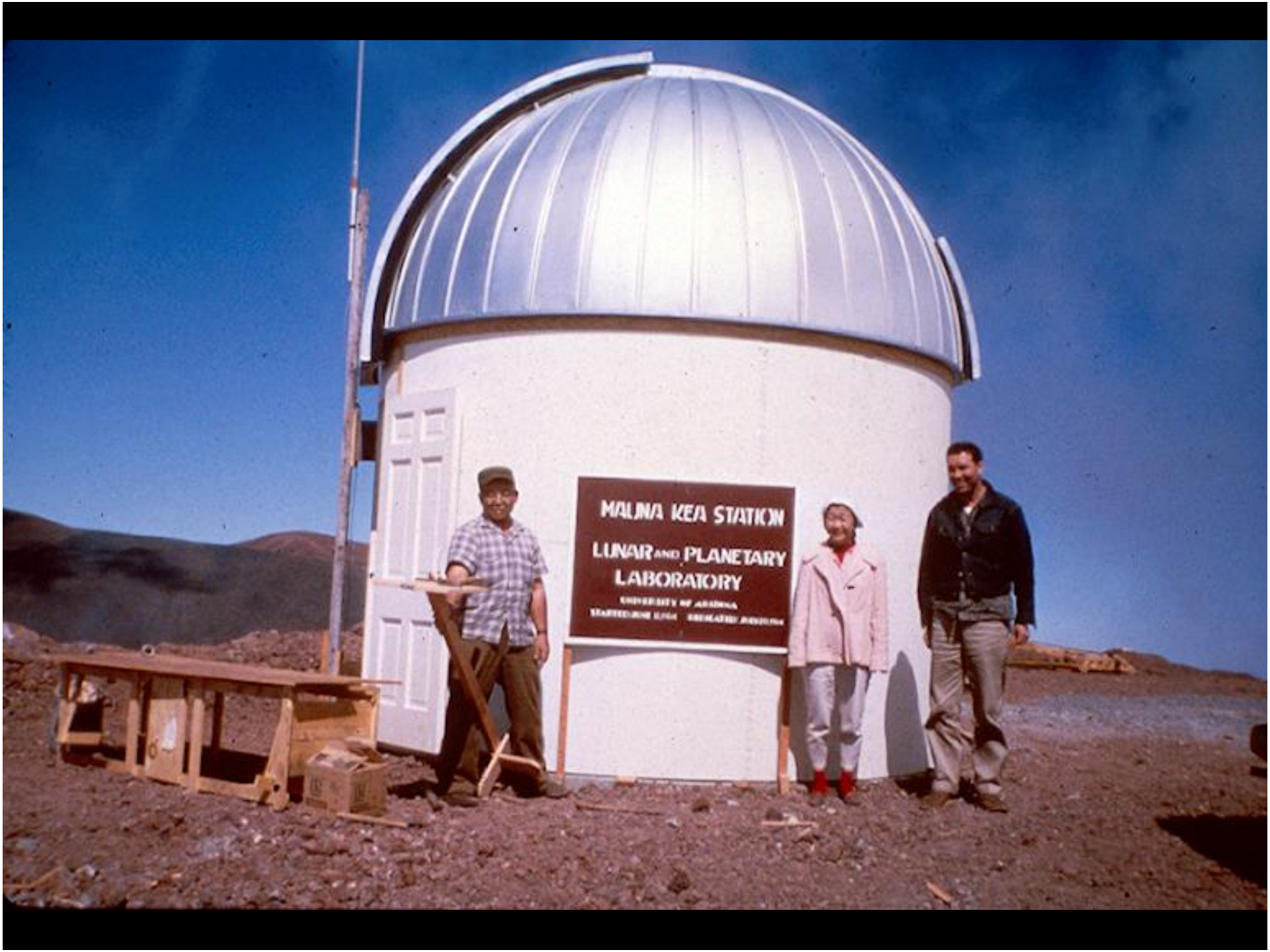
Mees Solar Observatory (1964)

