

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18052 - L2 Version 2
Chandra X-Ray Center

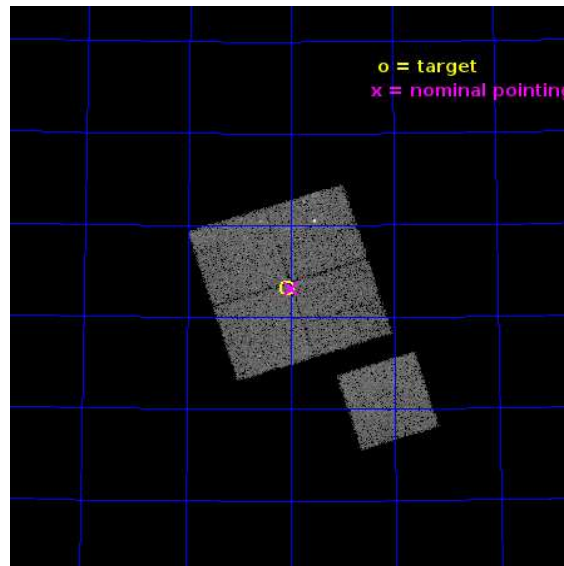
L2 Processing Date : Feb 2 2016

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1 Front

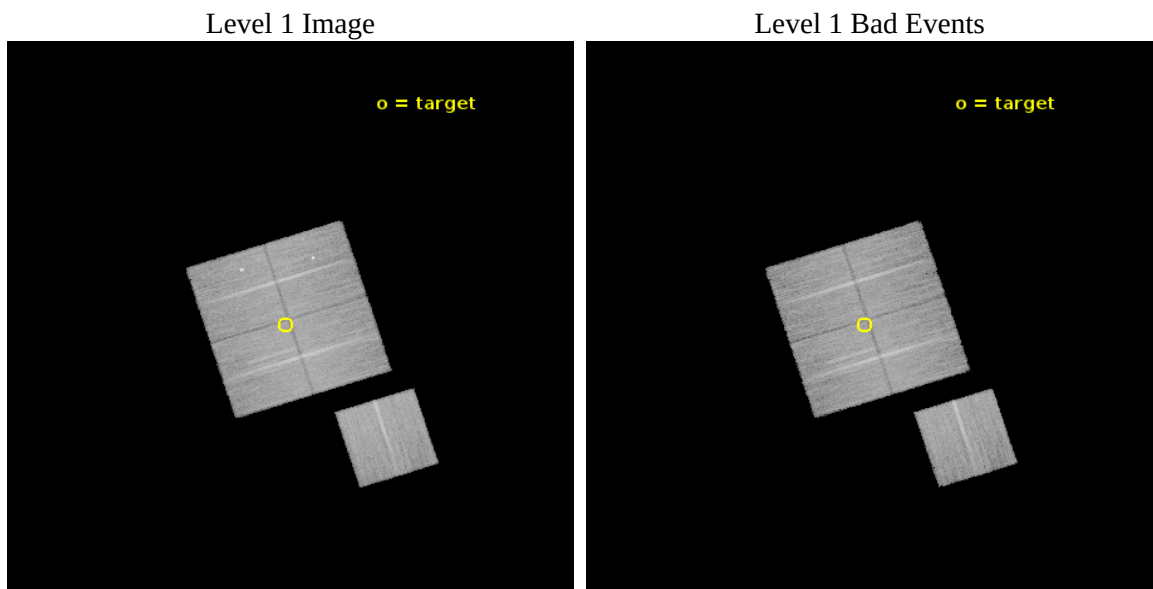
seq_num	601235	Sequence number
obs_id	18052	Observation id
title	To the Edge and Beyond: A Legacy Survey of the Grand Design Spiral M81	Proposal title
observer	Douglas Swartz	Principal investigator
object	M81 S	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	149.015833	Observer's specified target RA [deg]
dec_targ	68.885694	Observer's specified target Dec [deg]
ra_nom	148.99762628382	Nominal RA [deg]
dec_nom	68.88525102952	Nominal Dec [deg]
roll_nom	162.24969916321	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20468.372664571	Sum of GTIs [s]
livetime	20200.938307111	Livetime [s]
ontime0	20461.967393994	Sum of GTIs [s]
ontime1	20471.431654811	Sum of GTIs [s]
ontime2	20471.472705007	Sum of GTIs [s]
ontime3	20468.372664571	Sum of GTIs [s]
ontime6	20471.349584937	Sum of GTIs [s]
l2events	60537	Number of level 2 events



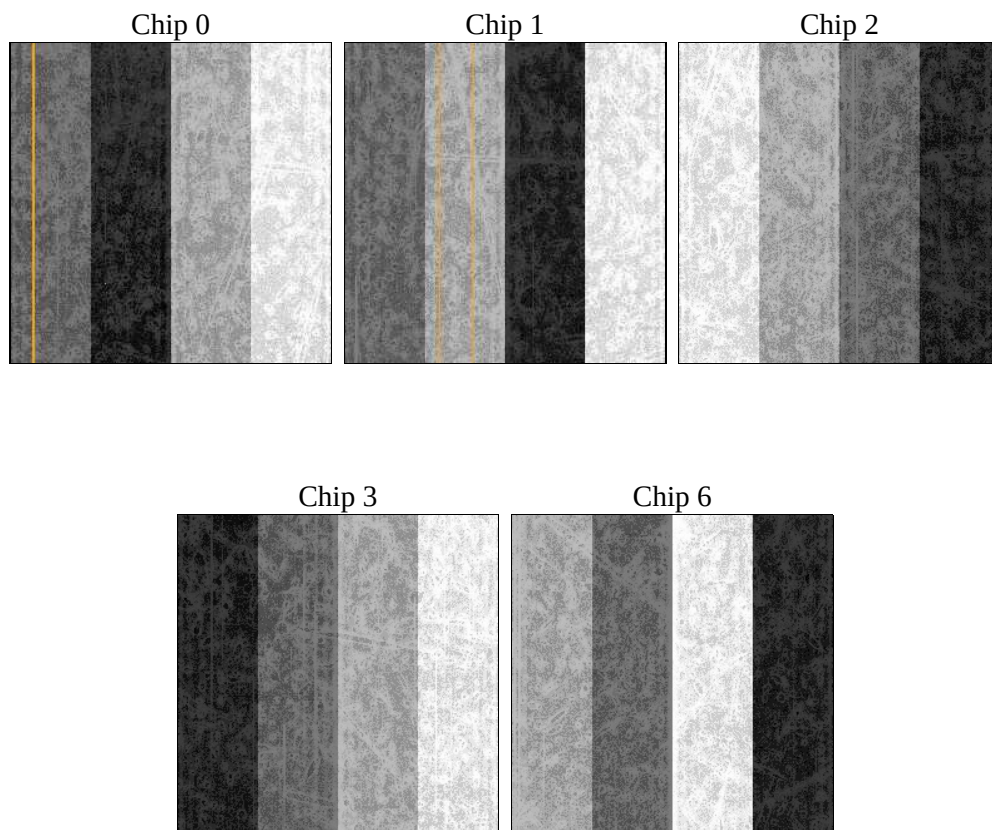
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20697.987000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	20468.372664571	Sum of GTIs [s]
caldsver	4.7.0	 	ontime0	20461.967393994	Sum of GTIs [s]
date	2016-02-02T16:42:36	Date and time of file creation	ontime1	20471.431654811	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20471.472705007	Sum of GTIs [s]
			ontime3	20468.372664571	Sum of GTIs [s]
			ontime6	20471.349584937	Sum of GTIs [s]
			l1events	626880	Number of level 1 events

