

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 13477 - L2 Version 2
Chandra X-Ray Center

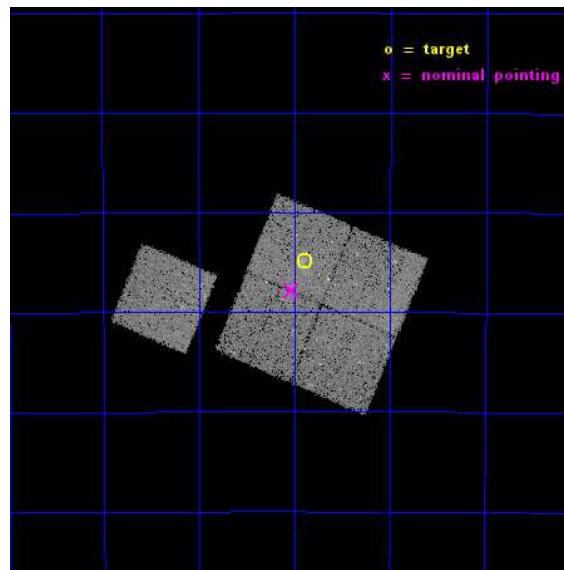
L2 Processing Date : Dec 1 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

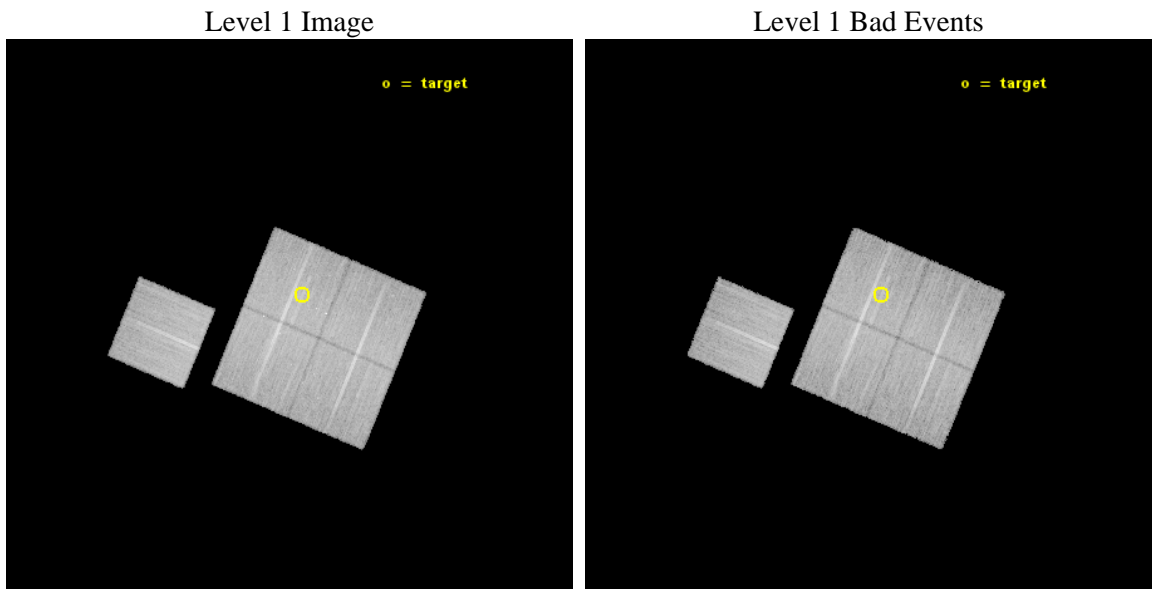
seq_num	801118	Sequence number
obs_id	13477	Observation id
title	Cosmology and Cluster Evolution from the 80 Most Massive Clusters in 2000 deg ² from the South Pole Telescope Survey	Proposal title
observer	Dr. Bradford Benson	Principal investigator
object	SPT-CLJ0406-4804	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	61.723333	Observer's specified target RA [deg]
dec_targ	-48.081194	Observer's specified target Dec [deg]
ra_nom	61.757884541228	Nominal RA [deg]
dec_nom	-48.130500657625	Nominal Dec [deg]
roll_nom	292.73867571433	Nominal Roll [deg]
revision	2	Processing version of data
ontime	26381.000202894	Sum of GTIs [s]
livetime	26036.313013834	Livetime [s]
ontime0	26377.859232545	Sum of GTIs [s]
ontime1	26381.000202894	Sum of GTIs [s]
ontime2	26381.000202894	Sum of GTIs [s]
ontime3	26381.000202894	Sum of GTIs [s]
ontime6	26381.000202894	Sum of GTIs [s]
l2events	73869	Number of level 2 events



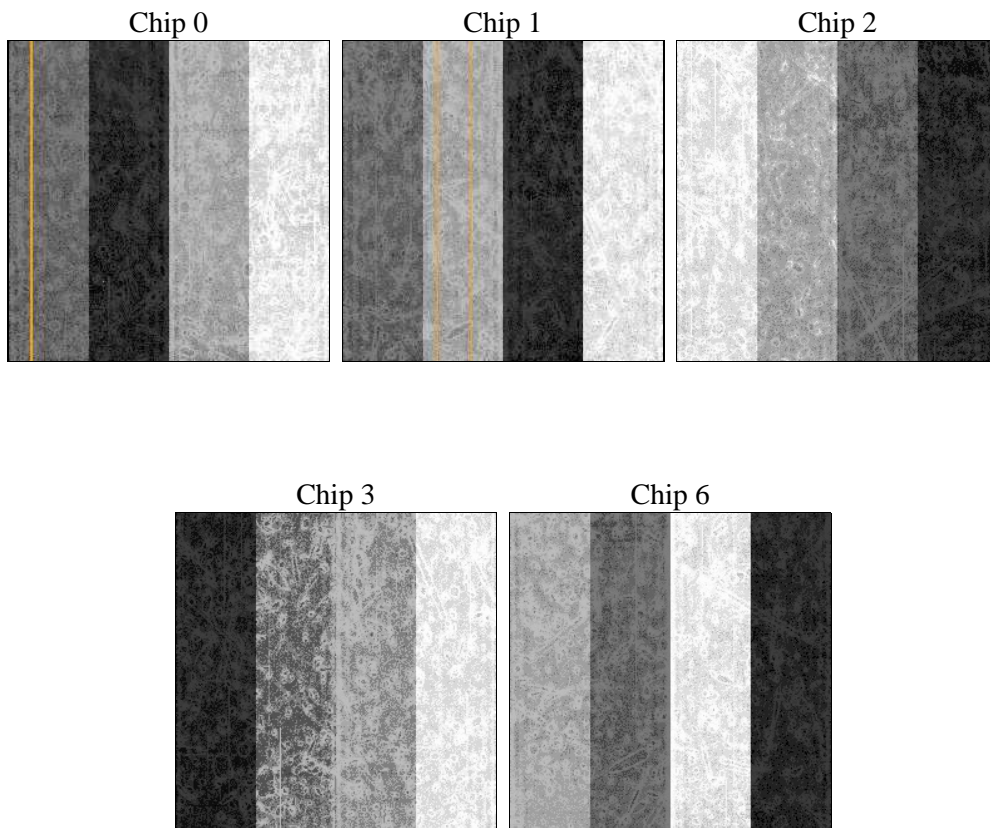
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	26300.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	26381.000202894	Sum of GTIs [s]
caldbver	4.6.4	 	ontime0	26377.859232545	Sum of GTIs [s]
date	2014-12-01T08:43:54	Date and time of file creation	ontime1	26381.000202894	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	26381.000202894	Sum of GTIs [s]
			ontime3	26381.000202894	Sum of GTIs [s]
			ontime6	26381.000202894	Sum of GTIs [s]
			l1events	693366	Number of level 1 events

