

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 18468 - L2 Version 2
Chandra X-Ray Center

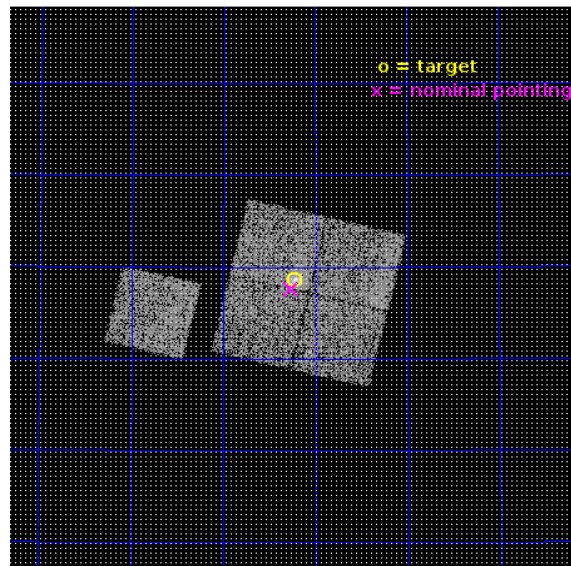
L2 Processing Date : Jul 21 2016

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1 Front

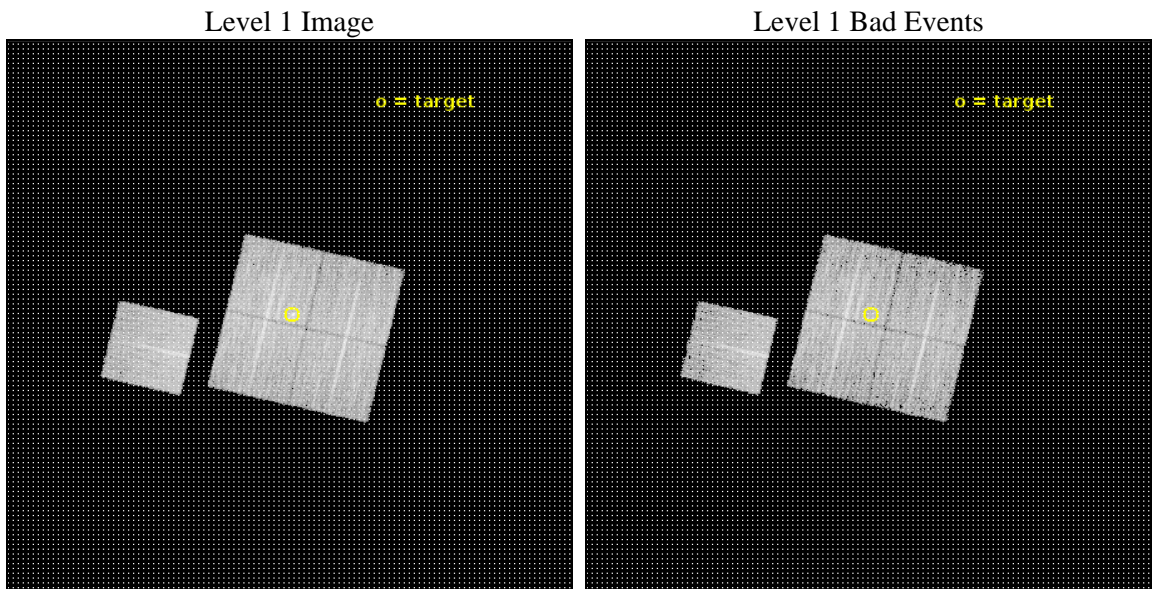
seq_num	801627	Sequence number
obs_id	18468	Observation id
title	Powerful radio galaxies in clusters: completing the sample	Proposa
observer	Ralph Kraft	Principal investigator
object	MACSJ1133.2+5008	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	173.305	Observer's specified target RA [deg]
dec_targ	50.144444	Observer's specified target Dec [deg]
ra_nom	173.31526049311	Nominal RA [deg]
dec_nom	50.127538428274	Nominal Dec [deg]
roll_nom	283.27972450694	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10059.459077477	Sum of GTIs [s]
livetime	9928.0248389642	Livetime [s]
ontime0	10062.60007751	Sum of GTIs [s]
ontime1	10062.60007751	Sum of GTIs [s]
ontime2	10059.459117293	Sum of GTIs [s]
ontime3	10059.459077477	Sum of GTIs [s]
ontime6	10062.60007751	Sum of GTIs [s]
l2events	31333	Number of level 2 events



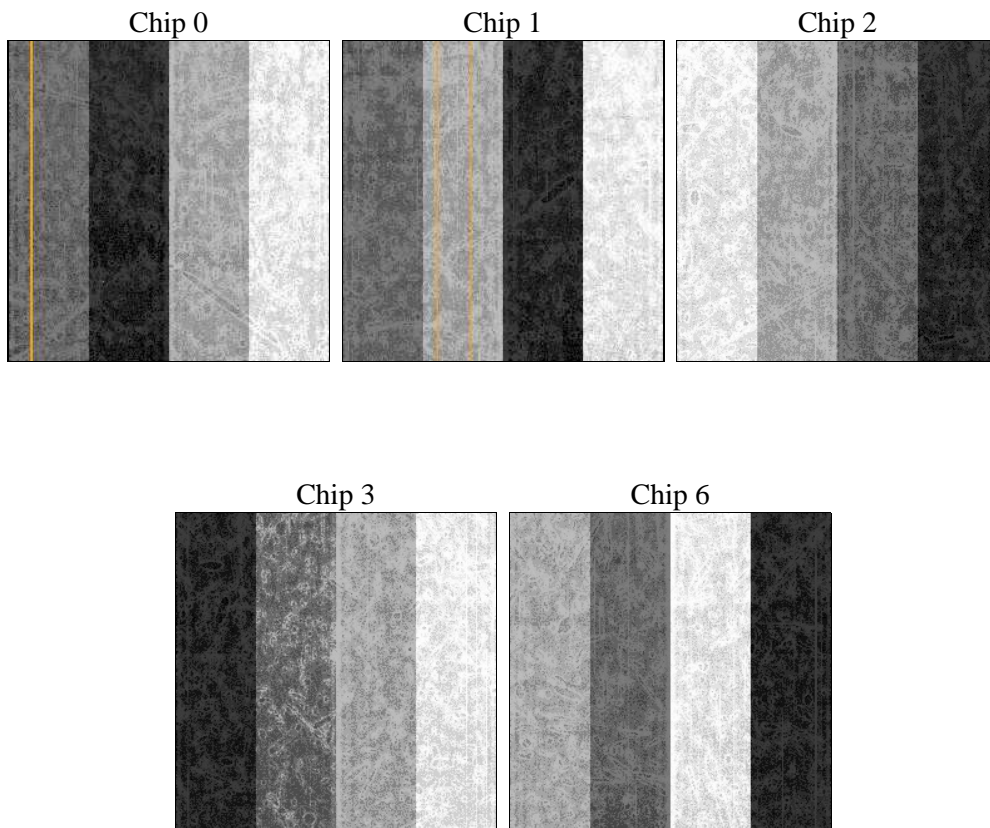
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	10059.459077477	Sum of GTIs [s]
caldsver	4.7.2	 	ontime0	10062.60007751	Sum of GTIs [s]
date	2016-07-21T17:59:27	Date and time of file creation	ontime1	10062.60007751	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10059.459117293	Sum of GTIs [s]
			ontime3	10059.459077477	Sum of GTIs [s]
			ontime6	10062.60007751	Sum of GTIs [s]
			l1events	294482	Number of level 1 events

2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	55190	55600	60415	62245	61032
rejected events	47957	47959	53624	54151	53940
rejected %	86%	86%	88%	86%	88%

