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NOAA news

National Oceanic and Atmospheric Administration

SATELLITES: SHUNTED, SHIFTED, SCHEDULED FOR LAUNCH

A worn-out weather satellite—the SMS-1—became the first ever consigned to the “trash can” of upper space.

The satellite was shunted 300 miles further into space where it will remain indefinitely. NOAA feared disposing of it in the traditional manner because of a possible collision with other spacecrafts.

Non-functioning satellites normally are dropped into the atmosphere to burn up or shifted to a lower orbit.

“Because of the large number of weather and communications satellites accumulating in geostationary orbit, there is a real danger of collision between active satellites and old derelicts which no longer can perform the

small maneuvers necessary to keep them in their assigned locations,” Gordon Vaeth, director of operations for NESS, said. “For this reason, we used the last remaining fuel-on-board the satellite to move it up and out of its orbit.”

SMS-1, made space history in May 1974 when it became the first geostationary satellite launched into space for use by weather forecasters at NWS. However, it is now no longer able to provide useful data.

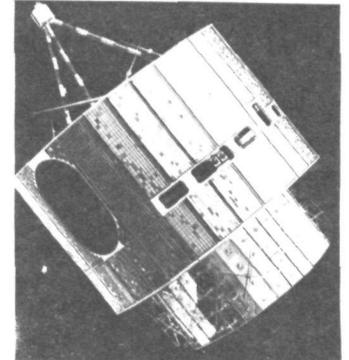
Controllers at the Satellite Service in Suitland, Md., radioed commands to the spacecraft that caused its thrusters to propel it 300 miles above its orbit at 130 degrees west longitude and 22,300 miles above the equator.

Meantime, what is believed to be the first mass shifting of satellites in space is now being undertaken by NOAA.

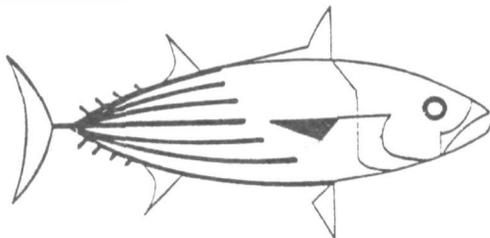
The maneuvers are occurring at 22,300 miles altitude where three weather satellites are being moved to new locations to improve their products and, in one instance, eliminate the possibility of a collision in the busy corridor.

The newest of the satellites, GOES-4, launched last September, is being moved from 98 to 135 degrees west longitude to replace a failing GOES-3 satellite.

A third spacecraft, GOES-2, was moved from 105 to 107 degrees west on Jan. 29 to reduce the likelihood of it colliding with other satellites or space debris.



On March 12, NASA is scheduled to launch a seventh geostationary satellite for NOAA. It is expected to replace the SMS-2 East Coast spacecraft at 75 degrees west. SMS-2 will be moved to a nearby location on stand-by status.



FISH: ONES THAT DIDN'T GET AWAY

Approximately 8.5 million salt-water recreational fishermen caught more than 298 million fish along the U.S. Atlantic and Gulf coasts during 1979, a NOAA survey shows.

Most of the fish, approximately 192 million, were caught by anglers fishing from their own or rented boats. The number of fish caught at other locations were: piers, jetties, 55.6 million; beaches riverbanks, and sounds, 32.3 million; and from party and charter boats, 18.2 million. Half of the fish were caught in sounds, rivers, and bays.

The bluefish was the most popular catch. More than 27 million were caught across the country, 15 million of them in New York, New Jersey, Delaware and Virginia.

Other major species caught off the two coasts included flounders, sea trouts, spots, and croakers.

More than 33,000 fishermen and 7,000 coastal area households were contacted during the survey conducted for NMFS.

Bluefish was the most sought after on the mid-Atlantic and North Atlantic coast, and spotted sea trout and king mackerel were coveted along the South Atlantic and Gulf coasts.

Other facts from the survey:

- The most fish were caught in Florida, 84.8 million;
- Anglers averaged 6.5 trips per year and fished more than 4 hours per trip;
- About 104 million fish were released alive.

HEROES: FOUR SAVE LIVES

Three lives have been saved in recent weeks by quick-thinking NOAA employees trained in emergency medical treatment.

