

## New Policy Helps

## NOAA, Frank

## States In Memo

Richard A. Frank, NOAA Administrator, has announced a vigorous new policy to assure that the agency benefits fully from people and resources available in the Nation's academic and research institutions.

In a memo to senior NOAA managers, Frank listed guidelines for actions to be taken by them to:

- Increase their use of academic and research institutions in conducting NOAA research;

- Give prime consideration to locating new NOAA research facilities, and existing ones requiring relocation, at or near appropriate academic institutions;

- Affect additional cooperative agreements between NOAA research facilities and academic institutions;

- Make greater use of consultants from academic and research institutions, consistent with Federal employment policies, in the planning and implementation of NOAA research programs;

- Involve experts from academic and research institutions more broadly in significant policy making;

- Use innovative methods, including short-term (one to two years) employment, to attract a greater number of highly qualified individuals from the academic and research communities to NOAA.

Frank said he believed the agency's relations with the academic and research communities could, and should, be enhanced for several reasons.

"First, with regard to specific NOAA mandates, the academic and research communities can

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## Weather Research & Services Would Get Largest Increase

# Proposed FY80 Budget Submitted

President Carter included a total of \$792.5 million for NOAA in his fiscal 1980 budget request, sent to the Congress on Jan. 22. This is an increase of \$57.2 million over the \$735.3 million available to NOAA in the current (1979) fiscal year.

To help finance this increase, NOAA has reduced lower

priority programs through use of Zero Base Budgeting, and proposes decreases totaling \$14.3 million.

The largest program increase included in the NOAA budget is an additional \$20.3 million for weather research and services. This includes a variety of needs such as two new local warning

radars, a four-state flash flood warning program, and improvement of detailed localized weather forecasts through use of new meteorological sensor techniques, being developed in a Prototype Regional Observing and Forecasting System. Equipment replacement, including three aging computers, and establishment of a National Heavy Precipitation Unit to issue localized and detailed guidance are also included.

Coastal zone management would also receive a healthy boost, \$16.6 million, which is

*A summary of requested increases and decreases in the NOAA budget for FY 1980, by activity, is on pages 4 and 5.*

## Decreasing Flash Flood Tolls Is NOAA & ARC Goal

An intensive program designed to reduce substantially the annual loss of lives from flash floods in the United States, as well as cut down property damage by 10 to 15 percent, has been planned by NOAA and the Appalachian Regional Commission.

Now ranked as both the leading killer and major destroyer of property among weather-related disasters in this nation, flash floods on the average take 200 lives a year and cause \$1 billion in property damage. Projections indicate these figures could more than double in the next five years.

Yet, according to NOAA officials, both the death toll and

property damage can be significantly reduced by improving flash flood forecast and warning programs, strengthening local community involvement and activity in prevention efforts, and better regulating the use of areas subject to flash flooding.

The planned NOAA program, now before Congress for approval, envisions a coordinated Federal-State-local effort, with NOAA focusing upon the hydrologic and meteorological aspects; improving the preparation of forecasts and warnings of flash floods, and initiating the development of supporting techniques and equipment. This would include the procurement,

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Flash floods take about 200 lives and cause over a billion dollars in property damage a year in the United States.

requested for additional program administration grants for eight states, increased ocean use planning and assessment, and an augmented Marine Sanctuaries program, as well as new budget authority for planning grants and program management for the Coastal Energy Impact Fund.

An additional \$7.8 million is requested for programs of fishery conservation and management. Among these are the beginning of an ocean pulse program to monitor the health of the marine environment, augmentation of estuarine and environmental assessment programs, and additional funds to provide deterrent surveillance and enforcement of domestic and international fisheries management regulations and treaties. Studies of marine mammals and endangered species conservation are also included.

Ocean services are slated to receive an additional \$7.4 million under the budget. These include modernization of the national tide and water level

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# Proposed Bowhead Whale Regulations Announced

Proposed regulations governing the taking of bowhead whales by Alaskan natives have been announced by NOAA.

The proposed regulations for 1979 implement a quota established by the International Whaling Commission of 18 bowhead whales landed or 27 struck, whether landed or not.

The proposed regulations allocate the 1979 quota among nine whaling villages, based on the take by the villages in 1978. Once a village reaches either its landed or struck quota, it must stop whaling, and any unused portion of a quota may be re-assigned to other villages.

In addition to establishing a quota, the proposed regulations prohibit killing of a calf or a whale with a calf, simplify licensing requirements, allow the natives to salvage dead unclaimed whales, require reports on kills and strikes, and establish penalties for violations of the regulations.

Comments are solicited on the proposed regulations which were published in the Federal Register on January 30. Comments must be sent to the National Marine Fisheries Service, NOAA, Washington, D.C. 20235, by March 15.

## Flash Flood Program

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siting, and installation of observing and communications equipment needed to augment the existing flash flood warning program.

Other agencies, notably the Appalachian Regional Commission, Corps of Engineers, and the Federal Emergency Management Agency, as well as appropriate State and local bodies, would carry responsibility for certification and monitoring of dam safety, flood plain management, preparedness planning, and flood recovery operations.

Since flash floods are local phenomena and differ in nature according to the geography and meteorology of the countryside, NOAA is proposing a modular concept of regionalized flash flood programs in high risk areas. The modules would be supported by centralized facilities within NOAA's National Environmental Satellite Service and National Meteorological Center. These facilities would monitor small scale weather as it develops, using space and surface-based observations, and conduct analyses, forecast heavy precipitation, and alert National Weather Service field offices to the potential for flash floods.

A prototype module is being established in a high-risk, 12-county area covering parts of Kentucky, Virginia, and West Virginia. Much of the already

existing local community flash flood monitoring network in the area is being upgraded with automated precipitation and river-level alarms and self-reporting measuring devices, representing a wide spectrum of technical sophistication.

Significant improvement in the overall capabilities of coping with flash floods are expected by next spring, although the prototype in the 12-county area will not be in full operation until early 1980.

The area also will serve as a test bed for the evaluation of new technology and techniques for potential nationwide application.

Concurrent with the development of the Appalachian-wide module, NOAA is expanding its existing ability to monitor weather patterns over large areas and to alert local forecasters to the potential for flash flood producing rainfall. It is strengthening its Quantitative Precipitation Forecast branch, creating a new group at the National Meteorological Center.

