

noaa week

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October 10, 1975

GOES Launch Is Scheduled October 16

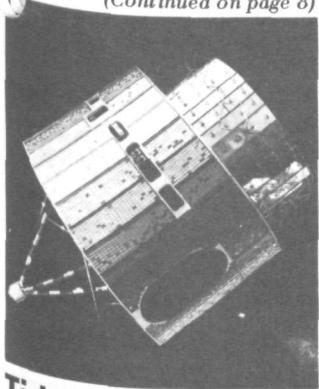
A 647-pound spacecraft, designed to monitor both the earth's environment and solar activity, will be propelled 35,800 kilometers (22,250 miles) into space this week for NOAA.

Launch is scheduled for 6:40 p.m. EDT on October 16, from Kennedy Space Center, Fla., atop a NASA Delta rocket.

The spacecraft will be maneuvered into a fixed position above the earth, supplementing two other geostationary satellites operated by NOAA for environmental monitoring.

GOES-A (for Geostationary Operational Environmental Satellite-A), hovering on station over a yet-to-be determined

(Continued on page 8)



Tidal Wetlands Research To Continue Under Sea Grant

The University of Delaware, with a recently awarded Sea Grant of \$635,000, will continue research on tidal wetlands, coastal engineering, and the development of food resources from the sea. The grant will be augmented by almost \$360,000 in matching funds from the State of Delaware and from private industry.

The food resources program focuses primarily on a unique system for growing clams and oysters in a completely closed environment.

"The University of Delaware has made pioneering advances in the field of shellfish aquaculture," said Dr. Robert B. Abel, Director of the Office of Sea Grant. "Its closed-cycle rearing system shows promise of

U.S. Proposals Are Accepted By ICNAF

All major United States proposals before the International Commission for the Northwest Atlantic Fisheries (ICNAF) were accepted during the recent special meeting of the Commission in Montreal, Canada. David H. Wallace, Chairman of the U.S. delegation and NOAA's Associate Administrator for Marine Resources, characterized the special meeting as "one of the most successful in the Commission's 25-year history from the standpoint of the U.S."

The Commission acted to:

- ...reduce substantially the 1976 overall catch quota for all finfish species off the northeast coast of the United States, while at the same time providing an increased quota for the U.S. which will allow expansion by our fishermen;

- ...close most of the Georges Bank area to large vessels capable of catching valuable and depleted groundfish stocks;

- ...approve a system for registering fishing vessels of every nation in the area; and

- ...establish more enforceable exemption provisions for trawl net fisheries conducted off the U.S. and Canadian coasts.

The U.S. quota for 1976 was increased to 230,000 tons from 211,600 tons in 1975.

being able to produce fast-growing, palatable, disease-resistant oysters and clams that can be reared in a controlled and totally self-contained environment."

When an economically feasible system has been developed by the University, the Delaware prototype will be available for commercial adaptation throughout the U.S., he said.

This year Sea Grant scientists will be refining the aquaculture system to determine what combination of specially-reared algae is the best food for the shellfish, and will work toward solving problems of disease, waste disposal, and water chemistry and circulation in the system.

Researchers will study the

Fourth Annual Report Of NACOA Is Released

Establishment of a 200-mile U.S. Economic Resource Zone for the ocean waters off our coasts is recommended by the National Advisory Committee on Oceans and Atmosphere (NACOA) in its recently released Fourth Annual Report as a first step in protecting coastal fisheries against overfishing.

"We cannot afford to wait but must take action now, even if interim," the Committee said. Urgent action is required to bring the living resources of the ocean, and other vulnerable aspects of the marine environment, under "positive rational management," NACOA wrote.

In previous reports NACOA had counseled patience in awaiting the outcome of the Law of the Sea Conference held first in Caracas, Venezuela, in 1974, then in Geneva, Switzerland, in 1975. The Conference, the Committee said, has not yet been able to reach agreement even af-

Deep Sea Mining Study Underway

Government and university scientists aboard the NOAA ship Oceanographer are conducting a three-month environmental study of the tropical Pacific as part of major NOAA effort to define the potential effects upon the environment of deep sea mining.

The investigation focuses on three research sites southeast of Hawaii, in an area where high concentrations of metallic nodules, rich in manganese, copper, cobalt and nickel, have been found on the ocean floor. Commercial mining of such nodule beds is expected to begin within a few years.

More than 30 scientists from NOAA, the Geological Survey, and Washington, Hawaii, and Texas A&M Universities are participating in the voyage, which ends November 20. Chief scientists on the study are Barrett Erickson and Cdr. G. H. Poor of the Environmental Research Laboratories.

