U.S. DEPARTMENT OF COMMERCE / National Oceanic and Atmospheric Administration

noaa week

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Welcome Aboard!

NOAA's Mt Mitchell Slates Open House

NOAA employees in the Washington Metropolitan Area and their families and friends will be "welcome aboard" when the marine survey ship *Mt Mitchell* holds a public open house Saturday, September 14, from 9 a.m. to 3 p.m., at the Washington Navy Yard.

The *Mt Mitchell* is one of a fleet of oceanographic survey vessels used by NOAA to improve man's understanding and uses of the physical environment. It is operated by the National Ocean Survey and commanded by officers of the NOAA Commissioned Corps. The ship is 231 feet long with a 42-foot beam and a displacement of 1,798 long tons. Designed for marine surveys and some oceanographic operations, the *Mt Mitchell* can profile ocean depths from shoal water to 36,000 feet, or about seven miles. The ship is highly automated and uses the most modern navigational, communications and telemetry instruments. Her home base is the Atlantic Marine Center, Norfolk, Va.

The open house will be held rain or shine. There is ample free parking at the Washington Navy Yard. Visitors are asked to use the entrance at Ninth and M Streets, S.E.

MTS Conference September 23 - 25

NOAA will be well represented at the Tenth Annual Conference of the Marine Technology Society in Washington, D.C., September 23-25. Dr. Robert M. White, NOAA Administrator and a member of the MTS Council, the Society's governing body, will address the conference luncheon September 23 at which awards will be presented for top achievements in ocean science and engineering.

Howard W. Pollock, NOAA Deputy Administrator, will be a participant on a six-member panel at a briefing September 26 on

(Continued on page 7)

Oceanic Currents Held Potential Energy Source

Underwater parachutes or propellers to reap the power of the ocean currents are a practical possibility, was the unanimous conclusion of a group of United States scientists and engineers who met to ponder ways to harness the section of the Gulf Stream known as the Florida Current.

The workshop was organized by Dr. Harris B. Stewart, Jr., Director of the Environmental Research Laboratories' Atlantic Oceanographic and Meteorological Laboratories in Miami, Fla.

Dr. Stewart, Dr. John Apel, also with AOML, and Dr. William S. von Arx of Woods Hole Oceanographic Institution first suggested the possibility of actually harnessing the current last year. They did some calculations, assessing the current's potential as an energy source, and concluded that harnessing the Florida Current might be a realistic undertaking.

The Florida Current, said Dr. Apel, "carries more than 50 times the total flow of all the freshwater rivers of the world right past Miami's front door." If as little as four percent of this energy could be trapped, the researchers estimate that it would be possible to extract between 1,000 and 2,000 megawatts of power—about equivalent to a nuclear power plant.

Whether this enormous resource could actually be harnessed—economically—was a question for other kinds of experts: ocean engineers, heavy marine equipment specialists, turbine design engineers, corrosion and fouling experts, and energy economists.

Last February, at Dr. Stewart's invitation, the group of specialists met to consider the engineering and economic feasibility of the

(Continued on page 2)

ERL Gets New Deputy Chief

Joseph O. Fletcher, who since 1971, as Director of the National Science Foundation's Office of Polar Programs, has planned, organized, and conducted research projects in the Arctic and Antarctic, is the new Deputy Director of the Environmental Research Laboratories.

He succeeds Robert W. Knecht, who is now Director of NOAA's Ofice of Coastal Zone Management.

While at NSF, which is responsible for all U.S. activities in Antarctica, as well as an Arctic research program, Mr. Fletcher led efforts for establishment last May of a new Office for Climate Dynamics, which he headed, and formulation of a long-term research program in climate dynamics.

Before joining NSF, Mr. Fletcher was Research Professor of Atmospheric Sciences and Oceanography at the University of Washington, and director of the university's polar research programs. The principal program, the Arctic Ice Dynamics Joint Experiment, is a multidisciplinary study of the interaction between atmosphere, ocean, and pack

(Continued on page 6)

Florida Current Held Potential Energy Source

oceanographers' scheme. John D. MacArthur, a wealthy citizen who was intrigued by the possibilities of the Florida Current as a fuel-free, nonpolluting source of power, provided the funds for the workshop and donated the use of his hotel on Singer Island, off Palm Beach, Fla.

In their report, to be published this month, the workshop participants conclude that there are, in Dr. Stewart's words, "no insurmountable engineering obstacles to trapping the kinetic energy of the Florida Current. It can be done."

The participants estimated that the energy resource available in the kinetic energy of the Florida Current is equivalent to that of about 25 one-thousand-megawatt power plants. But the amount of energy that could be extracted from the current in practical systems might not exceed the output of two such plants. That amount of energy might not be worth the investment of time, money, and human resources that will be needed to harness the current. But they note that there are sizeable kinetic energy resources in other ocean and river currents around the world, and that much of the research and development invested in the Florida Current could also be applied to extraction of other types of ocean energy, such as ocean winds, or the temperature difference between the relatively warm ocean surface and the colder bottom waters.

The workshop participants considered a number of ways of harnessing the Florida Current: turbines similar to those now used in many plants; vertical, egg-beater-like propellers; rotors with cupped blades.

One of the most ingenious, recalls Dr. Stewart, was a parachute technique devised by one of the Workshop participants, Garry Steelman, who had originally intended it to provide power for his farm in Iowa. This technique utilizes a string of parachutes arranged in an underwater ellipse, somewhat like a conveyor belt. The parachutes on top open up in the current, are dragged along by the flow, then collapse to be carried back to the starting point.

