Detailed bathymetric map of Nuuanu and Wailau Slides, Northeast of Oahu Island

John Smith [1], # Kenji Satake [2], Tadahide Ui [3], Frank Trusdell [4], Nohiro Tsuboyama [5], Jirou Naka [5], Eiichi Takahashi [6]

[1] SOEST, Univ.of Hawaii, [2] Geological Survey of Japan, [3] Earth and Planetary Sci., Hokkaido Univ., [4] USGS Hawaii Volcano Obs., [5] JAMSTEC, [6] Earth and Planetary Sci., Tokyo Inst. of Tech.

Mulitbeam bathymetric and sidescan sonar mapping was carried out over the large debris avalanche deposits of the northern shores of Oahu and Molokai Islands during the Hawaiian cruise of R/V cruise Kairei in August 1998. More than fifty blocks are found in the region, including Tuscaloosa with 30 km x 20 km x 1500 m in size and located at 100 km from Oahu. The blocks are 5-20 km long, 2-20 km wide and 300-1500 m high above the surrounding seabed. The Nuuanu slide blocks from Koolau volcano on Oahu strike in the NW-SE direction, while the Wailau slide blocks are generally striking E-W. Clearer separation of the two slides can be combined with further petrologic studies to estimate the relative timing of the two slides.

Mulitbeam bathymetric and sidescan sonar mapping was carried out over the large debris avalanche deposits of the northern shores of Oahu and Molokai Islands during the Hawaiian cruise of R/V cruise Kairei in August 1998. More than fifty blocks are found in the region, including Tuscaloosa with 30 km x 20 km x 1500 m in size and located at 100 km from Oahu. The blocks are 5-20 km long, 2-20 km wide and 300-1500 m high above the surrounding seabed. The Nuuanu slide blocks from Koolau volcano on Oahu strike in the NW-SE direction, while the Wailau slide blocks are generally striking E-W. Clearer separation of the two slides can be combined with further petrologic studies to estimate the relative timing of the two slides.