National Aeronautics and Space Administration



Lyndon B. Johnson Space Center

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Nose to the grindstone MARCH 2008 = volume 47 = number 3

On the cover

A low angle view of the nose and underside of the Space Shuttle Atlantis crew cabin was provided by Expedition 16 crew members. Before docking with the International Space Station, STS 122 Commander Steve Frick flew the shuttle through a roll pitch maneuver, or basically a backflip, to allow the space station crew a good view of Atlantis heat shield.



Launch fever

The human exploration of space is a noble endeavor, and the Johnson Space Center workforce plays a key role in the success of the Shuttle, International Space Station and Constellation Programs. NASA Administrator Mike Griffin recently gave a speech entitled "Space Exploration: Real Reasons and Acceptable Reasons" about why we explore space. It's right on the money and worth reading, but every day here at JSC, we face the challenges of executing complex missions and programs in very unforgiving environments. I am continually amazed by the personal sacrifices made to ensure NASA's success. We deal with pressures to deliver the requirements, analysis, design, test results, procedures, hardware, software, the vehicle and, ultimately, a successful mission. Whether this pressure comes from external sources or from ourselves, it's real and it has impacts.

When a vehicle is on the pad, we call that pressure "launch fever." For the most part, everyone is aware of its potential impacts on the decision-making process. But "launch fever" can present itself long before the official countdown begins. We all become personally invested in NASA's missions and programs. Long hours spent solving technical problems, negotiating compromises with our partners or perfecting an operations plan combines with our "can do" attitude to create our own personal "launch fever" in everyday decisions. How do we deal with that pressure? One of the best ways I have learned is to step back and ask a colleague for an opinion. First, take the time to explain to your colleague the choices you face in your assignment. Second, present the options along with the pros and cons. And finally, analyze—don't advocate—a position. Often, just this process will help you to see things more clearly.

In the Flight Crew Operations Directorate, we have the most visible members of human spaceflight missions—the astronauts. Like the rest of the operations team, the astronauts are expected to always make correct decisions. During a mission, it would be exceptionally rare for any individual, in space or in Mission Control, to make a critical decision without "help" from another member of the team. As operators, we back each other up in both the decision-making process and the execution of that decision. Many of you apply this same philosophy every day here at JSC. But when "launch fever" brings pressure to deliver, it's often easier and faster to skip the second opinion. After all, you are the expert and know the job better than anyone else. Most of the time you'll be right, but in our business, most of the time isn't good enough.

Brent Jett

Director, Flight Crew Operations

COMING ATTRACTIONS

from the JSC Joint Leadership Team

By Catherine E. Ragin

he Johnson Space Center Joint Leadership Team (JLT) is looking to reinvigorate the center with a collaborative effort between four JLT sub-teams. In the May *Roundup*, be on the lookout for four articles from these teams, each with their own special purpose in educating the JSC workforce.

The JLT consists of senior civil servant and contractor leadership who work together to enhance communication, continue building relationships and address concerns/opportunities within our community. The unity and diversity within the JLT enable them to maximize benefits from the talents of JSC for NASA. The JLT relationship is reflective of the agency's values of safety, teamwork, integrity and mission success.

Each of the four teams hopes to bring something valuable to the table.

The JSC **Expected Behaviors Working Group** of the JLT focuses on behaviors that enhance the working environment at JSC.

"JSC has a legacy of being an environment where all team members work together to overcome odds and achieve incredible tasks."

Joyce B. Abbey, JSC Expected Behaviors Working Group

"When we have all 15,000 members of the JSC team pulling together, working well, then everyone wins," said Joyce B. Abbey of Science Applications International Corporation, a facilitator for the JSC **Expected Behaviors Working Group**. "(Our goal is) to make life better for all of our employees; to create an environment in which employees feel they can contribute to, add value; can disagree openly and without fear and enjoy working together every day to execute our mission. (We want) to be the best team we can be." Laura Pepper, a manager in the Procurement Policy and Systems Office, is a member of the **Responsibility**, **Accountability and Authority Team**. Pepper notes that their mission involves ensuring successful interaction between civil servants and contractors at all levels.