2.1.4 Events

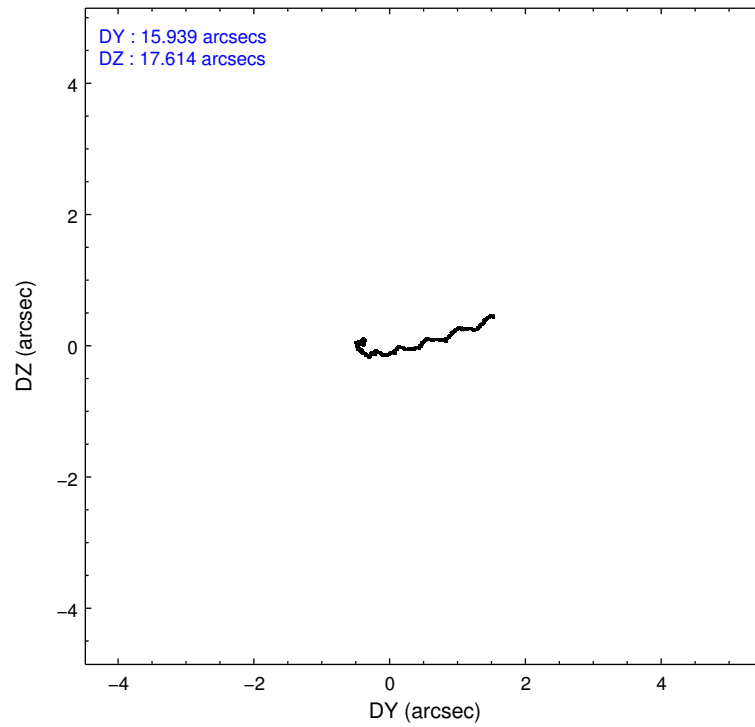
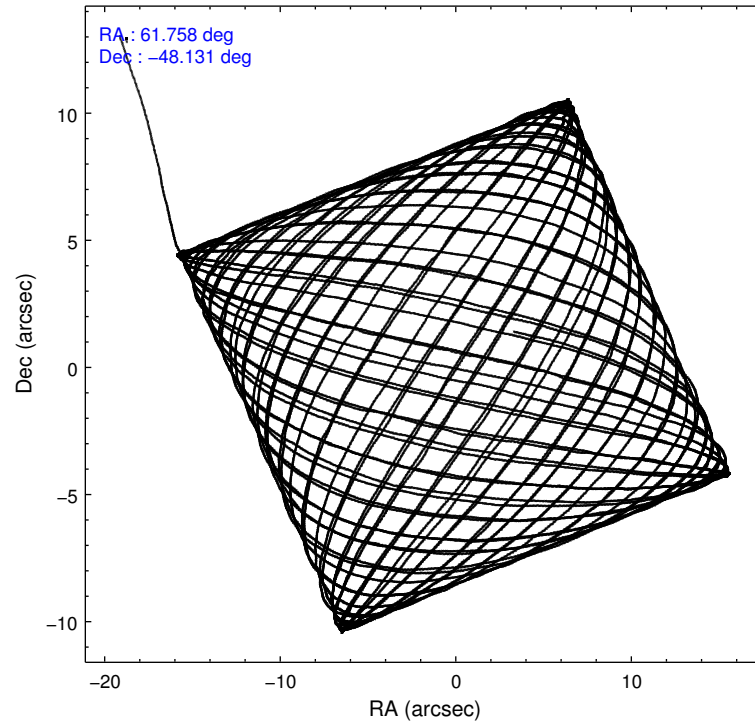
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	130265	134294	142176	141663	144968
rejected events	113562	115325	125512	123920	127836
rejected %	87%	85%	88%	87%	88%

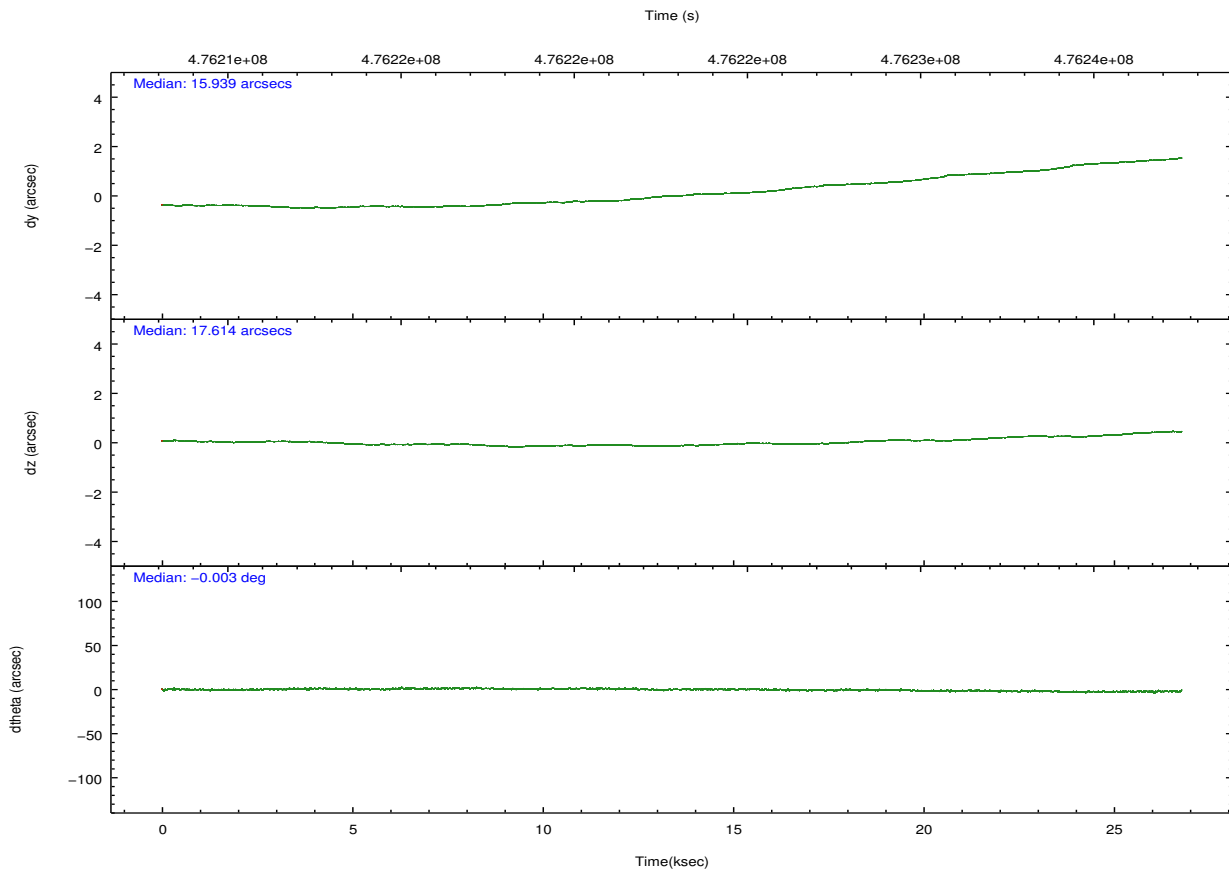
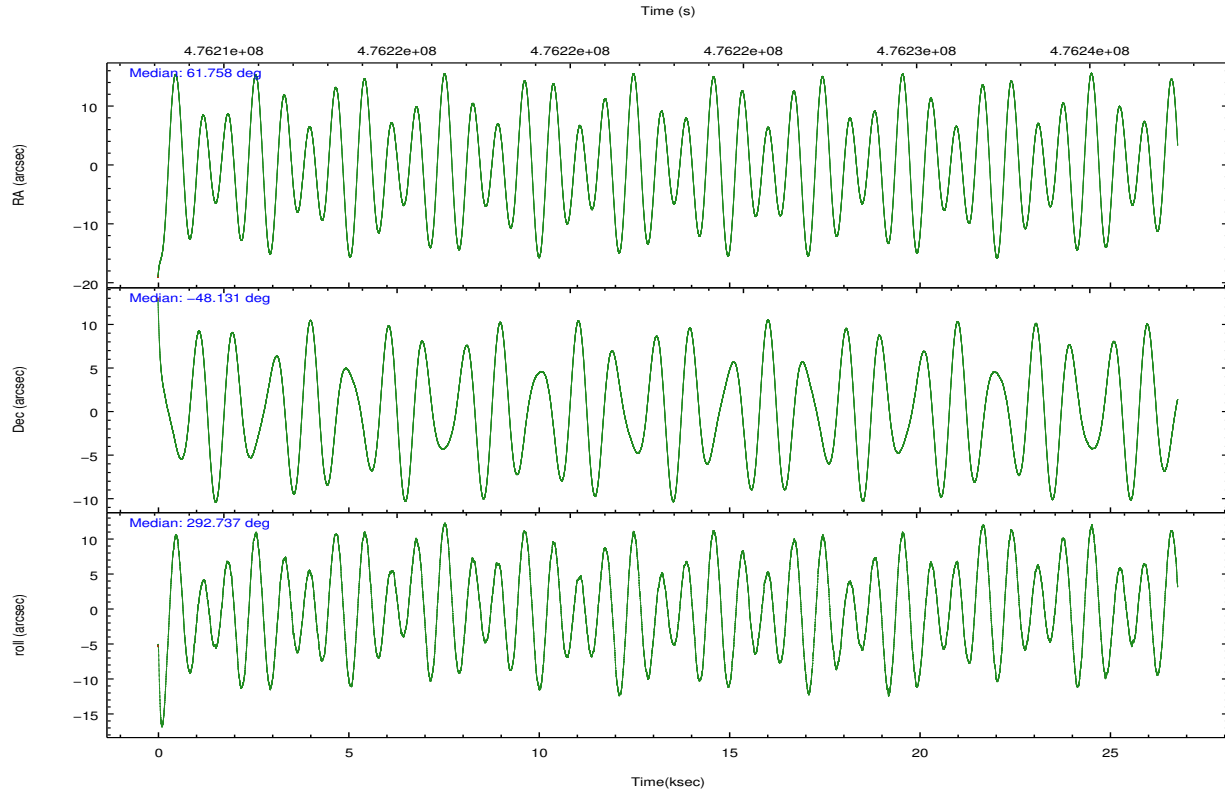
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5893	6819	6210	7045	5846
	4%	5%	4%	4%	4%
grade 1 events	88	95	92	99	67
	0%	0%	0%	0%	0%
grade 2 events	4037	4385	4094	3862	3917
	3%	3%	2%	2%	2%
grade 3 events	1746	1840	1673	1747	1807
	1%	1%	1%	1%	1%
grade 4 events	1627	1862	1669	1759	1744
	1%	1%	1%	1%	1%
grade 5 events	6552	6996	5889	7474	7180
	5%	5%	4%	5%	4%
grade 6 events	3401	4066	3036	3336	3823
	2%	3%	2%	2%	2%
grade 7 events	106921	108231	119513	116341	120584
	82%	80%	84%	82%	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	61.724995	61.75788454122797	CCD I2 on	Y	Y
[deg] Pointing Dec	-48.113928	-48.13050065762523	CCD I3 on	Y	Y
[deg] Pointing Roll	292.505495	292.7386757143327	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	-225.8458576473255	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.746595355604228	CCD S4 on	N	N
[s] Observation start time (MET)	476209906.184000	476208821.18101	CCD S5 on	N	N
Observation start date	2013-02-02T16:30:39	2013-02-02T16:13:41	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	476236206.184000	476236758.58252	On-chip summing requested	N	N
Observation end date	2013-02-02T23:48:59	2013-02-02T23:59:18	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





