

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5252 - L2 Version 4
Chandra X-Ray Center

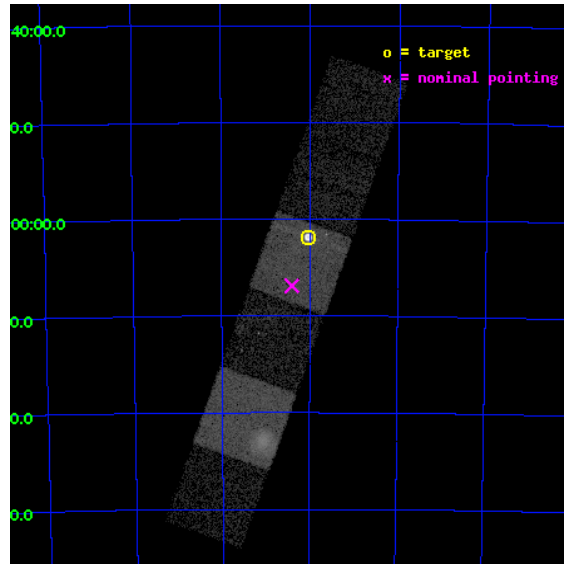
L2 Processing Date : Mar 25 2013

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1 Front

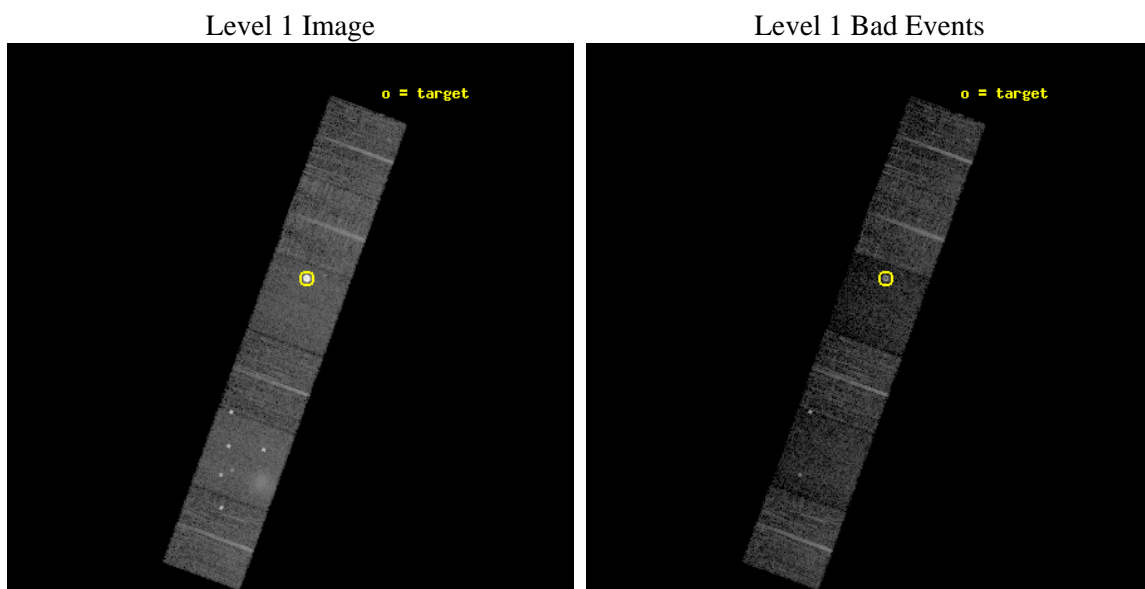
seq_num	590368	Sequence number
obs_id	5252	Observation id
title	AO5A ACIS-S Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[S3,-120,-1,0,0]	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.100761234682	Nominal RA [deg]
dec_nom	-72.11483179998	Nominal Dec [deg]
roll_nom	289.95199497923	Nominal Roll [deg]
revision	4	Processing version of data
ontime	7548.5750182569	Sum of GTIs [s]
livetime	7452.9904161695	Livetime [s]
ontime4	7548.6160582602	Sum of GTIs [s]
ontime5	7548.5339782536	Sum of GTIs [s]
ontime6	7548.4929382503	Sum of GTIs [s]
ontime7	7548.5750182569	Sum of GTIs [s]
ontime8	7545.2109279633	Sum of GTIs [s]
ontime9	7548.4108582735	Sum of GTIs [s]
l2events	114692	Number of level 2 events



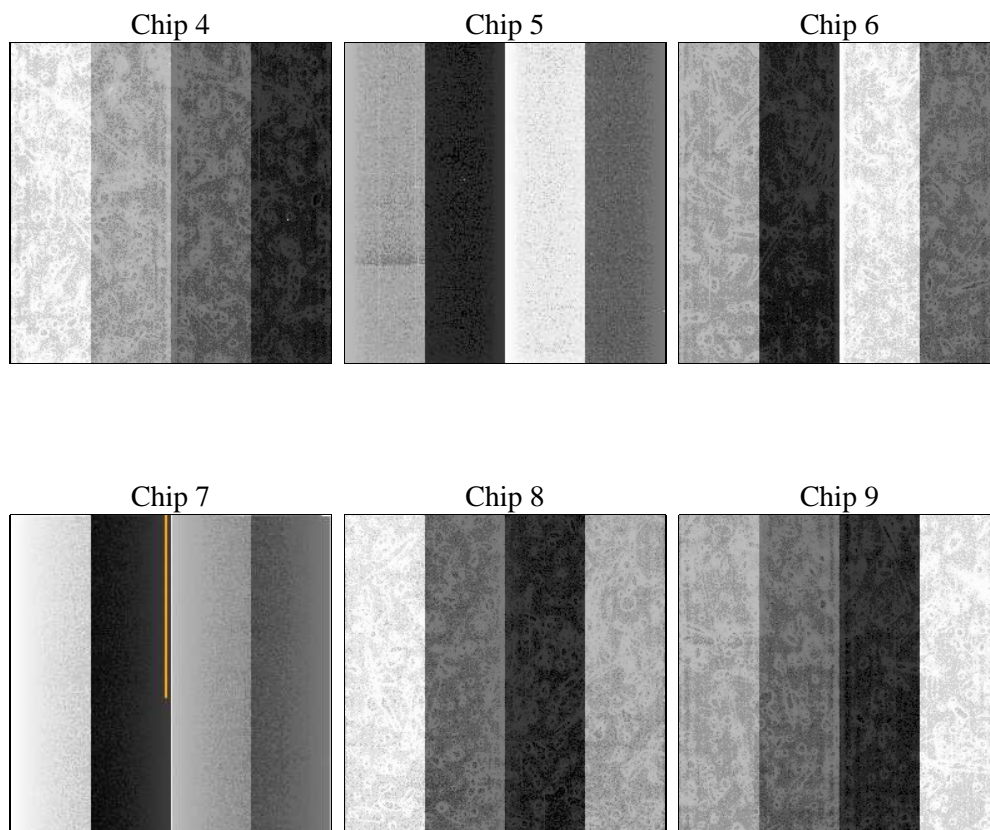
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	7796.253000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	7548.5750182569	Sum of GTIs [s]
caldsver	4.5.6	 	ontime4	7548.6160582602	Sum of GTIs [s]
date	2013-03-25T21:39:51	Date and time of file creation	ontime5	7548.5339782536	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	7548.4929382503	Sum of GTIs [s]
			ontime7	7548.5750182569	Sum of GTIs [s]
			ontime8	7545.2109279633	Sum of GTIs [s]
			ontime9	7548.4108582735	Sum of GTIs [s]
			l1events	309537	Number of level 1 events

