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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
January 1, 1974
Release #KSC-1-74

OVER 1,500,000 VISITED KSC IN 1973

KENNEDY SPACE CENTER, Fla.--More than 1,500,000 people visited the Space Center in 1973, the eighth year in which the public was admitted on a daily basis to NASA's major launch base.

Trans World Airlines operates the Visitors Information Center and employs Florida Parlor Coach Co., Inc., a Greyhound subsidiary, to provide buses and escorts for the daily 50-mile tours.

TWA reported 1,264,321 patrons boarded the tour buses in 1973 which was second only to the peak year of 1972 in total attendance. About 20 percent of the visitors do not take the tour.

The sustained public interest in the program was demonstrated by heavy visitation through the first 11 months of the year. By November 30, total attendance was only 5 percent under 1972.

Impact of the gasoline problem on tourism, which was noted elsewhere in Florida, became apparent in December which is normally the peak month.

Between December 15 and 31, 1973, boardings of the tour buses declined almost 40 percent compared to the 1972 levels. This drop had been anticipated by TWA which operated a fleet of 40 buses to take care of the crowds. In the same period of 1972, 78 buses were required.

As a result of the sharp reduction for the holidays, the 1973 bus patronage dropped about 9 percent under the 1972 level.

Entering 1974, NASA and TWA expect to handle at least 1,000,000 visitors unless there is a mandatory reduction in automobile fuel.

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TWA will have more opportunites in the new year for combining tours and launch viewing. Three launches in January, involving Delta, Centaur and Titan-Centaur vehicles, will be seen by visitors boarding tour buses in connection with these events.

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JAN 8 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
January 7, 1974
Release #KSC-2-74

VENUS, JUPITER, GLITTER IN EVENING SKY

KENNEDY SPACE CENTER, Fla.--Two bright "stars" glitter in the southwestern sky shortly after sunset each evening and both are targets for sophisticated robots launched by KSC.

For the stars are not stars at all but planets - the solar system's brightest and its largest. The brighter of the two - at the bottom - is Venus, Earth's twin and second planet from the Sun.

The other, slightly dimmer and above, is Jupiter, the giant of the solar system, half a billion miles out from the Sun.

And for a brief period of time early this month, the planets will be joined in their celestial show by the Comet Kohoutek, now outbound for the nether regions of space after sweeping in around the Sun.

Mariner 10 was launched from KSC on November 3 on dual flyby missions to both Venus and Mercury.

As of January 4, Mariner 10 was 13 million miles from Earth and nearly 17 million miles from Venus. The spacecraft is moving at a speed of 68,900 miles per hour in relation to the Sun.

Mariner is to approach to within 3,000 miles of Venus at 1:02 p.m. EDT February 5 and then hurtle on toward Mercury with a gigantic flip from Venus' mass.

Under control of the Jet Propulsion Laboratory in Pasadena, Calif., since launch, a midcourse maneuver will be made on January 18 to aim the 1,100 pound spacecraft toward a 248-mile diameter circle in near-Venusian space to assure the mission's success.

Another maneuver will be made after Venus encounter to place the spacecraft on a precise heading which will carry it to within 600 miles of Mercury on March 29.

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All spacecraft systems appear to be operating normally with the exception of the steerable dish antenna. An antenna problem was encountered on Christmas Day but appeared to have corrected itself on January 3. The problem is expected to be alleviated somewhat by solar heating as the spacecraft moves in closer to the Sun.

Pioneer 10 approached to within 81,000 miles of Jupiter on December 3 and is now on a course which will carry it out of the solar system into galactic space.

Pioneer 10 returned photographs of the Jovian disk of much higher quality than those obtainable from Earth and telemetred back volumes of data which are helping to change man's earlier conception of the planet.

As of January 4, Pioneer 10 was 16.2 million miles beyond Jupiter and 522.6 million miles from Earth on a course which will carry it past the orbit of Pluto and out of the solar system in 1987.

Pioneer 10 was launched by KSC March 2, 1972.

A sister spacecraft - Pioneer 11 - is now passsing through the Asteroid Belt and may be retargeted to make a flyby of Saturn after passing Jupiter approximately one year from now.

The Pioneer missions are being controlled by the Ames Research Center of Mountain View, California.

The Pioneer twins are the Lewis and Clark of the outer planets and are charting the way for more ambitious missions in the decades to come.

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JAN 14 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
January 10, 1974
Release #KSC-4-74

KENNEDY SPACE CENTER EQUIPMENT USED TO PROCESS SKYLAB EARTH RESOURCES DATA

KENNEDY SPACE CENTER, Fla.--Use of Kennedy Space Center spacecraft checkout equipment to process Earth resources data recorded aboard Skylab has saved NASA an estimated $100,000.

Operated by the same computer programmers, technicians and operators who used it to view data from Apollo missions and for Skylab Earth Resources Experiment Package (EREP) prelaunch checkout operations, a Quick Look Data Station (QLDS) in KSC's Manned Spacecraft Operations Building is now performing a data reduction function vital to the EREP program.

Had KSC's QLDS not been available, the computer programs necessary to perform the data reduction task would have cost about $100,000.

Originally developed for real time monitoring of the heavy flow of data during the checkout and countdown of Apollo spacecraft, the equipment was used as the prime checkout station for the command and service modules' lunar orbit experiments on the last three Apollo missions.

The equipment was later used for monitoring EREP prelaunch checkout operations.

EREP Data returned to Earth by the Skylab 2 and 3 crews has been processed and the KSC team awaits the return of data by the Skylab 4 crew.

Skylab's EREP consists of five experiments located in the Multiple Docking Adapter. Experiment sensors scan along tracks over the Earth's surface, with two 28-track recording systems registering the data.

Data from two of the experiments is reduced at the Johnson Space Center. The remainder of the magnetic tapes are processed at KSC.

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The experiments processed by KSC's QLDS are the S190, multi-purpose photographic facility; the S193 microwave radiometer/scatterometer/altimeter; and the S194 L-Band radiometer experiments.

S190 consists of six cameras that look at Earth and record information on water pollution, geological features and the development of urban and metropolitan areas. S193 is a multipurpose instrument for examination of ocean surfaces to determine global patterns of roughness, wave conditions and surface wind conditions. S194 is an instrument that measures reflected radiation from Earth--the brightness of various features both on land and water.

After the first Skylab manned mission, approximately 50,000 pages of printed data were processed by the QLDS. The second mission produced over 100,000 pages and the third mission is expected to result in an additional 100,000 pages.

Copies of the data are forwarded to JSC, NASA's Wallops Station in Virginia, and the University of Kansas for analysis. Another copy is provided to Martin Marietta, Denver, which is responsible for experiment management and compilation of the Skylab experiment report. When catalogued, EREP data will be made available to the general public.

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JAN 14 19

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
Release #KSC-5-74

NOTE TO EDITORS/NEWS DIRECTORS

The launch of Skynet II is scheduled from the Kennedy Space Center's Complex 17, Cape Kennedy AFS, Friday, January 18. A 20-minute launch window opens at 9:33 p.m. EDT.

A prelaunch press conference is scheduled for 2:00 p.m. EDT January 16. News media representatives desiring to attend the prelaunch press conference should arrive at the KSC News Center, Room 1207, Headquarters Building, by 1:30 p.m. for transportation to the conference. Badged news media representatives may enter KSC via Gate 2 (State Road 3) or Gate 3 (State Road 405 and the NASA Causeway). Other media representatives must request temporary access badges at KSC's Gate 3 Pass and Identification Office, located 300 yards east of U.S. Highway 1 on State Road 405. Access through Gate 1, the south gate of Cape Kennedy AFS, is not possible.

On January 18, transportation for news media representatives to the Press Site for launch coverage will be provided from the Ramada Inn, Cocoa Beach, with a stop at the Cape Kennedy AFS Gate 1 Pass and Identification Office. A bus for photographers will depart the Ramada Inn at 8:00 p.m. and Gate 1 Pass and ID at 8:15 p.m. A bus for writers and broadcasters will depart the Ramada Inn at 8:30 p.m. and Gate 1 Pass and ID at 8:45 p.m.

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JAN 14 1974
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
January 11, 1974
Release #KSC-6-74

KSC LAUNCH DIRECTOR TO RECEIVE OUTSTANDING ENGINEER AWARD

KENNEDY SPACE CENTER, Fla.--Dr. Walter J. Kapryan, KSC's Director of Launch Operations, has been selected to receive the "Gold Award" of the Affiliate Council of the Engineering Societies of Detroit.

The award is made annually to the outstanding engineer from the Detroit area by the Affiliate Council, which represents 50 engineering societies in Greater Metropolitan Detroit. Dr. Kapryan was raised in Detroit and is a graduate of Detroit's Wayne University.

The award will be presented February 20 at a banquet to be held in Detroit by the Affiliate Council. Dr. Kapryan will be the featured speaker.

The banquet is being held as a part of National Engineers Week - to be observed February 17 - 23. Dr. Kapryan's speech will be based on this year's theme: "Engineering - Our Greatest Energy Source."

Engineers Week is observed nationwide annually during the week of George Washington's birthday.

As KSC's Director of Launch Operations, Dr. Kapryan is responsible for the management and technical direction of preflight operations and integration, test, checkout and launch of all NASA space vehicles. Prior to assuming this post in September, 1969, Dr. Kapryan was Deputy Director of Launch Operations. Previously, he was Assistant Apollo Spacecraft Program Manager at KSC, representing the Manned Spacecraft Center. This assured close coordination between the two centers in spacecraft operations.

During the early phases of the Gemini Program, Dr. Kapryan was responsible within the Gemini Program office for test planning and determining requirements for spacecraft checkout equipment to be located at KSC.

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In 1963, he established and headed the MSC Gemini Program Office at KSC. He participated in the preparation and countdown of all 10 manned Gemini flights and the Apollo/ Saturn IB and Saturn V missions.

His first assignment with NASA was at the Langley Research Center. He joined that organization in September, 1947, when Langley was headquarters for the National Advisory Committee for Aeronautics and was assigned to the NASA Space Task Group at Langley in March, 1959. Shortly thereafter, he was appointed project engineer for the Mercury Redstone 1 spacecraft and came to the Cape Canaveral area in 1960 with that spacecraft.

He was born in Flint, Michigan, in May, 1920, and was raised in Detroit. He was graduated from Edwin Denby High School in 1938.

He attended Wayne University in Detroit prior to entering the Air Force in 1943. He was commissioned a first lieutenant and served as a B-29 flight engineer.

Following World War II, he resumed his studies at Wayne and received a B. S. Degree in Aeronautical Engineering in 1947. He was awarded an honorary Doctor of Science degree by the Florida Institute of Technology in August, 1973.

Dr. Kapryan received a NASA Exceptional Service Medal for his contributions to the Apollo program on September 30, 1969, and a NASA Distinguished Service Medal recognizing his role in the Apollo 13 and 14 missions in February, 1971.

He lives in Indialantic with his wife, Eloise. The Kapryans have two married daughters - Vicki (Mrs. David A. Day), who lives in Melbourne, and Alice (Mrs. C. L. Michulka), who lives in Houston, Texas.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

FOR RELEASE:
January 11, 1974
Release #KSC-7-74

Dick Young
305 867-2468

BIDS ASKED ON SPACE SHUTTLE RUNWAY

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has requested bids on the 15,000-foot runway to be built for the Space Shuttle to the northwest of the Vehicle Assembly Building.

KSC has been designated the prime launch and recovery site for the resusable Space Shuttle being developed to carry useful cargo to and from Earth orbit before the end of this decade.

An invitation for bids was issued on December 10 to approximately 50 construction firms, all of which had expressed interest in the contract as a result of pre-solicitation notices.

The work to be performed consists of furnishing labor, equipment and materials required to construct a 15,000-foot runway with associated overruns, apron, towway, taxiway and access roads at KSC's Launch Complex 39.

The project entails construction of:

1. A 15,000-foot runway with a 1,000-foot overrun at each end to include approach, touchdown, high intensity runway edge, taxiway and centerline lights. Runway width is 300 feet.

2. A 30,000 square yard parking apron;

3. A 9,150-foot towway from the runway to the vicinity of the Vehicle Assembly Building;

4. A 650-foot taxiway from the towway to the apron;

5. Drainage systems;

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6. Approximately 1.5 miles of access roads;

7. Electrical distribution system with associated cabling, switches, transformers, fixtures and other equipment required to support the lighting systems;

8. Air field lighting vault;

9. Water distribution system, including approximately 7,000 feet of 12-inch water line and other miscellaneous piping;

10. Such other work as required to provide a complete facility in accordance with the plans and specifications.

A pre-bid conference will be held at KSC on January 29 and the bid opening is scheduled for February 22.

The runway will be constructed on a northwest-southeast alignment a short distance to the northwest of the VAB. It will be the first facility to be built in reshaping Launch Complex 39 for its new role in the Space Shuttle program.

The first vertical flight of the Space Shuttle from KSC is scheduled for 1979.

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2103 JAN 17 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

305-867-2468

FOR RELEASE:
January 16, 1974
Release #KSC-8-74

NASA TO LAUNCH 100th DELTA ROCKET

This month NASA will launch its 100th Delta rocket, the middle-sized workhorse of its stable of expendable vehicles for launching unmanned spacecraft.

Delta 100 will lift off from Kennedy Space Center, Fla., about January 18, carrying a British communications satellite to a synchronous transfer orbit around Earth.

The spacecraft, developed by Marconi Space and Defense Systems Ltd. in the United Kingdom under contract to the United Kingdom Ministry of Defense (MOD) and designated Skynet IIA, will be placed in an elliptical orbit with an apogee of 34,000 km. (22,300 miles) and perigee of 185 km. (115 miles). A solid rocket motor and hydrazine control system in the spacecraft will then translate Skynet IIA into its final 34,000 km. circular geosynchronous orbit over the Indian Ocean.

The U.S. Department of Defense (DOD), under an inter-government agreement between the U.K. and the U.S., is responsible for representing the project in the U.S., including responsibility for procurement of the spacecraft propulsion systems from U.S. manufacturers and launch of the spacecraft. DOD has delegated this responsibility to the United States Air Force, Space and Missile Systems Office (SAMSO).

The USAF/SAMSO, in turn, has contracted with NASA for the launch and launch services, using the Delta launch vehicle, on a reimbursable basis under the technical direction of Goddard Space Flight Center, Greenbelt, Md.

McDonnell-Douglas Astronautics Co., Huntington Beach, Calif., is the Delta vehicle and launch services prime contractor.

Thor-Delta was originally developed in 1959-60 as an interim launch vehicle with the expectation that more sophisticated vehicles would be developed for the diverse payloads being developed or planned at that time. However, the original Air Force Thor first stage and improved Vanguard second and third stages which made up the Delta proved to be so reliable--and so easily and economically uprated that it readily fulfilled the requirements of these satellites as they evolved.

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The first Delta launch, on May 13, 1960 of the famous Echo passive communications sphere was unsuccessful. However, on its second launch, Echo-1 was successfully placed in a 1600 kilometer (1000-mile) circular orbit.

Between 1960 and the end of 1965, most of the 35 Delta launches were for NASA scientific and communications satellites, including such important scientific missions as the first Pioneer to orbit around the Sun; several of the early Tiros weather satellites to take pictures of Earth's cloud cover, the initial commercial communication satellites - AT & T's Telstar and Communications Satellite Corporation's Early Bird; and NASA's Syncom into the first synchronous orbit, proving the economic feasibility of today's multi-million dollar commercial communications satellite industry.

In the period 1966 thru 1969 there were 38 Delta launches including an increasing number for foreign and commercial users coming to NASA for Deltas to boost their satellites into orbit on a reimbursable basis. By that time, the Weather Bureau (NOAA) was producing operational meteorological satellites (TOS) and Delta placed six of them in orbit.

In the period 1970 thru 1973, there have been 24 Deltas launched and again an increasing number of them were reimbursable missions for non-NASA users. The continued, in fact increasing demand for the Delta vehicle for scientific, weather, applications, Earth resources and communication satellite missions is evidenced by the schedule of 28 firm Delta missions in 1974-75 again with an increasing number of them for foreign and commercial users on a reimbursable basis.

Use of the Delta booster by other countries up to now has been credited with helping to ease our balance of payments by about $60 million. In the next five years, an additional $80 - $100 million will be paid to the U.S. by other countries for vehicles and associated services for their Delta-launched missions.

It is notable that the cost of the Delta hardware and launch services has risen over the past 13 years at a rate only slightly greater than the compounded inflation rate of at least 5 percent a year, considering the substantial improvements that have been made to the vehicle during that time to improve its reliability and performance. Delta hardware and launch services cost about $2.75 million in 1960 and cost about $6.5 million now. At the same time its performance has been increased such that the payload it can place in synchronous transfer orbit has risen from 68 kilograms (150 pounds) to 680 kilograms (1500 pounds), and the payload it can place in low Earth orbit has been increased from 240 kg (525 pounds) to 1920 kg (4000 pounds).

The cost (considering only hardware and launch services) therefore to place spacecraft into low Earth orbits has been reduced over the past 13 years from roughly $5000 to roughly $1600 per pound.

William Schindler, has been Delta Project Manager at Goddard Space Flight Center since 1962 and prior to that was project technical director since the program's inception in 1960.

Charles Gunn has been head of the Vehicle Systems Branch at the project office at GSFC since 1962 and currently is also the project technical director.

Robert Goss has been the head of the Spacecraft Coordination Branch at the project office at GSFC since 1963.

Other NASA personnel associated closely with Delta over the years have been: Vincent Johnson, NASA Deputy Associate Administrator for Space Science (now retired), who was Program/Project Manager during the early years until June 1962; T. B. Norris, Program Manager, June 1962 to November 1966 who is now Manager, Medium Launch Vehicle Programs. Robert Manville (retired) Program Manager November 1966 to August 1968; I. T. Gillam IV, Program Manager from August 1968 until June 1973 when he became Manager of Small Launch Vehicles and International Programs; and Peter T. Eaton, who was Assistant Project Manager at GSFC from 1970 to 1973 and became Program Manager in November 1973.

At the Kennedy Space Center, Robert Gray and John Neilon have been launching Deltas since Echo-1. Gray was director of KSC's Unmanned Launch Operations Directorate (ULO), which has launch responsibility for Delta at both Cape Canaveral, Florida, and Vandenberg Air Force Base, California, from October, 1965, to June, 1970. Neilon was Gray's deputy during that time and succeeded him in June, 1970.

Twenty-three of the 100 Deltas have been launched from Vandenberg AFB by the Western Launch Operations Division, a division of ULO. Henry Van Goey has been the WLOD Chief since 1966.

Edward Bonnett has been the McDonnell Douglas Delta Program Manager since 1966.

STRAIGHT-EIGHT DELTA STATISTICS

The Delta launch vehicle project is under technical management of the Goddard Space Flight Center, Greenbelt, Md. McDonnell Douglas Astronautics Co., Huntington Beach, Calif., is the prime contractor. The three-stage Delta has the following general characteristics:

Height: 35.4 meters (116 feet) (includes shroud)

Maximum Diameter: 2.4 meters (8 feet) (without attached solids)

Lift-off weight: 106,000 kilograms (about 116 tons)

Lift-off thrust: 361,000 pounds (includes strap-on solids)

First Stage (liquid only): Extended long tank Thor produced by McDonnell Douglas Astronautics Co., engines produced by Rocketdyne Division of Rockwell International.

Diameter: 2.4 meters (8 feet)

Height: 21.3 meters (70 feet)

Propellants: RJ-1 kerosene is used as the fuel and liquid liquid oxygen (LOX) is utilized as the oxidizer.

Thrust: 205,000 Pounds (912,000 Newtons)

Burning Time: About 3 minutes and 48 seconds

Weight: Approximately 84,700 kilograms (93 tons) excluding strap-on solids.

Strap-on Solids: Three solid propellant rockets produced by the Thiokol Chemical Corp.

Diameter: 0.8 meters (31 inches)

Height: 6.0 meters (19.8 feet)

Total Weight: 13,410 kilograms (29,568 pounds)
4,470 kilograms (9,850 pounds each)

Thrust: 693,950 Newtons (156,000 pounds total for three)
231,317 Newtons (52,000 pounds each)

Burning Time: 38 seconds

Second Stage: Produced by McDonnell Douglas Astronautics Co., utilizing an Aerojet General Corporation AJ-10-118F rocket engine; major contractors for the vehicle inertial guidance system located on the second stage are Hamilton-Standard and Teledyne.

Propellants: Liquid--Aerozene 50 for the fuel and Nitrogen Tetroxide (N_2O_4) for the oxidizer.

Diameter: 1.5 meters (5 feet) plus 2.4 meters (8 feet) attached ring.

Height: 5.2 meters (21 feet)

Weight: 6210 kilograms (6.8 tons)

Thrust: About 42,300 Newtons (9500 pounds)

Total Burning Time: 335 seconds

Third Stage: Thiokol Chemical Co. TE-364-4 motor

Propellants: Solid

Height: 1.83 meter (4 1/2 feet)

Diameter: 1 meter (3 feet)

Weight: 722 kilograms (1592 pounds)

Thrust: 42,300 newtons (9500 pounds)

Burning Time: 44 seconds

DELTA LAUNCH VEHICLE HISTORY

DELTA NO.	PAYLOAD	WEIGHT (LBS.)	LAUNCH DATE	PAD	VEHICLE
1	ECHO	180	051360	17A	DM-19
2	ECHO 1A	182	081260	17A	DM-19
3	TIROS A2	277	112360	17A	DM-19
4	EXPL-X (P-14)	79	032561	17A	DM-19
5	TIROS A3	285	071261	17A	DM-19
6	EXPL-XII (S-3)	84	081561	17A	DM-19
7	TIROS 4	285	020862	17A	DM-19
8	PSP 1 (S-16)	458	030762	17A	DM-19
9	ARIEL (S-51UK1)	136	042662	17A	DM-19
10	TIROS 5 (F)	286	061962	17A	DM-19
11	TELSTAR 1 (TSXI)	171	071062	17A	DM-19
12	TIROS 6 (F)	280	091862	17A	DM-19
13	EXPL XIV (S-3A)	86	100262	17B	DSV-3A
14	EXPL XV (S-3B)	98	102762	17B	DSV-3A
15	RELAY A-15	170	121362	17A	DSV-3B
16	SYNCOM A-25	146	021463	17B	DSV-3B
17	EXPL XVII (S-6)	410	040263	17A	DSV-3B
18	TELSTAR 2 (TSX2)	176	050763	17B	DSV-3B
19	TIROS 7 (G)	296	061963	17B	DSV-3B
20	SYNCOM B (A-26)	147	072663	17A	DSV-3B
21	EXPL XVIII (IMP A)	138	112663	17B	DSV-3C
22	TIROS 8 (H)	265	122163	17B	DSV-3B

23	RELAY II (A-16)	184	012164	17B	DSV-3B
24	S-66	132	031964	17A	DSV-3B
25	SYNCOM C	145	081964	17A	DSV-3D
26	IMP B	135	100364	17A	DSV-3C
27	S 3C	101	122164	17A	DSV-3C
28	TIROS I (EYE)	301	012265	17A	DSV-3C
29	OSO B2	547	020365	17B	DSV-3C
30	COMSAT HS303A	149	040665	17A	DSV-3D
31	IMP C	128	052965	17B	DSV-3C
32	TIROS OT 1	280	070165	17B	DSV-3C
33	OSO C	625	082565	17B	DSV-3C
34	GEOS A	387	110665	17A	DSV-3E
35	PIONEER A	146	121665	17A	DSV-3E
36	OT 3	304	020366	17A	DSV-3C
37	OT 2	286	022866	17B	DSV-3E
38	AE B	492	052566	17B	DSV-3C1
39	IMP D	212	070166	17A	DSV-3E1
40	PIONEER B	138	081766	17A	DSV-3E1
41	TOS A	316	100266	SLC2E	DSV-3E
42	INTELSAT II A (F-1)	355	102666	17B	DSV-3E1
43	BIOS A	950	121466	17A	DSV-3C1
44	INTELSAT II B (F-2)	357	011167	17B	DSV-3E1
45	TOS B	285	012667	SLC2E	DSV-3E
46	OSO E1	600	030867	17A	DSV-3C
47	INTELSAT II C(F-3)	365	032267	17B	DSV-3E1
48	TOS C	327	042067	SLC2E	DSV-3E
49	IMP F	163	052467	SLC2E	DSV-3E1
50	AIMP E	230	071967	17B	DSV-3E1
51	BIOS-B	955	090767	17B	DSV-3G
52	INTELSAT II D(F-4)	357	092767	17B	DSV-3E1
53	OSO-D	605	101867	17B	DSV-3C1
54	TOS-D	299	111067	SLC-2E	DSV-3E1
55	PIONEER C	146	121367	17B	DSV-3E1
56	GEOS B	469	011168	SLC-2E	DSV-3E1
57	RAE-A	602	070468	SLC-2E	DSV-3J
58	TOS-E	347	081668	SLC-2E	Delta-N
59	INTELSAT III A(F-1)	641	091868	17A	Delta-M
60	PIONEER D	147	110868	17B	DSV-3E1
61	HEOS A	237	120568	17B	DSV-3E1
62	TOS-APT F	297	121568	SLC-2E	Delta-N
63	INTELSAT III C(F-2)	642	121868	17A	Delta-M
64	OSO-F	645	012269	17B	DSV-3C1
65	ISIS A	532	013069	SLC-2E	DSV-3E1
66	INTELSAT III B(F-3)	642	020569	17A	Delta M
67	TOS G	347	022669	17B	DSV-3E1
68	INTELSAT III D(F-4)	647	052169	17A	Delta-M
69	IMP G	175	062169	SLC-2W	DSV-3E1
70	BIOS D	1546	062869	17A	Delta-N

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71	INTELSAT III E(F-5)	647	072569	17A	Delta-M
72	OSO-G	647	080969	17A	Delta-N
73	PIONEER-E	148	082769	17A	Delta-L
74	SKYNET A	535	112269	17A	Delta-M
75	INTELSAT III F(F-6)	647	011470	17A	Delta-M
76	TIROS M	682	012370	SLC-2W	Delta-N6
77	NATO A	535	032070	17A	Delta-M
78	INTELSAT III G(F-7)	647	042270	17A	Delta-M
79	INTELSAT III H(F-8)	647	072370	17A	Delta-M
80	SKYNET B	535	081970	17A	Delta-M
81	ITOS-A	680	121170	SLC-2W	Delta-N6
82	NATO-B	533	020271	17A	Delta-3L-11
83	IMP-1	635	031371	17A	Delta-3L-11
84	ISIS-B	570	040171	SLC-2E	Delta-3E1
85	OSO-H	1416	092971	17A	Delta-N
86	ITOS-B	687	102171	SLC-2E	Delta-N6
87	HEOS A2	260	013172	SLC-2E	Delta-L
88	TD 1A	1043	031272	SLC-2E	Delta-N
89	ERTS A	2070	072372	SLC-2W	Delta-0900
90	IMP H	860	092372	17B	Delta-1604
91	ITOS-D	742	101572	SLC-2W	Delta-0300
92	TELESAT A	1238	111072	17B	Delta-1914
93	NIMBUS F	1574	121172	SLC-2W	Delta-0900
94	TELESAT B	1238	042073	17B	Delta-1914
95	RAE-B	734	061073	17B	Delta-1913
96	ITOS-E	747	071673	SLC-2W	Delta-0300
97	IMP-J	876	102673	17B	Delta-1600
98	ITOS-F	746	110673	SLC-2W	Delta-0300
99	AE-C	1494	121673	SLC-2W	Delta-1900

JAN 17 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

FOR RELEASE:
January 15, 1974
3:00 p.m.
Release #KSC-9-74

Miss Louise Dick
Headquarters, Wash., DC
202 755-8370

C. T. Hollinshead
305 867-2468

TWO FIRMS WILL COMPETE FOR KSC ENGINEERING SUPPORT CONTRACT

The National Aeronautics and Space Administration has selected Planning Research Corporation's Systems Services Company of Huntsville, Ala., and Pan American/Boeing Joint Venture, Cocoa Beach, Fla., for competitive negotiations leading to award of a contract for engineering support services at the John F. Kennedy Space Center, Fla. The services will be responsive to requirements of the Space Shuttle Program and the Development, Test and Mission Operations Program at the Center.

