

DATES & DATA**November 22**

Alzheimer's support group meets: The Clear Lake Alzheimer's Caregiver Support Group will meet at 7:30 p.m. to 9 p.m. November 22 in the first floor conference room, St. John Hospital West building, Nassau Bay. For additional information, contact Nancy Malley at (281) 480-8917 or John Gouveia (281) 280-8517.

November 24

Astronomy seminar: The JSC Astronomy Seminar Club will meet at noon November 24 and December 1, 8 and 15 in Bldg. 31, Rm. 248A. For details call Al Jackson at x35037.

Spaceteam Toastmasters meet: The Spaceteam Toastmasters will meet at 11:30 a.m. November 24 and December 1 and 8 at United Space Alliance, 600 Gemini. For additional information call Patricia Blackwell at (281) 280-6863.

November 29

AIAA seeks engineers: AIAA seeks engineers to support school visits during Engineers Week, February 21-25, 2000. If you would like to talk with some students about what it's like to be an engineer or to work with NASA, then contact Joy Conrad by November 29, 1999, at jconrad@averstar.com.

December 2

Communicators meet: The Clear Lake Communicators, a Toastmasters club, will meet at 11:30 a.m. December 2 and 9 at Freeman Library, 16602 Diana Lane. For details, call Allen Prescott at (281) 282-3281 or Mark Caronna at (281) 282-4306.

Warning System Test: The site-wide Employee Warning System will perform its monthly audio test at noon December 2. For additional information, call Bob Gaffney at x34249.

December 3

Chess club meets: Space City Chess Club will meet from 5 p.m. to 9 p.m. December 3 at the Clear Lake Park Meeting Room. Beginners are welcome. Visitors should bring their own chess sets and boards.

December 6

NSBE meets: The National Society of Black Engineers will meet at 6:30 p.m. December 6 at Texas Southern University, School of Technology, Rm. 316. For additional information, call Kimberly Topps at (281) 280-2917.

December 7

Quality Society meets: The Bay Area Section of the American Society for Quality will meet at 6 p.m. on Tuesday December 7 at the Ramada King's Inn on NASA Road 1. No reservations are required. For additional information, contact Ann Dorris at x38620.

December 8

IAAP meets: The Clear Lake/NASA Chapter of the International Association of Administrative Professionals (formerly Professional Secretaries International) will meet at 5:30 p.m. December 8 at Bay Oaks Country Club. Cost is \$16. For additional information and reservations, call Tami Barbour at (281) 488-0055, x238.

December 9

Airplane club meets: The Radio Control Airplane Club will meet at 7 p.m. December 9 at the Clear Lake Park building. For more information call Bill Langdoc at x35970.

MAES meets: The Society of Mexican-American Engineers and Scientists will meet at 11:30 a.m. December 9 in Bldg. 16, Rm. 111. For additional information, call George Salazar at x30162.

December 12

Westside NSS meets: The Westside group of the Clear Lake area chapter of the National Space Society will meet at 2 p.m. December 12 at Silicon Graphics, 11490 Westheimer, Suite 100. For details, call Murray Clark at (281) 367-2227.

December 14

Aero Club meets: The Bay Area Aero Club will meet at 7 p.m. December 14 at the Houston Gulf Airport clubhouse at 2750 FM 1266 in League City. For more information call Larry Hendrickson at x32050.

CLA-NSS meets: The Clear Lake area chapter of the National Space Society will meet at 6:30 p.m. December 14 at the Freeman Memorial Branch Library, 16602 Diana Lane. For more information call Murray Clark at (281) 367-2227.

NPMA meets: The National Property Management Association will meet at 5 p.m. December 14 at Robinette and Doyle Caterers, 216 Kirby in Seabrook. Dinner costs \$14. For more information call Sina Hawsey at x36582.

GILRUTH CENTER NEWS

<http://www4.jsc.nasa.gov/ah/exceaa/Gilruth/Gilruth.htm>

Hours: The Gilruth Center is 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.

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 details 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 \$10. Dependents must be between 16 and 23 years old.

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 Taragzewski, 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 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**NASA UNVEILS NEW MAP OF ANTARCTICA**

For 18 days during the Southern Hemisphere spring of 1997, a NASA-launched Canadian satellite called RADARSAT collected pieces of a puzzle that will help scientists study the most remote and inaccessible part of the Earth — Antarctica. Scientists now have the puzzle pieces put together, forming the first high-resolution radar map of the mysterious frozen continent.

With detail to the point of picking out a research bungalow on an iceberg, the new map has both answered scientists' questions about the icy continent, and left them scratching their heads about what to make of strange and fascinating features never seen before.

"This map is truly a new window on the Antarctic continent, providing new beginnings in our Earth science studies there," said Dr. Ghassem Asrar, Associate Administrator for Earth Science, NASA Headquarters, Washington, DC. The new map was produced as part of NASA's Antarctic Mapping Project.

The most amazing features scientists now see are twisted patterns of ice draining from the ice sheet into the ocean. "We were surprised to see a complex network of ice streams reaching deep into the heart of East Antarctica," said Kenneth Jezek, a glaciologist from the Byrd Polar Research Center at Ohio State University.

Ice streams are vast rivers of ice that flow up to 100 times faster than the ice they channel through, with speeds up to 3,000 feet per year. "There are some extraordinary ice streams in East Antarctica that extend almost 500 miles — nearly the distance along the Mississippi River from New Orleans to Cairo, Illinois," Jezek said. Ice streams form the most energetic parts of the Antarctic ice sheet, and scientists believe that they are quite susceptible to environmental change. Ice streams also transport most of the snow that falls on the continent's interior and dump it into the ocean.

"We've recently used RADARSAT and other satellite data to estimate that one ice stream system sends over 19 cubic miles of ice to the sea every year — an amount equivalent to burying Washington, DC, in 1,700 feet of ice every 12 months," said Jezek.

Antarctica looks pure, white and mostly featureless to the low-resolution satellites that previously mapped the frozen landscape. With the new RADARSAT map, however, the continent comes alive. Blocks of broken sea ice line the coast and sedimentary rock protrudes from the rocky walls of Antarctica's Dry Valleys. The vast, perplexing Antarctic Ice Sheet flows and twists into the sea, volcanoes poke through the ice sheet and ice streams flow like rivers into the Southern Ocean. Even the tracks of wayward snow tractors on their way to inland stations are visible.

"We have a new view of the entire southern continent. It shows us something about an extraordinary part of our world and how humans may be changing it — on both local and global scales," said Jezek.

SPACE CENTER Roundup

The Roundup is an official publication of the National Aeronautics and Space Administration, Johnson Space Center, Houston, Texas, and is published by the Public Affairs Office for all space center employees. The Roundup office is in Bldg. 2, Rm. 181. The mail code is AP3. The main telephone number is x38648, and the fax is x32000. Electronic mail messages may be directed to:

EditorWilliam Jeffswilliam.p.jeffs@jsc.nasa.gov
Assistant EditorNicole Cloutierncloutie@ems.jsc.nasa.gov

**PRSR STD
U.S. POSTAGE
PAID**

WEBSTER, TX
Permit No. G27