

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 23112 - L2 Version 1
Chandra X-Ray Center

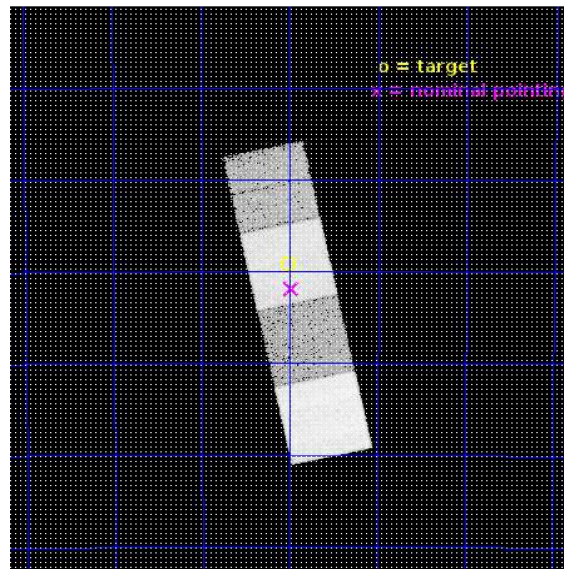
L2 Processing Date : Jan 5 2020

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 5	10
2.4.3	Slot 6	11
2.4.4	Slot 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

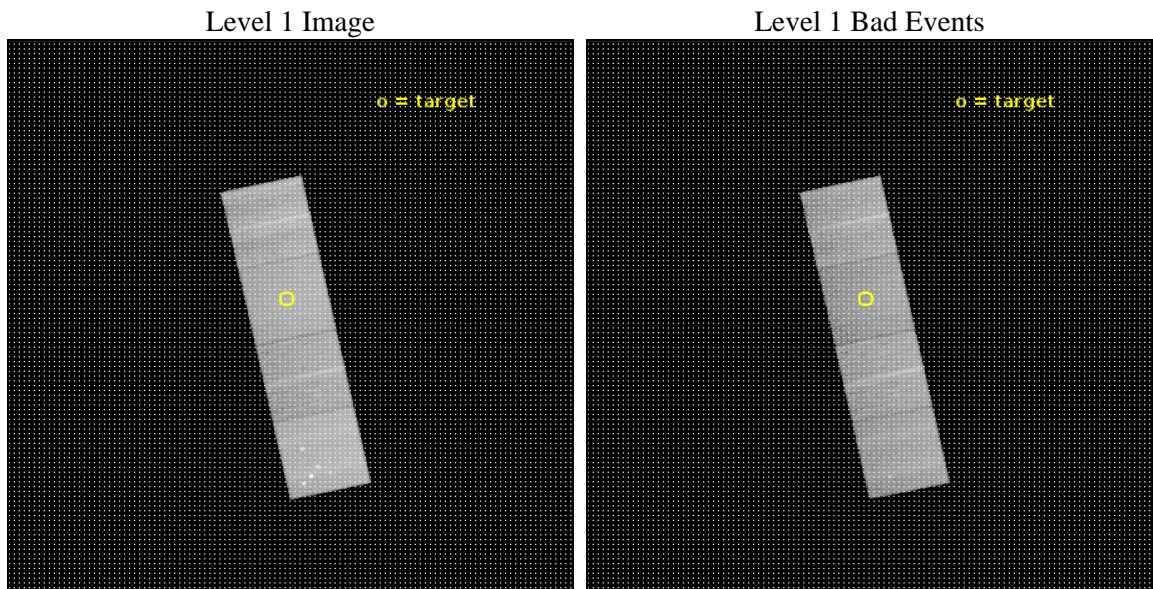
seq_num	801902	Sequence number
obs_id	23112	Observation id
title	Enabling Dark Energy Constraints from Optically Selected Galaxy Clusters	Proposal title
observer	Adam Mantz	Principal investigator
object	CLJ224301.1-515911	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.754547	Observer's specified target RA [deg]
dec_targ	-51.986462	Observer's specified target Dec [deg]
ra_nom	340.74570941763	Nominal RA [deg]
dec_nom	-52.03142036981	Nominal Dec [deg]
roll_nom	257.72655641845	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17960.083668709	Sum of GTIs [s]
livetime	17725.421953556	Livetime [s]
ontime5	17960.042628765	Sum of GTIs [s]
ontime6	17960.001588702	Sum of GTIs [s]
ontime7	17960.083668709	Sum of GTIs [s]
ontime8	17959.960548759	Sum of GTIs [s]
l2events	205099	Number of level 2 events



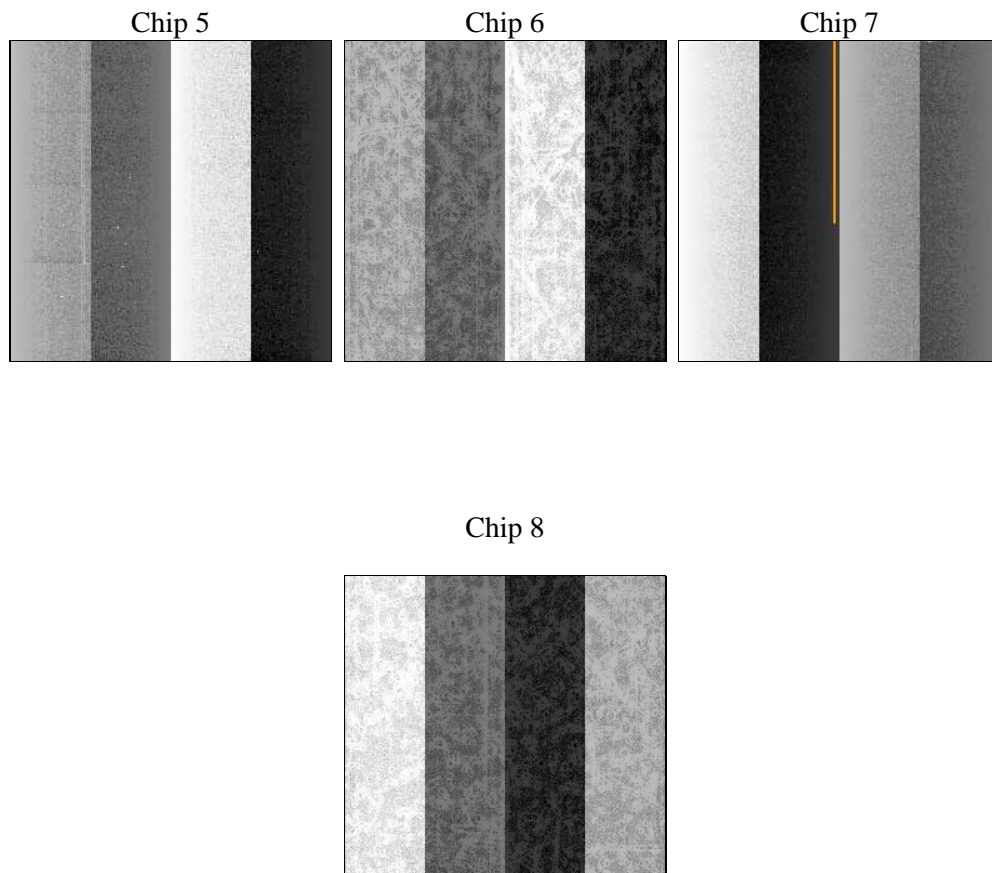
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17900.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	17960.083668709	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime5	17960.042628765	Sum of GTIs [s]
date	2020-01-05T04:39:53	Date and time of file creation	ontime6	17960.001588702	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	17960.083668709	Sum of GTIs [s]
			ontime8	17959.960548759	Sum of GTIs [s]
			l1events	742438	Number of level 1 events

