

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 18051 - L2 Version 2
Chandra X-Ray Center

L2 Processing Date : Feb 2 2017

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1 Front

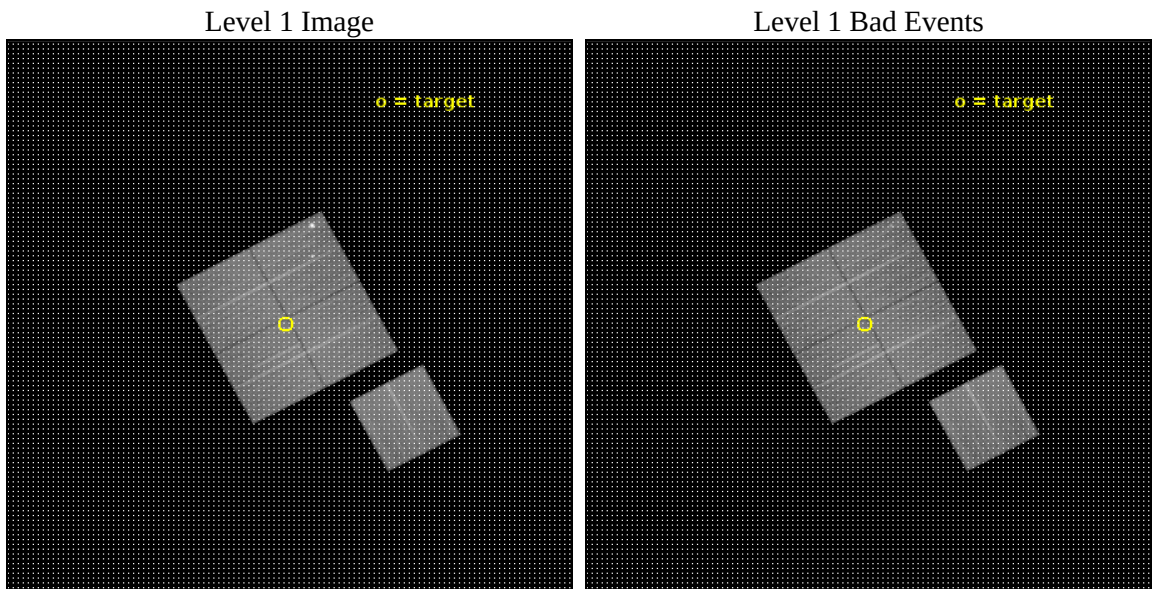
seq_num	601235	Sequence number
obs_id	18051	Observation id
title	To the Edge and Beyond: A Legacy Survey of the Grand Design Spiral M81	Proposal title
observer	Douglas Swartz	Principal investigator
object	M81 S	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	149.015833	Observer's specified target RA [deg]
dec_targ	68.885694	Observer's specified target Dec [deg]
ra_nom	148.99839492972	Nominal RA [deg]
dec_nom	68.886275910659	Nominal Dec [deg]
roll_nom	152.22493426083	Nominal Roll [deg]
revision	2	Processing version of data
ontime	37060.459225178	Sum of GTIs [s]
livetime	36576.237041888	Livetime [s]
ontime0	37063.600285172	Sum of GTIs [s]
ontime1	37051.036074162	Sum of GTIs [s]
ontime2	37060.459235072	Sum of GTIs [s]
ontime3	37060.459225178	Sum of GTIs [s]
ontime6	37035.330963016	Sum of GTIs [s]
l2events	156872	Number of level 2 events



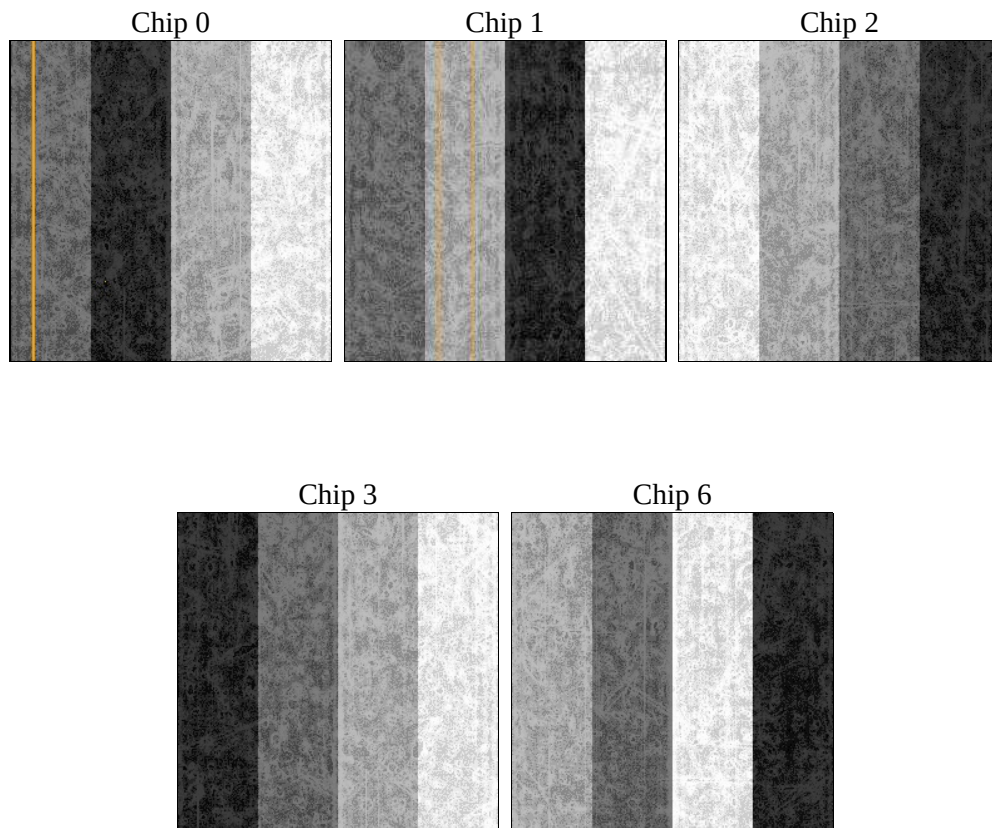
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	37060.459225178	Sum of GTIs [s]
caldsver	4.7.3	 	ontime0	37063.600285172	Sum of GTIs [s]
date	2017-02-02T20:06:15	Date and time of file creation	ontime1	37051.036074162	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	37060.459235072	Sum of GTIs [s]
			ontime3	37060.459225178	Sum of GTIs [s]
			ontime6	37035.330963016	Sum of GTIs [s]
			l1events	1364611	Number of level 1 events