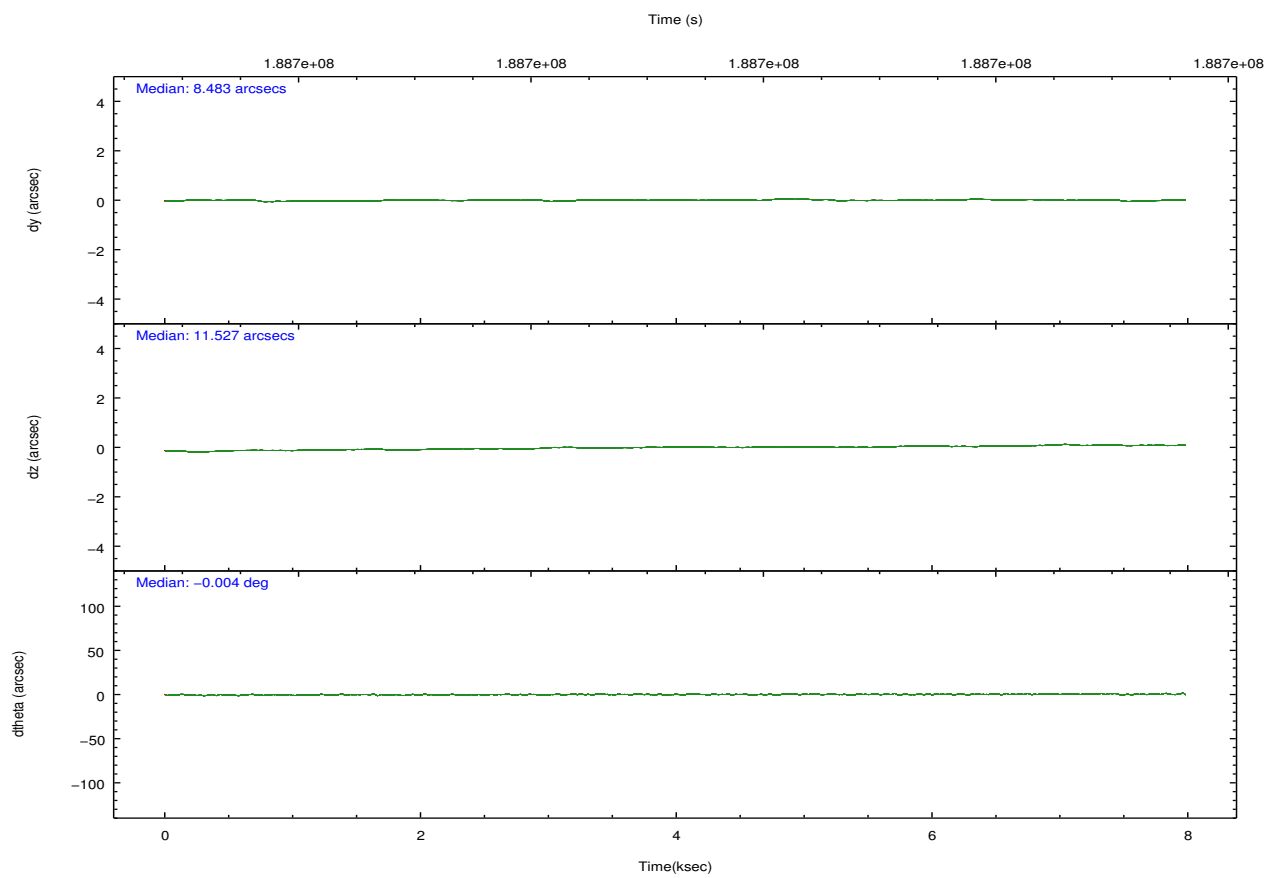
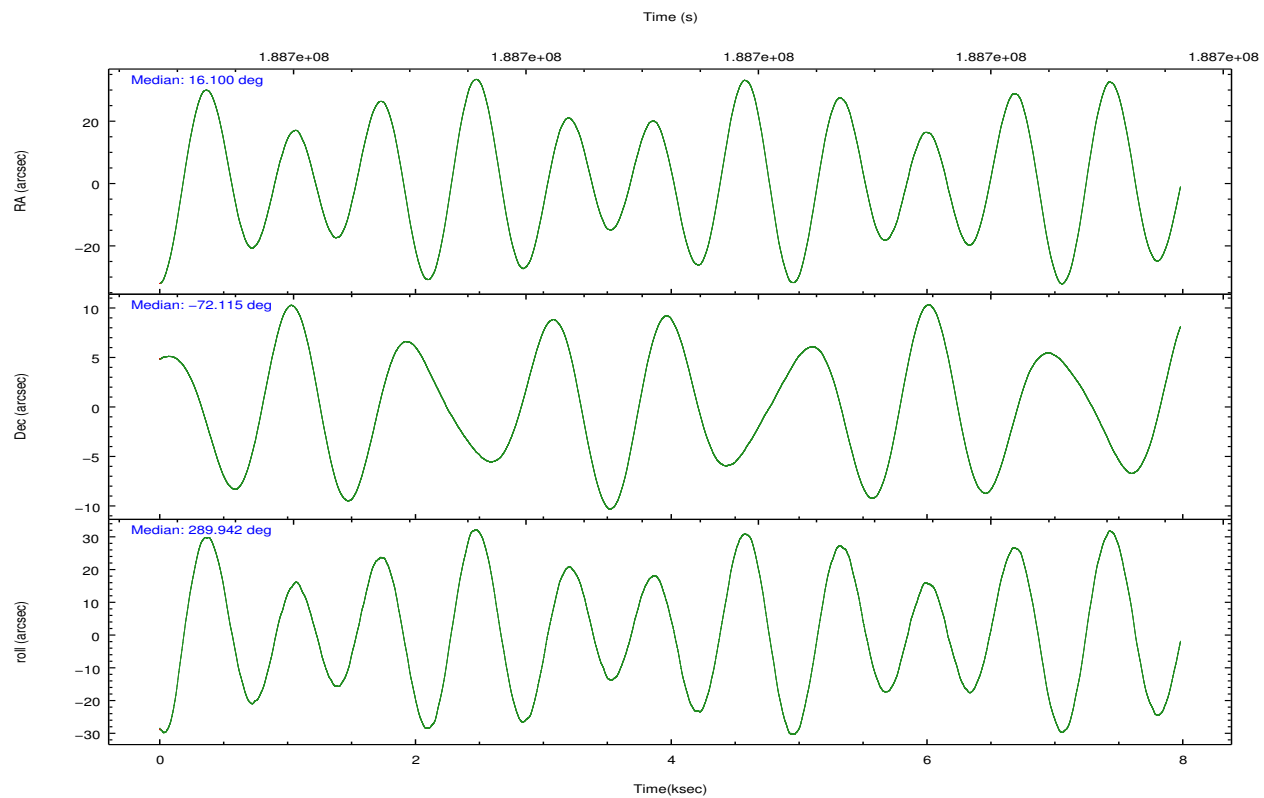
2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	42999	57496	36870	90807	46900	34465	grade 0 events	3693	9381	2272	20860	3150	1615
rejected events	36852	21878	32056	18786	36338	30435		8%	16%	6%	22%	6%	4%
rejected %	85%	38%	86%	20%	77%	88%	grade 1 events	43	355	15	338	29	26
								0%	0%	0%	0%	0%	0%
							grade 2 events	970	9148	893	18199	2429	774
								2%	15%	2%	20%	5%	2%
							grade 3 events	443	2031	465	8081	1121	454
								1%	3%	1%	8%	2%	1%
							grade 4 events	407	1743	404	8156	1064	383
								0%	3%	1%	8%	2%	1%
							grade 5 events	1205	4298	1242	4533	1801	1292
								2%	7%	3%	4%	3%	3%
							grade 6 events	639	13353	786	16779	2840	809
								1%	23%	2%	18%	6%	2%
							grade 7 events	35599	17187	30793	13861	34466	29112
								82%	29%	83%	15%	73%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.032236	16.10076123468193	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.097538	-72.11483179998021	Alternating exposures requested	N	N
[deg] Pointing Roll	289.730157	289.9519949792259	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	186624064.184000	186624064.184000			
[s] Window stop time (MET)	189216064.184000	189216064.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	188695435.184000	188695058.44654			
Observation start date	2003-12-24T23:22:51	2003-12-24T23:17:38			
[s] Observation end time (MET)	188703231.184000	188703545.44691			
Observation end date	2003-12-25T01:32:47	2003-12-25T01:39:05			
Read mode	TIMED	TIMED			

