

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 16960 - L2 Version 2
Chandra X-Ray Center

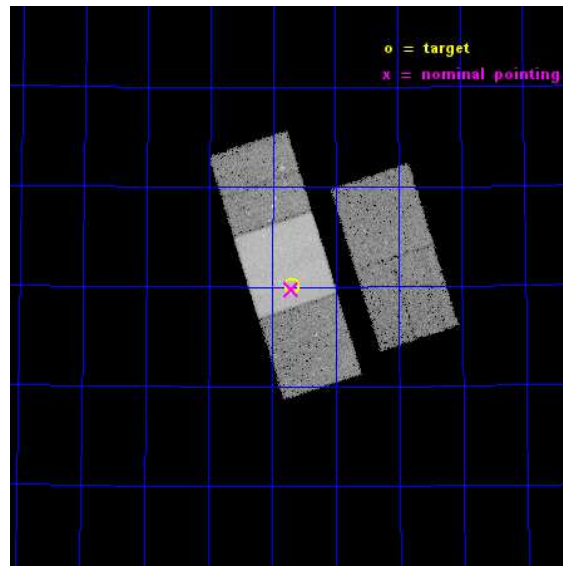
L2 Processing Date : Apr 14 2015

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1 Front

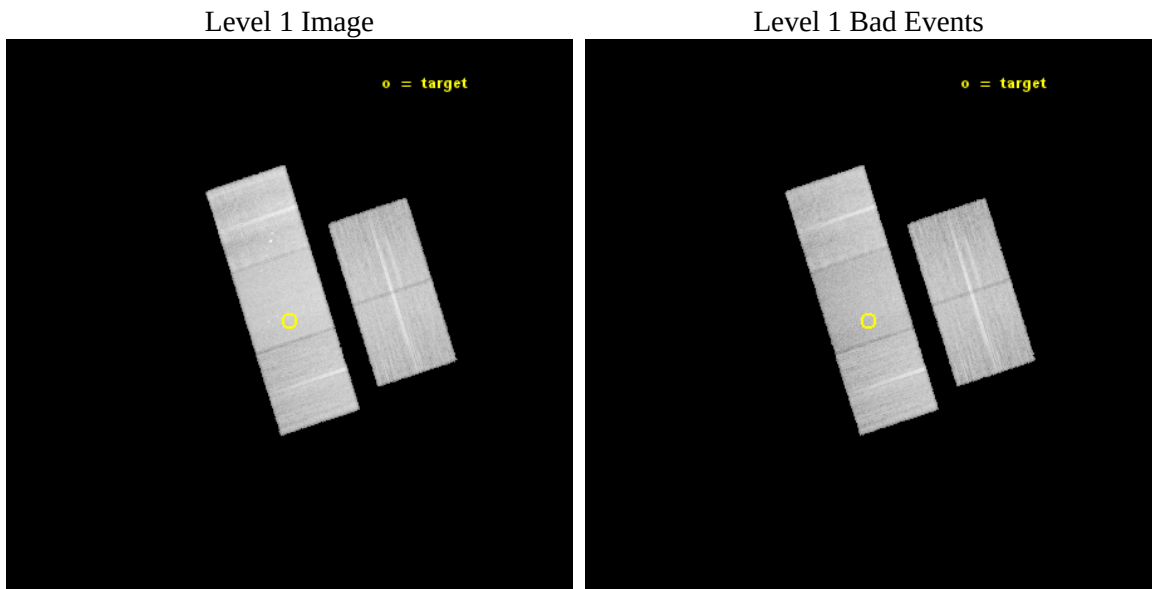
seq_num	502476	Sequence number
obs_id	16960	Observation id
title	The Astrophysics of the Most Energetic Gamma-Ray Bursts	Proposal t
observer	Dr. Andrew Fruchter	Principal investigator
object	GRB 150314A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	126.670708	Observer's specified target RA [deg]
dec_targ	63.83425	Observer's specified target Dec [deg]
ra_nom	126.6751810451	Nominal RA [deg]
dec_nom	63.829196048107	Nominal Dec [deg]
roll_nom	252.22059675815	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40060.780986667	Sum of GTIs [s]
livetime	39537.357390758	Livetime [s]
ontime2	40060.616826653	Sum of GTIs [s]
ontime3	40060.69890666	Sum of GTIs [s]
ontime6	40060.739946723	Sum of GTIs [s]
ontime7	40060.780986667	Sum of GTIs [s]
ontime8	40060.657866716	Sum of GTIs [s]
l2events	179877	Number of level 2 events



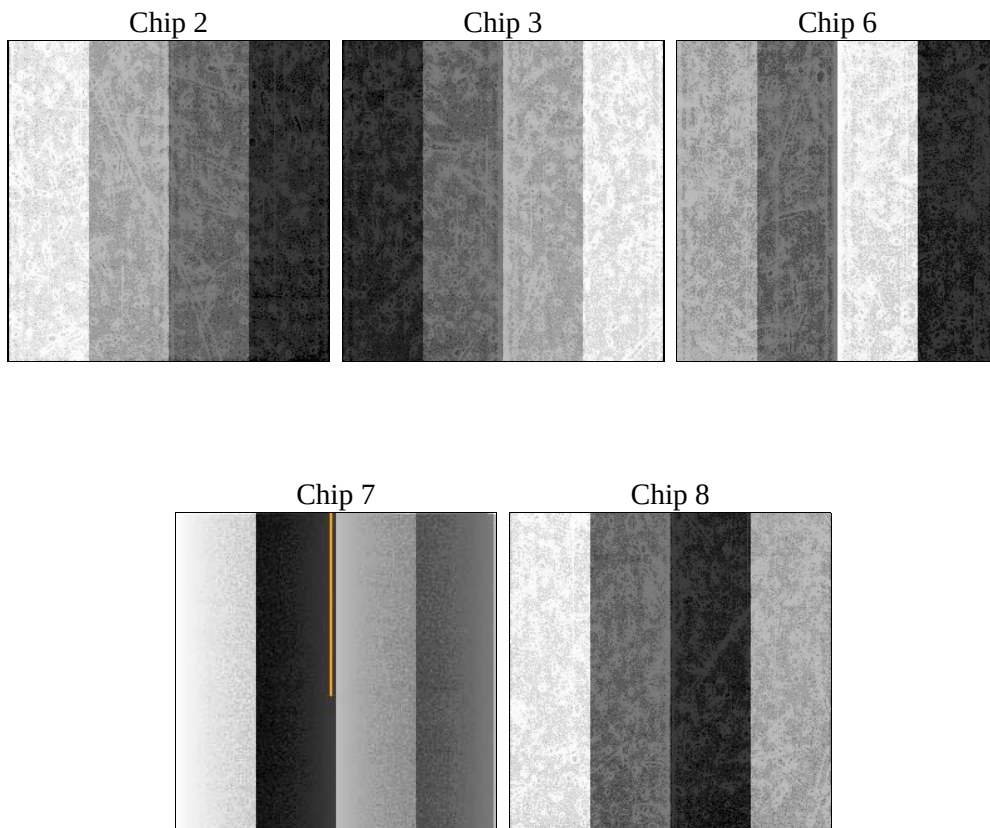
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	40060.780986667	Sum of GTIs [s]
caldsver	4.6.7	 	ontime2	40060.616826653	Sum of GTIs [s]
date	2015-04-14T16:38:47	Date and time of file creation	ontime3	40060.69890666	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	40060.739946723	Sum of GTIs [s]
			ontime7	40060.780986667	Sum of GTIs [s]
			ontime8	40060.657866716	Sum of GTIs [s]
			l1events	1039309	Number of level 1 events