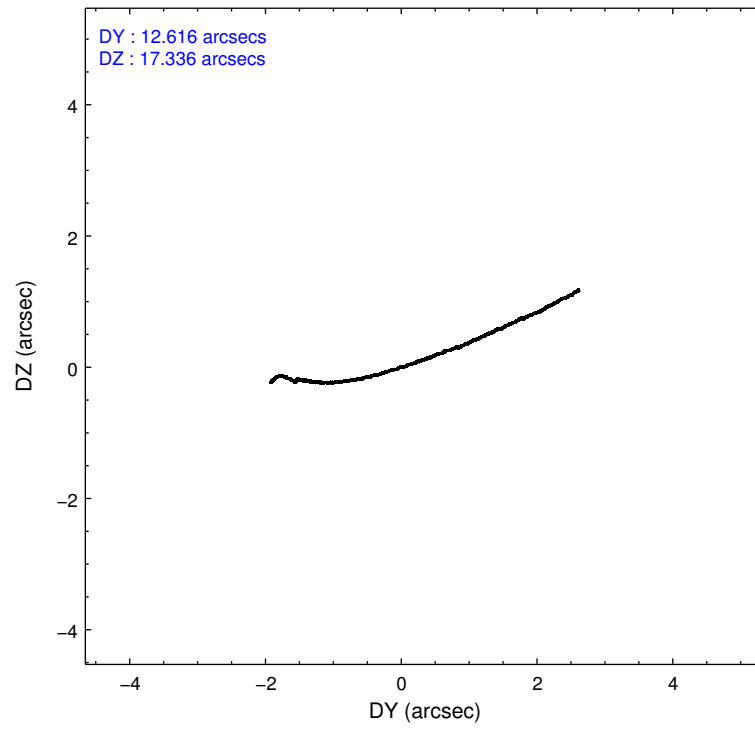
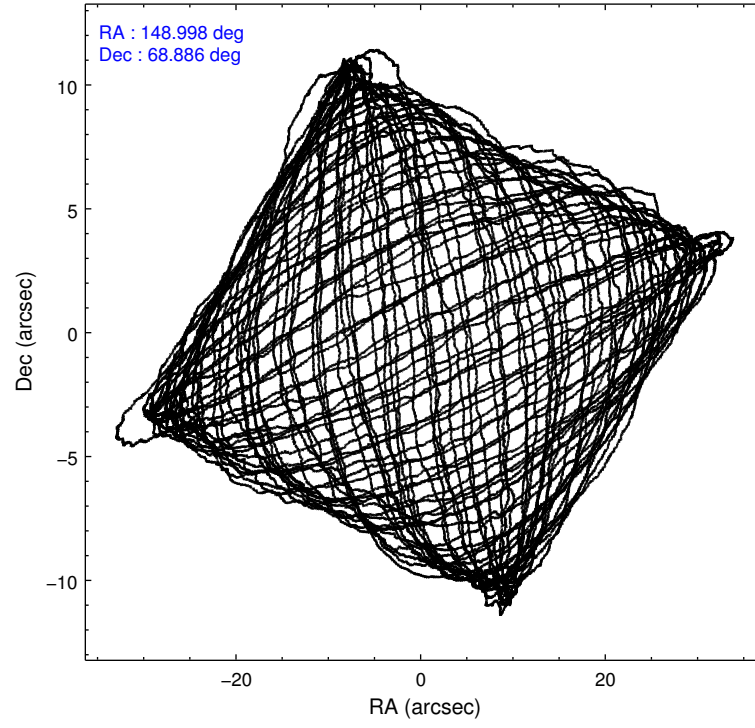
2.1.4 Events

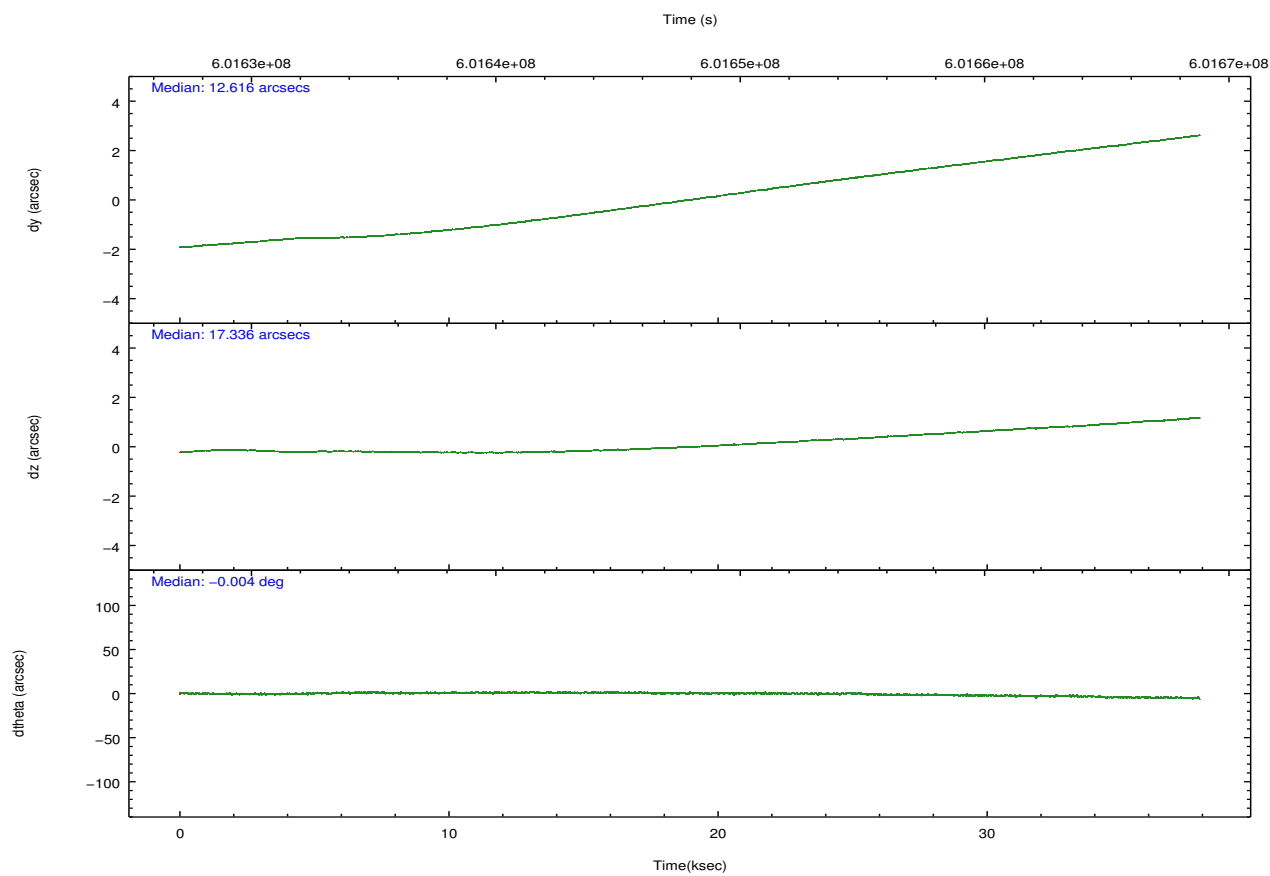
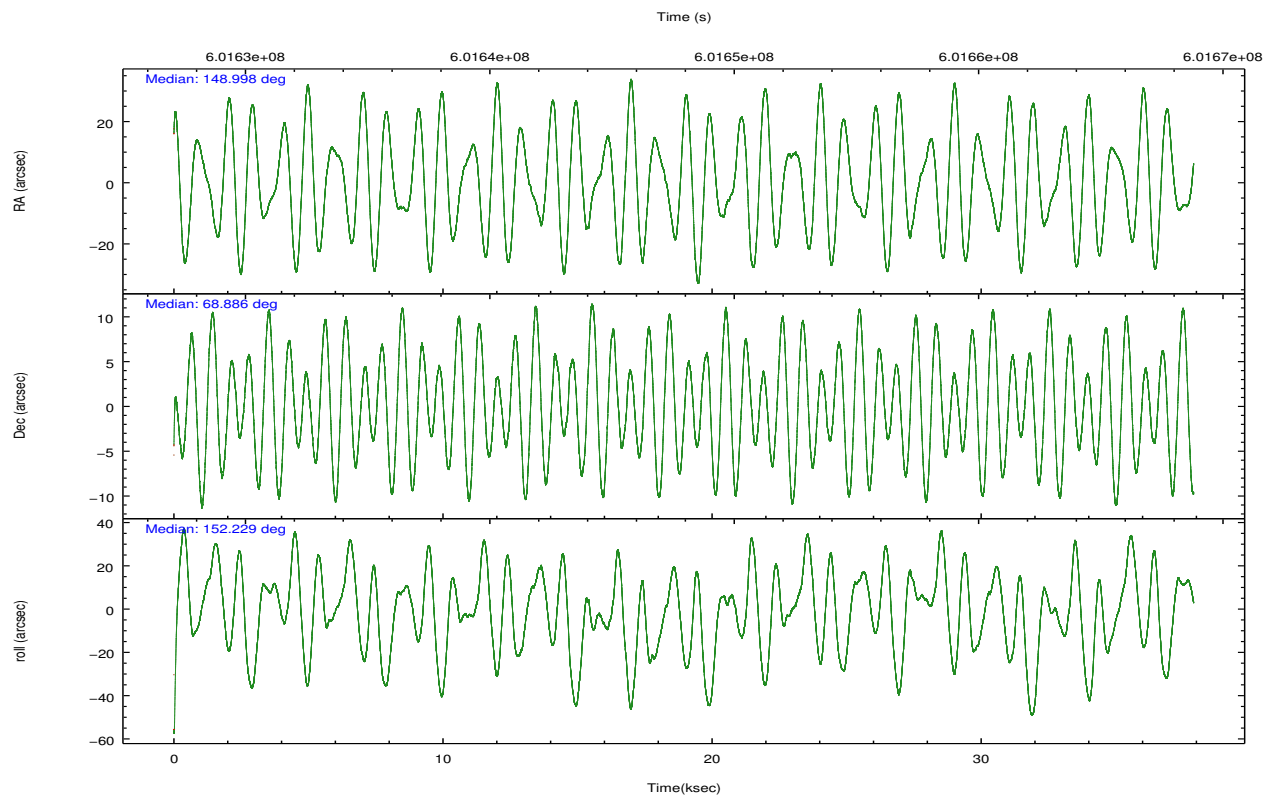
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	289807	257148	274574	270742	272340	grade 0 events	40687	10730	9799	9321	9370
rejected events	220695	224702	246948	243790	243238		14%	4%	3%	3%	3%
rejected %	76%	87%	89%	90%	89%	grade 1 events	484	122	147	129	123
							0%	0%	0%	0%	0%
						grade 2 events	12144	8288	6700	6100	6898
							4%	3%	2%	2%	2%
						grade 3 events	4473	3080	2854	2803	2852
							1%	1%	1%	1%	1%
						grade 4 events	4200	3112	2804	2903	2843
							1%	1%	1%	1%	1%
						grade 5 events	11300	11487	10493	12706	11938
							3%	4%	3%	4%	4%
						grade 6 events	7625	7244	5471	5826	7145
							2%	2%	1%	2%	2%
						grade 7 events	208894	213085	236306	230954	231171
							72%	82%	86%	85%	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	149.074956	148.9983949297241	CCD I2 on	Y	Y
[deg] Pointing Dec	68.887442	68.88627591065887	CCD I3 on	Y	Y
[deg] Pointing Roll	151.944848	152.2249342608295	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)	601629877.184000	601628024.69235	CCD S5 on	N	N
Observation start date	2017-01-24T07:23:28	2017-01-24T06:53:44	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	601666877.184000	601667039.26961	On-chip summing requested	N	N
Observation end date	2017-01-24T17:40:08	2017-01-24T17:43:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



