

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16033 - L2 Version 3
Chandra X-Ray Center

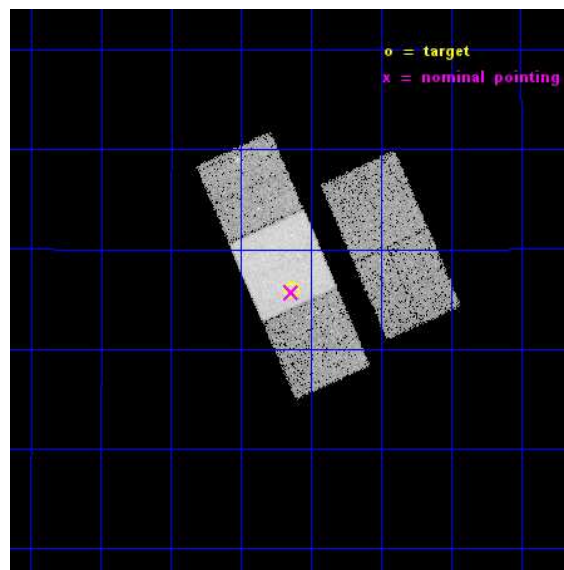
L2 Processing Date : Dec 11 2014

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

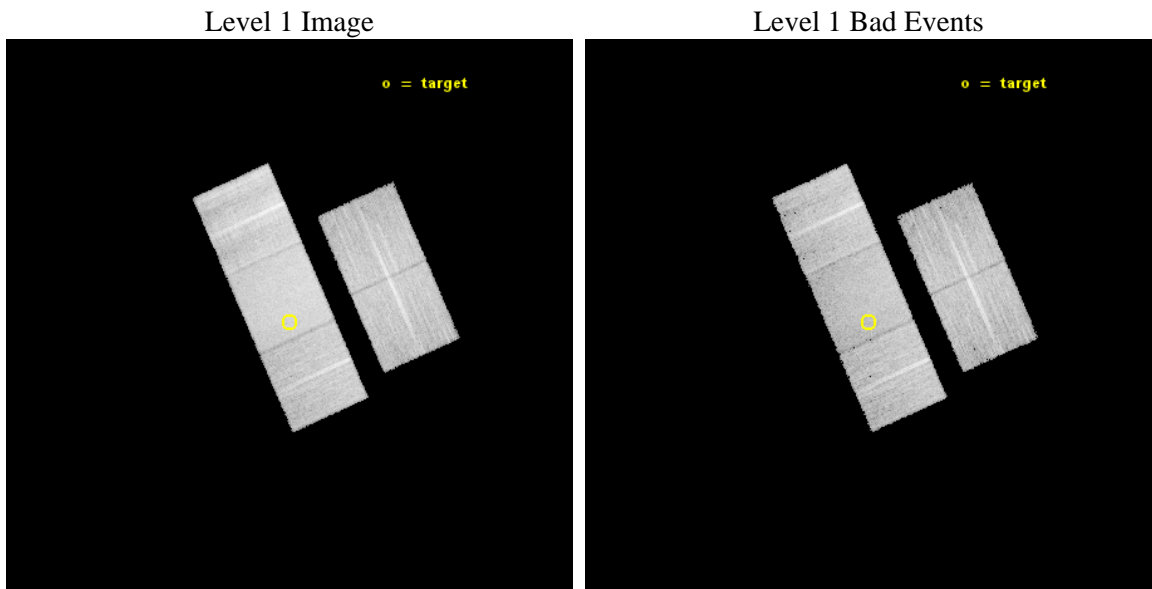
seq_num	601121	Sequence number
obs_id	16033	Observation id
title	TESTING THE UNIVERSALITY OF THE STELLAR IMF USING CHANDRA	Proposal
observer	Bret Lehmer	Principal investigator
object	NGC 4551	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	188.908333	Observer's specified target RA [deg]
dec_targ	12.264	Observer's specified target Dec [deg]
ra_nom	188.91004609915	Nominal RA [deg]
dec_nom	12.261442762416	Nominal Dec [deg]
roll_nom	246.01577395954	Nominal Roll [deg]
revision	3	Processing version of data
ontime	21321.729522765	Sum of GTIs [s]
livetime	21043.145429721	Livetime [s]
ontime2	21321.565362751	Sum of GTIs [s]
ontime3	21321.647442758	Sum of GTIs [s]
ontime6	21321.688482761	Sum of GTIs [s]
ontime7	21321.729522765	Sum of GTIs [s]
ontime8	21321.606402755	Sum of GTIs [s]
l2events	106484	Number of level 2 events



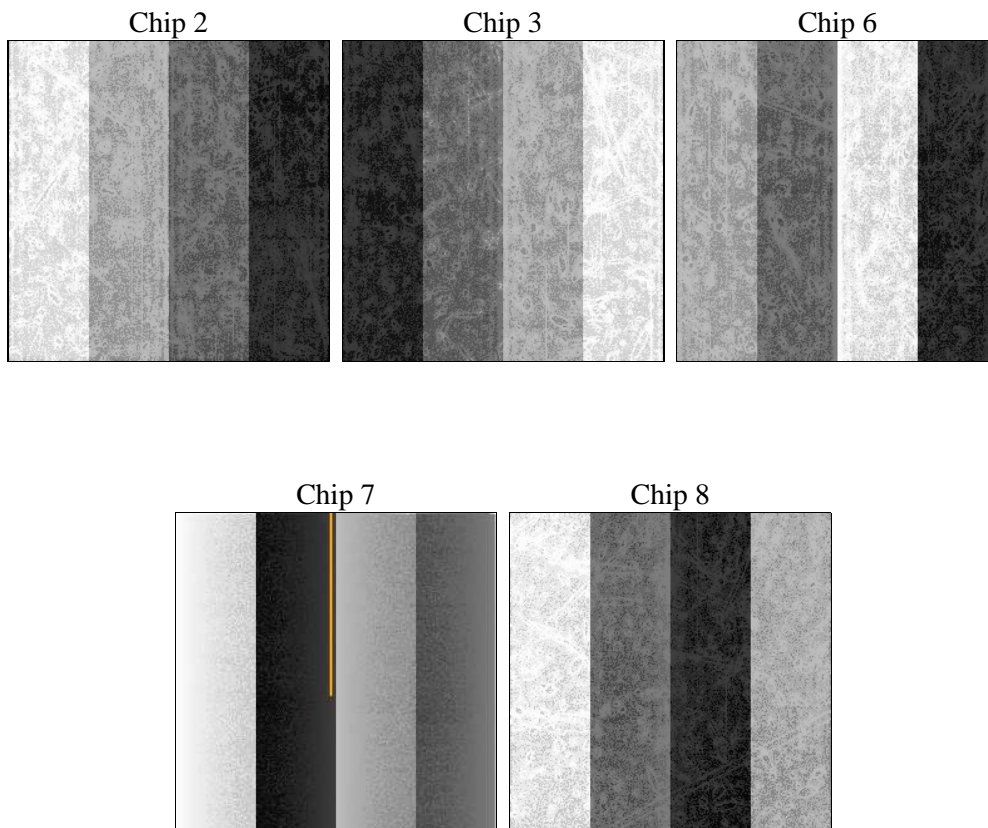
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	21253.413000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	21321.729522765	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	21321.565362751	Sum of GTIs [s]
date	2014-12-12T01:46:59	Date and time of file creation	ontime3	21321.647442758	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	21321.688482761	Sum of GTIs [s]
			ontime7	21321.729522765	Sum of GTIs [s]
			ontime8	21321.606402755	Sum of GTIs [s]
			l1events	555982	Number of level 1 events

