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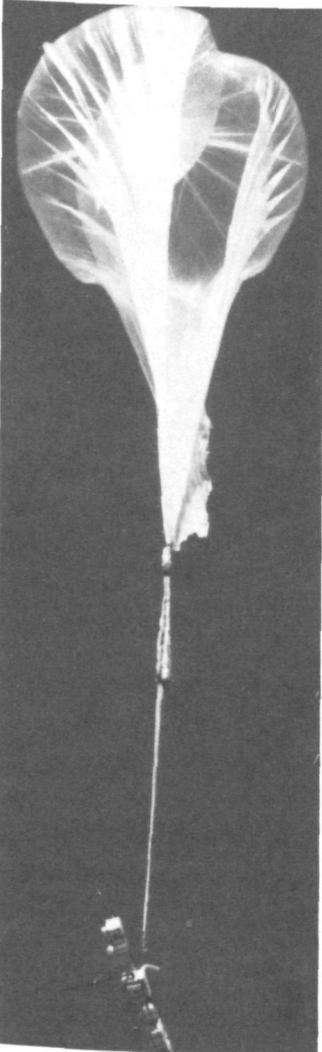
Sahara Dust, Caribbean Weather and Air Quality Linked

Nitric Oxide in Stratosphere Is Measured by Scientists

Based on the first measurements ever made of nitric oxide in the stratosphere, Environmental Research Laboratories' scientists report that nitric oxide levels there appear to be lower -- by a factor of three or more -- than predicted theoretical levels.

Although preliminary, the unique measurements raise important questions about the assumed effects of such jet exhaust products as nitric oxide on the stratospheric ozone layer, which absorbs much of the biologically harmful ultraviolet radiation sent earthward by the sun.

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This 800,000-cubic-foot plastic balloon, shown just after release, carries a nitrogen oxide "Snooper" sensor (middle package with long, black inlet tube) into the stratosphere for NOAA scientists. The sensor, designed by Toronto's York University and Utah State University, has obtained man's first measurements of nitric oxide concentrations in the stratosphere in this Department of Transportation-funded study of how exhaust products from high-flying jets can affect global climate. Photo was made by G. Swickard at the Air Force Cambridge Research Laboratories Balloon R&D Test Branch, Holloman Air Force Base, New Mexico, on March 16, 1973.

A record of the five-year drought which still plagues the African nations south of the Sahara is written in the skies as far away as the Caribbean Sea, where scientists find that dust from Africa -- in increasing amounts since the drought began -- may affect tropical weather, disturb the solar energy balance, and diminish regional air quality.

According to Dr. Toby N. Carlson of the Environmental Research Laboratories' National Hurricane Research Laboratory and Dr. Joseph M. Prospero of the University of Miami, the hot desert winds blowing across the scorched sub-Saharan grasslands pick up large quantities of the area's topsoil, and carry it across the equatorial Atlantic in well-defined "lenses" of warm, dusty air.

They noted that since this large-scale transport of African dust began to be measured systematically in 1965, in Barbados, West Indies, dust concentrations have risen markedly -- 1973 concentrations were 60 percent greater than 1972 values, and there has been a three-fold increase in dust levels since 1968, the period corresponding to the Saharan drought.

Dr. Carlson says, "The effect of these increases has been to increase atmospheric turbidity (or decrease atmospheric transparency) to the point where the typical marine conditions one normally finds there have been transformed into the hazy conditions of urban industrialized regions of North America. The difference is that the 'pollution' consists of natural soil particles, and is concentrated much more at 10,000 feet than at the surface."

Dr. Carlson believes the dusty layer of Saharan air also removes a significant amount of solar energy from the sun's rays, altering the solar energy balance of the tropical Atlantic.

"As the solar radiation comes down through the atmosphere," he explains, "the dust absorbs some of the energy and scatters additional amounts back to space. Our measurements suggest that the three-fold increase in dustiness since the start of the African drought has contributed to a 10-15-percent reduction in solar energy reaching the sea surface in the tropical Atlantic."

The transport of the Saharan dust appears to occur in large-scale pulses from the African continent, with the pulses usually taking several days to cross the Atlantic to the Caribbean. Before it reaches the African coast, however, the air is subjected to prolonged, intense heating, which causes strong mixing in a desert air layer

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NWS Names Dr. Peck To Direct Hydrologic Research Laboratory

Dr. Eugene L. Peck has been appointed Director of the National Weather Service's Hydrologic Research Laboratory. He has served in the Laboratory since July 1967 as a branch chief and most recently as Assistant Director.



