

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 19992 - L2 Version 2
Chandra X-Ray Center

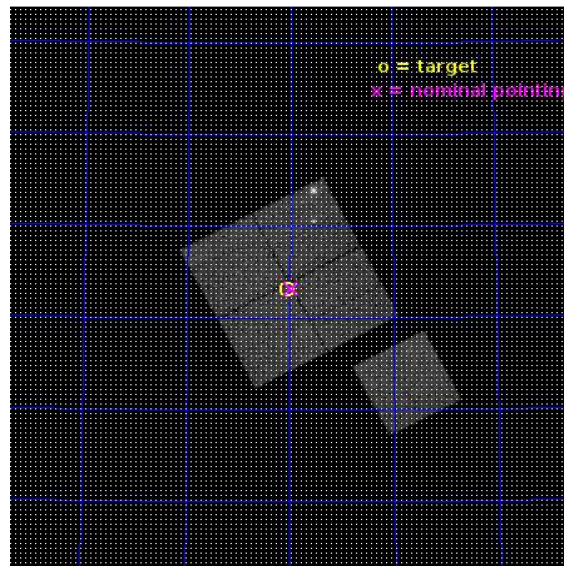
L2 Processing Date : Feb 3 2017

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1 Front

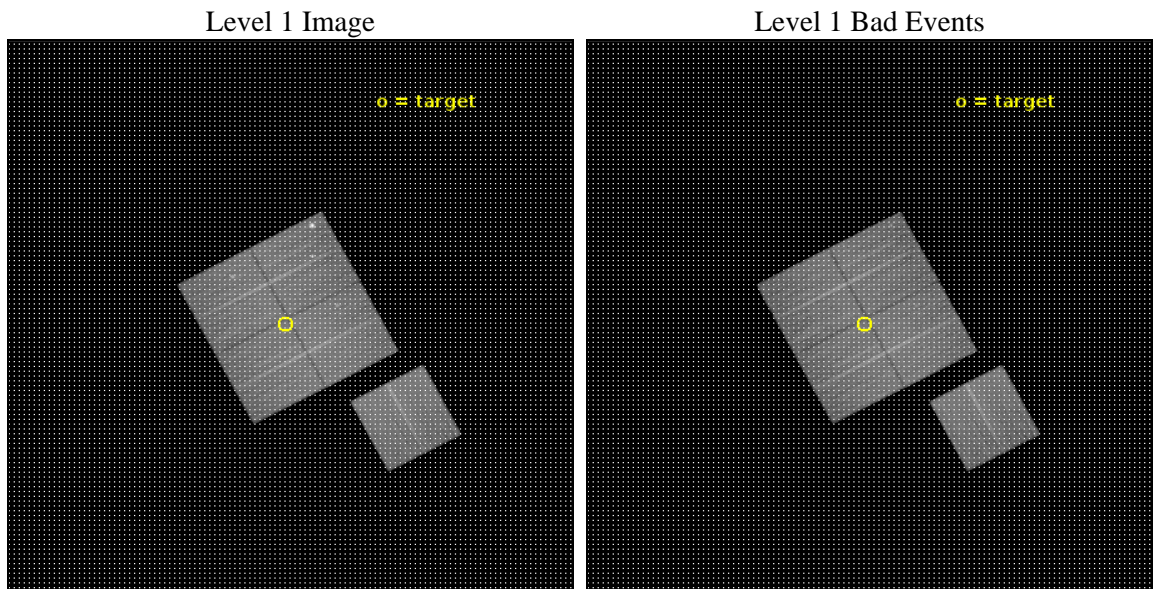
seq_num	601235	Sequence number
obs_id	19992	Observation id
title	To the Edge and Beyond: A Legacy Survey of the Grand Design Spiral M81	Proposal title
observer	Douglas Swartz	Principal investigator
object	M81 S	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	149.015833	Observer's specified target RA [deg]
dec_targ	68.885694	Observer's specified target Dec [deg]
ra_nom	148.99392759137	Nominal RA [deg]
dec_nom	68.886333645657	Nominal Dec [deg]
roll_nom	152.22912316132	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35063.214687109	Sum of GTIs [s]
livetime	34605.087974059	Livetime [s]
ontime0	35056.809416413	Sum of GTIs [s]
ontime1	35059.99151659	Sum of GTIs [s]
ontime2	35056.891466379	Sum of GTIs [s]
ontime3	35063.214687109	Sum of GTIs [s]
ontime6	35059.909456849	Sum of GTIs [s]
l2events	139989	Number of level 2 events



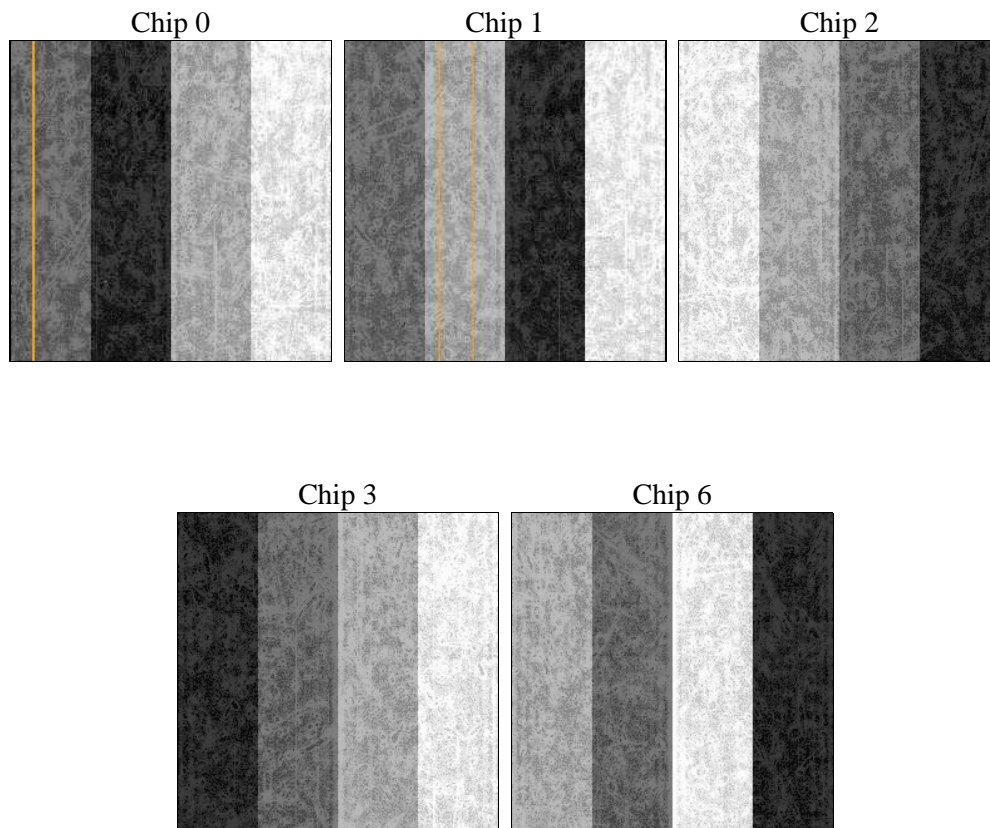
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	35063.214687109	Sum of GTIs [s]
caldbver	4.7.3	 	ontime0	35056.809416413	Sum of GTIs [s]
date	2017-02-04T02:18:11	Date and time of file creation	ontime1	35059.99151659	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	35056.891466379	Sum of GTIs [s]
			ontime3	35063.214687109	Sum of GTIs [s]
			ontime6	35059.909456849	Sum of GTIs [s]
			l1events	1301584	Number of level 1 events

