

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14829 - L2 Version 2
Chandra X-Ray Center

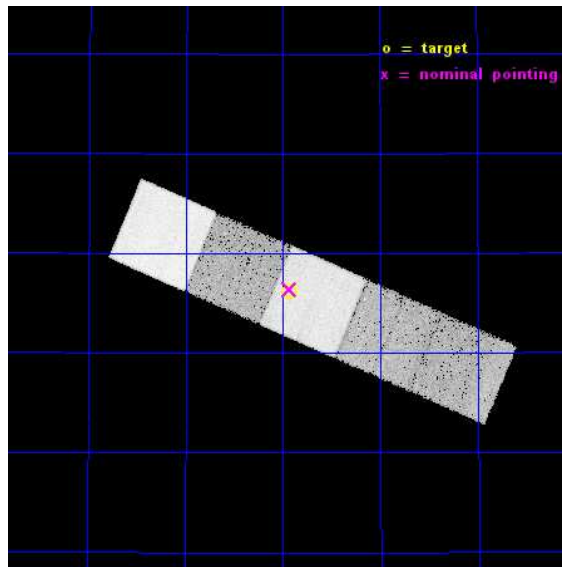
L2 Processing Date : Dec 1 2014

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1 Front

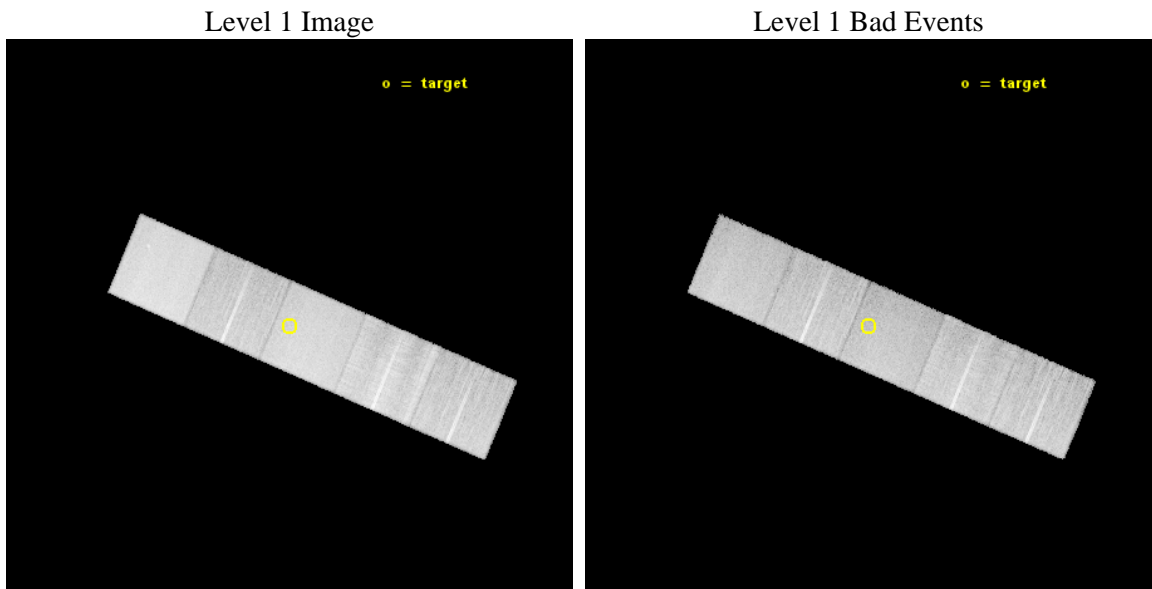
seq_num	501955	Sequence number
obs_id	14829	Observation id
title	Searching for X-ray counterparts of radio-quiet Fermi pulsars	Prop
observer	Dr. Martino Marelli	Principal investigator
object	PSR J2139+4716	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	324.982917	Observer's specified target RA [deg]
dec_targ	47.270306	Observer's specified target Dec [deg]
ra_nom	324.98364585957	Nominal RA [deg]
dec_nom	47.273301301152	Nominal Dec [deg]
roll_nom	23.07140398372	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25060.059698164	Sum of GTIs [s]
livetime	24732.63156926	Livetime [s]
ontime5	25060.018658161	Sum of GTIs [s]
ontime6	25056.83677727	Sum of GTIs [s]
ontime7	25060.059698164	Sum of GTIs [s]
ontime8	25056.795737267	Sum of GTIs [s]
ontime9	25056.754697263	Sum of GTIs [s]
l2events	230192	Number of level 2 events



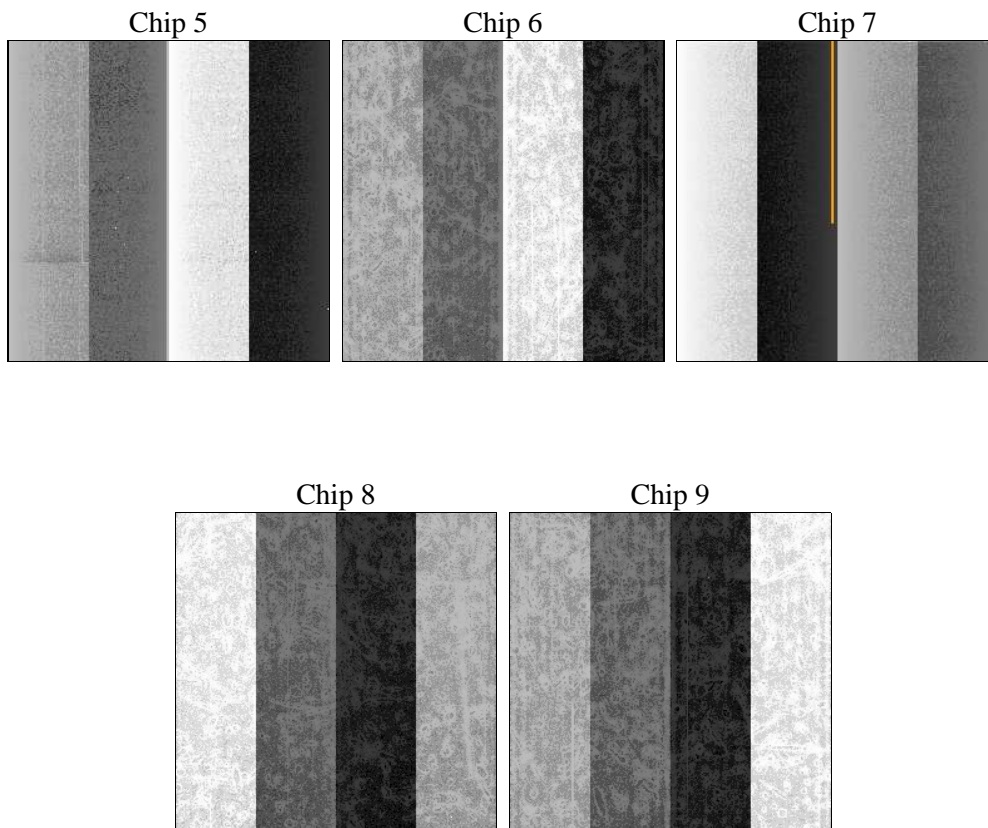
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	25060.059698164	Sum of GTIs [s]
caldbver	4.6.4	 	ontime5	25060.018658161	Sum of GTIs [s]
date	2014-12-02T00:14:03	Date and time of file creation	ontime6	25056.83677727	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	25060.059698164	Sum of GTIs [s]
			ontime8	25056.795737267	Sum of GTIs [s]
			ontime9	25056.754697263	Sum of GTIs [s]
			l1events	865089	Number of level 1 events

