

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15616 - L2 Version 2
Chandra X-Ray Center

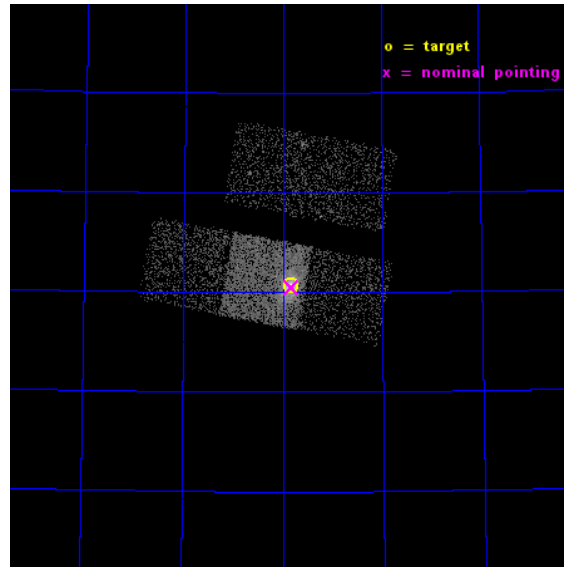
L2 Processing Date : Dec 1 2014

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1 Front

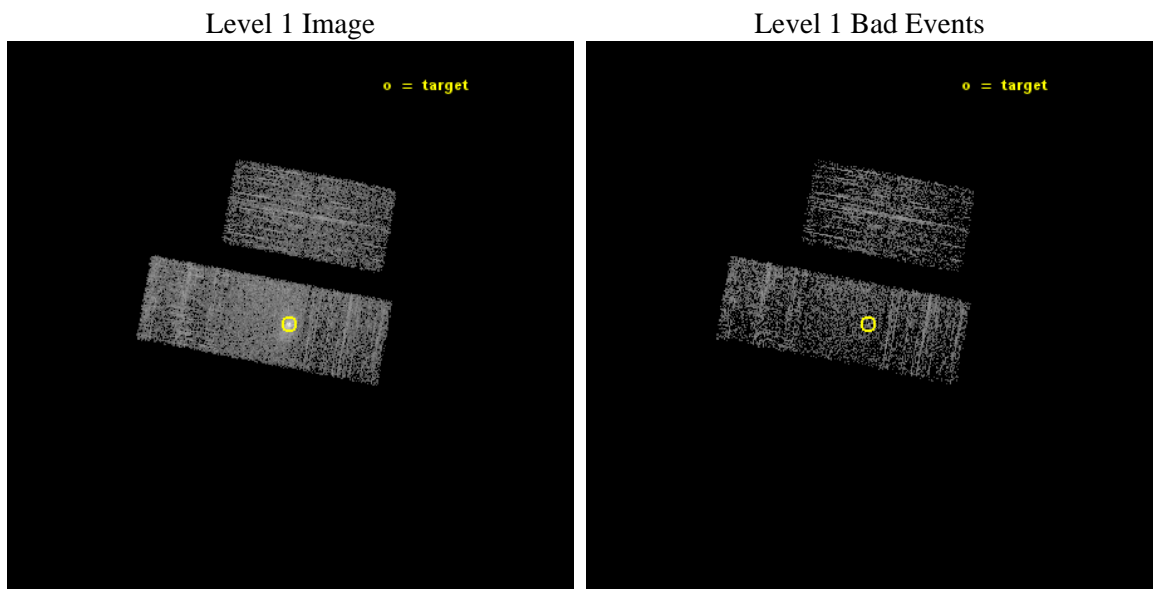
seq_num	502032	Sequence number
obs_id	15616	Observation id
title	Investigating the nature of the transient source in M 82	Proposal
observer	Oliwia Madej	Principal investigator
object	M 82 transient	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.960417	Observer's specified target RA [deg]
dec_targ	69.677778	Observer's specified target Dec [deg]
ra_nom	148.95724202369	Nominal RA [deg]
dec_nom	69.674938446244	Nominal Dec [deg]
roll_nom	190.46361890701	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2064.6000158787	Sum of GTIs [s]
livetime	2037.6244967348	Livetime [s]
ontime2	2064.5005927682	Sum of GTIs [s]
ontime3	2064.5826727748	Sum of GTIs [s]
ontime6	2064.6000158787	Sum of GTIs [s]
ontime7	2064.6000158787	Sum of GTIs [s]
ontime8	2064.5416327715	Sum of GTIs [s]
l2events	17714	Number of level 2 events



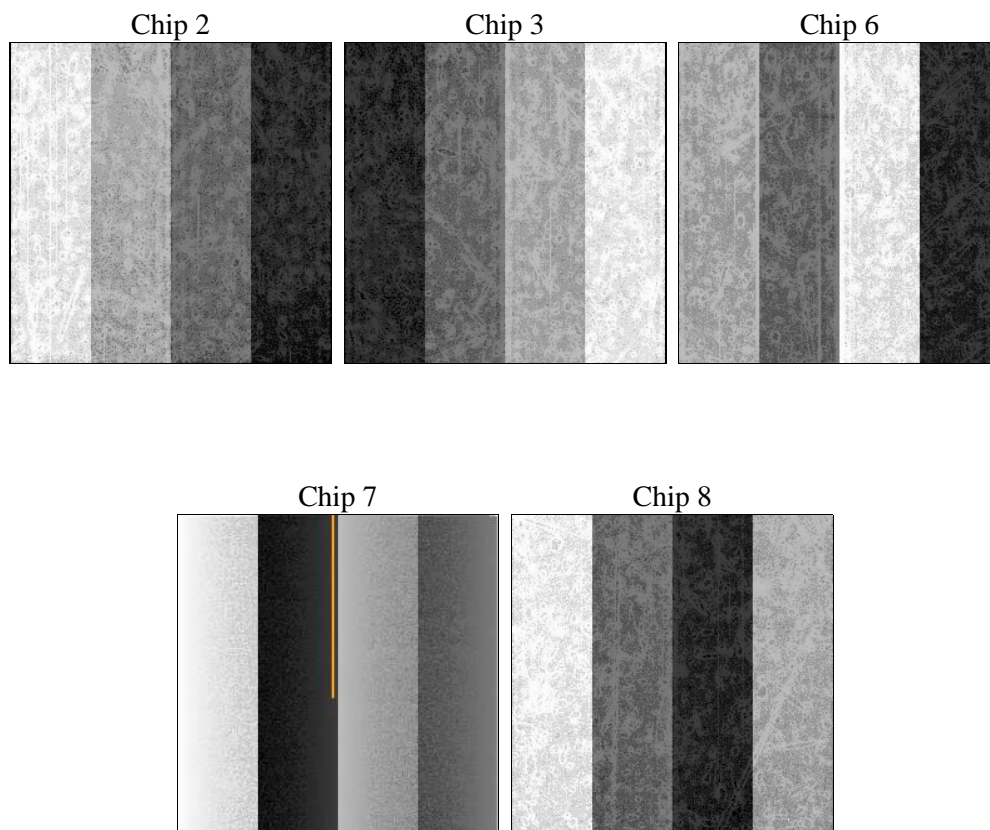
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	2000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	2064.6000158787	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	2064.5005927682	Sum of GTIs [s]
date	2014-12-01T17:00:26	Date and time of file creation	ontime3	2064.5826727748	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	2064.6000158787	Sum of GTIs [s]
			ontime7	2064.6000158787	Sum of GTIs [s]
			ontime8	2064.5416327715	Sum of GTIs [s]
			l1events	70634	Number of level 1 events

