

ACS Science Program Recovery and Cycle 16 TAC Results

STUC Meeting
12 April 2007



Outline

- ACS Contingency Program status
- Cycle 14/15 ACS Program recovery
- Cycle 16 TAC results
- Cycle 17 schedule

ACS Contingency Programs

Procedure defined in consultation with STUC sub-committee and Cycle 15 TAC chair (R. Kudritzki)

1. **Call for proposals issued to community**
 - ◆ **3 October 2006**
2. **Proposals submitted by e-mail to STScI**
 - ◆ **Deadline of 5:00 pm, 3 November 2006**
 - ◆ **35 proposals, including 9 from ESA**
3. **Proposals review by Cycle 15 TAC**
 - ◆ **Reviews completed by 30 November**
 - ◆ **6 proposals selected**
4. **Successful PIs notified mid-December**
 - ◆ **L. Bianchi (JHU) : Star forming regions in the Local Group (WFPC2-134)**
 - ◆ **D. Calzetti (UMASS): Star formation scaling Laws (NIC-86)**
 - ◆ **G. Clementini* (Bologna): RR Lyraes in M31 GCs (WFPC2-78)**
 - ◆ **C. Conselice* (U. Notts): NICMOS imaging of GOODS (NIC – 180)**
 - ◆ **P. Cote (Herzberg): Galactic cores and nuclei (NIC - 199)**
 - ◆ **D. Zucker* (IoA): Local dwarf galaxies (WFPC2 – 76)**

ACS contingency program status

ACS failure on Saturday January 27

- ◆ Backup proposal PIs notified on Monday Jan 29
- ◆ Phase II proposals in place by Friday Feb 2 & observations scheduled by February 16

ACS Contingency programs are Large GO programs

- ◆ Zero proprietary time
- ◆ Eligible for standard funding
- ◆ Have the same guarantees for completion as `normal' GO programs
- ◆ 753 orbits allocated

Assessing current ACS Programs

Cycle 14/15 ACS programs

121 GO Prime programs with ACS/HRC or ACS/WFC → ~1580 orbits
8 with ACS parallels

20 SNAP Programs (10 from Cycle 15) → ~1200 (716) SNAPs

Review process based on standard procedures + STIS recovery

- ◆ PIs informed of the procedures on Jan 31

Some programs were not reviewed automatically

- ◆ Programs at >90% completion (4 programs)
- ◆ Cycle 14 SNAPS not reviewed
- ◆ ACS Parallel observations → 1 set of parallels (WFPC2) reinstated on appeal

Time-critical programs (must be scheduled before Feb 28)

- ◆ Variable objects, New Horizons (Jupiter), Coordinated Chandra (M87)
- ◆ Hubble Heritage programs

→ Expedited scheduling decisions for those proposals

- ◆ PIs asked to submit Program Change Requests (PCRs)
- ◆ PCRs reviewed through standard process (TTRB)
- ◆ 10 programs re-scheduled

ACS program review process

Four stage review process for programs that are not time-critical

1. **Technical assessment by (2) INS scientists**
 - ◆ To what degree can re-scheduled observations meet the science goals of the original proposal?
 - ◆ Are additional orbits required to meet those goals? How many?
2. **Science feasibility assessment by separate panel: Williams (chair), Ferguson, Leitherer, Long, Villaver**
 - ◆ Should the observations be rescheduled?
 - ◆ Should the program be granted additional orbits?
 - ◆ Recommendations passed on to the Director
3. **PI can appeal an adverse decision by filing a PCR**
 - ◆ Allows scope for novel strategies, but same science goals
 - ◆ Reviewed by augmented Telescope Time Review Board
4. **Proposals turned down by TTRB can submit a Cycle 16 DD proposal**
 - ◆ Reviewed by members of the Cycle 16 TAC/panels

ACS proposal review schedule

Stage 1, 2 & 3 reviews of all proposals completed

1. **INS reviews**
 - ◆ 15 scientists involved in reviewing 131 proposals (GO & SNAP)
 - ◆ Reviews completed by March 1
2. **Feasibility**
 - ◆ Reviews completed by March 15
 - ◆ 71 programs recommended for transfer; 60 recommended for termination
3. **TTRB**
 - ◆ To date, 30 appeals received
 - ◆ 15 appeals accepted (13 GO + 2 SNAP), 15 appeals rejected
4. **Cycle 16 DD programs**
 - ◆ Deadline of April 30 set for rejected appeals

