DATES & DATA

July 11

Aero Club meets: The Bay Area Aero Club meets at 7 p.m. at the Houston Gulf Airport clubhouse at 2750 FM 1266 in League City. For additional information, contact Larry Hendrickson at x32050.

July 12

IAAP meets: The Clear Lake/NASA Chapter of the International Association of Administrative Professionals meets at 5:30 p.m. at Bay Oaks Country Club. Cost is $16. For more information and reservations, call Tami Barbour at (281) 488-0055, x238.

July 13

Airplane club meets: The Radio Control Airplane Club meets at 7 p.m. at the Clear Lake Park building. For more information, contact Bill Langdoc at x35970.

MAES meets: The Society of Mexican-American Engineers and Scientists meets at 11:30 a.m. in Bldg. 16, Rm. 111. For more information, contact George Salazar at x30162.

July 14

Astronomers meet: The JSC Astronomical Society meets at 7:30 p.m. at the Center for Advanced Space Studies, 3600 Bay Area Blvd. For details, contact Chuck Shaw at x35416.

July 15

Fun Run: The 22nd annual Lunar Rendezvous Run/Walk takes place at 8 a.m. July 15 at the Gilruth Recreation Center. Walkers, runners and wheelchair participants of all ages are welcome to participate in the 5K event sponsored by Honeywell. A post-race party will feature door prizes, refreshments, and music from KLDE 94.5. For details, call Abi Pineda at (281) 486-9677, E-mail spacerun2000@juno.com or register online at http://www.runnertriathletenews.com/

July 18

NPMA meets: The National Property Management Association meets at 11:30 a.m. at the Gilruth Center. For more information, contact Ray Whitaker at (281) 212-6030.

July 19

Scuba club meets: The Lunarfins meets at 7:30 p.m. For more information, contact Mike Manering at x32618.

July 20

Directors meet: The Space Family Education board of directors meets at 11:30 a.m. in Bldg. 45, Rm. 712D. For more information, contact Lynn Buquo at x34716.

Inspection2000 centerwide effort officially underway

The NASA JSC Inspection2000 campaign began recently with a kick-off meeting for all directorate representatives and a centerwide call for exhibits to be included in the annual event. Inspection2000 is scheduled for November 1, 2, and 3, and, as always, will be open to all members of the business and academic community, from the corporate decision maker to the start-up entrepreneur, the university engineering department faculty member to the undergraduate student (invited attendees should be college-age or above).

Exhibit proposals should be submitted electronically at http://www4.jsc.nasa.gov/scripts/InspectionDay/Exhibits/ExhibitIndex.cfm. The deadlines for submittal are: July 14 for the Engineering and Space and Life Sciences directorates, July 21 for other JSC organizations, and July 28 for exhibitors from outside the center.

For more information on Inspection2000 and to register, visit the JSC external Web site http://inspection.jsc.nasa.gov or call the official Inspection hotline at 281-244-1316.

To help publicize the event, employees attending business-related conferences or participating in speaking engagements with adult audience members are requested to talk about Inspection2000 and pass out information cards. To request a copy of talking points and bookmark-size handouts to publicize Inspection2000 at these opportunities, contact Robin Hart at x34754 or Linda Matthews-Schmidt at x38609 in the Public Affairs Office.

GILRUTH CENTER NEWS

Sign up policy:

All classes and athletic activities are on a first-come, first-served basis. Sign up in person at the Gilruth Center and show a yellow Gilruth or weight room badge. Classes tend to fill up two weeks in advance. Payment must be made in full, cash or by check, at the time of registration. No registration will be taken by telephone. For more information, call x33345

Gilruth badges:

Required for use of the Gilruth Center. Employees, spouses, eligible dependents, NASA retirees and spouses may apply for photo identification badges from 7:30 a.m.-9 p.m. Monday-Friday and 9 a.m.-2 p.m. Saturdays. Cost is $12. Dependents must be between 16 and 23 years old.

Open from 6:30 a.m.-10 p.m. Monday-Thursday, 6:30 a.m.-9 p.m. Friday, and 9 a.m.-2 p.m. Saturday. Contact the Gilruth Center at (281) 483-3345.
http://www4.jsc.nasa.gov/ah/exceaa/Gilruth/Gilruth.htm

Nutrition intervention program: Six-week program includes lectures, a private consultation with the dietitian and blood analysis to chart your progress. Program is open to all employees, contractors and spouses. For details call Tammie Shaw at x32980.

Defensive driving: One-day course is offered once a month at the Gilruth Center. Pre-registration required. Cost is $25. Call for next available class.

Stamp club: Meets every second and fourth Monday at 7 p.m. in Rm. 216.