Dr. Peck served as a weather officer in the Army Air Force from 1942-1946 and joined the NWS as an observer at the Kansas City, Mo., Forecast Office in June 1946.

From January 1947 until he transferred to Washington, D.C., he was stationed in Salt Lake City, Utah. He transferred to the Hydrologic Office in Salt Lake City in February 1948 and served as Hydrologist in Charge prior to his transfer to the Laboratory.

He received his B.S. and M.S. degrees in meteorology from the University of Utah, and his Ph.D. in Civil Engineering from Utah State University in 1967.

Nitric Oxide Measured (Continued from page 1)

They also raise questions about how well existing theory explains the atmosphere's observed equilibrium between such highly reactive molecules as ozone, and nitric oxide, which destroys ozone through chemical recombination.

The nitric oxide monitoring program is being conducted by ERL's Air Resources Laboratories for and with the support of the Department of Transportation and its Climatic Impact Assessment Program, which seeks to determine the climatic effects of perturbations of the upper atmosphere caused by propulsion effluents from a world fleet of high-altitude aircraft, as projected to 1990. York University in Toronto, Canada, developed the nitric oxide sensor and Utah State University in Logan developed the associated electronics package under contract to NOAA.

Thomas E. Ashenfelter leads the project for ARL.

"Over the past few years," says Dr. Lester Machta, Director of ARL, "there has been concern over the environmental effects of a large fleet of high-altitude jets. Part of this has been that certain combustion products -- pollutants -- would be introduced into the stratosphere, where, because there is very little vertical mixing, they would remain for years and be concentrated in relatively large amounts.

"Also, there has been speculation that one pollutant in particular -- nitric oxide -- could chemically destroy the stratosphere's ozone layer, reducing the shield and allowing more ultraviolet radiation to penetrate to the earth's surface.

"Until the present measurements were obtained, we had no in-place data on stratospheric nitric oxide concentrations, and so had no way of estimating or predicting the seriousness of these possibilities."

Coastal Zone Management Hearing Slated for New Orleans, La.

NOAA will hold a hearing January 24 in New Orleans, La., to obtain public views and suggestions on criteria for approval of State coastal zone management programs.

The meeting will be held from 9:00 a.m. to 5:00 p.m. in Room 105 of the Court of Appeals Building, 600 Camp Street, New Orleans.

The hearing, conducted by the Office of Coastal Environment, has been arranged so that persons and organizations wishing to be heard can make presentations of up to 20 minutes each. Presentations will be scheduled on a first-come first-serve basis, with priority given to those who have prepared statements.

A working paper outlining the issues to be faced in developing the criteria will be prepared and distributed by the Office of Coastal Environment to all persons who request in advance to be heard at the meeting. It will also be available at the meeting.

Following consideration of the comments received at this meeting, and a number of others being conducted at locations throughout the United States, the Office of Coastal Environment will prepare formal guidelines, which will be published in draft form in the Federal Register. Comments may also be submitted by mail to the Office of Coastal Environment, National Oceanic and Atmospheric Administration, Rockville, Md. 20852.

Fish Caught for Marketability Test



(From left) Captain Richard Adams, Master of the NOAA Ship Oregon II, and Johnny Butler, Chief, Support Operations Division, National Marine Fisheries Service Southeast Fisheries Center, Miami, Fla., with a supply of red shrimp gathered recently in the Gulf of Mexico. The research vessel caught 7000 pounds of tile fish and red shrimp to test their marketability among wholesalers in the St. Petersburg, Fla., area. Neither species is fished extensively, but Oregon II's scientists feel both are sufficiently plentiful and tasty to make deep ocean fishing worthwhile.

Correction

The photos at the bottom of page 2 and at the top of page 8 in NOAA WEEK of January 4, 1974, were inadvertently switched by the printer.

SCUBA/Surface Supplied Divers Are Trained at AOML for NOS



NOAA's Atlantic Oceanographic and Meteorological Laboratories, Miami, Fla., recently graduated another NOAA Advanced SCUBA/Commercial Shallow Water Diving Class, as qualified SCUBA/Surface Supplied Divers. The class consisted of 110 hours of instruction provided by AOML as a service to the National Ocean Survey's Atlantic Marine Center.

