



Top Officials To Receive Pay Raise

Along with all classified federal employees who will receive a pay increase October 1, members of Congress, the Cabinet, judges and the Vice President will also receive a boost in salary as a result of President Ford's signing the executive pay bill.

The amount of the increase is expected to be within 5 and 8.66 percent, but will be determined by the President in the near future.

However, the President said in his State of the Union Message in January that federal pay increases this year should be held to 5 percent. Whatever increase he authorizes for lower-level employees will apply in the future to executive level officials under the bill.

The pay for top federal officials has been frozen since March, 1969, the last time Congress voted itself a pay raise to the present figure of \$42,500.

The bill will enable members of Congress and other top officials to receive automatic cost-of-living pay boosts every year, beginning October 1.

Coastal Zone Grant Awarded To Washington

A Federal grant of \$500,000 has been awarded by the Office of Coastal Zone Management to the State of Washington to complete development of its coastal management program.

Under the Coastal Zone Management Act of 1972, Washington will add \$250,000 to the NOAA Grant.

Over the next six months Washington—the only state to receive preliminary Federal approval of its coastal management program—will mount an intensified effort to achieve final program approval by: detailing how the State will control land and water uses; expanding specific work elements in the initial application; assisting local governments in completing their shoreline master programs; clarifying procedures for handling Federal consistency requirements; and broadening the data base to provide useful information for coastal decision-making.

In addition, the State will provide local governments and coastal Indian tribes with information enabling them to participate in the CZM program.

NOAA Scientists Sight Stratospheric Dust Layer

An unusual and persistent reflective layer has been detected in the cloud-free stratosphere more than 12 miles (19 kilometers) above the earth by a sensitive ruby laser operating at the Environmental Research Laboratories' Mauna Loa Observatory in Hilo, Hawaii.

The transparent whitish veil was first discovered by the observatory's lidar—the laser equivalent of radar—in early October of last year by Observatory Director Dr. Ronald W. Fegley and Howard T. Ellis.

According to Dr. Fegley, no dust layer had previously been observed above the tropopause—the boundary between the weather-producing region of the atmosphere and the stratosphere—during two years of lidar observations at the observatory.

The NOAA lidar system is currently operating once per week to monitor stratospheric aerosol concentrations, cloud properties, and aerosol profile changes in the lower atmosphere under ERL's Air Resources Laboratories' Geophysical Monitoring for Climatic Change program. The system was designed by Dr. Earl Barrett of ERL's Atmospheric Physics and Chemistry Laboratory.

As one of several benchmark observatories monitoring "clean air" throughout the world, the Mauna Loa station has the only lidar now functioning in the tropics. Because the atmosphere at the observatory altitude (3.2 kilometers) is extremely clear, the lidar can probe to heights up to 15 miles (25 kilometers) altitude.

The scientists have tentatively attributed the mysterious stratospheric layer, which made the sky a pronounced chalky blue for several months, to dust from the giant eruption of the Fuego volcano in Guatemala in early October, but add that there are some puzzling facts.

Dr. Fegley explains, "We observed the stratospheric layer for the first time on the eighth of October, two days before the Guatemala eruption was reported to have occurred and six days before the eruption became violent. Although we are several thousand miles west of Guatemala, the layer was occasionally much more intense here in Hawaii than at mainland points."

During late December the thin stratospheric layer began to thicken to approximately two miles (three kilometers), but the chalky appearance of the sky

(Continued on page 3)

