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OCEO Seeks New Evidence Of Sea Floor Spreading

The NOAA Ship OCEANOGRAPHER, commanded by Captain Miller J. Tonkel, is conducting a 22,000-mile expedition during the months of April, May, and June in the northeast Pacific to seek new evidence that the sea floor is constantly moving, carrying with it giant segments of the earth's crust, including the continents. The chief scientists for the expedition are Frederic Naugler and John Wageman of the Pacific Oceanographic Laboratories in Seattle. Other participating scientists are Richard Sylvester and Richard Uhlhorn of the Seattle-based Laboratories; Jurgen Kienly and David Stone, professors of geophysics at the University of Alaska; John Kummer, University of Washington graduate student; and Robert Stevenson, visiting scientist from the University of South Dakota.

Four separate areas of the Pacific are being studied. The first is about 2000 miles off the Southern California shore and approximately 1500 miles northeast of Honolulu. Following completion of the first leg of the expedition, the OCEANOGRAPHER will head north toward the Aleutian Islands on the remaining three legs of the investigation. Clues in support of the theories of sea floor spreading and plate tectonics will be sought in various areas, including the Chinook Trough, about 600 miles south of the Aleutians; the northern Gulf of Alaska; and a 400-to 500-mile-long fracture zone just west of the Queen Charlotte Islands off the British Columbia coast. The scientists will make a detailed examination of the subbottom, using seismic reflection instruments which electronically probe beneath the sediment and muck on the ocean bottom. Approximately four days will be spent on the last leg of the expedition in an investigation of two or three undersea mountains approximately 140 miles west of the Queen Charlotte Islands.

Dr. Robert S. Dietz Wins Walter H. Bucher Medal

Dr. Robert S. Dietz, a marine geologist at ERL's Atlantic Oceanographic and Meteorological Laboratories in Miami, received the Walter H. Bucher Medal given by the American Geophysical Union for original contributions to basic knowledge of the earth's crust ,at a special luncheon held in conjunction with the AGU's 52nd annual meeting, held in Washington, D.C., April 12-16. Dr. Dietz was cited for pioneer work in many areas of marine geology, including his discovery of the existence of fracture zones, his investigation and naming of the process of sea floor spreading, and his studies of continental margins and continental drift.

A native of Westfield, New Jersey, Dr. Dietz attended the University of Illinois, where he earned his B.S., M.S., and Ph.D. degrees. Much of his graduate work was done at Scripps Institution of Oceanography. He later spent a year at Tokyo University as a Fulbright scholar. After receiving his doctorate in 1941, he joined the U.S. Air Force and served until 1946, when he became a member of Admiral Byrd's last expedition to Antarctica. He later joined the Coast and Geodetic Survey and spent the 1950's as one of the leaders in that group of scientists whose explorations revealed the nature of the Pacific Ocean Basin.

NOAA Plans Network of Stations To Measure Climatic Change

NOAA recently announced a program designed to take another step toward description of human effects upon weather and climate--and ultimately to learn whether man is inducing serious climatic change. The climate of the earth is constantly but slowly varying. In the past, only nature produced the changes; now there is concern that man's activities may also play a role. Under the program, NOAA will seek to learn, for example, whether carbon dioxide in the air is increasing sufficiently to produce a "greenhouse effect" upon the planet and cause a warming of the earth, or whether particulate pollution could cool the atmosphere. The program will build upon and complement existing efforts by NOAA and other agencies to monitor physical, chemical, and biological aspects of man's environment, and to use computer simulation for predicting future climates. A major feature of the plan is a network of stations to measure long-term atmospheric changes of particular significance to weather or climate.

A satisfactory program for measuring the long-term burden of atmospheric trace contaminants does not now exist, either to monitor global trends in the atmosphere or to determine the climatic effects of these trends. In the monitoring field, only one station--at Mauna Loa, Hawaii--has been measuring carbon dioxide in clean air. To determine the long-term effects of atmospheric contaminants on the climate, six stations such as the one at Mauna Loa are planned for sites in "very clean air" without nearby agricultural or pollution sources. Augmenting the clean air network, NOAA will monitor trends in airborne contaminants at ten of its existing weather stations over the conterminous United States. It is expected that facilities at both baseline and regional stations will be used by other government agencies interested in similar programs.

