

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16520 - L2 Version 2
Chandra X-Ray Center

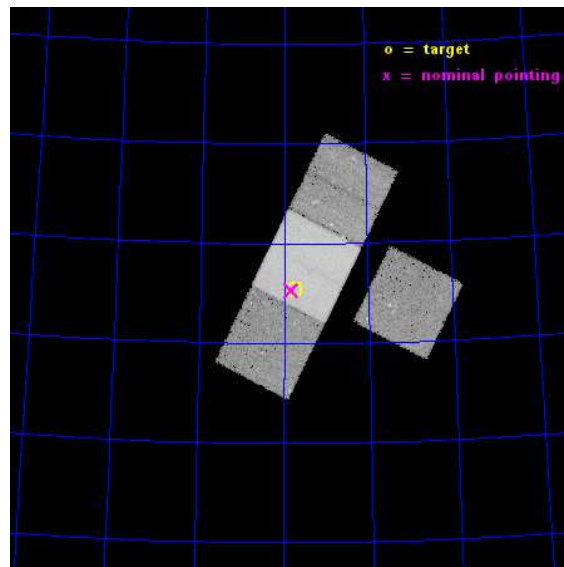
L2 Processing Date : Dec 11 2014

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1 Front

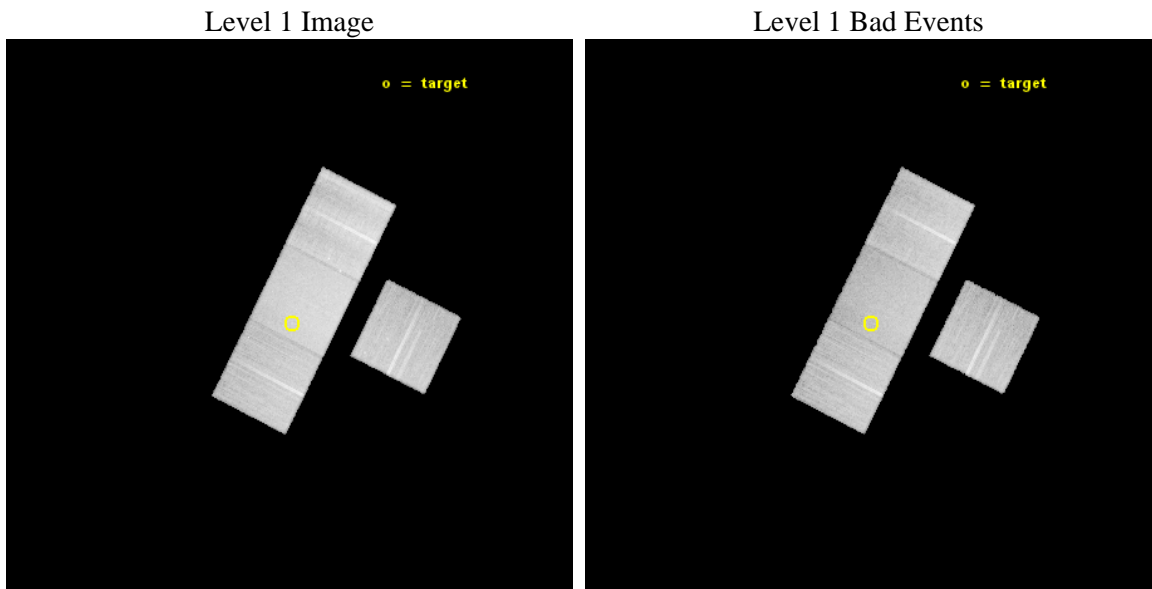
seq_num	702973	Sequence number
obs_id	16520	Observation id
title	Probing dark matter in the luminous radio galaxy 3C220.3 and the structure of the z=2.22 SMG/AGN it is lensing.	Proposal title
observer	Dr Belinda Wilkes	Principal investigator
object	3C 220.3	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	144.849292	Observer's specified target RA [deg]
dec_targ	83.25725	Observer's specified target Dec [deg]
ra_nom	144.89075182948	Nominal RA [deg]
dec_nom	83.255091282161	Nominal Dec [deg]
roll_nom	296.70210779235	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45297.200348377	Sum of GTIs [s]
livetime	44705.359078512	Livetime [s]
ontime3	45294.059377968	Sum of GTIs [s]
ontime6	45297.200348377	Sum of GTIs [s]
ontime7	45297.200348377	Sum of GTIs [s]
ontime8	45297.200348377	Sum of GTIs [s]
l2events	200200	Number of level 2 events



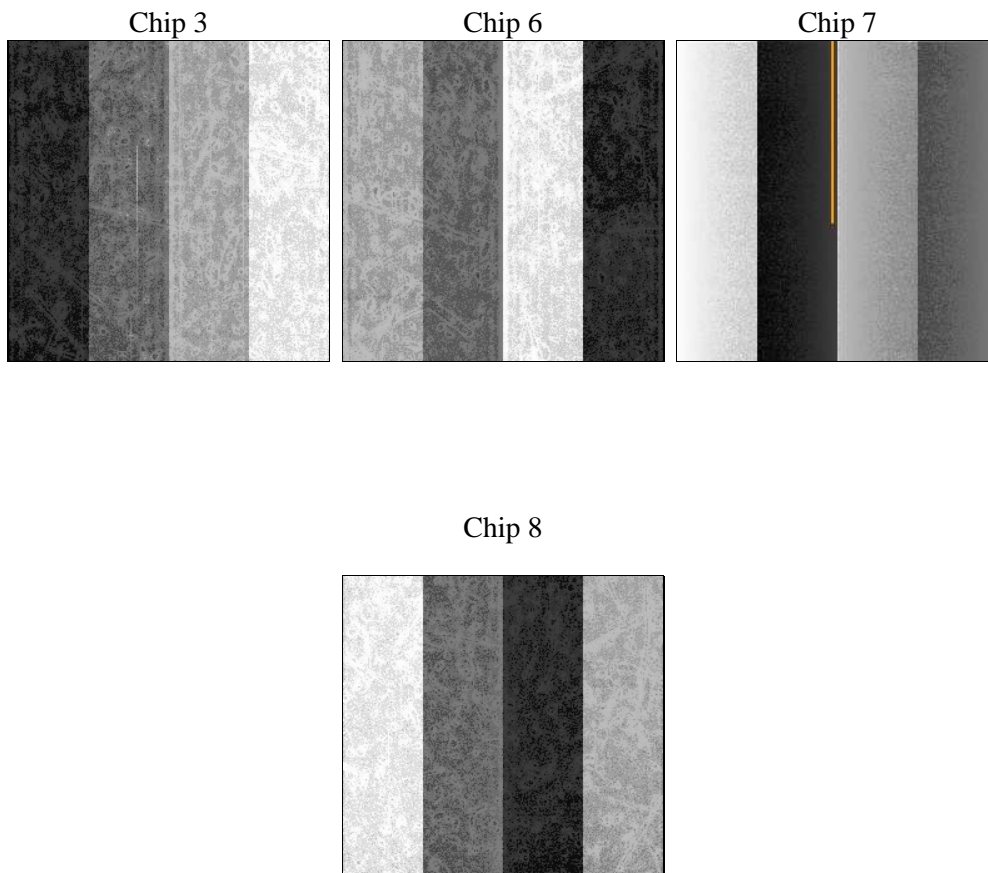
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	45222.188000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	45297.200348377	Sum of GTIs [s]
caldsver	4.6.4	 	ontime3	45294.059377968	Sum of GTIs [s]
date	2014-12-12T03:03:15	Date and time of file creation	ontime6	45297.200348377	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	45297.200348377	Sum of GTIs [s]
			ontime8	45297.200348377	Sum of GTIs [s]
			l1events	1008832	Number of level 1 events

