



# NOAA WEEK

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

## 43 Weather Stations In New Pollution Role

The National Weather Service has designated 43 of its weather stations in large cities Air Stagnation Advisory Offices (ASAO's) to insure national coverage in forecasting weather conditions which could lead to a dangerous buildup of pollutants unless emissions are curtailed.

Chief factors in air stagnation situations are the absence of winds that disperse pollutants horizontally and a stable atmospheric layer which tends to inhibit vertical mixing through relatively deep layers.

The ASAO's were created, with the cooperation of the Environmental Protection Agency, to help state and local pollution control agencies meet and maintain the air quality standards issued by EPA for the entire nation.

Each ASAO will provide pollution control agencies within the area of its responsibility (an individual state or state-size area, depending on topography and population distribution) with an early advisory that meteorological conditions conducive to a pollution episode may be imminent. It will then predict the duration and termination of such conditions.

Ideally, the combination of timely information from the NWS, coupled with effective abatement actions by control agencies, should prevent any city from ever reaching an "emergency" stage during an air pollution episode.

ASAO's will incorporate the Environmental Meteorological Support Units (EMSU's) presently functioning in 14 of the designated cities and 12 EMSU's that are planned. The four-man EMSU's use instrumented balloons to measure the vertical structure of temperature and wind over cities.

The meteorologist who heads an EMSU has primary responsibility for prepara-

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## Bollay Named Director For Weather Modification



Eugene Bollay, past president (1970) of the American Meteorological Society, has been named to NOAA's new post of program director for weather modification. He was formerly the director of meteorological sciences at E. G. & G., Inc., and active in its stratospheric research program for the Los Alamos Scientific Laboratories, and its Albuquerque Office's environmental science and weather modification program.

Stationed at NOAA's Environmental Research Laboratories in Boulder, Colo., Mr. Bollay is the focal point for all weather control research efforts within ERL, and for NOAA's participation in meteorological research by universities and government agencies in this country and abroad. He also has line management responsibility for ERL's Research Flight Facility and Experimental Meteorological Laboratory in Miami.

Major weather modification projects in which ERL is the lead agency are the National Great Lakes Snow Redistribution Project, the National Cumulus Modification Project, and the National Hurricane Modification Project (Project Stormfury). It is also involved in the National Hail Research Project of the National Center for Atmospheric Research and the National Science Foundation.

Mr. Bollay, who was born in Stuttgart, Germany, became a naturalized U.S. citizen in 1928. He earned a B.S. at Northwestern University in 1935 and an M.S. from the California Institute of Technology in 1936.

In 1966 he received the American Meteorological Society Industrial Meteorology Award and, in 1970, an Air Weather Service Special Award.

