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Contracts for New Satellite System Total \$10 Million

Two contracts, totaling more than \$10 million, have been awarded to companies in Santa Monica, Calif., and Baltimore, Md., to produce data acquisition and processing subsystems for a forthcoming generation of operational environmental monitoring satellites.

The new series of satellites, known as the TIROS-N series, is being designed to replace existing polar-orbiting satellites, operated by NOAA, to provide more accurate data for environmental monitoring and predictions.

One contract, for \$5,402,381, was awarded to System Development Corp. in Santa Monica for the data processing and services system of the TIROS-N satellite-ground system. The other, (Continued on page 3)

Governor Commends WSFO Little Rock

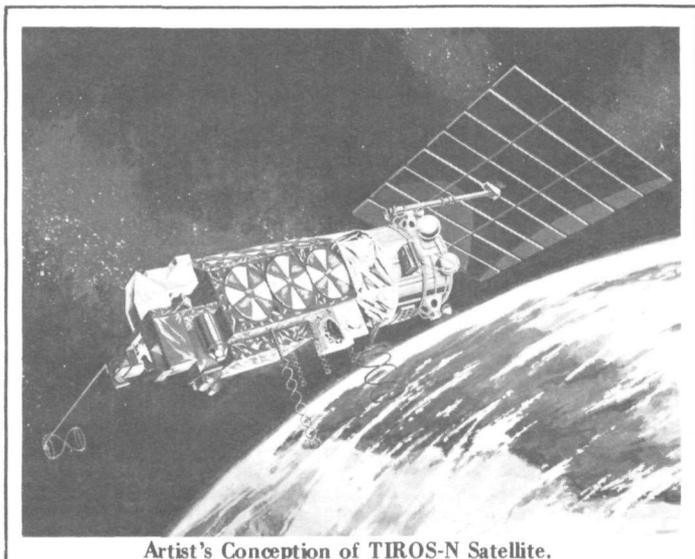
The following is the text of a letter National Weather Service Director Dr. George P. Cressman received recently from the Governor of Arkansas:

Dear Dr. Cressman:
On behalf of the people of the city of Cabot, Lonoke County and the state of Arkansas, I would like to express my sincere appreciation to the Little Rock office of the National Weather Service for its prompt and efficient reporting of the tornado approaching the Cabot area on Monday afternoon, March 29.

It is my understanding that personnel at the weather service office spotted the weather cell on radar and immediately asked the Radio Emergency Association Citizens Teams (REACT) personnel located in the office to contact a REACT field man. This man located the funnel cloud at 3:10 p.m. and notified the National Weather Service office, which immediately issued a tornado warning for Lonoke and Maski counties.

In addition, Frank Makosky, meteorologist-in-charge of the Little Rock office, at 3:12 p.m. telephoned Mayor Ray of

University of Delaware and State University System of Florida Named Sea Grant Colleges



Artist's Conception of TIROS-N Satellite.

Secretary of Commerce Elliot L. Richardson this week announced the designation of the University of Delaware and the State University System of Florida as Sea Grant colleges.

Appropriate ceremonies commemorating the event will take place later in the year.

"Although these universities have highly individual programs and serve very different regions of the country," Secretary Richardson said, "each has maintained an outstanding record of achievement in its programs of applied research, education, and advisory services in the marine field. The designation of Sea Grant College serves to honor those records and places these schools among a select group that now numbers 10 Sea Grant Colleges in the nation."

In recognition of the excellence of a university's marine program, the Secretary of Commerce may confer on it Sea Grant College status. Institutions previously designated as Sea Grant Colleges are the University of California, (Continued on page 4)

Massachusetts Receives CZM Grant

The Commonwealth of Massachusetts, which may soon be affected by offshore oil and gas operations, has received a special grant of \$110,310.58 to begin developing methods for coping with impact.

The NOAA grant will finance efforts to determine the wide range of potential effects offshore drilling could have on shore.