TOWNSEND CROMWELL, NMFS Vessel, Begins Baitfish Survey in Pacific

The TOWNSEND CROMWELL, Honolulu-based NMFS vessel, left port last week for a three-month cruise into the Trust Territory of the Pacific Islands. The CROMWELL, which is operated for NOAA by the Hawaii Area Fishery Research Center, will conduct a study of the skipjack and bait resources there. This is the first of three planned resource assessment cruises to the Trust Territory aimed at providing information necessary to the development and conservation of the marine resources of that area.

With the baitfish survey, which is a primary objective of the cruise, the Center hopes to determine the availability and abundance of bait species that could be used for surface pole-and-line skipjack tuna fishing and for purse seining operations. Other principal objectives include the assessment of nearshore resources upon which future island fisheries might be based. Dr. Frank J. Hester is Area Director of the Hawaii Area Fishery Research Center.

Jordan Participates in AGU/NSF Visiting Scientist Program

James N. Jordan recently participated in the American Geophysical Union/National Science Foundation Visiting Scientist Program in Geophysics with visits to several Florida schools. This program allows for visits to small U.S. colleges and universities in an effort to explain the problems, processes, methods, and interdisciplinary character of geophysics. It is also an opportunity to encourage students to enter careers in geophysics and to provide wider training in the field. Mr. Jordan visited Florida Atlantic University, Boca Raton; St. Leo College, St. Leo; and Tampa University, Tampa, Florida.

Assistant Administrator Honored For Equal Employment Program

Former Under Secretary Siciliano and Mr. Gleiter.

Theodore P. Gleiter, NOAA Assistant Administrator for Administration and Technical Services, was one of ten Department of Commerce employees to receive awards for outstanding Equal Employment Opportunity efforts. Mr. Gleiter, the only NOAA employee to receive the EEO award this year, was cited for his "...continuous application of innovative and imaginative leadership in the area of Equal Employment Opportunity in NOAA."

Mr. Gleiter was recognized for his continued leadership and support of NOAA EEO programs and for his active participation in community activities in support of equal employment and housing. The award citation also mentioned Mr. Gleiter's leadership in developing NOAA training programs such as the Administrative Intern Program and the Computer Training Program which have provided additional avenues of opportunity for NOAA employees, including many minority group members and women.

NOAA Described in New Career Manual

Odom Fanning, Special Assistant for Technical Information to the Assistant Secretary of Commerce for Science and Technology, is the author of a new Vocational Guidance Manual entitled "Opportunities in Environmental Careers," to be published April 19--which begins Earth Week 1971. The Manual, which predicts that environmental jobs will increase from 655,990 in 1970 to 1,181,800 by 1980, includes chapters devoted to the organization of NOAA and careers in Earth Sciences.

Sixth WMO Congress Convenes In Geneva, Switzerland

Dr. Robert M. White, NOAA Administrator and permanent representative of the United States to the World Meteorological Organization (WMO), led an 11-man delegation to the Sixth WMO Congress being held in Geneva, Switzerland, Apr. 5-30. The overall program of the Organization will be discussed with emphasis on the following four main fields:
World Weather Watch Program (Global Observing System, Global Data Processing System, and Global Telecommunications System); Program on Research, Education, and Training; Program on the Interaction of Man and his Environment; and Technical Cooperation Program. Attending the Congress from NOAA in addition to Dr. White are: Dr. George P. Cressman, NWS Director, who is Alternate to the Chairman and Principal Delegate; and Delegates Arthur W. Johnson, Deputy Director, NESS; Nels E. Johnson, Director, International Affairs; Austen H. Nagle, International Affairs; Gordon D. Cartwright, NOAA Science Officer, U.S. Mission, Geneva; Bernard Zavos, Deputy Chief, Federal Plans and Coordination Division; Max A. Kohler, Office of Hydrology, NWS; and Gregory S. Richter, Public Weather Service Branch, NWS.

Wallops Is Site of Workshop On Upper Atmospheric Data

A workshop was held at Wallops Island, Va., Mar. 23-24, to consider the preliminary results of an experiment which tested the compatibility of upper-atmosphere temperatures measured by rocketsondes with those derived from Nimbus satellite radiance measurements. Participating were groups and individuals from universities and U.S. Government agencies and from the United Kingdom. Detailed results from rocket soundings and from satellite infrared measurements were reviewed. Papers were presented on the relative accuracy of the instruments involved. NOAA participants included Dr. D. Q. Wark, senior scientist of the Satellite Experiment Laboratory, NESS, and J. H. Lienesch of the Physics Branch, Satellite Experiment Laboratory; F. G. Finger, A. J. Miller, and R. S. Quiroz of the Upper Air Branch, National Meteorological Center, NWS; and Frank Schmidlin of the Wallops Island NWS station.

