

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 20866 - L2 Version 2
Chandra X-Ray Center

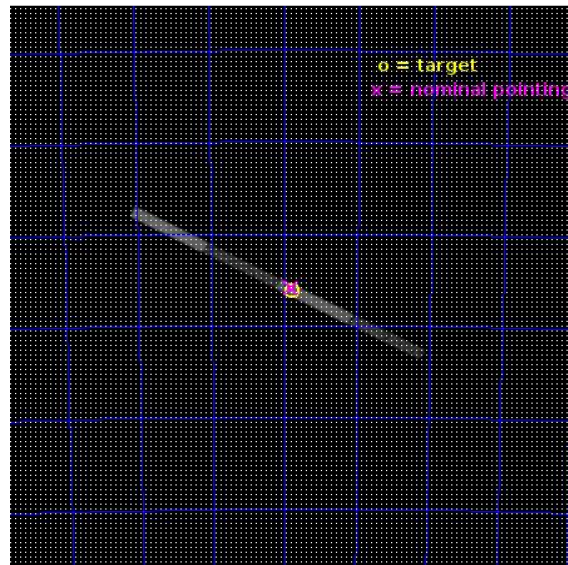
L2 Processing Date : Dec 4 2017

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1 Front

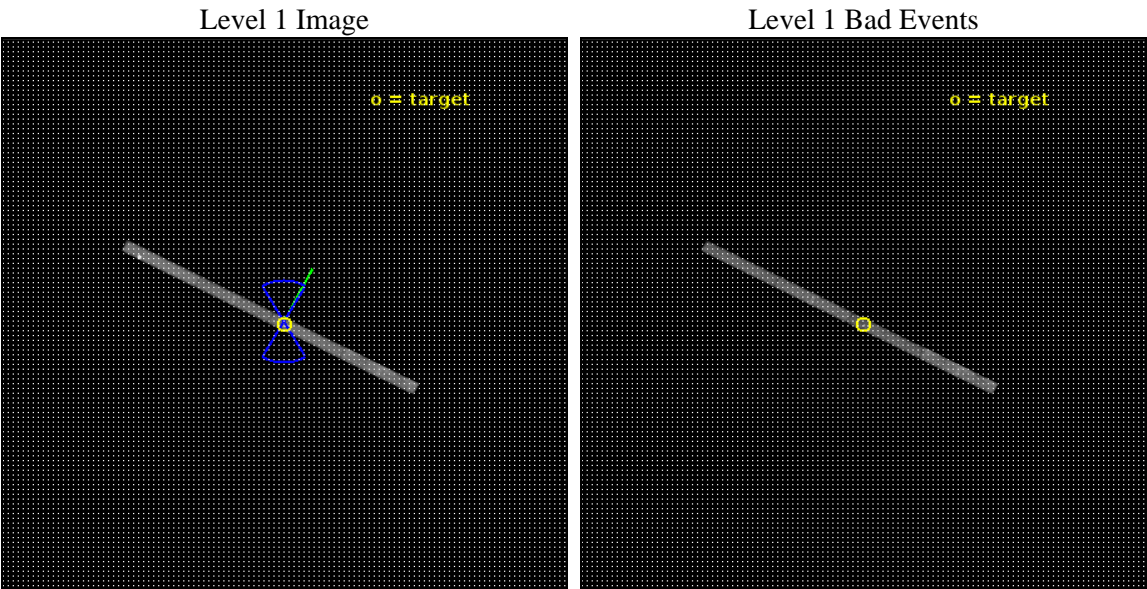
seq_num	703441	Sequence number
obs_id	20866	Observation id
title	The Physics of the Jets of Powerful Radio Galaxies and Quasars	Pro
observer	Eric Perlman	Principal investigator
object	PKS 0637-75	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	98.94375	Observer's specified target RA [deg]
dec_targ	-75.271306	Observer's specified target Dec [deg]
ra_nom	98.951640058242	Nominal RA [deg]
dec_nom	-75.264928740093	Nominal Dec [deg]
roll_nom	27.164246690615	Nominal Roll [deg]
revision	2	Processing version of data
ontime	24087.000957251	Sum of GTIs [s]
livetime	22544.927889602	Livetime [s]
ontime5	24087.000957251	Sum of GTIs [s]
ontime6	24087.000957251	Sum of GTIs [s]
ontime7	24087.000957251	Sum of GTIs [s]
ontime8	24087.000957251	Sum of GTIs [s]
l2events	52920	Number of level 2 events



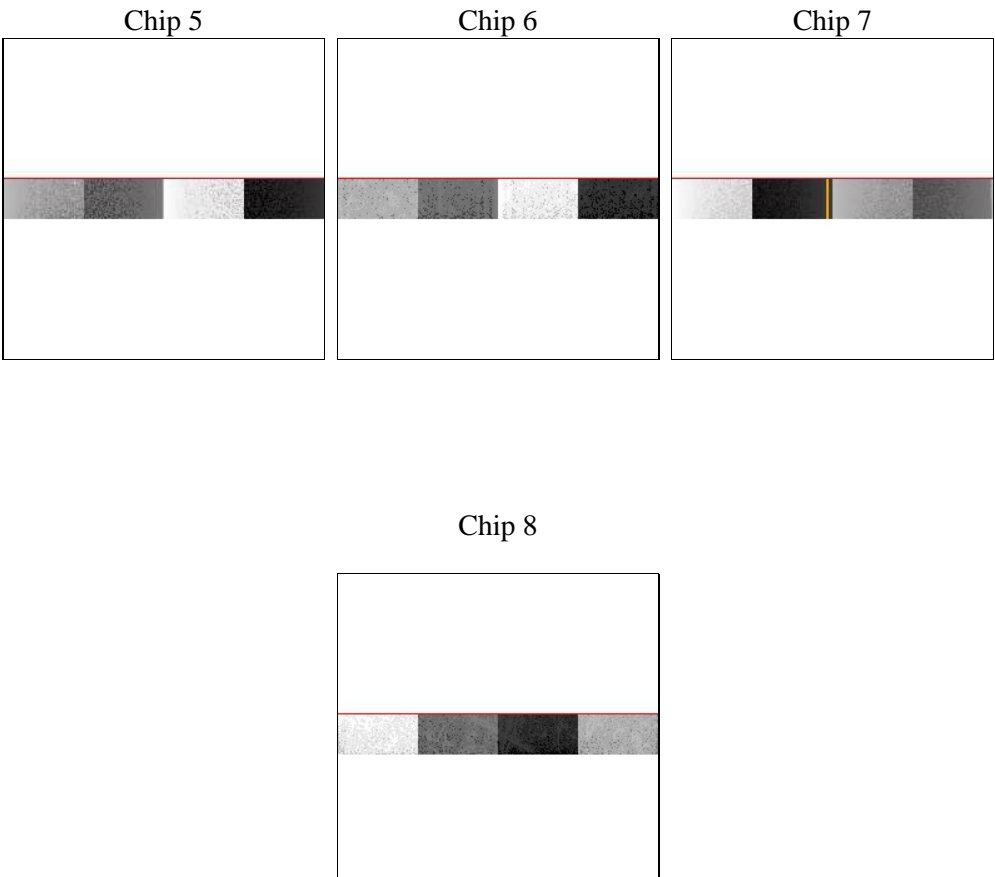
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



