

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 22286 - L2 Version 1
Chandra X-Ray Center

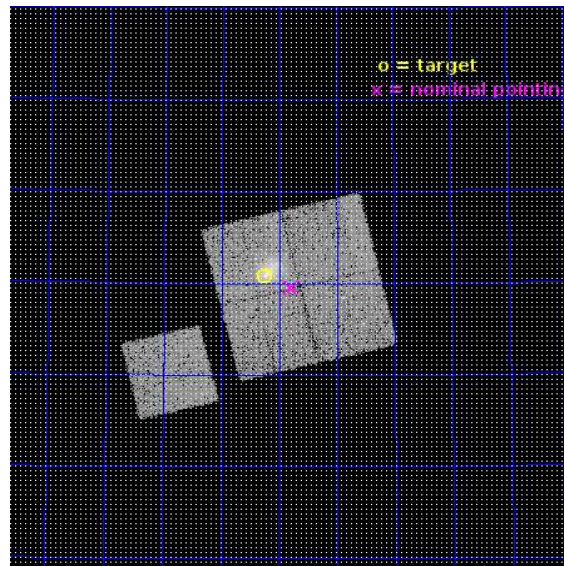
L2 Processing Date : Aug 12 2019

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1 Front

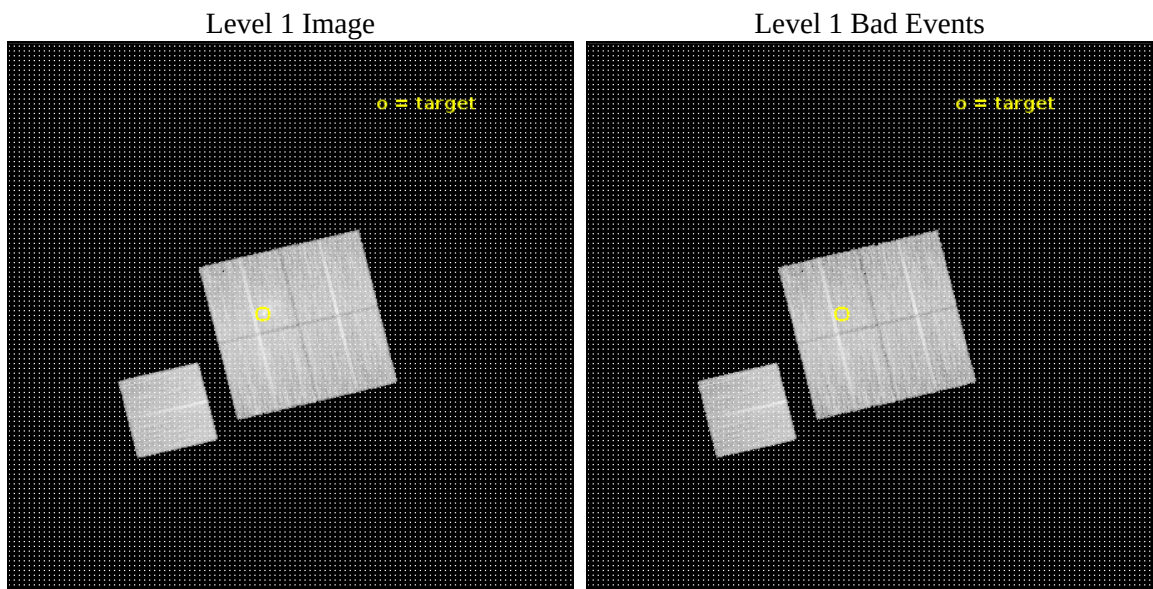
seq_num	801762	Sequence number
obs_id	22286	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.94650110047	Nominal RA [deg]
dec_nom	66.325295869984	Nominal Dec [deg]
roll_nom	256.31379892132	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17070.473985314	Sum of GTIs [s]
livetime	16847.435675596	Livetime [s]
ontime0	17070.350865364	Sum of GTIs [s]
ontime1	17070.391905308	Sum of GTIs [s]
ontime2	17070.432945371	Sum of GTIs [s]
ontime3	17070.473985314	Sum of GTIs [s]
ontime6	17067.168845177	Sum of GTIs [s]
l2events	70764	Number of level 2 events



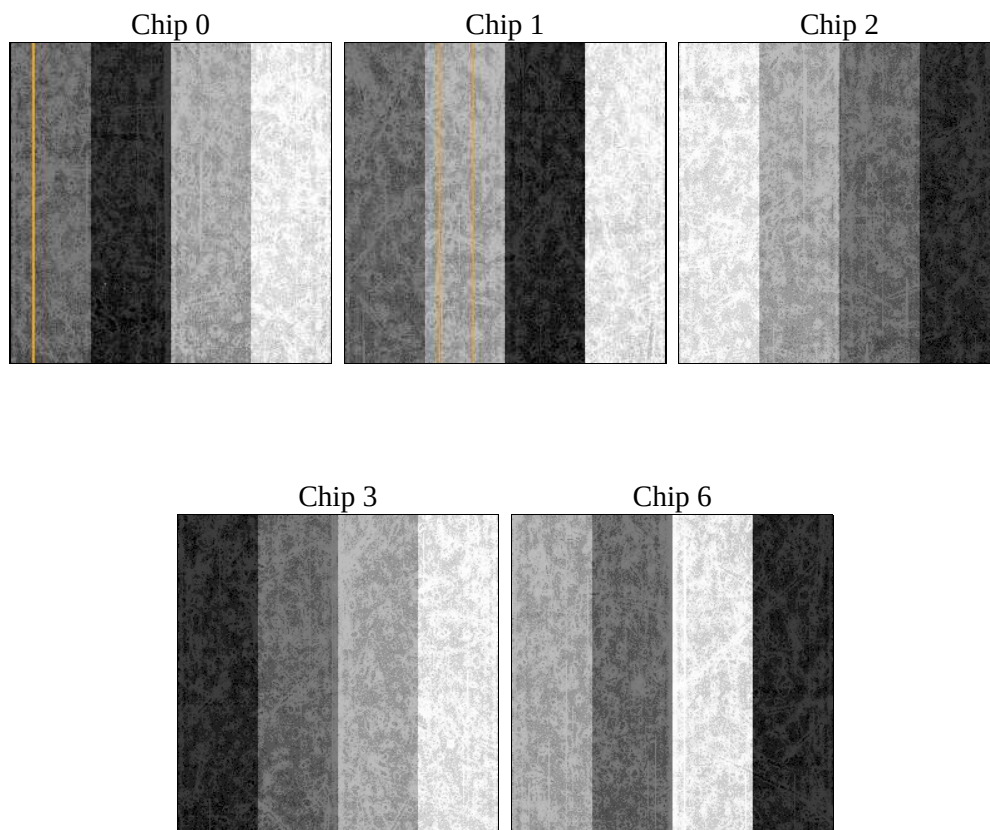
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	17070.473985314	Sum of GTIs [s]
caldbver	4.8.3.1	 	ontime0	17070.350865364	Sum of GTIs [s]
date	2019-08-12T06:04:07	Date and time of file creation	ontime1	17070.391905308	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	17070.432945371	Sum of GTIs [s]
			ontime3	17070.473985314	Sum of GTIs [s]
			ontime6	17067.168845177	Sum of GTIs [s]
			l1events	629610	Number of level 1 events

