

V&V Reference Report

L2 ASCDS Version : 10.4.3

Observation 17740 - L2 Version 2
Chandra X-Ray Center

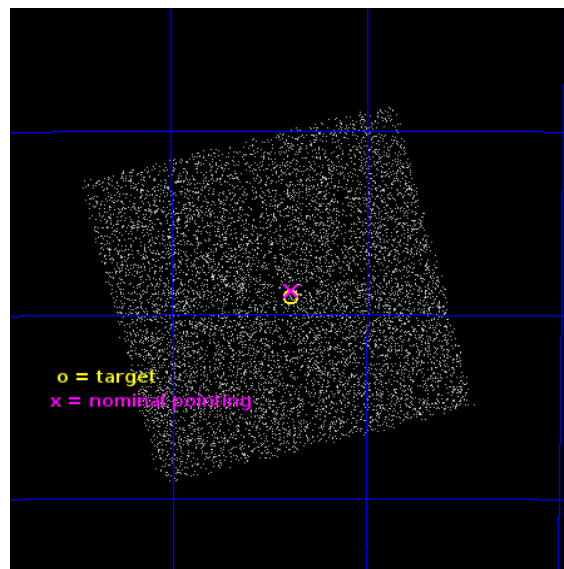
L2 Processing Date : Jan 5 2016

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1 Front

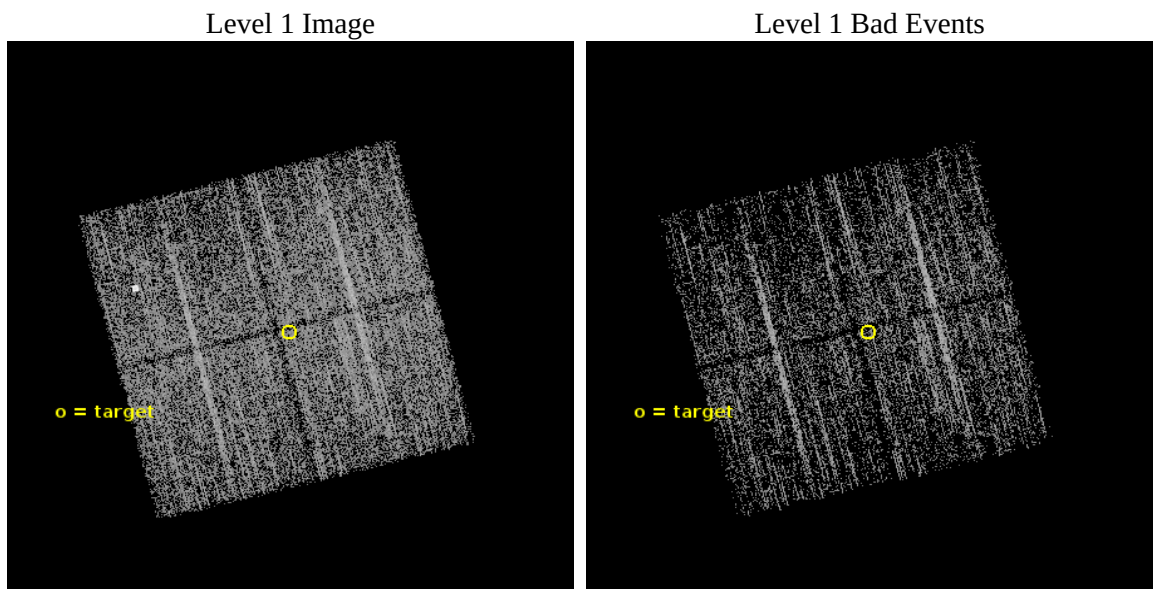
seq_num	201049	Sequence number
obs_id	17740	Observation id
title	Multiplicity in Massive Stars: Tightening the Limits	Proposal titl
observer	Dr. Nancy Evans	Principal investigator
object	S Mus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	183.195833	Observer's specified target RA [deg]
dec_targ	-70.151778	Observer's specified target Dec [deg]
ra_nom	183.19319581096	Nominal RA [deg]
dec_nom	-70.145335437559	Nominal Dec [deg]
roll_nom	75.63531419007	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5080.900039196	Sum of GTIs [s]
livetime	5014.5143396797	Livetime [s]
ontime0	5080.900039196	Sum of GTIs [s]
ontime1	5080.900039196	Sum of GTIs [s]
ontime2	5080.900039196	Sum of GTIs [s]
ontime3	5080.900039196	Sum of GTIs [s]
l2events	9900	Number of level 2 events



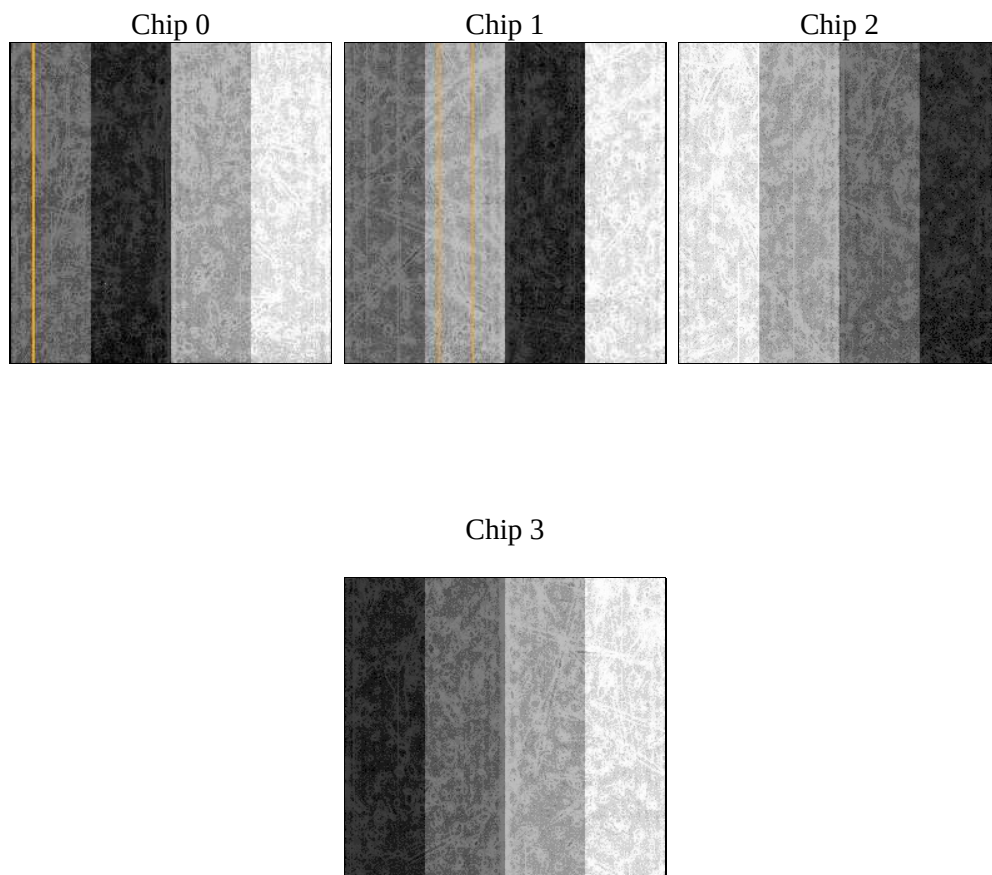
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	5080.900039196	Sum of GTIs [s]
caldsver	4.7.0	 	ontime0	5080.900039196	Sum of GTIs [s]
date	2016-01-05T21:33:04	Date and time of file creation	ontime1	5080.900039196	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	5080.900039196	Sum of GTIs [s]
			ontime3	5080.900039196	Sum of GTIs [s]
			l1events	108082	Number of level 1 events