(Continued on page 2)

Photos of D.C. Area Open Houses On Pages 4-7.

ter protracted preparation and negotiation.

The report treats various features involved in the balanced management of offshore development and environmental protection, and notes with concern the slaking support for basic research in the oceans and atmosphere which is needed to understand the environment, its properties, and its resources.

NACOA urges that, as the U.S. gets ready for the management of an Economic Resources Zone, it take explicit account of our own interests but with due regard for our international obligations. The issues with foreign policy impact include fisheries management, freedom of science, and by analogy—although in general outside the Economic Resources Zone—the mining of minerals from the bottom of the deep sea.

NACOA urges that we get on with oil and gas development on the outer continental shelf, and the siting of power plants and of

(Continued on page 2)

dynamics of the complex 120,000-acre tidal marsh system in Delaware, and examine the extent of the biological contribution a typical salt marsh makes to the ecosystem of Delaware Bay, to determine just how important salt marshes are to the Bay.

In related work, biologists will use a small dredge-spoil island at Lewes, Del., as a site for salt-water irrigation of special seeds collected last year from Bolivia, India, and South Africa. The ultimate objective is to find or develop seed-bearing plants tolerant to sea water that can be used as a food source for man and domestic animals.

Coastal engineers will investigate the State's coastline, to de-

(Continued on page 3)

NESS Personnel Changes Announced



Dr. Spohn Dr. Ludwig

With the retirement of A. W. Johnson, the National Environmental Satellite Service has made some major personnel changes.

Dr. Clifford A. Spohn, former Director of the Office of Operations, is now the Deputy Director of NESS. Dr. George H. Ludwig has been appointed to succeed Dr. Spohn as Director, Office of Operations, and is serving as the Acting Director of the Office of Systems Integration until the Director's vacancy is filled.

LSC Aids DOT

The Lake Survey Center recently completed a reimbursable project for the St. Lawrence Seaway Development Corporation of the Department of Transportation, which involved installation of two meteorological data acquisition systems at Cape Vincent and Ogdensburg, N.Y. In addition, a digital telemetry water-temperature gage was moved from Ogdensburg to Waddington, N.Y. Engineering Division personnel Howard Booker and John Blagaila procured and assembled the gages, and Dawsey Creg, Robert Harm and Kenneth Focht made the actual installations.

The project is part of the long-range studies being conducted to determine the feasibility of extending the winter navigation season on the Great Lakes. The data acquired from the systems mentioned will be used, among other things, to aid in predicting freeze-up times.

Ocean Mining Study

(Continued from page 1)

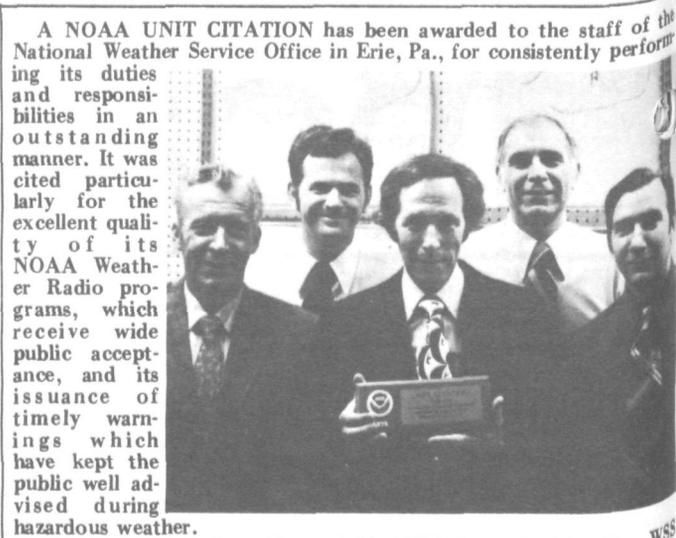
The team is studying all aspects of the marine environment—physical oceanography, chemistry, meteorology, geology of the ocean floor, and marine life. Projects include estimating population and distribution of zooplankton; analyzing water salinity, temperature and content; determining solar radiation both above and below the water surface; and gathering data concerning the ocean bottom.

Their effort is part of the Deep Ocean Mining Environmental Study managed by ERL's Marine Ecosystems Analysis Program Office. The project's first phase is a series of baseline stud-

EDS, NASA To Share Search Capabilities

The Environmental Data Service's Environmental Science Information Center and the National Aeronautics and Space Administration's Scientific and Technical Information Office have agreed to share their literature search capabilities via on-line computer terminals. Each agency also will be able to request literature searches (off-line) of the other as a backup to the on-line service.

