



ESSA NEWS

U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

Project Stormfury Ready for Seeding Experiments

Project Stormfury--the joint ESSA-U.S. Navy hurricane research and modification study--opened its 1970 season, July 23. From now through October 31, Stormfury scientists, planes, and flight crews will be on 48-hour alert for hurricane seeding.

The project's plans are to attempt to seed hurricanes massively and repeatedly again this season to learn whether the force of these storms can be diminished. ESSA, Navy, Air Force, and Marine Corps aircraft participated in a dry-run rehearsal of the seeding experiment from Roosevelt Roads Naval Air Station, Puerto Rico, this week.

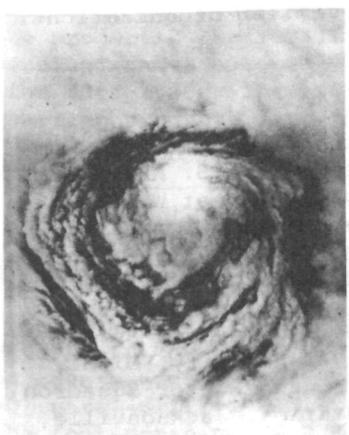
In 1969, on August 18 and again on August 20, Hurricane Debbie was seeded five times during an eight-hour period, with very promising results. On August 18, the hurricane's maximum winds at the 12,000-foot level decreased 31 percent

after seeding--dropping from 98 to 68 knots. On the 20th, observations by the Project's instrumented aircraft showed a decrease of 15 percent in the maximum wind speeds--from 99 knots before seeding to 84 knots after the experiment.

While the decreases on both days provide strong evidence that the changes were caused by seeding, Stormfury scientists point out that it is not impossible that the decreases might have occurred naturally. Thus, their major goal for 1970 is to repeat the experiments conducted in 1969, in the hope of confirming the results.

Other experiments planned for the 1970 season include seeding of hurricane rainbands and rain sectors, and continuation of experiments on lines of tropical cumulus clouds not associated with hurricanes. In 1969, the Project seeded lines of clouds over the ocean south of Puerto

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Joining Project Stormfury this year is the 58th Weather Reconnaissance Squadron of the U. S. Air Force Air Weather Service. From RB-57F aircraft, the squadron will photograph hurricanes before and after the seeding experiments. In 1967, the RB-57F and two-man crew shown above took the first high-altitude color picture of a hurricane, the portrait of Beulah at left.

Dr. Treshnikov Ends United States Tour



Left to right: Dr. A. F. Treshnikov, Arctic and Antarctic Research Institute Director, and Dr. Robert M. White, ESSA Administrator.

Dr. A. F. Treshnikov, Director of the Arctic and Antarctic Research Institute, Leningrad, recently ended a tour, sponsored by the National Science Foundation and the Arctic Institute of North America, in which he visited United States institutions involved in Arctic oceanic and atmospheric research. On July 14, Dr. Treshnikov conferred with Dr. Robert M. White, ESSA Administrator, and other ESSA officials, and visited a number of installations, including the National Meteorological Center, and the National Environmental Satellite Center. Morton J. Rubin, chief of ESSA's Office of Special Studies, served as guide to Dr. Treshnikov during his visit to ESSA.

