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U.S. DEPARTMENT OF COMMERCE

# NOAA news

National Oceanic and Atmospheric Administration

## Cold Waves Claim Most Lives

Winter cold waves claim more lives than hurricanes, tornadoes, floods or any other weather phenomenon, the National Oceanic and Atmospheric Administration (NOAA) reports.

Officials of the agency also noted that there appears to be a link between cold waves and an increase in normal deaths in areas unaccustomed to extreme cold.

Mortality statistics compiled by the National Center for Health Statistics for 1949 through 1978 show a total of 10,655 deaths attributed to "excessive cold," or an average of 355 deaths per year for the 30 years.



Cold generally has been a steady killer, with the death toll ranging from a low of 185 in 1949 to a high of 652 in 1978, the last year for which figures are available. More than 60 percent of these fatalities occurred after 1962. The death toll from excessive cold was above the 30-year average during most years of that 16-year period. This could reflect the apparent climatic tendency toward colder winters, NOAA officials said.

Deaths from heat waves were somewhat lower than those attributed to cold, averaging 311 for 9,325 during a 30-year period. However, fatalities owing to heat waves varied much more than those cold related deaths, ranging from 96 deaths in 1957 to 1,401 in 1952. There are many years when there were no summer heat waves—those with fewer than 200 heat-related deaths—during the 30-year period. In 70 percent of the years between 1949 and 1978, cold killed more people than heat.

Cataclysms — a composite category including deaths caused by hurricanes, tornadoes, floods, earthquakes, and other natural events (but excluding lightning) — claimed a total of 7,575 Americans, or an average of 253 per year during the 30-year period.

While deaths directly attributable to cold weather led the national toll of weather-related deaths, preliminary evidence also suggests that cold waves take a large indirect toll, especially in areas where extreme cold is infrequent.

Lawrence Truppi, a NOAA researcher assigned to the Environmental Protection

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## STREX Eyes Winter Storms

Scientists from the United States and Canada are probing the nursery of the large mid-latitude storms that dominate North American winter weather.

In a study called STREX (from Storm Transfer and Response Experiment), researchers aboard instrumented ships and aircraft are examining how energy and water vapor feed from ocean to atmosphere, fueling the large storms that rage across the Gulf of Alaska.

The experiment is managed jointly by the NOAA, the University of Washington, and the Atmospheric Environment Service of Canada. A STREX Project Office in Seattle coordinates the many elements of the six-week-long study.

*(Continued on p. 3)*

## Enrollments Closing On Dec. 5

An open season, during which eligible Federal employees may enroll or change enrollment to a new Federal Employees Health Benefits plan, will end December 5, 1980. For the first time since the Program's Inception, employees are receiving newly-developed benefits summaries, instead of brochures, for all available plans. These provide one-page, general descriptions of the benefits provided by the plans to assist employees in selecting a plan. The benefits summaries show plan benefits in a manner more easily understood than that of plan brochures. Also, all plans are presented in a uniform format, so that employees can more easily make comparisons of benefits among plans.

Under open season regulations, any eligible employee who is not currently registered may enroll, and an enrolled employee may change from one plan or option to another, or from self only to self and family, or any combination of these. Those employees who do not wish to make a change in current enrollment need take no action during this open season.

For those employees who are considering enrolling in or changing to another plan, you should remember that there are four types of plans available under the FEHB Program. A brief description of each type of plan follows:

### 1) Service Benefit Plan

The Service Benefit Plan, which is administered by the

*(Continued on p. 6)*

## LETTER FROM THE LABS

By Richard Newell

A rocket, a satellite, and a weather forecasting system of the future, illustrate the kind of advances in technology that help to fuel NOAA's progress in understanding our planet.

**Tornado Probe** — For the past three years, Dr. Stirling A. Colgate of the Los Alamos Scientific Laboratory and the New Mexico Institute of Mining and Technology has been playing a serious game with souped-up toy rockets. Funded by the National Science Foundation and now also by NOAA, Colgate's instrumented rockets promise to be the first devices to allow direct probing of tornado funnels.

"A project like this is made up of thousands of details," Colgate says. He takes laminated paper rockets measuring two feet long and one inch in diameter — the type used by hobbyists — packs 120 grams (4.3 ounces) of custom-built instruments into each one, installs a high-performance engine developed by George Roos of Burns Flat, Oklahoma, and adds on a standard toy-rocket booster. He mounts from three to five of the rockets under one wing of his single-engine Cessna 210 aircraft and, when the time is right, sets out to intercept a tornado. He encountered his first twister last spring, but extreme turbulence and an equipment failure caused him to abort that mission.

The paper rocket, weighing less than one pound, has a maximum range of about one mile. Its solid propellant burns out in 2 1/2 seconds. The instruments measure dynamic pressure, temperature, ionization, electric field, and the earth's magnetic field (indicates how fast the rocket is rotating, and whether it's tumbling). Data from each probe are radioed to the aircraft over a period of about eight seconds, at a rate of 500 sample per second.

