

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 10939 - L2 Version 3
Chandra X-Ray Center

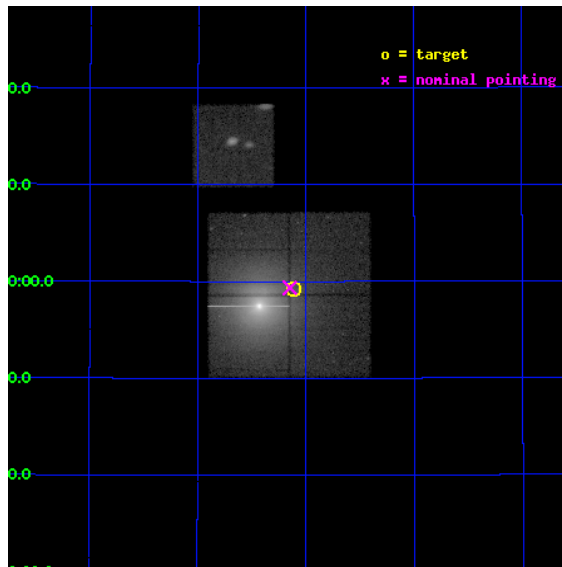
L2 Processing Date : Feb 14 2013

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1 Front

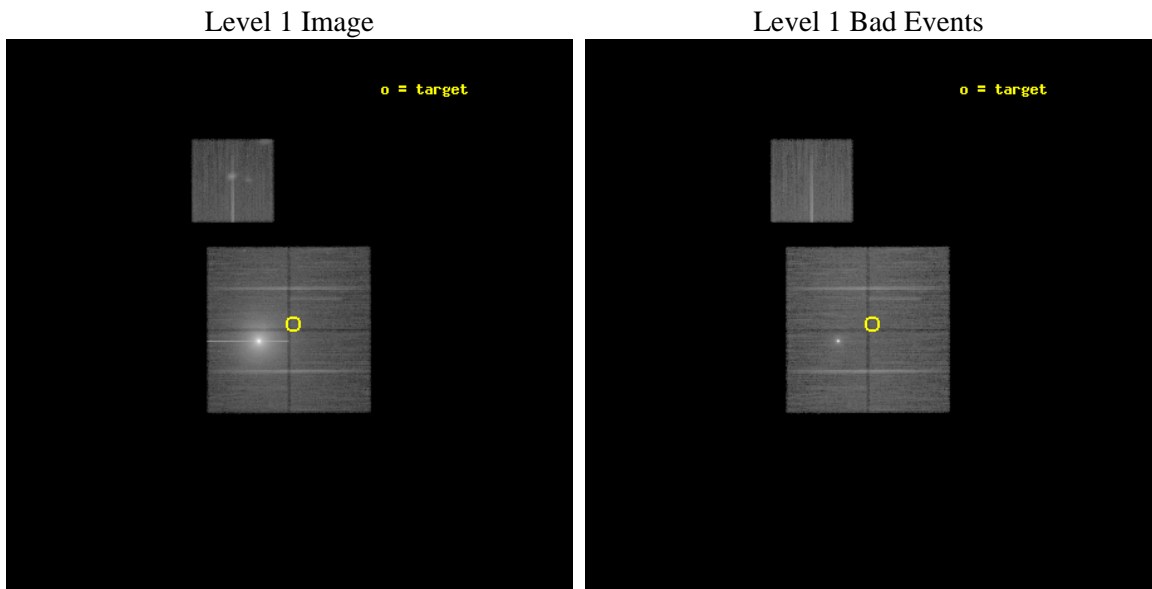
seq_num	200571	Sequence number
obs_id	10939	Observation id
title	The Chandra Cygnus OB2 Survey	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	Cygnus OB2	Source name
dtycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.026986	Observer's specified target RA [deg]
dec_targ	40.986751	Observer's specified target Dec [deg]
ra_nom	308.03720810717	Nominal RA [deg]
dec_nom	40.989133704138	Nominal Dec [deg]
roll_nom	359.84441070495	Nominal Roll [deg]
revision	3	Processing version of data
ontime	24384.559197366	Sum of GTIs [s]
livetime	24065.956979801	Livetime [s]
ontime0	24384.559097707	Sum of GTIs [s]
ontime1	24381.418137372	Sum of GTIs [s]
ontime2	24387.700187564	Sum of GTIs [s]
ontime3	24384.559197366	Sum of GTIs [s]
ontime6	24378.277426124	Sum of GTIs [s]
l2events	654046	Number of level 2 events



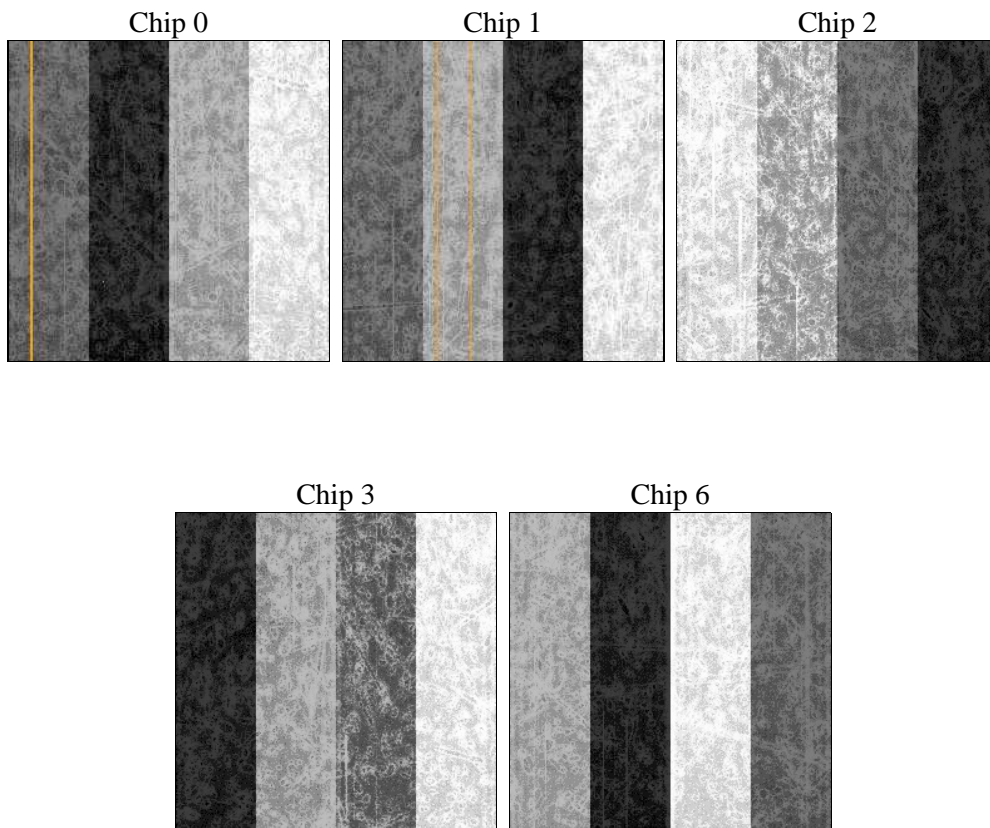
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	32989.519000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	24384.559197366	Sum of GTIs [s]
caldsver	4.5.5	 	ontime0	24384.559097707	Sum of GTIs [s]
date	2013-02-14T23:12:50	Date and time of file creation	ontime1	24381.418137372	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	24387.700187564	Sum of GTIs [s]
			ontime3	24384.559197366	Sum of GTIs [s]
			ontime6	24378.277426124	Sum of GTIs [s]
			l1events	1627441	Number of level 1 events

