Director's Report

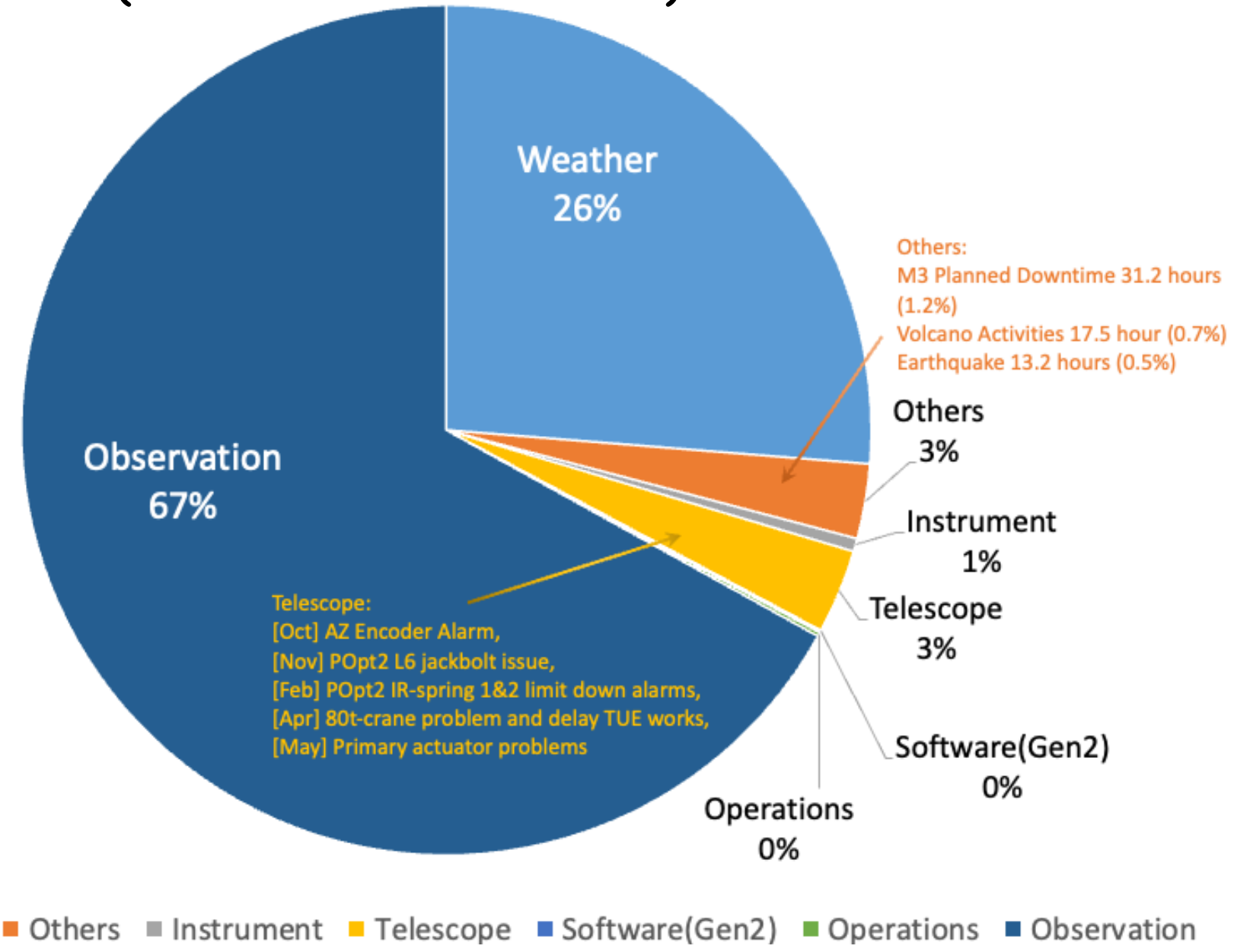
Satoshi Miyazaki

2026-06-17

Presentation for Subaru UM 2026 at Mitaka

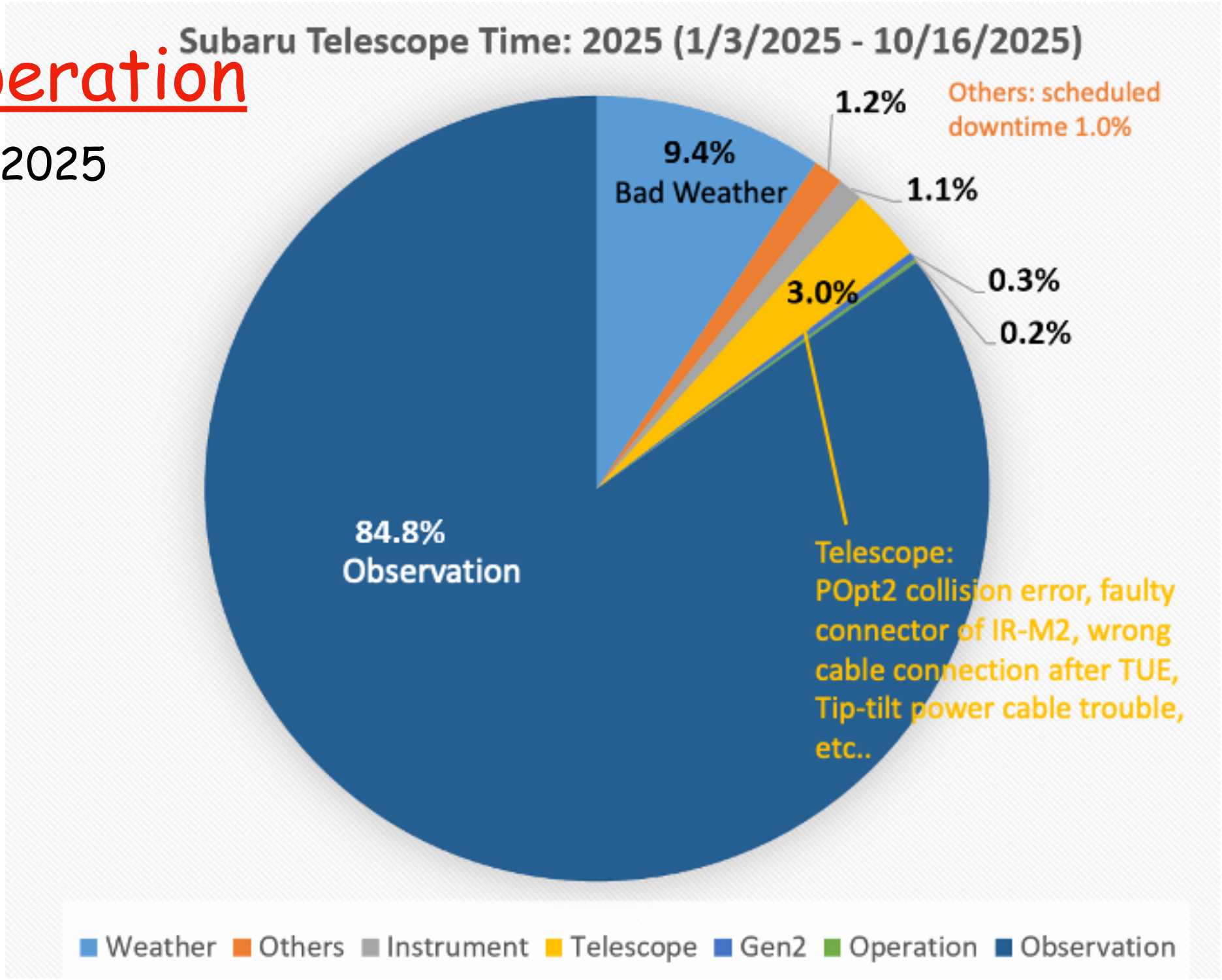
Operation

CY2025-2026 (2025/10/3-2026/6/4)