To be known as the National Heavy Precipitation Unit, the group will analyze the potential for heavy precipitation on a nationwide basis, applying recent technologies and scientific advances to improve quantitative precipitation forecasts.



NOAA Corps Lt. Paul B. Loiseau, Jr., and Lt.Cdr. Thomas W. Ruzsala were presented Unit Citations by R.Adm. Robert C. Munson, Atlantic Marine Center Director, for their participation in the First International Study of Herring and Hydro Acoustics (Project FISSHH) while attached to the National Marine Fisheries Service, Woods Hole, Mass.

## NOAA Budget

(From p. 1)

observation network, improvement of wave predictions, and establishment of new field centers for providing ocean services information to marine users.

Climate research is pegged at an additional \$7 million in the budget request. These funds will provide for operations of the U.S. Climate Program Office established in response to the National Climate Program Act of 1978, augmentation of computer capabilities for environmental modeling, and global monitoring of climatic change including research on carbon dioxide in the atmosphere.

Another major program increase, totalling \$7 million, is requested for ocean pollution studies. This will make possible expanded evaluation of offshore dumpsites in heavily stressed areas, research into the long-range effects of pollutants on marine resources, and the consolidation of fragmented efforts in ocean pollution research and monitoring, as well as undertaking new projects not now carried out by the Government.

As a partial offset to these important initiatives, NOAA has proposed reductions including the following:

Closing 22 part-time Weather Service Offices of the lowest priority;

Terminating the Saltonstall-Kennedy Fishery Fund, replacing \$16 million from the Fund with direct appropriations;

Reducing the annual incremental funding of the environmental satellite program by \$9.1 million.

NOAA has also proposed establishing two new fisherman gear damage funds to compensate for losses caused by foreign fishing or Outer Continental Shelf (OCS) oil and gas activities.

## NOAA NEWS

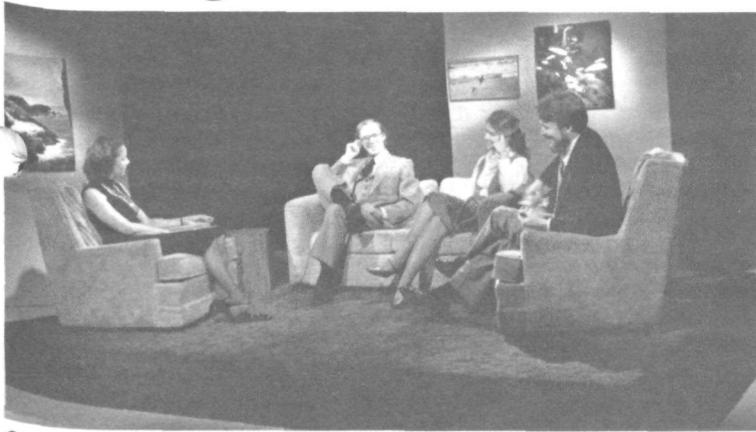
Published biweekly at Rockville, Md., by the Office of Public Affairs for the information of employees of the Commerce Department's National Oceanic and Atmospheric Administration.

Articles to be considered for publication should be submitted at least 10 days in advance to NOAA News, Room 108, Rock-Wall Bldg., Office of Public Affairs, National Oceanic and Atmospheric Administration, Rockville, Md., 20852.

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Norma V. Reyes, Editor  
Warren W. Buck, Jr., Art Director

# TV Program Features NOAA



On the set of "Knowledge" are NOAA's Jewell Shepperd, narrator; James P. Walsh, Deputy Administrator; Barbara Pijanowski, Office of Ocean Engineering; and Terry Leitzell, Assistant Administrator for Fisheries.

"Knowledge," a WRC-TV 4 early-morning weekday show in Washington, D.C., will feature NOAA during the week of Feb. 12. The shows which air at 5:30 a.m., are scheduled as follows:

Feb. 12, "The Seventh Service," with R. Adm. Harley Nygren, Director, NOAA Corps; Lt. Kraren Cox and Lt. David Peterson, NOAA Corps.

Feb. 13, "Treasures of the Sea," with James P. Walsh, Deputy Administrator; Terry Leitzell, Assistant Administrator

**Frank Memo** (From p. 1) provide thought and research of high quality — in some cases the best thought and research available — and thereby permit us to fulfill our mandates in the best possible fashion," Frank's memo said.

"Second," it continued, "further NOAA support of these communities will strengthen them and permit them to continue to provide outstanding services. Finally, greater reliance on the academic and research communities will enable NOAA to meet its growing responsibilities at a time of increasingly limited personnel resources."

Frank said a Director of University Affairs will be appointed to help develop appropriate policies and programs, serve as a focal point for inquiries to NOAA from academic and research interests, assist NOAA managers in recruiting and attracting highly qualified academic scientists, and coordinate the effort towards enhanced relationships.

for Fisheries; and Barbara Pijanowski, Office of Ocean Engineering.

Feb. 14, "When Nature Runs Wild," with Dr. Rex. Fleming, U.S. Director, Global Weather Experiment, George Ludwig, Director of Operations, NESS; Dr. George Cressman, of the NWS.

Feb. 15, "Where Humanity Meets the Sea," with Robert W. Knecht, Assistant Administrator for Coastal Zone Management; Dr. Ned Ostenso, Director, National Sea Grant Program; and Jo Ann L. Chandler, Acting Director, National Marine Sanctuaries Program.

Feb. 16, "Weather in the 21st Century," with Dr. Edward Epstein, Director of the U.S. Climate Program; Dr. Murray Mitchell, Senior Climatologist; and Thomas McKee, Colorado State Climatologist assigned to NOAA.

(The NOAA shows start: March 12, Cleveland, Ch. 3; April 9, New York City, Ch. 4; May 7, Los Angeles, Ch. 4; June 4, Chicago, Ch. 5.)

## OBITUARY

### Cecil M. Tanner

Cecil M. Tanner, Electronic Technician, WSO Springfield, Mo., died Jan. 29. During his Weather Service career, which began in 1959, he served in Wichita, Kans., Monett, Mo., and Springfield. Previously, he had worked in the aircraft industry in Wichita and had served in the Army. He is survived by his wife, Mary Lou, a son, and a daughter of 427 West Nellie, Monett, Mo. 65708.

