**Re-start of SM4 Work**

**THE GOOD NEWS**

- "One final *House Call*" : says NASA Administrator Griffin on October 31, 2006: SM4 scheduled for 11 September 2008

- At STScI strengthen instrument teams - increase staffing support now
  - Additional support from JHU and STIS & NICMOS IDTs

- This year our emphasis is on comprehensive testing
  - Develop WFC3 and COS science programs, test the software, test how to schedule.
  - Support GSFC testing in the VEST (SMGTs) at GSFC this summer - will exercise all operating modes of COS & WFC3, and TV hardware testing

- Preparation for Cycle 17
  - Inform astronomers about COS & WFC3, and all C17 capabilities at Workshops, write Handbooks, etc
  - Expect Cycle 17 Proposers to submit in early 2008, TAC in Spring 08, and build long range observing schedule through the Summer 2008, in prep for Autumn deployment.

- **SMOV4 development**
  - Recently completed Requirements review with Project
SM4 STAFFING SUPPORT

- Established Contract with JHU scientists
  - Expected to run through FY09, managed at STScI
  - Currently: Sahnow, Kaiser, Dixon, Golimowski, Martel, and Romelfanger working 40 to 50% of their time on HST instruments, on this side of the street
  - Fully integrated into existing science teams
  - Bringing valuable expertise on the current and the new instruments

- Establishing Contract with UA and GSFC scientists for SMOV4
  - Professor Rodger Thompson & Dr Glenn Schneider will work NICMOS SMOV
  - Developing a detailed statement of work, run through FY09, managed at STScI
  - Integrated into the existing NICMOS science team, following 14 Feb meeting
  - Bruce Woodgate and Ted Gull from STIS involved

- Staffing up in the Data Analysts area
  - In anticipation of WFC3 Thermal-Vacuum support
  - Subsequent data analysis through SMOV4
SMOV4 Team Reassembled
- Instrument scientists/engineers from STScI/GSFC
- STScI Planning & Scheduling, Operations specialists
- COS/WFC3 teams and NICMOS/STIS IDT members
- Team Leads - Biagetti/STScI; Burley/GSFC

SMOV4 Requirements Review on 21 March at GSFC
- requirements for OTA, spacecraft sub-systems, and all science instruments, COS, WFC3, NICMOS, STIS, ACS*, FGS

Plan Outline
- 2007 Apr - Sep: SMOV detailed planning: activities, order
- 2007 Oct: SMOV Project Review
- 2007 - 2008: Support to SMOWG; SMGTs, Sims, JISs, as necessary; development, processing of Phase 2s and scheduling
- 2008 Sep: SMOV Start
SM4 Design Reference Mission

- Building a “month in the life” of Hubble, a post SM4 DRM
  - will consist of real-life observing program using all Cycle 17 instruments (WFC3, COS, STIS, ACS, NICMOS and FGS) in 3-Gyro mode.
  - Done earlier to prepare for 2-gyro mode, where it helped the implementation.
  - Work has started now, use Astronomer Proposal Tools built for WFC3 and COS, plus all existing documentation to build Phase 2 proposals with these new instruments.
  - “Observations” with new instruments will be combined with calibration and science observations of existing instruments
- Develop a month-long schedule to see how instruments interact
  - Make it as realistic as possible, include SNAPS, Parallels
  - How do the instruments interact? Problems?
  - What can we do to make them more efficient
  - Fully test all of our new ground system software
Cycle 17 Schedule -from Neill Reid

SM4 is scheduled for September 2008
- SM4 complete by late September 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
- Cycle 16 is a ~15 month cycle

Possible Cycle 17 schedule
- CP17 release – 15 December 2007
- Proposal deadline – 25 March 2008
- HST TAC meets – late May 2008
- Phase II reviews – July/August 2008 (pre-SM4)
- Cycle 17 ends December 31 2009

Revised schedule
- Shorter lead time between allocation and observations
- Calendar balances (internal STScI) workload for proposal implementation & SM4/SMOV

13 April 2007
STUC presentation
Hubble’s Focal Plane Over the Years

1990 Deployment

1993 SM1

1997 SM2

1999 SM3A

2002 SM3B

2008 SM4