Another possibility is "underwater windmills," large, two-bladed propellers that would catch the current the way land windmills catch the wind.

To decide which of these systems is most workable and solve the practical problems of setting up an energy extraction system, the group recommends a year-long study. The Current itself—its oceanography, meteorology, and ecology—must be better understood. The amount of energy available, and the environmental effects of extracting it, must also be determined. Engineers should measure the amounts of stress that waves or hurricanes may impose on an underwater structure.

Whatever system is selected to convert the energy of the moving water to useable power will have to be anchored somehow in the current. Methods of keeping the system in place, such as an anchor and tether combination, will have to be evaluated, as well as methods of installing and servicing the apparatus.

Finally, the energy col-

(Continued from page 1)

lected must be transferred shore and delivered customers in a useful and at a reasonable One possibility is to use current's energy to comp air, which could then piped to shore to drive turbines in a power pl Or, the energy collec from the current could used on the site to extr hydrogen from seawa Hydrogen is a highly cient, clean fuel that co be bottled and shipped power plants around country where it could burned to generate ele tricity.

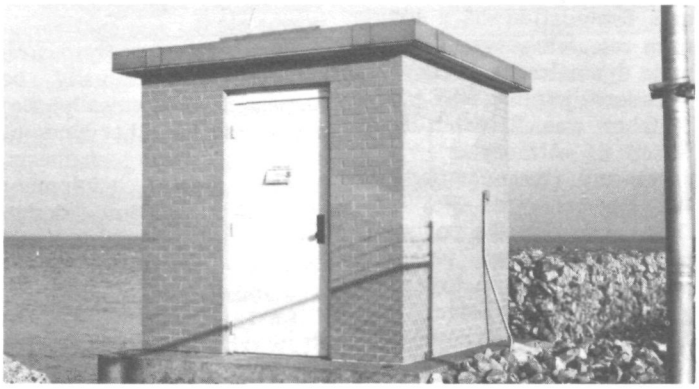
If the results of the year long study are encouraging design of an experimental system, laboratory tests, ocean tests of scale mod could begin. The final would be a small, 5-20-megawatt prototy power plant.

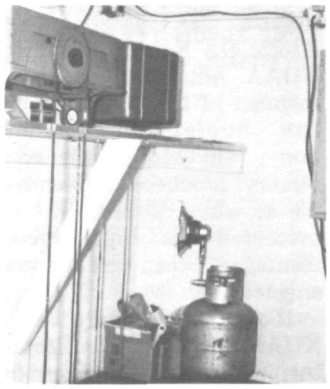
The participants in the MacArthur workshop est mated that the cost of c struction of a full-scale p and the retail prices energy from the flow Florida Current wou probably be competitive with costs projected for other energy sources in the 1980's.

Lake Survey Center Completes Gage Inspections

The Lake Survey Center's Water Level Gaging Section engineering technicians have just completed an approximately 2400-mile, 30-day gage inspection and maintenance trip. Edward J. Gurche and Bruce H. Bock checked the accuracy of 21 water level and six water temperature gages on Lakes Erie and Ontario and the Niagara and St. Lawrence Rivers.

The records from these gages, in addition to supplying input for such important publications as the monthly bulletin and other water level reports, play an important role in determining the flows in the connecting rivers. They are also used to provide data for engineering projects and flood warnings, as well as to aid shippers, property owners and recreational boaters, all of whom have a vital interest in the Great Lakes levels.





The photo on the left shows a Lake St. Clair gage house, typical of those used for sheltering LSC water level instruments. Some of the instrumentation housed by a gage house is shown on the right. Note that cables extend through holes in the floor.

noaa week

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

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

Anna V. Felter, Art Director

NWS/NMFS Provide Aid To Tuna Fleet

Mapped analyses of wind and significant weather and forecasts of sea state over the Eastern Tropical Pacific Ocean, prepared by the marine unit at the San Francisco Weather Service Forecast Office, are now being broadcast daily by National Marine Fisheries Service station WWD, La Jolla, Calif., for use by tuna fishing boats equipped with radio facsimile receivers. Broadcasts of additional marine products prepared by San Francisco are planned for the future. These facsimile transmissions supplement marine broadcasts made by Pt. Reyes Coast Guard station NMC.

NOAA Receives Boating Awards

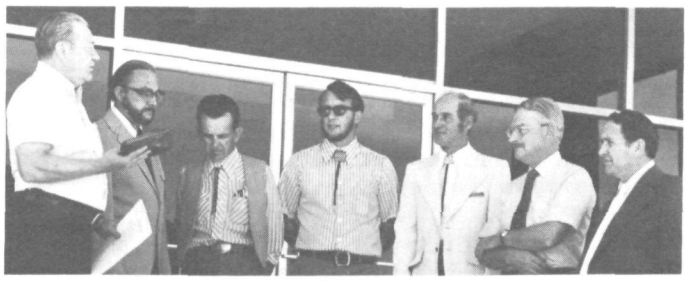
The NOAA Office of Public Affairs and the National Weather Service have been awarded certificates of appreciation by the National Safe Boating Committee, Inc., for their efforts during National Safe Boating Week in furthering safe recreational boating.

The certificates were awarded by Rear Admiral Harley D. Nygren, NOAA member of the corporation, in ceremonies on August 30. This was the third such award for the National Weather Service, which has utilized its extensive communication network to publicize this national project.