Subsequent to negotiations, NASA plans to award a cost-plus-fixed-fee contract containing an award fee feature. The work will consist of the following functions: conceptual engineering; detail engineering and drafting, including surveillance and inspection service for Kennedy Center construction of facilities and ground support equipment installations.

The procurement contemplates a five year period of performance consisting of a basic contract of one year beginning February 1, 1974 through January 31, 1975 with an option for one year and three additional one year extentions to be negotiated.

Four other firms submitted proposals for the work. FED-ROE Design, Inc., (joint jenture of Federal Electric Corp. of Paramus, N. J. and Burns and Roe, Inc. Oradell, N.J.); Kentron Hawaii, Ltd., Dallas; McDonnell Douglas Astronautics Co., St. Louis; and Raytheon Service Company, Burlington, Mass.

# # #

JAN 23 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young

305 867-2468

FOR RELEASE:
January 22, 1974
Release #KSC-12-74

SKYLAB VISIBLE ON NINE PASSES OVER CENTRAL FLORIDA

KENNEDY SPACE CENTER, Fla.--The Skylab space station with the docked Skylab 4 command and service modules will be visible to Central Floridians during nine orbital passes from January 22 through February 14.

Sightings prior to February 8 will include the Skylab 4 command and service module docked with the space station. On February 8, Skylab 4 crewmen Gerald Carr, Edward Gibson and William Pogue are to deactivate the space station and return to Earth in the Apollo spacecraft launched from the Kennedy Space Center on November 16.

This sighting chart is for the Orlando area, but the data is applicable to much of Central Florida.

"Pickup time" means the time Skylab first becomes visible and is given in Eastern Daylight Time.

"Range" is the distance of the space station from the viewer in statute miles. Maximum elevation is given in degrees above the horizon at its highest point. Zero degrees elevation is the horizon and 90 degrees elevation is directly overhead.

Date	Pickup Time	Direction of Movement	Duration of Visibility	Maximum Elevation	Range
1/22	7:12 a.m.	SW to NE	7.2 minutes	89 degrees	285
1/23	6:28 a.m.	SW to NE	7 minutes	51 degrees	358
1/24	6:23 a.m.	W to N	5.75 min.	21 degrees	655
2/9	7:14 a.m.	N to E	5.2 minutes	18 degrees	712
2/10	6:31 a.m.	N to NE	3.6 minutes	13 degrees	872
2/11	7:24 a.m.	NW to SE	7 minutes	74 degrees	294
2/12	6:40 a.m.	NW to SE	7 minutes	43 degrees	402
2/13	7:35 a.m.	W to S	5.5 minutes	21 degrees	647
2/14	6:51 a.m.	NW to S	6.5 minutes	36 degrees	451

-more-

During a viewing pass Skylab will appear as a moving star with a variable brightness ranging from that of the most brilliant star in the sky down to the sixth magnitude, which is barely visible to the naked eye.

This data was provided by the Marshall Space Flight Center in Huntsville, Ala., and will be updated at appropriate intervals.

# #

FEB 4 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
January 31, 1974
Release #KSC-14-74

SPACE TRANSPORTATION AWARD TO DR. KURT H. DEBUS

KENNEDY SPACE CENTER, Fla.--Space pioneer Dr. Kurt H. Debus, Kennedy Space Center Director, received the Louis W. Hill Space Transportation Award for 1973 at the honors banquet of the 10th annual meeting of the American Institute of Aeronautics and Astronautics in Washington Wednesday evening, January 30.

A certificate was presented to Dr. Debus recognizing his role in the scientific, engineering and organizational techniques used to successfully prepare and launch the United States manned and unmanned space missions.

Dr. Debus received the award one day prior to the sixteenth anniversary of the launch of the first U. S. satellite, Explorer I, which he directed on January 31, 1958. He also directed the launch of the first U. S. astronaut, Alan Shepard, on a flight into space; all Saturn launches including 11 manned Saturn/Apollo launches, and four Skylab launches.

The unmanned Skylab orbital laboratory was launched atop a Saturn V and three three-man crews were lifted to the station by the smaller Saturn IB. The third crew is currently living aboard the lab aiming for a record setting 84 days in orbit.

The award was established in 1958 by the Louis W. and Maud Hill Foundation to encourage and recognize significant contributions indicative of American enterprise and ingenuity in the art and science of space flight.

# # #

JAN 2 9 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

BXS #103

A. H. Lavender
305 867-2468

FOR RELEASE:
Immediate
Release #KSC-15-74

NOTE TO EDITORS/NEWS DIRECTORS

The launch of Titan-Centaur 1 is scheduled from the Kennedy Space Center's Complex 41, Cape Kennedy AFS, at 9:00 a.m. EDT, Wednesday, February 6.

A Prelaunch Press Conference is scheduled on February 5. Additional activities of interest to news media representatives have also been scheduled on that date. The February 5 schedule is as follows:

9:30 a.m. Demonstration of the operation of a scale prototype of the Kennedy Space Center Space Shuttle Launch Processing System, including briefing.

11:00 a.m. Briefing on KSC's new Spacecraft Assembly and Encapsulation Facility, including a visit to the installation.

2:00 p.m. TC-1 Prelaunch Press Conference

Media representatives desiring to cover morning briefings, the demonstration and the Prelaunch Press Conference on February 5 should arrive at the KSC News Center, Room 1207 Headquarters Building, by 9:15 a.m. Media representatives may request access badges at the Gate 2 Pass and Identification Office (via State Rd. 3) until 10:00 a.m. and at the Gate 3 Pass and Identification Office (via State Road 405 and NASA Parkway) throughout the day.

Access through Gate 1, the south entrance to Cape Kennedy AFS, is not possible.

Media representatives desiring to cover the Prelaunch Press Conference only, should arrive at the KSC News Center by 1:30 p.m.

On launch day, February 6, transportation for news media to the Press Site will be provided from the Ramada Inn, Cocoa Beach, with a stop at the Cape Kennedy AFS Gate 1 Pass and Identification Office. A bus for photographers will depart the Ramada Inn at 7:30 a.m. EDT and Gate 1 Pass and ID at 7:45 a.m. A bus for writers and broadcasters will depart the Ramada Inn at 8:00 a.m. and Gate 1 Pass and ID at 8:15 a.m.

# # #

1/25/74

KSC FORM OT-031 (1/73) (ONETIME FORM – REPRINT NOT AUTHORIZED)

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#103

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE: AMs
February 1, 1974
Release #KSC-18-74

HOUSE SPACE COMMITTEE MEMBERS BRIEFED AT KSC

KENNEDY SPACE CENTER, Fla.--Chairman Don Fuqua (D., Fla.) and members of the Subcommittee on Manned Space Flight visited the Kennedy Space Center yesterday for the annual program review preliminary to 1975 space budget hearings.

Congressman Fuqua was accompanied by Congressman Lou Frey (R., Fla.) Congressman Wm. M. Ketchum (R., Cal.); Congressman Larry Winn (R., Kan.); and members of the Subcommittee staff.

Dr. Kurt H. Dubus, Center Director, briefed the Committee on Center organization and preparations for the advent of the Space Shuttle.

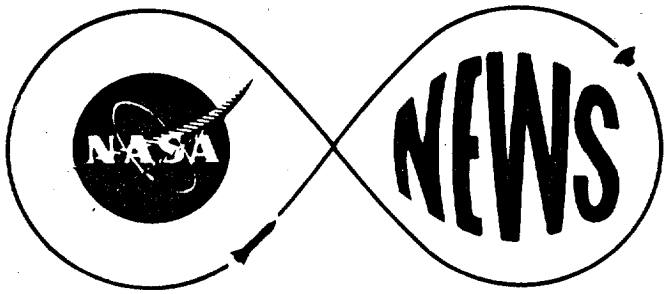
The Deputy Center Director, Miles Ross, reviewed KSC manpower status, informing the Committee that the major NASA launch organization will undergo further reductions in the next five months resulting from closeout of the Skylab program.

While supporting an increased workload in unmanned launches during the next year, KSC will also retain the contractor teams necessary to conduct the Apollo-Soyuz Test Project which involves the launch of three astronauts in an Apollo type spacecraft in July 1975.

Dr. Robert Gray, Shuttle Office manager, and Ray Clark, Design Engineering Director, presented in detail the status of Space Shuttle operational and facilities planning at KSC. Mr. Clark advised that runway construction for the Shuttle is expected to begin this Spring.

# # #

FEB 4 1974



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
February 1, 1974
Release #KSC-19-74

PUBLIC'S SPACE INTEREST REMAINS HIGH

KENNEDY SPACE CENTER, Fla.--More than 50,000 toured the Kennedy Space Center and adjacent Cape Kennedy Air Force Station in January as public interest in the Spaceport and U. S. space activities continued at a high level.

The Janaury NASA Tours patronage total was 52,344, about 20,000 below the 1973 level, reflecting a reduction in tourism in Florida as a result of fuel shortages and shorter daily hours of operation instituted at the beginning of the year as a move to conserve energy.

"The impact of energy conservation programs and the fear of many potential Florida tourists that gasoline shortages along routes to Florida would make travel difficult has not affected Visitor Information Center attendance as seriously as that at many other Florida attractions," P. A. Fagnant, KSC Visitor Information Center chief, said.

"We expect more than a million tourists at the Visitor Information Center this year and NASA Tours patronage should remain high even though the 1974 total may not reach the one million level."

# # #

AK
#103

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
Immediate
KSC-20-74
(Revises KSC-15-74
dated Jan. 25, 1974)

NOTE TO EDITORS/NEWS DIRECTORS

The launch of Titan-Centaur 1 from the Kennedy Space Center's Complex 41, Cape Kennedy Air Force Station, has been rescheduled for 9:03 a.m. EDT Monday, February 11. The Post Launch Press Conference is scheduled one hour after launch.

A Prelaunch Press Conference is scheduled at 12:00 noon, Sunday, February 10.

A briefing on the KSC Spacecraft Assembly and Encapsulation Facility, including a visit to the building, is scheduled following the launch.

Media representatives desiring to attend the Prelaunch Press Conference should arrive at the Ramada Inn, Cocoa Beach, by 11:30 a.m., February 10. Transportation from the Ramada Inn to the conference site will be provided.

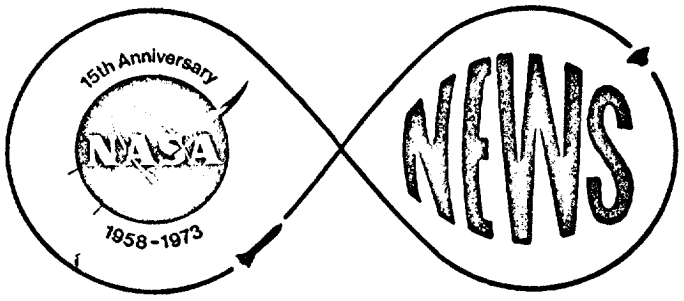
On launch day, February 11, transportation for news media representatives to the Press Site will be provided from the Ramada Inn, Cocoa Beach, with a stop at the Cape Kennedy AFS Gate 1 Pass and Identification Office. A bus for photographers will depart the Ramada Inn at 7:30 a.m. and Gate 1 Pass and ID at 7:45 a.m. A bus for writers and broadcasters will depart the Ramada Inn at 8:00 a.m. and Gate 1 Pass and ID at 8:15 a.m.

The schedule for the briefing on the KSC Spacecraft Assembly and Encapsulation Facility will be announced at the press site following the launch.

# # #

2/4/74

FEB 5 1974



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE: 3:00 P.M.
February 4, 1974
Release #KSC-21-74

KENNEDY SPACE CENTER EXTENDS BOEING SUPPORT CONTRACT

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded the Boeing Company a $24,475,000 extension to its current contract for support services at the Center.

The cost plus award fee contract extension will bring the total contract amount to an estimated $98,952,758 since the contract became effective March 1, 1971. The extension covers the period from February 1, 1974 through January 31, 1975.

Under terms of the extension the Boeing Company will provide test support management, plant engineering and maintenance, supply and transportation operations, security services, fire prevention, protection and rescue services; documentation support services, quality assurance and training support.

The Kennedy Space Center launches all U. S. manned spacecraft from its facilities at the Spaceport and most unmanned spacecraft from NASA facilities at Cape Kennedy and the Western Test Range, Lompoc, California.

# # #

SC FORM OT-206 (9/73) (ONETIME FORM - REPRINT NOT AUTHORIZED)

FEB 5 1974
BRS
#104

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
February 4, 1974
Release #KSC-23-74

KSC's BUDGET RECOMMENDATION STANDS AT $273 MILLION

KENNEDY SPACE CENTER, Fla.--The Center will receive approximately $273 million as its portion of NASA's Fiscal Year 1975 budget if the Congress approves the program recommended by the President in the budget message transmitted today.

Research and program management funding proposed for KSC totals $96.7 million, which is $2.2 million above the FY 74 level.

R&PM dollars pay Civil Service salaries and defray costs of base support contract services and other items.

A major increase is reflected in the budget plan for facilities construction related to the Space Shuttle. The KSC portion represents $71.9 million made up of these major items:

- Orbiter landing facilities, $15.8 million
- Orbiter processing facility, $13.3 million
- Modifications to LC 39, $42.6 million

Research and development funds within the manned space flight section of the NASA budget for KSC total $101.6 million, which is about $4 million less than FY 74.

This includes more money for Shuttle efforts, less for space flight operations, more for the joint U.S. - U.S.S.R. manned flight of July, 1975, and eliminates Skylab funding. There is no Skylab B.

How important the Apollo Soyuz Test Project is in maintaining the manned launch capability may be judged from the increase of $36 million in this item to a total of $45 million.

That more than offset the $22.2 million dropout of Skylab, which was the amount provided for that program in FY 74.

-more-

Space Shuttle funding will be $11.6 million, an increase of $9 million, while space flight operations dropped $13.9 million to $89 million since there is no manned launch in FY 75.

Funding for development, test and mission operations included in the R&D dollars is reduced by $29.6 million to $43.4 million.

KSC will receive about $12 million from the Office of Space Sciences and Applications for unmanned launch operations and sciences and applications activities.

For mission systems and integration, the Center will receive $1.4 million compared to $879,000 this year. This includes $400,000 for advanced development and $300,000 for efforts related to the Space Tug.

Civil Service employment at KSC in FY 75 is projected at a level of 2,309 positions, identical with the FY 74 level.

Overall, NASA requested $3.247 billion, which is about $100 million above FY 1974.

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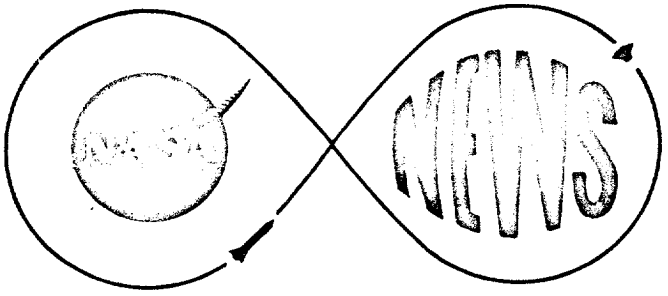
BXS 2104



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE: a.m.s
February 21, 1974
Release #KSC-34-74

KSC LAUNCH DIRECTOR HONORED AT DETROIT ENGINEERING BANQUET

KENNEDY SPACE CENTER, Fla.--"We will solve the energy crisis. Project Independence will be a success because it must be a success."

This was the prediction of Dr. Walter J. Kapryan, KSC's Director of Launch Operations, at a speech delivered in Detroit, Mich., Wednesday night.

Dr. Kapryan was the featured speaker at a banquet meeting of the Affiliate Council of the Engineering Societies of Detroit, which presented him with the organization's "Gold Award".

The award is made annually to the outstanding engineer from the Detroit area. Dr. Kapryan was raised in Detroit and is a graduate of Detroit's Wayne University.

Speaking on the theme "Engineering - Our Greatest Energy Source", Dr. Kapryan centered his comments on the energy crisis, its impact on the nation's economy and life style and possible means of solution.

"We are faced with a new challenge," said Kapryan. "It is not the first and far from the last that we will face. The challenge of energy is made to order for us. We, the engineers, we, the scientists, are the reservoir of knowledge from which the solutions will come...

"It is somewhat ironic that today's energy crisis comes at a time when there has been a massive technological turnoff in this country. Engineering enrollment in the universities across our land in the last several years has fallen off drastically. Recently, however, there have been some signs of a rebirth in interest. Hopefully, we have passed the low point of the curve..."

"The message is that we are all in trouble together. The engineer, the politician, the lawyer, the average citizen have equally contributed to the good and bad in our society, and it is high time for us to truly pull together."

-more-

Kapryan referred to various alternate energy sources and the scope of services they might provide the nation.

These include solar energy, harnessing the winds and nuclear power sources in various applications.

Dealing with possible solar energy applications, Dr. Kapryan noted: "Some estimate that if the sun provided only 1 percent of our nation's energy needs, it could take the place of more than 100 million barrels of oil yearly."

"It is estimated that by the year 2000, solar energy could provide 35 percent of heating and cooling in buildings, 30 percent of the energy to produce the nation's hydrogen and other synthetic fuels and 20 percent of the nation's electrical needs...

"These are impressive statistics - and in line with the President's 'Project Independence', designed to make our nation self-sufficient in fulfilling its energy needs by 1980."

Kapryan enumerated various solar energy experimental projects, including those by the space agency: "NASA field centers have been researching solar and other energy sources to make their facilities as independent as possible. The energy crunch, of course, has intensified their efforts...NASA is cooperating with numerous Government agencies more directly involved in these matters."

Dr. Kapryan noted: "For more than a year, space engineers at NASA's Lewis Research Center have been developing ways to adapt the use of windmills to ease the energy crisis."

He observed that one experimenter notes "the wind is an inexhaustible, nonpolluting source of power. He maintains that the money required to develop it into an economical power source is insignificant in comparison with Alaskan pipeline funding or nuclear energy...His calculations point out that there is enough wind from the Great Plains to meet the nation's total electrical power needs today. But to provide such far-reaching effects, windmills would have to be grouped to form power stations."

Referring to activities at KSC, Dr. Kapryan said: "The Kennedy Space Center - my stomping ground - is working in concert with other NASA field centers in investigating alternate energy sources.

"Meanwhile, we are achieving more immediate results through basic energy conservation means such as increased employee car pooling, planned power outages and work shift consolidation.

"In accomplishing these objectives, the Spaceport has exceeded the President's request for a 7 percent power reduction at Government installations, having logged an impressive 20 percent energy cutback."

In predicting success of "Project Independence", Kapryan warned: "It will not happen over night. Much diligent and dedicated effort will be required. We, the technical community, of necessity, will be the basic contributor...

"Our resources must be channeled in order to effect expeditious and cost effective solutions. It will take literally billions of dollars to solve the energy problem. With billions available, sound leadership is required to preclude indiscriminate and wasteful activity...

"We must factor into our equations the parameters of human relations, our environment, the planet Earth and solar system to a much greater degree than ever before. This I feel is our true challenge...We merely have to make up our minds, for our minds are our greatest resource.

"We are limited only by our intelligence, desire and imagination," concluded Dr. Kapryan.

The Detroit banquet was held as a part of National Engineers Week, observed February 17-23. Engineers Week is observed nationwide annually during the week of George Washington's birthday.

# # #

MAR 5 1974 BKS #104

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
March 4, 1974
Release #KSC-38-74

PAN AMERICAN MEDICAL SUPPORT CONTRACT EXTENDED

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded one-year, $1,176,527 contract extension to the Aerospace Services Division, Pan American World Airways, Inc., Cocoa Beach, Florida.

The extension covers the period March 1, 1974 through February 28, 1975, and marks the fourth year of performance under the parent contract. The new award brings the total value of the contract over the four-year period to $4,744,540.

Under the contract Pan American provides occupational medicine and environmental health services for civil service, military and contractor personnel.

Services are performed by physicians, medical technicians and nurses at the Kennedy Space Center and Cape Kennedy Air Force Station.

KSC is the launch site for all the nation's manned missions and has been designated the prime launch and recovery site for the reusable Space Shuttle scheduled for its first flight from here in 1979.

In addition, KSC launches a large variety of unmanned weather, communications and scientific satellites and spacecraft from facilities at Cape Kennedy Air Force Station and the Western Test Range in California.

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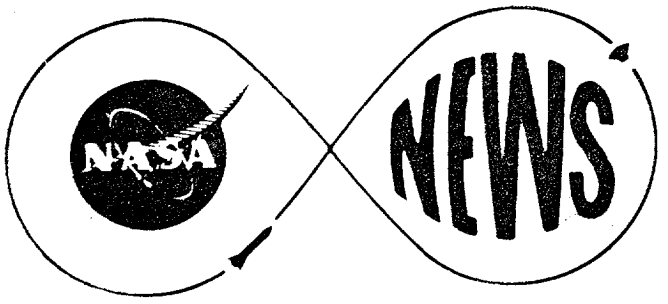
#104



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

305 867-2468

FOR RELEASE:
March 5, 1974 2PM
Release #KSC-40-74

NASA ANNOUNCES REORGANIZATION OF TOP-LEVEL POSTS

Dr. James C. Fletcher, Administrator of NASA, and Dr. George M. Low, Deputy Administrator, today announced a reorganization of the NASA Headquarters and named several senior officials to fill key positions in the new organization. The changes and appointments become effective March 15.

Dr. Rocco Petrone has been named Associate Administrator, replacing Dr. Homer E. Newell, who has retired. As Associate Administrator, Dr. Petrone will be responsible for the overall management of the Agency's research and development programs. He will direct the activities of the Headquarters program offices, including Manned Space Flight, Space Science, Applications, Aeronautics and Space Technology, and Tracking and Data Acquisition. These offices previously reported to the Administrator.

Dr. Petrone is currently Director of the Marshall Space Flight Center, Huntsville, Ala., and prior to that served as Apollo Program Director at NASA Headquarters. In addition to his duties as Associate Administrator, he will continue to serve as Director of the Marshall Center until early summer to oversee organization and personnel changes now under way at that installation.

Dr. John Naugle has been named Deputy Associate Administrator. Dr. Naugle is presently the Associate Administrator for Space Science, and will also continue acting in that role until a successor is named.

NASA also announced the creation of a new post; the Associate Administrator for Center Operations, who will be responsible for Agency-wide planning and direction of resources and activities at the NASA field installations. The directors of the ten major NASA field installations will report to the Associate Administrator for Center Operations. These installations are the Ames Research Center, Moffett Field, Calif.; Flight Research Center, Edwards, Calif.; Goddard Space Flight Center, Greenbelt, Md.; Jet Propulsion Laboratory, contractor-operated facility in Pasadena, Calif.; Johnson Space Center, Houston, Tex.; Kennedy Space Center,

-more-

KSC FORM 2 1105NS (9/73)

Fla.; Langley Research Center, Hampton, Va.; Lewis Research Center, Cleveland, Ohio; Marshall Space Flight Center, Huntsville, Ala.; and Wallops Station, Va. Prior to the change, these installations reported to designated Headquarters institutional directors.

Dr. George M. Low, NASA Deputy Administrator, will serve as Acting Associate Administrator for Center Operations until a permanent appointment has been made. Mr. Edwin C. Kilgore, Deputy Associate Administrator for Aeronautics and Space Technology (Management), will assist Dr. Low in the new office on a full-time basis during the interim period.

Dr.Fletcher said the changes were made as a result of the completion of Apollo and Skylab, and the transition to the space programs for the remainder of the 1970's and into the 1980's. The new organization will provide the needed mechanisms for the phase-over from conventional launch vehicles to the Space Shuttle, and to the payloads which will make use of the Shuttle. At the same time, the new organization will provide for a more dynamic interaction with NASA's field centers, and thereby with NASA's people--the engineesceintists and managers who are the key to NASA's success.

Both the Associate Administrator and the Associate Administrator for Center Operations will report to the Administrator.

Also announced effective March 15 were the appointments of Mr. Bernard Moritz as Associate Administrator for Organization and Management and Gen. Bruce Holloway as Acting Associate Administrator for Aeronautics and Space Technology. (Gen. Holloway will also continue to serve in his present position of Assistant Administrator for DOD and Interagency Affairs.)

Dr. William R. Lucas, Deputy Director of the Marshall Center, will become Center Director in early summer when Dr. Petrone expects to move to Washington on a full-time basis.

# # #

MAR 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE: SUNDAY
March 10, 1974
Release #KSC-41-74

"ENERGY" EXHIBIT TO OPEN AT SPACEPORT MARCH 15

KENNEDY SPACE CENTER, Fla.--A 4,000-square-foot exhibit on the energy crisis and its possible solutions will be open to the public at KSC's Visitor Information Center (VIC) beginning March 15.

The mobile exhibit - provided by the Atomic Energy Commission - will give VIC patrons a better understanding of what the problem is and what can be done about it.

Inside the large exhibit area, the visitor can experience the energy story through animated exhibits, films and visitor-operated consoles. The major types of energy sources currently in use and those being considered for the future are represented, allowing the visitor to gain an overall picture of the nation's energy problems and their effect on American's standard of living.

Several exhibits demonstrate the principles of uranium fission nuclear reactors now generating electricity around the nation as well as those being studied for future use such as the breeder reactor - which would make more fuel than it consumes - and the hydrogen fusion reactor, which would operate on the same principle as the sun.

