



Four Bantam Project Design Contractors Selected

by Deana Nunley

NASA took another step this week toward making space launch more affordable in the future. The Marshall Center selected four proposals for negotiation leading to contract awards for the initial design of a flight demonstrator of new low-cost launch system technologies.

NASA has selected Universal Space Lines, Inc. of Newport Beach, Calif.; Summa Technology, Inc. of Huntsville, Ala.; Aerojet-General Corp. of Sacramento, Calif.; and Pioneer Rocketplane of Lakewood, Colo., for negotiation. Anticipated total funding for the awards in fiscal year 1997 is \$8 million. Contracts are expected to be awarded later this month.

During the next six months the selected companies will analyze the small payload market and develop low-cost launch system concepts and business plans for commercial operation of the systems. NASA's Bantam System Technology

Project plans to select two of these concepts later this year to demonstrate new technologies that could dramatically reduce the recurring cost of launching small payloads into low-Earth orbit.

NASA plans to competitively award contracts in early-1998 to design, develop and test a pair of Bantam flight demonstrators. Target dates for the



Artist's concept for a possible Bantam Project launch vehicle.

technology demonstration flights are in late-1999.

The new launch system will focus on small experimental payloads that typically are not funded due to the expense of

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Consolidated Payroll Processing Forges Ahead at Marshall

by Nancy Robinson

The Marshall Center Financial Management Office this month is processing a payroll more than twice as large as what it did only a month ago. And that number — currently at approximately 7,000 — is set to grow even more in months to come.

One obvious question is, "when did Marshall add several thousand more people to its roster?" And the answer is, "it hasn't."

What has happened is the center has gained a significant new

role as a consolidated payroll processing center, adding another function to the list of services and areas of expertise in which Marshall plays an Agency-wide role.

As of the most recently completed pay period, the Financial Management Office's payroll team has assumed the responsibility for processing not only Marshall's payroll but those of NASA Headquarters, the Kennedy Space Center and Dryden Flight Research Center as well. Adding the numbers of civil service personnel from those locations yields the total of 7,000 personnel.

A master plan calls for the payrolls of the remaining six field installations to also be consolidated at Marshall by November, which will bring the total number of personnel involved to about 20,000. The plan grew out of a Marshall proposal for payroll consolidation, submitted in response to Administrator Dan Goldin's call for streamlining how the Agency does business in as many ways as possible.

The major benefit of consolidating payrolls at Marshall is that *continued on page 3*

Nicogossian Named Head of Life and Microgravity Sciences

Arnald E. Nicogossian, M.D., has been named Associate Administrator for NASA's Office of Life and Microgravity Sciences and Applications by NASA Administrator Daniel S. Goldin. Dr. Nicogossian has been the acting associate administrator for the office since May 1996.

As Associate Administrator Dr. Nicogossian manages a national and international program in research and development. Focus areas include life sciences, life support technology, biotechnology, materials sciences, aerospace medicine, occupational health and commercial programs, as they pertain to conducting experiments on the ground and in space.

Employee Update Set for June 16

Center Director Dr. Wayne Little will hold an Employee Information Update at 9 a.m. on June 16 in Morris Auditorium.

Employees are encouraged to either attend the event in the auditorium or view the update on closed-circuit television.

Lockheed Martin, Boeing Awarded Contracts for Possible Booster

by Peter Cobun

NASA has awarded contracts for \$1 million each to Lockheed Martin and the Boeing Company to study a possible, future upgrade to the Space Shuttle in which the rocket boosters that power the Shuttle would fly back to the launch site, rather than drop into the ocean for later recovery.

The study effort being led by the Marshall Center is part of a continuing program to upgrade the current Shuttle fleet — providing additional safety, improved operability, enhanced performance and reduced costs.

To complement its in-house examination, Marshall is asking each of the contractors for an in-depth concept definition on the liquid fly-back booster.

Proposals from industry will provide data and configuration studies for both the booster and its engine, focusing on the liquid fly-back booster concept — including analysis and evaluation, model fabrication and wind-tunnel testing.

If the concept is implemented, the unpowered, liquid fly-back boosters would become the first-stage boosters of the Space Shuttle system.

Under the systems integration concept being studied, a Shuttle launch using the upgraded booster would appear similar to the current system to an observer on the ground.

After separation from the Shuttle, however, the two booster rockets would begin coasting for nine minutes, rather than parachuting into the ocean. Then jet engines would be started, and the unpowered boosters would fly back and land at Kennedy Space Center.