2.1.4 Events

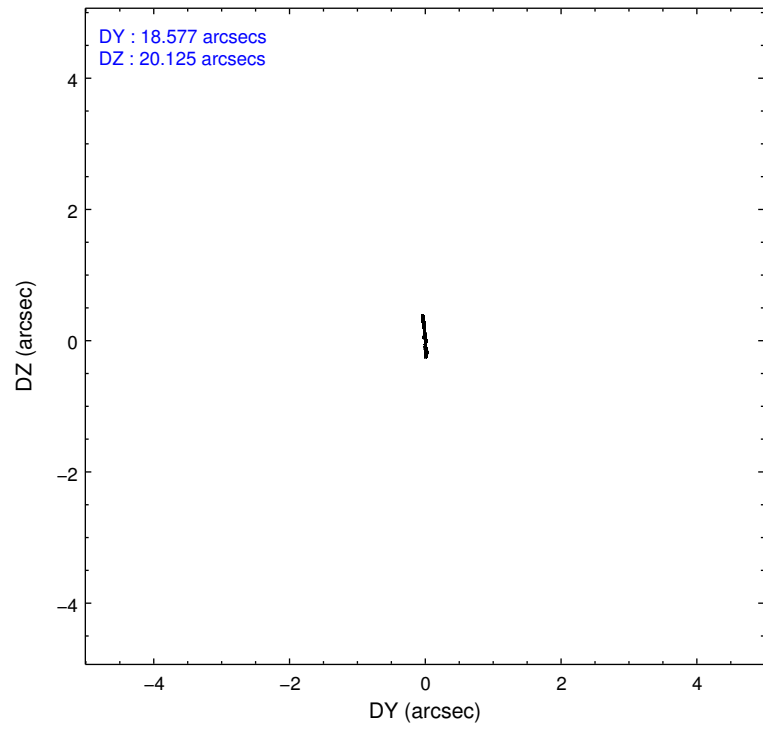
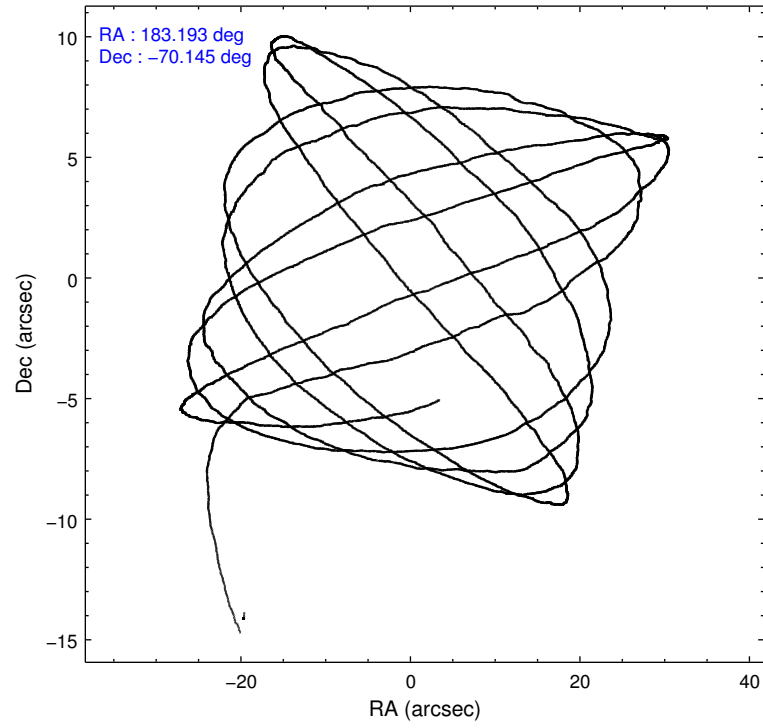
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	25526	25368	28789	28399
rejected events	21017	22300	25915	25534
rejected %	82%	87%	90%	89%

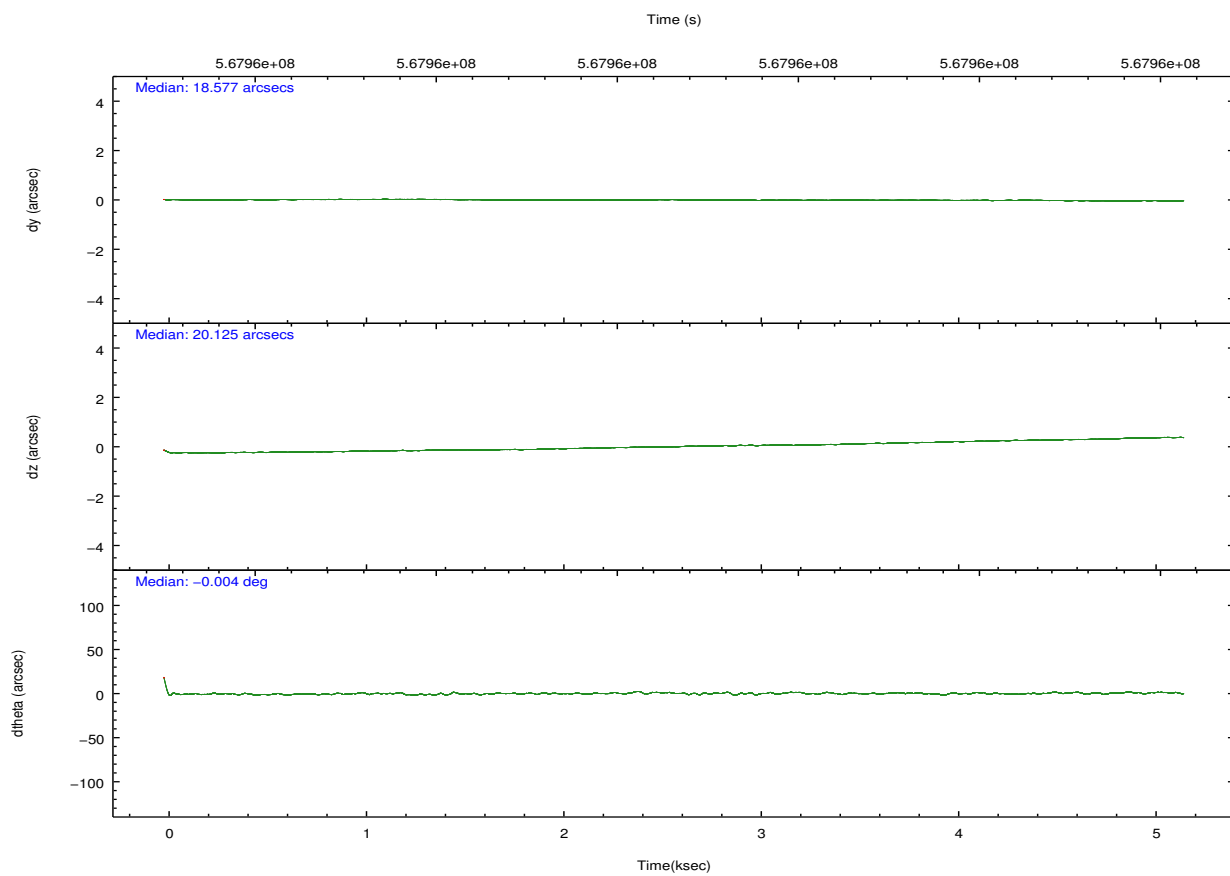
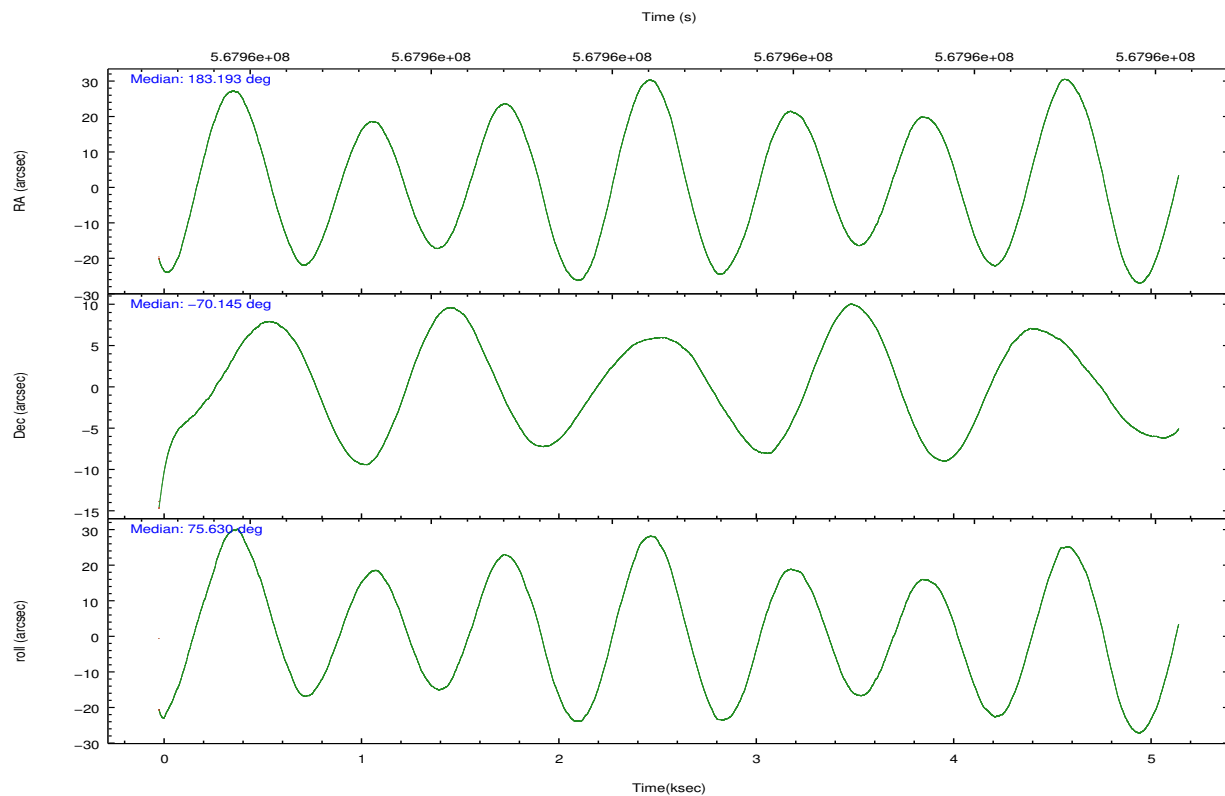
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	2674	998	1139	1039
	10%	3%	3%	3%
grade 1 events	26	14	13	21
	0%	0%	0%	0%
grade 2 events	707	768	648	640
	2%	3%	2%	2%
grade 3 events	312	301	258	308
	1%	1%	0%	1%
grade 4 events	297	295	304	306
	1%	1%	1%	1%
grade 5 events	1030	1076	932	1187
	4%	4%	3%	4%
grade 6 events	533	711	533	578
	2%	2%	1%	2%
grade 7 events	19947	21205	24962	24320
	78%	83%	86%	85%