Surveys Form Record

More than 9,000 hydrographic (nautical charting) surveys are on file in the archives of the National Ocean Survey. They represent a comprehensive record of the U.S. coastline and the adjacent waters, including the changes that have occurred from natural and man-made forces, for more than a century and a half.

WSFO Staff Honored



Hazen Bedke, Director of the National Weather Service Western Region, represented Dr. White in presenting the NOAA Unit Citation to the fire-weather staff at WSFO, Boise, Idaho. This award was for the outstanding fire-weather support provided to the Boise Interagency Fire Control Center for 1973. Pictured in the awards presentation are (left to right): Hazen Bedke; Clyde O'Dell, Fire-Weather Focal Point; Jim McCoy; Bob Sims; Frank Gift; Art Hosick, MIC; and Darwin Wilkins.

Air Pollution Near Large Lakes Is Subject of Wisconsin Study

A $24,000 grant for research on dispersion of air pollutants near the edge of large lakes, such as the Great Lakes, has been given to the University of Wisconsin at Madison by the Environmental Research Laboratories.

The grant recipient is Dr. David D. Houghton of the University's Department of Meteorology, who will direct the research carried out by Ronald J. Dobosy, a research assistant in the same department.

The research team plans to develop a computerized numerical model which can describe the dispersion of air pollutants near the edge of a hypothetical lake, based primarily on lake-edge phenomena data which have been measured extensively by Dr. W. A. Lyons and his colleagues at the University of Wisconsin Milwaukee campus, and others in Chicago.

Dr. Eugene J. Aubert—director of NOAA's Great Lakes Environmental Research Laboratory in Ann Arbor, Mich.—will be monitoring the project.

According to the Wisconsin meteorologists, past mathematical models of pollution dispersion have been based on simple models of turbulence. But this assumption is difficult to justify in many cases which involve flow over land adjacent to large lakes. Buoyancy effects, for example, can produce directional preferences in the turbulence.

Initially the mathematical model will be set up with hypothetical cold lake and warm land conditions so that verification with existing data is possible. Later the reverse case of warm lake and cold land with offshore winds may be set up, and the basic model also generalized to apply to many other lake-edge wind regimes.

Pollution measurements are made at various locations in both cities with Chicago, in particular, making continuous pollutant-concentration measurements from eight telemetered air monitoring sites throughout the city as part of its air quality monitoring program.

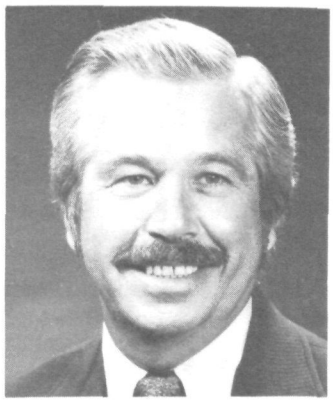
Sulfur dioxide will be the pollutant the Wisconsin team uses for their study because it is among the first pollutants to be measured in a serious way, making the data quite plentiful, and is emitted by tall smoke stacks, making the compound rather easily traced.

The data used to verify the model is being collected by Lyons and others in Chicago and Milwaukee and consists of wind, temperature, and pollution concentration observations.

Dale Gough Heads NASO In Seattle

Dale C. Gough has been appointed director of NOAA's Northwest Administrative Services Office in Seattle, Wash. The Seattle facility was formerly headed by John M. Patton, Jr., who recently retired.

For the past seven years, Mr. Gough has been the personnel officer for NOAA's



Dale C. Gough

Environmental Research Laboratories in Boulder, Colo., which provides personnel services for the Commerce Department's National Bureau of Standards, the Office of Telecommunication Sciences, and NOAA elements in the area.

Mr. Gough will direct administrative, procurement, and personnel services for approximately 1,500 NOAA people along the Pacific coast, 800 of them in the Seattle area. The Office also hosts extensions of NOAA's finance division and general counsel's offices.

Mr. Gough entered Federal service in 1962. He is a former Marine Corps major, serving as a fighter pilot in both World War II and the Korean conflict. He was graduated from Washington State University at Pullman with a degree in business and economics.

Invest in America .....

Buy U.S. Saving Bonds

Current Vacancies in NOAA

To insure that NOAA employees are aware of job possibilities throughout the agency, a list of current NOAA-wide vacancies is published below. Employees interested in any of the listed vacancies should contact the servicing personnel office for information on where to apply.

