

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 18283 - L2 Version 2
Chandra X-Ray Center

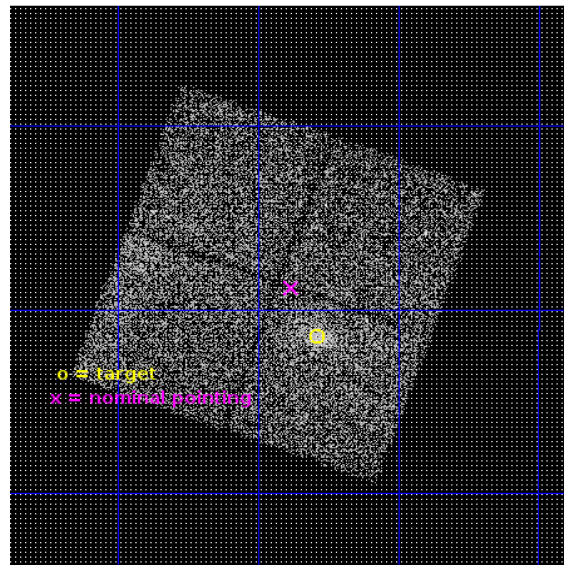
L2 Processing Date : Jul 5 2016

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

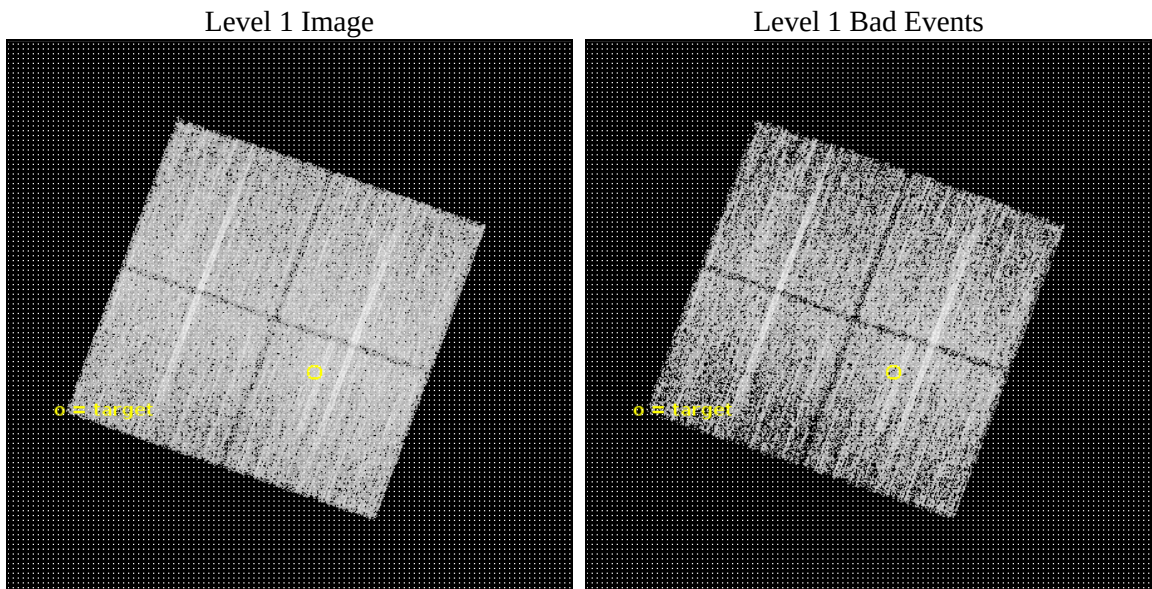
seq_num	801601	Sequence number
obs_id	18283	Observation id
title	Building a Cheap and Cheerful SZ-selected sample of galaxy clusters with the Planck Catalogue.	Proposal title
observer	Mariachiara Rossetti	Principal investigator
object	PSZ2 G048.24-51.59	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	335.0728	Observer's specified target RA [deg]
dec_targ	-12.1916	Observer's specified target Dec [deg]
ra_nom	335.09532938479	Nominal RA [deg]
dec_nom	-12.146936794065	Nominal Dec [deg]
roll_nom	109.92723338402	Nominal Roll [deg]
revision	2	Processing version of data
ontime	12576.700096846	Sum of GTIs [s]
livetime	12412.376251248	Livetime [s]
ontime0	12576.700096846	Sum of GTIs [s]
ontime1	12576.700096846	Sum of GTIs [s]
ontime2	12576.700096846	Sum of GTIs [s]
ontime3	12576.700096846	Sum of GTIs [s]
l2events	31278	Number of level 2 events



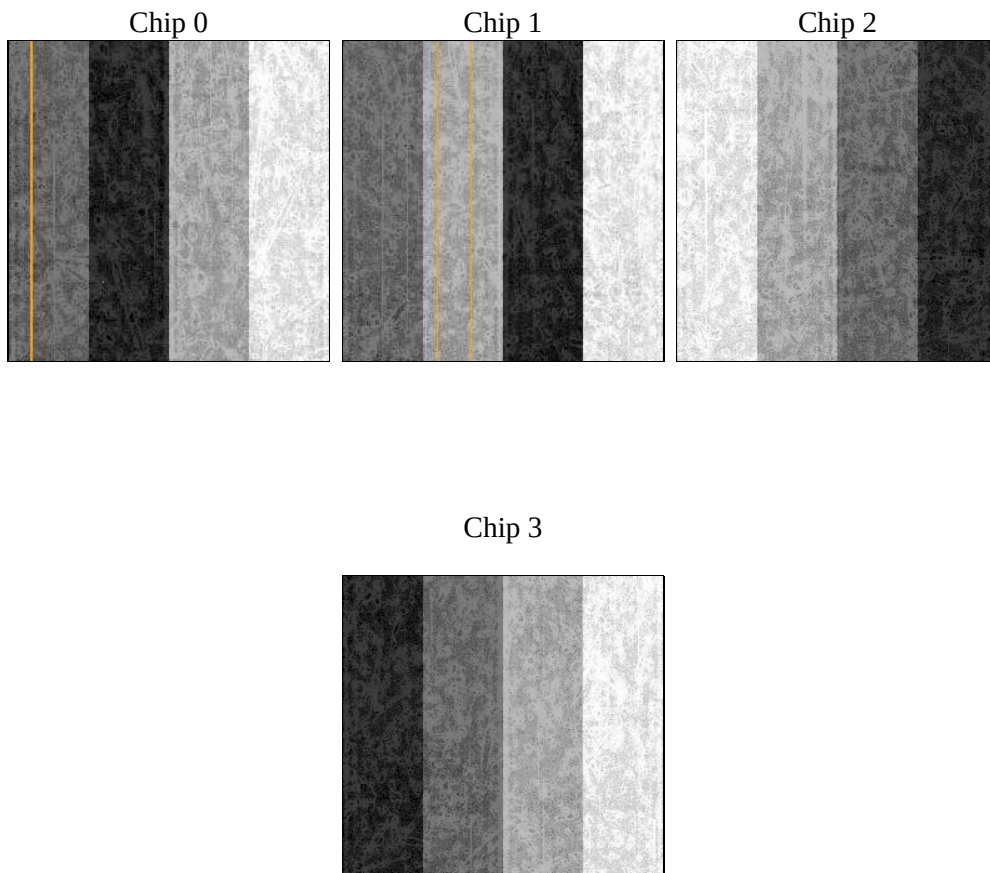
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	12500.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	12576.700096846	Sum of GTIs [s]
caldsver	4.7.2	 	ontime0	12576.700096846	Sum of GTIs [s]
date	2016-07-05T18:52:29	Date and time of file creation	ontime1	12576.700096846	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	12576.700096846	Sum of GTIs [s]
			ontime3	12576.700096846	Sum of GTIs [s]
			l1events	311651	Number of level 1 events

