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MARSHALL STAR

Serving the Marshall Space Flight Center Community

June 15, 2006

'It's Our Time'

An interview with Michael Rudolphi, director of Marshall's Engineering Directorate

David Higginbotham/MSFC

Michael Rudolphi, director of the Engineering Directorate, sees engineering as a partner with Marshall programs and projects. His organization is excited about making progress along the path to returning to the moon and going on to Mars, and is committed to the success of its partners.

How would you characterize engineering today, and where would you like to be one year from now?

Today, we are reshaping engineering in the NASA model of engineering excellence, which brings us back to engineering the fundamental responsibility and accountability for the technical content of projects and programs. We're figuring that out. We're trying to see how we do that — how we mold that and bring it down through the organization. It's going to take some time for folks to adjust to the change and understand it. At the same time, we're trying to build ourselves into an engineering organization that covers the waterfront of all the new projects we've got going. We're adjusting ourselves in those two areas. We are in the hard work and discovery mode.

See Rudolphi on page 4

Deputy Administrator Shana Dale speaks with Marshall employees about Exploration work

By Sheri Bechtel

NASA Deputy Administrator Shana Dale spoke to a packed house of Marshall Center team members Friday, June 9, about the agency's Exploration initiative and goals.

Dale was joined by Marshall Center Director David King for the employee all-hands briefing at the Activities Building 4316. Other Exploration officials on hand included Doug Cooke, deputy associate administrator for Exploration Systems; Jeff Hanley, manager of the Constellation Program; Skip Hatfield, project manager for the Crew Exploration Vehicle at NASA's Johnson Space Center, Houston; and Steve Cook, director of NASA's Exploration Launch Projects Office at Marshall. The briefing was broadcast center-wide by Marshall Television.

King welcomed the deputy administrator and visitors, and discussed the exciting work that lies ahead for the Marshall Center: the upcoming July launch of Space Shuttle Discovery; Marshall-led science missions, including NASA's Chandra X-ray Observatory and the Gravity Probe B mission; and Marshall's role in the design and development of NASA's two new launch vehicles — the Crew Launch

See Dale on page 2

Dale

Continued from page 1

Vehicle and Cargo Launch Vehicle.

Dale then presented an overview of Marshall's roles and responsibilities in supporting NASA's exploration goals and the Vision for Space Exploration. The Vision is the agency's ambitious plan to return to the moon and travel to Mars and destinations beyond — extending a human presence throughout our solar system.

She acknowledged the continued NASA and mission support provided by the Marshall Center and its employees and contractors.

Doug Stoffer/MSFC

Shana Dale talks to Marshall employees.

Dale also recognized community and congressional support of the agency. She spoke of NASA's commitment to 10 healthy centers, with each center's unique capabilities contributing to a new human spaceflight capability to help ensure our nation's economic and national security and growth for generations to come.

Drawing on Marshall's long history of launch vehicle and propulsion system development work, Dale discussed Marshall's selection to develop the Crew Launch Vehicle, which will carry the Crew Exploration Vehicle to space, and the Cargo Launch Vehicle, which will boost large hardware and heavy supplies to space. The launch vehicles, Dale said, will play a significant role in NASA's journey back to the moon and on to Mars.

Doug Cooke spoke briefly about NASA's Exploration Systems Architecture Study. Based on the agency's technical heritage, the study set the transportation architecture for the crew exploration and launch vehicles and outlined workforce transition plans to accomplish NASA's exploration initiatives. He also outlined NASA's next step — to establish the architecture for the agency's lunar surface and robotic lander activities. The architecture, Cooke said, will help determine requirements for robotic lunar missions and result in additional center work assignments to support these efforts.

Jeff Hanley highlighted specific work already under way to support the Vision. He cited recent spark igniter and 40K injector hardware hot-fire testing being conducted at Marshall and wind tunnel testing at NASA's Langley Research Center in Hampton, Va.

Skip Hatfield discussed the Crew Exploration Vehicle, NASA's next-generation, crew-piloted spacecraft. The project is led by the Johnson Center. Expected to launch no later than 2014, the vehicle can carry up to six astronauts and transport pressurized cargo to the International Space Station. Marshall will support the Crew Exploration Vehicle effort in the development and testing of the launch abort system, and development of the spacecraft adaptor, which integrates the crew and service modules with launch vehicle and engine.

