



## Summer Workers at Goddard . . .

**FIVE SUMMER PROGRAMS** are featured in this issue. At top right, Benjamin Amick adjusts laser equipment he is using to test new photocells. He is one of 28 outstanding high school students working here on scientific projects (see Page 4). At lower right is Robert Warren, a Civil Service employee whose summer job includes computer programming for the RAE-B spacecraft (Page 3). At lower left, members of the Neighborhood Youth Corps mulch a tree as part of a grounds clean-up project (Page 8). At top left, students in the Summer Institute in Public Administration meet with their Program Coordinator and instructor (Page 8). At center, Angelique Greene takes phone messages as part of her job as a Summer Aid. The story about the Summer Aid program, done completely by the Aids themselves, begins on Page 5.

## Dr. Stecker Attends Moscow Seminar

Dr. Floyd W. Stecker attended an International Seminar on Astrophysics and Cosmic Rays held in Moscow at the P.N. Lebedev Physical Institute from June 15 through 21 and sponsored by the Academy of Sciences of the USSR. Some of the topics discussed were quasars, the origin of cosmic rays, pulsars and ultra-high energy cosmic rays. As one of five participants from the United States invited to the seminar, Dr. Stecker gave a report on cosmic gamma-rays.

One of the topics covered in Dr. Stecker's report is the origin of the new component of cosmic gamma-rays observed from ERS-18. These gamma-rays may be caused by antimatter annihilation on a cosmological scale. First reports of the ERS-18 measurements were made by Dr. James I. Vette of Goddard and others in an article in the *Astrophysical Journal* of June 1970. Dr. Isadore Adler and Dr. Jacob I. Trombka of Goddard hope to obtain additional data on these gamma-rays with their detector aboard Apollo 15. Recent calculations that lead to the antimatter theory were made by Dr. Stecker, Dr. David L. Morgan, and Joseph H. Bredkamp, all of the Theoretical Studies Branch.

Dr. Stecker has recently written a 250 page book entitled *Cosmic Gamma Rays* which is available as NASA SP-249 from the Government Printing Office.



**MOSCOW SEMINAR.** Some of the participants at the International Seminar on Astrophysics and Cosmic Rays held in June at the P.N. Lebedev Physical Institute are (from left, first row) Dr. Maurice M. Shapiro of the Naval Research Laboratory, and Dr. Floyd W. Stecker of Goddard's Theoretical Studies Branch. In the second row are Academician Vitaly L. Ginzburg of the Lebedev Institute, Professor Geoffrey Burbidge of Caltech, Dr. Vadim Kuzmin (diagonally behind Professor Burbidge) of the Lebedev Institute, Professor Constance Dilworth-Occhialini (partly hidden) of Milan Institute of Physical Science, Professor William L. Kraushaar (partly hidden) of the University of Wisconsin and Academician Georgi T. Zatspein of the Lebedev Institute.

## Hams Commemorate Apollo 15

The Goddard Amateur Radio Club was out in full force from 6 a.m. until late at night on July 26, the day of the Apollo 15 launch, conversing with amateur radio operators around the world. To each station contacted a special acknowledgment QSL card will be sent which pictures astronauts Scott, Worden and Irwin along with a brief description of their mission.

The two meter FM repeater WA3DZD got quite a workout with 136 originating messages and a score of operators now trained in the proper operation of the repeater system.

The majority of contacts made were by voice, but several of the club members kept the Morse code dit-das pouring out to make a total message count of 910 for the day to ham operators in some 38 U.S. states and 113 foreign areas on six continents.



**SOVIET MOON DUST** appears large under the microscope. This fragment of fine-grained basalt collected by Luna-16 from the Sea of Fertility is about 0.1 mm long. The luna-16 basalts are similar to the basaltic rocks collected by Apollo 11 and 12 and consist of three major minerals: pyroxene (gray), feldspar (white), and the Fe-Ti oxide ilmenite (black).

## Soviet Lunar Samples Studied Here

While most of the Center's attention was turned toward Apollo 15, two teams of Goddard scientists were studying small quantities of lunar material brought back to Earth by an unmanned Soviet spacecraft nearly a year ago.

Three grams of lunar material, returned from the Moon's Sea of Fertility (Mare Fecunditatis) by the Soviet Union's Luna 16 on September 24, 1970, were given to the United States in exchange for three grams each of Apollo 11 and 12 samples. The exchange was based on an agreement reached January 21, 1971, between the U.S. and the Soviet Union.

The three grams of sample provided NASA for distribution to U.S. scientists includes 1.5 grams from the top of a 35-centimeter core tube and 1.5 grams from the bottom of the tube. The sample is mostly fines and coarse fines interspersed with several small pebble fragments between .1 and .4 mm in length. Only a very small amount of this material has been distributed to about 25 scientists across the country.

Dr. John Philpotts of Goddard's Planetology Branch received 50 milligrams of the material on July 9. He and team members M. L. Bottino, Herman H. Thomas, and Shuford Schuhmann have analyzed this sample mass-spectrometrically for critical trace elements.

