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

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U.S. and Canada Measure Snowmelt Flood Potential

By means of a new type of aerial survey, the U.S. and Canadian governments will be teaming up in February and March to test a new technique for measuring the potential for spring snowmelt flooding in the Souris River basin—an area shared by the two countries.

The Souris River originates in Saskatchewan, Canada, loops southward into North Dakota, and then flows back north into Canada. In past years, it has been a serious trouble spot during the spring-flood season, forcing thousands of people to evacuate their homes.

U.S. participants in the team effort are the National Weather Service; the Energy Research and Development Administration (the former Atomic Energy Commission); and the Agriculture Department's Soil Conservation Service. Canadian participants are the Inland Waters Directorate of Environment Canada, and the Saskatchewan Department of Environment.

The purpose of the survey will be to measure the amount of water present in the snow cover over the Souris River basin. This information will be used primarily by the NWS River Forecast Center at Kansas City, Mo., to help prepare forecasts for the Souris River during the spring runoff, when melting snows combined

(Continued on page 2)

Rude, Heck Seek Wrecks

NOAA's wire drag ships, the Rude and Heck, this month will begin a three-month search for 20 sunken wrecks which lie off the Atlantic coast between Chesapeake Bay and the Florida Keys and along Florida's west coast.

The wrecks, but a few of the hundreds of victims of storms and accidents at sea which have sunk over the years, are reported to be navigational hazards in that their hulks or superstructures may lie so close to the surface that they pose a danger to passing vessels.

The Rude and Heck are commanded by Commander Robert A. Ganse and carry a complement of 10 officers and crew.

The general locations of the wrecks have been reported to the National Ocean Survey and the task of the Rude and Heck will be to determine their exact locations and the depth of the water above each.

The ships will spend approximately six weeks searching for five wrecks located at the entrance to the Chesapeake Bay, and then proceed to the coasts of North and South Carolina, where six wrecks have been reported as possible navigational hazards.

In the Florida Keys and west coast search, eight wrecks, plus a reported dangerous coral formation with a clearance of only 14 feet in 35 foot depths will be investigated.

"Weather Machine" To Be Televised

The "Weather Machine," a two-hour television science special designed to examine the conditions which cause climatic variations, is scheduled to be televised over the country-wide network of affiliated Public Broadcast Service Stations on Monday, February 24.

While most of the stations in the Eastern United States will probably carry it at 8 p.m., WETA, Channel 26 in Washington, D.C., will carry it delayed at 9 p.m. Persons outside the D.C. area should check with their local PBS stations for the time it will be shown in their area.

WETA will also repeat the program on Sunday, March 2, from 5:30-7:30 p.m.

Many NOAA personnel and facilities contributed general information and advice for planning the movie. In addition, the National Environmental Satellite Service shipped to BBC in London, England, for use in the movie, many photos from NOAA and the SMS satellites. NESS also loaned to the producers a detailed scale model of the NOAA-2 satellite.

The color special, a National Educational Television production produced in cooperation with BBC in London, was made possible by a grant from Champion International Corpora-

(Continued on page 2)

AMS Honors Cressman, Other NOAAites, WSO

Deep-Sea Red Crabs May Be Marketed

If there is a market for it, a new seafood delicacy—the deep-sea red crab, cousin to the king crab—soon may appear in supermarket frozen food sections.

So say Sea Grant Scientist Dr. Andreas Holmsen of the University of Rhode Island's College of Resource Development, and Hiram McAllister, a shellfish consultant from the State of Washington, who recently concluded a NOAA-supported economic and technological study of the red crab fishery. One of NOAA's functions is to study the feasibility of harvesting and marketing under-utilized species of fin- and shellfish.

Dr. Holmsen estimates the fishery could support a maximum of seven to eight vessels supplying three processing plants, with a total output of around 1.2 million pounds of meat per year.

