

V&V Reference Report

L2 ASCDS Version : 10

Observation 14939 - L2 Version 2
Chandra X-Ray Center

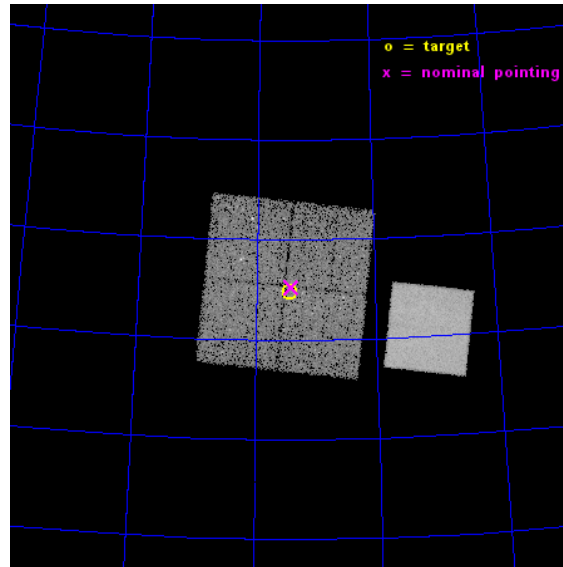
L2 Processing Date : Dec 4 2014

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1 Front

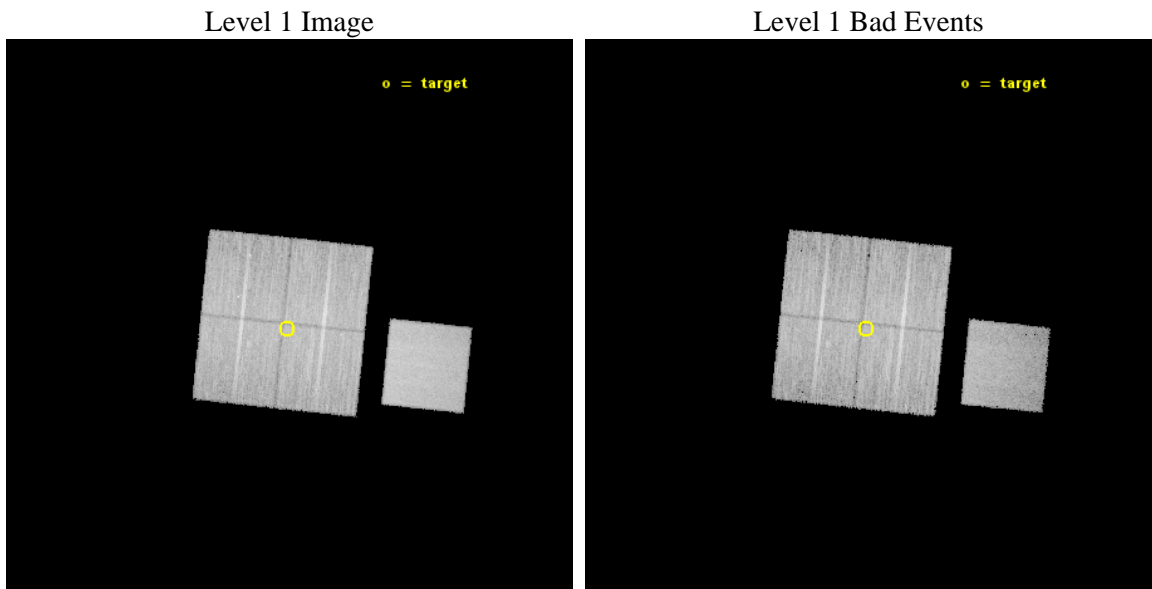
seq_num	601069	Sequence number
obs_id	14939	Observation id
title	Chandra survey of the oldest open clusters	Proposal title
observer	Dr Maureen van den Berg	Principal investigator
object	NGC 188	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	11.802083	Observer's specified target RA [deg]
dec_targ	85.246944	Observer's specified target Dec [deg]
ra_nom	11.76354342176	Nominal RA [deg]
dec_nom	85.254373938217	Nominal Dec [deg]
roll_nom	95.957603711523	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25068.512314498	Sum of GTIs [s]
livetime	24740.973745939	Livetime [s]
ontime0	25065.248224139	Sum of GTIs [s]
ontime1	25055.86639291	Sum of GTIs [s]
ontime2	25068.471274495	Sum of GTIs [s]
ontime3	25068.512314498	Sum of GTIs [s]
ontime7	25068.553354502	Sum of GTIs [s]
l2events	103030	Number of level 2 events



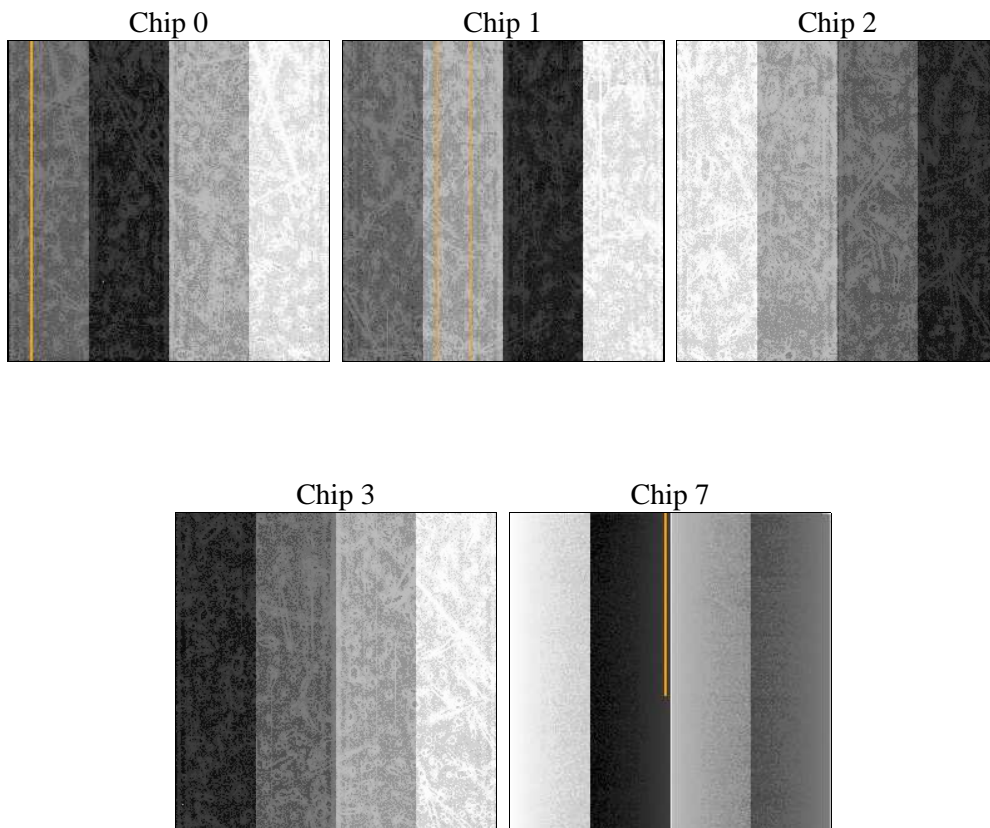
2 OBI

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	25068.512314498	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	25065.248224139	Sum of GTIs [s]
date	2014-12-04T09:56:17	Date and time of file creation	ontime1	25055.86639291	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	25068.471274495	Sum of GTIs [s]
			ontime3	25068.512314498	Sum of GTIs [s]
			ontime7	25068.553354502	Sum of GTIs [s]
			l1events	548141	Number of level 1 events