2.1.4 Events

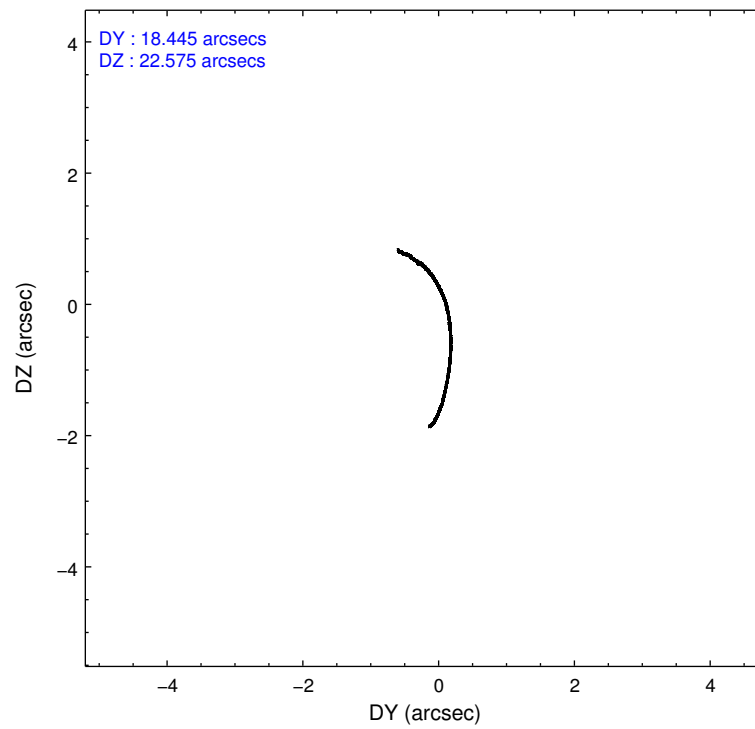
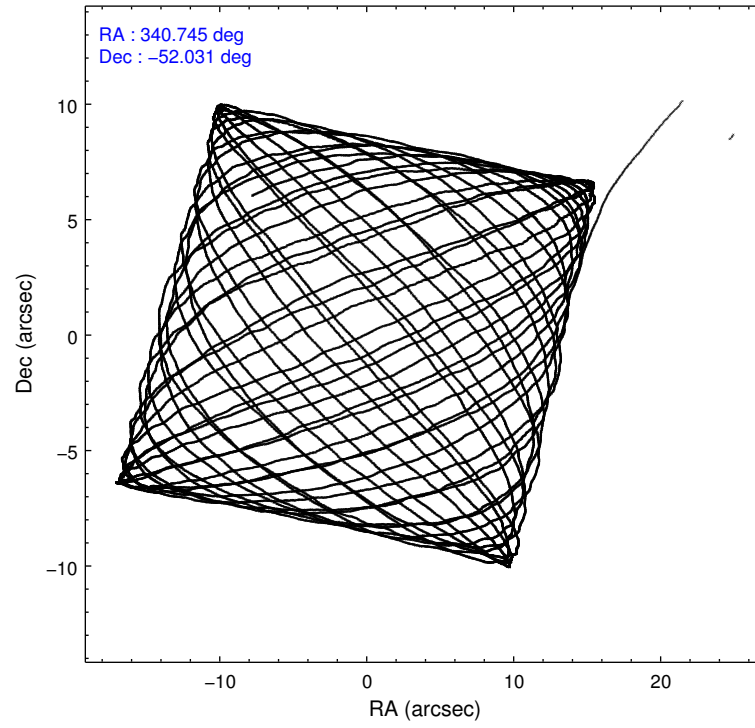
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	233277	147462	177936	183763
rejected events	118635	132148	101732	136246
rejected %	50%	89%	57%	74%

