

**ASTP PRIME CREW**—These five men compose the two prime crews of the joint U.S.-USSR Apollo-Soyuz Test Project scheduled for July. They are Astronaut Thomas P. Stafford (standing left), commander of the American crew; Cosmonaut Aleksey A. Leonov (standing right), commander of the Soviet crew; Astronaut Donald K. Slayton (seated, left), docking module pilot of the American crew; Astronaut Vance D. Brand (seated, center), command module pilot for U.S. crew; and Cosmonaut Valeriy N. Kubasov (seated, right), engineer on the Soviet Crew.

# ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS



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Friday March 28, 1975

## Europe's Spacelab In "Sound Condition"

Spacelab, a European space laboratory designed to fly aboard the Space Shuttle Orbiter, is in "sound condition", says Heinz Stoewer, project manager and acting director Spacelab Programme for the European Space Research Organization.

Stoewer's comments came during a status report to Houston area news media which was conducted at JSC on March 19. Stoewer was here for a series of reviews with JSC engineers and scientists.

He told the press of the recent addition of the Government of Austria to the European family of nations now taking part in the Spacelab project. In addition to Austria, Belgium, Denmark, France, Germany, Italy, The Netherlands, Spain, Sweden, Switzerland and United Kingdom are members of the Spacelab team.

Each of the member nations contribute varying amounts to the European Space Research Organization which is managing the

approximately \$420 million project. Germany contributes the largest share, with a 23.10 per cent contribution.

Spacelab is being constructed by a consortium of European aerospace firms—VFW-Fokker/ERNO which is located in Bremen West Germany. Direct supervision of the Spacelab project is the responsibility of ESTEC—European Space Technology Centre, Noordwijk, Holland.

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## Throughout NASA

### SIRIO

NASA has signed a contract with the Consiglio Nazionale della Ricerche (National Research Council), Italy, to launch the SIRIO experimental communications satellite in August or September of 1976. SIRIO is an experimental microwave propagation satellite to be launched from Cape Canaveral aboard a Delta.

### HELIOS

Venturing closer to the Sun than any previous spacecraft, Helios this month flew within 45 million kilometers (28 million miles) of the solar surface. Built by West Germany as part of a joint venture with the U.S., the spacecraft at times will encounter temperatures hot enough to melt lead. Helios was launched December 10, 1974 from Cape Canaveral aboard a Titan Centaur rocket.

### WINNERS

One hundred American high-school students have been named regional winners in a nation-wide contest to design an

(Continued on page 4)



**EUROPEANS AREA INVOLVED**—Heinz Stoewer, project manager and acting director of Spacelab Programme for the European Science and Technology Centre, told of how 11 different nations are cooperating on the future Space Shuttle payload. Stoewer talked with members of the Houston press at the NASA Johnson Space Center on March 19.

## ASTP Countdown . . .

Flight controllers and crews for the Apollo-Soyuz Test Project are completing simulations of the July 1975 joint flight. Control centers in Moscow and in Houston are tied together by communication lines.

The simulations began March 20 with a rendezvous between the Soyuz and Apollo. Soviet and U.S. crewmen are in simulators in their respective countries with both control centers fully manned. Tracking stations were simulated for the six days of exercises that were scheduled.

Other phases of the joint mission simulations include Soyuz and Apollo launches, undocking and Apollo separation, and the second and third crew transfers and joint activities.

This training period will check out control center personnel interaction with crew's participation approaching the actual flight

conditions, including contingency situations.

Communications between the two control centers include voice, teletype, datafax and television.

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## Freedom Shrine To Be Presented

Dedication ceremonies for a Freedom Shrine at the Johnson Space Center will be held in the Building 2 Auditorium Friday, March 28 at noon. The dedication will feature U.S. Congressman Bill Archer as principal speaker. The shrine is being presented to JSC by the Exchange Club of Central Houston.

The Freedom Shrine is a series of 28 historical American documents, including the Declaration of Independence and the Gettys-

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**ASTP CREW PATCH**—This is the American crew patch of the joint U.S.-USSR mission scheduled to take place in July. Of circular design, the patch has a border area with the names of the five crewmen and the words Apollo in English and Soyuz in Russian around an artist's concept of the Apollo and Soyuz spacecraft about to dock in Earth orbit.

