

Fish Grade Standards Proposed

General standards for grades of fish fillets, to permit determination and identification of their quality at the market place, are being developed under interim regulations proposed by the National Marine Fisheries Service.

The proposed general quality standards will cover fresh and frozen fish fillets of all commercial marine and freshwater species except cod, flounder and sole, haddock, ocean perch and Pacific Ocean perch, which are already covered under specific U.S. standards.

Grades are designated as U.S. Grade A, B, and C., and the standard will permit them to appear on the product or product label.

(Continued on page 2)

Dr. Wilmot N. Hess has been designated Acting Associate Administrator for NOAA by Commerce Secretary Juanita M. Kreps. The designation will be in effect until such time as a permanent placement has been approved.



They're "snowrollers," jellyroll-shaped oddities formed when snow, moist enough to be cohesive, is picked up by wind blowing down a slope and rolled onward into its peculiar shape. These "snowrollers," about a foot in diameter, formed during a winter storm at Parkersburg, W. Va. (Photo by Dave Ferrel, Parkersburg Sentinel)

Three Rescued From Island

AMC Coastal Mapping Photo Party 65, headed by Lt. Donald L. Drake, rescued three persons, one of them a two-year old child, who had been stranded overnight on deserted Little St. George Island near Apalachicola, Fla., January 17th.

The three persons, who had gone sightseeing the day before in a flatback canoe, had left the canoe on the bay side of the island and walked across to the

lighthouse. When they returned to the boat, the wind had become too strong for them to leave the island, and they had to spend the night without fire, camping gear, or food.

Drake and George Cole, Chief of Coastal Mapping Division, Florida's Department of Natural Resources, were recovering bench marks when they heard a call for help from the other side

(Continued on page 7)

Balloon Data Automated

A \$1.8 million program for automating the receiving of data from instrumented weather balloons and interpretation of the information has been completed by the National Weather Service.

The program required installation of minicomputers at 93 National Weather Service stations around the country. The minicomputers speed up translation of radio signals from balloon-borne radiosondes into measurements of temperature, pressure, humidity, and wind, with 50 percent fewer errors than by previous, all-manual techniques. They also reduce from two to one the number of people needed for collecting such observations at each site, relieving one person for other duties or reassignment elsewhere.

Accurate measurements of weather conditions from the ground to high in the atmosphere, extremely important to modern-day forecasting and meteorological research, are obtained by balloon-borne radiosondes.

Weather-balloon soundings are now made at 93 Weather Service stations and at 35 weather stations elsewhere in the Western Hemisphere, jointly supported by the U.S. Weather Service and other U.S. agencies or foreign governments.

Until the new minicomputers were installed, manual reduction of data from a radiosonde was a laborious, time-consuming process, involving many repetitious steps and requiring two people for a four-hour period. Now, one observer handles it, feeding raw data to the minicomputer.

Commerce Secretary Juanita M. Kreps termed it "by far the most significant marine fishery legislation in our history" as the Fishery Conservation and Management Act went into effect last Tuesday. For details, see the special section beginning on page 4.



New members of the National Advisory Committee on Oceans and Atmosphere (NACOA) are sworn in by Committee Chairman William J. Hargis, Jr., in ceremonies at the Department of Commerce. Left to right are: John A. McWilliams, General Manager and Chief Executive Officer, Toledo-Lucas County Port Authority; Dr. Alfred A. Keil, Dean of Engineering, MIT; John N. Garner of Everett, Wash.; former Congressman Herman T. Schneebeli of Williamsport, Pa.; Chairman Hargis; former Presidential counsellor Michael Raoul-Duval of Washington; NOAA Deputy Administrator Howard W. Pollock; Washington attorney J. Robinson West; and John R. Michaels, President, Michaels Development Co., Boston. New members Lawrence J. Hogan and George M. Sullivan were not present when the photograph was taken.

Century-Old Clams May Flavor Chowder Great Lakes

Would you eat an ocean quahog that was around when Ulysses S. Grant was President of the United States?

If you've had any clam chowder lately, there's a good possibility that in among the potatoes, onions, and salt pork there was a century-old clam, lending both its name and flavor to the soup.

Word of the existence of these hundred-year old shellfish, also known as mahogany clams, comes from Princeton University. There, Dr. Ida Thompson is studying the growth rates and natural mortality of ocean quahogs and surf clams, both commercially important species on the east coast of the United States.

Supported by a NOAA Sea Grant, Dr. Thompson is trying to establish a relationship between the growth rings found on the quahog's "hinge plate" and its age.

"The ocean quahog has a little tooth, called a hinge plate, where its upper shell is hinged to its lower shell," Dr. Thompson explained. "By cutting a vertical section of this tooth and then polishing it, we can see distinct growth rings under magnification, just like the rings on a tree."

Preliminary results of clam samples indicate that about 25 percent are almost 100 years old.

Dr. Thompson's chief concern, however, is not just with how long the ocean quahog lives, but with how rapidly it grows and develops. According to preliminary studies, it would appear the quahog grows very slowly—only about 6 cm in height in 18 to 20 years—suggesting that these shellfish may take much longer to reach sexual maturity than do other clams found on the Atlantic continental shelf.

