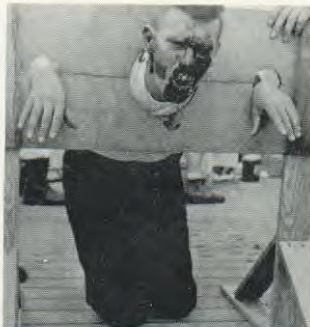
SWIM CALL is piped aboard GLACIER while 700 miles south of the Canal Zone. Note guard boat in the background and seaman with rifle standing guard for sharks.



PLANE CAPTAIN UP ON 'COPTER'S TAIL ROTOR

CEREMONY ARNEB SHELLBACK

(An Eyewitness Account)



CRUEL, UNUSUAL PUNISHMENT FOR POLLYWOGS

Meanwhile the flagship ARNEB was crossing the equator. Pollywog pranks of resistance, including the hoisting of a sheer pair of red lace unmentionables alongside the personal flag of the Task Force Commander in the dead of night, had heightened the spirit of anticipation. Dire threats emerged from Shellback meetings, held openly, while organized resistance was contemplated by the Pollywogs in furtive secret meetings.

However, when the Jolly Roger was hoisted the Shellbacks had the situation in hand (thanks to a handy firehose and negative psychology).

Describing the procedure of his initiation into the ranks of Trusted Shellbacks, one sailor wrote home:

"The Shellback court, especially the costumes, would have done justice to a DeMille production.

"The first one to greet me was the Royal Undertaker who conducted me unceremoniously to the Royal Judge. The Bailiff read charges to which I plead 'not guilty.'

"A heavy gavel slammed down simultaneously with the judge's pronouncement, 'Guilty as Charged!'

A SHELLBACK — ALMOST

"One stop later I knelt at the feet of Neptunus Rex (played in full costume by Rear Admiral Dufek, the Task Force Commander), who dubbed me a Shellback . . . almost.

"Proceeding from King Neptune I next encountered the Royal Queen, a 30-year bos'n, the ship's chief master-at-arms, who sported among other assets two neatly placed grapefruits. Another bailiff stood shotgun over his (her) shoulder to guarantee her reputation didn't get tarnished before witnesses by an unwarranted though affectionate pat on a verboten section of her hairy anatomy.

"One step further I encountered the Royal Baby, a chief petty officer of sufficient years standing to have developed 240 pounds of chief-petty-officer-like physical characteristics. He was dressed in a meager diaper and an eight-inch black cigar with his middle well greased. The Bailiff commanded: 'Kiss the Royal Baby's belly button!' Then, 'That was half-hearted, I said kiss it!' and the pressure at the back of my head forced a goodly quantity of the black belly grease over my face.

"Commanded to rise, I was led to the Royal Operating Table where two medically-clad surgeons began working me over. While one prepared me for surgery by applying a heavy coating of black grease over my bared stomach another probed the depths of my throat with a 15-inch raw turkey neck that had been immersed in a concoction of olive oil, horse radish, quinine, ketchup, vinegar and other non-related spices.

"The one who had worked my stomach over then asked if his compatriot had left a bad taste in my mouth. Taking my resistant silence as an assent he then flushed out my mouth with another liquid concoction a hundred times as repulsive as the earlier potion. He had the temerity to demand my name while my mouth was filled with the filthy mixture.

