



# MARSHALL STAR

Serving the Marshall Space Flight Center Community

April 8, 2004

## Teams from New Orleans, North Dakota State University take home wins in NASA's 11th annual 'Great Moonbuggy Race'

by Jack Robertson

A team from New Orleans captured victory in the high school division Friday, while a team from North Dakota State University in Fargo led the field in the college division Saturday during NASA's 11th annual "Great Moonbuggy Race" at the U.S. Space & Rocket Center in Huntsville.

New Orleans Area Schools' Team One broke the two-year winning streak of a Missouri high school to capture the 2004

title. The New Orleans team topped 21 other teams representing high schools from 10 states with a winning time of 4 minutes, 14 seconds.

Vehicles powered by two team members — one male and one female — raced one at a time over a  
*See Race on page 4*

## Marshall team members receive Professional of the Year awards during TEAMS Week 2004

By Sanda Martel

The Marshall Center's Steve Beale, Tony Lindeman and Andy Prince received the Huntsville Association of Technical Societies (HATS) Professional of the Year award April 1 at the organization's annual dinner.

HATS is a nonprofit association that brings together Huntsville area technical and professional societies dedicated to the advancement of science and engineering.

Professional of the Year awards are

*See Awards on page 2*



Photo by David Higginbotham/MSFC

### O'Keefe addresses TEAMS

NASA Administrator Sean O'Keefe delivers the keynote address during the annual Von Braun Memorial Dinner last week during TEAMS Week 2004 in Huntsville. For more photos from the technology conference, see page 3.

## NASA Shared Services Center proposal team to visit Marshall

from the Human Resources Department

Marshall civil service employees are invited to meet Tuesday with the team developing a proposal for federal employees to be the service provider for the NASA Shared Services Center.

Lisa May, of Code S at NASA Headquarters in Washington, D.C., is leading the Quality Efficient Services Team (QUESTeam), which is developing the Most Efficient Organization proposal.

The QUESTeam will meet from 1-2

*See Proposal on page 2*



NASA/Renee Bouchard

### Marshall's Geveden, scientists discuss Gravity Probe-B

Marshall Deputy Director Rex Geveden, second from left, listens as Kip Thorne, right, discusses the upcoming Gravity Probe-B launch, set for April 17. Geveden is program manager for the mission to test two predictions of Albert Einstein's general theory of relativity. Thorne is Feynman professor of theoretical physics at the California Institute of Technology in Pasadena. Other participants in the Washington press conference last week included Anne Kinney, left, director of astronomy and physics at NASA Headquarters; Francis Everitt, center, principal investigator for the experiment, of Stanford University in Stanford, Calif.; and Brad Parkinson, second from right, co-principal investigator for the experiment, also of Stanford.

# NASA partners with Department Of Energy for space exploration

NASA Headquarters release

NASA has a new partner in its mission to explore the universe and search for life. The Department of Energy's Naval Reactors Program team joins NASA in its effort to investigate and develop space nuclear power and propulsion technologies for civilian applications. These activities could enable unprecedented space exploration missions and scientific return unachievable with current technology.

The Naval Reactors team brings 50-plus years of practical experience in developing safe, rugged, reliable, compact and long-lived reactor systems designed to operate in unforgiving environments. Naval Reactors is a joint Department of Energy and Department of the Navy organization responsible for all aspects of naval nuclear propulsion.

The partnership is responsible for developing the first NASA spacecraft, the Jupiter Icy Moons Orbiter, to take advantage of a nuclear-reactor energy source for exploring our Solar System. It will visit Jupiter's three icy moons, Ganymede, Callisto and Europa. These icy worlds, in particular Europa, are believed to

have liquid-water oceans, under a thick layer of ice on their surfaces, which could potentially harbor life.

The reactor system will provide substantially more electrical power. This will greatly enhance the capability of ion-drive propulsion, the number and variety of scientific instruments on the spacecraft, the rate of data transmission, and orbital maneuvering around Jupiter's moons.

"NASA sought this partnership because (the Naval Reactors Program) has an enduring commitment to safety and environmental stewardship that is a requirement for an undertaking of this magnitude," said NASA Administrator Sean O'Keefe. "This partnership will help ensure the safe development and use of a space-fission reactor to enable unparalleled science and discovery as we explore the solar system and beyond. This work is an integral piece of the President's exploration agenda and without it the exploration agenda is compromised."