Weight safety: Required course for employees wishing to use the Gilruth weight room. Pre-registration is required. Cost is $5. Annual weight room use fee is $105. The cost for additional family members is $58.

Exercise: Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays. Cost is $24 for eight weeks.

Step/bench aerobics: Low-impact cardiovascular workout. Classes meet from 5:25-6:25 p.m. Tuesdays and Thursdays. Cost is $40 for eight weeks. Kristen Taraszewski, instructor.

Yoga stretching: Stretching class of low-impact exercises designed for people of all ages and abilities in a Westernized format. Meets Thursdays 5-6 p.m. Cost is $40 for eight weeks. Call Darrell Matula, instructor, at x38520 for more information.

Ballroom dancing: Classes meet Thursdays from 6:30-7:30 p.m. for beginner, 8:30-9:30 p.m. for intermediate and 7:30-8:30 p.m. for advanced. Cost is $60 per couple.

Country and western dancing: Beginner class meets 7-8:30 p.m. Monday. Advanced class (must know basic steps to all dances) meets 8:30-10 p.m. Monday. Cost is $20 per couple.

Fitness program: Health-related fitness program includes a medical screening examination and a 12-week individually prescribed exercise program. For more information call Larry Wier at x30301.

Aikido: Martial arts class for men and women meets 5 - 6 p.m. Tuesdays and Wednesdays. No special equipment or knowledge is needed to participate. Aikido teaches balance and control to defend against an opponent without using strength or force. Beginning and advanced classes start each month. Cost is $35 per month.

NASA BRIEFS

X-RAY JET POINTS TOWARD COSMIC ENERGY BOOSTER

NASA's Chandra X-ray Observatory has revealed a spectacular luminous spike of X-rays that emanates from the vicinity of a giant black hole in the center of the radio galaxy Pictor A. The spike, or jet, is due to a beam of particles streaking across hundreds of thousands of light-years of intergalactic space toward a brilliant X-ray hot spot that marks its end point.

The hot spot is at least 800 thousand light-years (eight times the diameter of our Milky Way galaxy) away from where the jet originates. It is thought to represent the advancing head of the jet, which brightens conspicuously where it plows into the tenuous gas of intergalactic space. The jet, powered by the giant black hole, originates from a region of space no bigger than the solar system.

One possible explanation for the characteristics of the X-rays is that shock waves along the side and head of the X-ray jet are accelerating electrons and possibly protons to speeds close to that of light. In the process the electrons are boosted to energies as high as 50 thousand billion times the energy of light. These electrons lose their energy rapidly as they produce X-rays, so this could be the first direct evidence of this process so far outside a galaxy.

The hot spot has been seen with optical and radio telescopes. Radio telescopes have also observed a faint jet. Jets are thought to be produced by the extreme electromagnetic forces created by magnetized gas swirling toward a black hole. Although most of the material falls into the black hole, some can be ejected at extremely high speeds. Magnetic fields spun out by these forces can extend over vast distances and may help explain the narrowness of the jet.

Images associated with this release are available on the Internet at: http://chandra.harvard.edu and http://chandra.nasa.gov

COMPTON GAMMA RAY OBSERVATORY RETURNS TO EARTH

NASA's Compton Gamma Ray Observatory re-entered the Earth's atmosphere at approximately 2:10 a.m. EDT on June 4, according to calculations made by controllers at NASA's Goddard Space Flight Center in coordination with the U.S. Space Command's Control Center.

As planned, pieces of the observatory that survived the re-entry landed in the Pacific Ocean approximately 2,400 miles (3,862 km) southeast of Hawaii.

The fourth and final burn needed to re-enter NASA's Compton Gamma Ray Observatory was initiated at 1:22 a.m. EDT on June 4. Compton's Attitude Control thrusters and Orbit Adjust thrusters were fired for 30 minutes.

After the failure of one of Compton's three gyroscopes, NASA decided to bring the satellite back via a controlled reentry. NASA determined that it was much safer to bring the satellite back now to safeguard against further system failures in the spacecraft that might hinder a controlled reentry.

Compton spent nine productive years in orbit. Engineers began planning for the Observatory's reentry in April 1999 when gyroscope #3 first began experiencing problems. By the time the gyro actually failed in December 1999, engineers had devised a number of deorbit scenarios. Engineers at Goddard, assisted by their counterparts at the Johnson Space Center, spent the past five months designing a reentry plan to safely deorbit the CGRO spacecraft.

A total of four burns were used to gradually lower the spacecraft's orbit. The first reentry burn was conducted on May 30, and a second burn occurred on May 31. At midnight on June 4, controllers fired CGRO's primary thrusters for a third time bringing the spacecraft's low point to within 92miles (148 km) of the Earth's surface.

SPACE CENTER Roundup

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