EPIC TTD#16

SCIENCE OPERATIONS

MPE, 04 May 2006

L. Metcalfe SCI-SDX

XMM-Newton Science Support Manager

OPEN ACTIONS - EPIC TTD

OPS: EPIC-TTD-

14/3	**Explain increases in pn offset variance in the 840 to 870 plus revolution range.**	**M. Smith**	**2005-03-03**
14/5	**Provide an agenda draft for a hypothetical OBSW contract meeting addressing all concerns raised during the presentation.**	**G. Buenadicha**	**2005-03-03**
14/9	**Make MOS2 CCD5 effect public.**	**M. Stuhlinger**	**2005-03-03**
15/1	**Implement activation of MOS1 CCD6 every three months (by performing e.g. a diagnostic) to check any changes in its condition.**	**S. Rives**	**2005-11-03**
15/2	**Identify what is needed for testing and preparing for the use of redundancies.**	**M. Casale**	**2005-11-03**
15/3	**Subsequently to evaluate and decide which of the items resulting from action 15/2 can be delivered.**	**A. Abbey**	**200?-??-??**

OPEN ACTIONS - EPIC CAL

CAL: EPIC-CAL-

12-4	**JB to provide VILSPA with a tool to check MOS data for "3 missing raws" feature.**	**Ballet**	**2003-09-25**
14-1	**Additional time column with other 0 point for ODF**	**Kirsch**	**2005-02-28**
14-2	**MK to update frame times according to analysis presented in 1.1**	**Kirsch**	**2005-02-28**
14-3	**MK to implement time jump in a Q-check type procedure in the long term.**	**Kirsch**	**2005-02-28**
14-5	**MS to implement KDs values into CCF**	**Stuhlinger**	**2005-02-28**
15/1	**Provide update of MOS drm parameter files (SS)**	**Kirsch**	**2005-10-19**
15/2	**Provide eff mode CTI degradation parameters to SOC**	**Dennerl**	**2005-10-19**
15/3	**Implement mode-dept. pn CTI-degradation in SAS**	**Kirsch/Saxton**	**2005-10-19**
15/4	**NRCO on Eta Carinae in SW and FF mode, obs. time like rev 115. Ask for Chandra Cross (HETG)**	**Kirsch Stuhlinger**	**2005-10-19**

OPEN ACTIONS - EPIC CAL

CAL: EPIC-CAL-

15/5	MOS-CTI update, to sort out responsibility	Kirsch/Sembay	2005-10-19
15/6	Update MOS CTI CCFs	DB/MSt	2005-10-19
15/7	Provide input for column region dept. CTI	Baskill	2005-10-19
15/8	Implement column region dept. CTI into SAS	Saxton/Kirsch	2005-10-19
15/9	NRCO for Pulsar timing PSRB0540 PSRB1509 checks simultaneous with RXTE and radio	MK/MSt/ME	2005-10-19
15/10	0.75sec star tracker delay to get into system	Kirsch/Saxton	2005-10-19
15/11	Track implementation of "switch all 1 CCD slews for pn to CLOSED' Specify implementation by end Oct.	Smith	2005-10-19
15/12	Describe feature of off axis badpixfind behaviour for pn at (TBD) appropriate place	MSt, WNP	2005-10-19
15/13	Get in contact with Suzaku for RXJ1856 X-Cal.	MSt	2005-10-19

CONTENTS

- Personnel changes at SOC
- Significant dates and meetings
- Operations
- General Calibration Points
- Data Processing - SAS
- Data Processing - SSC
- XSA
- Miscellaneous

PERSONNEL CHANGES AT SOC

- Arvind Parmar has replaced Fred as Mission Manager
- Stephane (at his final TTD Meeting) will hand over his functions to Guillermo & Neil (Cheek).

SIGNIFICANT DATES AND MEETINGS

SIGNIFICANT DATES

- Users Group Meeting #7 — 18/19 May 2006
- SAS Workshop — 30 May-02 Jun. 2006
- ICWG meeting, Iceland — 14-16 Jun. 2006
- Variable & Broad Fe Lines around Black Holes — 26-28 Jun. 2006

AO6 Call

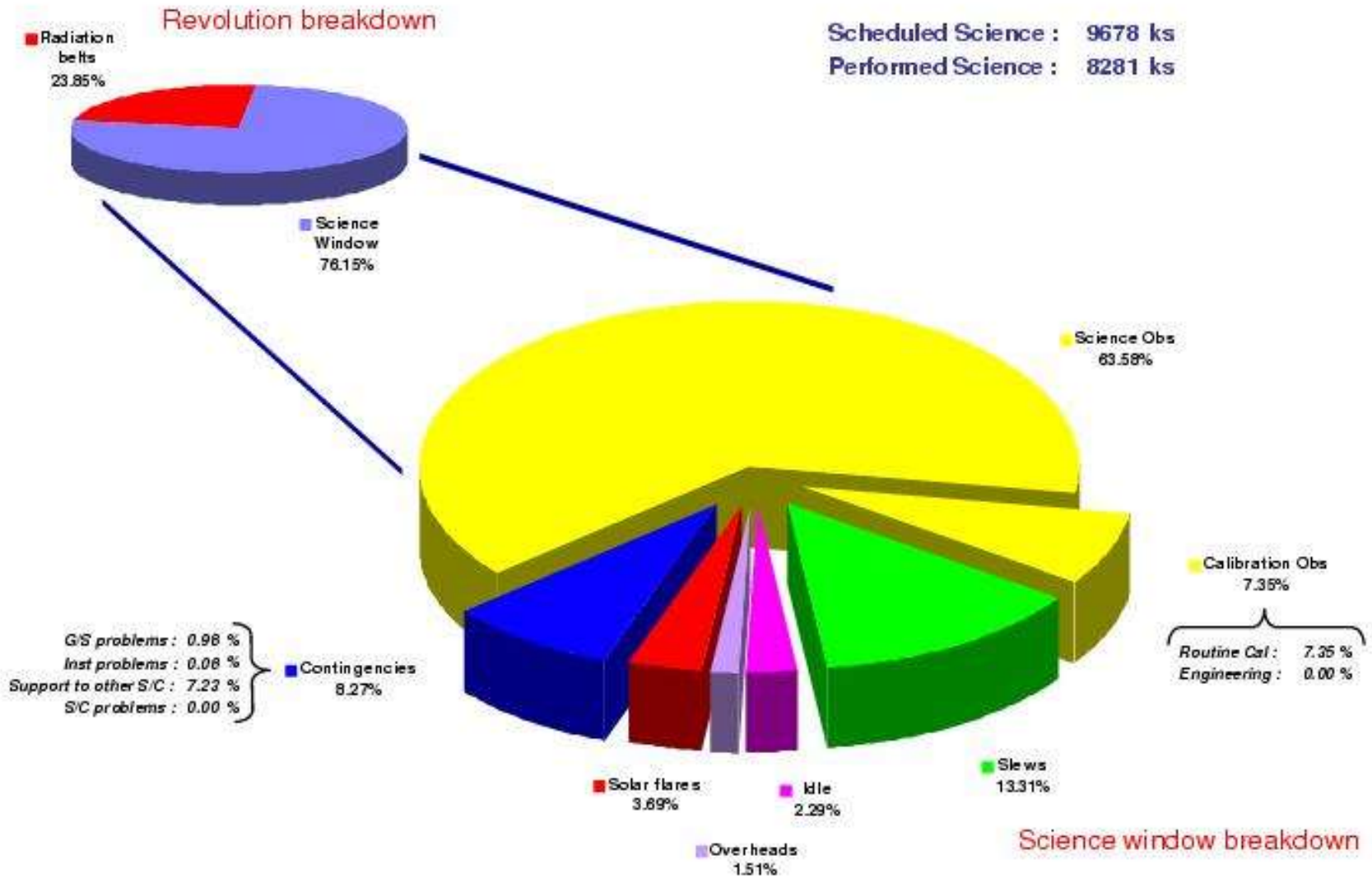
- AO6 Call — 28 Aug. 2006
- Close Phase I — 06 Oct. 2006
- Open phase II — 15 Jan. 2007
- Close XRPS — 09 Feb. 2007
- Begin AO6 observations — May 2007

