



SCIENCE OPERATION FY2024

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Subaru Telescope

Agenda

1. Hour base ToO Trigger in HSC queue observation period
2. Start PFS Open-use from S25A
3. Limitation of the PFS Data Access via STARS
4. HSC Queue mode completion rates in S24A&B
5. Night Operation in HSC
6. Revision of the HSC Phase II

Hour base ToO Trigger in HSC Queue periods from S25A

- Minimum time : 2 hours including filter exchange time
- Only HSC Queue mode hours.
- PI or observer need to attend in ToO observation.
(Visitor/Classical mode execution)
- ToO Trigger cannot interrupt the completion of an OB(observation block) progressing (< 1800s).
- The trigger should be approved until evening or before 12 am.
(Practically < 10 pm).
- Compensation: Compensate as HSC Queue hours after 1 year.

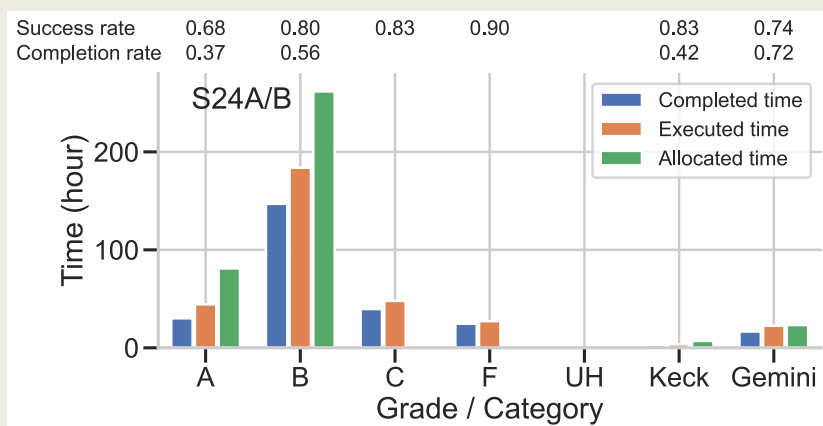
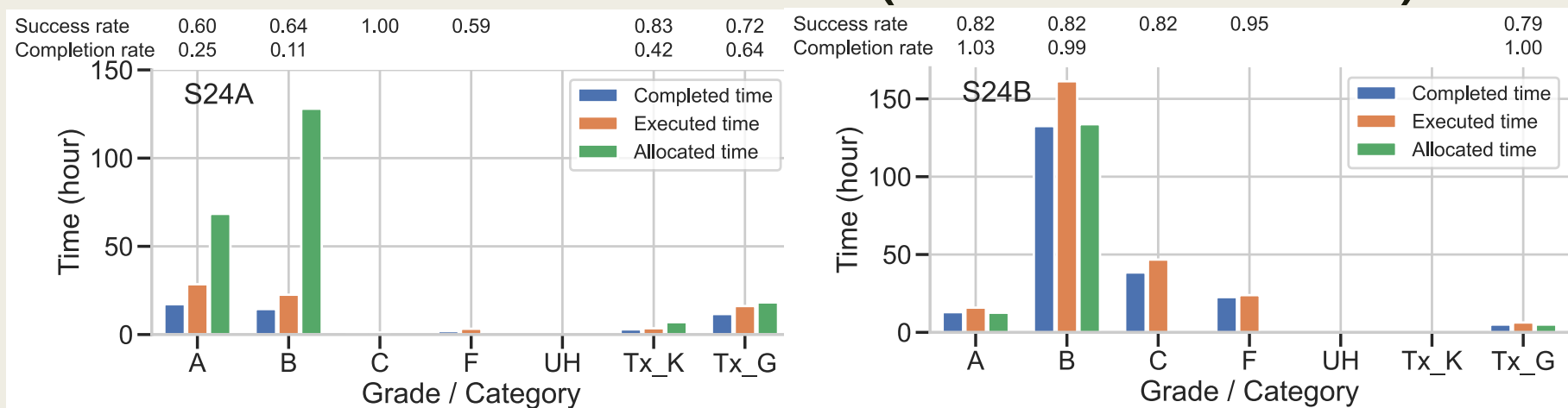
Start PFS Open-use from S25A

