NASA’s Marshall Center and Jet Propulsion Lab agree to collaborate on technologies for space exploration

By Lynnette Madison

A collaborative agreement between two NASA leaders in space transportation brings one step closer the next generation of space vehicles that will explore the solar system and beyond.

The agreement — signed by Marshall Center Director Art Stephenson and Dr. Charles Elachi, director of NASA’s Jet Propulsion Laboratory in Pasadena, Calif. — forms a “cooperative and independent relationship” that will infuse the research and technology capabilities of the two Centers.

The four-fold agreement addresses avionics, propulsion, independent rendezvous and docking of spacecraft, and technologies that will reduce the risk

Wondering about WebTADS?

New time-keeping system takes guesswork out of getting paid

Wondering about WebTADS?

Many Marshall employees have misconceptions about how to use the WebTADS time-keeping system.

It was designed to allow employees a quicker, more accurate way of tracking their time and attendance using the Web.

The current WebTADS system began as WebTADS 1.0 for Marshall employees only.

Other NASA Centers looking for a Web-based time and attendance system saw how effective Marshall’s WebTADS worked, and wanted to participate in the system as well. When WebTADS 1.0 was standardized across the Agency, it became WebTADS 2.0 — a “souped-up” version of the former system. It’s tighter on the rules, taking the guesswork out of time entry.

The system now is known simply as “WebTADS.”

The WebTADS system is user friendly. Users log in, add a labor or leave code, enter time, update the timesheet and log out. Timesheets are approved at the click of a button. Error messages inform the user if he or she has problems with a time entry. The error messages are descriptive, enabling the user to fix the problem easily.

Training sessions and labs have been conducted across the Marshall Center since May. The system is now the only time-keeping system in use at Marshall. WebTADS conveniently comes at a time when NASA Administrator Sean O’Keefe has declared an end to the timekeeper function, telling Agency employees that they will be responsible for entering their own time.

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of human and unmanned space exploration.

“The two Centers bring complimentary strengths to this alliance,” Stephenson said. “By forming this strategic partnership, we can develop and validate the essential technologies for advanced space transportation.”

Stephenson cited Bob Sackheim, Marshall’s assistant director and chief engineer for space propulsion systems, for his work on the Alliance agreement.

Sackheim and Art Murphy, manager for NASA Inter-Center Technology at the Jet Propulsion Laboratory, worked out details of the agreement over 18 months.

NASA Centers have always worked together. However, by formalizing an agreement such as this one, Marshall and JPL develop a stronger tie – setting action items, metrics for success, and establishing a tracking system for projects, according to Sackheim.

Part of the agreement is that Marshall and the Jet Propulsion Laboratory center directors will meet twice annually to track the efforts of the alliance.

“Many of the technologies needed by both Centers have common elements that make partnering efficient and productive for NASA,” Stephenson said. He sees the partnership as an example of NASA Administrator Sean O’Keefe’s ‘One NASA’ vision. “We hope it will be a model for other Centers.”

“It’s a case of the whole – the alliance — is greater than the sum of the parts,” agreed Sackheim. “This agreement will help us to better meet NASA’s Strategic Plan.”

Marshall is responsible for developing technologies for advanced space transportation systems that will be significantly safer and more economical than today’s launch vehicles. Engineers and scientists at Marshall are also researching technologies to decrease the trip times and reduce the weight of the propulsion systems required for interplanetary missions and journeys beyond our solar system.

The Jet Propulsion Laboratory, managed by the California Institute of Technology, leads NASA in the robotic exploration of the solar system. It continues to advance technology with new instruments and computer programs to help spaceships travel farther and telescopes see farther.

The integration of the Centers’ capabilities will provide NASA with an aligned approach to in-space transportation technologies and the development of scientific flight missions. It will also allow the incorporation of the Jet Propulsion Laboratory’s expertise in unmanned guidance, navigation and control with the Marshall Center’s capabilities in rendezvous and docking systems that support human exploration. The Centers also will cooperate to enable a more comprehensive assessment and understanding of the risks related to the development of new space transportation systems.

