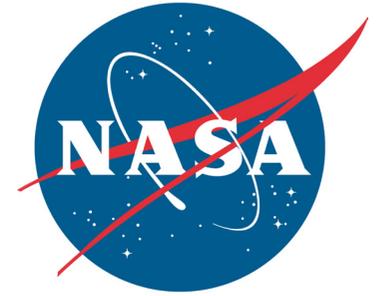


Spaceport News

John F. Kennedy Space Center - America's gateway to the universe



NASA unveils plans for new rocket

By *Steven Siceloff*
Spaceport News

NASA will build a rocket larger and more powerful than even the massive Saturn V moon rockets under a plan unveiled Sept. 14 to take astronauts farther into space than ever before.

The Space Launch System, or SLS, will take astronauts into deep space on missions to asteroids, the moon or Mars.

“We are dreaming big,” NASA Administrator Charlie Bolden said. “We’re investing in technologies to live and work in space and it sets the stage for visiting asteroids and Mars.”

Just like its Saturn V predecessor, the SLS heavy-lift rocket will launch from NASA’s Kennedy Space Center. Kennedy’s main work during the SLS development will center on designing ground support equipment for the test flights and then the operational missions.

The unique facilities at Kennedy are expected to be used for SLS, too. In addition to the landmark Vehicle Assembly Building, which stacked the Saturn V for launch, Kennedy has processing areas and clean



NASA

An artist concept of the Space Launch System, or SLS, on a Kennedy Space Center launch pad. The SLS rocket will incorporate technological investments from the Space Shuttle Program and the Constellation Program.

See **DESIGN**, Page 3

NASA, ATK work on new Liberty rocket

By *Linda Herridge*
Spaceport News

NASA recently with Alliant Techsystems (ATK) entered into an agreement that could help speed up the availability of U.S. commercial crew transportation capabilities to the International Space Station and low-Earth orbit, expand international cooperation and bring jobs into Florida.

An unfunded Space Act Agreement (SAA), announced Sept. 13 between NASA and ATK, will allow a partnership on the development of ATK’s Liberty Launch System as part of the agency’s Commercial Crew Development Round 2 activities through March 2012.

The agreement through NASA’s Commercial Crew Program, based at Kennedy Space Center, will allow the agency and ATK to review and discuss Liberty system requirements; safety and certification plans; computational models of rocket stage performance; and avionics architecture design.

“We want to explore if this capability can be used in a commer-

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Inside this issue ...

Kennedy home to lab



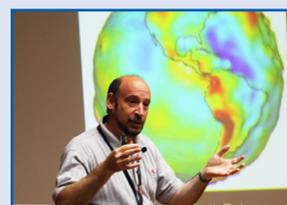
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Magazine honors Chesson



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Future Exploration



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'Apollo 18' Facts vs. Fiction



Page 7

Kennedy now home to ISS national lab manager

By Linda Herridge
Spaceport News

The Space Life Sciences Laboratory at Kennedy Space Center is the new home to the organization that will manage the portion of the International Space Station that is operated as a U.S. national laboratory.

A NASA cooperative agreement recently was awarded to The Center for the Advancement of Science in Space (CASIS). The independent, nonprofit, research management organization will base its efforts at Kennedy and help ensure the space station's unique capabilities are made available to the broadest possible cross-section of U.S. scientific, technological and industrial communities.

"The station is the centerpiece of our human spaceflight activities for the coming years," NASA Administrator Charlie Bolden said. "This cooperative agreement allows us to expand the station's use and achieve its fullest potential so we can reach destinations farther in the solar system and improve life on Earth."

NASA's Chief Scientist Waleed Abdalati said that this is a time of transition in terms of human spaceflight and human exploration as the agency transitions from the shuttle to commercial capability.

"With the space station complete, we're poised for the next stage, the next step. We have up in space this tremendous national asset that is the International Space Station," Abdalati said. "It's an asset for science, exploration, industry, our nation and the world as a whole. It's an asset of which we're very proud and it has tremendous potential."