Other exhibits explain how additional natural gas can be obtained from coal through gasification of mined coal or directly from coal seams deep within the earth without having to mine.

Petroleum, the mainstay of the nation's transportation system and a major fuel for the generation of electrical power, is expected to be exhausted in about 50 years but - as one "Energy" exhibit explains - petroleum may be obtained from the processing of oil shales.

Visitors may also observe the process of developing power through magneto-hydrodynamics (MHD), a sort of supercharger for conventional power generators, from solar-heat collectors, and by means of geothermal electrical power generation.

-more-

The "Energy" exhibit will be at the VIC through June 30 and it - like the wide variety of space exhibits on hand - is open to the public free of charge.

The VIC exhibit includes the Apollo 7 and Apollo 13 spacecraft, the Gemini 9 spacecraft and other full-scale rockets and spacecraft as well as static and dynamic displays on past and future space programs, the utilization of space-developed techniques for problems here on Earth, space-science lectures and documentary films on the exploration of space.

Well over 1 million people visit KSC each year, about 80 percent of them taking the 2-hour guided bus tours of the Kennedy Space Center and adjacent Cape Kennedy Air Force Station available at nominal cost.

The VIC may be reached via the NASA Causeway two miles south of Titusville on U. S. Route 1 or by State Road 3 from Merritt Island.

# # #

MAR 1 1 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

C. T. Hollinshead
305 867-2468

FOR RELEASE: A.M.s
March 8, 1974
Release #KSC-42-74

SKYLAB 4 ASTRONAUTS TO VISIT KSC

KENNEDY SPACE CENTER, Fla.--The Skylab 4 astronauts, Commander Gerald P. Carr, Dr. Edward G. Gibson and William R. Pogue will return to the Center April 26 for a reunion with the NASA launch organization.

The crew will be guests of Center management at a luncheon with Government and contractor managers, after which they will meet with the launch team in the Vehicle Assembly Building. Dr. Kurt Debus, Director, will introduce them.

The astronauts will attend a dinner in Orlando in the evening.

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MAR 1974
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
March , 1974
Release #KSC-49-74

SPACE SHUTTLE RUNWAY CONSTRUCTION CONTRACT TO MORRISON-KNUDSEN

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a $21,812,737 contract for construction of a Space Shuttle runway at the Spaceport to Morrison-Knudsen Co. Inc., Darien, Connecticut.

The contract provides for completion within 850 calendar days after notice to proceed of a 15,000-foot runway with associated overruns, apron, taxiway and access roads.

The 300-foot wide runway is to be built to the northwest of the KSC Vehicle Assembly Building on a northwest-southeast alignment.

The Kennedy Space Center has been designated as the prime launch and landing site for the reusable Space Shuttle being developed to carry useful cargo to and from Earth orbit.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
March 20, 1974
Release #KSC-50-74

KENNEDY SPACE CENTER REPRODUCTION CONTRACT TO McGREGOR & WERNER

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a $1,569,263 contract for reproduction services at the Spaceport to McGregor and Werner, Inc., 5411 Chillum Place NW, Washington, D. C.

The new contract, extending from April 1, 1974 through March 31, 1975, with an option for a one-year extension, includes provision of printing, reproduction and microfilming/documentation services by McGregor and Werner. The contract was set aside for a small business concern.

The Kennedy Space Center is the launch site for all United States manned space missions and most unmanned scientific and applications missions.

Preparations are now underway at the Spaceport for the launch of a manned Apollo spacecraft in the joint U. S.-USSR Apollo Soyuz Test Project in July 1975 and the launch and landing of the Space Shuttle, with the initial launch scheduled in 1979.

# # #

MAR 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
3 05 867-2468

FOR RELEASE:
March 18, 1974
Release #KSC-51-74

SPACEPORT AWARDS SPACE SHUTTLE FACILITY CONTRACT TO JACKSONVILLE FIRM

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a contract for $1,463,000 to Reynolds, Smith and Hills of Jacksonville, Florida.

The fixed price contract is for architect-engineer services for the design of modifications to Launch Pad 39A and Mobile Launcher No. 3 to support Space Shuttle operations at the Kennedy Space Center.

The work is to be performed within 360 calendar days from the award of the contract. The services are to be accomplished at Jacksonville and the Kennedy Space Center.

Complex 39 was the launch site of the Apollo manned lunar exploration and Skylab Orbital Workshop missions.

Complex 39 will next be used for manned flight when a Saturn IB/Apollo is to be launched in mid-1975 as part of the Apollo-Soyuz Test Project, a joint United States-Soviet Union mission in space.

The Kennedy Space Center has been designated the prime launch and recovery site for the reusable Space Shuttle. The first Space Shuttle launch from KSC is now scheduled for 1979.

In addition, KSC launches a wide variety of unmanned scientific, weather and communications satellites and spacecraft from its facilities at Cape Kennedy Air Force Station and the Western Test Range in California.

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MAR 20 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE: 3:00 p.m.
March 19, 1974
Release #KSC-53-74
Revises #KSC-42-74

SKYLAB 4 ASTRONAUTS TO VISIT KSC APRIL 19

KENNEDY SPACE CENTER, Fla.--Skylab 4 astronauts Commander Gerald P. Carr, Dr. Edward G. Gibson and William R. Pogue will return to the Kennedy Space Center April 19 to participate in a Skylab awards ceremony and a reunion with the NASA launch organization.

The afternoon ceremony is scheduled in the Vehicle Assembly Building. Dr. Kurt H. Debus, Director, will introduce the astronauts and other guests at the ceremony.

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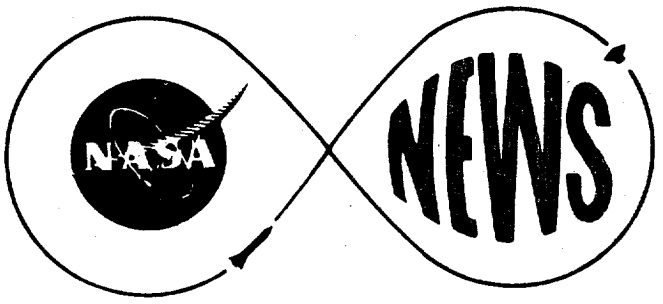
MAR 30 1974



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
March 19, 1974
Release #KSC-54-74

SPACE TECHNOLOGY AVAILABLE FOR LICENSING TO PRIVATE INDUSTRY

KENNEDY SPACE CENTER, Fla.--A one-day conference for private industry to learn how to obtain licensing rights to NASA-developed technology will be conducted April 10 at the Hilton Hotel, Jacksonville, Fla.

The conference is designed to help industrial firms benefit from the liberalized patent licensing procedures recently issued by NASA. More than 2,600 NASA patents are now available for exclusive licensing to qualified business interests. These patents describe the various beneficial innovations which have resulted from space program activities at the Kennedy Space Center and other NASA Field Centers.

The $20 registration fee includes a copy of the NASA Patent Abstracts Bibliography--a large document normally costing $18--which lists all of the NASA-owned inventions available for commercial use and marketing under appropriate licensing agreements.

Interested U. S. business firms or individuals desiring to attend the conference should immediately contact the conference organizer, Peter Chenery, Director, North Carolina Science and Technology Research Center, P. O. Box 12235, Research Triangle Park, N. C. 27709. Telephone: 919 549-8291.

# # #

MAR 30 1974
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

FOR RELEASE:
March 19, 1974
Release #KSC-55-74

A. H. Lavender
305 867-2468

STUDY CONTRACT AWARDED TO MARTIN MARIETTA

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded an $87,000 contract for a study of the Center's post launch requirements for support of Space Shuttle payloads to Martin Marietta Corp., Denver Division, Denver, Colorado.

The contract, which extends for nine months, provides for Martin Marietta to propose launch site ground support operations concepts that may be required during normal and contingency operations in orbit in preparation for return, repair and logistics support of Space Shuttle payloads, including facilities and equipment.

The Kennedy Space Center is the initial launch and landing site for Space Shuttle missions with the first launch scheduled in 1979.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
March 21, 1974
Release #KSC-56-74

THOUSANDS VIEW TURKEY LAKE PLAZA SPACE EXHIBIT

KENNEDY SPACE CENTER, Fla.--Thousands of Florida visitors traveling along the Florida Turnpike now have an opportunity to view models of space launch vehicles and spacecraft as well as space photography at the Turkey Lake Service Plaza west of Orlando, Florida.

Installed by NASA's John F. Kennedy Space Center in cooperation with the Florida Department of Transportation, the Turkey Lake exhibit supplements the space motif of the service plaza.

Small models of launch vehicles and unmanned spacecraft enclosed in plastic display cases line one wall of the service plaza lobby area.

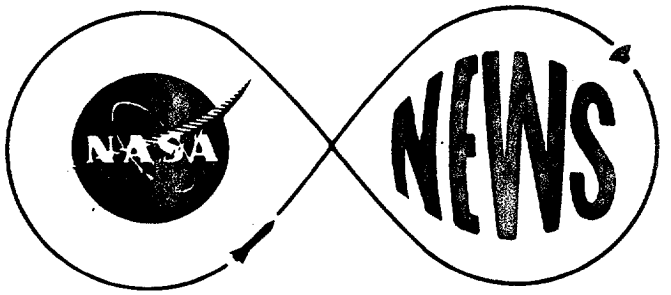
A manekin garbed in an Apollo space suit, scale models of Apollo command and lunar modules and a Gemini spacecraft are displayed in an 18 by 35-foot area opening on the lobby.

Enlarged photographs of space scenes, including views of the Earth and Moon from space and the Moon's surface photographed by U. S. astronauts during Apollo lunar exploration line the walls of the display area.

Oil murals commissioned by the Florida Department of Transportation are displayed in the service plaza restaurant area.

# # #

MAR 29 1974



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
Immediate
Release #KSC-57-74

NOTICE TO EDITORS/NEWS DIRECTORS

KENNEDY SPACE CENTER, Fla.--A Ground Breaking Ceremony marking the beginning of construction of a Space Shuttle Landing Facility at the Kennedy Space Center is scheduled Monday morning, April 1, 1974.

Government officials and officers of Morrison-Knudson Co., contractor for the $21,812,737 project, will participate.

The construction project includes a 15,000-foot runway with associated overruns, apron, towway, taxiway and access roads.

Those desiring to cover the ceremony will be provided transportation from the KSC Public Information Office, Room 1207, Headquarters Building. They should report to the information office by 9:00 a.m.

News media representatives may enter KSC via State Road 3, obtaining their access badges at Temporary Gate 2B, located on the NASA Parkway east of its intersection with the Kennedy Parkway, or via State Road 405 from U. S. 1, obtaining their access badges at the Gate 3 Pass and Identification Building.

# # #

March 27, 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
March 28, 1974
Release #KSC-57-74

SATURN V TEST STAGE ON DISPLAY AT SPACEPORT

KENNEDY SPACE CENTER, Fla.--Visitors to the Kennedy Space Center may now view a new display during tours of the Spaceport--the Saturn V first stage test vehicle that verified the design and reliability of operational Saturn V boosters.

Designated the S-IC-T stage, it is identical in appearance to the Saturn V stage that started Apollo astronauts on trips to the Moon and the Skylab space station toward its orbit around the Earth.

The 138-foot long stage was offloaded from the seagoing barge, Poseidon, at Complex 39 today and moved on its transporter to a display site along the NASA Tours route south of the Vehicle Assembly Building.

Assembled at the Marshall Space Flight Center, its engines were fired 22 times at MSFC and the Mississippi Test Facility.

The first short duration firing of one of the stage's five engines occurred April 9, 1965. All five engines were fired for 6.5 seconds April 16, 1965 and the first full duration firing--143.6 seconds--occurred August 3, 1967.

The final firing of the S-IC-T engines, completing its mission of proving the adequacy of design and fabrication, occurred August 3, 1967--more than three months prior to the launch of the first Saturn V, designated Apollo 4, November 9, 1967.

# # #

APR 3 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A.H.Lavender
305 867-2468

FOR RELEASE:
April 2, 1974
Release#KSC-61-74

SUNDAY DRIVE-THROUGH TOURS TO BE RESUMED

KENNEDY SPACE CENTER, Fla.--Sunday drive through tours of Cape Canaveral Air Force Station and NASA's Kennedy Space Center will be resumed Sunday, April 7.

Sunday tours were suspended November 25, 1973, in support of national fuel conservation programs.

In view of the President's backing of recreational activities and his decision to open gasoline stations on Sunday, tours by groups in private autos will once more be permitted on Sundays through CCAFS and KSC NASA.

Air Force and NASA officials pointed out that the tours may be suspended again if energy conservation policies dictate such a move in the future. Hours for the tours are 9:00 a.m. to 3:00 p.m. Available to visitors will be the Air Force Space Museum and NASA's Visitor Information Center.

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APR 5 19[illegible] BYS #105

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
April 4, 1974
Release #KSC-63-74

MARS FILM TO BE AIRED SUNDAY

KENNEDY SPACE CENTER, Fla.--The fascinating story of the exploration of Mars will be told in a new NASA color film to be carried over WESH-TV Channel 2 on Sunday, April 7, from 1 - 1:30 p.m. EDT.

The film depicts the planet as we know it from the more than 7,000 photographs taken by the Mariner 9 spacecraft.

The flight of Mariner, the biological analysis of life on Earth and the Viking life search experiments to be conducted by the exploratory probes to be landed on Mars in 1976 are depicted in animation.

Three-dimensional models of Martian features take the viewer onto the Martian surface. The viewer sees Mars as we know it today and is projected into the search for life on Mars in 1976.

The storyline is carried by scientists Carl Sagan, Cornell University; Gerald Soffen, NASA, and Harold Masursky, U. S. Geological Survey.

Twin Viking spacecraft are to be launched toward Mars from the Kennedy Space Center during a 44-day period extending from August 11 through September 24, 1975.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
April 19, 1974
KSC-70-74

APOLLO SOYUZ TEST PROJECT BOOSTER STAGE ON WAY TO KSC

KENNEDY SPACE CENTER, Fla.--The Saturn IB first stage for the Apollo Soyuz Test Project launch in July 1975, departed the Marshall Space Flight Center's Michoud Assembly Facility for the Kennedy Space Center on the ocean-going barge Orion today.

After arrival at KSC April 24, the Chrysler-built stage will be moved to the Vehicle Assembly Building where it will be stored until December, when the Saturn IB will be assembled on its mobile launcher.

The eight booster stage fins, to be installed at KSC, will also arrive on the Orion.

The Saturn IB instrument unit, built by IBM, is to arrive at KSC late this month. The McDonnell Douglas-built Saturn IB second stage in now at KSC.

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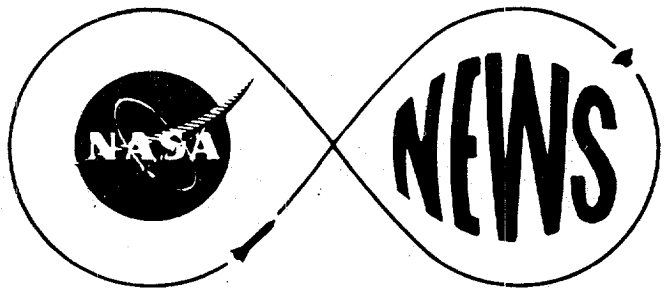
APR 29 1974



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
April 26, 1974
Release #KSC-73-74

ORLANDO FIRM AWARDED SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a $101,750 contract to Keuffel and Esser Co., Orlando, Fla.

The contract is for the purchase of a Zeiss camera system to be installed in KSC's NASA-6 aircraft used extensively in earth resources projects throughout the Carolinas, Georgia, Florida, Puerto Rico and the Virgin Islands.

The new camera system replaces a much older system and will provide much better resolution and definition of study areas.

NASA-6 is a twin Beechcraft aircraft. Its lower bay is laden with multispectral photographic equipment, thermal scanners, spectrometers and other sensing devices. In addition to missions on which airborne coverage is primary, NASA-6 is used in underflights in support of the Earth Resources Technology Satellite and the Skylab Program.

The system is assembled at Morristown, New Jersey, and will be installed in NASA-6 at Patrick Air Force Base.

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APR 3 0 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

C. T. Hollinshead
305 867-2468

FOR RELEASE:
April 26, 1974
Release #KSC-74-74

IBM SELECTED FOR NEGOTIATIONS

The National Aeronautics and Space Administration has selected IBM Corporation Federal Systems Division, Huntsville, Ala. for negotiation leading to an award of a contract to provide systems engineering and software development support to the Design Engineering Directorate for the Launch Processing System (LPS) for the Space Shuttle at the Kennedy Space Center, Florida.

The contractor's proposed cost for the first year cost type contract is $636,000, with anoption for the second year and provisions for three additional one year extensions.

The IBM Corporation will assist in providing a flexible, reliable and cost-effective means of performing systems testing, launch operations control and status monitoring of the Space Shuttle, ground support equipment and facilities during ground operations. Automation of testing and operations will be emphasized to minimize turnaround times and provide the test results in real time. Additionally, the contractor will assist in providing a capability for storage and retrieval of engineering/management information to support the landing to launch sequence.

Five other firms submitted proposals for the work: Computer Sciences Corporation, Field Services Division, Falls Church, Virginia; Harris-Intertype Mission Support Operations, Melbourne, Florida; Management and Technical Services Company, a subsidiary of the General Electric Co., Daytona Beach, Florida; McDonnell Douglas Astronautics Company, Huntington Beach, California; and TRW Systems Group, Houston Operations, Houston, Texas.

The contract will be under the technical direction of the Kennedy Space Center, Florida. The Kennedy Space Center will be the initial launch and landing site for the Space Shuttle mission, with the first launch scheduled in early 1979.

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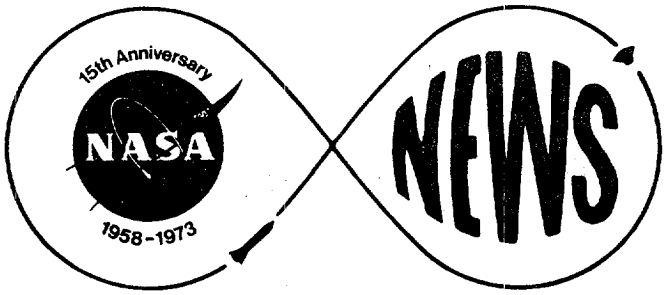
APR 30 1974



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Charles Hollinshead
867-2468

FOR RELEASE:
April 26, 1974
KSC-75-74

NASA SELECTS PLANNING RESEARCH CORPORATION

KENNEDY SPACE CENTER, Fla. -- The National Aeronautics and Space Administration has selected the Planning Research Corp., Huntsville, Ala., for the award of a contract following competitive negotiations to provide design engineering support services at the John F. Kennedy Space Center.

The cost-plus-fixed-fee contract with an award fee feature will be for a period of one year at an estimated cost of six million and will contain a one year option, the cost of which is estimated at $10 million, and provisions for three successive one year extensions. The Planning Research Corp. will provide the Space Center's Design Engineering Directorate with a variety of engineering services for development, test and mission operations primarily in support of the Space Shuttle to be launched on its first vertical space flight in 1979.

The work will be performed at the Kennedy Space Center in Florida and at Vandenberg Air Force Base in California.

The Kennedy Space Center launches all the nation's manned missions in space from its facilities at Launch Complex 39 and has been selected as the prime launch and recovery site for the reusable Space Shuttle. The Space Center also launches a wide variety of unmanned weather, communications and scientific satellites and spacecraft from its facilities at Cape Canaveral Air Force Station and Vandenberg Air Force Base.

# # #

KSC FORM OT-206 (9/73) (ONETIME FORM - REPRINT NOT AUTHORIZED)

MAY 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
May 1, 1974
Release#KSC-77-74

SPACEPORT DESIGN CONTRACT AWARDED TO NEW YORK FIRM

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a $1,228,000 contract to Seelye Stevenson Value and Knecht, Inc., 99 Park Avenue, New York, NY, for design of an Orbiter Processing Facility and modifications to the Vehicle Assembly Building to support assembly and integrated checkout of the Space Shuttle.

The contract provides that design be completed within 300 calender days of notice of the award.

The orbiter will be prepared for launch and refurbished after each mission in the Orbiter Processing Facility, to be located near the Vehicle Assembly Building.

Modifications to the Vehicle Assembly Building will include redesign of High Bay 3 to accommodate assembly and checkout of complete Space Shuttle vehicles on their mobile launcher platforms, High Bay 4 for processing of external fuel tanks in preparation for their installation on the orbiter, and widening of the north door of the VAB to provide access for orbiters. Solid rocket booster segments will be moved into the VAB through the south door of the VAB.

The Kennedy Space Center will be the initial launch and landing site for the Space Shuttle. The first launch is planned in 1979.

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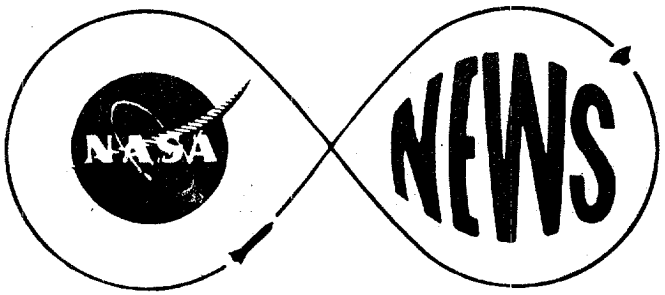
MAY 3 19/4



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

C.T.Hollinshead
305 867-2468

FOR RELEASE:
May 2, 1974
KSC-79-74

KSC VISITORS CATCH GLIMPSE INTO FUTURE

KENNEDY SPACE CENTER, Fla.--April brought an increased number of tourists to Kennedy Space Center, and many of them were treated to a glimpse into future NASA space programs.

A full scale model of the Apollo Soyuz went on display in the Vehicle Assembly Building transfer isle in full view of the tourist who make a regular stop at the VAB as part of the TWA-operated NASA tours. The United States Apollo spacecraft will rendezvous with the Russian Soyuz in a joint endeavor scheduled for July 1975. Both the Russian and American spacecraft are displayed in the VAB. They will later be moved to the Visitor Information Center when room is made to display them there.

On April 1, ground was broken for the Space Shuttle landing facility. Kennedy Space Center, long throught of as the launch site for U. S. space flights, will also become the landing site when the new transportation system becomes operational in the 1980's. The first landing of test flights are scheduled for 1979.

The Shuttle system will carry both manned and unmanned spacecraft into orbit, taking off like a large winged rocket and landing like an aircraft. Tour visitors this month have seen the crews clearing the runway site just northwest of the Assembly Building.

Over 80,000 visitors toured the Center in April as the gasoline shortage eased and Spring vacationers travelled to Florida. In addition to the 80,000 who toured the Center, an estimated 20,000 to 40,000 examined the exhibits and displays at the Visitor's Center without taking the tour. Repeat visitors found many new and updated displays. Those coming to the Center for the first time were most attracted to the huge rockets and spacecraft standing on the grounds outside the Visitor Center. Another popular attraction has been the Lunar Rover training vehicle, used by Apollo astronauts to prepare for their lunar traverses. A few lucky children were treated to rides on the vehicle, an unexpected experience they will never forget.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
May 8, 1974
KSC-83-74

JOHN F. YARDLEY NAMED NEW HEAD OF NASA MANNED SPACE FLIGHT

KENNEDY SPACE CENTER, Fla.--John Finley Yardley has been named Associate Administrator for Manned Space Flight succeeding Dale Myers who recently returned to private industry. In this position, Yardley will direct NASA's manned flight programs, including Space Shuttle and the US-USSR Apollo-Soyuz Test Project and the United States' responsibilities in Spacelab. He will report to his new NASA Headquarters post May 20.

He was born in St. Louis in 1925. After graduating from Iowa State in 1946, John Yardley joined McDonnell Douglas in St. Louis. He has been employed by the company continuously since that time. His present position is Vice President and Manager of McDonnell Douglas Astronautics Company, Eastern Division.

He received his BS in Aeronautical Engineering in 1944 and his MS in Applied Mechanics in 1950.

Mr. Yardley came to the local area in July, 1960 as Base Manager for the Mercury Capsule Program. He was here until 1964. He then returned to St. Louis and became the Gemini Program Manager.

He worked on the Gemini Program here until his reassignment in April 1964 as the company's work on Gemini in this area was concurrent with last phases of Mercury Program.

After the Gemini Program he was Corporate-wide Program Manager for the Skylab Program.

Yardley received NASA's Public Service Award for Mercury in 1963 and for Gemini in 1966. He was also awarded the Spirit of St. Louis Medal by the American Society of Mechanical Engineers. He is a fellow of the American Institute for Aeronautics and Astronautics. Mr. and Mrs. Yardley have five children.

# # #

MAY 17 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
May 16, 1974
KSC-85-74

SPACEPORT OBSERVES SMALL BUSINESS WEEK

KENNEDY SPACE CENTER, Fla.--Area small business firms will be honored from May 19-25 as KSC observes Small Business Week.

Contracts totaling $7.3 million have been awarded to small business concerns by KSC during the first nine months of Fiscal Year 1974, according to Jack Dryer, KSC's industry advisor and small business specialist.

"This represents approximately 7 per cent of all KSC contract awards," said Dryer, "and 46 per cent of these awards represent contracts set aside for small business firms only."

Noted William M. Lohse, Chief of KSC's Procurement Office:

"All KSC procurement requests exceeding $2,500 are reviewed by our small business specialist to determine if they can be set aside exclusively for small business firms. This precludes competition from large firms.

"In addition to the small business set-aside program, KSC has been successfully participating in a program aimed at awarding contracts to firms owned by minority groups," said Lohse.

KSC continues to lead all other NASA centers in the value of FY 1974 contract awards to minority-owned firms with a total of $2.7 million.

KSC received a Small Business Administration award for its achievements in this field in 1972.

In his proclamation establishing Small Business Week, President Nixon noted:

-more-

"Nineteen out of every 20 firms are considered small business. They provide approximately 35 million jobs and contribute more than $476 billion annually to the gross national product.

"The pioneering spirit that underlies our success as a Nation will continue to flourish for as long as the small businessman remains the mainstay of our economy and our society."

Although many small business and minority-owned firms hold KSC contracts, others miss opportunities because they do not maintain a current listing with the KSC Small Business Office and fail to fill out necessary forms to qualify.

Information on bidding may be obtained by calling Dryer (867-7353) or writing the Industry Advisory Section, AD-PRO-13, Kennedy Space Center, Fla. 32899.

Bids are publicized in Room 2419, KSC Headquarters Building, and at the Gate 3 Pass and Identification Building, near U. S. Highway 1 south of Titusville, Fla. The Gate 3 Bid Board may be viewed without obtaining access to KSC.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
May 20, 1974
Release #KSC-87-74

NOTICE TO EDITORS/NEWS DIRECTORS

A reception center for guests and news media attending the launch of Applications Technology Satellite-F (ATS-F) will be open daily from May 28 through launch in the Gold Room, Ramada Inn, Cocoa Beach, Fla.