Stephenson said the alliance addresses three of the most important goals in NASA’s Strategic Plan: Propulsion, Avionics and Autonomous Rendezvous and Docking.

“This alliance will further advance our Alternate Access to Space program, allowing the International Space Station to be less dependent upon the Russians for resupply and crew escape,” Sackheim said.

Stephenson hopes the alliance between Marshall and the Jet Propulsion Laboratory will expand to include Glenn Research Center, Stennis Space Center, Ames Research Center and Langley Research Center – all part of NASA’s Strategic Partnership Centers of Excellence Plan.

The writer, employed by ASRI, supports the Media Relations Department.

### WebTADS

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As users were introduced to the system’s editing feature, common misconceptions of time and attendance rules surfaced. Here are some common misconceptions about using WebTADS.

- **Misconception:** Employees whose pay is a GS-14 or above may not earn compensatory time off or overtime.

- **Correction:** Compensatory time off is allowed for employees whose pay exceeds the hourly rate of a GS-10, Step 10. Marshall’s policy is that, for these positions, compensatory time will be given. Overtime pay is allowed only when authorized by the Office of the Chief Financial Officer. For employees whose pay does not exceed a GS-10, Step 10, overtime pay is allowed. These employees may earn compensatory time in lieu of overtime only when it is specifically requested.

- **Misconception:** Employees on a compressed work schedule tour may alter their “off day” within a given pay period.

- **Correction:** The bi-weekly tour of duty for employees on a compressed work schedule is fixed. This means that the off day is fixed. At the request of the employee or the discretion of the supervisor, the off day may be changed. The change in off day constitutes a new work schedule – which means approval must be performed prior to the pay period of the requested change.

- **Misconception:** The basic hours for a first forty tour of duty may be worked over any number of days in workweek.

- **Correction:** Employees on a first forty tour may work their basic forty-hour (first forty) week over no more than six days in a seven-day period.

Users may take advantage of an extensive on-line help feature in WebTADS to answer questions about time and attendance policies as well as the functionality of the new system. Users may simply download the documents to their machines. Information on Marshall’s time and attendance regulations may also be found in the Marshall Policy Guidance (MPG) 3550.1 and 3600.1a documents located at the Inside Marshall Web site. Additional questions or suggestions regarding WebTADS can be submitted to payroll_office@msfc.nasa.gov.
Readdy to lead NASA’s space flight program

from NASA Headquarters

NASA Administrator Sean O’Keefe has selected William F. Readdy as NASA’s associate administrator for space flight.

A veteran Space Shuttle pilot commander and U.S. Navy test pilot, Readdy replaces Frederick D. Gregory, who was confirmed recently as NASA’s deputy administrator.

Readdy is now in charge of NASA’s Human Exploration and Development of Space Program. Since July 1998, he has served as space flight’s deputy associate administrator overseeing NASA’s Marshall, Kennedy, Stennis and Johnson Space Centers. He also managed top-level policy planning and management of the Space Shuttle, International Space Station, Space Communications and Space Launch Vehicles programs.

“Bill is a distinguished astronaut, naval aviator and leader,” O’Keefe said. “He’s played an important role in NASA’s safe and successful human space flight operations. He was the first manager of Space Shuttle Program Development charged with upgrading the Shuttle fleet. His experience with next-generation technology will be vital as the agency looks toward the future of human space exploration and reusable launch vehicles.”

A veteran of three space flights, STS-42 in 1992, STS-51 in 1993 and STS-79 in 1996, Readdy has logged more than 672 hours in space. During STS-79, Readdy was commander of the Shuttle Atlantis as it docked with the Russian space station Mir. He joined NASA’s Johnson Space Center in Houston in 1986 as a research pilot and instructor at Ellington Field. Readdy was selected as an astronaut in 1987 and has served in a variety of NASA technical and management positions at Johnson and at NASA Headquarters in Washington.

“Bill and I have worked very closely and effectively together for many years, as both astronauts and managers,” Gregory said. “We share a passion for flight safety and the advancement of human space flight. This is a challenging time for NASA, but Bill is no stranger to challenge. I know he’s up to the task. I’m excited for Bill and the future off this Agency.”

