望遠鏡の運用状況

Operation of the telescope

Daigo Tomono

Telescope Engineering Division

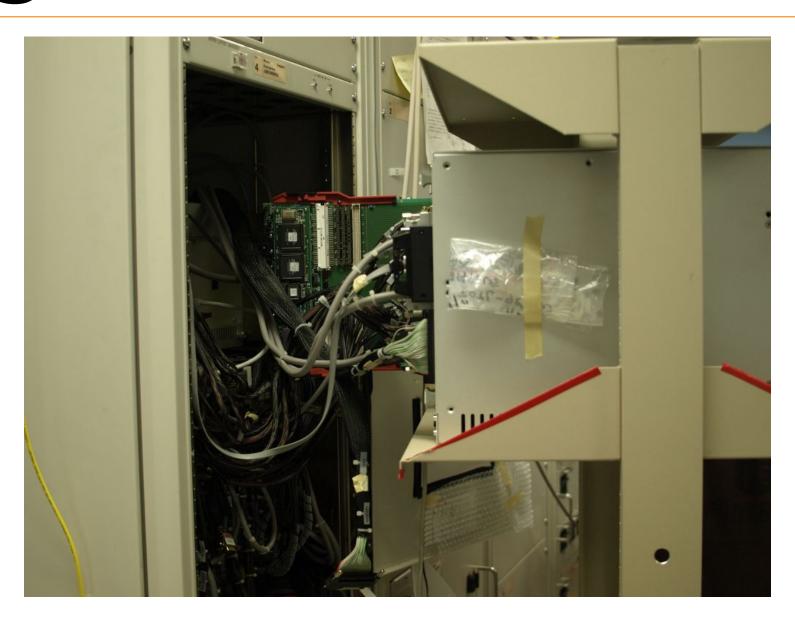
Agenda

- What we did in 2009
- Troubles in 2009
- What we will do in 2010

Tasks in 2009

- Upgrade of MLP1
- Nonsidereal AG
- Overhaul of actuators

Upgrade of MLP1



Upgrade of MLP1

- MLPs are between TSC and LCUs
- First of three MLPs to be replaced
 - VME based workstations with Alpha CPUs are becoming outdated

Nonsidereal AG

Analyzing data for better pointing accuracy

Overhaul of actuators



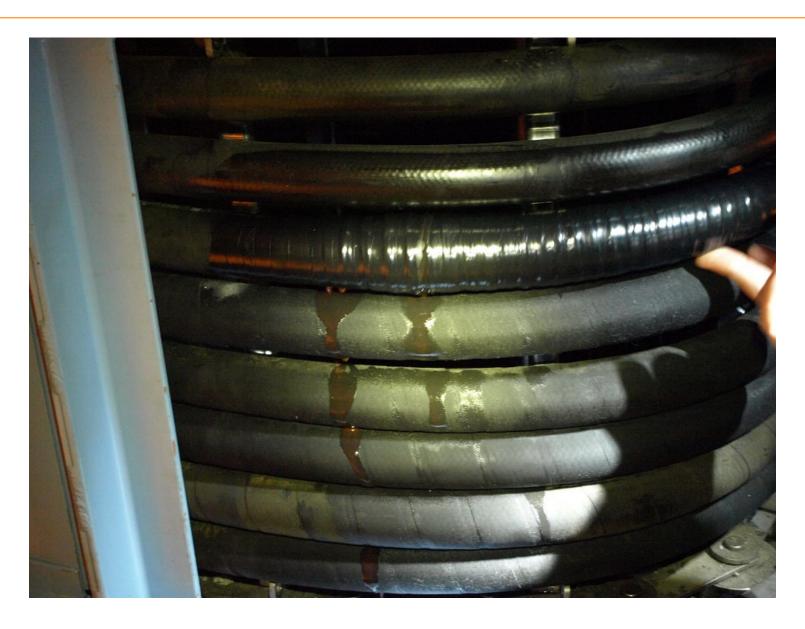
Overhaul of actuators

- Replacing motors on actuators to be sent to Japan for overhaul
 - Continuing replacement with 15 extra motors
- 2 8 actuators/day
 - Some of the 261 are only accessible during recoating

Troubles in 2009

- Leak in AZ cable wrap
- Cracks on rubber springs
- Other troubles that affected observations
 - POpt ADC
 - Shutters on NsOpt AGSH
 - Time on MLP1

