

GODDARD NEWS

GODDARD SPACE FLIGHT CENTER

GREENBELT, MARYLAND

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Earl Angulo and Ronald Browning, Mechanical Systems Branch, inspect the P-21 payload prior to successful launch from Cape Canaveral.

EXPLORER X GETS WEALTH OF DATA ON FIELDS

Goddard has particular reason to be proud of EXPLORER X's discoveries announced to the world last month. Center personnel were responsible for the success of this first "all Goddard" satellite from conceptual design, through actual design, fabrication, environmental test, launch, tracking, data acquisition, data reduction and analysis.

The satellite provided exceptionally clean data on earth and interplanetary magnetic fields. Most important, its measurements give strong support to the theory that the interplanetary magnetic field in regions surrounding the earth is mainly an extension of the magnetic field of the sun.

The sun's field at distances up to 145,000 miles from the earth was found to be highly variable. During periods when it was intense, 20-35 gammas, and stable, the field lines were directed radially away from the sun.

During other periods, there were wild fluctuations, apparently caused by solar gas clouds or "gusts" in the solar wind. The flight made it possible to make direct measurements on a gas cloud ejected by a solar flare which caused a magnetic disturbance on the earth's surface. The plasma experiment registered the flux of protons accompanying the magnetic

clouds, providing valuable data.

The 79-pound satellite was launched March 25 by a THOR-DELTA. It reached an apogee altitude of 145,000 miles some 59 hours after launch. Data were transmitted continuously to earth for 60 hours. This was slightly in excess of the nominal battery life of 55 hours.

The magnetic field experiments were conducted by Goddard scientists. The plasma flux experiment was the work of Massachusetts Institute of Technology scientists.

27 TRY OUT FOR TEAM

If enthusiasm is a measure for success, then GSFC should win the Prince George's County Softball League without even going to bat. Manager Walter Smith, Payload Systems Division, reports 27 persons have turned out for practice sessions, including several from the dainty sex.

Tournament regulations allow only 17 members to a team and the Goddard Club was scheduled to have its opening day game on May 4, at Riverdale Field #1. Goddard will be among 12 teams competing in a 23-game schedule, and soon will purchase uniforms.

ADD 2 MORE: EXPL. XI, P-21

Goddard personnel in April added new successes to an already impressive record of space technology research. The score, in just one day—April 27:

- The Goddard Center-directed S-15 Gamma Ray Astronomy Satellite was successfully orbited and is transmitting radiation data which may shed more light on the origin of cosmic rays.

- The P-21 Electron Density Profile Probe was fired from Wallops Island, Virginia to a height of 475 miles to measure the upper regions of the ionosphere, composed of electrified layers where free electrons act as a mirror to radio waves from the ground. The ARGO D-4 shot was the first of three probes to compare ionospheric density with altitude. Two SCOUT rockets later this year will probe out to 5,000 miles.

The S-15, named EXPLORER XI, marked the first use of a gamma ray telescope, designed and produced by the Massachusetts Institute of Technology, to:

1. Map the distribution in space of high energy gamma rays which result from neutral pi meson decay.

2. Relate the spatial measurements with the cosmic ray density, and the density of interstellar matter through our galaxy; and

3. To measure the production of high energy gamma rays in the earth's atmosphere.

In addition to its responsibility for over-all direction of the experiment, GSFC also is responsible for data acquisition. Dr. J. E. Kupperian, Jr., was Project Manager; J. M. Coogan, Payload Coordinator; C. J. Creveling, Data Reduction Manager; and Anthony Buige, Project Operations Coordinator. P. T. Cole was in charge of development of the tape recorder carried by the satellite.

Marshall Space Flight Center had the responsibility for the development, checkout, and utilization of the Juno II vehicle which placed the satellite in a 108.1 minute orbit with a perigee of

(See TWO MORE on Page 3)

TECH TRAINING COURSE MEETS HUGE SUCCESS

The first in-house technical training course for Goddard employees has proved immensely successful with an enrollment of 60, necessitating a division into two classes.

The course, Practical Transistor Current Design, is an outgrowth of requests from both supervisory management and employees for such training. According to James Reese, training coordinator for Organization and Personnel, other technical training courses will be developed and offered when requested by supervisors.

The transistor course will have 108 instruction hours, divided into two parts: Introductory of 48 hours through July, and Advanced training of 60 hours beginning in September. The course is held twice weekly for 1½ hours each session in Building #3 auditorium. James McClain, Capital Radio Engineering Institute, is instructor.

Mr. Reese requests that if any Divisions desire any special technical training course, they should call him on Extension 294.

LIBRARY AT GREENBELT

Most of GSFC's technical library now is located in Room 250, Building 1, offering extensive reference material for employees.

A major percentage of the library's materials previously were located at the Colemont Building in Silver Spring. About 25 percent of the reference work still remains there, but Greenbelt personnel, through use of catalogues, can borrow freely at either place.

John Weaver, head, library branch, estimates two-thirds of the journal backfiles, half of the book collection, all of the document collection and current issues of journals, now are at Greenbelt.

