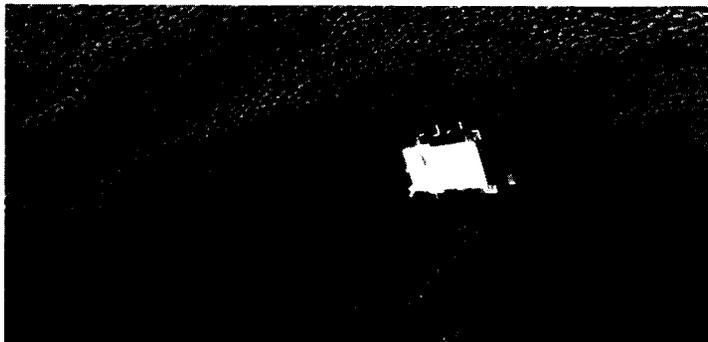


STS 51-G/SPARTAN and STS 51-F/Spacelab 2



SPARTAN 1 IN SPACE—Goddard's Spartan 1 payload floats in orbit above the Earth following its deployment during the STS 51-G mission in June. The crew of Commander Danial Brandenstein, Pilot Joe Creighton, Mission Specialists John Fabian, Steven Nagel and Shannon Lucid, and Payload Specialists Patrick Baudry (France) and Sultan Salman Abdul-Azize Al-Saud (Saudi Arabia) completed 111 orbits on its seven day mission.



STS 51-F (SPACELAB 2) CREW—Seven members of the Space Shuttle 51-F include (back, standing left to right) Mission—Specialists Tony England, Karl Henize and Story Musgrave, Payload Specialists Loren Action and John-David Bartoe; (front-left to right) Commander Gordon Fullerton and Pilot Roy Bridges. Acton formerly worked at Goddard as a Lockheed scientist on the Solar Maximum Mission. Goddard's Spacelab Data Processing Facility played a major role in the 51-F mission.

NASA

National Aeronautics and
Space Administration

Goddard Space Flight Center

Goddard News

Greenbelt, Maryland and Wallops Island, Virginia

Vol. 31 No. 7-July 1985

AMPTE Ends Phase 3 With New Releases

By Carter Dove

Two releases of barium and two of lithium by a German satellite 70,000 miles from Earth from March 21 to May 13 ended the third phase of the Active Magnetospheric Particle Tracer Explorers (AMPTE) project, the U.S. portion of which is managed by Goddard.

The chemical releases, part of a joint scientific experiment of the U.S., West Germany and the United Kingdom, are designed to determine how the solar wind interacts with the Earth's magnetosphere.

According to Goddard project scientist Dr. Mario Acuna, some very valuable scientific data has been flowing from the AMPTE experiments. Acuna said, "Although, disappointingly, no tracer ions were detected, this is a very significant result. It implies that fundamental revisions to our current models of the magnetosphere need to be made in order to account for these negative observation."

Continued on page four

Goddard's First SPARTAN Payload Performs Well During STS 51-G

By Jim Elliott

Goddard's innovative Spartan 1 spacecraft appeared to have performed remarkably well during the STS 51-G Space Shuttle mission, according to Mission Manager Dave Shrewsberry.

All evidence, he said, indicated that the spacecraft, left in a free-flying orbit on the fourth day of the mission and picked up on the sixth day, performed as programmed. Final evaluation will come after the tape recordings are analyzed, he continued.

"Although the grapple fixture wasn't pointed in the direction we thought it would be when we were retrieved," Shrewsberry explained, "that is not a matter of concern. The running lights were on and the experiment doors closed, indicating that the program we had computed was completed."

Early indications show that all six of the Getaway Special experiments also were

turned on during the mission, according to Larry Thomas, Technical Liaison representative with the Goddard project.

The mission was regarded as highly successful with the crew of the Discovery also successfully having launched three communications satellites. The communications satellites were the Mexican Morelos, the Arab Arabsat and the American Telephone and Telegraph Telstar.

The mission, which lifted off from the Kennedy Space Center, landed at Edwards Air Force Base, Calif., on June 24 at 9:12 A.M. EDT after a seven day, one hour and 38 minute flight. The crew included Dan Brandenstein, commander; John Creighton, pilot, and Shannon Lucid, Steven Nagel and John Fabian, mission specialists.