RA II Completes Voyage With Coast Survey Aid

Radio ham operators in the Caribbean and along the Atlantic coast combined with Coast and Geodetic Survey personnel in New York and Rockville, Md., to assist Norwegian explorer Thor Heyerdahl on the final leg of his trans-Atlantic voyage from Morocco to Barbados. Seeking to prove that the ancient Egyptians could have crossed the ocean in a papyrus boat before Columbus, Mr. Heyerdahl ran into currents that threatened to push him off course as he neared the Caribbean island. Mr. Heyerdahl's navigator, Norman Baker, radioed a request for current information which did not appear on his charts. A network of ham operators that had maintained contact with the papyrus boat, the RA II, relayed his message to the United Press International in New York. UPI relayed Mr. Baker's message to the Coast Survey's Lt. Cdr. Joseph Dropp in New York, who, in turn, notified Coast Survey headquarters in Rockville, Md. Quick action on the part of Lt. Cdr. Sigmund Petersen and Charles Taylor, the necessary information was passed on to Mr. Baker. "We found those currents just where Petersen said they would be," said Mr. Baker, as he steered the craft safely into Bridgetown, Barbados on July 12. Lt. Cdr. Taylor obtained the current information from data furnished earlier by the Navy, which was probably based on ocean surveys made by the Navy, Woods Hole, Mass., Oceanographic Institution, and similar organizations.

Project Stormfury (continued)

Rico on seven days in September. These cumulus cloud lines are similar in many ways to hurricane rainbands, and it is hoped that the Stormfury tests will yield knowledge that may advance research in hurricane modification.

Experiments will be conducted on storms in the southwestern Atlantic, the Caribbean, and the Gulf of Mexico, when the probability is small--10 percent or less--that the hurricane center will come within 50 miles of a populated area during a prescribed period. This will allow Project aircraft ample time to measure the effects of seeding before they are obscured by proximity to land.

Dr. R. Cecil Gentry, Director of ESSA's National Hurricane Research Laboratory,

is Director of Project Stormfury. Commander L. J. Underwood, U.S. Navy, Commanding Officer of the Fleet Weather Facility at Jacksonville, Florida, is Assistant Director of the Project and Navy Project Coordinator.

Aircraft and flight crews for the 1970 experiments are being provided by the ESSA Research Flight Facility, Miami, Florida; Navy Hurricane Hunter Squadron VW-4, Naval Air Station, Jacksonville, Fla.; Marine All-Weather Squadron 224, Marine Corps Air Station, Cherry Point, North Carolina; Air Force 53rd Weather Reconnaissance Squadron, Ramey Air Force Base, Puerto Rico; and Air Force 58th Weather Reconnaissance Squadron, Kirtland Air Force Base, New Mexico.

Five New ESSA Appointments Announced



Cdr. C. D. Upham



Cdr. K. A. MacDonald



L. W. Pankratz



S. Krepyk



R. G. Beebe

Cdr. Kenneth A. MacDonald, former commanding officer of the USC&GS Ship MT MITCHELL, will become chief of the Marine Science Services Division in ESSA's Office of Plans and Programs, Aug. 3. A veteran of 18 years' service with the Commissioned Corps, he has seen extensive duty at sea, throughout the United States, and in Ethiopia.

Robert G. Beebe, Weather Bureau Industrial Meteorologist, is to be the new Regional User Services Representative in the Weather Bureau's Central Region. Mr. Beebe was a former research forecaster for the Weather Bureau, serving at the Washington National Airport, Atlanta, Ga., and Kansas City, Mo. For a number of years, he operated a private weather service in Kansas City.

Cdr. Clinton D. Upham will head the Coast Survey's Marine Data Systems Project--a newly established group in the Office of the Director. The duties of the project's staff will be to design, develop, and implement an automated marine data system for producing marine charting products, and to act as a pilot-

plant-type operation to initiate new engineering and management techniques for marine data activities. Cdr. Upham, formerly Special Projects Officer at the Coast Survey's Atlantic Marine Center, will be assisted in his new duties by John Huson, whose last assignment was with the National Environmental Satellite Center.

Leroy W. Pankratz has been appointed chief of the Coast Survey's Castle Rock Observatory near Saratoga, Calif. Mr. Pankratz joined the Coast Survey in 1963 following graduation from Mankato (Minn.) State College. He subsequently served at the Fredericksburg Geomagnetic Center, Corbin, Va.; Byrd Station, Antarctica; and the Adak (Alaska) Observatory. He recently completed graduate studies at St. Louis (Mo.) University.