2.1.4 Events

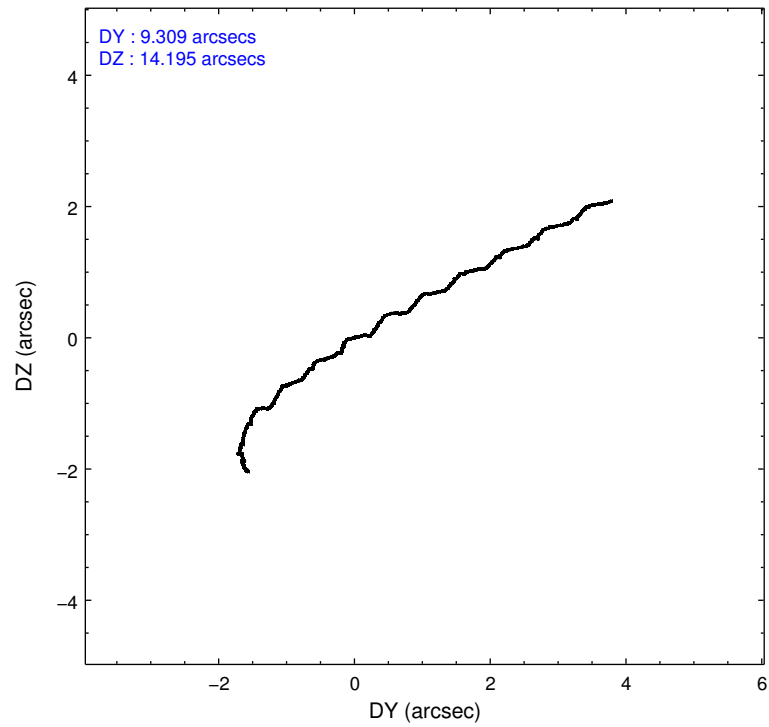
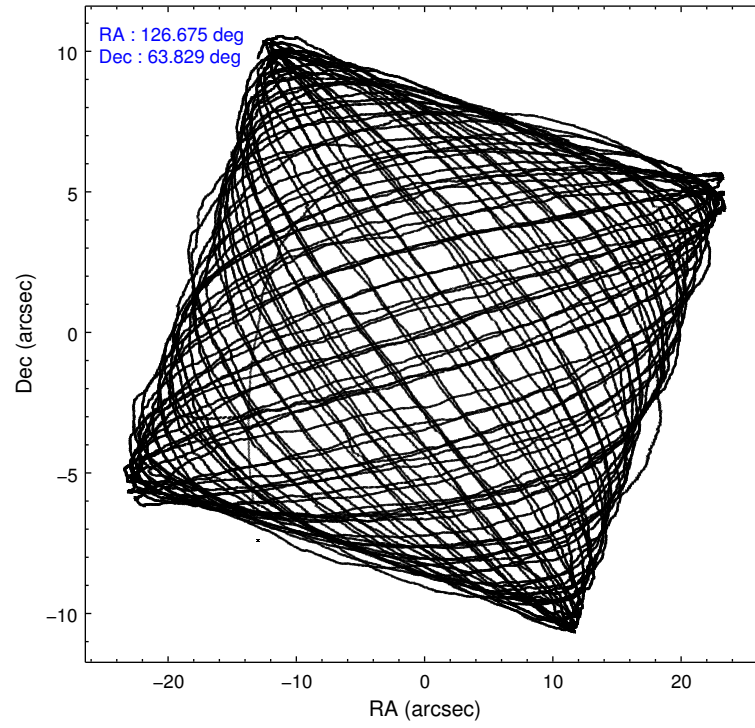
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	182187	174249	187994	246162	248717
rejected events	162343	154193	165646	141374	183082
rejected %	89%	88%	88%	57%	73%

