

V&V Reference Report

L2 ASCDS Version : 8.3.3.1

Observation 1457 - L2 Version 6
Chandra X-Ray Center

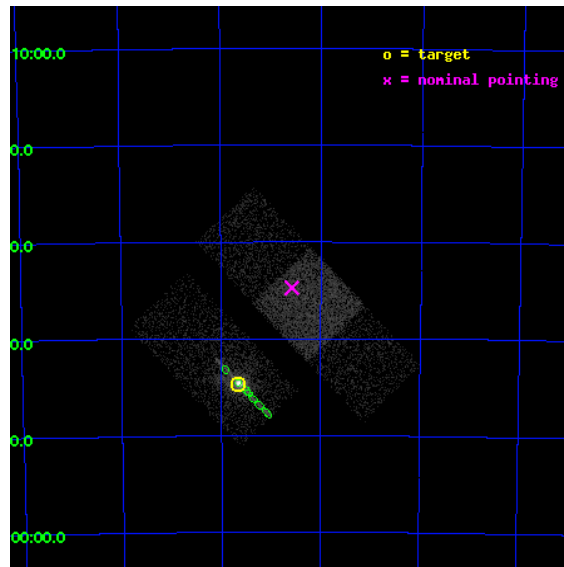
L2 Processing Date : Dec 6 2010

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1 Front

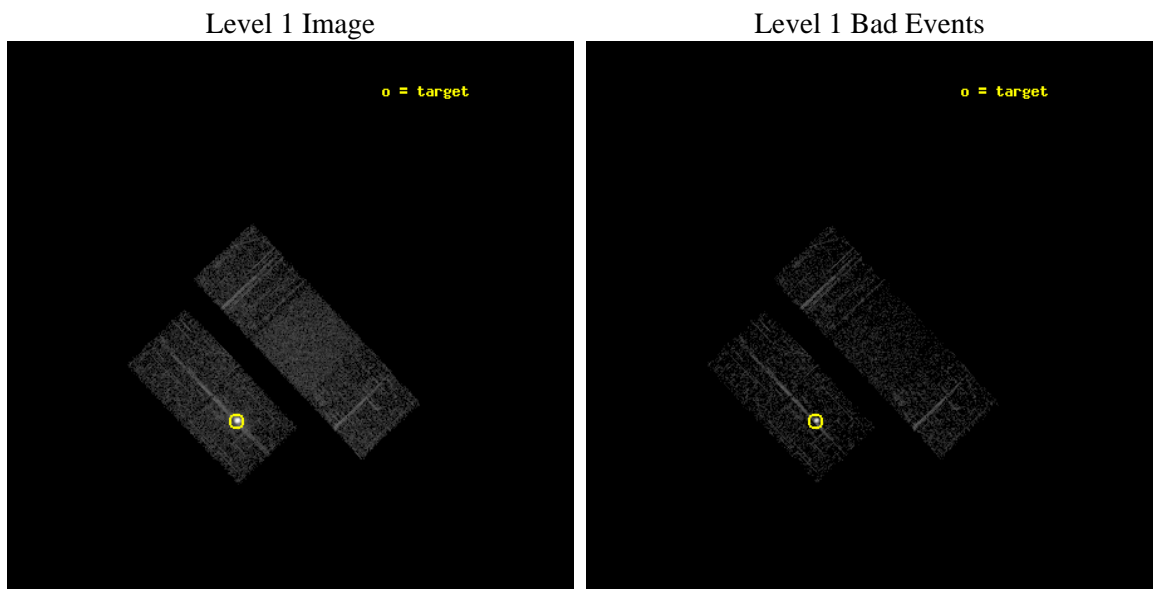
seq_num	480407	Sequence number
obs_id	1457	Observation id
title	 	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	LMC X-1 - I3	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.914583	Observer's specified target RA
dec_targ	-69.743611	Observer's specified target Dec
ra_nom	84.644916106258	Nominal RA
dec_nom	-69.57890201008	Nominal Dec
roll_nom	46.473121052059	Nominal Roll
revision	6	Processing version of data
ontime	1180.8000010997	Sum of GTIs [s]
livetime	1165.8480004934	Livetime [s]
ontime2	1180.8000010997	Sum of GTIs [s]
ontime3	1180.8000010997	Sum of GTIs [s]
ontime6	1180.8000010997	Sum of GTIs [s]
ontime7	1180.8000010997	Sum of GTIs [s]
ontime8	1180.8000010997	Sum of GTIs [s]
l2events	41561	Number of level 2 events



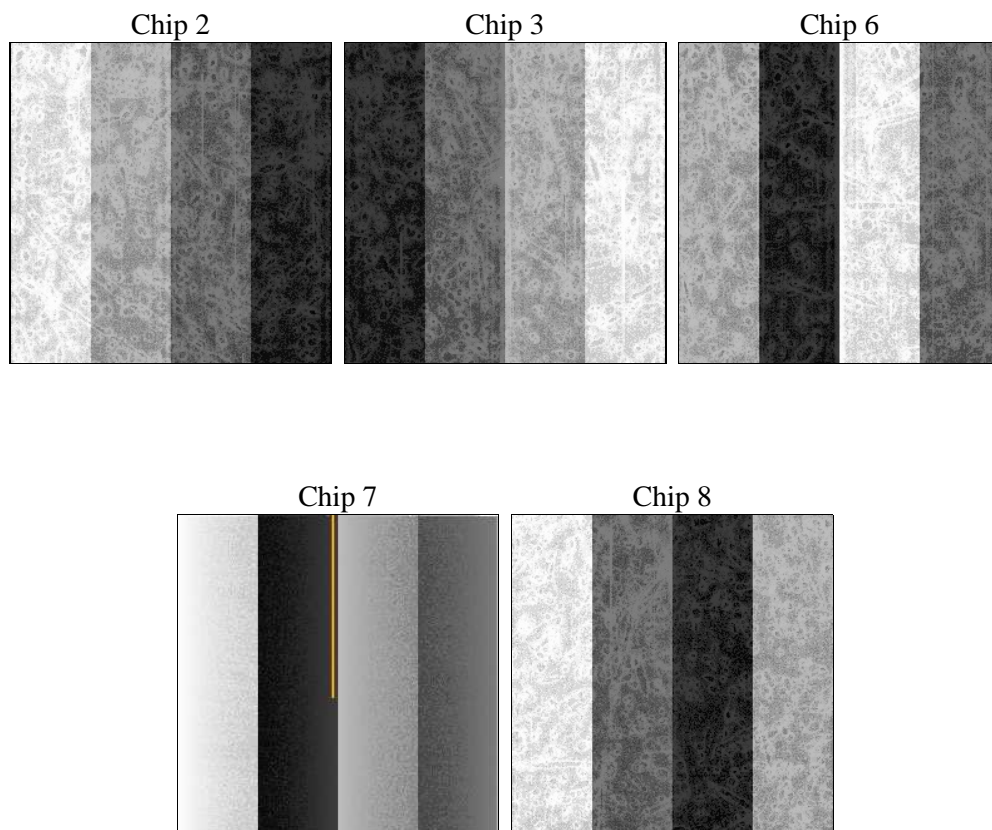
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2200.000000	Scheduled observation exposure time
ascdsver	8.3.3.1	ASCDS version number	ontime	1180.8000010997	Sum of GTIs [s]
caldsver	4.4.0	 	ontime2	1180.8000010997	Sum of GTIs [s]
date	2010-12-06T21:12:14	Date and time of file creation	ontime3	1180.8000010997	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	1180.8000010997	Sum of GTIs [s]
			ontime7	1180.8000010997	Sum of GTIs [s]
			ontime8	1180.8000010997	Sum of GTIs [s]
			l1events	102594	Number of level 1 events

