

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16607 - L2 Version 2
Chandra X-Ray Center

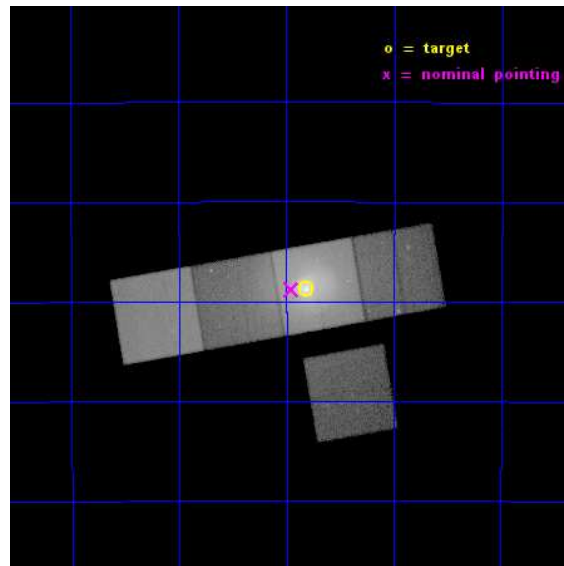
L2 Processing Date : Dec 11 2014

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1 Front

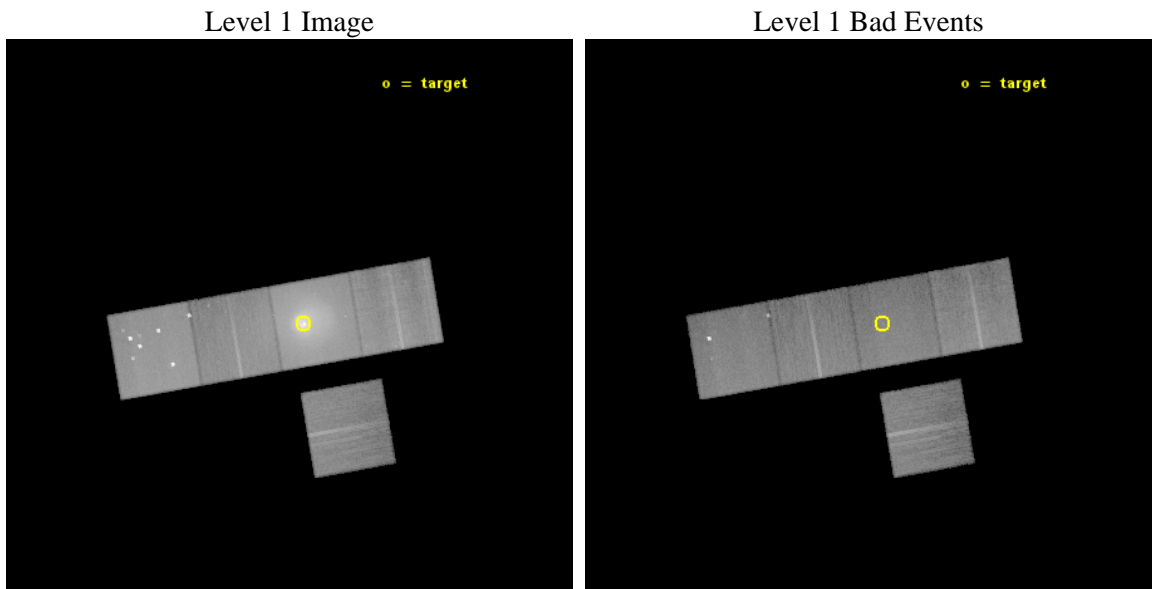
seq_num	801409	Sequence number
obs_id	16607	Observation id
title	Deep imaging and spectroscopy of the Centaurus cluster: metals and filaments	Proposal title
observer	Dr Jeremy Sanders	Principal investigator
object	Centaurus cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	192.20375	Observer's specified target RA [deg]
dec_targ	-41.312167	Observer's specified target Dec [deg]
ra_nom	192.23834752233	Nominal RA [deg]
dec_nom	-41.313291927364	Nominal Dec [deg]
roll_nom	350.17946243961	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46278.834960997	Sum of GTIs [s]
livetime	45674.167912249	Livetime [s]
ontime3	46278.711840987	Sum of GTIs [s]
ontime5	46278.793920994	Sum of GTIs [s]
ontime6	46275.611800611	Sum of GTIs [s]
ontime7	46278.834960997	Sum of GTIs [s]
ontime8	46278.670800984	Sum of GTIs [s]
l2events	977054	Number of level 2 events



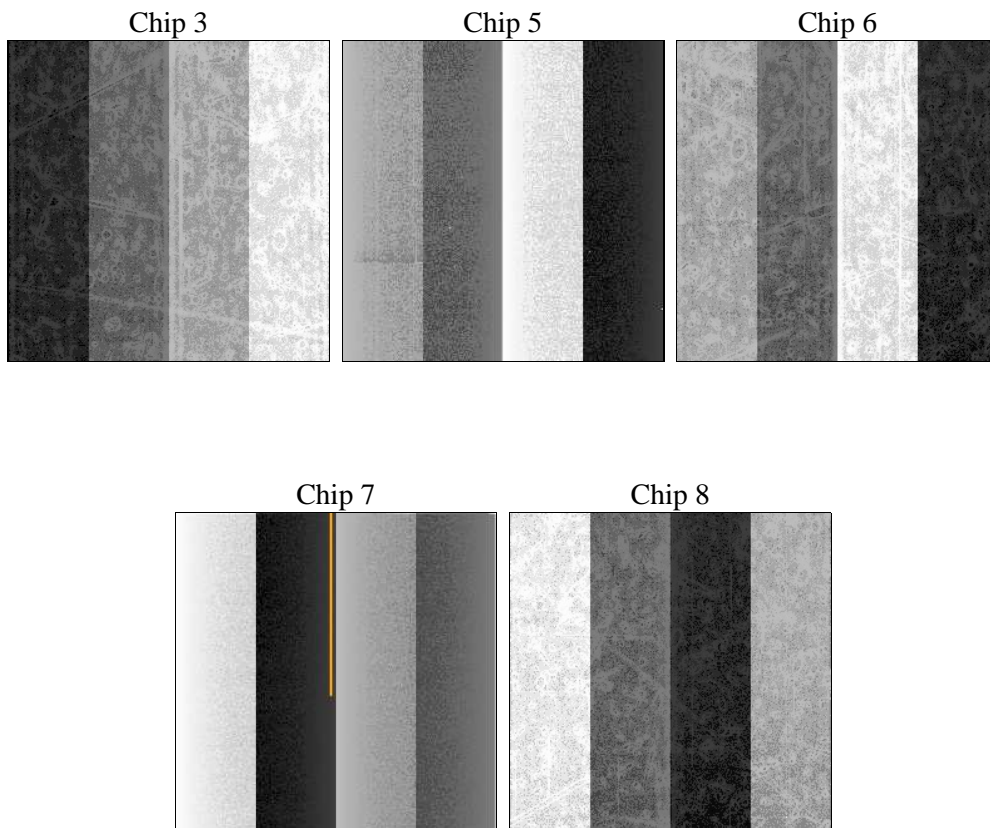
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	46215.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	46278.834960997	Sum of GTIs [s]
caldbver	4.6.4	 	ontime3	46278.711840987	Sum of GTIs [s]
date	2014-12-11T05:45:35	Date and time of file creation	ontime5	46278.793920994	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	46275.611800611	Sum of GTIs [s]
			ontime7	46278.834960997	Sum of GTIs [s]
			ontime8	46278.670800984	Sum of GTIs [s]
			l1events	2053584	Number of level 1 events