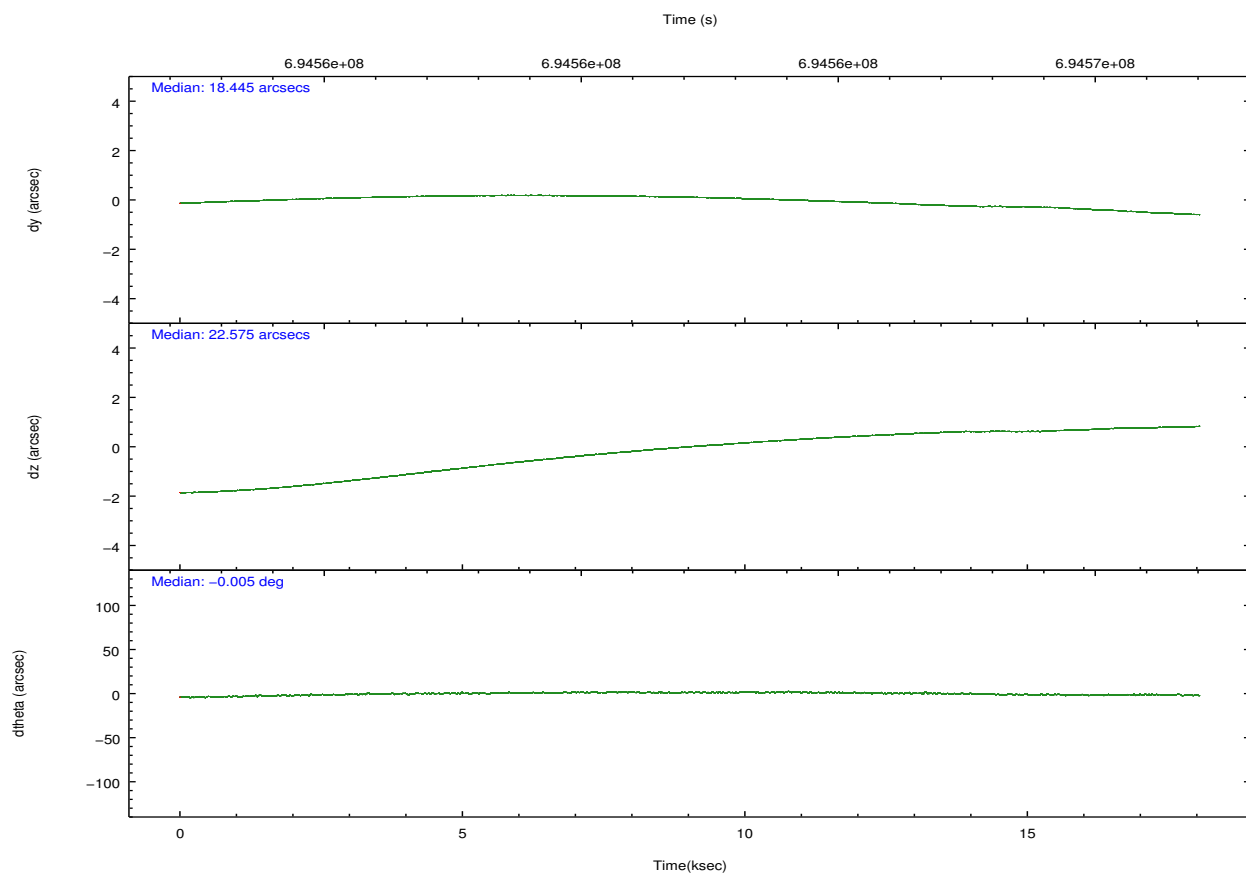
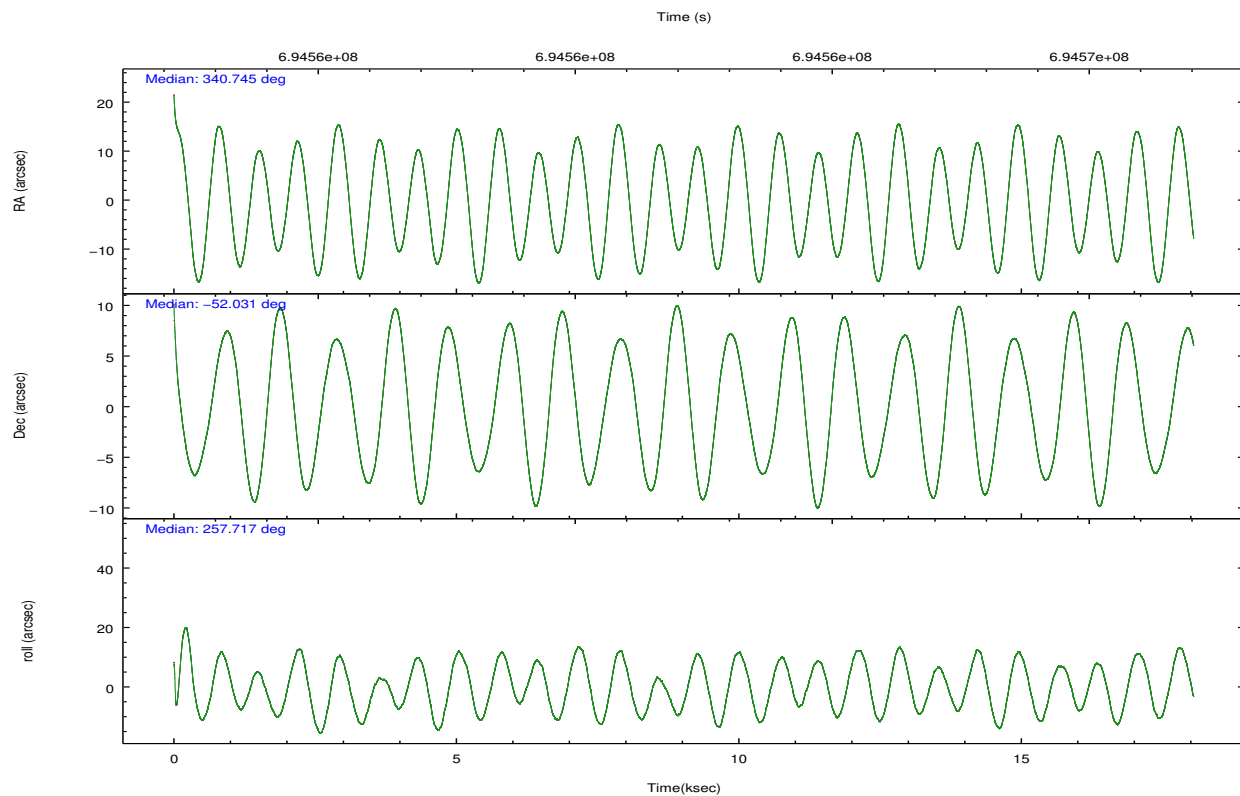
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	13363	4248	6182	13132
	5%	2%	3%	7%
grade 1 events	1156	51	295	145
	0%	0%	0%	0%
grade 2 events	33221	4353	16040	11945
	14%	2%	9%	6%
grade 3 events	3863	1189	5777	4472
	1%	0%	3%	2%
grade 4 events	3828	1207	5579	4280
	1%	0%	3%	2%
grade 5 events	14175	5533	16819	9166
	6%	3%	9%	4%
grade 6 events	60391	4317	42639	13695
	25%	2%	23%	7%
grade 7 events	103280	126564	84605	126928
	44%	85%	47%	69%

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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	340.731553	340.7457094176324	CCD I2 on	N	N
[deg] Pointing Dec	-52.005396	-52.03142036980987	CCD I3 on	N	N
[deg] Pointing Roll	257.558792	257.7265564184469	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	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	O1	Y
[s] Observation start time (MET)	694553260.184000	694552048.75038	CCD S5 on	N	N
Observation start date	2020-01-04T19:26:31	2020-01-04T19:07:28	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	694571160.184000	694572333.50161	On-chip summing requested	N	N
Observation end date	2020-01-05T00:24:51	2020-01-05T00:45:33	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



