



NOAA WEEK

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

NOAA Employees Receive Gold and Silver Medals

Six Gold Medals and fifteen Silver Medals were presented to NOAA employees yesterday in the Commerce Department's 23rd Annual honor awards program.

Recipients of the Gold Medal, the highest honor conferred by the Department, are:

ing their meteoric origin. His studies explaining how the idea of continental drift could be integrated with the history of the ocean floor have led to the development of one of the most important concepts in geophysics today -- that of sea-floor spreading.



Donald F. Moore



Robert S. Dietz



Raymond L. Joiner



Harold L. Crutcher

Harold L. Crutcher, scientific advisor, National Climatic Center, EDS, Asheville, N.C., for major scientific contributions to national defense, the space program, NOAA, and the Department of Commerce programs and the international scientific community. Since 1951, Dr. Crutcher has provided scientific leadership for the U.S. Navy's Marine Climatic Atlas of the World program, providing military planners and scientists with the most comprehensive marine atlas ever developed. Dr. Crutcher has subsequently developed an upper-air climatic atlas series for the Northern Hemisphere, and was the catalyst in the development of the first comprehensive upper-air climatic atlas for the Southern Hemisphere.

Robert S. Dietz, research oceanographer, ERL's Atlantic Oceanographic and Meteorological Laboratories, Miami, Fla., for two major discoveries which have significantly altered the development of the earth sciences. He was one of the first to point out the importance of research on terrestrial meteor craters and led the way in their identification and establish-

Roy L. Fox, retired Director of the National Weather Service's Central Region, Kansas City, Mo., for developing and managing weather services of paramount importance to the safety of residents of the severe-weather-prone Midwest. Through exceptional initiative, highly imaginative thinking, and particularly adept management ability, Mr. Fox developed and maintained a high state of readiness for warnings of severe storms among the Weather Service Offices and the communities they serve.



Robert A. McCormick



Roy L. Fox

Department of Commerce Medals Presented (Continued from page 1)

Raymond L. Joiner, digital computer systems analyst, National Climatic Center, EDS, Asheville, N.C., for his efforts in extracting the maximum possible scientific intelligence from raw data collected during the Barbados Oceanographic and Meteorological Experiment, achieving results whose scientific sophistication had appeared to be beyond the capability of the original instrumentation and existing technology.

Robert A. McCormick, Director, ERL's Air Resources Laboratory, Raleigh, N.C., for outstanding contributions of major significance in relating meteorology to human problems through his outstanding leadership in administration in the field of air pollution meteorology. His leadership in national and international programs for modeling the atmosphere over urban areas has contributed to knowledge of pollutant dilution. He has directed attention to problems of increasing levels of pollution on a global scale. His contributions to science in this area and the field of air pollution have been noteworthy.

Donald F. Moore, NOAA Assistant Administrator for Policy and Plans, for outstanding leadership which has been a critical factor in the success NOAA has

had in converting from ESSA into the nation's major center of civil strength in the oceans, atmosphere, and solid earth geophysics. He was cited particularly for his distinguished leadership in preparing the National Oceanic and Atmospheric Administration's first program plans for fiscal years 1972 and 1973 within a period of less than six months.

Silver Medal winners are:

Francis J. Balint, Chief, NOAA Management Systems Division, for his valuable contributions to the improvement of computer utilization and for vigorous and effective leadership of the Management Systems Division.

Robert O. Cole, Deputy Chief, Basic Weather Forecast Branch, Analysis and Forecast Division, National Weather Service's National Meteorological Center, Suitland, Md., for extraordinary skill in improving forecasts produced by electronic computers.

Joseph F. Dracup, Chief, Adjustment Section, Geodesy Division, National Ocean Survey, for sustained leadership and superior professional performance in effectively meeting compelling user requirements of geodetic control.

Reynold A. Fredin, Director, Biometrics Institute, Biological Laboratory, National Marine Fisheries Service, Seattle, Wash., for distinguished service as scientific advisor to the U.S. Section of the International North Pacific Fisheries Commission in its international negotiations with Japan and Canada relating to salmon problems of the North Pacific Ocean.

Otha Fuller, Jr., Chief, Operations Branch, Data Automation Division, National Weather Service's National Meteorological Center, Suitland, Md., for distinguished technical and managerial accomplishments during 15 years with the numerical weather prediction group.

Harold L. Goodwin, Deputy Director, Office of Sea Grant, for outstanding skill and ability in performing duties leading to program enhancement, especially his notable contribution to the report of the President's Commission on Marine Science, Engineering, and Resources.