2.1.4 Events

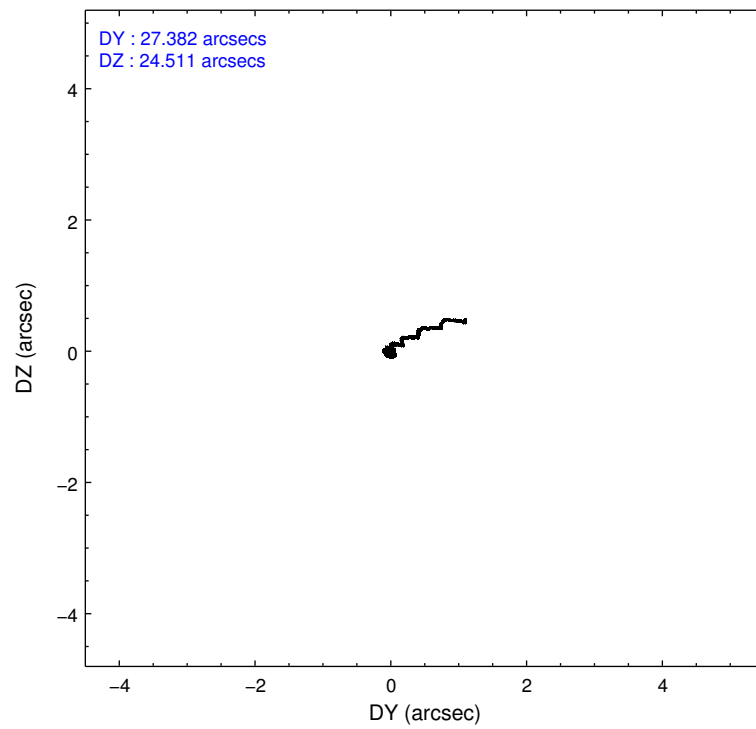
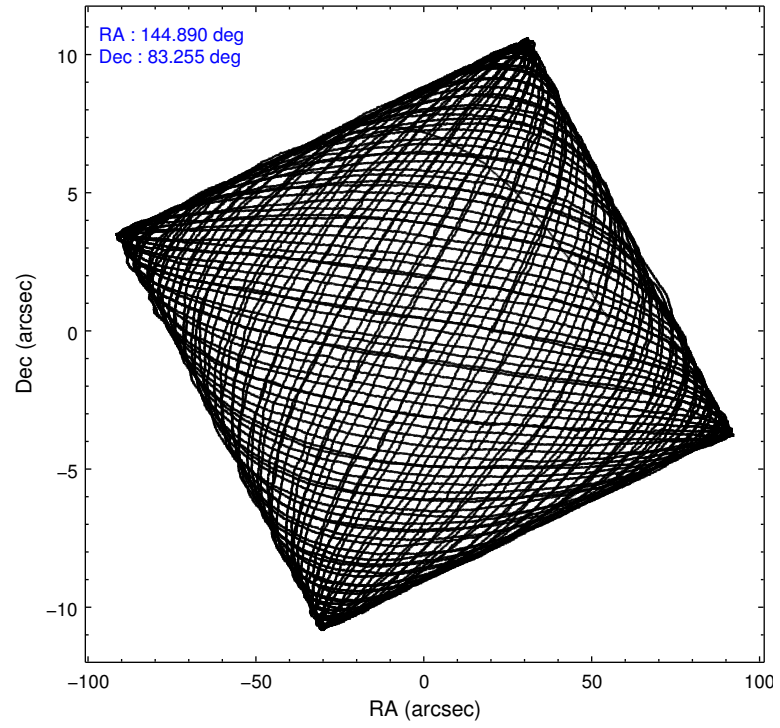
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	204489	219338	294045	290960
rejected events	179498	192356	165964	210223
rejected %	87%	87%	56%	72%

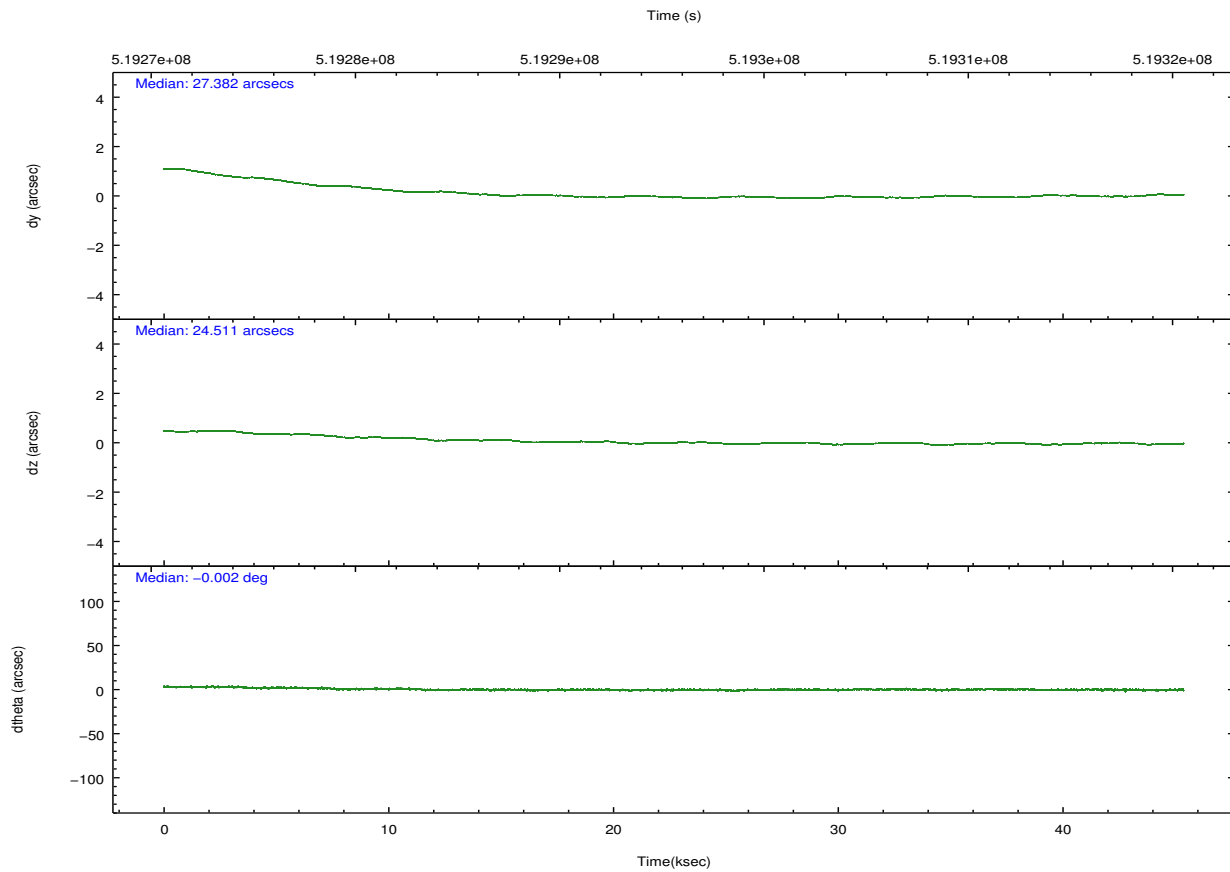
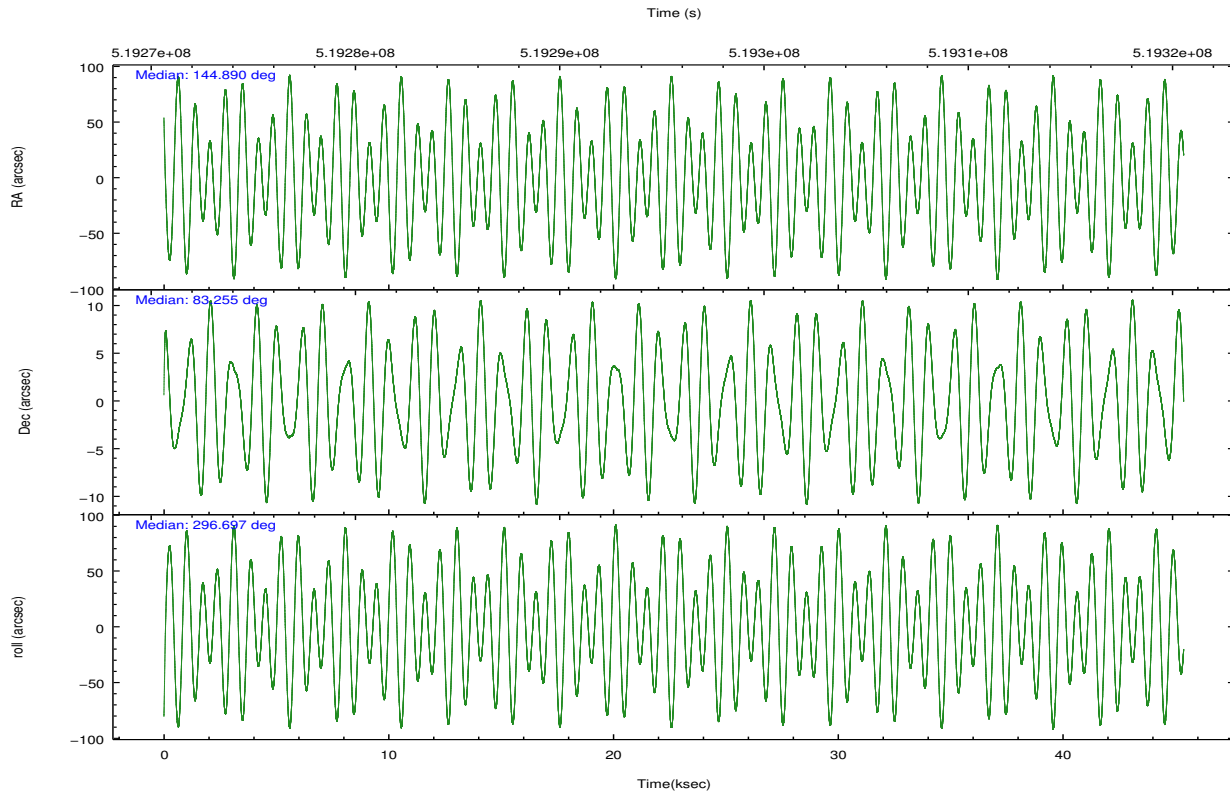
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	9064	9163	11112	24645
	4%	4%	3%	8%
grade 1 events	104	121	366	202
	0%	0%	0%	0%
grade 2 events	5477	6215	26278	18732
	2%	2%	8%	6%
grade 3 events	2567	2663	10966	8326
	1%	1%	3%	2%
grade 4 events	2553	2705	10831	7934
	1%	1%	3%	2%
grade 5 events	11321	11490	30684	16479
	5%	5%	10%	5%
grade 6 events	5332	6236	68902	21111
	2%	2%	23%	7%
grade 7 events	168071	180745	134906	193531
	82%	82%	45%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3678	ACIS-3678	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	144.694055	144.8907518294776	CCD I2 on	N	N
[deg] Pointing Dec	83.269733	83.25509128216149	CCD I3 on	O2	Y
[deg] Pointing Roll	296.740823	296.70210779235	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	O3	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	O1	Y
[s] Observation start time (MET)	519273041.184000	519271930.20996	CCD S5 on	N	N
Observation start date	2014-06-16T02:29:34	2014-06-16T02:12:10	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	519318263.184000	519318489.30003	On-chip summing requested	N	N
Observation end date	2014-06-16T15:03:16	2014-06-16T15:08:09	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





