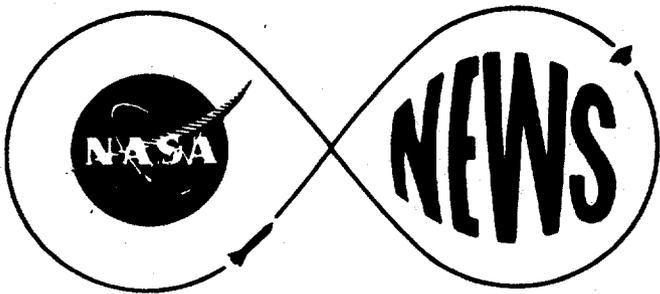


BY?
8/10/75



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

A. H. Lavender
305 867-2468

FOR RELEASE:
January 8, 1975
KSC-2-75

NOTICE TO EDITORS/NEWS DIRECTORS

ERTS-B PRESS CONFERENCE SCHEDULED

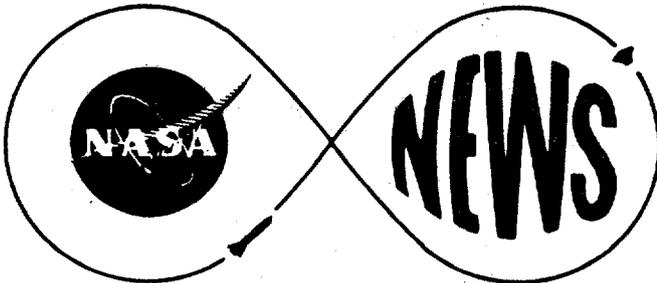
Earth Resources Technology Satellite-B (ERTS-B) is scheduled for launch from the Western Test Range, Lompoc, Calif., January 19. The launch window extends from 12:54 p.m. to 1:03 p.m., EST.

NASA's second earth resources satellite, it will be renamed ERTS-2 after it is in orbit.

Because of nationwide interest in ERTS-B, NASA has scheduled a Washington press conference on the mission at 9:30 a.m. EST, January 14.

The press conference will be available live to area media. To listen to the conference, you may telephone the KSC telephone operator, 867-7110, and request that you be connected with the V-2 circuit. The press conference will also be available to media on the KSC Public Information circuit.

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

Karl E. Kristofferson
305 867-2468

FOR RELEASE:
January 10, 1975
Release #KSC-5-75

ASTP CREW WILL ARRIVE FOR ALTITUDE TESTS

KENNEDY SPACE CENTER, Fla.--The prime and backup crews for July's US-USSR orbital rendezvous mission will arrive at KSC next week to conduct altitude tests of the Apollo spacecraft to be used for the mission.

The prime crew for the Apollo Soyuz Test Project (ASTP), astronauts Tom Stafford, Donald Slayton and Vance Brand, will arrive Monday night, and are scheduled to begin checkout of the spacecraft inside a huge vacuum chamber at noon Tuesday. The tests take approximately 9 hours to complete.

The backup crew, consisting of Alan Bean, Ronald Evans and Jack Lousma, will be on hand Tuesday morning. They will perform a second altitude test on Thursday.

During the tests, the vacuum chamber is pumped down until the pressure outside the spacecraft is reduced to zero. In terms of altitude, this is equivalent to about 200,000 feet. The internal environment of the spacecraft is pure oxygen maintained at a pressure of 5 pounds per square inch (psi).

The most critical portion of the test occurs when the crew, wearing spacesuits, dumps the cabin pressure to zero, the same pressure outside the spacecraft, to test the integrity of their space suits.

Following the zero-pressure checks, the spacecraft is repressurized to 5 psi. The astronauts then proceed to check out the spacecraft's internal systems, earth landing systems and experiment packages.

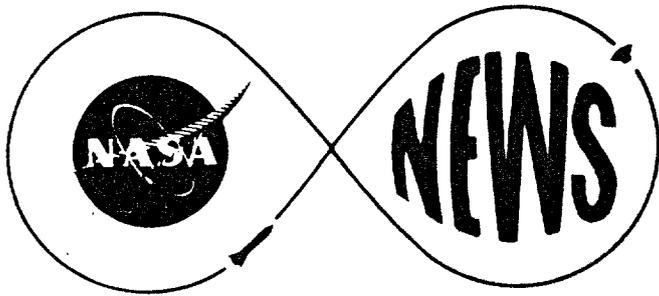
Events involving the Saturn IB launch vehicle will also take place next week in the Vehicle Assembly Building at Launch Complex 39.

On Monday, the S-IB booster stage will be erected. The S-IVB second stage will be stacked on the booster the next day, with the Instrument Unit following on Thursday. A boiler plate Apollo spacecraft will be added to the stack on Friday.

- more -

The Apollo-Soyuz launch is scheduled for 3:50 p.m., July 15. Two days later, the Apollo crew will rendezvous and dock with a Russian Soyuz spacecraft carrying cosmonauts Aleksey Leonov and Valeriy Kubasov.

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Karl E. Kristofferson
305 867-2468

**NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION**

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

FOR RELEASE:
January 20, 1975
Release #KSC-11-75

CONGRESSIONAL COMMITTEE MEMBERS VISIT KSC

KENNEDY SPACE CENTER, Fla.--New members of the House Committee on Science and Technology made an orientation tour of Kennedy Space Center facilities on January 18.

