Vatican Advanced Technology Telescope



The VATT telescope has an Alt/Az mount and uses a 1.8-m f/1.0 honeycombed construction, borosilicate primary mirror developed by the University of Arizona Mirror Lab. Its secondary mirror is a 0.38-m f/0.9 Zerodur manufacted by the Space Optics Research Laboratory [1)].

Both observing time and responsibility for VATT are shared with the University of Arizona on a 75% The Vatican Observatory Research Group VORG, 25% basis. Limited resources prevent VATT from being a visitor observatory, but collaborations are welcomed by VORG, especially when suitable instrumentation is provided for shared use at VATT.[2)]

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Altitude : 3191 meters = 10,469 ft
Latitude : 32° 42' 04.69" N
Longitude : 109° 53' 31.25" W
Optical System : aplanatic Gregorian, f/9
Focal Length : 16.48 m
Primary Mirror : f/1.0, Diameter 1.83 meters = 72 inches
Secondary Mirror : f/0.9, Diameter 0.38 meters = 14.96 inches
Back Focal Distance : 50.80 mm (effective)
Vignetting-Free Field : 72 mm diameter (15 arcmin)
Image Scale : 12.52 arcsec/mm
Image quality : 0.1 arcsec throughout 6.8 arcmin diameter flat FOV
Mount : altitude-azimuth with derotator
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Read-Me before applying for VATT time
List of Approved Observers
Current Schedule
Past Schedules
Useful Astronomy Links
Weather & Environmental Conditions & Hazards
Dome, Security & Finderscope Cameras
MGIO Radio Call Codes

Safety

- Wind-gust limit

What's New at VATT

- What is New at VATT
- Miscellaneous Tips

The Telescope & Instruments

- Brief Chronology of VATT Development
  - Blanco et al. SPIE 1990
  - West et al. SPIE 1997
- A paper on Mt Graham atmosphere
- Optical Diagram
- Specifications
- Instrumentation and Computers
- Filters

Base Camp & Swift Trail

- Base Camp and Swift Trail prior to your arrival

Start up and shutdown:

- VATT Warm Startup Checklist
- VATT Warm Shutdown Checklist
- VATT Ash Shutdown/Startup Checklist
- VATT Lightning Shutdown Checklist
- VATT Lightning Startup Checklist

Individual tasks

- (Re)Booting VATTtel
- Starting NESLAB
- Recovering from a stall
- Recovering from a power glitch

Telescope Operation

- Remotely operated valve on LN2 dewar
- Collimate and Focus (New Hexapod)
  - Instructions for use of the VATT 4K Camera
  - CCD Imager Log Sheet
- VATTspec

  General Instructions
- VATTspec

  Instructions on Guiding
- Dome Flats (Gabor style)
- LED Dome Flats (Boyle style)
- PHD2 Guiding (Abbreviated)

- Cosmograil/H0LiCOW
- Guider: Temporary fix

Peripheral Systems

- Mirror Cell Thermal Reader
- Secondary Mirror
- Logging System
- Dome, security & finderscope cameras

Data Retrieval

- How do I retrieve my data from VATT servers

Maintenance and Engineering

- Fiber Panel Test
- PHD2 Guiding
- Oil chillers

Superannuated Contents

- Collimate VATT (Old)
- VATT Warm Startup Checklist (2011)
- VATT Warm Shutdown Checklist (2011)
- Calibrate
  - VATT Instructions (2005)
- VATT Streamlined Warm Startup Checklist
- Remote Observation Checklist
  - Warm Startup Checklist for VATT operation during PEPSI runs

[1)] , [2)]
http://vaticanobservatory.org/VATT/

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