"The procedure is to fire one rocket into the vortex at a time, and then make another pass," says Colgate. The probes are launched only in uninhabited areas. Their size and weight are dictated by a Federal Aviation Administration regulation defining "toy" rockets.

There are a lot of questions about tornado funnels that Colgate and other scientists want answered: How do they manage to pack such tremendous power? How might electrical heating add to their strength? What makes them so incredibly stable? Colgate has tested run his rocket sensors through the Air Force Academy wind tunnel at Colorado Springs. His system is now operational, and he's anxious to put it to the test.

**Atmospheric Sounder** — The first attempt to take vertical readings of the atmosphere from a geostationary satellite (see NOAA News, 9/13/80) is off to a good start. Results from the first complete day of data provided by the GOES-4 atmospheric sounder system (VAS) indicate that it can probably achieve its intended goal — to observe the structure and time-variations of temperature and moisture at various altitudes.

Scientists of the NOAA/University of Wisconsin Cooperative Institute for Meteorological Satellite Studies (CIMSS) explain that sounding from a geostationary satellite allows for constant surveillance of one-third of the earth's surface, a consistent viewing geometry, better determination of time and space gradients, and easier synchronization with radiosondes.

"The VAS data processing system is still very much in the research and development stage," says CIMSS meteorologist Hal Woolf. He states that the new data should eventually allow weather forecasters to track storms as they develop, but it will take many months to determine

the system's accuracy and explore its full capabilities.

The new instrument, a 12-channel infrared radiometer, can provide day and night cloud cover photos or, when switched to a different mode, supply sounding data from clear or partly cloudy areas.

**PROFS** — How do you take technology that is already developed and mold it into a total system for operational use? That's the challenge confronting the Prototype Regional Observing and Forecasting Service (PROFS). The goal of PROFS is to design and test a weather service system specifically tailored to local areas of the United States. The National Weather Service will implement these designs in most of the nation's major cities, to supplement the broader weather picture that it already provides.

The directors of three NOAA components — Environmental Research Laboratories, National Weather Service, and National Earth Satellite Service — guide and review the overall program. "Most of the technology needed to create such a service already exists," says PROFS director Dr. Donald W. Beran of ERL. A dense observation network, consisting of conventional sensors and an array of ground- and satellite-based remote sensors, will soon be transmitting data to a computerized Exploratory Development Facility, nearing completion in Boulder.

Over the next few years, the facility will be used to determine the best way to merge the data, produce half-hour and three-hour forecasts, and disseminate them rapidly to a variety of users in a form that is easily understood. If the program is successful, meteorologists will be able to be "site specific" with their forecasts, predicting severe weather within a small area, and warning people within a few minutes.

## Death Rate Higher In Cold Weather

(Continued from p. 1)

Agency in Research Triangle Park, N.C., said studies of the effects of a January 1965 cold wave revealed large increases in normal death rates when temperatures were unusually low.

"We found that in New York City, on the coldest days — days when temperatures dropped below about 10 degrees Fahrenheit, and never climbed out of the teens — the death rate increased to about 25 percent above normal. Most of the increase we find in arteriosclerotic and hypertensive heart illness and respiratory diseases, as one would expect.

"During that general period, however, we find normal death rates more than doubling in Birmingham, Alabama, as temperatures dropped below zero. While we can't say for sure, the evidence suggests a large increase in indirect casualties of cold weather in normally mild-wintered areas."

Maps prepared by the NOAA scientist and EPA showed that death rates across the southeastern United States rose and fell during the 1966 cold wave, apparently in response to uncharacteristically low temperatures.

"On a day that would be balmy by Rocky Mountain standards — high temperatures in the sixties, lows in the forties — we see nearly a doubling of the normal death rate in southern Florida," Truppi points out.

The increase in normal death rates from cold-wave conditions is comparable to similar increases associated with heat-wave weather, Truppi said.

All the statistical news on winter weather are not bad, however. Public Health Service statistics also indicate that the death rate from excessive cold per 100,000 population has declined steadily since 1900.

# TIROS-N Malfunctions

One of two operational polar orbiting spacecraft managed by NOAA lost its ability to provide images of the earth last month.

The TIROS-N satellite, launched October 13, 1978, lost the operation of its Advanced Very High Resolution Radiometer (AVHRR) on Saturday, November 1. Efforts to reactivate the instrument were unsuccessful.