2.1.4 Events

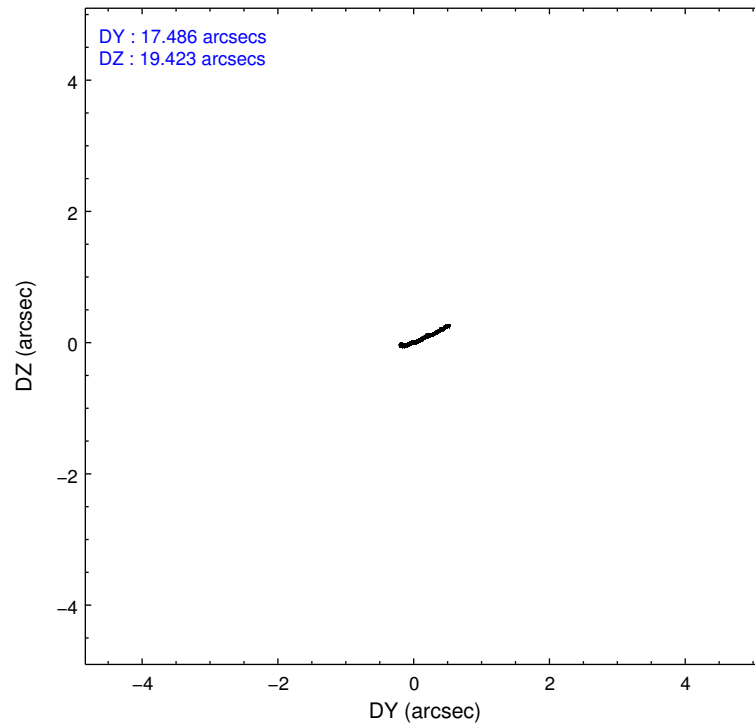
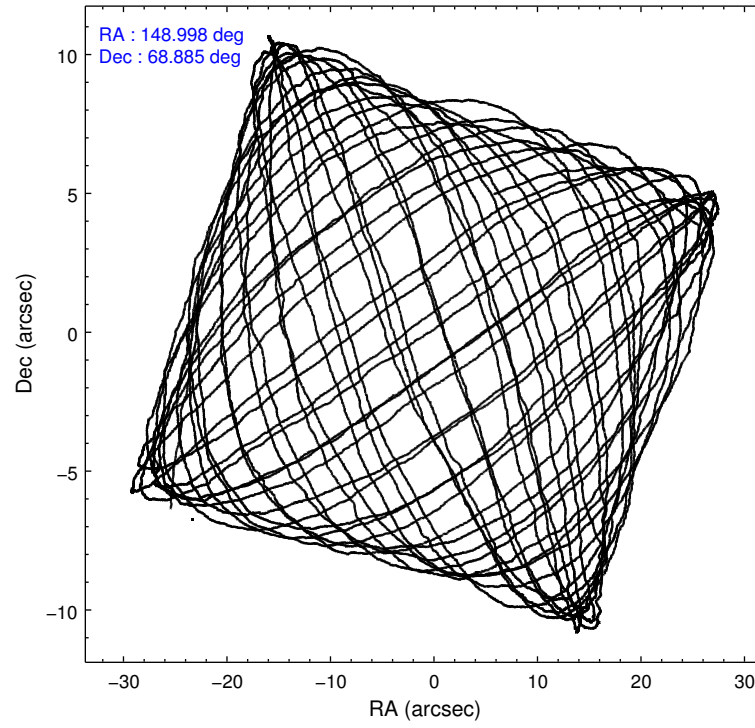
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	120606	120253	128205	127487	130329
rejected events	104422	103797	115312	114453	116380
rejected %	86%	86%	89%	89%	89%