Chip 8



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	24000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	24087.000957251	Sum of GTIs [s]
caldsver	4.7.6	 	ontime5	24087.000957251	Sum of GTIs [s]
date	2017-12-04T20:04:23	Date and time of file creation	ontime6	24087.000957251	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	24087.000957251	Sum of GTIs [s]
			ontime8	24087.000957251	Sum of GTIs [s]
			l1events	187612	Number of level 1 events

2.1.4 Events

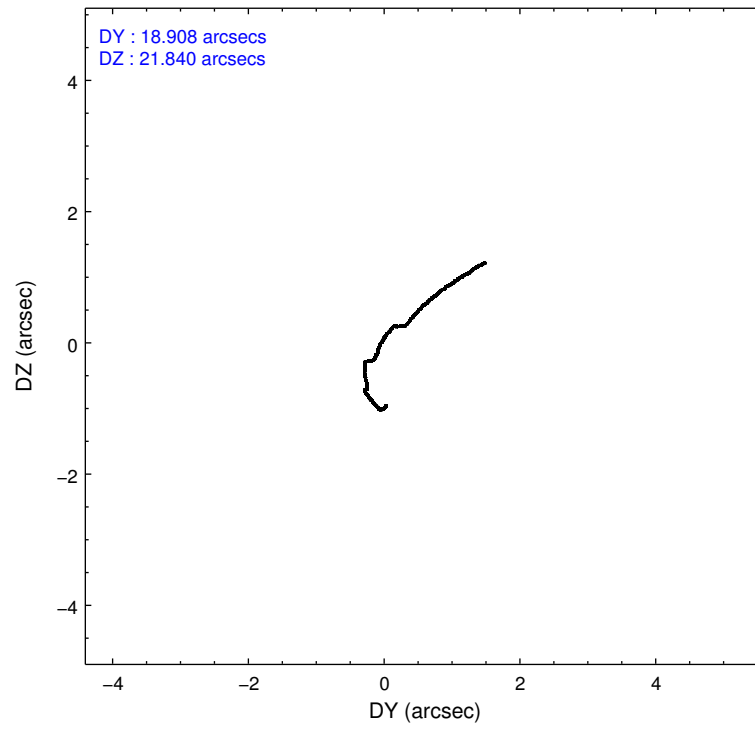
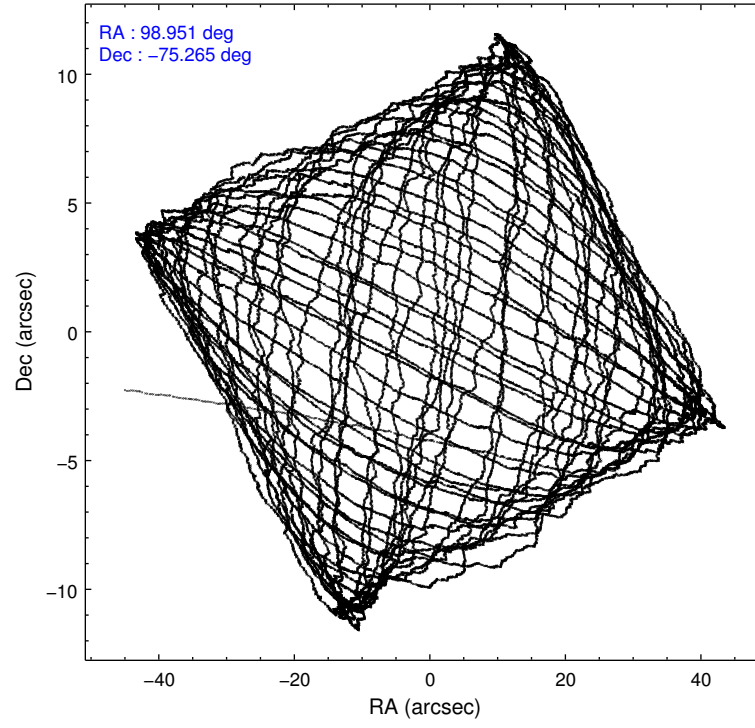
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	70655	27427	47644	41886
rejected events	19391	24065	18141	31991
rejected %	27%	87%	38%	76%