OPERATIONS

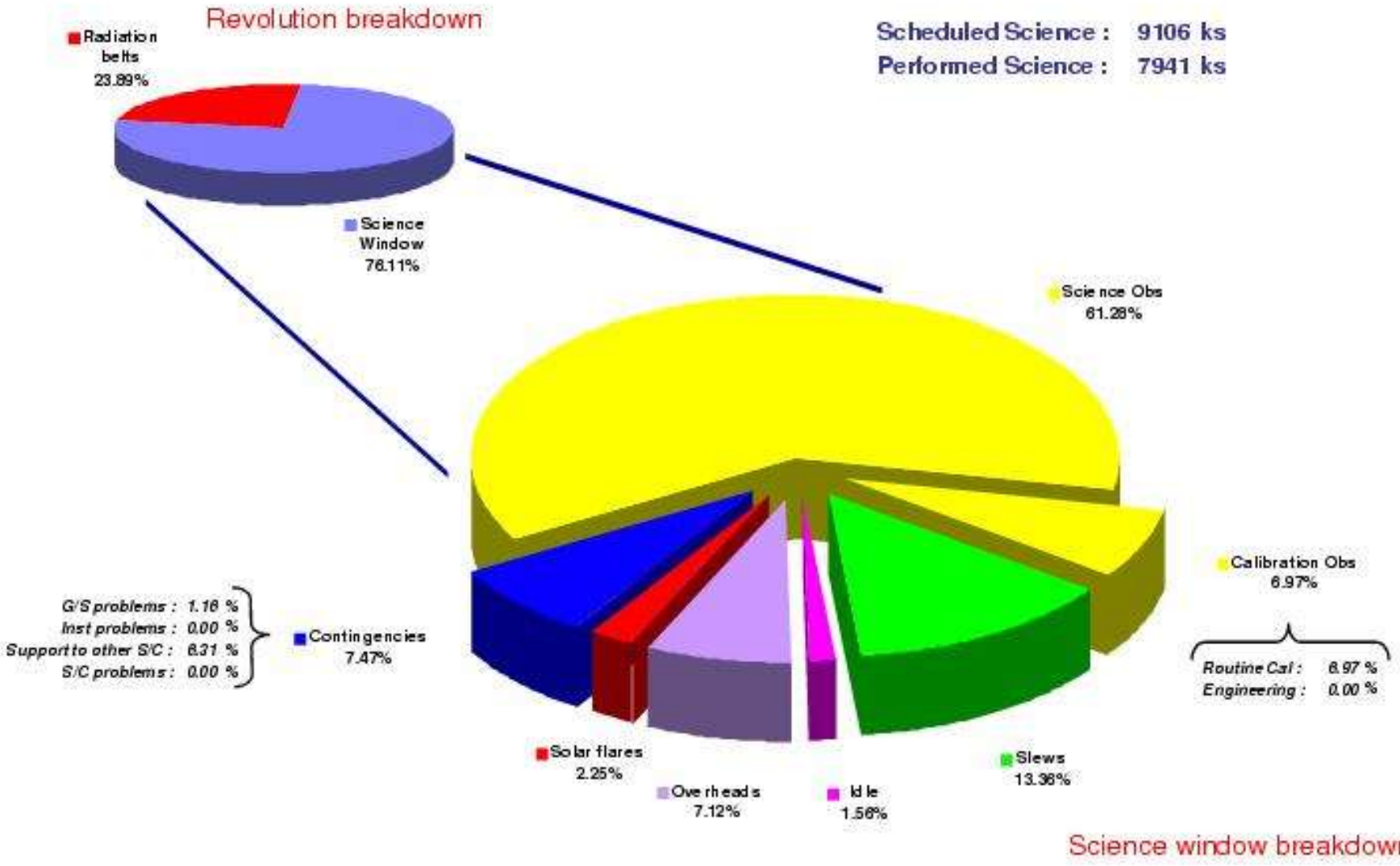
OPERATIONS

- All instruments essentially stable
- MSG LEOP took out Revs. 1105 to 1110
- Rev.1147 HotBird and SpainSat support
- We’re probably due another (micro-)meteoroid !!

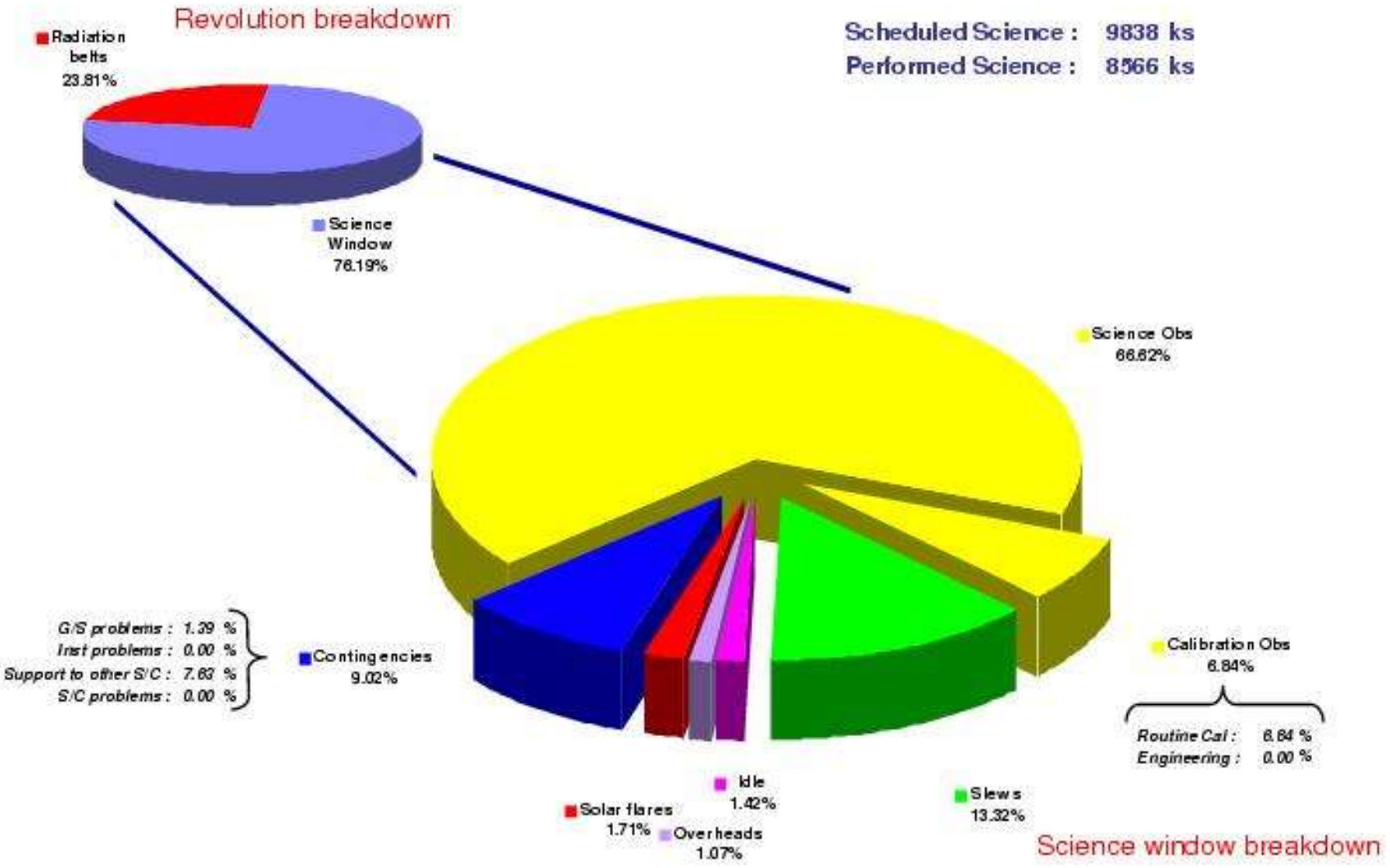
MOS1 efficiency breakdown over the last 6 months (revs 1065 to 1154)



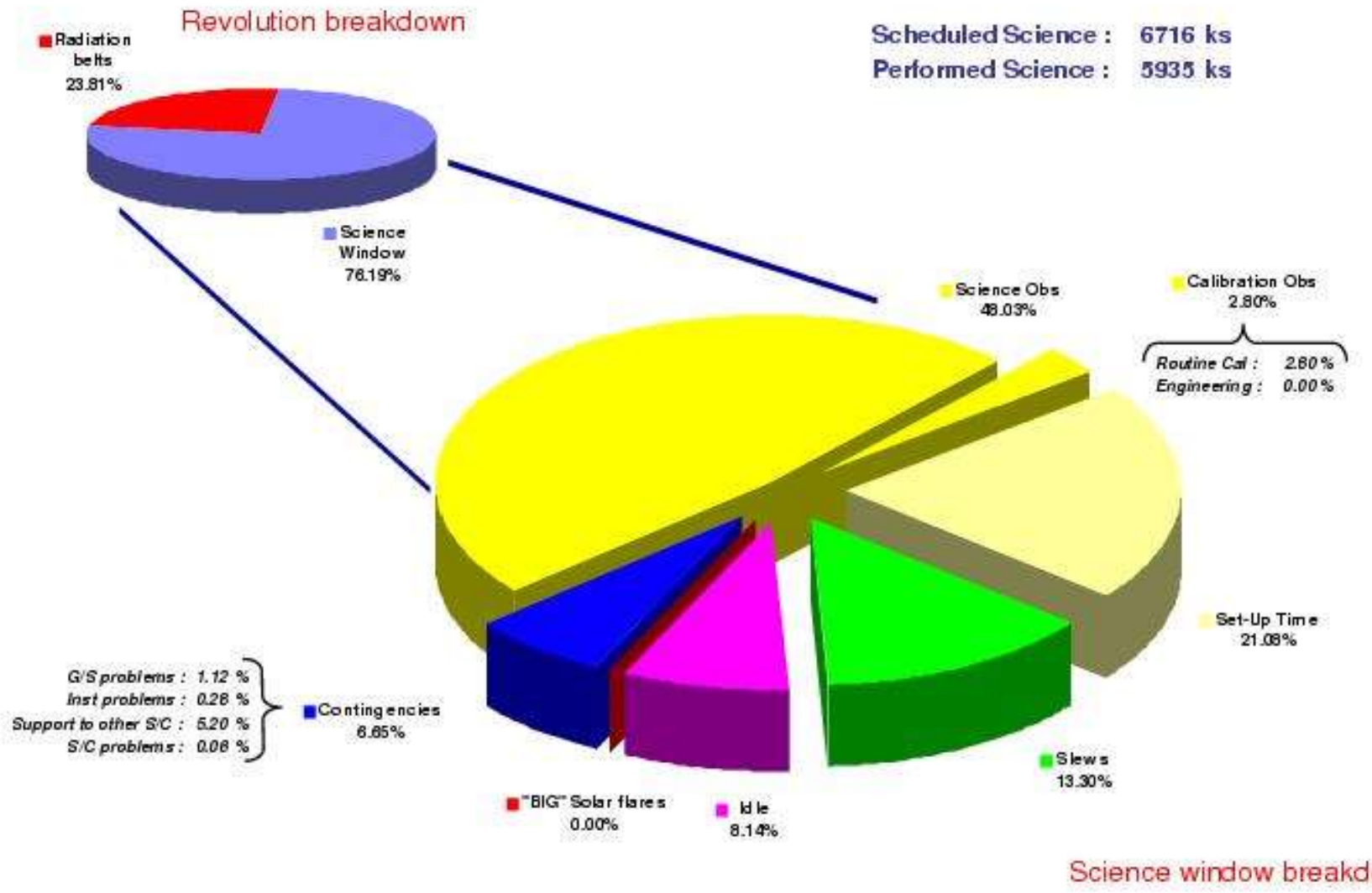
PN efficiency breakdown over the last 6 months (revs 1065 to 1154)