A retired Naval Reserve captain, Readdy was a 1974 Naval Academy graduate. Following fleet training in the A-6 “Intruder,” he joined Attack Squadron 85 aboard the U.S.S. Forrestal deployed to the North Atlantic and Mediterranean from 1976 to 1980. He’s a distinguished graduate of the U.S. Naval Test Pilot School and served as project test pilot and instructor on a variety of programs.

Readdy also served on board the U.S.S. Coral Sea before joining NASA. He logged more than 7,000 flying hours in more than 60 types of fixed wing aircraft, helicopters and has more than 550 carrier landings to his credit.

His honors include the Legion of Merit, the Distinguished Flying Cross, Navy Commendation Medal, the Navy and Armed Forces Expeditionary Medals and various unit and service group awards. He also has received several NASA awards for safety, distinguished service, outstanding leadership, exceptional service, meritorious service as well as three NASA space flight medals. Additional information on Readdy is available at http://www.jsc.nasa.gov/Bios/htmlbios/readdy.html

Marshall Star member averts dangerous situation by reading Center’s safety bulletin

from the Industrial Safety Department

A Marshall team member avoided a dangerous traffic accident with his personal vehicle, which could have resulted in serious injury or a fatality.

At work, he read the recent Marshall Center Safety Bulletin about stress cracks in Ford truck wheels. He doesn’t have a Ford truck, so he didn’t think much more about it.

A few days later, he had a flat tire on his 1994 Dodge Dakota pickup. He removed the wheel and flat tire to make a repair. He was thinking about how shiny and new the outside of the wheel looked. Then, he remembered the safety bulletin about Ford truck wheels. He began checking the inside of the wheel. He immediately spotted cracks on the inside of the wheel. They looked both serious and dangerous.

This was a factory stock wheel. He checked the other wheels and found three of the four wheels had stress cracks on the inside.

A wheel breaking apart at high speeds could be disastrous – possibly resulting in loss of vehicle control and striking other vehicles.

No matter what brand vehicle, make sure you check, or ask a mechanic to check, the inside of the wheels for stress cracks during a routine tire change.
Disability employment opportunities Web site online
from the Equal Opportunity Office

President Bush expects the federal government to be a model employer of people with disabilities.

If the federal government is to recruit and retain a diverse, well-qualified workforce focused on results for the American people, then employment opportunities must be increased for people with disabilities.

In conjunction with this initiative, a new Web site has been added as a one-stop source of information for applicants, managers and human resources professionals. The site includes information about telework, recruitment, training managers about reasonable accommodations, and guidance for people with disabilities to apply for federal jobs.

People with disabilities collaborated in the development of this site and, as a result, it is comprehensive and user-friendly.

Go to http://eo.msfc.nasa.gov/fwd.html to find the disability site at http://www.opm.gov/disability/

Motorcycle course offered for experienced riders
from the Industrial Safety Department

The Safety Health and Environmental Training Committee and Employee and Organizational Development Department are coordinating enrollments for the Experienced Rider Course offered by the Alabama Motorcycle Safety Program.

The $75 course will be from 8 a.m.-5 p.m. Oct. 12, at Drake Technical School on Meridian Street in Huntsville. The registration fee includes the cost of printed materials.

Two instructors from the Alabama Traffic Safety Center will conduct classroom and hands-on training activities using courses developed by the Motorcycle Safety Foundation. Classroom sessions and range exercises will cover risk management, proper riding gear, motorcycle controls, braking, cornering and swerving.

No written examination is required to earn credit for this course. For an online course description, go to http://www.montevallo.edu/atsc/motorcycle/detail.shtml.

Participants must be at least 16 years old. Those under 18 must have a parent or legal guardian sign a waiver prior to starting the course. Riders must have:
• At least one year of riding experience and traveled more than 1,000 miles.
• Valid driver’s license with motorcycle endorsement (bring to class).
• Street-legal motorcycle able to pass an instructor’s inspection, which includes tires and wheels, controls, lights, oil, chassis and kickstand (bring to class). For an online inspection checklist, go to http://www.montevallo.edu/atsc/motorcycle/erctclock.shtml.