The itinerary included visits to Complexes 36 and 39, the KSC Industrial Area and the Visitors Information Center. In addition, they viewed the Apollo spacecraft for the ASTP mission and the Viking lander on hand for August's twin missions to Mar's.

Special briefings were provided the committee members by Acting Center Director Miles Ross; Harold Zweigbaum, Technical Assistant to the Director, Unmanned Launch Operations; Dr. Robert H. Gray, Shuttle Projects Manager; William Rock, Manager of Sciences, Applications and ASTP Office; and Walt Kapryan, Director of Launch Operations.

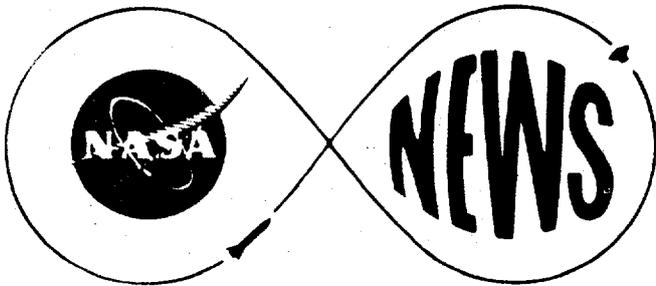
The Committee members making the trip were:

Chairman Olin E. Teague (D) Texas
Congressman Jim Lloyd (D) California
Congressman Jerome Ambro, Jr. (D) New York
Congressman Christopher J. Dodd (D) Connecticut
Congressman Tim L. Hall (D) Illinois
Congressman Robert Krueger (D) Texas
Congressman James J. Blanchard (D) Michigan
Congressman David F. Emery (R) Maine
Congressman Gary A. Myers (R) Pennsylvania
Congressman Robert W. Kasten, Jr., (R) Wisconsin
Congressman James Scheuer (D) New York

Visiting Committee staff members included:

Executive Director Mr. Jack Swigert
Mr. Ralph Read
Mr. Bill Carter
Mr. Michael Superata
Mr. Tom Tackaberry

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NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION

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

FOR RELEASE:

January 22, 1975
Release #KSC-12-75

A. H. Lavender
305 867-2468

NOTICE TO EDITORS/NEWS DIRECTORS

SMS-B LAUNCH SCHEDULED JANUARY 30

KENNEDY SPACE CENTER, Fla.--Synchronous Meteorological Satellite-B (SMS-B), the second in a series of weather satellites that will maintain a 24-hour watch on western hemisphere weather, is scheduled for launch from Complex 17, Cape Canaveral Air Force Station, January 30. The launch window extends from 5:04 to 5:12 p.m. EDT.

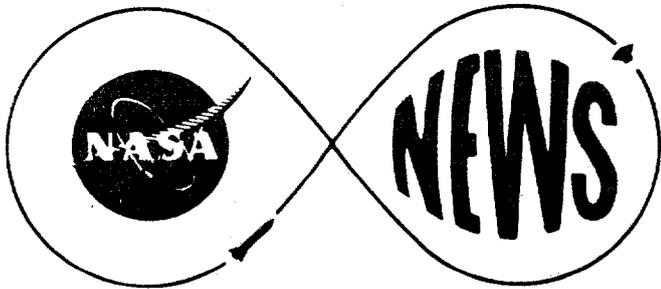
SMS-B, to be renamed SMS-2 after it is in orbit, will be placed in stationary orbit 22,300 miles above the equator at 135 degrees West Longitude, directly south of Sitka, Alaska. From this position it will view the western half of the United States and Hawaii while its sister spacecraft, SMS-1, views the eastern U. S. above the equator at 75 degrees West Longitude, south of New York City.

A prelaunch press conference on the SMS-B mission is scheduled Wednesday, January 29. News media representatives desiring to cover the press conference should arrive at the KSC Public Information Office, Headquarters Building, by 10:30 a.m., where transportation to the conference will be available. Badging for access to KSC will be at the Gate 3 Pass and Identification Building, on State Road 405, .6 mile east of U. S. Highway 1.

Transportation to the Press Site for coverage of the launch January 30, will be provided. A bus for photographers will depart the Ramada Inn, Cocoa Beach, at 3:30 p.m., with a stop at the Cape Canaveral AFS Gate 1 Pass and Identification Building at 3:45 p.m. A bus for writers and broadcasters will depart the Ramada Inn at 4:00 p.m., with a stop at the Gate 1 Pass and ID Building at 4:15 p.m.

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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 22, 1975
Release #KSC-13-75

DATE OF ASTP SPACE VEHICLE ROLLOUT TO LAUNCH PAD ADVANCED

KENNEDY SPACE CENTER, Fla.--Rollout of the Apollo/Saturn IB space vehicle that will orbit astronauts Thomas Stafford, Donald Slayton and Vance Brand on the United States mission of the Apollo Soyuz Test Project has been rescheduled for March 24.

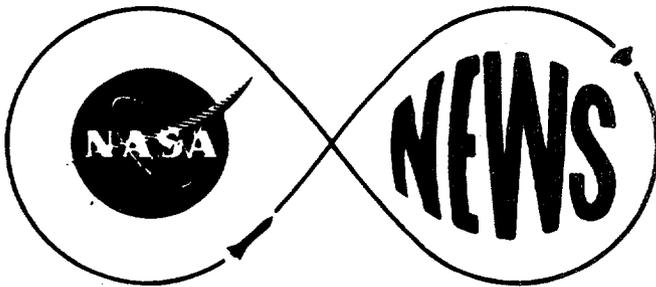
"Moving the assembled space vehicle to the launch pad earlier--the move was originally set for March 31--will provide contingency time for spacecraft checkout at the launch site," said William H. Schick, Launch Operations' Chief Test Supervisor.