"Our best guess right now,"

The NOAA Office of Public Affairs would like to hear from any office which is currently receiving too many or too few copies of *NOAA News*. Units are asked to share the newsletter among employees when possible, but to have enough copies so that all may read the issue as soon as it is received. Send change orders to the address given in the box on page two.

she said, "is that the ocean quahog doesn't reach sexual maturity until it's about eight or 10 years old." By contrast, the typical surf clam found in adjacent areas is capable of reproducing at about one year of age and seldom lives to be more than 15 or 20.

Recent events have made information on the age of ocean quahogs of more than academic interest. Massive fish kills off the New Jersey coast last summer apparently were caused by anoxia—the total depletion of dissolved oxygen—in the bottom waters. One result of this environmental catastrophe is just

now becoming known: vast numbers of surf clams in the affected areas were killed, perhaps as many as half the existing stocks.

According to Dr. Thompson, a problem may arise if the ocean quahog is viewed as a ready substitute for depleted stocks of surf clams. "This is particularly true if our age estimates of the quahog, especially age at maturity, are correct," she said. The ocean quahog may take so long to reach reproductive size, she believes, that any major unmanaged harvesting efforts could quickly reduce the stocks of the shellfish.

ERL Scientist Reports Research On Bacteria as Freezing Nuclei

Dr. Russell Schnell, Postdoctoral Fellow with ERL's Atmospheric Physics and Chemistry Laboratory, has been elected by the National Academy of Science as a member to the Committee on Aerobiology. Dr. Schnell, presently on assignment from the World Meteorological Organization, is organizing aerosol research in Kenya, Africa.

His research with organic ice nuclei has shown that these nuclei are bacteria and that large concentrations of certain bacteria on leaves may reduce a plant's ability to withstand below-freezing temperatures. This is because some species of bacteria are exceptionally efficient ice nuclei—the microscopic solids around which water freezes into ice crystals.

In nature, water can be "supercooled" well below its nominal freezing temperature without turning into ice unless there are tiny particles present to serve as nuclei for the formation of ice crystals.

This process of ice nucleation lies at the heart of natural precipitation formation in the atmosphere, and is the basis for most efforts to increase precipitation artificially.

The temperature at which the nucleating material encourages water to freeze into ice is an indicator of the material's efficiency as an ice nucleus. Silver iodide, the artificial seeding agent used in most weather modification projects, induces supercooled water to freeze at about

20 degrees Fahrenheit (minus seven degrees Celsius).

Dr. Schnell reports that some bacteria-derived nuclei are active much closer to the freezing point of water. Several bacterial species, he notes, have been regularly observed to initiate ice in supercooled water...at -1.3C [29.7°F]. On a leaf, this nucleating efficiency translates into the formation of plant-damaging frost, or ice, at temperatures just below the nominal freezing point of water.

Depressing natural bacteria populations on growing field corn by spraying with streptomycin has been shown to reduce the crop's susceptibility to frost considerably.

Dr. Schnell's report was published in the *Bulletin of the American Meteorological Society*, and described similarly dramatic effects found by scientists at the University of Wisconsin, the University of California at Davis, and Colorado State University.

Fish Grade *(Continued from page 1)*

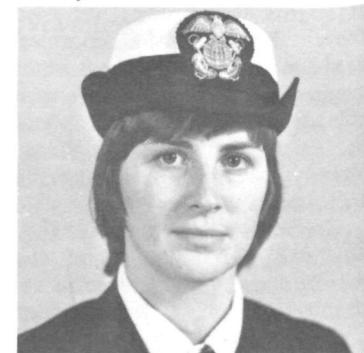
label of all qualified fillets inspected, graded, and certified by NMFS.

The proposed regulations contain four sections: product description, product forms, grades, and grade determination. In determining Grade A, for example, fish fillets must have good flavor, texture, and odor characteristic of the species; Grade quality must be reason-

Pilot Update Scheduled

NOAA will begin the first full inspection of marine and navigational facilities of the Great Lakes, the upper Hudson River, U.S. part of St. Lawrence Seaway, and the New York Barge Canal, on May 1.

The inspection is being made to revise the U.S. Great Lakes Pilot, a publication issued for commercial shipping, government vessels, and recreational boating by the National Ocean Survey.



Lt. Pamela R. Chelgren

The Pilot supplements the navigation information shown on standard nautical charts by furnishing details that cannot be shown graphically on marine charts such as channel and anchorage peculiarities, navigation regulations, weather, port facilities, and prominent landmarks.

Conducting the first four months of the inspection for the National Ocean Survey is NOAA Corps Lt. Pamela R. Chelgren of Seattle, Wash., who will meet with officials of the U.S. Coast Guard, U.S. Army Corps of Engineers, pilotage associations, port authorities, harbor masters, State Fish and Game, and others involved in marine affairs and regulations.

ably good for these product attributes; and Grade C quality must be acceptable for human consumption among other things.

The grades will be determined by evaluating the product in the fresh, thawed, and cooked states. NMFS is using the proposed interim general standards for fish fillets in its voluntary program of fishery products inspection and certification.