State planners, for example, will attempt to define the types of facilities that may be needed along the Massachusetts coast if oil or gas are found on the Outer Continental Shelf, including schools, homes, and the like for new residents attracted to the

Sincerely,
(signed)
David Pryor

(Continued on page 3)

U. of S.C. Awarded Research Contract

The University of South Carolina's Department of Geology has been awarded a \$71,643 contract by the Environmental Research Laboratories to assess possible geological hazards to petroleum development off Alaska's southern coast.

The contract is part of a major environmental study conducted by ERL for the Interior Department's Bureau of Land Management, which seeks to determine the probable ecological impacts of oil exploration and (Continued on page 4)

Endangered Species Coordinator Named

Dr. Robert E. Stevens has been named Endangered Species Coordinator for the National Marine Fisheries Service.

Previously, he was with the Texas Parks and Wildlife Department in Austin, where he was the principal administrator for management of living marine fisheries resources on the Texas coast.

Dr. Stevens will be responsible for developing and implementing conservation policy, procedures, and regulations necessary in administering the endangered species program.

He has had extensive fishery experience at the state and Federal levels, as well as with industry.

He received an A.B. degree in business administration from the College of William and Mary, and his B.S. degree and his Ph.D., both in zoology, from North Carolina State University.

personnel perspective

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
532-76	Meteorologist	GS-12	NWS	Fairbanks, Alaska	4-7-76	5-3-76
539-76	Supv. Meteorologist	GS-14	NWS	Anchorage, Alaska	4-8-76	5-6-76
580-76	Statistician (Biology)	GS-12	NMFS	La Jolla, Calif.	5-3-76	5-17-76
581-76	Supv. Meteorologist	GS-12	NWS	Brownsville, Texas	5-3-76	5-17-76
582-76	Supv. Meteorologist	GS-13	NWS	Amarillo, Texas	5-3-76	5-17-76
584-76	Meteorological Tech.	GS-10	NWS	Rochester, Minn.	5-3-76	5-17-76
585-76	Meteorological Tech.	GS-10	NWS	Sioux City, Iowa	5-3-76	5-24-76
583-76	Marine Recreational Fisheries Officer	GS-13	NMFS	Washington, D.C.	5-3-76	5-25-76
586-76	Meteorological Tech.	GS-10	NWS	Goodland, Kans.	5-11-76	5-25-76
587-76	Meteorological Tech.	GS-09	NWS	Casper, Wyo.	5-11-76	5-26-76
592-76	General Biologist	GS-13	NMFS	St. Petersburg, Fla.	5-12-76	5-26-76
596-76	Meteorological Tech.	GS-10	NWS	Atlantic City, N.J.	5-12-76	5-26-76
597-76	Supv. Meteorologist	GS-14	NWS	Garden City, N.Y.	5-12-76	5-26-76
588-76	Marine Information Specialist	GS-13	NOS	Rockville, Md.	5-11-76	6-1-76
589-76	Staff Assistant	GS-13	HDQS	Rockville, Md.	5-11-76	6-1-76
590-76	Physical Scientist	GS-15	NWS	Silver Spring, Md.	5-11-76	6-1-76
591-76	Supv. Physical Scientist	GS-14	NESS	Suitland, Md.	5-12-76	6-2-76
593-76	Physical Scientist	GS-11	ERL	Hilo, Hawaii	5-12-76	6-2-76
594-76	Supv. Meteorologist	GS-14	ERL	Hilo, Hawaii	5-12-76	6-2-76
595-76	Physical Scientist	GS-11	ERL	Barrow, Alaska	5-12-76	6-2-76
602-76	Supv. Hydrologist	GS-14	NWS	Tulsa, Okla.	5-17-76	6-1-76
605-76	Supv. Meteorologist	GS-12	NWS	New York, N.Y.	5-17-76	6-1-76
606-76	Supv. Meteorologist	GS-15	NWS	Cleveland, Ohio	5-17-76	6-1-76
607-76	Meteorological Tech.	GS-9	NWS	Patuxent River, Md.	5-17-76	6-1-76
599-76	Meteorological Tech.	GS-9	NWS	Bismarck, N. Dak.	5-17-76	6-1-76
598-76	Meteorologist	GS-12	NESS	San Francisco, Calif.	5-17-76	6-1-76
600-76	Motion Picture Production Specialist	GS-12	ERL	Boulder, Colo.	5-17-76	6-1-76
601-76	Secretary (Steno)	GS-5 or GS-6	ERL	Princeton, N.J.	5-17-76	6-1-76
608-76	Meteorologist	GS-13	NWS	New Orleans, Lou.	5-19-76	6-3-76
612-76	Supv. Meteorological Tech.	GS-11	NWS	Limon, Colo.	5-19-76	6-3-76
609-76	Electronics Tech.	GS-12	NWS	Silver Spring, Md.	5-19-76	6-3-76
610-76	Computer Systems Analyst	GS-13	NWS	Silver Spring, Md.	5-19-76	6-3-76
613-76	Program Analyst	GS-9	ERL	Boulder, Colo.	5-19-76	6-1-76
603-76	Supv. Meteorologist	GS-15	NWS	Silver Spring, Md.	5-17-76	6-8-76
604-76	Supv. Cartographic Tech.	GS-13	NOS	Rockville, Md.	5-17-76	6-10-76
611-76	Supv. Meteorologist	GS-15	NWS	Minneapolis, Minn.	5-19-76	

