

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8104 - L2 Version 3
Chandra X-Ray Center

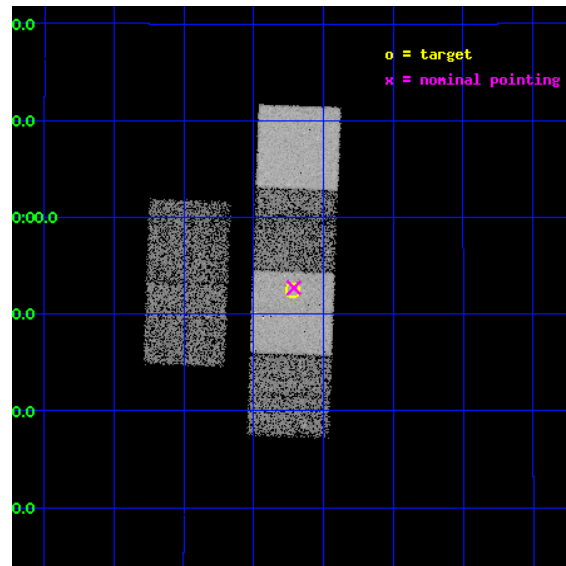
L2 Processing Date : May 10 2012

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1 Front

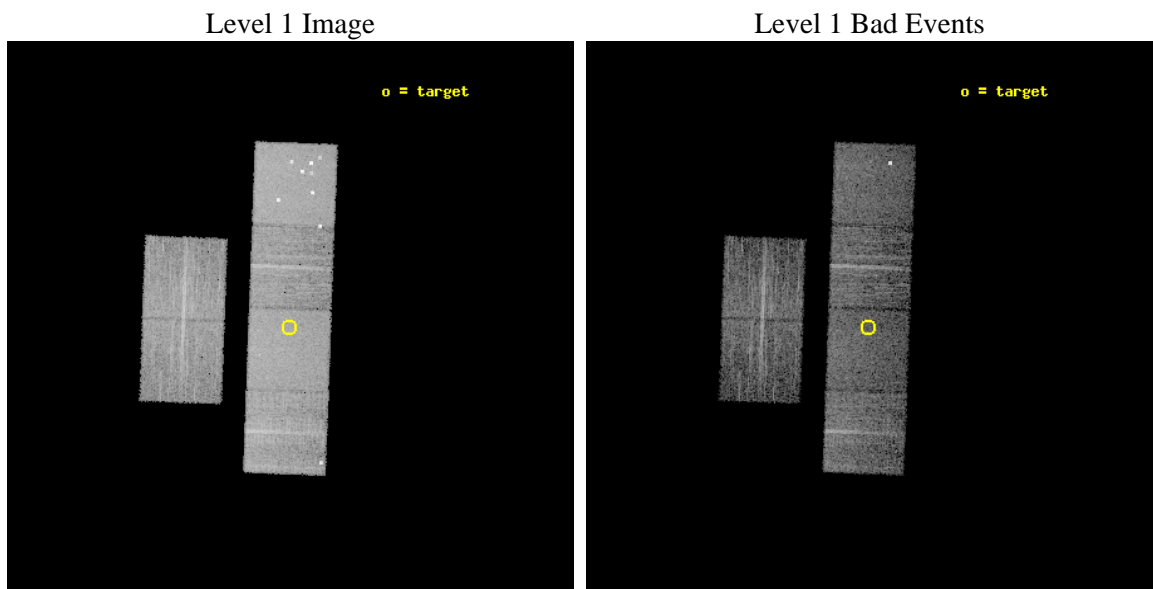
seq_num	900645	Sequence number
obs_id	8104	Observation id
title	The Duty Cycle of Supermassive Black Holes: X-raying Virgo	Proposa
observer	Prof Tommaso Treu	Principal investigator
object	1828	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	190.055833	Observer's specified target RA [deg]
dec_targ	12.874722	Observer's specified target Dec [deg]
ra_nom	190.05304134787	Nominal RA [deg]
dec_nom	12.878632318672	Nominal Dec [deg]
roll_nom	92.074422314033	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5158.3999808431	Sum of GTIs [s]
livetime	5093.0812142701	Livetime [s]
ontime2	5158.3999808431	Sum of GTIs [s]
ontime3	5158.3999808431	Sum of GTIs [s]
ontime5	5158.3999808431	Sum of GTIs [s]
ontime6	5158.3999808431	Sum of GTIs [s]
ontime7	5158.3999808431	Sum of GTIs [s]
ontime8	5155.1589505076	Sum of GTIs [s]
l2events	82844	Number of level 2 events



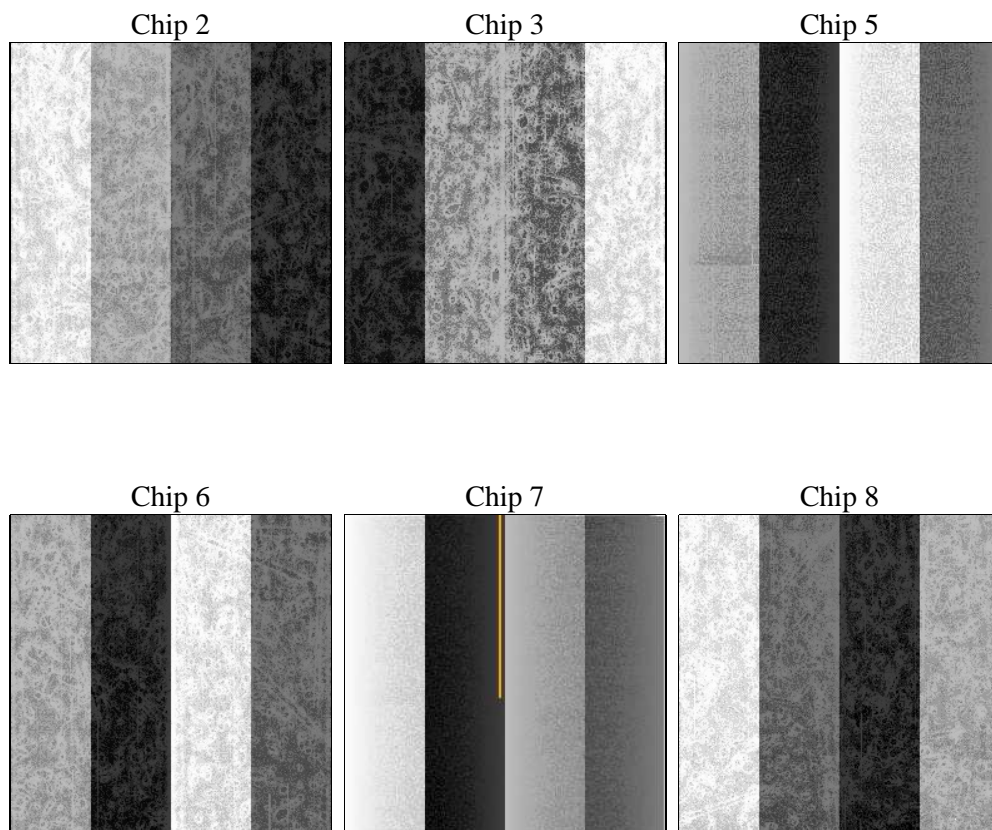
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	5400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	5158.3999808431	Sum of GTIs [s]
caldsver	4.4.9	 	ontime2	5158.3999808431	Sum of GTIs [s]
date	2012-05-10T22:59:32	Date and time of file creation	ontime3	5158.3999808431	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	5158.3999808431	Sum of GTIs [s]
			ontime6	5158.3999808431	Sum of GTIs [s]
			ontime7	5158.3999808431	Sum of GTIs [s]
			ontime8	5155.1589505076	Sum of GTIs [s]
			l1events	376133	Number of level 1 events