Rescheduling of rollout involves revision of the schedule of Apollo spacecraft preparations in the KSC Manned Spacecraft Operations Building. Move of the mated Apollo command service module, docking module and docking adapter from the MSOB to the Vehicle Assembly Building, originally set for March 25, is now scheduled for March 17, with erection of the spacecraft now scheduled for March 18, and installation of the spacecraft Launch Escape System on March 22.

The U. S. mission of the Apollo Soyuz Test Project will begin with the launch of the Apollo with Stafford, Slayton and Brand at 3:50 p.m. EDT July 15, seven and one-half hours after the launch of a Soyuz spacecraft with two cosmonaut crew members from the USSR's Baikonur, Kazakhstan launch complex.

The Apollo will rendezvous with the Soyuz and dock on the second day of the mission. During two days of docked operations astronauts and cosmonauts will exchange visits in orbit and conduct joint experiments.

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Charles T. Hollinshead
305 867-2468

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

FOR RELEASE:
January 29, 1975
KSC-17-75

KSC DIRECTOR SCHERER ASSUMES DUTIES

KENNEDY SPACE CENTER, Fla.--Lee R. Scherer assumed the duties of Director of Kennedy Space Center Tuesday. He succeeds Dr. Kurt H. Debus who retired from KSC last October.

The first order of business for Scherer, who was Director of NASA's Flight Research Center prior to accepting his present position, will be detailed briefings on operations and programs by various elements of the KSC organization. He plans to pay early visits to the major facilities, talking with personnel from all levels of the organization.

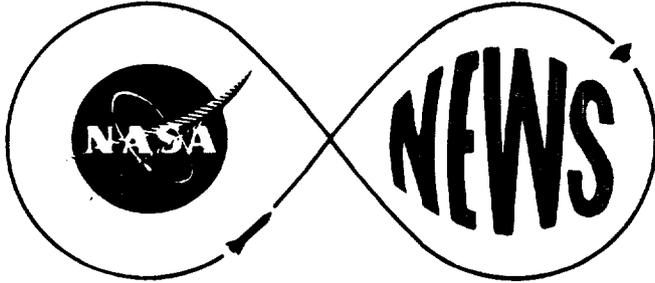
Scherer had high praise for his deputy director, Miles Ross, who held the reins as acting center director pending Scherer's arrival.

"Mike has done an outstanding job," Scherer noted. "We have talked a number of times since my appointment in December. He has kept me abreast of the KSC activities and I'm looking forward to working very closely with him."

Scherer's wife, Betty and their youngest daughter, Tracy, remain in Lancaster, California. They plan to make the journey to Florida in the summer.

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**NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION**

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

Karl E. Kristofferson
305 867-2468

FOR RELEASE:
January 30, 1975
Release #KSC-18-75

JETTY PARK WIRED FOR LAUNCH COUNTDOWNS

KENNEDY SPACE CENTER, Fla.--Jetty Park's "Bird-Watch Hill" has been wired for sound.

For years area residents and visitors have flocked to the popular beach site adjacent to Port Canaveral to watch rockets blaze skyward from launch pads on nearby Cape Canaveral Air Force Station and the Kennedy Space Center.

Beginning with the launch of NASA's Synchronous Meteorological Satellite, now scheduled for no earlier than February 4, they will be able to hear the official launch commentary as well. Launch is scheduled for 5:04 p.m.

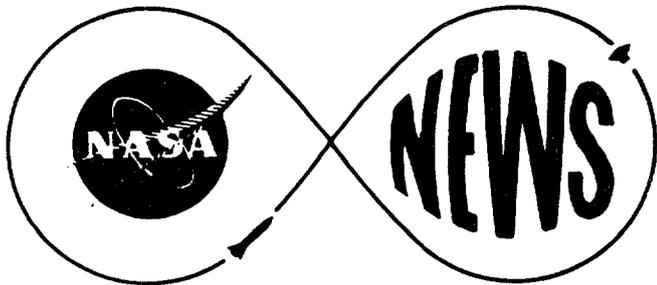
The commentary, which describes the mission, the actual countdown and key post-launch sequences, will be carried by a public address system installed by KSC in conjunction with the Brevard County Board of Commissioners.

Jetty Park fronts the ocean alongside the entrance to Port Canaveral. The 40-acre facility operated by the County can accommodate up to 7,000 viewers, 1,500 on a special pavilion viewing stand near the beach. Parking spaces are provided for 300 cars. Another 700 vehicles can be parked on nearby lots.

The park has ample restroom facilities, two snack bars and a convenience store to serve the public.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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

FOR RELEASE:

January 30, 1975
Release #KSC-19-75

A. H. Lavender
305 867-2468

NOTICE TO EDITORS/NEWS DIRECTORS

THREE NEWS ACTIVITIES SCHEDULED AT KSC FEBRUARY 3

KENNEDY SPACE CENTER, Fla.--Three news activities--filming of Russian Specialists conducting Apollo Soyuz Test Project communications tests, a previously announced prelaunch press conference on the SMS-B mission and a press conference by KSC Director Lee R. Scherer--are scheduled at KSC Monday, February 3.