Retirement: Crediting Unused Sick Leave Toward Length of Service

Each eight hours of unused sick leave constitutes one day of credit toward total length of service. Days are converted to months and years on the basis of a 260-day work year.

The service of an employee who: (1) retires on immediate annuity; or (2) dies by leaving a widow entitled to survivor annuity, is increased by the days of unused sick leave to his or her credit. The days of unused sick leave thus added are used in counting the number of years and months of service for annuity computation purposes; they cannot be added in computing the employee's high-3 average salary or for the purpose of meeting the minimum length of service required for retirement eligibility.

To determine the length of service for annuity computation pur-

poses, all periods of creditable service and the time represented by the unused sick leave are added and any fractional part of a month in the total is dropped. For example, an employee with 31 years, 5 months and 20 days service who has 1,124 hours (140 days, or 6 months and 14 days) of unused sick leave to his or her credit at retirement, is credited with 32 years service, or 60 1/4 percent of his or her high-3 salary average.

The basic annuity of an employee may not exceed 80 percent of his or her high-3 average salary. However, annuity in excess of the 80 percent that is produced by crediting unused sick leave is payable, in addition to increases developed through cost of living adjustments.

Retirees May Elect Income Tax Deduction Option

Employees planning to retire may request a straight 20 percent Federal income tax deduction on lump sum leave payments. Use of the regular percentage withholding method may cause a larger than normal amount of tax to be withheld on final salary payments, especially if the annual leave balance is 240 hours or higher.

Employees desiring to use the 20 percent tax factor option must forward a memorandum requesting this option to the Finance Division, Personal Services Accounting Branch, Operations Section: AD561, Rockville, Md., 20852. To assure timely processing, the memo should include the requester's name and employee number and be received by the Operations Section at least two weeks before the last day of employment.

An employee who requests the 20 percent tax factor option will receive a final salary check followed in two weeks by a lump sum leave check. An employee not electing to use the 20 percent factor will normally receive a lump sum leave payment in the same check as the final salary payment.

National Bicentennial Medal Available



The American Revolution Bicentennial Administration (ARBA) has announced the availability of the National Bicentennial Medal, which was created under authority of the United States Congress. The Medal is the only gold medal Congress has specifically authorized for sale to the public. It is also available in silver, bronze, and gold-plated bronze. Prices are as follows: 3-inch gold: \$4,000; 1 5/16-inch gold: \$400; .906-inch gold: \$100; 3-inch silver: \$150; 1 1/2-inch silver: \$25; 1 1/2-inch gold-plated bronze: \$15; 1 1/2-inch bronze: \$5.