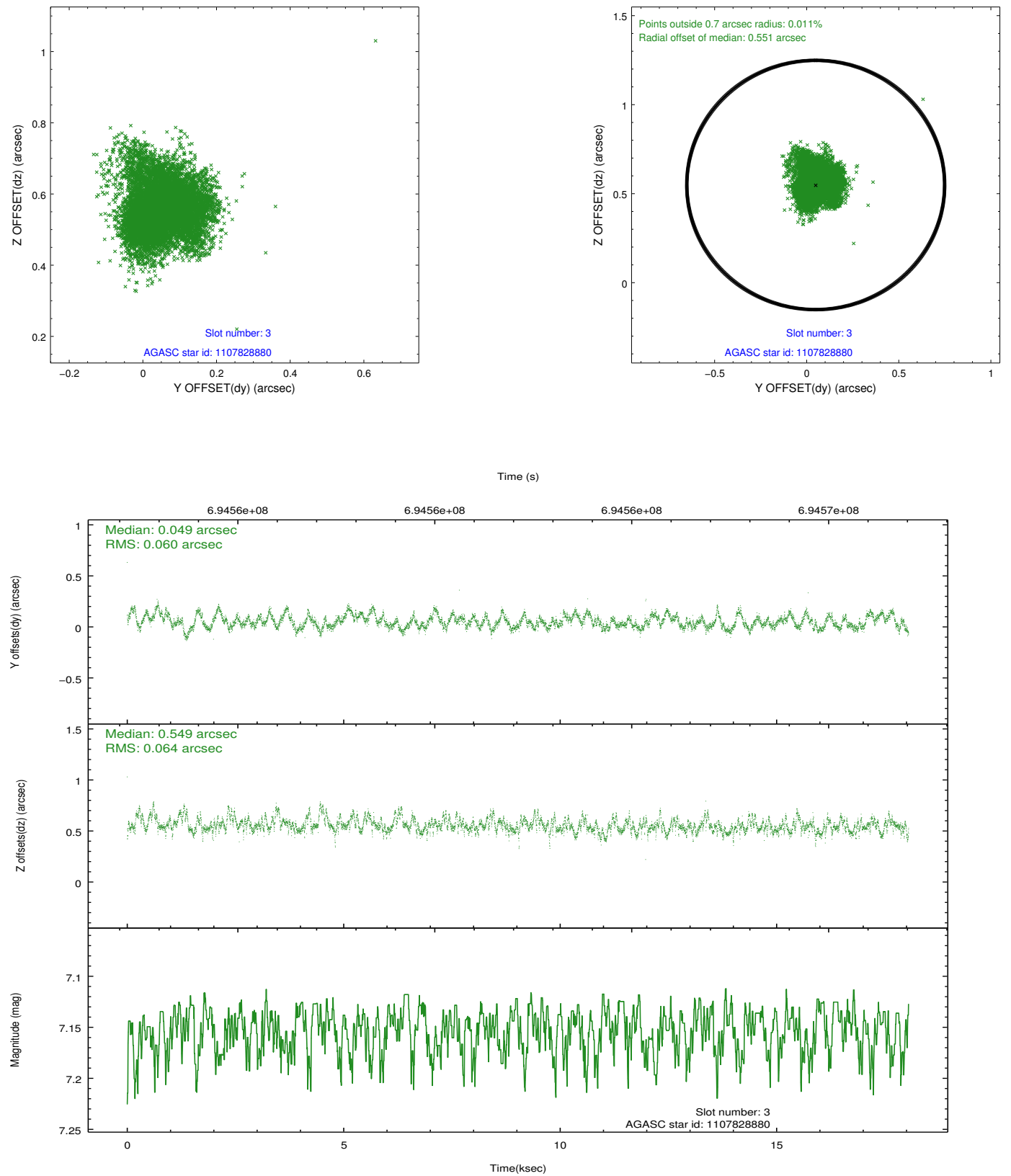


Slot Statistics

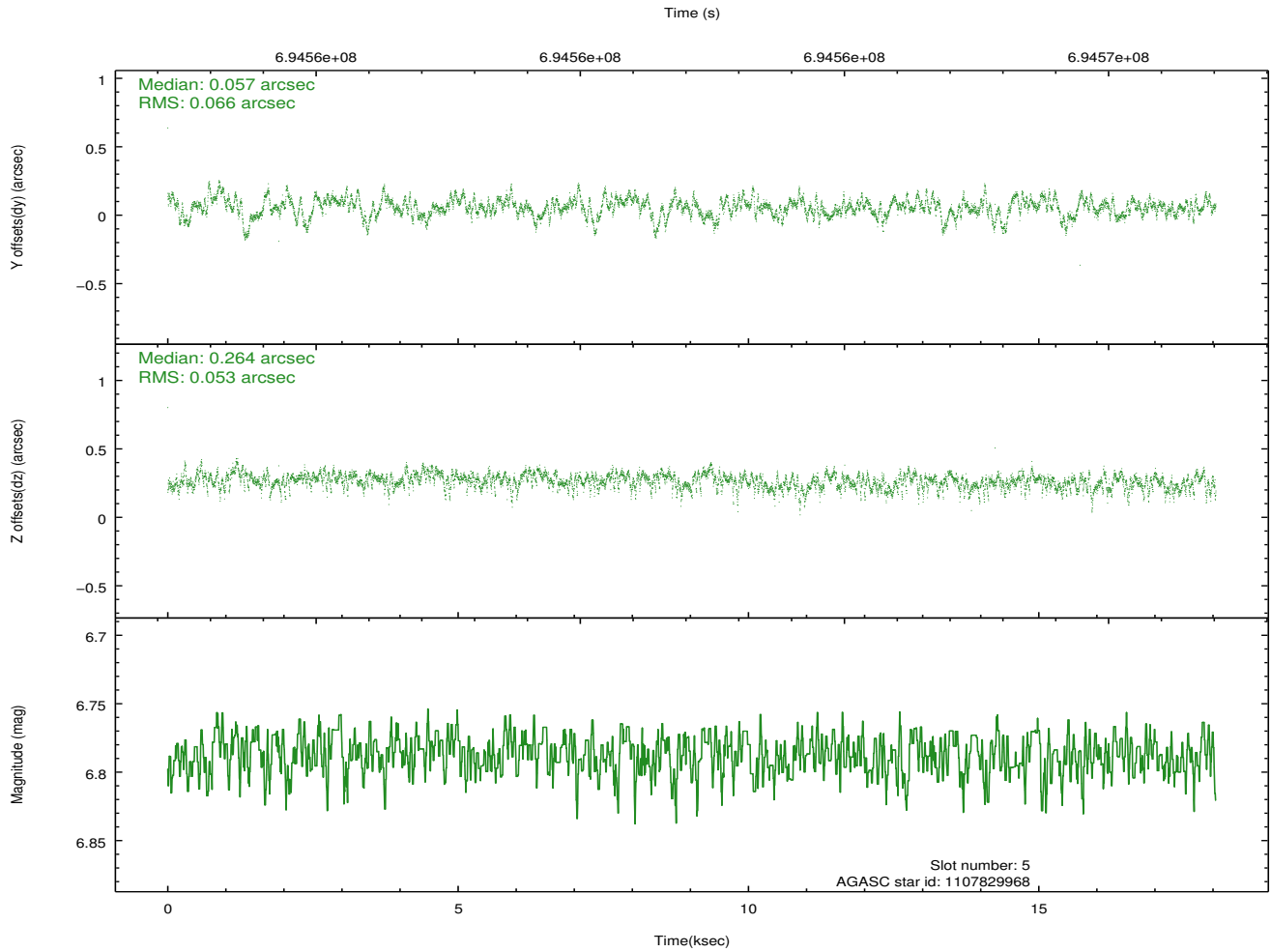
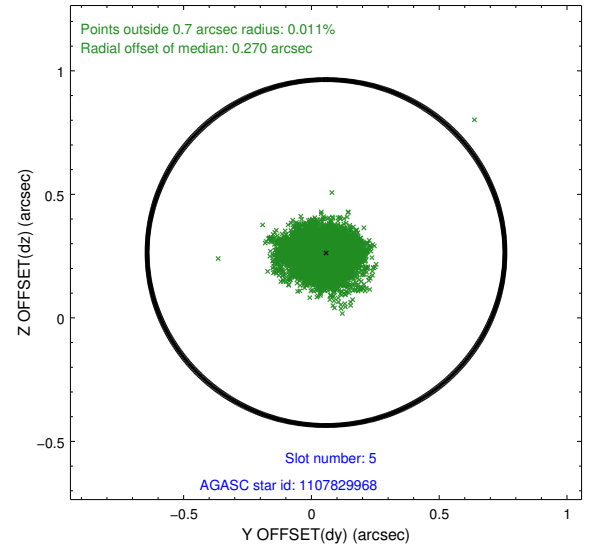
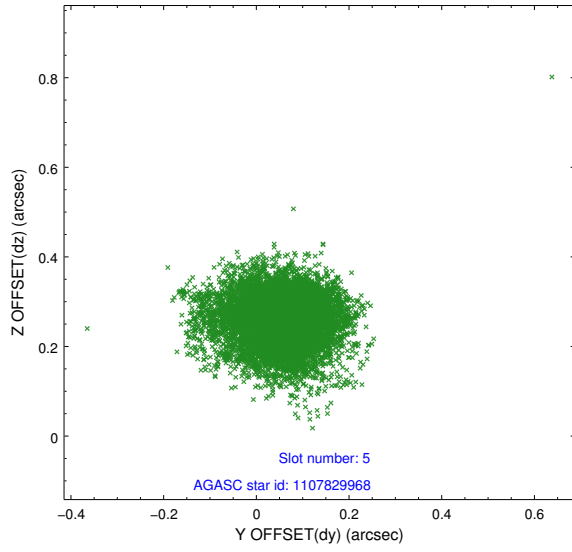
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.19	4403	1.000	-0.330	-0.322	0.023	0.039	0.000000	0.000000	-771.74	-1744
1	FID		ACIS-S-4	7.30	4403	1.000	0.819	0.247	0.025	0.036	0.000000	0.000000	2142.54	164
2	FID		ACIS-S-5	7.28	4403	1.000	-0.518	0.085	0.017	0.037	0.000000	0.000000	-1824.52	158
3	GUIDE	used	1107828880	7.15	8804	1.000	0.049	0.549	0.092	0.155	340.121554	-51.243497	-2374.47	-1930
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
5	GUIDE	used	1107829968	6.79	8803	1.000	0.057	0.264	0.088	0.150	340.262697	-51.458840	-1689.46	-1449
6	GUIDE	used	1107953712	6.98	8802	1.000	-0.227	-0.299	0.167	0.360	342.016904	-51.512669	-2327.11	2436
7	GUIDE	used	1107956344	9.80	8746	1.000	0.117	-0.520	0.254	0.451	341.577827	-51.819518	-1047.24	1698