2.1.4 Events

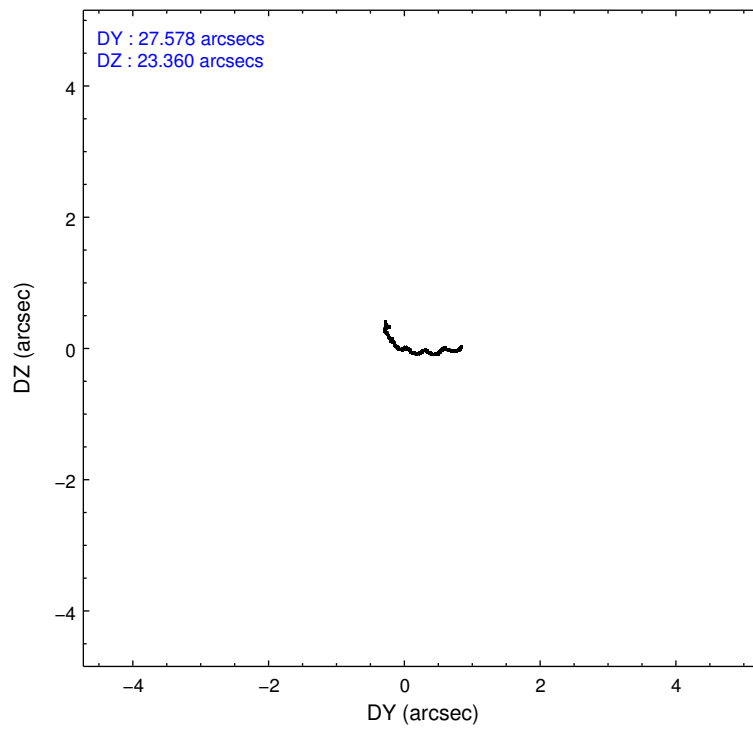
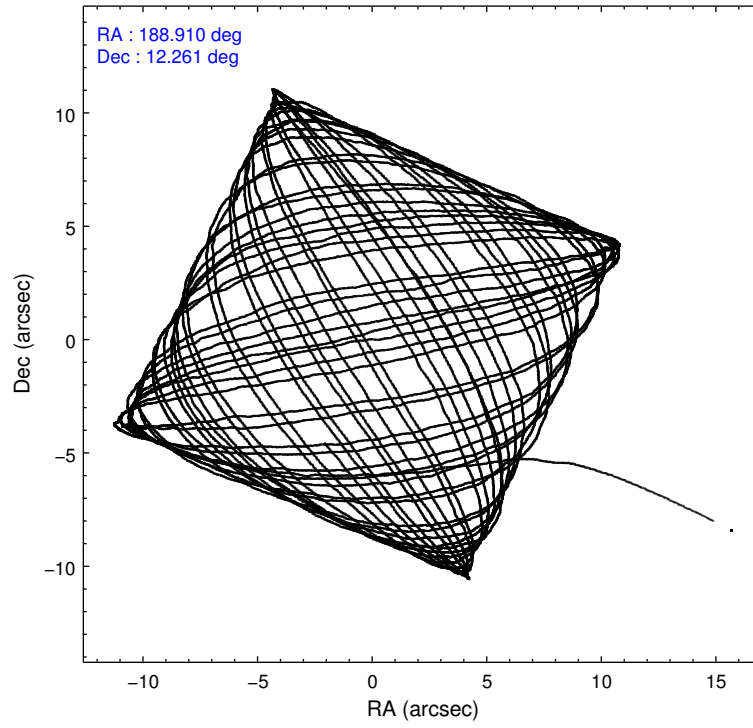
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	95839	92298	98033	136767	133045
rejected events	83167	80116	84597	76453	96055
rejected %	86%	86%	86%	55%	72%

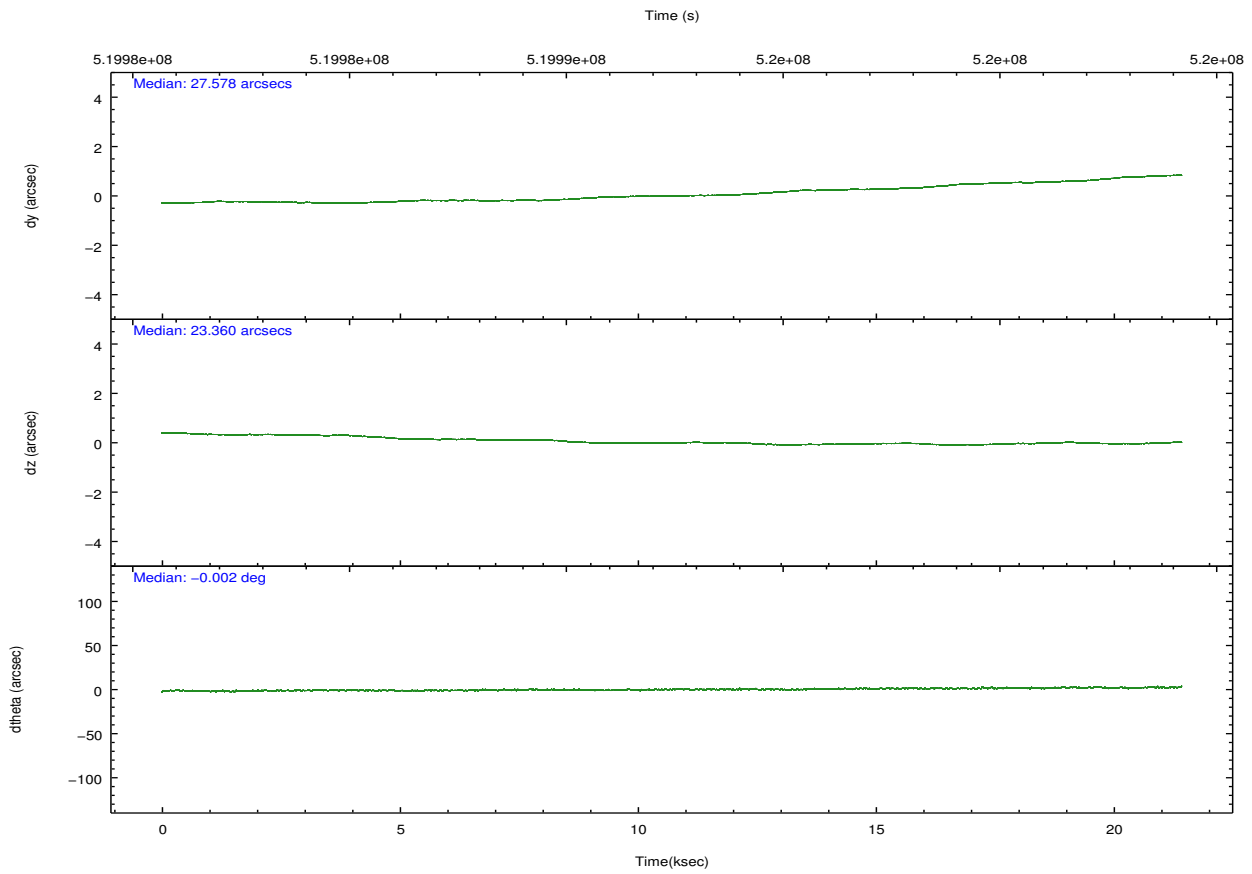
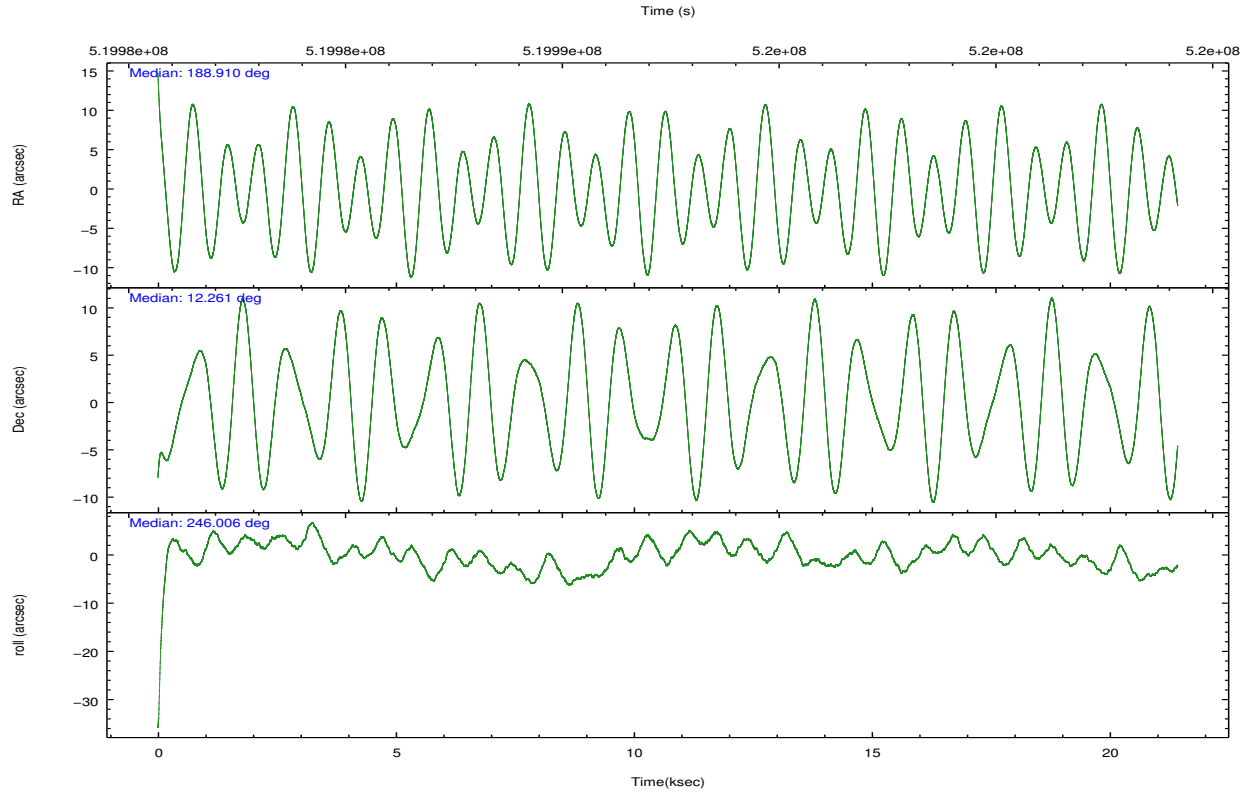
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5209	4827	5294	5727	11902
	5%	5%	5%	4%	8%
grade 1 events	57	73	53	176	93
	0%	0%	0%	0%	0%
grade 2 events	2879	2637	2871	12463	8371
	3%	2%	2%	9%	6%
grade 3 events	1184	1232	1228	5350	3716
	1%	1%	1%	3%	2%
grade 4 events	1211	1179	1222	5156	3544
	1%	1%	1%	3%	2%
grade 5 events	4063	5327	5263	13848	7542
	4%	5%	5%	10%	5%
grade 6 events	2191	2312	2832	31644	9461
	2%	2%	2%	23%	7%
grade 7 events	79045	74711	79270	62403	88416
	82%	80%	80%	45%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	188.906731	188.9100460991466	CCD I2 on	O1	Y
[deg] Pointing Dec	12.288629	12.26144276241581	CCD I3 on	O2	Y
[deg] Pointing Roll	245.859863	246.0157739595388	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	519981890.184000	519980436.89919	CCD S5 on	N	N
Observation start date	2014-06-24T07:23:43	2014-06-24T07:00:36	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	520003143.184000	520003369.22544	On-chip summing requested	N	N
Observation end date	2014-06-24T13:17:56	2014-06-24T13:22:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