2.1.4 Events

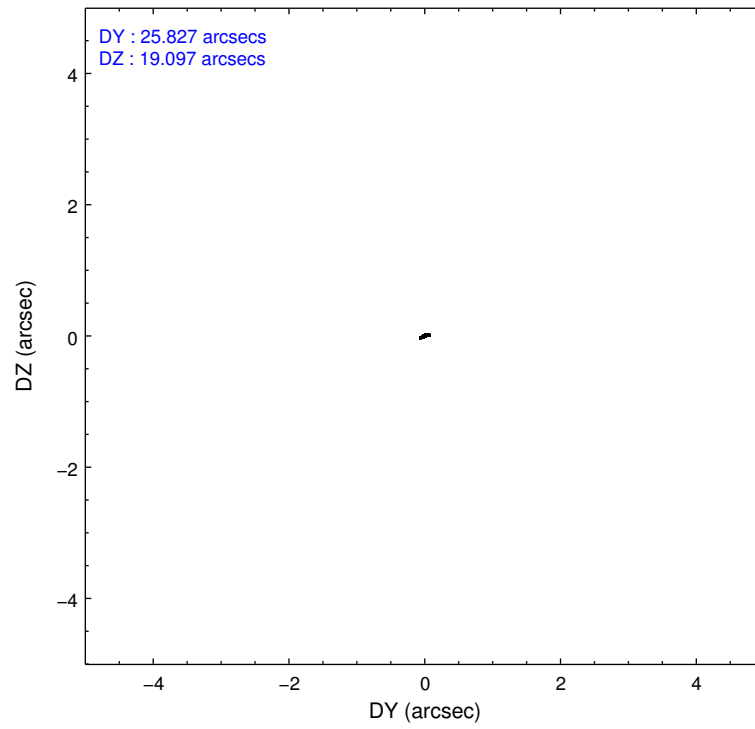
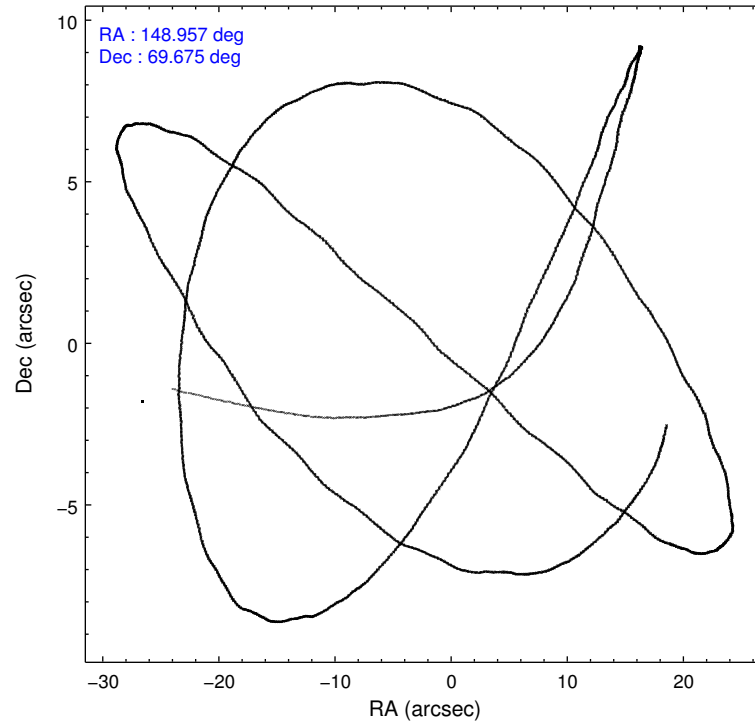
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	9825	11421	11753	21956	15679
rejected events	8439	10120	10322	9046	11389
rejected %	85%	88%	87%	41%	72%

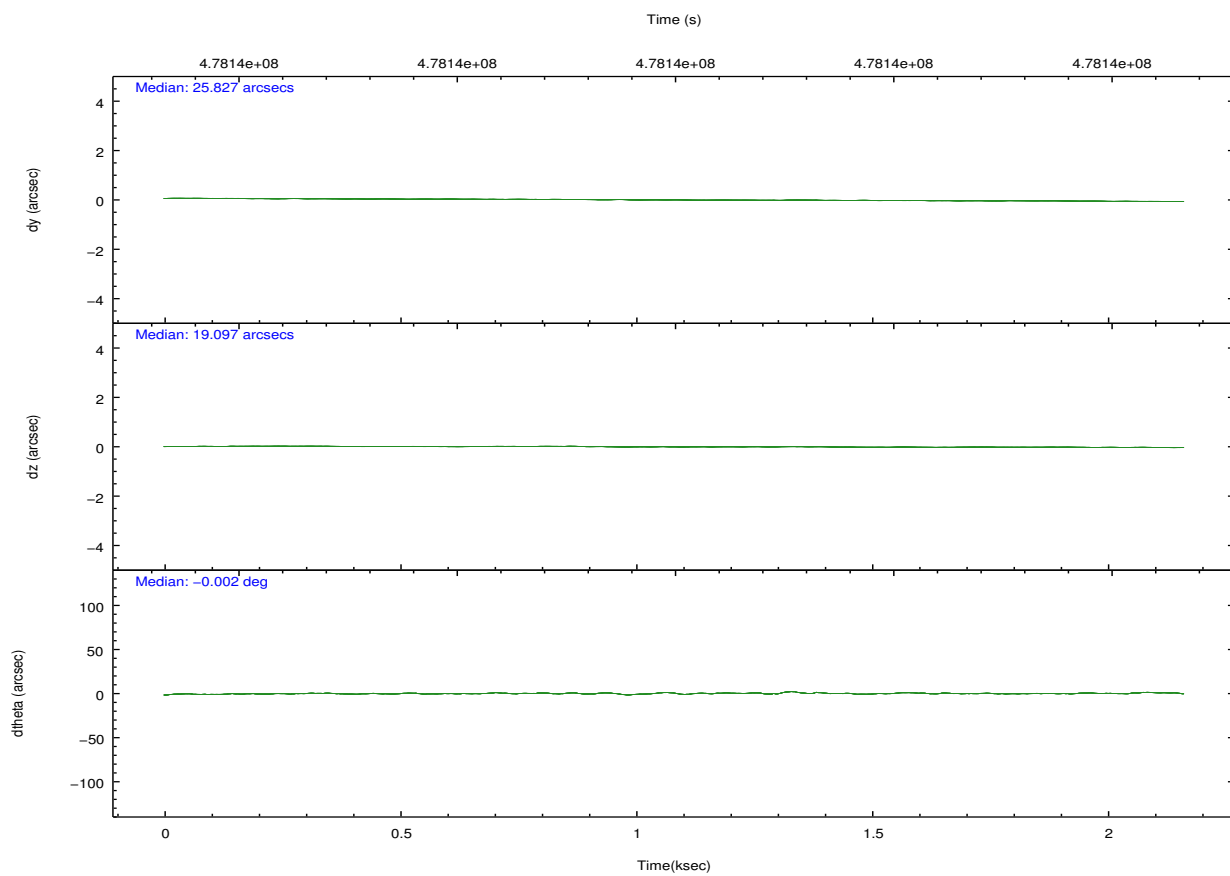
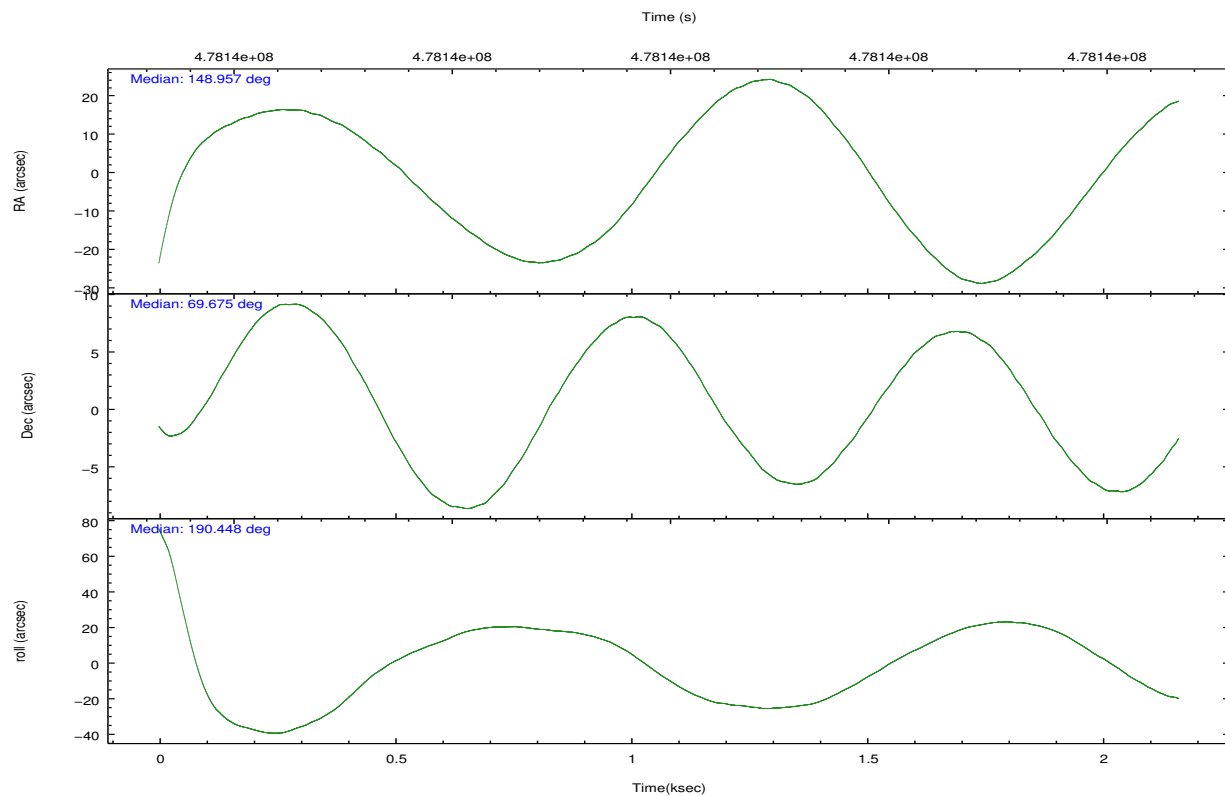
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	513	462	517	2308	1290
	5%	4%	4%	10%	8%
grade 1 events	9	5	5	21	8
	0%	0%	0%	0%	0%
grade 2 events	341	280	315	2993	958
	3%	2%	2%	13%	6%
grade 3 events	148	146	148	1256	451
	1%	1%	1%	5%	2%
grade 4 events	135	136	137	1306	441
	1%	1%	1%	5%	2%
grade 5 events	495	541	584	1707	924
	5%	4%	4%	7%	5%
grade 6 events	250	279	316	5089	1158
	2%	2%	2%	23%	7%
grade 7 events	7934	9572	9731	7276	10449
	80%	83%	82%	33%	66%

