

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13591 - L2 Version 2
Chandra X-Ray Center

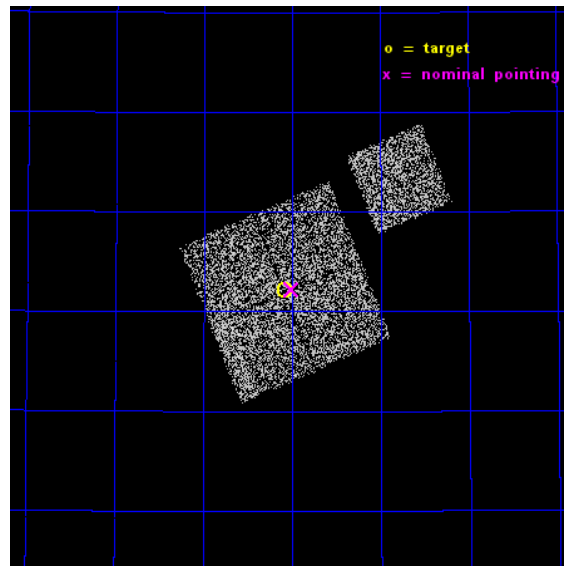
L2 Processing Date : Nov 28 2014

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1 Front

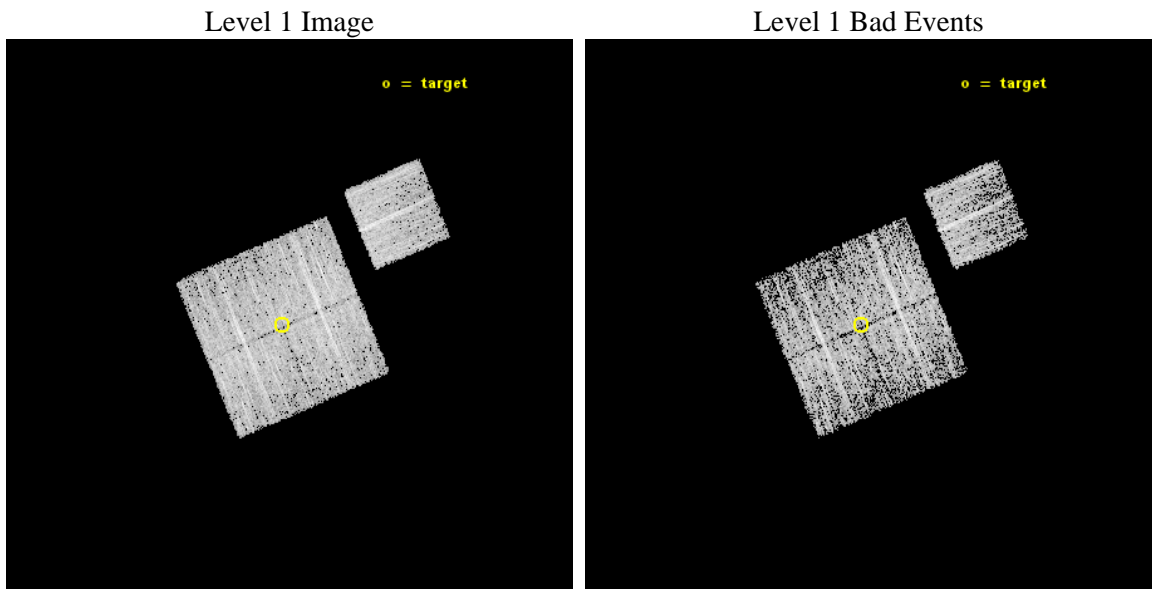
seq_num	801152	Sequence number
obs_id	13591	Observation id
title	To The Outer Limits of Clusters with Chandra and Suzaku	Proposal t
observer	Dr. Eric Miller	Principal investigator
object	A773	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	139.77057	Observer's specified target RA [deg]
dec_targ	51.8688	Observer's specified target Dec [deg]
ra_nom	139.7526842958	Nominal RA [deg]
dec_nom	51.870525338896	Nominal Dec [deg]
roll_nom	67.222652257146	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5087.1000391245	Sum of GTIs [s]
livetime	5020.6333320448	Livetime [s]
ontime0	5087.1000391245	Sum of GTIs [s]
ontime1	5087.1000391245	Sum of GTIs [s]
ontime2	5087.1000391245	Sum of GTIs [s]
ontime3	5087.1000391245	Sum of GTIs [s]
ontime6	5083.9590488672	Sum of GTIs [s]
l2events	13214	Number of level 2 events



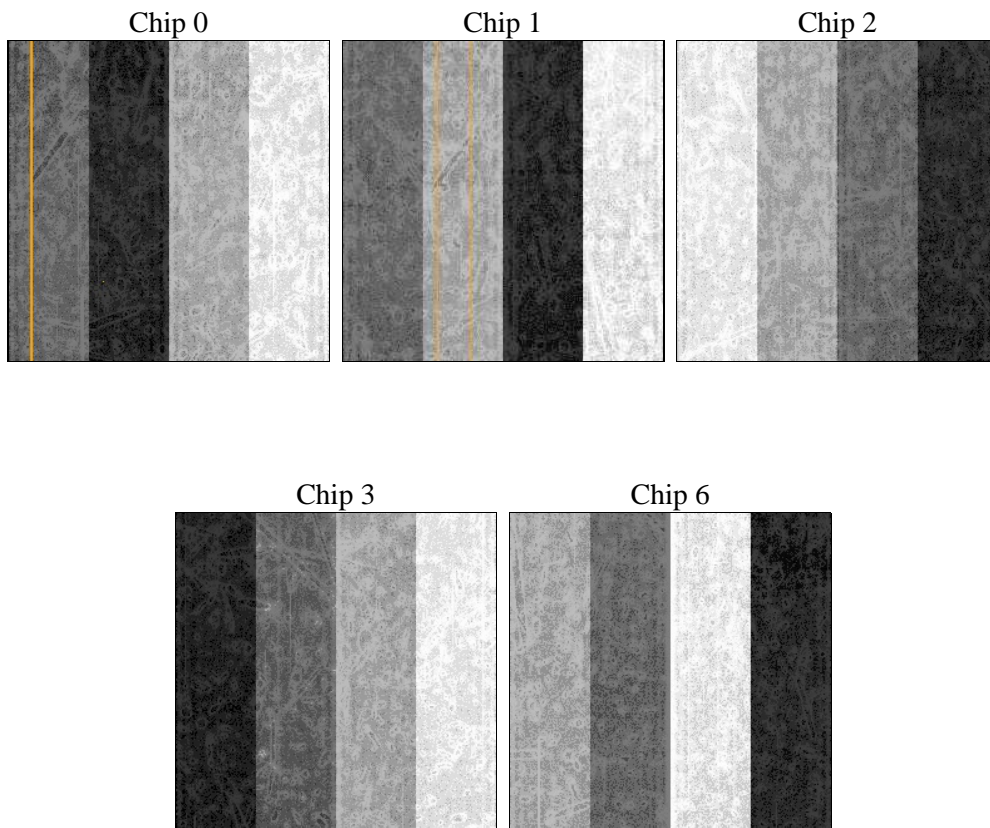
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.821000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	5087.1000391245	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	5087.1000391245	Sum of GTIs [s]
date	2014-11-28T10:15:02	Date and time of file creation	ontime1	5087.1000391245	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	5087.1000391245	Sum of GTIs [s]
			ontime3	5087.1000391245	Sum of GTIs [s]
			ontime6	5083.9590488672	Sum of GTIs [s]
			l1events	121739	Number of level 1 events