In Seattle on Feb. 10, NOAA Corps Lt.j.g. John Blackwell and Steve Markle applied CPR to save the life of a heart attack victim, a security guard at PMEL. Blackwell recently graduated from the NOAA Diving Office's Emergency Medical Technician training program. Markle learned CPR during Diver Training.

Three weeks earlier, Lt.j.g. Sam DeBow, also at PMEL, revived a

heart attack victim at the Seattle Navy base exchange. Last year DeBow also completed the diver training course, which includes CPR instruction.

On Jan. 7, Vernon Nulk, a technician at the Northeast Fisheries Center's Gloucester laboratory, saved the life of a colleague who began choking on food. Nulk dislodged the food by the Heimlich Method, a procedure he learned at a NMFS-sponsored CPR course.

Washington area NOAA employees interested in emergency medical training should contact Margaret Griffin, career development assistant in Personnel, MB/PER2, 443-8626. In the field, contact your unit's personnel office. —Ryck Lydecker



Vernun Nulk

EDITOR'S NOTE

Now that NOAA News is being published every third week, all articles must be submitted two weeks prior to the publication date. The next issue will appear March 23.

LETTER FROM THE LABS

By Richard Newell

A New Kind of Storm—NOAA scientists have identified a convective weather system whose features appear different from other thunderstorm systems. Robert A. Maddox of NOAA's Office of Weather Research and Modifications (OWRM) calls these systems "Mesoscale Convective Complexes (MCCs). Although their physics are not yet understood, they are highly organized and long-lived, are frequently observed at both middle and low latitudes, and may help to shape the atmosphere large-scale circulation.

A Better Prediction—Professor Frederick Sanders of MIT, temporarily working with OWRM in Boulder, recently investigated, with colleague L.F. Bosart, the small but long-lived MCC that caused the disastrous Johnstown, Pa. flood in July 1977. Sanders explained that this severe storm appears to be the mid-latitude counterpart of a tropical weather system—convectively-driven, with an extensive high cirrus cloud shield, and not associated with weather fronts. "We didn't single out midlatitude MCCs for study before now, he said, because we regarded them as more or less

random thunderstorm activity. But they (these) are organized systems, and that implies a predictability that we should be able to exploit."

Boosting the Jetstream—Maddox and colleagues J.M. Fritsch have shown the MCCs can boost jet-stream winds nearby, and also change their direction. Says Maddox, "Convective storms are typically considered to be controlled by the evolution and movement of large-scale circulation features. But since those features may be significantly modified by the storm, 'chicken and egg' questions become extremely important."

Tropical Connections—The notion that giant thunderstorms can help to drive the large-scale circulation was first put forth around 1880. In 1958, tropical meteorologist Herbert Riehl, now working with NOAA, suggested how cumulonimbus "hot towers" embedded in tropical weather systems could force warm air upward and poleward to help power the earth's weather machine. Riehl explains that these hot towers give MCCs most of their punch. He calculates that an average tropical

MCC contains about eight of these giant thunderstorms, while mid-latitude MCCs, which are often larger, may contain about 20.

It may be that tropical hot towers and MCCs are closely related to the processes being studied by NOAA's EPOCS (Equatorial Pacific Ocean Climate Studies) program. This multi-year study is exploring the possibility that the variability of equatorial sea surface temperature (SST) is a fundamental driving force for mid-latitude climate changes. Although the place of SST changes in the chain of cause and effect is uncertain, EPOCS scientists agree that the ocean-climate link should involve the release of heat from the sea to the tropical atmosphere by great convective storms.

The upshot of all this NOAA research may be that global thunderstorm activity, including MCCs, may have an important impact on the large-scale circulation features that help to shape over weather and climate. Many aspects of this intense convective activity, including its origins, oceanic and continental, are now being investigated.

Satellite Service Research Office Is Reorganized

The NESS Office of Research has been reorganized with increased emphasis on oceanography, hydrology, and land remote sensing in addition to meteorology.

Additionally, Director Harold W. Yates said, the new structure provides a more formal capability for training users in satellite data application, including land and ocean remote sensing, and increases coordination of NESS research through cooperative institute agreements with the academic community.

