

The background features a dark blue gradient with a subtle starfield. Overlaid on this are several white circular and semi-circular patterns, some resembling orbits or data paths. A prominent feature is a large circular scale on the left side, with numerical markings from 140 to 260 in increments of 10. The scale is partially obscured by other circular elements.

# SCIENCE OPERATION REPORT FOR FY2019

TAE-SOO PYO

# IN FY2019....

Downtime and many  
cancelations and  
schedule change by  
...

February: brush fire, high wind,  
telescope encoder problem

March : earthquake and postpone TUE work

July: Mauna kea access Road blocking

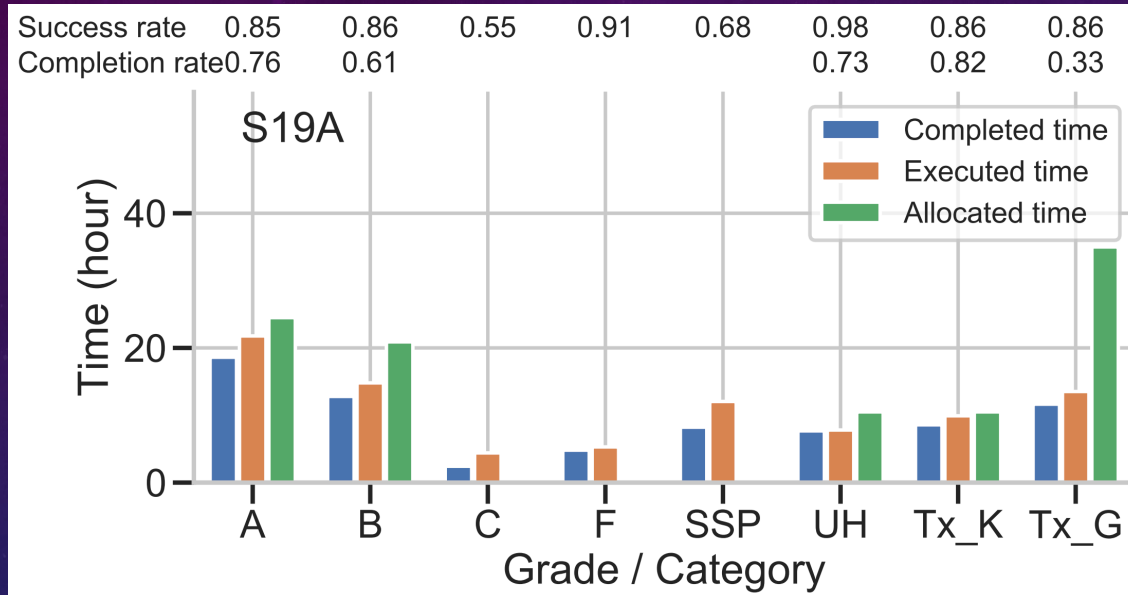
July 22- Sep 6 : Repairing of main shutter (Telescope  
downtime)