Also speaking at the all-hands was Steve Cook, who explained Marshall's role as the lead for the design and development of NASA's crew and cargo launch vehicles. He discussed the project-supporting roles of Marshall's field center partners. Cook also congratulated the Marshall team on its accomplishments in such a short time — from the successful completion of design reviews to contract awards to early testing of actual subscale hardware.

Friday's visit of the deputy administrator and other senior NASA officials followed the June 5 centerwide NASA employee update, delivered by Administrator Michael Griffin, who outlined the exploration program and the work assigned in support of the Vision for Space Exploration.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

ET-118 arrives at Kennedy Space Center

NASA/Michoud Assembly Facility

The space shuttle external tank designated ET-118 departed NASA's Michoud Assembly Facility in New Orleans on June 5 and arrived at the Kennedy Space Center in Florida on June 9. ET-118 will be mated with Space Shuttle Atlantis for the STS-115 mission, currently targeted for August.

Scratching the surface

Marshall materials engineer testing novel 'nanolaminate' technology

Editor's Note: This is the second in a Marshall Star series about key projects now in development by the Advanced Materials for Exploration Activity, part of the Marshall Center's Science and Mission Systems Office.

David Higginbotham/MSFC

Dr. Martin Volz holds a thin film of titanium oxide.

By Rick Smith

No scientist is ever content with the surface of things. Just ask Marshall Center materials engineer Dr. Martin Volz. He's investigating innovative new materials technologies that could forever alter the surfaces of spaceflight hardware and systems destined for space.

A 15-year Marshall Center science veteran, Volz is developing and testing "nanolaminates," a relatively new class of atomic-level coating materials that can approach theoretical limits for durability and strength. These coatings potentially could provide next-generation rocket engines and flight hardware with protective coatings that are far stronger and more durable than current, state-of-the-art materials.

Volz's work is part of the Advanced Materials for Exploration Activity within Marshall's Science and Mission Systems Office. The coordinated research efforts answer NASA's call for new technical materials and manufacturing solutions to support the pursuit of long-term space exploration.

Nanolaminates and other molecular-level composites represent a true paradigm shift in advanced materials development, Volz said. The concept is fairly simple — Marshall employees and contractors simply can look at their identification badges for an example of a laminate at work. That clear, plastic seal over the badge protects the material underneath from wear and tear.

For years, engineers have similarly added thin layers of metal alloys or ceramics to hardware, tools and building materials to improve their strength or resistance to heat.

"The result is often a more durable surface material," Volz said, "but one that still may be restricted by the limitations of the coating's own physical properties. Some metals and compounds improve heat resistance, others increase strength, but few do both without some trade-offs in operational margins, limiting their value to aerospace applications."

Today, researchers are scaling their research from the micron to the atom, developing high-tech laminates from copper, nickel and other metals and compounds that can be applied in layers mere molecules thick.

And at this level, Volz said, scientists have discovered that a nanolaminate's properties can be superior to the properties of the individual materials from which it is made. A nanolaminate made from ordinary copper and nickel, for example, may be up to 100 times stronger than either metal in its bulk form. That increase is the result of the nano-thickness of each applied layer, which is smaller than the so-called "dislocation length" required for structural defects to spread.

In terms of aerospace technologies, the increased strength of these materials could add years and numerous flight missions to rocket engines and reusable booster elements, which typically are degraded over time by the high stress of launch and flight to orbit.

Another property that can be strongly modified in a nanolaminate is thermal resistance. A high density of interfaces between dissimilar materials prevents heat transport and results in extremely low thermal conductivity. In time, Volz said, such nanolaminates could help make rocket engine components — preburners, injector plates, thrust nozzles and more — far more resistant to thermal degradation, another factor in limiting engine lifespans. And once these next-generation rockets get human explorers where they're going, he noted, nanolaminates applied to building materials