However, he says that current large inventories of king crab, the major competitor of deep-sea red crab, and declining consumer buying power, make the future for the red crab market unclear. "The problem is primarily economic rather than technological," he says. "If the fishermen can't get a high enough price at the dock for their catch, they'll be tempted to return to offshore lobstering or trawling. And if the processors feel they have to pay so much that they can't compete with products like king crab, they aren't going to build a new plant in the first place."

The red crab is a bottom feeder that prefers the cold waters off the continental shelf from Maine to Cape Hatteras at depths up to about 2500 feet. The National Marine Fisheries Service estimates at least five million pounds a year can be taken without damaging the stock. The technology exists for harvesting and processing the crustacean, but as yet there is no large market for it.

Groundbreaking for the first fullscale commercial red crab processing plant took place in

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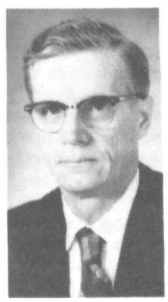

Dr. Cressman

Dr. Klein

Several NOAA personnel and former personnel were honored by the American Meteorological Society at its recent 55th Annual Meeting in Denver, Colo.

Dr. George P. Cressman, Director of the National Weather Service, received the Society's 1975 Cleveland Abbe Award for Distinguished Service to Atmospheric Sciences by an individual, for "pioneering efforts in introducing numerical techniques into weather forecasting and his outstanding leadership in modernizing the United States Weather Service."

Dr. Cressman has been NWS Director since 1965. He had come to the Weather Bureau in 1958 as Director of the newly formed National Meteorological Center, and in 1964 was appointed Director of the Office of National Meteorological Services.

From 1954-1958 he was with the Joint Numerical Weather Prediction Unit, a special forecast unit sponsored jointly by the Weather Bureau, Air Force, and Navy, which, under his guidance, pioneered in the field of operational forecasting procedures by numerical weather prediction techniques. In 1955, he received the Air Force's Exceptional Civilian Service Award for his work in organizing this unit.

From 1949-1954, Dr. Cressman was a civilian research meteorologist with the Air Weather Service. He spent the previous three years as a research assistant in the University of Chicago's Department of Meteorology.

An officer in the U.S. Army from 1941-1946, he first studied meteorology at New York University, then taught it there

(Continued on page 2)

Pollution Report Discussed

Several NOAA personnel were among the approximately 300 scientists from throughout the world who met earlier this month in Cambridge, Mass., to discuss the recent report of the U.S. Department of Transportation to Congress on "Findings on the Effects of Stratospheric Pollution by Aircraft."

The report to Congress by DOT's Climatic Impact Assessment Program completed a three-year, $20 million study which drew on the resources of many Federal departments and agencies and some foreign ones and about 1,000 investigators from U.S. and foreign universities and organizations. The study assessed the potential impact of climatic changes which might result from the emission of the exhaust of highflying aircraft in the stratosphere.

NOAA was represented on the program by:

–Dr. Ray E. Jensen, Director of the National Weather Service's Environmental Study Service Center in Auburn, Ala., who spoke on the "Estimated Impacts of Climatic Changes on Crop Productivity" in the session on Biological and Economic Impact;

–Dr. Lester Machta, Director of the Environmental Research Laboratories' Air Resources Laboratory in Silver Spring, Md., who spoke on "Erythemal Ultra Violet Radiation" in the session on Experiments and Measurements; and

–Dr. Jerry D. Mahlman, Research Meteorologist at ERL's Geophysical Fluid Dynamics Laboratory in Princeton, N.J., who spoke on "The Physics of Modeling Atmospheric Transport" in the session on Modeling.

"Weather Machine"

(Continued from page 1)

tion. It presents the most current theories of meteorological experts from England, Denmark, Japan and the United States on man's use and misuse of the atmosphere and the possible consequences to global environment. New techniques in forecasting climatic changes for our world are highlighted, including the increased use of the computer, the role of the satellite and the research being done in the polar regions, on the ocean floor and in the world's forests. The program also focuses on the World Meteorological Organization and its World Weather Watch, which is instrumental in warning countries of impending major storms–hurricanes, typhoons and tornadoes.

