

Second flight of KidSat, part of NASA's three-year pilot education program at UCSD, Jan. 13-21

January 10, 1997

MEDIA ADVISORY

EVENT: Second Flight of KidSat

DATE/TIME: 10 a.m.--12 noon, Jan. 13, 1997

10 a.m.--12 noon, Jan. 21, 1997

LOCATION: Chemistry Research Building

First Floor

University of California, San Diego

BACKGROUND: The second flight of KidSat (for Kid's Satellite), part of NASA's three-year pilot education program designed to bring the frontiers of space exploration to 15 U.S. middle school classrooms via the Internet, is scheduled to begin next week aboard the Space Shuttle Atlantis.

During the Shuttle flight, the KidSat mission operations center at UCSD will be staffed by undergraduate and high school students. The center has capabilities similar to those of Mission Control at NASA's Johnson Space Center (JSC) in Houston. The students receive telemetry from the Shuttle on their computer monitors and can listen to and receive instructions from NASA's flight controllers over direct channels to JSC.

The pilot program is a partnership between NASA's Jet Propulsion Laboratory (JPL), UCSD, and the Johns Hopkins University Institute for the Academic Achievement of Youth (JHU-IAAY).

Sally Ride, the first U.S. woman astronaut and currently a UCSD professor of physics, spearheads the program at UCSD.

Three San Diego-area middle schools will participate in this mission: Lewis Middle School and Gompers Magnet School in San Diego; and Olive Pierce Middle School in Ramona.

Media Opportunities: Take video or photos of the KidSat mission operations center at UCSD while students work the controls. Interviews with students and other KidSat representatives can be arranged.

Media Contact: Warren R. Froelich, (619) 534-8564, wfroelic@ucsd.edu

Beth Schmid

Headquarters, Washington, DC. January 9, 1997

(Phone: 202/358-1760)

Stephanie Zeluck

Jet Propulsion Laboratory, Pasadena, CA (Phone: 818/354-5011)

RELEASE: 97-6

KIDSAT BRINGS SPACE SHUTTLE EXPERIENCE TO CLASSROOMS

The Space Shuttle Atlantis, scheduled for launch Jan. 12, will support the second flight of KidSat, NASA's pilot education program that uses an electronic still camera aboard the Shuttle to bring the frontiers of space exploration to 15 U.S. middle school classrooms via the Internet.

The three-year pilot program is a partnership between NASA's Jet Propulsion Laboratory (JPL), the University of California at San Diego (UCSD), and the Johns Hopkins University Institute for the Academic Advancement of Youth (JHU-IAAY).

During the Shuttle mission, the KidSat mission operations center at UCSD will be staffed by undergraduate and high school students. The center is modeled after Mission Control at NASA's Johnson Space Center (JSC) in Houston. The students receive telemetry from the Shuttle on their computer monitors and can listen to and receive instructions from NASA's flight controllers over direct channels to JSC.

The KidSat mission operations team monitors the Shuttle's progress around the clock and continually provides up-to-date information to the middle schools, who are using the Internet to send Instructions to photograph specific regions of the Earth. Since any change in the Shuttle's orbit can affect students' selections, UCSD constantly updates this information so that the middle schools may re-plan their photographic requests if necessary. This is done through a sophisticated World Wide Web site that allows students access to interactive maps of orbit ground tracks to aid in photo selection.

When the image requests have been verified by KidSat mission operations, they are compiled into a single camera control file and forwarded electronically to the KidSat representatives at JSC. They pass this file on to flight controllers who uplink it to an IBM Thinkpad connected to the KidSat camera. Software on the Thinkpad, developed by students working at JPL, uses these commands to control the camera. These same students trained the astronauts on the use of the software and the installation of the KidSat camera in the Shuttle's overhead window.

After the photographs are taken, they are sent back down to the KidSat data system at JPL, staffed by high school students during the mission and posted on the World Wide Web for the students to study and analyze. The curriculum used by the middle school students and teachers is being developed by the JHU-IAAY and UCSD.

Some of the topics the students explored during the first KidSat mission were weather, biomes, the relationship between history and geography and the patterns of rivers on the landscape. Additional interests for this mission include searching for impact craters and studying the relationships of center pivot irrigation fields to available water supply.

Images and student results will be posted on the KidSat home page. Interested public school districts, teachers, and students may view the images and information provided by students during the mission via this World Wide Web site:

<http://www.jpl.nasa.gov/kidsat>

The KidSat pilot program is sponsored by NASA's Office of Human Resources and Education, with support from the Offices of Space Flight, Mission to Planet Earth, and Space Science.

(January 10, 1997)