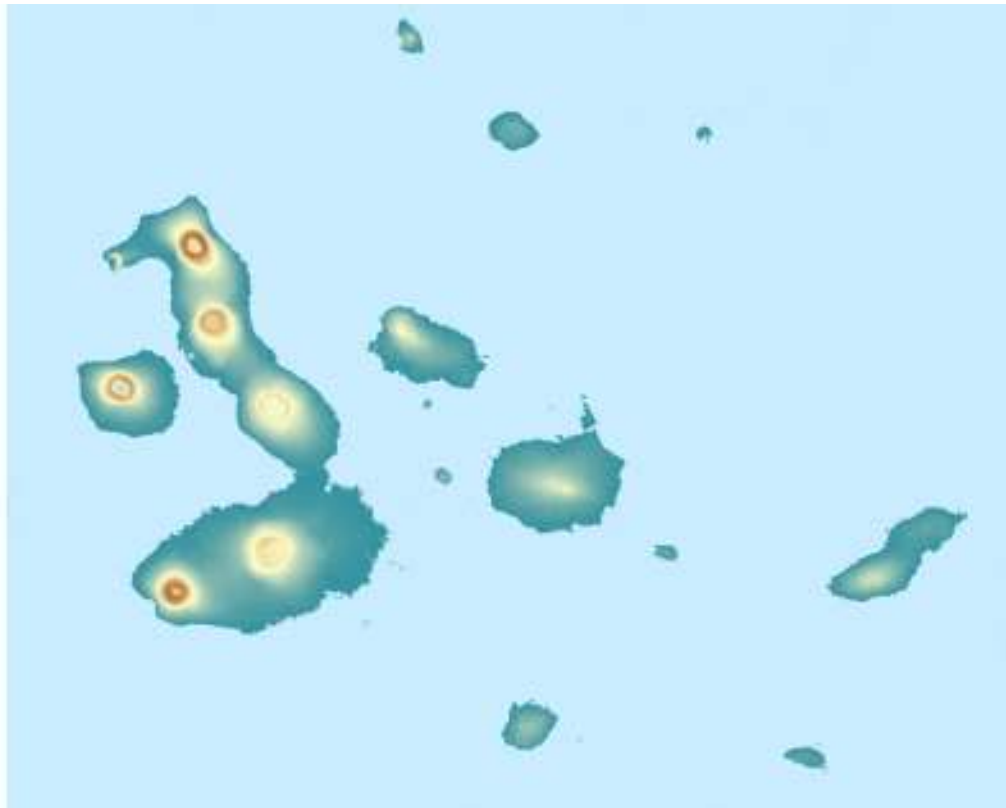


Weekly image: Week 10, 2007

Galapagos Islands' elevations observed from space



Digital elevation model for the Galapagos Islands

The islands are between 0.7 and 4.5 million years old. It is clear that the westerly islands consist of large volcanoes that are crowned by calderas, i.e. collapsed craters. In contrast, the easterly islands do not look like volcanoes. This is due to the fact that the Galapagos Islands have been formed from so-called hot spot volcanism. The islands are located on the Nazca plate that is moving east towards the South-American plate. Underneath the Galapagos Islands is a hot spot where warm material from the mantle is moving up towards the surface of the earth. This is where the volcanoes are formed. As the tectonic plate is moving towards the east, the new and active volcanoes are located in the western part while the ancient, extinct volcanoes are found in the eastern part. The hot spot does not move.

The most recent eruption happened October 2005 at the volcano Sierra Negra that is located on the southeasterly part of the largest island, Isabela, and it reaches 1490 meter above sea level.



Technical information

The digital elevation model is a result of the successful American shuttle mission in February 2000. During just 11 days the shuttle mapped 80% of the elevation of the Earth above sea level. The mission is called the Shuttle Radar Topography Mission (SRTM).

Read more about SRTM at:

http://galathea3.emu.dk/satelliteeye/casestudies/capeverde/back_uk.html#indhold996

The image is produced by GRAS for Satellite Eye for Galathea 3:

<http://www.gras.ku.dk/>