

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 14886 - L2 Version 3
Chandra X-Ray Center

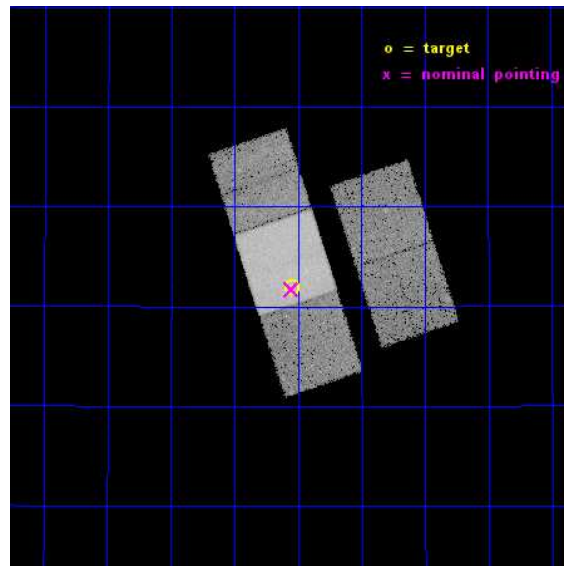
L2 Processing Date : Dec 11 2014

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1 Front

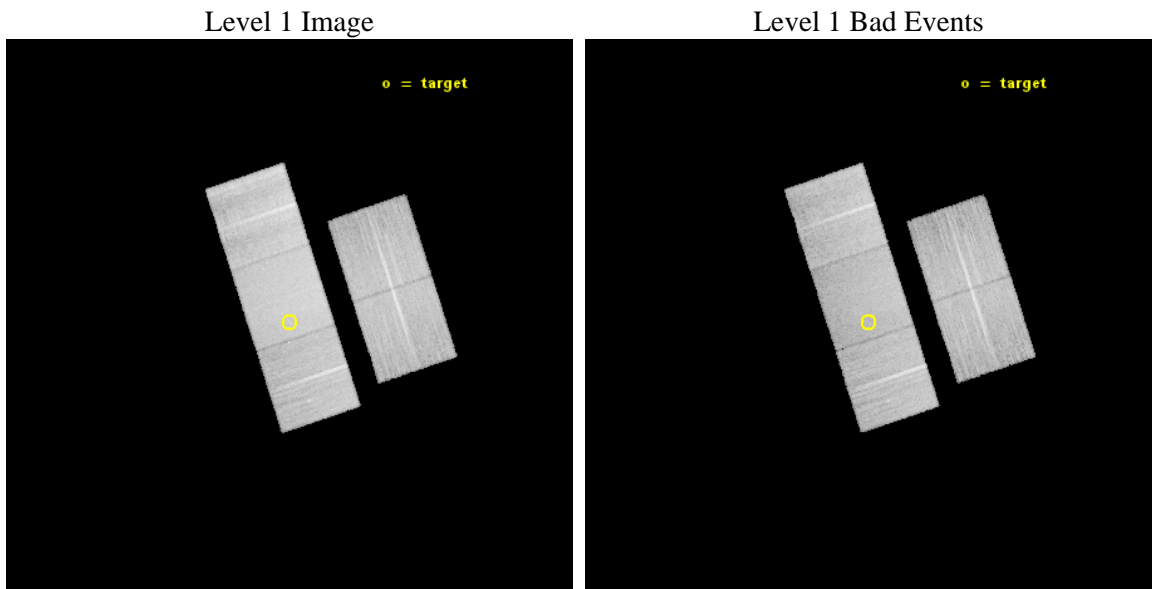
seq_num	502010	Sequence number
obs_id	14886	Observation id
title	The Astrophysics of the Most Energetic Gamma-Ray Bursts	Proposal t
observer	Dr. Andrew Fruchter	Principal investigator
object	GRB 130427A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	173.135958	Observer's specified target RA [deg]
dec_targ	27.697689	Observer's specified target Dec [deg]
ra_nom	173.13812250722	Nominal RA [deg]
dec_nom	27.695351553709	Nominal Dec [deg]
roll_nom	251.7738489299	Nominal Roll [deg]
revision	3	Processing version of data
ontime	35066.916089118	Sum of GTIs [s]
livetime	34608.741014525	Livetime [s]
ontime2	35066.751929104	Sum of GTIs [s]
ontime3	35066.834009111	Sum of GTIs [s]
ontime6	35066.875049114	Sum of GTIs [s]
ontime7	35066.916089118	Sum of GTIs [s]
ontime8	35066.792969108	Sum of GTIs [s]
l2events	159234	Number of level 2 events



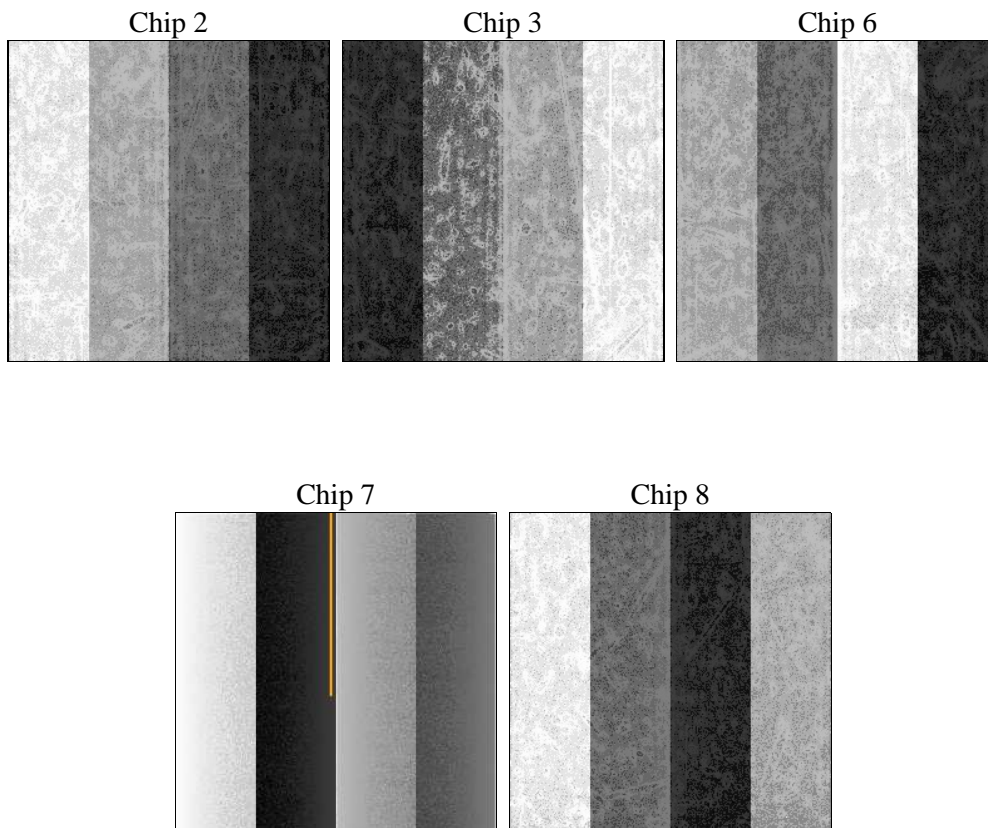
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	35066.916089118	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	35066.751929104	Sum of GTIs [s]
date	2014-12-12T04:28:30	Date and time of file creation	ontime3	35066.834009111	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	35066.875049114	Sum of GTIs [s]
			ontime7	35066.916089118	Sum of GTIs [s]
			ontime8	35066.792969108	Sum of GTIs [s]
			l1events	883280	Number of level 1 events