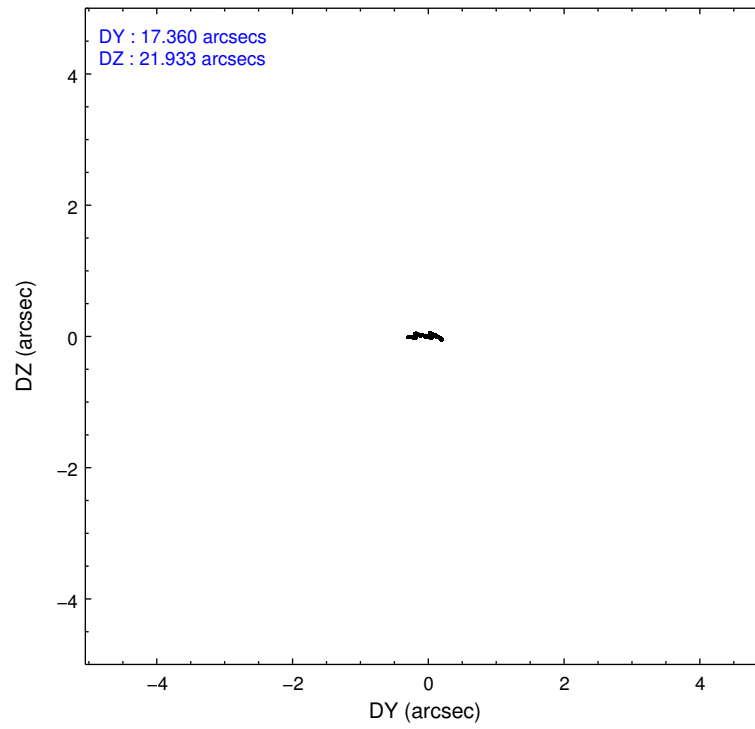
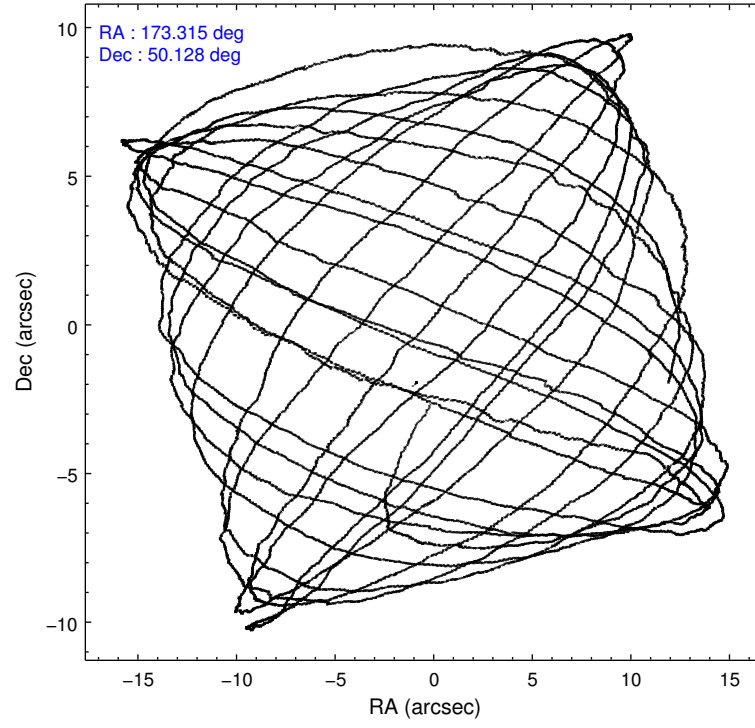
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2457	2661	2355	3548	2395
	4%	4%	3%	5%	3%
grade 1 events	42	32	39	52	24
	0%	0%	0%	0%	0%
grade 2 events	1850	1927	1707	1575	1610
	3%	3%	2%	2%	2%
grade 3 events	775	717	685	737	716
	1%	1%	1%	1%	1%
grade 4 events	665	755	698	738	709
	1%	1%	1%	1%	1%
grade 5 events	2812	2809	2587	3154	3090
	5%	5%	4%	5%	5%
grade 6 events	1490	1587	1353	1501	1667
	2%	2%	2%	2%	2%
grade 7 events	45099	45112	50991	50940	50821
	81%	81%	84%	81%	83%