NOAA users gain access to NASA's data base, which comprises publications announced in the Scientific and Technical Aerospace Reports (STAR) and the International Aerospace Abstracts (IAA). On-line searches of the NASA data base soon will be initiated by NOAA's Suitland Library, FOB 4, Room 3216, Suitland, Md. (Telephone 301-763-7432.)



A NOAA UNIT CITATION has been awarded to the staff of the National Weather Service Office in Erie, Pa., for consistently performing its duties and responsibilities in an outstanding manner. It was cited particularly for the excellent quality of its NOAA Weather Radio programs, which receive wide public acceptance, and its issuance of timely warnings which have kept the public well advised during hazardous weather. The staff comprises (from left) WSS Lynn Braithwaite, WSS George Poulson, Official in Charge John Quinlan, WSS William Green, WSS Howard Buzzell, (and not in photo) WSS Joseph Fracassi and James Crosby.

NACOA Fourth Annual Report Released

(Continued from page 1)

deep water ports in a framework that assures environmental protection and a voice for both State and local officials.

To clear the way for energy resource exploitation offshore, NACOA recommends amending current coastal zone legislation to compensate states adversely affected by offshore development of oil and gas, that private industry continue its role in oil and gas exploration and development, and that environmental impact assessments required for approval of energy resource exploitation be developed in two stages reflecting the different degree of hazard involved in exploration as compared with de-

velopment. The Committee also recommends expansion of the informational services of NOAA's Office of Coastal Zone Management to serve the rapidly growing states' needs of coastal zone managers.

In making a sweep through a number of oceanic and atmospheric programs which, "though not major in dollars, are large in importance because they are at the cutting edge," NACOA summarizes a recent special report recommending some changes on emphasis in the NSF's well-regarded International Decade of Ocean Exploration, and another report proposing an Institute for Engineering Research in the Oceans. It examines with concern the fading support for basic research in oceanography by the Navy, and the static quality of the shipbuilding program for oceanographic research.

In its discussion of atmospheric matters, NACOA points out that weather modification to help increase rainfall in semi-arid areas is a potential means for increasing the world food supply and recommends that research in weather modification be given a central management focus and coordinated to insure more rapid progress in understanding the phenomena involved. Inadvertent weather modification is viewed as a part of the more general concern for the adverse effects of climate change, including the recently suspected weakening of the stratospheric ozone shield attributed to release of chlorofluorocarbons from spray cans and refrigerants, and the effects of large quantities of waste heat released to the atmosphere from power generating facilities. NACOA accordingly recommends the establishment of a coherent national climate program and an increase in the stratospheric monitoring effort. NACOA also

calls attention to the continuing need for well instrumented aircraft for hurricane reconnaissance to provide essential information not available from other sources to help maintain the effectiveness of the hurricane prediction and warning service.

The 25-man Advisory Committee, whose members are appointed by the President from outside the Federal establishment, was created by Congress in 1971 and reports directly to the President and to the Congress. It is required by law to maintain a continuing review of the marine and atmospheric science and service programs of the U.S. Dr. William J. Hargis, Jr., Director of the Virginia Institute of Marine Sciences, Gloucester Point, Va., is Chairman.

"A Report to the President and the Congress" by the National Advisory Committee on Oceans and Atmosphere, Fourth Annual Report, June 30, 1975, is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at \$1.20 a copy.

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 dressed whiting and fish sticks along the Northeast Seaboard; gray sea trout and fresh spot in the Middle Atlantic States, including the D.C. area; fresh oysters and Spanish mackerel in the Southeast and along the Gulf Coast; fresh lake trout and fish sticks in the Midwest; canned tuna and fresh fillets of sole in the Northwest; and fresh butterfish fillets and silver salmon in the Southwest.

ies of the pre-mining condition of possible mining sites. The current research endeavor is the third to be conducted under the ocean mining study, and the most ambitious.

Many of the samples collected during the voyage will be analyzed aboard the Oceanographer, which is commanded by Captain Kelly E. Taggart.

noaa week

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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

Congressional Activity Of Interest to NOAA

A bill to allow Federal and Postal employees the option of retiring after 30 years' service regardless of age ran into trouble when debated on the House Floor in September. Both parties denounced the bill as fiscally irresponsible and a raid on the treasury. As a result, sponsors have decided to scuttle it and not seek a House vote immediately. This indicates the bill is probably dead this year and maybe for several years to come.

