

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 14576 - L2 Version 2
Chandra X-Ray Center

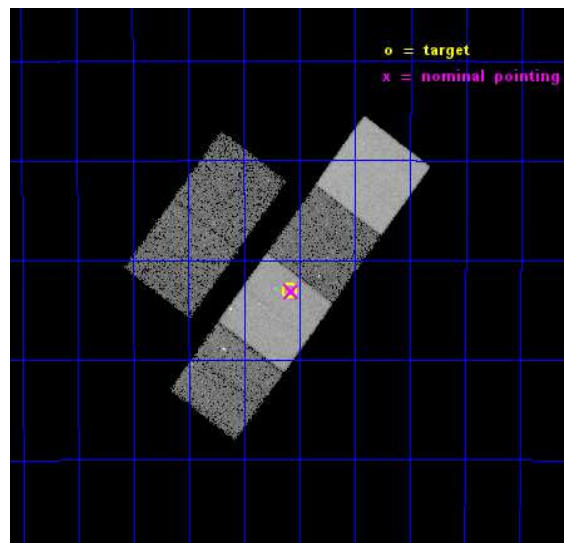
L2 Processing Date : Dec 2 2014

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

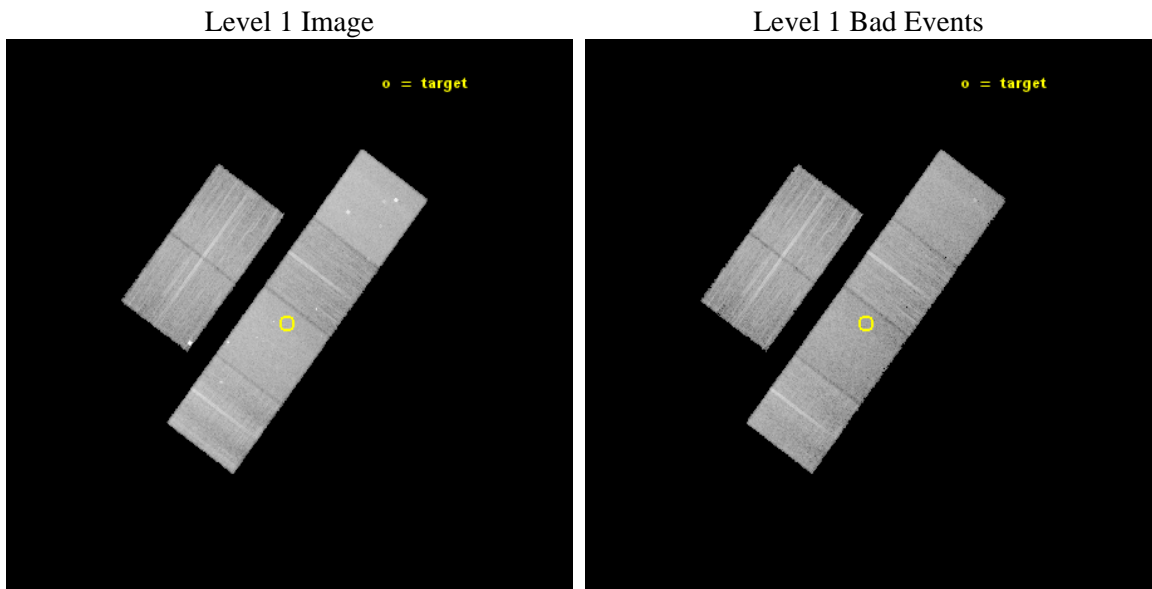
seq_num	200877	Sequence number
obs_id	14576	Observation id
title	COMPACT AND DIFFUSE X-RAY SOURCES IN THE YOUNGEST PLANETARY NEBULAE	
observer	Dr. Joel Kastner	Principal investigator
object	IC 5148	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.896667	Observer's specified target RA [deg]
dec_targ	-39.385556	Observer's specified target Dec [deg]
ra_nom	329.89275664156	Nominal RA [deg]
dec_nom	-39.385746669329	Nominal Dec [deg]
roll_nom	126.49410857867	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19964.169953585	Sum of GTIs [s]
livetime	19711.371612652	Livetime [s]
ontime2	19964.210993588	Sum of GTIs [s]
ontime3	19957.564982414	Sum of GTIs [s]
ontime5	19964.128913581	Sum of GTIs [s]
ontime6	19960.846883237	Sum of GTIs [s]
ontime7	19964.169953585	Sum of GTIs [s]
ontime8	19964.005793571	Sum of GTIs [s]
l2events	187304	Number of level 2 events



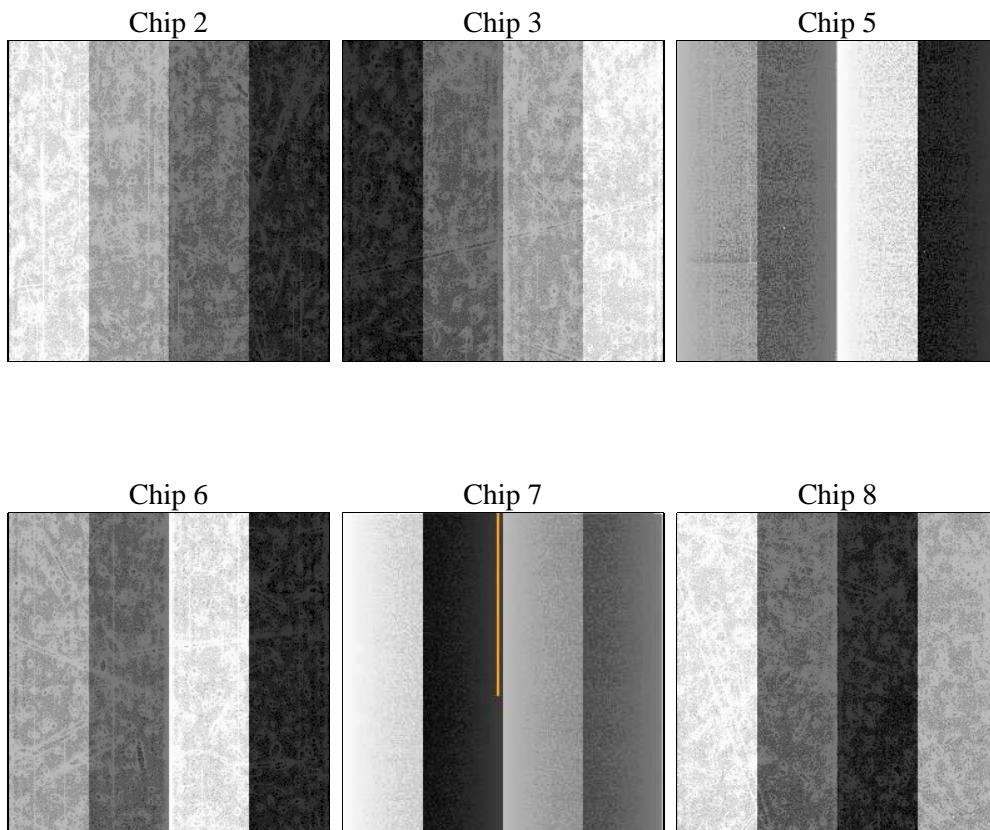
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	19964.169953585	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	19964.210993588	Sum of GTIs [s]
date	2014-12-02T16:25:50	Date and time of file creation	ontime3	19957.564982414	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	19964.128913581	Sum of GTIs [s]
			ontime6	19960.846883237	Sum of GTIs [s]
			ontime7	19964.169953585	Sum of GTIs [s]
			ontime8	19964.005793571	Sum of GTIs [s]
			l1events	788201	Number of level 1 events

