

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10651 - L2 Version 3
Chandra X-Ray Center

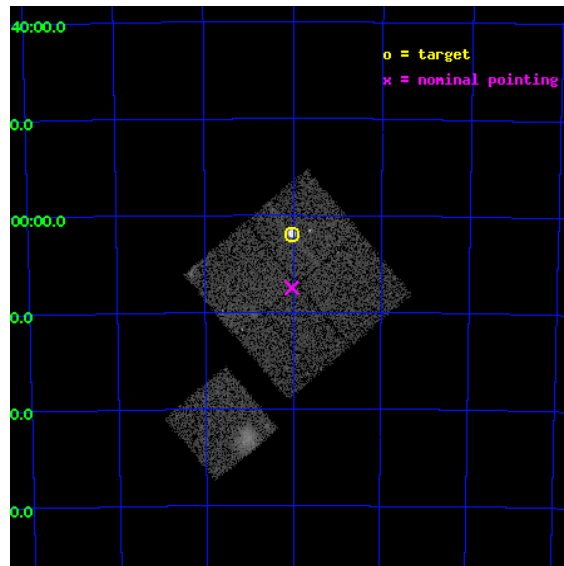
L2 Processing Date : May 31 2012

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1 Front

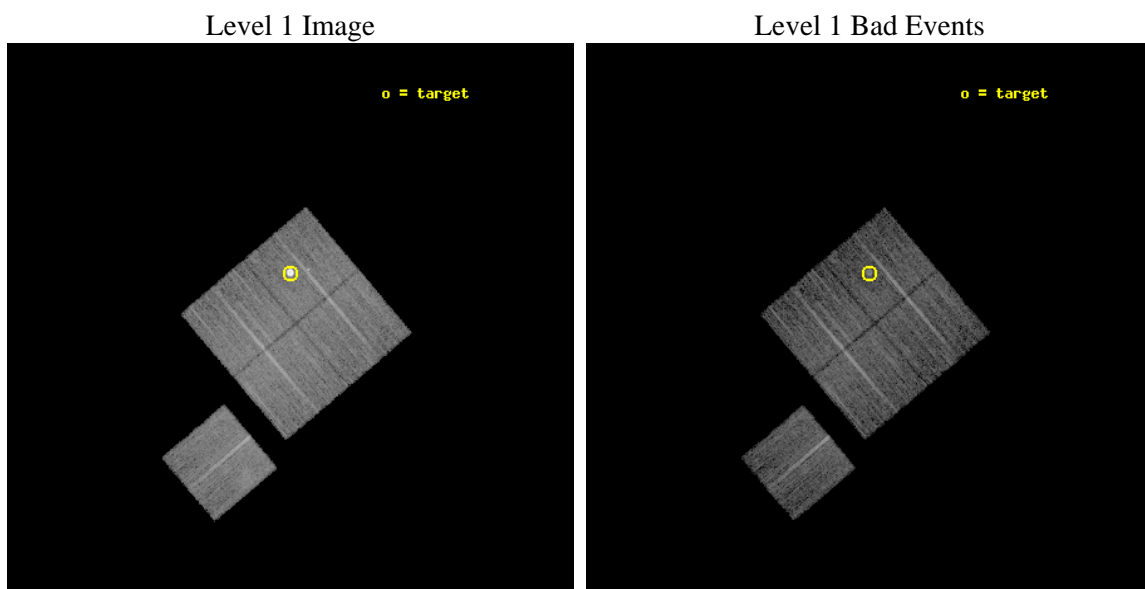
seq_num	590490	Sequence number
obs_id	10651	Observation id
title	AO-10 Calibration Observations of E0102-72	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72[I1,-120,-4.0,-3.68,0]	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	16.007654221374	Nominal RA [deg]
dec_nom	-72.12482600309	Nominal Dec [deg]
roll_nom	229.76369251349	Nominal Roll [deg]
revision	3	Processing version of data
ontime	8043.240426302	Sum of GTIs [s]
livetime	7938.1495687849	Livetime [s]
ontime0	8036.9174656272	Sum of GTIs [s]
ontime1	8043.240426302	Sum of GTIs [s]
ontime2	8043.2814663053	Sum of GTIs [s]
ontime3	8040.1815359592	Sum of GTIs [s]
ontime6	8043.1583462954	Sum of GTIs [s]
l2events	50284	Number of level 2 events



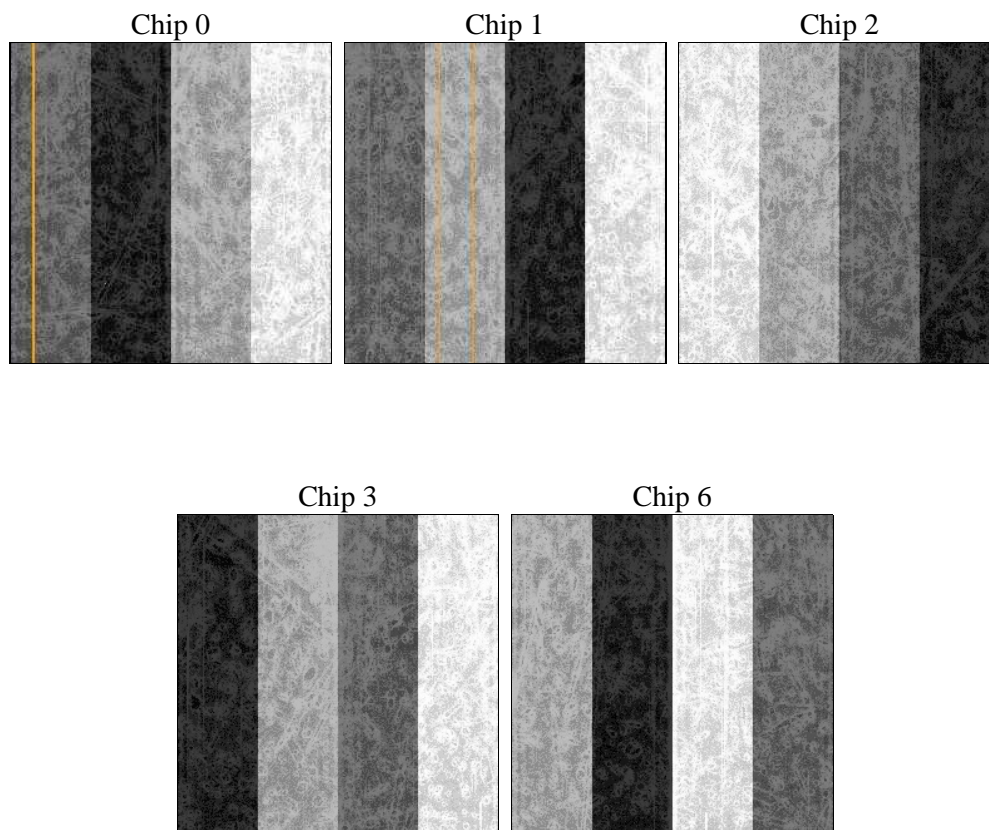
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	8043.240426302	Sum of GTIs [s]
caldsver	4.4.9	 	ontime0	8036.9174656272	Sum of GTIs [s]
date	2012-05-31T17:37:27	Date and time of file creation	ontime1	8043.240426302	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	8043.2814663053	Sum of GTIs [s]
			ontime3	8040.1815359592	Sum of GTIs [s]
			ontime6	8043.1583462954	Sum of GTIs [s]
			l1events	339826	Number of level 1 events