## NOTES ABOUT PEOPLE

Capt. William M. Nicholson, Associate Director of the National Ocean Survey's Office of Marine Technology, was a recent guest speaker at the Congressional Underwater Explorers Club in Washington,

D.C. Nicholson, who earned a Legion of Merit for contributions to submarine rescue, deep salvage, and deep saturation diving as manager of the Navy Deep Submergence Program, described his technological support operations for NOAA.



Carol W. Beaver, NOS, receives letter of appreciation from Robert Powis, Assistant Director, U.S. Secret Service.

Carol W. Beaver, NOS, was honored recently by the U.S. Secret Service for many years of excellent support in the preparation of maps and in solving map-related problems while at her previous place of employment, the Defense Mapping

Agency. She received a letter of appreciation and a pin bearing the Secret Service insignia. In August 1978, Beaver joined NOS as Chief, Visual Chart Branch, Aeronautical Chart Division in the Office of Aeronautical Charting and Cartography.



Alvin Del-Toro, cooperative education student from the University of Puerto Rico, Mayaguez, tries out the equipment in his new office under the watchful eyes of Anita Daymude, Hispanic Employment Program Manager; Nadine Doxey, Co-op Program Manager; and Eugene Russin, Chief of the Sensor Test Branch of NOS' Test and Evaluation Laboratory, Del-Toro, a third year electrical engineering major, is the first student from the Island of Puerto Rico to be hired by NOAA under the Cooperative Education program.

# NOAA Budget Information --

## NOAA BUDGET SUMMARY, FY 1980

### Proposed Increases

	(dollars in millions)
Inflationary costs (adjustments to base)	+\$11.7
Adjustment for FY 1979 supplementals	+4.1
Pay raise	+18.5
Program initiatives	+66.2
Satellite program incremental funding	+11.7
Substitution for programs presently funded in S-K	+16.0
<b>Total increases</b>	<b>+128.2</b>

### Proposed Decreases

	(dollars in millions)
Transfer to Federal Emergency Management Agency	-\$ 1.0
Non-recurring programs (adjustments to base)	-17.5
Program decreases	-14.3
Satellite program incremental funding	-20.8
<b>Decreases</b>	<b>-53.6</b>
<b>Total of increases less decreases</b>	<b>+74.6</b>
<b>Terminate S-K</b>	<b>-17.4</b>
<b>Total net change</b>	<b>+57.2</b>

Programmatic changes are as follows:

#### MAPPING, CHARTING AND SURVEYING SERVICES

FY 1980 Request	\$47.7M
Increases	2.8M
Decreases	...
Change (+)	2.8M

\$1.0 million will be utilized to modernize the national tide and water level observation network, thereby providing future economies and efficiency. An additional \$1.8 million is requested to improve wave predictions needed by shipping, fishing, offshore construction and coastal management interests.

OCEAN FISHERIES AND LIVING MARINE RESOURCES	
FY 1980 Request	\$118.6M
Increases	7.8M
Decreases	3.0M
Change (+)	4.8M

To address vital environmental issues and concerns, increases are requested to augment ongoing estuarine and environmental assessment programs; study the effects of contaminants and habitat alterations on marine and estuarine organisms; and begin an ocean pulse program to monitor the health of the marine environment (+\$2.0 million). Further increases are requested to conduct intensified studies in marine mammal and endangered species conservation programs for bowhead whales and sea turtles (+\$1.1 million); to provide deterrent surveillance and enforcement of domestic and international fisheries management regulations and treaties (+\$2.6 million); and to collect and evaluate data needed by the Regional Fishery Management Councils for the development of fishery management plans (+\$2.1 million). A number of small lower priority projects totaling \$3.0 million

will be curtailed to help fund these initiatives.

#### MARINE ECOSYSTEMS ANALYSIS AND OCEAN DUMPING

FY 1980 Request	\$18.6M
Increases	6.9M
Decreases	3.1M
Change (+)	3.8M

To expand evaluation of offshore dumpsites in heavily stressed areas, \$6 million is requested. Another \$2.0 million will be utilized to investigate the long-range effects of pollutants on marine resources for protection and well being of future generations. In response to P.L. 95-273, the National Pollution Research and Development and Monitoring Planning Act of 1978, \$4.3 million is requested to consolidate fragmented efforts, and undertake specified higher priority ocean pollution research and monitoring programs not now being addressed by the government. These efforts will be financed by early termination of field research activities for the New York Bight Regional Project and for Deep Ocean Mining Environmental Assessment (\$3.1 million).

MARINE TECHNOLOGY	
FY 1980 Request	\$15.5M
Increases	.6M
Decreases	.3M
Change (+)	.3M

NOAA requests \$.6 million to procure an operational, prototype, experimental High Frequency radar to measure accurately speed and direction of ocean currents. Support of specialized continental shelf environmental monitoring buoys will be terminated at a saving of \$.3 million to fund higher priority programs.

BASIC ENVIRONMENTAL SERVICES	
FY 1980 Request	\$134.4M
Increase	16.1M

Decrease	1.2M
Change (+)	14.9M

To establish and maintain a coastal and offshore automated marine data acquisition network will require \$1.9 million in 1980. This is required to replace manned observations at 200 Coast Guard light stations which are also being automated. Operation and maintenance at new local warning radar installations at Jackson, Kentucky, and San Juan, Puerto Rico, will require \$.2 million. A four-state (Kentucky, West Virginia, Virginia, and Pennsylvania) flash flood warning program will require \$.6 million for satellite data display equipment. To improve detailed localized, short-term (0-12 hours) weather forecasts by applying new meteorological sensor techniques, \$5.0 million is requested for the development of a Prototype Regional Observing and Forecasting System. Additionally, \$1.8 million will be requested to upgrade and replace three aging IBM 360/195 computers. These computers are essential to high speed processing of the vast amounts of data which go into weather forecasts and warnings.

In response to the National Climate Program Act of 1978 (P.L. 95-367), NOAA has established a U.S. Climate Program Office requiring \$.4 million to provide a focus to multi-agency programs. An additional \$3.9 million will be needed to augment our computer capabilities in the field of environmental modeling. The National Weather Service equipment replacement program will require \$2.3 million to replace outdated and defective equipment. To help finance these programs, decreases are proposed to curtail installation of emergency power at Weather Services Offices (WSO's) (\$.5 million), close 22 WSO's (\$.5 million), and continue the revised computer support plan at Suitland, Maryland (\$.2 million). NOAA is again proposing closing low priority WSO's as a viable, practical and desirable means for releasing personnel and funding in order to provide improved weather services for the Nation as a whole.