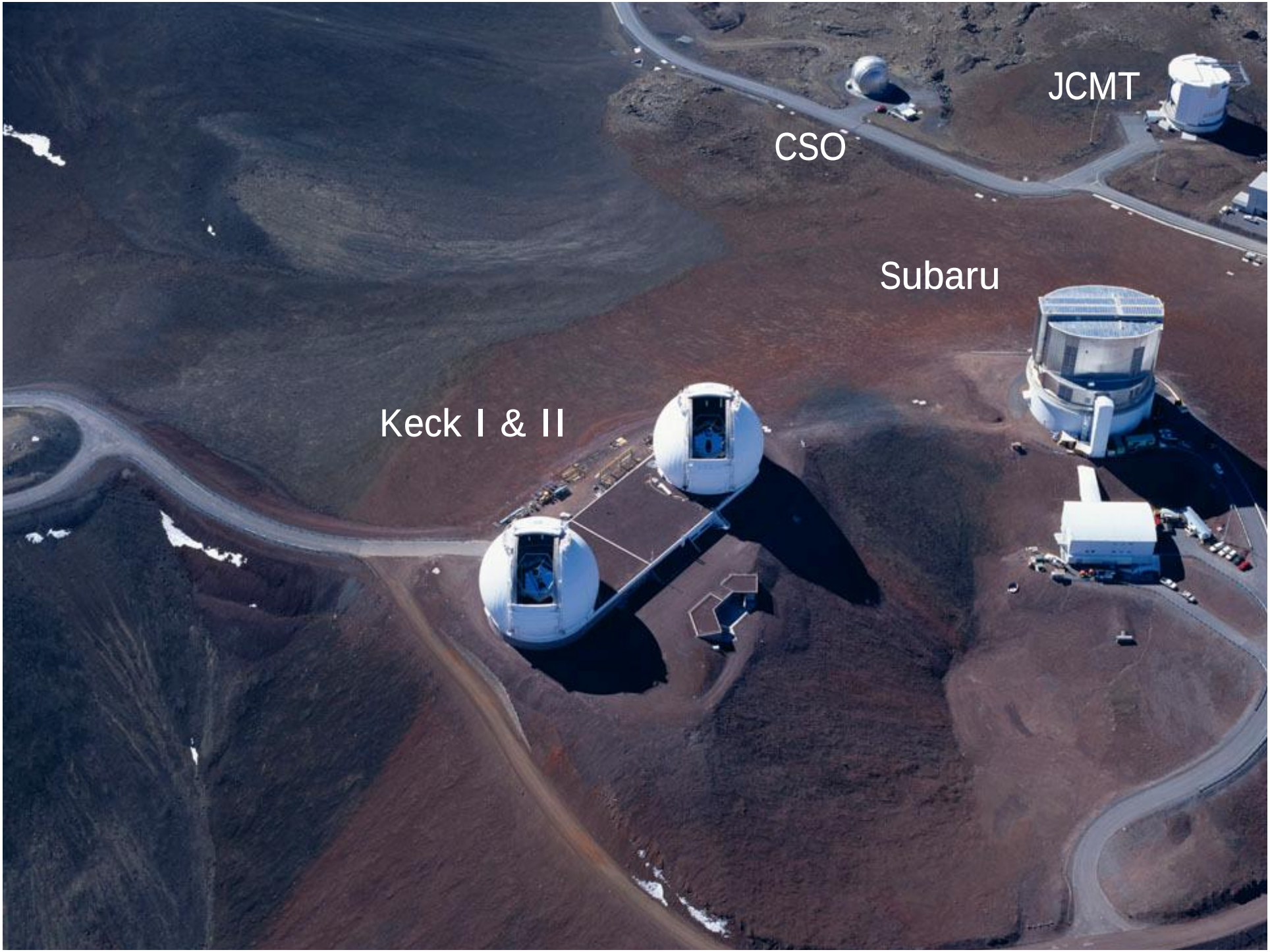

Haleakala

Gerard Kuiper & Governor Burns
Mauna Kea 1964

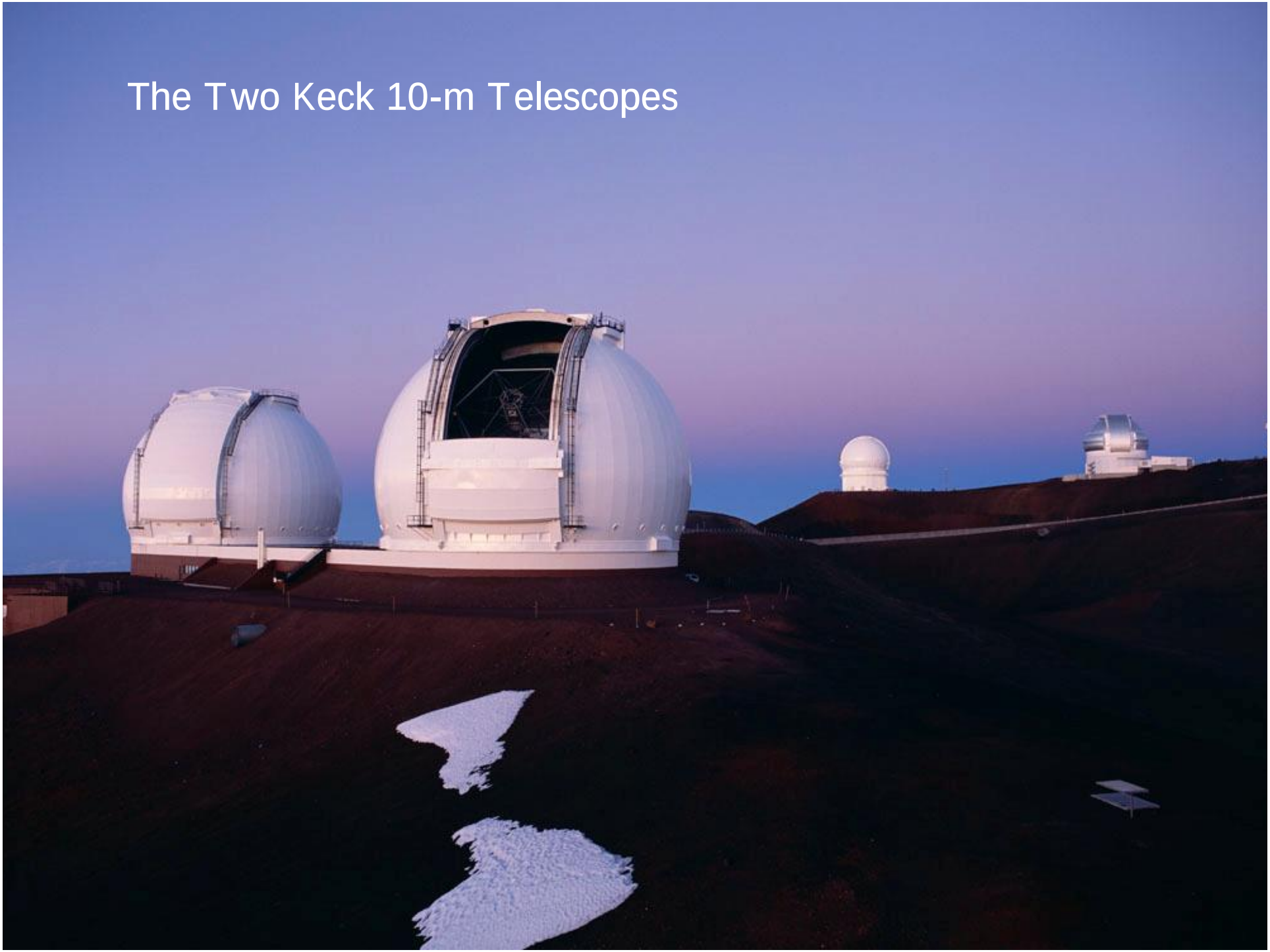

MAUNA KEA STATION
LUNAR AND PLANETARY
LABORATORY

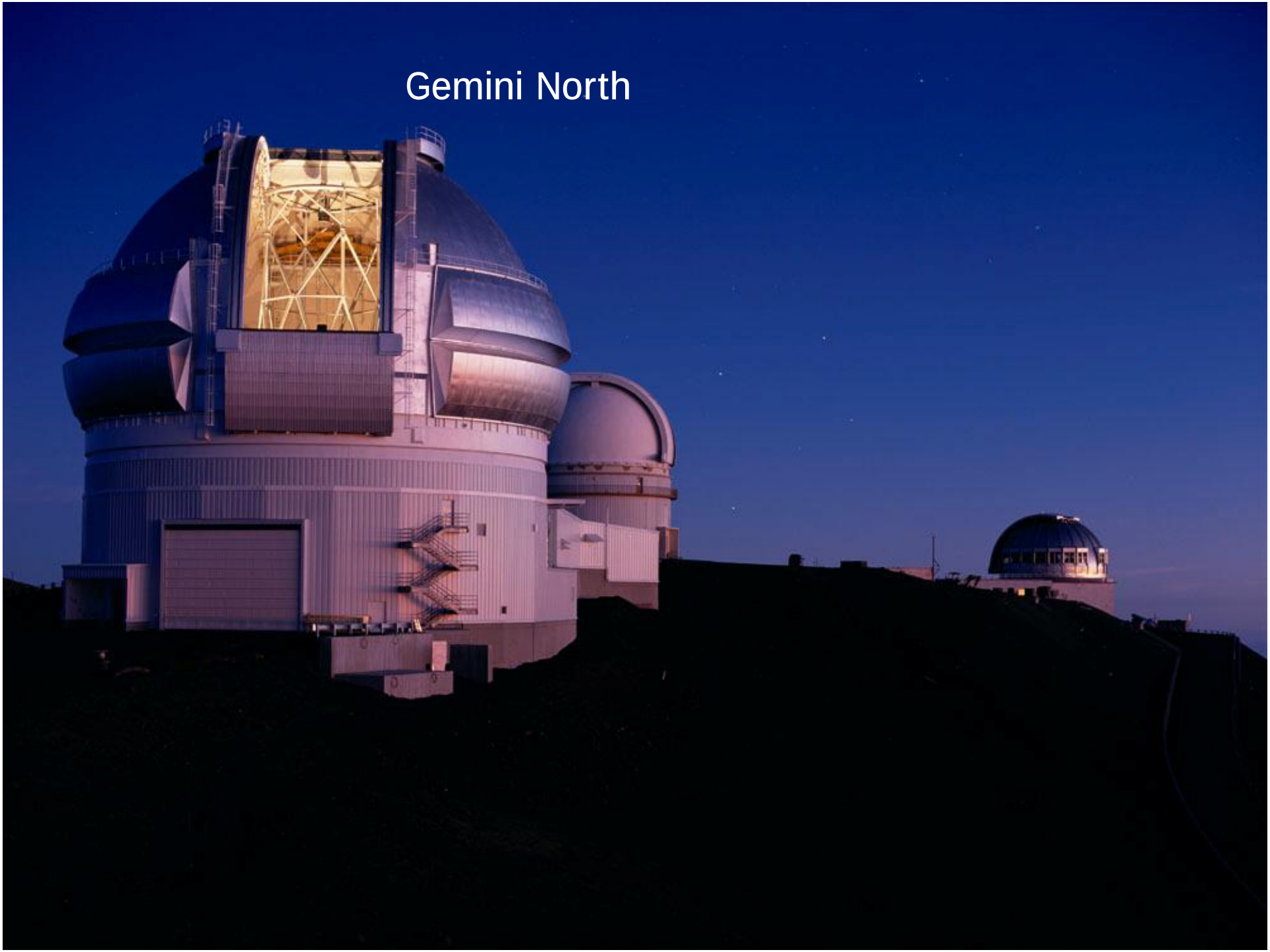

Mauna Kea Observatories

Mauna Kea Observatories


JCMT
CSO
Subaru
Keck I & II

The Two Keck 10-m Telescopes



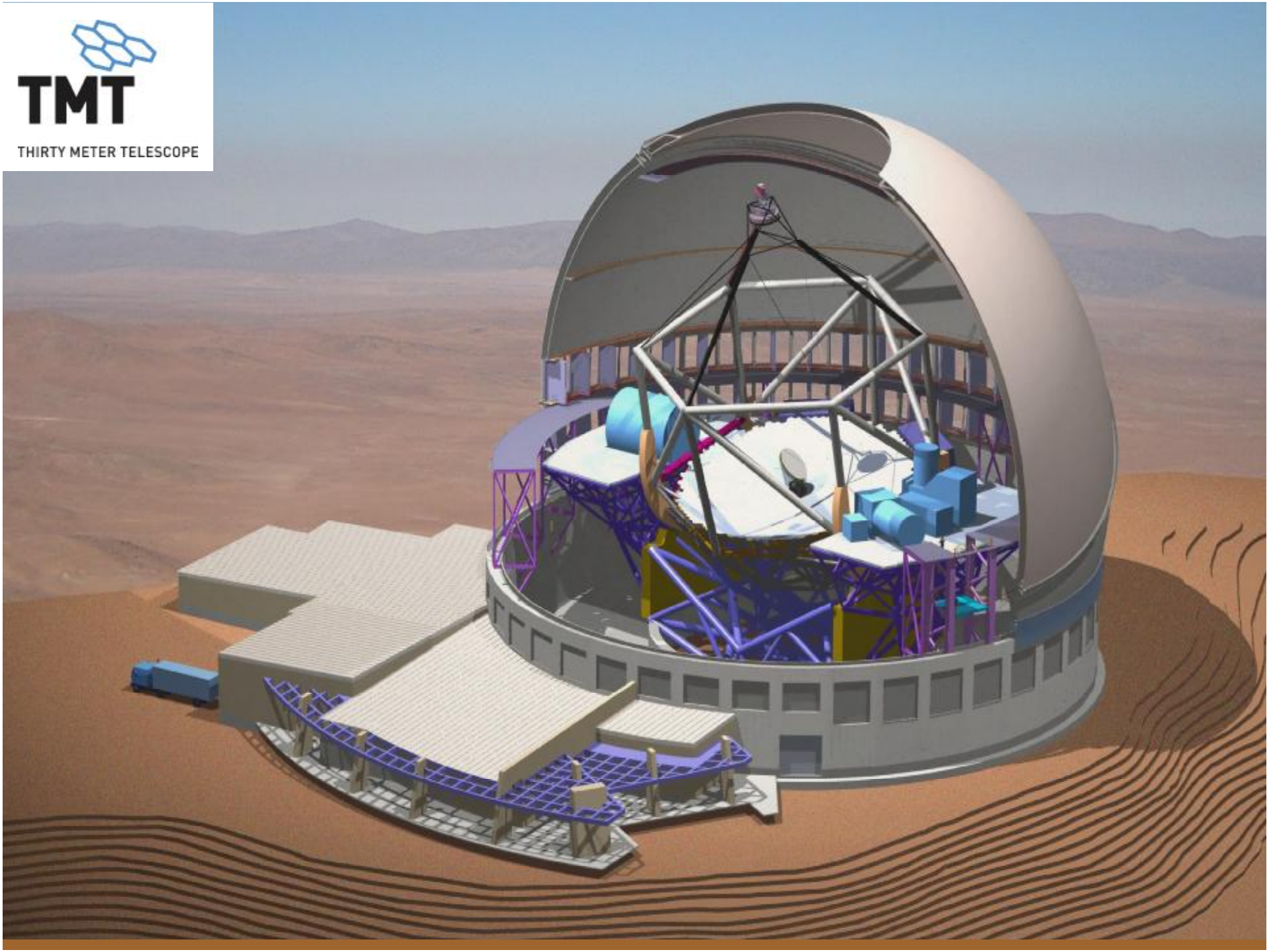

Gemini North


Gemini North


Gemini North

TMT

THIRTY METER TELESCOPE



TMT on Mauna Kea

