

る。おかげで今朝はロケットの打ち上げを見逃してしまった。（堂谷）
ようやく運用にも慣れてきた。生活パターンもだいぶ確定してきた。あとはいかに能率良く解析をできるかだ。LMC-X3 は明るく、QL 画面でも XRT の四つ葉クローバーが確認できた。眠気も醒め、何故か嬉しい気分。またロケット打ち上げの準備が着々と進んでいるみたい。（15:50 JST）（山崎）

「あすか」 OPERATION REPORT Ver.1.5

93 年 9 月 22 日 Y+ 214 KSC 当番: 堂谷、山崎

LMC X-3 / N132D

	PASS 1	PASS 2	PASS 3	PASS 4	PASS 5										
Pass No.	930922-0928	930922-1031	930922-1134	930922-1238	930922-1341										
Operation	X-REP OP/OG-WRT OP-START	X-REP SBR-A-RNG SCT-WRT/CHK OBS-MODE	X-REP HAM-ERR-RST BDR-STOP X-REP BDR-STOP	X-REP SBR-A-RNG	X-REP										
Target	LMC X-3	LMC X-3	LMC X-3	LMC X-3	LMC X-3										
AOS(UT)	13:35:48	15:17:41	16:58:25	18:40:37	20:22:06										
LOS(UT)	13:47:39	15:29:38	17:11:39	18:53:34	20:34:31										
Max-El Time	19.207 13:41:41	57.571 15:24:01	Zenith —	64.123 18:46:17	24.173 20:27:44										
Rep-band(stat.)	X (Completed)	X (Completed)	X (Completed)	X (Completed)	X (Completed)										
Rep-start	13:37:06	15:18:36	16:59:30/17:05:02	18:41:16	20:23:06										
DP-mode	OBS	OBS/ACS/OBS	OBS	OBS	OBS										
ACS-mode	Normal-Pointing	Normal-Pointing	Normal-Pointing	Normal-Pointing	Normal-Pointing										
ACS-spn/ θ_s	night	night	night	2.58°	2.61°										
Attitude	$\begin{bmatrix} 84.339 \\ 154.121 \\ 356.051 \end{bmatrix}$	$\begin{bmatrix} 84.337 \\ 154.121 \\ 356.053 \end{bmatrix}$	$\begin{bmatrix} 84.337 \\ 154.121 \\ 356.054 \end{bmatrix}$	$\begin{bmatrix} 84.338 \\ 154.121 \\ 356.054 \end{bmatrix}$	$\begin{bmatrix} 84.338 \\ 154.121 \\ 356.054 \end{bmatrix}$										
OP-start(CE)	13:45:00 (00h)	Cont (08h)	Cont (10h)	Cont (18h)	Cont (20h)										
SIS-mode	Bright/Bright 1CCD	Faint/Faint 1CCD	Faint/Faint 1CCD	Faint/Faint 1CCD	Faint/Faint 1CCD										
S0/1-TECT	-36.67/-36.76	-36.96/-37.00	-37.35/-37.39	-38.18/-38.17	-39.15/-39.14										
S0/1-CCDT	-61.67/-61.77	-61.67/-61.77	-61.67/-61.77	-61.67/-61.77	-61.67/-61.77										
GIS-mode	PH	PH	PH	PH	PH										
GIS LD Hit	22cps/23cps	24cps/27cps	36cps/32cps	33cps/38cps	31cps/35cps										
P	X	Y	R	S	Pos	MErr	HV_HL	Gain	RT-L	RT-U	Temp	RBMT	CalPk	RT Pk	CalCnt/time
10	8	8	5	0	FLF	—	3/4	48	159	218	14.2	14.7	407.04	183.68	1201
Pass: S9309220928							3/4	40	159	218	8.7		420.90	181.04	1022
GIS Mode Changes: no change															

Battery Condition (min/max)

BAT_V-A	BAT_V-B	BAT_I-A	BAT_I-B	BAT_T-A	BAT_T-B
20.10/23.40	20.10/23.50	-4.47/4.75	-4.51/4.76	4.82/8.74	4.82/8.46

Manoeuvre Operation

Start Time	Target Name	#	(α, δ)	(ϕ, θ, ψ)
09/23 00:25	N132D #1	4	(81.26 , -69.64)	(80.75 , 159.67 , -8.06)
09/23 05:20	N132D #2	5	(81.26 , -69.64)	(80.69 , 159.83 , -8.12)
09/23 10:05	N132D #3	6	(81.26 , -69.64)	(80.17 , 159.81 , -8.61)

Comment: 本日の運用:

Today we observed a black hole candidate LMC X-3. The source seems to be in high state as expected; BHCs in LMC somehow stay always in high state. The source flux was 5.0 c/s/gis and 9.3 c/s/s1c3. The energy spectrum is well approximated by the typical BHC spectrum in high state, i.e. disk blackbody plus a power law.

KSC に来た当初は、普段と全く違う生活時間帯のためか適度な緊張感があって割と少な目の睡眠時間で足りていたが、段々普段の時間帯との時差が少なくなるにつれて睡眠時間も普段と同じくらい必要になってきたような気がする