To order a National Bicentennial Medal, send a check or money order (made payable to ARBA) to: ARBA, P.O. Box 1976, San Francisco, California, 94101. Orders are limited to five of each medal and must be postmarked on or before July 31, 1976.



PARTICIPANTS IN A JOINT NATIONAL MARINE FISHERIES SERVICE-ENVIRONMENTAL DATA SERVICE WORKSHOP held at the EDS Center for Climatic and Environmental Assessment (CEEA) headquarters in Columbia, Mo., April 26-29 were (front row, from left) Dr. Clarence Sakamoto, EDS; Dr. Herbert Austin, NMFS; Dr. Taivo Laevastu, NMFS; Dr. Sharon LeDuc, EDS; (second row, from left) Dr. Walter Nelson, NMFS; Dr. William Sprigg, NOAA Headquarters; Robert Born, Scripps Institution of Oceanography; Dr. Michael Laurs, NMFS; Dr. William Quinn, Oregon State University; James Johnson, NMFS; (third row, from left) Dr. Richard Parrish, NMFS; Kent Hughes, EDS; Dr. Elaine Collins, EDS; Dr. James Ingraham, NMFS; Dr. L. L. Low, NMFS; (fourth row, from left) Dr. Norten Strommen, EDS; Dr. Charles Caillouet, NMFS; Dr. James Rucker, NOAA Hq.; Julien Goulet, NMFS; Dr. Richard Marasco, NMFS; Dr. Glenn Flittner, National Weather Service; (fifth row, from left) Henry Warren, EDS; Lou Steyaert, EDS; Dr. George Knobl, NOAA Hq.; John Brucks, NMFS; Dr. Douglas McLain, NMFS; Dr. Herbert Curl, Environmental Research Laboratories; Patrick Hughes, EDS; Dr. James McQuigg, EDS; and (not in photo) Michael Spellman, ERL; Robert Brower, National Environmental Satellite Service; Kenneth Sherman, NMFS; Dr. Merton Ingham, NMFS; and Woody Chamberlain, NMFS.

The purpose of the workshop was to explore areas of potential mutual interest, identify specific projects in which a joint effort might be beneficial, and assess joint operational capability areas. Discussions centered on cooperative modeling efforts focusing on the impact of large-scale climatic variation on global protein potential and selected regional fisheries, and on potential use of CCEA climate assessments by NMFS.

New CZM Film Is Available

An award winning film discussing current pressures upon the Nation's coastal areas and how various states are coping with them has been released by NOAA.

The 28-minute, 16mm color film, "It's Your Coast," illustrates the many human demands made upon the coastal zone, such as those by industry, fishing, housing, and recreation, and how these conflict with the requirements of nature. It stresses that planning for coastal management is necessary if the coastal zone is to handle the needs of both nature and man, and that every person with an interest in the coastal zone can participate in planning its management.

"It's Your Coast" was produced under contract by Screen Presentations of Washington, D.C., supervised by Elliot Macklow, Chief of NOAA's Motion Picture Service, and filmed on location in Naples, Fla., Portland, Me., Chicago, Ill., and Seattle, Wash.

It received the Silver Screen Award at the United States Industrial Film Festival in Chicago.

The film is geared for general audiences, as well as those interested in expressing viewpoints with regard to coastal zone management.

Prints are available on loan, free of charge, from NOAA Motion Picture Service, 12231 Wilkins Avenue, Rockville, Md. 20852. Phone: (301) 443-8411.

Satellite System Contracts Awarded *(Continued from page 1)*

converted to accommodate the new TIROS-N system, officials of the National Environmental Satellite Service said.

