



noaa week

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National Climatic Center

June 29, 1973

LIBRARY

Cloud-Seeding Experiment Begins Over Southern Florida

U.S.-Polish Agreement Protects Lobsters and Other Species

Conservation of American lobsters off the Atlantic Coast is a major new feature of a two-year bi-lateral fisheries agreement just signed in Warsaw between the U. S. and Poland. The agreement provides that Poland will not catch lobster intentionally north of Cape Hatteras, N.C., and will continue measures to minimize incidental catches of lobster while fishing for other species off the Atlantic Coast of the U.S. Poland also agreed that all lobster taken incidentally are to be returned to the sea in a viable condition, insofar as possible.

The agreement, which amends and extends an earlier pact covering fishing and fishing operations off the U.S. Atlantic Coast, contains a number of provisions seeking to conserve stocks of fish of concern to both countries and is also intended to enhance the exchange of scientific information with respect to such stocks. It also seeks to minimize fishing gear conflicts between vessels of the two countries and provides for periodic discussions of problems between representatives of each government's fisheries authorities and fishermen's organizations.

Ambassador Donald L. McKernan, Special Assistant to the Secretary of State for Fisheries and Wildlife and Coordinator for Ocean Affairs, who signed for the United States, was accompanied to Warsaw by Dr. Robert Edwards, Director of the National Marine Fisheries Service's Northeast Fisheries Center; William Gordon, Deputy Regional Director of the NMFS Northeast Region; and Henry Beasley, of NOAA's Office of International Affairs. Romanual Pietraszczek, Vice Minister of Shipping,

(Continued on page 2)

Ralph C. Reeder To Head NOAA's Personnel Division

Ralph C. Reeder, Personnel Director for the Health Services and Mental Health Administration in the Department of Health, Education, and Welfare, has been named Chief of NOAA's Personnel Division, replacing Guy H. Dorsey, who retires June 29.

Mr. Reeder will assume his duties on July 23. During the interim period, Bernard D. Hull will serve as Acting Division Chief.

A cumulus cloud-seeding experiment is scheduled to begin July 1 over southern Florida, to improve present understanding of weather modification causes and effects in the tropical atmosphere. The experiment will be conducted by the Environmental Research Laboratories' Experimental Meteorology Laboratory in Miami, Fla., in cooperation with other NOAA elements in the area--ERL's National Hurricane Research Laboratory and Research Flight Facility and the National Hurricane Center of the National Weather Service--and the Universities of Miami and Virginia.

The experiment will run through August or until a usefully large data sample--about 20 experimental days, with seeding on approximately 10 of those--is obtained.

According to Dr. Joanne Simpson, Director of EML, this year's project represents an important "next step" in the evolution of cumulus-cloud-modification theory and technology.

Data obtained from a dense surface network of rain gages and anemometers (operated this year by the Department of Environmental Sciences of the University of Virginia) will tell something about the contribution cloud-seeding makes to rainfall, and should provide measurements to use in a continuing study of Florida convective rain.

A dual-Doppler-radar system from the University of Miami's Division of Atmospheric Science will provide data that can be used to determine the three-dimensional distribution of winds within the clouds.

The radar at the NHC, which has been digitized for the project, will permit the investigators to calculate rainfall from convective clouds in virtual real time. The NWS will also launch an extra rawinsonde--a balloon upper-air sounding that provides temperature, humidity, and wind data--every day during the project.

The RFF's C-130 will be the seeder aircraft, and a second NOAA aircraft, a DC-6, will begin operations early in July to gather meteorological data around the base of the experimental clouds. A Navy S2D aircraft from the Naval Research Laboratory also will participate.

As in previous years, the experiments will use a randomizing procedure that makes it impossible for them to identify which clouds have been seeded until the experiment is concluded. Dr. William L. Woodley of EML explained that the randomizing process uses sealed instructions and what is called a "tight-lipped randomizer" to ensure that apparent results are not colored

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Second Kilowatt Transmitter Installed at Salisbury, Md.