2.1.4 Events

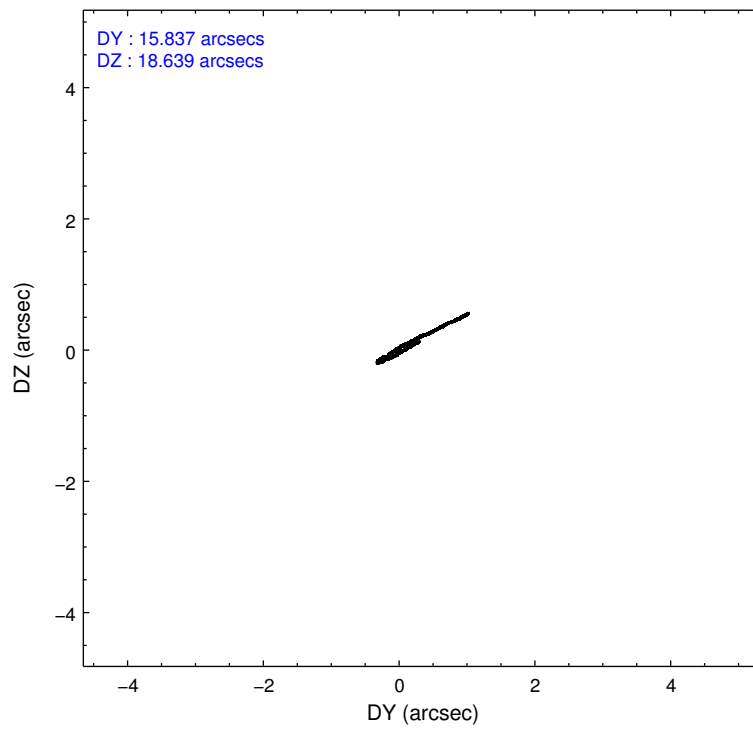
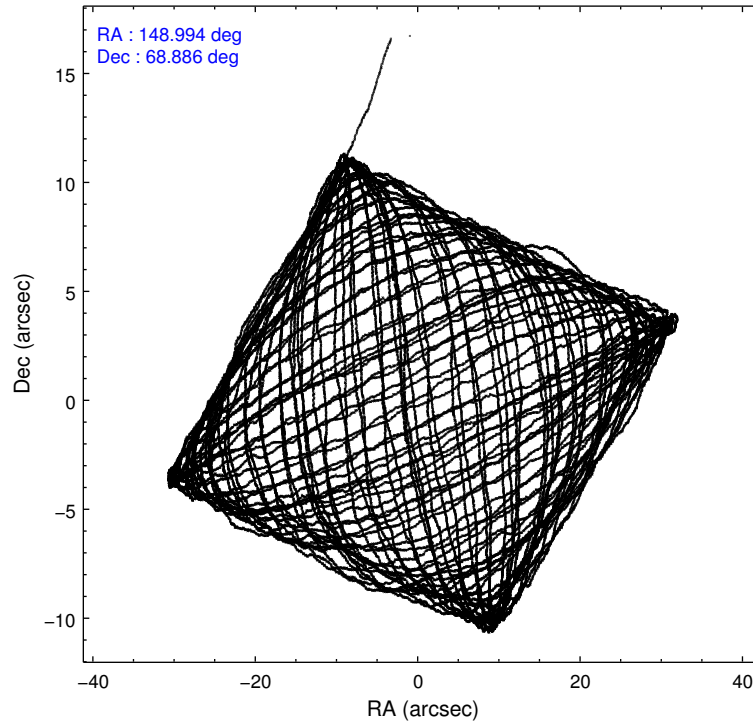
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	270455	244251	272015	255339	259524
rejected events	211727	213455	245927	230200	231793
rejected %	78%	87%	90%	90%	89%

