

**Table 17.25-- ASTRONOMY AND RELATED FACILITIES AT  
THE SUMMITS OF MAUNAKEA AND HALEAKALA: 2016**

Facility (mirror diameter in meters)	Capital cost (\$ mil) 1/	Annual operating cost (\$ mil)	County based staff	Opera- tional
Maunakea observatories				
Total	601	72.5	484	(X)
UH 2.2-m (Optical/Infrared)	5	1.0	6	1970
Canada-France-Hawaii 3.6-m (Optical/Infrared)	30	7.4	45	1979
NASA IRTF 3.0-m (Infrared)	10	5.1	19	1979
UKIRT 3.8-m (Infrared)	5	2.2	6	1979
James Clerk Maxwell 15-m Submillimeter	32	4.7	35	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	13.5	120	1992/1996
Subaru 8-m (Optical/Infrared)	170	17.0	101	1999
Fredrick C. Gillett Gemini 8-m (Optical/Infrared)	92	13.7	83	1999
Submillimeter Array 8x6-m	80	5.5	23	2003
Maunakea Observatories Support Services	(X)	2/ 5.6	44	1980
Haleakala observatories				
Total	749	40.7	202	(X)
Mees Solar Observatory	1	0.2	1	1963
Haleakala Observatories Projects	(NA)	0.2	2	(NA)
Maui Space Surveillance Site (MSSS) 3/	250	26.3	117	1965
Ground-Based Electro-Optical Deep Space				
Surveillance (GEODSS)	25	6.1	16	1983
Faulkes 2-m Telescope	10	0.6	2	2003
Transportable Laser Ranging System (TLRS4)	1	0.5	5	2005
Panoramic Survey Telescope And Rapid Response				
System (Pan-STARRS)	110	5.6	11	2009
Haleakala Support Facilities	9	1.2	13	1962/2008
Daniel K. Inouye Solar Telescope (DKIST)	344	4/ 18.0	35	(5/)

X Not applicable.

NA Not available.

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

2/ Only \$2.0 million are included in total, as the other \$3.6 million are part of facility operating costs.

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

4/ Operational cost of 18 million not included in the total.

5/ Daniel K. Inouye Solar Telescope scheduled to be operational by 2019.

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