- 36.5 nights (+ 9 engineering nights)
 - *Open-use 16 nights (7 proposals: 1 classical+6 queue)*
 - *SSP 15 nights*
 - *UH 5.5 nights (3 classical proposals)*
 - *Queue: total 28 = 18 proposals + 10 Community fillers*
- To classical mode observers:
 - *PFS design files for your observation must be ready in the morning of the observation nights (earlier is prefer). It will be difficult to modify PFS design file during the observation. Please consult it with your SA as early as possible before your observation.*
- See the presentation (Day3: PFS session)
 - Open-use procedures of PFS in S25A and regarding CfP of S25B (by Akira Arai)

Limitation of the PFS Data Access via STARS

- PFS data will be delivered through the next day delivery basically. Pls can download their own data by the script included in the delivered tar file (email).
- PFS data access through STARS system will be limited for the open-use observers because STARS system is not ready for multiple proposals for one frame. Currently our corresponding staff is working for the solution. Please use the script delivered by the next delivery system to get your observed data.

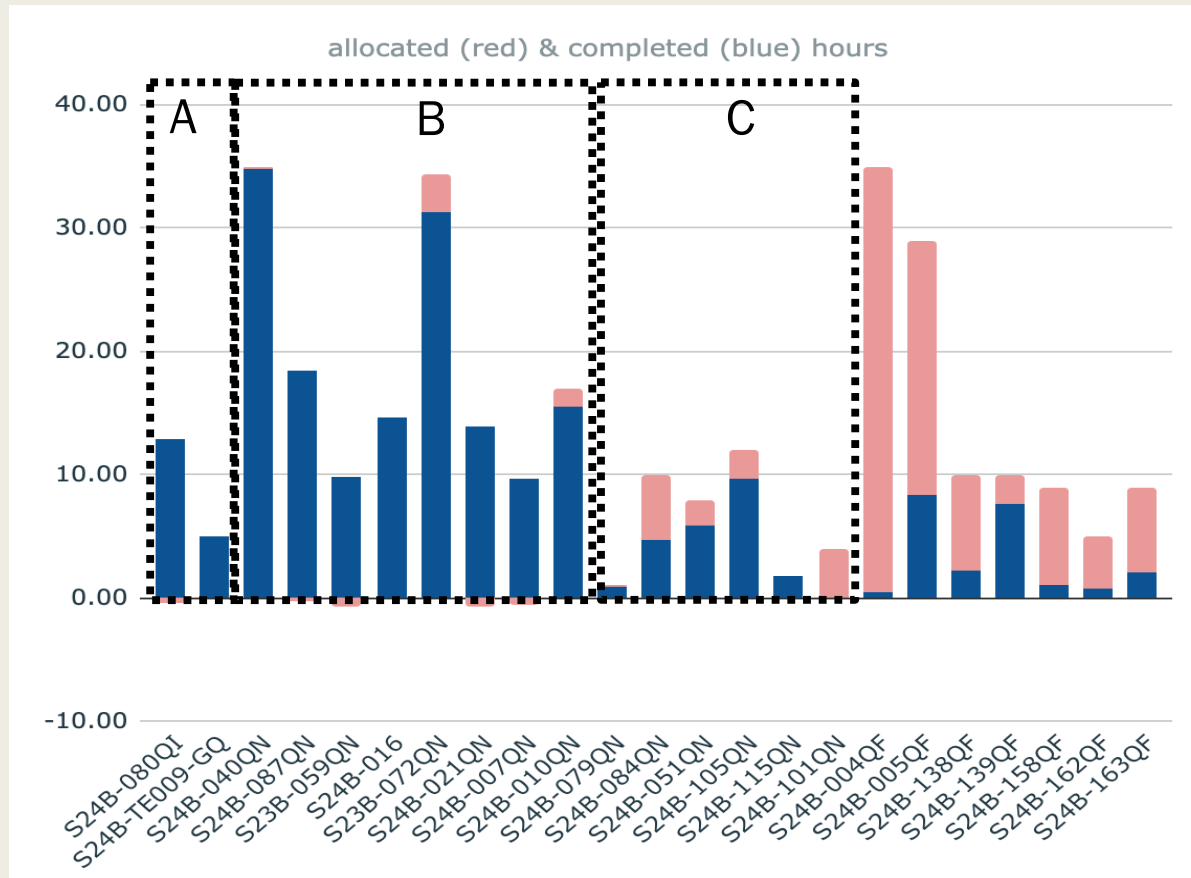
HSC Queue mode completion rates in S24A&B (started WF)