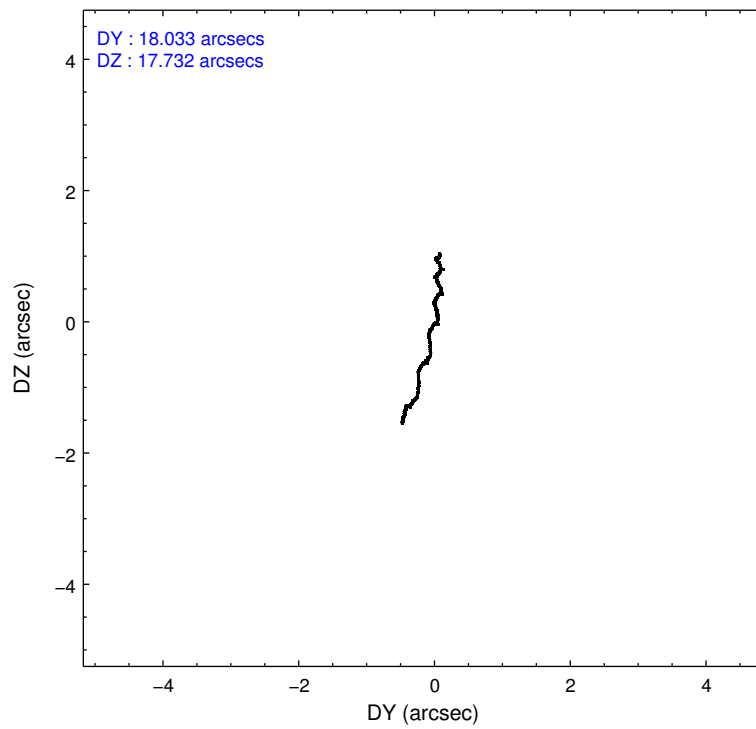
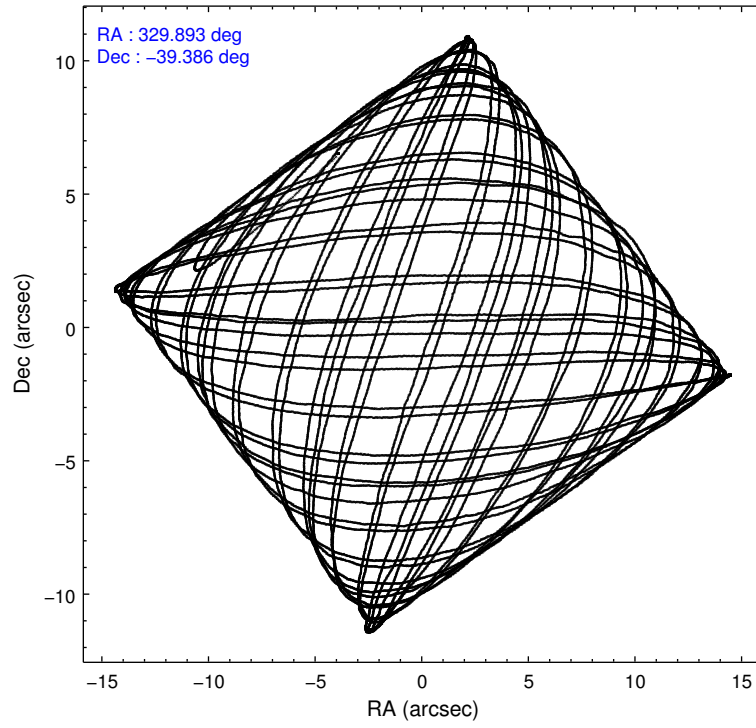
2.1.4 Events

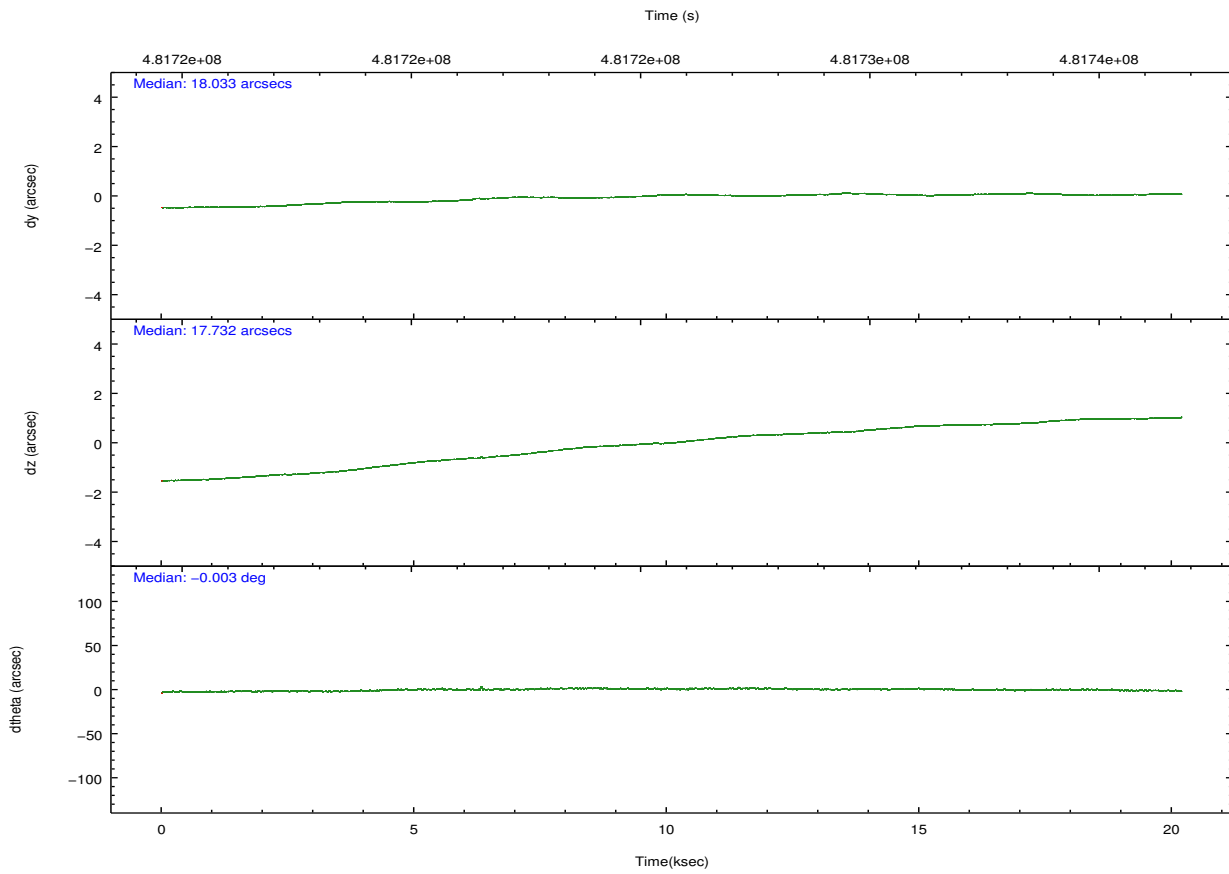
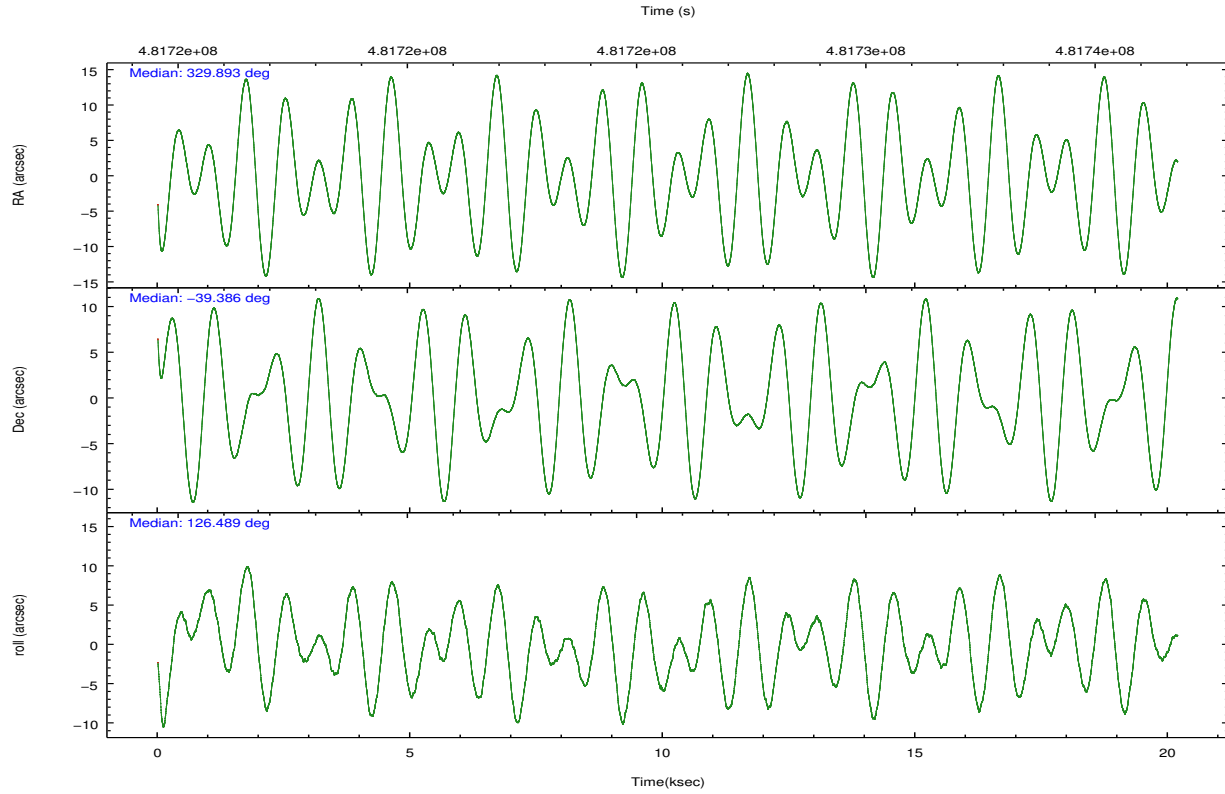
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	113478	106194	175801	105633	145582	141513	grade 0 events	4328	7214	7307	4549	6020	11763
rejected events	101412	91520	90641	92725	81312	102216		3%	6%	4%	4%	4%	8%
rejected %	89%	86%	51%	87%	55%	72%	grade 1 events	52	67	599	56	154	102
								0%	0%	0%	0%	0%	0%
							grade 2 events	2930	2547	26309	2864	13230	9174
								2%	2%	14%	2%	9%	6%
							grade 3 events	1249	1241	2898	1307	5569	4081
								1%	1%	1%	1%	3%	2%
							grade 4 events	1240	1320	2725	1295	5503	3896
								1%	1%	1%	1%	3%	2%
							grade 5 events	4613	5391	12718	5640	14925	7940
								4%	5%	7%	5%	10%	5%
							grade 6 events	2319	2355	45937	2894	33959	10386
								2%	2%	26%	2%	23%	7%
							grade 7 events	96747	86059	77308	87028	66222	94171
								85%	81%	43%	82%	45%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	329.925396	329.8927566415568	CCD I2 on	O3	Y
[deg] Pointing Dec	-39.396324	-39.38574666932931	CCD I3 on	O2	Y
[deg] Pointing Roll	126.358201	126.494108578669	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	481715789.184000	481714808.85375	CCD S5 on	N	N
Observation start date	2013-04-07T09:55:22	2013-04-07T09:40:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	481735789.184000	481736275.42992	On-chip summing requested	N	N
Observation end date	2013-04-07T15:28:42	2013-04-07T15:37:55	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