Dr. Bevan French and Dr. Louis S. Walter, also of the Planetology Branch, received their sample on July 12 in the form of a prepared slide which they are studying under the microscope to determine mineral composition and the possible effects of meteorite impact.



**DR. BEVAN FRENCH** (seated) and **DR. LOUIS WALTER** compare photographs taken through the microscope of the Soviet lunar sample.



**SANDRA KULANSKY**, a summer Civil Service employee in the Advanced Data Systems Division, is typing a 60-page Laser Safety Manual for operations at the Goddard Optical Research Facility. A sophomore math major at the University of Maryland, she hopes eventually to teach high school.



**MARIE AGEN** prepares samples as part of her summer work in analytical chemistry, infrared spectrophotometry and gas chromatography for the Materials Engineering Branch. Marie graduated from the University of Dayton in Ohio this April and will begin teaching high school this fall.



**LAWRENCE FRITZ** finds his work in computer programming good training for a career in science. He is handling data from satellites such as Nimbus for Goddard's Laboratory for Meteorology and Earth Sciences. This fall, he will begin his sophomore year as a biochemistry major at Harvard.

# Civil Servants for the Summer

Goddard's regular summer employees, some as young as 18, include recent high school graduates, college students, teachers and Ph.D. candidates. Although they will be Civil Servants for only two months, their program began July 1 and ends August 27, they are making a valuable contribution to the work of the Center.

This year the summer CS roster contains 33 men and women working in both technical and non-technical jobs for all Goddard directorates. They are clerk-typists and stenographers, project support assistants, technicians, data analysts, engineering, science or mathematics aids, and aerospace technologists specializing in such diverse fields as aerospace polymers and stellar studies. Many of the summer employees are back for a second or third summer at Goddard. For others, 1971 means a first government job and a chance to see first hand how the Federal Service operates and gain valuable experience that may lead to full-time careers.

One goal of the program is to give each employee a sound over-all understanding of NASA's programs and mission. To this end, a tour

of Goddard and a series of lectures are being given. These include a presentation in the Goddard Planetarium by Victor Laczó of the Mission & Data Operations Directorate, and lectures on "Priorities in Space Research" by Dr. George Pieper, Director of Space and Earth Sciences; and "Benefits to Mankind of Space Research" by Charles P. Boyle, Head of the Special Programs Office. Coordinator of the program is Mrs. Beverly Lewoc of the Placement Branch.



**JOHN GREER**, in the Data Operations Branch, is writing programs to assist in data analysis for the Goddard Real Time Computer System. Although he is not directly connected with Apollo 15, his program will assist in preparations for Apollo 16. He is presently working towards his Ph.D. in physics at Johns Hopkins University, and hopes eventually to return to Goddard as a full-time employee.



**MARY LOJACONO** is spending her summer as a receptionist for Edward T. York, Chief of Program and Resource Management for the A&M Directorate. She also does research and types letters and memos for Mrs. Jennie Wiseman, A&M Grants Management Officer. A radio and television major at the University of Maryland, Mary plans to go on to graduate school and later follow a career as a writer for television or an advertising agency.

## 1971 Summer Civil Service Employees

Marie C. Agen  
Lawrence H. Auer  
Frank J. Baumann  
Mary S. Briggs  
Diane L. Chestnutis  
Jane E. Coleman  
Barbara J. Finch  
Paul D. Fowler  
Lawrence C. Fritz  
John Greer  
Paul L. Jones

Stephen J. Kridelbaugh  
Sandra Kulansky  
George S. Kutter  
Joseph V. LaMonte, Jr.  
Mary R. Lojaccono  
Kathleen N. Maguire  
Bonnie H. Malkin  
Lynette N. Malkin  
Jeanne B. Maynard  
Eugene B. McGregor  
Robert Norris

Joyce E. Oreschnick  
Sheldon J. Richter  
Harriet A. Rosenthal  
Sandra V. Rumore  
David L. Schaub  
Ronald Smith  
Kathleen T. Soden  
Deborah Stilmar  
John T. Tracy  
Robert B. Warren  
Mitzi S. Wicker

## High Ability Students Come to Goddard

Again, Goddard is cooperating with the American University on a summer program to provide research opportunities for high ability senior high school students. Under a joint National Science Foundation/American University grant, AU is sponsoring its twelfth research participation program this year. Local high school students of outstanding scholastic ability are given the opportunity to work with scientists and engineers in the fields of their interest.

On June 21, this summer's twenty-eight participants reported to their Goddard supervisors for eight weeks of research and work experience. In order to qualify for the program, each student had to complete two essays and obtain recommendations from his high school. Mrs. Margaret Maury, American University Associate Program Director, worked with Mrs. Gladys Chasnoff of the GSFC Employee Development Branch in placing students interested in space-related areas at Goddard. Mrs. Maury maintains close ties with the students through her frequent counseling visits.