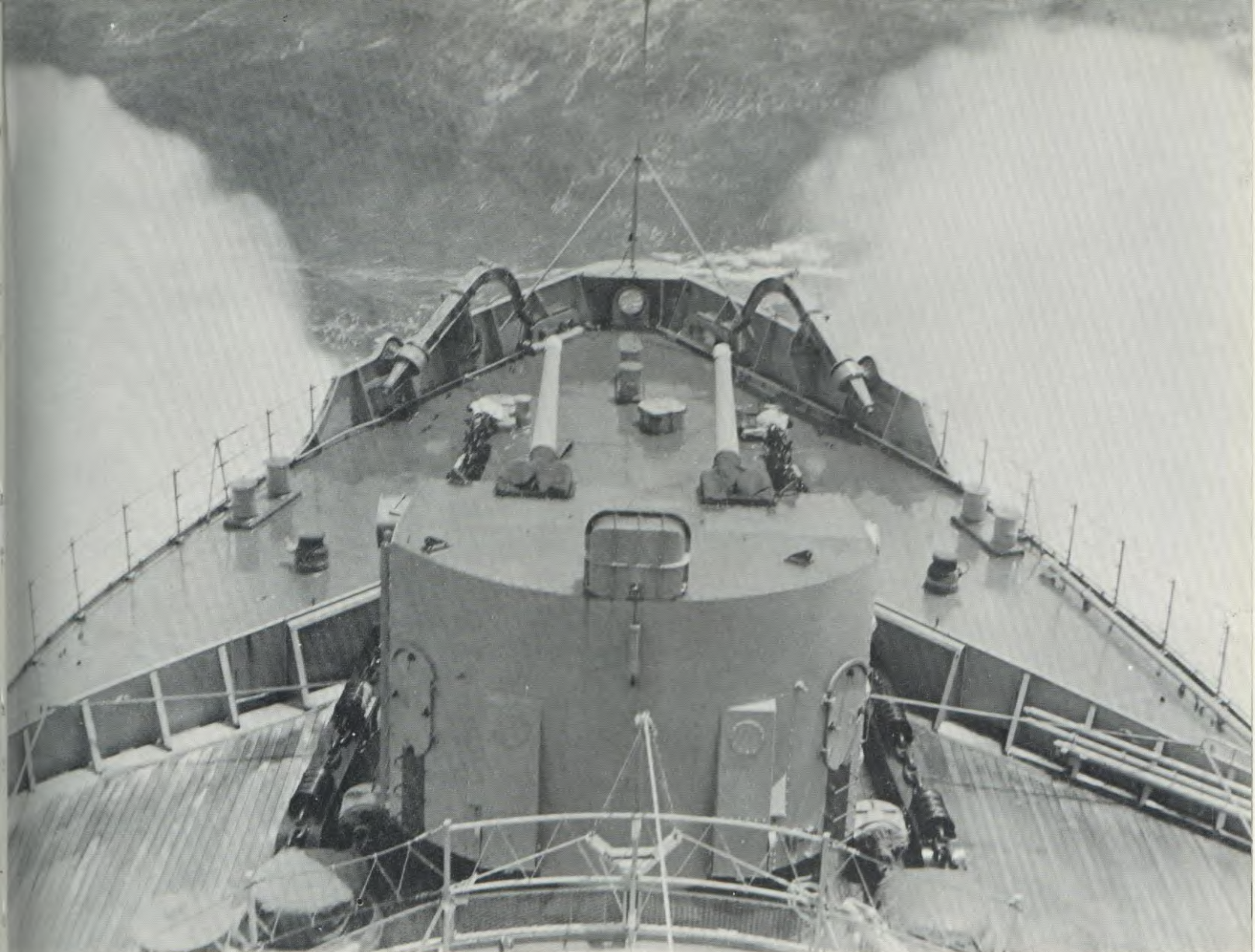
"Next came the Royal Barber's chair where I was given 'special' treatment before being dumped violently backward into an open tank containing aged ship's garbage. Firm hands gripped my shoulders and head as authoritative voices demanded: 'What are you?' Had I said 'Pollywog' instead of 'Shellback' I would have experienced other duckings.

"From the dunking tank to the firehose in the face was a short distance, normally. But the way was blocked by shillelagh-wielding stalwarts, each anxious to get in just one more lick before I transited the dark tunnel and joined their ranks."

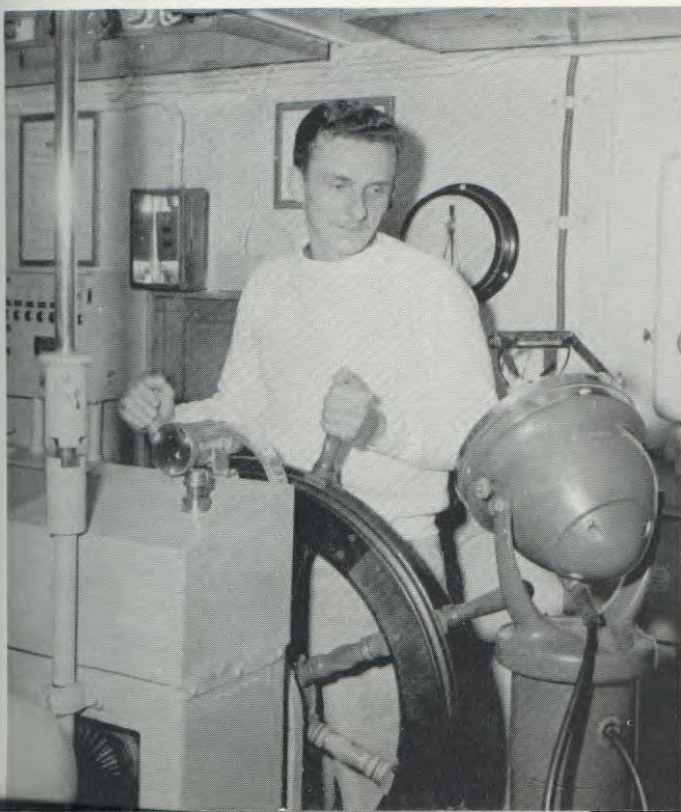
—"P.S.: I hear there's an officer and three men aboard who shirked the initiation. Just wait'll we Shellbacks get ahold of them on the way back!"