Operation

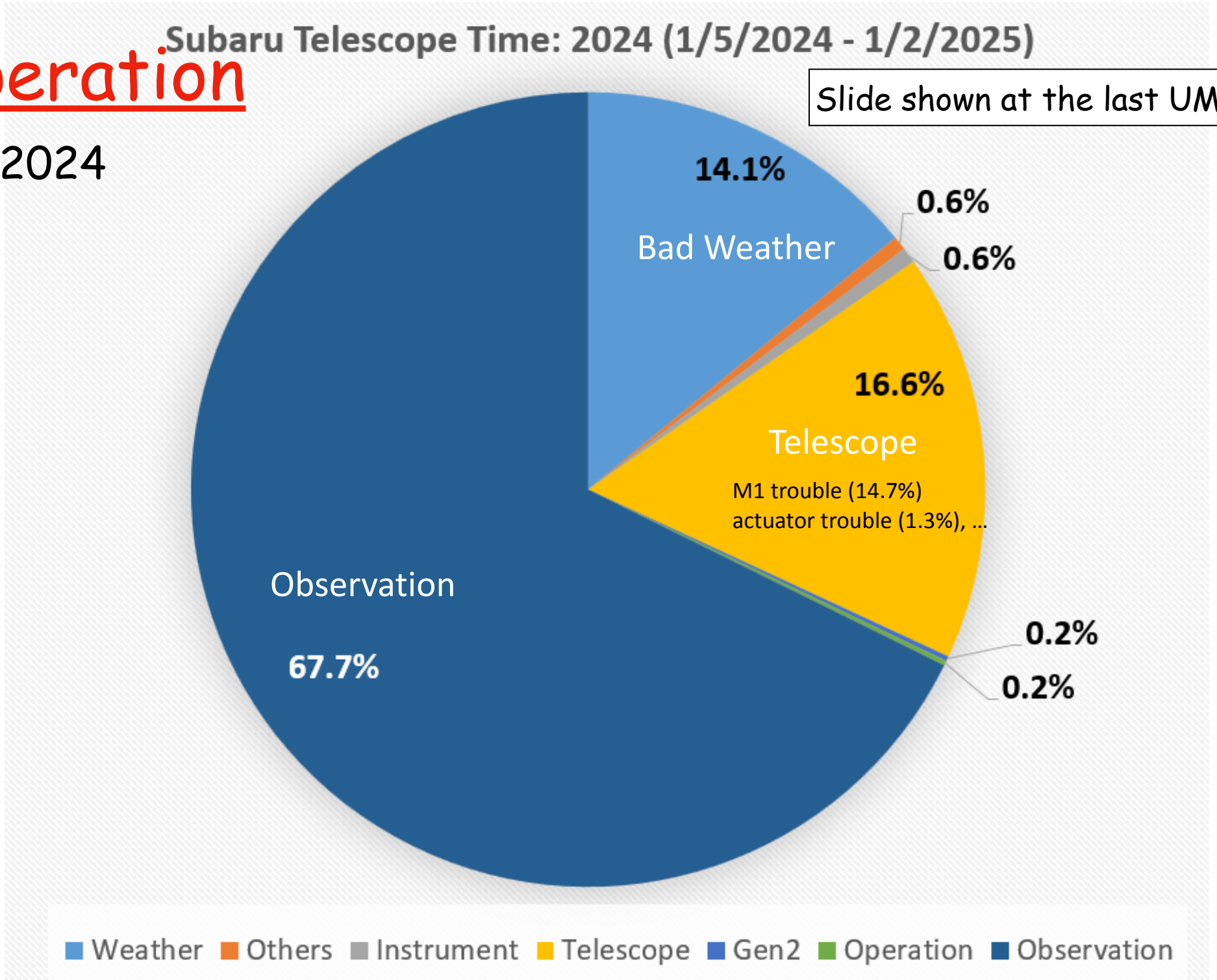
CY2025



Operation

CY2024

Slide shown at the last UM



Operation

CY2023

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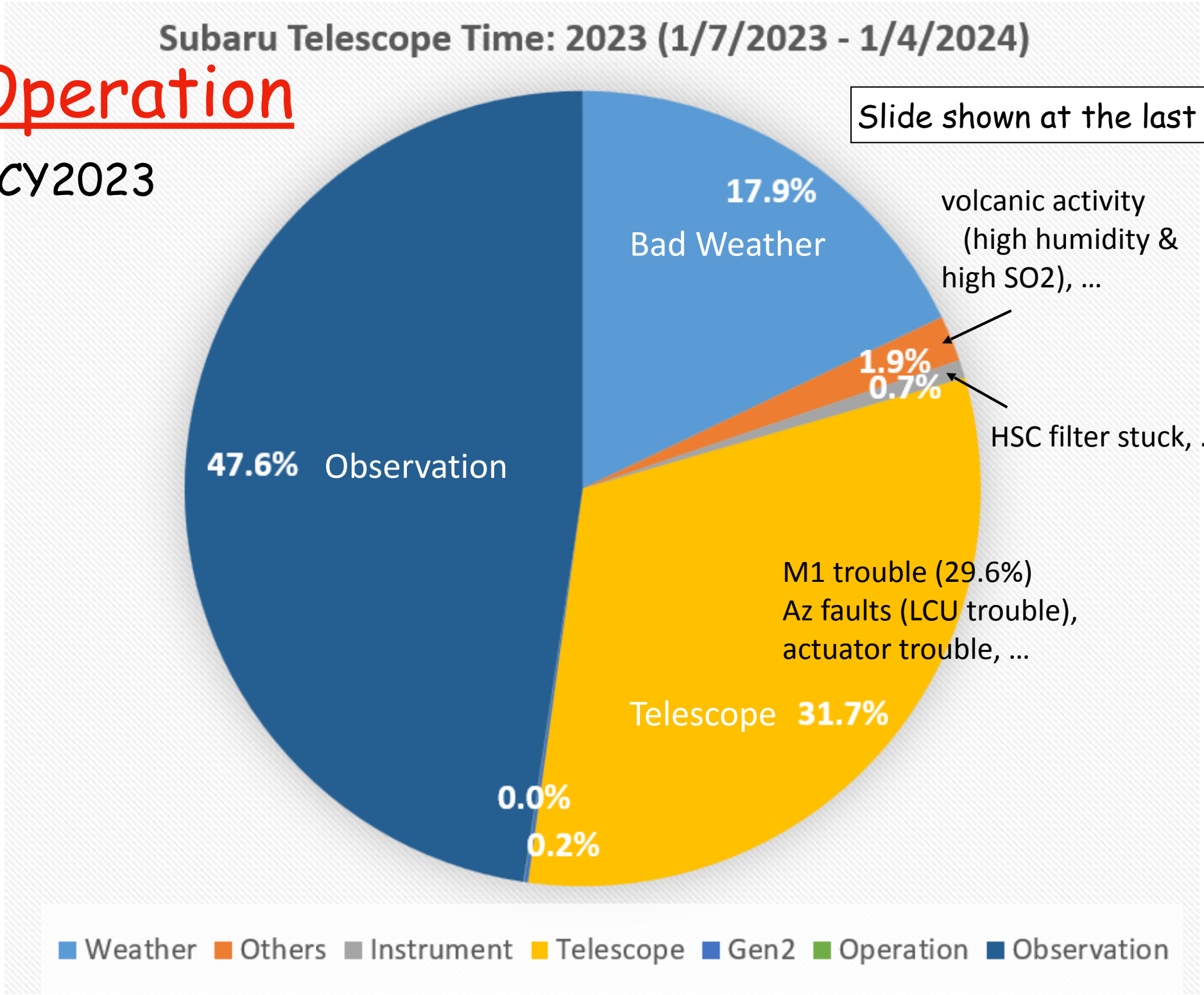
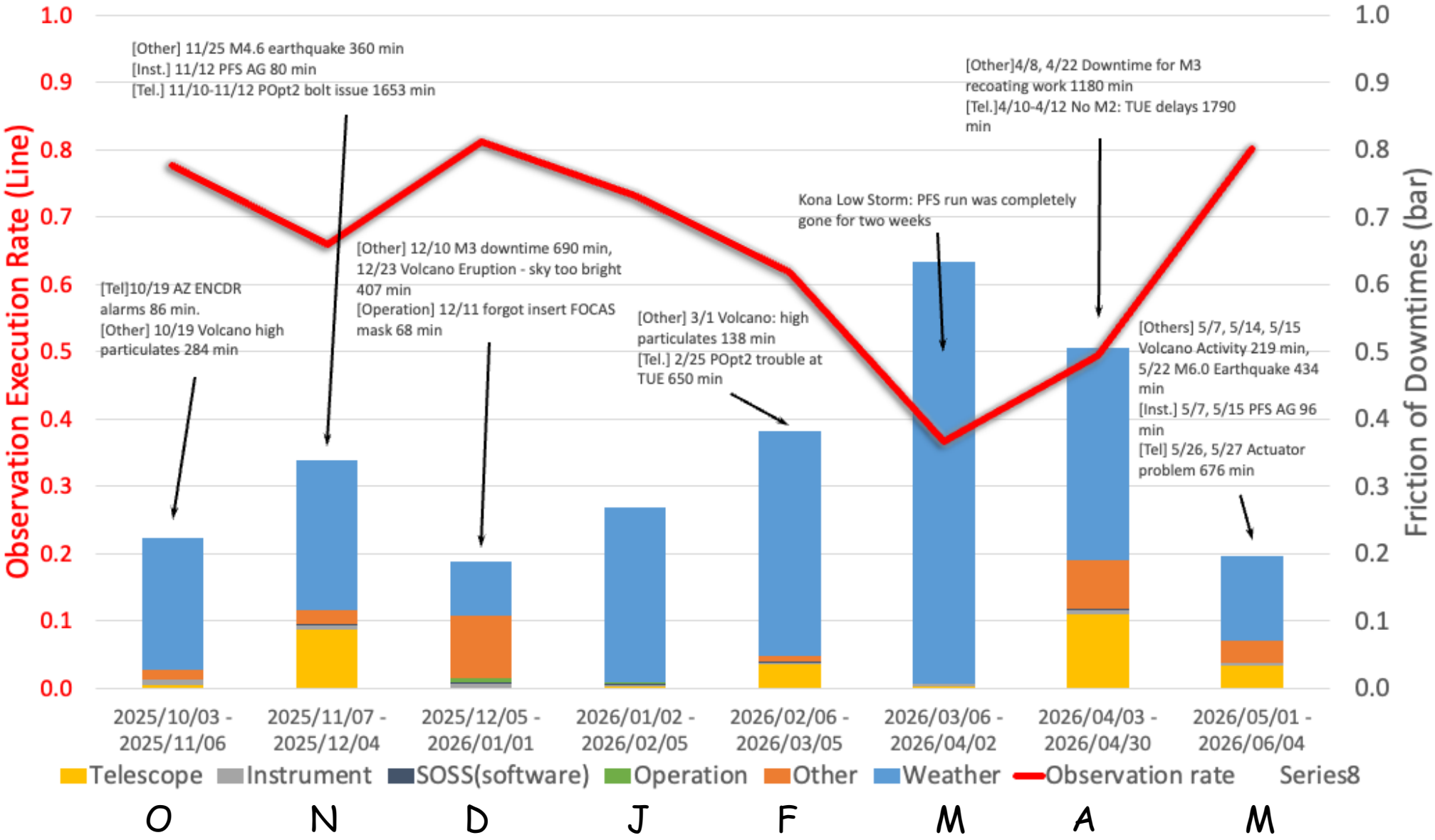