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	149.016385	148.9572420236888	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.693003	69.67493844624384	Alternating exposures requested	N	N
[deg] Pointing Roll	190.251025	190.4636189070102	[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)	478135583.184000	478134489.81005			
Observation start date	2013-02-24T23:25:16	2013-02-24T23:08:09			
[s] Observation end time (MET)	478137583.184000	478138262.32275			
Observation end date	2013-02-24T23:58:36	2013-02-25T00:11:02			
Read mode	TIMED	TIMED			

2.3 Aspect



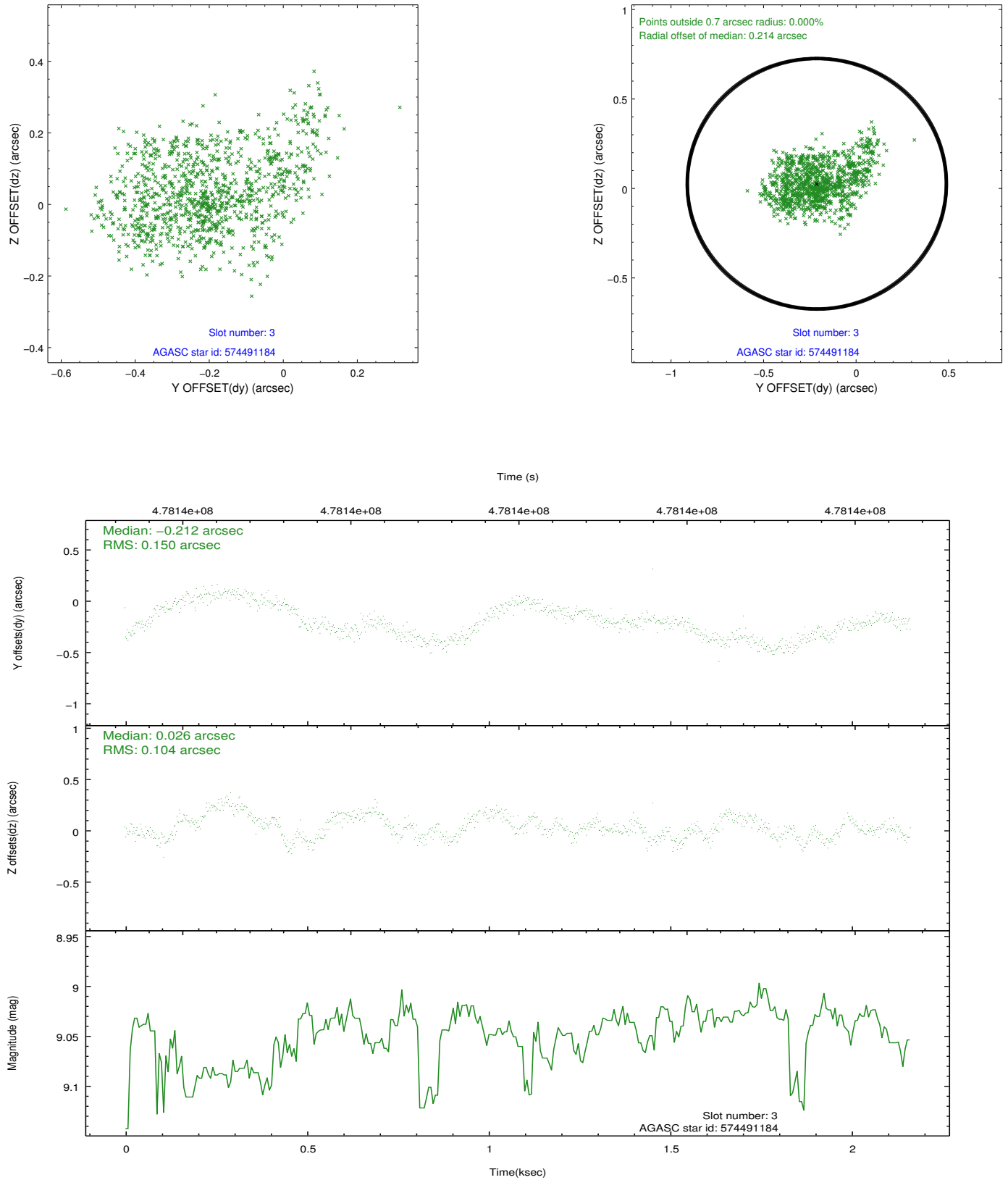


Slot Statistics

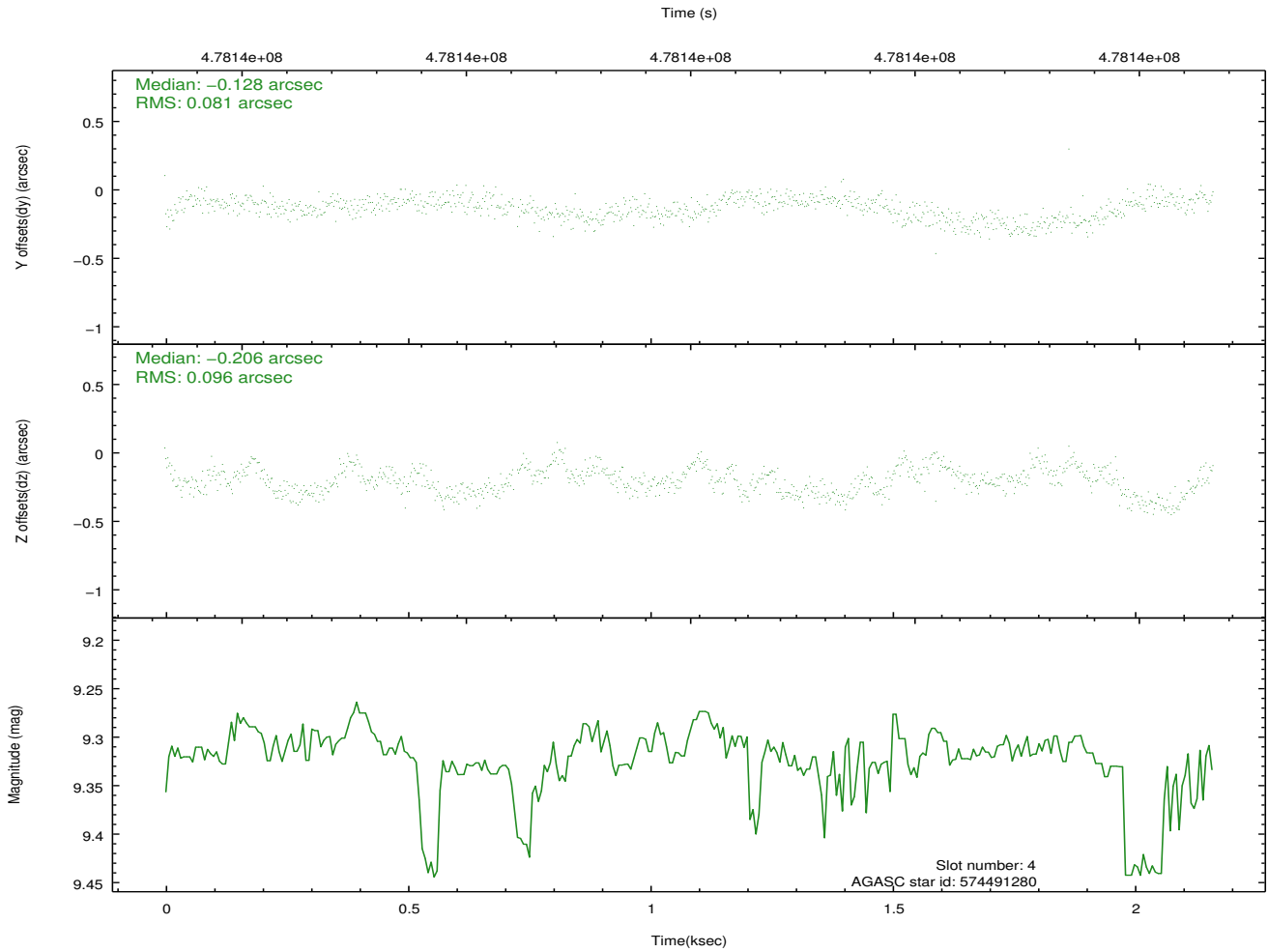
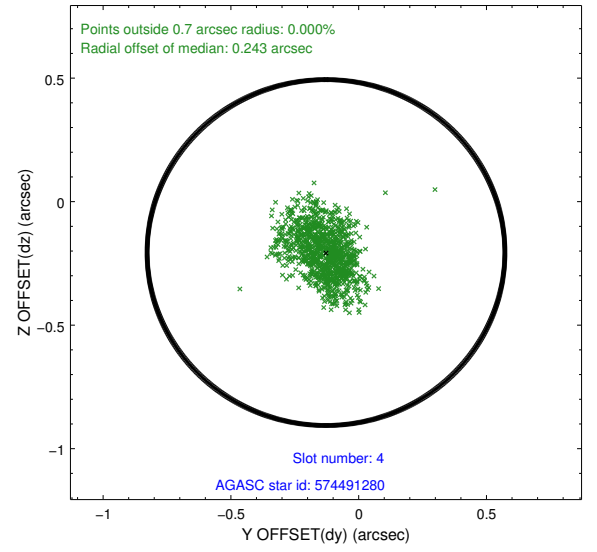
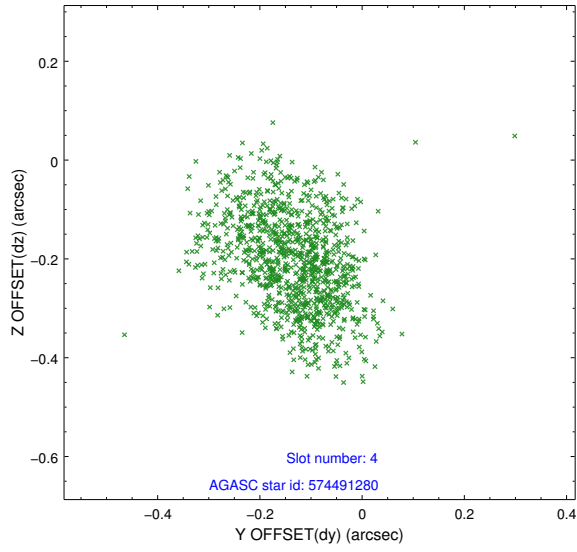
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.99	528	-0.051	-0.022	0.006	0.010	0.000000	0.000000	-779.20	-1740.58
1	FID		ACIS-S-5	7.11	528	-0.122	-0.064	0.007	0.010	0.000000	0.000000	-1833.73	158.26
2	FID		ACIS-S-6	7.21	528	0.147	0.095	0.006	0.010	0.000000	0.000000	379.39	805.66
3	GUIDE	used	574491184	9.04	1047	-0.212	0.026	0.200	0.323	148.582453	69.768699	482.79	-366.11
4	GUIDE	used	574491280	9.32	1053	-0.128	-0.206	0.132	0.214	148.611567	69.450135	660.80	768.22
5	GUIDE	used	574491872	9.26	1050	-0.093	-0.052	0.142	0.222	147.207613	69.765453	2165.60	-684.93
6	GUIDE	used	574886464	9.71	1044	0.154	0.332	0.380	0.604	149.898674	70.203982	-1384.49	-1627.28
7	GUIDE	used	574886496	8.52	1054	0.297	-0.087	0.130	0.214	148.945563	70.041136	-137.87	-1250.83