CALLIGRAPHER extraordinary. Shellback certificates brought plenty of liberty money for this talented chief.



GLACIER ENCOUNTERS ROUGH SEAS AND STORMY WEATHER BETWEEN PANAMA AND NEW ZEALAND



High Seas, Rough Going

It was Thanksgiving Day when the lead ice-breakers ran into heavy weather for the first time. Each towing a fuel barge loaded with precious cargo, they were forced to slow their pace and delay their arrival in New Zealand.

◀ WHEEL WATCH NO CINCH THIS ROUGH WEATHER

A MILLION JOBS IN A DAY AND THEN A LITTLE PLAY: _____



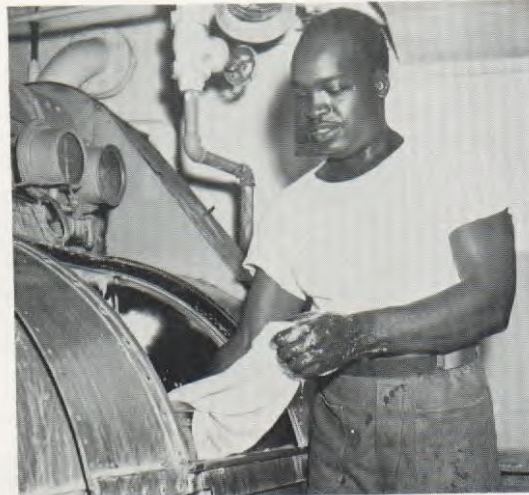
VX-6 CREW PUTS ROTOR BLADES ON WINDMILL



SICK CALL, EMERGENCIES KEEP MEDICS BUSY



BANKER Ensign Hubert E. Dutil, disbursing officer of the GLACIER, opens safe for payday. Sweating out that



sweet day are, center, flagship's laundryman and, far right, E. S. Bruce, FN, coming up from cleaning the ship's bilges.



BATTLE MESS, drill held aboard southbound ships as guard against possibility of iceberg rupturing ship's hull and putting mess hall out of commission. Left, order is given by LTJG William E. Hilfrank, operations officer of GLACIER. Above, ARNEB has mock serving on station.



COFFEE BREAK ABOARD GLACIER



ACEY-DUCEY championship game aboard flagship. Chief Pipefitter Ralph T. Adamson (right) defeats Lt. D. M. Sullivan before gallery including CAPT. D. L. L. Cordiner, Admiral Dufek, CTF, and LCDR D. F. Kent.



THE CTF CHECKS A RADIO MESSAGE



UNDER SUNNY SKIES CREWMEN PITCH HORSESHOES ON FANTAIL



ARNEB'S BATTLE MESSING PROBLEM



WIND-UP OF SHIP'S FIRE DRILL

THE VOYAGE SOUTH CONTINUED



TURKEY tender D. L. Hawkins, ship's cook aboard the GLACIER, does things up brown for Thanksgiving feast. Ship's bakers throughout the task force were kept on the jump, too, during the holiday season on the trip South.





FLOATING banquet for the YOG-34. Men of the GLACIER loaded 20mm ammo cans with turkey dinner, buoyed them,



and floated or high-lined them back to the little tanker being towed to the Antarctic for freezing in at fuel farm.

Thanksgiving Near Easter

By the time weary men had scrubbed grease off themselves and finished Thanksgiving dinner on the ARNEB the vanguard ships had left Easter Island of *Mutiny on the Bounty* fame astern and were nearing the Roarin' Forties. First they reported seas worsening, then strong winds, then mountainous seas and gale winds.

The icebreakers were hard pressed to keep steerageway and avoid losing their precious tows. One report showed the GLACIER averaging three-tenths of a knot and another showed the EDISTO rolling more than fifty degrees.

After it was over a crewman on the YOG-70 explained to the New Zealand press how his ship had "pushed" EDISTO the 6,500 miles from Panama.