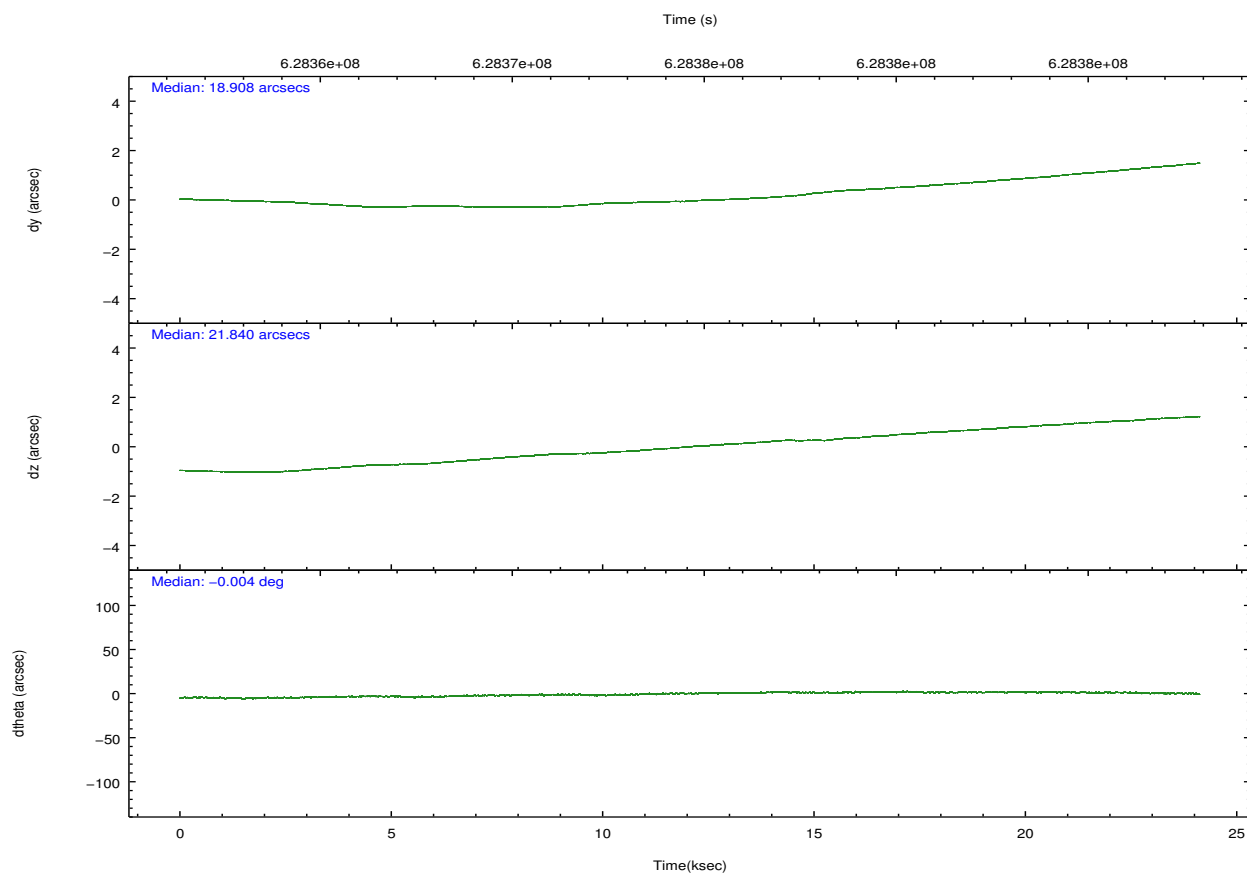
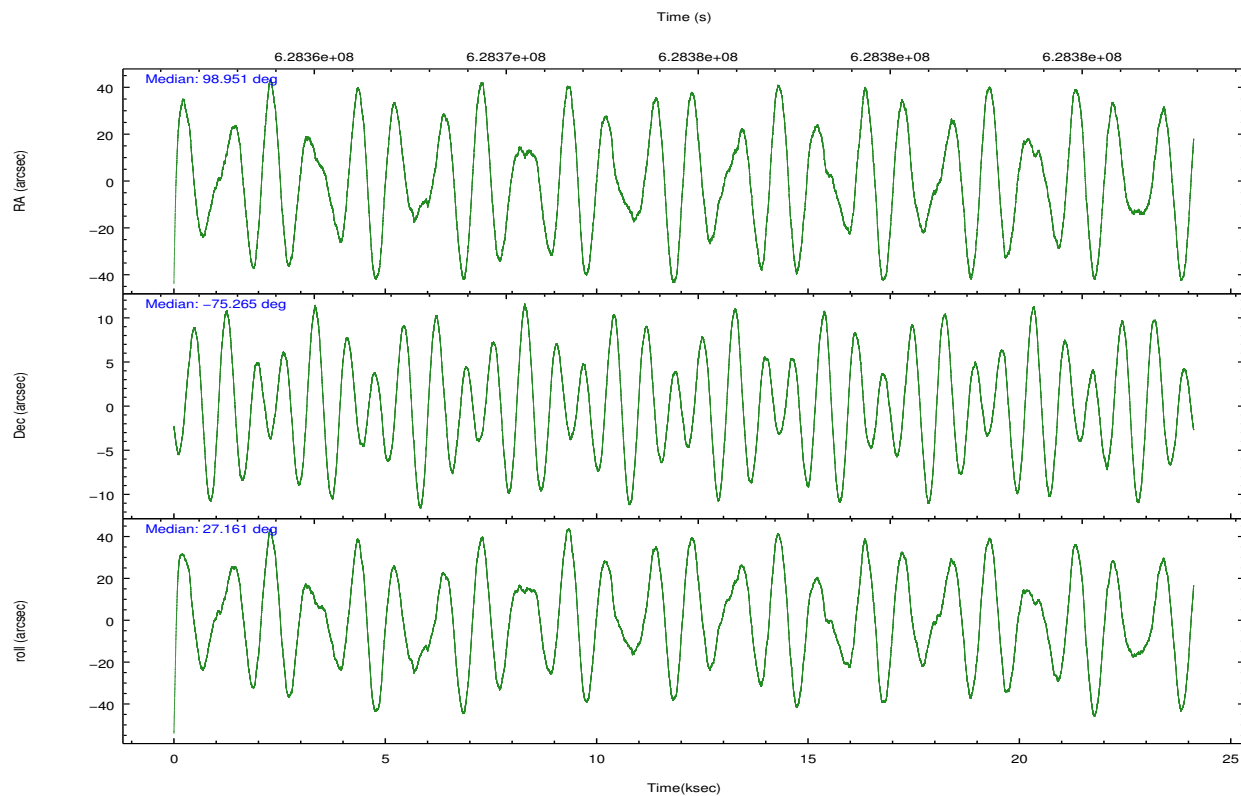
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	28958	926	5038	2427
	40%	3%	10%	5%
grade 1 events	146	6	171	7
	0%	0%	0%	0%
grade 2 events	10533	634	6957	2091
	14%	2%	14%	4%
grade 3 events	1269	596	3371	1150
	1%	2%	7%	2%
grade 4 events	1369	575	3251	1141
	1%	2%	6%	2%
grade 5 events	3478	1045	3816	1546
	4%	3%	8%	3%
grade 6 events	9139	631	10888	3087
	12%	2%	22%	7%
grade 7 events	15763	23014	14152	30437
	22%	83%	29%	72%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	98.894256	98.95164005824171	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-75.288175	-75.26492874009253	Subarray start row	449	449
[deg] Pointing Roll	26.952135	27.1642466906146	Subarray row count	128	128
[deg] Roll angle	0.000000	0.000000	Alternating exposures requested	N	N
[deg] Roll tolerance	30.000000	30.000000	[s] Primary exposure time	0.000000	0.6
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	628362706.184000	628361621.15058			
Observation start date	2017-11-29T17:10:37	2017-11-29T16:53:41			
[s] Observation end time (MET)	628386706.184000	628387612.5896			
Observation end date	2017-11-29T23:50:37	2017-11-30T00:06:52			
Read mode	TIMED	TIMED			