With only thirty dollars' compensation to defray the cost of lunch and transportation, the students work with zeal on projects ranging from computer programming, to cloud mapping, to three-dimensional hologram construction. Three students, Geoffrey Forden, Pamela Smith and Barbara Trombka, were so enthusiastic about their experiences here last year that they applied again to the program and were given a special scholarship from the National Space Club.



PATRICIA McSWAIN AND GWEN HILLEARY use a FLASH Urine Bacteria Detector to count bacteria in urine specimens. The machine, developed by Goddard's Emmett Chappelle and Dr. Grace Picciolo, eliminates the time-consuming count of bacteria colonies which would have to be grown in culture dishes. As often as possible, the girls go to Johns Hopkins Hospital for additional work. Both feel that their research there is the most exciting part of their job.



STEPHEN WOODY, assigned to the Electronics Division, works primarily with computers. Among other skills, Steve has learned to prepare tape drives for in-put. He "had no idea what I'd be doing this summer. It was a big surprise to me, but I sure do enjoy it!"



JEFFREY LEVIN has already built one I.F. amplifier board for an India television project and is shown here working on one of the remaining four. According to Jeff, "When I finish them, there are a couple color television sets that need building." The India Project is an educational system for that country that will use a future Applications Technology Satellite.



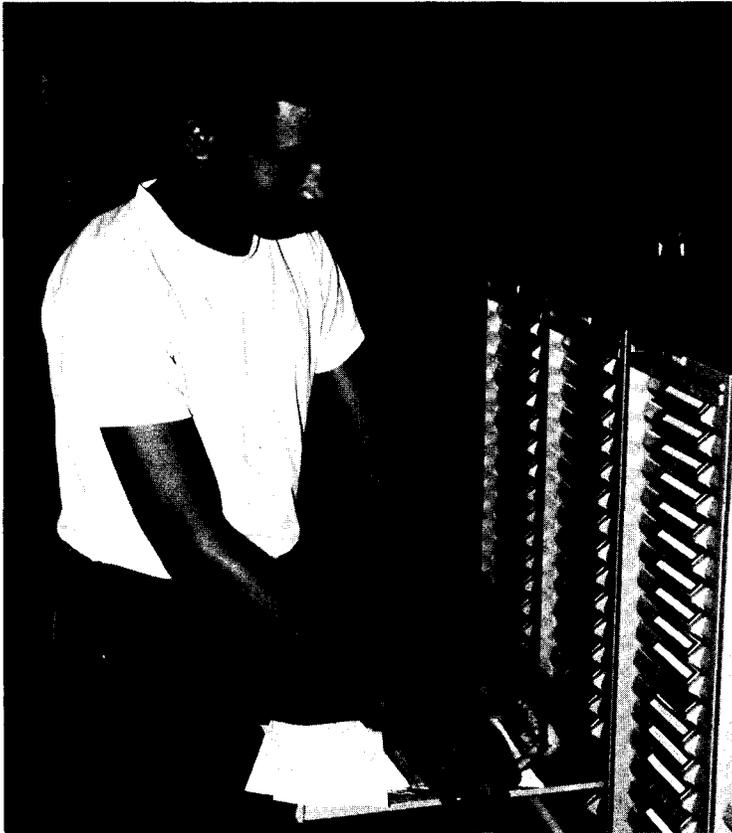
MERRY PORTER, assigned to the Explorer Projects Office, has already mastered FORTRAN and CRBE, two computer languages. Here she is at the CRBE terminal "talking" to the computer. Merry has worked on a special project for IMP-H and on the IMP-H launch window.



FOR THE PAST WEEK, Joseph Burno has been learning about APL computer technology. According to his supervisor Lewis Allison, "He didn't do too well on the first test that the computer threw at him, but he scored 100% on the last one!" Joe, working for the Meteorology Division, takes cloud charts from weather satellites and puts them into number composites so that a monthly cloud cover average can be made.

### 1971 A.U./N.S.F. Science Students

Benjamin Amick  
Paul Bizot  
Joseph Burno  
Richard Elliott  
Geoffrey Forden  
Mark Frink  
Warren Gladden  
Michael Goetzman  
Charles Grant  
Robert Hall  
Gwen Hilleary  
Robert Johnson  
Jeffrey Levin  
Douglas McMullen  
Patricia McSwain  
Louis Mayo  
Paul Murphy  
Gary Pasewark  
Merry Porter  
Pamela Smith  
Sally Stanton  
Don Steif  
Anthony Tesoriero  
Barbara Trombka  
David Verven  
Clinton Winchester  
Stephen Woody  
Leah Young