2.1.4 Events

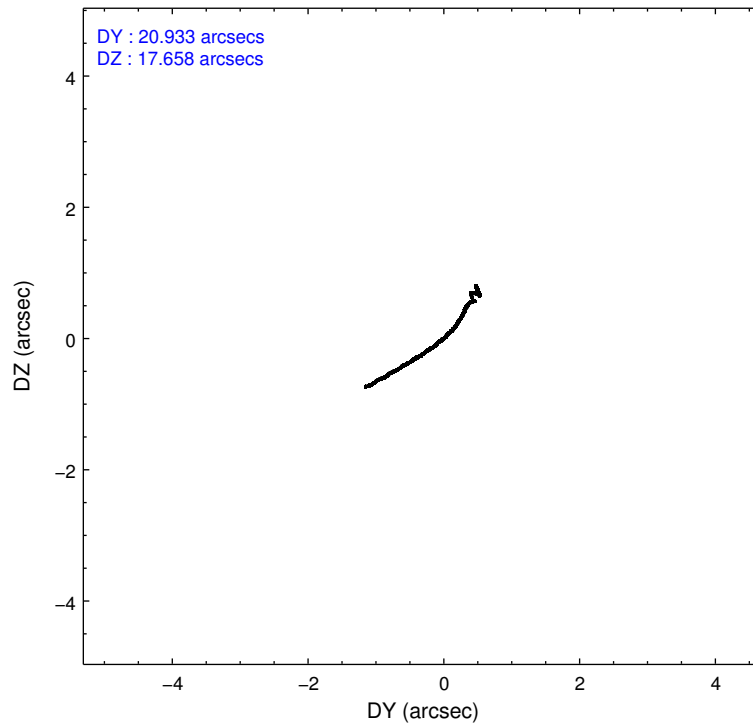
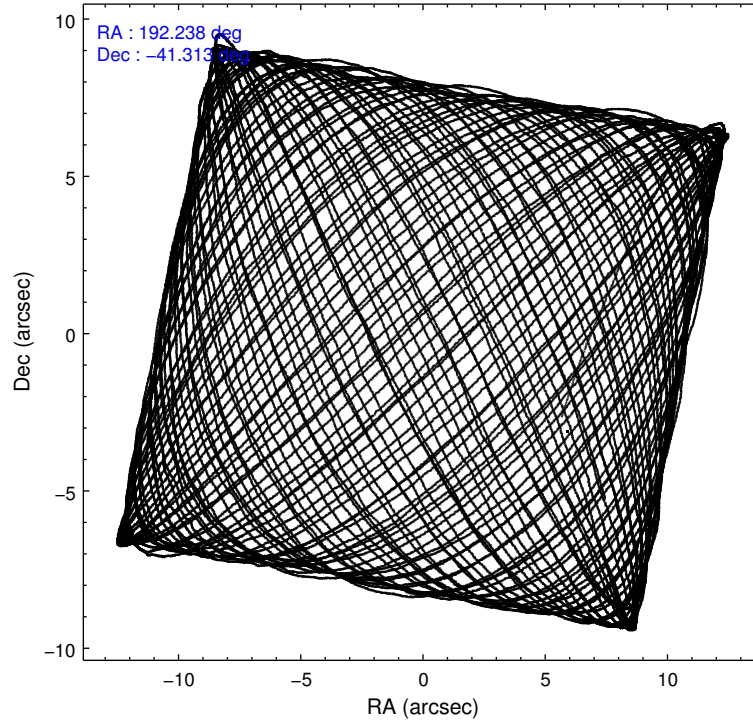
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	220639	451270	310052	746439	325184
rejected events	176527	201738	188130	173773	210130
rejected %	80%	44%	60%	23%	64%

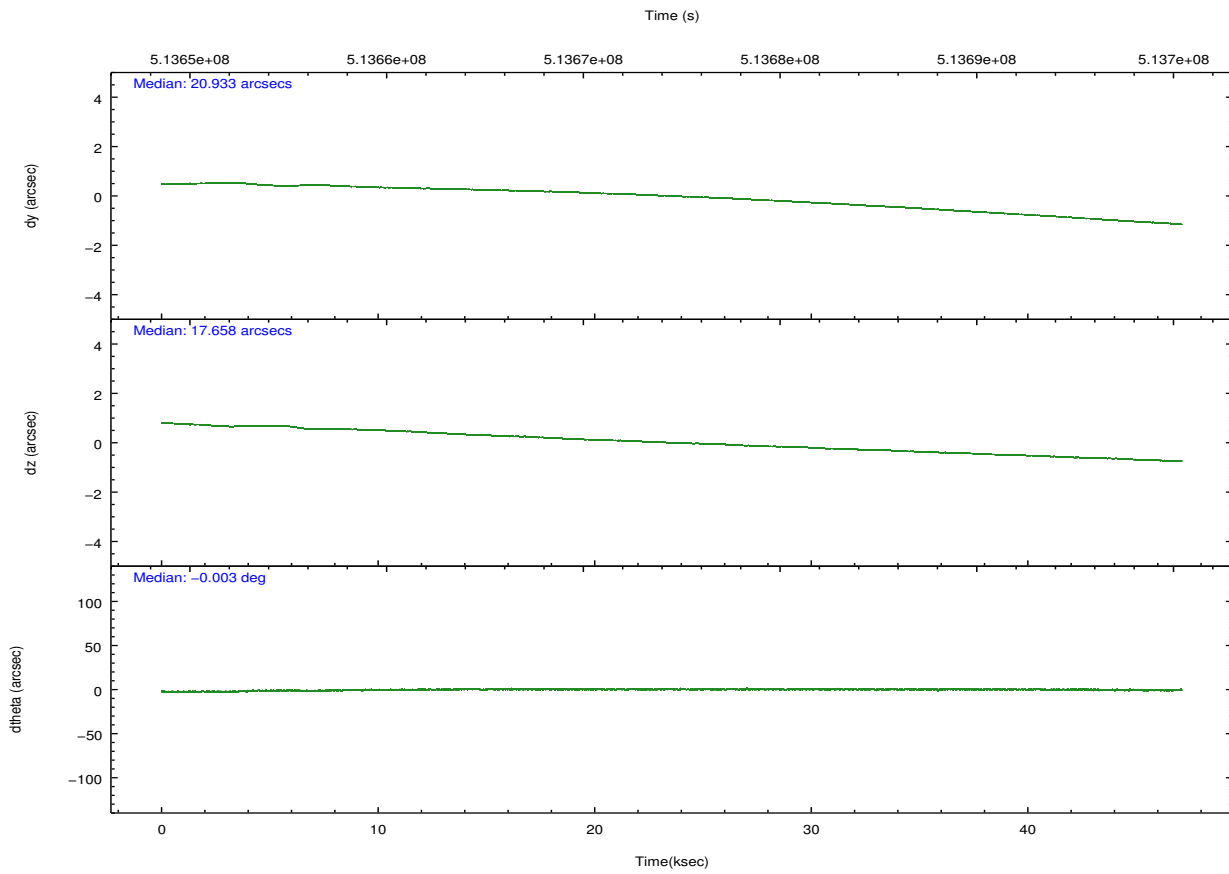
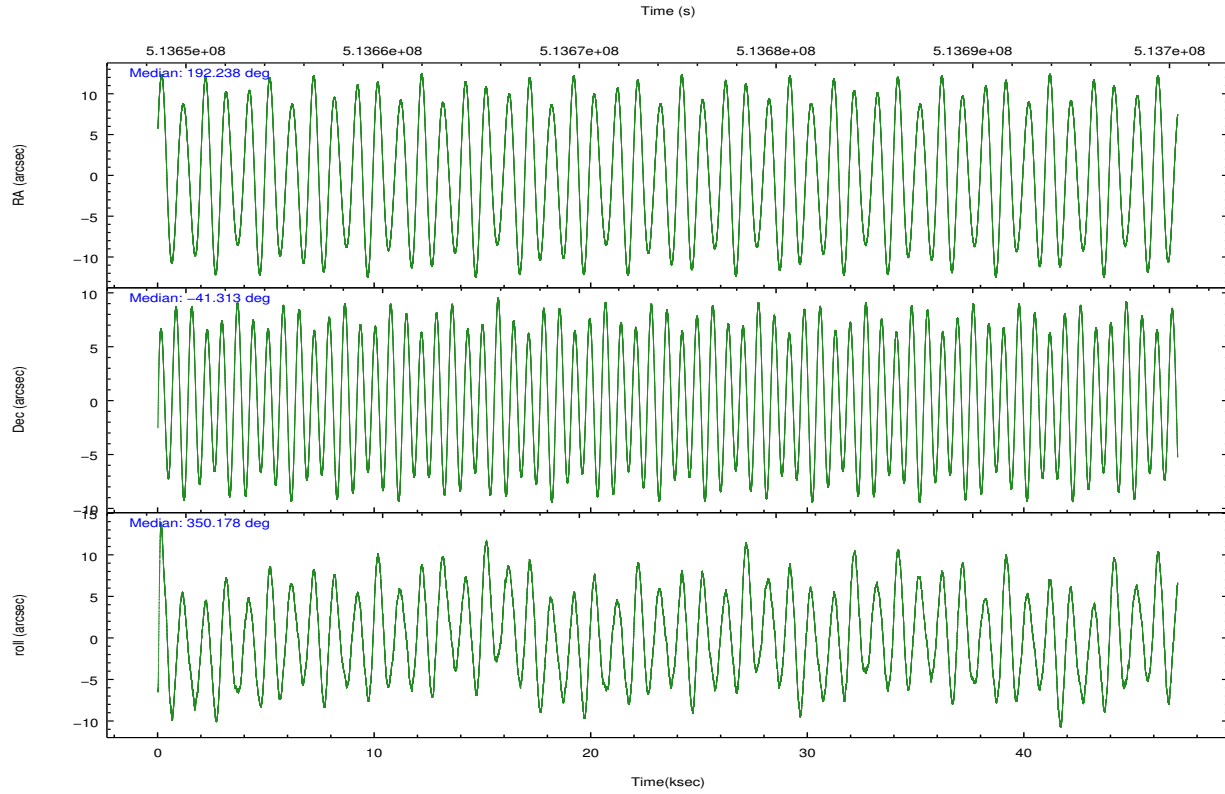
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	24827	61995	85670	137052	54944
	11%	13%	27%	18%	16%
grade 1 events	172	845	350	440	310
	0%	0%	0%	0%	0%
grade 2 events	7345	66659	16278	147066	21464
	3%	14%	5%	19%	6%
grade 3 events	3175	9934	5584	61947	9329
	1%	2%	1%	8%	2%
grade 4 events	3234	8469	5559	60490	8803
	1%	1%	1%	8%	2%
grade 5 events	11240	28505	11656	32710	16729
	5%	6%	3%	4%	5%
grade 6 events	5536	102488	8835	166143	20521
	2%	22%	2%	22%	6%
grade 7 events	165110	172375	176120	140591	193084
	74%	38%	56%	18%	59%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	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	192.204346	192.2383475223344	CCD I2 on	N	N
[deg] Pointing Dec	-41.323075	-41.31329192736407	CCD I3 on	O1	Y
[deg] Pointing Roll	350.000388	350.1794624396126	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	O2	Y
[s] Observation start time (MET)	513651831.184000	513650413.74953	CCD S5 on	N	N
Observation start date	2014-04-12T01:02:44	2014-04-12T00:40:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	513698046.184000	513699569.67724	On-chip summing requested	N	N
Observation end date	2014-04-12T13:52:59	2014-04-12T14:19:29	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