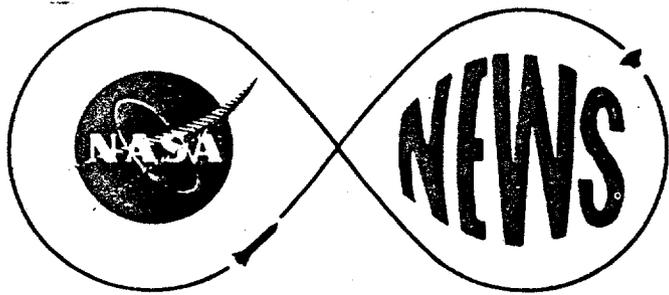
Media representatives desiring to cover Russian Specialists' activities should arrive at the KSC Public Information Office, Headquarters Building, prior to 9:00 a.m.

Those desiring to cover the prelaunch press conference on the SMS-B mission should arrive at the Public Information Office prior to 10:30 a.m. The bus carrying photographers to cover Russian Specialists' activities will stop by the Headquarters Building en route to the SMS-B press conference to pick up those who did not cover the earlier event.

Media representatives desiring to cover the press conference by KSC Director Lee R. Scherer, scheduled in the Director's Conference Room, will be escorted to the conference at 12:45 p.m.

Badges for access to KSC for coverage of any of these news activities will be provided at the Gate 3 Pass and Identification Office, east of U. S. Highway 1 south of Titusville, Fla.

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**NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION**

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

FOR RELEASE:
January 31, 1975
Release #KSC-20-75

A. H. Lavender
305 867-2468

WILLIAM H. ROCK NAMED ACTING DIRECTOR, INFORMATION SYSTEMS

KENNEDY SPACE CENTER, Fla.--Appointment of William H. Rock as Acting Director, Information Systems, Directorate of Technical Support, was announced today by Kennedy Space Center Director Lee R. Scherer.

In this position, Rock will direct the Center's planning, development, installation and operation of data systems for the preflight preparation, testing, checkout and launch of space vehicles.

These responsibilities include telemetry, radio frequency, and data acquisition systems; analysis of system performance and all digital computation at KSC.

Rock will continue to serve as Manager, Sciences, Applications and ASTP Office, with responsibility for KSC earth resources, environmental, communications, earth and ocean physics, technology utilization and ASTP programs, through the U. S. Apollo Soyuz Test Project launch in July.

Born in Williamsport, Pa., he enrolled at Johns Hopkins University where he received a degree in engineering science and undertook graduate work in operations research.

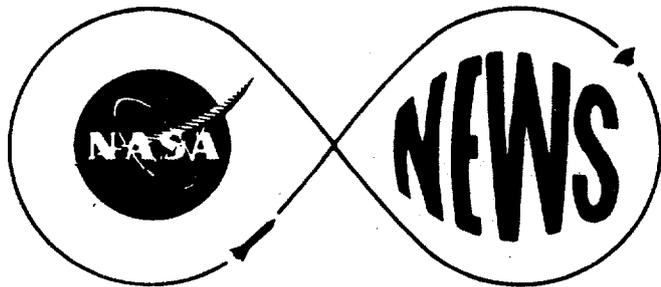
After serving for two years in the Army, he held engineering and technical management positions with private industry for three years prior to joining NASA in February, 1964.

He was transferred to KSC in August, 1968, as Chief of Apollo and Skylab Reliability, Quality Assurance and Systems Safety.

Rock was named Assistant Manager, Apollo-Skylab Programs in June, 1970, and was appointed Manager, Sciences and Applications Projects Office when it was established in October, 1972.

He was appointed Acting Manager, Apollo-Skylab programs in July, 1973, and Manager, Sciences, Applications, Skylab and ASTP Programs Office when the Center's program responsibilities were consolidated in October, 1973.

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**NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION**

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

FOR RELEASE:

February 3, 1975
Release #KSC-21-75

Dick Young
305 867-2468

FREEZE TEMPERATURE PREDICTION RESEARCH CONTRACT TO U. OF FLORIDA

KENNEDY SPACE CENTER, Fla.--NASA's John F. Kennedy Space Center has awarded a \$79,991 contract for research on freeze temperature prediction to the University of Florida's Institute of Food and Agricultural Sciences.

Relatively small in dollar value, but large in its potential for direct benefit to the state's vital agricultural industry, the one-year contract provides for development of techniques for improved surface temperature prediction during periods of freeze conditions.

It is believed that eventual benefits of the improved prediction system may be three-fold.

The system will allow fruit and vegetable growers to hold off heating of groves and fields until really necessary. It will allow significant savings in fuels required for heating. And it will aid in protection of the environment through limitation of heating to those times that heating is clearly necessary for protection of crops.

It is expected to free growers from the rigidity of an old rule which dictated, "when in doubt, fire up!"

Following that rule often resulted in losses in time, labor and fuel, and added to the increasingly heavy smoke or smog blanket which hung over agricultural areas of the state during cold snaps.

At present, freeze warning data is provided by the National Oceanic and Atmospheric Administration from its Lakeland, Florida Facility, supported by a Federal-State Agricultural Weather Service system of 300 thermograph (recording thermometer) equipped stations, and by other reporting stations.