## Over 600 Attend Lunar Conf.

The Sixth Annual Lunar Science Conference was held at the Center last week with 595 visiting scientists and principal investigators attending from countries as far away as Australia.

Like the preceding five conferences, the purpose of this year's symposium was to bring together the lunar science community for a week so their diverse disciplines could mix and new data could be transferred among the scientists.

Continuing a trend which first showed strongly at last year's conference, the scientists this year began trading information about the comparative histories and morphologies of the various inner planets which have been visited by remote probes—Venus, Mars, Mercury, and of course, the Moon.

On Thursday evening, after most of the conference's regular business has already been transacted, noted Cornell University astronomer Dr. Karl Sagan pre-

sented a paper entitled "The Planetary Perspective." In this paper Dr. Sagan chided his colleagues to be aware of limited horizons in their work. Dr. Sagan talked about the "excitement" of exploring our own solar system with the upcoming Viking missions and later excursions to the Jovian planets. "We would have to sample perhaps a dozen other solar systems then to see where our own solar system fits," Sagan said.

On Friday the conference finished with summary sessions which outlined the week's worth of scientific data. A few of the papers presented indicated valuable new dating techniques for internal ages of certain minerals; and other papers presented more sophisticated views of older theories of origin.

Overall, however, this year's conference could be classified as a refinement of last year's, with more thrust directed at all of the

(Continued on page 4)

# Counselor Recommends "Quick Action"

EEO Counselor Joseph Fuller says the time to take action on a problem is when the employee first perceives that one exists. "In many cases employees harbor feelings of frustration for so long that they feel there is no other alternative except to file a formal complaint. They undergo the 21-day counseling period only because it is required before taking further action," he said.

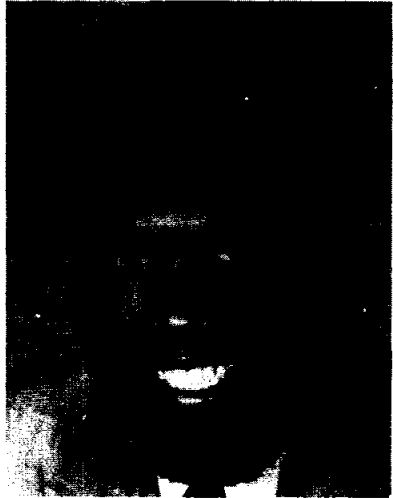
Fuller says he tries to encourage as much employee participation in the complaint process as possible. Many long-spanning problems, he feels, could be alleviated if employees would first attempt to reach an understanding with management by discussing their complaints with them, starting with the lowest level of supervision. "Direct positive confrontation often results in positive joint compromise," he said.

"After taking this step, if the employee feels that a problem still exists, he should go to higher levels of management. Failing to reach satisfaction here, the employee should seek EEO counseling," Fuller commented.

Although he strongly recommends this approach, he recognizes that many employees are not certain how to access or handle problems and feel that an intermediary is more effective. Also, specific events which are the basis for discrimination must be brought to the attention of the counselor within 30 days.

Fuller joined JSC in 1964 as a

Gemini systems engineer. During Gemini and Apollo, he served as a flight controller at remote tracking stations and in Mission Control. Currently, he is Chief, Shuttle Resources and Integration, Resources Management Office.



JOSEPH FULLER

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## Attention!

The next film in a series shown for the benefit of JSC employees on the first Tuesday of each month will begin at 12:15 p.m. April 1 in the Building 2 Auditorium. Entitled "Space in the 70's—Exploration of the Planets", the film summarizes principal features of the planets and presents the various missions planned for their exploration during the decade of the 1970s.

## Simons Receives Phillippe Award

Tom C. Simons has been selected by the General Electric Foundation as a recipient of the 1975 Gerald L. Phillippe Award for distinguished service.

Employed by the General Electric Space Division, Houston Operations, Tom is assigned to JSC as a Logistics Specialist.