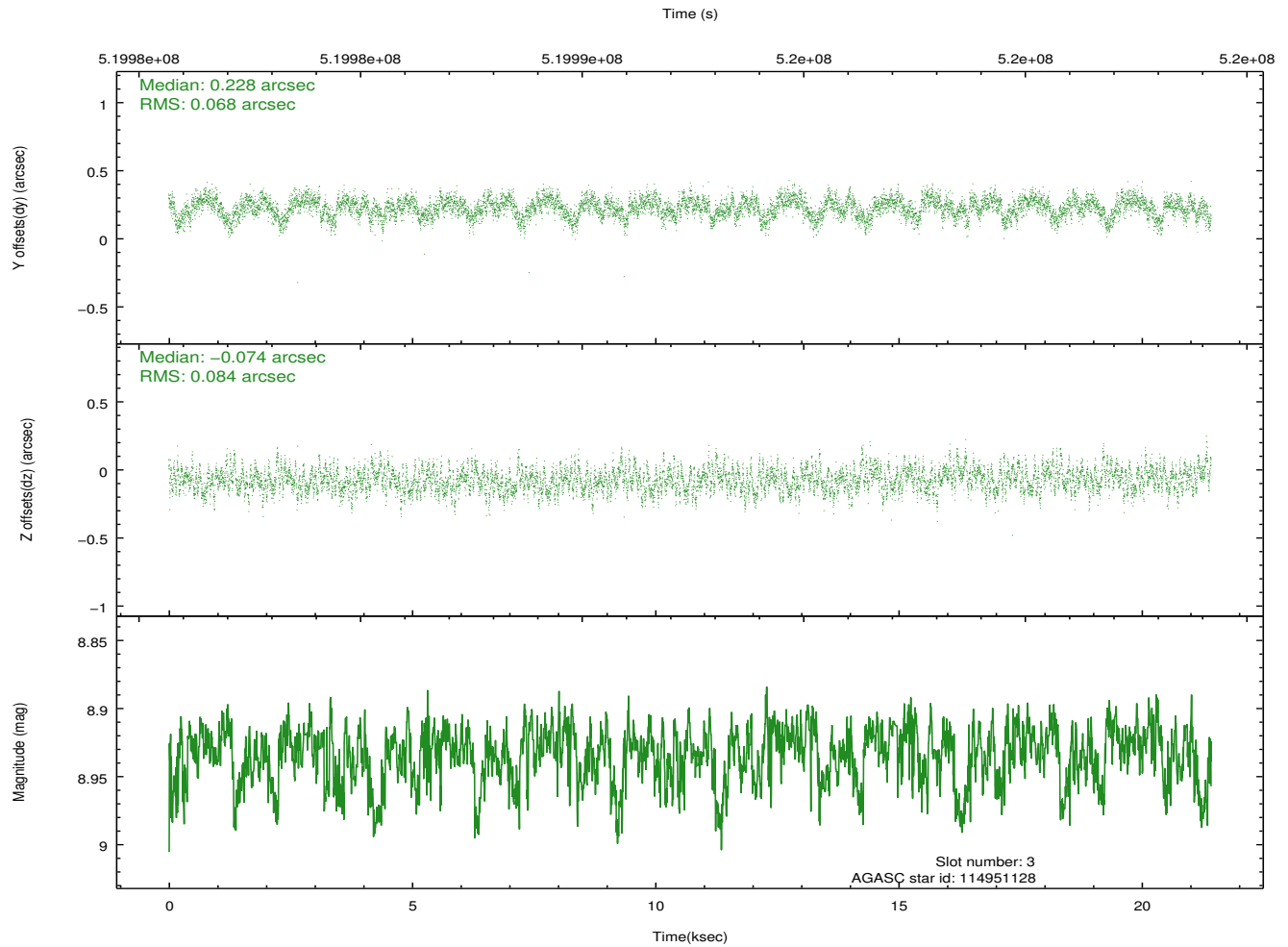
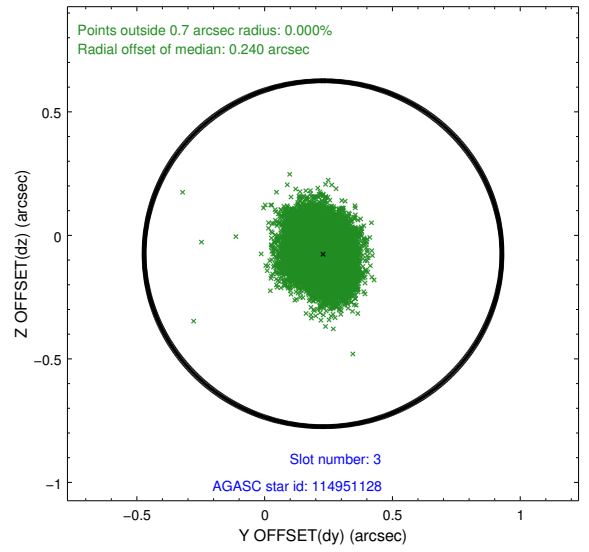
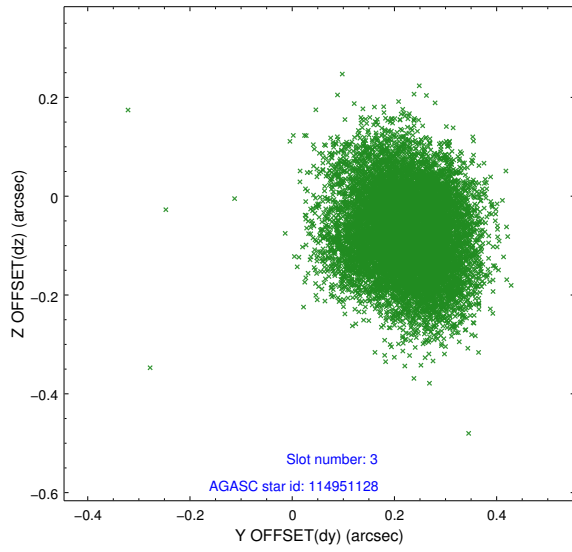
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.95	5226	-0.218	-0.127	0.013	0.030	0.000000	0.000000	-781.28	-1745.08
1	FID		ACIS-S-4	7.04	5226	0.263	0.127	0.012	0.027	0.000000	0.000000	2132.48	163.37
2	FID		ACIS-S-6	7.17	5226	-0.070	0.005	0.009	0.016	0.000000	0.000000	381.16	800.90
3	GUIDE	used	114951128	8.93	10439	0.228	-0.074	0.115	0.185	188.719863	12.459246	-290.67	-849.92
4	GUIDE	used	115085264	7.87	10452	-0.293	-0.086	0.079	0.128	189.302301	11.817775	975.39	1965.04
5	GUIDE	used	115086528	8.94	10446	0.084	-0.115	0.107	0.169	189.286111	12.182164	-196.87	1375.06
6	GUIDE	used	115349088	9.28	10444	-0.040	0.346	0.152	0.237	188.777694	12.938966	-1950.84	-1371.15
7	GUIDE	used	115481912	8.57	10446	0.028	-0.078	0.147	0.216	189.408526	12.669552	-1973.92	1046.57