Seymour Krepyk, a 20-year veteran of the U.S. Marine Corps, has been named official in charge of the Weather Bureau Office at Johnston Island. His first tour of duty at Johnston was in 1967. Mr. Krepyk has more than ten years of experience in weather work.

MT MITCHELL To Survey N. C. and Va. Coasts

An extensive hydrographic survey of the waters off the North Carolina and Virginia coasts--the first complete survey in 40 years--will get underway this month. The four-month project will be carried out by the USC&GS Ship MT MITCHELL to chart adequately the deep waters off the Atlantic coast and map the sea bottom of the continental shelf and slope area. The ship was scheduled to leave her home Port at Norfolk, July 15.

Third Micronesian Management Intern Named

Akira J. Suzuki, principal Micronesian observer at WBO Ponape, has been selected as the third Micronesian management intern to begin a year of college work at the Kapiolani Community College. Mr. Suzuki, who entered the Weather Bureau in 1954 following graduation from the Pacific Islands Central High School, will participate in a one-month management seminar at the University of Hawaii before beginning his college work.

Retirements at Asheville

The following employees of the Environmental Data Service's National Climatic Center, Asheville, N. C., will be retiring on or before July 31:

Edward L. Bass, Climatology Branch, who is retiring with nearly 33 years of federal service, joined the Weather Bureau at Chattanooga, Tenn., in 1950, and moved to Asheville in 1962.

Carl R. Byrd, chief of the Surface Section, Data Verification Branch, entered the Weather Bureau in 1928 as an observer at Mobile, Ala. His other assignments were in Georgia, Texas, and Florida, before transfer to Asheville in 1956. Mr. Byrd is retiring with 42 years of service.

Kenneth L. Hein, project planner in the Data Reduction Branch, entered the federal service in 1940. He joined the Weather Bureau in Washington, D.C., in 1948 and later served in Illinois and Tennessee before transfer to Asheville in 1962. Mr. Hein is retiring with 30 years of service.

Franklin W. Long, chief of the Assembly Unit in the Climatology Branch, entered the Weather Bureau in 1930 as a junior observer at Wilmington, N.C. His other assignments were in Ohio, Georgia, and Tennessee, with transfer to Asheville in 1962. He is retiring with more than 40 years of service.

Dorothy W. Rembert, personnel clerk in the Personnel Branch, entered the federal service in 1918 with the Corps of Engineers. Retiring with more than 33 years of service, she joined the NCC in 1952.

Anna Lee Simmons, chief of the Filmed Data Section in the Climatic Information Branch, entered the federal service in 1944 at Anchorage. She joined the Weather Bureau Office in Anchorage in 1947. Her other assignments were in Hawaii, Pennsylvania, Virginia, and North Carolina. Retiring with more than 22 years of service, she joined the NCC staff in 1966.

Observatory Staff Honored



On June 15, a group sustained superior performance award was presented to the five members of the Honolulu Observatory staff for dedicated public service in the operation of the Observatory and the National Tsunami Warning System. Shown left to right are Cdr. Ray Sundean, Director of the National Tsunami Warning Center, who made the presentations; Wil-da Mazey, secretary; Frank K. Takenouchi, electronic technician; John H. Minsch, geophysicist; Joseph Zebro, Jr., geophysicist; and Herman J. Wirz, Jr., Chief of the Honolulu Observatory.

Alaskan Highway Surveyed Before Rebuilding

A three-month, \$80,000 federal geodetic survey along a 50-mile stretch of Alaskan highway between Haines and the Canadian border is being conducted by the Coast and Geodetic Survey, in cooperation with the state and the U.S. Bureau of Public Roads. The survey will provide horizontal and vertical geodetic control points for use in planning and engineering for the reconstruction of Route 95.

Items to be considered for ESSA NEWS must be received by Monday for publication the following Friday. Send material to: Office of Public Information, ESSA, Room 804, Bldg. 5, Rockville, Md. 20852. Phone (301) 496-8243.

National Oceanic and Atmospheric Administration

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