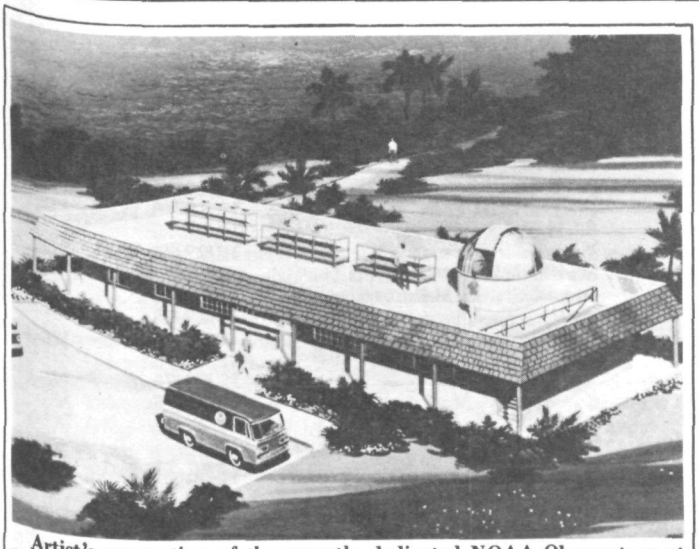
U.S. DEPARTMENT OF COMMERCE / National Oceanic and Atmospheric Administration

noaa week

Volume 6 Number 52 December 26, 1975



Artist's conception of the recently dedicated NOAA Observatory at Cape Matatula on Tutuila Island in American Samoa. It is the fourth in a network of observatories that are part of the Environmental Research Laboratories' Geophysical Monitoring for Climatic Change (GMCC) program.

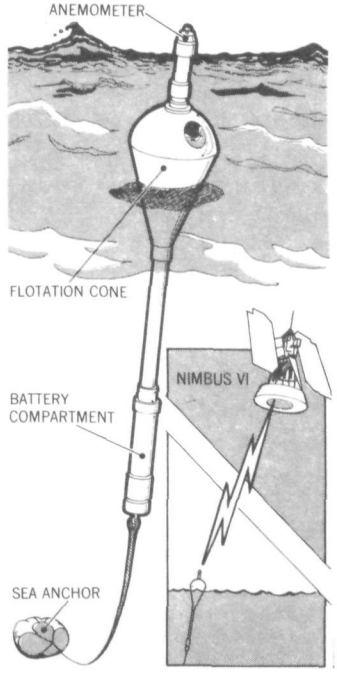
Satellite Tracks Buoys In the Gulf of Alaska

A series of three drifting buoys, riding the ocean currents in the Gulf of Alaska and signaling data to a satellite overhead, is helping scientists with the Environmental Research Laboratories develop a picture of the circulation in the Gulf, in their effort to predict the flow of pollutants from off-shore oil development.

The buoys were deployed near Yakutat Bay during October by the NOAA Ship Surveyor. Scientists from ERL's Atlantic Oceanographic and Meteorological Laboratories in Miami plan to launch nine more, in groups of three, at roughly three-month intervals next year.

As they drift, the buoys broadcast information on position, water temperature and surface winds. Their signals are picked up by Nimbus 6, an experimental, polar-orbiting meteorological satellite, as it makes its daily pass overhead, and then fed to NASA's Goddard Space Flight Center in Maryland, where each buoy's position is computed. NOAA scientists then in-

(Continued on page 3)



$696,000 CZM Grant Awarded To Florida

A grant of $696,000 has been awarded to the State of Florida to enable it to continue developing a program for coastal zone management, and to plan for development that would be needed onshore to support offshore oil and gas operations.

The grant will be administered by Florida's Department of Natural Resources, conducting the second of a three-year effort to design a program which balances future use of the coast for housing, recreation, development, conservation, and a wide range of other activities.

The second-year work will consist mainly of completing socio-economic and biophysical analyses for determining the State's coastal boundary; *developing procedures for assessing* impacts of coastal activities; defining permissible coastal land and water uses; and coordinating development of the state *program with local and State agencies.*

In addition, the State will study impacts likely to occur onshore from offshore energy production, and integrate such planning into the emerging CZM program. According to Florida, about $500,000 of the grant will be used for coastal zone planning, and $196,000 to support the onshore impact studies. Overall, an estimated two-thirds of the grant will be allocated to

(Continued on page 4)

Stratospheric Ozone Loss Monitored

A new remote-sensing technique, developed at the Environmental Research Laboratories in Boulder, Colo., "sees" nitrogen oxide in the stratosphere, permitting scientists for the first time to calculate the actual rate at which nitrogen oxides destroy stratospheric ozone. This high altitude ozone layer shields the earth's surface from hazardous ultraviolet solar radiation.