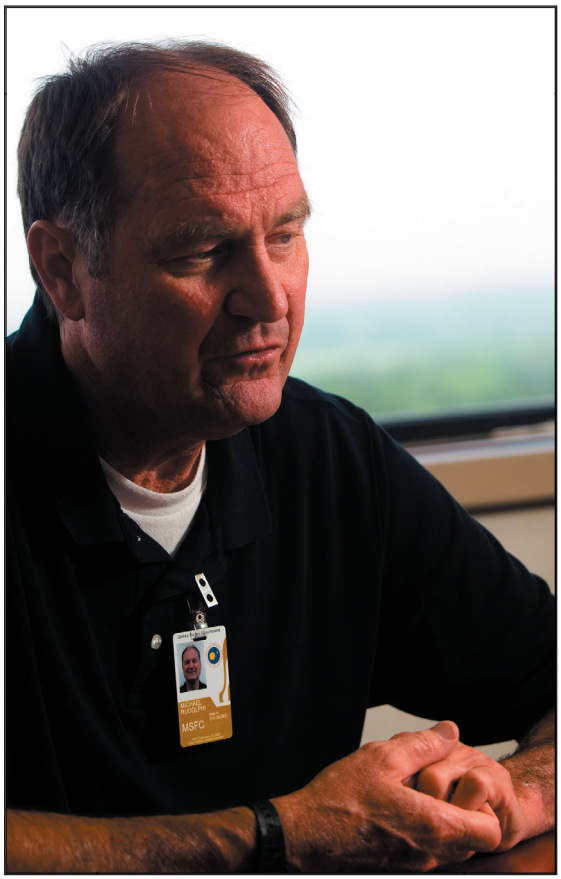
See Nanolaminate on page 6

Rudolphi

Continued from page 1

A year from now, I'd like to see us have the engineering excellence model in our mind and understand that the accountability for programs and projects rests within the engineering institution at Marshall. That we'll have ourselves balanced out in terms of understanding the work we have on our plate. And we'll be well on the way of doing the work. We're in the middle of great times — we literally have more on our plate than we can say grace over.

I coined a couple of phrases for engineering — don't know whether we invented these, or I heard and stole them from somebody. But we're moving into an era where engineering is a partner with the projects and programs. That's a very important word — partnership. We want to be in partnership with the folks we work with. In the past, we have typically characterized ourselves as a service organization. I'm very much opposed to us being a service organization. We're a partner. A partner means we are committed to the success of our partners. A service organization would mean we do a job for someone and their success depends upon how well they use the services we provide. I don't see us that way. I see us as being absolutely committed to the success of our projects. We partner with them so we're there a long time before they know they need us.



David Higginbotham/MSFC

Rudolphi believes the strength of an organization is how much the people take care of each other and care about the work they are doing.

This is our time. We hear all these stories from the old-timers — talk about the job they did back when they were doing this kind of work for the first time. We're writing books and stories about those times. And by golly, this is our time, our time to excel, and our time to do what we had dreamed about and read about in history books about how other people had done things. This is the time where we are doing what we know how to do well. And 20 years from now, people are going to be writing stories about what we did. I really believe that. This is a fantastic opportunity upon us.

What are the major challenges facing engineering as the directorate continues to support existing missions and prepares to support the new programs?

The major challenges for engineering come in about two or three different flavors.

The first is balancing ourselves to handle the work before us. We have pockets of engineering that are being overworked, and we have some areas of engineering that could take on some more work. We've got to find the right balance to properly support the space shuttle, International Space Station and the Crew Launch Vehicle, along with the missions and activities that are going on in the Science and Mission Systems Office. We've got to make sure we have all that work covered while working with other centers and our contractors.

We've got to shift our way of thinking somewhat. We're now in the environment where we're being encouraged to do what typically in the past we asked prime contractors to do. We're going to have to shift our mind focus — our understanding of what it takes to do a job is going to change.

We're going to be the real doers. Our folks are going to have to take on a mindset of understanding what the work is and what it takes to really execute the work, as opposed to watching a prime contractor do those jobs. That's going to be a real interesting morphing of our organization to take on those jobs. I believe our team is ready to do it. In a lot of ways, in the Crew Launch Vehicle project, they are already doing that. It's a big job and it's going to be interesting to see us continue to mature ourselves to take on those big jobs.

Along that line, the Engineering Directorate is the biggest organization on center. We're roughly two-thirds of the size of the center. I'm a strong believer that the strength of an organization is how much they take care of each other and care about the work they're doing. We've got some real safety and environmental issues that are in need of improvement. We're going to have to get on top of those issues as we go about doing our mission work.

We want to make sure we are successful and make sure we carry the health and safety message down through our folks. We have work to do in adjusting our thinking to consider that health, safety and the environment are as much a part of our mission as designing a new vehicle.