2.1.4 Events

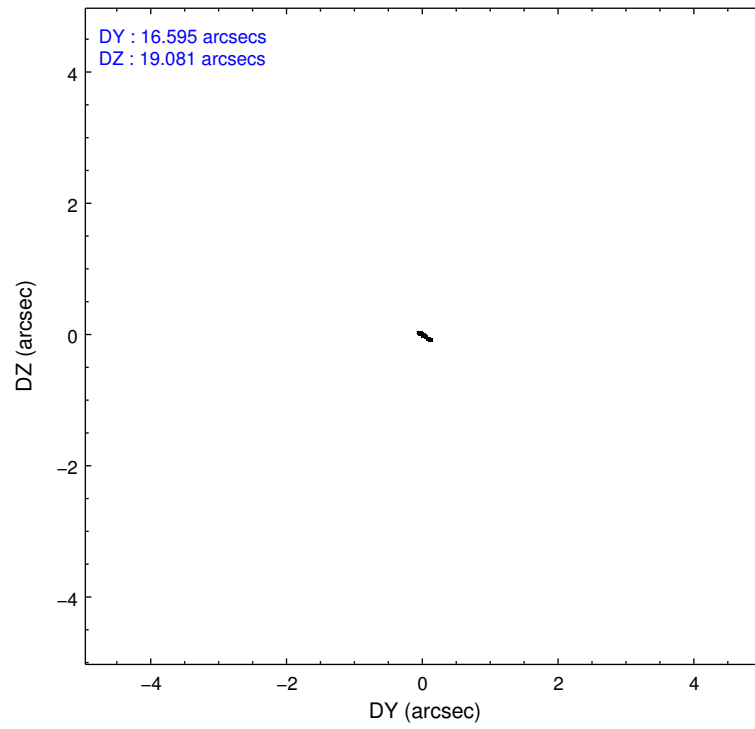
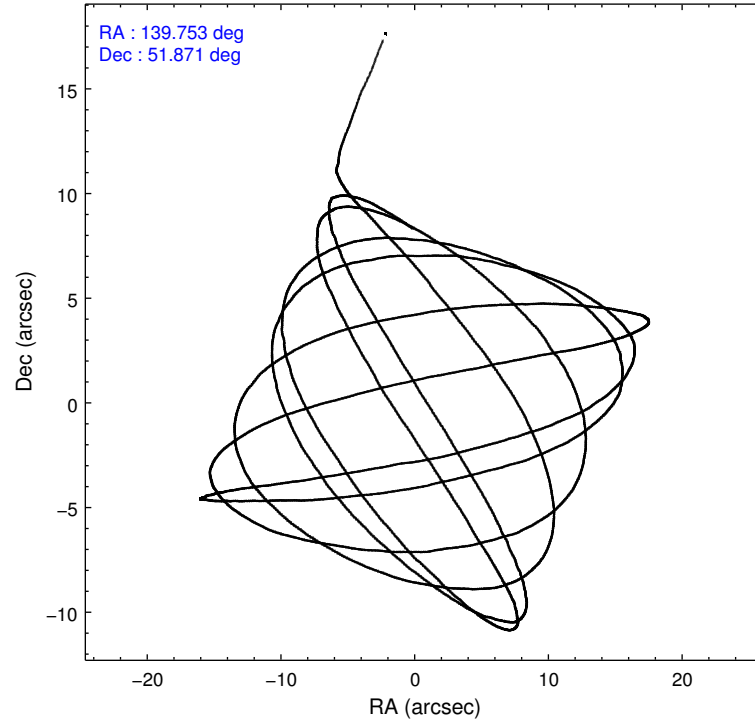
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	22129	23992	25918	23817	25883
rejected events	19016	20570	22981	20899	22707
rejected %	85%	85%	88%	87%	87%