2.1.4 Events

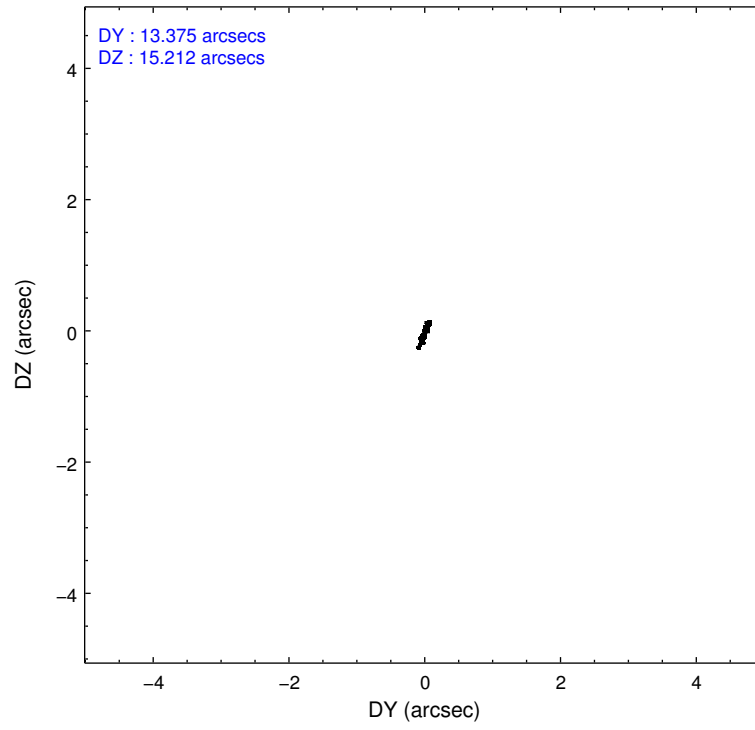
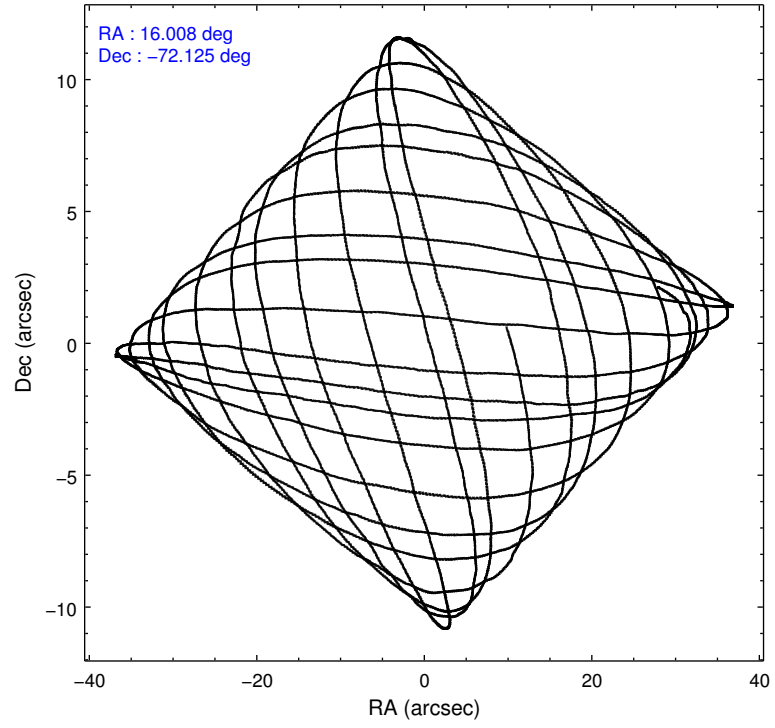
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	60116	80454	69377	64292	65587
rejected events	53407	51521	62909	57533	57114
rejected %	88%	64%	90%	89%	87%

