



National Aeronautics and Space Administration

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Center Director Al Diaz speaks to attendees at 37th Goddard Memorial Symposium, which is sponsored by the American Astronautical Society.

### 1998 Technology Transfer Report Now Available

The 1998 Technology Transfer Report is now available. Each year Goddard's challenging and technologically demanding Earth and space science missions generate a wealth of advanced technology.

These technologies are a national asset that can be used to develop new products and process that benefit the U.S. economy, increase the Nation's competitiveness in the global marketplace, create jobs, improve the balance of trade, and enrich the lives of American citizens.

To discover the wealth of Goddard's innovative technologies, partnering successes, innovators as well as technology awards received during the 1998 year, contact Nicole.A.Cleveland.1@gsfc.nasa.gov of the Technology Commericalization Office to receive your copy of the 1998 Technology Transfer Report.

# Goddard Commemorates 40 Years of Excellence

#### **40th Anniversary Picnic**

If you are looking for a new and temporary area to try out your creativity, volunteer to help plan Goddard's 40th Anniversary mall picnic, on May 6, as part of the week long celebration to commemorate Goddard's last four successful decades. If you have never planned a center wide event, then your new, fresh perspective is even more valuable.

The picnic committee wants folks from all areas of Goddard in order for this to be successful.

Call or e-mail Denise Konopka at 6-1382 or dkonopka@pop900.gsfc.nasa.gov respectively.

### **Another Goddard First**

**Explorer 42** was one of three Small Astronomy Satellites that provided the first X-ray maps. Launched Dec. 12, 1970, Explorer 42 catalogued more than 200 X-ray sources and found the first evidence for a black hole.

For more Goddard firsts check the following website: http://pao.gsfc.nasa.gov/gsfc/40th/firsts.htm

### Landsat 7 To Be Discussed

A prelaunch briefing on the upcoming Goddard Landsat 7 mission will be held at NASA Headquarters on Wednesday, March 31 at 1 p.m. The briefing will air on NASATV (Channel 9).

The spacecraft is scheduled for launch April 15 from Vandenberg Air Force Base, Calif. This latest mission in the Landsat series is part of NASA's Earth Science Enterprise.

For more information on the Landsat 7 mission, check out a Landsat 7 fact sheet at the following website:

 $http://pao.gsfc.nasa.gov/gsfc/service/gallery/fact\_sheets/\\ earthsci/landsat7.htm$ 

The Landsat 7 Project web page can be found at: http://geo.arc.nasa.gov/sge/landsat/landsat.html

### **Aircraft Particpates in Pacific Campaign**

by Betty Flowers, Wallops Flight Facility Public Affairs Office

Wallops Flight Facility's NASA P-3B aircraft departed March 10 on the Global Tropospheric Experiment (GTE) Pacific Exploratory Mission (PEM-Tropics B). This is the most recent mission in the ongoing series to study human-induced changes in the chemistry of the Earth's troposphere.

The Wallops P-3B aircraft and a DC-8 aircraft from Ames Research Center carry instruments into the troposphere in regions where either natural processes and/or human activities are believed to have particularly significant effects on tropospheric chemistry or regions that are as of yet relatively unaffected by human activities.

Satellite observations of meteorology, land use, and atmospheric chemical species also aid in experiment design and in the scientific analyses of results obtained from the aircraft and ground-based measurements.

The PEM-Tropics B will take place in the South Pacific during March and April to study the tropical Pacific atmosphere during a season when the effects of biomass burning should be less than during the PEM-Tropics A experiment which took place from August to December 1996. Scientists hope to improve their understanding of the oxidizing power of the atmosphere and the processes of controlling sulfur aerosol formation.

### Earth Science Programs Scheduled To Air Next Week

The following are the air dates for the last batch of 90-second radio features on NASA Earth Sciences. The programs are produced by the Earth & Sky (E&S) radio series for a measured audience of more than 3.8 million listeners (weekly).

- \* March 25, 1999 The Stuff of Clouds (featuring Dr. Michael King)
- \* March 26, 1999 Volcanoes and Climate (featuring Dr. Michael King)

In the Washington area, the programs can be heard on WETA at 8:15 am weekdays, 90.9 on the FM dial.

Other stations carrying the program are listed on the E&S web site: http://www.earthsky.com

### Goddard Celebrates Earth Day on April 14

"The Earth will continue to regenerate its life sources only as long as we do our part to conserve its natural resources," said President Gerald Ford, creator of Earth Day..

An Earth Day Center event will be held at Goddard on the mall area April 14 from 11a.m. to 1 p.m.

A GSFC envirothon is planne, as well as speakers, food, music, and a plant sale.

Let's all remember how to be gentler to the Earth and preserve it for future generations.