2.3 Aspect

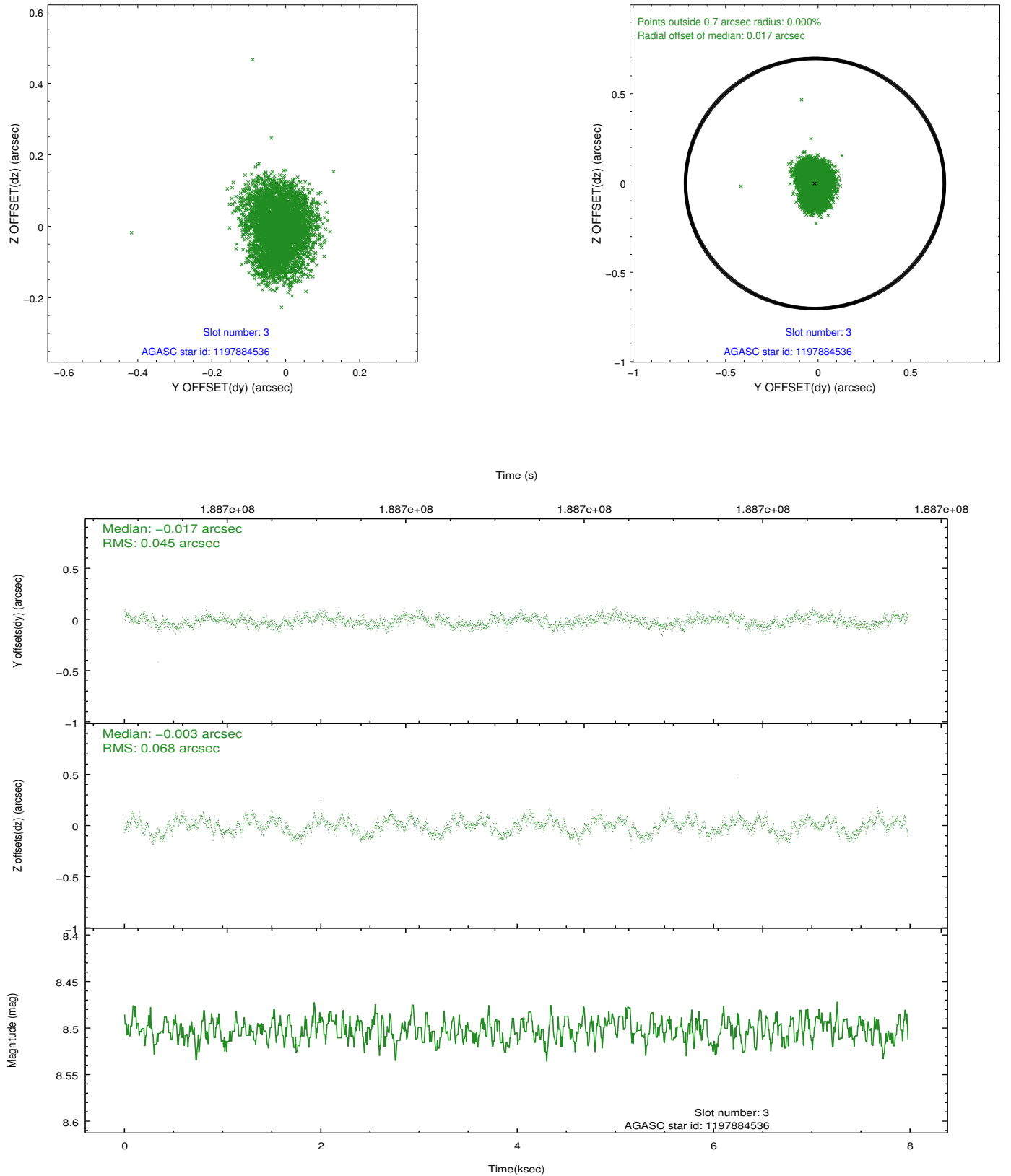


Slot Statistics

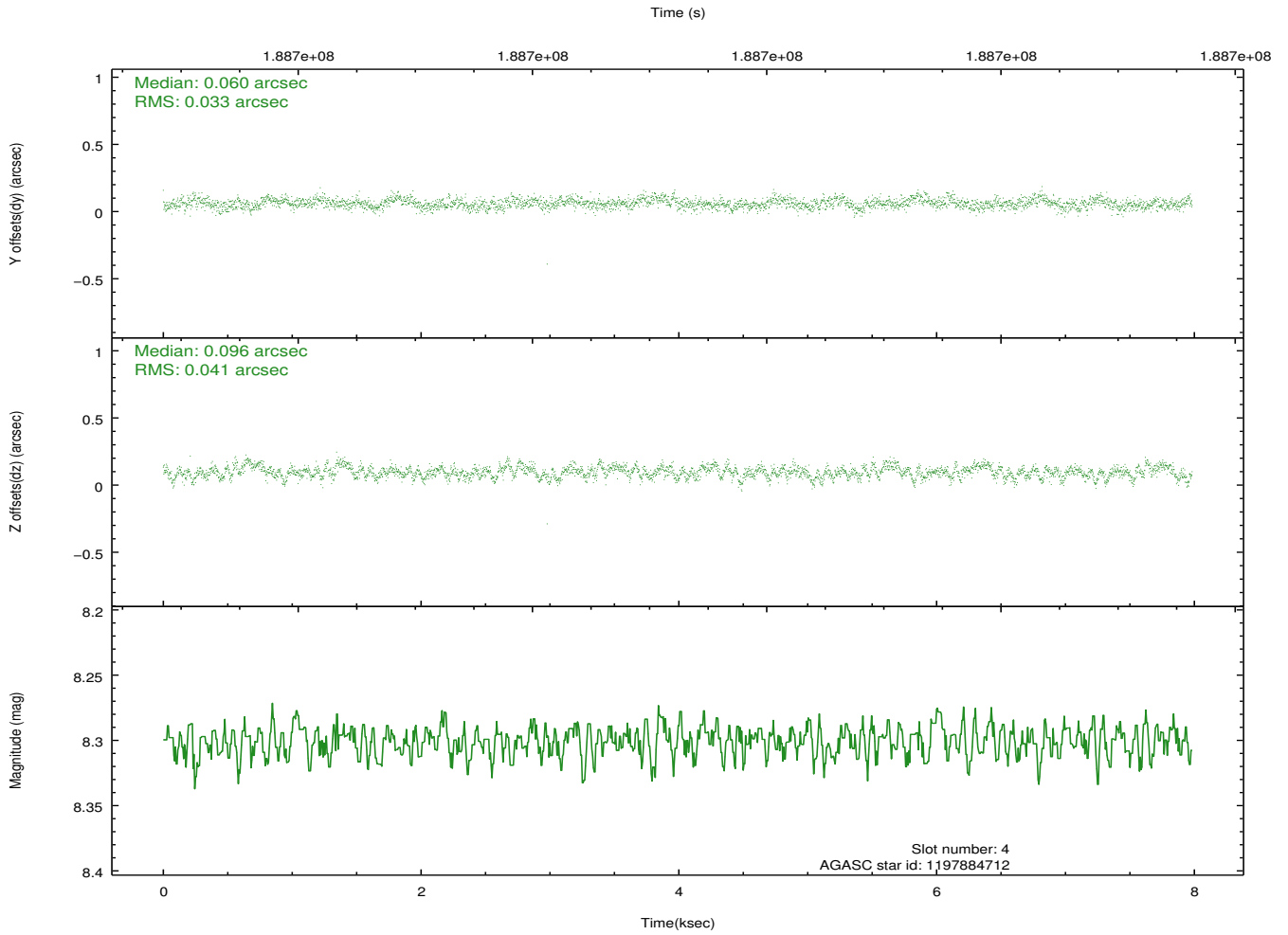
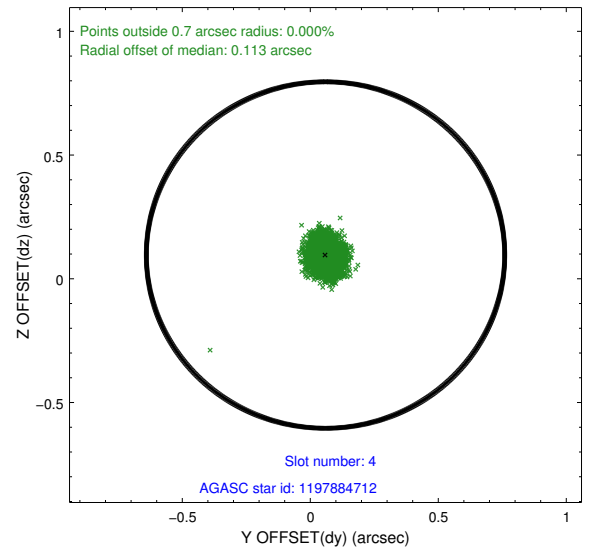
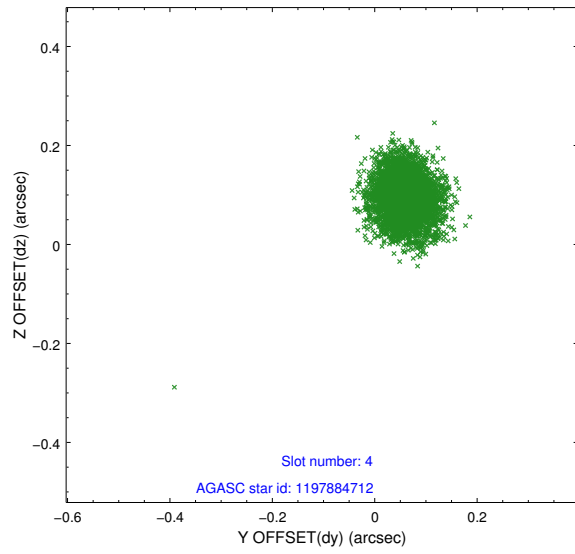
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1948	-0.008	0.001	0.006	0.010	0.000000	0.000000	-761.27	-1732.80
1	FID	ACIS-S-4	7.20	1948	0.076	0.004	0.006	0.011	0.000000	0.000000	2151.76	174.97
2	FID	ACIS-S-5	7.23	1948	-0.099	0.004	0.006	0.010	0.000000	0.000000	-1813.31	169.42
3	GUIDE	1197884536	8.50	3895	-0.017	-0.003	0.088	0.136	17.160729	-71.835289	-450.08	1506.90
4	GUIDE	1197884712	8.30	3894	0.060	0.096	0.056	0.091	16.087398	-72.252690	546.38	-130.83
5	GUIDE	1197885104	9.35	3891	0.085	-0.019	0.124	0.188	17.845067	-72.189368	1013.57	1757.03
6	GUIDE	1197885328	7.22	3895	-0.038	-0.112	0.060	0.096	16.283090	-71.733943	-1135.76	708.91
7	GUIDE	1198189696	7.38	3894	-0.098	0.042	0.057	0.089	15.223750	-72.697522	1746.53	-1545.25