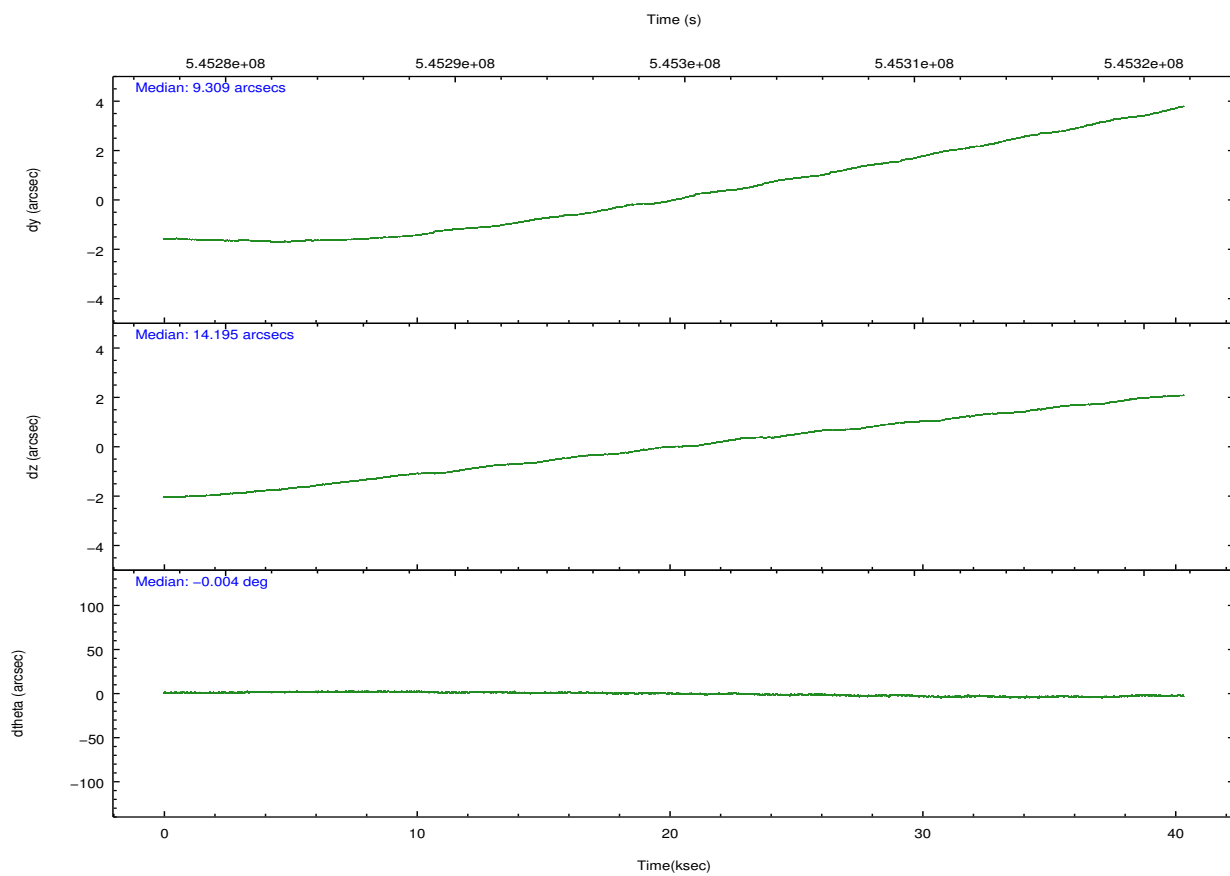
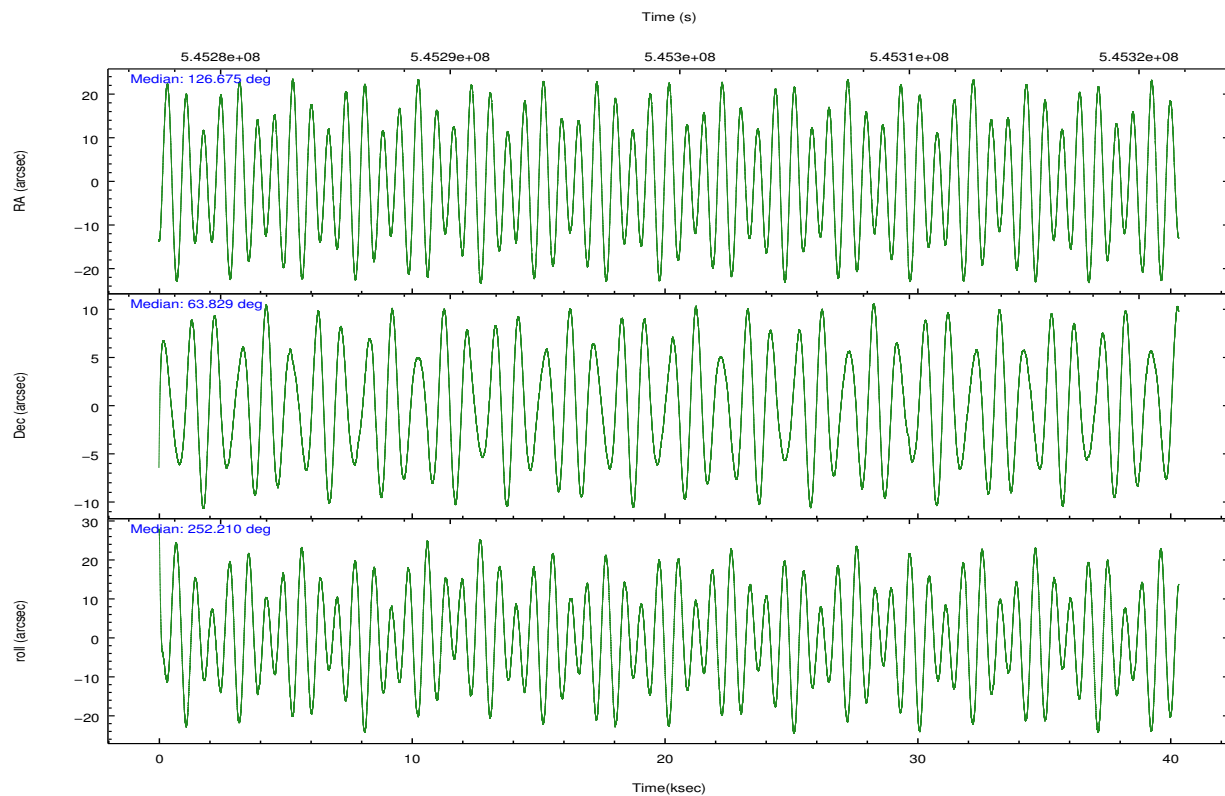
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6895	6981	7238	8715	19980
	3%	4%	3%	3%	8%
grade 1 events	88	92	87	293	170
	0%	0%	0%	0%	0%
grade 2 events	4782	4361	5189	21769	15086
	2%	2%	2%	8%	6%
grade 3 events	2021	2108	2218	8311	6704
	1%	1%	1%	3%	2%
grade 4 events	2081	2217	2160	8279	6413
	1%	1%	1%	3%	2%
grade 5 events	7885	9482	9242	24530	13967
	4%	5%	4%	9%	5%
grade 6 events	4070	4394	5544	57729	17457
	2%	2%	2%	23%	7%
grade 7 events	154365	144614	156316	116536	168940
	84%	82%	83%	47%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
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
[deg] Pointing RA	126.661185	126.6751810451046	Subarray requested	NONE	NONE
[deg] Pointing Dec	63.855932	63.82919604810716	Alternating exposures requested	N	N
[deg] Pointing Roll	252.076521	252.2205967581513	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	545279674.184000	545278513.0201			
Observation start date	2015-04-13T02:33:27	2015-04-13T02:15:13			
[s] Observation end time (MET)	545319674.184000	545320440.64745			
Observation end date	2015-04-13T13:40:07	2015-04-13T13:54:00			
Read mode	TIMED	TIMED			

