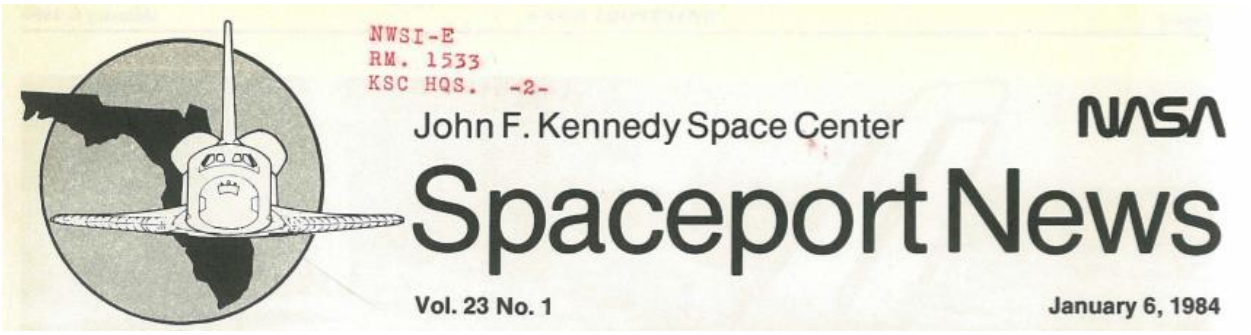


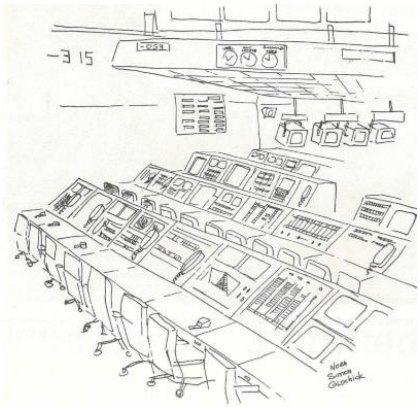
1984 Spaceport News Summary

From The January 6, 1984, Spaceport News

The following article is on the first page, "Apollo 11 Launch Show Opens". In part, the article reads "Kennedy Space Center opened its doors December 22 to a firing room presentation which recreates the lift-off of Apollo 11 and commemorates man's first steps on the moon… … This new exhibit is a replica of the Apollo 11 launch show which made its debut at the space center in 1976 during the Bicentennial celebration as part of an exposition called 'Third Century America'…

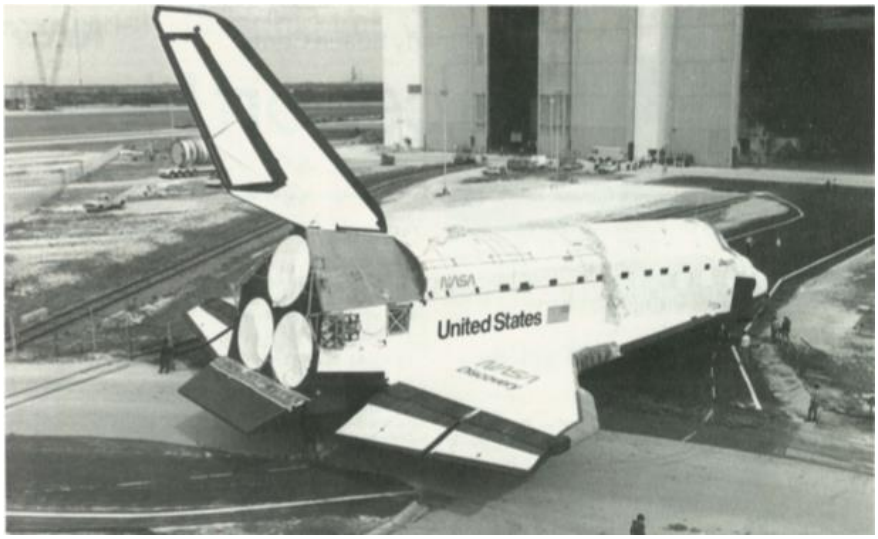
… The new exhibit has been constructed in a portion of the Flight Crew Training Building, where the astronauts prepared for the Apollo lunar missions. It features 10-minute program which recreates the last three minutes and 15 seconds of the Apollo 11 countdown, including the launch… … The show utilizes many of the original consoles used in the firing room during the actual launch…

… "We think this show will allow every visitor to re-live an exciting moment in history," said Richard G. Smith, KSC Director. "We have been looking forward to the day when we could rebuild this presentation."…



The artist's name in the lower right is "Nora Simon Glochick".

Also in this issue is the following photo.



“THE NEWEST ORBITER, Discovery, was moved from the Orbiter Processing Facility to the Vehicle Assembly Building to ease post-flight deservicing of the Columbia following its return to KSC. Work will continue on Discovery in High Bay 2 in the VAB until after Challenger is moved to the VAB in early January for stacking with the external tank and the solid rocket boosters.”

On page 4, “Vintage DC-3 Drafted For Shuttle APU Airlift”. Portions of the article state “When the auxiliary power units from Space Shuttle Orbiter Columbia, America's first ultra-modern operational spaceship, had to be airlifted recently to the manufacturer for tests, the job was done by the oldest operational DC-3 in the world. The aircraft, operated by Academy Airlines of Griffin, Ga., is a "veteran's veteran" - the sixth "Dakota" cargo airplane ever to roll off the Douglas Aircraft assembly line.

The venerable "gooney bird" also holds the honor of being the oldest aircraft ever to use the Shuttle Landing Facility runway at KSC. The DC-3 was chartered from Academy Airlines to return the power units to the manufacturers, Sundstrand Corporation of Rockford, Ill… … Academy's DC-3, now piloted by Charles Head and George Odiorne, has logged 71,640 flying hours since leaving the Douglas factory on July 10, 1936…”

From The January 20, 1984, Spaceport News

On page 1, "NASA To Set New Record For Manned Launches". A part of the article reads "Setting a 1984 launch schedule that will establish a new record for manned space missions, NASA plans 10 space shuttle flights, 10 satellite deployments from the Shuttle in orbit, and 12 unmanned missions using expendable launch vehicles…

… Launch activity will begin Feb. 3 with orbiter Challenger flying the 41-B mission. (Under the new mission numbering system, "4" denotes Fiscal Year 1984. The numeral "I" indicates it to be a KSC launch. The number "2" is reserved for missions to be launched from Vandenberg AFB, California. "B" a permanent designation indicating the mission is the second scheduled during Fiscal Year 1984. Under the new system, the STS-9/Spacelab 1 mission would have had the designation 41-A). Communications satellites Westar-VI, for Western Union, and Palapa B-2 for the government of Indonesia will be deployed. Under the old system, the 41-B mission bore the designation STS-11…"

In fact, there were 5 space shuttle flights in 1984. By my reckoning, the most Shuttle flights in one year was 1985, when there were 9 flights. And there were two years with 8 flights, 1992 and 1997.

On page 2 "A Spacelab 1 Photo Album". There are a series of photos, one of which is below.

"…crew members, aboard STS-9…" in "… an impromptu pose in the aft end cone of Spacelab. Clockwise, beginning with John Young at "six" they are Ulf Merbold, Dr. Owen K. Garriott, Brewster H. Shaw, Jr., Dr. Byron K. Lichtenberg and Dr. Robert A.R. Parker…"

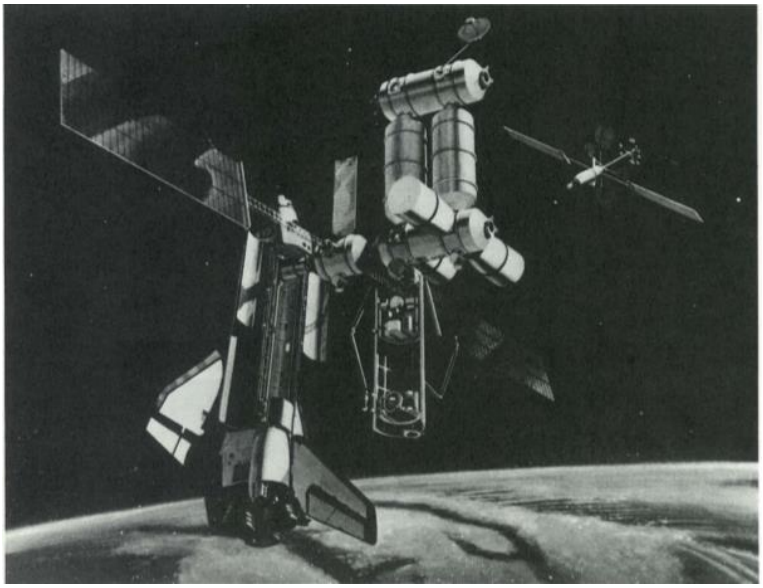
From The February 3, 1984, Spaceport News

The headline is “Space Station Given ‘Go'”. In part, the article reads “'We can follow our dreams to distant stars." With that preface, President Reagan last week directed NASA to develop a permanent manned space station… … In his State of Union Address before Congress, the President set a goal of placing a space station into orbit within a decade, and emphasized "the enormous potential of commerce" in space…

… KSC Director Richard Smith hailed the President's announcement as a "bold step" and said that KSC will have an important role… … He said decisions concerning what responsibilities the various NASA centers will have in the program are yet to be determined… ... As envisioned in preliminary NASA planning work conducted over the past 18 months, the space station will consist of several elements. A modular, expandable assembly of facilities will support a crew of six to eight living and working in a low earth orbit….