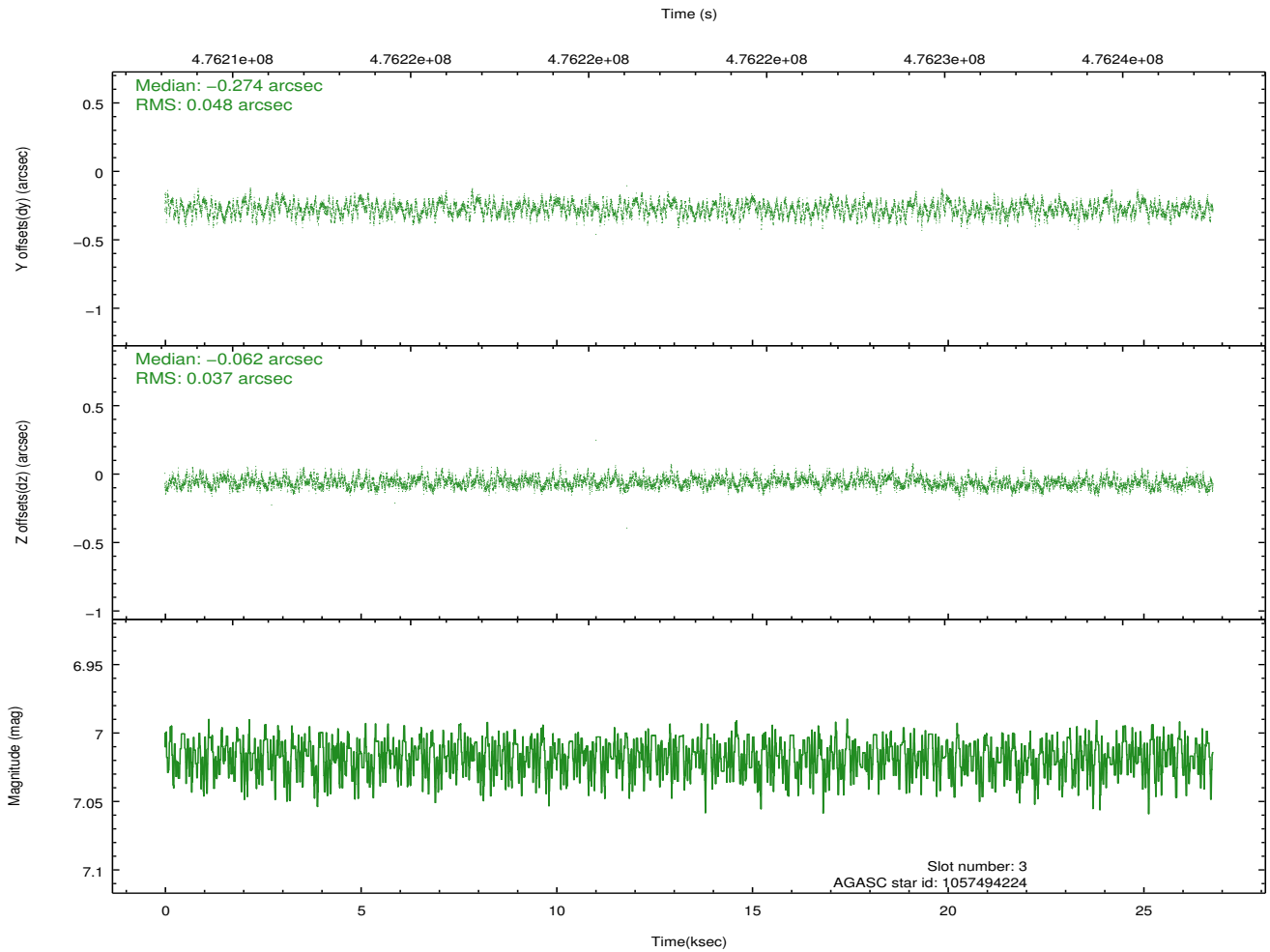
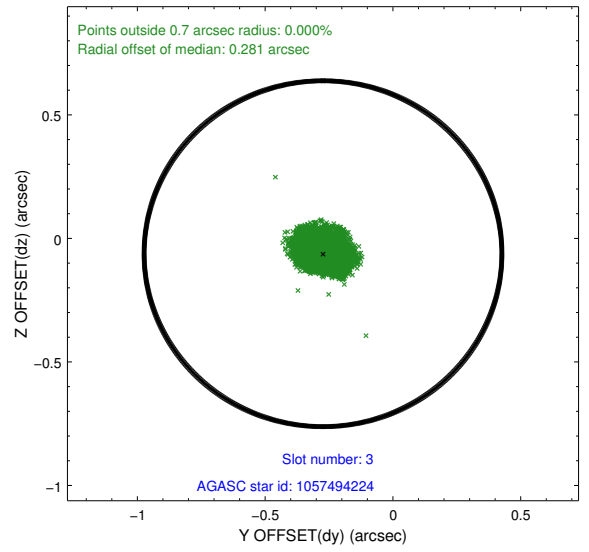
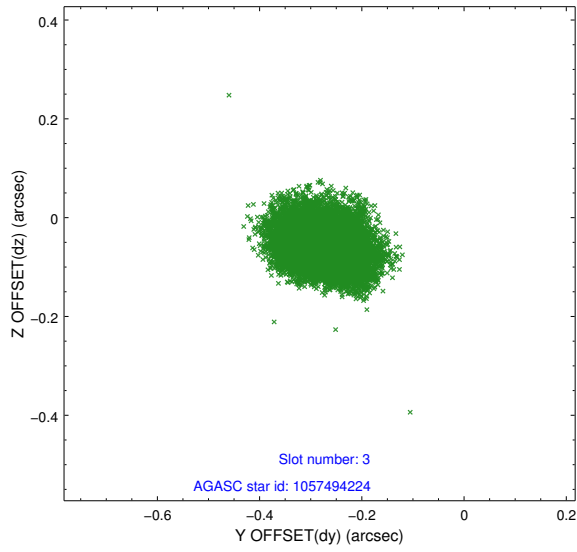
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.09	6531	0.151	-0.096	0.009	0.016	0.000000	0.000000	923.33	-1000.42
1	FID		ACIS-I-5	7.08	6532	-0.300	0.125	0.009	0.018	0.000000	0.000000	-1825.21	897.15
2	FID		ACIS-I-6	7.10	6532	0.056	0.042	0.010	0.016	0.000000	0.000000	388.62	1541.74
3	GUIDE	used	1057494224	7.02	13063	-0.274	-0.062	0.065	0.103	62.184135	-47.394199	-1962.52	2024.39
4	GUIDE	used	1057882224	8.23	13058	0.015	0.107	0.062	0.097	61.158957	-47.665896	-2010.62	-651.97
5	GUIDE	used	1057892856	7.74	13063	0.051	-0.150	0.062	0.099	62.048221	-48.345716	1068.71	394.50
6	GUIDE	used	1057893392	8.87	13045	0.167	-0.020	0.084	0.136	62.278022	-48.476035	1714.07	719.06
7	GUIDE	used	1057894872	6.98	13062	0.035	0.121	0.083	0.127	60.914127	-47.861889	-1578.16	-1465.72