2.1.4 Events

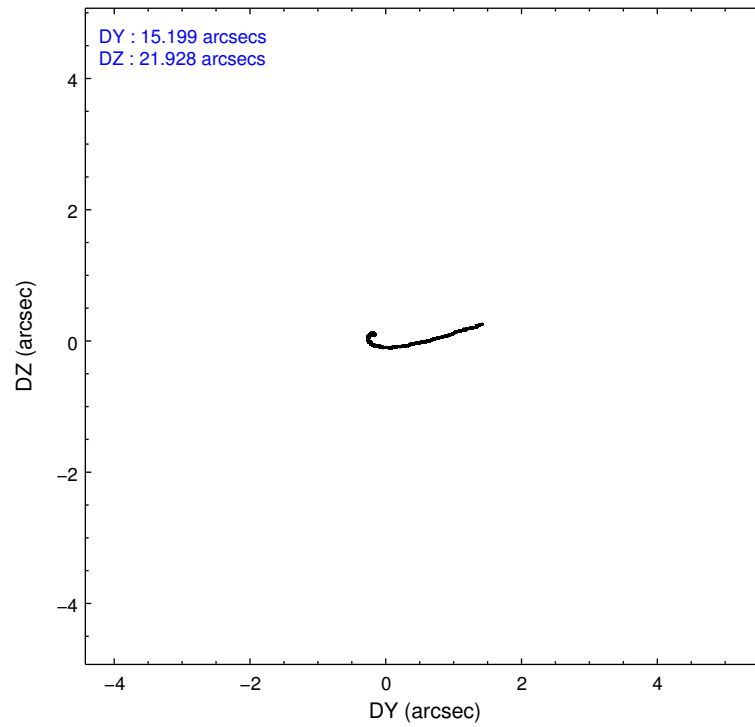
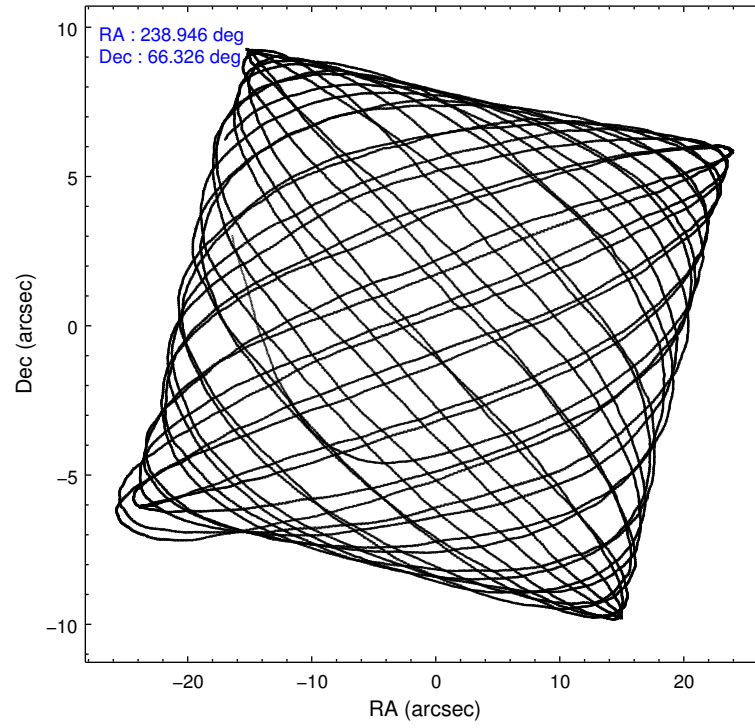
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	117314	120047	129255	130009	132985
rejected events	102316	103749	114710	107757	118343
rejected %	87%	86%	88%	82%	88%

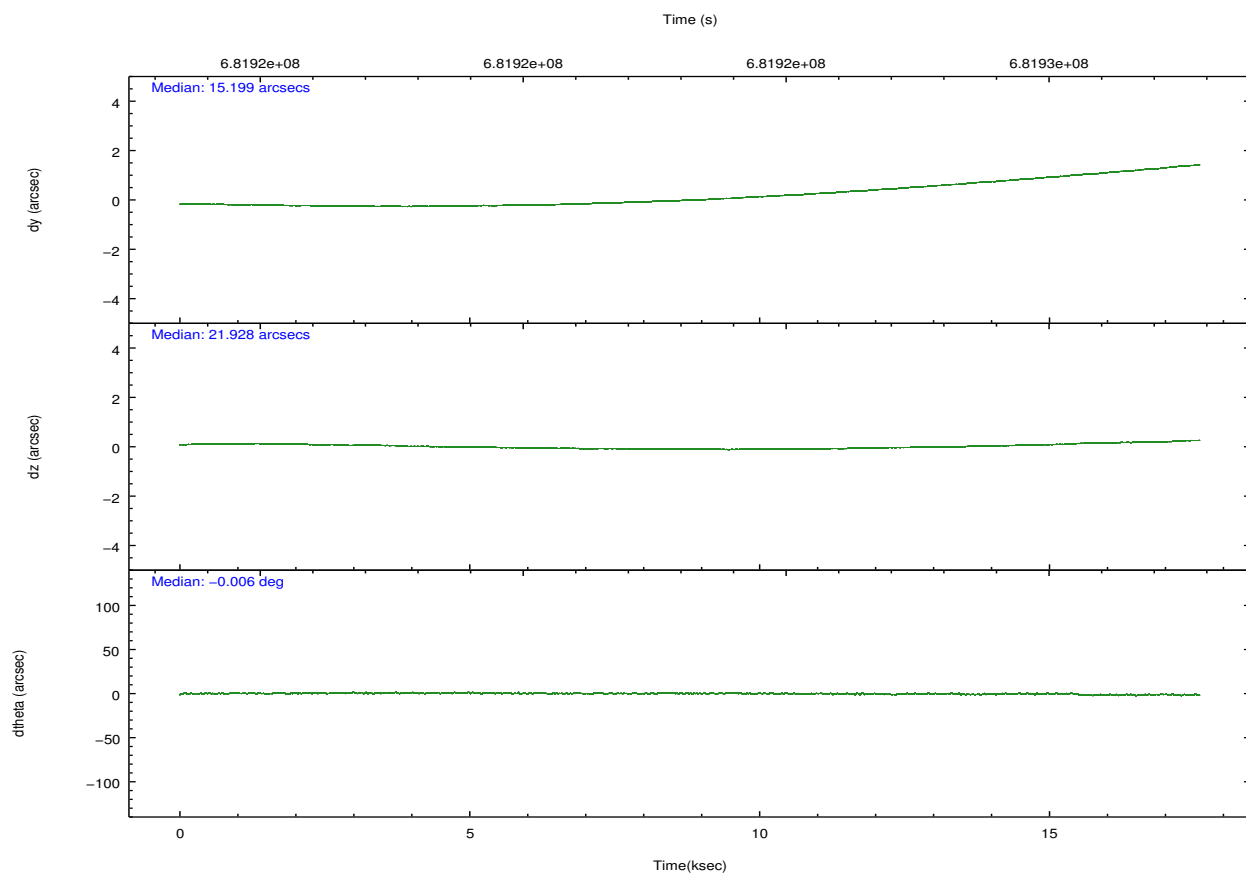
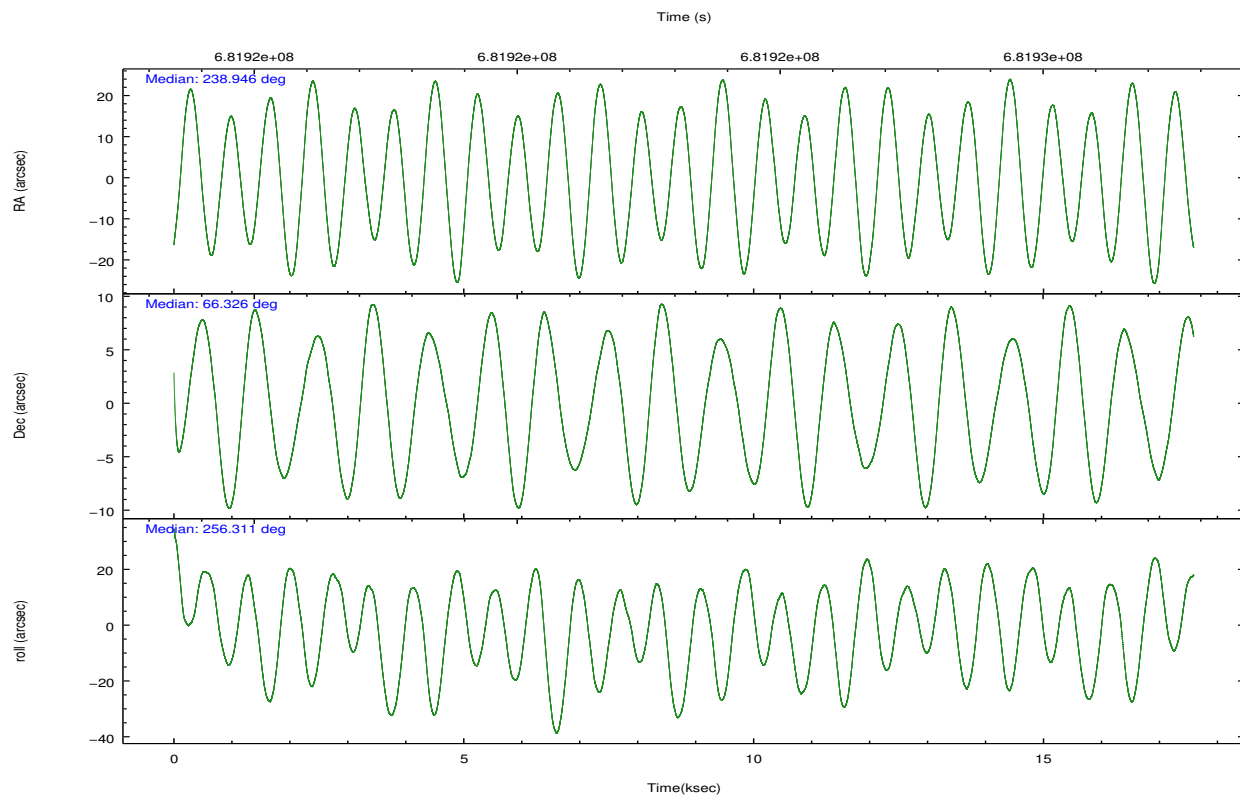
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5231	5407	5167	11806	4720
	4%	4%	3%	9%	3%
grade 1 events	80	55	79	114	61
	0%	0%	0%	0%	0%
grade 2 events	3789	4201	3644	3957	3519
	3%	3%	2%	3%	2%
grade 3 events	1438	1532	1370	1689	1410
	1%	1%	1%	1%	1%
grade 4 events	1510	1537	1465	1624	1444
	1%	1%	1%	1%	1%
grade 5 events	5825	5875	5575	6274	6010
	4%	4%	4%	4%	4%
grade 6 events	3031	3626	2902	3180	3549
	2%	3%	2%	2%	2%
grade 7 events	96410	97814	109053	101365	112272
	82%	81%	84%	77%	84%

