

# 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 manufactured by the Space Optics Research Laboratory <sup>1)</sup>.



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. <sup>2)</sup>

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

[Read-Me before applying for VATT time](#)

[List of Approved Observers](#)

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## What's New at VATT

- [What is New at VATT](#)
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## The Telescope & Instruments

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- [A paper on Mt Graham atmosphere](#)
- [Optical Diagram](#)
- [Specifications](#)
- [Instrumentation and Computers](#)
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## Base Camp & Swift Trail

- [Base Camp and Swift Trail](#) prior to your arrival

## Start up and shutdown:

- [VATT Warm Startup Checklist](#)
- [VATT Streamlined Warm Startup Checklist](#)
- [Remote Observation Checklist](#)
  - [Warm Startup Checklist for VATT operation during PEPSI runs](#)
- [VATT Warm Shutdown Checklist](#)
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- [VATT Lightning Shutdown Checklist](#)

## Individual tasks

- [\(Re\)Booting VATTtel](#)
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## Telescope Operation

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- [Collimate and Focus \(New Hexapod\)](#)
  - [Instructions for use of the VATT 4K Camera](#)
  - [CCD Imager Log Sheet](#)
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  - [General Instructions](#)
- [VATTspec](#)
  - [Instructions on Guiding](#)
- [Dome Flats](#) (Gabor style)
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## Peripheral Systems

- [Mirror Cell Thermal Reader](#)
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- [Logging System](#)

## Data Retrieval

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## Maintenance and Engineering

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## Superannuated Contents

- [Collimate VATT \(Old\)](#)
- [VATT Warm Startup Checklist \(2011\)](#)
- [VATT Warm Shutdown Checklist \(2011\)](#)
- [Calibrate](#)
- [VATT Instructions \(2005\)](#)

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