Symposium on Global Data To Be Held in Princeton

More than 60 scientists from 16 nations will meet in Princeton during the week of April 19 to exchange the latest research results on methods for utilizing data from a global observing system for the atmosphere. This system, which will be established in 1976, will constitute the first GARP global experiment. The symposium will not be open to the public. GARP--the Global Atmospheric Research Program--is an international undertaking responding to two United Nations' resolutions in 1961 which resulted from a plea by President John F. Kennedy for the peaceful utilization of space. GARP is coordinated by a 12-man committee, the Joint Organizing Committee, created by the World Meteorological Organization and the International Council of Scientific Unions. Their objective was to design a research program to accelerate our ability to understand the physical behavior of the atmosphere beyond the present limitation of a few days.

The purpose of this symposium is to discuss means for utilizing numerical models to extract the maximum information from the observing system so as to supplement its deficiencies. This international Symposium on Four-Dimensional Data Assimilation for GARP is one of the first such conferences of specialists to be called by the Joint Organizing Committee. Over the four-day period, more than 30 formal research papers will be presented. NOAA's Geophysical Fluid Dynamics Laboratory will be host for the conference.

Management Systems Meeting Held at NOAA Headquarters

The Third Annual Management Systems Conference was held at NOAA headquarters, March 30 - April 1. Top administrative personnel representing NOAA field offices and Washington-area Management Control Centers attended the conference hosted by the Management Systems Division. The conference, which centered around the coordination of administrative matters between the NOAA field structure and headquarters, was addressed by NOAA Associate Administrator Dr. John W. Townsend, Jr.; Assistant Administrators Theodore P. Gleiter and Donald F. Moore; John Patton, Director of the recently established Northwest Administrative Services Office, ADTECH division chiefs, or their representatives.

Met. Services Federal Plan For FY 1972 Published

"The Federal Plan for Meteorological Services and Supporting Research for Fiscal Year 1972" has been published by the Federal Coordinator for Meteorological Services and Supporting Research. The plan is published annually to provide the Congress and the Executive Branch with a coordinated, overall plan for Government meteorological services and for those research and development programs whose immediate objective is to improve meteorological services. This 66-page booklet covers the programs in all agencies for FY'71 and '72. The principal responsibility for preparing and maintaining the Federal Plan is performed by the Interdepartmental Committee for Meteorological Services and the Interdepartmental Committee for Applied Meteorological Research (both Committees are chaired by Dr. Clayton E. Jensen, Chief of NOAA's Federal Plans and Coordination Division).

The first section of the Plan discusses the progress of the nation's weather services on the occasion of their centennial year 1970 and describes some of the more significant accomplishments in Federal coordination during that year, followed by a summary of fiscal data, description of meteorological services, description of operational functions, basic and specialized services, weather operations, and weather satellites. Copies are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402 at 65 cents each.

Naval Oceanographic Office To Print EDS Mapback Article

The Marine Branch of the Environmental Data Service recently delivered to the U.S. Naval Oceanographic Office extensive narrative and graphic material summarizing North Atlantic tropical cyclone activity in 1970. The report, prepared by EDS's Lt.(j.g.) Chuck Condon, is scheduled to be published as a mapback article on the September issue of the Oceanographic Office's North Atlantic and North Pacific Pilot Charts. Fifteen to twenty accompanying photographs show tropical cyclone tracks, storm damage, and satellite views of the storms.

Experimental Career Counseling Workshop Held

The above NWS supervisors and members of NOAA's Personnel Division participated in an experimental four-day career counseling workshop. Evaluations of this experiment will be used to design a means for providing NWS supervisors with the basic methods and techniques for effective career counseling. Left to right, front row: Dr. Eugene L. Peck, Hydrologic Research and Development Laboratory; Helen Goddard, Overseas Operations Division; George Hatzenbuhler, Personnel Division; Sandra Dixon, Career Counselor; John Porter, Weather Service Forecast Office, Washington, D.C. Second row, left to right: Ken Hoss, Career Counselor; Richard Wiggers, Engineering Division; Wesley Irvin, Data Acquisition Division; Frank Christhilf, Career Counselor. Not shown is James Huntoon, Manpower Utilization Staff.