The ground-based spectroscopic technique measures the light spectrum produced by such sources as the sun and moon shining through the earth's atmosphere. By isolating that portion of the spectrum interpreted as caused by nitrogen dioxides, the amount of that chemical in the atmosphere can be estimated.

"If we know how much nitrogen dioxide is up there," explained Dr. John F. Noxon, who developed the spectrometric technique, "we can calculate the amount of daytime nitric oxide, which is the real enemy of ozone. And when we know that, we know the rate at which ozone will be removed."

(Continued on page 4)

Townsend Elected Fellow of AIAA

Dr. John W. Townsend, Jr., NOAA's Associate Administrator, has been elected a Fellow of the American Institute of Aeronautics and Astronautics in recognition of his contributions and leadership in the professional aerospace community.

Dr. Townsend

The certificate signifying his election will be presented during the AIAA 12th Annual Meeting and

(Continued on page 3)

OSU To Conduct Environmental Studies In Alaska Under $330,000 ERL Contracts

Oregon State University at Corvallis has been awarded contracts totaling $330,000 by the Environmental Research Laboratories to study effects of crude oil on marine organisms, and the marine bird and seafloor ecosystems of the Gulf of Alaska and Beaufort Sea.

The contract is part of a major marine environmental study, conducted by ERL for the Interior Department's Bureau of

(Continued on page 4)

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 their servicing personnel office for information on where to apply.

Announcement Number	Position Title	Grade	MLC	Location	Issue Date	Closing Date
294-76	Research Meteorologist	GS-12	EDS	Washington, D.C.	12/15/75	12/31/75
295-76	Meteorological Tech.	GS-10	NWS	Washington, D.C.	12/15/75	12/31/75
296-76	Computer Specialist	GS-13	NOS	Rockville, Md.	12/15/75	12/31/75
299-76	Computer Specialist	GS-13	HDQS	Washington, D.C.	12/17/75	1/2/76
301-76	Physicist	GS-12	ERL	Boulder, Colo.	12/17/75	1/2/76
303-76	Supv. Fishery Biologist	GS-14	NMFS	Seattle, Wash.	12/17/75	1/2/76
304-76	Operations Research Analyst	GS-12	NMFS	Seattle, Wash.	12/17/75	1/2/76
305-76	Supv. Fishery Biologist	GS-13	NMFS	Woods Hole, Mass.	12/17/75	1/2/76
306-76	Meteorological Tech.	GS-10	NWS	Cape Hatteras, N.C.	12/17/75	1/2/76
307-76	Meteorological Tech.	GS-10	NWS	Sioux City, Iowa	12/17/75	1/2/76
308-76	Supv. Meteorological Tech.	GS-12	NWS	International Falls, Minn.	12/17/75	1/2/76
320-76	Computer Systems Analyst	GS-13	NWS	Silver Spring, Md.	12/22/75	1/7/76
321-76	Physical Scientist	GS-14	ERL	Miami, Florida	12/22/75	1/7/76
323-76	Administrative Tech. (Accounting)	GS-2 to GS-5	HDQS	Seattle, Wash.; Miami, Fla.; and Rockville, Md.	12/22/75	1/7/76
325-76	Supv. Fishery Biologist	GS-14	NMFS	Seattle, Wash.	12/22/75	1/7/76
326-76	Supv. Fishery Biologist	GS-14	NMFS	Seattle, Wash.	12/22/75	1/7/76
327-76	Fishery Biologist	GS-15	NMFS	Seattle, Wash.	12/22/75	1/7/76
328-76	Supv. Meteorologist	GS-13	NWS	Athens, Ga.	12/22/75	1/7/76
329-76	Electronics Tech.	GS-9	NWS	Kansas City, Mo.	12/22/75	1/7/76
330-76	Meteorological Tech.	GS-10	NWS	St. Cloud, Minn.	12/22/75	1/7/76
297-76	Program Analyst	GS-14	NMFS	Washington, D.C.	12/15/75	1/8/76
298-76	Supv. Computer Spec.	GS-14	NOS	Rockville, Md.	12/17/75	1/9/76
300-76	Supv. Electronics Engineer	GS-15	NBS	Boulder, Colo.	12/17/75	1/9/76
302-76	Oceanographer	GS-14	ERL	Princeton, N.J.	12/17/75	1/9/76
309-76	Supv. Physical Scientist	GS-15	NWS	Silver Spring, Md.	12/17/75	1/9/76
310-76	Staff Assistant	GS-13	HDQS	Washington, D.C.	12/17/75	1/9/76
322-76	Supv. Physical Scientist	GS-15	ERL	Miami, Fla.	12/22/75	1/14/76
324-76	Public Information Officer	GS-14	HDQS	Washington, D.C.	12/22/75	1/14/76