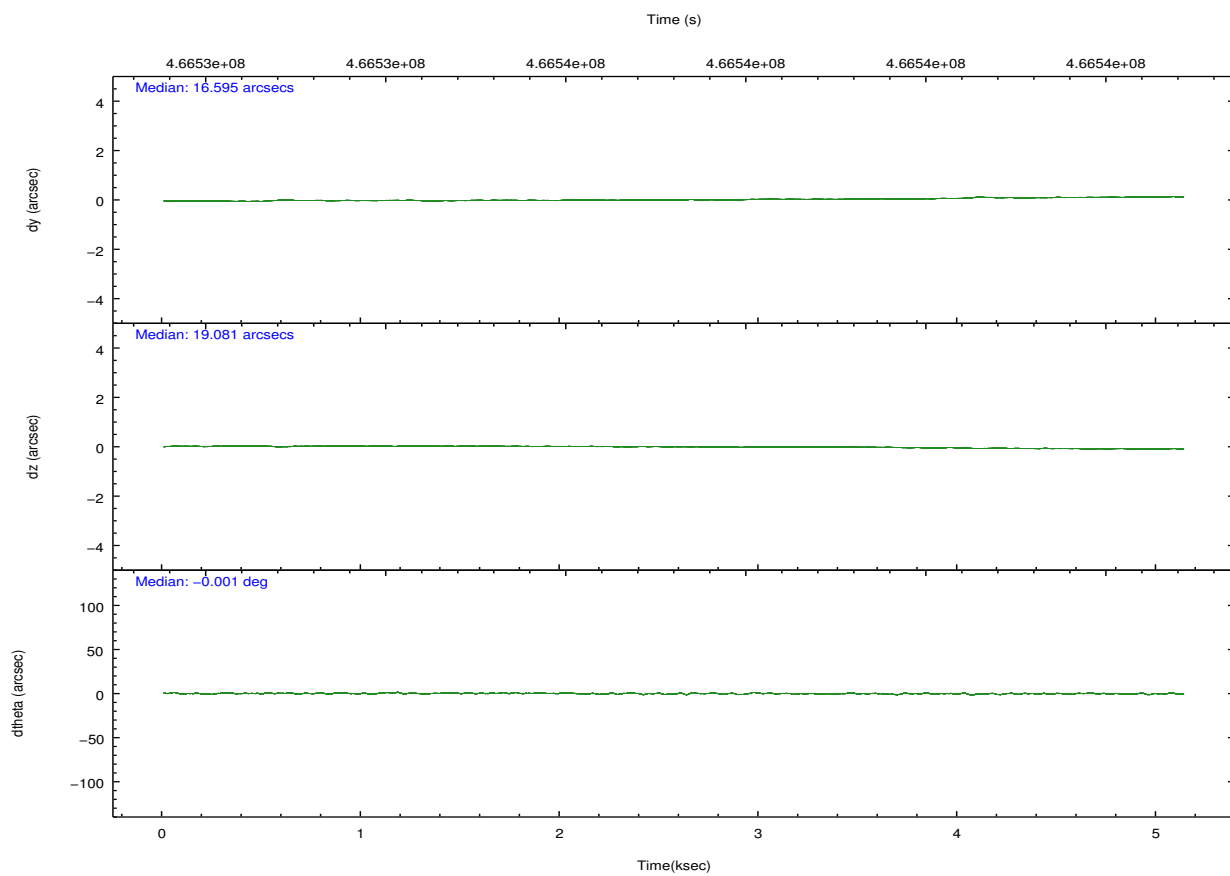
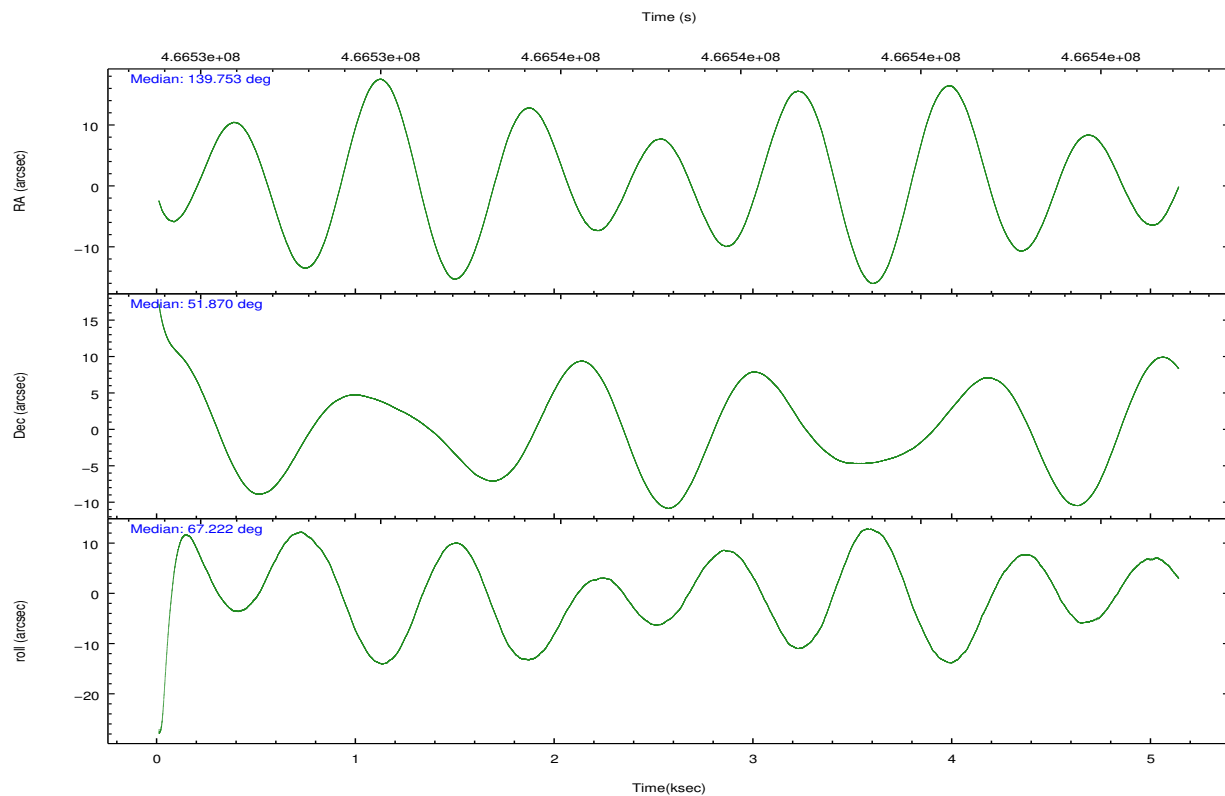
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1065	1150	1041	1044	1046
	4%	4%	4%	4%	4%
grade 1 events	11	12	14	7	13
	0%	0%	0%	0%	0%
grade 2 events	767	847	692	638	725
	3%	3%	2%	2%	2%
grade 3 events	353	337	312	332	345
	1%	1%	1%	1%	1%
grade 4 events	308	358	323	303	339
	1%	1%	1%	1%	1%
grade 5 events	1157	1280	1078	1355	1298
	5%	5%	4%	5%	5%
grade 6 events	623	731	570	605	723
	2%	3%	2%	2%	2%
grade 7 events	17845	19277	21888	19533	21394
	80%	80%	84%	82%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	139.758527	139.7526842957951	CCD I2 on	Y	Y
[deg] Pointing Dec	51.843174	51.87052533889636	CCD I3 on	Y	Y
[deg] Pointing Roll	67.009479	67.22265225714584	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	466533165.184000	466531626.02265	CCD S5 on	N	N
Observation start date	2012-10-13T16:31:38	2012-10-13T16:07:06	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	466538166.184000	466538402.81051	On-chip summing requested	N	N
Observation end date	2012-10-13T17:54:59	2012-10-13T18:00:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