2.1.4 Events

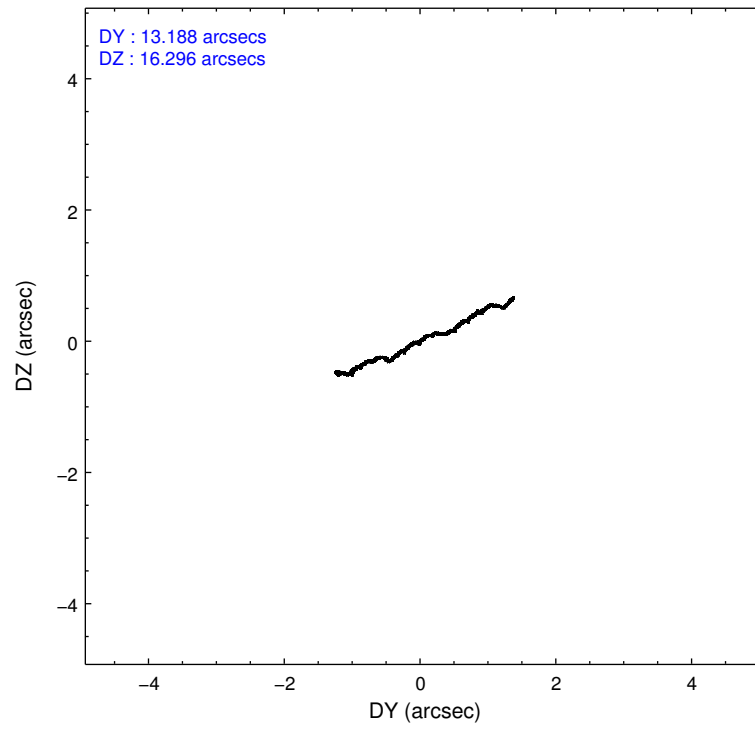
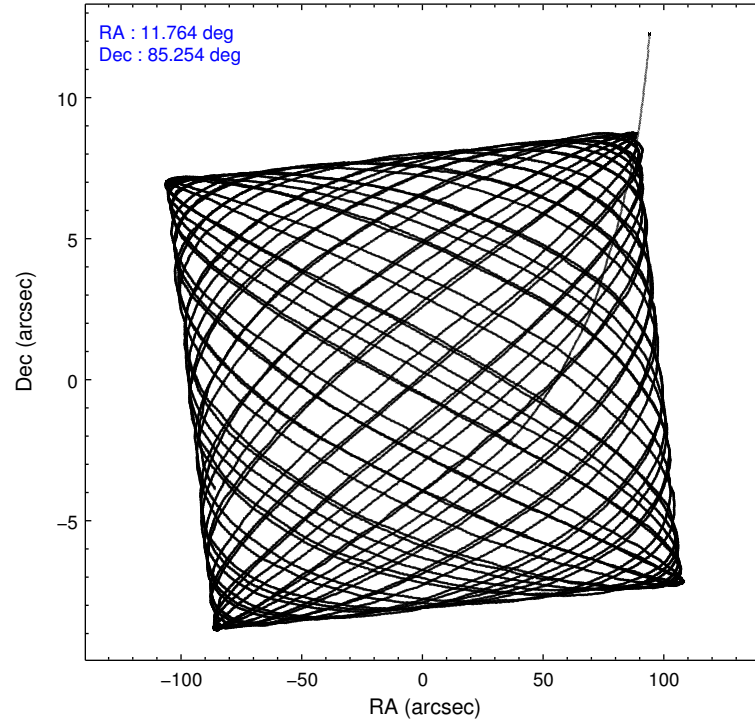
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	101079	99652	109996	106872	130542
rejected events	87108	86313	97270	94626	68996
rejected %	86%	86%	88%	88%	52%

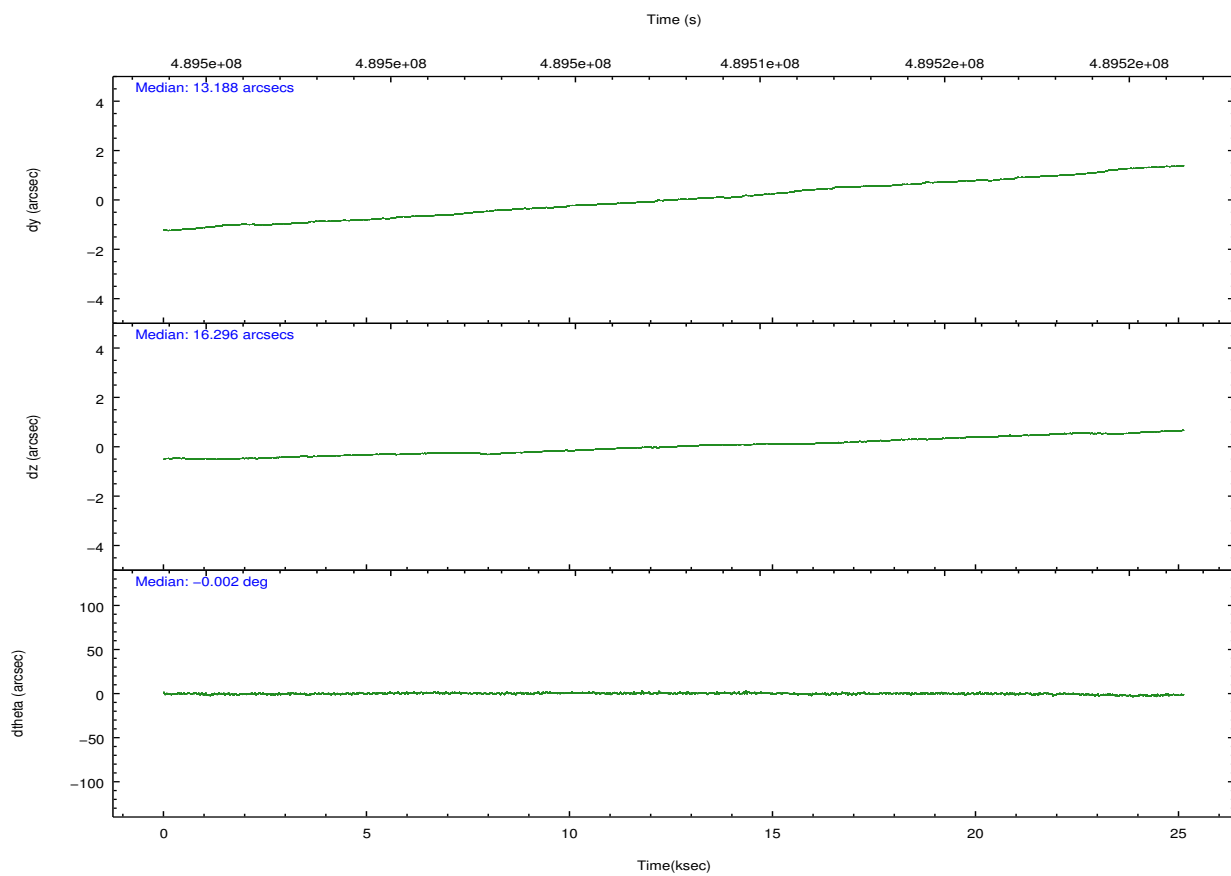
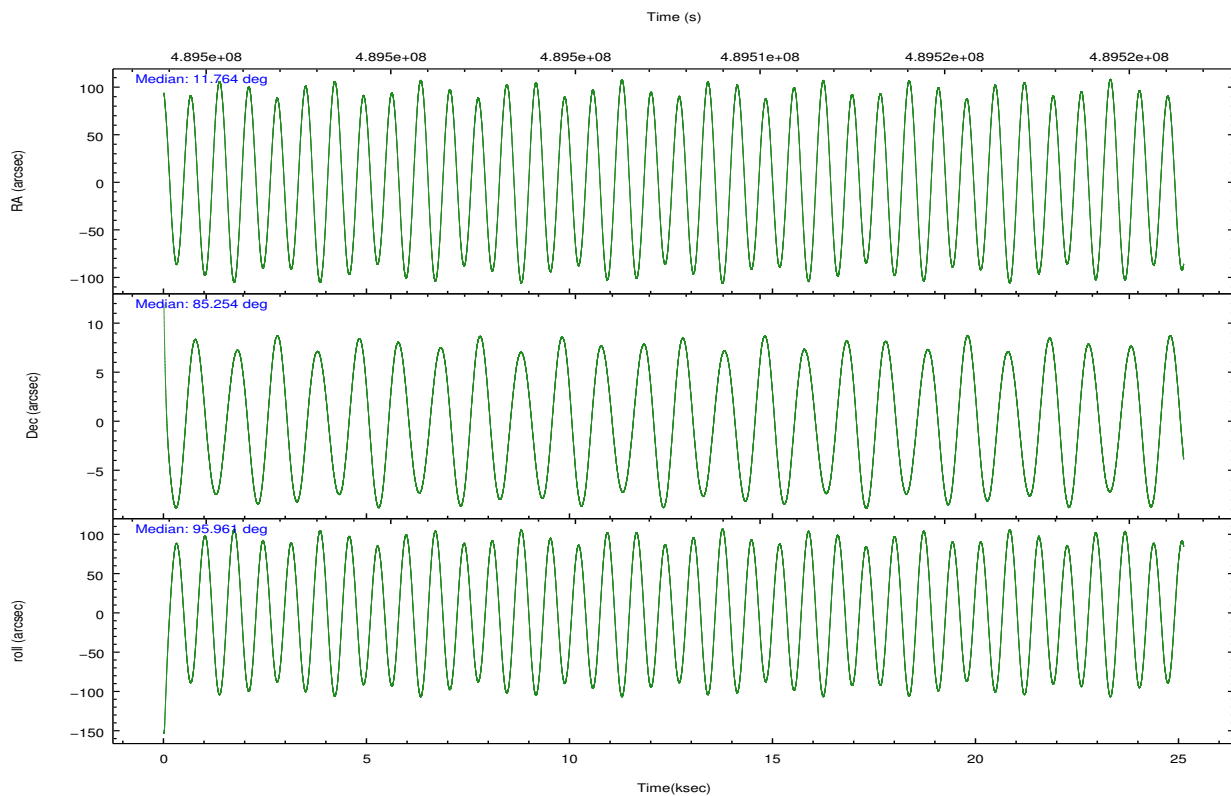
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	5335	4508	4766	4596	5985
	5%	4%	4%	4%	4%
grade 1 events	59	69	67	69	195
	0%	0%	0%	0%	0%
grade 2 events	3343	3110	3233	2715	13347
	3%	3%	2%	2%	10%
grade 3 events	1429	1388	1221	1259	5334
	1%	1%	1%	1%	4%
grade 4 events	1280	1447	1242	1251	5419
	1%	1%	1%	1%	4%
grade 5 events	4390	4911	3947	5132	13682
	4%	4%	3%	4%	10%
grade 6 events	2589	2893	2274	2426	31478
	2%	2%	2%	2%	24%
grade 7 events	82654	81326	93246	89424	55102
	81%	81%	84%	83%	42%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	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	11.958909	11.76354342176048	CCD I2 on	Y	Y
[deg] Pointing Dec	85.232080	85.25437393821652	CCD I3 on	Y	Y
[deg] Pointing Roll	95.554260	95.95760371152278	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	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	489495231.184000	489493543.50065	CCD S5 on	N	N
Observation start date	2013-07-06T10:52:44	2013-07-06T10:25:43	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	489520231.184000	489520825.41464	On-chip summing requested	N	N
Observation end date	2013-07-06T17:49:24	2013-07-06T18:00:25	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