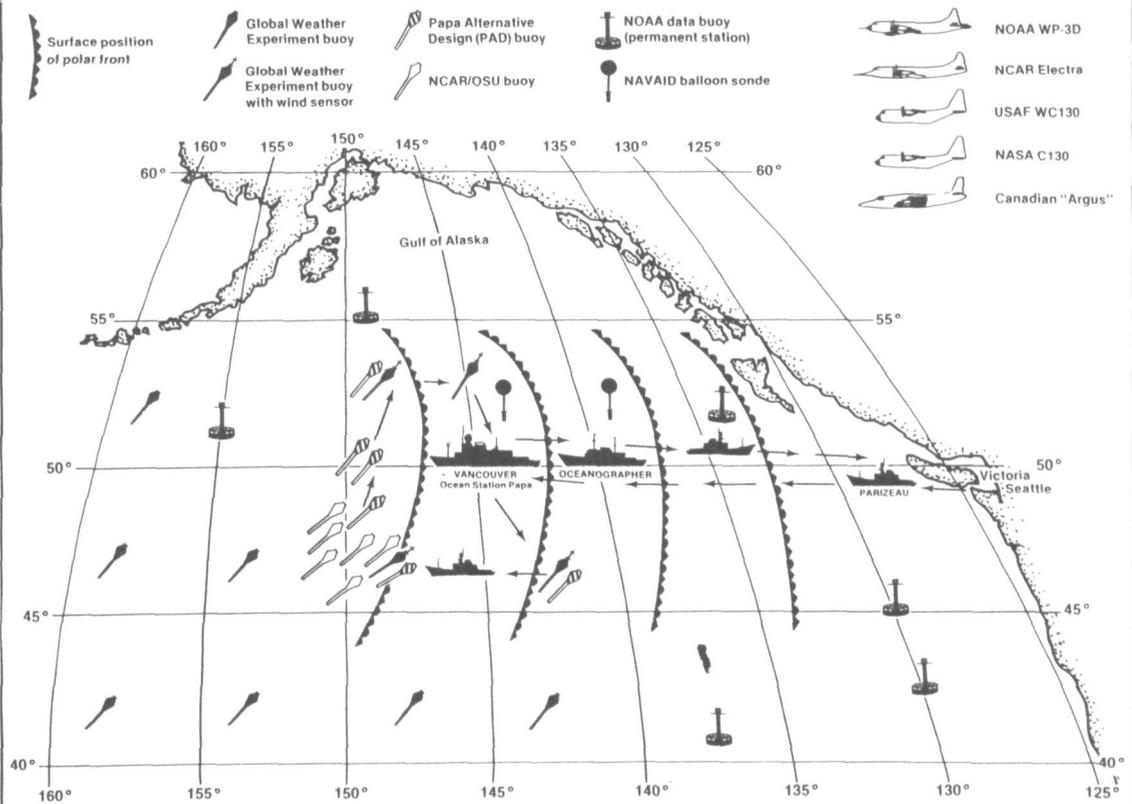
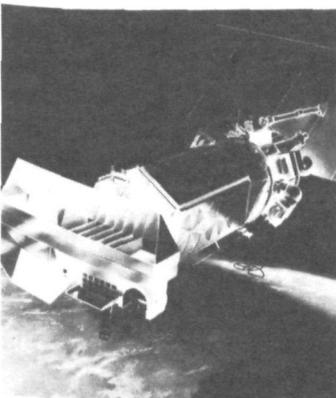
The AVHRR provides both real-time direct broadcast imagery, and stored imagery for replay while the satellite is in range of NOAA earth stations.

A second polar orbiter, NOAA-6, is performing satisfactorily.

NOAA officials said a vertical sounder subsystem aboard TIROS-N continues to function, providing data on temperatures and moisture in the atmosphere to the National Meteorological Center for forecasting use.

The earliest possible date for launch of a replacement satellite is May of next year. Earlier this year a spacecraft of the same series was launched as a standby satellite, but it failed to achieve orbit when one of the booster engines on the launch vehicle did not develop full power.

NOAA also operates two geostationary environmental monitoring spacecraft in a separate satellite system. These satellites provide much of the data used by National Weather Service offices in their day-to-day forecasting activities.



**STREX—Storm Transfer and Response Experiment**

## STREX Studies Mid-Latitude Winter Storms

*(Continued from p. 1)*

During the experiment, research ships from Canada and NOAA, aided by instrumented, drifting buoys deployed in the path of the storms, will take measurements from below the sea surface to thousands of feet in the air, in an unprecedented study of air-sea exchanges in the midst of large storms. In the meantime, research airplanes will probe the advancing storm fronts, sometimes flying as low as 150 feet.

Project scientists expect the STREX environment to be severe, with storms bringing winds up to 60 miles an hour and 25-foot seas. New technology has been applied to the experiment to provide miniaturized or expendable instruments that can be used safely under storm conditions at sea. As many as 10 storms should cross the Gulf of Alaska during the experiment, which ends in mid-December.

STREX goals include removing those obstacles which inhibit improved weather fore-

casts, and predictions of climatic trends from a scale of seasons up to about a year. The experiment should also permit Canada, which is ending weather-ship operations next year, to find alternative methods of gathering weather data in the area, where much of the winter weather affecting western Canada begins.