The ATS-F launch is scheduled for May 30, 1974 during a 31 minute launch window opening at 9:00 a.m. EDT.

Reception center hours of operation will be as follows:

Tuesday, May 28 8:00 a.m. to 5:00 p.m.
Wednesday, May 29 8:00 a.m. to 9:00 p.m.
Thursday, May 30 10:00 a.m. to 4:00 p.m.

The reception center telephone number is 783-4110 for invited guests and 783-7781 for news media.

A prelaunch press conference will be held on May 29 at 11:00 a.m. News media wishing to attend should be at the reception center by 10:15 or at the Public Information Office on Kennedy Space Center by 10:30. Transportation for news media to the press conference and to the launch the following day will be provided from the reception center and the information office.

# # #

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
July 5, 1974
KSC-90-74

SPACE PHOTOGRAPHY INSTRUMENTAL IN ENDING SUIT OVER CRUCIAL FLORIDA WATER RECHARGE RESOURCE

KENNEDY SPACE CENTER, Fla.--Photographs from the Skylab space station and other NASA sources were used to help end a legal confrontation between land developers and the State of Florida over development projects in a crucial water resource area.

A U. S. Geological Survey hydrologist, serving as an expert witness, interpreted ground-truth data, imagery from Skylab and the Earth Resources Technology Satellite and highly detailed aerial photographs from a U-2 aircraft to bring about a negotiated settlement acceptable to the state, developers and ecologists.

The remotely sensed data provided by NASA supplemented the expertise and background obtained by hydrologists A. E. Coker, of the Survey's Tampa, Fla. office, and Aaron Higer, of the agency's Miami office, through years of research, footslogging, and use of ground-skimming aircraft and helicopter flights in the area under contest.

Involved was the "Green Swamp," an area now under intense development pressure as the state grows by an average of 6,000 new residents a week.

The Green Swamp covers nearly 900 square miles and ranges over five counties. Resting on a relatively high plateau, it is a composite of swamps, flatwoods, low hills, and sandy ridges with abundant sinkhole lakes.

The Green Swamp stakes are high. The region is vital to the Florida Aquifer, (a subsurface, water-bearing rock formation), which provides 90 percent of all water used in the state. The Green Swamp contains wetlands associated with the origins of four major rivers and is a major flood detention area.

-more-

About 720 square miles of the Green Swamp are drained by the Withlacoochee River, which flows slowly to the northwest before entering the Gulf of Mexico near Yankeetown. Streams that drain into the Oklawaha, a tributary of the St. Johns, Hillsborough, and Peace Rivers also originate in or near the area.

So crucial is the Green Swamp to Florida's future that the Florida Bureau of Land Planning has recommended that more than 300,000 of its 800,000 acres be designated an "area of critical concern" to control its development. This designation would require local authorities to develop stringent regulations protecting the area from uncoordinated development.

And--if local authorities refused to act-- the state would then have the power to step in.

The Green Swamp would be the second area to be so protected under a 1972 law establishing the procedure. Portions of the Big Cypress Swamp in Southwest Florida have already been designated as an area of critical concern.

The Green Swamp area annually supplies over 94 billion gallons of ground-water recharge to the Floridan Aquifer. As the highest ground-water elevation in the state (120 feet above sea level), it also maintains water levels in Central Florida wells close to the land surface.

The prospect for harmful impact of the Floridan Aquifer by heavy development and consequent drainage within the Green Swamp is obvious, posing these dangers: Decreases in water available for acquifer recharge, diminution of the pressure head, decrease of the available ground water supply, a decrease of river and spring flow and an increase in salt water intrusion.

About 43,000 acres of the Green Swamp resting within the prospective "area of critical concern" have been registered with the state for sale by private owners.

In conflict were the property rights of the owners and the public's right to have its vital water resources protected.

It was against this background of a vital resource threatened with uncontrolled development that the State of Florida through its Attorney General filed suit last fall against land developers who were beginning to implement plans involving 16.5 square miles of the Green Swamp between Tampa and Orlando.

-more-

Involved were the Zenith Acres (almost 12 square miles), Groveland Ranch Estates (about 1.5 square miles), and Groveland Ranch Acres (almost 3 square miles) developments to the north of Polk City.

Skylab was launched by the Kennedy Space Center on May 14, 1973, and the first crew - Astronauts Charles Conrad, Dr. Joseph P. Kerwin, and Paul J. Weitz - followed it into space to begin an ambitious program of experiments on May 25.

Among the experiment areas for Skylab's earth resources cameras was the South Florida Everglades. Vital to South Florida's water supply, the Everglades were to be photographed as part of an experiment by the U.S. Geological Survey. A slight change in Skylab's orbital track, however, brought it over Central Florida, instead, for a pass over the equally important Green Swamp region, preselected by the USGS as an alternate study site.

The Skylab crew took a photograph at 9:56 a.m. EDT on June 13 that was to prove important in settling the Green Swamp lawsuit. The photograph covered Central Florida from Tampa Bay on the Gulf of Mexico to the Indian River on the East Coast. Central Florida's lakes, highways, cities, and rivers appeared with startling clarity--as did the Green Swamp.

Vegetation appears red in color infrared photographs of Earth from space. Plant life in river valleys or wetlands is well watered and flourishes. The deeper intensity of the reds in the Green Swamp made the area stand out clearly in the photograph taken by the Skylab Earth Resources Experiments Package (EREP) cameras.

Additional photographs of the area obtained from Earth Resources Technology Satellite-1 (ERTS-1) offer somewhat less detail than the EREP photographs but are available at frequent intervals. And a special U-2 high-altitide aircraft overflight was made in October.

The U-2 flew a path from Tampa to Cape Canaveral on a cloudless day, taking high resolution photographs at an altitude of 65,000 feet.

All these data were available and USGS studies were well underway when the State of Florida filed its suit.

"When Skylab shifted orbit, our alternate Green Swamp test site became primary" said Coker, "Our preparation was based on a knowledge of the hydrology, geology, and ecology of this area resulting from many years of study...Analysis of remote-sensing data was continuously accompanied by on-site studies to help provide good knowledge about the natural resources in the Green Swamp."

"After our studies were well underway, we were requested by the plaintiff (the Attorney General) and the defendants (Groveland Ranch Acres Inc., Zenith American Land and Development Corporation, and Zenith American Corporation) to act as a 'middle man' and draw on our knowledge and use NASA remote sensing data to explain the hydrologic effects of land development in the Green Swamp that were activated and proposed by the defendants."

"This request led to a meeting with the parties involved to discuss the application of the remote sensing data to their problem."

"A settlement was reached that stipulates:

* * * Ten units of Zenith Acres, some 6,000 acres in size, will be sold in five-acre rather than one-acre tracts, with roadways and roadside drainage swales but no extensive waterways.

* * * Three units of Zenith Acres may be completed as planned, including waterways, ponding areas, roadways, roadside drainage swales, and holding weirs and dams.

* * * Groveland Ranch Acres and Groveland Estates will be completed according to drainage and road building plans submitted by the company. This work is already 60 per cent completed.

* * * The companies agree that drainage systems completed or to be completed will not flow in excess of the natural flow and will not increase the rate of runoff onto other properties.

* * * No connections will be made between any of the drainage systems and the neighboring lands, the Withlacoochee River or its tributaries (the Withlacoochee River or its tributaries (the Withlacoochee is virtually pristine in this area).

* * * Drainage systems will be constructed to prevent washouts or breakthroughs to other lands, the river, or its tributaries.

* * * Water control devices will be built and maintained by the companies within 120 days. These are to be low maintenance structures.

* * * The companies will control aquatic weeds by methods other than the use of chemicals.

* * * Drainage water may not find its way into public waters in altered quality or quantity from that now entering them.

"We have again demonstrated the usefulness of remote sending data because of this need," said Coker. "The data and information were available and useful to the solution of this problem. Both the plaintiff and defendants met over the same data, appraised their problem, and together came up with a solution to benefit both parties."

Kenneth F. Hoffman, Florida Assistant Attorney General, found the NASA data and Coker's use of it helpful,

In a letter to Coker, he wrote:

"This is to express the sincere appreciation of Attorney General (Robert) Shevin and myself, and I am certain the people of the State of Florida, for your tremendous contribution to the protection of the natural resources of Florida through your assistance in analyzing data for the litigation involving drainage in the area known as the Green Swamp.

"Your analysis of National Aeronautics and Space Administration data, including aerial photographs and imagery, along with your objective explanation of the meaning of that data to both the defendant corporation and the State, were of invaluable assistance in obtaining a settlement agreement which allowed the corporations to alter their plans in such a way as to protect their interests, as well as the interests of the State of Florida in protecting natural resources, particularly water supplies and water quality."

"Both plaintiffs and defendants sought answers and solutions to their problem" said Coker. "These data helped to point out the impact of their intended actions and led them to solutions acceptable to both parties."

"As helpful as these data were in settling the Green Swamp suit, this use may have only scratched the surface of the immense potential assistance of remotely sensed information to resource managers."

Coker described the episode of the Green Swamp as "a pilot study" - just a first phase to help managers make wise decisions, not only in Florida but through the Southeast.

During the settlement discussion, Coker suggested that the developers follow the contours of the land, shaping the development to the land--not the land to the development.

"We believe people all over the country will be able to make use of data like this if it is properly interpreted," said Coker.

"It is not feasible to prevent growth--but it should be based on a full understanding of the consequences and alternatives that must be considered before development begins."

The Green Swamp studies involved the cooperation of the USGS with numerous NASA field centers and private industry.

The Johnson Space Center in Houston, Texas, guided Skylab mission operations and processed EREP data. The Kennedy Space Center in Florida launched Skylab and its crews, and its Earth Resources Office provided personnel and facilities to Coker to help interpret the remotely sensed data.

The Ames Research Center in Mountain View Calif., operates the U-2 high-altitude reconnaissance aircraft and provided Coker with airborne imagery. The Goddard Space Flight Center in Greenbelt, Md., was responsible for the development of the ERTS spacecraft, its operations, and processing of its data.

Highly sophisticated equipment at the Daytona Beach, Fla., facilities of the General Electric Company, and the Bendix Corporation was made available to Coker to analyze the space and aircraft imagery.

# # #

JUN 12 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE: 3:00 PM
June 11, 1974
Release #KSC-93-74

FEDERAL ELECTRIC AWARDED SPACEPORT CONTRACT

KENNEDY SPACE CENTER, FLA.--NASA's John F. Kennedy Space Center has awarded a one-year, $13,257,787 contract extension to the Federal Electric Corporation, Paramus, New Jersey.

The cost-plus-award fee extension covers the period July 1, 1974 through June 30, 1975 and covers a wide variety of support services at the nation's spaceport.

Among the services embraced by the contract are launch instrumentation and communications support for the Apollo-Soyuz Test Project (ASTP).

The new award brings the aggregate value of the parent contract to $144,962,628.

KSC is the launch site for all the nation's manned missions in space.

In addition, KSC launches a wide variety of unmanned weather, communications and scientific satellites and spacecraft from its facilities at Cape Canaveral Air Force Station and the Western Range in California.

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JUN 1 2 '74

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
June 11, 1974
Release #KSC-94-74

BENDIX AWARDED KSC SUPPORT CONTRACT EXTENSION

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded the Bendix Corporation's Launch Support Division, Kennedy Space Center, Fla., a $20,640,874 contract extension.

The new action extends the existing contract for a 16-month period from July 1, 1974, through October 31, 1975. It brings the aggregate value of the parent contract to $261,498,038.

The Bendix functions at KSC consist of launch support services. These include operation and maintenance of Launch Complex 39 and its mobile structures such as the Mobile Launchers and Mobile Service Structure, industrial complexes, technical shops, propellant systems, compenents cleaning laboratory and life support facilities.

Bendix also provides support in the form of test operations, reliability and quality assurance, engineering services, production control and related services.

The Bendix functions will be performed at KSC and Cape Canaveral Air Force Station.

# # #

JUN 1974

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305-867-2468

FOR RELEASE:
June 14, 1974
Release #KSC-97-74

KSC STUDIES NEW RADAR USES

KENNEDY SPACE CENTER, FLA.--In its classical application, radar is a radio detecting device that emits and focuses a powerful scanning beam of ultra high frequency waves.

It then establishes through the reception and timing of reflected beams the distance, altitude and direction of motion of any object in their path. And it does this unhindered by darkness or weather conditions blinding other sensing systems.

Radar made its debut during World War II and played a major role in the air war over western Europe.

The average citizen may be most aware of radar through its applications as an automobile traffic speed control device and a tool used by TV weather forecasters to trace cloud and precipitation patterns.

KSC's Earth Resources Office is looking into new applications.

According to Edward J. Hecker, studies of radar imagery of Brevard County obtained by the Earth Resources Office indicate that electronic observation techniques have possible application in the fields of urban land use planning and in managing water resources under increasing pressure from a growing population.

Under contract with KSC, the Environmental Research Institute of Michigan (ERIM) conducted a series of investigations of three Brevard test sites last October with equipment mounted in its C-46 Curtis Commando.

According to Hecker, technical manager of the study, the three Brevard test sites were selected well in advance of the flight to investigate the feasibility of using radar imagery for land use planning, for water resources management and to detect pools of water under canopies of dense vegetation.

- MORE -

KSC FORM OT-031 (1/78) (ONETIME FORM - REPRINT NOT AUTHORIZED)

The first site was on the western side of Merritt Island from the Barge Canal northward to the NASA Causeway and contained some citrus groves and a substantial amount of relatively unaltered land.

Water pools covered by up to three layers of dense vegetation were present at the time of the flight and were partially mapped by a ground truth investigation team from the Brevard Mosquito Control District and ERIM.

The second area included the western bank of the Indian River from just south of Melbourne to the north county line, showing the urban areas of Melbourne, Cocoa-Rockledge and Titusville as well as the land areas between these cities. The third site included the St. Johns River basin from west of Melbourne to the north county line.

Aboard the ERIM aircraft was a two-wave-length multiplex synthetic aperture sidelooking airborne radar. This was used to simultaneously image the three test sites at X-Band (3.2 centimeter) and L-Band (23 centimeter) radar wavelengths.

This provided multiple channels of data similar to those of multispectral scanner and multilens camera systems.

The antenna collected both like-polarized and cross-polarized energy to provide four channels of concurrent radar imagery.

Hecker analogized the radar view to that seen by an aircraft passenger looking out a window.

"You can't see what's below, ahead or behind. But you do see a huge swath to the side," said Hecker.

In optics, resolution is a function of lens diameter; in radar, it can be connected with antenna size.

But airborne radar with a "synthetic aperture" does not require a large "dish". The ERIM antenna is about five feet long and resembles a picket fence.

The return from the radar's repetitive bursts are run through an onboard computer which creates the effect of a much larger antenna - a synthetic aperture.

Radar imagery appears to have potential in two of the three test areas, according to Hecker.

"The potential for land use applications appears quite promising. Vegetation communities in rural areas, including trees, low grasses and cattle pasture can be discriminated and mapped."

"Urban land use applications are equally encouraging. Open lands within urban areas such as golf courses,parks and vacant tracts, lakes and waterways are distinguishable, as are major transportation networks such as airports, highways, and railroads."

Radar imagery also has potential in water management, according to an ERIM report received last week:

"Water resources management can be done using multiplexed sidelooking radar imagery. In particular, marsh regions can be readily identified and mapped, open water bodies can be identified and aquatic vegetation such as water hyacinths, water lilies and reeds can be differentiated and mapped."

Said Hecker: "At the time the imagery was acquired, the water level in the St. Johns River was abnormally high. It clearly showed open water areas, including lakes, ponds, river channels and even the intricately braided channels in Puzzle Lake west of Titusville. Drainage patterns could easily be followed through marshy areas."

The results of the water pool detection investigations were less encouraging. There was no evidence of the water pools discernible on the imagery.

"We're still studying possible local applications," said Hecker.

The study in the potential of radar was conducted because of the limitation of photographic and TV sensors on spacecraft to the visual or near unfrared wavelengths.

These impose an inability to "see" in darkness or through clouds and a lower resolution.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Charles T. Hollinshead
305 867-2468

FOR RELEASE:
June 19, 1974
Release KSC#-98-74

KSC TOURS ADD BUSSES

KENNEDY SPACE CENTER, FLA.--NASA Tours of the Kennedy Space Center are feeling the influx of summer visitors as schools close throughout the country and families start their summer vacations.

To handle the increased business, TWA, the tours concessionaire, has augmented the bus fleet with seven more busses.

Yesterday over 4,500 visitors toured the Spaceport and browsed through the displays and exhibits at the Visitor Center. A number of new displays have been added to the Visitor Center and along the tour route. Included in these are a Saturn V moon rocket first stage and a full scale model of the United States Apollo and Russian Soyuz spacecraft in their docked configuration. The two spacecraft are scheduled to rendezvous and dock during a joint mission scheduled for next summer.

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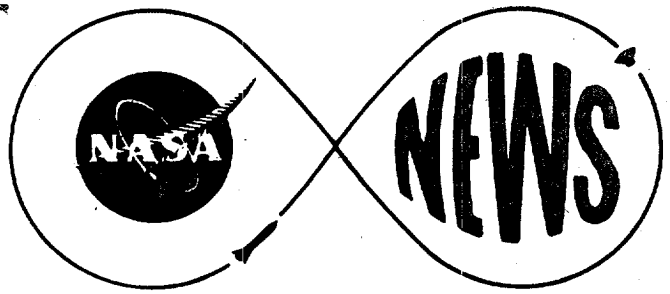

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
July 9, 1974
Release #KSC-99-74

APOLLO 11 ASTRONAUTS PURSUING DIVERSE OCCUPATIONS TODAY

KENNEDY SPACE CENTER, Fla.--July 16, 1974 marks the fifth anniversary of the launch of Apollo 11, the first U. S. lunar mission. And the astronauts for that moon exploration mission can be found today exploring diverse fields of interest back here on earth.

Neil A. Armstrong, commander of Apollo 11, and the first man to step foot on the moon, is now a professor of engineering at the University of Cincinnati. He went to NASA Headquarters in Washington in 1970 and served as the Deputy Associate Administrator for Aeronautics in the Office of Advanced Research and Technology until October 1971, when he resigned from NASA and accepted his present position.

Edwin E. Aldrin, Jr., lunar module pilot, was the second man to step on the moon. He left NASA in July 1971 to become the Commander of the Air Force Aerospace Research Pilots School at Edwards Air Force Base, California. Retired from the Air Force since March 1, 1972, he now lives in Hidden Hills, California.

Apollo 11 command module pilot Michael Collins left NASA in January 1970 to become the Assistant Secretary of State for Public Affairs. In February 1971, he was named Director of the National Air and Space Museum at the Smithsonian Institution, Washington, D.C., a position he holds today.

Apollo 11 backup commander James Lovell became the Deputy Director of Sciences and Applications at Johnson Space Center in May 1971. He left NASA and retired from the Navy in May 1973, and is the Senior Executive Vice-President of the Bay-Houston Towing Company, Houston, Texas.

-more-

William Anders, backup command module pilot, left NASA just two months after splashdown. He served as Executive Secretary of the National Aeronautics and Space Council in Washington until August 1973 when he was appointed a member of the Atomic Energy Commission.

Apollo 11 backup lunar module pilot Fred Haise, Jr., remains with NASA. He is currently Technical Assistant to the Manager, Space Shuttle Orbiter Projects, Johnson Space Center.

# # #

JUN 20 1974

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305-867-2468

FOR RELEASE:
June 19, 1974
KSC-100-74

SPACEPORT 'HAMS' TO DEMONSTRATE EMERGENCY COMMUNICATIONS

KENNEDY SPACE CENTER, Fla. - About a dozen members of the Spaceport's "ham" radio group will demonstrate their emergency communications capability at the Visitor Information Center here Saturday and Sunday.

The demonstration is part of a "field day" in which thousands of American and Canadian amateur radio enthusiasts will participate. The project is being sponsored by the Amateur Radio Relay League.

"While outwardly competitive, said William E. McInnis, president of the Space Center Amateur Radio Society (SCARS), "the real purpose of the field day is to provide an opportunity for hams to test their equipment and skills needed to assist the Red Cross, Civil Defense authorities, police and other life saving organizations when normal channels of communications are disrupted."

"This was brought to focus during the recent series of tornadoes which struck the midwest. In some cases, ham radio was the only means available for disaster victims to notify their relatives outside the disaster area that they were safe and sound."

Operating under emergency conditions will be nothing new for SCARS members.

Their station - WB4RCJ - was the emergency network control station for about 48 hours in 1970 when a hurricane struck NASA's Mississippi Test Facility along the Gulf Coast.

Purpose of the "field day" activities at the VIC by SCARS members is to test the operation of portable stations using portable power generators under simulated emergency conditions.

MORE

In a sense, the event is a contest with points awarded for each station contacted. Bonus points are added for using such esoteric power sources as windmills and solar panels.

Contacts will be from point to point but the SCARS members will also be contacting other stations via OSCAR-6, an amateur radio satellite launched piggyback on another payload from the Western Test Range in October, 1972.

OSCAR (Orbiting Satellite Carrying Amateur Radio) circles the globe every 115 minutes in a 910-mile high synchronous orbit. It can be used by amateur radio enthusiasts as far removed from each other as 5,000 miles. On an overhead pass, the maximum contact period through the satellite is about 35 minutes.

According to McInnis, SCARS members will man the VIC facilities from about 2 PM Saturday until 5 PM Sunday.

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JUN 2 4 1974
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305-867-2468

FOR RELEASE:
June 21, 1974
KSC-103-74

BETHUNE-COOKMAN COLLEGE TO INSTALL SECOND FISH REEF

KENNEDY SPACE CENTER, Fla. - Can the brackish lagoons of East Central Florida - once teeming with gamefish - be restored to their former productivity?

A second fish reef of surplus automobile tires will be built in the Banana River near KSC by Bethune-Cookman College (B-CC) of Daytona Beach in an attempt to find out.

The new reef will be sunk in the near future along the slope of a 30-foot-deep hole north of the NASA Causeway linking KSC with Cape Canaveral Air Force Station. It will range in depth from 4 to 25 feet.

The first reef was implanted in the waters of the Banana River south of the Bennett Causeway in the vicinity of Kelly Park last October. Both reefs consist of 51 tires -bundled together in groups of three - systematically placed on the Banana River bottom.

The reefs and collateral studies are covered by a grant for an investigation of restoring estuarine processes through the beneficial deposit of automobile tires. Dr. Premsukh Poonai of B-CC is the principal investigator.

Dr. Poonai and other B-CC study team members made an interim report on the project at KSC earlier this month.

Noted Frederick B. Schoenberger, a project engineer in KSC's Unmanned Launch Operations Directorate, NASA technical officer on the study:

"The reef at Kelly Park was established on October 20, 1973. Two months later, a dense population of young barnacles colonized the surface of the tires, small crabs and fish were observed within the structure and some plant growth was initiated."

According to Schoenberger, implantation of the second reef awaits only final state approval.

MORE

Other aspects of the B-CC study include investigations at a control site near the KSC KARS Park on the western shore of the Banana River and a study of marine and terrestrial life in the Banana Creek area near the southeastern terminus of the Shuttle Landing Facility, now under construction.

Both sport and commercial fishermen have observed a general decline in fish populations in coastal Florida's brackish lagoons during the past two decades with the spotted sea trout a prime example of a species showing a decline in numbers in Brevard and Volusia Counties.

Among the major factors suspected of contributing to the decline are destruction of underwater habitat and decimation of the breeding population by overfishing.

Habitat destruction ranges from dredge and fill activities for housing developments, shopping centers, roads, bridges and other structures to water pollution by sewage treatment plants and land runoff.

Among the aims of the B-CC study is a determination of whether it is possible to restore estuarine productivity by creation of artificial fish reefs which would protect young fish during their vulnerable juvenile stages. Reef materials such as tires also attract algae, barnacles, mussels, crabs and a large variety of other organisms.

In his preliminary report, Dr. Poonai observed: "It would appear that the population of large fish and crabs is smaller than would be expected on the basis of available food. It would be expected that there would be larger populations of at least those species which feed on species such as barnacles." These would include the mangrove snapper, sheepshead and redfish (channel bass).

He speculated: "A possible cause of reduction of numbers of gamefish is a high intensity of fishing. In order to provide for the high rate at which the existing stock is harvested out of the the estuaries, a logical step is to increase the type of habitat preferred by game fish."

The next stage of the project will be to measure the populations of organisms around the havens for the purpose of comparing them with those representing the rest of the estuary.

"The aim of the observations will be to determine if the tire reefs provide conditions for population increase and if the populations of gamefish do increase in around them as preliminary observations indicate," said Dr. Poonai.

Future operations include a study of the influence of the Space Shuttle runway construction on organisms in Banana Creek and neighboring plant associations.

The B-CC study has provided its students with great experimentation opportunities.

The studies have involved 18 field trips to the four sites. These trips involved about 408 student hours and generated about 880 laboratory hours of work.

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NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
June 26, 1974
Release #KSC-105-74

SPACEPORT CEREMONY MARKS 5TH ANNIVERSARY OF APOLLO 11 LAUNCH

KENNEDY SPACE CENTER, Fla.--The National Aeronautics and Space Administration will commemorate the launch of Apollo 11, first lunar landing mission, on its fifth anniversary July 16, 1974 at the Kennedy Space Center.

Launch Complex 39, from which Neil Armstrong, Edwin Aldrin and Michael Collins began their historic journey, will be dedicated as a national landmark.

The ceremony will begin at 9:00 a.m. EDT. Apollo 11 was launched at 9:32 a.m. EDT July 16, 1969 while the lunar landing occurred July 20.

Observances are planned in Washington, D. C., and Houston, Texas.

Governor Reubin Askew has proclaimed July 16-22, 1974 "U. S. Space Week in Florida."

The Apollo 11 crew will be represented in the KSC ceremony during which a plaque will be unveiled.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
July 1, 1974
Release #KSC-106-74

TEMPORARY LICENSE TAG SALES OFFICE OPENED AT KENNEDY SPACE CENTER

KENNEDY SPACE CENTER, Fla.--Kennedy Space Center government and contractor employees are purchasing Florida 1975 vehicle license tags at a temporary sales office on the Center this year.

License tag sales at the Spaceport started today with the opening of a temporary office in the Headquarters Building by Brevard County Tax Collector Rudy Underdown. The office will be open Monday through Friday until August 20.

"The tax collector's office is very appreciative of the cooperation of Kennedy Space Center officials in making space and facilities available so that we may provide this service to employees," Underdown said.