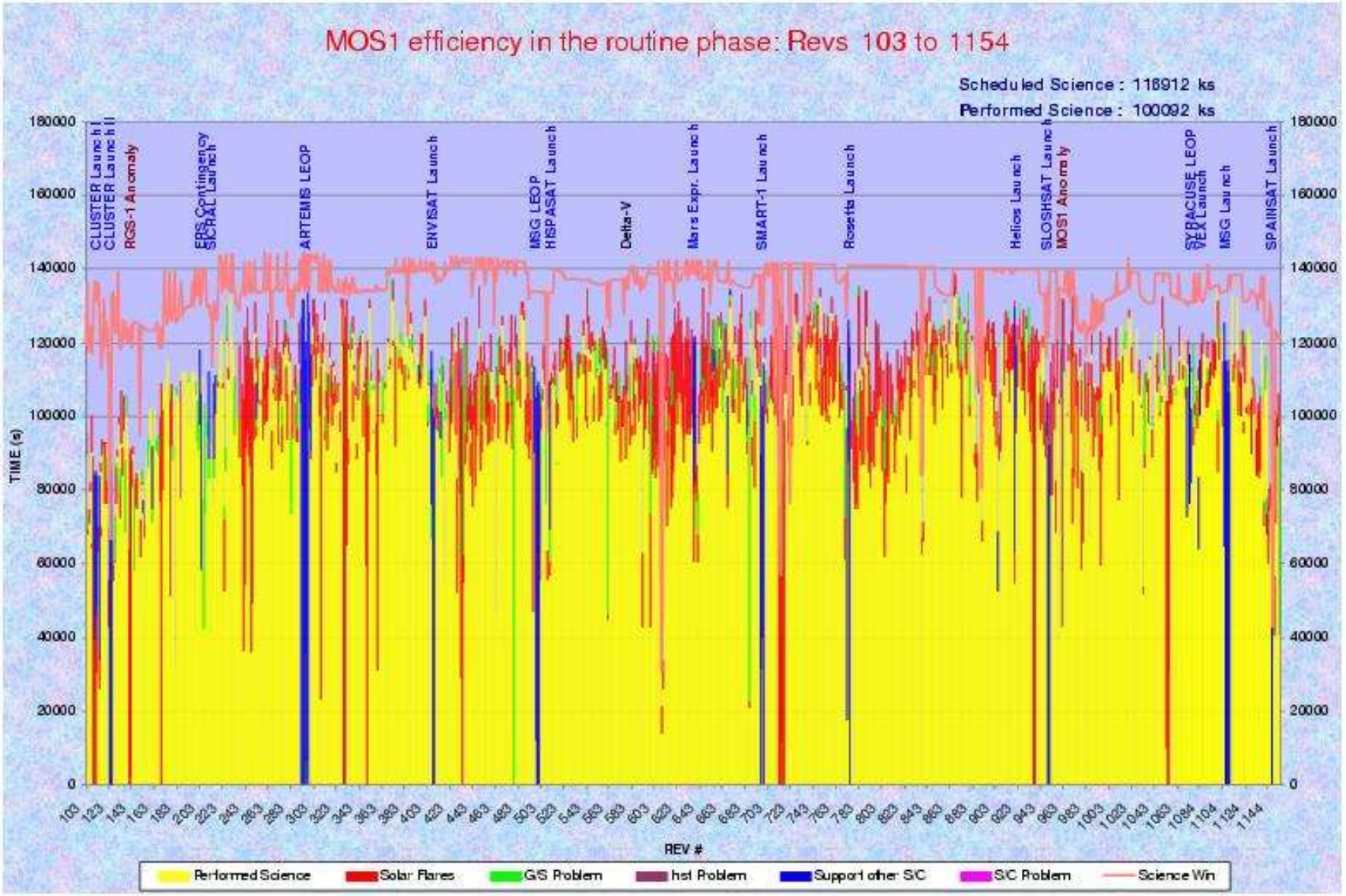


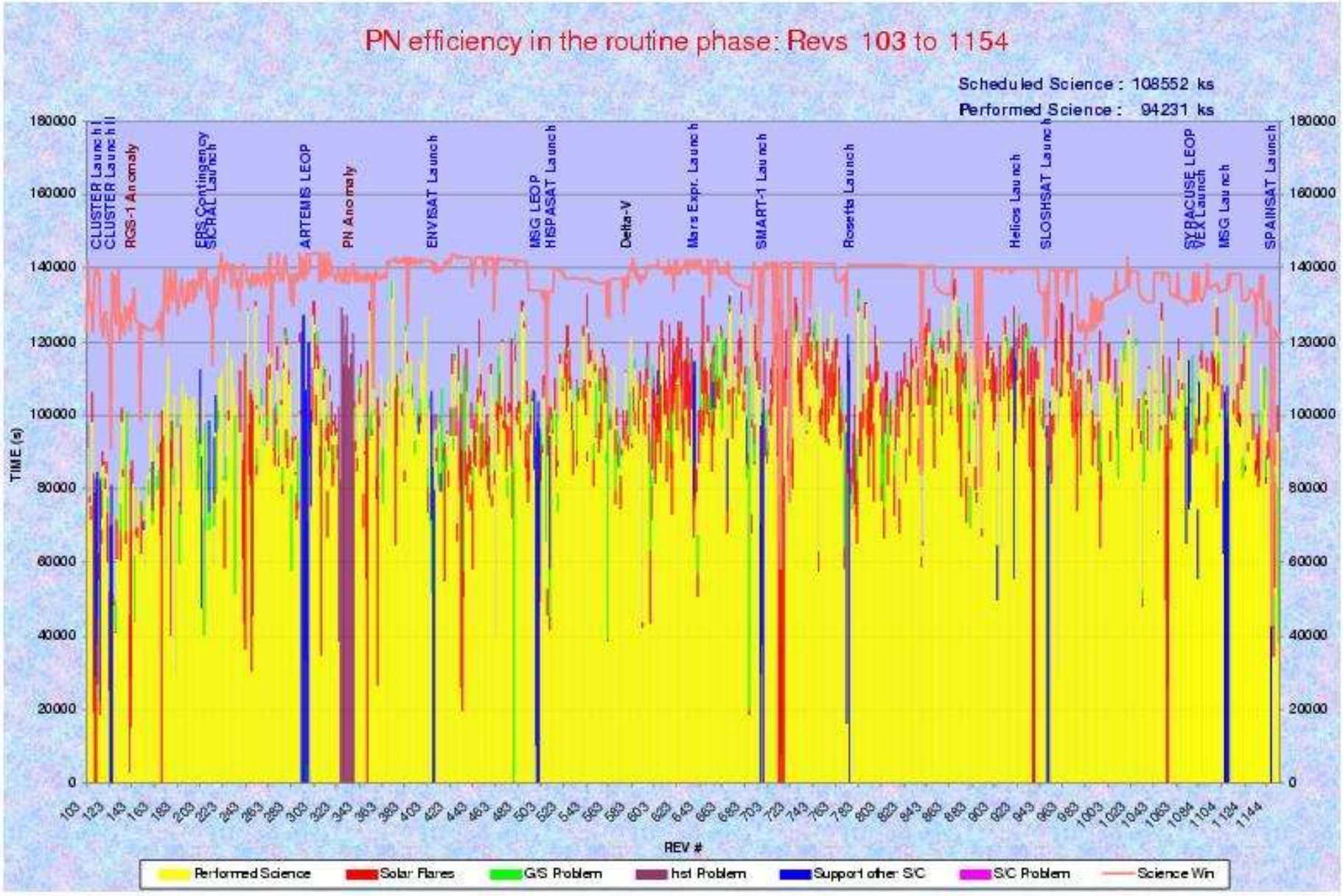
RGS1 efficiency breakdown over the last 6 months (revs 1065 to 1154)