NASA, through its newly created Office of Exploration Systems, expects that several reactor modules of the same or similar design as that required for the Jupiter Icy Moons Orbiter

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## Awards

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presented annually to individuals judged by their respective organizations as most closely meeting the criteria of achieving HATS goals.

The awards dinner at the Huntsville Hilton was held in conjunction with the Technological Excellence in Aviation, Missiles, and Space (TEAMS) conference last week.

Beale, director of Marshall's Procurement Office, was chosen top member in the National Contract Management Association, Huntsville Chapter.

Lindeman, a senior systems engineer for the X-37 Project, was selected best



Beale



Lindeman



Prince

among members of the Project Management Institute.

Prince, a cost engineer in the Space Transportation Directorate, won the top

award among members of the Society for Cost Estimation and Analysis, Greater Alabama Chapter,

*The writer, an employee of ASRI, supports the Media Relations Department.*

## Proposal

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p.m. in Morris Auditorium to ask for ideas from civil service employees working in areas that will be impacted by the NASA Shared Services Center. Employees in Marshall's human resources, finance, procurement, and information technology areas are encouraged to attend and contribute their expertise and insight to the government's proposal.

The NASA Shared Services Center will consolidate certain administrative and transaction activities in procurement, human resources, financial management, and information technology from across the Agency into one location. The consolidation will

eliminate duplication; improve quality and efficiency, and lower costs. The Center is scheduled to open in October 2005. NASA currently is studying site locations for the Center.

A public-private competition will determine whether the government or a private contractor will be the service provider for the NASA Shared Services Center. NASA will submit a proposal, which will be evaluated and compete directly against proposals submitted by private contractors. The outcome of this competitive-sourcing effort will determine whether federal employees retain responsibility for providing the services.

# TEAMS Week 2004 promotes education, work force development and technology

*from combined reports*

**T**he Technological Excellence in Aviation, Missiles and Space (TEAMS) Week 2004 at the Von Braun Center last week brought together students, educators, and business and government leaders to nurture economic growth and technical capabilities in the North Alabama area.

Marshall Center Director David King was the keynote speaker for the TEAMS kickoff breakfast March 30.

This year's theme was "Technology Forum for the Future." Programs emphasized education, work force development and technology and how each is critical to achieving technical excellence. Multiple conferences, seminars and events were held, including the annual Von Braun

Memorial Dinner on March 31, which featured NASA Administrator Sean O'Keefe.

More than 1,000 participants attended the dinner -- sponsored by the National Space Club-Huntsville -- when Dr. Paul M. Munafo was honored with the 2004 Astronautics Engineer of the Year award.

Munafo is the temporary deputy director of NASA's Engineering and Safety Center — established last year at NASA's Langley Research Center in Hampton, Va. — which provides an independent and comprehensive examination of all NASA programs and projects. Munafo also is the manager of the Marshall Center's Materials, Processes, and Manufacturing Department.

Dr. Wernher von Braun Scholarship awards went to Kelsey Brekke, a student at the University of Alabama in Huntsville, and to Rashad Cylar, a student at Alabama A&M University in Huntsville.

TEAMS Week is sponsored by the Huntsville Association of Technical Societies. Co-hosts included the Marshall Center, U.S. Army Aviation and Missile Command, U.S. Army Space and Missile Defense Command, the Missile Defense Agency Ground-based Midcourse Defense, U.S. Army PEO Air Space and Missile Defense, and Aviation Missile Research, Development, and Engineering Center.

More than 175 companies demonstrated their latest technologies and services in an exhibit area.



Marshall Center Director David King addresses the TEAMS Week 2004 kickoff breakfast March 30 at the Von Braun Center.



Dr. Paul M. Munafo, left, manager of the Marshall Center's Materials, Processes and Manufacturing Department, receives the 2004 Astronautics Engineer of the Year Award during the annual Von Braun Memorial Dinner. Presenting the award are Harry Craft, right, chair of the National Space Club-Huntsville, and David Smith, chair of the Von Braun Memorial Dinner.

Photos by David Higginbotham, Marshall Center



Maj. Gen. John Urias talks to a TEAMS Week 2004 participant in the exhibit area of the Von Braun Center.



Kelsey Brekke, left, a University of Alabama in Huntsville student, and Rashad Cylar, right, a student at Alabama A&M University in Huntsville, are greeted by NASA Administrator Sean O'Keefe after the pair were honored with Dr. Wernher von Braun Scholarship Awards.