Marine Geophysical Data Transferred To National Geophysical Data Center

The marine geophysical data held by the National Oceanographic Data Center (NODC) has been transferred to the National Geophysical Data Center (NGDC), another component of the Environmental Data Service. This move is one of a series undertaken to provide a national focal point for marine geophysical data. Efforts are now underway at the NGDC to identify and acquire additional data on marine geophysics currently held in the files of various Federal, state, commercial, and university centers. NODC, through its National Marine Data Inventory, will keep the NGDC advised of sources of data and will assist in the acquisition of the data.

Three NOAA Men Are Key Speakers At IEEE-Sponsored Conference

The 1971 National Telemetering Conference, sponsored by the Institute of Electrical and Electronics Engineers, Inc., was held at the Washington Hilton, Washington, D.C., April 12-15. NOAA officials chairing technical sessions or presenting papers were: H.S. Moore, NOAA Office of Assistant Administrator, who chaired the session on "Environmental Data Acquisition Systems," Dr. Richard E. Hallgren, NOAA Assistant Administrator for Environmental Systems, who presented a paper at the same session on "Gems-A Global Environmental Monitoring System," and John G. Straiton, Chief of NWS's Communications Division, who participated in a session in which he discussed the "World Weather Watch Global Telecommunications System."

First FPC Experiment Plant To Be Dedicated April 17

April 17 will mark the beginning of a new chapter in the fish protein concentrate (FPC) story. On that date, Representative Julia Butler Hansen, longtime supporter of FPC, will dedicate the National Marine Fisheries Service's FPC Experiment and Demonstration Plant at Aberdeen, Washington. Howard W. Pollock, NOAA Deputy Administrator, will also speak. Senator Warren G. Magnuson is expected to attend the dedication ceremony. Following the dedication, the plant will be open for inspection by the public.

NMFS has pioneered in the development of FPC, a light tan powder which contains nearly 80 percent high quality protein and can be used as a food additive. The purpose of the plant is to demonstrate the feasibility of the solvent extraction process developed by NMFS, and to obtain design, engineering, and economic information to serve as a basis for construction of commercial plants by private industry. The NMFS plant will not produce FPC for commercial purposes.

The facility was designed and built by Ocean Harvesters, Inc., of Los Angeles, and will be operated by that company under an NMFS contract. The land for the plant was donated by the Port of Grays Harbor, Aberdeen, Washington.

Problems of Chesapeake Bay Discussed

Seven representatives from NOAA attended a conference on "Remote Sensing of the Chesapeake Bay," at Wallops Island, Va., Apr. 5-7. Participants in the conference included representatives of the States of Delaware, Maryland, and Virginia, the Smithsonian Institution, and the National Aeronautics and Space Administration. Discussed were environmental problems of the Chesapeake Bay and the extent to which remote sensing from aircraft and satellites can contribute to solution of these problems. NOAA personnel and the sessions in which they participated are: Donald R. Baker, NOAA, and Augustine Y. M. Yao, EDS (Pollution-Air); Lt. Floyd Childress, NOAA, and E. Paul McClain, NESS (Estuarine Turbidity, Flushing, Salinity, and Circulation); Morton Keller, NOS (Pollution-Agricultural Sedimentation and Wastes); Thomas R. Azarovitz, NMFS (Extractable Biological Resources); and I. Y. Fitzgerald, NOS (Shoreline Activities).

Four Ships Scheduled To Chart Alaskan Waters

Four NOAA ships--manned by approximately 280 officers and crew--and an aerial photo plane will chart Alaskan waters this year in a long-range program to provide detailed, up-to-date information for the state's increased marine activities and economic development. The hydrographic survey ships DAVIDSON, PATHFINDER, RAINIER, and FAIRWEATHER will perform this year's task. They will spend about five months in Alaska working in Cook Inlet, the Gulf of Alaska and Clarence, Kaku, Sumner and Shelikof Straits. These waterways include the ports of Ketchikan and Anchorage. Ship operating schedules follow:

DAVIDSON, commanded by Cdr. Gerald C. Saladin - Keku and Sumner Straits, Southeast Alaska, April - September.

PATHFINDER, commanded by Capt. Herbert R. Lippold, Jr. - Clarence Strait, Southeast Alaska, April - May. Cook Inlet, May - September.

RAINIER, commanded by Capt. Roger F. Lanier - Shelikof Strait, April - August.