The second of the more powerful, 1,000-watt transmitters to be installed by the National Weather Service has been installed at Salisbury, Md., and continuous broadcasts of weather information to serve the mid- and lower-Chesapeake Bay area and the lower Delmarva peninsula have begun. Activation of this transmitter completes effective VHF-FM weather radio coverage for mariners from the entrance to Chesapeake Bay northward to Havre de Grace, Md.



Mr. Johnson speaking at dedication ceremony.

The transmitter, whose broadcasts emanate from the Weather Service Forecast Office in Suitland, Md., is part of a complex of broadcast stations that will service the Maryland-Delaware coastal area, eastern Virginia, Chesapeake Bay, and the Greater District of Columbia area, and of the larger expanding network of more than five dozen stations across the country.

SITS Program Benefits Scientific Community

Scientist-in-the-Sea, a unique program that enables graduate students to become effective members of the scientific diving community, has begun its third session at the Naval Coastal Systems Laboratory in Panama City, Fla. This year's class includes 14 men and two women.

Scientist-in-the-Sea is an unusual program designed to provide its students with the breadth and depth of scientific diving information and skills to meet the growing demands of the marine science community. Through SITS, young scientists and engineers of high potential are trained in advanced diving techniques, equipment and technology enabling them to effectively implement their academic scientific knowledge in an ocean environment. The program is devoted to future scientists and is not a training course for diving technicians.

One of the intriguing aspects of the SITS program is the teaming up of scientists from the academic community and professional divers and engineers from the military community, producing a superb interdisciplinary and versatile program. The program is supported by NOAA Sea Grant funds, the State University System of Florida, and the Naval Coastal Systems Laboratory.

ERL Scientists Evaluate Lasers As Weather, Pollution Monitors

Scientists with the Environmental Research Laboratories' Wave Propagation Laboratory have begun a systematic evaluation of lasers as weather and pollution sensors for the advanced automatic weather stations of the future. Under a recent agreement with the National Weather Service, they will study the potential of lasers--and particularly of "lidar," the laser equivalent of radar--for remote sensing of various natural and manmade atmospheric phenomena.

Lidar (from "light detection and ranging") is a laser which sends out discrete pulses of light and observes the effect on the light of atmospheric constituents, temperature, and motion.

"Presently," says Dr. Vernon Derr, director of the Wave Propagation Laboratory's atmospheric spectroscopy program, "only certain weather conditions are measurable by automated systems. These include temperature, humidity, pressure, wind speed and direction, and precipitation accumulation.

"Some major categories which to date have not been automated and which must be observed by human monitors are clouds, dust, fog, and other conditions which affect visibility. The lidar techniques may make remote sensing of these possible with virtually no human supervision."

Although the Wave Propagation Laboratory has carried on a number of laboratory and field studies of laser sensors, the first stage of its study for the Weather Service will aim only at identifying the kinds of information accessible to laser sensing and the costs and benefits of these techniques. Hardware development for the most promising techniques will begin in 1976.

But there is little doubt of the promise of environmental lasers. Says Dr. Derr: "Once these systems have been thoroughly tested, they should be capable of monitoring atmospheric conditions from the ground with very little human supervision. This will be a major step forward in observing, understanding, and predicting both natural meteorological phenomena and man-caused conditions such as pollution."

Fisheries Agreement (Continued from page 1)

signed for the Polish People's Republic. According to NMFS Acting Director Dr. Robert W. Schoning, the new agreement broadens existing protective measures for species that are important to U.S. recreational and commercial fishermen.

The existing voluntary joint inspection plan between the two countries, broadened and continued under the new agreement, permits boarding and full inspection of all species and fishing gear covered by the agreement.

In the new agreement, the U.S. agreed to relax port entry privileges for Polish fishing vessels in Boston, Mass.; New York City; Baltimore, Md.; Philadelphia, Pa.; and Camden, N.J. Polish fishing vessels will continue to be allowed to transfer fish and supplies in three areas within the U.S. contiguous fishing zone off the middle Atlantic Coast.