2.1.4 Events

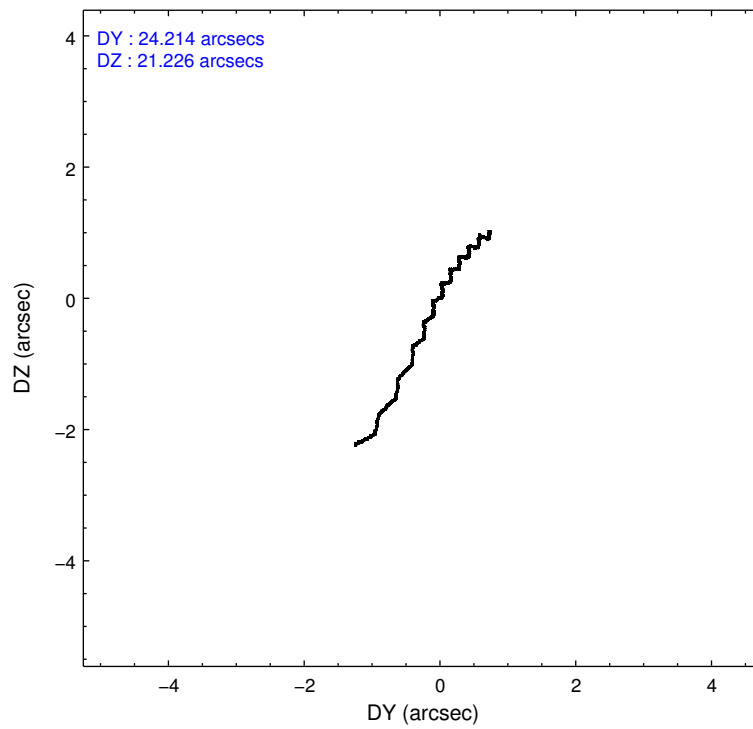
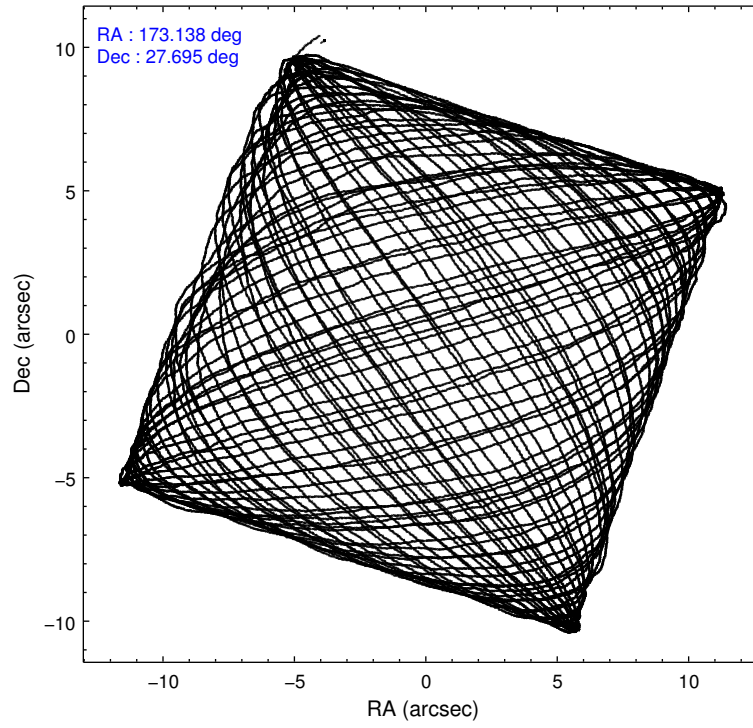
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	149313	145952	160931	217743	209341
rejected events	131653	128699	141178	123263	152943
rejected %	88%	88%	87%	56%	73%

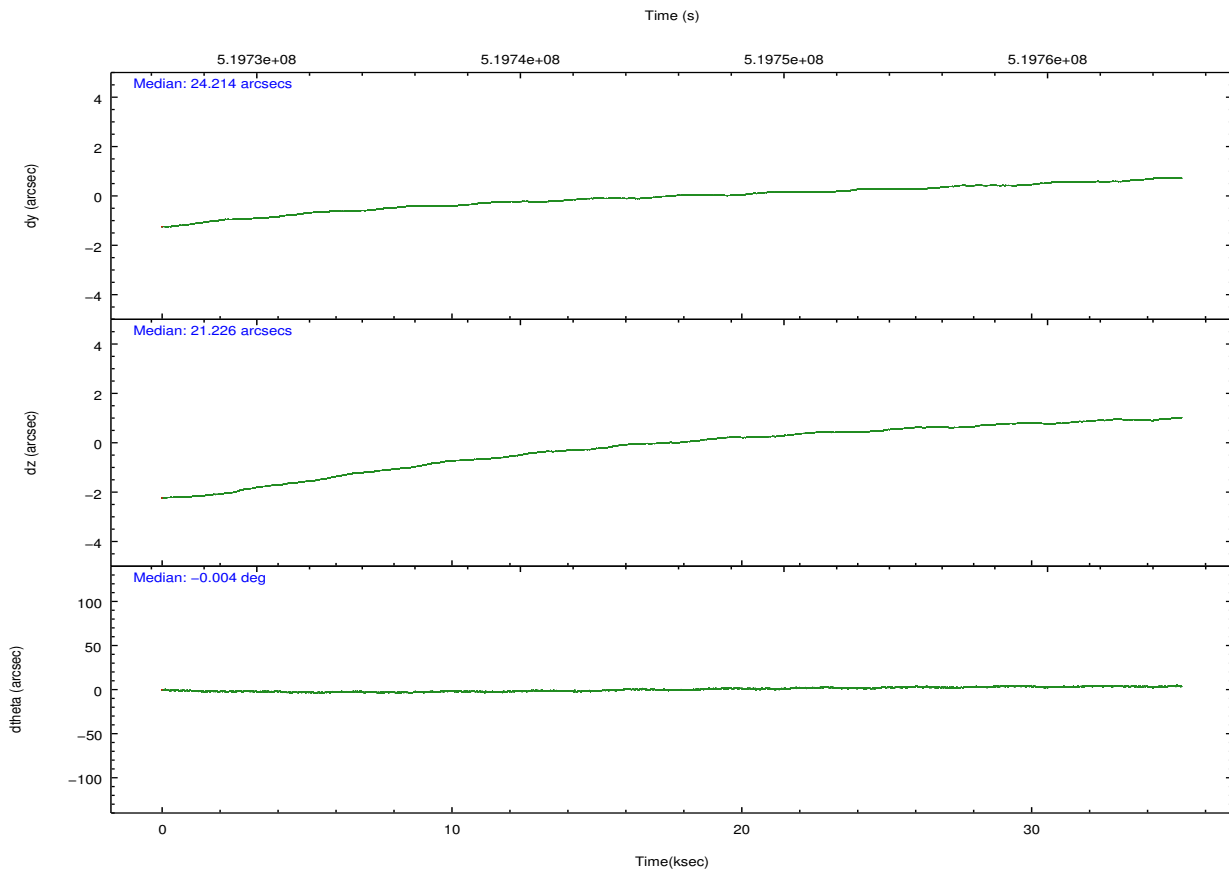
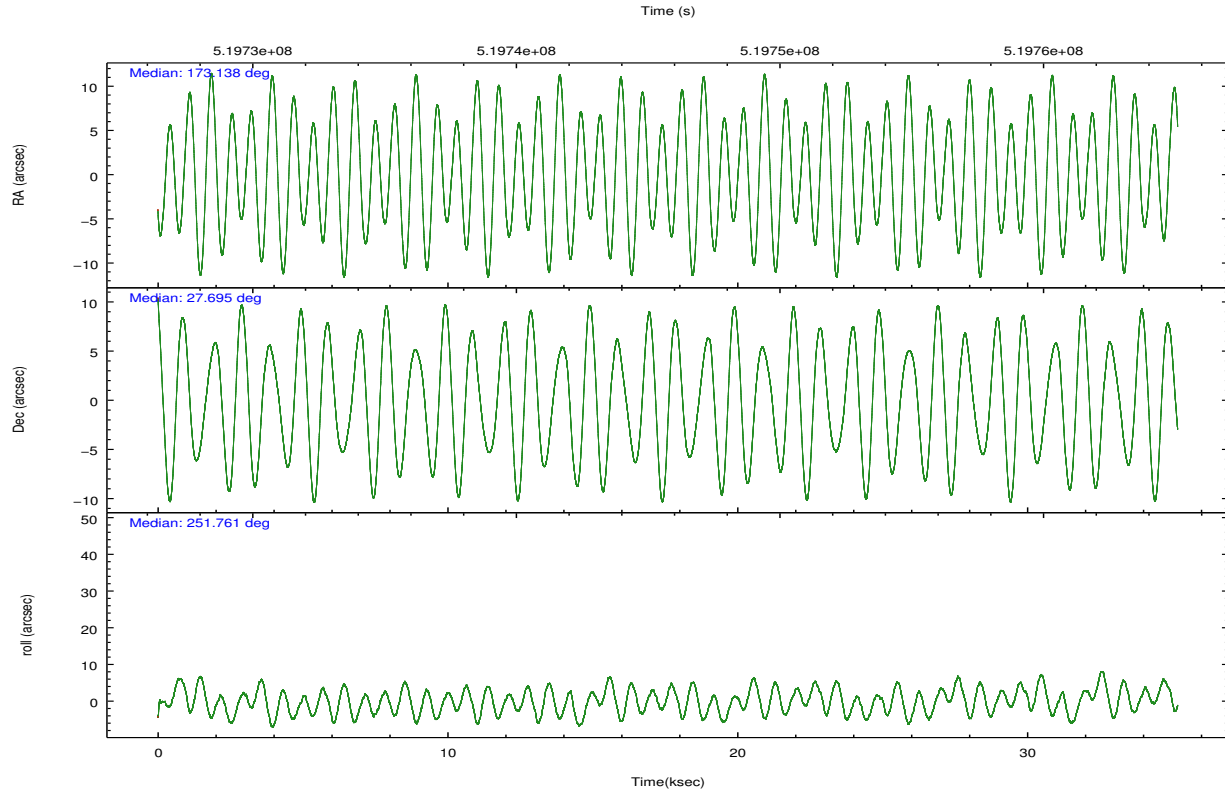
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6066	5880	6877	8402	16690
	4%	4%	4%	3%	7%
grade 1 events	76	91	110	279	175
	0%	0%	0%	0%	0%
grade 2 events	4455	3927	4536	19316	13397
	2%	2%	2%	8%	6%
grade 3 events	1764	1781	1922	7967	5611
	1%	1%	1%	3%	2%
grade 4 events	1863	1931	1936	7898	5405
	1%	1%	1%	3%	2%
grade 5 events	6687	8185	8176	22137	12284
	4%	5%	5%	10%	5%
grade 6 events	3516	3742	4488	50909	15301
	2%	2%	2%	23%	7%
grade 7 events	124886	120415	132886	100835	140478
	83%	82%	82%	46%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	173.131402	173.1381225072204	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.722034	27.69535155370893	Alternating exposures requested	N	N
[deg] Pointing Roll	251.620351	251.7738489298961	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	519177668.184000	519177668.184000			
[s] Window stop time (MET)	520560066.184000	520560066.184000			
[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)	519728336.184000	519727213.19767			
Observation start date	2014-06-21T08:57:49	2014-06-21T08:40:13			
[s] Observation end time (MET)	519763336.184000	519764244.91222			
Observation end date	2014-06-21T18:41:09	2014-06-21T18:57:24			
Read mode	TIMED	TIMED			