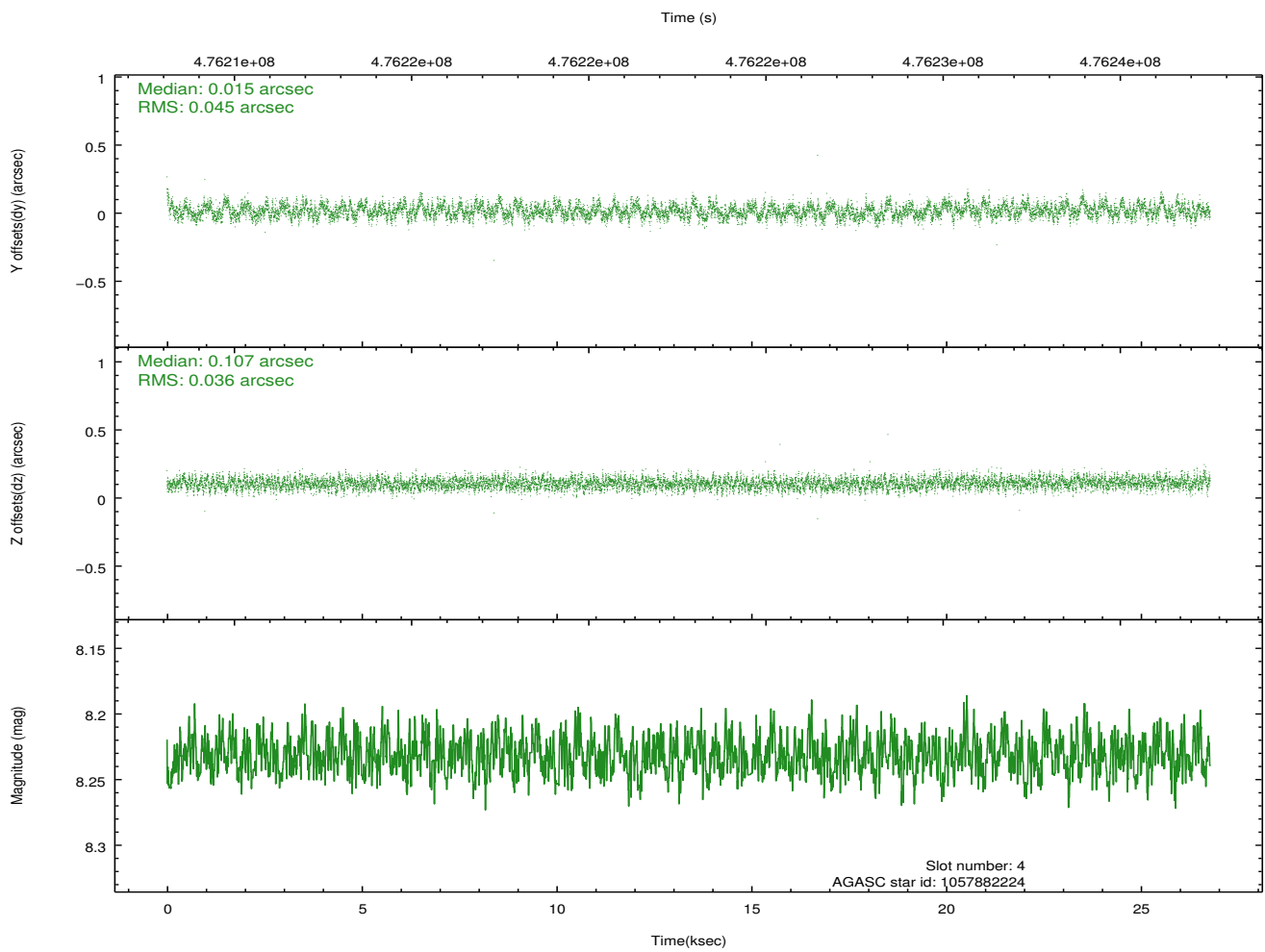
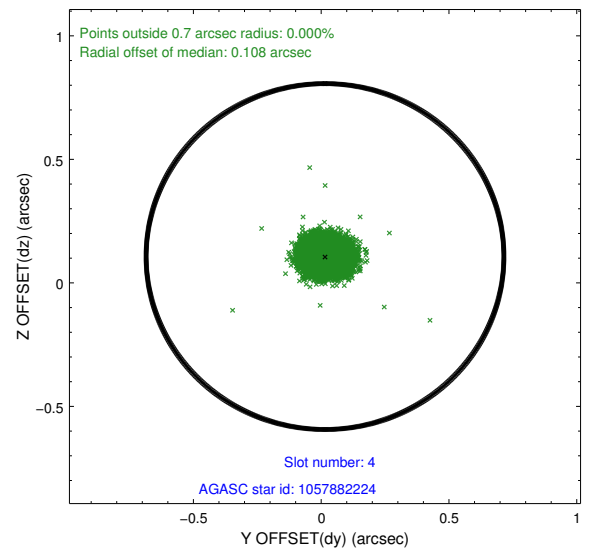
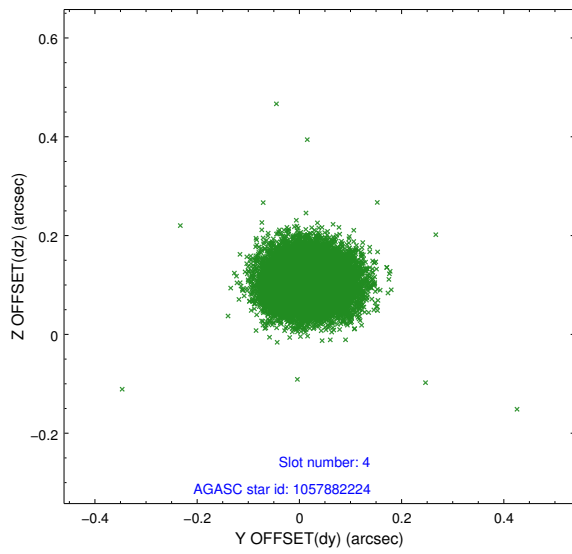
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2.4 Star Slots