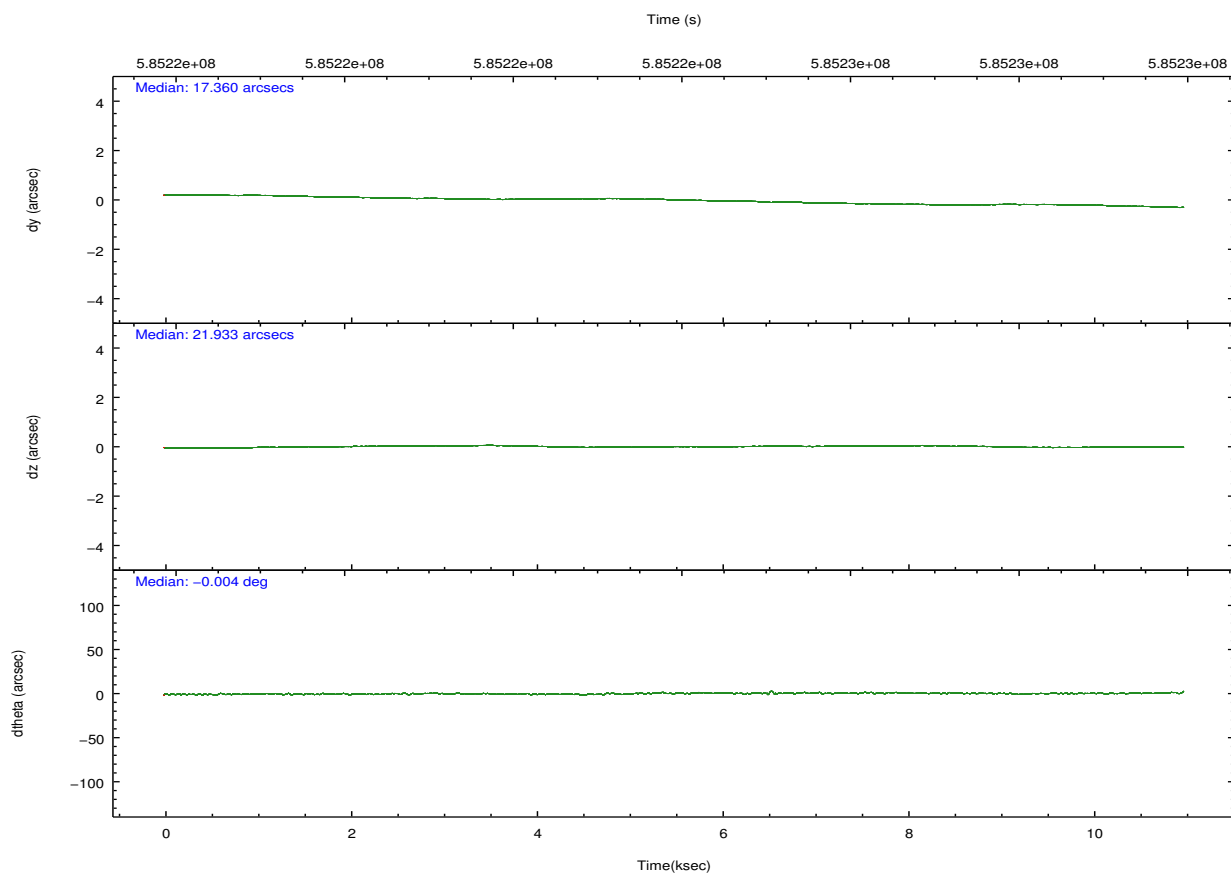
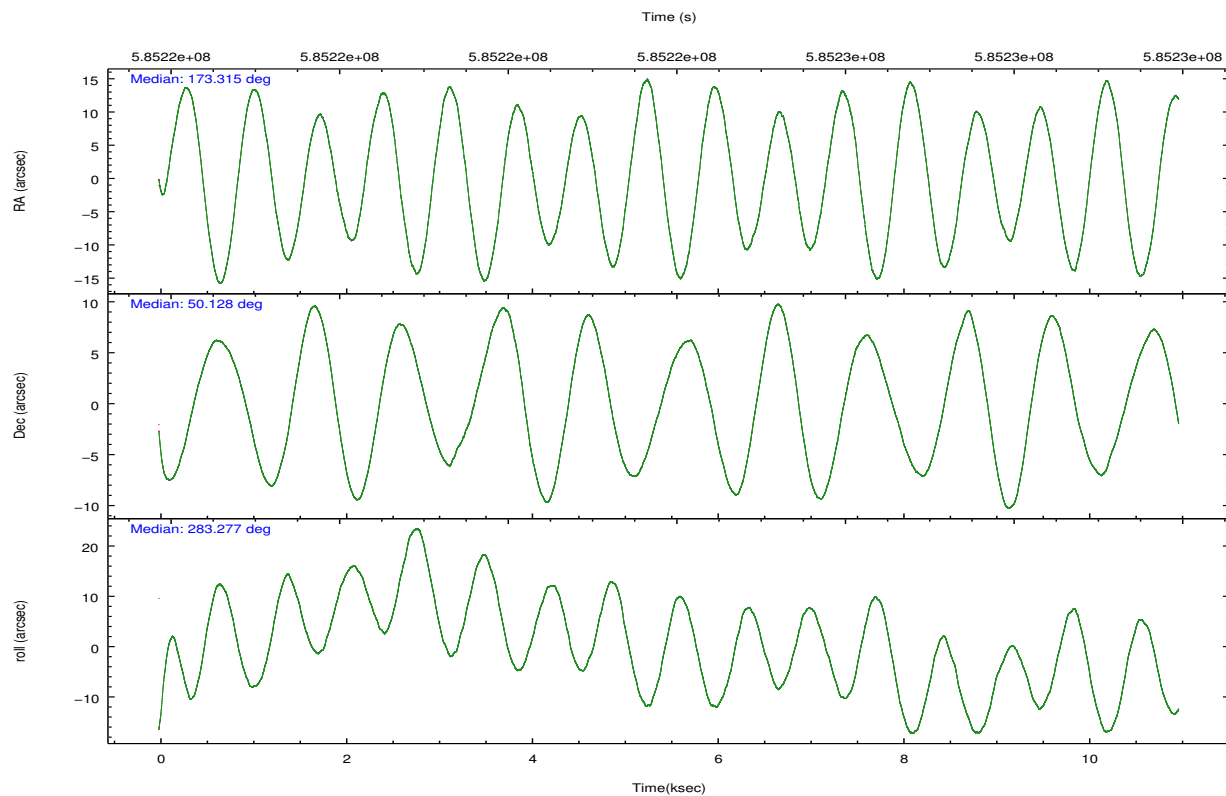
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-01236	ACIS-01236
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	173.285585	173.3152604931073
[deg] Pointing Dec	50.147552	50.1275384282744
[deg] Pointing Roll	283.093851	283.2797245069431
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-230.667463	-230.6708287110191
[mm] SIM translation stage offset	-2.925	-2.921624291910604
[s] Observation start time (MET)	585219390.184000	585218055.62125
Observation start date	2016-07-18T08:55:22	2016-07-18T08:34:15
[s] Observation end time (MET)	585229390.184000	585230498.0969599
Observation end date	2016-07-18T11:42:02	2016-07-18T12:01:38
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	N	N
CCD S4 on	N	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