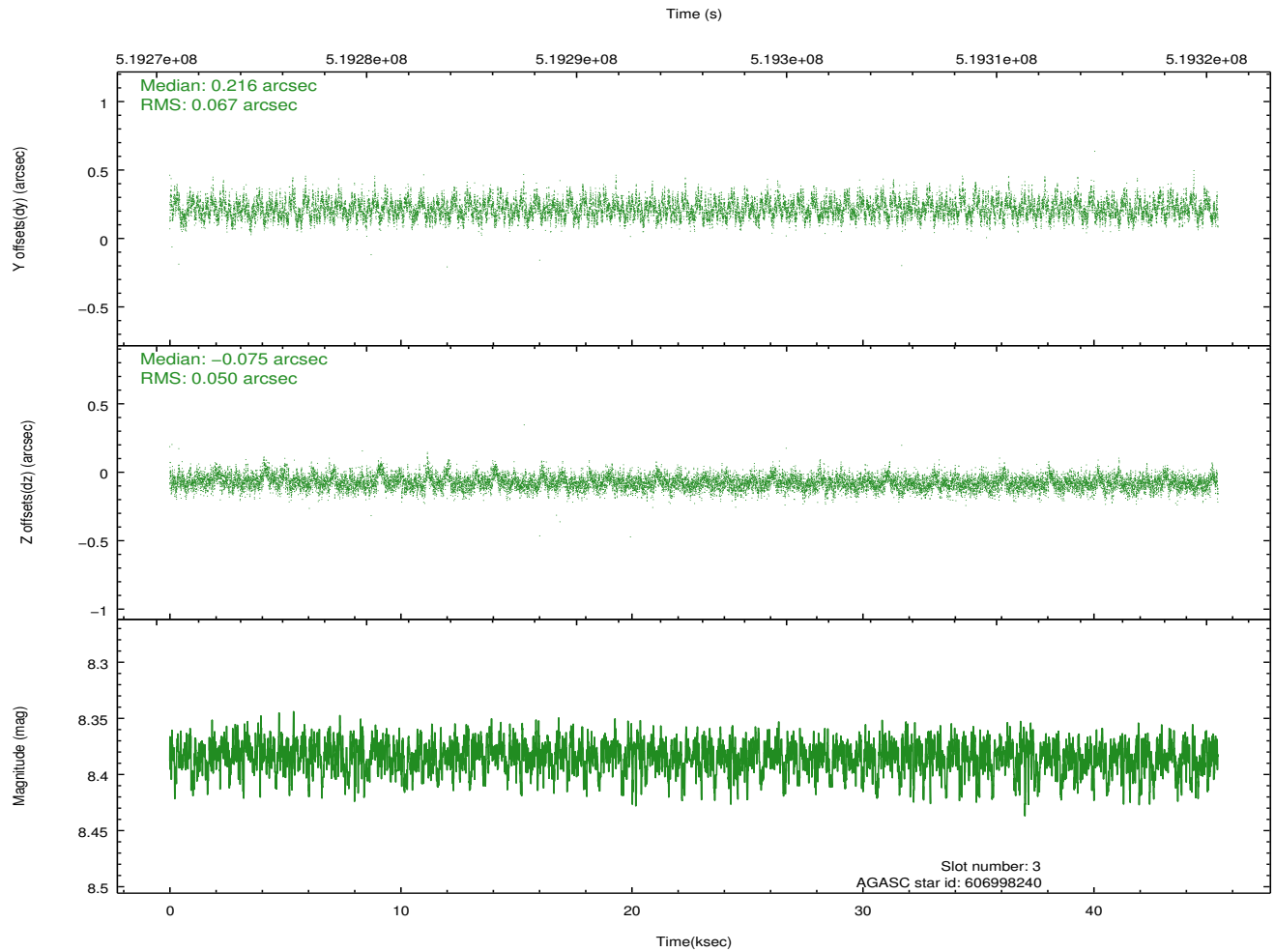
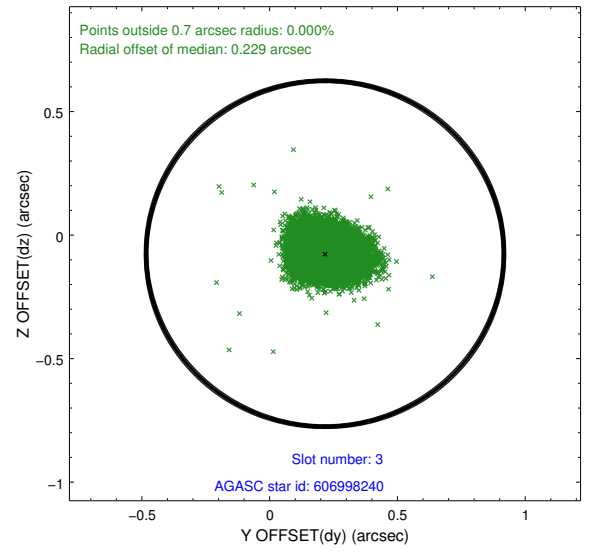
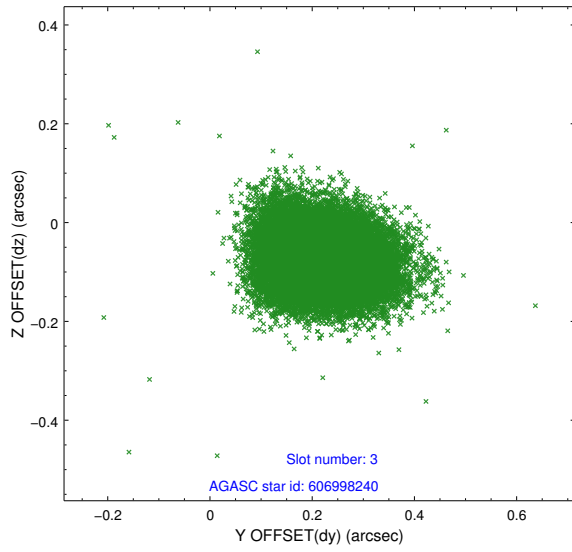
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	11068	-0.196	-0.102	0.010	0.039	0.000000	0.000000	-781.09	-1746.31
1	FID		ACIS-S-4	7.02	11068	0.239	0.119	0.009	0.035	0.000000	0.000000	2132.69	162.31
2	FID		ACIS-S-6	7.15	11068	-0.070	-0.010	0.008	0.019	0.000000	0.000000	381.10	799.63
3	GUIDE	used	606998240	8.38	22133	0.216	-0.075	0.087	0.143	142.037328	82.688368	1297.66	-2015.17
4	GUIDE	used	606998600	7.23	22135	-0.091	0.017	0.075	0.118	144.240165	82.925382	1016.50	-736.76
5	GUIDE	used	607012224	7.68	22132	0.098	0.008	0.090	0.149	143.315443	83.741617	-1765.58	284.48
6	GUIDE	used	607007344	9.02	22131	0.091	0.456	0.127	0.198	138.968012	83.636508	-2305.98	-1391.25
7	GUIDE	used	607003496	8.22	22125	-0.322	-0.402	0.092	0.145	149.989507	83.475683	222.88	2308.06