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	183.215556	183.1931958109586	Subarray requested	NONE	NONE
[deg] Pointing Dec	-70.171811	-70.14533543755917	Alternating exposures requested	N	N
[deg] Pointing Roll	75.447693	75.63531419006971	[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)	567954892.184000	567953804.42511			
Observation start date	2015-12-31T13:13:44	2015-12-31T12:56:44			
[s] Observation end time (MET)	567959892.184000	567961102.93803			
Observation end date	2015-12-31T14:37:04	2015-12-31T14:58:22			
Read mode	TIMED	TIMED			

2.3 Aspect



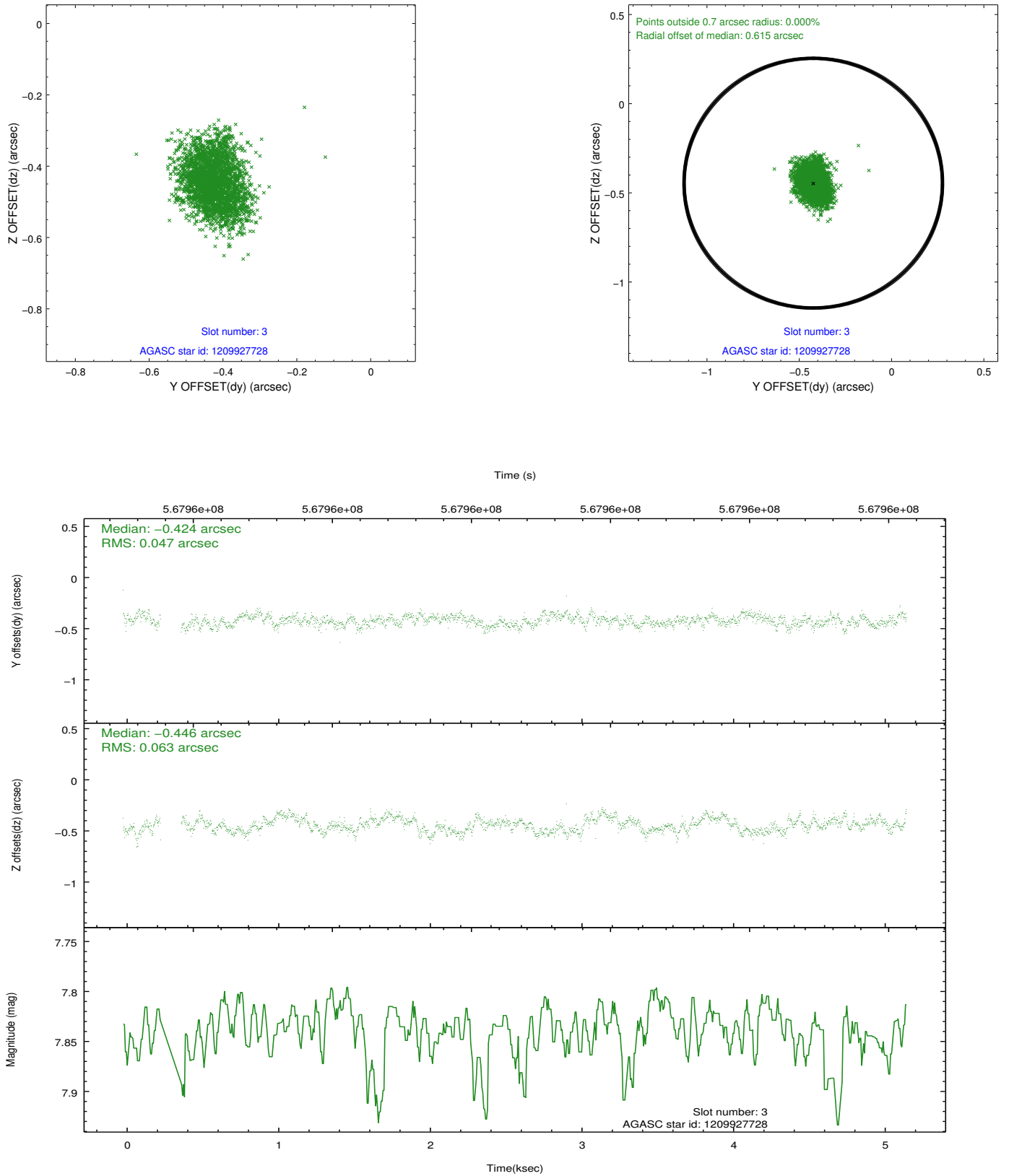


Slot Statistics

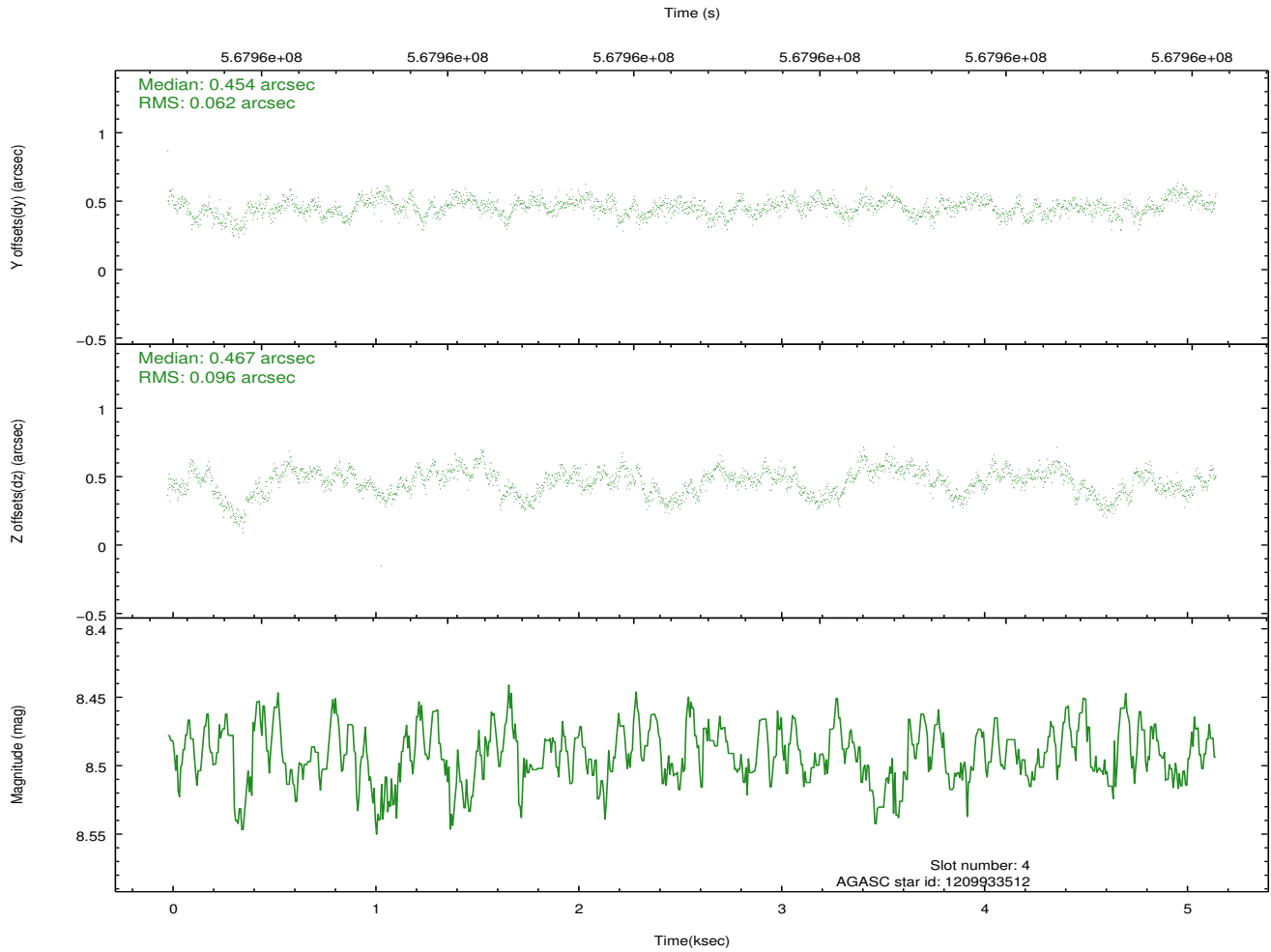
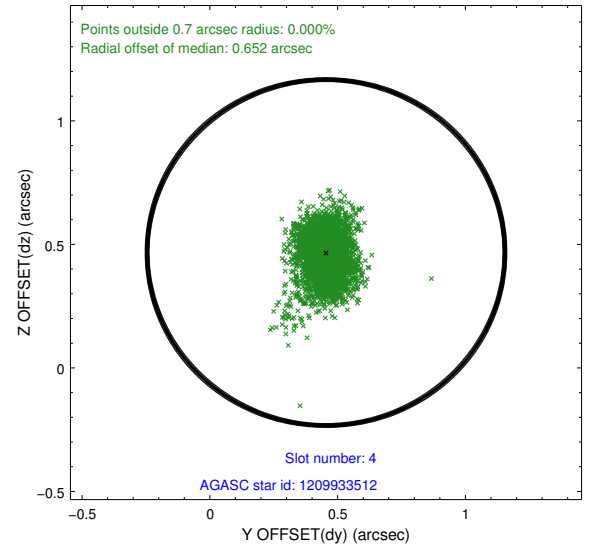
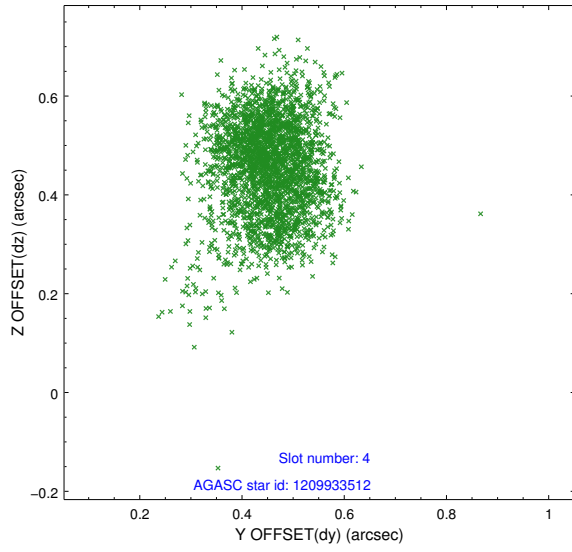
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.18	1260	-0.195	-0.071	0.013	0.021	0.000000	0.000000	-773.55	-850.34
1	FID		ACIS-I-4	7.22	1259	0.521	0.124	0.011	0.017	0.000000	0.000000	2140.62	1055.53
2	FID		ACIS-I-5	7.27	1260	-0.427	0.015	0.011	0.018	0.000000	0.000000	-1826.18	1054.47
3	GUIDE	used	1209927728	7.84	2453	-0.424	-0.446	0.084	0.134	183.097123	-69.557907	2101.95	699.32
4	GUIDE	used	1209933512	8.49	2520	0.454	0.467	0.117	0.197	184.339552	-70.892200	-2187.20	-1935.75
5	GUIDE	used	1209931680	7.97	2521	-0.435	-0.437	0.107	0.172	181.576633	-69.798268	762.43	2301.78
6	GUIDE	used	1209935120	8.15	2520	0.393	0.328	0.082	0.138	184.053282	-70.826598	-2037.66	-1551.76
7	GUIDE	used	1209927024	7.25	2520	0.008	0.089	0.072	0.117	184.491973	-69.942972	1177.37	-1322.82