Other STREX participants include the National Science Foundation, National Center for Atmospheric Research, National Aeronautics and Space Administration, U.S. Air Force, Office of Naval Research, U.S. and Canadian Coast Guards, Canada's Institute for Ocean Sciences and Oregon State University.

### Awards To Be Presented Dec. 5 At Bolling Air Force Base Luncheon

The 1980 annual NOAA Awards luncheon will be held at Bolling Air Force Base Officers' Club on Friday, December 5, 1980.

Eleven employees of NOAA will be honored with awards ranging from \$1,000 to \$5,000. This year a greater number of awards of greater dollar value will be presented. Administrator Frank will make the presentations.

The luncheon, costing \$5.50 per person, will be a

choice of chicken a la coq au vin or filet of flounder with wine sauce. A cash bar will be available at 11:30 and luncheon will be served at 12 noon.

Tickets are being sold in NOAA offices, including the offices of NOAA Public Affairs, Room 108 in the Rockwall Building and Room 5217 in the Department of Commerce Main Building. For information, call 377-4190.

# Hawaii WSFO's Got Hurricanes In The Bag

When hurricane season rolls around, most people stock up on groceries for shut-in days. In Hawaii, the Honolulu Forecast office of the National Weather Service has devised a unique method for advertising other ways to prepare for hurricanes.

For three consecutive seasons, thousands of Island shoppers have been carrying groceries home in bags bearing a Hawaiian hurricane track chart and a list of precautions to take when a storm watch or warning is issued.

The bags are printed and distributed by Foodland, Hawaii's largest supermarket chain, and the Hawaii Food

Industry Association (HFIA), a large cooperative of independent stores. Together, they have distributed more than two million bags to shoppers throughout the state.

Clarence B. H. Lee, meteorologist in charge of the Honolulu WSFO, originated the idea of using the brown bags for disseminating preparedness messages and convinced Foodland and HFIA to undertake the project. The idea since has been copied by NWS offices at other locations.

Lee notes that the bag manufacturing industry also has begun putting other public service messages on its products.

"The program has proved extremely successful," Lee said, "It has proved a real education for people to read the messages. We've received many calls from the public asking for more information on hurricanes. Some of them weren't even aware previously that Hawaii had hurricanes."

Two top officers of the two cooperating food chains have been presented public service awards for their help with the projects. The awards, signed by NWS Director Richard A. Halgren, were presented to Neil Sutherland of Foodland and Richard C. Botti of the Food Industry Association.



Officials at Foodland have come across information independently that proved the value of the program. The firm's president, Maurice Sullivan, began wondering whether his shopping bags "had an after life," and decided to survey customers on how they disposed of them.

He found that most bags were used for the expected purposes — trash can liners, wrapping paper, rain hats, etc. However, the bags bearing hurricane warning messages were kept. Shoppers tacked them to kitchen bulleting boards and other spots where they could be consulted easily.

As for Lee, he is now looking for other mediums for spreading the hurricane preparedness messages. He now envisions them on milk cartons, cereal boxes and other widely distributed containers.

Meantime, the Honolulu WSFO has found another unique approach for increasing the size of the NOAA Weather Radio listenership. With the approval of Frank F. Fasi, mayor of the city and county of Honolulu, display cards advertising the radio service band have been placed on the rear of Honolulu's 400 buses where some 60 million residents and visitors can read them.



## Agency Panel To Discuss Issues At NOAA's Women's Forum

A panel of nine managers representing major agency offices has been selected to participate in a town meeting discussion on the theme, "Women and Men: Crossroads to Understanding," at the December 9 NOAA's Women's Forum.

Associate Administrator Dr. George S. Benton will extend greetings to Forum attendees on behalf of Administrator Frank at the opening session at 9 a.m. in the departmental auditorium. Arva Jackson, director of the Office of Civil Rights will present the closing remarks.

Ellen Overton, NOAA federal women's program manager, will serve as moderator.

The keynote speaker will be Carmen R. Maymi, director of the Equal Opportunity Office (internal) of the Office of Personnel Management.

Managers participating in the morning town meeting discussion will represent the Office of the Administrator, the Office of Management and Budget, the National Ocean Survey, the Environmental Data Information Service, the National Marine Fisheries Service, the National Weather Service, the Office of

Coastal Zone Management, the National Earth Satellite Service and the Office of Research and Development.

Female employees representing the same offices will question the managers on such topics as attitudes, perceptions and relationships; training and upward mobility; and recruitment and promotions.

A second panel discussion during the afternoon session beginning at 1:30 p.m. will address sexual harassment, alternative work schedules, the role of women managers, career advancement, and

networking and mentoring.

Sign language interpreters will be present.

Those wishing additional information about the Forum should contact Ellen Overton at 443-8725.