French Payload Specialist Patrick Baudry and Saudi Arabian Payload Specialist Sultan Salman Al-Saud, also were aboard.

Goddard's Gay Hilton's Perseverance Wins: NOAA-8 Rejuvenated Following 11-month Vigil

By David W. Thomas

After an 11-month vigil over a tumbling weather satellite that almost was written off as a loss, NASA, National Oceanic and Atmospheric Administration (NOAA) and RCA officials say the NOAA-8 spacecraft resumed operations July 1, due to persistence from ground controllers and help from the spacecraft's backup system.

Gay Hilton, Code 480, managed the engineering effort that saved the satellite. As systems manager for Television Infrared Observation Satellites (TIROS)—weather spacecraft—Hilton says he and a band of never-say-die optimists were virtually told to stop wasting time and money.

NOAA-8 is the morning satellite in a two-spacecraft operational system designed to provide polar meteorological data along with the Search and Rescue Satellite-Aided Tracking (SARSAT) system, which is equipped to detect emergency beacons from imperiled ships and aircraft. NOAA-8 was the first U.S. entry in the international SARSAT program.

NOAA-8's primary oscillator had failed, and the satellite was supposed to have automatically switched to its backup oscillator. But no changeover took place and the satellite was not designed to allow controllers to send commands to effect a switch.

But Hilton persisted in monitoring the satellite because its telemetry data showed it was using its backup oscillator intermittently—not long enough, however, for controllers to uplink corrective data that would result in a recovery.

The oscillator, or clock, is the central source of timing and frequency information and is vital to scientific measurements, and subsystems and guidance functions.



Hilton

Hilton says the Greenbelt tracking station played a key role in the recovery. The station kept taking data from the wayward spacecraft, "and after reviewing the data

for several months," he said, "I began to see a trend towards corrective operations.

"For the most part, we were getting useless data. But because the backup clock seemed to be taking over, I advised we keep at it."

System Changeover

By late April, the backup system had taken over and it was decided to form a team of NASA engineers, NOAA controllers and RCA consultants, who built the satellite, to attempt to regain control of NOAA-8.

It took two weeks to actually recover the spacecraft. By early May, the satellite was under control and Hilton said they got "good data" instantly. Currently, only a portion of one of NOAA-8's seven scientific instruments is inoperative.

The spacecraft has been under control since May 10, but did not become operational until July. During that time, NOAA continued to monitor the health of the satellite and calibrate its instruments.

The modest Hilton says most of the credit for the satellite save goes to the spacecraft itself:

"Mostly, what we did was continue to monitor the bird," he said. "If it hadn't made the switchover to the backup system, we wouldn't have been able to recover it."

Astronomers Report New Means For Locating New Star Formations

By Charles Recknagel

Three teams of astronomers report they may have found a new means of locating regions within our galaxy where new stars may be forming.

Using different approaches, the teams have discovered a new and intriguing correlation between regions of a mysterious infrared emission in the sky and clouds of interstellar molecules.

"We believe that the locations of at least a part of these infrared emissions coincide clearly with the locations of clouds of interstellar molecules," says Dr. Michael Hauser, Head of Goddard's Infrared Astrophysics Branch (Code 693) and leader of one of the investigating groups.

"Because molecular clouds are invariably associated with the formation of stars," Hauser adds, "the emissions also could be a guide for us to regions where new stars are forming nearby in our galaxy."

IRAS Discovery

The regions of infrared emissions that suggest the new key to finding stars' birthplaces were first discovered in a sky survey by the International Infrared Astronomical Satellite (IRAS), launched in 1983.

While mapping the locations of sources of infrared emissions in the universe, the satellite discovered a peculiar new pattern of infrared emissions similar in appearance to clouds in the Earth's atmosphere. The

mysterious new emissions, dubbed "cirrus" emission by the IRAS investigators, were patchy clouds of very cold cosmic dust with a temperature around 30 degrees Kelvin (-405 F.).