Dr. James W. Miller Is Honored As Distinguished Alumnus of MSU

Dr. James W. Miller, Deputy Director of NOAA's Manned Undersea Science and Technology Office, received a "Distinguished Alumnus Award" from Michigan State University at its recent graduation ceremonies. Dr. Miller received his bachelor's degree, M.A., and Ph.D. from the institution.



He has headed Federal programs in conjunction with other government agencies, universities, industry, and foreign nations in efforts to measure the performance and physiological functioning of marine scientists living on the ocean floor and to provide facilities to enable man to work under the sea on research projects.

In 1966 he received an Arthur S. Flemming Award when he was selected as one of the 10 outstanding young men in the Federal government by the U. S. Junior Chamber of Commerce. His other honors include the Superior Civilian Service Award from the Navy and the Navy Distinguished Civilian Award.

NOS Has "Collectors' Item" Charts for Sale

The National Ocean Survey is making available to the public, on a first-come, first-served basis, approximately 2,500 surplus nautical charts that were published between 1910 and 1940.

The charts have become collector items since they bear the designation "published by the U.S. Coast and Geodetic Survey." The Coast and Geodetic Survey, which dated back to 1807, was replaced in 1970 by the National Ocean Survey.

The charts are extra file copies which became outdated as new editions were issued. They are in good condition and suitable for framing. They were printed in two or three colors on heavy paper, and are generally 38 by 40 inches in size, although a few are smaller.

Each chart sells for \$3.50 and is sold on an "as is" basis. Requests should be addressed to the NOS, Physical Science Services Branch (C513), Rockville, Md. 20852. Inquiries should specify coastal areas of interest and year. Remittances should not be sent until information is received as to which charts and editions are available.

A few of the 10,500 surplus historical items offered for sale last year are still available, including some published in the 19th century. The supply is limited to a few areas, primarily Alaska, Oregon, Georgia, South Carolina, Maine, and Puerto Rico. Some may be suitable for framing, and others may have yellowed with age. They, too, sell for \$3.50.

Other early charts and maps are also available from the NOS, at varying prices.

New England Fisheries Offered Expanded Program of Assistance

An expanded program of assistance to New England fisheries will be instituted by NOAA on July 1, 1973. The National Marine Fisheries Service has earmarked \$400,000 for the first year of the program, for use in locating resources and for improving fishing methods, technology, and marketing procedures for underutilized New England fishery resources. Additional resources will be diverted to this program from other NMFS projects in the Northeast Region.

A program manager will be appointed to work closely with NMFS Regional Director Russell T. Norris in Gloucester, Mass., serving as liaison among State agencies, industry participants, and NOAA. NOAA's Marine Advisory Service will assist in disseminating information on the program and Sea Grant personnel will collaborate on technical matters and cooperate in other phases of developmental work.

NMFS scientists will work closely with industry in biological investigations of under-utilized species known to be abundant in New England waters and species caught incidentally to the more important catches will be examined from the point-of-view of potential acceptability as consumer items and the capability of fishing vessels to handle and process such catches.

Fishing gear, techniques, and vessel capabilities will be studied in cooperative experiments between commercial fishermen and NMFS scientists and technicians. The technology related to wider acceptance and usage of currently under-utilized species in seafood menus will be fully and continually studied at the NMFS Technology Center at Gloucester.

Testing and marketing of new fishery products will be expanded and the desirability and nutritional value of new or untried seafood products also will be publicized.

NOAA Employees Are Welcome To Attend Seattle Conference on the Oceans

The NOAA-sponsored conference on "The Oceans and National Economic Development," to be held in Seattle July 17-19, has prompted numerous inquiries about attendance by NOAA employees. All NOAA employees who can be spared are welcome to attend the conference, and all Major Line Components and Principal Operating Elements have received material on it. Special invitations or individual distribution of programs and registration material within NOAA is not planned.

