TELESCOPES IN SOUTHERN ARIZONA

Teresa Bippert-Plymate
Bear Valley Springs Astronomy Club

Observatory Sites

Fred Lawrence Whipple Observatory

The Summit at 2616m (8585ft):

The **6.5-m MMT (256-inch)**, operated by the University of Arizona, for solar system, galactic and extragalactic astronomy.

The Ridge at 2340m (7800ft):

The **1.5-meter Tillinghast (60-inch)** and **1.2-meter (48-inch)** reflector telescopes, for solar system, galactic and extragalactic astronomy.

The **HAT** (Hungarian-made Automated Telescope) array of four optical refractor telescopes with **200-mm (8-inch)** lenses plus a single reflector telescope, used for robotic searches for variable stars and exoplanets.

The **MEarth** array of eight **40-cm (15.75-inch)**optical reflector telescopes, used for robotic searches for exoplanets.

The **MINERVA** array of four **70-cm (27.5-inch)** optical reflector telescopes, used for robotic studies of exoplanets.

PAIRITEL (Peters Automated IR Imaging Telescope) 1.3-meter telescope.

The Visitor Center Area at 1270m (4230ft):

The **VERITAS** array of four **12-m (472-inch)** reflectors for gamma-ray astronomy in the 50GeV-50TeV energy range

Fred Lawrence Whipple Observatory

The Summit at 2616m (8585ft):

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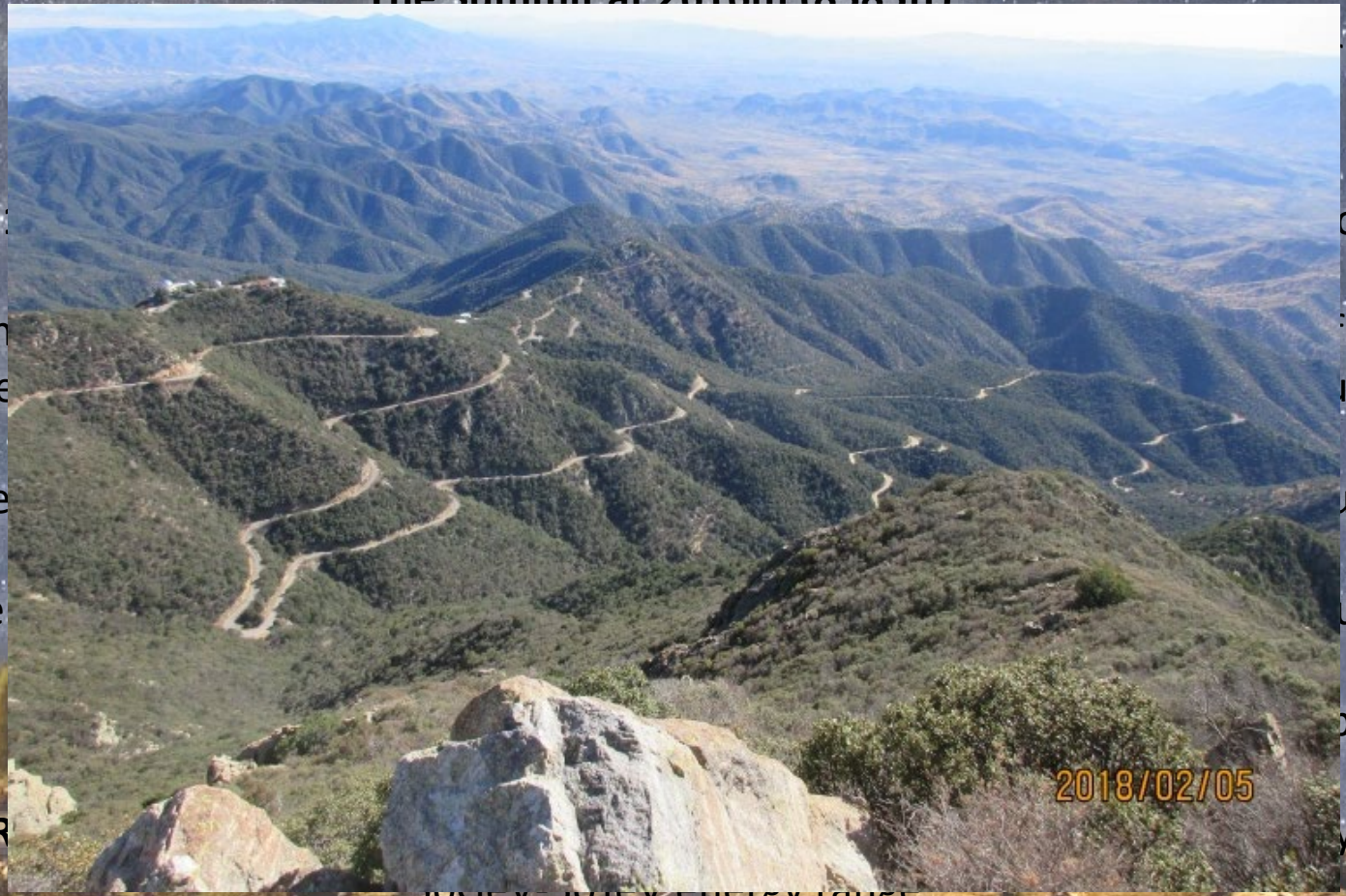