2.1.4 Events

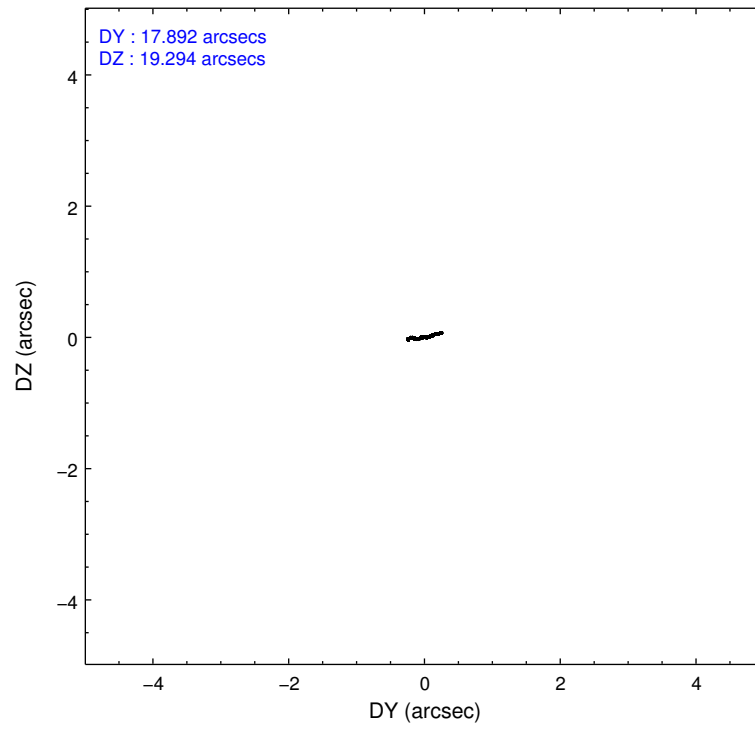
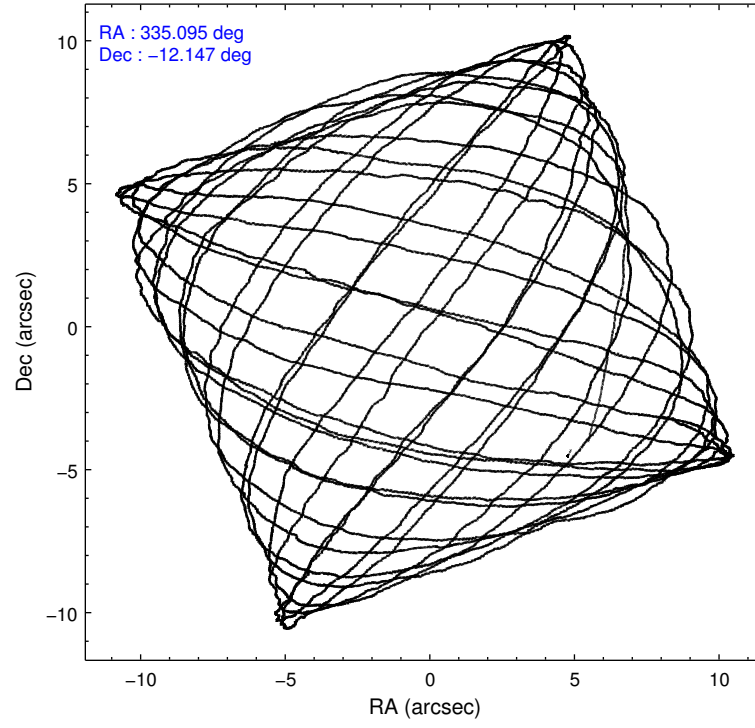
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	73559	73467	82885	81740
rejected events	64634	63592	74236	72036
rejected %	87%	86%	89%	88%

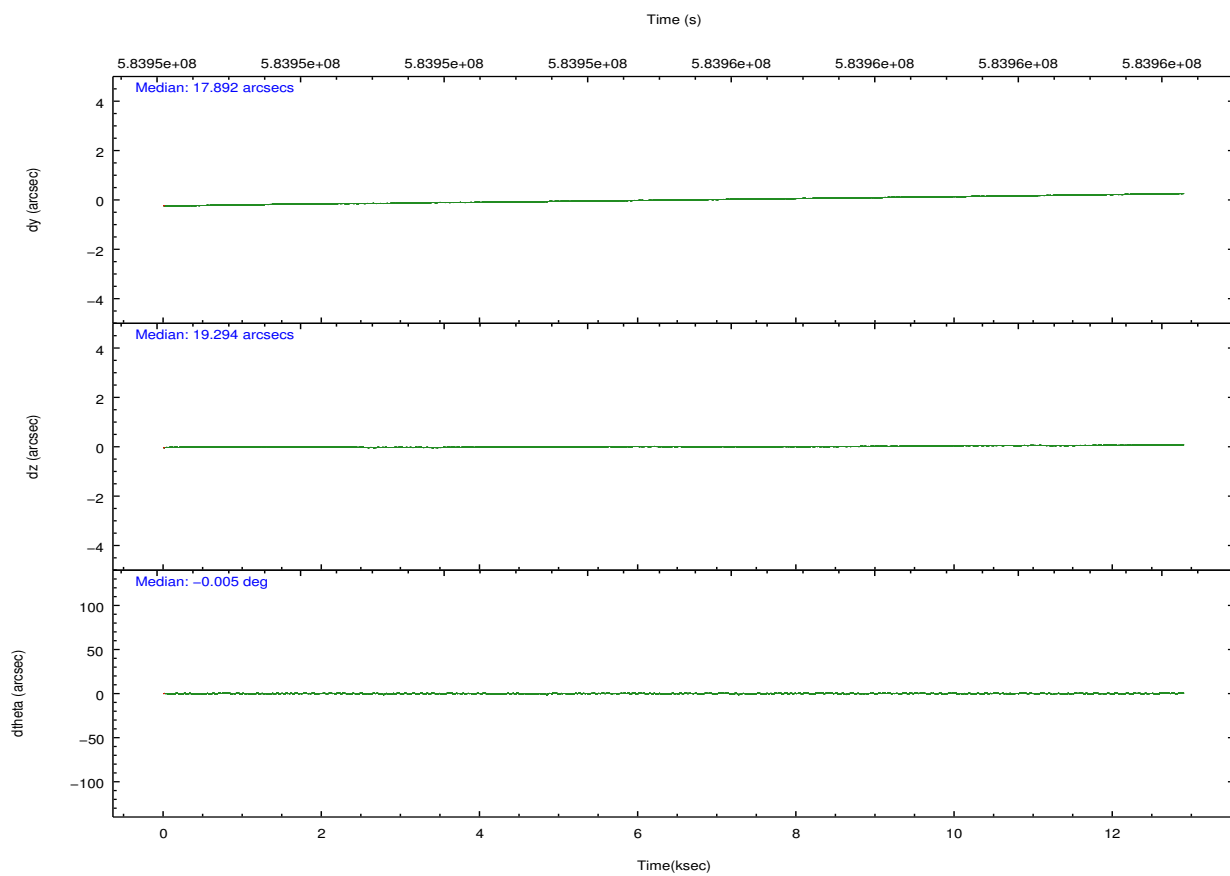
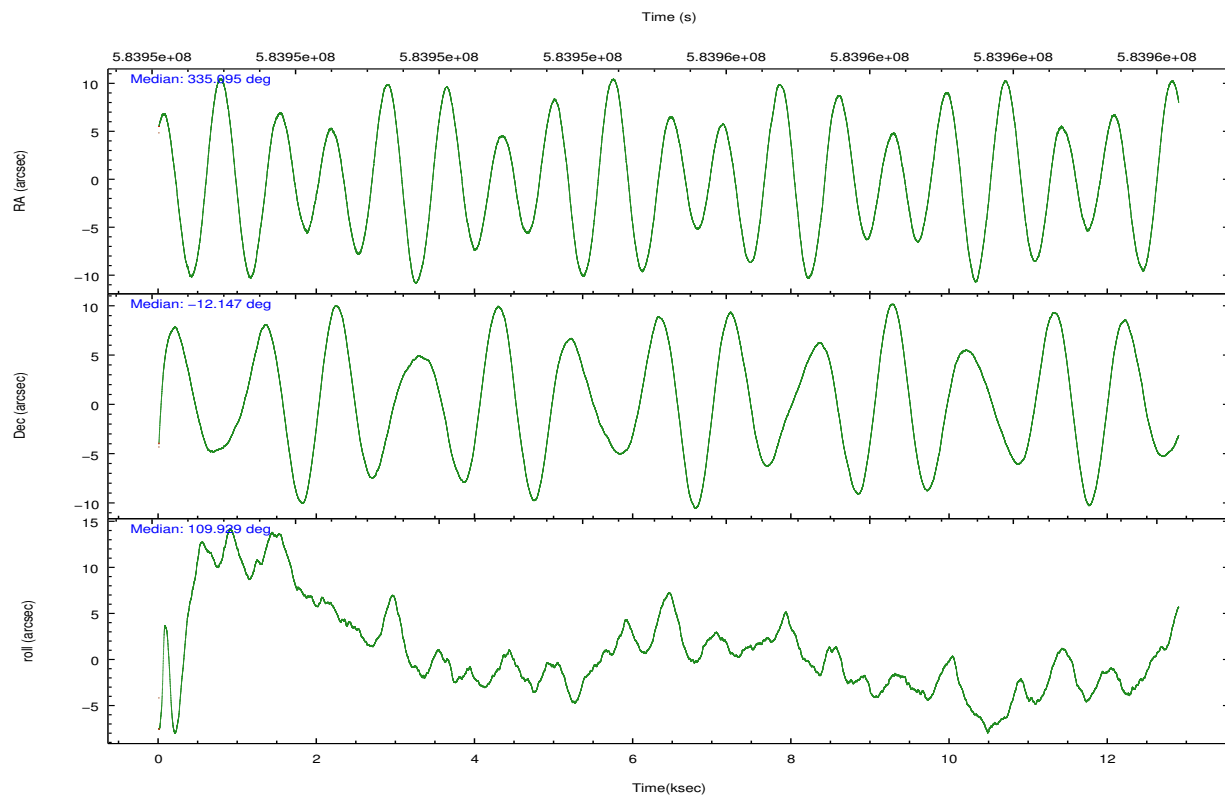
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	2964	3262	3097	3936
	4%	4%	3%	4%
grade 1 events	27	38	41	58
	0%	0%	0%	0%
grade 2 events	2219	2573	2130	1945
	3%	3%	2%	2%
grade 3 events	959	905	850	971
	1%	1%	1%	1%
grade 4 events	902	911	921	956
	1%	1%	1%	1%
grade 5 events	3521	3449	3170	3993
	4%	4%	3%	4%
grade 6 events	1890	2228	1653	1902
	2%	3%	1%	2%
grade 7 events	61077	60101	71023	67979
	83%	81%	85%	83%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	335.116995	335.095329384787	Subarray requested	NONE	NONE
[deg] Pointing Dec	-12.164642	-12.14693679406515	Alternating exposures requested	N	N
[deg] Pointing Roll	109.723127	109.9272333840181	[s] Primary exposure time	0.000000	3.1
[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)	583949139.184000	583948155.3734			
Observation start date	2016-07-03T16:04:31	2016-07-03T15:49:15			
[s] Observation end time (MET)	583961639.184000	583962335.22421			
Observation end date	2016-07-03T19:32:51	2016-07-03T19:45:35			
Read mode	TIMED	TIMED			

