



1988 Spaceport News Summary

Notice the new banner for 1988!!!!

Followup From the 1987 Spaceport News Summary

The first issue of the Spaceport News was December 13, 1962. The 1963, 1964 and 1965 Spaceport News were issued weekly. The Spaceport News was issued every two weeks, starting July 7, 1966, until the last issue on February 24, 2014. Spaceport Magazine, a monthly issue, superseded the Spaceport News in April 2014, until the final issue, Jan./Feb. 2020. The two 1962 Spaceport News issues and the issues from 1996 until the final Spaceport Magazine issue, are available for viewing at [this website](#). The Spaceport News issues from 1963 through 1995 are currently not available online.

In this Summary, black font is original Spaceport News text, blue font is something I or someone else provided and purple font is a hot link.

All links were working at the time I completed this Spaceport News Summary.

Following up from the 1987 Spaceport News Summary, Emery Lamar provided more information about the Orbiter arresting system. Emery provided the following:

On the following page, "Picture of Shuttle Orbiter Arresting System (SOAS) net deployed for pre-launch testing at Zaragoza or Moron, Spain TAL sites. The SOAS was installed before every Shuttle launch at TAL sites in Zaragoza & Moron, Spain and Banjul, The Gambia and was tested by raising then lowering the net. If a TAL landing was declared the net would then be raised. After launch the system was removed from the runway and stored until the next launch. The net was, I think 25' 6" high and about 200' across. After the drag chute parachute was installed on the Orbiter for landings, the Shuttle Program removed the requirement for SOAS."

Thanks a bunch Emery!!!!!!!!!!!!!!!!!!!!!!



Shuttle Orbiter Arresting System

From The January 1, 1988, Spaceport News

On page 1, "**KSC rings in 1988 with optimism:**". A portion of the message reads "Kennedy Space Center officials began the new year with hope that NASA will achieve its goal to launch the space shuttle's new era in June, despite some rough spots in the schedule. In a year-end conference with news reporters, KSC Director Forrest McCartney praised the professionalism and enthusiasm of government and contractor employees who are preparing Discovery for STS-26..."

Ticking off a list of achievements in training and ground processing, McCartney called teamwork KSC's "single most important accomplishment" in 1987. "We have achieved a level of teamwork that I am extremely pleased with," he noted... "We're on the right track," McCartney said. "All the way up or down the skill levels, training wise we're about where I wanted to be, relating to picking up for the launch (of STS-26)."

He used the solid rocket motor Assembly Test Article (ATA), one of the space center's more publicized training tasks, as an example. The exercise not only checked out redesigned booster parts but also tested workers with new assembly procedures and tools. It started in November and was scheduled to last four weeks, but stretched to six. "We did it with a great amount of care. A lot of engineering data was taken," McCartney reported...

Repeating a promise when he came to KSC 16 months ago, McCartney said, "We're going to be ready to fly just as soon as we can-safely; not one day earlier than we feel comfortable to fly from a safety standpoint..." The director said workers repeatedly

demonstrate their understanding that quality and safety are just as important as deadlines...”.



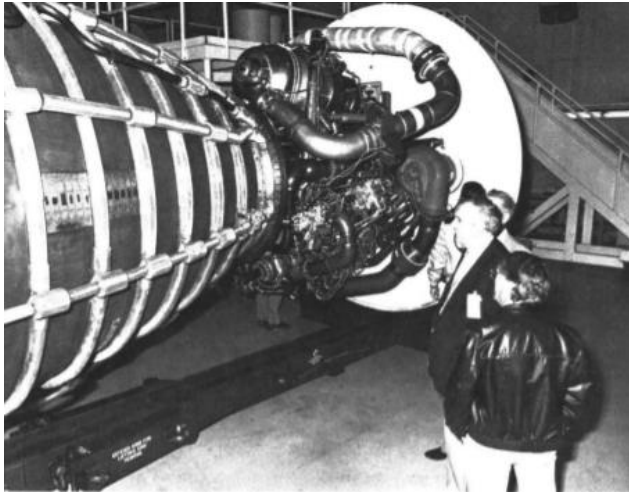
“MAKING PROGRESS - A Morton Thiokol engineer hooks up instrumentation between the two solid rocket motor segments being used in the Assembly Test Article (ATA) exercise in High Bay 1 of the Vehicle Assembly Building . The segments are in position for one of two partial mates, in which they are not actually connected . The six-week practice session, successfully concluded last week, tested the redesigned boosters, workers' skills, and new assembly tools.”

From The January 15, 1988, Spaceport News

On page 1, “**Discovery's new target: mid-August**”. Part of the article reads “NASA officials Monday predicted a "quite modest" delay in the resumption of space shuttle flights - six to 10 weeks - because of problems discovered in the redesigned solid rocket booster which was test-fired in December... During the session, NASA Administrator James Fletcher vowed that his decision on an official launch date would not be influenced by concerns about schedule conflicts with upcoming political conventions. "As long as I'm in this job, politics will take a back seat to safety," Fletcher declared. "The next launch of the space shuttle will be determined by one consideration and one consideration only: we will fly when we are ready." ...”.

Also from page 1, “**Engine in, spirits up**”. Part of the article reads “Not only will the newly delivered space shuttle main engine help power Discovery on the next shuttle mission, but its Jan. 6 arrival also powered up morale at the Kennedy Space Center. "We're just excited to have the first flight engine here," said Lee Solid, Rocketdyne's director of launch operations at KSC. Engine 2019, the No. 1 main engine, arrived by truck from NASA's National Space Technology Laboratories (NSTL) in Mississippi last

week and was installed on Discovery last weekend. Solid said the other two engines, 2028 and 2029, are expected to arrive later this month . He noted that engine 2019 will be flying for the fourth time and the other two have never flown before...”.



“ALL SMILES - Lee Solid (smiling), Rocketdyne's director of launch operations at Kennedy Space Center, inspects Main Engine 2019, the first of three which will propel Discovery into orbit, as the engine arrives for installation in the Orbiter Processing Facility.”

[One more thing on page 1.](#)

Remembering Challenger

On Jan. 28, America's space program marks the second anniversary of the Challenger accident.

In observance, Kennedy Space Center will continue a tradition begun last year in memory of the Challenger crew — Richard Scobee, Michael Smith, Ronald McNair, Ellison Onizuka, Judith Resnick, Gregory Jarvis and Christa McAuliffe.

At 11:28 a.m., the time of the launch of STS 51-L, all flags will be lowered to half-mast and everyone will observe 73 seconds of silence.

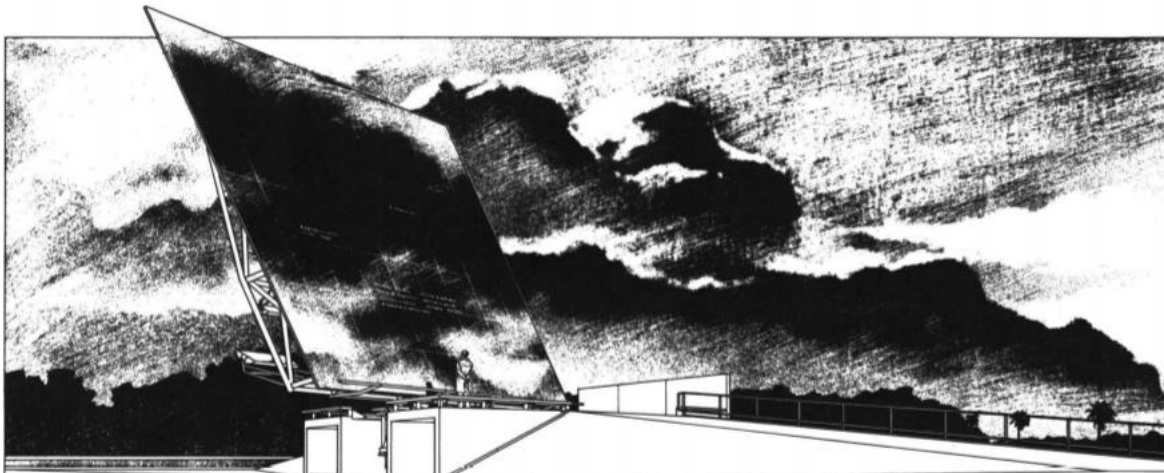
From The January 29, 1988, Spaceport News

On page 2, **Astronaut memorial unveiled**. In part, the article reads “Four San Francisco, Calif., architects will design a national tribute to America's space pioneers, the Astronauts Memorial Foundation announced Wednesday. Flanked by foundation officials, architects Paul Holt, Marc Hinshaw, Peter Pfau and Wes Jones unveiled the

design during simultaneous news conferences at Spaceport USA's Galaxy Theater and the National Press Club in Washington, D.C. The Astronauts Memorial Foundation sponsored the design competition and plans to spend \$3-4 million for construction of the monument on a six-acre site near the entrance to Spaceport USA...

The memorial, 50 feet wide and 40 feet high, has a mirror-finished surface of granite which tracks the sky, following the sun's movement. The names of 14 fallen astronauts are grouped by final mission and cut like stencils through the granite. Behind each group of names are mirrors which direct sunlight through the names toward the heavens. "The sky becomes the field of honor across which the heroes' names are emblazoned," explained architect Wes Jones. "By placing the viewer into the vastness of the sky, the memorial attempts to evoke a contemplative feeling that is at the same time charged with the grandeur of the sky itself."...

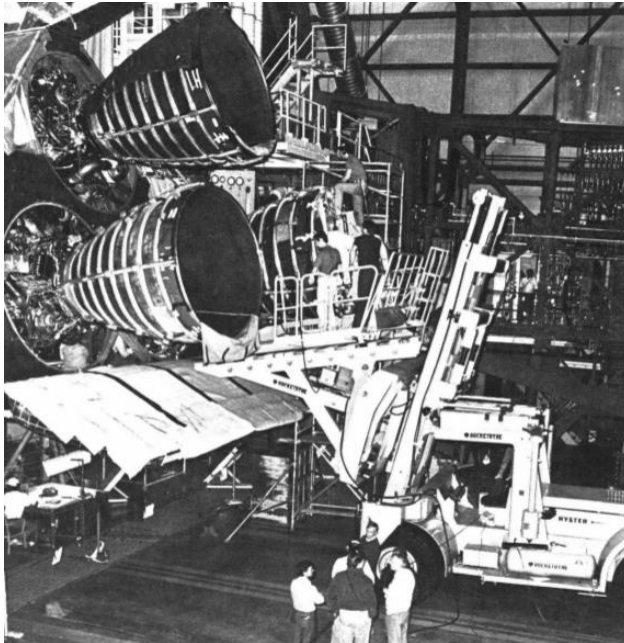
The Astronauts Memorial Foundation was formed in February 1986 in the aftermath of the Challenger accident..."