Expenses related to the conference, including registration, travel, per diem, etc., must be paid by the employee's organizational element from its regular budget.

personnel perspective

1973 NOAA National Affirmative Action Plan

The National Oceanic and Atmospheric Administration actively supports the tenets of equal employment opportunity as established by legislative action and executive order. In order to reflect NOAA participation on a tangible basis, a plan or series of plans is published for the purpose of conveying to employees and prospective employees the methods and procedures to be utilized in the execution of national policy.

The Equal Employment Opportunity Act of 1972 and attendant Civil Service Commission and Department of Commerce guidance provide terms of reference for the development of EEO Affirmative Action plans which deal with EEO related problem areas on a broad national scale. NOAA and Major Line Component EEO Affirmative Action plans are more definite in nature with MLC regional and/or local plans of action being the more specific in meeting the problems faced in the immediate locale or regional area. Each MLC Director and the Assistant Administrator for Administration have developed plans for calendar year 1973. Regional plans also have been prepared, as well as separate local affirmative plans of action at designated field locations manned by 50 or more employees from one MLC directed by a single manager. Where local plans do not exist employees will function under the provisions of the appropriate regional or national EEO Affirmative Action plan.

To familiarize NOAA employees with the contents of the 1973 NOAA National Equal Employment Opportunity Affirmative Action Plan, the major provisions of the plan are summarized below. Subsequent issues of Personnel Perspective will detail the tenets of the plan and the responsibilities of the various officials in regard to its implementation. Under the provisions of the 1973 National EEO Affirmative Action Plan, NOAA will:

1. Strengthen the organization and administration of NOAA's EEO Program by appointing a full-time NOAA EEO officer and identify specific funding resources to carry out the Program.
2. Emphasize recruitment methods designed to reach minorities and women by participating in career days at local schools, visiting minority colleges, maintaining contacts with minority and women's organizations, and developing special recruitment literature directed at minorities and women.
3. Fully utilize the present skills of employees by identifying underutilized employees, providing special placement or reassignment opportunities for underutilized employees, restructuring jobs and establishing entry level and

4. Provide opportunities for employees to enhance their skills by selecting employees to participate in various established programs designed to increase advancement potential, developing additional such programs, and expanding career counseling services.
5. Assure EEO Program support by supervisors through the use of training, advice, incentives, and performance evaluation by providing supervisors with training in how to carry out their EEO responsibilities, reviewing criteria for evaluating supervisory performance, and nominating employees for official EEO awards.
6. Participate in community efforts in EEO by supporting community equal housing efforts, assisting employees in finding adequate housing, working with local authorities to improve transportation between work sites and residential areas, and maintaining contacts with community organizations and schools.
7. Provide a system for internal program evaluation by collecting and analyzing statistical data on employment of minority groups and women, evaluating all EEO affirmative action program activities, and developing annual reports on EEO Plan progress.
8. Assure prompt, fair and impartial processing of discrimination complaints and EEO counseling by providing a sufficient number of fully trained EEO counselors, reviewing discrimination complaint files and assuring appropriate action is taken, instituting disciplinary action against supervisors who are found to have knowingly or intentionally discriminated against applicants or employees, and publicizing the availability of EEO counseling.

Subsequent editions of Personnel Perspective will portray NOAA-wide EEO statistics together with reports of our progress in this vital area.

Bicentennial Stamp and Commemorative Medal

The American Revolution Bicentennial Commission is offering for sale to the general public its 1973 Philatelic-Numismatic Commemoration (PNC) package for \$5.00.

The PNC features the 1973 Bronze Medal commemorating the Bicentennial together with the four 1973 Bicentennial Stamps honoring the Boston Tea Party.

