

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 13503 - L2 Version 2
Chandra X-Ray Center

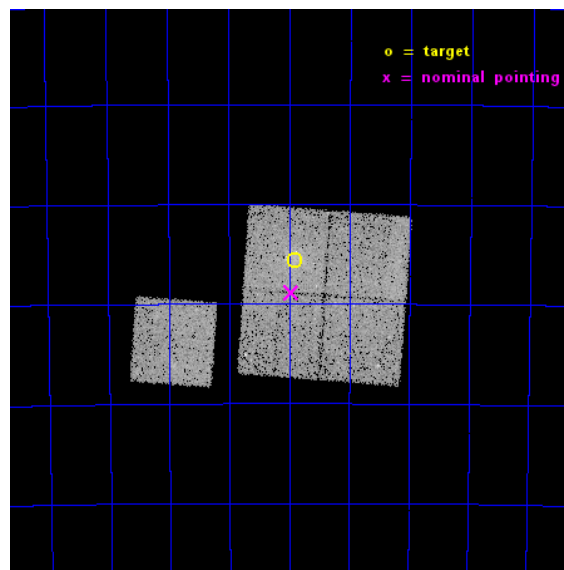
L2 Processing Date : Nov 29 2014

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1 Front

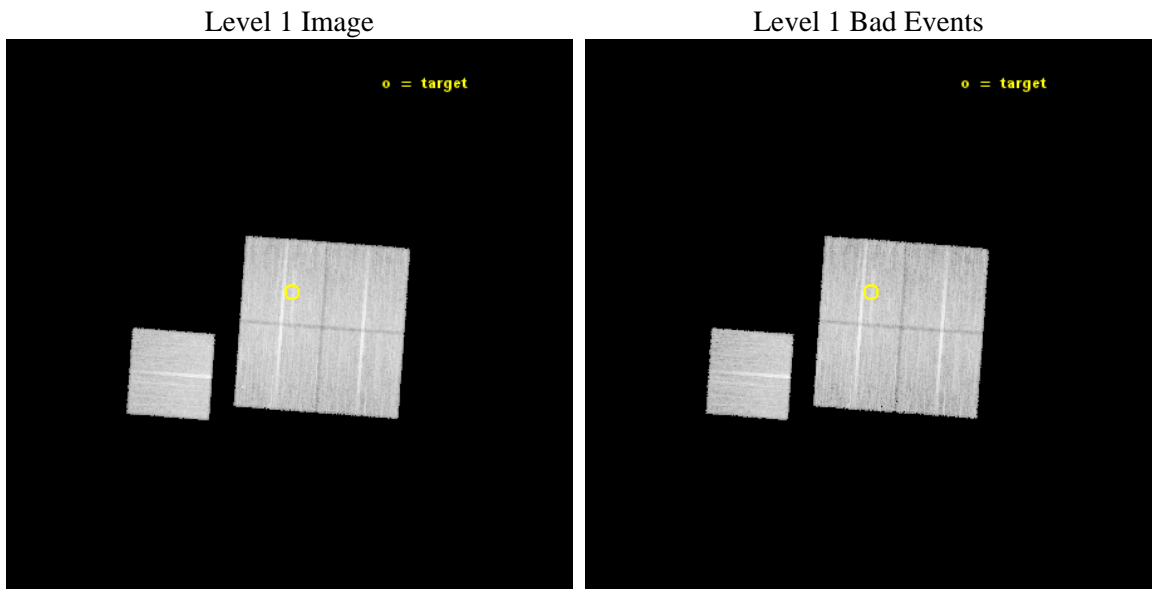
seq_num	801144	Sequence number
obs_id	13503	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ2306-6505	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	346.726	Observer's specified target RA [deg]
dec_targ	-65.0938	Observer's specified target Dec [deg]
ra_nom	346.74075407754	Nominal RA [deg]
dec_nom	-65.14787090404	Nominal Dec [deg]
roll_nom	274.2220426032	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25880.699180067	Sum of GTIs [s]
livetime	25542.548792185	Livetime [s]
ontime0	25883.717020452	Sum of GTIs [s]
ontime1	25880.61710012	Sum of GTIs [s]
ontime2	25883.799100459	Sum of GTIs [s]
ontime3	25880.699180067	Sum of GTIs [s]
ontime6	25883.675980449	Sum of GTIs [s]
l2events	67687	Number of level 2 events



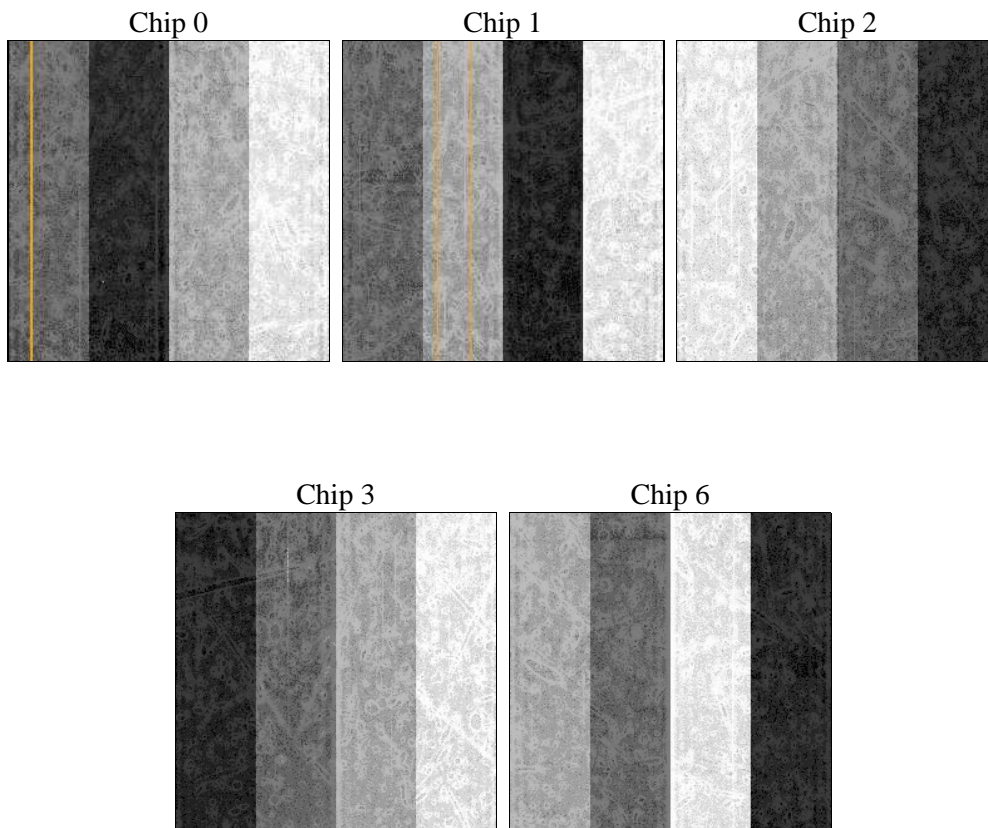
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25800.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	25880.699180067	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	25883.717020452	Sum of GTIs [s]
date	2014-11-30T07:42:22	Date and time of file creation	ontime1	25880.61710012	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	25883.799100459	Sum of GTIs [s]
			ontime3	25880.699180067	Sum of GTIs [s]
			ontime6	25883.675980449	Sum of GTIs [s]
			l1events	629344	Number of level 1 events

