

## Solar Flares Affect Global Circuit Theory

Large electrical currents detected over the South Pole during a solar flare offer evidence that atmospheric electricity is directly influenced by the sun, according to NOAA scientist William E. Cobb.

These findings sharply contradict the prevailing "global circuit theory" which describes how electricity flows from the earth to the atmosphere and back again. This theory holds that the electrical current which flows upward from thunderstorms is balanced by a weak, but widespread, air-to-earth current observed in fair weather, and that the global circuit of atmospheric electricity is controlled solely by thunderstorms.

The recently analyzed South Pole measurements provide strong evidence to the contrary, indicating that bursts of energetic particles and radiation from solar flares strengthen this ordinarily weak return current. This would make the sun an important partner in regulating electricity in the global atmosphere.

In addition, Cobb said, it is possible that this increased electrical activity may cause the formation of more lightning strokes in thunderstorms, which in turn could affect the rain-producing efficiency of the 1500 thunderstorms estimated to be in progress over the earth's surface at any given moment.

The electrical currents were detected last November by balloon-borne "electrosondes" launched from Amundsen-Scott Station, as part of a continuing research effort by the Atmospheric Physics and Chemistry Laboratory, one of NOAA's Environmental Research Labora-

(Continued on p. 2)

## NOAA Gets 11 Gold, 21 Silver

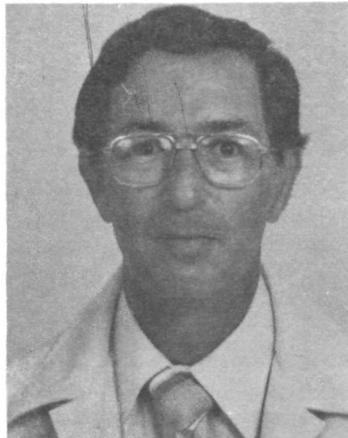
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# DOC Awards Gold, Silver Medals

## Epstein Heads National Climate Program Office

A National Climate Program Office has been established with the Office of the NOAA Administrator and Dr. Edward S. Epstein named Director, Administrator Richard A. Frank has announced.

Establishment of the National Climate Program, and the Office



Dr. Edward S. Epstein

to administer it, result from adoption of the National Climate Program Act of 1978, recently signed by President Carter. The Secretary of Commerce directed that the program be established within NOAA.

In his new role, Epstein will report to Dr. Ferris Webster, Assistant Administrator for Research and Development. A separate NOAA Climate Program will be located in Oceanic and Atmospheric Services to coordinate NOAA's climate-related activities as part of the national program.

The purpose of the National Climate Program is to assist the nation and the world to understand and respond to natural and man-induced climate processes and their implications.

Because weather and climate affect food production, energy

use, land use, water resources and other factors vital to national security and human welfare, and because the Federal Government had not given sufficient attention to assessing and applying information available, the program was enacted.

"Climate fluctuation and change occur on a global basis, and deficiencies exist in the system for monitoring global climate changes. International cooperation, for the purpose of

(Continued on p. 2)

Twenty-two NOAA employees and two NOAA ships crews have been awarded Department of Commerce gold and silver medals by Secretary of Commerce Juanita Kreps in ceremonies on October 23.

Gold medals, given for contributions of major significance to the Department, the Nation, or the world went to eleven employees. Silver medals, for contributions of unusual value, including unusual courage or competence in an emergency, were given to 11 employees and to the crews of the NOAA ships Heck and Rude.

See page 4 - 5.

## Combined Federal Campaign Awards



Administrator Frank poses with CFC key persons who received awards for their offices, Carolyn Arnoult, PE&B, and Jack Eberly, Office of the Administrator for OAS, and Michael Binder, CFC Coordinator.

The first NOAA Administrator's CFC awards have been made to the Office of Program Evaluation and Budget whose 48 employee staff has achieved 148% of the monetary goal and 96% of the participation goal, and to the Office of the Assistant Administrator of OAS, whose 62 employee staff has achieved a 160% money goal with 92% participation.

The Combined Federal Campaign in the Washington, D. C. area is in its final weeks and about half of the reporting offices boast outstanding performances. Administrator Richard A. Frank again expressed his desire to see increased participation in helping NOAA achieve its goal in helping the many worthwhile organizations that benefit from the CFC.

(See page 2 for latest status.)

## Year-Long Environmental Project Begins Off Louisiana Coast

NOS has successfully deployed more than \$250,000 in state-of-the-art oceanographic instruments for a year-long environmental project off the coast of Louisiana, according to Project Manager, Dr. Henry Frey.

The instruments, which have been installed on newly designed subsurface and offshore oil production platforms, are being used to obtain data to support both the Department of Energy's Strategic Petroleum Reserve Program and shrimp studies being conducted by NOAA's National Marine Fisheries Service. Included in the measurements are sea current speed and direction, conductivity, dissolved oxygen, both air and water temperature, wave heights, water levels, wind speed and direction, and barometric pressure.