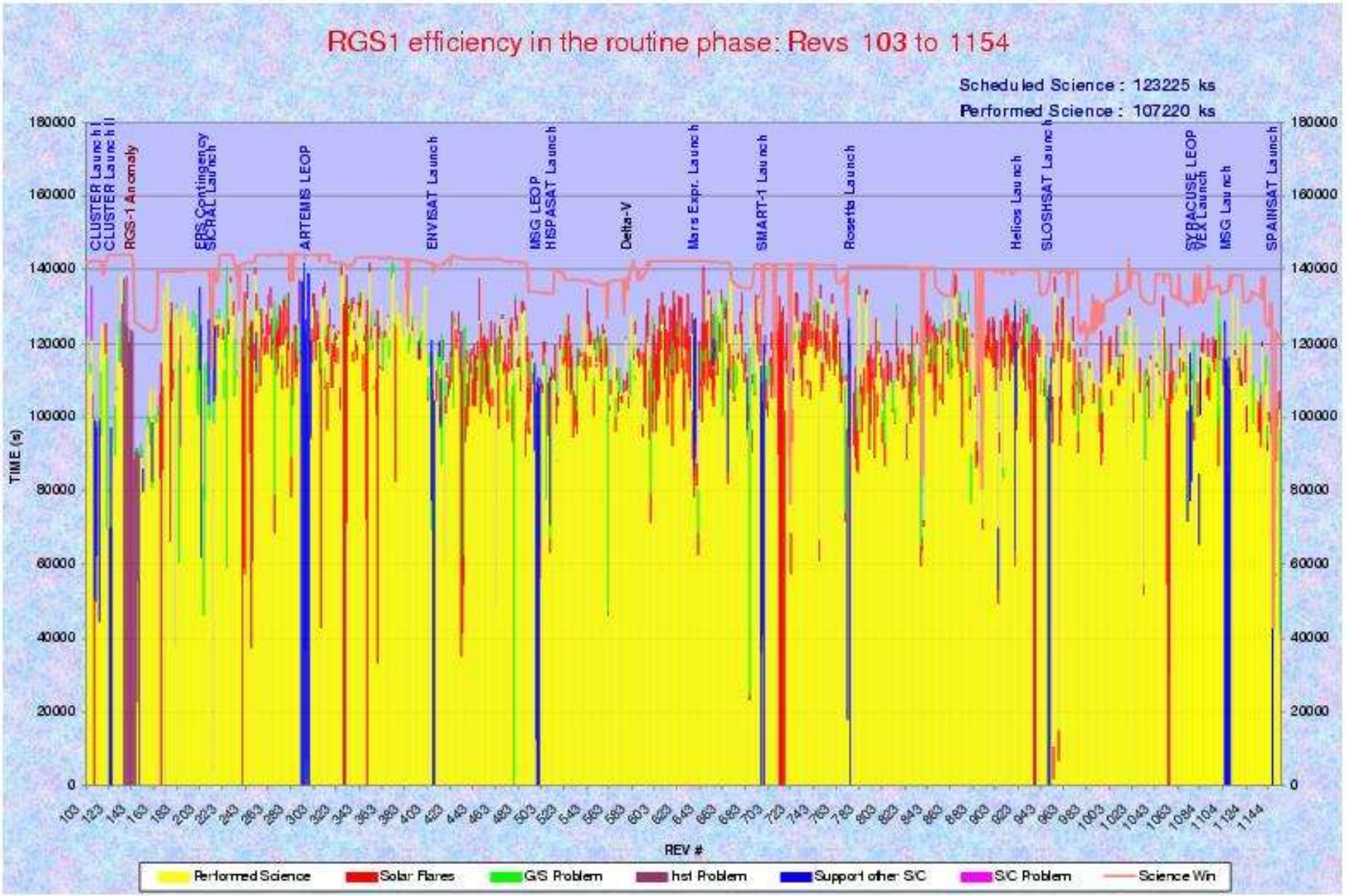


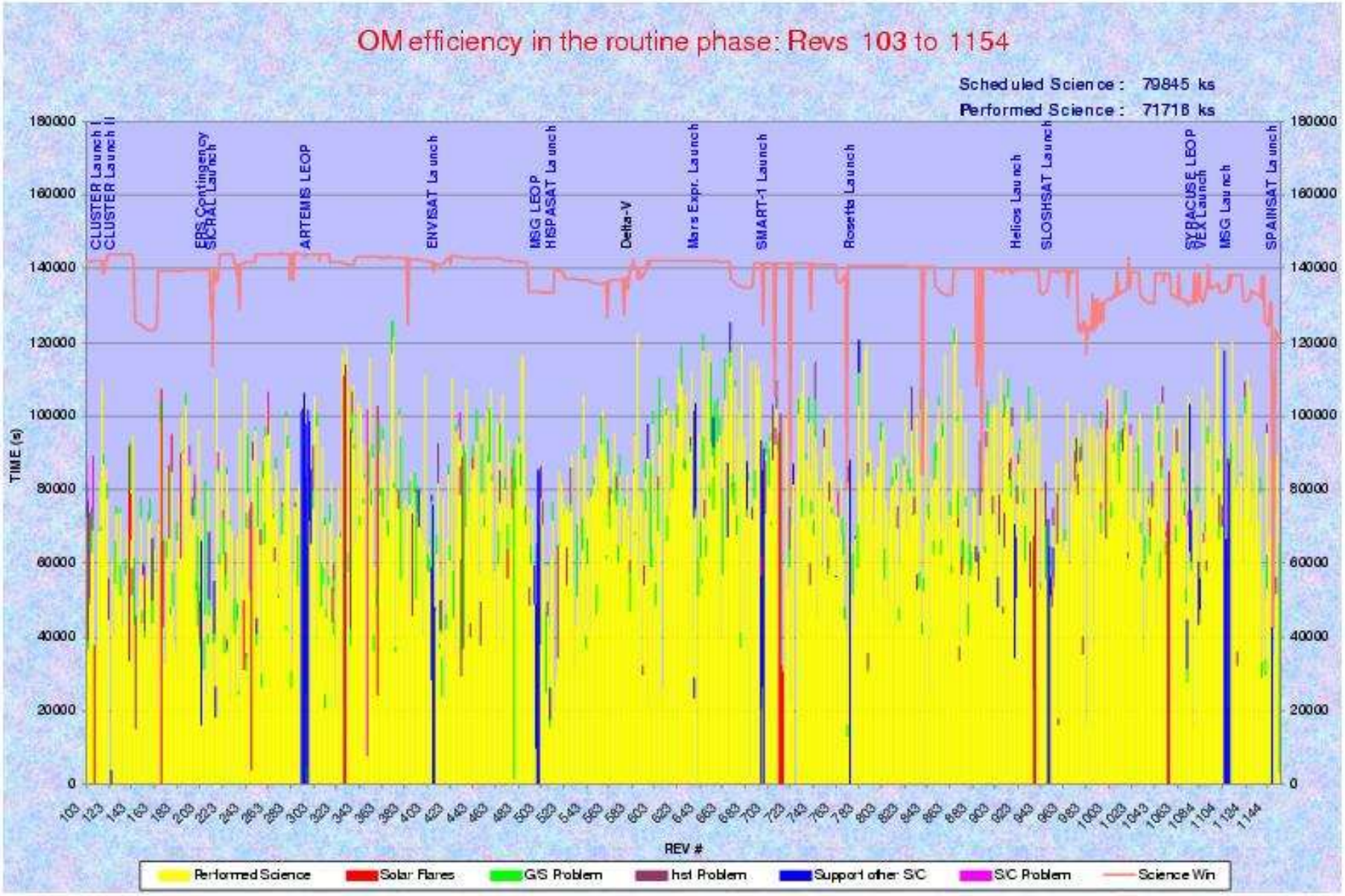
OM efficiency breakdown over the last 6 months (revs 1065 to 1154)




MOS1 efficiency in the routine phase: Revs 103 to 1154
Scheduled Science : 116912 ks
Performed Science : 100092 ks
CLUSTER Launch I
CLUSTER Launch II
RGS-1 Anomaly
ERS Contingency
SCRAX Launch
ARTEMIS LEOP
ENVISAT Launch
MSG LEOP
HISPASAT Launch
Delta-V
Mars Expr. Launch
SMART-1 Launch
Rosetta Launch
Helios Launch
SLOSHSAT Launch
MOS1 Anomaly
SYRACUSE LEOP
VEX Launch
MSG Launch
SPAINSAT Launch
TIME (s)
REV #
Performed Science
Solar Flares
GS Problem
hst Problem
Support other S/C
S/C Problem
Science Win


PN efficiency in the routine phase: Revs 103 to 1154
Scheduled Science : 108552 ks
Performed Science : 94231 ks
CLUSTER Launch I
CLUSTER Launch II
RGS-1 Anomaly
ERS Contingency
SCRAC Launch
ARTEMIS LEOP
PN Anomaly
ENVISAT Launch
MSG LEOP
HSPASAT Launch
Delta-V
Mars Expr. Launch
SMART-1 Launch
Rosetta Launch
Helios Launch
SLOSHSAT Launch
SYRACUSE LEOP
VEX Launch
MSG Launch
SPAINSAT Launch
TIME (s)
REV #
Performed Science
Solar Flares
GS Problem
hst Problem
Support other S/C
S/C Problem
Science Win