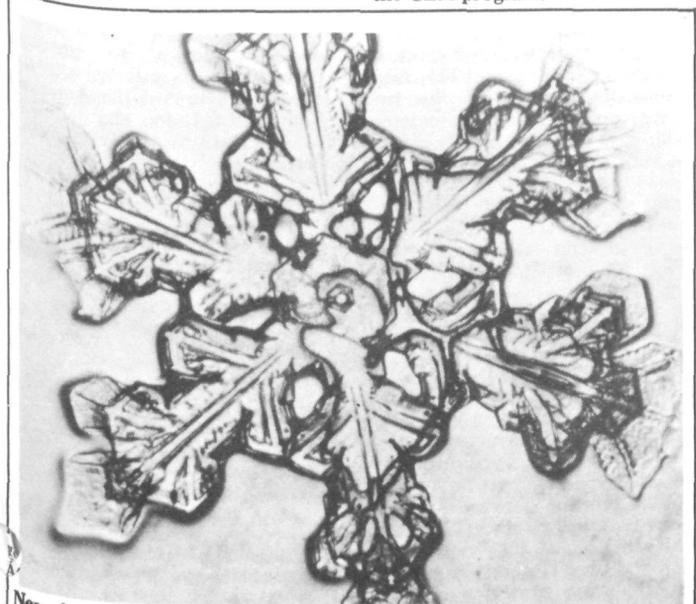
NGSDC Publishes Marine Geophysical Data Catalog-1975

The Environmental Data Service's National Geophysical and Solar Terrestrial Data Center recently released *Marine Geophysical Data Catalog-1975, Key to Geophysical Records Documentation No. 4*, which includes all bathymetric, magnetic, gravimetric, seismic profile, and navigation information available from the Center. It also indicates types of data formats, identifies specific cruises or surveys, depicts geographical distribution of the data by area index charts, and includes a trackline sketch for each cruise or survey.

The 1975 catalog updates (and supersedes) *Key to Geophysical Records Documentation No. 1*, which was published in June 1972, and includes 58 marine geophysical data sets that have become available since 1972. It also gives availability of other complementary data, including map plots and charts. A pocket insert map, "Multitrackline Plots," includes bathymetric, magnetic, gravimetric, and seismic reflection data collected worldwide along 2¼ million nautical miles of tracklines.

The catalog may be purchased from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 for \$5.25 (Stock No. 003-017-00292).

Further information about the catalog and available data may be obtained from: Solid Earth Data Services Division (D62), National Geophysical and Solar-Terrestrial Data Center, EDS-NOAA, Boulder, Colo. 80302.



New knowledge of ice crystal growth may result from the development of an aircraft-mounted ice crystal decelerator and collector by NOAA scientists. See story on page 3.

calendar of events

September 3-4-5
San Francisco Symposium on Modeling Techniques for Waterways, Harbors, and Coastal Engineering (MODELING '75). Sponsored by American

Society of Engineers, the Canadian Department of Public Works, the National Science Foundation, and the Office of Sea Grant. Will be preceded by one-day short course on modeling, directed by Professor Young Kim, Civil Engineering Dept., California State University, Los Angeles, Calif. (MODELING '75, Civil Engineering Dept., Clemson University, Clemson, S.C. 29631. 803-656-3000.)

September 10-13
Las Vegas, Nev. 105th Annual Meeting of American Fisheries Society. AFS will meet during week with International Association of Game, Fish, and

Conservation Commissioners. (Glen Griffith, Nevada Department of Fish and Game, Box 10678, Reno, Nev. 89510. 702-784-6214.)

September 14-19
Las Vegas, Nev. The Third Joint Conference on Sensing of Environmental Pollutants originally scheduled for November 10-13 and the

International Symposium on Environmental Monitoring originally scheduled for September 14-19 have been combined into the International Conference on Environmental Sensing and Assessment to take place in Las Vegas, Nevada. Co-sponsors include the World Health Organization (WHO), Institute of Electrical and Electronic Engineers (IEEE), American Chemical Society, American Institute of Aeronautics and Astronautics, American Meteorological Society, Environmental Protection Agency, Instrument Society of America, National Aeronautics and Space Administration, NOAA, and the Department of Transportation. Technical sessions will be structured by air, land, water, biology, and exposure monitoring; discussions will focus on critical interdisciplinary problem areas such as climate change, energy, health and sources and pathways of marine pollution. (Dr. C. E. Jensen, EM, NOAA, Room 825, WSC-5, Rockville, Md. 20852. 301-496-8646.)