2.3 Aspect



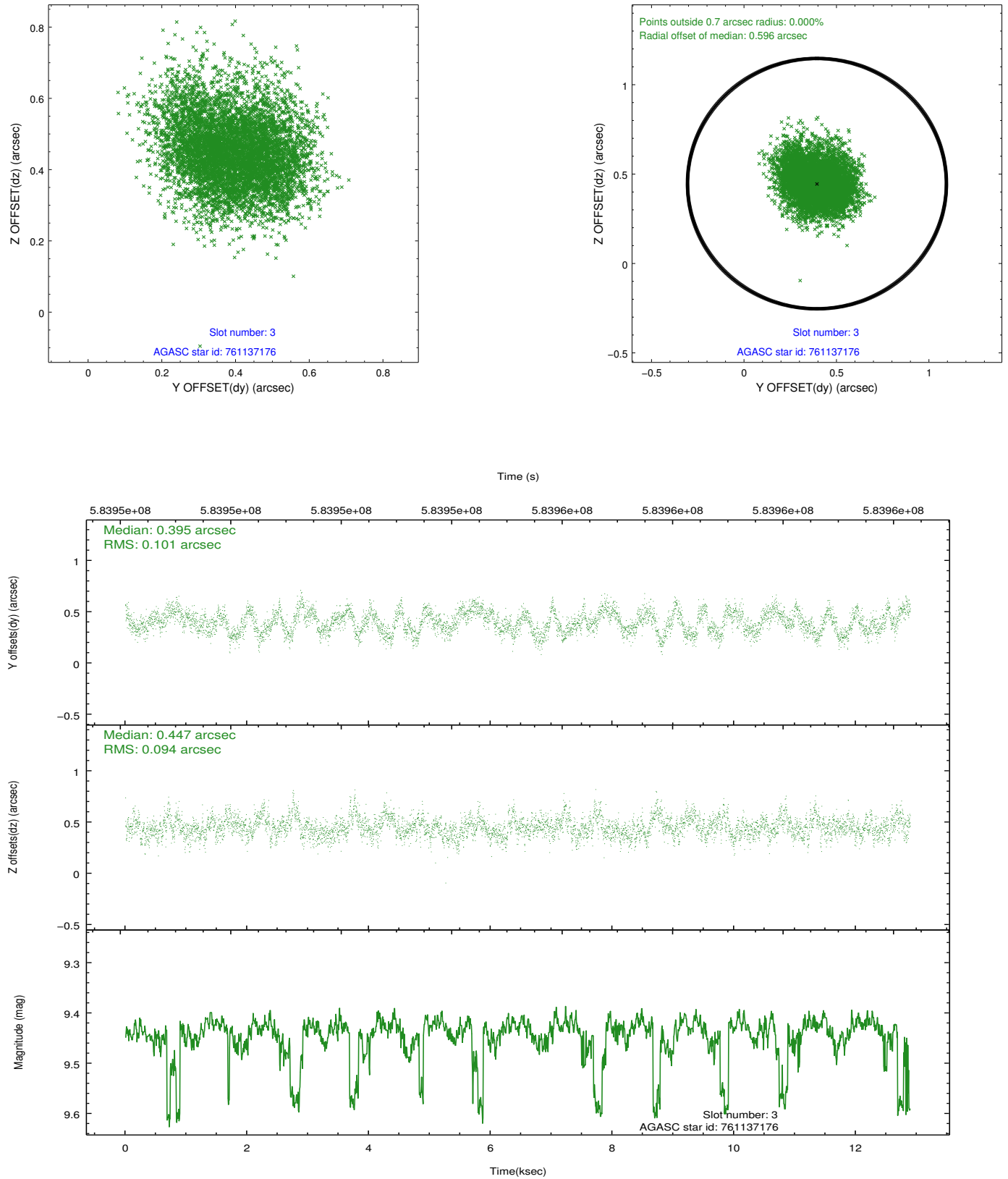


Slot Statistics

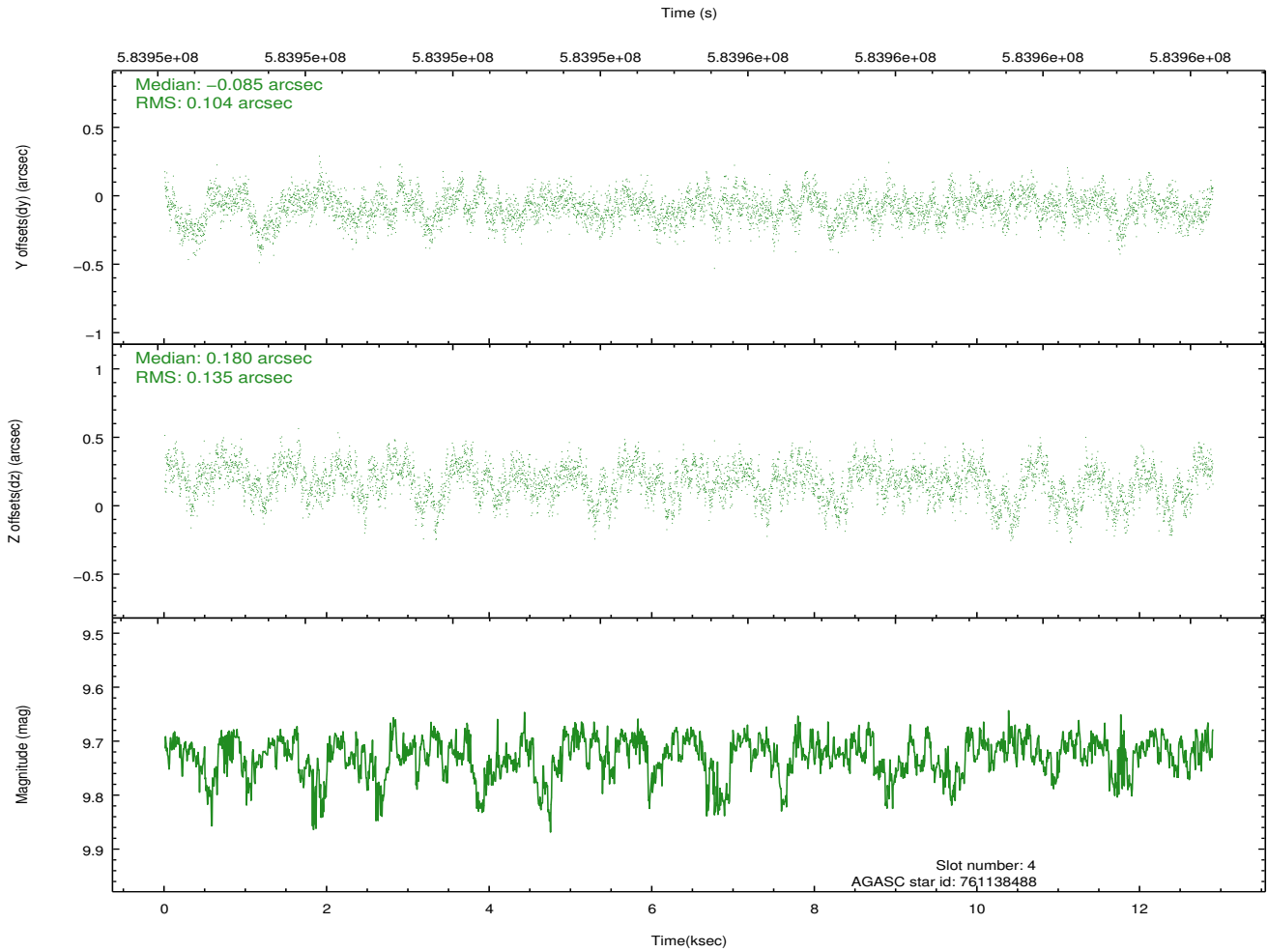
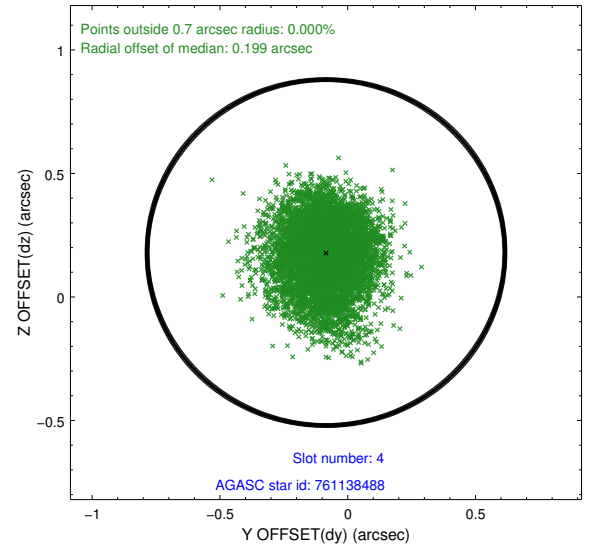
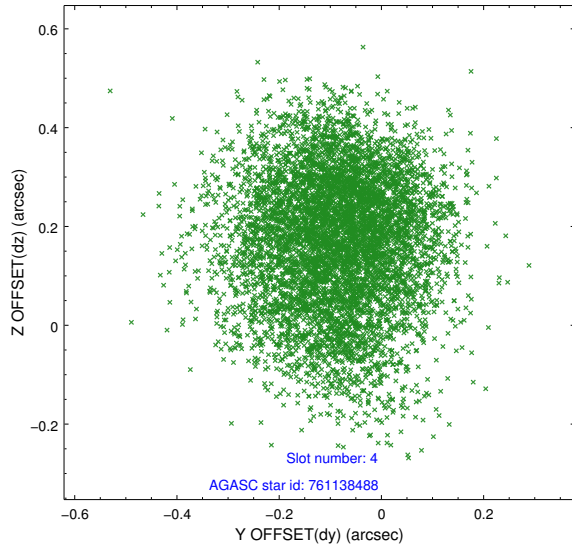
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	3145	0.058	-0.019	0.007	0.012	0.000000	0.000000	921.59	-842.99
1	FID		ACIS-I-5	7.24	3144	-0.375	0.016	0.007	0.012	0.000000	0.000000	-1826.85	1054.20
2	FID		ACIS-I-6	7.26	3144	0.225	0.073	0.008	0.013	0.000000	0.000000	386.75	1699.31
3	GUIDE	used	761137176	9.44	6283	0.395	0.447	0.149	0.238	335.547120	-12.227007	-722.28	-1347.81
4	GUIDE	used	761138488	9.73	6287	-0.085	0.180	0.183	0.291	335.071267	-11.916773	893.57	-150.72
5	GUIDE	used	761138496	8.70	6285	-0.055	0.017	0.128	0.203	334.889977	-11.916510	1111.09	451.44
6	GUIDE	used	761148616	7.67	6289	0.062	-0.267	0.102	0.159	335.067946	-12.221565	-134.32	230.84
7	GUIDE	used	761139160	9.92	6273	-0.317	-0.364	0.270	0.444	335.150993	-11.932356	746.96	-395.19