**MAINTENANCE.** Brian Stringfield files a parts list of Goddard's government vehicles.



**SECRETARY.** Linda Curtis types reports for her branch. This is her third year at Goddard, and she really enjoys it.

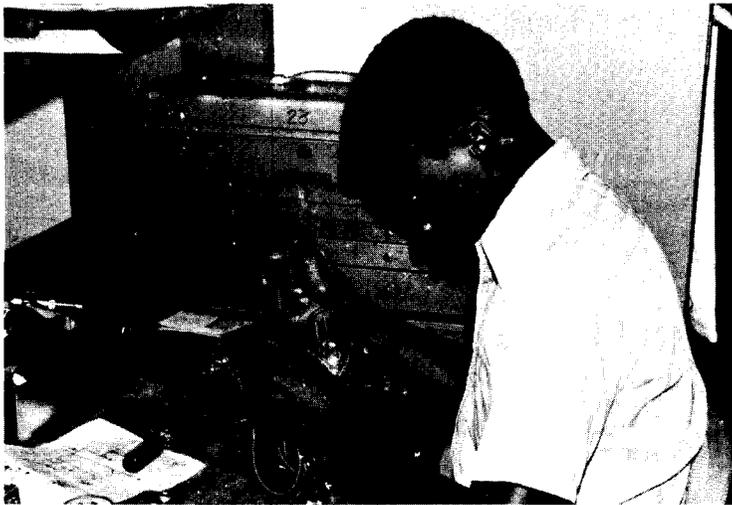
## 108 SUMMER AIDS WORK HERE IN 1971

One hundred and eight Summer Aids between the ages of 16 and 21 began work at Goddard on June 21. For many, this is a first summer on center. Others are back for a second or third time. All come from the Baltimore—Washington area.

Goddard's Orientation for the Aids, planned by Program Coordinator Beverly Lewoc and Counselors Paul Jones and Homer Newton, consisted of a background film about Goddard and a tour of the Center. The Summer Aids' working summer will be brought to its completion with an awards ceremony set in August.

Earning \$1.60 per hour (minimum wage) in a program conducted by the U.S. Government, the Summer Aids perform a variety of functions ranging from clerical work and work in the trades to helping out in Goddard's laboratories. Arranged within the Aids working day is a reading program sponsored by Goddard and conducted by the VICORE Company. This course is primarily for those Aids who place within a prescribed reading level. VICORE's function at Goddard is to "raise the reading level to promote expanded reading" for the Aids.

Summer employment at Goddard for the Aids will be officially terminated August 27, 1971 with some Aids planning on coming back for more next summer.



**LABORATORY WORK.** Carl Clark puts together a power load unit that he will use for experiment later this summer.



**READING CLASS.** Counselor Paul Jones and VICORE Instructor Joan Bullough compare notes on the progress of aids in reading class.

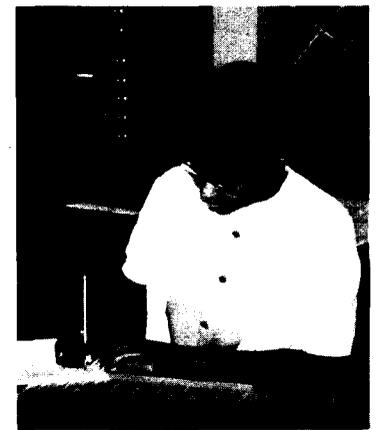
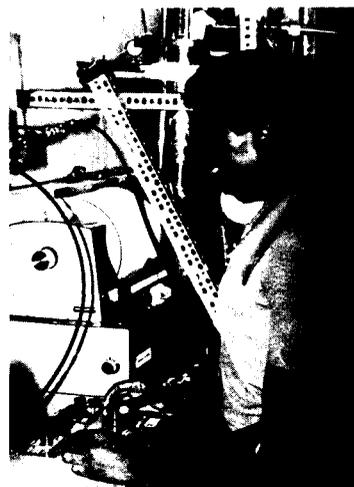
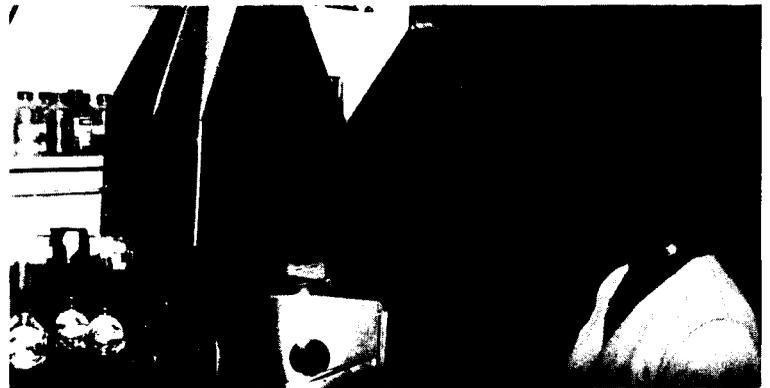
### SUMMER AID EDITORIAL STAFF

Anita Ruiz	Writer—Editor
Michael Evans	Photographer
Alison Smith	Typesetter and Layout Editor
Ronald Cooper	Reporter
Pansy Wilson	Editor
Deborah Code	Secretary—Typist

(See Page 6)