—Early in September, Congress enacted into law, over President Ford's veto, a bill making fiscal 1976-77 appropriations for Federal education programs. At stake was funding for almost every Federal education program ranging from aid to handicapped and disadvantaged students to funds for ethnic heritage studies. The aid program is important to Federal employees because it contains an impact aid program which grants money to schools in almost 400 Congressional districts in which Federal employees are concentrated.

—The House of Representatives has been considering flexi-time hours for selected Government employees. The Administration has cleared a long-studied proposal to introduce a form of flexi-time. If flexi-time fits agency business, employees may set their working hours for an eight-hour shift any time within a 12-hour core period workday. Flexi-time is already operating at some Social Security offices and

is being tested by the Geological Survey in Reston. The Navy has tried flexi-time on the West Coast on a limited basis. Tests have generally resulted in improved productivity and less absenteeism, and virtually eliminated tardiness.

—Congress and the President have completed action to redesignate November 11 as Veterans Day (P.L. 9497), beginning in 1978.

—The House of Representatives has passed legislation, by a 300-63 vote, to set up a national board to coordinate voluntary conversion to the metric system in the United States.

Delaware Sea Grant

(Continued from page 1)

termine the rate of beach erosion and develop methods for predicting the effect of tidal flow and storm waves on the shoreline. Other engineers will complete a study of erosion at Indian River Inlet, with the aim of protecting adjacent beaches and gathering information needed to maintain the inlet's navigability.

Activities of the University of Delaware's Marine Advisory Service during the coming year will include distribution of information on beach erosion, development of an artificial reef on Delaware Bay in cooperation with the Sport Fisheries Association, evaluation of freeze-dried baits, and combined efforts with state and municipal coastal zone agencies inland-use planning.

Cdr. Carl N. Davis Receives Army Meritorious Service Medal

Cdr. Carl N. Davis has been awarded the Army Meritorious Service Medal for his accomplishments during his previous assignment as Liaison Officer at Fort Sill, Okla., which will save the U.S. Government \$3 million per year. These include facilitating a reduction of manpower and training requirements for field artillery survey between March 1972 to May 1975 by introducing the field artillery community to the utilization of handheld calculators for rapid and accurate survey computations during field operations; evaluating commercially available calculators which could meet the requirements and preparing indepth statistical reports of their capabilities and limitations; designing computational forms to be used worldwide by the artillery in conjunction with the calculators; com-

puterizing the annual update of an Army Technical Manual and revising two tables in it to make them more accurate and responsive to field artillery needs. Also, he provided invaluable assistance to the U.S. Army Field Artillery School in testing new survey equipment and techniques, and was singularly responsible for the establishment of two-2d Order Distance and Azimuth Calibration Bases at Fort Sill, the only ones of this type in the 5th Army Area.

Cdr. Davis became a commissioned officer in 1963. He received his BSCE degree from West Virginia University and his MSCE from Purdue University. He is presently assigned to the Office of the Deputy Director of the National Geodetic Survey at National Ocean Survey Headquarters in Rockville, Md.

Mrs. Davis holds the Army Meritorious Service Medal up to see how it will look on her husband's uniform, as Adm. Harley D. Nygren, Director of the NOAA Corps, who presented the Medal to Cdr. Davis, watches.



Solar Flares Herald New 11-Year Cycle of Activity; Magnetic Mystery at Solar Minimum

Late last August an active area on the sun produced a series of moderate to major flares that reverberated in the earth's magnetic field, disturbed the ionosphere (the electrically charged layer of the upper atmosphere), and dusted our corner of space very lightly with energetic solar protons.

For Environmental Research Laboratories' scientists, the active region and its flares meant more than a temporary increase in solar activity—they also marked the coming of a kind of springtime on the sun, when one 11-year cycle nears its end and another one begins. The August flares were the first significant activity of the new cycle, number 21. Now, solar activity will gradually increase to a maximum in 1979 or 1980, then diminish toward the next solar minimum about 1986.

"The recent activity occurred in conjunction with a sunspot group at about 28 degrees north solar latitude," reports Gary R. Heckman, Acting Chief of the Space Environmental Laboratory's Space Environment Services Center in Boulder, Colo.

"This sunspot group also had the magnetic configuration of a new cycle."

In the solar cycle, Heckman says, sunspots first tend to form at solar latitudes between about 20 and 30 degrees; then, as the cycle continues, they occur closer and closer to the solar equator, coming within about five degrees of the equator by the solar minimum.