## NWS Program Assists Southern Rice Growers

The Rice DD50 Program is making rice production more efficient in Arkansas, Mississippi, and Texas through the efforts of the NOAA/NWS Environmental Studies Service Centers (ESSCs) at Stoneville, Mississippi, and College Station, Texas. The program helps farmers know when to apply fertilizers and insecticides, when to flood and drain fields, and even when to harvest.

DD50 is an abbreviation for Degree Day based at 50° Fahrenheit. Degree days are calculated by averaging the day's maximum and minimum temperatures and subtracting that number from the base. For example, an average temperature of 70°F results in 20 degree days. The degree days are then totalled, or accumulated, for the entire growing season. (Electric companies use degree days based at 65°F to estimate fuel consumption.)

The Rice DD50 Program began as a research project in Arkansas in 1965. Continued research and application of the findings were completed at the Stoneville ESSC in 1976. Now farmers throughout the three-state area use the information to reduce their production costs and to increase their yields.

Research done at Stoneville showed that the growth of a rice plant is highly correlated with the number of accumulated degree days. If farmers begin counting the number of degree days starting at the time the rice first emerges from the soil, they can closely approximate the entire life cycle of the rice plant. From that information, farmers can determine when fertilizers will be most effective, when herbicides to kill weeds will harm rice the least, and even when to plan the dates of harvest.

Currently, the ESSCs collect emergence data from all farmers wishing to participate in the program. The ESSCs then use temperature forecasts from National Weather

Service Forecast Offices to compute the expected rice growth. A computer print-out is then made available to the farmers for their individual rice fields. Many farmers even keep the print-out in their truck for handy reference.

The program is very popular, and NOAA has been receiving much public support. Thanks to the ESSC agricultural meteorologists,

and the states of Arkansas, Mississippi, and Texas, over 1700 rice producers participate in the Rice DD50 program, covering about 300,000 acres of rice. But since the ESSCs cover many more states, the program is expected to continue expanding. The benefits of this research reach worldwide and could well play a major role in world food production.

—Dr. Gene Rench

## Silver Medal

Raymond L. Coldren, an electronics technician with the National Earth Satellite Service, was inadvertently omitted from the list of Department of Commerce silver medal winners carried in the previous issue of *NOAA News*. He was honored for outstanding contributions in making weather satellite imagery available to government and civil users of pictures from space.

## Diving Medicine Is Subject of Training Class

The Sixth Physician's Hyperbaric Training Program (Diving Medicine), sponsored by NOAA and the Undersea Medical Society, was recently concluded at the NOAA Diving Training and Hyperbaric Center, located at the Southeast Fisheries Center

in Miami, Fla.

During the three-week program, workshops and seminars were conducted by twenty leaders in the field of diving medicine to insure that the latest information, theory and practices were presented to the students.

To date, approximately 75 physicians have been through this program and have applied themselves in their respective communities treating diving, altitude and other forms of hypo/hyperbaric-related problems.



The participants shown above are: *seated*, left to right, Dan Shapiro, M.D., Durham, North Carolina; Marc Kaiser, NOAA Diving Asst., Miami, Fla; John Miller, M.D., Duke University Medical Center, Diving Medical Officer for the recent 650 meter world record dive at Duke; Dick Rutkowski, Program Co-Director, Miami; Charles W. Shilling, M.D. Executive Secretary, UMS; Morgan Wells, Ph.D., Program Director, Rockville, Md.; Yvonne Harper, Program Assistant, Miami; Mike Canfield, NOAA Diving Asst., Miami, Fla; *second row*, standing left to right, James Loewenherz, M.D., Miami, Fla; Michael Fried, M.D., Brooklyn, N.Y; Paul Sheffield, Ph.D., San Antonio, Texas; Claude Zanetti, M.D., Ann Arbor, Michigan; Edmund Zahn, M.D., Miami, Fla; T.G. Patel, M.D., Virginia Beach, Virginia; Thomas Lubin, M.D., Woodshole, Ma; Paul Cianci, M.D., Pinole, Calif; Parveen Anand, M.D., Harvey, Louisiana; Jeffrey Sipse, M.D., Los Angeles, Calif; *third row*, standing left to right, Richard Cales, M.D., Irvine, Calif; William Bradley, M.D., New Orleans, La; Robert Crawford, M.D., Seattle, Washington; Edward Ferrer, M.D., Miami, Fla; *Not included in photo*, Francois Guimond, M.D., Gretna, La; Mr. James Pair, Discovery Bay, Jamaica; Barbara Brenkworth, Program Asst., NOAA Diving Office, Rockville, Md.

(Continued from p. 1)

national Blue Cross and Blue Shield organization, is a Government-wide plan available to every eligible employee. This plan generally provides benefits through direct payments to doctors and to hospitals.

**2) Indemnity Benefit Plan**

The Indemnity Benefit Plan, which is administered for the insurance industry by Aetna Life Insurance Company, is also a Government-wide plan available to every eligible employee. This plan provides benefits by cash reimbursement either to you or, at your option, direct to doctors or hospitals.