2.4 Star Slots

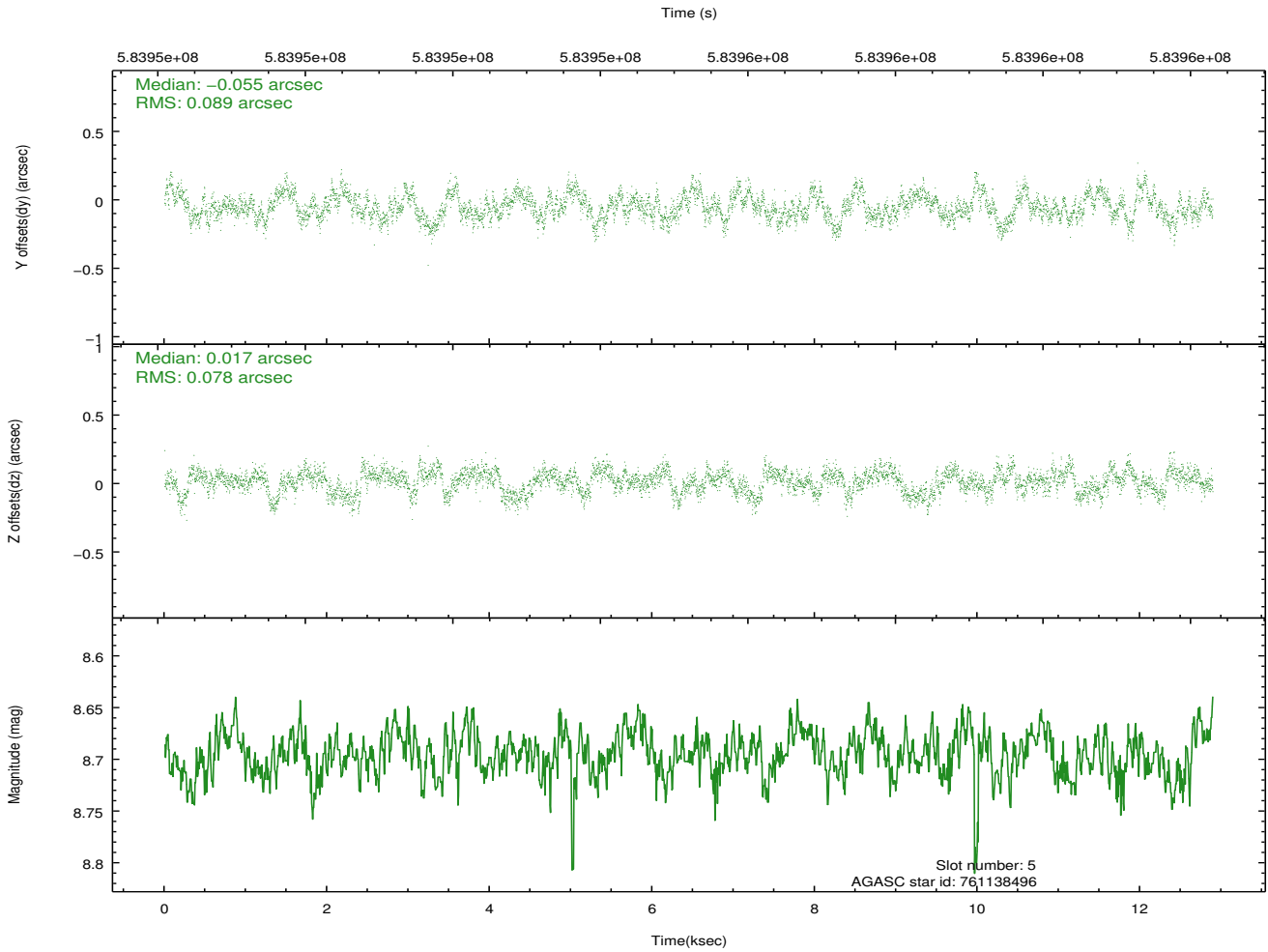
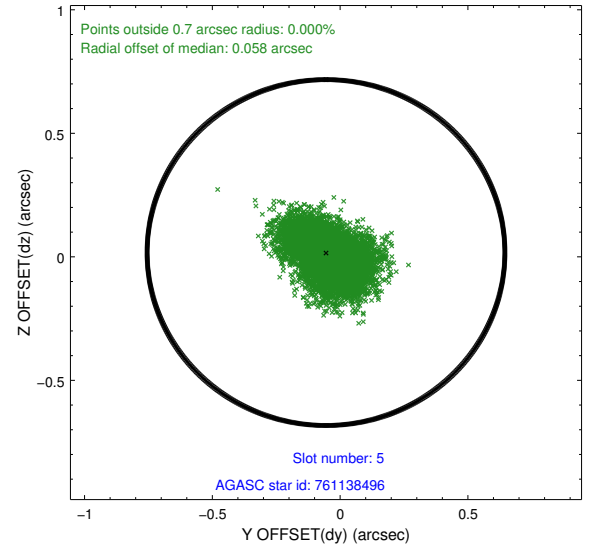
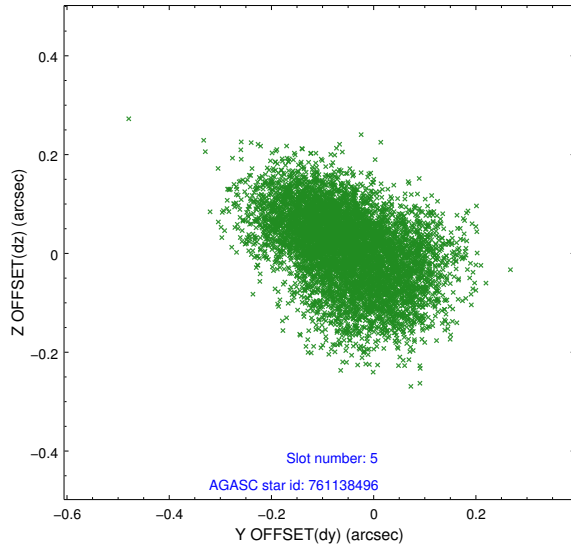
2.4.1 Slot 3