AMS Honors Dr. Cressman, Other NOAAites, WS

(Continued from page 1)

and at the University of Chicago, and then operated Army Weather stations.

Dr. Cressman has been active in the World Meteorological Organization, serving as President of the WMO Commission for Aerology and as a Member of the WMO Advisory Committee. He received the Robert M. Losey Award of the American Institute of Aeronautics and Astronautics in 1966, and a Department of Commerce Gold Medal in 1961.

Dr. Cressman received his bachelor's degree in physics from Pennsylvania State University; his master's degree in meteorology from New York University; and his doctorate in meteorology from the University of Chicago.

Dr. William H. Klein, Director of the NWS Techniques Development Laboratory and Acting Director of the Systems Development Office, received the AMS Award for the Outstanding Contribution to the Advance of Applied Meteorology for "his notable development of objective procedures for predicting surface weather elements and his leadership in bringing these and other scientific advances in meteorology into practical use."

After service as a Weather Officer in the USAF, in 1946 Dr. Klein became a Research Forecaster in the Extended Forecast Division of the Weather Bureau. In 1959 he was named Chief of the Division's Development and Testing Section, and then worked for a year as Head of the Statistical Techniques and Analysis Branch at the National Meteorological Center, before being named Director of the TDL in 1964. He was named Acting Director of the Systems Development Office in 1974.

Dr. Klein has been active on many interagency and NOAA committees, including the Interagency Committee on Applied Meteorological Research, NOAA Committee on Education and Training, NWS Committee on Analysis and Forecast Technique Implementation (Chairman), and the Interagency Task Group on Marine Environmental Prediction. He is the author of numerous articles on automated temperature and precipitation forecasting, statistical meteorology, synoptic climatology, extended forecasting, and relation of weather to circulation.

Dr. Klein received a Commerce Silver Medal in 1964, and in 1974, a Gold Medal for his overall management and technical leadership of the TDL. He was elected a Fellow of the AMS in 1970.

Dr. Klein received his B.S. from the City College of New York; his M.S. from the Massachusetts Institute of Technology; and his Ph.D. from New York University.

Dr. Werner A. Baum, who was Deputy Administrator of the Environmental Science Services Administration, NOAA's predecessor, in 1967 and 1968, was awarded the AMS 1975 Charles Franklin Brooks Award for Outstanding Services to the Society. Dr. Baum, who is now Chancellor of the University and Professor of Geography at the University of Wisconsin at Milwaukee, was cited for "his numerous exemplary services to the Society and the profession, and his leadership as an educator."

Dr. Neil L. Frank, Director of the NWS National Hurricane Center in Miami, Fla., and Dr. Joanne Simpson, former Director of the Environmental Research Laboratories' Experimental Meteorology Laboratory in Miami, who is now Professor of Environmental Sciences at the University of Virginia in Charlottesville, Va., were among the four AMS members elected by the Society to serve three-year terms as Councilors.

Dr. Frank has been affiliated with the NHC since 1961, serving first as a District Forecaster in Miami and subsequently as Assistant Director of the Tropical Analysis Center, Hurricane Specialist, and Deputy Director, before becoming Director in 1974. Specializing in the field of tropical meteorology, he served in an advisory capacity as U.S. Consultant for a WMO seminar on tropical meteorology in 1964; as Director of meteorological support for Project BOMEX in 1969; as Consultant to the World Bank for drafting a cyclone warning plan for East Pakistan in 1970; and as a member of the GATE Advisory Panel to the U.S. GARP Committee.

Dr. Frank

Dr. Frank holds a B.A. from Southwestern College, Kansas, and an M.S. and Ph.D. from Florida State University. From 1953-57 he served as a Weather Officer in the U.S. Air Force.