"ARCHITECT'S RENDERING - Memorial mirrors the sky, causing the names of fallen astronauts to "float" as if in the heavens."



On page 1, **“Three to get ready”**.



“DWARFED by Discovery, space shuttle processing technicians on Jan. 24 finished installing the last of three main engines that will propel the spaceship into orbit on the STS-26 mission scheduled for August.”

From The February 12, 1988, Spaceport News

On pages 4 and 5, **“KSC through the astronauts' eyes”**. In part, the article reads “The smiles follow the folks in the blue jumpsuits, as KSC workers recognize astronauts here for meetings, training, or to award Silver Snoopys. Astronaut visits are special - and not only to KSC workers... Winging in on T-38s, the astronauts get a unique perspective on America's gateway to the stars, according to STS-26 Pilot Dick Covey. "This is where it all happens!" he exclaims. "I get excited when I come in over Orlando and I look out and see the VAB and the pad and everything out here."... Seeing those reminders of what it's all about provides the astronauts with a "good stimulus," mission Commander Rick Hauck adds...

"In Houston, we have simulators - but we don't have flight hardware," Hauck explains during a recent KSC visit. But here, he continues, astronauts have the chance for hands-on contact with the orbiters. "Like today, we went over in the OPF and climbed around in Discovery. You see the hardware and it makes that connection, and then you lean over and say to each other 'We're really going to do this, aren't we?' Hauck says, shooting a sideways glance at Covey. Suddenly, they look like 10-year-old boys who've found hidden treasure...

Appreciative of the day in, day out support from KSC workers, Hauck and Covey say that to them, visiting KSC is "exciting." Everywhere they see reminders of what the hard work is all about: launch day...".



On the left, "HAUCK, COVEY in trainer". On the right, "PRESSING FLESH with Covey".

On page 7, "Shuttle solids clear review, KSC eager to stack".



In part, the article states "Kennedy Space Center has received its first shipment of segments of the solid rocket motors which will boost Discovery from the launch pad later this year... A major program review, prompted by difficulties with the space shuttle flight hardware, was concluded Jan. 25 and cleared the way for the delivery of the aft segments..."

Rear Adm. Richard Truly, associate administrator for space flight, said the review is proof that NASA has "struck the proper balance" between safety and schedules as it recovers from the Challenger accident... Truly made the statement when he announced the new August launch plans for STS-26 and a new schedule of test-firings for the redesigned solid rocket motors (SRMs)...

"The performance of the entire NASA/contractor team ... during the conduct of this major review of the entire shuttle recovery program has been outstanding," Truly said..."



“MAKING SURE- USBI technicians examine one of the two aft skirt segments of the solid rocket boosters being readied for ST5-26, after an ultrasonic inspection at KSC revealed a flaw in a weld on the cone-shaped section. The skirt was cleared for flight after NASA officials said the exam confirmed that there was no cause for concern. (USBI Photo)”

From The February 26, 1988, Spaceport News

On page 6, “**Astronauts pay regular visits**”. Part of the article reads “If you think you've just seen an astronaut stroll by your work area -you're probably right. The astronauts are working hard to get acquainted with KSC workers and their roles in shuttle missions. Through the Manned Flight Awareness program, flight crew members are scheduled to visit work sites once a week...

The visits... give the astronauts a chance to get to know the people better, and to become more fully aware of the contributions of the KSC team." Astronaut Kathy Thornton agrees. "I'm learning a lot more about the specific jobs people do here to directly support the program," she said. Last week, Thornton visited Fire Station 2, operated by EG&G Florida...

During Thornton's visit, an instructor for a group of new firefighters stopped class to bring his team into the meeting area. Noting that the rookies had never met an astronaut, he asked Thornton if she would mind talking to them. In a few seconds, Thornton was surrounded by firefighters eager to talk to her and shake hands with an astronaut. Relaxed and cordial, Thornton answered questions about her job, and, in turn, asked about theirs. Afterwards, a beaming John Moore said, "This really brings it all into perspective. It's not just technical and hardware stuff we're working with - this is really all about people."...



“NOT JUST HARDWARE - Spaceflight is "all about people," says firefighter John Moore, who greets astronaut Kathy Thornton.”

On page 8, **“Booster passes another test”**. A portion of the article reads “NASA's redesigned solid rocket motor test program chalked up another success with the test firing of the Transient Pressure Test Article (TPTA) Feb. 11 at Marshall Flight Center, Huntsville, Ala. Termed a "100 percent successful test" by John McCarty, director of Marshall's Propulsion Laboratory, the TPTA firing included intentional flaws that allowed hot exhaust gas to reach the o-rings. The TPTA is a short stack consisting of three full-size solid motor segments stacked vertically to form two redesigned field joints, redesigned factory joints and a redesigned case-to-nozzle joint. The objective of the TPT A test program is to evaluate the effects of ignition transients and external loads on the redesigned SRM joints and seals....”.

From The March 13, 1988, Spaceport News

On page 1, **“Boosters reach KSC”**. In part, the article reads “Last week the clock began counting down to the launch of STS-26 as the left aft solid rocket motor segment arrived... The segment arrived March 2 at the Rotation Processing and Surge Facility (RPSF) and was mated to the aft skirt a few days later. Technicians are currently "building up" the aft booster... The day after the buildup is complete, March 25, the aft booster will be transferred to the Vehicle Assembly Building to begin the stacking sequence...

Stacking and closeouts of the flight segments in High Bay 3 of the VAB is scheduled to be completed the last day of April. Mating the shuttle's external tank to the boosters is planned for the next day. Discovery is scheduled to be mated to the tank and boosters

on May 15. Nine days later, the space shuttle vehicle is scheduled to lumber down the crawlerway to Launch Pad 39B...”.



“THE COUNTDOWN BEGINS – Technicians prepare the STS-26 left aft segment for processing in the Rotation Processing and Surge Facility. Booster processing for flight kicked off with the segment's timely arrival on March 2.”

Booster stacking for Artemis 1 is currently scheduled to start mid-November of this year. Booster preparation in the RPSF is largely complete, very similar to what was performed for STS-26 and stacking in the VAB will also be similar, with the addition of one segment to the left and right boosters. One change will be the use of one of the VAB 325 ton cranes for stacking versus the heritage 250 ton crane used for STS-26. Of note, the subject 250 ton crane is still in use.

On page 8, “**NASA to buy second shuttle carrier**”. Part of the article reads “Boeing Military Airplane Co., a division of The Boeing Company of Seattle, Wash., will modify a Boeing 747-100 jetliner to serve as NASA's second space shuttle carrier aircraft (SCA). Having two SCAs will increase transportation capabilities and eliminate a potential single-point failure in the space shuttle system, officials said...”.

[Wikipedia](#) has a good read about the shuttle carrier aircraft. Getting ahead of things, Wikipedia states the first carrier aircraft, “...a Boeing 747-123 registered N905NA, was originally manufactured for American Airlines. With the drop in air traffic and failure to fill the 747's, American Airlines sold it to NASA. Upon testing, it still wore the visible American cheatlines while testing *Enterprise* in the 1970s...By 1983, SCA N905NA no longer carried the distinct American Airlines tricolor cheatline. NASA replaced it with its own livery, consisting of a white fuselage and a single blue cheatline... In 1988, in the wake of the *Challenger* accident, NASA procured a surplus 747SR-46 from Japan Airlines. Registered N911NA, it entered service with NASA in 1990...”

Shuttle Carrier N911NA retired on February 8, 2012 after its final mission to the Dryden Flight Research Facility at Edwards Air Force Base in Palmdale, California, and was used as a source of parts for NASA's Stratospheric Observatory for Infrared Astronomy (SOFIA) aircraft, another modified Boeing 747. N911NA is now preserved and on display at the Joe Davies Heritage Airpark in Palmdale, California...

Shuttle Carrier N905NA was used to ferry the retired Space Shuttles to their respective museums. After delivering Endeavour to the Los Angeles International Airport in September 2012, the aircraft was flown to the Dryden Flight Research Facility... In 2013, a decision was made to preserve N905NA and display it at Space Center Houston with the mockup shuttle Independence mounted on its back. N905NA was flown to Ellington Field where it was carefully dismantled, ferried to the Johnson Space Center in seven major pieces (a process called The Big Move), reassembled, and finally mated with the replica shuttle in August 2014..."

The following photos and captions are from Wikipedia.



"Shuttle Carrier Aircraft N905NA, in American Airlines livery, with *Enterprise* in 1978."

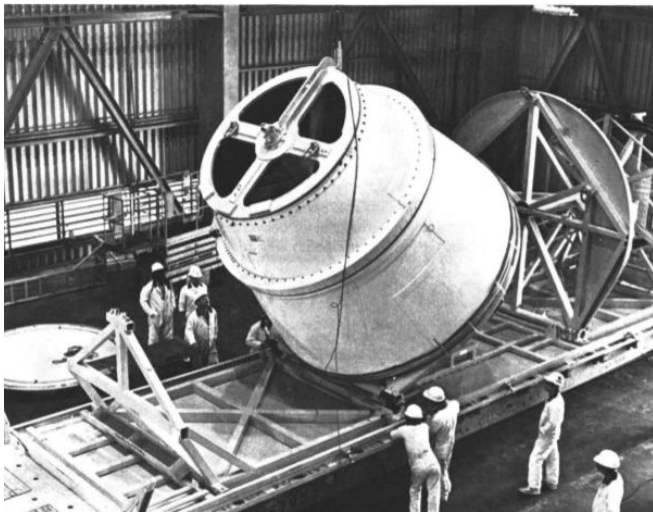


On the left, "N911NA sits on display at the Joe Davies Heritage Airpark in Palmdale, California, in June 2015." On the right, "N905NA on display with mockup Space Shuttle Independence at Space Center Houston."