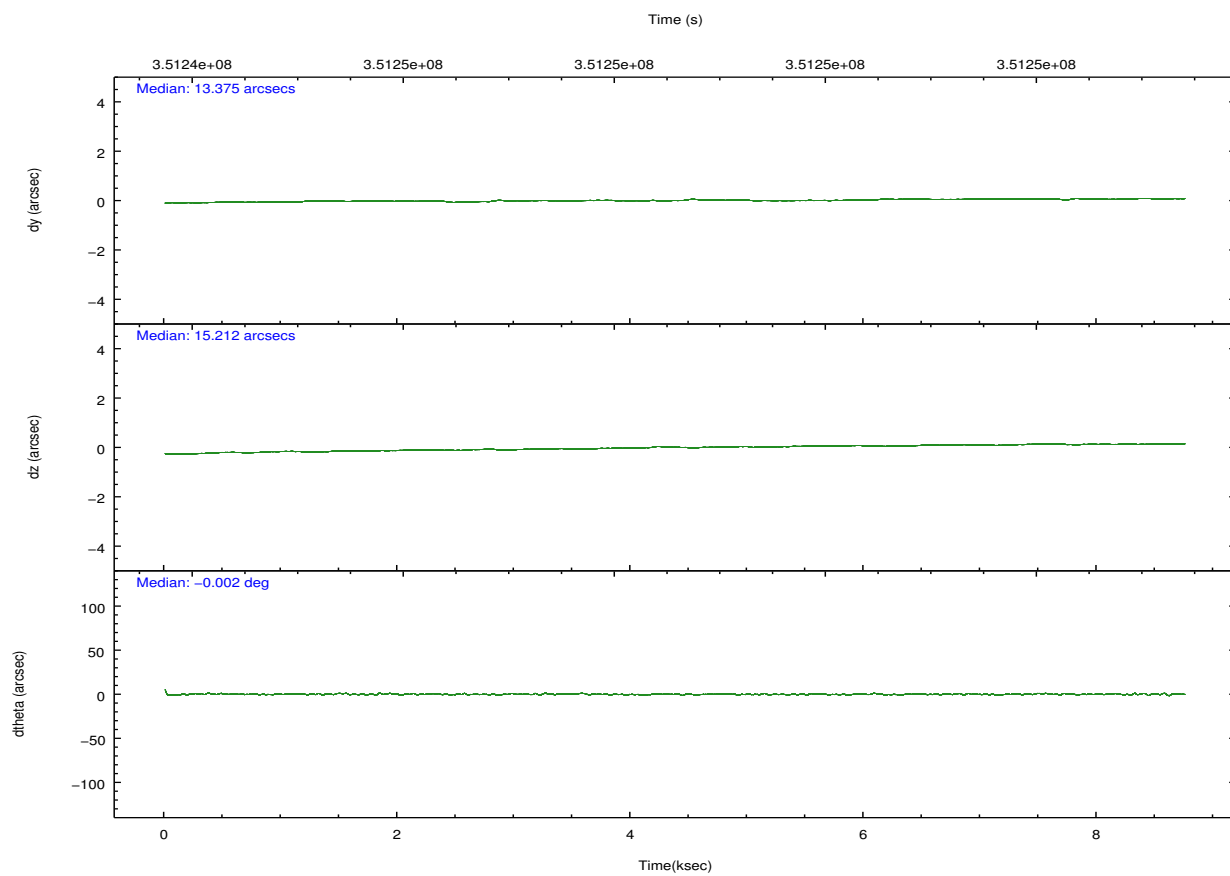
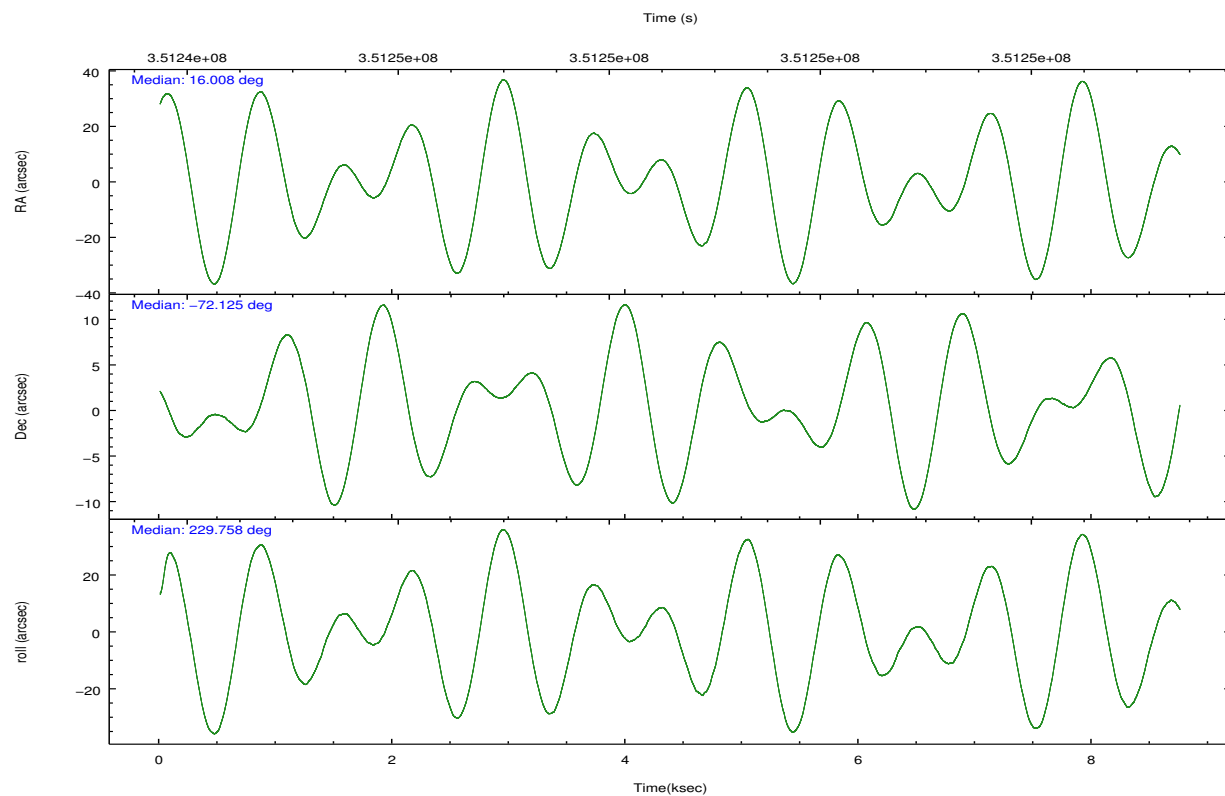
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2524	21953	2471	2854	4143
	4%	27%	3%	4%	6%
grade 1 events	37	196	41	52	43
	0%	0%	0%	0%	0%
grade 2 events	1661	3177	1518	1397	1594
	2%	3%	2%	2%	2%
grade 3 events	728	1126	648	636	708
	1%	1%	0%	0%	1%
grade 4 events	650	1153	681	673	733
	1%	1%	0%	1%	1%
grade 5 events	1983	2244	1874	2263	2145
	3%	2%	2%	3%	3%
grade 6 events	1147	1532	1151	1202	1298
	1%	1%	1%	1%	1%
grade 7 events	51386	49073	60993	55215	54923
	85%	60%	87%	85%	83%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	16.023176	16.00765422137391	Subarray requested	NONE	NONE
[deg] Pointing Dec	-72.097690	-72.12482600308989	Alternating exposures requested	N	N
[deg] Pointing Roll	229.569787	229.7636925134902	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	344476865.184000	344476865.184000			
[s] Window stop time (MET)	357436866.184000	357436866.184000			
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	351244956.184000	351243742.70017			
Observation start date	2009-02-17T08:01:30	2009-02-17T07:42:22			
[s] Observation end time (MET)	351252956.184000	351253901.47567			
Observation end date	2009-02-17T10:14:50	2009-02-17T10:31:41			
Read mode	TIMED	TIMED			