**3) Employee Organization Plans**

Some employee organizations sponsor indemnity-type plans (they provide benefits by reimbursing you or, at your option, doctors or hospitals). Some of these plans are open to all Federal employees, regardless of agency or occupation, while others are open only to a certain group of employees.

**4) Comprehensive Medical Plans (Health Maintenance Organizations, or HMO's)**

Comprehensive Medical Plans (HMO's) are an alternative to conventional health insurance. The main difference between Comprehensive Medical Plans and conventional plans is that Comprehensive Plans deliver health care services in addition to providing coverage. Comprehensive Medical Plans are open generally to employees who live in the particular geographic area served by the plan, as described in the plan's brochure. This year, each employee will receive a packet containing the following material:

- THE BOOKLET, ENROLLMENT INFORMATION AND PLAN BENEFITS SUMMARIES, (BRI 41-331) containing enrollment Instructions and benefits summaries for plans open to all eligible employees;
- BENEFITS SUMMARY PAGE SUPPLEMENTS FOR ANY COMPREHENSIVE PLANS which are in the area of the employing office and which serve an area in which the employee resides;
- THE BENEFITS SUMMARY PAGE SUPPLE-

MENT FOR ANY EMPLOYEE ORGANIZATION PLAN in which the employee is eligible to join and which is not included in BRI 41-331; and

NOTE: In the Chicago and Southern California test areas, employees will receive:  
 ●booklet BRI 41-332 (in Chicago) or BRI 41-333 (In Southern California) instead of the above material.

- BRI 41-212 biweekly (or BRI 41-213 monthly) list of premium rates for all plans.

BRI 41-331 and the benefits summary sheets will give employees general descriptions of the benefits of each plan available. They can also be used to compare benefits among plans. However, since they contain only a general description of plan benefits, do not rely solely on benefits summaries when deciding to enroll in or change enrollment to another plan. It is also important to remember that only you can decide which plan is best.

If, after examining the

benefits summaries, you decide that you are interested in enrolling in, or changing to, a particular plan, consult the brochure of the plan for a complete description of benefits. Brochures will be available for your inspection at your servicing personnel office. However, because of limited quantity available, brochures must be returned after you have reviewed them.

To further assist employees in selecting a plan, OPM has also, for the first time, developed comparison charts showing the benefits of each available plan for 17 selected major benefits categories.

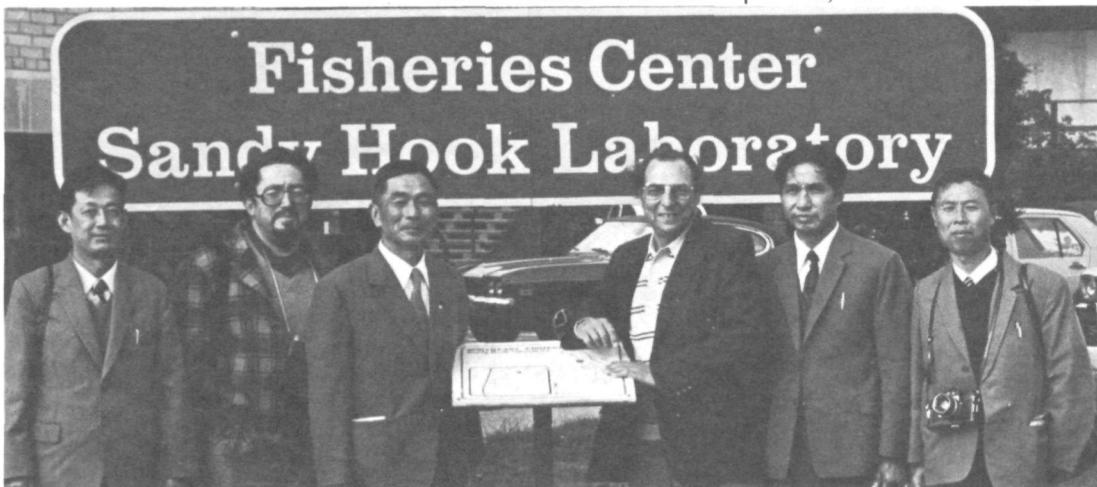
Employees wishing to enroll or change their enrollment must complete a Health Benefits Registration Form (Standard Form 2809). These forms are available from your servicing personnel office and must be completed and submitted to that office prior to the close of business on the last day of the open season.

New enrollments and changes in current enrollments elected during the open season will normally become effective January 11, 1981 which is the first day of the pay period.

After open season, enrolled employees will receive a 1981 brochure of the plan in which enrolled. The brochure, in addition to providing complete information on plan benefits, provides information on how plan benefits or services can be obtained.

**MONTANA TAX NOTE**

Employees who are subject to State tax withholding for the State of Montana may notice a change in their State tax for salary checks dated on or after November 26, 1980. In addition, another change will occur in salary checks to be dated on or after January 7, 1981.