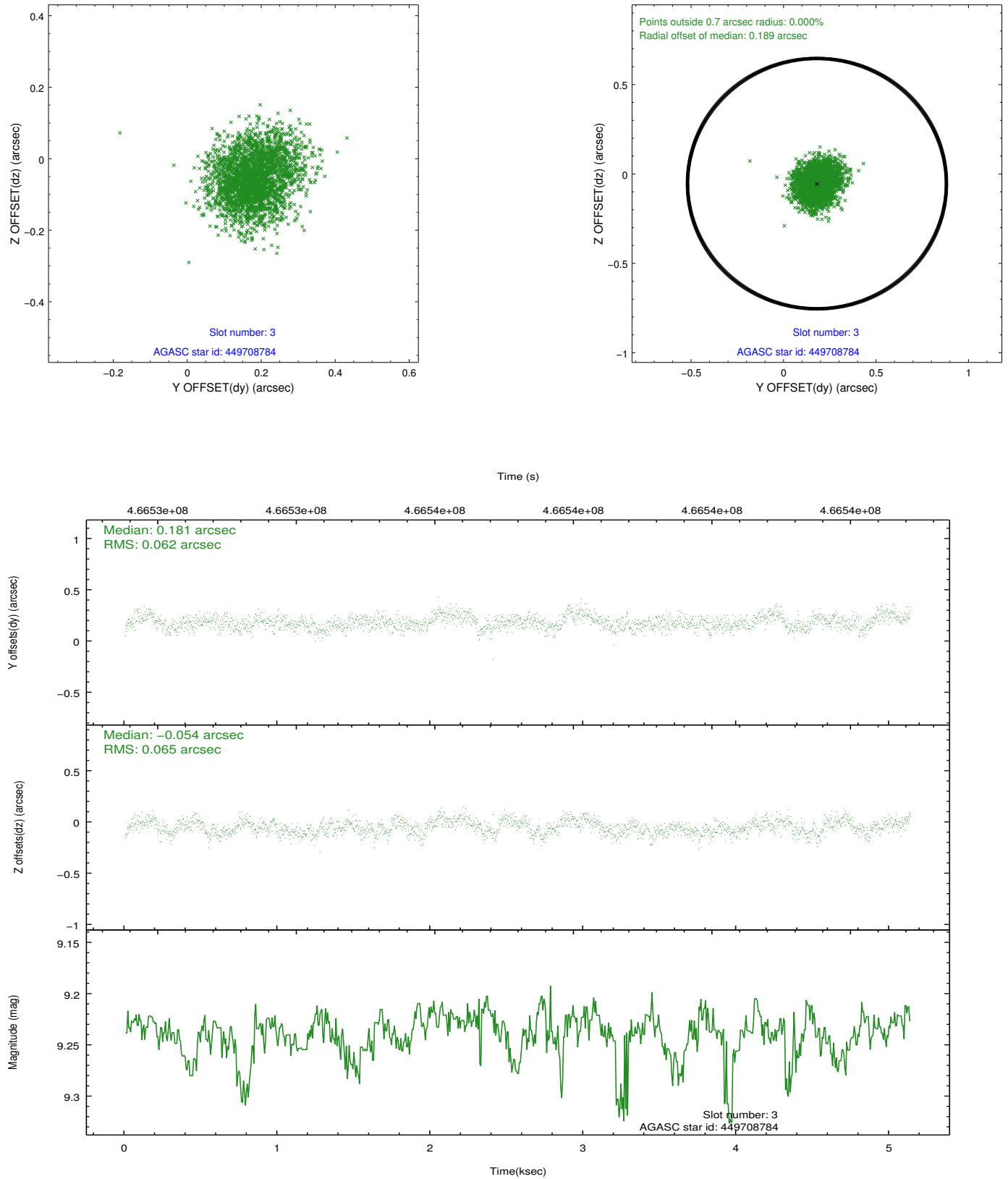


Slot Statistics

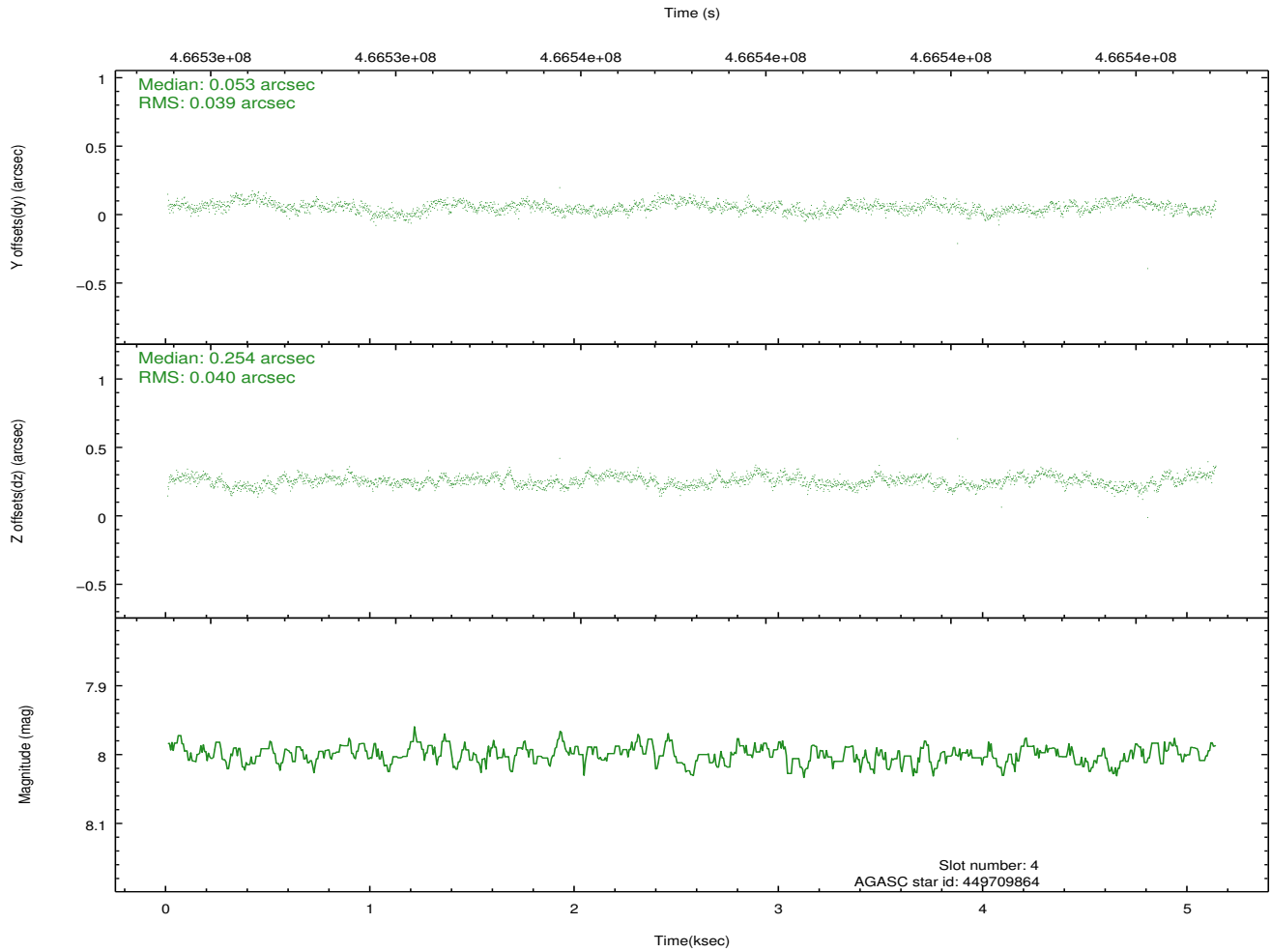
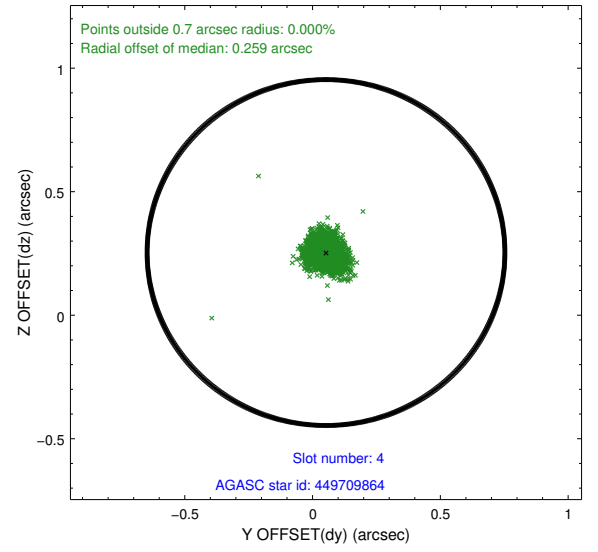
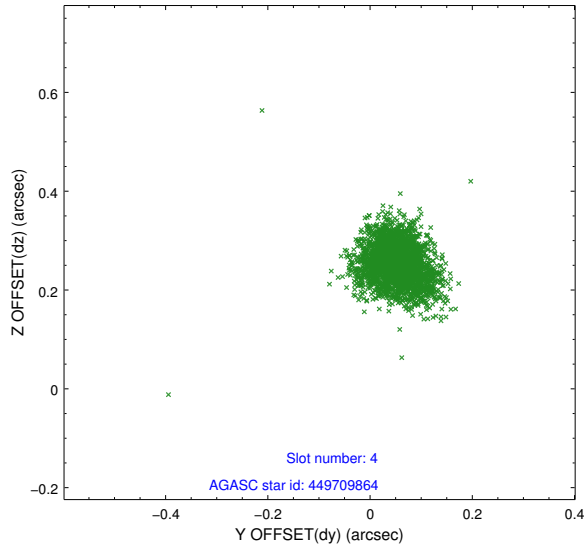
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	6.96	1252	0.003	-0.009	0.009	0.016	0.000000	0.000000	-771.38	-849.14
1	FID		ACIS-I-5	7.05	1252	-0.173	0.041	0.008	0.015	0.000000	0.000000	-1826.17	1054.17
2	FID		ACIS-I-6	7.05	1252	0.075	0.036	0.006	0.011	0.000000	0.000000	387.14	1699.99
3	GUIDE	used	449708784	9.24	2497	0.181	-0.054	0.096	0.154	139.281247	51.322176	-2142.99	257.62
4	GUIDE	used	449709864	8.00	2504	0.053	0.254	0.058	0.092	139.601682	51.402076	-1599.82	-295.73
5	GUIDE	used	449712984	8.75	2504	0.304	0.015	0.081	0.130	139.803051	51.633381	-656.67	-386.93
6	GUIDE	used	449709968	7.01	2504	-0.193	-0.151	0.066	0.115	140.122718	52.450980	2327.80	119.34
7	GUIDE	used	498868696	8.87	2503	-0.335	-0.062	0.102	0.191	139.337086	52.680422	2418.52	2024.94