Ship commanders throughout the task force took advantage of every chance to hold emergency drills and thus be prepared for any contingency in the ice. Hulls with imaginary iceberg ruptures were patched up time after time. Non-existent fires raged in paint lockers and cargo holds but were brought under control. Even the ship's cooks got into the act when combat messing drills — feeding men at their battle stations — were held.

IMPROVE EACH SHINING HOUR

Courses for college credits, high school diplomas and for professional improvement were made available and issued. Enough USAFI college

NESPELEN CHIEFS EAT THANKSGIVING DINNER

courses were available for the wintering-over group alone to compile eighteen college degrees.

The Voyage South wasn't all work, drills, initiation and study, however. Acey-ducey tournaments flourished and champions were crowned; bridge tourneys broke monotony and "Rope Yarn Sundays" gave crewmen ample chance to write home.

(Continued on page 67)





NEW ZEALAND'S SCOTCH HIGHLANDERS MARCH TO BAGPIPES IN CHRISTCHURCH, DOUBLE HONOR FOR

NEW ZEALAND, THEY ALL SAY





VISITING TASK FORCE AND FOR BRITISH EXPLORER SCOTT. CTF PLACED WREATH AT HIS STATUE

IS BEST LIBERTY PORT EVER

From the day the first ship arrived Port Lyttelton (Christchurch), New Zealand until the last ship left, 1805 appreciative Americans sang praises to the reception given them by the hospitable New Zealanders. The Admiral called it "Overwhelming." Others said, "Friendliest people in the world;" "Best liberty port I've ever visited;" "Most courteous people I've ever met!"

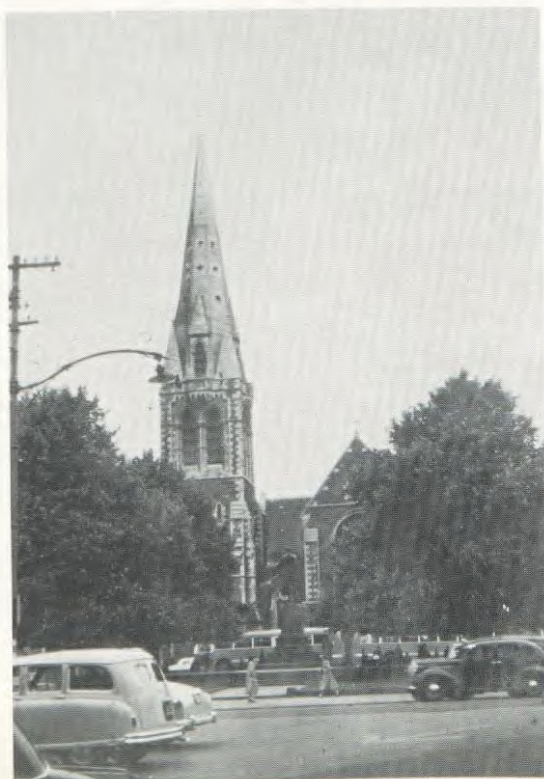
Task force leaders exchanged official calls, the Force Commander presented a plaque from the United States to the people of New Zealand honoring past Antarctic explorers, special dances staged for the visiting ships, and countless invitations to homes marked the short visit.

The first serious material casualty occurred in New Zealand when a helicopter, transferring from the GREENVILLE VICTORY to the icebreaker EASTWIND, crashed in the water alongside the dock. Its crew was rescued.

Docks were crowded with waving citizens when harbor whistles signalled the departure, two days early, of the last Task Force ships.

(Continued on page 70)

