

SUBARU TELESCOPE 20TH ANNIVERSARY

Night Crew Report - Michael Letawsky

(November 17, 2019)

- * University of Victoria - Physics & Astronomy
- * Subaru Telescope
 - * OSA (a.k.a. Operator) - December 1998
 - * Observation System Team Leader - 2009

About Me



Operator Group

* Night shifts ~ 5 nights
(2-7 nights, 7 nights/month avg)

* Night Operation

- Sleep at HP
- 2 people at summit (~1 hour before sunset)
- Startup TWS/Gen2/Instrument
- Check for alarms
- Dome flats/calibration
- Dome pre-check
- Open dome
- Startup remaining systems (i.e.: open mirror covers)
- Twilight flats
- Check telescope focus



About Night Work

* Night Operation

- Observations -
Telescope/Instrument Operation
alongside SA
 - Target acquisition / Focusing
 - AO/LGS
 - Exposures / Filter Changes
- Monitor weather conditions - decide
when to close/open dome &
evacuate
- Monitor safety/health of staff &
observers (EMR)
- Ensure telescope settings provide
optimal viewing conditions

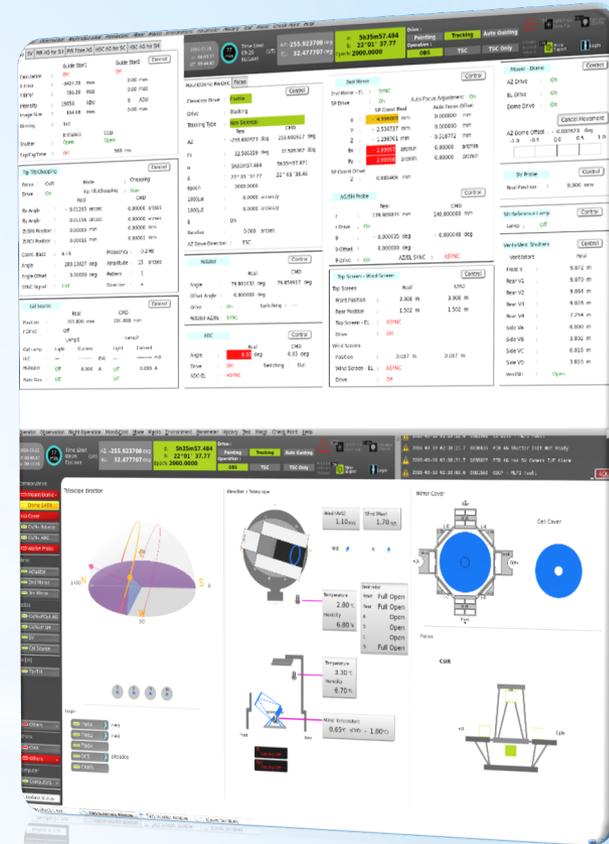


About Night Work

* Night Operation

- Deal with troubles - FATS/manuals/night support
- Change telescope configurations during the night
- Morning calibrations/twilight flats/dome flats/darks
- Shutdown telescope
- Dome post-check
- Night Log
- Depart summit

(Mirror/Pointing Analyses)



About Night Work

* Telescope Troubles

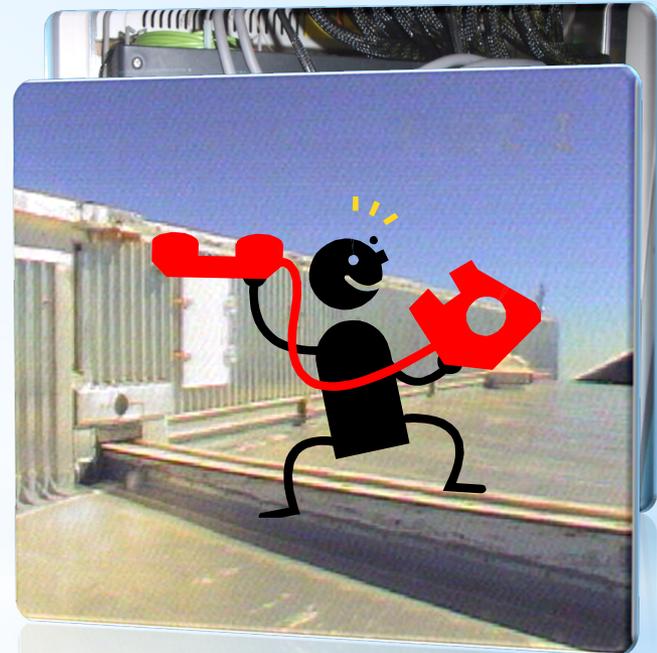
- Ignore?
 - ~13000 possible alarms (TSC)
- Recover automatically?
- FAult Tracking System (FATS)
 - ~1900 entries including Gen2 & instruments
- Cleared from TWS
- Resetting breakers/LCUs in control building computer room
- Replacing LCU drivers
- Power fluctuations - switching between chillers
- Dome - resetting actuators
- Resetting limits from local control panels



About Night Work

* Telescope Troubles

- Resetting various electronics racks in the dome
- Accessing the roof of the dome to reset breakers for dome shutter
- Call Night Support
 - OCS - Batman/Robin
 - TED
- Semi-regular troubles
 - Dome Shutter
 - AZ/EL Encoder Compensation Data



About Night Work



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THANK YOU
SUBARU TELESCOPE!