2.4 Star Slots

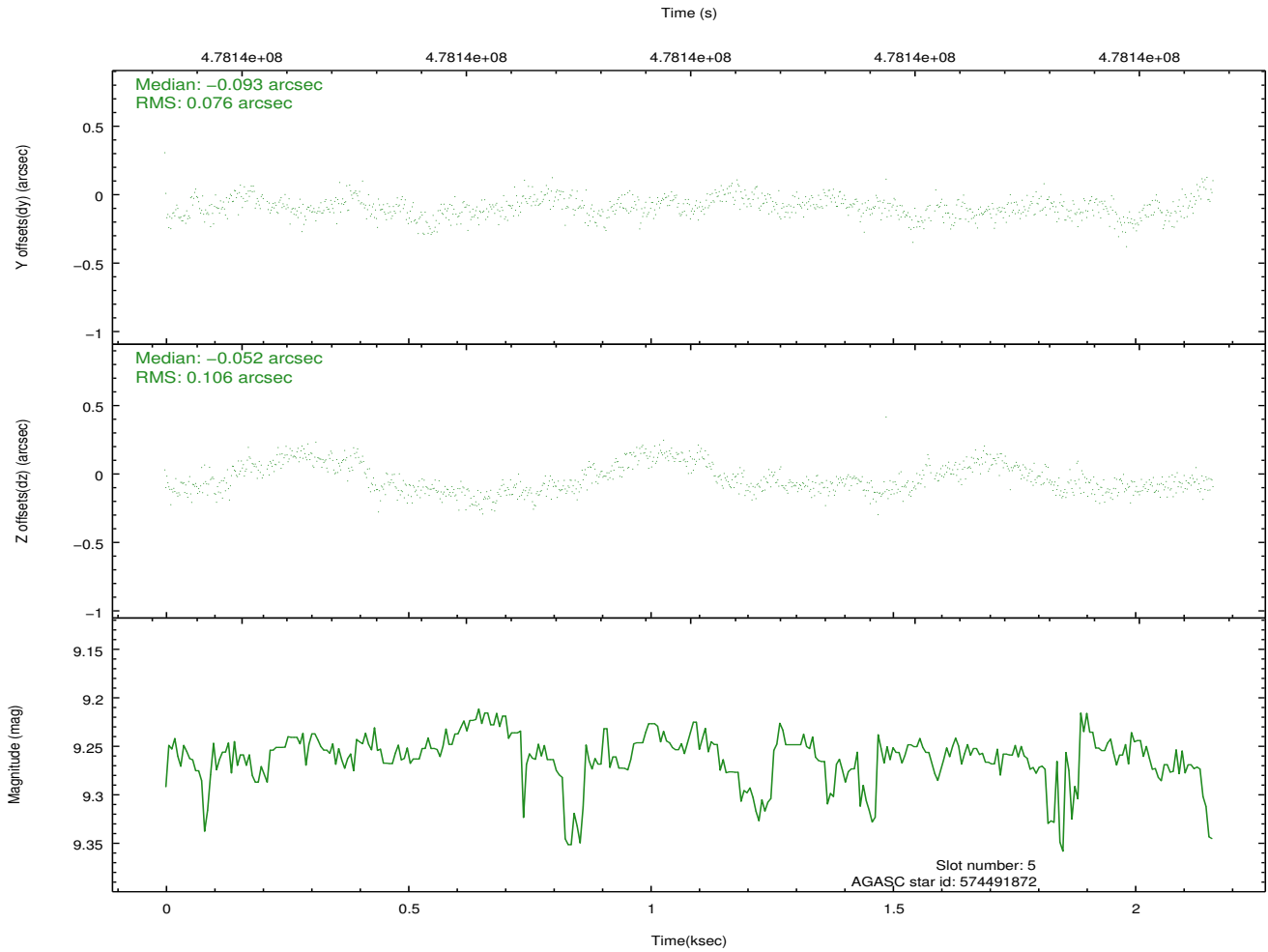
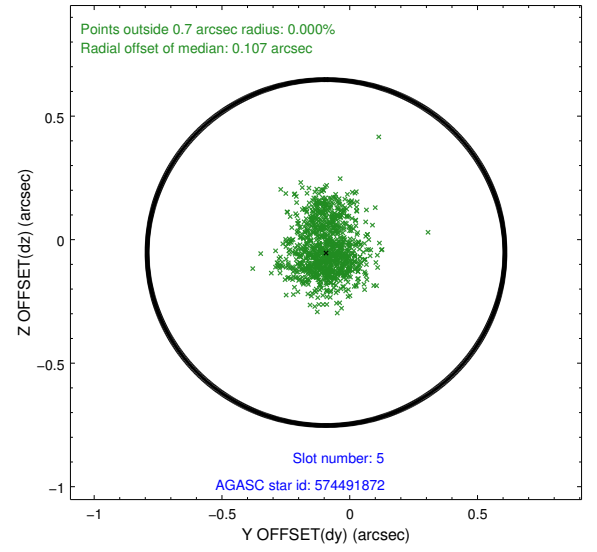
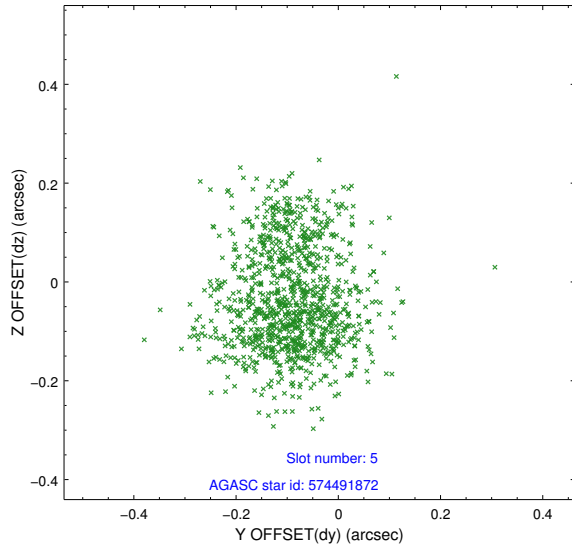
2.4.1 Slot 3