From The March 25, 1988, Spaceport News

On page 1, **“SRB stacking set to start”**. A portion of the article reads “Engineers and technicians at KSC are feeling more than the normal exhilaration of spring this year as the final elements of flight hardware for STS-26 arrive and are prepared for flight. All the redesigned solid rocket motor segments for the STS-26 flight are now on center, the revised procedures for stacking the new boosters are ready and final aft booster "buildup" activities are under way on the first segment to be stacked... Stacking the first of two 149-foot-tall boosters is scheduled to begin the end of the month in the Vehicle Assembly Building...”

In addition, for the first time in a space shuttle launch flow, a SRB stacking readiness review was held this week in the Launch Control Center. Shuttle and SRM managers from KSC, Marshall Space Flight Center, Johnson Space Center and NASA Headquarters discussed the status of the booster hardware stacking requirements, equipment and procedures. The review verified that KSC is ready for stackup when the planned work constraints are completed...”.



“BOTTOM'S UP- Morton Thiokol technicians offload one of the two STS-26 solid rocket booster nozzles from its rail car in the Rotation, Processing and Surge Facility...”.

From the April 8, 1988, Spaceport News

On page 9, **“The dome wasn't built in a day”**. In part, the article reads “For about a week in March, Kennedy Space Center's only geodesic dome was the site of an unusual project designed by EG&G's Structural Engineering Department. Worker's from EG&G shops, Ivey's Steel Erectors Inc. of Merritt Island and Charter Industries of Raleigh, N.C., replaced the roof of the Launch Complex 39 Press Site landmark...”.



The first dome at the Press Site was from the 1976 bicentennial exposition at KSC. About the KSC Press Site, [Wikipedia](#) states "...During the Apollo program, the NASA news center was located in Cocoa Beach. To provide on-site public affairs offices, a Charter-Sphere dome from the Third Century America exhibition near the VAB during the United States Bicentennial in 1976 was later moved to the mound. In 1983, it was replaced by a larger dome; and a permanent building, the current KSC News Center, replaced that dome in December 1995... The grandstand, built in 1967, was torn down following damage from Hurricane Frances in September 2004...".

On page 10, **"What's in a name? Challenger spirit"**. Part of the article reads "Seeking to "capture the spirit of America's mission in space," NASA and the Council of Chief State School Officers have asked the nation's students to suggest a name for the fourth space shuttle orbiter. In a March 30 announcement, officials of the two agencies invited teachers to enter their students in a contest to name the orbiter, designated OV 105, which is under construction at Rockwell International in California. The orbiter will replace Challenger... The new orbiter is scheduled for completion in April 1991 and for its first flight in early 1992....".

Also on page 10, **"Booster stacking begins for shuttle's return to flight"**. In part, the article states "A milestone leading to the next space shuttle launch was passed last month when space center workers began stacking the redesigned solid rocket boosters that will help lift Discovery off the launch pad in August. The left aft segment is now bolted to the Mobile Launcher Platform (MLP) and workers prepared the left aft center segment for stacking this week.

Meanwhile, workers in the Rotation, Processing and Surge Facility are preparing the other left hand segments for stacking and "building up" the right hand aft booster. Workers will stack the four segments of Discovery's left SRB first then begin putting its twin right SRB together. This process is scheduled to take a little over a month...

The next event leading to the STS-26 launch is mating Discovery's external tank to the solid rocket boosters in May...".



“STACKING BEGINS- Discovery's left aft solid rocket motor segment waits in the VAB transfer aisle while technicians prepare it for mating with the aft center segment.”

From The April 22, 1988, Spaceport News

On page 1, “**Long-awaited OPF Annex Addition opens**”. A portion of the article reads “The Orbiter Processing Facility Annex Addition joined a growing inventory of new and improved work places April 7... Noting that the \$3 million facility is only one in a series of planned improvements, KSC Director Forrest McCartney called the OPF Annex Addition "a significant milestone in the space program's move forward."... McCartney said the OPF Annex Addition is only the start of his "push for improved facilities both in the near-term and far-term to improve working conditions at KSC...”.



“CUTIING THE RIBBON - KSC Director Forrest S. McCartney handles huge scissors to snip the strip. Looking on are, from left, Bob Everette, OPF site manager; Doug Sargent, Lockheed's shuttle processing contract manager; and Jim Towles, KSC's director of facilities engineering.”



In the above, from Google Maps, the OPF Annex is circled in red. The VAB is just out of view on the right. OPF 1 is the building on the left and OPF 2 is on the right, currently used for the USAF X-37 Program. The below is the frontage on OPF 1, from a photo I took a few years back.



From page 2, the caption for the photo on the following page is “THE LEADING EDGE-Tip Talone, STS-26 flow director, points out progress in flight preparations to astronaut candidate Mae Jemison as she and her fellow candidates tour the Orbiter Processing Facility April 13. Workers are installing protective coverings on the leading edge of Discovery's port wing.”

Mae Jemison subsequently flew on STS-47, in March 1992. There is a good read about Mae on [Wikipedia](#).

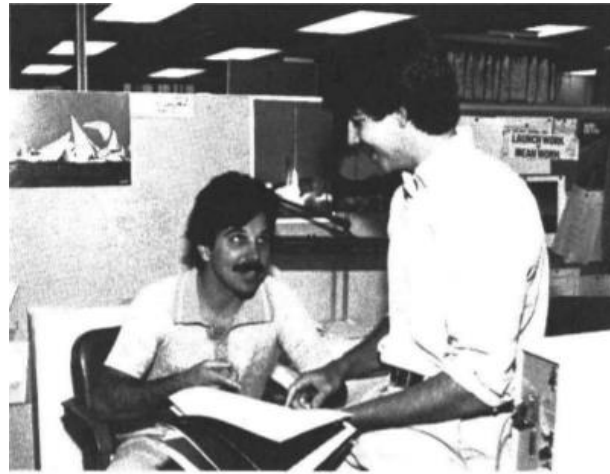
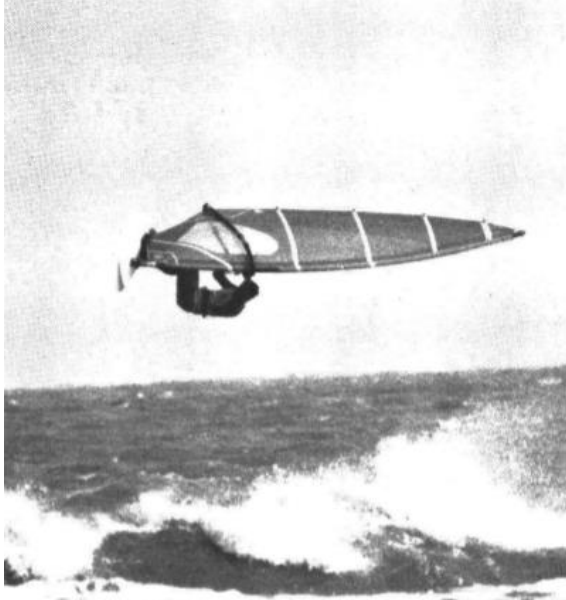


On pages 3 and 4, **“Surfin' KSC, Boardsailors have that wind blown look”**. A portion of the article states “The topic is windsurfing, and the interview is with Keith Notary, a 28-year-old mechanical engineer with Lockheed Space Operations Co... His words reveal the general location of his favorite windsurfing spot. They also advertise the fact that Notary is among 200 or so - a small but growing number - of Kennedy Space Center employees who release the tensions of shuttle flight preparation by riding surfboards with sails...

Notary shares a cubicle in Complex G with about a dozen other engineers - half of whom windsurf, or like to say they can. “We've got a windsock right outside here,” confides one of Notary's coworkers. “Whenever the wind is up, we're looking at it,” says 28-year-old Mark Nappi of Lockheed, “and we're trying to decide whether to work over or go home on time.”

Notary, recognized as one of the most skilled boardsailors in Brevard County, is respected by many of the less-experienced here. Joel Reynolds, chief of KSC's safety operations division, is among those who look up to Notary. “Did you know he makes his own boards and sails?” asks Reynolds, 45, who admits he does gaze longingly out the window of his Headquarters office each time a breeze rustles the palm trees. “Once you get out on the water you don't think about anything else,” explains Reynolds. “You get totally, physically worn out. Then you get a good night's sleep and go in to work refreshed the next day.”

Notary, Nappi, Reynolds, and NASA fire suppression systems engineer Woody Rice have found in boardsailing a healthy way to reduce stress. “I don't want to make it sound like working at KSC is more stressful than any other job. But every professional needs a time to himself, and windsurfing is really my way of getting away,” explains the 30-year-old Rice...”.



“KEITH NOTARY . . . in a barrel roll offshore Jetty Park, (seated) discussing orbiter mechanics with fellow worker and beginning boardsailor Don Hammel of Lockheed.”

[On page 5.](#)

External affairs



“TANKING UP- The external tank scheduled to fuel the STS-27 launch of Atlantis is moved into a storage cell at the Vehicle Assembly Building March 30. Workers began preparing ET-23 for flight last week.”

From the photo, I asked Armando Oliu about the ET going back end first in to the VAB and the answer is, that is how the ET was towed in. In addition, Armando provided some great information about ET-23 and STS-27, as follows, in quotes:

“To add a bit on the ET in the photo.... Since it was the ET destined for STS-27R, I am certain I was on that offload. I was on most offloads from 1988 to 1994. If memory serves me correctly, that was ET-23, which was out at VAFB for years. It was used as the test fit ET used with OV-101. Then demated and was getting ready to be used for the first VAFB flight. Post Challenger and cancellation of VAFB launches it was sent back to MAF for all the post 51-L mods. When got it here it looked like it had been shot up with shotgun blasts. There were so many repairs all over the surface.

When OV-104 returned from STS-27R it had the most tile damages ever. Over 700 total hits with one major one on the chime area that included a complete tile loss and slumping on adjoining tiles. 104 also had structural heating evidence on the metal surface. Pretty lucky the missing tile area had a structural attachment in that very area. Initially there was thought the repairs on the ET may have contributed but alas almost all of the larger tile damages had SRB fwd skirt insulating paint in the tiles. As was observed on SRB post flight, both booster fwd skirts had lost a lot of thick paint. Transport analysis was showing that in order to create such damage the paint was most likely coming off well into flight (close to SRB sep). No land base camera could see that.