But climatologists have long recognized the critical need by Florida growers for more accurate forecasting of freezes. After Kennedy Space Center's Earth Resources group began using aircraft-mounted thermal scanning and infrared photographic equipment in its developmental work, inquiries were made to the Center by weather scientists searching for ways to apply the group's remote sensing techniques to freeze forecasting.

The present contract is a follow-on to a smaller one granted to the University in 1973, to study the feasibility of using the remote sensing devices for temperature measurement and evaluation.

The current work is a cooperative effort among engineers and technicians from KSC, scientists from the university's Institute of Food and Agricultural Sciences, weather experts from the National Oceanic and Atmospheric Administration's Office at Lakeland, and from the NOAA Environmental Science Services Center at Auburn, Alabama.

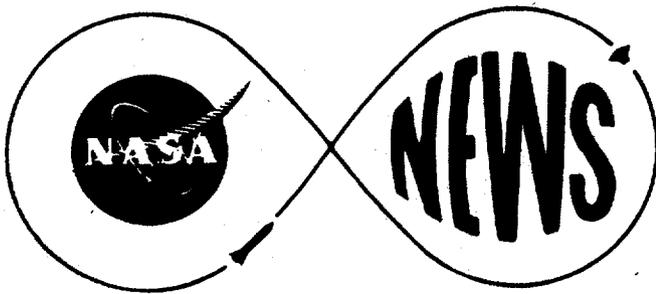
Data from all agencies will be combined and utilized in the development of a minimum temperature prediction "model," a base for computer forecasting of freezing temperatures.

The NOAA Center in Auburn will provide data from the Essa satellites. KSC will provide data acquired by its thermal scanning and infrared photographic equipment in its NASA-6 aircraft. This data will be reduced in the Earth Resources Data Analysis Facility at KSC and provided for analysis to the University of Florida and NOAA at Auburn.

University of Florida personnel will provide "ground truths,"--actual measurements on location of leaf and ground temperatures at specific times and places in a selected test area in the state--and the analysis of the ground truth data with that provided by KSC aircraft.

After final calibration, the data are combined into one final product, the temperature prediction model. Using that model as a base, a computer, given variables such as present temperature, humidity, time, cloud cover and wind velocity, can make accurate and dependable forecasts of freezing temperatures in any area where a model had been established.

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**NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION**

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

FOR RELEASE:

A. H. Lavender
305 867-2468

February 3, 1975
Release KSC-22-75

NASA TOURS RECORDS HIGHEST JANUARY VOLUME

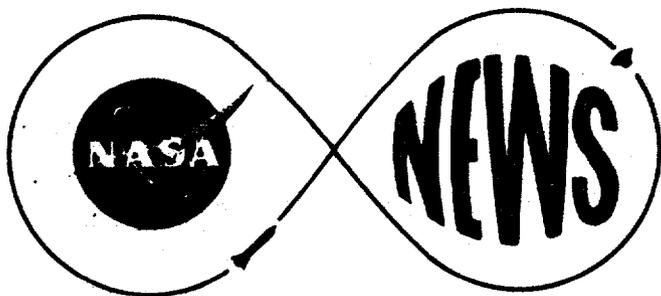
KENNEDY SPACE CENTER, Fla.--NASA Tours volume in January was at a record level as more than 74,000 visitors toured the Kennedy Space Center and adjacent Cape Canaveral Air Force Station.

January's 74,239 patrons exceeded the previous record for the month--set in 1973--by 2,155. January, 1974, volume was 52,343.

"While part of the increase in NASA Tours volume resulted from the availability of an adequate gasoline supply that has encouraged tourism and the fact that Florida's winter weather has been ideal," said P. A. Fagnant, chief of KSC's visitor information center branch, "it appears that NASA Tours and the visitor center are attracting a higher than average portion of Florida visitors."

Visitor center attractions include displays and exhibits explaining the space program and how space-developed technology serves mankind, space movies and space science lectures.

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A. H. Lavender
305 867-2468

**NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION**

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

FOR RELEASE:

February 14, 1975
KSC-24-75

NOTICE TO EDITORS/NEWS DIRECTORS

INTELSAT IV LAUNCH SCHEDULED FEBRUARY 20

KENNEDY SPACE CENTER, Fla.--Launch of the seventh INTELSAT IV communications satellite from Complex 36, Cape Canaveral Air Force Station, is scheduled no earlier than Thursday, February 20. A launch window extends from 6:35 p.m. to 7:28 p.m. EST. A second window extends from 9:14 to 9:30 p.m.

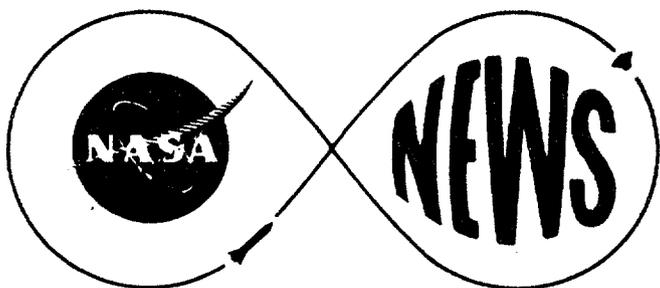
To be launched by KSC's Unmanned Launch Operations Directorate, the communications satellite will be positioned above the equator over the Indian Ocean. With this satellite on station there will be three INTELSAT IVs over the Atlantic Ocean, two over the Pacific Ocean and two over the Indian Ocean.