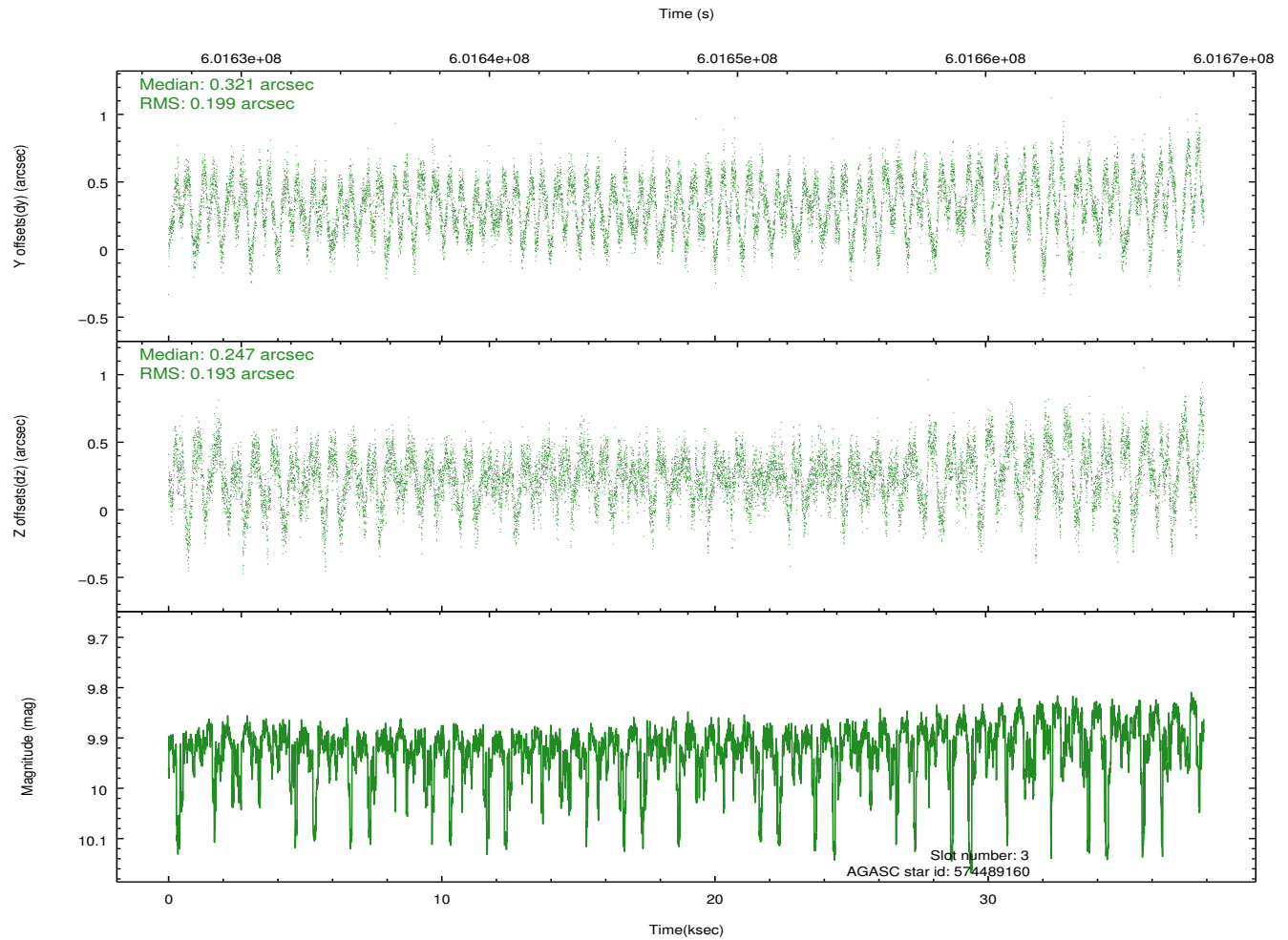
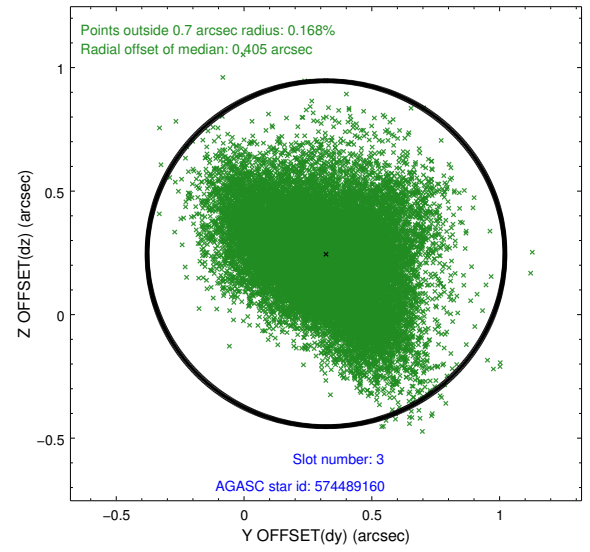
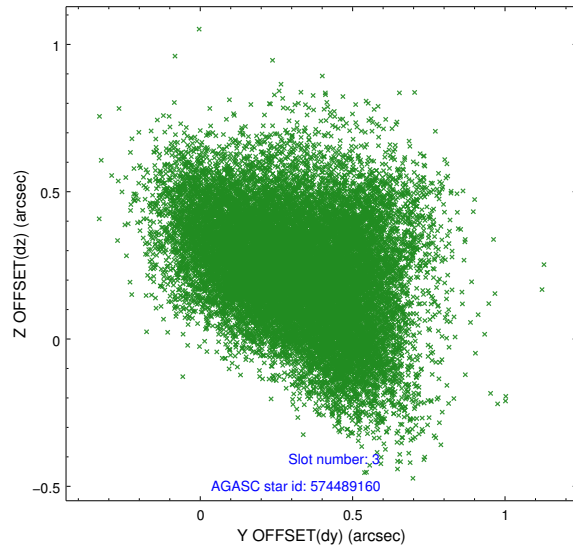