2.1.4 Events

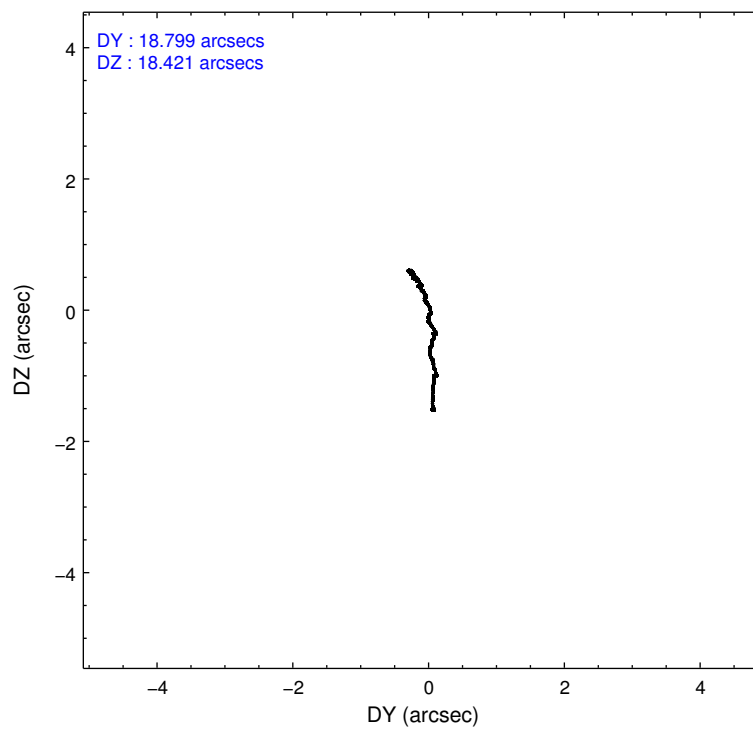
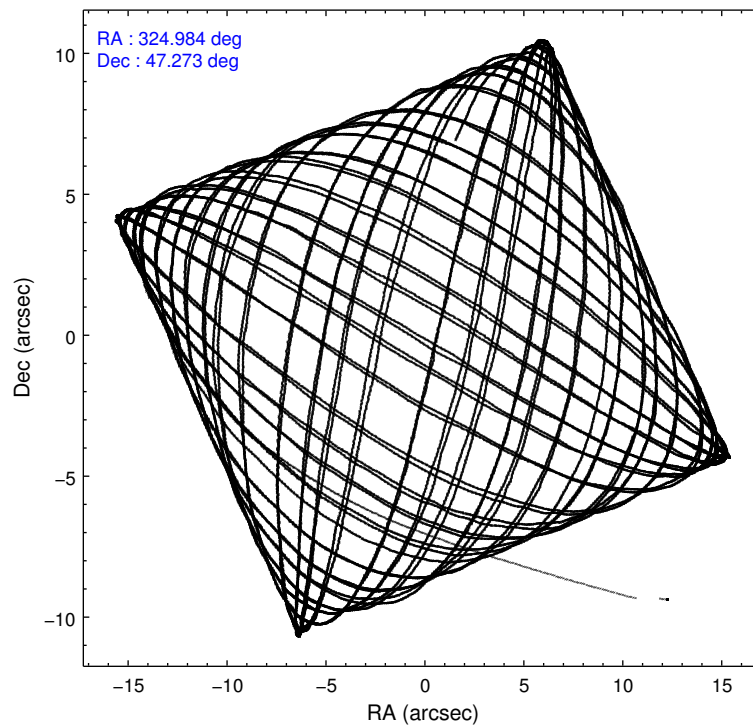
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	219439	136886	183972	184006	140786
rejected events	113996	120441	103048	134215	123114
rejected %	51%	87%	56%	72%	87%

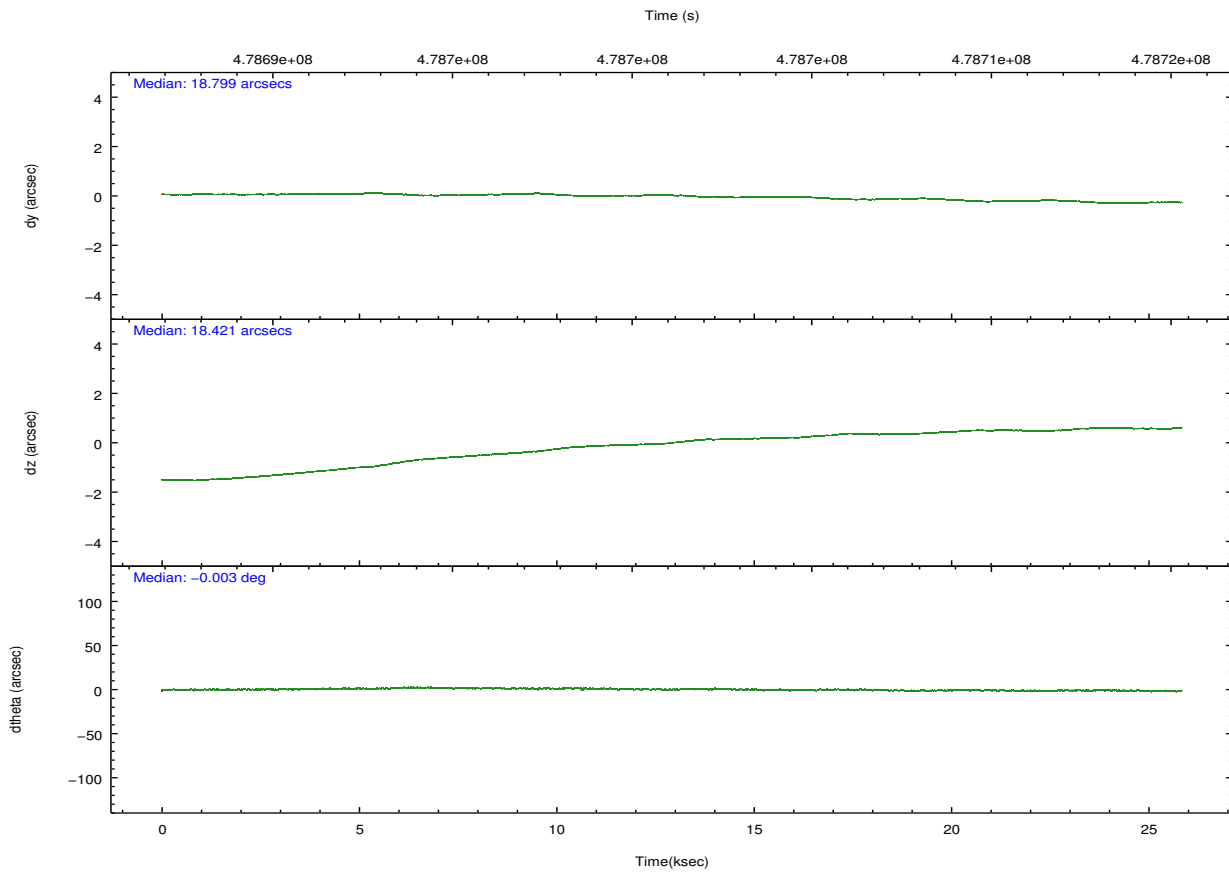
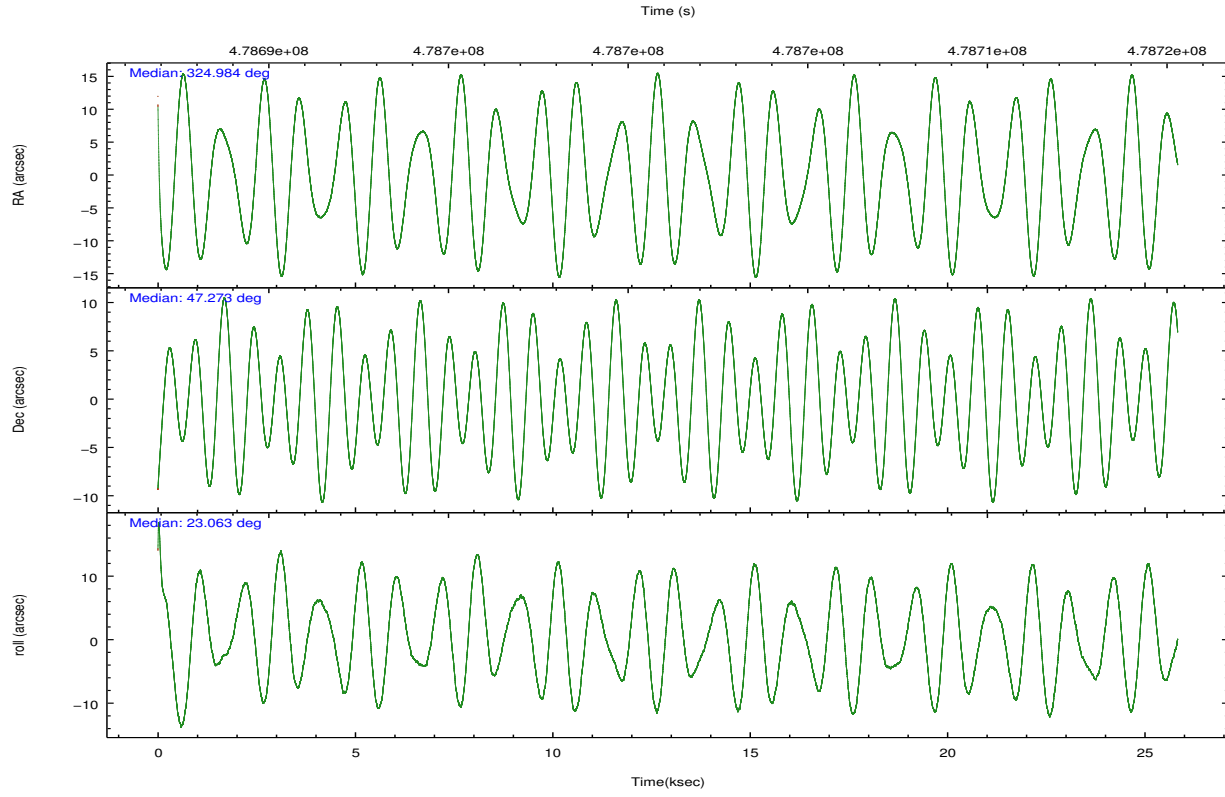
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	6491	5505	7100	14853	6390
	2%	4%	3%	8%	4%
grade 1 events	317	60	208	121	72
	0%	0%	0%	0%	0%
grade 2 events	32374	3830	16545	11630	3989
	14%	2%	8%	6%	2%
grade 3 events	4081	1738	7055	5048	1891
	1%	1%	3%	2%	1%
grade 4 events	3931	1660	6939	4718	1715
	1%	1%	3%	2%	1%
grade 5 events	16688	7071	19027	10227	8130
	7%	5%	10%	5%	5%
grade 6 events	58598	3714	43308	13549	3694
	26%	2%	23%	7%	2%
grade 7 events	96959	113308	83790	123860	114905
	44%	82%	45%	67%	81%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	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	324.959877	324.9836458595657	CCD I2 on	N	N
[deg] Pointing Dec	47.251213	47.27330130115191	CCD I3 on	N	N
[deg] Pointing Roll	22.932226	23.07140398371969	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	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	Y	Y
[s] Observation start time (MET)	478689021.184000	478687105.26498	CCD S5 on	O2	Y
Observation start date	2013-03-03T09:09:14	2013-03-03T08:38:25	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	478714021.184000	478714807.42898	On-chip summing requested	N	N
Observation end date	2013-03-03T16:05:54	2013-03-03T16:20:07	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