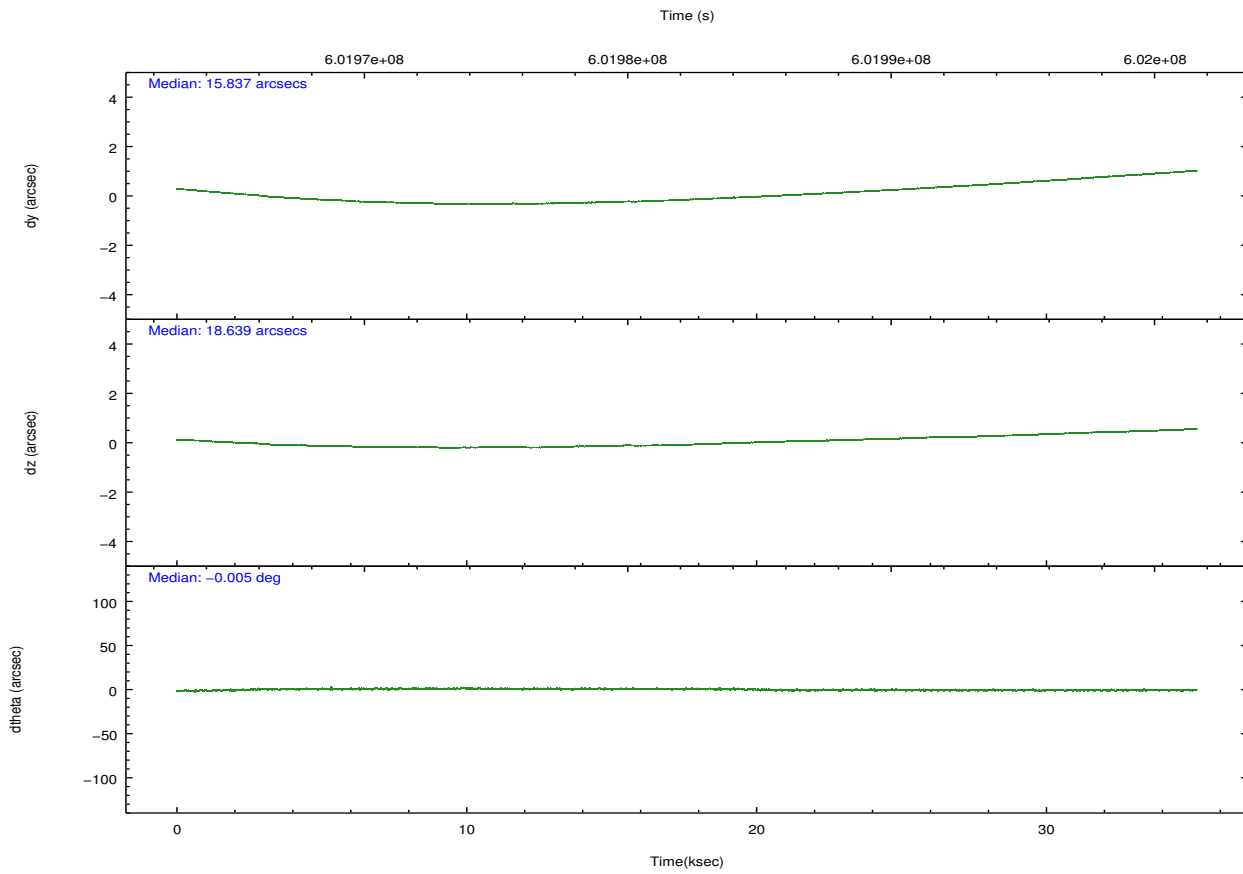
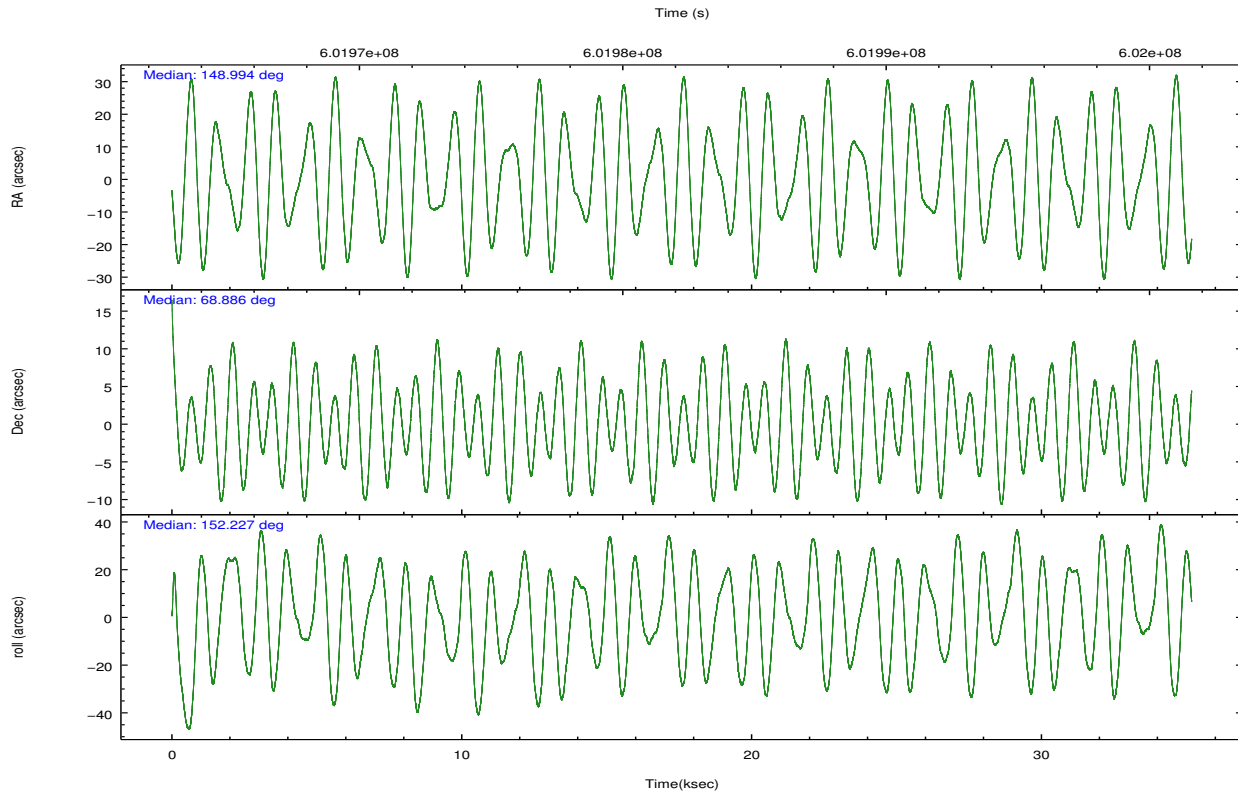
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	33906	11110	9993	8534	8546
	12%	4%	3%	3%	3%
grade 1 events	384	141	210	131	110
	0%	0%	0%	0%	0%
grade 2 events	10375	7173	6047	5595	6991
	3%	2%	2%	2%	2%
grade 3 events	3827	2724	2500	2698	2667
	1%	1%	0%	1%	1%
grade 4 events	3679	2755	2594	2782	2494
	1%	1%	0%	1%	0%
grade 5 events	9995	10346	9343	11647	10855
	3%	4%	3%	4%	4%
grade 6 events	6948	7036	4955	5534	7035
	2%	2%	1%	2%	2%
grade 7 events	201341	202966	236373	218418	220826
	74%	83%	86%	85%	85%

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	149.070512	148.9939275913659	CCD I2 on	Y	Y
[deg] Pointing Dec	68.887488	68.88633364565689	CCD I3 on	Y	Y
[deg] Pointing Roll	151.948994	152.2291231613214	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)	601964844.184000	601963627.64929	CCD S5 on	N	N
Observation start date	2017-01-28T04:26:15	2017-01-28T04:07:07	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	601999844.184000	602000642.45143	On-chip summing requested	N	N
Observation end date	2017-01-28T14:09:35	2017-01-28T14:24:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



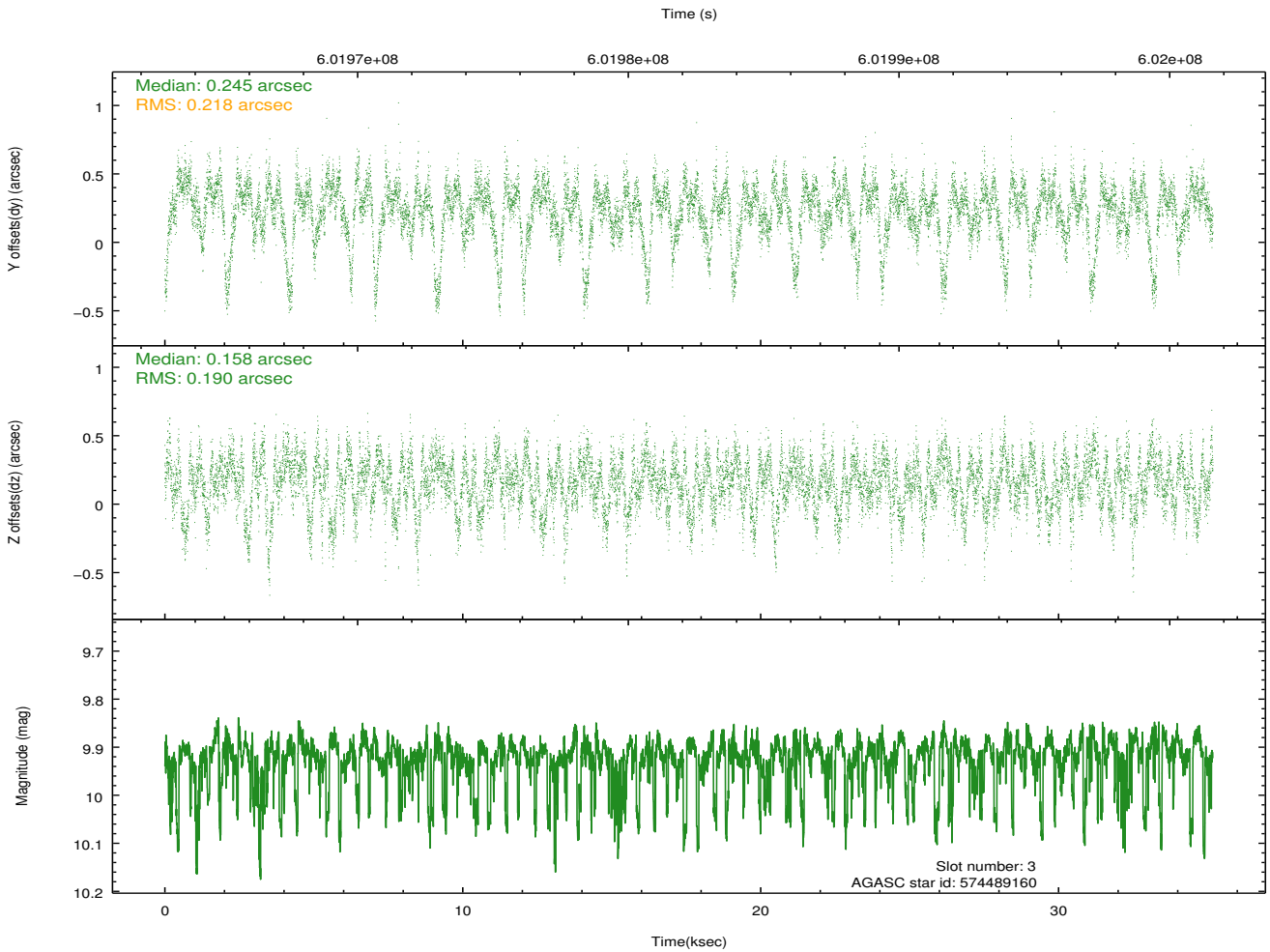
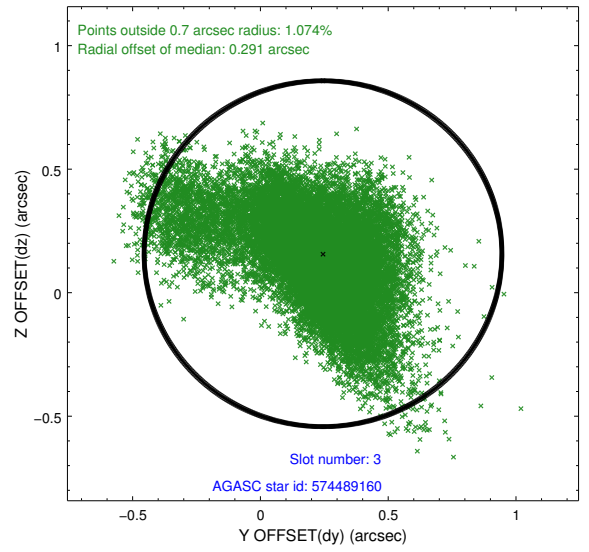
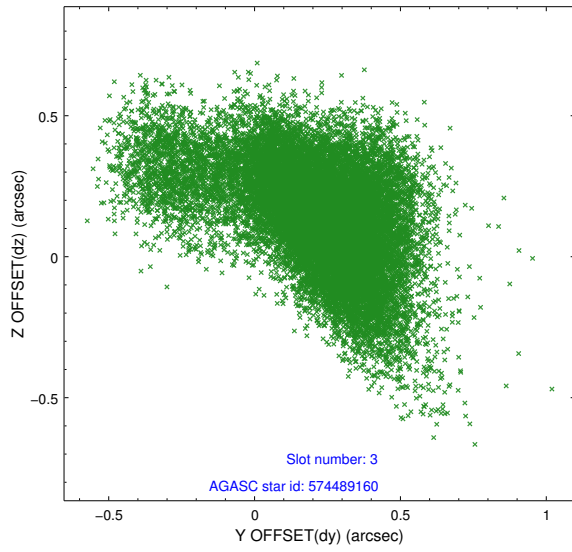