2.1.4 Events

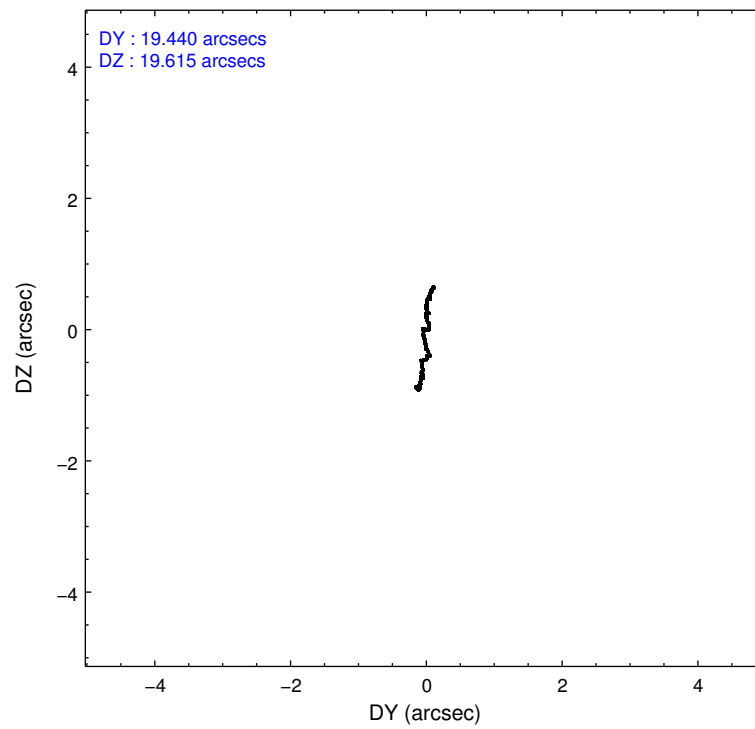
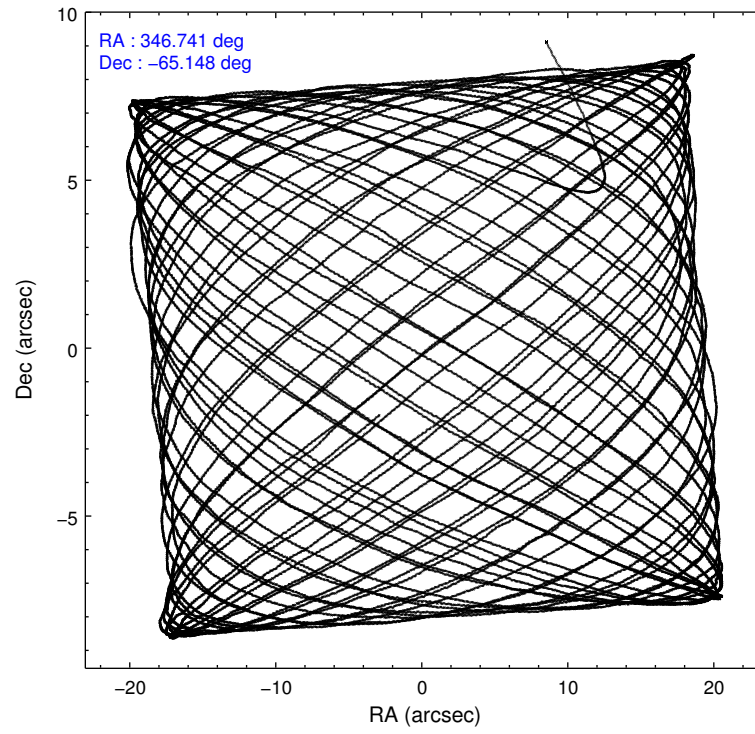
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	119427	120095	128994	129948	130880
rejected events	103686	103143	113929	113366	115178
rejected %	86%	85%	88%	87%	88%

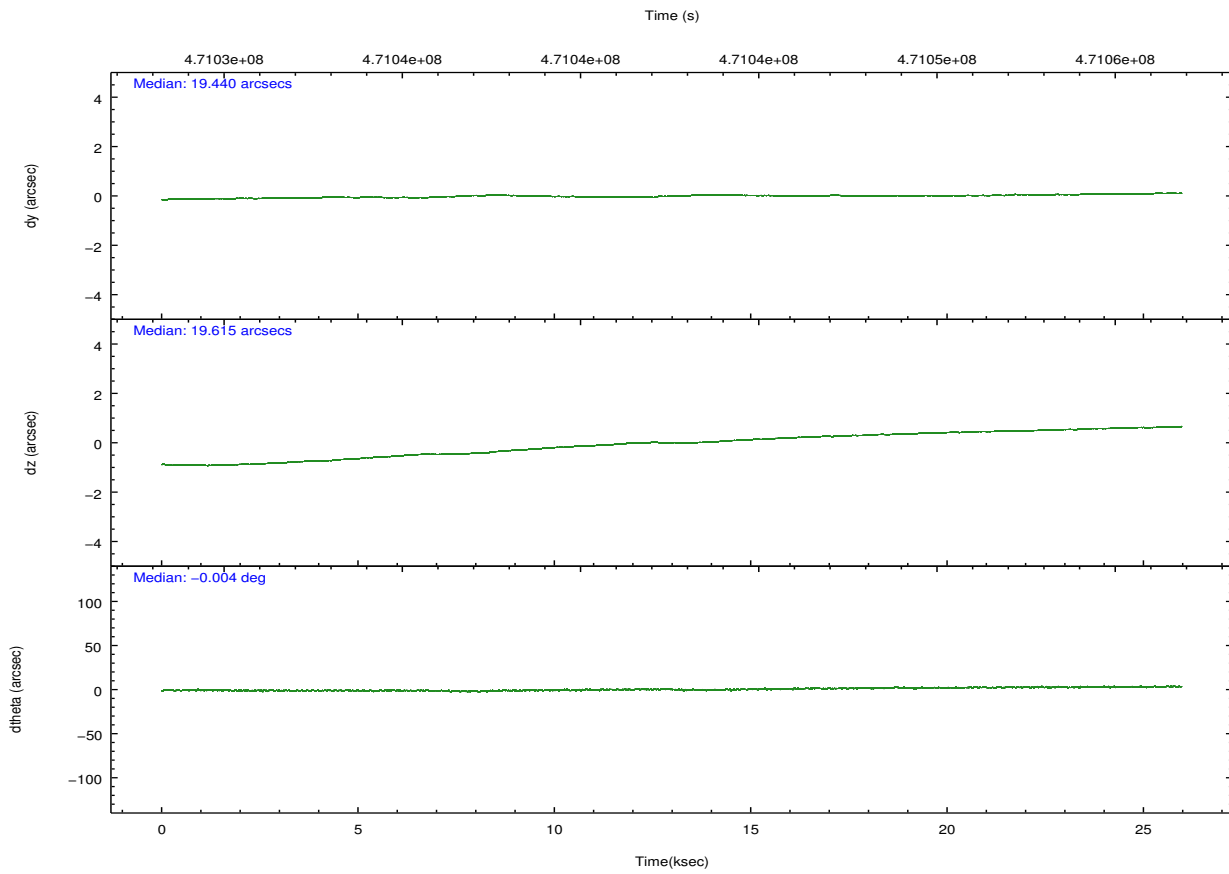
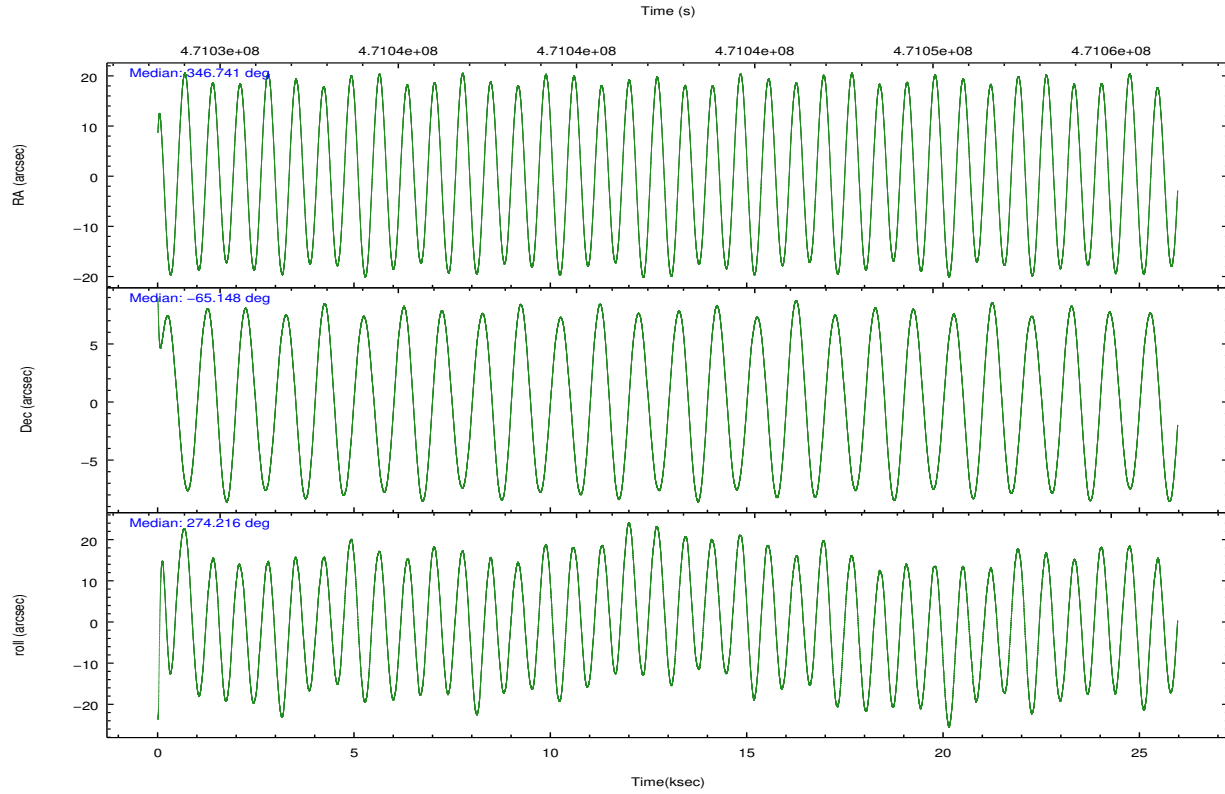
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5550	5803	5453	6834	5406
	4%	4%	4%	5%	4%
grade 1 events	73	63	89	86	53
	0%	0%	0%	0%	0%
grade 2 events	3800	4119	3695	3397	3476
	3%	3%	2%	2%	2%
grade 3 events	1611	1713	1470	1630	1609
	1%	1%	1%	1%	1%
grade 4 events	1586	1723	1477	1620	1596
	1%	1%	1%	1%	1%
grade 5 events	5898	6364	5624	6791	6439
	4%	5%	4%	5%	4%
grade 6 events	3197	3597	2973	3103	3618
	2%	2%	2%	2%	2%
grade 7 events	97712	96713	108213	106487	108683
	81%	80%	83%	81%	83%