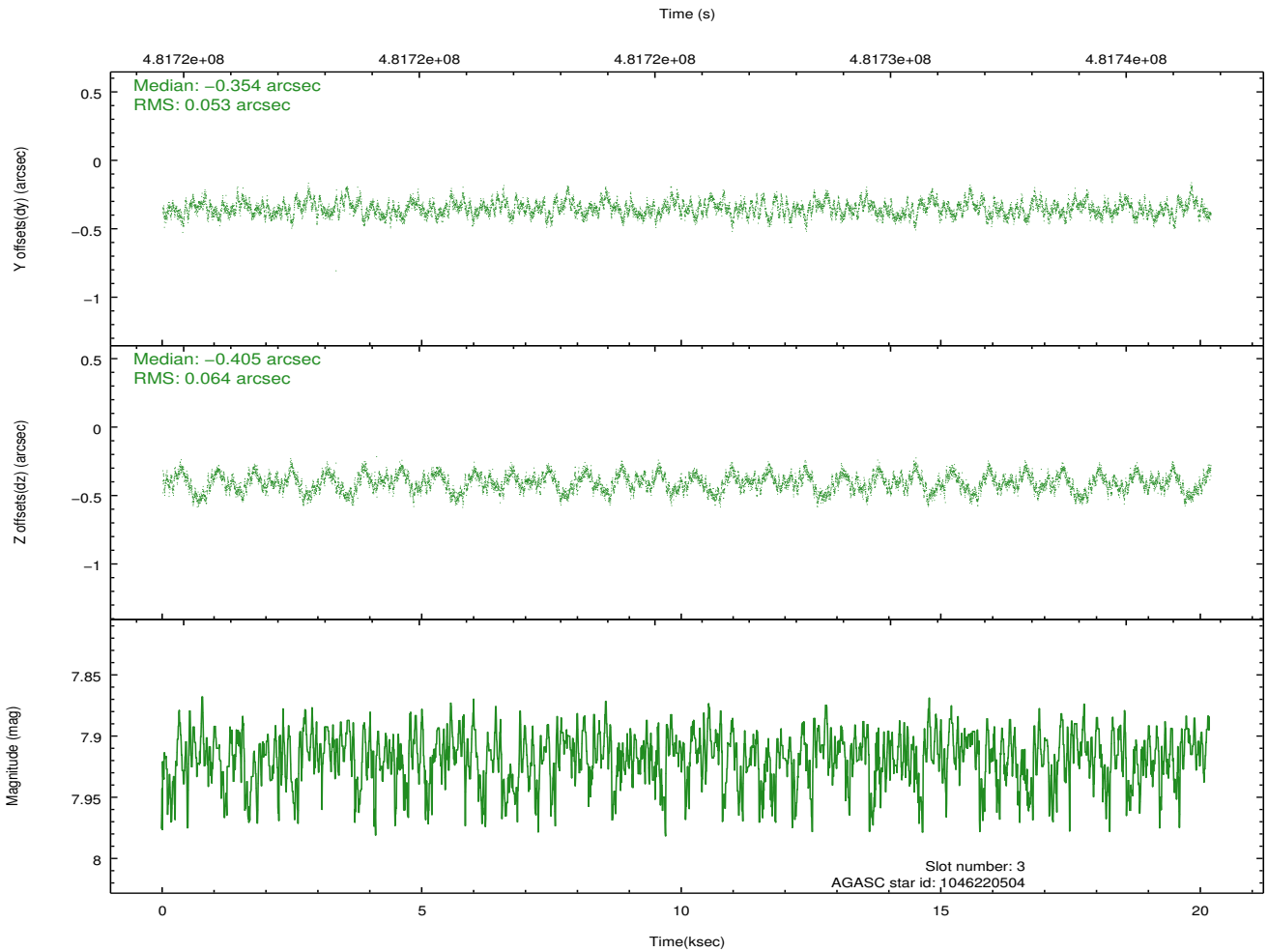
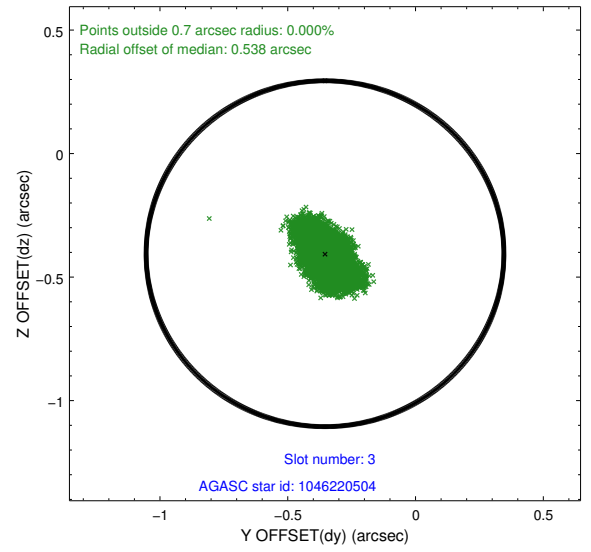
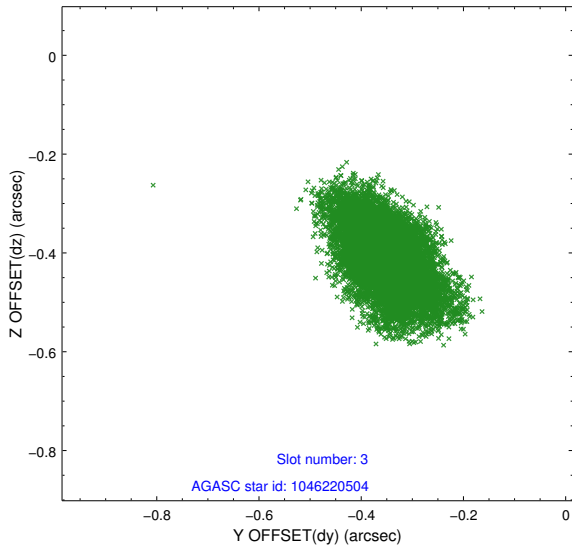
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.03	4925	-0.092	-0.062	0.016	0.042	0.000000	0.000000	-771.10	-1739.13
1	FID		ACIS-S-4	7.10	4925	0.255	0.059	0.008	0.014	0.000000	0.000000	2142.45	169.25
2	FID		ACIS-S-5	7.14	4925	-0.196	0.010	0.013	0.038	0.000000	0.000000	-1823.79	163.11
3	GUIDE	used	1046220504	7.92	9847	-0.354	-0.405	0.089	0.147	329.012713	-39.309093	1748.50	1868.93
4	GUIDE	used	1046741264	7.60	9850	-0.078	-0.266	0.064	0.100	329.736563	-39.522572	-55.61	692.18
5	GUIDE	used	1047922688	7.51	9846	0.231	0.382	0.074	0.112	330.697662	-39.656169	-2029.07	-1163.21
6	GUIDE	used	1047926072	8.98	9845	0.287	0.171	0.150	0.243	330.514529	-39.112482	-156.71	-1927.66
7	GUIDE	used	1047927632	8.98	9837	-0.083	0.138	0.089	0.141	330.255613	-38.893130	909.38	-1817.92