2.3 Aspect





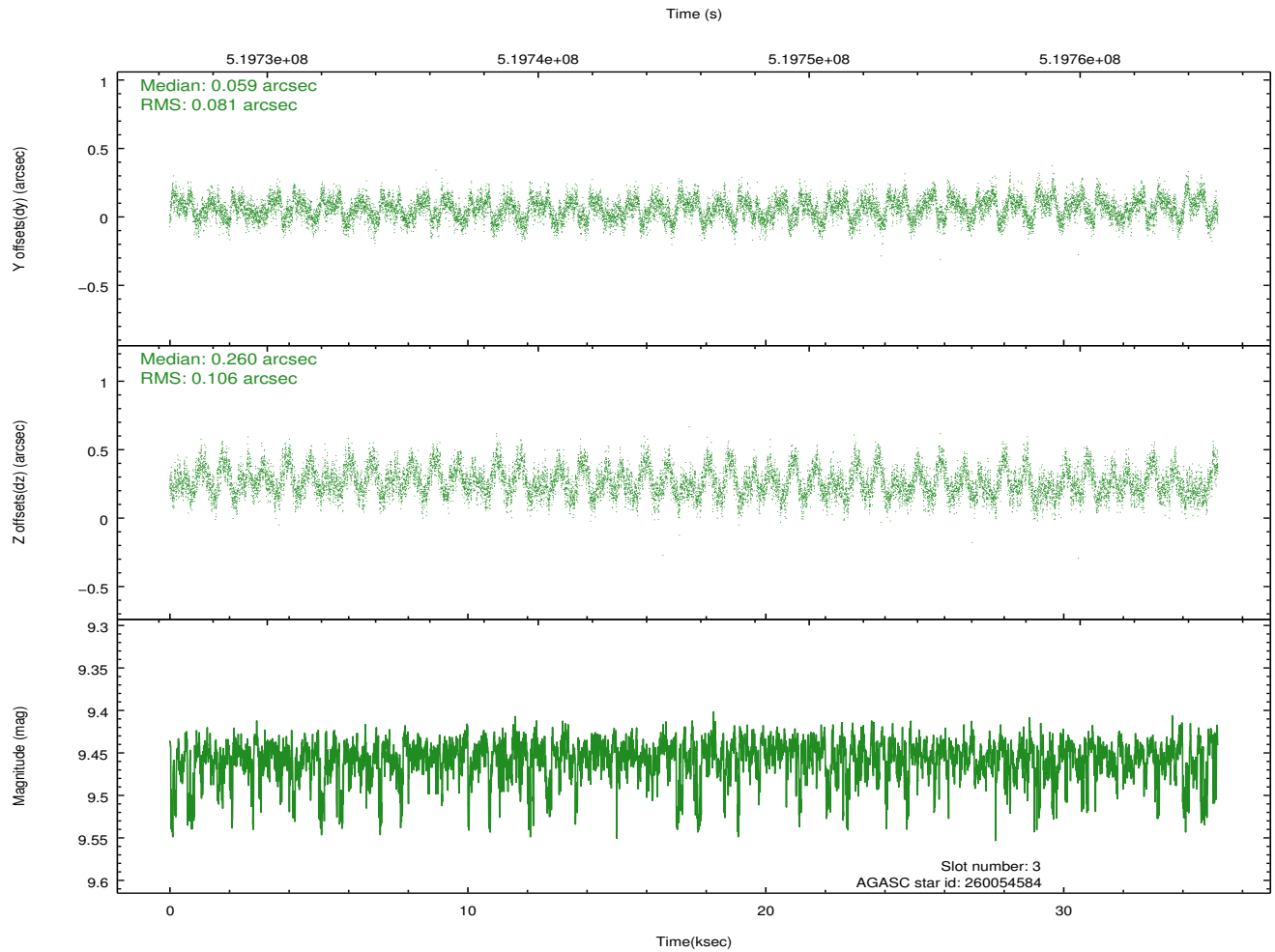
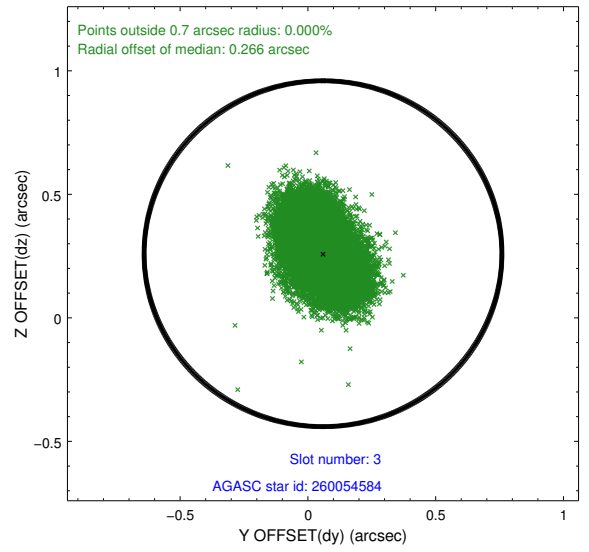
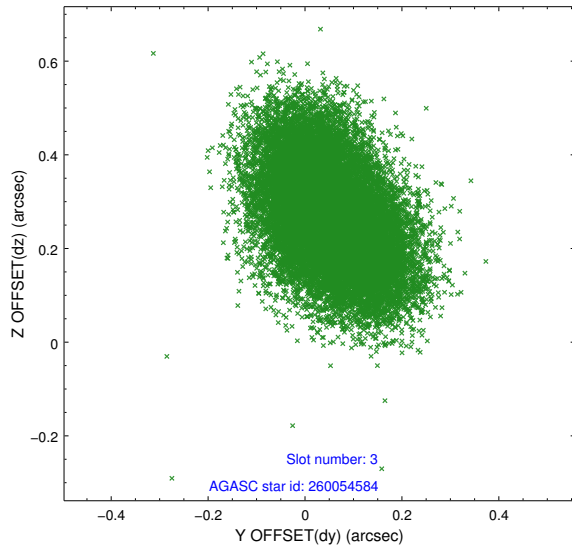
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	8582	-0.152	-0.010	0.018	0.034	0.000000	0.000000	-777.51	-1742.54
1	FID		ACIS-S-4	7.03	8582	0.318	0.075	0.011	0.020	0.000000	0.000000	2136.23	165.96
2	FID		ACIS-S-5	7.06	8581	-0.200	-0.056	0.018	0.029	0.000000	0.000000	-1830.34	159.57
3	GUIDE	used	260054584	9.45	17139	0.059	0.260	0.143	0.229	173.745505	27.752896	-726.76	1819.76
4	GUIDE	used	260055088	8.18	17161	-0.016	0.021	0.138	0.211	173.495126	27.260186	1209.23	1628.40
5	GUIDE	used	260055768	8.99	17155	0.106	-0.019	0.110	0.173	172.801335	27.536211	966.37	-789.35
6	GUIDE	used	260067728	5.88	17164	-0.161	-0.256	0.074	0.115	172.728670	28.451573	-2091.85	-2039.59
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