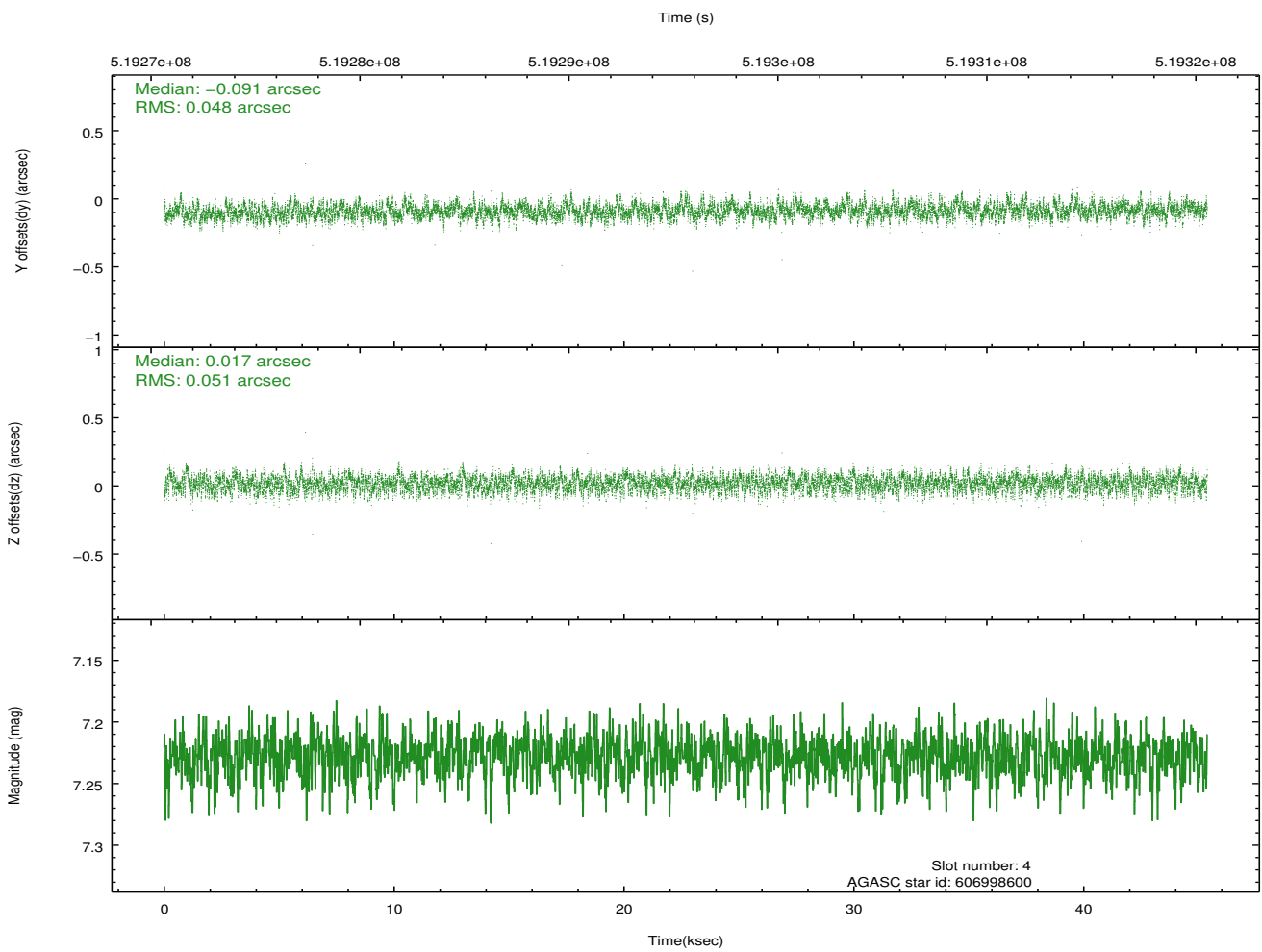
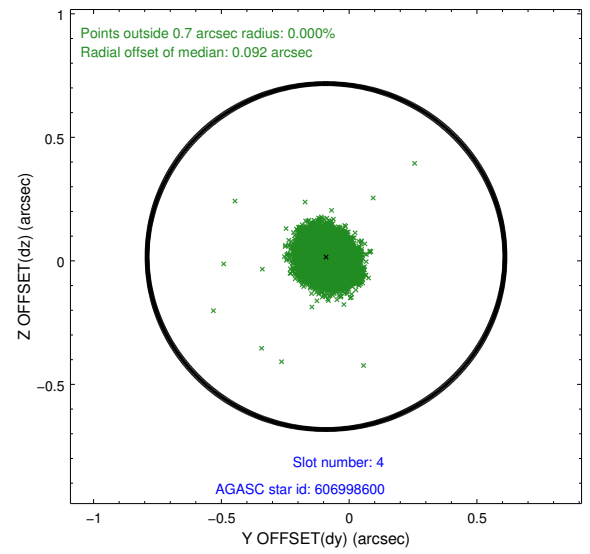
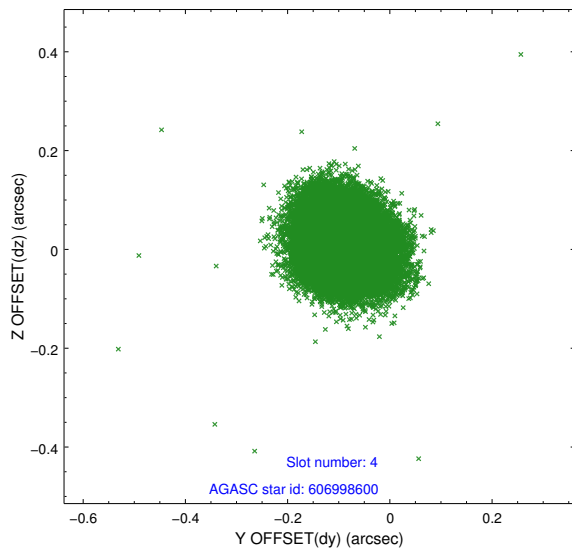
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2.4 Star Slots

