

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16564 - L2 Version 2
Chandra X-Ray Center

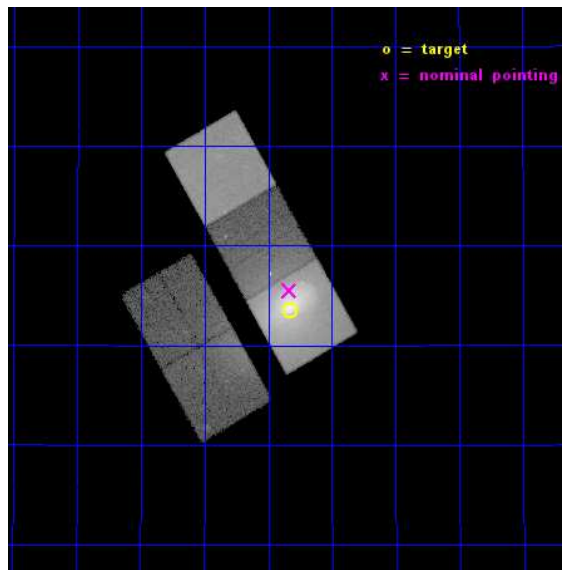
L2 Processing Date : Dec 9 2014

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1 Front

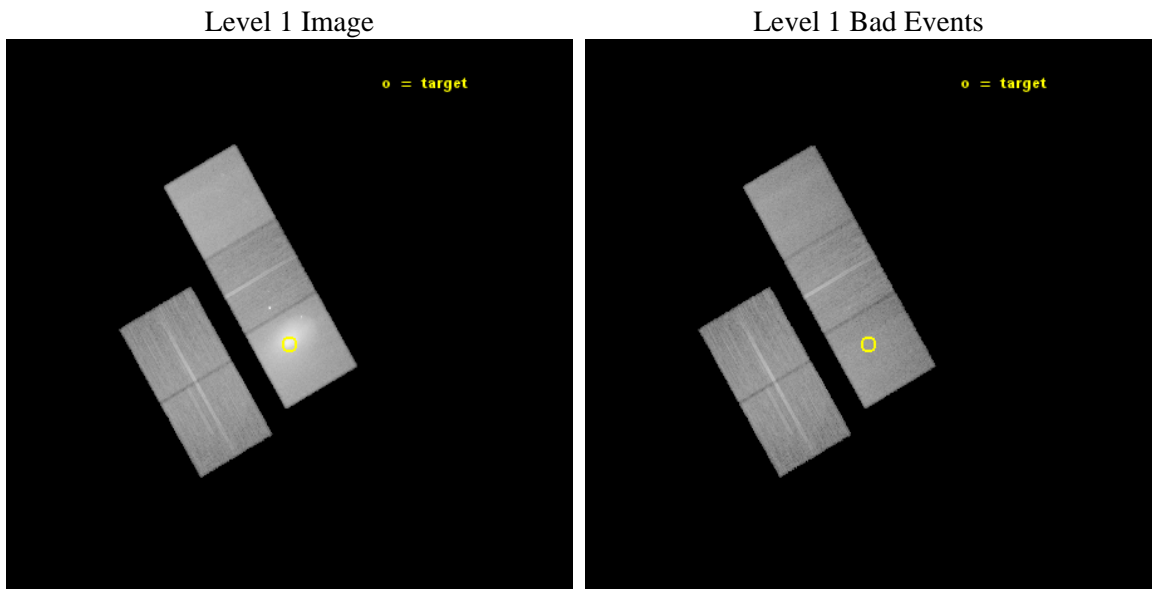
seq_num	801311	Sequence number
obs_id	16564	Observation id
title	RESOLVING KELVIN-HELMHOLTZ INSTABILITIES IN CLUSTER COLD FRONTS	Pr
observer	Dr Maxim Markevitch	Principal investigator
object	A2142	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.581667	Observer's specified target RA [deg]
dec_targ	27.226111	Observer's specified target Dec [deg]
ra_nom	239.58337835168	Nominal RA [deg]
dec_nom	27.258864268001	Nominal Dec [deg]
roll_nom	60.155837575404	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45064.700346589	Sum of GTIs [s]
livetime	44475.896860411	Livetime [s]
ontime2	45055.277475417	Sum of GTIs [s]
ontime3	45061.559356332	Sum of GTIs [s]
ontime5	45064.700346589	Sum of GTIs [s]
ontime6	45052.1364851	Sum of GTIs [s]
ontime7	45064.700346589	Sum of GTIs [s]
l2events	740827	Number of level 2 events



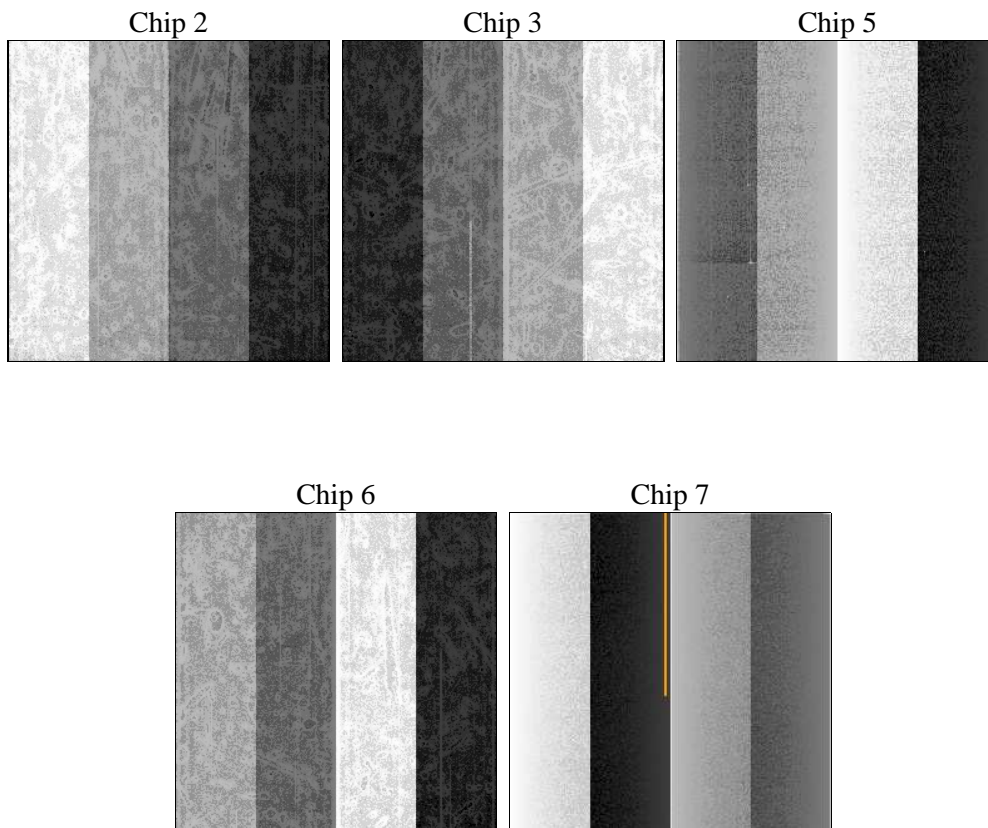
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	45064.700346589	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	45055.277475417	Sum of GTIs [s]
date	2014-12-10T00:33:40	Date and time of file creation	ontime3	45061.559356332	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	45064.700346589	Sum of GTIs [s]
			ontime6	45052.1364851	Sum of GTIs [s]
			ontime7	45064.700346589	Sum of GTIs [s]
			l1events	1666044	Number of level 1 events