Not because of laws and not because of rules, but because we care about each other and we want our people to come and go in a healthy environment, free of the potential safety hazards.

See Rudolphi on page 5

Rudolphi

Continued from page 4

What is the greatest strength of the Engineering Directorate?

By far, we have an extremely talented workforce capable of working miracles.

What are the current functions being performed in support of the Space Shuttle Program and returning the shuttle to flight?

As we all know, the Space Shuttle Program is divided into five projects at Marshall — the solid rocket motor, solid rocket booster, the main engine, the external tank and the propulsion systems engineering and integration. We have folks dedicated to each of those jobs. Clearly, the task that's taken the greatest amount of effort and deserving of the most support is getting the external tank ready to go again. We lost some foam on STS-114, so we have made some serious changes in the external tank. We have removed big chunks of foam, and we're investigating how we can get more of that off the tank.

Getting the external tank ready to return to flight continues to be our focus, although we do have serious effort going on in the other projects as well. We have had some trouble with some of our electronic components in the fuel gauges in the tank. We have made some serious gains in our understanding of those pieces of hardware by some of the work that's done down in our Instrument and Payload Systems Department. The teams have just done a great job on some nanofocus X-rays where we have learned a lot about those pieces of hardware.

What are some of the most unique facilities and capabilities of engineering that support NASA as a whole?

We have unique test facilities throughout Marshall. The nanofocus X-ray down in Building 4487 is a real neat piece of equipment for doing examinations of very small parts, without tearing them apart. We recently witnessed a 48-inch solid rocket motor test in our test area. We are building a unique Impact Test Facility. The list is long and distinguished in terms of unique facilities and unique capabilities we're really privileged to have here. We have one of the few hot gas facilities in the world, where we can expose flight hardware to flight-like environments. We're really proud of that. There are so many capabilities here at Marshall that do not exist elsewhere in the country. We're talking about getting the big vibration test stand ready for the Crew Launch Vehicle and that's a one-of-a-kind facility in this country, an outstanding facility.

What do the engineers at the Marshall Center need to know as we approach this new era of space exploration?

It's our time. It's our opportunity to build a vehicle that's going to fly to the moon and Mars in the true tradition of what we read about and hear about and watch on the History Channel. Our folks need to know they are a part of that vision; they're a part of that dream.

I have this thing called "Six Pretty Good Ideas" that I use quite a bit. One is that we've got to continue to improve all our capabilities. Our engineers need to know they need to continue to keep their saw sharp, keep learning, keep challenging themselves so we can step up for the job we have to do.

A clock with "Six Pretty Good Ideas," and the motto, "It's Our Time," hangs above Rudolphi's office door, reflecting the approach the Engineering Directorate is taking and the opportunity that lies ahead in helping NASA return to the moon.

How do you define success as the director of the Engineering Directorate at the Marshall Center?

I think success comes primarily in the success of the mission that we take on. For example, we're going to get ready to fly the Oxygen Generation System on the space station. It's already manifested on the payload for the next shuttle flight, STS-121. There will be a lot of tickled people around this space center when they turn it on and it starts generating the oxygen for the space station. We built that piece of hardware, put it together, put it up there and when it starts working that will be success.

When we fly the shuttle hardware, and all pieces work the way we said they were going to work — like we planned, that's success.

Success is having our people chosen to work on agency projects. For example, we do quite a bit of work with the Office of the Chief Engineer. Having our people be the folks that they come to for expertise, that's success. Having our people recognized by other agencies or by other NASA centers is success. We've had story after story about how our folks have been recognized as the expert or the place to go if you want to learn about something.

One of the things I'm really most proud of is having people want to be like us. We've been fortunate enough to be the engineering model used at other centers. That defines success to me.

Having people come to work everyday and go home without an accident — that's really success.

See Rudolphi on page 7

NSSTC to host guest science lecturer Dr. Wes Huntress on June 21

Dr. Wesley Huntress, director of the Geophysical Laboratory of the Carnegie Institution in Washington, will visit the National Space Science and Technology Center in Huntsville June 21, as part of the center's Distinguished Lecture Series.