Operation

CY2025-2026 (2025/10/3-2026/6/4)

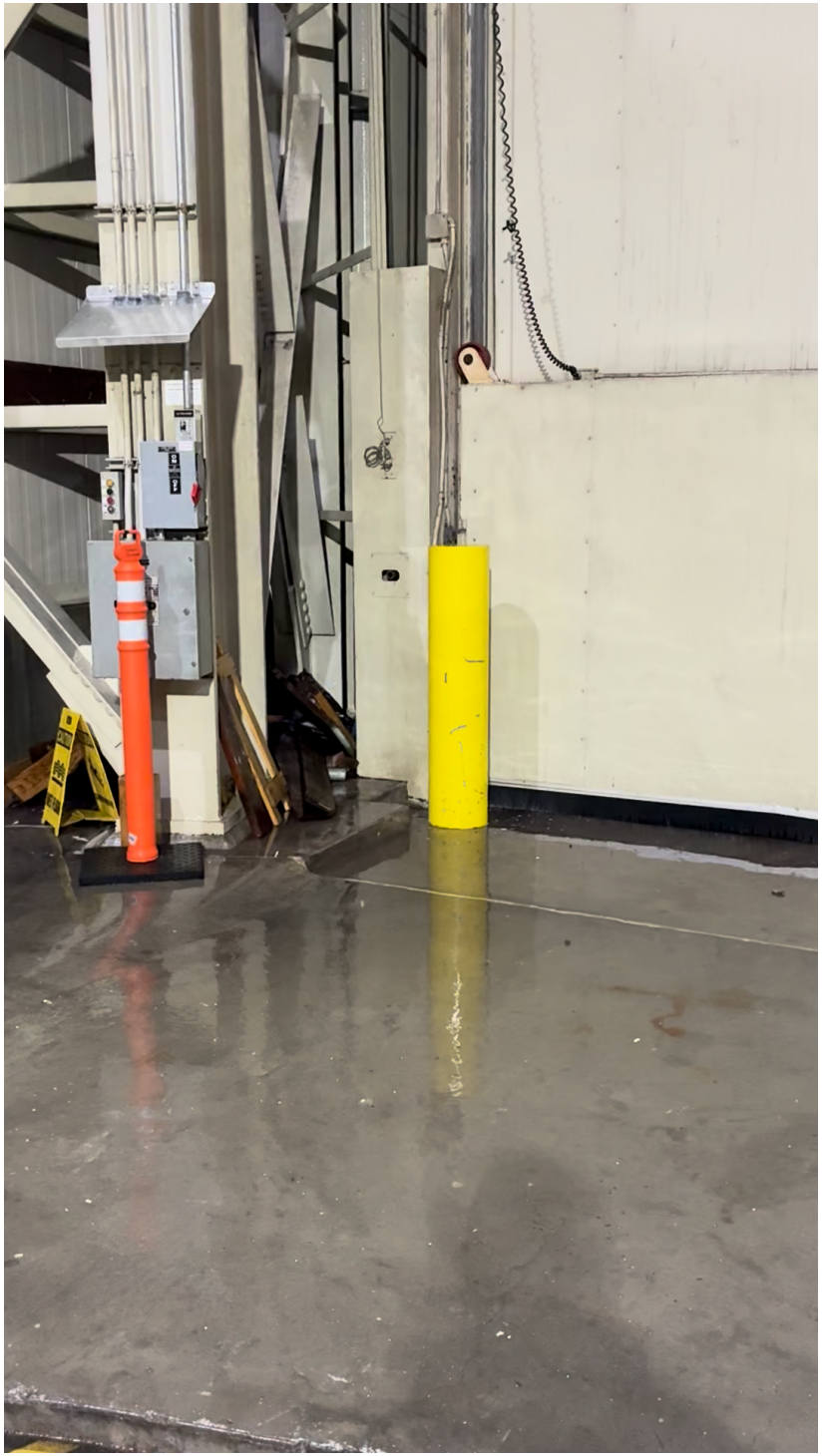


Operation

Water leak caused by "Kona Storm"

Inspection on March 16

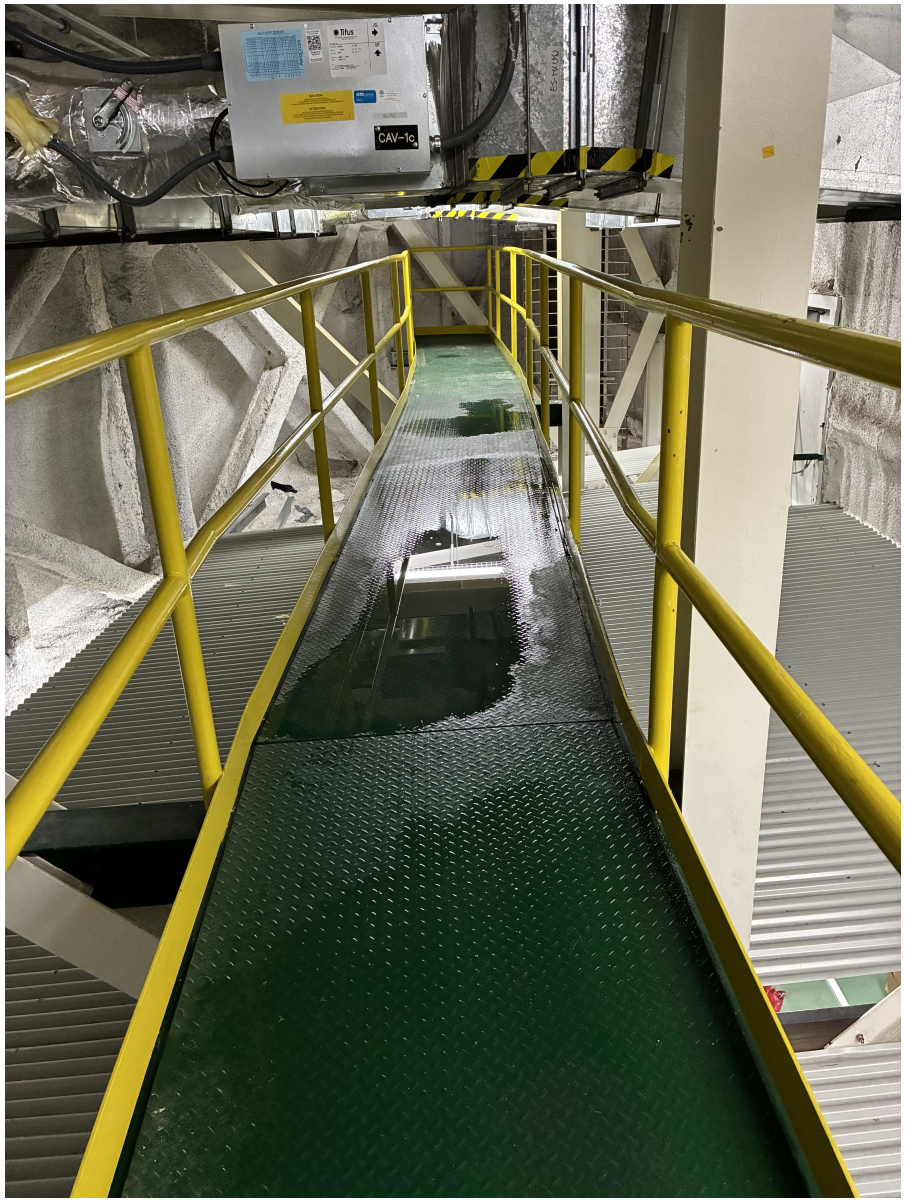
OBS



ESB

Operation

Water leak caused by "Kona Storm"