He was cited for his long commitment in providing emergency medical care in LaPorte, Texas. One of the first in this area to qualify as an emergency medical technician, Tom has instructed over 200 volunteers as technicians and in cardiopulmonary resuscitation. He is a volunteer

driver and technician for the LaPorte Emergency Ambulance Service and a member of the Volunteer Fire Department and Rescue Unit.

Each summer he devotes a week of his vacation to instructing Texas Firemen in emergency skills and has spent over 2000 hours as a volunteer in the emergency room of the Gulf Coast Hospital.

Tom, along with five other awardees will receive the Phillippe medallion and will have an opportunity to select a charity for a \$1000 grant from the General Electric Foundation.



PHILLIPPE AWARD—Tom C. Simons, pictured above, is a recipient of the 1975 Gerald L. Phillippe Award for distinguished service. He is a volunteer driver and technician for the LaPorte Emergency Ambulance Service and a member of the Volunteer Fire Department and Rescue Unit.

He received his B.S. in physics / mathematics from Texas Southern University and his MBA from the University of Houston.

He has been a counselor for two years and says it has been a good experience, "I have become better educated on the federal government system rules and regulations, procedures and the like," he remarked.

Fuller is one of the founders of the Annual JSC Black Christmas Project and served as Project Coordinator for two years. He has also worked with Black History Week efforts. He has received a number of awards including two Sustained Superior Performance Awards and the JSC Equal Opportunity Award for minority and female recruiting accomplishments.

He lives in Houston with his wife Mardell and their three sons.

## Countdown

(Continued from Page 1)

In each of the control centers, flight directors, flight control personnel, specialists of the other country, and mission support personnel required for interaction between the control centers participate as in the actual flight.

The two control centers were first tied together during check-out simulations last December. Other joint control center check-outs and simulations are scheduled for periods in May, June and early July before the flight.



OUTSTANDING SECRETARY—Carol Shropshire, Science and Applications, receives the March Outstanding Secretary Award from JSC Director Christopher C. Kraft, Jr.

## "What Would We Do Without Her?"

Carol M. Shropshire, secretary to Peter Armitage, Assistant Director, Science and Applications Directorate, has received the Outstanding Secretary Award for March.

Armitage commented that in addition to her "great talent as a

secretary, Carol has a "great personality and consistently puts the needs of others before those of her own." He added that she is very perceptive and possesses skills "far in excess of the requirements."

Her performance during the busy Skylab period was especially noteworthy, considering the additional workload resulting from S&AD's involvement in experiment operations. During this time, she provided long hours of "top-notch" secretarial support to several senior members of the S&AD staff.

Armitage added, "Mrs. Shropshire is truly one of the unsung heroes of the Center. She never complains, she gets the work out under severe requirements, and at the same time, remains a wonderful human being. She is definitely one of those secretaries of whom we can genuinely say, 'What would we do without her?'"

**Join the Payroll Savings Plan.**

## Shrine

(Continued from Page 1)

burg Address, photographically reproduced from the originals. They have been in existence since 1949 and more than 4,000 Shrines have been placed in schools, universities, airports; federal, state and municipal buildings, and other prominent locations.

## REACT Elicits Much Response

JSC Cost Reduction Officer Merv Hughes says the REACT program has probably elicited more response than any other cost control, cost reduction and cost consciousness program ever implemented at this Center over a limited time period.

Some of the ideas received include using mylar on windows to control heat, using JSC land for gardens or renting it to animal raisers, reducing distribution of announcements, activity reports, newsletters, house-organs, etc. by posting or routing such items, lowering and/or raising the temperature of water in JSC buildings, standardizing reproduction paper, and other ideas.

Many of the suggestions are still being reviewed; some have been evaluated. Hughes says a status of accrued Center savings will be announced soon, "We appreciate the concern and the effort employees have shown," he said.



## Spacelab

(Continued from Page 1)

The selection process for European payload specialists to fly aboard Spacelab will begin sometime later this year or 1976. Training for Spacelab passengers is planned to be conducted at JSC and the training time will be relatively short, about six to eight weeks, Stoewer said.

The NASA Marshall Space Flight Center, Huntsville, Ala., is the lead center for the Spacelab project. Dan Germany of the MSFC resident office at JSC also took part in the press briefing.