A prelaunch press conference on the INTELSAT IV mission is scheduled Wednesday, February 19. News media representatives desiring to cover the press conference should arrive at the KSC Public Information Office, Room 1207, Headquarters Building, by 10:30 a.m. Transportation to the press conference will be provided. Badging of news media representatives will be available at the Gate 2 Pass and Identification Building via State Road 3 Merritt Island and the Gate 3 Pass and Identification Building via State Road 405 from U. S. Highway 1 south of Titusville, Fla.

Transportation for media representatives to cover the February 20 launch at Press Site 1, Cape Canaveral AFS, will be provided from the Ramada Inn, Cocoa Beach, Fla. A bus for photographers will depart the Ramada Inn at 5 p.m. and a bus for writers will depart at 5:30 p.m.

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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:

February 18, 1975
KSC-25-75

JETTY PARK TO CARRY LAUNCH COUNTDOWN

KENNEDY SPACE CENTER, Fla.--A running summary of the countdown for the launch of an Intelsat IV communications satellite no earlier than Thursday at 6:35 p.m. EST will be carried over the public address system at Jetty Park.

Jetty Park was "wired for sound" prior to the launch of Synchronous Meteorological Satellite-2 on February 6 and a near-capacity crowd of 6,000 people turned out to watch the show.

Jetty's Park "Bird-Watch Hill" - located to the east of Port Canaveral and due south of Cape Canaveral Air Force Station with its launch pads for NASA's unmanned launches - has been a popular viewing site for area residents and visitors for years.

But viewing was on a catch-as-catch-can basis as the spectators were unaware of the status of launch preparations.

The commentary - which describes the mission, actual countdown and key post-launch sequences - changes all of that and Jetty Park spectators will be as well informed as the journalists at the Press Site or official guests at other viewing sites.

The public address system was installed by KSC in conjunction with the Brevard County Board of Commissioners.

Jetty Park, operated by the Brevard County District 2 Parks and Recreation Department, fronts the ocean alongside the entrance to Port Canaveral. The 40-acre facility can accommodate up to 7,000 viewers, 1,500 on a special pavilion viewing stand near the beach. Parking spaces are provided for 300 cars and another 700 vehicles can be parked on nearby lots.

The park also has restroom facilities, two snack bars and a convenience store to serve the public.

Intelsat IV will be launched by an Atlas-Centaur rocket from Complex 36. The distance of the launch pad from Jetty Park is about 25,000 feet, or four and three-quarters miles.

There are two launch opportunities Thursday night.

The first extends from 6:35 to 7:28 p.m. EST and the second is from 9:14 - 9:30 p.m. EST.

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In the past, some Jetty Park observers have focused their attention on a prominent object on the Cape's flat surface and waited - endlessly-before asking when "that black and white striped rocket" is going to go.

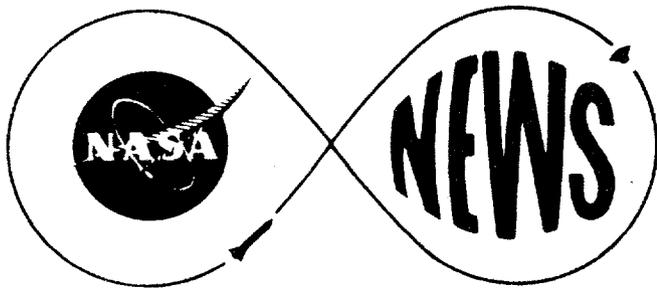
The "black and white striped rocket" will not go.

It's the lighthouse.

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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:
March 2, 1975
KSC-30-75

SATURN/APOLLO LAUNCH TOWER SPORTS "NEW LOOK"

KENNEDY SPACE CENTER, Fla.--Space buffs will notice a "new look" to the Saturn IB/Apollo mobile launcher to be used in July's Apollo Soyuz Test Project, a joint manned mission with the Soviet Union.

The "new look" consists of a new lightning protection system for the launcher and space vehicle while prelaunch checkout is underway at Complex 39's Pad B.

Launch of the Saturn IB/Apollo with its three-man crew is scheduled for a narrow 8-minute launch "window" opening at 3:50 p.m. EDT on July 15, 1975.

Florida is on the fringe of the sub-tropics and it is not uncommon for electrical storms to occur in the summer months during afternoon and early evening hours. The new lightning protection system is being installed to help insure that electrical storms will not interfere with the timely launch of the Apollo spacecraft in history's first dual-nation manned space mission.

The new look will first be apparent shortly after the transporter moves the mobile launcher with the 224-foot-tall space vehicle just outside the floodlighted eastern face of the Vehicle Assembly Building at 2:00 a.m. on the morning of March 24.

There will be a five-hour pause at this point as KSC workmen lower and secure an 80-foot-tall fiberglass lightning mast into a circular slot on a platform above the hammerhead crane at the top of the launcher.

The mast will be lowered from a steel framework structure (dubbed variously "the laundry chute" and "bird cage") overhanging the top of the 456-foot-high door leading to the outside from High Bay 1.

At 7:00 a.m. - mast firmly in place - the transporter will begin the move to Pad B, on the rim of the Atlantic Ocean five miles to the northeast.