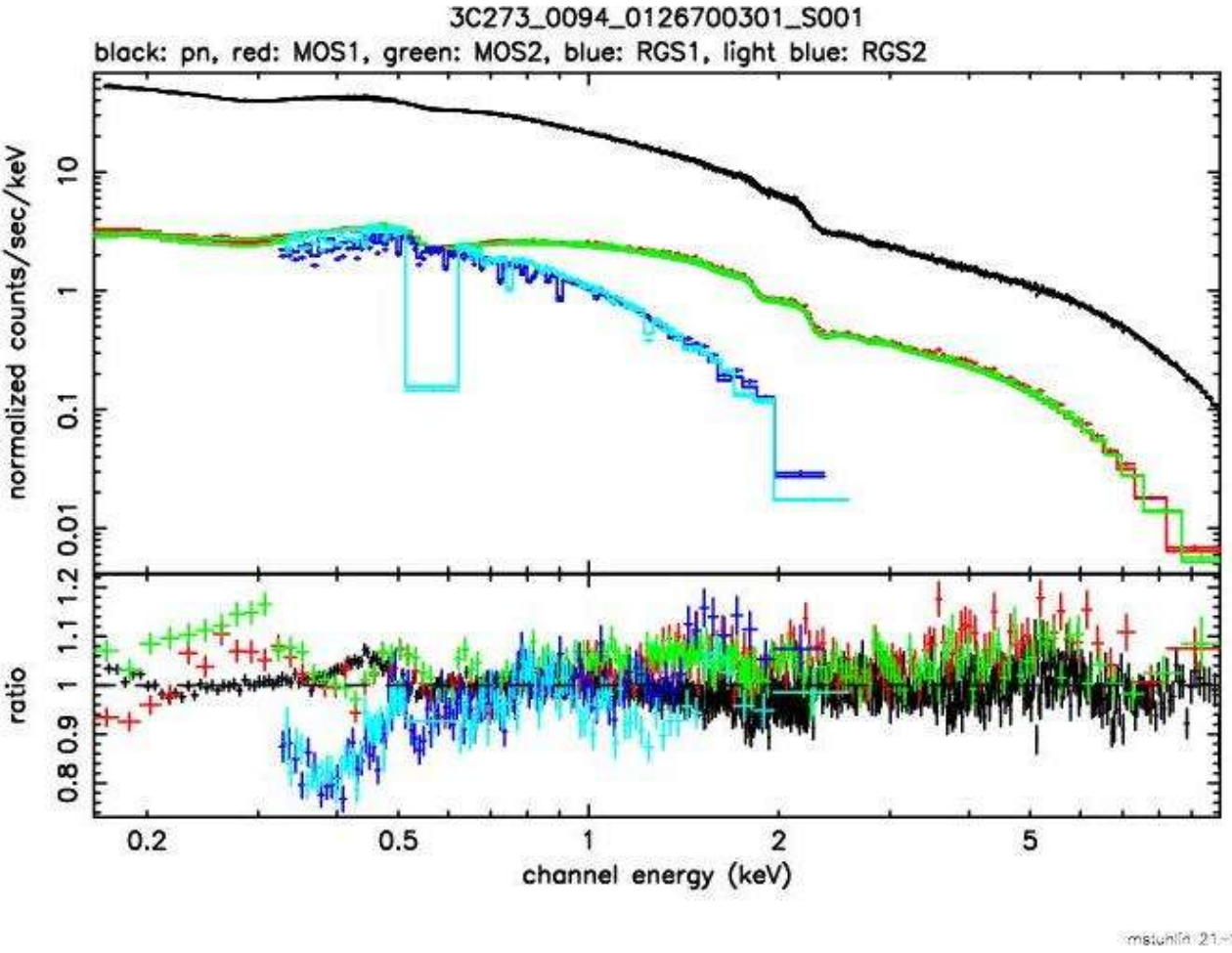

RGS1 efficiency in the routine phase: Revs 103 to 1154
Scheduled Science : 123225 ks
Performed Science : 107220 ks
CLUSTER Launch I
CLUSTER Launch II
RGS-1 Anomaly
ERS Contingency
SOHO/ACE Launch
ARTEMIS LEOP
ENVISAT Launch
MSG LEOP
HISPASAT Launch
Delta-V
Mars Expr. Launch
SMART-1 Launch
Rosetta Launch
Helios Launch
SLOSHSAT Launch
SYRACUSE LEOP
VEX Launch
MSG Launch
SPAINSAT Launch
TIME (s)
REV #
Performed Science
Solar Flares
GS Problem
hst Problem
Support other S/C
S/C Problem
Science Win


OM efficiency in the routine phase: Revs 103 to 1154
Scheduled Science : 79845 ks
Performed Science : 71718 ks
CLUSTER Launch I
CLUSTER Launch II
ERS Contingency
SCHAC Launch
ARTEMIS LEOP
ENVISAT Launch
MSG LEOP
HSPASAT Launch
Delta-V
Mars Expr. Launch
SMART-1 Launch
Rosetta Launch
Helios Launch
SLOSHSAT Launch
SYRACUSE LEOP
VEX Launch
MSG Launch
SPAINSAT Launch
TIME (s)
REV #
Performed Science
Solar Flares
GS Problem
hst Problem
Support other S/C
S/C Problem
Science Win

GENERAL CALIBRATION POINTS

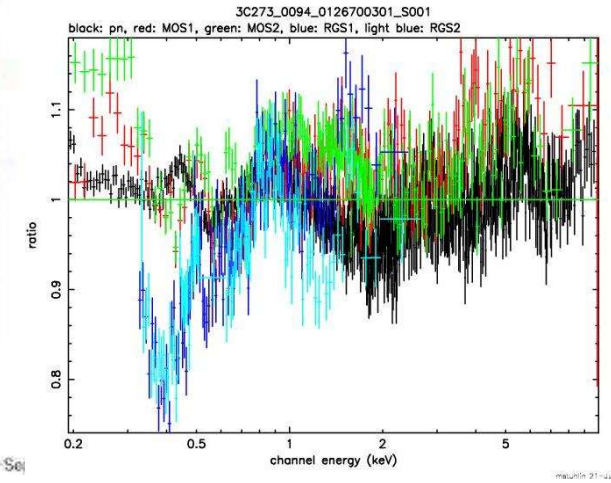
- A few remarks approaching UG#7
- CCFs released since previous TTD
- NRCOs in period

3C273 (1)

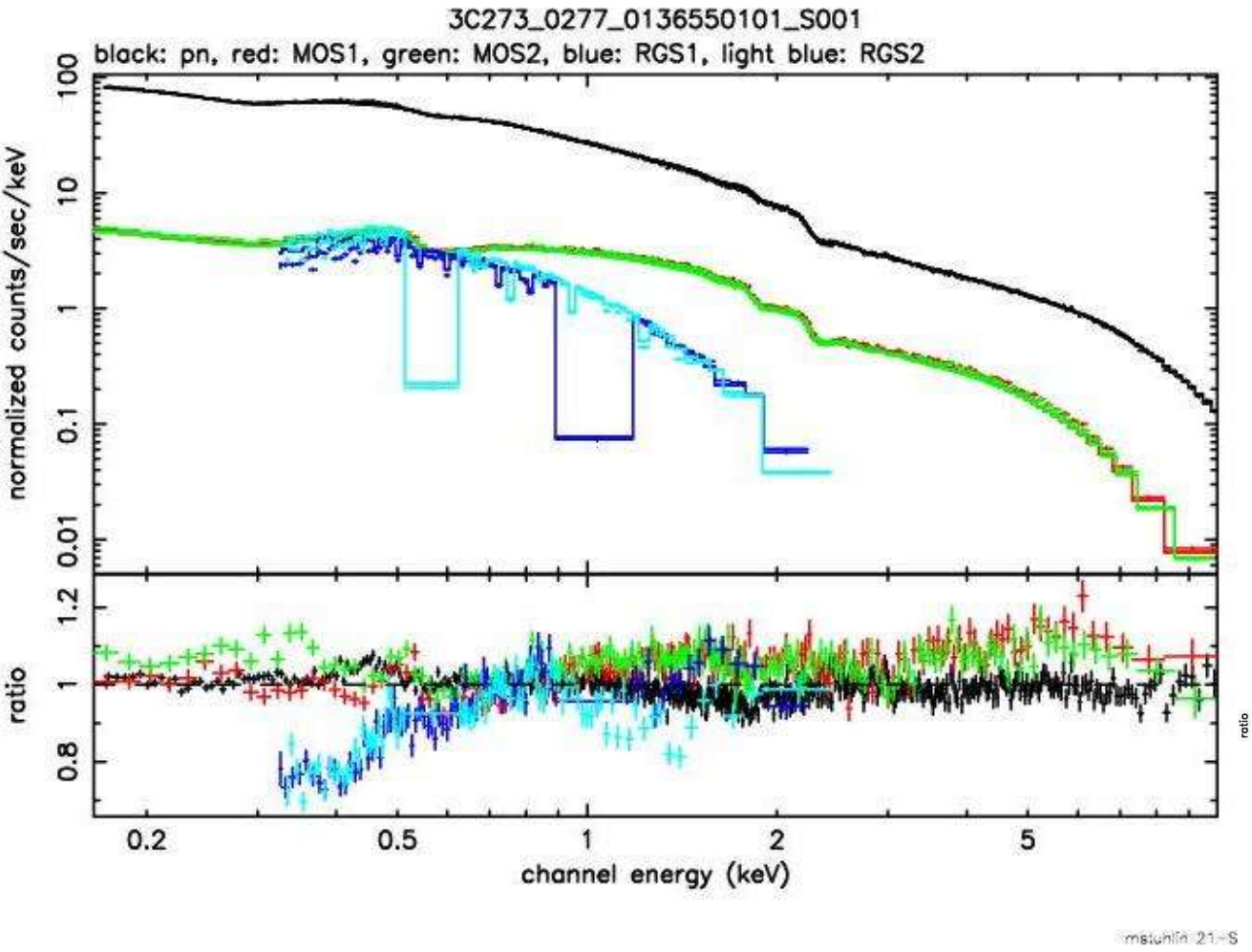


- Rev. 0094
- Medium filter
- All EPICs in SW modes

SASv6.1

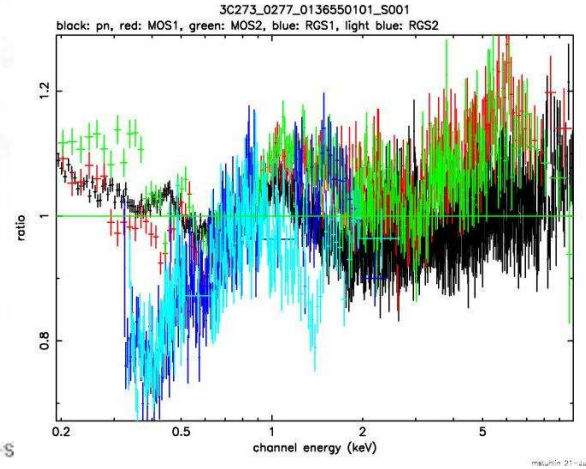


3C273 (2)