Mark Uhran, NASA



NASA/Kim Shifflett

Panelists conduct a question and answer session with news media Sept. 9 after NASA awards a cooperative agreement with the Center for the Advancement of Science in Space (CASIS) to manage the portion of the International Space Station that operates as a U.S. national laboratory. From left are: Waleed Abdalati, NASA chief scientist; Mark Uhran, NASA assistant associate administrator for the International Space Station; and Jeanne Becker, CASIS executive director. CASIS will be located at the Space Life Sciences Laboratory at Kennedy Space Center.

"With the space station complete, we're poised for the next stage, the next step. We have up in space this tremendous national asset that is the International Space Station. It's an asset for science, exploration, industry, our nation and the world as a whole. It's an asset of which we're very proud and it has tremendous potential."

**Waleed Abdalati,
NASA's Chief Scientist**

assistant associate administrator for the International Space Station said that the completion of the space station is a historic achievement.

"The award to CASIS for the advancement of science and space allows the agency to go the next step now and extend the national laboratory to organizations across the U.S., academic and private institutions, and non-profit research and development foundations,

from which we have seen growing interest," Uhran said.

CASIS will now step up to manage those interests, further stimulating them as NASA moves into the utilization era of space station, an era that has opportunities never before available.

CASIS Executive Director Jeanne Becker said the organization stands ready to develop the premier institution needed to really advance space-based

research and technology development and education initiatives and also engage the community

"I know first-hand the opportunities and advancements that can be made using this national laboratory, this microgravity environment," Becker said. "CASIS will drive discoveries that can't be achieved on the ground and utilize the national lab to return value back to citizens."

Becker said CASIS

will develop and manage a varied research and development portfolio based on U.S. national needs for basic and applied research.

During the first year of the agreement, Becker said CASIS will work closely with NASA's existing space station customers, and develop the infrastructure to handle solicitations. CASIS also plans to fund some of its own science and research experiments.

Though many of the experiments may be developed in other parts of the country, Becker said that payload integration will be performed at Kennedy's Space Life Sciences Lab to prepare each for delivery to the space station.

The cooperative agreement between NASA and CASIS is for 10 years with initial assistance funding of up to \$15 million per year.

"Kennedy is the heart -- literally and figuratively -- of the launching ground for space exploration, so it's very fitting that it be based here," Abdalati said.

"This is a catalyst for what we believe will be quite big. We're at a position now where NASA is going to continue to do its focused research, but we have the opportunity here to do so much more," Abdalati said. "We're poised for discovery and to learn new things. I think there will be many surprises to discover."

More online

For more information about the International Space Station National Laboratory, visit:
www.nasa.gov/mission_pages/station/research/nlab/index.html

From DESIGN, Page 1

rooms that can support spacecraft of all sorts. The crawler-transporters and the 355-foot-tall mobile launcher, or ML, also are available to support a rocket at the launch pad.

“Kennedy Space Center received exciting news, as NASA announced the design for the most powerful American rocket since the Saturn V took astronauts to the moon -- the Space Launch System,” said Bob Cabana, Kennedy Space Center director. “Kennedy’s role continues to be significant and central to shaping the next era of space exploration as we provide infrastructure, facilities capabilities, and skills that are essential to our nation’s success. Significant progress has already been made at Kennedy implementing upgrades to Launch Pad 39B that will ensure our readiness to support the SLS architecture. We will continue to modify other existing launch and processing facilities as we transform Kennedy to the multi-user launch

complex of the future.”

The rocket will be built around a core stage the same diameter as a space shuttle external tank and powered by three space shuttle main engines, with later flights using five SSMEs. Five-segment solid rocket boosters will be mounted to the side of the tank for additional power, although liquid-fueled boosters could be incorporated on later flights after an industry competition.

“We can tell you we have the capability with this for some pretty exciting missions,” said Bill Gerstenmaier, associate administrator for Human Exploration and Operations. “I think it’s fair to call this the most powerful rocket ever built.”

The upper stage will be powered by the J-2X engine and the astronauts will fly inside a large capsule spacecraft called the Orion Multi-Purpose Crew Vehicle (MPCV). The J-2X engine and Orion have been in different stages of development while the SSMEs have been proven during 30 years of

space shuttle missions.