(Continued on page 5)

New Law Allows Early Retirement For Certain Federal Employees

New legislation signed into law by President Nixon on June 12, 1973, permits early optional retirement for employees of certain agencies undergoing major reductions in force. The new law provides for:

- Early optional retirement in major RIF situations, as determined by the Civil Service Commission, for employees of any age with at least 25 years' service or age 50 with 20 years' service. Annuities will be reduced 1/6 of 1 percent for each month the employee is under age 55.
- Purely voluntary retirement on the part of employees, who will be informed that they are entitled to all retention rights in a reduction in force

and who are in agencies determined to be under major RIF conditions. (The old law allowed for early retirement only when an employee was being involuntarily separated.)

- Determination by the Civil Service Commission as to whether a RIF is major, whether it extends to a whole department or agency, or if it may be limited to one or more installations, geographic areas, or competitive levels.

Since NOAA will not be in a major RIF situation as of June 30, 1973, it has not been designated by the Civil Service Commission. Therefore, at this time, the early optional retirement allowed by the new law does not apply to NOAA employees.

Environmental Data Service EEO Committee

In our continuing series featuring the various EEO Committees throughout NOAA, featured here is the Environmental Data Service's Headquarters EEO Committee. This committee services EDS employees in the Washington, D.C., metropolitan area and is also responsible for providing guidance to EDS regional EEO committees.



(From left) - Richard Kuhn; Robert Ochinero - Director, National Oceanographic Data Center; William H. Haggard - Director, National Climatic Center; Sharlene Rafter; Doris Stewart - Chairperson; Robert Stein - Vice Chairperson; James Disbrow; Arnold Hull - Associate Director for Climatology; Dorothy Bugbee - Administrative Office Representative and Josephine Moss.

Bicentennial Stamp and Commemorative Medal (Continued from page 4)

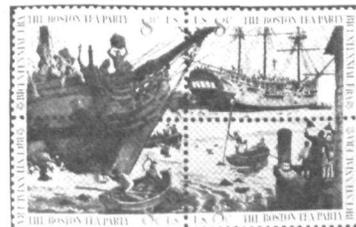
The PNC package may be ordered by sending a check or money order for \$5.00 to the American Revolution Bicentennial Commission, Post Office Box 1976, San Francisco, California, 94101. All orders must be postmarked by July 31, 1973.

1973 Bicentennial Commemorative Medal

The bronze medal, approximately 1 1/2 inches in diameter, is the second in a series of Bicentennial medals to be produced by the U. S. Mint by authorization of Congress. The obverse features the figures of Samuel Adams and Patrick Henry who were largely responsible for the formation of the famous Committees of Correspondence, which began to appear in 1772.



The reverse side of the medal is devoted to the Committees of Correspondence and depicts the transfer of messages through a mounted post rider. The slogan "To unite the colonies" expresses Adams' idea for unified action among the colonies during, and a confederation of states following the Revolution.



1973 Bicentennial Commemorative Stamps

The four 8c PNC stamps each represent a vignette of the tea party and together form a composite print of the incident. In December 1773, the authorities in Boston, in the face of growing popular opposition, found themselves obliged to collect duty on the cargos of tea on board the ships Dartmouth, Beaver, and Eleanor. To prevent this, the "Liberty men," dressed as Mohawks, swept aboard the ships on the evening of December 16th, broke open the tea chests and emptied their contents into Boston Harbor. Similar "tea parties" were subsequently held down the coast, serving to unite in action the anti-British movement.

Bight Project Headquarters To Be at SUNY Stony Brook

A New York Bight Project Office will be established at the State University of New York, Stony Brook to manage NOAA's five-year regional ecology investigation of the Bight--that portion of the coastal waters from Montauk Point, Long Island, to Cape May, N.J. The office will be located at the Marine Sciences Research Center. A Project Manager with a scientific and managerial team of about six persons will be responsible for providing broad scientific direction for the project, accomplishing technical integration, and monitoring scientific progress. Many scientists at a variety of government and non-government institutions will participate in the program under overall coordination of the project team.