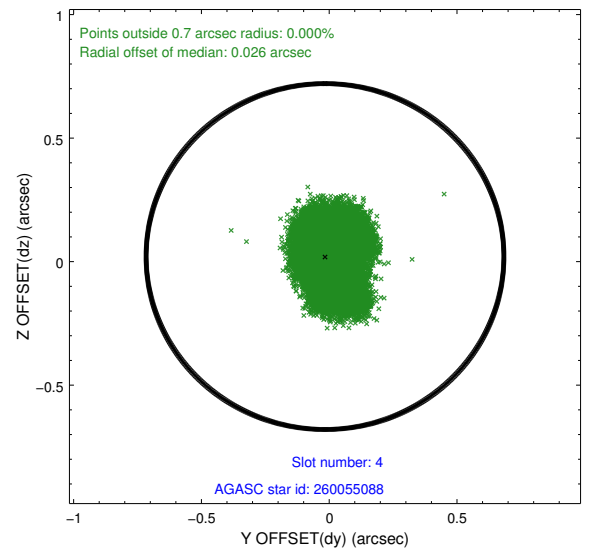
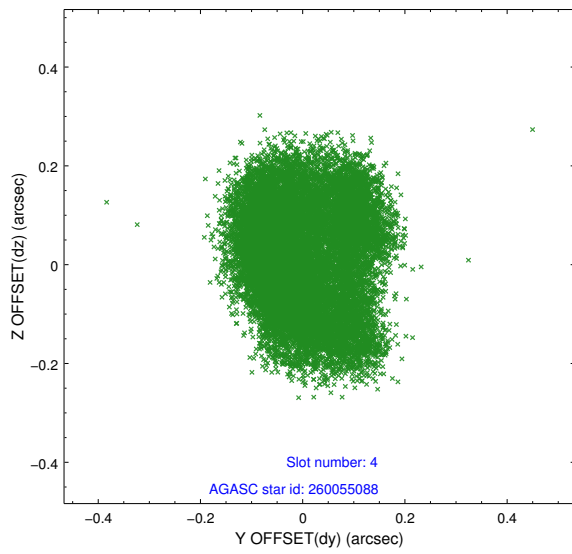
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2.4 Star Slots