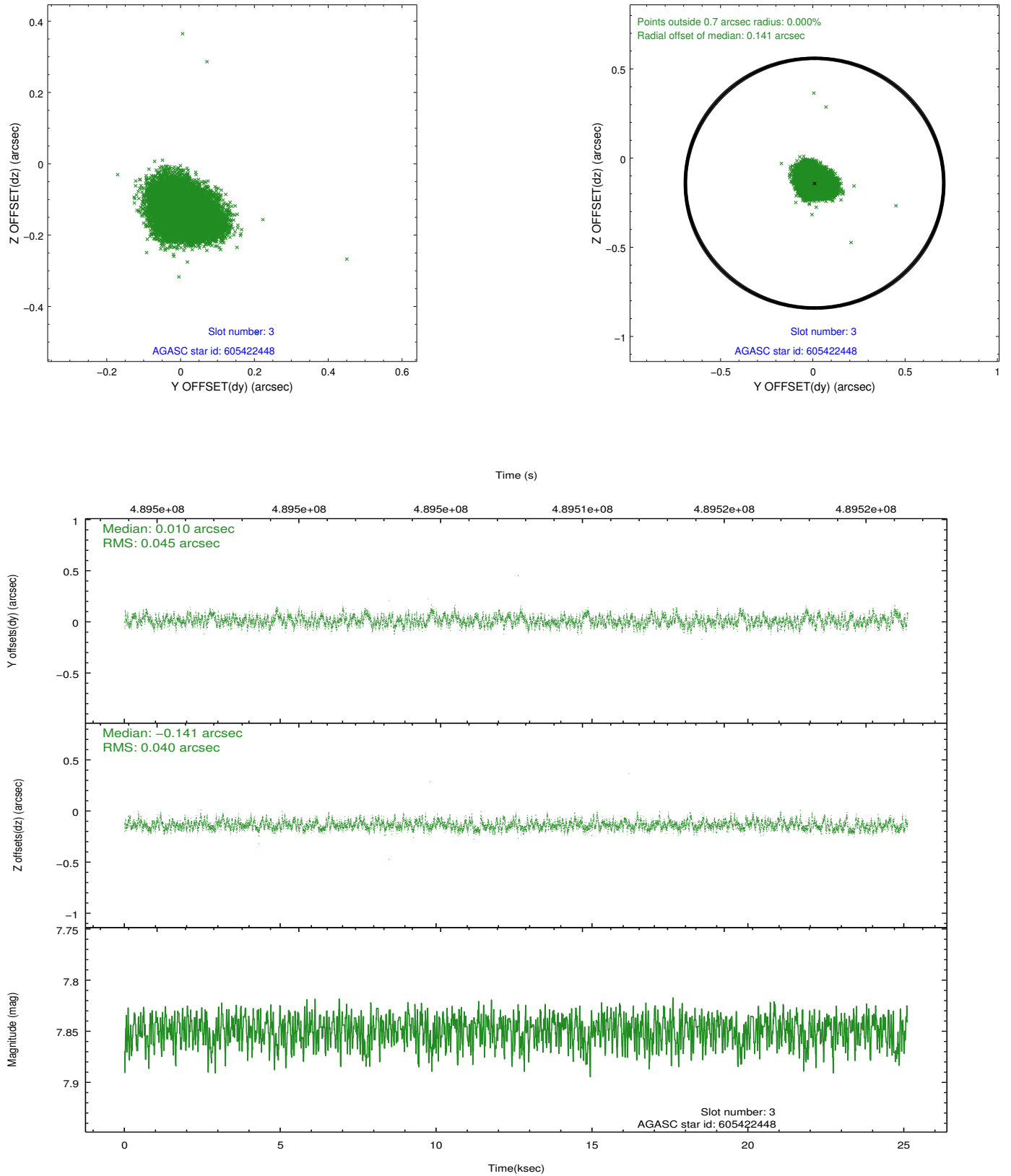


Slot Statistics

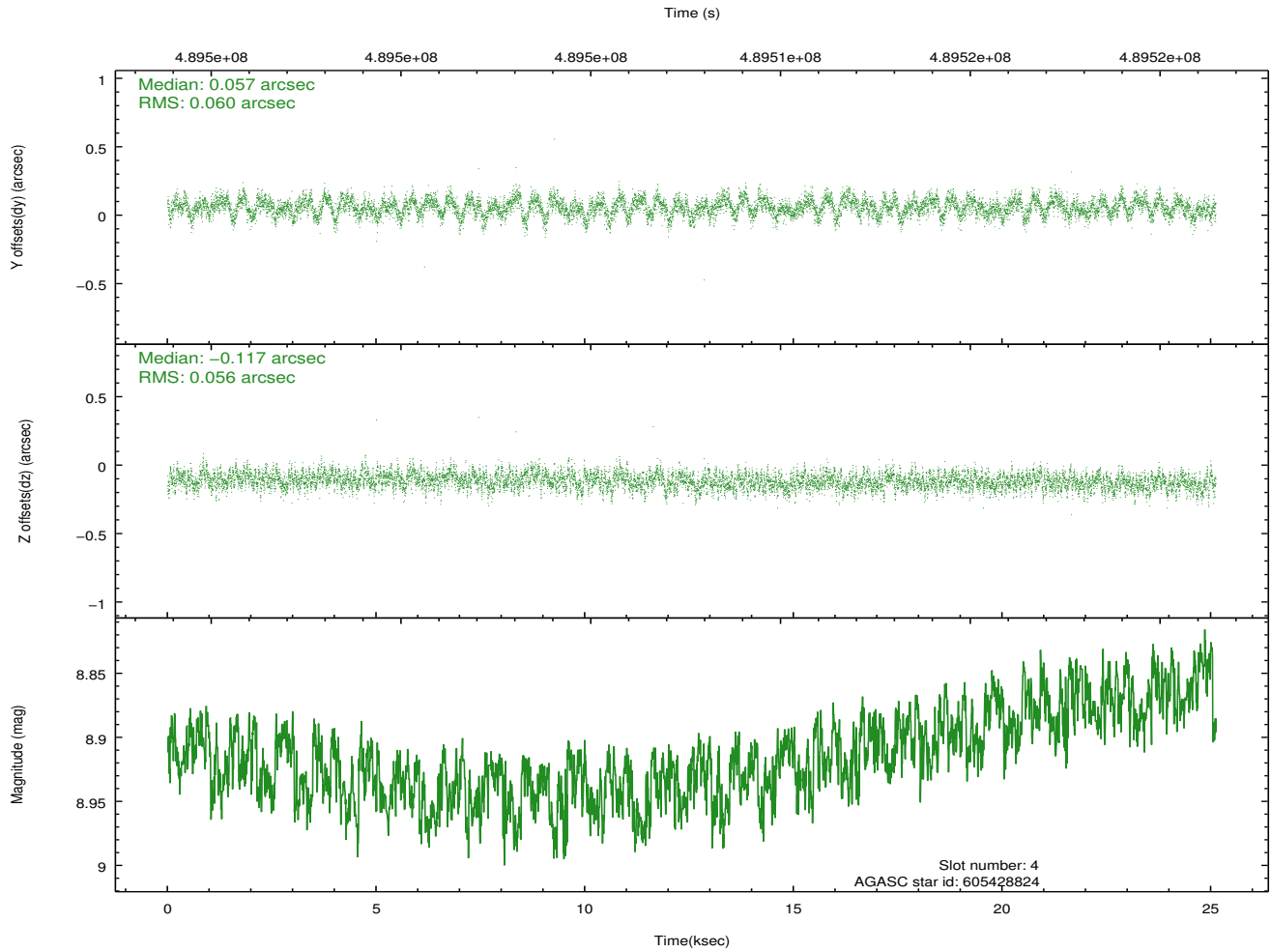
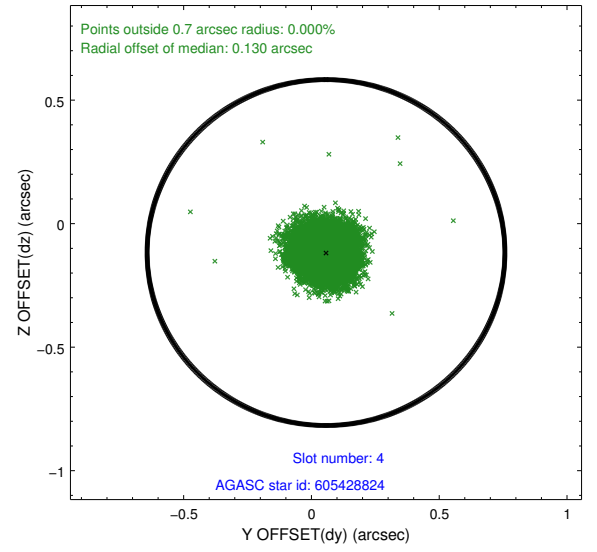
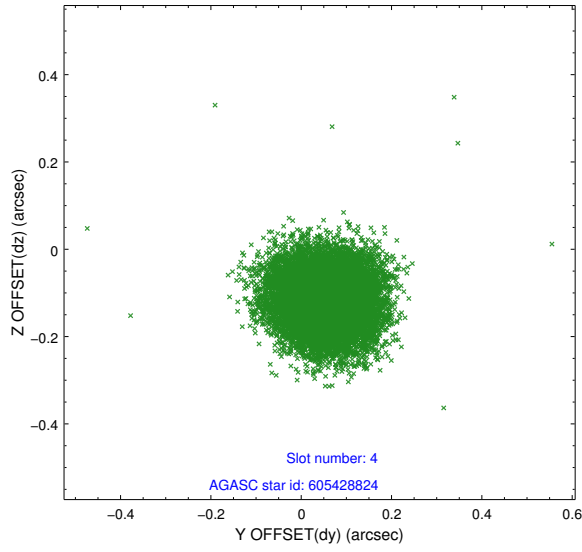
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	6.98	6126	-0.107	-0.095	0.017	0.028	0.000000	0.000000	-767.98	-846.41
1	FID		ACIS-I-4	6.97	6124	0.198	0.089	0.015	0.031	0.000000	0.000000	2146.32	1059.90
2	FID		ACIS-I-5	7.04	6126	-0.192	0.075	0.018	0.030	0.000000	0.000000	-1821.75	1057.86
3	GUIDE	used	605422448	7.85	12251	0.010	-0.141	0.065	0.104	9.377631	85.092711	-404.46	837.80
4	GUIDE	used	605428824	8.92	12249	0.057	-0.117	0.088	0.139	8.767842	84.988879	-746.55	1080.35
5	GUIDE	used	605431352	8.45	12251	0.000	0.059	0.069	0.113	14.045846	85.459087	766.77	-671.82
6	GUIDE	used	605436808	8.25	12252	-0.050	0.100	0.068	0.114	17.086530	85.797745	1956.29	-1546.85
7	GUIDE	used	605427984	7.05	12251	-0.015	0.094	0.073	0.123	15.915782	84.606885	-2323.84	-1118.48