Secretary Kreps Appoints Sea Grant Review Panel

Secretary of Commerce Juanita M. Kreps has announced the appointment of 14 members of NOAA's first Sea Grant Review Panel.

The Review Panel held its first meeting on February 22, in Washington, D.C.

The new panel, which succeeds the former Sea Grant Advisory Panel, is made up of 15 voting members especially qualified to advise the Secretary of Commerce and NOAA on the marine-related research, education, and advisory service activities of almost three dozen institutions across the country supported by the National Sea Grant Program. The panel members have been drawn from a wide variety of academic, business, and legislative backgrounds. The fifteenth panel member is expected to be named later this month.

One-third of the Panel's members have been appointed to one-year terms, one-third appointed to two-year terms, and one-third appointed to three-year terms.

Panel members serving one-year terms are:

Dr. Sanford S. Atwood, President, Emory University, Atlanta, Ga.; Dr. Werner A. Baum, Chancellor, University of Wisconsin, Madison, Wisc.; Phillip Eisenberg, Chairman of the Executive Committee, Hydro-nautics, Inc., Washington, D.C.;

Harold Lokken, Manager and Executive Secretary, Fishing Vessel Owners Association, Inc., Seattle, Wash.; and Harvey Weil, Senior Law Partner, Kleberg, Mobley, Lockett and Weil, Corpus Christi, Texas.

(Continued on page 7)

NOS Publishes Evacuation Maps

Four storm evacuation maps covering a wide area along 110 miles of Florida's east coast from Key Largo to Juno Beach north of West Palm Beach, have been published by the National Ocean Survey.

Designed to help evacuate persons from endangered areas, the maps, covering Miami, Fla., and vicinity, show emergency evacuation routes, flood-prone areas, and elevations which might afford "safe islands" for evacuees.

The four maps include parts of Dade, Broward, and Palm Beach counties in which three of the most popular vacation spots in the nation—Miami Beach, Fort Lauderdale, and Palm Beach—are located. Numerous smaller beaches and other points of public interest such as Biscayne Bay and the eastern part of the Everglades National Park are covered. The National Weather Service distributes the

(Continued on page 7)

Underwater Meters

Ocean Currents Studied

NOAA scientists are taking the first systematic look at how ocean water moves beneath the Bering Sea ice pack.

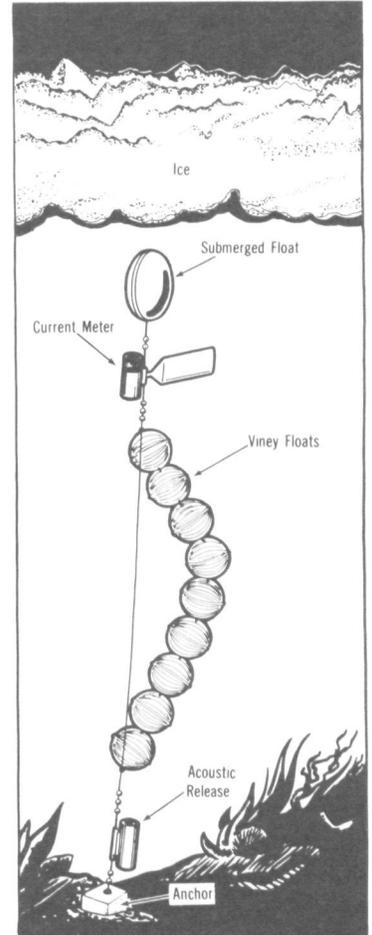
The unique measurements being made by submerged current meters are part of a sub-Arctic study by oceanographers with the Pacific Marine Environmental Laboratory in Seattle, and with the University of Washington.

According to Robert Charnell, the NOAA oceanographer leading the current study, little is known of water movement beneath the northern ice pack—or how water would transport oil spilled into the sub-Arctic marine environment.

"We know the water is driven by a large pressure gradient from the Bering Sea northward through the Bering Strait and into the Chukchi Sea, and there's been quite a lot of work on understanding what happens in the summertime. But up there, summer lasts only a month or two.

"That leaves the largest part of a year for which we have no information as to current speeds and direction, and what the water is doing under the ice. Clearly, if we had an oil spill there in winter we couldn't begin to predict the spill's trajectory."

The present set of current-meter stations was deployed from the NOAA ship Discoverer



last summer, to form an array of 19 submerged meters. Each mooring consists of a cylindrical meter—about the size of a loaf of bread—attached to a swivelled vane that senses the direction of water motion. The meter is suspended on a cable held taut by a buoyant, streamlined float, and anchored at the bottom by a heavy concrete weight. The cable is connected to the anchor by a coupling that can be acoustically triggered, permitting a string of floats to raise the apparatus to the surface for retrieval.

Four current meters are set west of Cape Prince of Wales, the American side of the Bering Strait. Seven more are moored in the Chukchi Sea, in a shallow arc westward from Cape Lisburne, almost the northwest corner of Alaska. Two meters are installed at the mouth of Kotzebue Sound, and two more are in a line south of Nome in Norton Sound. Three are set along a southeastward line from St. Lawrence Island in the Bering Sea to the Yukon River delta, with a fourth meter northwest of St. Lawrence Island.