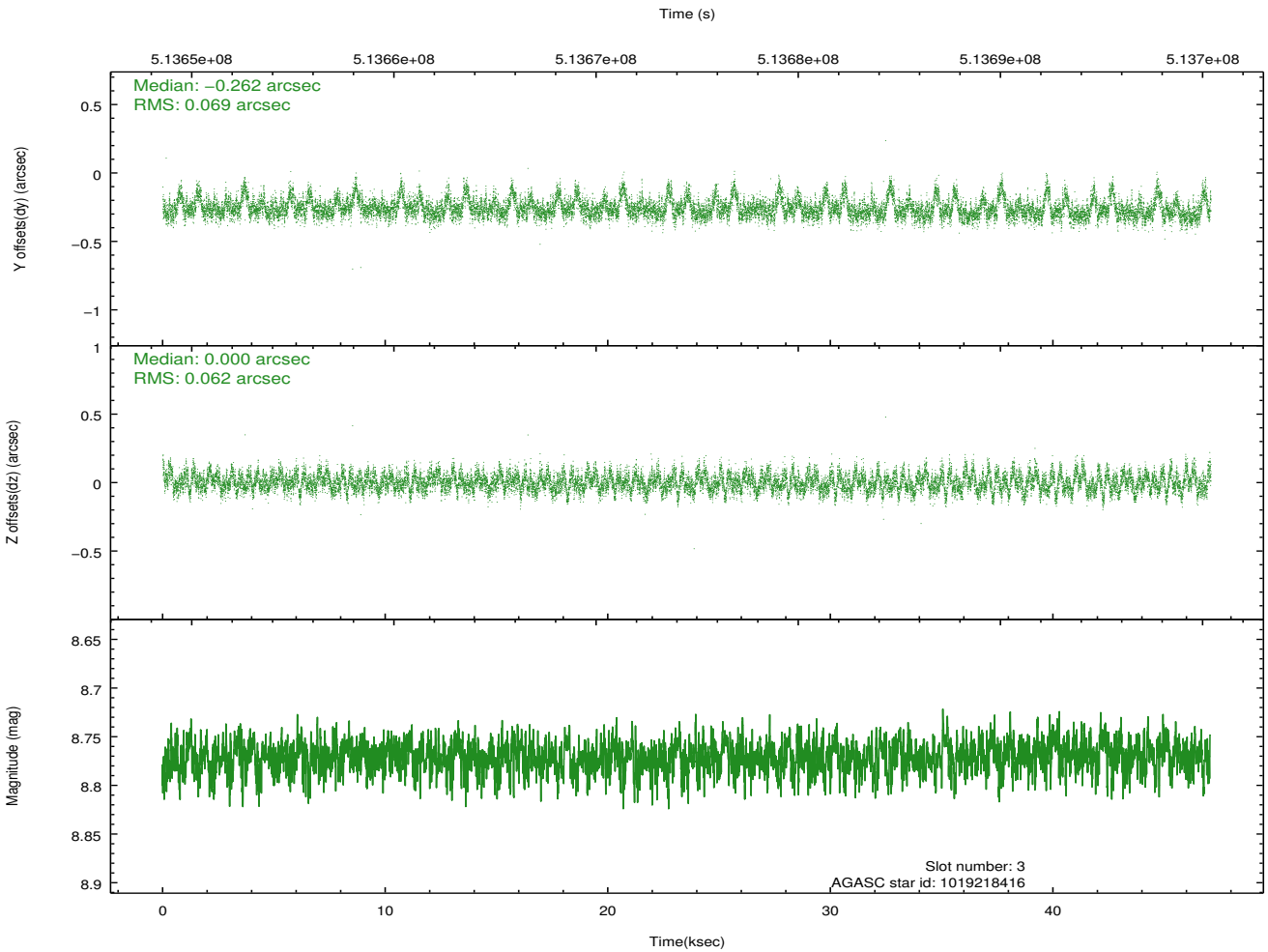
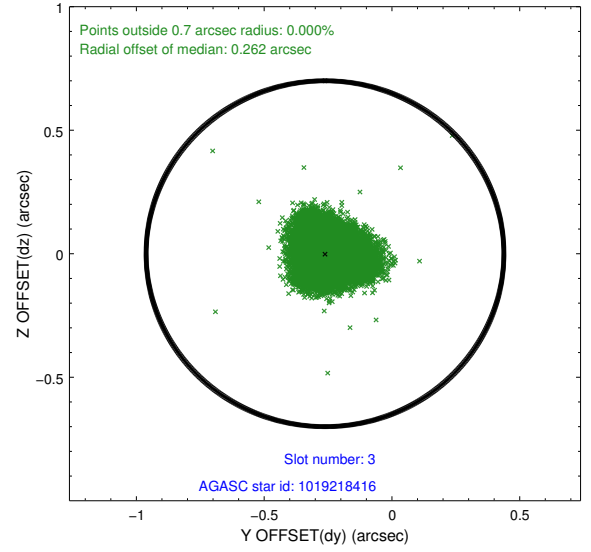
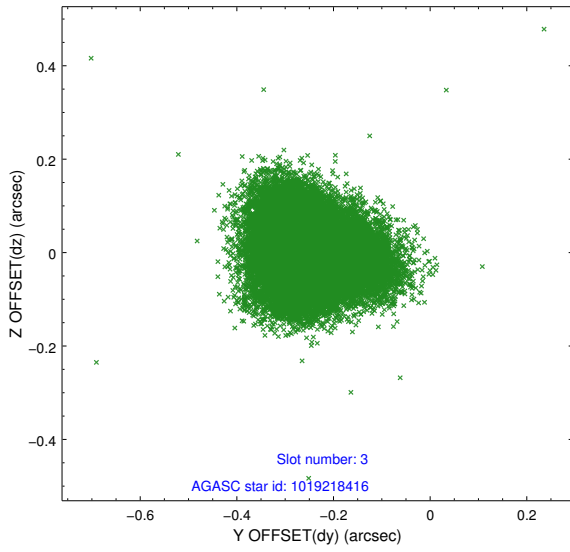