Huntress, NASA's associate administrator for space science from 1993 to 1998, will speak at 11 a.m. in NSSTC Room 4078. His address, "NASA: The Tail of the Dog," will examine the relationship between the agency's science mission and the Vision for Space Exploration — the ambitious effort now under way to return explorers to the moon and extend a human presence to Mars and across the solar system.

The lecture is free and open to employees and contractors at the National Space Science and Technology Center and the Marshall Center, commercial partners and university students and instructors.

Huntress, a 29-year NASA veteran, joined the agency in 1969 as a research chemist at the Jet Propulsion Laboratory in Pasadena, Calif. He became a leading expert in planetary exploration missions, and served as the laboratory's Solar System Exploration Division director from 1990 to 1993. As NASA associate administrator, he oversaw all agency programs related to astrophysics, space physics and planetary exploration.

Today, Huntress leads the work of the Geophysical Laboratory, the private, non-profit organization founded in 1902 to conduct basic research and advance education in Earth sciences.

He also sits on the NASA Advisory Council, which provides agency leaders with an independent team of expert consultants in the areas of exploration, science, aeronautics, human capital and finance.

Huntress earned his bachelor's degree in 1964 in chemistry at Brown University in Providence, R.I. He earned a doctorate in 1968 in chemical physics from Stanford University in Stanford, Calif.

The Distinguished Lecture Series, begun in May and hosted by the National Space Science and Technology Center and its participating organizations, will bring monthly speakers to Huntsville from industry, academia, private research facilities and government agencies around the nation.

According to NSSTC Executive Director Marty Kress, the lecture series is designed to enhance the NSSTC's position as a leading national research facility, and foster strong, mutually beneficial partnerships between NASA and science technology-driven organizations. Future speakers will address topics as far-ranging as global weather systems, advanced robotics, unpiloted aerial vehicles, lunar science and new missions to study the sun-Earth environment.

For more information about Huntress' lecture, call the National Space Science and Technology Center at 961-7000.

Nanolaminate

Continued from page 3

and shielding equipment on the moon or Mars could help protect explorers from space radiation, solar flares and other threats.

More intensive study of precision nanolaminate layering could even help NASA scientists develop advanced aerobraking systems — a fuel-efficient way to achieve orbit quickly when approaching spacecraft partially descend into the uppermost atmosphere of a planetary body.

Advanced research also could lead to better thermal protection systems for crew vehicles. A nanolaminate can be tailored during application to have much lower thermal conduction across the layers than along the layers, Volz said. Thus, nanolaminate thermal coatings could help divert the immense heat of atmospheric entry, buffering it across vehicle surfaces instead of permitting transfer of thermal energy through the surface — a serious threat to craft and crew.

Currently, Volz is applying nanolaminates using chemical vapor deposition. This process enables surface layering by applying measured condensation of superheated gaseous vapors to add a variety of nanolaminates to small metal and glass chips. Vapor deposition is a technique that has long been used to apply thin films of ultra-strong alloys or ceramics, such as the diamond coatings used to make cutting tools, that are stronger and more durable.

Next, Volz will produce larger material samples for mechanical testing, to acquire further data about how nanolaminates improve strength and durability.

Volz, whose current research activity will end in September, is hopeful that NASA's mission to extend a human presence across the solar system will encourage further investigations into practical aerospace applications of the research.

"Look at any scientific publication, even look at the current world news, and you'll find that nanotechnology research is growing exponentially," he said. "Everyone is racing to deliver the next big breakthrough before someone else gets to it. This is a tremendous growth market for the aerospace industry, and a potentially unprecedented materials resource for NASA exploration missions."

For more information about the Advanced Materials for Exploration Activity and novel nanolaminate development at Marshall, visit http://ame.msfc.nasa.gov .

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

Rudolphi

Continued from page 5

Do you sense a feeling of excitement as the Engineering Directorate transitions to support the new exploration work assigned to Marshall?

Absolutely. Excitement isn't the word. Giddiness might even be the right word to use. All of us from the lead engineers to the very folks that are putting the ink on the paper and doing the analysis are excited. They're ready to do the work, they know how to do it and they can do it. They are excited about making progress along the path to returning us to the moon and going on to Mars. You'll see it by the spring in their step, see it by the way they attack their work and problems. They are not easily frustrated. They just keep working on it.

What do you want the people of the Engineering Directorate to know about your philosophy of management and leadership?

I want them to know I believe in the "Six Pretty Good Ideas." I'm a strong believer in accountability for the mission.