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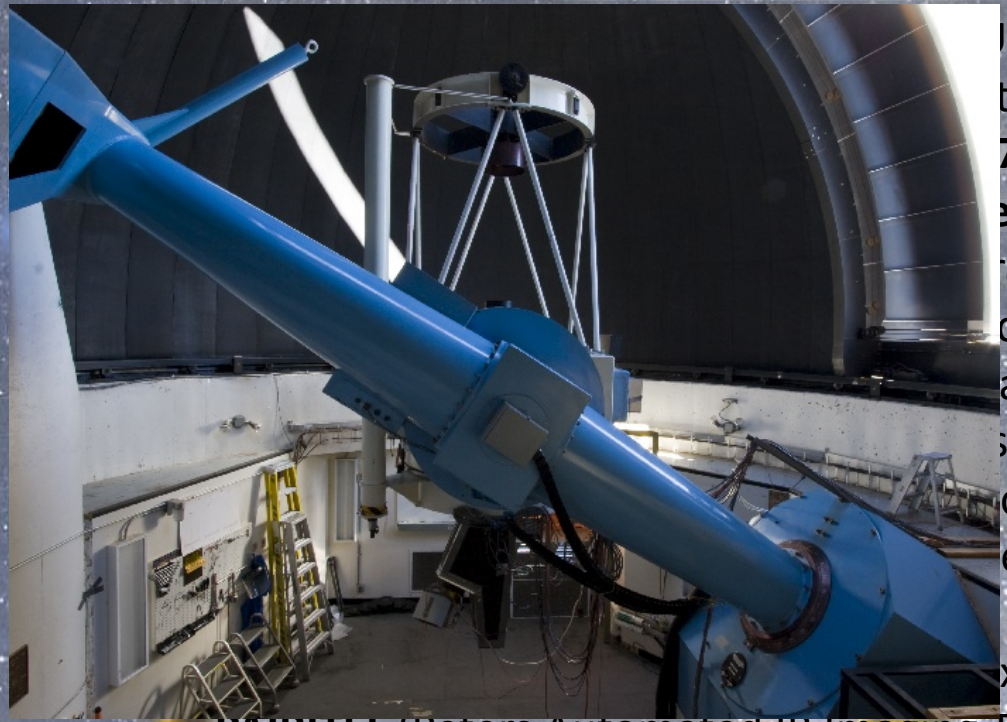

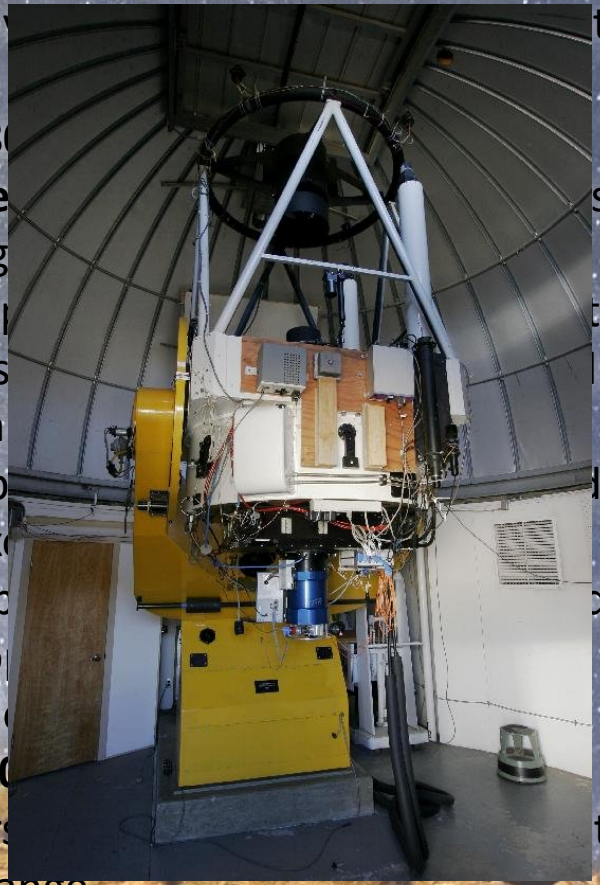

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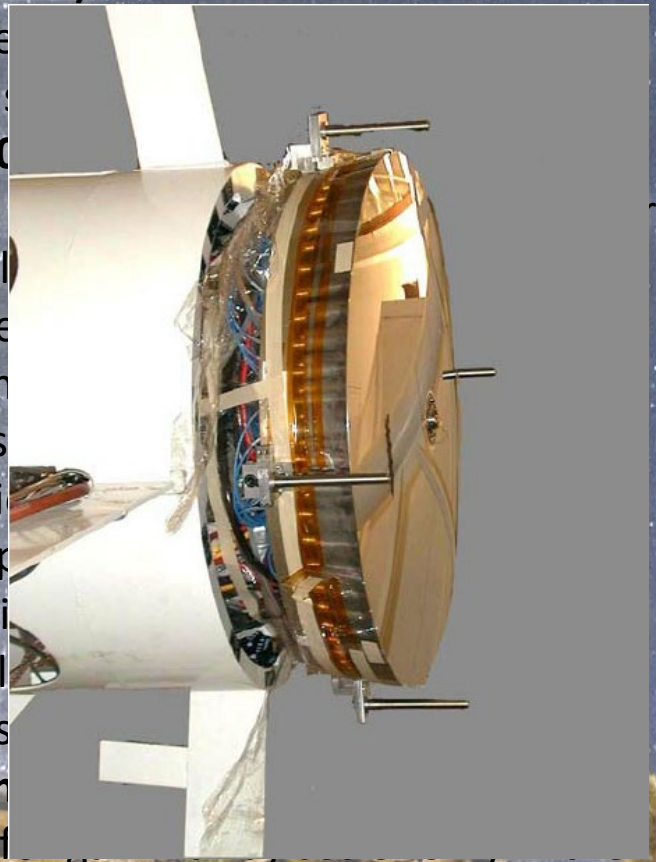

The Visitor Center Area at 1270m

The **VERITAS** array of four **12-m (472-inch)** reflectors f

50GeV-50TeV energy range

Kitt Peak National Observatory

25! Telescopes – Elev 6877 ft.

VLBA 25m (82 ft) Radio Telescope – NRAO, array of 10, Precision astrometry
ARO 12m (39 ft) Radio Telescope – U of AZ, 4.6 mm to about 0.6 mm radio observations
Mayall 4m (13 ft) RC reflector- KPNO Wide-field optical and infrared imaging and spectroscopy to 2018, DESI multi-object optical spectroscopy since 2019
WIYN 3.5m (11.5 ft) RC reflector – WIYN, Spectroscopy, Vis & IR Imaging
Hiltner 2.4m (7.9 ft) Telescope – MDM, galactic surveys
Bok 2.3m (7.5 ft) – U of AZ, spectroscopy, spectropolarimetry, imaging
KPNO 2.1m (6.9 ft) – KPNO, Imaging and spectroscopy
Mc-Math Pierce 1.6m (5.25 ft) Solar Telescope – NSO until 2018, IR and vis Solar observation
McGraw-Hill 1.3m (4.3 ft) Telescope – MDM, Graduate research
RCT 1.3m (4.3 ft) Telescope – RCT, robotically-controlled, student research
WIYN 0.9m (3 ft) – WIYN, graduate research projects
CWRU 0.61m (2 ft) Burrell Schmidt – CWR, deep wide-field imaging and surveys
SARA 0.96m (3.2 ft) Telescope - SARA, remote optical imaging, student projects
Spacewatch 1.8m (5.9 ft) – U of AZ – Astrometry of asteroids, comets, NEOs
Spacewatch 0.9m (3 ft) – U of AZ – Astrometry of asteroids, comets, NEOs