2.1.4 Events

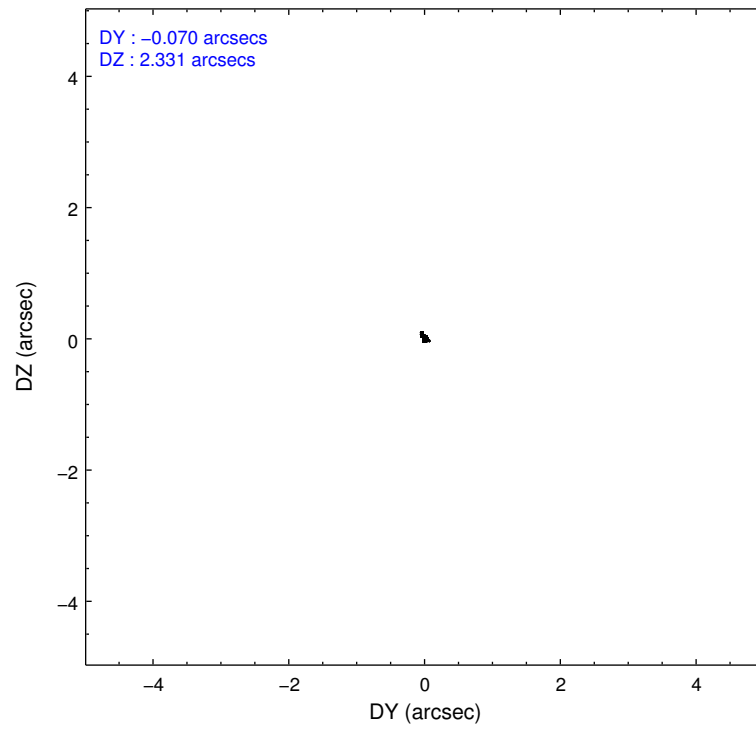
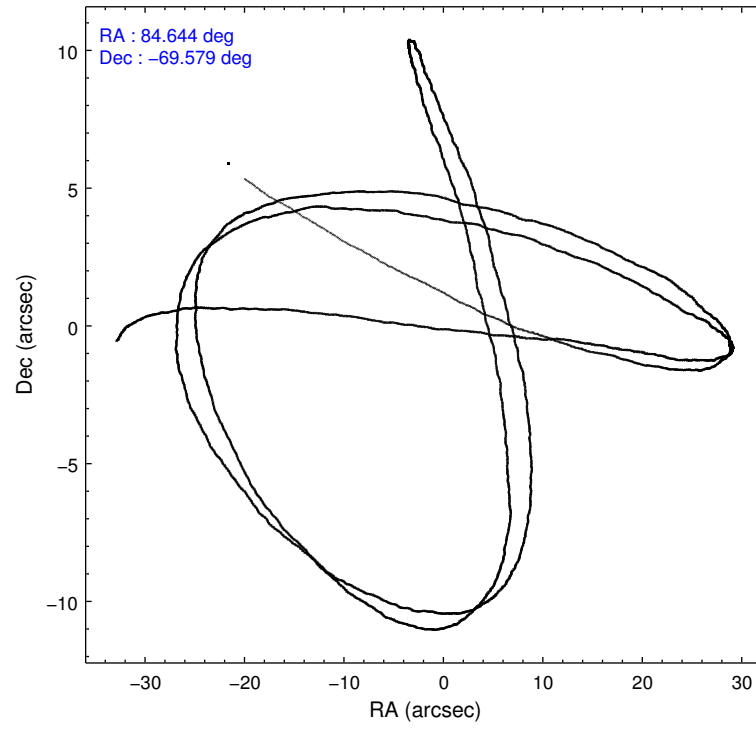
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	11168	52325	12174	14385	12542
rejected events	9748	19754	10559	7035	10162
rejected %	87%	37%	86%	48%	81%