Only license tag renewals are available at the temporary office. Prices are the same as those charged in permanent offices located at Court Houses in the county.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
June 28, 1974
Release #KSC-108-74

NASA ASSOCIATE ADMINISTRATOR FOR MANNED SPACE FLIGHT VISITS KSC

KENNEDY SPACE CENTER, Fla.--NASA Associate Administrator for Manned Space Flight John F. Yardley received briefings on Kennedy Space Center plans and operations by Center Director Dr. Kurt H. Debus and KSC staff members here today.

In the all-day session, Yardley, who is visiting the Spaceport for the first time since assuming the position in May, was provided an overview of KSC operations and briefed on facilities construction and modification for Space Shuttle operations, development of the Launch Processing System and preparations for launch of the U. S. mission of the Apollo Soyuz Test Project.

He visited the KSC Flight Crew Training Building to view a demonstration of a prototype Launch Processing System this morning. Visits to the Manned Spacecraft Operations Building to observe preparation of the backup Apollo spacecraft for ASTP, Firing Room 3 of the Launch Control Center for a countdown simulation demonstration and the Vehicle Assembly Building where modification of a mobile launcher for Space Shuttle assembly is underway were on his afternoon schedule.

In addition to Dr. Debus, KSC participants in the briefing sessions included Deputy Director Miles Ross, Raymond L. Clark, Director of Design Engineering; Dr. Walter J. Kapryan, Director of Launch Operations; Dr. Robert H. Gray, Manager, Shuttle Projects Office and William H. Rock, Manager, Sciences, Applications, Skylab and ASTP Programs Office.

Yardley was Vice President and General Manager of McDonnell Douglas Astronautics Company, Eastern Division, at the time of his appointment. He came to the local area in July 1960 as a base manager for the Mercury Capsule Program, remaining here until 1964 when he returned to the McDonnell Douglas home office in St. Louis and became the Gemini Program Manager.

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JUL 1 1974

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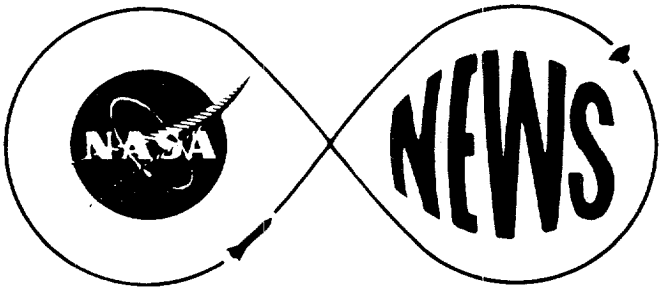

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
July 1, 1974
KSC-109-74

APOLLO 11 CREW MEMBERS TO ATTEND ANNIVERSARY CEREMONY

KENNEDY SPACE CENTER, Fla.--The Apollo 11 astronauts, Neil Armstrong, Edwin Aldrin and Michael Collins, have accepted invitations to participate in the KSC ceremony marking the fifth anniversary of their launch to the Moon.

The crew will unveil a plaque at Launch Complex 39 at 9:32 a.m. July 16. That was the exact time of liftoff of their Saturn V space vehicle.

Community representatives, Federal officials and KSC personnel will attend the event.

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NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
July 1, 1974
Release #-111-74

KSC TOUR VOLUME REFLECTS SUMMER INCREASE

KENNEDY SPACE CENTER, Fla.,--Nearly 90,000 visitors toured NASA's John F. Kennedy Space Center during June, a marked increase over the 48,000 who took the guided bus tours during May.

The increase reflects the end of school and a rise in the number of family groups taking vacations during the three summer months.

The June, 1974, total compares with 159,451 for the same month in 1973, a decline of just over 40 percent in comparison with one year ago.

The decrease is in line with the decline sustained by other popular attractions throughout the state.

The 91,817 bus tour patrons during June swelled the total for the year to 654,279.

The traditionally heavy tour months of July and August as well as the "rush" of the Thanksgiving and Christmas holiday seasons remain in the year and P. A. Fagnant, Chief of KSC's Visitor Information Center Branch, expressed confidence that the 1974 tour total would again exceed one million.

Guided bus tours of the nation's Spaceport were inaugurated in July, 1966, and attendance has exceeded one million every year since 1969.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
July 5, 1974
Release #KSC-112-74

SPACEPORT RETIREES RECALL APOLLO 11 IMPRESSIONS

KENNEDY SPACE CENTER, Fla.--Retirement from the space program has failed to dull the memories of the spectacular blastoff of Apollo 11 in the minds of former KSC personnel.

Seven retirees, each of whom played a prominent part in the Manned Space Flight Program prior to and after the Apollo 11 flight, recalled the exhilaration they felt as the giant space vehicle erupted from Launch Complex 39 to carry Astronauts Neil A. Armstrong, Michael Collins and Edwin E. Aldrin, Jr., on their history-making journey to the Moon.

G. Merritt Preston, then Director of KSC's Design Engineering, said he felt the Apollo 11 fight proved space technology had advanced farther than had technology in any other field of science.

"I felt exhilarated beyond belief," Preston said, as he recalled the moments before and following the launch. "I still feel it was a remarkable event. I was worried about how the swing arms on the Launch Umbilical Tower would operate and felt relieved when they functioned perfectly. They are complicated devices."

Preston told of the long work hours necessary during the development and construction stages of the Apollo 11 spacecraft and launch vehicle.

Director of the Shuttle Project Office at the time of his retirement, Preston now lives in Indian Harbour Beach and is employed by a construction and development company engaged in building houses, town houses and condominiums.

Former Installation Support Deputy Director Clarence C. Parker of Titusville said he looks back at the achievements of the Apollo 11 mission with amazement. "They occurred so early in the space program. I thought it would take more preparatory flights before a Moon landing could be accomplished. I could not have been more elated as the launch proceeded flawlessly."

Parker recalled, as did Preston, the hard work and long hours spent preceding the launch.

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Since retirement, Parker has been active in real estate and in civic affairs in Titusville, serving on the board of directors of the Jess Parrish Memorial Hospital.

Donald W. Hardin, Chief of the Launch Support Management Office when he retired in 1971, said he thought of the Apollo 11 mission as a building block in the Space Program.

A member of the Space team since 1956, when he was employed by the Army Ballistic Missile Agency as Chief of Administration at Hangar D, Cape Canaveral Air Force Station, Hardin said he recalled how "cool the program veterans remained through the hours of the launch countdown and even at the moment of launch."

Today, Hardin manages an orange grove, serves on the board of directors of a bank and spends many hours encouraging small businesses to establish in Titusville.

The recent retirement of Wesley E. Messing marked completion of a 30-year career with the National Advisory Committee for Aeronautics (NACA) and with NASA. Messing recalled the great confidence he felt in the ability of Apollo 11 Commander Armstrong.

Messing flew with Armstrong when the latter was a test pilot for NACA during the 1950's and renewed the acquaintance later at Edwards Air Force Base. "I never dreamed then that Armstrong would be the first man to step foot upon the Moon," Messing recalled.

By coincidence, Messing is a graduate of the University of Cincinnati where Armstrong now teaches. Messing lives on Merritt Island and is catching up on his fishing before trying his hand at a new career.

Lewis E. Melton, Chief Accountant for KSC at the time of the launch, viewed the blastoff from the Unmanned Launch Operations area of Cape Canaveral Air Force Station.

"It was a great occasion," he recalled. "I remember how the crowd came alive and cheered as Apollo 11 rose. Their noise drowned out even the great roar from the Saturn's engines. I worried at the time about the journey ahead for the astronauts, their scheduled lunar landing, the return trip and especially the Earth reentry. But all went well."

Today, Melton is active as part owner of an insurance agency in Melbourne where he resides.

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One of the busiest persons at KSC at Apollo 11 launch time was George F. Killmer Jr., Assistant for Special Events in Public Affairs. Killmer viewed the launch from the VIP site at Complex 39 where some 12,000 special guests of NASA had gathered.

Preparations for the handling of a crowd of that size, augmented by a record 3,497 accredited newspaper and media representatives, took months of advance activity, Killmer reminisced.

A resident of Cocoa Beach active as secretary-treasurer of a landscaping and architectural design business in that city, Killmer said he regrets that the space program did not receive greater funding following the scientific triumph of Apollo 11.

"We all fought hard to make the mission successful and anticipated the program would forge ahead as a result of it. We should now proceed in making the Space Shuttle reap benefits for our nation and mankind not even thought of in present planning. We are really just starting into space at this time," Killmer said.

James C. Stanley, Assistant Accountant with KSC's Financial Management Office at the time of the Apollo 11 mission, was inspired by the launch. "It provided the outstanding thrill of my lifetime," he said. "I can't even describe it. It was the most significant event of the whole space program."

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
July 11, 1974
Release #KSC-114-74

KSC GATE 2 VISITORS CENTER ACCESS ROUTE CLOSED

KENNEDY SPACE CENTER, Fla.--Public access to the Visitors Information Center is limited to entrance through Gate 3, via State Road 405 and the NASA Parkway off U. S. 1 south of Titusville, Fla.

Gate 2, on State Road 3, normally an access route to the visitors center, is closed to the public as picketing is in progress outside the gate.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
July 25, 1974
KSC Release#-121-74

LASERS STUDIED AS WATER ECOLOGY TOOL

KENNEDY SPACE CENTER, Fla.--Do the intense beams of a laser have potential as a tool with which to monitor temperature, turbidity, salinity and other factors affecting water quality?

This possibility is being studied by the University of Miami under a six-month, $30,000 contract with NASA's John F. Kennedy Space Center.

Conventional remote sensing techniques such as multi-spectral photography are passive in nature and have limitations in some applications. For example, temperature measurements in the sea can only be made of the surface and turbidity measurements are complicated.

There is no known method at the present time for the remote sensing of vertical temperature profiles in water bodies.

But high energy laser beams can be directed downward into the sea and the return radiation measured for a number of factors.

A laser is an electronic device that emits an extremely intense beam of energy in the form of light rays. The word "laser" is an acronym derived from the phrase "Light Amplification by Stimulated Emission of Radiation."

The ability of laser light to penetrate deeply into water is derived from the unique nature of the beam.

Laser light is coherent - meaning the crests and troughs of each light wave in the beam coincide with those of every other light wave. All other light sources produce incoherent light - meaning the crests and troughs of the waves do not coincide.

In incoherent light the waves are radiated independently of each other, thus dissipating the energy of the beam. But in coherent light, the waves are not radiated independently and they reinforce each other.

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As a result, laser rays are nearly parallel to one another and diverge only slightly as they travel. For example, a laser beam directed at the Moon would illuminate an area two miles in diameter on the lunar surface. A beam of ordinarly light traveling the same quarter-of-a-million-mile distance would illuminate an area 25,000 miles in diameter.

In addition, all the light waves in a laser beam are a single color with the same wavelength.

Lasers can probe the water's upper layers using the visible light to which the ocean is most transparent. The most transparent portion of the spectrum for the open ocean is in the blue-green.

According to Roy A. Bland, technical manager for the contract in KSC's Earth Resources Office, preliminary studies are underway in the laboratory at the University of Miami using a ruby laser.

"If these preliminary studies with the ruby laser make the technique appear feasible," said Bland, "we will proceed to develop an instrument using a neodymium (rare metallic element) laser."

Bland said blue-green light from the neodymium laser with pulse lengths of one billionth of a second would be directed vertically into the sea and the returning radiation analyzed.

In theory, analysis of the returned radiation will yield data on the water's turbidity, salinity and temperature as a function of depth, providing a vertical "map" on water quality. In addition, it may also be possible to evaluate pollutant and chlorophyll content.

If the technique is found feasible, for the first time it should be possible to probe beneath the sea for temperature, turbidity and impurity measurements by remote sensing.

The proposed method should be effective in both fresh and salt water bodies and thus applicable to studies of lakes, rivers, estuaries, coastal and ocean areas where temperature information is required.

This study contract is closely allied with another KSC/University of Miami contract under which a mathematical model is being developed as a means of predicting and minimizing the impact of thermal pollution from conventional and nuclear power plants.

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A mathematical model is a computer simulation which predicts the results of a given mixture of conditions.

The thermal pollution study calls for vast amounts of data over large areas at various depths. The laser measurements technique now under study could supply a vital portion of the needed data for the mathematical model.

The model study poses great potential as a tool for site selection for future power plants in Florida, the United States and elsewhere in the world.

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AUG 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

FOR RELEASE:

A. H. Lavender
305 867-2468

August 2, 1974
KSC-122-74

SUE A. WEISSENEGGER NAMED KSC DEPUTY CHIEF COUNSEL

KENNEDY SPACE CENTER, Fla.--Appointment of Mrs. Sue A. Weissenegger as Kennedy Space Center Deputy Chief Counsel was announced by Center Director Dr. Kurt H. Debus today.

Born in Louisiana, she later resided in Orlando, Florida, and was graduated from Orlando High School.

Mrs. Weissenegger became a Civil Service employee with the Veterans Administration and later served as a secretary in the Department of Justice, Washington, D. C. While employed at Justice she enrolled in Southeastern University, Washington, D. C., receiving her Bachelor of Law degree in 1941 and passing her District of Columbia bar examination later in that year.

Loaned to the Army, she was a government attorney in the Nuremburg trials in Germany. Following the trials, she was assigned as an assistant district attorney in the U. S. court system in Stuttgart and later was appointed judge.

She returned to the United States in 1953 and joined the Kennedy Space Center as a secretary in the Chief Counsel's office in 1962. She was reassigned as an attorney on the Chief Counsel's staff in 1963. She passed the Florida bar examination in 1971.

Mrs. Weissenegger and her son, Allan, 17, a senior in Cocoa Beach High School, reside at 393 Formosa Drive, Cocoa Beach, Florida.

AUG [redacted] 1974
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NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
August 1, 1974
KSC-123-74

NEW EXHIBITS ADDED AT SPACEPORT VISITOR FACILITIES

KENNEDY SPACE CENTER, Fla.--A number of new space exhibits were added to KSC's Visitor Information Center and its guided bus tour stops during July.

New at the VIC, which can be reached via the NASA Causeway from U. S. Route 1 two miles south of Titusville, are a mockup of the Mercury spacecraft, an armored personnel carrier adapted for astronaut rescue purposes and a Saturn V third stage and instrument unit.

Now at the Flight Crew Training Building where astronauts trained for their Apollo lunar missions are two of the instruments like those left behind on the Moon's Sea of Tranquility by the Apollo 11 crew.

These are a passive seismometer - useful in studying the moon's internal structure and lunar seismic events - and a Laser Ranging Retroflector. The latter device consists of a tray of "optical corners" designed to bounce laser rays back to Earth. Measurement of the time from transmission of the laser beams to their return to Earth has permitted scientists to measure the constantly changing Moon-Earth distance to within 13 feet.

A total of 146,338 visitors took guided bus tours of KSC and Cape Canaveral Air Force Station during July, up from 91,817 during June. The July attendance pushed the bus tour total for the year to 531,771.

The July, 1974, patronage compares with 204,510 for July, 1973, a decrease of approximately 28 percent.

Among the attractions at the Vehicle Assembly Building where Apollo and Skylab hardware was assembled in preparation for move to the launch pads are full-scale mockups of the Apollo and Soyuz spacecraft to be flown as part of the joint United States-Soviet Union Apollo Soyuz Test Project next July.

Guided bus tours of KSC were inaugurated in July, 1966, and the attendance has exceeded one million every year since 1969.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
August 12, 1974
Release #KSC-124-74

KSC EXECUTIVE RECEIVES ILLINOIS ASSIGNMENT

KENNEDY SPACE CENTER, Fla.--Dugald O. Black, KSC's Deputy Director of Support Operations, will assume the role of Science and Technology Applications Advisor in the State of Illinois Bureau of the Budget effective September 3.

Black's assignment to work with the State of Illinois under the Intergovernmental Assignment Program is for a minimum of one year and a maximum of two years.

Black will work under Harold A. Hovey, Director, Illinois Bureau of the Budget, with the responsibility for planning and implementation of programs to enhance the applications of science and technology to state problems. He will work in the State Capitol in Springfield.

The assignment is at the request of the state to provide technical expertise and assistance by the application of space-derived technology developed by the Federal Government to problems of public concern.

Black will assist the state in implementing space-oriented solutions to current problems based on application of NASA technology.

He will also support and assist scientifically-oriented branches of state government in applying NASA technology to such programs as public health and medical applications, detection of pollutants, waste water treatment, energy, mining, agriculture and other fields.

"It's a realy challenging assignment," said Black. "It should prove a good experience for myself as well as KSC and NASA in putting all the knowledge we've found in aerospace technology to work and see how it can be applied to the needs of the community."

Black's Illinois assignment is being made under the provisions of the Intergovernmental Personnel Act of 1970. Under this program, employees may be assigned between Federal

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executive agencies and state and local governments and institutions of higher education for periods of up to two years. Black is the first KSC executive to be selected for the program.

Assignees can provide expertise for priority projects, solve problems involving two levels of government and build intergovernmental understanding by gaining experience in another administrative environment.

All 50 states as well as numerous local governments, universities and Federal agencies are participating in the program, enabling them to share their resources and cooperate in solving mutual problems.

A total of 662 Federal employees were given temporary assignments to the states, units of local government and educational institutions as of November, 1973, with 46 of those coming from NASA.

Working in the other direction, 427 state, local government unit and educational institution employees were assigned to Federal agencies during the same period.

Although a resident of Florida since 1959, Black is not unaccustomed to the Midwest's cool climate. Born in Mossblown, Scotland, November 26, 1915, he emigrated with his parents to the United States in 1924 and settled in Indiana, Pa. He attended high school in Pittston, Pa., and received a BS degree in Mechanical Engineering from the Indiana Institute of Technology, Fort Wayne, Indiana, in 1943.

He joined the National Advisory Committee for Aeronautics - since redesignated the National Aeronautics and Space Administration - in March, 1943. His initial assignment was in the Flight Research Division at the Lewis Research Center, Cleveland, Ohio.

He served as project engineer on the aircraft crash fire program during which extensive tests were conducted to determine various causes of fire in aircraft crashes. Many of the causes of such fires have been eliminated in today's aircraft as a result of those tests. He is coinventor of an aircraft crash fire prevention system.

While still at Lewis, Black became active in Project Mercury when he was assigned as spacecraft engineer responsible for the construction of one of the first versions of the Mercury spacecraft and engineered the location of much of the equipment in the capsule.

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He was transferred to Cape Canaveral in 1959 to take part in the flight testing of the Mercury spacecraft. Following this he was appointed Technical Assistant to the Manager, Manned Spacecraft Center, Atlantic Missile Range Operations and Project Manager of Preflight Acceptance Checkout Equipment for Spacecraft. He also served as Deputy Manager of the Manned Spacecraft Center's Florida Operations.

In his present position, Black is responsible for operating and maintaining launch complex facilities and ground support equipment. His duties include maintenance and operations of various propellant systems, cryogenic cleaning, technical laboratories and shops and mobile launchers and transporters.

Black has completed 31 years of continuous service in aircraft and spacecraft research. During this period he has authored and co-authored numerous technical papers.

He is married and lives with his wife, Carolyn, in Indianlantic, Fla. They have two daughters, Bonnie and Nancy. Bonnie is on the faculty at Luther College, Decorah, Iowa. Nancy is married to John Fowler and they live in Tampa, Fla.

Black is President of the United Way of Brevard County and Chairman of the KSC Equal Employment Opportunity Advisory Committee.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
August 20, 1974
Release KSC-125-74

KSC'S SKYLAB ROLE REVIEWED AT ASTRONAUTICAL SOCIETY MEETING

KENNEDY SPACE CENTER, Fla.--In addition to demonstrating that men could make major unplanned repairs and alterations in orbit, the Skylab program succeeded in virtually all of its planned objectives, participants in a symposium on Skylab results in Los Angeles were told by William H. Rock, Kennedy Space Center Manager of Sciences, Applications, Skylab and ASTP Programs today.

Rock reviewed the launch center's role in Skylab in a paper presented at the American Astronautical Society's twentieth annual meeting at the University of Southern California.

"In most cases the goals for earth resources sensing and intensive study of the sun were actually surpassed," Rock said.

"The unique nature of the program makes comparisons with Apollo checkout and launch standards difficult, if not impossible, but the fact that all difficulties and problems associated with launch were overcome indicates the KSC team did its job well," he concluded as he explained problems involved in checkout of new space vehicle systems involved in Skylab.

"Skylab Checkout and Launch Operations at KSC," was the subject of a paper presented by Robert E. Moser, Chief, Test Planning Office, Launch Operations. In his paper Moser outlined planning involved in Skylab checkout, with many operations performed simultaneously with Apollo 17 checkout activities.

In a paper on "Skylab Facilities Modifications at KSC," James D. Phillips, Chief, Launch Accessories Branch, Design Engineering, reviewed the problems involved in altering mobile launchers and other facilities for launch of the Skylab space station from Complex 39's Pad A and three manned Skylab missions from Pad B.

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"The modifications accomplished for Skylab were cost effective and proved the tremendous flexibility of Launch Complex 39 facilities," Phillips said. "A new set of design changes to these facilities is now underway to modify them to support the checkout and launch of the Space Shuttle. These changes also confirm the flexibility of the mobile system utilized at Complex 39."

Processing of Skylab experiments at the launch center was reviewed by U. Reed Barnett, Chief, Project Management, Earth Resources Branch, in another paper presented at the meeting.

The unusually large number of experiments, experimenters and organizations involved in checkout at KSC were complicating factors, he emphasized in explaining the Center's management concepts for prelaunch checkout of experiments.

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AUG 74

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
August 16, 1974
KSC-126-74

KSC EMPLOYEE RECEIVES NASA EXCEPTIONAL SERVICE MEDAL

KENNEDY SPACE CENTER, Fla.--J. W. Johnson, Chief of the Projects Management Office, KSC Unmanned Launch Operations, received the NASA Exceptional Service Medal for his work on the Pioneer 10 mission to Jupiter.

The award was presented by Dr. James C. Fletcher, NASA Administrator, in ceremonies today at Ames Research Center. Ames is the NASA Center responsible for Pioneer spacecraft research and development.

At KSC, Johnson was project representative for both the Pioneer 10 and 11 missions to Jupiter. He served as the sole point of interface for advance planning for spacecraft requirements, coordinating the assignment of suitable facilities, participating in project operational and logistic planning for launch site activities, and providing a wide range of support services.

Johnson was born in Miami, Florida, and attended the University of Miami, where he received a degree in engineering in 1955. Prior to that he served in the Air Force during the Korean conflict, remaining in the reserve afterward and receiving a commission in 1955. He is at present a major in the U. S. Air Force Reserve.

Johnson joined NASA in 1961, after working six years for the Boeing Company. He continued in night courses while at KSC, and received a master of science degree in Research and Development Management in 1965. In 1966 he became Chief of the Technical Support Operations Branch in Unmanned Launch Operations. In 1968 he received a Sloan Fellowship for a year of study under the Executive Program at Stanford University. Upon returning to KSC he served as Technical Assistant to the Unmanned Launch Operations director until May 1973, when he moved to his present assignment.

Johnson resides in Cocoa Beach, with his wife, Glenda, and their three children, Jerry, Chrystine, and Glenn.

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NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
August 16, 1974
Release #KSC-128-74

KSC CEREMONY HONORS SUMMER AIDS

KENNEDY SPACE CENTER, Fla.--Officials of the John F. Kennedy Space Center recognized some 63 summer employees at the eighth annual Summer Aid recognition ceremony. The ceremony included words of appreciation and the presentation of achievement awards for accomplishments during the summer months. Invited guests included parents, supervisors and community leaders, along with members of the Brevard County School System and representatives of the Civil Service Commission.

Director of Launch Operations Dr. Walter J. Kapryan and Deputy Director of Support Operations Dugald O. Black thanked the students for their contributions to KSC during the summer months.

Guest speaker Dr. Warren Morgan, Vice President of Student Affairs at Florida A & M University, encouraged the Summer Aids to live up to their full potential and to take advantage of their summer work experience. He said, "You can be no more or any less than what you want to be, have the faith to be, and conviction and drive to become. Yes, only you hold the key to your successful future. This program and others similar should be viewed by you as stepping stones into the future."

The Summer Aid Program has been a part of KSC since 1965 and has provided work experience and financial assistance to students who qualify. To qualify for the program students must be between the ages of 16 and 21 years of age and have a need for financial assistance to continue their education. Students work during the summer months in jobs such as clerk-typists, clerks and engineering aids.

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8/26

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

FOR RELEASE:
August 26, 1974
Release #KSC-129-74

Dick Young
305 867-2468

DR. BUCHANAN TO HEAD KSC OFFICE OF LIFE SCIENCES

KENNEDY SPACE CENTER, Fla.--The appointment of Dr. Paul Buchanan, MD, as Director of KSC's Office of Life Sciences, effective September 9, has been announced by Center Director Dr. Kurt H. Debus.

The newly-created office covers the entire spectrum of medical, biological and environmental services at the nation's Spaceport.

As a staff officer, the Director of the Life Science Office evaluates the health status of the population and directs monitoring, correction and rehabilitative techniques where necessary to influence the success of any mission from the medical point of view.

As an operating officer, Dr. Buchanan will be responsible to the Center Director for occupational health, biological science activities, and biomedical instrumentation for the application of technical advances generated by NASA.

Support services include emergency medical services with medical surveillance for altitude and hyperbaric chambers and environmental health engineering services to support facility design and compliance with the regulations of various federal agencies.

The support function also extends to the environmental sciences with respect to ecology and environmental impact, sanitary engineering, health physics, research and development, and planetary quarantine controls, as well as limited medical services to the general public visiting KSC.

Dr. Buchanan comes to KSC from the Lyndon B. Johnson Space Center in Houston, Texas, where he served as Chief of JSC's Health Maintenance Branch.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
Sept. 11, 1974
Release #KSC-134-74

SPACE RESEARCH AIDS NEW ARTIFICIAL LIMB DEVELOPMENT

A new type of artificial limb for handicapped persons has been developed through the joint efforts of the Kennedy Space Center and a California hospital.

The new prosthetic device, which is strapless and can be attached or detached quickly, should prove to be very helpful to individuals with amputated arms or legs. Benefits expected for many amputees include improved function, appearance, psychological outlook and employment potential.

Two products of space research made the new device feasible.

The Kennedy Space Center built the quick-disconnect portion of the artifical limb which is attached directly to the bone of the amputated limb. The design was based on a quick-release ball connector device used to hold rocket umbilical attachments in place until the moment of liftoff.

The Rehabilitative Engineering Center at the Rancho Los Amigos Hospital at Downey, California, is experimenting with the artificial limb which will be custom fitted to an amputee's arm or leg. Under the sponsorship of NASA, the hospital has been conducting research since 1968 on a high-purity, high-strength carbon material which could be implanted through the skin of patients without causing infection. The material was initially developed for use in rocket motors.

Until recently, the direct attachment of an artificial limb has been thwarted by the body's tendency to reject foreign materials and the failure of the skin to form a hygienic seal otherwise compatible materials. Today, high-purity carbon collars inserted in the skin make it feasible to use quick-release connectors to attach artificial limbs directly to bones.