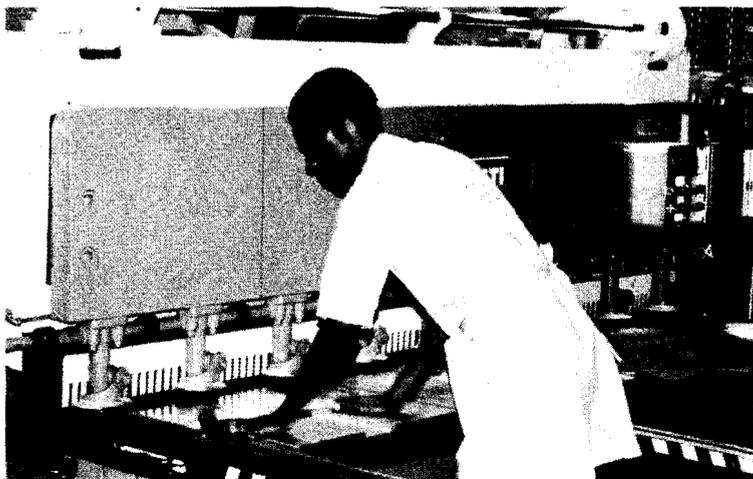
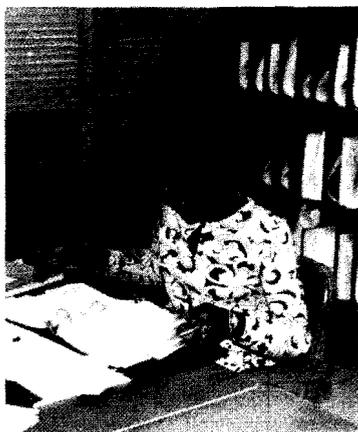
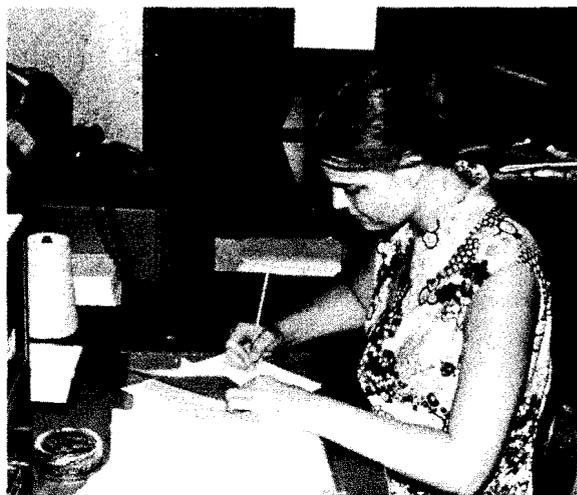
NEW AIDES

- Reginald Allen
- Lorice Barber
- Benjamin Baylor
- Michael Boykin
- Patricia Briscoe
- Jacqueline Brown
- Wanda Brown
- Janet Bush
- Raymond Butler
- James Chambliss
- Carl Clark
- Hattie Clark
- John Deschamps
- Dorothy Edwards
- Hermonione Eppes
- Timothy Fisher
- Charles Fletcher
- Twana Fletcher
- Tyrone Freeman
- Bernice Garner
- Lee Griffin
- Cynthia Hamm
- Eric Hammon
- Sarah Harper
- Adriene Harris
- David Harris
- Curtis Haston
- Duane Hawkins
- Charles Higgins
- Larry Hinton
- Michael Heorst
- Sandra Howell
- Andre Jackson
- Nathaniel Jones
- Vanessa Jones
- Melody Kadziel
- Sherry Lee
- Clifton Limes
- Tyrone Lowe
- Patricia Maddux
- Olga Martin
- Henry Moy
- Donna Musgrove
- Sharon Parker
- Joyce Peterson
- Monte Powell
- Harold Richards
- Yvonne Rice
- Marcia Robinson
- Lester Rogers
- Scott Rubard
- Anita Ruiz
- Karen Rustin
- Yvonne Rutledge
- Valerie Sewell
- Adelle Smith
- Alison Smith
- Carol Smith
- Joann Smith
- James Spenser
- Brian G. Stringfield
- Deborah Strong
- Mary Thompson
- Debbie Wells
- Joseph Williams
- Michael Williams
- James Woodley



RETURNING AIDES

- Eugene Abrams
- Zita Arrington
- Jeanette Ballard
- Natalie Barber
- Michael Baylor
- George Bowens
- Deborah Code
- Clayton Coleman
- Venessa Contee
- Ronald Cooper
- Arnetta Cross
- Willie Cunningham
- Linda Curtis
- Robbie Davis
- Jerry Dube
- Michael Evans
- Geraldine Garrison
- Angelique Greene
- Joann Harvin
- Ceaser Hay
- Antony Jackson
- Loguant Jones
- Marsha McClary
- Sandra Mceanchern
- Josette Miles
- Wayne Newman
- Anthony Nickens
- Quincy Robinson
- James Rusch
- Jack Sheely
- Brenda Silver
- Yvonne Smallwood
- Steven Smith
- Deborah Thomas
- John Thomas
- Michael Williams
- Pansy Wilson
- Carlton Wright



## Neighborhood Youth Corps Works on Goddard's Grounds



MARK McCARNEY and Myron Manners spray weeds along the Building 5 driveway.