Searching for the source of these emissions, IRAS scientists first identified some of the emissions with dust in interstellar atomic gas clouds. The recent findings by the three astronomer groups now extend that association to include molecular gas clouds and possibly stars in formation.

Working independently of the IRAS survey, the first group, comprised of University of Maryland astronomers Leo Blitz and Loris Magnani, conducted a search for nearby molecular clouds using

Continued on page five

Storm Nearly Costs Fund-Raising Sailor His Life: International Satellite Rescue System Saves Him

By Rande Exler

A sailor trying to raise funds for a Vietnam Memorial recently almost lost his life in the effort. Thanks to Cospas/Sarsat, an international satellite rescue system in which Goddard is heavily involved, however, he lived to see the dedication of the memorial in New York.

Jack Boye departed Miami on April 27 and was due to sail into the New York harbor sometime before the May 7 dedication of a memorial to Vietnam Veterans of Airborne 173, his wartime squadron. He was piloting "Dear America", a 34-foot sloop christened after a book about one man's journey through Vietnam. Portions of the book are inscribed on the New York memorial.

Three days into the voyage the sloop's radio shorted out, and his troubles began. Without a radio, he did not know that what appeared to be a rainstorm actually was a dangerous low pressure system.

Rigging Fails

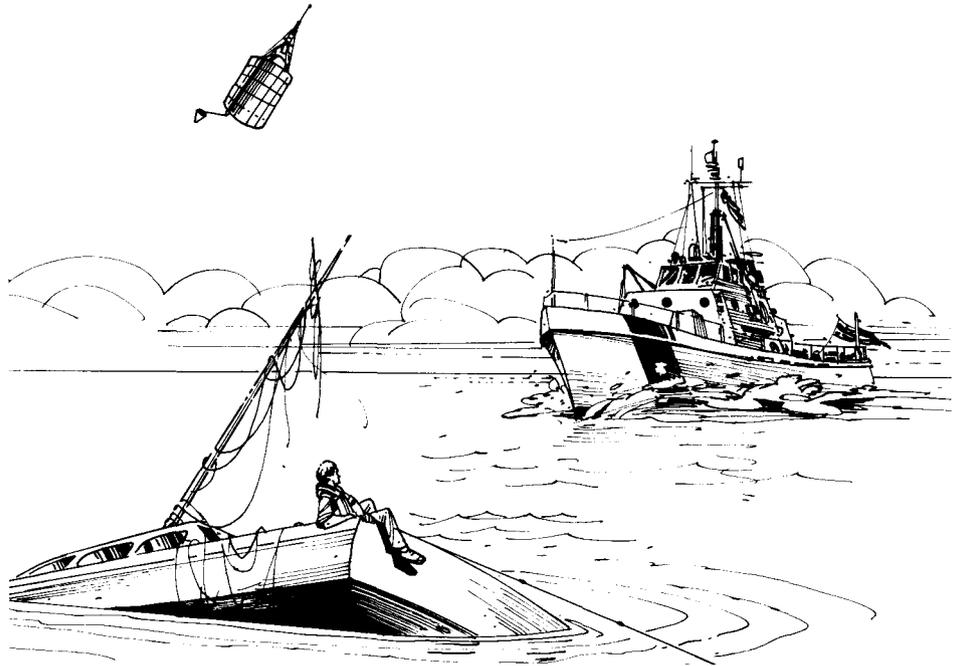
"The waves built up to 25 feet with 60 mile per hour winds," the 41-year-old sailor explained. "The rigging failed, and we laid ahull (afloat but adrift) at the mercy of the sea."

The storm knocked the sloop's electrical and electronic equipment and engine out of commission, and "Dear America" capsized several times. Just before dawn, on May 5, the boat "completely rolled over," Boye said, and he could no longer seal the vessel from filling with water.

At that point, Boye activated a radio beacon to alert search and rescue authorities of his predicament. Boye trailed an EPIRB (Emergency Position-Indicating Radio Beacon) off the stern of the sloop and waited for authorities to find him.

"When I saw the test signal work, I knew someone would receive the signal," he said. "It gave me the strength to keep going." He had been three days without sleep and two days without food.