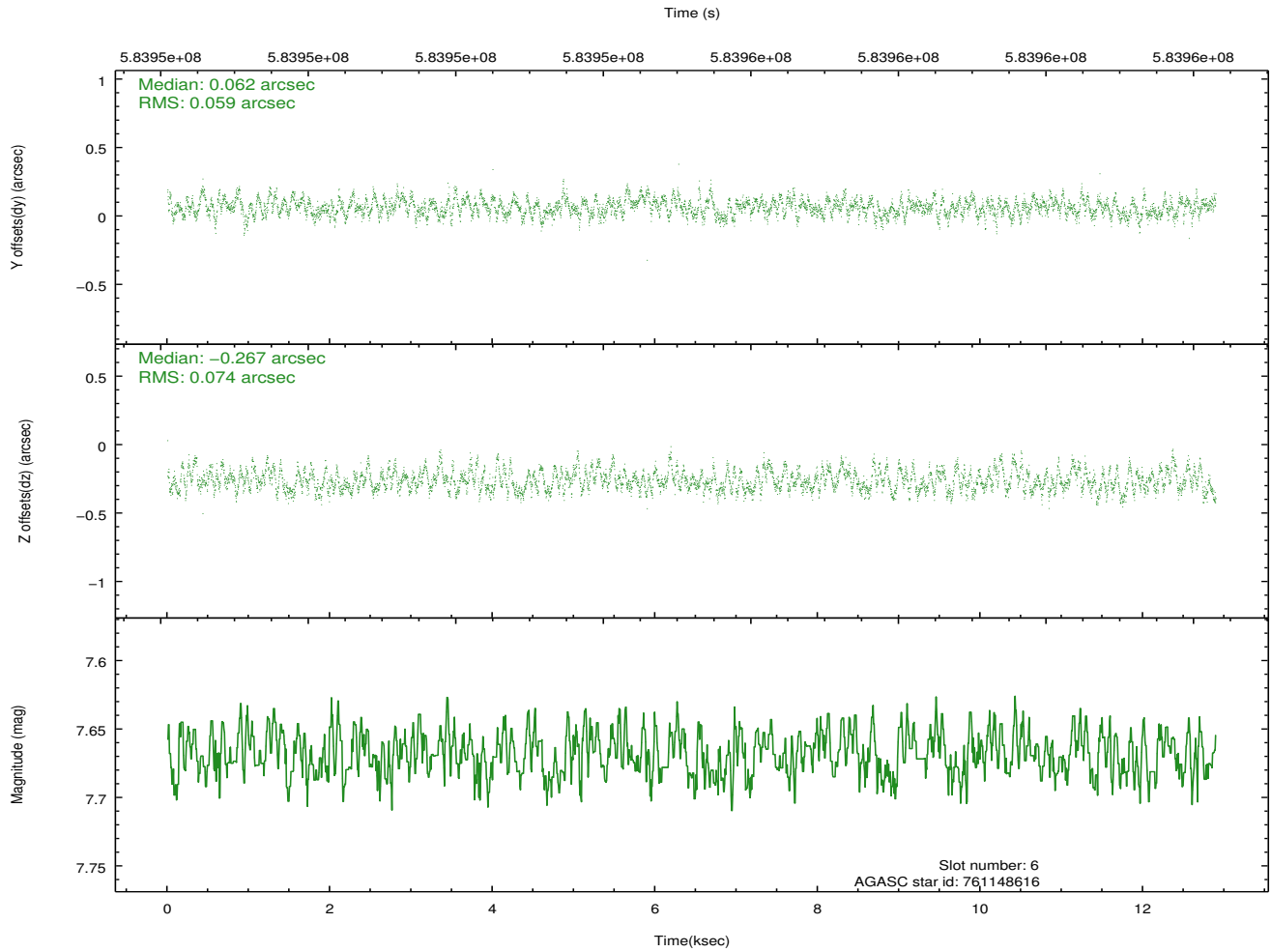
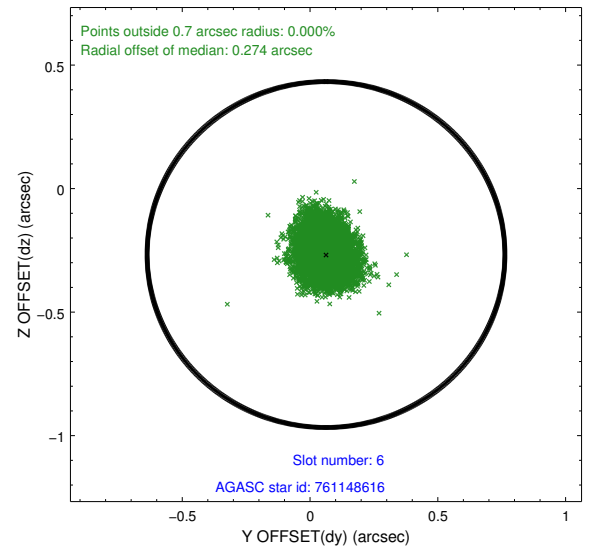
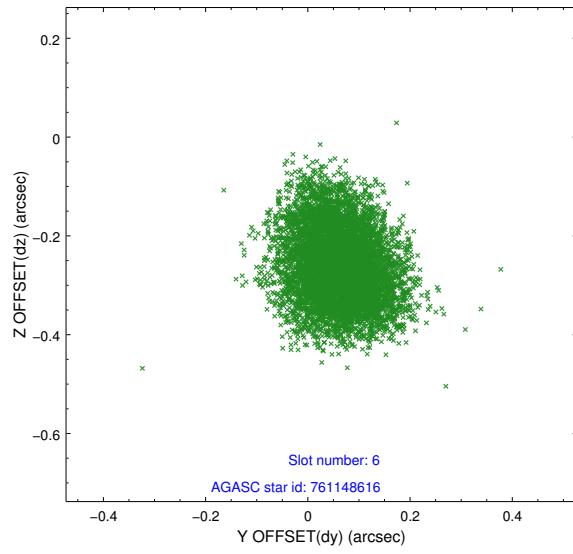
2.4.2 Slot 4