• Proper motorcycle insurance.
• Department of Transportation-approved helmet, long sleeves and pants, full-fingered gloves, eye protection, boots or shoes that cover the ankles, and rain gear if the weather is threatening (bring to class).

Those who participate for the full course will receive a completion card. Many insurance carriers offer reduced premiums to operators who prove proof of successful completion of a motorcycle safety course.

To enroll, contact Pat Schultz, CD20, by Oct. 2, at pat.schultz@msfc.nasa.gov, 544-7559 or fax 544-4809.

Class size is limited to 12 riders. If an additional 12 participants wish to enroll, a second classroom session can be scheduled for the evening of Oct. 11, from 6-10 p.m. with range exercises conducted Oct. 12.

NASA history online
“The Space Shuttle Decision: NASA’s Search for a Reusable Space Vehicle,” by T.A. Heppenheimer offers an excellent historical account of the political decision to build the Shuttle. It is available on the Web at http://history.nasa.gov/SP-4221/sp4221.htm or in hard-copy form at http://history.nasa.gov/gpo/order.html

Marshall SLI propulsion team visits Stennis
Space Launch Initiative propulsion team members from the Marshall Center gathered in August with SLI team members at Stennis Space Center, Miss., to learn more about facility operations and testing processes in preparation for upcoming component testing. The group also visited the E-1 Test Facility at Stennis.
During a routine inspection in June, cracks were discovered in flowliners of piping, in the aft compartment of the Shuttle orbiters, which feed liquid hydrogen to the Space Shuttle Main Engines. This prompted grounding of the Shuttle fleet until the cause of the cracks could be found and a repair or replacement process implemented.

Beginning in early July, a large number of Marshall Center team members, many from the Engineering Directorate, focused on understanding this problem and developing a repair technique that would enable a quick and safe return to flight for the Shuttle fleet.

Team members from all disciplines — engineers, technicians, management-support assistants, procurement and administrative support contributed to the effort. Thousands of work hours of development, testing and analysis were expended to gather information to understand the cause of the cracks. Team members spent long days, nights and weekends searching for, and developing, answers.

On Aug. 17, after the cause had been identified and a repair process developed and certified, the Engineering Directorate management team called a “time out” to recognize the outstanding team of individuals that had contributed to resolution of this issue.

At a gathering in the Marshall Picnic Area, team members were presented with Engineering Excellence Awards, which recognize the personal dedication, technical expertise and exceptional performance of each member of this team.
2001-2002 NASA Professional Development Program graduates honored

**NASA Headquarters release**

On July 25, 17 NASA employees were celebrated for their successful completion of the NASA Professional Development Program.

In his address to the graduates, NASA Administrator Sean O’Keefe reminded the class of their responsibility to mentor and share what they learned this past year. “Part of your leadership responsibility now is to bring the energy and enthusiasm you have to help others improve,” O’Keefe said.

O’Keefe cited the framework of Secretary of Treasury Paul O’Neil, and noted that NASA leaders need to 1) create an atmosphere of respect and professionalism, 2) give people the resources required to carry out their task, which means being honest with ourselves and making the tough judgment calls and, 3) notice and recognize employees accomplishments, and when people are not successful, help them learn from their mistakes.

This year’s elected class speakers were Linda Parish, NASA Headquarters; John Childress, Dryden Flight Research Center; and Robert Savage, Goddard Space Flight Center, who shared their reflections of the year and their efforts to identify and move toward results.

In her closing remarks, Chris Williams, the program director, noted that the effectiveness of the Professional Development Program is determined by how well it enables participants to realize “measurable results that matter to the American people.”