Operation

Water leak caused by "Kona Storm": a bundle of reports

3/13 (Fri): a power outage at the summit
- Chiller B tripped but the remaining circuit was able to maintain the target temperature. The affected circuit was restored on Monday (3/16).
- COMICS was warmed up due to the stop of the compressor. No observations so it will be cool down again in July.

3/16 Storm Damage Inspection:
- Water puddles in all areas of ESB, Vent Floor, Obs Floor, Opt & IR standby Flanges, 2nd Floor Rear, Crane Floor duct access walkways. Cleaned water puddles with mop (3/19)
- Water dripping: TUR floor onto breaker boxes by Great Wall and next to network rack, top of the HDS room roof, IR4 clean room roof. All covered with tarps. No significant damages.
- Part of ceiling foam collapsed above HDS room and CB1F by elevator.
- IR side small hatch blown open in Penthouse; hinge broken and unable to fully close; closed semi-shut and held with rope.
+ Fire alarm detectors damaged by water (remove to dry and re-install)
- (3/16) #82 detector: Freight Elevator stopped due to false fire alarm because #82 detector at vent floor elevator lobby was filled with water. Power on Freight Elevator with reset and bypass mode disconnecting the fire alarm (3/18).
- (3/20) #62 detector in the Main Shutter IR crawl space
#94 detector at ESB

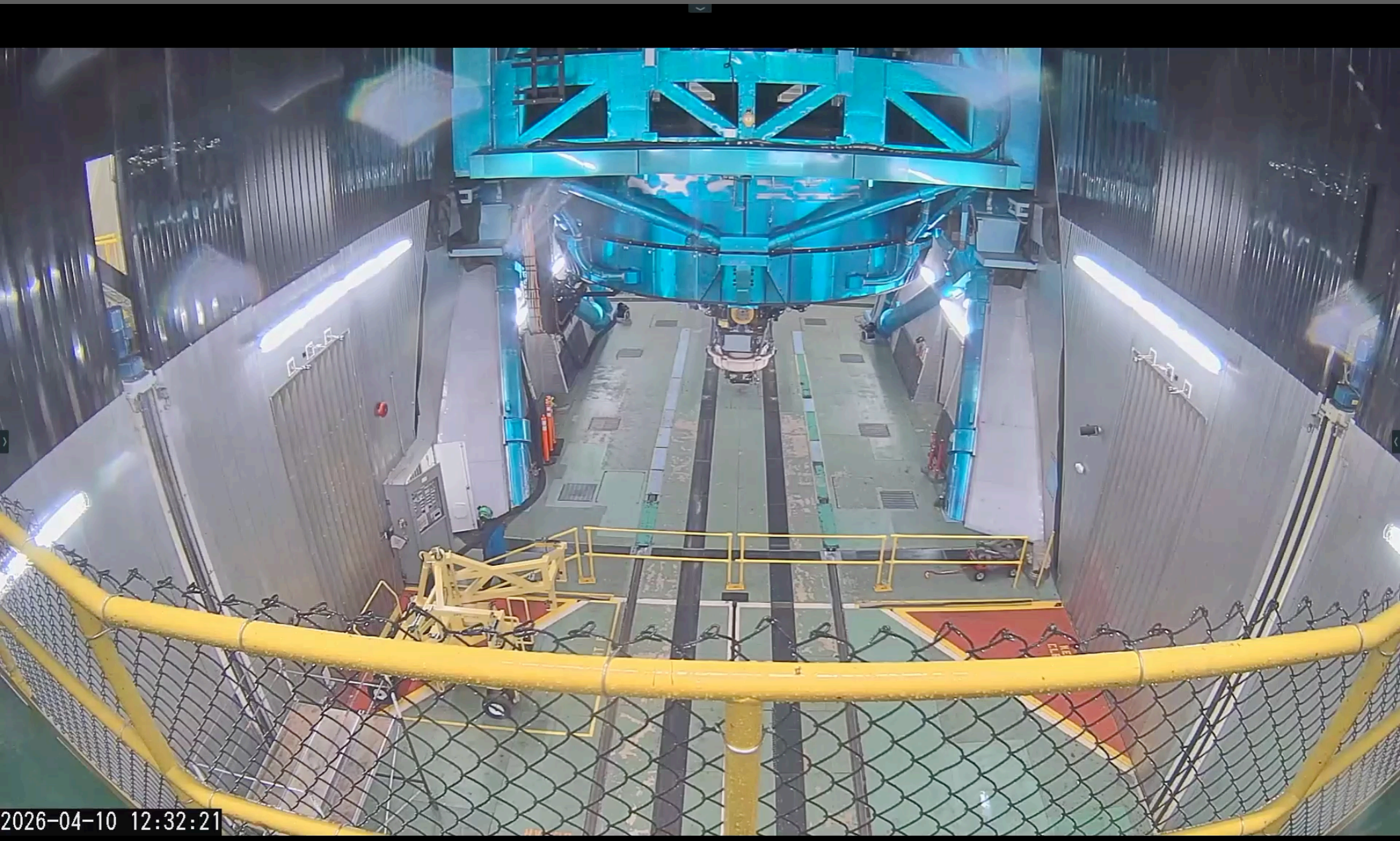
- (03/20) Diesel UST alarm due to water : removed water and alarm was cleared
- (03/20) Main Shutter 'Slow mode' activated when closing the shutter; IR Rear, IR Front, and Opt Rear sides. (03/24) All four Slow sensors of the main shutter have been replaced with new units.
- (03/25) The fire alarm does not trigger the automatic telephone call to ECT. Gemini or other observatories have the same problem. Currently contacting to Hawaiian Telecom.

- Due to general water leakage, the telescope and dome components have begun to rust.
- Fire alarm detectors (#82, #62, and #94) have been triggering false alarms caused by water intrusion;

consequently, these detectors have been removed for drying and have not yet been reinstalled. As a result, the freight elevator continues to operate in bypass mode. Additionally, the automated fire alarm notification system is currently non-operational. This issue requires verification by Hawaiian Telecom; however, as Hawaiian Telecom currently lacks staff qualified to work at high altitudes, we are awaiting their response regarding how they intend to address the situation.
- The "Slow Switch" on the main shutter had become activated, so it has been replaced with a new switch.