CHRISTCHURCH CATHEDRAL





YOG-34 STEAMS INTO HARBOR TO WAIT FOR PICK-UP LATER AS GLACIER CASTS OFF ITS TOWLINE



TYPICAL OF WARM-HANDED NEW ZEALAND WELCOME IS THIS SHOW-WINDOW EXHIBIT ON MAIN STREET



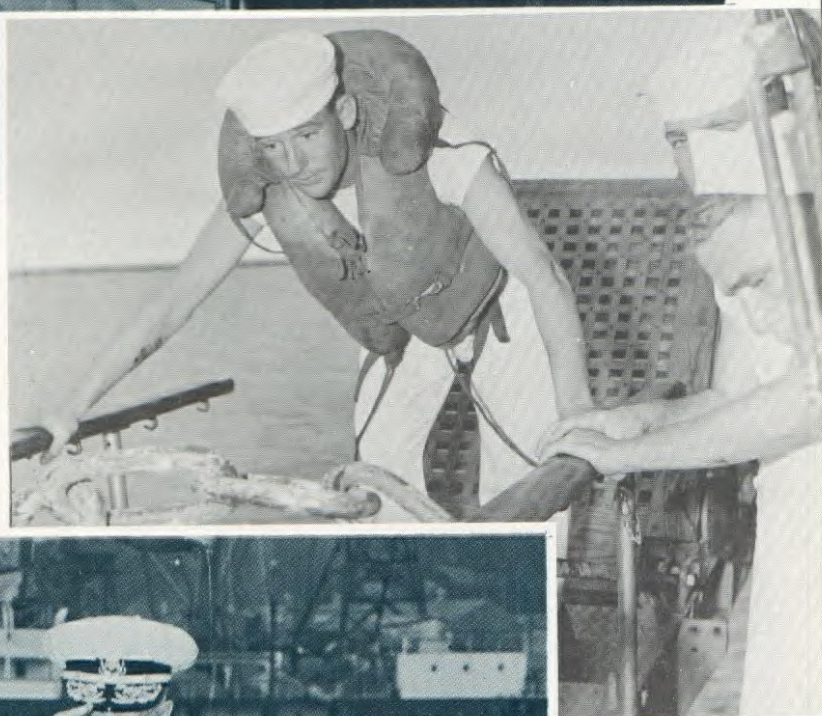
CRASH of helicopter in bay at Port Lyttelton did not injure either pilot, LCDR T. N. Lathrop (center, right),

nor co-pilot, Franklin Hoops, AM3, (far right). 'Copter, a total wreck, was raised from water by salvage crew.



HIGH SPOTS OF STOPOVER "DOWN UNDER":

PIPING ABOARD some famous callers at New Zealand. Flagship crewman rigs accommodation ladder (right) to bring on U.S. Ambassador Robert C. Henderson, above. RADM Richard E. Byrd reports aboard the *GLACIER* upon arrival; he had flown to New Zealand with the VX-6 group.



Putting Deepfreeze On the Ice

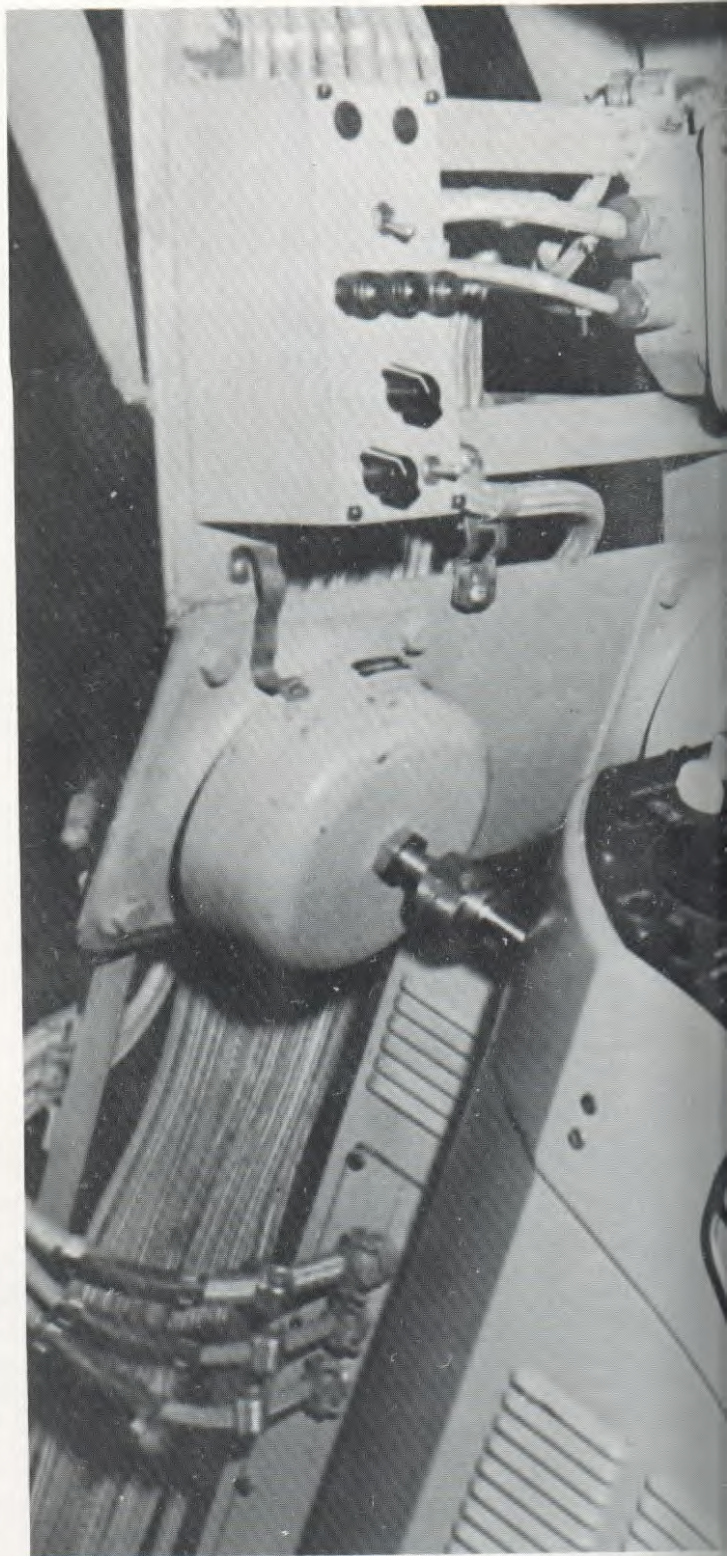
Behind this early New Zealand departure were the glad tidings from *GLACIER* that five miles south of Scott Island there was virtually no pack ice. Naturally, the task force commander wanted to take early advantage of this unexpected break.