… Some of the major components include crew living quarters, the utilities required to operate the station, facilities containing consumable supplies, and a docking hub to allow tending by the Shuttle.”

The first US Space Station assembly flight, was STS-88, in 1998, with the Unity module.



“A SPACE STATION CONFIGURATION, showing orbiter in dock.”

Also on page 1, “Shuttle Mission 41-B To End With Landing At KSC”. A portion of the article reads “Excitement has been building at KSC as today's scheduled launch of Space Shuttle Mission 41-B (STS-11) heralded the approach of the first end-of-mission landing of an orbiter here…”

“MEMBERS OFTHE41-B (STS-11) CREW answer media questions during a photo session at Launch Pad 39A. From left, they are Commander Vance Brand, Pilot Robert "Hoot" Gibson, Mission Specialists Bruce McCandless II, Ron McNair and Robert Stewart.”

On page 3, “41B”. Part of the article reads “On Shuttle flight 41-B, astronauts will perform the first untethered space walks using a pair of gas-powered backpacks to demonstrate techniques important for the successful retrieval and repair of the disabled Solar Maximum spacecraft. Challenger's primary goal on this eight day mission will be to deploy into orbit two commercial communications satellites -Western Union's Westar VI and the Indonesian Palapa B-2…”

This photo is included with the article.

Thiephoto, at the top, shows what was then the Complexes, just west of the Press Site. A lot of employees worked at the Complexes (A through J as I remember), after moving people out of the VAB, since with Shuttle, boosters (Class 1.1 explosive), were present in the VAB. The construction of OSB1 and 2 allowed the Complexes to be retired/removed.

And on page 7, “Senior Positions Filled In "Shuttle OPS" Directorate”. Portions of the article read “Center Director Richard G. Smith and Shuttle Management and Operations Director Thomas Utsman have named Carson (C.M.) Giesler and Horace Lamberth to fill senior management positions within the Shuttle Management and Operations Directorate.

Giesler was appointed… …as deputy director of Shuttle Management and Operations. In this position, he will assist Utsman in management and technical direction of preflight, launch, landing and recovery activities for all KSC shuttle vehicles, as well as on-line checkout of shuttle payloads… … Lamberth was appointed to an SES position as director, Engineering, in the Shuttle Management and Operations Directorate… … In his new position, Lamberth will be responsible for management and direction of engineering aspects of integration, test, checkout, documentation and launch preparations as they relate to the Shuttle vehicle…”.

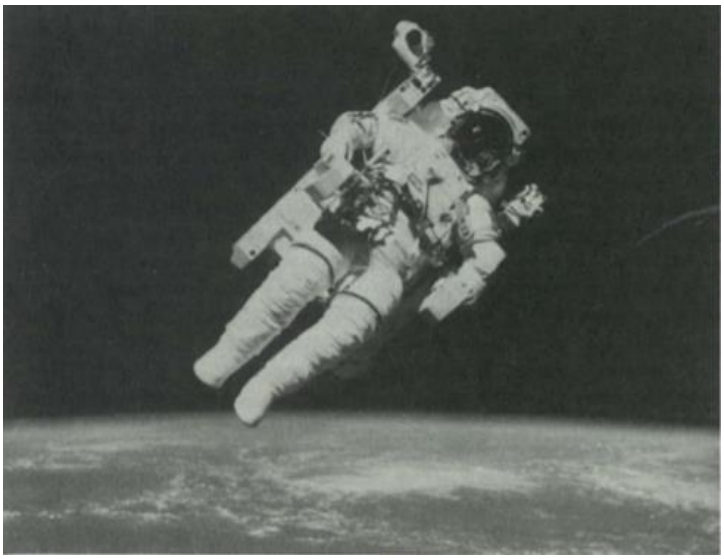
“C.M. Giesler”

Horace Lamberth

From The February 17, 1984, Spaceport News

The lead article is “**** 41-B ... Men In Space****”. A portion of the article reads “The Shuttle's powerful engines transformed a heavy morning ground fog into a swirling cloud of fluorescent mist, blasting Mission 41-B away from KSC's Launch Complex 39 and into its niche in the history of manned space flight. Lifting off as scheduled at 8 a.m. on Feb. 3, Challenger and her crew chalked up a successful mission that included the first untethered spacewalks in the program's history, the first use of the manned maneuvering units (MMU's), first use of a Manipulator Foot Restraint mounted on the remote manipulator arm, and the first extravehicular activity with no extended pre-breathing period to eliminate nitrogen from the bloodstream.

Another major "first" for 41-B was the landing at Kennedy Space Center, the first time a home-bound orbiter has concluded its mission on the paved runway especially designed to serve the Shuttle program through its operational era.



"McCANDLESS floats free in space, far above Earth."

From The March 2, 1984, Spaceport News

In this issue, on page1, "Al O'Hara, Launch Director At KSC, Closes Career". A portion of the article reads "Shuttle Launch Director Al O'Hara retired February 17 after a career in government service that spanned 30 years. He came to KSC in 1963 as the technical assistant to Dr. Hans Gruene, director of Space Vehicle Operations…" Al O'Hara was Launch Director for STS-5 through STS-9.

On page 2, "Painting To Grace O&C". Part of the article reads "A new sight is in store for those working or visiting in the Operations and Checkout Building. A four-by-six-feet oil painting by McDonnell Douglas graphic artist David Tormoen soon will be gracing a wall of the O&C lobby.

Presented to NASA by McDonnell Douglas, the painting was undertaken as part of an O&C spruce-up plan envisioned by MDTSCO Director George Faenza. Faenza, who

recently had several large Space Shuttle-related pictures hung in the cafeteria, wanted something different for the lobby…"

"DAVID TORMOEN POSES with his tribute in art."

And on page 3, "Bob Sieck Named To Manage Shuttle Operations For KSC". A portion of the article reads "Bob Sieck has been named deputy director, Launch and Landing Operations for the Shuttle Operations and Management Directorate. Sieck will be responsible for operational management of KSC Shuttle prelaunch, launch, landing and recovery activities. Sieck served as the Shuttle Launch Director for the 41-B launch, and will continue in that capacity while serving as deputy director of the Launch and Landing Operations Division.

Previously, he served as a shuttle flow manager, overseeing the turnaround operations on STS flights 7, 8 and 41-B, and was the project engineer on Shuttle missions 1 through 6… …Sieck joined NASA in 1964. He has served as a Gemini systems engineer, Apollo spacecraft project engineer, and was engineering manager during the Approach and Landing Test Program…"

"BOB SIECK (LEFT) LOOKS ON from his new position as Launch Director in the Firing Room of the Launch Control Center as NASA's Deputy Administrator Hans Mark congratulates Al O'Hara on the day of the Mission 41B launch and wishes him a happy birthday."

And the following photo is on page 4. The caption reads “A HONEYMOONING PHILADELPHIA COUPLE who came to the Visitors Center to take the KSC tour and to get information on the 41-B landing broke the 20 million patron mark for the tour that began in July 1966. Mr. and Mrs. Joseph Pawko received several prizes on Feb. 11, including a picture of a Shuttle launch and special passes to view the first Shuttle landing at the center the following day.”

From The March 16, 1984, Spaceport News

In this edition, on the first page, “Big Savings Seen In Hydrogen Plant”. In part, the article reads “A polygeneration plant which would produce liquid hydrogen, gaseous nitrogen and electricity, located at KSC, could save from three quarters of a million to a million dollars for each launch of the Space Shuttle, according to Peter Minderman, director of Engineering Development for KSC.

The savings would be realized from the reduction of transportation costs KSC now pays for the liquid hydrogen, which is shipped to the center by rail from a natural gas plant in Louisiana… …The results of the study are being presented to NASA headquarters and a final decision about whether or not to proceed with the project will be made by NASA Administrator James Beggs later this year.”

Also in this issue, “STS 41-C Crew At KSC For Goodwill Tour”. There are several photos, a couple of which are below.

