



# NOAA WEEK

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U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

## Apollo 14 Spacecraft Is Readied for January Launch



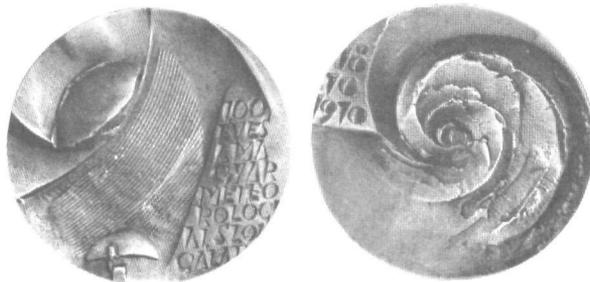
Apollo 14 spacecraft on crawler-transporter

On November 9, the Apollo 14 space vehicle was moved from the Vehicle Assembly Building at NASA's Kennedy Space Center to its launch pad. Favorable weather conditions were predicted and observed during the six-hour trip. The crawler-transporter, which carries the space vehicles to the launch pads, is remarkably rugged and stable, but if winds of more than about 30 knots were expected, the trip to the launch pad would most probably have been postponed. Also, the prediction of severe thunderstorm activity might have resulted in a decision to delay the roll-out. Should lightning have been expected during the trip, extra precautions would have been taken--particularly to prevent people from getting on or off the crawler-transporter and thereby running the risk of electrical shock.

Apollo 14 is scheduled for launch January 31, 1971. Until the launch, Ernest Amman and his Spaceflight Meteorology Group staff at NASA's Kennedy Space Center will be monitoring and predicting weather which might affect work on the vehicle or cause conditions unsafe to men and equipment.

## Hungarian Weather Centennial Plaque Awarded to NWS Director

Dr. George P. Cressman, Director of the National Weather Service, recently received the plaque pictured here in commemoration of the one hundredth anniversary of the Hungarian weather service. The plaque was a token of esteem from Dr. Cressman's Hungarian counterpart Prof. F. Desi. The obverse inscription reads "100 YEARS OF HUNGARIAN METEOROLOGICAL SERVICE." Coincidentally, the American weather services are celebrating their centennial this year.



Hungarian centennial plaque

## Watkins To Serve as NOS Honolulu Office Director



Captain John B. Watkins has been appointed Director of the National Ocean Survey's Honolulu office. Capt. Watkins, who was scheduled to assume his new post in mid-November, succeeds Captain Robert C. Munson, who will become commanding officer of the NOAA Ship DISCOVERER

based at Miami. Capt. Watkins has been on assignment for almost three years as commanding officer of the NOAA Ship FAIRWEATHER. A veteran officer of 20 years with the NOAA Corps, he headed the Processing Division of the Pacific Marine Center in Seattle, Wash., before being assigned to the FAIRWEATHER in 1969. For two years prior to that, he was commanding officer of the HODGSON. Capt. Watkins has served aboard the NOAA Ships PATHFINDER, SURVEYOR, and HILGARD, and also as commanding officer of the SOSBEE.

## NMFS Motion Picture Wins Award in Festival

The National Marine Fisheries Service film, "Sockeye Odyssey," has been awarded a bronze medallion and certificate by the International Film and Television Festival of New York. The 14-minute sound-and-color motion picture was filmed using the facilities of the NMFS biological laboratory at Auke Bay, Alaska. Sequences include the changes in color and appearance of the salmon during the spawning migration, as well as biological research conducted to establish sound conservation practices and predict the size of spawning runs more accurately.

Elliot A. Macklow, chief of audiovisual services for NMFS, was executive producer of the film. The NMFS is now distributing 27 motion picture titles through a 200-library system. At present, most of the prints are booked through 1971.

## New Mexico and Arizona Survey Underway

A 19-man National Ocean Survey field party is conducting a five-month, 470-mile geodetic survey from Deming, New Mexico, to Yuma, Ariz.

## NWS Holds Conference in Pacific

The National Weather Service held its annual autumn Regional Directors' field conference, Nov. 17-20. Each year the Weather Service holds two conferences involving central-headquarters personnel and Directors of the regions--the first in Washington in spring and the second at headquarters of one of the Weather Service's six regions in autumn. This year the autumn conference was held for the first time in the most far-flung of the Weather Service's regions, the headquarters of the Pacific Region in Honolulu, Hawaii, which is under the direction of Paul H. Kutschenreuter.