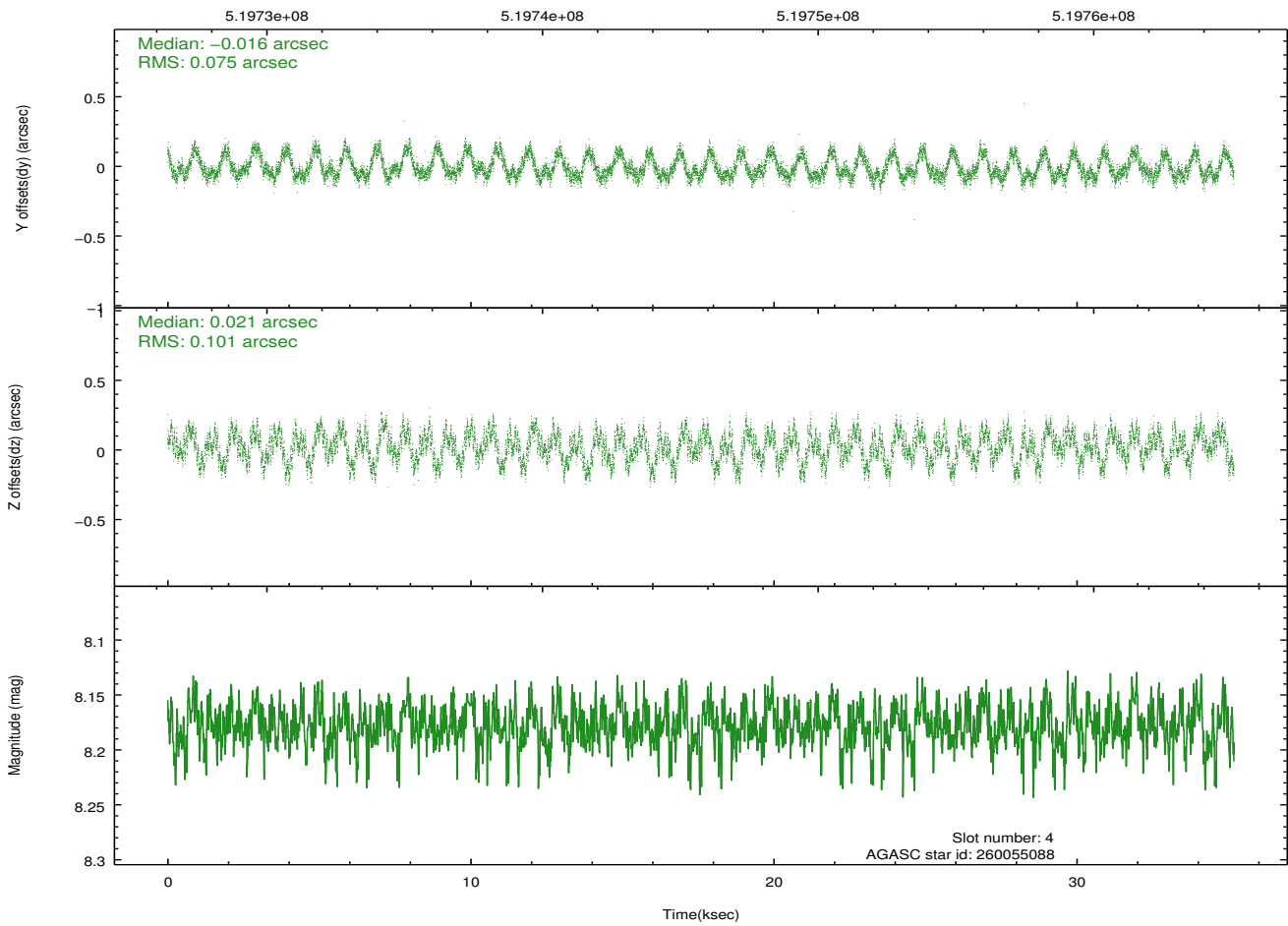
2.4.1 Slot 3



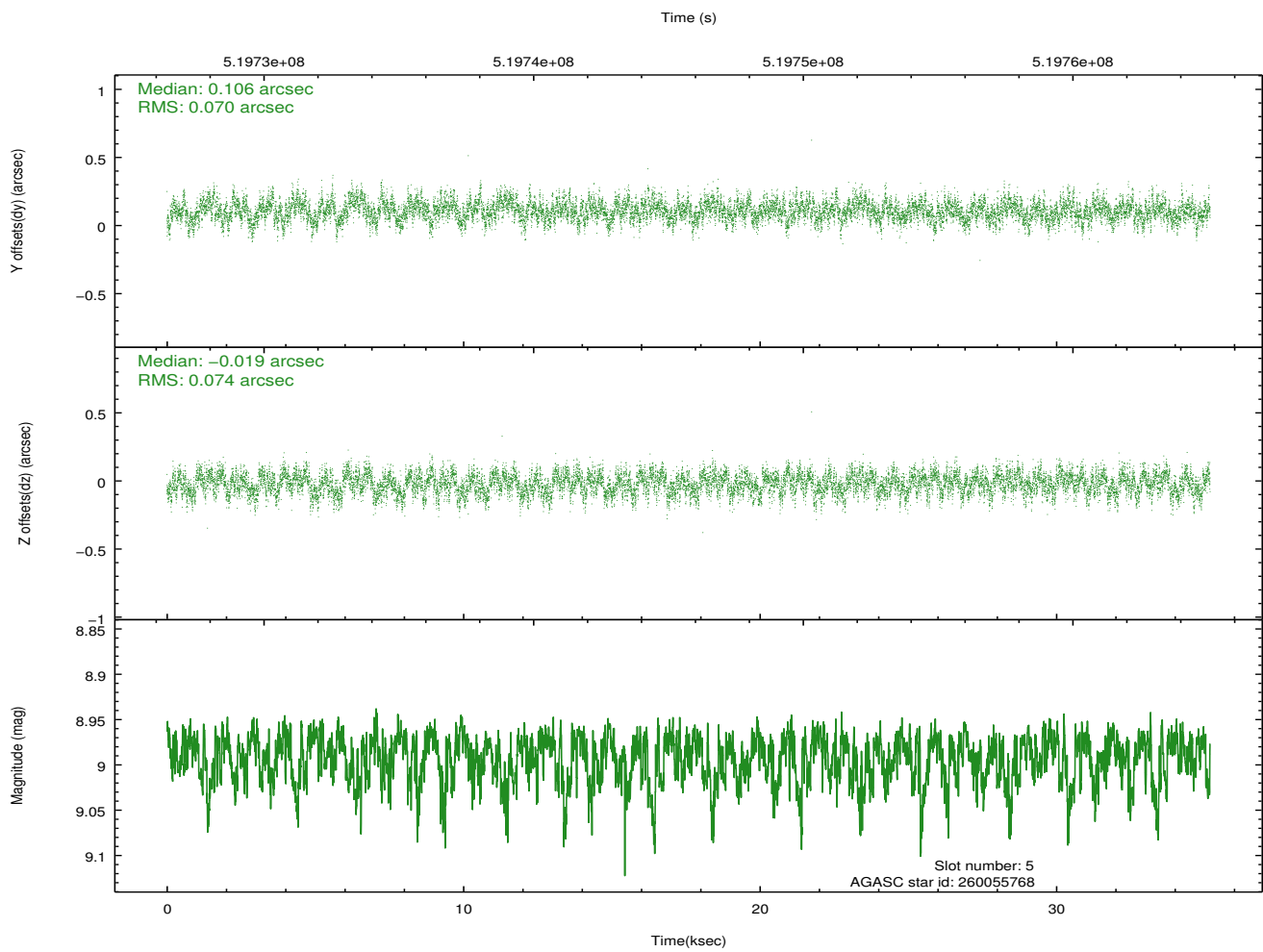
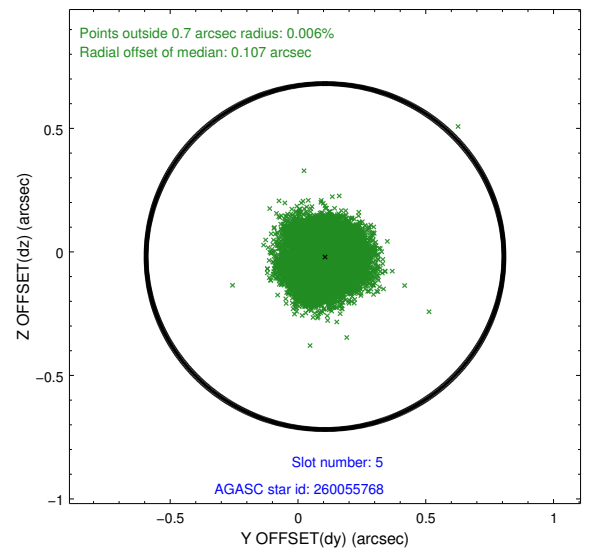
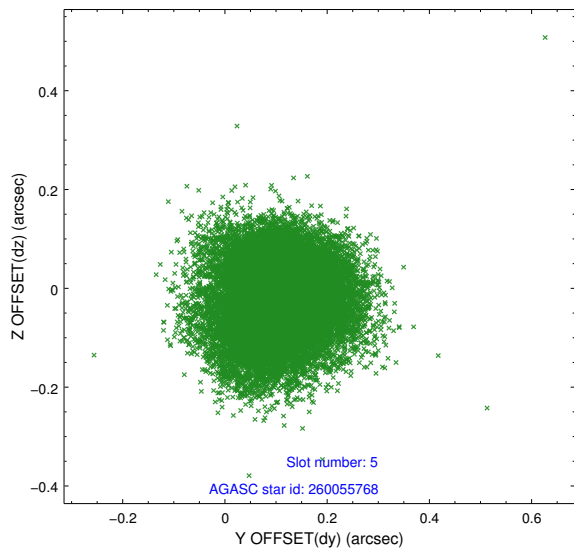
2.4.2 Slot 4