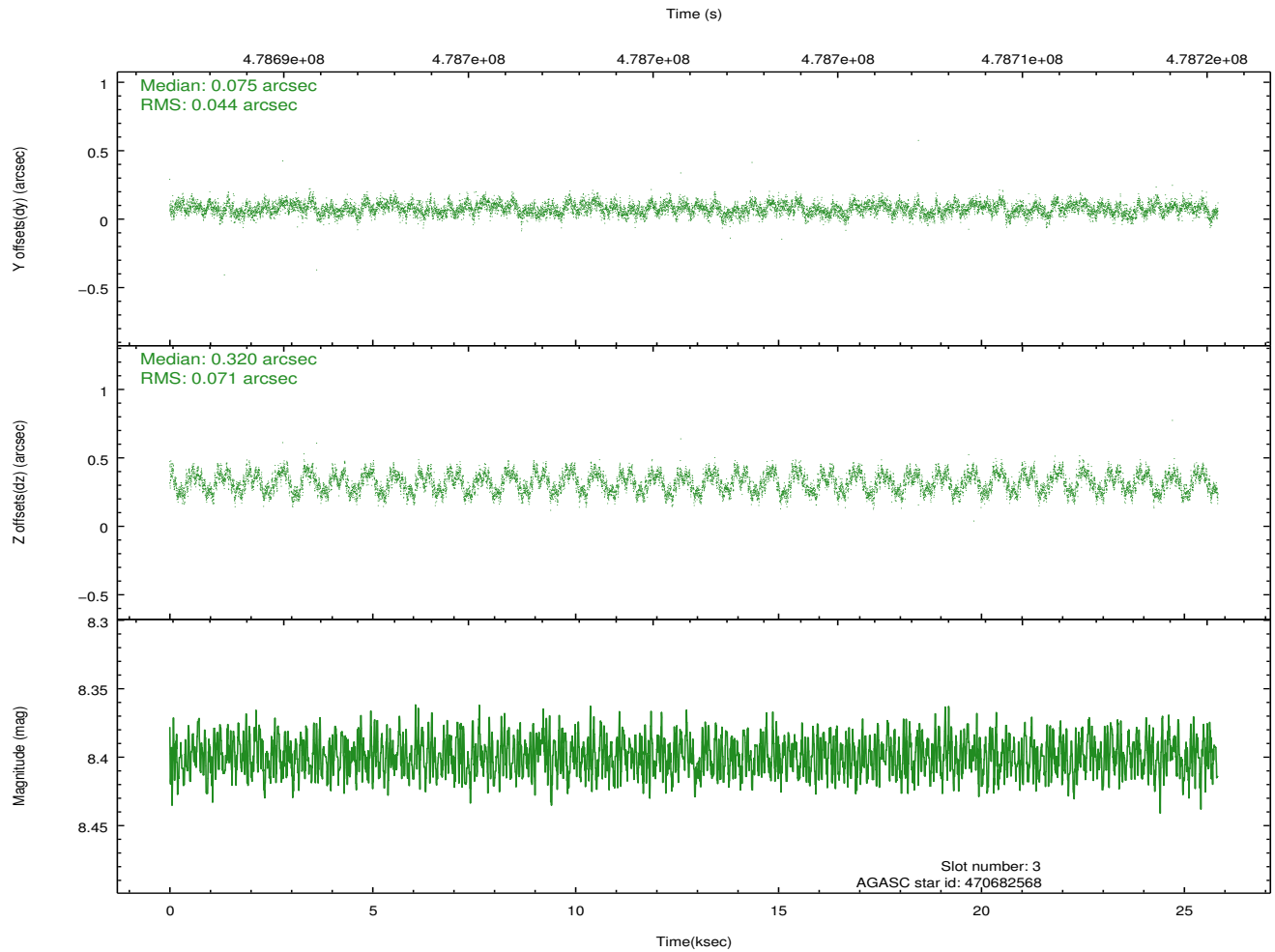
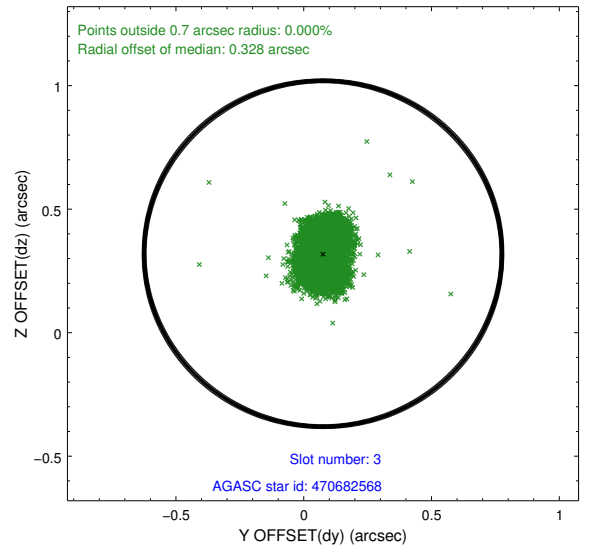
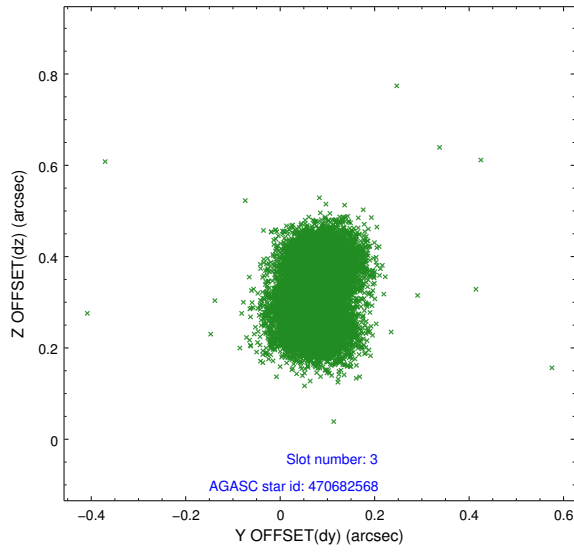
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	6301	-0.093	-0.041	0.011	0.021	0.000000	0.000000	-771.94	-1739.72
1	FID		ACIS-S-4	7.02	6301	0.243	0.056	0.007	0.012	0.000000	0.000000	2141.65	168.71
2	FID		ACIS-S-5	7.04	6301	-0.182	-0.007	0.011	0.018	0.000000	0.000000	-1824.70	162.49
3	GUIDE	used	470682568	8.40	12594	0.075	0.320	0.091	0.136	324.441493	46.741038	-1891.71	-1189.14
4	GUIDE	used	471215928	7.79	12599	0.013	-0.155	0.065	0.105	324.604586	47.751949	-89.14	1997.04
5	GUIDE	used	471220072	7.20	12600	-0.124	-0.157	0.083	0.137	325.292390	47.545178	1157.31	661.62
6	GUIDE	used	471222144	8.96	12597	-0.116	-0.015	0.099	0.161	323.817294	47.572573	-2097.24	2165.52
7	GUIDE	used	470679688	6.89	12600	0.148	0.000	0.076	0.130	326.105902	46.862831	2061.65	-2366.80