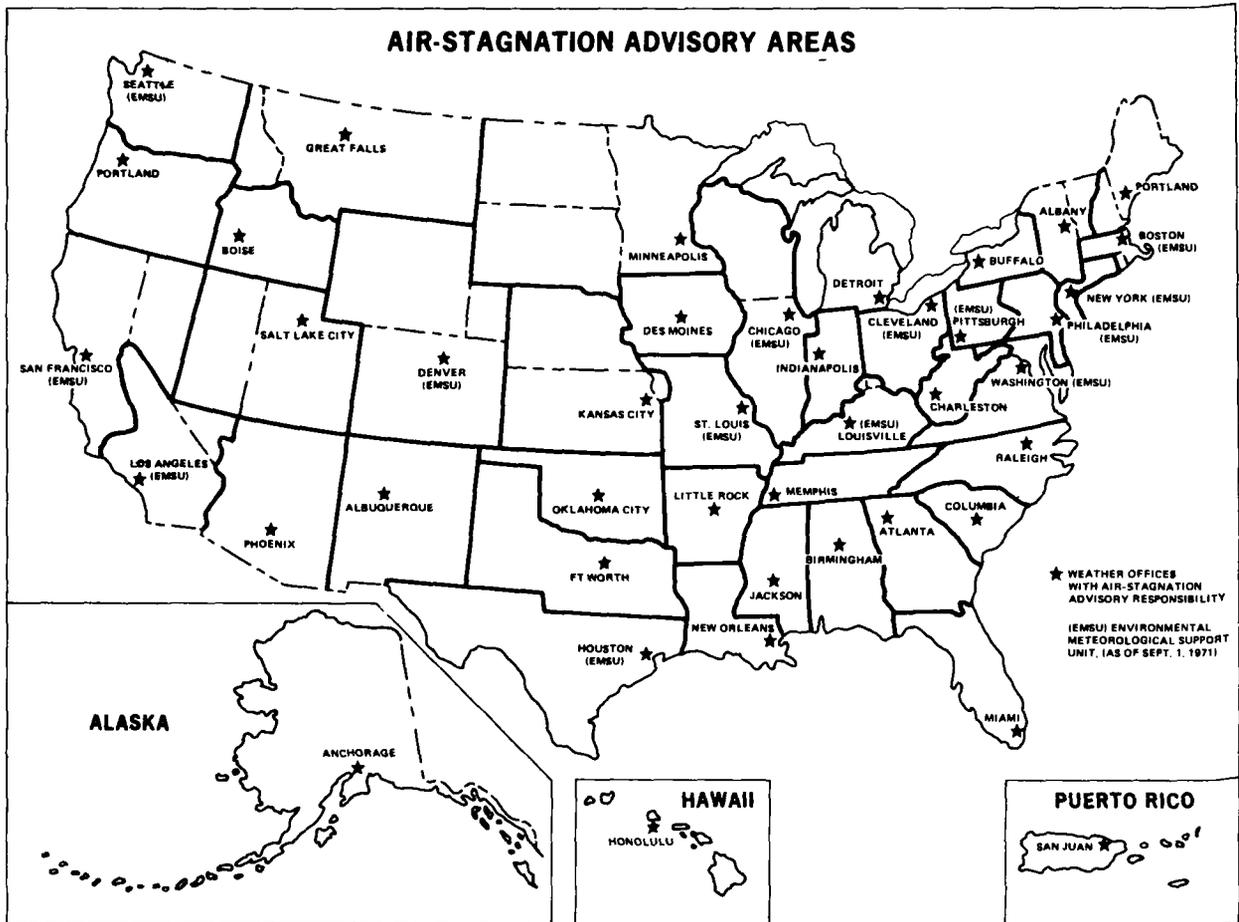
### 43 Weather Stations (continued from page 1)

tion and issuance of Air Stagnation Advisories. In areas without EMSU's, accredited forecasters at selected NWS forecast offices are responsible for the ASA's.

To guide the ASAO's, weather analysts of the National Meteorological Center use computerized techniques to determine where stagnant conditions may develop over large areas of the country. This type of prediction service has been available since 1960.

In the following cities, weather stations have been designated ASAO's (capital letters indicate locations of EMSU's): Albany, N. Y.; Albuquerque, N. Mex.; Anchorage, Alaska; Atlanta,

Ga.; Birmingham, Ala.; Boise, Idaho; BOSTON, Mass.; Buffalo, N. Y.; Charleston, W. Va.; CHICAGO, Ill.; CLEVELAND, Ohio; Columbia, S. C.; DENVER, Colo.; Des Moines, Iowa; Detroit, Mich.; Ft. Worth, Tex.; Great Falls, Mont.; Honolulu, Hawaii; HOUSTON, Tex.; Indianapolis, Ind.; Jackson, Miss.; Kansas City, Mo.; Little Rock, Ark.; LOS ANGELES, Calif.; LOUISVILLE, Ky.; Memphis, Tenn.; Miami, Fla.; Minneapolis, Minn.; New Orleans, La.; NEW YORK, N. Y.; Oklahoma City, Okla.; PHILADELPHIA, Pa.; Phoenix, Ariz.; PITTSBURGH, Pa.; Portland, Maine; Portland, Ore.; Raleigh, N. C.; ST. LOUIS, Mo.; Salt Lake City, Utah; SAN FRANCISCO, Calif.; San Juan, P. R.; SEATTLE, Wash.; and WASHINGTON, D. C.



