

NEW AND NOTABLE

■ OPEN HOUSE

Marine Lab hosts biennial event

The FSU Marine Lab will hold its biennial open house on Saturday from 10 a.m. to 3 p.m., at the lab, Turkey Point, U.S. Highway 319 South in Franklin County. The open house features touch tanks with examples of local marine animals, pontoon boat collecting expeditions, posters and demonstrations of research projects, and hands-on exhibits of diving equipment and lectures. Food and beverages will be available at cost. Due to liability concerns, only people 11 and older, or at least in the sixth grade, will be permitted on boats. For more information, call 644-8436 or 697-4095.

■ SPEECH

A newer crystal ball: A new method of hurricane forecasting developed at FSU, called the "Super Ensemble," is receiving national attention for its uncanny accuracy and advanced prediction time. Meteorology Professor T.N. Krishnamurti, a Robert O. Lawton Distinguished Professor at Florida State, will speak about the "Super Ensemble" on Tuesday at 3:35 p.m. in Room 101 of the Love Building.

■ AWARD

Kudos for teaching service: Art education Professor Charles M. Dorn has received the Southeastern Higher Education Art Educator of the Year Award from the National Art Education Association. "This award recognizes a high level of professional accomplishment and service by a dedicated art educator," said NAEA President Eldon Katter. "Dr. Dorn exemplifies the high quality of individuals involved in the field of art education today: leaders, teachers, students, scholars and advocates who give their very best to the profession." Dorn was presented the award at the national convention in Los Angeles earlier this month. NAEA's membership includes elementary school through high school art teachers in 50 states, representatives from America's major art museums, state departments of education, arts councils, and major colleges and universities throughout the United States and 66 foreign countries.

Students test gravity effects

They studied chemical electroplating at NASA

By Frank Liu
SPECIAL TO THE DEMOCRAT

Ever wonder how it feels to float in space, walk on the moon or hop on Mars? Four Florida State University chemistry students did all of that in one day recently at the Johnson Space Center in Houston.

As part of NASA's Reduced Gravity Student Flight Opportunity program, Whitney Murray, Christine Palczynski, Brad Taft and Patsy Vichaikul designed and conducted experiments to test the effects of zero- and low-gravity situations on chemical electroplating. Working with chemistry Professor Oliver Steinbock, the students spent two months drafting their proposals to NASA.

"This experiment has never actually been done before in a reduced-gravity environment. We were the first ones to do it," Palczynski said.

The mission

The students went on a KC-135A turbojet transport, a four-engine turbojet similar to the commercial Boeing 707, known by many in the aerospace trade as the "Vomit Comet," because of its wide, stomach churning roller-coaster like climbs and dives that produce zero-gravity periods of 20 to 25 seconds.

Electroplating is important in the manufacture of compound materials where a thin layer of metal is affixed to another metal or surface to protect it from wear and tear.

"We believe our experiment will improve current electroplating processes, which one day can also be used to

ABOUT IN FOCUS

■ This material was supplied to the Democrat by Florida State University.

improve the protective coating of the Space Shuttle or even our cars," Vichaikul said.

For their experiment, the students dipped zinc and lead rods into opposite corners of a rectangular plate containing chemical solutions to conduct electricity. By applying an electrical field to the solution, a tree-like metal structure is formed between the two metals called a fractal. Fractals are figures with an infinite amount of detail. When magnified, they don't become more simple, but remain as complex as they were without magnification. For example, any rock from the mountain looks like the entire mountain. The key idea of the experiment was to study the growth of these fractal-like structures in reduced gravity environments.

The goal

"The experiment should provide useful clues as to how zero- and low-gravity electromagnetic fields affect the growth rate of fractals," Vichaikul said.

The FSU scientists designed the experiment as part of NASA's goal to improve the understanding of electroplating and other chemical processes.

Now the students are waiting on the results of the experiment. Data collected during the flight has been downloaded, and a chemistry department software specialist has been working on translating



Christine Palczynski, left, and Patsy Vichaikul work on their NASA experiment. Special to the Democrat

the data into useful information.

Twice a year, NASA selects 48 teams from more than 150 universities that apply for the chance to join professional scientists for the two-week program.

This is the second year in a

row that FSU students have been selected for the program, joining such schools as Brown University and the Massachusetts Institute of Technology. Last year, students from the FAMU-FSU College of Engineering were the first ones to represent the university.

Dinner will honor key research faculty