“JAMES VAN HOFTEN, standing, right, and GEORGE NELSON, second from right, Mission Specialists for flight 41-C, dropped in on a scheduling meeting in the Orbiter Processing Facility. They talked with Orbiter 103 NASA Flow Director "Tip" Talone, standing, left, NASA Project Engineer Harry Silipo, standing, center, and Air Force Project Officer representative Trey Obering. The 41-C flight crew conducted a good will visit with Shuttle Processing Contract workers at KSC.” Tip Talone provided the following: “Trey ended up AF General in charge of "Star Wars" before he retired.” Thanks a bunch Tip!

“MISSION 41-C LAUNCH DIRECTOR Bob Sieck at far left talks with 41-C crew members, left to right, James Van Hoften, George Nelson and Terry Hart in the Vehicle Assembly Building.”

From The March 30 1984, Spaceport News

"Rehearsal Over, Rescue To Begin" is on the first page and "41-C Schedule Promises Busy Mission" is on page 3. Parts of the articles read "Drills and dress rehearsals will yield to the real thing when Mission 41-C astronauts rocket into space April 6 to attempt the first on-orbit repair of a disabled satellite. The first untethered space walks and practice with specialized equipment during the 41-B mission in February set the stage for the upcoming flight. But Mission Specialists George Nelson and James van Hoften will be playing for keeps when they rendevous with and try to repair the disabled Solar Maximum Mission spacecraft that was launched more than four years ago. Orbiter Challenger also will carry the experiment-laden Long Duration Exposure Facility (LDEF) into space for the first time….

…Making its fifth trip into space, Challenger will be launched into the highest orbit yet for the reusable spaceplane so that it can rendezvous with a wobbling solar flare-studying satellite called Solar Maximum…. …Challenger's liftoff from Complex 39's Pad A will be the first to employ a "direct insertion" ascent technique that will put the spacecraft into an elliptical orbit with a high point of about 287 miles and an inclination to the equator of 28.5 degrees…"

"THE 41-C ASTRONAUT CREW includes (left to right) Robert Crippen, commander; Terry Hart, James van Hoften and George Nelson, all mission specialists; and Francis (Dick) Scobee, pilot."

On page 6, "KSC Security Adds Airboat To Fleet". In part, the article reads "The ability to operate in water only inches deep is the chief attribute of that cross between an airplane and a flat bottomed boat - the airboat. The KSC Patrol is now making good use of that ability, having recently acquired a 16 foot aluminum-hulled airboat for use in patrol duties…

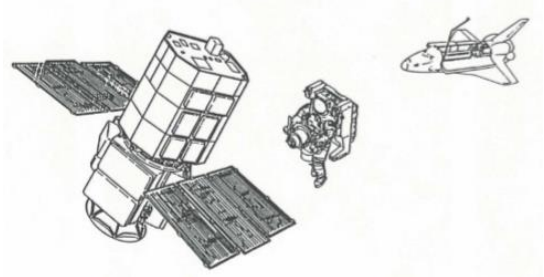
…EG&G Security Officer Sgt. Perry Thomas, who conducts the airboat program, said that the airboat is intended for regular partol of the Launch Complex 39 area and will normally be operated in open water areas… …"This airboat promises to vastly expand our abilities to patrol and protect the Center," said Sergeant Thomas.

“SGT. PERRY THOMAS pilots KSC's newest patrol vehicle across the shallow waters south of the Space Shuttle launch pad.”

From The April 13, 1984, Spaceport News

In this edition, “41-C Mission Goes Into Record Books”. Part of the article reads “Florida's capricious weather was the only obstacle the resourceful crew of Mission 41-C couldn't overcome. They prevailed over a rescue resistant Solar Max satellite, switching procedures in mid-mission as Mission Commander Robert Crippen and Pilot Dick Scobee maneuvered Challenger close enough to the ailing spacecraft to grapple it and haul it inside it's big cargo bay with the Canadian-built manipulator arm…

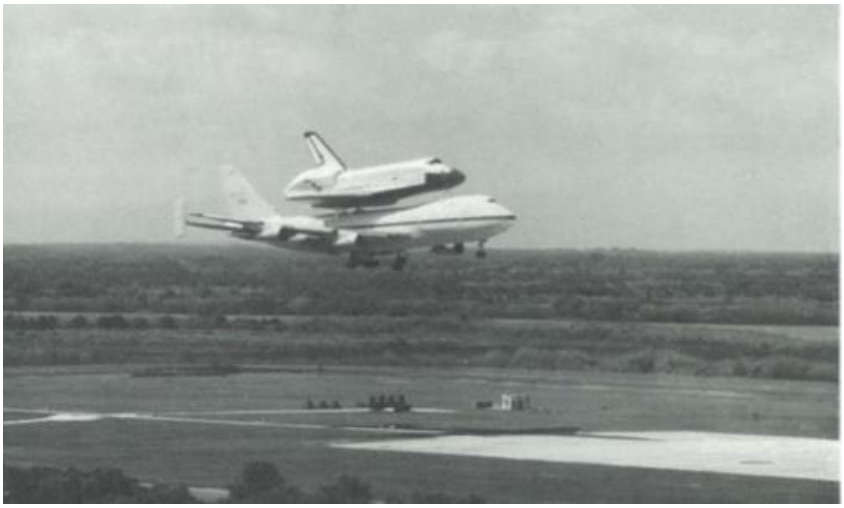
…Other mission objectives, including deployment via the robot arm of the Long Duration Exposure Facility - carrying 57 separate experiments for long-term exposure to the space environment were accomplished as expected by Mission Specialist Terry Hart and fellow crew members. Challenger's triumphant trip home hit one snag - clouds and rain showers heavy enough to force a wave-off from KSC's Shuttle Landing Facility and "one more time around" to a successful landing at the Dryden Flight Research Facility in California at 8:38 a.m. EST on Friday, April 13.



“IN THIS ARTIST'S perspective, the astronauts's free flight to rendezvous with the Solar Max satellite has begun.”

From The April 27, 1984, Spaceport News

On page 1, "Turnaround Team Hustles Challenger Back To KSC". Part of the article reads "Despite Challenger's unplanned landing in California on Friday, April 13, a team of dedicated NASA and contractor personnel from KSC was able to have the spacecraft ready for its cross-country trip back to Florida in near record time. Turnaround activities at the Dryden Flight Research Center were particularly important this time because the sooner Challenger was returned to Florida with Discovery's left-hand Orbital Maneuvering System pod, the less it would impact preparations for the 41-D mission, which will be Discovery's first flight…"



"CHALLENGER COMES HOME"

From The May 11, 1984, Spaceport News

On page 1, "Discovery Completes Major Milestones In Processing". In part, the article reads "Space Shuttle Orbiter Discovery, the third space vehicle to roll off the assembly line destined for routine travel in orbit, has taken major steps toward moving from the Orbiter Processing Facility to the Vehicle Assembly Building… … Discovery is scheduled to make its maiden flight in June…

… Discovery was delivered to KSC early last November to begin more than 100 working days in the hangar-like Orbiter Processing Facility. In some ways, the preflight checkout of NASA's newest spacecraft was the best ever for a first-time vehicle, said NASA Flow Director Tip Talone… … A major milestone still to be accomplished is the Flight Readiness Firing - a static test firing of Discovery's main engines at the launch pad… … NASA will establish the launch date for the first flight of Discovery after the FRF…'

Also in this issue, “Complex 39's New Cafeteria Opens Doors”. A portion of the article reads “KSC opened the doors of a newly-constructed 18,000 square foot building last week which will serve the food, money and medical needs of employees in the Complex 39 area. The cheerful, airy-looking cafeteria was the first service to "hang out its shingle" in the new Multifunction Facility Building. Set up somewhat like the old Launch Control Center cafeteria which it replaced, the new dining room which features take-out service-is complimented by large 'picture' windows, carpet, and lots of surrounding parking space… … All services available in the facility were previously located in the LCC….”

“COMPLEX 39's new cafeteria received an enthusiastic reception from KSC workers when it opened for business on May 2 at 11 a.m.”

From The May 25, 1984, Spaceport News

The headline article is “Intelsat Will Ride 'New' Atlas Centaur”. In part, the article reads “When the latest in a series of Intelsat V international communications satellites begins its climb toward a stationary orbit above the equator on or about June 7, a new s-t-r-e-t-c-h-e-d, souped-up version of the Atlas Centaur will be carrying it… … The Atlas Centaur is NASA's most powerful unmanned launch system…

… In the new model making its debut on the Intelsat V/F9 mission, the Atlas has been lengthened by 81 inches, giving the new vehicle a total height of 138 feet compared to the 131 feet of the earlier version. The added tank capacity permits the Atlas to carry an additional 22,700 pounds of liquid oxygen and nearly 10,000 more pounds of kerosene (RP-1)...