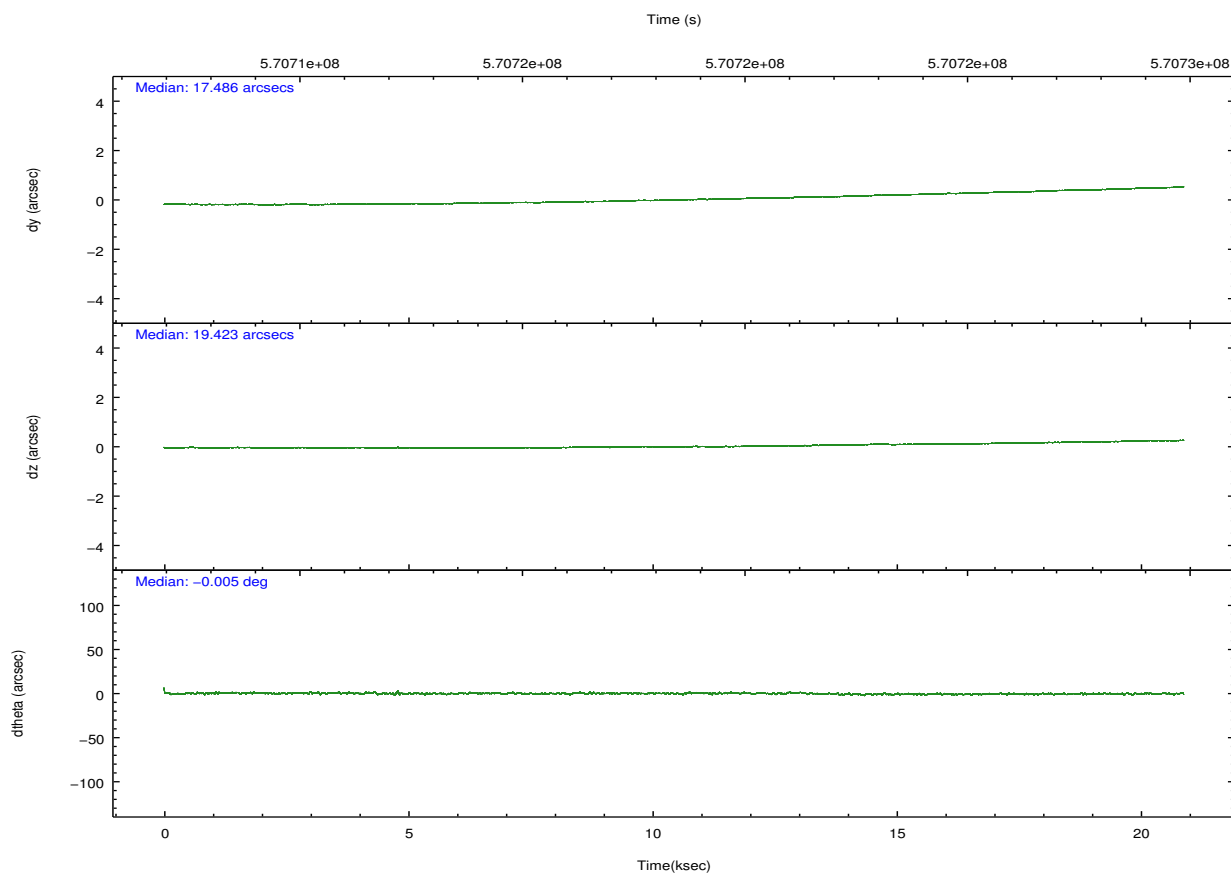
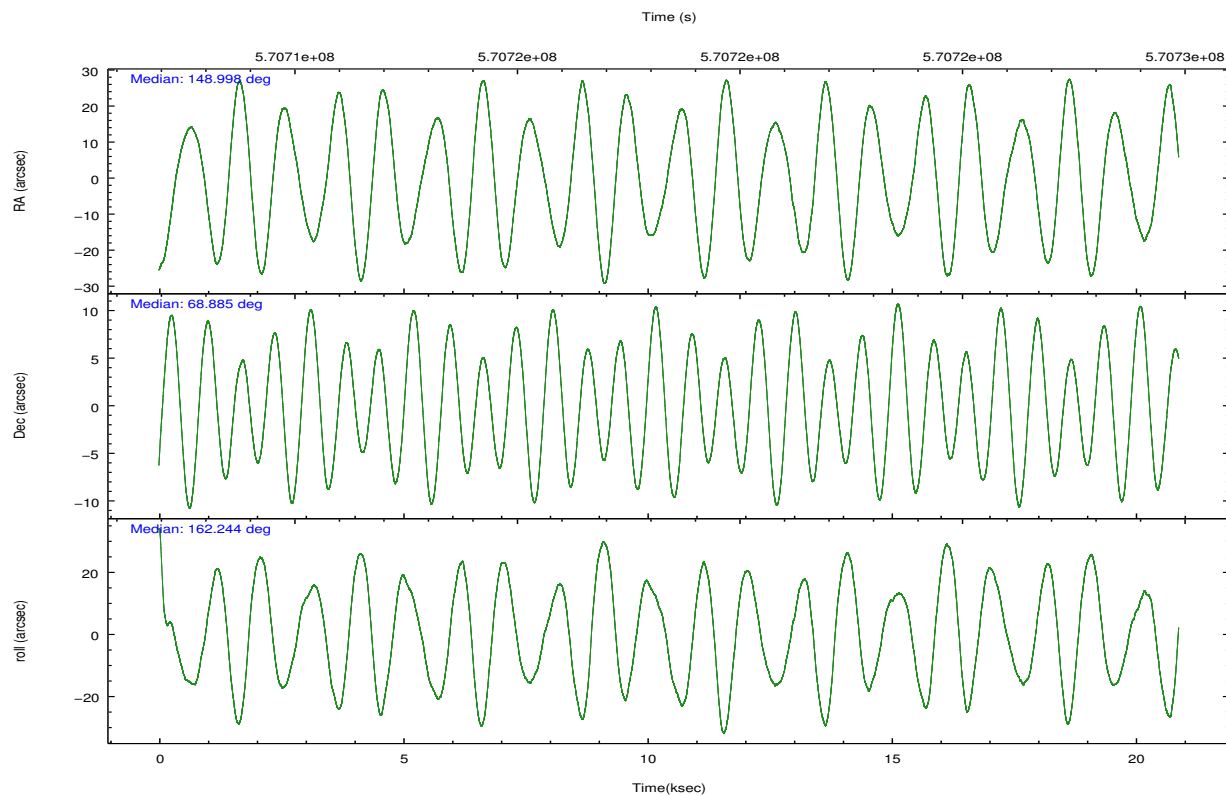
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	6582	6213	4577	4411	4290
	5%	5%	3%	3%	3%
grade 1 events	76	69	73	90	54
	0%	0%	0%	0%	0%
grade 2 events	3654	3613	3036	2886	3429
	3%	3%	2%	2%	2%
grade 3 events	1514	1476	1334	1437	1291
	1%	1%	1%	1%	0%
grade 4 events	1360	1444	1326	1425	1330
	1%	1%	1%	1%	1%
grade 5 events	5272	5565	4941	6164	5486
	4%	4%	3%	4%	4%
grade 6 events	3078	3717	2626	2879	3615
	2%	3%	2%	2%	2%
grade 7 events	99070	98156	110292	108195	110834
	82%	81%	86%	84%	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	149.072446	148.997626283815	CCD I2 on	Y	Y
[deg] Pointing Dec	68.891174	68.88525102951988	CCD I3 on	Y	Y
[deg] Pointing Roll	161.971211	162.2496991632141	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)	570708135.184000	570707552.15645	CCD S5 on	N	N
Observation start date	2016-02-01T10:01:07	2016-02-01T09:52:32	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	570728833.184000	570729059.7326699	On-chip summing requested	N	N
Observation end date	2016-02-01T15:46:05	2016-02-01T15:50:59	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