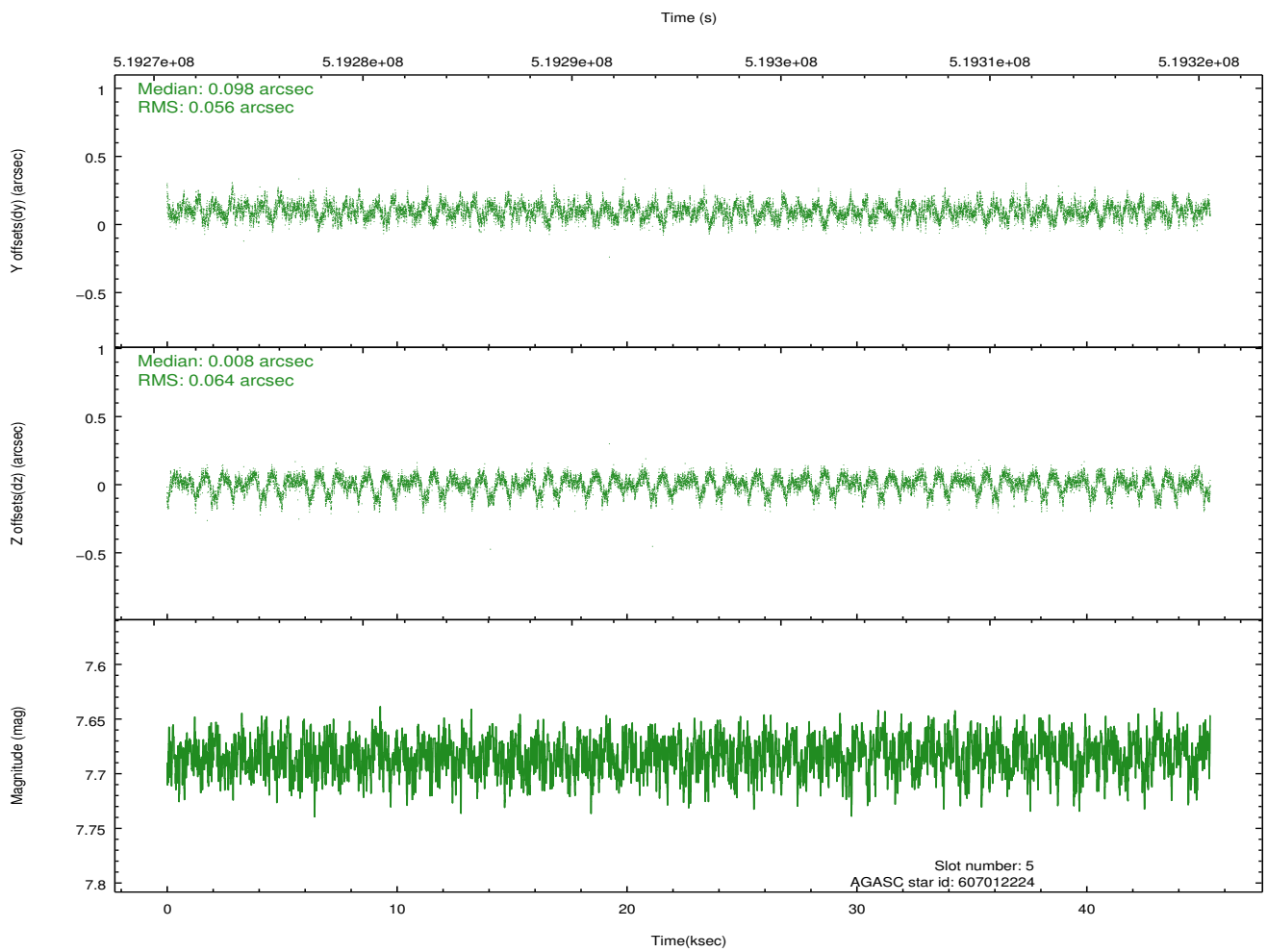
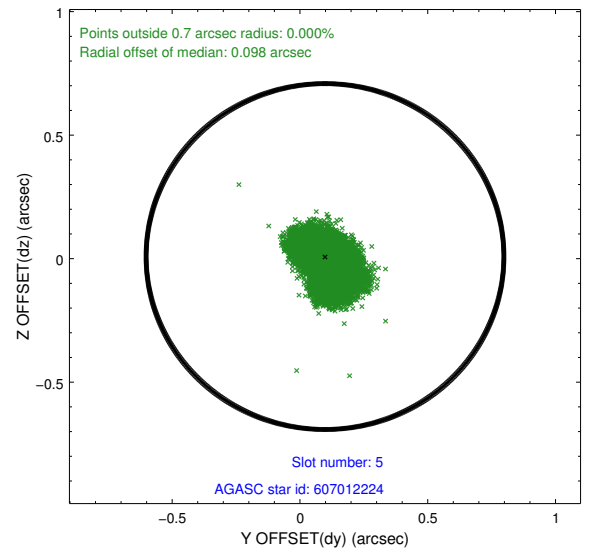
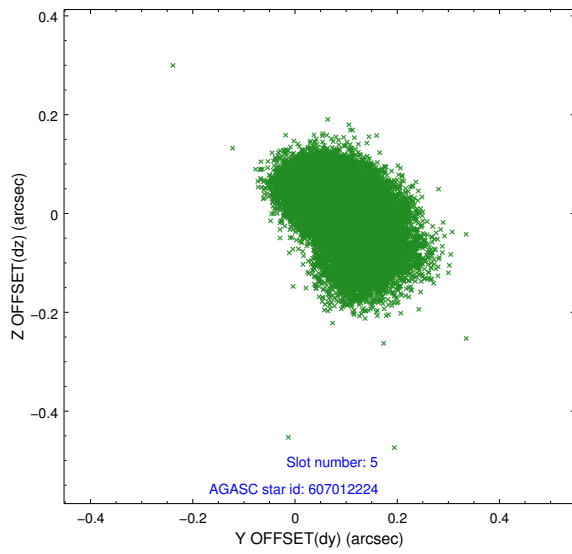
2.4.1 Slot 3



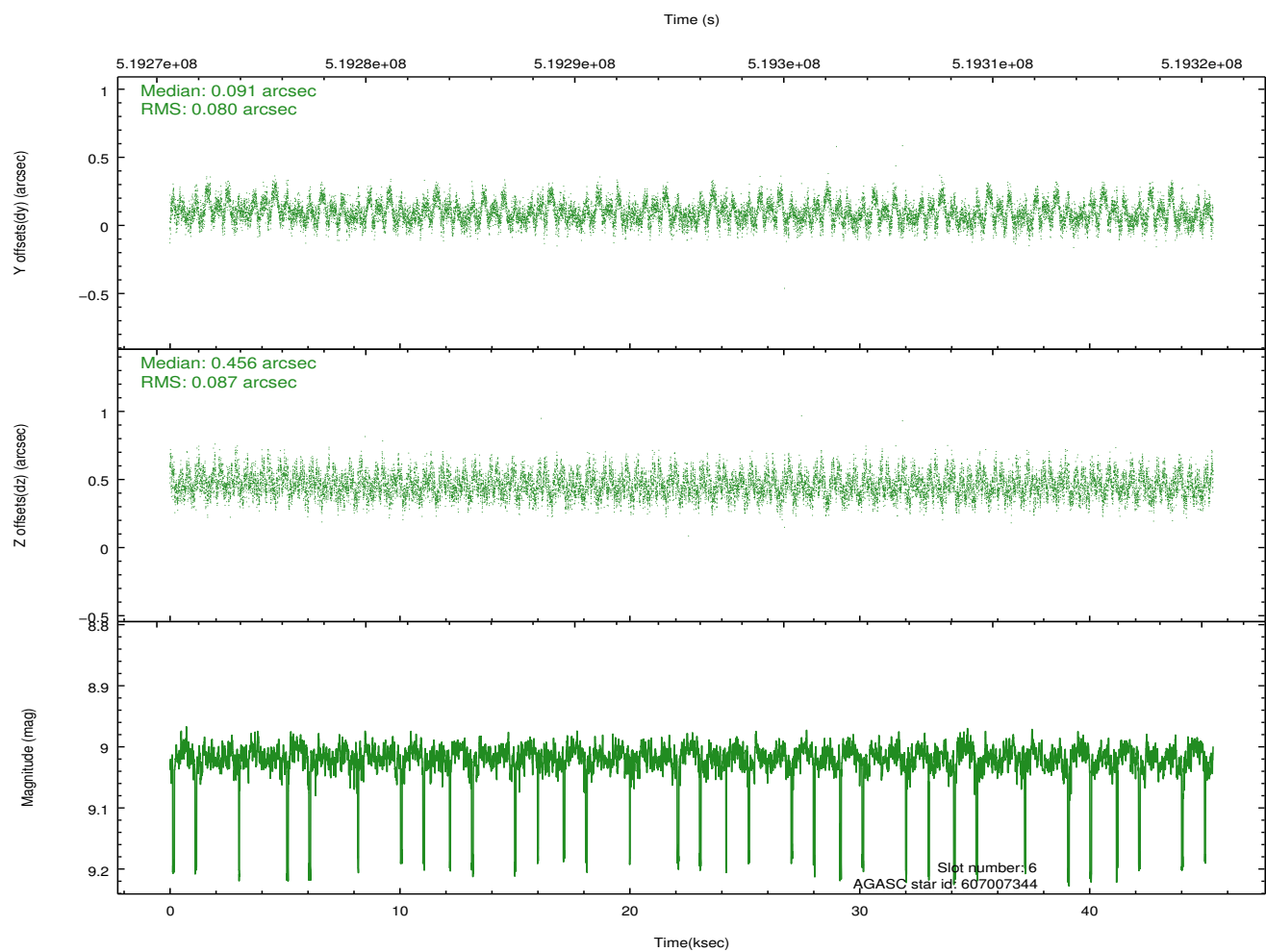
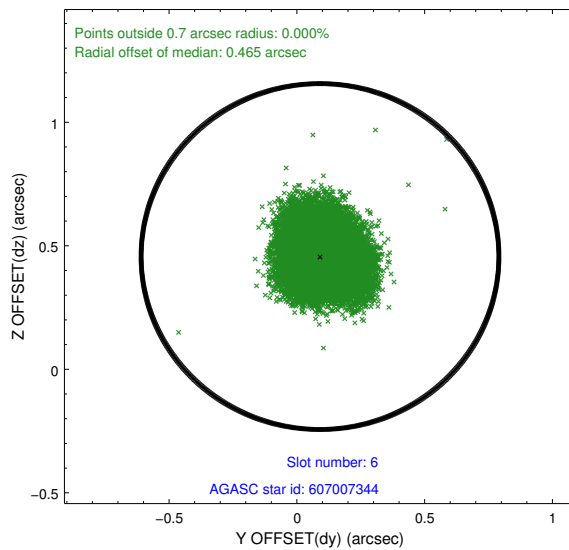
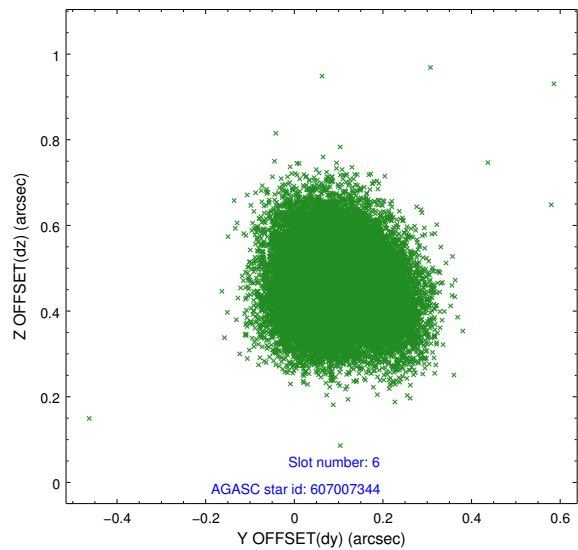
2.4.2 Slot 4