*S24B all clear completion >91.4% for Grade A&B including Gemini Queue.
(Downtime: 11.7% (19.9%-0.98%))

*S24A, low completion
100% lost Feb run,
45% downtime in April,
6.5% downtime in June (only 7 nights),
17.6% downtime + FEU trouble in July (only z, g, i filters)

HSC Queue: S24B



[Completion]

A ~ 100%

B > 91.4 %

C > 0-97%

(for minimum request time)

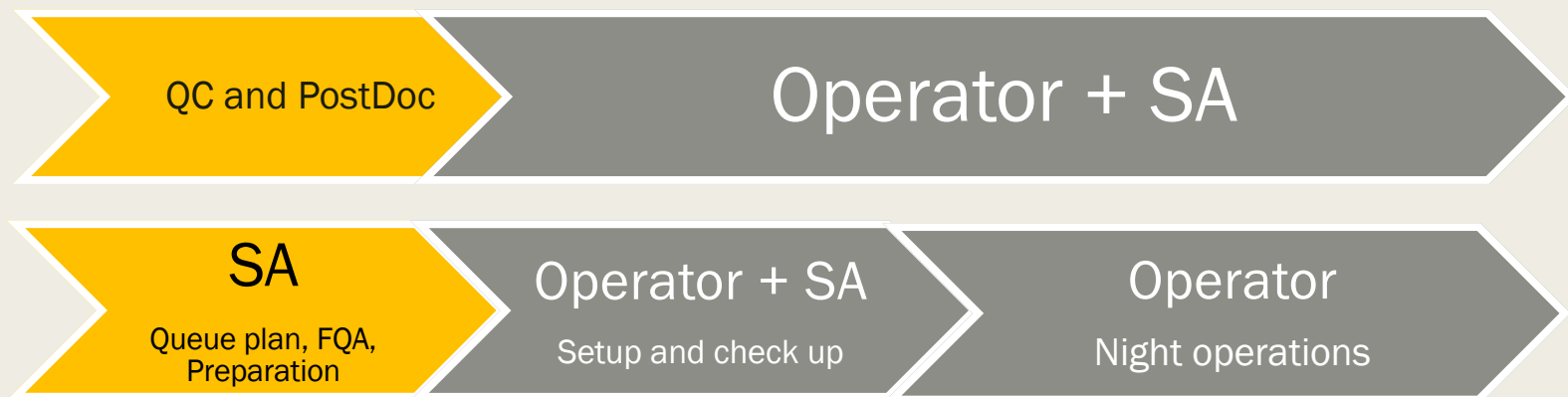
This shows successful completions of the accepted programs (A&B) with weather factor. We will keep monitoring for more semesters with statistics.

* Average completion rates for S21-S23 ~ A : 53%, B: 17%

Night Operation in HSC

- Two(2) Operators at Summit & One(1) SA at Hilo reomote
- SA will more concentrate the queue mode planning, FQA (final quality assessment), and preparing and setup for the night observations.