In the class graduation picture are: (Top row, from left) Lieutenant Floyd Childress, Office of Coastal Environment; Lieutenant A.Y. Bryson, NOAA Diving Coordinator; Dick Rutkowski, AOML, Course Director; Lieutenant Tom Berger, Rude/Heck, Assistant Instructor; (middle row, from left) Ensign Kenneth Perrin, Whiting; Ensign Kevin Regan, Researcher; Lieutenant Paul Durenberger, Researcher; Ensign David Pasciuti, Mt. Mitchell; (bottom row, from left) Ensign Charles Mason, Pierce; Michael Jones, Rude/Heck; Lieutenant (junior grade) Bradford Meyers, Whiting; Ensign Robert Pawlowski, Mt. Mitchell; Ensign Kenneth Holder, Pierce.

EDS Provides Climatic Data to Companies Interested in Tapping Alaska Oil Resources

The Environmental Data Service's National Climatic Center is providing climatic data to seven major oil companies interested in tapping the Alaska oil resources in the Prudhoe Bay area. These companies have formed a consortium to design, construct, and operate the facilities required to move crude oil from field to refinery. The proposed route of the pipeline traverses remote and sparsely populated areas for which climatic data are not abundant. Observational data were selected from the NCC files and, together with data secured at special camp stations operated by the consortium, were used to prepare pertinent data summaries for 23 sites along the proposed pipeline route. The summaries are being used to reach decisions concerning engineering design, pipeline insulation, pump station turbine requirements, air pollution potential, and construction schedules. Some sections of the proposed route require the pipeline to be above ground. In selected parts of those sections, the pipeline will be mounted upon supports to allow wildlife to migrate unimpeded.

Substance From Glowing Jellyfish May Aid in Disease Detection

The mysterious glow of Pacific jellyfish may lead toward improved detection of certain diseases in humans.

With Sea Grant support from NOAA, University of Washington scientists have found that a substance called aequorin, which gives the jellyfish its glow, can also be used to measure minuscule changes in calcium concentrations in a person's body fluids or cells. Such changes frequently are early signals of cellular destruction in the body, and point to the onset of diseases such as metastatic carcinoma, bone dysplasia, cardiac dysrhythmias, parathyroid disorder, and others.

Physiologist Dr. Kenneth Izutsu and Biochemist Samuel P. Felton produce a purified aequorin from the common jellyfish found in great numbers in Puget Sound at certain seasons. This jellyfish, known scientifically as Aequorea aequorea, can be seen to glow in the dark if held in a person's hand.

The Sea Grant scientists, staff members of the university's Fisheries Research Institute and Center for Research in Oral Biology, are developing two methods for using aequorin to measure the amount of calcium in such biological fluids as blood, saliva, urine, and cerebral spinal fluid. Changes in the amount of glow, or luminescence, is a measure of changes in the amount of calcium in the fluid being measured. Aequorin was first discovered in 1962 by Dr. Frank Johnson and Dr. Osamu Shimomura of Princeton University.

Four chemical companies have indicated interest in marketing aequorin on a test basis, or as a regular item in their catalogue, once the production methods are perfected. When this occurs, it is expected that all available supplies will be used by clinical chemists and physiologists.

The Sea Grantees point out that aequorin has two advantages over present methods of calcium determination--it is far more sensitive, and it does not require upsetting the balance of the system being measured. Aequorin can be used to measure calcium concentrations as low as 10^{-9} molar--approximately 40 parts per trillion. Aequorin is the only substance that can measure calcium within a single cell.

The scientists are also considering possibilities for non-medical applications of aequorin, such as studying the role of free calcium in fish spoilage and studying the role of calcium in the hatching of fish eggs.

Adm. Nygren Urges Bicycling, Carpools, Walking

Rear Admiral Harley D. Nygren, NOAA's Energy Conservation Project Manager, tells us:

--Within the next few weeks, bicycle racks will be installed at Rockville Headquarters buildings for use of NOAA employees. Hopefully, this convenience will encourage bicycle transportation to and from work.

--Wherever possible, bulletin board space should be made available for car pool information.

