

Community News

Students learn about the brain

Westwood Elementary students adopt STS-90 Neurolab mission

The students of Westwood Elementary School in Friendswood "adopted" the STS-90 mission, participating in a Neurolab-based educational outreach activity through the Education and Information Services Branch of the Public Affairs Office.

The program consisted of an educational activity that was carried out with the faculty and students of Westwood, in the Friendswood Independent School District. Westwood is a third- and fourth-grade campus only, and has 750 students and 35 teachers. Judy True and Becki Haner were the lead teachers for the activities.

The Neurolab project had its inception last fall when Norm Chaffee, of the Education and Information Services Branch at JSC, conducted a multi-day series of robotics presentations to the students at Westwood. True asked for suggestions for a broader project in the space science area which could involve the entire school. The Neurolab mission was suggested because of its rich set of human and animal studies which lend themselves to separate focused assignments for a large number of individual students or classrooms. Also, a large volume of classroom material was already developed for educational outreach about Neurolab.

As a result, all of the classes were involved in studying various aspects of the mission.

The Education and Information Branch supplied the Westwood teachers with a large amount of information to use to develop their teaching plans.

Each instructor received one of the multi-color Neurolab mission brochures, courtesy of the Space and Life Sciences Directorate at JSC, as detailed background material.

A package of information about the Neurolab websites was provided to the teachers, for background information and ideas for classroom activities and experiments. A notebook containing most of the Neurolab website materials also was provided to Westwood.

Each classroom at Westwood received a crew lithograph, mission patch decal and pocket-sized mission timeline summary. A limited number of cloth mission patches also was provided for lobby and cafeteria display.

One of JSC's Educational Outreach Specialists visited Westwood to give a series of four "Space Basics" briefings to all of the 750 students. The briefings helped the

students understand the basic science involved in some of the Neurolab research.

True and Haner created their own STS-90 Neurolab Mission Packet for all the teachers to use with their students. The packet contained numerous activities and experiments tailored for the third and fourth graders. The basic anatomy of the brain was studied by the students and the teachers made models of the brain that were similar in consistency, size and weight. The students learned about the feel (of the brain) as well as the fragility of the brain and how to protect it.

The teachers also had their students write letters to the astronauts and put together a package of the letters to the STS-90 crew telling the crew of their "adoption" and study of the Neurolab mission.

Several JSC employees, involved in the development of various experiments, visited Westwood prior to and during the mission to interact with "clusters" of classes and to provide some in-depth discussions about individual experiments. These visits also provided an important role model function.

The school followed the progress of the mission on-line by retrieving the regular mission status reports on the Internet. Students were encouraged to develop questions for the crew and Mission Control Center and send them over the Internet for answers.

A select group of teachers visited the center and observed some of the mission and experiment activity from the old Science Monitoring Area in Bldg. 36 as an enrichment experience.

Some of the students organized a field trip to Ellington Field to greet the crew upon their return. This helped them to follow the mission in its entirety.

Several Friendswood Senior High School media/journalism students videotaped and wrote about the students' activities. This gave the high school students an interesting project on which to work and provided a lasting record of what the elementary students did during the mission.

The Westwood students have created a website to chronicle their adoption of the STS-90 Neurolab mission and describe in detail the assignments they have completed while learning about the mission. The Westwood Elementary website may be accessed via the Internet at: http://www.friendswood.isd.tenet.edu/www/sts_90_shuttle_mission_ado.htm.



Adrian Gonzales, a parent volunteer at Hall Elementary School in League City, places student work on a bulletin board. The students wrote stories and created their own illustrations as a part of the new literacy initiative being supported by JSC volunteers.

JSC provides reading tutors to Hall Elementary

JSC has developed a comprehensive program to support Gov. George W. Bush's focus on reading by providing 45 JSC employees to serve in the Clear Creek Independent School District as reading tutors at Hall Elementary School in League City.