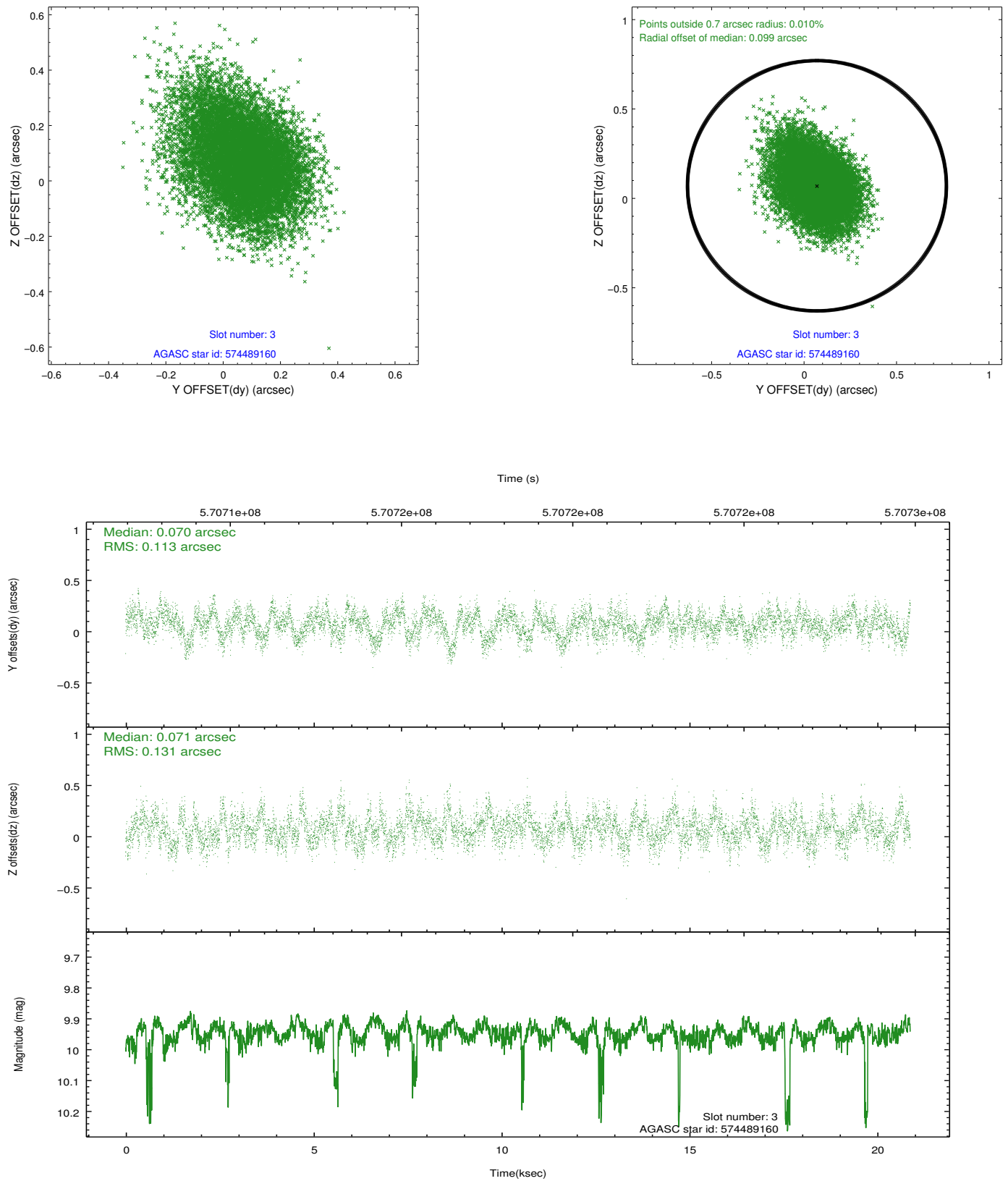


Slot Statistics

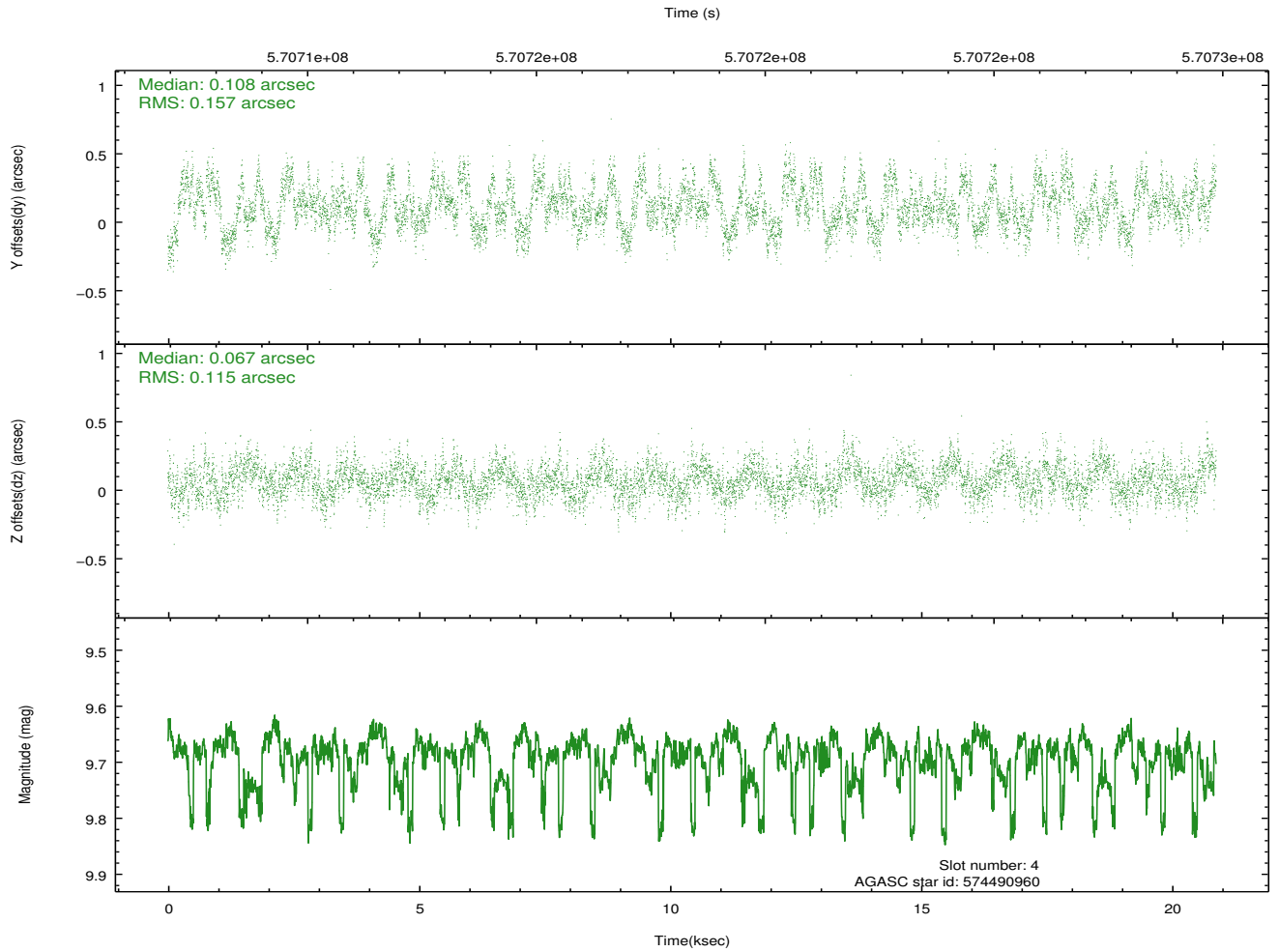
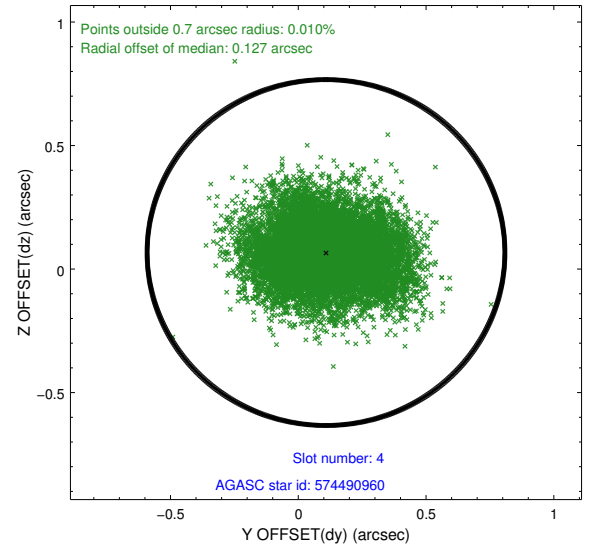
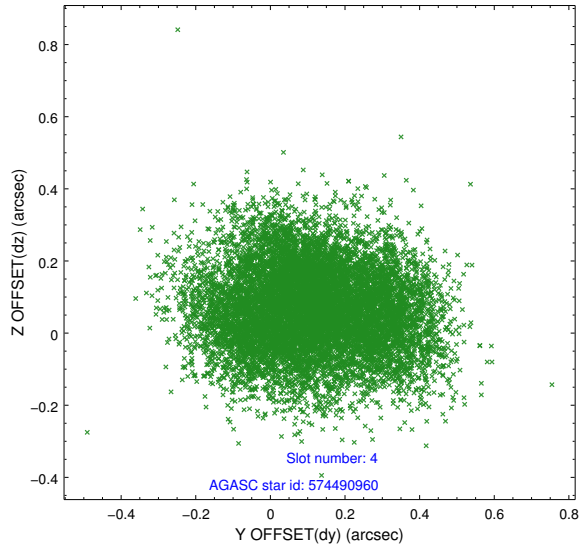
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.28	5094	-0.052	-0.048	0.011	0.017	0.000000	0.000000	921.85	-843.17
1	FID		ACIS-I-4	7.21	5093	0.438	0.082	0.011	0.018	0.000000	0.000000	2142.37	1056.74
2	FID		ACIS-I-5	7.27	5093	-0.484	0.036	0.008	0.014	0.000000	0.000000	-1826.47	1054.53
3	GUIDE	used	574489160	9.95	10156	0.070	0.071	0.184	0.299	149.677320	68.172146	-1570.32	2207.02
4	GUIDE	used	574490960	9.69	10125	0.108	0.067	0.213	0.329	148.185918	69.658768	1913.09	-2291.02
5	GUIDE	used	574491280	9.31	10177	-0.022	0.120	0.233	0.370	148.611567	69.450135	1179.07	-1733.20
6	GUIDE	used	574498696	9.01	10180	-0.172	-0.297	0.195	0.307	146.881317	68.486979	2315.63	2229.34
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

