

New Deputy Director Appointed



Deputy Director, Dr. John H. McElroy

Dr. John H. McElroy has been appointed the new Deputy Director of the Goddard Space Flight Center effective September 7.

Dr. McElroy fills the position formerly held by Robert E. Smylie, who left Goddard to become NASA's Associate Administrator for Space Tracking and Data Systems.

Dr. McElroy leaves the position of Director of the Communications Division, Office of Space and Terrestrial Applications, NASA Headquarters. At NASA Headquarters he directed the revitalization of the NASA Communications R&D

Continued to page 4

SMS/GOES satellite may improve weather prediction

By Bob Ames

The sky darkens as the winds intensify. A satellite fixed 35,000 kilometers (26,000 miles) above the earth observes what appears to be a volcanic eruption in the cloud level. Clouds dart up into the stratosphere at an unnatural rate of 25 km/hr (15.5 mph).

Meanwhile, at a ground station monitoring the satellite, an observer informs the media to expect very severe storms. An hour later as if on cue, the sky is filled with flashes of lightning and peals of thunder as the rains pour down.

Weather prediction is not yet this accurate, but Dr. Robert Adler, a scientist at NASA's Goddard Space Flight Center believes that it may soon be.

Using the geosynchronous SMS/GOES satellite, Adler has observed that at a height of approximately eight kilometers (5 miles) there is a significant difference in [cloud top ascent rates] between severe and non-severe thunderstorms. "If intense thunderstorms can be detected at this altitude," said Adler, "there is an average potential warning time of about 60 minutes."

The SMS/GOES satellite is a NOAA operated satellite which provides data on two bands; visible and infrared. The data is dumped every 30 minutes. This is the same satellite used to show changing weather conditions on the evening news.

"Because thunderstorms are associated with rapidly changing convection," Adler said, "we needed to collect data more frequently. So to do the experiments we obtained special data sets every three or five minutes. The data was obtained in the infrared band where it was known that the higher clouds would show up colder. The highest clouds were the thunderstorms." And according to Adler, "the

Continued to page 2

GSFC has Safety Awards Ceremony

The first annual Goddard Safety Award Ceremony was held July 2 in the building three auditorium. GSFC awards were presented to persons and divisions in five categories: Safety Award of Honor, Safety Award of Merit, Accident Prevention Award, Contractor Safety Award and Contractor Accident Prevention Award.

The highest level of safety recognition, the Safety Award of Honor, was given to John L. Millman for his contribution to the safety success of the SMM project and his continuing awareness of safety requirements for future GSFC projects.

Safety awards of Merit, given to employees for special safety achievement or performance of safety duties in an exceptional manner, were given to A. Edmund Fitch, Gerald Halpert, Raymond P. Harris, Harry B. Hull, James J. Kerley, Jr., William F. Mitchell and William P. O'Leary.

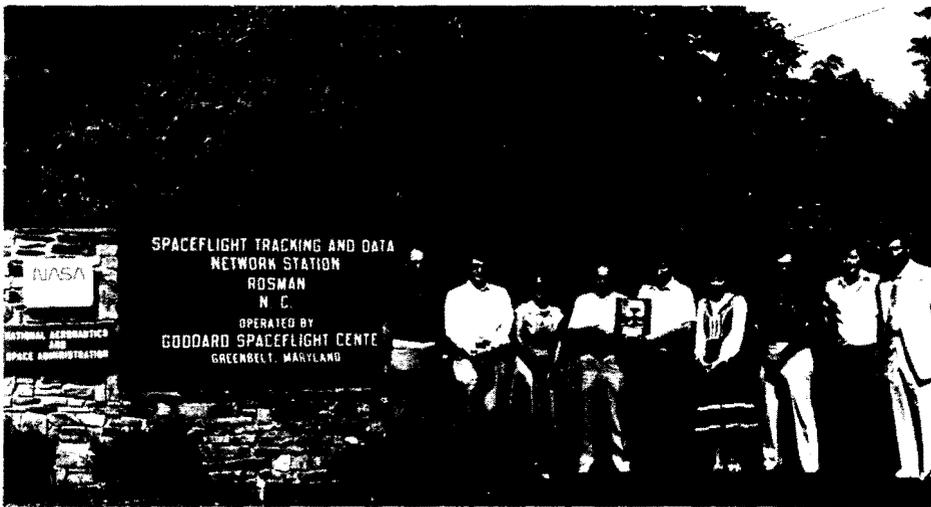
Contractor Safety Awards, presented to personnel for significant contributions among onsite contractor employees, were

granted to Charles E. Dimmitt, Theodore Knotts and Odie C. Woodall of Bendix Corporation, and Robert Lawson of Northrop Services, Inc.