INSTALLATION—Sherman Kendall, JSC Safety Division, left, was recently elected chairman of the Houston-Galveston Area Federal Safety Council. He receives the gavel from outgoing chairman LTC Tom Newsom, USAF (RET.) right. Also pictured are Loretta Ross, first vice chairman, and Capt. Albert Sterlig, USCG, second vice chairman.



# Round-Up Swap-Shop

Swap Shop advertising is available to JSC and on-site contractor personnel. Articles or services must be offered as advertised, without regard to race, religion, sex or national origin. Ads should be 20 words or less, including home telephone number. Name and office code must accompany, but need not be included in ad copy. Typed or printed copy must be received (AP3 Attn: Roundup) by Thursday of the week before publication.

### MISCELLANEOUS

Complete golf outfit, xint cndn, cart, bag, putter, pitching wedge, eight MacGregor irons, four Spalding woods, \$100, 333-2307.  
 Royal portable typewriter w/ case, \$19.95.  
 Rotary self propelled lawn mower, used 2 seasons, \$55, 488-5564.  
 Lightweight new Sabre saw, hand model, \$15, 488-5564.  
 Ham gear complete stations for novice or experienced hams, Drake, Heath, etc, Lindsey, 488-0517.  
 Sony TC 355 stereo tape recorder, xint cndn, incl many reels of tape, \$100, 554-3884.

### HOUSEHOLD ARTICLES

First \$525 takes matching 18.6 refrigerator/freezer, washer, dryer, prtct cndn, will demonstrate, 488-0192 or 4626.  
 Octagonal walnut folding game table, vinyl playing surface and trim, vry attractive, matching ash trays, \$30, 474-2660.

Deluxe Hoover, avocado, portable electric clothes washer/dryer, washer has auto-rinse/spin dry cycles and 5 timed wash settings; dryer has hot/cool air settings, \$195, orig, \$323, 946-6242 aft 5 p.m.  
 Orange couch and chair, blue/green couch, end tables, and misc furniture, 485-3521, aft 5 p.m.  
 Carpet shag, burnt orange, 9'x12', xint cndn, \$45, 488-3746.

Three Eagle bathroom light fixtures, gd cndn, \$5 each, swag lamp, \$15, 333-3897 aft 5 p.m.

### VEHICLES

Ford T-Bird, 68, mechanically prtct, appearance xint, nw tires, ice green w/ green vinyl roof, \$998, will trade on Toyota or similar small car, Michael, X4416, 333-2468.  
 Bike, 10 spd, new, Fuji, finest, 2 1/2" frame, aluminum components, retail price, \$350, will sell, \$299.95, Michael, X4416, 333-2468.  
 72 Fiat 124, 2-dr, FM, 8 track tape, 28 mpg, 30,000 mi, Lofgren, 471-4589.  
 69 Suzuki 200, 5 spd, street, slnt cndn, \$275, 481-0707.  
 Yamaha 125 mx, completely overhauled, transmission incl, mint cndn, \$400 firm, 472-4545.  
 Honda SL350, 5000 mi, 1971, xint cndn, \$475, Shelby Owens, 554-2969.

Credit Union Reposs: 74 Olds Omega, white 2-dr Hatchback, 16k mi, 6 cyl, std trans, am radio, wsw tires, minimum anticipated bid, \$2,825, 70 Pontiac Grand Prix, 2-dr ht, 71K mi, gold w/ light vinyl top, AM radio, a/c, wsw, ps, pb, min anticipated bid, \$1,500, bids to be taken through 5:30 p.m. April 4, for bid forms and appointments to inspect vehicles March 31-April 4, contact Georgia Bennett, X2060, bids will be opened Monday April 7.  
 Free, two xtra days on wkend, 2 xtra days on one or more wk camper rental if spring or summer reservations are made before April 30, 488-2387.  
 69 Binelli 250 motorcycle, 4 spd, nds rewiring, \$50, Stevens, 422-2044 aft 5.  
 Rent CESSNA 205 and 206, \$28 and \$30 wet, IFR, 6 seats, 322-1367.  
 73 Ford pickup, LWB, XLT, air, stereo, Deluxe cab, Calif mirror, H.D. bumper, ps/b, auto trans, under 20,000 mi, privately owned, \$3,000 firm, Mandell, 334-1982.