2.3 Aspect



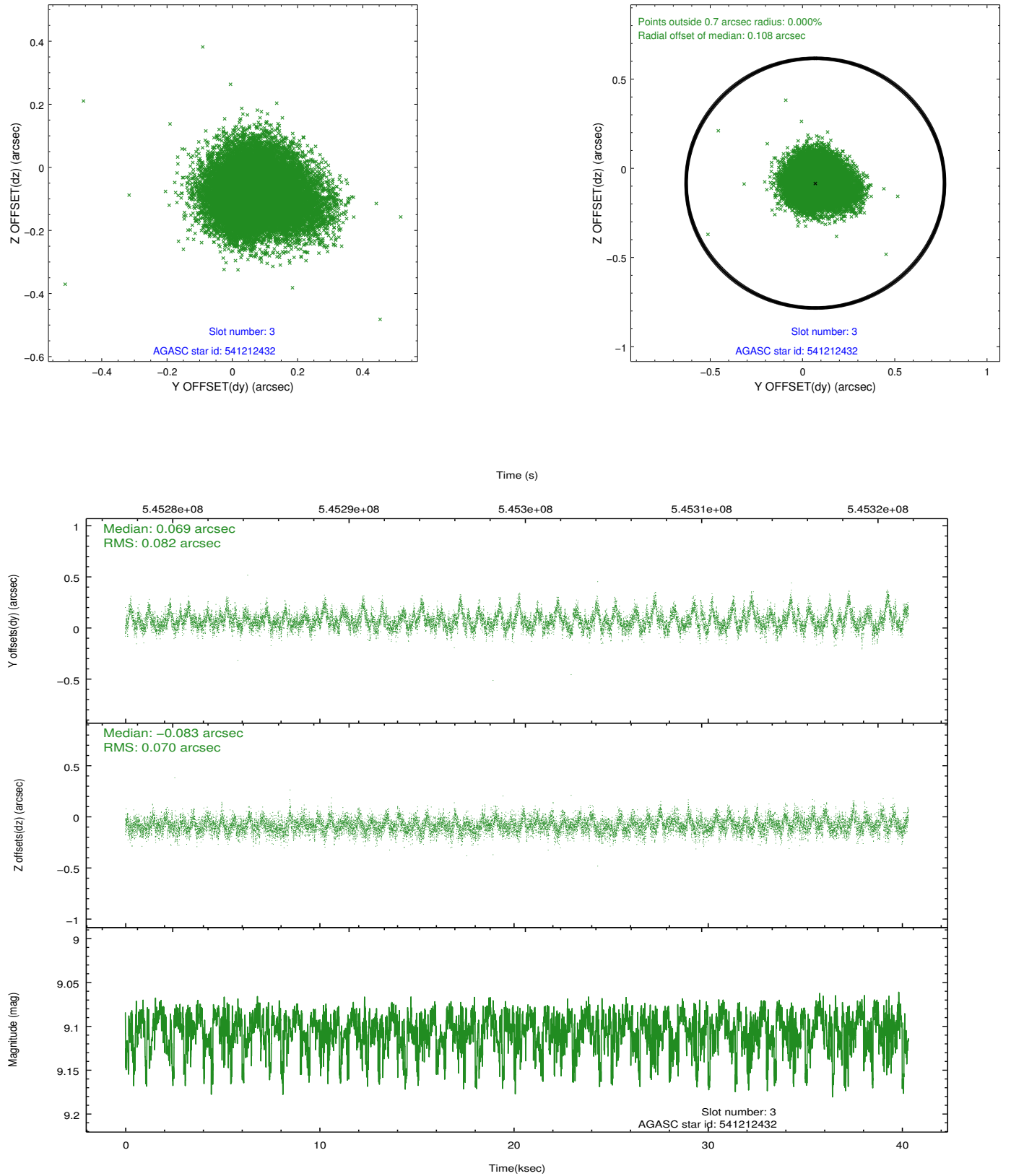


Slot Statistics

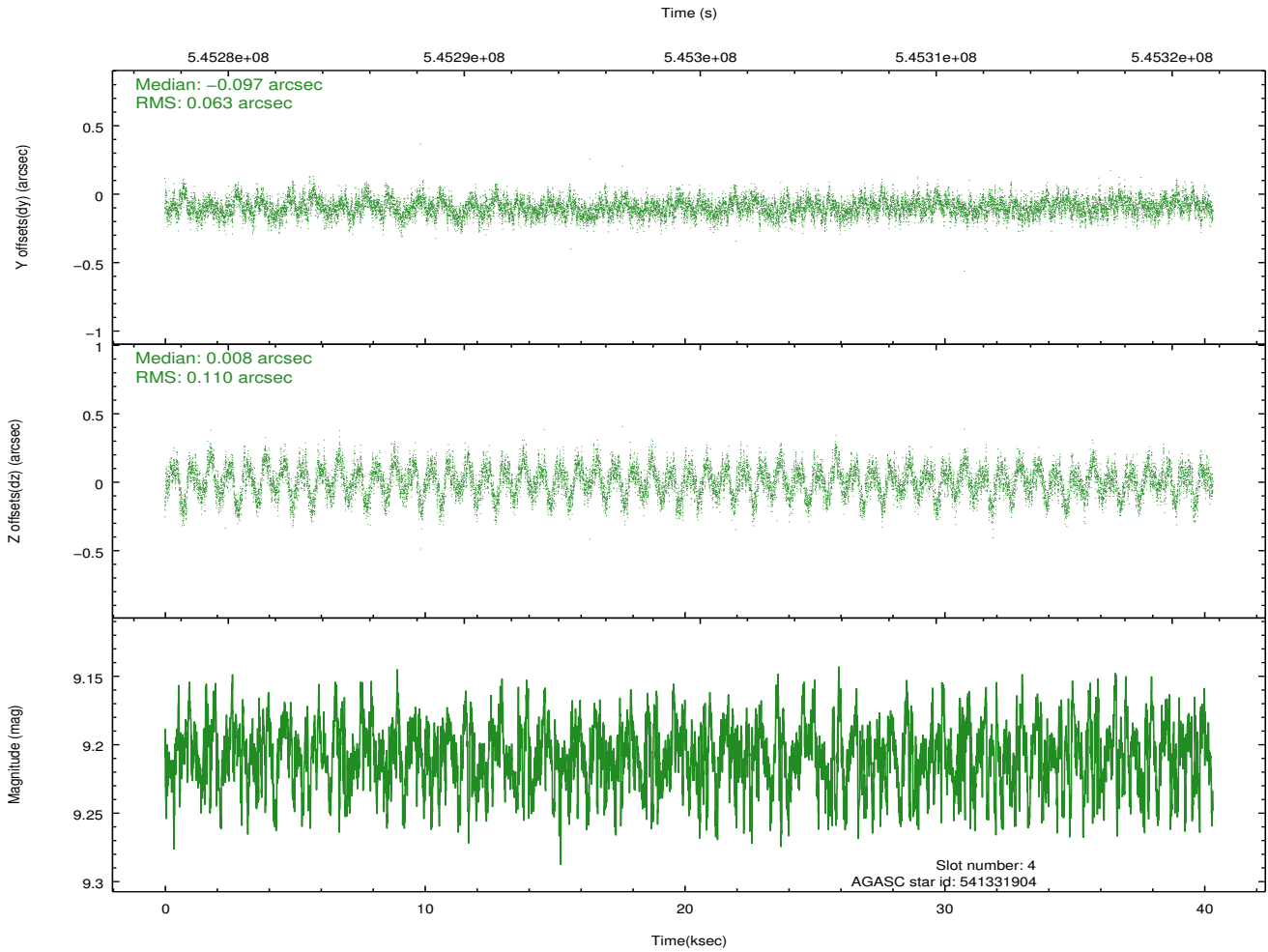
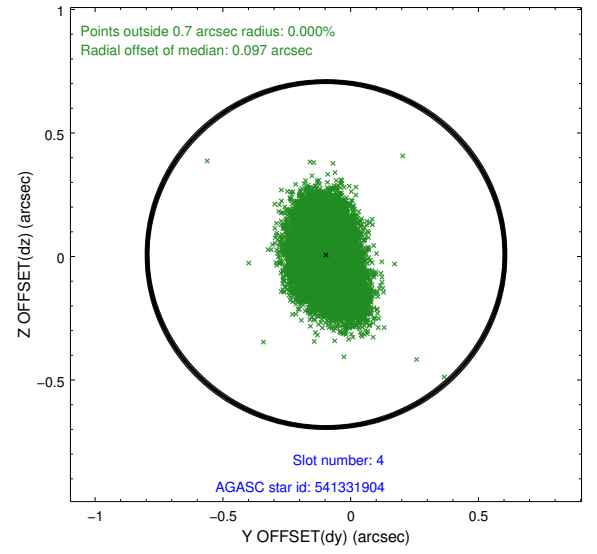
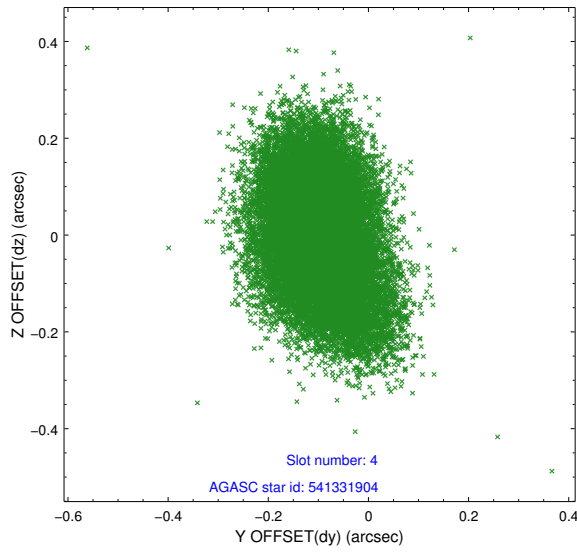
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.07	9836	-0.066	-0.052	0.030	0.040	0.000000	0.000000	-762.53	-1735.53
1	FID		ACIS-S-4	7.16	9838	0.233	0.045	0.035	0.050	0.000000	0.000000	2151.02	173.04
2	FID		ACIS-S-5	7.18	9838	-0.189	0.013	0.030	0.043	0.000000	0.000000	-1815.49	166.68
3	GUIDE	used	541212432	9.10	19662	0.069	-0.083	0.113	0.187	125.331076	63.704075	1152.88	-1856.57
4	GUIDE	used	541331904	9.21	19667	-0.097	0.008	0.133	0.223	128.068247	63.878961	-788.43	2088.81
5	GUIDE	used	541338376	8.43	19668	0.203	0.107	0.081	0.137	127.062635	63.943055	-495.11	507.07
6	GUIDE	used	541340592	9.64	19663	-0.092	0.078	0.155	0.254	127.351138	63.392414	1239.74	1570.56
7	GUIDE	used	541199712	8.98	19665	-0.089	-0.106	0.119	0.190	125.630285	63.310683	2368.81	-985.28