--Let us substitute human energy for other forms by walking instead of riding at every opportunity.

personnel perspective

NWS Announces Upward Mobility Training Plan for Technicians

In support of NOAA's expanded EEO effort in Upward Mobility which was described in the November 2, 1973, issue of NOAA WEEK, the National Weather Service is setting up a training course designed to create and develop technicians for meteorological, hydrological and equipment maintenance operations. The NWS course is in the Scientific Technician category of NOAA's new programs. The course will train employees who are in lower-grade jobs such as, clerks, technical aids, tele-typists, etc. and provide them with the opportunity to acquire the basic entrance qualifications for career fields which have greater advancement potential than their present occupations.

The course plan includes a twelve-week course in meteorological technician skills at the NWS Technical Training Center (NWSTTC) in Kansas City, Missouri. Since trainees will come from widely different technical and communication skill levels, the teaching approach will be tailored to such a classroom situation. Each person will enter this course at his or her level of technical competence. As far as possible the pace of instruction will be adjusted to each student. After satisfying NWSTTC school objectives, trainees will be reassigned to field stations for on-the-job training.

Course material will emphasize basic meteorology and observational techniques in both surface and upper-air observing. There will be frequent evaluation during the course to determine progress and to select persons who might branch off into hydrological technician training and into electronic equipment maintenance. This Basic Weather Observer Course will prepare trainees to enter on-the-job training at any station with surface and/or upper-air programs.

Another aspect of the course plan is a training course in basic electronics. Electronic technician trainees will receive instruction in basic electronics and basic meteorological equipment maintenance for a total of about 24 weeks, before being assigned to on-the-job training at a field location. Some of the basic electronic training may be given at a location other than the NWSTTC.

Students will be selected from NOAA offices around the country, in accordance with the brochure, Scientific Upward Mobility Training Programs, October, 1973, which was distributed to all NOAA employees. Current employees, including intermittent workers and seasonal workers on leave without pay, will be transferred at government expense to full-time temporary positions in Kansas City. The Civil Service Commission is presently being

asked to approve a training agreement so that employees, GS-4 and above will not have to drop back in grade for the training period. The "Technical Aid" or other register (see the brochure) may be used to bring into the program seasonal employees who are normally terminated at the end of the season (such as summer aids).

When a student completes the course at NWSTTC, he or she will be reassigned to an NWS field station for on-the-job training and experience. After a total NWSTTC/OUT time of about one year, the student will be given a full-time permanent assignment at that station or another. This target position will be a GS-7 or 8 position which the participant may fill at a lower grade, but can progress to the higher grade of the position without competition. Also there are many opportunities to compete for higher-grade jobs (non-supervisory to GS-11, higher for some supervisory jobs) at other weather stations, depending on continued progress in the technical field. There are over 2200 meteorological technician jobs in the NWS alone, over 2500 in all of NOAA, in every state in the Union, as well as overseas. There are about 500 electronics technician jobs in NWS and a small but growing number of hydrologic technician positions.

Application procedures are described in the brochure. Applicants for the NWS program should be aware that most NWS employees work rotating shifts, including day, evening and midnight shifts. This is because most weather observing and forecasting offices are open continuously. Extra pay is provided for night and Sunday work, and also for overtime and holidays worked. Also, persons applying should understand that advancement in the National Weather Service often means moving to a different geographical area. NWS will place all graduates of the program in responsible, important jobs. About half-way through the training course at NWSTTC and again during on-the-job training at a field office, students will be asked where they want to be located. NWS will try to place participants where they want to be assigned, but opportunities for permanent placement will be limited to locations where vacancies exist or are expected to occur in a reasonable time. Of course, relocation of employees will be at government expense.

The starting date for the first Basic Weather Observer Course has not yet been set. For this reason, the previously announced closing date for the Scientific Technician program does not pertain to this particular course plan. A closing date for applications for this course will be announced later.

New Interest Rates for U.S. Savings Bonds Announced

The White House has announced an increase in the interest rate offered on U.S. Savings Bonds from 5 1/2 percent to 6 percent. Also the maturity rate on E Bonds has been shortened from five years, ten months to five years.

The increase, which became effective December 1, 1973, also includes an improvement on all outstanding Bonds. They will now earn an extra 1/2 percent for each semiannual interest period beginning on or after that date until their next maturity. Some questions and answers about the new interest rates follow:

1. What Savings Bonds are affected by the new 6 percent rate?

Answer: All Series E and H Savings Bonds -- both new and outstanding issues.