72 Honda 500, 3000 mi, fairing, bars, rack, 488-0275.  
 72 Honda Z-50 mini-trail, xtra, buddy seat, bars, 488-0275.  
 67 Plymouth wgn w/ nw tires, gd vehicle for camping on beach outings, Hinsdale, 483-7241 or 488-5505.  
 74 Delta 88, BI, 4-dr, clean, less than 15,000 mi, Hunt, 334-3101.  
 69 Ford Country Sedan, auto, pwr, radio, hitch, rack, Ziebart-coated, ovrall xint cndn, \$1125, 334-2195.  
 67 T-Bird, gd cndn, \$600, 333-2324 aft 5:30.  
 67 Vkswn Fstbk, 26 mpg, \$800, riding lawnmower, \$150, refrig, \$75, large bird cage, \$20, 474-3416.  
 74 Yamaha 500, nw cndn, 4000 mi, 2 cyl, 4 cycle, turn signals, elec start, \$1325, white 4405 or 644-3585.  
 Galaxie 500 Ford Sedan 65 gd work car, 4817 or 482-1580 aft 5.

74 Ford E200 Cargo Supervan, 13,000 mi, 302V8, stick and air w/ 8 ply tires, \$3700, Lyon, 488-6219 or 6355.  
 67 Triump Spitfire, 485-3521 aft noon.

### BOATS

23' Fiberglass boat, eng, outdrive, gd cndn, nw trailer, 534-3269 aft 5:30.  
 16 1/2 ft Larson TriHull, 125 Johnson, big wh trailer, 71 model, xint cndn, tach, compass, hour meter, etc, Shelby Owens, 554-2969.  
 Dolphin 17 sailboat, w/trailer, main and working jibs, compass, spare wh, cushions, etc, xint, \$2150, Musgrave, 488-3966.  
 Snark Wildflower, 12 ft sloop, w cartop carrier, used four times, \$750, Ramey, 946-7720 or 3281.

### PETS

Precious small female puppy, 4 mos, half Lhasa, paper trained, vry playful, \$25, 488-0192.  
 White german Shepherd puppy, female, 9-wks, shots, AKC reg, \$75, Abel, 946-8245.  
 German Shepherd pups, purebred, no papers, male \$45, female \$35, sire, dam may be seen, Cindy 944-3959.  
 Cock-a-poo pups, available week of April 7, tail docked, wormed, 554-3046.

### PROPERTY AND RENTALS

House for sale, CLC, 3-2-2, detached garage, custom drapes, fireplace, carpeted, 488-2963 by appointment.  
 2 bdrm townhouse in pines of Dickinson, fireplace, drapes, washer-dryer incl, \$24,000 (\$188/mo) Peggy, 534-6257.

### WANTED

Any Lionel Electric train, ovr 10 years old, 482-2029.  
 Wanted to rent, hard top popup camper w/ 10 or 12 foot box, must have butane stove, sink, ice box, tub, 120 volt outlets, must be in very gd shape for 200 mi trip, needed last week of June and first week of July, Brenton, X2634.  
 Used bandsaw, drill press, and/or wood planner for home workshop, Hinners, 483-4291.  
 Carpool, S. Post Oak/Alameda area, 8:30-5; non-smokers preferred, Walker, 5834.  
 Boys 26" standard bike, fair to gd cndn, Marie, 935-5826.  
 5 or 6 hp outboard motor w/ long shaft for sailboat, Jones, 483-3991 or 471-3303.



PICNIC THEME WINNER—Barbara Klotz, center, winner of the JSC Picnic Theme Contest, receives a \$25 savings bond from Dave Bell, Picnic Chairman and Mary Yarbrough, Picnic Theme Committee Chairman. Barbara's suggestion was "Our Texas."

## EAA Attractions -- Join The Fun

### NEEDED!

The Gilruth Recreation Facility is planning to expand current recreation programs and instructors are needed in the following areas: guitar, tennis, first aid, languages, astronomy, salt and fresh water fishing, yoga. If interested, contact Doug Burns, X3594.