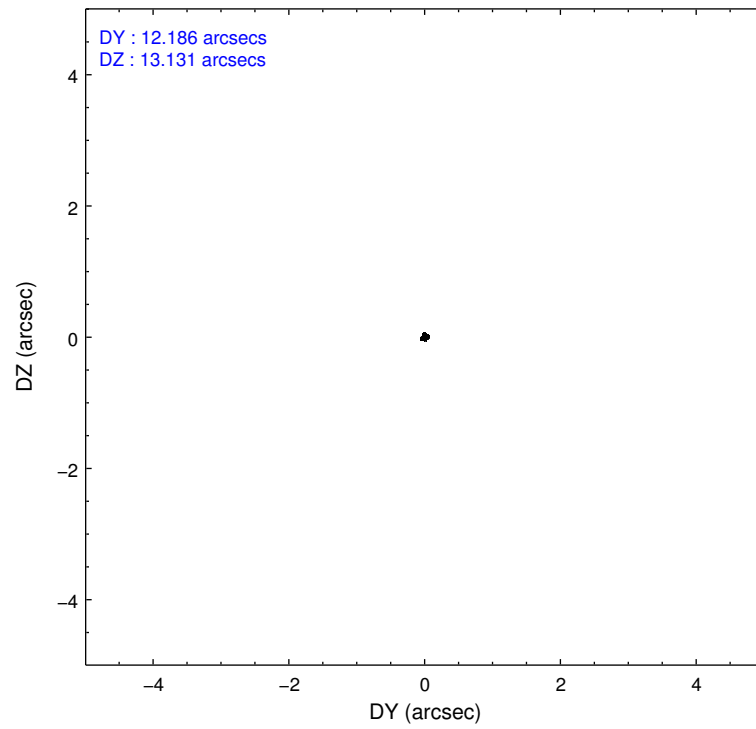
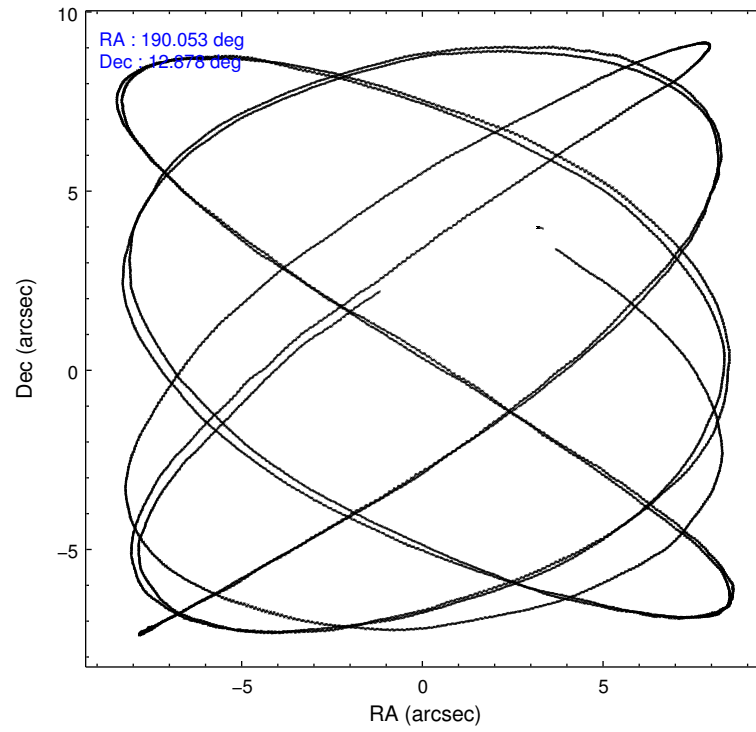
2.1.4 Events