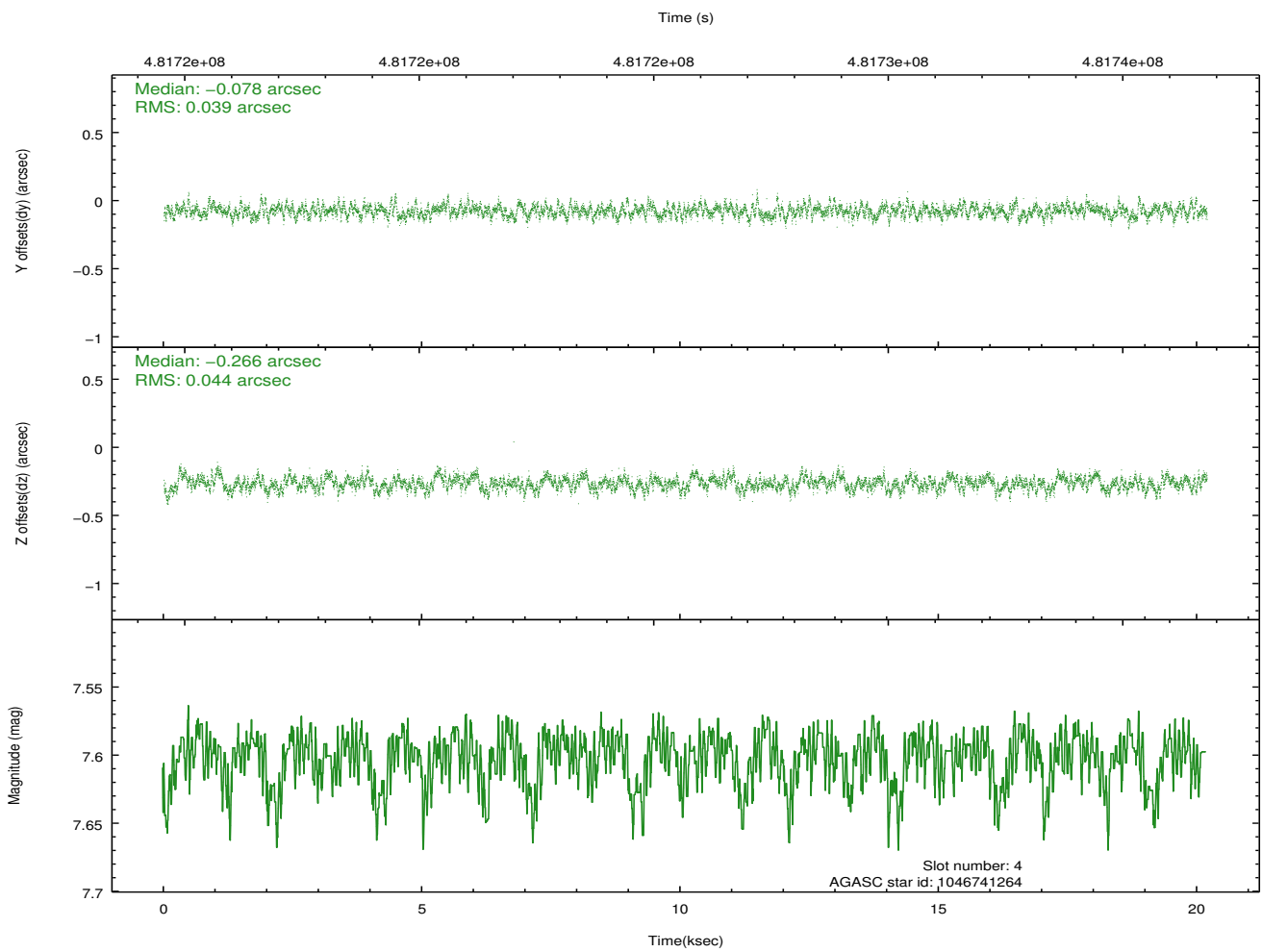
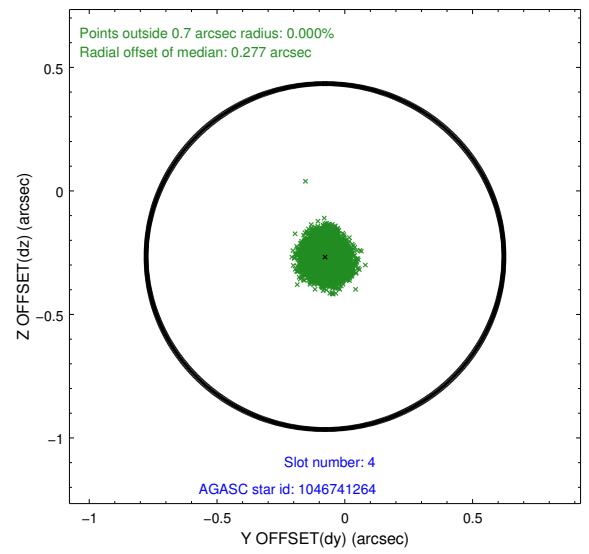
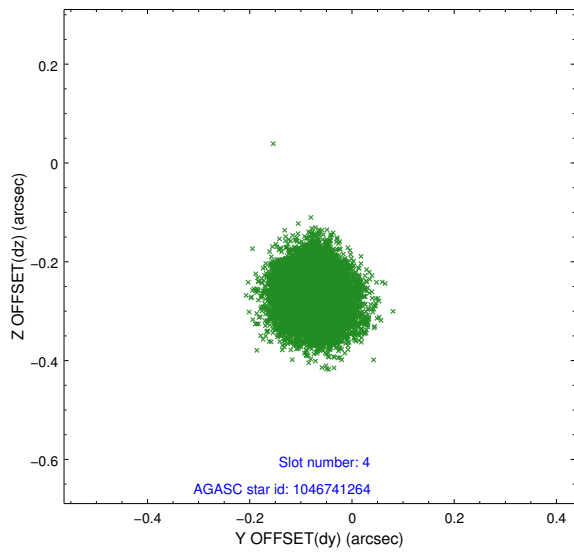
∞