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	346.703804	346.7407540775391	CCD I2 on	Y	Y
[deg] Pointing Dec	-65.125193	-65.14787090403961	CCD I3 on	Y	Y
[deg] Pointing Roll	273.979866	274.2220426032013	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	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	471029743.184000	471028531.88933	CCD S5 on	N	N
Observation start date	2012-12-04T17:34:36	2012-12-04T17:15:31	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	471055543.184000	471056781.91585	On-chip summing requested	N	N
Observation end date	2012-12-05T00:44:36	2012-12-05T01:06:21	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





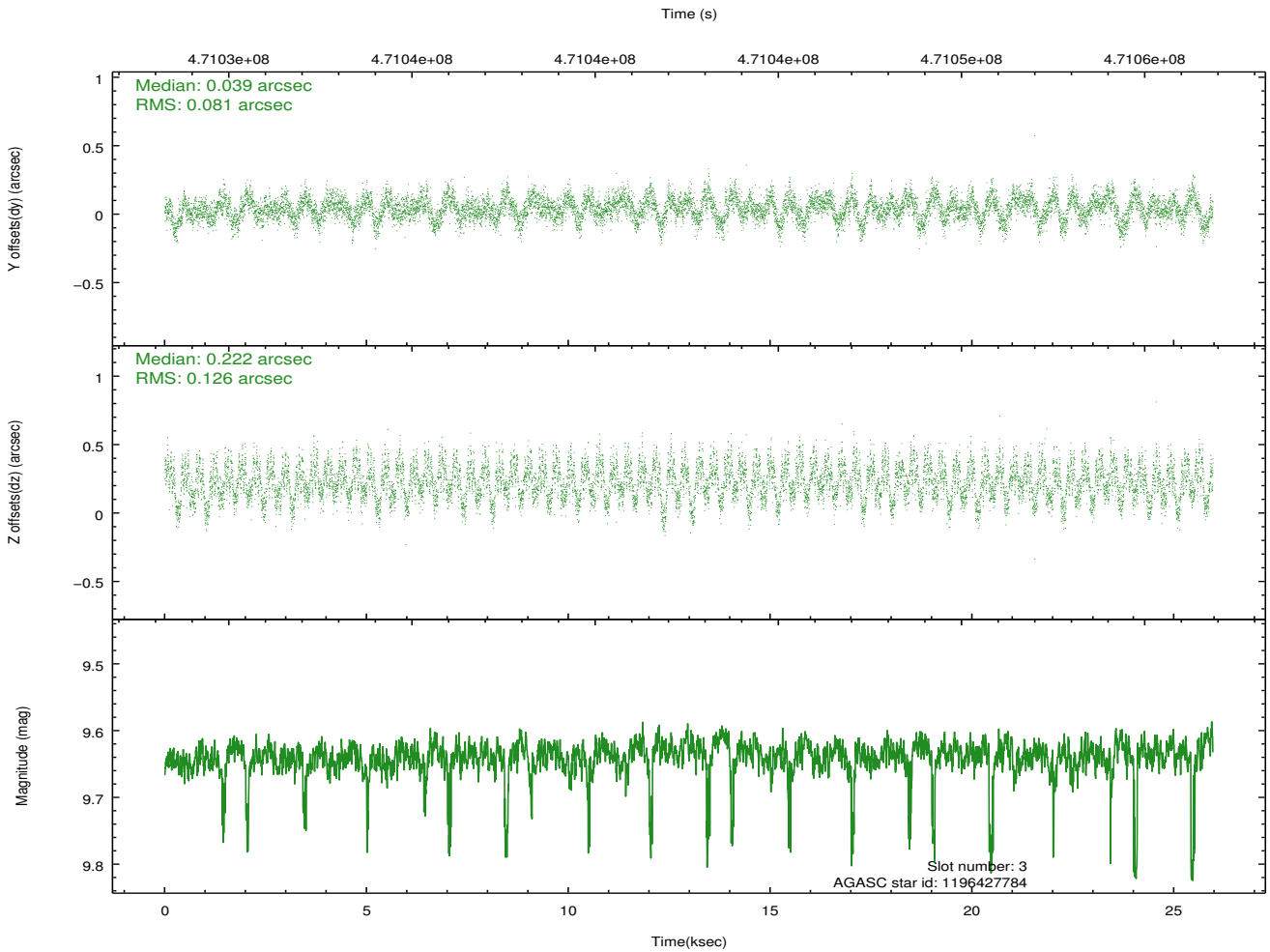
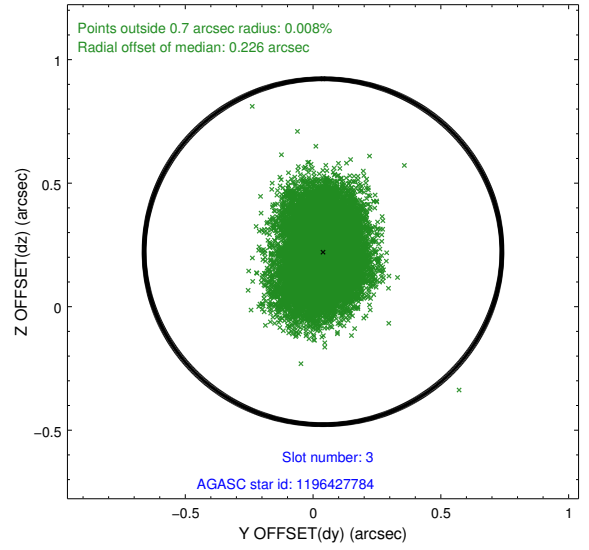
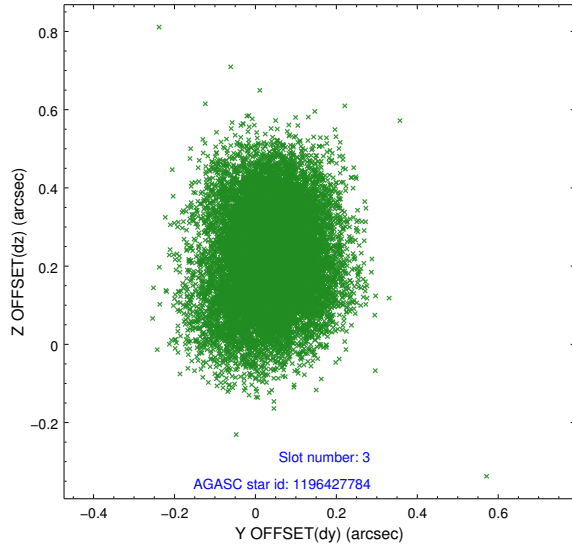
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.04	6333	0.126	-0.082	0.022	0.033	0.000000	0.000000	919.92	-1002.40
1	FID		ACIS-I-5	7.04	6334	-0.331	0.092	0.009	0.015	0.000000	0.000000	-1828.64	895.11
2	FID		ACIS-I-6	7.05	6333	0.112	0.064	0.017	0.026	0.000000	0.000000	385.26	1539.77
3	GUIDE	used	1196427784	9.64	12589	0.039	0.222	0.161	0.256	345.216498	-64.860019	-1082.45	-2204.48
4	GUIDE	used	1196818528	9.49	12649	0.107	0.116	0.166	0.272	345.549958	-65.031435	-441.72	-1726.73
5	GUIDE	used	1196820160	9.58	12588	-0.160	-0.262	0.125	0.198	347.571193	-65.340383	872.48	1245.21
6	GUIDE	used	1196820528	9.24	12650	0.130	0.029	0.135	0.213	345.749745	-65.050656	-356.25	-1426.64
7	GUIDE	used	1196821984	8.22	12665	-0.097	-0.093	0.065	0.106	346.479828	-65.339985	749.17	-389.21