Including Hubble Heritage, ~1000 orbits transferred from ACS

Logistics

Numerous STScI personnel were involved in the recovery process

INS Coordination: Diane Karakla, Marco Sirianni, Linda Smith, Nolan Walborn

INS technical reviews: John Biretta (WFPC2 performance) Tom Brown, Stefano Casertano, Marco Chiaberge, Andy Fruchter, Ron Gilliland, Dave Golimowski, Roland van der Marel, Andre Martel, Massimo Robberto, Marco Sirianni, Ed Smith, Linda Smith, Bill Sparks, Massimo Stiavelli, Nolan Walborn

Feasibility panel: Harry Ferguson, Claus Leitherer, Knox Long, Eva Villaver, Bob Williams

Scheduling: Dave Adler, Ian Jordan, Denise Taylor, Bill Workman

Program Coordinators: William Januszewski, Shelley Meyett, Beth Perriello, Tony Roman, Galina Soutchkova, Alison Vick

TTRB: Howard Bond, Stefano Casertano, Dave Soderblom, Linda Smith, Bill Sparks, Denise Taylor, Bill Workman, Duccio Macchetto, Kailash Sahu

Grants: Ray Beaser, Dana Hairsine, Paula Sessa, Elyse Wagner

(Rush) Phase II preparations: Anton Koekemoer & NICMOS team, Keith Noll & Hubble Heritage team

Cycle 16 Program

Cycle 16 proposals

■ Original deadline: Jan 26, 2007

- ◆ 747 proposals received: 540 GO, 36 SNAP, 25 SURVEY, 146 AR
- ◆ 450 programs involving ACS/WFC or ACS/HRC
- ◆ Orbits requested: 15,876 for GO, 1,736 for Survey; 4,220 SNAPs

■ ACS failure on January 27

- ◆ Spitzer agrees to move its deadline from Feb 14 to Feb 16
- ◆ HST deadline extended to Feb 9th
- ◆ Changes announced to community on January 29 SNAPs

■ Revised deadline: Feb 10, 2007

- ◆ 821 proposals received: 581 GO, 38 SNAP, 29 SURVEY, 173 AR
- ◆ 102 ACS proposals withdrawn; 176 new proposals submitted
- ◆ Orbits requested: 16,204 for GO, 2,005 for Survey; 3,505 SNAPs
- ◆ → 6:1 over-subscription for a nominal 3,000 orbit cycle

Cycle 16 TAC schedule

■ TAC preparations

- ◆ Chair: Meg Urry (Yale)
- ◆ 821 proposals: 36 Solar System, 383 Galactic, 402 Extragalactic
- ◆ Usual complement of 11 panels: 1 SS, 5 Gal, 5 ExGal
- ◆ Proposals distributed to panelists by February 23
- ◆ Preliminary grades (mainly) submitted by Thursday March 15
- ◆ Triage lists prepared for panels & TAC

■ TAC meeting March 19-23

- ◆ Panels March 19-21 (noon)
- ◆ TAC March 21 (2pm) – 23

■ Initial guidelines

- ◆ Cycle 16 runs 1 July 2007 to SM4 (11 September 2008)
- ◆ 3,000 orbits available – ~2,000 panels, ~1,000 TAC
- ◆ 1,000 Snapshots
- ◆ \$3-3.5M for AR and Theory
- ◆ Cycle 16 & SM4

Cycle 16 & SM4

- WFPC2 is the only optical imager on HST at present
- WFC3 (& maybe ACS) is expected to be available after SM4
- How does this influence proposal assessment this cycle?

SM4 is not guaranteed to happen

- If the science case is compelling, and the observations are feasible with WFPC2, then the PI should be given the chance to tackle the program
- However, some programs *may* be more compelling with WFC3 [suggested as a factor of 10 taste test]