The field effort is being ac-

complished by the NOAA ship Ferrel, a 133-foot, computer-equipped vessel especially designed for circulatory surveys. Data from the instruments are in the form of digital magnetic tapes which are transcribed to computers aboard the Ferrel. Water samples, also obtained by the Ferrel, are analyzed for salinity and dissolved oxygen.

"The NOS Strategic Petroleum Reserve Support project team," said Frey, "has mobilized this very ambitious project and has begun its field work within six months—a crash schedule—considering that instrumentation and equipment had to be selected, or designed, procured, tested and evaluated, calibrated, and integrated aboard the Ferrel."

The Ferrel will recover data tapes and conduct equipment maintenance each month for one year.

### CFC Status

As Of 10/25  
NOAA Washington Area

|                                    | P*        | \$+        |
|------------------------------------|-----------|------------|
| <b>Office of the Administrator</b> | <u>72</u> | <u>113</u> |
| Office Staff                       | 83        | 104        |
| CL                                 | 62        | 79         |
| PA                                 | 83        | 131        |
| NOAA Corps                         | 56        | 41         |
| GC                                 | 71        | 119        |
| P&P                                | 30        | 82         |
| OM                                 | 40        | 119        |
| PE&B                               | 96        | 149        |
| <b>NMFS</b>                        | <u>51</u> | <u>75</u>  |
| <b>OCZM</b>                        | <u>82</u> | <u>145</u> |
| <b>ADMIN</b>                       | <u>59</u> | <u>69</u>  |
| <b>R&amp;D</b>                     | <u>69</u> | <u>133</u> |
| Office Staff                       | 61        | 123        |
| ERL                                | 65        | 159        |
| OE                                 | 83        | 124        |
| OSG                                | 68        | 149        |
| <b>OAS</b>                         | <u>42</u> | <u>71</u>  |
| Office Staff                       | 94        | 160        |
| NWS                                | 33        | 71         |
| NOS                                | 50        | 57         |
| EDIS                               | 47        | 104        |
| NESS                               | 33        | 72         |
| <b>NOAA TOTAL</b>                  | <u>48</u> | <u>76</u>  |

\* % of participation

+ % of dollar goal

### Flares (From p. 1)

tories, in Boulder, Colo., and the National Science Foundation.

Coincidentally, the first balloon was released seven hours before a solar flare occurred. While that sounding showed the atmospheric electric conditions in their normal state, subsequent ones detected a strong increase in the air-to-earth current over the next two days, which finally exceeded the measuring capacity of the electrosonde at altitudes of 16 to 19 miles (25 to 30 kilometers). From the stratosphere to the surface, Cobb reported, the measured electrical current exceeded values obtained before the flare by more than 70 percent.

This surge was followed by a gradual return to the weak "normal" current that flows from the atmosphere to the earth in fair weather.

According to Cobb, these large fluctuations in electricity strongly reinforce previous findings at mountain observatories in Hawaii and Germany, and indicate that the global circuit theory should be revised to accommodate solar, as well as thunderstorm, effects.

## For Special Achievement...



Dr. Wilmot Hess



David S. Johnson

Dr. Wilmot Hess, director of the Environmental Research Laboratories in Boulder, and David S. Johnson, director of the National Environmental Satellite Service in Suitland, Md., were awarded Special Achievement Awards for their significant contributions to NOAA. The \$1000 awards were presented at the NOAA Awards Ceremonies, October 6, in Washington, D.C.

Hess and Johnson were honored specifically for their work during the transition of NOAA Administrators.

### Epstein Heads Office (From p. 1)

sharing benefits and costs of a global effort to understand climate, is essential," the Act states. The new Office will serve as the principal focus for coordinating U.S. participation in the World Climate Program that is currently under development.

Under the Act, the Secretary of Commerce and the new Office have been charged to carry out their leadership responsibility in such a way that the other Federal agencies, as well as State and local governments and private interests, perceive the climate program not as a Department of Commerce effort, but as a national partnership, utilizing the best talents and capabilities of all participants in both planning and execution. The Office staff includes employees from other Federal agencies and from private institutions.

Before his current appointment, Epstein was Acting Assistant Administrator for Research and Development. He has been with NOAA since 1973. Before coming to NOAA, he was chairman of the Department of Atmospheric and Oceanic Science at the University of Michigan.

A native of New York City,

Epstein graduated from Bronx High School of Science in 1947, Harvard College in 1951 and received an M.B.A. degree from Columbia University Graduate School of Business Administration in 1953. His M.S. degree in 1954 and his doctorate in 1960 were earned at Pennsylvania State University.

### NOAA NEWS

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

Norma V. Reyes, Editor

Warren W. Buck, Jr., Art Director

# NOAA Celebrations of Hispanic Heritage Week

Hispanic Heritage Week was celebrated in September by several NOAA components. The celebrations were aimed at acquainting non-Hispanics with the culture, food, and history of the people comprising one of the largest minority groups in the U.S. Some offices made a particular effort to acquaint the Hispanic public with NOAA.