"The team reviewed and revised a set of charts called 'Contract Relationships: A Working Guide,' that was initially developed within the JSC Office of Procurement. We expanded the original document and incorporated the perspective of contractor employees so that the charts are applicable across the entire JSC community. Our objective was to develop a document that could serve as a working guide for successful contractor/civil servant relationships," Pepper said.

JSC team members will learn "that contract relationships are a unique facet of how we work as a JSC team, and we will discuss the special nature of the government/contractor relationship," Pepper said. In addition, "we know that contract relationships can appear to be complicated and overlaid with constraints and, sometimes, conflicting objectives. We are providing a set of materials as well as training in the SATERN system to help civil servants and contractor employees make sense of these complexities by describing the roles, responsibilities and authorities of the parties."

By understanding and abiding by the unique aspects of contract relationships, we can strengthen the fairness and teamwork spirit at JSC. Training is already available through SATERN, and the charts can be found on the JSC JLT Web site at http://jlt.jsc.nasa.gov/JSCRoles.cfm.

The **Effective Teams** charter is "to explore ways to establish and improve effective team behaviors across the JSC community."

Their input will instruct JSC employees on the many "enablers to make your team more effective, (as well as) recommend E-learning classes in SATERN for all team members related to the enablers," said Barbara Williams, a Safety and Mission Assurance and International Space Station Increment engineer.

The final focus is on the **Closed Loop Communication Team**. They will offer information related to their charter to "explore proactive methods for ensuring closed-loop feedback across JSC at all levels." In addition, the team hopes to communicate the various issue resolution avenues available to JSC employees.

All four missions are vital to the continued success of JSC, and the JLT's efforts to help team members adopt new behaviors and tools will help them reach even newer heights...as we explore deeper into the cosmos.

Spotlight on... Ginger Gibson

Support Services Specialist, JSC Center Operations

How long have you been with NASA? I will have been here 35 years the end of May. I came to work here during Skylab in 1973 and started as a temporary PBX operator. Then I moved on as a secretary in the Construction Branch, in what was then the Plant Engineering Division. In 1991, I was moved up to the directorate office of Center Operations, under Ken Gilbreath. I'm still there today. I coordinate the logistical/Center Operations support for all our special events at the center, plus a jillion other things.



From left to right: Ginger Gibson, former JSC Director Jefferson D. Howell Jr., Mrs. Howell and Joel Walker, director of Center Operations.

What kind of hobbies or interesting things do you do away from the office? I don't manage a lot of time away from the office, but when I can, I do love to travel and try very hard to work in a big European trip every year. I also enjoy an occasional trip to Louisiana for a little gaming, and I go to Las Vegas once a year. I would say I am a very amateur photographer, as I do have a thing for photography and take a lot of pictures (though I don't want to compete with our Photo Lab). I also do some volunteering... Not as much as I used to, but I do find some time to work with Muscular Dystrophy and help with a few of their events every year. For 23 years, I coordinated all of their on-camera phones for the annual Jerry Lewis Labor Day Telethon. I also really enjoy "girlfriend time," and make a couple girl trips every year, along with monthly girlfriend dinners or birthdays.

What is your favorite food? Tex-Mex, of course! I like hot and spicy foods and good ol' country cookin'. I am a southern girl, born and raised in Tennessee, so I like all things southern. You just don't get away from those roots. And, of course, you can't live in Texas and not really enjoy a good steak every now and then.

What is your favorite sport? Football—college football first. I am a big Tennessee and Alabama fan. I root for both, except when they play each other, and then I go to my Tennessee corner and root for the Volunteers. I am also a huge admirer of the late Paul "Bear" Bryant. He was just an amazing coach and man. On the pro side, I am now a Texan fan all the way, with the Green Bay Packers as my next favorite team. I was a Houston Oilers fan back in the 1970s and '80s. I was one of the thousands at the Astrodome in 1978 when the Oilers lost to the Pittsburgh Steelers, and all of us loyal "luv ya blue" fans were there to welcome them home. I really thought the dome was going to collapse around us that evening. Those were the really fun days. Of course, I was much younger then.