Investigations found errors in surface prep. Corrected prior to next flight, but an attempt was made to get better imagery closer to SRB separation. Resulted in the USAF taking the challenge of capturing the Shuttle ascent from a U2 aircraft. Although it did not provide much engineering data from a debris analysis standpoint, it did produce some very interesting and unique images of liftoff and ascent.”

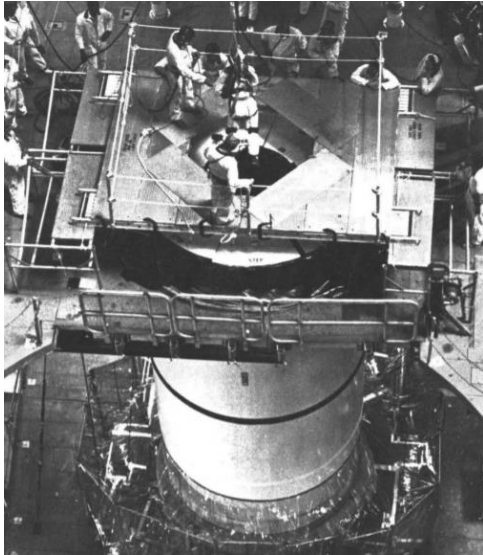
Thanks a bunch Armando!!!!

From The May 6, 1988, Spaceport News

On page 1, **“Booster bore inspector's path is straight, narrow”**. In part, the article reads “When he’s asked to describe his job, Jeff Tuttle jokingly calls himself “the most expendable person in the space program.” Actually, this 30-year-old Morton Thiokol engineer is probably one of the most important. Tuttle goes inside the space shuttle’s solid rocket boosters to make sure the joints are assembled properly. “I verify that each field joint has a good seal,” says Tuttle, an expert on the boosters’ improved insulation...

What’s it like to be suspended from a crane and lowered down the five-foot diameter bore of a booster filled with 1.1 million pounds of live propellant? “Let’s say the first time you go down, it has your full attention,” Tuttle answers. Tuttle's biggest fear is static electricity. To avoid creating static charge, he wears 100-percent cotton garments under anti-static, flame-retardant coveralls. Special wrist bands drain off his body's natural

charge through ground cables. Once he's outfitted, spotters give him the once-over with an electrostatic discharge meter. "After all that's done, I feel pretty secure," says Tuttle, who estimates he's made at least 20 of the 30-minute bore entries since Morton Thiokol began remodeling the booster in 1986...".



"JEFF TUTTLE . . . Morton Thiokol engineer enters the bore of Discovery booster for an inspection."

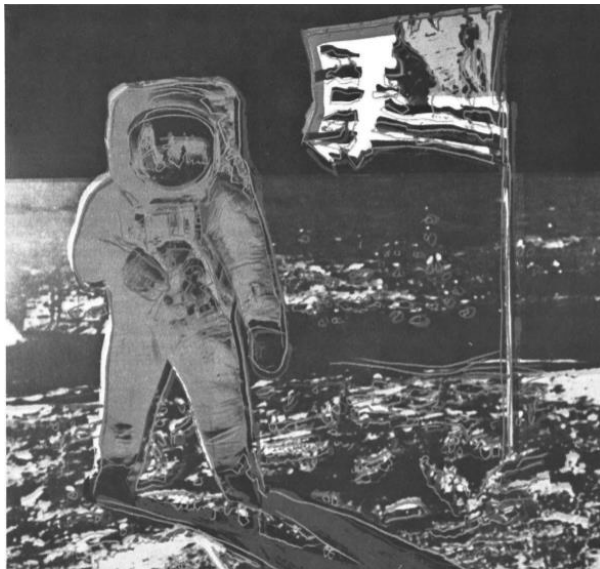
On pages 6, **Shuttle excitement builds**. A portion of the article states "A visit from the STS-26 prime crew helped to build return-to-flight excitement for Kennedy Space Center's shuttle team. The astronauts who will return the space shuttle to flight inspected Orbiter Discovery during a successful crew equipment interface test last weekend... Getting ready to fly, STS-26 Commander Rick Hauck, pilot Dick Covey, and mission specialists Dave Hilmers, Mike Lounge and George "Pinky" Nelson practiced in-flight maintenance tasks during the crew equipment interface test last weekend. "overall, the flight crew was pleased and no significant problems were reported," officials said."



"CREW ARRIVES - The STS-26 astronauts arrive at the Shuttle Landing Facility April 30 for a weekend practice session. From left are Rick Hauck, Commander; Dick Covey, pilot; and Mike Lounge, Dave Hilmers and George "Pinky" Nelson, missions specialists."

From The May 20, 1988, Spaceport News

On page 1, "**Warhol takes 'Moonwalk' at KSC**". In part, article reads "American pop artist Andy Warhol's "Moonwalk" is on permanent display at Spaceport USA. About 100 space program officials, community leaders and art enthusiasts attended the May 16 unveiling of the two picture set which depicts Apollo 11 astronaut Edwin "Buzz" Aldrin standing on the surface of the moon. The two prints are the first in a series of silk screen art works in which Warhol was involved at the time of his death in February 1987. The neon-like prints are from a limited edition of 160 copies. They are identical in subject, yet distinctive in color. In one, Aldrin's space suit is canary yellow, while in the other, it is bold fuschia..."



On page 7, "**Shuttle tile work closer to home**". Part of the article states "Kennedy Space Center has "another tool in its toolbox," Center Director Forrest McCartney declared as he led ribbon-cutting ceremonies May 2 for the new KSC Thermal Protection System Facility. The new facility, designed for the manufacture and repair of the protective shuttle thermal tiles, marks another step forward in orbiter processing efficiency and economy, McCartney said..."

Tile work has been performed in two locations: the Rockwell International plant in Downey, Calif., and temporary quarters here at KSC. Being able to do all the tile work on center, McCartney explained, will expedite routine maintenance as well as the refurbishment work required on orbiters in between missions.

Construction on the \$4.7 million specialized facility began in July 1986. Complete activation efforts, including the receipt and checkout of equipment, is due to be completed by August, according to Jim Towles, KSC director of facilities engineering..."



“CUTTING THE RIBBON- At the entrance to KSC's new Thermal Protection System Facility, from left, are Jim Towles, KSC's director of facilities engineering; Charles Murphy, director of logistics operations for Rockwell International; Forrest McCartney, center director; and Jack Williams, KSC director of shuttle logistics project management.”

The TPSF, still in use today, with a similar purpose, is highlighted in red below, with OPF 1, 2 in the lower left, C3PF annotated, and the VAB out of view on the right.



From The June 3, 1988, Spaceport News

On page 3, “**Picnic celebrates KSC spirit**”. Part of the article states “Intermittent rain couldn't dampen the fun for 2,600 Kennedy Space Center employees and their families who enjoyed the KARS annual All-American Picnic May 14... A sky-diving demonstration by USBI Inc. employees kicked off the festivities, which were highlighted with guest appearances by astronauts Mark Lee and Lacy Veach...”.



In the left photo, Mark Lee is on the right. He flew on four shuttle missions; STS-30, STS-47, STS-64, and STS-82. Lacy Veach is on the left. He flew on two shuttle missions; STS-39 and STS-52.



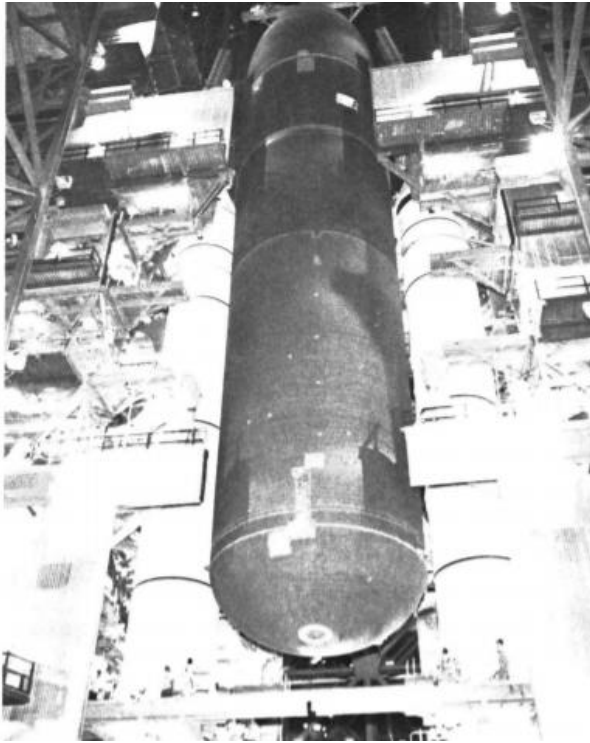
From the June 17, 1988, Spaceport News

On page 1, "**Tank, boosters mated; STS-26 preps roll along**". In part, the article reads "Workers mated the space shuttle's external tank and twin boosters June 10 and prepared to roll Discovery from the Orbiter Processing Facility to the Vehicle Assembly Building... "We're in the countdown to launch," declared launch director Bob Sieck. "The pace has picked up and we're very rapidly going through some significant milestones."

Discovery's rollover, the space shuttle's rollout to Launch Pad 39B and a flight readiness firing of the propulsion system in July are among the few milestones that remain before the planned August liftoff of the first mission in nearly three years. Connecting the external tank and solid rocket boosters was "the most tangible evidence" so far that the workers' goal - launch - is "not too far down the road," Sieck noted...

Despite the confidence an integrated flow may allow, Sieck and Robert Crippen, deputy director of National Space Transportation System Operations, are still marking their launch calendars with pencils. "The target of the last week in August is makeable, given where we are today," Sieck said June 10. He indicated that any change to the current baseline date of Aug. 22 would probably be made following the flight readiness firing, considered the most difficult... hurdle to cross. "I'm going to make a commitment at minus nine minutes," interjected Crippen, who will give the final "go" for launch as

chairman of NASA's new Mission Management Team. "We're going to fly when it's safe to fly," Crippen said... Both praised the performance of the launch team in a countdown and launch simulation June 7."



On the left, "MATED - External tank and boosters await Discovery's rollover to the Vehicle Assembly Building". On the right, "TOP OF THE STACK - The forward assembly for Discovery's left solid rocket booster is lifted to be moved into position for stacking in the Vehicle Assembly Building. The right forward assembly awaits its trip. Stacking was completed with installation of the right forward nose cone May 28."