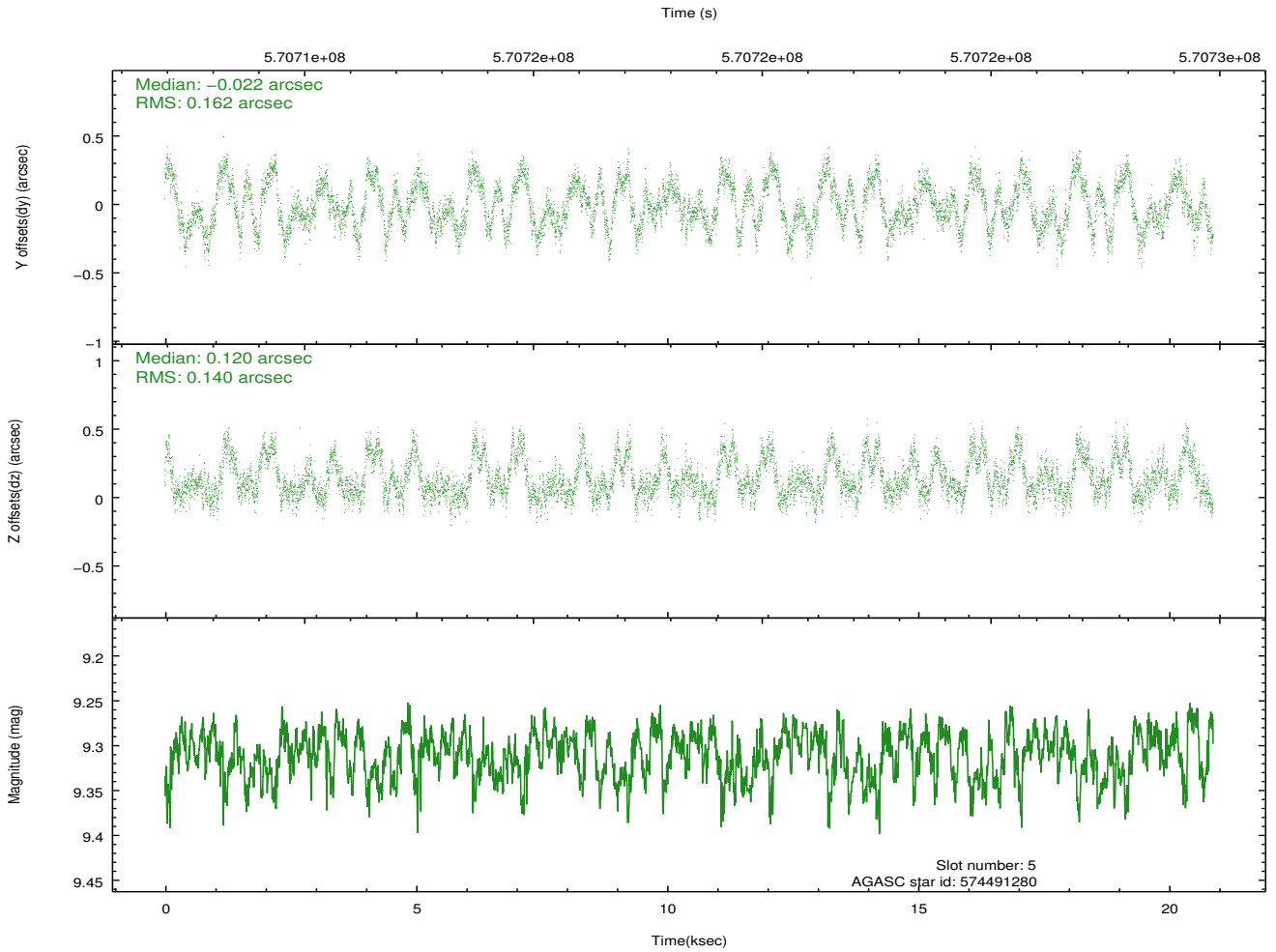
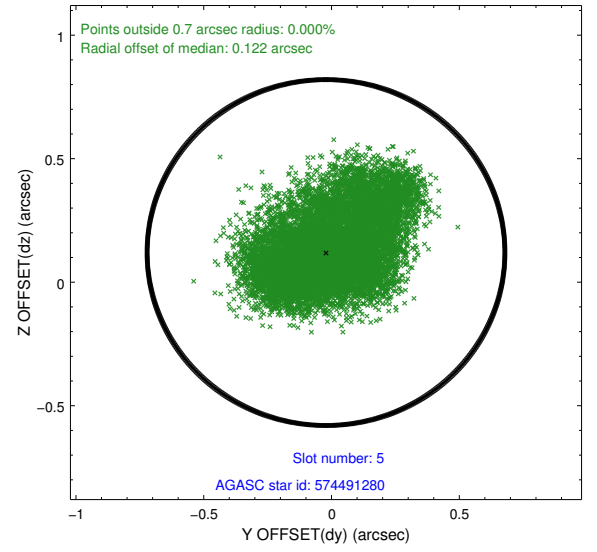
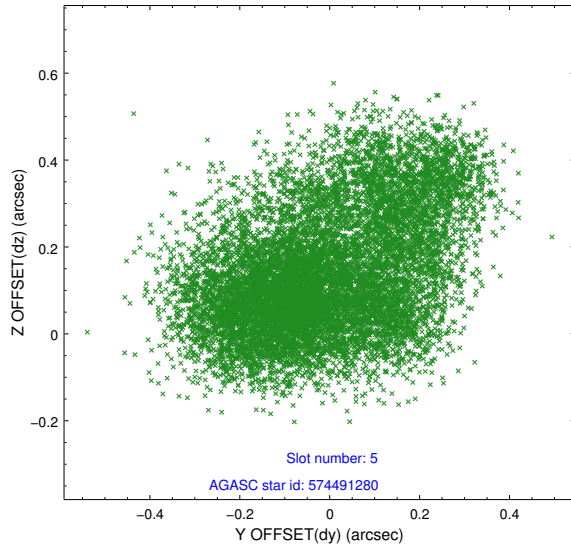
2.4.1 Slot 3