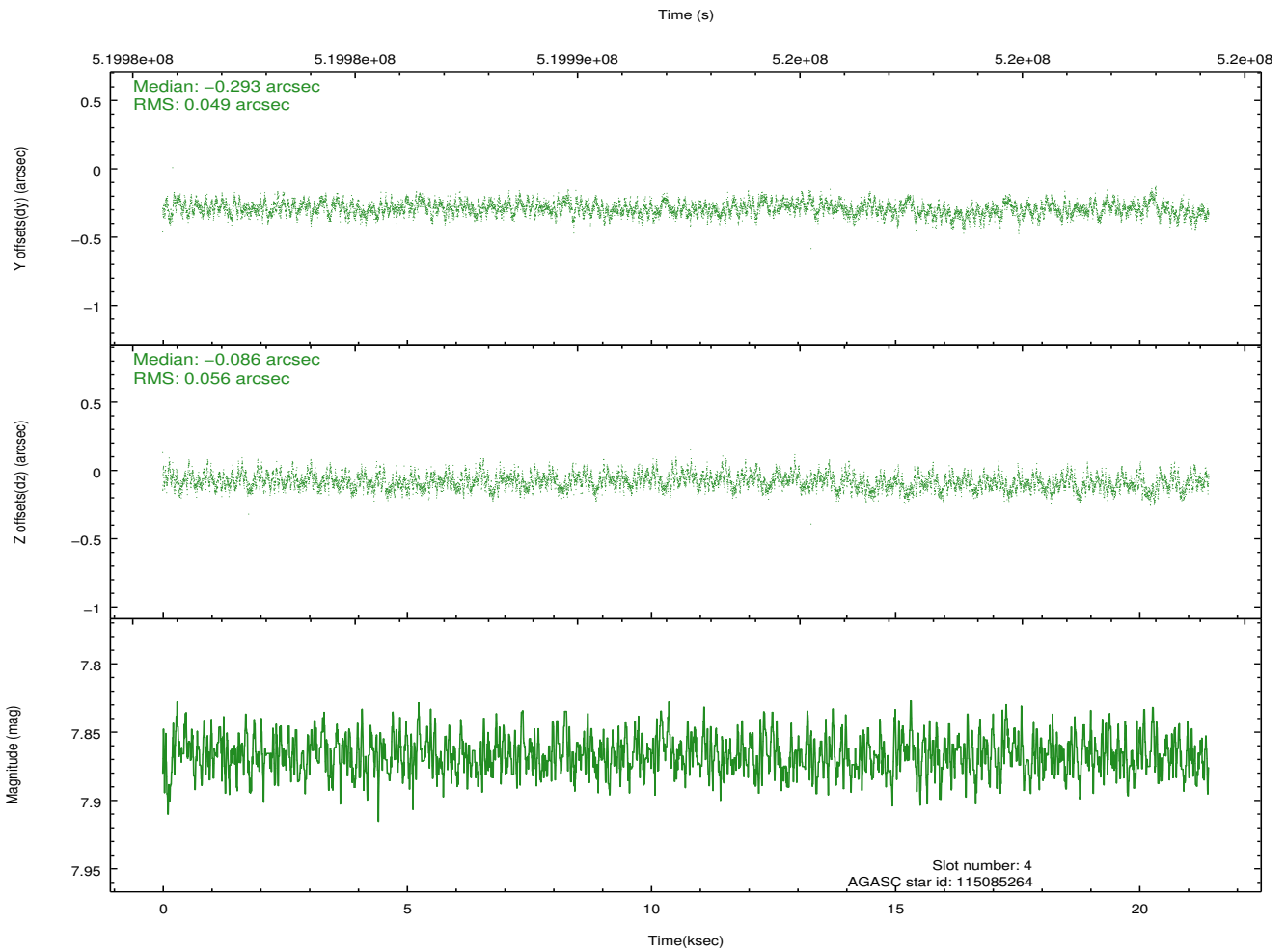
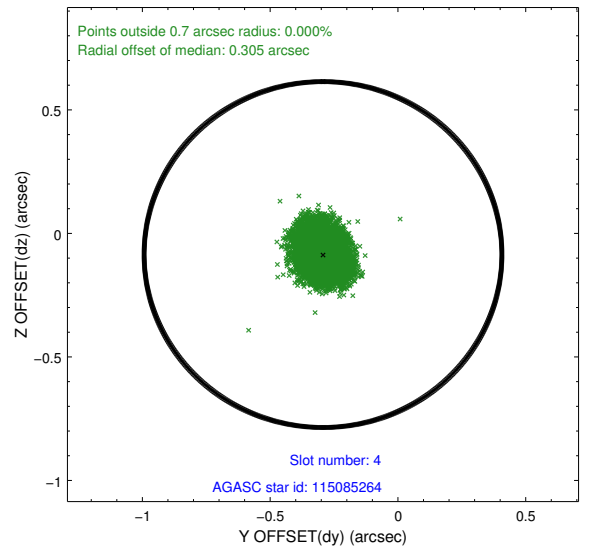
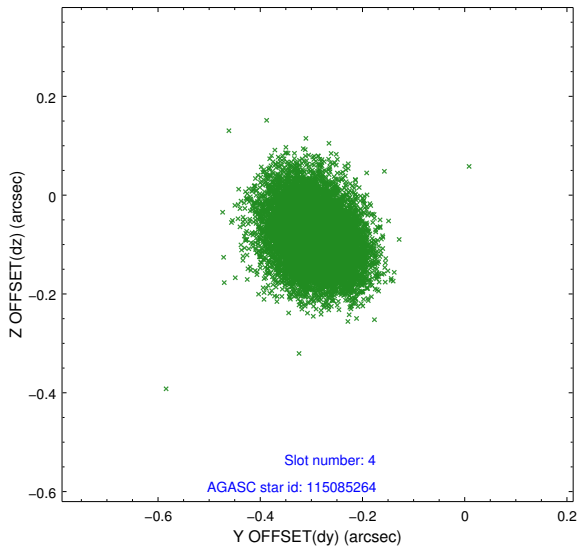
∞