# Foreign Vessels Visit NMFS Woods Hole Research Center



Soviet vessel BLESK deck and crew, with Warren Handwork and Patrick Twohig of the NMFS Woods Hole Biological Laboratory.

The French research vessel CYROS and the Russian research vessel BLESK visited NOAA's North Atlantic Fisheries Research Center in Woods Hole, Mass., over Labor Day weekend.

The CYROS arrived to begin an international study on sea herring larvae under the auspices of the International Commission for the Northwest Atlantic Fisheries. France, the U.S., the USSR, West Germany, and Canada are participating in the study of the distribution, abundance, and dispersal of herring larvae in the Georges Bank-Gulf of Maine area.

Two National Marine Fisheries Service scientists, Harold C. Boyar and Roger A. Clifford, from the Boothbay Harbor Biological Laboratory were aboard the CYROS when she sailed September 8 to conduct the first leg of the study. Dr. George J. Ridgway, of the NMFS Biological Laboratory in Boothbay Harbor, is coordinating the study, the second leg of which will be conducted by the NOAA Ship DELAWARE II.

The BLESK arrived to continue the USA-USSR joint groundfish research begun in 1967 after bi-lateral treaties were negotiated for the conservation of fish stocks in the Mid-Atlantic Bight. The program is under the leadership of Dr. Marvin D. Grosslein of the Woods Hole Biological Laboratory.

This year the first phase of the research took the BLESK to waters south of

Cape Cod for several days to measure towing performance of trawls to be used in the studies, and on September 14 she and the NOAA Ship ALBATROSS IV departed together to conduct catch comparison experiments. The quantitative inventory of groundfish stocks between Cape Hatteras and Georges Bank is scheduled to begin September 28.

In order to establish conservation regulations in international waters it is necessary to know the impact of exploitation on the stocks. Commercial fisheries statistics by themselves are not adequate to monitor changes in the structure and total fish biomass. Thus, a prime objective of the joint research program has been to evaluate the accuracy of groundfish abundance estimates derived from research vessel surveys.

## EDS Publishes Drought Bibliography

The Environmental Data Service has published a "Drought Bibliography," by Wayne C. Palmer and Lyle M. Denny. This 236-page compilation of references, with abstracts where available, covers the literature from 1467 through 1968 on the subject of agricultural, hydrologic, and meteorological drought, and is considered to be the most comprehensive yet assembled. The bibliography, stimulated by the 1961-66 drought in New England, was suggested by Helmut E. Landsberg, now Director of Meteorological Research at the University of Maryland, and includes contributions from experts in many countries. Single copies are available from Mr. Denny at EDS.

## Appointments Clarified

Since August 15, when the wage-price freeze went into effect and promotions and outside hirings within Commerce were banned, several announcements of new NOAA appointments have appeared in NOAA WEEK. These actions were initiated months earlier and were approved before the freeze became effective.

For the time being, all new hiring, regardless of location of the position within the organization, is subject to the freeze.

## Coast Pilot 1 Published In Computerized Edition

The National Ocean Survey has published a computerized edition of Coast Pilot 1, a 302-page nautical book containing descriptive information of the ports along the Atlantic Coast from Eastport, Maine, to Cape Cod, Mass.

It is the third of the eight Coast Pilots published by NOS to become available in the computerized version, and, like Coast Pilots 3 and 4, will not have annual supplements, but will be replaced annually by a new edition.

Coast Pilot 2 is scheduled to be printed by the photocomposition process in 1972 and the other four volumes by about 1975. Until then, cumulative supplements will continue to be published each year for these volumes.

Coast Pilots furnish marine information on navigation regulations, outstanding landmarks, channel and anchorage peculiarities, dangers, weather, ice, freshets, routes, pilotage and port facilities.

The new book may be purchased for \$2 from the NOS Distribution Division (C44), Washington, D. C. 20235, or from NOS sales agents in ports throughout the area covered.