**Job opportunities**


Consumers can calculate home energy costs with an interactive Web site at http://www.homeenergysaver.lbl.gov/ and enter your zip code. This will compare energy costs of an average home in your zip code area with one that is energy efficient. You can customize your home to obtain a close match with your yearly energy bill. The site also suggests upgrades to your home to conserve energy. One comparison shows a 43-percent savings in energy bills of an average home in Huntsville.
Center Announcements

Hispanic Heritage Month celebration is Monday

To celebrate Hispanic Heritage Month, a “Fiesta in the Courtyard” will be from 11 a.m.-1 p.m. Monday in the Bldg. 4200 courtyard. The celebration will feature music by “The Latin Rhythms Band,” special guest guitarist and vocalist Jose Cordero and Mexican food. For more information, call Elia Ordonez at 544-6658 or Guadalupe Gonzalez-Hall at 961-4819. In case of rain, the celebration will be Sept. 19.

Marshall Continual Learning broadcasts conclude Oct. 1

The broadcasting of Marshall Continual Learning Channels 13 and 14 ends Oct. 1. All training materials will continue to be available at the Self-Study Learning Center, Bldg. 4200, Room G-13. For more information, call 544-8291 or e-mail self.study@msfc.nasa.gov

Shuttle Buddies to meet Sept. 23

The Shuttle Buddies will meet at 9 a.m. Sept. 23 at Mullins Restaurant on Andrew Jackson Way in Huntsville. For more information, call Deemer Self at 881-7757.

Classic car show Oct. 19

The U.S. Space & Rocket Center in Huntsville will host its third-annual classic car show from 8 a.m.-4 p.m. Oct. 19. Classic car owners wanting to participate should call 721-7183 to register.

Ski/snowboard trip set for January

Ski and snowboard trip to Steamboat Springs, Colo., is set for Jan. 19-26. Participants who sign up are eligible for a chance at free skis or a snowboard. For more information, call Jerry Maxwell at 544-1954 or go to www.steamboatbound.info

Huntsville Genealogical Society meets

The Huntsville Genealogical Computing Society meets at 7 p.m. Monday at the Huntsville-Madison County Public Library auditorium on Monroe Street. Phillips O’Connell will be the guest speaker. The meeting is open to the public.

Environmental seminar open

An environmental awareness seminar and training program will be from 8:30 a.m.-9:30 a.m. Wednesday in Bldg. 4203, Room 5002. Those in the engineering professions are urged to participate. Eugene Harm of United Space Alliance at Kennedy Space Center, Fla., will be the guest speaker. One of the seminar themes is for engineers to seek green alternatives even when environmental exemptions and permits are available.

Chemical inventory training

Mandatory training will be conducted for all civil service and contractor personnel involved in preparation of chemical inventories from 9 a.m.-10 a.m. Oct. 2, Bldg. 4200, Morris Auditorium. Registration begins at 8:30 a.m. For more information, call David Glover at 544-4772. Inventory reprints can be picked up at the training session or afterward at Bldg. 4249, Room 103.

‘Attracting teens to science’ study to be presented Monday

Dr. Debbie Treise from the University of Florida College of Journalism and Communications will present the results of a study on using the Internet to attract teens to science. She will host discussions of her study at 1 p.m. Monday, Bldg. 4201, Room 505 and at 2:30 p.m. at the National Space Science and Technology Center, Room 2096. Treise is a leading researcher in the field of science communications through the Internet and a charter member of the Science@NASA Science Communications Team.

Combined Federal Campaign kick-off is Sept. 26

John Stallworth, a Huntsville businessman and recent inductee into the National Football Pro Hall of Fame, will be the keynote speaker for this year’s Combined Federal Campaign at the kick-off at the Marshall Center. The event is at 10 a.m., Sept. 26, Bldg. 4200, Morris Auditorium.

Travel voucher payments to be temporarily suspended

Since the Marshall Center will be moving to a new NASA-wide accounting system in the upcoming fiscal year, travel voucher payments will be suspended after Sept. 25. The cutoff date for foreign travel is Sept. 20. Payments will resume sometime after Oct. 21. As soon as employees return from temporary duty, they should submit travel receipts for approval and payment routing. The goal is to have every voucher received by Sept. 24 paid prior to closing out fiscal year 2002. For more information, call 544-7312.