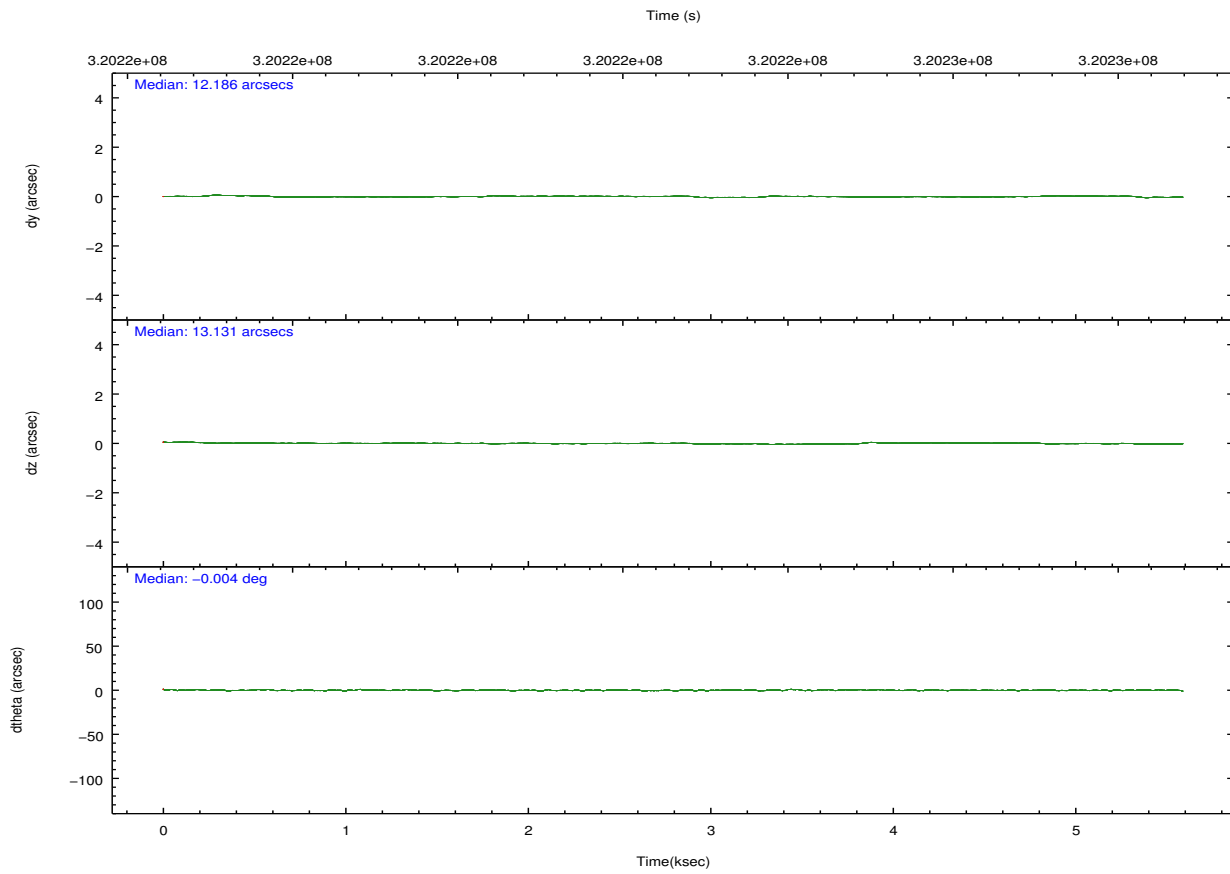
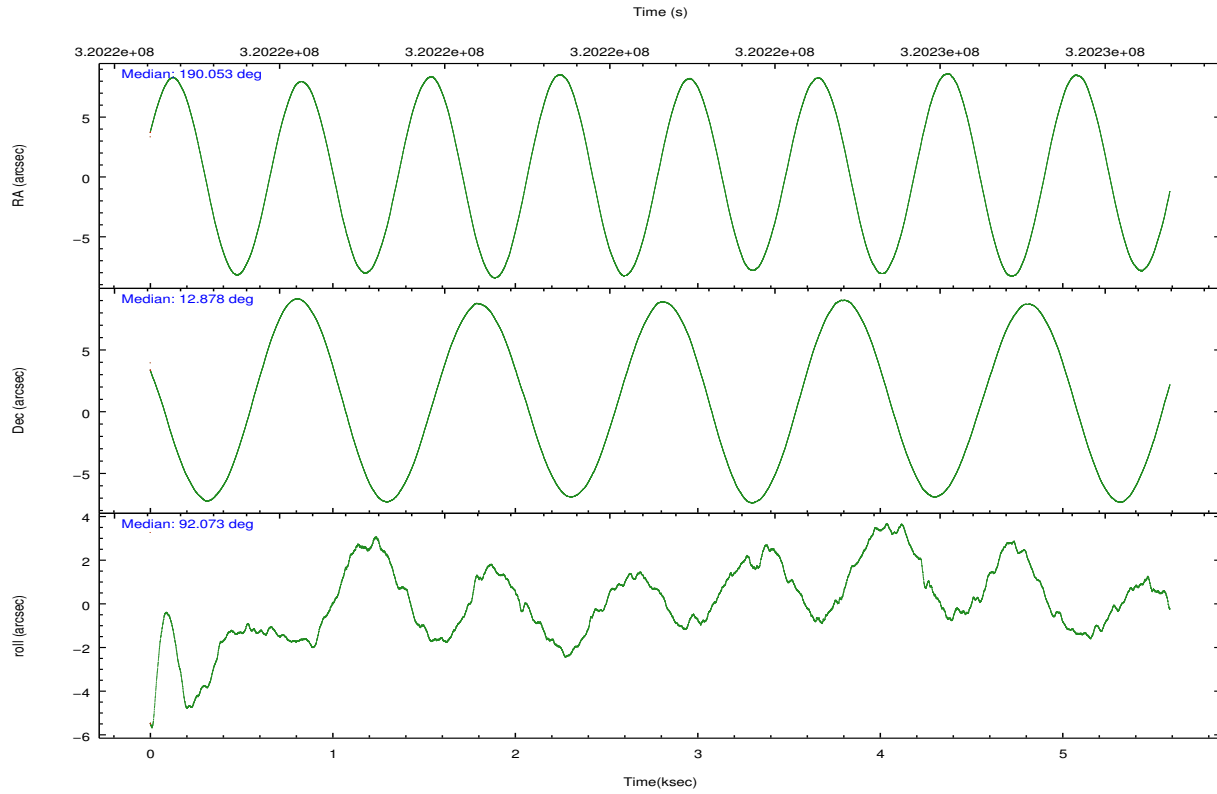
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	54069	46999	86334	52278	69572	66881	grade 0 events	2405	2553	7471	2302	2523	5551
rejected events	48382	41123	44127	46204	40554	51827		4%	5%	8%	4%	3%	8%
rejected %	89%	87%	51%	88%	58%	77%	grade 1 events	33	34	101	29	80	60
								0%	0%	0%	0%	0%	0%
							grade 2 events	1196	1162	11605	1426	5920	3054
								2%	2%	13%	2%	8%	4%
							grade 3 events	514	539	1384	566	2479	1429
								0%	1%	1%	1%	3%	2%
							grade 4 events	552	557	1212	546	2354	1305
								1%	1%	1%	1%	3%	1%
							grade 5 events	1958	2284	5226	2375	6456	3128
								3%	4%	6%	4%	9%	4%
							grade 6 events	1023	1067	20565	1237	15759	3720
								1%	2%	23%	2%	22%	5%
							grade 7 events	46388	38803	38770	43797	34001	48634
								85%	82%	44%	83%	48%	72%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	190.068286	190.0530413478718	CCD I2 on	O1	Y
[deg] Pointing Dec	12.855790	12.87863231867211	CCD I3 on	O2	Y
[deg] Pointing Roll	91.914394	92.07442231403301	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O4	Y
[s] Observation start time (MET)	320221692.184000	320221312.80524	CCD S5 on	N	N
Observation start date	2008-02-24T06:27:07	2008-02-24T06:21:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	320227092.184000	320227237.30553	On-chip summing requested	N	N
Observation end date	2008-02-24T07:57:07	2008-02-24T08:00:37	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