Essentially, a stainless steel receiver with a carbon collar attached to its outer end is inserted into the bone of the amputated limb. The collar remains at the skin level when the receiver is in place. Then the exterior portion of the artificial limb is attached by inserting its ball connector through the collar. The limb can be locked in place by a patient and quickly removed when desired.

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An exhibit of the artificial limb and other medical uses for the carbon material will be one of four displays furnished by the Kennedy Space Center for a NASA conference this month to review current and future technology. The conference will be held at the Langley Research Center, Virginia, Sept. 10-12. Other KSC exhibits will be concerned with the Space Shuttle, medical technology and energy.

Congressmen, other Federal officials, educators and members of the aerospace industry have been invited to attend the conference.

The quick-disconnect device was developed by a KSC team headed by Lester Owens of the Systems Engineering Division of the Design Engineering Directorate. The team also developed a coaxial shock absorber used in connection with the artificial limb.

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SEP 1 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

C. T. Hollinshead
305 867-2468

William O'Donnell/NASA Headquarters
202 755-2354

FOR RELEASE:
September 18, 1974
KSC-135-74

DR. DEBUS TO RETIRE AS KSC DIRECTOR

KENNEDY SPACE CENTER, Fla.--Dr. Kurt H. Debus, Director of the NASA Kennedy Space Center since its establishment in 1962, has requested retirement at an early date.

KSC is the major NASA space launch facility.

Pending selection of a successor, the Deputy Director, Miles Ross, will function as Acting Center Director.

Dr. James C. Fletcher, NASA Administrator, expressed deep regret over Dr. Debus' decision.

"Kurt Debus is one of the outstanding pioneers in space exploration," said Dr. Fletcher. "His record stands on its own -- from the launch of the first American satellite in 1958 to building and operating the great launch complex at Cape Canaveral for the Apollo manned lunar landings. His leadership at the Kennedy Space Center was a key factor in this nation's achievement of space supremacy and preparation for Space Shuttle and other future programs designed to exploit space for the benefit of humankind."

In a letter to Center employees, Dr. Debus said he was retiring at a time when the installation's future has been assured and construction is underway to accommodate the Space Shuttle transportation system in the 1980s.

Dr. Debus is completing 30 years in Federal employment. His career in military and NASA programs began in 1945 at Fort Bliss, Tex., and White Sands, N. M., where the U. S. Army conducted research activities.

In 1950, together with Dr. Wernher von Braun and others, Dr. Debus moved to Huntsville, Ala., where the Army consolidated its missile development projects.

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Dr. Debus supervised the construction of Army launch facilities at Cape Canaveral and the launch of the first Redstone ballistic missile in 1953. Thereafter he supervised flight testing of Jupiter, Jupiter C, Juno and Pershing missiles until the Army team was transferred to NASA in 1960.

He directed the launch of the first U.S. Earth satellite, Explorer I, Jan. 31, 1958.

Dr. Debus supervised construction of the Kennedy Space Center while directing activities of the launch center through the entire manned and unmanned programs from the flight of Alan Shepard in 1961 to preparations for Space Shuttle operations.

The Kennedy Space Center also launches NASA vehicles at the Western Test Range in California.

Dr. Debus was born in Frankfurt, Germany in 1908. He attended Darmstadt University where he earned advanced degrees in mechanical and electrical engineering. While serving as assistant professor he became active in the rocket research programs conducted at Peenemuende.

His unique contributions to the U.S. defense and space programs brought a number of honors including the Army's highest civilian decoration, NASA's distinguished service medal and other medals. He received honorary degrees from several universities.

Earlier this year Dr. Debus received the Louis W. Hill Space Transportation Award from the American Institute of Aeronautics and Astronautics.

Dr. and Mrs. Debus live in Cocoa Beach, Fla., where he intends to remain in retirement. They have two daughters, Ute, residing in Washington, D.C., and Siegrid, the wife of William Northcutt of Miami.

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SEP 3 0 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
September 25, 1974
Release #KSC-137-74

NOTE TO EDITORS/NEWS DIRECTORS:

Twin Viking spacecraft will arrive at the Kennedy Space Center next spring to be prepared for launch on missions which could vastly alter man's understanding of the planet Mars.

Cold, scoured by high-velocity winds sweeping across a surface scarred with volcanoes, craters and rift valleys, and with a carbon dioxide atmosphere only one-hundredth as dense as that of the Earth, Mars does not appear to have the potential of harboring life - as we know it.

Mars has been completely mapped from space by the Mariner 9 spacecraft but not until Viking spacecraft make soft landings in 1976 will human eyes be able to view detailed, close-up photographs taken from the Martian surface and analyze the findings of Viking "laboratories" searching for life.

The twin Vikings will undergo assembly, checkout and sterilization at KSC in preparation for their launch by the Unmanned Launch Operations Directorate aboard Titan/Centaur rockets in late summer.

The Viking "window" extends from mid-August through mid-September, with the 440-million-mile journey to Mars to require approximately 11 months. The Vikings will go into orbit around Mars and the first lander will detach from its orbiter for a landing on Mars' Chryse region on July 4, 1976.

This is near the mouth of a 3,000-mile-long gorge sweeping across the planet like a Martian Grand Canyon. The second lander will touch down on Mare Acidalium, near the southern rim of the north polar cap.

United States spacecraft have now explored Mercury, Venus, Mars and Jupiter but the Viking Project marks the first time plans are being made to land on an alien world. Launch is now less than a year away. We hope you find the enclosed material on this exciting mission helpful. Please call or write if you need photographs or additional information.

# # #

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
October 9, 1974
Release #KSC-138-74

DR. ROBERT H. GRAY TO GIVE SYMPOSIUM BANQUET ADDRESS

KENNEDY SPACE CENTER, Fla.--Space Shuttle's role in future United States space operations and the economics to be achieved through use of a reusable space transportation system in the 1980s will be the subject of a banquet address by Dr. Robert H. Gray, manager of the Kennedy Space Center Shuttle Projects Office, to participants in the Ninth Aerospace Mechanisms Symposium.

Dr. Gray's speech will be the highlight of an Octoberfest banquet Thursday evening, October 17. The two-day symposium continues through Friday, October 18.

Jointly sponsored by the Kennedy Space Center, the California Institute of Technology and Lockheed Missiles and Space Company, Inc., the symposium will feature papers on the application of aerospace mechanisms for solutions to present day problems, aircraft and space vehicle mechanism development and operation, comparison of design principles in the areas of reliability, weight, dimensions and interaction with space and other environments, and possible applications of existing conventional mechanisms to flight.

Symposium sessions will be in the Kennedy Space Center training building auditorium. The Octoberfest banquet October 17 and a buffet dinner Friday evening, October 18, will be at the Holiday Inn, Cocoa Beach, Fla.

Morning sessions on October 17 will be chaired by K. A. Faymon, NASA Lewis Research Center, and E. E. Sechler, California Institute of Technology, and afternoon sessions by A. C. Bond, NASA Johnson Space Center, and F. T. Martin, NASA Goddard Space Flight Center.

Morning sessions on October 18 will be chaired by K. C. Curry, Jet Propulsion Laboratory, and Angelo Giovannetti, NASA Ames Research Center. The afternoon session, chaired by Donald D. Buchanan, Associate Director for Design, KSC Design Engineering, will include presentation of papers during

-more-

a field trip to KSC's Complex 39, including visits to the Launch Control Center, the Vehicle Assembly Building, the crawler-transporter parking area and Pad B, which will be the launch site for a manned Apollo spacecraft on the United States mission of the Apollo Soyuz Test Project in July 1975.

In addition to government, educational and industry delegates representing the United States and other nations, Florida educators and college engineering-science students are invitees to the symposium.

Additional information on activities may be obtained from Otto Fedor, Kennedy Space Center (305 867-2102), chairman of the symposium organization committee.

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Note to Editors/News Directors:

Should media representatives desire to attend any of the sessions, please arrange by telephoning the KSC Public Information Office, 867-2468.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
October 2, 1974
Release #KSC-140-74

NOTICE TO EDITORS/NEWS DIRECTORS

WESTAR-B LAUNCH SCHEDULED WEDNESDAY, OCTOBER 9

KENNEDY SPACE CENTER, Fla.--WESTAR-B, the second commercial domestic communications satellite to be launched by NASA for the Western Union Telegraph Company, is scheduled for launch from the Kennedy Space Center's Complex 17, Cape Canaveral Air Force Station, Wednesday, October 9. The launch window extends from 6:54 p.m. to 9:04 p.m. EDT.

To be renamed WESTAR-2, the spacecraft will be placed in a synchronous orbit over the equator southeast of Hawaii, and later moved to its final position over the equator south of New Orleans, La. (91° W).

A prelaunch press conference is scheduled Tuesday, October 8. News media representatives will be provided transportation to the press conference from the KSC Public Information Office, Room 1207, Headquarters Building, at 1:30 p.m. They may enter KSC via State Road 405 off U. S. Highway 1 south of Titusville, Fla., obtaining access badges at the Gate 3 Pass and Identification Building, located approximately .6 miles east of U.S.1.

Transportation to the launch October 9 will be provided, with a bus for photographers departing the Ramada Inn, Cocoa Beach, at 5:30 p.m. and the Cape Canaveral AFS Gate 1 Pass and Identification Building at 5:45 p.m., and a bus for writers and broadcasters departing the Ramada Inn at 6:00 p.m. and the Gate 1 Pass and ID Building at 6:15 p.m.

Because launch vehicle testing continues, media representatives planning to cover the press conference and the launch are requested to telephone the KSC Public Information Office, 305 867-2468, Monday, October 7, to confirm the launch schedule.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
October 4, 1974
Release #KSC-142-74

INDIAN HARBOUR BEACH FIRM AWARDED SPACEPORT CONTRACT

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a contract for $34,397 to Fulford Construction Co., Inc., Indian Harbour Beach, Fla.

The contract is for modifications to two buildings in the KSC Industrial Area to adapt them to provide fueling and encapsulation facilities for the Intelsat IV communications satellite and other Atlas-Centaur payloads.

These services are now performed in facilities located at Cape Canaveral Air Force Station which have been pre-empted for the Viking Mars landing program.

The modification program also looks to the future by providing facilities for the use of extended payload shrouds which cannot be accommodated in the existing facilities.

The "Hyper-1" building is being modified to permit spacecraft fueling and Spacecraft Assembly and Encapsulation Facility-2 (SAEF-2) is being adapted to handle the mating of the Intelsat communications satellites and other Centaur payloads with their protective shrouds.

Under the contract, Fulford is to provide all necessary labor, materials, equipment and services. Work on the project is to be completed within 60 days.

The contract is one set aside for small business firms.

# #

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
October 18, 1974
Friday A.M.
Release #KSC-143-74

DR. GRAY IS SYMPOSIUM BANQUET SPEAKER

KENNEDY SPACE CENTER, Fla.--Aerospace technology has made the world seem smaller and its people more interdependent, Dr. Robert H. Gray told attendees at the 9th Aerospace Mechanisms Symposium last night (Thursday). Dr. Gray spoke at a symposium banquet held at the Holiday Inn in Cocoa Beach.

"Scientific discovery and technological application progress together, reinforcing each other," KSC's Manager of Shuttle Projects said during his address to attendees at the symposium banquet session.

"The space program spurred computer development, and computers are now widely used by both scientists and businessmen.

"Weather forecasting and storm warning have been made far more accurate by satellite observation, to the benefit of everyone.

"Microelectronics has become a major industry, earth resources evaluation from space is rapidly expanding, and solar power and many other benefits will be utilized in the future.

"The space program has greatly developed our national technical capabilities. Other nations recognize this. Several are establishing national satellite communications systems for their own use and joing the U. S. in mutual scientific space exploration.

"The Shuttle will be the workhorse of the space program in the 1980's, providing an economical means of getting heavy payloads into low earth orbit. Spacecraft designed for Shuttle launch will be much less expensive than present ones, and can be recovered and repaired if necessary.

"There are also many important intangible benefits from space technology, such as upgrading of the school system, the new knowledge created, and greatly heightened international cooperation. Other nations recognize the importance of the Shuttle system and are joining us in its development.

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"Aerospace has become a very important part of today's world, and the technolgists are innovators and creators in the field."

The symposium concludes today with morning sessions in the Training Auditorium and a field trip to Complex 39 for on-site presentations at the Launch Control Center, transporter park site, Pad B and the VAB

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Box 107

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
205 867-2468

FOR RELEASE:
October 17, 1974
Release KSC#-145-74

HIGH HEELS HAVE NO PLACE ON SHUTTLE RUNWAY PROJECT

KENNEDY SPACE CENTER, Fla.,--When Cindy Moore shows up for work in the morning, she looks like she's ready to dig a ditch. She is.

High heels and a mini-skirt just don't make it where she works - on the construction site of the Space Shuttle runway. So Cindy dresses for the job. And that requires blue jeans, sneakers and a hard hat.

The Kennedy Space Center has been designated the prime launch and recovery site for the Space Shuttle, designed to provide low-cost transportation to and from Earth orbit.

Shuttle landings will be made on a three-mile-long, 300-foot wide runway to the northeast of the Vehicle Assembly Building. Construction began last April and it is at the runway site that Cindy does her thing.

And what job would demand this unusual working attire for a female? The most interesting job she's ever had, says the 20-year-old technician for J. E. Greiner Engineering. She's part of Greiner's construction team and is the first woman field worker in her company's history.

Although Cindy, a 1972 graduate of Titusville High School, had no previous experience in construction when she was hired, she learned the ropes on the job from her boss, H. D. Campbell. Campbell said he offered her the job because she had the quality he rates number one: a real desire to learn.

And Campbell says she does a "fantastic" job.

Cindy says she likes her work because it's varied and every day is a new experience. "I really love being outside," she adds. "I've been a receptionist and a secretary, and I just hate being cooped up inside all day long."

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KSC FORM OT-081 (1/73) (ONETIME FORM - REPRINT NOT AUTHORIZED)

After only 6 weeks on the job, Cindy says she feels like an old hand. She likes her work so well, she's thinking of becoming a civil engineer.

Cindy's main responsibility is operating a device called a Troxler. The Troxler analyzes the density and moisture content of the soil. These measurements are taken at stipulated points along the runway to make sure the ground is compact enough for surfacing.

After shoveling off the top layer of soil, Cindy levels the area with a metal plate. She then drives an iron stake - called a pin - into the ground to make a hole for the Troxler's probe. The stake is removed from the ground, the probe put in its place and an instant analysis of the soil results.

Cindy's come a long way for someone who, only a few short weeks ago, couldn't tell a dragline from a rootpicker.

Cindy is the daughter of Mr. and Mrs. James Moore of Symsonia, Kentucky.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
October 17, 1974
Release #KSC-147-74

KSC LAUNCH PLANNER WORKS WITH SOVIETS ON ASTP FLIGHT

KENNEDY SPACE CENTER, Fla.--While you were just snuggling into your comfortable bed, KSC's Clyde Netherton had already finished breakfast in Moscow's grandiose Hotel Rossiya.

And by the time you were deep in sleep, Netherton had emerged from the hotel, completed a brisk stroll around cobblestoned Red Square in the shadow of the Kremlin's crenelated walls and was hard at work at the Soviet Institute of Space Science.

It's not that Clyde fancies offbeat working hours. But he was the lone KSC representative on a 32-member Apollo Soyuz Test Project (ASTP) working group in the Soviet capital from August 25 through September 14 and Moscow is seven hours ahead of Florida's Eastern Daylight Time.

Netherton is in charge of countdown planning at KSC. And he made the trip to coordinate the intricate prelaunch planning required for the first international manned space flight with his Soviet counterparts, including several from the Russian manned launch site at Baikonur in the sandy wastes to the northeast of the Aral Sea.

Meshing the gears of the KSC and Soviet countdowns requires delicate planning.

Two Russian Soyuz spacecraft are committed to the mission. The backup will be launched in the event the mission of the first is aborted before or after the launch of Apollo from KSC.

Thus, one Apollo and two Soyuz will be undergoing launch preparations simultaneously, increasing the potential for slippages.

While Netherton's prime task is planning for the Apollo launch, he had to understand Soyuz launch plans, hold capabilities and launch days.

Mission planning calls for the Soviets to launch first - on July 15, 1975 - from their Central Asia launch complex.

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Apollo will be launched from KSC approximately seven and one half hours later.

Netherton said he had handcarried a "substantial Package" of prelaunch planning documents with him on his Russian trip. The documents cover launch planning through liftoff and the various activities occurring in the countdown. They also outline what to do in the event of a delay.

"We'll be counting down three vehicles," stressed Netherton. "If you have a problem on one, what do you do with the other two?"

Netherton said the working group would meet with Soviet representatives again at the Johnson Space Center in Houston, Texas, in December to jointly sign the original document. He noted, however, "it's difficult to close out a document in an ever-changing atmosphere."

According to Clyde, Soviet launch practices differ somewhat from those at KSC.

The Soyuz spacecraft and launch vehicle are processed separately until about a day prior to movement to the launch pad. Then they are mated. It is possible for them to launch within a day after the space vehicle has been erected on the pad but the normal practice calls for a three-day interval.

"There is little spacecraft testing and servicing on the pad," said Netherton. "All this has been done before the move to the pad.

Despite a busy work schedule, Netherton and the American group had time for outside diversions, among them an excursion to Kaluga, a town southwest of Moscow which was the home of Konstantin Tsiolkovsky, patron saint of Russian rocketry and now site of a museum in his honor. Kaluga is in rolling country a four-hour bus ride from the Soviet capital.

Tsiolkovsky, a nearly deaf mathematician who bequeathed his country the theoretical basis and formulas for rocket flight, is regarded with near reverence in the Soviet Union. His statue stands at the foot of the 100-meter-tall, titanium-coated obelisk honoring Soviet space exploration which dominates the skyline of the Russian capital.

Netherton and Frank C. Littleton, head of ASTP working group 1 at the Johnson Space Center, took note of Tsiolkovsky's contributions to space flight by placing a large basket of cut flowers at the statue in his honor at the Kaluga museum built in his memory.

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Netherton also visited Svezdnygorodok (Star City), the Soviet counterpart of NASA's Johnson Space Center. The cosmonaut training center is a half-hour journey from downtown Moscow. While in Star City, they inspected Soyuz spacecraft simulators and other cosmonaut training facilities.

Clyde said it is difficult to make a direct comparison of Star City with JSC. The Soviet facility is spread over an extensive area and - unlike JSC - includes personnel housing, stores and recreation areas.

He also took in a performance of Tchaikovsky's "Swan Lake" by the Bolshoi Ballet troupe in the Kremlin's impressive Plaace of Congresses and did some shopping in GUM - the hugh Victorian shopping arcade just across Red Square from the Kremlin - and in shops scattered along Gorky Street, Moscow's counterpart of Fifth Avenue.

Like most westerners, he was impressed by Moscow's deep and clean subway system, noted for its ornate stations. He described the food as "good" but professed some amazement over the serving of cucumbers - "excellent flavor" - at almost every meal.

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Note to Editors: Clyde Netherton lives in Titusville, Fla., with his wife, Harriet. A daughter, Mrs. Alan DeSerio, also lives in Titusville.

OCT 21 1974

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
October 17, 1974
Release #KSC-148-74

KSC ESTABLISHES MINORITY BUSINESS COUNCIL

KENNEDY SPACE CENTER, Fla.--The Kennedy Space Center has established a Minority Business Enterprise Program Council designed to expand the participation of minority enterprises in NASA activities.

Establishment of the Council is part of a NASA-wide program to further assist minority business enterprises in obtaining federal contracts.

Miles Ross, Acting Director, will serve as chairman. Members include Dr. R. H. Gray, W. H. Rock, G. A. Van Staden, R. L. Clark, F. H. Miller, Dr. W. J. Kapryan, P. A. Minderman, E. F. Parry, G. L. Harris, W. M. Lohse, E. C. Spivey, Nat Pilate and B. J. Dryer III, executive secretary.

The Council will provide a central planning and reviewing authority to assist the Center in accomplishing effective minority business enterprise programs.

It will be concerned with the full range of program activities to include procurement, technical and management assistance, on-site minority business concessions, education and training, relations with the minority business community and external program coordination.

The Council's plan includes efforts to expand prime contracting with minority business firms, encouraging prime contractor subcontracting to minority firms and additional emphasis on minority contracting under the Section 8(a) Program of the Small Business Act.

The Section 8(a) Program is a means of enabling federal agencies to award non-competitive contracts to minority-owned businesses. The contract is actually awarded by the agency to the Small Business Administration (SBA). The SBA, in turn, subcontracts to a Section 8 (a) certified minority contractor.

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KSC currently leads all NASA centers in its awards to minority business firms, their dollar value last year almost doubling those of the nearest NASA activity.

Three service contracts are now held by minority firms. These include New World Services Inc. (library services and automatic data processing keypunch services) and Expedient Services (custodial services).

The dollar value of minority awards during Fiscal Year 1974 was $2.7 million. This included numerous construction contracts.

According to Dryer, the award level for minority firms will remain high for Fiscal Year 1975, which began July 1.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
October 29, 1974
KSC-152-74

MC DARIS, ZWEIGBAUM, EARN EXCEPTIONAL SERVICE MEDALS

KENNEDY SPACE CENTER, Fla.--Two KSC executives were presented the NASA Exceptional Service Medal by Dr. James C. Fletcher, Administrator, at the annual awards ceremony held at NASA Headquarters in Washington, D.C., on October 29.

The medals were presented to Robert A. McDaris, KSC's Director of Quality Assurance, and Harold Zweigbaum, Technical Assistant to the Director of Unmanned Launch Operations.

McDaris has been Director of Quality Assurance since 1965. In this post, he is responsible for the development and implementation of a comprehensive quality assurance program.

His award was "in recognition of his significant contributions to the development and implementation of KSC's reliability and quality assurance program which was instrumental in the achievement of an outstanding record of successful manned and unmanned launches."

McDaris lives on Merritt Island with his wife, Kathleen, and daughter, Kathy, a senior student at Merritt Island High School.

McDaris holds baccalaureate and master degrees in electrical engineering from the Univeristy of Illinois and is a member of Eta Kappa and Sigma Tau honorary engineering societies.

Zweigbaum, a graduate of New York University with a degree in electrical engineering, was awarded his medal for "his contribution to the scientific space programs, both domestic and international, in the management of launch operations for unmanned missions at the John F. Kennedy Space Center."

Zweigbaum has held his present post since May, 1973. Prior to that time he served as chief of the Unmanned Launch Operation Directorate's Techincal Support Operations Branch.

He has worked for NASA at its Florida launch center since 1962. This was an era of major launch activity with Ranger, Surveyor and Lunar Orbiter spacecraft hurled to the Moon and Mariners and Pioneers launched toward the planets.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
October 30, 1974
Release #KSC-153-74

GEORGIA COLLEGE AWARDED SPACEPORT RESEARCH GRANT

KENNEDY SPACE CENTER, Fla.--Savannah State College of Savannah, Ga., will conduct ecological studies of estuarine waters near the nation's Spaceport under a $54,375 grant from NASA's John F. Kennedy Space Center.

The Kennedy Space Center, launch site of the Apollo lunar and Skylab earth orbital missions, has also been designated the prime launch and recovery center for the reusable Space Shuttle which will begin orbital flights in 1979.

Located on Merritt Island, midway down the Florida east coast between Jacksonville and Miami, it is surrounded by an extensive natural network of lagoons and estuaries - the Indian and Banana Rivers and Mosquito Lagoon.

These shallow waters are an important source of finfish and shellfish and play a major role in supporting the important Florida coastal fishery.

The research project is designed to study the impact of civilian, industrial and other treatment facilities discharging effluents into the north areas of the Indian River and Mosquito Lagoon.

It will provide information on the effectiveness of waste treatments and the contamination potentials from other areas. It will also deal with identifying organic decomposition products in the aquatic areas north and east of KSC.

The Savannah State project will be concentrated in the northern areas of the Indian River and Mosquito Lagoon. These areas will be investigated to determine the degree of pollution originating outside the Spaceport's northern boundaries and the potential environmental impact upon KSC.

Data obtained from the Savannah State study will be combined with those produced by concurrent studies of

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
October 29, 1974
Release #KSC-154-74

ASTP DOCKING MODULE ARRIVES AT SPACEPORT

KENNEDY SPACE CENTER, Fla.--The American-built docking module which will link United States and Soviet spacecraft during the Apollo Soyuz Test Project (ASTP) manned mission next July arrived at KSC for launch preparations today.

The docking module arrived at the Cape Canaveral Air Force Station Skid Strip aboard a C-141 transport this afternoon and was immediately moved to the Manned Spacecraft Operations Building at KSC for inspection.

It is to be placed in an altitude chamber in preparation for the systems tests scheduled for mid to late November.

The docking module will serve as the connecting link between the two spacecraft and as an airlock for crew movement between Apollo and Soyuz, which have different atmospheres.

The docking module is 10 feet, 4 inches long and has a maximum diameter of 4 feet, 8 inches.

It will be carried aloft nestled inside the spacecraft LM Adapter between the Saturn IB rocket's Instrument Unit and the Apollo spacecraft. Once in orbit, the ASTP crew will execute a turn maneuver and extract the docking module in much the same manner as the Apollo lunar module was removed during the Apollo lunar exploration missions.

Launch of the ASTP prime crew from Launch Complex 39 atop a Saturn IB is scheduled for 3:50 p.m. on July 15, 1975. The Russian Soyuz spacecraft is to be launched from the Cosmodrome at Baikonur in Kazakhstan seven and one-half hours earlier.

The two spacecraft are to rendezvous and dock approximately two days after launch with the docking

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KSC FORM OT-031 (1/78) (ONETIME FORM - REPRINT NOT AUTHORIZED)
NASA-KSC FEB 79

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young - 305 867-2468

Dennis Williams, NASA HQ,-202 755-3897

FOR RELEASE:
November 18, 1974
Release #KSC-159-74

NASA LAUNCH SITE TAKES ON INTERNATIONAL FLAVOR

KENNEDY SPACE CENTER, Fla.--The most active unmanned launch facility of the American space program has taken on a distinctly international flavor in recent months as technical personnel from many nations complete work on a variety of satellite projects.

French and German voices mingle with British-accented English as teams prepare their spacecraft for launch from the Kennedy Space Center pads.

Six international spacecraft in five different buildings are undergoing some phase of checkout in preparation for launch and all are scheduled for liftoff within the next four months.

West Germany has the largest share of the international action.

Two German teams are at KSC at present, one handling German responsibilities for the Helios spacecraft and the second working with a French team preparing the Symphonie communications satellite.

Germany is also a member of the consortium of 87 nations (including the United States) which owns the INTELSAT international communications network.