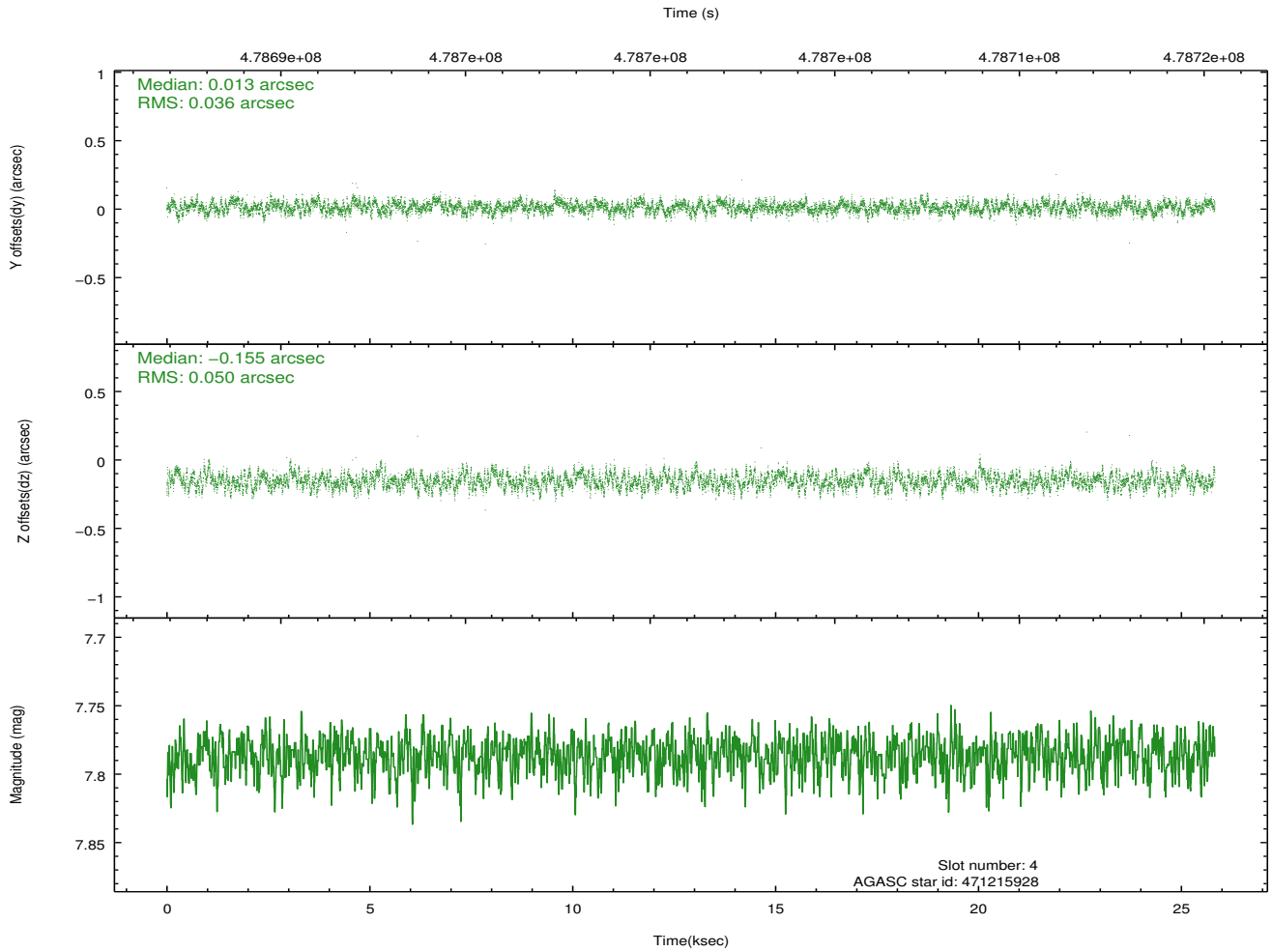
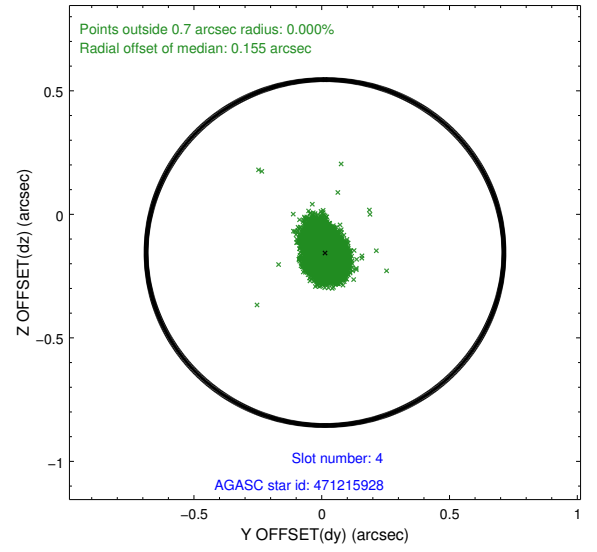
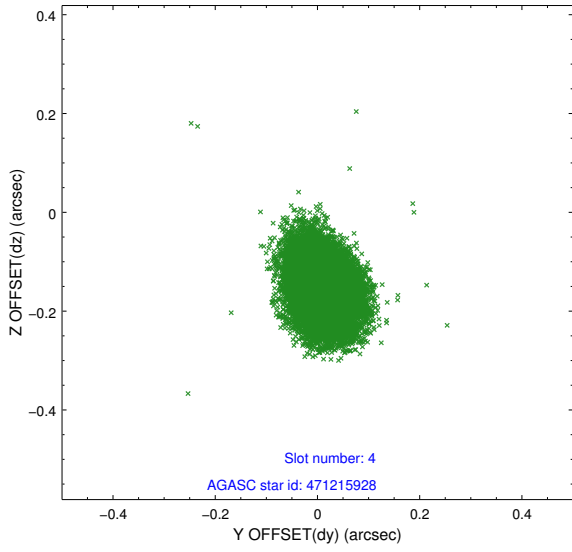
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2.4 Star Slots