On page 3, "**Day care on the way**". In part, the article reads "A child care center will join the list of benefits available to Kennedy Space Center employees next year. Responding to a February survey that indicated significant interest, procurement officials soon will solicit bids for a fully-staffed, high quality child care facility on KSC... Although the procurement wheels are beginning to turn, officials say a KSC child care center will not be operating before this time next year..."

On page 6, "**Crippen: launch OK will depend on teamwork**". A portion of the article states "The "go" or "no/go" that we'll hear when it's time to launch the STS-26 mission will come from Robert Crippen, chairman of NASA's Mission Management Team. However, he says, the decision isn't his alone. "It is really the total launch and flight team we have that allows me to make that final decision," points out Crippen, a veteran of four shuttle missions and deputy director for STS operations..."

The 21-member Mission Management Team will convene two days before launch to study weather forecasts and review developments in the two weeks or so following the scheduled flight readiness review. During the final countdown, Crippen and his Mission management Team will be stationed in the Firing Room. The members, whose names have not been made public, will include a weather coordinator, the managers of shuttle-related programs from NASA Headquarters, managers of the various STS projects from Kennedy Space Center, Johnson Space Center and Marshall Space Flight Center, and representatives from the shuttle contractors-Lockheed Space Operations Company, USBI Inc., Rockwell International's Rocketdyne and STS divisions, Morton Thiokol Inc., and Martin Marietta.”

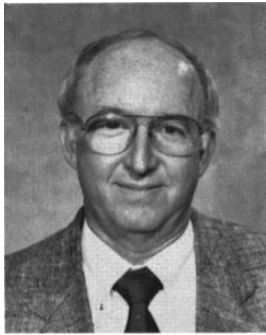
From The July 1, 1988, Spaceport News

On the first page, **“Yes, America is going back to the pad”**. In part, this article reads “The space shuttle processing team, invigorated by Discovery's June 21 rollover, mated the orbiter with its external tank and boosters June 24 and worked toward the forthcoming rollout to Launch Pad 39B. "In the last week or two, all of a sudden, everything became real," said Tip Talone, flow director for STS-26, the first space shuttle mission in more than two-and-a-half years... "Preparing Discovery for the upcoming mission has been an extraordinary challenge," Talone remarked. "Every component of Discovery has been recertified for flight and the effort by the processing teams has been stupendous...”.



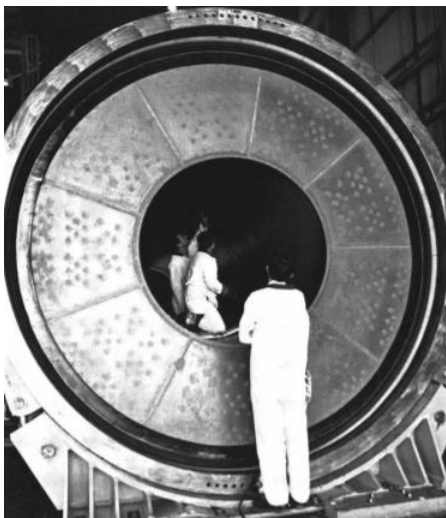
“ALL SMILES- Discovery flow director Tip Talone, left, and tile chief Lyle Davis share a happy moment as the orbiter rolls from its hangar to the Vehicle Assembly Building.”

Also on page 1, "**Harrington new shuttle director**". A portion of the article states "James F. Harrington has been appointed director of space shuttle operations at Kennedy Space Center, succeeding Charles D. Gay, who retired from federal service April 1... "I'm pleased that I was chosen to take this job," Harrington commented. "I appreciate all the help everyone on center has given me in the past, and I'm looking forward to continuing that close relationship." Harrington, of Melbourne, joined KSC in 1966 as a senior test supervisor on the Apollo Lunar Landing Program..."



HARRINGTON

On page 7, "**Discovery done, STS-27 accelerates**". In part, the article reads "Discovery had barely flown the nest June 21 before crews in the Orbiter Processing Facility turned up the attention on Atlantis, the next orbiter they will prepare for flight. At the same time, Kennedy Space Center was receiving its first shipment of solid rocket booster segments for the STS-27 flight... The mission's flow director, Conrad Nagel, said the Atlantis team will pass a pair of significant milestones this month: crew hatch modifications are scheduled for completion July 8, and installation of a "chin panel" under the orbiter's nose was scheduled to begin July 7... "We're going to see schedules pick up on Atlantis significantly since Discovery is out of the OPF," Nagel emphasized..."



"Technicians in the Rotation, Processing and Surge Facility swab the bore of the aft segment of the left solid rocket booster for STS-27, the Orbiter Atlantis' return to flight.

From The July 15, 1988, Spaceport News

From page 3, **“OMI Reviews, Not much fun, but awfully important”**. In part, the article states “...Since the Challenger accident, hundreds of civil service and contractor employees have been reading and revising thousands of pages contained in 1,648 Operations and Maintenance Instructions, OMI (as they're called) and related documents. Specifically, they are incorporating changes made as the result of a Presidential investigation into the failure of STS 51-L... For STS-26, the teams are reviewing 534 flight OMI, averaging 200 pages each. They have completed 458 - meaning the documents have been reviewed, processed and performed on flight or ground hardware at least once... Of 118 ground support equipment OMI, 95 have been addressed...”.



“PARTICIPANTS in an OMI review. With the post-51L inclusions of design people, the size of the group has expanded beyond one large table.” I believe the above room is LCC 3R22, now part of Firing Room 4, noting the schedules on the walls of the room.

On pages 4 and 5, **“Discovery crawls, soon to fly; KSC endorses journey; 15,240 sign book for crew”**. A portion of the article reads “‘I’ll tell you, this is something else,” remarked Kennedy Space Center Director Forrest S. McCartney as he watched Discovery slowly make its way to Launch Pad 39B. “We’ve been waiting for this for a long time, haven’t we?” There was no mask big enough to hide the grin on McCartney’s face as he made his way to an electrifying ceremony that took place just like it was planned. At the precise moment Discovery rolled into the center of a field of vision bounded by the American and NASA flags, McCartney presented STS-26 mission specialist Dave Hilmers with an autograph book signed by 15,240 KSC employees. The book will fly with Hilmers when the space shuttle lifts off in early September...”

It was only a coincidence that the space shuttle rolled out on Independence Day... Launch Director Bob Sieck read the crowd's mind as Discovery passed behind a reviewing stand decorated with red, white and blue bunting. "This particular trip to the launch pad would appear to be fairly slow, and looking back over the past couple of years, everything that we've done would appear to be slow," he acknowledged. "But we're being careful. We want to make sure what we do is correct. "This last trip ... will probably be the slowest," Sieck continued. "The next one's going to be real quick."...



"BOOK OF DREAMS - Dave Hilmers (center), one of five astronauts who will fly Discovery on STS-26 in September, holds a book containing the signatures of more than 15,000 KSC employees. He's applauded by (from left) Bob Sieck, launch director; Bob Crippen, NASA deputy director of STS Operations; Forrest S. McCartney, KSC director; Ken Cameron, astronaut; and Tom Utsman, KSC deputy director."

On page 8, "**Astronaut, 2 contractors take slidewire ride**". A portion of the article reads "Launch Pad 39B's slidewire baskets were tested by humans July 8-the first time since the Apollo era-and while it wasn't the thrill ride they expected, participants gave the escape system high marks. "If we'd put our kids in there, they would have asked for their money back," joked astronaut Charles Bolden, who was the first to man one of the seven baskets and slide-at 55 miles per hour in 22 seconds-into a net on the ground from 195 feet up on the launch tower..."

Two other potential users, fire rescue crew member George Hoggard of EG&G Florida and closeout crew member Albert "Junior" Bumgardner of Lockheed Space Operations Co., rode with Bolden on his second trip down the wire. Hoggard and Bumgardner agreed the ride was "very gentle."...



“NO THRILLS HERE- Astronaut Charles Bolden, closeout crew member Albert "Junior" Bumgardner, and fire rescue crew member George Hoggard pile out of a slidewire escape basket after a smooth trip down from Pad 39B's launch tower.”

From The July 29, 1988, Spaceport News

On page 1, **“Discovery getting all fired up”**. In part, the article reads “Launch Pad 39-B provides the stage for Discovery's Flight Readiness Firing - one of the most important events leading to the next Space Shuttle launch. Discovery's main engines will fire for approximately 22 seconds - scheduled for no earlier than 7:30 a.m. Sunday, July 31...

All members of the launch team will participate in the Flight Readiness Firing activities. Members of the Mission Management Team will be at their consoles in the Operations Support Room, in Firing Room 1. In addition, members of the Office of Space Flight Management Council, including Rear Admiral Richard Truly and NASA Administrator James C. Fletcher, will be in the Firing Room 1 Operations Management Room...

KSC's launch processing team has conducted five previous FRFs. Each was conducted from Launch Pad 39-A to qualify the Columbia, Challenger, Discovery and Atlantis for their maiden voyages into space. Two firings were required for Challenger because of a hydrogen leak detected during the initial FRF.

From page 8, **“Orbiter Columbia makes a move”**. A portion of the article states “There's more than one Space Shuttle waiting to return to flight, Orbiter Columbia reminded the world July 9. The first of America's orbiter fleet managed to distract the eyes focused on Discovery-then only five days hard down at Launch Pad 39B-when she rolled from the Orbiter Modification and Refurbishment Facility into the spot her sister ship had occupied in the Orbiter Processing Facility...

During the move, astronaut Charlie Bolden helped members of the landing team by signaling with flashlights through a window from inside the crew compartment. The landing team wants to use the signals as a way to tell whether it's safe to approach and open the crew hatch after landing... Columbia rolled without engines, without a significant portion of its thermal protection system in place, and with its hatches and nose covered by plastic. Columbia, the last orbiter to fly before the tragic STS 51-L launch, is now scheduled for the STS-28 mission.”