Announcement No.	Position Title	Grade	MLC	Location	Issue Date	Closing Date
145-75	Meteorologist	GS-11	NWS	Riverdale, Calif.	9/3/74	9/18/74
146-75	Meteorological Tech.	GS-9	NWS	San Nicholas Island, Calif.	9/3/74	9/18/74
147-75	Hydrologist	GS-9	NWS	Portland, Oreg.	9/3/74	9/18/74
148-75	Engineering Tech.	GS-9	NWS	Kansas City, Mo.	9/3/74	9/18/74
149-75	Publications Distribution Spec.	GS-12	NOS	Riverdale, Md.	9/3/74	9/18/74
152-75	Electronics Tech.	GS-12	NWS	Kansas City, Mo.	9/5/74	9/18/74
153-75	Meteorologist Tech.	GS-11	NWS	Kansas City, Mo.	9/5/74	9/18/74
155-75	Meteorologist Tech.	GS-9	NWS	Winnemucca, Nev.	9/5/74	9/18/74
156-75	Meteorologist	GS-11	NWS	Topeka, Kans.	9/5/74	9/23/74
169-75	Electronics Tech.	GS-10	NWS	Lexington, Ky.	9/9/74	9/25/74
150-75	Biological Engineer	GS-14	NMFS	Washington, D.C.	9/3/74	9/25/74
151-75	Supv. Meteorologist	GS-14	NWS	Milwaukee, Wis.	9/3/74	9/20/74
160-75	Electronics Engineer	GS-13	NWS	Silver Spring, Md.	9/6/74	9/20/74
162-75	Program Analyst	GS-15	HDQS	Washington, D.C.	9/6/74	9/20/74
163-75	Electronics Technician	GS-10	NWS	Honolulu, Hawaii	9/6/74	9/20/74
165-75	Supv. Meteorologist	GS-12	NWS	Salt Lake City, Utah	9/6/74	9/20/74
166-75	Meteorological Technician	GS-10	NWS	Washington, D.C.	9/6/74	9/20/74
167-75	Meteorologist (Forecaster, GOES Satellite Focal Point)	GS-13	NWS	Boston, Mass.	9/6/74	9/20/74
168-75	Meteorologist (General Forecaster)	GS-13	NWS	Washington, D.C.	9/6/74	[illegible]

CSC Moves to Implement New Employee Appeals System

On June 11, President Nixon issued Executive Order 11787 revoking the requirement that each agency maintain a system for hearing and deciding appeals from adverse actions involving its own employees. The new Executive Order also provides that, except where otherwise established by statute, the appeals system established by the U.S. Civil Service Commission will be the sole system of appeal for an employee covered by that appeals system.

The new appeals system established by E.O. 11787 will consist of a Federal Employees Appeals Authority (FEAA) and an Appeals Review Board (ARB).

Fair and equitable decisions are goals set for the new system. The new system includes other goals providing maximum independence for an appeals system. It also establishes a one-level appeals system meeting all due process requirements. The provision of a simple and fast method that avoids duplication complexity and delay is another goal.

An important goal of the new system is to provide an appeals system that will be recognized as both impartial and independent of the Commission's other functions.

FEAA will be responsible for enforcing all laws, Executive Orders, and regulations pertaining to the review of managers' decisions to take such adverse actions as removal, lengthy suspension, or demotion of Federal workers entitled to appeal such actions. It will also provide appeals officers to conduct hearings on complaints related to discrimination on the grounds of race, color, sex, religion, national origin, and age to make findings and recommendations to agency managers for disposition of such complaints. The FEAA will be completely separate from all other CSC functions, and will report directly to the Commissioners.

FEAA will have responsibility for maintaining a nationwide network of Commission appeals officers who will accept and render final decisions on employee adverse action appeals. Decisions reached by these impartial appeals officers will be subject to reconsideration by the Appeals Review Board only upon limited grounds.

The Appeals Review Board, also an independent body reporting directly to the Commission, will consider and decide upon requests to reopen and reconsider decisions reached by appeals officers, and will adjudicate those cases selected for review. The Appeals Review Board will also serve as the appellate body to receive and act on appeals from agency manager's decisions on discrimination complaint cases. The new organization was established as of July 1, and appeals will be processed under the new system beginning September 9, 1974.

NOAA procedures and regulations are being formulated for the new appeals system and will appear in future editions of Personnel Perspective.

Leave Restoration

In several past issues of Personnel Perspective the new leave provisions of Public Law 93-181 have been discussed. Department of Commerce Administrative Order 202-630 which discusses DOC's policy regarding absence and leave has recently been amended to incorporate the provisions of the new law. A discussion of DOC and NOAA policy in this area as well as a recap of the more significant provisions

(Continued on page [illegible])

Attachment to FPM Ltr. 831-38

EMPLOYEE SERVICE STATEMENT
(See information on reverse)

1. NAME (CAPS) LAST-FIRST-MIDDLE — MR.-MISS-MRS. | 2. BIRTH DATE (Mo.,Day,Yr.) | 3. SOCIAL SECURITY NO. | 4. STATEMENT NO.

5.

SERVICE SUMMARY	FROM MO.	FROM DAY	FROM YR.	TO MO.	TO DAY	TO YR.	SERVICE YRS.	SERVICE MOS.	SERVICE DAYS	CIVIL SERVICE RETIREMENT DEDUCTIONS YES	NO	IF "NO" NAME OTHER RETIREMENT SYSTEM
A. PREVIOUS CIVILIAN SERVICE												
B. SERVICE PERFORMED IN THIS AGENCY												
C. MILITARY SERVICE												
D. ACCUMULATE ALL SERVICE AND ENTER TOTAL SERVICE HERE ➡												

6. COMPLETE THIS ITEM ONLY FOR EMPLOYEES SEPARATING FROM POSITIONS SUBJECT TO THE CIVIL SERVICE RETIREMENT SYSTEM — YOUR RETIREMENT BENEFIT, BASED ON THE ABOVE SEPARATION, IS INDICATED BELOW:

☐ NONE – TRANSFER TO ANOTHER POSITION SUBJECT TO CSC RETIREMENT
☐ DEFERRED ANNUITY AT AGE 62 OR LUMP SUM REFUND
☐ LUMP SUM REFUND ONLY
☐ IMMEDIATE ANNUITY