Elbert C. Hill, Jr., meteorologist, National Hurricane Center, National Weather Service, Miami, Fla., for developing automated data processing and analysis programs tailored to the requirements of the National Hurricane Center, which are broad-

Awards Night Ticket Sellers

Tickets for the NOAA Annual Awards Night Dinner Dance to be held at Indian Spring Country Club on Friday, December 3, may be purchased from the following:

Commerce - Helen Hagemeyer..	189-3621
WSC-1 - Lieut. Callahan	146-8379
- Mary Moore	8347
- Guy Meredith	8001
WSC-5 - Mickey Kluth	8416
- Mike Lipson	8606
- Mary Gearhart	8134
- Charlotte Melton ...	8431
- Frank Evangelista ..	8353
NBOC 2 - Bettie Rothenbuhler	8901
- Charles Lee	8105
Gramax - Robert Reece	179-2288
- DeeDee O'Donovan ..	2370
- Marcella Thom.....	2414
NMFS - Janet Savko	183-5312
FOB 4 - Joe Ships	157-7710
- Ruth Thornberg	7156
- James Jones	7541
Sea Grant - Robert Abel	189-2151
Bldg. 160, Navy Annex	
Eileen Gardner	11-33193
Kathleen Anderson ..	33757

Medals (Continued from page 2)

ly applicable to tropical analysis and Prediction elsewhere.

Charles E. Kincaid, staff assistant for administration, EDS National Oceanographic Data Center, for successfully guiding the NODC through the administrative intricacies involved in acquiring and exchanging marine data on a national and international level.

Captain William E. Randall, NOAA Corps, Office of the Administrator, for his outstanding work in furthering the agency's legislative programs, while also serving as Deputy Executive Officer.

Henry Rockwood, Chief Data Acquisition Branch, National Weather Service's Eastern Region, Garden City, N.Y., for initiative and extraordinary leadership in improving the quality of weather observations.

J. Malcolm Symons, Chief, Tides and Currents Branch, Oceanography Division, National Ocean Survey, for refinement of techniques in tidal observation in support of increasingly complex definitions pertinent to the establishment of seaward boundaries.

Robert G. Twa, meteorological technician, National Weather Service, Muskegon, Mich., for his technical ability in surface observations, radar operation, forecasting, and briefing, and for personal initiative in warning of critical weather conditions affecting the public, mariners, and pilots.

Arthur W. Youmans, Chief, Operations Branch, Overseas Operations Division, National Weather Service, for exceptionally efficient management of two important international projects in meteorological operations -- the Interoceanic Canal Study Program and U.S. technical operations in the World Meteorological Organization's Voluntary Assistance Program.

John R. Hope, hurricane specialist, and Charles J. Neumann, research meteorologist, NWS National Hurricane Center, Miami, Fla., for their skill and ingenuity in developing objective techniques for hurricane prediction, which enable the Hurricane Center to determine the areas most likely to be affected by a storm for periods up to three days in advance.

William J. Monteith, supervisory civil engineer, and Herman Ebel, survey boat operator, Lake Survey Center, National Ocean Survey, Detroit, Mich., for their rescue of a capsized sailboat and crew, under extremely adverse weather conditions, on July 23, 1971.

ITOS-B Fails To Attain Orbit

The ITOS-B spacecraft failed to achieve orbit after launch on October 21, when the second stage of the Delta launch vehicle did not function properly and the satellite fell to earth above the Arctic Circle. Had the launch been successful, the satellite would have become NOAA-2 in NOAA's TIROS Operational Satellite System, providing global cloud cover pictures in daylight and darkness, as well as other environmental data. The National Environmental Satellite Service and the National Aeronautics and Space Administration are examining the feasibility of a replacement launch at the earliest possible time.

Combined Federal Campaign Progress Report

At slightly past the half-way point in the 1971-72 Combined Federal Campaign, 65% of the NOAA employees in the Washington, D. C., area have pledged or donated \$95,295.35. This is 102% of the quota established for the 3,442 area employees.

Special Meeting on Resource Savings Held By Line Forecasters Advisory Committee

A special meeting of the 1971 Line Forecasters Advisory Committee was held October 27-28 at National Weather Service Headquarters in Silver Spring, Md.

