

Science Policies Update

STUC

15 June 2009

- Cycle 16 Supplement Summary
- NICMOS & ACS/HRC Proposals
- Cycle 18 Schedule
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C16 Supplement Summary

- The rescheduling of SM4 led to an extension of C16 by **~6 months**
- Remaining C16 visits had been exhausted
- Insufficient number of C17 visits that could be brought forward
- NICMOS visits could not execute because of cryocooler failure
- Issued **Call for Supplementary Proposals on November 17, 2008**

- Phase I deadline: December 8, 2008
- Received **280 valid proposals** (269 GO, 11 SNAP) for 16081 orbits and 1085 targets
- NICMOS proposals were subsequently deferred
- Supplementary proposals do not carry over to C17

Instrument	Proposals	% of orbits
ACS	32	11
FGS	5	2
NICMOS	75	21
WFPC2	168	66

- **Oversubscription: 17:1**
- 2-stage review; process dictated by time constraints
- 27 panel members; **Chair: Rob Kennicutt**
- Stage 1: submission of grades to rank order all proposals (4 reviewers per proposal)
- Stage 2: ranking of the top 15%. Grading by 9 – 11 panelists for small (< 75 orbits) and by all panelists for large (> 75) proposals
- Final selection by the Director on 1/13/09

- 17 programs with a total of 960 orbits selected

Cycle 16 Approved Supplemental GO Programs

PI firstname	PI lastname	PI institution	Phase II ID	Science Category	Title
Sahar	Allam	Fermi National Accelerator Laboratory (FNAL)	11974	Cosmology	High-resolution imaging for 9 very bright, spectroscopically confirmed, group-scale lenses
Scott	Anderson	University of Washington	11982	Quasar Absorption Lines	Spanning the Reionization History of IGM Helium: a Large and Efficient HST Spectral Survey of Far-UV-Bright Quasars
Rupali	Chandar	University of Toledo	11988	Resolved Stellar Populations	Searching for Intermediate Mass Black Holes in Globular Clusters via Proper Motions
John	Clarke	Boston University	11970	Solar System	HST Observations of Titan's Escaping Atmosphere in Transit and in Emission
Geoffrey	Clayton	Louisiana State University and A & M College	11985	ISM and Circumstellar Matter	Polarimetric WFPC2 Imaging of the Dust Torus around the Born-Again Star V605 Aquilae
Julianne	Dalcanton	University of Washington	11986	Unresolved Stellar Populations and Galaxy Structure	Completing HST's Local Volume Legacy
Francesco	Ferraro	Universita di Bologna	11975	Hot Stars	UV light from old stellar populations: a census of UV sources in Galactic Globular Clusters
Paul	Kalas	University of California - Berkeley	11979	Exoplanets	WFPC2 Imaging of Fomalhaut b: Determining its orbit and testing for H-alpha emission
Jesus	Maiz Apellaniz	Instituto de Astrofisica de Andalucia (IAA)	11981	Resolved Stellar Populations	FUV imaging survey of Galactic open clusters
Karen	Meech	University of Hawaii	11972	Solar System	Investigating the Early Solar System with Distant Comet Nuclei
Jonathan	Nichols	University of Leicester	11984	Solar System	Observing Saturn's high latitude polar auroras
Michael	Regan	Space Telescope Science Institute	11987	Unresolved Stellar Populations and Galaxy Structure	The Recent Star Formation History of SINGS Galaxies
Massimo	Robberto	Space Telescope Science Institute	11983	Star Formation	An Imaging Survey of Protoplanetary Disks and Brown Dwarfs in the Chamaeleon I region
Nathan	Smith	University of California - Berkeley	11977	ISM and Circumstellar Matter	WFPC2 12-Year Proper Motions of Two Galactic Analogs of the SN1987A Rings
Bringfried	Stecklum	Thüringer Landessternwarte Tautenburg (TLS)	11976	Star Formation	Particle separation in and expansion of the dust arcs of the young star V1331 Cyg
Tommaso	Treu	University of California - Santa Barbara	11978	Cosmology	Luminous and dark matter in disk galaxies from strong lensing and stellar kinematics
Sylvain	Veilleux	University of Maryland	11980	ISM in External Galaxies	Deep FUV Imaging of Cooling Flow Clusters