## Lieutenant Commander R.J. DeRycke Honored for Leadership of FERREL



Rear Admiral Harley D. Nygren, Director of NOAA's Commissioned Corps, presented a Bronze Medal to Lieutenant Commander Richard J. DeRycke (right), citing his outstanding leadership as Commanding Officer of the NOAA Ship FERREL through its 1970 field season, which resulted in a massive gain in data output. The presentation was made in a brief ceremony at the Washington Science Center.

## Chovitz Appointed to Posts In International Organization



Bernard H. Chovitz, chief of the Physical Geodesy Branch at the National Ocean Survey's Geodetic Research and Development Laboratory, has been appointed to three offices in the International Association of Geodesy. The appointments were made in Moscow during the joint quadrennial meeting last month of the IAG

and the International Union of Geodesy and Geophysics. He was appointed Secretary of the Section on Satellite Techniques, a member of the IAG Scientific Council to the Central Bureau of Satellite Geodesy and a member of the joint Commission on Uses of Artificial Satellites for Geodesy of IAG and the Committee for Space Research.

## No Hazards Found at Sleeping Bear Dunes

The special Lake Survey Center survey of the Sleeping Bear Dunes area of Michigan, necessitated by a landslide last March, disclosed no hazards to navigation; however, it did bring to light some interesting facts. One was that the 1971 depths in the slide area are substantially greater than they were when the only prior survey of that particular area was made in 1860, indicating (though prior survey data are not adequate for proof) that not only did a portion of the bluff slide into the lake, but also that this material and a portion of the nearshore bottom material slid beyond the nearshore area into the deeper part of the lake.

## Allen Stedry, Donal Boswell Die

Allen Stedry, a former Weather Service employee, died on September 8 at Norfolk, Va. Mr. Stedry was in Newfoundland during World War II, at the Boston weather office for 10 years, served at Columbia, Mo., and retired from St. Joseph, Mo., in 1965 after 27 years of service.

Donal K. Boswell, meteorological technician at the Weather Service Office in Pueblo, Colo., died on August 18. He had been with the Weather Service since January 1950.

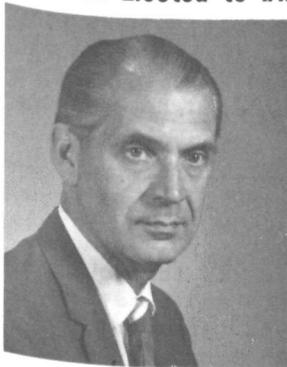
## Cooperation by NOAA Units Nets Better Service to the Public

The National Weather Service station at Detroit's Metropolitan Airport and the Lake Survey Center located in downtown Detroit combine their talents to provide valuable information to the Great Lakes recreational craft fleet. Each Thursday, Lake Survey Center provides the NWS-Detroit, by telephone, with the water level situation as received from the Center's 50 water level gaging stations around the Lakes. This information is then added to the NWS comprehensive boaters weather and water conditions forecast and released to area news media for the coming weekend. Then the NWS, using its excellent communications system, relays the water level data to other NWS stations in the Great Lakes area for dissemination to news media in their areas.

The water level data enable the boater to adjust the depths shown on his Lake Survey charts; and the weather and sea conditions forecast permits him to plan in advance his weekend water-oriented activities. Southeastern Michigan U.S. Power Squadrons and U. S. Coast Guard Auxiliary Flotillas have been particularly generous in praising the excellent service provided by NWS-LSC Detroit.

The Michigan State Waterways Commission has estimated there are 250,000 boats registered in the area between Monroe, Mich., on Lake Erie and Port Huron, Mich., at the foot of Lake Huron. This makes it one of the heaviest concentrations of recreational craft anywhere. The area includes the St. Clair River, Lake St. Clair and the Detroit River.