What is the last good book or article you read? I really have very little time to read, though that used to be one of my favorite pastimes. I am currently reading "Rocket Man," about astronaut Pete Conrad. His widow, Nancy, sent me a copy of the book this past Christmas. I coordinate the holiday lighting of the trees in the Astronaut Memorial Grove and, every year, Pete's tree has red lights on it. I always send photos to Nancy and let her know that the wish for his tree to be "colorful" is being honored. I have been doing this since we began lighting the trees, so I am enjoying getting to know Pete a little better.

What is your idea of a perfect vacation? I love all of the Caribbean islands...some more than others. I love sunsets and sunrises over a beautiful ocean with a little fishing boat bobbing in the (distance). Sitting on a beautiful beach with a little island music playing in the background, toes in the sand and a tropical drink in my hand is my idea of perfect.



What is the best movie in your collection? I am a Robert Redford fan and have most of his work. "Out of Africa" is certainly one of my favorites, and who doesn't love "Butch Cassidy and the Sundance Kid?" I also like nice romantic comedies like "Pretty Woman," "The American President" and "Sleepless in Seattle."

What is the coolest part of your job? Definitely the people I get to meet and the ones I work with. I have had the honor and pleasure of meeting some really cool and famous people, from movie stars to presidents, and that has been really special. Usually I am so busy putting out fires that I don't really get to enjoy the moment. I also (enjoy) the community folks and public I get to meet during big events like the Ballunar Liftoff Festival. It is rewarding to see how excited folks are to get to come to NASA for the day—something we definitely take for granted.

It is the day-to-day folks that I work with, a great contractor team, that support me for all of the events, and the behind-the-scenes folks that do the actual labor who are the most special. I get a lot of the credit when things go smoothly but, believe me, it wouldn't happen without all those folks in Transportation, Logistics, Security, Grounds, Custodial, Maintenance and Electrical, etc. They all take really good care of me and I know I don't tell them enough how much I appreciate their help and support.

What does JSC mean to you? I have been here most of my adult life and so it means a lot to me. Matter of fact, people tell me I need to "get a life." This really is pretty much my life. I am certainly here more than at home. I feel very fortunate to have worked at such an interesting place with such amazing people, from groundskeepers, to astronauts, to presidents. Every day is interesting and a challenge. I have always thought this was really a great place to work. We do amazing things here with brilliant people, we have a pretty campus, wildlife to enjoy, people in charge who really care about you, so if you have to work, it just doesn't get any better than being here. I am proud to have worked in Center Operations Directorate all of my NASA life and I wouldn't want to work anyplace else.

Ginger Gibson poses with a Rodeo Houston trail rider. Gibson's job as a Support Services specialist allows her to be in the middle of the action when events happen around the center.

We don't launch the shuttle, but we do important things things most people don't think about it.

What do you look forward to at NASA? The next generation of spaceflight and to see the Constellation Program come to life. To see the International Space Station complete and our shuttles safely parked. I want to see our return to the moon and on to Mars. Though I don't plan to be here when that happens, I do hope I am still around to see it.

What is your best memory at JSC? One of my best memories was assisting Walter Cronkite and his wife during the STS-95 mission in October 1998. CNN had him cover the mission (with John Glenn), and I had the pleasure of working with them to make sure all of the details were taken care of. Cronkite has always been one of my heroes. I grew up with him on the evening news, and I watched as the tears welled up in his eyes when President Kennedy was assassinated and also when we landed on the moon. Back in those days, he was the most loved man in America.

What is your favorite quote? "The dream of yesterday is the hope of today and the reality of tomorrow," said by Dr. Robert Goddard. I don't know who said this next one, but it is one I use a lot since it applies so perfectly to my job: "I just play the piano here, I don't know what goes on upstairs."

What would people be surprised to know about you? I am not nearly as tough as most people think. I am really a softie and am very patriotic. I cry at the National Anthem; anything red, white and blue; sad movies; funerals of people I hardly know; and I can tear up at a cartoon.

What is a quality you most admire in people? Being able to make a decision and stand by it, and loyalty.

Who are your heroes? I have several folks I admire. Walter Cronkite is one. The seventh president, Andrew Jackson, or "Old Hickory," since he was known to be a loyal friend and a fierce enemy (and he is from Tennessee, which makes him special). Also, Eleanor Roosevelt, Oprah Winfrey, Maya Angelou and Madeleine Albright. Some of the great women at NASA: the late Helen Ragsdale, Ginny Hughes and Marilyn Bockting were all early mentors for me. And Estella Gillette, who retired not long ago, falls into the category of women I admire.