Slot Statistics

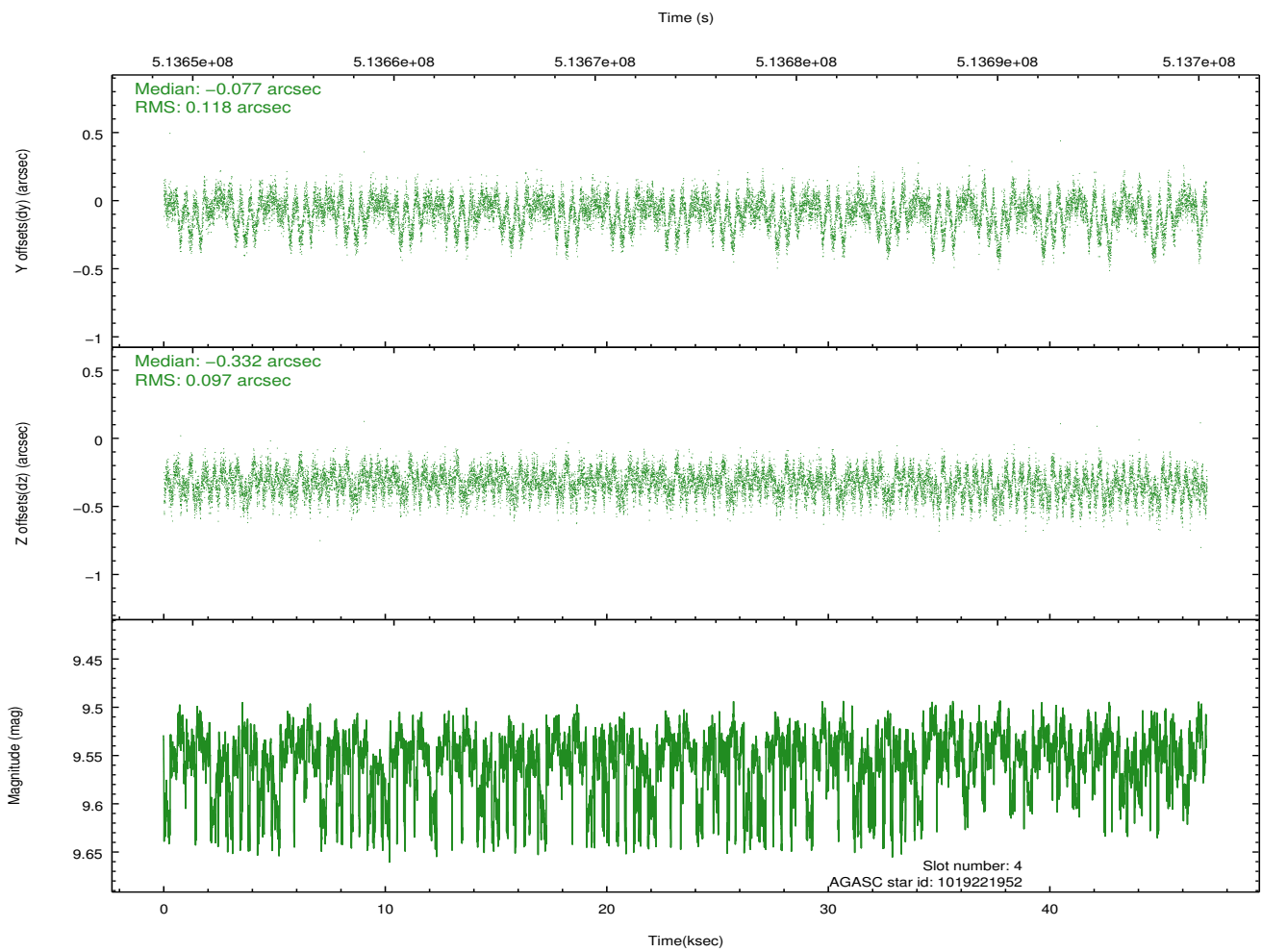
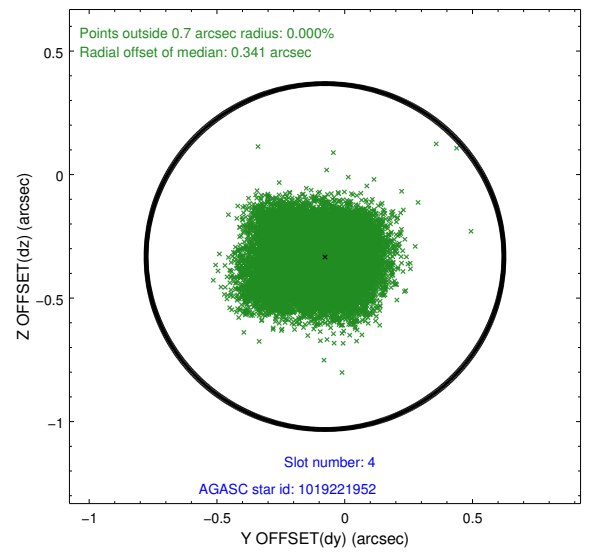
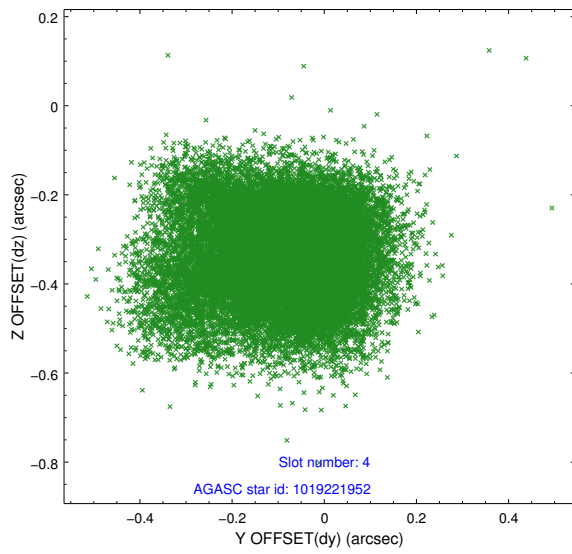
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.00	11485	-0.116	-0.057	0.013	0.026	0.000000	0.000000	-774.08	-1739.17
1	FID		ACIS-S-4	7.10	11485	0.262	0.071	0.007	0.013	0.000000	0.000000	2139.61	169.40
2	FID		ACIS-S-5	7.12	11485	-0.176	-0.006	0.014	0.023	0.000000	0.000000	-1826.97	163.04
3	GUIDE	used	1019218416	8.77	22965	-0.262	0.000	0.098	0.160	193.142850	-40.941016	2276.94	1783.97
4	GUIDE	used	1019221952	9.55	22950	-0.077	-0.332	0.160	0.273	192.906873	-41.032646	1698.94	1353.16
5	GUIDE	used	1019615024	8.48	22960	0.227	0.186	0.089	0.139	191.349086	-41.365736	-2246.21	-563.55
6	GUIDE	used	1019740808	8.77	22958	0.029	-0.113	0.118	0.186	192.766173	-41.251253	1453.48	513.63
7	GUIDE	used	1019743536	8.65	22962	0.087	0.259	0.086	0.137	192.632057	-41.696442	1366.82	-1126.86

