NASA Goes 'Down Under' for Shuttle Mapping Mission Finale

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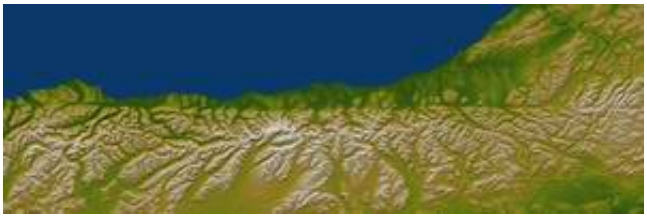

Culminating more than four years of processing data, NASA and the National Geospatial-Intelligence Agency (NGA) have completed Earth's most extensive global topographic map.
The data, extensive enough to fill the U.S. Library of Congress, was gathered during the Space Shuttle Endeavour Radar Topography Mission (SRTM) in February 2000.
The digital elevation maps encompass 80 percent of Earth's landmass. They reveal for the first time large, detailed swaths of Earth's topography previously obscured by persistent cloudiness. The data will benefit scientists, engineers, government agencies and the public with an ever-growing array of uses.

Image: The Alpine fault runs parallel to, and just inland of, much of the west coast of New Zealand's South Island. This view was created from the near-global digital elevation model produced by the Shuttle Radar Topography Mission (SRTM) and is almost 500 kilometers (just over 300

miles) wide. Northwest is toward the top. The fault is extremely distinct in the topographic pattern, nearly slicing this scene in half lengthwise. (NASA)

"This is among the most significant science missions the Shuttle has ever performed, and it's probably the most significant mapping mission of any single type ever," said Dr. Michael Kobrick, mission project scientist of NASA's Jet Propulsion Laboratory, Pasadena, Calif.

The final data release covers Australia and New Zealand in unprecedented uniform detail. It also covers more than 1,000 islands comprising much of Polynesia and Melanesia in the South Pacific, as well as islands in the South Indian and Atlantic oceans.

"Many of these islands have never had their topography mapped," Kobrick said. "Their low topography makes them vulnerable to tidal effects, storm surges and long-term sea level rise. Knowing exactly where rising waters will go is vital to mitigating the effects of future disasters such as the Indian Ocean tsunami," he said.

SRTM data are being used for applications ranging from land use planning to "virtual" Earth exploration. "Future missions using similar technology could monitor changes in Earth's topography over time, and even map the topography of other planets," said Dr. John LaBrecque, manager of NASA's Solid Earth and Natural Hazards Program, NASA Headquarters, Washington.

The SRTM radar system mapped Earth from 56 degrees south to 60 degrees north of the equator. The resolution of the publicly available data is three arc-seconds (1/1,200th of a degree of latitude and longitude, about 295 feet, at Earth's equator). The mission is collaboration among NASA, NGA, the German and Italian space agencies. SRTM's role in space history was honored with a display of the mission's canister and

mast antenna at the Smithsonian Institution's Udvar-Hazy Center, Chantilly, Va.

Source: NASA

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