For example, already in place antenna and supporting equipment at Fairbanks, Alaska, and Wallops Island, Va., will be modified, and computers at Suitland, Md., now used with the current system, will be adapted for the new satellite series.

The data acquisition and control subsystem will consist of two primary command and data acquisition stations (one near Fairbanks, and the other at Wallops Island); voice, narrowband and wideband common carrier communications facilities; and an operational control center in Suitland, to assess spacecraft performance and originate normal operating commands.

The data processing and services subsystem, at Suitland, will include subsystems for receiving spacecraft data, for processing, storing and generating information, and for distribution of data to ultimate users.

Both contracts will be funded in stages over several years, and call for the design, building, installation, check out, and initial support of the subsystems in time for the scheduled early 1978 launch of TIROS-N.

Massachusetts CZM Grant *(Continued from page 1)*

Zone Management. OCZM has awarded Massachusetts more than \$700,000 to develop its program, and the State has added another \$365,000, under provisions of the Coastal Zone Management Act of 1972.

The National Aeronautics and Space Administration will fund the development and launching of the first TIROS-N spacecraft, while NOAA will finance subsequent spacecraft and their launches, establish ground facilities, and operate the satellites in orbit.

The new series of satellites and their supporting systems will permit the acquisition of environmental data at a much higher rate than is presently possible, calling for a fully digital system.

Additionally, TIROS-N satellites will be capable of more precise atmospheric and oceanographic measurements and broader monitoring of space phenomena having to do with energy distribution in the near-earth space environment.

The new generation also will be able to receive, process and retransmit to earth data transmitted from monitoring platforms on land, in the air, and in the ocean.

To a large extent, already existing facilities and equipment now used for the current polar-orbiting satellite system will be

area by energy-production activities.

State officials said the grant also will be used to identify suitable areas and develop standards for siting energy facilities; provide assistance to potentially affected communities; analyze State controls over OCS development and recommend necessary changes; coordinate issues of mutual interest with government agencies and neighboring states, and inform the public about OCS development and its impacts.

State officials emphasized that the OCS work program will coincide with the development of a broad coastal management program designed to ensure the long-term protection and preservation of Massachusetts coastal areas.

The coastal management program is being developed in close cooperation with Massachusetts citizens and the Office of Coastal

Delos P. Mentzer Dies

Delos P. Mentzer, Observation Specialist at the National Weather Service Meteorological Observatory in Kansas City, Mo., died on May 8. He had been with the WSMO since 1969, and had also served the NWS in 1946 in Wynonka, Okla., and Fort Worth, Tex. Between the two periods of weather service he spent more than 20 years in the U.S. Air Force.

He is survived by his wife, Carrie, of 6725 Earnshaw, Shawnee, Kans., 66216, and two daughters.

ENDEX/OASIS Users Guide Is Available

A new Users Guide to ENDEX and OASIS is now available. ENDEX (Environmental Data Index) and OASIS (Oceanic and Atmospheric Scientific Information System) provide rapid, computerized referral to available environmental data files and to published literature in the environmental sciences and marine coastal resources, respectively. The new guide describes available data bases including: dates of coverage, type of information, access methods, file size, and search charges. Sample outputs and a subject index to the data bases are also provided.

Copies of the guide are available from the Environmental Science Information Center, D8, 3300 Whitehaven St., N.W., Washington, D.C. 20235 (202-634-7336).

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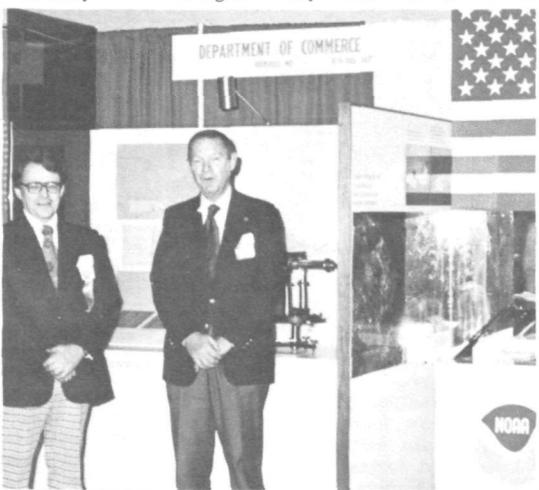
Articles to be considered for publication should be submitted at least a week in advance to NOAA Week, Room 221, WSC 5, Office of Public Affairs, National Oceanic and Atmospheric Administration, Rockville, Md. 20852.

