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This Week @ The Beach

Week of July 26, 2010

Cal State Long Beach College of Engineering Sends Minority 5th-Grade Girls to Florida's Kennedy Space Center

With many having never traveled far beyond their own neighborhoods, 30 high-achieving elementary school girls from underserved communities in Long Beach are flying with Cal State Long Beach (CSULB) staff to Cape Canaveral, Fla. today (Monday, July 26) for a four-day visit to the Kennedy Space Center and watch a rocket launch.

As part of the CSULB's College of Engineering's growing effort in encouraging young girls to consider future careers in engineering, the "NASA Learning Experience" (NLE) trip to the will feature tours of the Saturn V rocket display, International Space Station centers and the Astronauts Hall of Fame.

At the space center, the girls will be involved in hands-on activities, academic workshops provided by NASA scientists and staff and a "Legend and Trailblazers" panel that will include current and former astronauts, moderated by Nichelle Nichols, the actress who played Lieutenant Uhura in Star Trek.

"The visit to the Kennedy Space Center will offer real-world context for the experiential learning that is already offered in the workshops provided by Cal State Long Beach's 'Women Engineers@the Beach' and 'Engineering Girls@the Beach' programs," said Lily Gossage, director of CSULB's College of Engineering Recruitment and Retention Center and principal investigator for the NLE trip. "This will be an unforgettable trip for these girls. Their parents would not be able to afford such a trip, so they're just as excited as their girls are. This experience couldn't have happened without the help of so many people from on and off campus."

On the final day, the girls will watch a United Launch Alliance Atlas 5 rocket launch from Cape Canaveral. Built by Lockheed Martin, the rocket will place an "advanced and extremely high frequency" communications satellite in orbit around the Earth.

Gossage's girls are one of nine groups of students traveling to Florida, selected by NASA from among 22 entries submitted by universities from across the country. CSULB's girls are all fifth-graders, the youngest out of all the groups.

The 30 girls attend five elementary schools within the Long Beach Unified School District (LBUSD) -- Chavez, Edison, International, Roosevelt and Stevenson -- all of which have high-minority enrollment.

To make the trip to Florida possible, funds and supplies poured in from many donors. Airfare, bus transportation, hotel accommodations, food during the trip, journals and disposable cameras were provided by funding Gossage received as the result of a proposal she submitted to NASA.

Since all 30 girls are from low-income families, all of the travel supplies they need for the trip were also donated.

From CSULB, luggage, baseball caps, sunglasses, toothbrushes/toothpaste, name badges and food for parent-student meetings were donated by the CSULB Foundation and Gossage. T-shirts were donated by those working in the university's California Launch Vehicle Education Initiative program and the Engineering Dean's Fund.

Rain ponchos were provided by the campus' Institute of Electrical and Electronics Engineers and the Biology and Medicine in Engineering college. Airfare and hotel accommodations for three additional adult chaperones were funded by CSULB's Center for Human Factors in Advanced Aeronautics Technologies (CHAAT).

The campus' Institute of Electrical and Electronics Engineers and the Biology and Medicine in Engineering donated money for backpacks. A member of the President's Commission on the Status of Women, two CHAAT members and a NASA Ames researcher and his wife donated money for school supplies and extra spending for the girls during the trip.

In addition, Gossage and co-principal investigators Panadda Marayong, faculty adviser of the Society of Women Engineers, and Kim Vu, associate professor psychology at CSULB, waived their salaries for the grant.

Twenty-two other girls who applied but were not selected for the trip received some of the donations to inspire their continued success.

To ensure critical personnel travel with the girls, eight adult chaperones will accompany Gossage and Marayong to Florida. Those from LBUSD will guarantee that NASA forum lessons and concepts are successfully integrated into pre-existing mathematics and science curricula at the elementary schools.

"We will be looking to acquire new learning ideas that will enrich the existing workshops we use in our campus programs and develop new ones," said Gossage. "The counselors will later work with science teachers and science curriculum coaches to identify specific content standards around which the NASA lessons should be developed. Pre-existing lesson plans might also be augmented using newly-acquired concepts or combined with the NASA lessons."

All the donated items were given to the girls and their families at a parent orientation meeting on Saturday, July 17.

Profiles of each of the 30 girls may be viewed at <http://www.csulbchaat.org/outreach/nasa-experience/participants>.

-- Paul Browning