Slot Statistics

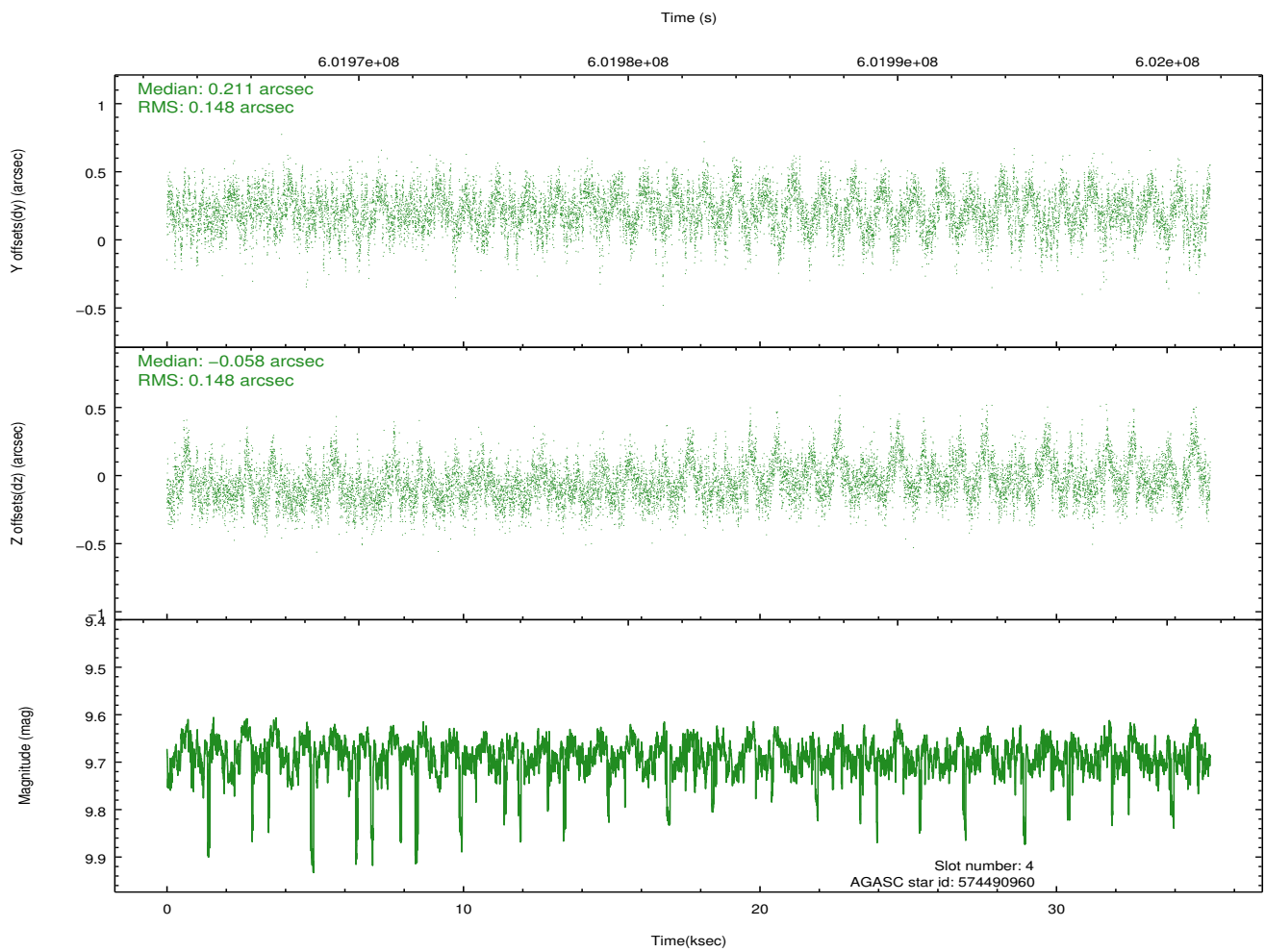
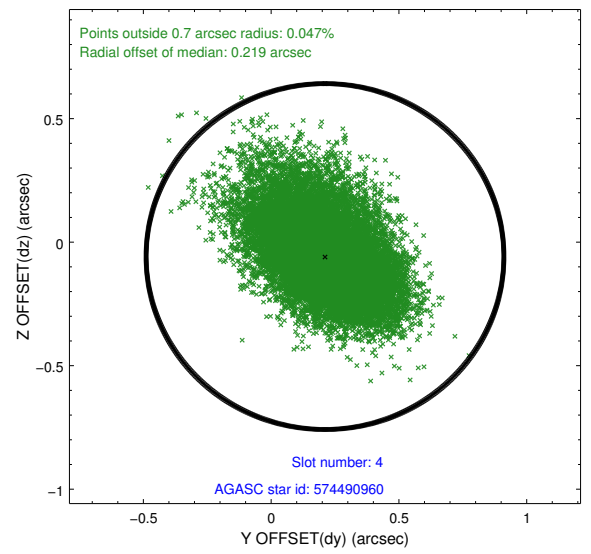
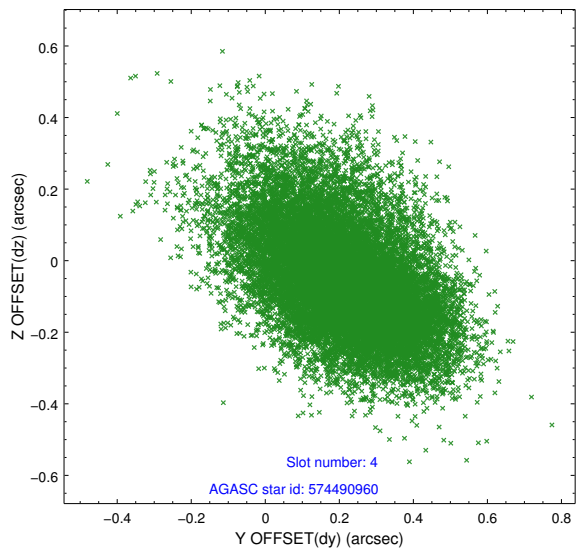
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.27	8581	0.065	-0.007	0.012	0.023	0.000000	0.000000	923.60	-842.35
1	FID		ACIS-I-5	7.28	8581	-0.371	0.027	0.011	0.019	0.000000	0.000000	-1825.02	1055.00
2	FID		ACIS-I-6	7.29	8581	0.216	0.049	0.012	0.023	0.000000	0.000000	389.12	1699.69
3	GUIDE	used	574489160	9.92	17131	0.245	0.158	0.285	0.565	149.677320	68.172146	-1926.26	1887.32
4	GUIDE	used	574490960	9.69	17108	0.211	-0.058	0.220	0.370	148.185918	69.658768	2286.65	-1936.34
5	GUIDE	used	574491280	9.28	17144	-0.053	-0.019	0.249	0.373	148.611567	69.450135	1466.53	-1514.48
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	used	574500920	10.02	17122	-0.391	-0.132	0.309	0.591	147.014605	68.742334	2142.77	1683.05

