

HSC Queue Mode - S16A Current Status -

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Subaru Telescope

HSC Queue Implementation Plan

Stage I

- S16A & B
- < 20% of HSC time
- Normal & Filler Program
- Beginning

Stage II

- S17A & B
- 20-50% of HSC Time
- Normal & Filler Program
- Intensive
- SSP(?)
- Stabilizing

Stage III

- S18A & B
- ~80% HSC Time
- Normal & Filler Program
- Intensive,
- SSP, Time exchange
- Settle Down

Development for Queue Mode

- ◆ Development of New Policies and Procedures
- ◆ HSC Queue mode in PROMS and STARS systems
- ◆ Exposure Time Calculator [P13: Koshida, Finet +]
- ◆ HSC Planner [P24: Eric+]
- ◆ Phase II spreadsheet (by Sherry+)
- ◆ Web Submission System for Phase II (by Russell+)
- ◆ Queue Scheduler – Simulation & Execution [P24: Eric+]
- ◆ Initial QA & Final QA system

Phase I and II

Phase I

- Call for Proposal
- Receive proposals through PROMS [Normal]
- Filler Program from NAOJ staff only (S16A)

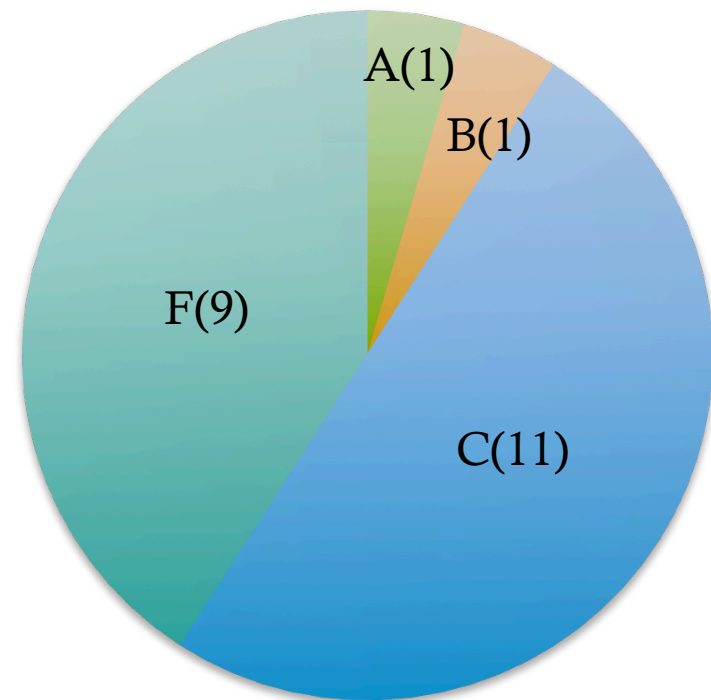
Phase II

- Send PIs template phase II spreadsheet
- A SA is assigned for consulting for the preparation of observing blocks of each program
- Receive Observing Blocks (OBs) through Web submission system
- Simulate the expected completion rate of programs by Queue-scheduler
- Feedback to PI based on simulation
- PIs re-submit updated Obs → Finalize OBs

S16A Queue Programs

HSC Queue Programs

- ◆ Risk-Shared Mode
- ◆ 13 Normal Programs
 - ◆ Grade A : One (1)
 - ◆ Grade B : One (1)
 - ◆ Grade C : Eleven (11)
- ◆ 9 Filler Programs from NAOJ staffs



Grade System

Grade A

- Highest priority HSC queue proposal
- Top 5 – 10 % programs in all Accepted HSC proposals
- Completeness will be managed
- Carry Over up to two more semesters (3 semesters as a whole)

Grade B

- Accepted HSC queue proposals except Grade A programs
- Completeness will be managed