ENVIRONMENTAL SATELLITE SERVICES	
FY 1980 Request	\$91.7M
Increase	13.6M
Decrease	21.1M
Change (-)	7.5M

Programmatic increases will provide additional oceanographic support capability and improve warning programs to reduce flash flood disasters and improve techniques for obtaining climatic and

oceanographic data (\$1.9 million). Programmatic decreases of \$.3 million will reduce research on the Coastal Zone Color Scanner and continue the revised computer support plan at Suitland, Maryland. Annual incremental funding of the satellite program will require an increase of \$11.7 million to reimburse NASA for space shuttle launch cost for GOES D, E, and F satellites and a decrease of \$20.8 million in procurement costs for polar orbiting and geostationary satellites.

#### PUBLIC FORECAST AND WARNING SERVICES

FY 1980 Request	\$88.6M
Increases	6.2M
Decrease	.2M
Change (+)	6.0M

Increases will fund the purchase and installation of 100 NOAA Weather Radio (NWR) gap filler transmitters to improve existing coverage in four states where the existing signals are weak or non-existent (\$.6 million); full annual costs of staffing by state employees for the NWR network (\$.2 million); augmentation of the National Meteorological Center ocean service guidance products and establishment of five new ocean service field centers to improve services vital to the marine community (\$1.1 million); improved forecasting techniques to predict storm surge and to develop oceanographic satellite data to mitigate major disasters in coastal areas (\$1.0 million); expanded efforts in hurricane modeling and diagnostic analysis to improve detection and rapid forecasting of changes in storm intensity and location (\$.9 million); a modern, effective, prototype flash flood warning program in the four state area of Kentucky, West Virginia, Virginia, and Pennsylvania (\$2.0 million); and a National Heavy Precipitation Unit to issue pinpointed, localized detailed guidance products (\$.4 million). Decreases are proposed to close 22 Weather Service Offices to offset the cost of other improved weather services (\$.2 million).

#### SPECIALIZED ENVIRONMENTAL SERVICES

FY 1980 Request	\$41.9M
Increases	2.4M
Decreases	.3M
Change (+)	2.1M

An increase will provide for a multi-agency initiative to expand remote sensing in support of agricultural programs and for a bilateral NOAA/Department of Agriculture effort to increase specialized weather and climate information (\$2.4 million). Decreases are proposed to curtail air pollution programs by

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discontinuing special observations at five locations and to close 22 Weather Service Offices to offset the cost of improved weather services (\$3 million).

## ENVIRONMENTAL DATA AND INFORMATION SERVICES

FY 1980 Request	\$23.0M
Increases	2.2M
Decreases	\$.3M
Change (+)	1.9M

Increases are requested to establish an archival and retrieval system for geostationary environmental satellite digital data to provide a needed data base for oceanic and atmospheric research (\$1.6 million), and to provide adequate climatic data management and information systems for an effective United States climate program (\$.6 million). Decreases are proposed to terminate archival of LANDSAT imagery since it will be done by the Department of the Interior and to reduce editorial services (\$.3 million).

## GLOBAL MONITORING OF CLIMATIC CHANGE

FY 1980 Request	\$4.0M
Increases	2.0M
Decreases	...
Change (+)	2.0M

An increase will fund research on carbon dioxide in the atmosphere to support reliable decisions regarding the burning of fossil fuels (\$1.2 million), and to analyze solar variations that affect the earth's climate (\$.8 million).

## WEATHER MODIFICATION

FY 1980 Request	\$7.7M
Increases	.8M
Decreases	...
Change (+)	.8M

Increases will fund additional flight hours for NOAA's aircraft to support hurricane research and warning activities, and maintenance and calibration of aircraft scientific instrumentation for accurate output (\$.8 million).

## EXECUTIVE DIRECTION AND ADMINISTRATION

FY 1980 Request	\$33.4M
Increases	...
Decreases	1.1M
Change (-)	1.1M

Decreases are proposed in lower priority administrative and management activities to offset the cost of other programs requested in this budget (\$1.1 million).

## COASTAL ZONE MANAGEMENT

FY 1980 Request	\$66.0M
Increases	12.6M
Decreases	4.5M
Change (+)	8.1M

Increases are requested to provide additional program administration grants for eight additional states (\$9.0 million), increase ocean use planning and assessment (\$1.1 million), and augment and expand the Marine Sanctuaries program (\$2.5 million). Decreases in program development grants amount to \$4.5 million.

## CONSTRUCTION

This appropriation is for facilities at Sand Point, Seattle, Washington, to conduct the operational, research and development programs of NOAA in that area.

No funding is requested at the present time, pending the outcome of final legal determinations. NOAA intends to request supplemental funding to provide the necessary facilities at Sand Point, Washington, to conduct required operational, research and development programs, following acceptance of a legally sufficient environmental impact statement.

## COASTAL ENERGY IMPACT FUND

FY 1980 Request	\$4.0M
Increase	4.0M
Decrease	...
Change (+)	4.0M

New budget authority of \$4.0 million is requested for planning grants and program management.

## FISHING VESSEL AND GEAR DAMAGE COMPENSATION FUND (FY 1979 SUPPLEMENTAL)

This fund provides compensation to fishing vessel owners who sustain losses or damage to their gear or vessels related to foreign fishing. The \$3.5 million budget authority requested is derived from surcharges imposed upon foreign fishing permit fees and revenue obtained through the investment of funds collected and not currently needed.

## FISHERMEN'S CONTINGENCY FUND (FY 1979 SUPPLEMENTAL)

The fund is to be used by the Secretary of Commerce to compensate domestic fishermen for the damage or loss of fishing gear, and any resulting economic loss due to natural obstruction or man-made obstructions related to oil and gas exploration, development or production in any area of the outer continental shelf.

The \$.6 million budget authority requested is derived from assessments on holders of leases, exploration permits, easements, and rights of way in the area.