## ERL Men Elected to IAMAP Posts



Dr. Weickmann

Dr. Helmut Weickmann, director of the Environmental Research Laboratories' Atmospheric Physics and Chemistry Laboratory (APCL) was re-elected president of the International Commission on Cloud Physics, IAMAP, at the 15th IUGG General Assembly in Moscow in August.

Dr. Heinz W. Kaser, also of APCL, was elected chairman of the Subcommittee on Global Circuit of the newly formed Atmospheric Electricity Commission, IAMAP.

## George W. James Receives Medal For "Unsurpassed Record"



Shown above with Dr. Wilmot N. Hess, Director of the Environmental Research Laboratories in Boulder, Colo., is George W. James, a crater and packer for the National Bureau of Standards. Formerly a carpenter-leader of the ERL Boxing and Packing Unit, Mr. James was awarded the Bronze Medal of the Department of Commerce for his "unsurpassed record over the past 15 years of transmitting equipment to remote sites and having it arrive intact." He transferred from NOAA to NBS in March.

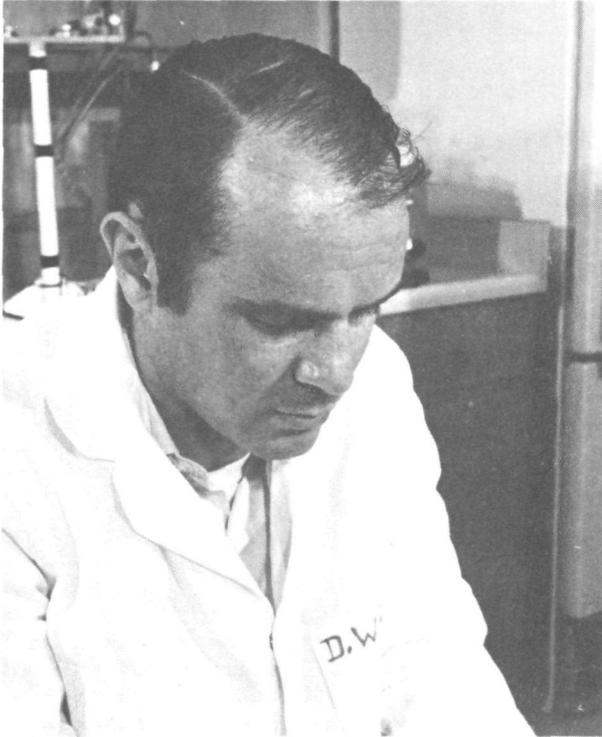
## NWS Southern Region Employees Retire

Two meteorological technicians in the National Weather Service Southern Region recently retired. They were Ethel L. Kemp, forecaster aide at the National Hurricane Center in Miami, and James N. Cannon, weather service specialist at the Lake Charles Weather Service Office.

Miss Kemp had been with the NWS since July 1963, and before that with the FAA in Miami as a telegraphic-typewriter operator. She also was a Navy veteran. A native of Miami, she will make her home at 7630 S. W. 64 Court.

Mr. Cannon, an Air Force veteran, began in September 1946 as a meteorological aid at Lake Charles, where he spent his entire weather service career. He and his family will reside at 3006 Warren Avenue in Lake Charles.

## Environmental Stress Study Uses Space-Age Technology



David W. Engel, biologist at the National Marine Fisheries Service Mid-Atlantic Coastal Fisheries Research Center in Beaufort, N. C., uses space-age technology to study effects of environmental stress on osmoregulatory characteristics of estuarine crabs.

Instrumentation, designed and built by the Micro-Electronics Section of NASA, Langley Research Laboratories, measures conductivity of the blood of crabs. The unit, held on the crab's back with rubber bands, transmits conductivity measurements by radio to a receiver and recorder. The probe is inserted into the body cavity through a hole in the shell, which is then sealed.

Since salinity and conductivity of the crab's blood are related to habitat, stresses such as temperature, radiation and salinity can alter the crab's ability to adjust physiologically to environmental changes.

### New Chart of Matagorda Bay Available

A new nautical chart covering the western portion of Matagorda Bay, Texas, and providing, for the first time, large scale coverage of the ship channels leading to the marine facilities at Port Lavaca and Palacios, has been published by the National Ocean Survey.