Haleakala High Altitude Observatory Site

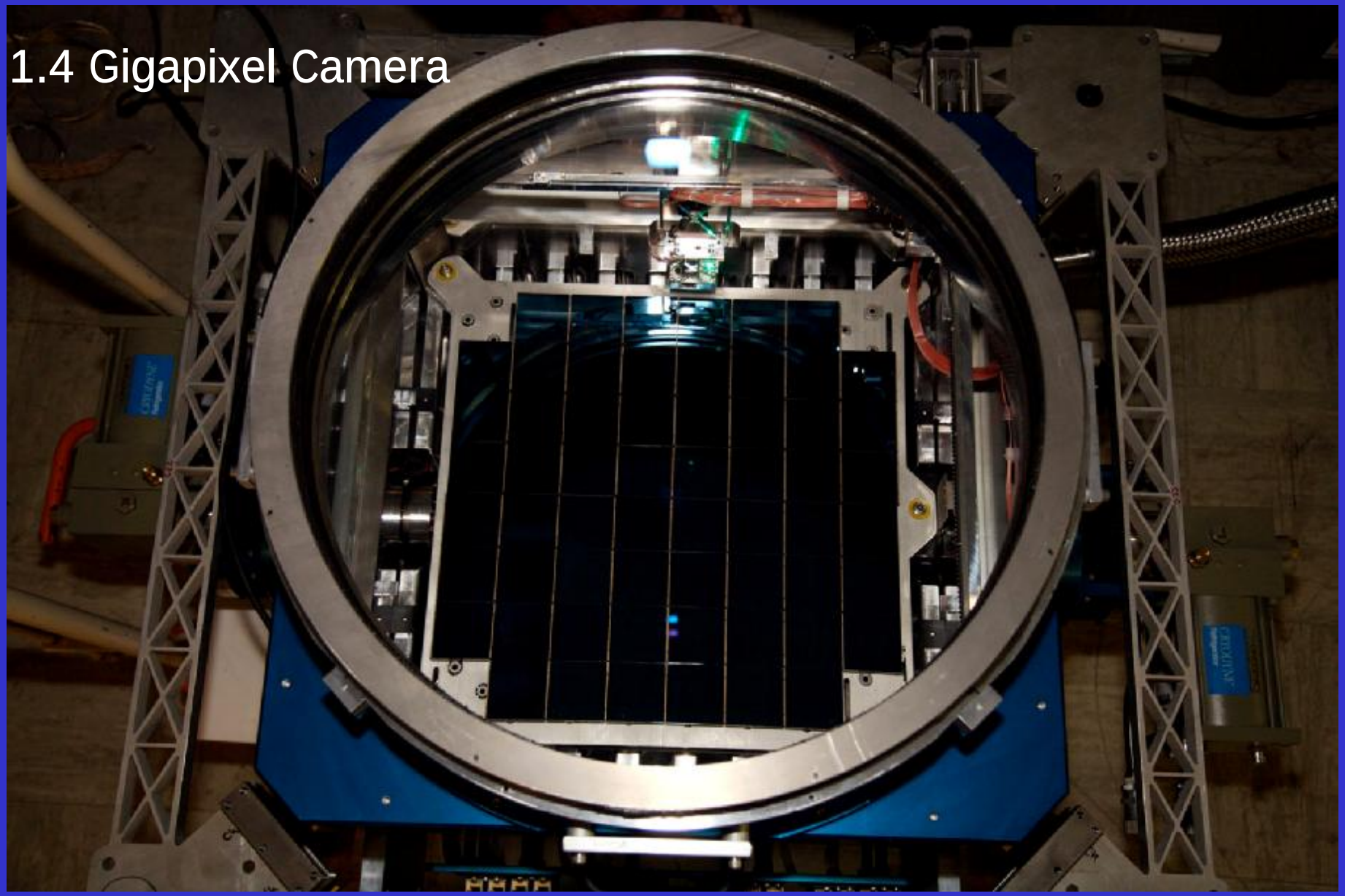

Advanced Technology
Solar Telescope ATST
(Haleakala)
$300 million project
largest solar telescope
in the world
4m off-axis mirror

ATST on Haleakala

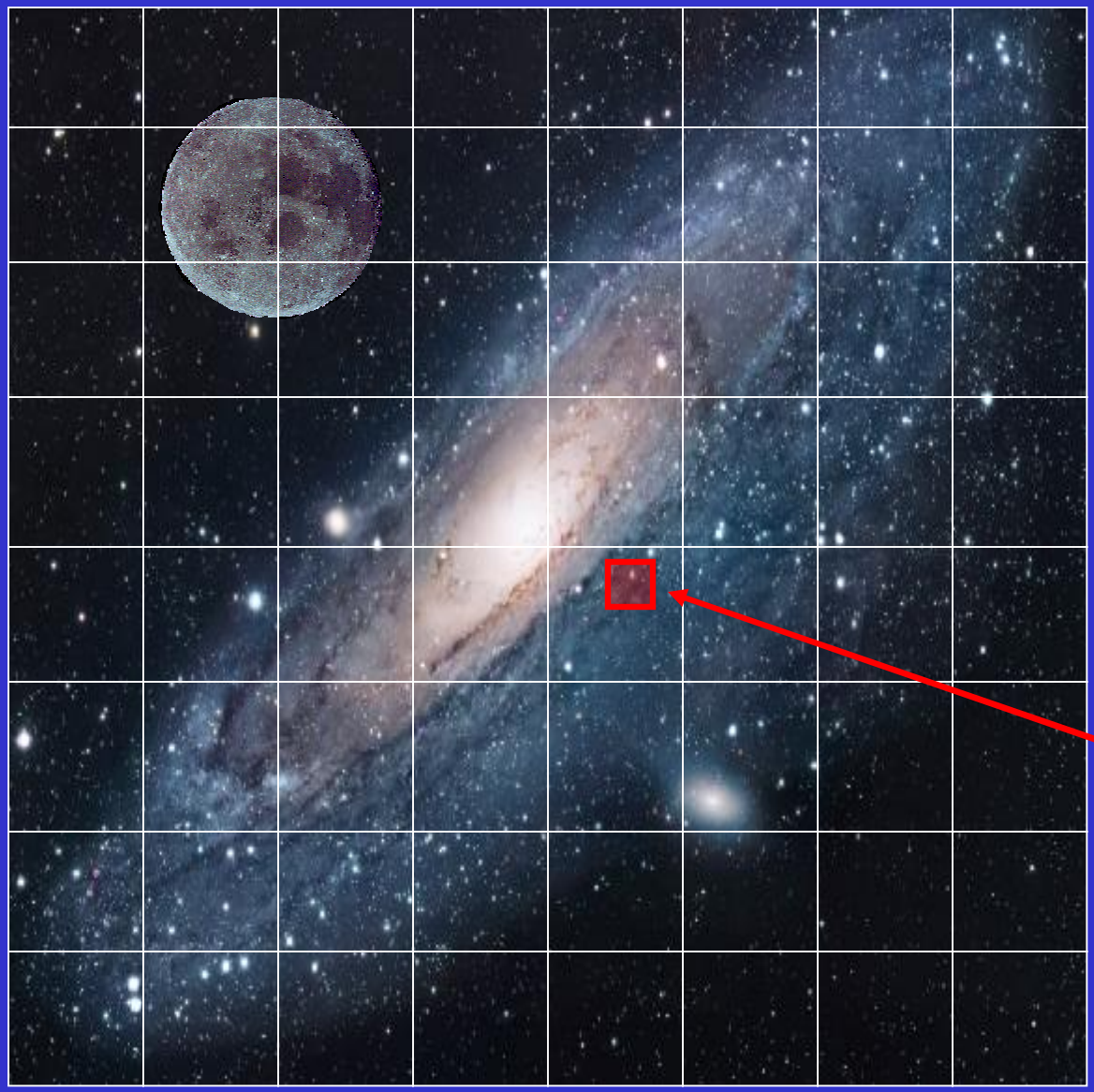
Pan STARRS 1 Project

- **1.8m telescope with 7º sq. FOV**
- **1.4 gigapixel camera**
  - **Orthogonal transfer array (OTA) to improve seeing**
- **Covers entire sky 20x per yr (4x per filter)**
- **3.5 year survey**