Other principal elements of the present Space Shuttle system — including the orbiter, Space Shuttle main engines and external tank — would remain essentially unchanged if the new boosters are incorporated.



The International Space Station Environmental Control and Life Support Volatile Removal Assembly Risk Mitigation Experiment arrived at Building 4755 last week. The experiment will undergo performance and qualification testing this summer at Marshall before delivery to McDonnell Douglas for integration into the Spacehab module. The experiment is scheduled to fly on STS-89 in January 1998.
Photo by Emmett Given

Bantam Project Design

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launch. This system could greatly increase the amount of research performed in space. Small payloads such as communications satellites and other commercial ventures in space also will benefit from inexpensive access to space.

The Bantam project will adapt common manufacturing techniques and existing commercial, off-the-shelf hardware to aerospace applications to develop new technologies and a resulting test vehicle. The goal is to develop a launch vehicle capable of placing a payload weighing approximately 400 pounds in orbit for \$1.5 million. Today, that same 400-pound payload costs about \$8 million — or nearly \$20,000 per pound — to launch with current vehicles.

“Low cost is a primary objective of the Bantam system,” said Garry Lyles, manager of NASA’s Advanced Space Transportation Program at the Marshall Center. “This project is identifying and developing low-cost component technologies that can reduce costs and make space transportation affordable. Now we’re looking for ideas for actual launch systems that would incorporate these technologies.”

The Bantam System Technology Project is one element of the Advanced Space Transportation Program — a NASA initiative to reduce the cost of space launch and develop technologies for space transportation needs for the next 25 years.

Littles to Speak at MMA Meeting

The Marshall Management Association will meet on June 18 at the Marriott Hotel. Center Director Dr. Wayne Littles will be the featured speaker. A social will begin at 5:30 p.m., followed by dinner at 6:30. Tickets may be purchased at the door for \$15. Reservations should be made to John Cather by e-mail or at 4-1743 by June 16. All Marshall employees are invited.

'Take Our Children to Work Day' Scheduled for June 19 at Center

Children of Marshall Center employees will get a first-hand look at their parents on the job when Marshall celebrates “Take Our Children to Work Day” on June 19. The day will be designed for employees' children in grades 3 through 12.

Activities will include a program in Morris Auditorium beginning at 8:30 a.m., tours of Center facilities and time for children to spend with parents at work.

Employees may register until June 16 by picking up forms in the Equal Opportunity Office, Building 4200, Room 220. For more information, contact Alicia Beam at 4-2849 or Rita Evans-McCoy at 4-7507.

Consolidating Payroll at Marshall Means Benefits for NASA

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it allows other centers to reallocate resources to handle other requirements, said John Alexander, Chief of the NASA Payroll and Center Personal Services Office. Implementing the change has required that Marshall expand its payroll team by 10 members, but the additional staffing here is significantly less compared to the savings that will be realized across the Agency, he explained.

Payroll processing, of course, is now done electronically, so the consolidated operation doesn't mean Marshall is suddenly handling millions of additional dollars. Nevertheless, the responsibility for making sure that calculations of pay, deductions, annual leave and all the other variables that show up in the biweekly statement is a heavy one.

"Everyone involved in providing this service knows that, as we take on this expanded role, we have to make sure we maintain the same level of care and attention to detail as when we were processing only the Marshall payroll," Alexander said. "Obviously, payroll is an area where no one wants to have mistakes made."

A concerted team effort was necessary to successfully accomplish the first phase of the consolidation, involving both contract and civil service employees from the areas of Personnel, Information Systems Services as well as the Office of the Chief Financial Officer. To recognize the accomplishment, Center Director Wayne Littles and Chief Financial Officer David Bates visited the team members last Friday, congratulated them, and presented group achievement awards.

"This highlights a real success story," Littles said. "We appreciate what you have done — it has been a great job."



From left, Sheila Fogle, Information Systems Services Office; Mike Clemons of Marshall's Payroll Division; Center Director Dr. Wayne Littles; Ona Elliott, Payroll Division; Lou Nosenzo of the Personnel Office; and Hector Garcia of Computer Sciences Corporation were part of a gathering last week when Littles praised the payroll consolidation team efforts. Photo by Emmett Given

Honors Day Activities to Include R&T Presentations, Picnic, Awards

The annual Honors Day activities, designed to recognize Marshall Center civil service and contractor employees who have made exceptional contributions to the Marshall mission and the nation's space program, will include the following events:

- June 25** Research and technology presentations in Building 4200, Room P110. Center managers and supervisors are encouraged to attend.
- June 26** Picnic honoring award recipients. Managers and supervisors of award recipients may attend at a cost of \$6.
- July 10 Award Ceremonies in Morris Auditorium**
 - 9:30 a.m. Agency awards and awards external to NASA
 - 2 p.m. Marshall Center awardsAll award recipients should arrive at Morris Auditorium at least 30 minutes prior to the ceremonies.