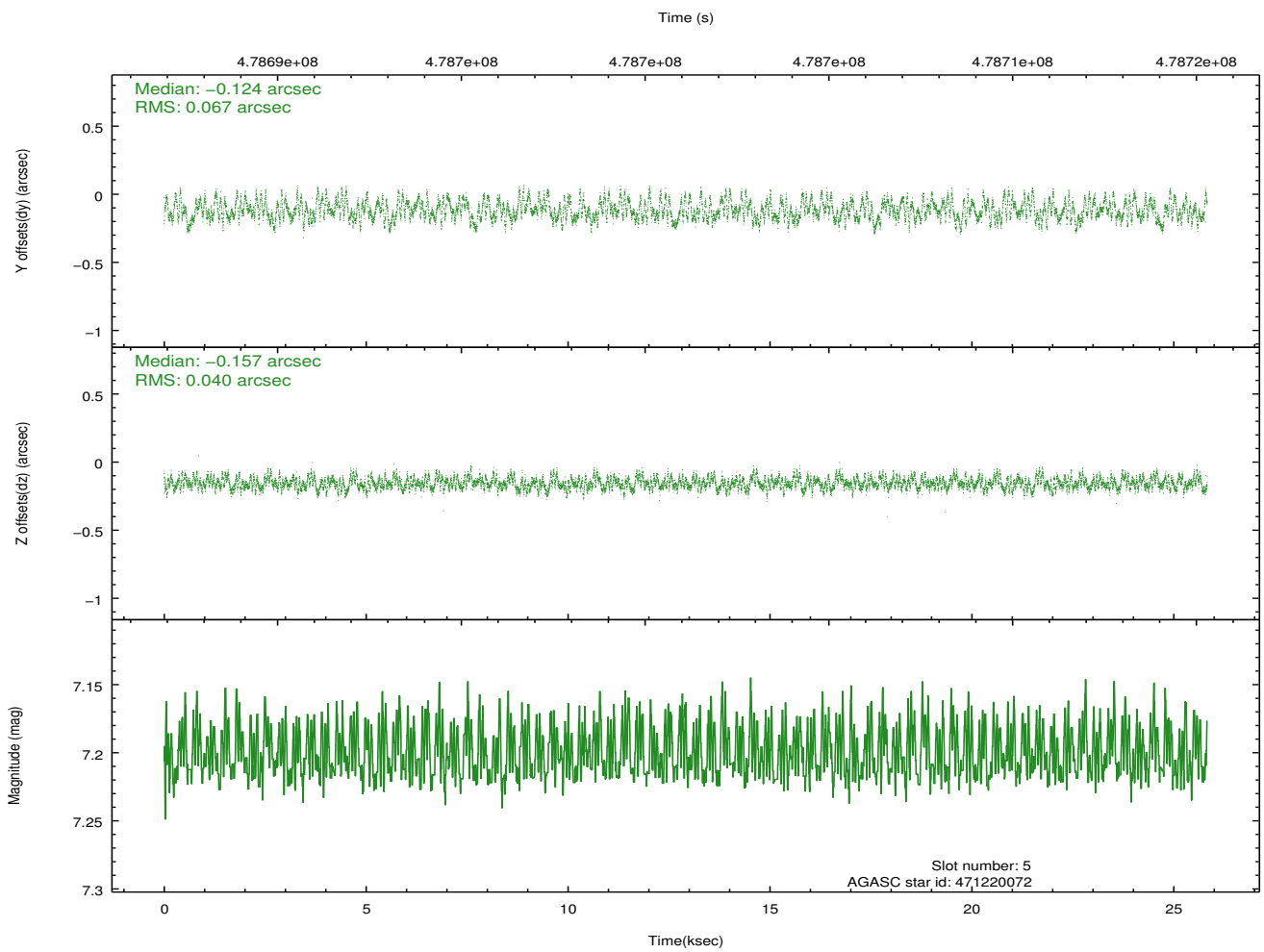
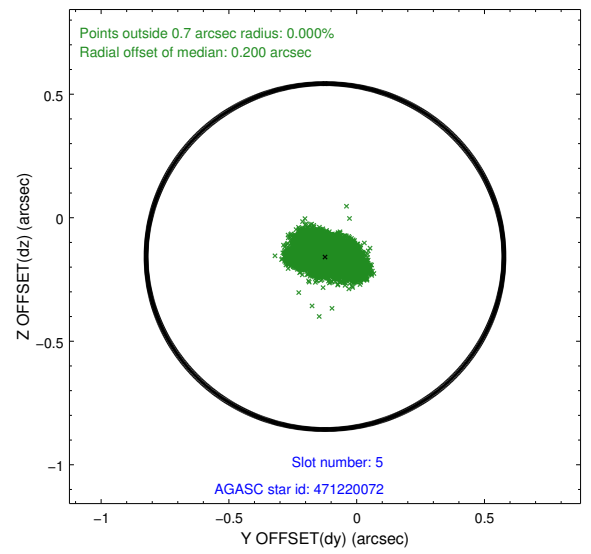
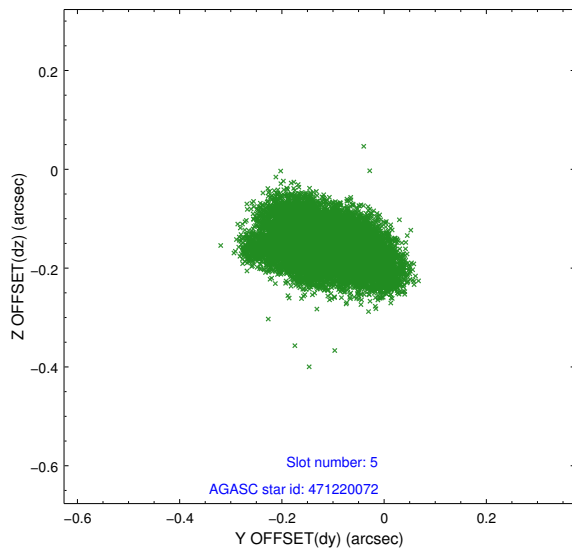
2.4.1 Slot 3



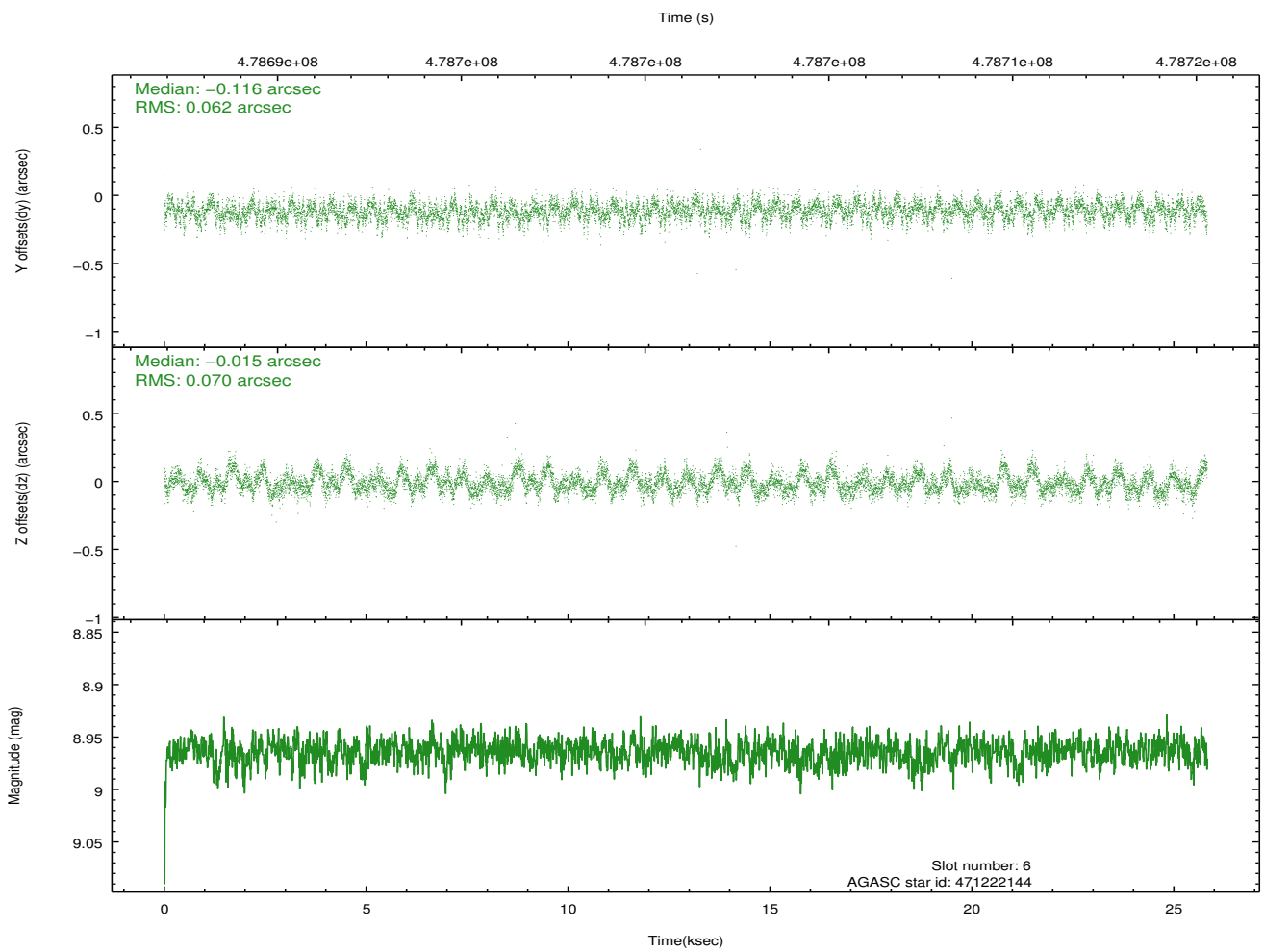
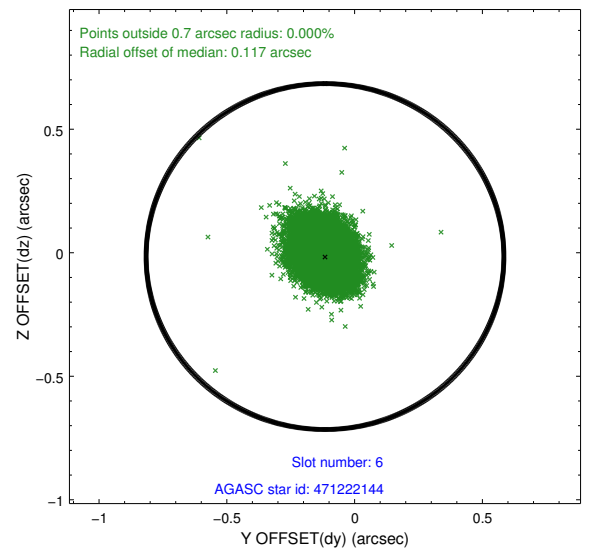
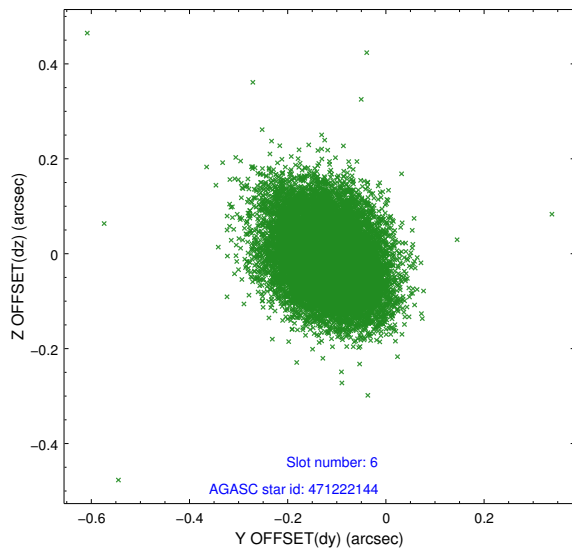
2.4.2 Slot 4