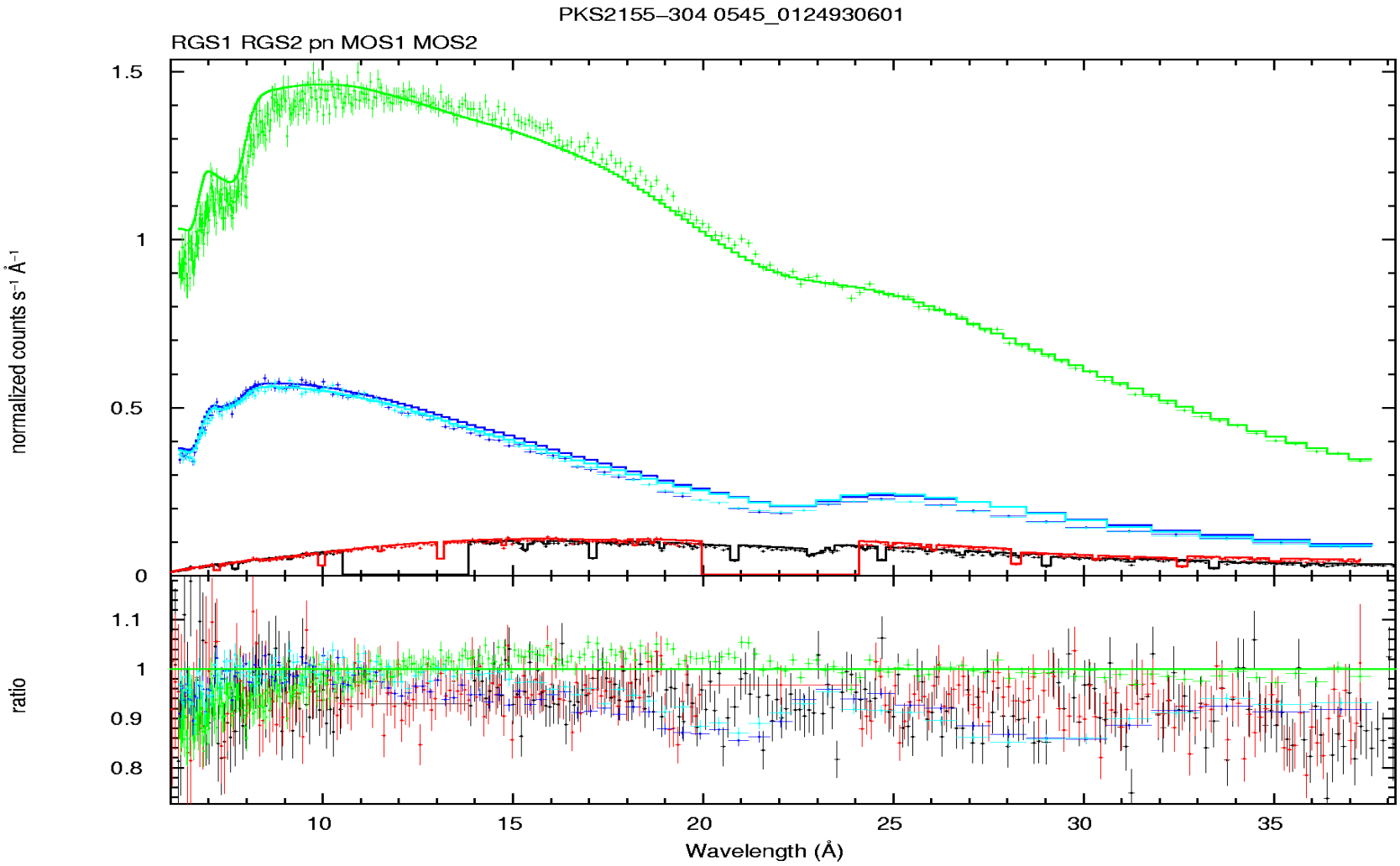


- Rev. 0277
- Medium filter
- All EPICs in SW modes

SASv6.1

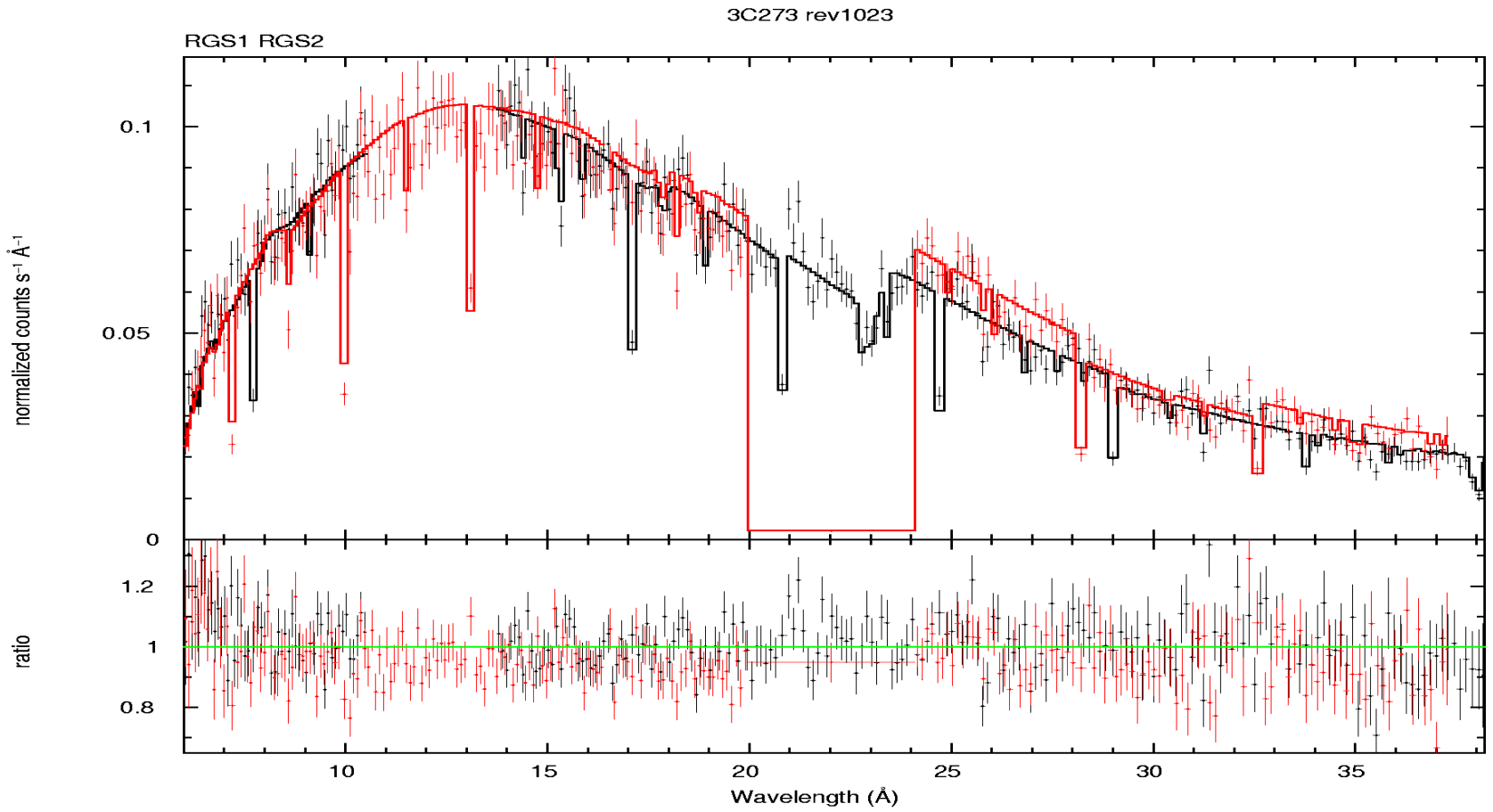


Corrected-RGS comparison with EPIC : PKS2155-304



Corrected-RGS comparison with EPIC : 3C273

RGS response to Stuhlinger et al. XCal document spectrum without adjustment



CCF RELEASE NOTES IN PERIOD

XMM-CCF-REL-204	EPIC PN Bad Pixels	06 Mar 2006
XMM-CCF-REL-202	EPIC MOS Response	22 Nov 2005
XMM-CCF-REL-200	Update of EPIC MOS gain	21 Oct 2005
XMM-CCF-REL-199	OM Grisms Calibration: Update	19 Oct 2005
XMM-CCF-REL-198	PN Spatial Gain	14 Oct 2005

NRCOs

54	The RGS response to the Crab X-ray standard	2005-08-23
55	The RGS CTI calibration	2005-09-01
56	Verification of the EPIC high energy resolution	2005-11-11
57	Investigation of random EPIC-pn gain scatter	2005-11-11
58	Verification of the EPIC-pn relative timing	2005-11-11
59	RGS long-λ response & MOS CTI with Vela	2006-01-25
60	Verification before MOS1 medium filter check	2006-03-16
61	Calibrating the SWCX contamination	2006-03-30