The Sandy Hook Laboratory of the Northeast Fisheries Center, Highlands, N.J., recently hosted a delegation of Chinese scientists from the Yellow Sea Fisheries Research Institute and Bureau of Aquatic Sciences at Peking.

The group is making a tour of marine aquaculture facilities throughout the United States. Shown during the Sandy Hook Laboratory tour are (from left to right): Dr. L. Zhang, molluscan specialist; A. L. Pacheco, Sandy Hook staff member; Dr. T. Liu, YSFRI Deputy Director; Dr. A. Rosenfield, Laboratory Director, NEFC, Oxford, Md.; R. Lui, marketing and Dr. C. Yan, crustacean specialist.

**NOTES  
ABOUT  
PEOPLE**



Howard L. Raymond of the Northwest and Alaska Fisheries Center, Seattle, Wash., received an award from the American Fisheries Society for the most significant paper in the 1979 volume (no. 108) of the *Transactions of the American Fisheries Society*. The title of the paper is "Effects of Dams and Impoundments on Migrations of Juvenile Chinook Salmon and Steelhead from the Snake River, 1966 to 1975." Raymond has been working on fish-passage problems at the Center for 21 years. The Center is under NOAA's National Marine Fisheries Service.

Adm. H.R. Lippold, Director, NOS, administered the Oath of Office to Charles K. Townsend as Director, Pacific Marine Center, and announced his promotion to Rear Admiral. Adm. Townsend previously served as Deputy Director, PMC.



Left to right: Adm. H. E. Lippold, Mrs. Townsend, and Adm. C. K. Townsend.

Two Republic of China meteorologists recently visited the Madison, Wisc., WSO to study the operations of a typical WSO. Ms. Feng-Xian Zhou of Peking's "Academia Sinica" and Mr. Shi-Feng Zhang of the University of Nanjing were impressed by the Weath-



er Service Specialist's many duties. MIC, Ed Addison, is shown with the visitors in front of the WSO.

## Consolidation Study Starts

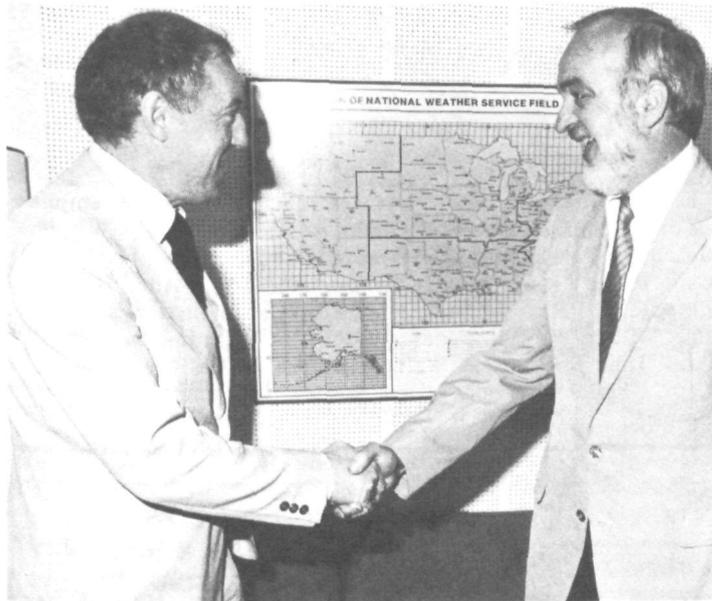
Because of NOAA's interest in consolidating its 22 sites in the Washington Metropolitan area, GSA was asked to provide a feasibility study. In response to the request, GSA has contracted with Hunter Miller Associates, a private interior design, planning and consulting firm. On September 9, 1980, Hunter Miller Associates began studying NOAA's needs for a consolidated headquarters. The study is expected to be completed April 15, 1981.

The contractor will collect and analyze data on NOAA's Washington Metropolitan area space inventory, present an overview of the present situation, and make recommendations for a cost effective, feasible plan for consolidating NOAA's components at two or three locations, one of which will be in the downtown area of Washington, D.C.

### Avoid Check Delays

To avoid unnecessary delays in the delivery of Treasury checks please be sure that all Requests for Travel Advances and Trav-

el Voucher claims are submitted with a complete payee mailing address, including zip code and/or office routing code.



Dr. William D. Bonner, Deputy Director of NOAA's National Weather Service, greets Dr. Lars Ag, Director-General of the Swedish Meteorological and Hydrological Institute. While in this country, Dr. Ag visited NWS to learn more about the detailed operations of the Weather Service.

### People Helping People

One organization that new employees should quickly learn about is NOAA Voluntary Action, Inc., (NOVAC), a non profit, tax-exempt corporation formed by a group of agency employees.

NOVAC members pool their resources to voluntarily help fellow employees in every major NOAA work location in the Washington area.