2. How is interest paid on the Bonds?

Answer: Series E Bonds are accrual-type securities, sold at 75 percent of face value. Interest is paid by gradual increase in redemption value. E Bonds now mature in five years; older E Bonds had various original maturity lengths, ranging from five years and ten months, to ten years.

Series H Bonds are current-income securities, sold at face value. Interest is paid by semiannual checks issued by the Treasury. H Bonds mature in ten years.

3. What about the higher interest rate?

Answer: Series E Bonds now on sale return 6 percent interest, compounded semiannually, when held to maturity of five years. They earn 4 1/2 percent the first year; thereafter, interest will increase on a graduated scale, raising the yield to 6 percent, from issue date to maturity.

Series H Bonds now on sale also return 6 percent, when held to maturity of ten years. They earn 5 percent the first year, 5.80 percent the next four years, and 6 1/2 percent the second five years -- raising the rate to an average of 6 percent for the ten-year period.

4. What about my older E and H Bonds? Will they also pay more, or should I cash them in and buy new Bonds?

Answer: Older E and H Bonds have also had their yields improved, so there would be no advantage in redeeming your present holdings to buy new Bonds. Here's how older Bonds are affected by the higher rate --

SERIES E BONDS --

All outstanding Bonds will receive a 1/2 percent increase in yield for semiannual interest periods, beginning on or after December 1, 1973, payable upon redemption.

SERIES H BONDS --

All outstanding Bonds will receive a 1/2 percent increase in yield for semiannual interest periods, beginning on or after December 1, 1973, payable in the form of increased semiannual interest payments.

5. Is there any limit on the amount of Savings Bonds one may buy?

Answer: Yes. The annual limit on Series E Bonds is \$5,000, issue price; the yearly limit on Series H Bonds is \$5,000, face amount.

6. Are outstanding "Freedom Shares" also affected by the new rate?

Answer: Yes. All outstanding "Freedom Shares" will receive a 1/2 percent increase in yield for semiannual interest periods, beginning on or after December 1, 1973, payable upon redemption.

American Red Cross Announces Changes in Blood Donor Policy

The American National Red Cross recently announced changes in its policy governing who may donate blood. The changes, which broaden the population base from which the Red Cross may attract donors, are as follows:

1. The permissible age for donating blood has been lowered to 17.

A consent note from a parent or guardian is required unless the volunteer donor is married, self supporting, or in the armed forces.

2. Persons with a history of malaria, who for years have been excluded from giving blood are now eligible to donate. It has been found that persons who have had malaria can be accepted as donors after three years following recovery from the disease.

3. Persons who have immigrated to the United States from malarial

areas in Africa, the Middle East, and Latin America may donate after six months, provided they have been free of symptoms and have not taken anti-malarial drugs. Those persons who have taken anti-malarial drugs may donate three years after discontinuance of the drug if they have not had malaria in the interim.

The U.S. Center for Disease Control has released recent scientific data which states that the blood of such donors presents no hazard to patients receiving it.

Donating one pint of blood provides you with total blood need coverage for one year from the date of donation for yourself and your: spouse, children under 18, parents, parents-in-law, grandparents, grandparents-in-law, and relatives living in the same home who are economically dependent on you.

recipe of the week



GREAT LAKES PERCH CHOWDER

1 pound yellow perch fillets, fresh or frozen
1-1/2 cups water
1/2 teaspoon salt

1 package (10 ounce) frozen baby lima beans
1/2 teaspoon seasoned salt

2 cans (10-3/4 ounce each) condensed cream of
chicken soup
1-1/2 cups milk
1 tablespoon onion powder
Dash liquid hot pepper sauce

4 slices bacon, fried crisp and crumbled
1 teaspoon chopped fresh parsley

Crackers, sea toast, or hot buttered French
bread

Thaw frozen fish; cut in 1-inch chunks.
Combine fish, 1/2 cup water, and salt in
saucepan. Cover; bring to boil. Set aside.
Combine remaining 1 cup water, beans, and
seasoned salt in 3-quart saucepan; bring to
a boil. Cover and simmer 10 to 15 minutes
or until beans are tender. Add soup, milk,
onion powder, and hot pepper sauce; mix
well. Add undrained fish. Cover; bring to
simmering stage. Garnish with bacon and
chopped parsley. Serve with crackers, sea
toast, or hot buttered French bread. Makes
6 servings.