2.3 Aspect



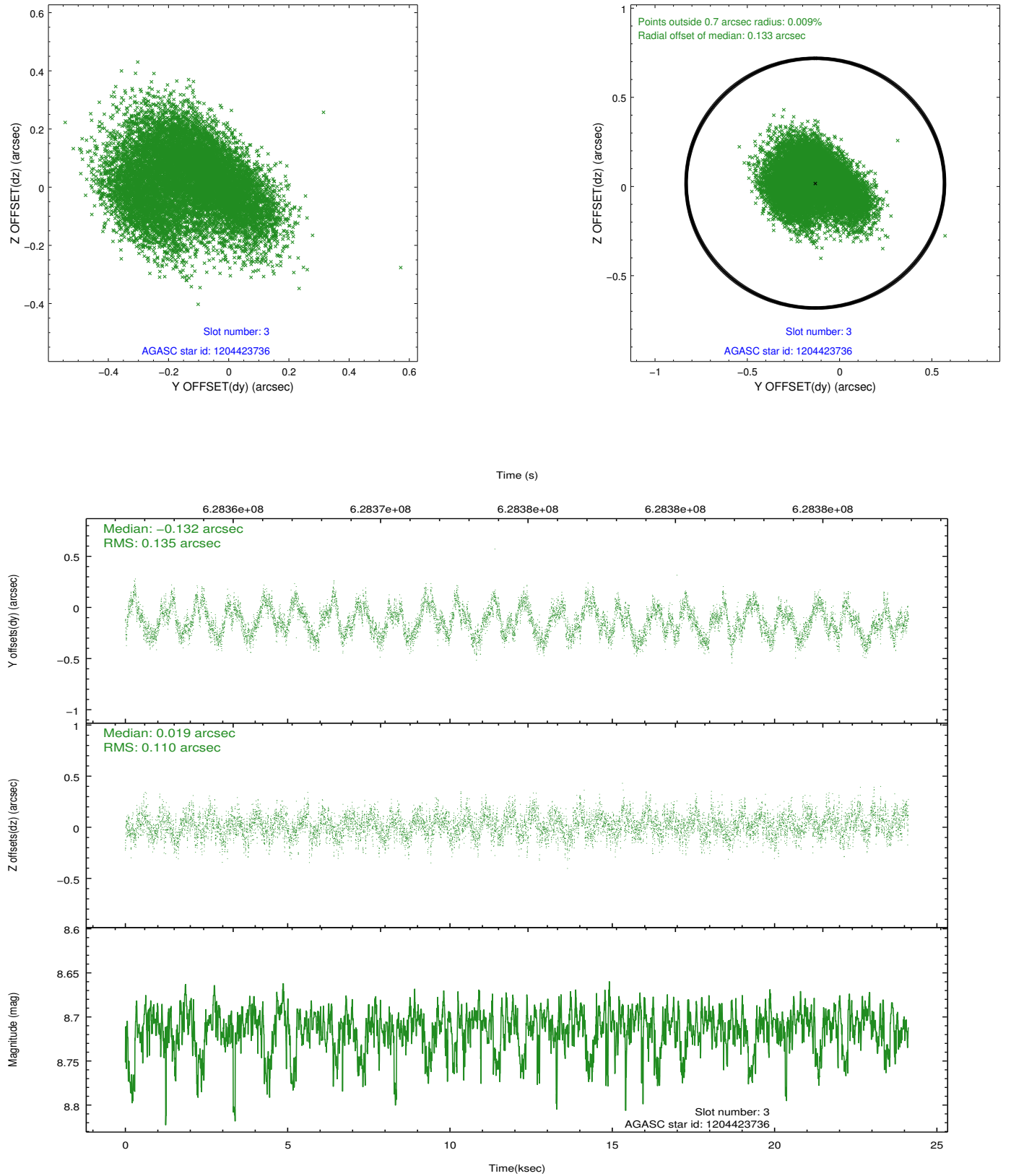


Slot Statistics

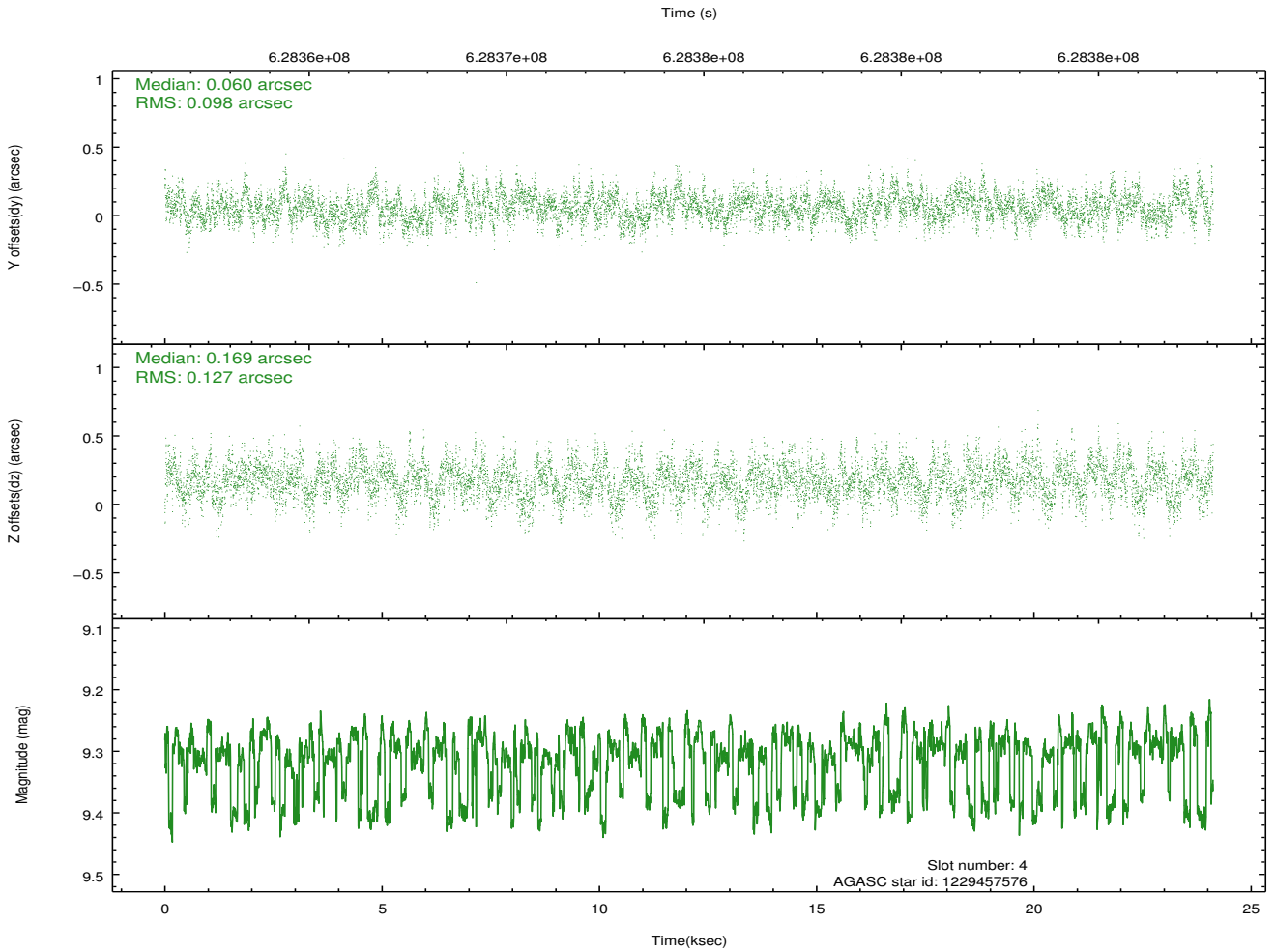
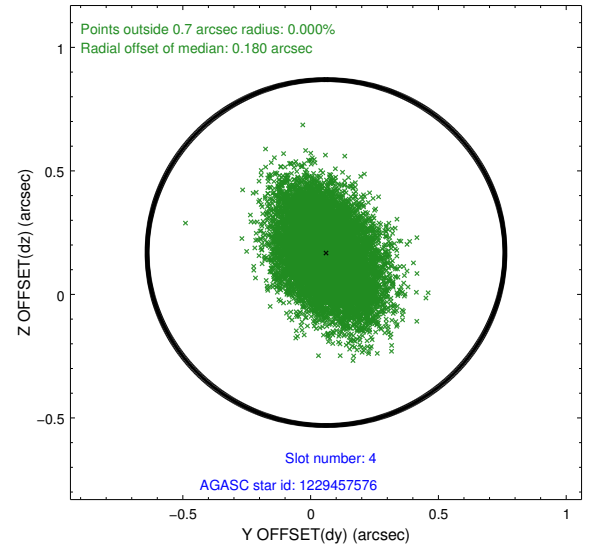
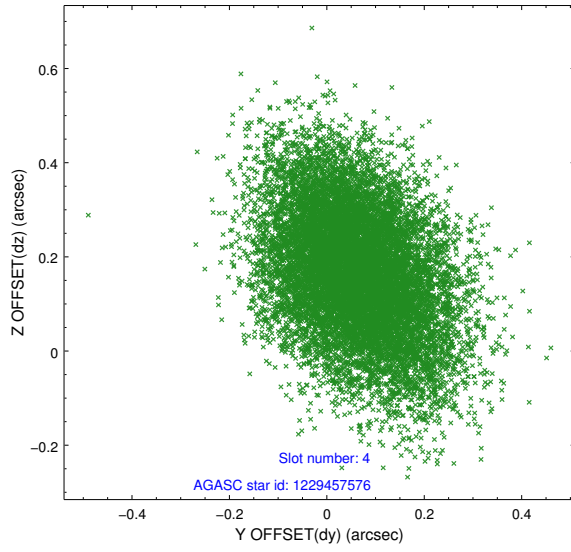
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.97	5882	-0.237	-0.139	0.026	0.037	0.000000	0.000000	-772.48	-1743.54
1	FID		ACIS-S-4	7.06	5883	0.544	0.148	0.013	0.020	0.000000	0.000000	2141.53	165.08
2	FID		ACIS-S-5	7.07	5885	-0.339	-0.003	0.020	0.032	0.000000	0.000000	-1825.25	158.75
3	GUIDE	used	1204423736	8.71	11757	-0.132	0.019	0.189	0.290	99.272017	-74.796122	1120.45	1416.68
4	GUIDE	used	1229457576	9.31	11750	0.060	0.169	0.169	0.283	100.335360	-75.489746	823.29	-1249.75
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	1229457032	9.15	11748	0.094	0.275	0.150	0.254	100.958417	-75.581890	1155.35	-1809.80
7	GUIDE	used	1204429184	9.64	11739	-0.036	-0.460	0.208	0.326	99.730987	-74.425450	2126.42	2397.42