2.4 Star Slots

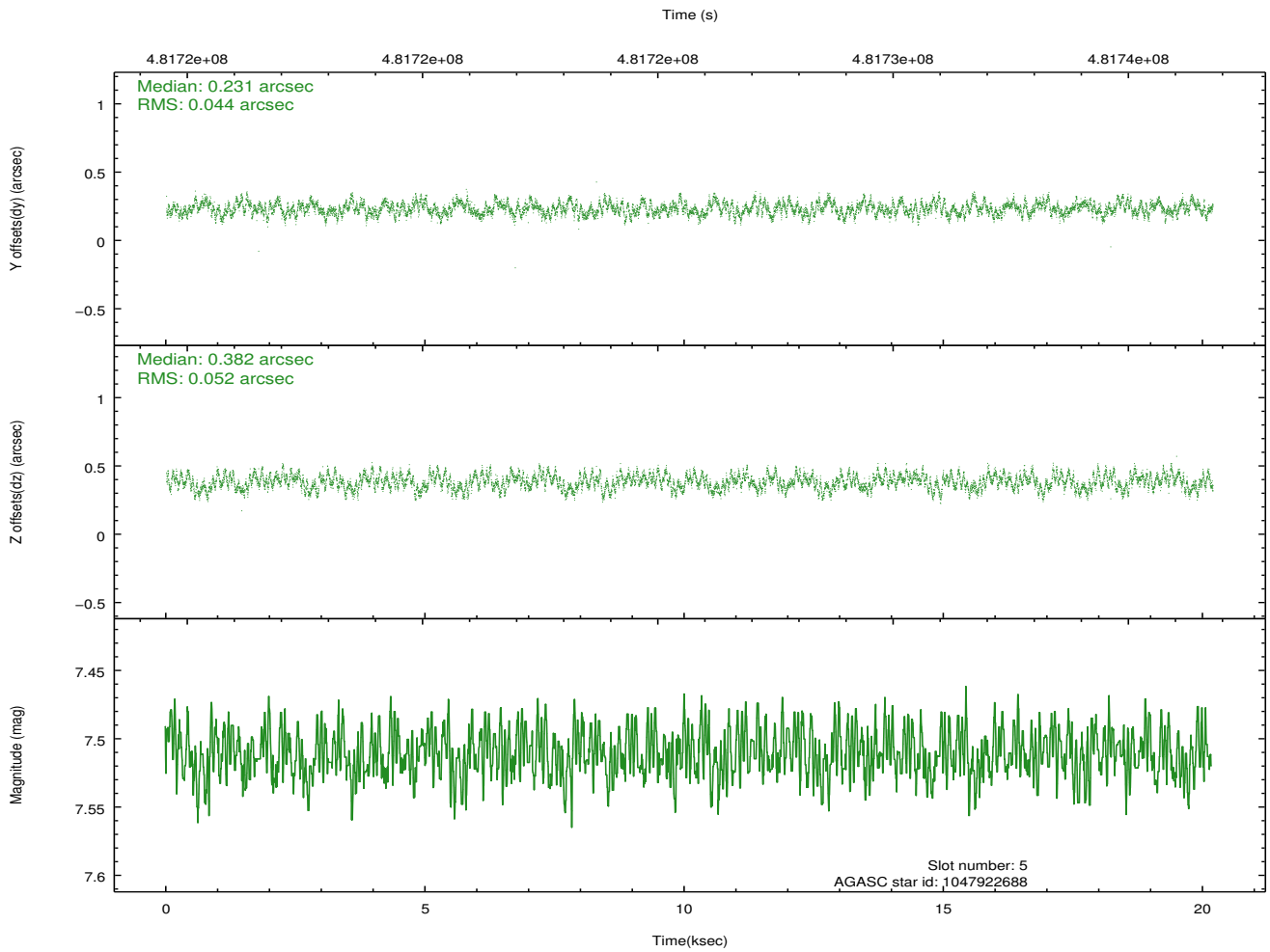
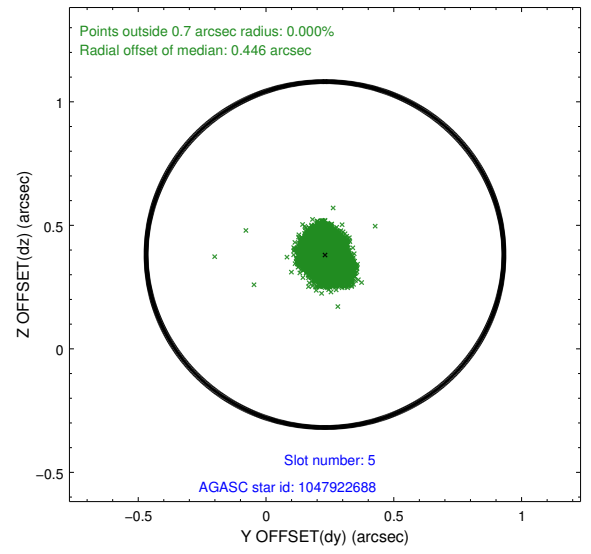
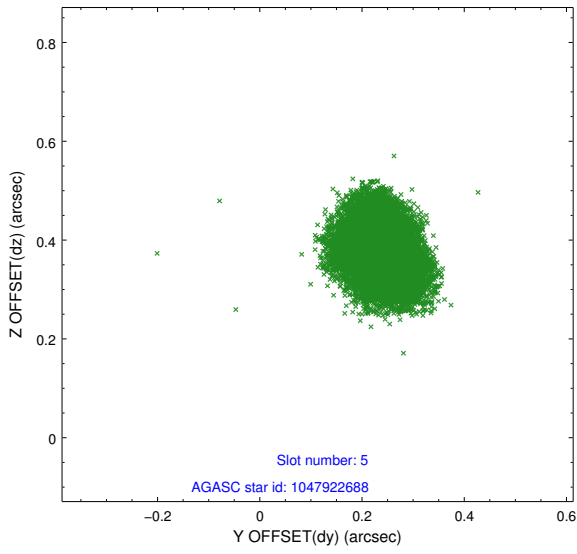
2.4.1 Slot 3