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	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	238.926893	238.9465011004699	CCD I2 on	Y	Y
[deg] Pointing Dec	66.351724	66.32529586998416	CCD I3 on	Y	Y
[deg] Pointing Roll	256.123069	256.3137989213221	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	681914974.184000	681913825.66356	CCD S5 on	N	N
Observation start date	2019-08-11T12:48:25	2019-08-11T12:30:25	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	681931974.184000	681932890.66471	On-chip summing requested	N	N
Observation end date	2019-08-11T17:31:45	2019-08-11T17:48:10	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



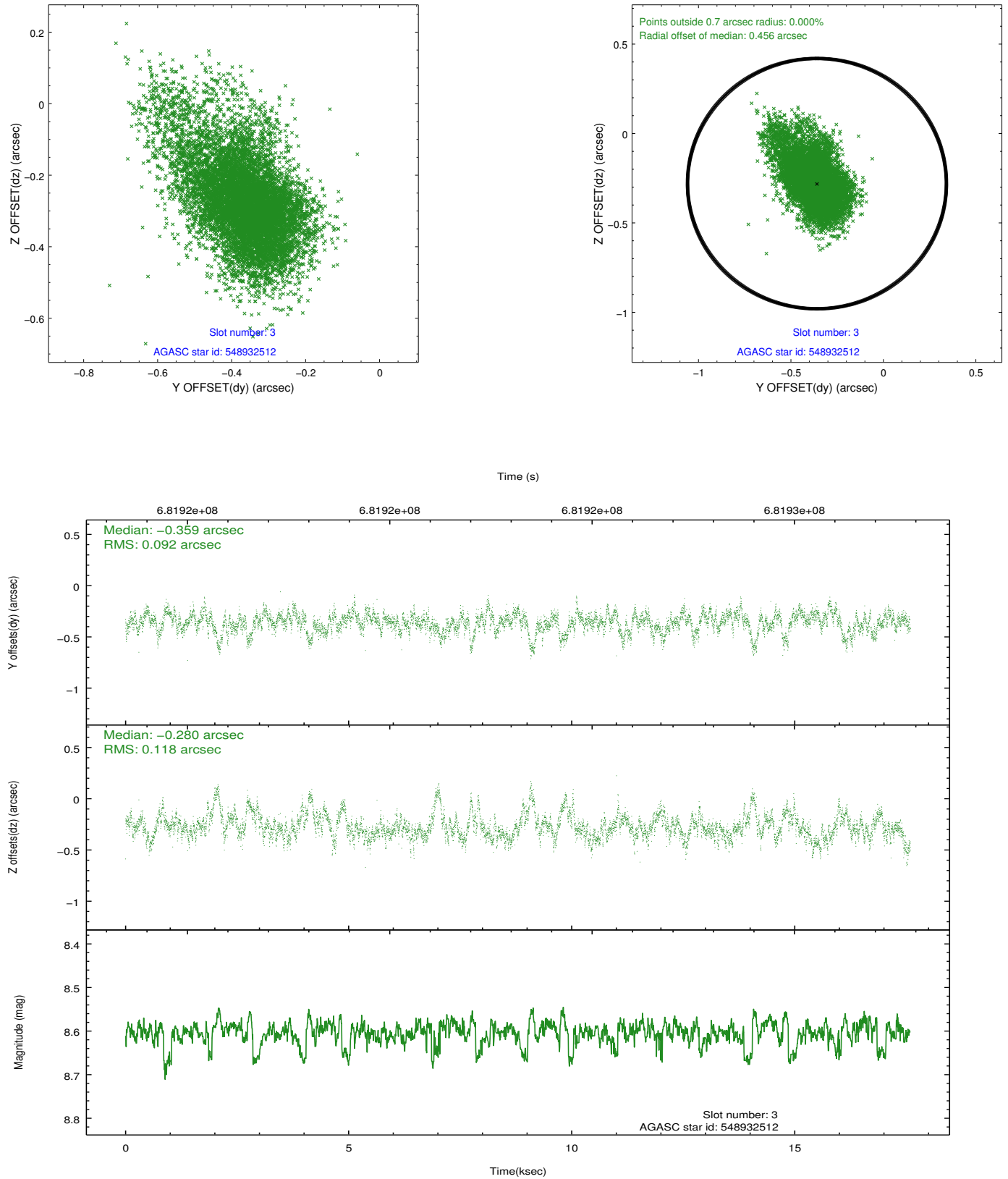


Slot Statistics

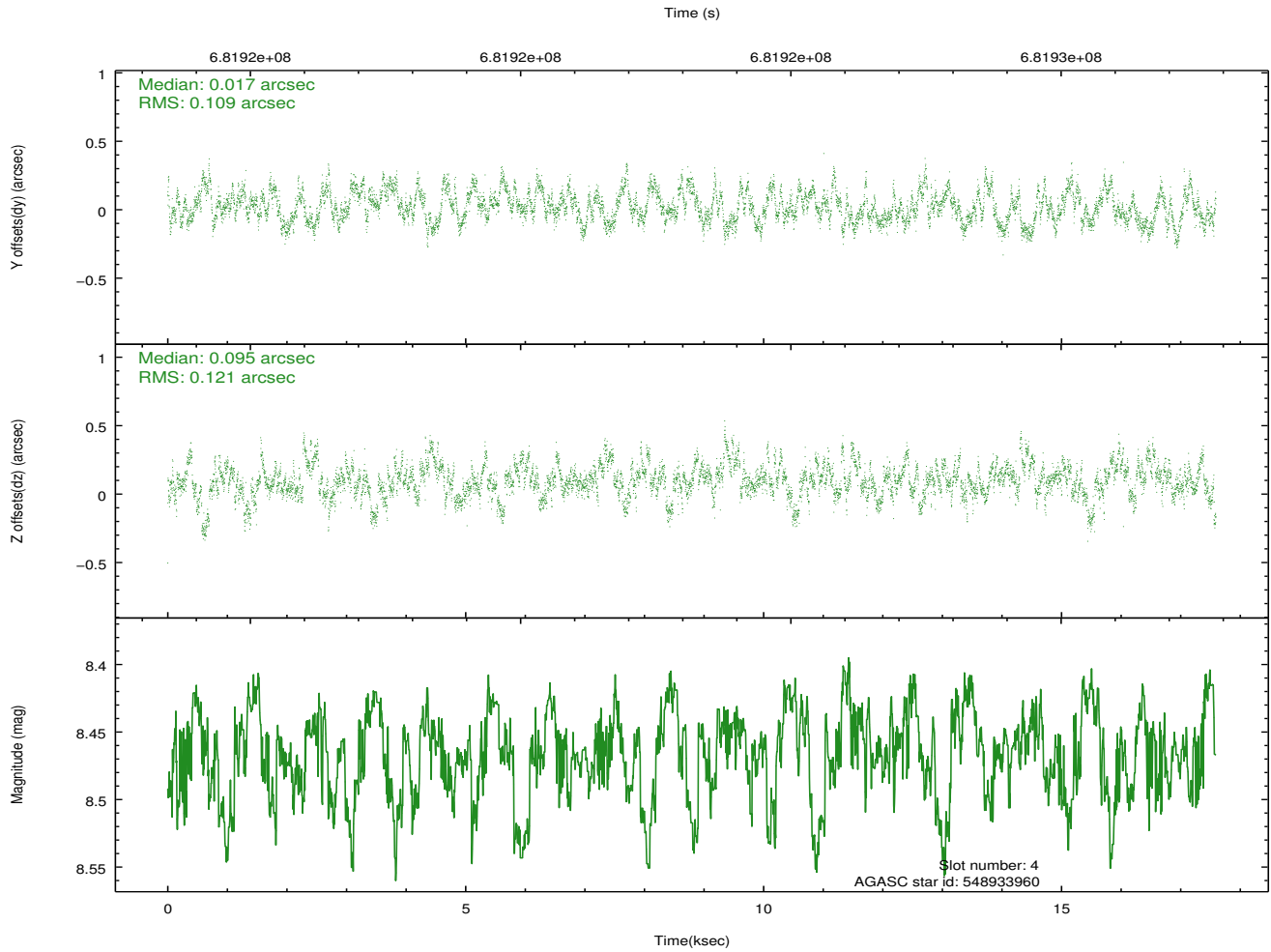
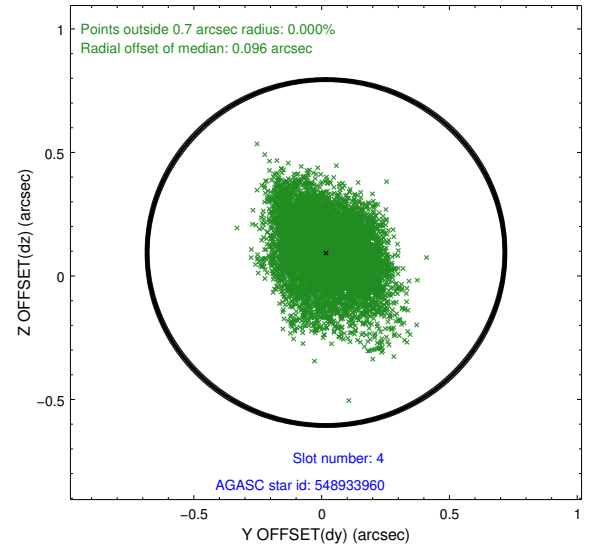
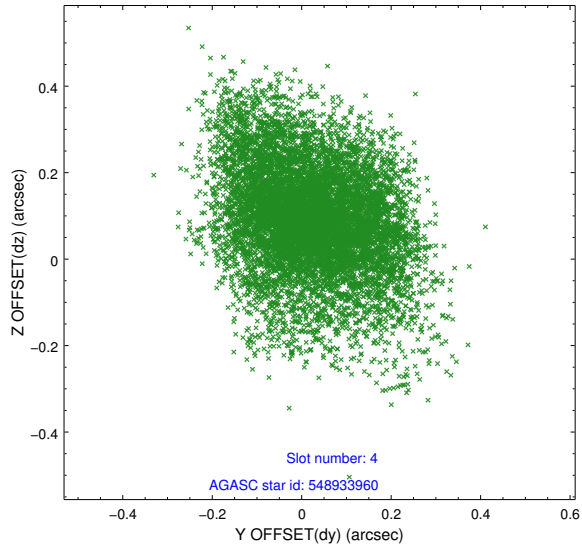
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.14	4291	1.000	0.111	-0.074	0.007	0.014	0.000000	0.000000	924.20	-845
1	FID		ACIS-I-5	7.12	4291	1.000	-0.487	0.029	0.011	0.022	0.000000	0.000000	-1824.52	1051
2	FID		ACIS-I-6	7.13	4291	1.000	0.285	0.115	0.011	0.023	0.000000	0.000000	389.47	1696
3	GUIDE	used	548932512	8.60	8575	1.000	-0.359	-0.280	0.146	0.291	239.727627	66.054972	749.08	1390
4	GUIDE	used	548933960	8.47	8579	1.000	0.017	0.095	0.173	0.288	237.671184	66.428675	149.22	-1824
5	GUIDE	used	548936216	9.95	8282	1.000	0.297	-0.357	0.357	0.666	236.951428	65.879054	2304.59	-2425
6	GUIDE	used	548937184	9.84	8540	1.000	0.142	0.435	0.385	0.565	238.771821	66.565432	-692.80	-399
7	GUIDE	used	549849072	9.18	8544	1.000	-0.104	0.093	0.197	0.307	240.420863	66.802816	-2108.68	1661