Thanks to the refurbishment works in progress, no extremely serious problems seen

Operation



Report from Terai-san: We are experiencing significant water leakage inside the building… on Apr. 10

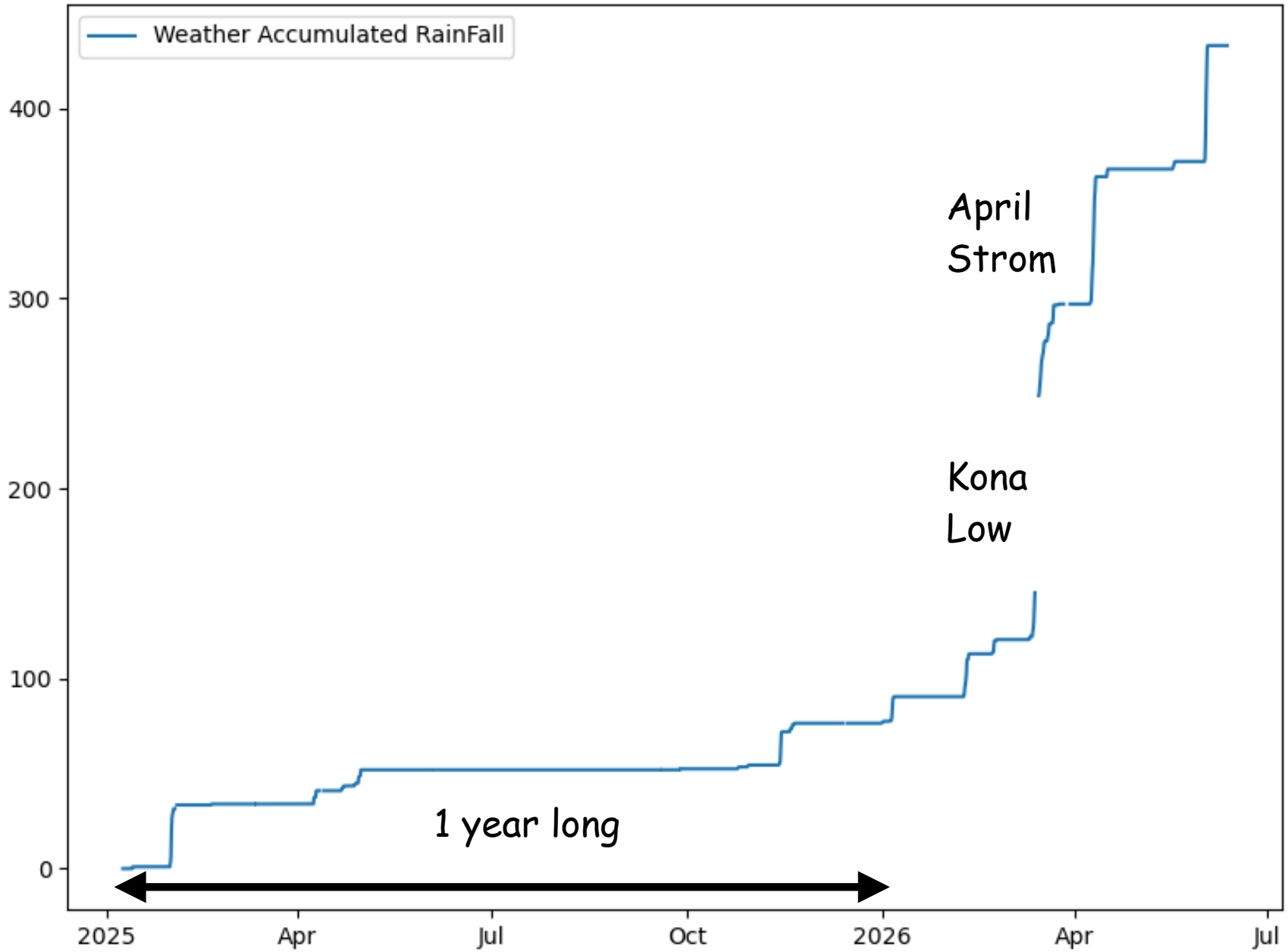
Operation

Erosion and cinder transport found at the edge of the parking lot

Photo taken on April 13 by Hayano-san

Operation

Accumulated Rainfall at the summit



2. Crane Floor Upper (IR) Photo

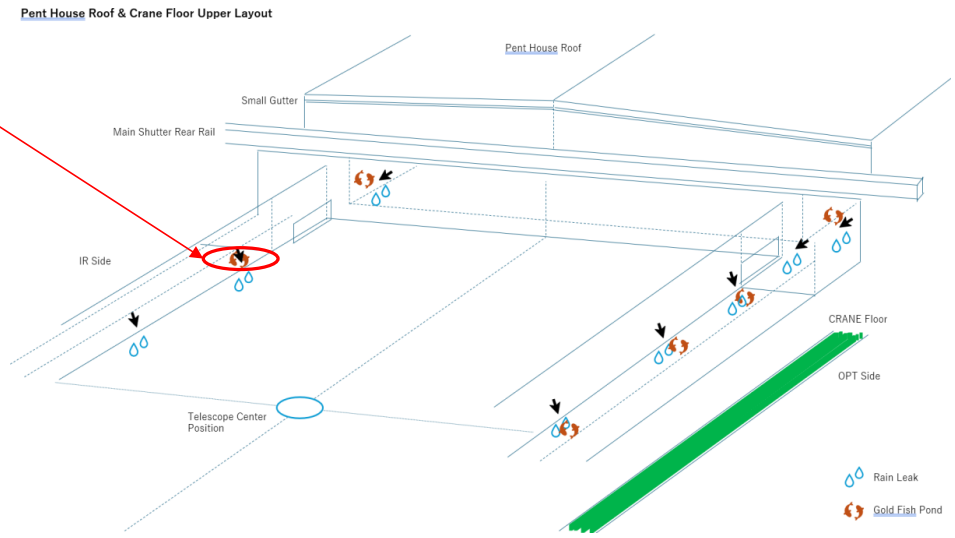
◆ **Inspection Summary**

• **Water Accumulation:** Similar to the OPT side, larger puddles of water are observed as you move towards the REAR side of this floor.

• **Insulation Damage:** There are approximately five locations on the ceiling where the spray foam insulation appears to have been intentionally cut, creating significant gaps.

• **Severe Corrosion on I-Beam (Major Issue):** The most critical issue is that rainwater has accumulated in the groove of the structural I-beam at the far end (near the largest puddle), causing severe corrosion.

• **Risk of Downward Leakage:** Because water is pooling around a structure that penetrates the spray foam insulation, there is a risk that the water from this puddle may naturally drain or leak down to the lower levels.



Recent inspection reports by Sawatari-san

4. Main Shutter Rear Side Photo

■ **Inspection Findings**

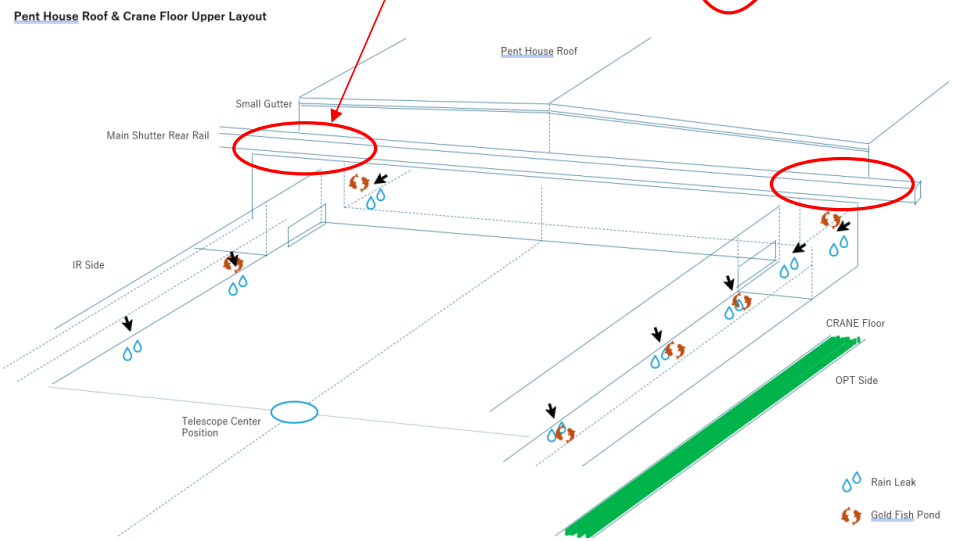
•**Water Accumulation & Corrosion:** A puddle of water was identified within the structure near the REAR-side inspection door of the Main Shutter. We have confirmed that this structure is currently corroding.

•**Severe Bolt Corrosion:** Based on the observation, the corrosion appears to be particularly severe in the areas immediately surrounding the fastening bolts.

■ **Root Cause Analysis**

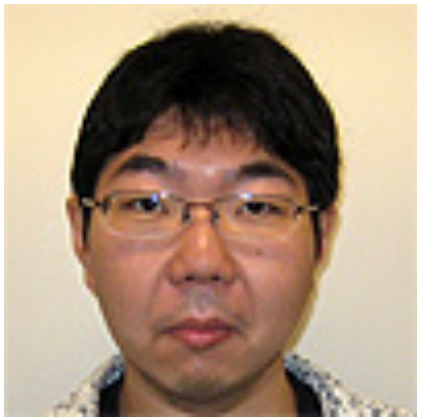
•**Definitive Cause of Water Intrusion:** We can conclusively determine the cause of this water intrusion to be a combination of the following three factors (as there are no other possible pathways for water to enter this specific area):

- Deformation of the seal structure on the Main Shutter side.
- Deterioration of the caulking.
- Damage to the aluminum tape that was previously applied as a temporary repair and left in place.