As presented to the TAC/panel members

Panel Allocation

based on a combination of orbit and proposal pressure

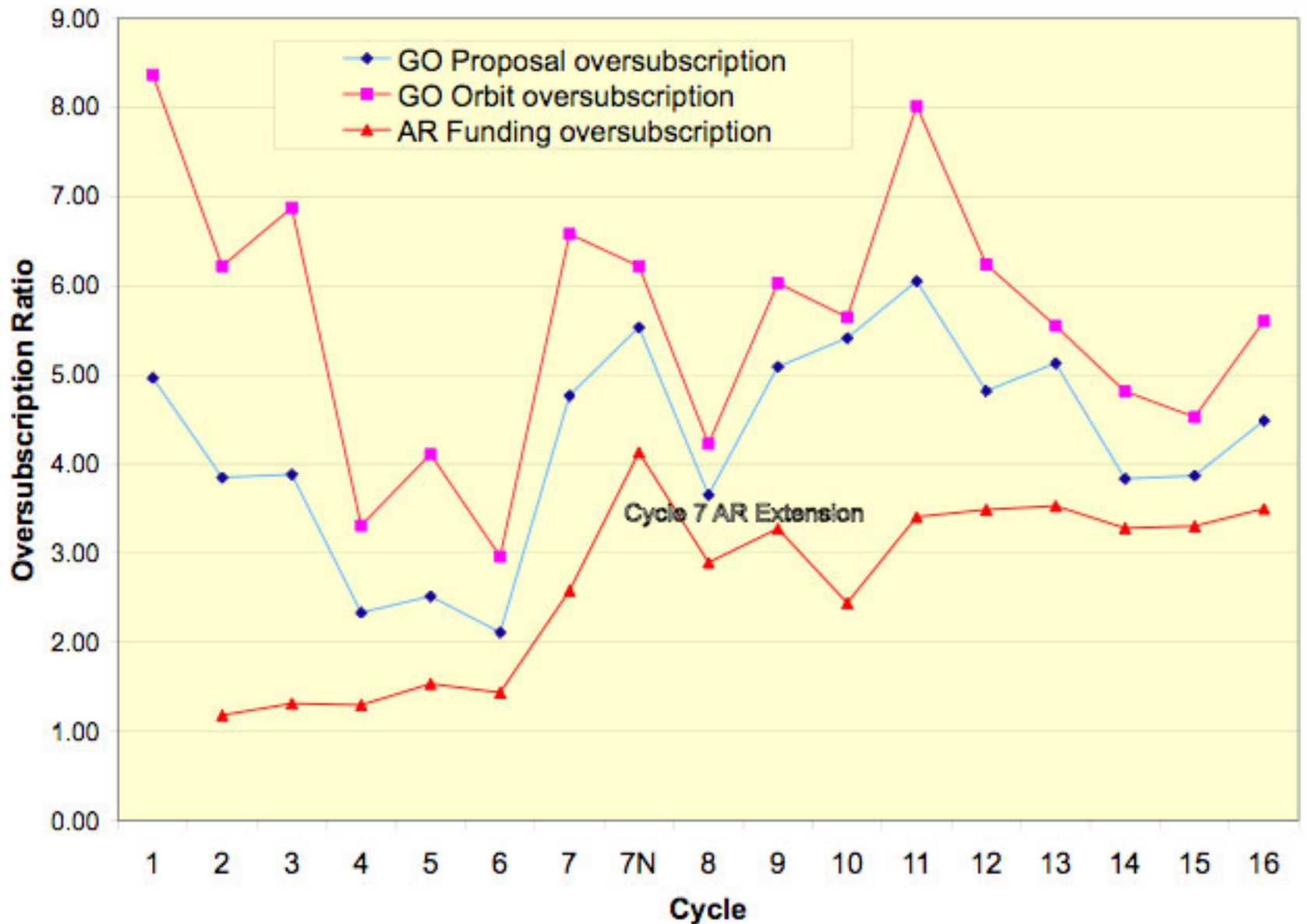
Panel	GO props	GO orbits	Allocation
Exgal1	53	1619	195
Exgal2	55	1615	195
Exgal3	47	1722	200
Exgal4	58	1789	210
Exgal5	62	1857	215
Galac1	52	767	105
Galac2	53	601	95
Galac3	54	1128	145
Galac4	59	1174	150
Galac5	51	957	120
Solar Sys	27	281	75

Cycle 16 TAC logistics

■ STScI TAC support

- ◆ Panel selection & surveillance – Eva Villaver, Claus Leitherer (+ Bob Williams & J. Walsh)
- ◆ HST MO – Ken Sembach, Rodger Doxsey
- ◆ INS – technical support (including John Biretta, Ron Gilliland, Bill Sparks, Anton Koekemoer)
- ◆ BRC – administrative support & paying bills
- ◆ PSS/PSDs – STScI data analysts, staff & postdocs
- ◆ STScI facilities for transport, photocopying etc.
- ◆ Proposal distribution, computers, database – Brett Blacker
- ◆ Everything else – Darlene Spencer (+ Karyn Keidel & Laura Buckalew)

Over-subscription by Cycle



Summary Results

<u>Proposals</u>	<u>Requested</u>	<u>Approved</u>	<u>% Accepted</u>	<u>ESA Accepted</u>	<u>ESA % Total</u>
General Observer	583	130	22.3%	17	13.1%
Snapshot	38	8	21.1%	1	12.5%
Survey Archival Research	27	0	0.0%	0	
AR Legacy	115	34	29.6%	0	
Theory	8	3	37.5%	0	
<u>Total</u>	<u>821</u>	<u>189</u>	<u>23.0%</u>	<u>18</u>	<u>13.0%</u>
Primary Orbits	17361	3099	17.9%	389	12.6%

