





### *“Shooting Star” (or Bolide) Over Gemini North*

This frame from a time-lapse image sequence clearly shows a bright meteor (or Bolide) streaking across the frame in addition to the Big Dipper asterism above the Gemini North dome. To the left, the Pleiades star cluster sets over the Subaru and Keck observatories (Subaru is the name for the Pleiades in Japan, in Hawai‘i it is known as Makali‘i or ‘little eyes’). This scene appears bright due to illumination from the nearly full moon.

The Frederick C. Gillett Gemini North telescope is located on Hawaii’s Mauna Kea as part of the international community of observatories built to take advantage of the superb atmospheric conditions on this long dormant volcano that rises 4,214 meters into the dry, stable air of the Pacific. The Gemini Observatory’s international headquarters is located in Hilo, Hawai‘i at the University of Hawai‘i at Hilo’s University Park.

Image by Joy Pollard.

#### Gemini Observatory – Facts and Figures:

##### Primary Mirror:

Diameter: 8.1 meters/26.58 feet/319 inches  
Mass: 22.22 metric tonnes/24.5 U.S. tons  
Composition: Corning Ultra-Low Expansion (ULE) Glass  
Surface Accuracy: 15.6 nm RMS (Between 1/1000 – 1/10,000 thickness of human hair)

##### Telescope Structure:

Height: 21.7 meters/71.2 feet/7 stories (from “Observing Floor”)  
Weight: 380 metric tonnes/418 U.S. tons  
Optomechanical Design: Alt-azimuth/Cassegrain

##### Dome:

Height: 46 meters/151 feet/15 stories (from ground)  
Weight: 780 metric tonnes/858 U.S. tons (moving mass)  
Rotation: 360 degrees in 2 minutes  
Thermal Vents: 10 meters/32.8 feet (width – fully open)

##### Other Data:

Elevation: Gemini North: 4,214 meters/13,824 feet  
Gemini South: 2,737 meters/8,980 feet  
Location: Gemini North: 19°49.4’N/155°28.1’W  
Gemini South: 30°14.5’S/70°44.8’W

Go to: [www.gemini.edu/images](http://www.gemini.edu/images) to see this and other images.