- Completion status by the end of C16: ~78%

PEPSI ID	PI lastname	Title	Instruments	Allocated	Executed
11970	Clarke	HST Observations of Titan's Escaping Atmosphere in Transit and in Emission	ACS	26	26
11972	Meech	Investigating the Early Solar System with Distant Comet Nuclei	WFPC2	85	65
11974	Allam	High-resolution imaging for 9 very bright, spectroscopically confirmed, group-scale lenses	WFPC2	81	57
11975	Ferraro	UV light from old stellar populations: a census of UV sources in Galactic Globular Clusters	WFPC2 ACS	177	133
11976	Stecklum	Particle separation in and expansion of the dust arcs of the young star V1331 Cyg	WFPC2	4	4
11977	Smith	WFPC2 12-Year Proper Motions of Two Galactic Analogs of the SN1987A Rings	WFPC2	3	3
11978	Treu	Luminous and dark matter in disk galaxies from strong lensing and stellar kinematics	WFPC2	91	68
11979	Kalas	WFPC2 Imaging of Fomalhaut b: Determining its orbit and testing for H-alpha emission	WFPC2	18	18
11980	Veilleux	Deep FUV Imaging of Cooling Flow Clusters	ACS	20	15
11981	Maiz Apellaniz	FUV imaging survey of Galactic open clusters	WFPC2	30	20
11982	Anderson	Spanning the Reionization History of IGM Helium	ACS	80	62
11983	Robberto	An Imaging Survey of Protoplanetary Disks and Brown Dwarfs in the Chamaeleon I region	WFPC2	75	40
11984	Nichols	Observing Saturn's high latitude polar auroras	ACS	20	20
11985	Clayton	Polarimetric WFPC2 Imaging of the Dust Torus around the Born-Again Star V605 Aquilae	WFPC2	7	7
11986	Dalcanton	Completing HST's Local Volume Legacy	WFPC2	138	112
11987	Regan	The Recent Star Formation History of SINGS Galaxies	WFPC2	61	60
11988	Chandar	Searching for Intermediate Mass Black Holes in Globular Clusters via Proper Motions	WFPC2	40	40

NICMOS and ACS/HRC Proposals

- Notifications were sent out to PIs of programs using instrument modes that will or may not be available in Cycle 17

- **NICMOS**: the failure of the cryocooler leaves a number of C15, C16, C17 programs using NICMOS incomplete
- **41 programs** totaling **767 orbits** affected
- 72% of these orbits are from C15 and C16
- It is unknown whether NICMOS will become available again
- The WFC3 group made assessment whether the affected programs can switch to WFC3 or a different instrument

- PI notifications on 3/25/09:
 - Terminate programs with **> 90% completeness** (4 programs / 10 orbits)
 - Can **only use NICMOS** and will terminate if NICMOS will remain unavailable (9 / 59)
 - Can be executed with **WFC3 without science loss** and possible orbit savings (18 / 334); conversion results in savings of 75 orbits
 - Science goals may be reached after conversion but PIs need to **submit justification** (10 / 364)

- In all cases, PIs were given the possibility to appeal via the TTRB
- PIs were told that the decision must be made now and must not be changed in the future in order not to disrupt the long-range plan
- Revised Phase 2 submissions were received by early May
- As of June 6, 2009, we have 8 NICMOS programs with a total of 74 orbits left for Cycle 17

- **ACS/HRC**: the ACS HRC channel could not be restored during SM4
- **31 programs** totaling **510 orbits** affected
- The WFC3 and ACS groups made assessments whether the affected programs can switch to WFC3 or ACS/WFC or a different instrument

- PI notifications on 6/1/09:
 - Can be executed with **WFC3 or ACS/WFC** **without science loss** and possible orbit savings (19 programs / 435 orbits); conversion results in savings of 1 orbit
 - Science goals may be reached after conversion but PIs need to **submit justification** (12 / 75)
- Deadline: July 1, 2009 (still ongoing)

Cycle 18 Schedule

- Prior to SM4 slip, the C18 TAC was planned to be held in September 2009
- All dates slip with SM4 (i.e., by 9 months)
- Call for Proposals: **December 2009**
- Phase I deadline: **March 2010**
- TAC and Panel meetings: **May 2010**
- Phase II deadline: **July 2010**