2.4 Star Slots

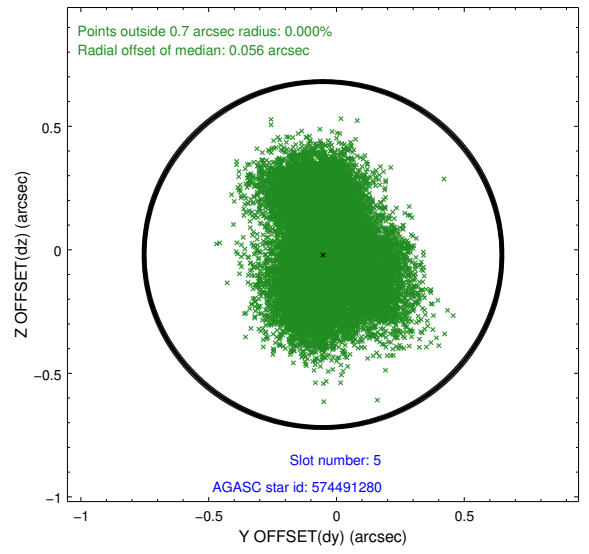
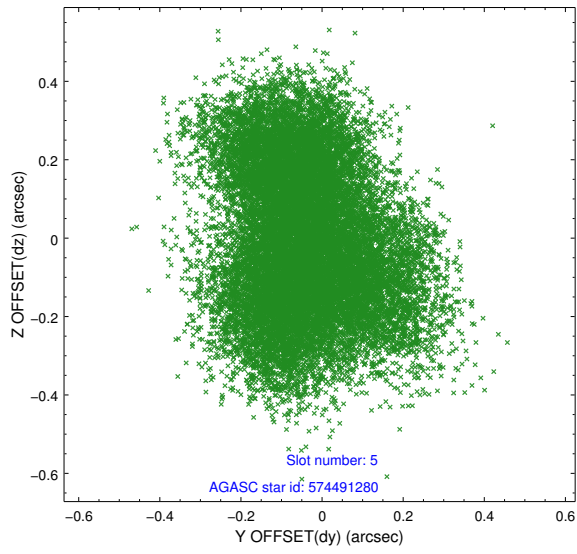
2.4.1 Slot 3