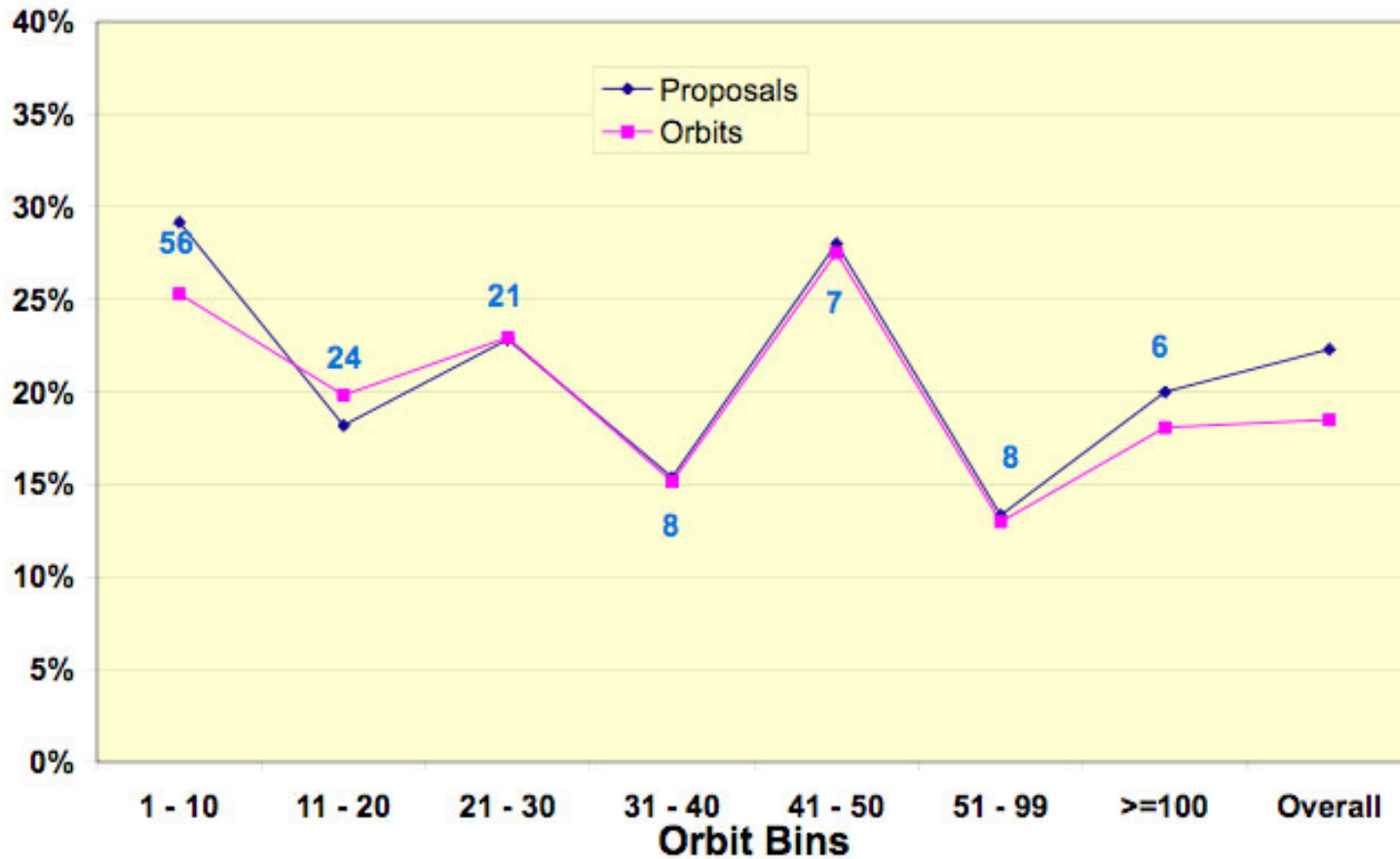
3099 Approved does not include 2 Calibration orbits