2.4 Star Slots

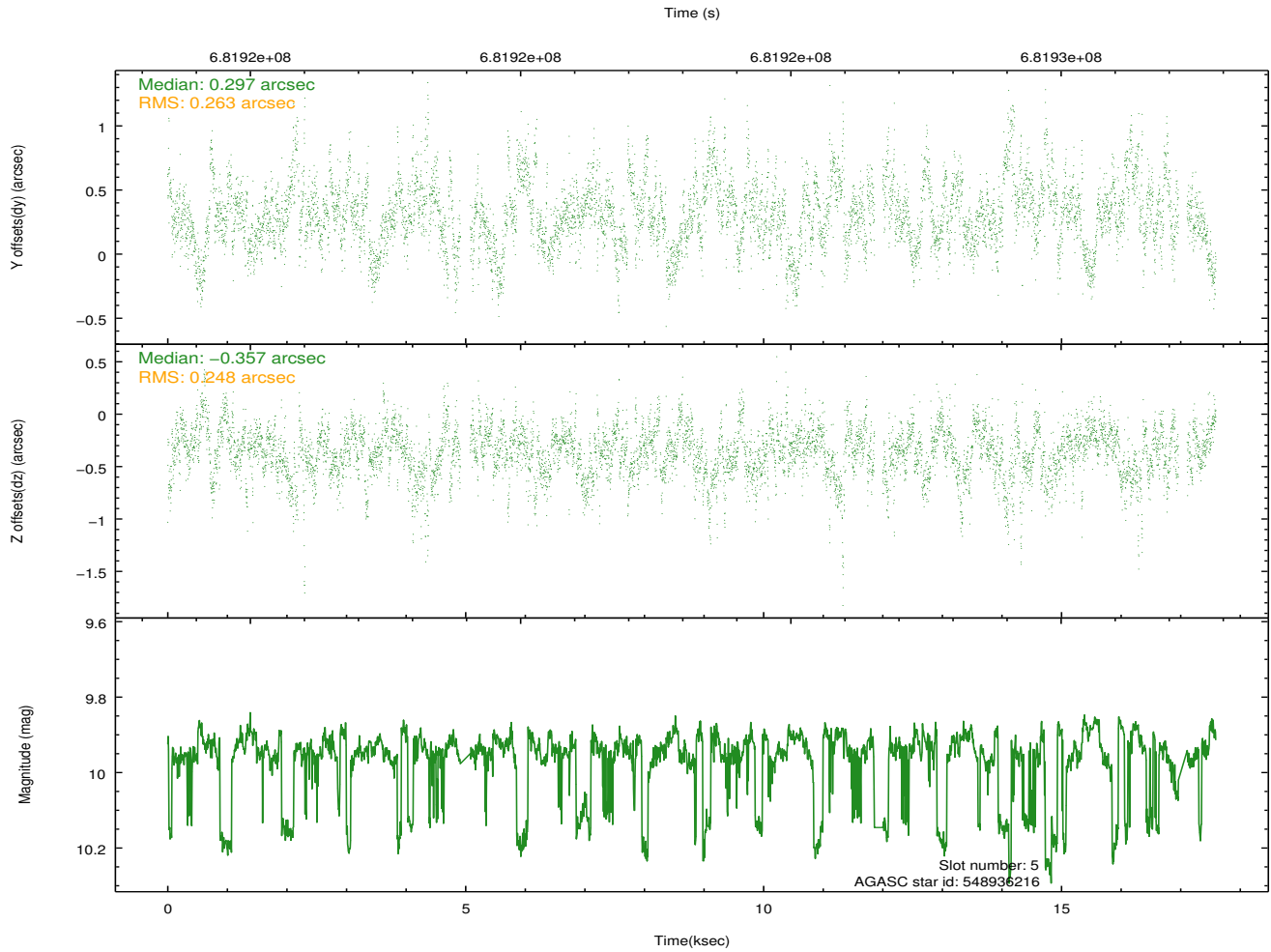
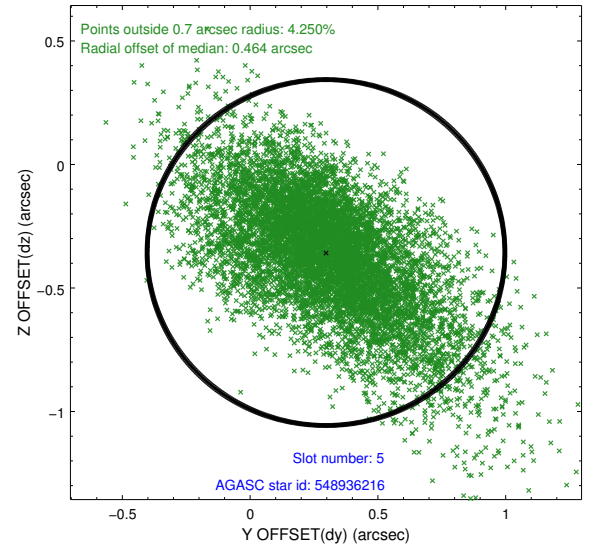
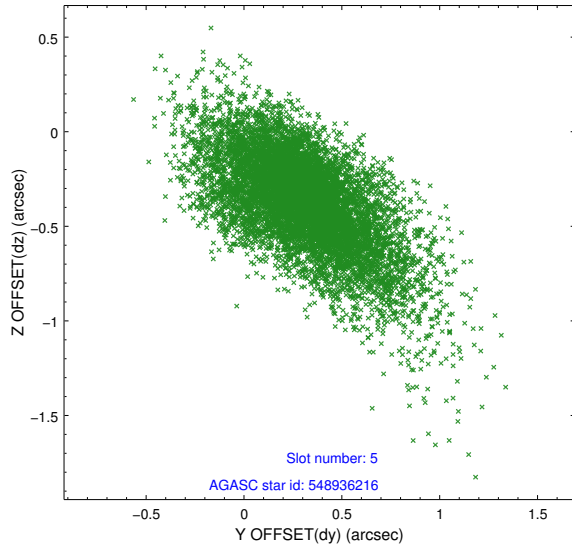
2.4.1 Slot 3