2.1.4 Events

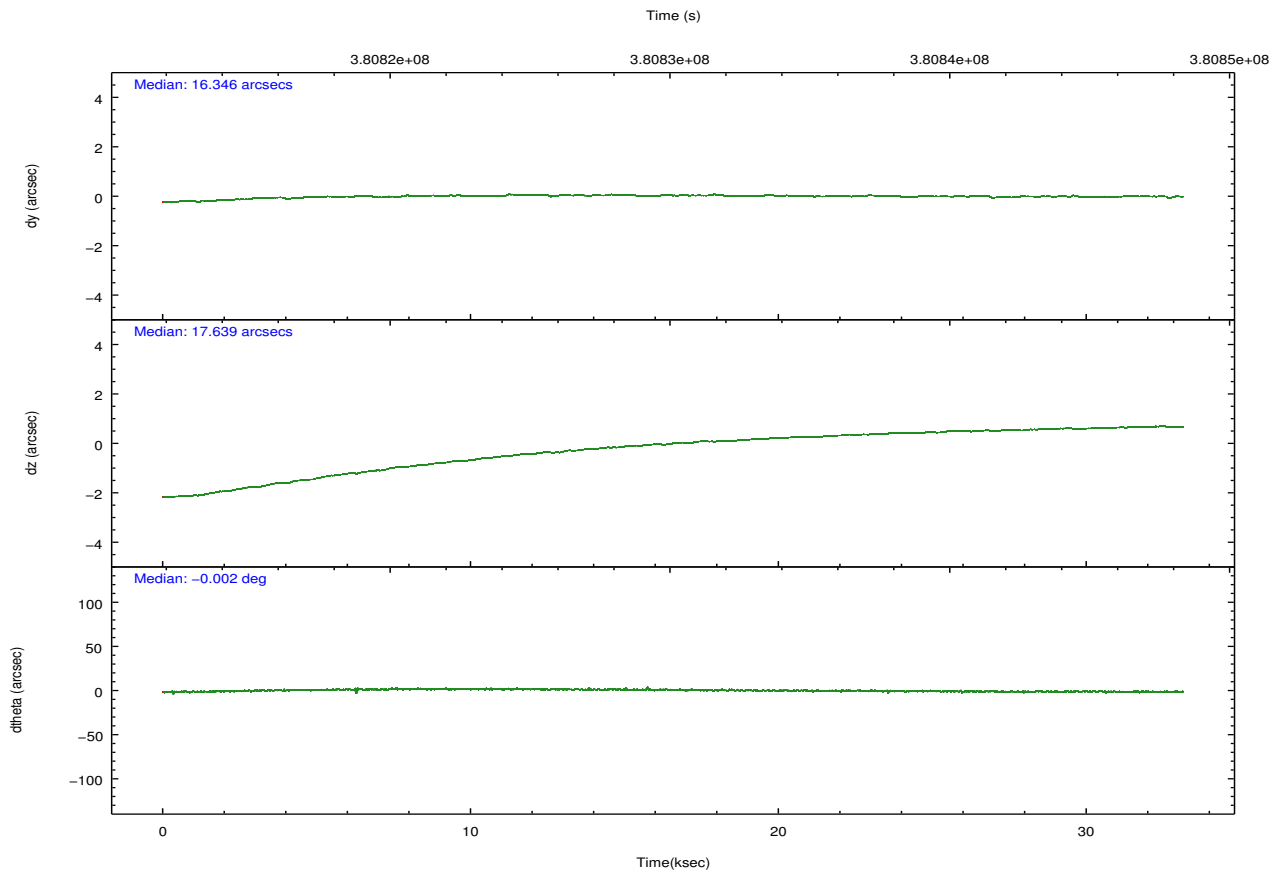
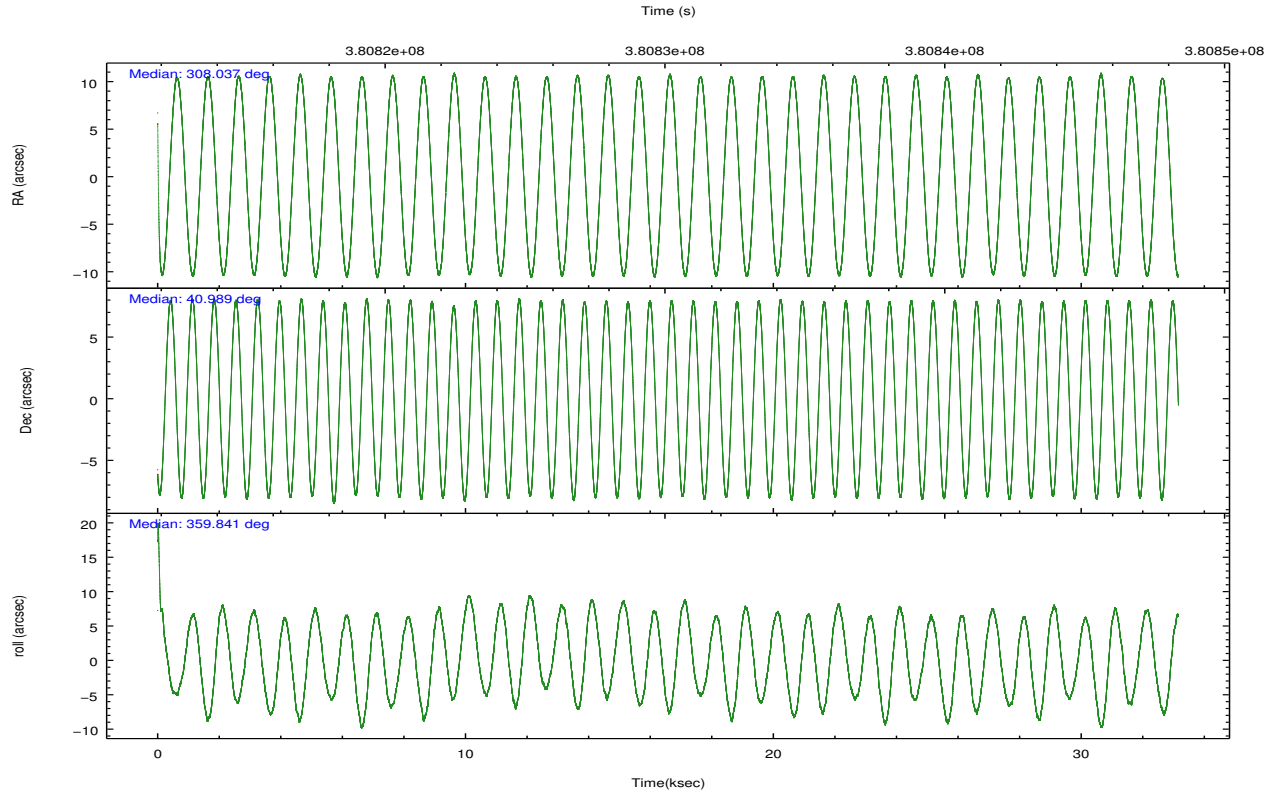
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	690017	209474	299724	212931	215295
rejected events	206232	165250	190980	177830	181066
rejected %	29%	78%	63%	83%	84%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	327936	24379	73802	19062	18598
	47%	11%	24%	8%	8%
grade 1 events	5802	198	664	228	161
	0%	0%	0%	0%	0%
grade 2 events	71367	7871	15669	6239	6140
	10%	3%	5%	2%	2%
grade 3 events	24198	3353	5877	2861	2767
	3%	1%	1%	1%	1%
grade 4 events	24690	3347	5933	2874	2657
	3%	1%	1%	1%	1%
grade 5 events	12877	6939	6466	7094	6846
	1%	3%	2%	3%	3%
grade 6 events	39302	5749	8210	4470	4502
	5%	2%	2%	2%	2%
grade 7 events	183845	157638	183103	170103	173624
	26%	75%	61%	79%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	308.005701	308.0372081071691	CCD I2 on	Y	Y
[deg] Pointing Dec	40.975355	40.98913370413817	CCD I3 on	Y	Y
[deg] Pointing Roll	359.656380	359.8444107049533	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	380813708.184000	380812546.48152	CCD S5 on	N	N
Observation start date	2010-01-25T13:34:02	2010-01-25T13:15:46	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	380846697.184000	380846939.33326	On-chip summing requested	N	N
Observation end date	2010-01-25T22:43:51	2010-01-25T22:48:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect

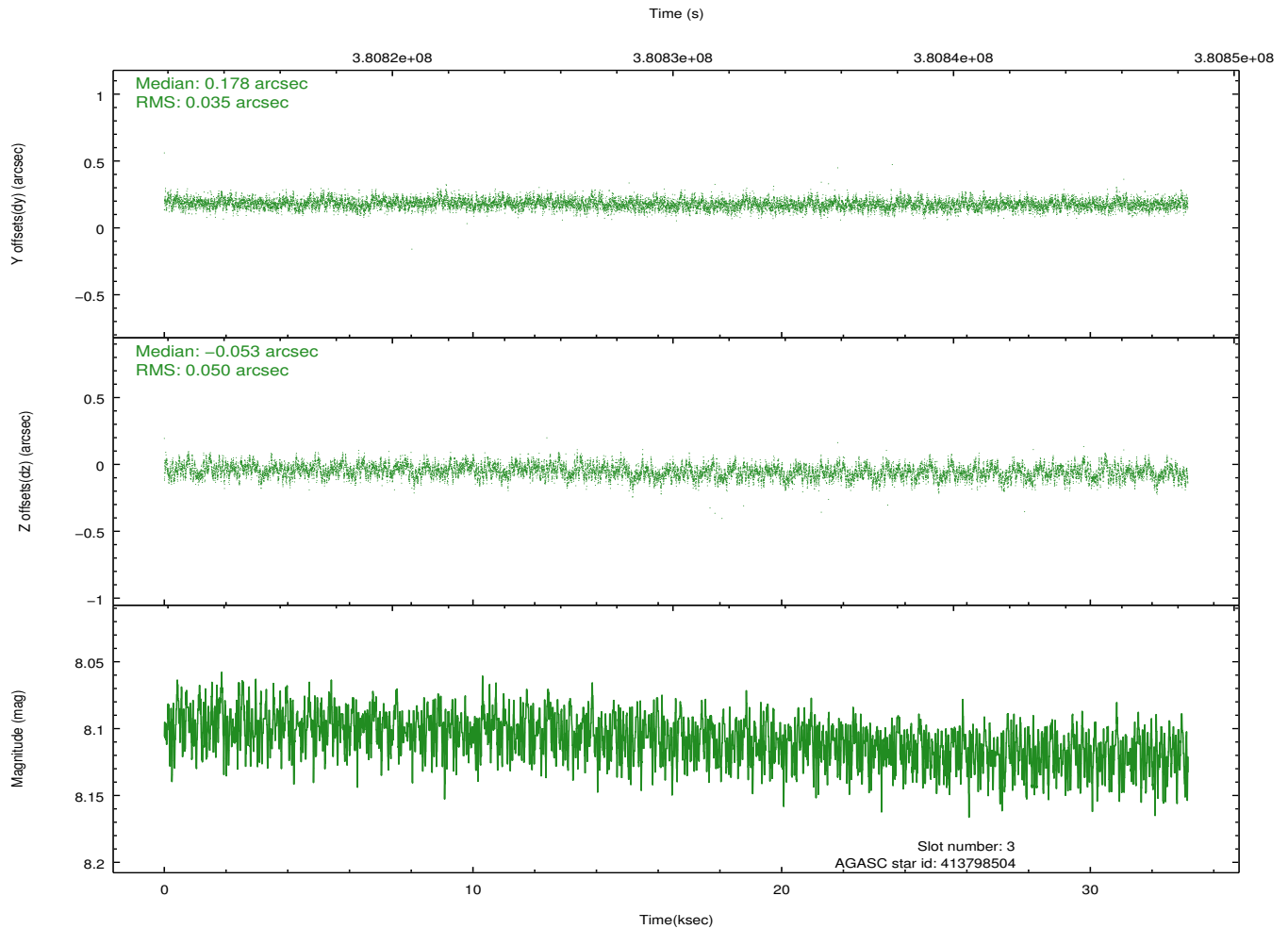
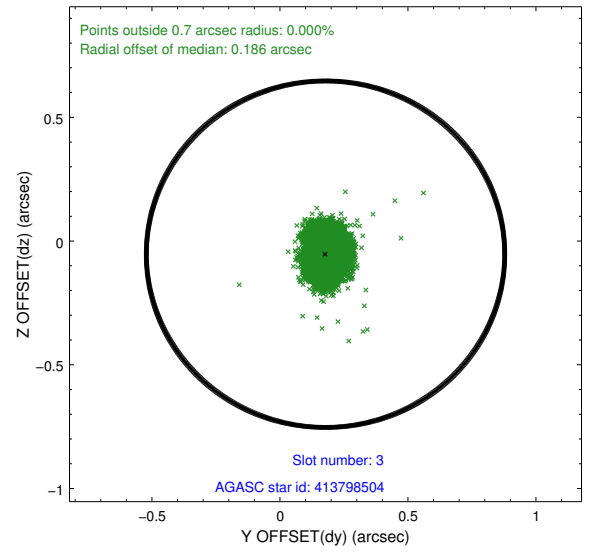
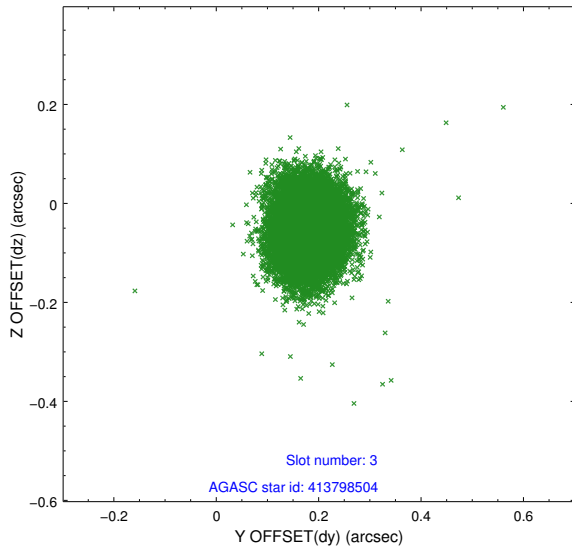