The Northwest Administrative Services Office (NASO) in Seattle had presentations by James Vasquez, professor from the University of Washington, and Victoria Lauber of SER, Jobs for Progress. A film, "Our Hispanic Heritage," was also shown. NASO had an employment and information booth at the Seattle Center Pavilion.

The Environmental Research Laboratories in Boulder celebrated with other Department of Commerce agencies in the area. Richard Castro, State Representative from West Denver, was the guest speaker for the kick-off luncheon. Florence Saiz, author of *La Chicana* gave a talk on Hispanic women in the West. Professor Leonard Baca, Director of the Bilingual/Bicultural Program at

the University of Colorado, talked on the contribution of Hispanics to the history of Colorado. Several films were shown throughout the week. Meanwhile, in Alaska, the

National Weather Service Office had a luncheon featuring a variety of Mexican food. Juanita Miranda of the Management Service Division was in charge of putting it all to-

gether.

Maria Aragon of the Personnel Division arranged a display of items of Hispanic origin, inviting local Hispanics to participate.



Richard Garcia, Colorado State Representative from West Denver, was featured speaker at Hispanic Heritage luncheon in Boulder.



Juanita Miranda, NWS Alaska Region Headquarters, looks over the Mexican food, as Stuart Bigler, Region Director, heads the line.



Dawn Elliott and Maria Aragon, NWS Personnel, Alaska, pose in front of Hispanic display.



John Pierce, Chief, Engineering Division, watches Alma de Quick help Stuart Bigler, Region Director, try on a jacket made by the Quiche Indians of Guatemala.

## Jarvis Christian College Gets Aid From NWAFC Program

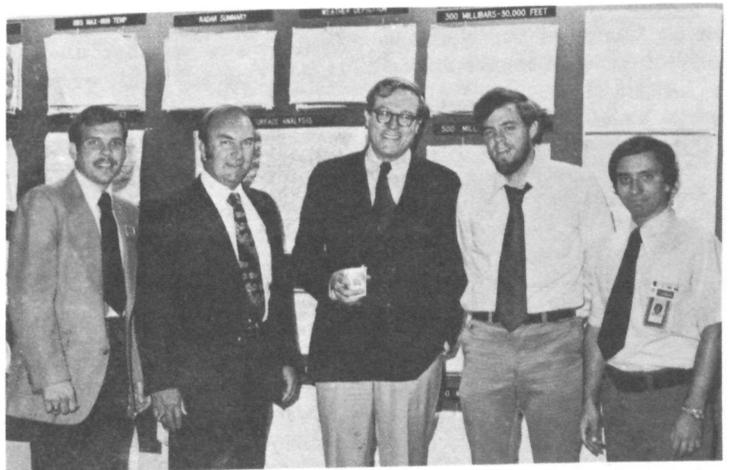
Dr. Robert E. Massingale, a professor of chemistry at Jarvis Christian College, Hawkins, Texas, has just completed a 10-week assignment with the National Marine Fisheries Service's Northwest and Alaska Fisheries Center (NWAFC) in Seattle, Washington. During his stay at the NOAA Laboratory, Dr. Massingale worked with a team of scientists, specifically with Dr. Usha Varanasi of NWAFC, from the Center's Environmental Conservation (EC) Division on the biochemical effects of petroleum hydrocarbons on marine fish.

Studies in marine organisms necessary for the understanding of the overall impact of

petroleum exposure on viability of marine organisms. These experiments involve use of sophisticated biochemical techniques.

Dr. Massingale completed an initial phase of the experiments and will be applying these newly learned techniques in his study of the interactions of petroleum indigenous to the Southwest. In these new endeavors, he is encouraged to consult with the staff of the Center's EC Division.

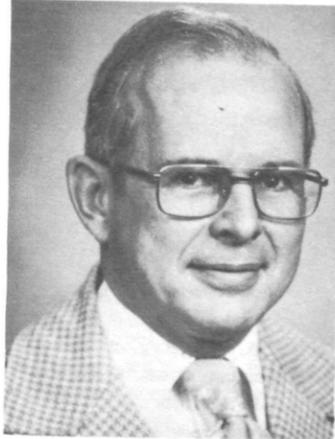
By assisting and fostering interest in current research problems among the faculty members of predominantly minority schools, the Center hopes to assure the availability of candidates for future recruitment.



Langhorn M. Bond, Administrator for the Federal Aviation Administration (center), toured the Center Weather Service Unit at the Boston Air Route Traffic Control Center in Nashua, N.H. during a recent Open House. Administrator Bond was also on hand to present Boston Center's Chief Donald L. Turner (second from left) with the Facility of the Year Award and meet with CWSU Meteorologists Eugene P. Auciello (left), Barry A. Richwein (second from right) and Thomas J. DeGregorio (right).