GO Instrument Summary

Instruments	Mode	Requested Orbits	%	Approved Orbits	%
ACS/SBC	Imaging	743	3.5%	252	
ACS/SBC	Spectroscopy	402	1.9%	193	11.6%
FGS	POS	678	3.2%	177	
FGS	TRANS	72	0.3%	67	6.4%
NIC1	Imaging	1066	5.0%	120	
NIC2	Imaging	3194	14.9%	707	41.0%
NIC3	Imaging	3788	17.7%	707	
NIC3	Spectroscopy	217	1.0%	35	
WFPC2	Imaging	11282	52.6%	1566	41.0%
<i>Includes Coordinated Parallels</i>		21442		3824	
Imaging	87.7%	Spectroscopy	6.0%	FGS	6.4%

Excludes Snapshot programs, but includes 150 Pure Parallel Orbits

Acceptance Fraction by Size



Cycle 16 Specialised Programs

■ Survey programs

- ◆ 29 Proposals submitted
- ◆ 16 fully met Survey criteria
- ◆ No proposals accepted; 1 program accepted as SNAP (converted from 85 orbit Survey to 175 target SNAP)

■ HST-Spitzer proposals

- ◆ Aim: to provide an opportunity for ambitious programs that require substantial time on both HST and Spitzer without introducing double jeopardy (2 TACs)
- ◆ 5 Programs submitted for 515 orbits and 426 hours
- ◆ All 5 discussed by HST TAC
- ◆ 2 Programs awarded time (Egami & Yan) for 222 HST orbits and 168 Spitzer hours

Programs Recommended by the TAC

ID	Resources	First Name	Last Name	PI institution	Title
0057.benedict	63 + 63 (cycle 17)	George	Benedict	University of Texas at Austin	The Architecture of Exoplanetary Systems
0061.benedict	67 + 33 (cycle 17)	George	Benedict	University of Texas at Austin	An Astrometric Calibration of Population II Distance Indicators
0688.egami	72 + 102 (Spitzer)	Eiichi	Egami	University of Arizona	Characterizing the Stellar Populations in Lyman-Alpha Emitters and Lyman Break Galaxies at $5.7 < z < 7$ in the Subaru Deep Field
1418.grundy	128	William	Grundy	Lowell Observatory	Probing Solar System History with Orbits, Masses, and Colors of Transneptunian Binaries
0199.jansen	\$179,935 (over 2 years)	Rolf	Jansen	Arizona State University	Removing the herring-bone pattern-noise from *all* STIS Side-2 CCD data: a factor ~3 enhancement in sensitivity
0306.koekemoer	\$62,000	Anton	Koekemoer	Space Telescope Science Institute	Deepening the Hubble UDF - Constraining the High-z Galaxy Luminosity Function Faint End Slope and Reionization
1225.koopmans	159	Leon	Koopmans	Kapteyn Astronomical Institute	The Structure of Early-type Galaxies: 0.1-100 Effective Radii
0191.schneider	\$531,000 (over 3 years)	Glenn	Schneider	University of Arizona	A Legacy Archive PSF Library And Circumstellar Environments (LAPLACE) Investigation
0587.teplitz	117	Harry	Teplitz	California Institute of Technology	Did Rare, Large Escape-Fraction Galaxies Reionize the Universe?
1241.wang	144	Daniel	Wang	University of Massachusetts	A Paschen-Alpha Study of Massive Stars and the ISM in the Galactic Center
1196.yan	150 + 65 (Spitzer)	Lin	Yan	California Institute of Technology	Revealing the Physical Nature of Infrared Luminous Galaxies at $0.3 < z < 2.7$ Using HST and Spitzer

Cycle 16 Program Assessment

■ Science assessment

- ◆ Comments from TAC Chair

“In part because of the extreme proposal pressure...the decisions and cuts were decidedly painful. ”

- ◆ Panel Chairs would support extending panel allocations by 30-40% without further review

■ Do we need a supplemental call?

- ◆ Cycle 16 (as is) is almost fully subscribed

- ◆ 1-2 month slip in SM4 (300-600 orbits) can be accommodated either by promoting Cycle 16 proposals

We propose issuing a supplemental call only if SM4 slips to 2009

Cycle 17 Schedule

Cycle 16/17 boundaries

SM4 is scheduled for September 2008

- SM4 complete by late September 2008
- SMOV during October 2008
- HST available for observations ~November 2008 (WFC3 ~Dec 2008?)

Cycle 16/17 boundary will be set at SM4

- Avoid multiple instrument suites during a cycle

Proposed Cycle 17 schedule

- CP17 release – 1 December 2007
- Proposal deadline – ~1 March 2008 (2 weeks before Chandra)
- HST TAC meets – May 12-16 2008
- Phase II reviews – July/August 2008 (pre-SM4)
- Cycle 17 ends December 31 2009

Revised schedule

- Calendar balances (internal STScI) workload for proposal implementation & SM4/SMOV