7. REMARKS CONCERNING SERVICE ENTRIES ABOVE:

8. SIGNATURE OF EMPLOYEE

9. SIGNATURE OF AGENCY OFFICIAL — DATE

10. TITLE OF AGENCY OFFICIAL — DATE

11. AGENCY NAME, INCLUDING BUREAU AND DIVISION, AND ADDRESS

1. Employee Copy – See information on reverse.

STANDARD FORM 000
MARCH 1974
FPM SUPPLEMENT
831-1

Attachment to FPM Ltr. 831-38 (2)

INFORMATION FOR EMPLOYEE

This information is provided so you will know what your current records show your creditable service toward Civil Service retirement to be. If you separated from a position under the Civil Service Retirement System, this form also indicates your retirement benefit based upon that separation. This is not a final total, but reflects the amount of service now documented by your personnel records. The final official determination of total service for retirement can only be made by the Civil Service Commission. Additional information about Civil Service retirement benefits is given below.

PLEASE KEEP THIS FORM WITH YOUR OTHER IMPORTANT PAPERS

ELIGIBILITY FOR RETIREMENT

General Requirements.–There are two general requirements which retiring employees must meet. They are:
(a) You must have at least 5 years of civilian service.
(b) Unless you retire on account of total disability, you must have had at least 1 year of civilian service under the Retirement System within the 2-year period preceding the separation on which your retirement is based.

Deferred Retirement.–If you meet the general requirements and are separated from the Federal service for any reason before you are eligible for immediate retirement, you may be paid an annuity when you reach age 62, unless you give up your right to this annuity by applying for and being paid a refund of your retirement deductions.

Immediate Retirement.–If you meet the general requirements and any combination of minimum age and service, as well as the special requirements (if any) shown in the following table, you may retire and be paid an immediate annuity.

Minimum Age	Minimum Service (Years)	Special Requirements
62	5	None
60	20	None
55	30	None
Any age	25	None
50	20	Separation must be involuntary without cause or during a major reduction in force as determined by the Civil Service Commission.
Any age	5	You must be totally disabled for service in the position you occupy.

Refund Of Retirement Contributions

Eligibility Requirements.–You may be paid a refund of all (but not part) of your contributions to the Retirement Fund if:
(a) the employment during which you are a member of the Retirement System is terminated for any reason; AND
(b) you are not reemployed in a position wherein you are again a member of the Retirement System and will not become a member within 31 days from the date of separation; AND
(c) your separation occurs and your application for refund is filed with the Commission at least 31 days before the commencing date of any annuity for which you may be eligible.

Crediting Service For Retirement

Civilian Service.–All periods of service as an employee of the Federal Government or the District of Columbia Government, are creditable toward retirement.

Military Service.–Periods of active and honorable service with the United States Armed Forces are creditable toward retirement if completed before final termination of your employment as a member of the Retirement System. (Military service may not be creditable if you draw military retired pay, or if it was performed after December 1956 and social security benefits are payable.)

Non-Deduction Service.–Retirement deductions are never made for military service. If you have military service you will be given free credit for it.
If you have civilian service during which no Civil Service retirement deductions were made, you will be given credit for it. If you qualify for an annuity, you may deposit an amount to cover this service. Otherwise your basic annuity will be reduced by 10% of the amount due as deposit.

Service for Which Deductions Were Refunded.–In computing the annuity payable to you, no credit will be allowed for any service for which retirement deductions have been refunded unless you are reemployed in a position under the Retirement System and redeposit the amount of the refund, plus interest. Service for which retirement deductions were made for another Federal retirement system is treated in a similar manner. (FICA service is treated as non-deduction service.)

Keep this copy among your personal papers for future reference

Standard Form 2815 Employee Service Statement

Federal employees have not had, in the past, a method of obtaining a cumulative record of their creditable service toward civil service retirement. This has many times hindered them in personal planning for career movement, financial security, and retirement; however a new method is available to help employees in this situation.

A new form, Standard Form 2815, "Employee Service Statement," is being instituted for this purpose. The form, which will be available September 1, 1974, will record total creditable service and the type of retirement benefit to which an employee is entitled. A form will be given to employees being separated by any method including retirement, resignation, reduction in force, termination, removal and transfer between agencies. If an employee's new appointment differs in deduction of civil service retirement from his or her former appointment the form is also used.

Information about the retirement system is provided on the back of the form. This insures that employees receive counseling on retirement before separation.

Employees should consult their servicing personnel office for further information.

Leave Restoration *(Continued from page 4)*

the law follows.

The law now permits: 1) employees, who are eligible to accrue leave, to use leave within the first 90 days of appointment; 2) the lump sum payment for leave upon separation to include all credited annual leave irrespective of normal ceilings; 3) the carry-over of leave in excess of ceilings where it can be shown that the leave had been scheduled but could not be taken because of illness or exigencies of work and, further, could not be rescheduled. Also permitted are carry-overs where errors in leave ceilings were made which caused excess leave. Restored leave is placed in an "escrow" account, separate from the normal leave account. Employees must use this within two years of the date of restoration or irrevocably forfeit the unused portion. Restored leave does not alter the employee's leave ceiling.

The Administrative Order and NOAA policy provides that all supervisors and employees make special efforts to schedule leave through the leave year and to try and insure, except in emergency situations, that scheduled leave will not be cancelled except as a last resort. Leave that must be cancelled should be rescheduled as soon as possible so that requests for restoration are minimized. Where excess leave exists, its use must be requested no later than November 1 by memorandum or by submission of SF-71, "Application for Leave," to provide adequate time for scheduling.