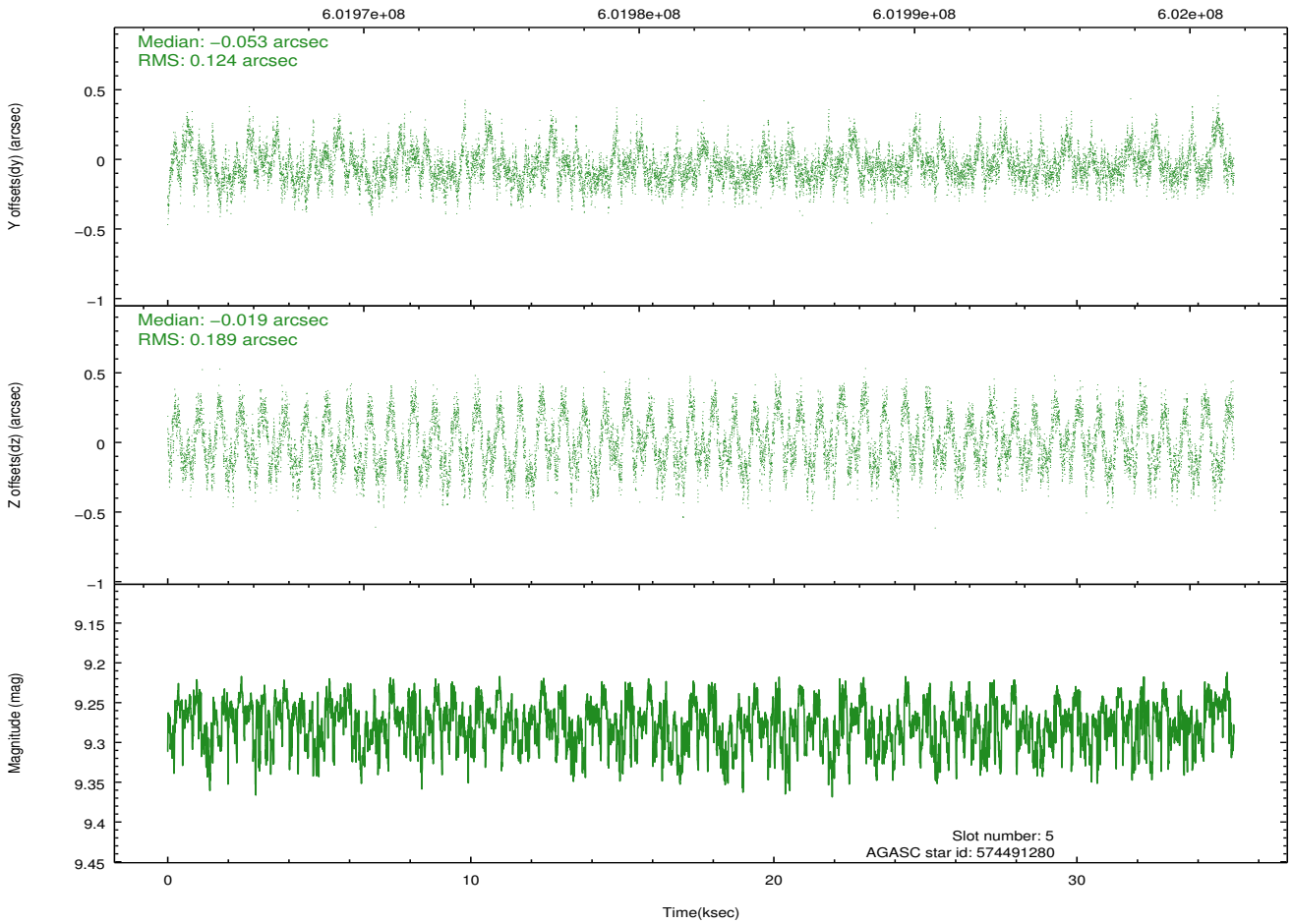
2.4.2 Slot 4



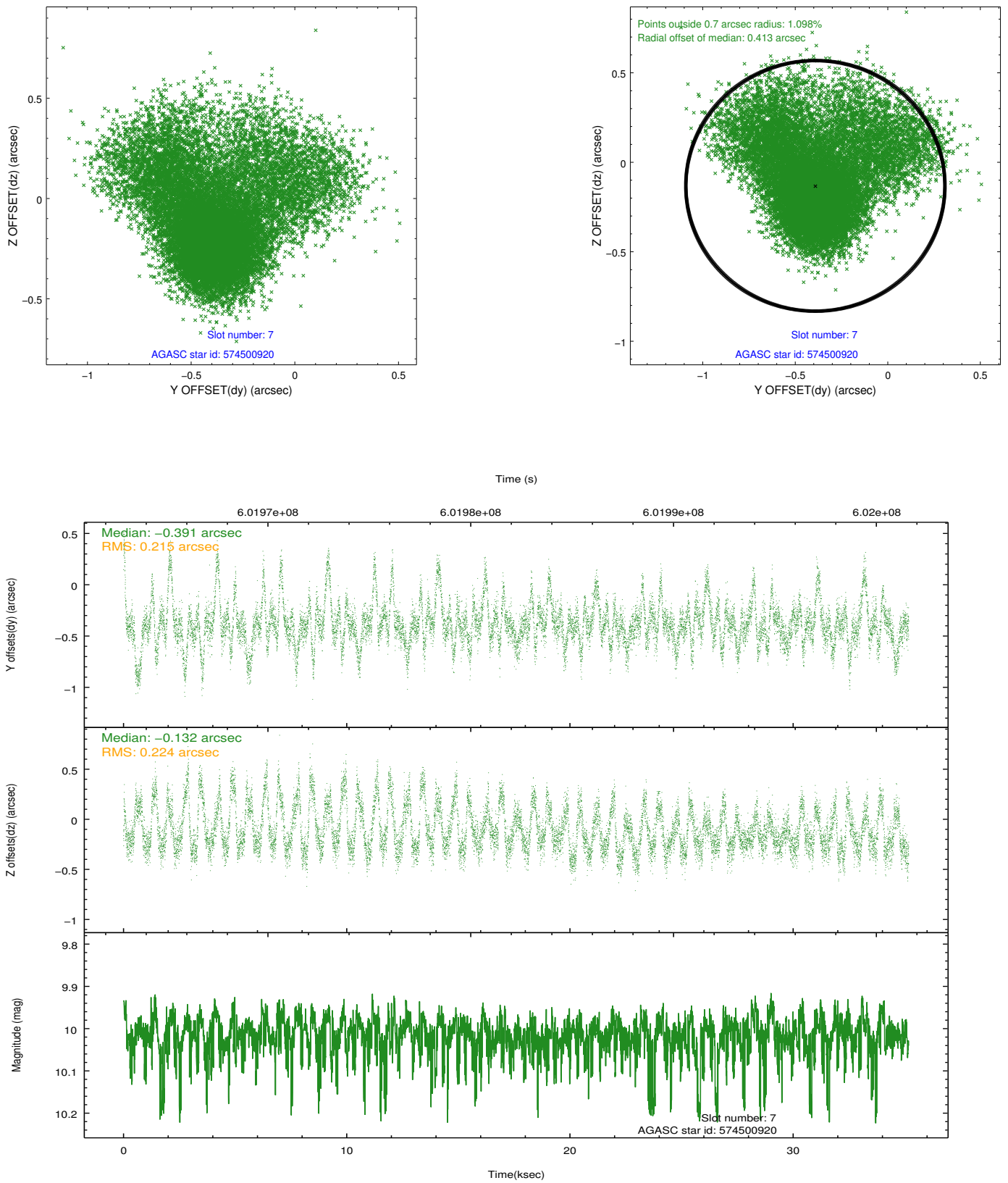
2.4.3 Slot 5



Time (s)