USRP gives students an opportunity to reach for the stars

By Jenna C. Mills

raduating in 2005 with a degree in mechanical engineering from the University of North Dakota, Branelle Cibuzar knew exactly where she wanted to work. Ever since she was a little girl, she dreamed of working for NASA.

With the help of the Undergraduate Student Research Project (USRP), that dream came true. Today she works for NASA as a Habitability Hardware project manager, where she works with Crew and Thermal Systems and the Life Support and Habitability Group at Johnson Space Center. Specifically, she is involved in the development, testing and certification of flight hardware.

Looking back on her internship, Cibuzar knew it was a great stepping stone to what she does today. Her former mentor, Jenny Mitchell, got a glimpse of Cibuzar's skills when the intern was assigned to projects that included developing a roadmap for the decommissioning of the Hubble Space Telescope.

"I think it's beneficial to NASA to have a program that is dedicated to giving students that are motivated specific research tasks," said Mitchell, Crew Exploration Vehicle Integrated Flight Dynamics deputy system manager. "Branelle was outstanding, and I wish we could have hired her in my organization!"

Since 2001, USRP has given internships to hardworking undergraduates who wish to gain experience with the technical degrees they are seeking. When the program was first initiated, it provided more than 100 students every year with work at NASA centers agencywide. Starting this year, the program is managed by JSC and will expand to more than 300 students, making it the largest agencywide internship program that focuses specifically on science and engineering.

"These students are of the highest caliber," said Bob Musgrove, deputy director of the JSC Education Office. "The program allows NASA a chance to recruit talented college

> USRP intern Branelle Cibuzar works with an experiment aboard the C-9 plane.

students from top-ranked universities and minority-serving institutions nationwide. This internship experience typically improves GPA, enhances their overall education experience, confirms career choice and gives (them) a competitive edge when competing for a job upon graduation."

Like the well-known Cooperative Education Program, this comprehensive program also seeks undergraduates enrolled full-time in any accredited college or university and encourages students getting technical degrees to seek opportunities that align with NASA's mission. Up-andcoming sophomores, juniors and seniors are encouraged to apply. Once accepted, they will devote either a 15-week semester or a 10-week summer to an internship at a participating NASA center. Students work 40 hours a week under the supervision of a NASA mentor, who will guide them through the duration of their internship.

Cibuzar is not the only one who is thankful for the opportunities she obtained through the program. Erin Reed and Lauren Spencer are also full-time employees at JSC, thanks to the USRP. Reed graduated from the University of





Colorado—Boulder in May 2006 with a degree in aerospace engineering sciences. As an intern, she was assigned to the Zero-G Two-Phase Active Thermal Control System and now works as an Attitude Determination Control officer for NASA.

"I am responsible for 'flying' the International Space Station on a day-to-day basis by monitoring and controlling our motion control system," said Reed. "Without a doubt, I would do this (USRP) over again to be where I am today."

Lauren Spencer now works for Jacobs Technology. She received her degree in chemistry with a minor in environmental science from Texas A&M University in May 2007, and she knew she wanted to gain work experience with NASA before graduating. After doing some research, she stumbled across the program. At JSC, Spencer was assigned to work in the Astromaterials Research and Exploration Science Directorate, where she spent time examining a Martian meteorite using an electron beam to investigate evidence of biogenic activity, or evidence of life on Mars.

"Her research led to several new discoveries, which have been written and submitted for presentation at the upcoming March Lunar and Planetary Science Conference," said Dr. Everett Gibson, former mentor and senior scientist. "Without her hard work and research abilities, our understanding of the unique Martian meteorite would not have been recognized."

As a new hire for Jacobs, one of her main responsibilities will be post-flight analysis of the shuttles upon their return to Earth. Any possible damage to shuttle parts will be evaluated by Spencer in the lab with the same electron beam she learned to use during her internship.

USRP intern Erin Reed sits inside the Building 9 International Space Station mock-up.