2.1.4 Events

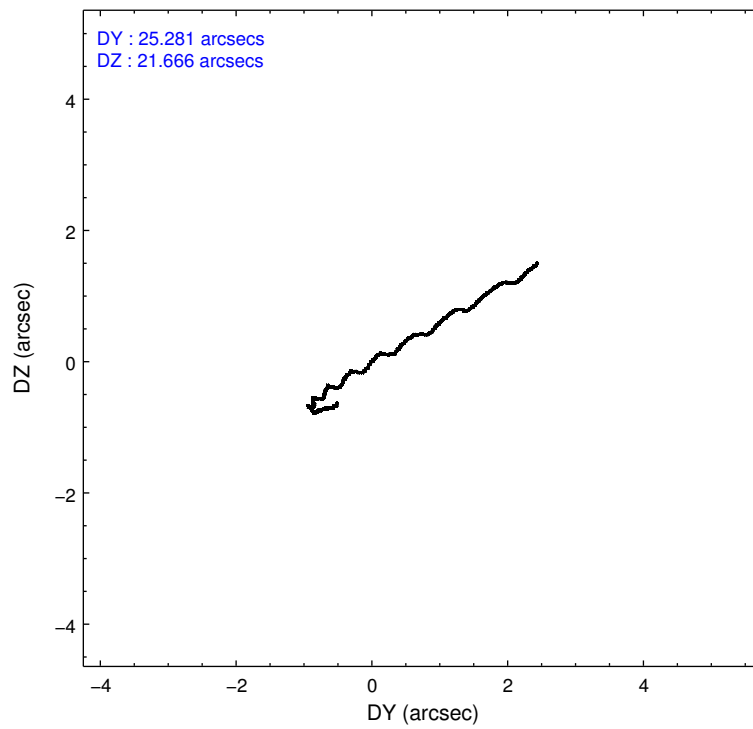
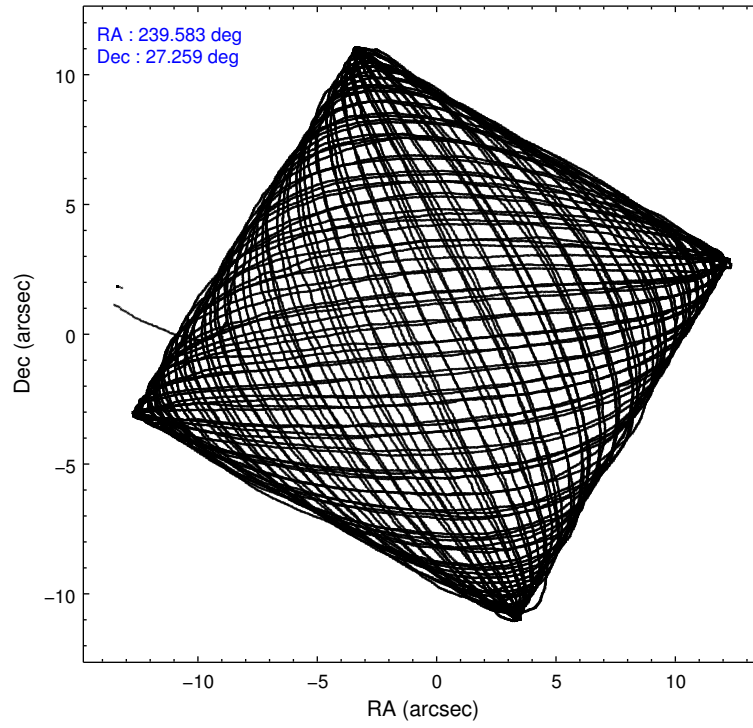
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	213057	211331	354907	239154	647595
rejected events	184081	177525	186142	187132	169904
rejected %	86%	84%	52%	78%	26%

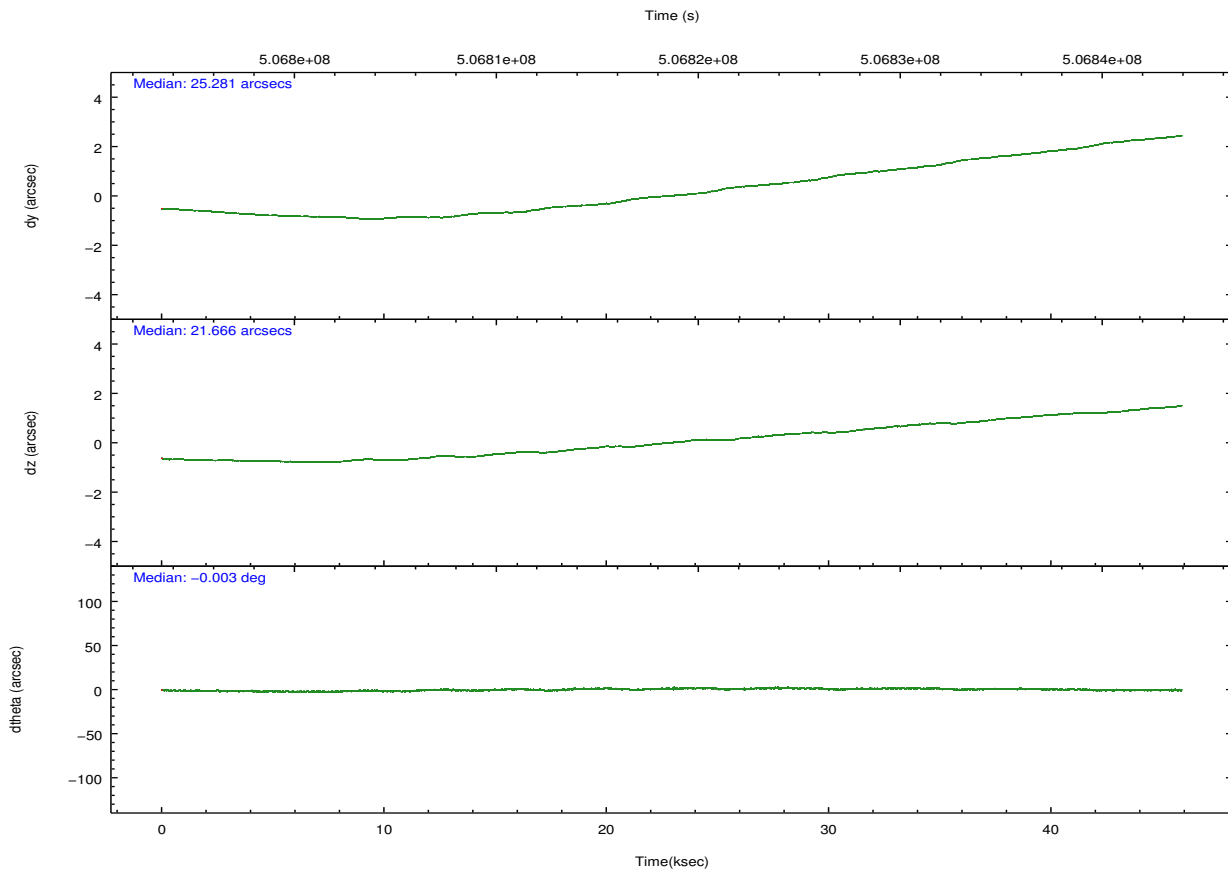
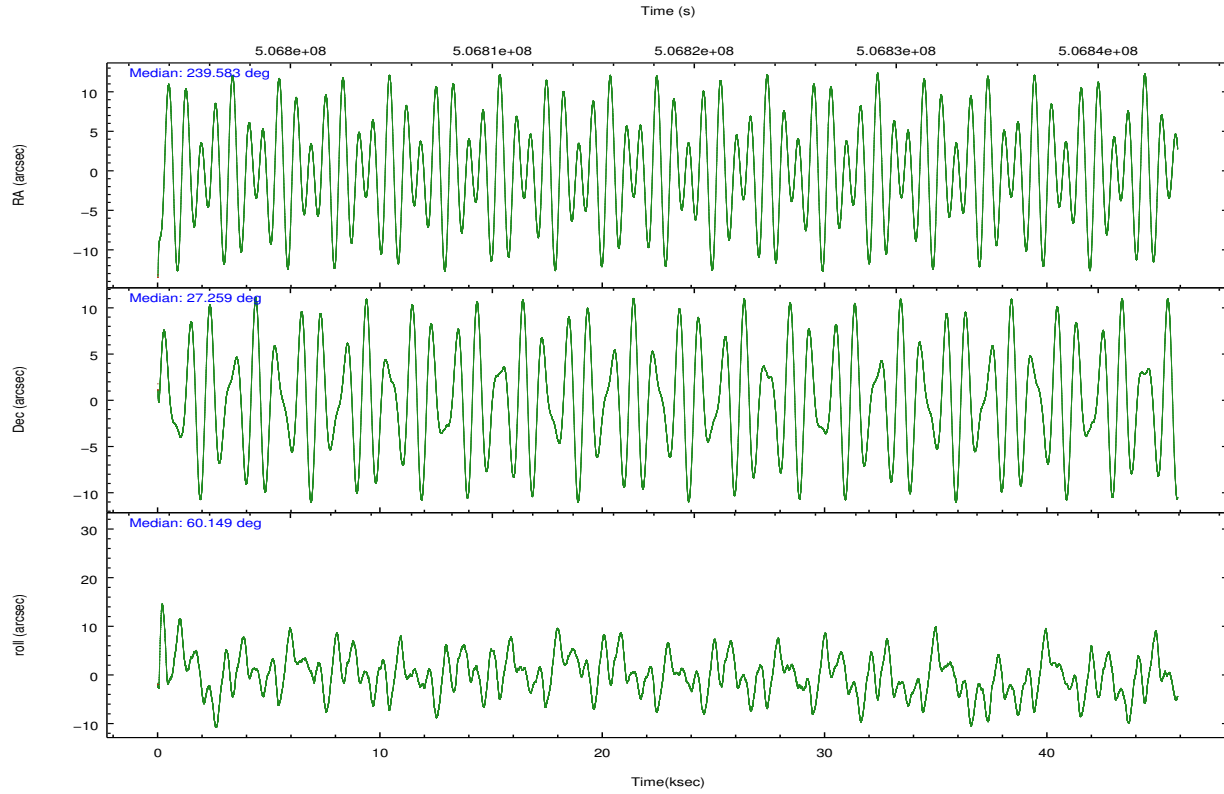
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	12242	16462	10945	29256	108839
	5%	7%	3%	12%	16%
grade 1 events	124	142	555	198	425
	0%	0%	0%	0%	0%
grade 2 events	6551	6265	51935	8783	118962
	3%	2%	14%	3%	18%
grade 3 events	2531	2942	6020	3573	50576
	1%	1%	1%	1%	7%
grade 4 events	2680	2860	5908	3530	49840
	1%	1%	1%	1%	7%
grade 5 events	9335	11253	26683	11677	32692
	4%	5%	7%	4%	5%
grade 6 events	4973	5278	93969	6887	149513
	2%	2%	26%	2%	23%
grade 7 events	174621	166129	158892	175250	136748
	81%	78%	44%	73%	21%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	239.583879	239.5833783516821	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.231515	27.25886426800115	Alternating exposures requested	N	N
[deg] Pointing Roll	59.998984	60.15583757540359	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	506796627.184000	506795167.24698			
Observation start date	2014-01-22T16:49:20	2014-01-22T16:26:07			
[s] Observation end time (MET)	506841627.184000	506842317.76207			
Observation end date	2014-01-23T05:19:20	2014-01-23T05:31:57			
Read mode	TIMED	TIMED			

