

CENTER FOR LUNAR SCIENCE AND EXPLORATION

vitality impacting the future – today

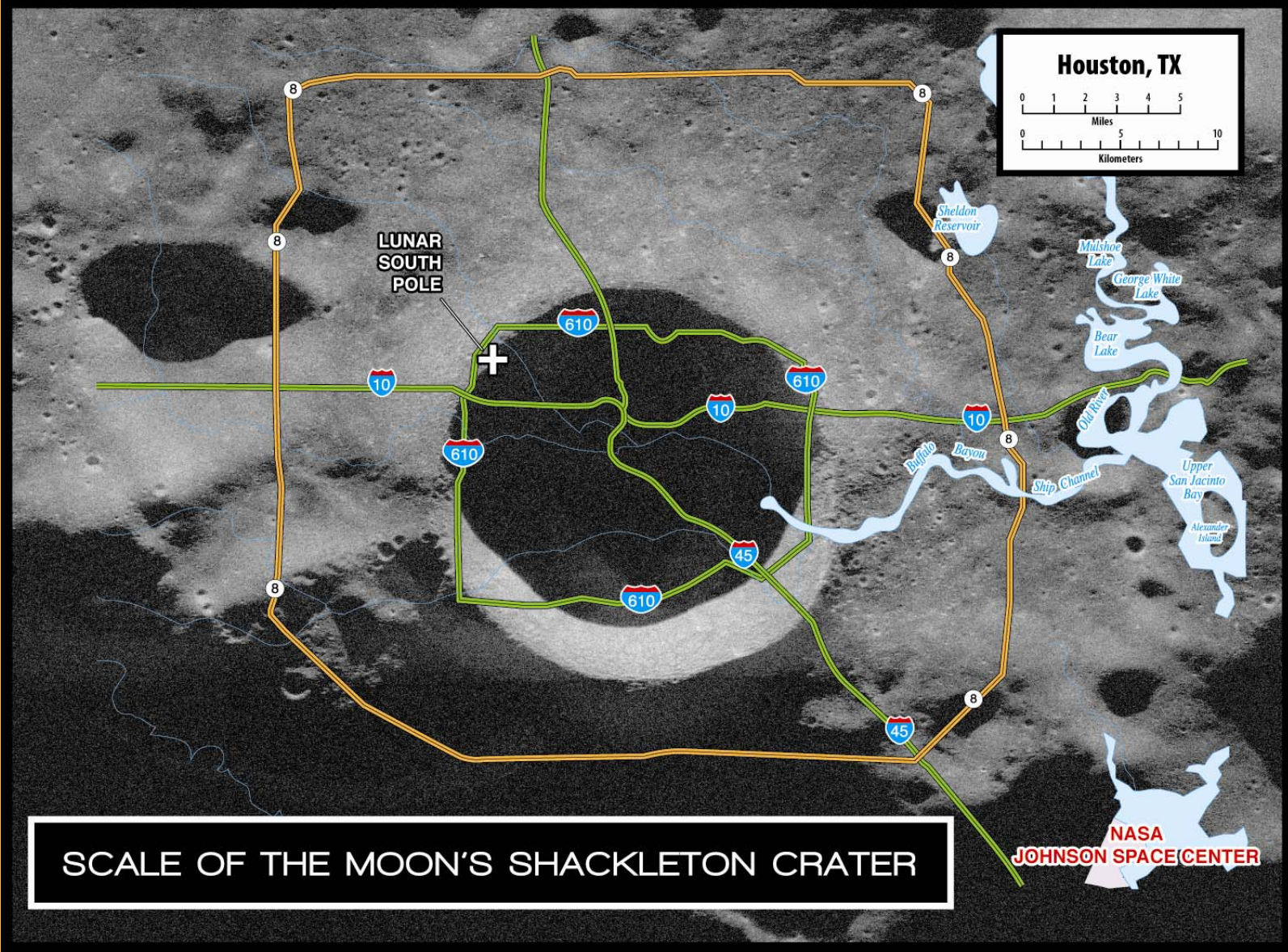


Shackleton
19 km diameter

This crater is about as big
as Meteor Crater in Arizona
1.2 km diameter

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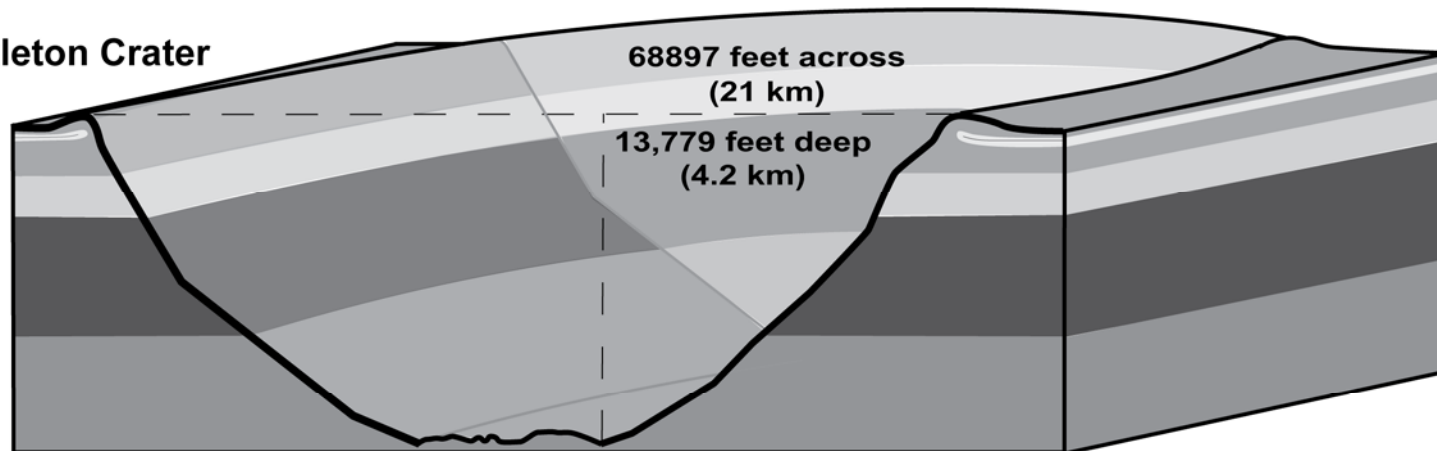


Dr. David A. Kring (USRA - <http://www.lpi.usra.edu/science/kring/>)

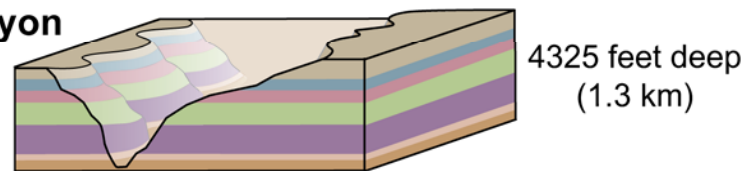


SHACKLETON CRATER vs. GRAND CANYON

Shackleton Crater



Grand Canyon





The Scale of Shackleton Crater at the Lunar South Pole

Shackleton Crater is ~20 kilometers in diameter and a little over 4 kilometers deep. The crater is at the lunar South Pole and is a primary target for future lunar landings. Shackleton Crater may serve as a base for exploration of the South Pole-Aitken Basin, which is the oldest and largest impact basin on the Moon and possibly the largest impact basin in the solar system.

The first slide contains an oblique view of Shackleton Crater and the Earth along the horizon as seen by Japan's Kaguya spacecraft (© JAXA). That view was annotated by Dr. Dan Durda (Southwest Research Institute) who compared the size of Shackleton Crater with Arizona's famous Barringer Meteorite Crater (aka Meteor Crater - http://www.lpi.usra.edu/publications/books/barringer_crater_guidebook/).

The second slide compares the diameter of Shackleton Crater with the size of Houston, Texas. The highways that loop around Houston are shown along with nearby waterways and the NASA Johnson Space Center on Clear Lake. The radar image of Shackleton Crater in the background is provided courtesy of Dr. Donald Campbell (Cornell University) and Dr. Bruce Campbell (Smithsonian Institution).

The third slide compares the depth of Shackleton Crater with the depth of the Grand Canyon as seen between Enfilade Point and Ives Point. Shackleton Crater is ~3 times deeper than the Grand Canyon.

The landscape of the Moon is as dramatic, if not more dramatic, than that in our most treasured national parks.

Dr. David A. Kring (USRA - <http://www.lpi.usra.edu/science/kring/>)