2.4 Star Slots

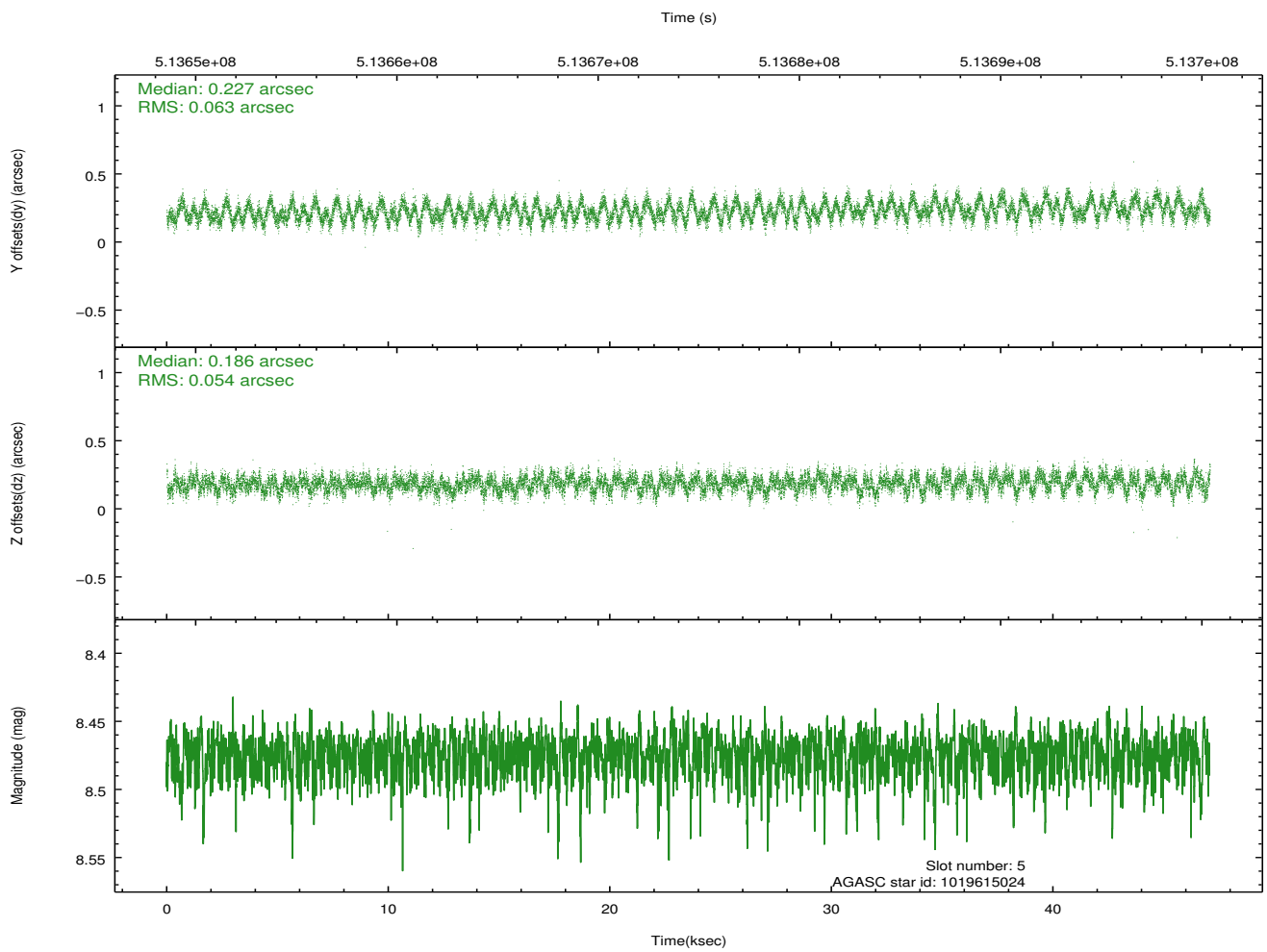
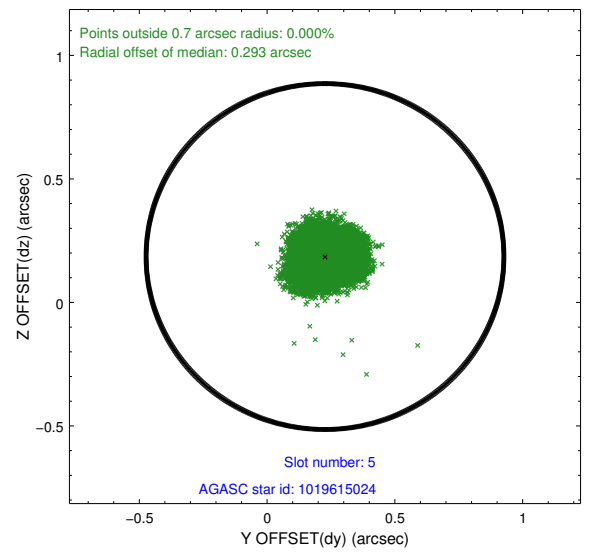
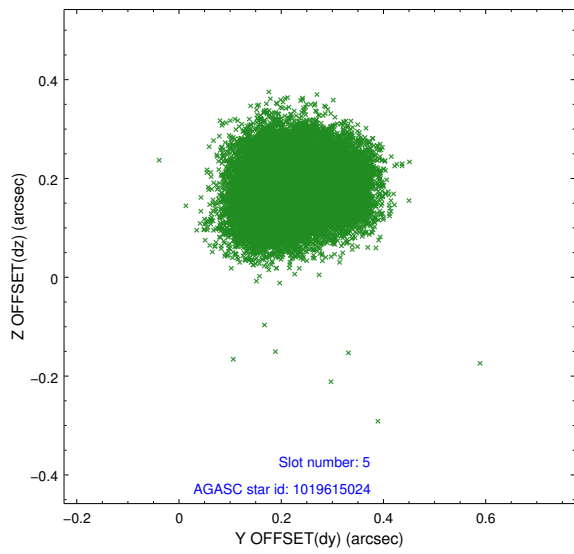
2.4.1 Slot 3



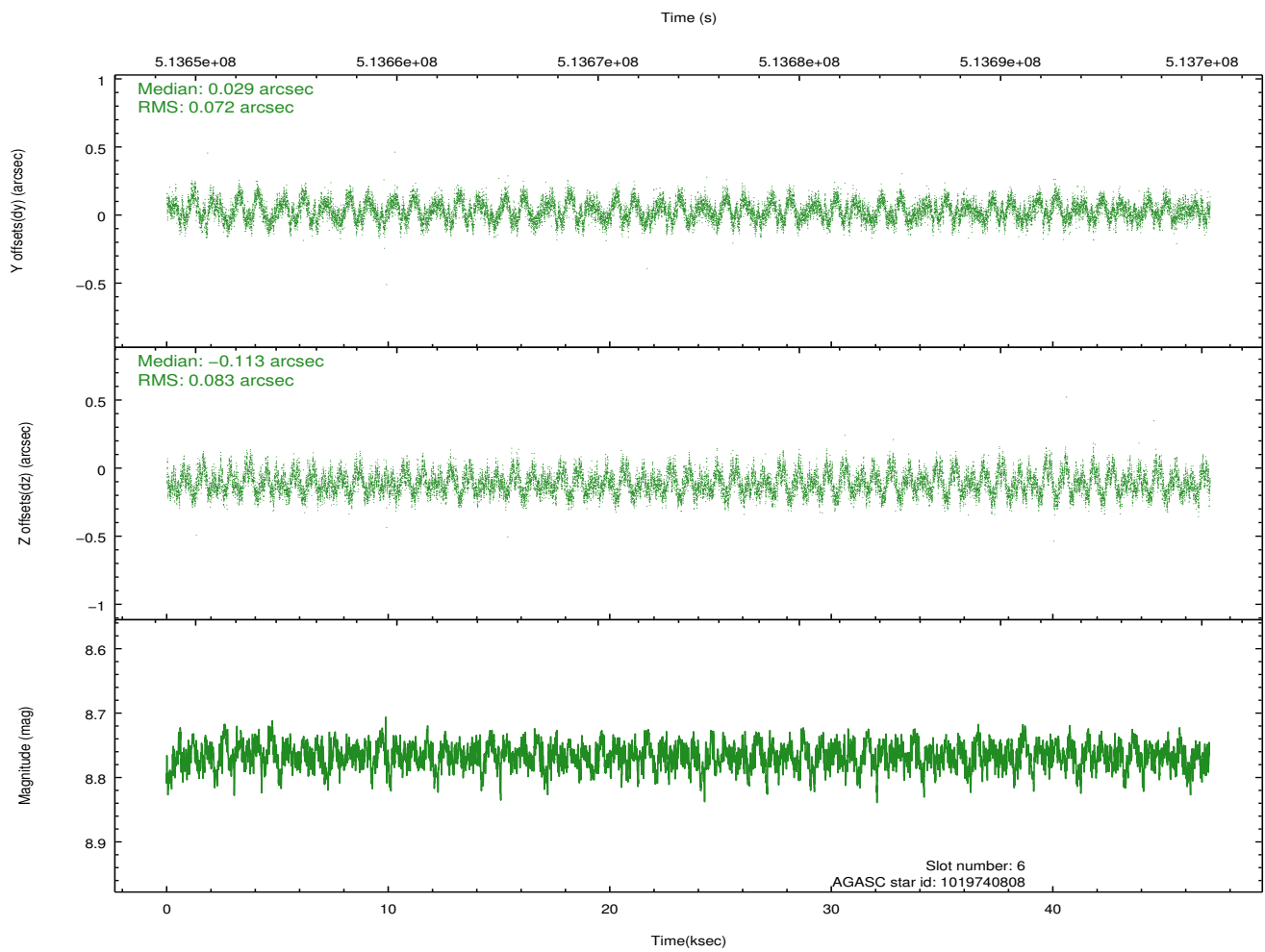
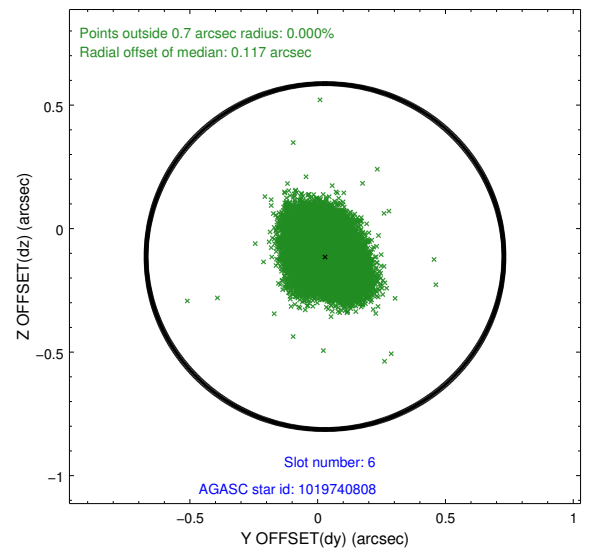
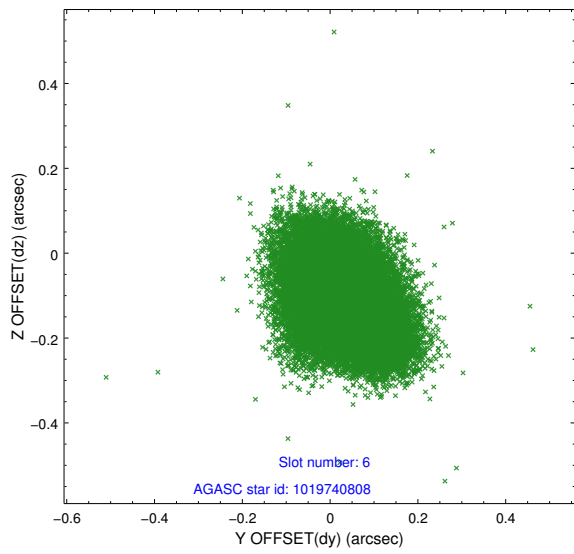
2.4.2 Slot 4