2.3 Aspect





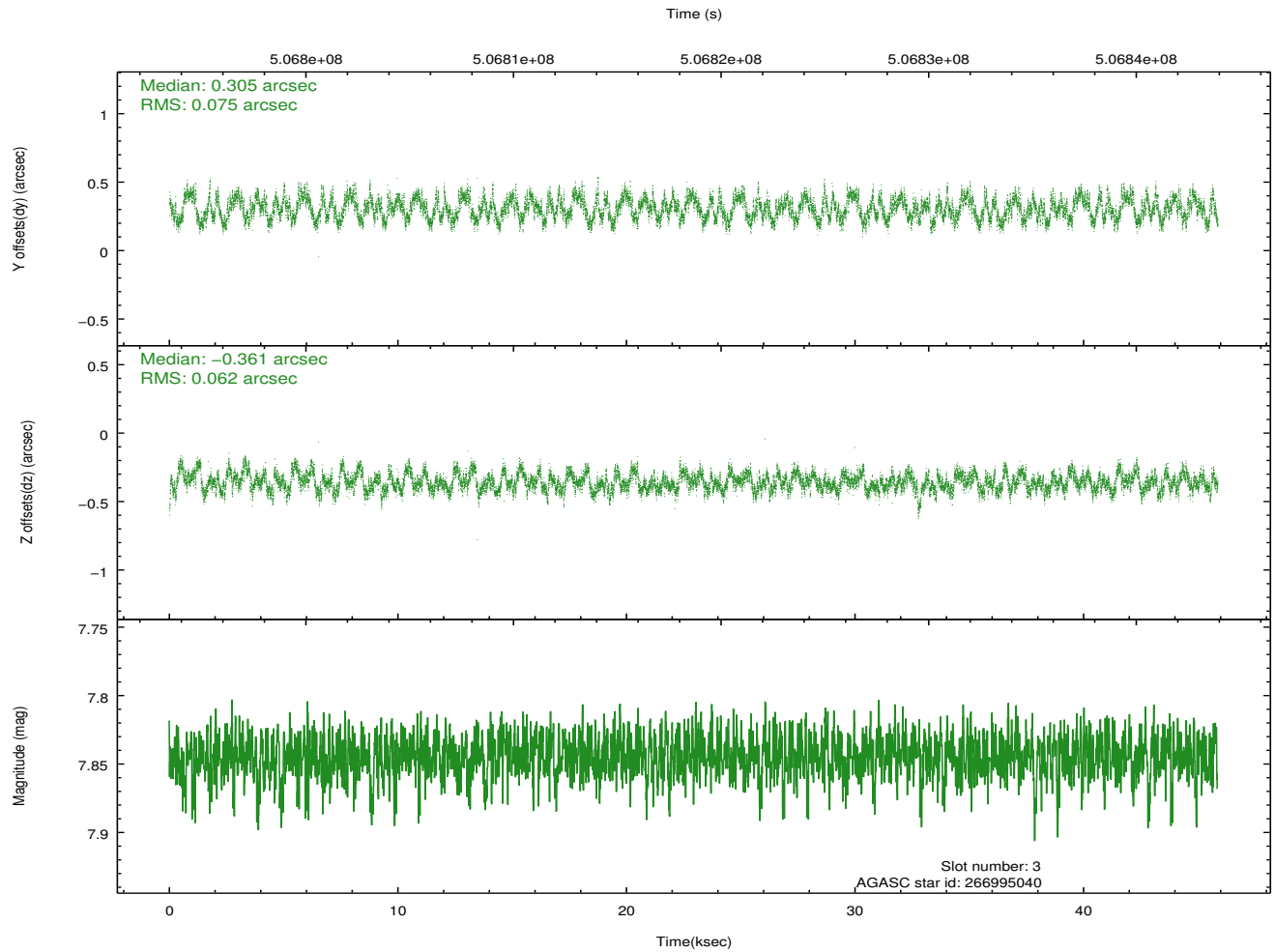
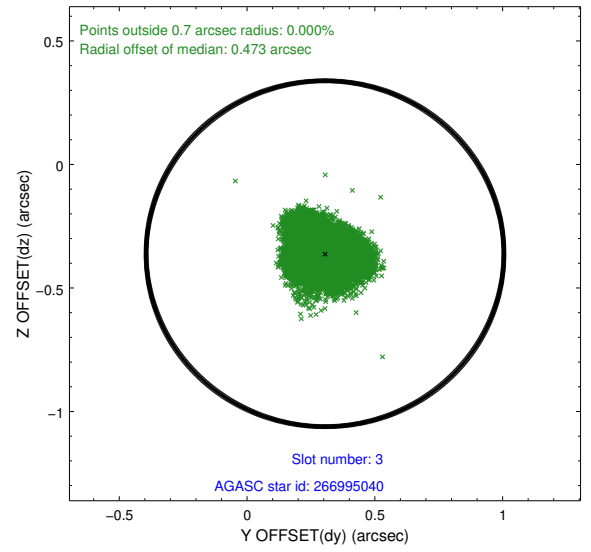
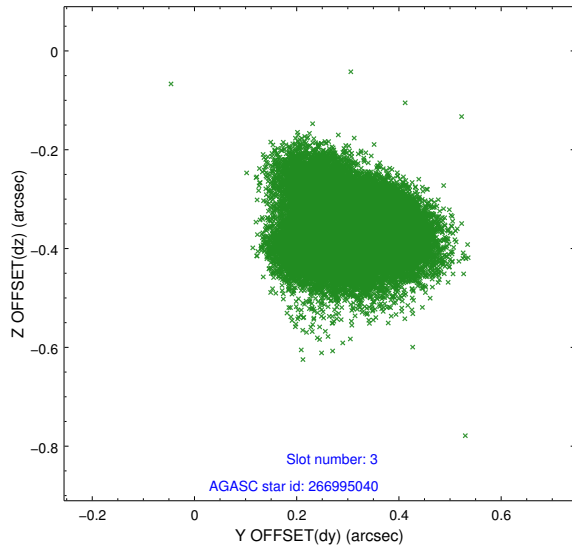
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.91	11188	-0.165	-0.020	0.019	0.040	0.000000	0.000000	-779.01	-1743.34
1	FID		ACIS-S-4	7.01	11186	0.340	0.085	0.015	0.039	0.000000	0.000000	2134.79	165.23
2	FID		ACIS-S-5	7.04	11187	-0.206	-0.057	0.021	0.049	0.000000	0.000000	-1831.89	158.79
3	GUIDE	used	266995040	7.84	22372	0.305	-0.361	0.106	0.159	239.014769	27.051479	-1469.66	1257.68
4	GUIDE	used	267004928	9.05	22362	0.459	0.461	0.118	0.194	239.711277	26.663193	-1565.90	-1377.55
5	GUIDE	used	267137048	7.88	22368	-0.102	0.455	0.127	0.189	240.280451	27.143889	848.39	-2086.38
6	GUIDE	used	267139016	9.14	22353	-0.218	0.079	0.235	0.345	240.326918	27.469213	1934.21	-1623.79
7	GUIDE	used	267398208	10.23	22179	-0.436	-0.621	0.304	0.461	239.207175	27.898400	1481.07	2239.40