2.4 Star Slots

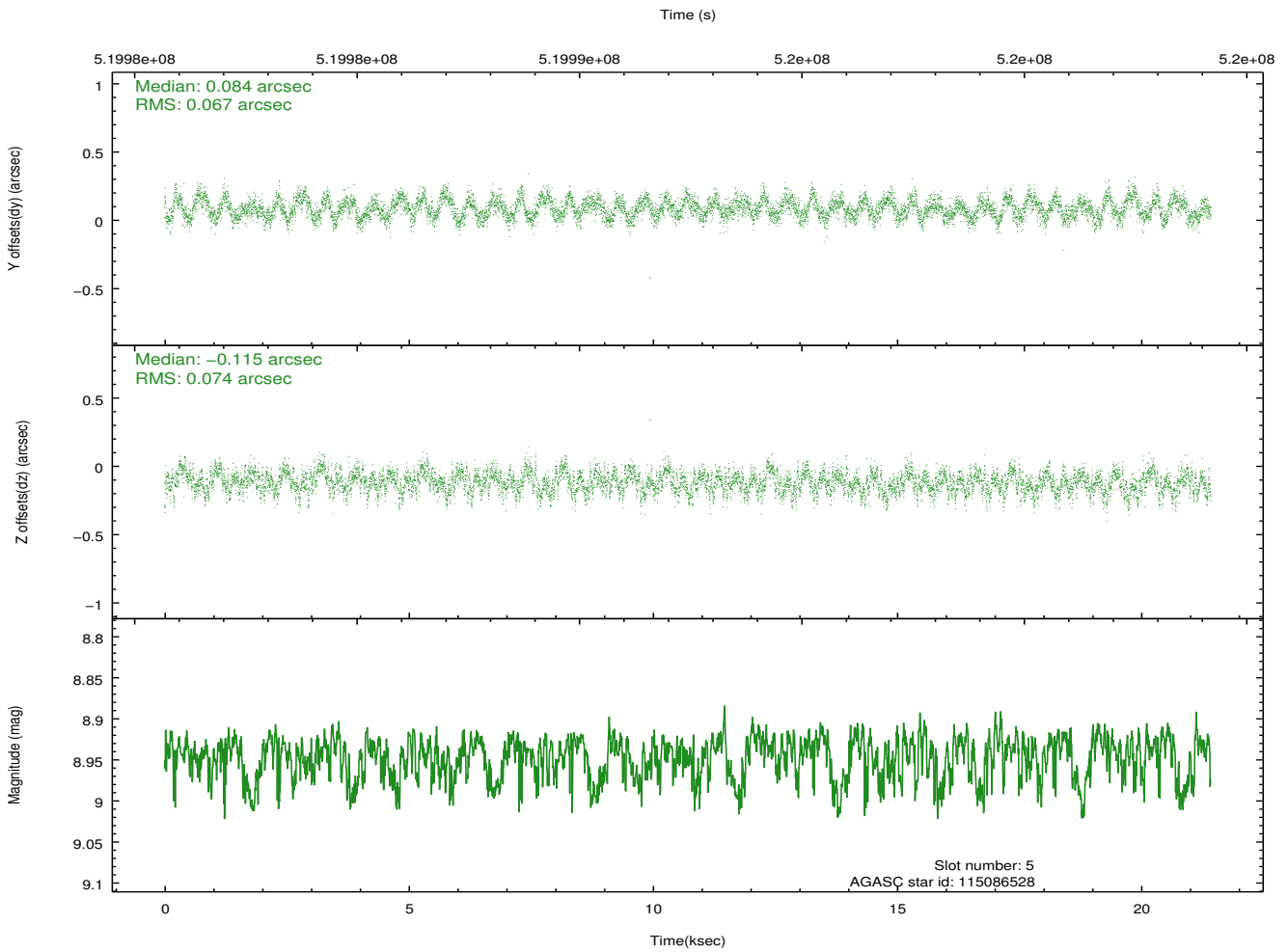
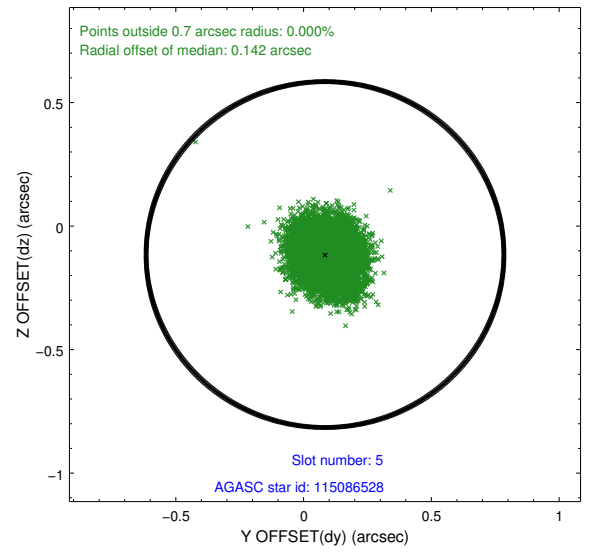
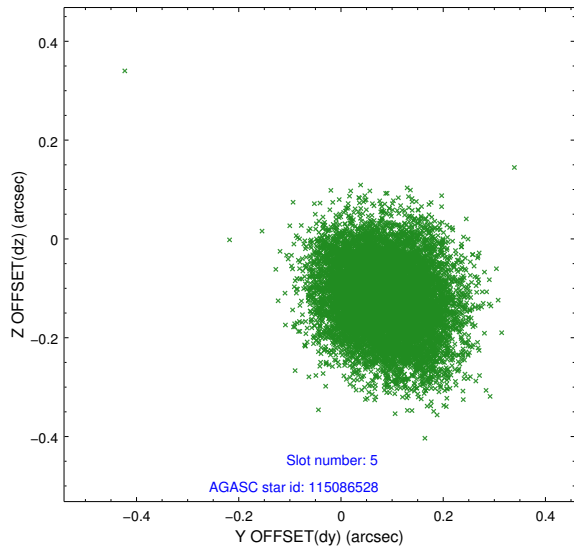
2.4.1 Slot 3



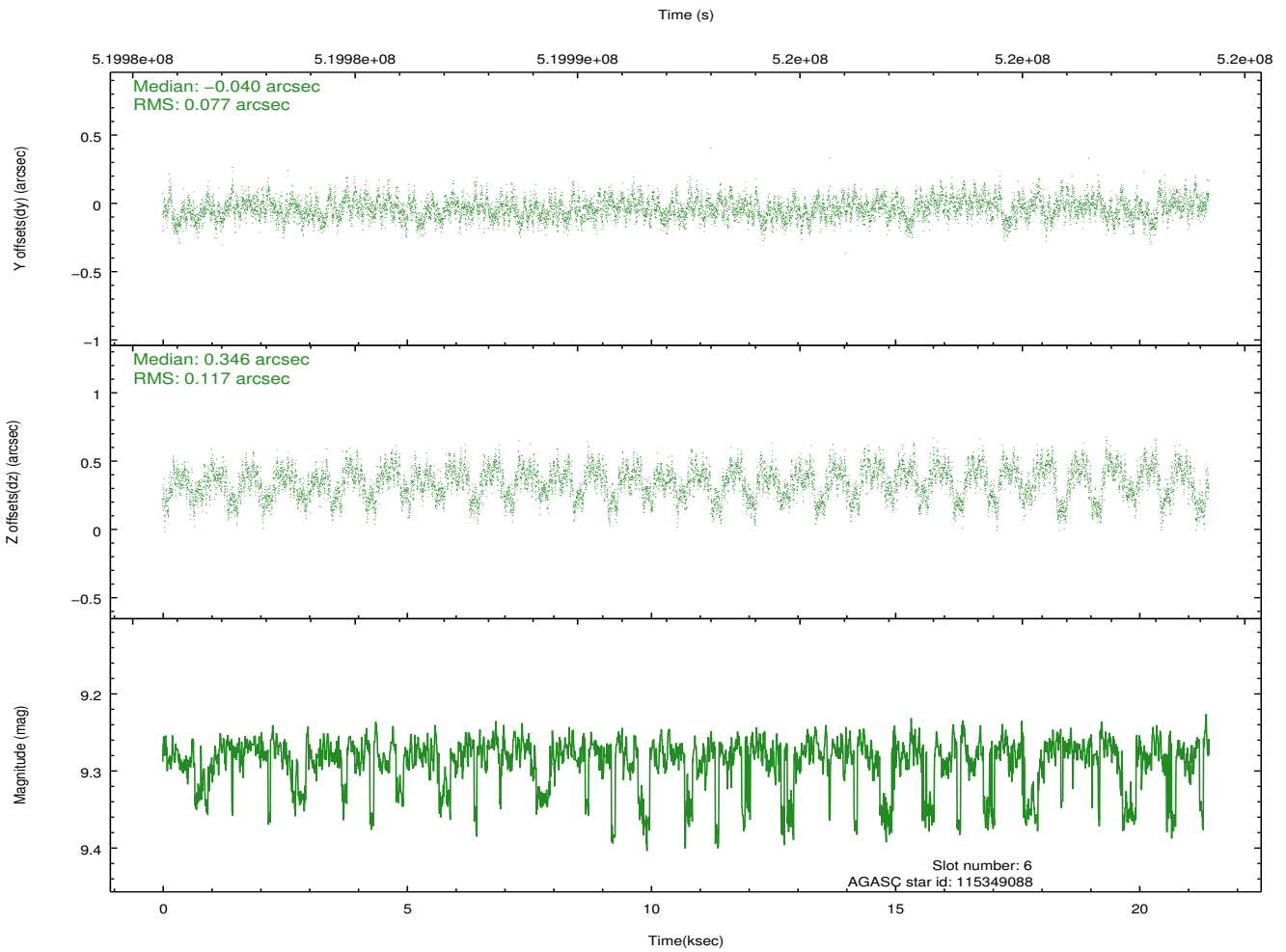
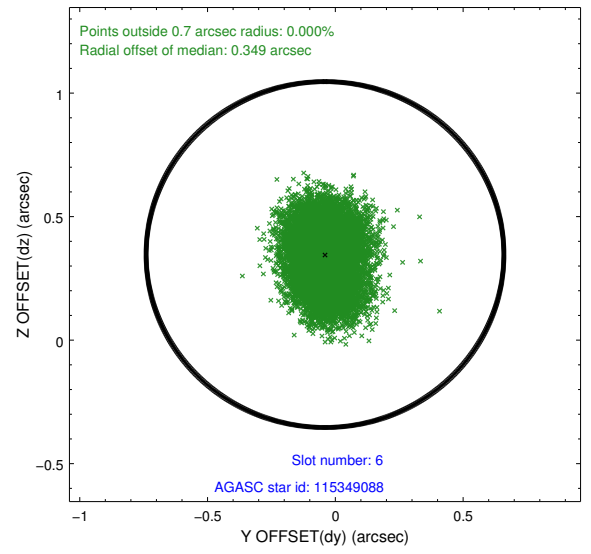
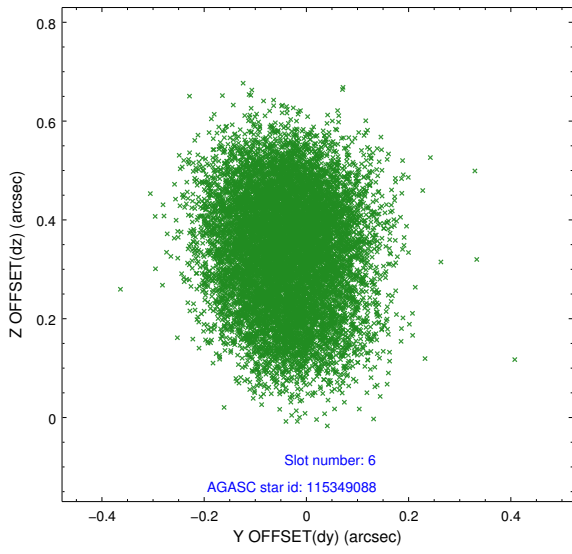
2.4.2 Slot 4