Local Student Among Apprentices Selected for 1997 SHARP PLUS

NASA and the Quality Education for Minorities Network have selected 338 high school students as apprentices to engage in cutting-edge science and engineering research activities as part of NASA's SHARP PLUS Research Apprenticeship Program.

Chosen from over 1,300 applicants, this year's apprentices (215 female and 123 male students) represent 193 high schools and come from 29 states; Puerto Rico; the U.S. Virgin Islands; Washington, DC; and a U.S. military base in Germany.

The state of Alabama has eight participants — Raymond Pace, Lee High School, Huntsville; Charlene Cole, Paramount High School, Boligee; Joan Gailliard and Margaret Gunn, Booker T. Washington High School, Tuskegee; Samaria Moore, Alabama School of Fine Arts, Birmingham; Nicole Sanders and Venedra Walker, Minor High School, Birmingham; and Phelon Snoddy, Eutaw High School, Eutaw.

Now in its fifth year, the SHARP PLUS program enables students, under the guidance of industry or university-based mentors, to spend eight weeks in residence at 16 universities that have joined with NASA and the Quality Education for Minorities Network.

Obituaries

- Erb, Ernest, 61, Huntsville, died May 31.** He retired from Marshall in 1991 where he worked as an electronics technician.
- Mann, Eldon, 74, Arab, died May 20.** He retired from Marshall in 1976 where he worked as a cost and maintenance representative. He is survived by his wife Joyce Mann.
- Nicholson, Frederick, 75, Huntsville, died May 26.** He retired from Marshall in 1981 where he worked as an aerospace engineering technician. He is survived by his wife Althea Nicholson.

Employee Ads

Miscellaneous

- ★ Toro commercial self propelled mower, rear bagger \$125. 837-0085
- ★ Antique dining table, Duncan Phyfe, with two leaves and 6 chairs \$400. 837-0085
- ★ SVGA Card, Trident, 1MB RAM \$20; PC game: Crusader, no regret \$10. 828-9651
- ★ VITO Alto saxophone \$200. Just in time for fall band. 895-9348
- ★ Sega Genesis includes controller, RF switch, 5 games, approx value \$325, asking \$125. 881-5088
- ★ Craftsman, Easy-Mow, Light Weight 18" cut, reel mower with large wheels. 539-4937
- ★ Queen size bookcase waterbed. 852-0526
- ★ Glass dining table with 4 chairs \$125; Queen sleeper sofa \$125; two end/one sofa table \$50. 534-8858
- ★ Two brown metal desks, no dents \$50 each. 852-2346
- ★ Three 117VAC A/C units \$300; Lazyboy lawnmower and weed trimmer \$100; Boy's 20" bike \$60. 461-9941
- ★ New Delta single handle kitchen faucet with spray/soap dispenser, model 400 DWF \$59. 883-8257
- ★ Hunter green and burgundy couch/loveseat; stereo with CD and dual cassette player. 837-9717
- ★ Computer monitor, Packard Bell VGA color, in box \$75. 534-2368
- ★ Portable potty, 5 gal. detachable waste tank, includes over 40 envelopes powdered treatment chemical \$35. 534-2368
- ★ Waterford Crystal goblets/desserts, twelve each \$30 a stem. 881-1609
- ★ Sliding glass door 8 ft. wide \$100. 883-2948
- ★ Yanmar 1300 diesel tractor 4' finish mower, 4' tiller \$2,950. 773-9951
- ★ Tractor Kubota 18HP diesel, 4ft. landscape box, 5 ft. flail mower, 594 hrs. \$4,000. 230-6382
- ★ Cover for mini van, new never used, J. C. Whitney \$50. 882-9417

Vehicles

- ★ 1993 Toyota Camry, LE, all pwr. options, 56K miles \$10,500. 837-0085
- ★ 1985 Nissan 200SX Notchback, 5-speed, 113K miles, one owner \$1,495. 881-2211
- ★ 1992 Honda Accord LX, all power, 5-speed, 83K miles \$8,500. 232-8696
- ★ 1984 944 Porsche, gold. 828-9724