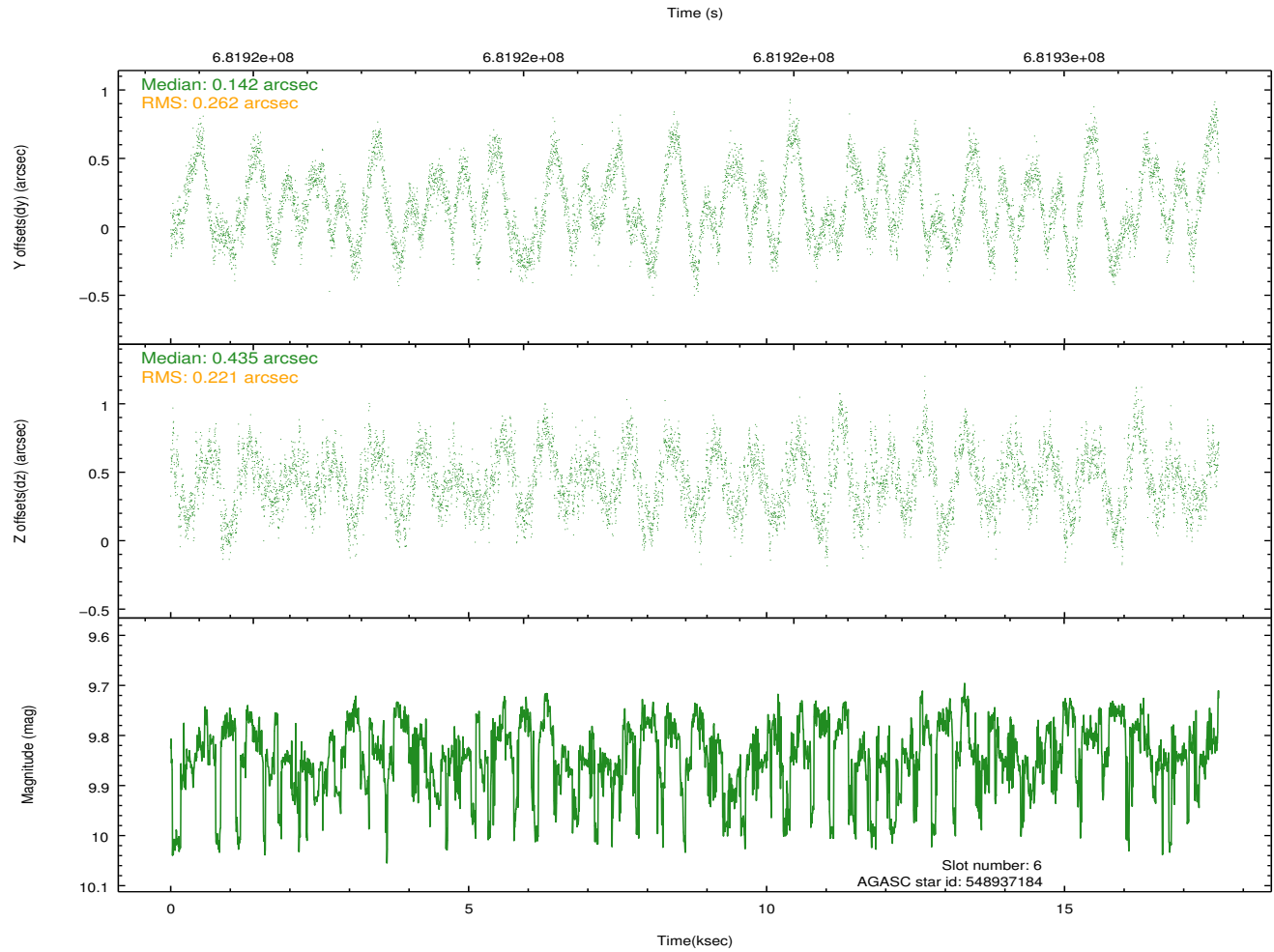
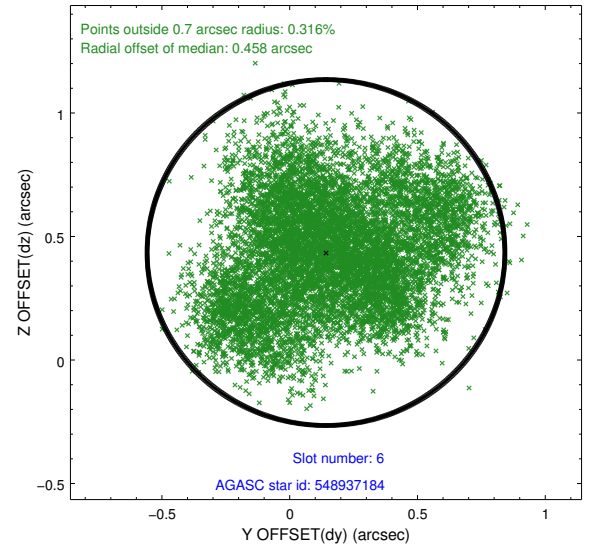
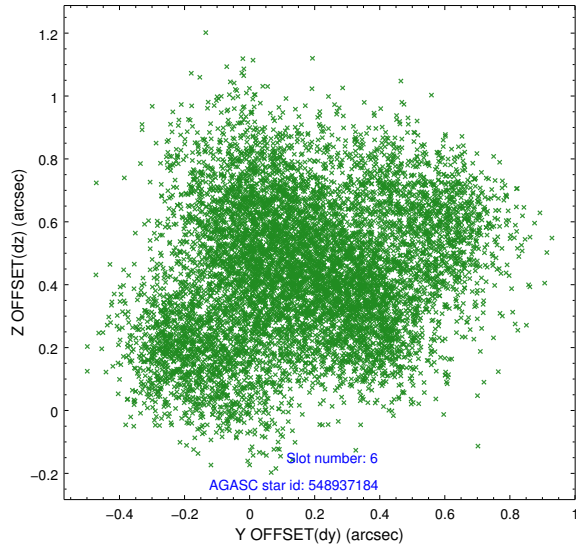
2.4.2 Slot 4