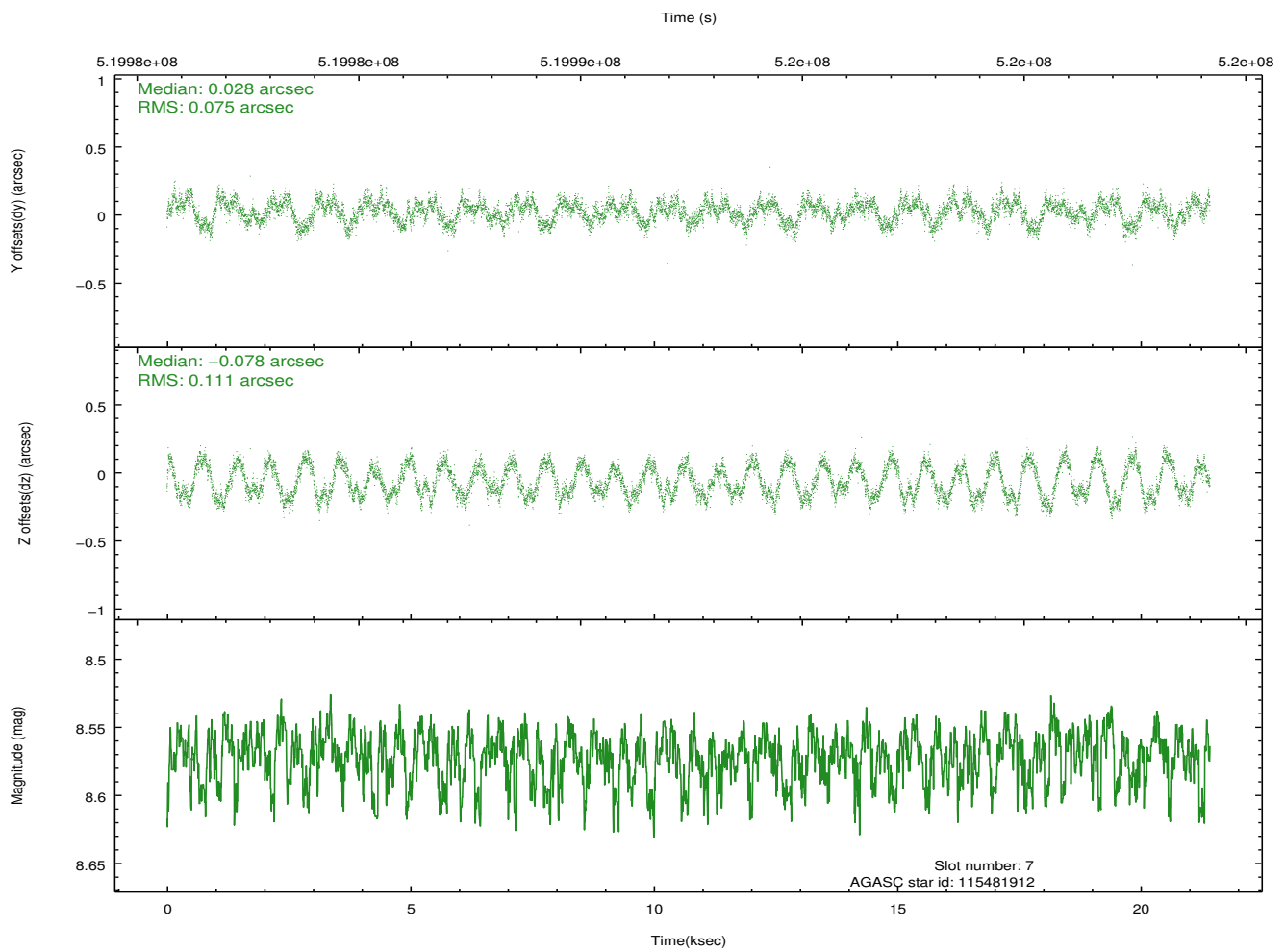
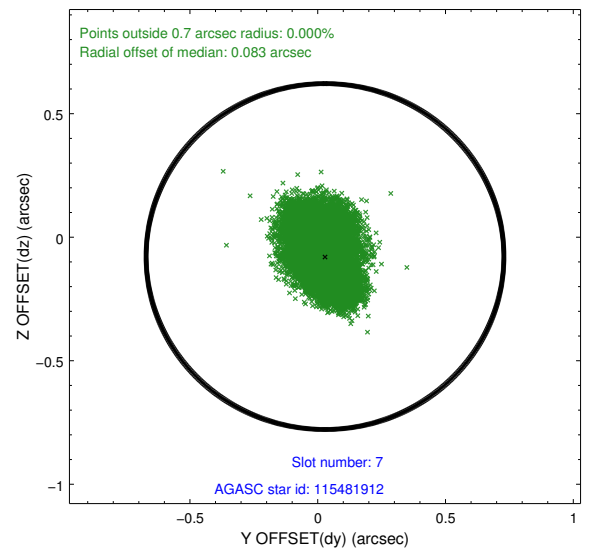
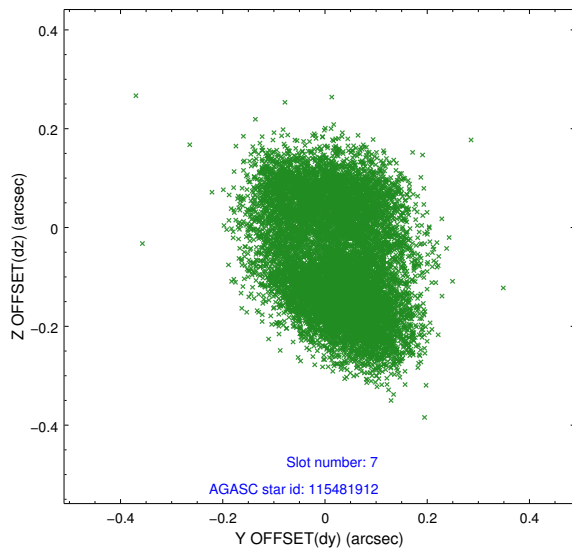
2.4.3 Slot 5