2.4 Star Slots

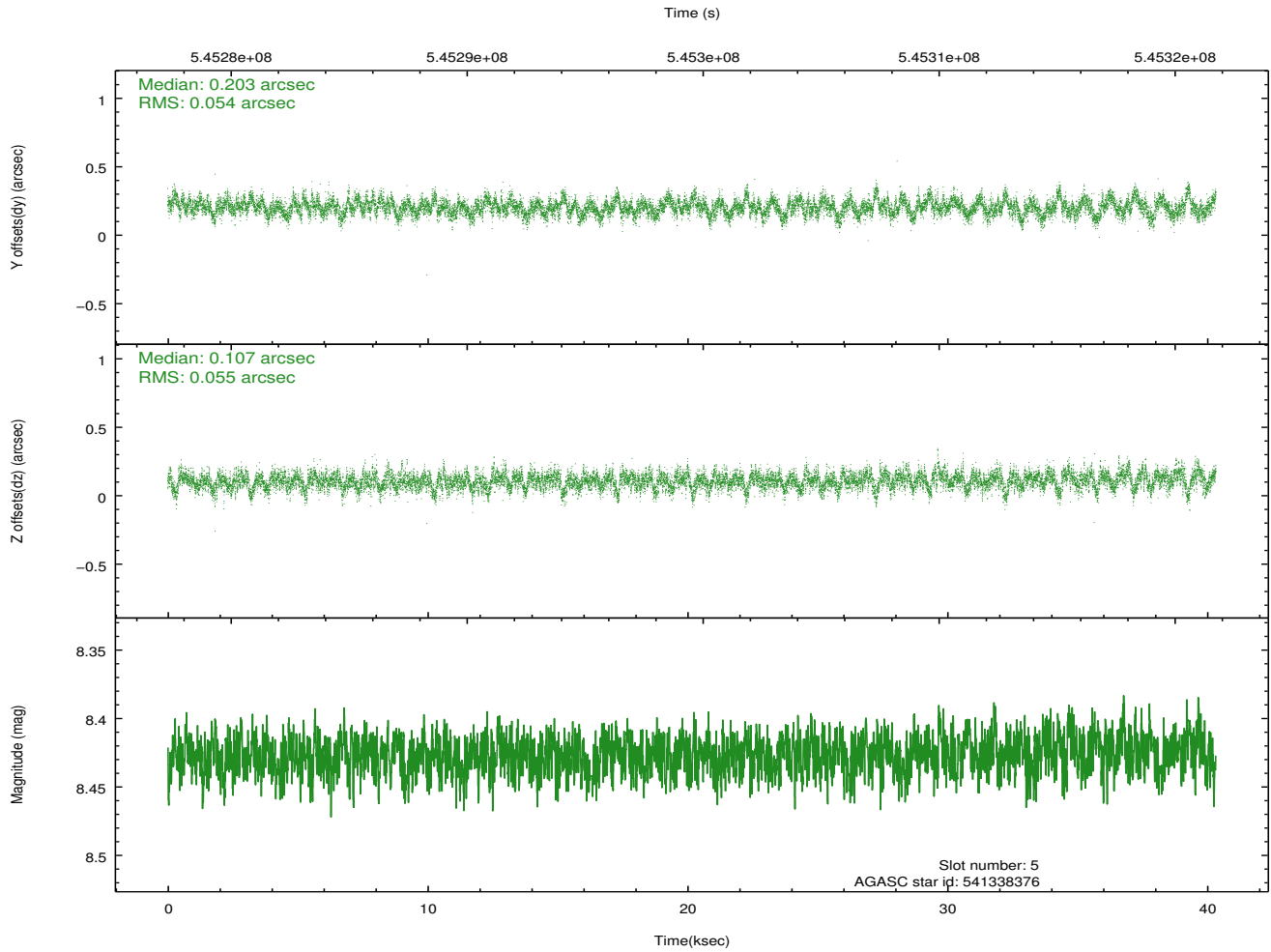
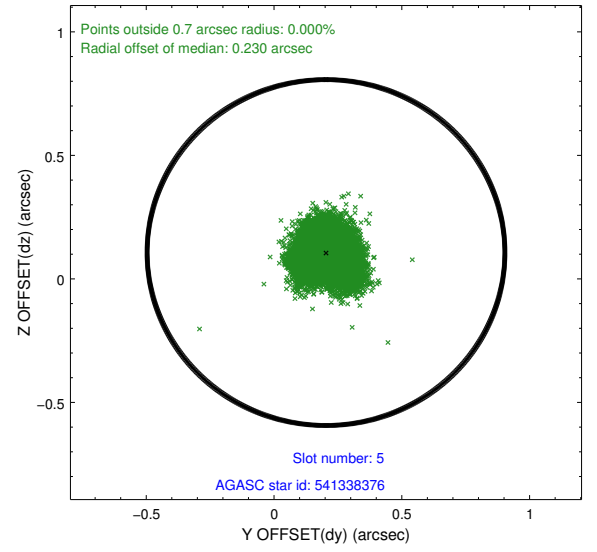
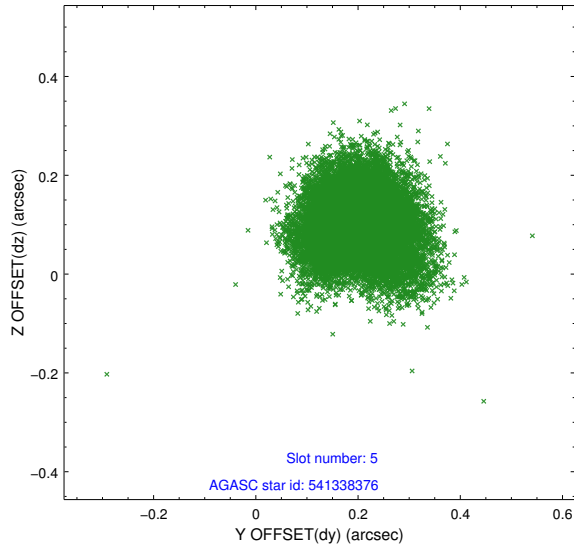
2.4.1 Slot 3