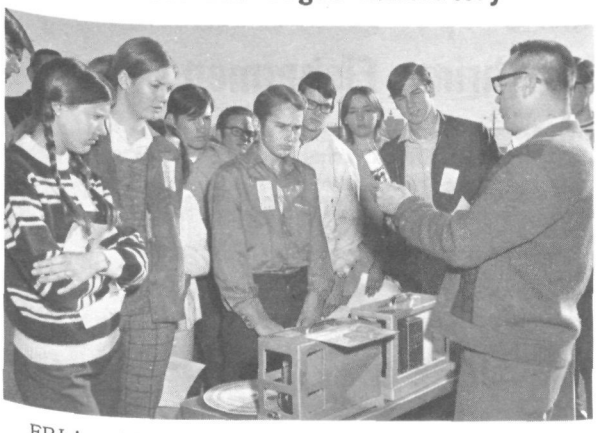
FAIRWEATHER, commanded by Cdr. Richard H. Houlder - Cape St. Elias waters, April - August.

The NOS Air Photo Mission will be in Alaska again this season, based at Anchorage. It will take photographs in Felice Strait, Copper River Flats, Cook Inlet and Shelikof Straits in preparation for next year's hydrographic mission.

Climatologist Co-Authors Brochure

Walter Spuhler, NOAA Climatologist for South Dakota, and R. L. Schulte, Agricultural Statistician, are the co-authors of a new brochure entitled "From Planting to Harvest." The State of South Dakota provided the funds for the publication. The 95-page booklet provides a ten-year summary of actual farm practices as reported by field observers. For example: By May 15 of 1966, only 13 percent of South Dakota's corn was planted; two years later the quantity planted on that date was 50 percent. The ten-year mean is 26 percent. Similar variations are noted for tasselling, maturity, and the harvest of corn and other farm produce. Because these year-to-year variations are almost entirely weather-linked, the publication opens with a specially prepared nine-page climatic summary. Mr. Spuhler emphasizes that modern agriculture needs such planning for optimum decisions.

Students Tour Las Vegas Laboratory



ERL's Air Resources Laboratory in Las Vegas, Nev., recently participated in a demonstration of applied science in celebration of Edison Youth Science Day. Several hundred high school science students observed displays of weather instruments, sounding equipment, and several types of meteorological balloons. The students also toured the Atomic Energy Commission's Computer Center that the Laboratory uses in forecasting winds and radioactivity levels for the nuclear tests at the Nevada Test Site. In photo, Frederick E. Schramm, supervisory meteorological technician, describes the operation of a radar transponder.

Sea Grant Given for Lampricide Study

A chemical commonly used in the upper Great Lakes for sea lamprey control will be systematically studied for the first time by pharmacologists of the Medical College of Wisconsin, under a $26,500 NOAA Sea Grant, to support studies by Dr. John H. Lech of the metabolism and pharmacology of the chemical 3-trifluoromethyl-4-nitrophenol, commonly known as TFM. TFM is a selective lampricidal agent that is currently in use in Lake Michigan and Lake Superior. It has been effective in destroying the sea lamprey during an early stage of its development. In treated waters, concentrations of TFM approximating 2-3 parts per million are lethal to sea lamprey larvae, while most other fish and other aquatic species are unaffected. However, it is a toxic agent that has been introduced into the lakes with very little known of how it works and what happens to it after it has served its purpose. There have been no definitive studies of the pharmacology of TFM, its metabolic fate in fish and mammals, and its possible effects on the environment.

SIRS Temperature Data Sent on Global Circuits

Air-temperature measurements taken by NOAA's Satellite Infrared Spectrometer (SIRS) aboard Nimbus 4--an experimental weather satellite operated by the National Aeronautics and Space Administration--are now being distributed to Europe and Japan. SIRS temperature profiles have been used operationally by the National Meteorological Center for almost two years--first from Nimbus 3 and now from Nimbus 4. In mid-March, the temperature profiles were judged dependable and useful enough for distribution over international circuits to Frankfurt and Offenbach, West Germany, and to Tokyo. The satellite sensors provide vertical temperature measurements over many areas of the globe where conventional soundings by balloon-borne radiosondes are not available. The experimental program is expected to pave the way for an operational system in 1972, when heat sensors will be incorporated in new environmental-monitoring satellites.

