On August 16-17, 2006, a team consisting of Mike Kido (UH Center for Conservation Research and Training), Carsten Mundt (*Intelesense Technologies, Inc.*), Ryan Hirae, Kekoa Hayashi, Trevor Wilkey and Aaron Tsutsumi (Pan-Pacific Education and Communication Experiments by Satellite - PEACESAT) installed an *InteleCell*™ base station / repeater unit at the PEACESAT offices in Saunders Hall on the University of Hawaii's (UH) Manoa Campus.

An *InteleCell*^{TM} is a small, rugged, wireless, GPS-enabled data acquisition platform that was developed in an ecology-engineering collaboration initiated between UH and Stanford University during the National Science Foundation's EPSCoR (Experimental Program to Stimulate Competitive Research) Program awarded to UH in FY 2003-2006. *InteleSense Technologies, Inc.* is a high-tech "spin off" company of UH EPSCoR incorporated in Honolulu in January 2005. The company specializes in environmental monitoring and manufactures *InteleCells*^{TM} in production facilities located in Silicon Valley, CA. These cutting-edge data-logging devices were designed to generically interface with research / commercial sensors (e.g. weather, air and water quality, soil moisture, video for surveillance, etc.) and transmit their data "smartly" over distances of up to 40 miles to an Internet-connected base station. From the base station, data are uploaded automatically to a server database and viewable by users in near real-time on a 3D visualizer (*InteleView*^{TM}) developed on the NASA World Wind software platform. Or to quote the *InteleSense Technologies, Inc.* website, "In short, we integrate any data from anywhere in the world, in real-time."

Mike Kido and Carsten Mundt discussing the system's line of

The *InteleCell*^{TM} unit is inside the black weatherproof case and its antenna is on the left arm of the structure, the solar panel that powers the system is at the bottom right of the

The PEACESAT installation initiated a new research collaboration with UH EPSCoR and *InteleSense Technologies, Inc*. creating a new "test bed" site on the UH Manoa Campus. The newly installed *InteleCell*^{TM} / Repeater will make possible the development of new applications such as an "early flood warning system" linking *InteleCell*^{TM}-based flow sensors deployed in Manoa Stream. In addition, PEACESAT's established network of satellite-linked sites across the Pacific will make possible the transfer of this evolving

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cyberinfrastructure technology across the Pacific Basin.

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