2.4 Star Slots

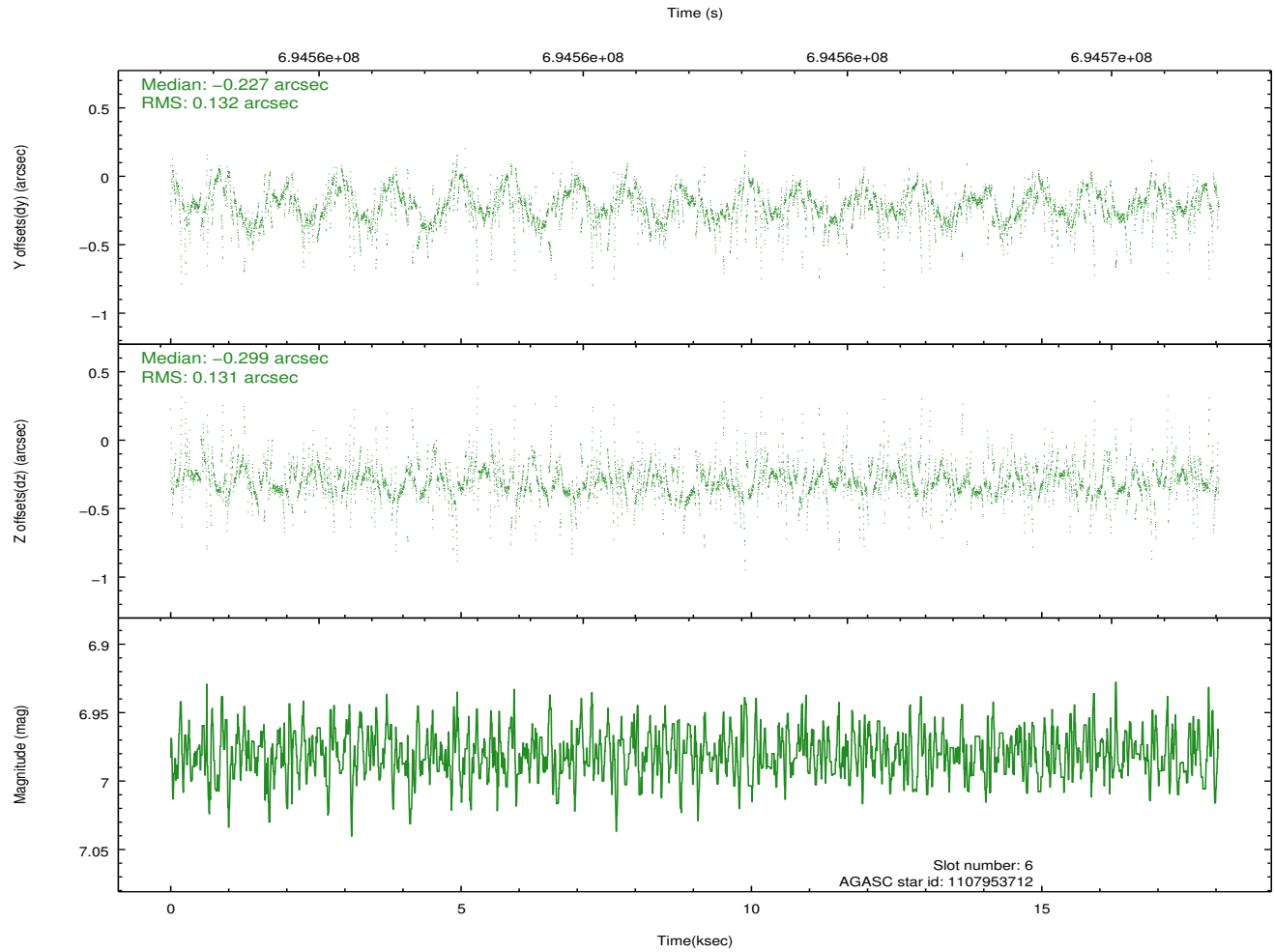
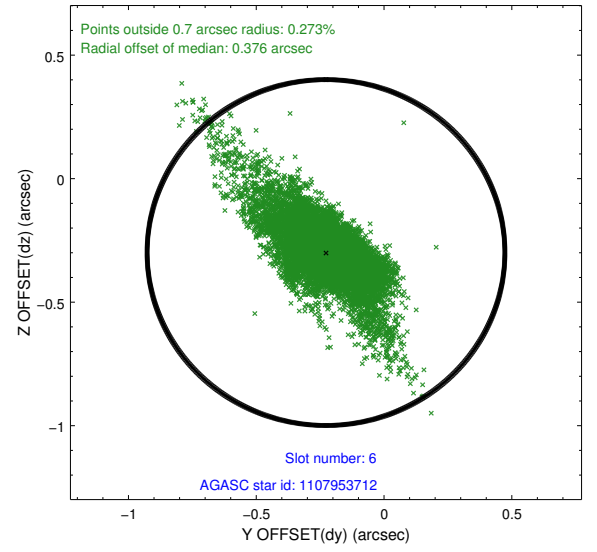
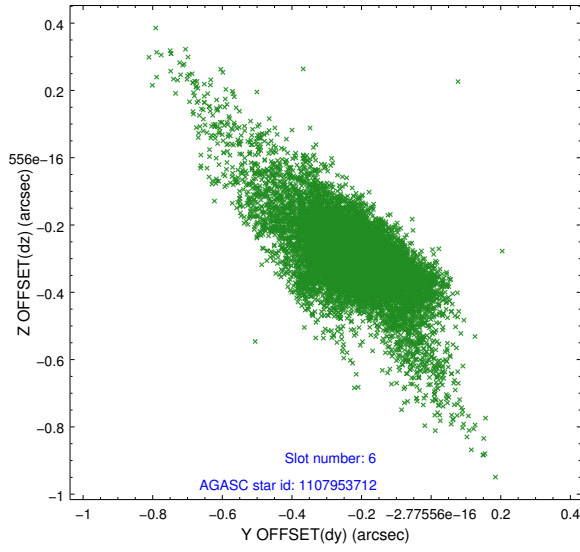
2.4.1 Slot 3