Roedel Heads Delegation to FAO Meeting

Philip M. Roedel, Director of the National Marine Fisheries Service, led the U.S. delegation to the sixth annual session of the U.N. Food and Agriculture Organization (FAO) Committee on Fisheries, being held in Rome, Italy, April 15-21. Representatives of 50 to 60 countries are attending as members or observers. The agenda includes discussions of the program of the FAO's Department of Fisheries, the future role of FAO in management of fishery resources and field programs or projects of the U.N. Development Program which was executed by FAO.

Two Weather Radar Facilities Dedicated

New National Weather Service Meteorological Observatories were dedicated at Monett, Missouri, and Garden City, Kansas, April 14 and 15. Both observatories are responsible for a WSR-57 radar program and rawinsonde observations. The Monett Observatory has a staff of seven Weather Service specialists and two electronics technicians, headed by meteorologist in charge Lonnie R. Nine, former principal assistant at Amarillo, Texas. The Garden City facility has four Weather Service specialists and two electronics technicians. Jack B. Hughes, former principal assistant at Dodge City, Kansas, is meteorologist in charge.

Fletcher Is Chief Scientist Of Air Weather Service

Dr. Robert D. Fletcher has been appointed chief scientist of the Air Weather Service (AWS). The AWS, a Military Airlift Command technical service, furnishes worldwide weather and environmental support to the Air Force, Army, and other government agencies. As chief scientist, Dr. Fletcher becomes principal scientific advisor to Brigadier General William H. Best, Jr., AWS Commander. Dr. Fletcher's professional career dates to the mid-1930's and comprises experience as a working meteorologist, researcher, instructor and consultant in private industry, education and the Federal government, including the National Weather Service and the Air Force.

Five Judge Science Fair Entries

Five members of the Environmental Data Service served as judges of exhibits entered in the Environmental and Space Science Division of Prince George's County Science Fair, Mar. 27. Entries were from junior and senior high schools throughout the county. The best two exhibits in the senior division of the fair will be entered in the International Science and Engineering Fair, to be held in Kansas City, Mo., in May. The EDS judges were: Herbert Meyers, National Geophysical Data Center; Robert Ochinero, Elaine Collins, Irving Perlroth, and George Heimerdinger, all of the National Oceanographic Data Center. Sidney Marcus, also of NODC, helped organize the exhibits.

Fowler Receives Printing Award

Frederick A. Fowler, who retired from the National Ocean Survey in 1969 after 30 years of government service, has been awarded the 1971 Mid-Atlantic Graphic Art Review's Distinguished Service Award for significantly contributing to the printing industry's success.

NMFS Sponsors Workshop For Shrimp Fishermen

A special workshop to help Alaska shrimp fishermen improve efficiency and profits was held in Kodiak, Apr. 6-8, under the sponsorship of the National Marine Fisheries Service. NMFS gear specialists from Kodiak and Seattle conducted workshop sessions on shrimp fishing gear, and gave demonstrations of net work. Other specialists from NMFS, the Alaska Department of Fish and Game, Oregon State University, and from industry, covered such topics as methods of maintaining fresh-caught shrimp quality aboard vessels, management of fishing business to increase profits, market trends, distribution and management of Alaska shrimp resources, and application of electronic fish finding equipment. Harry L. Rietze, Regional Director for Alaska, pointed out that Kodiak shrimp production alone is more than twice the combined shrimp landings from the rest of Alaska, Washington, Oregon, and California. In 1970, trawlers operating out of Kodiak produced an estimated 62.4 million pounds of whole shrimp--an increase of 21.2 million pounds over the 1969 total, and 84 percent of the State's total shrimp catch of 74.3 million pounds. The value of the total Alaska shrimp production was about $3 million to fishermen. Kodiak fishermen's share amounted to $2.5 million. During 1971, Mr. Reitze said, the Kodiak shrimp fleet is expected to grown to more than double the 18 vessels that fished in 1970. Trawlers from the Gulf of Mexico, Washington, and Oregon are expected to bolster the Kodiak fleet.

Lake Survey Pressman Retires

Frederick L. Albrecht, a Lake Survey Center Map and Chart Plant pressman, has retired after thirty years of service. Mr. Albrecht first worked as a press operator for the Corps of Engineers. His outstanding craftmanship helped produce the Great Lakes nautical charts used by recreational and commercial boaters, as well as ground maps used by the Army during World War II and the Korean conflict.

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

National Oceanic and Atmospheric Administration

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