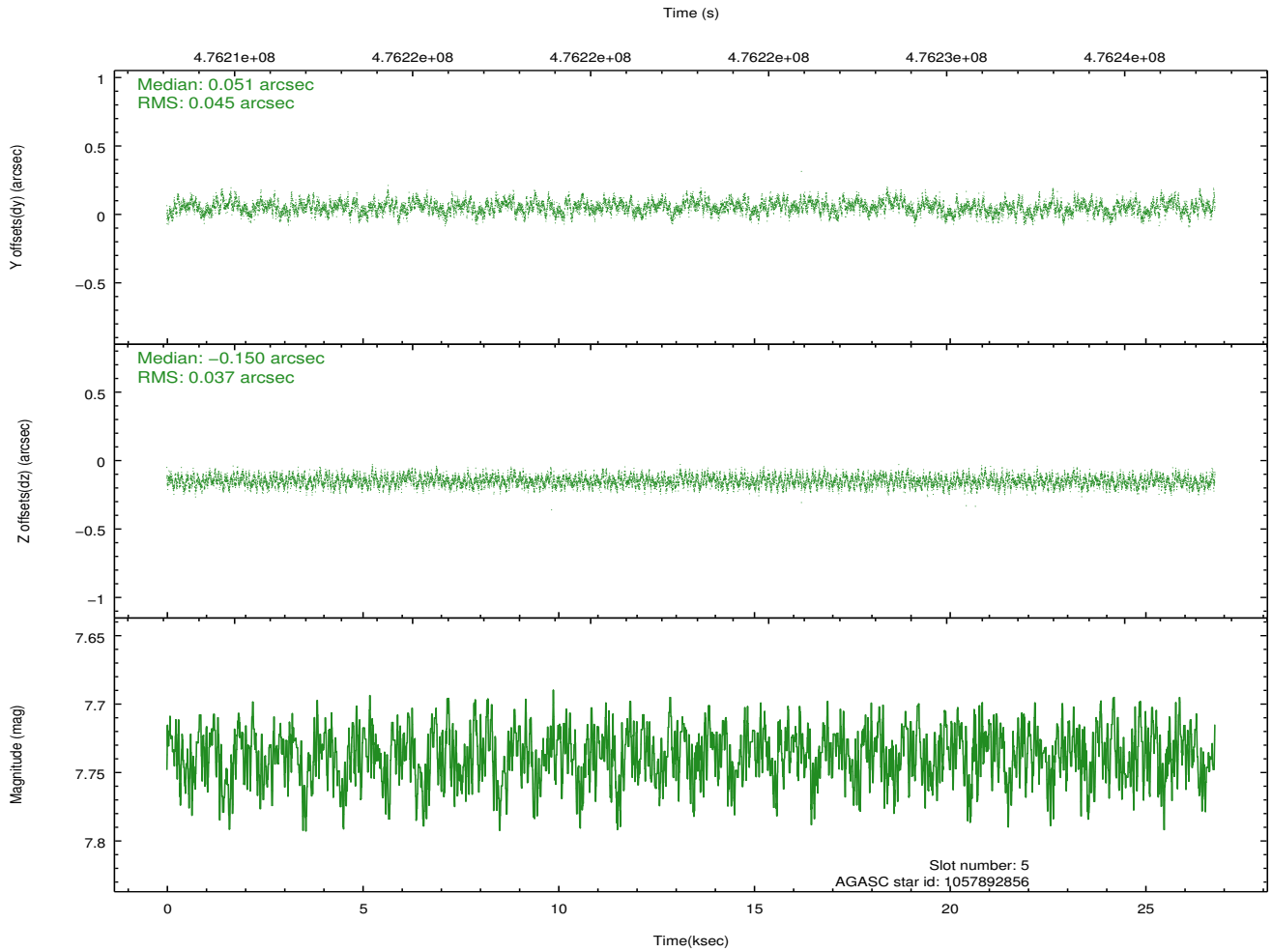
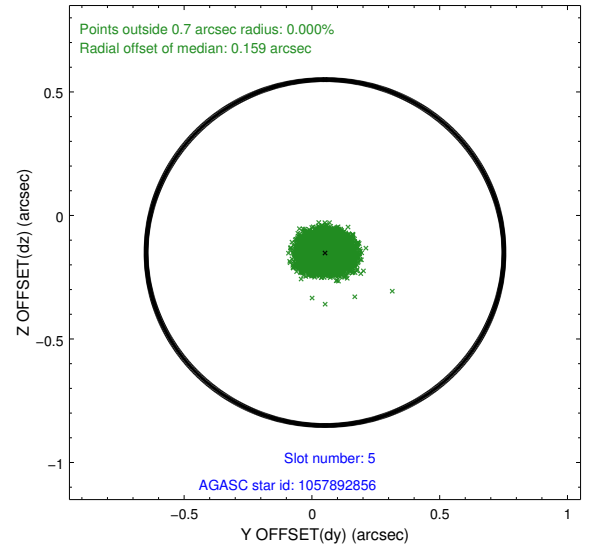
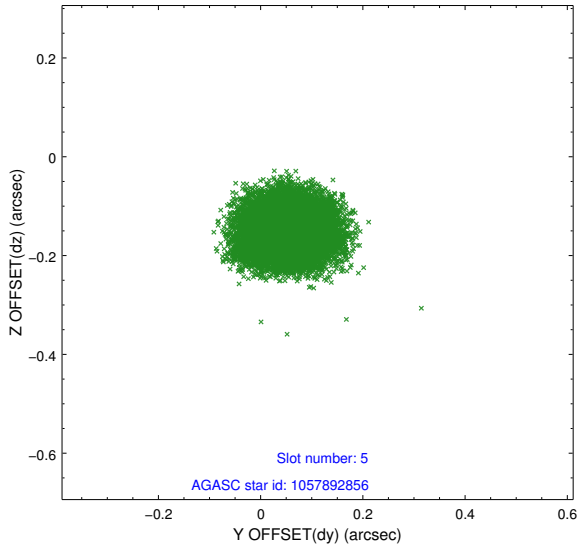
2.4.1 Slot 3



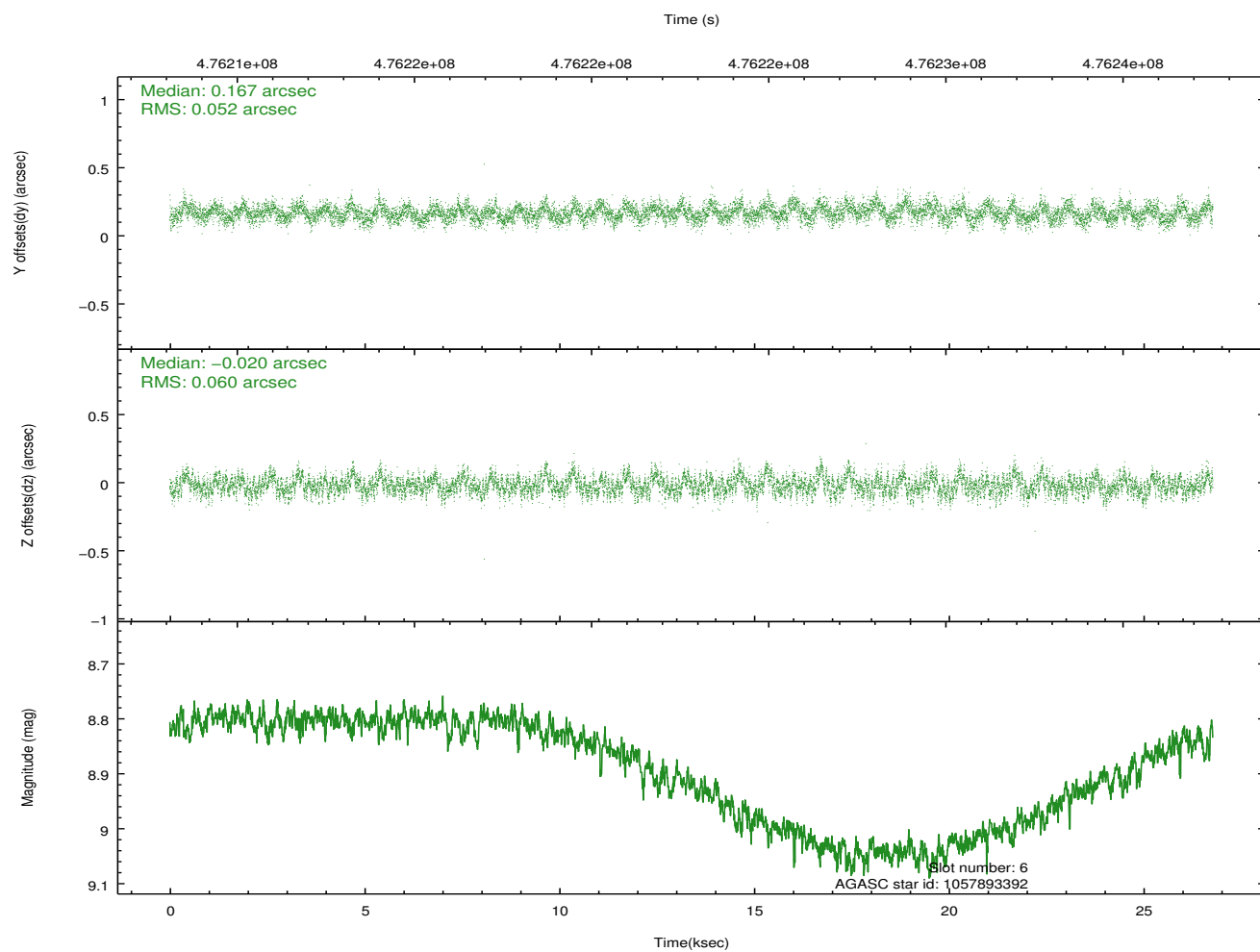
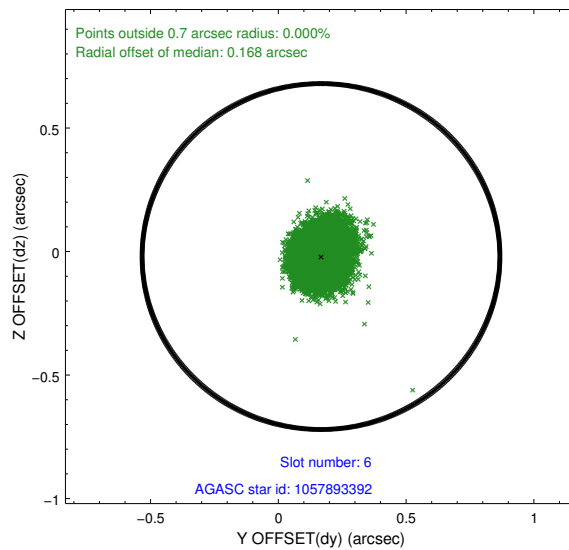
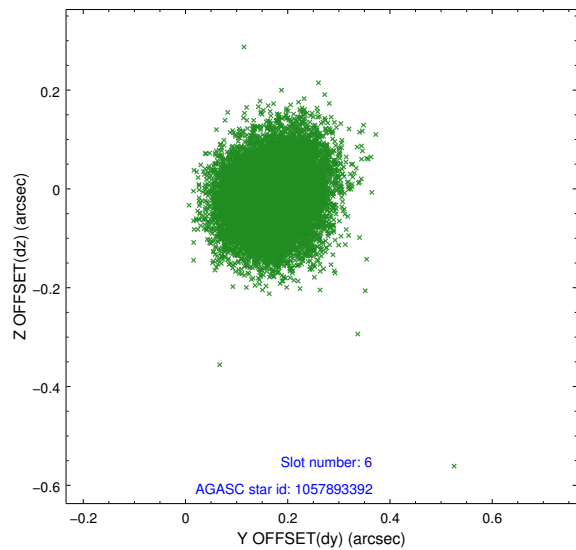
2.4.2 Slot 4