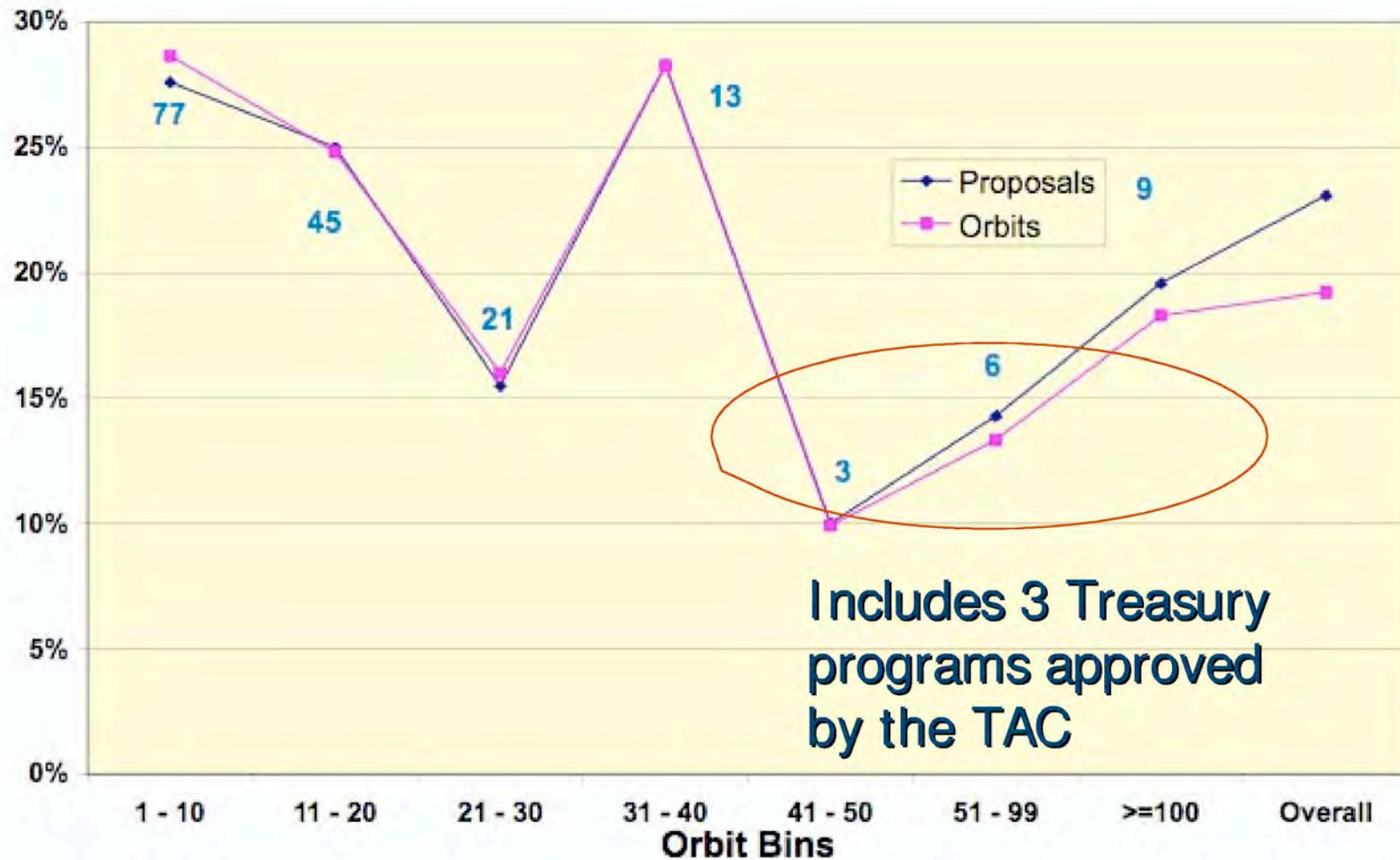
TAC Organization

- TAC and Panel meetings: 17 – 21 May, 2010
- Location: STScI and JHU
- Timing constraint: after JHU finals and prior to commencement
- TAC Chair: Neta Bahcall (Princeton)
- SPG will work with the TAC Chair to select the Panel Chairs in July/August
- Note: there will be 6 instead 5 ExGal panels