Dr. Ned A. Ostensio (seated) signs a \$1,475,000 Sea Grant to the University of Washington as Administrative Officer Charles Miller looks on. The grant was the first signed by Dr. Ostensio since he assumed duties as Director of the National Sea Grant Program in mid-January.

NOAA NEWS

Published biweekly at Rockville, Md., by the Office of Public Affairs for the information of employees of the Commerce Department's National Oceanic and Atmospheric Administration.

Articles to be considered for publication should be submitted at least 10 days in advance to NOAA News, Room 221, WSC 5, Office of Public Affairs, National Oceanic and Atmospheric Administration, Rockville, Md., 20852.

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

Fisheries Conservation and Management Act

On March 1 the historic new law that for the first time gives the United States the opportunity to manage fishing off its coasts and restore its fishery resources was put into effect by NOAA.

The National Marine Fisheries Service will administer the Fisheries Conservation and Management Act, which gives the United States authority to conserve and manage marine fisheries, except tuna, 200 miles out from our shores, encompassing more than 10 percent of the world's marine fish.

"An immediate effect of the law will be a reduction in the amount of fish to be harvested by foreign fishermen within 200 miles of our coasts," according to Secretary of Commerce Juanita M. Kreps. In 1974, the last year for which there are complete records, the foreign harvest was 3.3 million metric tons; this year it should be reduced to two-thirds of that level.

No foreign fishing will be permitted for several important species groups previously caught by foreign vessels, but now reserved exclusively for U.S. fishermen. These include, on the East Coast, cod, haddock and yellowtail flounder. (Lobsters have traditionally been barred from foreign fishing.) In the Pacific, King crab and shrimp will be reserved for U.S. fishermen.

In addition, foreign vessels will not be permitted to fish for certain other species or stocks but will be permitted to keep incidental catch.

"The new law, by far the most significant marine fishery legislation in our history, represents an unparalleled opportunity to revitalize a resource of major importance to our country and the rest of the world," Secretary Kreps said.

The Act, signed into law last April 13, not only represents a major conservation achievement, but brings to government a totally fresh approach to natural resource management by the United States, she added.

Under the Act, fishery management plans are developed by eight Regional Fishery Management Councils. They include representatives of the Federal Government, State fishery administrators, and groups of private citizens. They have 108 voting members, 63 of them ap-

pointed by the Secretary of Commerce from nominations submitted by State Governors.

The Councils came into being in August 1976, and since then have held nearly 60 meetings, named chairmen and executive directors, selected headquarters locations, and begun work on their management plans. Public comment and participation is sought for all council activities.

Since it would not be possible

for these newly formed Councils to develop detailed plans for each fishery in time for the March 1 deadline, the National Marine Fisheries Service developed preliminary management plans to govern foreign fishing.

Sixteen preliminary plans, covering nearly 30 species of fish, have been developed. They will remain in effect until the Regional Councils have de-

veloped permanent plans, which will then supersede the present regulations and will control both foreign and domestic fishing. Eventually, management plans are expected to be in operation for some 75 fisheries. Each plan, made on the basis of sound conservation practices, specifies the surplus—if any—which foreigners will be permitted to take, beyond the catch of U.S. commercial and recreational fishermen.

200 MILES FISHERIES LIMIT



To the Victor - and other U.S. fishing vessels - go a number of benefits beginning March 1.

Spell New Era For American Fishing Industry

"The 10 months since the passage of the Act have required a tremendous effort in planning and organization," Secretary Kreps said. "Complex negotiations with many other nations have been carried out by the Department of State. Plans have been made by the Department of Transportation (U.S. Coast Guard) and the National Marine Fisheries Service for enforcing the new regulations.

"Setting up the machinery for this extensive and entirely new kind of resource management has been an unprecedented challenge, which is now being met," she said. In order for foreign vessels to fish off our coasts by March 1, a complex series of steps is required by the new law. As a first step, Governing International Fisheries Agreements (GIFA) had to be negotiated by the Department of State and

signed by each foreign nation desiring to fish inside the 200-mile zone.

The Department of State has informed Commerce that GIFA's have been signed with Japan, the U.S.S.R., Bulgaria, Spain, Poland, East Germany, Korea, Romania, the Republic of China (Taiwan), and the European Economic Community (France, Italy, West Germany, Denmark, the Nether-

lands, Luxembourg, Belgium, Ireland, and the United Kingdom). The Congress as of Feb. 23 has approved six of these agreements, with Bulgaria, Romania, the Republic of China, the German Democratic Republic, the U.S.S.R., and Poland.

Following signing of the GIFA's, applications are filed and permits issued, based on allocations of the foreign surplus made by the State Department.

Allocations of surplus fish to foreign nations begin retroactively to January 1 and cover the calendar year. Fish caught during January and February will be subtracted from the total allocation. The following 1977 allocations (in metric tons) have been set:

Japan, 1,190,960; U.S.S.R., 648,700; Poland, 64,460; East German Republic, 20,225; Korea, 78,700; Spain, 14,400; Bulgaria, 8,070; Taiwan, 5,200; Federal Republic of Germany, 6,525; Italy, 4,220; Romania, 1,400; France, 1,200.