2.4 Star Slots

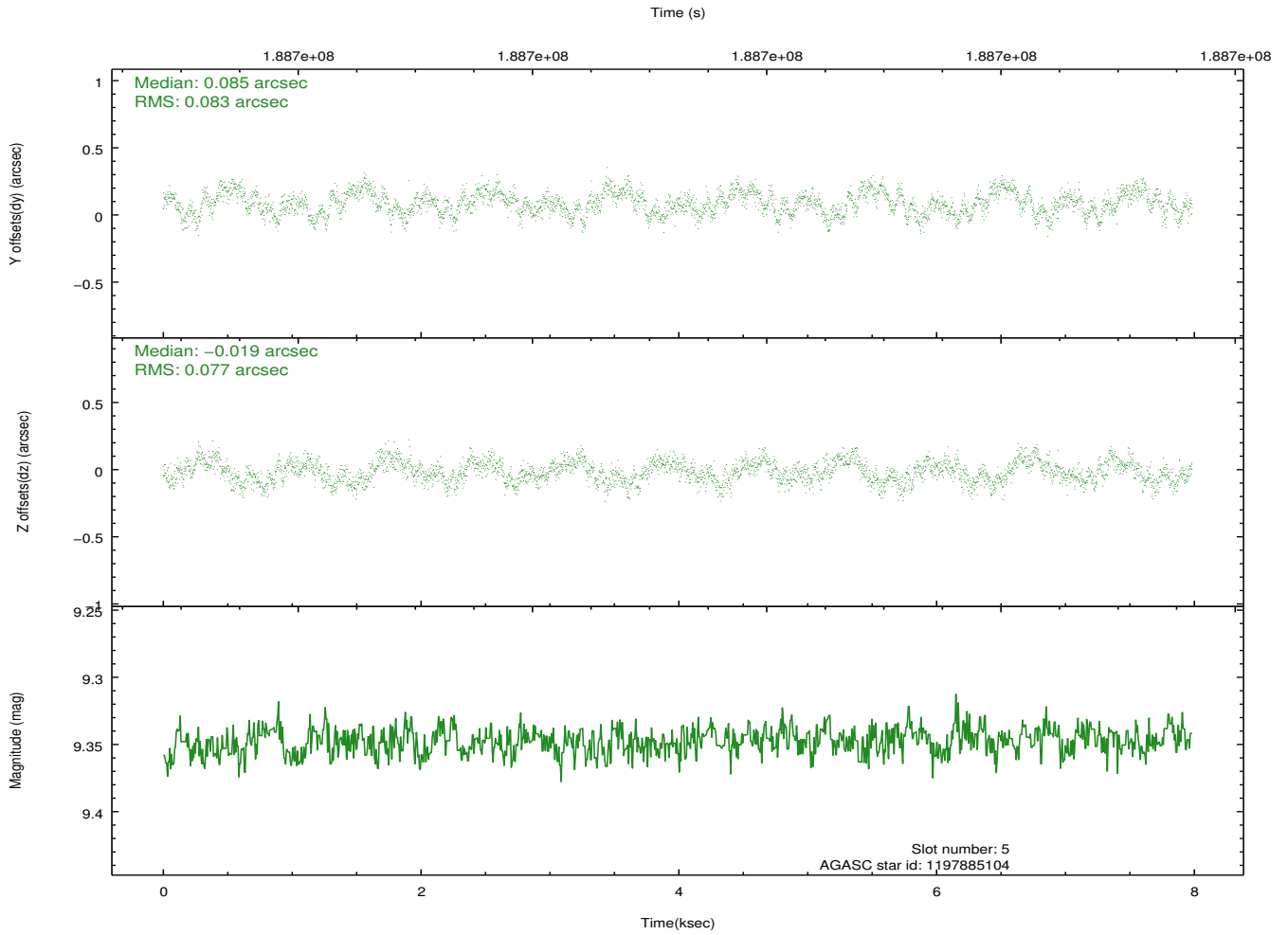
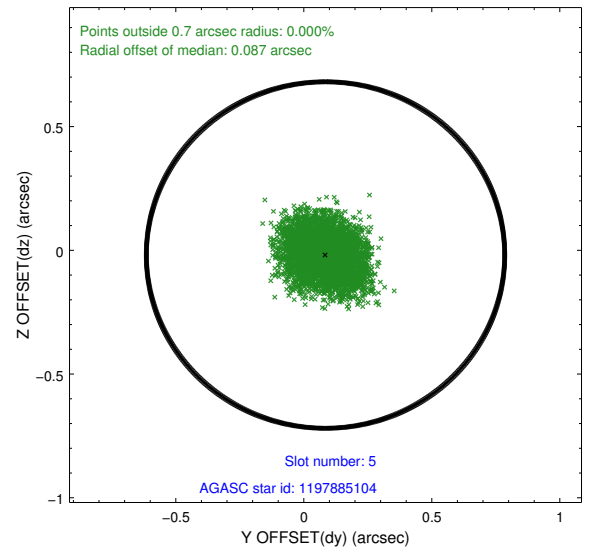
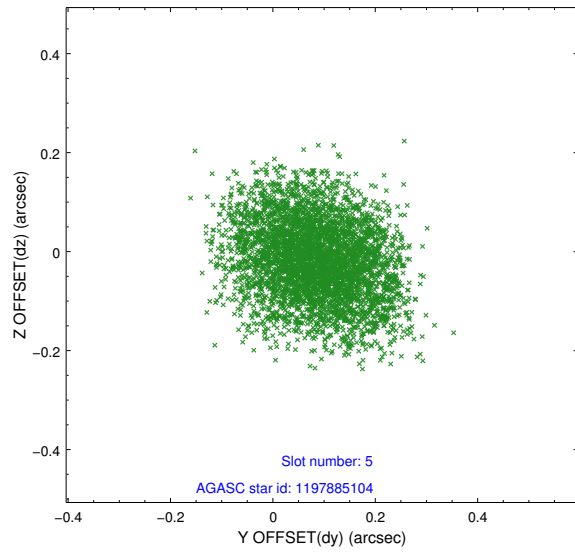
2.4.1 Slot 3