The advent of a new cycle cued ERL scientists to begin looking for the end of the old cycle, and for the "impossible" solar magnetic field which researchers think—but can scarcely believe—comes at the solar minimum.

Then, past data suggest, the sun's normal two-pole magnetic field takes on a single polarity for three solar rotations (about three months), a performance that is not supposed to be possible in the physical world.

The sun's magnetic field has a large-scale pattern that appears to divide the 360 degrees of solar longitude into four magnetic sectors, alternately pointing out from the sun's surface and in toward the core. These magnetic

field sectors are carried into interplanetary space on the solar wind, a thin flow of energy that "blows" from the sun, so that measurements of the interplanetary magnetic field can be read as measurements of the sun's magnetic field.

During the last solar minimum in 1965, this sector pattern disappeared for about three months, and the magnetic field became almost totally directed away from the sun, suggesting a magnetic field with only one pole.

"There is no explanation," says Dr. John Wilcox, a scientist at Stanford University's Institute for Plasma Research and a consultant to the SEL. "The phenomenon is so strange there is a temptation to say the observing equipment is malfunctioning. But there have been several independent kinds of observations that point to this phenomenon of single polarity."

With the end of old cycle number 20 now just a few months away, scientists will have their first opportunity to see whether this strange magnetic event happens again—and whether it happens at all. Scientists at

NOAA observatories, and their colleagues in other sun-watching installations around the world, will be observing a variety of phenomena with ground-based and satellite instruments, in the hope of confirming the magnetic monopolarity at the solar minimum, and discovering its causes. Intensive observations will also be made by scientists at Stanford's observatory and at a Soviet facility in the Crimea, both equipped to observe the sun as a star.

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Thousands Help NOAA Celebrate Fifth Anniversary By Attending Open House Aboard the Researcher In Washington, D.C.



A



B



C

(A) The Researcher. (B) (From right) Captain John O. Boyer, the ship's Commanding Officer; Cdr. Bruce I. Williams, Chief of the Special Projects Branch in the Operations Division of the National Ocean Survey's Office of Fleet Operations; and Scott M. McKellar, Marine Specialist in the same Division, observing school children. (C) Emperor Hirohito and Empress Nagako of Japan boarded the Presidential yacht Sequoia next to the Researcher at the Washington Navy Yard and cruised past the NOAA Ship enroute to Mount Vernon. (G) Lt. (jg) George D. Vose explaining equipment on the bridge of the ship. (H) Lt. David B. MacFarland, Jr., describing equipment in the ship's electronics shop.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NOAA SHIP RESEARCHER OSS 03



This Class 1 ship is one of a fleet of oceanographic survey vessels operated by NOAA, the National Oceanic and Atmospheric Administration, to expand man's understanding and uses of his physical environment. Her working area is generally the Gulf of Mexico and the mid-Atlantic Ocean. Since her commissioning in 1970, she has averaged more than 24,000 nautical miles per year in gathering deep sea oceanographic data in support of NOAA's scientific mission. She has participated in several international expeditions, such as International Field Year for The Great Lakes and the Global Atmospheric Research Program's Atlantic-Tropical Experiment.

SHIP'S GENERAL DESCRIPTION	
LENGTH OVERALL	278 Feet
BEAM, MOLDED	51 Feet
DRAFT	18 Feet
DISPLACEMENT	2,875 Long Tons
MAXIMUM SPEED	15 Knots
RANGE	13,000 Nautical Miles
ENDURANCE	24 Days
COMPLEMENT	71

Capt. JOHN O. BOYER
COMMANDING OFFICER

**WELCOME
ABOARD**

Awards Given at Anniversary Luncheon



At the Awards Luncheon, Joseph E. Kasputys (left), Assistant to the Secretary of Commerce, and Howard W. Pollock (right), Deputy Administrator of NOAA, joined Dr. Robert M. White (second from right), NOAA Administrator, in presenting the Awards. Receiving his NOAA Award above is Dr. Lester Machta, Director of the Environmental Research Laboratory's Air Resources Laboratory in Silver Spring, Md. Other NOAA Award winners were Cdr. R. Lawrence Swanson, Project Manager for ERL's Marine Ecosystems Analysis (MESA) program New York Bight Project, Stony Brook, N.Y.; Dr. Harry R. Glahn, Deputy Director of the National Weather Service's



Cdr. Swanson



Dr. Glahn



Mr. Ethridge



Mrs. Loman



Mr. Norris



Mrs. Schadt

Techniques Development Laboratory in Silver Spring; Ernest S. Ethridge, Official in Charge of the NWS Office at Shreveport, La.; and Russell T. Norris, former Director of the National Marine Fisheries Service's Northeast Region, Gloucester, Mass. NOAA's EEO Awards were presented to Lena C. Loman, Chief of the Programming Support Section of the Automation Division at the NWS National Meteorological Center, Camp Springs, Md.; and June D. Schadt, Administrative Clerk for the Sandy Hook Laboratory of the NMFS Middle Atlantic Coastal Fisheries Center, Highlands, N.J.