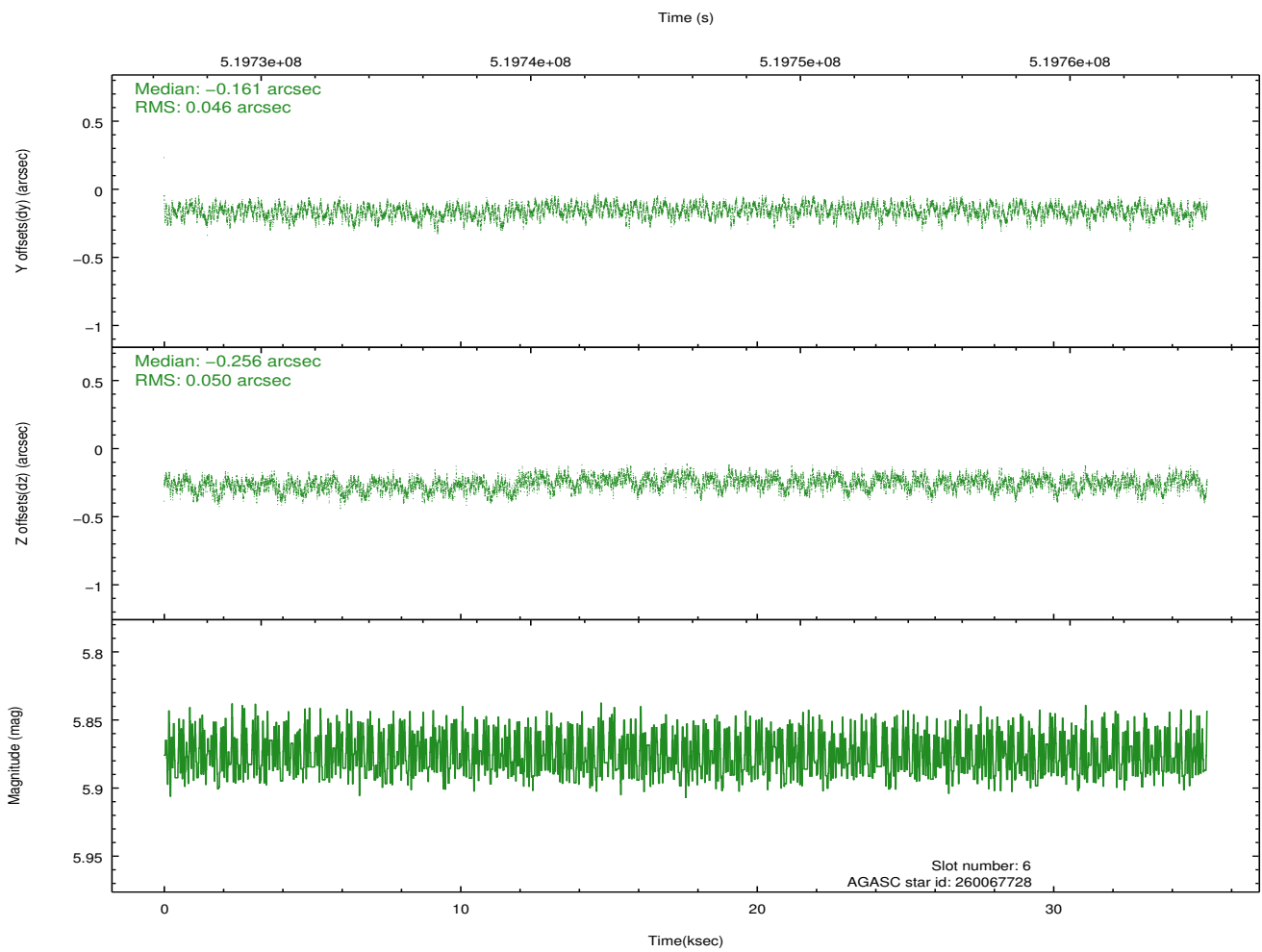
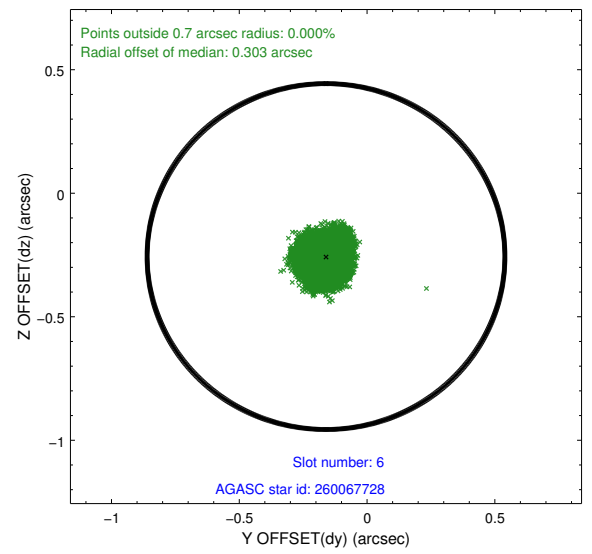
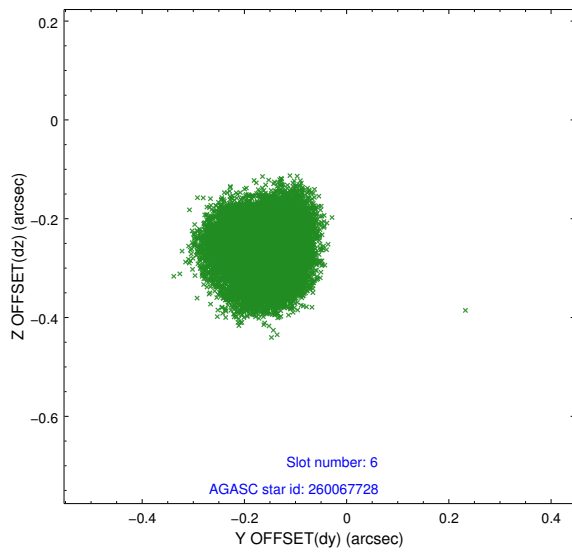
Time (s)