Committee field members attending the conference were William A. Drebert, Eastern Region; Ronald P. Hunt, Central Region; Milo J. Radulovich, Western Region; Ruben S.G. Schultz, Alaska Region; Robert Vasek, Pacific Region; Clifton W. Green, Southern Region; and Roy M. McCarter, National Meteorological Center.

Briefings and discussions centered on plans for staffing Weather Service Forecast Offices, reduction in Weather Service Forecast Office workloads, cycling of forecasts, grade structure at Weather Service Forecast Offices, and scheduling working hours.

D.C. Income Tax Withholding Increased

Income Tax withholding for the District of Columbia has been increased. This increased withholding will affect salary checks dated November 10 for employees paid bi-weekly, salary checks dated November 12 for employees paid semimonthly, and salary checks dated November 15 for commissioned officers.

ERL Scientists Develop Advanced Solar Flare Prediction Technique

Scientists at the Space Environment Laboratory in Boulder, Colo., have developed an accurate technique for forecasting the occurrence and location of solar flares--eruptions of hot ionized gases on the sun's surface that often trigger magnetic storms and other physical disturbances on earth.

Daily predictions issued by the Laboratory show a present forecasting success rate of 85 percent for all flares and 95 percent for major flares.

"Although we are pleased with this level of accuracy," says Robert B. Doeker, chief of NOAA's Space Environment Forecast Services, "we cannot yet satisfactorily predict the time of flares. The best we can do at present is to forecast a probability that flares will occur within the next 24 hours. We want to be able to say a significant flare is expected at 9 a.m., plus or minus 30 minutes. That is our next major goal."

One of the principal users of these forecasts, the National Aeronautics and Space Administration, has interests in solar phenomena ranging from the physics of the sun to the hazards of major solar flares faced by men and equipment on deep space missions. NASA has contracted with NOAA to refine its solar forecasting capabilities to a point where the estimated time as well as location of a flare can be relied upon.

Patrick S. McIntosh, solar astronomer for the Space Environment Laboratory, has developed a method of inferring the sun's magnetic fields from hydrogen light photographs, which are routinely taken using optical telescopes available in existing observing systems. By carefully assembling research results of numerous solar scientists, Mr. McIntosh demonstrated a correspondence between details in these conventional photographs and magnetic fields, which are closely related to the occurrence of solar flares.

"If the shape of the magnetic field pattern is especially complex and changing rapidly," he says, "the area is most likely to produce a powerful flare."

The McIntosh techniques have been applied to determine the complexity of active centers on the sun and in monitoring the rates at which these centers change. Jesse Smith and John Lemmon, fellow solar observers at the Space Environment Laboratory, have developed objective methods for selecting the probable location of flares and estimating what their approximate strength will be. They hope eventually to

Galveston, Texas, Mayor Commends Weathermen for Warning Service

In a recent letter to L.R. Mahar, Director of the National Weather Service Southern Region, Dr. M.L. Ross, the Mayor of Galveston, Texas, wrote:

"On behalf of the City Council, we want you to know how much the citizens of Galveston, as well as those in the surrounding areas, appreciated the fine service rendered by Mr. Davis Benton and his staff during the recent 'hurricane warning'.

"They are to be commended for their expert briefings and diligence in keeping the citizens on the upper Gulf Coast alerted and informed on the storm's latest conditions."

The people of Galveston learned back in 1900 the wisdom of obeying the Weather Service advisories, when Dr. Isaac M. Cline, the local forecast official, spread the word of approaching disaster as he drove his two-wheel horse cart up and down the beach shouting to tourists to leave while there was still time, and warning residents to move to higher ground, because that storm was different.

Dr. Cline was right--the storm was different; in fact, it was the worst recorded disaster ever to strike the North American continent. From 6,000 to 8,000 persons (including Dr. Cline's wife) perished, and it has been estimated that possibly 6,000 more would have, had Dr. Cline not "Paul Revered" his warnings so forcefully.

On that day, his devotion to duty set a standard that keeps Galveston weathermen "on the ball"--and when they speak, Galveston listens and pays heed.

be able to estimate the precise time of solar eruption.

Mr. Smith has used this technique to prepare daily maps indicating the active regions of the sun with significant magnetic features. Such regions are generally no larger than two percent of the solar diameter. Each region is evaluated and assigned a probability number from 1 to 7, the lower the number the greater the probability that a major disturbance will occur. From June to September of 1970, Space Environment Forecast Services correctly forecast the locations of 1860 of the 2186 verified flares that occurred on the visible solar hemisphere, or approximately 85 percent of the total number of verified flares.