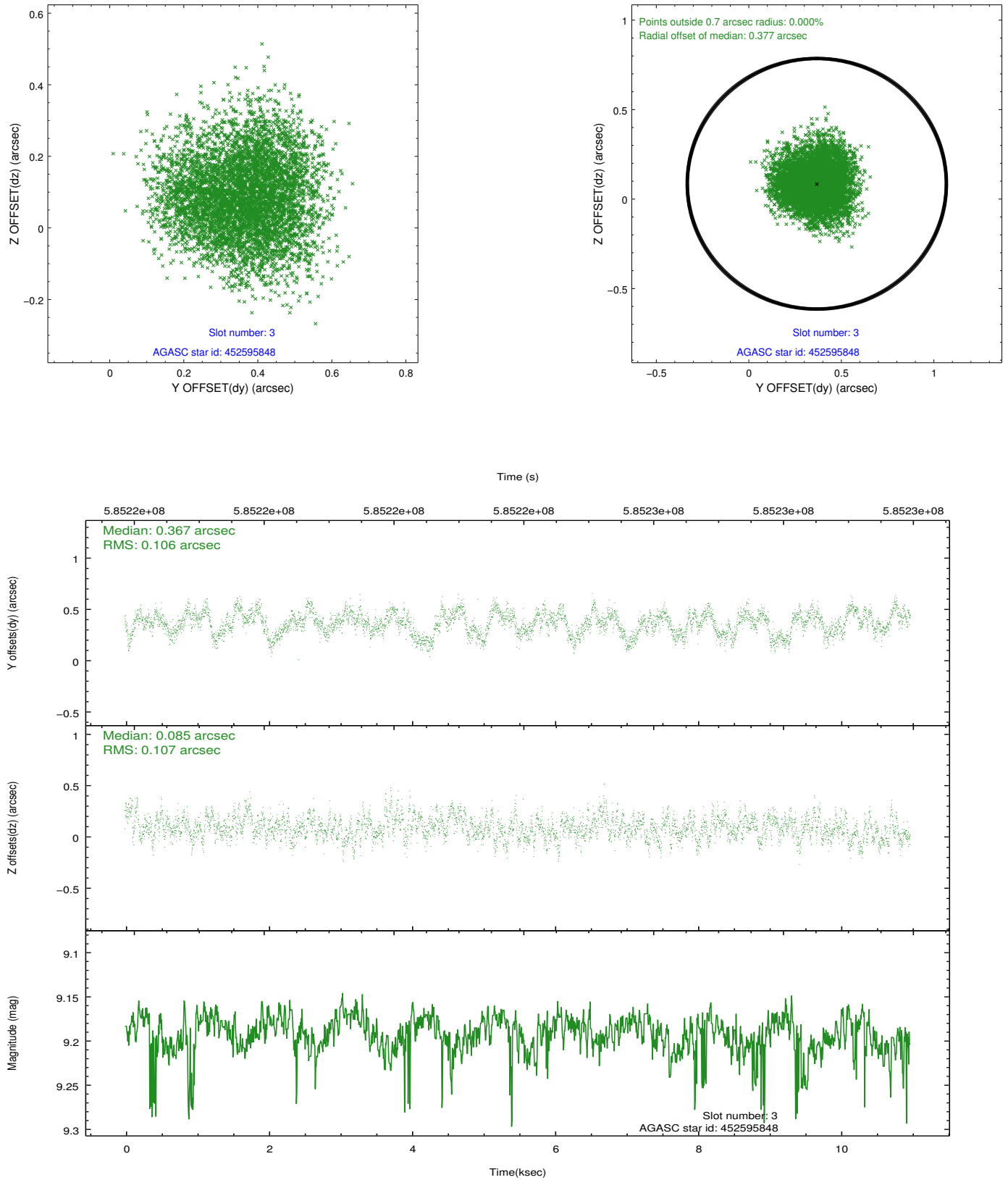


Slot Statistics

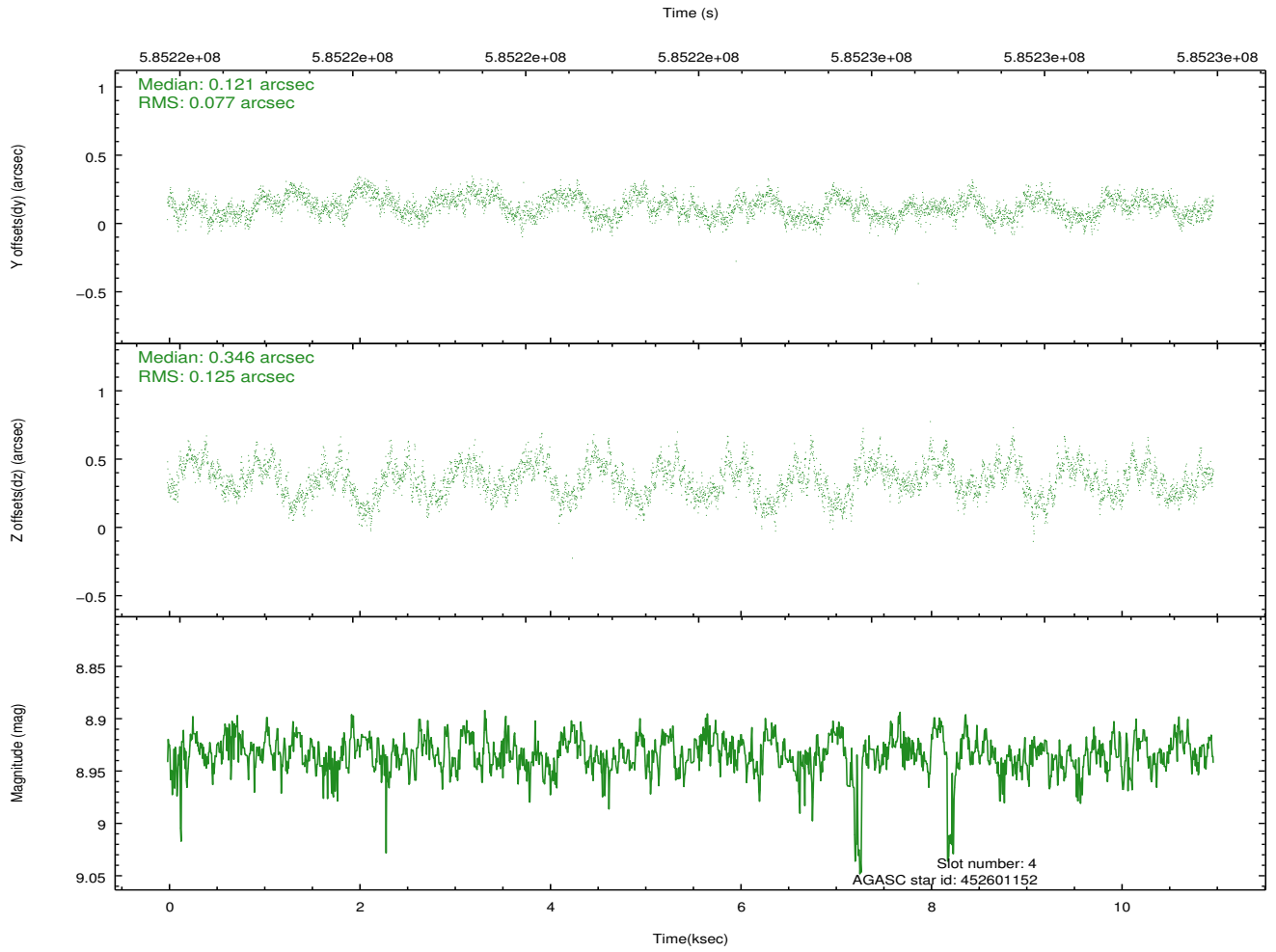
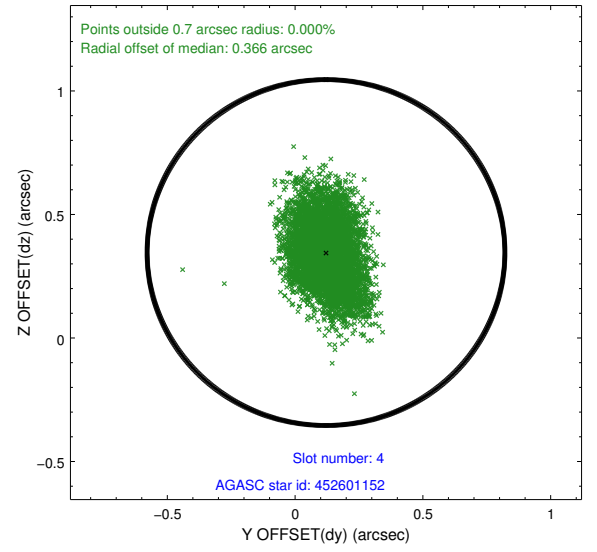
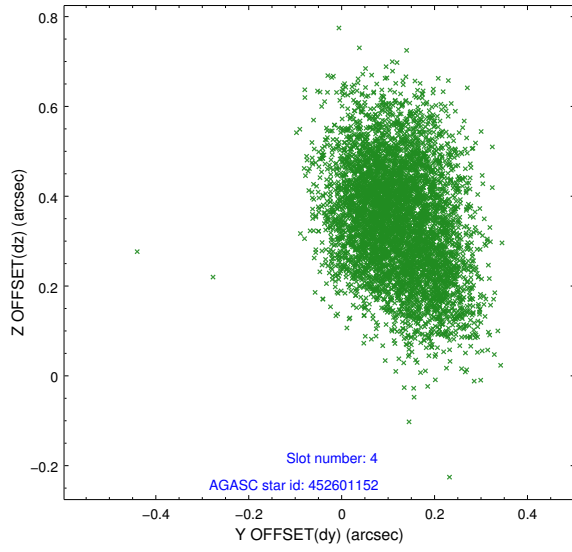
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.24	2679	0.118	-0.058	0.009	0.016	0.000000	0.000000	922.17	-905.65
1	FID		ACIS-I-5	7.23	2678	-0.378	0.074	0.009	0.015	0.000000	0.000000	-1826.26	991.59
2	FID		ACIS-I-6	7.25	2679	0.168	0.055	0.010	0.015	0.000000	0.000000	387.14	1636.70
3	GUIDE	used	452595848	9.19	5353	0.367	0.085	0.164	0.252	172.416829	50.201541	-653.20	-1902.84
4	GUIDE	used	452601152	8.93	5353	0.121	0.346	0.155	0.258	172.285078	50.262527	-939.49	-2145.38
5	GUIDE	used	452605480	9.33	5352	-0.111	-0.217	0.165	0.250	173.440115	49.830287	1194.11	90.65
6	GUIDE	used	452606472	9.27	5350	-0.189	-0.275	0.119	0.194	173.908825	49.706047	1869.97	1053.31
7	GUIDE	used	452608880	7.60	5356	-0.182	0.056	0.089	0.144	173.209911	49.496006	2245.48	-703.40