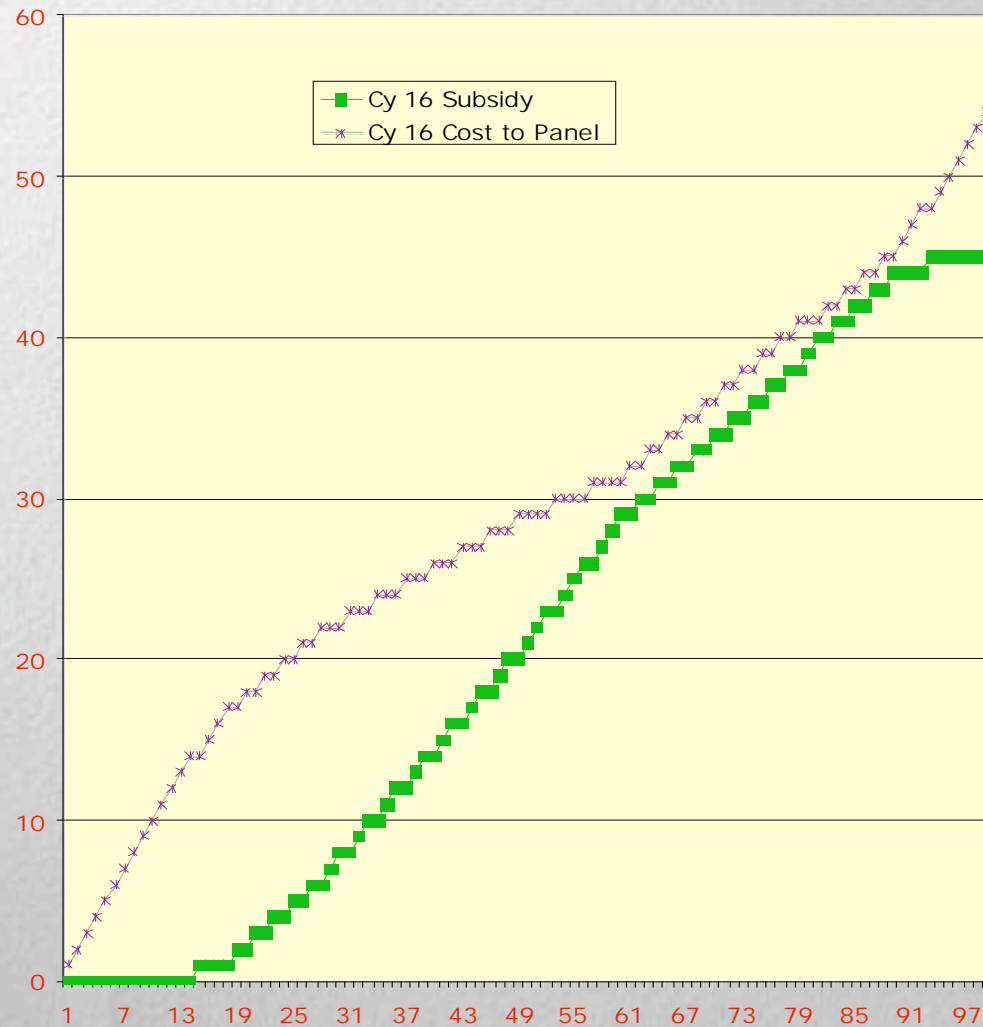
Medium Sized Proposals in Cycle 18

- Feedback from the C17 panels suggests a concern that medium sized proposals (50 – 99 orbits) are less likely to be accepted than small or large proposals
- Applies in particular to the solar system and stellar panels
- Hot star panel: the community even hesitates to submit medium sized proposals because of perceived low chance of success

Acceptance Fraction by Size



- Current orbit subsidy applied in the panels:



Orbits	Cost to Panel	Orbits	Cost to Panel	Orbits	Cost to Panel
1	1	36	24	71	37
2	2	37	25	72	37
3	3	38	25	73	38
4	4	39	25	74	38
5	5	40	26	75	39
6	6	41	26	76	39
7	7	42	26	77	40
8	8	43	27	78	40
9	9	44	27	79	41
10	10	45	27	80	41
11	11	46	28	81	41
12	12	47	28	82	42
13	13	48	28	83	42
14	14	49	29	84	43
15	14	50	29	85	43
16	15	51	29	86	44
17	16	52	29	87	44
18	17	53	30	88	45
19	17	54	30	89	45
20	18	55	30	90	46
21	18	56	30	91	47
22	19	57	31	92	48
23	19	58	31	93	48
24	20	59	31	94	49
25	20	60	31	95	50
26	21	61	32	96	51
27	21	62	32	97	52
28	22	63	33	98	53
29	22	64	33	99	54
30	22	65	34		
31	23	66	34		
32	23	67	35		
33	23	68	35		
34	24	69	36		
35	24	70	36		

- Suggestions for increasing the acceptance fraction:
 - Add medium sized proposals to the TAC pool of Large programs (not recommended)
 - Lower the boundary between Large and Medium/Small proposals to 75 from 100
 - Make it mandatory for each panel to approve at least one medium sized proposal
 - Allocate more orbits to a panel if a medium sized proposal is approved (20?)
 - Modify the subsidy progression

- We seek your input!

- Are medium sized proposals at a disadvantage?
- Do medium-sized proposals support science that cannot be done with small or large proposals?
- If so, how can we make sure they receive their fair share of orbits?