

DATES & DATA**January 29**

American Institute of Aeronautics and Astronautics, Houston Section presents "Apollo 13: Lessons in Safety, Quality, & Management." An out-of-this-world story with real-world implications. This unique look into the Apollo 13 mission is told from the perspective of Owen C. Brown, Ph.D., a nuclear submariner who became a spacecraft engineer. The program begins at 6 p.m. with a presentation and refreshments at 7 p.m. The presentation will take place at the University of Houston-Clear Lake's Bayou Building Atrium/Theater (2700 Bay Area Blvd. in Clear Lake.) Parking is available behind the Bayou building in the visitor's lot at no cost. Open to the public at no charge and no RSVP required. <http://www.jsc.nasa.gov/aiaa>.

January 30

JSC NMA meets: The JSC National Management Association chapter meets at the Gilruth Recreation Center at 11:15. R. Ken Trammell, executive director, Marine Corps Materiel Command, Albany, Georgia, will be the guest speaker. More information is available at www.jsc.nasa.gov/nma/

January 31

Astronomy seminar: The JSC Astronomy Seminar Club will meet at noon January 31, February 7 and 14 in Bldg. 31, Rm. 248A. For more information contact Al Jackson at x35037.

Spaceteam Toastmasters meet: The Spaceteam Toastmasters meet at 11:30 a.m. at United Space Alliance, 600 Gemini. For more information contact Patricia Blackwell at (281) 280-6863.

February 1

Communicators meet: The Clear Lake Communicators, a Toastmasters International club, meet February 1, 8 and 15 at 11:30 at Wyle Laboratories, 1100 Hercules, Suite 305. For

more information contact Allen Prescott at (281) 282-3281 or Richard Lehman at (281) 280-6557.

Warning System Test: The site-wide Employee Warning System performs its monthly audio test at noon. For more information contact Bob Gaffney at x34249.

February 1

NSS meets: The Clear Lake area chapter of the National Space Society meets at 6:30 p.m. at the Parker Williams Branch of the Harris Co. Library at 10851 Scarsdale Blvd. For more information contact Murray Clark at (281) 367-2227.

February 6

Quality Society meets: The Bay Area Section of the American Society for Quality meets at 6 p.m. at the Franco's Real Italian Restaurant on NASA Road 1. The speaker will be Bob Vickery discussing "ISO 9000 and Capability Maturity Models." No reservations are required. For more information contact Ann Dorris at x38620.

February 7

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

February 8

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.

February 9

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

"Mission Systems 2001: A Space Lab Odyssey," the first NASA/JSC conference devoted to enabling a dialogue between JSC labs that support the Human Exploration of Space, takes place January 30 - February 1 at the Nassau Bay Hilton.

Interested parties from the center's technology labs on site and off site that support HEDS are invited to attend the conference. All JSC civil servants will be admitted free of

charge and only need to sign the attendance roster at the conference to attend.

For more information, please contact Tom Nicodemus, conference administrative director, 281-286-1555, nicodemus@systems.org or Steven Gonzalez, conference director, 281-483-6314, steven.a.gonzalez@jsc.nasa.gov. Or visit www.mission.systems.org for more information.

NASA BRIEFS**NASA SELECTS INNOVATIVE SMALL BUSINESS PROJECTS**

Developing a new class of deep-sea vehicles for sample collection is just one of the 280 research proposals NASA has selected for Phase I contract awards as part of its Small Business Innovation Research Program. The combined total of the awards is expected to be more than \$19 million.

The goals of the Small Business Innovation Research Program are to stimulate technological innovation, increase the use of small business, including women-owned and disadvantaged firms in meeting federal research and development needs, and increase private sector commercialization of federally funded research results.

NASA received 1,847 proposals, submitted by small, high technology businesses from across the country. The proposals were reviewed for technical merit and feasibility and relevance to NASA research and technology requirements. The selected firms will be awarded fixed-price contracts valued up to \$70,000 each to perform a six-month Phase I feasibility study.

Companies which successfully complete the Phase I activities are eligible to compete for Phase II selection the following year. The Phase II award allows for a two-year, fixed-price contract in the amount up to \$600,000.

The NASA SBIR Program Management Office is located at the Goddard Space Flight Center with executive oversight by NASA's Office of Aerospace Technology, NASA Headquarters. Individual SBIR projects are managed by NASA's ten field centers.

NASA, NOAA GAIN UNPRECEDENTED VIEW OF ANGRY SOLAR CYCLE

As the Sun's stormy season approaches its zenith, solar scientists have the best seat in the house, using the largest coordinated fleet of spacecraft and ground observatories ever assembled to observe these angry outbursts of solar radiation and predict the impact of turbulent space weather.

According to scientists from NASA and NOAA, the Sun is near the peak of its 11-year cycle of activity. Solar maximum is the two-to-three year period around that peak when the Sun's activity is most tempestuous and the Earth is buffeted with powerful solar gusts.

The coordinated use of NASA and NOAA technology was key in tracking and predicting the development of an intense solar storm nicknamed the "Bastille Day Event." With data from ground-based observatories, the Solar and Heliospheric Observatory - a joint project of the European Space Agency and NASA - and NOAA's Geostationary Operational Environmental Satellites, scientists were able to anticipate a bright solar flare and ensuing energetic proton shower July 13.

NOAA forecasters, using data from the Advanced Composition Explorer (ACE), typically can provide about one hour notice of prospective magnitude before the start of a geomagnetic storm. But the July solar shower blinded key ACE detectors. Without reliable data, scientists and forecasters had to wait until Earth's magnetic field became distorted before they knew that the disturbance had arrived.

A G5 geomagnetic storm - the most intense classification - raged for nearly nine hours after the solar shower's impact.

The effects of the July storm were widespread. Cameras and star-tracking navigation devices on several satellites were flooded with solar particles. For additional information on the Internet, visit:

<http://www.gsfc.nasa.gov/GSFC/SpaceSci/sun-earth/solarmax.htm>

<http://www.sec.noaa.gov/sec.html>

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 their 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 \$10. 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 \$90. The cost for additional family members is \$50.

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 5:15-6:15 p.m. Tuesdays and Thursdays. Cost is \$32 for eight weeks. Kristen Taraszewski, instructor.

Yoga: 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 \$32 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 details 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.

SPACE CENTER Roundup

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