Slot Statistics

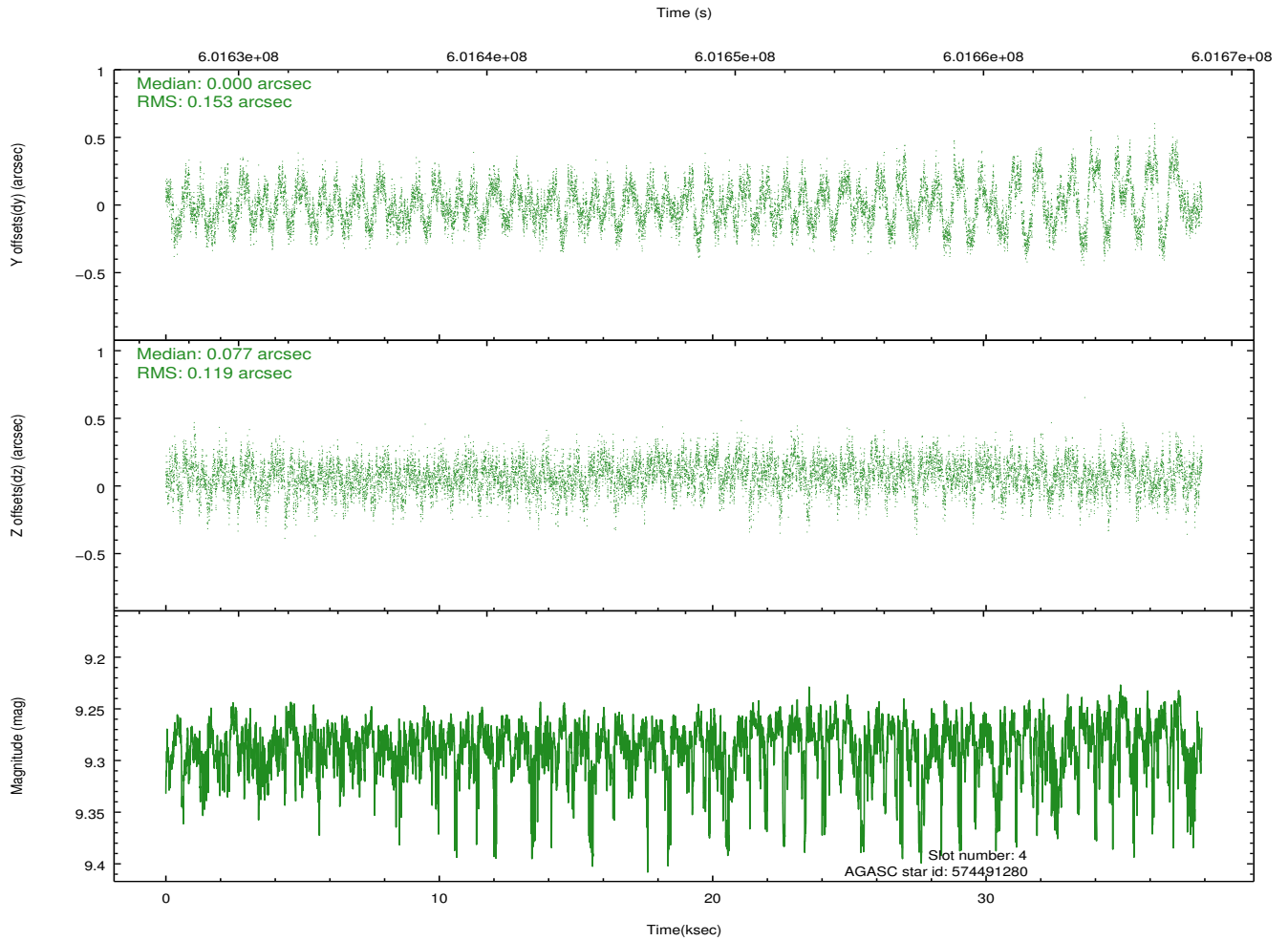
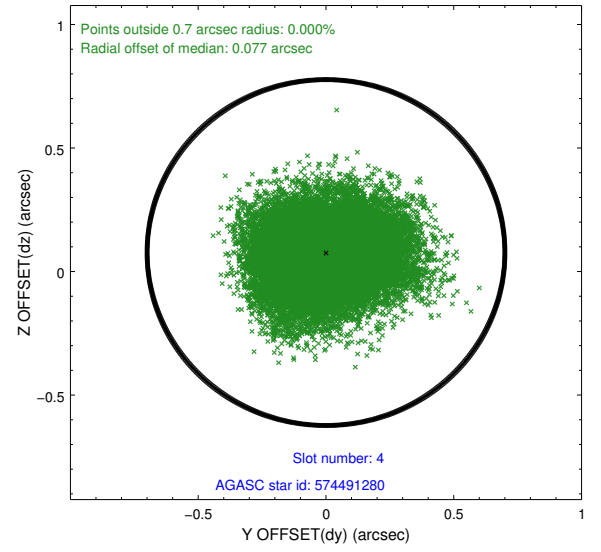
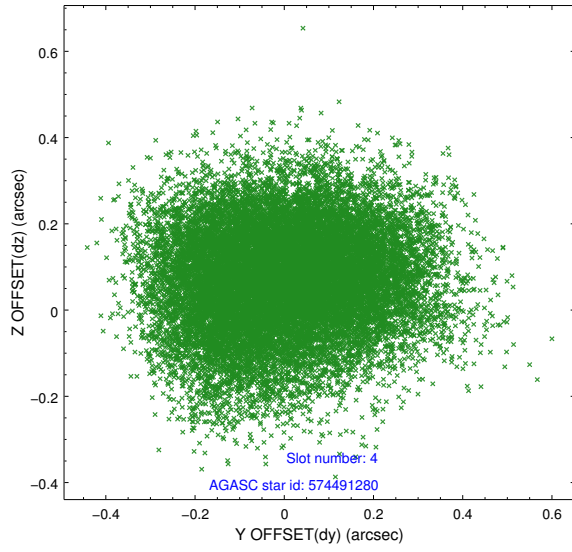
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.17	9243	0.080	-0.055	0.026	0.064	0.000000	0.000000	926.90	-841.21
1	FID		ACIS-I-5	7.17	9243	-0.317	0.050	0.015	0.033	0.000000	0.000000	-1821.65	1056.27
2	FID		ACIS-I-6	7.16	9243	0.142	0.074	0.024	0.064	0.000000	0.000000	392.41	1700.90
3	GUIDE	used	574489160	9.91	18463	0.321	0.247	0.296	0.473	149.677320	68.172146	-1920.78	1890.30
4	GUIDE	used	574491280	9.28	18462	0.000	0.077	0.210	0.329	148.611567	69.450135	1471.39	-1511.63
5	GUIDE	used	574497600	10.31	18366	-0.226	-0.248	0.287	0.484	147.824120	68.451903	730.31	2146.78
6	GUIDE	used	574500920	10.01	18448	-0.268	-0.115	0.331	0.509	147.014605	68.742334	2148.18	1685.75
7	GUIDE	used	574490960	9.68	18447	0.176	0.003	0.236	0.388	148.185918	69.658768	2291.87	-1933.81