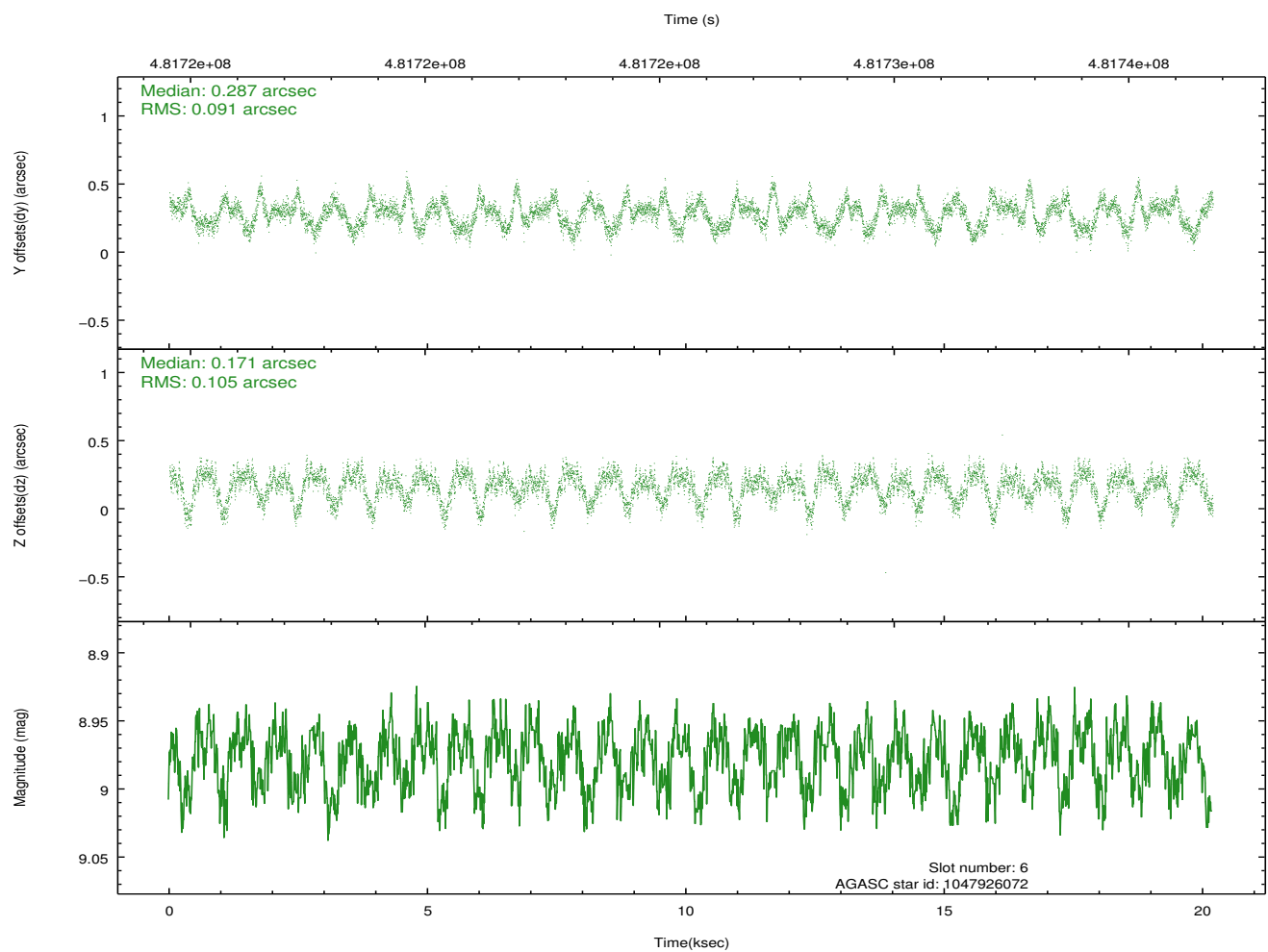
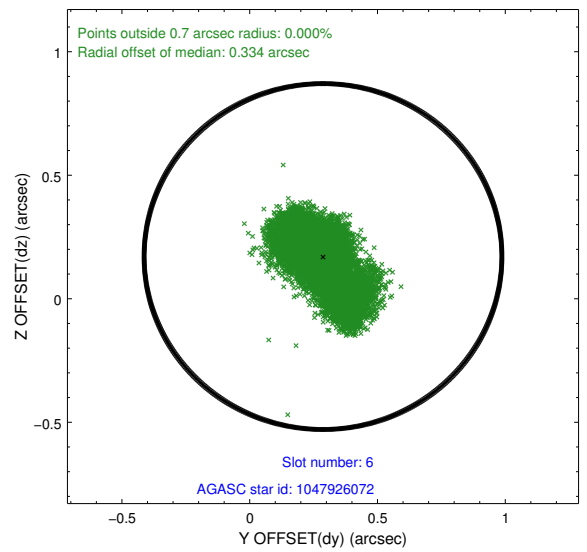
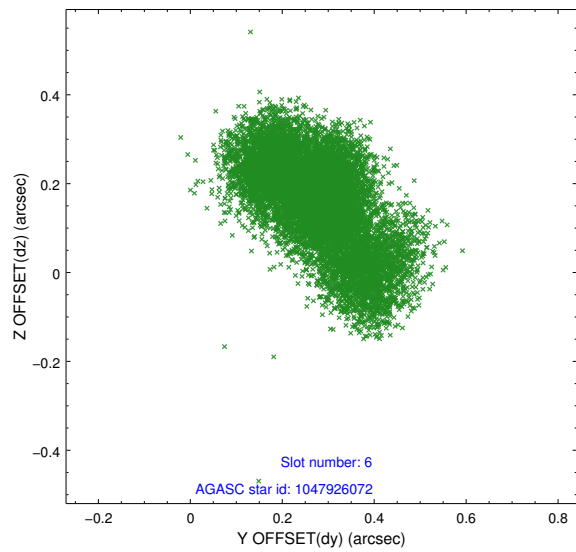
2.4.2 Slot 4



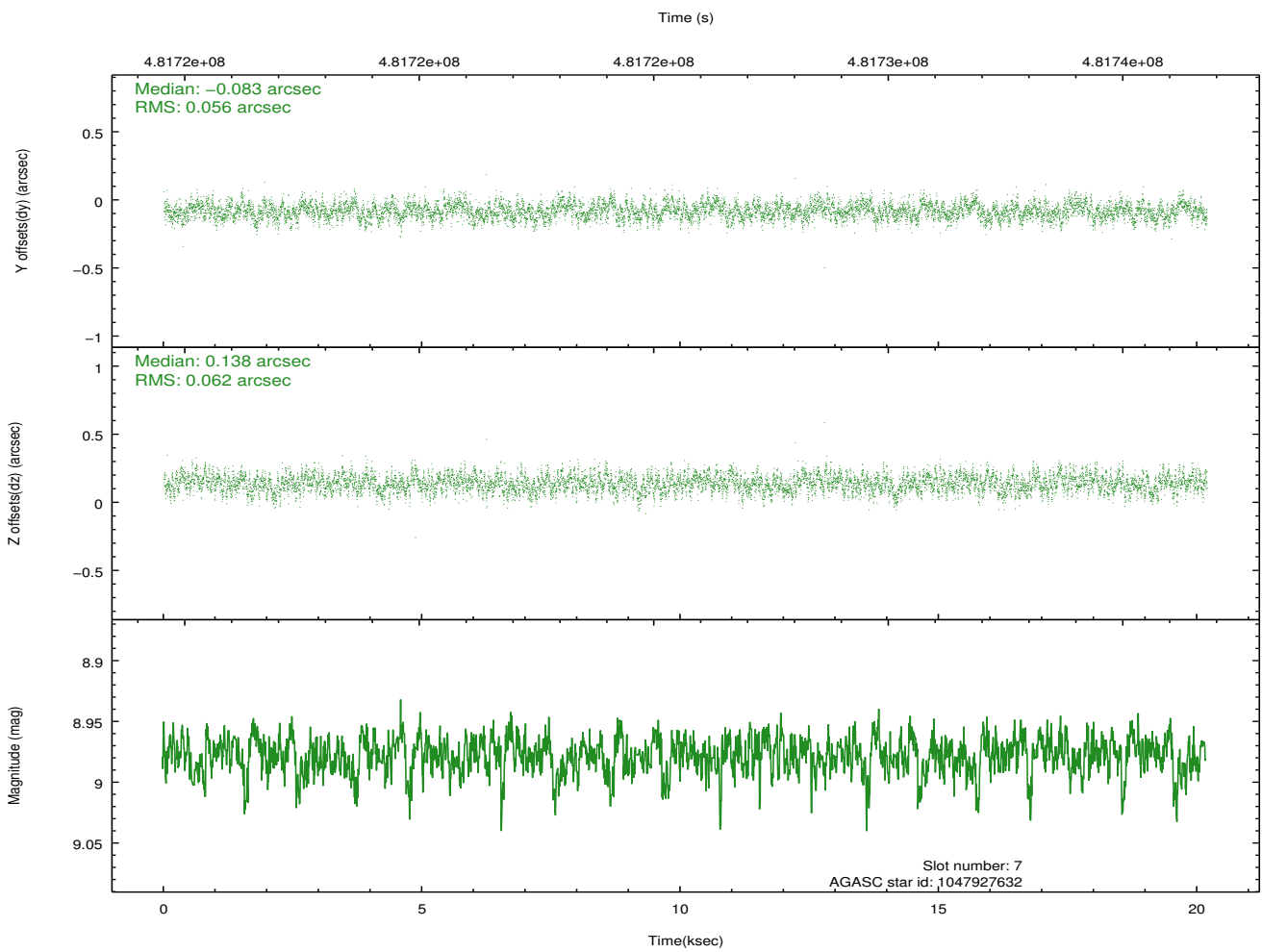
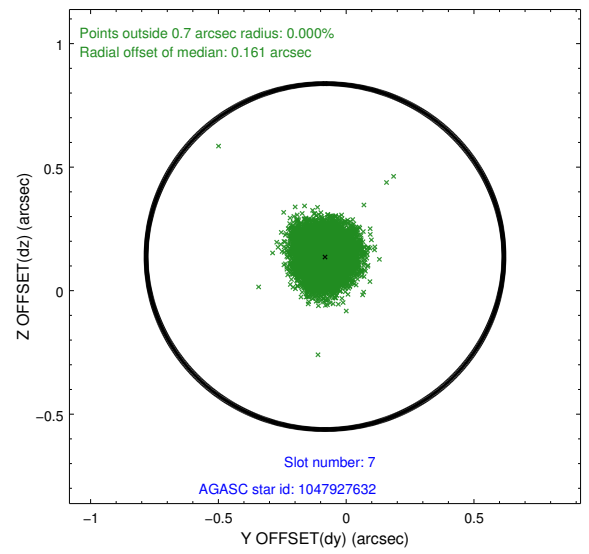
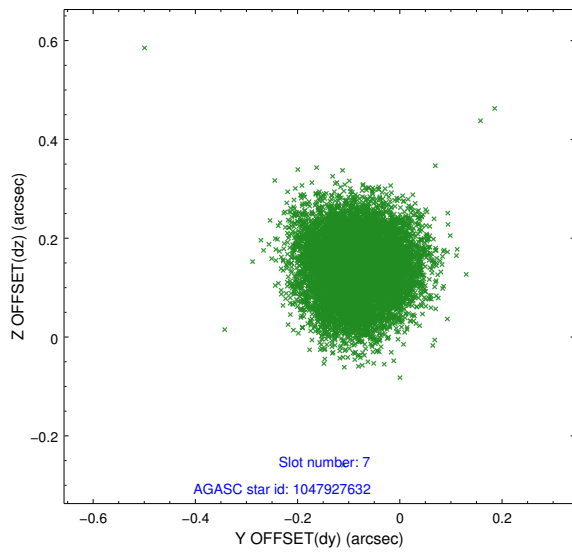
2.4.3 Slot 5