2.4 Star Slots

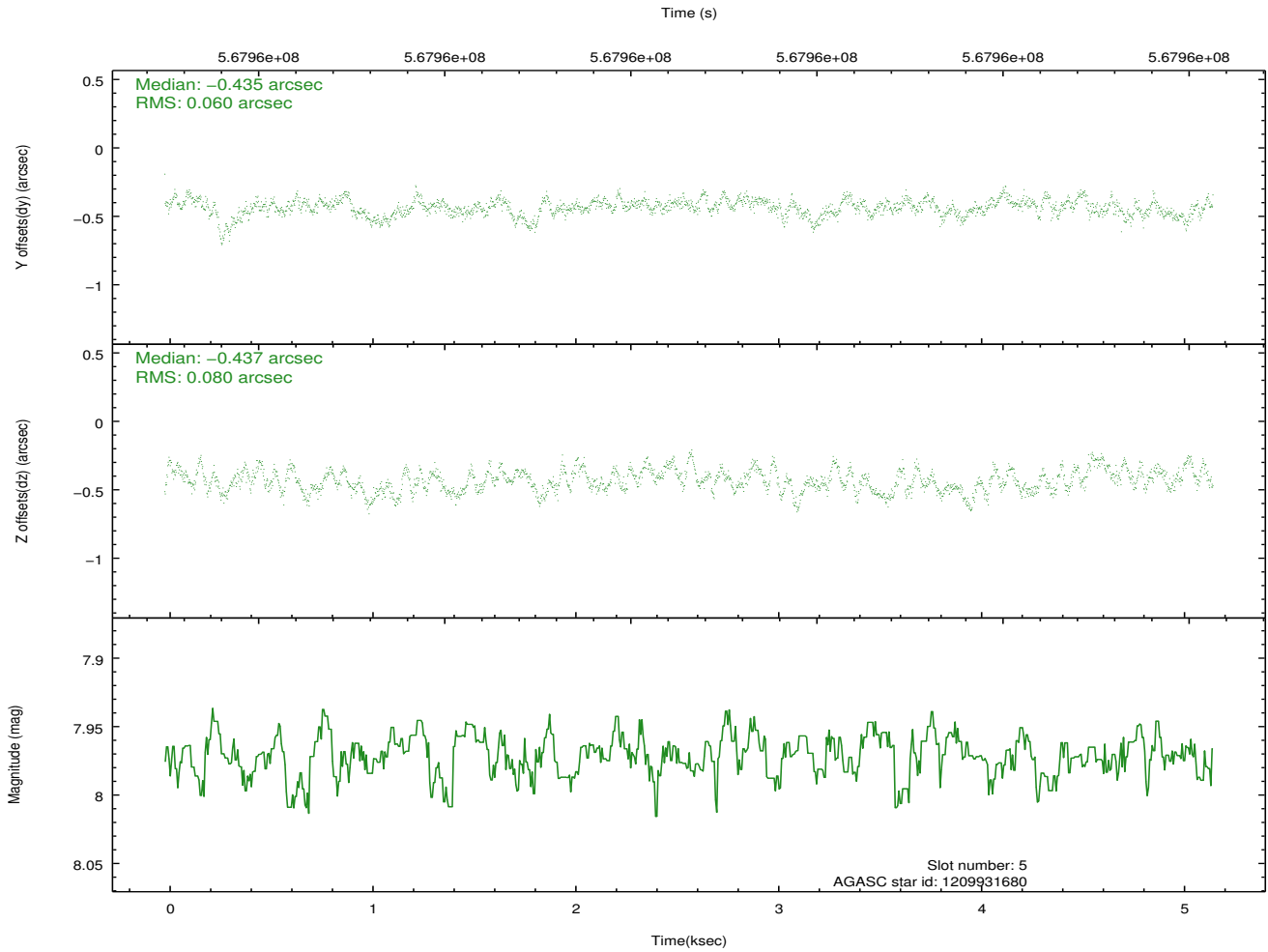
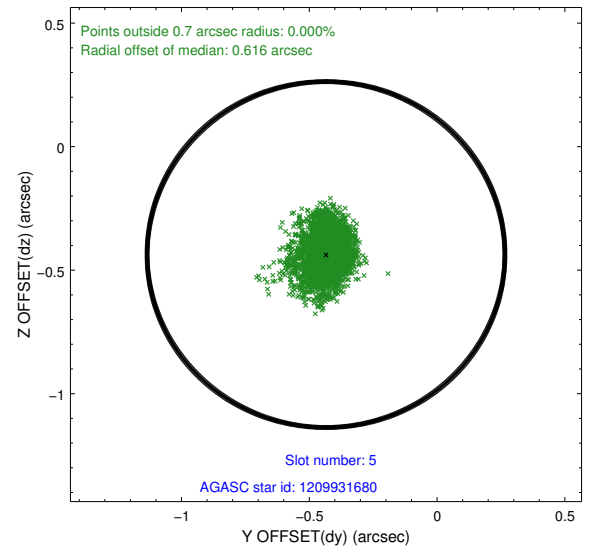
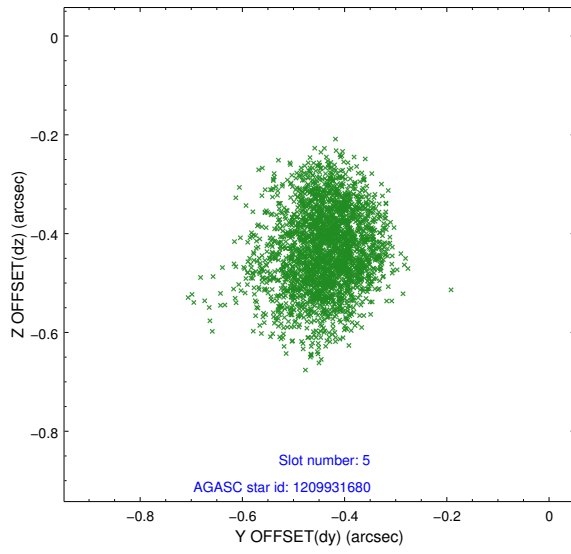
2.4.1 Slot 3