The agenda included trips to the Weather Service Forecast Office in Honolulu, and the Navy's Fleet Weather Central at Pearl Harbor to familiarize the visitors with forecasting problems peculiar to the Pacific. Also on the agenda were:

Briefings by each of the Regional Directors on recent problems and accomplishments;

A review of plans for product changes from the National Meteorological Center in 1971;

A description of the outlook for further use of weather information from satellites;

A review of plans for the Weather Service Technical Training Center in Kansas City;

A session on recent changes in personnel policy, as well as a review of the recent reallocations of Weather Service Specialists;

A progress report on improvements in river and flood forecasts and warnings;

A discussion of priorities for new automatic equipment;

A summary of the impact of NOAA on the National Weather Service; and

A consideration of proposed changes in the plans for the final phases of the forecast reorganization, especially with respect to aviation services.

## NOS Completes Kansas Geodetic Survey

The National Ocean Survey has completed a six-month, 350-mile geodetic survey in Kansas. The party determined more than 100 geographic positions and 300 elevations for the State. The survey routes extended from Englewood to Dodge City, from Liberal to Goldwater, and from Hutchinson to Salina and Topeka. Heading the 14-man survey team was Carl A. Annis.

## Pond-Grown Shrimp Harvested Under Texas A&M Sea Grant

The first commercial harvest of pond-grown shrimp was made recently by the Par-tex Construction Company in Bridge City, Tex., as the result of a cooperative venture between the company and the Marine Advisory Program of Texas A&M University's Sea Grant Program through the Texas Agricultural Extension Service. Post-larval white shrimp were caught from a nearby lake and placed in six half-acre reservoir-type ponds in July. Saline water was pumped from the lake to the ponds and a special pellet food was introduced. The yield is expected to be 150 to 200 pounds of shrimp per acre with two or three harvests a year. Yields are expected to increase as more is learned about shrimp farming. The ponds are the first in the state to be set up as a potential commercial operation. The mariculture project is the result of experimental research ponds created two years ago by the Texas A&M Sea Grant Program.

## Annual Interagency Weather Modification Conference Held at Virginia Beach, Va.

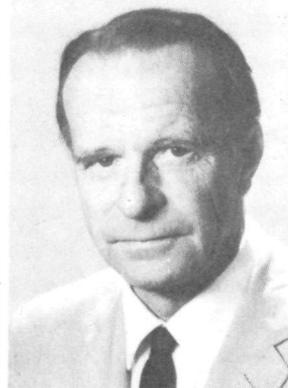
The 12th Annual Interagency Weather Modification Conference was held at Virginia Beach, Va., Oct. 27-30. More than 70 individuals from 11 Federal agencies participated in the conference to exchange information on progress and plans in weather modification. Dr. Robert M. White, NOAA Acting Administrator, delivered the keynote address stressing the need for legislation which should include reporting and regulation aspects and pointing to the need for designation of an agency which would take on the central responsibility for advancing the science and technology of weather modification.

Among those presenting NOAA progress and plans were: Drs. Joachim Kuettner, Joanne Simpson, Joseph Smagorinsky, Donald Williams, Helmut Weickmann, Cecil Gentry, Earl Barrett, and William Woodley. Previously, this conference was arranged by the National Science Foundation. This 12th annual conference, chaired by Dr. Clayton E. Jensen, was the first one conducted by NOAA through assignment of this responsibility by the Interdepartmental Committee for the Atmospheric Sciences (ICAS). Dr. Myron Tribus, Chairman of ICAS, reviewed the National Program for Accelerating Progress in Weather Modification on the last day of the conference.

## Hess Visits Antarctic Sites; Kuettner Confers on TROPEX



Dr. W. N. Hess



Dr. J. P. Kuettner

Dr. Wilmot N. Hess, Director of the Environmental Research Laboratories, Boulder, Colo., is on a two-week inspection trip to ERL field sites at McMurdo, Byrd, Siple, and South Pole stations in Antarctica. Another purpose of his visit is to discuss the development of new research programs. According to Dr. Hess, the Antarctic is particularly important for measuring atmospheric pollutants, because it offers an area of down-moving air in a region of the earth relatively far removed from major sources of pollution.