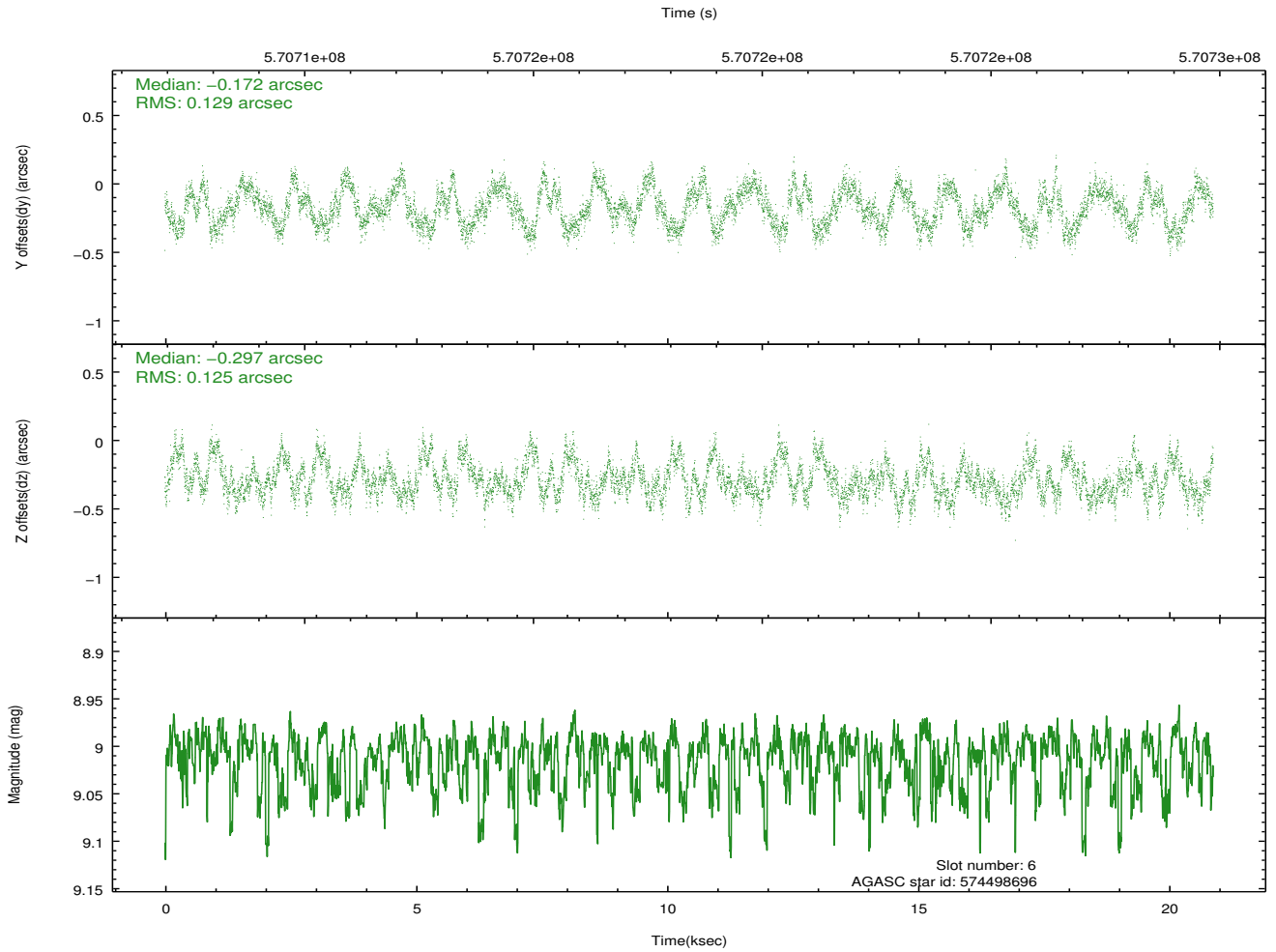
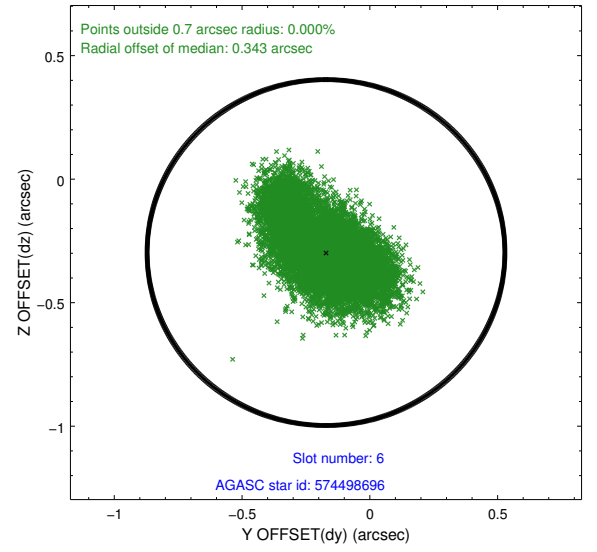
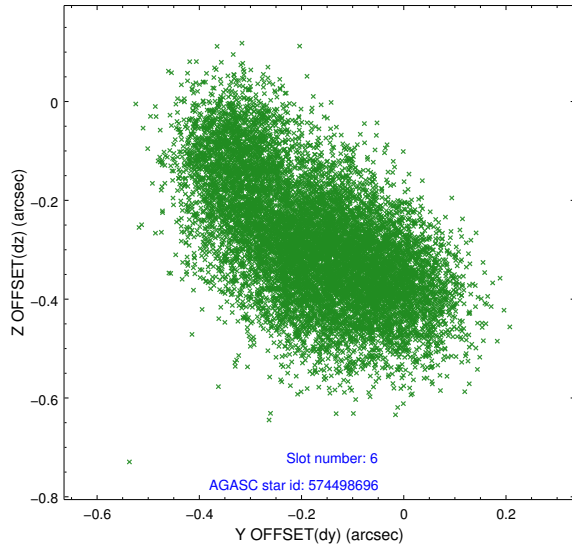
2.4.2 Slot 4