2.4 Star Slots

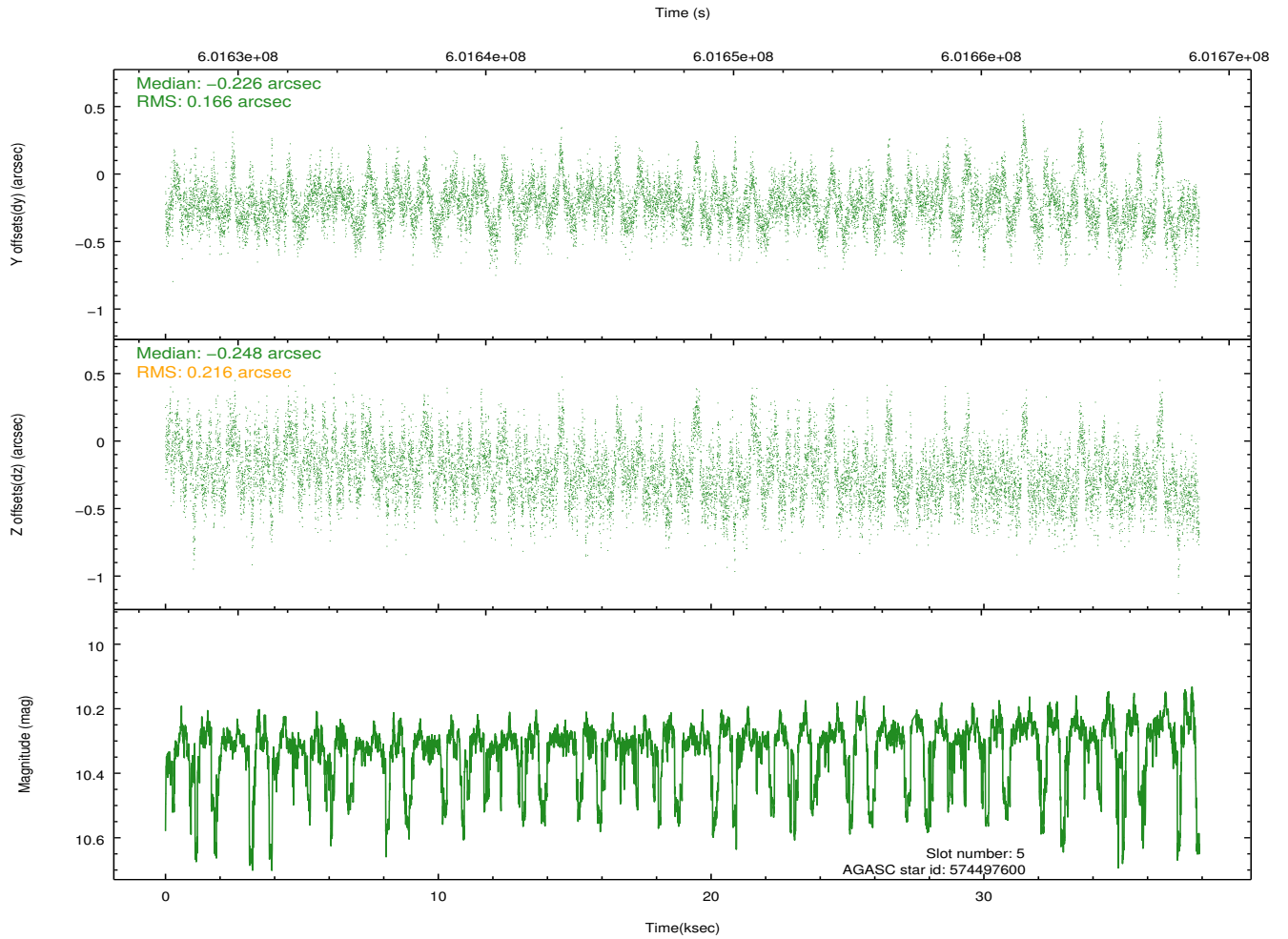
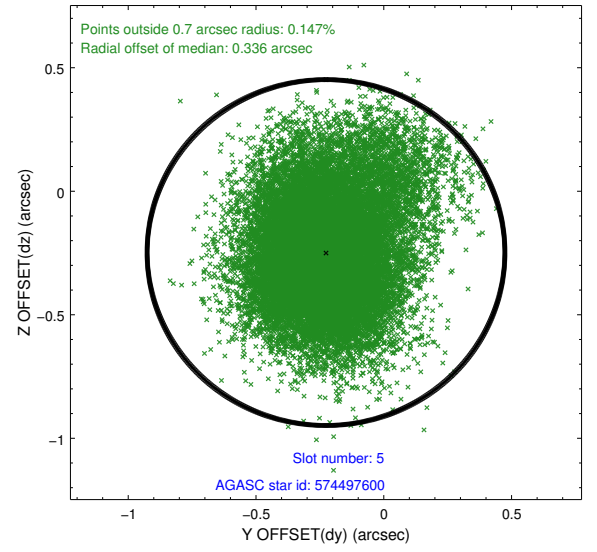
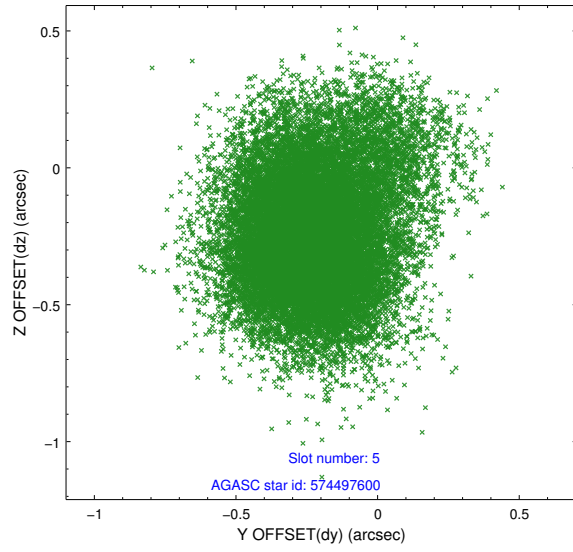
2.4.1 Slot 3