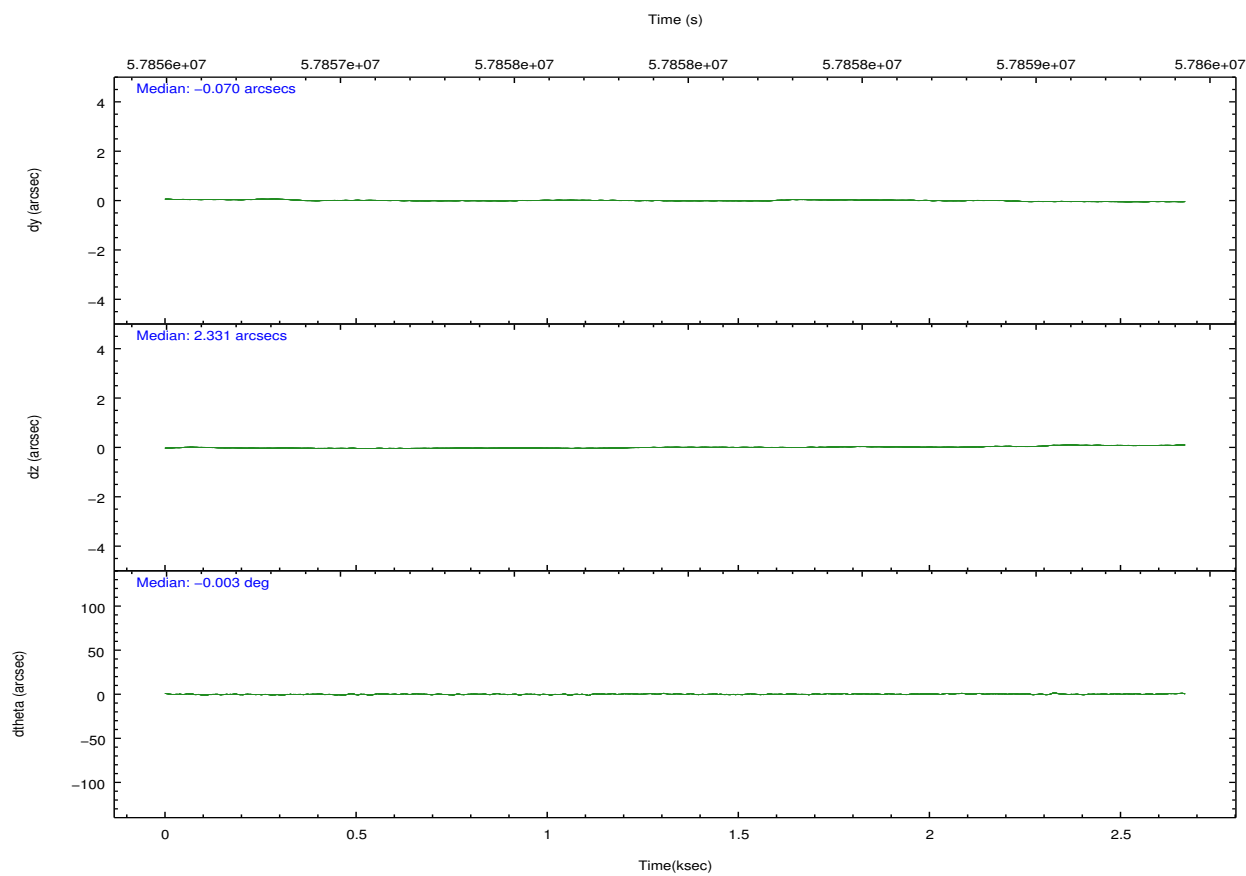
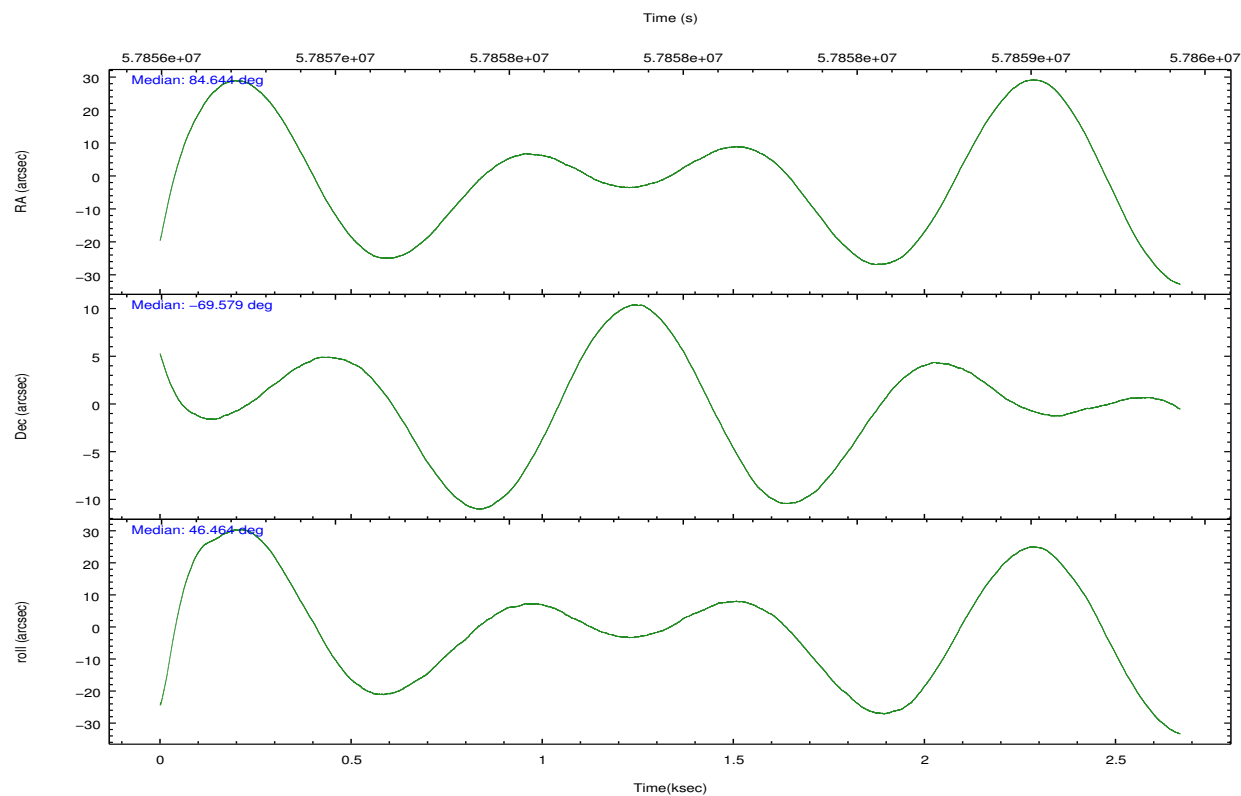
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	517	15748	671	942	623
	4%	30%	5%	6%	4%
grade 1 events	1	2506	4	5	0
	0%	4%	0%	0%	0%
grade 2 events	486	11710	508	1662	688
	4%	22%	4%	11%	5%
grade 3 events	77	1111	80	539	202
	0%	2%	0%	3%	1%
grade 4 events	85	1169	66	533	163
	0%	2%	0%	3%	1%
grade 5 events	177	2656	208	729	275
	1%	5%	1%	5%	2%
grade 6 events	256	2920	293	3686	708
	2%	5%	2%	25%	5%
grade 7 events	9569	14505	10344	6289	9883
	85%	27%	84%	43%	78%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	84.625682	84.64491610625754	Subarray requested	NONE	NONE
Pointing Dec	-69.605823	-69.57890201007989	Alternating exposures requested	N	N
Pointing Roll	46.298496	46.47312105205857	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	57857096.184000	57855770.671729			
Observation start date	1999-11-01T15:23:52	1999-11-01T15:02:50			
Observation end time	57859296.184000	57859755.871873			
Observation end date	1999-11-01T16:00:32	1999-11-01T16:09:15			
Read mode	TIMED	TIMED			