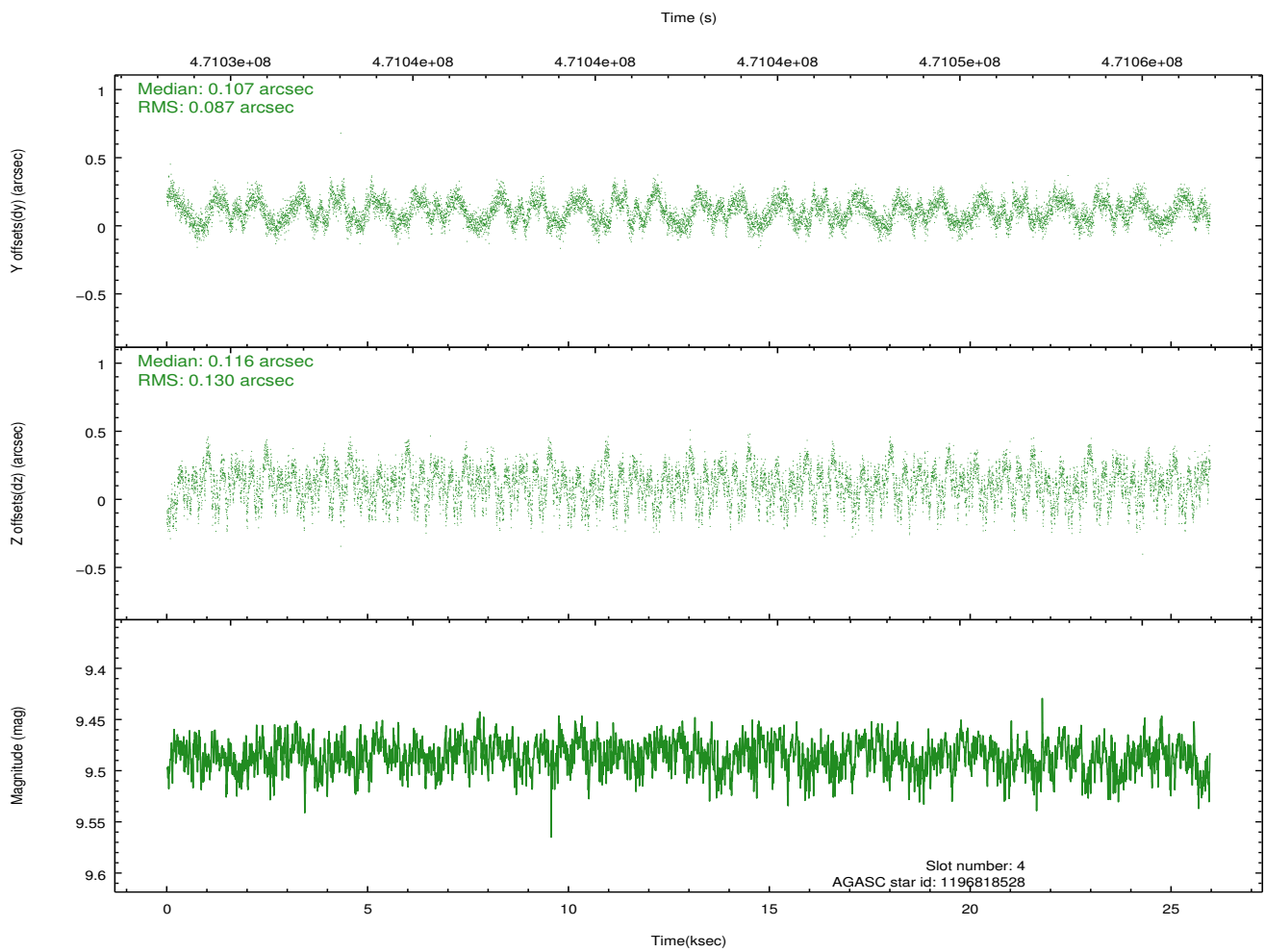
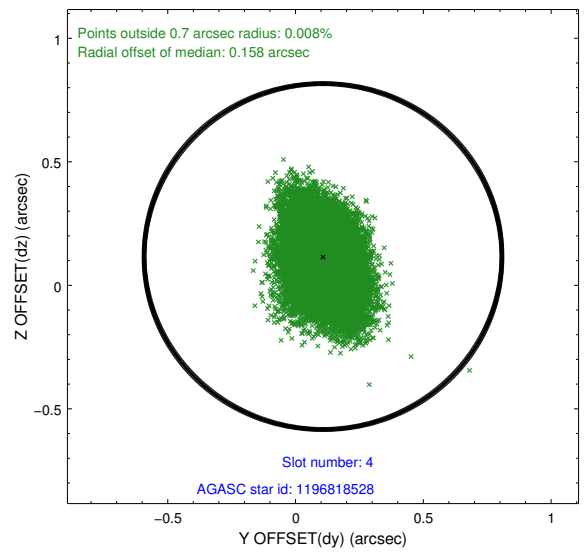
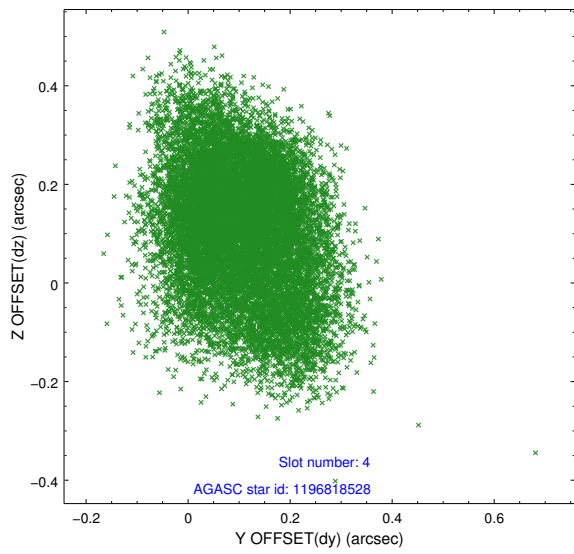
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2.4 Star Slots