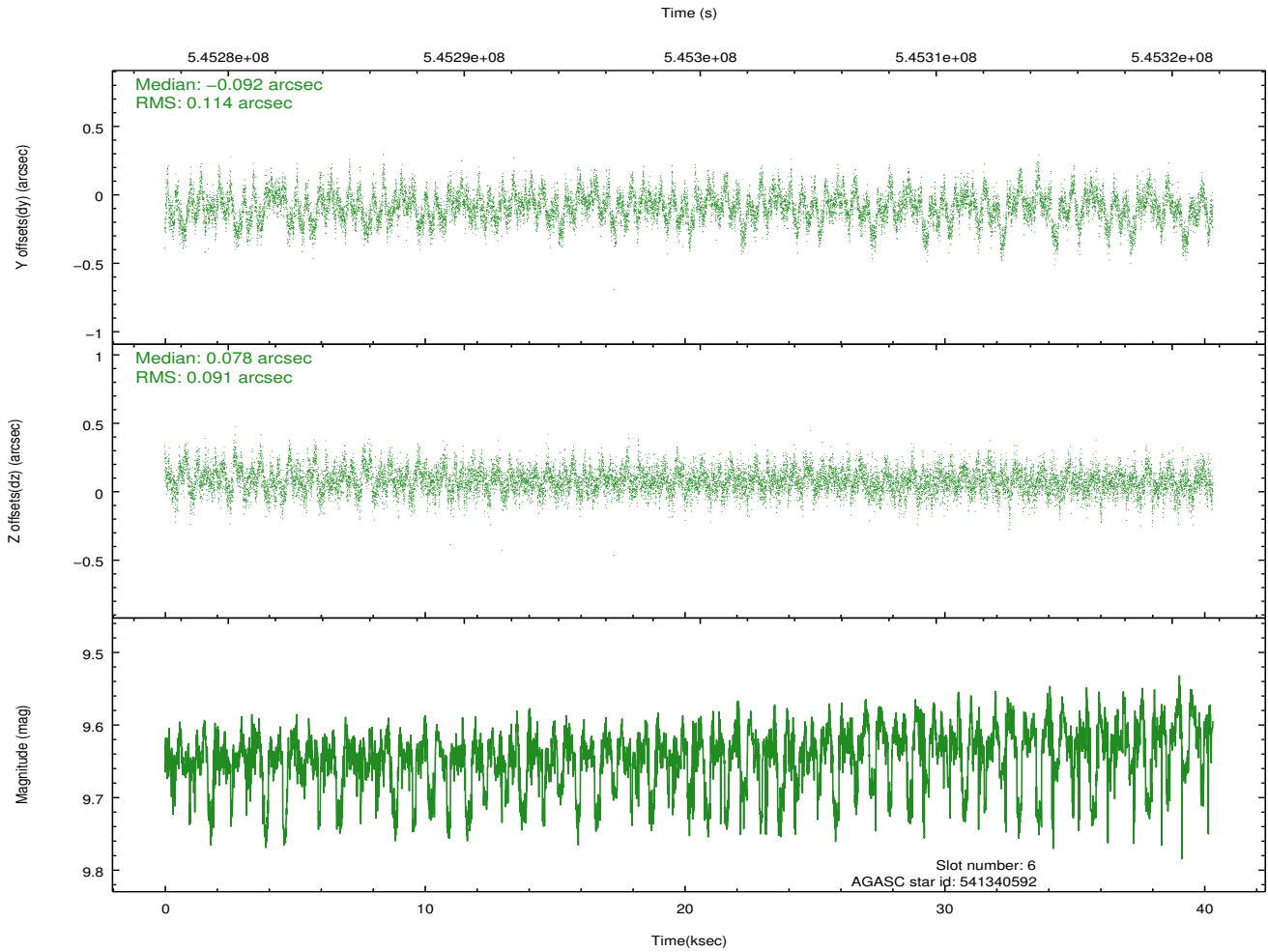
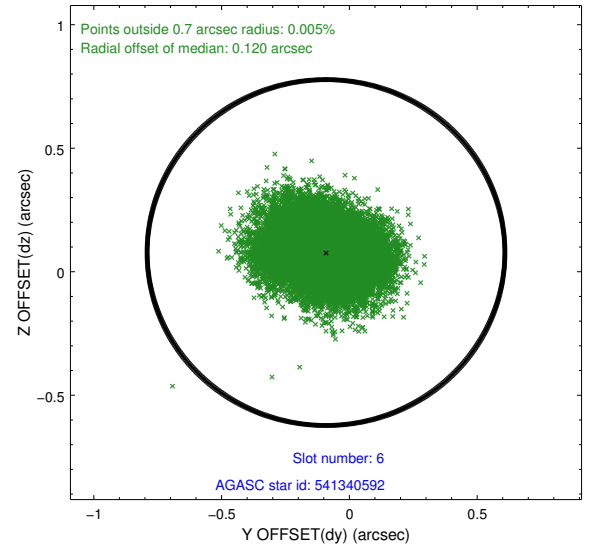
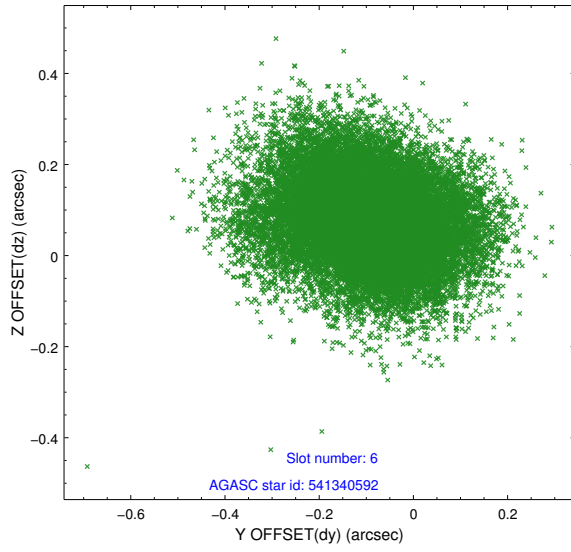
2.4.2 Slot 4