“We have very little engine development to do,” Gerstenmaier said.

Gerstenmaier said the new rocket’s designers focused on using existing technology in the rocket in many areas so it can be built using modern, more efficient manufacturing techniques.

“This is being designed and built in a new, modern way,” Gerstenmaier said. “We’ll probably build the tank vertically instead of horizontally.”

The design also is intended to be modular so it can be tailored to different mission needs without requiring one-of-a-kind, and more expensive, components. NASA envisions two basic sizes for the SLS. One would lift 70 metric tons into space, about three times more than a shuttle. A larger version, complete with a 10-meter payload fairing or nose cone, would lift 130 metric tons into space, a larger payload than any other rocket.

“We think this rocket, when

we put it out there, will be very attractive to other users,” Gerstenmaier said, noting the rocket could be used to launch huge satellites or other cargo without astronauts on board.

Compared to the Saturn V rocket that carried astronauts to the moon from 1968 – 1972, the SLS would produce 10 percent more thrust when configured to launch 70 metric tons into space. The larger version, will boast 20 percent more thrust than the Saturn.

The large version of the SLS also will be 40 feet taller than a Saturn V, coming in at about 400 feet.

The schedule calls for a test flight in 2017 with the upper stage of a Delta IV rocket, then a flight with astronauts on board in 2021 with the J-2X-powered upper stage. The rocket and spacecraft could conduct a mission to an asteroid taking place potentially in 2025.

Gerstenmaier said, “Yes, it takes a long time, but when we’re finished we’ll be capable of going to space like no other nation.”

From UNITE, Page 1

cial crew type of purpose, which for us it trying to get a crew to the International Space Station and low-Earth-orbit by the middle of the decade,” NASA’s Commercial Crew Program Manager Ed Mango said.

The Liberty team will work with NASA’s Commercial Crew Office at Kennedy.

The SAA outlines several key milestones that must be met, including a preliminary design, certification process development, and an Initial System Design review, during which ATK will present to NASA officials the Liberty systems level requirements.

“We are very much looking forward to this opportunity to work with NASA, the experts in human space flight in the world,” said Kent Rominger, vice president, strategy and business development for ATK Aerospace.

Rominger said that ATK

“We wind up bringing jobs into Florida and using the existing expertise that has been developed over the last five decades. We want to be Florida’s launch system provider with the Liberty vehicle.”

**Kent Rominger,
ATK Aerospace**

asked to come to Kennedy since it is going to be Liberty’s home. He said Kennedy’s infrastructure is perfectly set up to enable them to process and launch Liberty.

“We wind up bringing jobs into Florida and using the existing expertise that has been developed over the last five decades,” Rominger said. “We want to be Florida’s launch system provider with the Liberty vehicle.

“We believe Liberty of-

fers the safest, most reliable means of putting a crew in orbit,” Rominger said.

The launch vehicle combines two propulsion systems. ATK will provide the human-rated, five-segment solid rocket motor as the first stage, and Astrium (an EADS Company) will provide the core stage from the Ariane 5 rocket, including the Vulcain 2 engine as Liberty’s upper stage.

The Liberty Launch System would have the capability to lift 44,000 pounds

to low-Earth-orbit, the highest pounds to orbit of any other vehicle currently working under commercial agreements.

CCP’s goal is to have an American-led system by the middle of the decade.

“With this agreement, ATK believes NASA will benefit from gaining insight into the various systems we are developing, and we can benefit from the feedback. We hope to offer a commercial solution to NASA, the Department of Defense, and other commercial human spaceflight programs,” Rominger said.

NASA, ATK and Linda Herridge contributed to this report.

More online

For more information about NASA’s Commercial Crew Program, visit:
www.nasa.gov/exploration/commercial.



Artist conception courtesy of ATK

An unfunded Space Act Agreement (SAA), announced Sept. 13 between NASA and ATK, will allow a partnership through March 2012, on the development of ATK’s Liberty Launch System as part of the agency’s Commercial Crew Development Round 2 activities.