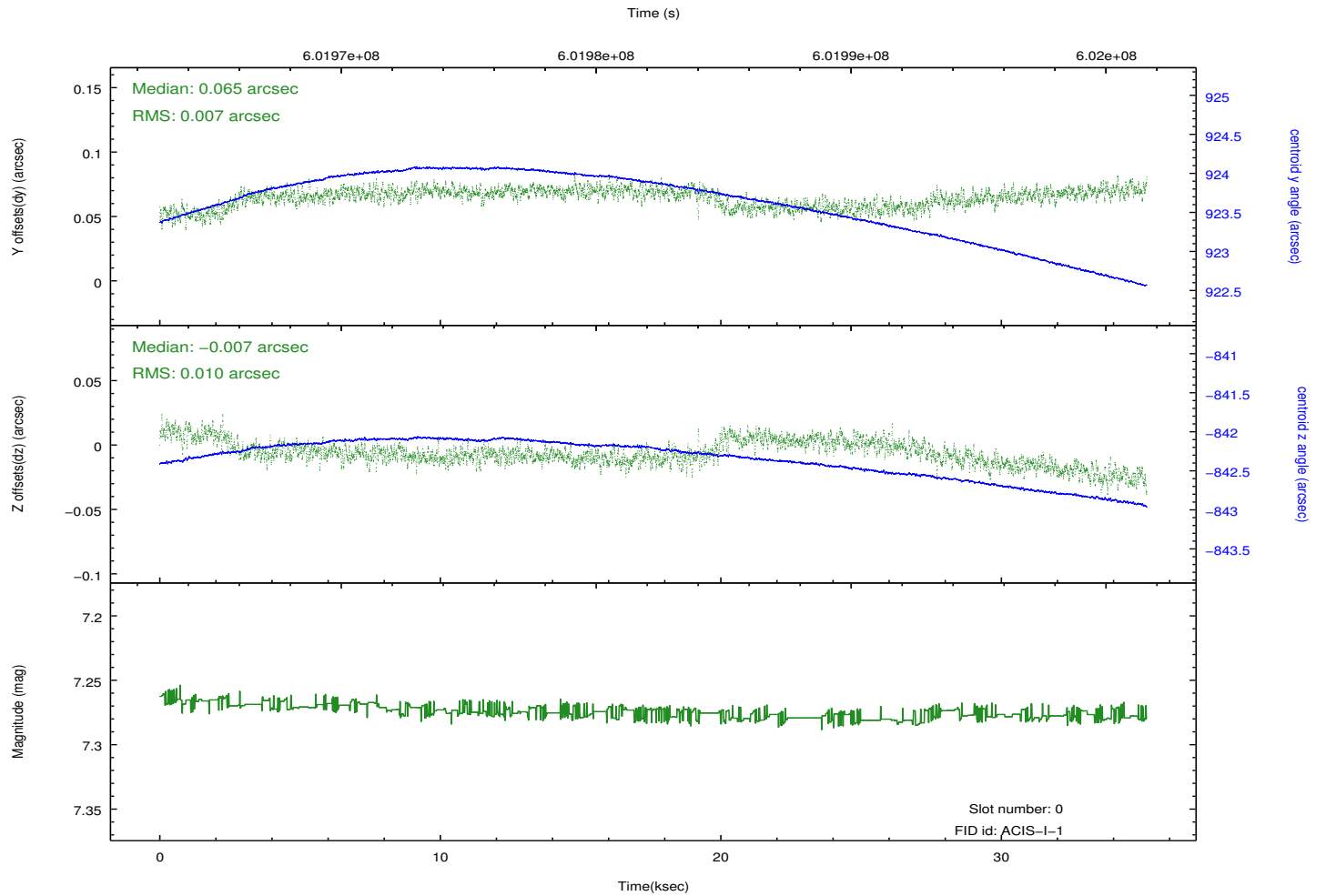
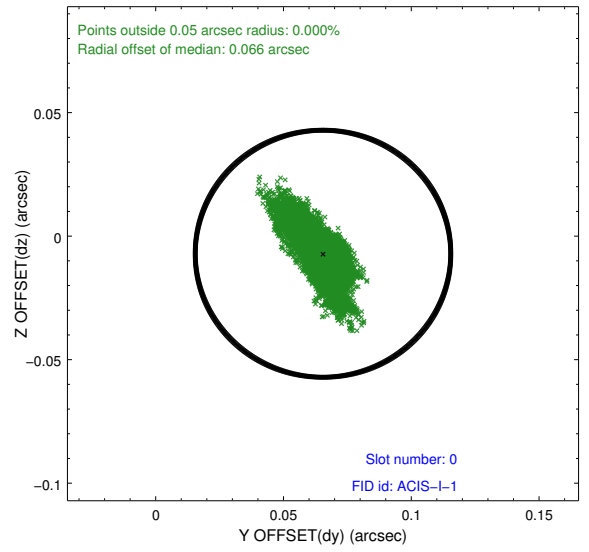
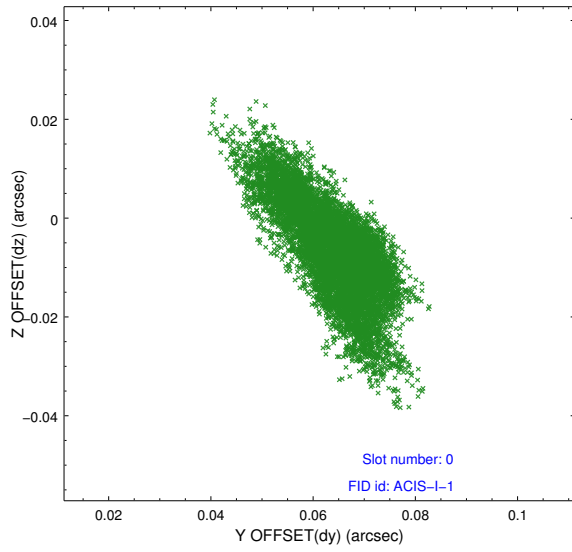


2.4.4 Slot 7

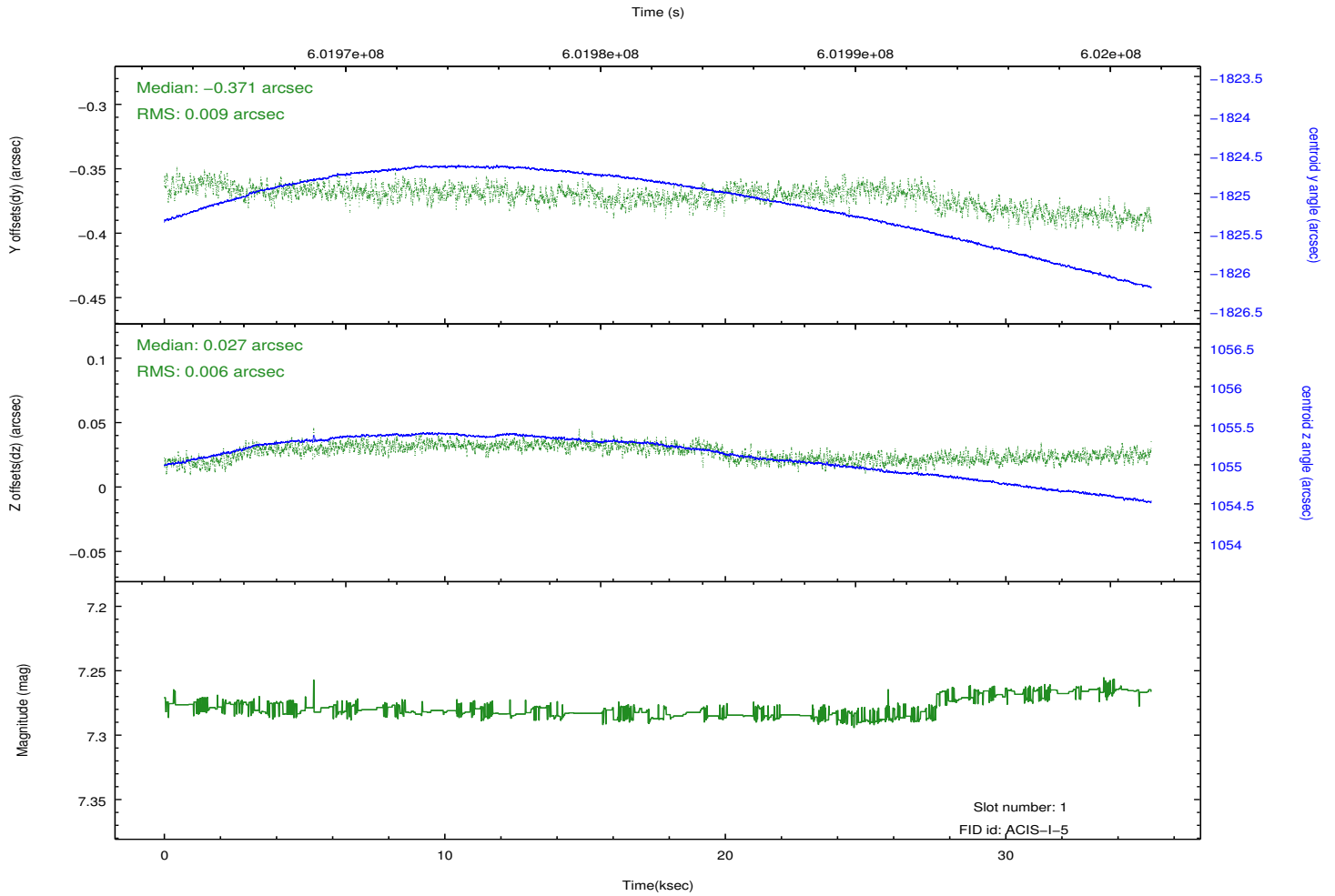
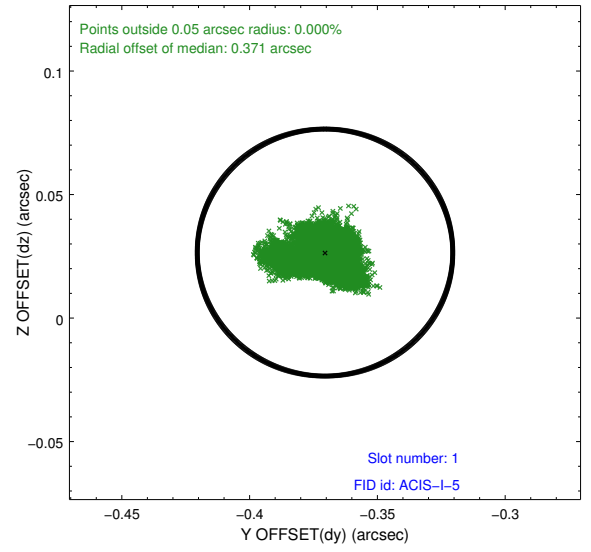
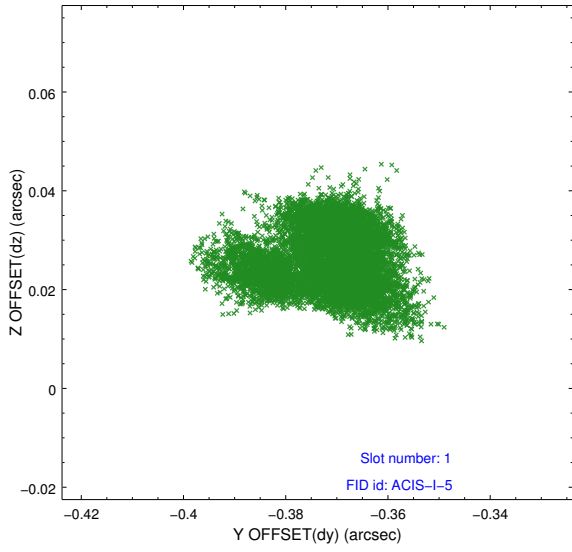