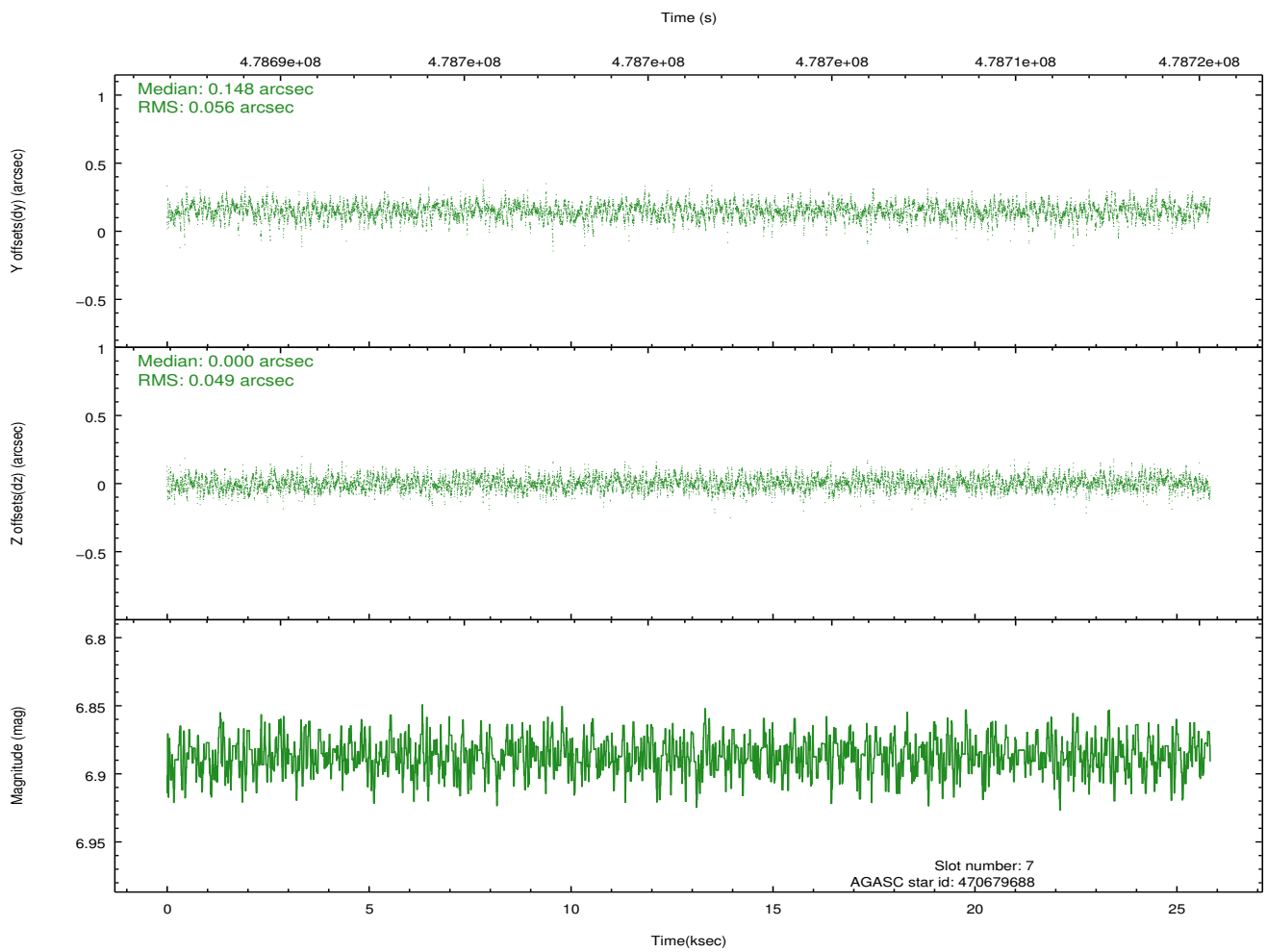
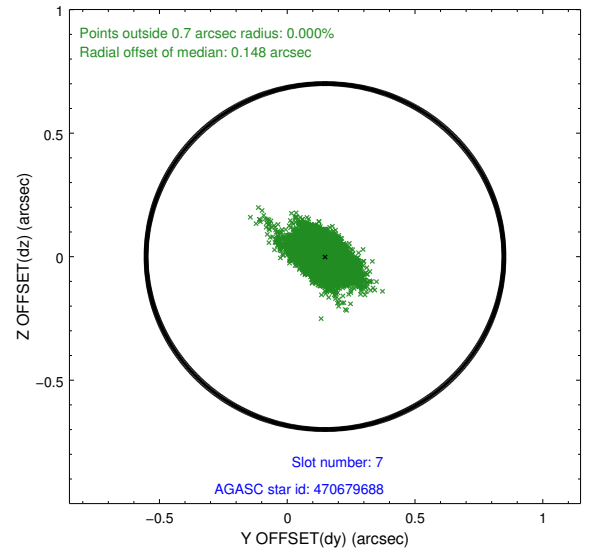
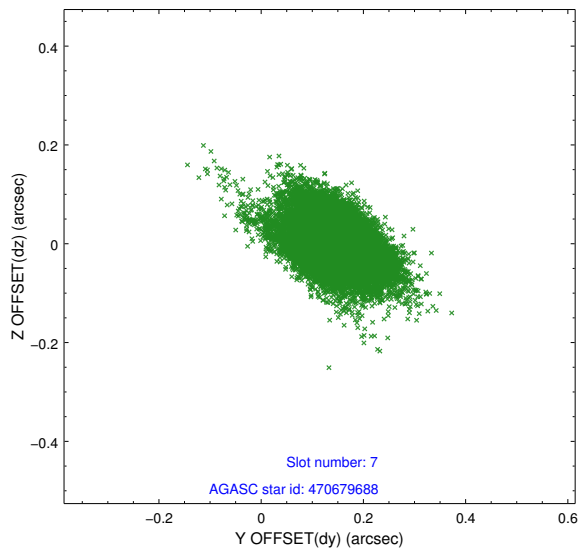
2.4.3 Slot 5