The office now has four major laboratories: earth sciences, satellite experiment, applications and development.

E. Paul McClain is acting director of the Earth Sciences Laboratory, which includes in it the Atmospheric Sciences branch, Arnold Gruber, Chief; Land Sciences branch, Donald F. Wiesnet, chief; and Oceanic Sciences branch, John W. Sherman III, chief.

The Satellite Experiment Laboratory, Warren A. Hovis, director, includes the Physics branch, Walter Planet, chief; Experimental Applications branch, Peter G. Abel, chief; and Technical Services group, Calvin Jones, chief.

In the Applications Laboratory, headed by Director Larry Hyatt, are the Physical Sciences branch, Ralph Anderson, chief; Systems and Software branch, Fred Van Cleef, chief; Regional and Mesoscale Meteorology branch, James Purdom, chief; and Training and Information Services group, Robert McCaslin, chief.

William L. Smith is director of the Development laboratory in Madison, Wis., dedicated to the application of satellite data to meteorology. The Development laboratory staff works closely with NESS's new Cooperative Institute for Meteorological Satellite Studies at the University of Wisconsin.

David Q. Wark has been named senior scientist in the Office of Research and P. Krishna Rao, the executive officer. Harvey J. Klassen is program officer.

—William Brennan

NOS Investigates Sunken Wrecks, Hazards in Bay

The NOS began investigating four sunken wrecks and other dangerous underwater obstructions in the Chesapeake Bay between Cape Charles and Norfolk, Va. on Feb. 17.

The 2-month project to verify the existence of underwater navigational obstructions will be performed by the

ships *Rude* and *Heck* working out of the Atlantic Marine Center in Norfolk. The survey is designed to evaluate the adequacy of Chart 12222 (Cape Charles to Norfolk Harbor), and to determine the need for future full-scale resurvey.

Commanded by Lt. Cmdr. Richard S. Moody, Jr., of Seat-

tle, Wash., the *Rude* and *Heck* will investigate a 19-foot and 27-foot boat near the Chesapeake Bay Bridge Tunnel, a 19-foot boat sunk approximately one-half mile off Old Point Comfort Light, and a 22-foot boat in 8 feet of water west of the Hampton Roads Tunnel approach spans. Also scheduled for investigation are submerged pilings described as the remains of the former Middle Ground Shoal South End Obstruction Light and a steel hydrographic experimental structure.

The 90-foot vessels are designed to drag a submerged wire between them as they sweep the bottom for underwater hazards, such as sunken wrecks, shoals, pinnacle rocks, and boulders. The location of these navigational hazards is subsequently noted on the nautical charts issued by NOS.

AGENCY PUBLISHES MORE CIVIL WAR MAPS

NOS's carto-bibliography of the Civil War Collection, a catalog containing more than 300 Civil War maps by the U.S. Coast Survey, has been published.

Compiled by NOS, the catalog is the first in a series of carto-bibliographies from the Survey's historical map collection.

Virginia, Louisiana, and Tennessee are represented by more than 140 Civil War maps,

most of which are available to the general public. The catalog also includes battle fields, campaigns, reconnaissance maps of Alabama, Arkansas, Florida, Georgia, Kentucky, Maryland, Mississippi, Pennsylvania, North Carolina, South Carolina, and West Virginia. Forty regional maps, 13 atlases, and 8 special cartographic productions are also listed.

NOS Man Brings Good News To Maryland Prison Inmates

Dick Cator reads biblical passages to murderers, rapists and kidnapers.

Cator, a cartographic technician with NOS, spends his weekends at the Prince George's County Detention Center. He is a volunteer for the Good News Mission, a non-profit organization sponsored by religious donations that preaches worldwide. He is teacher, preacher and counselor to 600 indicted and sentenced men.

"It's the next thing to being in a combat war, but when I walk out of there I feel like a new person because I'm telling them things they've never heard before," Cator said.

Cator doesn't ignore "non-



Dick Cator

believers", however. He provides them bibles and other religious material and talks with anyone who is willing. Cator said sometimes an inmate whom he never realized was listening will come to the bars and ask about a biblical passage.