Scenes Around Kennedy Space Center



2011 NASA Family Education Night

The Kennedy Space Center Education Office hosted NASA Family Education Night at the Astronaut Hall of Fame in Titusville on Sept. 10. The free event targeted students in grades 5-8, and was intended to stimulate their interest in science, technology, engineering and mathematics (STEM) by offering various educational experiences, hands-on activities and gee-whiz demonstrations. Guests also were able to meet an astronaut and visit the "Science on a Sphere" exhibit.



Photos by NASA/Amanda Diller



NASA/Frankie Martin



NASA/Ulm Grossmann

This week marks the completion of Launch Pad 39B's deconstruction with the lightning towers remaining at the pad on Sept. 15. In 2009, the structure at the pad was no longer needed for NASA's Space Shuttle Program, so it is being restructured for future use. The new design will feature a "clean pad" for rockets to come with their own launcher, making it more versatile for a number of rockets and spacecraft.



Actress Nichelle Nichols (Lt. Uhura on Star Trek) signs autographs for a guest at the Kennedy Space Center Visitor Complex during the agency's Gravity Recovery and Interior Laboratory (GRAIL) launch countdown activities on Sept. 8. Nichols was on hand to celebrate the 45th anniversary of the first airing of the Star Trek television series. The Kennedy Space Center Visitor Complex is hosting "Star Trek: The Exhibition" to show visitors where "science fiction meets science fact."



NASA/Randy Beaudoin, VAFB

Technicians perform a fillet and wing fit check on the Pegasus XL launch vehicle in a clean room at Vandenberg Air Force Base in California on Sept. 13. The Orbital Sciences Corp. Pegasus rocket will launch the Nuclear Spectroscopic Telescope Array (NuSTAR) into space. After the rocket and spacecraft are processed at Vandenberg, they will be flown on the Orbital Sciences' L-1011 carrier aircraft to the Ronald Reagan Ballistic Missile Defense Test Site at the Pacific Ocean's Kwajalein Atoll for launch next year. The high-energy X-ray telescope will conduct a census for black holes, map radioactive material in young supernovae remnants, and study the origins of cosmic rays and the extreme physics around collapsed stars. For more information, click on the photo.



NASA/Sandra Joseph - Don Kight

Flames and smoke from the engines surround the United Launch Alliance Delta II rocket at liftoff carrying NASA's twin Gravity Recovery and Interior Laboratory (GRAIL) mission off Space Launch Complex 17B on Cape Canaveral Air Force Station in Florida. The spacecraft launched at 9:08:52 a.m. EDT Sept. 10. GRAIL-A will separate from the second stage of the rocket at about one hour, 21 minutes after liftoff, followed by GRAIL-B at 90 minutes after launch. The aim is to map the moon's gravity field so completely that future moon vehicles can safely navigate anywhere on the moon's surface. For more information, click on the photo.

Magazine honors Chesson with sustainability award

By *Melanie Carlson*
Spaceport News

St. Patrick's Day only comes once a year, but many areas of Kennedy Space Center are always green, thanks in part to the efforts of Alternative Fuel Program Manager Bruce E. Chesson in Center Operations

In recognition of those efforts, Chesson recently was one of 50 individuals selected as a Sustainability All-Star by *Green Fleet* magazine. Individuals were selected based on their significant contributions to environmental sustainability in the fleet industry.

Chesson will be featured in the September/October issue of *Green Fleet* magazine. Chesson and the other recipients will be honored at the 2011 Green Fleet Conference, Oct. 3-4, in Grapevine, Texas.

Kimberly Knight, a traffic management specialist in Center Operations, nominated Chesson for the award. "He is the most dedicated 'green' person I know,"



CLICK ON PHOTO

NASA's Alternative Fuel Program Manager Bruce Chesson has been selected as a Sustainability All-star by *Green Fleet* magazine. For more about the awards and a list of winners, click on the photo.

NASA

Knight said." This truly is his passion and it is an honor to work with him."

Chesson was instrumental in acquiring alternative-fuel vehicles for Kennedy and significantly has increased the use of alternative fuels. This has reduced petroleum usage by millions of gallons, meeting and surpassing federal guidelines for increased use of alternative fuels. Kennedy purchased its first electric car in 2005, and since then,

the fleet has grown to more than 1,500 alternative-fuel vehicles.