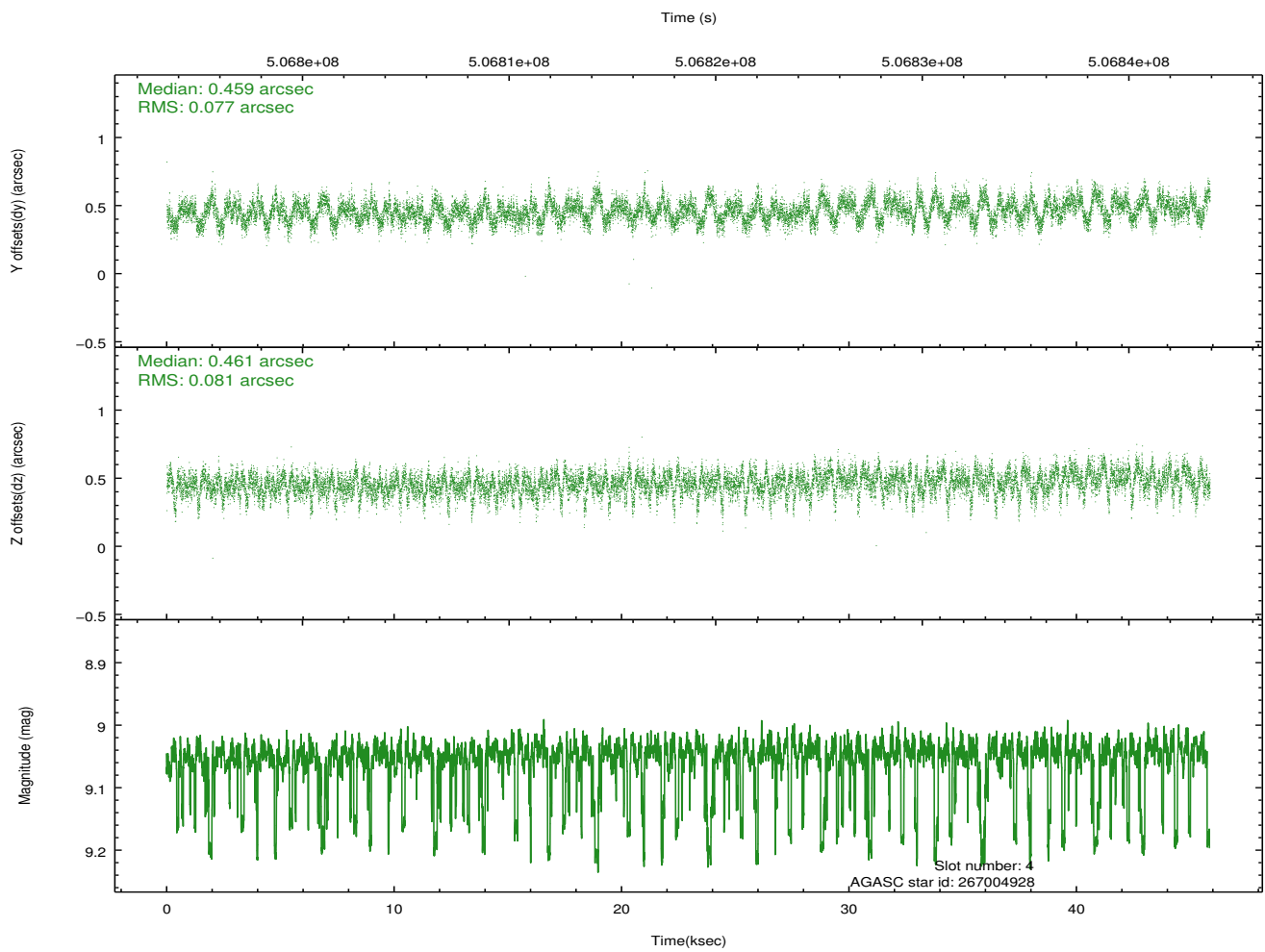
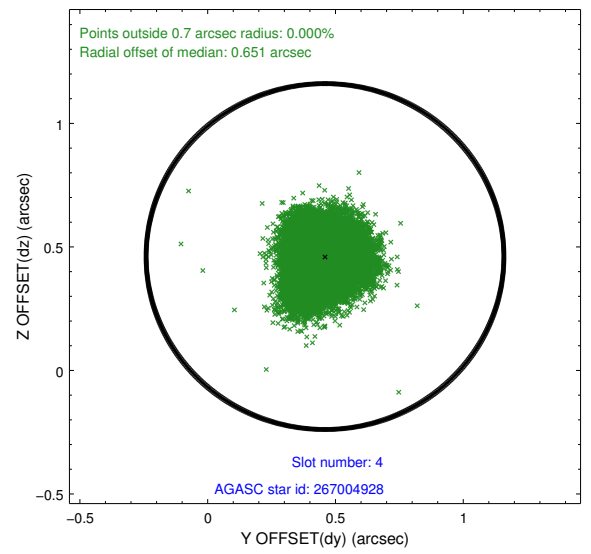
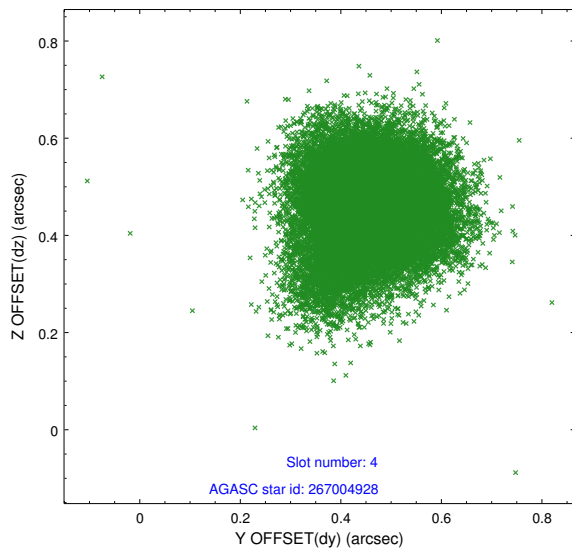
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2.4 Star Slots