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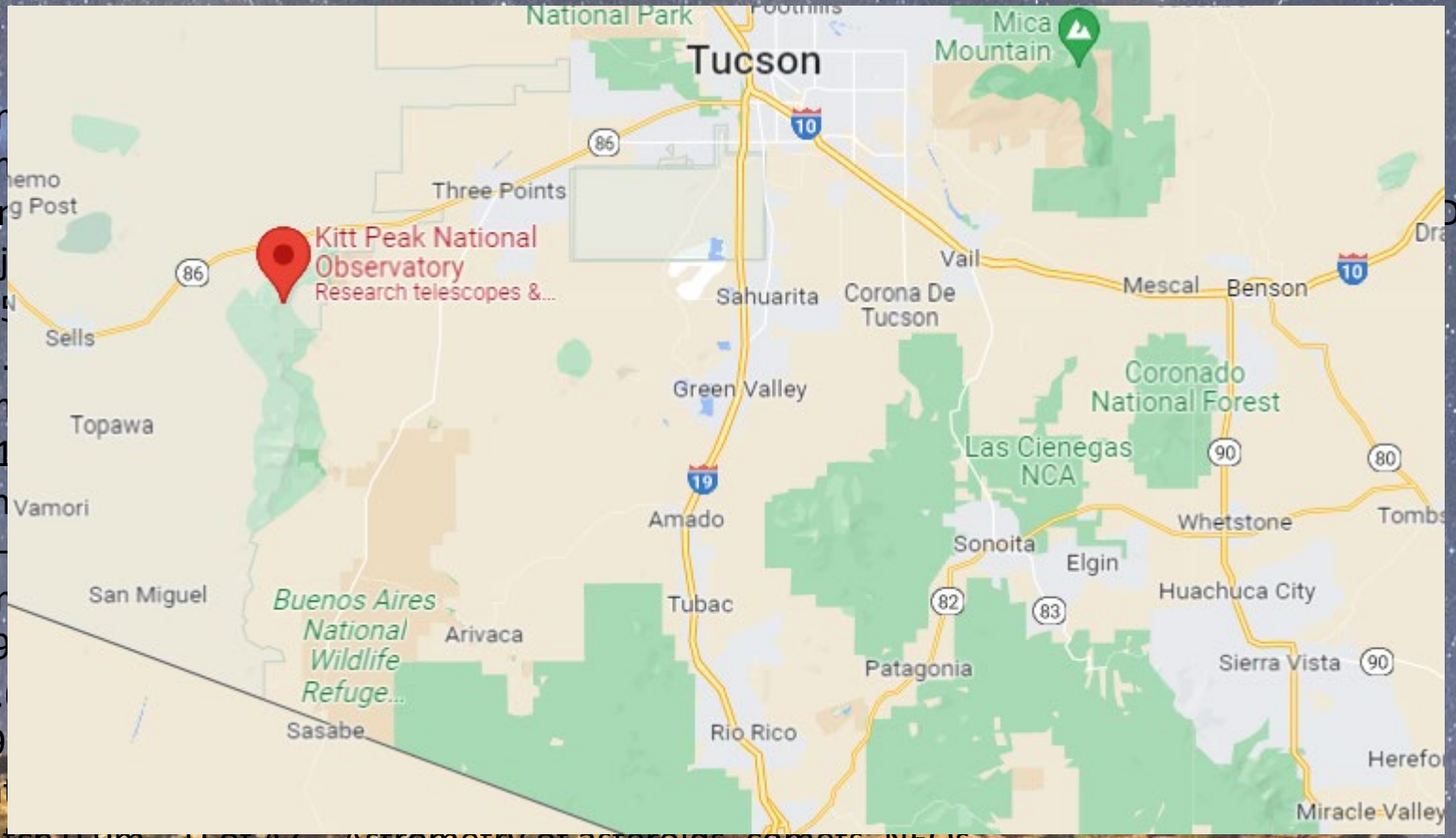