All applications for permits to fish for the allocations must be reviewed by the appropriate Regional Councils. Thus far, Secretary Kreps said, foreign nations have submitted applications for 1,041 ships—both fishing and support vessels—to operate within the 200-mile zone. They are: from the U.S.S.R., 486; Japan, 376; Korea, 73; Taiwan, 45; Poland, 33; East German Republic, 27; Romania, 13; Bulgaria, 6.

No permits have yet been issued to foreign nations. NMFS is in the process of approving foreign applications. When a foreign nation accepts the conditions and restrictions imposed on it and promises to pay applicable fees before May 1, 1977, NMFS will issue the permits for that nation.

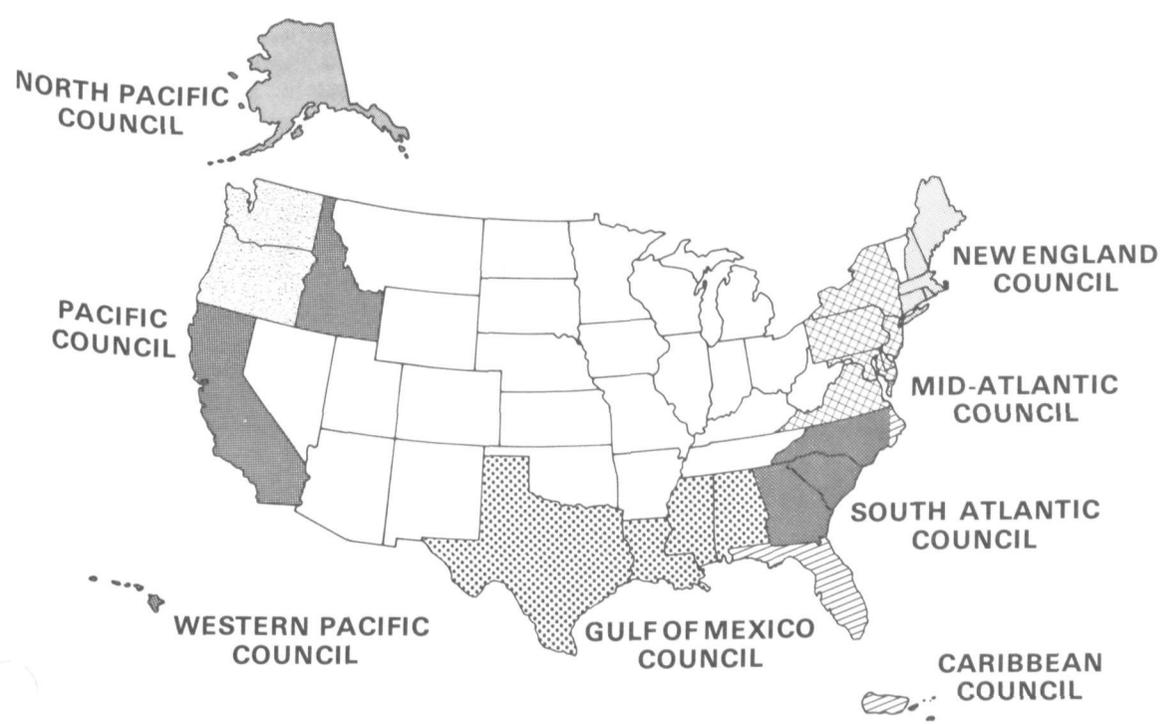
U.S. observers will be stationed on some foreign vessels.

Secretary Kreps said it would not have been possible to complete this intricate process without continuing cooperation by the Congress. Most recently, the Senate and House of Representatives acted speedily to extend critical deadlines by passing a Joint Resolution that was signed into law by President Carter on February 21.

The Coast Guard and NMFS work together in enforcing the new 200-mile limit law.



REGIONAL FISHERY MANAGEMENT COUNCILS



Suggestion awards Given

In order to recognize the contributions of NOAA employees who have offered suggestions on ways to cut costs, improve effi-

ciency or safety, or in other ways, contribute to an overall improvement in the operations of NOAA, *Personnel Perspective*

is publishing on a quarterly basis, the names and suggestions of employees who have been given suggestion awards.

The following NOAA employees received suggestion awards during the period of October 1 to December 31, 1976:

Suggester's Name	Amt. of Award	Suggestion Title
Lydia Phorngren	\$ 25.	Change in NOAA Form 34-8
Jerry L. Coffman and Leslie Morris	\$ 25.	Computerizing Tables in NGSDC
John T. Curran	\$ 50.	FOUS 80 Transmission Efficiency
Beatrice M. English	\$ 25.	Cutting NOAA WW Transmission Time for Zone Forecasts
Richard A. Kerr	\$ 50.	Automated Preparation of State Temperature Precipitation Tables
Peter L. Abbatello and Pete E. Benville, Jr.	\$330.	Wastewater Disinfection System
David I. Actor	\$ 50.	Mylar Underlay Protractor
Robert J. Pannuto	\$ 50.	In-House Course for Preparing Meteorological Studies
Donald L. Willson	\$ 50.	Laminating Service Award Certificates Awarded to Substation Observers
Clarence B. H. Lee	Certificate	Awards Days
Joseph S. Hensley	\$ 50.	Government-wide Change in Computer Tape Reels
Wray C. Nottingham	Certificate	Improvements of Present Cooling System, Publications Section
Kathryn R. Green	\$ 35.	Two-Way Corrections to Weather Records
Nancy L. Pope	\$ 25.	Letterhead Copyset
Micheal G. Burgin	\$140.	Microfilm Box Label
John V. Herkert	\$ 25.	Adding NOAA LOGO to all Picture Products for Outside Dissemination
Edward A. Wolfgang	\$100.	Work Order Authorization Form
Barbara F. McLaughlin	\$ 50.	Standards of Conduct
Walter I. Jennings, Jr.	\$105.	PAKO Developer Tank Cover
Harry G. Stumpf	\$125.	Elimination of Library Duplication in ESG
Gary C. Mitchell	\$ 25.	Secure Mobile Carts for Electronic Equipment
Chris Fontana	\$ 25.	Safety Clothing
Dean Hirschi	\$ 50.	Notch in Maximum Thermometer
Perry A. Wood	\$ 25.	Better Identification of ROMLs and OMLs providing better reference
Walter A. Sitarz	\$ 25.	Improved Method for Mailing Large Forms and Bulk Items

NOAA Personnel Division Lists Current Vacancies

Announcement Number	Position Title	Grade	MLC	Location	Issue Date	Closing Date
295-77	Mathematician (Intermittent)	GS-12	ERL	Miami, Fla.	2-22-77	3-8-77
297-77	Communications Spec.	GS-13	NWS	Silver Spring, Md.	2-22-77	3-8-77
309-77	Physical Scientist	GS-9	EDS	Seattle, Wash.	2-23-77	3-9-77
191-77	Industry Economist (Amended)	GS-13/14	NMFS	Washington, D.C.	2-17-77	3-11-77
293-77	Industry Economist	GS-12	NMFS	Washington, D.C.	2-17-77	3-11-77
312-77	Electronics Tech.	GS-10	NWS	Miami, Fla.	2-25-77	3-11-77
313-77	Secretary (Typing)	GS-5	NWS	Camp Springs, Md.	2-25-77	3-11-77
315-77	Meteorologist	GS-9	NWS	Suitland, Md.	2-25-77	3-11-77
316-77	Supv. Meteorologist	GS-14	NWS	Great Falls, Mont.	2-25-77	3-11-77
317-77	Fishery Biologist	GS-12	NMFS	La Jolla, Calif.	2-25-77	3-11-77
318-77	Construction Representative	GS-11	NWS	Columbus, Ohio	2-25-77	3-11-77
319-77	Supv. Meteorologist	GS-15	NWS	Garden City, N.Y.	2-25-77	3-11-77
296-77	Supv. Communications Manager	GS-14	NWS	Silver Spring, Md.	2-22-77	3-15-77
310-77	Supv. General Engineer	GS-15	HDQS	Bay St. Louis, Miss.	2-23-77	3-16-77
311-77	Supv. Electronics Engineer	GS-15	NWS	Silver Spring, Md.	2-23-77	3-16-77
314-77	Supv. Physical Scientist	GS-15	NESS	Suitland, Md.	2-25-77	3-18-77



CRACKED DUNGENESS CRAB WITH LEMON-MUSTARD SAUCE

Arrange well-chilled, cleaned, cracked, cooked Dungeness crab pieces on individual serving plates or ones lined with cracked ice; serve with Lemon-Mustard Sauce (recipe follows). Small 1-3/4 pound crabs will serve one, the larger 3-1/2 pound crabs serve two.

LEMON-MUSTARD SAUCE

- 1-1/4 cups mayonnaise
- 1 tablespoon lemon juice
- 1-1/2 teaspoons grated lemon peel

1 teaspoon Dijon-style or prepared mustard

b. Combine ingredients; mix. Cover and refrigerate until serving time. Makes about 1-1/4 cups.

SG Panel

(Continued from page 3)

Serving two-year terms are:

- Dr. George S. Benton, Vice President, Homewood Divisions, Johns Hopkins University, Baltimore, Md.; Dr. Lynton K. Caldwell, Arthur F. Bentley Professor of Political Science, Indiana University, Bloomington, Ind.; Honorable Alton Lennon, Former Congressman from North Carolina, Wilmington, N.C.; Dr. Bernard Le Mehaute, Senior Vice President, Tetra-Tech, Inc., Pasadena, Calif.; and Dr. Lyle S. St. Amant, Assistant Director, Louisiana Wildlife and Fisheries Commission, New Orleans, La.

Serving three-year terms are:

- Dr. Randolph W. Bromery, Chancellor, University of Massachusetts, Amherst, Mass.; Dr. Joseph N. Busby, Dean Emeritus, University of Florida, Gainesville, Fla.; Honorable Charles A. Mosher, former Congressman from Ohio, Washington, D.C.; and Ms. Marjorie Lass Vesley, Environmental Quality Director, League of Woman Voters, Williamsville, N.Y.