# Race

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half-mile obstacle course of simulated moonscape terrain.

In addition to the first-place honor, New Orleans Area School Team One earned a weekend trip to Space Camp at the U.S. Space & Rocket Center.

The team from Carlisle County High School of Bardwell, Ky., tied for second with Lafayette County High School Team One of Higginsville, Mo. — the winning team for the past two years — with a 4:40 time. A team from New Century Technology High School in Huntsville placed third with its time of 6:43.

The team from the Huntsville Center for Technology was awarded “Most Unique Buggy” for their lunar positioning



**New Orleans Area School Team One stays the course to win first place in the high school division.**

Photo by Ray Downward, Marshall Center

college divisions received plaques, medallions and duffel bags bearing the Great Moonbuggy Race logo.

In the college division, for the second year in a row, North Dakota State University again was team to beat, besting 26 other college and university teams from 13 states and Puerto Rico with a winning time of 3 minutes and 46 seconds.

In addition to the first place honor, the North Dakota State team earned a cash award.

The team from Cornell University of Ithaca, N.Y, finished second with a time of 4:23, while Arizona State University Team One of Tempe placed third with a 5:20



**The team from Carlisle County High School in Bardwell, Ky., grinds over an obstacle on its way to a tie for second place.**

Photo by Emmett Given, NASA/Marshall Center

system. The award for best moonbuggy design went to Team One from Lafayette County High School. A special “pits award” for ingenuity and persistence in overcoming problems was won by the team from Franklin



**New Century Technology High School in Huntsville plows over simulated lunar terrain before finishing the course and winning third place.**

Photo by Emmett Given, NASA/Marshall Center

time.

The award for Best Engineering Design went to the team from Utah State University in Logan. The “Most Unique” award also went to Utah State University for the use of carbon fiber rein-

*See Moonbuggy on page 5*

County High School in Winchester, Tenn.

Second and third place teams in both the high school and



Emmett Given, NASA/Marshall Center

**High school team ‘flies’ its moonbuggy over lunar course to tie for second place**

Members of the Lafayette County High School Team One from Higginsville, Mo., hold on as they go airborne over an obstacle on the moonbuggy course last Friday before making a hard landing and going on to a tie for second place.

# Moonbuggy

Continued from page 4

forced composite material in their moonbuggy. A team from the University of Evansville in Indiana was honored with a "Pits Award" for ingenuity and persis-

students hands-on experience that could pay off in fulfilling America's vision to return humans to the Moon and journey to Mars and beyond.

Sponsors of the event include the Marshall Center, U.S. Space & Rocket Center, American Institute of Aeronautics and Astronautics Alabama-Mississippi Section, Aerospace Development Center of Alabama, Morgan Research Corporation, Jacobs Sverdrup Technology and television station WHNT, all of Huntsville.

For more information about the "Great



Photo by Doug Stoffer, NASA/Marshall Center

Dr. Adena Loston, NASA associate administrator for education, speaks at the 11th annual "Great Moonbuggy Race" kickoff ceremonies Friday and stresses the need to motivate today's students so they will become tomorrow's explorers.



Photo by Doug Stoffer, NASA/Marshall Center

The North Dakota State University team from Fargo cruises to victory, winning first place in the college division Saturday for the second year in a row.

tence in overcoming problems. Plus, a special "Crash and Burn" award, given for handling adversity, went to Cameron University of Lawton, Okla., for surviving the buckling of their moonbuggy while trying to negotiate one of the tough lunar obstacles on the course.

The race is inspired by the actual lunar roving vehicle project, which was successfully accomplished by the Marshall Center during the 1960s and 1970s. NASA engineers had the challenge to design and build a compact, light, flexible and durable vehicle that would carry astronauts on the Moon's surface during the Apollo missions.

The Moonbuggy Race is the culmination of a competition that challenges students to design and build a human-powered vehicle so they will learn how to deal with real-world engineering problems.

As they compete, the students are supporting the Vision for Space Exploration announced in January by President Bush. Building a racing buggy gives

Moonbuggy Race" go to <http://moonbuggy.msfc.nasa.gov>.

*The writer, an employee of ASRI, supports the Media Relations Department.*



Photo by Dennis Olive, NASA/Marshall Center

Cornell University teammates from Ithaca, N.Y., pedal toward a second-place finish in the college division.