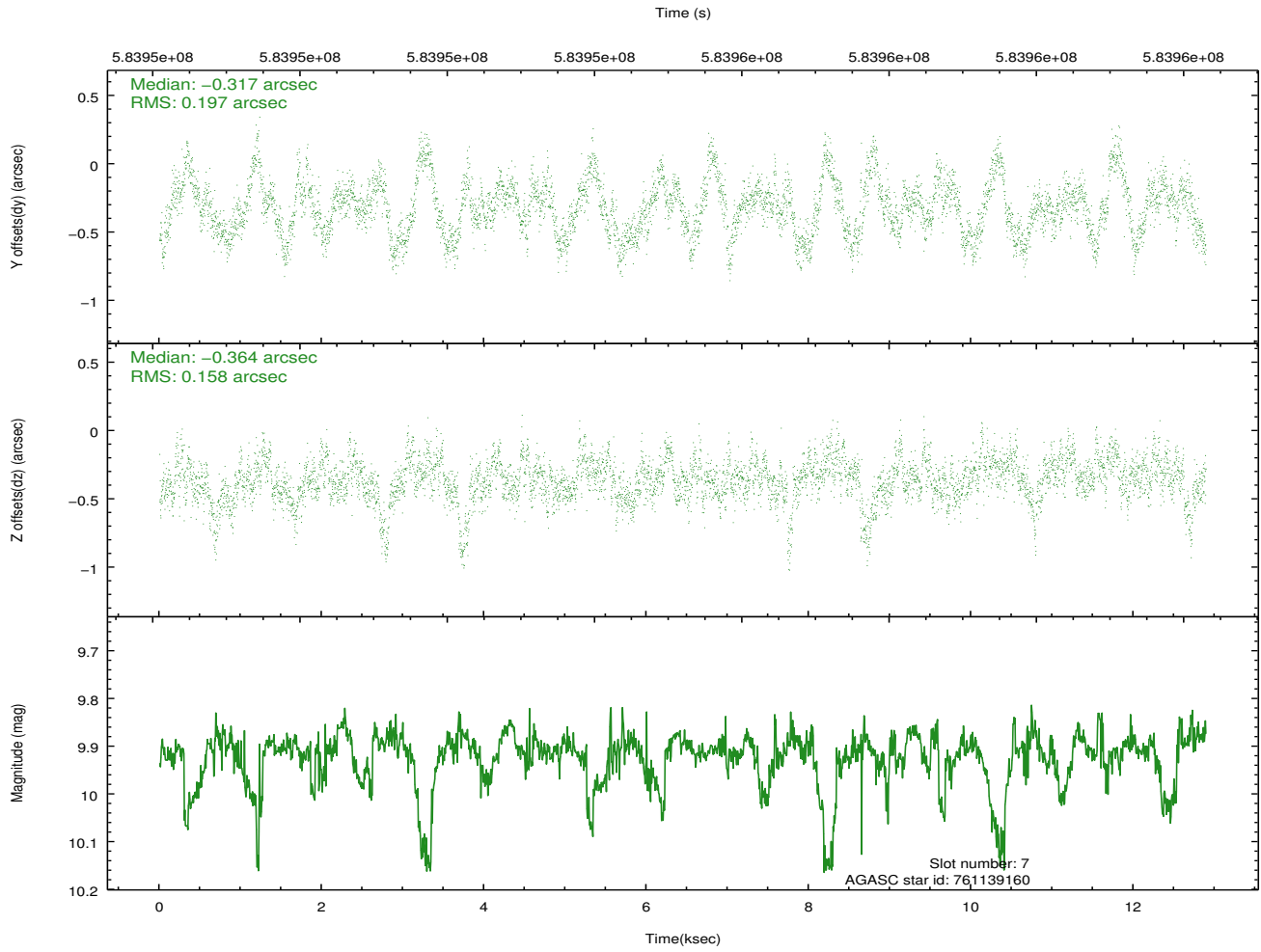
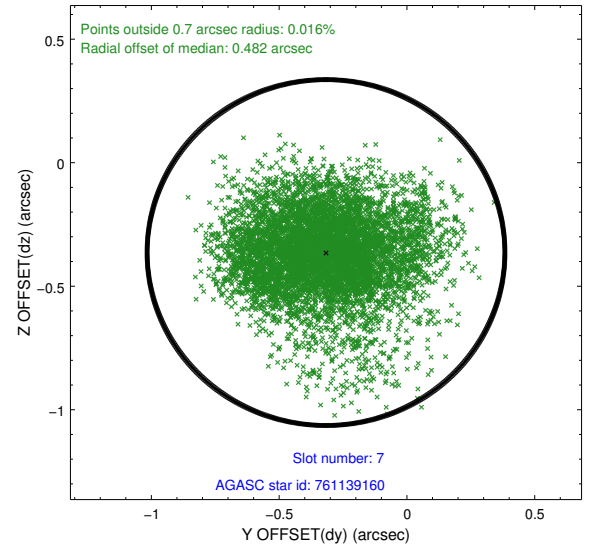
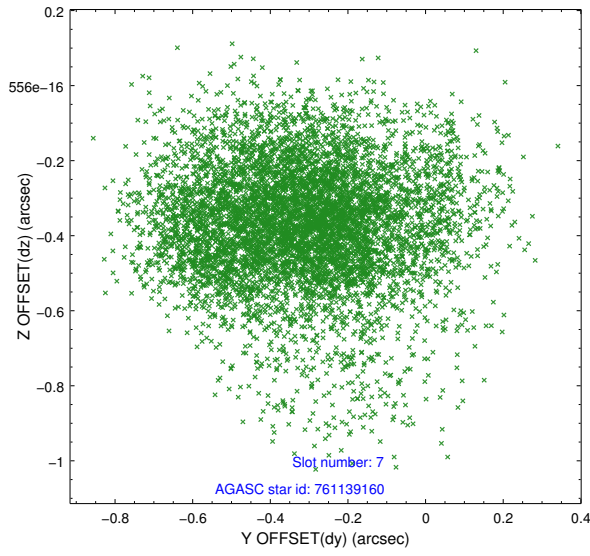
2.4.3 Slot 5