2.5 FID Slots

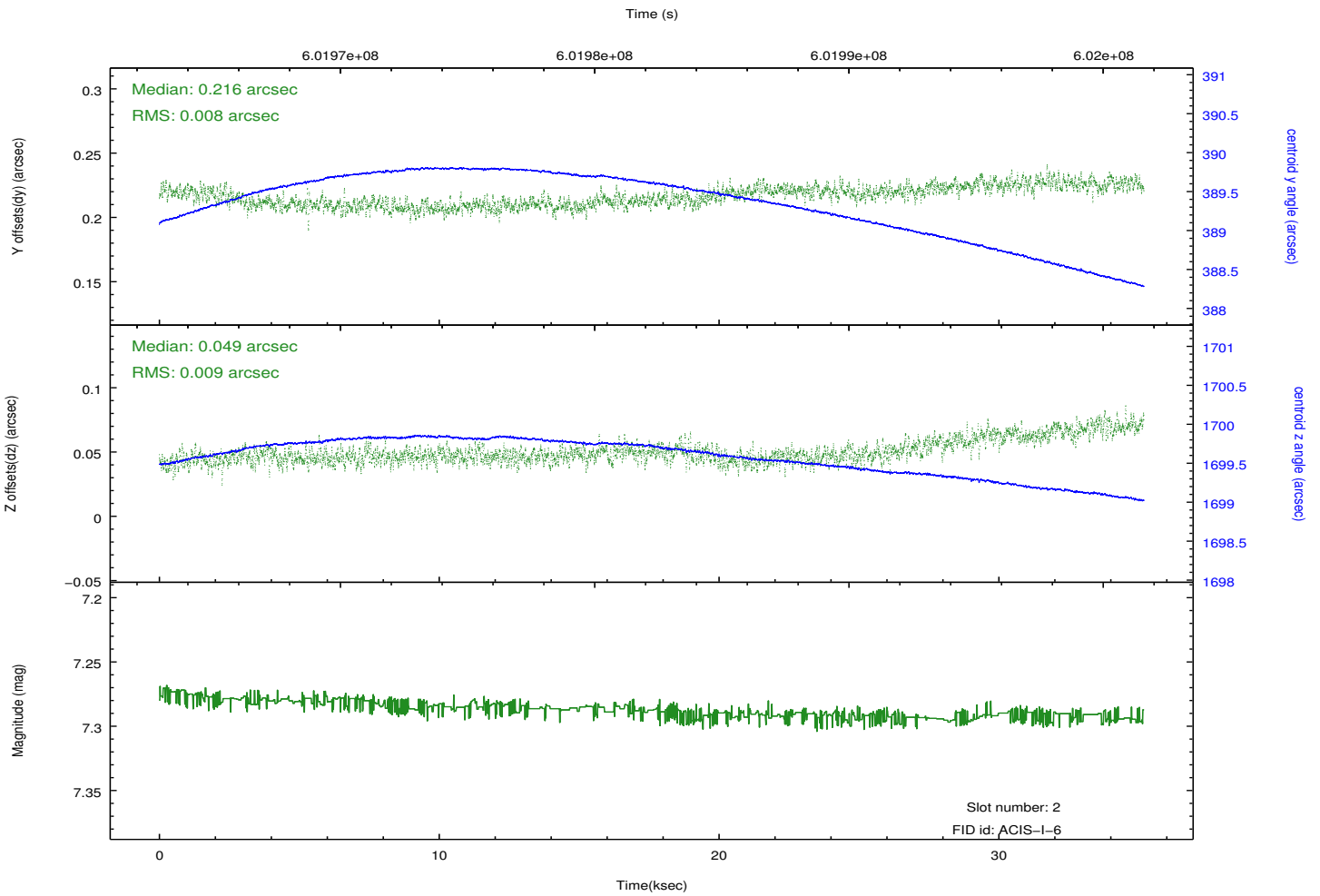
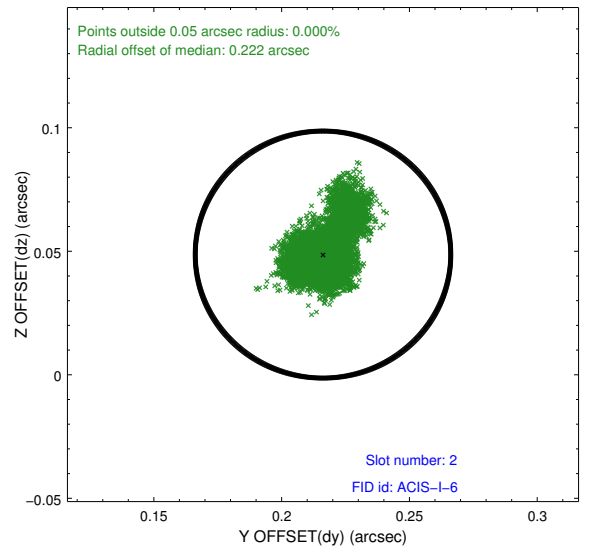
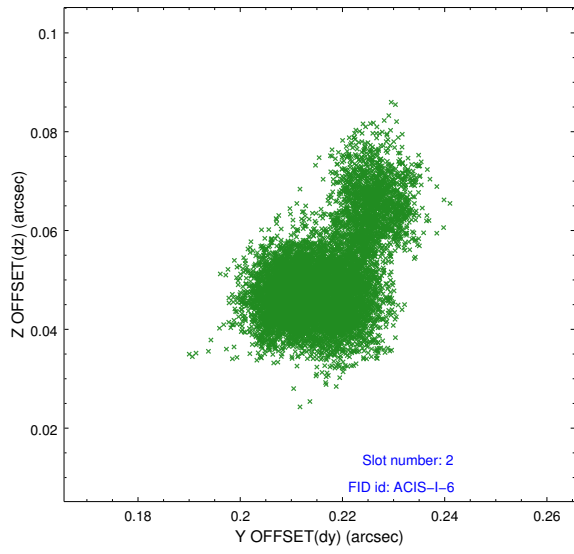
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2017.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.063214687109

A.2 Comments

The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.