

**Table 17.25-- ASTRONOMY AND RELATED FACILITIES AT
THE SUMMITS OF MAUNAKEA AND HALEAKALA: 2015**

Facility (mirror diameter in meters)	Capital cost 1/ (\$ mil)	Annual operating cost (\$ mil)	County based staff	Operational
Maunakea observatories				
Total	601	72.4	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/ 5.4	44	1980
Haleakala observatories				
Total	749	40.73	202	(X)
Mees Solar Observatory	1	0.2	1	1963
Haleakala Observatories Projects	(NA)	0.2	2	(NA)
Maui Space Surveillance Site (MSSS) 3/ Ground-Based Electro-Optical Deep Space Surveillance (GEODSS)	250	26.3	117	1965
Faulkes 2-m Telescope	25	6.1	16	1983
Transportable Laser Ranging System (TLRS4)	10	0.6	2	2003
Panoramic Survey Telescope And Rapid Response System (Pan-STARRS)	1	0.5	5	2005
Haleakala Support Facilities	110	5.6	11	2009
Daniel K. Inouye Solar Telescope (DKIST)	9	1.2	13	1962/2008
	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 \$1.9 million of this included in total as the other \$3.5 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.