Slot Statistics

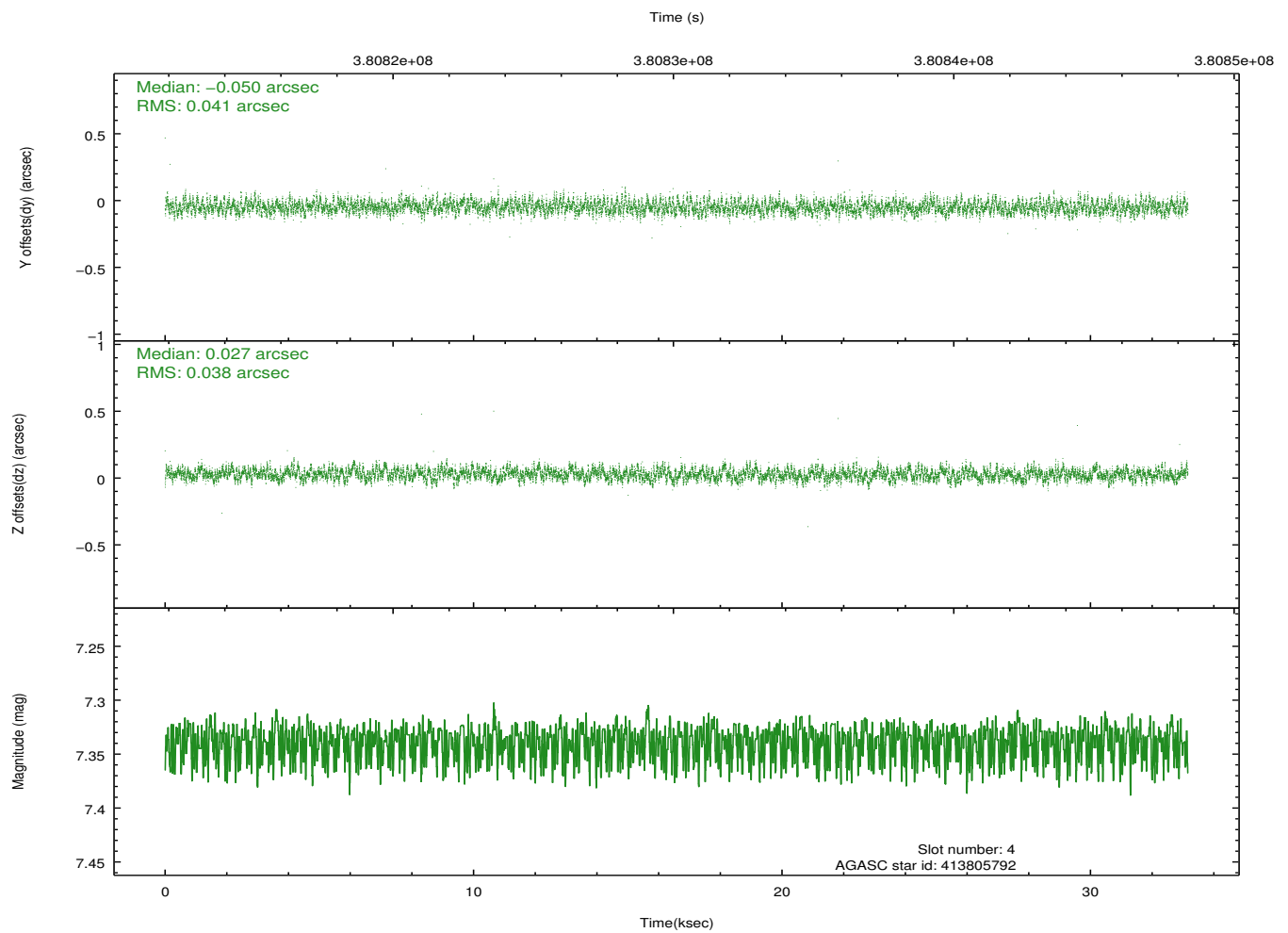
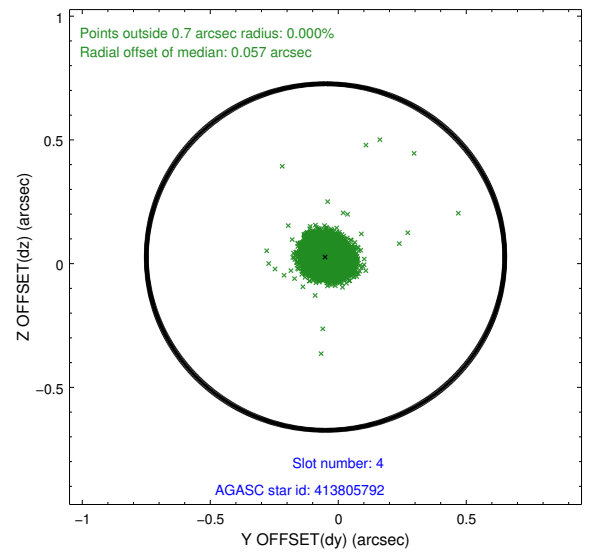
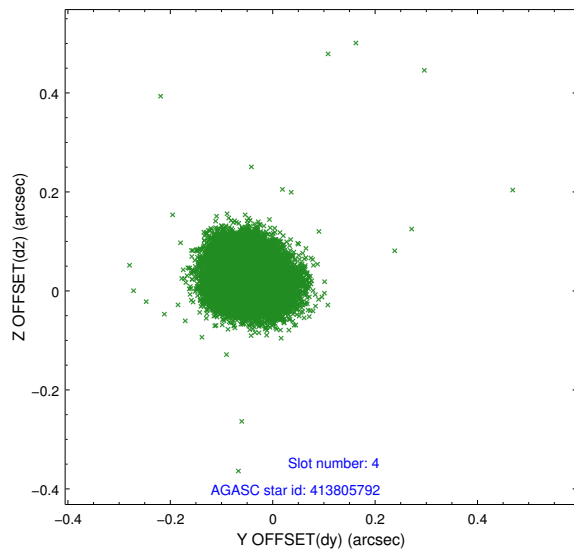
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.03	8088	0.044	-0.001	0.018	0.026	0.000000	0.000000	923.13	-841.02
1	FID	ACIS-I-5	7.03	8087	-0.205	0.053	0.011	0.024	0.000000	0.000000	-1825.19	1056.51
2	FID	ACIS-I-6	7.05	8088	0.072	0.016	0.017	0.032	0.000000	0.000000	388.66	1701.03
3	GUIDE	413798504	8.11	16166	0.178	-0.053	0.065	0.106	307.761525	40.426565	-656.78	-1978.66
4	GUIDE	413805792	7.34	16172	-0.050	0.027	0.060	0.093	307.778748	40.858024	-615.14	-424.89
5	GUIDE	414326136	7.35	16172	-0.181	-0.165	0.075	0.112	308.256176	41.473642	664.95	1799.15
6	GUIDE	414328464	9.18	16124	-0.026	-0.039	0.075	0.123	308.778827	41.333671	2082.24	1312.08
7	GUIDE	413674208	8.34	16170	0.073	0.229	0.065	0.109	307.139504	40.901877	-2354.85	-266.70