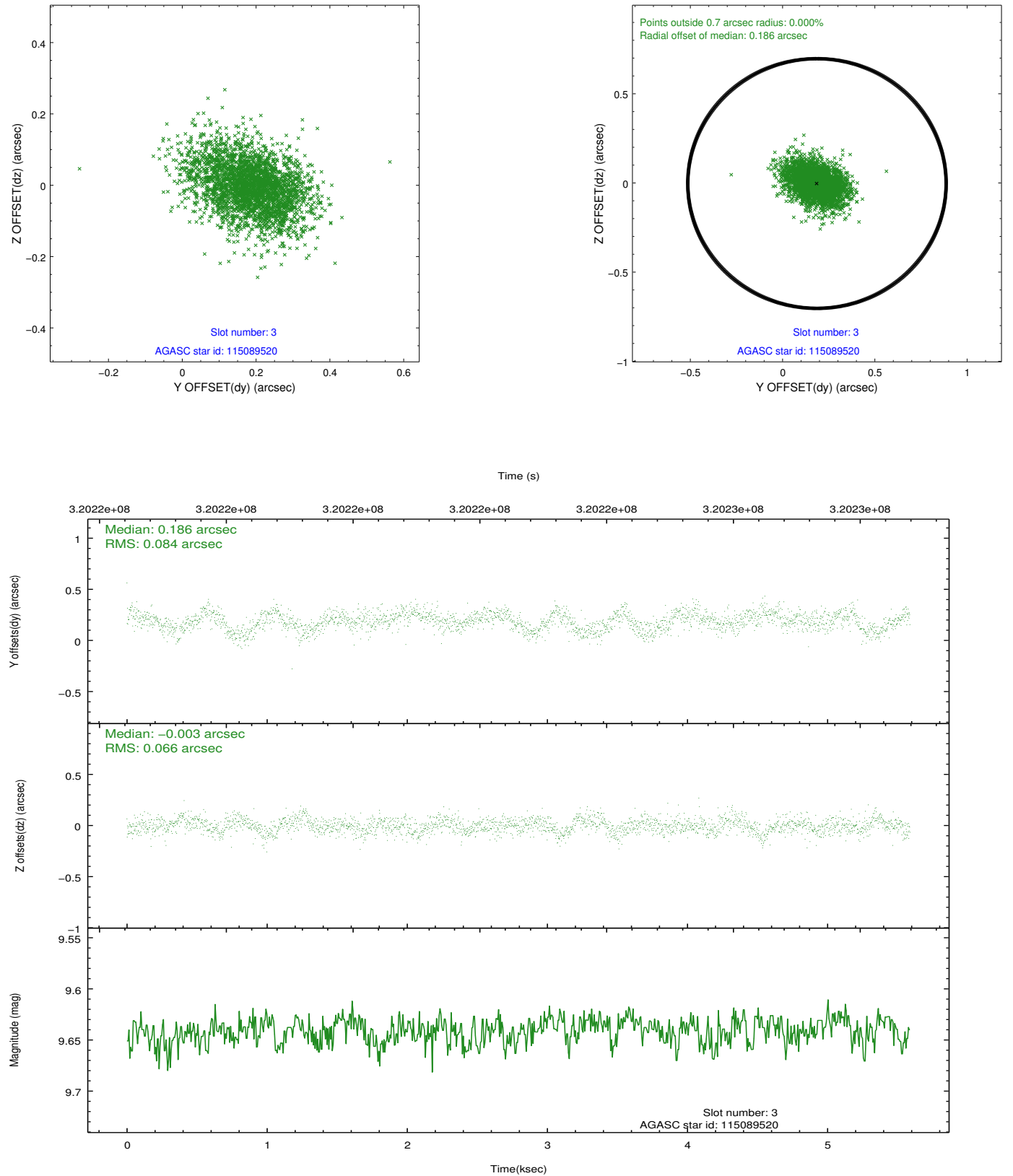


Slot Statistics

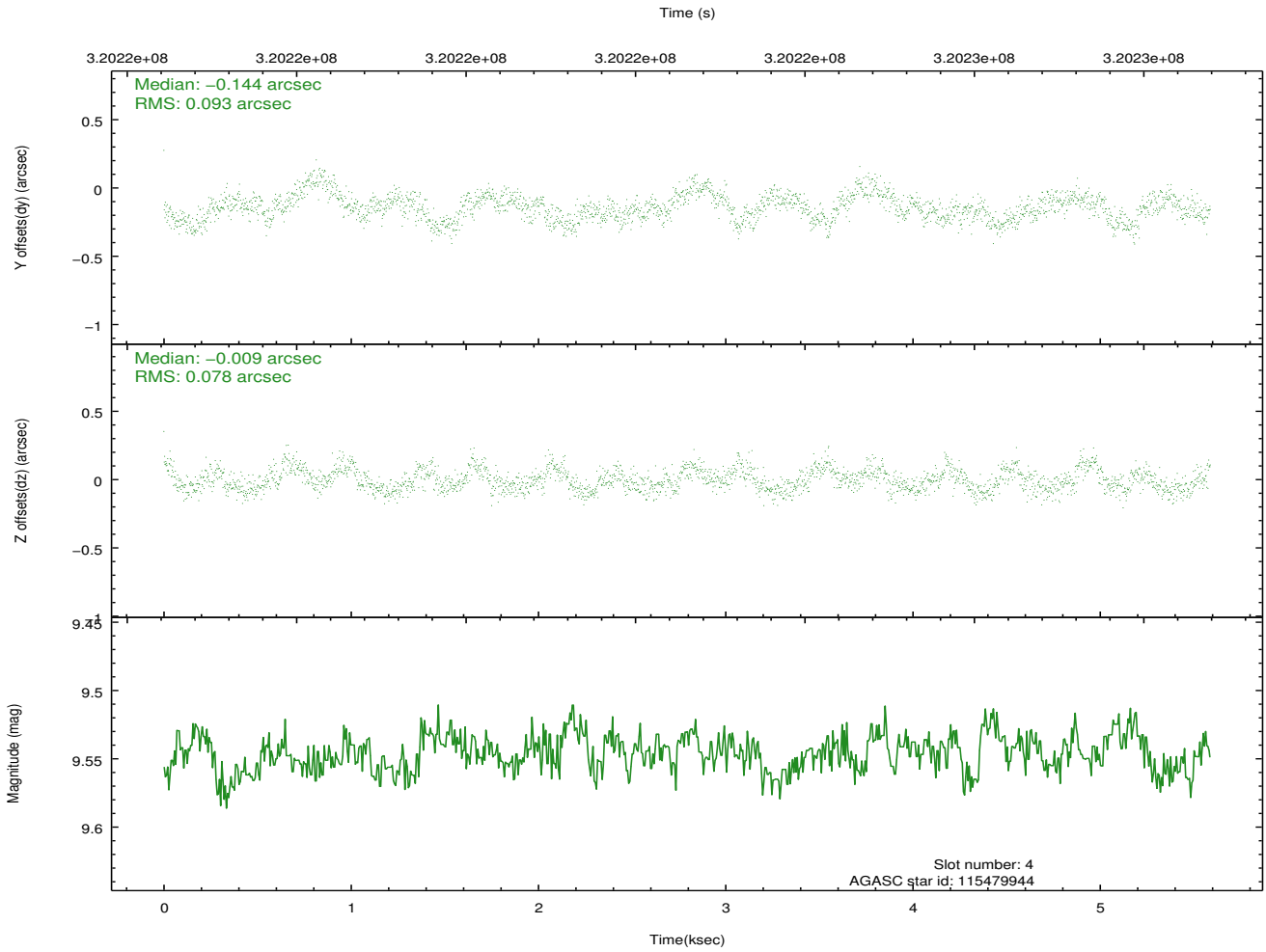
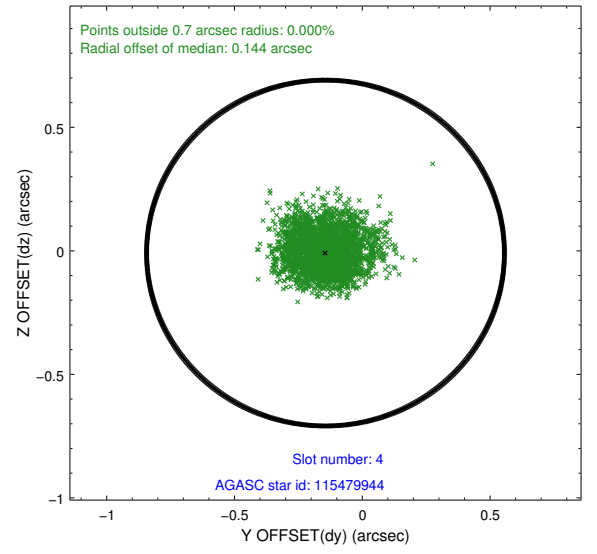
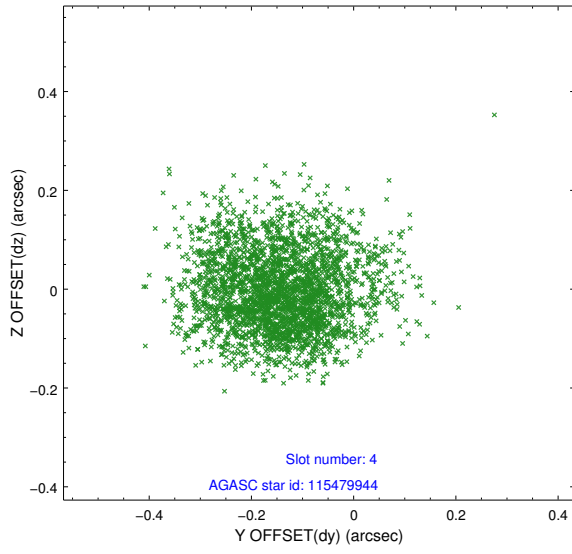
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	1363	-0.023	-0.049	0.007	0.011	0.000000	0.000000	-765.11	-1734.51
1	FID	ACIS-S-4	7.20	1364	0.115	0.025	0.005	0.009	0.000000	0.000000	2147.82	172.93
2	FID	ACIS-S-5	7.23	1364	-0.122	0.034	0.007	0.011	0.000000	0.000000	-1816.67	167.85
3	GUIDE	115089520	9.64	2725	0.186	-0.003	0.113	0.191	189.892491	12.217562	-2274.67	695.11
4	GUIDE	115479944	9.55	2723	-0.144	-0.009	0.130	0.206	189.780595	13.242655	1425.32	961.24
5	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	115481912	8.59	2726	0.003	-0.195	0.084	0.128	189.408526	12.669552	-588.72	2338.52
7	GUIDE	115482240	7.31	2725	-0.047	0.199	0.059	0.089	190.182782	12.715426	-518.18	-383.69