Report May Aid Energy Research Efforts in Coastal Zone

A new report valuable to energy research efforts in the coastal zone, "Environmental Conditions Within Specified Geographic Regions: Offshore East and West Coasts of the United States and in the Gulf of Mexico," has been published by the Environmental Data Service. The report, prepared for the National Ocean Survey's National Data Buoy Center, consists of data in standard format containing regional parameters and phenomenological characteristics. It provides an analysis of regional environmental conditions for planning data buoy tests, supporting engineering design, assisting buoy deployment, and testing buoys and buoy networks.

The report should prove valuable to scientists and engineers making decisions in marine areas or preparing environmental impact statements, and also prove useful to those interested in petroleum prospecting, drilling, production, and logistics; construction and operation of offshore power plants and deepwater terminals; development of new energy sources in the marine environment; and transportation and recreation activities. Copies of the publication may be obtained from the National Technical Information Service, Department of Commerce, Sills Building, 5285 Port Royal Road, Springfield, Va. 22151. Price: \$14.25 paper copy; \$1.45 microfiche. Ask for accession number COM-73-11775/AS.

Sahara Dust (Continued from page 1)

which may be 15,000 to 20,000 feet deep in summer. As this hot, dusty air emerges from the west coast of Africa, it is undercut by relatively cool, moist trade winds which confine the desert air to altitudes above 4,000 to 6,000 feet. Over the ocean the warm desert air becomes sandwiched between the low-level moist trade wind air below and the 15,000- to 20,000-foot level which corresponds to the top of the desert mixing layer.

Dr. Carlson, interested in dust from a meteorological standpoint, and Dr. Prospero who has been studying the chemical properties of the dust for several years, pooled their expertise to determine the movement of Saharan air to the Caribbean and its various atmospheric effects.

Dr. Carlson and Dr. Prospero plan to mount an extensive investigation of the Saharan air layer -- and how it interacts with tropical weather systems -- during GATE, the Global Atmospheric Research Program (GARP) Atlantic Tropical Experiment planned for 1974.

Harry F. Wahlgren Dies

Harry F. Wahlgren, former Meteorologist in Charge and Climatological Section Director at Oklahoma City, Okla., died recently in Oklahoma City. He had served the Weather Bureau more than 50 years when he retired in 1956. Survivors include three daughters, a brother, and two sisters.

length of service

National Weather Service Southern Region employees who received Length of Service Awards in October were: 30 years - Earnest C. WELLS, WSO Atlanta, Ga.; Leroy B. HAGOOD, WSO Brownsville, Tex.; Robert S. SHEARSTON, WSO Jacksonville, Fla.; and Leland M. FRANCIS, WSO Tampa, Fla. 25 years - Thomas L. KIRKPATRICK, WSO Galveston, Tex.; and Robert R. HILL, WSO Tampa, Fla. 20 years - David H. OWENS, WSO Austin, Tex.; James R. COLE, WSO Corpus Christi, Tex.; Kenneth T. GISH, WSO Midland, Tex.; John J. DOWNING, WSFO New Orleans, La.; Christino A. TRUJILLO, WSFO San Juan, P.R.; Roy L. ROBERTS, Jr., RFC Slidell, La.; and Winfred E. MAUM, WSMO Slidell, La.

National Weather Service Western Region employees who received Length of Service Awards in November were: 30 years - Robert E. BLACKSTONE, WSO Los Angeles, Calif.; and Conrad F. PRAETZEL, Jr., WSFO San Francisco, Calif. 25 years - Richard B. BURGESS, WSO Lewiston, Idaho; Eugene G. HARDING, WSO Tucson, Ariz.; and Dean C. HIRSCHI, WSFO Salt Lake City, Utah. 20 years - Robert J. BURNASH, RFC Sacramento, Calif.; and Mabel V. STUCKE, WSMO Burns, Oreg.