Key to their work will be a user-directed approach, emphasizing participation by other organizations, useful and timely reports to prospective users on the results of the work, and user feedback on needs and on the adequacy and helpfulness of the project work. There have already been conferences with officials of the States of New York and New Jersey, the Interstate Sanitation Commission, and others concerned.

The Bight Project is the first project undertaken by the Marine Eco-Systems Analysis (MESA) Program recently established by NOAA.

NMFS Participates in Conclave of Fly Fishermen

Dr. Richard B. Thompson, Special Assistant for Marine Game Fish Programs to the Director of the National Marine Fisheries Service Northwest Fisheries Center, participated in the recent Northwest Regional Conclave of the Federation of Fly Fishermen in Spokane, Wash. After describing the role of the NMFS, he was available at the NMFS booth in the lobby to answer questions from the 400 attendees, who were primarily sport fishermen, but included tackle manufacturers and representatives of state fishery management agencies and commissions.

Dr. Thompson was aided by briefing materials prepared by Parker Trefethen on the Columbia River research; Bruce A. Yeager, Regional Supervisor, Enforcement and Surveillance, on foreign fisheries surveillance; and from the office of Dr. Fred C. Cleaver on the Columbia River Development Program.

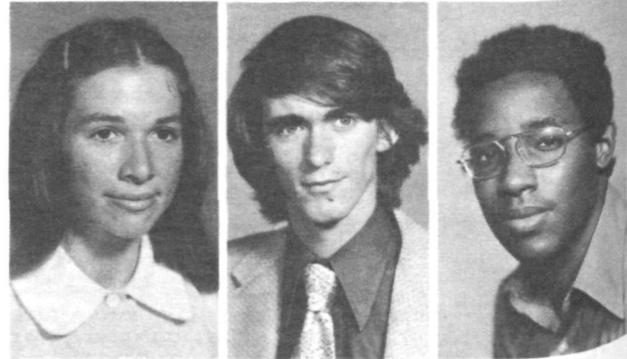


Dr. Thompson was assisted by his wife in the NMFS booth. Handouts included NOAA information, fish charts, and a listing of NMFS Regional Office and Montlake Research Facility key personnel and their telephone numbers.

notes about people

The Lake Survey Center was represented by Frank A. Blust, Chief, and William J. Monteith, Elmer F. Kulp, and Donald R. Rony, of the Marine Mapping and Charting Division at the recent meeting of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data at the Canada Centre for Inland Waters in Burlington, Ontario. Terms of Reference for the various working subcommittees were discussed by the participants, who represented, in addition to LSC, the Army Corps of Engineers, the Canada Centre for Inland Waters and the Canada Department of the Environment. Among the items discussed was the international coordination of Great Lakes levels forecasts.

Three 1973 high school graduates--Teresa Ann Teague, of Clyde A. Erwin High School; Clifford M. Carlin, of Asheville High School; and Michael Keith Smith, of the Asheville School--entered on duty June 11 at the Environmental Data Service's National Climatic Center in Asheville, N.C., as Department of Commerce Junior Fellows. The students, all honor graduates who plan to enter college this fall to major in the sciences, will be employed at NCC during vacation periods engaged in scientific work.



Ms. Teague

Mr. Carlin

Mr. Smith

Dr. John R. Proni of the Environmental Research Laboratories' Miami-based Atlantic Oceanographic and Meteorological Laboratories has been appointed technical advisor to the U.S. Navy's Long Range Acoustical Propagation Project beginning July 1, 1973. He will participate in various site panel visits during which different laboratories will present past and future programs.

The research effort is the Navy's basic project to utilize environmental data for acoustical transmission modeling and is being undertaken by the Office of Naval Research.

Robert V. Ochinero, Director of the Environmental Data Service's National Oceanographic Data Center, recently addressed the Washington Technical Institute's class in Introductory Oceanography. Mr. Ochinero discussed the overall mission of NOAA, and more specifically the interrelationships between the students' future role as Marine Technicians and the functions of EDS.

