

**Table 17.25-- ASTRONOMY AND RELATED FACILITIES AT
THE SUMMITS OF MAUNA KEA AND HALEAKALA: 2013**

Facility (mirror diameter in meters)	Capital cost 1/ (\$ mil)	Annual operating cost (\$ mil)	County based staff	Opera- tional
Mauna Kea observatories				
Total	611	82.7	497	(X)
UH 2.2-m (Optical/Infrared)	5	1.5	6	1970
Canada-France-Hawaii 3.6-m (Optical/Infrared)	30	7.2	44	1979
NASA IRTF 3.0-m (Infrared)	10	4.3	19	1979
United Kingdom 3.8-m (Infrared)	5	1.4	5	1979
James Clerk Maxwell 15-m Submillimeter	32	6.0	43	1986
Caltech 10.4-m Submillimeter	10	0.6	5	1986
VLBA Antenna 25-m (Radio)	7	0.4	2	1992
W.M. Keck Observatory (Keck I & II) 10-m x 2 (Optical/Infrared)	170	13.8	118	1992/1996
Subaru (Japan National Large Telescope) 8-m (Optical/Infrared)	170	26.0	96	1999
Fredrick C. Gillett Gemini 8m (Optical/Infrared)	92	13.8	94	1999
Submillimeter Array 8x6-m	80	5.5	24	2003
Mauna Kea Observatories Support Services	(X)	2/ 4.9	41	1980
Haleakala observatories				
Total	349.7	40.4	167	(X)
Mees Solar Observatory	0.5	0.2	1	1963
Haleakala Observatories Projects	(NA)	0.5	4	(NA)
Maui Space Surveillance Site (MSSS) 3/ Ground-Based Electro-Optical Deep Space Surveillance (GEODSS)	250.0	26.3	117	1965
Faulkes 2-m Telescope	25.0	6.1	16	1983
Transportable Laser Ranging System (TLRS4)	10.0	0.6	2	2003
Panoramic Survey Telescope And Rapid Response System (Pan-STARRS)	0.6	0.5	5	2005
Haleakala Support Facilities	55.0	5.6	11	2009
	8.6	0.6	11	1962/2008

NA Not available.

X Not applicable.

1/ Historical cost, not adjusted for inflation, and not including subsequent capital improvements for Mauna Kea Observation.

2/ Only \$1.2 million of this included in total as the other \$3.1 million are part of facility operating costs.

3/ Formerly Air Force Maui Optical Station (AMOS).

Source: University of Hawaii at Manoa, Institute for Astronomy, records.