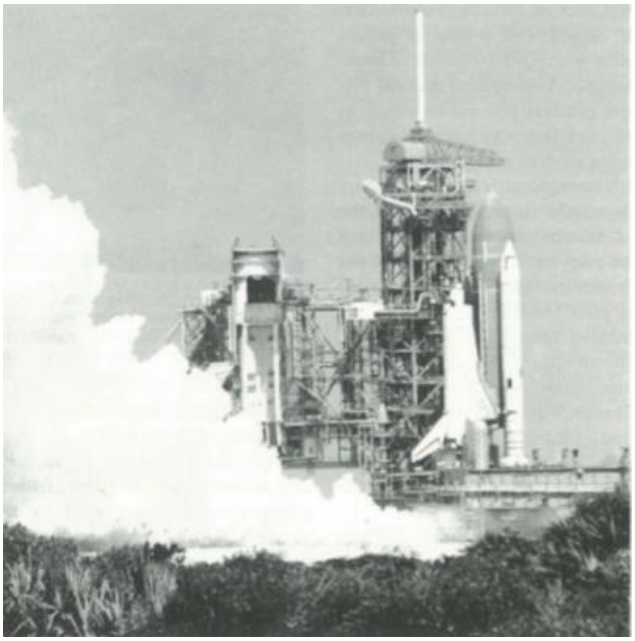
… In the new version, Atlas Centaur is able to orbit a satellite weighing up to 5,100 pounds, from 350 to 500 pounds more than was possible with the previous design…”

“STRETCHED MODEL Atlas Centaur undergoes pre-launch processing at Pad 36B”

From The June 8, 1984, Spaceport News

In this issue, the headline is “’Lightweight' Discovery Ready For Trip”. In part, the article reads “With Mission 41-D, set for launch no earlier than June 22 at 8:43a.m. EDT, NASA will increase its stable of workhorse vehicles with Discovery, the third space capable orbiter off the production line and the lightest of the reusable vehicles manufactured to date. Discovery rolled off its California production line last fall and was delivered to KSC on the back of the 747 Shuttle Carrier Aircraft on Nov. 9… …The most difficult and hazardous test to be completed prior to any new orbiter's maiden flight is the 20-second Flight Readiness Firing, and Discovery passed hers with flying colors on June. 2

The primary difference between Discovery and its immediate forerunner, Challenger, is cosmetic. Engineers used a new type of thermal material, called Advanced Felt Reusalbe Surface Insulation (AFRSI) in place of most of the low temperature "white" tiles and Felt Reusable Surface Insulation (FRSI) that covers the upper portion of the wings, the mid fuselage and the Orbital Maneuvering System pods on orbiters Challenger and Columbia. Use of the quilt-like material, as well as manufacturing changes, enabled engineers to trim the dry weight of the vehicle to 147,980 pounds, which is 1662 pounds less than the Challenger spacecraft…”



“ORBITER DISCOVERY'S MAIN ENGINES roar to life for their 20-second successful flight readiness test on June 2, a major milestone on the way to the spaceship's maiden flight.”

On page 2, “Discovery Prepared For Maiden Flight”. A portion of the article reads “Spaceship Discovery, the newest addition to NASA's fleet of reusable orbiters, will be launched on its maiden flight on Mission 41-D, the 12th flight in the Space Shuttle program. Discovery's six-person crew will include the first passenger ever to be launched into space for private industry. Payloads on Discovery's first mission include two commercial cargos, and a pair of pallets laden with NASA-sponsored experiments…

…Veteran Shuttle astronaut Henry Hartsfield is commander of the six-member crew. Hartsfield was the pilot on STS-4, the last of the Shuttle test flights. He will be joined by pilot Michael Coats, and three mission specialists; Judy Resnik, Steven Hawley and Richard Mullane. McDonnell Douglas engineer Charles Walker will serve as a payload specialist on the 41-D mission…

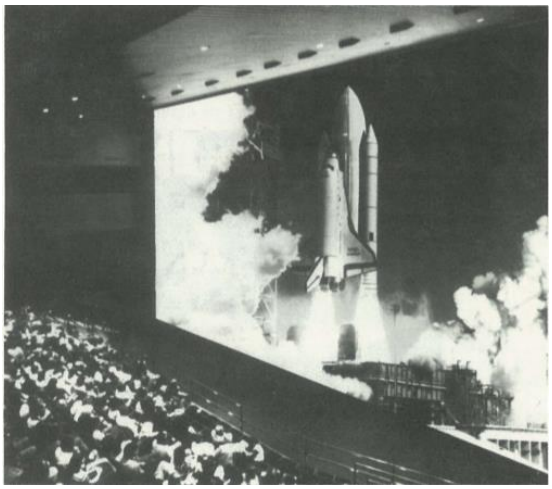
…Discovery will be launched from Kennedy Space Center's Pad A at Complex 39 into a circular 173 statute mile orbit with an inclination to the equator of 28.5 degrees….
…Among Discovery's primary objectives on this flight will be the deployment into orbit of the first in a series of LEASAT-1 (for LEAsed SATellite) satellites. Also known as SYNCOM IV-I, the satellite is the first designed specifically for launch from the Space Shuttle…

…This will be the first flight of Discovery, the third orbiter in the fleet and the lightest of the reusable vehicles manufactured to date.”

“The 41-D crew includes seated, from left, Mission Specialists Richard (Mike) Mullane and Steven Hawley; Henry Hartsfield, commander; Pilot Michael Coats; and, standing, Payload Specialist Charles Walker and Judith Resnik, mission specialist.”

From The June 22, 1984, Spaceport News

On the first page, “New /MAX Theater Opens At KSC's Spaceport USA”. Parts of the article read “A movie that chronicles the first mission of the Space Shuttle Orbiter Columbia made its debut last week as the cornerstone attraction on the giant screen of a new 440 seat theater at the KSC visitors center, recently renamed 'Spaceport USA'. "Hail Columbia" opened in the IMAX (Maximum Image) theater, part of an $8.5 million 'facelift' and expansion program which has nearly doubled the square-footage of the visitors facility.



“LOOMING AVOBE THE AUDIENCE on the giant IMAX screen, the Orbiter Columbia, mated with its external tank and solid rocket boosters, lifts off Launch Pad 39A amidst billowing clouds of smoke.”

Also in this issue, "Convoy Is Fine-Tuned For 'Sating' Job". In part, the article states "A routine, choreographed to the finest detail, is followed when the Space Shuttle convoy commanders lead a team in "safing" the Space Shuttle orbiter and assisting the astronaut crew in leaving the vehicle when it lands following a mission in space. The convoy consists of approximately 20 vehicles and 100 people… …Kennedy Space Center is responsible for post landing operations of the Shuttle orbiter-regardless of where it lands…

… Bill Williams, Jim Slogar and John Copeland are NASA's three convoy commanders who work in the Shuttle Integrations Division of the Shuttle Operations Directorate. Copeland, Slogar and Williams are also KSC's Orbiter Operations Managers when not involved with convoy operations. They track the preparing the vehicle for the next space mission. Copeland is responsible for Challenger, Slogar is responsible for Discovery, and Williams is responsible for Columbia…"

"HOT ON THE WHEELS of the orbiter Challenger, the convoy team moves in to begin the sating and cooldown operations which must be accomplished before the astronaut crew can climb out of the spaceship."

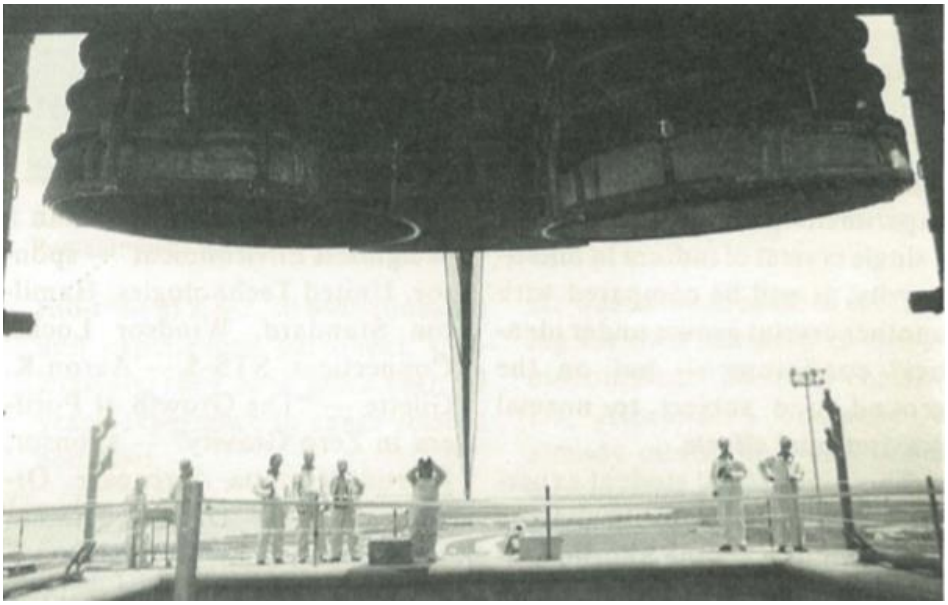
"COMMANDERS (left to right) Slogar, Copeland and Williams sit at the mobile command post where they are stationed during recovery operations."