2.4 Star Slots

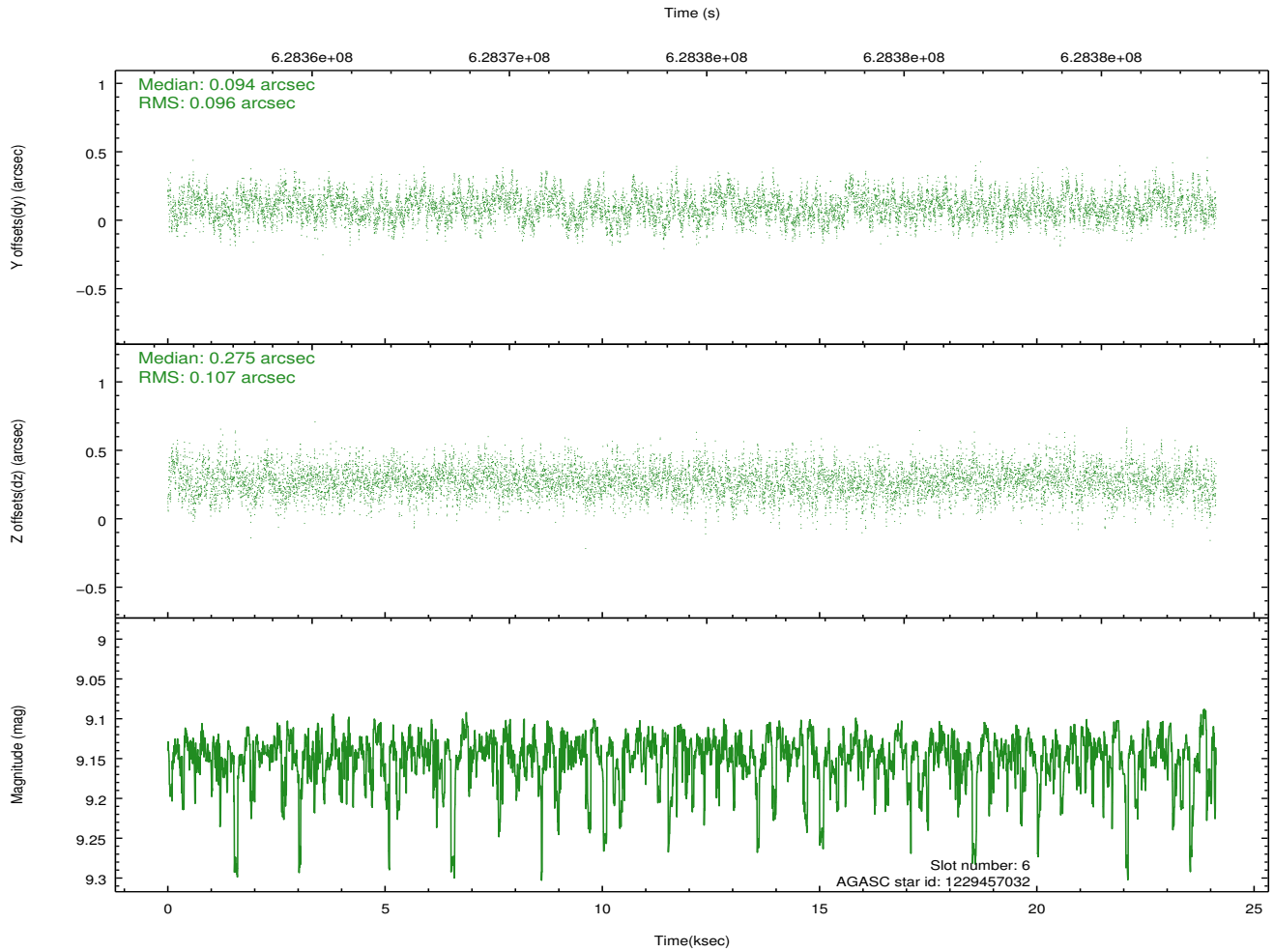
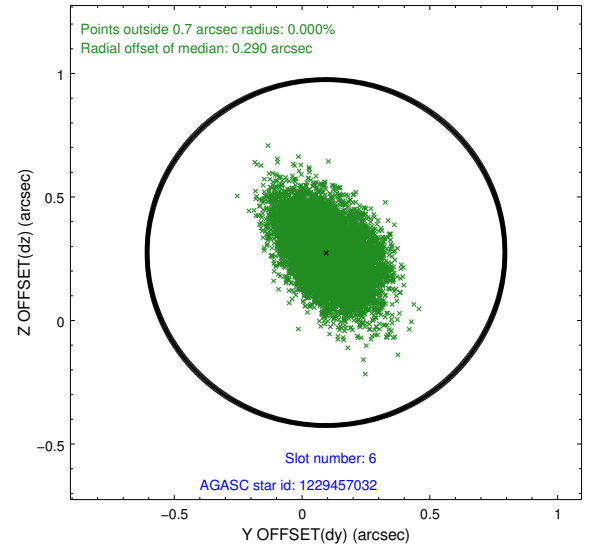
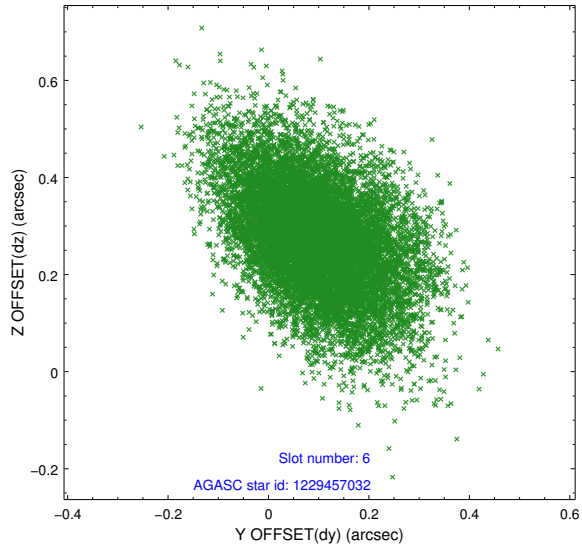
2.4.1 Slot 3