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Once at the pad, a half-inch diameter cable will be passed over the mast to grounding points 1,000 feet on each side of the mobile launcher.

Lightning protection for the Apollo and Skylab space vehicles was provided in part by a 54-foot-tall mast and rod which took lightning strokes to ground through the mobile launcher structure.

"The new lightning protection system isolates the mobile launcher and space vehicle as a current path," said William R. Durrett, Chairman of KSC's Lightning Committee. "It provides a point of stroke impact and a path to ground which is insulated and separated from the mobile launcher."

According to William Jafferis, staff assistant to Isom A. Rigell, KSC's Director of Launch Vehicle Operations, the new system is also expected to minimize potential damage and retesting as the result of lightning strikes.

Jafferis noted that the purpose of the taller, insulated mast is to carry the ground wires a minimum of 50 feet from any part of the mobile launcher structure, thus eliminating arcing of current from the wires to the structure.

He explained that current running down the mobile launcher has a potential for running across the umbilical arms into the space vehicle itself, posing a danger of damage and creating the need for retesting of flight hardware systems.

"With this mast," said Jafferis, "we expect currents and their electromagnetic effects to be reduced to about 4 percent of that which could be carried by grounding the lightning through the structure."

The Saturn IB/Apollo is undergoing processing at KSC for this summer's joint mission with the Soviet Union. Astronauts Thomas P. Stafford, Donald K. Slayton and Vance D. Brand will be launched from KSC at 3:50 p.m. EDT on July 15.

A two-man Soviet Soyuz spacecraft crewed by Cosmonauts Aleksey Leonov and Valeriy Kubasov will be launched from the Soviet Cosmodrome near the Aral Sea approximately seven and one-half hours prior to Apollo.

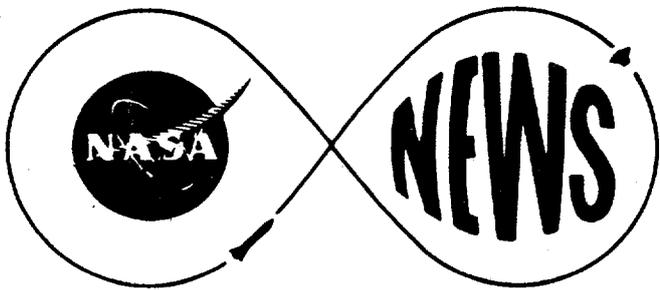
The KSC launch team will have a launch opportunity of only about 8 minutes duration to place the Apollo spacecraft on the proper trajectory for rendezvous and docking with the Soyuz spacecraft two days after launch.

Additional launch opportunities -- none of them longer than 8 minutes -- also exist on four subsequent days.

The new lightning protection system is being installed to keep the possibility of storm interference with the launch to a minimum.

Purpose of the Apollo Soyuz Test Project is the demonstration of an international space rescue capability and to conduct joint scientific experiments in space. It also marks an important first step toward possible future cooperation in manned space flight.

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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:
March 11, 1975
Release #KSC-34-75

LASERS MAY OPEN WORLD'S SEAS TO REMOTE SENSING

KENNEDY SPACE CENTER, Fla.--The surface of the water covering 70 percent of the Earth's surface is an open book.

But the dark, dynamic world below with its currents and countercurrents, its layers of varying temperatures, salinity and turbidity, can only be studied - expensively and slowly - by on-site sensors.

This may be changed by a laser technique being developed at the University of Miami under a contract with NASA's John F. Kennedy Space Center.

The new technique appears to have the potential of becoming a useful tool with which to monitor temperature, turbidity, salinity and other factors affecting subsurface water qualities and doing it quickly and cheaply.

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

KSC recently awarded the University of Miami, Coral Gables, Fla., a 10-month, \$30,000 contract for preliminary design of a laser system capable of penetrating into the water to measure a number of significant factors affecting water quality.

The technique was proven feasible during a nine-month study contract awarded the Coral Gables school in June 1974.

In a report on that feasibility study prepared by the Laboratory for Optics and Astrophysics of the Department of Physics, it was concluded:

"At present, the only way to measure the subsurface temperature at depth is to introduce thermal measuring devices directly into the water to the desired levels. Such methods are expensive, time-consuming and do not provide the continuous pictures that remote sensing can provide of the surface.

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"It would be very valuable, therefore, to be able to provide remote sensing of the ocean parameters at depth.

"The methods proposed will provide continuous information on temperature, salinity and backscatter turbidity by remote sensing without directly introducing sensing devices into the ocean. Ultimately the remote sensing may be carried out from an aircraft, or even a satellite. Initially, however, it will be done from a ship."

According to Roy A. Bland, technical manager for the contract in KSC's Earth Resources Office, the preliminary studies at the University of Miami used a ruby laser, which generates a red light.

But the sea is most transparent to radiation in the blue-green portion of the spectrum and the design study now underway will recommend the use of a neodymium (rare earth) glass laser.

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

The laser system will be developed and applied in three phases -- first in the laboratory, then aboard a ship and finally from an aircraft.

Among the elements being studied are the optimum power levels, methods to mask out unwanted return radiation and the best way to store the recorded information.

The power level of the laser used in the feasibility study was 10 megawatts.

According to Bland, "we're looking for the best combination of system elements. These will be put together after this portion of the study is completed."