# NOAA's Department of Commerce Gold and Silver Medalists

Leonard W. Snellman, Chief of the Scientific Services Division of the National Weather Service's Western Region Headquarters in Salt Lake City, Utah, has been awarded a Commerce



**Snellman**

Department gold medal for outstanding applications of meteorological research to operational weather forecasting.

In nominating Snellman for the medal, NOAA officials listed his full exploitation of computer products to achieve the best "man-machine mix," his innovations in the use of satellite imagery from land areas, and his leadership in developing a videotape training program of high quality.

Clifton W. Green, Meteorologist in Charge of the National Weather Service Forecast Office in Jackson, Miss., and Earl W. Estelle, Chief of the Public Serv-



**Green**

ices Branch, NWS headquarters, have been awarded gold medals for their work with NOAA

Weather Radio.

Green's award is for initiating the concept of Federal-State cooperative agreements for rapid and cost-saving installations of NOAA Weather Radio transmitters throughout the United States. His pioneering effort in Miss., was a model for similar agreements subsequently negotiated by Estelle in more than 35 states.

Estelle's award is for his work in negotiating the fast-paced and cost-saving agreements with State governments, enlisting their aid in installing and maintaining the transmitters.

There are now more than 225 transmitters operating. By late 1979, there will be about 340, providing the U.S. population with easy access to the latest



**Estelle**

continuous weather observations, forecasts and warnings, seven days a week. The cooperative agreements will save the Federal government millions of dollars.

Dr. Donald Barrick, Michael Evans, and Dr. Bob Weber of the Environmental Research Laboratories' Wave Propagation Laboratory in Boulder, Colo., were awarded the gold medal "to recognize the outstanding contributions of the three persons responsible for creating the unique Coastal Ocean Dynamics Application Radar (CODAR) oceanographic measurement system."

When positioned to overlook coastal waters, the portable radar system measures ocean currents out to distances of 70 kilo-

meters (40 miles) from shore over an area up to 5,000 square kilometers (2,000 square miles) and produces a map depicting ocean currents in virtual real time.



**Barrick, Evans, and Weber**

Dr. Norton Strommen, Dr. Sharon LeDuc, and Dr. Clarence Sakamoto research scientists with NOAA's Environmental Data and Information Service in Columbia, Mo., received a gold medal for their unique contributions to national programs to alleviate the impact of climatic fluctuations on world food supplies.



**Strommen, LeDuc, and Sakamoto**

The research team conceived, developed, and successfully tested crop yield/climate models that provided timely and accurate estimates of future wheat yields for the U.S. Great Plains and six foreign countries. These were developed to meet NOAA's commitment to resolve problems related to world hunger through mathematical crop/climate modeling for the Large Area Crop Inventory Experiment (LACIE)—a joint U.S. Department of Agriculture, NASA, NOAA project.

Yao developed an original Climate/Agriculture Alert System, assisted by Reid, in response to the widespread western U.S. drought in early 1977. They used this system to compute statistical probabilities of receiving sufficient rain for a normal corn and wheat crop, as well as for alternate crops with lower moisture requirements. In accomplishing this prior to spring planting and a two week inter-

Malcolm Reid and Dr. Augustine Y.M. Yao, meteorologists with NOAA's Environmental Data and Information Service, received a gold medal for outstanding leadership and co-

val, they synthesized data on climate, weather, soil moisture and



**Yao and Reid**

individual crop water requirements into a form that directly aided the wheat and corn farmer in selecting the best available crop planting options.

A silver medal was awarded to Joe Haskell Allen, a geophysicist with NOAA's Environmental Data and Information Service for his outstanding leadership and accomplishment in promoting international, multidisciplinary cooperation in the International Magnetospheric Study (MS) as head of its Central Information Exchange Office.

A silver medal was presented to Harold G. Beard, a geodetic technician with the Field Operations Branch, Operations Division of the Office of National Geodetic Survey in Rockville, Md. He received the silver medal award for "his sustained high performance and as field coordinator for the Southern California Releveling Project (SCRIP), a vital part of the Federal Earthquake Hazards Reduction Program. His exceptional accomplishments exceeded the highest levels expected for every phase of the project which is critical to a better understanding of earthquakes and crustal motion."

Willette M. Carlton, a principal scientist with the National Weather Service, World Weather

Building, was awarded a silver medal for key contributions to the Center's primary weather support mission.

In nominating Carlton for the medal, NOAA officials cited her exceptional skill in designing, developing and implementing sophisticated systems for operating the National Meteorological Center's numerical prediction models.

Robert R. Freeman, deputy director of NOAA's Environmental Science Information Center, received a silver medal for outstanding contributions in developing and implementing NOAA's Oceanic and Atmospheric Scientific Information System (OASIS), initiating the Regional Coastal Information Center program, and expanding the international Aquatic Sciences and Fisheries Abstracts.