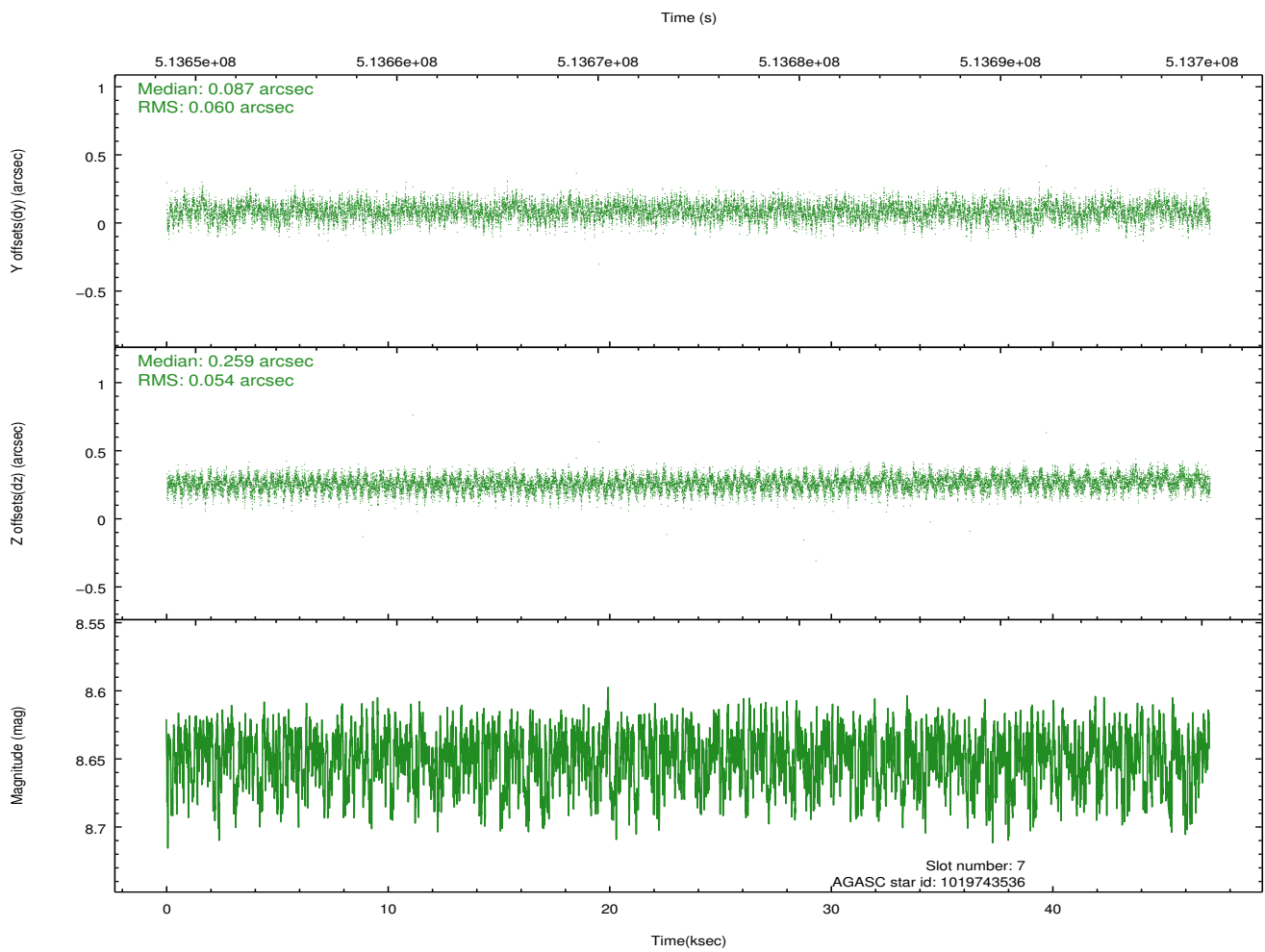
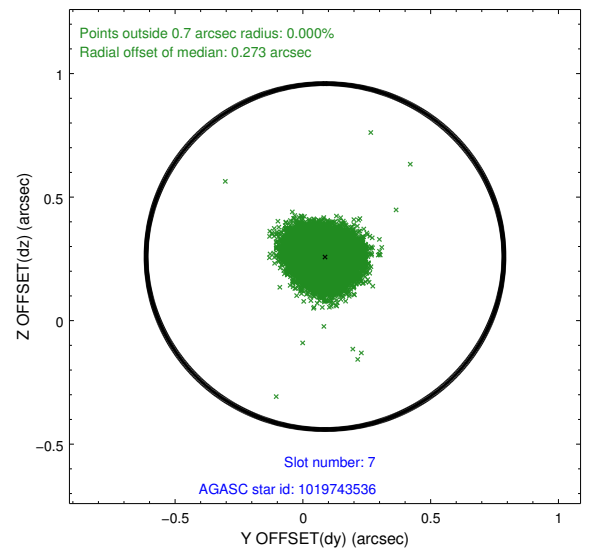
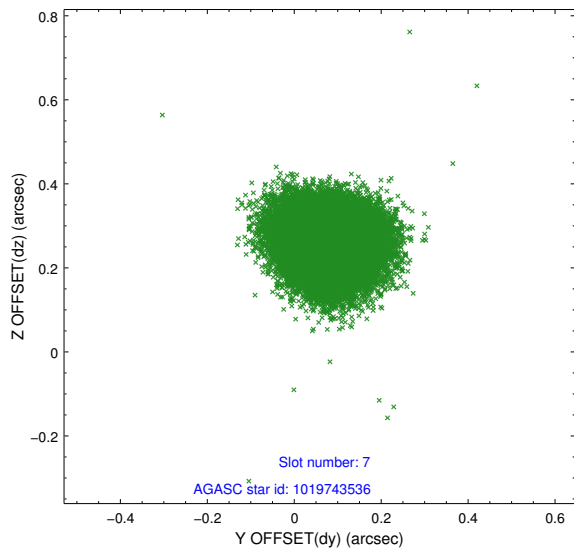
2.4.3 Slot 5