Dr. George H. Keller Receives 1973 C. A. Hogentogler Award

Dr. George H. Keller, Director of the Marine Geology and Geophysics Laboratory in the Environmental Research Laboratories'



Atlantic Oceanographic and Meteorological Laboratories, has been awarded the C.A. Hogentogler Award for 1973 for co-authoring a paper on the physical properties of deep sea sediments. The American Society for Testing and Materials presents the award for a paper of outstanding merit on soils for purposes relating to the engineering properties of deep sea sediments, which has been published by the Society. Dr. Keller co-authored the paper, "In-place Measurements of Deep Sea Soil Shear Strength," with A. F. Richards of Lehigh University; R. Olson of the University of Texas; and V. J. McDonald of the University of Illinois.

Before joining NOAA in 1966, Dr. Keller was a geologist with Standard Oil of Texas and a geological oceanographer with the U. S. Naval Oceanographic Office.

He holds a B.A. from the University of Connecticut, an M.S. from the University of Utah, and received his Ph.D. from the University of Illinois.

Edward F. Gress Dies

Edward F. Gress, former Meteorological Technician at the Milwaukee, Wis., Weather Service Office, died on June 20. He had served the Government more than 44 years when he retired in 1969.

New Style Lake Survey Center Small-Craft Nautical Chart Issued To Test Public Reaction

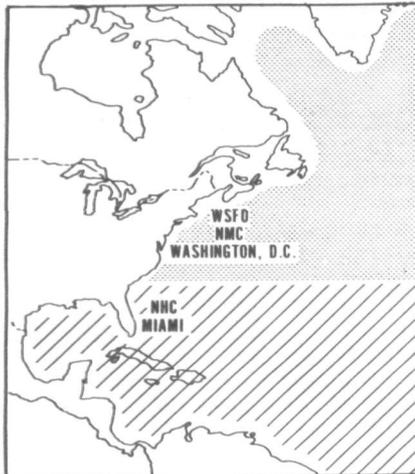
The Lake Survey Center has issued a new style chart of the Straits of Mackinac on a trial basis to test public reaction and acceptance. Folded road-map style (though somewhat larger), the new edition of Chart 60 is designed for easier use, handling, and storage aboard recreational craft. Unfolded, it is the same size and scale and contains the same detail as the standard chart. It is patterned after the National Ocean Survey's "small-craft" series of charts of U. S. coastal waters.

The new Chart 60 covers the boating area between the waters of Lakes Michigan and Huron and includes the scene of the finish line of the internationally known Chicago to Mackinac Island and the Port Huron to Mackinac Boat Races. On the covers are a sketch of the "Big Mac" Bridge and a short history of this important connection between Michigan's Upper and Lower Peninsulas.

The cost of the chart is \$1.75--the same as a standard chart. This chart differs from LSC's other small-craft charts--41SC, Detroit River, and 43SC,

NHC Assumes Responsibility For High Seas Marine Forecasts

As a result of coordination between National Weather Service Headquarters and the NWS Eastern and Southern Regions, on June 1, the National Hurricane Center in Miami, Fla., assumed responsibilities for issuing the high seas weather forecasts for the North Atlantic from 3° N. to 32° N., west of 35° W. Heretofore, NHC was responsible for forecasting hurricanes for this area, but the Weather Service Forecast Office in Washington, D.C., has been responsible for the regular marine forecasts for it.



High seas marine forecasts areas of responsibility in the Atlantic.

This transfer of responsibility was agreed upon in 1972 and was to be effective when it could be coordinated,

These high seas forecasts, and those issued by the WSFO Washington, D. C., for the western North Atlantic north of 32° N., are broadcast over the Naval Radio Station NAM in Norfolk, Va. Since shortly after Marconi invented the radio, until recently, the high seas forecasts were issued by Naval Radio Station NSS, Washington, D.C.