The National Weather Service Office at Huntsville, Ala., received one of three 1975 AMS Special Awards presented to individuals or organizations not recognized by more specifically defined awards, who have made important contributions to the science or practice of meteorology or to the Society. WSO Huntsville was cited for its "timely and accurate warnings during the tornadic outbreak of April 3, 1974, in disregard of personal safety, maintaining information services that helped to minimize the impact of a series of vicious storms."

Snowmelt Flooding Potential Is Measured

(Continued from page 1)

with normal precipitation are apt to produce flooding.

Measurement of the amount of water in the snow is made by a small, low-flying aircraft which detects the amount of natural gamma radiation from the earth along its flight path. The technique is based on the fact that water–liquid or frozen–blocks some of the earth's natural radiation. A drop-off in gamma-ray output from that found by similar measurements made before the snow cover was present gives an index of the amount of water on the ground in the form of snow. The massive amount of data collected in the aerial survey is processed by computer to arrive at the water equivalent.

The instrument-equipped aircraft used in the survey is operated by EG&G, Inc., for the U.S. Energy Research and Development Administration. Measurement of snow cover by this technique has been under experimentation for several years. It complements or substitutes for the conventional system requiring hundreds of core samples of snow depth obtained by observers on the ground. It is particularly valuable for areas where sufficient core samples are difficult to obtain and the annual flood threat is great. The Souris Basin presents a real challenge because of excessive drifting of the snow in that area.

NOVAC News

The annual meeting/dinner-dance of NOAA Voluntary Action, Inc. will be held at 6:30 p.m. on Saturday, March 22, at Walter Reed Army Medical NCO Club. All members and friends of NOVAC are cordially invited. Further details to be announced–please save that date.

All nominations for the Board of Directors must be filed by members by COB, February 22,–C/O Ms. Barbara Suto/Ax21, WSC5, Room 921.

noaa week

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NOAA Week reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policies of the paper or the Administration.

Catherine S. Cawley, Editor
Anna V. Felter, Art Director

Folsom Named Fisheries Attache for Africa

William B. Folsom has been selected as the new U.S. Regional Fisheries Attache for Africa with the Department of State. He will begin his official duties in March, at the Consulate General of the United States of America in Casablanca, Morocco. He will replace Norman L. Pease, who has been assigned to Copenhagen, Denmark.

Mr. Folsom

This assignment also marks the opening of the new post in Morocco; prior to this time the post of Regional Fisheries Attache was in Abidjan, Ivory Coast.

Mr. Folsom was previously a Foreign Affairs Officer with the National Marine Fisheries Service Office of International Fisheries. He was responsible for reporting on the fisheries of Africa, Asia, and Latin America. He joined NMFS in 1971 after receiving a Master of Philosophy degree in International Affairs from the George Washington University where he specialized in the politics and history of Sub-Saharan Africa. He also holds a Master of Arts in International Affairs from G.W. and graduated from Tufts University. The son of a retired U.S. Foreign Service Officer, he has lived in Haiti, Hungary, China, Mexico, and Greece.

next week's best fish buys

According to the NMFS National Consumer Education Services Office in Chicago, the best fish buys for the next week or so are likely to be fresh bluefish and sea trout along the Northeast Seaboard; fresh whole sea bass and scup in the Middle Atlantic States, including the D.C. area; fresh mullet and Spanish mackerel in the Southeast and along the Gulf Coast; frozen squid and whiting fillets in the Midwest; fresh Dungeness crabs and small shrimp in the Northwest; and fresh blackcod fillets and frozen squid in the Southwest.

Keep America's Future Bright...

Conserve Energy Now!

Legislative Actions Affect NOAA

Numerous legislative actions affecting NOAA were taken during the second session of the 93rd Congress.