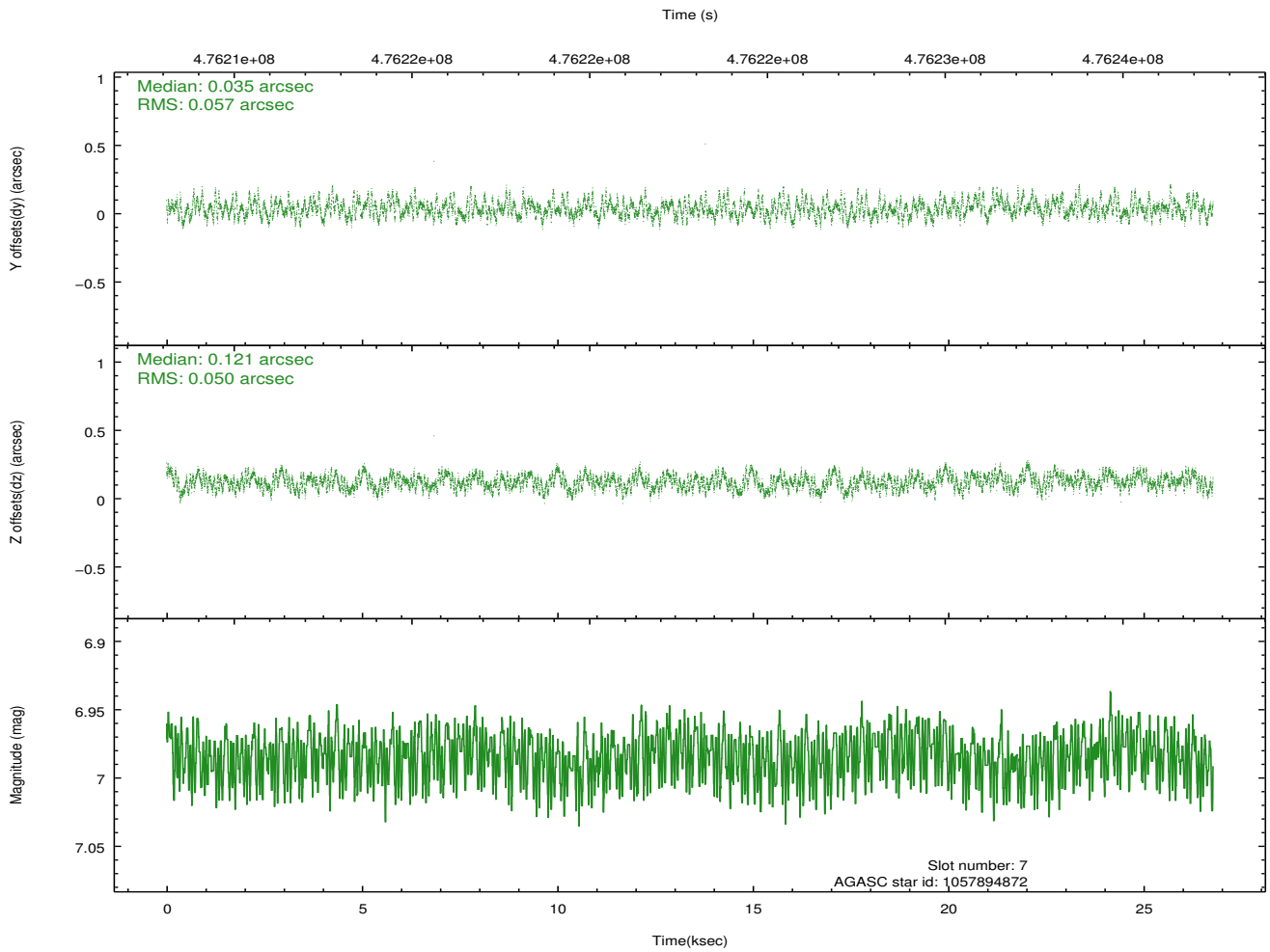
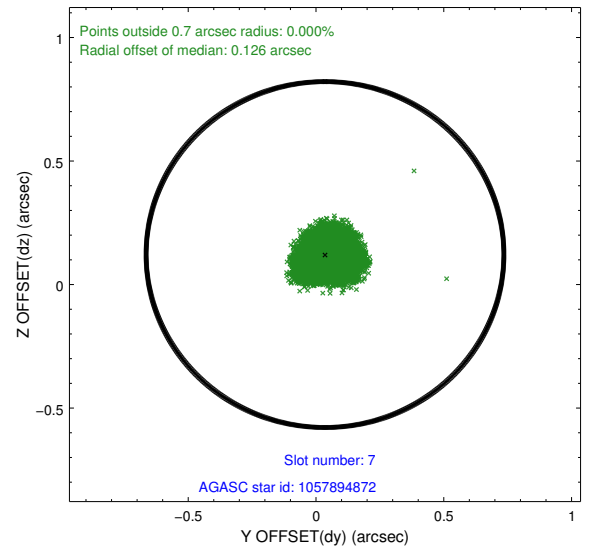
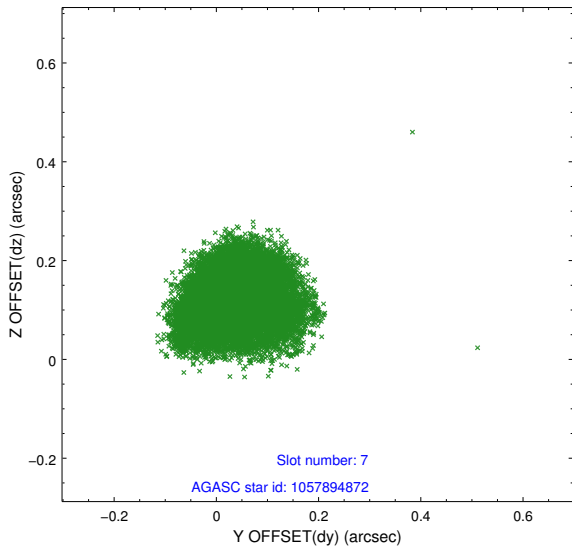
2.4.3 Slot 5