Continue to check upcoming issued of the Goddard News for more information.

#### **Goddard Missions Scheduled for 1999**

Mission	<b>Launch Date</b>	Site
TERRIERS	April 12	VAFB
Landsat 7	April 15	VAFB
GOES-L	May 15	CCAS
QuickSCAT/SeaWinds	May 16	CCAS
STS-96/Starshine	May 24	KSC
FUSE	late May	CCAS
EOS AM-1/Terra	July 15	VAFB
TDRS-H	Aug. 11	CCAS
STS-103/HST SM #3a	October	KSC
STS-101/SEM	October	KSC
NOAA-L	December	VAFB
EO-1/SAC-C	December	VAFB



### **ISO 9001**

"ISO imposes the discipline that allows us to produce quality products consistently," said Charlie Vanek, Director of Flight Assurance at Goddard.

Vanek presented a status of Goddard's ISO 9001 certification

efforts at the recent supervisor's all hands. He said the preassessment results from NASA's ISO 9001 registrar determined that Goddard's Center-wide systems met ISO 9001 requirements.

The registrar found several instances of major nonconformance and many more cases of minor infractions of ISO 9001 requirements. "Most of the minor infractions involved our workforce simply being unaware of Goddard's procedures or of not following those procedures," Vanek said.

Vanek said the emphasis between now and April 15 will be on reviewing, correcting and putting in place the documents that describe how the work is to be done - the Goddard Policy Guidelines, the Procedures and Guidelines and Work Instructions.

"Having the systems and documentation in place by April 15 will allow us to operate in a functioning quality management system and to continue training the workforce in preparation for an August registration audit," Vanek reported.

Other high priority efforts, according to Vanek, will go toward improvements to the NonConformance Reporting System, Receiving and Inspection system, ISO Training Modules, and defining within the documentation structure what Quality Records are and how they should be managed.

Visit ISO at http://arioch.gsfc.nasa.gov/iso9000/index.htm

### D.C. School Hosts Family Night About Student Activities at Goddard

Sixth grade students at Bunker Hill Elementary School, Washington, D.C., hosted a one hour family night at the school on March 18 to discuss their participation in the Students United with the NASA Becoming Enthusiastic About Math and Science (SUNBEAMS) project managed by Goddard.

As part of the family night event, the students conducted tours for their family members of exhibits that depict the types of activities they participated in at Goddard. During a panel discussion, family members asked SUNBEAMS students, teachers and mentors questions.

In early March, the students participated in a week long learning session on the Sun and solar missions designed to understand it. As part of their stay at Goddard, the students launched rockets, interviewed scientists, performed math and science challenge exercises and created their own web page to share their reaction of their stay at the Center.

SUNBEAMS is an educational program designed to stimulate increased interest in the math and science disciplines. SUNBEAMS is a collaboration between Goddard and the local school system.

As part of the program, teachers are invited to Goddard for a five week internship where they participate in current research and engineering projects. Teachers are paired with mentors from the Center who help them develop lesson plans for students based on the teacher's work experiences at Goddard. During the school year, the teachers are encouraged to bring their class to Goddard to participate in a week long math and science program.

More information on the SUNBEAMS project can be found at the following website: http://www.gsfc.nasa.gov/sunbeams

### Space Exploration at the Millennium--Scheduled for Next Week

Wednesday, March 24; American University, Washington, D.C.

The symposium is free and open to the public, but seating is limited. To help ensure your space, please register promptly at:

#### http://www.SPACE2000.org

Featuring: Buzz Aldrin, Richard Berendzen, Avery Brooks, Yvonne Cagle, Andrew Chaikin, Franklin Chang-Diaz, Hugh Downs, Ann Druyan, Timothy Ferris, Louis Friedman, John Glenn (invited), Dan Goldin, Don Herbert, Ted Koppel (barring a media emergency), John Logsdon, Howard McCurdy, Bill Nye, Fred Ordway, Ned Potter, Kim Stanley Robinson, Donna Shirley, Edward Stone, Kathy Sullivan, and Jill Tarter.

This symposium--held in the nation's capitol at the end of the century--presents key figures of 20th century creativity and achievement.

## Women's History Month Program Rescheduled

The Early Women's Rights Movement presentation by Toni Dufficy has been rescheduled for Tuesday, April 6 in the Building 3 auditorium from 11:30 a.m. - 1 p.m.

The presentation will focus on the beginnings of the women's rights movement in the U.S. In 1848, the first Women's Rights Convention was held in Seneca Falls, N.Y. The convention produced the

"Declaration of Sentiments," which sparked the emergence of women into all aspects of American life.

Dufficy, a former park ranger at the Women's Rights National Historical Park in Seneca Fall, is currently on detail to Goddard.

### GODDARD NEWS

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