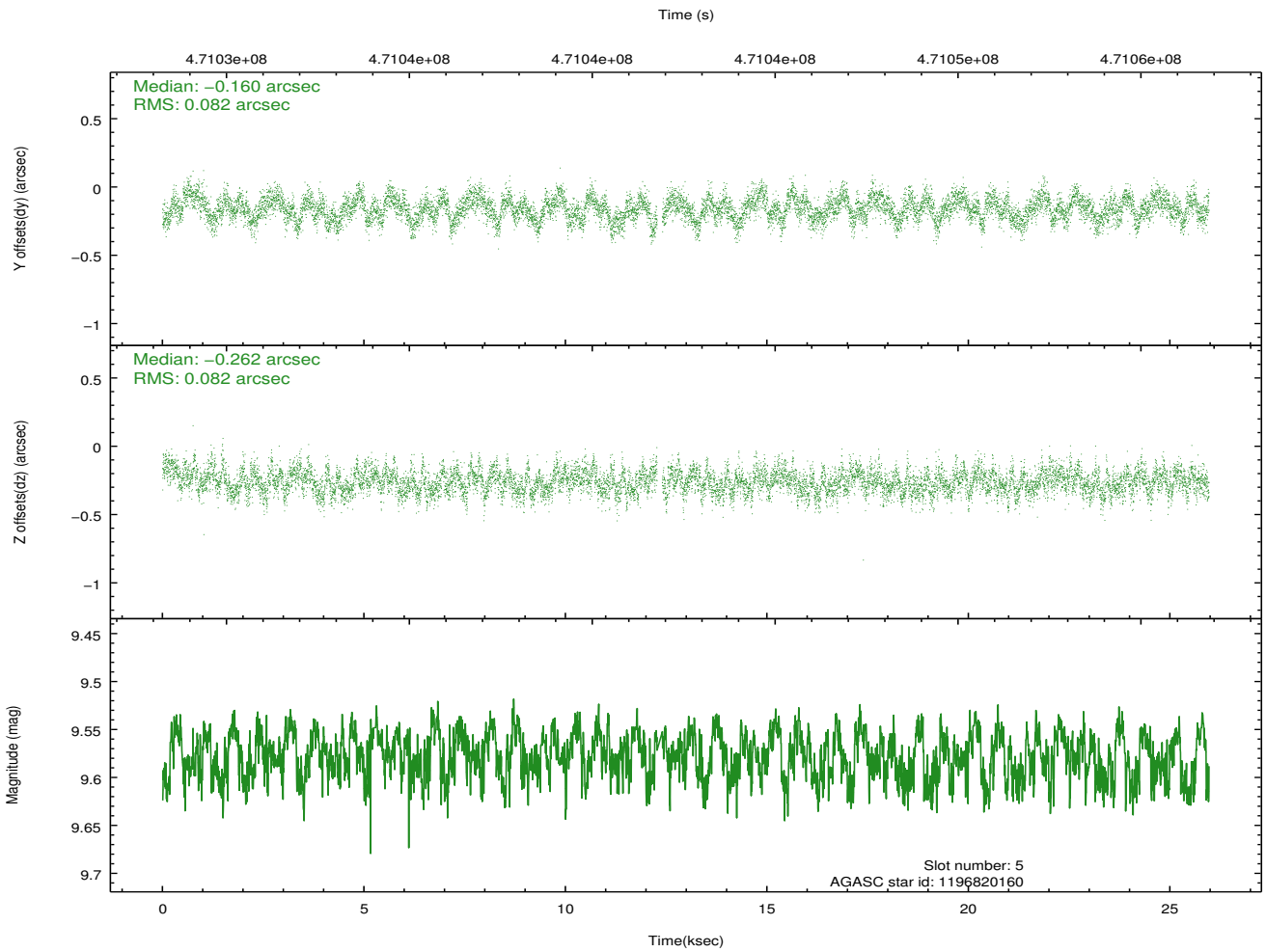
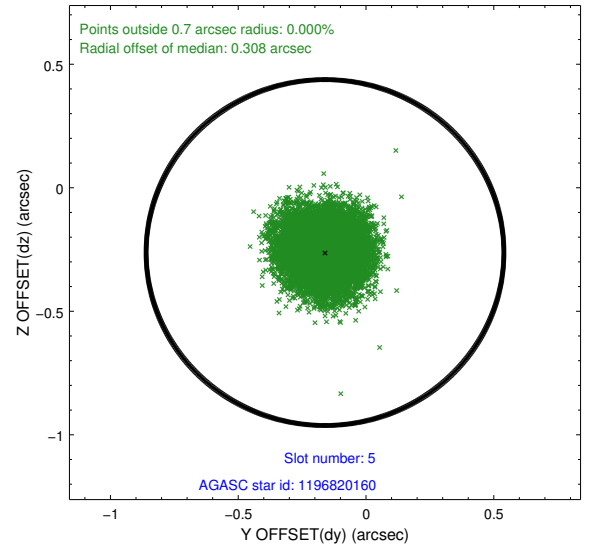
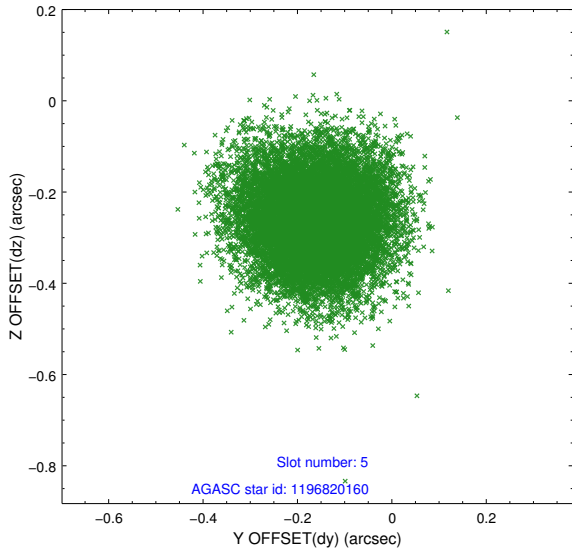
2.4.1 Slot 3



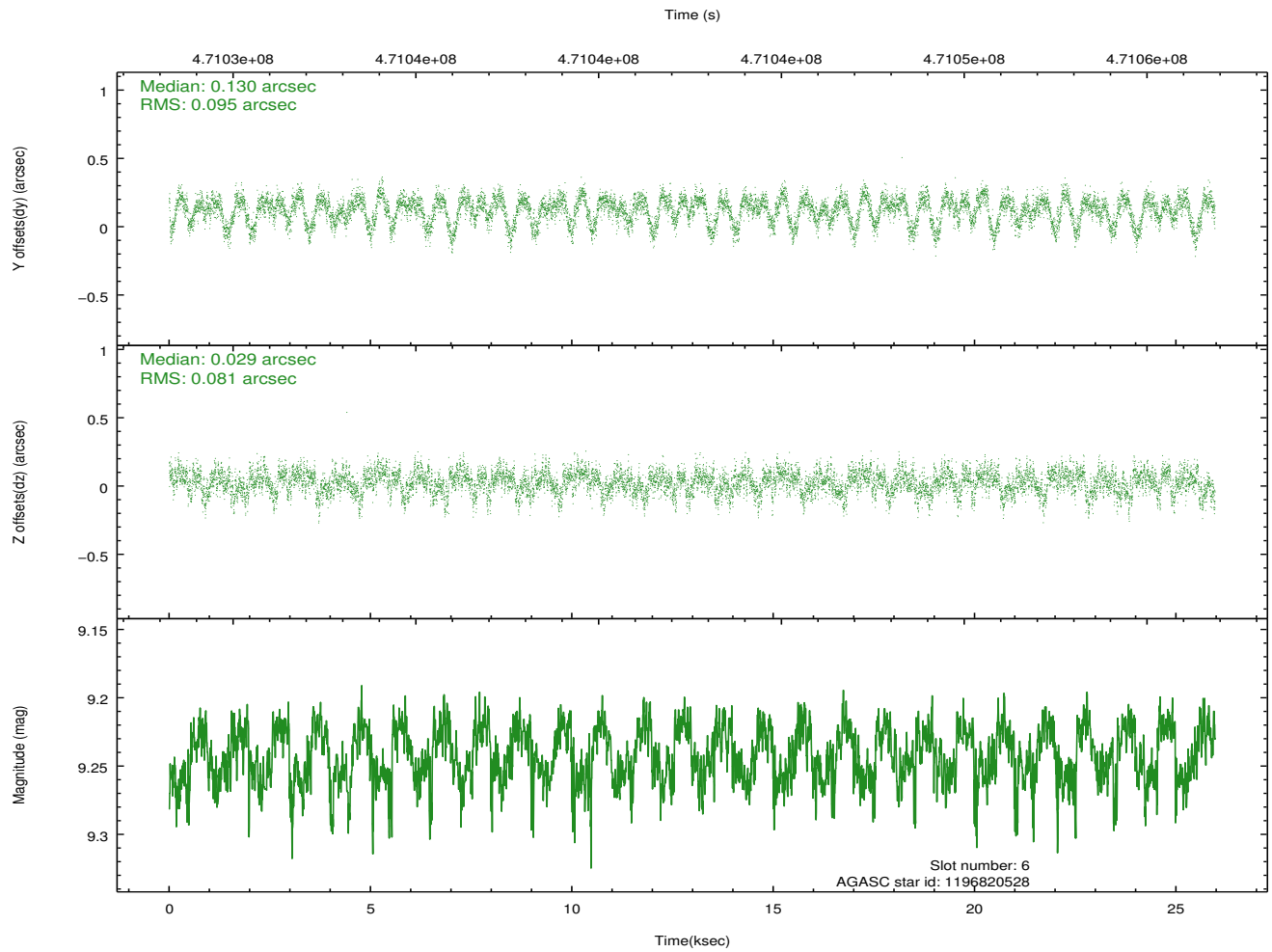
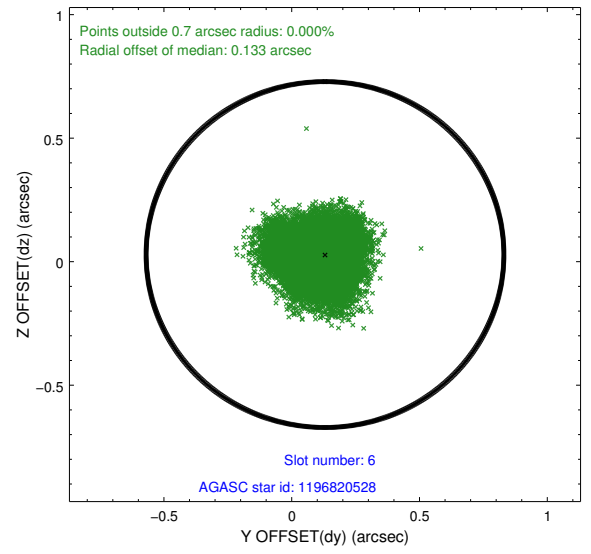
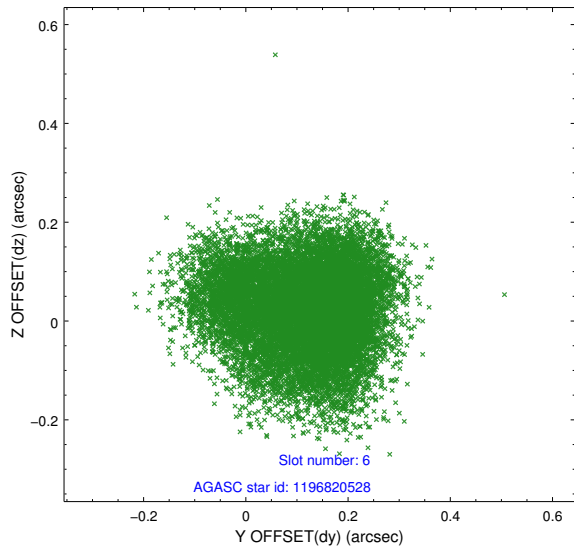
2.4.2 Slot 4