An orbiting Russian search and rescue satellite, one of two U.S. and three Soviet satellites equipped with search and rescue equipment, first received the distress signal



RESCUE AT SEA—Artwork depicts forces that helped rescue Boye after his sloop capsized in the Atlantic. The Soviet COSPAS satellite is pictured in the upper left.

and beamed it to the Rescue and Command Center at Scott Air Force Base, IL, where authorities alerted rescue forces. The COSPAS/SARSAT system is an international program carried out by Canada, France, the Soviet Union and the United States as major partners.

Electronic Search

After an electronic search for the distress signal, a Coast Guard aircraft located the sloop about 140 miles off Cape Henry, VA. According to the Coast Guard officials, Boye appeared to be in no immediate danger and fired two signal flares as the rescue aircraft approached.

At that time, the Coast Guard requested assistance from a naval vessel in the vicinity. The "USS Detroit" sent a whaleboat with the ship's doctor to Boye's rescue and remained on the scene until the arrival of the Coast Guard cutter "Bear." The Coast Guard cutter "Point Arena" relieved the "Bear" and towed "Dear America" into Portsmouth.

The commanding officer of the "Point Arena", Lt. (j.g.) Stephen Flynn believes that Boye's situation was "quite

desperate." "If Boye had not activated the EPIRB when he did, authorities might have taken several days to realize that he was overdue and to locate the missing vessel," he theorized.

Boye, a solo racer for the last four years, lives in Princeton, NJ and calls himself SARSAT's "hardest and most thankful user."

Two Transmitters

"Anybody who goes off shore should carry a transmitter as a safety precaution," he said. "I carry two: one on the life raft and one mounted in the boat. I wouldn't go off shore if this rescue system wasn't in effect."

Boye is disappointed that he didn't sail into the New York harbor as planned. He is pleased, however, with the more than \$50,000 and public consciousness that he raised during the attempt.

To date, the SARSAT/COSPAS system has been instrumental in the rescue of more than 400 persons. The United States effort is managed by the National Oceanic and Atmospheric Administration (NOAA). Goddard is responsible for the research and development.

AMPTE

Continued from page one

The March-May releases were made by the West German satellite in the Earth's magnetotail in an effort to determine the effects of the geomagnetic environment on the barium and lithium at the positions of the West German and U.S. satellites.

During September 1984 in the first phase of the AMPTE project the West German satellite released lithium into the solar wind outside the Earth's magnetosphere. Preliminary results from those experiments indicate that less than one percent of the solar wind gains access to the magnetosphere under the conditions in which the releases took place.

In the visually-spectacular second phase the West German satellite created a barium cloud on the flank of the Earth's magnetosphere about 70,000 miles above the Pacific Ocean off the coast of Lima, Peru. The event occurred Dec. 27, 1984 and was known as the Holiday Comet. Data from the artificial comet indicates that it was "eroded" much faster by the solar wind than scientists had anticipated.

The solar wind is a stream of hot ionized gas expanding outward from the Sun in all directions at a speed of about one million miles an hour; the Earth's magnetosphere is an envelope of magnetic field and charged particles surrounding the Earth, extending approximately 40,000 miles toward the Sun and at least 4 million miles from the Earth on the night side; the magnetotail is the stretched out magnetosphere on the night side.

The Goddard project manager for AMPTE is Gilbert Ousley.

Mail your story to the
Goddard News (Code
130), or call the Editor
at 344-5565

Around The Center

....BUILDING 7 HAS ACQUIRED A NEW THERMAL TEST CHAMBER. The chamber, originally in Building 4, had to be moved to accommodate Space Station heat pipe work. Putting the chamber in Building 7, says **Head of the Environmental Test and Integration Branch HENRY MAURER, JR.**, offers several advantages. It enables the chamber to remain in operation; it gives Building 7 two thermal chambers capable of taking approximately 12' x 15' size payloads, and it permits sharing labor between them....**RANDEE EXLER** has joined the Public Affairs office. Exler arrives from the Bureau of Public Affairs at the Department of State where she was a regional program officer responsible for arranging public appearances and speaking engagements for State Department officials throughout the Mid Atlantic region. Her duties included advance work for Secretary of State George P. Schultz and managing regional foreign policy conferences. At Goddard, she will disseminate news about the Center and act as a spokesperson for Center activities. Also assisting the Public Affairs office during the summer area **KIM GATLIN**, a co-op student from Clark University in Atlanta, Ga, and **JOE LOWTHER**, a senior at Carnegie Mellon Institute in Pittsburg, Pa. ...**GODDARD HAS SELECTED FORD FOR THE NEW GOES SERIES** (Geostationary Operational Environmental Satellites). The total proposed cost by Ford Aerospace and Communications Corp., Western Development