Among the most directly relevant to NOAA is the Deepwater Port Act, which provides for NOAA, along with the Department of the Interior, a major consultative role in site evaluation and pre-construction testing at potential deep water port locations.

The Act establishes procedures for the location, construction, and operation of deep water ports beyond the three-mile territorial waters with specific provision to prevent or minimize adverse impacts from such ports. The Secretary of Transportation, in consultation with NOAA and other Federal agencies, will administer the Act.

This Act is tailored to help meet the problems associated with the Nation's increasing energy requirements. The Congress and the President agreed that increased demand must be met, at least for the near future, by imported oil. In addition, economic considerations and transportation efficiency will demand the use of large vessels which cannot be physically accomodated by present port facilities. It was agreed that the most viable solution was the importation of oil via deep draft tankers through offshore sited oil port facilities.

In administering the Deepwater Port Act, the Secretary of Transportation will consult with NOAA in prescribing regulations relating to activities involved in site evaluation and pre-construction testing at potential deep water port locations that may adversly affect the environment, interfere with authorized uses of the Outer Continental Shelf, or pose a threat to human health or welfare.

In addition, NOAA will continue its consultative role during the construction and operation phases with regard to environmental impacts, navigational safety, and the provision of environmental information necessary to the stringent reviews established by the Act. NOAA is also required to recommend to the Secretary of Transportation whether a State should be designated an "adjacent coastal state" on the basis of risk of damage to that State's coastal environment.

Other 1974 legislation of importance to NOAA's programs were Acts to:

—Increase the amount of funds available for coastal zone program development grants to the states from $9 to $12 million in Fiscal Year 1975. The Act also extends the authorization for the estuarine sanctuary program to Fiscal Year 1977, making it conform with the other titles of the Coastal Zone Management Act, and provides two needed technical amendments correcting problems created by percentage limitations on grants to the states.

—Implement the United States-Brazil shrimp fishing agreement and enforce it as it pertains to or with respect to U.S. fishermen. The agreement establishes a shrimp conservation zone off the coast of Brazil, within which the activities of shrimp vessels of the two countries will be regulated, and declares a number of species of crustacea (including the American lobster), mollusks, and sponges as U.S. Continental Shelf fishery resources.

—Authorize the Senate Commerce Committee to undertake a comprehensive analysis of national ocean policy and Federal ocean programs. Without specific time limitation, the Study will be involved in a broad range of ocean issues such as ocean energy development, fisheries, coastal zone land and water use management, ocean pollution, beach access and protection, transportation, federal organization and budgets, ocean minerals, oceanic education and recreation.

—Reorganize and consolidate certain Federal functions into a new Federal Energy Administration.

—Appropriate funds for energy research and development activities for the fiscal year ending June 30, 1975. NOAA is appropriated $6,630,000 to reactivate, equip, and operate certain oceanographic research vessels for the purpose of conducting assessments of energy related offshore environmental problems associated with energy activities.

—Extend the scheme of international enforcement for the conservation regulations of the International Commission for the Northwest Atlantic Fisheries (ICNAF) to the region off the Mid-Atlantic coast of the United States from Long Island to Cape Hatteras.

—Provide that if small business loan applications are being refused or loans denied by other departments or agencies responsible for such work or activity by reason of an administratively declared moratorium, then no duplication shall be deemed to have occurred. Therefore, fishermen would be covered while the Fisheries Loan Fund moratorium exists.

—Extend the appropriation authorization for reporting weather modification activities through the end of fiscal year 1977.

—Create a new executive agency, the Energy Research and Development Administration (ERDA), abolish the Atomic Energy Commission, and create a Nuclear Regulatory Commission.

—Establish a federal program to speed the development and commercial use of advanced solar energy technologies. NOAA currently is involved in solar functions within the National Weather Service, Environmental Data Service and the Environmental Research Laboratories.