2.4 Star Slots

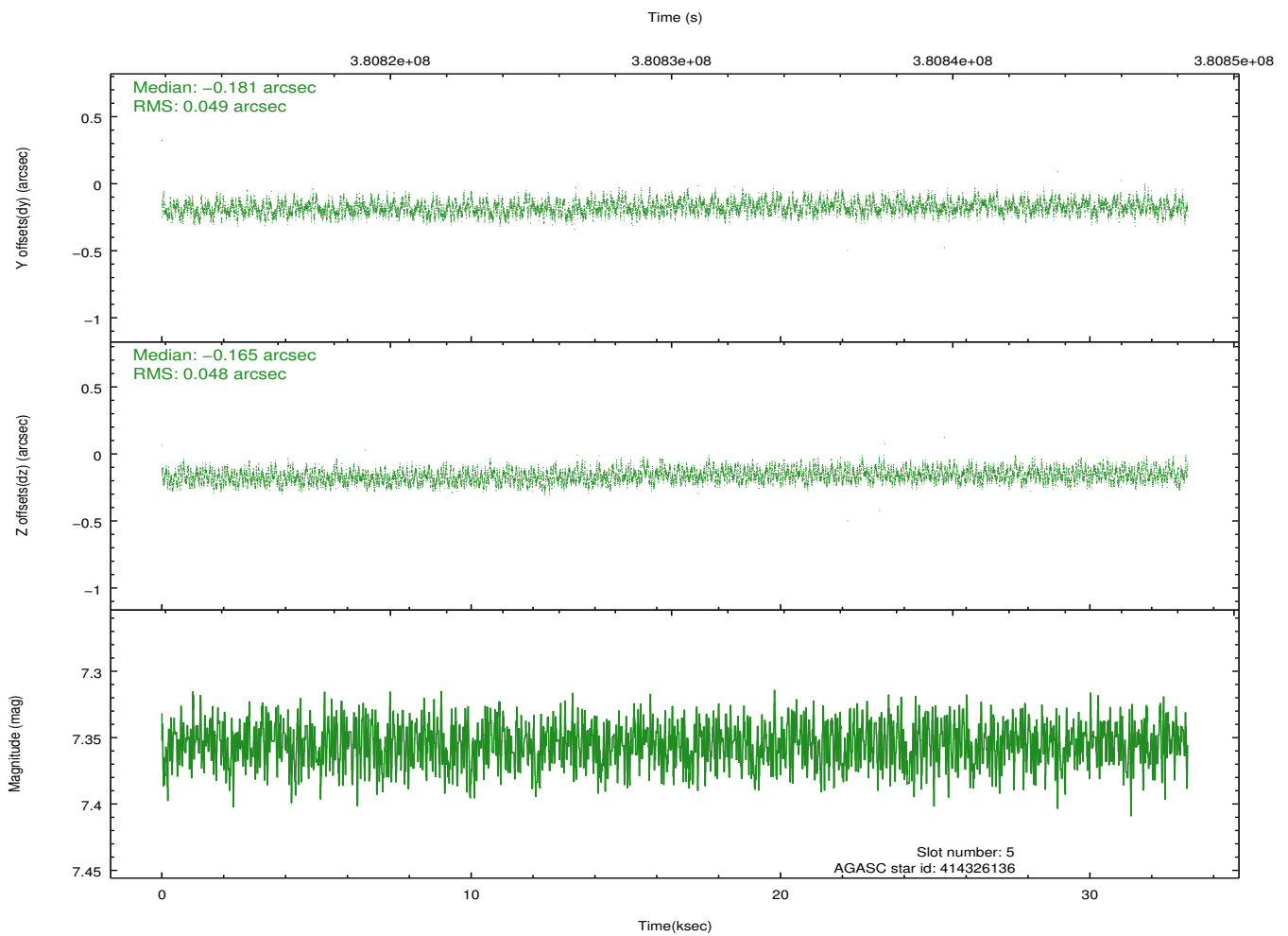
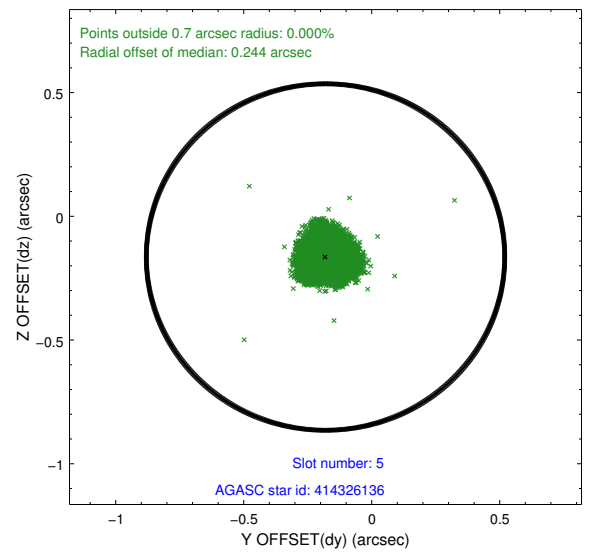
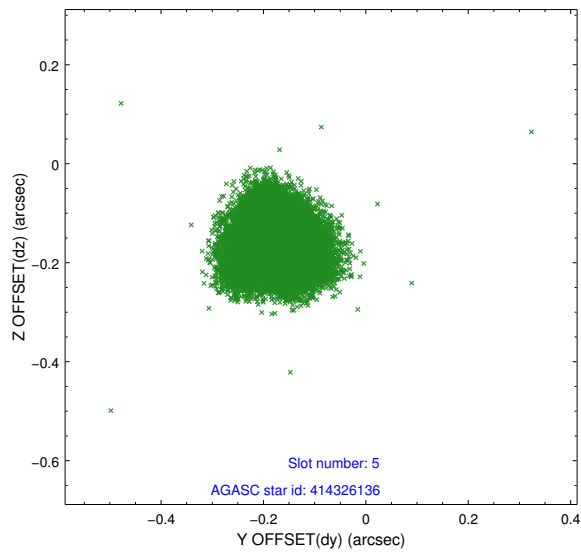
2.4.1 Slot 3



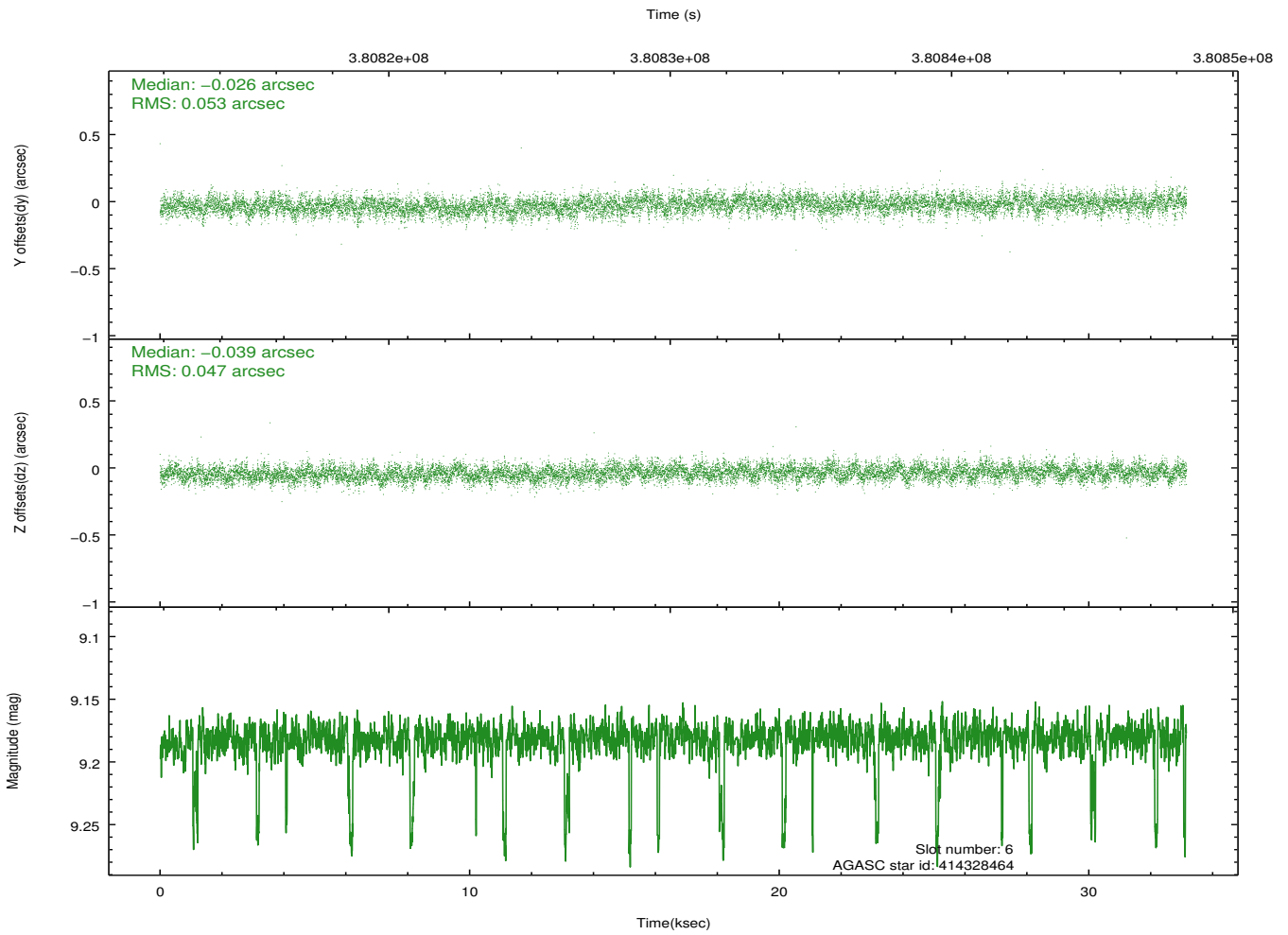
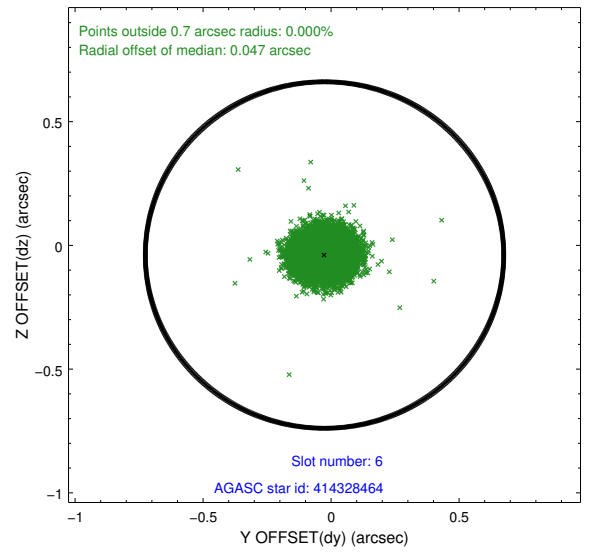
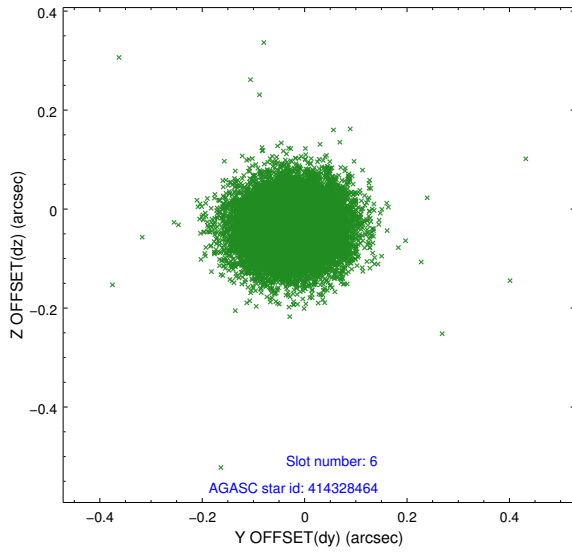
2.4.2 Slot 4