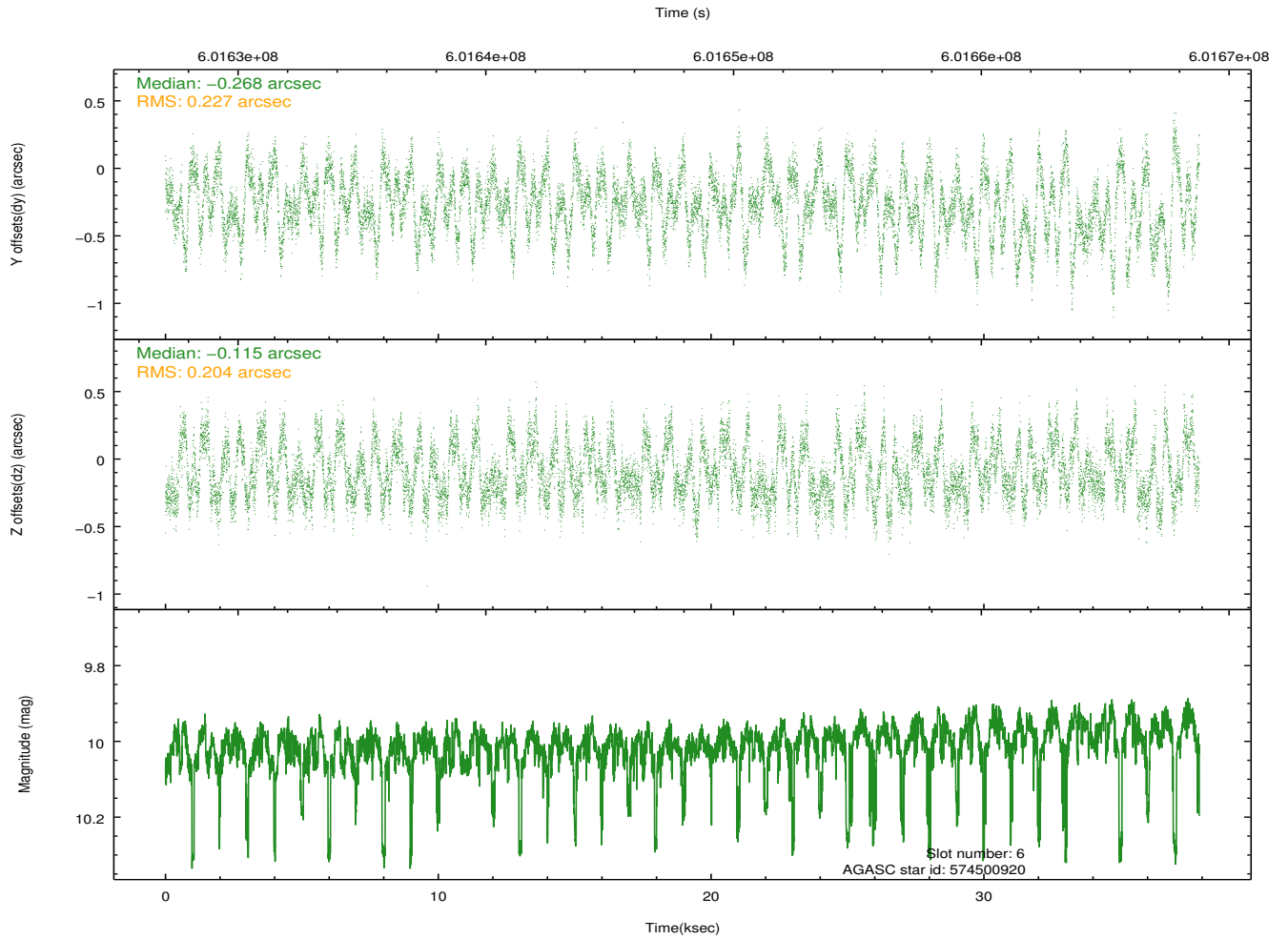
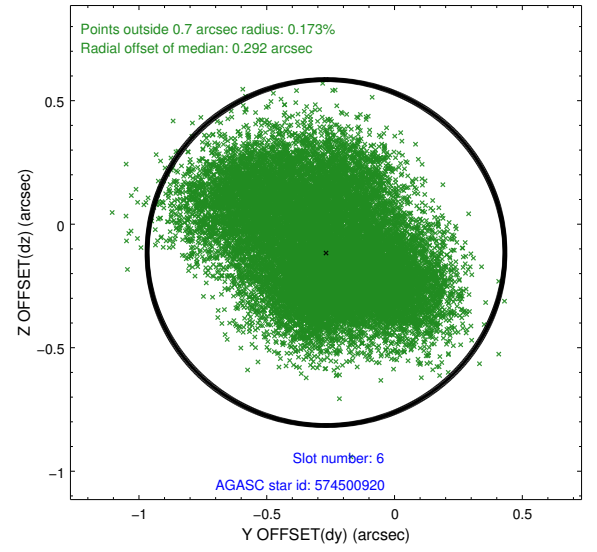
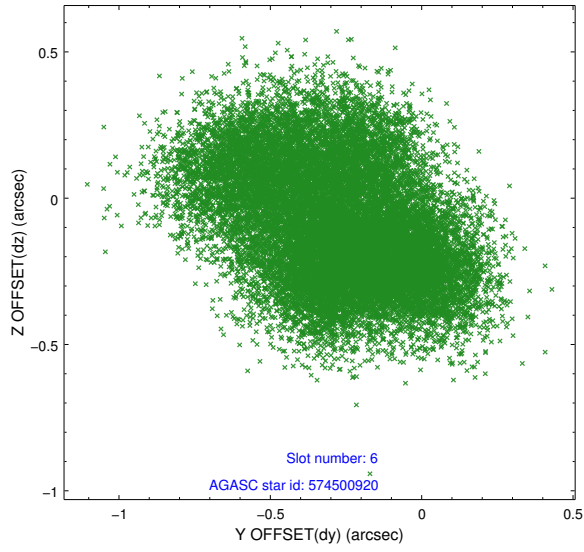
2.4.2 Slot 4



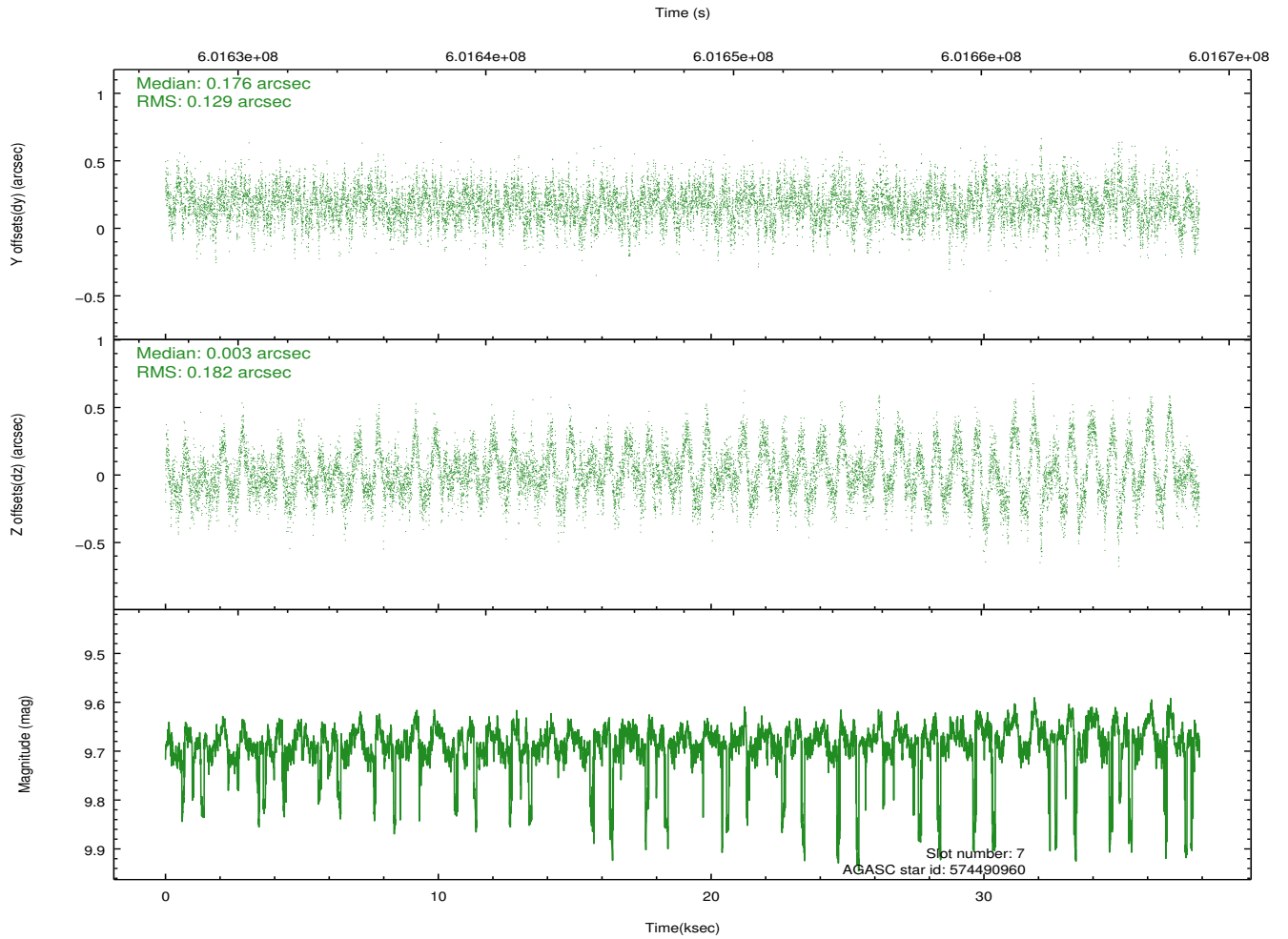
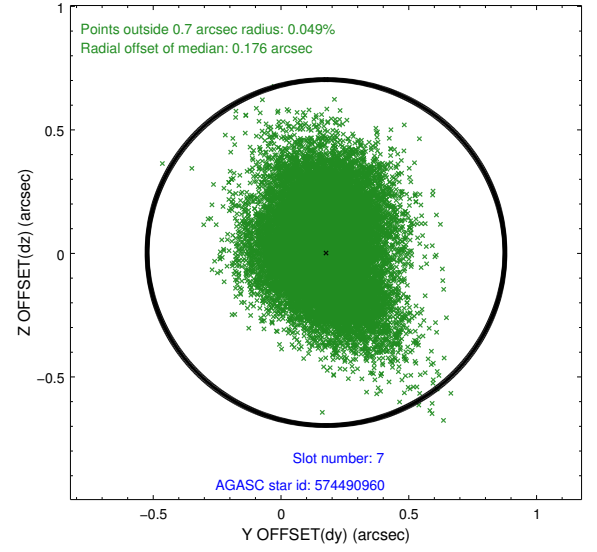
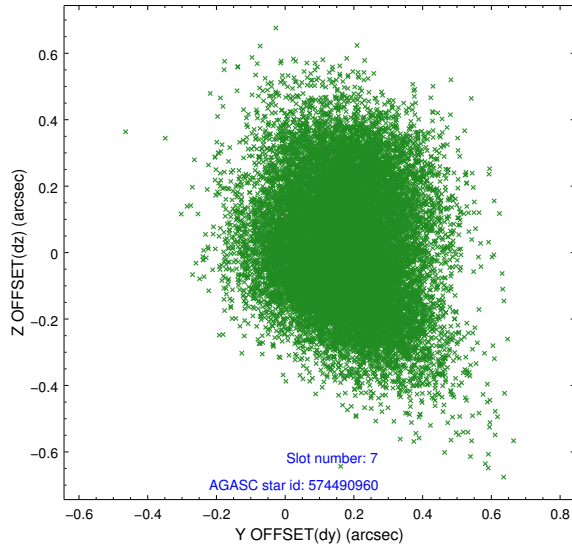
2.4.3 Slot 5