Although there is relief in the law, it is a very restrictive relief. It is clear that the "use it or lose it" principle is still paramount. Don't be lulled into trouble by someone telling you differently.

In 1973, there were approximately 50 requests for carry-over of leave. About 30 were approved. To expedite any claims for restoration, NOAA Form 55-8 is being prepared and a supply will be issued shortly. NOAA Personnel Handbook, Chapter 12 "Leave," is being revised and will also be issued shortly.

recipe of the week

NEW ORLEANS FLOUNDER ROLLS
WITH DILL SAUCE

2 pounds flounder fillets, fresh or frozen
1 teaspoon salt
1/4 cup butter or margarine, melted
2 tablespoons lemon juice
1/4 teaspoon dill weed
Dill Sauce

Thaw frozen fillets. Sprinkle salt evenly over both sides of fillets. Roll fillets up, skin side out, starting at tail end. Arrange rolls in greased baking dish, 12 by 8 by 2 inches. Combine butter or margarine, lemon juice and dill weed; mix and drizzle over fillets. Bake in moderate oven (350° F.) 20 minutes or until fish flakes easily when tested with a fork. Baste occasionally with pan drippings. Serve with Dill Sauce. Makes 6 to 8 servings.

Dill Sauce

2 tablespoons butter or margarine
2 tablespoons flour
1 teaspoon salt 1 teaspoon sugar
1/8 teaspoon white pepper
1-1/2 cups milk 1 egg yolk, beaten
1 tablespoon lemon juice
1 teaspoon dill weed
1 teaspoon prepared mustard

Melt butter or margarine. Blend in flour, salt, sugar, and pepper. Add milk; cook until thickened, stirring constantly. Add a small amount of hot mixture to egg yolk, stirring constantly. Stir egg yolk mixture into hot sauce. Add remaining ingredients; heat and serve over fish. Makes 1-1/2 cups sauce.

next week's best fish buys

According to the NMFS National Consumer Educational Service Office in Chicago, the best fish buys for the next week or so are likely to be fresh flounder and canned tuna along the Northeast Seaboard; fresh spot and hard clams in the Middle Atlantic States, including the D.C. area; shrimp and whiting in the Southeast and along the Gulf Coast; fresh whitefish and canned tuna in the Midwest; fresh salmon and fresh snapper in the Northwest; and fillets of ocean perch and turbot in the Southwest.

ERL Gets New Deputy Chief

(Continued from page 1)

ice in the Arctic.

From 1964 to 1970, he was Senior Research Scientist for the RAND Corporation in Santa Monica, Calif., investigating the causes of climate variation.

A former colonel in the Air Force, he retired in 1963 after 22 years' service.

He directed geophysical research at the Air Force's Cambridge Research Laboratories and headed the Long Range Plans Group attached to Air Force Headquarters. In 1952, he led the expedition that established a research station on a massive chunk of drifting ice in the Arctic Ocean known as T-3, or Fletcher's Ice Island, which still serves as an important base for meteorological, oceanographic, and other research.

As Arctic Basin Program Leader for the National Academy of Sciences during the International Geophysical Year, he established two more drifting ice stations—ALPHA and BRAVO—in 1957.

His other technical and operational assignments in oceanic and atmospheric research included design of Aircraft Weather Reconnaissance systems during World War II; command of the 375th/58th Weather Reconnaissance Squadron; research on anomalous radar propagation; and radar probing of weather phenomena at the Massachusetts Institute of Technology Radiation Laboratory.

Mr. Fletcher is currently American chairman of a U.S.-Soviet group for joint studies of the meteorology and air-sea interactions of polar regions, part of Working Group VIII on the Influence of Environmental Changes in Climate, one of 11 groups established by the U.S.-U.S.S.R. Environmental Protection Agreement signed in 1972. He is also an Honorary Fellow of the Norwegian Geographical Society, and has served as Chairman of the Committee on Paleoclimatology and Climatic Change of the American Meteorological Society and as a member of many other scientific committees, including the U.S. Coast Guard's Science Advisory Committee, the Advisory Committee of the University of Alaska Geophysical Institute, and the Board of Governors of the Arctic Institute of North America.

He majored in geophysics at the University of Oklahoma; earned a certificate in meteorology from the Massachusetts Institute of Technology; and received an M.S. in physics from the University of California at Los Angeles.

Lawrence F. Windt Wins Bronze Medal

Lawrence F. Windt, former Hydrologist at the National Weather Service Forecast Office in Raleigh, N.C., has received a Department of Commerce Bronze Medal in recognition of the development and maintenance of an outstanding and responsive hydrologic program at WSFO Raleigh. He retired recently after more than 31 years' Federal service.

Obituary

Francis G. Engle

News of the recent death of Commander Francis G. Engle, NOAA (Retired), has been received.

Commander Engle entered the Coast and Geodetic Survey as an Aid in 1907. His long and varied career included command of the *Pathfinder*, *Research*, *Hydrographer*, *Bache*, *Surveyor*, *Natoma*, *Lydonia* and *Discoverer*. He was transferred to the service and jurisdiction of the Navy during World War I, at which time he commanded the *Bache*.

He retired in 1937 with almost 32 years of service, returned to active duty during World War II, and was retired in 1943.

MTS Conference Set September 23 - 25

(Continued from page 1)

this summer's Third United Nations Law of the Sea Conference at Caracas, Venezuela.

