「あすか」 OPERATION REPORT Ver.1.5

93 年 5 月 12 日　Y+ 81　KSC 当番: 長瀬 、 池辺、寺田

Vela-X → E0102

	PASS 1	PASS 2	PASS 3	PASS 4	PASS 5
Pass No.	930512–0412	930512–0516	930512–0619	930512–0723	930512–0826
Operation	X-Rep OPOG-WRT Err-Code-Rst OP-START	X-Rep RANG ST-CTLG-WRT OBS-MODE	S-Rep BDR-STOP S-REP BDR-STOP	S-Rep BDR-STOP S-Rep BDR-STOP	X-Rep
Target	Vela	Vela-X	E0102	E0102	E0102
AOS(UT) LOS(UT)	5:59:02 6:10:13	7:39:37 7:52:44	9:21:28 9:34:14	11:03:25 11:15:54	12:45:06 12:57:14
Max-El Time	10.856 6:04:29	37.277 7:45:44	Zenith —	zenith —	35.991 12:50:31
Rep-band Rep-start Rep-status	X 6:00:02 Completed	X 7:40:58 Completed	S 9:22:20/9:27:54 Interrupted	S 11:4:08/11:9:32 Interrupted	X 12:46:00 Completed
DP-mode	OBS	OBS/ACS/OBS	OBS	OBS	OBS
ACS-mode ACS-spn/θ_s Attitude	Normal–Pointing 5.9° $\begin{bmatrix} 129.215 \\ 135.134 \\ 160.374 \end{bmatrix}$	Normal–Pointing 5.9° $\begin{bmatrix} 129.215 \\ 135.134 \\ 160.373 \end{bmatrix}$	Normal–Pointing 3.1° $\begin{bmatrix} 15.858 \\ 162.204 \\ 58.399 \end{bmatrix}$	Normal–Pointing 3.1° $\begin{bmatrix} 15.858 \\ 162.204 \\ 58.398 \end{bmatrix}$	Normal–Pointing 3.1° $\begin{bmatrix} 15.859 \\ 162.204 \\ 58.398 \end{bmatrix}$
OP-start start CE	6:06:32 50h	continue 07h	continue 13h	Cont. 1Eh	Cont. 26h
SIS-mode S0/1-TECT S0/1-CCDT	Fnt/Fnt 4CCD $-40.26/-39.96$ $-61.71/-61.81$	Fant/Fant 4CCD $-39.58/-39.38$ $-61.71/-61.81$	Fant/Fant 4CCD $-38.47/-38.51$ $-61.71/-61.81$	Fant/Fant 4CCD $-37.93/-38.07$ $-61.71/-61.81$	Fant/Fant 4CCD $-37.74/-37.87$ $-61.71/-61.81$
GIS-mode GIS LD Hit	PH MES 27cps/31cps	PH MES 27cps/26cps	PH MES 27cps/28cps	PH MES 29cps/28cps	PH MES 29cps/27cps

P	X	Y	R	S	Pos	MErr	HV_HL	Gain	RT-L	RT-U	Temp	RBMT	CalPk	RT Pk	CalCnt/time
8 10	8	8	0 5	0	FLF	—	3/4	48	159	218	14.7	9.3	404.82	—-	1087cts
Pass: s9305120412							3/4	40	159	218	14.7		416.22	—-	828cts

GIS Mode Changes: yes

Battery Condition (min/max)

BAT_V–A	BAT_V–B	BAT_I–A	BAT_I–B	BAT_T–A	BAT_T–B	Charge/Discharge
20.30/23.40	20.30/23.50	−4.25/4.75	−4.51/4.78	4.82/8.74	4.82/8.74	no good data

Comment: 本日の運用：

Vela X was observed as instrument check out and it showed extremely soft spectrum. The fluxes of SIS and GIS detectors are dramatically different (about 10 counts/sec/SIS and about 2 counts/sec/GIS). We obtained a high precesion spectrum with SIS.

After the 2nd contact pass, ASCA was moved towards the SNR, E0102-72, in the SMC region, the image of which was obtained at about 7 arcminutes offset from the center of the GIS FOV. The flux of this source is about 0.4 counts/sec/GIS and 2 counts/sec/SIS (note again the differece between the two instruments). This source shows ultrasoft spectrum and almost nothing at energies above 2 keV. In the SIS spectrum, we can see clearly the lines of Mg, Si and Fe (L-shell), and presumably Oxygen line.

In the GIS FOV we can see another source on the oposite limb to this source. This second source is rather bright (about 1 counts/sec/GIS) and show a hard spectrum.

今日は Vela-X と E0102 という天体でした。Vela-X はなにやら形がみえました、スペクトルはいつも見られる金のエッジが埋まっていて、パワーローではないと思われます。

E0102 の SIS スペクトルはすごい！今までに見たこともない超ソフトなスペクトルで、2keV 以上の X 線は全くなく、ラインと ID したくなるような構造が 5~6 本みえる。2.0counts/s/SIS に対して 0.4counts/s/GIS、GIS なすすべ無しといったところだ。E0102 は SMC region にある SNR と思われている天体です。
S2 の視野ぎりぎりのところにもう一つハードソースが入っていました。