1.4 Gigapixel Camera

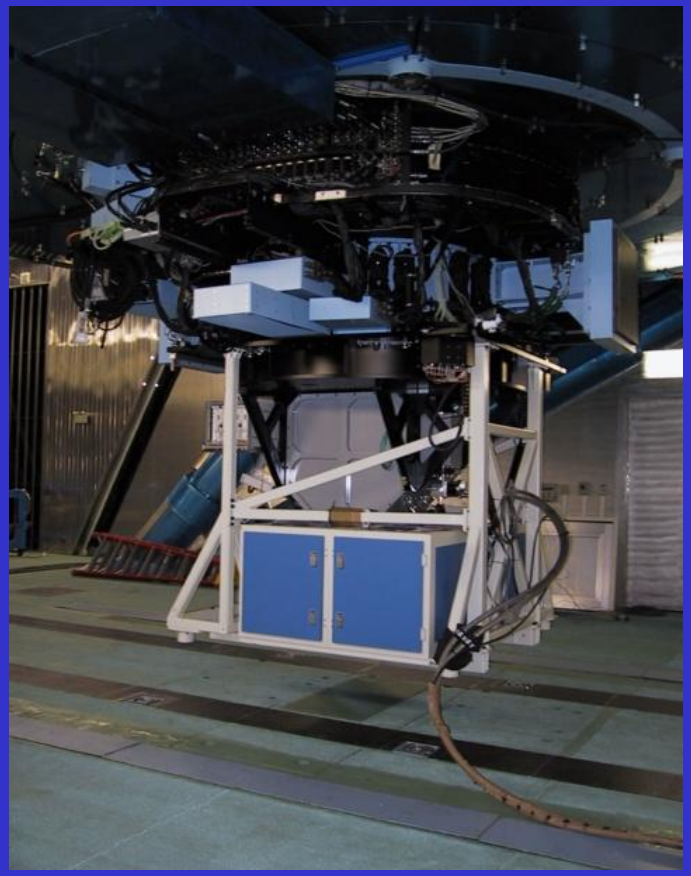


Pan-STARRS Field of View

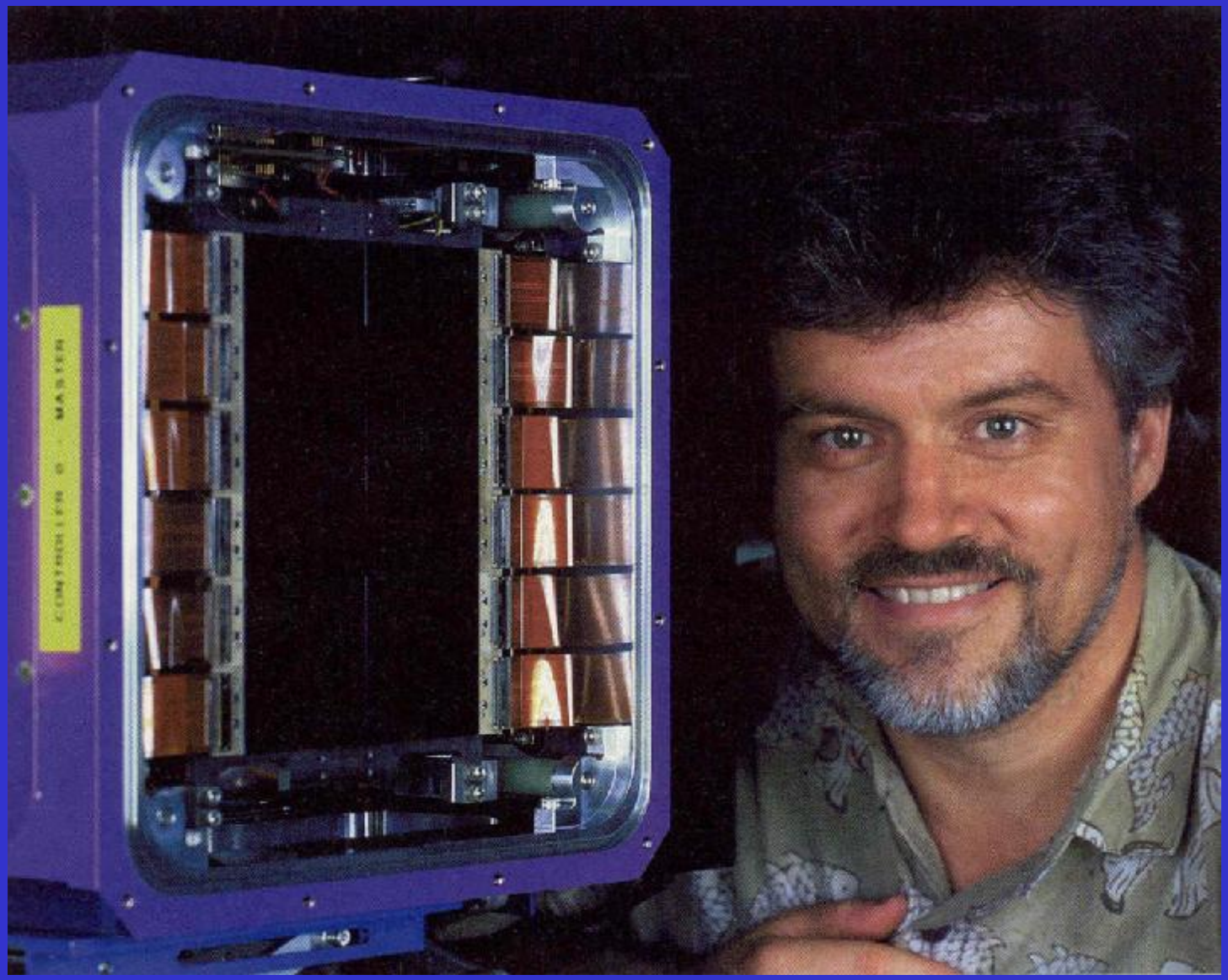


IfA Instrumentation

IR camera and spectrograph for Subaru 8m telescope (IRCS)



Gerry Luppino
8K x 12K CCD Camera



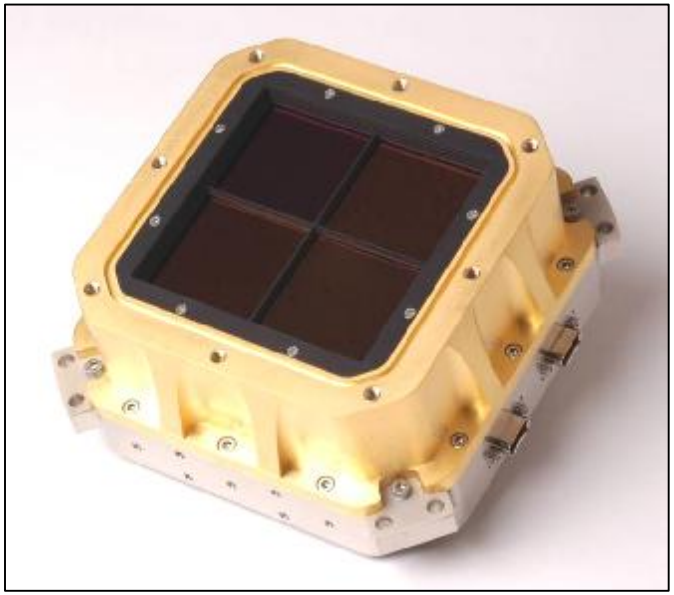
GL Scientific, Inc.

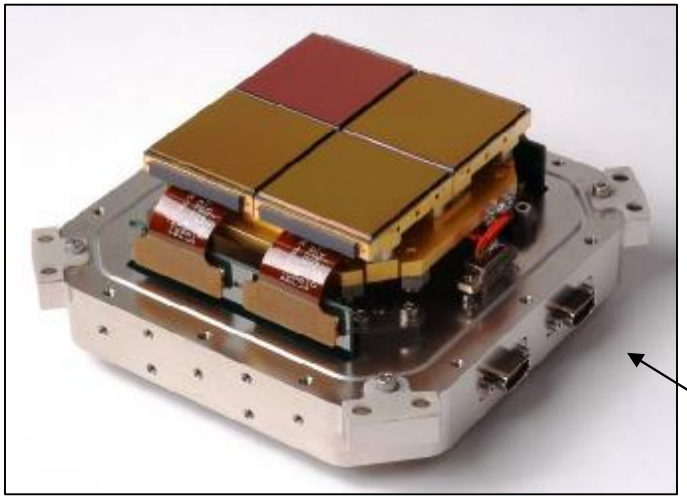
3367 Waialae Avenue • Honolulu, Hawaii 96816 USA
TEL: 808-780-9501 • FAX: 808-373-7495

Welcome to GL Scientific

GL Scientific designs and manufactures precision scientific instruments and custom components.