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

THE NOAA BICENTENNIAL EXHIBIT at the recent joint convention of the American Congress on Surveying and Mapping and the American Society of Photogrammetry featured an 1860

theodolite used for surveying and a three-dimensional view of National Ocean Survey photogrammetry used in charting the Annapolis Harbor. Shown with the exhibit here are Morris R. Jones (left), Chief of the NOS Distribution Division, and Dr. Gordon G. Lill, NOS Deputy Director.



Two New Sea Grant Colleges Are Designated (Continued from page 1)

sities of Rhode Island, Wisconsin, Washington, Hawaii, and California; Oregon State University; Texas A&M University; and the combined State University of New York-Cornell University.

Commenting on the Secretary's announcement, Dr. Robert B. Abel, Director of the Office of Sea Grant, said, "The individ-

ual efforts of these universities have already made their mark in the marine field. The pioneering advances in applied research through such projects as Delaware's unique shellfish aquaculture system and Florida's ocean engineering program will continue to bring benefits to a large and growing user group. These

U. of S.C. Awarded Research Contract (Continued from page 1)

development activities on Alaska's Outer Continental Shelf.

Because such processes as coastal erosion and sediment deposition are integral to designing and siting offshore structures in the difficult Alaskan environment, the South Carolina scientists will emphasize sediment movement and deposition rates in their investigation.

The scientists will resurvey fifteen beach sites between Yakutat and Cordova, which were previously studied in early 1970. Beach sediment samples also will be collected from Hinchinbrook Island to Icy Point, while glacial sedimentology studies will focus on the shoreline at Icy Bay and Yakataga Bay and the Malaspina Foreland.

The new beach survey results will be compared with earlier data to obtain quantitative meas-

urements of sediment volumes eroded or deposited at the beaches during the past five years. This information, combined with aerial photography, will enable the research team to make predictions concerning future rates of shoreline erosion and sediment deposition in the study area.

All sediment samples collected in the field will be analyzed for grain size in the Coastal Research Division Laboratory at the University of South Carolina. This information will then be used to construct a sediment distribution map of the entire beach zone under study.

A detailed map of the regional coastal structure, derived from aerial photographs and satellite imagery, will be produced of the southern Alaska coastal zone between Dry Bay and Cape Yakataga. This work, done in cooperation with a related research study at the University of Alaska, will aid the Alaska scientists in compiling three separate maps showing geologic hazards, coastal plain landforms, and beach materials.

user groups include legislators and coastal zone managers, commercial fishermen and seafood processors, sportfishermen, students, teachers, and the general public."

Delaware's shellfish aquaculture project is typical of the work the Office of Sea Grant has sponsored at that institution since 1968. Through the efforts of a multidisciplinary team of biologists, economists, chemists, engineers, and legal experts, Delaware's closed-cycle rearing operation shows promise of being able to produce fast-growing, disease-resistant clams and oysters in a controlled and totally self-contained environment. Using the system, the research team has successfully grown test oysters to market size four times faster than they grow in nature.

With the help of a \$635,000 Sea Grant awarded to the University of Delaware last October, researchers have been involved with several other projects, as well. Scientists are now studying the dynamics of the complex, 120,000-acre tidal marsh system in Delaware. Part of the tidal marsh program examines the biological contribution a typical salt marsh makes to the ecosystem of Delaware Bay in order to determine more precisely how important salt marshes are to the area.