2.4.4 Slot 6

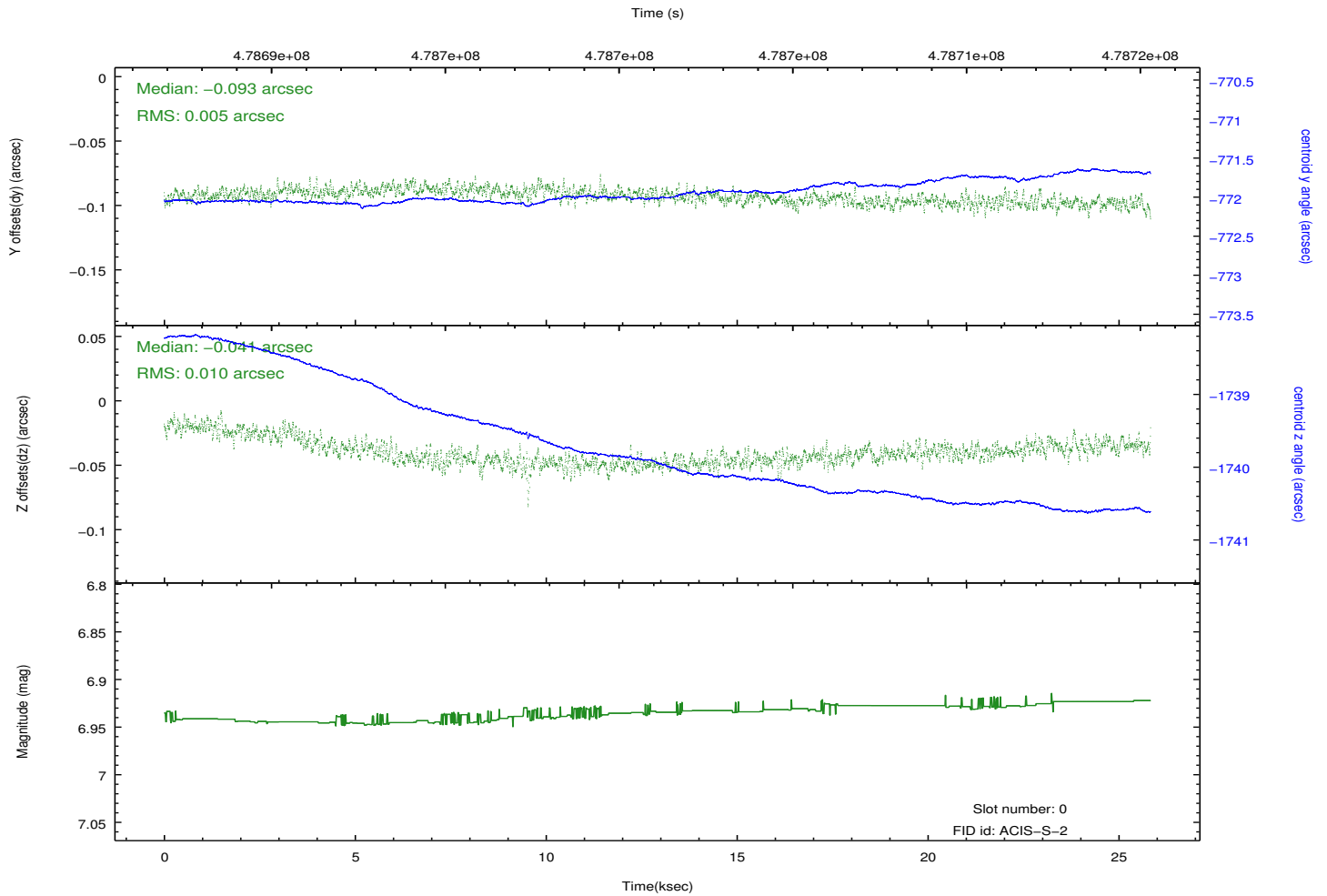
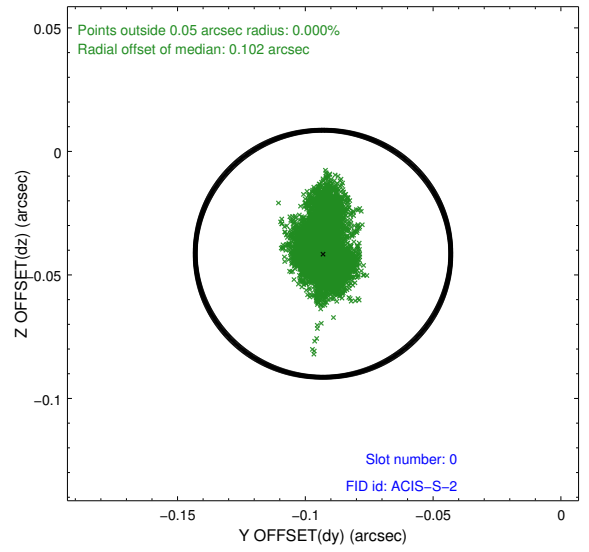
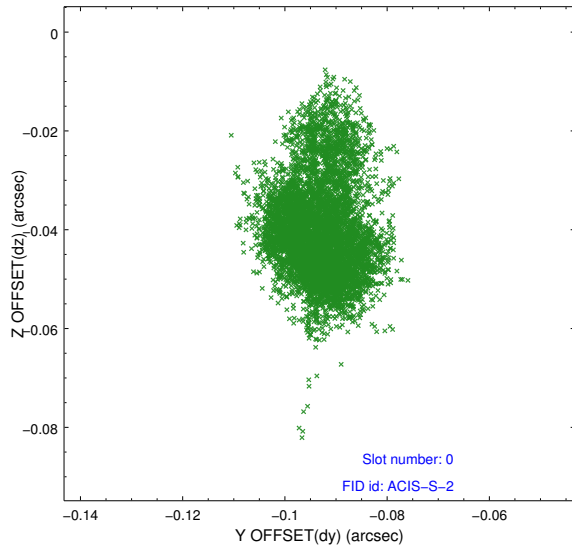


2.4.5 Slot 7

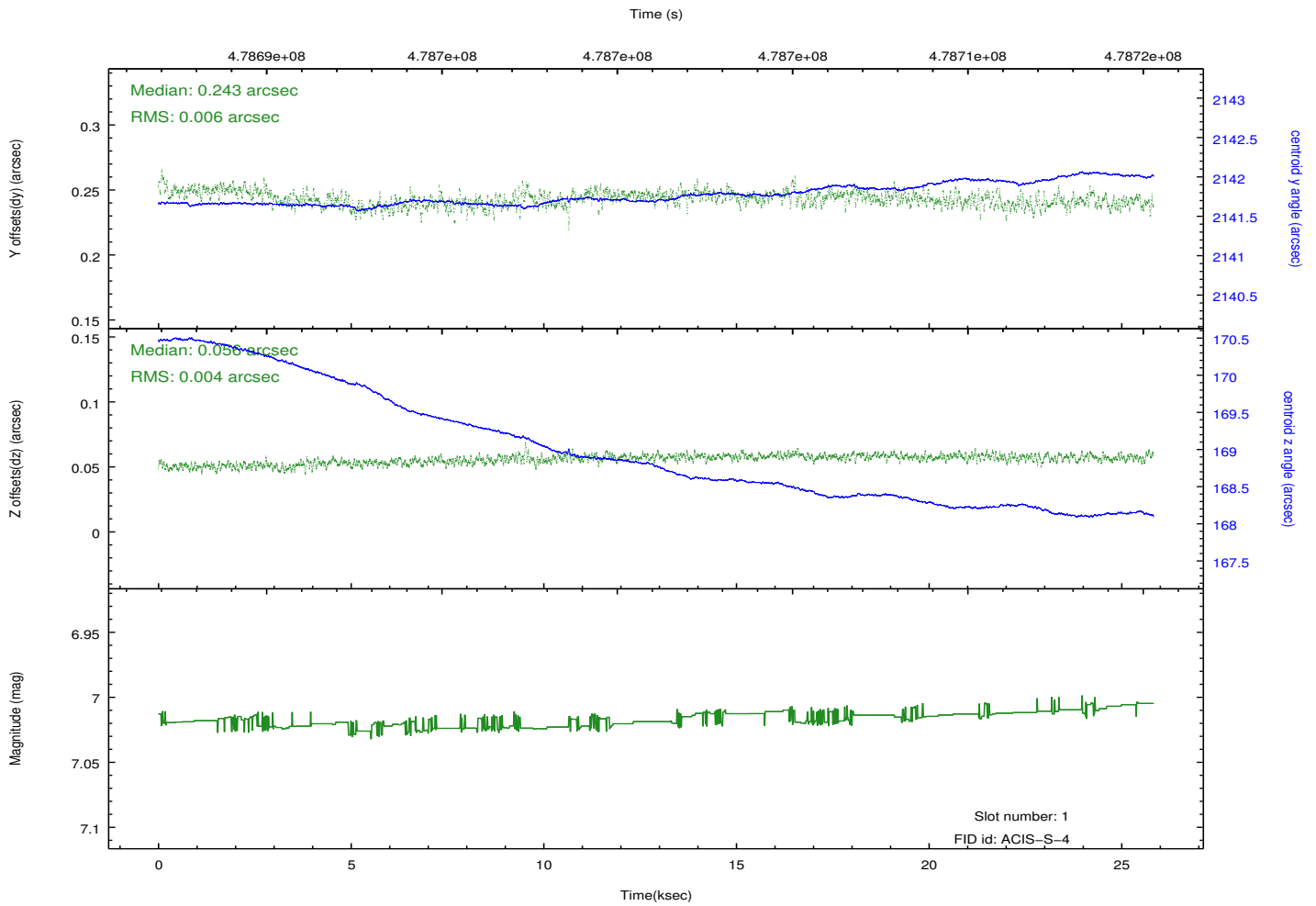
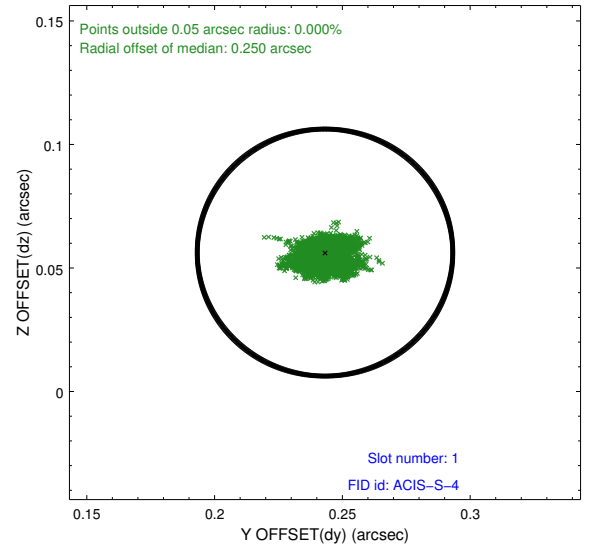
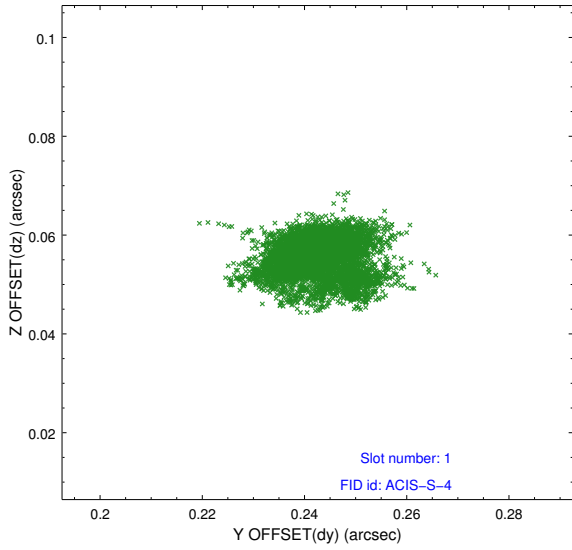