Laboratories, Palo Alto, CA., for the basic three spacecraft effort (GOES I,J, and K) and for a two spacecraft option (GOES L and M) is approximately \$221 million. The contract will provide for a series of GOES satellite systems, each with a five year design life. Launch of the first GOES satellite in the new series scheduled for late 1989...**GODDARD HAS SELECTED AEROJET FOR NEW NOAA SPACECRAFT EQUIPMENT** comprising three Advanced Microwave Sounding Units-A for flight aboard National Oceanic and Atmospheric Administration spacecraft. The estimated value of the work by Aerojet ElectroSystems Co., Azusa, CA., is \$29 million. The contract will take effect on or about November 11, 1985. Delivery of the final product is scheduled for completion within 51 months of the contract award...**JAMES R. MUNDY RETIRED** June 30 after 15 years as Goddard's Equal Employment Opportunity Coordinator, where he has been the focal point for Center efforts to insure all employees enjoy equal opportunity in recruitment, training and development, employee utilization and development...

DR. VINCENT SALOMONSON, Chief Laboratory for Terrestrial Physics, has accepted the invitation to continue until December 1988 as Associate Editor of the International Journal of Remote Sensing... **SUE LEHMAN**, who has been running the Goddard mail room for years, **RETIRED** June 28 after 25 years at Goddard.



Lehman



Mundy



Exler

Stars *Continued from page two*
a ground-based telescope at the University of Texas. The search resulted in the surprising discovery of many such clouds.

Cloud Survey Data

The Maryland astronomers then joined forces with a Goddard team headed by Hauser. The larger team combined the IRAS and molecular cloud survey data and discovered that much of the cirrus radiation originated in the clouds.

The Goddard members included Janet Weiland of Applied Research Corporation; Richard White of Computer Sciences Corporation, and Lee Rickard of Sachs/Freeman and the Naval Research Laboratory.

"The carbon monoxide (CO) observations suggested that these clouds were relatively recently formed and lie within a few hundred light years of the Sun," notes Hauser. "We already know of one recently formed star in one of these clouds, and we may yet identify others."

The second group of astronomers, including Magnani, Blitz, and Cor deVries of the University of Leiden, the Netherlands, now have determined the distance of several of the CO clouds as approximately 300 light years from the Sun.

The third group, including Hendrik deVries and Patrick Thaddeus, both of Columbia University and the Goddard Institute for Space Studies in New York, have used the locations of emissions to search for more carbon monoxide clouds. From a radio telescope in New York, their observations also support the identification of some of the cirrus emissions with very nearby clouds of CO gas and associated dust.

All three groups of astronomers currently are studying the gas dust emission data to characterize the physical conditions in the molecular clouds.

The work of the three groups was supported by combinations of funding from NASA, the National Science Foundation and the Netherlands Foundation for the Advancement of Pure Research.

Goddard's Next Blood Drive Scheduled for August 7

The next Blood Drive at Goddard is August 7 from 8:30 - 2:30 in the Building 8 Auditorium. To schedule your donation please contact Kathy Richardson x6472. Walk-ins are also welcome.

NASA Administrator Stresses Need For Security Awareness

By James W. Beggs
NASA Administrator

Security Awareness is a never ending responsibility of each NASA employee. That premise is as valid today as it was 28 years ago. As is evident from the reproduction (below) of a foreword to NACA Security Regulations published in 1957, it was a premise clearly recognized and endorsed by Dr. Hugh L. Dryden, Director of NACA (National Advisory Commission for Aeronautics), NASA's predecessor. Dr. Dryden subsequently was appointed by President Eisenhower in 1958 as NASA's first Deputy Administrator.