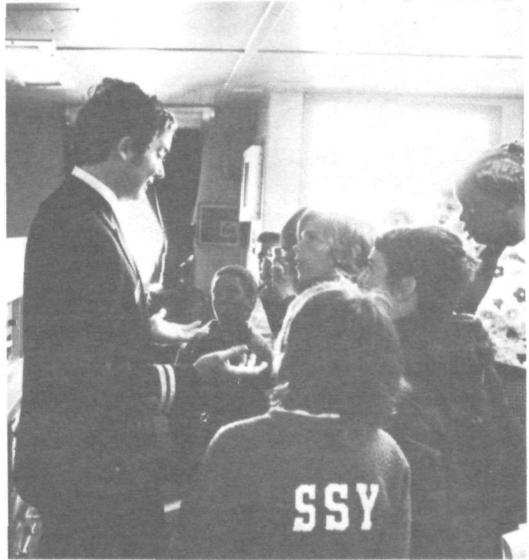
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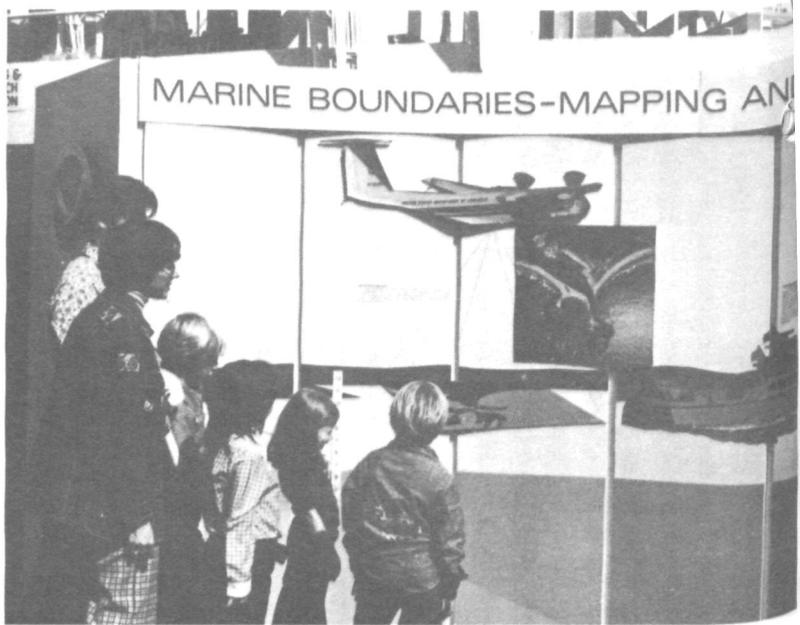
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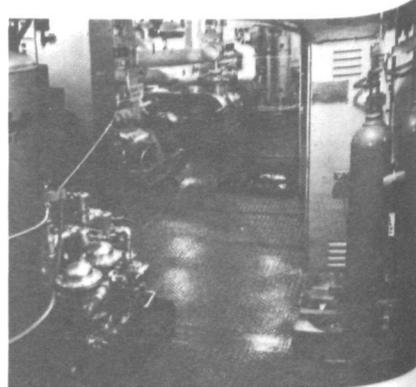
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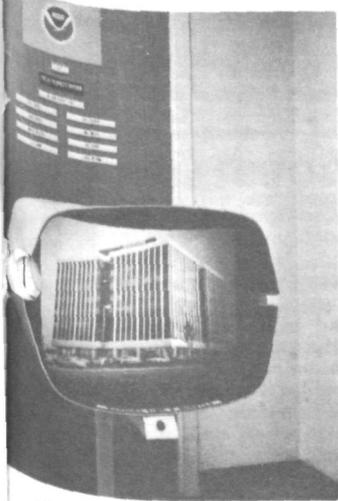
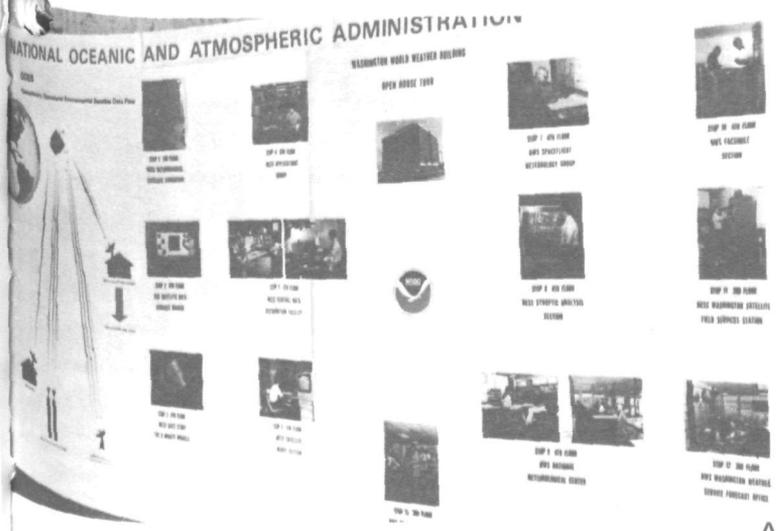
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G