Examples of 2x2 Mosaic Module FPAs built by GLS

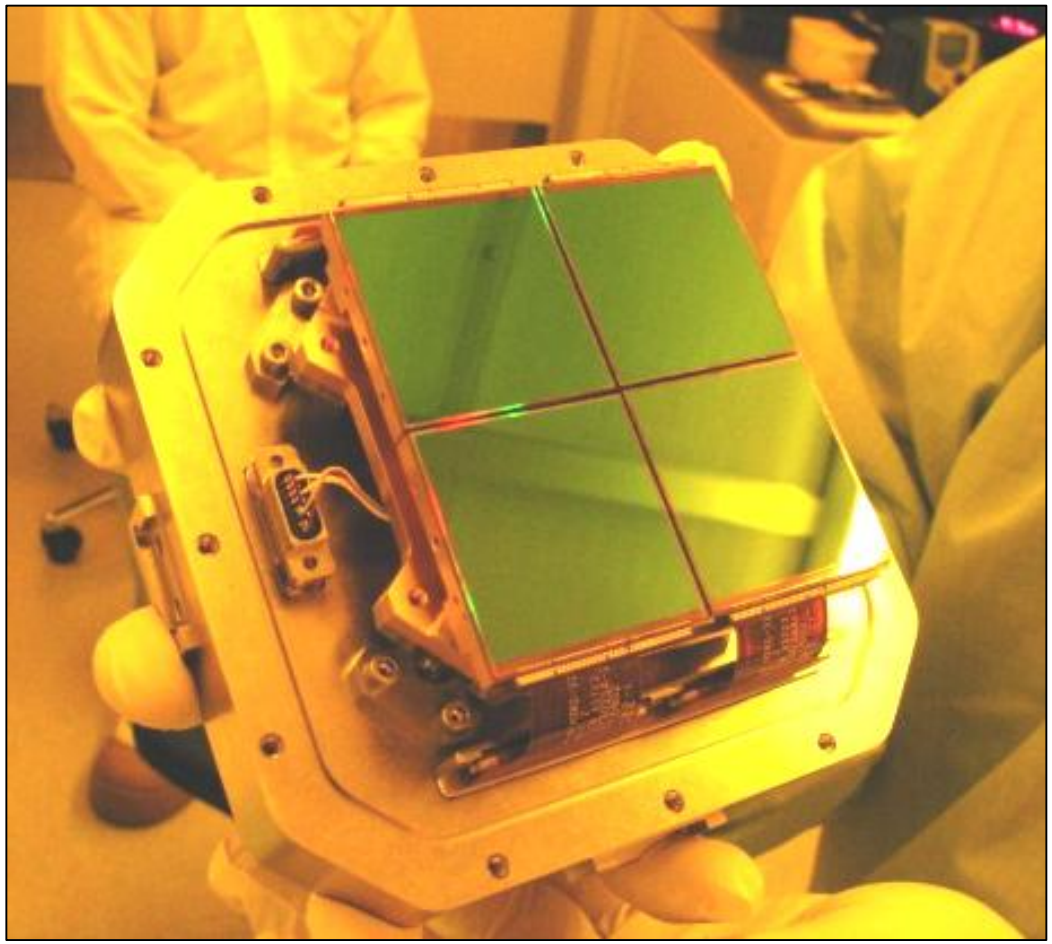




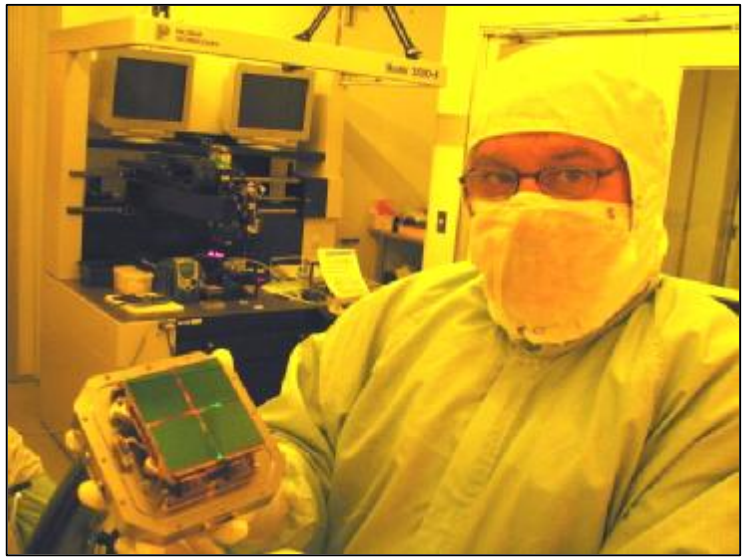
- H2RG 2x2 Mosaic Module FPAs
  - JWST NIRCAM
  - Gemini South Adaptive Optics Imager (GSAOI)
  - CFHT WIRCAM
  - ESO HAWK-I
  - Max Planck PANIC

CFHT WIRCAM built by GLS

Examples of 2x2 Mosaic Module FPAs built by GLS

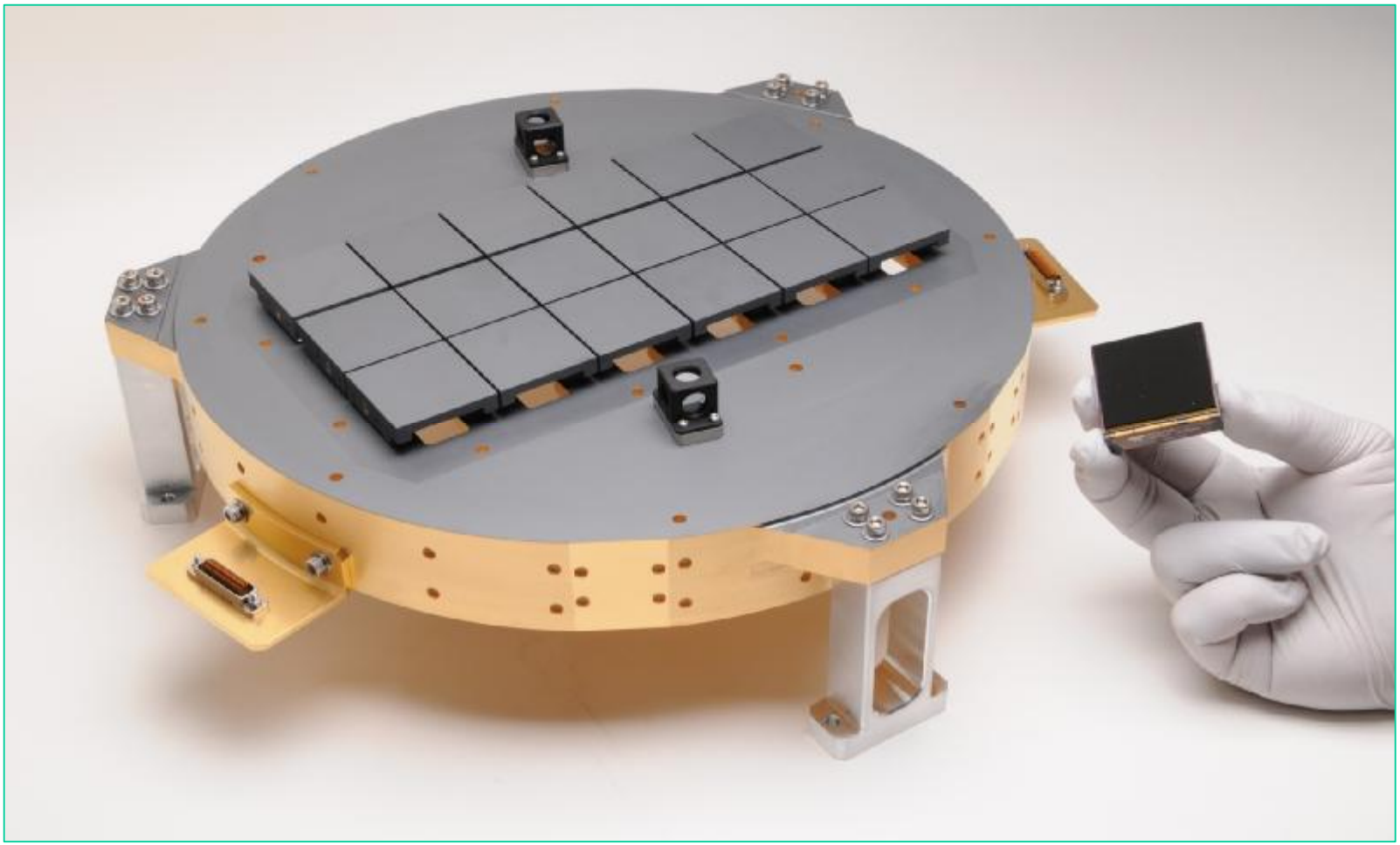


- **Designed and fabricated by GLS.**
- **Integrated and assembled with SCA installation at TIS in late 2008.**



JDEM Engineering Development Unit (EDU): 3x6 MOSAIC OF H2RG SCAs

- Working with NASA Goddard JDEM (now WFIRST) team, GLS has designed the SiC focalplane mosaic array FPA consisting of 18 H2RG SCAs in a 6x3 configuration.



Specializing in High Perfomance Infrared Instrumention

Mauna Kea Infrared, LLC

ABOUT MKIR | PRODUCTS and SERVICES | PROJECTS | LIBRARY | CONTACT

ABOUT MKIR

Mauna Kea Infrared,LLC started in 1985by the owner Doug Toomey to build custom hardware for specialized astronomy projects on large telescopes. Since that time it has developed numerous facility class instruments for telescopes around the world. These instruments are built for serious users to very high standards of performance, reliability, documentation, and ease of use. Our instruments are typically cryogenically cooled with liquid cryogens or closed cycle coolers.

We are located in Hilo, Hawaii and have a 3,500 square foot building equipped with instrument design, assembly and testing areas. This includes a 25 foot high ceiling cleanroom for instrument assembly with a 5 ton overhead crane.

We have worked on Infrared instruments that cover the 1 to 20 micron range with an emphasis on 1-5 microns. We have also worked on numerous visible wavelength instrumnets. Our most ambitious project to date was a dual channel coronagraphic camera with an adaptive optics front end for the Gemini 8 meter telescope in Chile. This $4million camera that is about the size of a SUV is presently being used to search for planets around other stars.