About 75 percent of Kennedy's fleet uses alternative fuels, including bio-diesel, electricity, compressed natural gas (CNG) and E-85 (85 percent ethanol). Sixty-eight electric charging locations and six commercial charging stations have been installed around the center. Chesson also was able to obtain 39 additional electric vehicles and 24 alternative-

fuel vehicles as part of the American Recovery and Reinvestment Act.

Chesson also was involved in increasing public awareness of alternative fuels and initiated several programs and outreach events. For example, he developed Space Act Agreements partnering with Honda Motor Corporation, Bavarian Motor Works and Hybrid Technologies, Inc. to provide alternative-fuel vehicles for demonstration, test and evaluation.

Among the center's fleet of vehicles are Honda Civic GX vehicles that run on CNG and get 200- to 240-miles-per-tank of gas. CNG is the least expensive and one of the cleanest fuels used at Kennedy. Several years ago, the Kennedy work force was able to test drive BMW Hydrogen 7 vehicles--dual-fuel automobiles which use liquid hydrogen and unleaded fuel.

Chesson began his career with NASA in 2004, after working in several positions with United Space

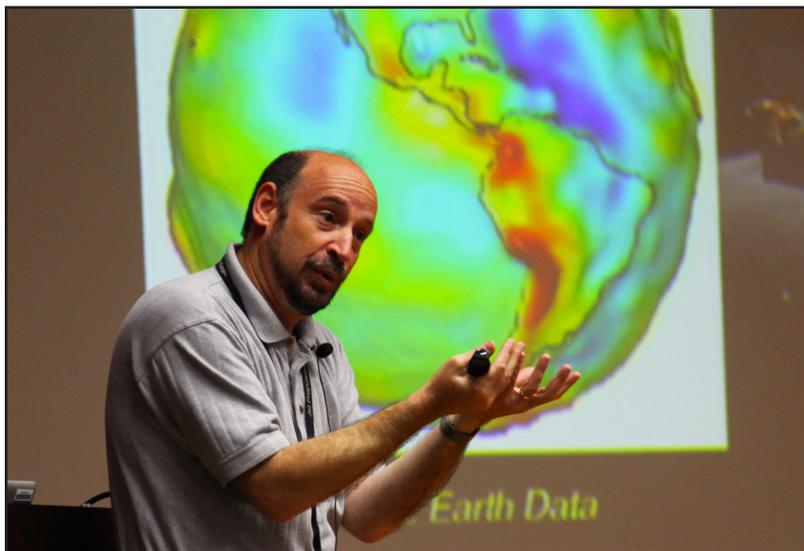
Alliance and Lockheed at the center. In his position as Alternative Fuel Program Manager, he also is responsible for developing and managing the center's Alternative Fuel Vehicle Strategy Plan.

Chesson has been recognized by NASA with numerous awards for transportation and planning for space shuttle landing and recovery operations.

In 2008, he received the Federal Energy and Water Management Award in the individual vehicle fleet management category, an individual award for Kennedy Space Center Alternative Fuel Vehicle Management, and the Blue Marble Award for Energy Conservation and Environmental Awareness for Government Transportation.

"Bruce is a critical member of Kennedy's sustainability efforts, supporting both the Transportation and Communication sub-teams," said Bill Roy, Logistics and Services Branch chief in Center Operations.

Expert: Future of U.S. Planetary Exploration? KSC or nobody



CLICK ON PHOTO

Dr. Randii Wesson, deputy manager, Project Formulation Office, JPL, addresses Kennedy Space Center workers on the future of U.S. robotic planetary exploration during "KEA-83: The Future of U.S. Robotic Planetary Exploration" on Sept. 9. For more on the Kennedy Educate to Innovate (KETI) program, click on the photo.

NASA/Frankie Martin

By *Frank Ochoa-Gonzales*
Spaceport News

"Kennedy Space Center will continue to be the gateway to the planets," said Dr. Randii Wesson, deputy manager of the Project Formulation Office at California Institute of Technology's Jet Propulsion Laboratory.