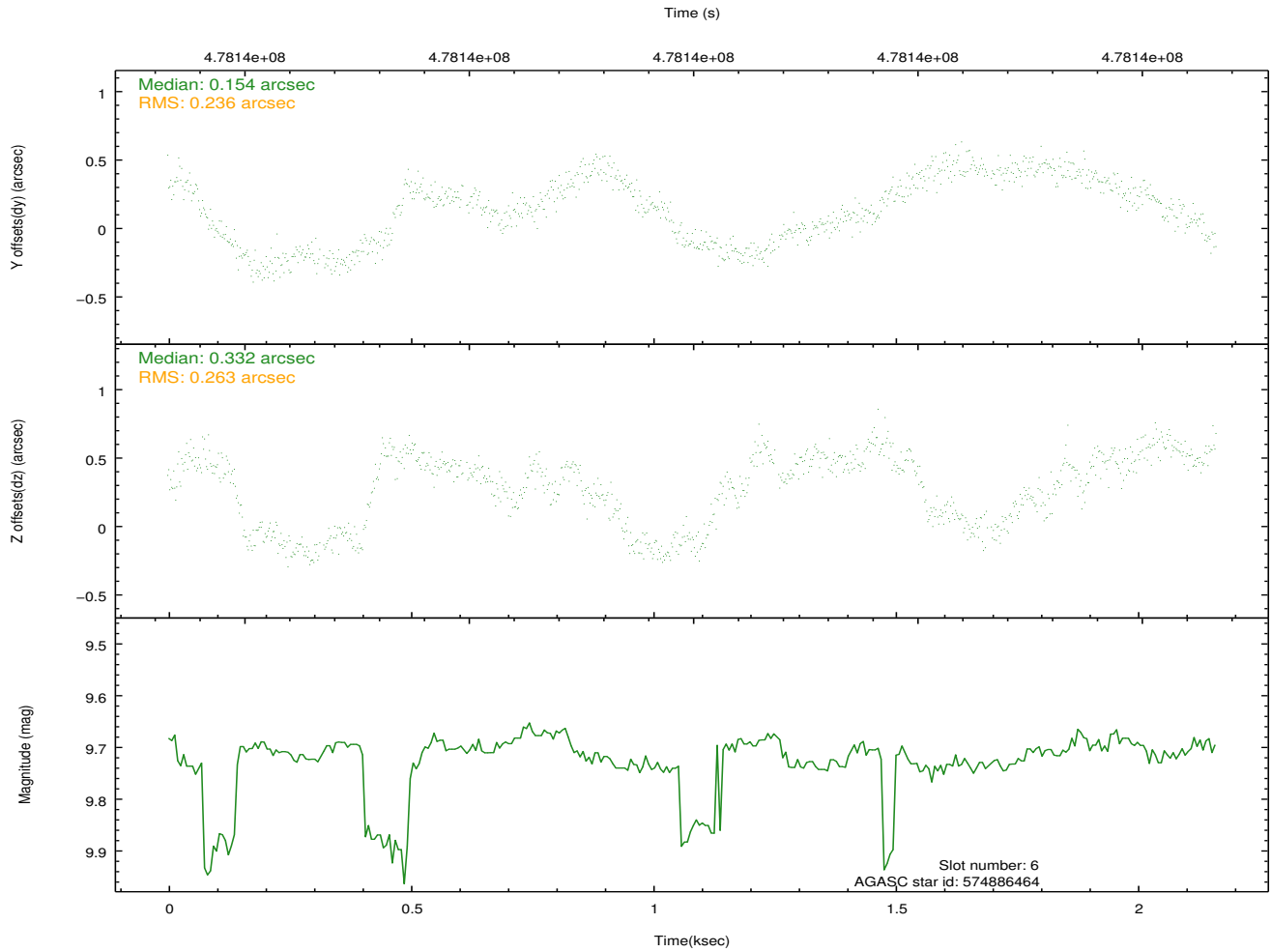
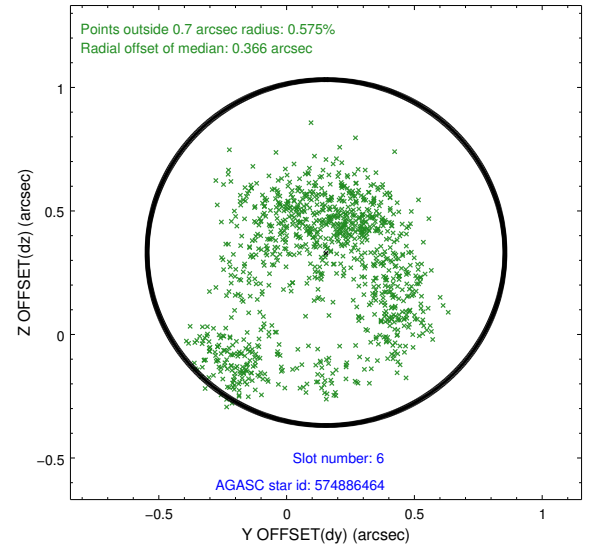
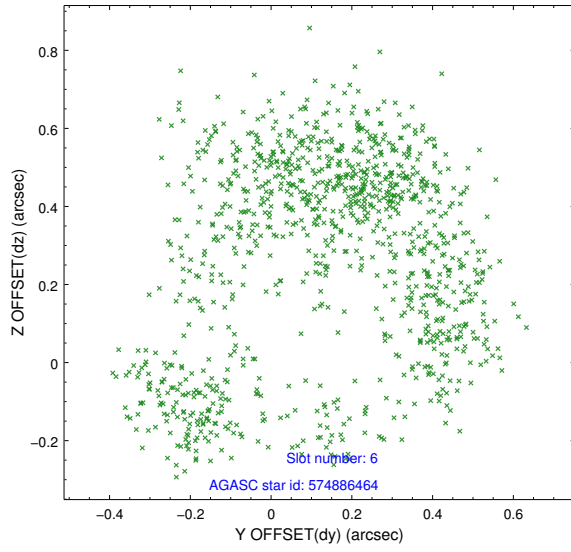
2.4.2 Slot 4