Photo by Emmett Given, NASA/Marshall Center

Arizona State University's Team One of Tempe pushes through a lunar obstacle and eventually captures the college division's third place.

# Partner

*Continued from page 2*

would be developed for use on future exploration missions. The Naval Reactors Program will direct, oversee development, design and delivery, as well as operational support for these civilian reactor modules.

The Office of Nuclear Energy, Science and Technology, another Department of Energy organization with extensive nuclear-reactor development experience, will retain responsibility for supporting NASA's other space nuclear technology efforts, including long-term space-reactor science and technology development not associated with the Naval Reactors' responsibilities.

All activities in support of NASA will be conducted as part of the Naval Reactors' civilian responsibilities for the National Nuclear Security Administration, a semi-autonomous agency of the Department of Energy. Activities in support of NASA are not part of the Naval Reactors' Navy responsibilities or any Department of Defense activities. This partnership with NASA is consistent with the Naval Reactors' history of supporting fission-reactor work for civilian applications.

NASA will fund all work under the partnership. Specific roles and responsibilities will be defined in a Memoranda of Understanding and Agreements currently being drafted by NASA and the Naval Reactors Program. The Naval Reactors Program and the Department of Energy Office of Nuclear Energy also will review capabilities and facilities at Department of Energy laboratories outside Naval Reactors for consideration in support of the Jupiter Icy Moons Orbiter and other Project Prometheus activities.

Established in 2003, Project Prometheus is developing

## Obituaries

**Christopher L. Carlson, 22**, of Madison, died March 28. Funeral services were held at The Church of Jesus Christ of Latter-day Saints in Madison with Doug Lee officiating. Burial was in Huntsville Memory Gardens with Spry Funeral Home directing.

Carlson was born Dec. 24, 1981, in

Pasadena, Calif., to Robert and Gaynelle Carlson. He was a 2000 graduate of Bob Jones High School and earned a bachelor's degree in computer science from the University of Alabama in Huntsville. He was employed by Optical Sciences Corp. at the Marshall Space Flight Center and was a member of The Church of Jesus

Christ of Latter-day Saints.

He is survived by his parents; three brothers, Preston Carlson of Chattanooga, Tenn., and Adam Carlson and Chad Carlson, both of Madison; and three sisters, Jamie Bryan of St. Mary's, Ga., and Kari Carlson and Lindsey Carlson, both of Madison.



Photo by Doug Stoffer, NASA/Marshall Center

### **New MSAT officers visit with Director King**

Marshall Director David King, center, visits with recently elected officers for the Marshall Safety & Health Action Team. From left are Monte Gravunder, chair; Chris Fisher, vice chair; Helen Eddleman, secretary; and Todd Macleod, treasurer.

radioisotope electric power sources for use in space and on planets or moons, as well as new fission-reactor power sources for advanced missions into deep space requiring higher power levels for science observations, propulsion, communications and life support systems.

More information on Project Prometheus is available at <http://spacescience.nasa.gov/missions/prometheus.htm>.

More information on the Jupiter Icy Moons Orbiter is available at <http://spacescience.nasa.gov/missions/JIMO.pdf>.

### **Job Announcements**

**MS04C0095, Senior Executive Service (SES)**, Director, Space Transportation Directorate. ES-0801-01, 06 (promotion potential to ES-6). Closes April 14. Contact: Diedra Williams at 544-5721.

**MS04D0116, AST**, Physical Science Technical Management. GS-1301-15, Space Transportation Directorate, Propulsion Research Center. Closes

April 13. Contact: Jannette Black at 544-8660.

**MS04B0117, AST**, Reliability. GS-0861-13, Safety and Mission Assurance Office, SR&QA Policy, Assessment & Integration Department. Closes April 15. Contact: Rita Evans-McCoy at 544-7507.

**MS04D0118, AST**, Structural Mechanics. GS-0861-07, 09 (promotion potential to

GS-13), Engineering Directorate, Structures, Mechanics and Thermal Department, Strength Analysis Group. Closes April 9. Contact: Kevin Plank at 961-0157.

**MS04D0120, AST**, Propulsion Systems and Technologies. GS-0861-15, Space Transportation Directorate, High-Powered Propulsion Systems Office. Closes April 9. Contact: Jannette Black at 544-8066.