2.4.4 Slot 6

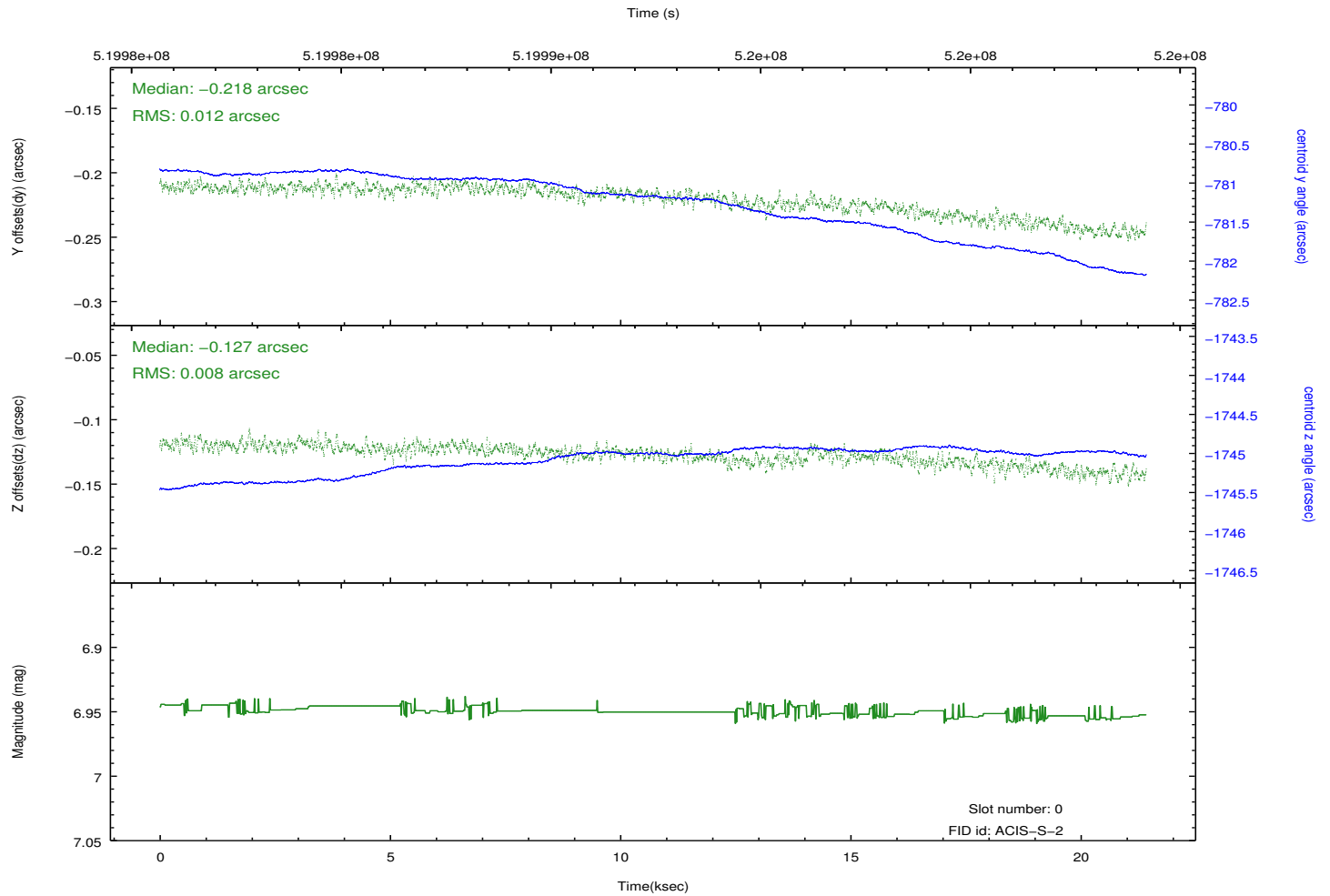
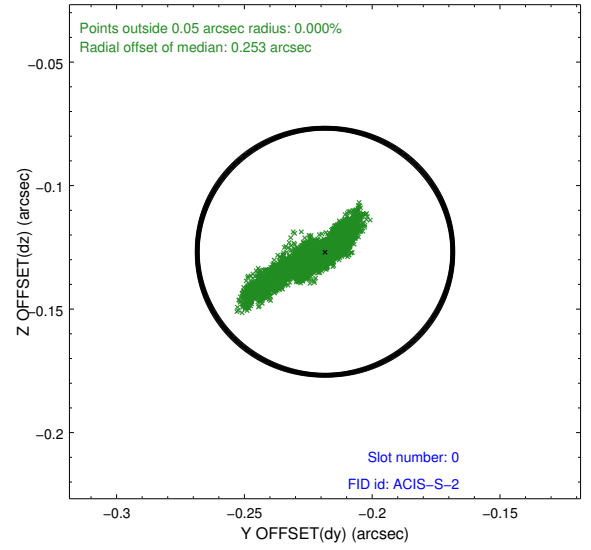
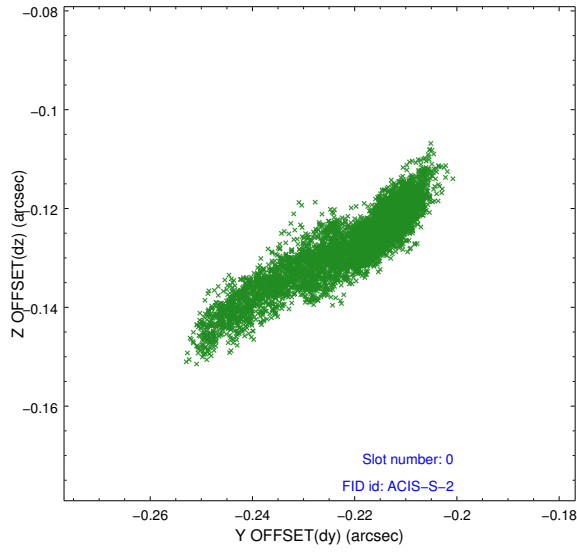


2.4.5 Slot 7

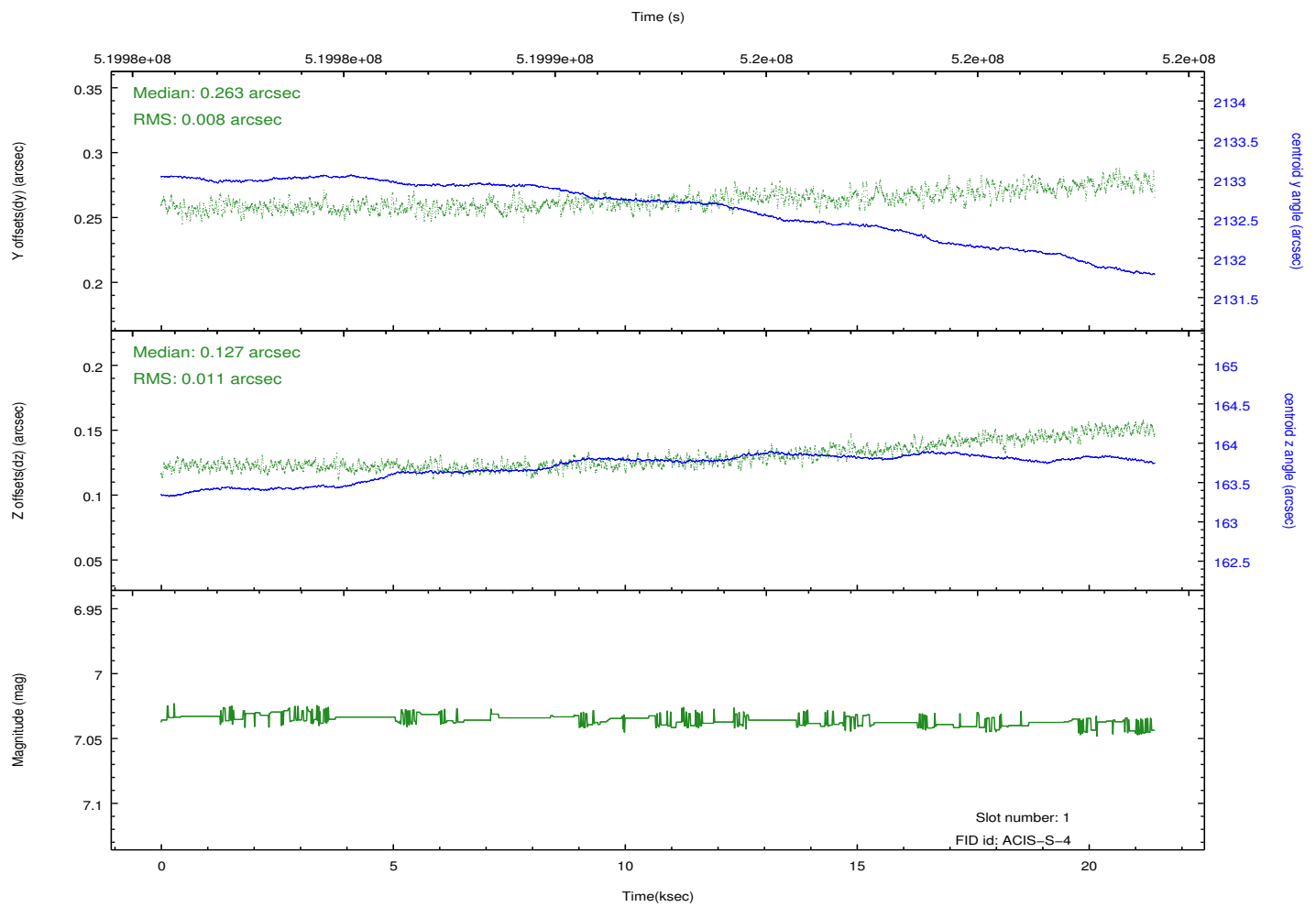
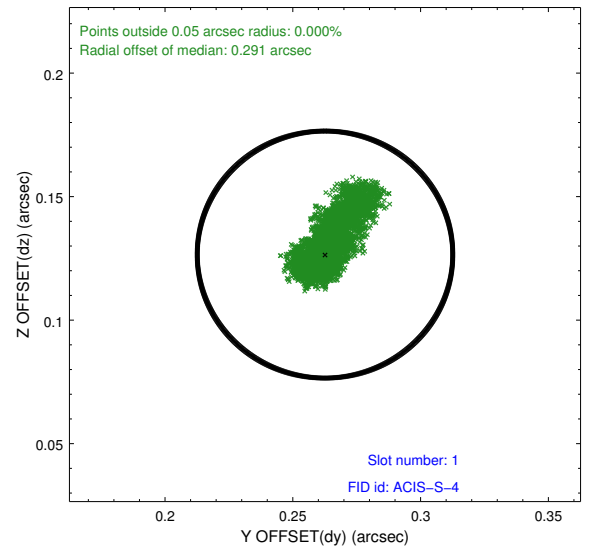
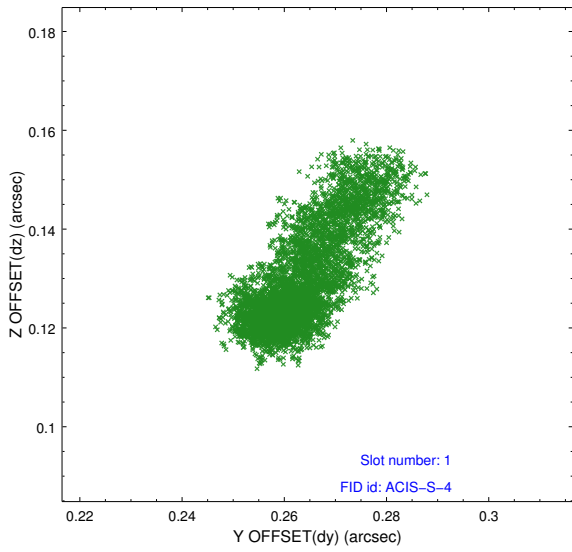