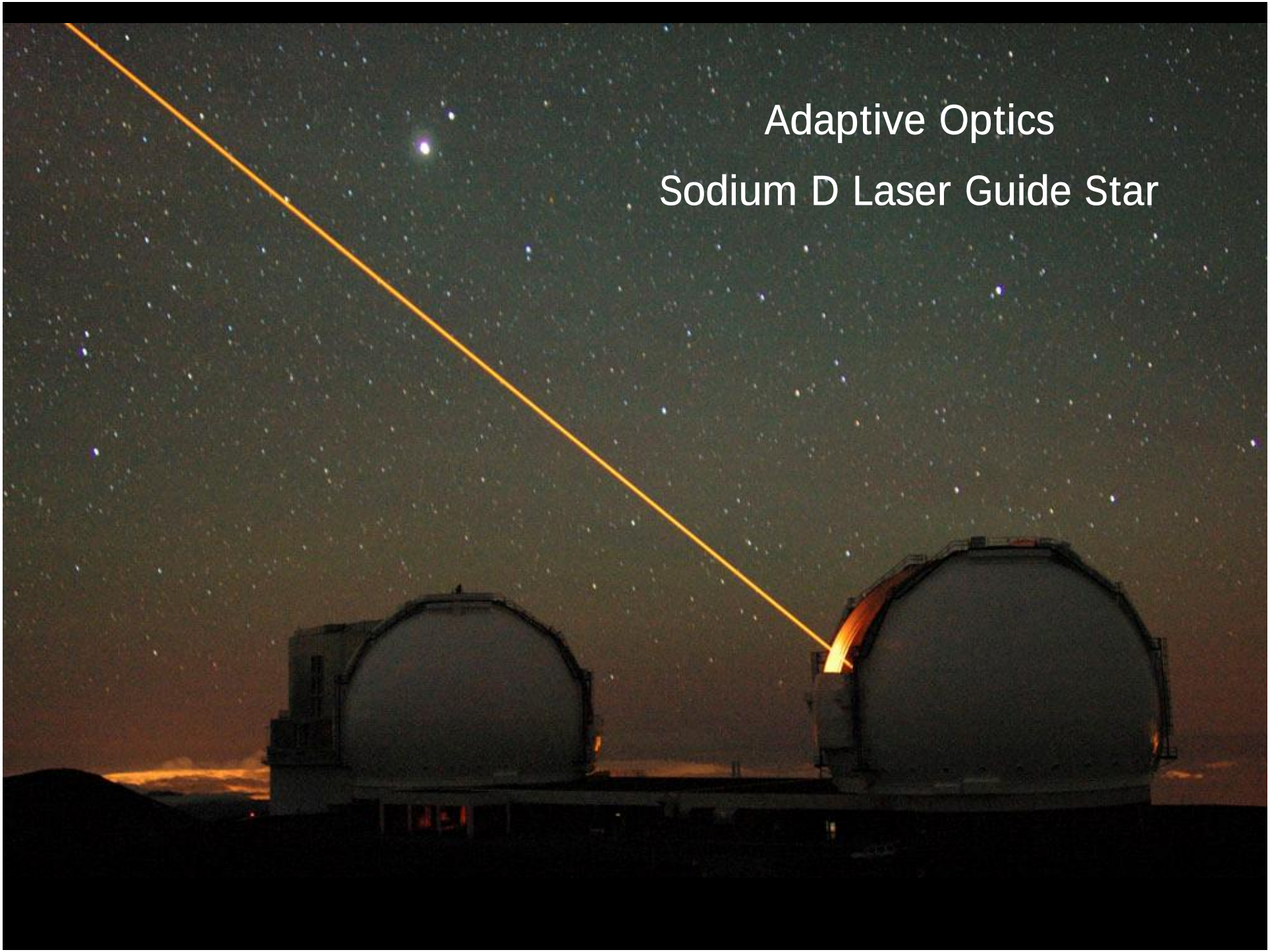
Please contact us with questions or to discuss your requirements.

NICI Coronagraphic IR Camera
Gemini South

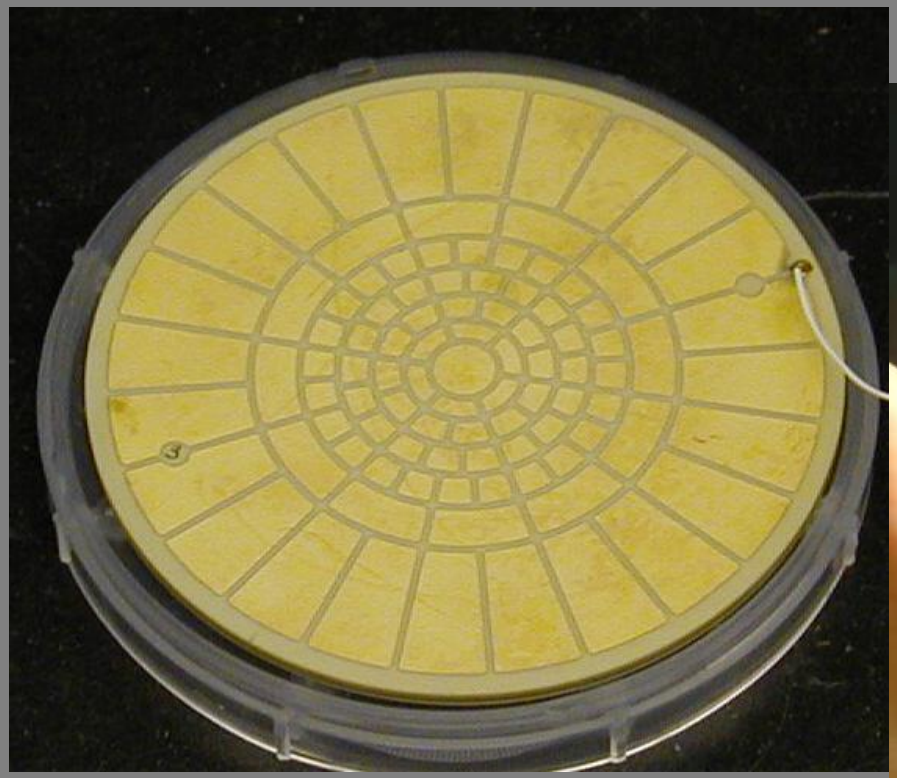
Mauna Kea Infrared

Mauna Kea Infrared (Hilo)

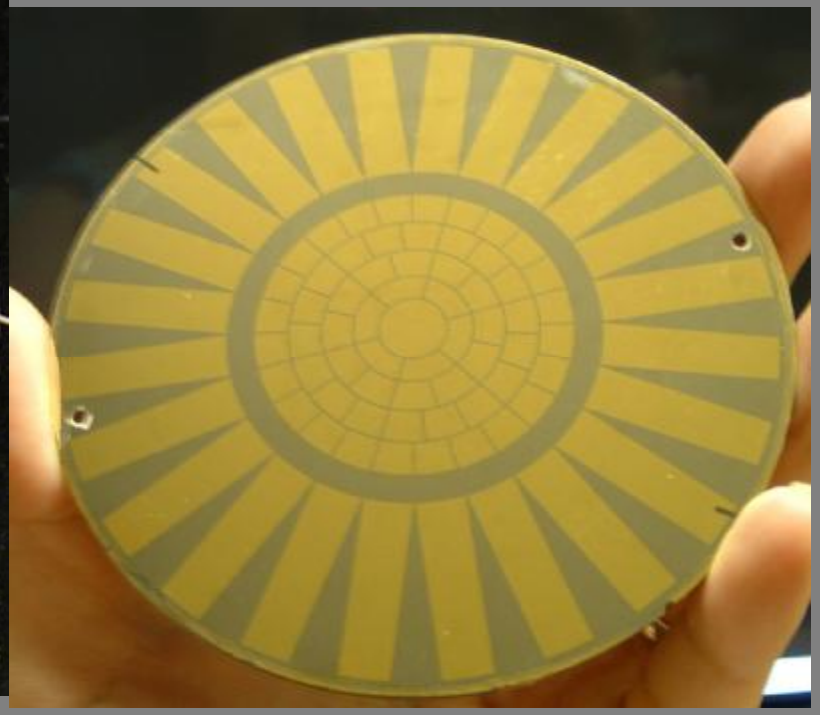

Gemini 8-meter mirror
Sputter Coating


Adaptive Optics
Sodium D Laser Guide Star

AO curvature sensors



Original H-85 DM



New H-85 DM

MKWC
mauna kea weather center

Current Conditions

Temp	-2.7 C
RH	100 %
Wind	W 41 mph
Road	Closed

- Home
- MK Forecast
  - Trends
  - Statistics
- Current Conditions
  - Seeing
  - Web Cams
  - Road Conditions
  - NWS Bulletins
- Satellite
- Radar
- LAPS
- Models
  - GFS
  - WRF
- Archive
- Links
- Symposium on Seeing

Mauna Kea Weather Center

The Hokukea Project

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Research Meteorologist
Send Email
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Ryan Lyman
Forecast Meteorologist
Send Email
(808) 932-2323

Images courtesy of CFHT, IRTF, Subaru, UKIRT, JCMT, Gemini, and MKWC.