2.3 Aspect



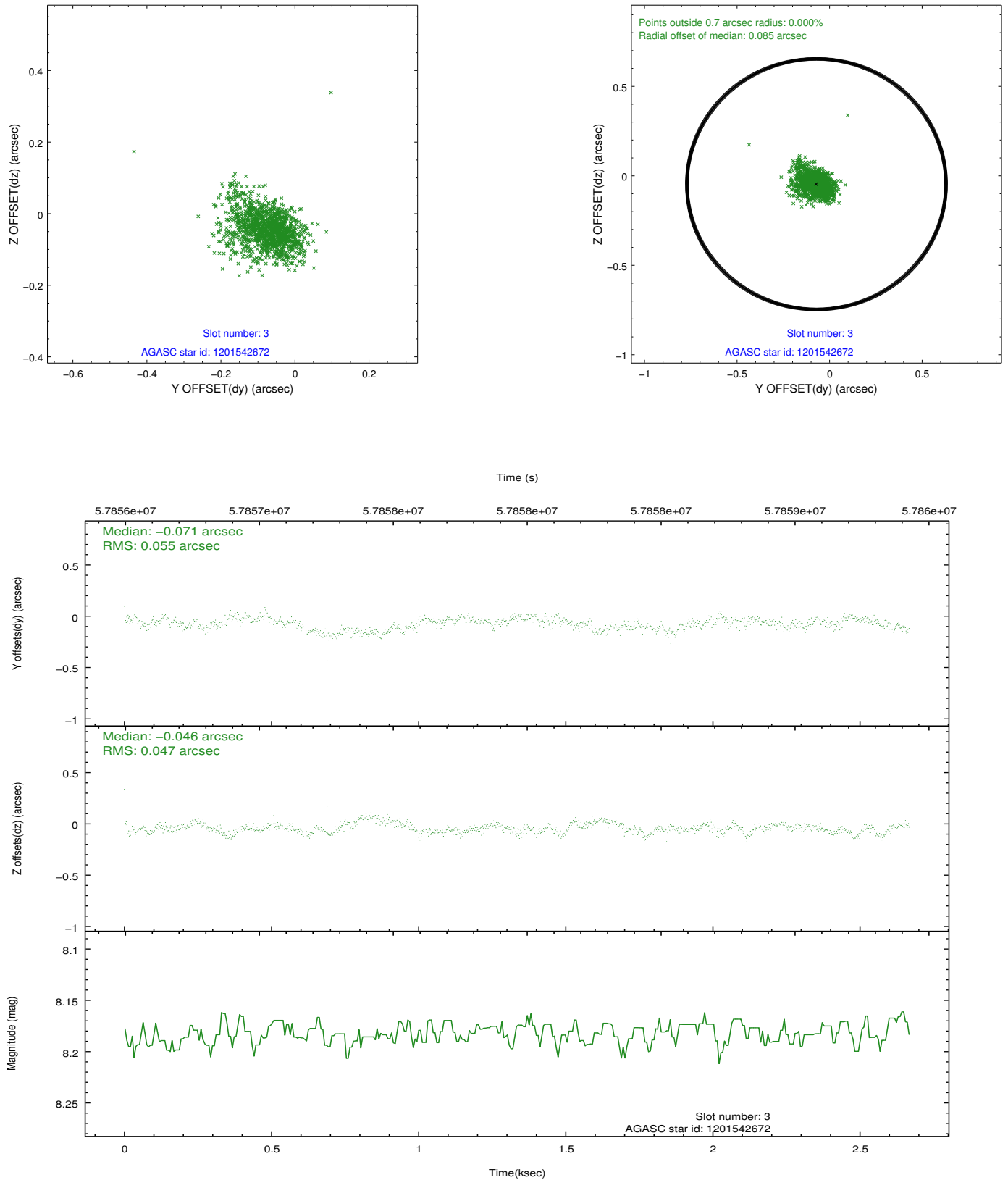


Slot Statistics

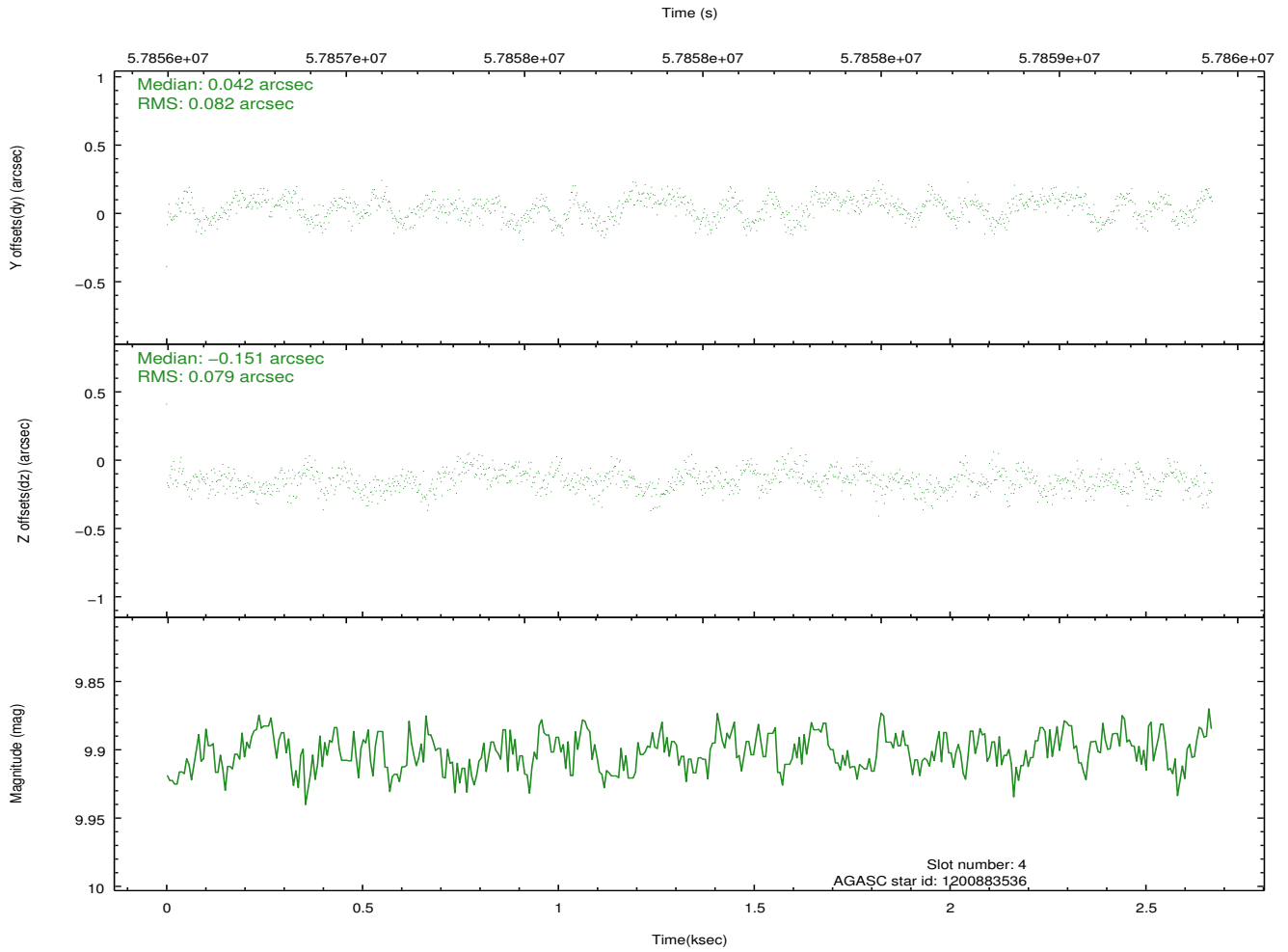
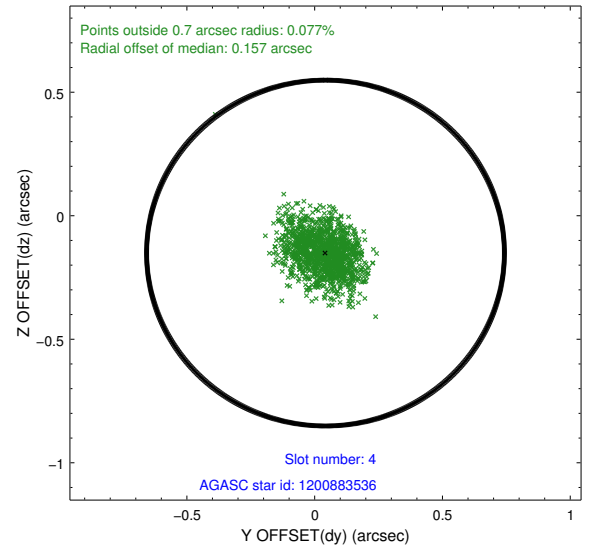
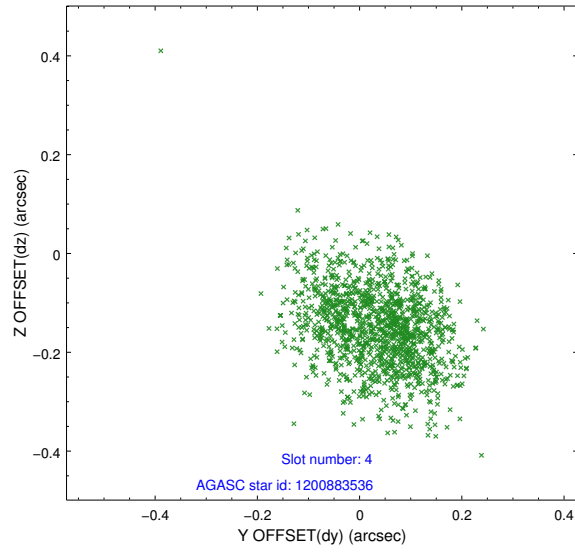
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	1303	0.000	0.002	0.006	0.010	0.000000	0.000000	-752.53	-1723.35
1	FID	ACIS-S-4	7.21	1303	0.055	-0.000	0.006	0.010	0.000000	0.000000	2160.34	183.89
2	FID	ACIS-S-5	7.24	1303	-0.086	0.007	0.007	0.012	0.000000	0.000000	-1803.96	178.96
3	GUIDE	1201542672	8.18	1296	-0.071	-0.046	0.074	0.131	84.492488	-69.957531	-1027.88	-756.47
4	GUIDE	1200883536	9.90	1302	0.042	-0.151	0.120	0.192	83.119228	-69.218429	-338.15	2337.18
5	GUIDE	1201406992	9.26	1301	0.027	0.082	0.086	0.135	83.682859	-69.471866	-479.54	1188.91
6	GUIDE	1201017424	10.14	1300	0.036	0.112	0.137	0.364	85.854985	-69.248506	2002.74	-254.56
7	GUIDE	1201540568	9.97	1301	-0.050	0.015	0.126	0.203	85.901764	-70.070643	-136.79	-2299.79