# Announcements

## 'Take Our Children to Work Day' set for April 22

The annual "Take Our Children to Work Day" at the Marshall Center for children in grades 3-12 will be April 22. T-shirts for the event must be ordered by Friday, April 9, with payment made to the Marshall Exchange. Deadline to register children to participate in the event is April 16. Since 1994, the event has been an opportunity for the Marshall team to promote education and awareness of the space program. See "Inside Marshall" for a Web link detailing registration, workshops, tours and other information, or go to <http://inside.msfc.nasa.gov/CHIL-DREN/>.

## Marshall annual Egg Hunt will be Saturday

The Marshall Center's annual Egg Hunt will be at 10 a.m. Saturday in the Picnic Area. Registration is at 9:30 a.m. All Center team members are invited to bring their children ages 12 and under to participate. In case of inclement weather, activities will be held in Bldg. 4316. Marshall team members must register any family members in the Visitor Management System who will not be attending with a badged employee. To register a non-badged family member, go to [http://co.msfc.nasa.gov/ad50/visitor\\_manage.html](http://co.msfc.nasa.gov/ad50/visitor_manage.html). For details, call 544-3563 or 544-1382.

## Marshall Wellness Center annual 5K Run set April 28

The Marshall Wellness Center's second annual 5K Run will be April 28. The run, open to all Marshall team members and retirees, will begin at Bldg. 4315 at 4 p.m. For more information, call Heather Day at 544-9355.

## LIFESouth blood drive is Friday

A LIFESouth blood drive will be 8 a.m.-1:30 p.m. Friday at the Marshall Center Activities Bldg. 4316. For more information, call Rick Wallace at 544-8885 or see "Inside Marshall."

## Facilities Office breakfast for employees, retirees to be Tuesday

Employees, retirees and friends of the Marshall Center Facilities Office will meet at 8 a.m. Tuesday at Shoney's on Memorial Parkway and University Drive in Huntsville. For details, call Carl Gates at 232-2695.

## Retired Federal Employees to meet Saturday

The National Association of Retired Federal Employees will meet at 9:30 a.m. Saturday at the Senior Center on Drake Avenue in Huntsville. Bill Boulton of The Land Trust of Huntsville and North Alabama will speak. For more information, call 881-4944 or 882-2406

## TVA VP to speak at Marshall Earth Day celebration April 15

Janet Herrin, senior vice president of River operations for the Tennessee Valley Authority, will speak at the Marshall Center's Earth Day celebration at 10:30 a.m. April 15 at Center Activities Bldg. 4316. This year's theme is "Space-ship Earth: No Passengers ... All Crew." Vendors will display environmental exhibits and tree seedlings also will be given away. The Marshall Safety and Health Action Team will make "I Think Safe Because ..." badges from 11:30 a.m.-1 p.m. To obtain a badge, Marshall team members should bring a small photo to be laminated.

## 'I Am Set' mentors needed

Mentors are needed to work with high school students during a high-tech summer internship for the Individuals with Disabilities in Math, Science, Engineering & Technology (I Am Set) program scheduled for June 7-July 16. For more information, including location and times, call Dr. Barbara Cady, project director, at (256) 372-4041 or Madeline Hereford in the Marshall Center's Equal Opportunity Office at 544-7420.

## Volunteers needed for Space Station water recovery testing

Civil service volunteers are needed to support testing of the International Space Station Water Recovery System. Participants will generate waste water by exercising and performing hygiene activities. A physical exam and treadmill test are required. Testing will begin in June and end in December. Volunteers must obtain approval from supervisors and be full-time Marshall civil service employees. To participate, call Paul Wieland at 544-7215 by Friday.

## Health Fitness Expo set April 28

A Health Fitness Expo will be from 10 a.m.-2 p.m. April 28 at the Center Activities Bldg. 4316. Theme for this year is "Healthier Living in 2004." There will be a fitness walk at 11 a.m. and the annual 5K Run at 4 p.m.. Rain date for the walk and run will be April 29. For more information, see "Inside Marshall."

## Training course open for new civil service supervisors

Registration for a required training course for new civil service supervisors is open. The course will be held at the Marshall Institute. "Creative Problem Solving" will be from 8 a.m.-4:30 p.m. April 26-28. For details, e-mail [pat.schultz@nasa.gov](mailto:pat.schultz@nasa.gov).