I ask each NASA employee to read Dr. Dryden's exhortation carefully. By substituting "NASA" for "NACA" while doing so, and by adding today's role of NASA in building superior manned spacecraft and communications satellites, Dr. Dryden's message on security awareness becomes as applicable today as it was in 1957, its urgency undiminished by the passage of time.

February, 1957—

Foreword For NACA Security Regulations

By Hugh L. Dryden

Air supremacy is vital to the defense of our Nation. In the attainment of this supremacy in the air, we of the NACA play a vital part, providing the fundamental information that will enable the aircraft industry to design and build the superior airplanes and missiles required by the military services.

It is not enough that tomorrow's airplanes and missiles be greatly improved over existing equipment; they must be superior to those of potential enemies.

The fundamental information which the NACA provides is the product of intensive research, often involving the work of many specialists and the use of complicated and expensive equipment over a period of years. If such information were made



Beggs

I urge all employees to familiarize themselves thoroughly with and abide by current NASA security regulations. Any question regarding such regulations should be addressed to the Installation Security Office. Security Office personnel always stand ready to assist any employee with a security-related problem. Paraphrasing Dr. Dryden's message: "When in doubt don't guess, ask!"

available through carelessness to a potential enemy, any advantage which the United States might have would be lost. The maintenance of effective security guards over the research findings of the NACA is imperative.

A careless word—even a casual remark passed to a relative or friend and thoughtlessly relayed—may find its way to an unfriendly nation, and thus depreciate an advantage America should possess from the results of a costly and time-consuming research program.

Effective security is basically a matter of good habits. The regulations cannot substitute for constant discretion, care, and vigilance in the handling of classified information; rather, they are intended as a guide.

When in doubt, don't tell it!

Wallops Team Investigates Atmosphere With Brazilians

By Joyce Milliner

From mid-March to mid-April, a NASA science team from Goddard's Wallops Flight Facility explored the atmospheric ozone profile at Natal, Brazil. The purpose of the joint U.S./Brazil mission was to acquire ozone profile data from 10 to 40 miles at an Equatorial site using the improved "A" version, ROCKET OZonesonde (ROCOZ-A). Seven profiles were taken during ozone measuring satellite overpasses to compare the profile data from the ROCOZ-A with the satellite data for the same time and place. The primary mission was to support the Stratospheric Aerosol and Gas Experiment (SAGE) II ozone measurements acquired by the Earth Radiation Budget Satellite (ERBS)/SAGE II satellite. Support data also were gathered for comparison with the Solar Backscatter Ultraviolet Spectrometer on the Solar Mesospheric Explorer (SME) satellite.

Each individual ROCOZ-A launch mission included the supporting launch of a Super-Loki Datasonde Dart (a small meteorological rocket) to collect temperature data from 10 to 43 miles and an Electrochemical Concentration Cell (ECC) balloon-launched ozonesonde to collect lower atmospheric (below 18-mile) ozone, temperature and pressure data. These supporting data are used to define the atmosphere at the site for comparison with the appropriate satellite.

Chester L. Parsons is the NASA Project Manager, and Alfred C. Holland is the NASA Project Scientist. At the Brazilian site, Dr. Robert A. Barnes of Chemal, Inc., was mission scientist; Robert J. Frostrom, NASA, was the Field Operations Manager; Prentiss Moore and John McAllen, (both of Joule) collected the telemetry data using the Wallop's mini-tracker; Oliver C. (Crip) Taylor, NASA, prepared the Datacondes for flight and assisted in the rocket launchings; Malcolm A. Glovier, NASA, checked out and installed the explosive devices including the Datasonde and ROCOZ-A tail fuses and the rocket motors, and Arthur P. Grothouse, Computer Sciences Corporation, assisted Dr. Barnes with the loading of the ROCOZ-A payloads.