## Sea Grant Goes to University's Institute of Marine Resources

NOAA has awarded \$1,330,000 in Federal sea grant funds to the University of California's statewide Institute of Marine Resources.

Along with matching funds from non-Federal sources, the grant will be used for a variety of marine-related research projects being carried out on the University's several campuses and at San Diego State College. The projects cover a wide range of investigations such as coastal planning research and surveys at Berkeley, Santa Barbara, and Santa Cruz; aquaculture research and marine advisory services at Davis and San Diego; seafood technology at Davis; fisheries economics at San Diego State College; ocean engineering studies at Berkeley and Los Angeles; and new research in marine pharmaceuticals at Riverside.

Portions of the grant will also be used to provide educational programs in applied ocean science and ocean engineering and to provide advisory services to Pacific marine interests.

In addition, a separate \$4,990 sea grant was awarded to the University of California at Davis to assist in research on the rearing of the New England lobster. The funds will be used to build habitats in which maricultured lobsters will be raised from hatchlings to a stage where they can fend for themselves and may be set free.

### Third 6600 Installed at Suitland

To meet expanding computational requirements, a third Control Data Corporation 6600 Computer System has been installed by the NOAA Computer Division at Suitland, Maryland. The new computer augments the already existing dual 6600 systems that have been in operation at the facility since 1969. Its configuration is similar to the other two 6600's and includes a 131,000 word central memory, two 170 million character disk storage units, seven tape drives, a printer, card reader, and card punch.

The facility provides service to a wide variety of NOAA users through an on-site counter service and a network of remote terminals via telecommunications. Two high-speed terminals are located in FOB-4 and additional remote stations are located in the Washington, D. C. area (WSC-5, NBOC-2, Gramax, and Iverson Mall) and the National Hurricane Research Laboratory, Florida, and the River Forecast Center in Tulsa, Oklahoma.

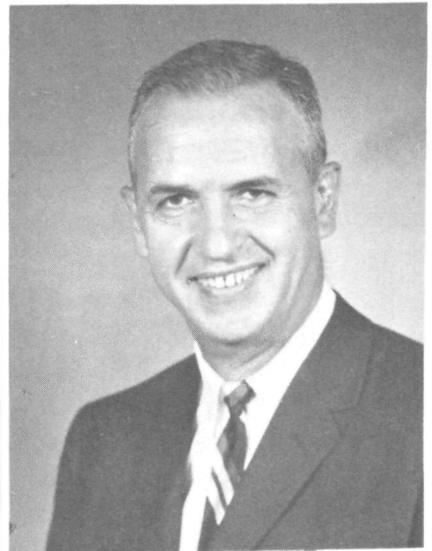
# New MIC'S Named for Los Angeles, Honolulu, Syracuse



Edward M. Carlstead



Richard B. Neave



Joseph Vederman

Joseph Vederman, for the past 11 years Meteorologist in Charge of the Weather Service Forecast Office in Honolulu, is the new MIC at the Los Angeles Weather Service Forecast Office. He replaces George W. Kalstrom, who retired on May 31.

Mr. Vederman will be responsible for the basic weather forecasts for southern California and extreme southern Nevada, and for weather service to marine, forestry, air pollution, agriculture, aviation, and other specialized users. In addition, he will supervise Weather Service facilities at the Los Angeles International Airport, Long Beach, El Monte, Palmdale, and Sandberg, Calif.

A veteran of 34 years' experience in the Weather Service, Mr. Vederman is a graduate of the University of Pennsylvania and the Massachusetts Institute of Technology, and has also attended the University of Hawaii.

Edward M. Carlstead, Chief of the Scientific Services Division in the National Weather Service's Pacific regional headquarters in Honolulu for the last six years, has been named Meteorologist in Charge of the NWS Forecast Office at Honolulu.