Vehicles

- ★ 1992 Astro extended van, all-wheel drive, anti-lock, LT option, towing package, 66K miles \$11,625. 827-6109
- ★ 1993 Ford Thunderbird LX, 60K miles \$7,950. 881-0743
- ★ 1985 Dodge Caravan needs work \$600; 1860's Robbins clock \$300; 1982 280ZX T-top \$2,800. 586-2330
- ★ 1978 Ford utility panel van, V-8, new paint, 75K miles, ladder rack \$2,500. 837-0085
- ★ 1987 Ford Aerostar - 7 passenger, running boards, V-6, AM/FM, cruise, dual air. 586-3061

Wanted

- ★ Car to rent for summer. 890-6849
- ★ Kodak carousel slide trays. 881-6040
- ★ Refrigerator, medium to large size. Will pay \$75 for one in excellent/clean condition. 534-2368
- ★ Zoom lens & other accessories for Canon AE-1 SLR camera. 852-4379

Free

- ★ Male Labrador Retriever, "chocolate", 6 yrs., neutered. Need good home. 518-9528
- ★ To loving homes, Kittens, white or gray Tabby, born April 23. Call 205-498-2116 after 5:30 p.m.

Found

- ★ Gold plated bracelet found in Building 4200, call 4-4758 to identify.

Carpool

- ★ Carpool ride between UAH and MSFC. Call work (5-1474) or home (890-6849)

Center Announcements

- ☛ **MARS**— The MARS Scuba club is offering a beginning Scuba class. Classes begin in June and will run for three weeks. The class is open to all Marshall employees and on-site contractors. Contact J. Patterson, 4-6023.
- ☛ **Dry Cleaning**—The new hours for the laundry/dry cleaning and shoe repair drop-off service, located in Bldg. 4200, Room G-37 are 7:30 a.m. to 4:30 p.m. Monday through Friday.
- ☛ **Win A Model of the X-33**—Lockeed Martin's X-33/VentureStar program has a new website (www.venturestar.com) with a contest open to everyone! Visit the website for details and an

entry form. Entry deadline June 17, so HURRY!

- ☛ **Toastmasters**— Redstone Toastmasters International will meet every Tuesday at 6 p.m. in the Morrison's Cafeteria in Madison Square Mall. For more information call 461-0476.
- ☛ **NARFE** — The National Association of Retired Federal Employees will meet June 14 at the Senior Center on Drake Avenue. A program examining life styles and health issues will be presented by Doctor Larry Robey, Madison County Health Officer. Refreshments at 9:30 a.m. Program at 10 a.m. For more information, call 837-0382, or 881-3168.
- ☛ **Lecture** — Dr. Robert L. Forward, consulting scientist, future technologist, lecturer and science fact and science fiction writer, will speak on the "Visions of the Ultimate Journey," June 20 at 1 p.m. in Building 4200, Room P110. Forward will present his inspirational lecture showing that travel to the stars within a human lifetime is no longer impossible but merely "extremely difficult." For more information contact Les Johnson at 4-0614.

Job Opportunities

CPP 97-37-CP, Supervisory Systems Accountant, GS-510-14, Office of Chief Financial Officer, Accounting Operations Office, Accounting Anal Repts & Prop Division. Closes June 13.

CPP 97-38-CP, Supervisory Cost Accountant, GS-510-14, Office of Chief Financial Officer, Accounting Operations Office, Cost & Comm Accounting Division. Closes June 13.

CPP 97-39-CP, Supervisor, AST, Aerospace Flight Systems, GS-861-15, S&E, Space Systems Chief Engineers, Payload Integration, Spacelab Mission Integration. Closes June 13.

CPP 97-41-CV, Supv. AST, Experimental Facilities Development, GS-801-14, S&E, Structures & Dynamics Lab, Fluid Dynamics Div, Exp Fluid Dyn Br. Closes June 16.

CPP 97-43-CV, AST, Structural Mechanics, GS-861-14, S&E, Structures & Dynamics Lab, Structural Analysis Div, Structural Integrity Br. Closes June 16.

CPP 97-36-CV, AST, Mission Operations Integration, GS-801-14, Flight Projects Office, Space Station Utilization Ofc, EXPRESS Rack Ofc. Closes June 23.

CPP 97-44-SH, Supervisory AST, Flight Systems Test, GS-861-15, S&E, Propulsion Lab, Propulsion Test Division. Extended to June 16.

CPP 97-46-PL, Secretary (OA), GS-318-06, S&E, Astrionics Laboratory, Optics & RF Division. Closes June 11.

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