Rev. Calvin Scott, resident chaplain at Prince George's prison, said Cator sets an example with his life. "He is a devout giver to this ministry as if it were his own home," Scott said.

Prince George's Detention Center is a typical prison—overcrowded and dirty. Six hundred men live in cells designed for 250. Reading is a struggle in the dim light of the window-less cells. Magazine centerfolds are woven through the bars for privacy as much as for diversion. Televisions blare.

Cator carries a clipboard stacked with bibles and religious

handouts. He takes down the names of those wanting permission to attend services.

The chaplain's assistant, an inmate called Bob—real names cannot be used—said "there's no excuse for not getting involved." Bob "got Christ in 1979." He is working toward a degree as well as helping Chaplain Scott with the Christian programs. He orders religious films, and organizes services and bible classes.

Steve and 30 other men live in a cellblock built for 12. "I'm the only Christian," he said. He seemed anxious to talk when Cator stopped. "I've been having a problem with cigarettes," he said. "I share my cigarettes with someone and expect when I'm short someone will share with me. These guys in here won't do anything for anybody." The other men, sleeping, reading or watching television, seemed indifferent.

Steven talked quickly, eyes wide, trying to squeeze in as many words as he could before Cator moved on. "Even though I'm the only Christian in here most guys don't try to fight me," he said. In fact, "I'd rather be in here and be free, than outside." Cator asked if he would like to hear a prayer. He took his hands through the bars and said, "Pray to be free from the power of sin."

Dick Cator has preached at four different prisons during the past nine years. When he retires from NOS next year, Cator's dream is to move to Florida and "get my own jail." He passed an exam certifying him as a chaplain and is awaiting licensing by his church. His jail will hold 30 to 35 prisoners, he said.

There are 60 Good News Mission volunteers at the prison. When asked to estimate the percentage of second offenders, Rev. Scott said there is a "100 percent success rate with people who've gone through the entire program." One hundred prisoners, one-sixth of the population, participate in the services.

The chaplain's assistant, Bob, said "Some guys are angry and bitter and others—you look at their faces—and you can tell they are free." Dick Cator has touched them.

—Heidi Daniel



Committee Selects Officers

New officers of NOAA Committee for Women (NCW) were recently elected and have assumed leadership of the organization. They are: (seated from l to r) Isobel C. Sheifer (Office of Ocean Minerals and Energy) president; Brenda Rupli (Office for Civil Rights) vice president; (standing from l to r) Louise Connor (Management and Budget) treasurer; and Lynn Davenport (Public Affairs) secretary.

NCW was organized in 1978 and is a chapter of Commerce Committee for Women. The major goal of the organization is to wipe out all vestiges of sex discrimination and to work for the professional advancement of women in NOAA. Under Ms. Sheifer's leadership, the organization has taken as its chief project for the year the development of a comprehensive career plan of advancement for persons in the clerk, clerk-typist, secretarial and related series. The plan will

encourage and provide broader opportunities for persons in these series to move into para-professional and professional positions at NOAA. It will also aim at increasing the ease with which those who wish to stay within the series may find chances for advancement. A draft plan is being developed and will be presented to management in the near future.

Membership in NCW is open to men and women at all grade levels. A general meeting is held once a month. The speaker for the March 26 meeting which will be held at noon in room 926, WSC-5, will be Elaine Lazaroff, Federal Women's Program Manager, Health Resources Administration (HRA), U.S. Department of Health and Human Services. Her topic will be: "The Development of Career Plans for Women in HRA—How Adoption was Achieved." All NOAA employees are welcome to attend.

TEMPERATURE CHARTS AID FISHERMEN

A polar-orbiting satellite is providing a financial windfall for some Alaskan fishermen and other ocean-related enterprises NOAA reports.

Data the satellite collects on sea surface temperatures and ice conditions have saved one Alaskan herring processing plant \$8,000 daily in wages and fuel costs.

The data are turned into temperature charts that indicate exactly where the company should send its floating processing plant for herring "runs." The "runs" occur in spring in areas where surface temperatures have warmed to 4 degrees Centigrade.

NOAA began distributing the charts on an experimental basis about a year ago and now sends them to more than 100 users ranging from the U.S. Coast Guard to oil exploration companies.