"It's you folks or nobody," Wesson said. "We've just got to find new ways to get people excited about planetary exploration."

Wesson addressed Kennedy workers Sept. 9 at the center's Training Auditorium.

Wesson said that while major planetary missions in the past only happened about once a decade, future robotic spacecraft will be launched almost yearly.

He says the spacecraft used will have diverse mission objectives and a wide range of capabilities but that to accomplish some of the proposed missions, some will have to land on planets or moons.

During his presentation Wesson discussed the different mission areas of Earth, Mars, the solar system and the universe. He also spoke about the current mission, including GRAIL, which launched Sept. 10.

Wesson shared his thoughts about the quest for extra-solar planets and the search for life in the cosmos.

"Things may seem slow right now but everything is cyclical," Wesson said. "We'll get to the next system and we'll be doing missions that no one's ever done before."

Remembering Our Heritage

Spoiler: 'Apollo 18' myths debunked, NASA-style

By Kay Grinter
Reference Librarian

“There’s a reason we’ve never gone back to the moon,” but contrary to the premise behind the recently released science-fiction horror movie “Apollo 18,” the reason was monetary, not biological.

In the Hollywood “mockumentary” version of events, the Department of Defense (DoD) revives the Apollo 18 mission and asks NASA astronauts Benjamin Anderson, Nathan Walker and John Grey to volunteer for this secret mission.

The unsuspecting crew believes their mission is to deploy some classified military equipment. After landing on the moon, they find an abandoned Soviet lander, a dead cosmonaut and their primary assignment as “guinea pigs” is to verify why the cosmonaut never returned to Earth.

At the time Neil Armstrong and Buzz Aldrin made the first lunar landing on the Apollo 11 mission in July 1969, NASA’s tentative Apollo missions included Apollo 12 to 20, the last mission concluding in December 1972.

During this time, public interest in the moon program was waning with a shift in priorities to other matters: civil disorders, Vietnam, decaying cities, campus unrest and inflation.

Politically, the cause for Apollo’s decline was the detente in American-Soviet relations. In 1961,



NASA file/1971

NASA astronaut Vance Brand may have served as command module pilot on Apollo 18 if the normal crew rotation remained in effect. Brand, a rookie, went on to fly as command module pilot for the Apollo-Soyuz Test Project in 1975 and to command three space shuttle missions including STS-5 in 1982, STS 41-B in 1984 and STS-35 in 1990.



NASA file/1969

NASA astronaut Richard Gordon may have been assigned to command the Apollo 18 mission if NASA had not been forced to cancel three Apollo missions due to budgetary constraints. Gordon was pilot of the three-day Gemini 11 mission in 1966 and command module pilot on Apollo 12 in 1969.

the United States was trailing the Soviet Union in the world’s most widely publicized form of competition -- manned spaceflight. Eight years later, the United States clearly had demonstrated its superiority.

Congressional budget restrictions preceded then-NASA Deputy Administrator George M. Low’s announcement in January 1970 that Apollo 20 was canceled. NASA was forced to economize by re-assigning the Saturn V launch vehicle originally designated for Apollo 20 to the Skylab program, the first U.S. space station. The Apollo 18 and 19 missions would have to wait until a year after the Skylab missions.

Ironically, the announcement was made in Houston during a press interview after the dedication of the Lunar Science Institute near NASA’s Manned Spacecraft Center, now known as the Johnson Space Center.

Another “horror” for space enthusiasts followed in September 1970 as NASA canceled Apollo missions 15 and 19 because of congressional cuts in Fiscal Year 1971 NASA appropriations. Then NASA Administrator Thomas Paine announced that the remaining

missions would be designated Apollo 14 through 17.

Technically, Apollo 18 was never canceled at all, only “renumbered” to be included in the modified schedule.

No crews officially were assigned to the canceled missions. The normal crew rotation had the backup crew for a mission moving up to become the prime flight crew three missions later.

Based on this strategy, the crew of Apollo 18 would have been the backup crew for Apollo 15 with Richard Gordon serving as commander; Harrison Schmitt, as lunar module pilot; and Vance Brand, as command module pilot.