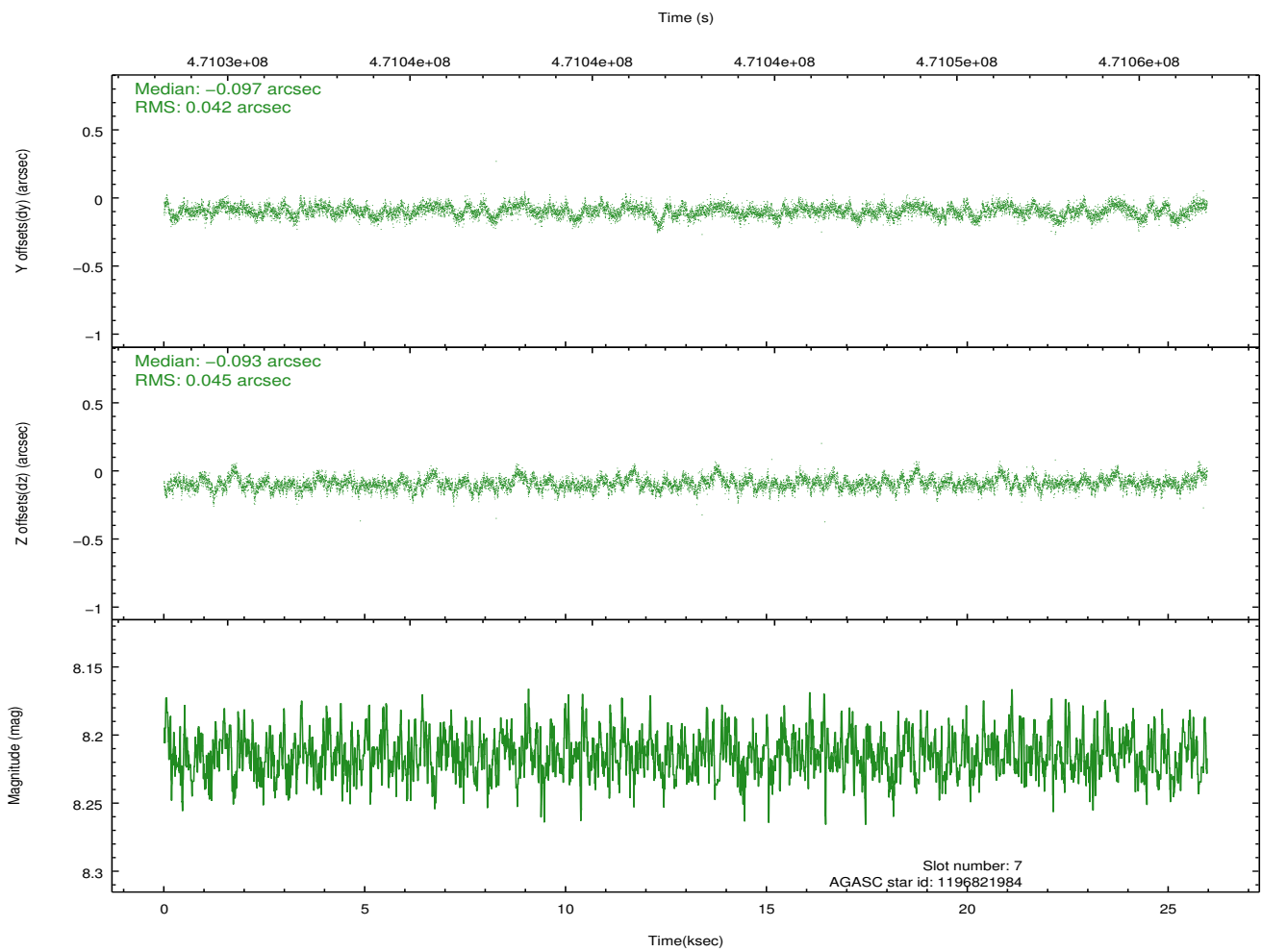
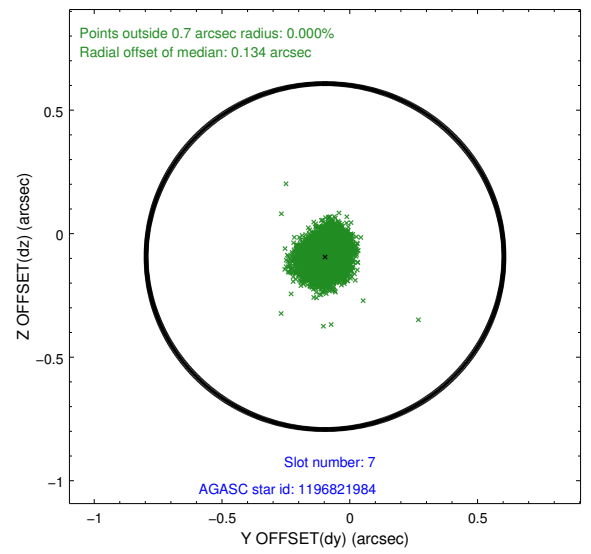
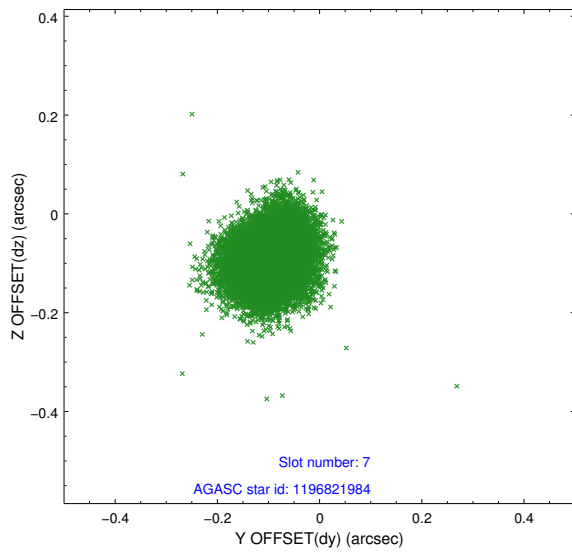
2.4.3 Slot 5