### HANDWRITING ANALYSIS

What can handwriting analysis teach you about yourself? You will be surprised. You may learn a great deal about others from their handwriting also.

Find out all about it in a handwriting analysis class to be offered at the Gilruth Recreation Facility starting April 14. The

classes will be held for eight weeks on Mondays, 7:30-9:30 p.m.

To register and to obtain additional information, contact Doug Burns, X3595. The class will be limited to the first 20 who register.

### TICKET CORNER

Tickets are available in the Building 11 Exchange Store.

SPORTS: Houston Aeros Hockey, all season, Monday, April 7, 1975 last home game, \$4.40 (reg. \$5.50), Houston Rockets, present EAA Membership card at Hofheinz Pavillion Will-Call Window for \$1 off all price tickets; Houston Astros baseball, tickets now on sale, reserve \$3.15 (reg. \$3.50), Box \$4 (reg. \$4.50); SPECIAL PLACES OF INTEREST: Sea Arama, year around, adults, \$3, children, \$2 (reg. \$3.75, \$2.75), Disney Magic Kingdom Cards, free, Lion Country Safari Cards, free; DINNER THEATRE: Dean Goss Dinner Theatre, \$16 couple, (reg. \$20) Windmill Dinner Theatre, \$14

### PICNIC THEME

"Our Texas" has been chosen as the theme of the 1975 JSC Picnic. Submitted by Barbara Klotz of Center Operations, this theme was selected from among 114 suggestions received by the Picnic Theme Committee. Barbara will receive a \$25 savings bond for her efforts.

"Our Texas" will be complemented by a number of sub-themes which will focus on Six Flags Over Texas, early Texas days, early west, railroad construction and Texas today.

The theme committee presented subtheme awards (one adult ticket to the picnic) to Leona Mynarik, James Bodner, Lyle Jenkins and Ray Dewey.

### BRIDGE

The Gilruth Recreation Center will offer beginners bridge lessons starting April 22 for six weeks. The lessons are designed for students who have no knowledge of the game. A follow-up course on bidding is being planned. Contact Doug Burns X3594, for more information. Only 24 students will be accepted, so call now.



CONGRATULATIONS!—Byron D. Hines, Maintenance and Operations Branch, Engineering Division, Center Operations Directorate receives a Certificate of Achievement from W. E. Rice, Chief, Engineering Division, left. Hines is the first Employee to complete the JSC Technical Intern Development Program. Also pictured is Joseph V. Piland, Director of Center Operations, right.

## NCMA Holds Conf. At Gilruth Center

The Space City-Houston Chapter of the National Contract Management Association (NCMA) is conducting its Seventh Annual Educational Conference at the Robert R. Gilruth Recreation facility on April 10, 1975, with registration at 8:00 a.m.

The conference theme is, "The

Government Acquisition Process." Slated as speakers are Bob Thompson, Space Shuttle Program Manager, JSC; Mark Lecker, Director, Contracts and Division Counsel, Denver Division, Martin Marietta Aerospace; Jim McLane, Chief, Space Environment Test Division, JSC; Dick McCurdy, former Associate Administrator for Organization and Management, NASA; Paul Dembling, General Counsel, GAO; and John O'Hara, Director, Contract Policy and Planning, Boeing Company. Their topics will range from the establishment of major programs, through proposal preparation, evaluations, and source selection.



SUBTHEME WINNERS—Dave Bell and Mary Yarbrough chairmen of the Picnic Committee and the Picnic Theme Committee, respectively, are pictured with picnic "subtheme" winners. From left to right are Lyle Jenkins, Ray Dewey, Bell, Yarbrough, and James Bodner. Not pictured is Leona Mynarik.

# ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS

The Roundup is an official publication of the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, Houston, Texas, and is published every other Friday by the Public Affairs Office for JSC employees

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FLIGHT CONTROLLERS—Soviet Flight Controllers are pictured in the support room next to the MOCR. They are taking part in the ASTP mission simulations scheduled to end today.