2.4 Star Slots

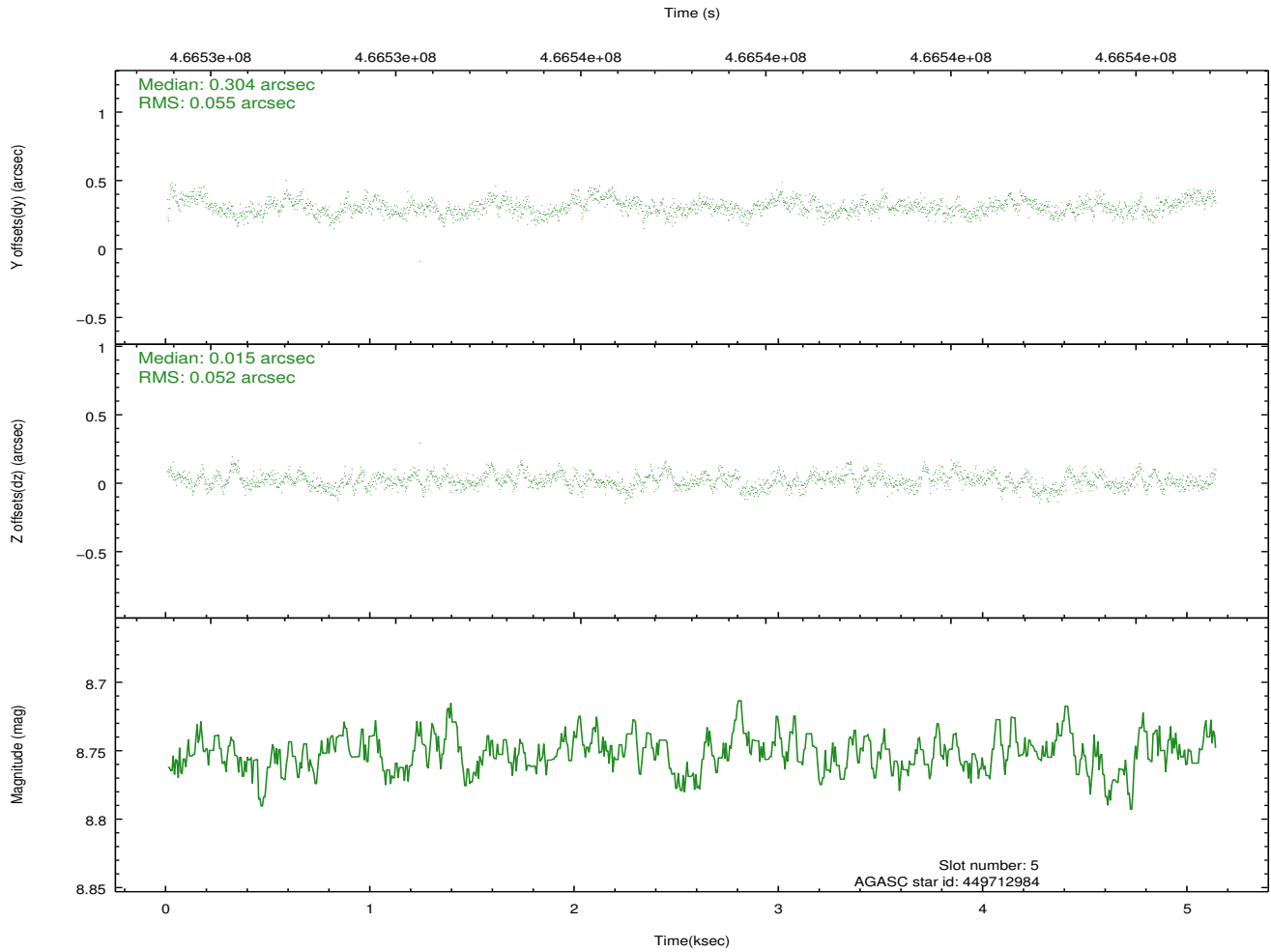
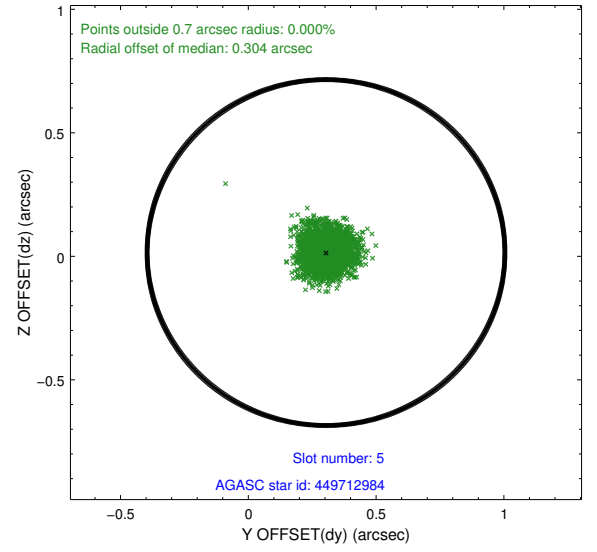
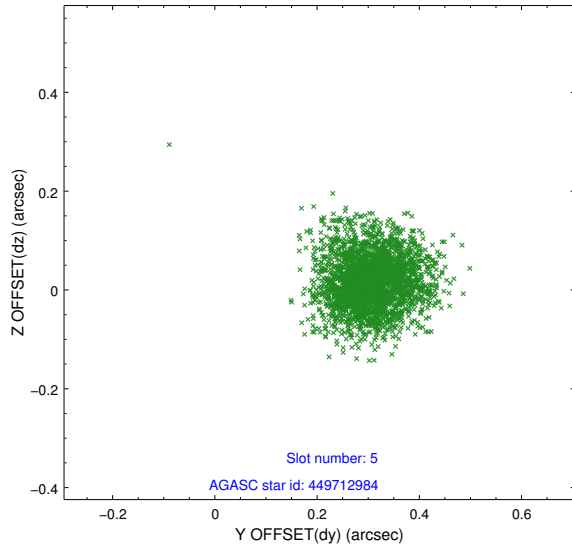
2.4.1 Slot 3