Tidal Current Survey Underway In San Francisco Bay Near Oakland



At eight locations in San Francisco Bay off Oakland's Middle Harbor pier, the NOAA Ship McARTHUR is making a survey of tidal currents to determine the movement of the current between Oakland and Yerba Buena Island. The survey data are needed because a breakwater-pier being constructed on Middle Harbor is making the waterway narrower, and causing a change in the flow of the current. The information is important to navigation of all vessels passing through the area and using the Oakland Inner Harbor.

Specially designed 120-inch, boat-shaped buoys will be anchored at each of the eight sites, and from each, specially designed Richardson-type current meters will be suspended 15 feet below the surface. Operating 24 hours a day for five-day periods, the meters will record the direction and speed of the current on film.

The times of slack water and the time, direction and velocity of flood and ebb currents at the locations will be determined when the data is processed at the NOS Rockville, Md., headquarters. This information will be incorporated into the NOAA Tidal Current Tables for the Pacific Coast of North America and Asia which provides daily predictions of the current at various locations along the coast.

The project will require several months.

While in the Bay area, the ship, commanded by Cdr. Donald R. Tibbet, also will investigate six reported navigational hazards north of Oakland. They are: two wrecks in the entrance to San Rafael Creek; a 17-foot depth in Hospital Cove, Angel Island, where waters are generally one foot and less; previously charted pilings in Richardson Bay now reported missing, off Yellow Bluff and Sausalito; and a shallow area in East Bay north of Berkeley Pier, above water at low tide.

Scientific Services Division Conference Held in Silver Spring

A meeting of the 1971 Scientific Services Divisions Conference of the National Weather Service was held at the Gramax Building in Silver Spring, Md., October 19-21. Presentations were made by representatives of the National Meteorological Center, Systems Development Office, and Office of Meteorological Operations.

Problems of numerical weather prediction guidance, statistical guidance, verification, and training were discussed.

The Division Chiefs were informed of the status of meteorological satellite activities, of the digitized radar experiment, and of the data handling design study for Weather Service Forecast Offices.

Representatives of the Regional Scientific Services Division who attended were: Carlos Dunn and Fred Zuckerberg (Eastern); Paul Moore (Southern); Larry Hughes (Central); Leonard Snellman (Western); Edward Carlstead (Pacific); and Dr. Edward Diemer (Alaska).

1971 Sea Grant National College Award Presented to Dr. Lauren R. Donaldson



Dr. Lauren R. Donaldson, a leading expert in fish breeding and culture, and on the effects of radioactivity in aquatic animals, has been named the recipient of the 1971 Sea Grant National College Award. The award was presented to Dr. Donaldson, a professor of fisheries at the University of Washington, at the Fourth National Sea Grant Conference at the University of Wisconsin at Madison.

Dr. Robert M. White, NOAA Administrator, was a key guest speaker at the Conference, which was attended by Robert B. Abel, Director of the Office of Sea Grant, and Arthur G. Alexiou, the Office's Program Director for Institutional Support.

Jack E. Mickelson Dies

Jack E. Mickelson, Aviation Forecaster at the San Francisco, Calif., Weather Service Forecast Office, died on October 16. His service included two years as State Climatologist at Gainesville, Fla. He also served as a research meteorologist for the U. S. Army Electronics Proving Ground, Ft. Huachuca, Ariz.

NOTES ABOUT PEOPLE

Frederick O. Diercks, Associate Director of the National Ocean Survey's Office of Aeronautical Charting and Cartography, has been named chairman of the U.S. delegation to The Conference on Cadastral Surveying of the Pan American Institute of Geography and History to be held in Caracas, Venezuela, November 14-20. He will present a paper on "Cadastral Surveys in Coastal Areas."

Robert Freeman of EDS' Technical Information Division is in Warsaw, Poland, attending the meeting of the Central Classification Committee of the International Federation for Documentation in his capacity as the U.S. member and a subcommittee chairman. While in Europe he will also investigate details of new information systems for (1) marine biology and fisheries, and (2) physics, and will discuss the development of the International Nuclear Information System and obtain materials related to it that will be helpful in NOAA's development of the Oceanic and Atmospheric Scientific Information System (OASIS).

Leo A. Critchlow of the NOS' San Francisco Field Office has been complimented by NOS Director Rear Admiral Don A. Jones and by J. A. Legarra, California State Highway Engineer, for his cooperation in providing geodetic controls in California. "The job of providing geodetic control to all our users is one that almost reaches the point of impossibility," Adm. Jones wrote Mr. Critchlow, "and it is only through this type of cooperation that we can attempt to meet the demands placed upon us."