IN MOCR—M. P. "Pete" Frank, ASTP Flight Director for the U.S., and other flight controllers are pictured in the Mission Operations Control Room during ASTP simulations. On the T.V. screen is Aleksey Yeliseyev, Frank's ASTP counterpart for the Soviet Union (far right), and other ASTP officials.

## Lunar Conference (Continued from Page 1)

inner planets, not just the Moon. Of note is the continued existence, in certain altered forms, of the three original theories for the origin of the Moon: The fission hypothesis—the Moon comes from the Earth; The binary accretion hypothesis—the Earth and Moon come from the same solar nebulae; and the capture hypothesis—the Moon came from elsewhere and was "caught" by the Earth's gravitational field. The Lunar Science Conferences, over the past six years, have metamorphosized slowly into more sophisticated creatures. At first the conferences dealt primarily with the initial results of intensive dating and testing on the samples themselves.

By the fourth conference many scientific groups were working on extrapolations from data gathered by other workers and even more recently many groups have been working with computer models based on data from a great number of other sample investigations.

There has been a slow synthesis of the data from the samples into large-scale lunar models of formation, cooling and later dramatic changes. As always many of the models being used are contradictory to some of the theories of origin and each group could claim new and more sophis-

icated data to support their point of view.

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## Lunar Samples May Be Borrowed

Colleges and universities in the United States may now borrow lunar samples for teaching purposes for periods of up to several months.

A new NASA program is making available thin sections of lunar materials to institutions offering undergraduate or graduate work in the geosciences.

Each of the "thin-section educational packages" contains sections of representative lunar material, mounted on microscope slides. Samples are from three general types of rock found on the Moon: plutonic rocks, volcanic rocks and breccias. There are also samples of the lunar soil, which consist of ground-up rock and various glasses formed by fusion and rapid meteoritic heating.

The purpose of the program is to broaden the use of the lunar sample collection for scientific and educational purposes and to provide the samples as an educational tool.

## Throughout NASA

(Continued from Page 1)

emblem to be carried by the Viking spacecraft to Mars. They will now be judged by a national committee which will be chosen by NASA. The contest is sponsored by the space agency in cooperation with the National Association of Science Teachers.

### CONFERENCE

A conference to outline ways in which NASA-developed technology can aid the U.S. gas industry was held recently at the Lewis Research Center. Some 200 gas industry technical managers and executives attended the conference.

### DISCOVERY

Glen E. McDonald, Scientist at Lewis Research Center, has determined that black chrome, once used for plating cameras and decorating objects, is about 20 percent more efficient than current coatings for solar collectors used in the heating and cooling of homes and buildings. Solar collectors are among the most promising new ways to produce energy on which NASA is working.

## Confessions Of A "Spendthrift"

By Joe Gagen

I'd like to make a confession: I can't save money. Don't ask me why. I couldn't tell you that anymore than a duck could say why he flies south in November.

I once thought of having this inscription carved on my headstone when I die: "He couldn't save a dime."

No matter how much money I earn, I don't seem to be able to salt anything away . . . I'm the type of customer, for example whom savings institutions loathe. Put a hundred in this week, draw out \$99 next week. The same rigamarole over and over until the bank book is tattooed with entries and withdrawals.

A few years ago, I became involved in publicity for the Savings Bond Program . . . I thought to myself, "Perhaps this is what I need." I filled out the authorization form for payroll deduction and, just like that, the money disappeared from my paycheck each pay period and the savings bonds began to arrive regularly at my home. The great thing about bonds, I found, was that you weren't inclined to cash them in before maturity as readily as you might fill out a savings bank withdrawal slip. It left a bad taste in your mouth like biting

into an unripe grape.

Thirty-six bonds later I feel like a reformed alcoholic. It's hard, after all, to think of yourself as a spendthrift with all those bonds staring you in the eye.

## Payload Bay Now Complete

The first major structural component of the Space Shuttle—the orbiter payload bay—recently completed by General Dynamics Convair Division, was scheduled to arrive at Rockwell-International Palmdale, California facility late Thursday.