JERRY WEATHERS chops a stump from the middle of a new path in the area to be known as Woodland Trails.

Eighteen youngsters from the Neighborhood Youth Corps in Prince George's County are working part-time this summer for the Plant Operations and Maintenance Division on a project aimed at cleaning up and beautifying Goddard's grounds. Under the direction of Chuck Dupree, Building and Grounds Manager, they have mulched trees near Building 5, cleaned up the wooded area between Buildings 5 and 8, and are now thinning trees and building paths for the enjoyment of Goddard employees. Plans for the beautification program were provided by the Goddard Wives Garden Club.

The Neighborhood Youth Corps (NYC) hires youth between the ages of 14 and 21. The primary objective of NYC as stated by the sponsor of the legislation, then Senator Hubert H. Humphrey, is "To put idle youth to work constructively and, in some cases, to prevent high school dropouts by providing part-time work."

The work the boys are doing this summer is the first step in an extensive program that began when the Garden Club was asked to assist in solving some of the landscaping problems on Center. A committee under the leadership of Mrs. John Stolarik is hard at work drawing up plans for the front entrance way to Buildings 3 and 14, the wooded area behind Building 8, and the bank beside Building 17.

Work has already begun on the wooded area the group plans to develop into a nature area for wild flowers and ferns. The NYC is cleaning away underbrush and putting in pathways. The area, to be known as "Woodland Trails," will include a small fountain and some benches. Mrs. Charles Nichols is chairman for the Woodland Trails area.

The landscaping project is expected to continue for several years and may include the pond and several other buildings. The purpose of the project is not just to beautify Goddard, but to cut down maintenance work and to prevent erosion in trouble areas.

The NYC boys working under Job Coach Bette Anne Finegan are: George Gantt, Kenneth Haley, Curtis Hall, Alfred Harvey, Arnett Haynes, Virgil Lewis, Myron Manners, Denardo Middleton, Greg Quattlebaum, Don Raynor, John Smith, Richard Thomas, Alvin Walker, Tyrone Ware, John Watson, Jerry Weathers, Louis White, and Ronald Wilson.

## SIPA Meets for Fourth Year

A three-day simulation in satellite management is only one phase of Goddard's Summer Institute in Public Administration (SIPA). During the simulation, a computer threw problems at "Project Managers" and projected the practical applications of their decisions. The students had to cope with such emergencies as satellite blow-ups, cost over-runs, and work schedules falling behind plans.

Even more exciting was SIPA's three-day trip to Cape Kennedy before the launch of Apollo 15. There, the students were given a chronological tour of the Space Center starting with the space capsules of Shepherd and Glenn and ending with Apollo 15, 16, 17 and Skylab.

The program, with eleven student participants, covers such topics as: Goddard's Manpower Budgeting, Financial Problems of University Contracting, International Cooperation on Satellites, Summer Programs for Disadvantaged Youth, and The Freedom of Information Act and Its Impact on NASA.

Lectures and seminars were held by NASA Director Dr. Fletcher, Goddard's Director of Administration and Management Dr. Michael Vaccaro, Senator Howard Cannon, Sam Keller, Hal Hoff, Gil Ousley, Frank DiLuzio, of the Senate Space Committee, Dr. Art Levine of GISS, Neil Mackey, Charles Boyle, Raymond Sumser, Herbert Fivehouse, Dan Taft of OMB, Dr. Allan Schick from Brooklyn Institute, and Dr. George Frederickson from Syracuse University.

The Summer Institute is aimed at providing college students with the knowledge and skills necessary for making and evaluating decisions in a Government research and development environment.

### SIPA Participants

Student	Advisor
Bill Black	Dr. Al Fleig
Bruce Boyd	Jim Graalman
Jane Daly	Richard Sade
Dick Evans	Stan Morse
Nancy Kuivila	Marty Stein
John Lubelay	Dick Baker
Charles Montange	Bill Landymore
Craig Otto	Charles Boyle
Valerie Quick	Ken Jacobs
Robert Ryken	Levin Gray
Scott Wenner	John Callan



SUMMER INSTITUTE IN PUBLIC ADMINISTRATION. From left (seated) are Craig Otto, Valerie Quick, Nancy Kuivila, Bill Black, Charles Montange. Standing are Robert Ryken, Carl Mohrwinkel—SIPA Coordinator, Dick Evans, Jane Daly, Bruce Boyd, Joan Lubelay, Scott Wenner, and Dr. Bill McGregor.