2.4.4 Slot 6

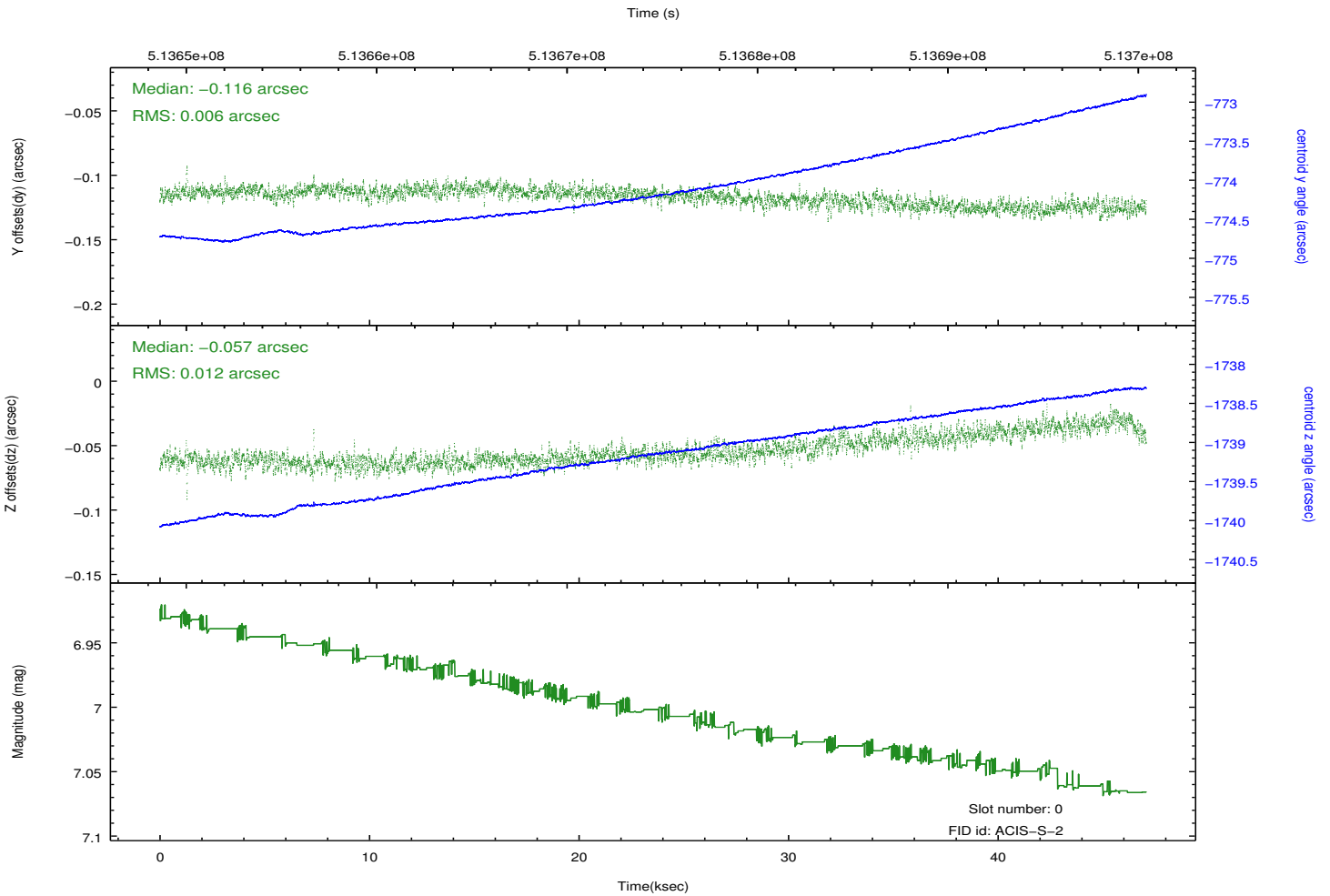
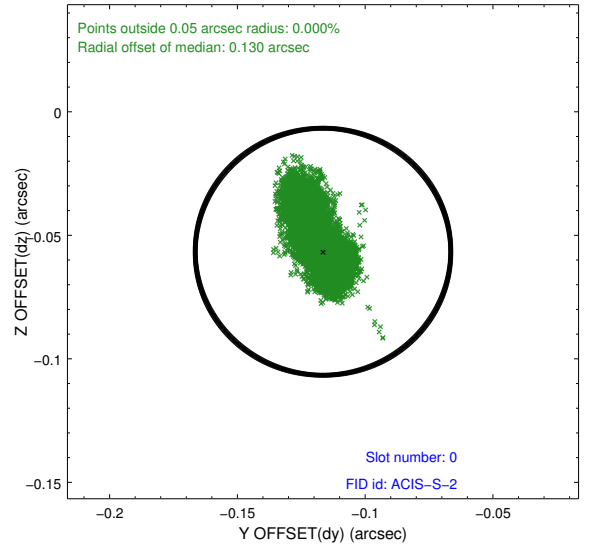
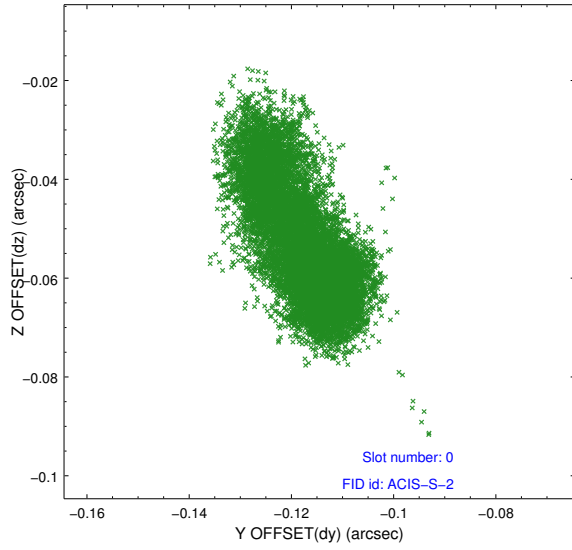


2.4.5 Slot 7

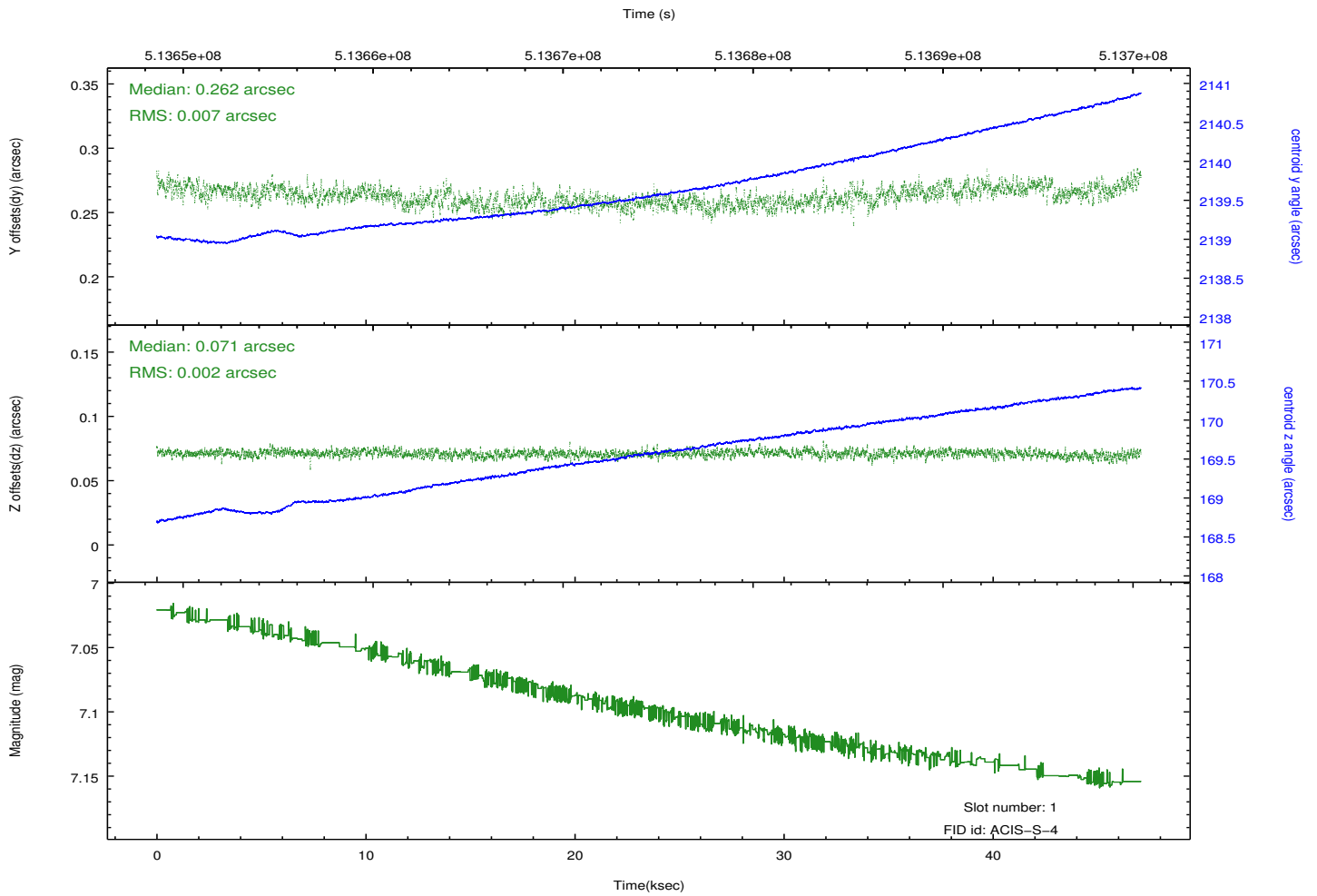
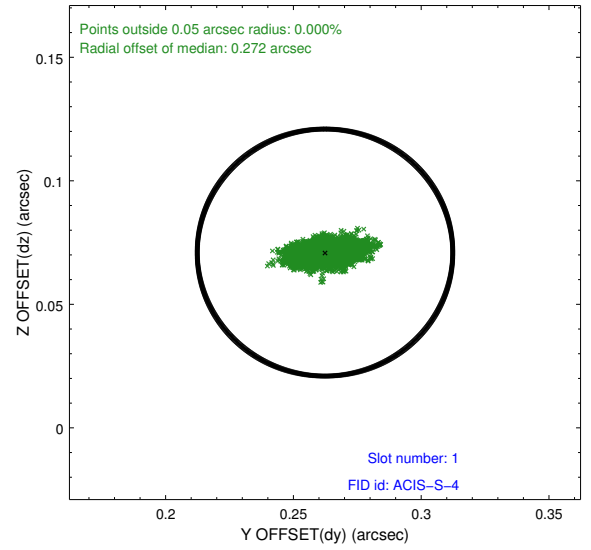
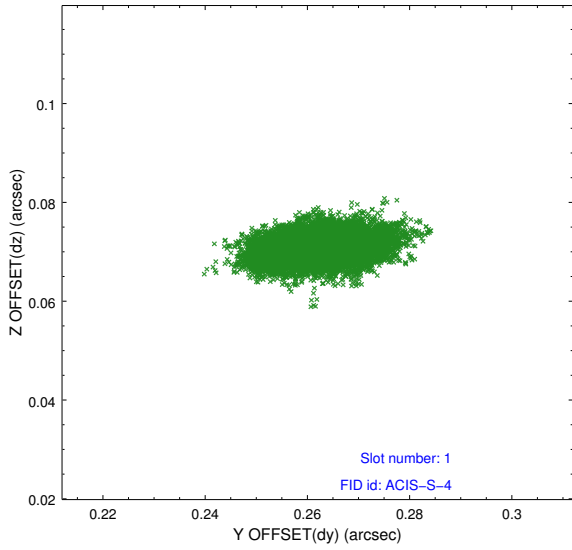