Mr. Carlstead began his meteorological career as a U. S. Navy officer in March 1944. His various assignments ashore and aboard ships included duty at the Joint Weather Bureau-Air Force-Navy Weather Center and at the Joint Numerical Weather Prediction Unit, both in Washington, D. C., at the Navy numerical

weather center at Monterey, Calif., and at the Pacific Command Detachment of the Naval Command Systems Support Activity at Pearl Harbor.

He retired from active naval duty with the rank of commander in 1965 and joined the Weather Service in July of that year.

A native of Chillicothe, Mo., Mr. Carlstead attended the University of Kansas and received his B.S. degree from the University of California at Los Angeles. In 1953 he earned his master's degree in meteorology from the Naval Postgraduate School in Monterey, where he also completed an additional year of graduate work in 1961.

Richard B. Neave, who has been fire weather supervisor at Albany, N. Y., for the past five years, has been named Meteorologist in Charge at the Syracuse, N. Y., Weather Service Office.

The Syracuse WSO is responsible for providing public, agricultural, climatic, aviation and inland lake marine weather services to residents of 10 counties in central New York State.

A veteran of 12 years' service with NWS, Mr. Neave served as a weather forecaster in Minneapolis, Minn., Green Bay, Wisc., and Beckley, W. Va., in addition to Hartford, Conn., where he entered the NWS in 1959. He moved to Albany in 1966.

Mr. Neave was born in Janesville, Wisc., where he received his early schooling. He received a degree in mathematics and physics from Milton College in 1959, and completed graduate study in meteorology at the University of Utah in 1962.

## Lieutenant DeVivo Honored For System Improvement



Lt. (j.g.) DeVivo (right) and George J. Littleton, Chief, Facilities Engineering Branch

Lt. (j.g.) Roger DeVivo, manager and analyst for the NWS Facilities Engineering Branch's Facilities Management Reporting System (FMRS), has received a Special Achievement Award for his improvements and revisions to that system during the past year. Lt. DeVivo was assigned to that position following his graduation from the NOAA Commissioned Corps' Officer Training Class in March 1970. Lt. DeVivo, working with H. C. Besmen of the Facilities Engineering Branch, and R. L. Hovey of the Engineering Data Analysis Group, updated the computer programs and policies of the FMRS for its role in the management of facilities projects. The projects will be reported by the six National Weather Service Regions during Fiscal Year 1972.

## Lake Montauk Chartlet Available

A hydrographic survey by the National Ocean Survey has revealed water depths of at least six feet in the center of Lake Montauk, Long Island, N.Y., twice the depth previously reported there. The new depth and other data concerning Lake Montauk are shown in a chartlet available free from Third Coast Guard District Headquarters, Governors Island, New York, N.Y. 10004 or from the NOS Distribution Division (C44), Washington, D.C. 20235. A new edition of Chart 362, which will contain the updated survey data, is planned for November by NOS.

## Air Pollution Unit at MIT Dedicated in August Ceremony

The National Weather Service's new Environmental Meteorological Support Unit (EMSU) atop Massachusetts Institute of Technology's Building 24 was formally dedicated on August 23.

The unit is one of 14 EMSU's located in large United States cities, and its function is to alert the Greater Boston Metropolitan Area whenever atmospheric stagnation could lead to a dangerous buildup of pollutants unless preventive measures are taken.

Participating in the ceremony were Karl R. Johannessen, Associate Director of NWS; Oscar Tenenbaum, Meteorologist in Charge at Boston's Logan Airport, and Professor Norman Phillips, Head of the Meteorology Department at MIT.

Henry Cochran, who is in charge of the station's operations, launched its first observation balloon, and explained how two such instrument packages launched into the Boston air daily will help determine the "pollution potential" of the city's air.

## Cooperative Observer Receives Award



Shown above receiving his National Weather Service 1971 John Campanius Holm Award from Wyoming Senator Clifford P. Hansen (left) is James L. Braman, of Moran, Wyo. (third from left) Also in the photo are Mrs. Braman and Wyoming State Climatologist John Aleya.

# **National Oceanic and Atmospheric Administration**

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