John M. PATTON, Jr. (left), Director of the Northwest Administrative Service Office in Seattle, Wash., received his 35-year Length of Service Award from Dr. Robert M. White, NOAA Administrator, in November

National Weather Service Central Region employees who received Length of Service Awards in November were: 30 years - Stanley E. BALDWIN, WSO East Lansing, Mich.; Alden A. CLEMONS, WSFO Chicago, Ill.; John D. GHOLSON, WSO Dodge City, Kans.; Thayne O. MAUCH, CRH Kansas City, Mo.; and Charles F. TRAINER, CRH Kansas City, Mo. 25 years - William P. RAY, WSFO Detroit, Mich. 20 years - Dean I. COLE, WSO Evansville, Ind.; August F. KORTE, WSFO Detroit, Mich.; and Thomas A. MARTINAK, CLSC Kansas City, Mo.

NOAA Headquarters employees who received Length of Service Awards in November were: 40 years - Gordon D. CARTWRIGHT. 30 years - Julius W. KEIL, Leo R. QUENNEVILLE, Margaret P. WILSON, Horace W. BROADUS, Rufus D. MITCHELL, Elizabeth G. ZOOK, Allen G. KORNMAN, Marcus W. BROOKS, James I. ELLIOTT, and Benjamin J. LeBLANC. 25 years - Maurine S. REED, John HUSON, Julia M. PITTMAN, Leonard A. PASS, and William T. FENWICK. 20 years - Francis A. SLY, Betty M. FELDMAN, David V. MARSHALL, Mary F. HUTCHINSON, Albert O. SNOW, and Mary Louise SIMMS.

Ocean Current Data Obtained By Three Universities Available

The Environmental Data Service's National Oceanographic Data Center has three new instrument-measured ocean current data files available that were obtained from Nova University, University of Hawaii, and Woods Hole Oceanographic Institution. The data from Nova University were taken by a method in which the instrument falls freely to a preselected depth, releases its ballast, and returns to the surface. The University of Hawaii data were taken by use of moored buoys primarily in depths of up to 100 meters (several as deep as 1,000 meters) and by use of paddle wheel and Geodyne self-recording current meters. The current data obtained from WHOI, collected with Richardson type meters, contain a large number of observations taken off the east coast of the United States as far east as longitude 63°W. This collection also includes observations taken in the Denmark Strait, the Western Mediterranean, the Sea of Japan, and other areas off Japan. All data are on magnetic tape or punched cards and can be obtained in the originator's format.

Requests for these data, documentation, and other specifics should be addressed to the National Oceanographic Data Center, NOAA, Rockville, Md. 20852.

Arthur W. Walstrom Dies

Arthur W. Walstrom, former Director of the National Weather Service Central Region, died on December 14. He had served the NWS for 35 years at the time he retired in 1960.

He held several positions in Detroit, was Assistant Director at the old Chicago Regional Administrative Office, and served as Meteorologist in Charge at Cincinnati before becoming Director at the Kansas City Headquarters in 1956.

Survivors include Helen P. Walstrom, his widow; a daughter, Mrs. Brock of Bonita, Calif.; and a son, Arthur J. Walstrom, 415 Sunset Road, Barrington, Ill. 60010. Mrs. Walstrom will be at the latter address for the next several weeks.

Harris M. Perry Dies

Harris M. Perry, former Official in Charge of the Cape Henry, Va., Weather Service Office, died on December 27. He retired in 1966 after 48 years' service at the Cape Henry Station. His widow, Mrs. Sally Davis Perry, resides at 2405 Lloyd Drive, Chesapeake, Va. 23325.

Ernest W. Vogt Dies

Ernest W. Vogt, former Systems Accountant in the Systems Branch of the NOAA Finance Division, Rockville, Md. died on December 30 in Sequim, Wash. He had retired in 1971 after 30 years' Federal service. Mrs. Vogt's address is Route 4, Box 1067, Sequim, Wash. 98382.

notes about people

Dr. James R. Wait

Dr. James R. Wait, Director of the Theoretical Studies Group within the Environmental Research Laboratories in Boulder, Colo., has been chosen to guest edit a special publication on extremely low-frequency communications produced by the Institute of Electrical and Electronics Engineers as part of their Transactions on Communications series.

Dr. Wait is a fellow of the Cooperative Institute for Research in the Environmental Sciences at the University of Colorado, and a consultant to the Commerce Department's Office of Telecommunications in Boulder.

He is internationally recognized as a leader in theoretical studies of electromagnetic wave propagation in the earth and its atmosphere. His work in the area of wave-guide theory is considered basic to understanding the propagation of radio waves in the ionosphere. He received the 1973 NOAA Award for scientific research and achievement.