From The July 6, 1984, Spaceport News

In this issue, the lead article is "41-D Mission Abort Is First For Shuttle". Sections of the article read "The first engine cutoff and launch abort in the Space Shuttle program, and only the second such event in the manned spaceflight program, occurred last week...

…In the orbiter cockpit, Mission Commander Henry Hartsfield said that he felt the big thump of engine ignition, then immediately saw the bright red warning lights signaling the cutoff of two engines. "I knew immediately we weren't going anywhere," he said. For a short time, a small fire burned at the base of the orbiter, fueled by free hydrogen gas from the aborted start, but the ground launch team activated pad fire spray systems which doused the flames without significant damage to the orbiter…

… At press time, the launch team had replaced the failed engine… … The only previous engine cutoff and on-pad abort in the manned spaceflight program occurred on December 12, 1965, when the engines of Gemini-Titan VI-A shut down one second after ignition with astronauts Walter Schirra Jr. and Thomas Stafford on board.



"INSPECTION TEAM members conduct an initial examination of the nozzles of Orbiter Discovery's main engines following the Mission 41-D abort."

In the above photo, I asked Greg Katnik if he could help with who's who in the photo. The following is from Greg: "…I am not in the photo because I would be taking the picture… … I believe Charlie Stevenson is using the binoculars. To the left of him is probably Jorge Rivera… … In the right side of the photo looks like Jack McClymonds from Orbiter and Ron Huber from ET…." Thanks a bunch Greg!

Of note, after this abort, special means to recognize hydrogen fires at the pad, were added for console operators in the Firing Room.

Also in this issue, “Technology Catching Up With Speeders At KSC”. In part, the article reads “A KSC security officer wipes his forehead free of summer perspiration, dons his hat, slips into the driver's seat of his patrol car and mounts on the dashboard the "crystal ball" that is going to tell some fortunes today… … In slang terms it's the crystal ball, but in operation it's the antenna for a new "moving radar" unit now in operation by NASA's Security Services Division, EG&G. The same type of equipment used by Florida Highway Patrol troopers, the unit provides wider capability because it can determine the speed of a "target" vehicle while the base vehicle is moving. The more familiar, hand-held radar "guns" have to be stationary while speed is being calibrated. Security Services plans to purchase several more of the units…”

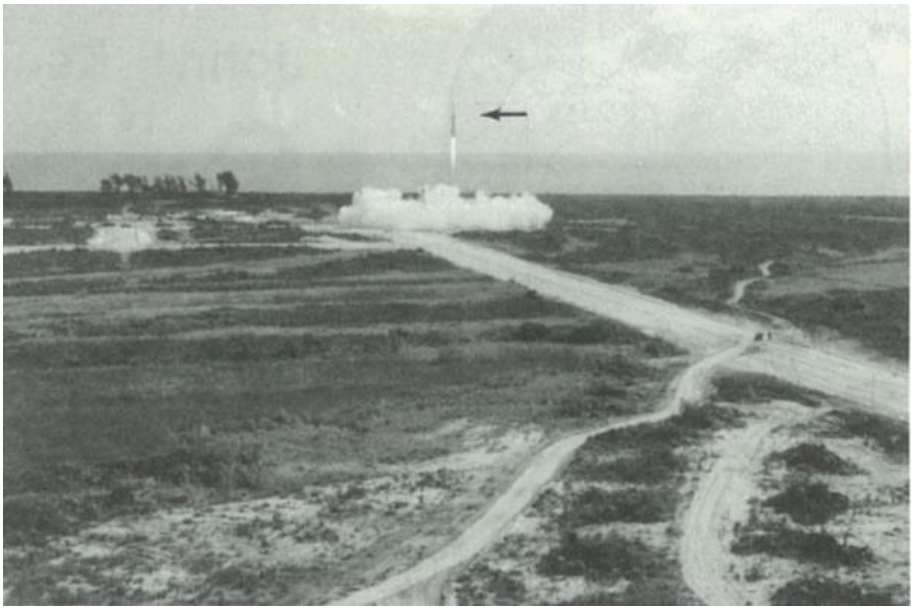
“SECURITY OFFICER Jesse Thomas checks out the new radar unit acquired for traffic control.”

From The July 20 1984, Spaceport News

In this issue, “An Unimpressive 'Bird' Begins A Big Dream”. A bit of the article reads “The rocket stood only 60 feet tall, the result of the unlikely seeming mating of a repatriated World War II German missile - never intended to carry a second stage - with a smaller U.S. Army rocket not designed as the second part of anything. The blockhouse was a bunker with an eight-foot-thick layer of sandbags, and the service tower was a painter's scaffold.

The project team had reached the primitive facilities on the scrub dotted sand spit called Cape Canaveral via an unpaved trail that had served the remote Canaveral Lighthouse, a tiny resort hotel and a handful of homes for years. The year was 1950 ... and on that July 24 the infant spaceport at Cape Canaveral Air Force Station was barely a year

old… …The launch was balky, due to reluctant main fuel valves on the V-2, but Bumper 8 finally blasted away from the makeshift pad…"



"BUMPER 8, the first rocket to be launched from Cape Canaveral, lifts away (arrow) from the scrub-covered wilderness surrounding its makeshift launch pad."

The above photo would have been taken from the Cape Canaveral lighthouse. If you are interested, in the September 1, 2015, Neat Information Update, there is an article, "Bumper 8 Blockhouse Pad", about rediscovering the location of the original blockhouse for Bumper 8. Pete Chitko, George Cole and I rediscovered the blockhouse pad on June 19, 2015! That was a really neat day! Oh, LC3 is the launch site for Bumper 8!

The following is from Moonport, Chapter 1, "…The crew stacked sandbags around an old shack, a onetime dressing room for swimmers, and turned it into a launch control block house. It stood a scant 91 meters from the pad. A row of trailers contained additional facilities to coordinate countdown, information, and reports from tracking sites. Heat and humidity sapped men's energy. Mosquitoes saturated the air…".

From The August 3, 1984, Spaceport News

On the first page, there is the following article, "KSC Celebrates Historic Apollo 11 Moon Mission". Part of the article reads "Spaceport USA, the KSC visitors center, commemorated one of the biggest success stories of NASA's history on July 16 with the 15th anniversary celebration of the launch of the Apollo 11 lunar landing flight. Center Director Dick Smith was joined by other NASA officials, H.B. Chambers, vice president and general manager of TW Services, Inc., concessionaire for the visitors center, and U.S. Rep. Bill Nelson in celebrating the historic event. Bill Schick, chief test supervisor

for the Apollo II launch, now deputy director of NASA Safety, said, "Apollo II was one of the most historic events of our lives."

“BILL SCHICK, H. B. Chambers, vice president of TW Services, Inc. and general manager of Spaceport USA, Rep. Bill Nelson, and Director Dick Smith prepare to enjoy the huge anniversary cake.”

From The August 17, 1984, Spaceport News

In this issue, “41-D Launch Set Aug. 29”. A part of the article reads “Preparations for the reconfigured Space Shuttle 41-D mission are proceeding on schedule, with liftoff scheduled for no earlier than Aug. 29 during a window extending from 8:35 to 8:49 a.m. EDT. Discovery, her maiden voyage frustrated twice during liftoff attempts on June 25 and June 26, was returned to the Vehicle Assembly Building on Aug. 2 following work in the Orbiter Processing Facility which will enable the payload bay to carry two additional deployable communications satellites.

After mating with the other Shuttle elements - the external tank and solid rocket boosters and completion of the Shuttle Interface Test, the 41-D stack was moved to Pad A at Launch Complex 39 on Aug. 9 to undergo final preparations for flight…

… The countdown for a launch on Aug. 29 is to begin at 11 p.m. on Sunday, Aug. 26. Flying the 41-D mission is the six-member team of Commander Henry Hartsfield, Pilot Michael Coats; three mission specialists, Judith Resnik, Steven Hawley and Richard Mullane. Charles Walker, a McDonnell Douglas engineer, will fly as a payload specialist assigned to operate the electrophoresis experiment.”