LSC Men Remove Special Gages

Lake Survey Center Gaging Section personnel Edward Iwasko and Dennis Mackay recently removed the five special water level gages installed around Lake Michigan's eastern shoreline by the Center at the request of the Corps of Engineers Coastal Engineering Research Center.

The records have been processed and the data furnished to CERC for use in Great Lakes inlet studies the agency is conducting.

Dr. Aubert Named To Great Lakes Basin Commission

Dr. Eugene J. Aubert, Director of the Environmental Research Laboratories' Great Lakes Environmental Research Laboratory in Ann Arbor, Mich., has been appointed the Department of Commerce representative to the Great Lakes Basin Commission by Secretary of Commerce Frederick B. Dent.

Dr. Aubert

Established in 1967, the Commission prepares, maintains, and coordinates plans for water and related land resources in the Great Lakes Basin. The members include representatives from the eight states bordering the Great Lakes, eleven Federal agencies, and administrators of the Great Lakes Commission.

Between November 1974 and June 1975, the Commission is releasing the comprehensive, 27-volume Great Lakes Basin Framework Study—a water and land resource plan for the entire Great Lakes drainage area to the year 2000.

In addition to serving as GLERL Director, Dr. Aubert continues as the United States Director of the International Field Year for the Great Lakes—the cooperative interagency and international scientific study between the United States and Canada, which is researching the hydrology and limnology of Lake Ontario.

ERL Awards USU Atmospheric Research Contract

A $35,000 contract for measuring atmospheric pollutants in the stratosphere has been awarded to Utah State University in Logan by the Environmental Research Laboratories in Boulder, Colo.

Under terms of the contract, the University's Center for Research in Aeronomy—in cooperation with York University of Toronto, Ontario, Canada—will complete development of a nitric oxide detector system. Specifically, the USU research team will operate two of the instruments to an altitude of 60,000 feet on a high-flying RB57 jet aircraft.

The instruments themselves will measure nitrogen oxide concentrations to a high degree of sensitivity in the stratosphere. Developed by York University, the measurement system monitors the light given off by the chemiluminescent nitrous oxide-ozone reaction.

Nitric oxide, a colorless poisonous gas, is formed by the oxidation of nitrogen or ammonia and ozone—a bluish irritating gas of pungent odor—which is formed naturally in the upper atmosphere by a photochemical reaction with solar ultraviolet radiation. The measurement of surrounding nitrogen oxide concentrations in the stratosphere is one of the unknowns to be determined under the Department of Transportation's Climatic Impact Assessment Program.

The Utah State research project—part of a continuing three-year contract—is being monitored by Thomas E. Ashenfelter of ERL's Air Resources Laboratories in Silver Spring, Md.

Alarms, Self-Help Forecast Plan Avoid Disaster

A proverbial "stitch in time" was provided on January 9 when the National Weather Service and the National Park Service activated new Flash Flood Alarm Systems on the Jacks Fork and Current Rivers, in an area of Southern Missouri often heavily populated with campers and boaters. The next day, about three inches of heavy rain associated with the intense blizzard developing in the Central Plains triggered the alarms, and the NWS and the Park Service combined to give timely warnings to temporary inhabitants of the flood plains of the two rivers.

The alarms plus the use of a self-help forecast procedure produced a dramatic example of an excellent local effort to avoid a flood disaster.

The flash flood alarm consists of a float-type sensor in the river that completes an electrical circuit when the water rises, and sounds an alarm in a Park Ranger's home through a telephone line circuit from the sensor. The system, which includes NOAA Weather Wire phone service tieing the Park Rangers to the Weather Service Forecast Office at St. Louis, was installed under direction of Roger Remboldt, Chief of Installations at NWS Central Region Headquarters in Kansas City, Mo., and Jack Standring, Service Hydrologist at WSFO St. Louis.

The Rangers are now able to have current weather information based on the large weather radars at St. Louis and Monett, Mo. Dave Morris, Principal Assistant at the Lower Mississippi River Forecast Center at Slidell, La., provided the Rangers with a method for converting rainfall amounts to flash flood runoff and river stage forecasts.