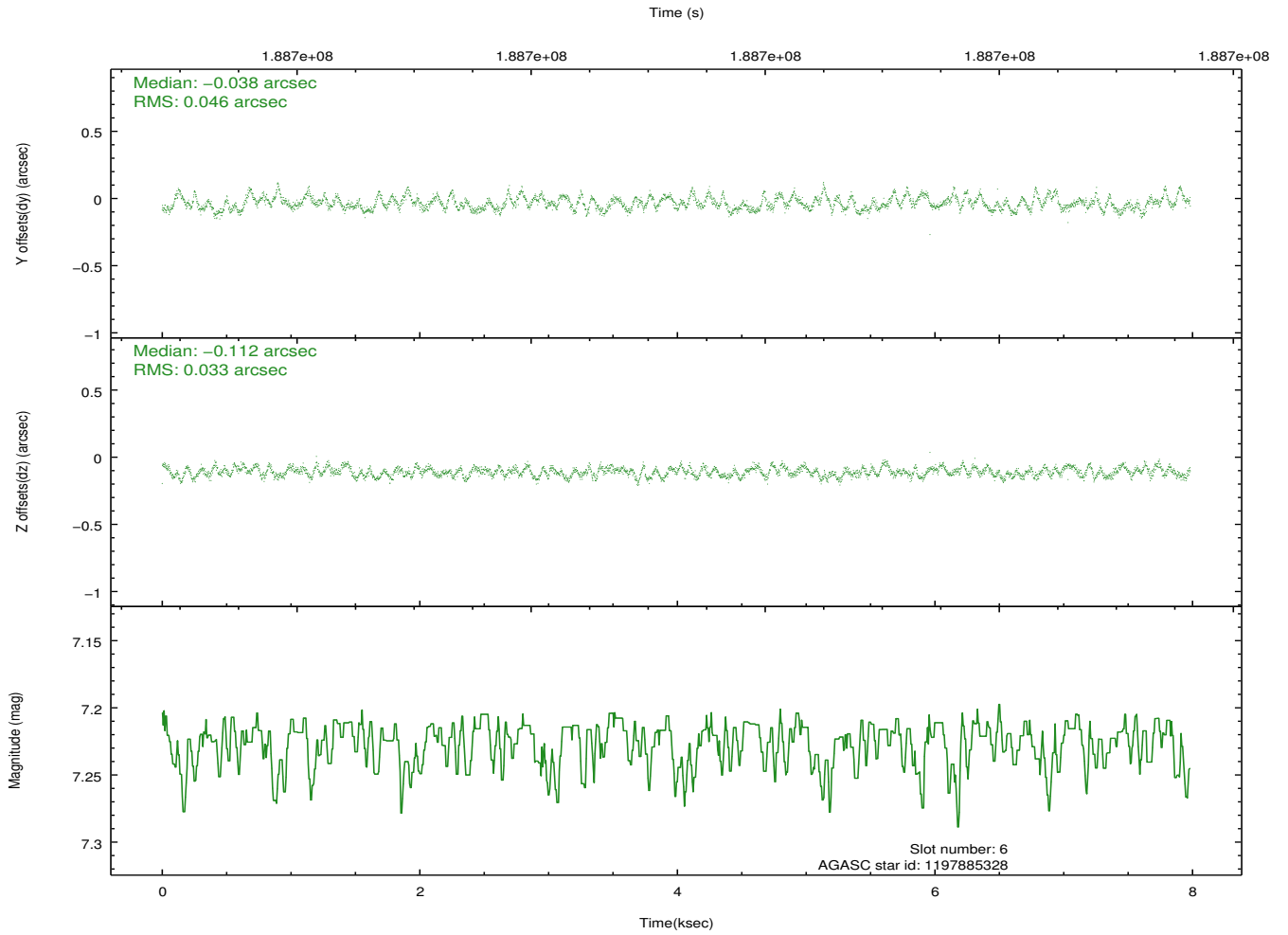
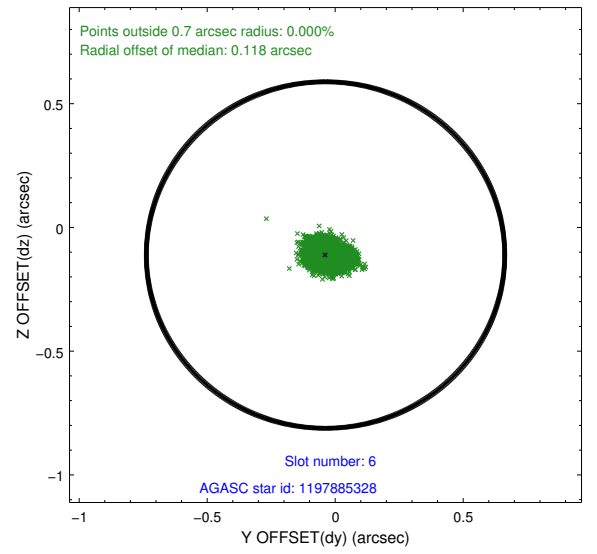
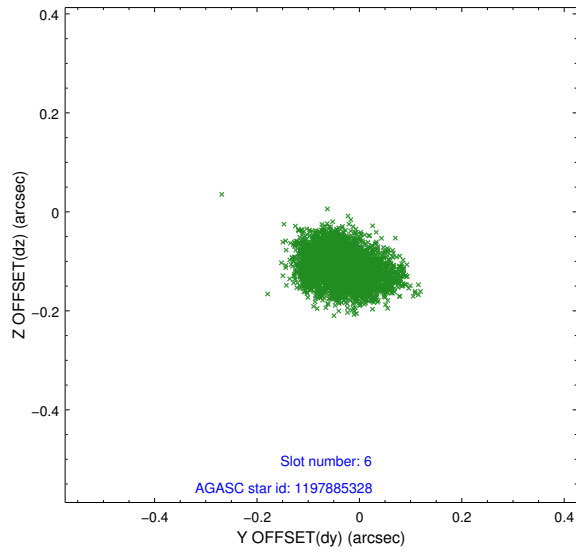
2.4.2 Slot 4