Coastal Zone Management

Minnesota Receives Grant

The State of Minnesota has been awarded a \$120,000 grant to continue developing a coastal management program. The grant covers a six-month period and will be administered by the State Planning Agency.

The management program is designed to supply technical, financial, and legal information on which to base decisions on the future land and water uses in the coastal area.

Minnesota has been developing its program since 1974 when the state received an initial NOAA grant for \$9,500.

The first six months of Minnesota's third year effort will be devoted to completing substantive elements of the management program, including the coastal uses and boundary, the geographic areas of particular concern, and the implementing authorities and organization structure.

If the Minnesota Policy Advisory Committee elects to imple-

Maps *(Continued from page 3)*

storm-evacuation maps to state and local officials and community emergency preparedness committees.

The detailed maps include areas subject to flooding by surges of various heights; main evacuation roads and feeder roads; low points along the roads that might be engulfed; and high spots which are likely to remain unaffected by flood waters, thus affording some degree of refuge. Ground elevations along evacuation routes are spaced on the maps at intervals of approximately two miles apart. Population is given for all major urban and resort areas.

Areas subject to flooding are shown in increments of five and ten feet, by distinctive color tones separated and defined by contours. Both surfaced and un-surfaced evacuation roads are identified, along with county, state and federal route designations and the number of lanes for each road. The maps also depict railroads which may offer avenues of escape. Details are sufficiently clear so that the maps can be reproduced by mass circulation media, including newspaper and television.

Satellite Tapes

Now Available

The Satellite Data Services Branch (SDSB) of EDS' National Climatic Center now can provide copies of magnetic tape containing Very High Resolution Radiometer (VHRR) data from the NOAA series of polar-orbiting satellites.

The VHRR data are collected by a scanner that has both visible and infrared channels with 1-km resolution. The image swaths extend 50 to 60 degrees of latitude along the orbital track. About 8 minutes (1/15th of a complete orbital track) of coverage in other parts of the world also may be programmed for storage aboard the satellite on some, but not all, orbital passes each day.

All NOAA series polar-orbiting satellite tapes, beginning with those for January 1, 1977, are sent to Satellite Data Services Branch. The tapes will be held 90 days after the date of data collection. After 90 days the tapes will be erased. During the period that the tapes are maintained at SDSB, requesters will be provided copies of the tapes at cost of reproduction.

Requests for copies of any of these tapes should be addressed to Satellite Data Services Branch, World Weather Building, Room 606, Washington, D.C., 20233; Telephone (301) 763-8111.

Employees who are subject to District of Columbia tax may notice a minor change for salary checks dated on or after January 26, 1977.

"Best Fish Buys"

According to the NMFS National Fishery Education Center in Chicago, the best fish buys for the next week or so are likely to be fillets of pollock and cod along the Northeast Seaboard; fresh sea bass and scup in the Middle Atlantic States, including the D.C. area; fresh kingfish and grouper in the Southeast and along the Gulf Coast; Dungeness crab and smelt in the Midwest; Dungeness crab and silver salmon in the Northwest; and Dungeness crab and squid in the Southwest.

ment its coastal program, the State Planning Agency will request additional third year funding to finish the management program.

Rescue

(Continued from page 1)

of the swiftly flowing channel.

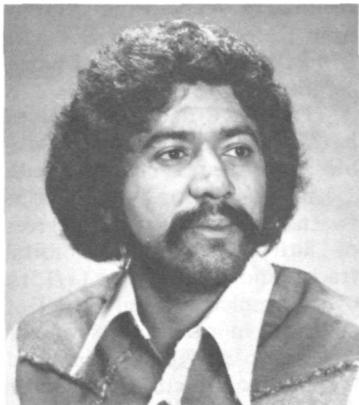
Cole and Drake launched their 12-foot JON boat and approached the lee side of the island, which is uninhabited except for goats and pigs. After rescuing the three people and the canoe, they continued with the reconnaissance of Cape St. George where a secondary Tide Station will be installed to help delineate the United States' 200 mile boundary limit.

Invest in America

**Buy U.S.
Saving Bonds**

NOTES ABOUT PEOPLE

Dr. Jack Hernandez of Lakewood, Colorado, has been appointed the first Spanish-speaking program coordinator for Environmental Research Laboratories in Boulder.



Dr. Jack Hernandez

Before accepting his new position, Hernandez was associated with the Red Rocks campus, part of the community college system of Denver. He has also held various other positions in higher education with Aims Community College and the University of Northern Colorado, both in Greeley.

Born in Detroit, Hernandez attended Wayne State University working on a B.A. degree in psychology. He earned a M.A. degree in counseling in 1974, and a Ph.D. in higher education administration in 1976 from the University of Northern Colorado.

Carlos R. Dunn has been named the Meteorologist-in-Charge of the Weather Service Forecast Office in Atlanta, Ga. Dunn has been with NWS Eastern Region Headquarters in Garden City, N.Y., since 1965, where he was first the assistant chief of SSD, and later its chief. During his tour at Eastern Region Headquarters, Dunn was Chairperson of the Manpower Utilization Council for Career Management where he coordinated expanded training programs and helped develop the Met Intern Training Program. In addition, he was the AFOS Regional Representative from the program's inception. Before going to the Eastern Region, Dunn had been at Weather Service Headquarters.