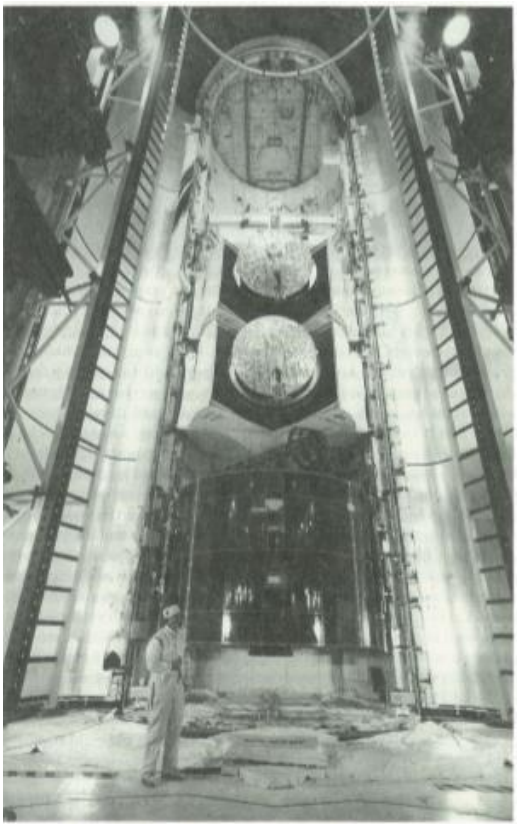
“ROLLOUT begins as Discovery is trundled to Launch Pad 39A.”

From The August 31, 1984, Spaceport News

The lead article is “New Orbiter Joins Space Shuttle Fleet”. A part of the article reads “Erasing the frustrations of earlier delays, Discovery soared flawlessly upward from Complex 39's Pad A at 8:41 a.m. EDT on Aug. 30 to begin one of the most ambitious Space Shuttle missions yet undertaken…

…An attempted launch of Discovery on its first flight in June was halted at the T -9 minute mark when a backup flight computer failed. Another launch attempt on the following day was aborted at the T-4 second mark when the main fuel valve of the number three main engine failed to open.

On July 12, the 41-D mission was remanifested to include two satellites scheduled for the 41-F flight, a bold decision designed to place the overall manifest back on schedule effective with the 41-G mission to be launched in October. The cargo stack was removed and the 41-D stack was returned to the Vehicle Assembly Building on July 14. Discovery was demated and returned to the Orbiter Processing Facility where its cargo bay was reconfigured to carry the two additional commercial communications satellites….”



“A RECORD three-satellite payload was hauled into space by Orbiter Discovery during the new spacecraft's maiden flight. Major cargo components visible in this photo of the cargo bay prior to launch, are, at top (or front), the Office of Aeronautics and Space Technology-1 (OAST -1) experiment; and, in descending order, the Satellite Business Systems-D. TELSTAR 3-C, and the LEASAT-2 (SYNCOM IV) satellites.”

From The September 14, 1984, Spaceport News

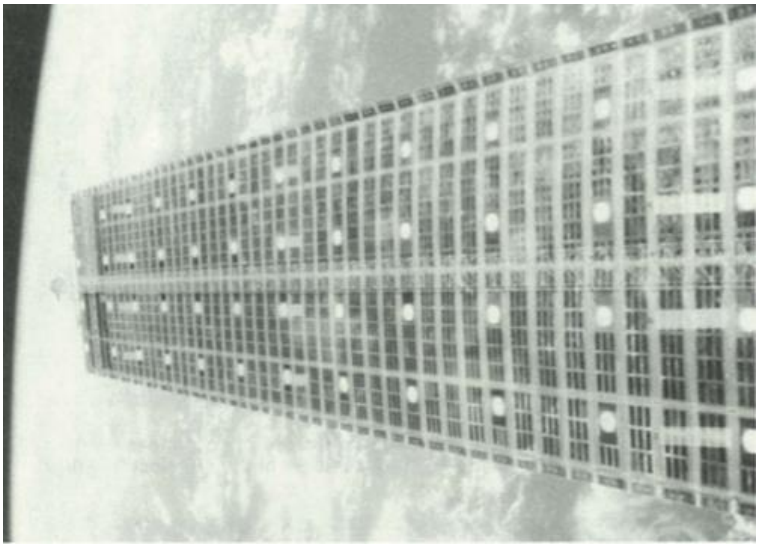
In this issue, the headline is “Discovery Sets New Space Record”. A portion of the article reads “NASA's newest orbiter, Discovery, lost no time in going to work after its successful launch on its maiden flight at 8:41 a.m. EDT on Aug. 30. Only eight hours after liftoff, the first of three communications satellites, SBS-D, was deployed into space from the cargo bay. A Payload Assist Module (PAM) boost motor was used to place it in an elliptical transfer orbit…

…On the second day of the six-day flight, the pioneer LEASAT (also known as SYNCOM IV-2), equipped with its own unique upper stage, was sprung out of the cargo bay. LEASAT is the first satellite to be designed specifically for release from aboard the Space Shuttle…

…NASA's OAST-1 solar array experiment worked like a charm. Astronaut Judy Resnik, the second American woman to fly into space, operated the 10-story-tall solar array, which was designed to demonstrate that large, lightweight panels can be extended and retracted in space…

… While Discovery operated almost flawlessly during the mission, a ball of ice which lodged on its port side caused some concern. The ice was formed as a result of a buildup of water around nozzles outside the ship which release fuel cell and waste system water into space. Commander Henry Hartsfield delicately maneuvered the Remote Manipulator Arm to knock off the excess ice that could have broken loose and damaged Discovery's · outer surfaces.

… on Wednesday, Sept. 5, Discovery rolled in for a safe landing on runway 17 at Edwards Air Force Base, Calif., at 9:37a.m., EDT, concluding a successful maiden flight with a mission elapsed time of six days, 57 minutes and seven seconds."



"LATE ON THE THIRD DAY of orbit, the crew of Discovery began operations with the giant Solar Array Experiment panel. This photo was taken through the aft flight windows with a 35mm camera."

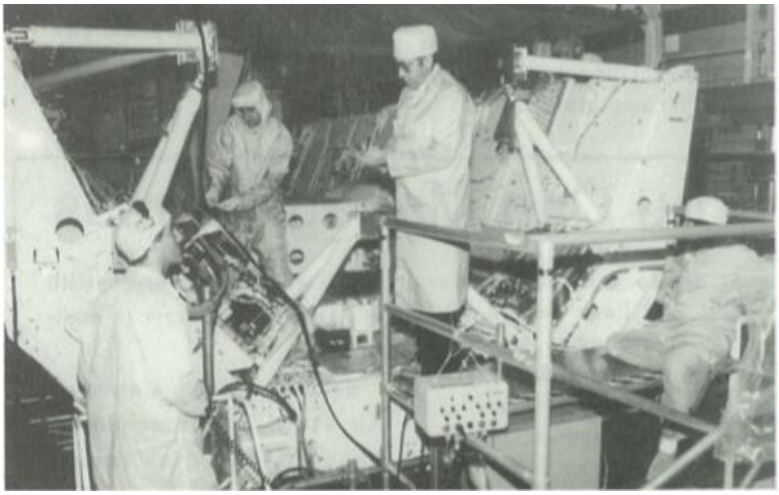
The caption for the photo on the next page is ""DURING ONE of the lighter moments of Discovery's maiden flight, her crew gathered for .this group self-portrait. Clockwise from bottom center are Commander Henry W. Hartsfield, Jr.; Pilot Michael L. Coats; Steven a. Hawley and Judith A. Resnik, both mission specialists; Charles D. Walker, payload specialist; and Richard M. (Mike) Mullane, mission specialist."

Also in this issue, "Shuttle Experiments Don't Just Happen". In part, the article reads "An experiment that flies in space on the Shuttle doesn't just happen. Someone has to design it and someone has to build it. And then someone here at KSC has to put it on some kind of platform, or pallet, or table, or something, and check it out to make sure that once it's up there, it's going to work; otherwise, you've just thrown years of work, not to mention a lot of money, down the tube. It is an awesome responsibility, and it falls on a group of people who do what's called experiment integration…

… Very early on, maybe as long as a year before we do our initial testing here, we assign an engineer to each individual experiment that will fly on a particular mission. They make personal contact with the principal investigator (PI), or experiment developer, and begin to develop a rapport with the PI over the phone…"

Several photos accompany the article, a couple of which follow.

"ED OSCAR, standing, lead for the HITS group, engineer Maynette Smith and co-op James Howard monitor a display screen during experiment testing."



“ENGINEERS prepare pallet 1 on the Spacelab 2 payload for functional testing of experiments. From left are Mark Beaudreaux, Gerry Rivera and .Herb Brown, lead of the Networks and Power Group, Experiments Data Section.”