2.4.4 Slot 6

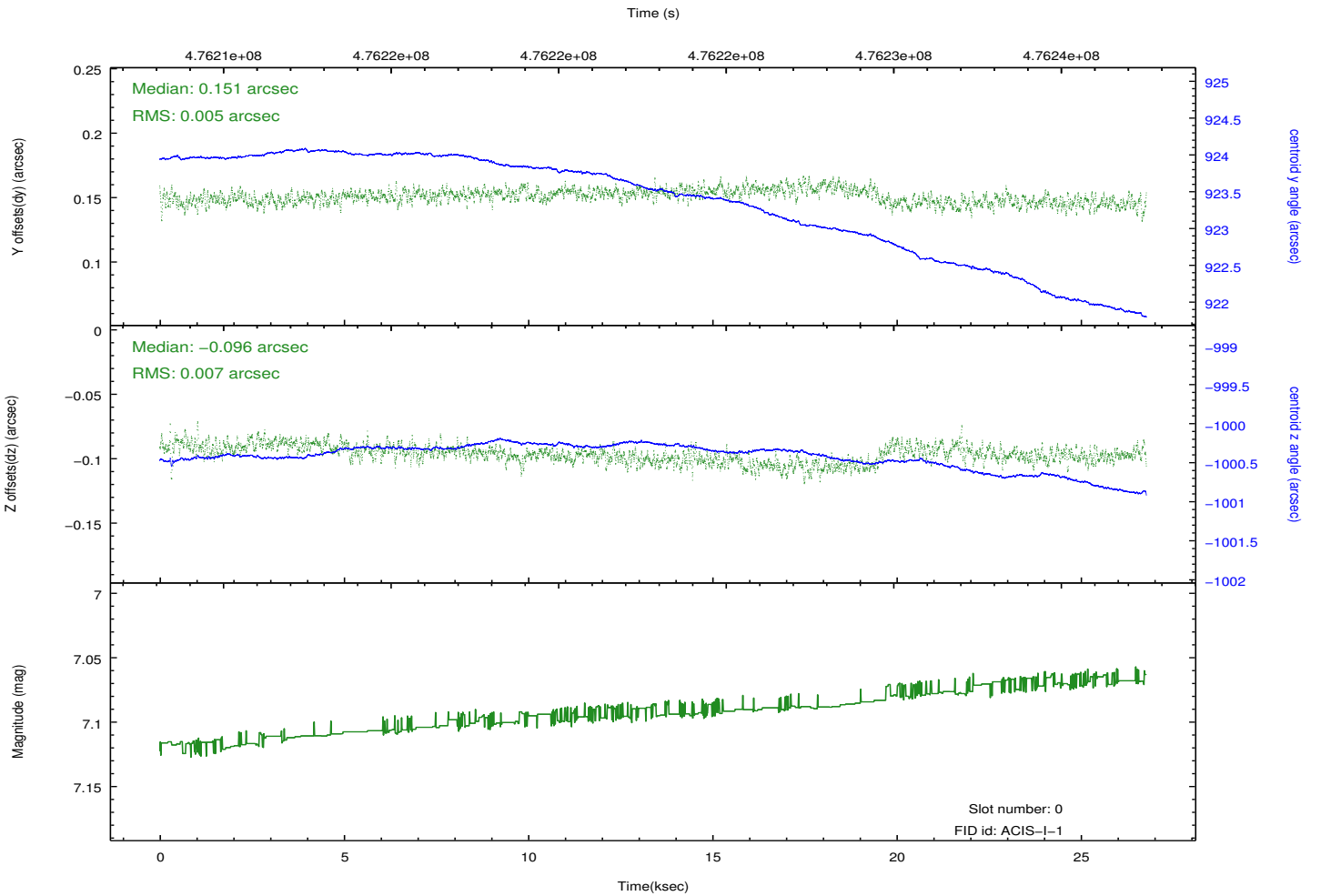
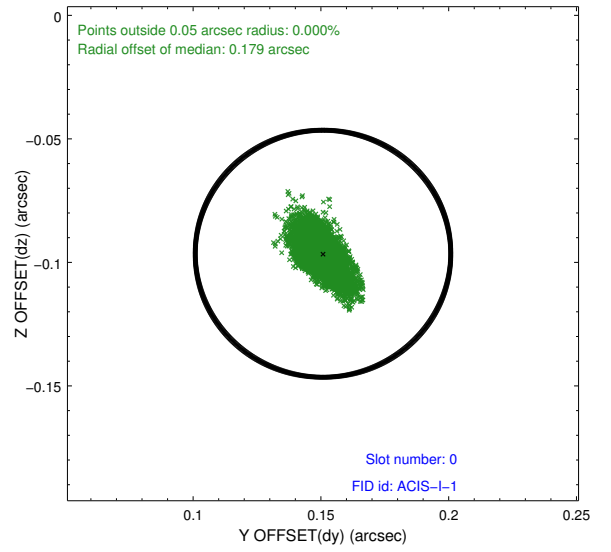
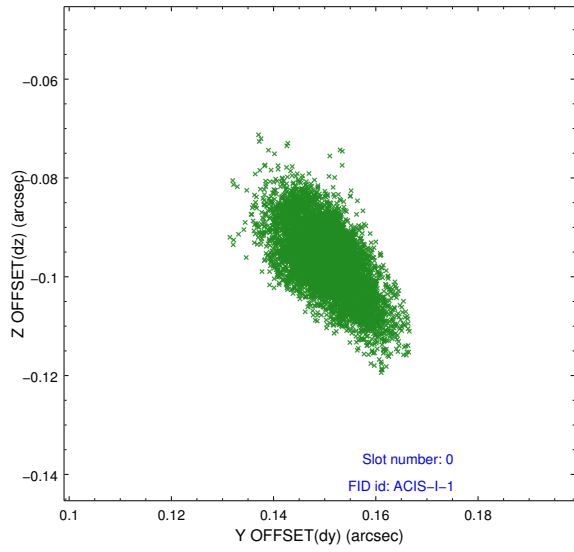


2.4.5 Slot 7

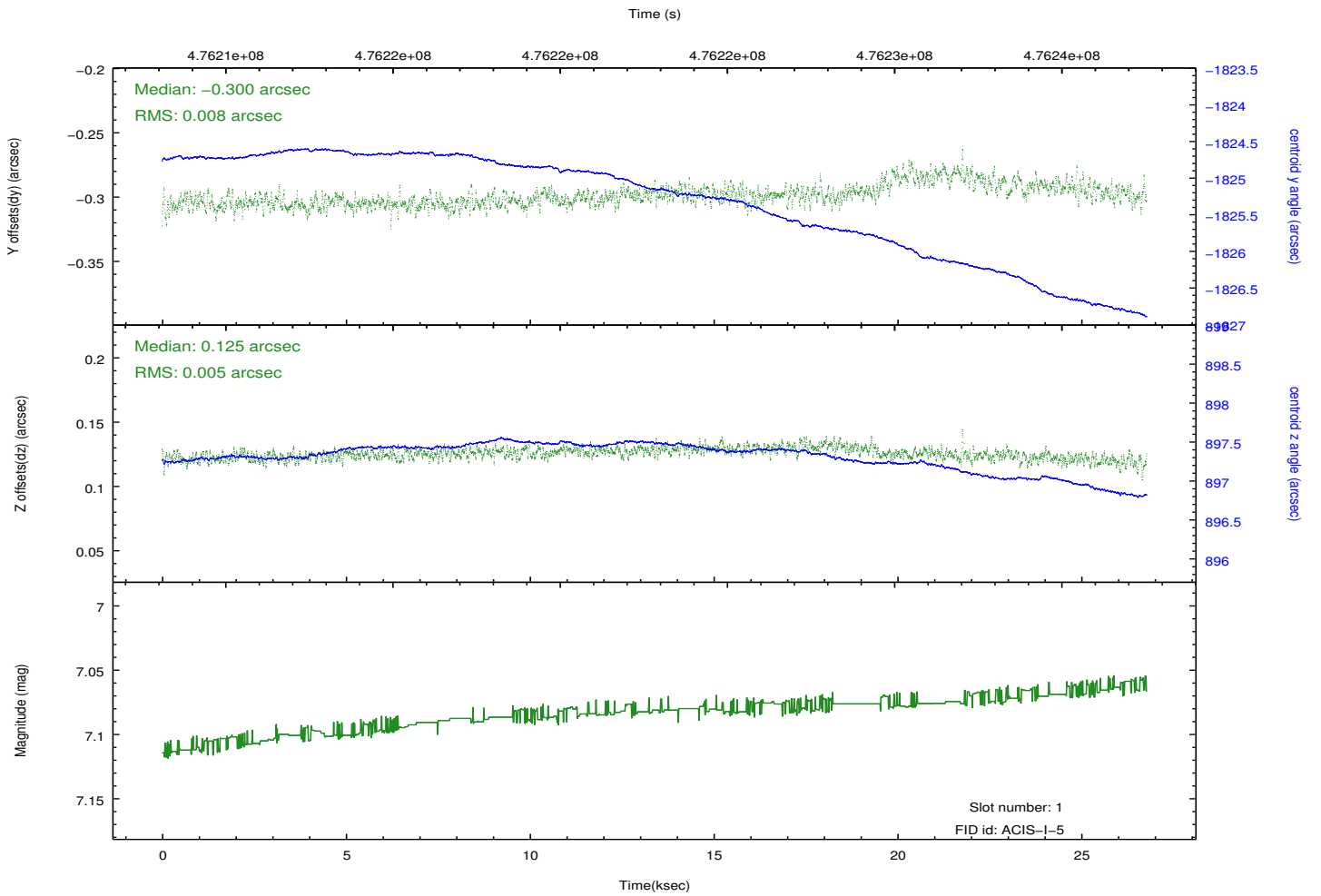
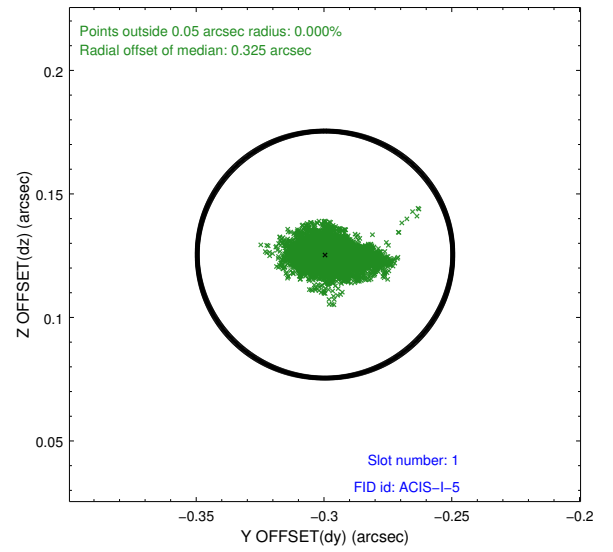
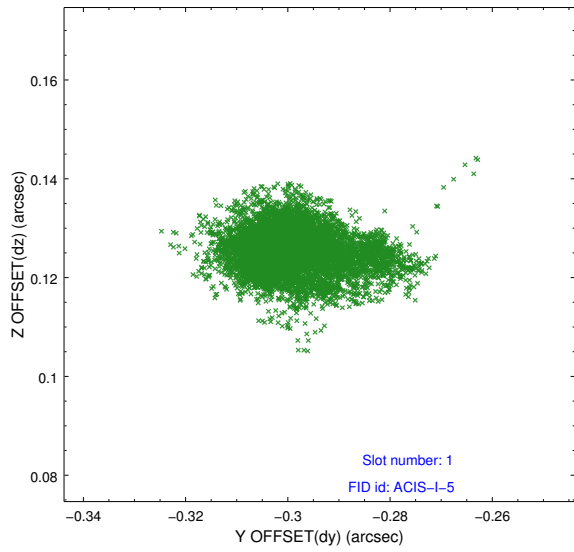