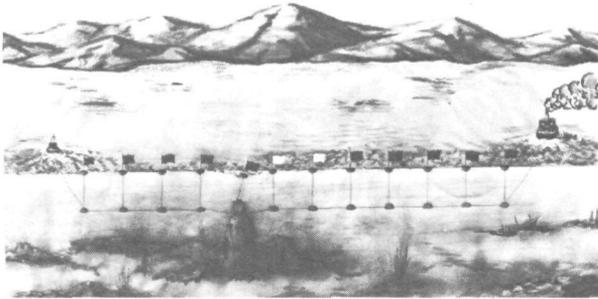
Dr. Joachim P. Kuettner, Director of ERL's Advanced Research Projects, is in Geneva, Switzerland, as the official U.S. delegate to the International Planning Group for the Tropical Experiment, TROPEX. An outgrowth of the Global Atmospheric Research Program, TROPEX is scheduled for the summer of 1974, when atmospheric and oceanic data will be gathered over the land and sea area stretching from the east coast of Africa to the west coast of South America.

## Three EDS Employees Are Elected Officers Of American Meteorological Society Chapter

Three employees of EDS' National Climatic Center were elected officers of the Asheville, N.C., Chapter of the American Meteorological Society for the coming year. Elected at the Oct. 28 meeting were: Robert Quayle, vice-chairman; Keith Butson, secretary; and Ray Nybro, treasurer. James Owenby of the Naval Weather Service's Environmental Detachment at Asheville was elected chairman.

# Early Lake Survey Wire Drag Techniques Recalled

## WIRE SWEEP IN OPERATION



The method used by the NOAA wire-drag vessels RUDE and HECK, that recently discovered the wreck of the unmarked 19th century ship in Delaware Bay, was pioneered by Francis C. Shenehon, a Lake Survey Center staff engineer. In 1902, Mr. Shenehon devised and perfected a long wire sweep to locate obstructions by moving a horizontal wire through the water at a predetermined depth. The

makeshift procedures and equipment he used included "two gasoline barrels, two buoys and two 95-pound sounding weights, two sounding leads, some old galvanized iron wire, and 330 feet of No. 12 iron wire." Although considered crude by today's standards, Mr. Shenehon did obtain the desired results. The procedure, together with a sketch similar to that shown, appeared in the Chief of Engineers (U.S. Army) Annual Report of August 8, 1903, which covered the 1902 survey.

The electronically equipped research vessel SHENEHON was named in honor of Mr. Shenehon for this and other accomplishments during his long and distinguished service with the Lake Survey. Mr. Shenehon served as Chief Civilian Engineer from 1906-1909.

The wire drag method was first used by the National Ocean Survey in 1904 along the Atlantic Coast. Captain Nicholas H. Heck, for whom the NOAA Ship HECK is named, pioneered in the development of wire drag techniques and equipment.

## Pacific NWS Offices Commended

The Weather Service Offices at Guam and Johnston Island are the first stations to be officially commended for "Significant Achievements in Observations," under the Pacific Region's Observational Quality Awards Program. To gain this recognition, a station must improve its quarterly record in surface or upper-air observations over the preceding quarter by a specified amount, and continue to maintain this new record, or improve during a second consecutive quarter. The station also must maintain other programs at a satisfactory level or better. Both stations received letters of commendation from Pacific Region Director Paul H. Kutschenreuter.

Special Achievement Awards were also presented to James J. Cobb of Koror, Colby A. Foss of Hilo, and Herbert T. Hirata of Pacific Region headquarters, for their contributions to the project for converting the processing of upper-air data from manual to time-shared computer processing at Hilo and Johnston Island.

## Headquarters Toastmasters Club Formed

The new Science Center Toastmasters Club, which was organized by NOAA employees, had its charter dinner on Nov. 10. District Governor Lee Bottens presented the club with its charter and installed club officers. The club president, William P. Brenneman, presented honorary memberships to Dr. Robert M. White, NOAA Acting Administrator, and T. P. Gleiter, NOAA Assistant Administrator for Administration and Technical Services. The club seeks to improve the communication and leadership ability of its members by giving them practical experience in communicative skills. The club meets on alternate Wednesdays opposite payday. For further information concerning the club's activities, contact David Porter, IDS code 146-8781.