**HEALTH MAINTENANCE AWARD.** From left, Dr. Carlos Villafana, Medical Director of the Health Unit; Dr. Michael J. Vaccaro, Director of Administration and Management; and Dr. Louis Arnoldi, Director of the Occupational Medicine Division at NASA Headquarters; view the Certificate of Health Maintenance awarded to the Health Unit.

## Goddard Health Unit Receives Health Maintenance Award

Goddard's Health Unit has been awarded the Certificate of Health Maintenance by the Occupational Health Institute. The Institute is the Educational Branch of the Industrial Medical Association. One of its activities is to survey industry and Government employee health programs for adequacy and degree of excellence. When their standards are met the Certificate is issued.

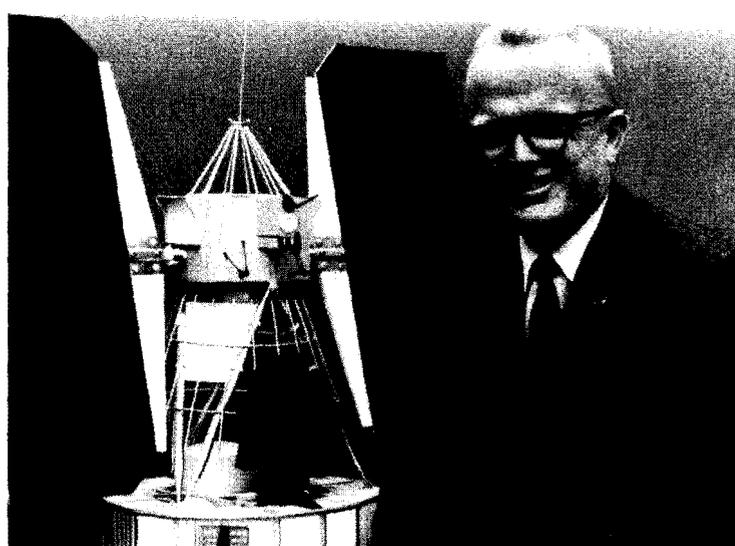
Our health program at Goddard met all the required criteria. The program consists of preventive services such as health examinations, and screening for multiple diseases, emergency and limited treatment services, and the Industrial Hygiene program. Health counselling is provided by physicians and nurses. The Physical Fitness program is conducted with emphasis on heart disease prevention. All employees are eligible to use the services and participate in some of the programs. The Health Unit is located in Building 5W. For any questions or additional information call Ext. 6666.

## Bloodmobile News

With a July 7 donation of 174 pints of blood, the prospects look excellent for Goddard to surpass its 1971 Red Cross donation quota. The Bloodmobile will be back on September 15 and November 17 so that the 900-pint quota can be met by our commendable volunteers.

Because of a growing need for blood during weekends, Bloodmobile Units are being set up on Saturdays. The next Saturday Unit will be held at the District Chapter, 6206 Delcrest Road, Hyattsville, Md. on August 14. Anyone desiring to donate at that time may do so by calling Mrs. Law on extension 4757 for an appointment. The donation will be added to Goddard's quota.

**CONGRATULATIONS** go to the No-Ops for becoming Goddard's champions in the Tuesday Mixed Bowling League. The winning team members are (from left) Hubert Hinton, Bill Anonsen, Paul McKowan, Chris Daly, and (seated) Phyllis McKowan. The 1971-72 bowling season will open on September 7, 1971 at the Bowl America in Kentland at 5:30 p.m. If you are interested in participating, call League President Bill Lund on ext. 5400, Vice President Elenor West on ext. 4823, or Secretary-Treasurer Bill Anonsen on ext. 6153.



**JOHN LINDSTROM**, NIMBUS/ATS Data Utilization Center Manager has received a letter of appreciation from the Environmental Protection Agency for his photographic facility's outstanding work in enhance processing of aircraft pictures used in support of EPA's oil spill prevention program. The letter from Kenneth E. Biglane, Director of the agency's Division of Oil and Hazardous Materials, cited Mr. Lindstrom for his support which consisted of "experimental photographic image information from simulated ERTS data applicable to satellite detection of oil pollution, and photographic display information illustrating the oil tanker collision and incident major oil pollution of the San Francisco Bay." The support demonstrated for EPA the value of color separation and false color enhancement in the processing of pictures taken from aircraft to bring out varying details on the extent of such spills.

## Certificates of Recognition

A certificate of recognition and a cash award were presented to Wade O. Smith, Sr. and Albert R. Toft of the Experimental Fabrication and Engineering Division for the creative development of a scientific contribution which is of significant value to the advancement of the aerospace technology program of NASA. It is entitled "Star Tracking Reticles and the Process for the Production Thereof."

The Star Tracker incorporates two counter-rotating reticles (choppers) which rotate at high speed for interrupting the faint light beam emanating from a preselected star. The pulsating pin point of light strikes a sensor which is calibrated with the reticle, and any deviation from the predetermined course is recorded and automatically corrected by the guidance systems.