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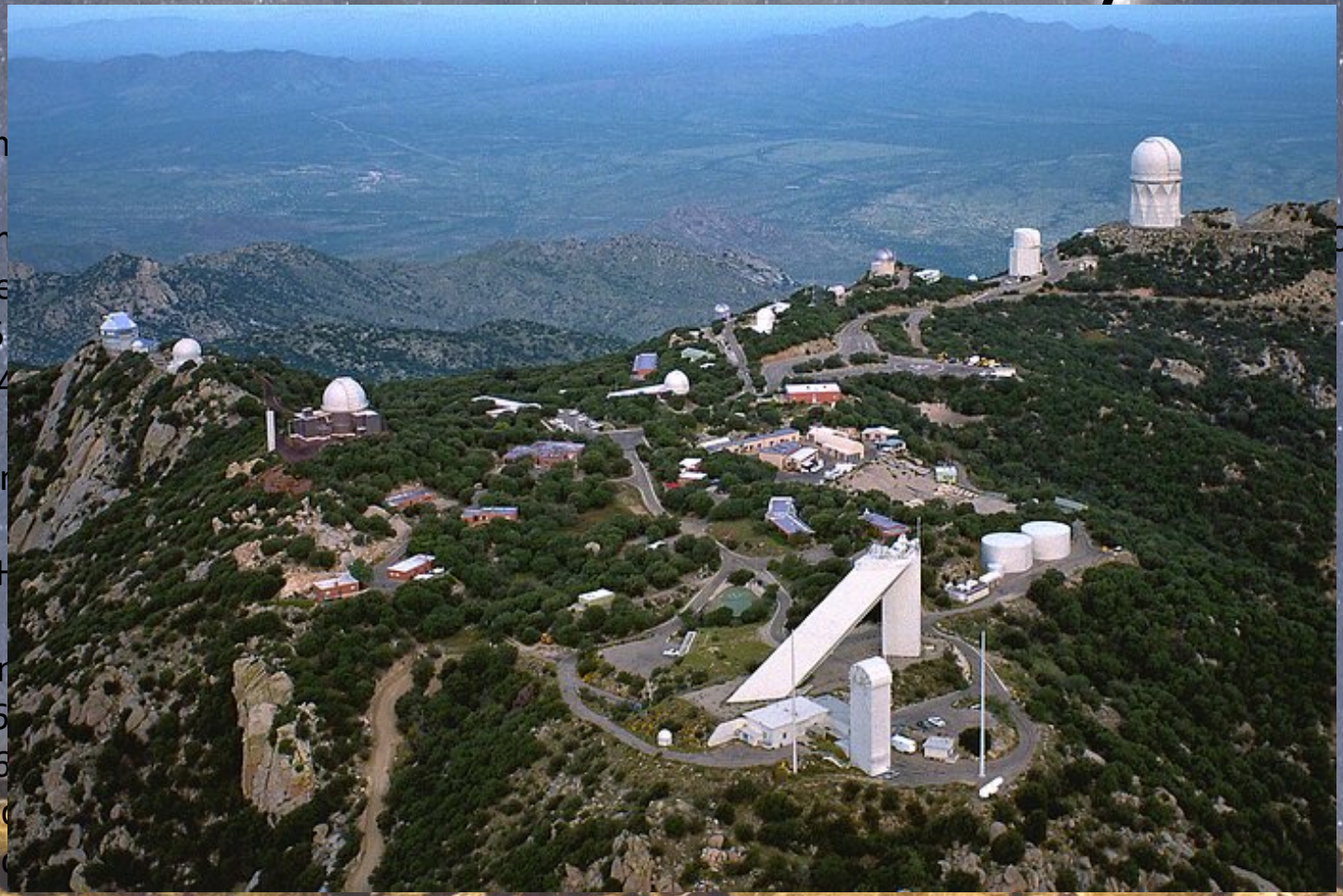

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Kitt Peak National Observatory

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Kitt Peak National Observatory

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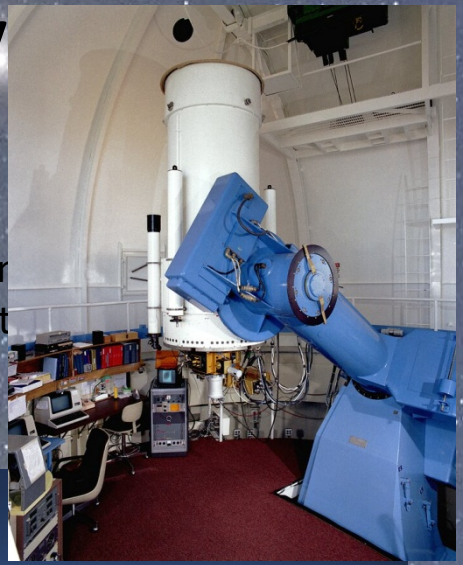

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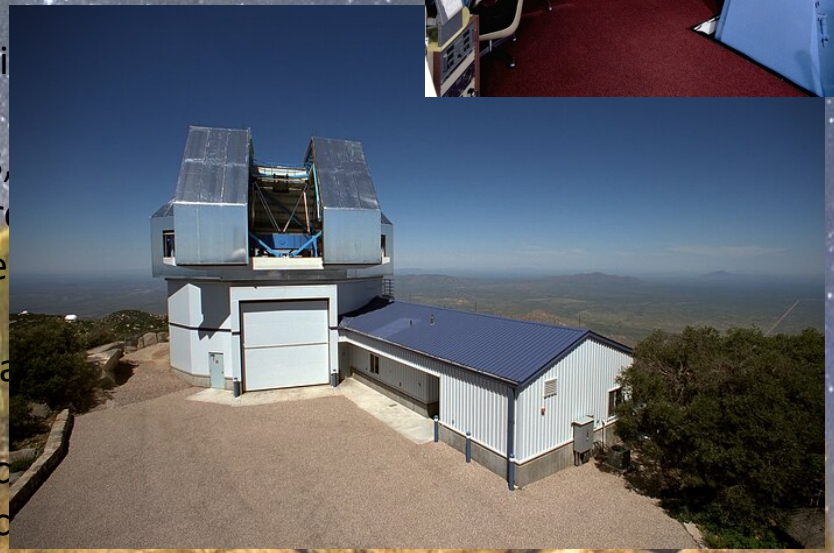

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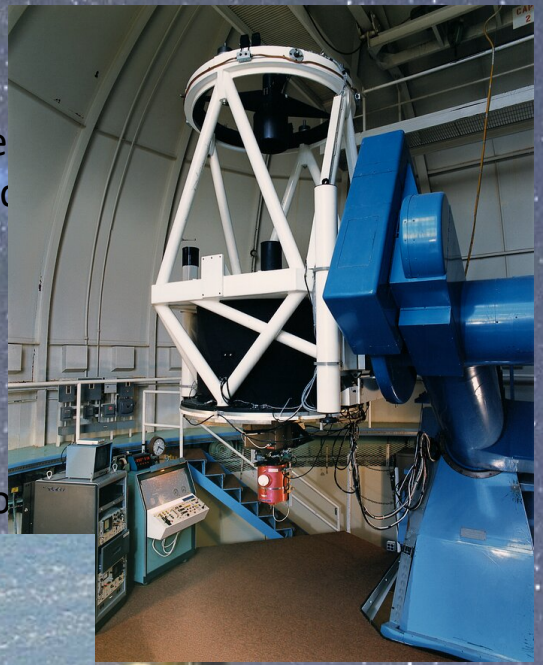

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Kitt Peak National Observatory