2.4.4 Slot 6

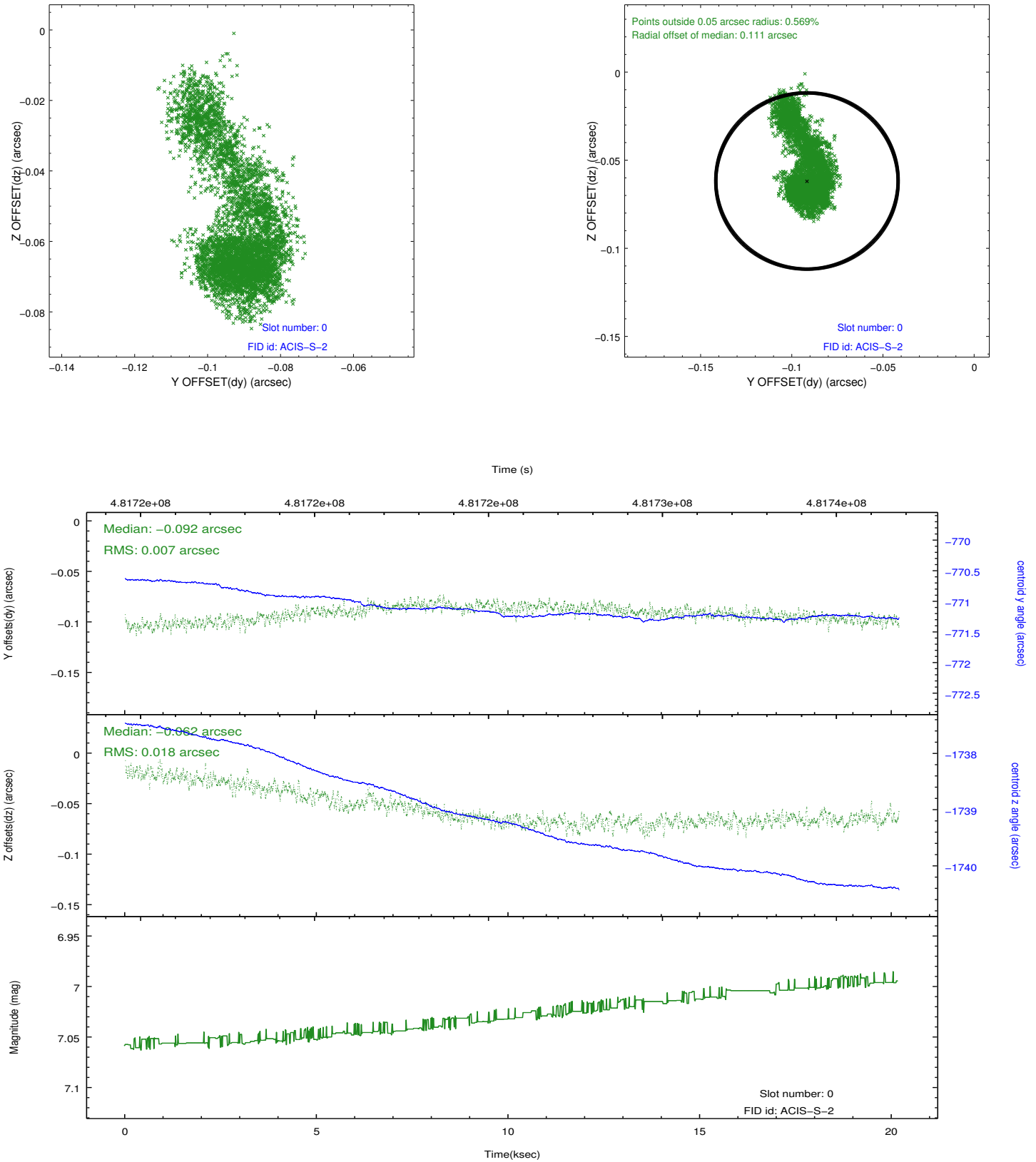


2.4.5 Slot 7

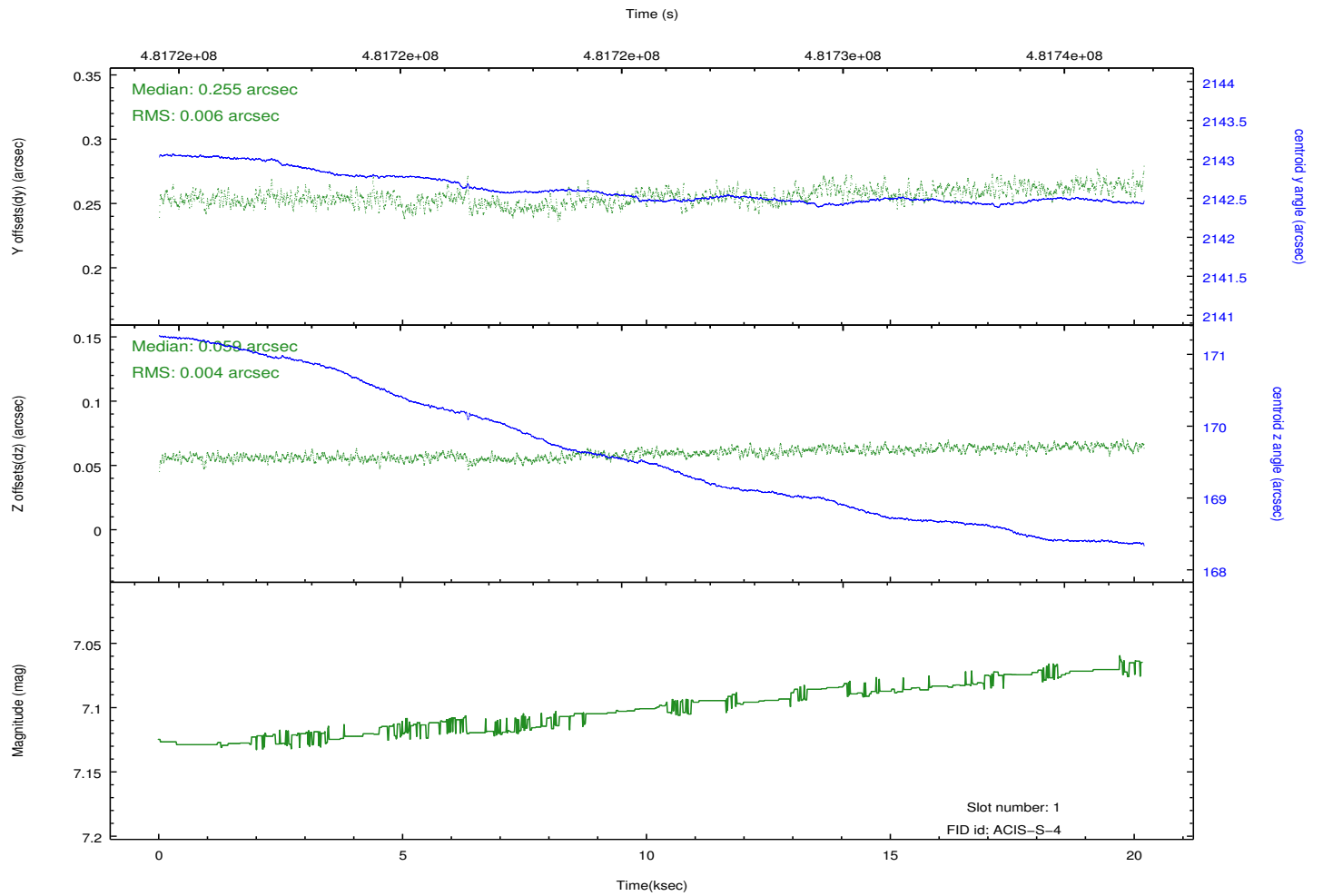
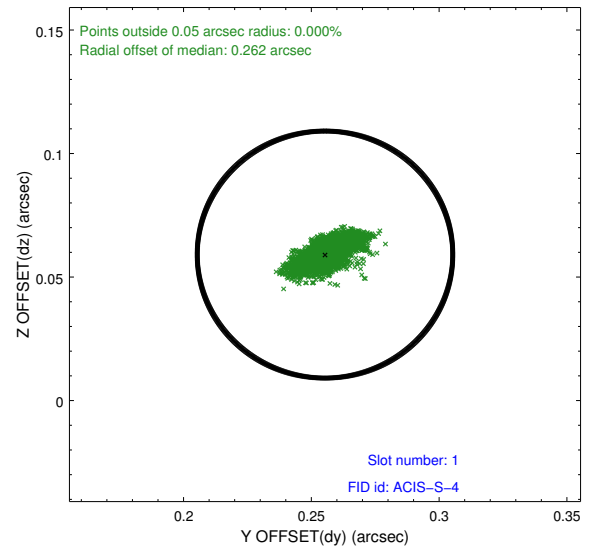
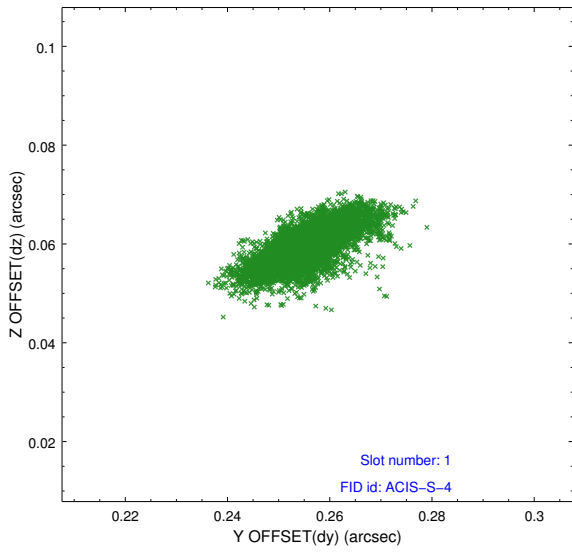