Leon R. LaPorte, physical scientist in the Environmental Data and Information Service, received a silver medal for his invaluable and long-term contributions to national and international publication and exchange of scientific data and information resulting from large-scale, multinational, environmental research projects.

Elliott A. Macklow has been awarded a silver medal for his consistent production of award-winning films concerning NOAA activities.

Films produced by Macklow are seen by millions of persons each year. Theatrical versions have been made of several of his films for showing at Rockefeller Center and other major commercial theaters around the country.

In producing films, the NOAA employee personally supervises every production in the field, views every frame of film shot, selects the music, and participates in the editing and mixing.

A silver medal—was presented to Captain Ray E. Moses, Mana-

ger of the Marine Data Systems Project of the National Ocean Survey in Rockville, Md.

A member of the NOAA corps since 1958, Capt. Moses was cited for his "outstanding managerial capabilities and initiatives. His dynamic leadership and innovative management techniques and considerations have directly and materially contributed to the effectiveness of the project management organizational concept of the Marine Data Systems Project."

Frank T. Quinlan, Chief, Climatological Analysis Division of the National Climatological Center in Asheville, N.C., received a silver medal for his direction of the NCC effort in support of new national environmental projects of major importance, such as, the development of solar energy and its application to practicable projects for use in the American economy.

Kenneth Sherman, a Fishery Biologist and Director of the Northeast Fisheries Center's Narragansett Laboratory, received a silver medal for designing and directing a research effort to analyse the consequences of the environmental contamination resulting from the oil spill from the Argo Merchant in December 1976.

The citation with the silver medal cites the rapid and reliable information produced by Sherman and his team on the effects of the oil on zooplankton and fish eggs, the transmission of the oil through the food chain and the impact of the oil on future fish populations.

Carroll I. Thurlow, Deputy Chief of the Oceanographic Division of the National Ocean Survey, received a silver medal for his "exceptional ability in the planning, organization, and implementation of the National Ocean Survey tidal datum survey program" which was necessary for the implementation of the management and protection of the nation's wetlands and coastal

zone and for the determination of coastal and marine boundaries.

Philip Williams, Jr., Chief of the Meteorological Services Division of the National Weather Service's Western Region Headquarters in Salt Lake City, Utah, has been awarded a silver medal for his numerous contributions to the improvement of weather services.

In nominating Williams for the medal, NOAA officials cited his contributions of unusual value to the Department, his contribution to science and technology, his outstanding administrative skills resulting in program advancement, and his meritorious authorship.

Silver medals were awarded to the NOAA ships Heck and Rude for rescuing the crew and scientists from the burning vessel, M/V Midnight Sun, and saving the vessel from total loss. The crews actions demonstrated superior performance of duties and exceptional courage in a maritime emergency beyond the call of duty. The incident occurred July 7, 1977 in the Gulf of Mexico, 27 nautical miles from Freeport, Tex.

## NOAA ship Heck

Lt. Cdr. Thomas W. Ruzsala  
Lt. (jg) Charles E. Gross  
Mark Aldridge  
Horace B. Harris  
Charles J. Gentilcore  
Dennis S. Brickhouse  
Robert T. Linton  
Arnold K. Pedersen  
Joseph Wiggins  
James P. Taylor

## NOAA ship Rude

Lt. Cdr. Robert B. Smart  
Ens. Samuel P. DeBow, Jr.  
Lt. (jg) Kenneth G. Vadnais  
William N. Brooks  
Johnnie B. Davis  
James S. Eamons  
Kenneth M. Jones  
Frank Krusz, Jr.  
Anthony W. Styron  
Elijah J. Willis

## Civil Service Reform Becomes Effective January 1979

The President's Civil Service Reorganization Plan to reorganize the U.S. Civil Service Commission and to consolidate Federal labor relations functions into a single agency has been approved by Congress and will be put into effect by January 1, 1979. The reorganization replaces the present Civil Service Commission with two agencies whose functions are described below.

The new Office of Personnel Management will carry out the Government's personnel management responsibilities and advise the President on personnel policy matters. The Merit Systems Protection Board (MSPB) will be an independent agency responsible for safeguarding merit systems against partisan political and other abuse, and protecting

employee rights within those systems. The MSPB will be under bipartisan leadership with no more than two of its three members from the same political party. The Board will be the successor agency to the Civil Service Commission and the six-year renewable terms of the present Commissioners will continue. Board members will be appointed by the President and confirmed by the Senate. The Chairman of the Board will be its chief executive and administrative officer.

The reorganization plan also establishes the position of Special Counsel within the Board to investigate prohibited personnel practices, to prosecute officials who violate civil service rules and regulations, and to enforce the Hatch Act. The Special Counsel will be appointed to a

four year term by the President and confirmed by the Senate. The Special Counsel will be independent of, and not subject to direction by, the Board.