September 21-25
Washington, D.C. International Symposium on Computer Assisted Cartography sponsored by American

cooperation with U.S. Bureau of Census, (Dorothy Bomberger, Symposium Secretariat, U.S. Bureau of the Census, Washington, D.C. 20233. 301-763-7094.)

September 25-27
Madison, Wisc. First Annual Meeting, Midwestern Region, American Geophysical Union. (Cynthia Beadling, AGU, 1909 K St., N.W.,

Washington, D.C. 20006. 202-331-0370.)

October 1-3 Seminar on Marine Instrumentation and Applications in the Coastal Zone. Co-sponsored by National Oceanographic Instrumentation

Center and Charles County Community College, La Plata, Md. (Eugene M. Russin, NOIC, Code C6311, Bldg. 160, Room 102, Washington Navy Yard Annex, Rockville, Md. 20852. 202-426-9075, or Thomas Poe, CCCC, Estuarine Resource Technology, Biology Department, P.O. Box 910, La Plata, Md. 20646. 301-934-2251, Ext. 77.)

October 2-4
Newport Beach, Calif National Conference on Marine Recreation, sponsored by NOAA in cooperation with the University of Southern California Sea Grant

Institutional Program. (See item on page 1, of July 11, 1975, issue of NOAA Week.) (Susan H. Anderson, Conference Coordinator, Sea Grant Institutional Program, University of Southern California, 4676 Admiralty Way #1102, Marina Del Rey, Calif. 90291. 213-822-1648.)

October 6-9
Galveston, Tex. Third International Biennial Meeting of Estuarine Research Federation. (Prof. Jerome Williams, Environmental Sciences

Dept., U.S. Naval Academy, Stop 8c, Annapolis, Md. 21402. 301-267-3561.)

October 9-10
Seattle, Wash. Twenty-Second Pacific Northwest Regional Meeting of American Physical Union. Deadline for receipt of abstracts is September 19.

(Stephen D. Malone, Geophysics AK-50, University of Washington, Seattle, Wash. 98195. 206-543-7010.)

December 4-6
La Jolla, Calif. International Conference on the Nature of the Oceanic Crust. Preliminary registration

and abstracts must be received by August 29. (Cynthia Beadling, AGU, 1909 K St., N.W., Washington, D.C. 20006. 202-331-0370.)

December 8-12
San Francisco, Calif. 1975 Fall Annual Meeting of American Geophysical Union. Deadline for receipt of abstracts is September 16. (Cynthia Beadling,

AGU, 1909 K St., N.W., Washington, D.C. 20006. 202-331-0370.)

NOAA Ship Surveyor First to Join Maritime Fire Protection Project



The NOAA Ship Surveyor has become the first NOAA vessel to join a project sponsored by the U.S. Maritime Administration and Washington State to provide improved marine fire protection.

The pilot program is designed to establish a model for other U.S. ports, in addition to Seattle, home base of NOAA's Pacific Fleet. A specialized plan is developed for each participating vessel.

Assistance can be provided to vessels in Puget Sound, within 12 miles of the Washington coast and on the Columbia River. The Assistance ranges from advice via radio to the placement of professional firefighters and equipment aboard a vessel. In the photo, Capt. Ron Coulter of the Seattle Fire Department is presenting the Surveyor's Pre-fire Plan to the ship's Commanding Officer, Capt. Kenneth A. MacDonald, as Executive Officer Cdr. James P. Brown, Jr., and Captain Frank I. Huxtable of the Maritime Administration look on.

Former EDS Official Dies

Brig. Gen. Benjamin G. Holzman, who was Deputy Director of the Environmental Data Service from 1967 to 1971 and a Supervisory Meteorologist for the Weather Service in Washington, D.C., from 1939 to 1942, died in Florida on July 29.