2.5 FID Slots

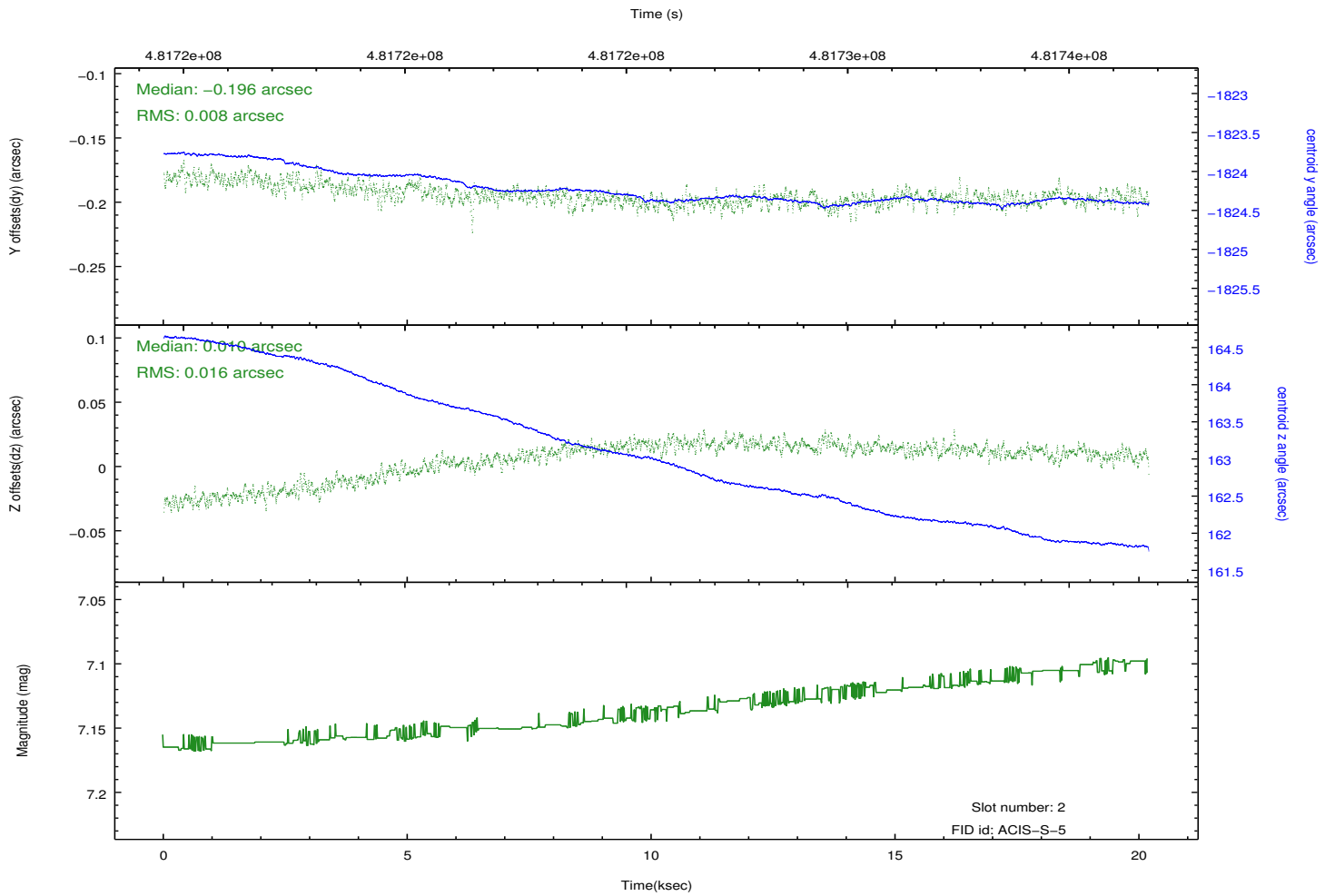
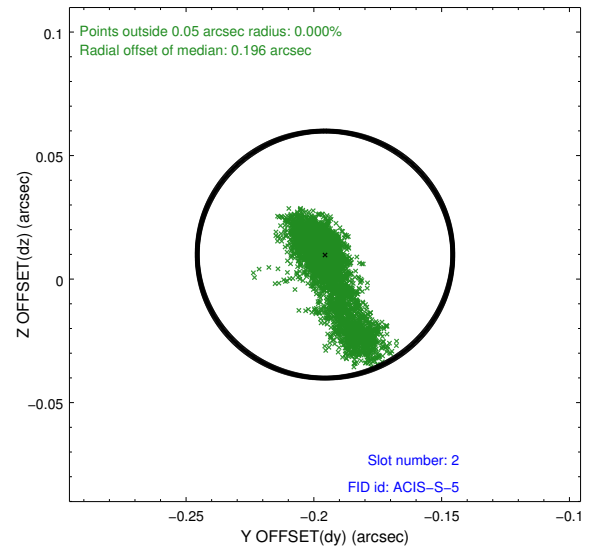
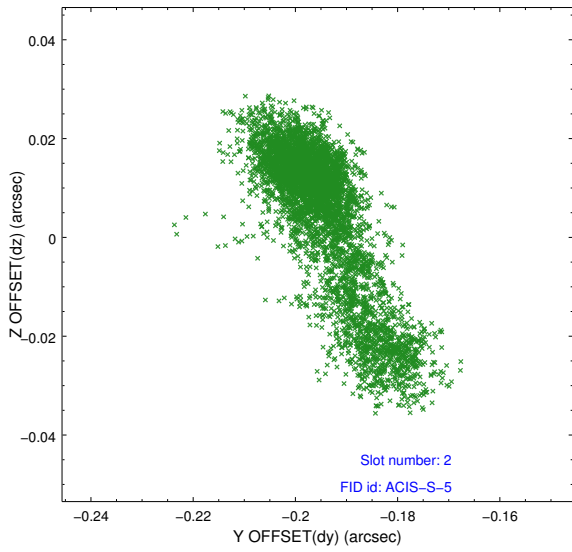
2.5.1 Slot 0



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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.964169953585

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.