Problems came in producing the reticle itself. The arts of electrodeposition and vacuum deposition were combined in achieving a final product that is capable of transmission in the ultraviolet region, gives a minimum of reflection, and is strong enough to withstand the rigors of spacecraft launch environment and high speed rotation. The reticles were used successfully in a star tracker for space navigation in Aerobee rockets and are to be used in future unmanned flights.



**RETICLE DESIGNERS** Albert Toft (left) and Wade Smith, Sr. (right) stand with Robert J. McCaffrey, Chief of the Technical Services Division. The designers hold their Certificates of Recognition while Mr. McCaffrey displays the Star Tracker reticle. The reticle is used to maintain the proper attitude control in spacecraft.



**PROJECT 22 AWARDS.** Samuel W. Keller (second from left) presented awards to members of the Management Services and Supply Division who had taken part in the Division's management improvement program during a special ceremony on July 22. Receiving the awards were (from left, first row) L. Smith, H. Fivehouse, J. Fay, L. Kolman, A. Jones, M. Brown, W. Jenkins, N. Chaney, S. Morse, R. Hakes, and B. Pagac. In the second row are D. Finley, T. Lee, G. Bishoff, J. Speargas, R. Cowen, and M. Fontaine. In the third row are S. Preece, J. Gaff, M. Stein, C. Greene, and D. Pendleton. Awardees unable to attend the ceremony were: A. Cochran, J. Hayes, S. LaBarbera, and R. La-Rochelle.

## Awards Given for Project 22

At a special recognition ceremony held on Thursday, July 22, Samuel W. Keller, Deputy Director of Administration and Management, presented awards to 25 Management Services and Supply Division employees for their participation in the Division's management improvement program. "Project 22," so named because of the number of individual studies undertaken, is a composite approach of management theory which increases participation by lower management levels, gives better recognition to personal needs, and provides an opportunity to use effective group work methods.

Under the direction of Herbert J. Fivehouse, Chief of Management Services and Supply Division, with Stan Morse as Project Manager, this program produced accomplishments such as a new personal property system, which provides simplification of procedures for the custodians; improvised warehouse storage procedures, reducing the number of steps for handling stored equipment and providing for the required periodic review of items in storage; a needs-oriented training program for Division personnel; and inclusion of magnetic tape in the GSFC stock system. The program's success has provided the momentum for its continuation during the forthcoming year.

## TECHNOLOGY UTILIZATION



**MAX GASSER** (center), of the Auxiliary Propulsion Branch, receives a check and letter of commendation from **Donald S. Friedman** (right), Goddard Technology Utilization Officer, and **William Cherry**, Associate Chief of the Engineering Physics Division. The award was given in recognition of the publication of a NASA Tech Brief by Mr. Gasser entitled "Molecular Sieves Control Contamination and Insulate in Thermal Regenerators: A Concept."

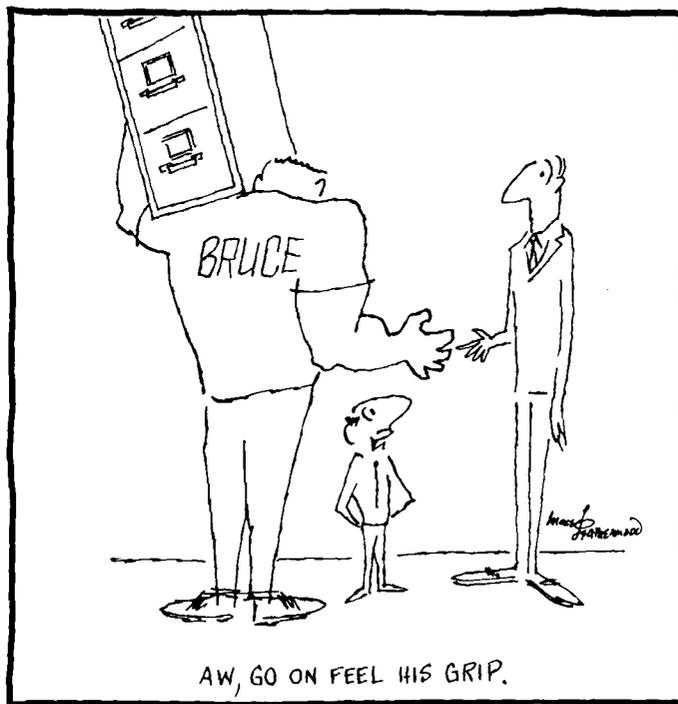
## NASA European Trip a Success

People who took the NASA-sponsored trip to Europe on May 26 to June 16, 1971, have declared the event a great success.

Almost all NASA installations were represented. A total of 154 persons took the flight from Dulles to London and back from Paris. The land tour of nine countries was taken by 66 people and required two bus loads.

You may be interested in some statistics regarding the makeup of the group. There were: 79 people associated with NASA Headquarters; 41 with Goddard; 11 with Marshall; 9 with Lewis; 6 with Langley; 3 with Ames; 3 with Kennedy; and 2 with MSC.

## Outputs *by* Maceo Leatherwood



1 COPY  
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