2.3 Aspect



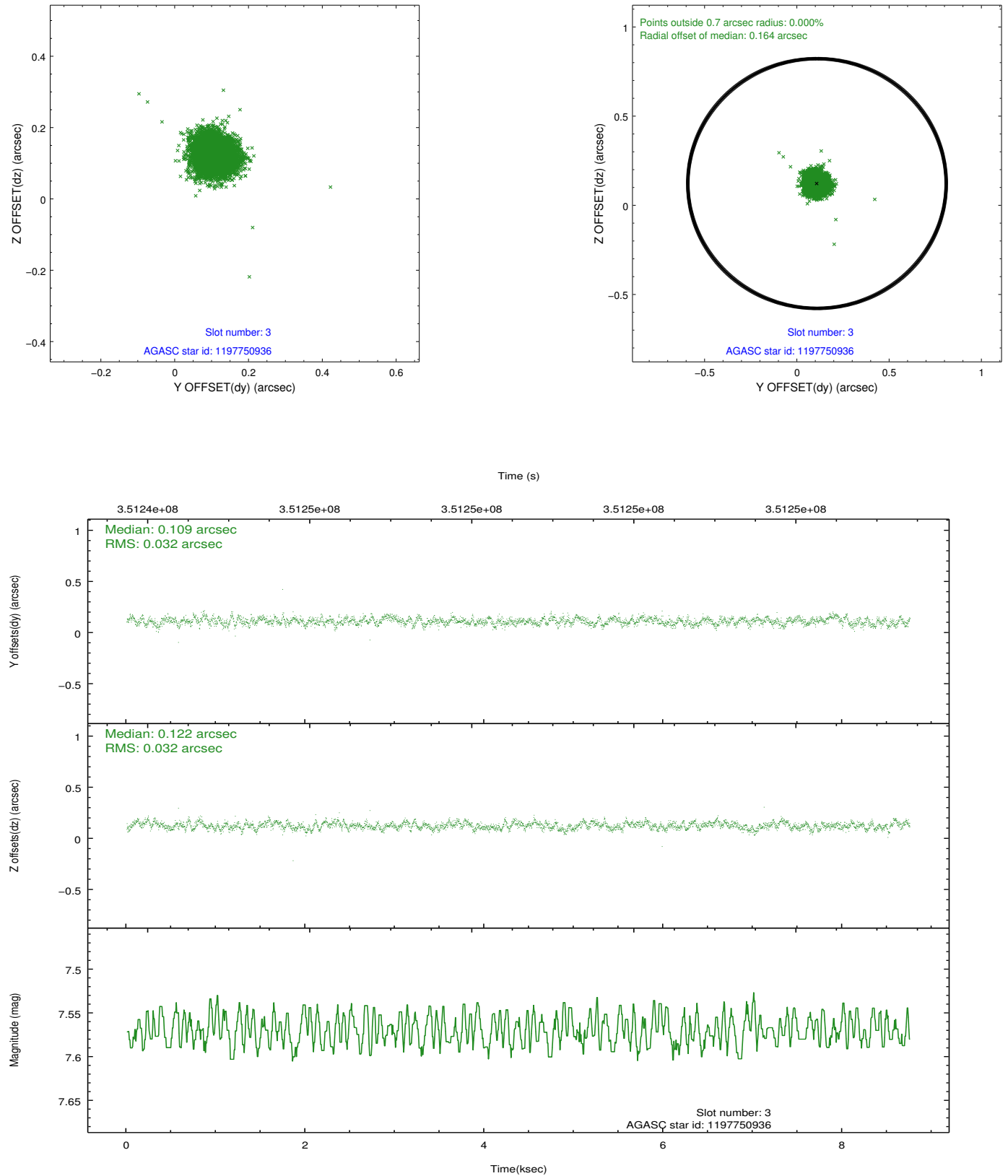


Slot Statistics

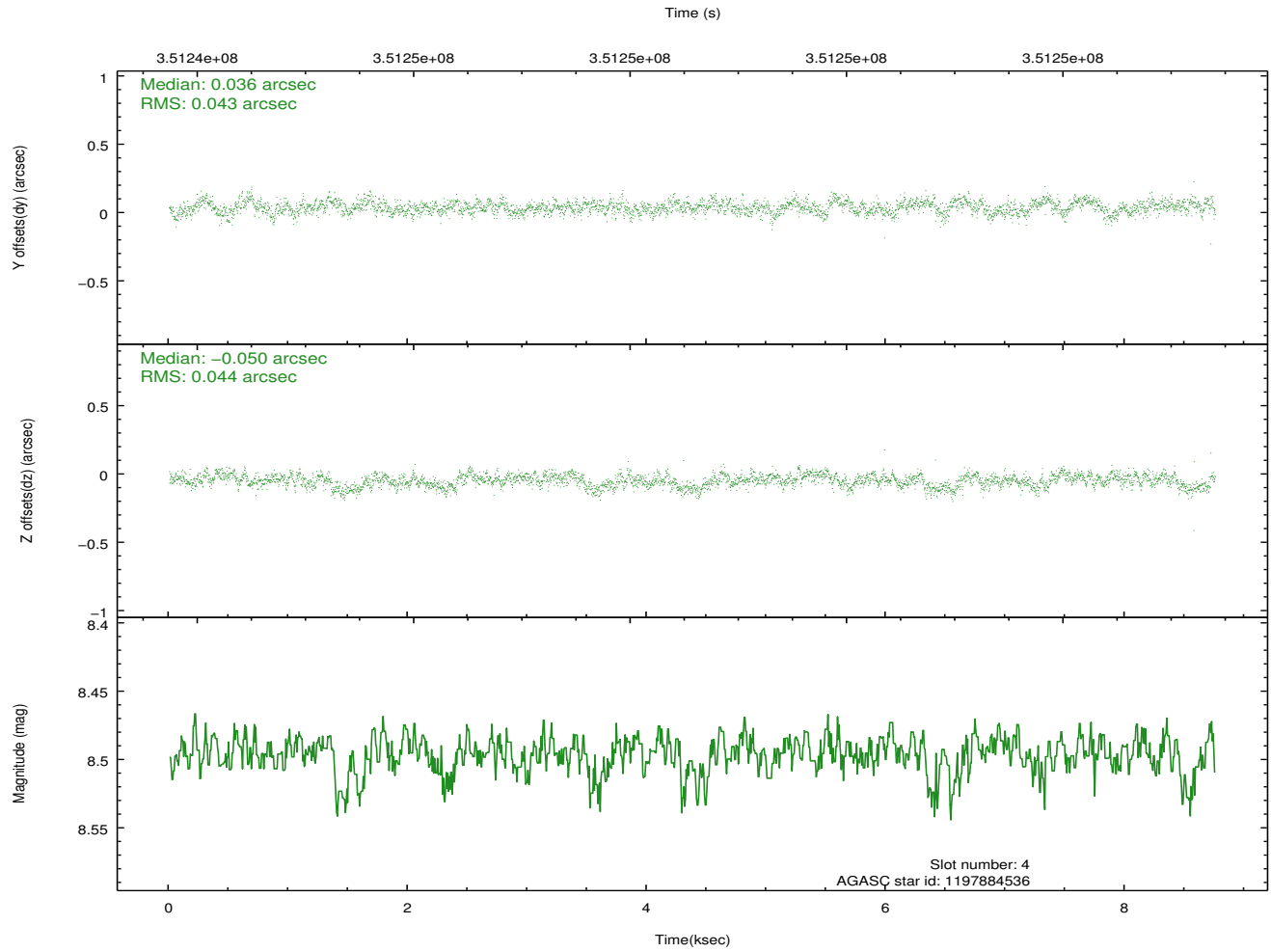
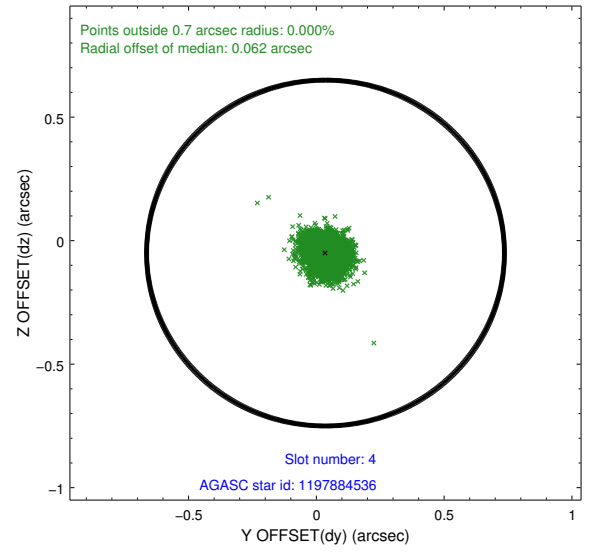
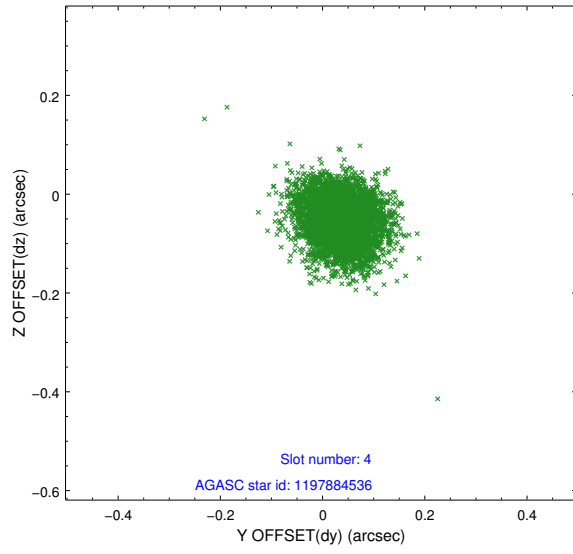
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	6.95	2134	-0.014	-0.006	0.012	0.019	0.000000	0.000000	926.12	-838.79
1	FID	ACIS-I-4	6.88	2135	0.157	0.034	0.009	0.014	0.000000	0.000000	2146.67	1060.74
2	FID	ACIS-I-5	6.94	2135	-0.241	0.042	0.007	0.012	0.000000	0.000000	-1821.31	1059.30
3	GUIDE	1197750936	7.57	4268	0.109	0.122	0.048	0.075	15.387940	-71.549550	-1029.14	-1827.88
4	GUIDE	1197884536	8.50	4268	0.036	-0.050	0.066	0.105	17.160729	-71.835289	-1537.84	366.27
5	GUIDE	1197885328	7.26	4270	0.078	0.179	0.059	0.095	16.283090	-71.733943	-1187.47	-625.04
6	GUIDE	1198189696	7.36	4270	-0.123	-0.091	0.065	0.108	15.223750	-72.697522	2202.84	752.72
7	GUIDE	1198283128	7.73	4268	-0.101	-0.158	0.060	0.095	17.272580	-72.642428	633.58	2302.23