Six division level civil service and five contractor organizations received honorary Accident Prevention Awards for achieving perfect accident records during the calendar year. They were: Goddard Institute for Space Studies, Laboratory for Planetary Atmospheres, Mission Support Computing and Analysis Division, NASA Communications Division, Network Operations Division, Network Procedures and Evaluation Division, Computer Science Corporation--Programming and Computer Service, STDN Programming Support, Systems Analysis and Programming (two awards), Sigma Data Services Corporation--Onsite Support Services.

Center Director, A. Thomas Young, who gave the keynote address at the ceremony, commended the award winners saying, "They have gone out of their

Continued to page 4



Employees at the NASA Spaceflight Tracking and Data Network (STDN) station at Rosman, North Carolina, have been awarded the quarterly "Outstanding Performance Award" by the Bendix Field Engineering Corporation's STDN Program Management.

The award is made in conjunction with the STDN Motivational Program. The program's purpose is to improve overall performance in all phases of the Bendix contract operation for GSFC. Award winners are given a plaque to be displayed for the benefit of all employees in recognition of their outstanding achievement. They also receive monetary awards.

Participants in the Rosman award presentation (from left to right) are John P. Gale, U.S. operations manager; Charles R. Merrill, Fire/Safety Section; Ruth Ann Powell, Logistics section; Lawrence A. Jochen (presenting award); Lyle D. Wyant, Rosman senior manager, (accepting award); Anne B. Ashe, Operations Section; John S. Ebaugh, Administration Section; Edward R. Batson, Facilities Section; and James C. Jackson, NASA station director.

Safety Awards

Continued from page 1

way to make the Center a safer place in which to work and, in so doing, have shown a special concern for their fellow workers' well being for which, I think, we all owe them a sincere vote of thanks."

Young further committed himself to an increased safety awareness. "I am determined to do everything I can to see to it that our progress continues by main-

taining a careful watch on the safety performance of both civil service and contractor personnel."

Deputy Director

Continued from page 1

Program, and the international negotiations with Canada, France, and the USSR on the Satellite-Aided Search and Rescue Program.

Dr. McElroy has been with NASA

since 1966, when he joined the Goddard Space Flight Center. At Goddard he directed research on laser heterodyne systems for communications, tracking, and radiometry and advanced satellite communications technology.

Before joining NASA, Dr. McElroy served in the Quantum Electronics Research Laboratory of the University of Texas at Austin where he participated in research on laser-induced ionization of high-pressure gases.

Dr. McElroy served earlier as an electronics instructor and technical writer on various U.S. Army air defense guided missile systems, and was twice named Instructor of the Year for the U.S. Army Air Defense School, Fort Bliss, Texas. Prior to that time he served with a number of airborne infantry organizations.

Dr. McElroy is a 1954 graduate of Culver Military Academy, has a BSEE from the University of Texas at Austin and an MEE and PhD from the Catholic University of America. He has been elected to Eta Kappa Nu, Tau Beta Pi, and Omicron Delta Kappa, and is a Senior Member of the Institute of Electrical and Electronics Engineers and an Associate Fellow of the American Institute of Aeronautics and Astronautics.

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Continued from page 2

questions about the long-term stability of these orbits.

"The most promising space-disposal destination considered so far," Priest said, "is a circular sun-orbit halfway between the Earth and Venus. According to our calculations, anything you put in that orbit will stay there at least a million years. And we think that within that time period the radioactive material will decay to unarmful levels. Also, it takes less energy to reach this orbit than for solar system escape, and significantly less than to reach the Sun's surface.

"In the end," Priest concluded, "we have to determine if space disposal is a viable means of getting rid of nuclear waste by considering both cost and safety. Hopefully the Boeing study will give us some insight into that. If space disposal does turn out to be feasible, then it will take 10 to 15 years to develop the system, and the earliest it will be operational is the late 90's."

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