2.4.4 Slot 6

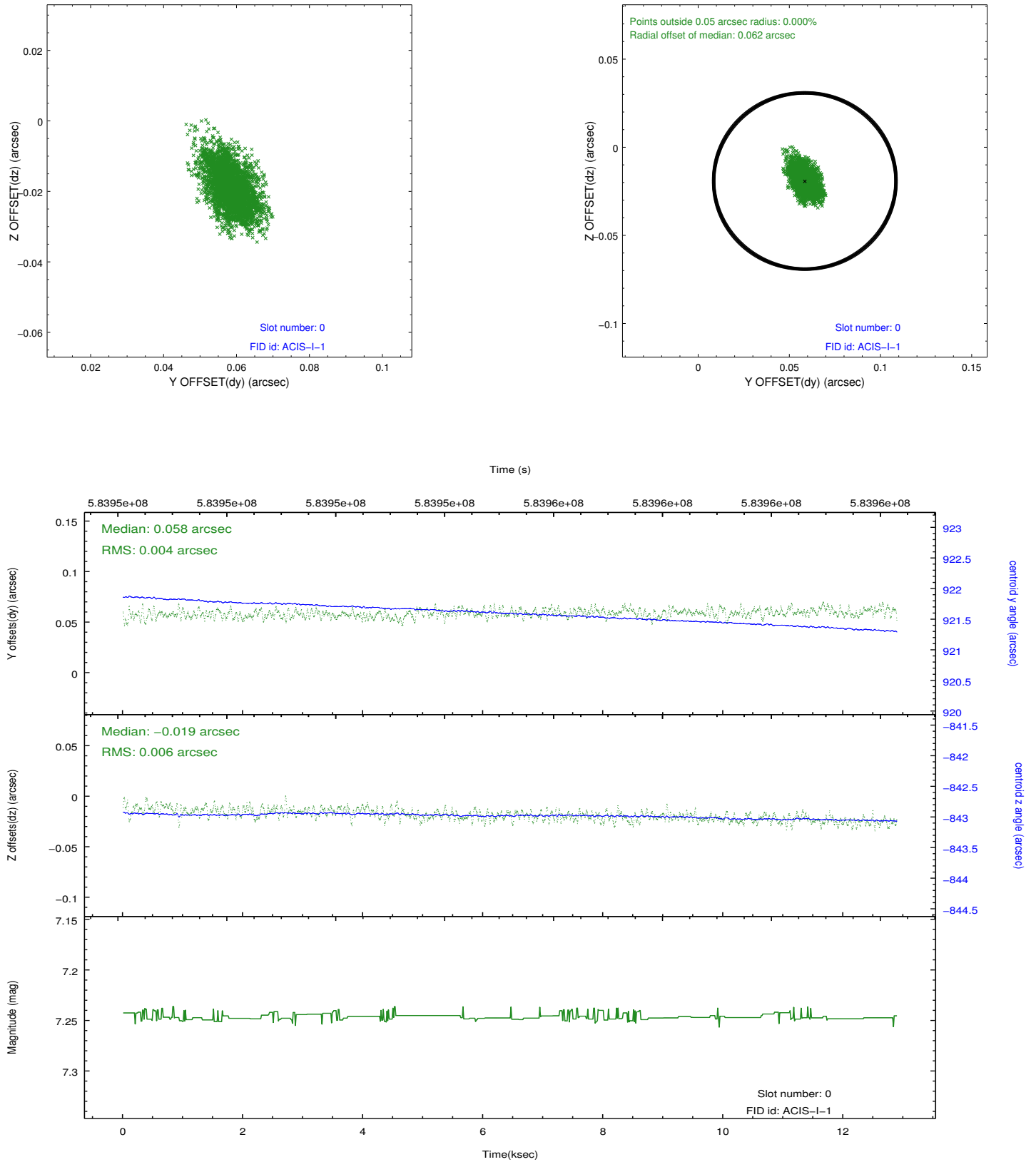


2.4.5 Slot 7

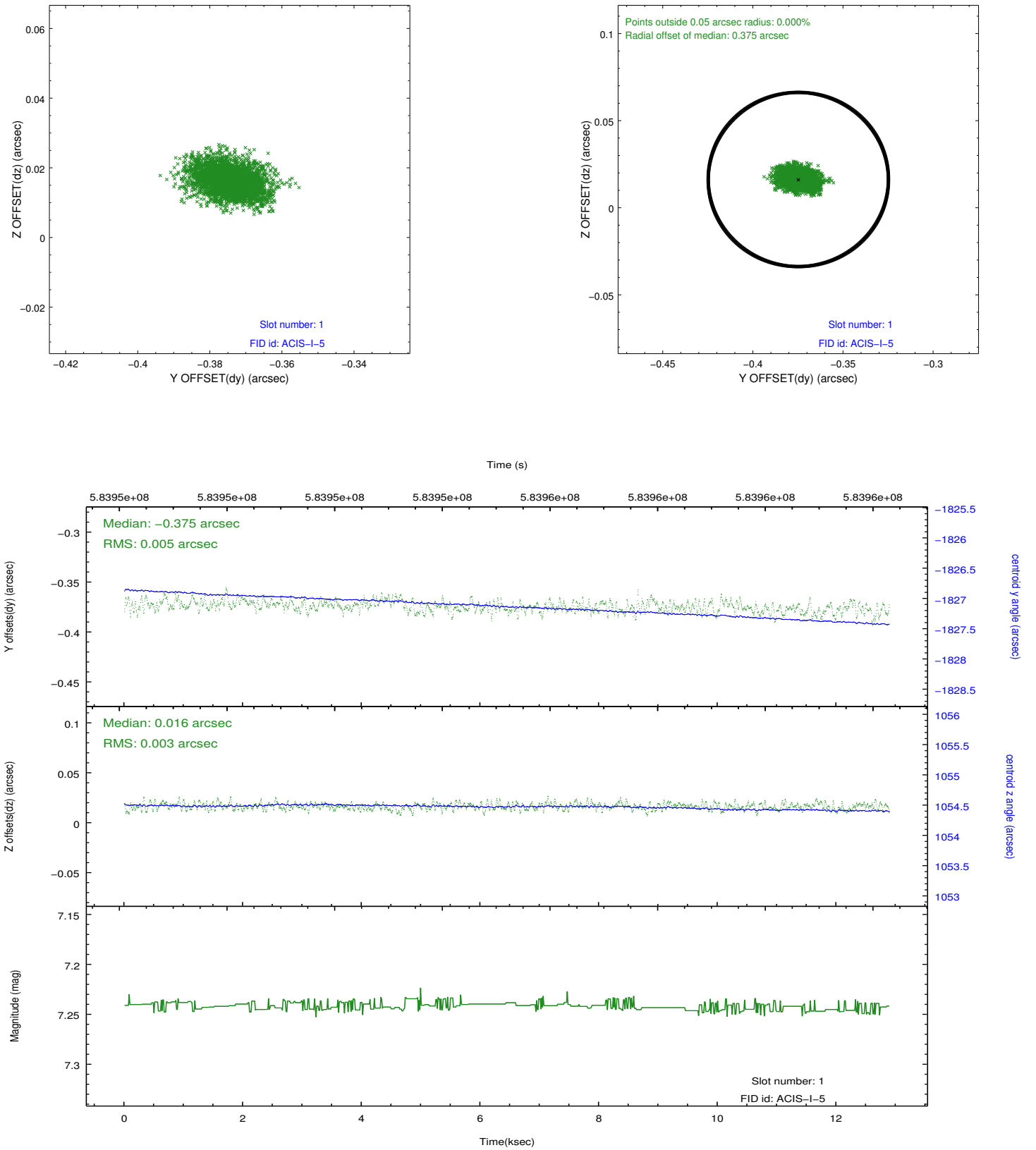


2.5 FID Slots

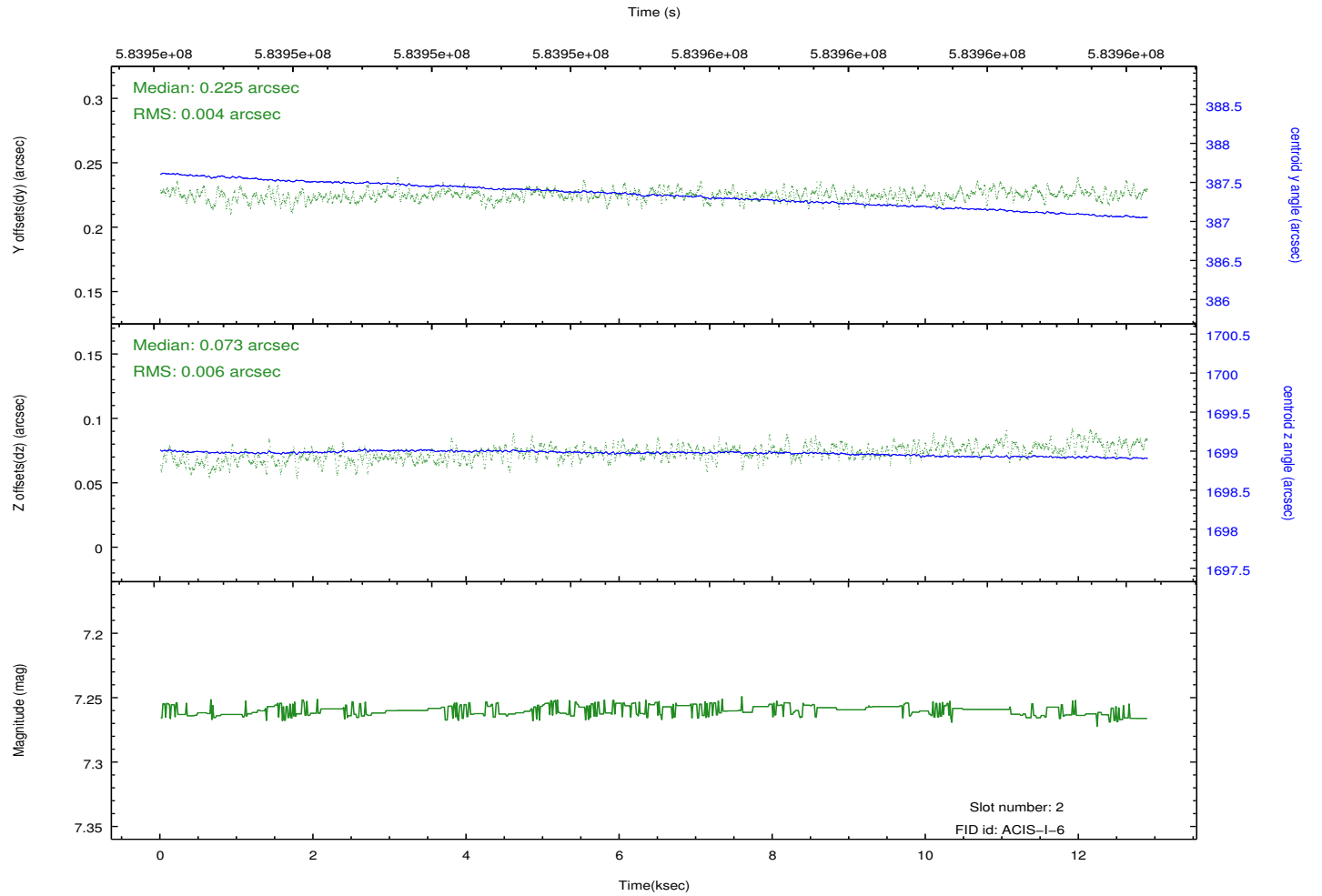
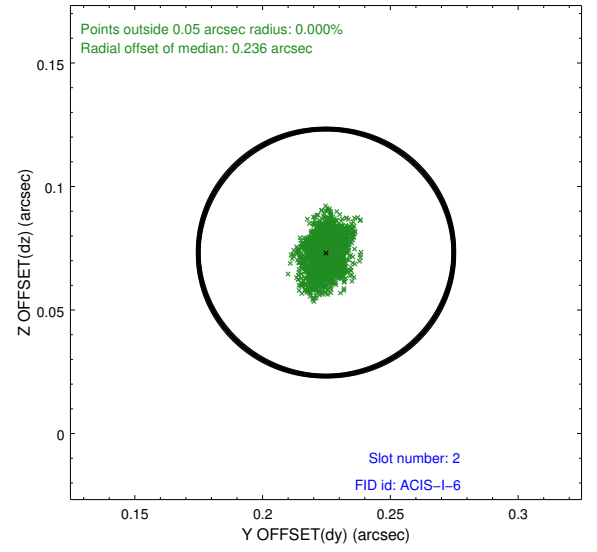
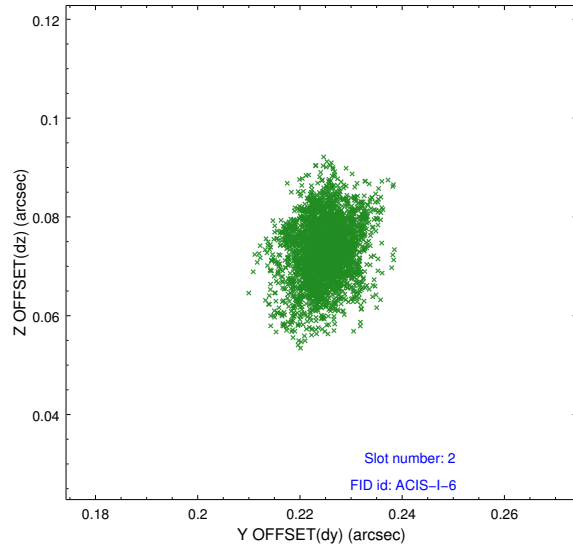
2.5.1 Slot 0



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)	2016.07.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.576700096846

A.2 Comments

A spatial region of the original bias map for CCD = 1 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 = 1 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:
(335.28396, -12.22926), (335.28933, -12.22734), (335.26326, -12.15724),
(335.25685, -12.15635).