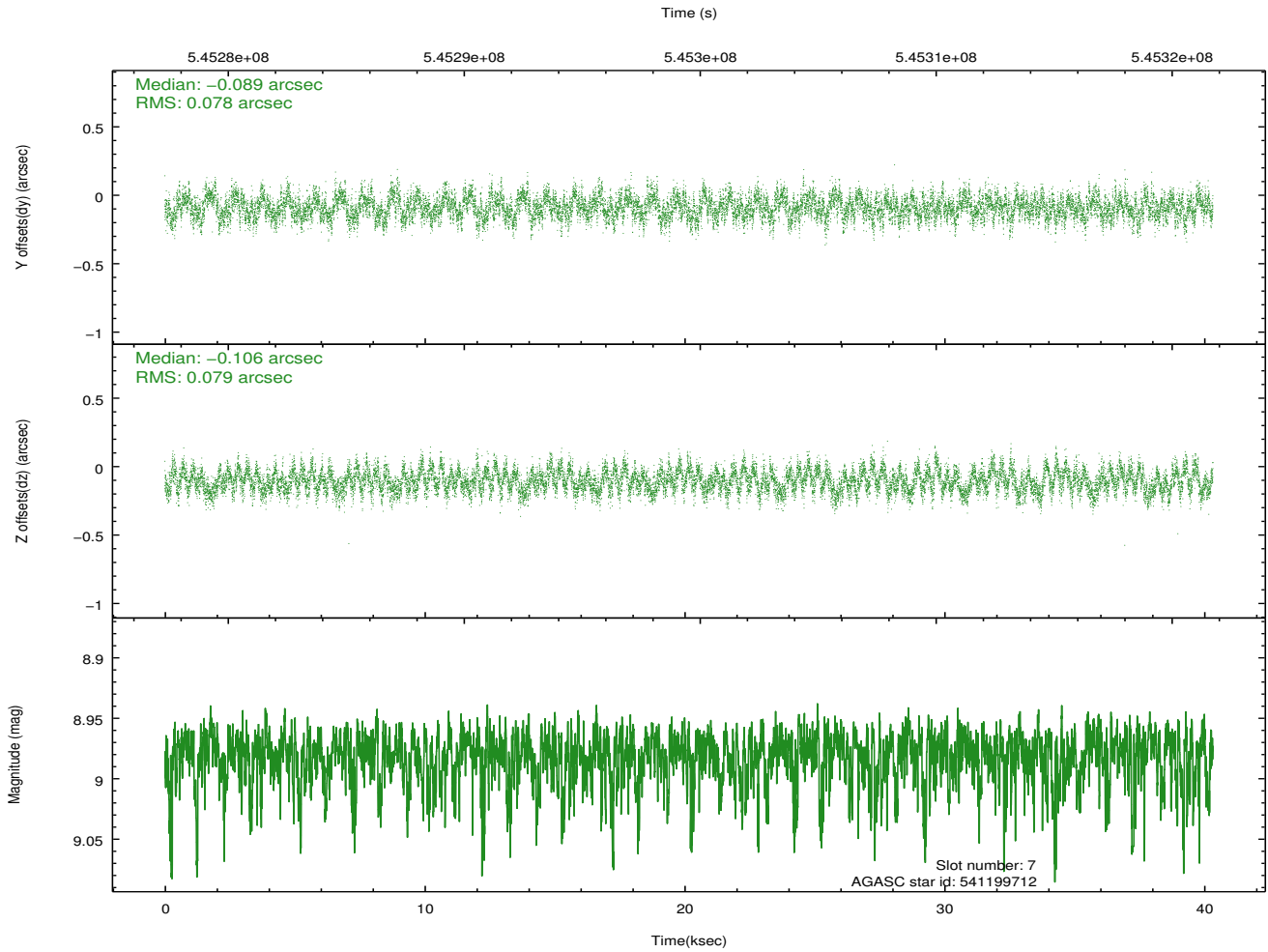
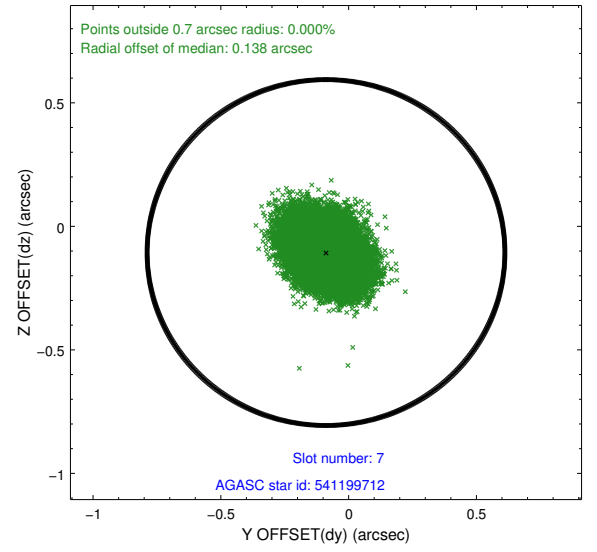
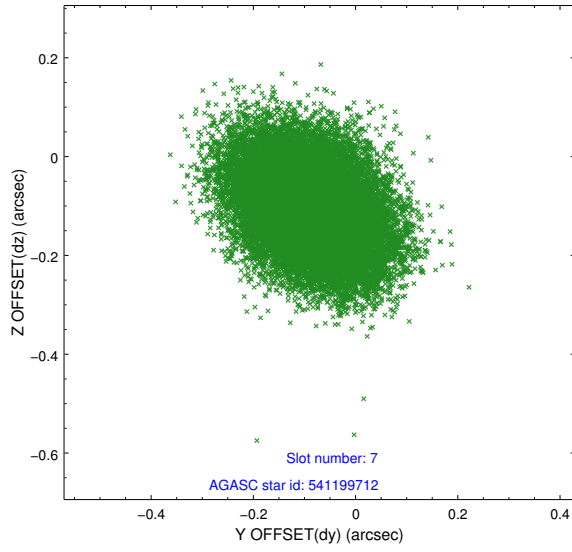
2.4.3 Slot 5