2.4.3 Slot 5

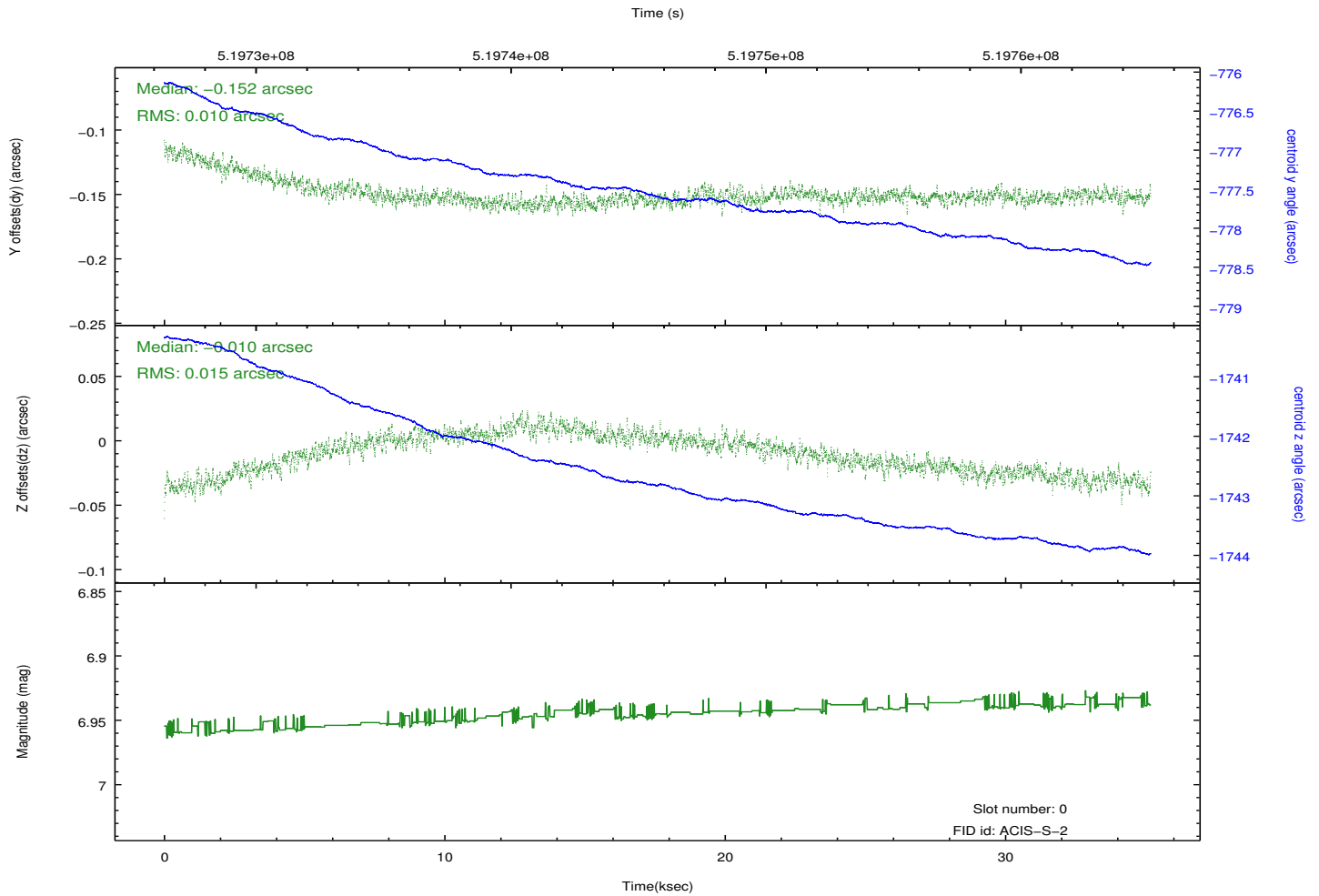
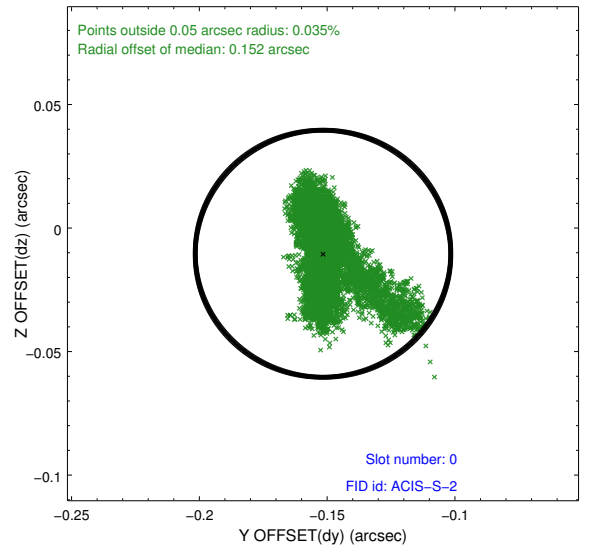
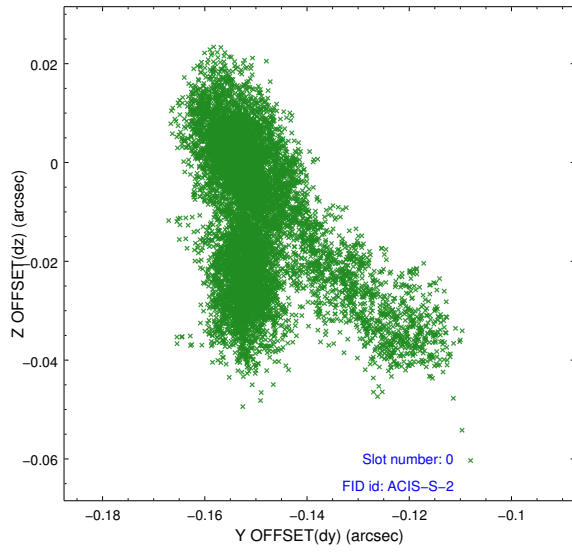


2.4.4 Slot 6

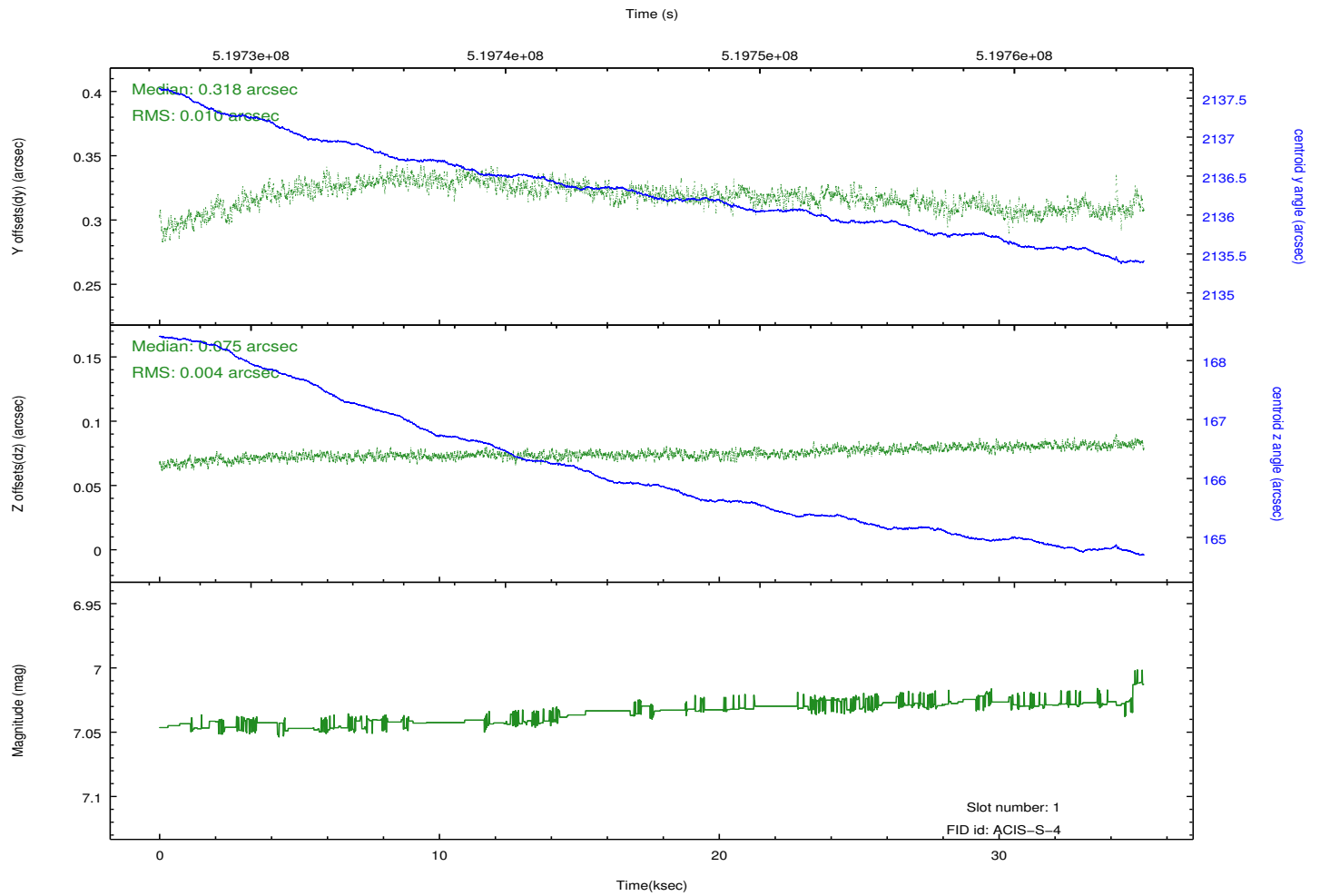
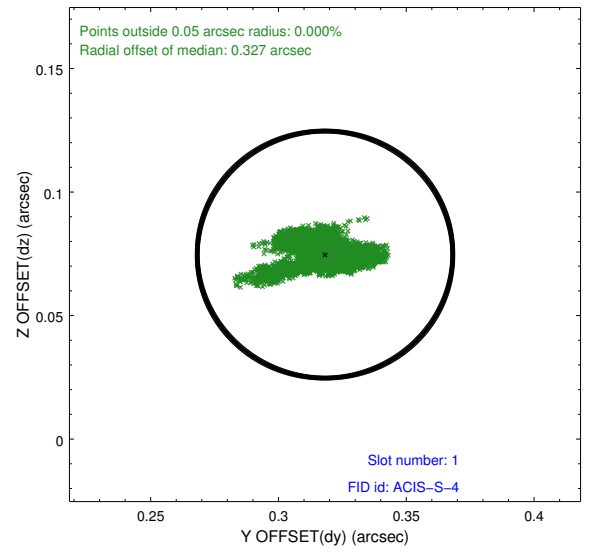
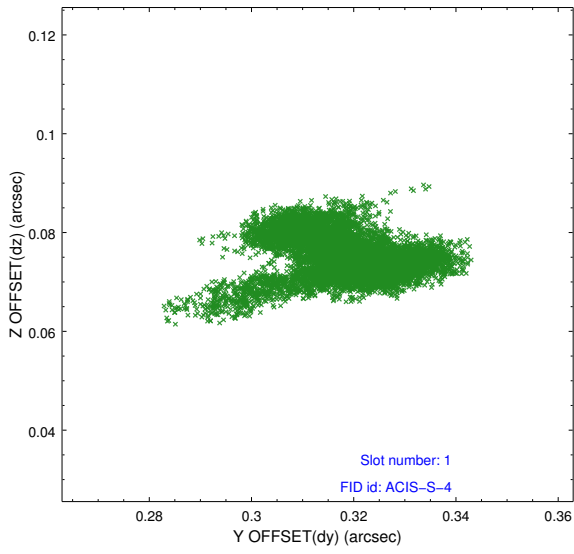