2.4.4 Slot 6

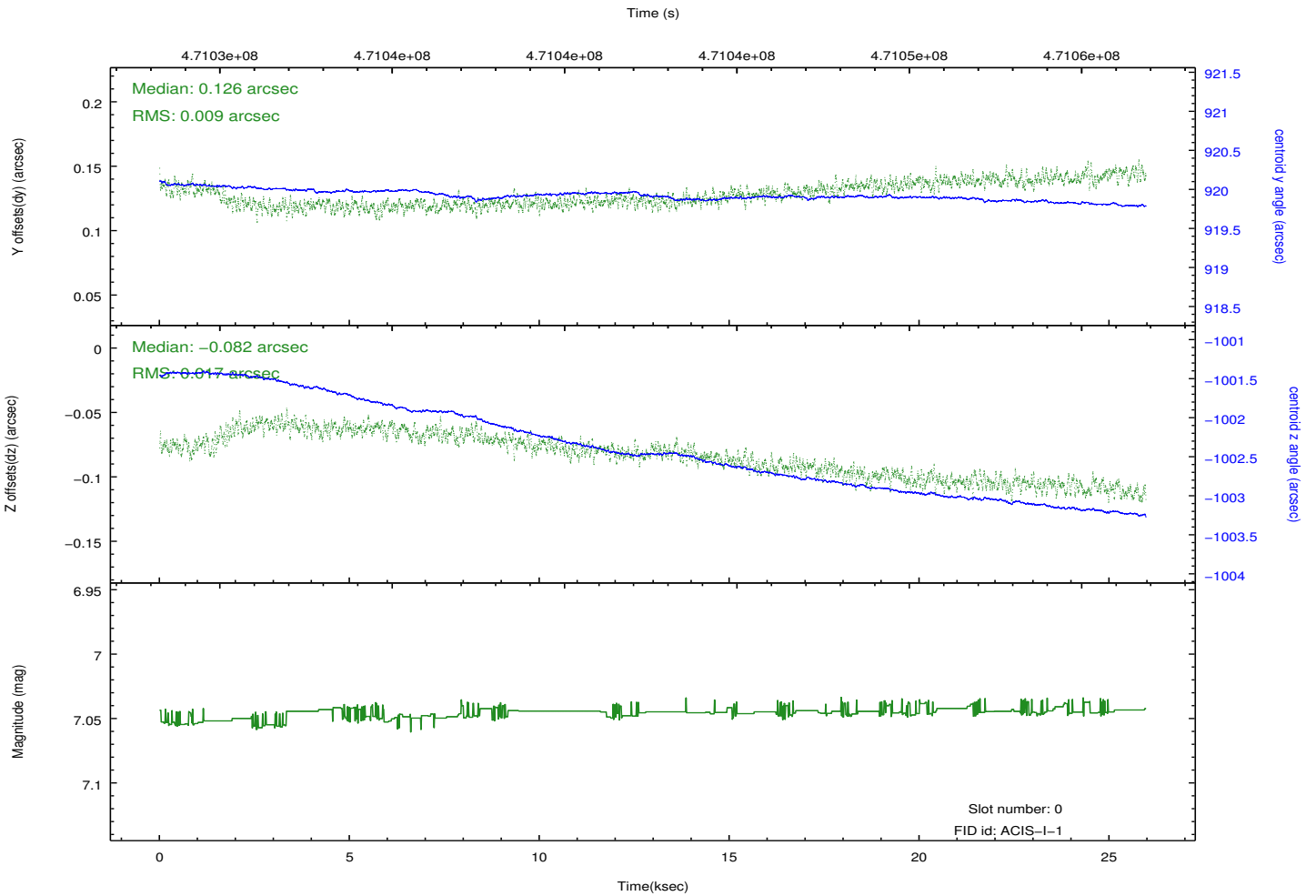
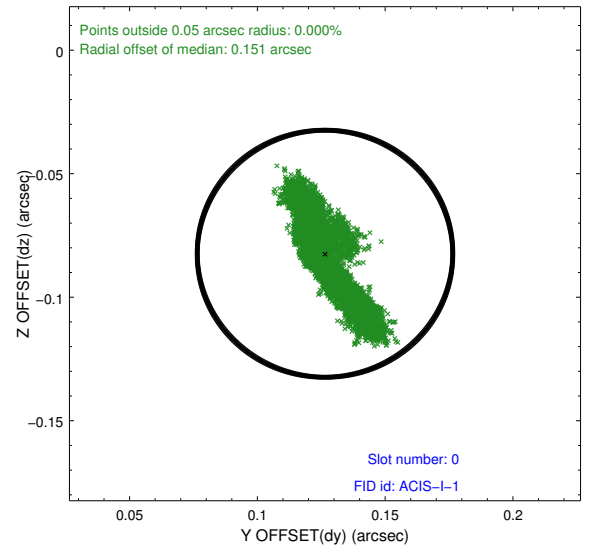
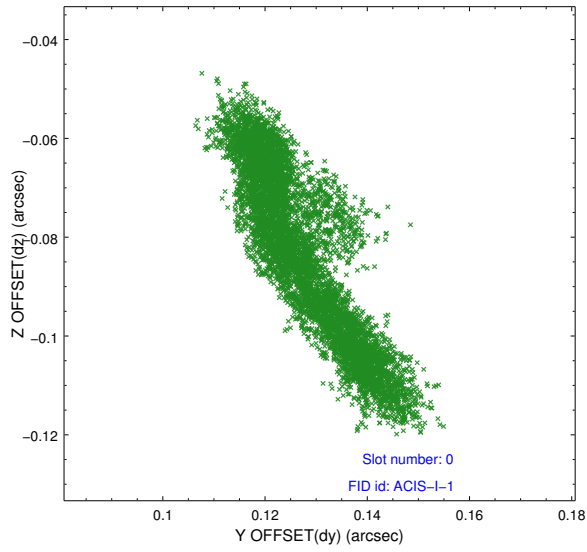


2.4.5 Slot 7

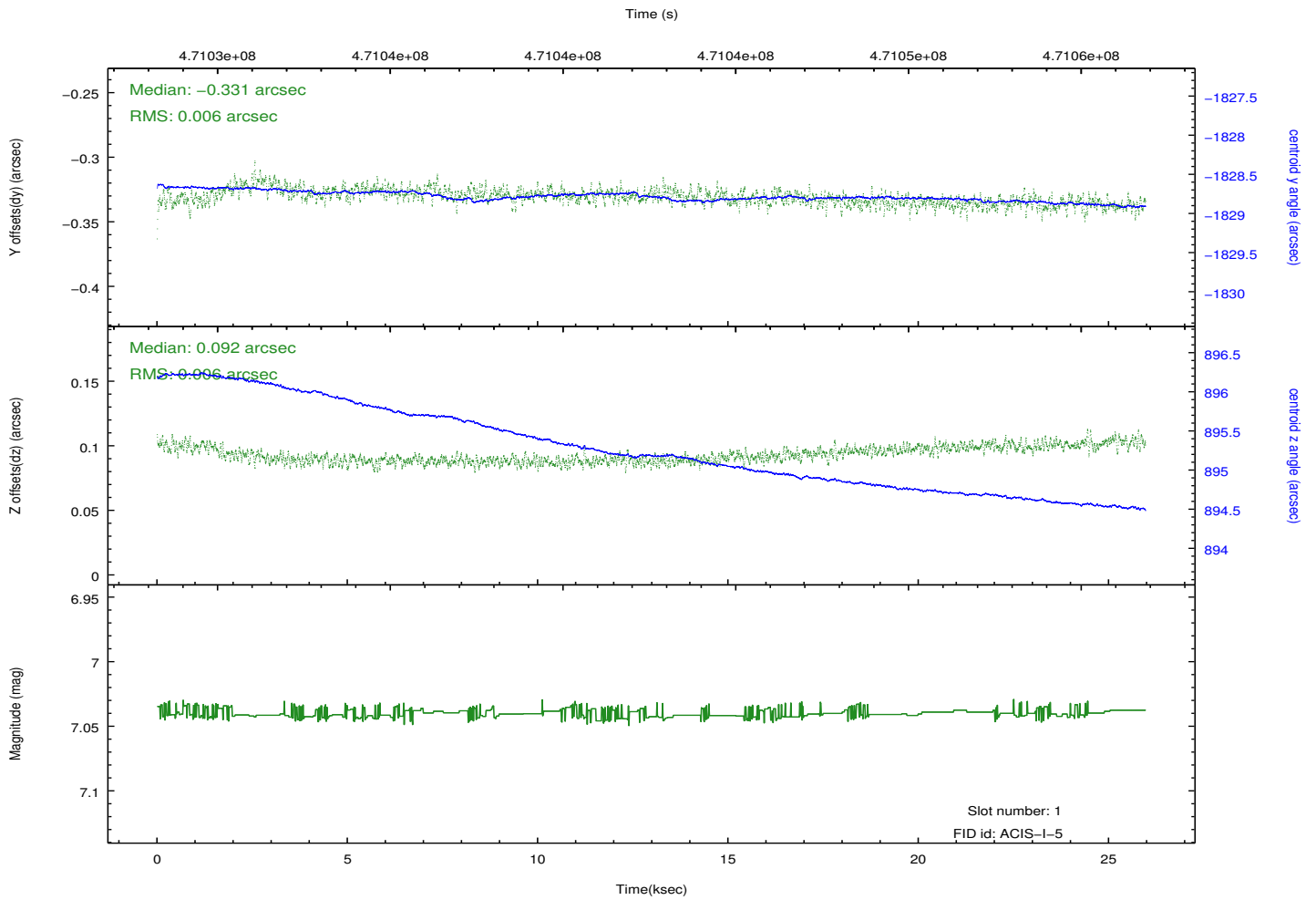
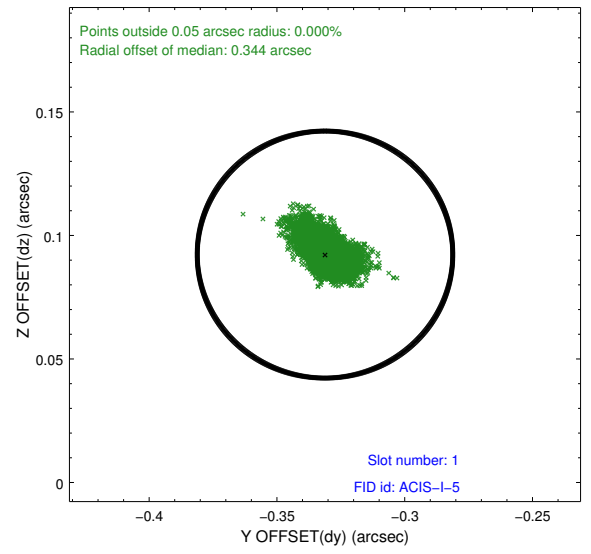
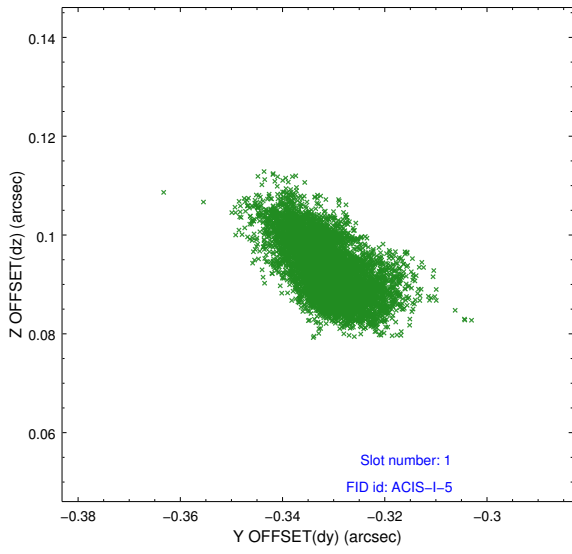


