PARTICIPATORY SPACE EXPLORATION AND EDUCATION AT PISCES. F.D. Schowengerdt[1], Robert Fox[2] and John Hamilton[3], 1. Director, Pacific International Space Center for Exploration Systems (PISCES), 709 Fitzhugh Way, Alexandria, VA 22314, schoweng@hawaii.edu., 2. Deputy Director, PISCES, University of Hawai`i at Hilo, 200 W. Kawili St., Hilo, HI, 97620, rfox@hawaii.edu , 3. Operations Manager, PISCES, University of Hawai`i at Hilo, 200 W. Kawili St., Hilo, HI, 97620, jch@hawaii.edu

The new U.S. space policy calls on NASA to increase participation in space exploration by the general public and promote STEM education by inspiring the next generation. These goals parallel those of the Pacific International Space Center for Exploration Systems (PISCES). The Center was established in 2007 at the University of Hawai`i at Hilo with seed funding from the State Legislature. For the past several years, PISCES has played host to teams from NASA, the Northern Centre for Advanced Technology (NORCAT), the Canadian Space Agency (CSA), the German Aerospace Agency Deutsches Zentrum für Luft-und Raumfahrt (DLR), along with numerous private companies, for the testing of ISRU and robotic systems at its test site, located on the lower slopes of Mauna Kea on the Big Island of Hawai`i. Considerable success has been realized by members of these teams and by PISCES to reach out to the local community by giving talks at K-12 schools, holding demonstrations at the local ‘Imiloa Astronomy Center, participating in local space-related events such as Onizuka Day, judging science fairs, organizing a Cultural Advisory Board, and in many other ways. Our goal is to give the local population as much opportunity as possible to participate in our activities and thus become part of the international efforts to explore space. PISCES is becoming recognized in Hawai'i for its activities in space-related education and community outreach. This paper discusses the dual attributes of PISCES both as an analog test site, focusing on recent ISRU tests as examples, and as a catalyst for the involvement of the local community and inspiration for kids to study STEM disciplines.