Suggestion Awards Given

In order to recognize the contributions of NOAA employees who have offered suggestions on ways to cut costs, improve efficiency or safety, or, in other ways, contribute to an overall improvement in the operations of NOAA, Personnel Perspective is publishing, on a quarterly basis, the names and suggestions of employees who have been given suggestion awards.

The following NOAA employees received suggestion awards during the period of July 1 - Sept. 30, 1975:

Suggester's Name	Amount Of Award	Suggestion Title
Gerald C. Lindsey	$ 25.00	Ohio River Water Temperature Thermometer "ORWAT"
Earl L. Rampey	25.00	Improving Quality of Recording Precipitation Gage Punch Tapes
Clarence M. Sakamoto	35.00	Money Saving Procedure
Orland D. McCalip	50.00	Tape Splitter
Carmela F. New	25.00	Form Status Notices, CD69a
Karl H. Schaffrath	50.00	Project Information Display
Eleanor G. Crawford	270.00	Revalidation of Agreement for Receiving–only Teletype–writer Connection and/or for Receiving–only Facsimile Connection
Marlene Menick	100.00	AL Revision Notice Number Control
Carmela F. New	25.00	Return Address
Raymond Silfa	25.00	Change of Tape Cataloging System
Bobby J. Lanning	25.00	Employee Time-card Holder
Donald E. McKisson	95.00	Base Compilation
Ronald C. Evancho	95.00	Filing System
Allen W. Feldman	85.00	Chart Data Separation
Rachel W. Babb	250.00	Equipment Utilization and More Effective Organization
Robert G. Quayle	25.00	Pre-punched Forms
Michael G. Elias	50.00	Changes to FMH-1
Robert L. Thompson	250.00	Picture Program Timer for GOES/FAX Machine
Jack W. Kepner	100.00	Alignment Jig for Fischer & Porter Gages
Charles E. Queen	25.00	Accidental Tone Alerts Prevention
Lawrence J. Krudwig	75.00	Revision of Skywarn ID Cards
Michael E. Dircksen	25.00	Time-Share Computer Training
Walter A. DeVoe	25.00	Removal of Graphic Recorder
Phillip E. Clark	25.00	Weather Safety Poster
Gary E. Hale	100.00	Sharing of Satellite Photos
James P. Corbett	50.00	ADR Tide Gage Power Supply
D. L. Albritton	15.00	Franked Aerograms
Frances B. Ingle	25.00	File Marker
H. Virginia Blacker	50.00	Reduction of Drawings
James R. Henley	12.50	Improve Reliability of Telephone
William B. Keating	12.50	Couplers on Party Lines
Lowell Bennion	50.00	Programmable Timer for
George Magers	50.00	for the Litton
Melvin Memmott	50.00	Datalog
Charles M. Freed	25.00	Air Travel Savings

A DEPARTMENT OF COMMERCE BRONZE MEDAL was presented recently to Joseph B. Murdock, (left) Chief of the National Ocean Survey Personnel Section of the Personnel Operations Branch of the Personnel Division at NOAA Headquarters in Rockville, Md., for "valuable contributions to NOAA's personnel programs through highly professional performance for many years."

The Medal was presented by Robert L. Carnahan, Deputy Assistant Administrator for Administration.

THE OUTSTANDING ACHIEVEMENT AWARD OF THE AMERICAN INSTITUTE OF FISHERY RESEARCH BIOLOGISTS was presented recently to Dr. Elbert H. Ahlstrom (right), Senior Scientist at the National Marine Fisheries Service Southwest Fisheries Center's La Jolla (Calif.) Laboratory, for his many outstanding contributions to fishery biology, particularly his pioneering work on larval fishes. The Award was presented by Dr. Robert Borovica, Vice President of the Institute, at a meeting of the Pacific Marine Fisheries Commission in San Diego.