Gen. Holzman

Deputy Director of weather service for the Strategic Air Forces in Europe in 1944 and 1945, Gen. Holzman was one of the two American weather forecasters who gave Gen. Dwight D. Eisenhower the go ahead forecast for the invasion of Normand. He was staff aerologist for Joint Task Force I at the Bikini tests in 1946, and staff weather officer of Joint Task Force 7 for the Eniwetok atom bomb tests in 1951. In 1948, he received the Robert M. Losey award

(named for the first Army Air Force meteorological officer killed in World War II) for outstanding contributions to the field of aeronautical meteorology.

When he retired from the Air Force in 1964, he was commander of the Air Force's Cambridge Research Laboratories.

Earlier he was a meteorologist for civilian airlines and the Agriculture Department's Soil Conservation Service, and an instructor of geochemistry at California Institute of Technology.

Gen. Holzman was a fellow and councilor of the American Meteorological Society, a member and officer of the American Geophysical Union and a Fellow of the Institute of Aeronautical Sciences.

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
 Warren W. Buck, Jr., Art Director

Snow in July

Snow in July is one of the conditions a NOAA field party has had to contend with during a survey being conducted along the Alaska pipeline between Prudhoe Bay on the North Slope and Fairbanks.

Party Chief Robert R. Gerrish reported that snow fell on July 26, 27 and 28. Fifty-three man days of work were lost in July due to inclement weather.

Deputy Administrator Howard Pollock Participates in Hydro-Lab Experiments



Howard W. Pollock, NOAA Deputy Administrator, left, along with Sen. Lowell Weicker of Connecticut and Congressman Bill Alexander of Arkansas, spent three days in a 16-foot-long cylinder at a depth of 60 feet as a part of NOAA's Hydro-Lab experiments. Above, Mr. Pollock peers from their capsule-like laboratory 50 feet under water off Freeport in the Bahamas where they observed a series of environmental experiments. With them in the habitat was Robert Wicklund, a fisheries biologist who also is manager of Hydro-Lab. After three days in a saturated mode they endured 15 hours of decompression before returning to the surface.

NWS Facility Back in Operation

The National Weather Service facility at Cincinnati, Ohio, is back in operation in temporary quarters three weeks and five days after a fire that completely destroyed the facility.

According to Dr. George P. Cressman, Director National Weather Service, the facility was "never really completely out of operation. During the interim period, Mr. John Robinson, Meteorologist in Charge, arranged

for a split operation. The surface-observing program was accomplished in the FAA Tower facility and the public forecast dissemination and warning services out of the River Forecast Center, Cincinnati. Radar operations were resumed on July 24.

"Getting back into operation in such a short time was no accident. It was accomplished by a dedicated group of individuals, exerting maximum effort."



REACTIVATION CEREMONY FOR THE SEATTLE-BASED NOAA SHIP MILLER FREEMAN preparatory to her recent departure for the Bering Sea to participate in environmental impact studies. Dr. Dayton L. Alverson, Director, National Marine Fisheries Service Northwest Fisheries Center, reads the commissioning certificate to Cdr. S. R. Petersen, the Commanding Officer, and R. Adm. H. R. Lippold, Jr., Director of the Pacific Marine Center.

Airborne Ice Crystal Catcher Developed by ERL Scientists

Environmental Research Laboratories scientists have developed a snowflake collector and decelerator—an instrument that can collect, intact, delicate snow crystals, even from aircraft flying at speeds up to 200 miles (320 kilometers) per hour.

The device, which would be attached to the nose of a pressurized aircraft, consists of a 22-foot (7-meter) aluminum boom connected to a small refrigeration unit. A valve on one end of the receiver tank neutralizes the effect of pressure inside the aircraft which might prevent the ice crystals from entering. A throttle valve governs the rate of flow at the inlet, slowing the flakes so they drift gently in.

The refrigerated receiver tank contains a 35-millimeter film transport to which a special chemical solution is applied,

causing the crystals to stick to the film and retain their shape for examination, photography, sublimation, and further analysis at a later date.

During wind tunnel tests of the new device, the air velocity was controlled at 200 miles per hour with receiver tank velocities at the point of impact recorded from five to 28 miles per hour. Using soap flakes as a reasonable facsimile of snow crystals, the scientists found the instrument design was satisfactory in retrieving the simulated crystals intact.