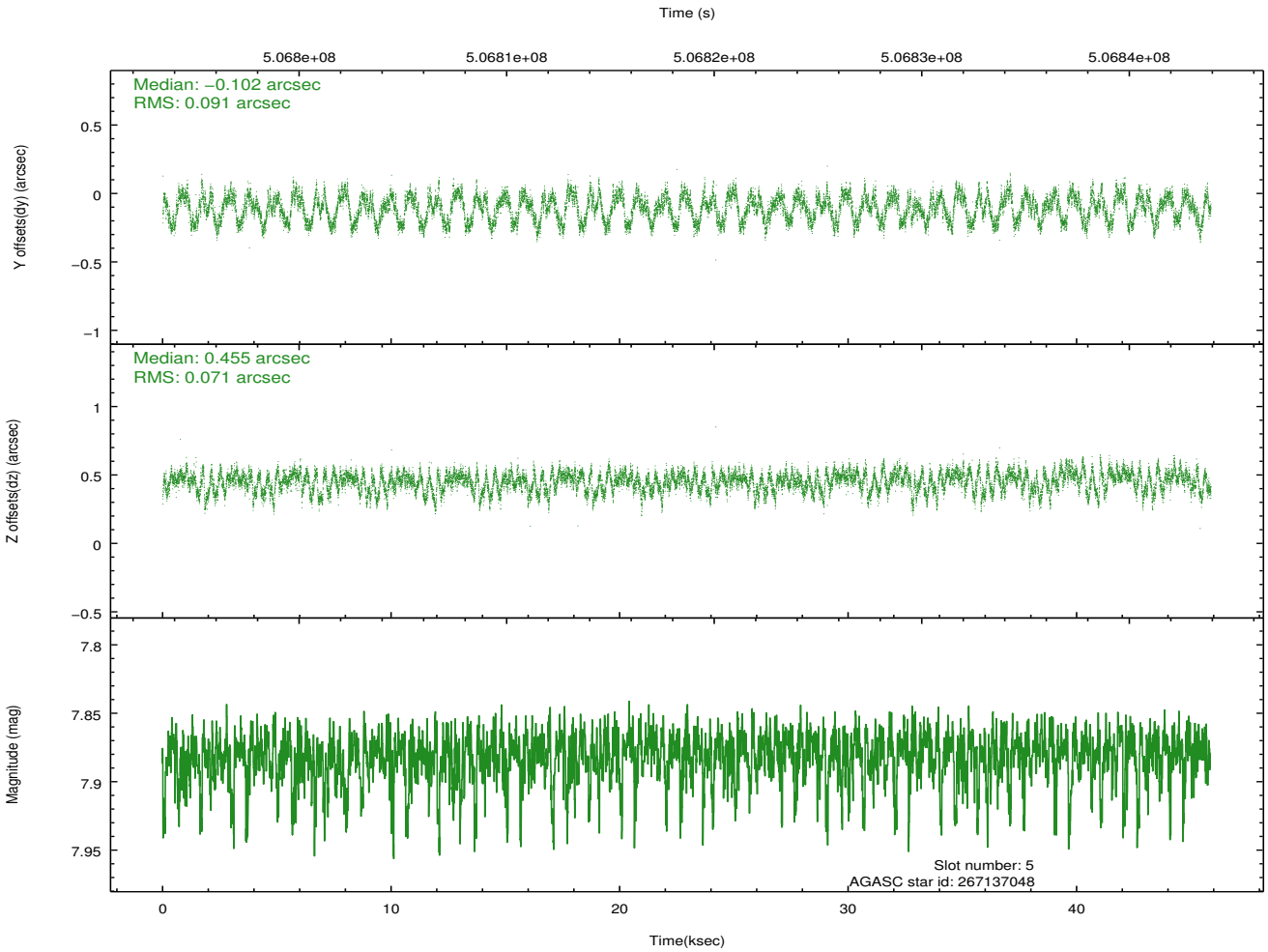
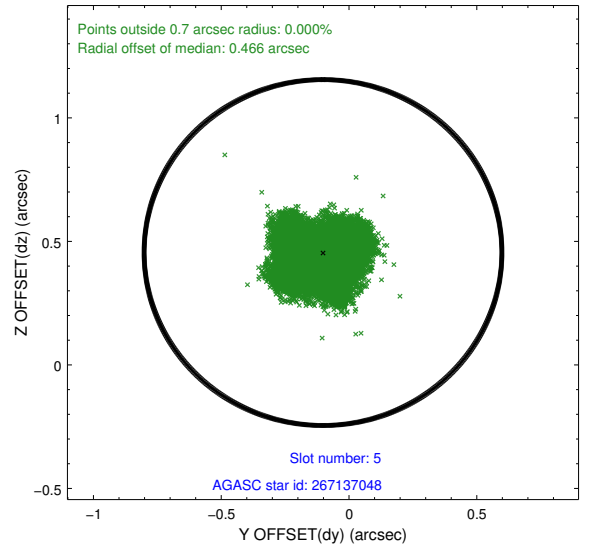
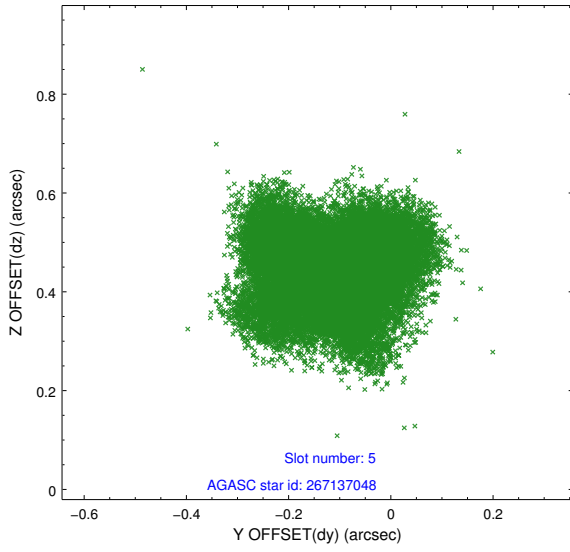
2.4.1 Slot 3



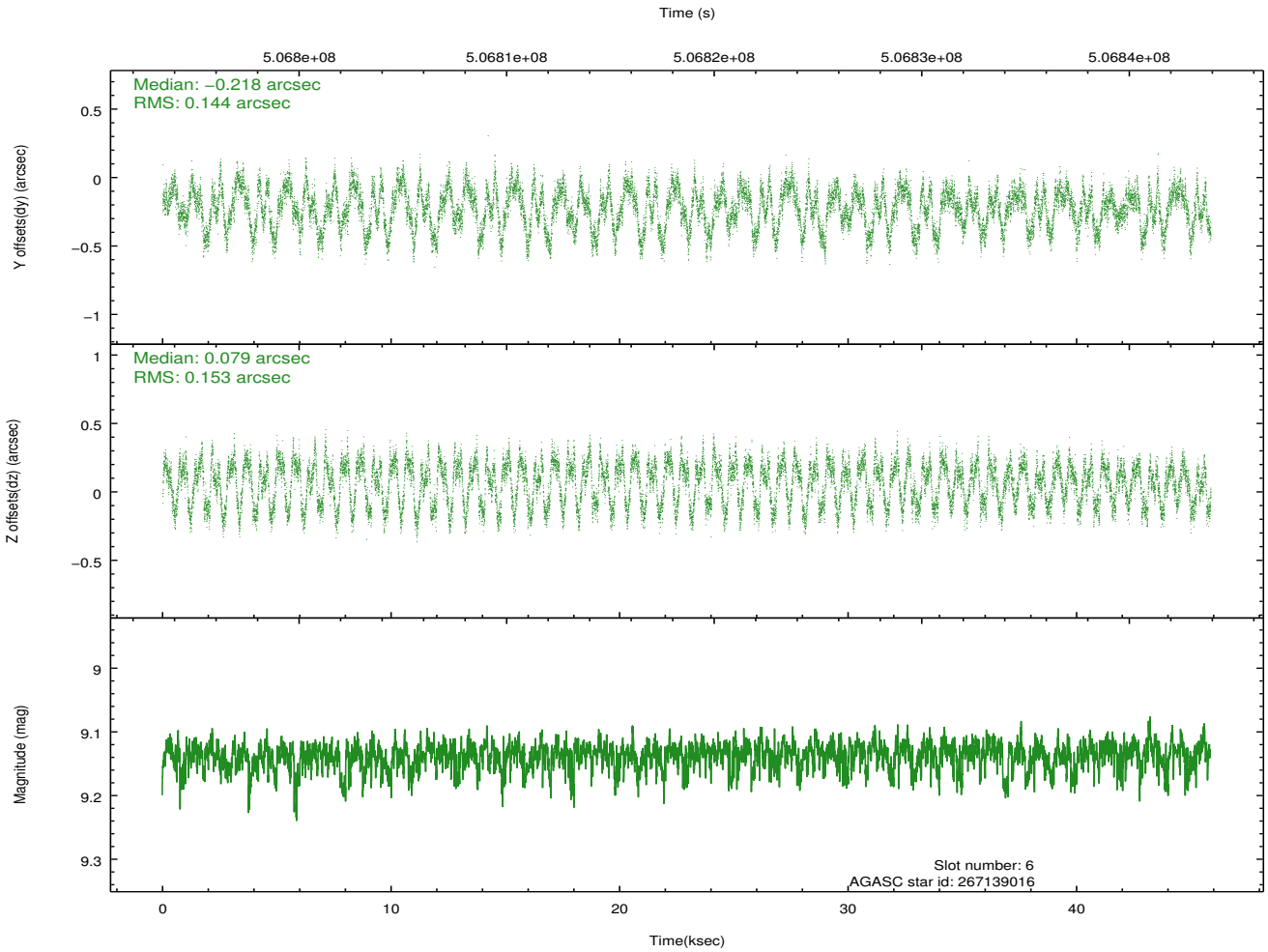
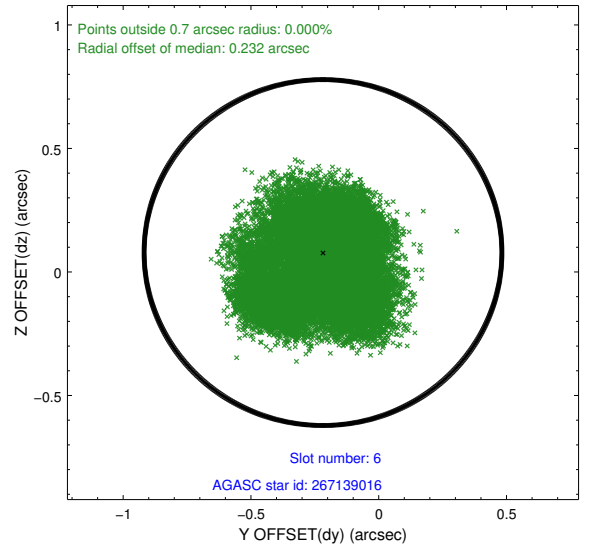
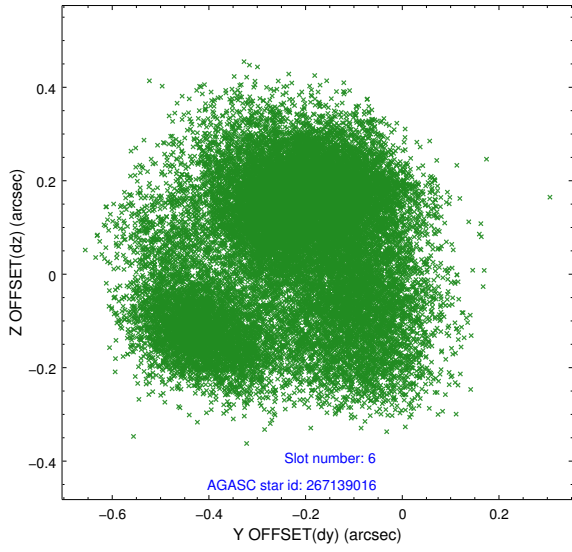
2.4.2 Slot 4