2.4 Star Slots

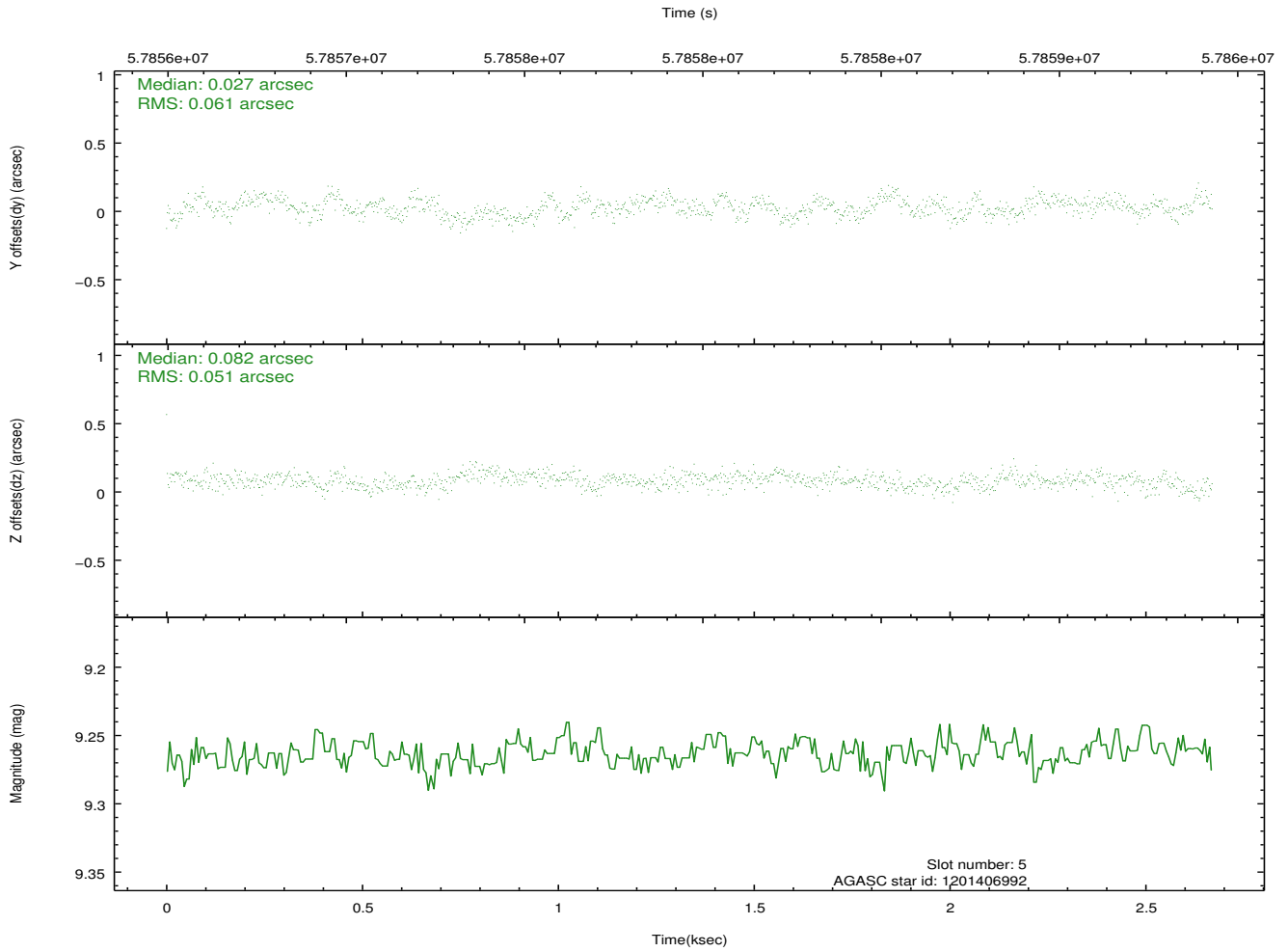
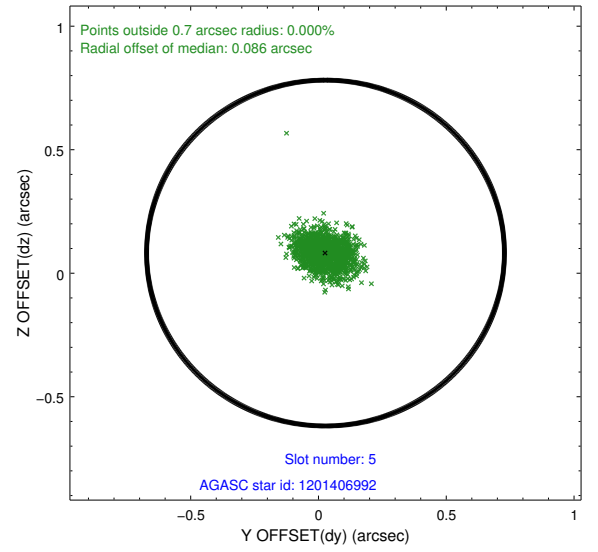
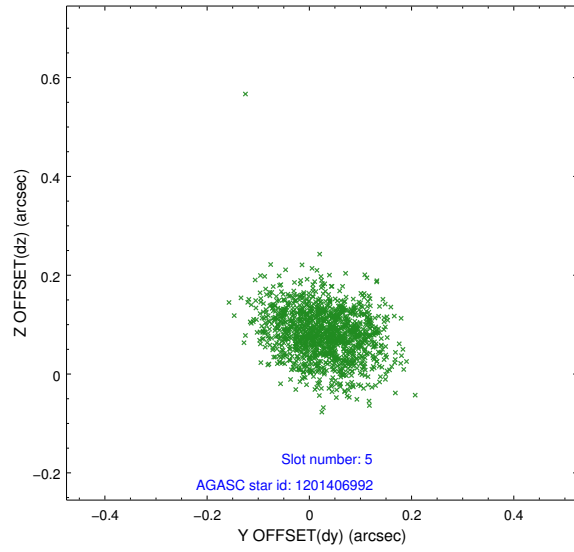
2.4.1 Slot 3