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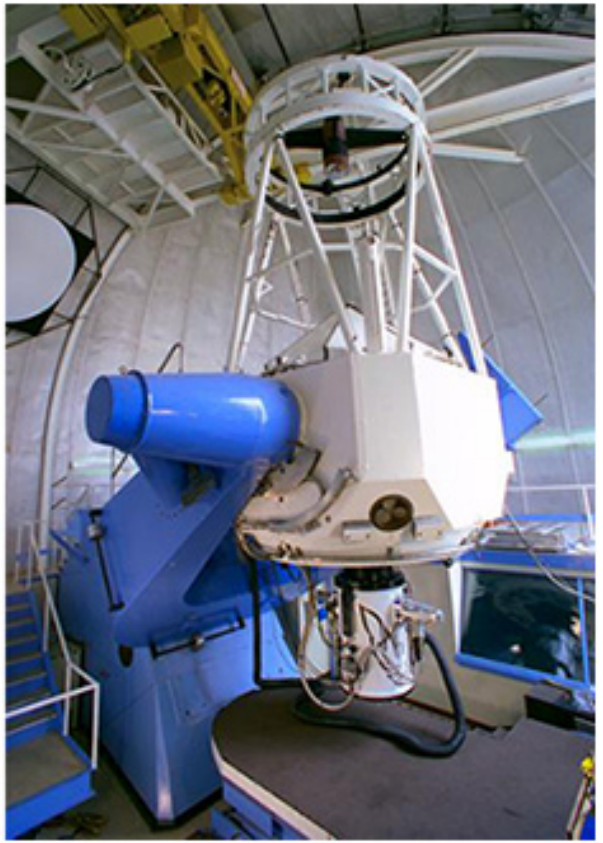

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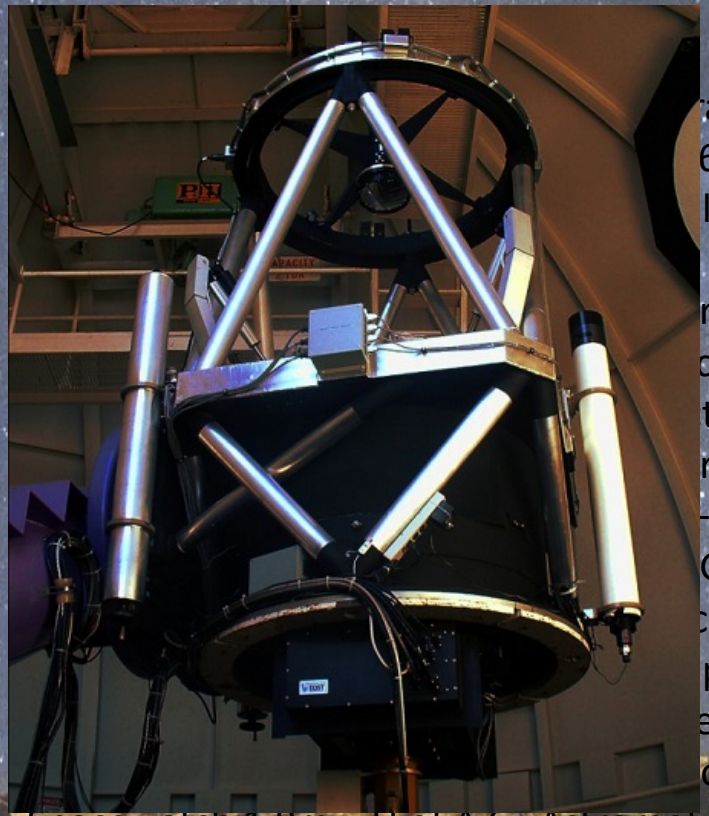

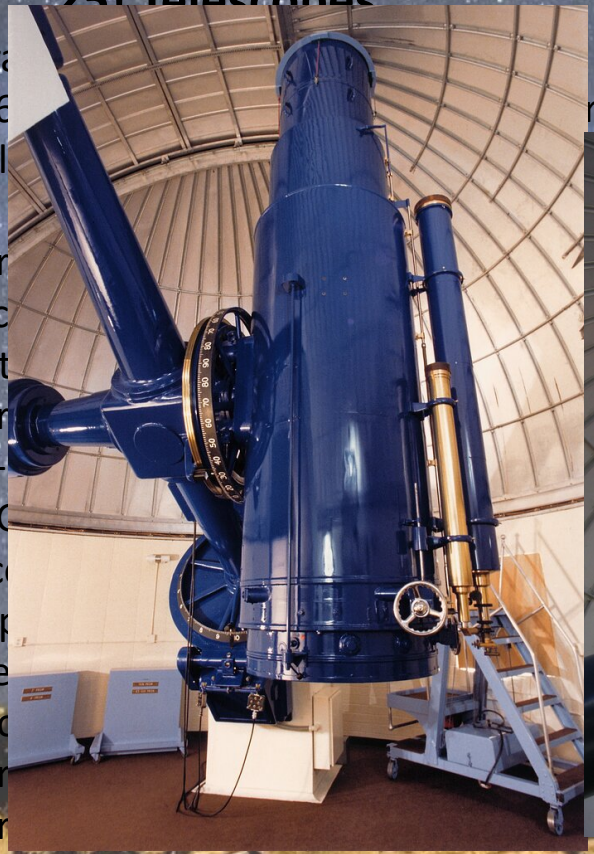

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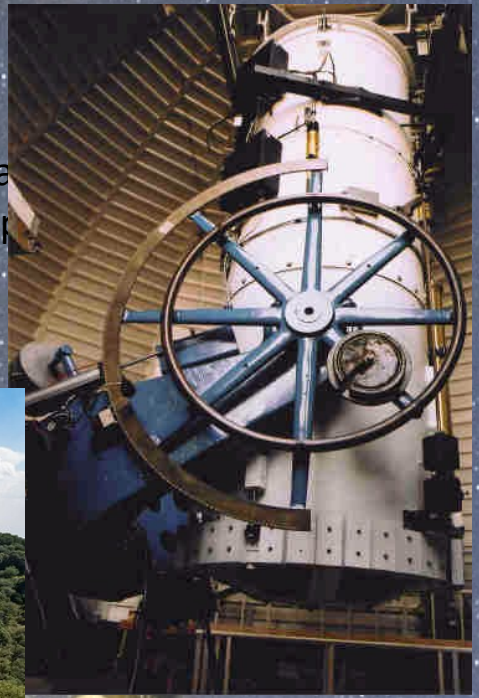