GODDARD NEWS

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And it didn't even hurt! Miss Sheila Collins, Operations Control, was among 152 Goddardites who contributed a like number of pints of blood when the Prince George's County Red Cross bloodmobile visited the Center for the first time recently. The nurse is Mrs. Theresa Thompson. Some 178 persons have signed up for the blood bank program which is being coordinated by Clarence Pickett of Personnel. The next visit of the Bloodmobile is scheduled for Tuesday, June 27, and all employees are asked to participate.

'GIRL FRIDAYS' INSTRUCTED IN OFFICE PROCEDURES

If you've noticed an upturn in efficiency of your secretary of late, it's probably due to a recent procedures training course conducted by Mrs. Alberta C. Moran, Office of the Director.

Mrs. Moran, who authored the Handbook of Office Procedures, the "bible" for GSFC "Girl Fridays," conducted three sessions implementing the manual

for 150 secretaries and typists. Each session lasted two hours. Ladies not able to attend the first sessions, and all new secretarial employees, will receive instruction at another session set for May 15.

Instruction dealt with mail routine, correspondence, telephone and office manners, and general procedures.



Mrs. Alberta C. Moran instructs a group of GSFC secretaries on office procedures. From the left: Mrs. Moran, Addie Marsh, Jeri L. Beck, Jean W. Richards, Peggy Forrester and Juanita McGaffin.

UNLIMBER BOW ARMS

There'll be no apple-shooting off the head William Tell-style but a good opportunity for Goddardites to unlimber their shooting arm in the Welfare Association's newly-organized Archery club.

So far, 24 employees have indicated an interest in practice shooting and plans are going ahead with the possibility of equipping a 14-target range which could accommodate 40 to 50 bowmen.

Robert J. Bush is spearheading the organizational effort and employees wishing to participate may sign up by calling him on Ext. 585. The group is planning to affiliate for competitive marksmanship.

Goddardites who have signed-up so far include Robert Bush, Calvin F. Showalter, Robert Porter, J. H. Shisler, G. W. Moore, Donald Kirkpatrick, Louis Vasilas, James Hines, Robert Brogran, William Provance, Don Bower, Sidney Alterescu, Robert D. Mattingly, Dan Varley, Don Phipps, Curtis Johnson, William Wright, Walter Wood, William Fussell, Vincent Brown, Thomas McKnight, Howard Barthold, Herman Lowell, and Barbara Hardesty.



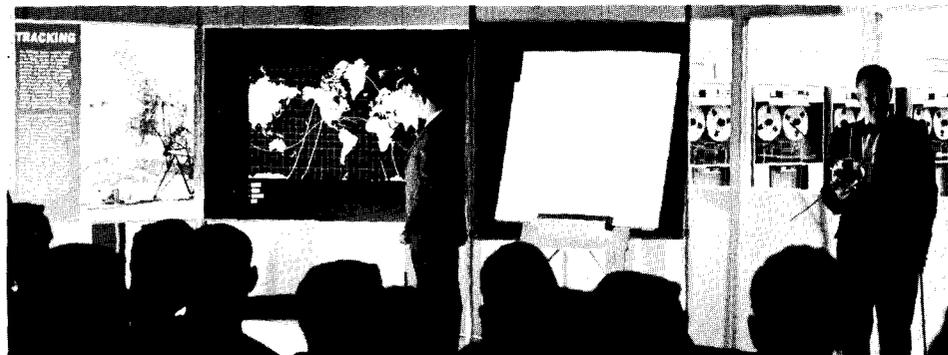
Miss Eleanor C. Pressly, Goddard's lady rocketeer, nominated by NASA to receive the First Annual Federal Woman's Award for outstanding achievement by women in the Federal career service, receives a Certificate of Recognition from Dr. Harry J. Goett, Center Director. Some 75 women were nominated for important contributions to administrative, social, scientific, or technical progress in the Federal agencies. A letter of commendation from NASA Administrator James E. Webb was also presented to Miss Pressly.

GODDARD SPACE FLIGHT CENTER TENPIN LEAGUE STANDINGS (As of April 18, 1961)

Team Name	Games	
	Won	Lost
1. Coolies	50	26
2. Cosmics	47	29
3. Clews	46	30
4. Mogenbaiters	46	30
5. One Shots	45	31
6. OAO's	44	32
7. Mark IV	43	33
8. Rackets	42	34
9. Spoilers	39	37
10. Guided Muscles	39	37
11. The Half Asps	37	39
12. Boosters	34	42
13. NASAcrats	32	44
14. Budget Testers	31	45
15. Coders	30	42
16. Orbitors	19	53



A full-scale IRIS sounding rocket has been presented to GSFC by Atlantic Research Corp. and is on display in front of Building #2. IRIS has been fired three times from Wallops Station and has been put into operational use. The Center plans to purchase 12 of the rockets with delivery this year. From the left: Robert VandeVrede, IRIS project director at ARC; Eugene W. Wasielewski, Associate Director; Philip K. Riley, Jr., Manager of Development, ARC; John W. Townsend, Jr., Assistant Director, Space Sciences and Satellite Applications; M. Lee Rice, ARC vice-president; Ernest Sorgnit, Instrumentations Branch; and Center Director Dr. Harry J. Goett.