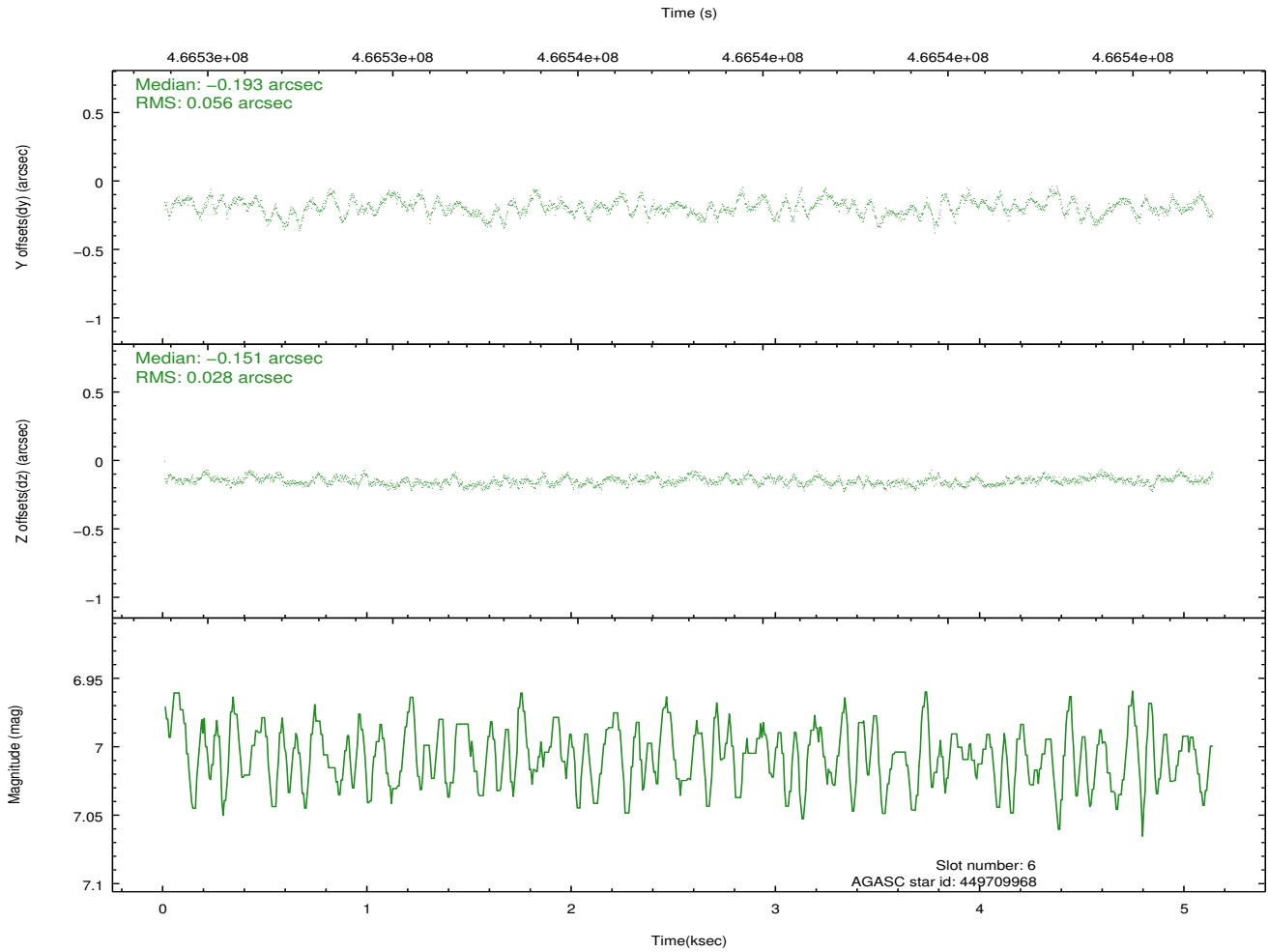
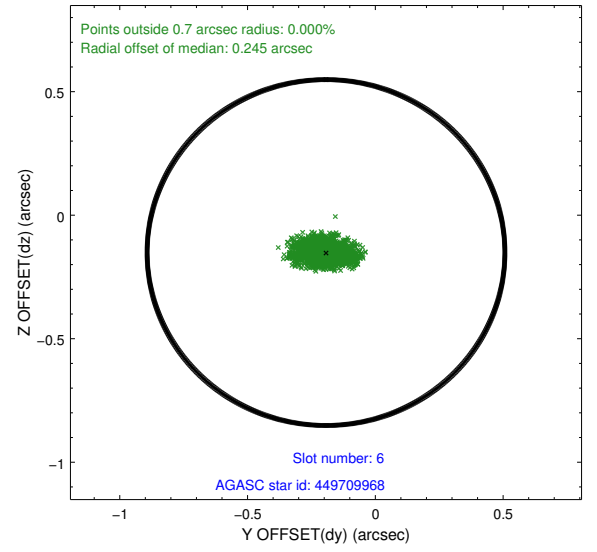
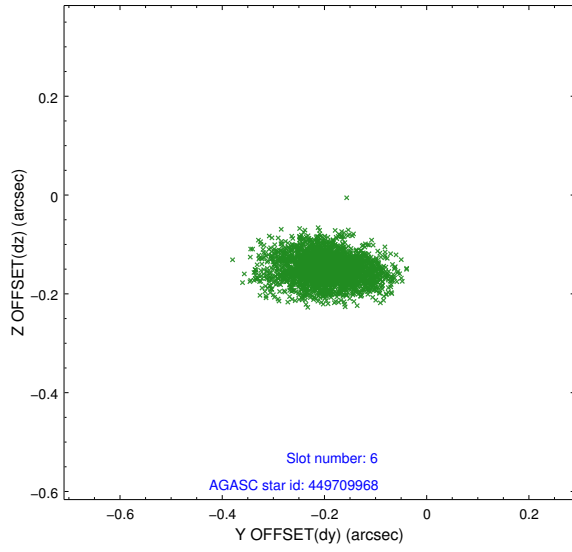
2.4.2 Slot 4