2.4 Star Slots

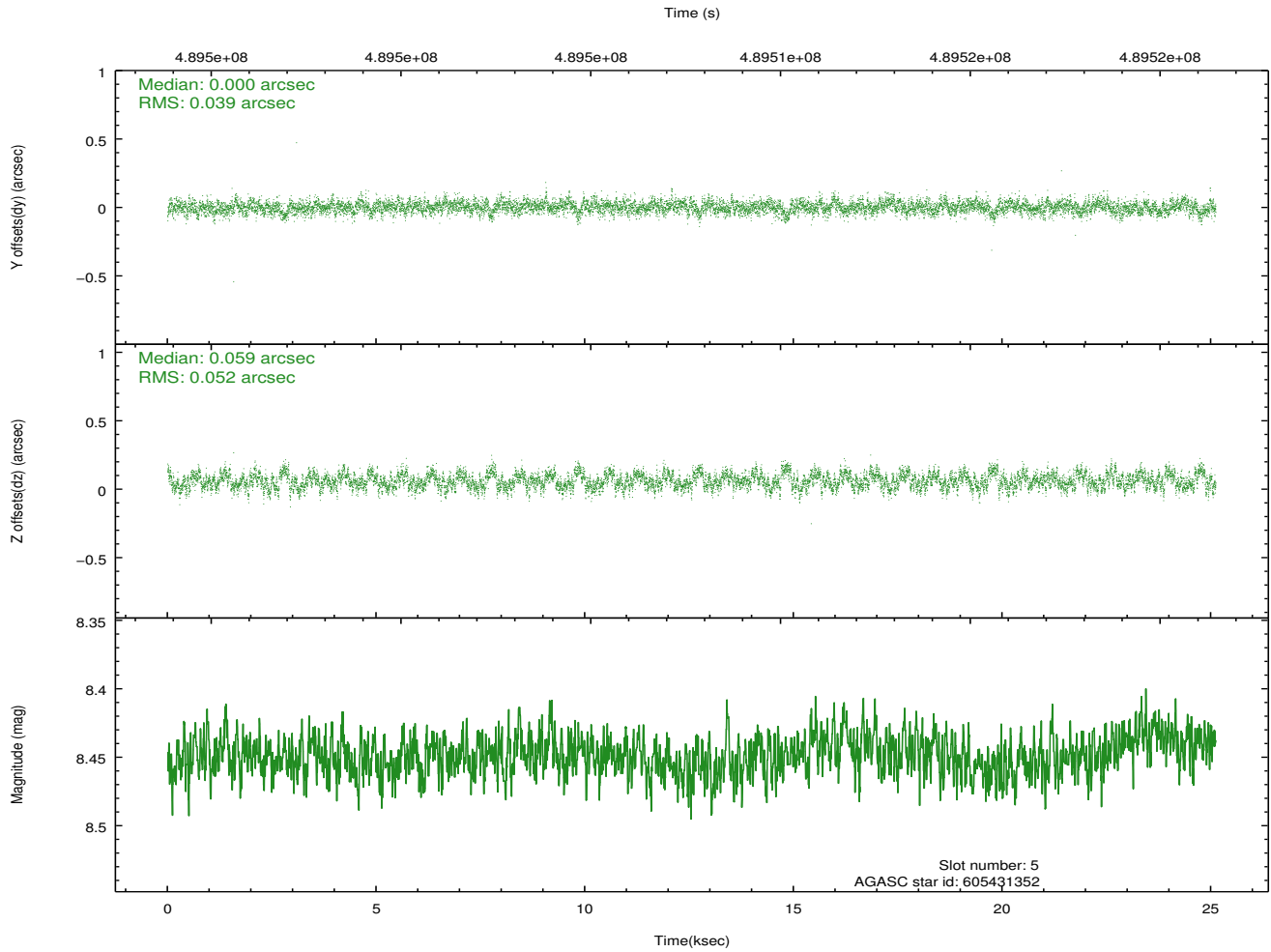
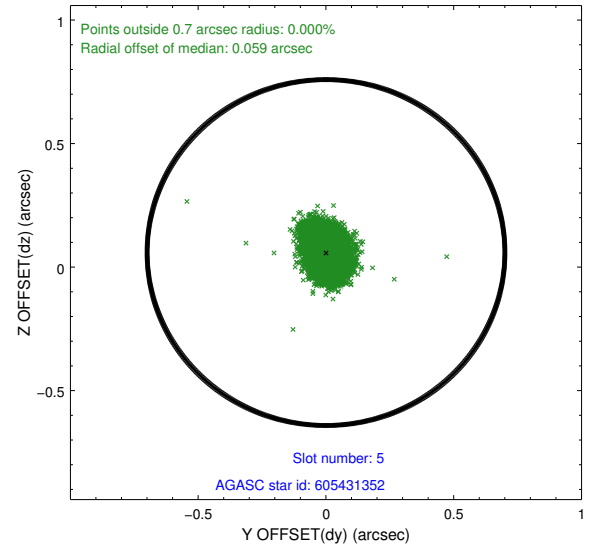
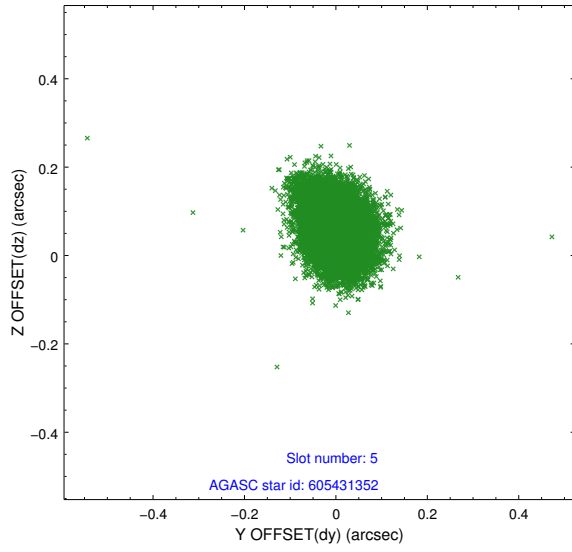
2.4.1 Slot 3