## German helicopter development seminar set for April 15

The American Institute of Aeronautics and Astronautics is sponsoring a seminar on "German Helicopter Development 1936-1945" on April 15 at the Holiday Inn Research Park in Huntsville. The event begins with a social at 6 p.m. followed by dinner at 7 p.m. Cost is \$20 per person and \$15 for students. Reservations are required by noon Monday. For information, call Joe Sims at 544-4650.

*For more Announcements, see "Inside Marshall"*

# Classified Ads

## Miscellaneous

- ★ Nikon zoom lens, 70-200, 2.8F, caps, UV filter, container included, \$690. 551- 1007 after 6 p.m.
- ★ Utility trailer, 5x8, \$45. 651-8064
- ★ Dumbbell set, 2.5 to 50 lbs. w/rack and bench, \$75. 859-0554/Neil
- ★ Alpine CD player, xm satellite ready; 2 sets infinity speakers; set components & mids. 348-4889
- ★ 2002 Utility trailer, 4' x8', non-skid painted plywood deck, 12" DOT tires, tilts, folds, \$150. 337-4342
- ★ Portable sprinkler system, computer controlled, 8 zone 1" valves, ~500' hose, impact sprinklers, \$75. 337-2534
- ★ Dept. 56 Snow Village collection, approx. 31 pieces plus several accessories, \$700. 895-6916
- ★ Nissan Frontier 1998/2000 oem neoprene front seat covers, black/grey, \$75. 864-9975
- ★ Mowers, Murray 3.8HP, \$50; 4HP, \$40; 4.0HP Big Wheel mulcher, \$90; 5.75HP mulcher, \$95. 883-6284
- ★ 1977 Avion travel trailer, 27', for hunting, camping, or lake lot, \$4,500. 931-427-2059
- ★ Knight In-line disc rifle, 50-caliber, black composite stock, new in box w/accessories, \$275. 880-7305
- ★ Electric scooter, 2-wheel w/seat, blue, battery charger included, \$100. 828-0756
- ★ AKC pugs, 1M/1F, fawn w/black masks, 1st shots/dewormed, ready Apr. 2, \$425. 256-882-2037
- ★ Exercise equipment, weights, weight bench, lat. machine, barbells, curl bar, dumbbells, \$300. 205-539-0042
- ★ Gibson Epiphone Les Paul custom guitar, Sunburst Flame, gold hardware, pearl inlay, \$650. 256-883-7088
- ★ Frigidaire 18 cu. ft., top mount refrigerator, white, 3 clear door bins, ice maker included. 256-503-2511
- ★ Antique steamer trunk, approx. 3.5' x2' x2', black w/original turquoise interior, 4-drawers, \$275 firm. 880-9025
- ★ Classic sleigh-style crib, solid wood, maple finish, includes, mattress, sheets, & pad, \$140. 461-7854
- ★ Shania Twain concert tickets, Birmingham, April 17, Section 7L, 2 tickets. 256-603-0741
- ★ Booster seat for 4-6 year old, w/drink holder, toy caddy, \$15. 890-0755
- ★ Canoe, 17' Mohawk, white water, \$225. 539-6351
- ★ Jenny Lind baby bed, including complete comforter set and mattress, \$125. 852-0627
- ★ Whirlpool dryer, \$85; Kenmore washer, \$90; sofa, brown, tan, rust, \$75. 837-6649
- ★ King-size waterbed, 6-drawer pedestal, waveless mattress, headboard, \$100; Girl's dresser & desk, \$100. 464-5850