## Fishermen's 1969 Gross Product Computed

The National Marine Fisheries Service Division of Current Economic Analysis estimates that the gross product of commercial fishermen was approximately \$300 million in 1969, compared with a total U.S. gross product of \$932 billion.

## \$1000 Survey Nears End

The National Ocean Survey has launched the final phase of a \$100,000 geodetic survey in the area damaged by Hurricane Camille in Mississippi and Louisiana. The parties of surveyors will redetermine numerous elevations and geographic positions along the Mississippi gulf coast and islands to provide accurate reference points for navigation, recharting of the waterways, and local, county, and state development projects. The earlier phase of the survey was conducted along the coast between Biloxi and Pascagoula and on the coastal islands of Cat, Ship, Horn, Dauphin and Petit Bois. The three-month project was completed last April. To complete the program, the survey will determine geographic positions on Louisiana's Chandeleur and Breton Islands and elevations along routes from Biloxi to New Orleans and from New Orleans to the Mississippi River's mouth. The parties will resurvey the old sites to assure their accuracy and establish new ones to replace those destroyed by last year's hurricane. Observations will be carried out from previously established sites in the national geodetic networks which are used as starting points by engineers and surveyors in various projects, including mapping, developing the land, locating permanent boundaries and planning the alignment of highways and public utilities.

## Clean Air Week Observance Held

The Weather Service Forecast Office at Philadelphia held demonstrations in observance of Clean Air Week, Oct. 19. On display at City Hall was a fully equipped mobile van unit manned by upper-air specialists. A simulated low-level sounding run was taken. The events were cosponsored by the City's Air Pollution Control Board and the Delaware Valley Citizens Council for Clean Air. Left to right: Air Pollution Meteorologist Burton Sylvester; Mrs. Kaysi Farrell, Director, Public Affairs, Delaware Valley Citizens' Council for Clean Air; and Edward Wilson, Assistant Health Commissioner, City of Philadelphia.



## Centennial Medals Given



Centennial Medals were recently awarded to four individuals for their aid in weather reporting for the State of Kentucky by John R. Burke, meteorologist in charge, and Doyle Cook, assistant meteorologist in charge, Louisville, Ky. The recipients of the medals were: William O. Newman, Commissioner of the Kentucky Department of Public Safety; Maynard Marcum, Kentucky Forestry Department; Bill Bright and Leon Reed, Kentucky Department of Military Affairs, Civil Defense Division. Left to right: Mr. Burke, Mr. Marcum, Mr. Bright, Mr. Newman, Mr. Reed, and Mr. Cook.

## North Carolina Airport Being Surveyed

A National Ocean Survey party, headed by Ensign John R. Hudson, Jr., is conducting a survey of Goldsboro-Wayne (N.C.) Municipal Airport.

## Miami Fisheries Lab Hosts Teachers

Five college faculty members spent the summer at the National Marine Fisheries Service Tropical Atlantic Biological Laboratory at Miami, Fla., under the Research Participation Program for College Teachers.

Supported by the National Science Foundation, the program teams each faculty member with an NMFS laboratory employee for a research project. Selected participants are funded by the Foundation to continue their projects at their home institutions during the academic year.

Dr. Albert C. Jones, assistant director of the Tropical Atlantic Biological Laboratory, serves as program director. This is the fourth year the laboratory has participated in the program.

## New Chart Sales Room Opens

The National Ocean Survey has placed in operation a sales room at the Washington Science Center headquarters of NOAA. The auxiliary sales service provides across the counter distribution to the general public of all NOS aeronautical charts, as well as nautical charts and related publications of the immediate area. Nautical chart coverage includes small-craft and conventional charts from Cape May, New Jersey, to Virginia Beach, Virginia. The sales room is located in Building 1, Room 713, and has hours from 8:15 a.m. to 4:45 p.m. The service is being handled by the Physical Science Services Branch in cooperation with the Office of Aeronautical Charting and Cartography. This is in addition to the main chart sales service of the Distribution Division located at the NBS site on Connecticut Avenue and Van Ness Streets, N.W., Washington, D.C.