## NOAA SUMMARY BY FUNDING SOURCE (In millions of dollars)

Appropriation/Fund	FY 1978	FY 1979	FY 1980
Operations, Research and Facilities ..	\$628.0	\$660.7	\$718.4
Coastal Zone Management .....	50.9	57.2	66.0
Promote and Develop Fishery			
Products .....	13.0	17.4	...
Construction .....	15.5	...	...
Coastal Energy Impact Fund .....	115.0	...	4.0
Fishing Vessel and Gear Damage Compensation Fund .....	...	...	3.5
Fishermen's Contingency Fund .....	...	...	.6
<b>Total Direct Federal Funds<sup>a</sup> .....</b>	<b>\$822.4</b>	<b>\$735.3</b>	<b>\$792.5</b>

<sup>a</sup>Excludes reimbursables

## NOAA PROGRAM LEVEL (In millions of dollars)

Activity	FY 1978	FY 1979	Increases (+) Decreases (-)		FY 1980
			Base Adj.	Program	
Mapping, charting and surveying services .....	41.5	44.3	+6	+2.8	47.7
Ship support services .....	42.8	45.3	+1.0	...	46.3
Ocean fisheries and living marine resources .....	101.7	115.5	-1.7	+4.8	118.6
Marine ecosystems analysis and ocean dumping ..	8.4	15.2	-4	+3.8	18.6
Marine technology .....	19.1	14.8	+4	+3	15.5
Sea grant .....	31.8	35.2	...	...	35.2
Coastal zone management .....	50.9	57.3	+6	+8.1	66.0
Basic environmental services .....	112.5	121.2	-1.7	+14.9	134.4
Environmental satellite services .....	94.7	98.8	+4	-7.5	91.7
Public forecast and warning services .....	81.7	88.8	-6.2	+6.0	88.6
Specialized environmental services .....	37.5	38.8	+1.0	+2.1	41.9
Environmental data and information services ...	18.1	20.9	+2	+1.9	23.0
Global monitoring of climatic change .....	1.9	2.0	...	+2.0	4.0
Weather modification .....	5.8	7.2	-.3	+8	7.7
International projects .....	8.5	8.8	...	...	8.8
Retired pay, commissioned officers .....	2.7	2.6	+4	...	3.0
Executive direction and administration .....	32.1	34.2	+3	-1.1	33.4
Construction .....	15.5	...	...	...	...
Coastal Energy Impact Fund .....	115.0	...	...	+4	4.0
Fishing Vessel & Gear Damage Compensation Fund .....	...	...	+3.5	...	3.5
Fishermen's Compensation Fund .....	...	...	+6	...	.6
<b>Total, NOAA .....</b>	<b>822.2</b>	<b>750.9<sup>A/</sup></b>	<b>-1.3<sup>B/</sup></b>	<b>+42.9</b>	<b>792.5</b>

<sup>A/</sup>Includes anticipated pay raise supplemental of \$16.6 million; transfer in from P&D of \$5.0 million and transfer out of \$1.0 million to FEMA.

<sup>B/</sup>Excludes pay supplemental noted in <sup>A/</sup> above.

# New Laws Enhance Equal Employment Opportunities

Several newly enacted laws concerning Federal employment serve to enhance equal employment opportunity for minorities and women.

The Federal Employees Flexible and Compressed Work Schedules Act of 1978, signed by President Carter Oct. 1, 1978, permits Federal agencies to experiment with flexible work hours. The Office of Personnel Management designates the agencies which will participate. Flexitime experiments may include work weeks

of four ten-hour days, and other work week variations. The Act suspends laws regarding overtime pay for any time worked over eight hours per day or forty hours per week in those agencies participating in the experiment.

The Federal Employees Part-Time Career Employment Act of 1978, signed Oct. 10, 1978, is designed to increase the number of part-time jobs in the Federal Government, and requires agencies to expand part-time job opportunities at all grade levels up to GS-16 and equivalent. By

mid-April 1979, the Office of Personnel Management will issue regulations implementing this Act.

This new law removes two past obstacles to the use of more part-time employees. The first obstacle concerns each agency's employment ceiling limit... the limit on the number of employees it can have. Heretofore, part-time employees have been counted the same as full-time employees toward the ceiling limit. Effective Oct. 1, 1980, however, part-time employees

will be prorated toward the limit according to the amount of time they work. For example, two half-time workers will count as one full-time worker.

The second obstacle concerns the amount the Government pays toward employee health insurance for part-time employees. Government contributions will not be prorated according to the amount of time the part-timer works. This does not apply to part-time workers employed before the new Act was passed.

OPM Chairman Alan K. Campbell said of the Act, "It's an employment option that can help agencies do their jobs better and at the same time provide employment opportunities for many capable and committed individuals who cannot work full-time."

The Federal Employees Flexible and Compressed Work Schedules Act of 1978, also allows an employee to take time off from work for religious reasons and compensate by working overtime instead of having to use annual leave or lose pay. The employee will work overtime hours equal to the time taken off from the normal work schedule. The compensatory overtime can be worked either before or after the time off, but must be completed within a reasonable period. This provision was effective October 29, 1978.