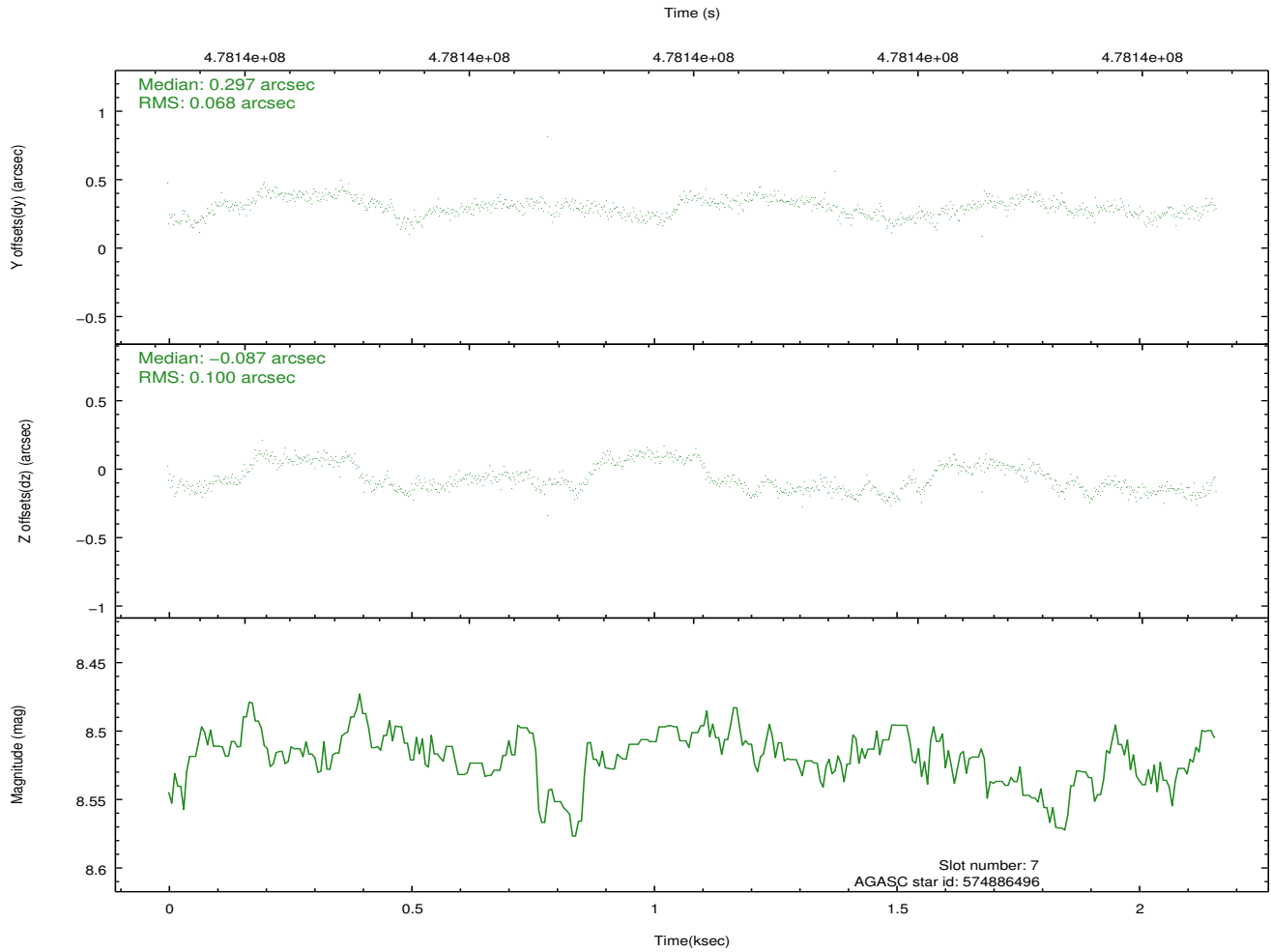
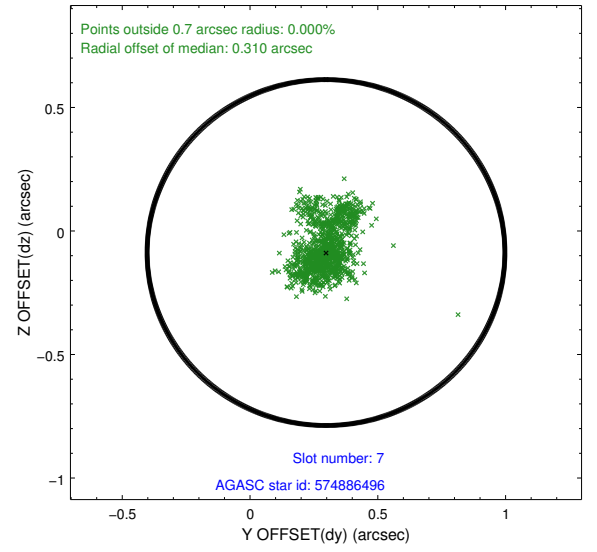
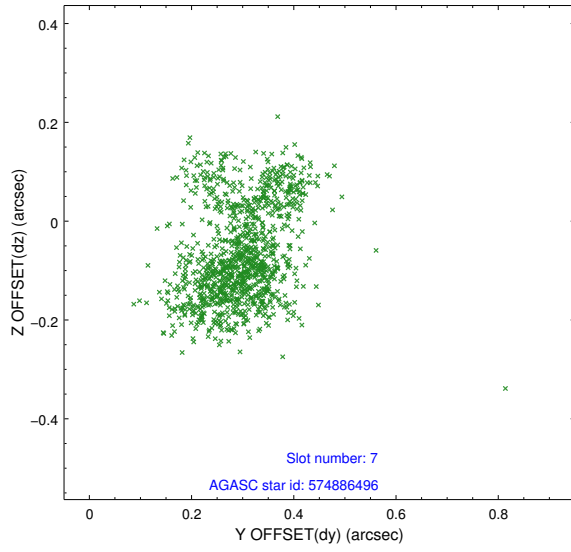
2.4.3 Slot 5