2.5 FID Slots

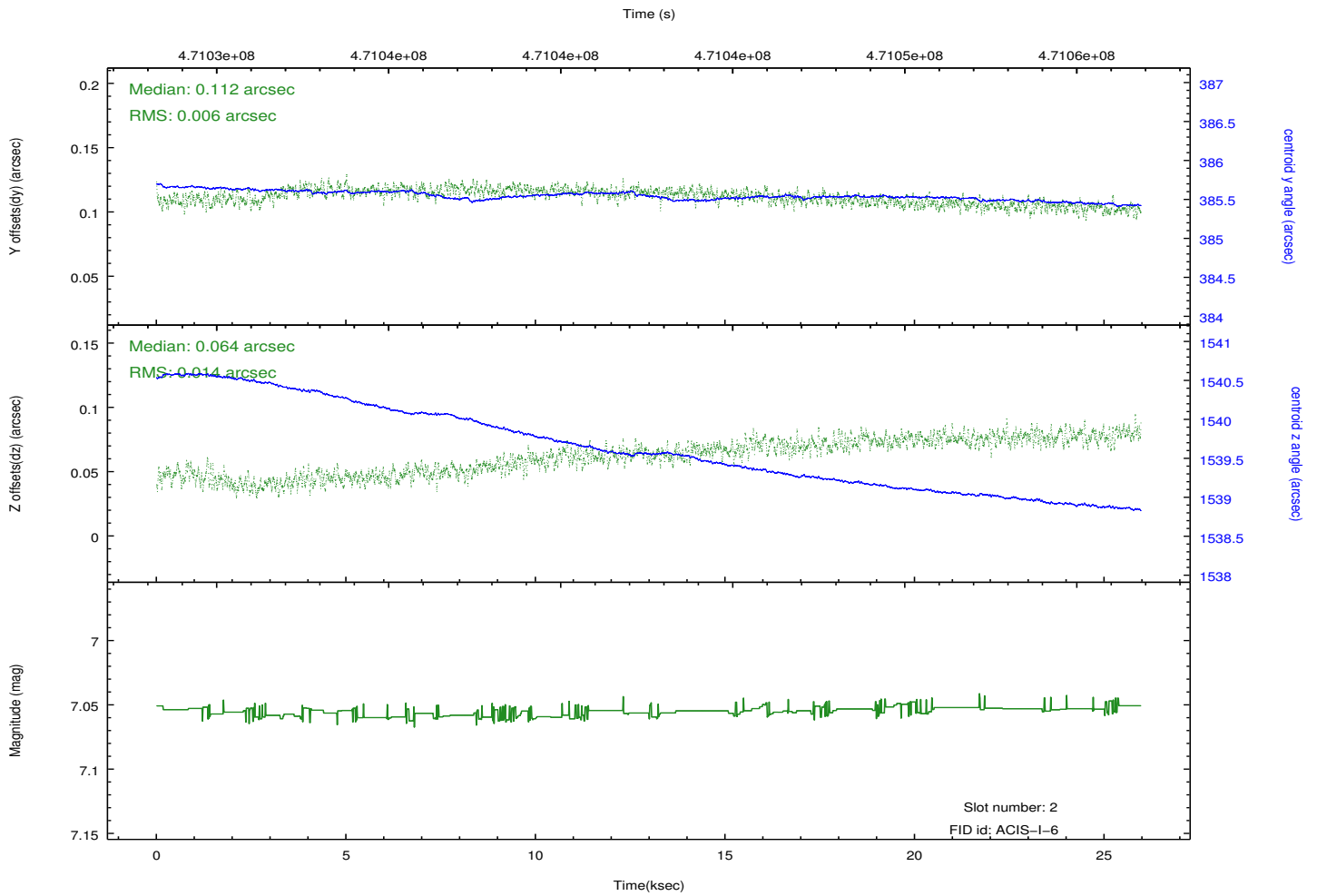
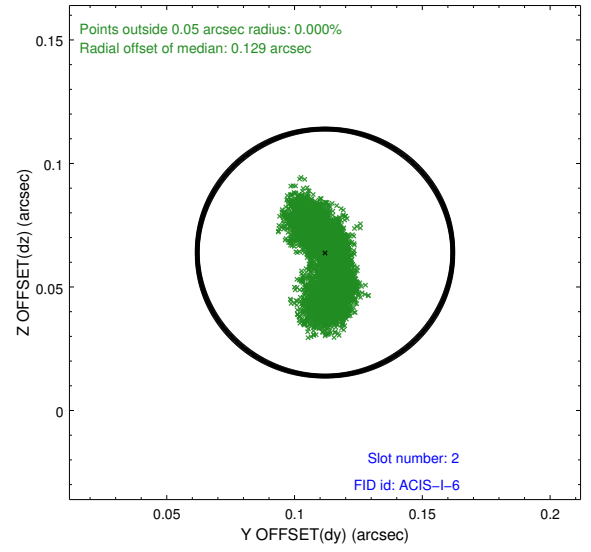
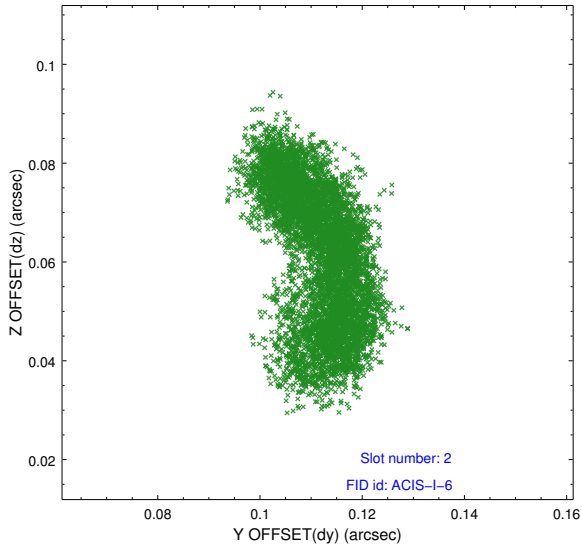
2.5.1 Slot 0



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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.880699180067

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.