A feature of this year's conference will be an Honors Lecture by Dr. Athelstan Spilhaus which will review the recent history of ocean affairs in this country and speculate about future directions. Dr. Spilhaus is a Special Consultant to the NOAA Administrator.

Other NOAA personnel and the program in which they are scheduled to participate include the following: A Reliable Wave Measurement System for NOAA Data Buoys—Edwardo D. Michelena, Kenneth E. Steele, Charles A. Niederman, John H. Hinchman; The Deep Ocean Mining Environmental Study—Robert H. Wing, John W. Padan; Coastal Zone Management Implementation—Robert Goldman; U.S. Aquaculture at the Take-Off Point—Harold L. Godwin.

Also, Economics of Unconventional Energy Sources—Dr. Milton G. Johnson; Supplemented Tidal Electrolytic Energy Depot—Heyward Canney; Rufas II, Development of a Towed Submersible for Remote Assessment to a Depth of 2400 Feet—Wilber R. Seidel; Current Developments in Marine Science—Paul R. Stang; Marine Safety and Navigation—Dr. Harris B. Stewart, Jr.; Current Developments in Marine Technology—William Nicholson; OASIS, a NOAA Service for Users of Marine Information—Robert R. Freeman, James R. Stear; ENDEX, A System for Locating Historical Environmental Data—Christopher D. Noe; Quality Assurance of Oceanic Data—Gregory W. Withee; Data and Information Needs of the Ocean Engineer and a Proposal to Meet Them—Richard M. Morse; Current Meter Workshop—Donald R. Schmidt.

Dr. Robert B. Abel, Director of the Office of Sea Grant, is President of the MTS and General Chairman of the Conference, and Steven N. Anastasion, Chief of Plans and Program Coordination in the office of the Associate Administrator for Marine Resources, is Program Co-Chairman of the Conference.

Dr. Gordon G. Lill, Deputy Director of the National Ocean Survey, is a member of the Steering Committee on Technical Sessions for the Conference, and John H. Clotworthy, Director of the Office of Congressional and Legislative Affairs, is in charge of special events at the Conference.

NOAA Corps Class

Members of the 47th NOAA Officer Training Class were (from left) Ensign James W. O'Clock, Ensign Roger A. Morris, Ensign Donald A. Dreves, Ensign Thomas J. Rice, Lieutenant (junior grade) Daniel S. Eilers, Ensign Kathryn A. Andreen, Ensign David J. Tennesen and Ensign Peter W. deWitt.

First AFOS Session Held To Evaluate Equipment

The first formal experimentation session at the AFOS Model Facility at National Weather Service Headquarters, was held August 5-9. This session was conducted by the Systems Development Office, Systems Experimentation Branch. Primary emphasis was placed on evaluating the design and performance of the forecaster's console. Secondary emphasis was placed on evaluating the utility of the systems software for presenting and manipulating the information in the data base.

Participants were (seated, from left) John Zimmerman, WSFO Little Rock, Ark.; Dr. J. Richard Lepkowski, National Bureau of Standards, Behavioral Sciences Group; Dr. Edward Diemer, WSFO Anchorage, Alaska; George Cry, RFC Slidell, La.; (Standing, from left) Dean Jackman, WSFO Salt Lake City, Utah; Robert Derouin, Systems Experimentation Branch; Norton Strommen, National Severe Storms Forecast Center, Kansas City, Mo.; John Bottomley, WSFO Minneapolis, Minn.; Eugene Hoover, WSFO, Washington, D.C.; Danny Foster, Systems Experimentation Branch; and Vico Baer, Systems Experimentation Branch. Not shown are James Giraytys of the Systems Experimentation Branch, and additional members of the Behavioral Sciences Group.

Dr. Legeckis Joins Satellite Service

Dr. Richard Legeckis has joined the National Environmental Satellite Service oceanography research group as a National Science Foundation post-doctoral associate. In 1974, he received his degree in Physical Oceanography from the Florida State University, where he studied the effects of bottom topography on ocean currents. In his new position he intends to apply the satellite remote sensing data to the study of time and space scales of water motions on the continental shelf.

Dr. Legeckis is originally from Lithuania and came to the United States in 1950. After studying engineering at the City College of New York, he joined the Grumman Corporation in 1965 as a systems engineer and participated in the moon landing Apollo project.

Lake Survey Men Attend Meeting

Carl B. Feldscher, Chief of the Lake Survey Center's Compilation Branch; Donald R. Rondy, Chief of the Water Level Branch; and Elmer F. Kulp, Jr., Chief of the Vertical Control Section, attended the recent meeting of the Vertical Control and Water Levels Subcommittee, a subdivision of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data. The meeting with representatives of Tides and Water Levels, and the Geodetic Survey of Canada, was held in Ottawa, Canada, and discussions centered around the apparent vertical movement studies of the Great Lakes area. Ralph M. Berry, a former consultant with the Center, and now an employee of the National Geodetic Survey, also participated in the talks.

Research Grant Aids Tornado Study

A $10,000 grant for preparation of a comprehensive reference work documenting windstorm-caused events from the devastating tornadoes of April 3 and 4 between Canada and the Gulf of Mexico has been awarded to Texas Tech University in Lubbock, Tex., by the Environmental Research Laboratories.

The grant recipient is principal investigator Dr. Joseph E. Minor, director of Texas Tech's Institute for Disaster Research, who will be assisted in the research project by Drs. Kishor C. Mehta, James R. McDonald, and Ernst W. Kiesling. All are on the faculty at the University's Department of Civil Engineering.