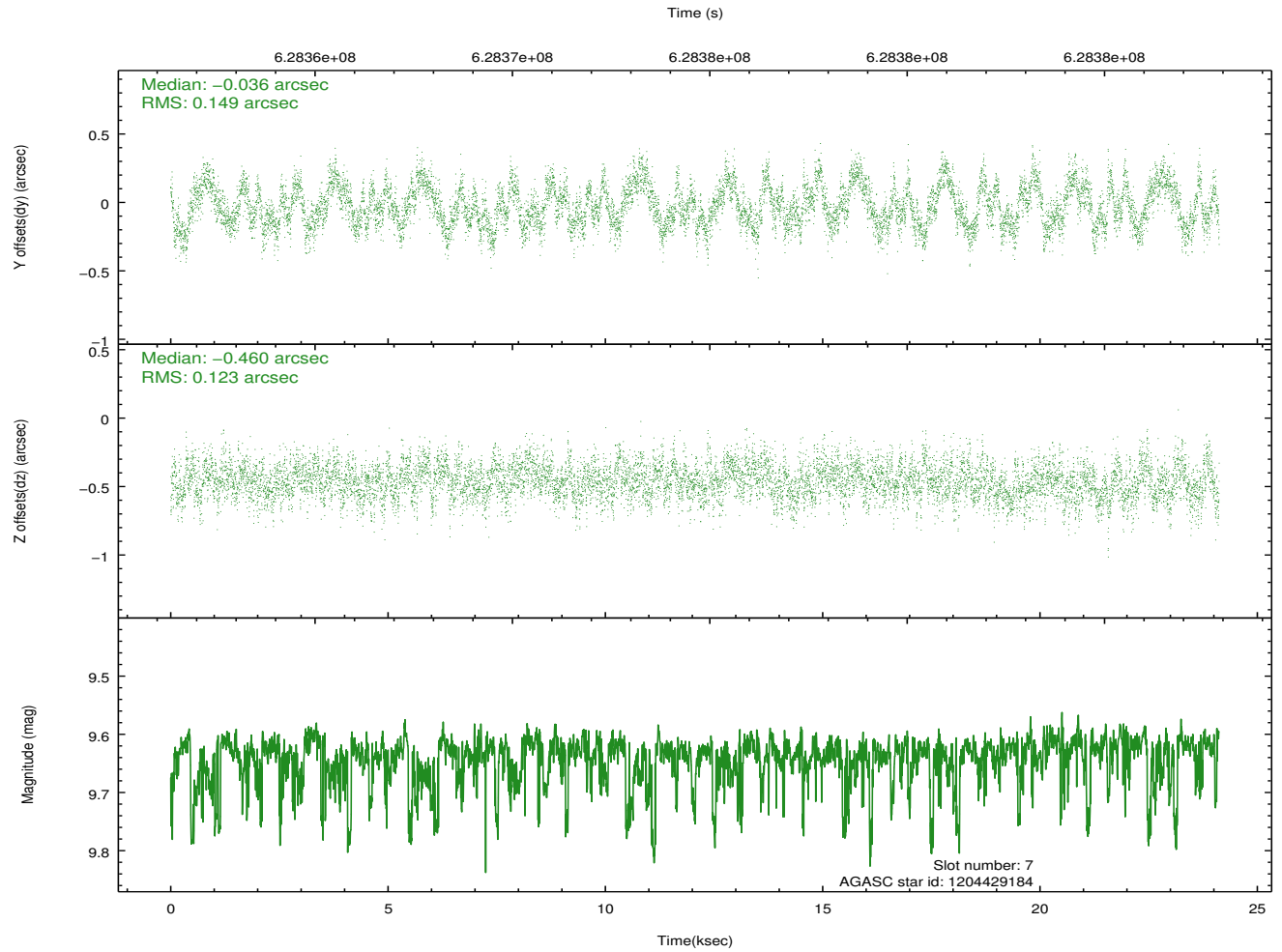
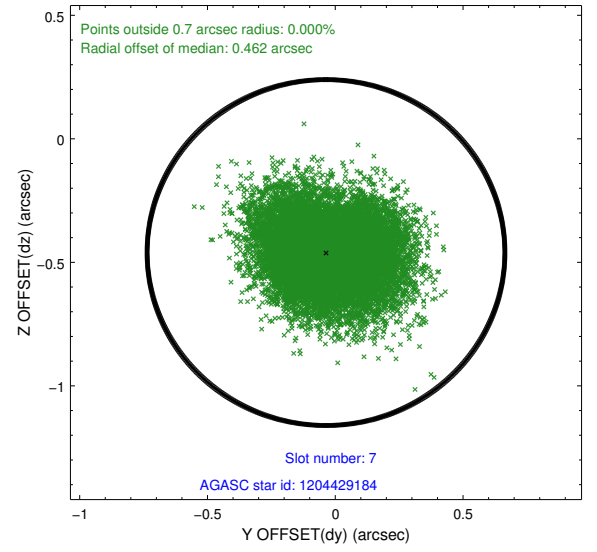
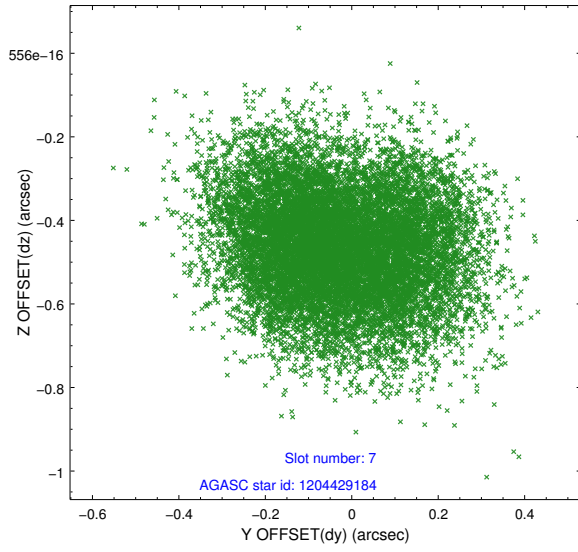
2.4.2 Slot 4