2.4 Star Slots

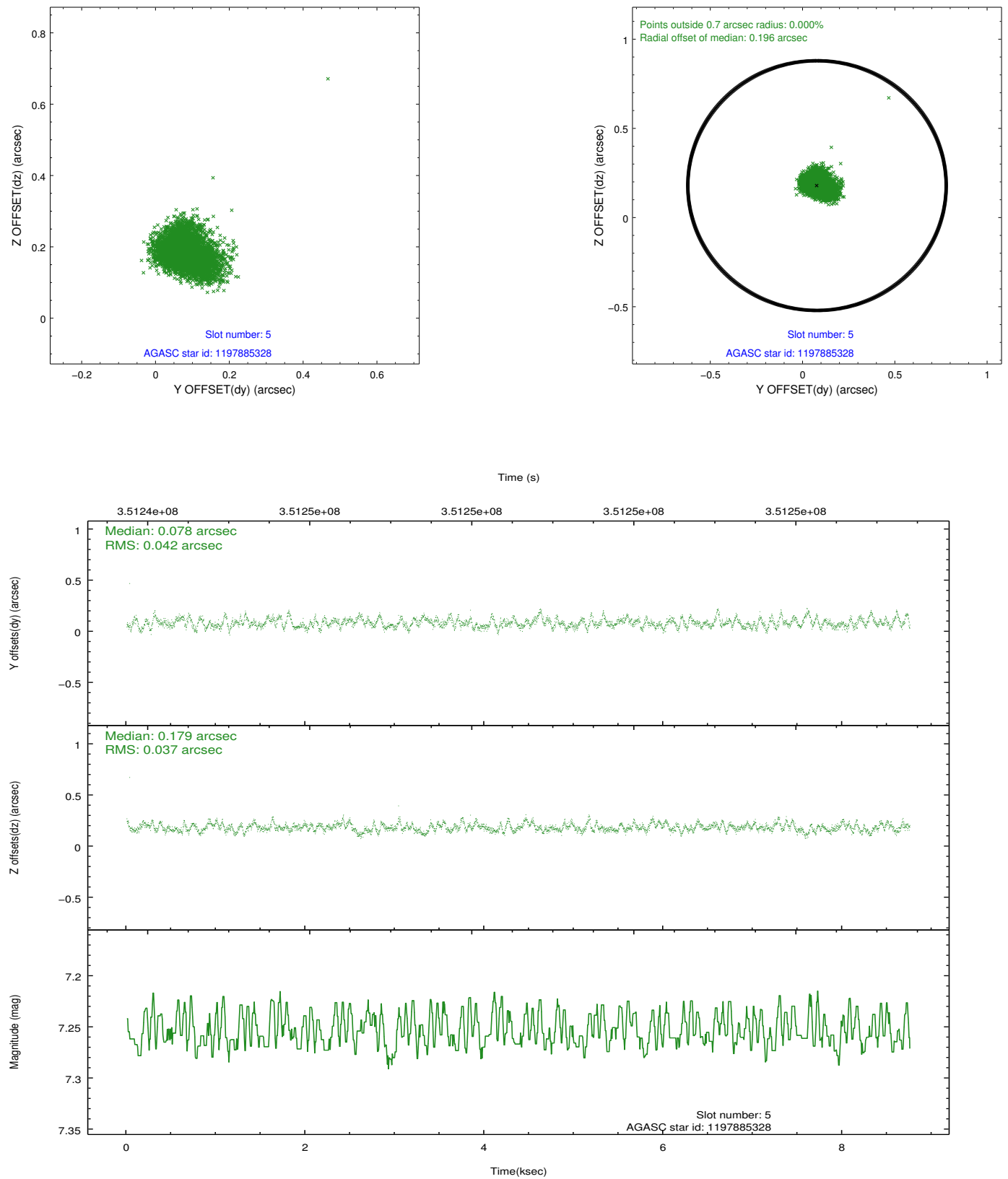
2.4.1 Slot 3



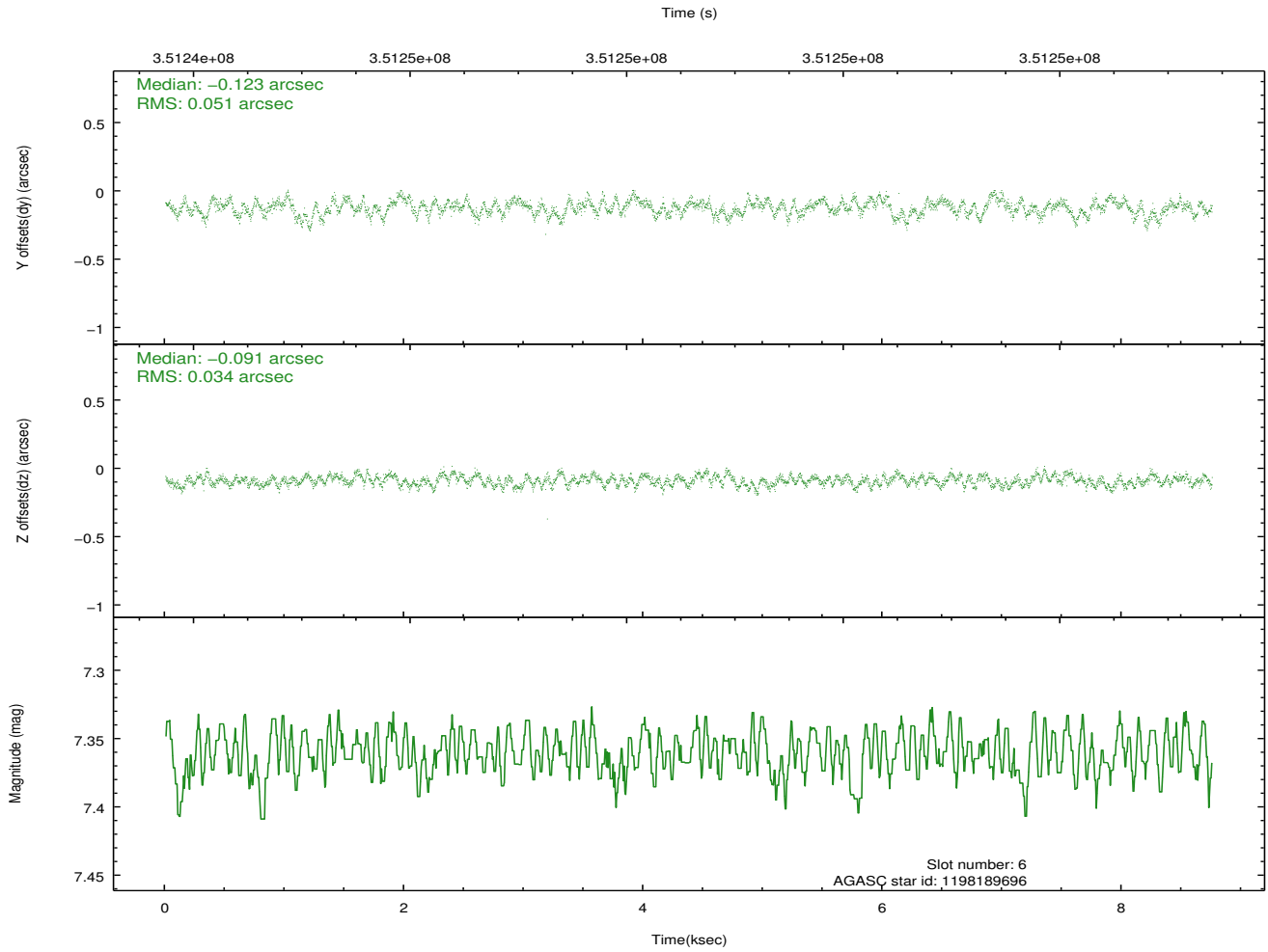
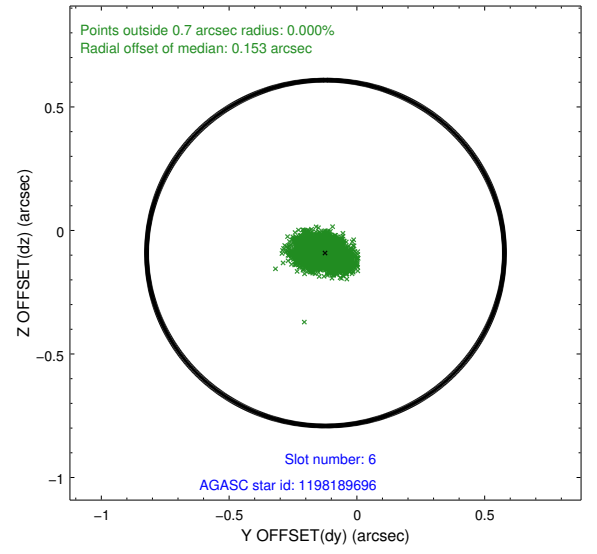