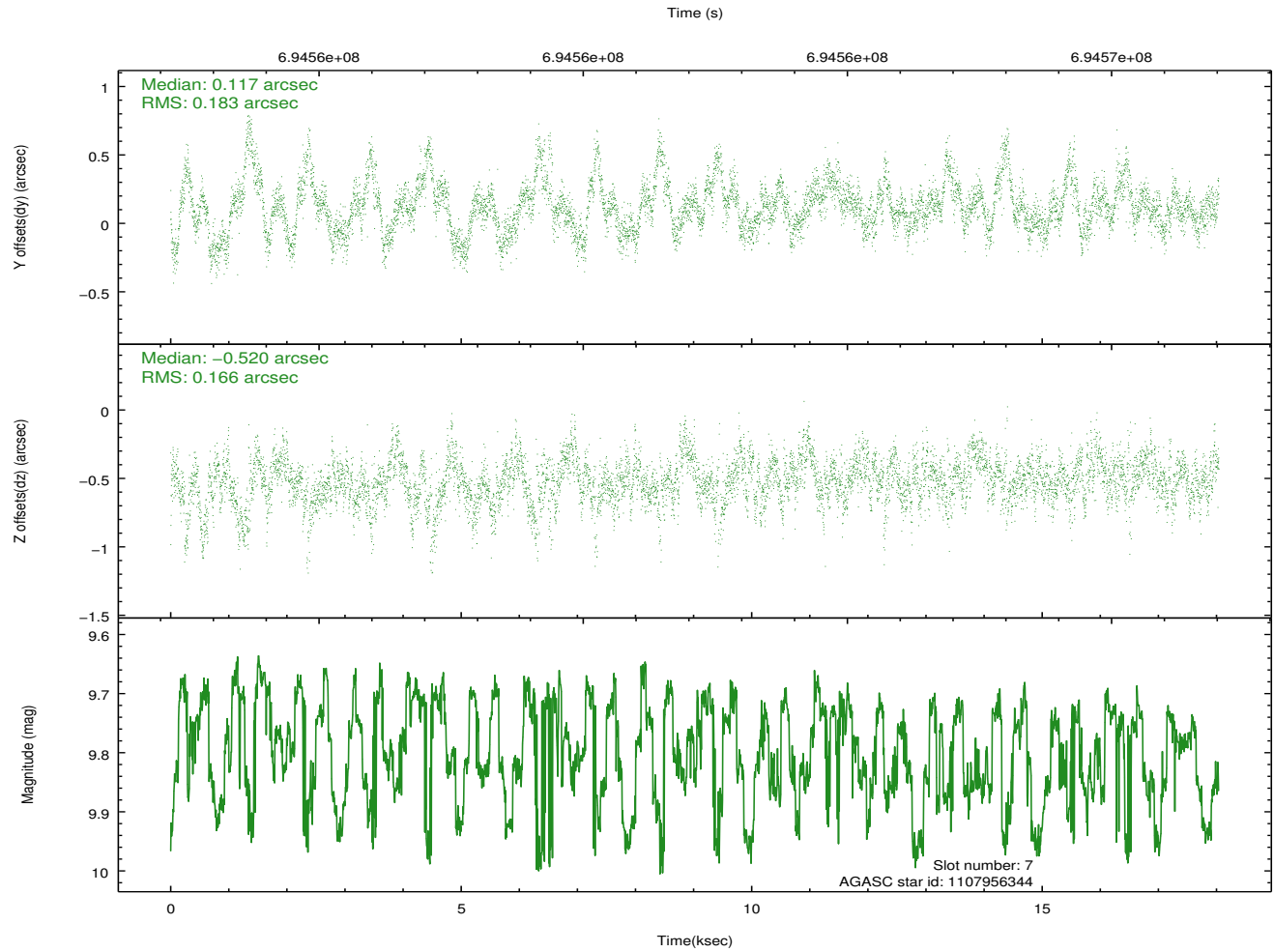
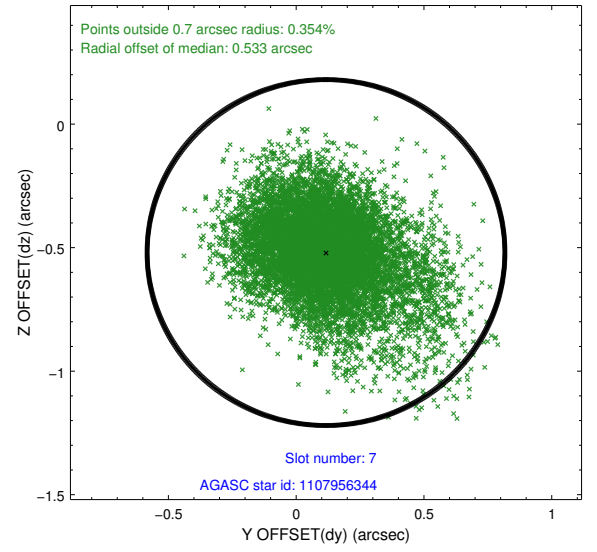
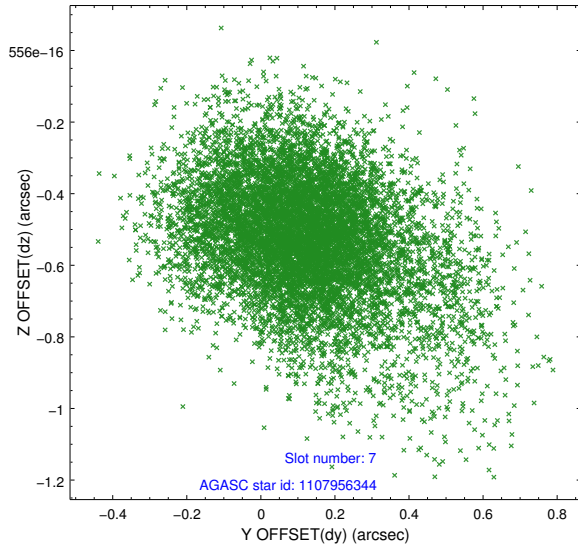
2.4.2 Slot 5