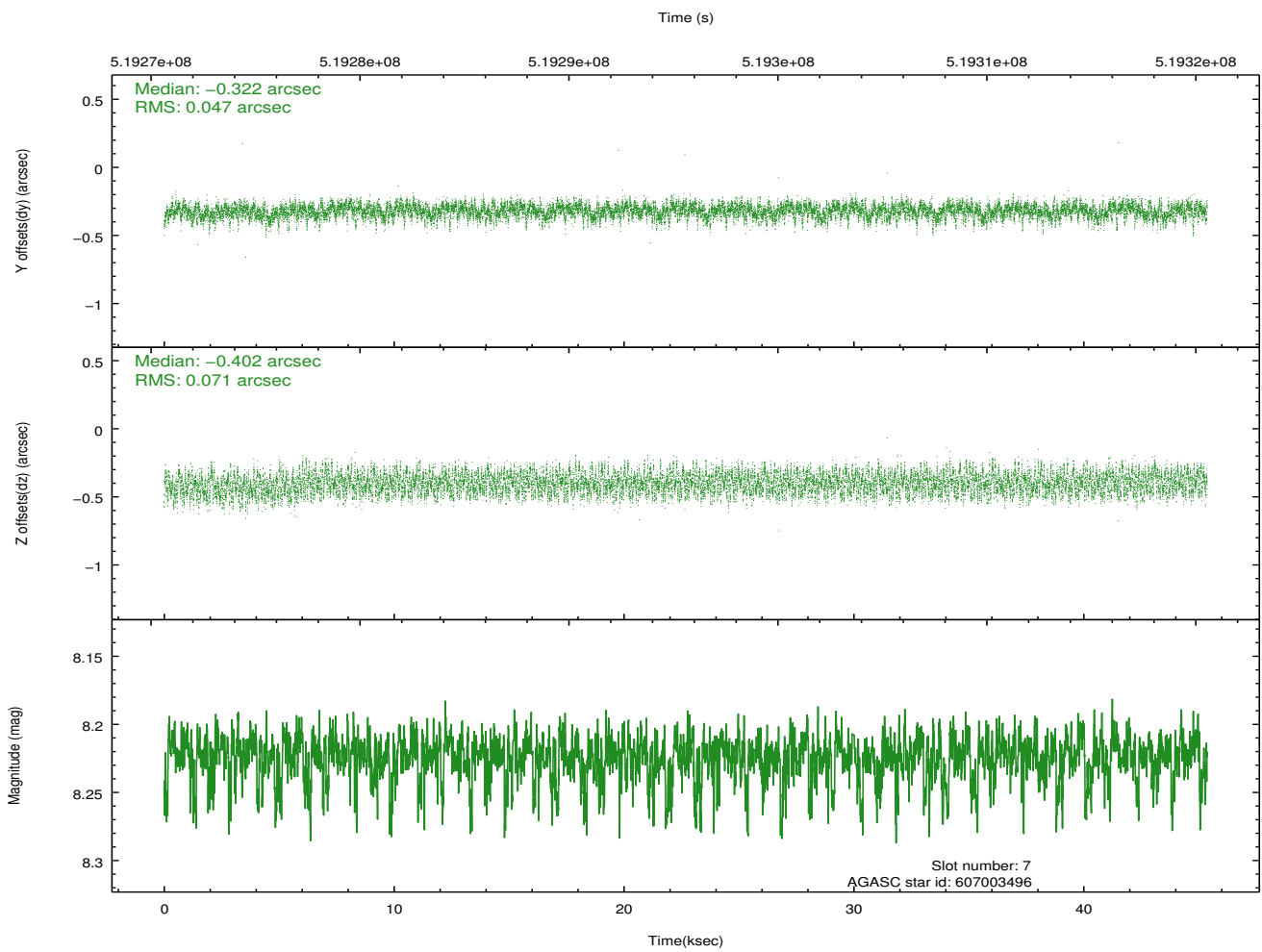
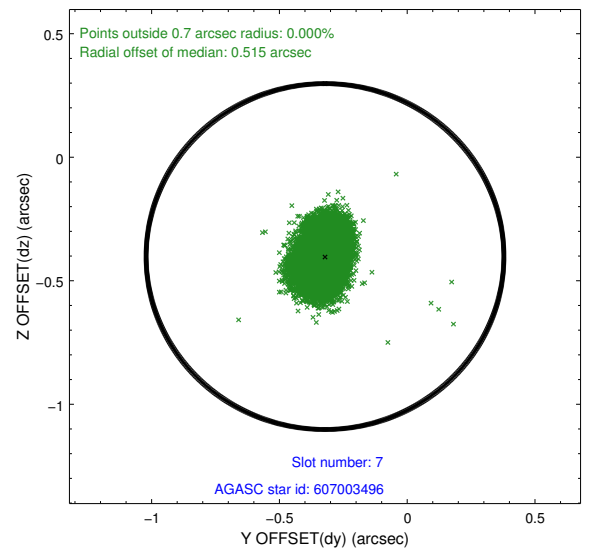
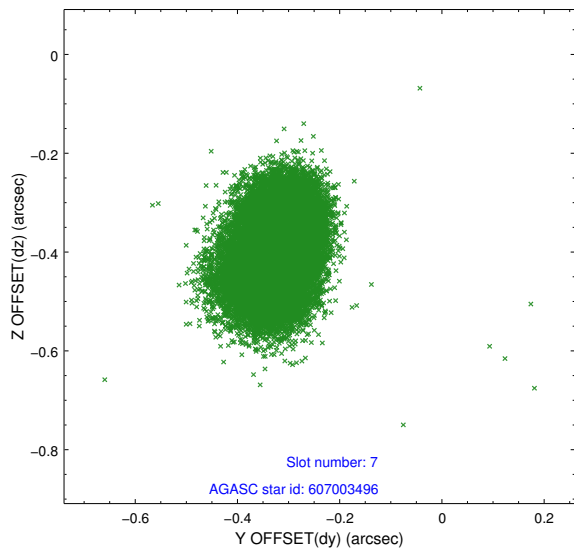
2.4.3 Slot 5