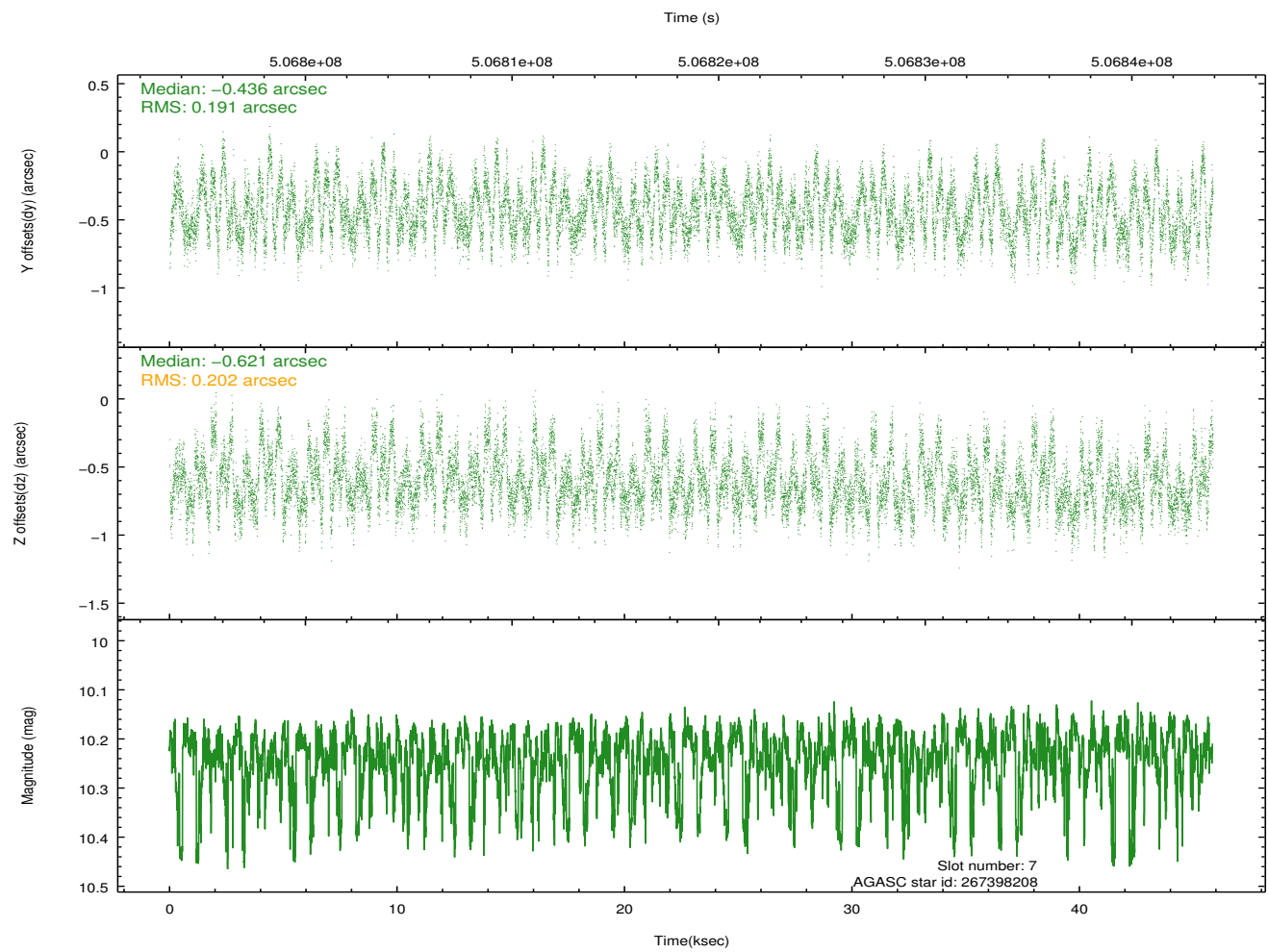
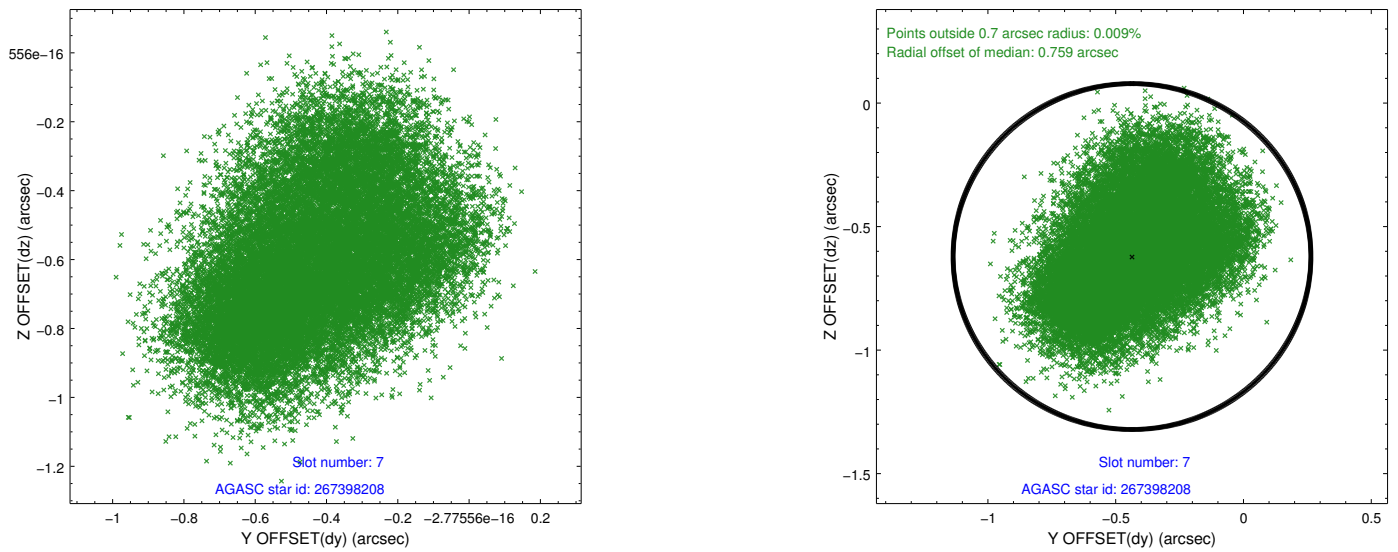
2.4.3 Slot 5