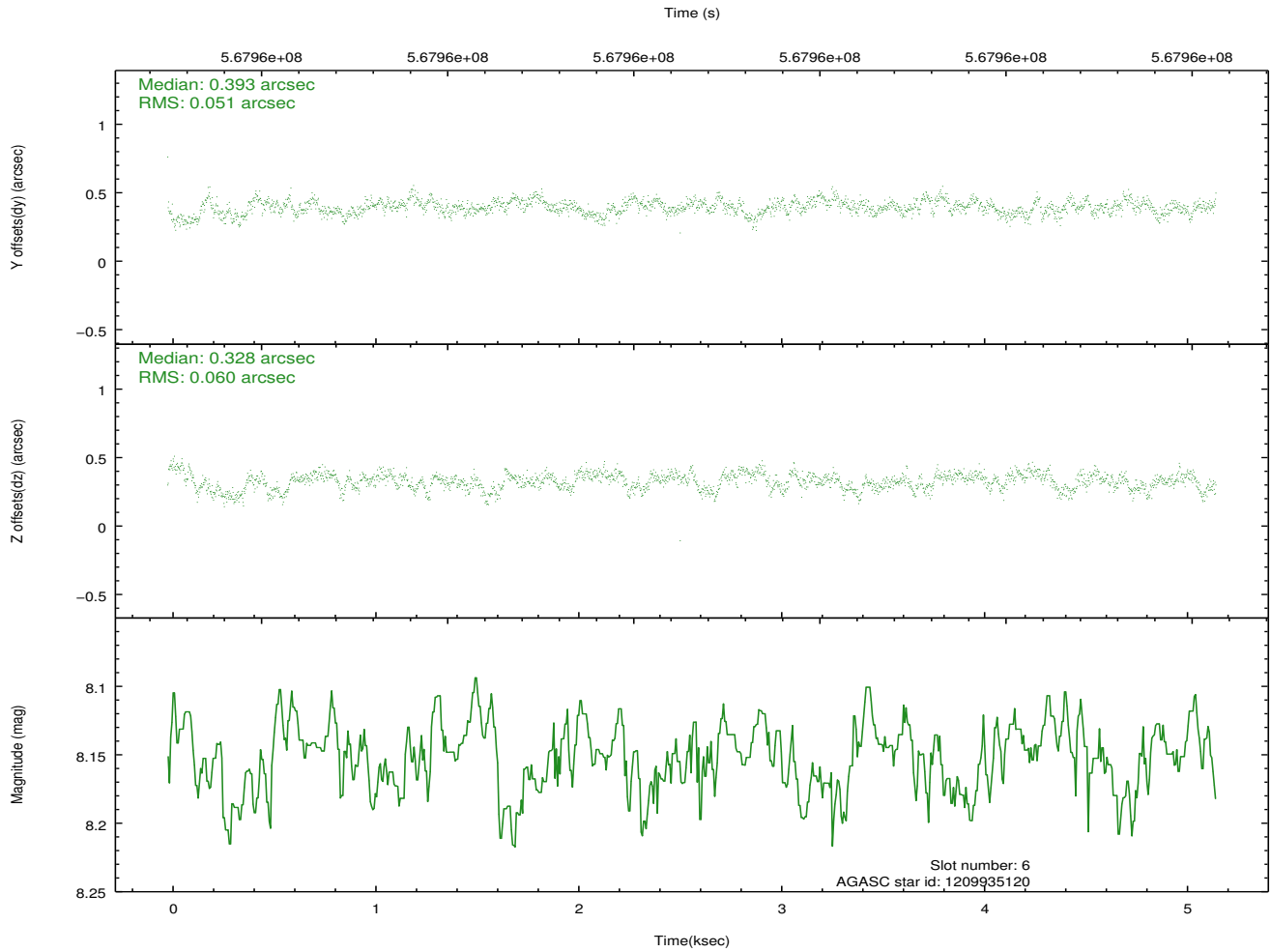
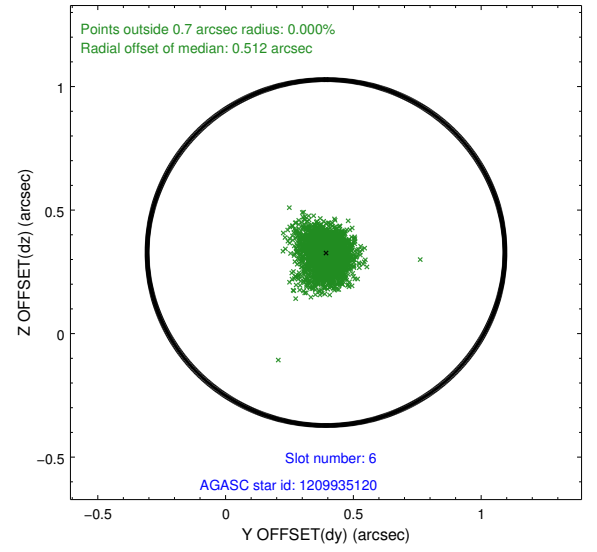
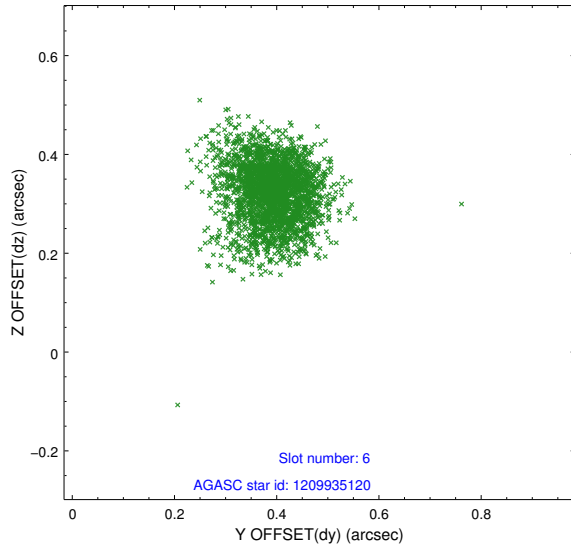
2.4.2 Slot 4