## Lieurance Chairs AMS Committee

N. A. Lieurance, NOAA Director, Aviation Affairs, has been named chairman of the Committee on Aviation Meteorological Problems (CAMP) of the American Meteorological Society. CAMP is a new technical committee of the AMS recently established to focus attention of the meteorological profession on the operational needs of aviation for meteorological support in particular as related to new vehicles and new and improved navigational aids. Stanley J. Lacy of the National Weather Service is also a member of CAMP, along with eight others from private industry, university, community, and other government agencies.

## Value of 1969 Fishing Catch Set

The National Marine Fisheries Service has announced that the dockside value of the U.S. catch for 1969 was \$518 million.

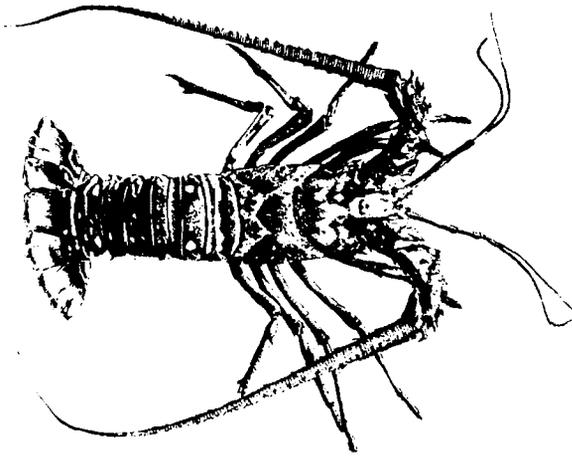
## Headquarters Employees Receive Cash Awards, Quality Increases



Twenty-one employees of NOAA's Office of Administration and Technical Services received cash awards or quality increases for superior service from Theodore P. Gleiter, Assistant Administrator for Administration and Technical Services, in an October 23 ceremony held at NOAA headquarters, Rockville, Md. Shown in photo,

front row, left to right: Edward W. Koehler, Marcia R. Collie, Mildred M. Bryant, Mr. Gleiter, Mary W. Tullis, Ruth Wermant, William Kuttner, and Allan Ogburn. Back row, left to right: Robert Sladek, William Dodds, James Casper, George C. Yarnall, Walter S. Cox, James Barrington, and Haris Rainey.

## 'Homing' Ability of Spiny Lobsters Is Subject of Experiments



Spiny Lobster

Spiny lobsters may not look as though they have anything in common with honey bees and carrier pigeons, but TEKTITE II experiments indicate that the lobster shares the ability to "home." And unlike the busy little bees, which depend strongly on eyesight for navigational purposes, the lobster doesn't even have to look where he's going to get there.

TEKTITE II was a cooperative man-in-the-sea project, sponsored by various Federal agencies, universities, and private industry, and involving scientists working from an underwater habitat on the floor of Greater Lameshur Bay, St. Johns Island, in the Virgin Islands.

Louis Barr, biologist with the Auke

Bay, Alaska, laboratory of the National Marine Fisheries Service, worked with William F. Herrnkind of Florida State University in a study of the migratory characteristics and homing abilities of the spiny lobsters of Beehive Cove. By deliberately displacing lobsters, moving them two or three hundred yards from their dens, then tracking their movements, the scientists learned that the animals could find their way back to the areas they had been taken from. The next question was: how?

Mr. Barr said that the lobsters' homing ability could depend on any of the senses, or on some combination. The simplest one to check out, without injuring the animals, was that of sight. Two lobsters were blindfolded with opaque tape, which could be removed after the experiment. One of the blindfolded lobsters returned to the area of his capture; the other was observed making a good start in the proper direction, but a later effort to check on his whereabouts was unsuccessful. The scientists still don't know how lobsters find their way home, but the experiments do suggest that spiny lobsters are "well oriented over a considerable distance," and that sight is not critical to the homing ability.

Spiny lobsters, which are a primary source of lobster tails, lack the large front claws which distinguish them from their northern cousins--the New England lobsters.

## NMFS Man Wins Award

Robert E. LeClerc, chief of the National Marine Fisheries Service's Division of Safety Management, received the Department of the Interior's Award of Merit for outstanding safety services during the Department's Safety Council meeting in Chicago, Oct. 30. Mr. LeClerc was the first safety director for the Federal Water Pollution Control Administration, Department of Interior, serving in that capacity from 1966 until appointment to his present position. He is a member of the Board of Directors, National Safety Management Society, editor of its official monthly journal, and served as the organization's first president.