2.4.3 Slot 6

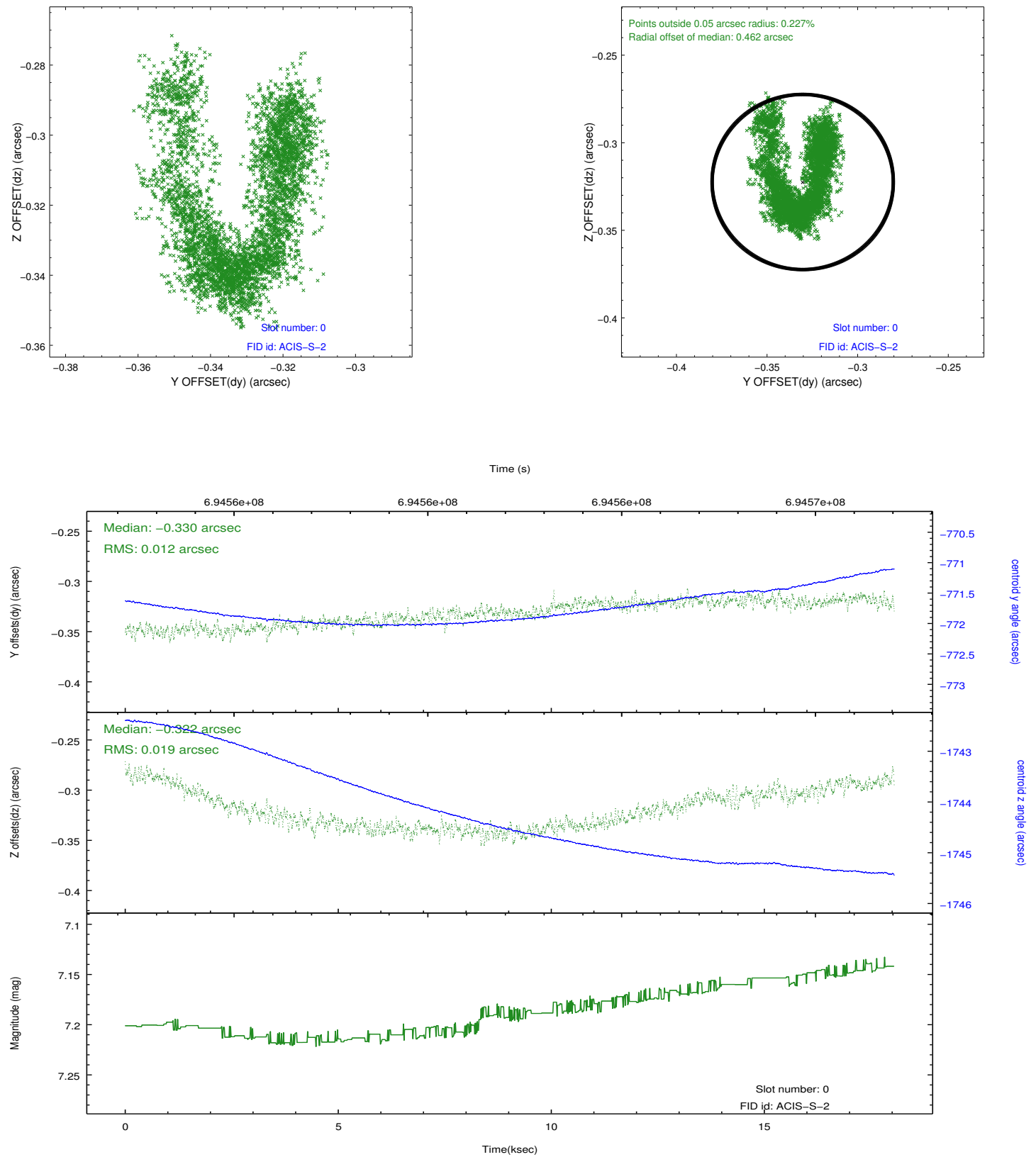


2.4.4 Slot 7

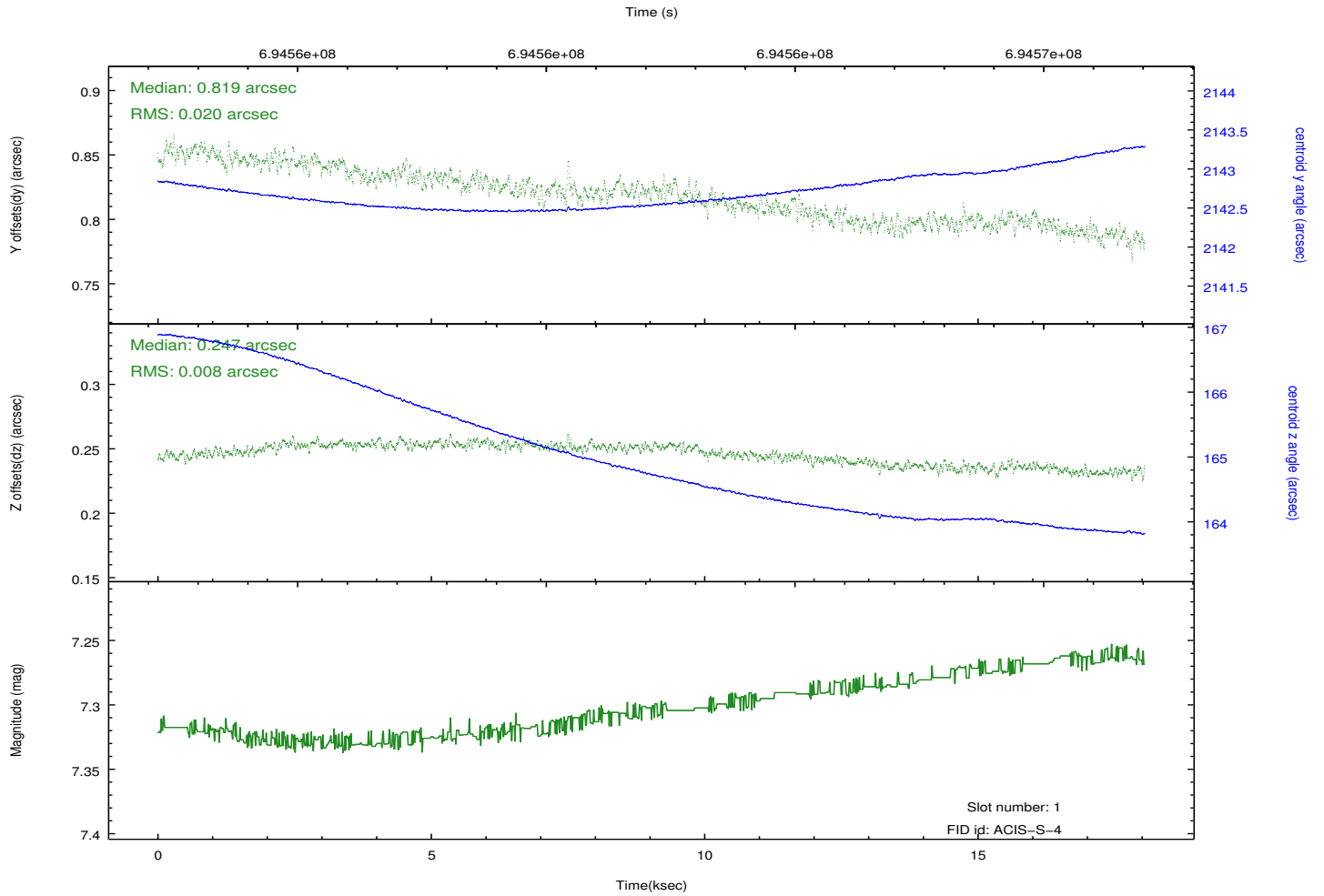
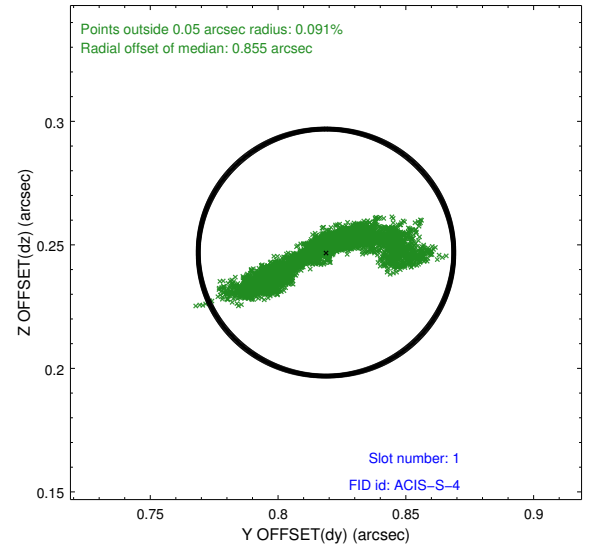
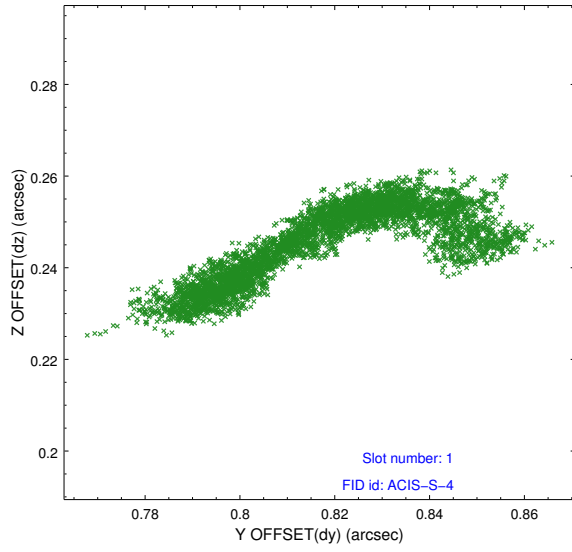