Bangladesh Warning Saves Thousands

By David W. Thomas

A data system installed by Goddard personnel gave early warning of the disastrous cyclone that ravaged coastal areas of Bangladesh recently. The timely warning may have saved thousands of lives, although the toll from the cyclone may have been as high as 10,000 lives, according to reports.

On May 8, just 16 days before the storm hit southeastern Bangladesh, the Agro-Climatic and Environmental Monitoring System (ACEM) was declared operational and turned over to the Bangladesh Space Research and Remote Sensing Organization (SPARSO) at a ceremony in Dhaka, Bangladesh.

Chuck Vermillion, Code 675, directed the design, procurement and installation of the system and was responsible for organizing the training activities. He said the ACEM was tested sooner than expected because cyclones rarely strike so early in the monsoon season.

Sleepless Night

"Severe storms usually strike the region during March and October," he said. "I didn't get much sleep the night I heard about the storm." But a telex from Dr. A.M. Chaudhury, Deputy Director of SPARSO, reported that the system produced valuable data, enabling weathermen to spot and track the storm well before it struck.

Vermillion said that SPARSO detected the system four days in advance, and that thousands were evacuated from the coastal area of the Bay of Bengal into the hills of the eastern Bangladesh mainland, helping reduce the tragic impact of the cyclone.

Bangladesh is one of the most disaster-prone countries in the world. The country, the size of Wisconsin, and with a population over 90 million, has been hit by ap-

proximately thirty cyclones in the last 25 years. A modern forecasting system is crucial to that country where floods, droughts and tornadoes occur frequently in addition to the cyclones that come in from the Bay of Bengal.

Before the first warning equipment was installed in Bangladesh by NASA nearly seven years ago, as many as 500,000 lives had been lost in a single storm. Since the first system was installed, there have been losses, but much less severe.

TIROS Satellite Data

The attainment of operational status by the ACEM system represents a culmination of a NASA activity that started when Goddard personnel began the installation of a high resolution receiving system for TIROS weather satellite data in Bangladesh.

In addition to providing data for tracking of cyclones, the system has many other functions of vital importance to the Bangladesh. The system collects data, manages data storage and does data analysis in support of land management, agricultural assessment and crop planning; the data also will be used for fisheries development and produce other useful environmental information.

The system consists of the main receiver and data facility at SPARSO in Dhaka, 18 landbased platforms with sensors and, at least until the cyclone struck, a marine buoy anchored in the Bay of Bengal, 100 miles offshore.

Data from U.S., Japanese and Soviet satellites are received and processed using modern computers and sophisticated processing software, also.

The building in which the system is installed can withstand 120 mph winds for four hours and is equipped with back-up power systems to insure continuing operation of the equipment during critical periods of severe weather.

ROCOZ-A profiles for each satellite with four profiles for the NOAA-9.

The mission required the combined efforts of scientists, technicians, operations and administrative personnel. The data received will be shared with Dr. Volker Kirchhoff of the Brazilian Institute for Space Science at Natal.

Goddard Goals—

Goal No. 6 Stresses People And Challenge

The following is the last of six goals that the Center has established as its basic charter. Collectively, these goals serve as a guide by which the Center can measure progress in achieving its mission, and that of the Agency.

The successful pursuit of Goddard's mission and our scientific and technological goals is dependent upon dedicated people conducting diverse and challenging work in a supportive environment. The resulting institutional goal is to provide the conditions which foster individual initiative and creativity, teamwork and a sense of commitment and responsibility.

Attainment of this environment is a critical ingredient leading to high Center morale and pride in a job well done; it is the essence of genuine productivity. Meeting the total challenge of this goal is the responsibility of every Goddard civil servant and associated contractor. Specifically, but not exclusively, we stress the need to:

- Treat each individual as a resource to be nurtured through respect, training, career development, recognition and appropriate reward. Equal employment opportunity and affirmative action remain cornerstones of Center philosophy.

- Provide the best possible facilities, management aids and administrative support, paying special attention to new technological tools to increase productivity.

- Conduct that essential in-house work which fulfills the need to participate directly in the creative venture of space exploration and which preserves the capability to implement and manage successfully all phases of projects.

- Actively disseminate the results of space activity to all audiences and enhance our internal sense of community and worth through increased sharing of information.