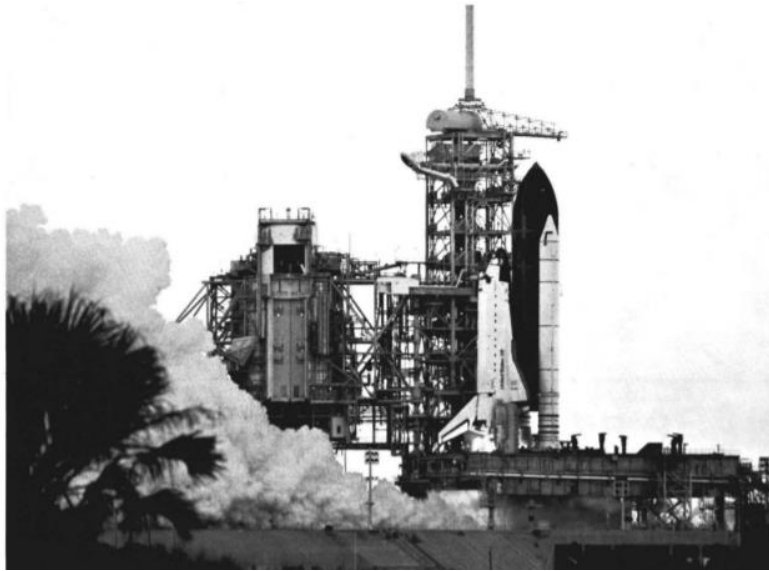


“ROLLOVER - Columbia moves to the Orbiter Processing Facility.”

From The August 12, 1988, Spaceport News

On page 1, “**Hear those mighty engines roar**”. In part, the article states “America's space program fired up Wednesday as Discovery's three main engines roared to life at 7:30 a.m. "You did a super job!" declared NASA Administrator Dr. James Fletcher. Center Director Forrest McCartney also praised "a super professional team." Launch Director Bob Sieck said "It was a tough test, accomplished in a professional, crisp manner. We can look forward to launch with confidence.”

To accomplish the Aug. 10 Flight Readiness Firing, the KSC launch team overcame problems both in the Aug. 1 Wet Countdown Demonstration Test and the FRF. On Aug. 4, the countdown was stopped at T -5 seconds due to a problem with a fuel bleed valve assembly. Rising to the challenge, the team completed a changeout of the valve assembly one day sooner than estimated...”.



“ALL FIRED UP- Discovery's three main engines powered up Wednesday for the 22-second Flight Readiness Firing. Although test data is still to be reviewed, the launch team received high marks for their achievement.”

From The August 26, 1988, Spaceport News

On page 1, **“Discovery's payload rolls out to pad”**. A portion of the article states “With the successful Flight Readiness Firing under its belt, Discovery prepared to take delivery of its primary STS-26 payload, the Tracking and Data Relay Satellite. It began in the morning darkness of August 15.



“THE PAYLOAD canister containing the TDRS-C satellite and Inertial Upper Stage is hoisted into position adjacent to the doors of the payload changeout room of the Pad B.”

On page 3, "**KSC print shop sets all-time record**". How such work was done in the day! In part, the article states "Imagine a three-bedroom house with every square inch of space stuffed to the rafters with documents. That bulging house symbolizes just how much paper went through the presses and high-speed copiers at the Reproduction and Micrographics center when its employees set an all-time KSC printing record in July...

One publication-the Lockheed Space Operation Company's Integrated Launch Countdown Procedures OMI weighed in at 30 pounds. It consisted of six volumes, containing a total of more than 3,700 pages. Four hundred copies of each volume were printed within 48 hours. "Last month was the busiest one that we've had since we started business in 1965," says Don Allen, who works in the control area of the reproduction center at Headquarters Building. "We beat our previous record of 21 million copies by more than 2.8 million..."

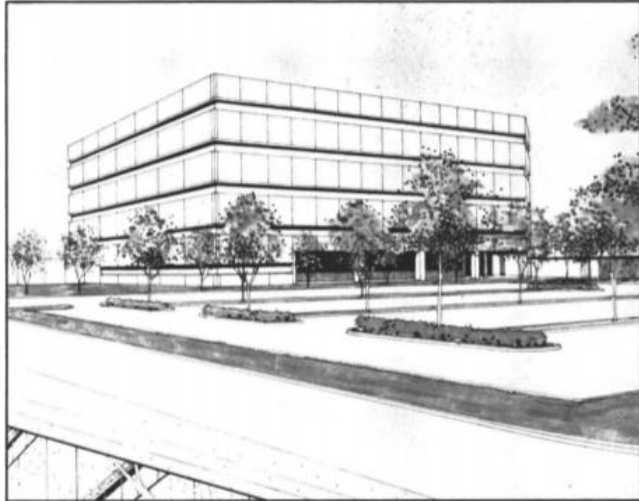


"BURIED UNDER - EG&G bindery workers Vicki Hackbarth, left, Steve Price, center, and Patty White, right, are nearly buried under stacks of document pages they must assemble into complete publications."

From The September 9, 1988, Spaceport News

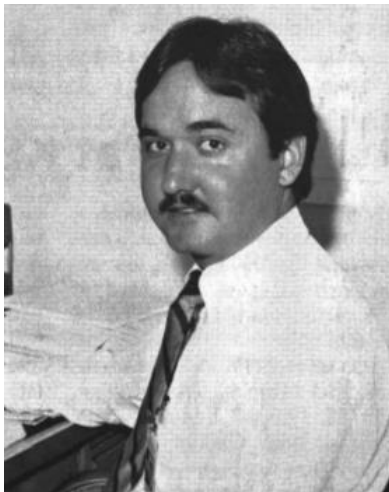
From page 1, "**Ground broken on new Launch Complex 39 building**". A portion of the article states "...America's space program is ready to soar with "an aggressive space program," KSC Center Director Forrest McCartney declared during a Sept. 2 ground breaking ceremony for the Launch Complex 39 Operations Support Building. McCartney pointed out that the 300,000-square-foot building will provide a good working environment for more than 1,700 people who have worked in boxcars and other temporary quarters. "Thank you to those of you who have been so long suffering, and who have not allowed your quarters to interfere with your professionalism." McCartney

said to cheers and applause. McCartney thanked Congressman Bill Nelson for his support of the Congressional appropriations needed to move KSC facilities forward into the new space age. Nelson, who flew on STS 61-C, shared McCartney's observations that the new building symbolized more than just a structure...”.



“GROUND WAS broken Sept. 2 for a new six-story Launch Complex 39 building at KSC. The 300,000-square-foot building will provide a good working environment for 1, 700 people who have been working in temporary quarters.”

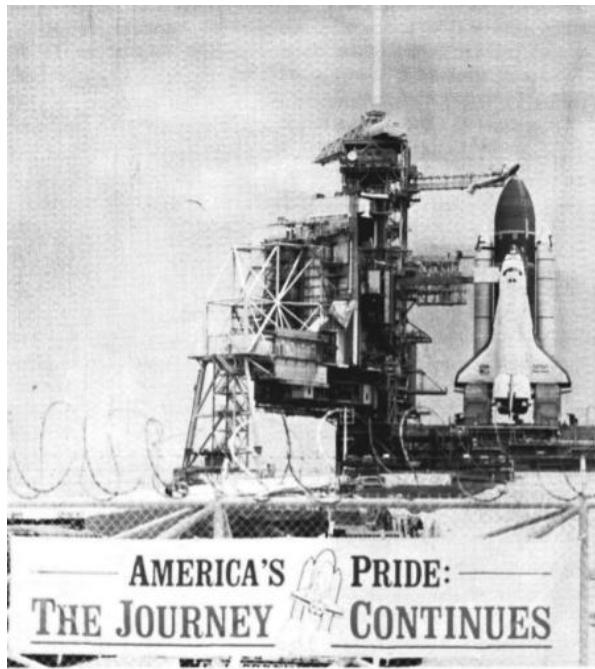
On page 2, **“Engineer makes the grade”**. Part of the articles reads “TOP OF HIS CLASS - William "Russ" DeLoach, a NASA reliability engineer, recently completed one year of special training for reliability and quality assurance engineers and won the Association of the United States Army Award for outstanding grades and accomplishments. He made straight A's in the 37-credit-hour graduate level program conducted by the Army Materiel Command, School of Engineering and Logistics, Texarkana, Texas...”.



WILLIAM DeLOACH

From The September 23, 1988, Spaceport News

On page 1, "**Discovery launch set**". A portion of the article states "I'm delighted to have reached this point," Admiral Richard H. Truly, NASA associate administrator for space flight, declared when Sept. 29 was announced as the target launch date for Discovery's STS-26 mission... The target launch date was announced on Sept. 16... at the end of the Flight Readiness Review held at KSC Sept. 13 and 14... The launch window opens at 9:59 a.m. EDT. Discovery and her crew are scheduled for a four-day mission, culminating with a landing at Edwards Air Force Base, Calif."



"THE SHUTTLE slogan, written by an employee from Rockwell's Rocketdyne Division in Canoga Park, Calif., displays the nation's enthusiasm for the upcoming launch of STS-26..."

From The October 14, 1988, Spaceport News

On pages 2 and 3, "**DISCOVERY FLIES U.S. TO THE FUTURE, A MIGHTY ROAR-GO!-FROM KSC CROWDS**". A portion of the article reads "America's heart took wing as Discovery thundered into the skies over Kennedy Space Center in a picture-perfect liftoff at 11:37 a.m., Sept. 29. Leading the way back to space were Commander Rick Hauck, Pilot Dick Covey, and Mission Specialists John "Mike" Lounge, Dave Hilmers and George "Pinky" Nelson..."

"This is the first of a new era," NASA Administrator James Fletcher declared, after watching Discovery streak heavenward. "All I can say is the nation owes you a lot," Fletcher told a cheering, jubilant launch team. His congratulations were echoed by other

key NASA managers, including KSC Director Forrest S. McCartney, who, with American flag in hand, declared, "it's a great day for America." The mood in the firing room was euphoric after the successful completion of a launch countdown that included several problems, ranging from weather to cooling system glitches in Covey's and Nelson's pressure suits. These added up to a delay of slightly more than 90 minutes and were handled in what Launch Director Bob Sieck called a display of "complete professionalism."...

KSC employee Nancy Huddleston, said launches are always an emotional experience for her. "All of a sudden these 16,000 people (KSC workers) come together and we have one product. That to me is a moving experience. "It's like in a parade when the flag goes by. I always get tears in my eyes," she said... No matter how many launches you've covered, said Aviation Week and Space Technology's Harry Kolcum, eyewitness to the Mercury program in the early 1960s and Shuttle flights in the 1980s, "every one is a new experience. I think the people who have this in their blood always feel that way."

After taking the STS-26 crew an approximate 1.68 million miles in orbit, Discovery touched down at Edwards Air Force Base, Calif., at 12:37 p.m. EDT.", [on October 3, 1988.](#)



"STS-26 lifts us back up where we belong."