SWCX →Solar Wind Charge eXchange emission

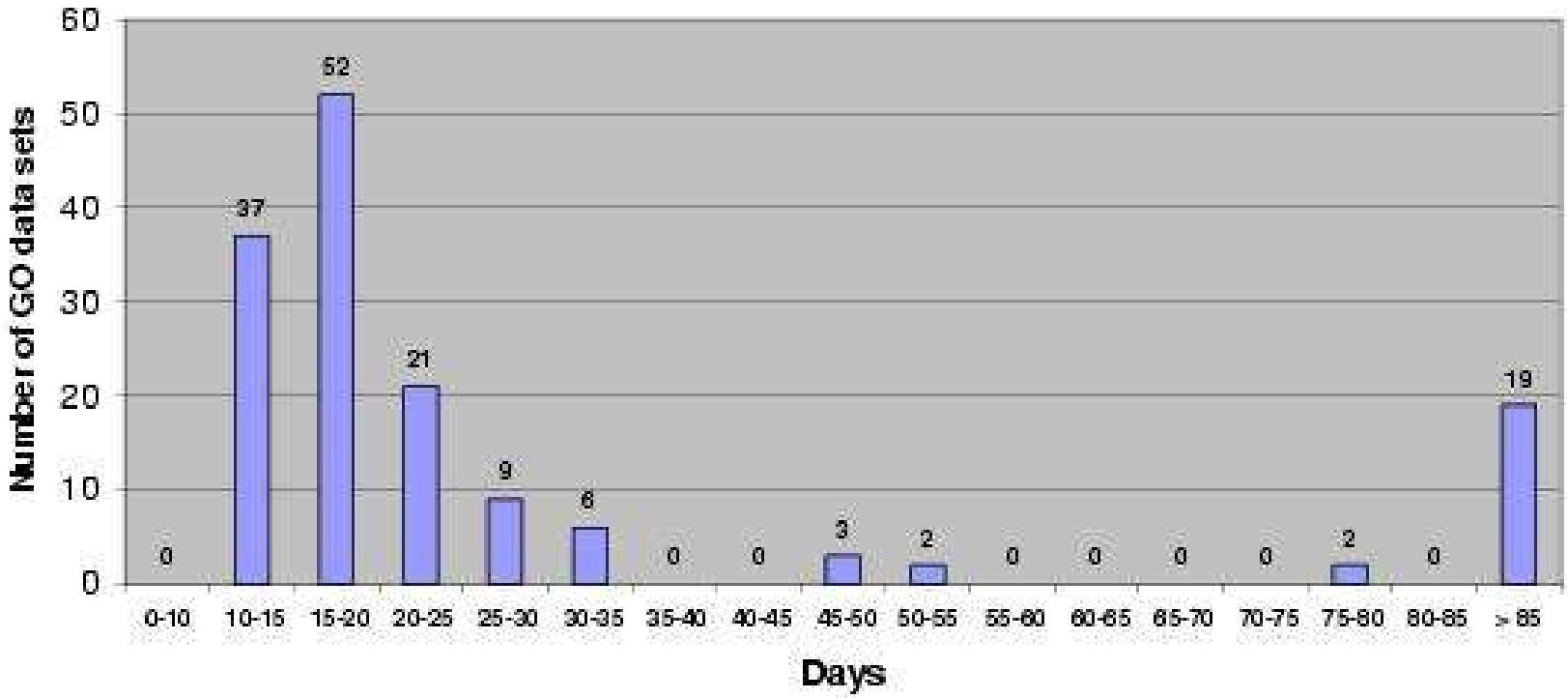
DATA PROCESSING - SAS

SAS

- 7 th. SAS Workshop @ESAC May 30 to June 2, 2006
- Debugging reprocessing pipeline at SSC continues →2XMM
- Release of SAS 7 June(ish)
- Slew catalogue released in XSA yesterday
- OM filter response matrices created

DATA PROCESSING - SSC

Turn-around time between data acquisition and GO (PIPE) delivery as of 31-March-2006



XSA

Recent XSA versions

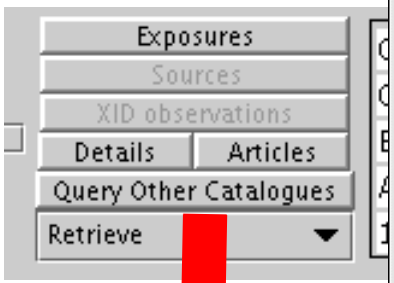
XSA v2.9 (March 2006)

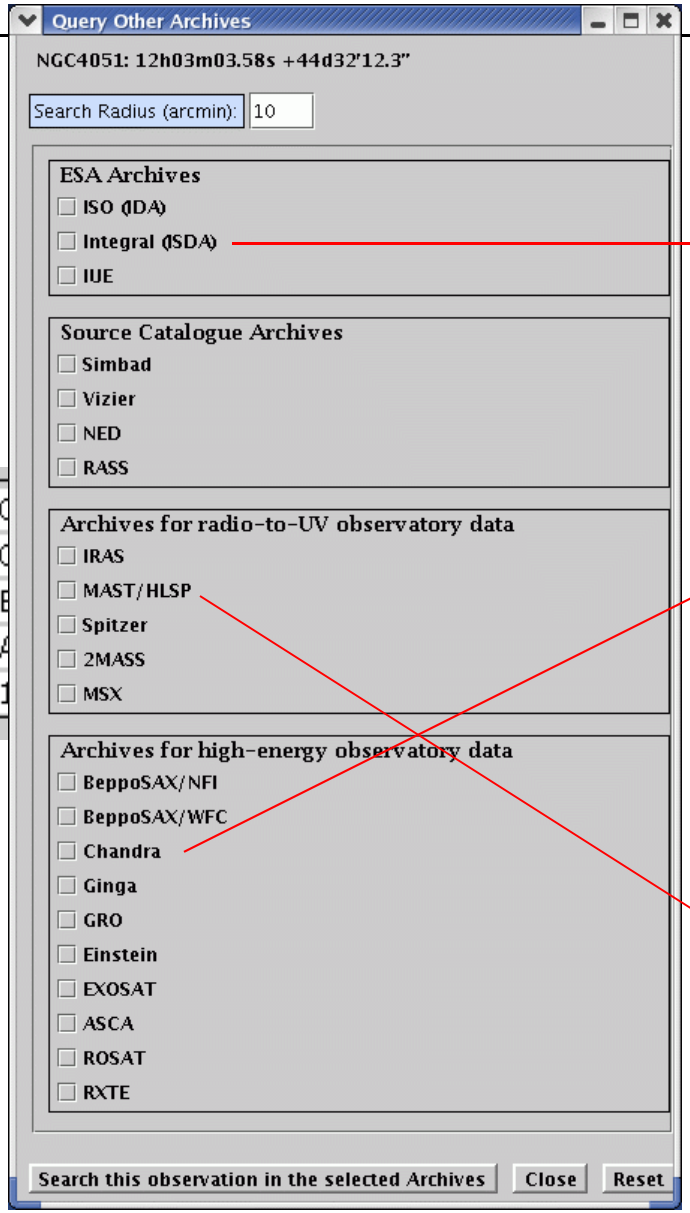
Simple access to external archival facilities

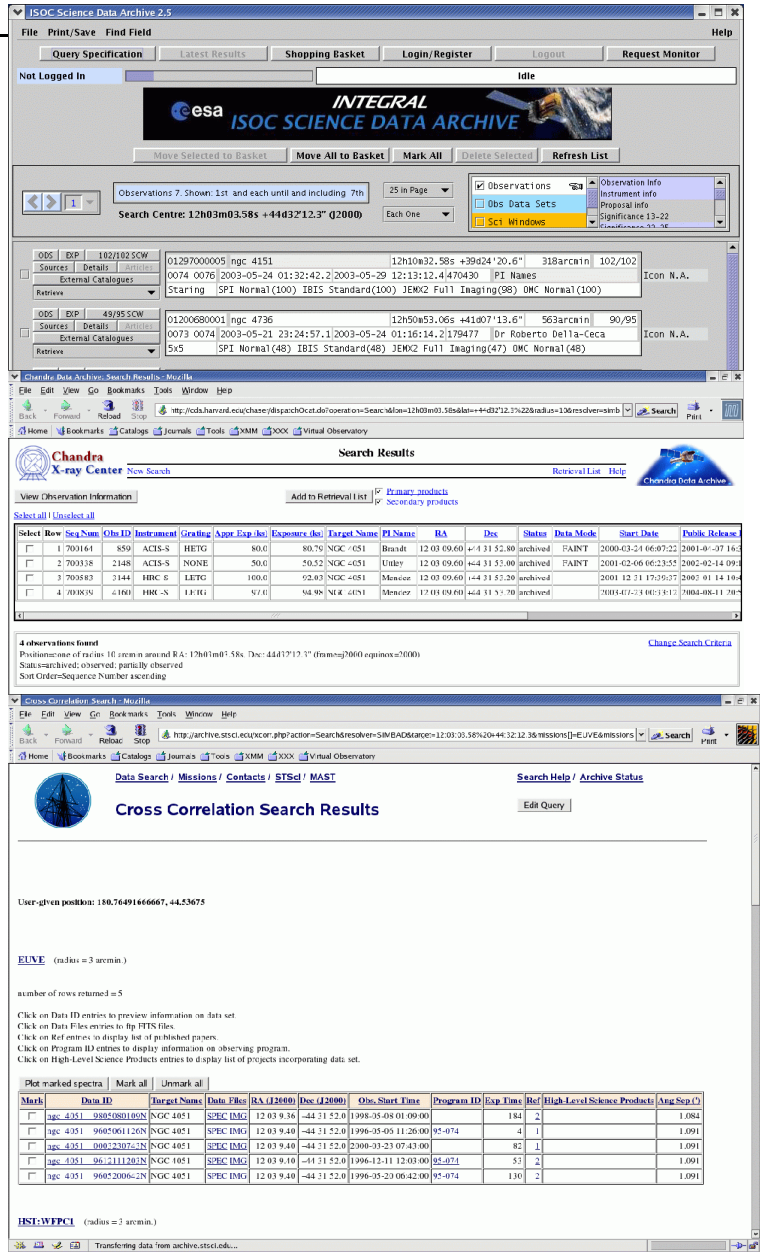
XSA v3.0 (May 2006)