A severe thunderstorm watch issued to the public by WSFO St. Louis was also received by the Park Rangers. They made a routine check of their rainfall network to insure that their observers and radio communications were ready to function.

Thunderstorm activity in the late evening caused the rivers to rise, and about 1:30 a.m. on January 10, both alarms were triggered, literally sending Ranger James Bockman out of his bed. The self-help plan was promptly placed in action.

Based on the confirmed reports of heavy rainfall and the rising waters, a general flash flood warning was issued by WSFO St. Louis about 3:20 a.m. for an area that included the Current and Jacks Fork Rivers, and a direct call was made to inform the Park Service at Van Buren, Mo. The Park Service issued its warning, based upon the available reports of heavy rainfall and the self-help river rise forecast scheme devised by Mr. Morris. It called for at least a 15-foot rise in water on each stream by 8 a.m. The scheme also provided additional lead time to make preparations prior to the time the walls of the water formed and moved downstream.

While there were no campers to warn, construction workers in two areas were alerted and were able to move to high ground equipment and materials that had they not been moved from the flood plain, would have been engulfed by at least four feet of water.

According to Larry Longsdorf, Flash Flood Coordinator at CRH, the story does not have an ending, for both organizations continue to routinely monitor the weather and the rivers.

Forecast Division, NMC Moves to WW Building

The long-delayed move of all Forecast Division, National Meteorological Center, operations from FOB-4, Suitland, to the new World Weather Building will take place at 4:00 p.m. EST, Wednesday, February 19. The new phone number is 763-8076.

Deep-Sea Red Crabs May Be Marketed

(Continued from page 1)

New Bedford, Mass., last September and several fishermen have supplied a pilot plant in Point Judith, R.I., with red crab catches over the past year at prices they considered favorable.

Red crabs average about one and one-half to two pounds at maturity, of which about 25 percent is recovered and marketed as meat. Whole, frozen crabs and cocktail fingers (claws) also have been marketed.

Dr. Holmsen's study complements the efforts of the NMFS, which through its New England Fisheries Development Program on latent and underutilized species, considers the red crab one of its target species.

The Sea Grant researchers' report, "Technological and Economic Aspects of Red Crab Harvesting and Processing," is available from the Marine Advisory Service, University of Rhode Island, Narragansett, Rhode Island 02882.

obituary

Cdr. R. P. Eyman

Commander Raymond P. Eyman, a member of the original group of 119 men sworn in as officers when the commissioned corps of the old U.S. Coast and Geodetic Survey was formed, died on February 2 in Washington, D.C. He was 82 years old.

He began his career in 1914 as a deck officer on the USC&GS Ship Matchless, among the last of the sailing vessels used in Coast Survey work. The schooner was regarded as the most handsome of the Coast Survey sailing fleet, a two-masted centerboard vessel measuring 90 1/2 feet in length, with a 21 1/2-foot beam and an 8-foot depth of hold.

Before he retired in 1947, Commander Eyman commanded six of the 11 vessels on which he served. He was chief of the Coast Survey's Coastal Surveys Division in Washington, D.C., when he retired.

He is survived by his daughter, Suzanne P. Eyman, of 4700 Connecticut Ave., N.W., Washington, D.C., 20008.

The Matchless

NOAA's EXHIBIT AT THE RECENT NEW YORK BOAT SHOW was visited by many persons looking for information about weather services, charts, and other NOAA marine-related activities. National Ocean Survey and National Weather Service personnel staffed the exhibit and were assisted part-time by Office of Sea Grant personnel.

In this photo, Paul Warnich, NOS, Rockville, Md.; Bill Cox, NOS, Riverdale, Md.; and Walt Stoddard, WSFO New York, await some of the 336,000 persons who attended during the 10-day show.

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