On pages 4 and 5, **“STS-26 Photo Scrapbook”**.



On the left, “THREE CHEERS FOR THE RED, WHITE AND BLUE- NASA Administrator Dr. James Fletcher leads the celebration in KSC's Firing Room 1 as Center Director Forrest S. McCartney, left, and Launch Director Bob Sieck, right, share in the joy of Discovery's successful liftoff.” On the right, “EVERYTHING'S TIPTOP-Discovery Flow Director John J. "Tip" Talone celebrates Discovery's successful liftoff.”



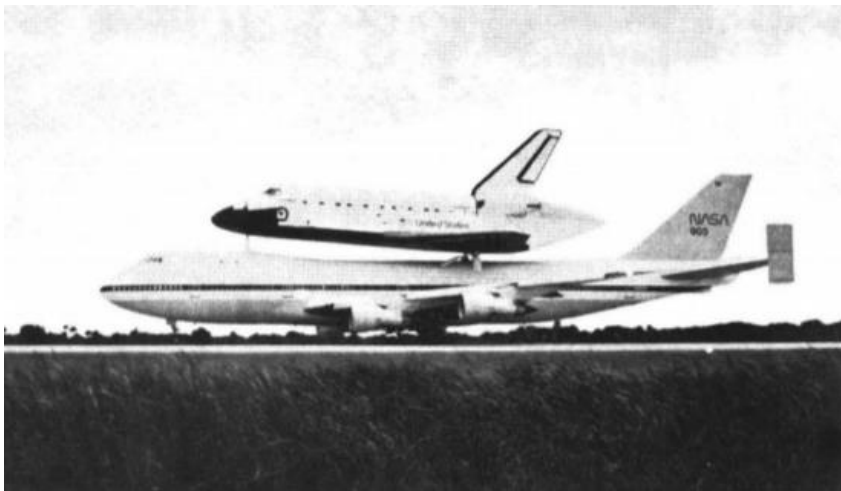
On the left, “A WARM WELCOME TO KSC - Wives of the STS-26 astronauts greeted them upon their arrival just days before launch. Waving to reporters are George "Pinky" and Susie Nelson, Dave and Lynn Hilmers, Kathy and John "Mike" Lounge, Rick Hauck, and Kathy and Dick Covey.” On the right, “STS-26 crew members walk out of the O&C Building on their way to the Sept. mission aboard Discovery. Front row, left, Pilot Dick Covey and Commander Rick Hauck; following, Mission Specialists Dave Hilmers, John "Mike" Lounge and George "Pinky" Nelson at rear.”

From the October 21, 1988, Spaceport News

From page 1, "**STS-26: 'An absolute, stunning success'.**" A portion of the article reads "...STS-26 was "an absolute, stunning success," declared Adm. Richard Truly, NASA Associate Administrator for Space Flight, after Discovery touched down in a flawless landing at Edwards Air Force Base, Calif., at 12:37 p.m. EDT on Oct 3. An estimated crowd of more than 400,000 well wishers and Vice President George Bush were on hand to greet the returning astronauts..."



"WITH A BOLD WAVE of Old Glory, the STS-26 crew greets their welcoming committee and America. From top to bottom as they leave the orbiter are Mission Specialists David Hilmers, George "Pinky" Nelson, John "Mike" Lounge, Pilot Richard Covey, and Mission Commander Frederick "Rick" Hauck. Vice President George Bush (lower right) was there to greet them."

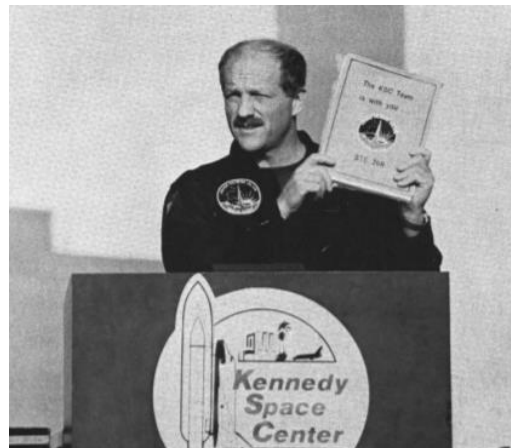


"DISCOVERY returned to Kennedy Space Center atop the 747 Shuttle Carrier Aircraft at 7:04 p.m. EDT on Oct. 8. "It means the mission is accomplished," said 747 pilot A.J. Roy. "We're ready for another one."

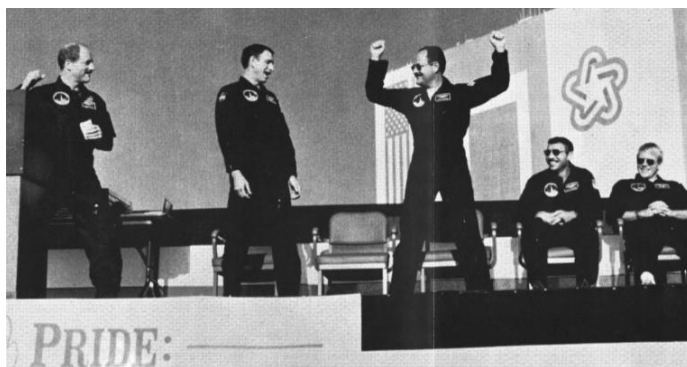
From the November 4, 1988, Spaceport News

On page 1, "**STS-26 crew returns**". In part, the article states "Calling KSC "the heartbeat of the American space program," the STS-26 astronauts returned here Oct. 25 to say "thanks" to the people who put them safely back in space. Cheers and several standing ovations... greeted the five astronauts during ceremonies at the Launch Complex 39 Turn Basin...

The day before the KSC ceremony, Brevard County welcomed the astronauts home with a parade along State Road A1A. The parade—once a tradition in the early days of the space program—drew more than 20,000 people. Just as in the "old days," the astronauts were driven in Corvettes. Three of those cars had roots in Brevard's space history, since they were previously owned by astronauts Alan Shepard, David Scott, and Virgil "Gus" Grissom. A reception and dinner followed the parade."

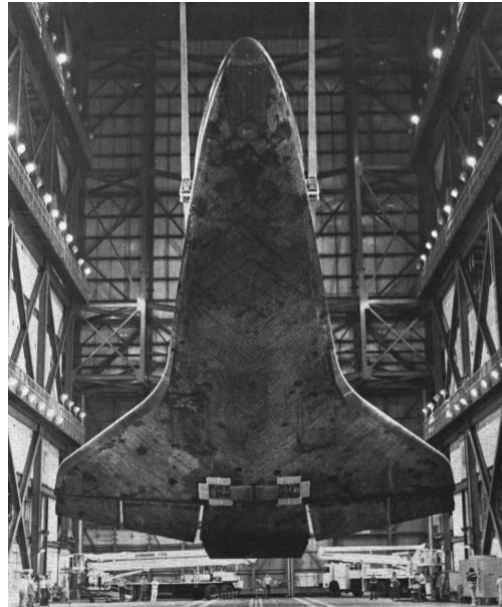
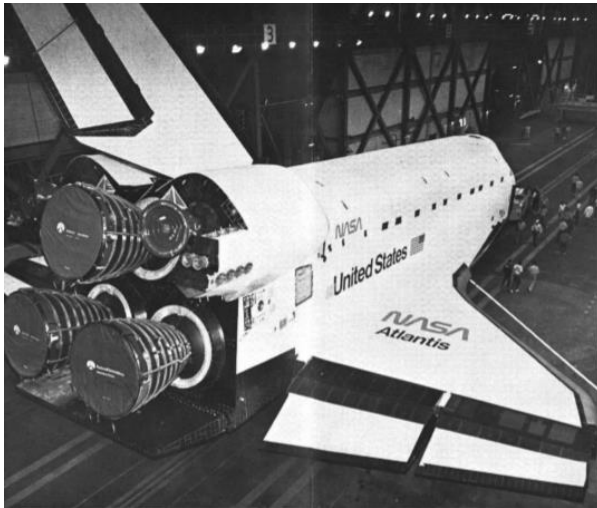


On the left, "ASTRONAUT Rick Hauck waves to the crowds lining A1A during a parade held for the STS-26 crew." On the right, "AUTOGRAPH BOOK COMES HOME - Rick Hauck returns the volume with more than 15,000 signatures from KSC employees. The book flew on the STS-26 mission as a symbol of KSC support."



On the left, "GLAD TO BE AT KSC AGAIN- Discovery crew members Rick Hauck, Dick Covey, Mike Lounge, Dave Hilmers, and George "Pinky" Nelson in the midst of an exuberant "high five" greeting." On the right, "ENJOYING THE DAY - Launch Director Bob Sieck, Congressman Bill Nelson, and Center Director Forrest S. McCartney, left to right, at STS-26 crew return ceremonies."

Also on page 1, “Atlantis rolls to VAB”. A portion of the article reads “The launch of STS-27 drew another step closer with Atlantis' rollover Oct. 22 from the Orbiter Processing Facility to the Vehicle Assembly Building. "It seems like it took so long to prepare Atlantis for rollover and all of a sudden we're talking about a launch just a few weeks away," said Conrad Nagel, Atlantis flow director. Atlantis has been in the OPF since March 1987, undergoing extensive modifications. "The orbiter looks really great," said Nagel... Rollout to Pad 39B was set for no earlier than Wednesday, Nov. 2...”.



On the left, “MOVING TOWARD THE FUTURE - Atlantis rolls another step closer to launch as the orbiter is towed in the VAB Oct. 22.” On the right, “ATLANTIS GOES VERTICAL-Workers connected a sling to the orbiter and carefully hoisted it to a vertical position in the VAB Oct. 23.”

On page 3.



“TWENTY-FIVE YEARS of space heritage are depicted in this photograph of a mural painted by illustrator Eric J. Niebel of Digital Equipment Corp. The mural was donated by the company to KSC and hangs in the Galaxy Center at Spaceport USA...”

On page 7, **"NASA Ball glitters!"**



"CENTER DIRECTOR Forrest McCartney, center, Mrs. McCartney and guests."



"HOSTESSES, from left, Liz Osborne, Jamie Brimer, Delores Green, Carol Hoggard and Barbara McCoy."