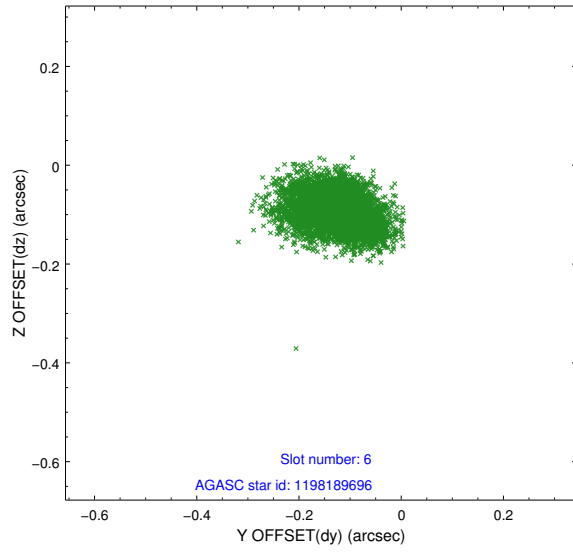
2.4.2 Slot 4



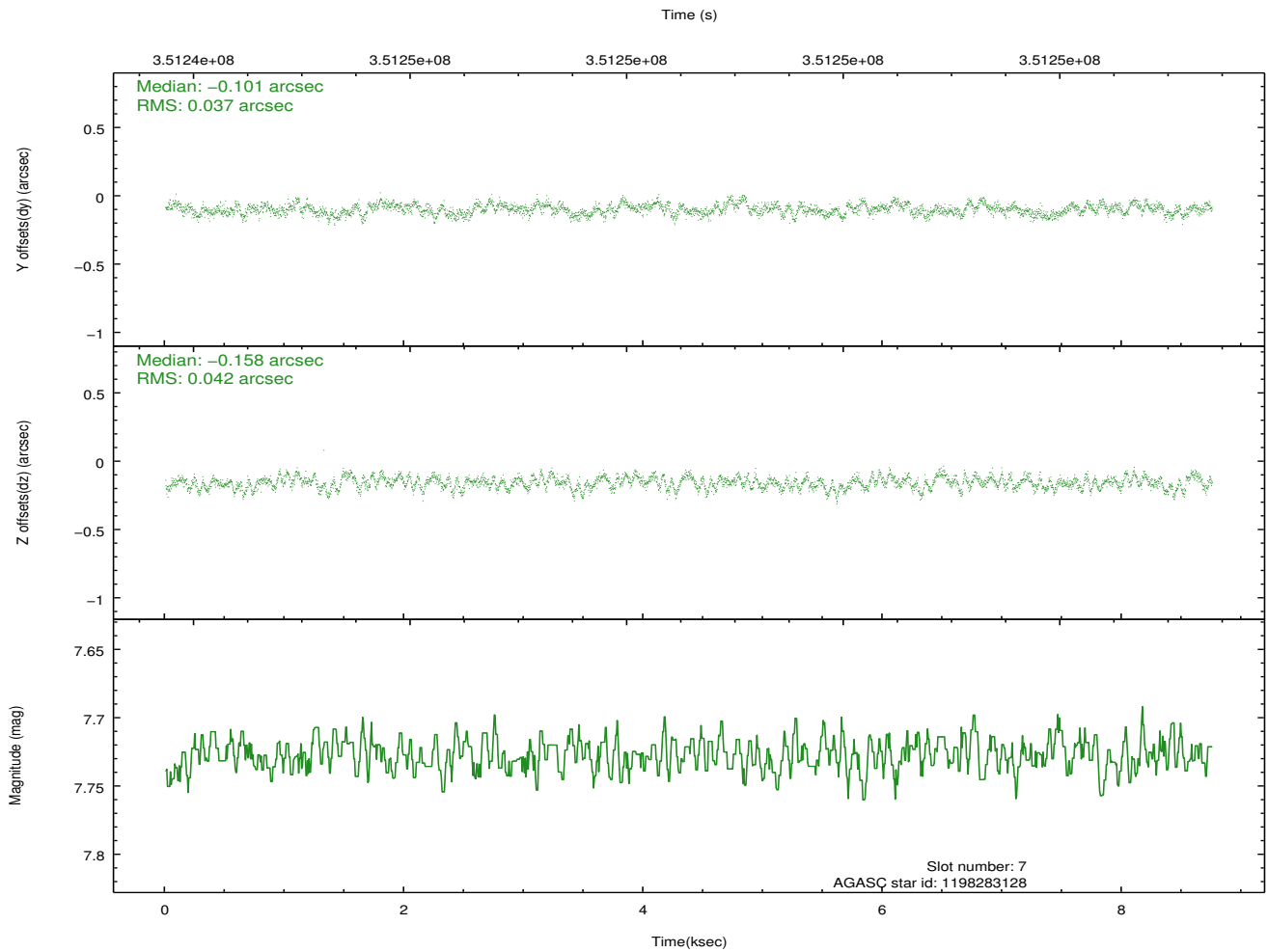
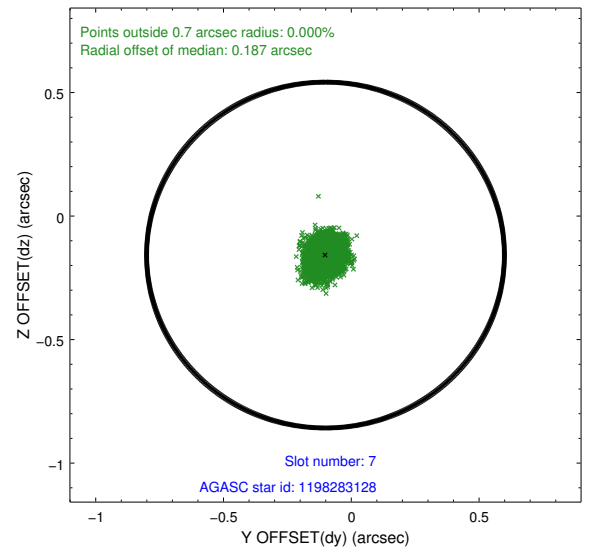
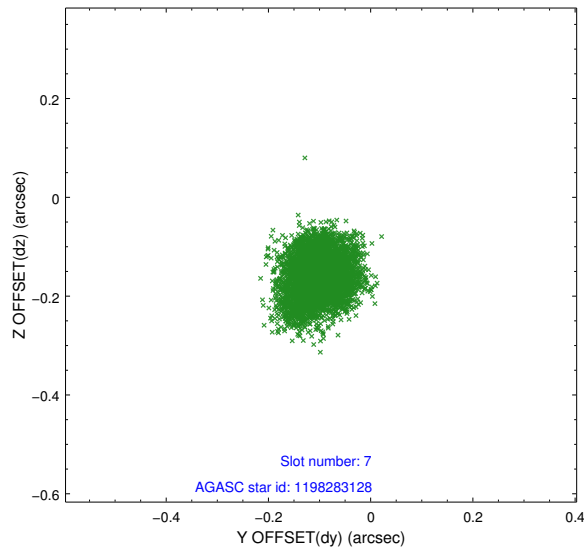
2.4.3 Slot 5