Recent inspection reports by Sawatari-san

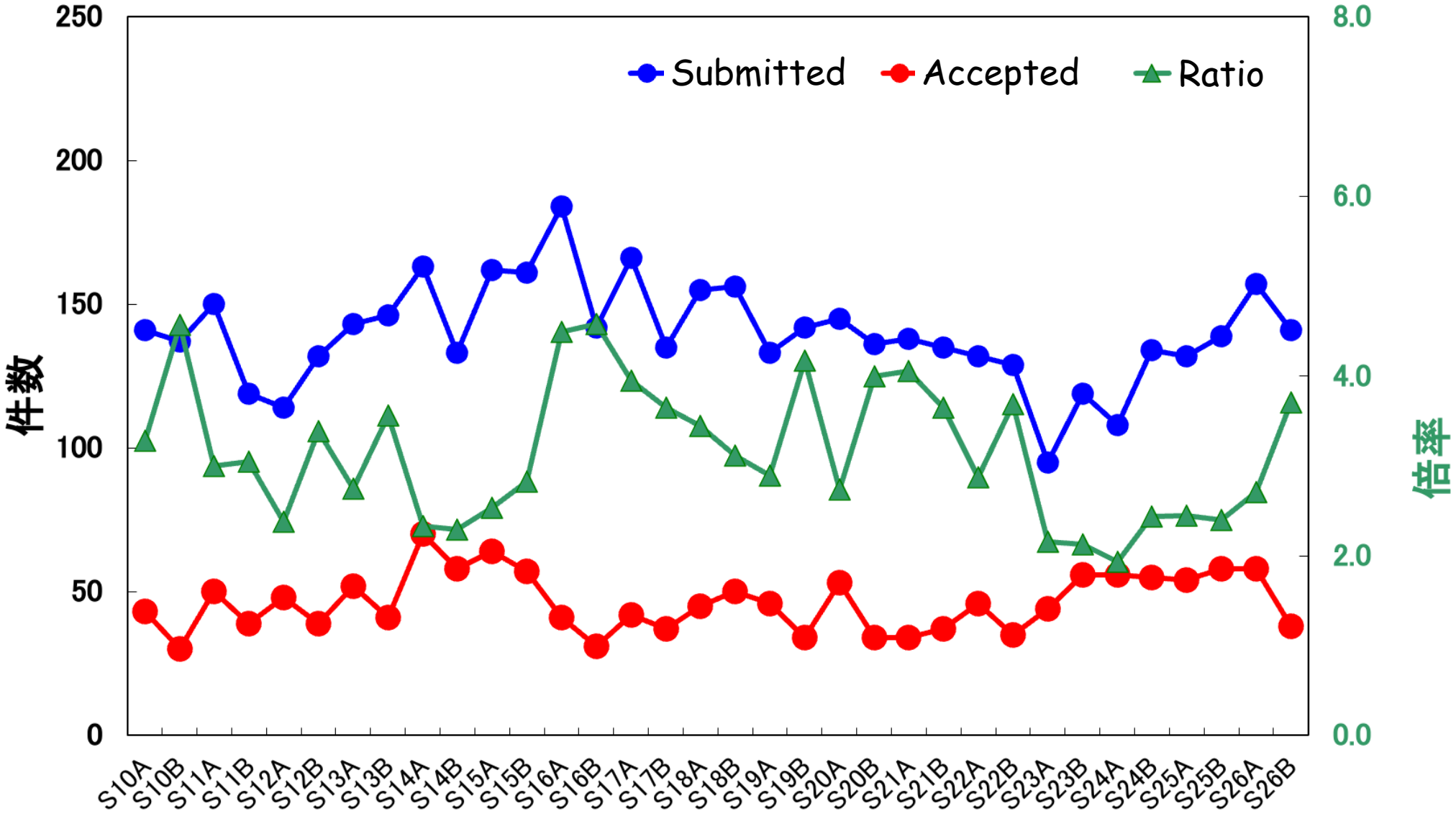
Operation




Operation

Proposal Statistics



Operation

- S26B Instrument popularity based on submitted proposals.

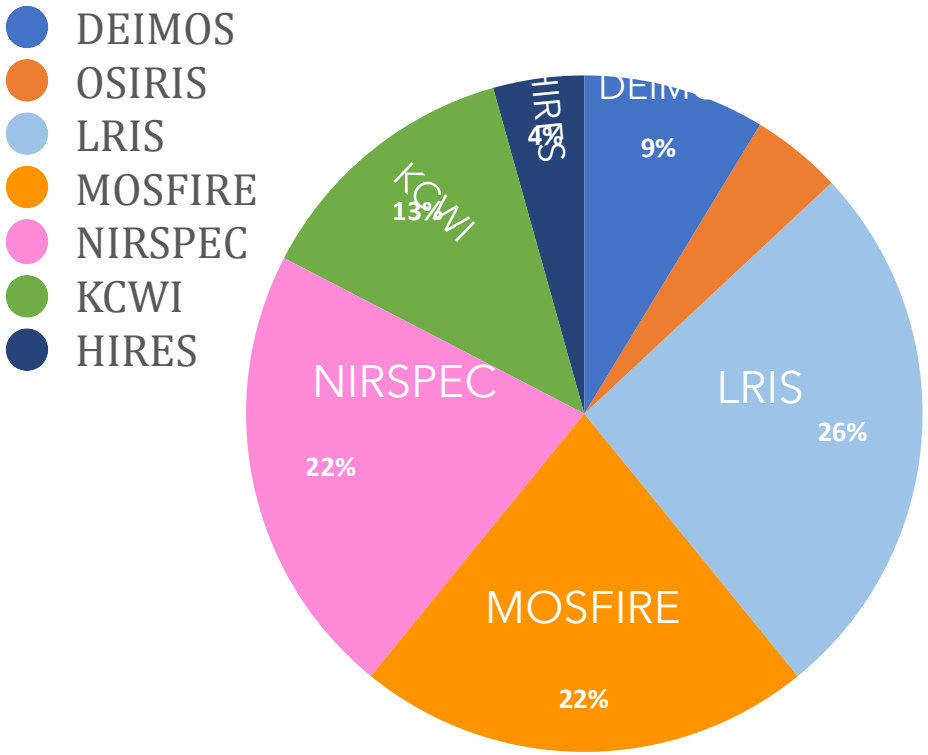
The total number of applications is a bit smaller than that of S26A. In S26B, we have 2.5 months of downtime from mid-November to January, which may affect the number of applications. The most popular instrument is PFS. The number of nights for the instrument is PFS 20 (114.14 n), HDS 20 (40.0 n), HSC 18 (51.69), MOIRCS 13 (29.2 n), FOCAS 13 (24.0 n), SCExAO 13 (10.5 n), IRD+NGS 6 (45.5 n, including 1 intensive), IRCS 3 (4 n), REACH 1 (1 n). The proposals are categorized for PFS as Classical 6 (19.54 n) + Queue 14 (94.6 n), for HSC as Classical 7 (21.27 n) + Queue 11 (30.42 n), for SCExAO as FastPDI 1 (1 n) + VAM 5 (3.5 n) + CRS 7 (6 n), for IRCS as NIRWFS 2 (3 n) + NGS 1 (1 n). There is no LGS AO mode request. The total number of AO-related requests is 19 (59 n); NIRWFS 11 (10.5 n) + NGS 8 (48.5 n).

Operation

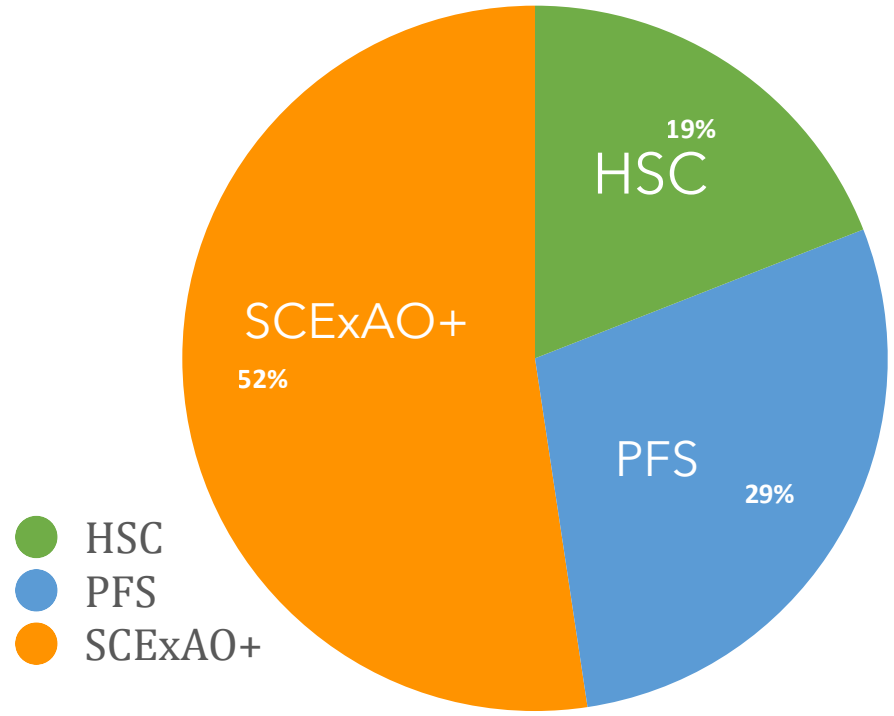
Subaru-Keck exchange summary

We exchanged 7.0 nights in S26A, 4.5 nights in S26B with Keck.