2.4.3 Slot 5

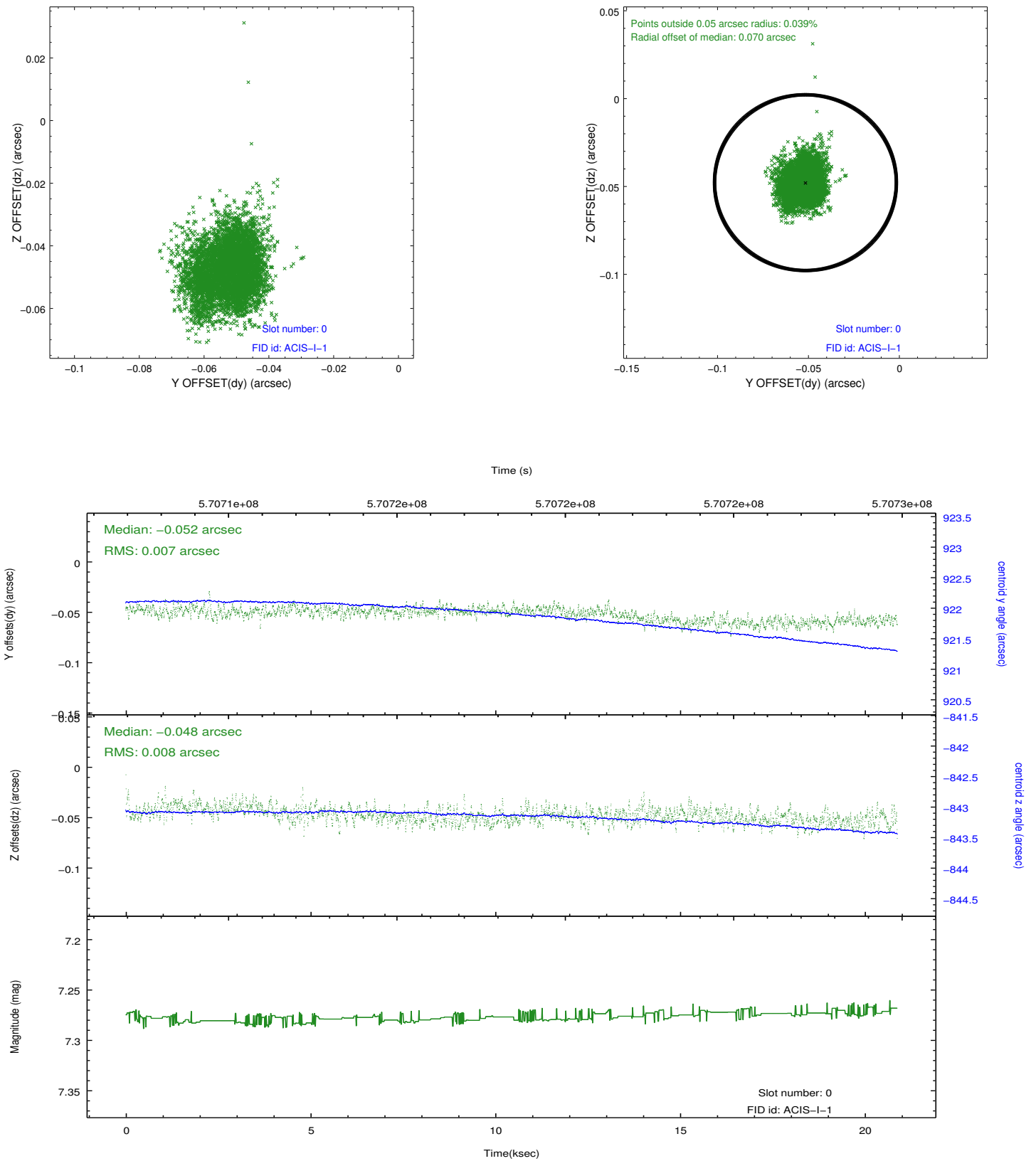


2.4.4 Slot 6

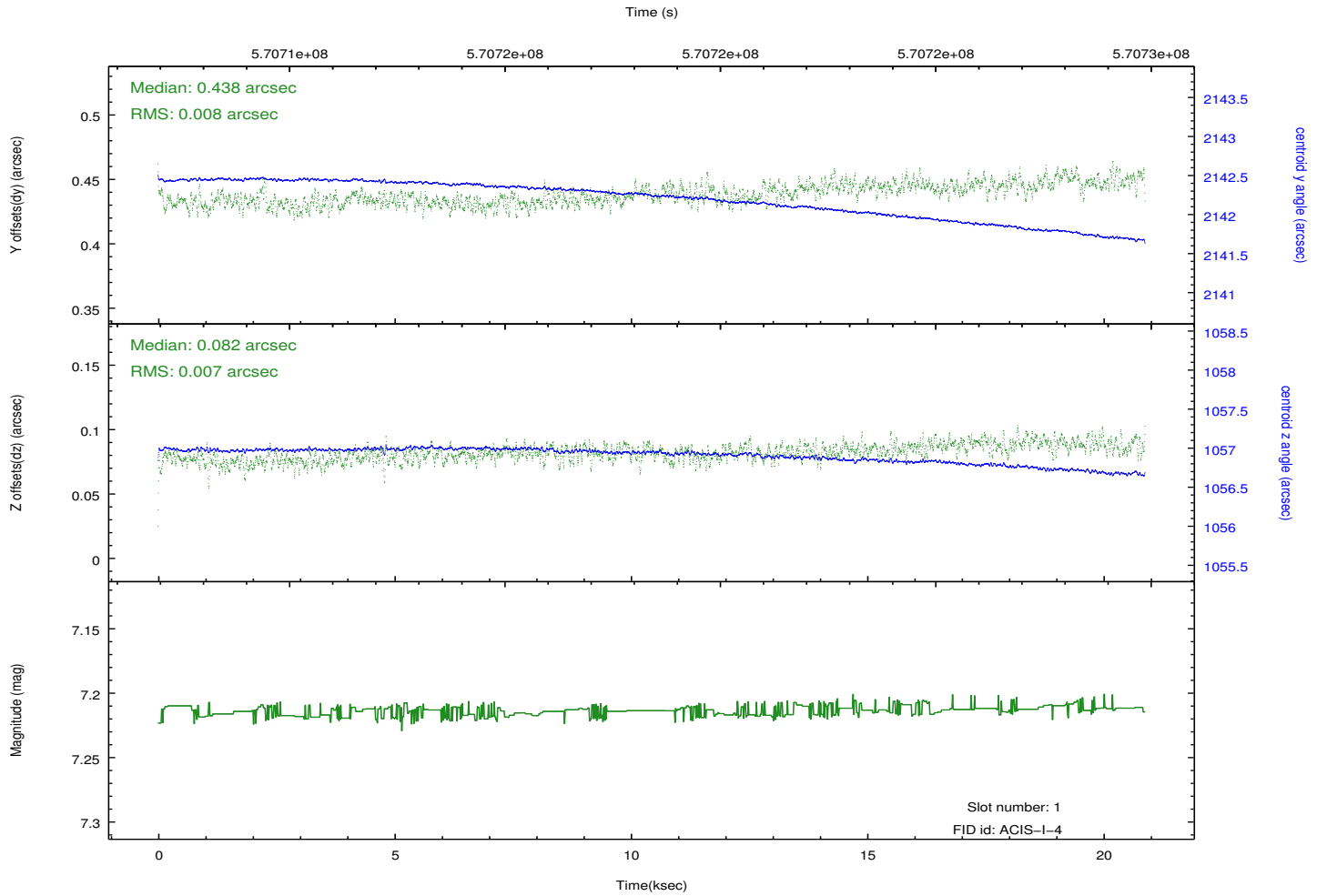
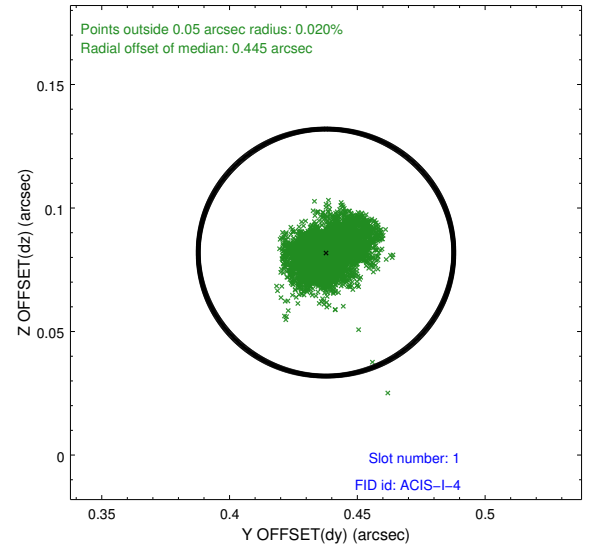
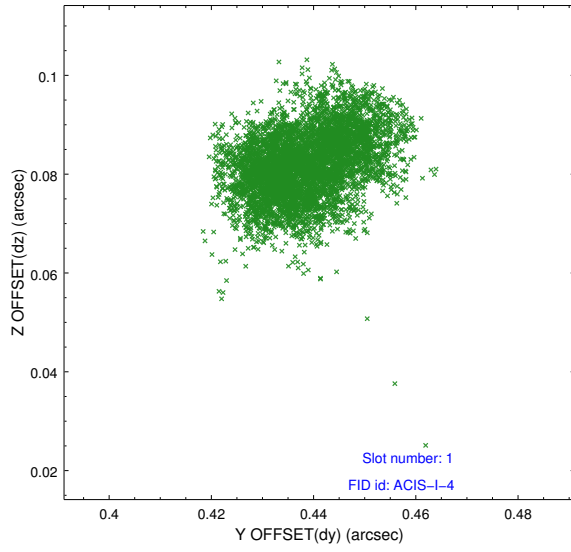


2.5 FID Slots