2.4.4 Slot 6

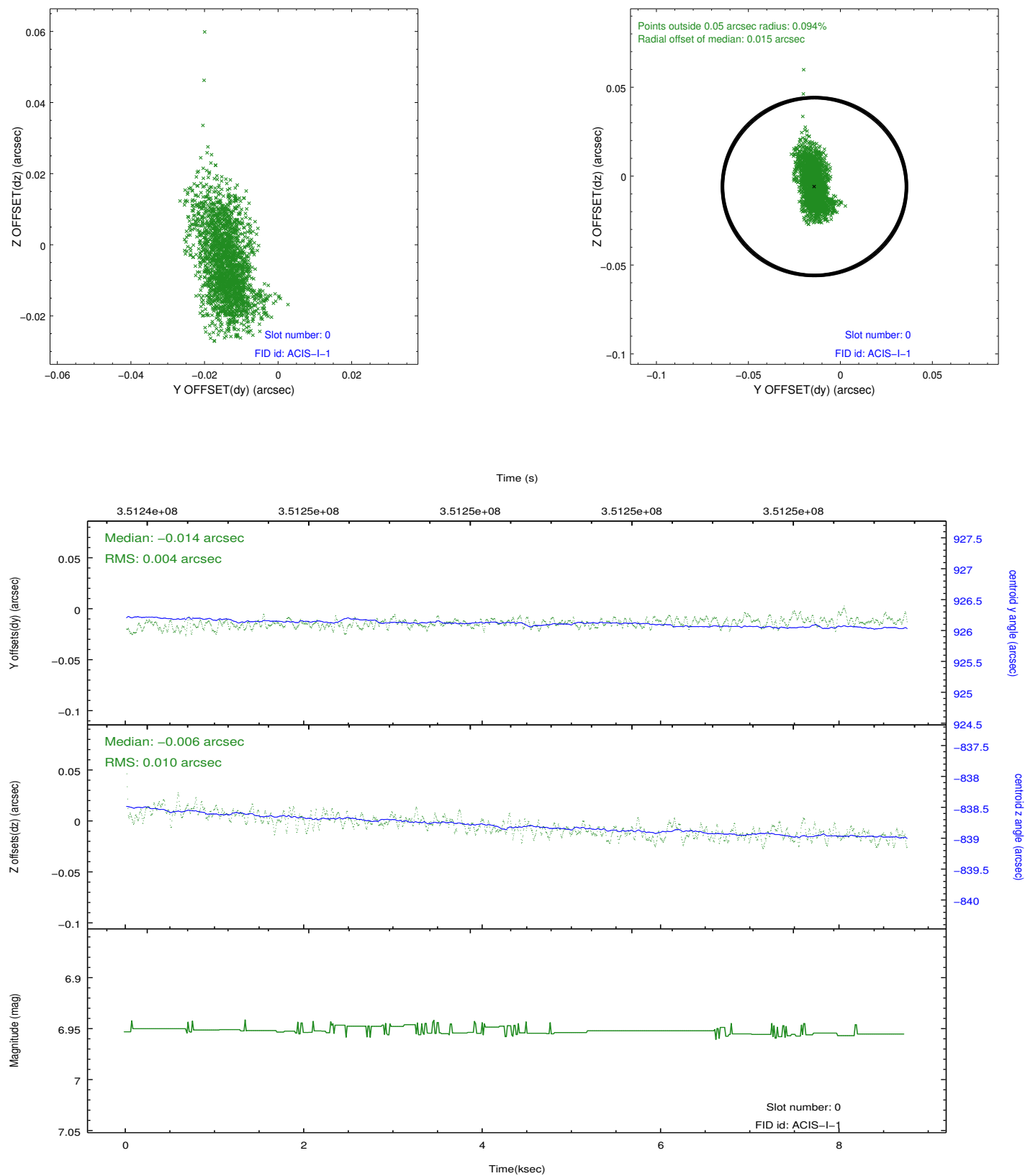


2.4.5 Slot 7

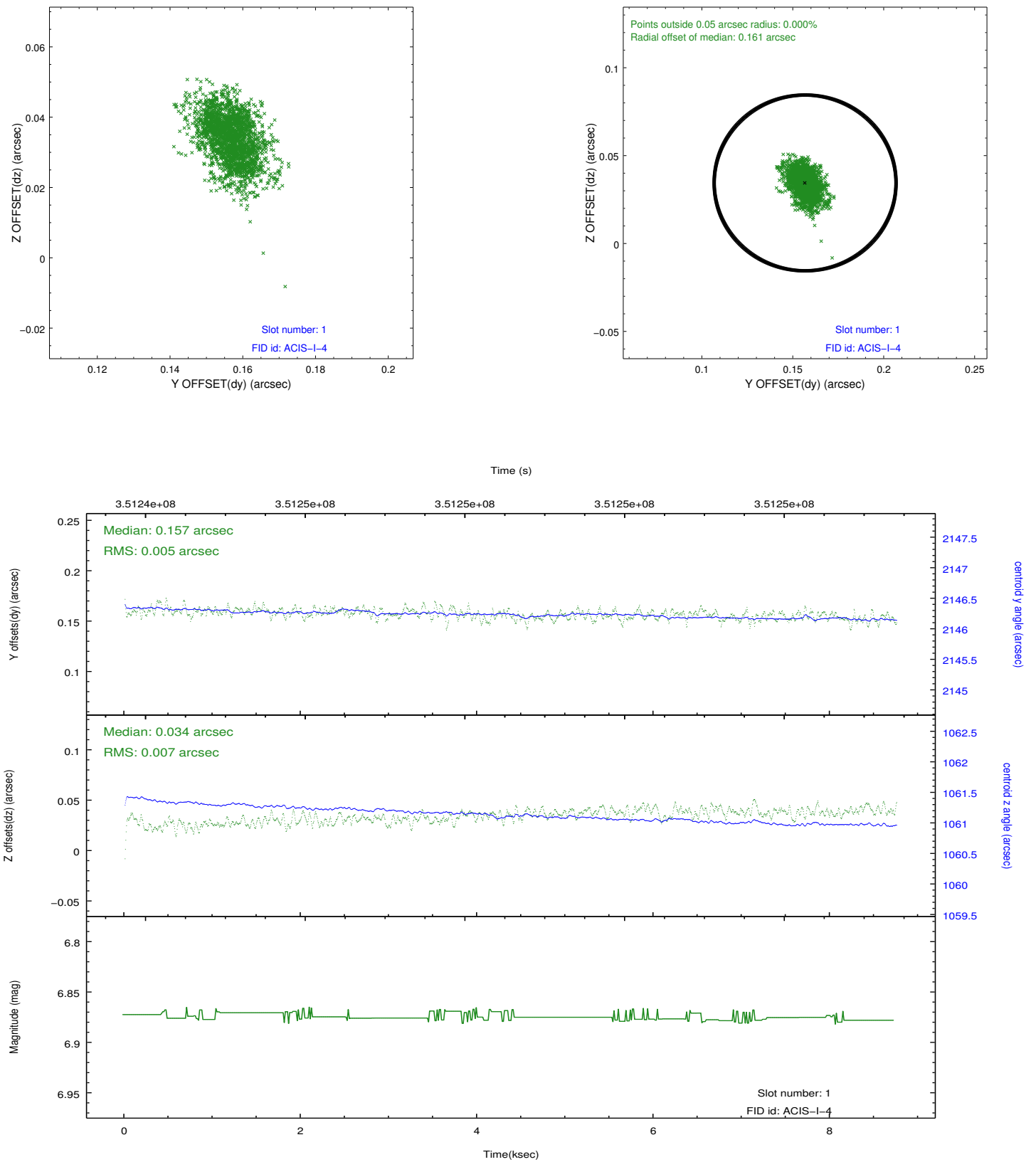


2.5 FID Slots

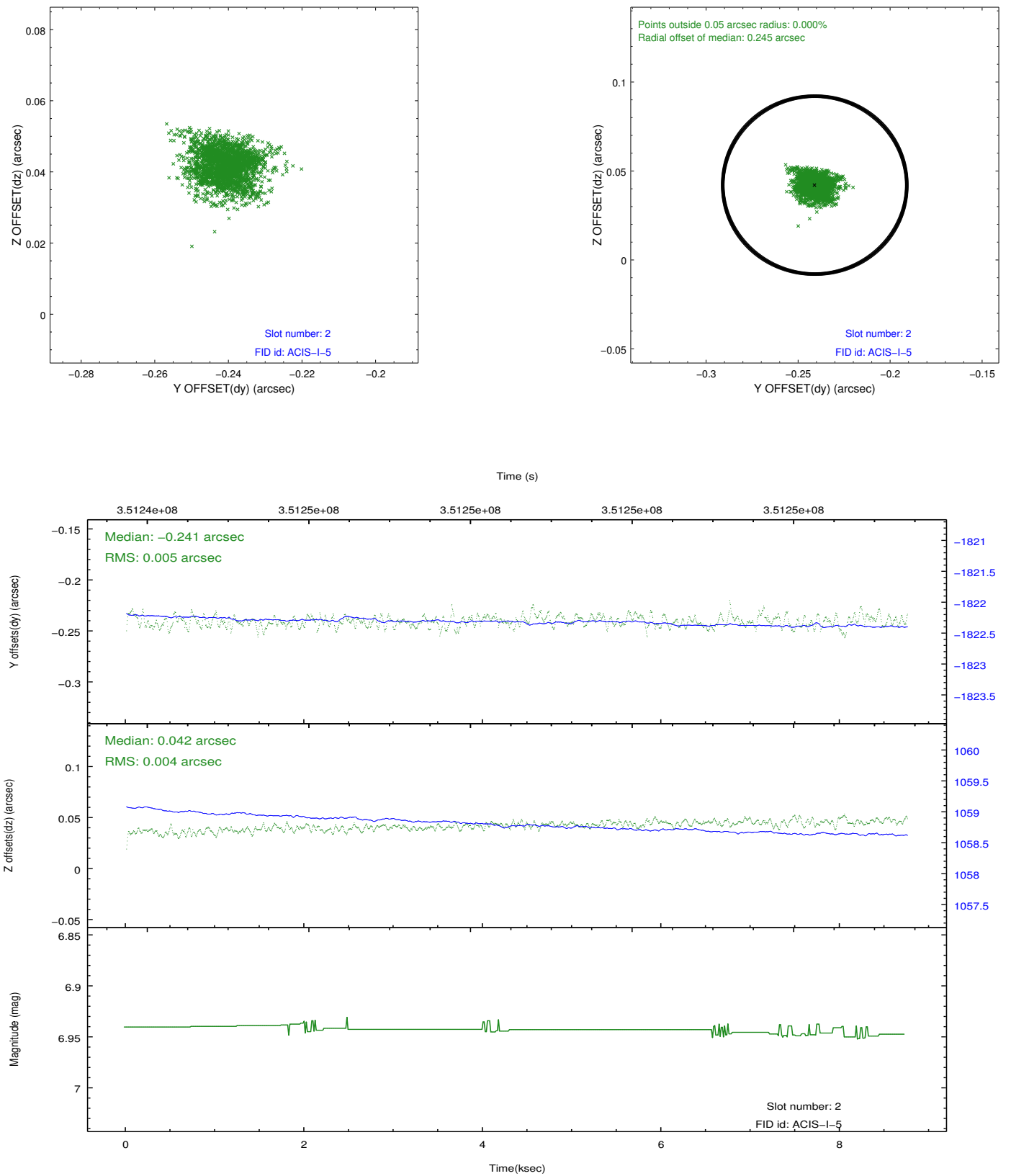
2.5.1 Slot 0



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)	2012.06.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.04450006

A.2 Comments

Window constraint met.

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Two spatial regions 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:

Region 1:

(16.49577,-72.13903),(16.48622,-72.13658),(16.42813,-72.15794),(16.43768,-72.16039)

Region 2:

(16.43155,-72.05261),(16.42307,-72.05042),(16.25187,-72.11336),(16.25322,-72.11817)