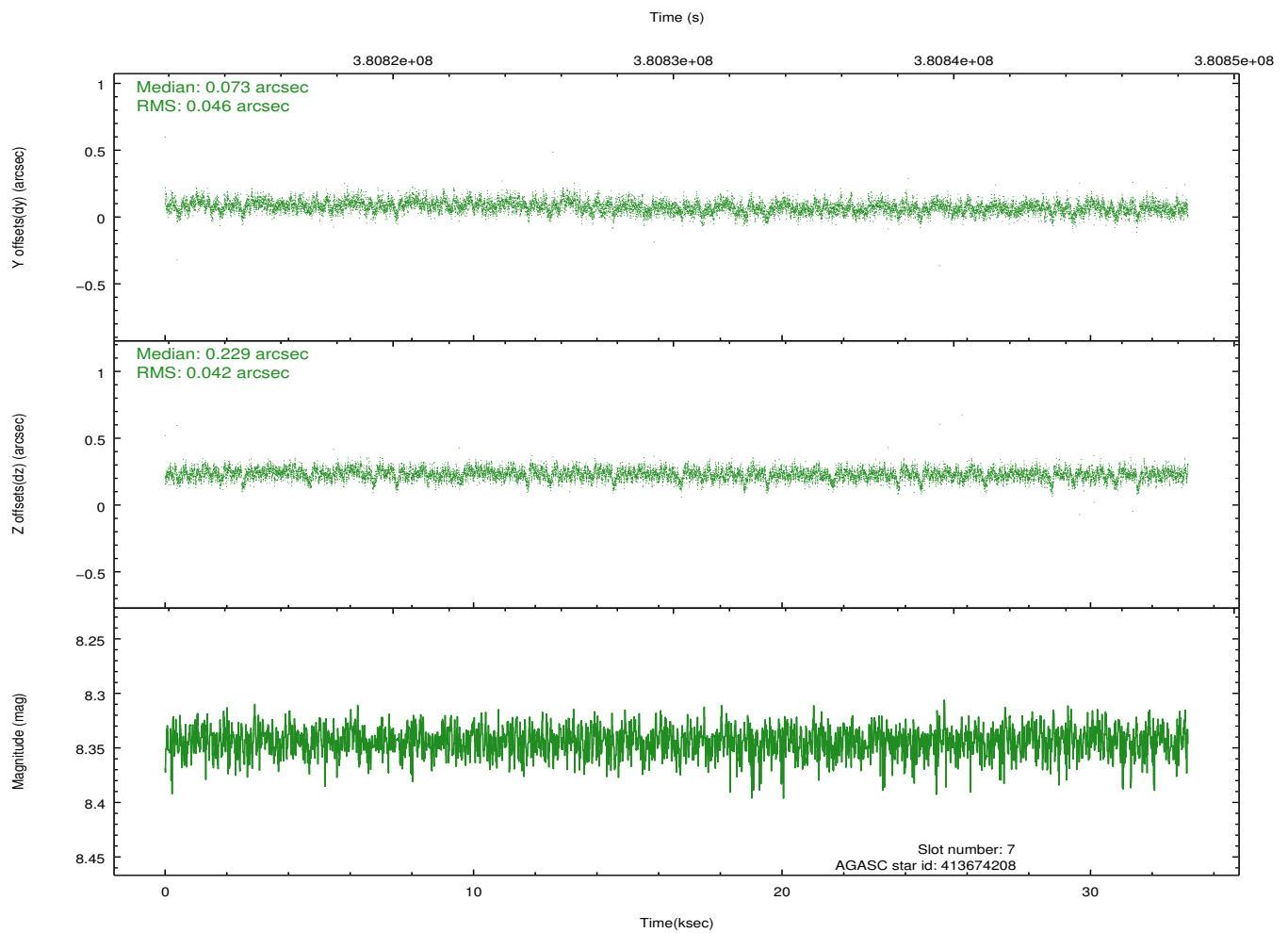
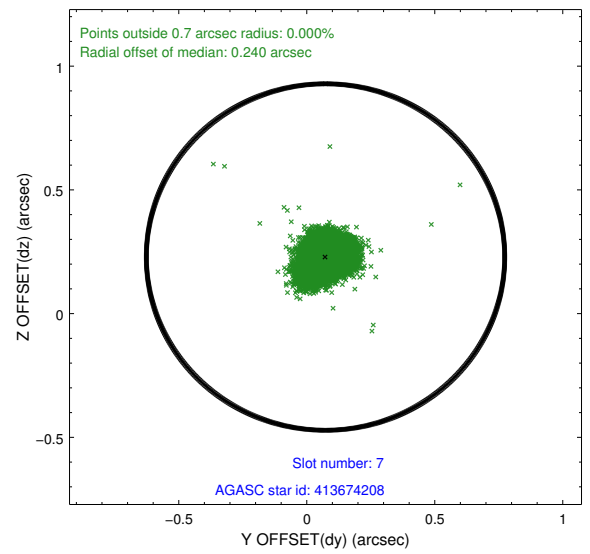
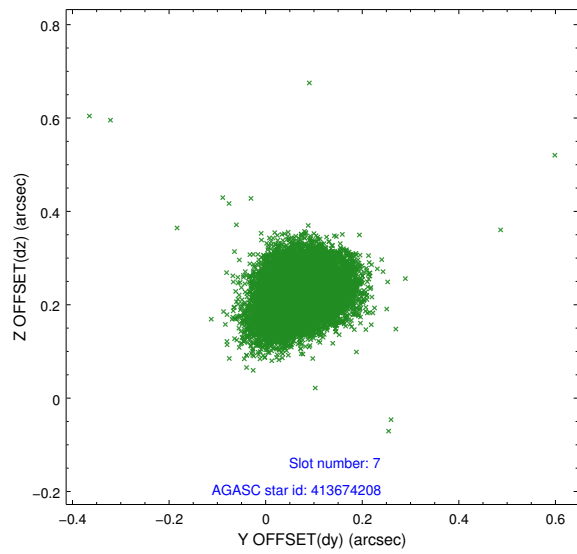
2.4.3 Slot 5