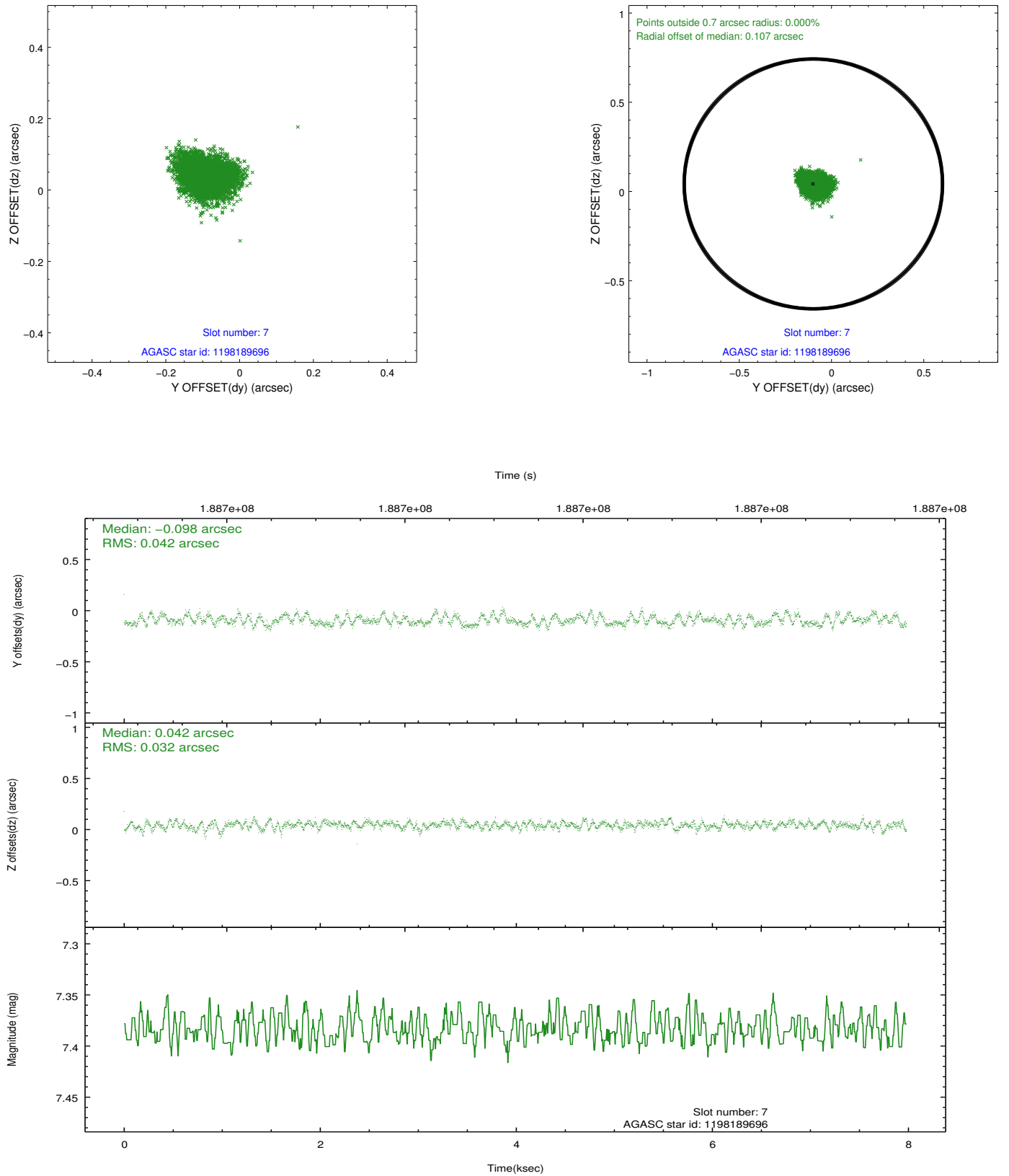
2.4.3 Slot 5



2.4.4 Slot 6

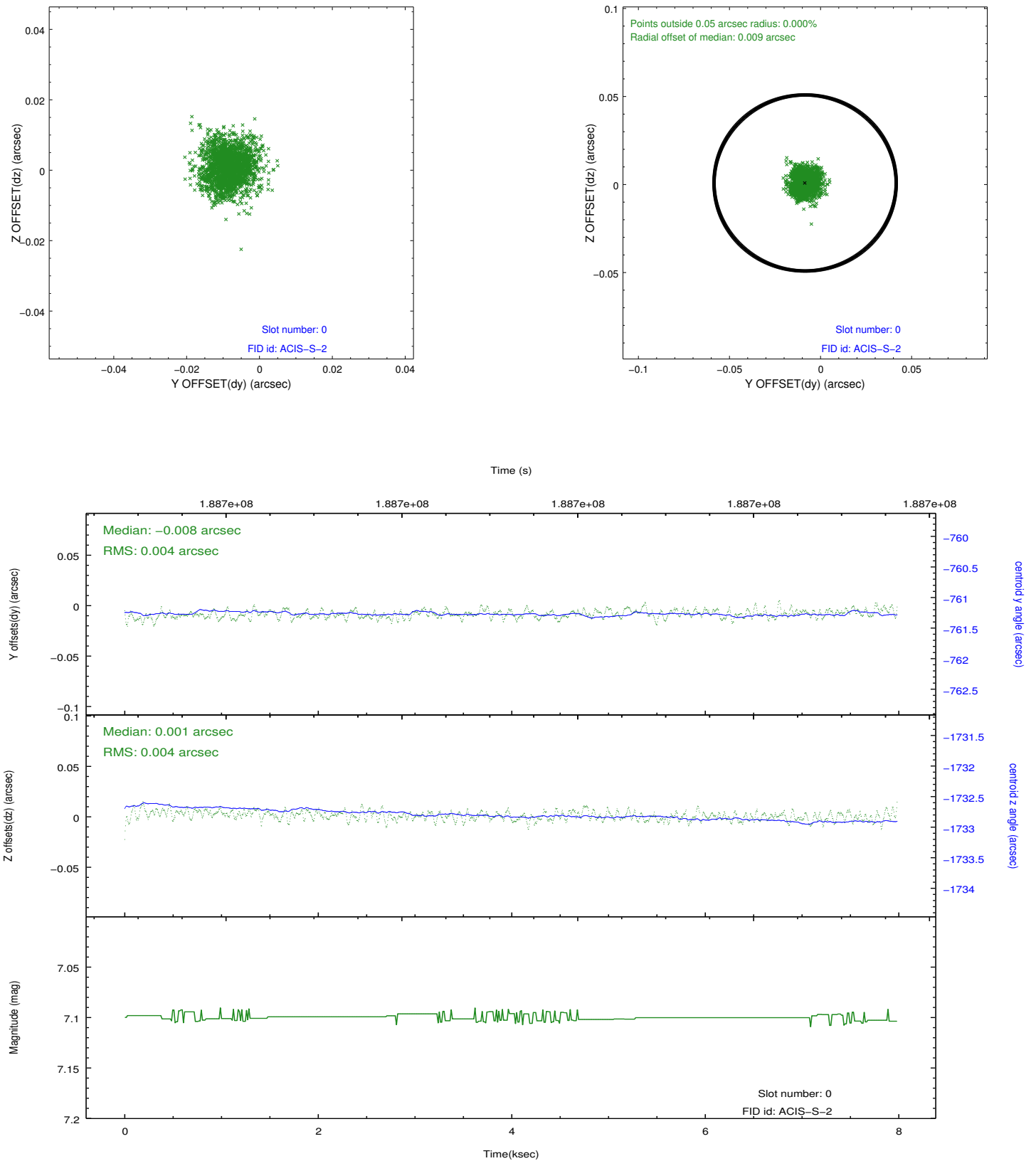


2.4.5 Slot 7

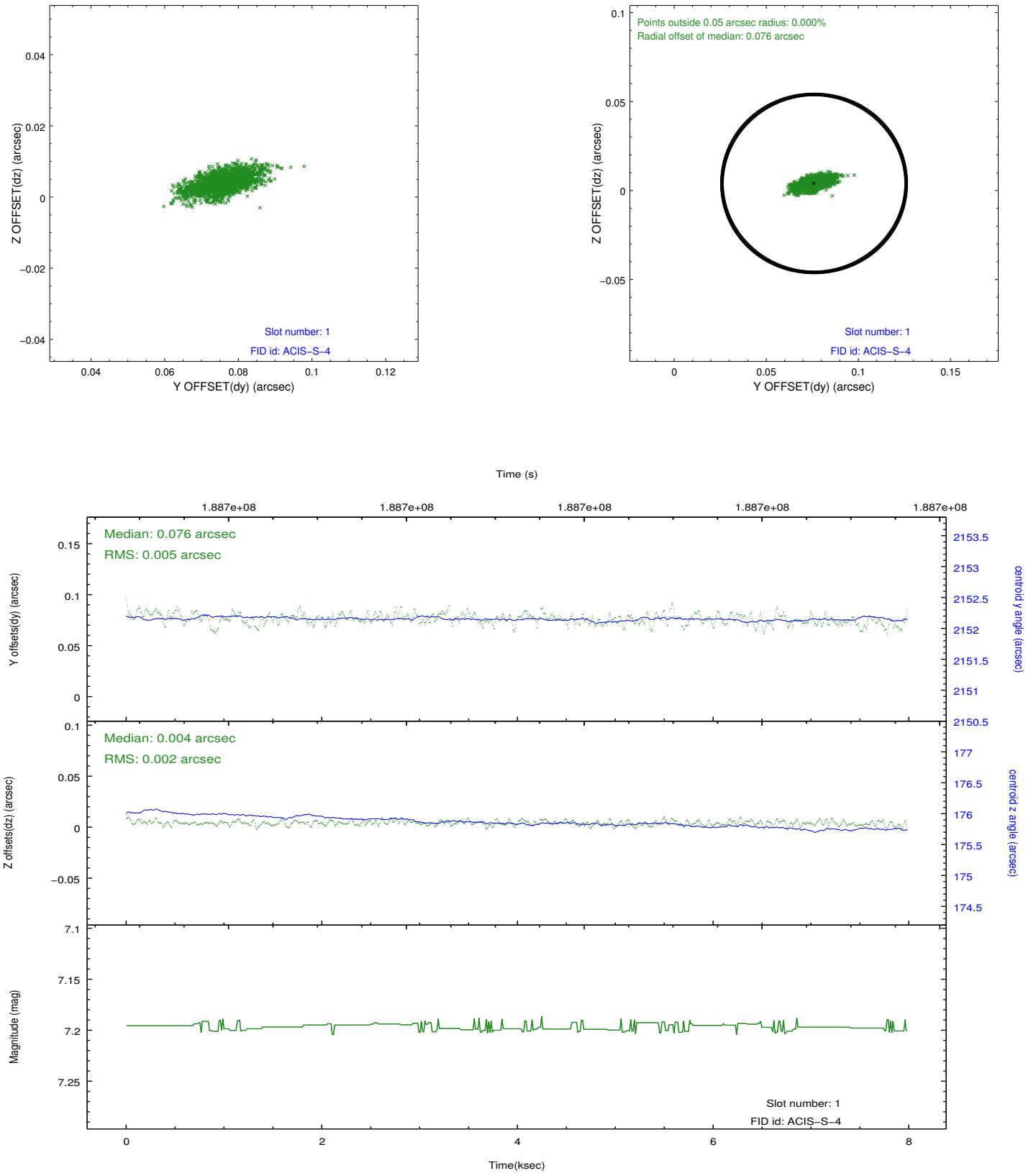


2.5 FID Slots

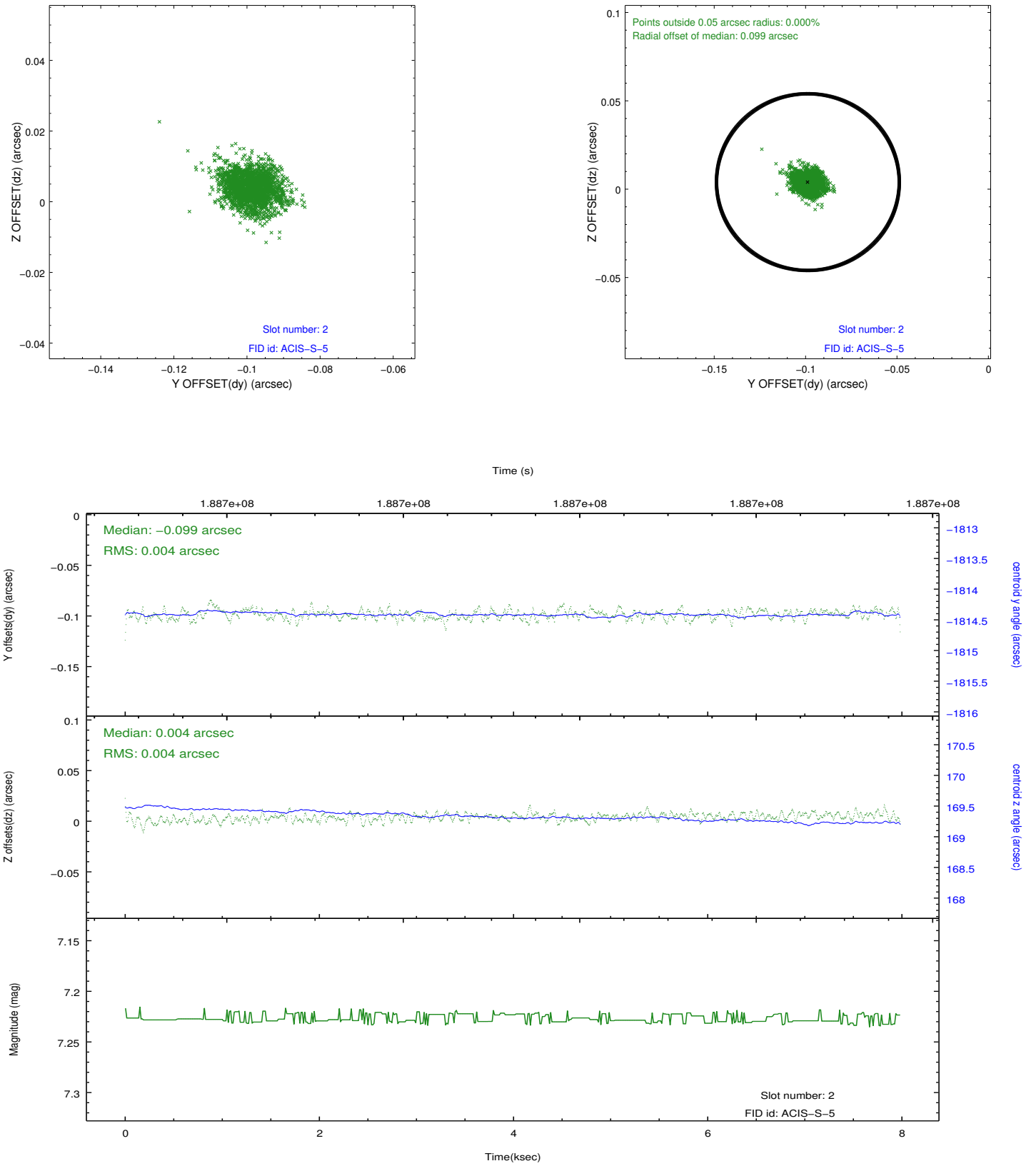
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.03.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.548

A.2 Comments

Window constraint met. On day 356 at about 00:30, the OBA heater stuck in the 'on' position. This situation affected obsid 4901 and all subsequent observations to this point. The result of this anomaly could be a displacement of the target on the chip in the z direction. The displacement will be small because everything is still within spec, but the target may be spatially displaced, have a different point spread function, or trail across the chip. =====

A spatial region of the original bias map for CCD = 9 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 = 9 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:
(15.99214,-71.81913),(15.98590,-71.81374),(15.78207,-71.83660),(15.82249,-71.83818)