I'm committed to the health and safety of our folks. An accident, from my own experience, can be very traumatic to a family. It can cause families to do things they wouldn't do under normal situations. It can cause families to fall apart. The stress of an accident can be financially devastating and emotionally devastating. So, I strongly feel we've got to take care of each other. It's important as an engineering organization and a center that we understand our work environment and take care of things that encroach upon it that can cause our work environment to be unsafe.

I also have strong feelings about professional and emotional safety. I feel everybody at this space center can make a contribution to what we're doing, regardless of their background. I believe that we have got to continue to foster a safe, emotional environment where people feel free to speak up and talk about things. We've got to have a safe professional environment where we respect the professional opinions of all the workers. Everybody can contribute to the technical solutions that we have to deal with.

We have to continue to grow. My principal in high school had a sign above his desk. It was a painting of a bowl of apples and the caption under it read, "When you're green you're growing, but when you're ripe you're just a little bit rotten." So, we've got to stay in the green, we've got to stay curious, we've got to stay in the growing stage or we lose out. When you stop growing you fall behind. Believe me there are countries that are on our heels that are chasing us, that want to be like us. So we've got to stay sharp and stay growing.

We've really got to be aggressive and make a lot of progress as we start working on these new projects. It's going to be fun. I've been working with NASA since 1988, and I have enjoyed every day. This is the most exciting, fun job. It's our time to get to work. Think about that.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue is 4:30 p.m. Thursday.

Miscellaneous

1986-1995 Mustang 65mm throttle body, $75; many other parts available. 679-1232

Two sailboards, Bic and Mystere; many sails, 3 harnesses, many spares, sell together or separate. 534-1461

Valhalla Masonic Garden family lot, 4 plots, Lot 97, Block C, Section 3, units 1-4, $7,200. 256-881-9421

Whirlpool washer, $95; Whirlpool dryer, $95. 837-6649

Accordion, Club 111M, Diatonic CF, purchased in Germany, $400. 509-2536

IPAQ 3835 hand-held PC, Windows Mobile OS, cradle, charger, stylus, software, manual, $130. 256-318-2158

Custom-built smoker, 250-gallon tank on 14' trailer, two wooden storage boxes, $3,500. 520-2327

Hybrid day lilies, different varieties, $5 to $40. 828-9651

GE stereo television, 25", with remote and instructions, $30. 881-7805

Sofa, light blue w/Oak trim, $100. 256-694-1217

JVC dual cassette deck, $25; RCA VCR, $20; Fisher, AM/FM receiver, $25. 256-533-9356

Trampoline, 14' diameter w/pads and access ladder, JumpKing Model JKTR14, $150. 256-232-1940

Innotek SD-2100 in-ground Pet Fencing System and Lightning Protection System, $150. 325-0085

Ashley Millennium, coffee and two end tables, gold metal frame w/glass tops, $200. 503-5115

Epiphone Casino guitar, 2003, w/hardshell case, sunburst finish, $550. 684-0910

iPod Remote Interactive dock DS-A1, works with Onkyo stereo/home theater systems, $75. 256-828-1234

Sony MHC-RXD10AV Mini Hi-Fi component system, w/five surround speakers, 300W RMS, $50. 850-4185

Dagger Medieval whitewater kayak, $200. 348-8640

2005 Easton Stealth bat, 32"/24 oz., still in wrapper. $85. 256-653-1973

Steely Dan/Michael McDonald tickets, July 10, Nashville, Starwood, reserved seats. 859-6647

Huskey mix puppies, 3 girls, 1 boy, blue eyes, born 1/22/06, all shots, $35 each. 714-6347

Universal home gym, 12+ stations around steel frame w/two weight stacks totaling 350 lbs., $400. 256-783-4850