The MSPB, including the Special Counsel, will have approximately 400 employees. Headquarters are located in Washington, D.C., and regional offices are located in various cities. (Continued on p. 7)

## Former Spouses of Federal Workers Can Get Money Directly From Gov't.

On September 15, 1978, Public Law 95-366 was enacted to authorize the Civil Service Commission to comply with court decrees, orders, or property settlements in connection with divorces, annuities or legal separations. The law was enacted primarily to provide economic protection to former spouses of Federal employees. Under the law, payment that would otherwise be due a Federal employee or annuitant may be paid to another person if expressly pro-

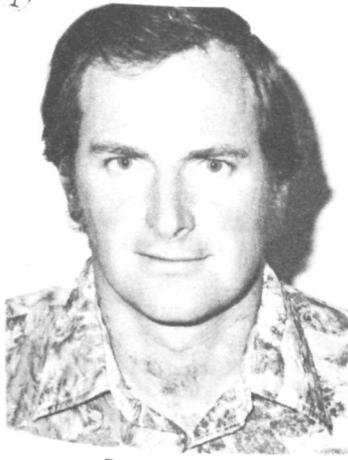
vided for by the courts. A court as defined by the law means a state court or court of the District of Columbia. A court does not mean foreign or Mexican divorce court.

Payment of a Federal employee's annuity to another person may not be authorized except under Public Law 95-366, or subject to execution, levy, attachment, garnishment or other legal process unless expressly provided for by Federal Laws.

## NOAA Personnel Division Lists Current Vacancies

| Announcement No. | Position Title                       | Grade       | MLC  | Location                | Issue Date | Closing Date |
|------------------|--------------------------------------|-------------|------|-------------------------|------------|--------------|
| NASO 78-45       | Electronics Engineer                 | GS-12       | NMFS | Seattle, Wash.          | 11/8/78    | 12/1/78      |
| SR 78-53         | Electronics Technician               | GS-10       | NWS  | Miami, Fla.             | 11/6/78    | 11/21/78     |
| SR 78-54         | Hydrologist                          | GS-12       | NWS  | Atlanta, Ga.            | 11/8/78    | 11/24/78     |
| SR 78-57         | Engineering Technician               | GS-11       | NWS  | Daytona Beach, Fla.     | 11/8/78    | 11/24/78     |
| WR 78-58         | Electronics Technician               | GS-11       | NWS  | Las Vegas, Nev.         | 11/8/78    | 11/24/78     |
| SR 78-58         | Meteorological Technician            | GS-10       | NWS  | Lubbock, Tex.           | 11/13/78   | 11/28/78     |
| SR 78-59         | Meteorologist                        | GS-12       | NWS  | Oklahoma City, Okla.    | 11/13/78   | 11/28/78     |
| WR 78-60         | Electrical Engineer                  | GS-11       | NWS  | Salt Lake City, Utah    | 11/8/78    | 12/1/78      |
| CR 78-61         | Electronics Technician               | GS-10       | NWS  | South Bend, Ind.        | 11/8/78    | 11/24/78     |
| CR 78-63         | Electronics Technician               | GS-10       | NWS  | Sioux Falls, S.D.       | 11/8/78    | 11/24/78     |
| NWS 78-66        | Communications Management Specialist | GS-13       | NWS  | Silver Spring, Md.      | 11/6/78    | 11/29/78     |
| NOS 78-66        | Geodesist                            | GS-12       | NOS  | Rockville, Md.          | 11/6/78    | 11/29/78     |
| NWS 78-67        | Electronics Technician               | GS-11       | NWS  | Silver Spring, Md.      | 11/6/78    | 11/21/78     |
| ER 78-68         | Meteorological Technician            | GS-7/8/9/10 | NWS  | Caribou, Maine          | 11/6/78    | 11/21/78     |
| NWS 78-69        | Electronics Technician               | GS-11       | NWS  | Sterling, Va.           | 11/8/78    | 11/24/78     |
| NOS 78-70        | Supervisory Computer Systems Analyst | GS-13       | NOS  | Rockville, Md.          | 11/13/78   | 11/28/78     |
| ERL 78-334       | Electronics Engineer                 | GS-13       | ERL  | Boulder, Colo.          | 11/13/78   | 12/5/78      |
| ERL 78-335       | Meteorologist                        | GS-12       | ERL  | Boulder, Colo.          | 11/13/78   | 11/28/78     |
| ITS 78-340       | Electronics Engineer                 | GS-14       | ERL  | Boulder, Colo.          | 11/13/78   | 12/5/78      |
| ITS 78-341       | Electronics Engineer                 | GS-14       | ERL  | Boulder, Colo.          | 11/13/78   | 12/5/78      |
| ITS 78-342       | Electronics Engineer                 | GS-14       | ERL  | Boulder, Colo.          | 11/13/78   | 12/5/78      |
| ITS 78-343       | Electronics Engineer                 | GS-14       | ERL  | Boulder, Colo.          | 11/13/78   | 12/5/78      |
| SER 79-2         | Computer Systems Analyst             | GS-12       | NMFS | Miami, Fla.             | 11/6/78    | 11/21/78     |
| SER 79-3         | Chemist                              | GS-7        | NMFS | Pascagoula, Miss.       | 11/8/78    | 11/24/78     |
| NESS 79-4        | Meteorologist                        | GS-11       | NESS | Camp Springs, Md.       | 11/13/78   | 11/28/78     |
| SER 79-4         | Microbiologist                       | GS-7        | NMFS | Pascagoula, Miss.       | 11/8/78    | 11/24/78     |
| AR 79-4          | Meteorological Technician            | GS-9        | NWS  | Fairbanks, Alaska       | 11/6/78    | 11/21/78     |
| AR 79-7          | Meteorological Technician            | GS-8        | NWS  | St. Paul Island, Alaska | 11/8/78    | 11/24/78     |