2.4 Star Slots

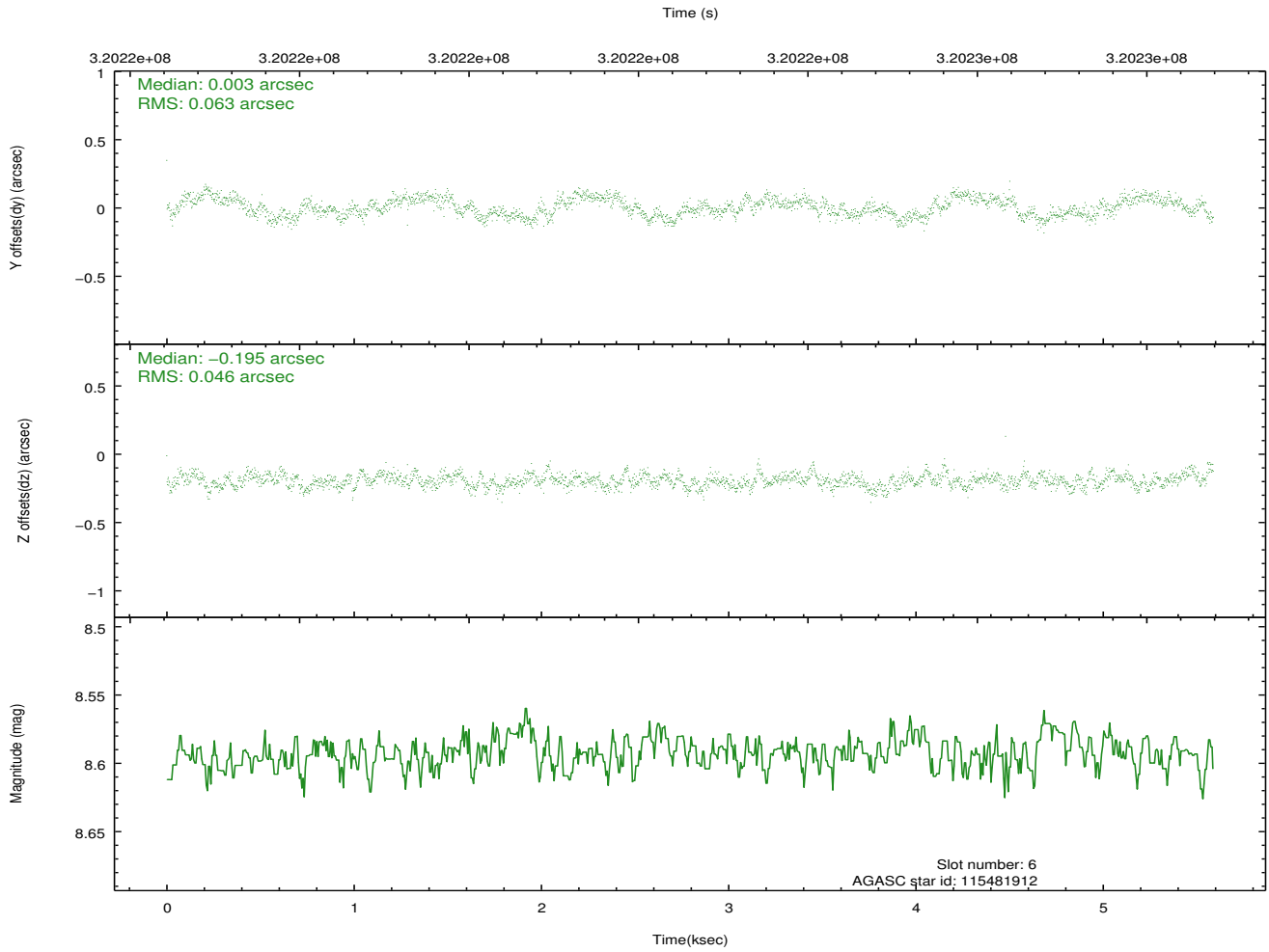
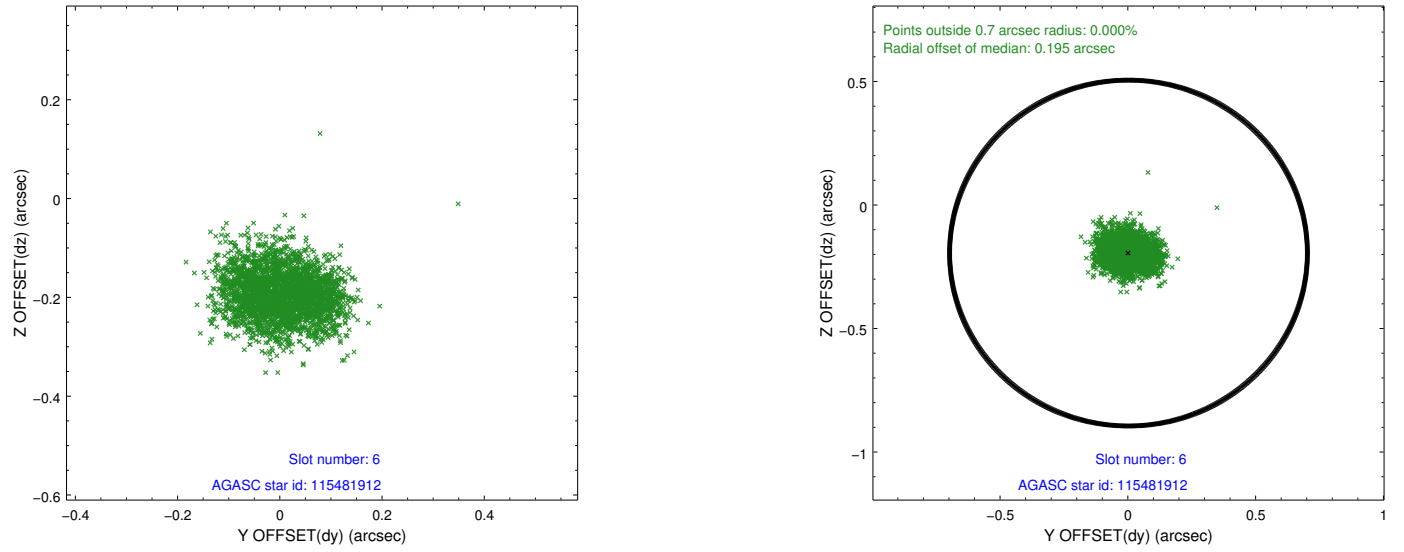
2.4.1 Slot 3