From The September 28, 1984, Spaceport News

On page 1, “Crew Faces Busy 41-G Mission” and another article on page 2, “41-G Flight Will End With KSC Landing”. Portions of the articles read “When Challenger thunders away from Launch Pad 39A on Oct. 5 on Mission 41-G, it will carry the largest crew in the Space Shuttle program's history on one of the busiest missions to date. Scheduled for launch no earlier than 7:03 a.m. EDT, this flight will include the first demonstration of the skills necessary for the on orbit refueling of a satellite in space…

…Orbiter Challenger's sixth flight into space will carry a seven-member crew on an eight-day mission that will conclude at KSC's Shuttle Landing Facility. Veteran astronaut Robert L. Crippen will be making his fourth Shuttle flight when he commands the record-size crew of 41-G. He served as pilot of STS-1 and was commander of STS-7 and 41-C. A 15-minute launch opportunity for 41-G, opening at 7:03 a.m. EDT on Oct. 5, will provide for a high-inclination orbit that will allow Challenger to overfly virtually all of the United States and much of southern Canada, taking the orbiter as far north as Sweden and Korea, and farther south than New Zealand and the tip of South America.

“THE RECORD SEVEN-MEMBER CREW for 41-G is pictured; from left, first row, Jon A. McBride, pilot, and Sally K. Ride, Kathryn D. Sullivan and David C. Leestma, all mission specialists; second row, Paul D. Scully- Power, Commander Robert L. Crippen, and Marc Garneau, Canadian payload specialist. At McBride's elbow is a replica of the gold astronaut pin.”

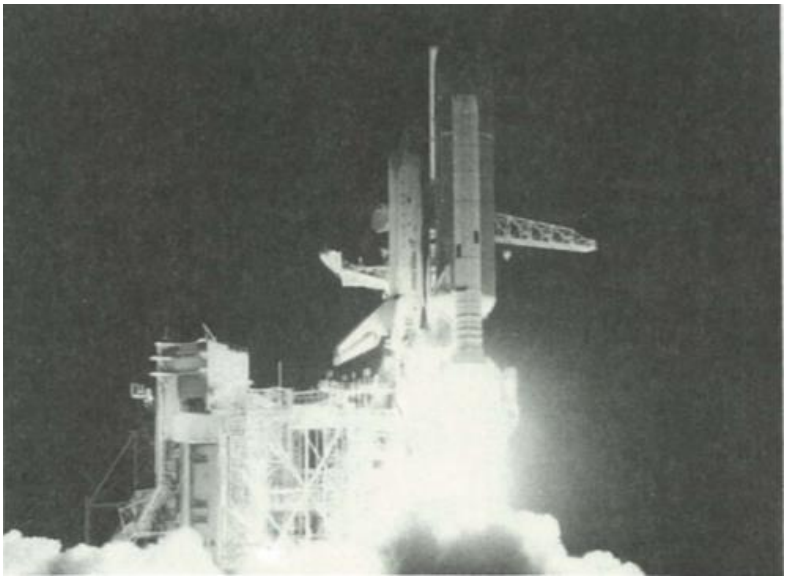
This photo and caption are also in the issue.

“FIVE KSC employees, the first launch honorees to fly to Johnson Space Center at Houston to follow the 41-D mission after launch, are pictured with Gene Keyes, chairman of Manned Space Flight Awareness at JSC, who met them on arrival there. Representing the 54 contractor and 11 NASA/Civil Service employees honored during 41-D are, from left, Verdell Fayson, honoree program coordinator Goerge Gnann, Virginia Krajnyak, Maynette Smith, Madalyn Powers, and Terrie Lynn Bunch.”

From the October 12, 1984, Spaceport News

The headline is, "Launch of 41-G Is Total Success". Part of the article states "The Space Shuttle 4I-G mission which began with an on-time launch from Complex 39's Pad A at 7:03 a.m. EDT on Oct. 5 proceeded smoothly this week with only a few minor problems cropping up to mar a perfect flight…

…The Space Shuttle 4I-G mission which began with an on-time launch from Complex 39's Pad A at 7:03 a.m. EDT on Oct. 5 proceeded smoothly this week with only a few minor problems cropping up to mar a perfect flight…"



From The October 26, 1984, Spaceport News

On pages and 5, "41-G Ends With Second KSC Landing". Parts of the article read "Orbiter Challenger made its sixth liftoff into space carrying a record size crew of seven on Space Shuttle mission 41-G at 7:03 a.m. EDT on Oct. 5. And after a highly successful eight day flight filled with Earth-observing research, the spaceship glided across North America to the graceful touchdown back at home port…

…The crew had to use some innovative techniques to work around problems with the orbiter's Ku band antenna and one of its key experiment payloads - the Shuttle Imaging Radar-B (SIR-B). The Ku antenna, required for high speed data transmission of recorded SIR-B data to the ground, failed to point accurately and the crew had to maneuver the Challenger to a precise position in order to point the antenna at the Tracking and Data Relay Satellite. Then, when it came time to stow the deployed SIR-B

antenna for an orbit change, the crew had to tap it down with the remote manipulator arm in order to assure it was locked in place…

… Delaying the spacewalk by Mission Specialists David Leestma and Kathryn Sullivan maximized the amount of SIR-B data acquired… …Leestma and Sullivan spent about three and one-half hours tethered to Challenger's cargo bay where they simulated the in-flight refueling of a satellite. Their successful demonstration paves the way for actual fuel transfers in the future which will extend the life of satellites…"

"THE SEVEN MEMBER crew exits the orbiter at mission's end, ready to board the astronaut van. Pictured from left to right are Paul D. Scully-Power, Commander Robert L. Crippen, Pilot Jon McBride, Sally Ride, Marc Garneau, Kathryn D. Sullivan, and David Leestma."

STS-41-G was Sally Ride's last mission. She flew on STS-7 and STS-41-G.

From The November 9, 1984, Spaceport News

The headline is "Deputy Director George Page Retires". Part of the article reads "George F. Page, KSC's deputy director since June, 1982, and launch director for the first three Space Shuttle missions, retired on Oct. 26 to end a distinguished aerospace career spanning more than three decades. Page was involved in all the nation's manned space flight programs and many unmanned projects. He was a launch

operations engineer with General Dynamics during Project Mercury and joined NASA in June, 1963, as a spacecraft test conductor on the Gemini Program.

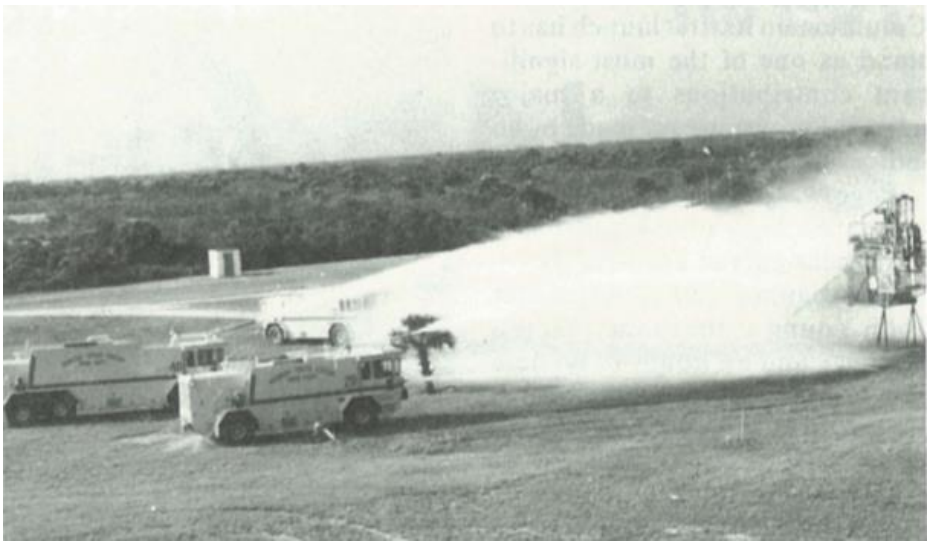
As his career advanced, Page served as chief spacecraft test conductor for Gemini and Apollo launch operations, Chief of the Spacecraft Division for Apollo, Skylab and Apollo Soyuz launch operations, Director of Expendable Vehicles Operations Directorate, Director of Cargo Operations and Director of Shuttle Operations.

Following the presentation of his retirement certificate at the O&C coffee, Center Director Dick Smith told Page: "You've left your mark on every major program we've had at the center. You've done a truly outstanding job on everything you've ever attempted, and your leadership in preparing the orbiter Columbia on its first launch has to stand as one of the most significant contributions to a major national program ever made by an individual at KSC."

“CHIEF ASTRONAUT JOHN YOUNG presents Deputy Director George Page an astronaut jacket at his recent retirement party. The jacket included a liner if Page plans to move back north.”

On page 3, “KSC Gets New Fire Trucks to Replace Its Old Fleet”. In part, the article reads “KSC firemen have completed training in three brand new Crash, Fire and Rescue trucks, part of a complete new fleet. The new vehicles, manufactured by Oshkosh- world-wide supplier of fire trucks - together are capable of discharging about 6,000 gallons of water and over 600 gallons of Aqueous Film Forming Foam (AFFF).