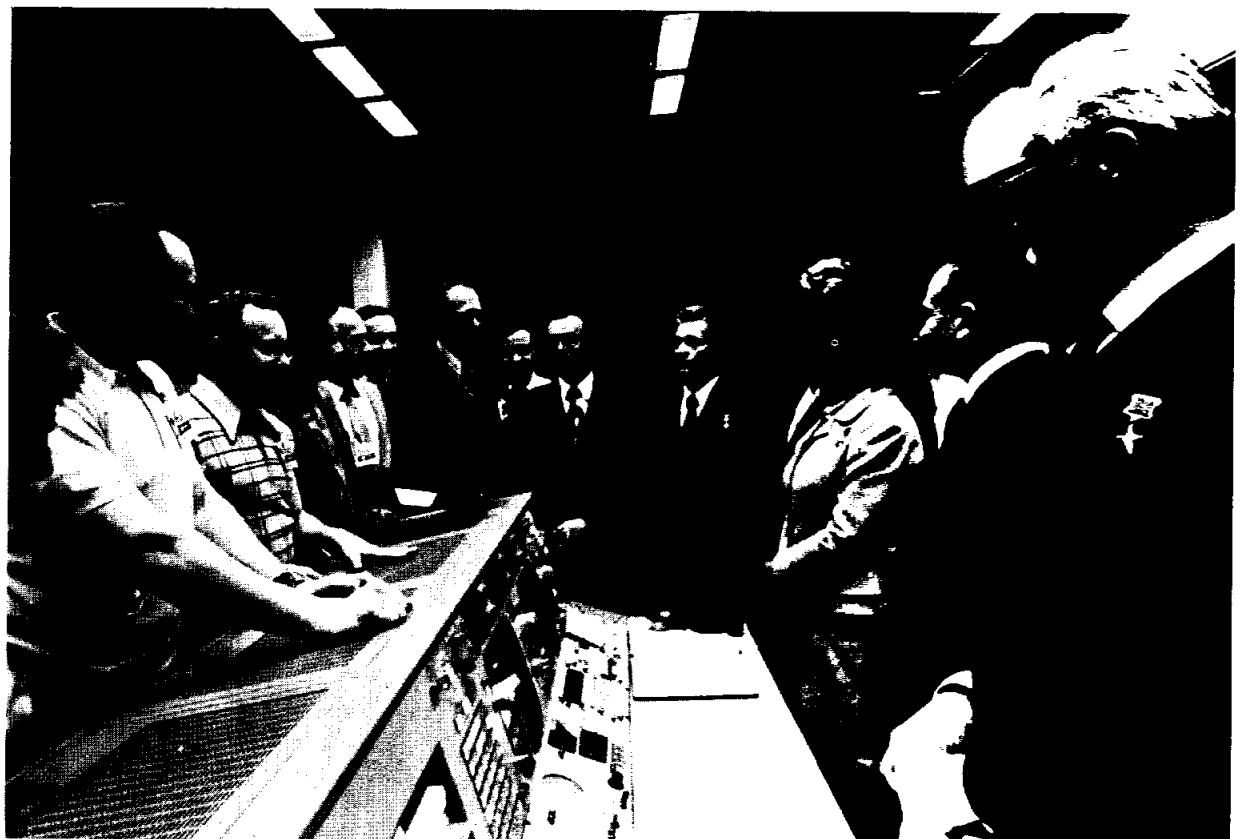
The payload bay which forms the midfuselage section of the orbiter spaceplane, is an aluminum structure 60 feet long, 17 feet wide, 13 feet high and weighs 13,500 pounds. The midfuselage was officially accepted by NASA and contractor representatives last Friday at the Convair Division at San Diego.

The midfuselage was trucked from San Diego to the Palmdale plant and was scheduled to complete the 200 mile trip at 3 p.m. PDT Thursday.

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EXPRESSES THANKS—Academician Boris Petrov, right, recently spoke to the local section of the Aerospace System Safety Society. James H. Chappee, vice president of the local section expresses appreciation to Petrov following the speech.



HEROES MEET FLIGHT CONTROLLERS—Some of the Soviet Heroes of World War II visited the Center last week and met some of the Soviet flight controllers for ASTP who are here participating in simulations for the July mission.