Some 150 members and guests of the Maryland Chapter of the American Rocket Society toured GSFC recently. John South, left, explains the world-wide operational responsibility for the Minitrack and Mercury tracking systems. William J. Healy uses a VANGUARD I model for tracking simulation.

TWO MORE

(Continued from Page 1)

304 miles and an apogee of about 1,113 miles. Marshall also designed and built the spacecraft.

The P-21 probe, which had been programmed to reach a 650-mile altitude, successfully transmitted data on 12.3 and 73.8 Mc frequencies. Space Sciences Division personnel connected with the experiment included John E. Jackson, Payload Manager; Giles H. Spaid, Instrumentation; Lloyd A. Lohr, Coordinator; and Scientists Siegfried Bauer, J. Carl Seddon, and Harry A. Whale.

BOARD OF EXAMINERS NOW AT WORK



Nathan Shinderman, U. S. Civil Service Commission Examining Representative, explains the Federal Merit System at recent GSFC Panel Member Training conference. From the left: Herbert J. Fivehouse, Mr. Shinderman, Fred J. Friel, Jr., John A. O'Keefe, and Allen O. Gamble.



Among members of Goddard's Board of Civil Service Examiners are, from the left: David Fisher, Hans Bremer, John Boeckel, Edward E. Bissell, David Bigelow, and John Berbert.

Goddard's Board of Civil Service Examiners is now operational with the appointment and training of 44 Goddard personnel as Panel Members of the Board.

Panel Members are evaluating applicants' qualifications for employment in many positions in the field of Aerospace Technology. Each Panel Member is a professional engineer or scientist, or holds a professional position on the administrative staff. Members were carefully selected for this work because of their specialized knowledge.

At a recent Panel Member Training Conference, Dr. Harry Goett, Director of the Center, stressed the important role of the Panel in the proper staffing of the Center. He commended the members for taking time from their regular duties and pointed out that their judg-

ment and integrity are vital to the success of the program.

Dr. John A. O'Keefe, Chairman of the Board, emphasized the dual allegiance of the members—to the Civil Service Commission in the maintenance of competitive principles and the security of the information to which they have access; and to the Center by their judgment, integrity and prompt action on all applications.

"There is no conflict," Dr. O'Keefe stated, "rather, the prompt execution of these responsibilities will reflect credit on both the Center and the Federal Civil Service System."

Sponsors of the Panel Members' Training Program included Dr. O'Keefe, Dr. Allen O. Gamble, NASA Exam and Standards Officer and Board Member; G. R. Berry, Executive Secretary; and

Nathan Shinderman, U. S. Civil Service Commission Examining Representative and Advisor to the Goddard Board.

Dr. Gamble developed the new Aerospace Technology examination and evaluation criteria. His efforts were coordinated with the U. S. Civil Service Commission by Mr. Shinderman.

Copies of the examination announcement, or information about it, may be acquired from the Office of the Executive Secretary, Room 153, Building 1.

Members of the Panel are:

E. C. Angulo, W. R. Bandeen, C. S. Barden, Jr., J. H. Berbert, E. E. Bissell, Jr., W. J. Bodin, Jr., J. H. Boeckel, H. O. Bremer, W. A. Carr, R. J. Coates, A. Conversano, J. V. Fedor, D. Fisher, J. B. Flaherty, Jr., K. B. Foster, N. Granick, N. R. Heller, H. L. Hoff, D. M. Hoover, R. H. Huddleston, J. E. Jackson, R. B. Jenkins, R. E. Kidwell, Jr.

P. A. Lantz, C. H. Looney, H. H. Lowell, F. B. McDonald, E. B. Meadows, J. E. Milligan, S. Paull, H. H. Plotkin, W. C. Probst, F. L. Quimby, N. C. Schaller, M. I. Schneebaum, W. E. Scull, V. R. Simas, B. Sisco, P. H. Sload, W. G. Stroud, F. O. Vonbun, W. A. White, E. H. Yeater, and R. R. Ziemer.

MRS. GODDARD SENDS CENTER 'WELL DONE'

Mrs. Esther C. Goddard, widow of the famed rocket pioneer for whom the Center was named, has commended all Goddard personnel for a job well done on the Dedication March 16.

The following letter to Dr. Harry J. Goett, Center Director, needs no explanation:

"It is a deep pleasure for me to offer to you, and through you to the personnel at the Goddard Space Flight Center, my warm gratitude and appreciation for three wonderful days last week. You can guess how very much this tremendous tribute to my husband means to me; I only wish he could join me in thanking you.

"The planning and execution of this ambitious program went off beautifully. You should be proud. Especially, I enjoyed Wednesday evening with your group. And Friday, on the tour, I couldn't help thinking how thrilled my husband would be, could he see the equipment and the skilled hands everywhere.

"If I can be of any service to the Center during the coming years, please do not hesitate to let me know.

Mrs. Robert H. Goddard"