MTC September Closed Hi-Lo Tournament set for Saturday

MARS Tennis Club members wanting to participate in the MTC September Closed Hi-Lo Tournament should call Bernice Bowling at 544-0453. Warm up begins at 8 a.m. Saturday with play beginning at 8:30.

Dr. Adolf Giesen to speak Friday

The National Space Science and Technology Center will host Dr. Adolf Giesen at 8:30 a.m. Friday, at 320 Sparkman Drive in Huntsville, in Room 1010, for a presentation on Compact high-power CW solid state laser. Giesen is head of the Laser Development and Laser Optics Department at the University of Stuttgart, Institut fuer Strahlwerkzeuge, Stuttgart, Germany.

Ballroom dance lessons available

MARS Ballroom Dance Club lessons are held each Monday in September. Cost is $7 per person. Intermediate lessons are from 7 p.m.-8 p.m. with beginner lessons from 8 p.m.-9 p.m. at St. Stephens Episcopal Church on Whitesburg Drive in Huntsville. For information, call Woody Bombara at 650-0200.
**Employee Ads**

### Miscellaneous

- Kenmore washer/dryer, $100; Maple table & 4 chairs, $75; two 100-watt speakers, $50. 883-0057
- IMac Indigo Lexmark Z23 printer and UMAX Astro scanner, $600. 256-656-5552
- Fiberglass truck (F150) lid for long bed pickup, red, best offer. 852-5010
- Oak table w/6 chairs, $75; couch, rust colors, $20; couch, tan/blue/maroon, $30. 233-4450 lv. msg.
- Dual reclining couch, navy blue, synthetic leather. $450. 205-908-7972
- Drill press bench type with 4" vice, $40. 881-7953
- Rotary reel 20' mower, self-propelled, two grass collectors, can deliver, $300. 325-6000
- Bach -Stradivarius trumpet, $1,300; Dremel saw, $60; Grumman canoe, $275; Apple Quadra 605, make offer. 851-8085
- Sears chipper/shredder, 8HP, $350; concrete mixer, 2.5 cu. ft. metal tub, $200. 837-6776
- Sharp upright vacuum cleaner w/attachment, deluxe, 12AMP, new bags and filters included. 256-881-5736
- Polaroid Fun Flash 6x4 digital camera, 640x480, 2MB memory, adapter, serial connection included, $50. 895-9843
- Spinet piano and bench, $850; method books & other music sets, $10 per bundle. 859-8489
- Bose 901 speakers, amp, stands, oak finish, $1,000. 922-1424 nights
- Hotpoint washer, $50; Hotpoint dryer, $50; kenmore dryer, $50; Dorn size refrigerator, $40. 539-0123
- Boy's bedroom suite, dark finish, full headboard, footboard, rails, chest, dresser w/mirror, metal bottoms, adjustable height, $20 each. 533-4824
- Painted wooden corner shelves, $15. 533-4824
- Cherry changing table, $350. 830-4522
- Oak table w/6 chairs, $75; couch, rust painted wooden corner shelves, $15. 533-4824
- Two seated go-cart, 5HP; $150; treadmill, $100. 256-498-5089 lv. msg.
- Washer, dryer, and microwave, $250. 216-847-5873

### Wanted

- Grass collector for JD rider, part or whole system. 325-6000
- Aquarium stand for 30-gallon long tank; dog Igloo for large dog. 325-5602
- Outdoor dog kennel in good condition. 830-2001
- Three tickets to Alabama vs. Vanderbuilt game. 961-9650
- Two tickets to Alabama/Auburn football game. 883-2757
- Gas-powered electric generator. 885-4095
- Two or three Alabama vs. Southern Miss. Football tickets for Sept. 21. 256-325-0350
- Wet suit for children, child large and adult small sizes. 837-8003

### Free

- Concrete slab all sizes, for landscape fill and erosion control. Call Keith/880-6335

### Found

- Silver bracelet, north parking lot of Bldg. 4200. Call 544-6685 to claim/identify.