

ENTREPRENEURSHIP & INVESTMENT SYMPOSIUM (E6)
Dynamics of Entrepreneurship (1)

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OPERATING A LUNAR ANALOG TEST SITE: BUSINESS AND ENTREPRENEURIAL
CONSIDERATIONS

Abstract

The Pacific International Space Center for Exploration Systems (PISCES) is entering its second year as an Institute at the University of Hawai'i at Hilo which uniquely combines research and education. In addition to its own educational and research activities, PISCES shares the unique geographical features of its location by providing a lunar analog test/demonstration site which provides unparalleled services for testing robotics, ISRU, communications, habitat design and related technologies. In November, 2008, PISCES successfully hosted approximately 60 scientists from organizations around the world. Further tests, involving even broader participation, are planned for November 2009 and January/February 2010.

We describe the advantages of conducting tests in an environment which combines geographical features which closely resemble those found on the moon with excellent local and international transportation facilities, a comfortable living environment for researchers, high quality support laboratories and shops at the University's laboratories, and the opportunity to engage enthusiastic undergraduate students as support assistants.

The talk will use the 'lessons learned' from the November 2008 tests and the current planning for future tests to discuss the experience from the entrepreneurial point of view. Services provided by PISCES included complex land use permitting, arranging for personnel and equipment transportation, onsite housing and food services, communications links, liaisons with the local community, etc. In addition to describing the technologies which were demonstrated at the PISCES site, we will touch on such issues as (1) integrating the needs of both science and public relations, (2) developing a system which maintains flexibility while preserves the ability to plan, (3) establishing a billing system suitable for multiple user organizations, (4) operating a test/demonstration

The talk will describe the features which PISCES discovered were critical to an operation which was deemed successful by the participants while providing sufficient revenue to cover the costs of the goods and services provided by PISCES. The underlying concept of providing the site for successful tests—providing all support services in an invisible way so that scientists can concentrate on the science—will be explored. The talk will be highly useful to research groups contemplating field tests at remote analog sites.