

NOAA Report



April 16, 1990

COMING UP

Joint Meeting of the Gulf and Atlantic Fishery
Management Councils, Tampa, Fla., Apr. 23-27

European Geophysical General Conference, Copenhagen,
Denmark, Apr. 23-27

National Weather Service Spring Directors Conference,
Camp Springs, Md., Apr. 24-26

COSPAS/SARSAT Pacific Region Users Conference,
Honolulu, Hawaii, May 16-18

NOAA Seeks New Home for Research Station:--"Aquarius," the world's most sophisticated subsea research station, will be moved from the sea floor off St. Croix, U.S. Virgin Islands, to a new site this summer by the Commerce Department's National Oceanic and Atmospheric Administration (NOAA), which seeks advice from the oceanographic community on a new location.

NOAA had planned to move the habitat to a new location in 1991, but because of Hurricane Hugo's damage to St. Croix and the loss of critical support services on the island, particularly emergency medical care, it was decided to relocate Aquarius earlier. The habitat's surface support buoy was destroyed and research station facilities ashore were badly damaged.

The 81-ton, 43- by 20- by 16.5-foot Aquarius, which has a laboratory and living quarters that allow teams of up to six aquanaut-scientists to live and work on the sea floor for days at a time, can be floated to the surface and towed to a new location.

Since being deployed off St. Croix in November 1987, Aquarius has supported nearly two dozen teams of scientists conducting a variety of marine investigations, including research into how coral reefs cleanse themselves of sediment, important for planning ecologically sound coastal development, and research into the

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causes of a massive die off of coral in the Caribbean in 1987 and 1988, which may provide clues to understanding the causes and effects of global climate change.

Missions conducted from the Aquarius research station have included a Cornell University study of chemical and structural defenses of gorgonian soft corals, the first study of chemical variations in a single species from different habitats; a Northeastern University-led study of the effects of water movement on zooplankton feeding by corals; and a University of Georgia-led study that found new evidence of how corals react to light, directly measured the amount of carbon taken up by corals feeding on zooplankton, and discovered trends in the ways corals cleanse themselves of sediments.

NOAA's Office of Oceanic and Atmospheric Research and the National Undersea Research Center at Fairleigh Dickinson University, which operate Aquarius, are seeking a new site in the Caribbean, the Florida Keys, or the Bahamas that is of compelling scientific interest and also meets safety requirements.

Dr. David Duane, director of NOAA's National Undersea Research Program, said "the new site should be able to support marine research that increases our understanding of coastal marine ecosystem processes and contributes to NOAA's mission goals to predict global climate change and its impacts, better understand the effects of pollutants on tropical marine ecosystems, and improve our understanding of the biological productivity of the oceans."

Ships to Receive Weather Products Via Satellite:--In February of 1992, NOAA will begin transmitting direct broadcasts of its high seas warnings and forecast products for the first time to ships at sea through the International Maritime Satellite System (INMARSAT), an international agency of the United Nations headquartered in London, England. These high seas products will be delivered using INMARSAT satellite transmission facilities in Connecticut for the Atlantic Ocean region and California for the Pacific Ocean region.

The system will also allow ships with satellite-based receiving equipment to transmit meteorological observations to national meteorological centers around the world.

Currently, ships can only use the satellite system to communicate to land points by telex using shipboard stations. Prior to the INMARSAT system, ships had to communicate indirectly by using high frequency radios to send messages through a small number of coastal radio stations which required a full time radio operator on board. The new system will allow messages to be sent using a personal computer with a display.

Use of Seal Bombs Banned Near Dolphins:--In an action designed to cut injury to dolphins in the tuna fishery, NOAA has barred U.S. fishermen from using so-called seal bombs near dolphins swimming with tuna schools. The explosives were authorized originally to scare dolphins away from nets, thus to prevent marine mammals from getting captured.

When exploded within 18 inches of dolphins, the small explosives, similar to cherry-bomb firecrackers, cause injury to their hearing which is necessary to their survival. The regulation, open for public comments until April 30, is among several changes for the tuna industry being considered by NOAA.

Observers on U.S. boats in the eastern tropical Pacific fleet will monitor compliance. Foreign tuna-harvesting nations fishing the eastern tropical Pacific must adopt similar rules within six months or face the prospect of a U.S. embargo on their tuna.

Twenty-seven U.S. boats fish for tuna in the eastern tropical Pacific must adopt similar rules within six months or face the prospect of a U.S. embargo on their tuna.

Nearly 79,000 dolphins died in 1988 in eastern tropical Pacific tuna nets, a decrease from about 100,000 the previous year.

In 1988, Congress amended the Marine Mammal Protection Act by banning more powerful explosives and ordering a study that would permit that seal bombs' further use only if it could be proven that the practice does not injure dolphins.

Tuna fishermen usually locate fish by setting their purse seines on dolphins, which travel with large yellowfin tuna schools. Bombs frighten dolphins into close concentrations, enabling fishermen to trap more tuna. More bombs are then thrown to herd the dolphin into open ends of nets in order to facilitate their escape from the nets.

Other countries with tuna boats in the eastern tropical Pacific are Mexico, Ecuador, Venezuela, Panama and Vanuatu.

Forecast Center Planned for Nile River:--NOAA's National Weather and Satellite, Data and Information Services have been assisting the Agency for International Development (AID) in developing a plan for a river forecast center for Egypt's Nile River to help manage better the river's water resources vital to the Egyptian economy. AID has selected the United Nations' Food and Agricultural Organization in Rome to be the lead agency for the project.

NOAA is in the final stages of negotiating an agreement to provide technical assistance to develop the forecasting system

which will be operated at the Nile Forecast Center in Cairo, Egypt. The first phase of the work has just begun and will continue for three years.

NOAA Produces Solar Compact Disk:--NOAA is producing a new Compact Disk-Read Only Memory (CD-ROM) entitled "Solar Variability Affecting Earth," containing a definitive archive of solar data including numbers of sunspots, solar flare reports, satellite observations of the solar constant, solar wind, cosmic ray neutron records, satellite anomalies and indices of global magnetic and ionospheric activity.

The data were assembled from scientists and cooperating national and world data centers and will be especially useful for educational and research activities in universities and private industry. The compact disk with software will be available for purchase in June.

Warm Weather Continues for U.S.:--So far this year, the nation has been unusually warm with the January through March interval ranking as the second warmest period on record, according to NOAA's National Climatic Data Center. It was the wettest period on record for Alabama, Louisiana, and Oklahoma. According to preliminary data from NOAA's National Weather Service, 130 tornadoes were spawned across the contiguous U.S., the second highest figure for March since records began in 1953.

Water Running Low in the West:--Despite recent periods of precipitation in the western U.S., water supply forecasts issued by National Weather Service River Forecast Centers, in coordination with the Soil Conservation Service, indicate runoff to be below to well-below normal for most of the Western Region.

Precipitation has generally been 70 percent below average over nearly three quarters of the region. Only the Pacific Northwest, particularly areas west of the Cascades and parts of Montana have had above normal precipitation with runoff expected to be near normal.

For nearly four years, the West has been unusually dry, necessitating various conservation measures which will probably continue this year and in some areas may increase.

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National Oceanic and Atmospheric Administration

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