There never was a DoD-dedicated Apollo mission and no astronauts named Anderson, Walker or Grey were ever selected for NASA’s astronaut corps, as the movie depicts, or failed to return from the moon.

The unofficial backup crew of Apollo 16 would have flown on Apollo 19 with Fred Haise commanding, Gerald Carr piloting the lunar module and traveling to the moon’s surface with Haise, and William Pogue piloting the command

More online

To learn more about LRO and the images taken by its wide-angle camera, visit:
www.nasa.gov/lro.

module.

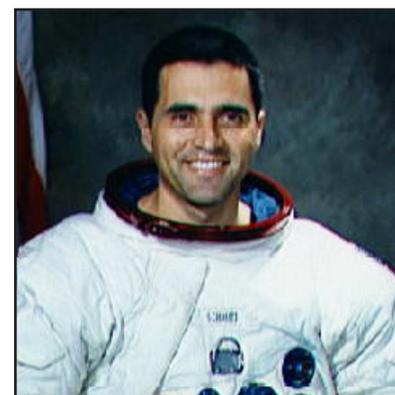
Following the same pattern, Charles Conrad would have served as commander of Apollo 20 with Jack Lousma piloting the lunar module and Paul Weitz staying in lunar orbit aboard the command module.

Just days after the movie “Apollo 18” opened in theaters across America on Sept. 2, NASA announced that the Lunar Reconnaissance Orbiter, or LRO, had captured the sharpest images ever taken from space of the Apollo 12, 14 and 17 landing sites.

The images show the twists and turns of the paths made when the astronauts explored the lunar surface. Remarkably, the tracks laid down by the lunar rover at the Apollo 17 site are clearly visible, along with the last foot trails left on the moon.

“These images remind us of our fantastic Apollo history and beckon us to continue to move forward in exploration of our solar system,” said Jim Green, director of the Planetary Science Division at NASA Headquarters in Washington, D.C.

And for the record, LRO found no evidence of an Apollo 18 mission.



NASA file/1971

The Apollo 18 lunar module pilot might have been NASA scientist-astronaut Harrison Schmitt if the mission had remained on the schedule. Schmitt was reassigned as the Apollo 17 lunar module pilot after his mission was canceled, presumably replacing Joe Engle who was part of the Apollo 14 backup crew.

NASA Employees of the Month: September



NASA/ Tom Farrar

Employees for the month of September are from left, Glen Lockwood, Launch Vehicle Processing Directorate; Elkin Norena, Engineering Directorate; Janice C. Pirkle, Procurement Office; Dawn Trout, Launch Services Program; Ann Williams, Center Operations; Debra Preston, Launch Vehicle Processing Directorate; Joette Feeney, Human Resource Office; Stephen Lander, Information Technology and Communication Services; and Timothy C. Adams, Engineering Directorate. Not Pictured are, Bob Monson, Safety and Mission Assurance Directorate, Maryann Chevalier, Education and External Relations; Amber Hufft, Chief Counsel Office; and Jason Hopkins, 21st Century Ground Systems.

Kennedy Space Center Activities

2011 KSC Fall Flag Football League Standings and Upcoming Schedule

| TEAM | RECORD | POINTS SCORED | POINTS ALLOWED | Week 1 Results (Sept. 13) |
|-----------------------|--------|---------------|----------------|-----------------------------------|
| Stuffers | 0-0 | 0 | 0 | Predators 21, Bacalao 0 |
| Rowdies | 0-0 | 0 | 0 | Stuffers 27, Ram Rod 6 |
| Bacalao | 0-0 | 0 | 0 | Rowdies 12, Crushers 10 |
| Dog and Bone Crushers | 0-0 | 0 | 0 | Week 2 Schedule (Sept. 20) |
| Predators | 0-0 | 0 | 0 | 6 p.m. - Bacalao @ Crushers |
| Team Ram Rod | 0-0 | 0 | 0 | 7 p.m. - Rowdies vs. Stuffers |
| | | | | 8 p.m. - Predators vs. Ram Rod |

Games are played Tuesdays at KARS Park I. For more information, contact Matt Jimenez at 321-867-4509 or matthew.jimenez@nasa.gov.