So by early afternoon December 16 all ships were underway to take stations in the ocean and in the pack ice to support a flight of planes who would fly non-stop and land in Antarctica on ice as soon as a favorable weather report was received.

The *YOG-70* was left in Port Lyttleton, to be picked up later by an icebreaker and towed into the pack ice where she would be moored with *YOG-34* in the ice to serve as a stationary gasoline station for the planes and tractors during Operation Deepfreeze.

The decision to leave the little tanker behind fell on happy ears among the men of the Task Force. This meant instead of waiting from mid-December to early March for the next mail, the icebreaker would take mail from Antarctic ships and bases to New Zealand for mailing to Stateside. More important, the same icebreaker would bring Stateside and New Zealand mail to Antarctica.

So as the ships steamed at best speed to take their ocean stations the hydrographers, oceanographers and cosmic ray experts again began taking their ocean and atmosphere study readings. From New Zealand to Antarctica they would record ocean phenomena and take samples of water bacteria and fish life that would prove extremely useful to science. (Continued on page 72)



GLACIER'S RADARSCOPE IS MANNED BY EDWARD

TWI-NIGHT vigil for the CTF. Admiral Dufek stands watch over southbound ships of the task force. Now nearing icefields, *GLACIER* experiences round-the-clock light.



J. BRENNAN, RDSN, AS 'BREAKER HEADS INTO ICEFIELDS. BACK TO WAITING PLANES GOES WORD



SHIPS TAKE COLUMN FORMATION, STRETCH OUT TO RADAR PICKET STATIONS AS VX-6 STREAKS SOUTH

Four Questions, Four Answers ... One Command – **GO!**

The weather map before him was based on reports from task force ships, weather stations manned by South Africa, France, New Zealand and Australia, and from four whalers of unknown nationality.

In his cabin the admiral flashed this message to the airmen: "Go!"

Their immediate response: "Wilco." (I will comply.)

Soon after four a.m. December 20 the first planes were airborne. Commander Hawkes, who had led R4Ds off the PHILIPPINE SEA's decks in Operation Highjump in 1946-47, flew the first Neptune (with LCDR John H. Torbert as co-pilot) to depart Christchurch. Within minutes another P2V piloted by LCDR Joseph W. Entrikin was airborne.

When the ships were one day out of New Zealand eight planes of the Air Squadron flew out to test the communications network which would be used during the historic non-stop flight. Each of four ships transmitted on the same homing frequency that would be used by the planes during the flight.

By December 19 Admiral Dufek had found the answers to four critical questions – questions whose answers guided his judgment in ordering the planes launched.