"The Johnson Space Center has pledged to Gov. Bush our strong support of his literacy initiative for the youth of Texas," said JSC Director George Abbey. "Tutoring the children at Hall Elementary School is one of several components of our support to enhance the reading skills of children in Texas."

The program started with 12 JSC employees providing reading and math tutoring to 14 at-risk students at Hall Elementary School.

A needs assessment by CCISD showed reading tutors to be of greatest assistance and of most value in improving student performance.

In January 1998, the school identified additional students who would greatly ben-

efit from one-on-one reading tutoring. In response to the need for more tutors, the Education and Outreach Program recruited another 45 employees to serve as reading tutors.

Gretchen Thomas, a lead project engineer in the EVA and spacesuit systems branch described her involvement as "a very rewarding experience."

"I sit down with my student and she can read an entire book to me without help. This amazes me to think that during my first tutoring session, my student could barely sound out simple words at an agonizingly slow rate. I'm very proud of her."

In order to improve student performance at Hall Elementary School, JSC reading tutors meet with the students on a weekly basis during school hours.

JSC's support of Bush's literacy initiative will continue to be expanded in the 1998-99 school year with a similar reading program at CCISD's Stewart Elementary School in Kemah.

JSC Safety Alert

Relief Valve Failure in High Pressure System

What Happened

On March 5, 1998, a relief valve catastrophically failed, separating at the inlet port-body bushing interface. The body of the valve flew off and struck the corrugated siding of the building eight feet above its initial position, making a fist sized dent in the building. The valve then ricocheted off the building and hit the ground approximately 20 feet away, leaving a small impact crater. No one was hurt.

Results of the Investigation

The investigation revealed that the valve, an Anderson, Greenwood and Company Model 81MB88-4L, was set for an operating pressure of approximately 3,000 psia and failed most likely due to damaged threads.

The investigation also revealed that the exit port for the relieving valve was oriented in such a configuration that the high pressure discharge could cause the relief valve to unscrew.

What You Can Do

Work with the Pressure System Manager's Office (PSMO) to inspect all Anderson, Greenwood and Company Model 8100 series relief valves immediately.

Inspect all of your relief valves to assure that relieving gas can not cause any connections to unscrew. Replace any damaged or defective high pressure components. When possible isolate high pressure systems from inhabited office areas or areas with high value equipment.

For more information on this failure, call the PSMO at x37511. The PSMO will be contacting all organizations that are known to have valves potentially affected by this type of failure. <http://www4.jsc.nasa.gov/safety/alert/>

Gilruth Dinner Theater presents murder mystery

Tickets are on sale for the Gilruth Dinner Theater presentation of "Murder on the Happy Trail" at 7 p.m. May 29 in the Gilruth Center ballroom.

During the show, the audience will witness a murder and have the opportunity to assist in solving the crime. Members of the audience participate by grilling the suspects, putting all of the clues together to determine who committed the murder and why. The audience will be broken down into teams by tables and there will be six or eight seats per table. Each team will be allowed only one guess to correctly identify the murderer and the motive.

"Murder on the Happy Trail" is a

murder mystery-comedy with a western theme. "The owner and crew of the Tri-six Ranch have been invited to a social at a neighboring ranch. This is supposed to be a charity fundraiser but, someone is raising funds for herself."

The social begins at 6:30 p.m., dinner is served at 7 p.m. and the play begins at 8 p.m. Tickets are \$18.50 per person and include a dinner of Cajun chicken with rice, Creole green beans, salad with dressing, desert and beverages.

The Gilruth Dinner Theater is sponsored by the JSC Employees Activities Association. For details, contact Mavis Ilkenhans at x49644.

Space history club plans first session

An initial planning meeting discussing the formation of a Manned Spaceflight History (MaSH) Club is scheduled for 11:30 a.m. June 17 in Bldg. 45, Rm. 651.

The goal of the club is to provide a forum for individuals interested in discussing or learning about the his-

tory of the human space flight program and the people involved in space programs worldwide. The agenda for the meeting also will include a presentation on the JSC Oral History Project. For additional information, call Michael Ciancone at x38848.