- ★ Bicycle carriers: one slides into hitch receiver; one universal strap-on, \$25 each. 534-9631
- ★ Radio controlled model airplane, Easy Sport 60, 6-channel Futaba radio, \$150. 828-4564
- ★ Craftsman 13.2V cordless drill, charger/case, \$35; Hogan HD40 oversized irons w/graphite shafts, \$165. 881-5642
- ★ Hoover Elite vacuum cleaner w/attachments, 17.0 cleaning effectiveness/amp., \$40. 655-3065
- ★ Electric cook-top, Whirlpool, four eyes, 30" wide, almond, \$50. 539-0094
- ★ 2003 Flagstaff pop-up camper, heated beds, a/c, furnace, oven, sink, refrigerator. 256-353-4119
- ★ Antique desk, refinished, \$75; exercise machine, Stairstepper, \$75. 837-1774
- ★ Seven position weight set, \$125; Tony Robbins "Get the Edge", \$125. 536-8223
- ★ Four wooden ladder-back porch rockers, white, new repainting, \$25 each. 535-0539
- ★ Drawtite Class 1 hitch, drawbar, instructions/fasteners, fits 1990-95 Silhouette, Lumina, Transport vans, \$25. 859-9856
- ★ Palm V accessories kit, Modem, charger, wireless web, GSM upgrade, carrying cases, \$20. 772-8489
- ★ Springfield XD-9101 9mm pistol, carrying case, manual, two 9-round & one 17-round mag., \$380. 655-6264
- ★ Trek 2300 road bicycle frame & fork, size 56cm, \$250. 256-232-1940
- ★ Jet 14" floor standing drill press, \$110. 732-4759
- ★ Kirby vacuum cleaner w/shampoo attachment, \$99. 881-0883
- ★ Spare tire w/cover for Jeep Grand Cherokee, \$10. 765-532-4218
- ★ Heirloom Crinum lily bulbs, Amaryllis family, wine or milk/wine, \$2 per diameter inch, PP. 256-586-5126
- ★ Custom chrome wheels, 18" Mondera Volare SUV w/Toyo tires, \$975. 256-353-7371
- ★ LaJolla women's golf clubs, driver, 3, 5, 7 woods, 3/4 through SW irons, \$300. 828-8005
- ★ Aluminum semi-V boat, Johnson 18HP, carpeted floorboard, 2-bass seats, trolling motor, tilt trailer, \$1,400. 351-6996
- ★ MARX trains 1940s "Bell Ringing Signal." Unused, original box w/insert. \$30. MARX transformer, \$10. 306-0700

## Vehicles

- ★ 1991 Explorer XLT, 4-door, leather, sunroof, 64K miles, \$3,000+ in new parts, \$3,700. 880-6498
- ★ 1994 Toyota, 4x4, pickup. 931-937-6518
- ★ 1997 Seville STS, 4-door, V8, 54K miles, all leather, 12cd, Bose system, \$12,500. 256-721-5996
- ★ 1995 Jeep Wrangler, black, soft top, 5-speed,

- 137K miles, \$4,800. 656-2005
- ★ 2002 Toyota Sienna LE, 42K miles, TV/VCR, new tires, one-owner, all dealer maintenance, \$22,500. 426-8700
- ★ 2000 Saturn SL1, 4-door, auto, p/s, 70K miles, \$4,500. 325-6000
- ★ 2001 Ford F150 Super Crew XLT, 55K miles, loaded, \$16,500. 256-509-4733
- ★ 1997 Mustang, 6-cyl., 5-speed, 83K miles, spoiler, GT wheels, a/c, cd, \$4,950 firm. 256-753-2278
- ★ 1985 Dodge Caravan, 5-passenger, 117K miles, rough, reliable, seats/tires good, \$600. 539-5495
- ★ 2003 Ford Expedition, 20K highway miles. 256-233-6197
- ★ 1985 Dodge Ram, 185k miles, lwb, slant 6-cylinder, \$1,000. 256-586-2994
- ★ 1995 Ford Explorer, Eddie-Bauer, leather, abs, alloy, 125K miles, cd, hitch, privacy glass, \$4,985. 880-6563
- ★ 2002 S10 Chevrolet, 5-speed, 38K miles, \$10,000. 256-773-1575
- ★ 2000 Oldsmobile Alero GL coupe, 57.6K miles, ac/at/pw/pl, \$8,495. 828-5550 after 5 p.m.
- ★ 1964 Dodge Dart, partially restored, rebuilt 273, drivable, additional restoration parts, \$1,500. 881-3379
- ★ 1997 Ford F150, ext. cab, 3-door, V6, auto, new Ford reconditioned motor w/warranty, \$7,800. 883-0244

## Wanted

- ★ Carpool to work from Scottsboro, Section or Dutton, leave time adjustable from 6:30 to 7 a.m. 228-6353

## Found

- ★ Sunglasses along Mercury Road. Call 544-4588 to claim/identify

## Free

- ★ Black Lab mix, male, 12 weeks, shots, heartworm prevention. 683-1582
- ★ Heathkit AR1500A receiver with manual. 883-8194

## Lost

- ★ Office key, between Building 4487, 2nd floor, C-wing & Building 4203, 5th floor. Call 544-9101 if found

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Marshall Space Flight Center, Alabama 35812  
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Manager of Internal Relations  
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