The State University System of Florida, which comprises six campuses and is administered through the University of Florida at Gainesville, is marking its fifth year of support from the National Sea Grant program.

Under this year's \$975,000 Sea Grant, the Florida System's ocean engineering program will continue investigations at the University of Florida on the erosion of the State's valuable beach sand.

Also, engineering studies at Florida Atlantic University are being conducted on seawater corrosion of steel reinforced con-

The Miami-Dade Public Library System is seeking entries in the following categories for its 2nd Annual Underwater Festival in July: Shells, Aquariums, and Photography. Information is available from: Karlinne Wulf, Miami-Dade Public Library, 1 Biscayne Boulevard, Miami, Fla. 33132. Last year's Festival had entries from many of the states and both Atlantic and Pacific Coasts, according to Ms. Wulf.

crete structures. Many of Florida's 4,000 reinforced concrete bridges are in hostile coastal zone areas or even the open sea. The State Department of Transportation, which estimates that the anticipated replacement of the Florida Key bridges alone over the next 10 years could cost as much as \$250 million, is especially interested in the results of this project, aimed at discovering the best and most economical materials with which to build new bridges.

Other Sea Grant supported projects underway in Florida include a biological study of the spiny lobster, the State's second most valuable commercial fishery, and a law program designed to protect the public's interest in Florida's beaches. Legal experts are developing model ordinances based on the types of coastal beaches, wetlands, and dunes for which protection has been attempted at the State, county or local level. The model ordinances, including those pertaining to beach access, coastal construction setback lines, and dune protection, will be made available to State and county legislative bodies.



calendar of events

May 22 Astronomy Education: THE STATE OF ART, a symposium sponsored by the Astronomical Society of the Pacific and the

Lawrence Hall of Science, University of California, Berkeley. (Andrew Fraknoi, Astronomy and Physics, Canada College, 4200 Farm Hill Blvd., Redwood City, Calif. 94061. 415-364-1212.)

June 7-18, 1976 International Symposium on Solar-Terrestrial Physics. Sponsored by American Geophysical Union, Committee on Space Research, International Union of Geodesy and Geophysics/International Association of Geomagnetism and Aeronomy, and the Special Committee on Solar Terrestrial Physics, and Co-Hosted by the University of Colorado, University of Denver, National Center for Atmospheric Research and NOAA. (Dr. Donald J. Williams, Director, Space Environment Laboratory, NOAA, Environmental Research Laboratories, Boulder, Colo. 80302. Commercial-303-499-1000, Ext. 3311, or FTS-323-3311.)

July 11-16 "Legal Aspects of Ocean Resources Management" course at Massachusetts Institute of Technology sponsored by M.I.T. Sea Grant Program and M.I.T.'s Summer Session Office. (Director of the Summer Session, Room E19-356, M.I.T., Cambridge, Mass. 02139. 617-253-2101.)

July 26-30 "Coastal Wave Hydrodynamics - Theory and Engineering Applications" course at Massachusetts Institute of Technology sponsored by M.I.T. Sea Grant Program and M.I.T.'s Summer Session Office. (Director of the Summer Session, Room E19-356, M.I.T., Cambridge, Mass. 02139. 617-253-2101.)

September 10-14 Chapman Conference on Partial Melting in the Earth's Upper Mantle, cosponsored by the American Geophysical Union and the Oregon Department of Geology and Mineral Industries. Deadline for preliminary applications and abstracts is June 7. (Cynthia Beadling, AGU, 1909 K St., N.W., Washington D.C. 20006. 202-331-0370.)

October 21-23 Joint meeting of the Midwestern Region of American Geophysical Union and the Eastern Section of the Seismological Society of America. Deadline for abstracts is July 27. (Cynthia Beadling, AGU, 1909 K St., N.W., Washington, D.C. 20006. 202-331-0370.)

National Oceanic and Atmospheric Administration

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