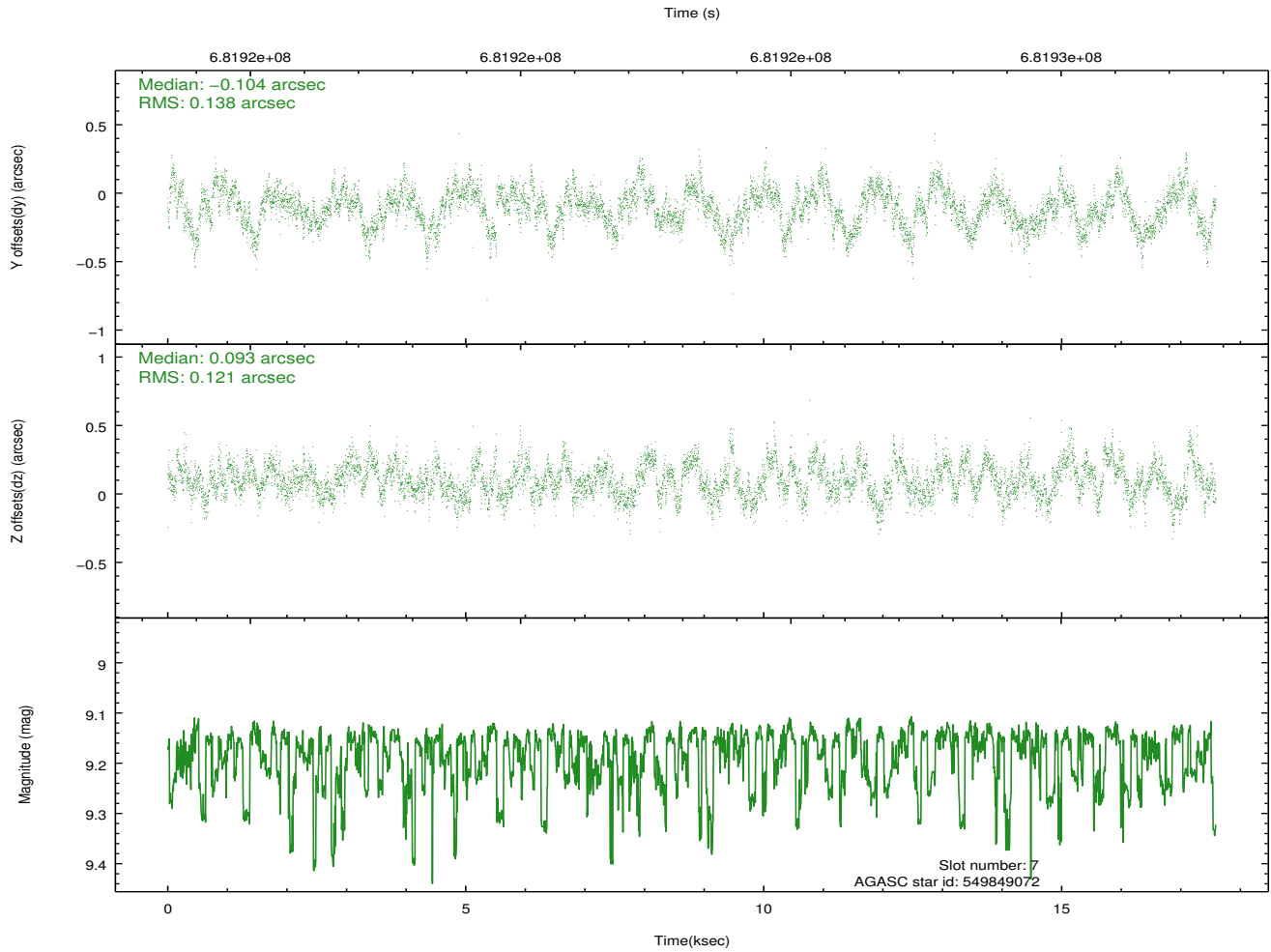
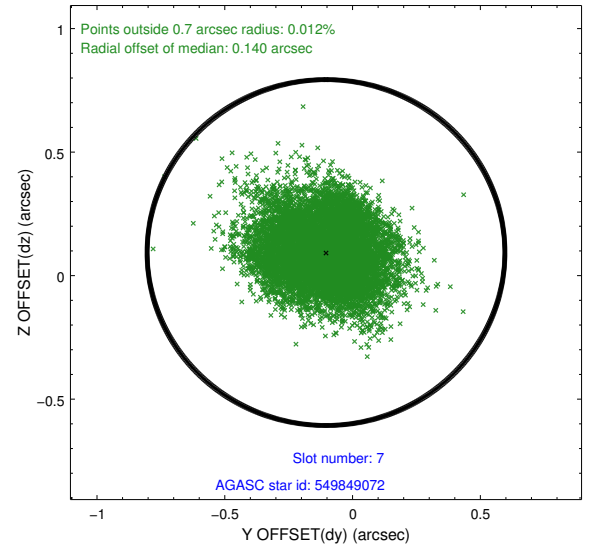
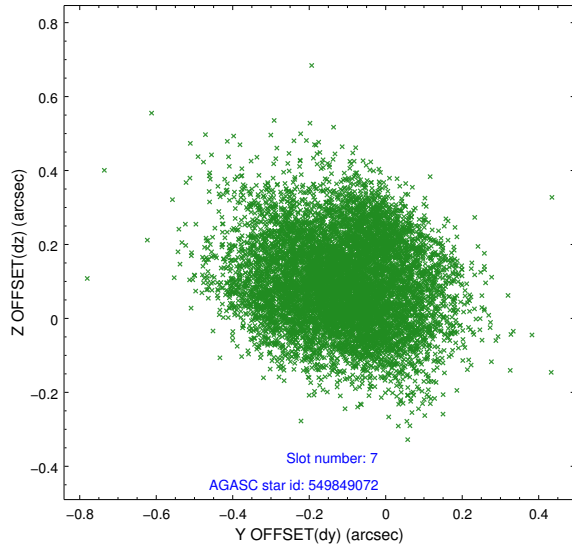
2.4.3 Slot 5