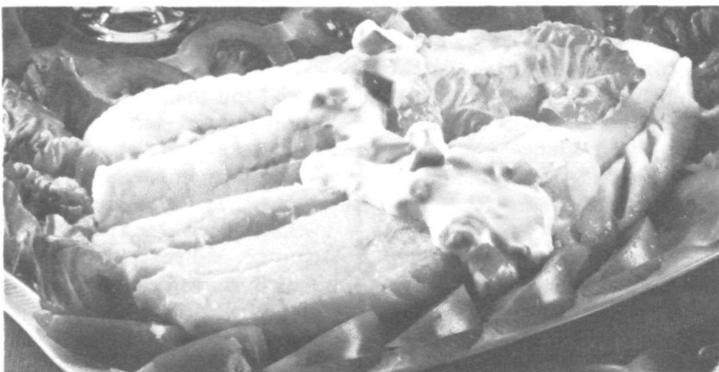
NOVAC makes emergency grants and loans to employees experiencing financial difficulties because of unexpected misfortunes. Through its revolving fund, the organization also assists co-op students during their short-term work periods in Wash-

ington. NOAA employees who do not receive their paycheck also can turn to NOVAC for help. NOVAC also makes day care assistance grants to mothers of pre-school children in day care centers.

NOVAC work is supported by "membership" contributions and special fund raising events. Members make periodic cash donations of at least a dollar per year or have regular deductions made from each paycheck and deposited in the NOVAC account in the Federal Credit union.

For help or information about joining NOVAC, contact Floyd Smith, senior vice president, 443-8836.

FROM THE GALLEY



CHILLED POACHED FISH WITH DILL SAUCE

2 pounds cod or other thick fillets, fresh or frozen  
1 cup water  
1/4 cup white vinegar  
1 slice onion  
1 teaspoon salt  
6 whole allspice  
1 bay leaf

Lettuce for garnish, optional  
Lemon and tomato slices for garnish  
Snipped fresh chives or fresh dill weed for garnish  
Creamy Dill or Sour Cream Pickle Sauce

Thaw frozen fish. Leave fillets whole or cut into serving portions, if desired. Combine water, vinegar, onion, salt, allspice, and bay leaf; bring to a boil. Cover and simmer about 10 minutes. Add fish; cover and simmer gently about 10 minutes or until fish flakes easily when tested with a fork. Cool in liquid about 30 minutes. Carefully remove fish from liquid; chill well. Arrange on lettuce-lined serving platter and garnish with lemon and tomato slices and chives or dill weed. Spoon a small amount of sauce over fish. Serve remaining sauce with fish. Makes 6 servings.

## NOAA news

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The publication provides information for employees of NOAA, an agency of the U.S. Department of Commerce.

Articles for publication should be submitted at least ten work days in advance to NOAA News, NOAA Office of Public Affairs, Room 108, Rock-Wall Building, Rockville, Md. 20852.

NOAA News reserves the right to make changes in submitted copy in conformity with the policies of the publication and of NOAA.

## Fresh Fish Inspection Program Works for Wakefern Food Chain

Wakefern Food Corporation, Elizabeth, New Jersey, joined the fresh fish inspection program administered by the National Marine Fisheries Service in February 1979. At that time, 182 of its Shop Rite stores sold fresh fish. Since joining the program, the number of stores selling the inspected fresh fish has increased to 194 and the amount of fish sold annually has increased considerably, according to a corporation spokesman.

The company has a NMFS approved quality inspection program. Either the company's inspectors or an inspector from NMFS checks each of the stores at least once a quarter to ensure that high standards of freshness and quality are maintained.

Wakefern buys the majority of its fresh fish from

dealers who are under the NMFS plant inspection program. However, it does buy some fish from companies that are not. The company has a full time NMFS inspector in its Elizabeth warehouse to ensure that the fish going to its stores is of high quality and to inspect and grade fish that is purchased from companies not under the inspection program.

Wakefern has stores in New York, New Jersey, Massachusetts, Connecticut, Pennsylvania, and Delaware. The major species sold are flounder, cod, haddock, swordfish, sea trout, sablefish, bluefish, and striped bass.

The NMFS inspection programs are voluntary on the part of the companies that pay for the services of the inspectors in their plants.



The NOS Director's 1980 Fall Conference, with a major emphasis on long-term mission objectives, was held recently in Virginia Beach, Va. Participants were (seated L-R) Capt. Edwin McCaffrey, Capt. Roger Lanier, R. Adm. Richard Houlder, R. Adm. Herbert Lippold, Jr., R. Adm. Robert Munson, Capt. Austin Yeager, Cdr. William Hayes (standing L-R) Cdr. Sigmund Petersen, Capt. John Bossler, Mr. Walter Chappas, Mr. Robert Rollins, Capt. Charles Townsend, Capt. Wesley Hull, and Dr. Robert Embley.

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