"We hope the device will help close a serious gap in understanding atmospheric ice and snow crystal habits and formation mechanisms," says Dr. Helmut K. Weickmann, Director of the Atmospheric Physics and Chemistry Laboratory, where the device was developed.

Instrument Branch Readies LSC Ships For Field Parties

Personnel of the Instrument Branch of the Lake Survey Center's Engineering Division in Monroe, Mich.—Chief Howard Booker, John Bagalia, George Smith, Dawsey Creg, Fred Ritzer and Kenneth Focht—have put the LSC vessels in tiptop condition for use by the different field parties. The work included completing installation of communication and data acquisition systems; installing the Shenon's oceanographic and meteorological instrumentation; and completing the software design to provide for the use of Loran C for positioning geographically the meteorological system data acquired by the Shenon.

Stratospheric Dust Layer

(Continued from page 1)

had left by June of this year. However, a second peak period of intensity occurred during February when there was a major volcanic eruption of Mt. Ngauruhoe in New Zealand.

"It should take more than several weeks for the dust to move from the Southern to the Northern hemisphere," Mr. Ellis says. "At the present time we don't see how the cloud could have reached Hawaii so quickly from New Zealand."

According to Dr. Fegley, the high altitude veil may influence long-term climate changes throughout the world. Because it extends over a large area, it acts like a giant filter covering the entire sky. The filtering action may cause a loss of solar energy which could result in a general cooling of surface temperatures.

"Little progress has been made in this knowledge during the past 20 years because of difficulty in studying these processes. Collecting snowflakes at high speeds from pressurized aircraft in the past has pulverized the flakes upon impact."

APCL scientists plan to use the instrument for studying how snow and ice crystal formation and behavior influence the formation of precipitation naturally and after cloud seeding.

"Ice crystals are the main scavengers that bring cloud water content earthward as snow or, after melting, as rain," Dr. Weickmann explains. "And we have to admit we understand very little about the physical processes that make the crystals form and grow."

"To understand the entire mystery of ice crystal growth, scientists must use aircraft flying between the earth's surface and 25,000 feet (8,000 meters) to permit collection and study of the flakes at all temperature ranges of origin."

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 fresh sea trout and bluefish along the Northeast Seaboard; fresh croaker and spot in the Middle Atlantic States, including the D.C. area; speckled trout and mullet in the Southeast and along the Gulf Coast; canned tuna and fresh whitefish in the Midwest; fresh pink salmon and red snapper fillets in the Northwest; and Alaskan King Crab meat and fillets of sole in the Southwest.

notes about people

Malcolm S. Krebs, Chief of Lake Survey Center's Engineering Division in Monroe, Mich., recently furnished mooring for the Channel Cat, the State of Michigan Department of Natural Resources' 36-foot survey vessel, which was conducting studies on Walleyes in western Lake Erie. The studies included such areas as Walleye migration patterns and concentration, size and stock of the fish, as well as tagging them for future identification. The vessel was moored in Monroe for two weeks before returning to its usual station at the mouth of the Clinton River on Lake St. Clair.



Mr. Krebs

Julie Hass, who is working as a student aide in the Environmental Research Laboratories' Aeronomy Laboratory in Boulder, Colo., has her job because she was selected from among a group of outstanding senior women representing Denver metropolitan area high schools to receive the second annual student award of the Association of Federal Professional and Administrative Women. The award is a job offer for summer employment with one of the local Federal agencies. Miss Hass, a valedictorian at Boulder High School this year, plans to major in biological sciences at Wellesley College in Massachusetts.



Miss Hass

Harry A. Lippincott is now Chief of the Vertical Control Section at the National Ocean Survey's Lake Survey Center in Detroit, Mich. He was previously a Geodetic Technician in the Field Records Analysis Section of the National Geodetic Survey's Horizontal Network Branch in Rockville, Md. He has been with the NOS and its predecessor, the U.S. Coast and Geodetic Survey, since 1959, when he became a member of a Vertical Control field party. He subsequently transferred to the Satellite Triangulation Division, and worked on joint United States and Canadian projects.