Users of the charts receive them weekly by telecopier, facsimile, mail or special messenger.

Among them are king crab fishermen in the southern Bering Sea and Bristol Bay who a year ago lost more than \$3 million in pots valued at \$500 each because of ice formation. The fishermen now monitor the charts to determine when to retrieve their pots before ice forms.

**PERSONNEL
PERSPECTIVE**

Correction to Personnel Perspective (Jan. 26 issue), summer employment: the paragraph on nepotism should read, "Sons and daughters of Commerce may now be considered for summer jobs in NOAA after employment has been offered to all other eligibles ranked higher or equal to them in accordance with NOAA's crediting plan, or approved selection procedures, for summer employment."

Applications for Groups I, II and III should be addressed to: Summer Employment Coordinator, MB/PER51, 6001 Executive Blvd., Rockville, MD 20852.

Summer Aid applications should go to the appropriate servicing Personnel Office.

* * * *

Nigeria's Institute for Oceanography and Marine Research is seeking a bait boat for a 1-year exploratory tuna fishing project, a biologist, a specialist in assessing tuna resources, and one or two master fishermen. For details, contact International Fisheries Affairs (F/IA).

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**NOTES
ABOUT
PEOPLE**

NWS Director **Richard E. Hallgren** has been elected the 1982 president of the AMS. He



Richard Hallgren

has been an AMS fellow since 1973.

Also elected to the AMS council were NOAA's **Edward M. Carlstead**, chief, forecast division, NMC, **David S. Johnson**, assistant administrator for satellites, and **Stanley L. Rosenthal**, director, National Hurricane Research Laboratory.

Robert G. Fleagle, the incoming AMS president succeeds Robert M. White, former NOAA administrator, now president of UCAR.

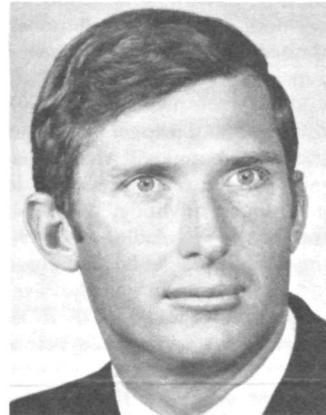
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NOAA News reserves the right to make changes in submitted copy in conformity with the policies of the publication and of NOAA.

James A. Jackson has been named supervisory meteorological technician at the NWS Forecast Office in Lubbock, TX. Jackson formerly served as a weather service specialist in Baton Rouge, LA with prior duty assignments at Birmingham, AL and Memphis, TN. He joined NWS in 1970 after serving as a weather observer for five years with the U.S. Air Force.

Commander Walter F. Forster, of Centerport, N.Y., was appointed commanding officer of the NOAA Ship *Fairweather*.



Cdr. Walter Forster

Forster has served aboard the NOAA ships *Surveyor* as a junior officer and then as executive officer of the *Hodgson*, before being named to command the vessel. He also served on the *Fairweather* and the *Davidson*.

Prior to his appointment as commanding officer of the *Fairweather*, Forster was officer-in-charge of the NOAA Officer Training Center at the U.S. Merchant Marine Academy at Kings Point, N.Y., where he has served for the past four years.

Cdr. Theodore Wyzewski, of New York City, has been

appointed officer-in-charge of the NOAA Officer Training Center at the U.S. Merchant Marine



Cdr. Theodore Wyzewski

Academy at Kings Point, N.Y.

Born in New York City, Wyzewski joined the NOAA Corps in 1964 following graduation from New York State University Maritime College with a degree in meteorology. He subsequently served aboard the NOAA ships *Surveyor*, *Discoverer*, *Peirce*, and *Researcher*. His NOAA career also has included service as a weather forecaster, post graduate work, and headquarters staff assignments. His most recent assignment was as liaison officer in the Office of the Oceanographer of the Navy.

OBITUARY

William H. Metivier Jr., retired port meteorological officer (PMO) of the Panama Canal Zone died January 23 at his home in Panama. Metivier had a variety of assignments during his 30 years of government service. He was serving his second tour as PMO in Panama when he retired in 1975.

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