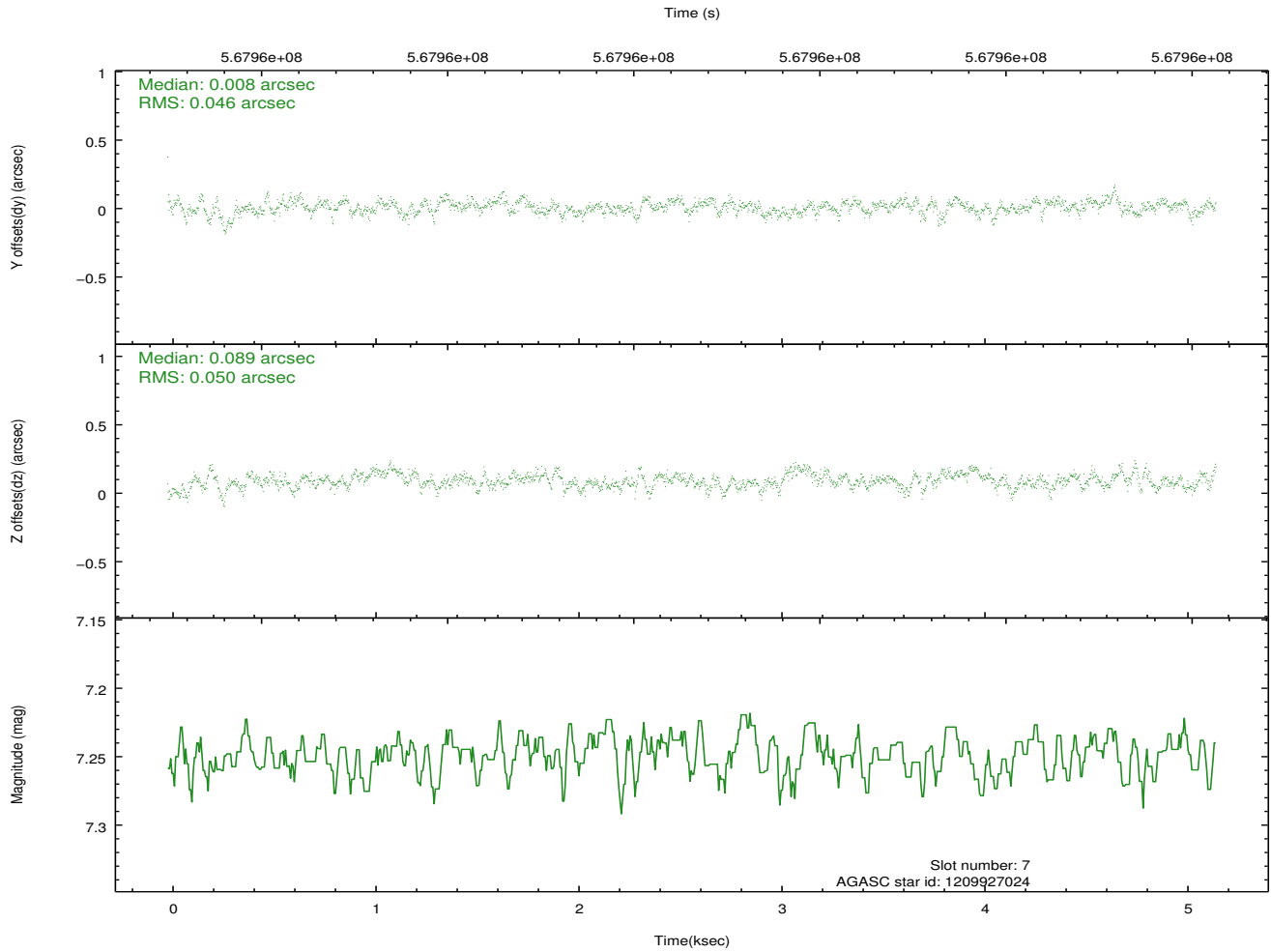
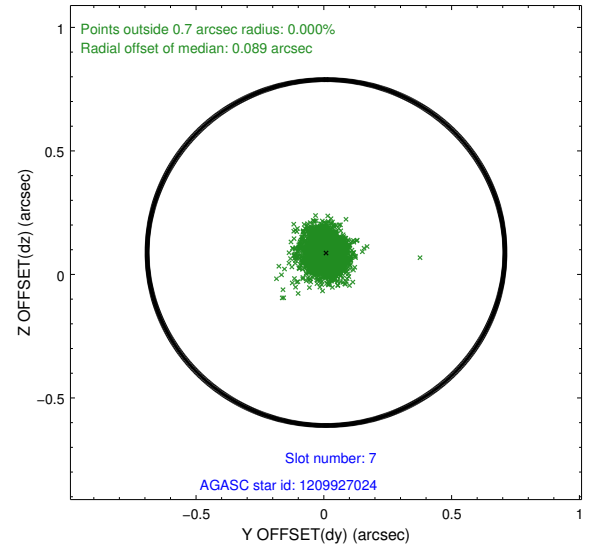
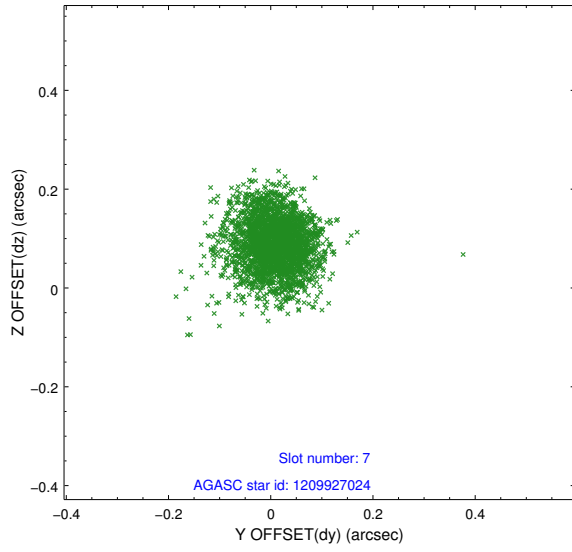
2.4.3 Slot 5