A marine version of the new sensing device may be ready for testing as early as January, 1976, but Bland indicated that an aircraft version is "at least two years away."

What about depth of penetration?

"Under ideal conditions," said Bland, "we hope to be able to penetrate the water to a depth of 100 meters (328 feet)."

What is a laser?

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 are in phase with those of every other light wave. All other light sources produce incoherent light - meaning the crests and troughs of the waves are not in phase.

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.

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 only two miles in diameter on the lunar surface. A beam of ordinary light traveling the same 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.

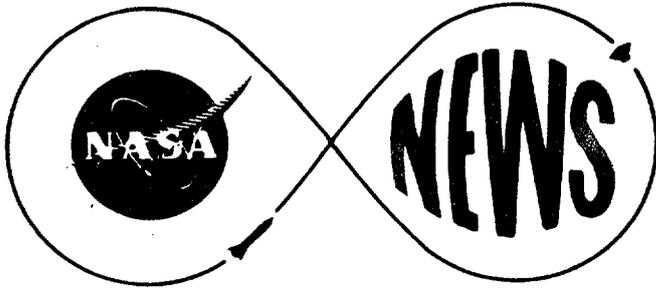
What are potential applications?

The information could be invaluable in siting of electrical power plants with the immense amounts of heated cooling water they pour into surrounding bodies of water. The question of the survival of marine life would be determined. Thermoclines, a layer of rapid change in temperature, which affect acoustic transmission could be found by this system. The turbidity state of a body of water can also be determined.

This design contract is closely allied with another KSC/Univeristy 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.

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

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, as well as monitor the temperatures and extent of thermal plumes from existing plants.



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FOR RELEASE:
March 14, 1975
KSC-42-75

NOTICE TO EDITORS/NEWS DIRECTORS

ASTP ROLLOUT, VIKING BRIEFINGS SCHEDULED MARCH 24

KENNEDY SPACE CENTER, Fla.--Coverage of the rollout of the Apollo/Saturn IB space vehicle for the U. S. Apollo Soyuz Test Project mission, the last scheduled Apollo/Saturn launch, from the Vehicle Assembly Building to the launch pad will be available for news media representatives at the Kennedy Space Center, Monday, March 24.

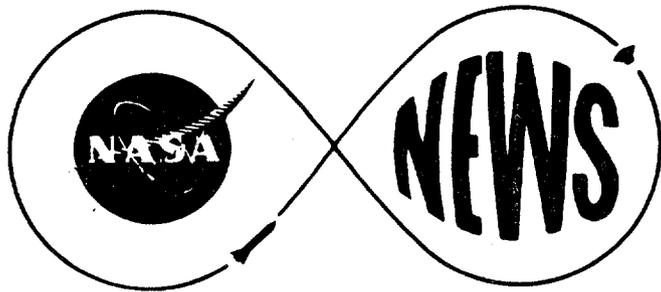
In addition, briefings on the twin 1975 Viking missions, with presentations by James Martin, Viking Project Manager, Dr. Gerald Soffen, Viking Chief Scientist, Langley Research Center; and Harold Zweigbaum, KSC Unmanned Launch Operations, are scheduled. A visit to KSC Spacecraft Assembly and Encapsulation Facility No. 2 where the first Viking will be undergoing final checkout prior to mating with its launch vehicle is also scheduled.

Rollout is scheduled to begin at 8:00 a.m., with arrival of the Apollo/Saturn IB at the launch pad in the early afternoon. ASTP astronauts Thomas Stafford, Donald Slayton and Vance Brand will participate in a brief rollout ceremony for guests and dependents of KSC government and contractor employees and are expected to visit the space vehicle either while it is en route to the launch pad or at the pad.

News Media representatives may obtain badges for access to the Kennedy Space Center Complex 39 press site at Pass and Identification Buildings at KSC Gate 2 (via State Road 3 from Merritt Island) and Gate 3 (via State Road 405 from U. S. 1 south of Titusville). Badging will start at 6:00 a.m.

For additional information please phone the KSC Public Information Office, Area Code 305 867-2468, Friday, March 21; the KSC Public Information Codaphone, 305 867-2525, Saturday and Sunday, March 22 and 23; or the KSC Public Information Duty Officer, A. H. Lavender, 305 254-3404, Sunday, March 23.

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

FOR RELEASE:
March 20, 1975
KSC-46-75

JAMES ROWE NAMED CHIEF OF KSC EXECUTIVE STAFF

KENNEDY SPACE CENTER, Fla.--Appointment of James R. Rowe as Chief of the Executive Staff was announced today by Kennedy Space Center Director Lee R. Scherer.

In this position Rowe will provide staff assistance to the KSC Director and Deputy Director and provide the Center's single point of contact in Congressional affairs.

Born in Nashville, Georgia, Rowe was graduated from the University of Georgia in June, 1952.

Upon graduation from the university, he entered the Army and served in the Corps of Engineers until his discharge in July, 1963. While on active duty, he attended Texas A&M and received his M.S. degree in civil engineering in May, 1957.

He joined NASA's Kennedy Space Center as a project engineer in the Facilities Division in August, 1963. He later served as special assistant to the Director of Design Engineering and in December, 1966, joined the KSC Executive Staff.

He is a registered professional engineer.

Rowe, his wife, the former Roberta White of Florence, S. C.; and their children, Donna and Lori, reside in Cocoa, Florida.

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