2.4.4 Slot 6

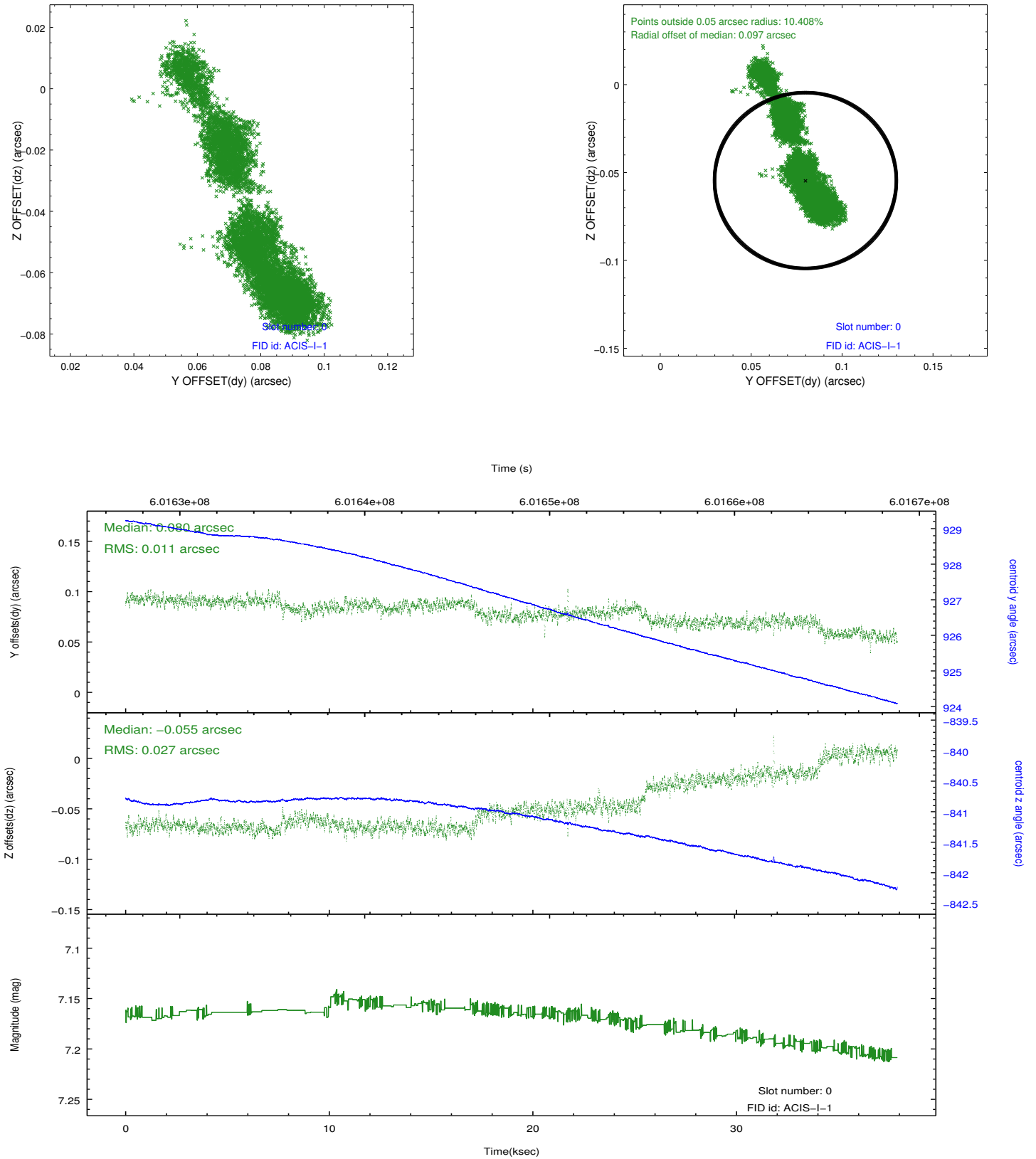


2.4.5 Slot 7

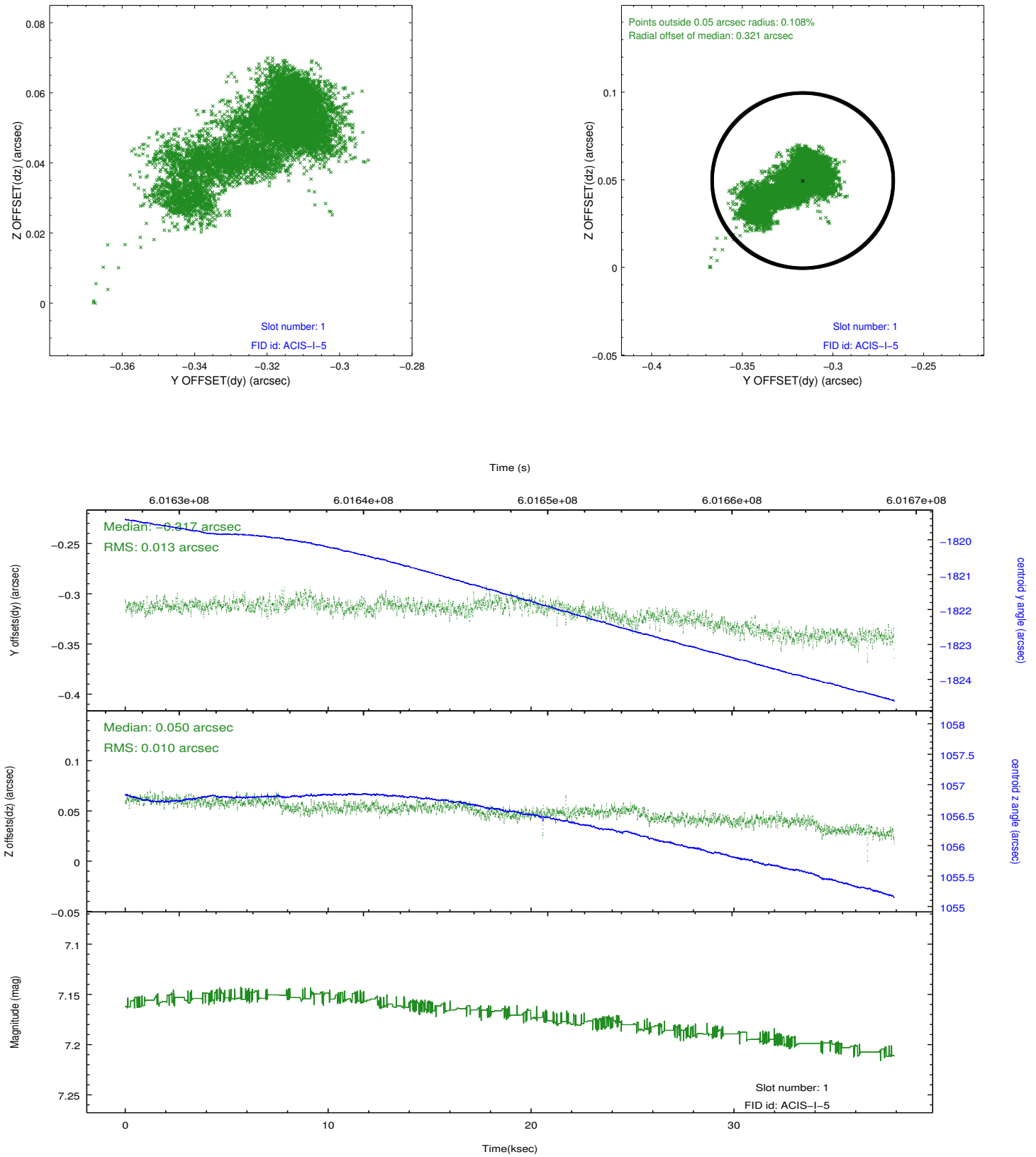


2.5 FID Slots

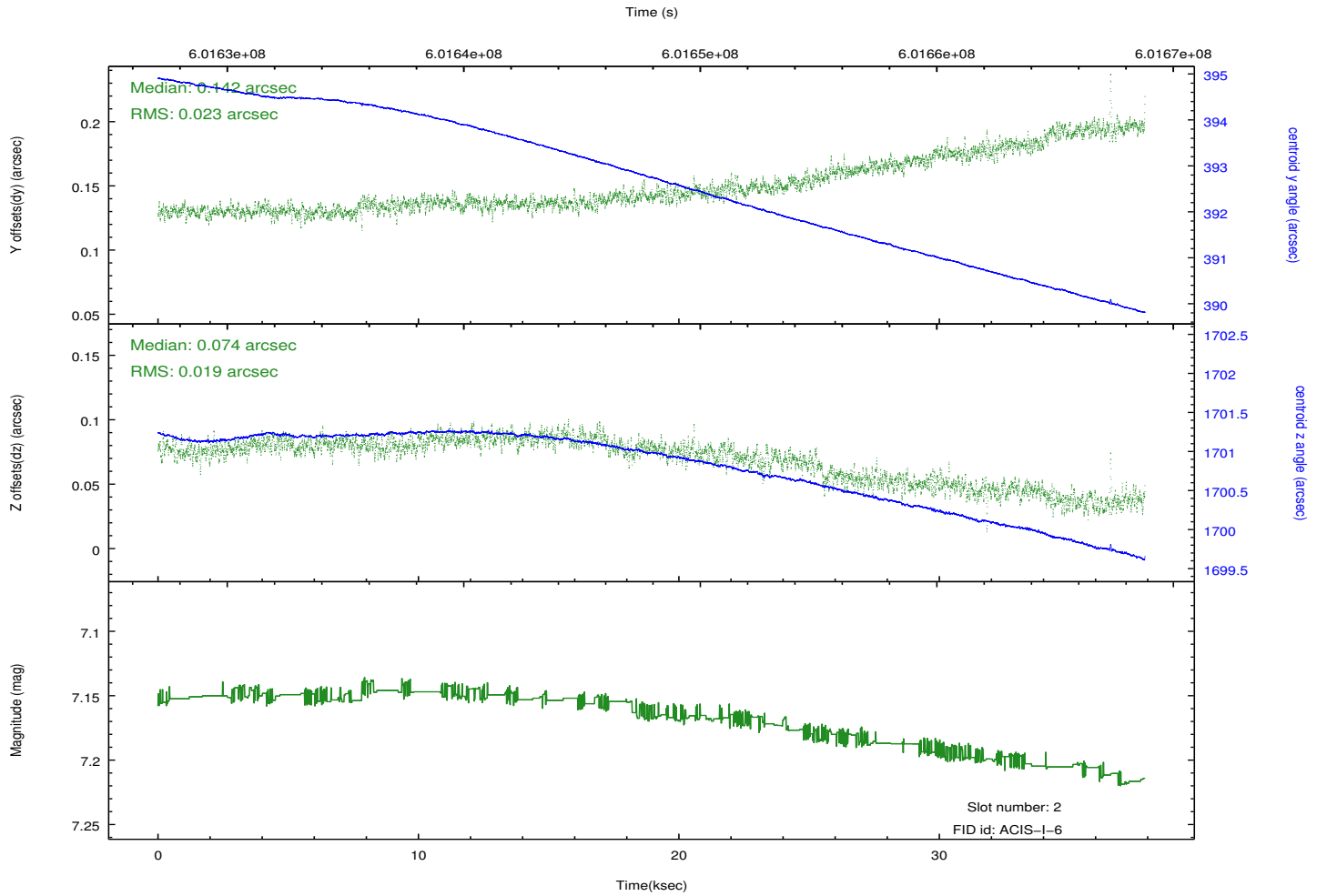
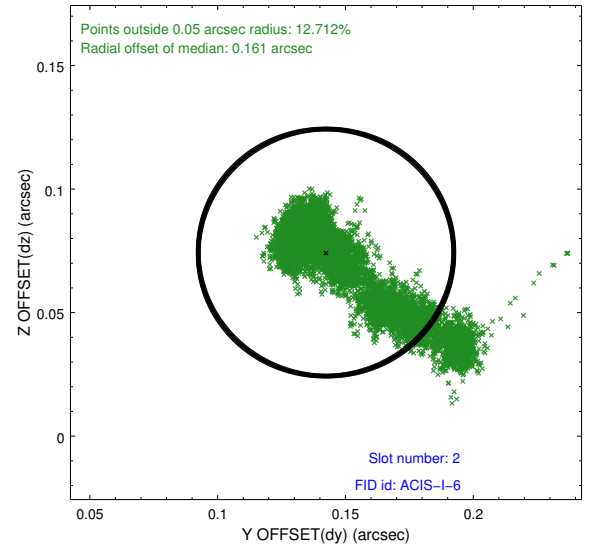
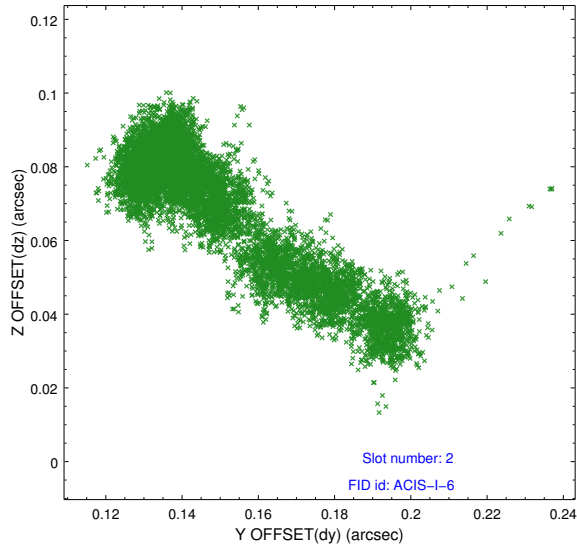
2.5.1 Slot 0



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)	2017.02.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.060459225178

A.2 Comments

The low-limit RMS violations in slots 5 and 6 are acceptable for aspect.