2.5 FID Slots

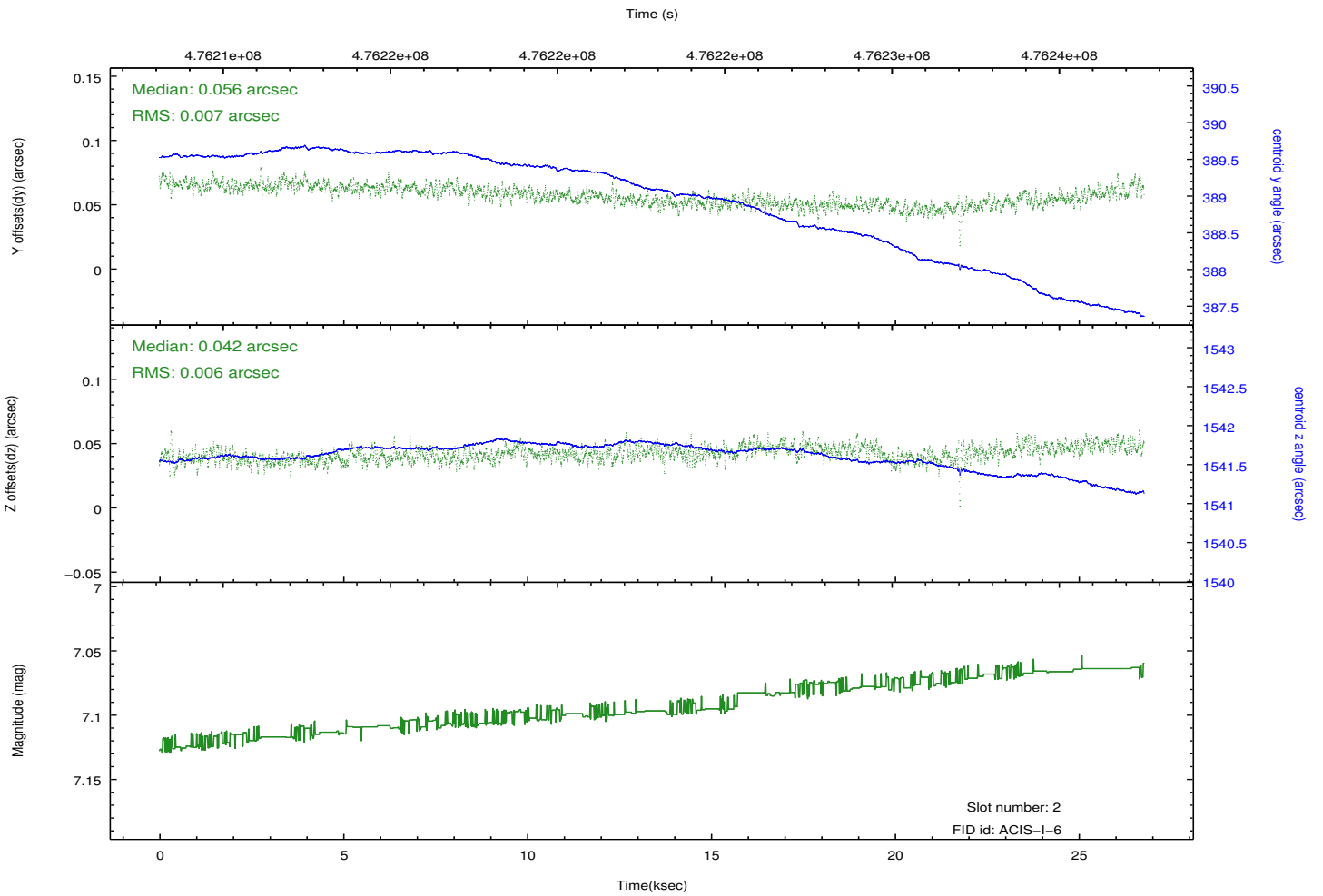
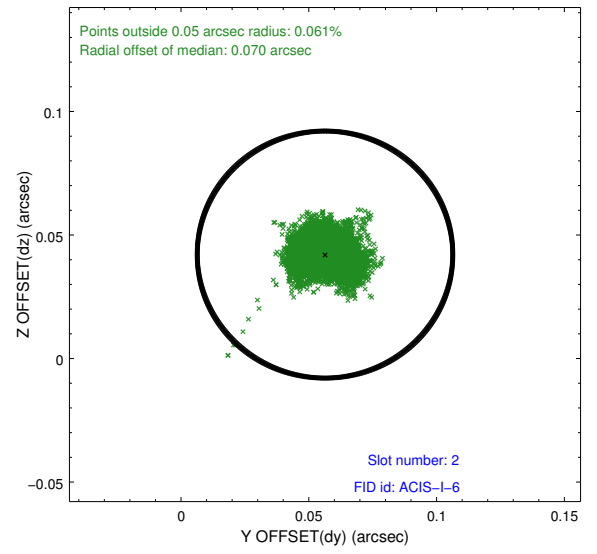
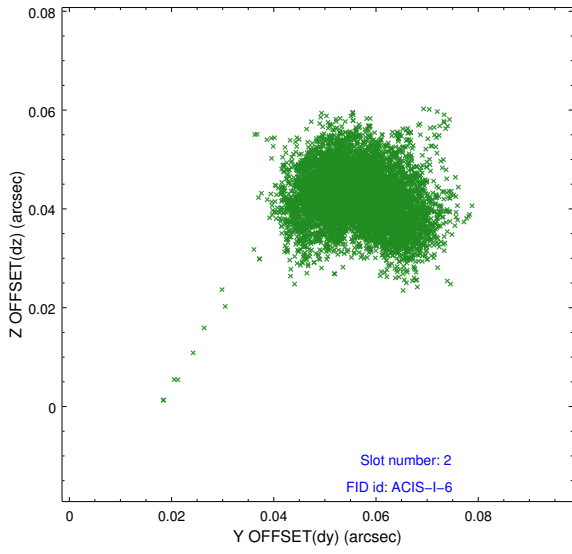
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	26.381000202894

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.