Peter Black, a scientist with NOAA's National Hurricane and Experimental Meteorology Laboratory in Coral Gables, Fla., has been invited to participate in a



**Peter Black**

series of meteorological lectures

**Reform (From p. 6)**

will maintain appropriate field offices.

The plan also creates the Federal Labor Relations Authority to replace the Federal Labor Relations Council and other organizational components of the government's labor-relations program. This will bring now-scattered elements into one independent and neutral body with full-time responsibility for administering this program.

Chairman Alan K. Campbell of the Civil Service Commission said the plan "will enable the President to dissolve the outdated Civil Service Commission (and replace it with) a single-headed Office of Personnel Management to set tough and progressive performance standards for all Federal employees."

Referring to the three-member Merit Systems Protection Board and Special Counsel, he stressed they will be "truly independent of political control to protect employee rights and block political abuse of the merit system."

Administration officials consider the reorganization a necessary companion to the Civil Service reform measures recently passed by Congress. These reform measures will be discussed in a future edition of NOAA News.

at the Universities Space Research Association's Lunar and Planetary Institute in Houston, Texas, November 13 through 16. His visit is sponsored by the ASA.

The primary purpose of the visit will be to present lectures on the basics of meteorology, relevant to future manned missions, to 35 new astronaut candidates with the Space Shuttle program at NASA.

J. Virginia Lincoln, Director of NOAA's World Data Center-A for Solar-Terrestrial Physics, collocated with EDIS' National Geophysical and Solar-Terrestrial Data Center in Boulder, Colo., has been appointed a member of the U.S. National Committee for the International Union of Geodesy and Geophysics (IUGG) for a four-year term ending June 30, 1982. The purpose of the Committee is to advance geophysics in the United States and to extend participation in all activities of the IUGG on behalf of the National Academy of Sciences' National Research Council.

Dr. Don Hansen, Director of the Physical Oceanography Laboratory at ERL's Atlantic Oceanographic and Meteorological Laboratories in Miami, Florida, has been invited to serve on the American Geophysical Union's Committee on Coastal and Estuarine Regimes. The



**Dr. Don Hansen**

Committee will establish focus within the AGU for scientific activities related to the coastal and estuarine regime, study how that focus can best be used to further these activities, and recommend programs and policies to the Council of the AGU. Hansen has also been named to the

U.S. delegation for the first session of the United Nations-sponsored joint Intergovernmental Oceanographic Commission/World Meteorological Organization working group on the investigation of "El Nino" phenomenon off the coast of Peru. The concerns of this working group bear directly on the NOAA project EPOCS (Equatorial Pacific Ocean Climate Studies) in which oceanographic and climatic variability in the tropical Pacific Ocean will be investigated.

Lauriston R. King, former acting head of the National Science Foundation's International Decade of Ocean Exploration (IDOE), has assumed the position of deputy director of the Texas A&M University Sea Grant College Program, according to Feenan D. Jennings, program director.

King will assist Jennings with the administration of a \$2.4 million Sea Grant budget for the funding of marine-related research, education, and public service projects.



New directors and officers of NOAA Voluntary Action, Inc., were elected recently. New area vice presidents, who review initially the requests for grants or loans, were also appointed. Seated are Roy Brown, newly elected chairperson, and Meredith Beeg, retiring chairperson. Newly elected or appointed (from left zig-zag to center): Jeannette White and Iler Schaub, area vice presidents; Ron Cook, financial secretary; Barbara Lambis, recording secretary; Dewight Perkins, president; Deborah Johnson, corresponding secretary; and Al Wallace, area vice president. The board members, officers, or area vice presidents who served last year or remain in office (from center zig-zag to right): Margaret Barnes, assistant treasurer; Margaret Myers, area vice president; Pauline Shanker, past president; Willard Spragan, board member; Barbara Suto and Ruben Torres, past area vice presidents.