Subaru → Keck
(S26A & S26B, approved nights)



Keck → Subaru
(S26A & S26B, approved nights)

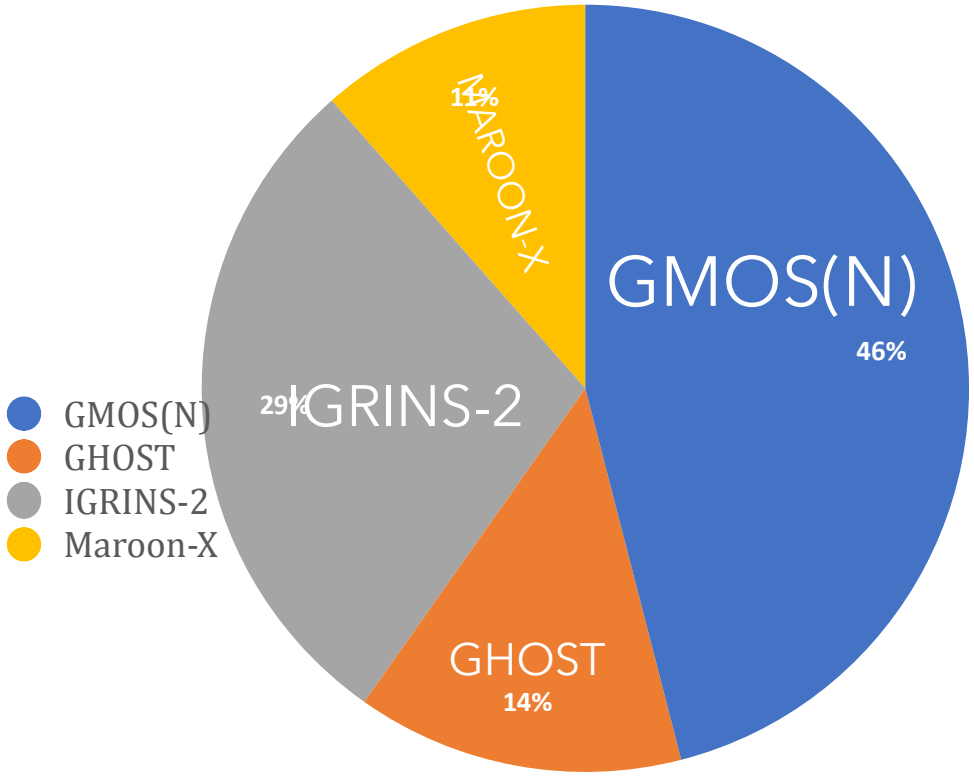


Operation

Subaru-Gemini exchange summary

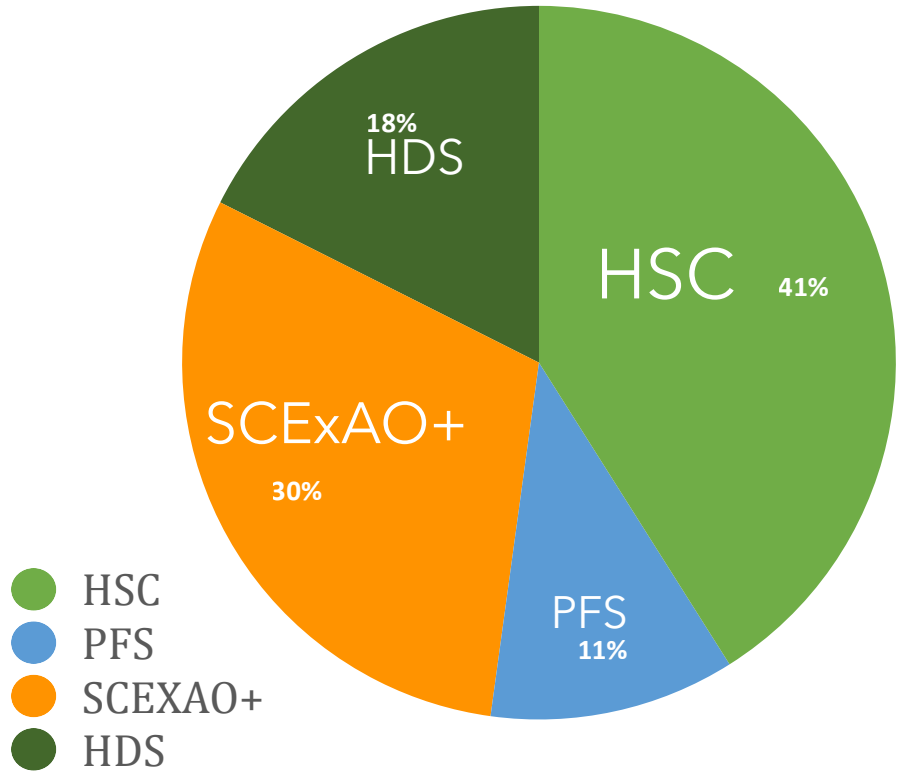
Subaru → Gemini

(**8.7 nights approved** in S26A & S26B)



Gemini → Subaru

(**8.35 nights approved** in S26A & S26B)

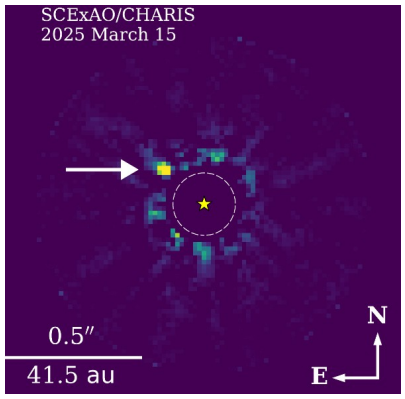


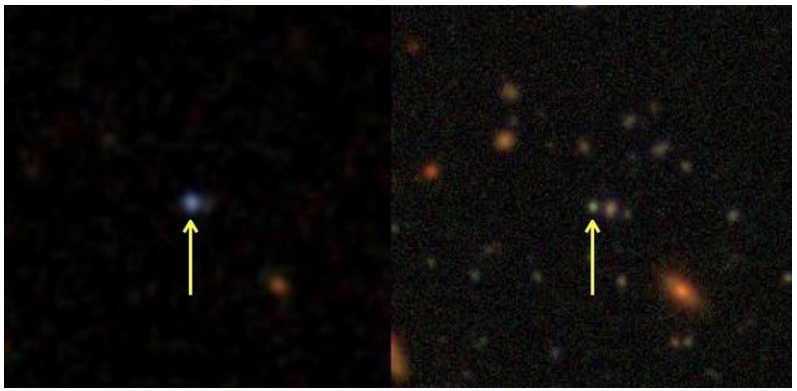
Science Highlight

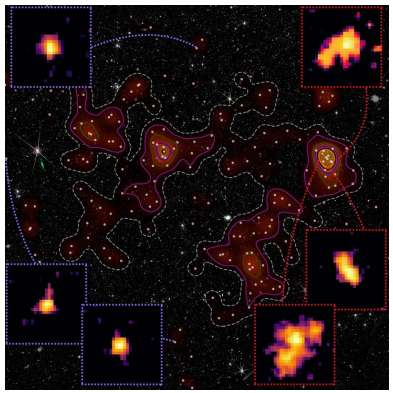
Subaru Press/Web Release 2026

1. **OASIS Survey First Results: New Worlds Around Unexplored Stars (December 3, 2025)**
2. **Evidence of Mergers in Low-mass Dwarf Galaxies (January 13)**
3. **A Rapidly Growing Black Hole in the Early Universe (January 21)**
4. **Black Hole Starved: A Galaxy Fades 20-Fold (March 24)**
5. **The Subaru Telescope Sheds Light on Jupiter Trojan Colors (April 9)**
6. **Subaru Telescope Captures Comet 3I/ATLAS Composition Change (April 14)**
7. **Environment Shaped Galaxies in the Early Universe(May 25)**
8. **Galaxy Roasts Clouds, Makes "BBQ Sauce" (June 2)**