2011 KSC Tennis League Rankings, Leaders and Upcoming Schedule

Singles

| Group 1 Rankings | Group 2 Rankings | Group 3 Rankings | Group 4 Rankings | Sept. 15 Schedule |
|------------------|------------------|------------------|------------------|----------------------|
| Norm Hosan | Ken Young | Kevin Panik | Joe Zeppuhar | Hosan vs. Wheeler |
| Calvert Staubus | Miguel Rodriguez | Ed Bertot | Laura Scott | Staubus vs. Specht |
| Billy Specht | Bob Ingram | Scott DeWitt | Lashelle McCoy | Young vs. Shutt |
| Alan Wheeler | Art Shutt | Kate Liu | Teresa Bolig | Rodriguez vs. Ingram |
| | | | | Panik vs. Liu |
| | | | | Bertot vs. DeWitt |
| | | | | Zeppuhar vs. Bolig |
| | | | | Scott vs. McCoy |

The league seeks new players and is open to all Kennedy civil service and contractor personnel and dependents. Matches are played Thursdays at KARS Park I and II. For more information, contact Alan Wheeler at 321-867-3565 or alan.j.wheeler@nasa.gov.

Doubles

COURT LEADERS FROM SEPT. 13

| | | | |
|---------------------------|------------------------|----------------------|---------------|
| Court 9 - Art Shutt | Court 7 - Teresa Bolig | Court 4 - Pat Hadden | Court 2 - TBD |
| Court 8 - Scott Schilling | Court 6 - Jeff Address | Court 3 - TBD | Court 1 - TBD |

COURT GROUPS FOR SEPT. 20

| Court 9 | Court 8 | Court 7 | Court 6 |
|-----------------|------------------|--------------|--------------|
| Art Shutt | Ron Feile | Jay Hebert | Amy Lombardo |
| Chip Hooper | Dave Davies | Norm Ring | Alan Wheeler |
| Ray Jones | Miguel Rodriguez | Tom Li | Ted Moore |
| Scott Schilling | Teresa Bolig | Jeff Address | Pat Hadden |
| Court 4 | Court 3 | Court 2 | Court 1 |
| Kate Liu | Laura Scott | TBD | TBD |
| Jane Mosconi | | | |
| Laura Rochester | | | |
| Diane Porter | | | |

The league seeks new players and is open to all Kennedy civil service and contractor personnel and dependents. Matches are played Tuesdays at KARS Park I and II. For more information, contact Teresa Bolig at 321-264-8575 or teresa.e.bolig@nasa.gov.

Looking up and ahead . . .

* All times are Eastern

2011

| | |
|--------------------------|---|
| Oct. 25 | Launch/VAFB, SLC-2W: Delta II, NPP; Launch window: 5:48:01 to 5:57:11 a.m. EDT |
| No Earlier Than Nov. 7 | Launch/CCAFS: Delta IV, WGS 4; Launch window: TBD |
| No Earlier Than Nov. 25 | Launch/CCAFS: Atlas V, Mars Science Laboratory; Launch: 10:21 a.m. EST |
| No Earlier Than Nov. 30 | Launch/CCAFS: SpaceX Falcon 9, Dragon C2/C3; Launch window: TBD |
| No Earlier Than December | Launch/Wallops Flight Facility, Pad 0A: Orbital Sciences Corporation, Taurus II, Launch window: TBD |

2012

| | |
|--------------------------|--|
| Early 2012 | Launch/CCAFS: Atlas V, AEHF 2; Launch window: TBD |
| Early 2012 | Launch/CCAFS: Delta IV-Heavy, NROL-15; Launch window: TBD |
| No Earlier Than February | Launch/Wallops Flight Facility, Pad 0A: Orbital Sciences Corporation, Cygnus/Taurus II, Launch window: TBD |
| Feb. 3 | Launch/Kwajalein Atoll: Pegasus XL, NuSTAR; Launch window: TBD |



John F. Kennedy Space Center

Spaceport News

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