White crib and changing table, $40; white metal toddler bed, $15. 533-0665

MemoryStick, 1GB card, $48; Canon PIXMA ip1600 printer, unused. $29. 655-1986

2 treo 12's, 2.5 farad capacitor, 980 watt amp and box, $400. cell# 410-0359

Vehicles

1999 C280 Mercedes, white w/beige interior, sunroof, all records, $9,900. 468-3803

2002 Nissan Pathfinder, 2WD, automatic, 63K miles, Bose 6-CD changer, rack, running boards, bronze, $14,900. 880-9025

1997 Maxima GLE, 196K highway miles, maintenance records, new Michelin tires, $5,500. 508-6840

1978 Corvette, silver w/red interior, $15,000. 852-5628

2000 Hyundai Sonata, white, 4-door, loaded, 123K miles, $4,500. 256-527-2661

2002 Lexus ES300, silver, gray leather interior, sunroof, 6-CD, warranty, 66K miles, $22,000. 256-430-0220

1994 Ford Crown Victoria, white, $1,300. 684-5712

2002 Honda Civic LX, black, automatic, 85K miles, a/c, all-power, CD, tinted windows, $9,300. 256-603-3231

1998 Chevrolet Cavalier, 4-cylinder, burgundy, cruise, keyless, a/c, all-power, CD/radio, 153K miles, $1,790. 256-603-3558

Villian II ski boat, motor, $3,000. 679-0073

Wanted

2004 Toyota Sienna. 539-5495

Pressure treated lumber for deck; will remove old decks for lumber. 256-874-7874

Roto-tiller. 256-776-1230

Used Motorola V60 cell phone (Cingular/AT&T wireless), (TDMA compatible). 885-4095

Volunteer opportunities are available at the U.S. Space & Rocket Center

A Volunteer Opportunity Fair will take place in the front lobby of the U.S. Space & Rocket Center on Saturday, June 17, from 9 a.m. to 12 p.m. Volunteer opportunities are available for those 16 years and older. If you are unable to attend the fair, contact Jermie Howell at 721-7109 for details.

Marshall's Jim Snoddy recognized as 'Engineer of the Year'

By Bill Hubscher

Jim Snoddy, manager of the upper stage engine in NASA's Exploration Launch Projects Office at the Marshall Center, has been named "Aerospace Engineer of the Year" by the Alabama-Mississippi section of the American Institute of Aeronautics and Astronautics.

Snoddy received the award June 1 at the institute's annual banquet in Huntsville.

The American Institute of Aeronautics and Astronautics is the nation's largest society devoted to the advancement of aviation, space and defense. The award is presented to an aerospace engineer and AIAA member in recognition of extraordinary technical ability, creativity, or leadership in the practice of his or her profession.

Snoddy was named manager in 2006 of the upper stage engine of the Crew Launch Vehicle, which will carry astronauts into orbit, and the Earth Departure Stage of the Cargo Launch Vehicle, which will boost heavier elements of vehicles and lunar habitats beyond Earth orbit and to the moon. The pair of launch vehicles, the core of NASA's exploration initiative, will replace the space shuttle as America's flagship exploration vehicles in the decade to come. As manager, Snoddy is responsible for the design, development, test and evaluation of the upper stage or J-2X engine.

"It is an honor and a privilege to accept this award," Snoddy said. "To me, this award signifies that our industry and Marshall Center peers recognize how much hard work the launch vehicle team has done over the last year to support the agency's continuing mission of returning mankind to the moon and eventually to Mars. I'm also proud to be part of the team returning Marshall to its heritage of developing large propulsion systems."

Alan Lowrey

Marshall engineer Jim Snoddy, left, accepts the "Aerospace Engineer of the Year" award from the Alabama-Mississippi section of the American Institute of Aeronautics and Astronautics at the group's banquet June 1. Presenting the award is outgoing chapter president John Hall.

Prior to his current position, Snoddy was chief engineer in the Exploration Launch Projects Office, responsible for developing the systems engineering foundation for NASA's crew and cargo launch vehicles. In 2005, he led the crew launch vehicles assessment for NASA's Exploration Systems Architecture Study.

A native of Rogersville, Snoddy earned a bachelor's degree in engineering in 1987 from the University of Alabama in Huntsville. He lives in Madison with his wife, Cynthia, and their four children.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

Marshall Center's Honor Awards Day ceremonies to be held June 21

The Marshall Center will hold its annual Honor Awards Day ceremonies in Morris Auditorium on Wednesday, June 21.

Marshall will recognize employees who have made significant contributions to America's space program during the past 12 months or longer.

There will be two ceremonies, the first at 10 a.m. for the NASA Honor Awards, and the second at 2 p.m. for the Marshall Center Honor Awards.

NASA Associate Administrator Rex Geveden will present the awards with Marshall Center Director David King.

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