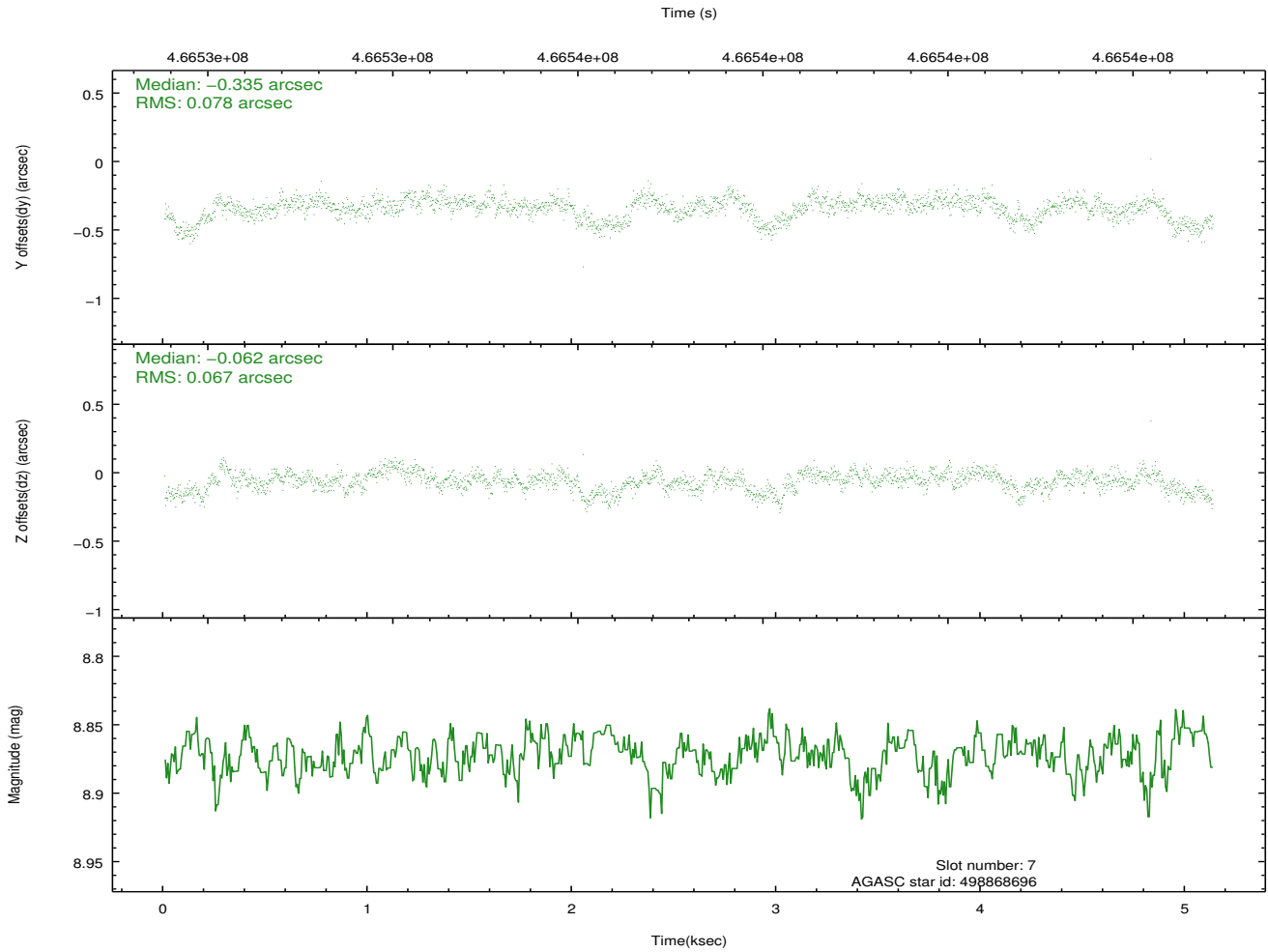
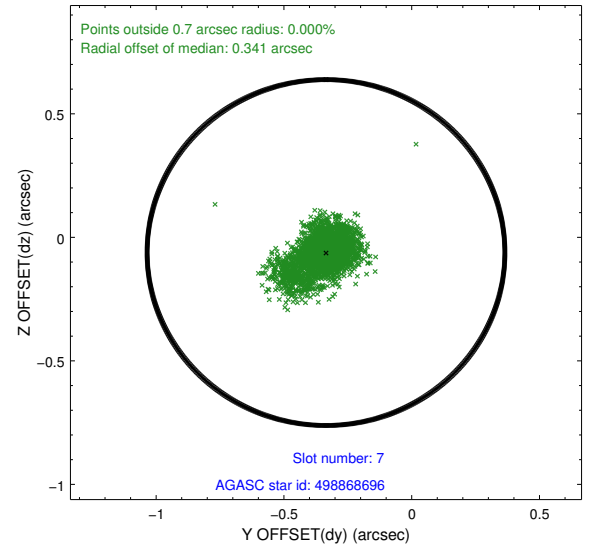
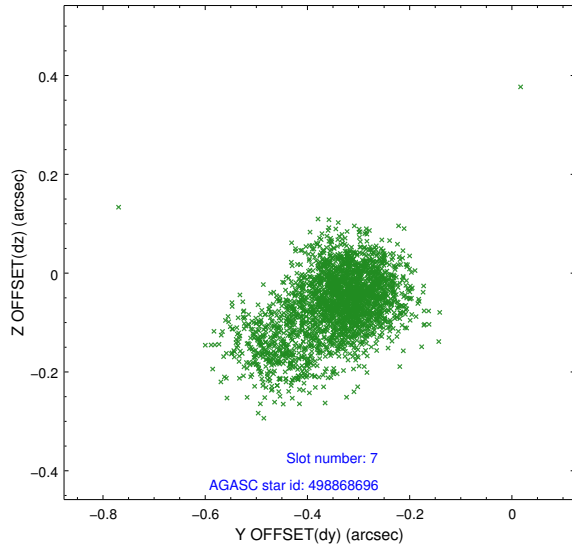
2.4.3 Slot 5