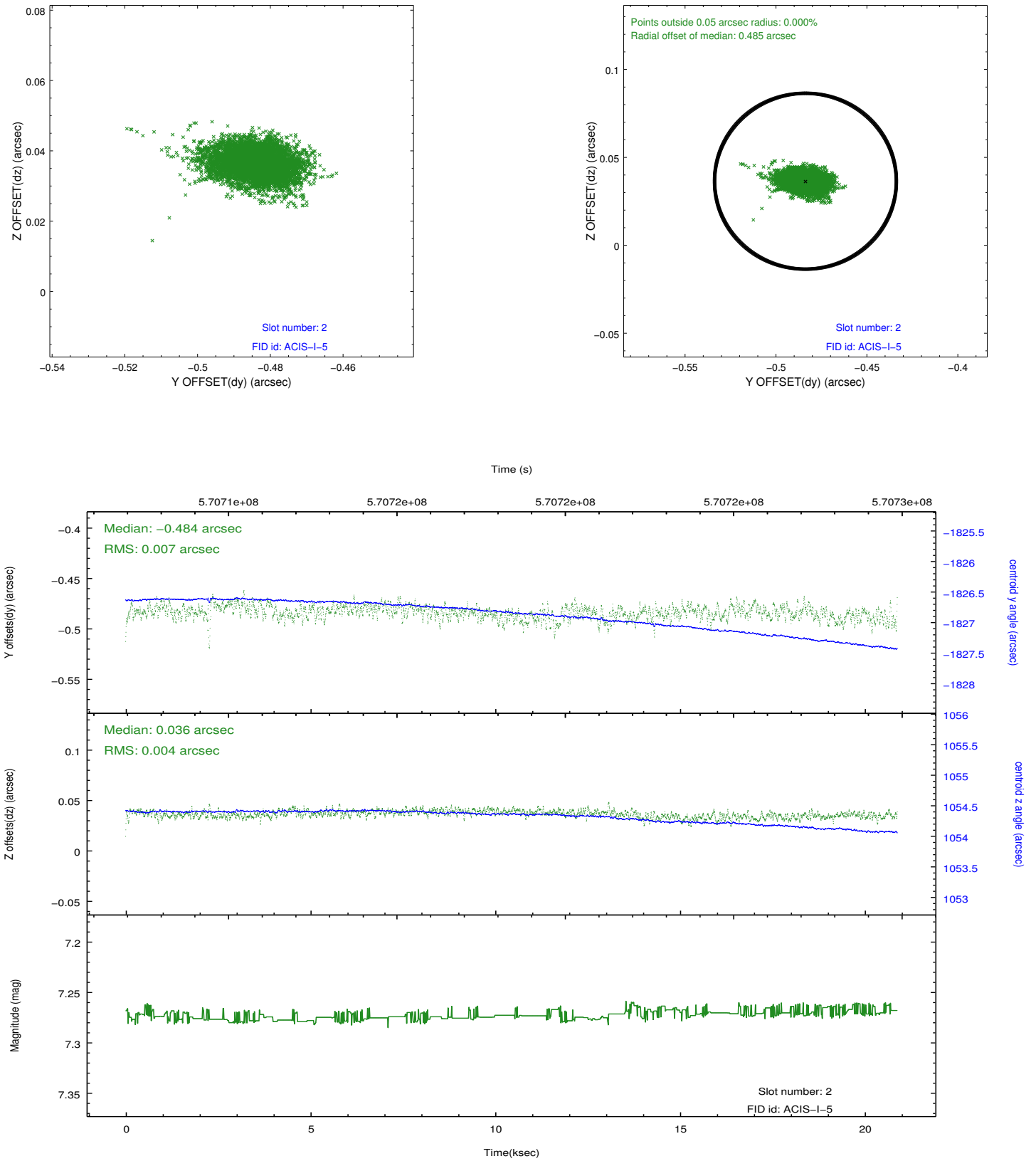
2.5.1 Slot 0



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)	2016.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.468372664571

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.