2.5 FID Slots

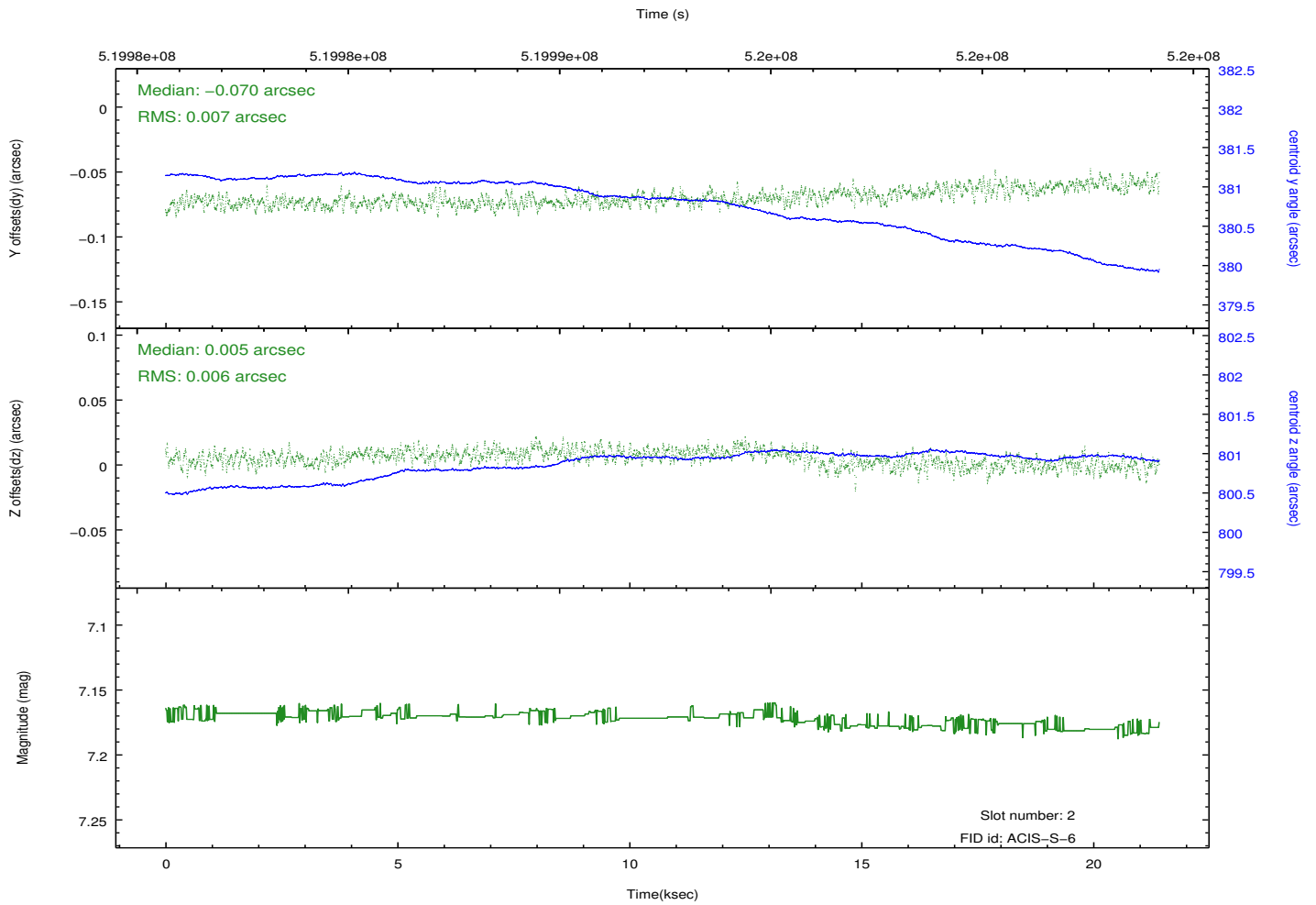
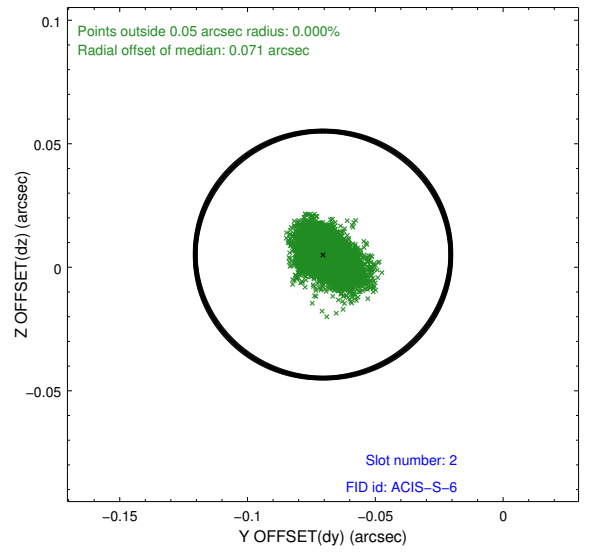
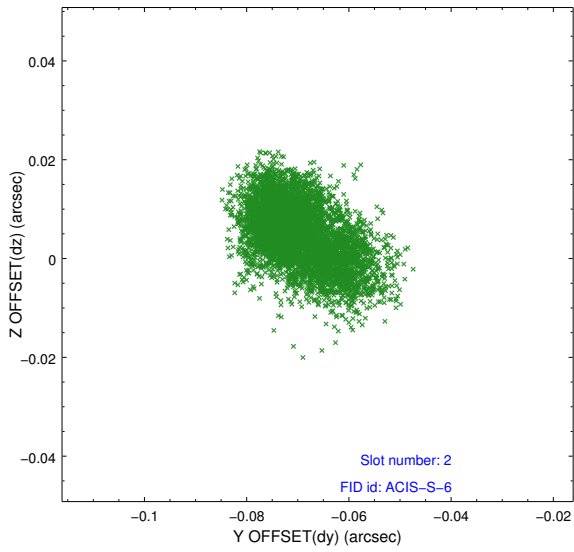
2.5.1 Slot 0



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)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	21.321729522765

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.