2.4.4 Slot 6

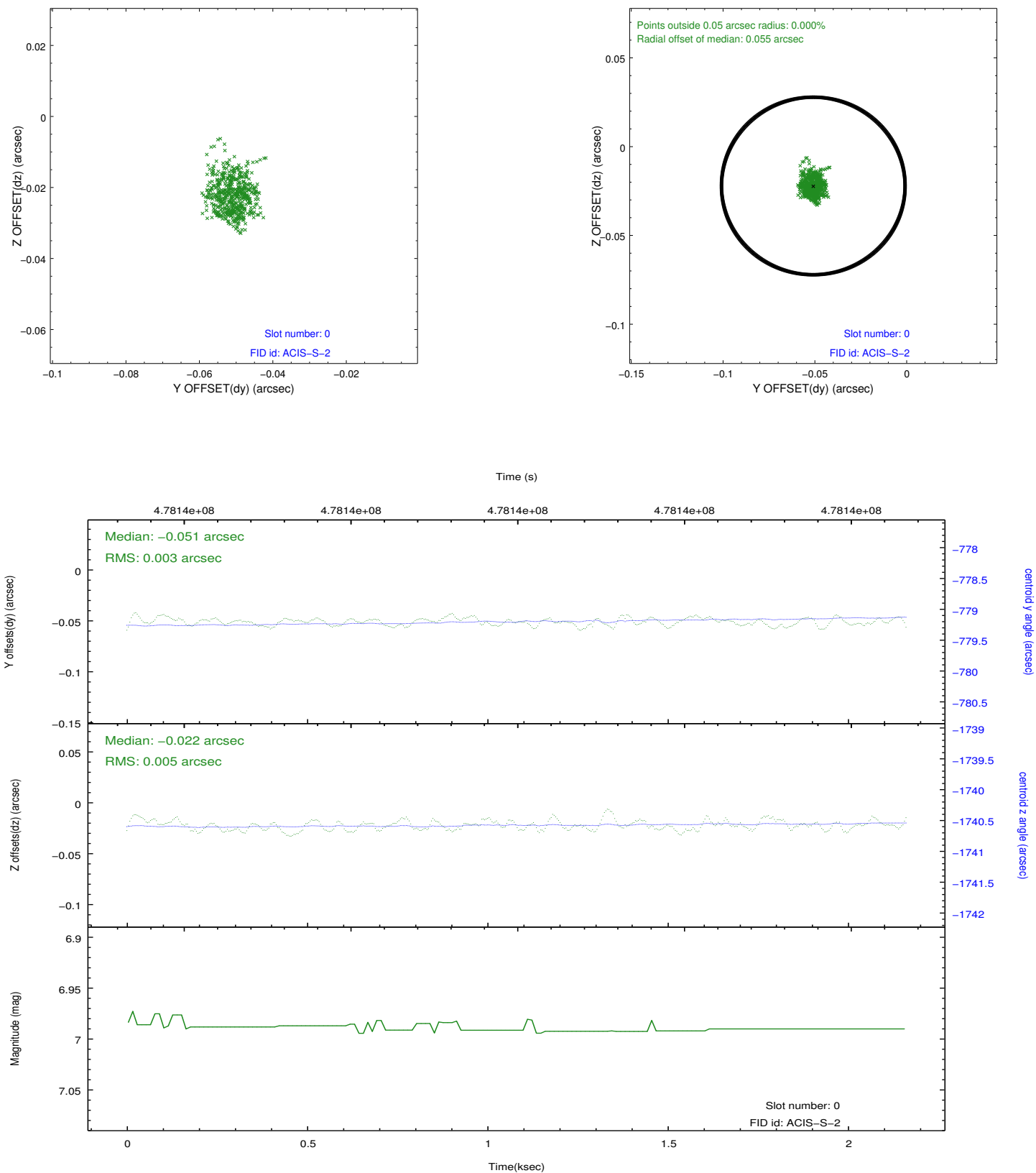


2.4.5 Slot 7

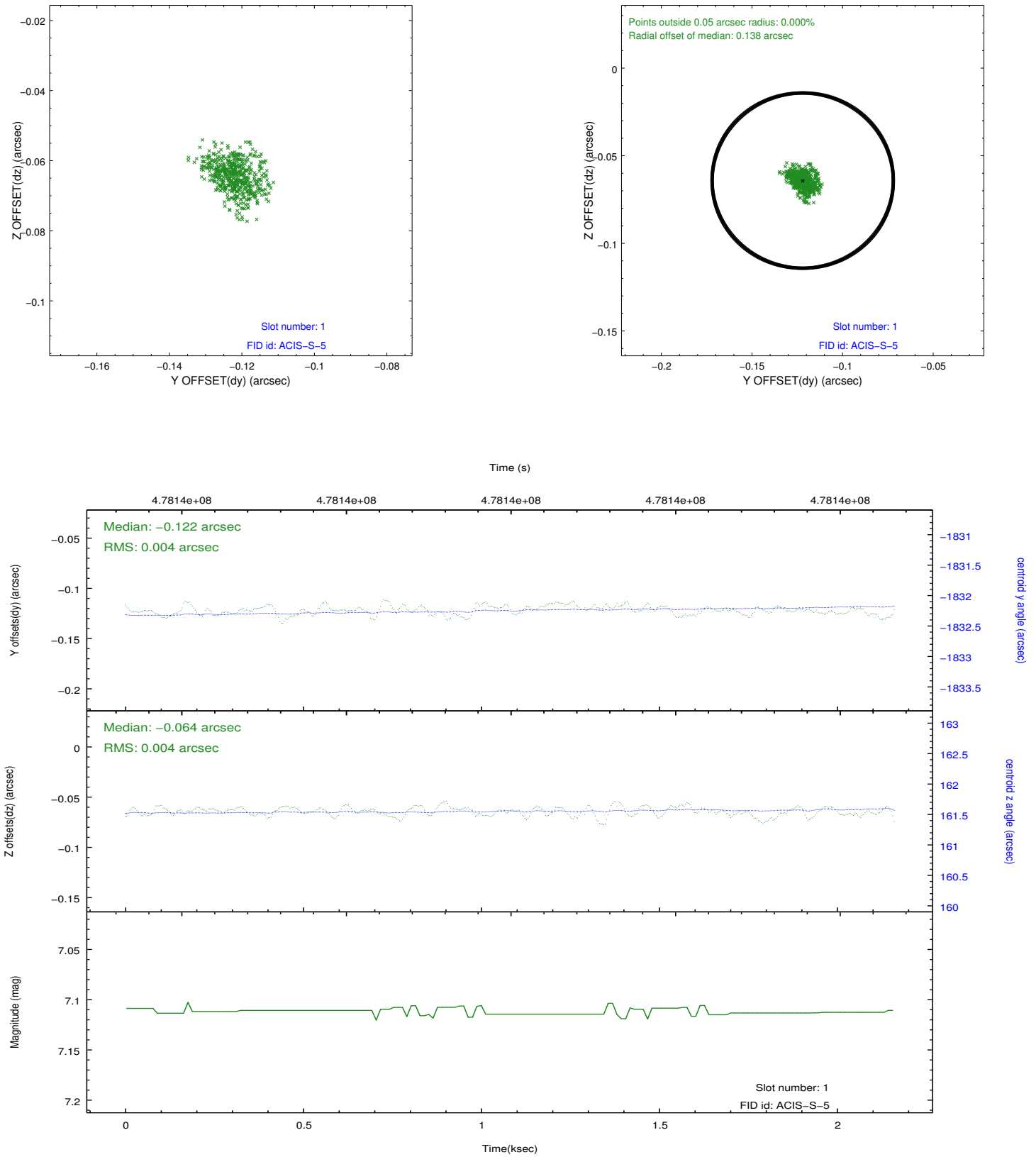


2.5 FID Slots

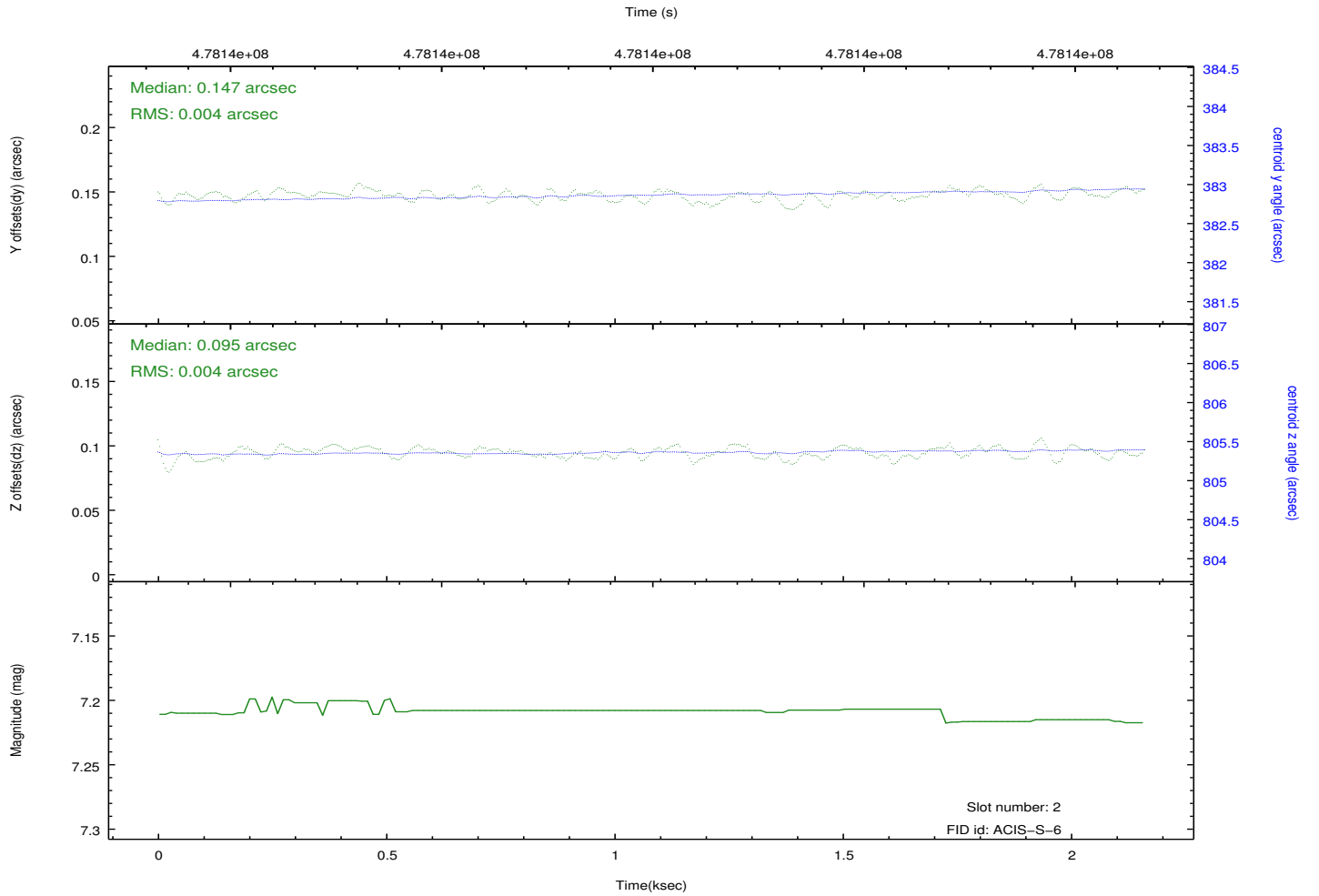
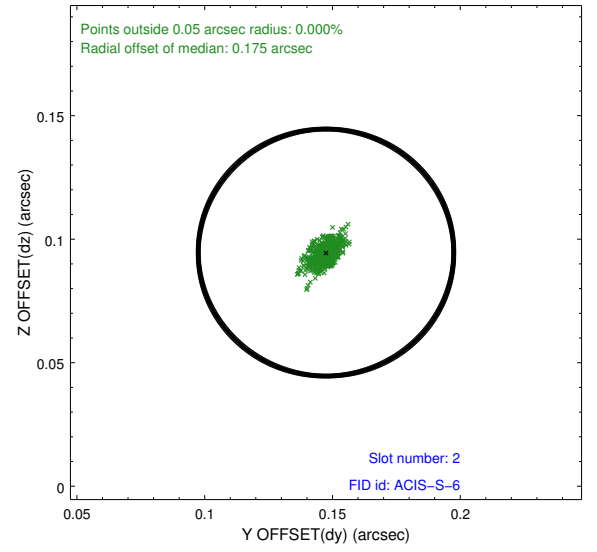
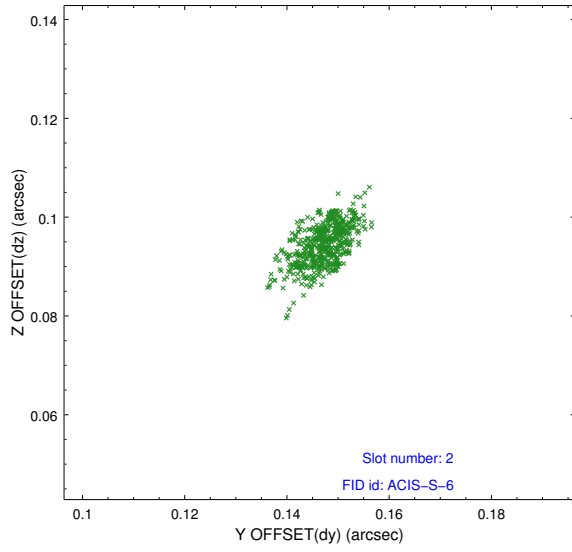
2.5.1 Slot 0



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)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.0646000158787

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.