2.4.4 Slot 6

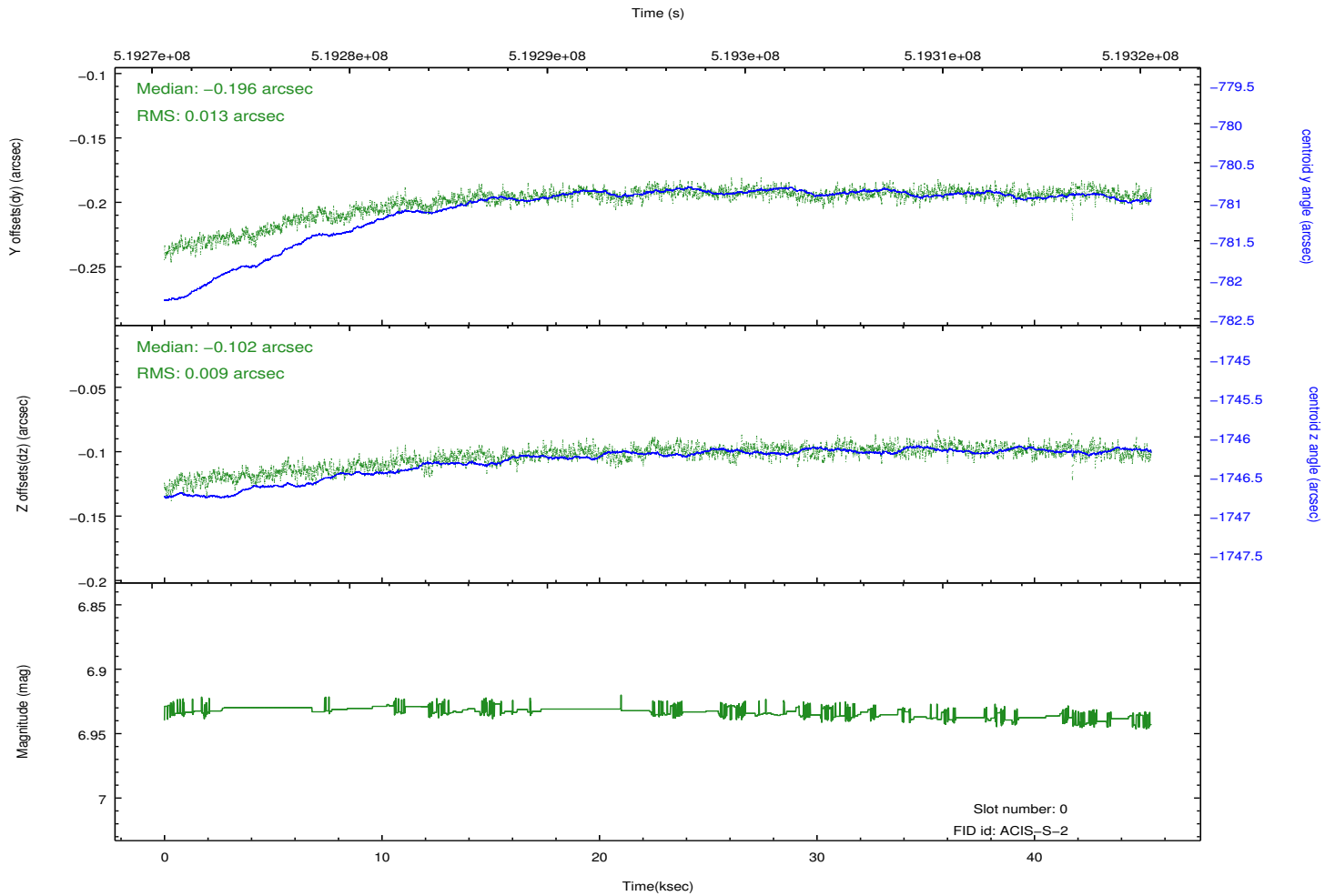
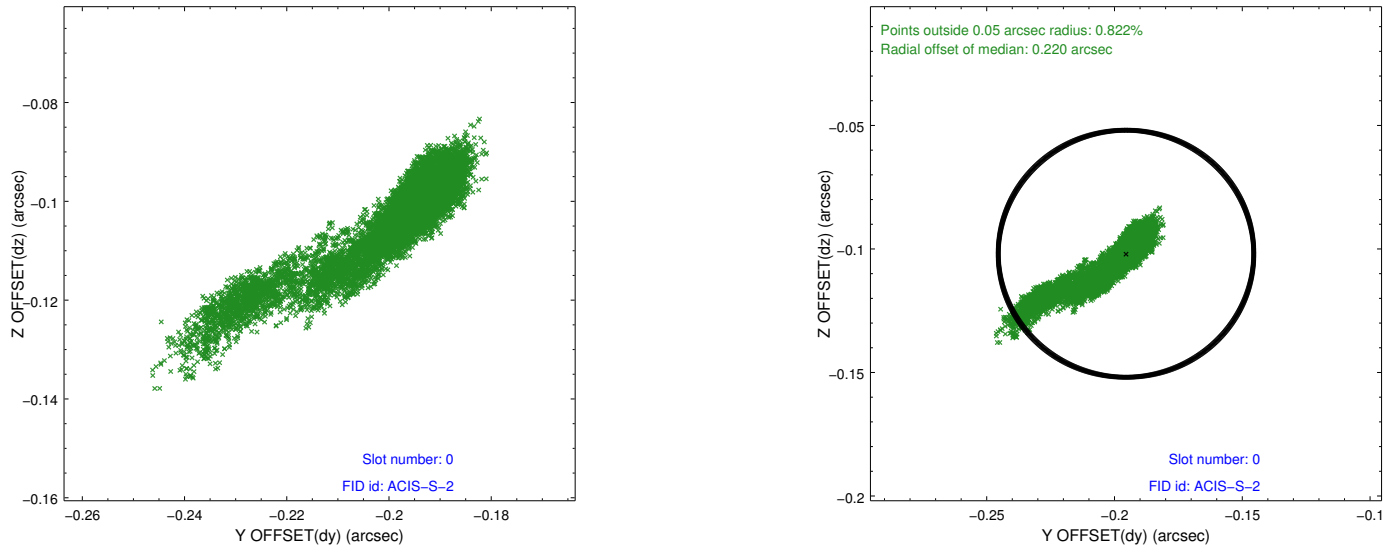


2.4.5 Slot 7

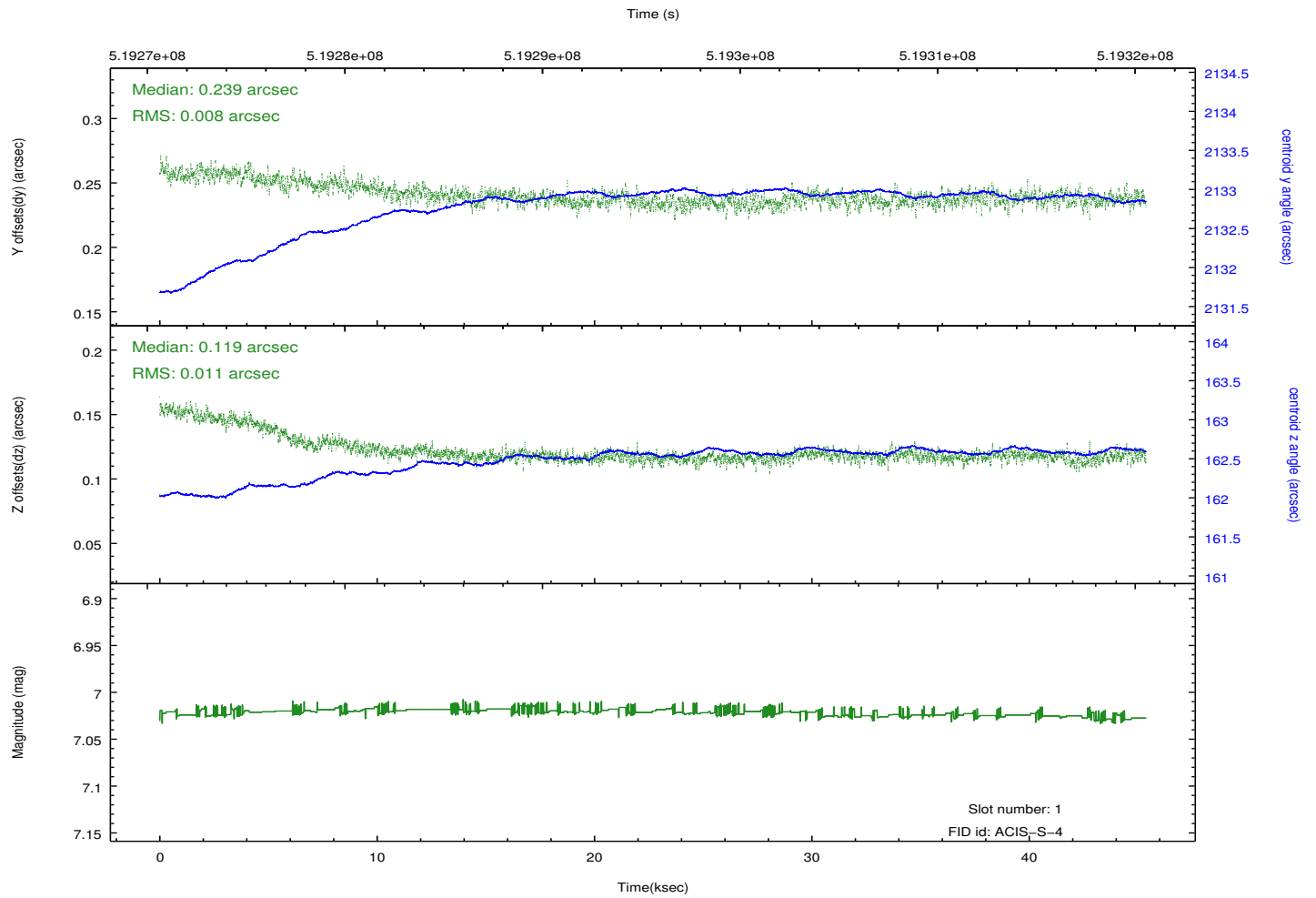
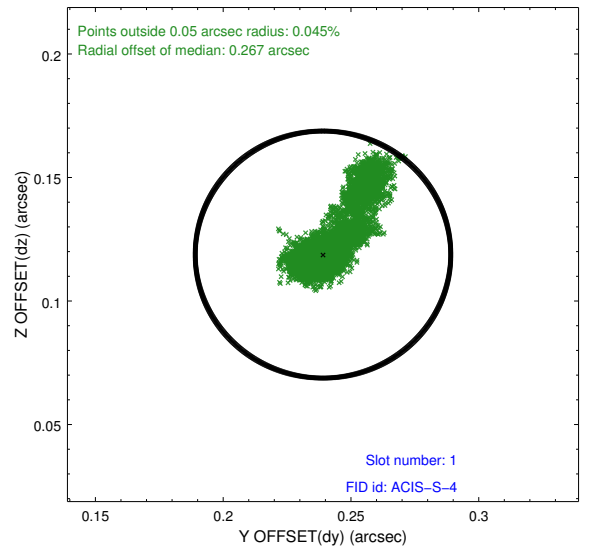
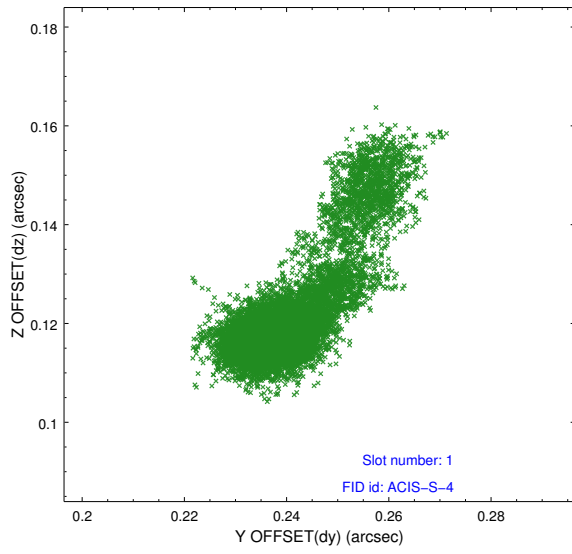