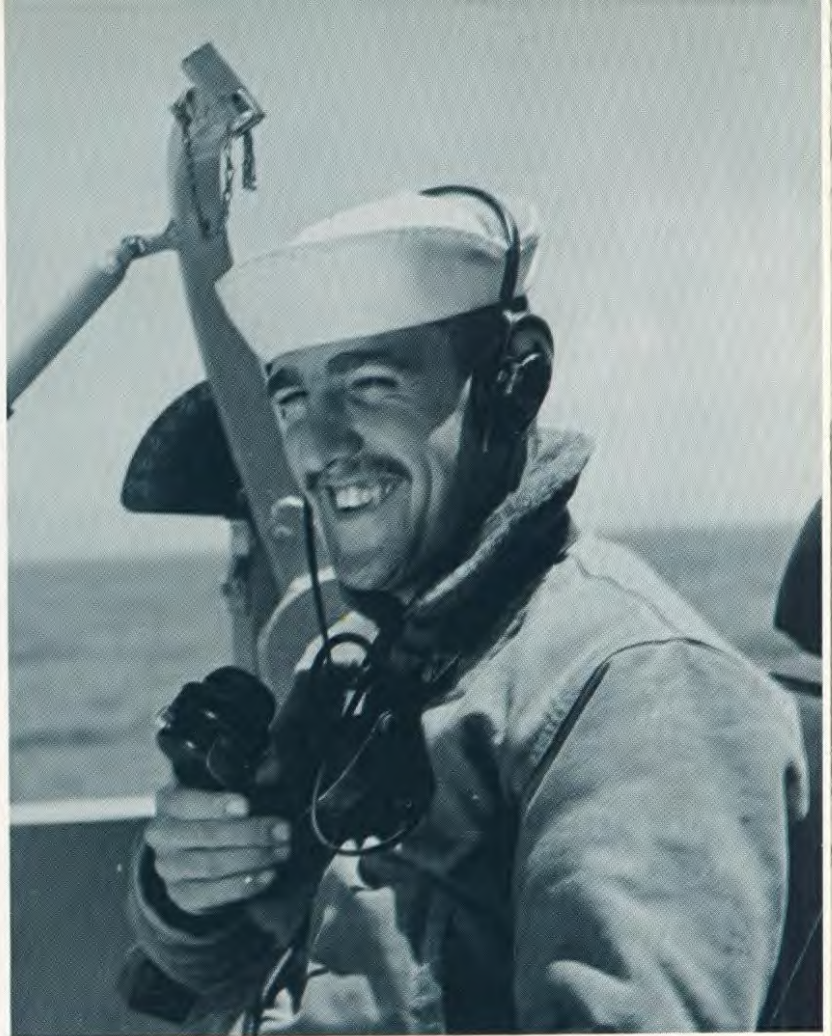
First, Commander G. K. Ebbe, who'd entered the pack ice on the GLACIER, reported the landing strip suitable for landing planes on wheels.

Second, Commander William (Trigger) Hawkes reported the planes ready for flight.