ASTRONAUT VISIT—Frederick Gregory, pilot on Shuttle Mission 51-B April 29-May 6, looks at a Landsat photo of Washington, D.C., his hometown, during a post-flight visit at Goddard. The photo was presented to Gregory by Center Director Noel Hinners (right).



O'Leary Retires

A key figure in the office of Public Affairs and the Chief of its Public Service Unit, William P. (Bill) O'Leary, retired August 2 after 36 years of service, 23 in the Office of Public Affairs. The versatile O'Leary distinguished himself as spokesman at Goddard before visiting Congressional groups and representatives of the U.S. and foreign scientific and educational community, as well as "grass roots" America. O'Leary will continue to reside in Highland, MD with his wife, Sarah, and their family. During a retirement reception at the Recreation Center, Center Director Noel Hinners decried O'Leary as "Mr. Goddard."

Goddard, Kennedy Toastmasters By TV

Goddard and Kennedy Space Center Toastmasters participated in a joint Toastmasters meeting recently using two-way television as the communications medium.

Deputy Director John Quann opened the meeting with warm words of praise for the benefits of the Toastmasters program.

Bob Grigsby at Goddard and Marge Whitney at Kennedy were joint Toastmasters of the Day for the meeting. Control of the meeting was passed between the two locations with the television monitors at both locations permitting interaction between the participants and their audience.

Pat Greco and Tom Ratliff presented speeches from Goddard, while Kennedy speakers were Debbie Abrams and Jack Dorr.

Toastmasters training requires prepared speeches to be evaluated on how well they

met the objectives of their speech.

The Goddard evaluators for the Kennedy speakers were Chris Scherer and George Griffin. The Kennedy evaluators were Salla Siddiqui and Frank Coppedge.

Following the prepared speeches, the two groups participated in "Table Topics," which is practice in impromptu speaking. Goddard Table Topics Master Paul McCeney posed impromptu subjects for June Buchanan, Bob Miller, and Jean Buchanan at Kennedy. Table Topics Master Louis Davidson at Kennedy posed impromptu subjects for Maureen Mingarelli, Al Levine, and Tex Baird at Goddard.

The General Evaluator for Goddard was Paul McCeney and the General Evaluator for Kennedy was Joel Fears.

The Goddard Toastmasters are planning to have future meetings with Toastmasters at other NASA locations.

Model Rocket Contest Commemorates Apollo Moon Landing In 1969

The Fifth Annual Goddard Model Rocket Contest was held at the Goddard Visitor Center Sunday, July 21 at 10:00 a.m.

Model Rocketeers from a wide geographical area are expected to participate. Streamer duration and spot landing competitions highlight the schedule. Rockets may be launched on a team or individual basis, and each event will be flown in two age divisions: 15 years and younger and 16 years and older. There is no registration fee, and participants can register at the launch site the day of the event.

This year's contest is scheduled to commemorate the 16th anniversary of the Apollo Moon landing and the second quarter century of the Goddard Space Flight Center. It also is designed to promote interest in space-related activities.

The model rocket competition is sponsored by the National Space Institute, the American Institute of Aeronautics and Astronautics/National Capital Section (AAA/NCS) and the Goddard Visitor Center through the Office of Public Affairs. Local sections of the National Association of Rocketry (NAR) are cooperating, also.

For contest rules and further information, call 344-8981, Wednesday - Sunday, 10:00 a.m. - 4:00 p.m.

MODEL ROCKETEER—A contestant in last year's model rocketry contest prepares to launch a Saturn V.



NASA
National Aeronautics and
Space Administration
Goddard Space Flight Center

Goddard News

Greenbelt, Maryland and Wallops Island, Virginia

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Executive Editor	James C. Elliott
Managing Editor	Charles Rechnagel
Senior Editors	Carter Dove and Joyce Milliner (Wallops)

Retirees in June

Jim Mundy	120	30
Anne Underhill	680	15
Winfred Parks	823.1	33
Donald Feller	831	37
Charles Campbell	471.2	21
Sue Lehman	234	44
Reginald Justice	834.2	35
Bobby Brogan	270	26