2.4.4 Slot 6

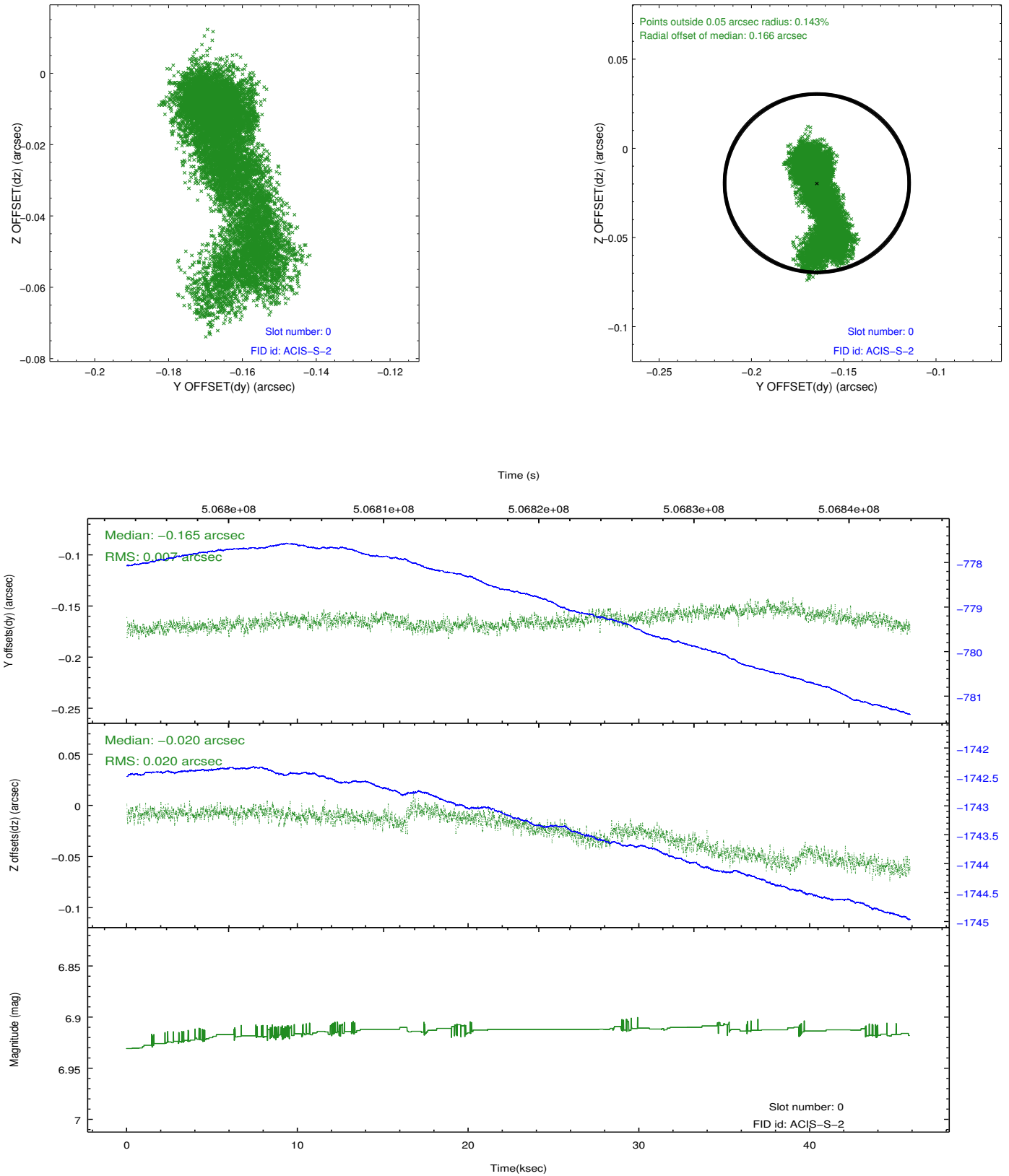


2.4.5 Slot 7

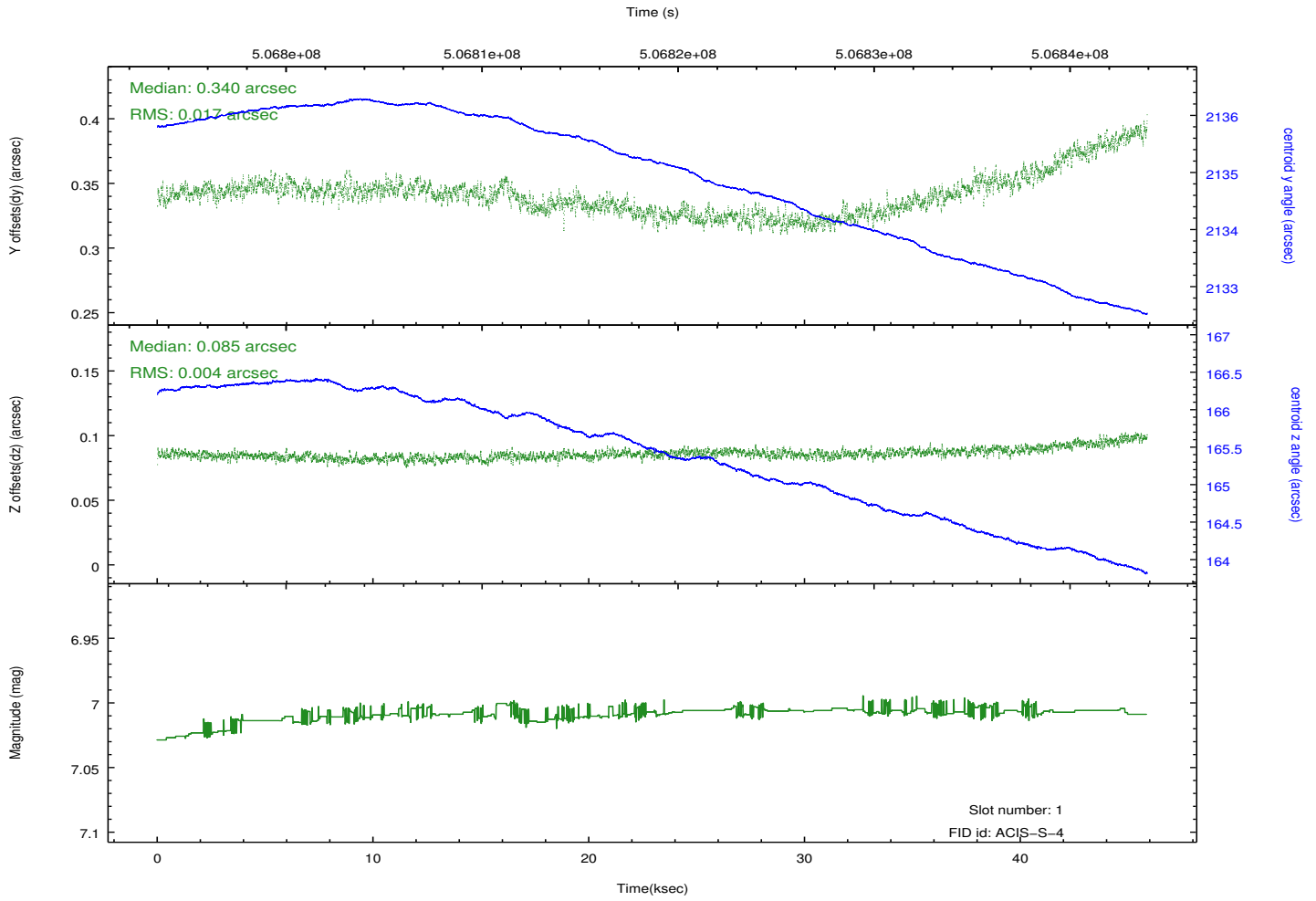
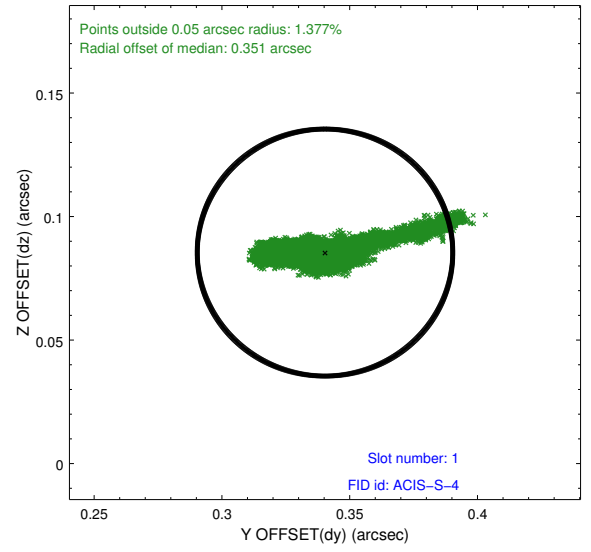
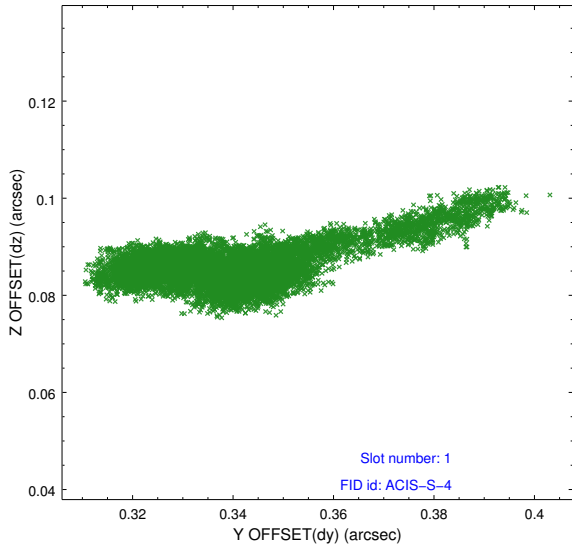