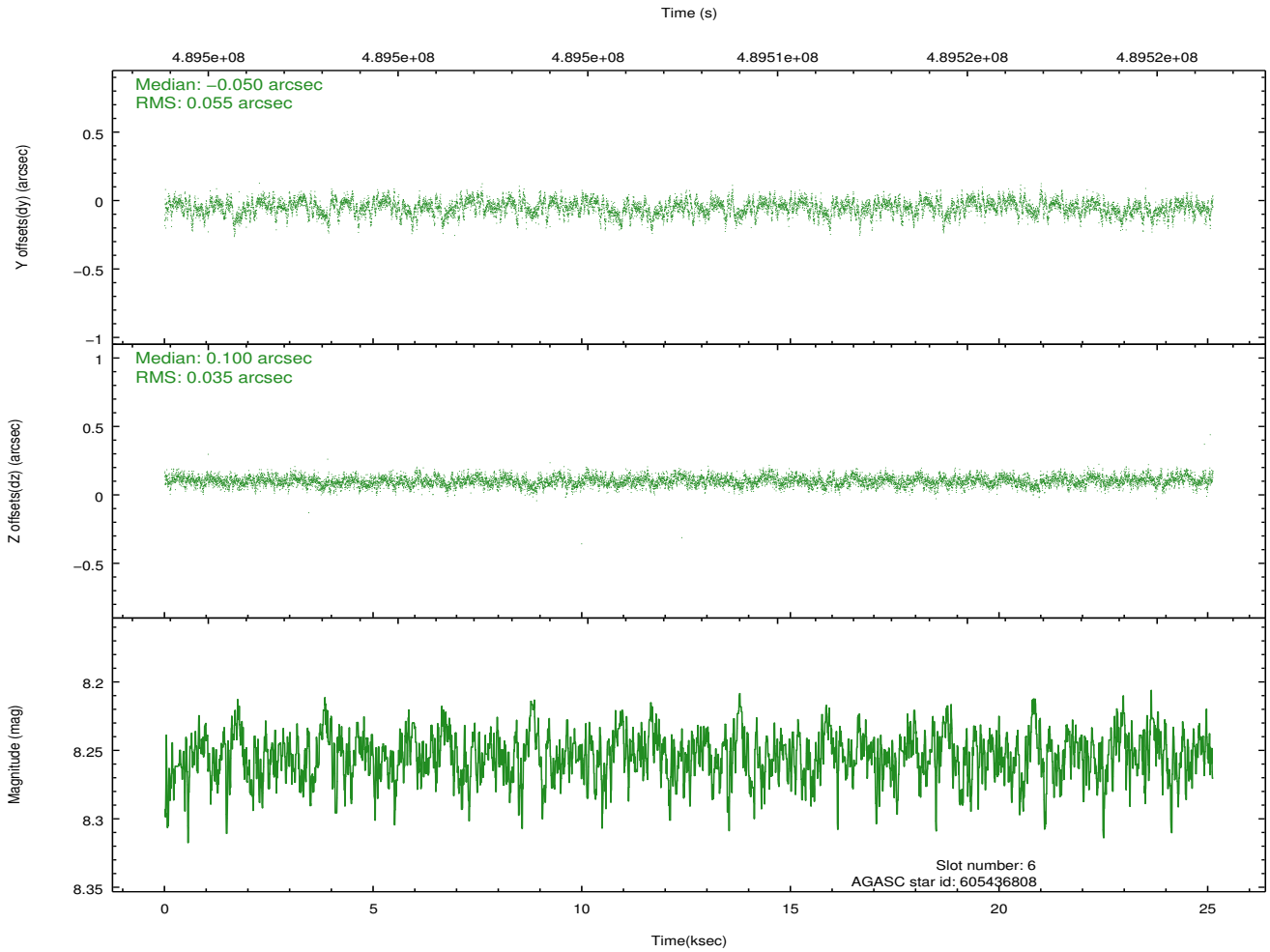
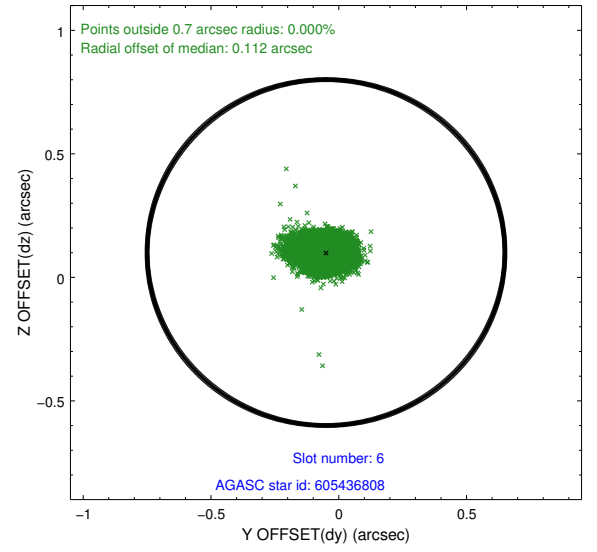
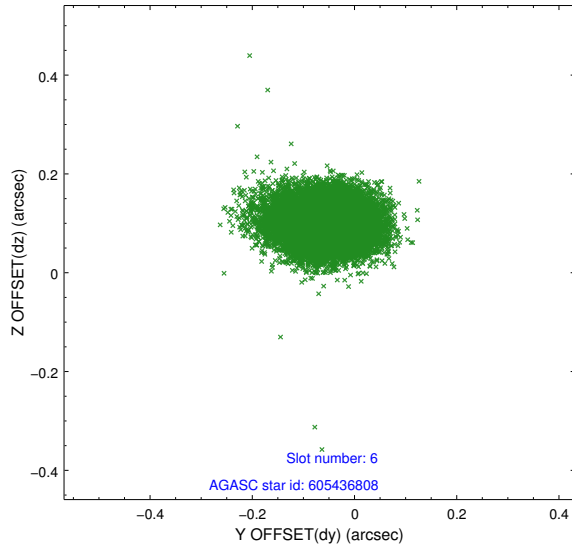
2.4.2 Slot 4