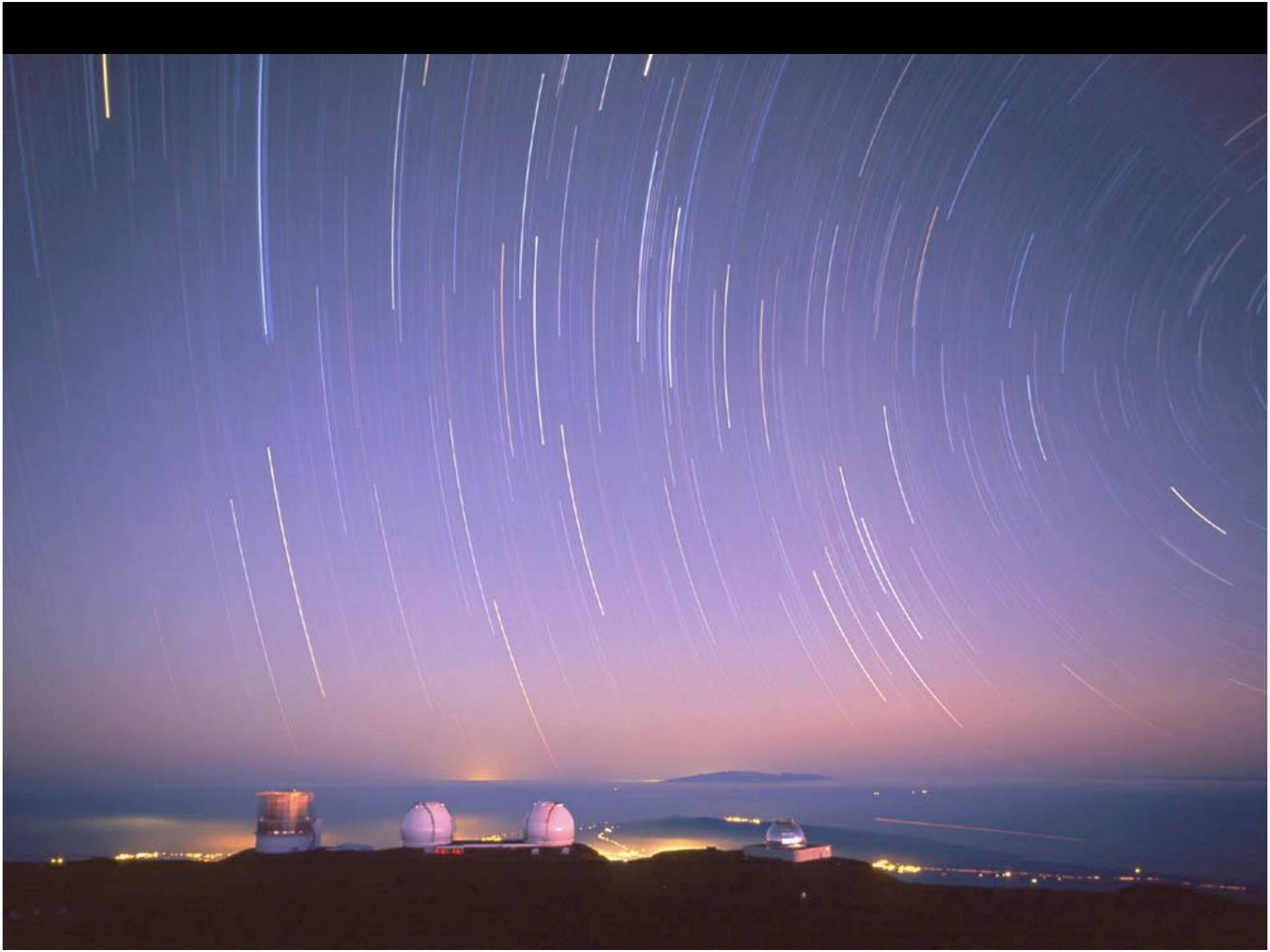
Administered by the Institute for Astronomy,
in cooperation with the Department of Meteorology,
at the University of Hawaii at Manoa

Mauna Kea Weather Center Disclaimer: The MKWC is a weather research and forecast facility funded by the astronomical observatories on Mauna Kea; it is not a government-provided service like the National Weather Service (NWS). The general public is welcome to use the MKWC, but should be aware that its primary mission is to support the observatories and that the funding level does not permit the same level of service or reliability that one expects from a publicly-funded facility, such as the National Weather Service. We welcome constructive comments from all MKWC users, and strive to provide the best possible service consistent with our mission and resources. Occasionally, products will not be available because of hardware/software difficulties. In such cases we are aware of the trouble and your patience is appreciated.