## NOAA Personnel Division Lists Current Vacancies

Announcement Number	Position Title	Grade	Organization	Location	Issue Date	Closing Date
NASO 79-01	Fishery Biologist	GS-13	NMFS	Portland, Oreg.	2/7	2/22
CR 79-1	Electronics Technician	GS-10	NWS	Lincoln, Neb.	2/6	2/21
NMFS 79-2	Computer Specialist	GS-11	NMFS	Washington, DC	2/6	2/21
CR 79-2	Meteorologist	GS-13	NWS	Kansas City, Mo.	2/6	2/21
ER 79-2	Electronics Technician	GS-10	NWS	Dayton, Oh.	2/12	2/27
ER 79-3	Supervisory Meteorological Technician	GS-12	NWS	Erie, Pa.	2/14	3/1
NMFS 79-3	Aquaculture Program Coordinator	GS-14/15	NMFS	Washington, DC	2/7	2/22
NASO 79-03	Fishery Biologist	GS-13	NMFS	Kodiak, Ak.	2/6	2/21
SR 79-3	Meteorologist (Forecaster)	GS-12	NWS	Memphis, Tenn.	2/7	2/22
SR 79-4	Meteorologist (Forecaster)	GS-12	NWS	Lubbock, Tex.	2/7	2/22
ER 79-4	Meteorological Technician	GS-7/8/9	NWS	Charleston, W.Va.	2/21	3/7
CR 79-4	Meteorological Technician	GS-10	NWS	Bismarck, N.D.	2/6	2/21
NASO 79-4	Contract Specialist	GS-9/11	NMFS	Seattle, Wash.	2/21	3/14
ER 79-5	Sr. Electronics Technician	GS-10	NWS	Allentown, Pa.	2/21	3/7
CR 79-5	Electronics Technician	GS-10	NWS	Grand Rapids, Mich.	2/21	3/7
SR 79-5	Meteorologist (Leading Forecaster)	GS-12	NWS	Little Rock, Ark.	2/6	2/21
WR 79-7	Meteorologist (Marine Forecaster)	GS-12	NWS	Seattle, Wash.	2/6	2/21
NMFS 79-7	Secretary	GS-6	NMFS	Washington, DC	2/15	3/9
SR 79-8	Electronics Technician	GS-10	NWS	Augusta, Ga. & Victoria, Tex.	2/15	3/2
SER 79-8	Supervisory Special Agent	GS-12	NMFS	Miami, Fla.	2/14	3/1
NESS 79-8	Program Analyses Officer	GS-15	NESS	Suitland, Md.	2/14	3/8
WR 79-9	Mechanical Engineer	GS-11	NWS	Salt Lake City, Ut.	2/7	3/1
NWS 79-9	Meteorologist	GS-12	NWS	Silver Spring, Md.	2/12	2/27
SR 79-9	Supervisory Meteorologist	GS-13	NWS	Oklahoma City, Okla.	2/15	3/2
NESS 79-9	Secretary	GS-6	NESS	Suitland, Md.	2/14	3/1
NOS 79-10	Supervisory Electronics Engineer	GS-15	NOS	Rockville, Md.	2/7	3/1
NWS 79-10	Electronics Engineer	GS-9	NWS	Silver Spring, Md.	2/12	2/27
NWS 79-11	Electronics Technician	GS-11	NWS	Sterling, Va.	2/21	3/7
WR 79-11	Supervisory Meteorologist	GS-15	NWS	Boise, Id.	2/5	2/20
NOS 79-11	Physical Scientist	GS-14	NOS	Washington, DC	2/14	3/8
WR 79-12	Meteorologist	GS-12	NWS	Salt Lake City, Ut.	2/6	2/21
NWS 79-12	Computer Programmer	GS-11	NWS	Silver Spring, Md.	2/15	3/2
WR 79-13	Electronics Technician	GS-11	NWS	Salt Lake City, Ut.	2/6	2/21
AR 79-16	Meteorological Technician	GS-9	NWS	Barrow, Ak.	2/14	3/1
HQS 79-17	Personal Services Accounting Technician	GS-6	HQTS	Rockville, Md.	2/7	2/22
HQS 79-19	Budget Analyst	GS-7	HQTS	Rockville, Md.	2/12	3/6
HQS 79-21	Public Information Assistant	GS-6	HQTS	Boulder, Colo.	2/14	3/8
HQS 79-22	Budget Analyst	GS-12	HQTS	Rockville, Md.	2/14	3/8
AR 79-26	Meteorological Technician	GS-9	NWS	King Salmon, Ak.	2/21	3/7
AR 79-27	Supervisory Meteorological Technician	GS-11	NWS	Kotzebue, Ak.	2/21	3/7
ERL 78-460	Supervisory Physical Scientist	GS-15	ERL	Seattle, Wash.	2/7	3/1

### FWPAC SEEKS TO REPRESENT ALL

Handicapped, Asian American, and Native American NOAA employees are asked to volunteer to serve on the NOAA Federal Women's Program Advisory Committee. For more information contact Ellen Overton, 443-8247.

The next open meeting of the committee will be Tues., Feb. 27, 1:30 p.m., Room 926, WSC-5. Thereafter, meetings will be at 1:30 p.m., on the third Tuesday of the month at varying locations.

# Winter Burdens Eased Throughout U.S. With NOAA Weather Radio

NOAA Weather Radio provides continuous, around-the-clock broadcasts of the latest weather information directly from National Weather Service offices. During severe weather situations such as the approach of a winter storm, forecasters interrupt routine broadcasts and substitute special warning messages.

The broadcasts, on the very high radio frequency FM band, cannot be picked up by regular AM or FM radios, but inexpensive receivers (starting at about \$10) are available, and can be invaluable during a winter storm.

At the Weather Service, meteorologists keep watch on conditions leading to winter storm formation. When they are detected, a watch or warning message is issued through the news media and through NOAA Weather Radio, the forecaster's direct link with the public.

The winter storm "watch" alerts the public that a storm is developing and is approaching the area. People in the watch area are urged to listen for the latest advisories over radio, television, or NOAA Weather Radio. A winter storm "warning" is issued when a storm is imminent and immediate action should be taken to protect life and property.

For tailored information on winter storms and other emergencies, in addition to normal day-by-day information on weather and up-to-the-minute forecasts, many public service agencies such as police, fire, and rescue units use NOAA Weather Radio. Others, such as schools, hospitals, and major industries find the service valuable in daily planning. But the vast majority of NOAA Weather Radio users are ordinary citizens who want the latest in reliable weather information on demand.

## CURRENT STATIONS

The number following each city identifies the radio frequency on which the station transmits. They are:

- (1) 162.550 MHZ
- (2) 162.400 MHZ
- (3) 162.475 MHZ

- Alabama**  
 Anniston . . . . .(3)  
 Birmingham . . . . .(1)  
 Dozier . . . . .(1)  
 Florence . . . . .(3)  
 Huntsville . . . . .(2)  
 Louisville . . . . .(3)  
 Mobile . . . . .(1)  
 Montgomery . . . . .(2)  
 Tuscaloosa . . . . .(2)

- Alaska**  
 Anchorage . . . . .(1)  
 Cordova . . . . .(1)  
 Fairbanks . . . . .(1)  
 Homer . . . . .(2)  
 Juneau . . . . .(1)  
 Ketchikan . . . . .(1)  
 Kodiak . . . . .(1)  
 Nome . . . . .(1)  
 Petersburg . . . . .(1)  
 Seward . . . . .(1)  
 Sitka . . . . .(1)  
 Valdez . . . . .(1)  
 Wrangell . . . . .(2)  
 Yakutat . . . . .(1)

- Arizona**  
 Phoenix . . . . .(1)  
 Tucson . . . . .(2)

- Arkansas**  
 Fayetteville . . . . .(3)  
 Fort Smith . . . . .(2)  
 Gurdon . . . . .(3)  
 Jonesboro . . . . .(1)  
 Little Rock . . . . .(1)  
 Star City . . . . .(2)  
 Texarkana . . . . .(1)