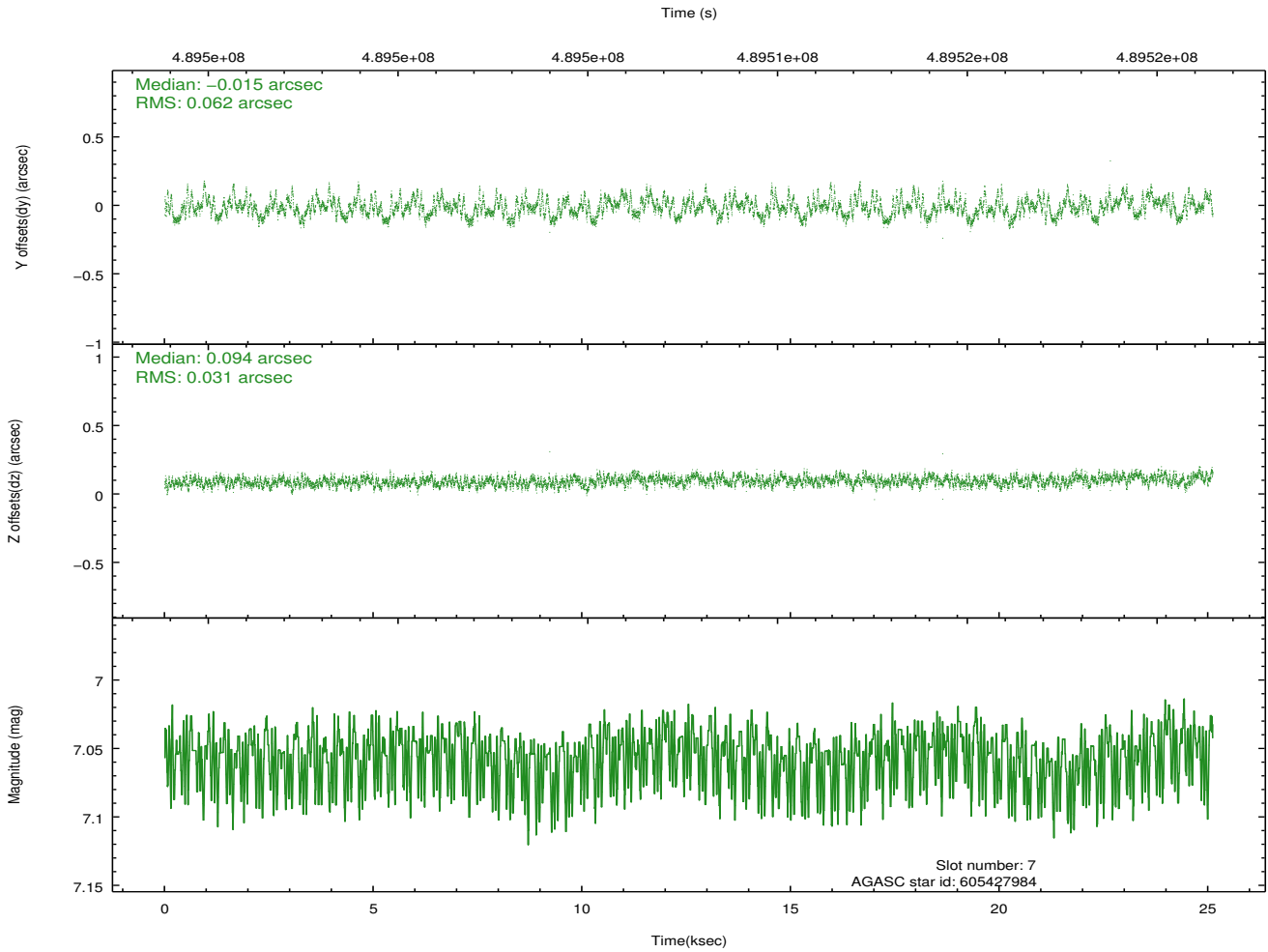
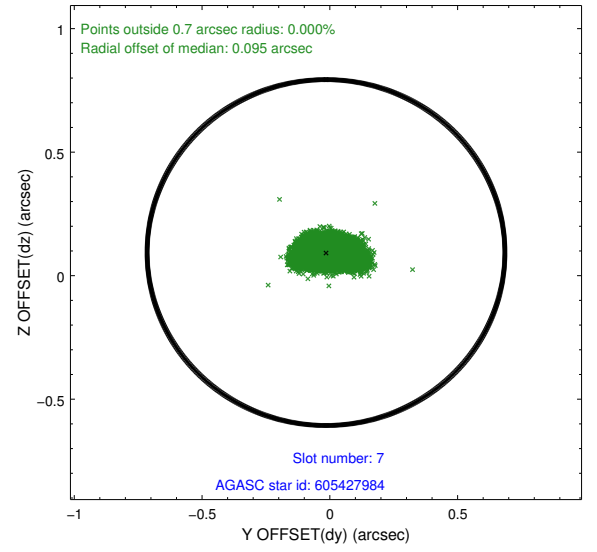
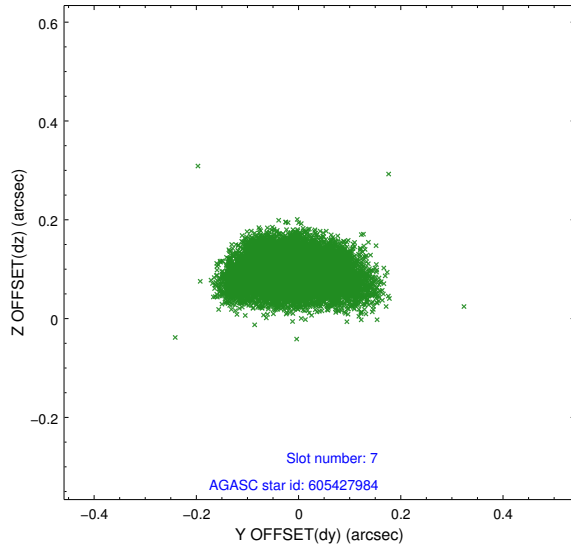
2.4.3 Slot 5