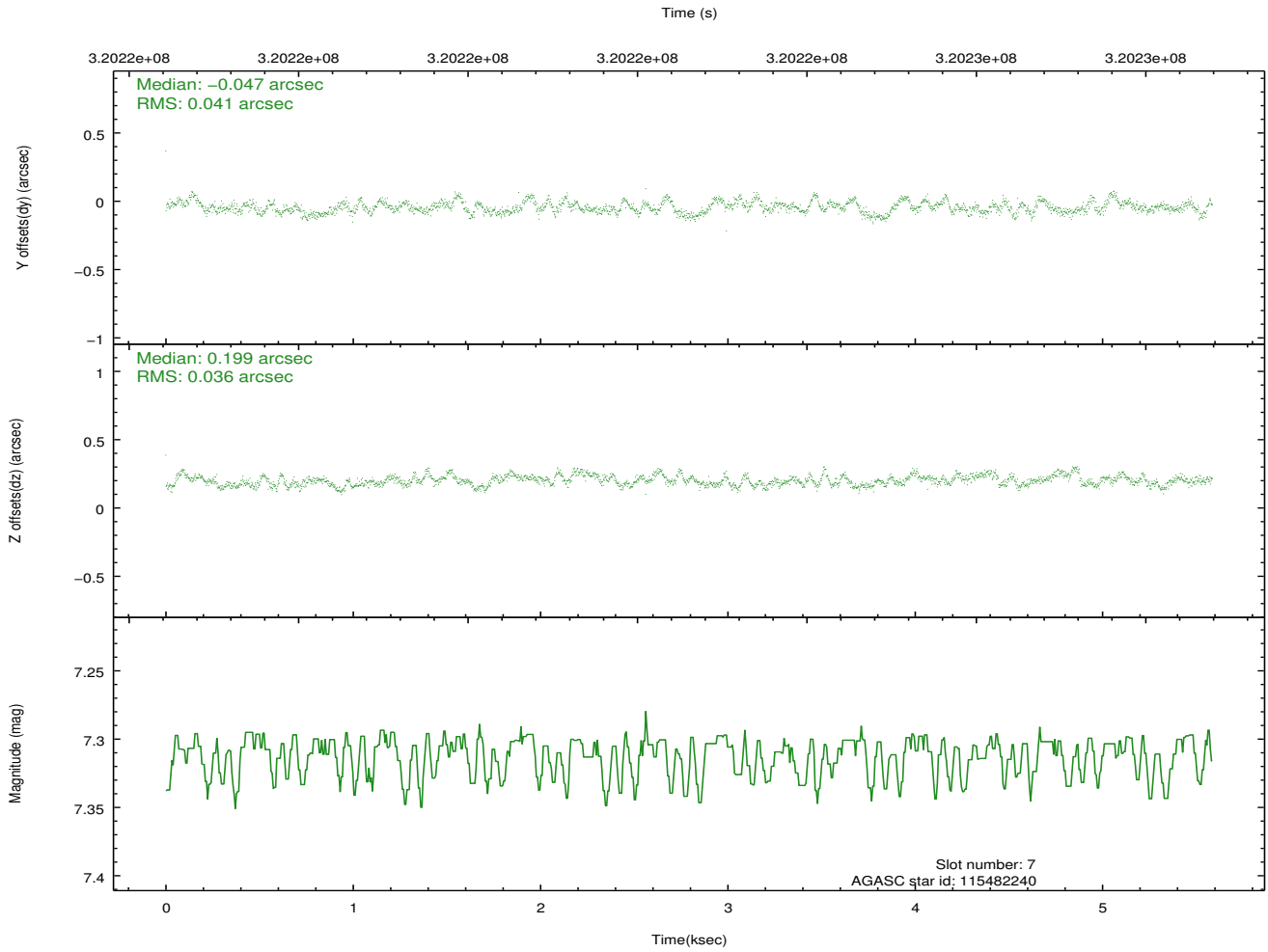
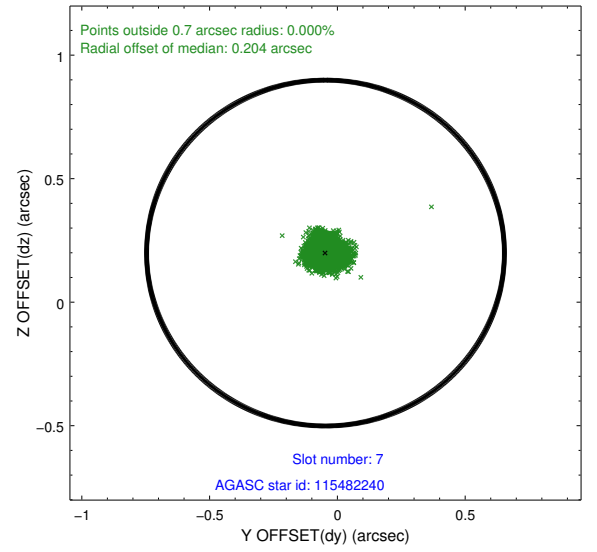
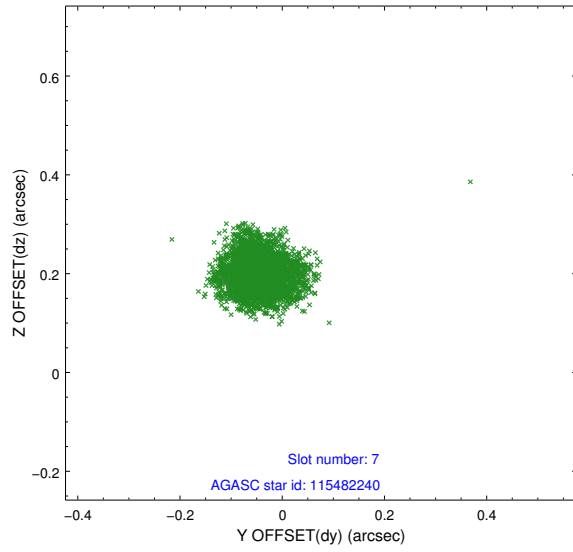
2.4.2 Slot 4