2.4.4 Slot 6

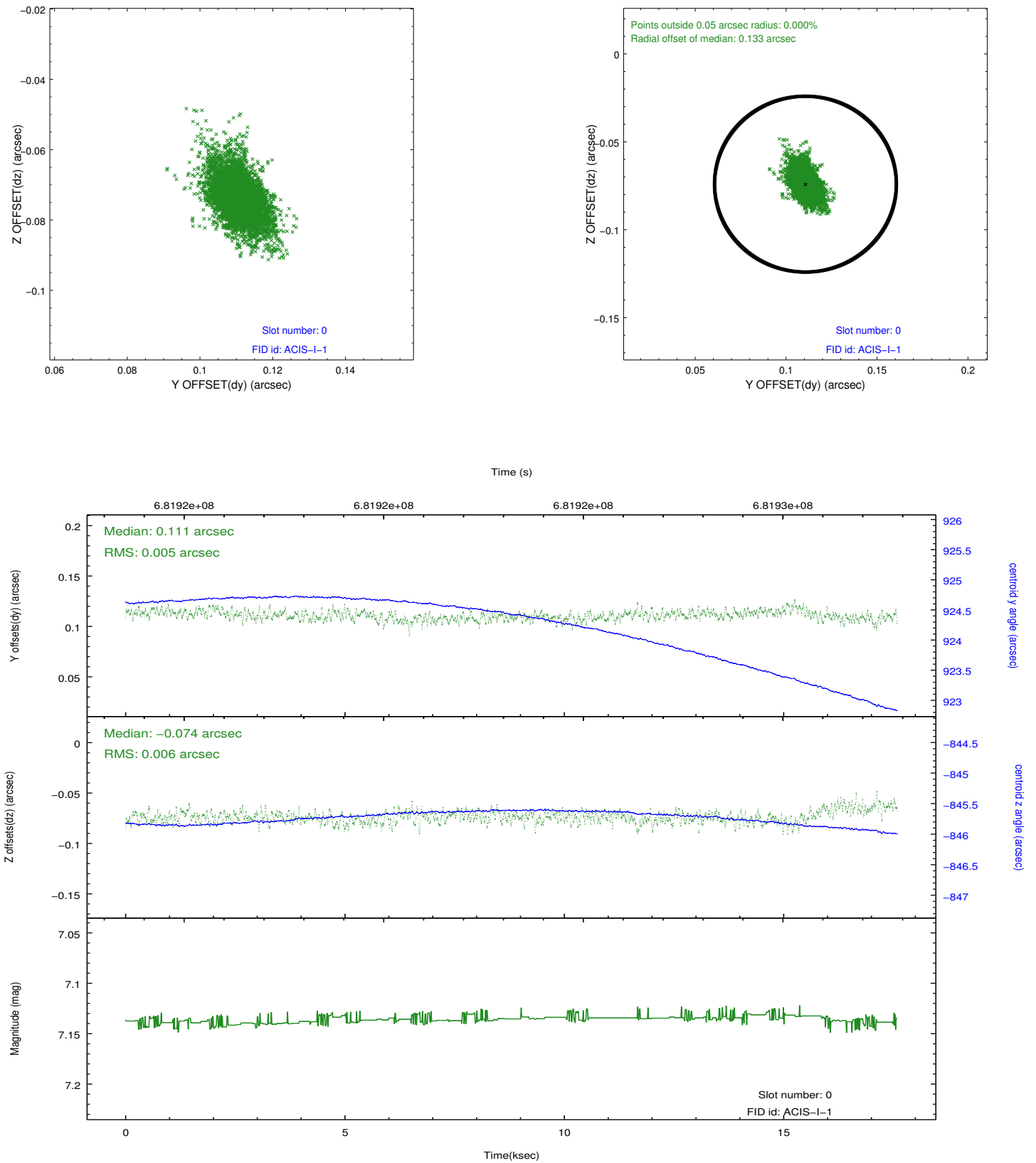


2.4.5 Slot 7

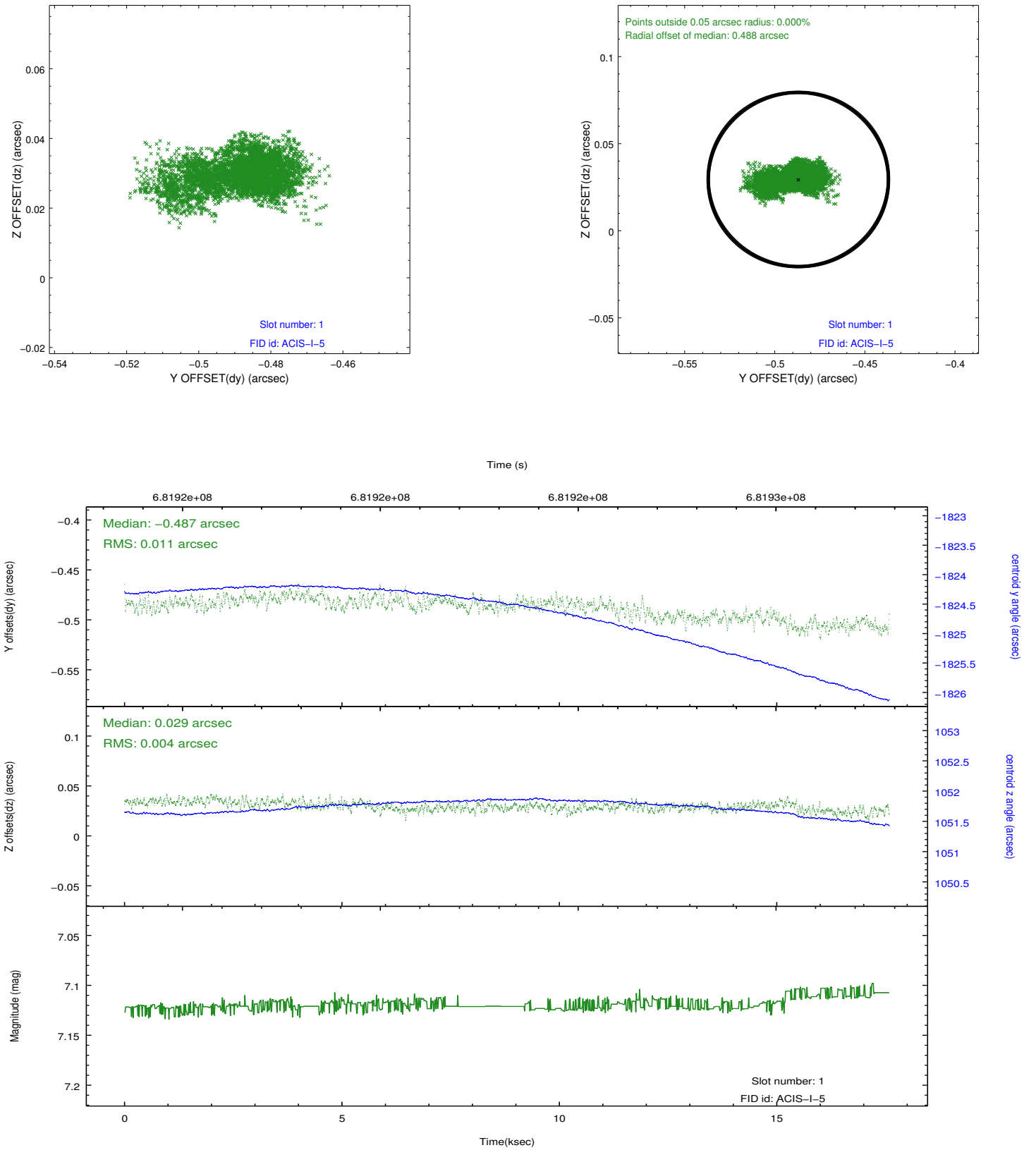


2.5 FID Slots

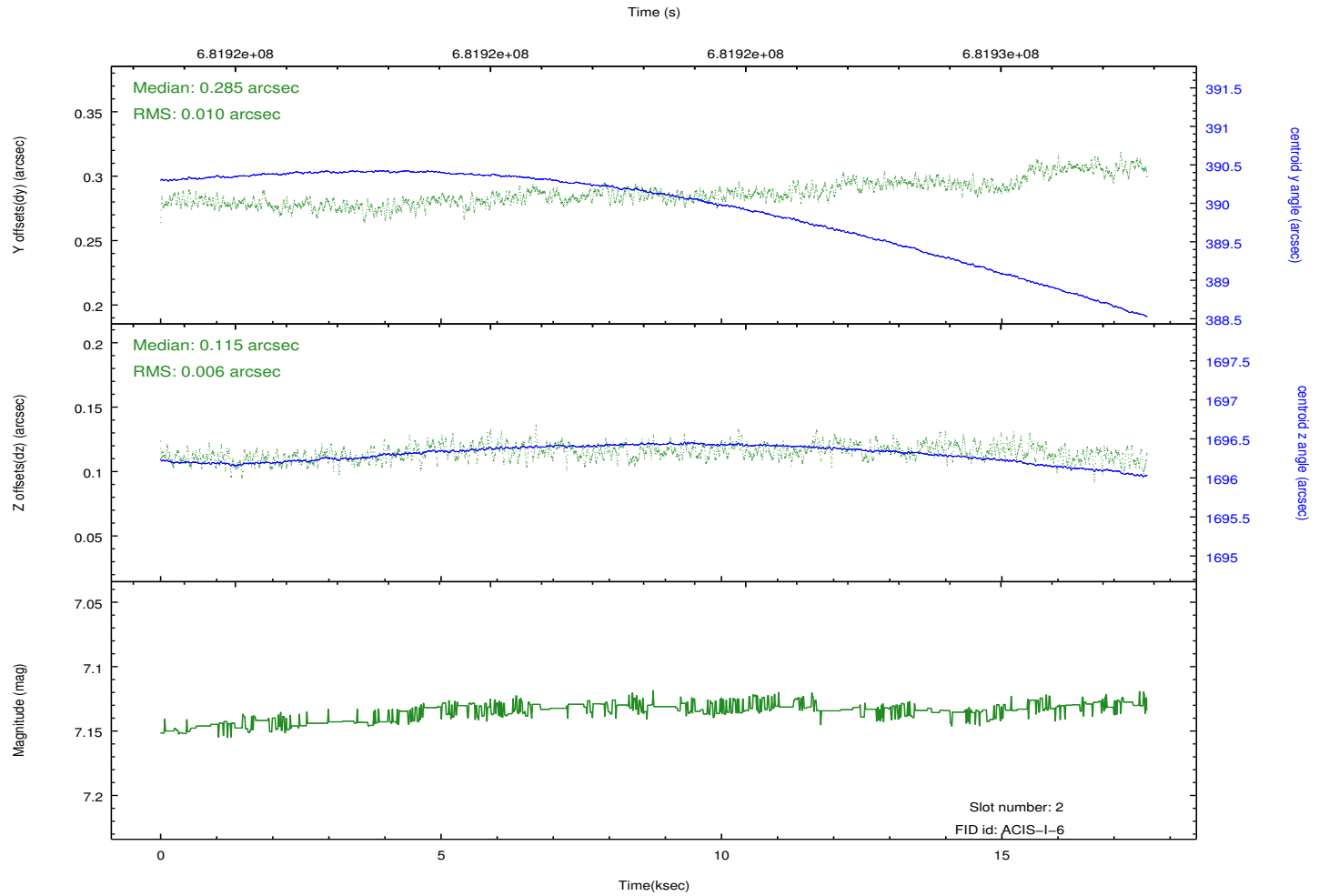
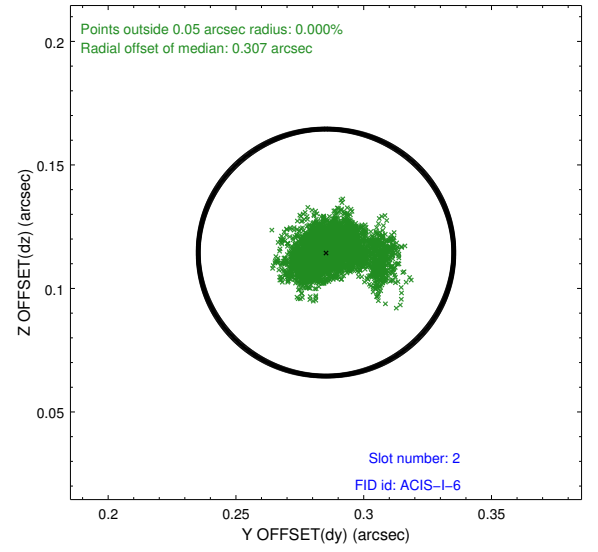
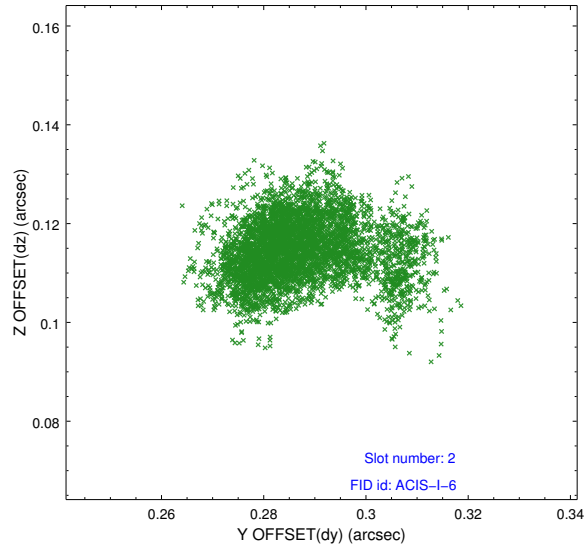
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.08.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.070473985314

A.2 Comments