Operation of the telescope

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Agenda

- In 2010
  - Good news
  - Bad news
- For the future
  - In 2011
  - Beyond 2011
Good news

- Realuminized M1
- Modified telescope for HSC
- Solved dome encoder alarms
Before aluminization
After aluminization
Modification for HSC
Encoder alarms
Good news, continued

- Upgraded MLP1
- Upgrading MLP2
- etc
Bad news

- Cracks on rubber springs for dome bogies
  - Performance of new springs still to be confirmed
Rubber spring w/crack

Dome Bogie #19 Right-Out

93mm
Measuring new springs
Bad news, continued

- Not-so-smooth observations
  - AGSH shutters
  - AGSH probe on POpt

- Many other issues
  - Prioritizing to fix one by one
In 2011

Detailed schedule TBD

S11A: Feb-Jul

Assemble HSC on ESB and/or in the dome

S11B: Aug-Jan w/downtime

Mount HSC onto telescope, test things, and commission HSC
For the coming years

- Prime focus instruments
- TMT

are coming with higher demand for manpower and money.
For the coming years

It costs manpower & money to keep

- Telescope until 2020 or 2030
- Minimize machine troubles
- All of functions
- Functions in specifications
For the coming years

Report from the Subaru Telescope Diagnostics Group
- March 2010
Conclusion 2

切羽詰まりつつある保守運用の現実を直視すべし

We should look straight the severe reality of the maintenance operations.
We should reevaluate philosophy for maintenance and redefine requirements to make operations lean.
Reduce costs by

- Defining year to shutdown telescope?
- Allow more downtime during nights?
- Retire less used functions?
- Loosen some specifications?
Costs for longer life

We are now considering to have more engineers:

- 2 more for -2020
  - CalCONT & M1 actuators

- 2 more for -2030
  - Dome drives & shutters on AG/SH
We would like to balance costs & benefits talking with the users.
Good news, some more

We have a new member & are now able to repair PCBs.
Thank you

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