James B. Jones has been selected Chief of the National Weather Service's Space Operations Support Division. As head of the unit, Jones will manage

NWS programs of meteorological support to various NASA space programs as well as special projects. Mr. Jones joined NOAA with the National Environmental Satellite Service in 1967. He became Chief of the NWS Satellite Services Staff in 1972. He will continue as NWS's satellite representative along with his new duties.

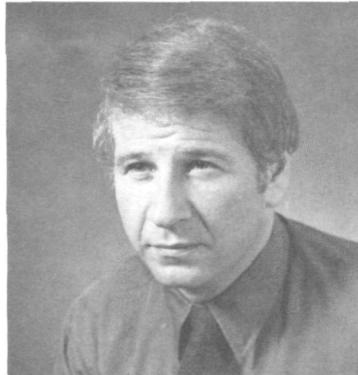
Dr. Ray Jensen has been named Chief of Operations, National Weather Service Pacific Region, and will assume his new duties the latter part of March. Dr. Jensen will replace Robert Shaw, who retired in December, 1976. Dr. Jensen has been the head of the Environmental Studies Service Center at Texas A & M, College Station, Tex., where he set up a service similar to the prototype ESSC in Auburn, Ala.

Robert U. Barela has been appointed Deputy Equal Opportunity Officer for NOAA's western regional area. He is stationed at the Environmental Research Laboratories in Boulder, Colo.

Mr. Barela graduated from Los Angeles State College in 1958 where he majored in Education. He received his master's degree in Public Administration in 1966 from San Jose State College.

Mr. Barela has served as a school principal at the elementary level, college instructor, and editor and vice-president of a publications firm. From 1970 to 1974, Mr. Barela worked for the Department of Housing and Urban Development as the Director of Special Projects and then as the Assistant Regional Administrator for Equal Opportunity.

Dr. Ron New has been named Acting Director of the recently created Systems Analysis Division in the National Ocean Survey's Office of Marine Technology.



Dr. Ronald New

The Division will attempt to support key systems studies with methodological and analytical depth, particularly with regard to requirements review and analysis, cost-effectiveness studies, and error budget analysis.

Four NOAA scientists recently were named Fellows of the American Meteorological Society. A Fellow of the AMS is defined as one who has made outstanding contributions to the science or application of meteorology, climatology or other area of atmospheric science during a substantial period of years. Honored were Dr. Thomas D. Potter, Deputy Director, EDS, Donald H. Pack, Deputy Director, Air Resources Laboratories (ERL); Dr. Douglas H. Sargeant, Director, World Weather Program Office, Environmental Monitoring and Prediction; and Jay S. Winston, Chief, Planetary Meteorology Branch (NESS).

Three Sea Grant scientists from the University of Delaware were honored at the World Mariculture Society meeting in Costa Rica recently for presenting the best paper at the organization's eighth annual meeting. The scientists are Gary D. Pruder, Dr. Ellis T. Bolton, and Dr. Stuart F. Faunce. The paper, judged best among 95 scientific presentations made during the meeting, dealt with the success of the mariculture work underway at the university's College of Marine Studies on the Lewes campus, sponsored by the National Sea Grant Program.

OBITUARY

Hughes

Neal W. Hughes, a Weather Service Specialist who retired in 1975, died in Concord, N.H., on February 3. Mr. Hughes joined the Weather Service at Cleveland, Ohio, in 1949 and transferred to Concord in 1955. He is survived by his wife, Barbara, and two children of 14 Mooreland Ave., Concord, N.H. 03301.

Scott

Simon Scott, Jr., Chief Cook, NOAA Ship Researcher, died February 16, 1977, in St. Petersburg, Fla., following surgery. Scott had sixteen years of service in the Steward Department aboard various ships including the ships, Hydrographer, Explorer, Davidson, and Mt Mitchell. He is survived by his wife, Melvina, and six children, all residing in St. Petersburg.

Students Attend Chesapeake Lightship Cruise



Laurence W. Arnold (left) and Robert W. Taber talked to Washington, D.C., high school students about NOAA careers as the youths visited The Chesapeake Lightship.

Lawrence W. Arnold and Robert W. Taber—two oceanographers from the Environmental Data Service's National Oceanographic Data Center—recently participated in a Careers Day cruise aboard The Chesapeake Lightship as NOAA representatives.

The cruise, sponsored by the Randall Junior-Senior High School in Washington, D.C., was offered to motivate inner city students to continue their education. Participating students were enrolled in either a marine science or aerospace program.

National Oceanic and Atmospheric Administration

ERRATA NOTICE

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages

Faded or light ink

Binding intrudes into the text

This has been a co-operative project between the NOAA Central Library and the Climate Database Modernization Program, National Climate Data Center (NCDC). To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or Library.Reference@noaa.gov

HOV Services
Imaging Contractor
12200 Kiln Court
Beltsville, MD 20704-1387
July 23, 2010