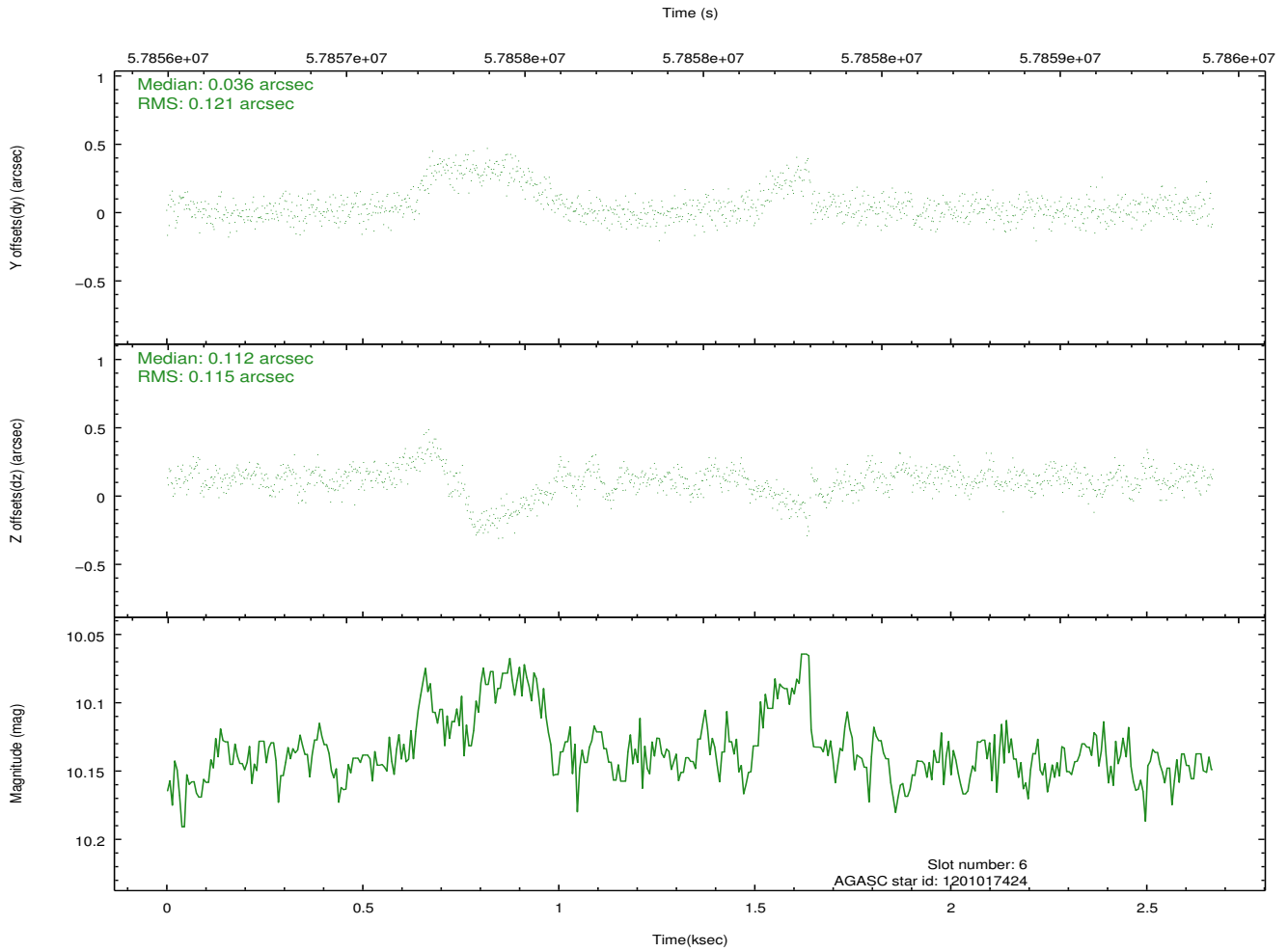
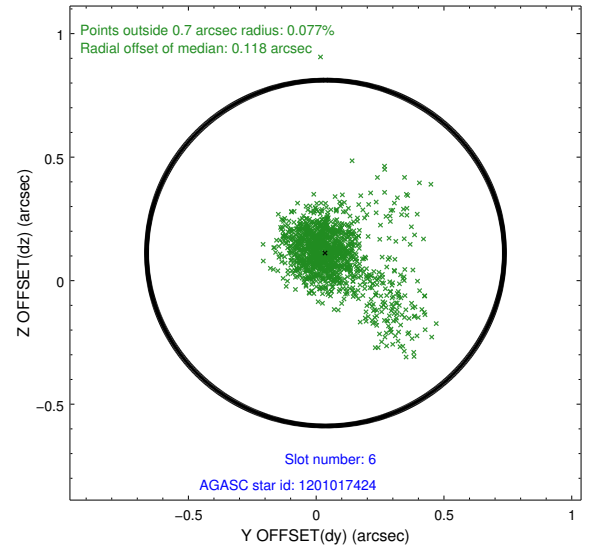
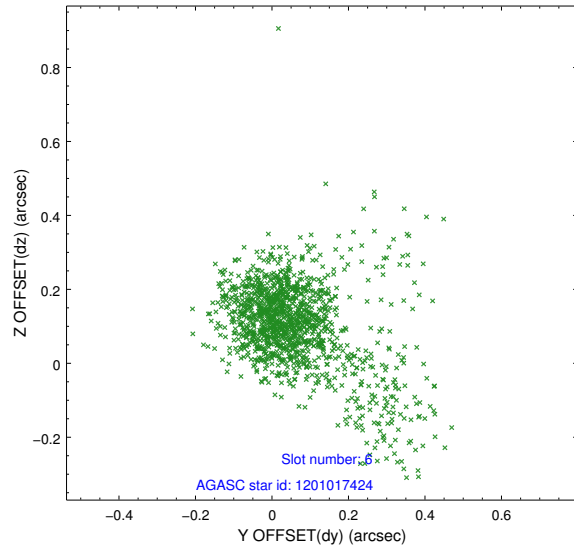
2.4.2 Slot 4



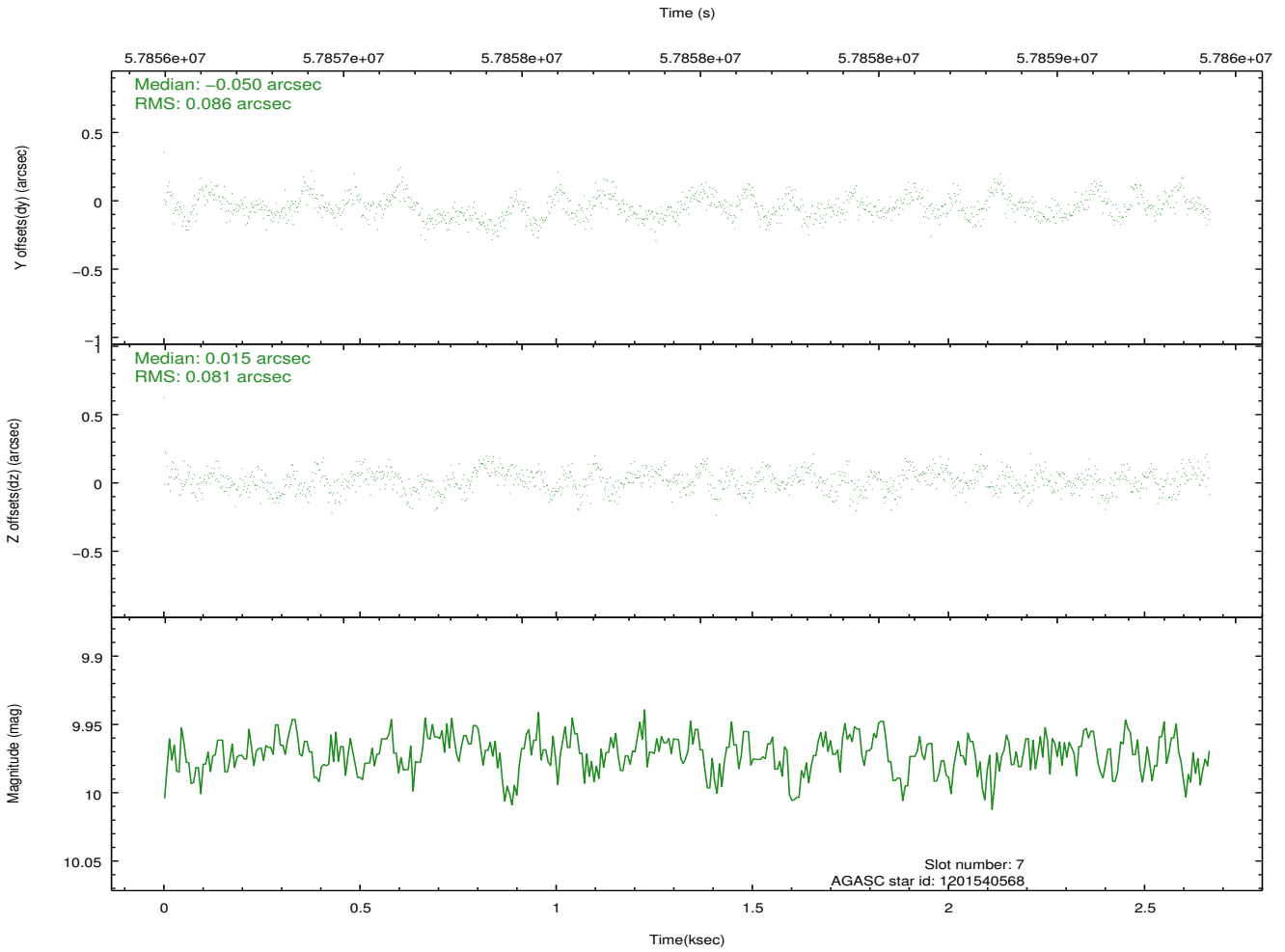
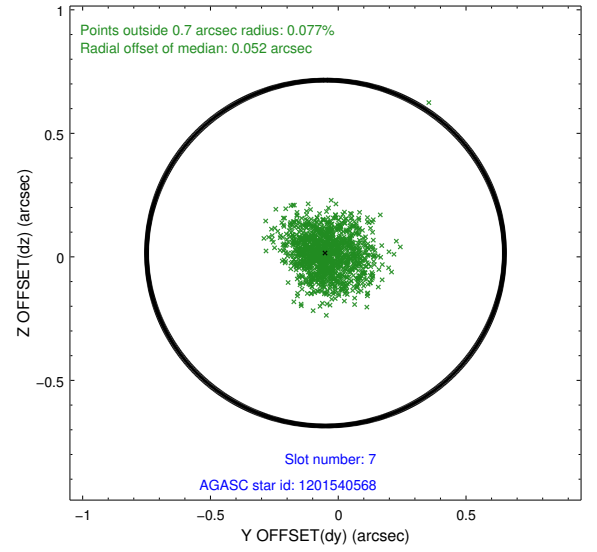
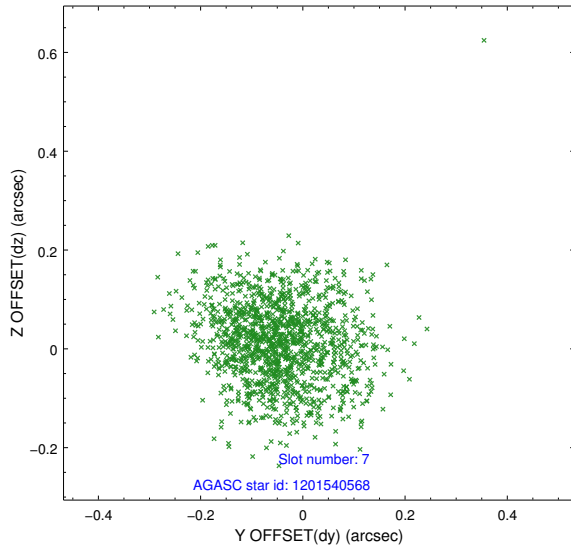
2.4.3 Slot 5