The first launch - scheduled for November 21 - is that of the sixth INTELSAT IV spacecraft, leaving two in this series to be launched in 1975. INTELSATS are launched by Atlas/Centaur rockets from Complex 36. In 1975, the Atlas/Centaur will also be launching two INTELSAT-IV-A spacecraft, a larger version which will further increase the overall telecommunications capacity of the international network.

The member countries of INTELSAT generate approximately 95 percent of the total telecommunications traffic in the world. A large portion of that traffic which flows between nations is now handled by the INTELSAT satellite communications network.

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The Second of the six launches scheduled is that of the SKYNET II-B, a British military communications satellite, due for liftoff on November 22. SKYNET II will be launched on a Delta rocket from Complex 17.

A crew from the British spacecraft manufacturer - Marconi Space and Defence Systems Ltd. - is at KSC to checkout Skynet in association with personnel from the British Ministry of Defence.

The third launch - in early December - is that of the Helios-A spacecraft. Helios is a cooperative German-American project. Two of these scientific probes are to be launched on the powerful Titan/Centaur rocket, with an added Delta third stage.

West Germany supplies the spacecraft and the United States the rocket. Representatives from the German government project management and from German industry, which built the Helios spacecraft, are also at KSC.

Initial control of Helios after launch will be from the Jet Propulsion Laboratory's Space Flight Operations Facility at Pasadena, California. Later, responsibility will be transferred to the German Space Operations Center near Munich. Helios will explore territory new to science as the first spacecraft to enter the outer edges of the solar corona.

At that distance from the sun, the spacecraft will encounter temperatures in excess of 300^{o} Centigrade (700^{o} Fahrenheit), hot enough to melt lead. All the data returned from the U. S. and German experiments will be made publicly available following analysis.

The Symphonie spacecraft, a joint German-French experimental synchronous communications satellite will be launched in mid-December, aboard a Delta rocket.

Symphonie is somewhat different from other communications satellites in synchronous orbit. It has three solar cell wings instead of having the cells mounted directly on the spacecraft body, and does not spin on its axis like a gyroscope to maintain stability.

Instead, it uses a three-axis control system. It uses only the super-high frequency range for its communications equipment and has a capacity of two color TV channels or 1200 telephone circuits.

The fifth international launch now set for January, 1975 - is another INTELSAT IV satellite.

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The sixth one is a Telesat, the third in this series of Canadian domestic communications spacecraft, scheduled for launch in February. Two of the highly successful Telesat synchronous orbit commercial communications satellites are already in operation.

The third was called up for launch somewhat sooner than originally planned due to rapidly increasing loads on the two already at work. A fourth Telesat launch is now a possible call-up for 1975.

Telesats are launched on Delta rockets built by McDonnell Douglas and managed by the Goddard Space Flight Center. The spacecraft is built by Hughes Aircraft Co. for Telesat Canada Corp.

All of these launches except the Helios are fully reimbursable to NASA, the customer supplying the spacecraft and paying for the launch vehicle and all associated costs.

On Helios - a cooperative scientific mission - the United States bears the cost of the rocket and its launch and West Germany the cost of the spacecraft.

Of the 23 NASA launches scheduled from Cape Canaveral from now through 1975, 16 are fully reimbursable.

The unmanned space program is increasingly international in character as more and more countries realize the benefits available and invest directly in new projects that tap the tremendous potential of space science and applications.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

FOR RELEASE:
November 20, 1974
Release #KSC-160-74

Dick Young
305 867-2468

MERRITT ISLAND FIRM AWARDED KSC CONTRACT

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a contract for $88,845 to Gertrude C. McElligott, doing business as Construction Services, Merritt Island, Fla.

Under the contract, Construction Services will provide labor, materials, equipment and services necessary to make modifications to the primary electrical service for the Unified S-Band Station at KSC.

The Unified S-Band Station is an element in the Space Tracking and Data Acquisition Network (STADAN) operated by the Goddard Space Flight Center, Greenbelt, Md.

The fixed price contract - to be completed within 240 calendar days from the date of the award - is one set aside for small business firms.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
November 29, 1974
KSC-163-74

NOTICE TO EDITORS/STATION MANAGERS

KENNEDY SPACE CENTER, Fla.--The Launch of Helios A, the first of two German-U. S. space missions to study the Sun from an orbit nearer the center of the solar system than ever before, is scheduled Sunday, December 8, 1974. A one-hour launch window opens at 2:16 a.m. EST.

The German-built Helios spacecraft will be launched by a U. S. Titan III-Centaur booster. Both the U. S. and Germany will conduct experiments and evaluate results.

A prelaunch press conference on the Helios mission is scheduled Thursday, December 5. Media representatives desiring to attend the press conference should arrive at the KSC Public Information Office, Room 1207, Headquarters Building, by 1:30 p.m. Transportation to the press conference will be provided.

Media representatives desiring to cover the press conference will be badged upon request at the KSC Gate 3 Pass and Identification Office, on State Road 405, .6-mile east of U. S. Highway 1.

Transportation to the press site for launch coverage will be provided, with a bus for photographers departing the Ramada Inn, Cocoa Beach, Fla., at 12:45 a.m., with a stop at the Cape Canaveral Air Force Station Gate 1 Pass and Identification Building at 1:00 a.m., and a bus for writers and broadcasters departing the Ramada Inn at 1:15 a.m., with a stop at the Gate 1 Pass and Identification Building at 1:30 a.m.

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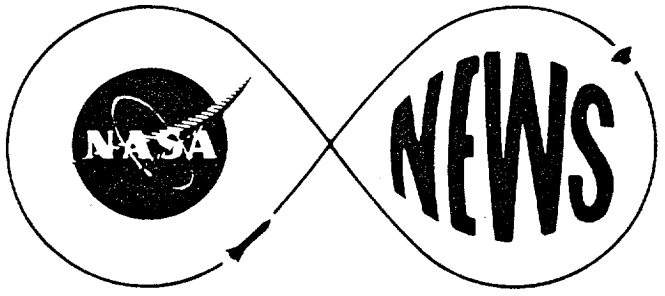
BXS #108



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
December 3, 1974
Release #KSC-164-74

KSC TOURS INCREASE DURING NOVEMBER

KENNEDY SPACE CENTER, Fla.--Public use of tour and exhibit facilities at the nation's Spaceport appears likely to soar over the one million mark for the sixth consecutive year.

A total of 42,461 visitors took guided bus tours of KSC and the Cape Canaveral Air Force Station during November, a slight increase over the 39,269 who took the two-hour, 50-mile tour during October.

November tour patronage pushed the total for the year to 780,998.

The November, 1974, tour patronage compares with 59,871 for the same month in 1973.

The 11-month total of 780,998 for 1974 compares with 1,191,561 for the first 11 months of 1973, a decline of 34.5 percent.

P. A. Fagnant, Chief of KSC's Visitor Information Center Branch, predicted that the bus tour total for 1974 will approximate 850,000.

"The Christmas season is traditionally one of our busiest," said Fagnant.

Bus tour patronage reflects only a portion of public use of the visitor facilities with their many exhibits, movies and science lectures.

"Surveys show that only about 75 percent of those who come to the Visitor Information Center (VIC) take the tour, said Fagnant. "Thus, actual visitor volume is much higher than tour volume indicates.

"Actual visitor volume should far exceed a million for the sixth consecutive year," he predicted.

The VIC includes a wide array of static and dynamic space exhibits, movies and space science lectures, all

-more-

available to the public without charge.

The VIC can be reached via State Road 3 from Merritt Island or by the NASA Causeway off U. S. Route 1 two miles south of Titusville.

It is open every day of the year with the exception of Christmas.

A new exhibit added during November was a full-scale test model of the first stage of the Saturn IB, the powerful rocket that will be used to launch astronauts Thomas P. Stafford, Donald K. Slayton and Vance D. Brand from KSC next July 15 in the Apollo-Soyuz Test Project, a joint space flight with the Soviet Union.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Karl Kristofferson
305 867-2468

FOR RELEASE:
December 6, 1974
Release #KSC-165-74

ASTP HARDWARE FLOW ACCELERATES

KENNEDY SPACE CENTER, Fla.--Preparations for the U.S.-USSR linkup in space next July accelerated today at KSC with the erection of the Saturn IB booster stage in the transfer aisle of the Vehicle Assembly Building (VAB).

The Chrysler-built S-IB booster, which will be used to launch an Apollo spacecraft with Astronauts Thomas B. Stafford, Donald K. Slayton and Vance D. Brand from Complex 39B on July 15, 1975, was removed from its storage "cocoon" in the VAB on November 27.

After preliminary inspection and checkout, the S-IB will be stacked on a mobile launcher inside the VAB on January 13. The following day, the S-IVB second stage, manufactured by McDonnell Douglas, which is currently undergoing inspection and normal processing in the VAB, will be mated with the booster. The Instrument Unit, provided by IBM, will be added to the stack on January 16.

The Apollo spacecraft -- Command Service Module (CSM) 111 -- for the first manned international mission in space arrived at KSC on September 7 and has been undergoing combined systems tests in the Manned Spacecraft Operations Building (MSOB). It is scheduled for simulated and manned altitude runs with the prime and backup crews in mid-December and mid-January.

The Docking Module, which will serve as an "airlock" for crew transfers between the docked Apollo and Soyuz spacecraft, arrived at KSC in late October. The Docking System, which will link the two spacecraft together in space, will arrive at KSC on January 3, completing the hardware chain.

The CSM, Docking Module and Docking System were built by Rockwell International.

The Docking System and Docking Module will be mated on January 17, and, after combined systems tests in the MSOB, the complete unit will be placed into the spacecraft adapter on February 11.

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Mating of the CSM and spacecraft adapter will take place on March 5-6, and the complete configuration -- CSM, Docking Module and adapter -- will be erected atop the launch vehicle on March 25.

The complete Saturn space vehicle will be transferred to the launch pad on March 31. Final preparations will commence at this point, culminating in countdown demonstration tests in late June and early July. The final launch countdown begins on July 11.

Launch of the Apollo spacecraft with its three-man crew is scheduled for 3:50 p.m. EDT, July 15, 1975. It is to effect a rendezvous and docking with a Soviet Soyuz spacecraft carrying two cosmonauts which will have been launched 7.5 hours earlier from the Baikonur cosmodrome to the northeast of the Aral Sea.

Prime Soviet crewmen are Alexei Leonov and Valeriy Kubasov.

A major program objective of ASTP includes the development and test of compatible rendezvous and docking equipment and procedures. A major goal of the mission will be the performance of 26 space experiments, five of them to be accomplished jointly by the astronauts and cosmonauts during the joint phase of the mission.

Each nation is separately developing docking systems based upon a mutually agreed-upon set of interface design specifications. The cylindrical docking module - about five feet in diameter and 10 feet in length - has been developed by the United States and will serve as an airlock for the transfer of crew members between the Apollo and Soyuz spacecraft.

The docking module is designed to accommodate two crewmen and will contain equipment necessary for crew transfer and other mission requirements.

The docked portion of the mission will last for about two days.

# # #

BAS #108

NEWS

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Karl Kristofferson
305 867-2468

FOR RELEASE:
December 6, 1974
KSC-166-74

FRENCH-GERMAN SPACE TEAMS GIVE LOCAL COMMUNITIES EUROPEAN "FLAVOR"

KENNEDY SPACE CENTER, Fla.--Wolfgang Hagenest and Eike Mueller are like any other Brevard residents. They pay rent, buy groceries, shop, travel, swim and play tennis, even go to the movies.

And like many Brevardians, they are space workers.

Hagenest and Mueller, both with the West German firm of Gesellschaft Fur Weltraumforschung (GFW), typify the increasingly international aspect of the American space program.

They are among the 200-man contingent of French and German engineers, scientists and technicians here for the Helios and Symphonie satellite launches scheduled this month. Many brought along their families, giving the local communities a distictly European flavor.

The Germans, involved in both the Helios and Symphonie programs, account for the largest influx of new "residents," numbering about 250, including dependents. They represent, in addition to GFW, the government agency Deutche Forschung und Veruchsanstalt Fur Luft und Raumfhart and the firm of Messerschmitt-Boelkow-Blohm.

The French contigent, and families, for Symphonie number about 50, and represent the government agency Centre National D'Etudes Spatiales and its contractor, Consortium Industriel Franco- Allemand SYMPHONIE, a combination of industrial concerns in several nations.

The majority of the French-German space teams has resided in Brevard since about mid-September, and will remain past the launches of Helios this Sunday and Symphonie on December 17.

How do they like Brevard, Florida and the United States, in that order?

"Just fine," says Mueller, a subsystem engineer on the Helios attitude control system. "It is very pleasant to live in this country, especially this area.

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"I have my wife and four children here with me, and we enjoy the uncomplicated way of life your...'our'...community offers. The climate allows us to be informal and to be outdoors more often.

"We can do so many more things here than is possible in Germany."

Hagenest, who is responsible for interface requirements between the Helios spacecraft and the Titan-Centaur launch vehicle, is impressed by the tremendous selection of shops and recreation, and the friendliness of the American people.

"It is so easy to make good acquaintances here," he says in precise English. "In Germany it is not so easy.

"The variety of foods and goods in your stores is excellent."

Hagenest enjoys the area's recreational activities as well. "We fish and swim a lot in the ocean."

Swim?

"Sometimes we are the only ones because of the water temperature. But it is not so cold to us. Before coming to this country we swam in the Baltic Sea."

The activities -- and spending habits -- of Brevard's "international community" have not been limited to just Brevard. In singles, pairs and groups, they have "taken in the sights" with trips to Sea World, Disney World, St. Augustine, Miami, the Keys, even ranging as far north as Atlanta and the Great Smoky Mountains. They have attended cultural and sporting events, shopped exotic stores and just plain relaxed at outdoor barbecues with their colleagues and new-found American friends.

Although the Helios-Symphonie teams will be gone soon, they offer a graphic example of how NASA's international space programs have impacted the local communities and the area's overall economy.

Foreign representatives were here for last month's back-to back Intelsat and Skynet launches. Additional Intelsats, including a larger, improved version, will be launched in 1975. Symphonie-B and Helios-B satellites will be launched in September 1975 and early 1976, respectively, returning most of the French and German space teams to the area.

A Canadian Telesat launch is planned for next March, and other launches involving Japan and European and South American nations are scheduled for the 1976-77 period.

The foreign influx will increase dramatically with Space Shuttle operations later in the decade since Spacelab, to be designed and built by nations of the European space community, will become a frequent Shuttle payload for scientific, technological, medical and applications studies in earth orbit.

The changing face of America's space program and its effect locally was aptly expressed by Eike Mueller when he said: "I had several American friends from the north visit me recently here in Cocoa Beach. They asked me to give them a tour of the Kennedy Space Center and Cape Canaveral.

"I did."

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
December 10, 1974
KSC-167-74

NOTICE TO EDITORS/NEWS DIRECTORS

SYMPHONIE LAUNCH SCHEDULED DECEMBER 17

KENNEDY SPACE CENTER, Fla.--Symphonie, the first French/German communications satellite, is scheduled for launch from NASA's Complex 17, Cape Canaveral, Tuesday, December 17 at 9:38 p.m. EST. A 31-minute launch window extends to 10:09 p.m.

To be boosted into synchronous orbit by a Delta launch vehicle, Symphonie is an experimental satellite to test and demonstrate communications equipment for television, radio, telegraph, telephone and data transmission.

The Delta will be launched by the Kennedy Space Center's Unmanned Launch Operations Directorate.

A Prelaunch Press Conference is scheduled Monday, December 16. Media representatives desiring to attend the press conference should reach the KSC Public Information Office, Room 1207, Headquarters Building by 10:30 a.m. December 16. Transportation to the press conference will be provided.

Transportation to Press Site 1 for coverage of the launch will be provided. A bus for photographers will depart the Ramada Inn, Cocoa Beach, at 8:10 p.m., with a stop at the Pass and Identification Building at Gate 1, Cape Canaveral AFS, at 8:25 p.m. A bus for writers and broadcasters will depart the Ramada Inn at 8:40 p.m., with a stop at the Gate 1 Pass and ID Building at 8:55 p.m.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Karl Kristofferson
305 867-2468

FOR RELEASE:
December 10, 1974
Release #KSC-168-74

KSC APPOINTMENTS ANNOUNCED

KENNEDY SPACE CENTER, Fla.--A realignment of KSC management was announced last week by Acting Center Director Miles Ross.

Isom A. Rigell was named Director, Launch Vehicle Operations, reporting to Walter J. Kapryan, Launch Operations Director. Rigell previously served as LVO Acting Director.

Henry C. Paul was named Associate Director for Launch Processing System Development, Design Engineering, reporting to the Director of Design Engineering, Ray Clark. Paul formerly was Chief of the Launch Processing System Development Office under the Design Engineering Directorate.

Dr. Paul Buchanan, M. D., was named Director, Biomedical Office, reporting to the Center Director.

Nathaniel Pilate was named Chief, Equal Opportunity Program Office, reporting to the Center Deputy Director. Pilate previously headed the Contract Compliance and Equal Employment Opportunity Staff under the Administration Directorate.

Edward R. Mathews was named Chief, KSC Shuttle Ground Operations Office at the Johnson Space Center, reporting to the KSC Director. Mathews formerly served as a special assistant to the KSC Director for Shuttle at JSC.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
December 13, 1974
Release #KSC-169-74

NASA GUESTS TO VIEW SYMPHONIE LAUNCH

KENNEDY SPACE CENTER, Fla.--Several distinguished groups will attend the launch of Symphonie, a joint French-German communications satellite, Tuesday evening, Dec. 17.

French and German Embassies have invited guests from their nations including:

France

Maurice Levy, President, Communications Satellite Project
Pierre Baudis, Mayor of Toulouse
Georges Mesmin, Member of Parliament
Bernard Marchand, Ministry of Posts and Telecommunications
Yves Demerliac, Secretary-general, Eurospace
Roger Chevallier, General Director, Aerospatiale
Francois de la Gorce, Minister Counselor

Germany

Dr. George Moesl, Executive Secretary, Symphonie
Dr. Karl-Heinz Scholtyssek, Counselor, German Foreign Office
Dr. Hermann A. Strub, Ministry for Research and Technology
Dr. Artur H. Schendel, Director, Communications Satellites
Dr. Wolfgang Hasenclever
Dr. Otto G. Feil

Members of the Aeronautics and Space Engineering Board, National Academy of Engineering, are visiting KSC for meetings December 18 and 19 to receive briefings on the Space Shuttle system. They will also witness the Symphonie launch:

Dr. George Solomon, Chairman, Vice President TRW Systems Group
Dr. Arthur Bryson, Jr., Vice Chairman, Stanford University
Dr. Richard Battin, Stark Draper Laboratory
Dr. Leo Beranck, President, Boston Broadcasters
Dr. Robert Cannon, Jr., California Institute of Technology
Dr. Joseph Charyk, President, Communications Satellite Corp.
Dr. Alfred Eggers, Jr., National Science Foundation

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KSC FORM OT-290 (11/74) (ONETIME FORM - REPRINT NOT AUTHORIZED)

Dr. Antonio Ferri, New York University
Dr. Robert Gilruth, retired, former Director Johnson Space Center
Prof. Morris Fine, Northwestern University
Joseph Gavin, Jr., Grumman Aerospace Corp.
Willis M. Hawkins, Lockheed Aircraft Corp.
Donald Jordan, Pratt & Whitney Aircraft
Raymond Ketchledge, Bell Laboratories
Lester Lees, California Institute of Technology
Frank Lehan, consultant
Dr. Hans Lipemann, California Institute of Technology
Dr. Robert Loewy, Renssalaer Polytechnic Institute
Dr. William McLean, Naval Undersea Center
Maynard Pennell, The Boeing Company
Robert Rummel, Trans World Airlines
Dr. William Sears, University of Arizona
Dr. Abe Silverstein, retired NASA Center Director
Dr. Albert Wheelon, Hughes Aircraft Company
Dr. Richard Goody, Harvard University

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
December 26, 1974
KSC-170-74

MANY NEWS-MAKING EVENTS INVOLVED SPACE CENTER IN 1974

KENNEDY SPACE CENTER, Fla.--A wide variety of news-making events invloved the Kennedy Space Center during 1974.

KSC's aircraft, NASA-6, was used on two occasions to assist law enforcement authorities in searches for suspected bodies. The instrumented aircraft's thermal scanning and infrared photo systems were used in January in a search for bodies in the north Brevard area and again in November in a search for hostages in south Gerogia.

The center was involved in another application of technology--the development of a new artificial limb. Working in cooperation with the Rancho Los Amigos Hospital, Downey, Calif., KSC engineers designed the quick-disconnect portion of the limb, using materials earlier developed to hold rocket umbilicals in place until liftoff. An exhibit of application of the device was displayed at NASA's conference on space technology at the Langley Research Center in September.

The Center became a partner in an oceanic research project with an agreement providing a facility for the University of Florida to operate a coastal and oceanographic engineering laboratory for five years. Telemetric and visual monitoring of beach erosion and the ocean environment will be conducted.

Construction of a Shuttle Orbiter Landing Facility northwest of the Vehicle Assembly Building was initiated with a ground breaking ceremony April 1, and work was started on installation of sterilization ovens for Viking spacecraft in May.

Skylab 4 crew members Gerald Carr, Dr. Edward Gibson and William Pogue returned to the Spaceport April 19 to participate in a Skylab Awards Ceremony and thank the KSC government-contractor team for a successful launch.

In a ceremony marking the fifth anniversary of the July 16, 1969 launch of Apollo 11, with over six thousand guests and employees in attendance, crew members Neil Armstrong, Michael Collins and Edwin Aldrin unveiled a plaque commemorating the launch and identifying the launch site as a National Historic Landmark.

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KSC was featured in a movie, "Stowaway to the Moon," filmed at the Center in August for showing on CBS television.

Center Director Dr. Kurt H. Debus announced his retirement September 18. Director of KSC since its establishment in 1962, Dr. Debus completed 30 years of service in U. S. missile and space programs. He was honored at a community reception and banquet, attended by 470, November 19.

Dr. Debus was also honored by the Treasury Department in an October 31 ceremony in recognition of 12 years of service as Brevard chairman of the Take Stock in America Campaign.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

C. T. Hollinshead
305 867-2468

Miles Waggoner, NASA HQ, Wash., DC
202 755-8341

FOR RELEASE:
December 17, 1974
Release #KSC-172-74

SCHERER NAMED KSC DIRECTOR

KENNEDY SPACE CENTER, Fla.--Capt. Lee R. Scherer, USN (ret.), has been named Director of NASA's Kennedy Space Center, Fla., succeeding Dr. Kurt H. Debus, who retired Oct. 9. Scherer will take up his duties mid-January, 1975. Until that time Miles Ross will continue as Acting Director.

Scherer is currently Director of NASA's Flight Research Center, Edwards, Calif. A successor to Scherer at FRC has not yet been named.

Prior to joining FRC as Director in October 1971, Scherer was Director of the Lunar Exploration Office for Project Apollo, the manned exploration of the Moon. Before that, he was Program Manager for the Lunar Orbiter, the unmanned spacecraft that was placed into low orbit to obtain closeup photographs to help in the selection of Apollo landing sites. He assumed this position in 1962 while on temporary assignment from the U.S. Navy.

Scherer retired from the Navy with the rank of Captain in 1964, following 25 years of service.

Scherer is a 1942 graduate from the U. S. Naval Academy at Annapolis, Md., with a B. S. degree in Electrical Engineering.

Prior to entering the Naval Academy, he attended the University of Kentucky for one year. He received a second B.S. degree in Aeronautical Engineering in 1949 from the U. S. Naval Postgraduate School and his M.S. degree in Aeronautical Engineering from the California Institute of Technology in 1950. He also attended the Summer of Industrial Management Studies at the University of California at Los Angeles in 1949.

Born in Charleston, S.C., Sept. 20, 1919, Scherer is married to the former Betty J. Hemsky, and the couple reside with their youngest daughter in Lancaster, Calif. The Scherers also have three older children.

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For his efforts with NASA, Scherer has received NASA's Exceptional Service Award in 1967, and in 1969, he was presented NASA's Exceptional Scientific Achievement Medal. In 1974 Scherer received the NASA Distinguished Service Medal.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Karl Kristofferson
305-867-2468

FOR RELEASE:
December 18, 1974
KSC-173-74

ROBERT C. HOCK ANNOUNCES RETIREMENT

KENNEDY SPACE CENTER, Fla.--KSC's Director of Executive Staff, Robert C. Hock, will retire from Federal service on December 31, 1974.

As Director of Executive Staff, Hock serves as senior staff member to the Center Director, and is responsible for development, management and control of the Center's executive communication process and management status review system.

Hock formerly served as Manager of the Apollo-Skylab Programs at KSC, from June 1971 to July 1973.

Hock earned a Bachelor of Science degree in Mechanical Engineering from Georgia Institute of Technology in 1943 and received his commission in the Army Air Corps the same year. He retired as a Lieutenant Colonel in the Air Force in April 1966.

Until 1947, Hock worked in research and development at Wright Field, Dayton, Ohio. During this period he studied rocket propulsion at the California Institute of Technology.

In 1947, Hock left the Air Force to take the position of Senior Engineer for ground equipment design with Eastern Airlines.

After two years with Eastern, he returned to active duty and, following a course in atomic energy, entered Nuclear Weapons Operations, where he served until 1953.

After earning a master's degree in Nuclear Engineering at North Carolina State College in 1955, he served as Chief of the Propulsion Branch in the Nuclear Powered Aircraft Project Office at Wright Field, and on the staff of the Deputy Chief of Plans of the Air Force Systems Command.

In February 1962, he was transferred, on loan to NASA, to the Launch Operations Directorate at Cape Kennedy. As Program Manager for the Reactor in Flight Test (RIFT) Nuclear Rocket Program, he remained at the Cape until 1964. At that time he was transferred to Washington in the HQ USAF Space Division Office, Directorate of Development Plans.

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He remained there as Program Manager for the Air Force Space Study Program until his retirement in April 1966.

Hock rejoined NASA in May 1966, as Chief of the Advanced Programs Office having responsibility for KSC activities in the Apollo Applications Program, advanced planning for space station, lunar and planetary missions and supporting development.

Hock and his wife, the former Mary Jane Adams of Atlanta, Georgia, will continue to reside at 377 North Point Court, Satellite Beach.

The Hocks' son, Steven, a recent graduate of Georgia Institute of Technology in Aerospace Engineering, is an employee of the U. S. Naval Weapons Laboratory. Another son, David, is now in the U. S. Navy, and a daughter, Peggy, attends Columbia University.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
December 26, 1974
KSC-174-74

SPACE CENTER HAS ACTIVE EQUAL EMPLOYMENT PROGRAM

The Kennedy Space Center conducts an active program is support of NASA's Equal Employment Opportunity Program.