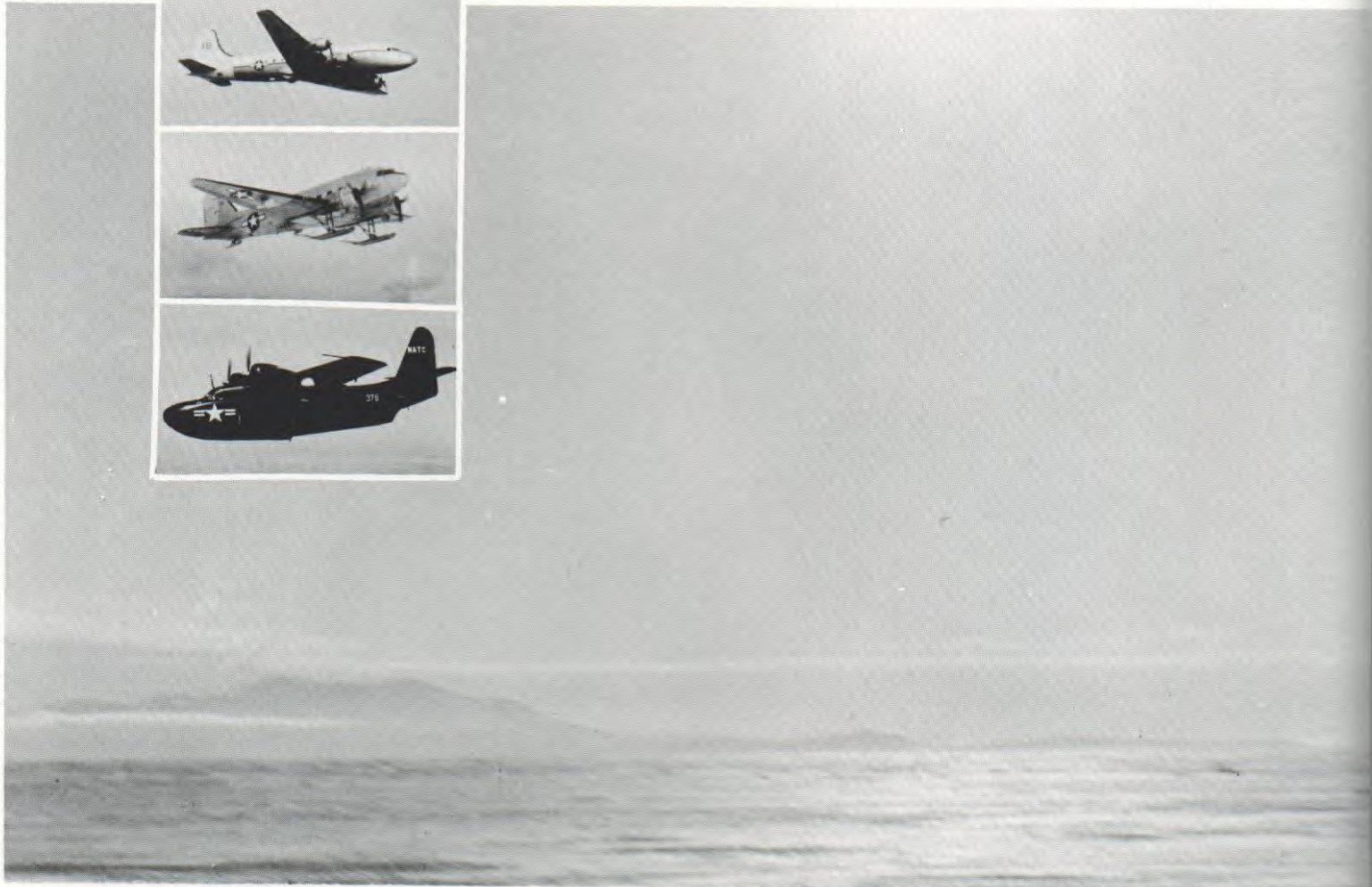
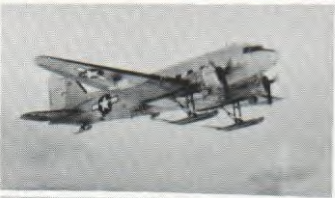
Next, Captain D. L. L. Cordiner, flag operations officer, reported all surface ships would complete their race from New Zealand and be on ocean stations by early morning.

Then Lieutenant Commander John Mirabito, staff aerologist, looked up from the most complete Antarctic weather map ever drawn and reported: "Weather conditions for the flight will be ideal – including a tail wind!" (Continued on page 74)

KEYS to success to flight from New Zealand to Antarctic. Expert casing by GLACIER (top left), tight communication lines (top right), perfect scheduling of ocean pickets (lower left), and completely perfect weather information.



HISTORIC FLIGHT,



P2V SETTLES SKIS ON SEA-ICE RUNWAY OF McMURDO SOUND. LONG-RANGE SKYMASTERS AND NEPTUNES

Two R5Ds were then launched from Christchurch and two R4Ds and two UF Triphibian Albatrosses took off with JATO (jet assists) from Dunedin. They had been deployed to Dunedin to minimize the air miles for the long flight.

About a quarter way through the flight the R4Ds and UFs ran into headwinds. With their gasoline supply approaching the critical point they were ordered to return to New Zealand. An icebreaker would pick up their crews and carry them into the ice later; the planes would remain in New Zealand throughout the operation unless it became plausible to make a later attempt.

The longer-ranged Neptunes and R5Ds soared on, passing ship after ship en route which guided their courses to the unique airport at McMurdo Sound.

When the planes reached Antarctica pilots saw a 300 by 8,000-foot landing strip marked by red trail flags, dye markers on the ice, and men stationed every 1,000 feet along the runway holding

smoke candles which indicated the wind direction.

There was no rush to reach the landing strip before nightfall because in Antarctica in that season there is no nightfall.

With this historic flight completed (first time planes had ever flown non-stop from another land mass into Antarctica), the flagship steamed in to test the ice and then rendezvous with other ships at Scott Island.

GLACIER and EDISTO had left their pack ice stations and were headed for the rendezvous when an Otter plane crashed at McMurdo Sound. EDISTO was the closest ship and her medical facilities were needed by men injured in the crash so she turned back. EASTWIND had run into heavy seas towing the YOG-34 from New Zealand and had not yet arrived Scott Island.

GLACIER met the assembled fleet and entered the ice pack at 3:15 p.m. December 23. Admiral Dufek shifted from the ARNEB to the GLACIER for passage through the ice. At 3 a.m. Christmas