2.4 Star Slots

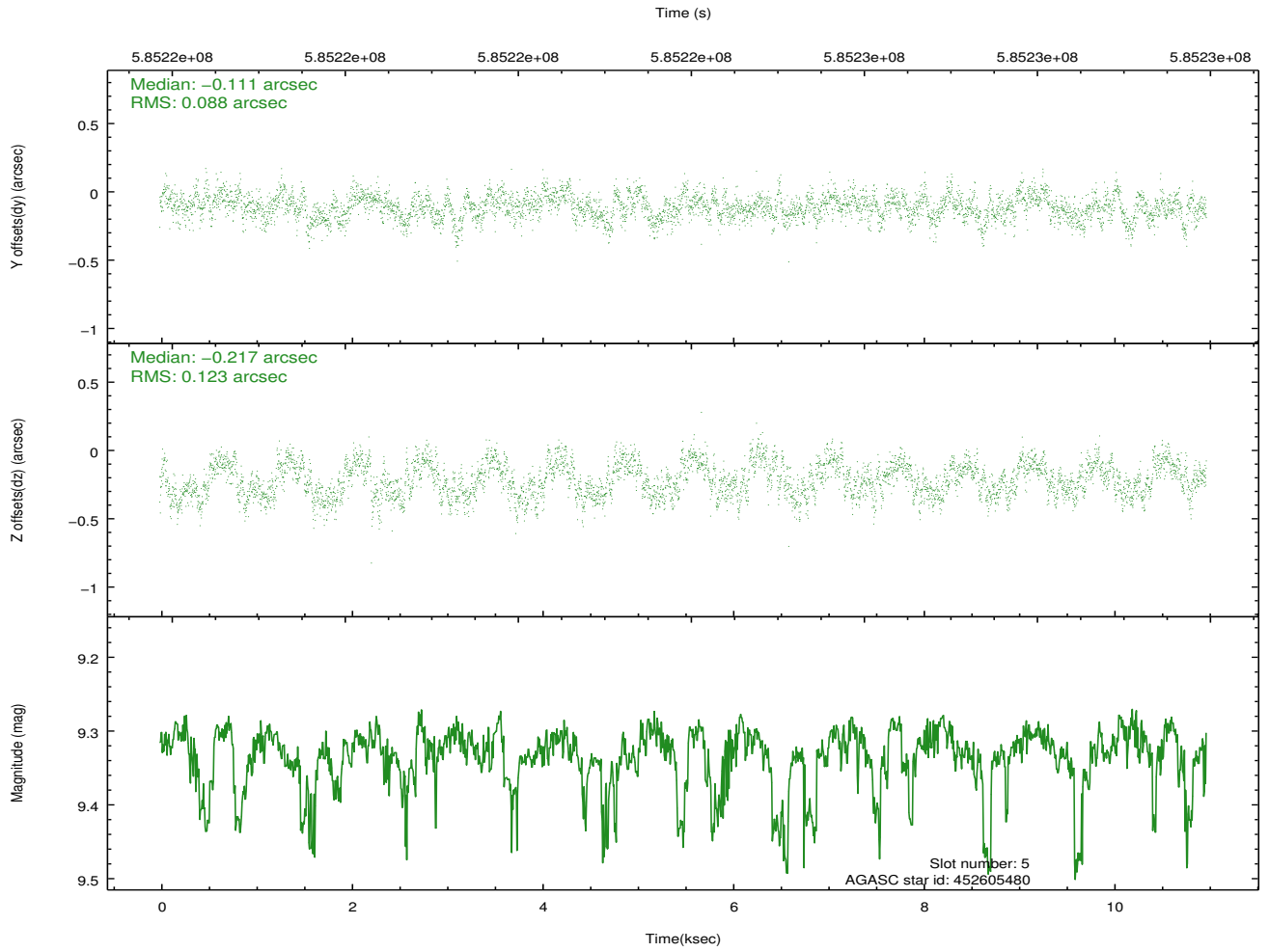
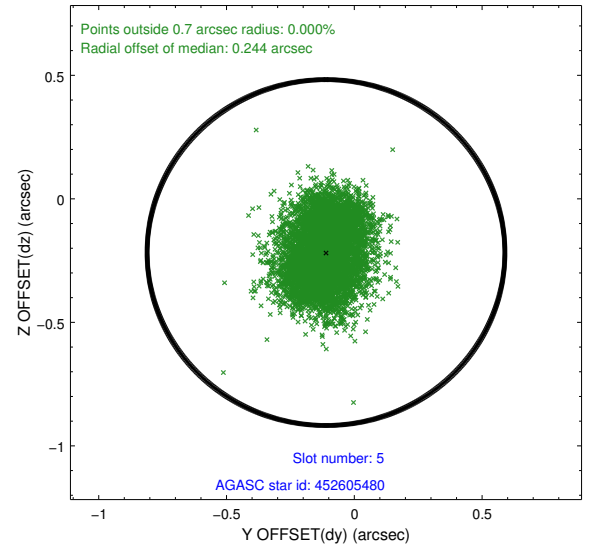
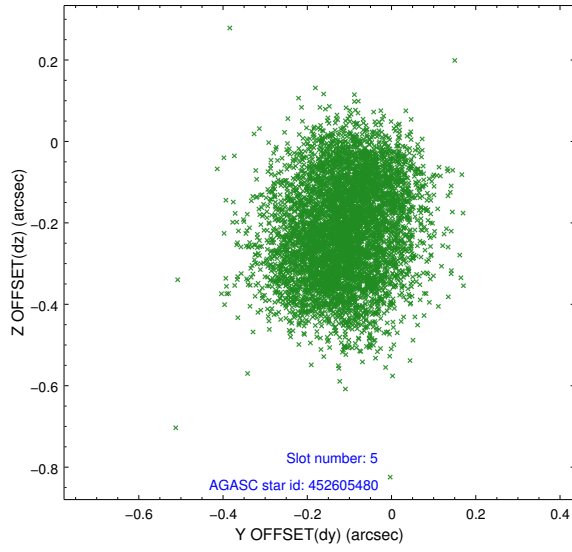
2.4.1 Slot 3