2.4.4 Slot 6

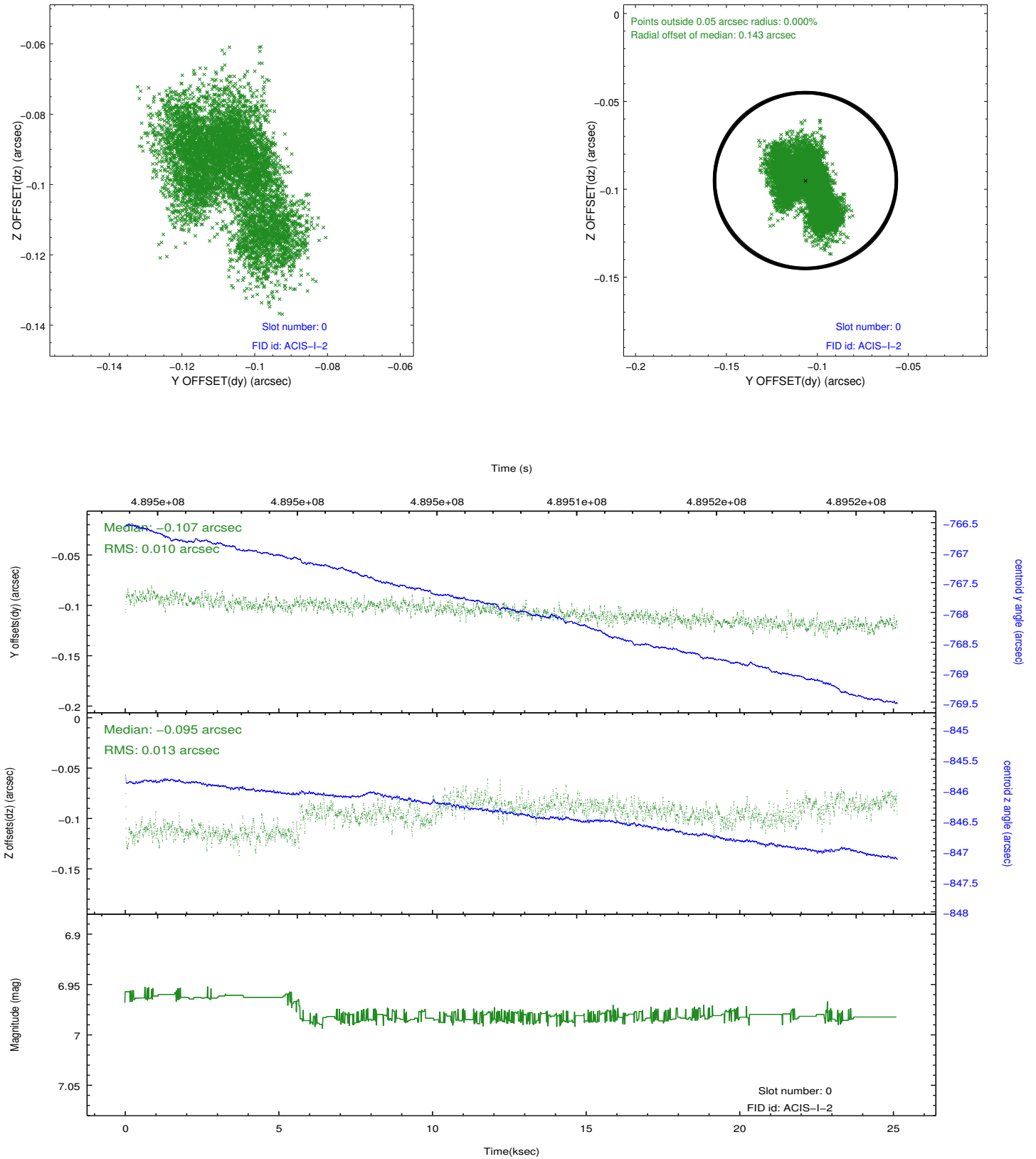


2.4.5 Slot 7

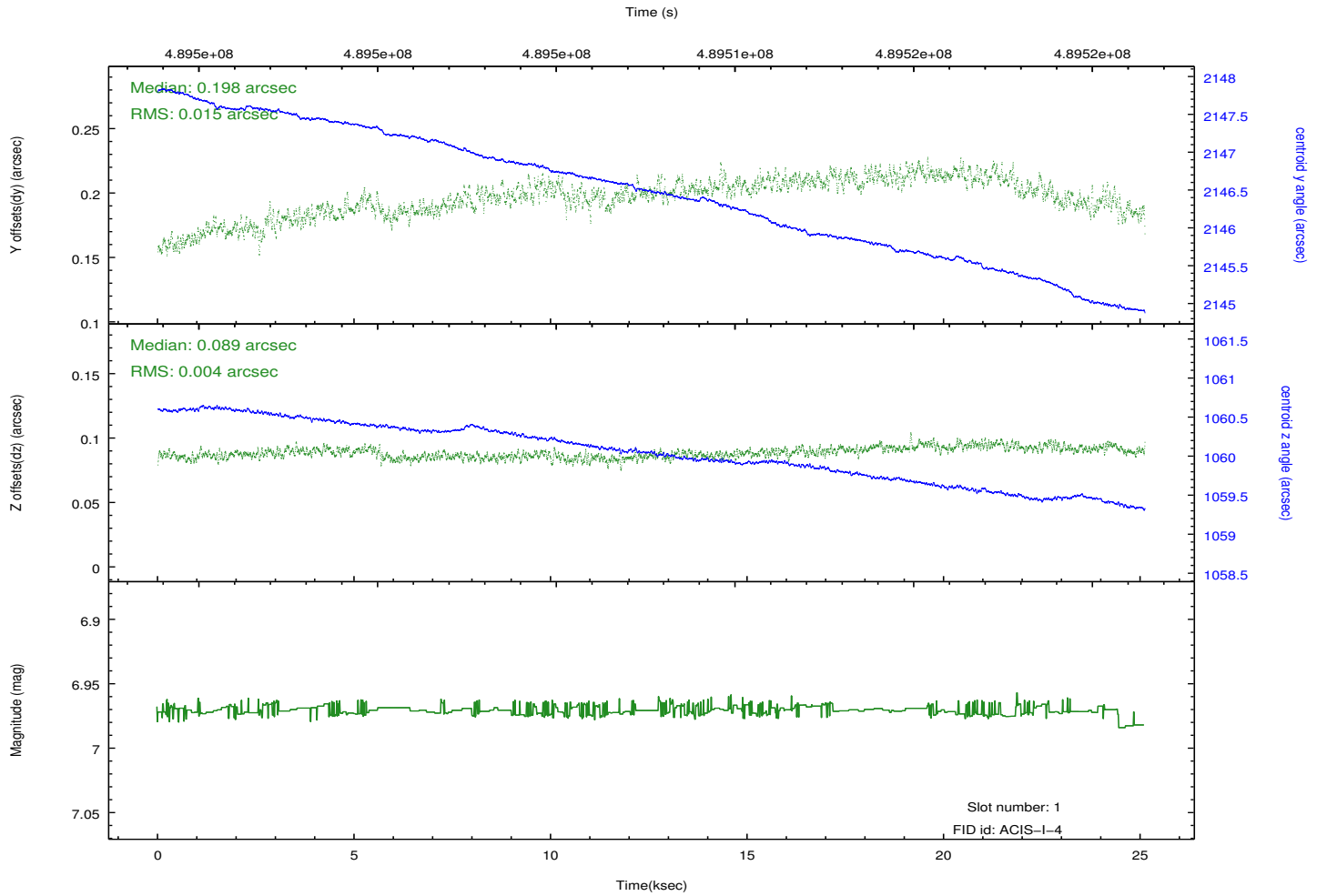
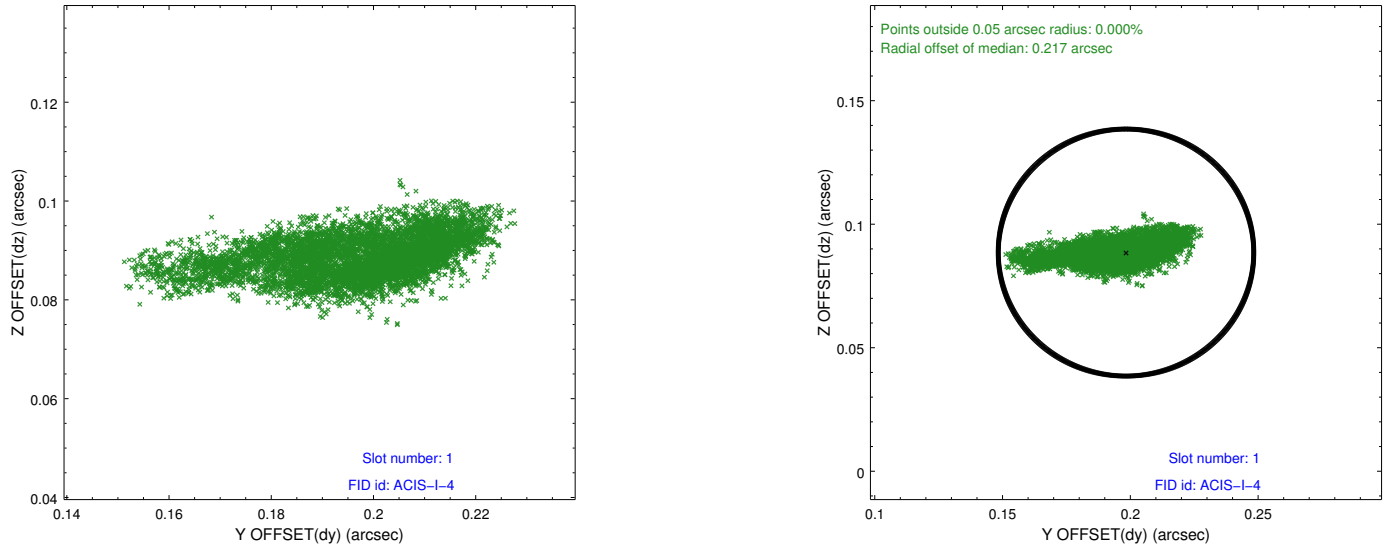


2.5 FID Slots

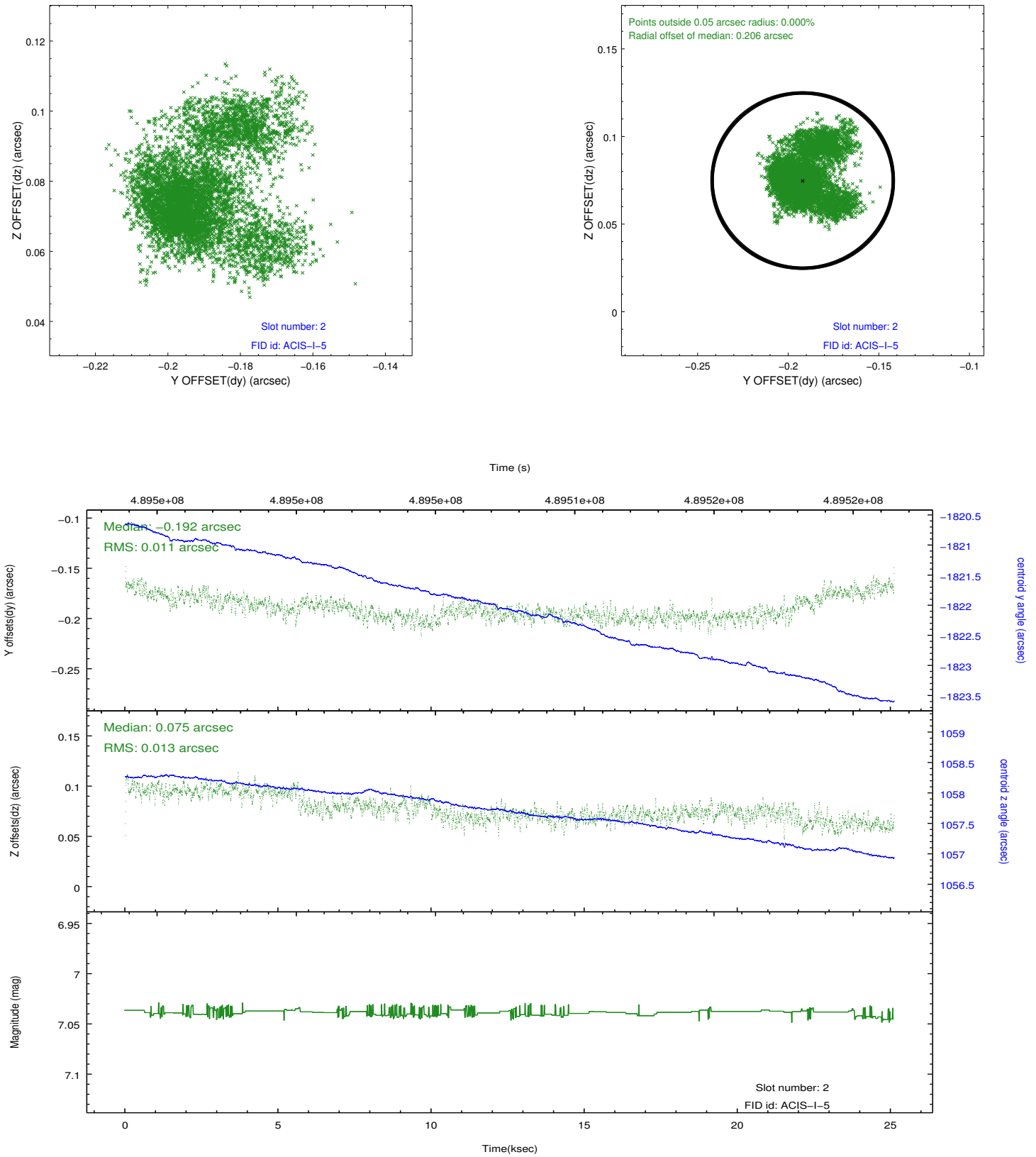
2.5.1 Slot 0



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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.068512314498

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.