EPIC Sources Slew Catalogue

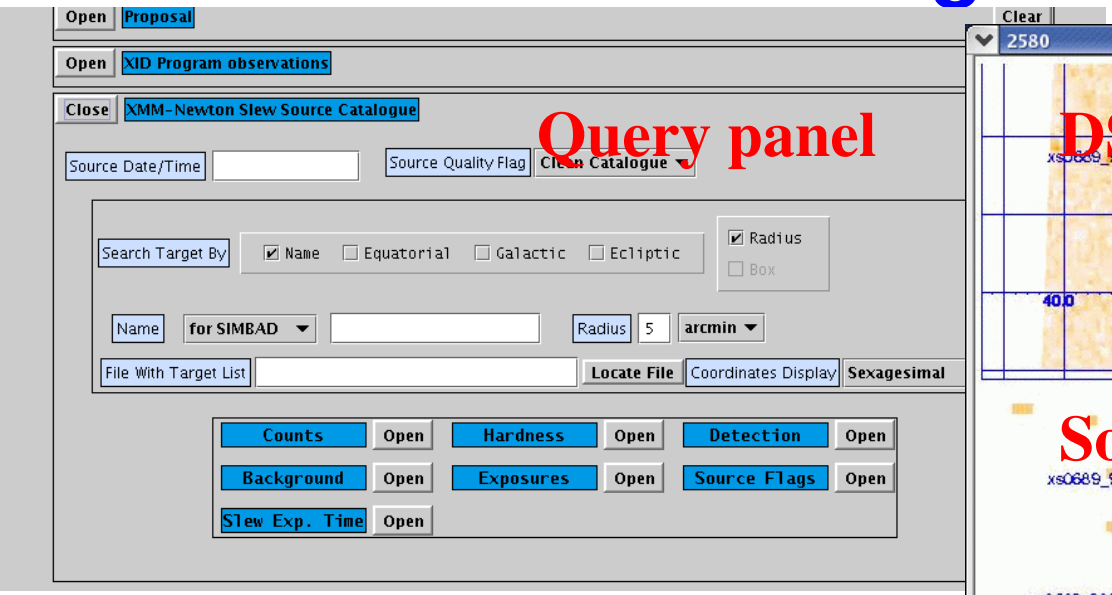
Simple access to external archives

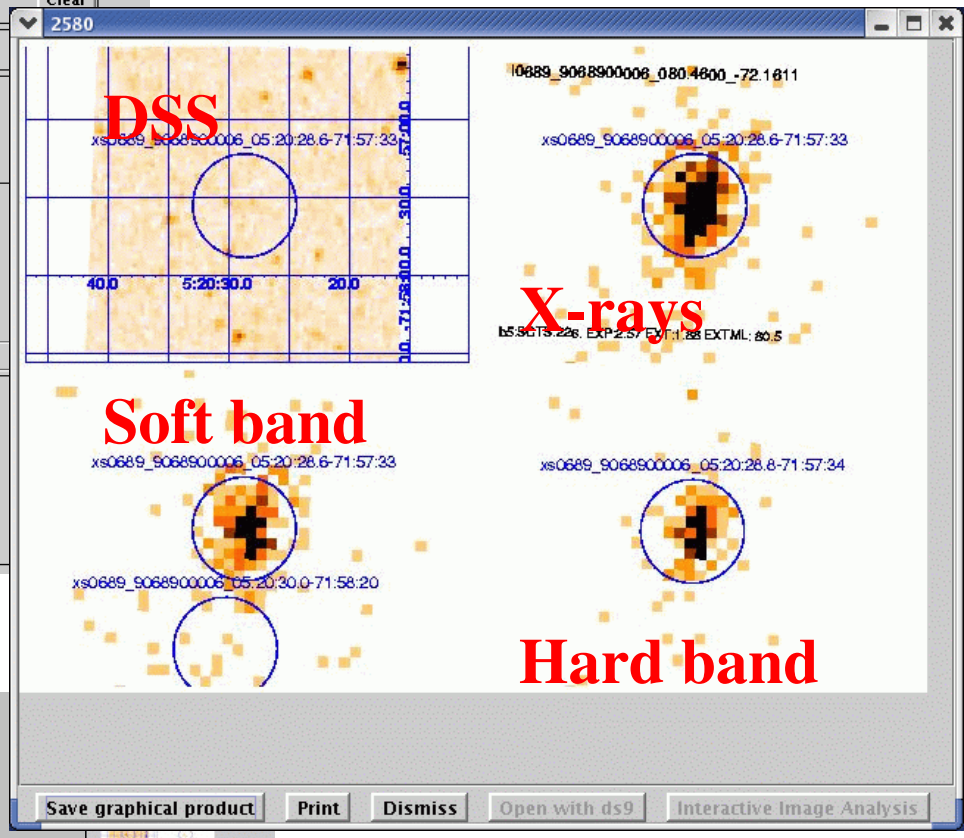






Slew Catalogue Access





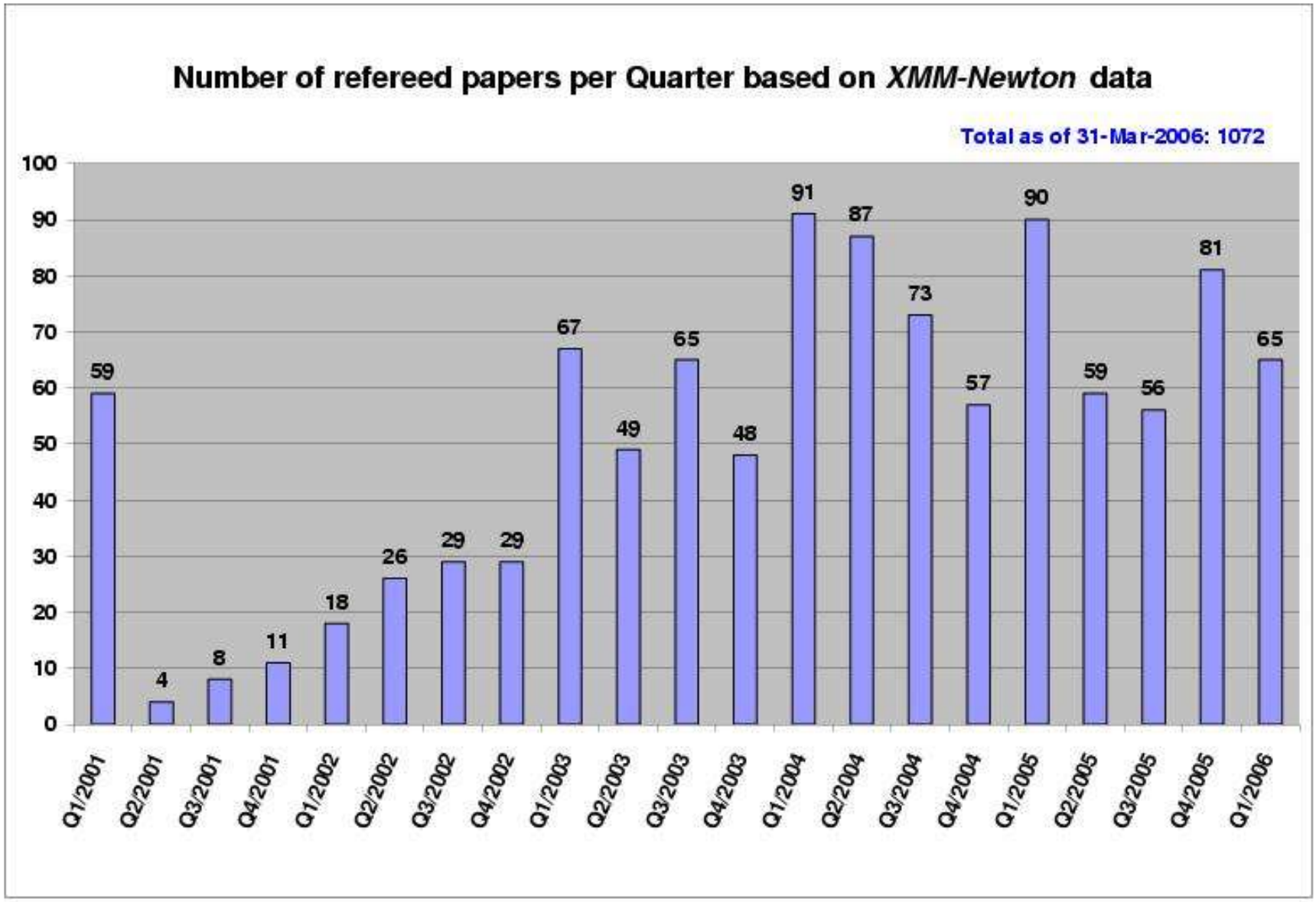
Results

Retrieve	9031400004	XMMSL1 J043256.2+740706	04h32m56.21s	+74d07'05.4"			
	2001-08-26 19:25:26	2001-08-26 20:22:33	-------- ±-------				
	2.8703 ±0.6457	9.0674 ±2.0398	31.7348	2.2705 ±0.7152	4.1478	0.0005	
Retrieve	9031400004	XMMSL1 J043348.7+741103	04h33m48.74s	+74d11'02.9"			
	2001-08-26 19:25:26	2001-08-26 20:22:33	-------- ±-------				
	0.7112 ±0.3060	2.2466 ±0.9668	11.0015	0 ±0	5.9918	0.0008	
Retrieve	9031400004	XMMSL1 J043429.6+712747	04h34m29.68s	+71d27'47.2"			
	2001-08-26 19:25:26	2001-08-26 20:22:33	-0.3 ±0.2				
	1.7228 ±0.4215	5.4424 ±1.3316	65.0433	0 ±0	8.9652	0.0006	
Retrieve	9031400004	XMMSL1 J153133.9+720641	15h31m34.04s	+72d06'41.0"			
	2001-08-26 19:25:26	2001-08-26 20:22:33	-------- ±-------				
	0.5827 ±0.1979	1.8407 ±0.6251	13.5854	0 ±0	8.9420	0.0011	
Retrieve	9031400004	XMMSL1 J153332.7+455135	15h33m32.92s	+45d51'34.7"			
	2001-08-26 19:25:26	2001-08-26 20:22:33	-------- ±-------				
	0.7941 ±0.3324	2.5084 ±1.0502	10.9963	0 ±0	6.2805	0.0005	

MISCELLANEOUS

PUBLICATIONS

OTHER …


Number of refereed papers per Quarter based on XMM-Newton data
Total as of 31-Mar-2006: 1072
100
90
80
70
60
50
40
30
20
10
0
59
4
8
11
18
26
29
29
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49
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48
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87
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59
56
81
65
Q1/2001
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Q2/2002
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Q3/2005
Q4/2005
Q1/2006