2.4.4 Slot 6

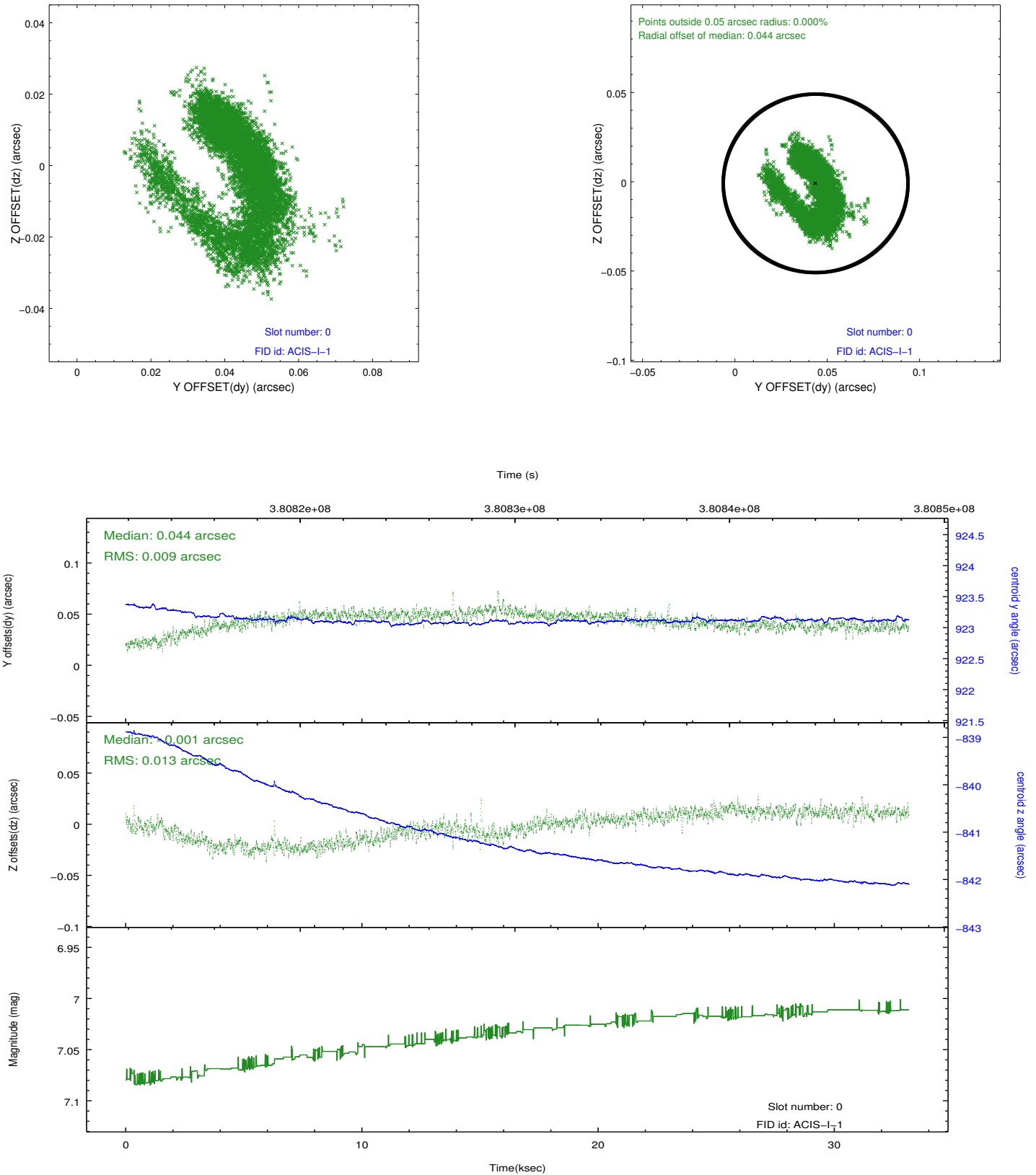


2.4.5 Slot 7

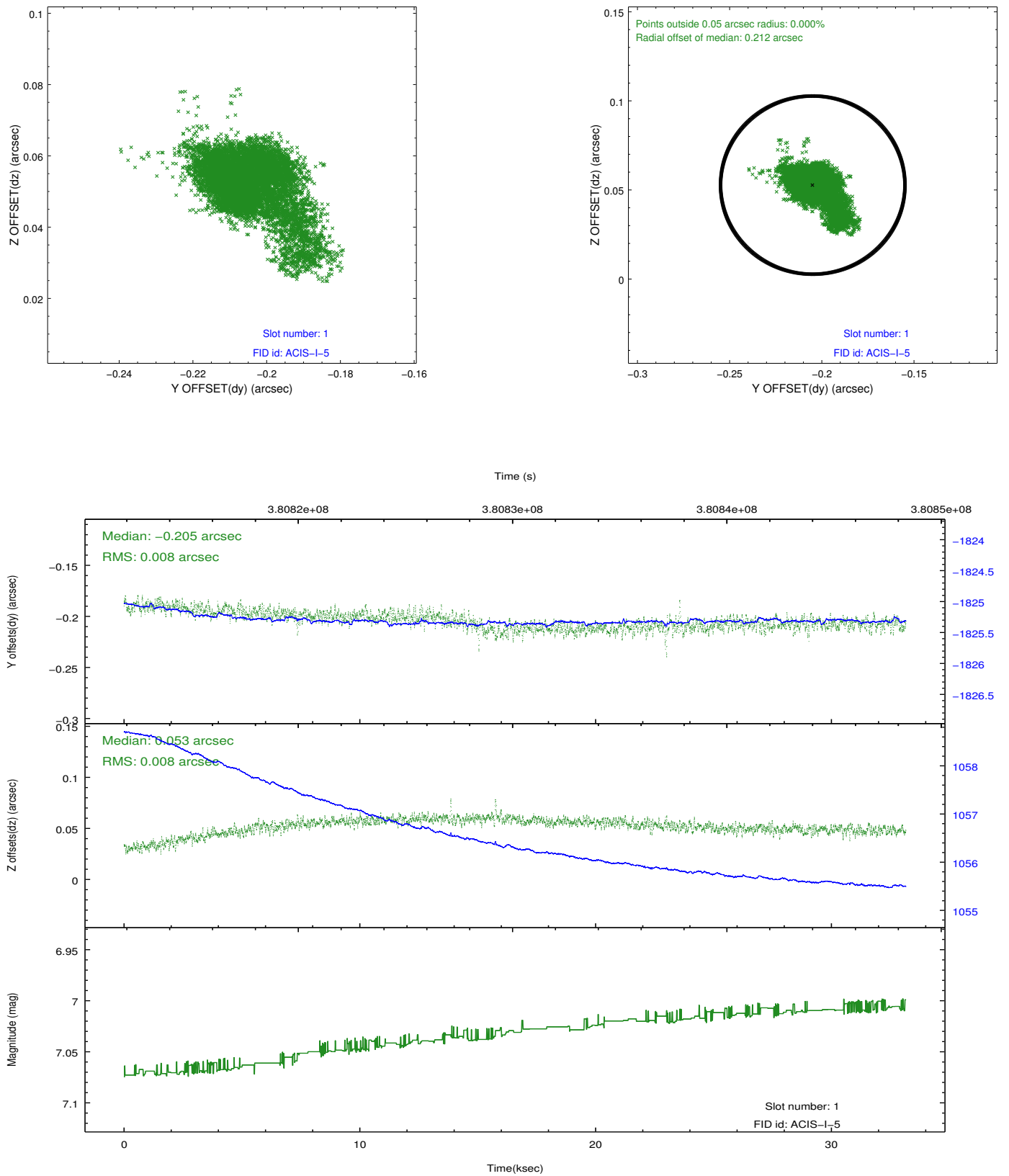


2.5 FID Slots

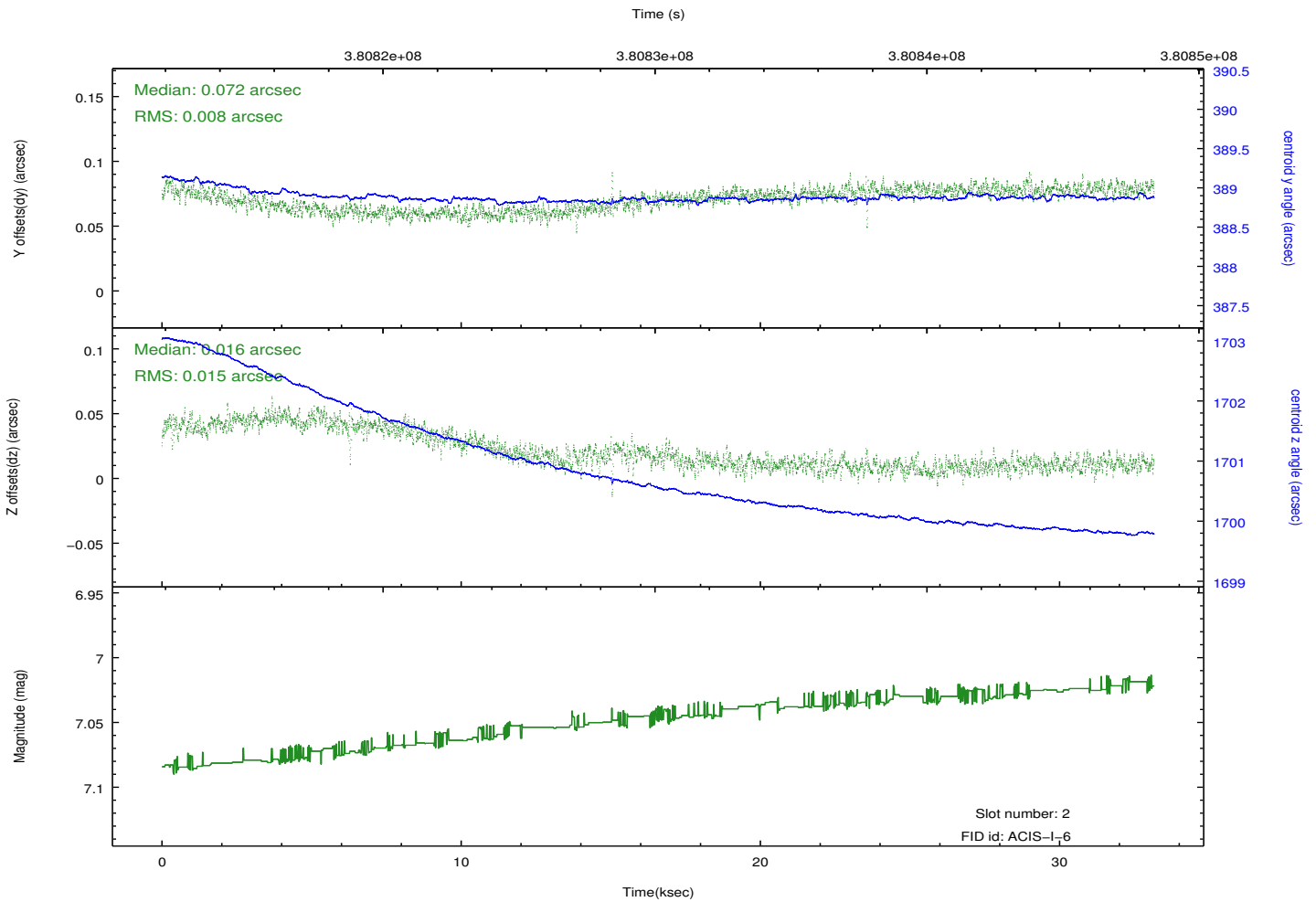
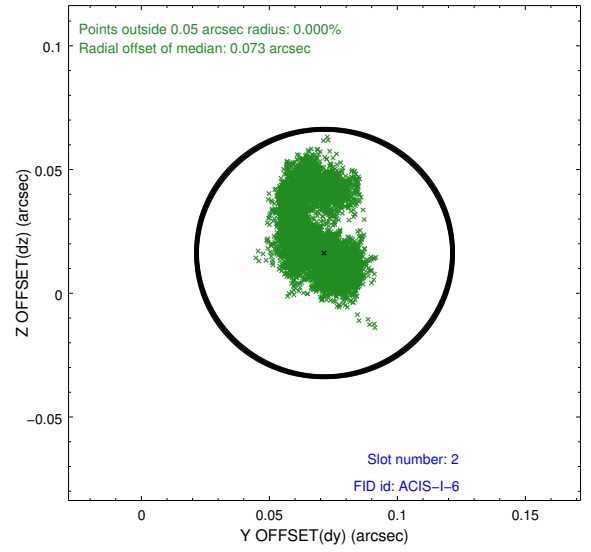
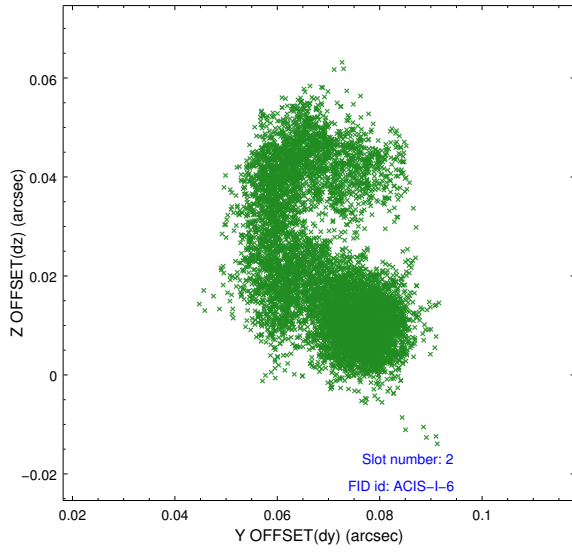
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.02.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.384559197366

A.2 Comments

Before this observation began, ACIS had a software reboot. This observation was then performed using the original ACIS flight s/w version. The data are good. The only problem was that the housekeeping files did not contain the focal plane temperature in a useful format, which is needed for instrument calibration. In order to process the data, ACIS housekeeping files were constructed that assumed a focal plane temperature of -119.15 degrees C. This value was determined by interpolating between the FP temp values before the anomaly and after DPA side B was turned back on. Data for the analysis was obtained from MTA group in dataseeker. Details of workaround procedure are documented in log file for ACIS level 1 processing.