

DRAFT

	🚫🚫🚫 Thermal shock is a 🤪 danger 🤪 to glass integrity 🚫🚫 NEVER open the mirror cover if the mirror is more than 5°C warmer than ambient air 🚫🚫🚫	
	😬 When night and day temperatures inside the dome differ greatly (wintertime; greenhouse effect), it is advisable to take <i>four</i> hours before opening to thermalize. The chief remedy is to open the dome slit because the outside air is significantly cooler than the air inside the dome. See What's New at VATT	
	😬 In summertime, nights are often warm on Mt Graham, with relatively small night/day temperature differences. Even then, thermalizing the mirror may take a couple of hours.	
	😬 The outside air temperatures are often too high in the afternoons, so that opening the dome is not very useful until dusk/sunset.	
	😬 Badly thermalized M1 is not a major contributor to dome seeing. The primary purpose of thermalizing M1 prior to opening is safety, i.e., avoiding thermal shock to M1.	
	😬 This document describes a streamlined process, to be used in the summertime.	
	An hour before sunset	
Basement	Check dry air supply system dew point (typ. ~ -47°F; now tends to be 10°F warmer)	
Basement	Turn on building & pier fans	
Basement	Start the azimuth hydrostatic oil bearing	
Dome	Open dome register vents (there are four pairs of them)	
Dome	Remove Dome Short	
Dome	⚠ CAUTION ⚠ Never open the dome shutters unless you are sure it will be safe for you and the equipment. In particular, there may be snow on the dome shutters in winter.	
Dome	Equinox	Solstice
Dome	Opening the dome slit is the most effective way of letting the hot air out of the dome. But, around the equinoxes, the setting sun will shine on the secondary barrel. This is to be avoided. ⚠ Keep the sun off the secondary barrel ⚠	
Dome/ Control room later	Open dome shutters (slit) about half way: at quad box on curved wall below the dome short installation position plug dome into the power socket (note on safety: this ensures dome short is out: tether attached to cord); operate the dome shutters by turning the control button on the electric box on the silo wall to the SE; stop the opening about half way by unplugging the power cord; this keeps the sun off the secondary barrel	Open dome shutters (slit) fully: at quad box on curved wall below the dome short installation position plug dome into the power socket (note on safety: this ensures dome short is out: tether attached to cord). No further action required in the dome: Shutters can be opened fully using TCSglue.

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