"Our broad objective is really both scientific and engineering oriented" Dr. Minor says. "From a meteorological standpoint, we need to know more about the structure of tornadoes. And from the engineering aspect, we need to know maximum wind speeds caused by tornadoes so that we can economically design structures which will resist high winds, reduce property damage, and protect people."

The Texas Tech engineering team hopes to compile an integrated reference work of pertinent data, observations, and conclusions developed by several teams of investigators who studied the damaging effects of the tornadoes in Xenia, Ohio; Brandenburg, Ky.; Decatur, Ala.; and other locations.

Dr. R. P. Davies-Jones, a geophysicist with NOAA's National Severe Storms Laboratory in Norman, Okla., who is engaged in severe storms research, will be monitoring the project.

"A need exists for factual, accurate reporting of windstorm-caused events because the policy-making process is heavily dependent upon such reporting," Dr. Minor explains. "Design criteria for nuclear power facilities, tornado resistant structures, tornado shelters in schools, public buildings, and residences are surprisingly sensitive to specific individual wind damage events recorded in literature."

According to Dr. Minor, documentation of windstorm occurrences has often brought forth separate judgments regarding probable maximum windspeeds at specific geographic locations. Many times these judgments differ because of relative perspective—aerial observers see overall wind damage patterns while ground observers see important construction details.

"It is believed that in many cases such differences can be eliminated by comparing notes before each observer produces separate conclusions regarding the same event," he says.

"To accomplish our objective, a review process will be established whereby investigators can exchange viewpoints regarding specific damage events in an attempt to reconcile differences of opinion preliminary to final publication of results."

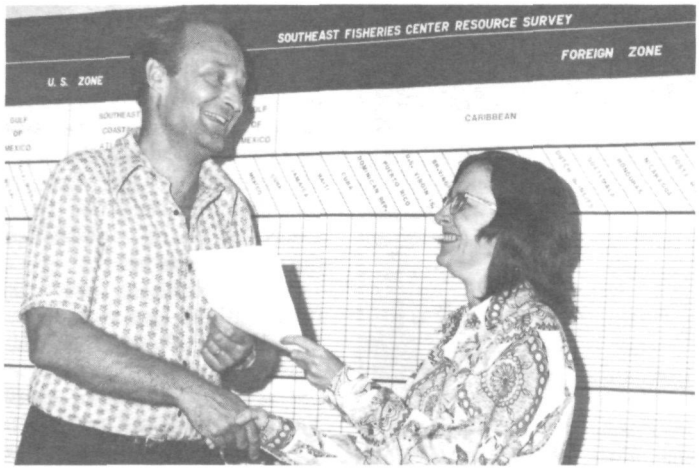
The research project is not intended to supplant separate publications of detailed reports by individuals and organizations with special interests but rather to reconcile professional differences of opinion which may otherwise encumber meteorological, engineering, and policy-making decisions.

NOS Man Awarded Bronze Medal

Lawrence W. Fritz, Physical Scientist in the Photogrammetric Research Branch of the Coastal Mapping Division in the National Ocean Survey's Office of Marine Surveys and Maps, has been awarded a Department of Commerce Bronze Medal. He was cited for "outstanding contributions to the precision calibration of photogrammetric cameras and comparators used in the sciences of Geodesy and Cartography."

Thomas Potthoff, NMFS, Cited for Research Work

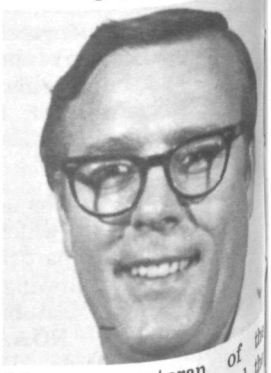
Thomas C. Potthoff, a Fishery Biologist with the National Marine Fisheries Service Laboratory in Miami, Fla., has received a Special Achievement Award. He was cited for completing in eight months the identity of 12,000 phyllosomes, a research project that was expected to take 12 months to complete.



Mr. Potthoff received his award from Mrs. Mary H. Thompson, Deputy Director of the Southeast Fisheries Center.

James H. Dill Is New MIC At Pittsburgh

James H. Dill has been named Meteorologist in Charge of the National Weather Service Meteorological Observatory, Pittsburgh, Pa. Mr. Dill,



11-year veteran of the Weather Service, joined the agency at Cincinnati, Ohio, and served at Syracuse, N.Y., before his transfer to Pittsburgh. Mr. Dill served 3 years in the Air Force as an observer and forecaster before joining the Weather Service. He received his meteorological training at Chanute AFB and at Penn State, the University of Kentucky, and Xavier University.

EEO Meeting in Detroit Hosted by Lake Survey

The Lake Survey Center hosted the Detroit Federal Executive Board's Equal Employment Opportunity Committee meeting recently at its offices in downtown Detroit. Chairperson Ronald Phelps, Director, Chaplain Services at the Veterans Hospital, led the discussion. The discourses included such topics as setting up new training programs, possibilities of financing and hosting the 1977 EEO Convention in the Detroit area, and the progress being made in the various existing programs. Robert Knox, Chief, Personnel Branch, and Mrs. Claudia O'Dell, Budget and Accounting Assistant, took an active part in the meeting with representatives of over 15 other Federal organizations. Commander Darrell W. Crawford, LSC Operations Officer, is the EEO Coordinator.

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