2.5 FID Slots

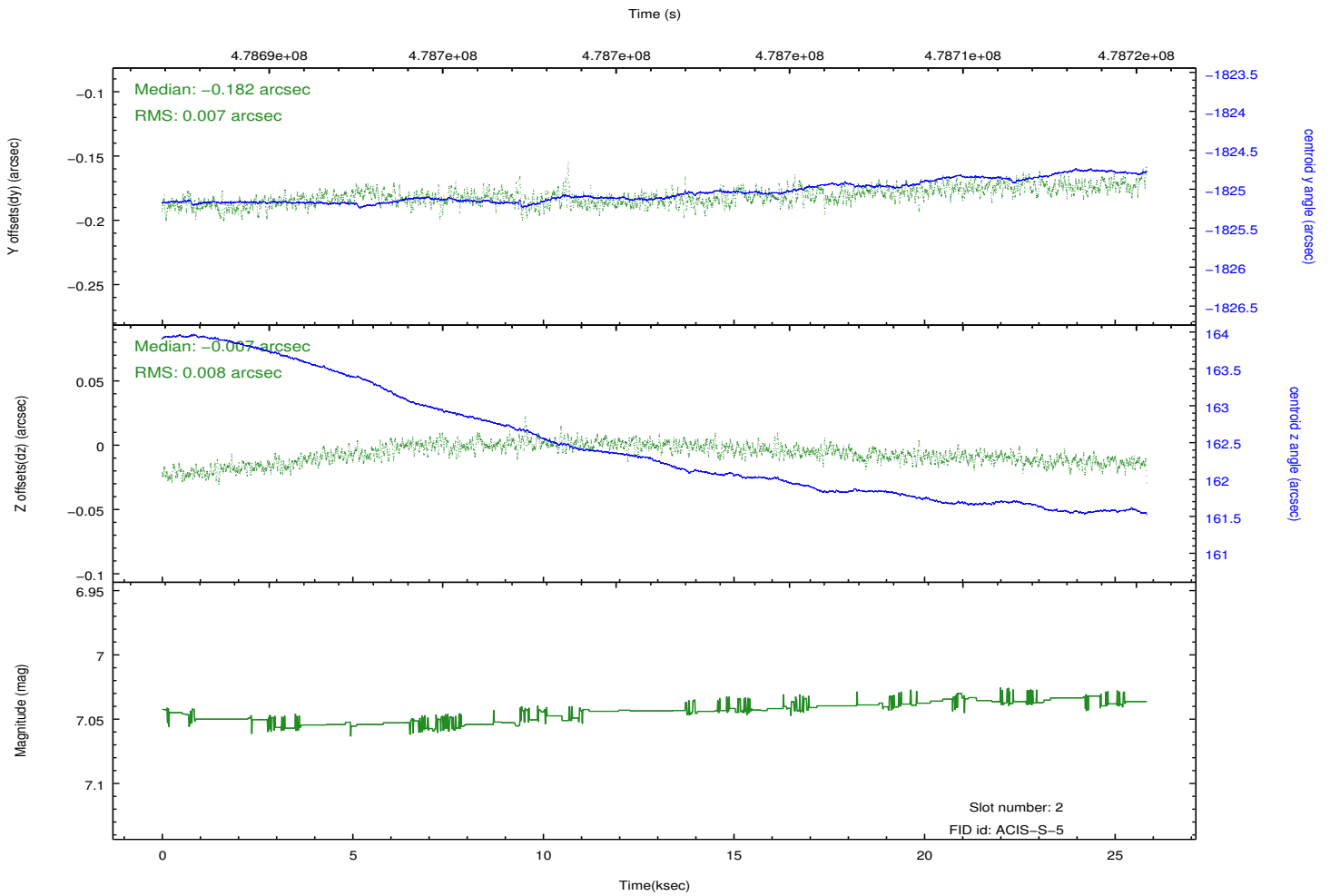
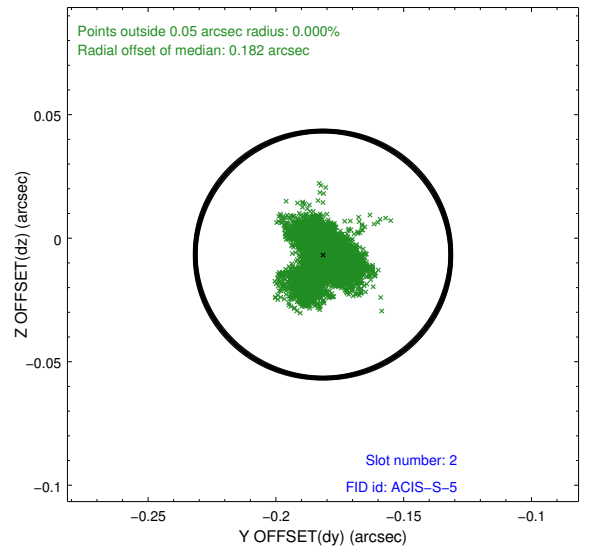
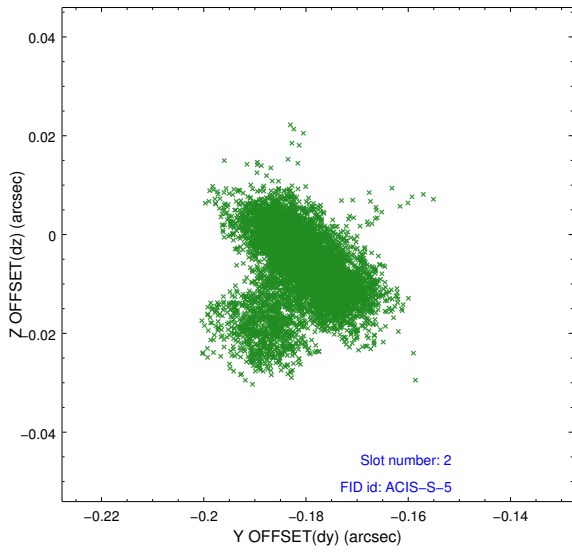
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.060059698164

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.