Dr. Townsend Honored

(Continued from page 1)

Technical Display in Washington, D.C., January 28-30. He also will be honored at the AIAA Fellows Dinner on January 28 at the Mayflower Hotel and during the Annual Banquet on January 29 at the Sheraton Park Hotel.

Dr. Townsend has been Associate Administrator of NOAA since it was established in 1970 under a Presidential Reorganization Plan. For the previous two years he had been Deputy Administrator of the Environmental Science Services Administration, NOAA's predecessor.

From 1965–1968, Dr. Townsend was Deputy Director of the National Aeronautics and Space Administration's Goddard Space Center. He had been Assistant Director since 1959, and previously Chief of NASA's Space Sciences Division.

At Goddard he planned, directed, and conducted a broad program of space research. He was responsible for the day-to-day management of most of NASA's scientific and applications satellites, operation of its global tracking and data acquisition network for unmanned satellites, and the manned Gemini and Apollo spacecraft. He directed field groups at Cape Kennedy and the Pacific Missile Range that were responsible for the launching of all NASA Delta, Thor-Agena, Atlas-Agena, and Centaur vehicles, and supervised the Goddard Institute for Space Studies in New York.

Dr. Townsend joined the Naval Research Laboratory's Radio Division in 1949, and became head of the Rocketsonde Branch and Deputy Science Program Coordinator of Project Vanguard in 1955. While with NRL, he participated in programs of basic research in the very high atmosphere, developed a radio frequency mass spectrometer for use in rockets, and obtained the first mass spectra of the upper atmosphere above 90 kilometers. He served as scientific officer for the Navy's development of the Aerobee-Hi rocket. As Deputy Science Program Coordinator for Project Vanguard, he directed preparation of scientific instrumentation for two of the four approved original earth satellites.

His previous honors include the Navy's Meritorious Civilian Service Award, 1957; the NASA Medal for Outstanding Leadership, 1962; the Arthur S. Flemming Award as one of the Ten Outstanding Young Men in the Federal Service, 1963; and the NASA Distinguished Service Medal, 1971. Earlier this year he was elected a member of the National Academy of Engineering.

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
Warren W. Buck, Jr., Art Director

Revised Aviation Weather Publications Now Available

Aviation Weather, a joint publication of NOAA and the Federal Aviation Administration (FAA) has undergone a complete face-lift since its first appearance in 1965. The revised version, two years in the making, is now available in the form of a two-volume set: *Aviation Weather* (AC 006A) and *Aviation Weather Services* (AC 00-45).

Aviation Weather is a general text on the principles of meteorology and their application to aviation operations. It is intended primarily for pilots and flight operations personnel, but also serves as an excellent introductory text on weather for non-aviation interests.

Aviation Weather Services is now a separate publication of what was Section Two in the first edition of *Aviation Weather*. It discusses services provided to the pilot by National Weather Service and FAA facilities, the structure and interpretation of weather observations and forecasts, data communications, the use of analytic and prognostic charts, plus graphs and conversion tables. The book is also used as a text in the NWS Pilot Weather Briefer Course and will be updated periodically as new products, forecast techniques and briefing services are developed.

Both volumes are again a result of cooperative effort between NOAA and FAA. The revision and layout are the work of C. Hugh Snyder, former NWS Training Coordinator, and his staff at the FAA Academy in Oklahoma City. Mr. Snyder was awarded a Department of Commerce Bronze Medal at his retirement earlier this year, and his work on the publication was cited among his accomplishments.

Copies of *Aviation Weather* and *Aviation Weather Services* are available from the Government Printing Office at $4.55 and $1.95 each, respectively.

LSC Removes Gages

The Lake Survey Center's Revisory Section has completed removal of 38 special seasonal water level gages from sites on Lakes Huron and Superior, as well as completing the fall inspections of an additional 15 automatic water level recorders. Third-order positional amputations have been completed for landmarks and navigational aid structures at two harbors on Lake Huron. Revisions resulting from 1975 field surveys are being compiled on editions of charts of Lake Huron and Erie. This work is part of the regular triennial revisory surveys which result in complete reconnaissance survey coverage of all U.S. harbors in the Great Lakes system every three years.

Satellite Tracks Buoys

(Continued from page 1)

corporate these daily positions and the environmental data into a growing picture of the patterns of currents in the Gulf.

The current study is part of a major project NOAA is conducting for the Bureau of Land Management to assess the environmental effects of oil leasing on the Alaskan continental shelf. ERL's Outer Continental Shelf Environmental Assessment Program manages the project.