- California**  
 Coachella . . . . .(2)  
 Crescent City, Calif.  
 Brookings, Oreg. . . . .(1)  
 Eureka . . . . .(2)  
 Fresno . . . . .(2)  
 Los Angeles . . . . .(1)  
 Monterey . . . . .(2)  
 Point Arena . . . . .(2)  
 Sacramento . . . . .(2)  
 San Diego . . . . .(2)  
 San Francisco . . . . .(1)  
 San Luis Obispo . . . . .(1)  
 Santa Barbara . . . . .(2)

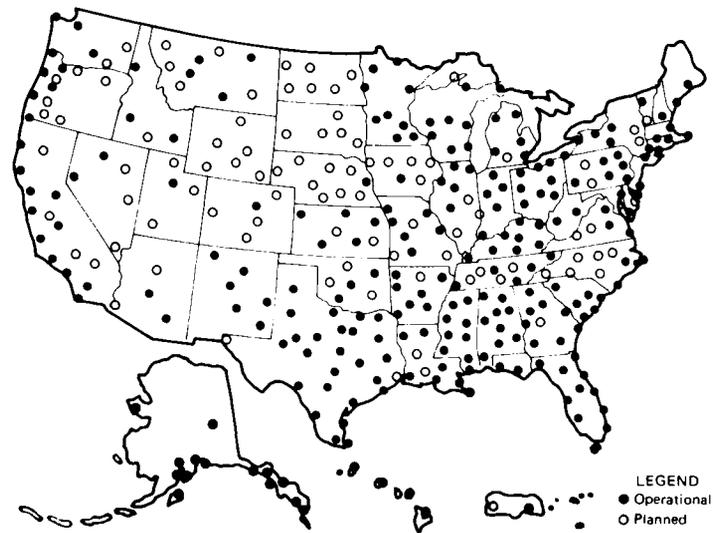
- Colorado**  
 Denver . . . . .(1)

- Connecticut**  
 Hartford . . . . .(3)  
 Meriden . . . . .(2)  
 New London . . . . .(1)

- Delaware**  
 Lewes . . . . .(1)

- District of Columbia**  
 Washington, D.C. . . . .(1)

- Florida**  
 Fort Myers . . . . .(3)  
 Daytona Beach . . . . .(2)  
 Gainesville . . . . .(3)  
 Jacksonville . . . . .(1)  
 Key West . . . . .(2)  
 Melbourne . . . . .(1)



- Miami . . . . .(1)  
 Orlando . . . . .(3)  
 Panama City . . . . .(1)  
 Pensacola . . . . .(2)  
 Tallahassee . . . . .(2)  
 Tampa . . . . .(1)  
 West Palm Beach . . . . .(2)
- Georgia**  
 Atlanta . . . . .(1)  
 Athens . . . . .(2)  
 Augusta . . . . .(1)  
 Chatsworth . . . . .(2)  
 Columbus . . . . .(2)  
 Pelham . . . . .(1)  
 Savannah . . . . .(2)  
 Waycross . . . . .(3)
- Hawaii**  
 Hilo . . . . .(1)  
 Honolulu . . . . .(1)  
 Kokee . . . . .(2)  
 Mt. Haleakala . . . . .(2)
- Idaho**  
 Boise . . . . .(1)  
 Lewiston . . . . .(1)  
 Pocatello . . . . .(1)
- Illinois**  
 Chicago . . . . .(1)  
 Moline . . . . .(1)  
 Peoria . . . . .(3)  
 Rockford . . . . .(3)  
 Springfield . . . . .(2)
- Indiana**  
 Evansville . . . . .(1)  
 Fort Wayne . . . . .(1)  
 Indianapolis . . . . .(1)  
 Lafayette . . . . .(3)  
 South Bend . . . . .(2)
- Iowa**  
 Des Moines . . . . .(1)
- Kansas**  
 Colby . . . . .(3)  
 Concordia . . . . .(1)  
 Dodge City . . . . .(3)  
 Topeka . . . . .(3)  
 Wichita . . . . .(1)
- Kentucky**  
 Ashland . . . . .(1)  
 Bowling Green . . . . .(2)  
 Covington . . . . .(1)
- Hazard . . . . .(3)  
 Lexington . . . . .(2)  
 Louisville . . . . .(3)  
 Mayfield . . . . .(3)  
 Somerset . . . . .(1)
- Louisiana**  
 Baton Rouge . . . . .(2)  
 Lake Charles . . . . .(2)  
 Morgan City . . . . .(3)  
 New Orleans . . . . .(1)  
 Monroe . . . . .(1)  
 Shreveport . . . . .(2)
- Maine**  
 Ellsworth . . . . .(2)  
 Portland . . . . .(1)
- Maryland**  
 Baltimore . . . . .(2)  
 Salisbury . . . . .(2)
- Massachusetts**  
 Boston . . . . .(2)  
 Hyannis . . . . .(1)
- Michigan**  
 Alpena . . . . .(1)  
 Detroit . . . . .(1)  
 Flint . . . . .(2)  
 Grand Rapids . . . . .(1)  
 Marquette . . . . .(1)  
 Saut Ste. Marie . . . . .(1)  
 Traverse City . . . . .(2)
- Minnesota**  
 Duluth . . . . .(1)  
 Int'l. Falls . . . . .(1)  
 Mankato . . . . .(2)  
 Minneapolis . . . . .(1)  
 Rochester . . . . .(3)  
 St. Cloud . . . . .(3)  
 Thief River Falls . . . . .(1)  
 Willmar . . . . .(2)
- Mississippi**  
 Ackerman . . . . .(3)  
 Booneville . . . . .(1)  
 Bude . . . . .(1)  
 Gulfport . . . . .(2)  
 Inverness . . . . .(1)  
 Jackson . . . . .(2)  
 McHenry . . . . .(3)  
 Meridian . . . . .(1)  
 Oxford . . . . .(2)

(Continued on p. 8)



**HOT FISH STICK ROLL-UPS**

- 1 package (8 ounces) refrigerated crescent dinner rolls
- 8 frozen fried fish sticks (1 ounce each)
- 3 tablespoons prepared mustard
- 1/3 cup grated cheddar cheese
- 1/3 cup sliced green onion

Unroll dough; separate into 8 triangles. Spread each triangle with mustard and sprinkle with 2 teaspoons cheese and 2 teaspoons green onion. Place fish stick on shortest edge of triangle and roll in jelly-roll fashion. Place point side down on ungreased shallow baking pan. Bake in top third of moderate oven, 375°F., for 15 to 18 minutes or until lightly browned. Makes 8 servings.