2.4.4 Slot 6

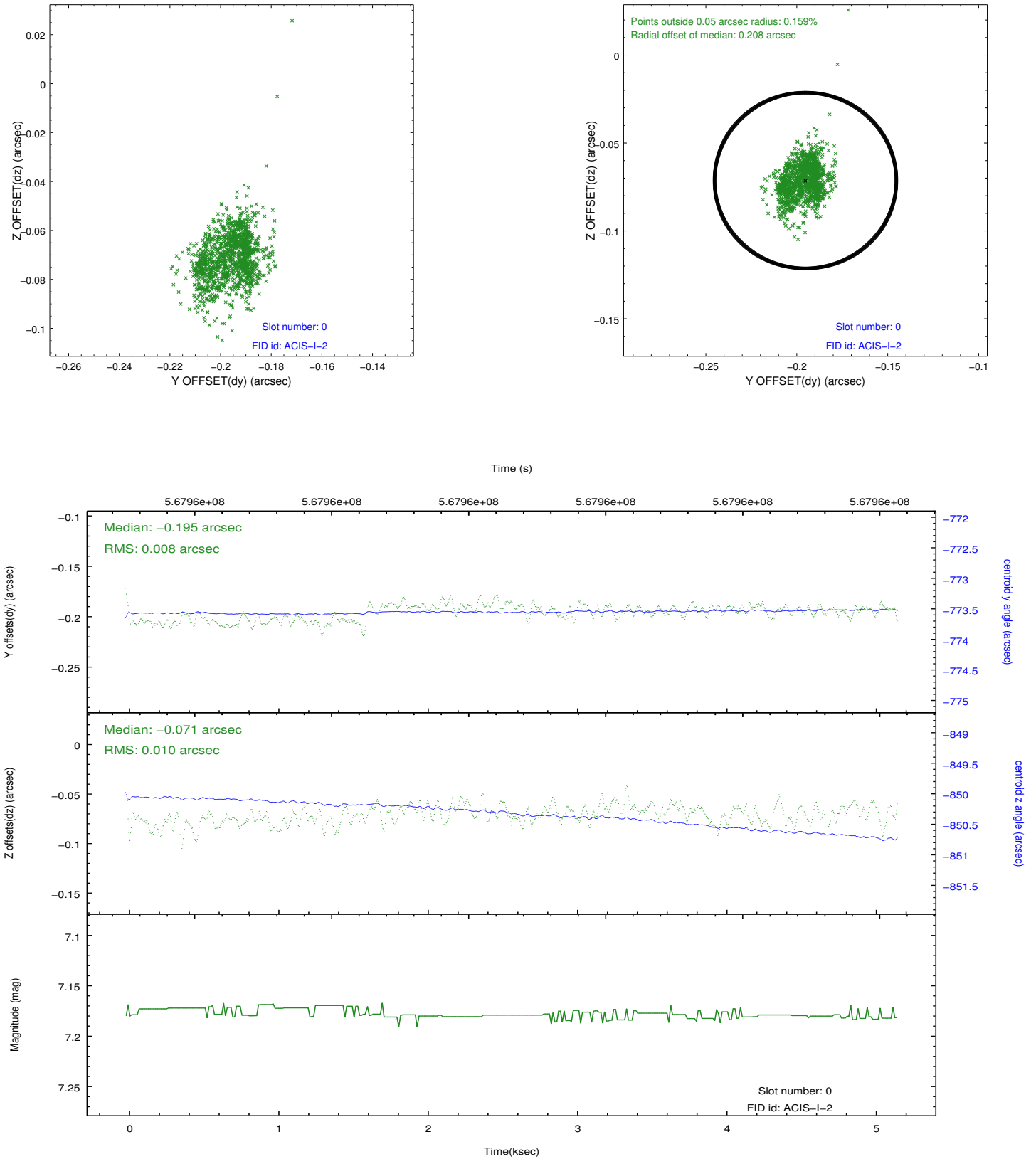


2.4.5 Slot 7

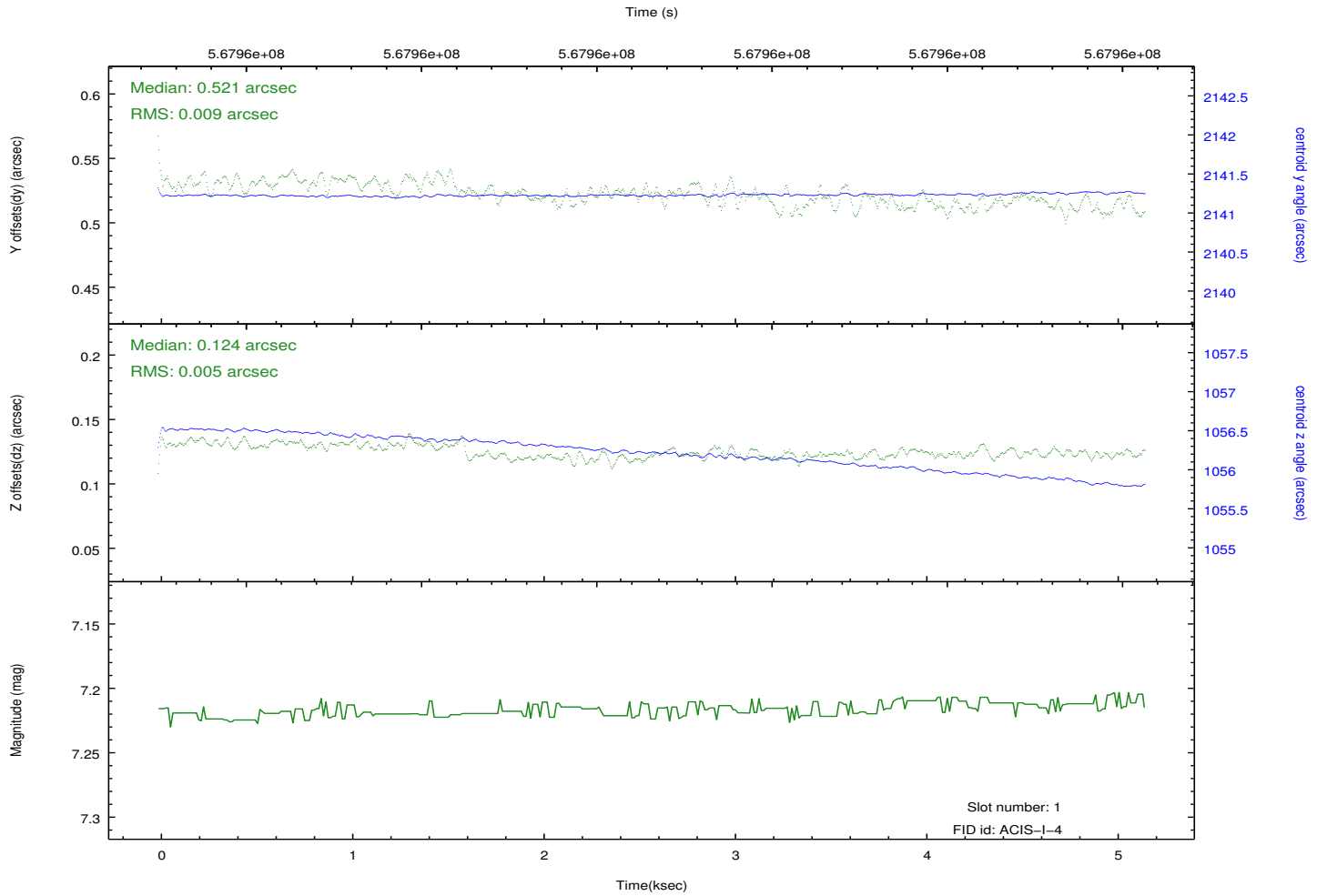
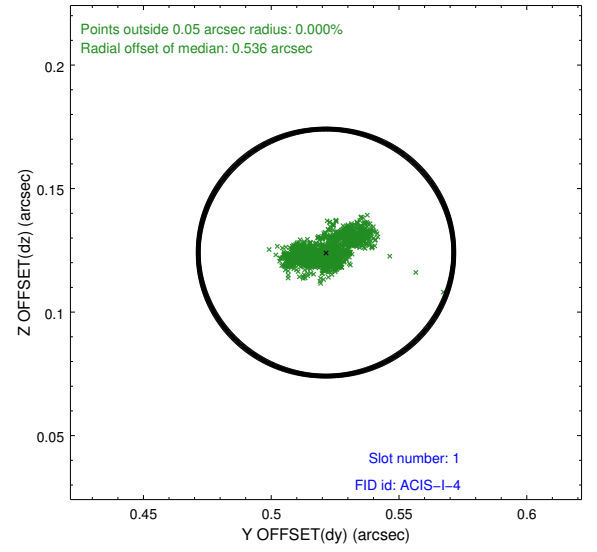
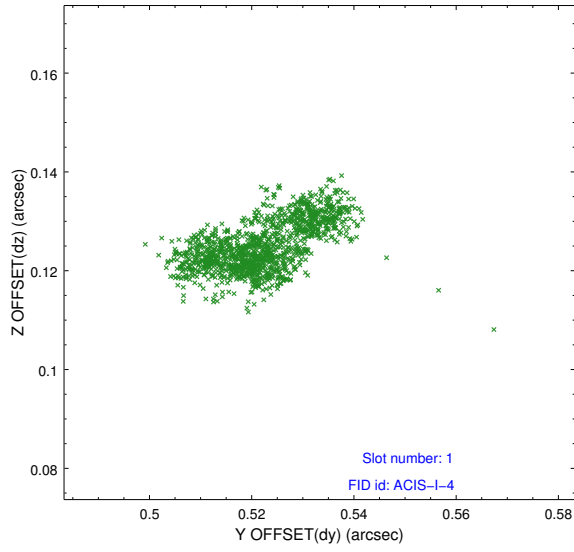


2.5 FID Slots

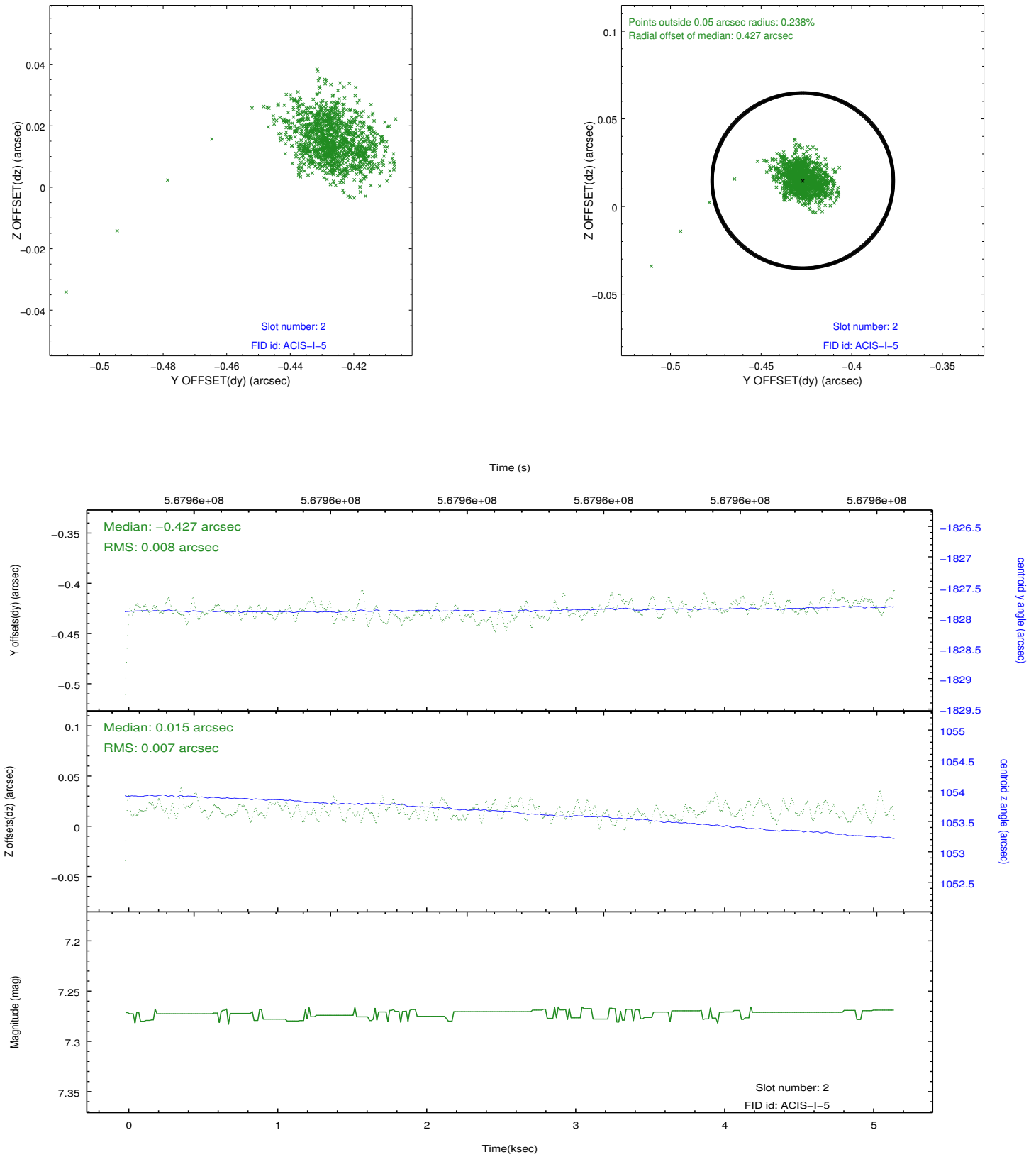
2.5.1 Slot 0



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)	2016.01.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.080900039196

A.2 Comments

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: (182.86974, -70.26218), (182.87794, -70.26291), (182.94286, -70.17875), (182.93652, -70.17564).