David Westheimer was the Thermal Control System Development manager when he mentored Erin Reed. He found out about the program when he received an e-mail asking if anyone was interested in mentoring a student. After his experience with Reed, Westheimer believes the USRP was a great opportunity for his team. Not long after Reed's stint, word got out that his group was a great place for students, and they started getting a regular flow of interns.

This program gives students the chance to put the knowledge they've learned in school to work, and many students have taken that opportunity since 2001. The USRP is a valuable program tool for the future of the NASA workforce. A growing number of students are accepted every year.

Anyone interested in learning more about the USRP can find additional information by visiting http://education.nasa.gov/usrp. Managers or prospective mentors interested in acquiring a student for a 10- to 15-week session can contact Bryan Dansberry in the JSC Education Office.



Lauren Spencer, a USRP intern, is hard at work in a laboratory at JSC.

All aboard for STS-123: the station goes global

By Brandi Dean

Space Shuttle Endeavour's next flight to the International Space Station will truly be an international endeavor.

"This is the first flight where we actually have all the partners," said Dana Weigel, the lead station flight director. "It's not just 'a Japanese flight,' or 'a Canadian flight.' This flight truly is the first time that it requires every single partner actively participating to make everything work. I think that's a great milestone."

Topping the list of milestones is the delivery of part of the Japan Aerospace Exploration Agency's (JAXA's) module, marking the beginning of the agency's presence on the station. The Japanese Experiment Logistics Module, Pressurized Section—called the JLP—is really just the warmup act for JAXA. It will contain critical avionics and serve as a storage area for experiment materials. At 14.4 feet in diameter and 12.8 feet in length, it is the smaller of two pressurized Japanese modules. Combined with other elements, they will make up Kibo, the station's Japanese complex, named after the Japanese word for hope. Kibo's main facility and its robotic arm are scheduled to launch on the following shuttle mission, and a "front porch" that will allow astronauts to expose experiments directly to space will be delivered later.

But small or not, what the module represents is big.

"Many people have worked many years to come to this point," JAXA astronaut and Mission Specialist Takao Doi said. "With this mission, the real Japanese manned space program can begin."

Doi will be the first person to venture inside the module, which will be installed on the zenith, or upper, side of the Harmony Node installed last year. He said he's already thinking about how he'll mark the moment. His commander, Dominic Gorie, said he's looking forward to hearing it.

"That's going to be a very exciting, rewarding part of the flight," Gorie said. "To see Takao's face, knowing that he's a JAXA astronaut (and) delivering their first piece of hardware, is going to be really exciting."

But all that excitement will come early on in the mission. On the first spacewalk, Mission Specialists Rick Linnehan and Garrett Reisman will go outside to prepare the module for installation, and Doi will install the module from inside using the shuttle's robotic arm.

"That will kind of be the big climax at the beginning, but we'll be done by the end of flight day 4," Lead Shuttle Flight Director Mike Moses said. "We still have 12 more days to go."

Twelve days—not to mention four more spacewalks—is more than some missions get, in total. This flight is the first to go into the mission with plans to take full advantage of the Station to Shuttle Power Transfer System. Other shuttle flights have been able to use the system to glean extra power from the station and extend their flight, but the decision to do so was always made after the shuttle was in orbit.

Endeavour is launching with the expectation of staying in space for 16 days, and extra days are always set aside in case weather or a technical problem delays landing.

"We have the potential to be on orbit for a very long time," Moses said. "When we were building our timeline, we were talking about flight day 14—that's usually landing day. That's undocking day for me. My teams are going, 'What? We're still in orbit?"



Dominic Gorie, commander



Gregory H. Johnson, pilot



Rick Linnehan, mission specialist



Garrett Reisman, mission specialist

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After getting the JAXA module installed, the crew's attention—at least as far as spacewalks go—will turn to the Canadian Space Agency's newest contribution to the station, the Special Purpose Dexterous Manipulator. Dubbed "Dextre" by a Canada-wide naming contest, the robot, with its two small robotic arms, will attach to the station's robotic arm, Candarm2, and will allow astronauts to replace hardware outside the station without doing a spacewalk.

It's a complicated piece of hardware, and because it is launched in several pieces, some assembly will be required.

"It's going to take a few spacewalks to put that thing together," Gorie said. "It's quite a Tinkertoy project, but much more complicated than what we're used to as children."