## Documentation Forms Explained

All oceanographic data to be deposited at the National Oceanographic Documentation Center must be accompanied by a Data Documentation Form, which is available upon request from NODC, Rockville, Md., 20852, telephone 113-33754. A copy of this completed form, consisting of three sections--Originator Identification, Scientific Content, and Data Format--will be sent to scientists who will be using the data. The information on the DDF ensures that the user will be able to identify and understand the data and to determine their applicability to his research problem. In addition, the information contained in this form will, in time, assist the Center in revising the submitted data to conform to NODC formats or to general formats.

### Baltimore Weather Service Staff Cited For Forecasts During 1970 World Series

The National Weather Service's Baltimore office staff was recently commended by the management of the Baltimore Orioles for their competence and cooperation in forecasting the weather for the 1970 World Series. Clarence Reynolds, meteorologist in charge, received a letter from the Business Manager, which read, in part:

"On behalf of the entire Baltimore Orioles organization, I wish to express my appreciation for the invaluable service you provided us during the past baseball season. As you know, in our line of work, 'weather' is of the essence. Decisions have to be made as to whether or not the games will be played, as early in the day as possible. The men in your office who answered our many phone calls during the season were always extremely pleasant and helpful....I should like to mention Mr. Fred Davis and William J. Conlon whom we seemed to bother the most. When they convinced us that the weather would clear up for the final game of the World Series, the Commissioner and others responsible thought that you deserved the honor of throwing out the first ball in that game. When the idea was suggested, it was too late to make the necessary arrangements. In any event, we were mindful of the help you gave us throughout the season right up to the very end."

### Notice to Employees Association Members

A meeting of the ESSA Employees Association officers and delegates was held on Nov. 5. Under the order of new business was the adoption of a recommendation for a new name for the Association. The name "NOAA Employees Association" was moved and seconded. In accordance with the by-laws and constitution, the adoption of this name must be approved by two-thirds of the membership. Please indicate your vote, sign your name, and return this ballot to your delegate.

APPROVE \_\_\_\_\_ DISAPPROVE \_\_\_\_\_

NAME \_\_\_\_\_

### Fish Lured in NMFS Study

Scientists with the National Marine Fisheries Service are using lights to lure fish into captivity. In experiments at Panama City, Fla., underwater structures are used to attract fish during the day. Although the fish normally tend to leave at night, scientists have found that artificial lights can be used to hold the fish at these structures. By slowly moving the lights, the fish can be "herded" into areas where they can readily be captured by purse seine or other conventional fishing gear. During one trial, more than 10,000 pounds of Spanish sardines were successfully herded and captured by this method.

### NOAA Employees Annual Dance Scheduled

The association of NOAA employees in the Washington, D.C., area will have its annual dance on Saturday, January 16, 1971, at the Crystal Room of St. Bernard Church in Riverdale, Maryland. This year the program features two orchestras: Ralph Graves and Ranny Pierce. Tickets at \$3.00 per person--will be available from club delegates about December 1. Table reservations may be made through Mary Gearhart, telephone code 14-68134.

### NOS Publishes New Small-Craft Charts

Two new small-craft charts--892-SC and 893-SC--covering the entire 334-mile Texas coast from Galveston to Brownsville have been published by the National Ocean Survey. Chart 892-SC covers the Texas Intracoastal Waterway from Carlos Bay to Redfish Bay and includes coverage of Copano Bay. Chart 893-SC covers the Texas Intracoastal Waterway from Redfish Bay to Middle Ground and includes coverage of the entire Baffin Bay area. The new charts cancel conventional charts 892 and 893 and can be purchased for \$1.50 each from National Ocean Survey chart agents or from the NOS Distribution Division (C-44), Washington, D.C. 20235. A 20 percent discount is allowed when 10 or more copies of the same chart are purchased.

GPO 902-410

Items to be considered for publication in NOAA WEEK should be submitted to: Office of Public Information, NOAA, Room 804, Bldg. 5, Rockville, Md. 20852. Phone (301) 496-8243.

# **National Oceanic and Atmospheric Administration**

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