2.5 FID Slots

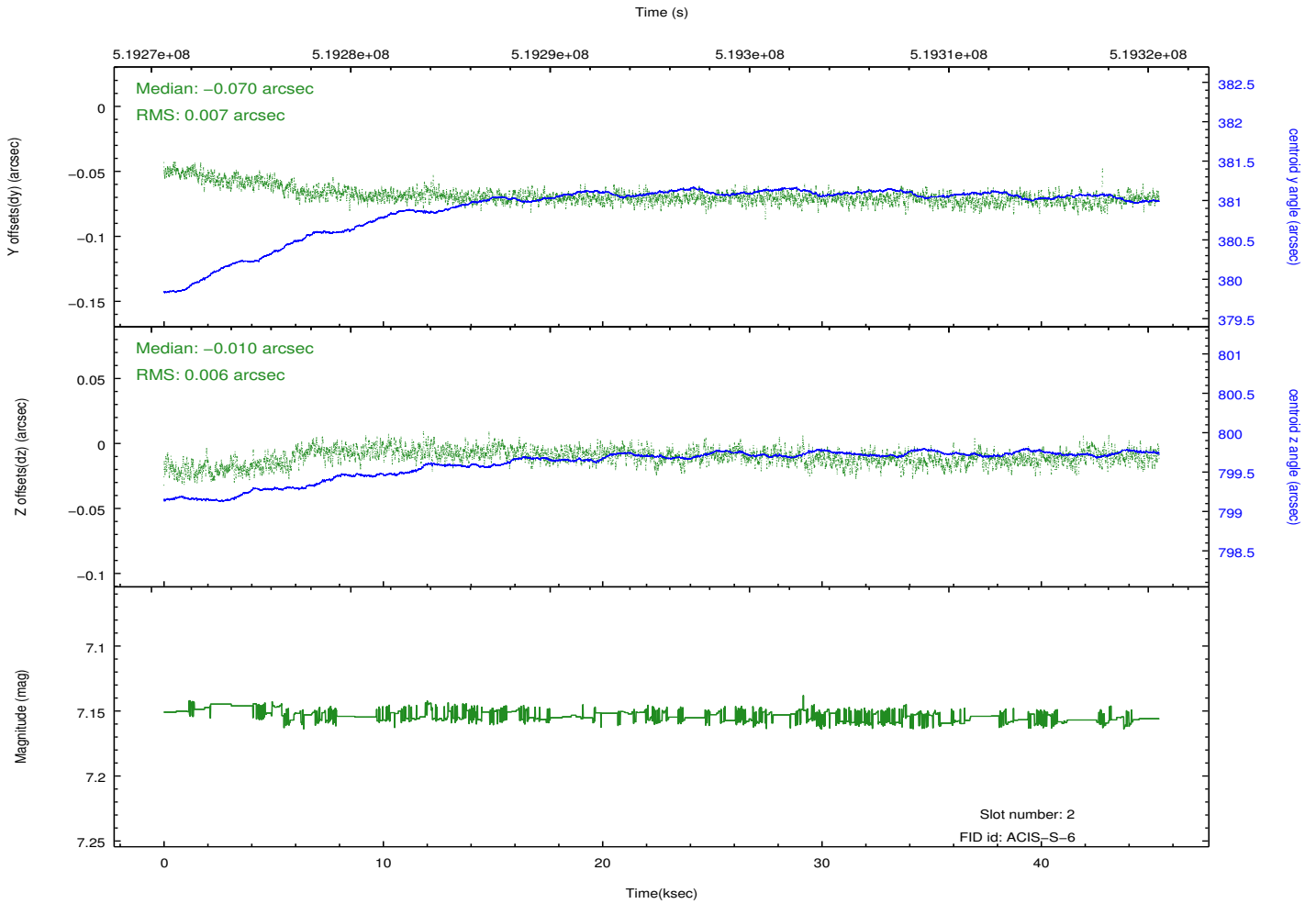
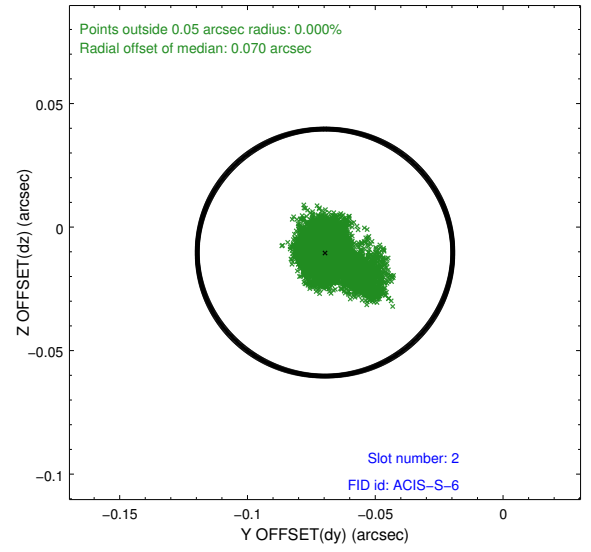
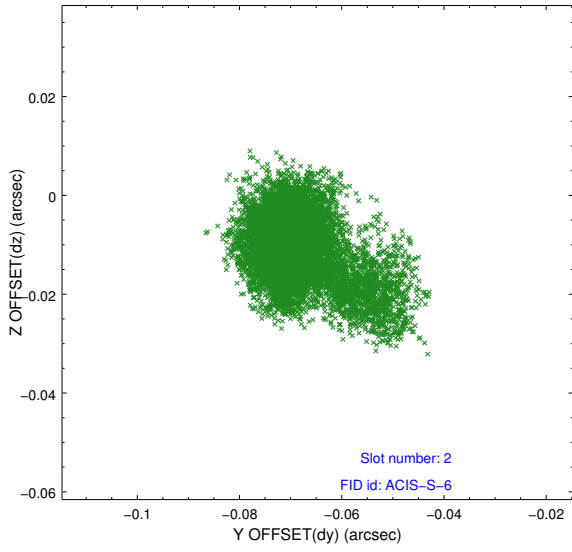
2.5.1 Slot 0



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)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.297200348377

A.2 Comments

Joint proposal with HST.

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.