(A) Children looked into instruments; and (B) at displays; Projectionists Willie McCrae (C) and (not shown) Tom Davis showed NOAA films in the Movie Tent (D) near the ship; (F) the ship's engine room sparkled; (G) and thousands of NOAA brochures were distributed.

World Weather Building Open House Draws Enthusiastic Crowd



At the World Weather Building, a Tour Guide Directory (A) in the lobby indicated each stop on the tour; (B) Winston Fontanelle, Meteorological Technician in the Surface Analysis Branch of the National Meteorological Center's Forecast Division, described how data is obtained, then plotted every three hours on the weather surface map by Meteorological Technicians, analyzed by Meteorologists, and transmitted across the Nation; (C) one could see an automatic slide briefing on the World Weather Building; (D) maps in the Weather Map Briefing/Discussion Room in the Forecast Division of NMC were examined; (E) at WSFO Washington, D.C., John Galt, Program Manager, explained the purpose and operation of the NOAA Weather Radio; and (F) in the Central Data Distributing Facility, W. John Hussey, Chief of the National Environmental Satellite Service Field Services Division, explained the operation of the data processing equipment and the data flow to the field users. The equipment at the right is the central console from which all data processing and distribution in the facility is controlled.

notes about people

Cdr. Wesley V. Hull has been appointed Commanding Officer of the NOAA Ship Mt Mitchell.

He was last assigned as Chief of the Coastal Mapping Division in the Office of the National Ocean Survey Associate Director for Marine Surveys and Maps, in Rockville, Md. A commissioned officer for 17 years, his earlier assignments included commanding the hydrographic survey vessel Bowie.

In 1960 he received the Karo Award for his work as a member of the Louisiana Low Water Line Survey Party.

He attended Murray State Agriculture College, Tishomingo, Okla.; received his B.S. degree from Oklahoma State University, in Stillwater; and his master's degree from Cornell University, Ithaca, N.Y.

Joseph Pileggi, who has been Special Assistant to the Executive Officer of the National Marine Fisheries Service since 1973, has been named Chief of the NMFS Division of Statistics and Market News.

He succeeds Dr. Hoyt A. Wheeland, who has accepted a two-year assignment in Manila, Philippine Islands, with the United Nations Food and Agriculture Organization Fisheries Development Project for the South China Sea Nations. He will serve as Regional Statistician for that phase of the Project concerned with developing the capabilities of the various countries to produce the type of fisheries



Cdr. Hull



Mr. Pileggi



Lt. Ruzsala

statistics needed for fisheries management and development.

Mr. Pileggi came to NOAA in 1970 as Fishery Administrator in the Office of Resource Utilization and NMFS Defense Fisheries Coordinator.

He had previously spent 21 years in progressively more responsible Department of the Interior fisheries positions. In the first of those, with the Field Offices of the Fishery Market News Service, he organized, set up, and developed procedures for the Market News Service field offices and daily reports.

He attended Strayer's Business College, Philadelphia, Pa.; College of Christian Education, Philadelphia; New York University; Boston University; and George Washington University.

Dr. John Apel, Director of the Ocean Remote Sensing Laboratory (part of the Environmental Research Laboratories' Atlantic Oceanographic and Meteorological Laboratories in Miami, Fla.), who was elected a member of the URSI/IUGG Interunion Commission on Radio Meteorology last month in Grenoble, France, will chair a symposium on radio oceanography to be held in Europe in the autumn of 1976.