2.5 FID Slots

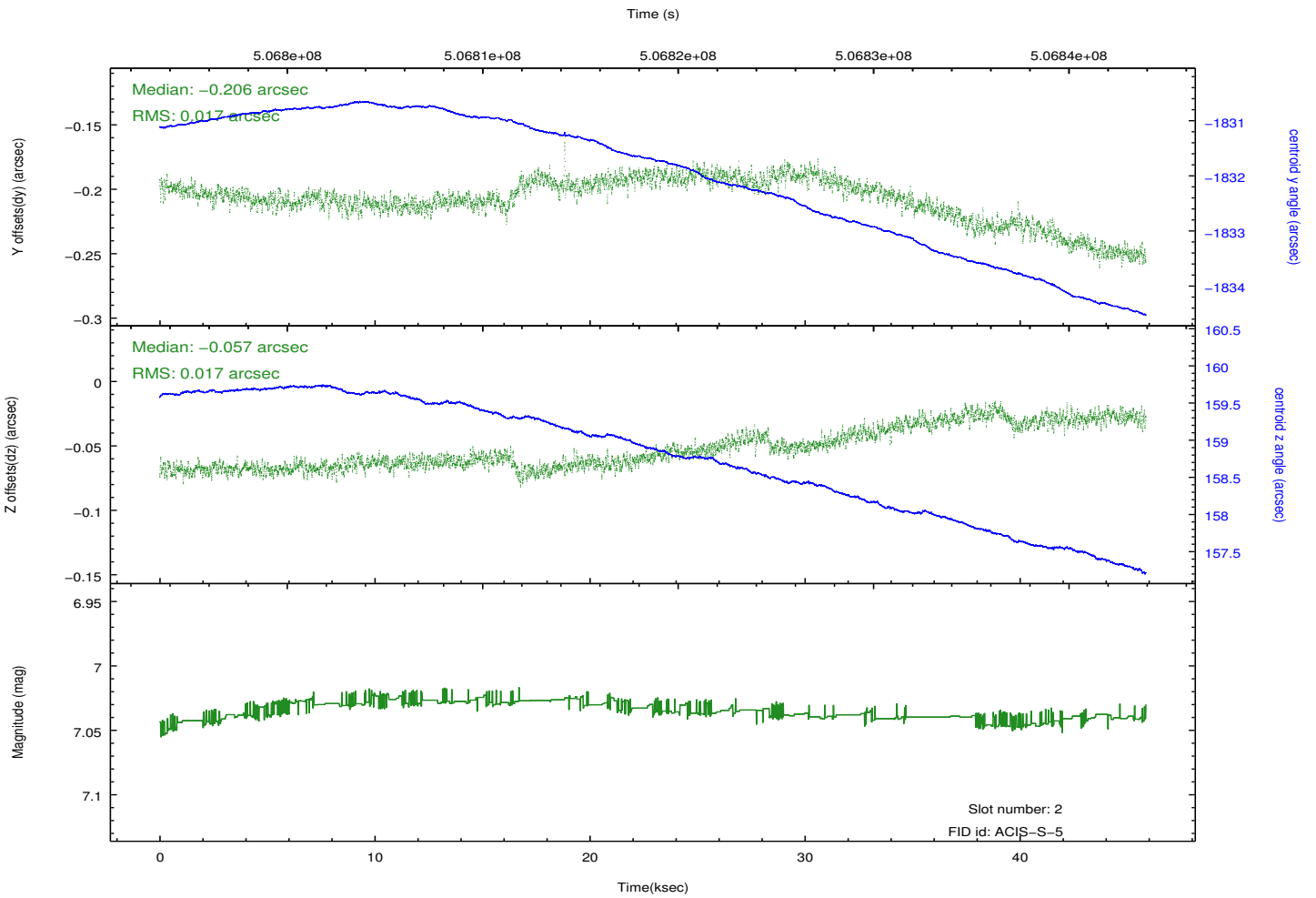
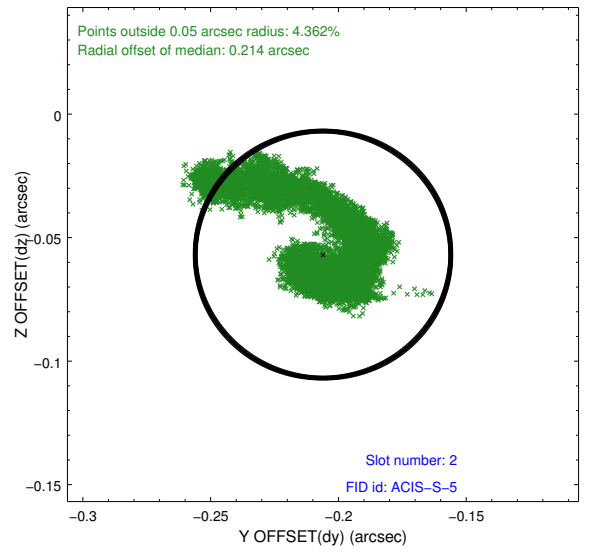
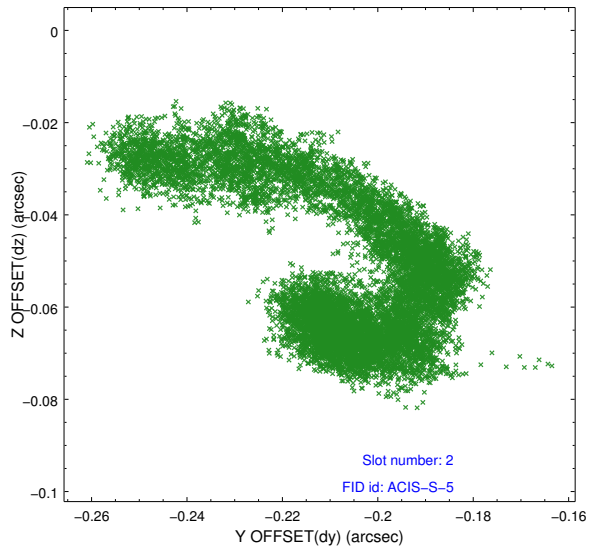
2.5.1 Slot 0



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)	2014.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.064700346589

A.2 Comments

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.