From the November 18, 1988, Spaceport News

On page 1, **"Crew, launch team has dress rehearsal"**. In part, the article reads "Atlantis and its crew marked two major milestones on the path to the upcoming STS-27 launch. Rollout to the pad was accomplished Nov. 2, followed by countdown demonstration test activities Nov. 12-14..."

The STS-27 crew flew to KSC Nov. 12 for two days of safety training and the countdown test, considered a "dress rehearsal" for flight. Commander Robert L. "Hoot" Gibson, Pilot Guy Gardner, and Mission Specialists Richard "Mike" Mullane, William M.

Shepherd, and Jerry L. Ross participated in briefings as well as hands-on safety training...

Next on the road to flight was the Flight Readiness Review Nov. 15- 16. An official target launch date was expected as a result of the meetings. Internal KSC assessments... were evaluating both Nov. 30 and Dec. 1 as potential launch dates. The STS-27 mission will be totally dedicated to a Department of Defense classified mission."

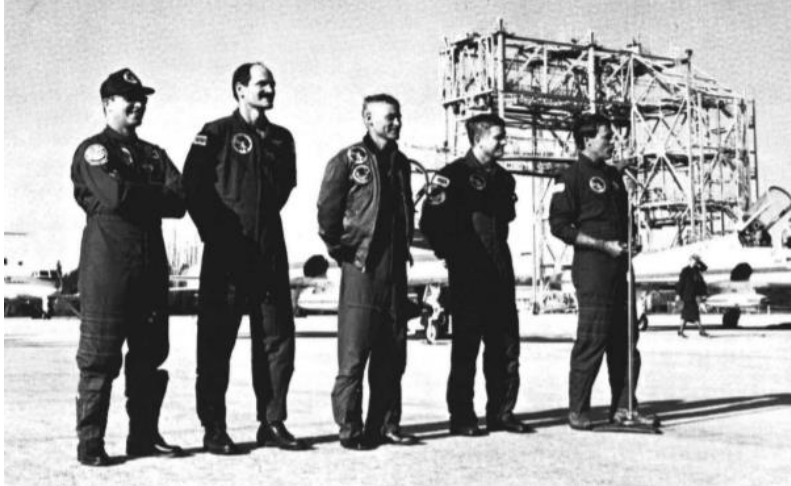


"STS-27 CREW during countdown demonstration. From left, Mission Specialist William M. Shepherd, Pilot Guy Gardner, Commander Robert L. "Hoot" Gibson, and Mission Specialists Richard M. "Mike" Mullane and Jerry L. Ross."

From the December 2, 1988, Spaceport News

On page 1, "**Atlantis readied for DOD launch**". Part of the article states "With the countdown clock ticking, STS-27 Mission Commander Robert L. "Hoot" Gibson, Pilot Guy Gardner, and Mission Specialists Richard "Mike" Mullane, Jerry L. Ross, and William M. Shepherd winged into KSC Nov. 28. Their T-38 jets touched down at the Shuttle Landing Facility at about 3:00 p.m. ... The STS-27 mission is the third Shuttle flight dedicated to the Department of Defense, as well as the third flight of the orbiter Atlantis. Earlier DOD flights included 51-C in January 1985, and 51-J in October 1985. Mission 51-J was also flown by Atlantis..."

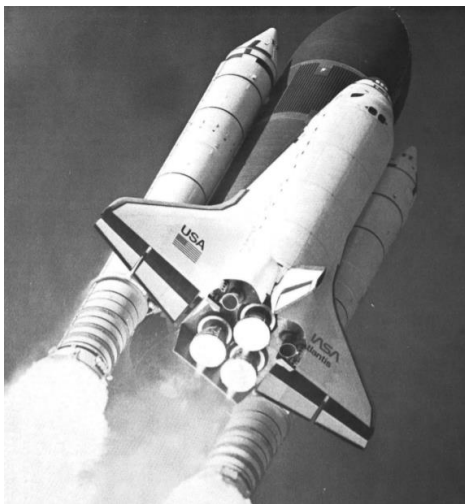
Launch of STS-27 was targeted for Dec. 1, during a period from 6:32 a.m. to 9:32 a.m. Because the DOD mission is classified, time-revealing events in the launch countdown could not be announced until the T-9 minute mark. Length of mission was also classified until 24 hours before landing."



"THE FIVE MAN CREW for Space Shuttle mission STS-27 makes a brief statement to members of the press after arriving at Kennedy Space Center's Shuttle Landing Facility Monday, Nov. 28. From left, Mission Specialist Jerry L. Ross; Pilot Guy S. Gardner; Mission Specialists Richard "Mike" Mullane and William M. Shepherd; and Commander Robert L. "Hoot" Gibson."

From the December 20, 1988, Spaceport News

On page 2, "**STS-27: Another successful mission**". In part, the article reads "Atlantis and its five-member crew successfully completed a classified Department of Defense mission early this month. Atlantis lifted off at 9:30 a.m. on Dec. 2... After slightly more than four days in space, Atlantis and its crew touched down at Edwards Air Force Base, Calif., at 6:36 p.m. EST, Dec. 6. After the crew's welcome home, engineers and technicians began preparing Atlantis for its return to KSC atop the Boeing 747 carrier aircraft. Back at KSC on Dec. 13, Atlantis was moved to the Orbiter Processing Facility the following morning..."



"ATLANTIS THUNDERED skyward Dec. 2 on its Department of Defense mission..."

On pages 3, 4 and 5, **"KSC celebrates with holiday coffees"**. A portion of the article reads "The joy of the holiday season was celebrated Dec. 14 as Kennedy Space Center workers gathered for the traditional Christmas coffees. Held at the Headquarters, O&C, and LCC buildings, the coffees featured festive decorations, refreshments, and the warmth of good fellowship. Center Director Forrest S. McCartney and Mrs. Ruth McCartney, with members of the NASA senior staff, greeted KSC workers in an atmosphere of good cheer... Coordinating the popular holiday event was Barbara McCoy... McCoy and numerous volunteer hostesses created colorful Christmas settings, complete, with brightly sparkling trees..."



On the left, "TIME OUT FOR HOLIDAY FUN – NASA employees Fritz Widick, left and Chuck Henschel, right, visit with retiree Clyde Netherton, center." On the right, "THE PERSONAL TOUCH warmed the holiday gatherings as Center Director Forrest S. McCartney and his wife, Ruth, trim a tree with a miniature Shuttle."



"ENTERTAINMENT AT THE Christmas coffees was provided by the KSC Carolers. Seated in front, from left, are: Shirley Green, Jane Eitel, Marina Harris, Choir Director Beverly Cirack and Connie Siegel. Standing, from left, are Mary C. Davis, Barry J. Kral, Josie M. Marshall, Muriel Jernigan, Choir President Barbara Hickle, Lela Buis, Chuck Frost, Sue Alberton, Steve Sponsler, Dick Spaulding, Suzanne Black, Dick King, Sandra Brady, Evelyn Jackson, Marti Morawski, Joy Williamson and Joy Maskell."

On pages 4 and 5.

1988 - A year of pride and promise fulfilled

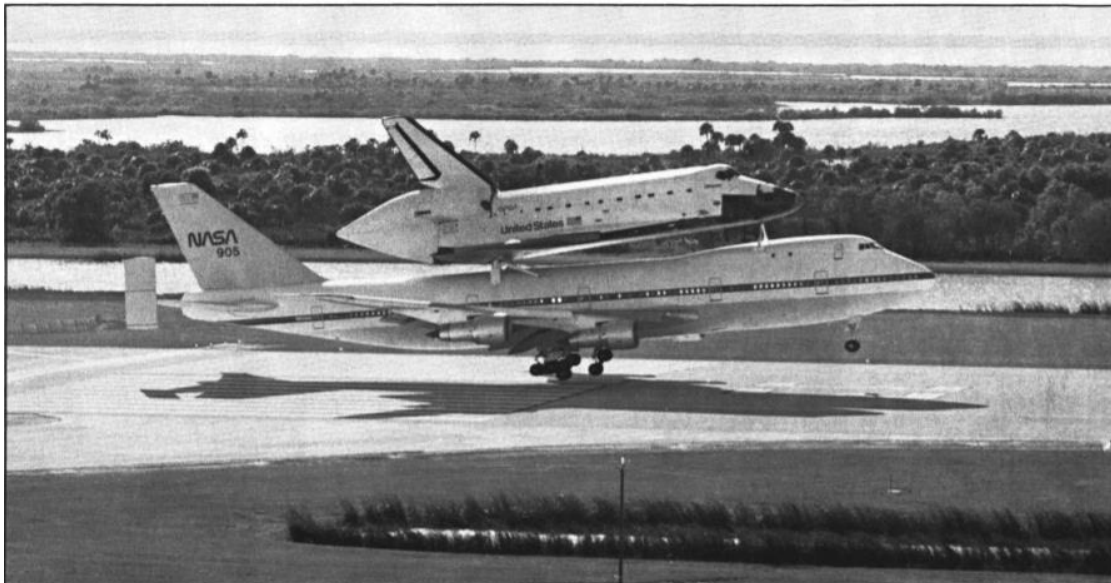
1988 has been a year of pride, a year of outstanding professional performance, and a year of promises fulfilled. With great dedication and enthusiasm, the KSC work force met NASA's commitment to safely return to manned space flight. Discovery's successful liftoff Sept. 29 thundered a message to the world: America is back in space. As Discovery soared skyward, KSC workers saw the results of their unceasing efforts toward excellence. The STS-26 launch signified personal, as well as team, success.

Each of you-contractor and NASA-gave your best. Smoothly and professionally, we moved on to the liftoff of Atlantis on Dec. 2. The STS-27 mission rounded out an exciting, successful year for America's manned space program. We have much to be thankful for this holiday season.

And we have much to look forward to. The year ahead promises to be one of the most thrilling ever in space science. The 1989 manifest includes Magellan, Galileo, and the Hubble Space Telescope, as well as satellite and DOD missions. We are on the verge of a future that will bring us knowledge of the stars-and beyond. To all of you-thank you for your work. You have made history. God bless you and your loved ones this holiday season.

- Center Director
Forrest S. McCartney

On page 8, "**Atlantis is home again!**"



"THE ORBITER arrived at KSC atop the Boeing 747 Shuttle Carrier Aircraft at 2:25 p.m. Dec 13. The Shuttle launched from Pad 39B Dec. 2."