2.5 FID Slots

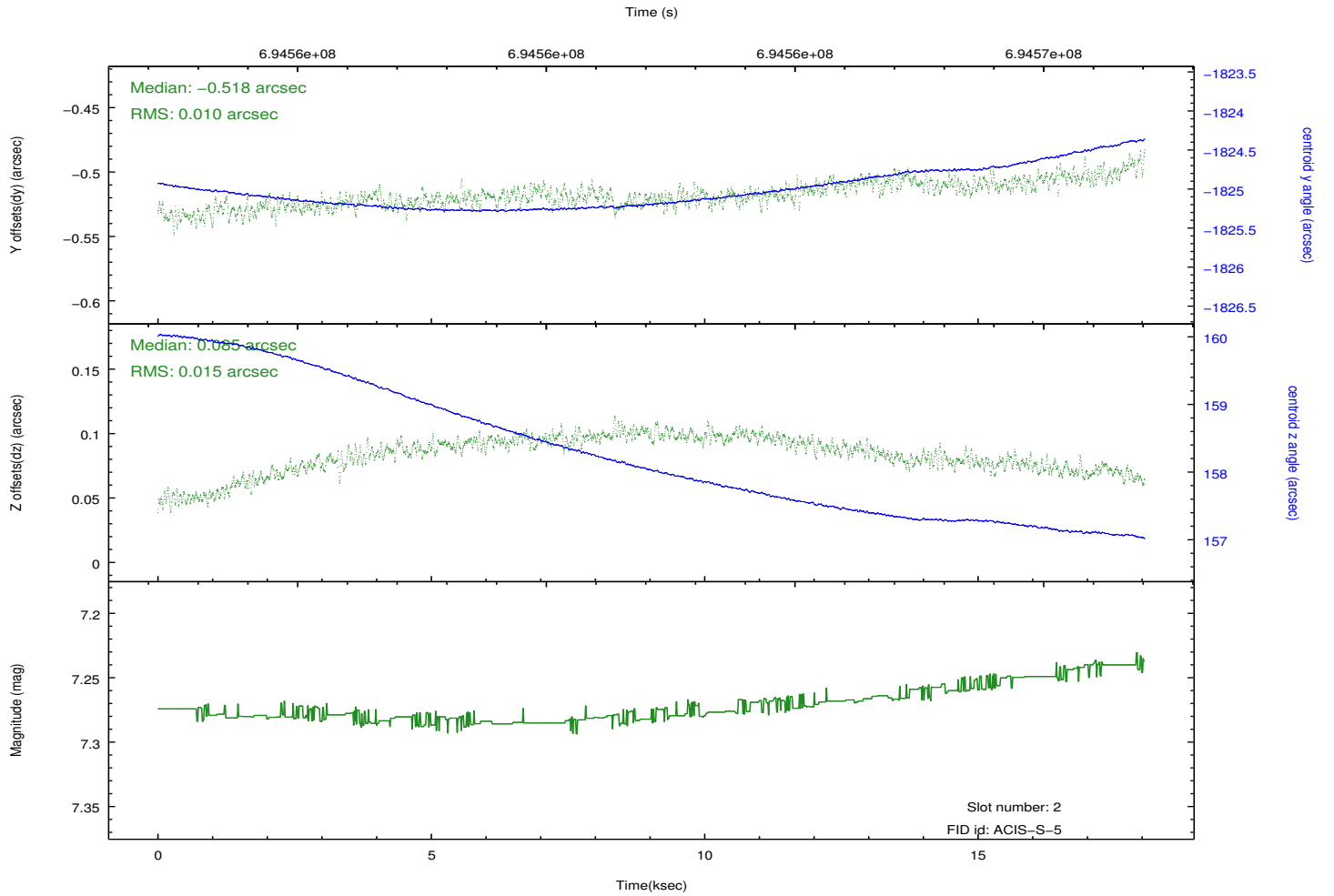
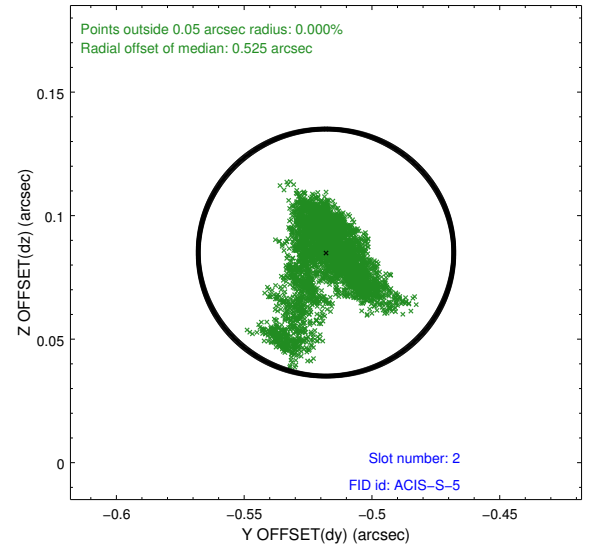
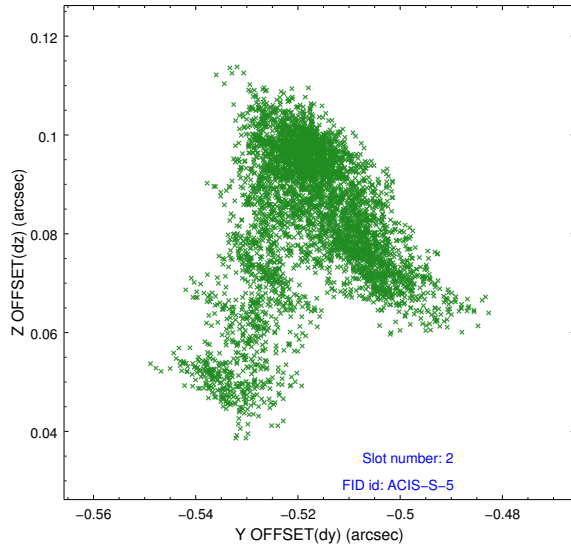
2.5.1 Slot 0



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)	2020.01.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.960083668709

A.2 Comments

The guide star in slot 4 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.