Dextre will launch as two arms, two wrist end effectors and a main body attached to a pallet. The crew will take the pallet out of the shuttle's cargo bay and attach it to the station. Then, after the JLP work is done during the early portion of the first spacewalk, Linnehan and Reisman will spend the remainder of that spacewalk beginning the Dextre assembly. All of the second spacewalk and part of the third will be devoted to finishing the assembly.

"It's funny—we're the IJ/A mission, for Japanese/American," Moses said. "But there should be a C in our title, too. If you look at our mission, Dextre requires the biggest chunk of spacewalk time. Literally, from the day we dock until flight day 9, we're doing something with Dextre almost every day."

The final two spacewalks of the mission will come on flight days 11 and 13. The fourth spacewalk will be used to replace a remote power control module and test a shuttle tile repair material. The repair material test was originally scheduled for *Discovery's* mission last October, but it was rescheduled so that problems with the station's solar arrays could be addressed. The goal is to complete this test before Space Shuttle *Atlantis* flies to the Hubble Space Telescope in August, in case a tile repair is needed on that mission. Unlike missions to the space station, *Atlantis*' crew members wouldn't be able to wait on the station for another shuttle to bring them home if *Atlantis* was damaged. On the fifth spacewalk, Robert L. Behnken and Mike Foreman will store on the station the boom that attaches to the shuttle's robotic arm for heat shield inspections. The boom is being stored on orbit since the next shuttle will not have enough room to carry both the boom and the larger JAXA module in the cargo bay.

Gorie and Pilot Gregory H. Johnson will perform *Endeavour's* inspection on flight day 12, before the boom is stowed, rather than after the shuttle undocks, as is normal. That's just one of the many robotic arm tasks set for the crew to do inside the station when no one is outside on a spacewalk. Of the 16 days *Endeavour* will be in space,

robotics work is planned for 12—in addition to the inside work needed to outfit the JPL and the outfitting work planned for Columbus, the European laboratory which will have been on orbit only a few weeks. Plus, Reisman will have some moving to do. He'll be staying on the station after the shuttle leaves, trading places with European Space Agency astronaut Leopold Eyharts.

Still, everyone agrees that all the hard work will be well worth it.

"Everyone's unbelievably excited," Moses said. "Their hardware has been ready to go for years, and we're now finally going to be able to launch it. Everybody says, 'Wow, you guys have a busy mission... and thank you very much."





Robert L. Behnken, mission specialist



Mike Foreman, mission specialist



Takao Doi, mission specialist

Astronauts Michael J. Foreman and Robert L. Behnken (partially obscured), both STS-123 mission specialists, are about to be submerged in the waters of the Neutral Buoyancy Laboratory near Johnson Space Center. Foreman and Behnken are attired in training versions of their Extravebicular Mobility Unit spacesuits.

Securing our future

HSPD-12 ENTERS A NEW PHASE

By Catherine E. Ragin

f you thought sifting through your recent life history to complete Homeland Security Presidential Directive (HSPD)-12 background checks was tedious, take heart. The finish line for full implementation of HSPD-12 is nearing.

HSPD-12 mandates that all government agencies must implement security controls and measures under the direction of the National Institute of Standards and Technology. Issued Aug. 27, 2004, HSPD-12 was hailed as the answer to audits showing that the government lacked adequate network security for Information Technology (IT) operations. In addition to stringent IT security, physical security elements at the center will also be vastly improved.

"Having successfully completed the background investigation phase of HSPD-12, we are now working to provide HSPD-12-compliant badges to all employees," said Tom Miglin, Johnson Space Center and White Sands Test Facility (WSTF) HSPD-12 Implementation deputy manager and account authorization official. "Once the badge issuance phase is complete, work to modify systems to allow the use of the badge for both electronic physical access and IT access will be the priority."



Technical Support specialist Linda Dreisbach takes a photo for a badge.

In the next few months, "more and more people will be getting the new badge, with completion of the re-badging by June 30," said Lynn Vernon, HSPD-12 Implementation manager. "After that, the current OneNASA badges will no longer be valid."

According to Miglin, the center and WSTF fell a little behind in HSPD-12 enrollments early on, but in looking at recent metrics, that delay is being made up for as we head toward a successful, on-time completion of HSPD-12 re-badging.