2.4.3 Slot 6

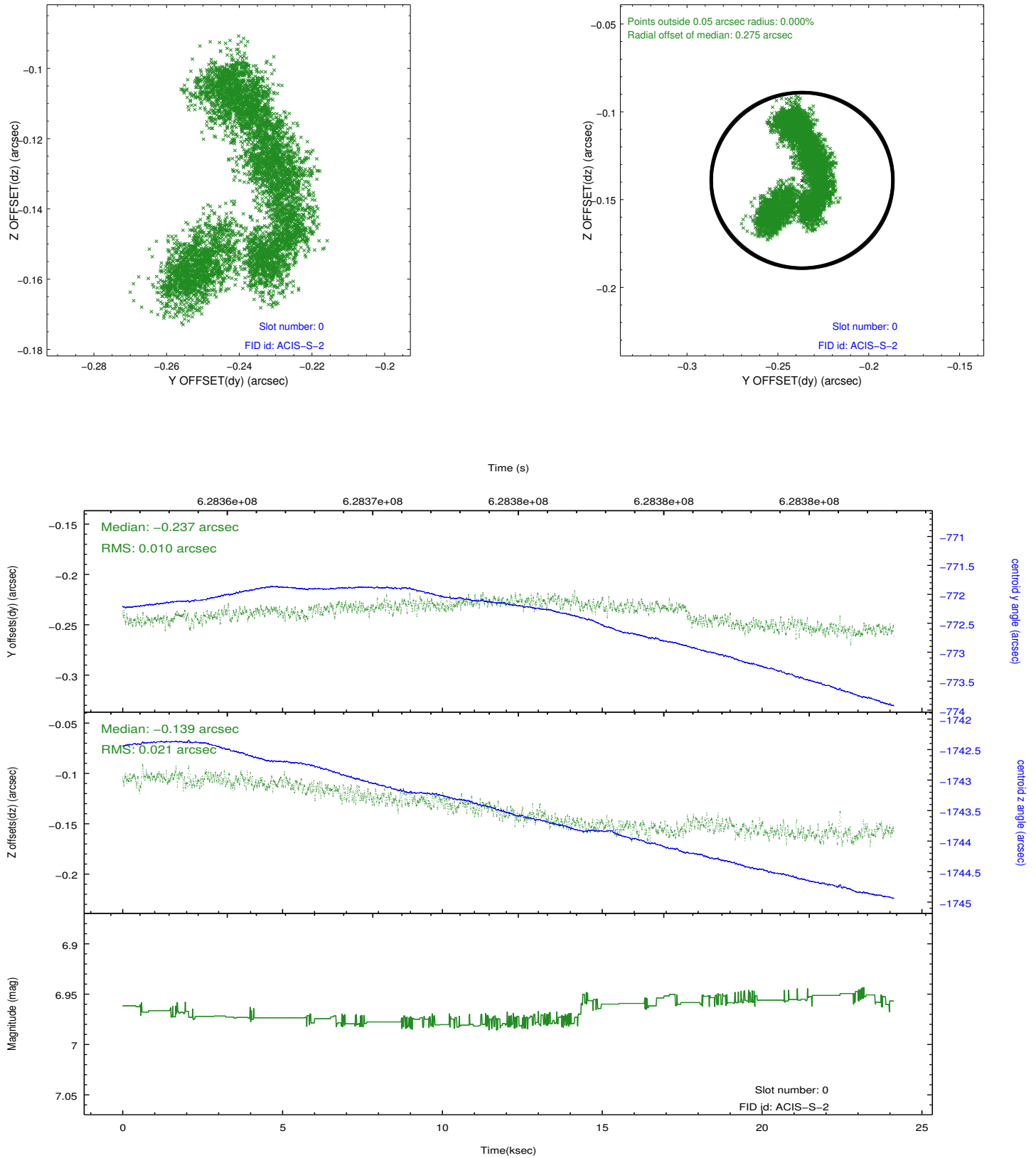


2.4.4 Slot 7

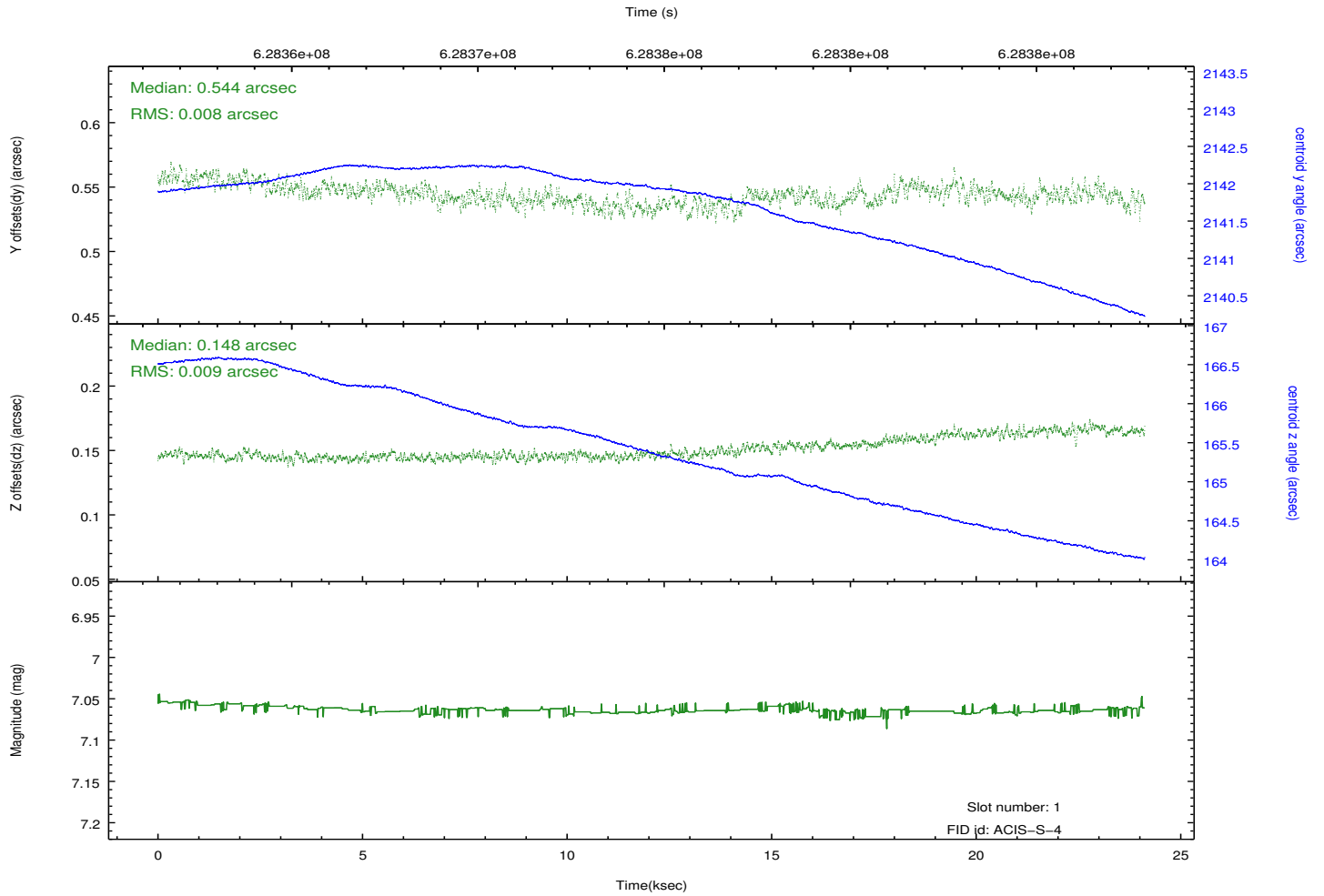
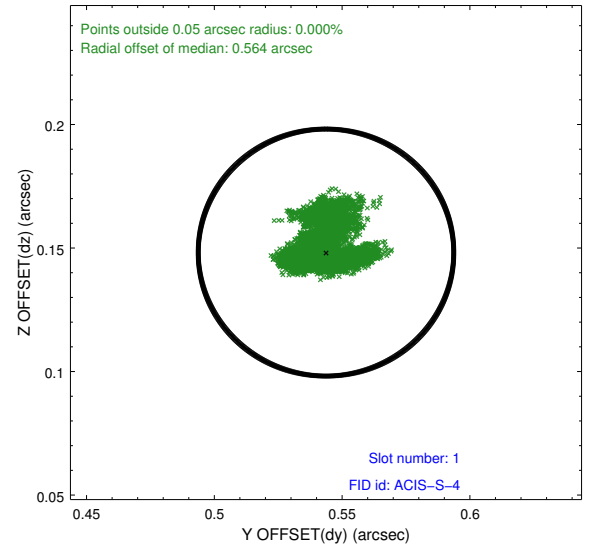
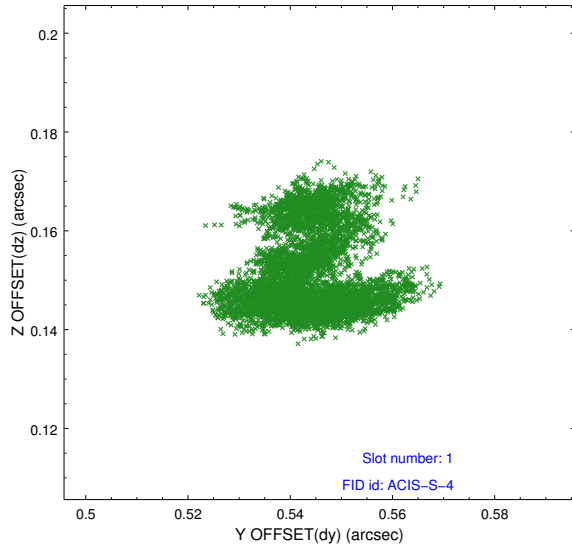