→ In near future, SA will stay just until evening when the observation is getting stable status.

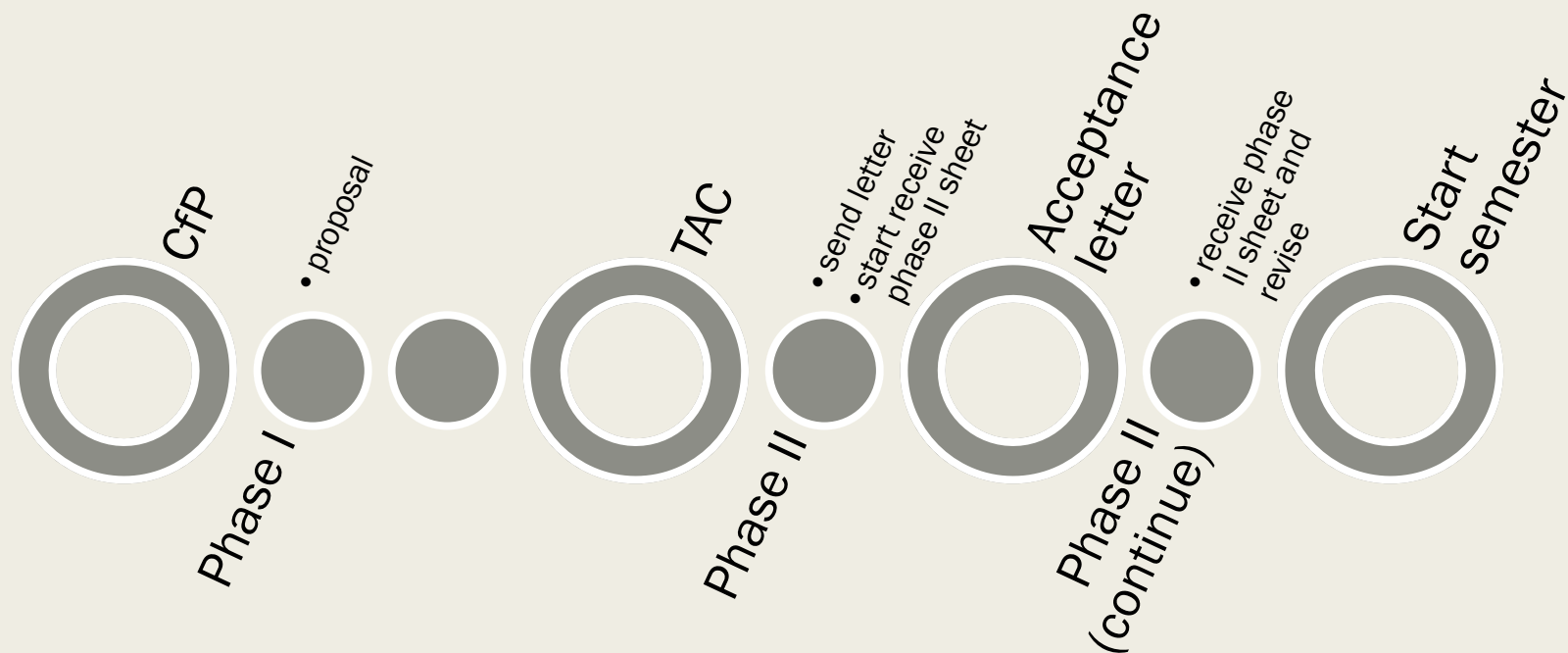


*One SA will call standby.