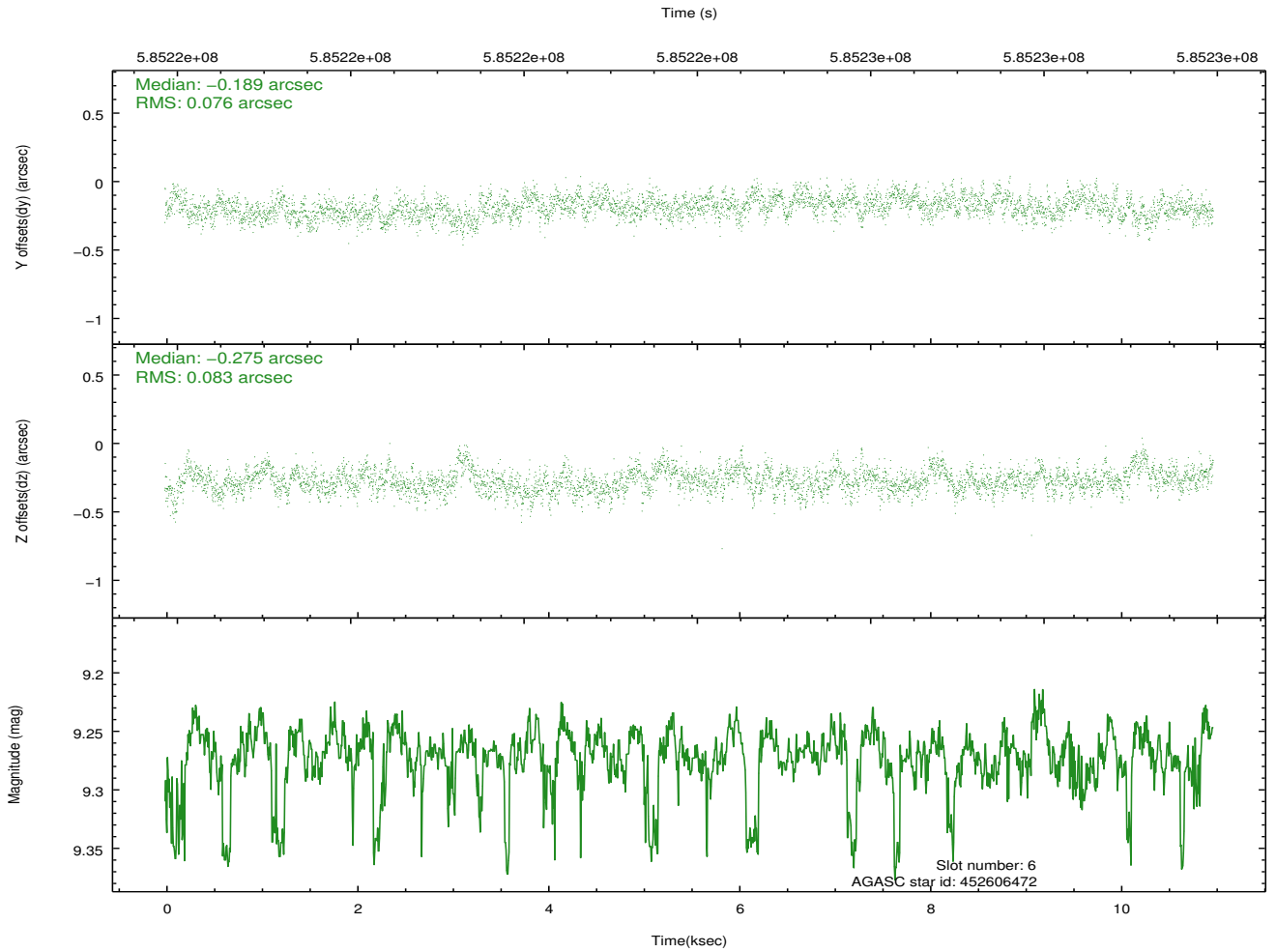
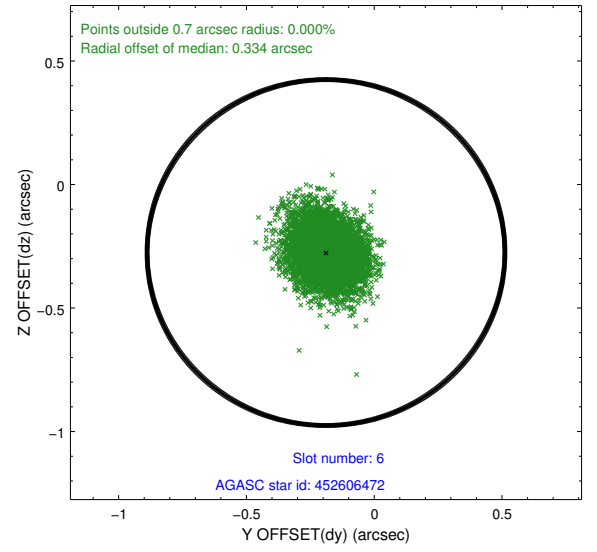
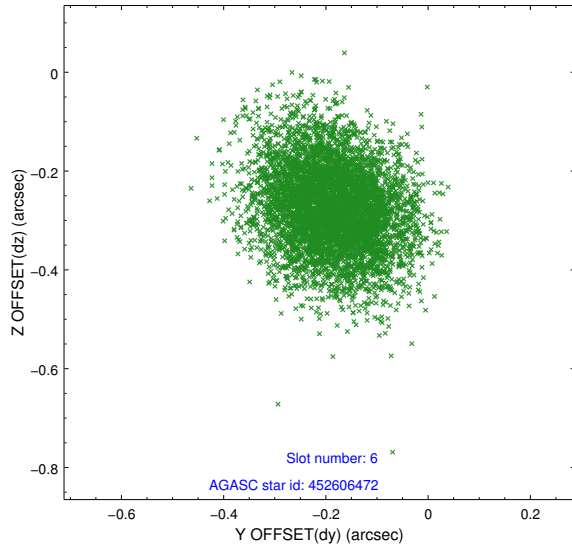
2.4.2 Slot 4



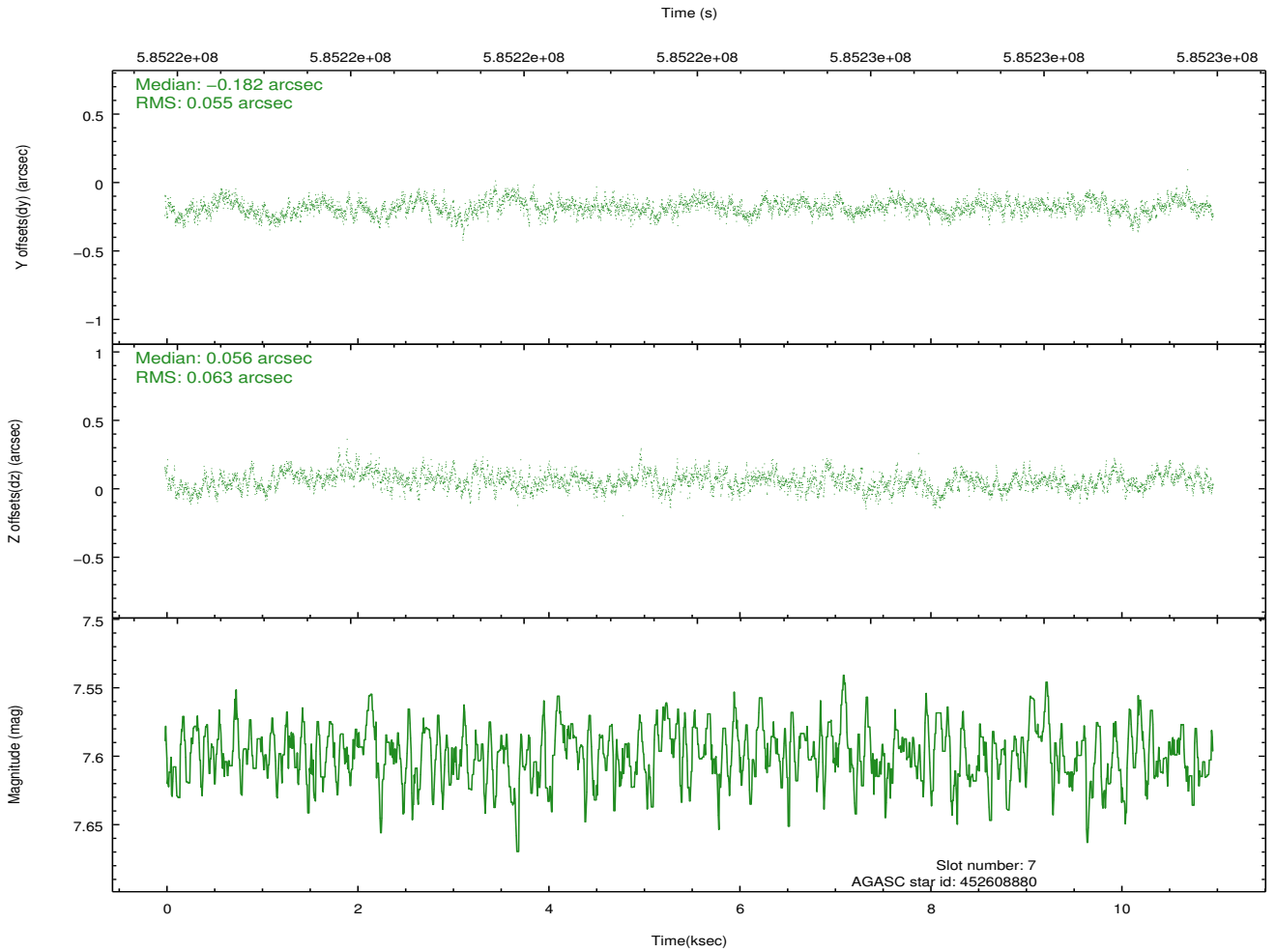
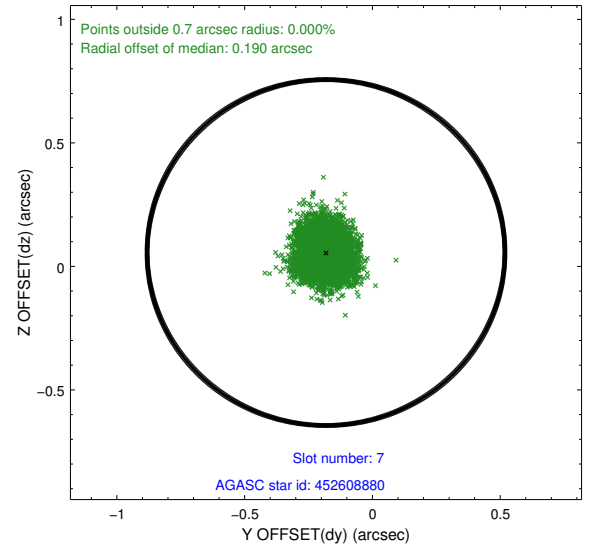
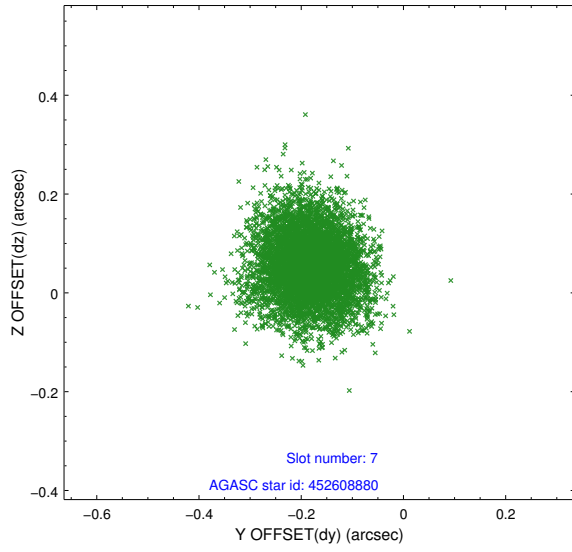
2.4.3 Slot 5



