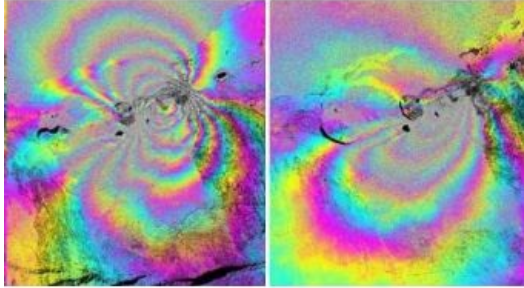


Interferometry Study of Hawaiian Volcano



An airborne radar developed by NASA's Jet Propulsion Laboratory, USA, has returned to Hawaii to continue its study of the Kilauea volcano, currently Hawaii's most active volcano. The Uninhabited Aerial Vehicle Synthetic Aperture Radar, or UAVSAR, which was mounted in a pod under NASA's G-III research aircraft from NASA's Dryden Flight Research Center, USA, returned to Hawaii's Big Island on 7th January 2012. The one-week-long airborne campaign will help scientists better understand processes occurring under the Earth's surface at Kilauea.

UAVSAR uses a technique called interferometry that sends pulses of microwave energy from the sensor on the aircraft to the ground to detect and measure very subtle deformations in Earth's surface.

The radar will collect data over Kilauea from an altitude of about 41,000 feet (12,500 metres). UAVSAR previously studied the region in January 2010 and May 2011. Those two sets of observations successfully imaged the surface deformation caused by the March 2011 fissure eruption in Kilauea's east rift zone.

Flights this month will trace the same path as the two previous years to measure deformation of the volcano since the March 2011 eruption and as part of future studies of the volcano's changing deformation patterns due to volcanic activity.

Image: Colour-enhanced UAVSAR interferogram images of Hawaii's Kilauea volcano, taken between January 2010 and May 2011. The images show the east rift zone of Kilauea, about 6 miles (9.7 kilometers) from the summit caldera. Lava has been flowing from the east rift zone, the most active part of Kilauea, since 1983. Image courtesy: NASA/JPL-Caltech.