Leak in AZ cable wrap



Cracks on rubber springs



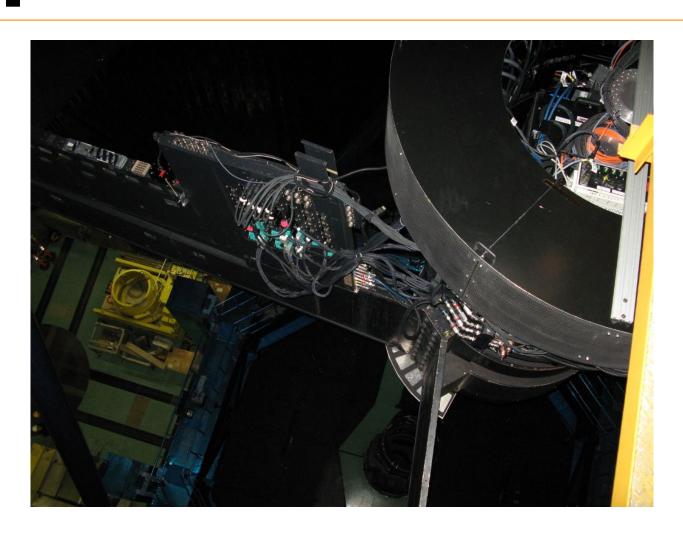
In 2010

- No observation about two months from July 1st
 - Recoating of M1
 - Modifications for HSC
 - Removal of automatic connectors
 - Removal of He hoses
 - Reassignment of twist pair lines to IRM2
 - Dismounting of AO36

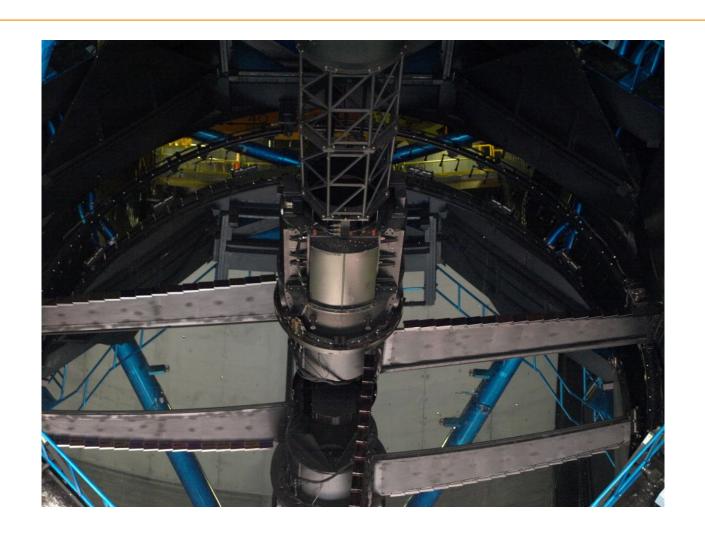
Automatic connectors

The middle rib in the inner hub and automatic connectors will be removed to allow FoV of HSC -

M2s to use connectors on spider



Additional mirrors under discussion



He hoses on top unit

Four of 8 helium hoses at top unit will be removed to

- better balance the telescope
- allow space for additional connectors for tip-tilt mirror

He hoses on top unit

Leaving 2 unused He hoses that might be used for

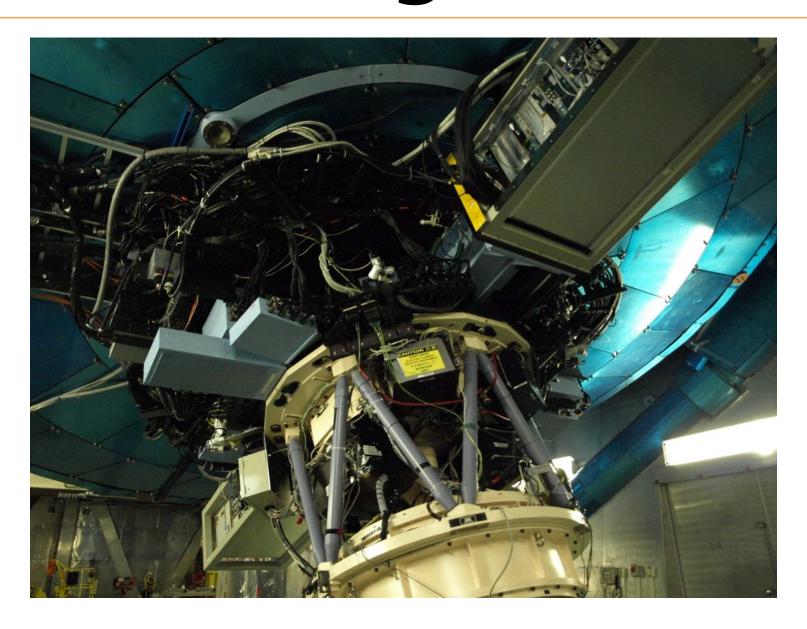
- future IR instruments, and/or
- extra lines on HSC

To be reconsidered if there is any plan for prime focus IR instruments

Twist pair lines

One of connectors on front spider for twist pair cables will be reassigned from instruments to telescope to accommodate tip-tilt signals in front spider.

Dismounting of A036



Dismounting of A036

AO layer and electronics racks will be removed to

- allow better access to mechanics and electronics around Cs focus
- allow MOIRCS more selection of AG references

Conclusion

- No observation for about 2 months from July 1st
 - Schedule in August under discussion
- Starting to see new troubles after 10 years of operation
 - Still smooth observations with staff members in Mitaka & Hilo 20/21

Thank you

- http://teldiv.subaru.nao.ac.jp/
- tomono at subaru.naoj.org