**Hot Fish Stick Roll-ups with Barbecue Sauce Filling**

Follow above recipe making the listed substitutions:  
 Use 1/3 cup commercial barbecue sauce instead of mustard;  
 Use 1/3 cup chopped dill pickle instead of onion.  
 Combine barbecue sauce, dill pickle, and cheese; mix. Spread on dough triangles and prepare as directed above.

**Hot Fish Stick Roll-ups with Horseradish Sauce Filling**

Follow above recipe making the listed substitutions:  
 Use 1/3 cup commercial horseradish sauce instead of mustard;  
 Omit cheese and add 1/4 cup well-drained pickle relish.  
 Combine horseradish sauce, pickle relish, and green onion; mix. Spread over dough triangles and prepare as directed above.

**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 frozen fish sticks and canned Maine sardines along the Northeast Seaboard; fresh whole whiting and whole bluefish in the Middle Atlantic States, including the D.C. area; fresh

whole Spanish mackerel and whole mullet in the Southeast and along the Gulf Coast; frozen fish sticks and frozen pan-ready smelt in the Midwest; fresh whole Dungeness crab and canned tuna in the Northwest; and fresh Pacific oysters and frozen pan-dressed whiting in the Southwest.

**NOAA Weather Radio Frequencies**

(From p. 7)

<b>Missouri</b>	
Camdenton . . . . .	(1)
Hannibal . . . . .	(3)
Kansas City . . . . .	(1)
St. Joseph . . . . .	(2)
St. Louis . . . . .	(1)
Springfield . . . . .	(2)
<b>Montana</b>	
Billings . . . . .	(1)
Glasgow . . . . .	(1)
Great Falls . . . . .	(1)
Helena . . . . .	(2)
<b>Nebraska</b>	
Omaha . . . . .	(2)
<b>Nevada</b>	
Reno . . . . .	(1)
Winnemucca . . . . .	(2)
<b>New Hampshire</b>	
Concord . . . . .	(3)
<b>New Jersey</b>	
Atlantic City . . . . .	(2)
<b>New Mexico</b>	
Albuquerque . . . . .	(2)
Clovis . . . . .	(3)
Farmington . . . . .	(3)
Hobbs . . . . .	(2)
Ruidoso . . . . .	(1)
Santa Fe . . . . .	(1)
<b>New York</b>	
Binghamton . . . . .	(3)
Buffalo . . . . .	(1)
New York City . . . . .	(1)
Rochester . . . . .	(2)
Syracuse . . . . .	(1)
<b>North Carolina</b>	
Cape Hatteras . . . . .	(1)
New Bern . . . . .	(2)
Wilmington . . . . .	(1)
<b>North Dakota</b>	
Fargo . . . . .	(3)
<b>Ohio</b>	
Akron . . . . .	(2)
Caldwell . . . . .	(3)
Cleveland . . . . .	(1)
Columbus . . . . .	(1)
Dayton . . . . .	(3)
Lima . . . . .	(2)
Sandusky . . . . .	(2)
Toledo . . . . .	(1)
<b>Oklahoma</b>	
Lawton . . . . .	(1)
Oklahoma City . . . . .	(2)
Tulsa . . . . .	(1)
<b>Oregon</b>	
Astoria . . . . .	(2)
Coos Bay . . . . .	(2)
Eugene . . . . .	(2)
Newport . . . . .	(1)
Portland . . . . .	(1)
<b>Pennsylvania</b>	
Allentown . . . . .	(2)
Erie . . . . .	(2)
Harrisburg . . . . .	(1)
Philadelphia . . . . .	(3)
Pittsburgh . . . . .	(1)
<b>Wilkes-Barre</b>	(1)
<b>Willamsport</b>	(2)
<b>Puerto Rico</b>	
San Juan . . . . .	(2)
<b>Rhode Island</b>	
Providence . . . . .	(2)
<b>South Carolina</b>	
Beaufort . . . . .	(3)
Charleston . . . . .	(1)
Columbia . . . . .	(2)
Florence . . . . .	(1)
Greenville . . . . .	(1)
Myrtle Beach . . . . .	(2)
<b>Tennessee</b>	
Bristol . . . . .	(1)
Chattanooga . . . . .	(1)
Knoxville . . . . .	(3)
Memphis . . . . .	(3)
Nashville . . . . .	(1)
<b>Texas</b>	
Abilene . . . . .	(2)
Amarillo . . . . .	(1)
Austin . . . . .	(2)
Big Spring . . . . .	(3)
Brownsville . . . . .	(1)
Bryan . . . . .	(1)
Corpus Christi . . . . .	(1)
Dallas . . . . .	(2)
Del Rio . . . . .	(2)
Fort Worth . . . . .	(1)
Galveston . . . . .	(1)
Houston . . . . .	(2)
Laredo . . . . .	(3)
Lubbock . . . . .	(2)
Lufkin . . . . .	(1)
Midland . . . . .	(2)
Paris . . . . .	(1)
Pharr . . . . .	(2)
San Antonio . . . . .	(1)
Victoria . . . . .	(2)
Wichita Falls . . . . .	(3)
San Angelo . . . . .	(1)
Sherman . . . . .	(3)
Tyler . . . . .	(3)
Waco . . . . .	(3)
<b>Utah</b>	
Salt Lake City . . . . .	(1)
<b>Vermont</b>	
Burlington . . . . .	(2)
<b>Virginia</b>	
Norfolk . . . . .	(1)
Richmond . . . . .	(3)
<b>Washington</b>	
Neah Bay . . . . .	(1)
Seattle . . . . .	(1)
Yakima . . . . .	(1)
<b>West Virginia</b>	
Charleston . . . . .	(2)
Clarksburg . . . . .	(1)
<b>Wisconsin</b>	
Green Bay . . . . .	(1)
LaCrosse . . . . .	(1)
Madison . . . . .	(1)
Menomonie . . . . .	(2)
Milwaukee . . . . .	(2)
Wausau . . . . .	(3)

# **National Oceanic and Atmospheric Administration**

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HOV Services  
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July 23, 2010