Remotely tracking buoys by satellite vastly increases the scope possible for studies of this sort. Buoys have long been used to trace ocean currents, but in the past had to be tracked visually, by radar or followed by ships. Satellite remote tracking systems can keep "watch" of buoys over huge areas of water.

Dr. Donald Hansen, Director of AOML's Physical Oceanography Laboratory in Miami, said the buoys themselves are simple and inexpensive. Each consists of a plastic tube six inches in diameter and 14 feet long girded by an inverted conical float about 2½ feet in diameter. The tube sits upright in the water, with an apparatus resembling a sea anchor attached to its underwater end to keep it from being blown around by the wind, Dr. Hansen explained.

The buoys are designed and built at Nova University in Dania, Fla., under contract to and direction of the NOAA Data Buoy Office (NDBO) in Bay St. Louis, Miss. The NDBO is the national focus for the development of data buoy systems and is developing a complete family of deep ocean, continental shelf, and drifting buoys for use by government, industry, and scientific organizations.

MANNING THE NATIONAL OCEAN SURVEY'S PACIFIC MARINE CENTER BOOTH in the NOAA area at the recent 1975 Fish Expo in Seattle is Charles R. Hitz, Chief of the Fishery Branch in the Operations Division. Almost 15,000 persons attended the show. The previous week, fishery, weather, and chart information were dispensed by PMC personnel from the NOAA Booth at the Second Annual Tacoma (Wash.) Boat Show.

notes about people

A DEPARTMENT OF COMMERCE BRONZE MEDAL was presented recently to Maynard W. Zlomke (center), Electronic Technician at the National Weather Service Office in North Platte, Nebr., "in recognition and appreciation of outstanding dedication to the missions of the National Weather Service." He was cited for his outstanding performance during a career which spanned the fields of meteorology and electronics and included tours of duty in the Western Pacific and Alaska as well as the contiguous 48 states.

Mrs. Zlomke was present when the Medal was presented by Robert C. Baskin, Deputy Director of the NWS Central Region.

Florida CZM Grant *(Continued from page 1)*

nine regional planning councils for assistance with the second-year program.

Florida indicated in its grant application to the Office of Coastal Zone Management that it has established an interagency advisory committee. This organization will communicate and coordinate the CZM program with representatives of every State agency involved in coastal planning, and with interested Federal agencies, such as the Department of Housing and Urban Development and the Environmental Protection Agency. The committee will meet periodically to review the progress of the developing program and to make recommendations.

In spring 1975, the Florida legislature passed two bills expected to provide aid to coastal zone planning and management in the state: the Florida Aquatic Preserve Act, which provides for maintaining areas unsuitable for intensive development; and the Local Government Comprehensive Planning Act, which requires every county and municipality to prepare and adopt a comprehensive land use plan by July 1979, and for coastal cities and counties to include in their plan an element for protecting the shore.

Robert Harm, Electronics Technician with the Instrument Branch of the Lake Survey Center's Engineering Division, recently completed building a portable digital test set to be used to service special-purpose Great Lakes meteorological stations. The LSC maintains the stations for the St. Lawrence Seaway Development Corporation and the Environmental Research Laboratories' Great Lakes Environmental Research Laboratory, both of which use the collected data in ongoing research studies. The compact digital test set makes maintenance of the stations more effective and easier and helps insure against malfunction of the stations' electronic equipment.

Mr. Harm

Roland G. Loffredo has been appointed Meteorologist in Charge of the National Weather Service Office in Evansville, Ind. He succeeds Clyde Downes, who retired recently.

Mr. Loffredo, who was previously MIC at Wilmington, Del., entered the NWS at New York in 1962, and has served since also at Raleigh, N.C., and Pittsburgh, Pa. His NWS career was interrupted in the mid 1960's by a five-year tour in the Air Force as a Weather Officer.

He graduated from the City University of New York and has done graduate work at Colorado State University.

Mr. Loffredo

Robert E. Stachon of the Lake Survey Center recently completed a three-month tour of duty as this year's participant in the National Ocean Survey/Canadian Hydrographic Service Technical Exchange Program. He participated in all aspects of field work carried out for the Canadian group's studies being made on Lakes Huron, Erie and Ontario, the St. Lawrence River and Hudson Bay.

Started in 1972, the program consists of an exchange of personnel between the U.S. and Canada to share knowledge on technical skills, methods of operation, field procedures and instrumentation systems.