ERL physicists Warner Ecklund of the Space Environment Laboratory, and Ben Balsley of the Aeronomy Laboratory left recently for Anchorage, Alaska, to conduct a study of the nature of plasma irregularities causing radio echoes from aurora. The team will use a portable frequency-coherent system of their own design to make observations in conjunction with the Anchorage radar transmitter. A portable 104 element dipole array was erected earlier to serve as the antenna.

Dr. Franklin A. Gifford, Jr., Director of ERL's Air Resources Atmospheric Turbulence and Diffusion Laboratory in Oak Ridge, Tenn., has been invited by the government of Argentina to give a month-long course at the Observatorio Nacional de Fisica Cosmica in San Miguel, on atmospheric turbulence and environmental pollution. The course began on October 25.

Dr. George Ridgeway, Acting Director of the NMFS Boothbay Harbor laboratory, recently headed the U.S. observer delegation to the annual meeting of the International Council for the Exploration of the Seas in Helsinki, Finland. Other NOAA members of the delegation were Dr. John A. Emerson, Staff Specialist for Marine Contaminants, NMFS Office of Resource Utilization; Kenneth Mosher, fishery biologist at the NMFS North Pacific Fisheries Research Center, Seattle, Wash.; J. A. Posgay, fishery biologist at the NMFS Woods Hole (Mass.) Biological Laboratory; and Thomas Winterfeld, Chief, Data Systems and Bases Branch, Development Division, National Oceanographic Data Center, EDS.

While on an extended NOAA scholarship, Dr. James L. McElroy completed the requirements for the degree of Doctor of Philosophy with a major in Meteorology at Pennsylvania State University. His dissertation was titled, "An experimental and numerical investigation of the nocturnal heat island over Columbus, Ohio." Dr. McElroy is a research meteorologist in the Field Investigation Branch of the ERL Air Resources Laboratories' Division of Meteorology at Raleigh, N.C.

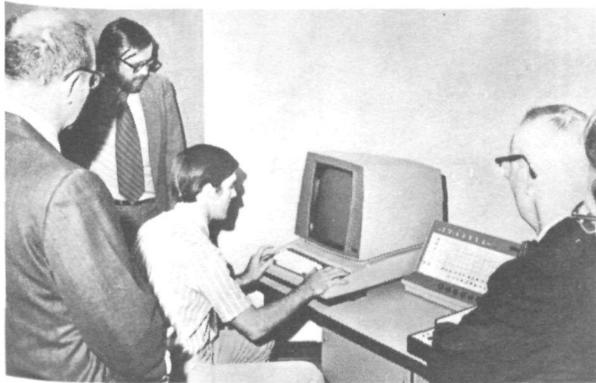
Mr. R. A. Elster Noda, a United Nations fellow from Venezuela, has reported to the Geodesy Division, National Geodetic Survey, NOS, for training in urban control surveys. Mr. Elster is Chief of the Main Program on Urban Cadastre in Venezuela and has come to the United States to study the surveying and valuation of urban properties. At present, he is observing the operations of field party G-23 under Lt. Cdr. Ned C. Austin in Dade County, Fla.

Harold Schantz, cartographer in the Marine Chart Division, NOS, received the Officer of the Year award for long and faithful service in the Wheaton, Md., Rescue Squad, at the squad's sixteenth annual banquet held recently.

Hurricane Ginger Set New Longevity Record

Hurricane Ginger in all of its phases of development, travel, and dissipation was the longest storm of record--28 days. Highest winds along the east coast were 92 mph, recorded at Atlantic Beach, North Carolina. Maximum tides were about 6.5 feet above normal water levels. Norfolk, Virginia, recorded over 5 inches of rainfall by noon October 1. The NWS has heard of no deaths directly attributable to this storm.

Device for Message Composition Demonstrated at SSD Conference



Shown above is the IMLAC Keyboard Cathode Ray Tube (KCRT) demonstrated at the NWS Scientific Services Division Conference in Silver Spring, Md. The use of a programmable (stand-alone) KCRT for message composition, message dissemination and message retrieval was shown. Graphical display of observational weather data upon a map by this device was also demonstrated.