Patricia H. Hampton of the LSC Reproduction Branch compares new style Chart 60 with conventional chart.

Lake St. Clair--in that they are drawn at a smaller scale and size than their flat counterparts.

recipe of the week



SQUID IN TOMATO SAUCE

2 pounds whole squid, fresh or frozen
1 cup sliced onion
1 clove garlic, minced
2 tablespoons cooking oil
1 can (1 pound) tomatoes
1/2 teaspoon basil
1/4 cup water
1 tablespoon flour
1 teaspoon salt
Cooked rice or spaghetti (or other pasta)

Thaw frozen squid. To clean squid, grasp head and mantle (body) firmly in hands and pull off head, tentacles, and ink sack. Pull transparent backbone or quill from the mantle. Squeeze any remaining entrails from inside the mantle. Under cold running water, peel off speckled membrane that covers the mantle. Wash mantle thoroughly, inside and out, and slice crosswise into 1/2-inch rings. Cook onion and garlic in oil until onion is limp, not brown. Add tomatoes and basil; simmer for about 5 minutes. Add sliced squid. Cover; simmer 20 minutes or until squid is cooked. Blend water, flour, and salt. Stir into sauce; cook, stirring constantly until thickened. Serve with cooked rice, spaghetti, or your choice of pasta. Makes 4 to 6 servings.

Cloud-Seeding (Continued from page 1)

by any subjective interpretations. Clouds are selected for seeding; a seeding run is made, and the scientist presses his flare-release button--but only the person who arms or does not arm the flare racks, depending on the sealed instructions, knows whether seeding has actually occurred. Dr. Woodley will direct seeding operations aboard the NOAA C-130.

EML and NHRL scientists will collaborate in a series of cloud physics measurements in seeded and unseeded clouds.

An important addition this year is an effort to determine the history of the silver iodide seeding agent after it reaches the ground.

Participants in GATE Sea Trials Trained at Data Buoy Office

The National Ocean Survey Data Buoy Office in Bay St. Louis, Miss., has conducted a five-day training program for participants in the preliminary GATE International Sea Trials to be conducted northeast of Puerto Rico during August.

NOAA is coordinating U.S. participation in GATE--GARP Atlantic Tropical Experiment--the first major international field experiment in the Global Atmospheric Research Program of the World Meteorological Organization and the International Council of Scientific Unions.

The training course was designed to familiarize participants--who included university graduate students and scientists and U.S. Air Force 6th Weather Squadron airmen, as well as local NOAA and NASA personnel--in the operation of shipboard equipment during the sea trials. The trials will include NOAA's RESEARCHER and two Russian vessels, the ERNEST KRENKEL and the ACADEMICIAN KOROLOV, as a prelude to the larger GATE experiment in 1974. Additional training will be provided at the Mississippi facility next Spring.



A training session on the Boundary Layer Instrumentation System Balloon. (Standing, from left) Dr. James Sparkman, NOAA Office for Environmental Monitoring and Prediction; Staff Sgt. George Hano, USAF 6th Weather Squadron, Tinker AFB, Okla.; Kenneth Echternacht, University of Virginia Department of Environmental Sciences; Sgt. Stanley Lampinen, USAF; and Richard Wobus, University of Wisconsin; (on floor) Donald Wylie, University of Wisconsin Space, Sciences and Engineering Center; Frederick Mosher, University of Wisconsin; and Dale Chiusano, University of Washington.

Field Parties Complete Survey in Texas

A 170-mile survey of land elevations in Texas, including Austin, has been completed by two National Ocean Survey field parties. A 16-man team headed by Lloyd F. Diez surveyed from Conroe to Riverside, and a 20-man team headed by James W. Taylor worked from Sealy to Austin.

Items to be considered for publication in NOAA WEEK should be submitted to:
Office of Public Affairs, NOAA, Room 221, Bldg. 5, Rockville, Md. 20852. Phone (301) 496-8243.

National Oceanic and Atmospheric Administration

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