OSU Alaska Studies *(Continued from page 1)*

Land Management and its environmental studies program, which seeks to determine the probable ecological impacts of oil exploration and development activities on Alaska's Outer Continental Shelf.

Primary objectives of the University research are to determine the acute and chronic effects of crude oil and other petroleum-associated chemicals on Dungeness crab and marine microorganisms. Studies will also include the abundance, distribution, and life histories of marine birds in the Gulf of Alaska, and ocean bottom dwellers in the Beaufort Sea.

The scientists will conduct a baseline study of marine microbial activity, working with scientists from the University of Louisville in Kentucky. Extensive seawater and bottom sediment samples taken by ship and helicopter near Point Barrow, in Prudhoe Bay, and in the Gulf of Alaska will be exposed to crude oil extracts to measure possible petroleum-connected changes in the way microorganisms ingest and respire organic compounds.

OSU scientists also will make a comprehensive field study in the Western Beaufort Sea to estimate the abundance, distribution, and productivity of Benthos (or bottom dwellers).

Roger C. Nichols Dies

Roger C. Nichols, former Chief of the National Weather Service Pacific Weather Project in San Francisco, Calif., died December 7. He had retired in 1967, and had been living in Healdsburg, Calif.

Oregon Tax Changes

Employees who are subject to state tax withholdings for the State of Oregon may notice a minor change in their state tax for salary checks dated on or after January 14, 1976.

Technique Permits Monitoring of Stratospheric Ozone Loss *(Continued from page 1)*

Dr. Noxon, Chief of the Optical Aeronomy Program in ERL's Aeronomy Laboratory, believes sensors based on his method can fill an important gap in present scientific understanding of the stratosphere's nitrogen oxide-ozone cycle.

"Much of the work thus far has been theoretical," he said, "based mainly on computer models and laboratory tests. Because of the expense, we have very few measurements of nitrogen oxides taken in the stratosphere. The ones we have were made by balloon-borne instruments and reconnaissance-type military jets. These give a fair idea of what nitrogen oxide levels were at isolated points in time. But, until now, we have had no method of making routine daily measurements to tell what the daily, seasonal, and latitudinal variations are."

Preliminary results by Dr. Noxon, working at NOAA's Fritz Peak Observatory at an elevation of some 9,000 feet (three-kilometers) near the Continental Divide west of Boulder, suggest that atmospheric nitrogen oxides vary significantly with altitude, location, and season.

These variations demonstrate that the problem of monitoring such compounds involves stratospheric weather as well as stratospheric chemistry. "The global distribution of ozone, nitrogen oxides, and other compounds is quite irregular," he said. "All these things are moved around by weather in the stratosphere. If nitric oxide destroys ozone at one location, ozone will drift in from somewhere else. The variations we're seeing are probably patches of nitrogen oxides blown over our sensors by high-altitude winds."

Dr. Noxon observed significant seasonal variations of stratospheric nitrogen dioxide at high latitudes, using a spectrometer aboard jet aircraft operated by the Air Force Cambridge Research Laboratories. In winter, north of 45 degrees, stratospheric nitrogen dioxide virtually disappears. Then, in spring, it begins to increase slowly, and by summer there is essentially no difference between high- and low- latitude measurements. This seasonal change, Dr. Noxon noted, was totally unexpected and was not predicted by theory, which means that present computer models are not simulating the real stratospheric situation very closely.

The optical method developed by Dr. Noxon will be applied in small, automated instruments run by minicomputers, and installed at the Geophysical Monitoring for Climatic Change (GMCC) stations operated by ERL's Air Resource Laboratories at Barrow, Alaska; American Samoa; South Pole Station; and Mauna Loa, Hawaii; and at an Air Force base at Thule, Greenland. These instruments will monitor the large seasonal changes Dr. Noxon observed, and confirm whether proton events caused by solar flares produce additional nitric oxide in the stratosphere, as suggested recently by other NOAA scientists.

U.S. GOVERNMENT PRINTING OFFICE: 1975-210-929/28

National Oceanic and Atmospheric Administration

ERRATA NOTICE

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages
Faded or light ink
Binding intrudes into the text

This has been a co-operative project between the NOAA Central Library and the Climate Database Modernization Program, National Climate Data Center (NCDC). To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or Library.Reference@noaa.gov

HOV Services
Imaging Contractor
12200 Kiln Court
Beltsville, MD 20704-1387
July 23, 2010