2.5 FID Slots

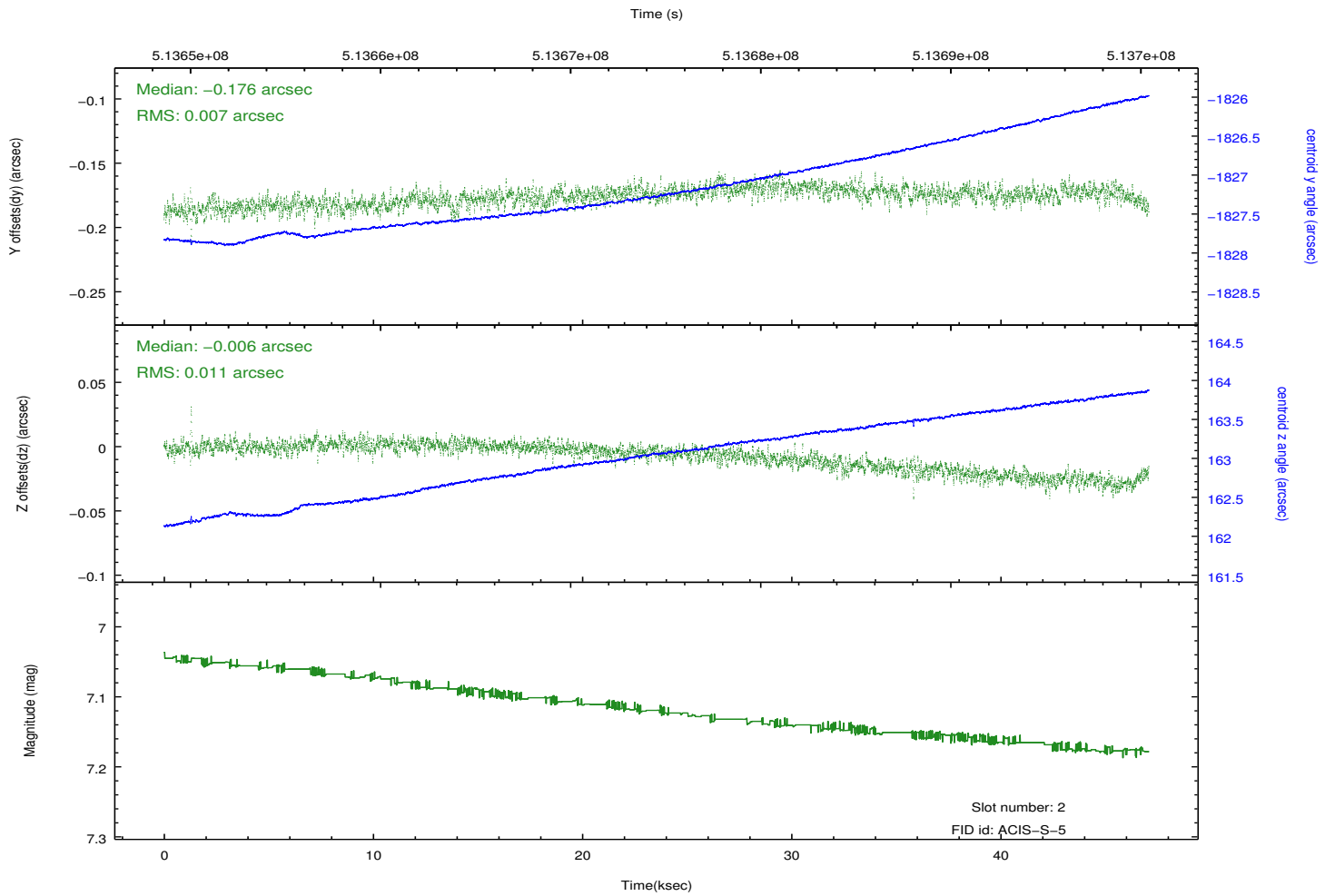
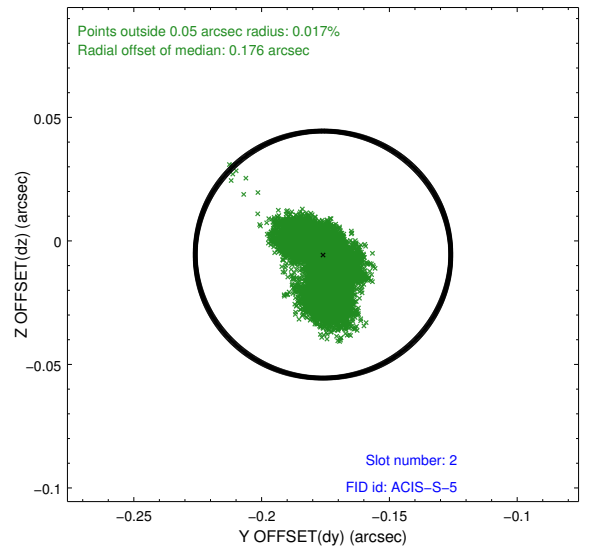
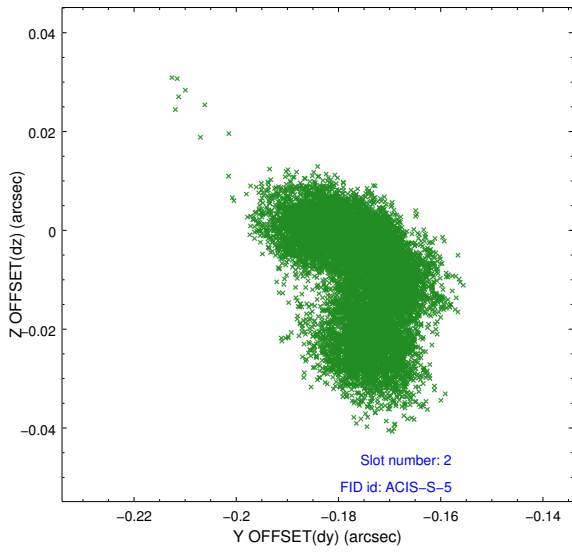
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.278834960997

A.2 Comments

Joint proposal with NRAO.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.