2.4.4 Slot 6

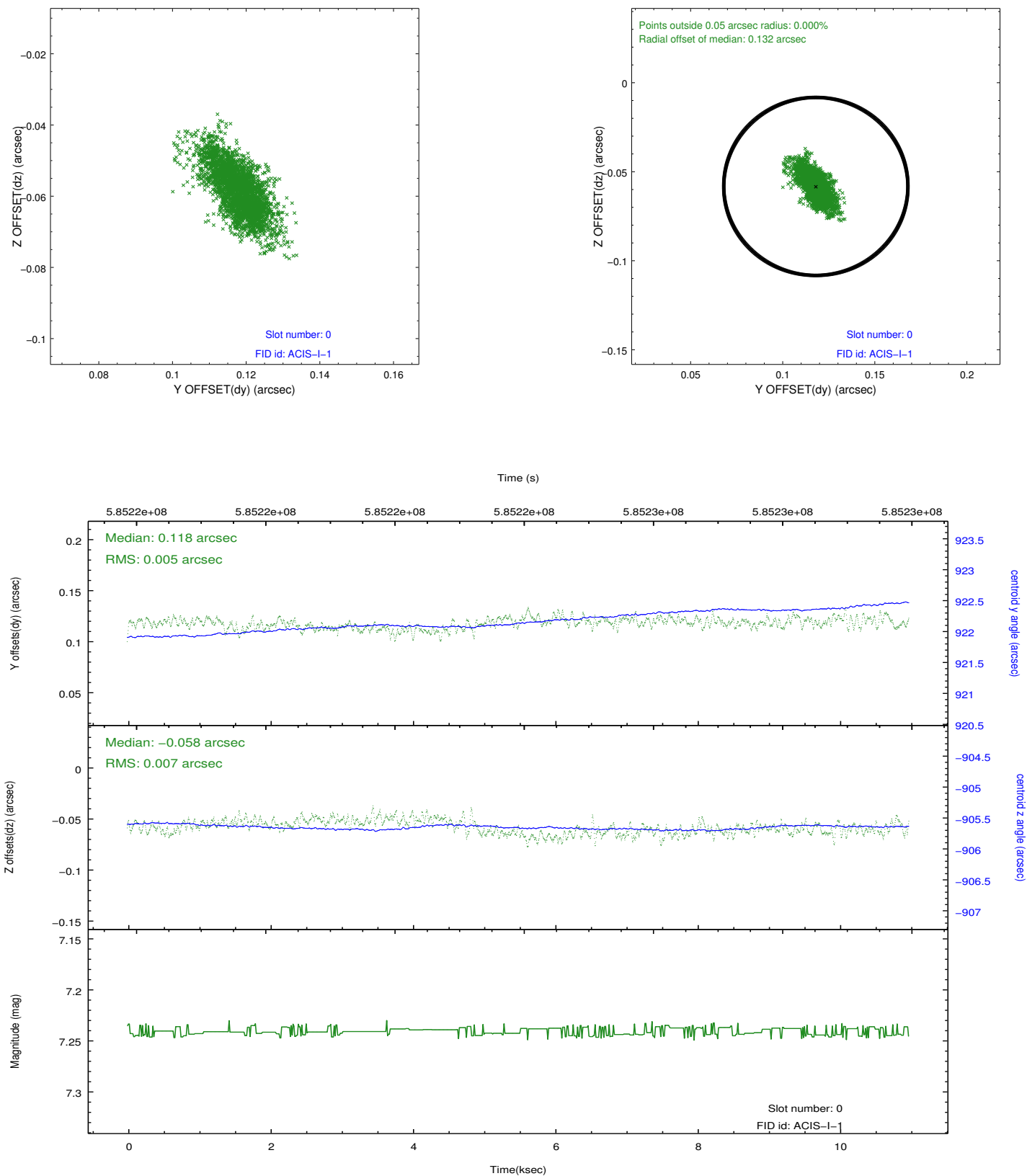


2.4.5 Slot 7

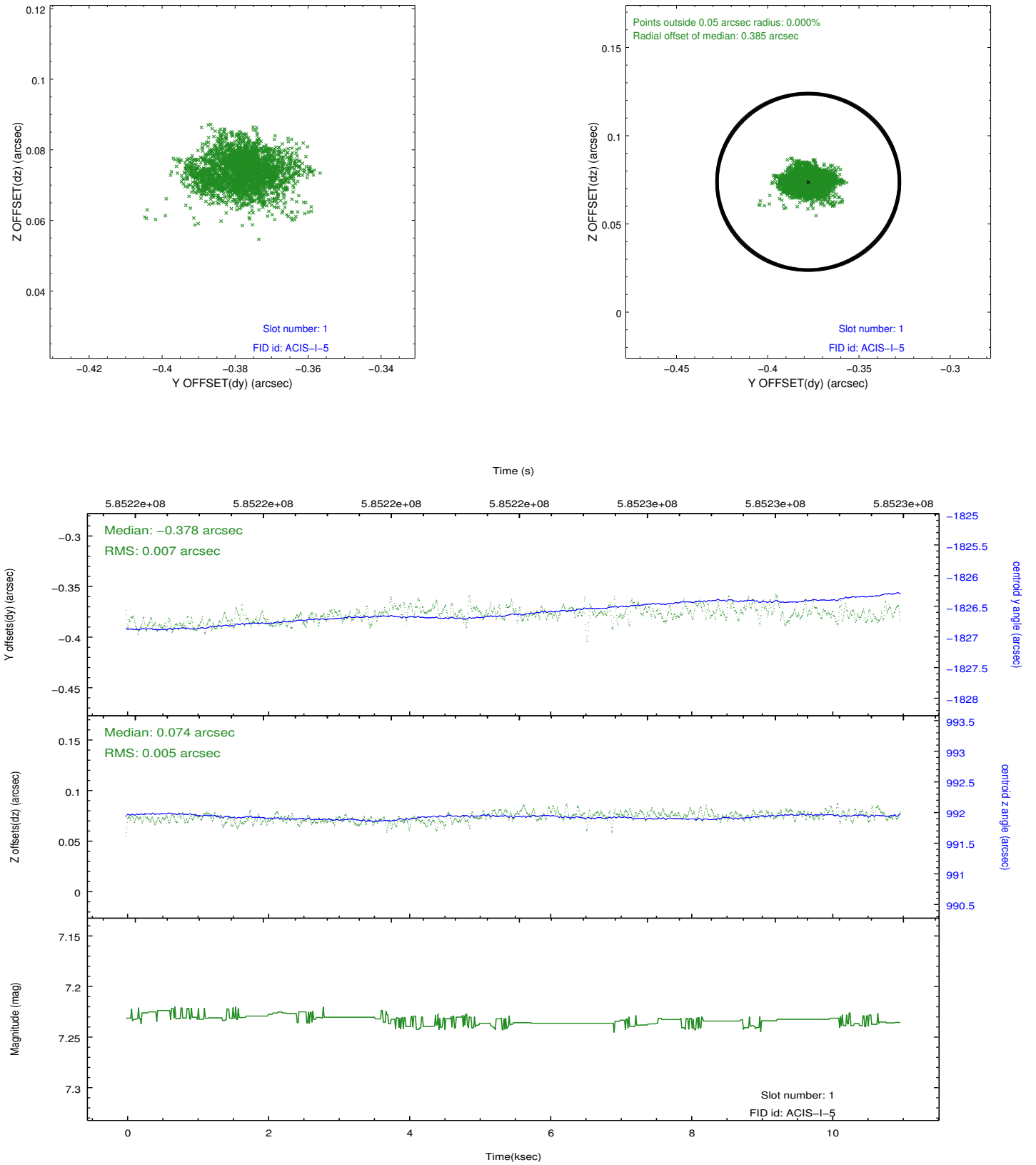


2.5 FID Slots

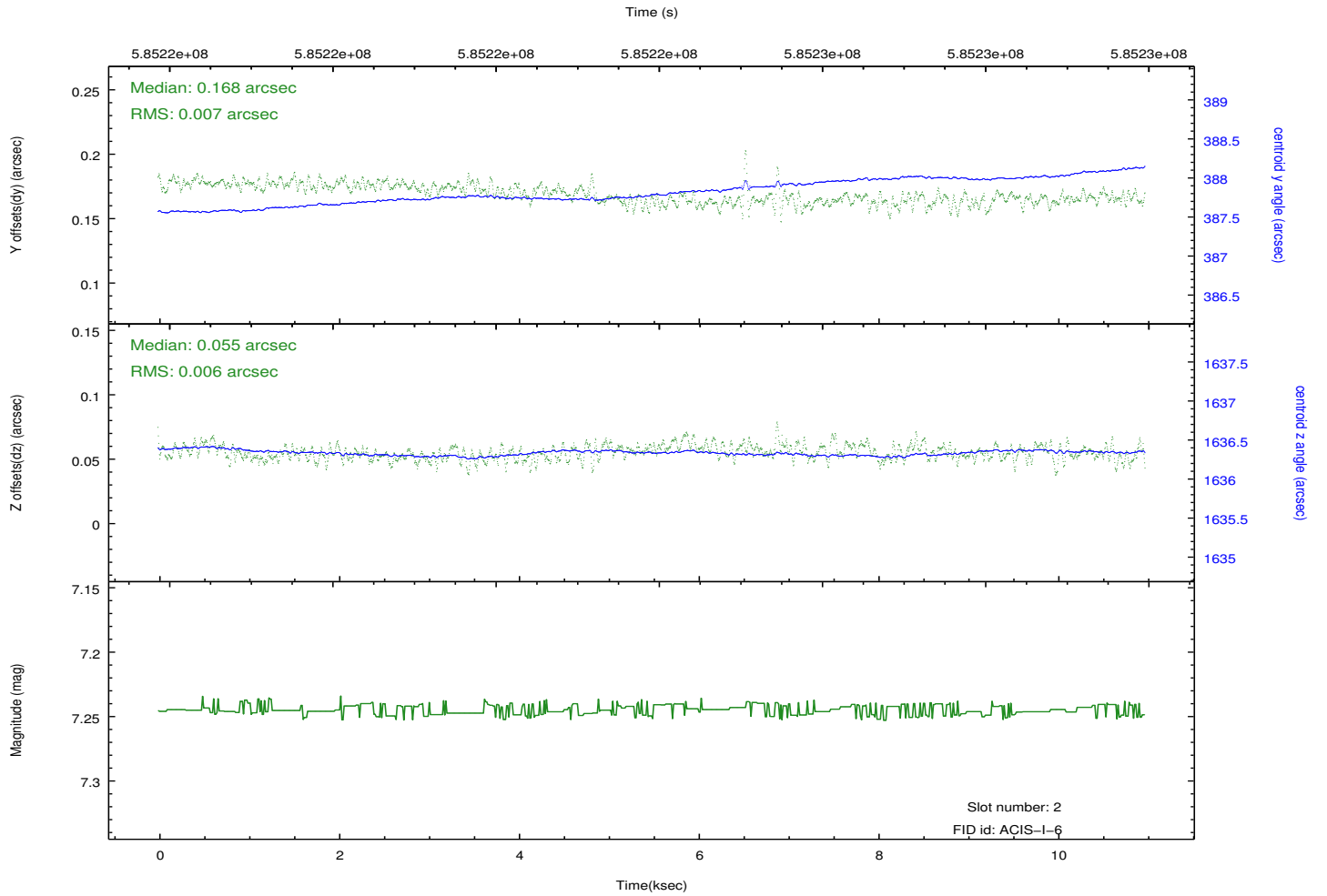
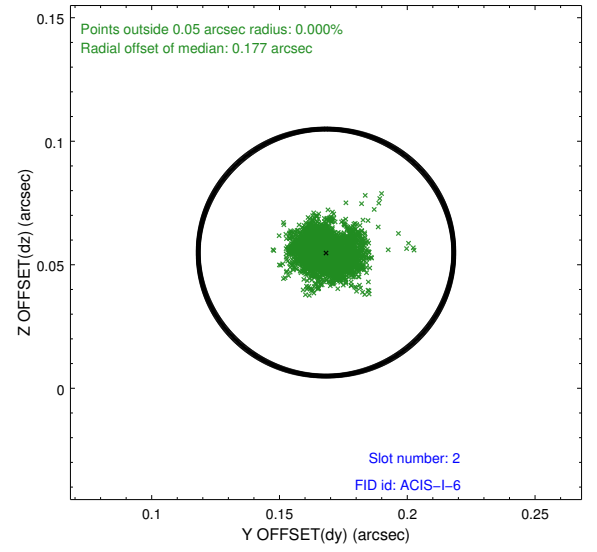
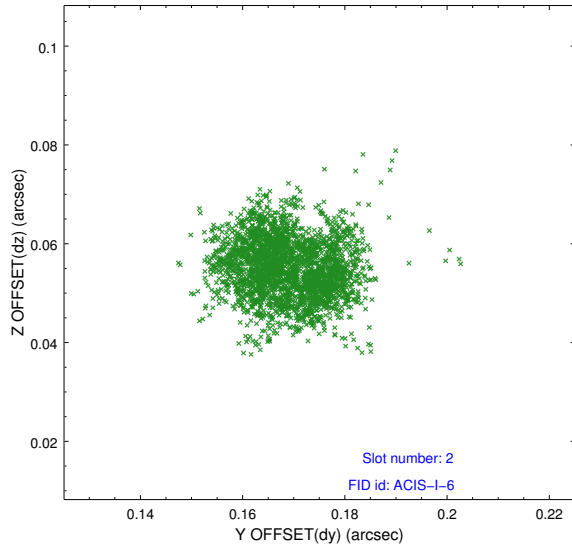
2.5.1 Slot 0



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)	2016.07.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.059459077477

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: (173.08018,50.23588), (173.07168,50.23457), (173.09103,50.18286), (173.09977,50.18351).