Sep 19 – Sep 25: HSC FEU problem

Nov 11- Nov 19: Earthquake and IRM2  
recoating/disassemble/assemble

Thank you for your patience and cooperation

# HSC QUEUE MODE PROGRESS REPORT (S19A)

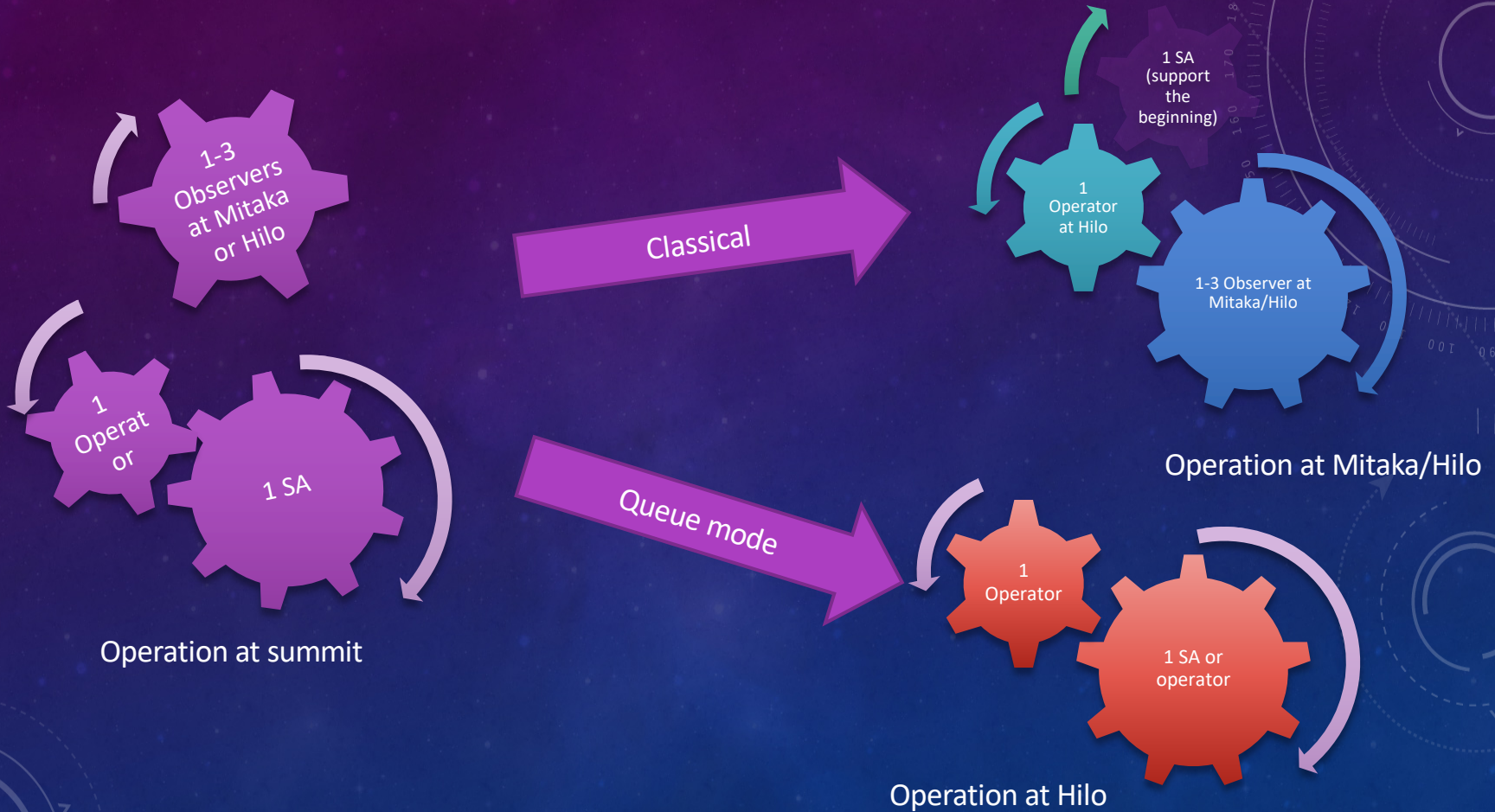


cf. HSC Queue = 19.2 nights, Classical = 17.6 (OpenUse: 4.5, Gemini: 2.5, Keck:3, UH:7.6)

# REMOTE OBSERVATIONS AT MITAKA AND HILO

- Since Mauna Kea access road has been blocking (~ July), all observations are remote observation modes at Mitaka and Hilo except engineering observations.
- Operators and SA at summit, observers at Mitaka or Hilo.

# TRANSITION TO FULL REMOTE



## SINCE S20B....

HSC SSP finish : S20B

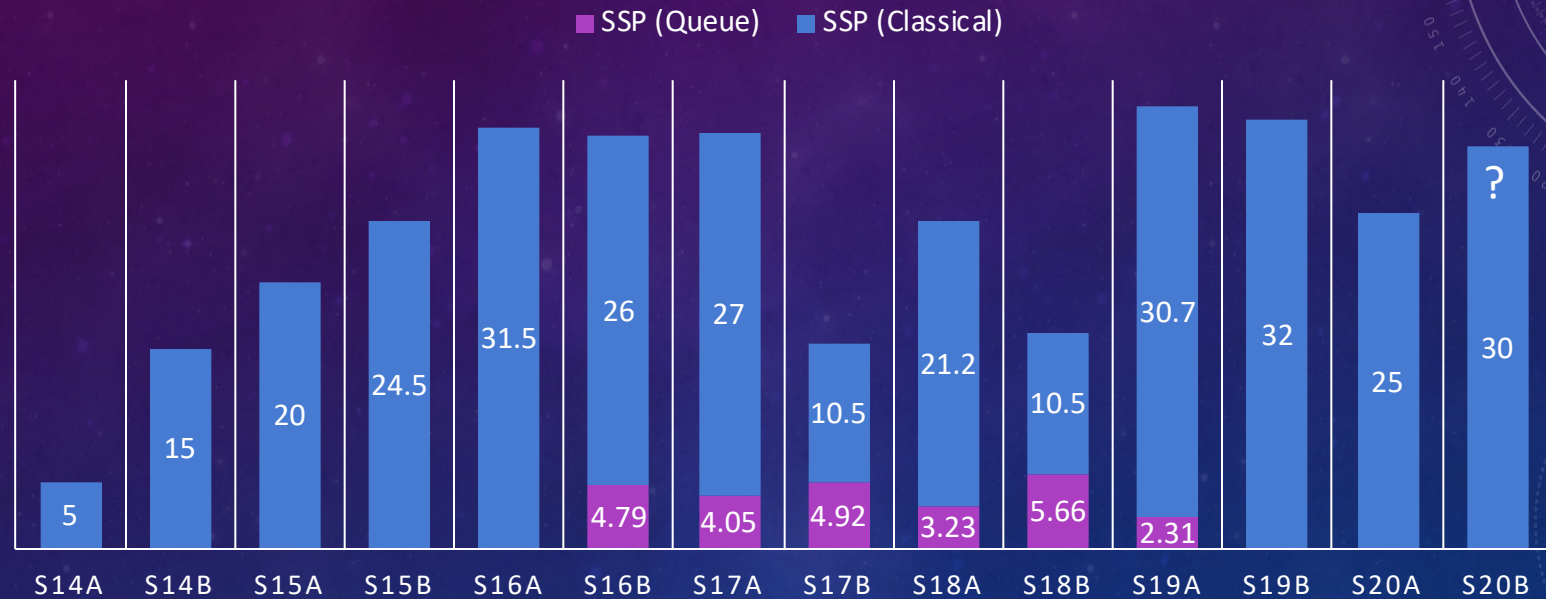
PFS Engineering night observations start : S20B

COMICS decommission : S20B

New Laser commissioning : S20B

SWIMS opening + MOIRCS Hibernation from S21A [TBD]

# HSC SSP PROGRESS



Total: 330 nights

# TO THE NEW WORLD : SUBARU 2 + TMT-J

Subaru Telescope has been showing remarkable achievements for 20 years. Now we are passing very challenging and difficult phase toward new Subaru 2 stage with wide-field astronomy and exoplanet science.