Kitt Peak National Observatory

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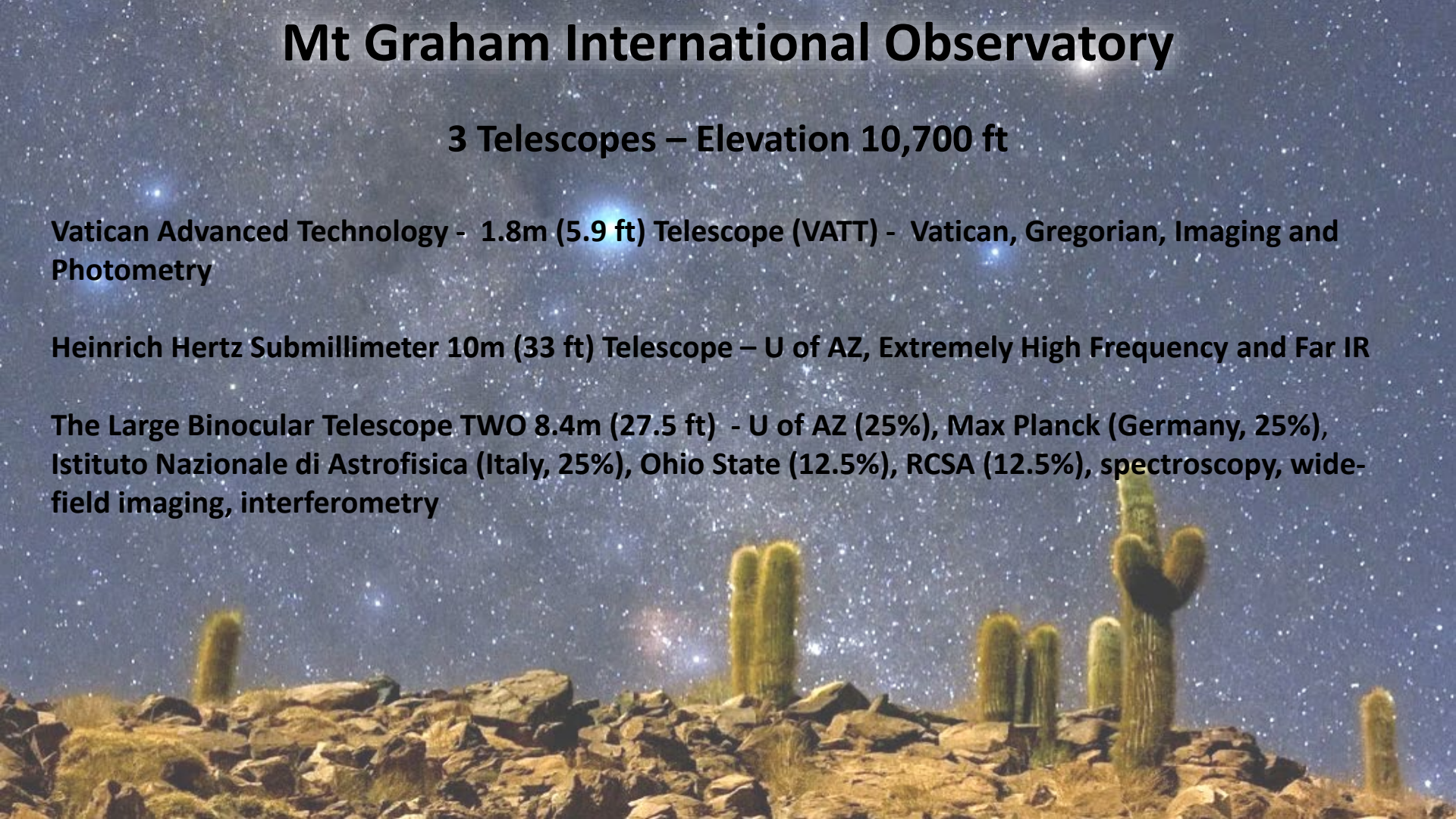
Mt Graham International Observatory

3 Telescopes – Elevation 10,700 ft

Vatican Advanced Technology - 1.8m (5.9 ft) Telescope (VATT) - Vatican, Gregorian, Imaging and Photometry

Heinrich Hertz Submillimeter 10m (33 ft) Telescope – U of AZ, Extremely High Frequency and Far IR

The Large Binocular Telescope TWO 8.4m (27.5 ft) - U of AZ (25%), Max Planck (Germany, 25%), Istituto Nazionale di Astrofisica (Italy, 25%), Ohio State (12.5%), RCSA (12.5%), spectroscopy, wide-field imaging, interferometry



Mt Graham International Observatory

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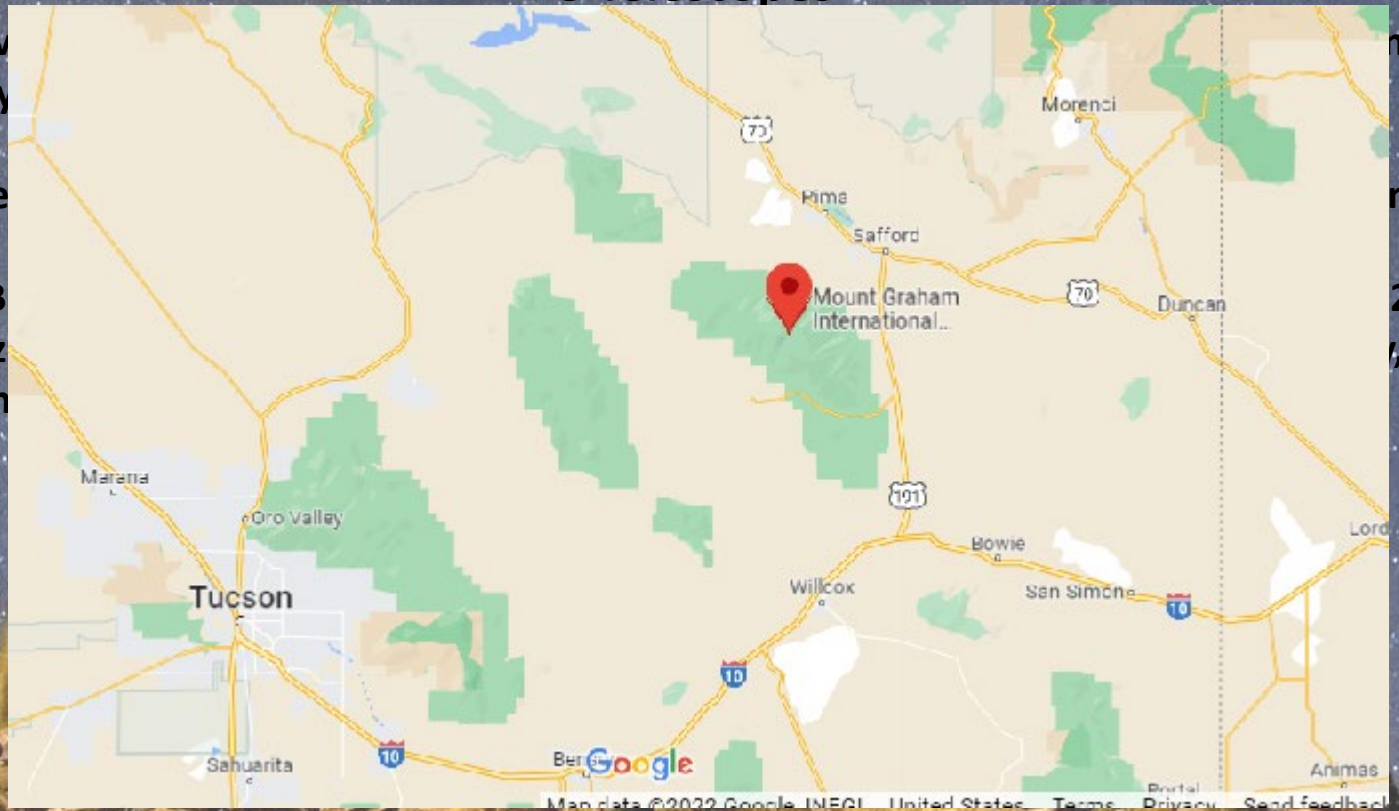