Hawaii’s only snowblower
digs out Subaru

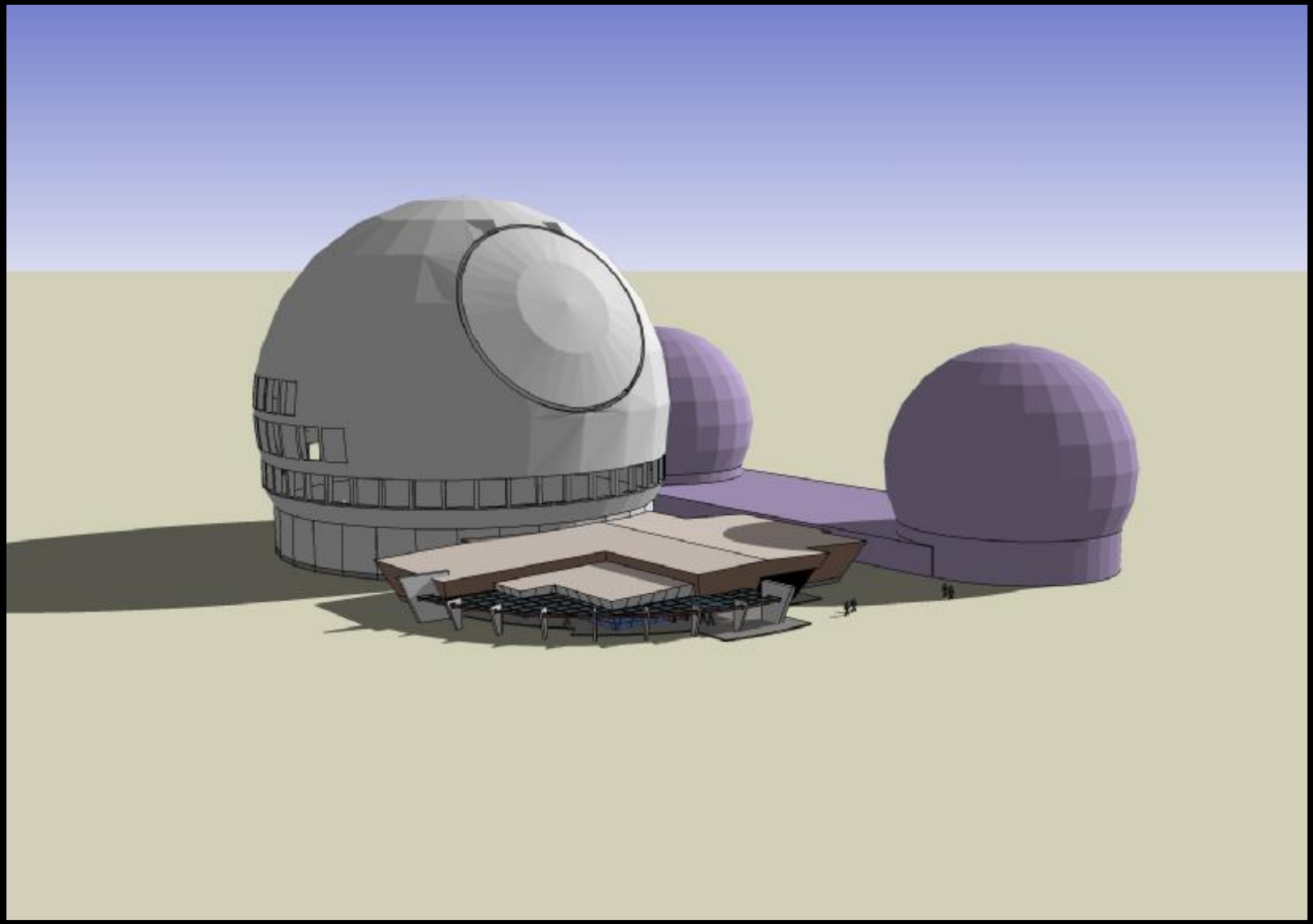
Canada-France-Hawaii Telescope

Half way to Space

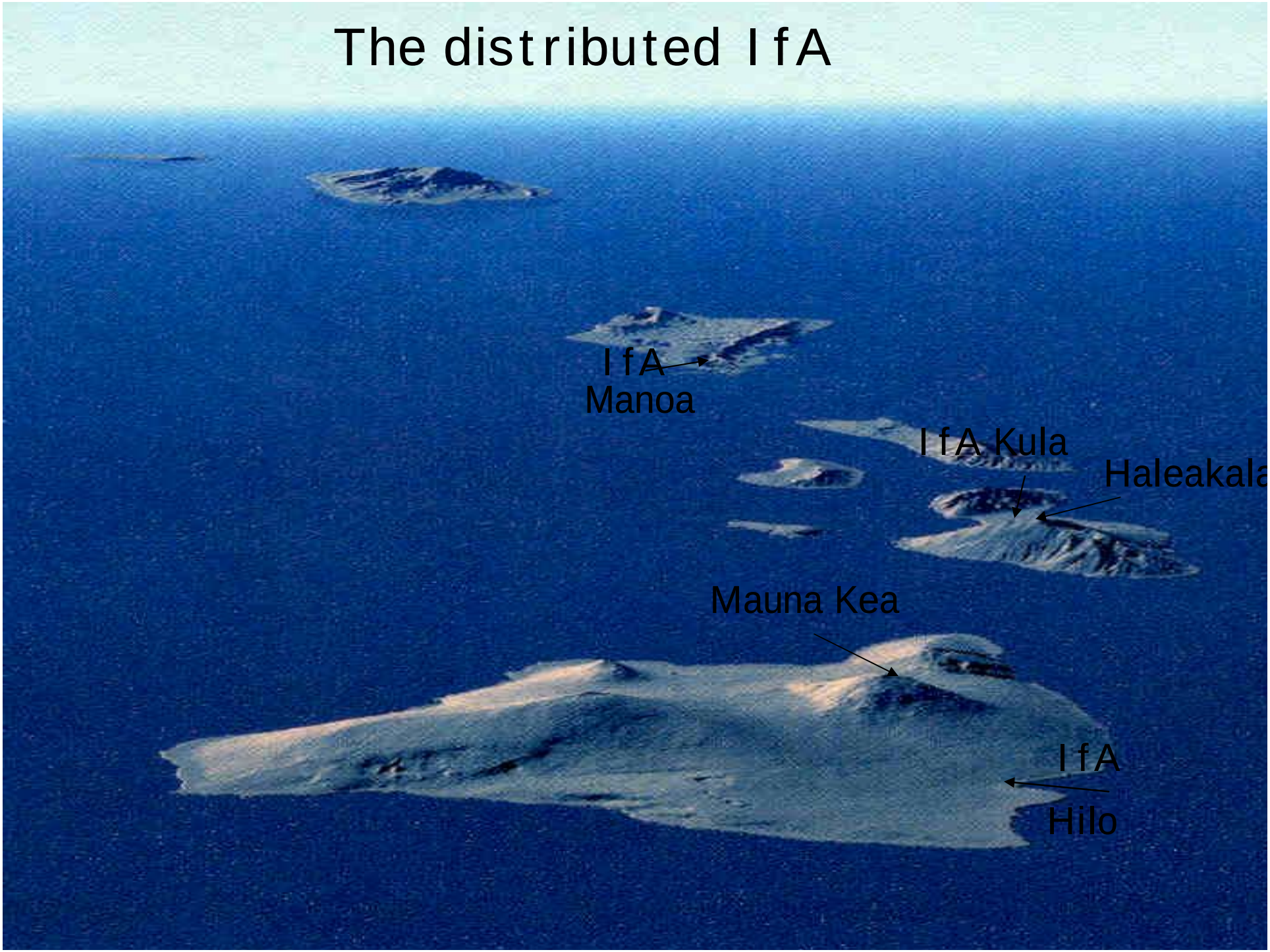


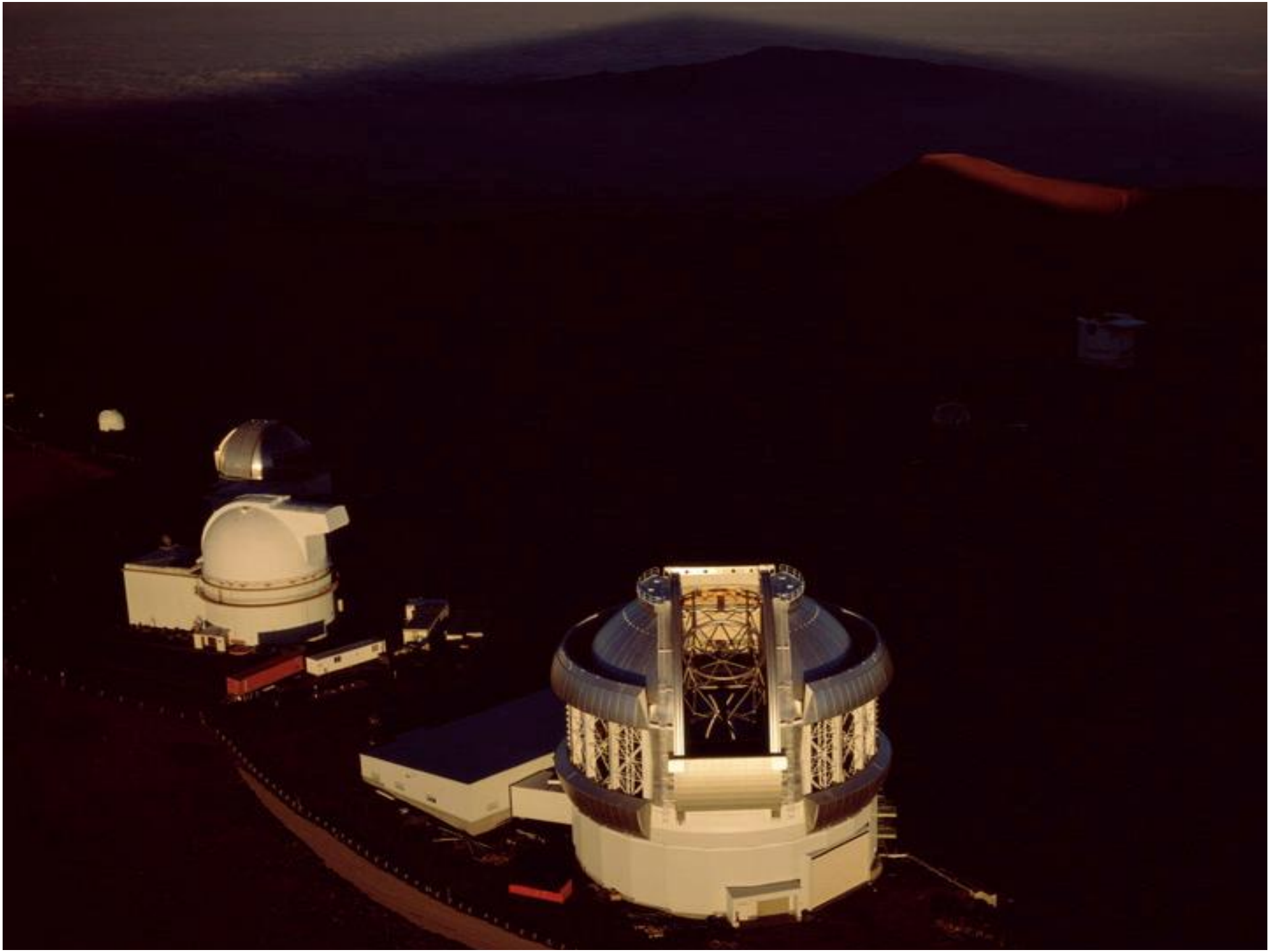

Mahalo

Thirty Meter Telescope (TMT)

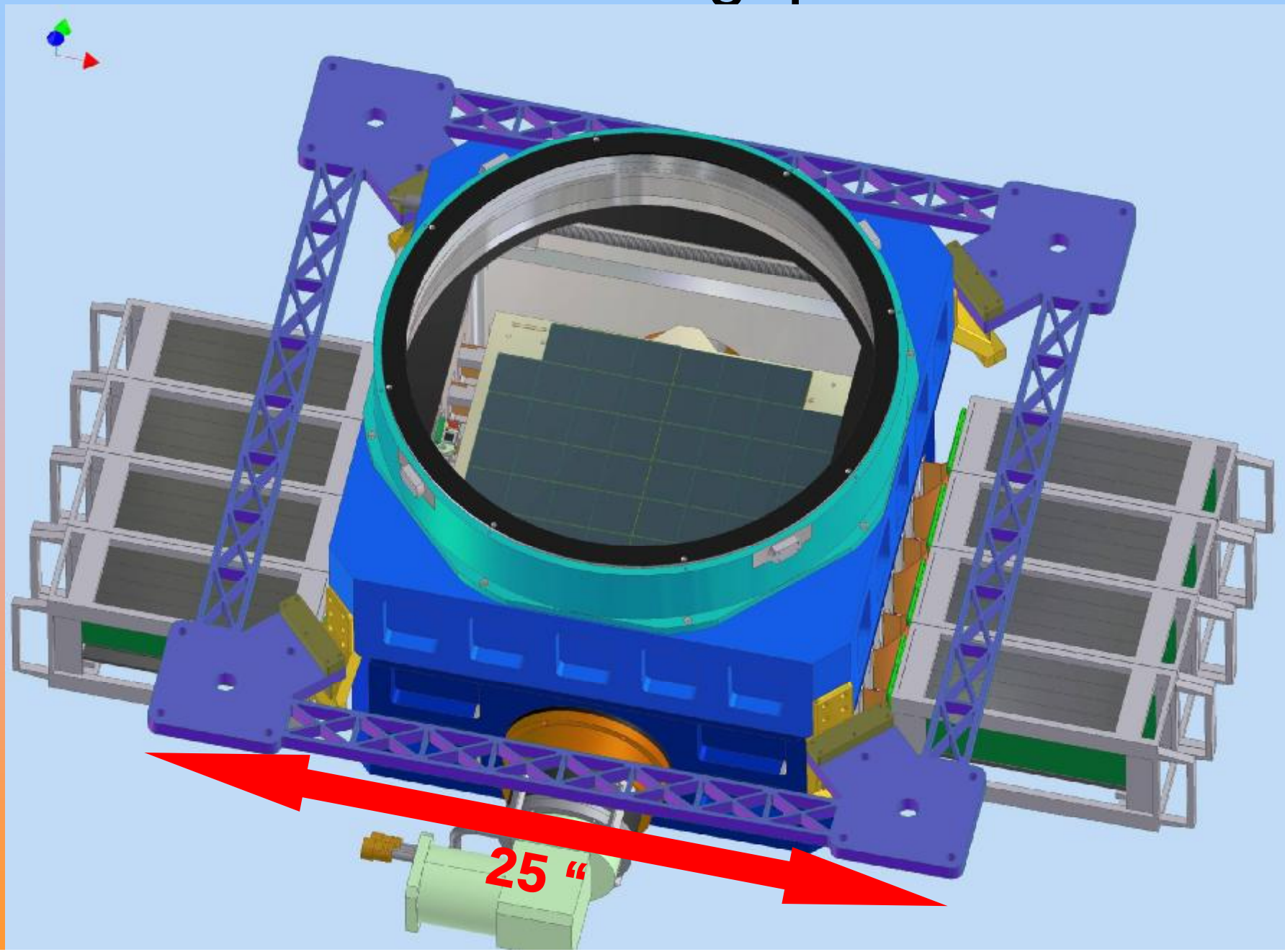


The distributed IfA





Pan-STARRS' 1.4Gigapixel Camera



Institute for Astronomy

- ~300 staff, 100 scientists, 41 tenure track faculty
- 1000 undergraduate students/yr in Manoa
- 40 PhD students
- base facilities distributed over 3 islands