2.5 FID Slots

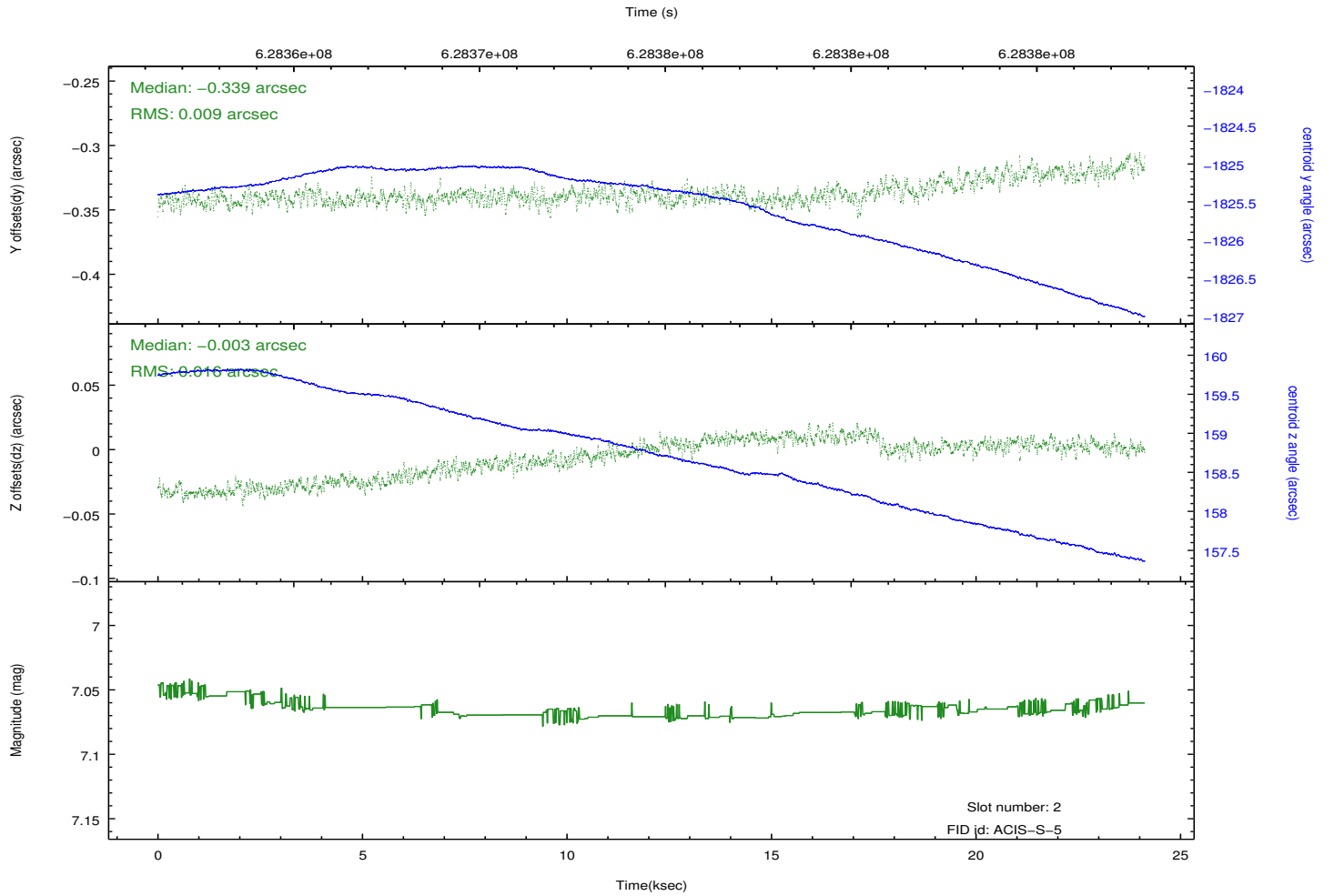
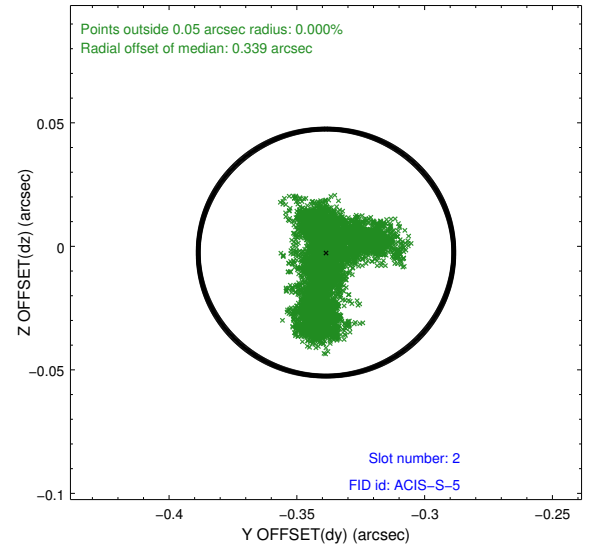
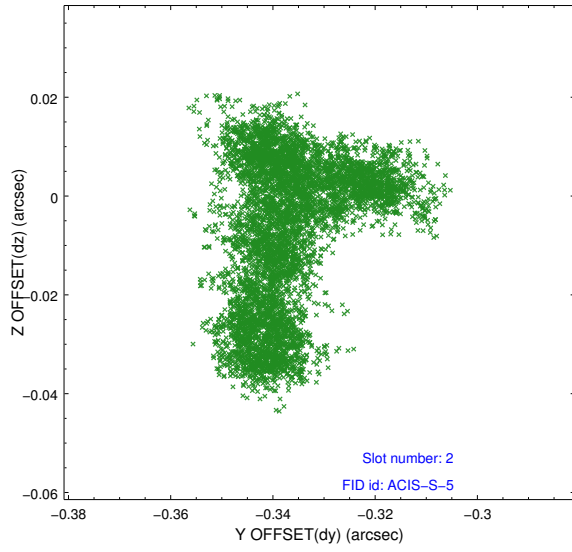
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2017.12.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.087000957251

A.2 Comments

Joint Proposal: CX0-HST. Roll constraint met.

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The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.