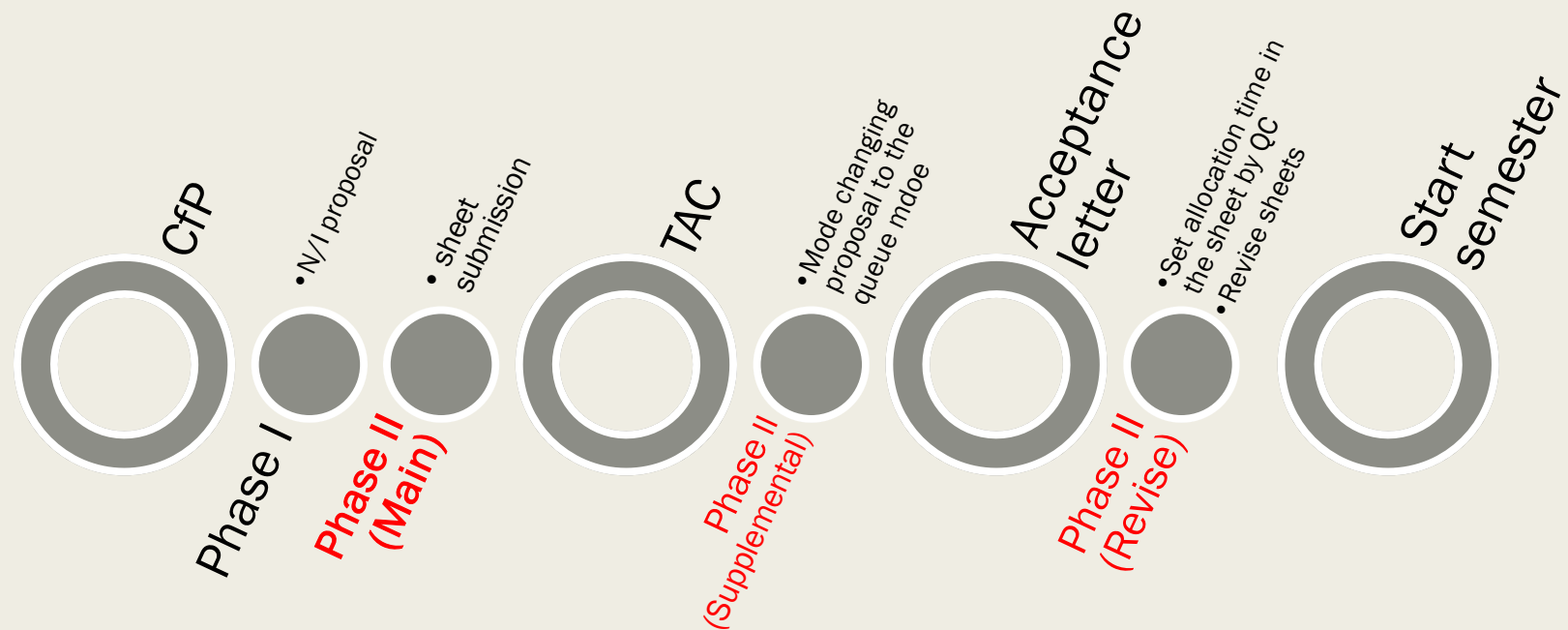
* PFS case: SAs need to do pointing plan simulation, making pfsdesign files, preparing night (queue) planning

HSC Queue Phase II (Current)

- Phase II has been starting 1-2 weeks after the TAC meeting to prepare for the phase II letters and need to announce the provisional acceptance results to PIs even though the results can be changed before the final acceptance decision.



Revision of the HSC Queue Phase II (from S26A)



Revision of the HSC Queue Phase II (What can be improved?)

1. PIs submit the observing time based on their request, and QC will revise it with the accepted allocation time after the final acceptance letter.
2. Observatory don't need to send the provisional acceptance results which are confusion sources to users.
3. Using a common template sheet will no longer necessary to customize the Phase 2 letter, reducing the burden on the task of the Queue Coordinator.
4. It will prevent the delay of the Phase 2 submissions near or passing the beginning of the semester.
5. It will improve the secure the Phase 2 sheets of Grade C programs. With the introduction of WF, it is essential to secure Grade C and filler programs to prevent any vacant time when the rate of the clear night is excessively high.

Summary