Lt. Thomas W. Ruzsala has been named Junior Officer of the Year by the Association of Commissioned Officers of the NOAA Corps. He was cited for his "outstanding performance as Port Liaison Officer at Dakar, Senegal," during the Global Atmospheric Research Program Atlantic Tropical Experiment.

The citation stated Lt. Ruzsala was responsible "for planning maximum utilization of port facilities and efficient replenishment for as many as 30 vessels



PARTICIPANTS IN A THREE-WEEK COURSE ON BASIC HYDROLOGIC PRINCIPLES held by the National Weather Service Office of Hydrology through the University of Oklahoma Center for Continuing Education at Norman, Okla., were (front row, from left) Clinton Stiger, Portland, Oreg.; Craig Sanders, Minneapolis, Minn.; George Pericht, Buffalo, N.Y.; David Sisk, Pittsburgh, Pa.; (second row, from left) N. Sen Roy, New Delhi, India; Ralph Pike, Albuquerque, N. Mex.; Gerald H. Clemons, Memphis, Tenn.; H. B. A. Peterson, New Orleans, La.; Edwin L. May, Detroit, Mich.; (third row, from left) Bill Togstad, Bismarck, N. Dak.; Craig S. Hunter, Richmond, Va.; William D. Burton, Eureka, Calif.; John Patton, Salt Lake City, Utah; Russell Durham, Louisville, Ky.; (fourth row, from left) Warren Silverzahn, Hartford, Conn.; Carl W. Landers, Little Rock, Ark.; George M. Kush, San Antonio, Tex.; Donald P. Laurine, Salt Lake City, Utah; David Brandon, Topeka, Kans.; Solomon Summer, Cincinnati, Ohio; and (not in photo) Ira S. Brenner, Salt Lake City, Utah.

from eight different countries." It added that "he very effectively carried out extensive coordination with the government of Senegal, the port director, various commercial concerns and several embassies. His highly professional performance in a position strewn with many opportunities for failure reflects great credit on himself, the NOAA Corps and the United States."

Lt. Ruzsala, now stationed at Woods Hole, Mass., is serving as Officer-in-Charge of the fishing research vessel Phalarope II and Deputy Director of Operations for the Helgoland Project, a two-month international scientific investigation of the activities of herring underway off Cape Ann, Mass.

He received his degree in 1969 from the State University of New York Maritime College, where he majored in oceanography, meteorology and marine transportation, and has been in the NOAA Corps since 1971.

David P. Barnes, Jr., who has been Principal Assistant at the National Weather Service Office in Atlanta, Ga., has been named Meteorologist in Charge at WSFO New Orleans, La. With the NWS since 1962 he has served at San Antonio, Tex.; Baton Rouge, La.; Jacksonville, Fla.; Oklahoma City, Okla.; and as MIC at Savannah, Ga., and Austin, Tex.

He received his M.S. degree at Oklahoma University.



Mr. Barnes

GOES Launch

(Continued from page 1)

point on the equator, will provide NOAA scientists with pictures of about one-quarter of the Earth at 30-minute intervals, day and night. Both visible light and infrared pictures will be relayed during the day, and infrared at night.

Equipment aboard the satellite will collect and relay non-visual environmental data, as well, from numerous remote sensing facilities on land and at sea.

From the mass of pictures and environmental information supplied by GOES-A, meteorologists, oceanographers and other scientists will be provided near-instantaneous information for such uses as weather detection and prediction, observing ocean currents, monitoring river water levels, and many others.

According to David S. Johnson, Director of the National Environmental Satellite Service, GOES-A and the two research development prototypes which preceded it represent a revolutionary step in environmental monitoring by satellite.

Pictures from GOES-A will be transmitted to ground stations for processing and further relay to regional weather stations operated by the National Weather Service.

GOES-A also will play a role in transmission of centrally prepared environmental maps and charts, as well as pictures from other satellites, from the NES ground station to distant locations.



Verda Gibson (center), Supply Clerk at the Central Logistics Supply Center in Kansas City, Mo., a participant in the first group of NOAA employees accepted into the Admin 20/20 Work Study Program, recently received her Certificate of Completion. Shown here with Mrs. Gibson are Helen Jackson, NOAA Admin EEO Committee Chairperson, and Theo Brunson, Chairperson, CLSC/FFO EEO Committee.



National Oceanic and Atmospheric Administration

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