Grade C

- Non-Accepted HSC proposals but allowed to use for observation by TAC

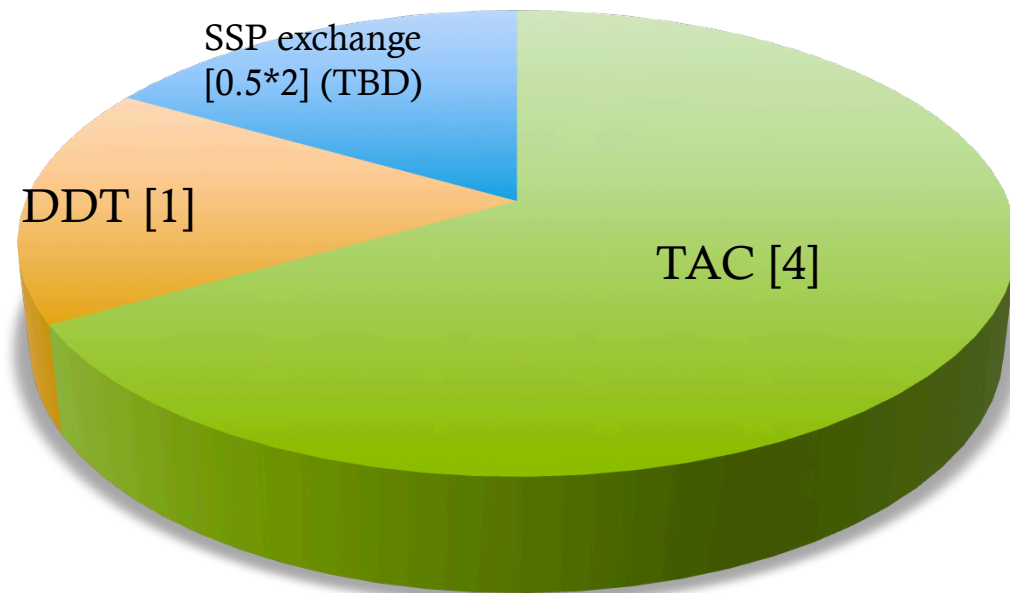
Grade F (Filler)

- For bad weather : Transparency < 50% or Seeing > 1.2”

S16A HSC Queue Operation

S16A Allocation Nights

- 4 nights allocation by TAC
- Considering Grade A & B programs
- +One night from DDT
- +0.5*2 nights exchange SSP [TBD]



Total 5 nights + (0.5*2) nights

New Policies for HSC Queue

- ◆ No Additional Target is allowed for HSC S16A.
- ◆ Sukima-time → Queue Mode Program
 - ◆ Priority : Main Program > Calibration Observation > Queue program > Back up Program
 - ◆ Cf. S16A does not have significant Sukima-time
- ◆ Bad weather → Back Up → Filler Program
 - ◆ If classical programs have no backup targets in their proposal, filler program can be executed.

Observation and Data Delivery

- ◆ Observation by Queue scheduler
 - ◆ Based on priority (Grade) and observing condition
 - ◆ Simulation and check possible Obs for HSC Queue nights
 - ◆ Workflow in night operation (S16A)
- ◆ Quality Assessments (QA)
 - ◆ Initial QA (IQA)
 - ◆ Final QA (FQA)
- ◆ Data Delivery
 - ◆ After FQA, after each HSC run period
 - ◆ Completion report (observing log and status) by Email

SSP and Queue

- ◆ S16A Queue: Possibility of 1st and last nights (gray nights) of HSC SSP runs.
 - ◆ 0.5 * 2 nights in discussion
 - ◆ Reimbursement to SSP time
- ◆ Cadence and Special sequences
 - ◆ OB grouping for sequential observation of SSP
 - ◆ OB structure modification
 - ◆ Multi-objects definition in one OB

S16B: Phase I to Phase II



- Normal :
 - Feb. 9 – Mar. 9
- Filler
 - until April 7
- April 27-28
- For 3 – 4 weeks until mid of May
- mid May – mid June
 - one month
- OB check by simulation
 - mid June
- Finalize OBs
 - End of June

Please look at HSC queue mode webpage:
<http://www.naoj.org/Observing/queue>