Solar system Exoplanets Stars Galaxies Cosmology Others

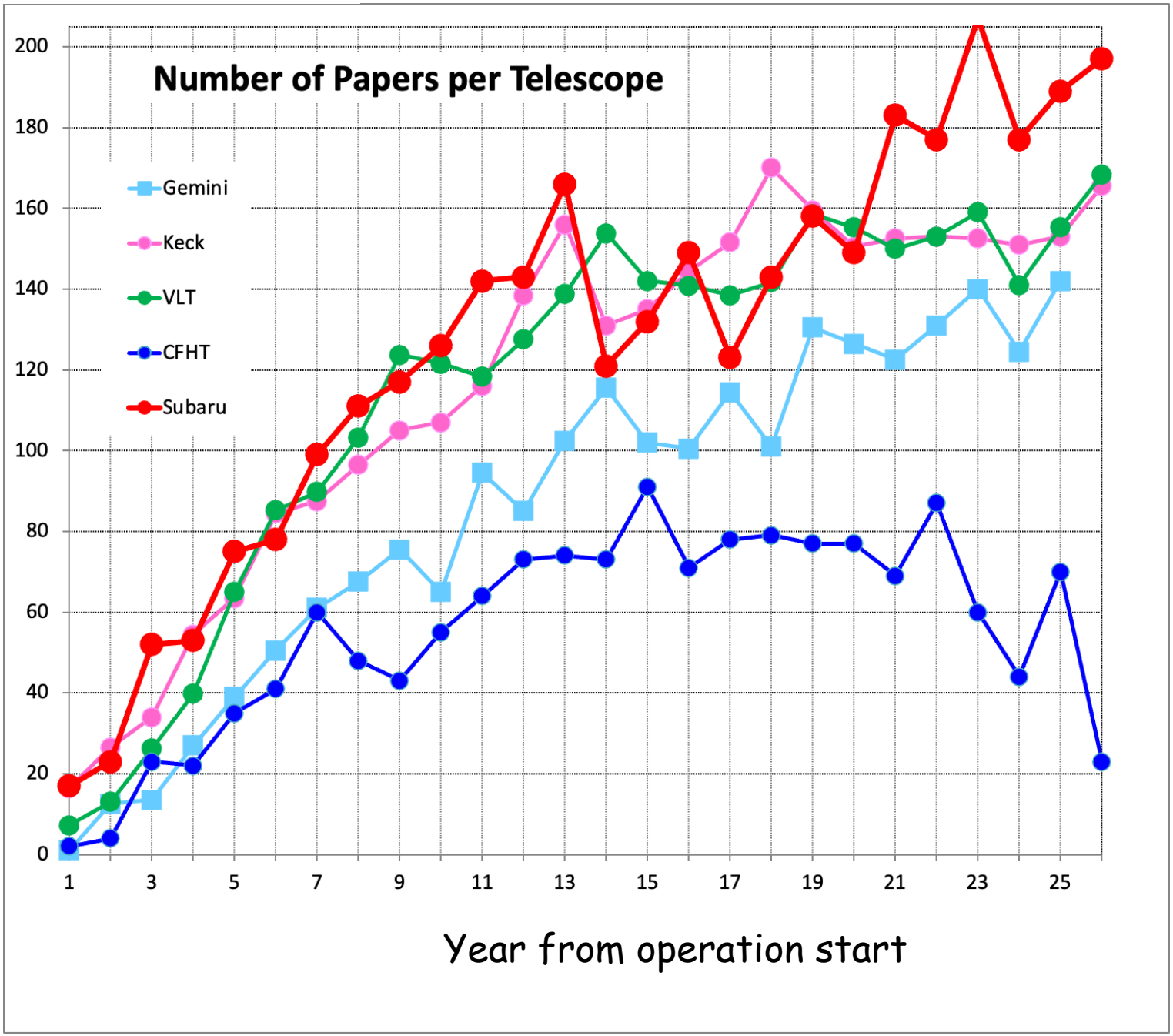






Publications

as of Jun. 1



Business (Finance)

Operation Budget Summary

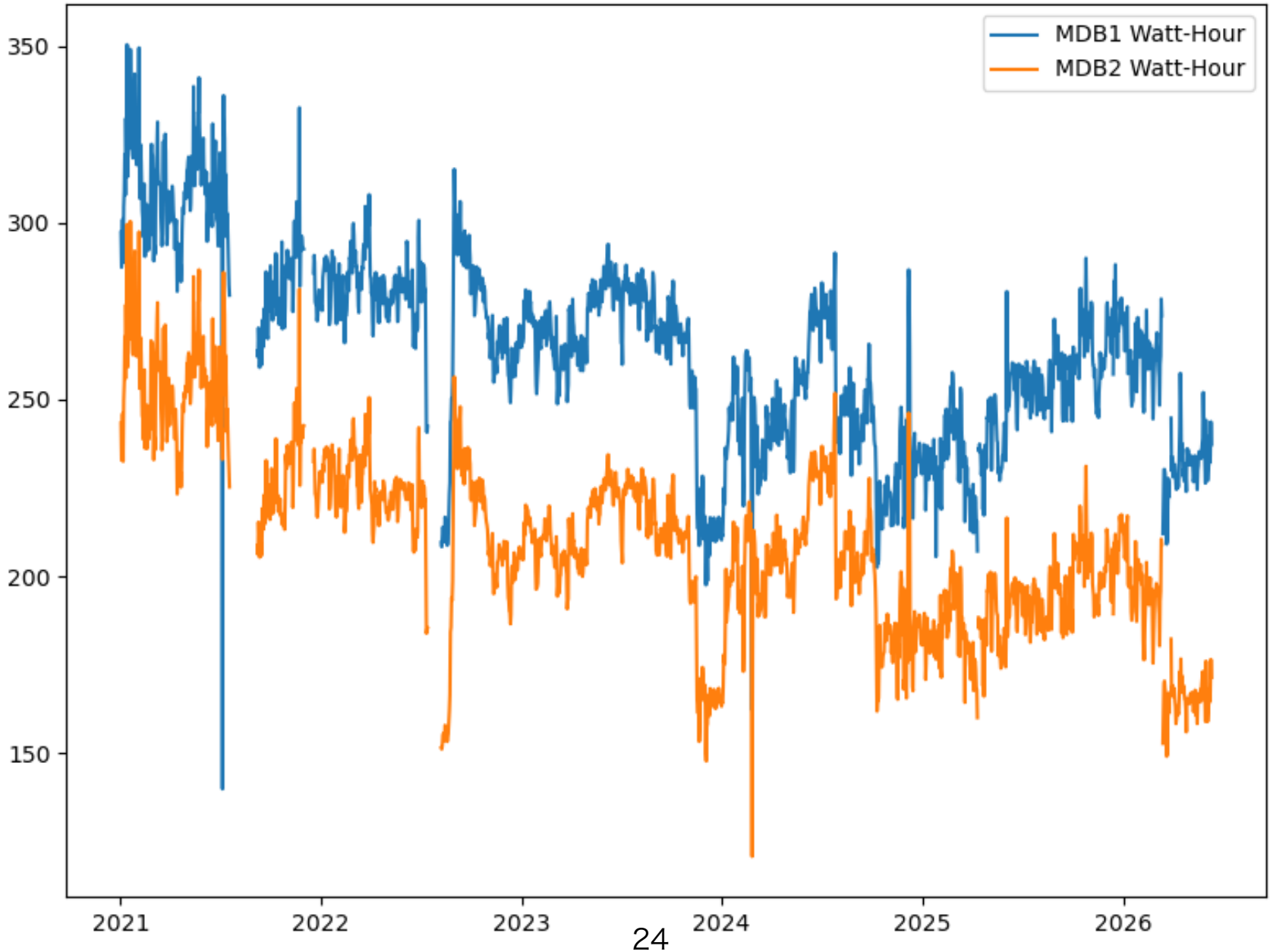
- Government funding for "the regular operation" is almost stays the same in JPY thanks to their understanding. However, the JPY/USD exchange rate and the inflation is continuously reducing the degree of freedom of operations.

- Reduction of electricity bill is urgent.

- Identifying international partners is crucial.

Electric Consumption

> 20 % reduction over 5 years
Replacement of chiller and A/C



Status of International Partnership Discussions

- Entry program (Hoapili Program)
  - up to a few nights / semester
  - Independent TAC / Partial compensation
  - Mexico, Westlake, STScI
- Partner
  - Cooperation of the observatory
  - Discussion began with Australia


Thank You !