**COD WITH CRANBERRY PINEAPPLE SAUCE & GREEN RICE**

- |   |   |
|---|---|
| 2 pounds cod or other thick fish fillets, fresh or frozen | 1/3 cup sugar                           |
| 1 teaspoon salt   | 1 tablespoon cornstarch                 |
| 2 tablespoons margarine, or butter, melted                | 1 can (13 1/2 ounces) pineapple tidbits |
| 1 tablespoon lemon juice                                  | Water                                   |
|   | 1 cup fresh cranberries                 |
|   | Green Rice                              |

Thaw fillets if frozen. Cut fillets into 6 portions. Arrange fish in shallow baking dish. Sprinkle with salt. Drizzle with margarine or butter and lemon juice. Bake in moderate oven, 350°F., 25 to 30 minutes or until fish flakes easily when tested with a fork. Combine sugar and cornstarch. Drain pineapple tidbits; save juice and add water as needed to make 1 cup liquid. Add liquid to cornstarch mixture and stir until free of lumps. Cook until thickened, stirring constantly. Add cranberries; cook about 5 minutes or until cranberry skins pop. Stir in pineapple tidbits; heat. Serve fish with sauce and rice. Makes 6 servings.

**Green Rice**

- |                         |   |
|-------------------------|---|
| 1 cup long grain rice   | 2 tablespoons chopped green onion with part of tops |
| 1/4 cup chopped parsley |   |

Cook rice according to package directions. Stir parsley and green onion into hot cooked rice. Makes 6 servings.

**Office of Sea Grant Holds Program Leaders Conference In Colorado**

The Office of Sea Grant (OSG) sponsored a recent Marine Advisory Service Program Leaders' Conference in Vail, Colo.

Representatives of each of the state Sea Grant programs attended, along with representatives from the Sea Grant Review Panel, the U.S. Fish and Wildlife Service, Cooperative Extension, Sea Grant Directors, and OSG.

"This meeting gave program leaders from all parts of the country a special opportunity to

discuss shared concerns and the possible solutions to those concerns," said Robert J. Shephard, OSG's Associate Director for Marine Advisory Services.

Topics discussed included long-range planning for specific audiences, proposal writing, and the interaction between marine advisory programs and the other two primary Sea Grant components, education and research. Summaries of the sessions will be distributed by OSG to all participants.

**LACIE Experiments Successful**

The impact of weather upon major food crops throughout the world can be monitored, and future crop yields estimated with high accuracy, as the result of a four-year, cooperative experiment conducted by three government agencies, a team of NOAA scientists has reported.

The scientists, from NOAA's Environmental Data and Information Service, made their report last week at an international symposium evaluating progress of the Large Area Crop Inventory Experiment (LACIE) held at the Lyndon B. Johnson Space Center in Houston, Tex. LACIE is being conducted jointly by NOAA, NASA, and the U.S. Department of Agriculture.

The experiment was an attempt to produce estimates of total wheat production by country from information obtained through the Landsat satellite and a global meteorological network. Satellite imagery permits estimation of the proportion of cropland in a country devoted to growing wheat, while the weather data is used to estimate crop growth state, vigor, and potential yield.

Jerry D. Hill, a senior member of NOAA's LACIE team, reported the team has developed special computer models to estimate wheat yield, using monthly precipitation and temperature data to assess crop yield potential.

Modelling accuracy, he said, is illustrated by the 1977 wheat yield and production estimates for the Soviet Union. LACIE scientists estimated total wheat production would be about 91.4 million metric tons, close to the U.S.S.R. reports of 92 million metric tons released at the end of the year.

According to Hill, yield estimation capability developed by NOAA scientists for the LACIE project demonstrates another application of weather data to the solution of a variety of critical national problems. The NOAA team already has applied its

**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 cod fillets and ocean perch fillets along the Northeast Seaboard; fresh whole bluefish and fresh whiting in the Middle Atlantic States, including the D.C. area; fresh catfish and speckled trout in the Southeast and along the Gulf Coast; fresh smelt and ocean perch fillets in the Midwest; fresh Pacific shrimp and fresh Pacific red snapper in the Northwest; and fresh butterfish fillets and frozen turbot fillets in the Southwest.

modelling capability experimentally to the problem of allocation of natural gas during the heating season.

Co-authors of the paper presented by Hill at the LACIE seminar were Dr. Norton D. Strommen, Chief of the EDIS Climatic Impact Assessment Division, and Malcolm Reid, Chief of the Climatic Assessment Branch.

**U.S.-U.S.S.R. Begin Seismic Experiment**

As part of a U.S./U.S.S.R. Agreement on Environment Protection, a joint seismic experiment for tsunami research has been implemented to exchange long period seismographs and the records from these instruments. Three long-period Soviet seismometers were installed adjacent to U.S. equipment in a tunnel at Kipapa, Hawaii on January 19, 1978, to run for about one year. U.S. equipment has been installed at Yuzhvo Sakhalinsk, U.S.S.R.

Seismograms from these instruments are microfilmed at World Data Center-A (WDC-A) in Boulder and copies sent to the principal investigators in the U.S. and U.S.S.R. and to WDC-B in Moscow.

**CFC Needs You**

# **National Oceanic and Atmospheric Administration**

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