### CMI wave model displayed in HI

An interactive demonstration of wave-reef interactions at the College of the Marshall Islands was on display at this year’s School of Ocean and Earth Science and Technology (SOEST) Open House held at the Manoa Campus of the University of Hawaii October 21-22. A model representation of Majuro Atoll was subjected to wave action for various stages of the tide demonstrating how the reef protects the island by dissipating wave energy through breaking at the reef edge, and a poster was presented with supplemental information about flooding events in Majuro. Also on display was the video by Murray Ford, of the University of Hawaii Sea Grant Program who is based at CMI, which focuses on high tide events in Majuro.

Visits by University of Hawaii researchers over the last two years provided a lasting impression of how sea-level rise has the potential to impact these island communities. The SOEST Open House was an opportunity to bring attention to this issue and to teach the students of Hawaii how reefs protect island communities from wave action.

The wave tank was designed to allow the students to control the ocean wave intensity and tidal level in Majuro. By manipulating these environmental processes the students were able to learn the conditions that can lead to serious flooding events, and to understand the importance of the surrounding reef in protecting the land from wave inundation.

The interactive display focused on the difference between low-tide, high-tide, and king-tide phases. The village and surrounding reef were designed to show Majuro’s low-lying elevation, that flooding can occur on both the ocean and lagoon sides of the atoll, and to represent the density of the housing. Also presented was how humans impact the reef at Majuro, specifically by reef mining and marine debris. Over the two days of the Open House event, 6,600 students, teachers, parents, and community members visited the many booths and displays. Quite a few Marshallese students and residents came by.

One resident who has a house on the lagoon side of the island said that the display made him homesick for Majuro. He shared stories about the Majuro flooding event of 1979; how he took refuge on the roof of his house and watched the village float by.

Interactions with this gentleman and the many students made this event not only educational for the visitors, but also for the participating research team and graduate students.