To ensure that the deadline is met, the cooperation of JSC team members is requested during this important phase.

"JSC is progressing; however, response has been slow and we need everyone to respond in a timely manner to the requests for scheduling their enrollment, as well as the notification for their badge issuance," Vernon said.

The culmination of "out with the old and in with the new" will be prevalent in different ways as the center approaches the deadline.

"Users will begin to see changes in two main categories in the coming months. First, users began receiving their new HSPD-12 badges in February. This will continue up to the agency deadline for issuance of new badges: June 30," Miglin said. "Second, users will see some changes in IT. As JSC and WSTF IT applications are integrated into the new HSPD-12 infrastructure, users will start using NASA agency systems to request accounts rather than local systems."

A truly unified agency approach is being used to meet HSPD-12 requirements.

"Also, in preparation for the migration of JSC and WSTF's MS Windows active directory to an agency system, many users at JSC may see their login ID change as we move to an agency login, as opposed to a JSC/WSTF login," Miglin said.

controlled access



A mock up of the future Smart Card badges to be used by NASA and other federal agencies.

identification

security controls *authentication* protection

> Smart Card badges TECHNOLOGY

safety Deace of mind *increased capabilities*

electronic fingerprints

Not only will NASA use an Agency Directory, or Cyber Identity Management System, but in 2009 NASA "will start implementing the capabilities to utilize the new badges for authentication to the desktop," Vernon said.

The new Smart Card badges will usher in a new landscape to JSC. Immediately upon receiving the new badges, those with Controlled Access Area (CAA) privileges, such as in Mission Control, will begin using the badges for access.

"In addition, during the badge issuance process, these individuals will be required to select a PIN for the card and a PIN for physical access. Once we have confirmed that the required individuals have received their new badge, we will begin the process of configuring CAA access for two-factor authentication (something you have, the badge; and something you know, the PIN) to access the facility," Vernon said.

These new measures will offer unprecedented security and protection to NASA facilities and resources, which should give employees working at JSC peace of mind.

"With HSPD-12, increased security comes in several levels," Miglin said. "First, users are already experiencing the increased validation of an individual's identity with background checks, two forms of ID and electronic fingerprints. Next, increased physical security based on the new badge will start this year. Finally, the use of the Smart Card badge for more secure IT access will be phased in starting early next year."

For JSC team members, the real sweat and tears in complying with HSPD-12 is nearly complete. What will happen next is putting into practice all that we have been preparing for: a more secure and protected NASA center.

In addition to all the hard work, time and toil we put into making spaceflight successful, this too is something we can be proud of accomplishing.



JSC team member Betty Benjamin gets an autograph from Astros pitcher Woody Williams.



Ty Wigginton, Astros third baseman; Cosmo, JSC's mascot; Brett Dolan, Astros announcer; Front row—Kaz Matsui, Astros second baseman; Woody Williams, Astros pitcher.



The Astros players were very popular during their visit to the Building 3 Starport Café, where they met with many baseball fans.

Space Center Roundup

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Catherine E. Ragin Editor Perry Jackson Graphic Designer

Houston Astros

In what has become an annual tradition, the Houston Astros visited Johnson Space Center on Jan. 18. The group included Ed Wade, general manager; Kaz Matsui, second baseman; Ty Wigginton, third baseman; Woody Williams, pitcher; and Brett Dolan, announcer. The first part of the tour included a stop at the Saturn V building, where the Astros spoke with Milt Heflin and Patrick Buzzard about the future of NASA, including the Constellation Program, the Ares rocket and Orion crew vehicle. They were then greeted by NASA astronauts Mike Lopez-Alegria and Mike Massimino, as well as Japanese Aerospace Exploration Agency astronauts Soichi Noguchi and Koichi Wakata. The astronauts spoke with the players about upcoming shuttle missions and the expansion of the International Space Station, including the additions of the Columbus and Kibo modules. After the tour, the Astros proceeded to Building 3 to greet JSC team members and sign autographs. The Astros began their spring training on Feb. 28.

Soichi Noguchi (left) and Koichi Wakata (right), Japanese Aerospace Exploration Agency astronauts, join hands with Astros second baseman Kaz Matsui inside the Saturn V visitor complex.



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