2.5 FID Slots

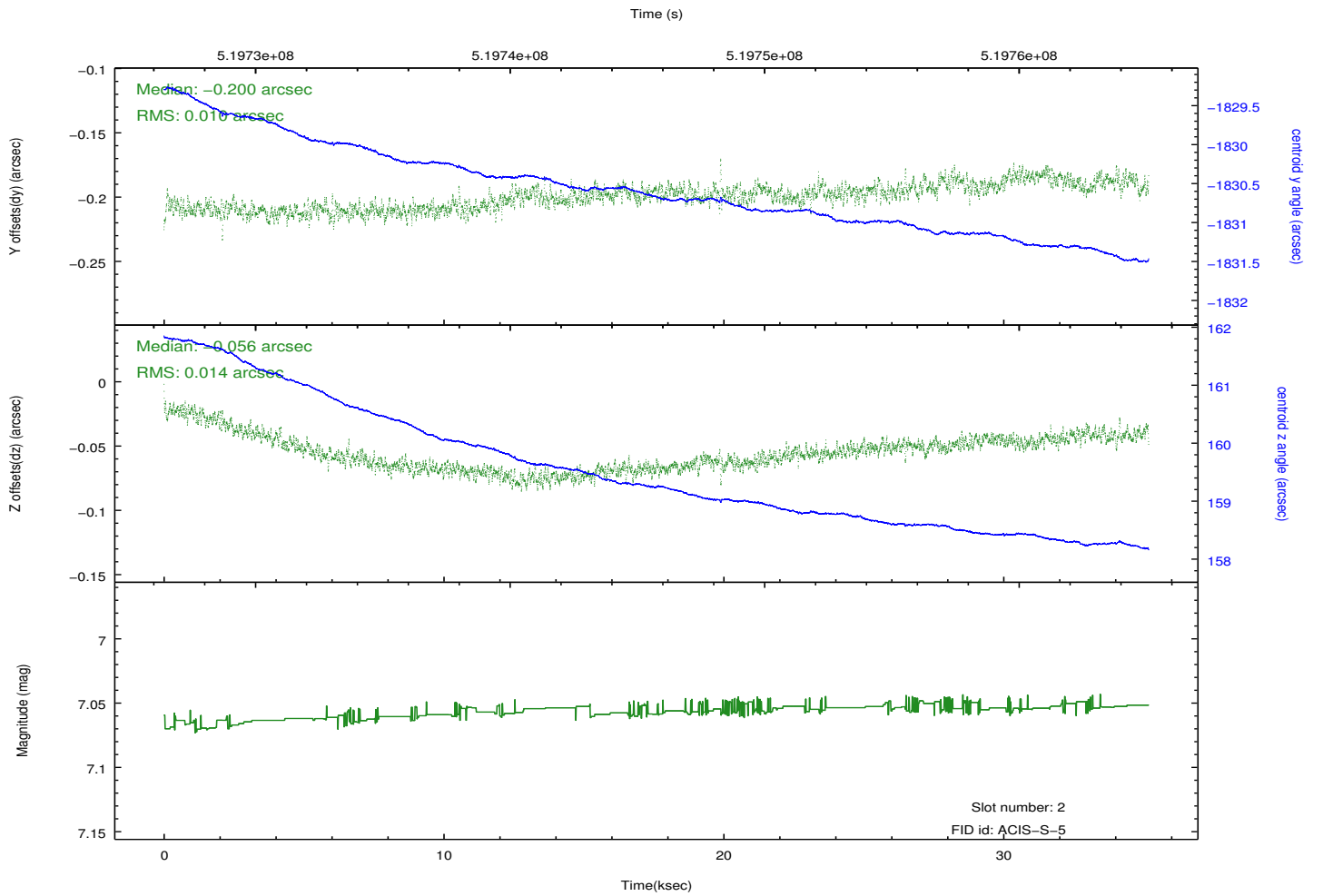
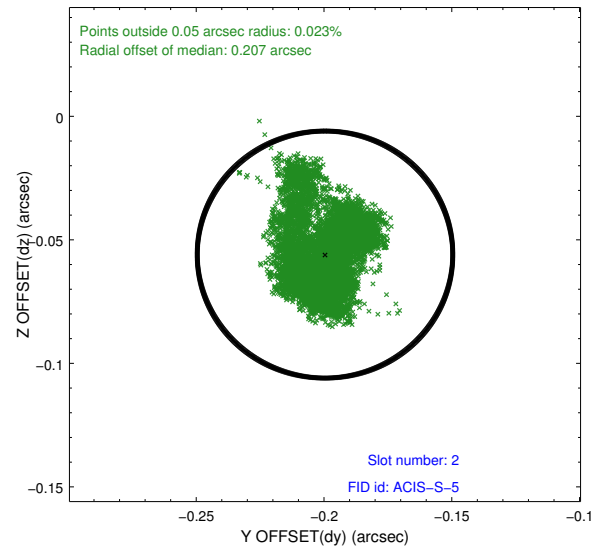
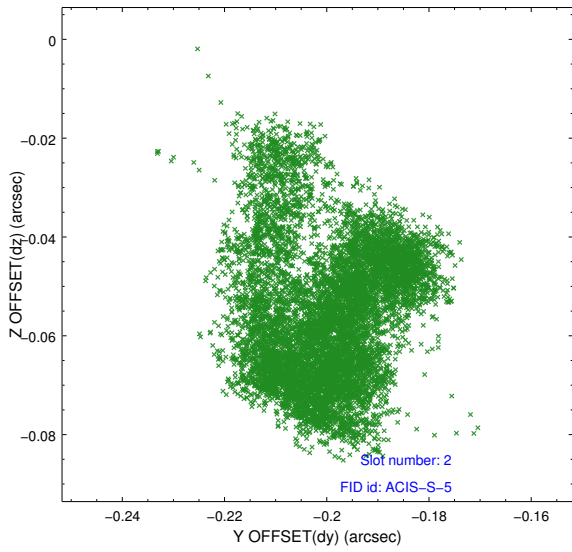
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.066916089118

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 guide star from the solution.

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Joint Proposal: HST+NRAO. Window constraint met.

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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.