The Systems Development Office, which showed the equipment, as part of its Field Station Automation Program, is developing data on KCRT applications. A similar KCRT, procured by NWS for operational field experimentation purposes, will be installed in the Weather Service Forecast Office in Redwood City, Calif., in early November.

Fashion Note From the Fleet

Sign of the times! The crews of NOAA ships are now authorized to wear beards, mustaches, long side burns and long hair. In a memorandum, Rear Adm. Don A. Jones, Director of the National Ocean Survey, which operates the ships, requested the directors of the Atlantic and Pacific Marine Centers in Norfolk, Va., and Seattle, Wash., to advise commanding officers of the new policy.

Jones stated that "the position of NOS with respect to the appearance of the crew" is that "beards, mustaches, long side burns and long hair may now be worn by the crew of vessels with the proviso that they be kept in a neat, clean, and trim manner."

In addition, long-haired vessel employees working with or near machinery were cautioned to wear "such protective devices as are deemed necessary for safety" and a similar admonition went out to employees working in the preparation and serving of food "for sanitary purposes."

Eight NOAA Units Receive Bond Participation Awards



Robert J. McCann (left) is congratulated by Merritt N. Techter, Director, Systems Development Office. William E. Eggert, Director, Test and Evaluation Laboratory, holds the Concord Minute Man award certificate.

Eight NOAA units have received the 1971 "Concord Minute Man" award for their U. S. Savings Bond purchases.

The award is given to groups of 25-99 employees having at least 90% participation in the payroll bond deduction program.

The following groups received the award: the former Office of Plans and Programs; the Personnel Division and the Management Systems Division, NOAA Office of Administration; the NWS Test and Evaluation Laboratory, Sterling, Va.; the NWS Central Region Engineering Division; the NWS Forecast Office in Jackson, Miss.; the NWS Forecast Office in Atlanta, Ga.; and ERL's National Severe Storms Laboratory in Norman, Okla.

University Meteorology Course Taught by NCC Staff Members

Twenty applicants from EDS' National Climatic Center have been selected for the first "Introduction to Meteorology" course to be offered at the University of North Carolina-Asheville and taught by NCC staff members beginning November 11. The four-semester hour course in meteorology is designed for high school graduates or those who have passed a high school equivalency test. The course, to be given on campus during regular working hours, will offer an opportunity for NCC employees, as well as other students, to earn college credits that have not been available to them in the Asheville area.

Administrative Conference Held in Kansas City



Shown above are the participants in the recent field conference held by the Administrative Operations Division of NOAA in Kansas City, Mo. The 44 attendees, representing all Major Line Components, heard AOD staff members discuss functional areas in which field operations are involved.

In addition, Andrew Luhtanen, special assistant for procurement liaison, covered such aspects of procurement as Small Business Set-Aside, Minority Business Enter-

prise Program, and computer procurement. Other subjects thoroughly discussed by participants and staff included property and supply, paperwork management, travel and transportation, real property, claims, loss control, and security.

Donald B. Moore, Director, Office of Administrative Services of the Department of Commerce, was keynote speaker for the conference. The sessions were under the direction of E.F. McCann, Chief of NOAA's Administrative Operations Division.

Health Benefits Open Season Extended

The Civil Service Commission has announced an extension of this year's health benefits open season. Unenrolled employees will be able to enroll and enrolled employees will be able to change enrollment between November 15 and December 31, 1971, inclusive. These open season actions will become effective on the first day of the first pay period in January.

The pamphlet, "Open Season Instructions," will be distributed to all employees within the next few weeks. The 1972 benefits for all plans will be precisely the same as shown in the current 1971 brochures. Premiums for many plans will, however, be increased for 1972. The Government's standard contribution will also be increased, with the amount of the increase dependent upon the average high-option new premiums of six representative plans. These new premiums are still being negotiated; thus, information on the new rates is not yet available.

Program Management Seminar Proceedings Available

A Seminar in Program Management titled "Cost Effectiveness Through Reliability and Maintainability" was recently sponsored by the Reliability Division of the National Oceanographic Instrumentation Center (NOIC) and conducted in Rockville, Md., by Wheeler Industries, Inc., as a part of NOIC's continuing Reliability-Maintainability Awareness Program.

The 20 participants were NOAA personnel involved in program management and instrument acquisition.

Copies of the proceedings are available, but the supply is limited and requests will be handled on a first come, first served basis. Requests should be addressed to: National Oceanographic Instrumentation Center, Code C633, U.S. Department of Commerce, NOAA/NOS, Rockville, Maryland 20852.

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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