Mt Graham International Observatory

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Vatican Advanced Technology - 1.8m (5.9 ft) Telescope (VATT) -

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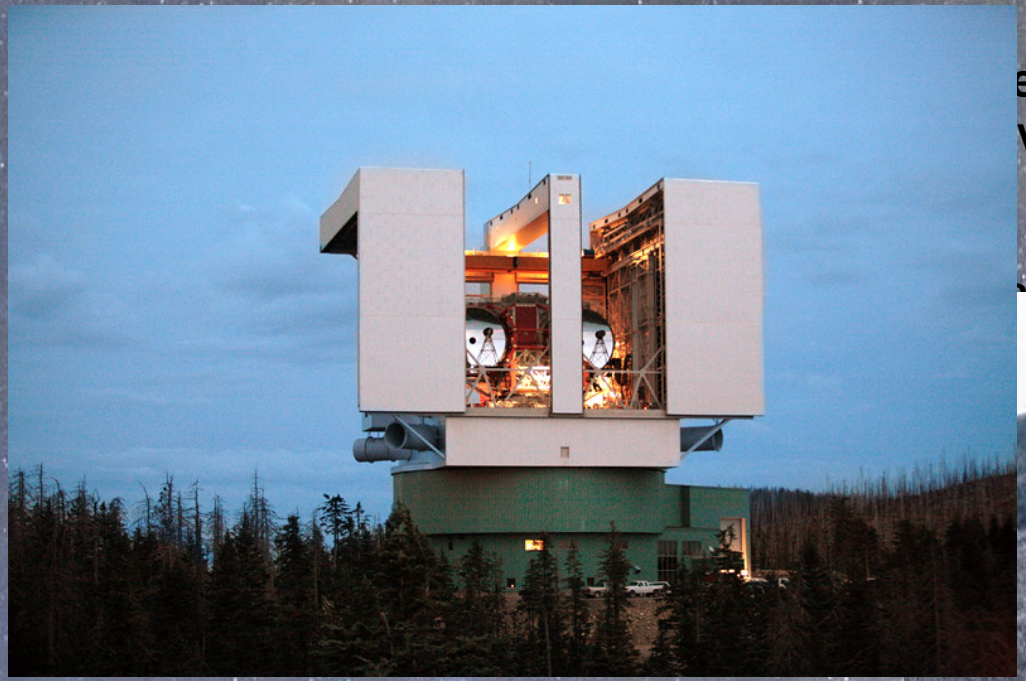

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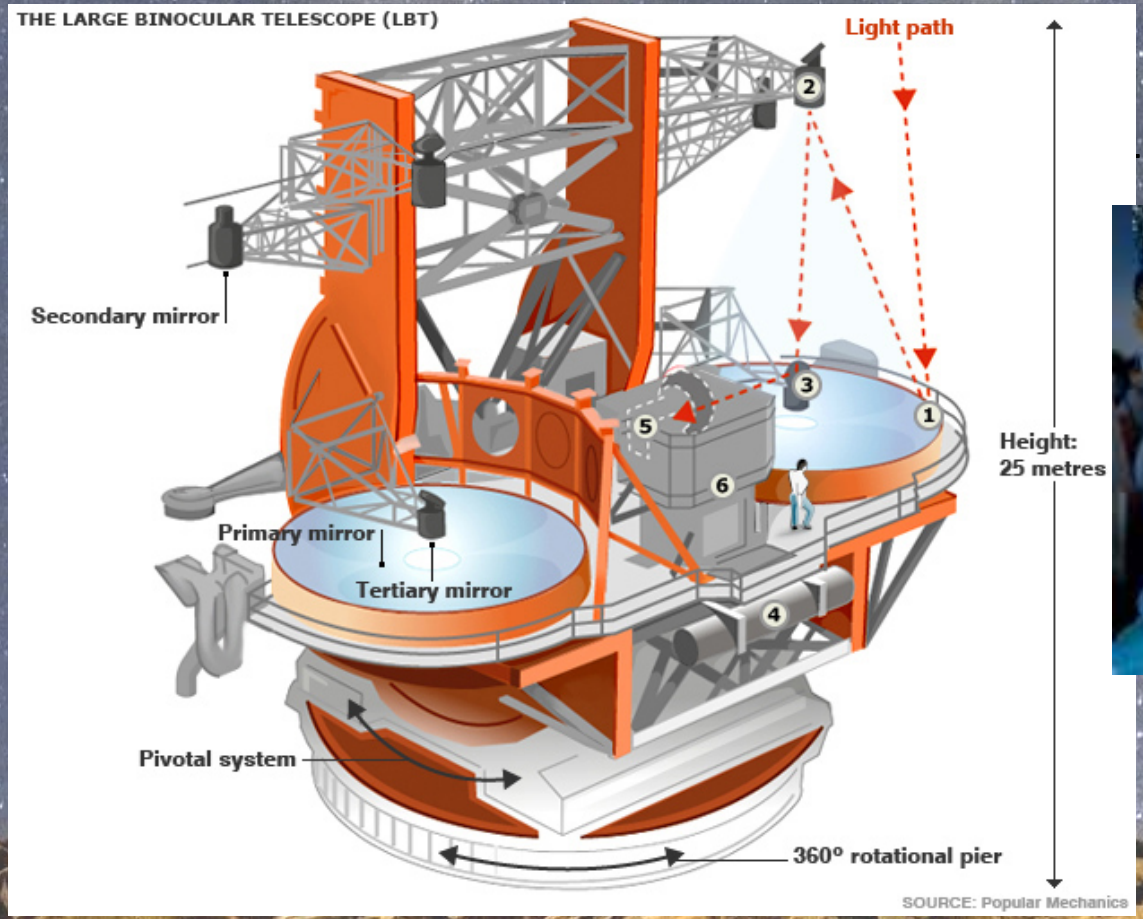