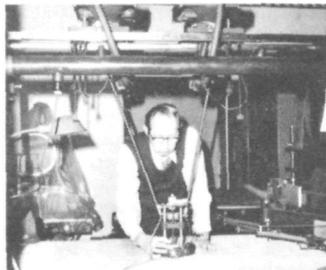


Mr. Lippincott

Mr. Lippincott has been with the NOS and its predecessor, the U.S. Coast and Geodetic Survey, since 1959, when he became a member of a Vertical Control field party. He subsequently transferred to the Satellite Triangulation Division, and worked on joint United States and Canadian projects.

Mrs. Ruth B. Brown, Personnel Staffing Assistant at the National Marine Fisheries Service Southeast Region, was recently honored as the NMFS Federal Employee of the Year for the Tampa Bay Area by the Tampa Bay Federal Executive Association. The Recognition Award she received recognized her performance, loyalty, and high ideal in pursuing agency objectives which enhance the integrity and prestige of the Federal Civil Service.

Floyd R. Watts, Photogrammetrist-in-Charge of Lake Survey Center's Photogrammetry unit, recently conducted a tour of the facilities for a group of Macomb Community College students in an Advanced Survey Class, the last course on this subject prior to taking the State Board Examinations. Mr. Watts explained and demonstrated the many instruments used in analytical aerotriangulation and stereoplotter compilation. Since most of the survey students are actively employed in field survey work, they were interested in learning how their geodetic control was used in the various photogrammetric operations, especially aerotriangulation. The class instructor, Professor Gilbert E. Ropes, was a long-time employee of LSC and Chief of several of its Branches before he retired to become a full-time Professor of Surveying at the College.



Mr. Watts demonstrates a stereo plotting instrument for chart compilation from aerial photography.

A Department of Commerce Bronze Medal and a special achievement award have been presented to Howard H. Eckles in recognition of his major contributions toward the advancement of the National Sea Grant Program Marine Advisory Service. Mr. Eckles, who has been Program Manager for Marine Advisory Services since 1972, came to NOAA when it was first organized in 1970, and retired recently after more than 30 years' Federal service.



Mr. Eckles

RECEIVING HIS FORMAL APPOINTMENT AS U.S. COMMISSIONER FOR THE NORTH PACIFIC FUR SEAL COMMISSION

from Robert W. Schoning (right), National Marine Fisheries Service Director, is Carmen J. Blondin, NMFS Assistant Director for International Fisheries, who was appointed to the post recently by President Ford, will represent the U.S. in all negotiations with Canada, Japan and the Union of Soviet Socialist Republics concerning agreement to harvest fur seals in the North Pacific.



A DEPARTMENT OF COMMERCE BRONZE MEDAL has been presented to Mary E. Ambrose by Joseph W. Slavin, National Marine Fisheries Service Associate Director for Resource Utilization, "in recognition of initiative displayed and competent services performed as a Research Chemist with the National Marine Fisheries Service".

Mrs. Ambrose retired recently as a Supervisory Research Chemist and Program Leader at the NMFS Southeast Utilization Research Center in College Park, Md., where she began her career in 1956.



A DEPARTMENT OF COMMERCE BRONZE MEDAL has been presented to Robert F. Strickler (center) "in recognition of major contributions toward establishing the credibility of the numerical experiments of atmospheric phenomena undertaken by the Geophysical Fluid Dynamics Laboratory."

A Research Meteorologist in the Experimental Prediction Group at the Environmental Research Laboratories' facility at Princeton University, he has been with the Commerce Department since 1960. In 1970 he received ERL's Outstanding Scientific Paper Award.

Dr. Joseph Smagorinsky (left), GFDL Director, presented the award, and on the right is Dr. Kikuro Miyakoda, leader of the Experimental Prediction Group.



National Oceanic and Atmospheric Administration

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