2.4.3 Slot 6

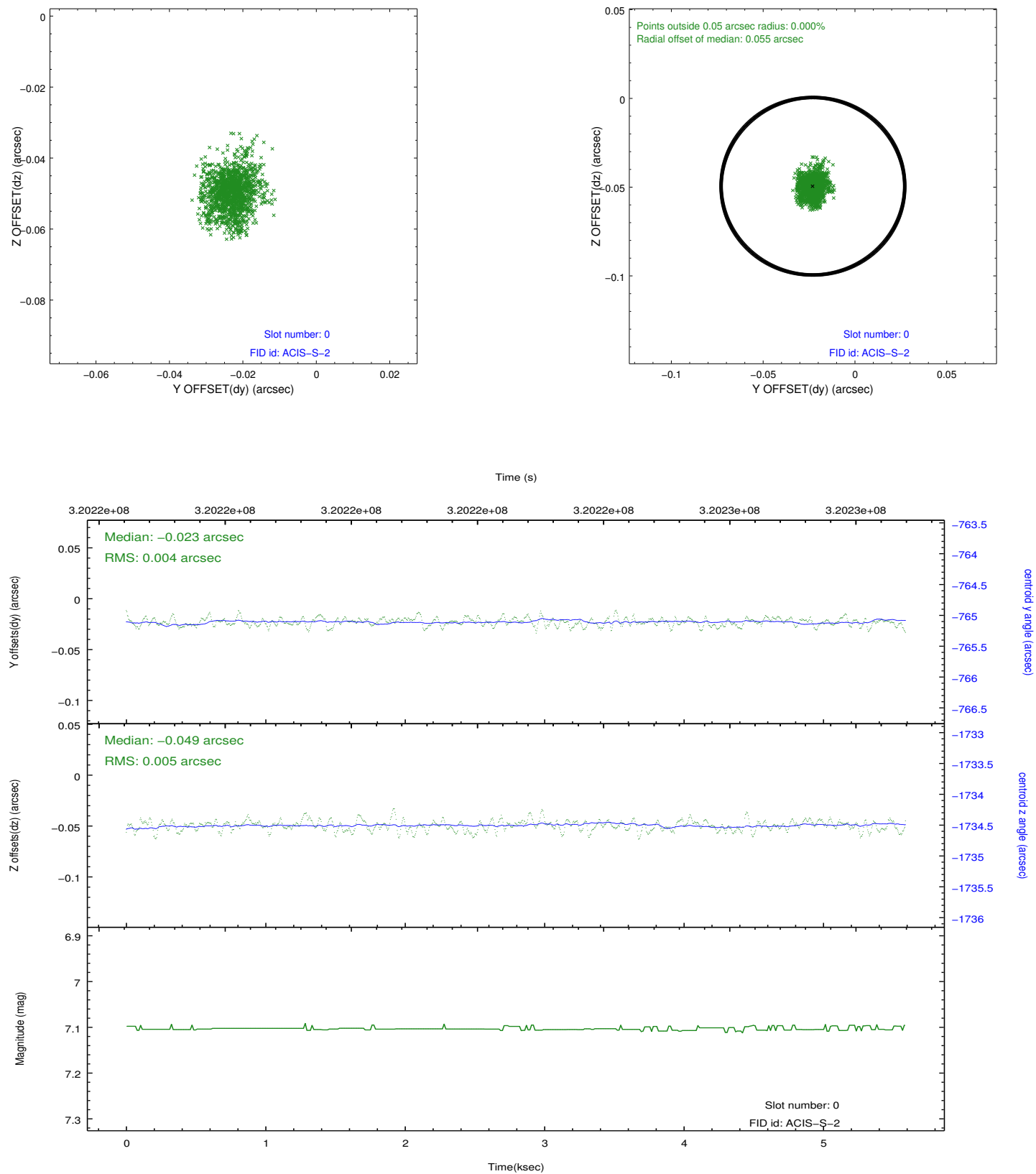


2.4.4 Slot 7

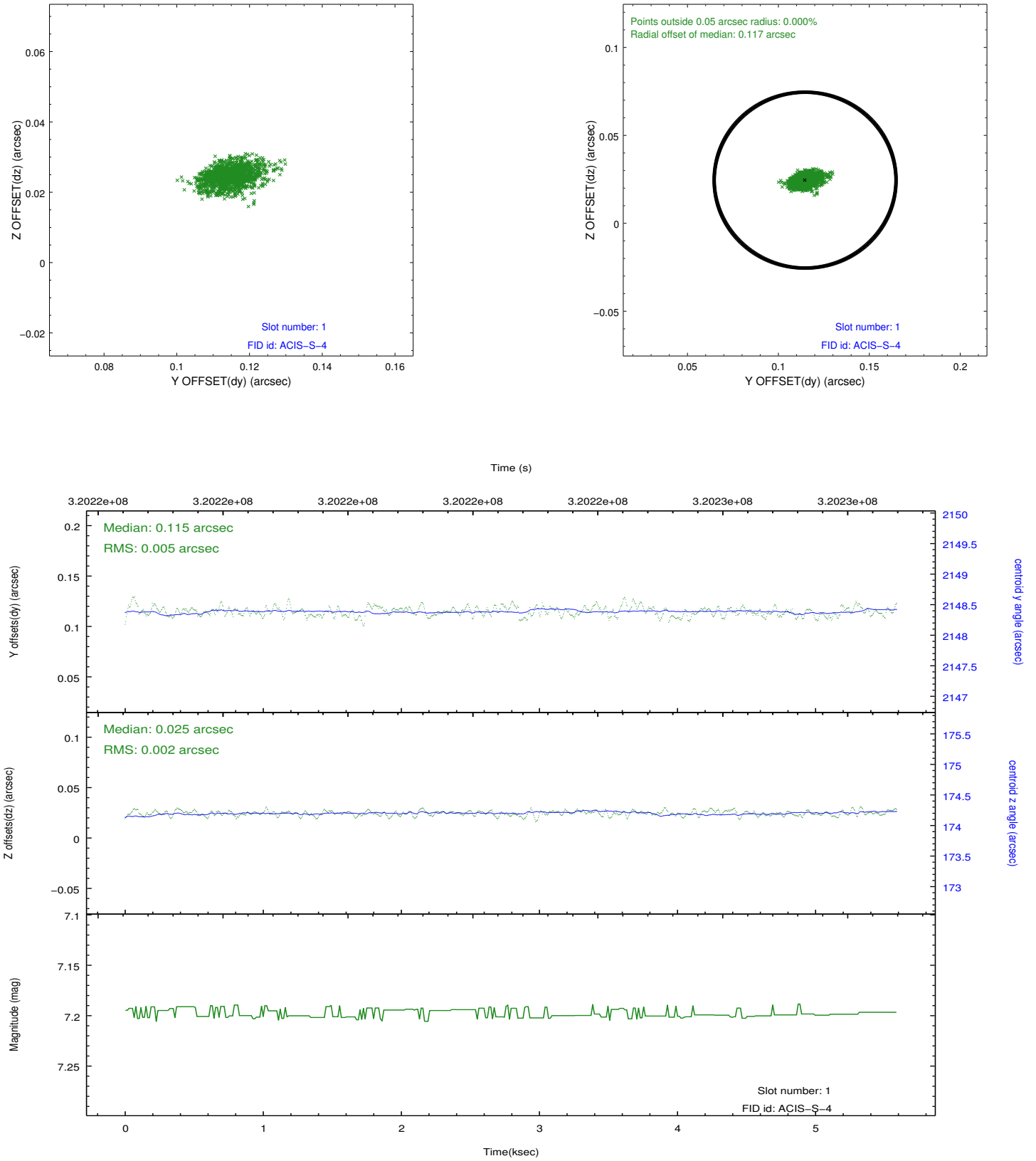


2.5 FID Slots

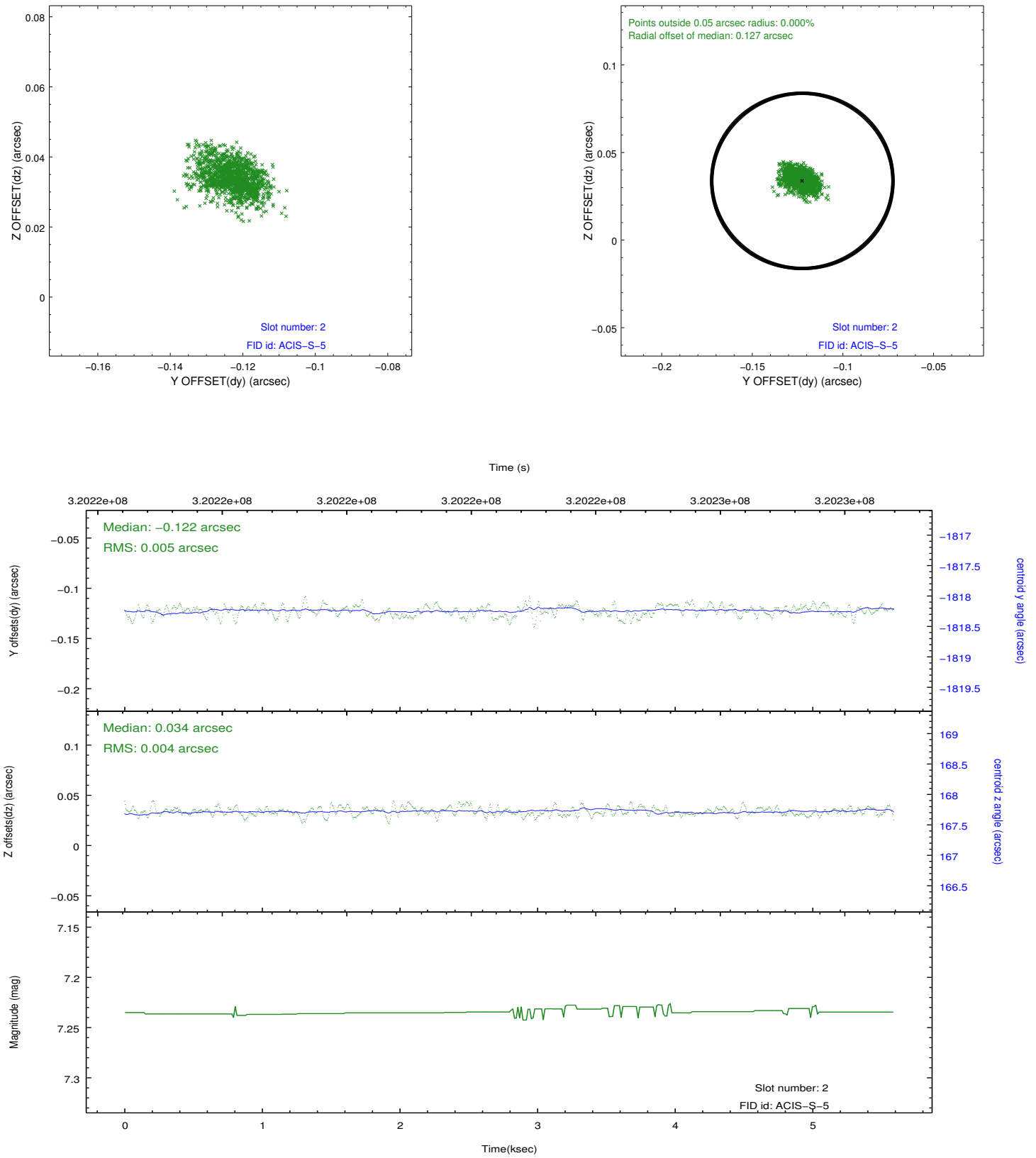
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.05.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.15839998

A.2 Comments

Joint proposal with Spitzer.

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 star from the solution.