KSC's entire 'rolling stock' of seven vehicles, replaced at a cost of $1.4 million according to KSC Fire Chief Terry Dickerson, includes three emergency one pumpers, an emergency one "quint" pumper (which has a 95 ft. aerial platform), two I,500 gallon Crash, Fire and Rescue (CFR) trucks and one 3,000 gallon CFR truck. A pumper and one CFR truck purchased last year bring to nine the total number of new trucks…”



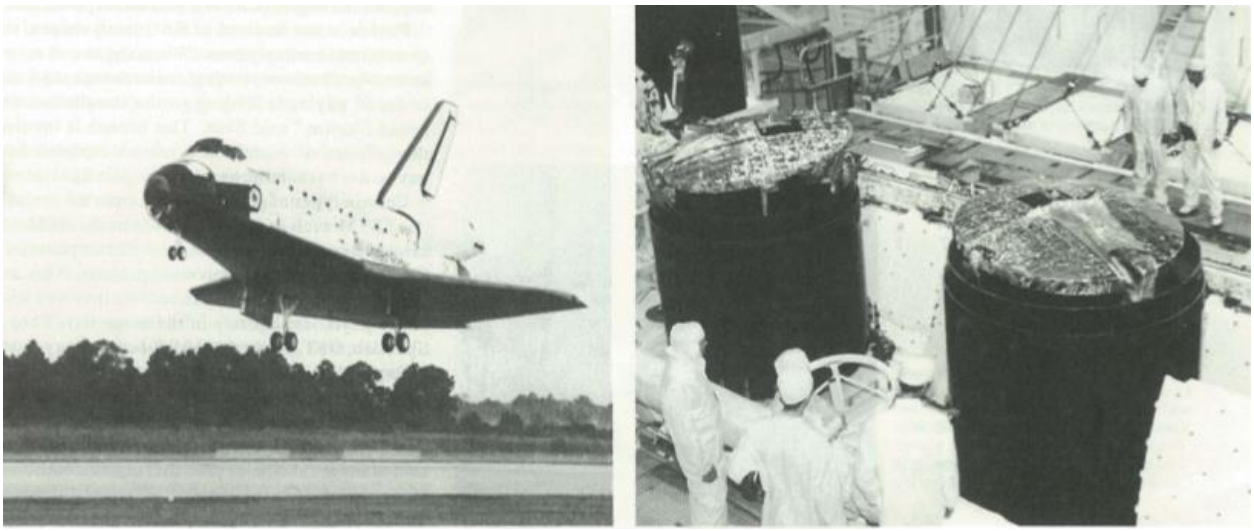
“THREE OF KSC's best show their stuff during a drill.”

From The November 23, 1984, Spaceport News

The lead articles is “'Put And Take' Mission Is New Triumph”. A portion of the article reads “Eight days and 126 earth orbits after launch on Nov. 8, Space Shuttle Discovery and her five crew members ended the world's first satellite salvage mission with a picture-perfect landing at KSC. Deployment of ANIK D2 and LEASAT 1 communications satellites during flight days two and three of mission 51A cleared the way for the capture and retrieval of a pair of wayward satellites. PALAPA B2 and WESTAR 6 communications spacecraft had been deployed during mission 41B, but had failed to reach operational orbits due to failures in their PAM rocket nozzles…

… The chase ended on flight day five when Commander Rick Hauck "parked" Discovery about 35 feet from PALAPA… … The six-hour rescue procedure finished, the crew moved on to the WESTAR and a near-duplication of the PALAPA sequence. With Allen and Gardner maneuvering the satellite, and Mission Specialist Anna Fisher operating the remote maneuvering arm from inside Discovery, WESTAR was duly berthed next to its sister satellite within four hours.

Discovery's second mission ended at 6:59 a.m. EST on Nov. 11. Discovery was rolled to the Orbiter Processing Facility where the satellites were scheduled for deservicing and preparation for their return to Hughes Aircraft Co. at El Segundo, Calif…”



“LEFT, DISCOVERY lands at KSC after launching two new satellites, recovering two from orbit. Right, technicians in the orbiter processing facility inspect Palapa B2 and Westar 6 prior to removal from Discovery's payload bay.”

The following photo is on the last page of the issue.

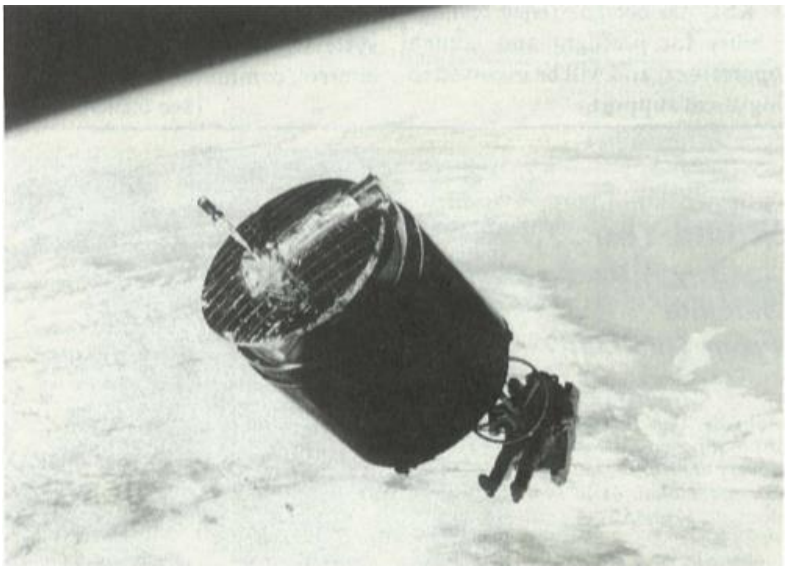
“PHIL DONAHUE and camera crew are seen during a recent filming session at the Visitor's Center. Donahue is putting together a mini-series on the technological evolution of man, scheduled to be aired on NBC in 1985.”

From The December 7, 1984, Spaceport News

On page 1, "Challenger Doffs Tile Coat, Will Miss December Launch". Parts of the article read "It started with a small white speck - seen on the left wing chine as Challenger maneuvered for a landing here on Oct. 13. The white speck was a gap in the black tile layer covering that part of the orbiter's aluminum skin, and officials were soon checking to see why the missing tile had been lost. Examining the chine area, the forward extension of the wing just behind and below the crew entrance door, the officials ordered about 25 additional tiles removed to check for heat damage to the orbiter. When the tiles were removed, an unexpected condition was found: a white, under-tile filler material called "screed" was softened to a putty-like consistency…

… Officials are still investigating what makes the screed soften over time… … Technicians have been ordered to remove as many as 4,000 tiles from Challenger, and workers are replacing the softened screed. The amount of work involved has forced the delay of Flight 51C from December to early next year, and Discovery will substitute for Challenger in the Department of Defense mission…."

Also in this issue, "Crew Corrals Maverick Satellites", includes several photos, a couple of which are below, from the 51-A mission.



"ASTRONAUT GARDNER captures the orbiting Westar by inserting the stinger device into the spacecraft's aft section>'

“51-A ASTRONAUTS David Walker, pilot, at left, and Mission Specialists Anna Fisher and Joe Allen hold signs whimsically characterizing the mission as they gather in Discovery's mid-deck. Behind them are Mission Specialist Dale Gardner, left, and Commander Frederick Hauck.”

From The December 21, 1984, Spaceport News

On page 4 of this issue, “Quick Thinking Launched 51-A”. In part, the article reads “Fast feet and quick thinking by NASA, Lockheed and Grumman technicians avoided a second scrubbing of the 51-A launch when an integration console, controlling the Ground Launch Sequencer (GLS), "crashed" just inside the T-20 minute mark, during the Nov. 8 countdown to Discovery's second flight.

The integration console, directed by NASA Shuttle Project Engineer Gene Thomas, controls and monitors over 500 critical functions occurring at the launch pad from T -9 minutes until T -31 seconds when the GLS begins talking with the orbiter's onboard computers. The console failure, similar to one that occurred during the 41-D countdown, forced the 20-member computer team to jump from their seats and run to the unit's back-up.

After synchronizing the GLS with the countdown clock, the team began punching in data at an incredible rate, catching up with the time lost. Nine minutes later the console was back up to speed. "It sure makes a difference when you have some of the foremost

experts in the world working with you," said Thomas. "It's one of those things that you can laugh at later, but it really makes you feel good when it's over. I just hope we never have to go through that again," he added."

"SEVEN members of the integration console team are pictured at the backup console that launched 51-A. From left are: Cindy Smith, Janine Pape, Kathy Whitcomb, John Simon, Lindsay Bolton, Gene Thomas and Steve Williamson. Not pictured are: Bob Herman, AI Deluna and Nora Lavinka." Gene Thomas passed in 2016.

I have Alan Deluna (mentioned in the above photo caption) on the Spaceport News Summary email distribution, but no one else in the photo. If anyone has an email address for someone you would like to add to the distribution, just let me know and I will add them.