- Vatican, Gregorian, Imaging and

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The Large Binocular Telescope

LBC – optical and near ultraviolet wide field prime focus cameras. One is optimized for the blue part of the optical spectrum and one for the red.

PEPSI – A high resolution and very high-resolution optical spectrograph and imaging polarimeter at the combined focus.

MODS – two optical multi object and longslit spectrographs plus imagers. Capable of running in a single mirror or binocular mode.

LUCI – two multi-object and longslit infrared spectrographs plus imagers, one for each side (associated with one of the 8m mirrors) of the telescope. The imager has 2 cameras and can observe in both seeing-limited and diffraction-limited (with adaptive optics) modes

LINC/Nirvana – wide-field interferometric imaging with adaptive optics at the combined focus

LBTI/LMIRCAM – 2.9 to 5.2 micron Fizeau imaging and medium resolution grism spectroscopy at the combined focus.

LBTI/NOMIC – N band nulling imager for the study of protoplanetary and debris disks at the combined focus.

FLAO – first light adaptive optics to correct atmospheric distortion

ARGOS – multiple laser guide star unit capable of supporting ground layer or multi conjugate adaptive optics.

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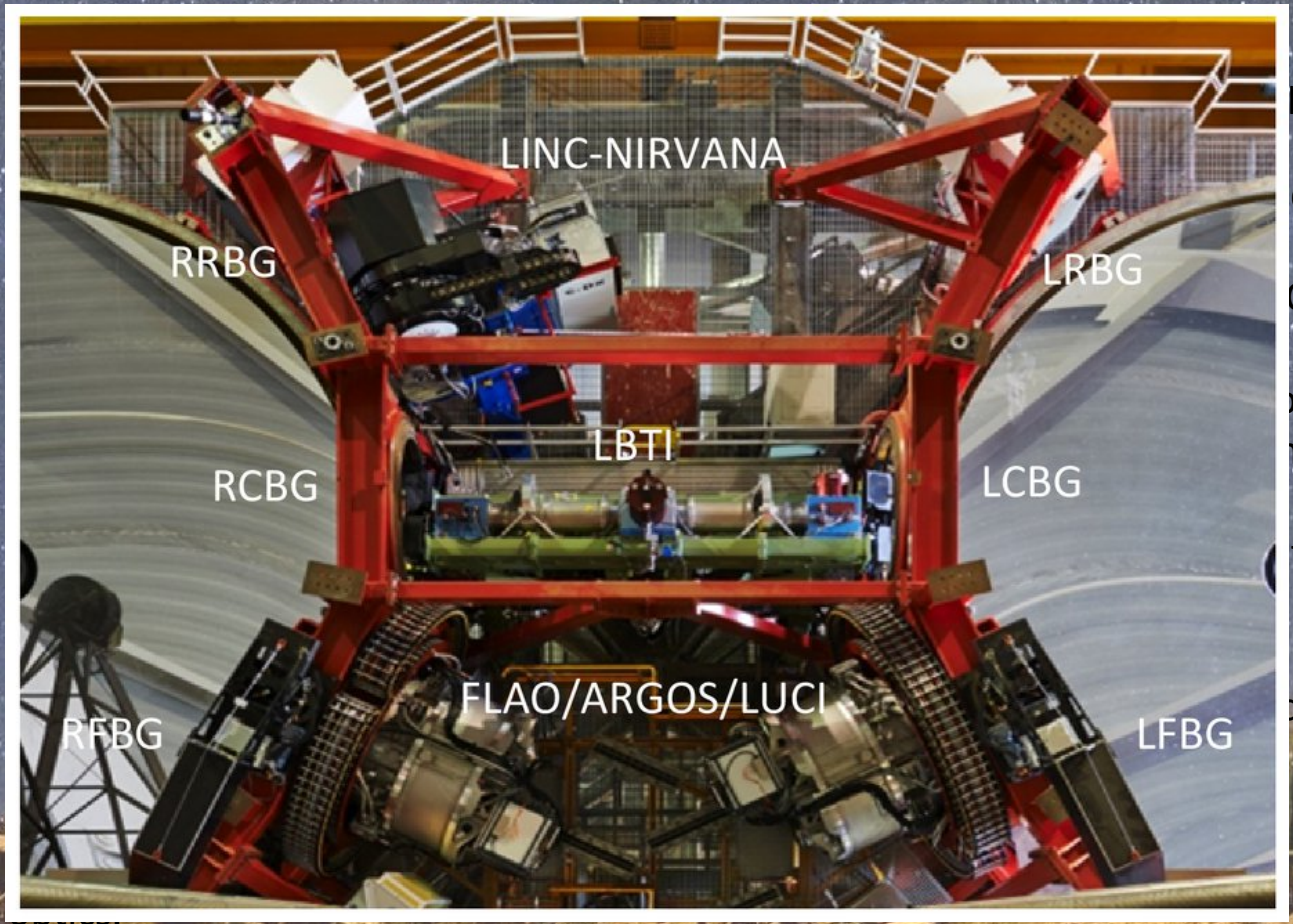

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