2.4.4 Slot 6

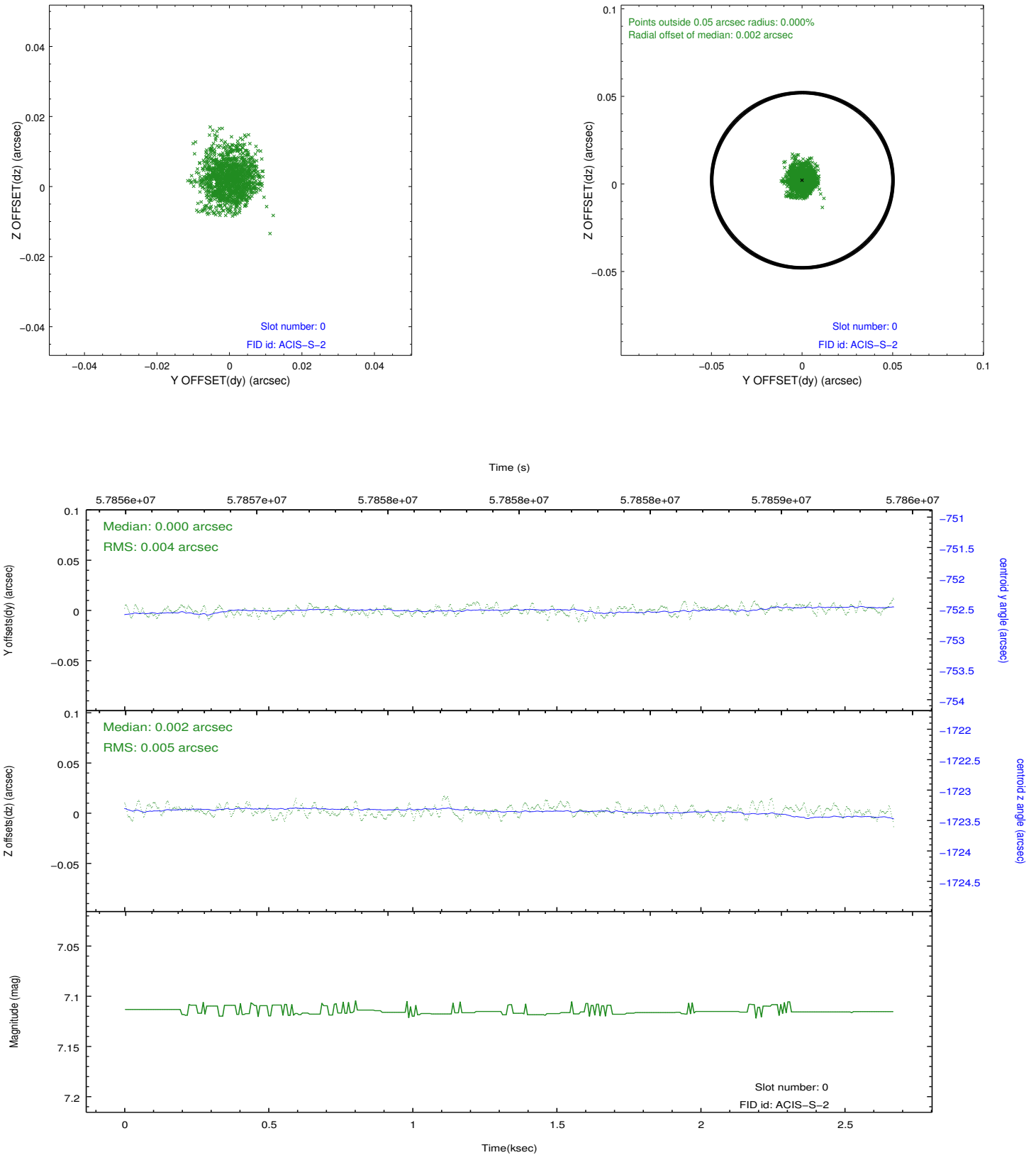


2.4.5 Slot 7

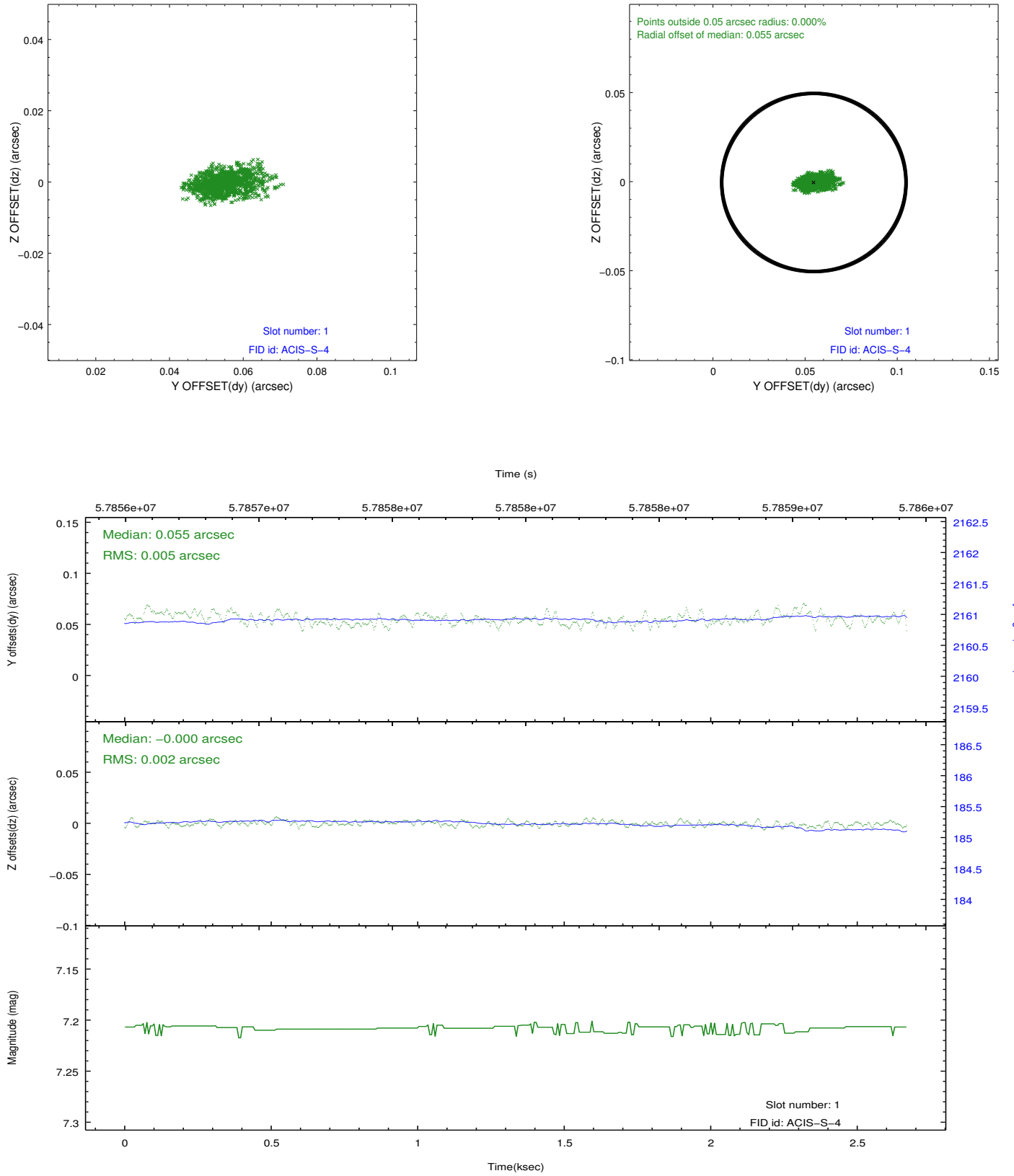


2.5 FID Slots

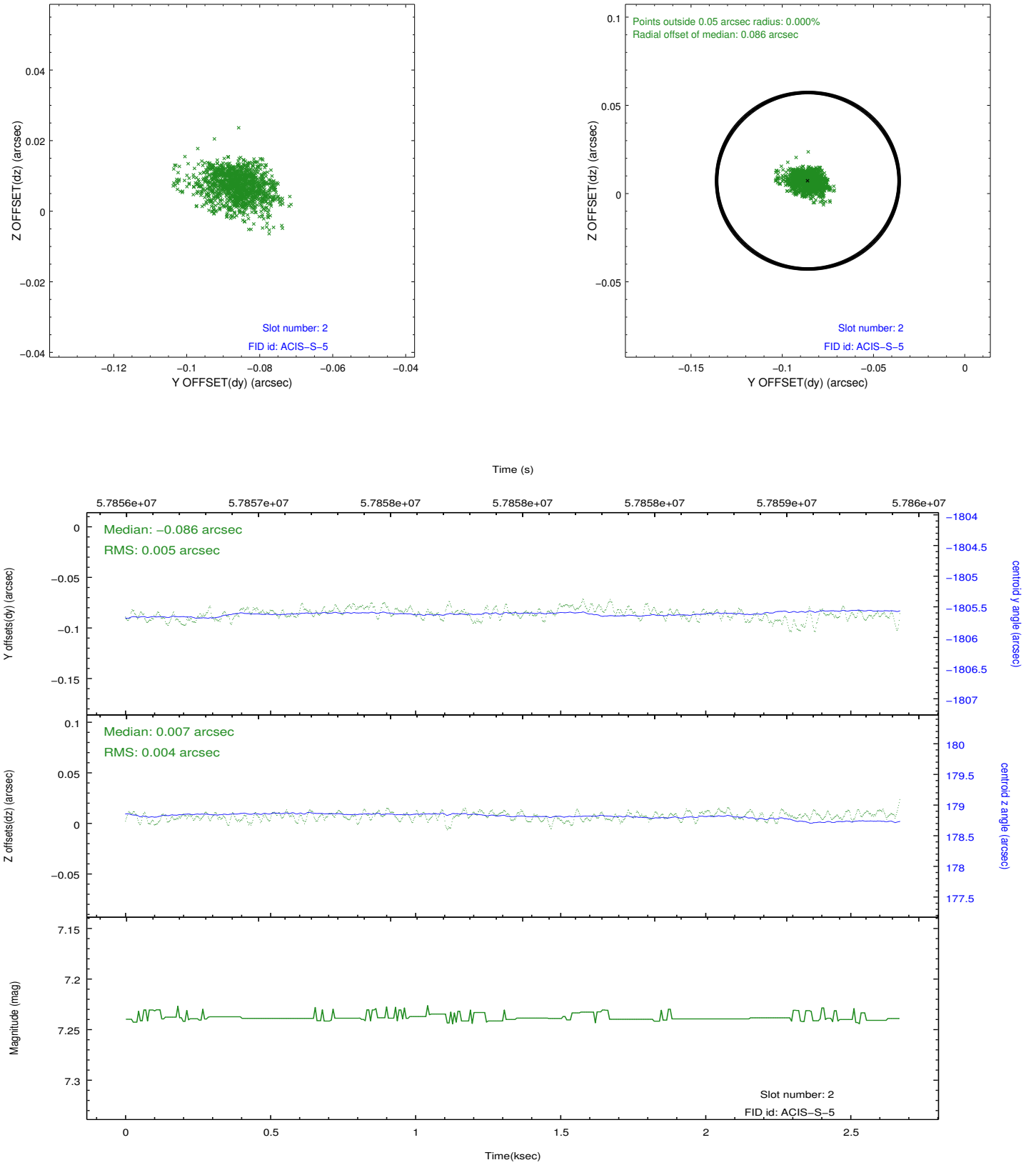
2.5.1 Slot 0



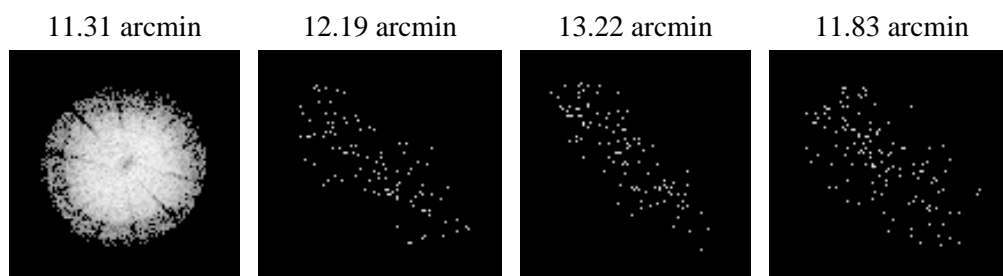
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2010.12.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.184

A.2 Comments

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation.

The pixels affected by the anomaly are bounded by sky coords: (84.74504, -69.79830), (84.75591, -69.80187), (84.86291, -69.76271), (84.85204, -69.75915).

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Target is off-axis on chip I3.

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Charge time for this observation remains at previous value of 1.184 ksec,

although with the current processing the charge time would have been 1.180 ksec.

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The focal plane temperature is approximately -110 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T_GAIN correction has been applied to the BI chip (ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.