2.4.4 Slot 6

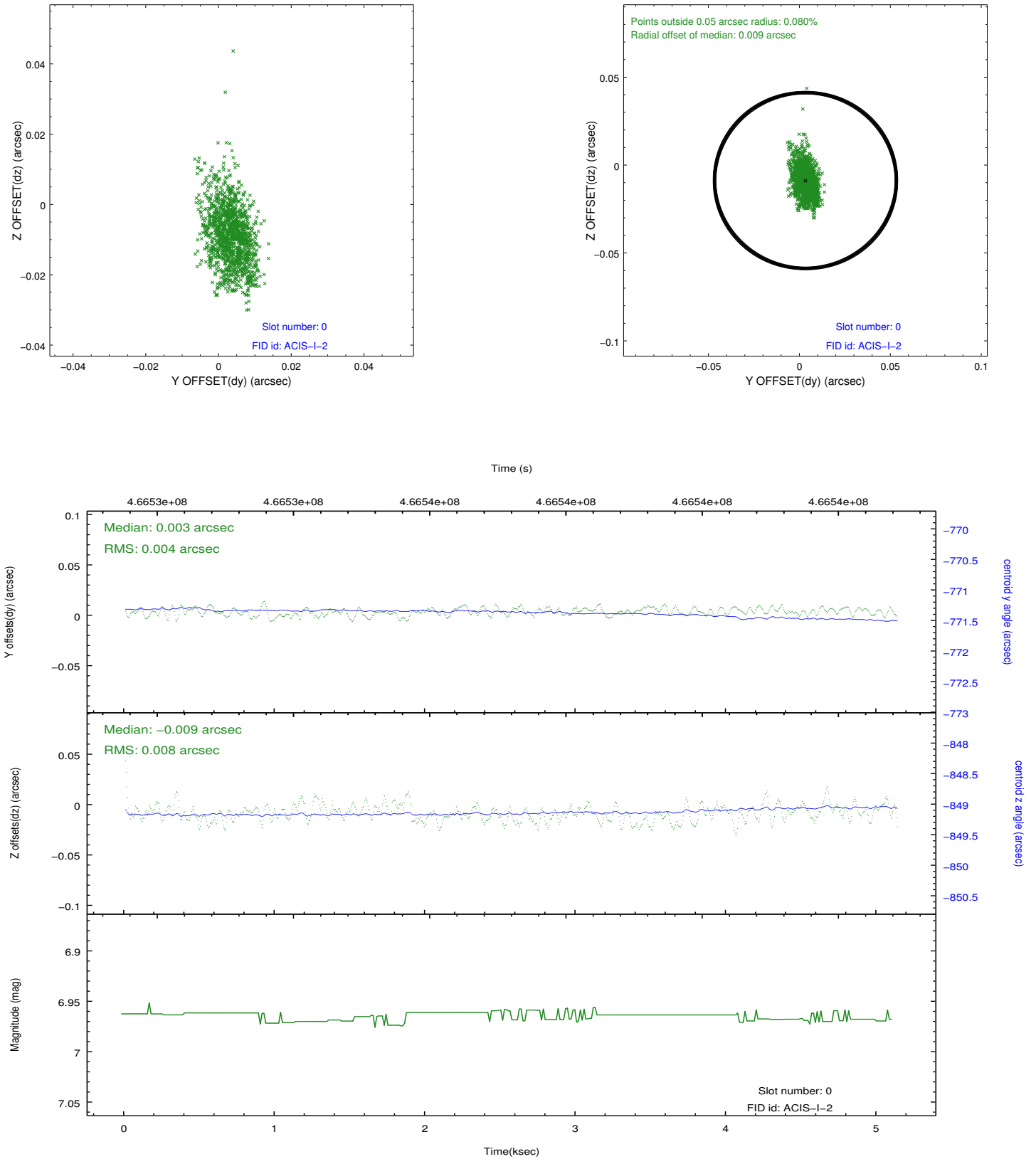


2.4.5 Slot 7

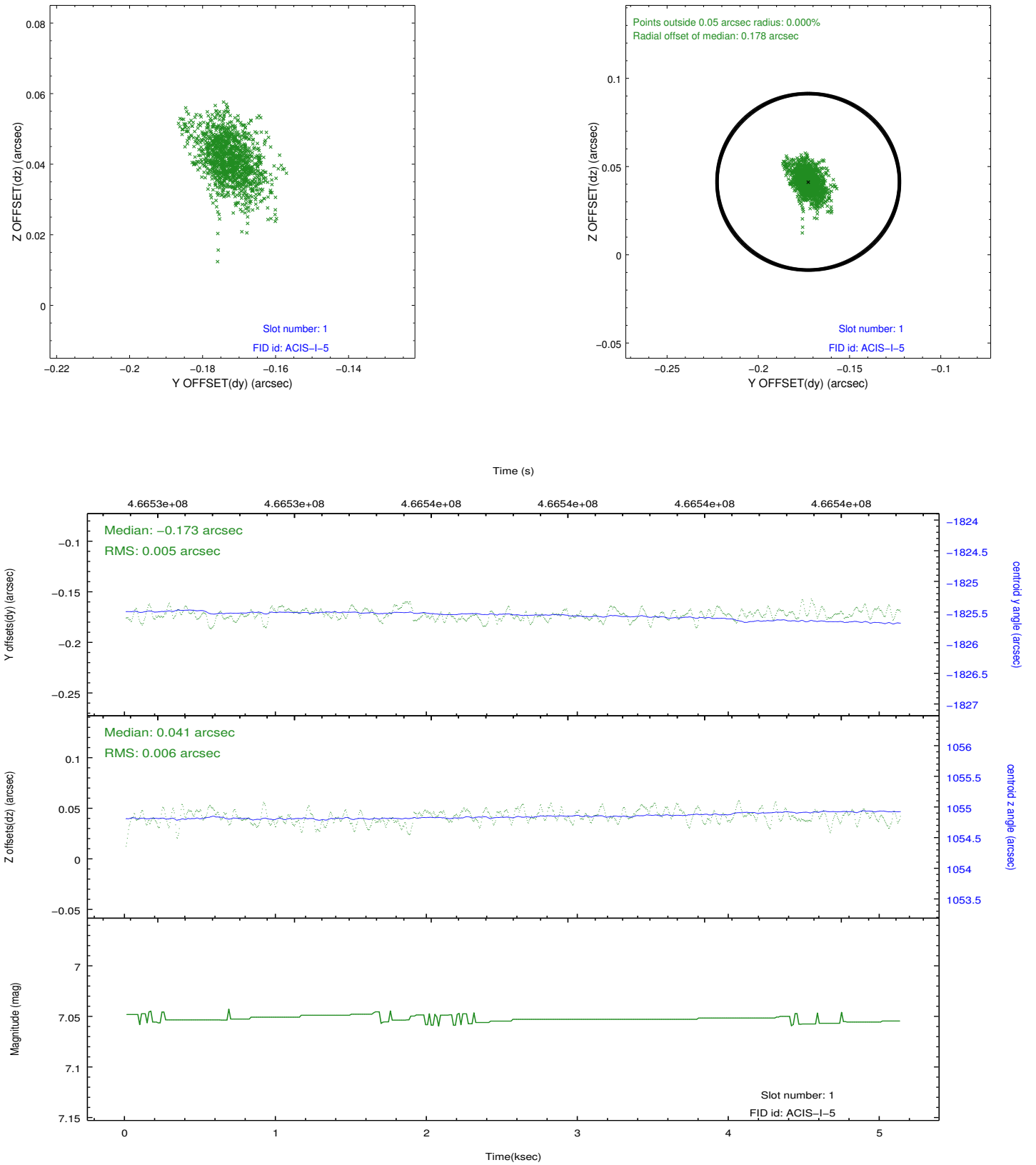


2.5 FID Slots

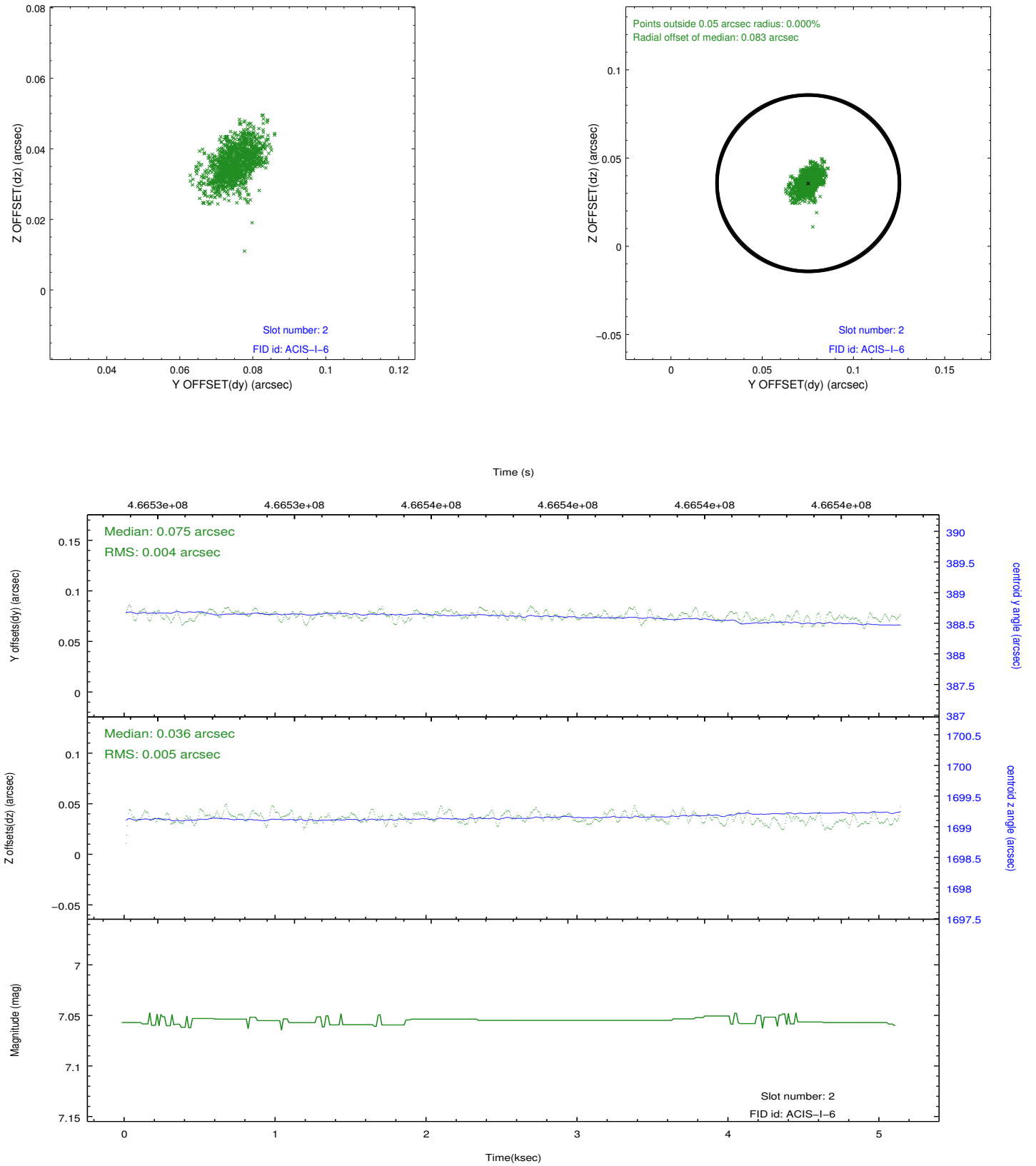
2.5.1 Slot 0



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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0871000391245

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.