Minorities were placed in about 30 percent of all positions filled at the Kennedy Space Center during 1974. A large number of the new minority employees were hired in professional/scientific/engineering or professional administrative categories.

The new hires raised the minority population of the Space Center by a full percentage point, a significant figure in light of the Center's stable workforce.

Hiring goals for women at KSC were also met. Ten Women were hired for scientific/engineering or professional administrative positions during the year.

Internal placement and specialized training programs are emphasized. The training program permits non-professional employees who demonstrate potential for development to be considered for placement in career professional positions. Following selection, a training plan is developed to provide the technical knowledge required by the assignment.

Progress was also made in the KSC Co-op program and other feeder projects used to recruit permanent employees. A Pre-Co-op Training Program developed in 1974 provides 10 positions for high school seniors preparing to enter college. The students in this program will be recruited through contacts with area high schools during their senior year. First selections will be made from those students completing high school in June 1975. Following a period of employment they will enter college in the fall or winter terms with tuition assistance from KSC. Following completion of the first year in college, they join the regular Co-op Program, alternating work periods at KSC with school attendance.

During the summer of 1974, KSC used part of its summer employment allocation to draw upon the professional expertise of members of the

-more-

academic community to develop projects meaningful in terms of long-range recruitment efforts. In this way the summer program helps to develop key contact at educational institutions which have significant minority and female populations.

In addition to accomplishments by the Personnel Office during 1974, the KSC Equal Opportunity Program Office was transferred from the Administration Directorate at the Space Center and is now directly responsive to the KSC Deputy Director. In addition the Federal Women's Program Coordinator was established as a full time position in the EEO Office. It had previously been a part-time position in the Personnel Office.

KSC also continued to monitor the efforts of the Center's contractors with relation to EEO goals. Specifically, the Space Shuttle facilities construction programs are monitored to assure that contractors develop and aggressively pursue plans designed to fully use available skills of minority workers.

In later construction programs KSC will develop action plans to further refine EEO requirements and levels of minority utilization for KSC contractors.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

A. H. Lavender
305 867-2468

FOR RELEASE:
December 30, 1974
KSC-175-74

MANPOWER TO REMAIN AT PRESENT LEVEL THROUGH JULY

The Kennedy Space Center employment level will strongly reflect the changing role of the Spaceport during the next several years.

The current level should remain relatively constant through July 1975, but employment will decrease following launch of the U. S. mission of the Apollo Soyuz Test Project and later build slowly in preparation for Space Shuttle, the reusable space transportation system scheduled to begin operation from KSC late in this decade.

Current employment at the Spaceport, including Civil Service, contractor and tenant organizations, stands at about 10,000. The permanent Civil Service population is approximately 2,300 and is programmed to remain at that level through fiscal year 1977.

Contractor requirements at the Spaceport will change following ASTP, the last planned Saturn space vehicle launch. ASTP will see the link-up in space of a U. S. Apollo spacecraft with a Soviet Soyuz spacecraft. The three-man U. S. crew and the two-man Russian crew will exchange visits and conduct experiments while the two spacecraft are docked.

The employment level for KSC contractors, currently about 6,200, is expected to reduce to about 4,700 following ASTP. Projections call for this level to increase to about 5,800 during fiscal year 1977.

Tenant organizations at the Spaceport, including Civil Service, personnel of other Centers, military and contractor personnel, total about 700. By December 1975 it is expected that this segment of the KSC population will number about 1000. That level should remain constant through fiscal year 1977.

KSC preparations for the Space Shuttle era are reflected in the Center's construction workforce. These preparations include construction of a 15,000-foot long Orbiter Landing Facility as well as modifications to existing facilities. KSC will be the primary launch and landing site for the Shuttle.

Currently about 200 construction workers are employed at KSC. This figure will increase to about 1,400 during fiscal year 1976 when runway paving is scheduled for completion.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
December 22, 1974
KSC-177-74

TUESDAY SIXTH ANNIVERSARY OF "CHRISTMAS SPECIAL"

KENNEDY SPACE CENTER, Fla.,--A different type of Christmas TV special will mark its sixth anniversary this Christmas Eve.

There was no Santa Claus or dancing elves. It lacked sugar pulm fairies, reindeer or recreations of Charles' Dickens' "Scrooge" and "Tiny Tim". There was no religious pageantry or crooners waxing sentimental over a "White Christmas".

Appearing on millions of TV sets were visions of the Moon's mottled face, the austere lunar landscape being seen close-up by human eyes for the first time.

This "Christmas Special" was being beamed back to Earth by a 4.5 pound TV camera scanning the Moon's pockmarked surface through a window in the Apollo 8 command module.

Apollo 8 - the second manned flight of Project Apollo and the first manned mission for the Saturn V - was launched from KSC at 7:51 a.m. on December 21, 1968.

The Apollo crew - Frank Borman, commander; James Lovell Jr., command module pilot; and William A. Anders, lunar module pilot - were the first men to reach beyond the Earth on a bold flight which carried them into orbit around the Moon.

After a dramatic three-day flight outward bound, they had successfully fired Apollo's big main engine and were now in a 70-mile-high lunar orbit.

And now - shortly before 10 p.m. EST on Christmas Eve began a television transmission which would thrill and inspire countless millions of awestricken television viewers back on what Borman was to refer to as "the good Earth."

All three crewmen are articulate and their commentary carried descriptive reactions to the spectacular scenes flowing below the spacecraft orbiting the Moon's equatorial region from east to west.

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Each of the three crewmen gave a personal reaction to the vast lunar panorama rolling beneath them.

The descriptions were graphic: "A vast, lonely, forbidding type of existence, a great expanse of nothing that looks like cloud and cloud of pumice stone. . .The Earth from here is a grand oasis in the big vastness of space."

As the spacecraft neared the terminator line marking lunar night from lunar day, Anders began what many recall as the most moving and inspiring moment of the historic flight:

"For all the people back on Earth, the crew of Apollo 8 has a message we would like to send to you." Then he began the reading of Genesis, first book of the Bible, with its story of the creation.

Anders, Lovell, and finally Borman, the latter a lay reader with the Episcopal Church, intoned portions of the majestic passage.

Borman concluded the telecast with: "And from the crew of Apollo 8, we pause with good night, good luck, a Merry Christmas and God bless all of you - all of you on the good Earth."

That memorable telecast came on the ninth of the 10 orbits Apollo 8 would make of the Moon and the spacecraft engine would soon be fired to break the spacecraft free from gravity for the return trip to Earth.

Splashdown came at 10:52 a.m. EST December 27 in the Pacific Ocean to mark the successful end of a flight which helped set the stage for man's first landing on the lunar surface 7 months later.

The mission drew scientific, political and press acclaim but - most important - it let man see his world in its true perspective for the first time.

Phrasing this new perspective most eloquently was poet Archibald MacLeish:

"To see the Earth as it truly is, small and blue and beautiful in that eternal silence where it floats, is to see ourselves as riders on the Earth together, brothers on that bright loveliness in the eternal cold - brothers who know they are truly brothers."

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
December 23, 1974
KSC-178-74

EUROPEANS WORK WITH KSC ON SPACELAB

KENNEDY SPACE CENTER, Fla.,--They carry Kennedy Space Center security badges the same as regular employees but their attendance at the space center is erratic. Also, they travel further when they do come to KSC than do most others - from Europe.

"They" are representatives of the European Space Research Organization (ESRO), the European equivalent of NASA. The purpose of their visits to KSC is to coordinate planning for space hardware to be used in Spacelab ground operations, including preliminary testing and checkout of the lab.

The ESRO team also coordinates with Spacelab Project Offices at other NASA facilities in the United States.

Initial plans in the development of Spacelab, a space research facility that will ride in the bay of the Space Shuttle, are being formulated at KSC.

An initial Spacelab Project meeting was held during June 1973 in Noordwijk, Holland, to plan the early phases of the work.

The Design-Development phase started on June 8, 1974, with kickoff meetings at both Noordwijk, Holland, ESRO's development ESTEC, and at the ERNO prime contractor facility in Bremen, Germany.

A second major meeting was held during the first two weeks of November in Bremen, attended by a 35-member NASA team. Heading the KSC contingent at that session was Dr. Robert H. Gray, Manager of KSC's Shuttle Project Office. The group also included Center Spacelab Project Manager Jack Dickinson. Other NASA installations represented were Johnson Space Center, Marshall Space Flight Center, Ames Research Center, Langley Research Center, Goddard Space Flight Center and NASA Headquarters.

Currently work on Spacelab involves engineering requirements for systems design, sub-systems design and manufacture - the manufacturing of the structure of Spacelab. These requirements will be finalized at a meeting in Bremen during April, 1975.

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A study to determine the role that KSC facilities are to play in the Spacelab Program was started during the past year. Some facility modification work already is in progress at the Manned Spacecraft Operations Building, soon to be renamed the Spacelab Processing Facility.

Supporting the work of the KSC Shuttle Projects Office are representatives of other directorates, with Frank Bryan heading the Launch Operations team. Other directorates involved are Design Engineering, Technical Support and the Center's Safety Office.

Members of the ESRO teams have visited KSC on a number of occasions during the past year. It is expected that these visits will continue. All ESRO engineering designs are reviewed by the NASA team.

Dickinson has made several visits to Europe for coordination of the work. On three occasions, he visited Bremen, home of ESRO's prime contractor, ERNO. ERNO is a subsidiary of the VFW Fokker Group.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
December 23, 1974
KSC 179-74

BUSINESS BRISK FOR SPACEPORT TOURS

KENNEDY SPACE CENTER, Fla.,--More than 3,100 visitors to the nation's Spaceport had boarded buses for tours of the Kennedy Space Center and Cape Canaveral Air Force Station as of 1 p.m. today.

This figure reflects an increase of 57 percent above the 2,000 volume recorded by the same time of day on December 23, 1973.

The heavy volume of tourists into the Visitors Information Center was expected to bring the 8 millionth patron of the guided bus tours to KSC today.

Guided bus tours of KSC were initiated in July, 1966.

The heavy patronage of the bus tours reflects the continuation of a trend noted earlier this month when boardings began to run significantly ahead of boardings for the same dates in 1973.

On December 1, for example, 2,131 patrons took the tour. This compares with 1,008 for December 1, 1973, an increase of 111.4 percent.

Preliminary figures on today's tour boardings bring the cumulative total for the month to more than 32,200, substantially ahead of the 28,968 recorded for the first 23 days of December, 1973.

NASA Tours has a nucleus fleet of 20 buses. An additional 10 buses were added today and an additional 10 will be placed in service on Tuesday.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
December 26, 1974
KSC-180-74

AMBITIOUS LAUNCH SCHEDULE SET FOR 1975

KENNEDY SPACE CENTER, Fla.--The most ambitious launch schedule since the booming years of the 1960s is in store for KSC in 1975 with a total of 24 launches planned for KSC launch teams.

The schedule calls for the launch of a Saturn IB/Apollo, three Titan/Centaurs, five Atlas/Centaurs and 15 Delta rockets. Of the 24 missions, 18 will be launched by KSC from its facilities on Merritt Island and adjacent Cape Canaveral Air Force Station. The remainder will be launched from KSC's Western Launch Operations facilities at Vandenberg AFB, Calif.

Not since 1968 has there been a comparable launch rate.

The Spaceport's single manned launch is that of the Apollo spacecraft being placed in orbit as the American contribution to the Apollo Soyuz Test Project, a joint space venture with the Soviet Union and history's first two-nation manned flight.

Launch of the Apollo spacecraft with its crew of Astronauts Thomas P. Stafford, Donald K. Slayton and Vance D. Brand is scheduled from Complex 39's Pad B at 3:50 p.m. EDT of July 15.

The Soviets are to launch a Soyuz spacecraft with Cosmonauts Alexsey Leonov and Valeriy Kubasov from their Kazakhstan Cosmodrome near the Aral Sea seven hours prior to the Apollo launch.

Two days after Apollo goes into orbit, the two spacecraft will rendezvous and dock for the highest "summit meeting" on record.

The Saturn IB/Apollo launch is the last manned mission planned for KSC until the first manned orbit of the Space Shuttle, now scheduled for early 1979.

Perhaps the most dramatic of the 23 unmanned missions to be launched by KSC's Unmanned Launch Operations Directorate are the twin Vikings which will be launched from Complex 41 at Cape Canaveral Air Force Station at 10-day intervals in August aboard Titan/Centaur rockets.

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The twin Vikings are to go into orbit around Mars in 1976 after 460-million mile journeys through space lasting nearly a year. Once in orbit, each spacecraft will separate into primary systems - an orbiter and a lander.

While the orbiters perform visual, thermal and water-vapor mapping of the planet, the landers will descend by parachutes and retrorockets to landing sites at widely separated locations in Mars' northern hemisphere.

Biological and organic investigations of the Martian surface in the vicinity of the landing sites will help scientists determine if the chemical environment on Mars has favored the development of life - as we know it - and if life might now exist on the red planet.

The third Titan/Centaur launch will be conducted next December to send Helios-B on a journey of exploration toward the Sun. Helios-1 was launched by Titan/Centaur-2 on December 8 on a journey which will carry it to within 28 million miles of the Sun next March.

All of the five Atlas/Centaur launches foreseen for 1975 will have missions of placing commercial communications satellites in sychronous orbits 22,300 miles above the equator.

As the schedule now stands, an Atlas/Centaur will be launched on February 6 from Complex 36 to orbit an Intelsat IV communications satellite.

The new satellite - like others in the global commercial communications system - is owned by the International Telecommunications Satellite Consortium (INTELSAT). Comsat, the United States member, acts as manager on behalf of the nearly 90 nations in the organization.

A second Intelsat IV launch via Atlas/Centaur is scheduled for mid-summer. Two Intelsat IV-A satellites - upgraded models - will be launched later in the year as will the first Communications Satellite Corporation (Comsat) domestic communications satellite.

NASA will be reimbursed for the Atlas/Centaur rockets and all associated launch costs for all five of these missions.

Fifteen Deltas will be launched during the year. Nine of these will be from Complex 17 at Cape Canaveral Air Force Station and the remainder will be from Vandenberg AFB, California.

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Earth Resources Technology Satellite-B (ERTS-B) will be launched on January 19, the second in a series capable of providing multi-spectral imagery of any given location on the Earth's surface every 18 days.

ERTS-1 was placed in a near-polar sun-synchronous orbit in July, 1972, and has provided thousands of detailed images in four bands of the spectrum over the past 30 months.

The first launch from Florida is that of Synchronous Meteorological Satellite-B. This is scheduled from Complex 17-B on January 30.

The second Delta launch of the year from Florida is that of Telesat-C, the third in a series of domestic communications satellites placed in synchronous orbit for Canada. Canada is the world's second largest nation in terms of area and the Telesat system is designed to improve communications between the heavily populated south and sparsely settled north as well as link the nation's Atlantic and Pacific regions.

Two such satellites are already in service.

The remaining nine Delta launches from Complex 17 during 1975, their payloads and general time frames include:

Marisat-A: Maritime Satellite, April.

OSO-I: Orbiting Solar Observatory, late spring.

GOES-A: Geostationary Orbiting Environmental Satellite for the National Oceanic and Atmospheric Administration, summer. This is an operational version of the Synchronous Meteorological Satellite (SMS) series.

Marisat-B: Maritime Satellite, summer.

Symphonie-B: The second French-German communications satellite in this series. Fall. Symphonie-1, first in the series, was successfully launched on December 18.

Atmosphere Explorer-E: Aeronomy spacecraft to measure temperatures, composition, densities and pressures in the upper atmosphere on a global basis. Fall.

RCA-A: The first in a series of domestic commercial communications satellites for RCA. December. RCA-A will be launched from Complex 17-A on a Delta with nine Castor-4 solid strapon rocket motors.

The remaining Delta launches from the Western Test Range in California include:

GOES-C: Geodynamic Experimental Ocean Satellite, spring.

Atmosphere Explorer-D: Aeronomy satellite. Late spring.

COS-B: Cosmic ray satellite for the European Space Research Organization. Mid-summer.

Nimbus-F: Experimental weather satellite. Early fall.

ITOS-E-2: Operational weather satellite for NOAA.

Delta missions for which NASA will be reimbursed for the rocket and launch costs include the two Marisats, Telesat-C, Symphonie-B and RCA-A. The GOES-A and ITOS weather satellites are being launched for NOAA.

The projected launch activity for KSC during 1975 compares with the 10 missions launched during 1974.

The number of KSC launches from 1958 when NASA was created through 1973 is as follows: 1958 - 8; 1959 - 14; 1960 - 17; 1961 - 24; 1962 - 27; 1963 - 13; 1964 -29; 1965 - 30; 1966 - 30; 1967 - 28; 1968 - 23; 1969 - 22; 1970 - 12; 1971 - 17; 1972 - 18; 1973 - 14.

Most of the missions in NASA's earlier years were undertaken to explore the space environment and development techniques required for manned and unmanned exploration.

In contrast, approximately one-half of the missions scheduled for 1975 invlove applications satellites such as weather and communications spacecraft. These are launched for other governmental agencies, governments or private industry with the space agency being reimbursed for launch vehicles and associated launch costs.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
December 24, 1974
KSC-181-74

CHRISTMAS TRAFFIC HEAVY AT NASA TOURS

KENNEDY SPACE CENTER, Fla.--Guided bus tours of NASA's Kennedy Space Center and adjacent Cape Canaveral Air Force Station continued to receive heavy traffic today and it appeared that a new single day's attendance mark would be set for 1974.

As of 1 p.m. today (Tuesday), more than 3,600 visitors had boarded TWA Tours buses to view the sprawling Brevard aerospace complex.

This compares with 3,100 through the same time on Monday, an increase of 18 percent. Total tour patronage on Monday was 5,604.

Monday's attendance was 99.7 percent higher than patronage for the tours one year ago. A total of 2,816 took the guided bus tours on December 23, 1973, as a gasoline shortage drastically reduced Florida tourism.

The Monday figure pushed attendance for December to 34,749 an increase of 9.3 percent over the 31,784 recorded for the first 23 days of December in 1973.

This year's high attendance figure of 6,010 was established on August 8 and P. A. Fagnant, Chief of the KSC's Visitor Information Center Branch, predicted that number would be exceeded today.

Overall attendance for 1974 now stands at 815,747, a decline of 33.3 percent when compared to the 1,223,345 for the same portion of 1973.

TWA Service Inc., contractor for the guided bus tour operation, is now operating a total of 40 buses to meet the heavy seasonal demand.

The Visitors Information Center - which can be reached via State Route 3 on Merritt Island or U. S. Route 1 on the mainland - is open every day of the year with the exception of Christmas.

Bus tours will not be operated on Christmas but will be resumed on Thursday.

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KSC FORM OT-081 (1/73) (ONETIME FORM - REPRINT NOT AUTHORIZED)
NASA/KSC FEB/73

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

FOR RELEASE:
December 27, 1974
KSC-182-74

Dick Young
305 867-2468

SYMPHONIE ENDS YEAR OF CONTRASTS

KENNEDY SPACE CENTER, Fla.--The successful orbiting of the French/German Communications Satellite Symphonie I spectacularly closed out launch activity for KSC's Unmanned Launch Operations Directorate on December 18. It was a year of contrasts for the unmanned launch team.

It began badly with the failure of Delta 100 with the British Skynet II-A spacecraft in January and the failure of the Titan Centaur proof flight in February.

The last quarter of the year was one of near record activity with six successful launches, including one Titan Centaur, one Atlas Centaur, and four Deltas.

After the Skynet launch, which introduced a new first stage engine, Delta 101 successfully orbited Westar I, the first American domestic communications satellite in April. This launch, which saw the introduction of a new second stage propulsion system, produced a successful mission but was marred somewhat by the failure to jettison one of the nine solid boosters.

During the next Delta launch, the new first stage engine failed to deliver the planned thrust and Synchronous Meteorological Satellite I was placed in a transfer orbit lower than that planned. The SMS satellite managed to use its on-board apogee motor and small control thrusters to lift itself to the proper synchronous orbit. The only loss was a shortening of its planned operational life, due to control gas expenditure.

However, the problems encountered by Delta on three straight launches resulted in a temporary halt to the launch schedule and the institution of a review board headed by Lt. Gen. (ret.) Charles H. Terhune, Deputy Director of JPL.

The Titan Centaur failure was also investigated and while the failure was isolated to the liquid oxygen boost pump in the Centaur stage, which failed to start, no single cause was pinpointed and the result of the investigation was tighter inspection, and additional pre launch testing.

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KSC FORM OT-2390 (11/74) (ONE TIME FORM – REPRINT NOT AUTHORIZED)

Meanwhile another problem not associated with launch activity caused a hiatus in the Atlas Centaur schedule. Certain micro electronic components in the on-board computer (which is common to Titan Centaur) were failing in acceptance vibration tests because of an unsatisfactory bonding method. The mothod was changed but a delay of several months was incurred.

The Delta changes were put to the test on October 10, when vehicle 103 roared aloft with the second Westar spacecraft. The launch went off perfectly, and Western Union had two satellites in synchronous orbit. Just to prove it was not chance, Delta 104 lifted off from the Western Test Range at Vandenberg on November 15, placing the NOAA-4 operational weather satellite in a north-south polar orbit.

An Atlas/Centaur tested the improved component bonding in the on-board computer and the new boost pump procedures and controls on November 21, when Intelsat IV F8 was successfully placed in orbit. The Centaur behaved perfectly, clearing the way for the launch of the German-American sun explorer Helios on a Titan Centaur, on December 10. That one, too, was completely successful, and all ULO vehicles were back in business.

McDonnell Douglas builds the Delta vehicle. General Dynamics/Convair builds the Atlas Centaur, and the Martin Company builds the Titan, with United Technology Center supplying the giant solid rocket boosters. The Lewis Research Center is responsible for the design of the Centaur, and worked with KSC's Unmanned Launch Operations Directorate, Convair, and the builder of the computer, Teledyne, in solving the problem. The Goddard Space Flight Center has design responsibility for the Delta.

Two more Deltas were launched in 1974: Delta 105 with a second Skynet II on November 22, and Delta 106 with the French/German synchronous orbit communications satellite, Symphonie, on December 18. That made six launched in three months.

In 1974 Unmanned Launch Operations processed the first major spacecraft, Helios, through its Spacecraft Assembly and Encapsulation Facility, located in the KSC Industrial area. There are two SAEFs, both of which will be used on the Viking project, the first attempt by the U. S. to land an instrumented science probe on the Martian surface to search for life.

More public and scientific interest has been expressed in the Viking Project than probably any unmanned scientific launch to date. There will be two missions, both to be launched on Titan/Centaur vehicles in the second half of 1975.

Several of the spacecraft launched in 1974 or earlier returned spectacular results in 1974. The SMS which had to use part of its control fuel to reach the correct orbit nevertheless arrived in time to participate in GATE, the Global Atmospheric Research Program, Atlantic Tropical Experiment. This was one of the largest and most complex meteorological data gathering missions ever performed, involving several nations and a fleet of ships and planes.

SMS-1 was the star of the show, providing cloud-cover photographs every 30 minutes over the entire huge test area. One scientist said SMS-1 was ". . . an incredible help." The GATE project was extremely successful in gathering basic data on weather forces in the Atlantic.

Two spacecraft launched in 1973 provided their first major results in 1974. Mariner 10 flew by Venus on February 5, returning excellent photographs, and by Mercury on March 29. The latter fly-by provided the first clear and detailed photographs ever obtained of the surface of Mercury, as well as a great deal of scientific data. Mariner 10 then went on around the sun and returned for a second pass, also successful. Still one more fly-by is in the works before this spacecraft runs out of control fuel.

The second spacecraft to explore the environment around Jupiter, Pioneer 11, made a pole-to-pole fly-by of that giant planet on December 2. This hardy explorer passed within 48,000 kilometers (30,000 miles) of the gaseous surface. At two points the spacecraft was bathed in deadly radiation, an estimated 150 million protons hitting every square centimeter of exposed surface each second. Pioneer 11 survived and borrowed enough speed from Jupiter to go on to Saturn. It will arrive there in 1979, becoming the first spacecraft to visit the solar system's only ringed planet.

Several "firsts" were established in 1974. The French-German Symphonie was the first synchronous orbit satellite built and owned by European nations. The two Westars were the first USA domestic communications satellites. A Titan/Centaur was launched twice, the second launch sending Helios-I toward the first penetration of the sun's outermost atmosphere. And SMS-1 became the first synchronous orbit weather observer.

The hurry-up schedule at the end of the year may become standard for Unmanned Launch Operations in 1975. The schedule shows 23 unmanned launches, matching the largest number ever launched in a single year, 1967.

# # #

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
John F. Kennedy Space Center
Kennedy Space Center, Fla. 32899

Dick Young
305 867-2468

FOR RELEASE:
December 30, 1974
Release #KSC-184-74

KARL SENDLER TO RETIRE

KENNEDY SPACE CENTER, Fla.--Karl Sendler, Director of KSC's Information Systems Directorate since March, 1965, will retire on December 31 to end a Civil Service career extending back to September 15, 1945.

Sendler has been associated with NASA's launch operations since 1960 when he and much of the Army rocket team were transferred to NASA. Prior to his present assignment, he served as Associate Director for Instrumentation for the Launch Operations Directorate and Assistant Director for Instrumentation when that agency became an independent organization in 1963.

Sendler's responsibility as Director of Information Systems extended to direction of planning, development, installation and operation of data systems for the preflight preparation, testing, checkout and launch of space vehicles.

Born in Vienna, Austria, in 1914, Sendler received B.S. and M.S. degrees in electrical engineering from the University of Vienna in 1938. Four years later, he began his career in rocketry.

He was active in the Peenemuende Research Center's program, continued his work for the U. S. Army at Garmisch-Partenkirchen, Germany, after World War II and came to the United States in 1945 to work as an electronic engineer for the U. S. Army at Fort Bliss, Texas.

In 1950, he was reassigned to the U. S. Army Ordnance Corps at Redstone Arsenal, Ala. In 1953, he became Flight Test Guided Missile Engineer and then Chief of the RF and Measuring Branch of the Missile Firing Laboratory at Redstone, serving as technical advisor to the Guided Missile Development Board.

Prior to joining NASA, he participated in the launch of the first United States earth satellite - Explorer I in 1958 - and other space "firsts".

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He has held membership in many technical organizations concerned with instrumentation in addition to writing a variety of technical publications. He has won numerous awards and commendations for his range instrumentation work, including the Department of the Army Commendation for Meritorious Civilian Service and the Special Service Award.

A patent has been entered in his name for the "Beat-Beat System", a system that measures a rocket's deviation from a predetermined flight path.

Sendler and his wife, Ingeborg, who holds a degree in physics, live in Cocoa Beach.

It's a sure thing Sendler is not going to climb into a rocking chair.

"I'm still too young just to do nothing," said Sendler. He plans to travel and devote more time to playing his Steinway piano.

# # #