Dr. Robert L. Fleischer

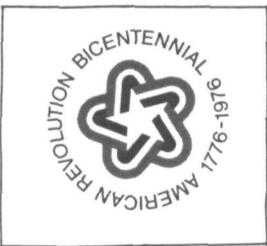
Dr. Robert L. Fleischer, a physicist with the Physics and Electrical Engineering Laboratory of the General Electric Research and Development Center in Schenectady, N.Y., is spending a one-year sabbatical in Boulder, Colo., studying lightning, aerosols, and nucleation chemistry at the Environmental Research Laboratories' Atmospheric Physics and Chemistry Laboratory and the National Center for Atmospheric Research.

Dr. Fleischer has received numerous scientific awards including the National Aeronautics and Space Administration's Exceptional Scientific Achievement Award, the E.O. Lawrence Award from the U.S. Atomic Energy Commission, the American Academy of Achievement's Golden Plate Award and two General Electric Inventor's awards. In 1964, along with Drs. P.B. Price and R.M. Walker, Dr. Fleischer was the recipient of the American Nuclear Society's Special Award for Distinguished Service in the Advancement of Nuclear Science.

He holds BA, MA, and Ph.D. degrees in engineering sciences and applied physics from Harvard University.

Rene Cuzon du Rest

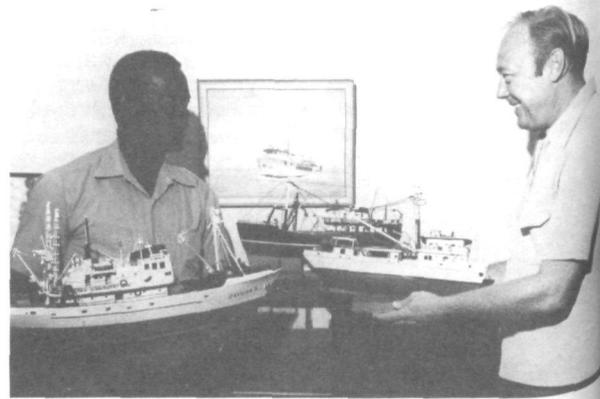
Rene Cuzon du Rest, of the Environmental Data Service's National Oceanographic Data Center, has been detailed to the Office of the Secretariat of the Intergovernmental Oceanographic Commission in Paris, France, for a six-month period. Mr. du Rest, an expert in marine sciences, training, and education, will occupy this position until a permanent Assistant Secretary is selected.



Dr. James E. Overland

Dr. James E. Overland, who recently joined the National Weather Service's Office of Hydrology, has been awarded the Edwin L. Fisher Memorial Award by the Department of Meteorology of New York University. The award was made in recognition of Dr. Overland's outstanding independent research for his doctoral dissertation entitled: "A model salt intrusion in a partially mixed estuary." Dr. Overland, who is currently investigating storm surge propagation into estuaries, received his Bachelor's degree in physical oceanography in 1970 and Master's degree in 1971, both from the University of Washington. The award is named for Dr. Edwin L. Fisher, a Senior Research Scientist and Adjunct Professor of Meteorology at NYU before his death in 1962.

Ernest William



Ernest William, Skilled Fisherman aboard the NOAA Ship *Oregon II*, shows Harvey Bullis, Director of the National Marine Fisheries Service's Southeast Fisheries Center, some hand-carved models he built during his off-watch hours aboard NOAA's Fishery Research vessels. Mr. Williams has made more than 50 models of NOAA research vessels and commercial fishing vessels during his 17 years service with NMFS and its predecessor, Bureau of Commercial Fisheries. Material for the models is foraged from empty crates, cooking oil tins, and other discards.

Dr. Frank H. Quinn

Dr. Frank H. Quinn, Chief of Lake Survey Center's Lake Hydrology Branch, presented a paper entitled, "Ice Information Collection, Dissemination and Use on the Great Lakes," at the Interdisciplinary Symposium on Advanced Concepts and Techniques in the Study of Snow and Ice Resources. The conference, held in Monterey, Calif., in December, was a United States contribution to the International Hydrological Decade. It was called to identify and discuss new concepts and techniques that may be applicable to the effective management of snow and ice resources.

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