2.4.4 Slot 6

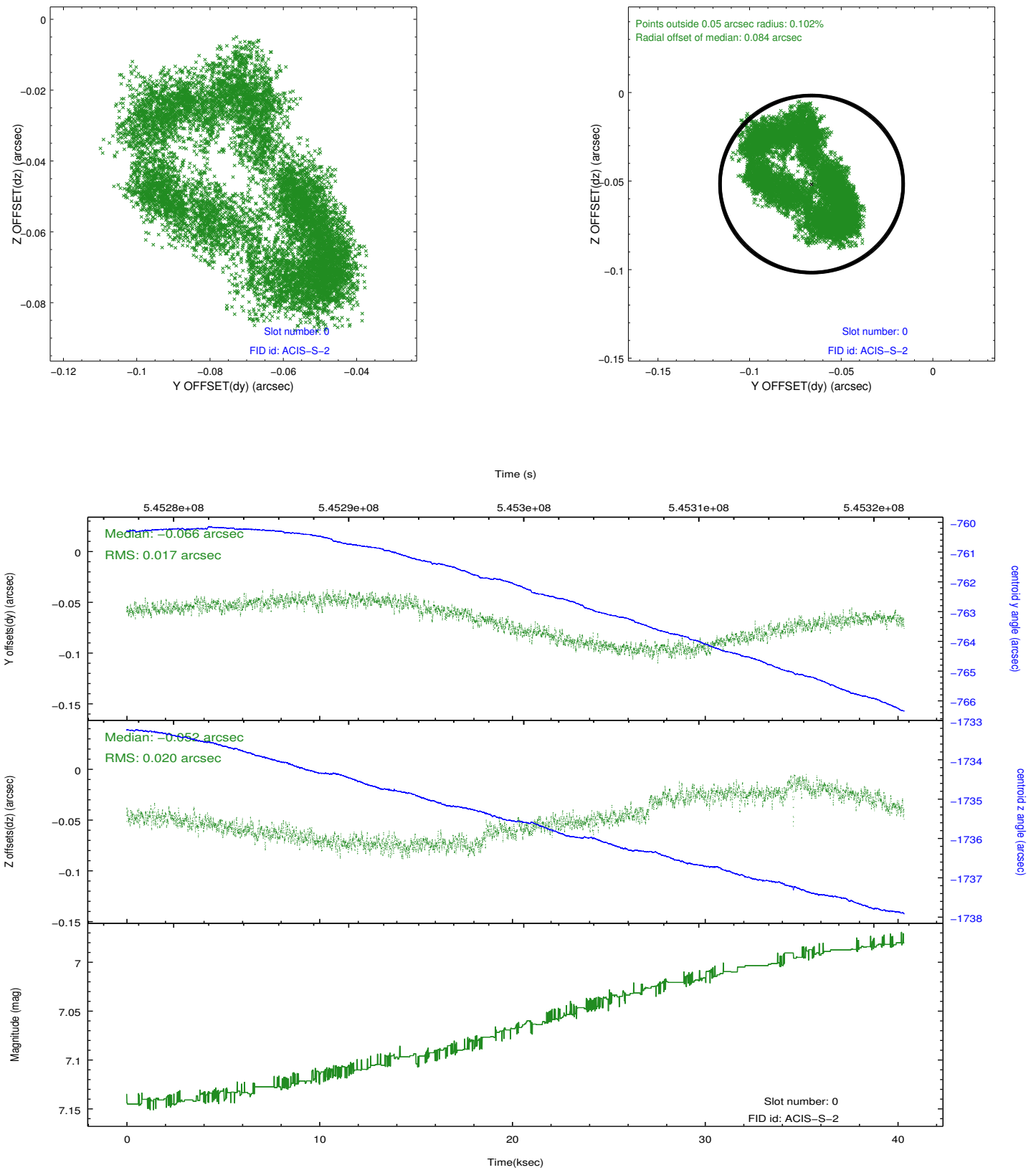


2.4.5 Slot 7

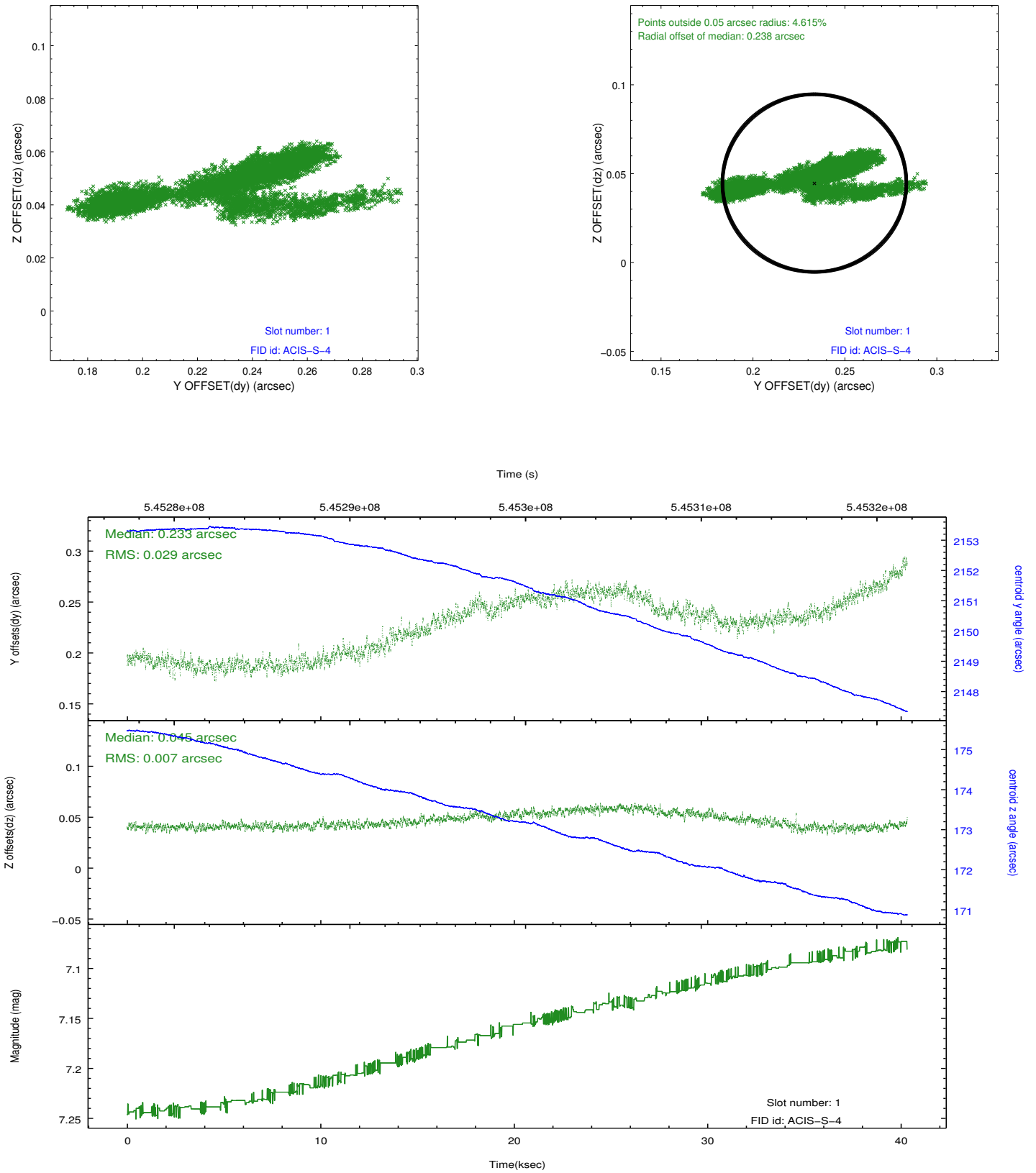


2.5 FID Slots

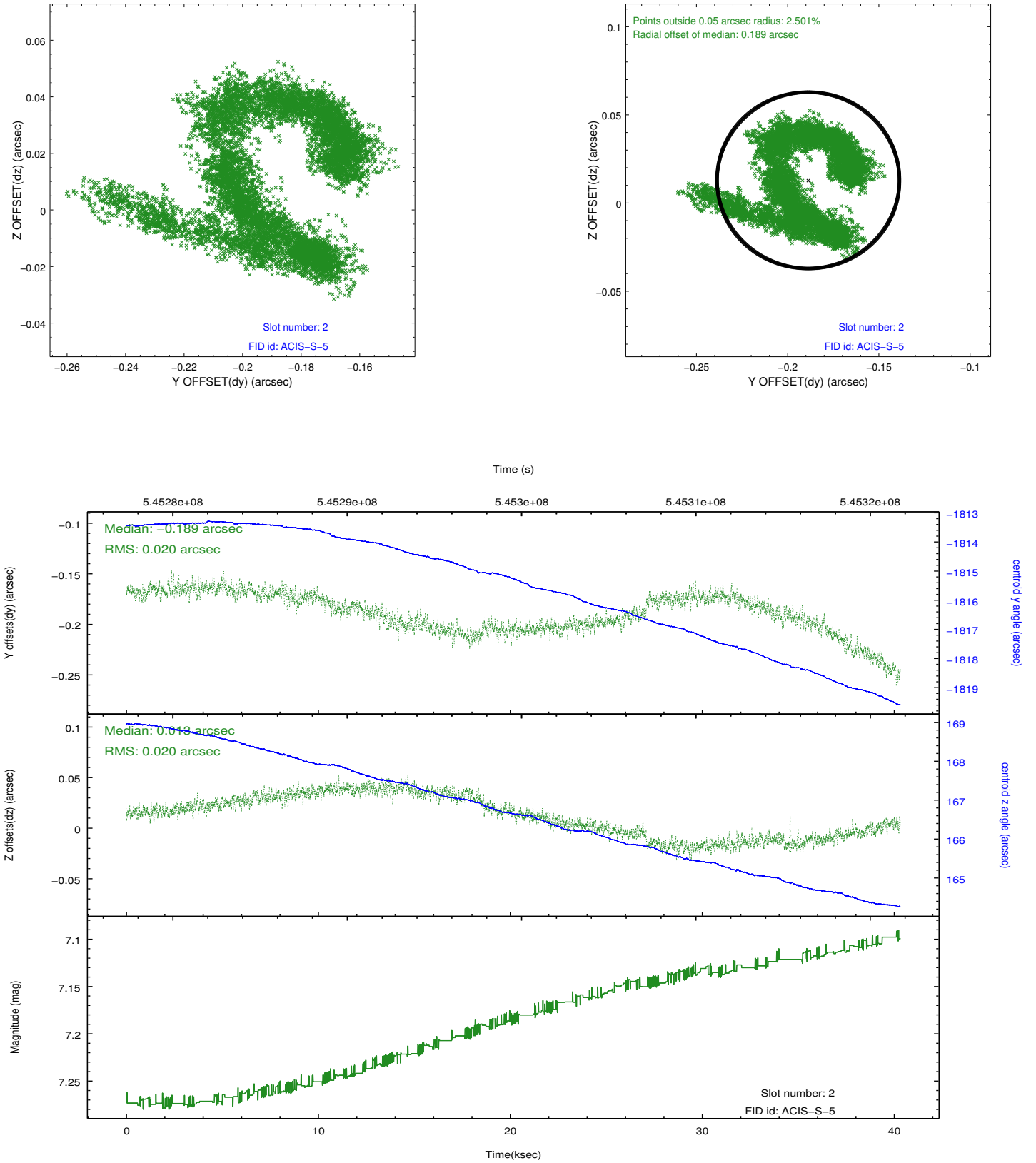
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2015.04.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.060780986667

A.2 Comments

Joint proposal with HST and NRAO.

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:

(126.28685, 64.02828), (126.28210, 64.02894), (126.25038, 63.98457),
(126.25373, 63.98197).