

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 16261 - L2 Version 1
Chandra X-Ray Center

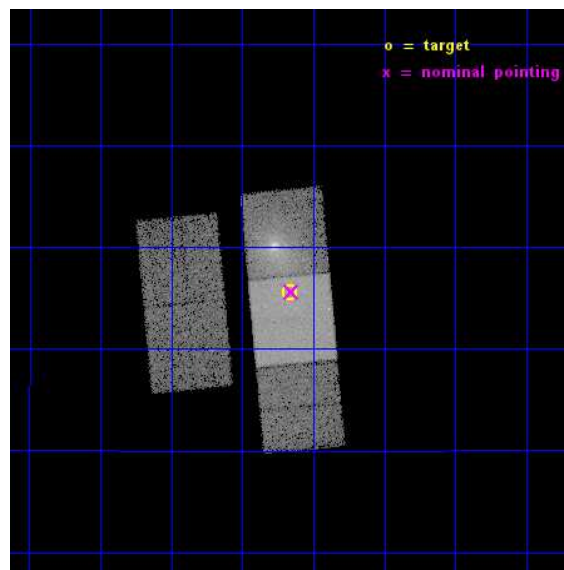
L2 Processing Date : Feb 24 2015

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1 Front

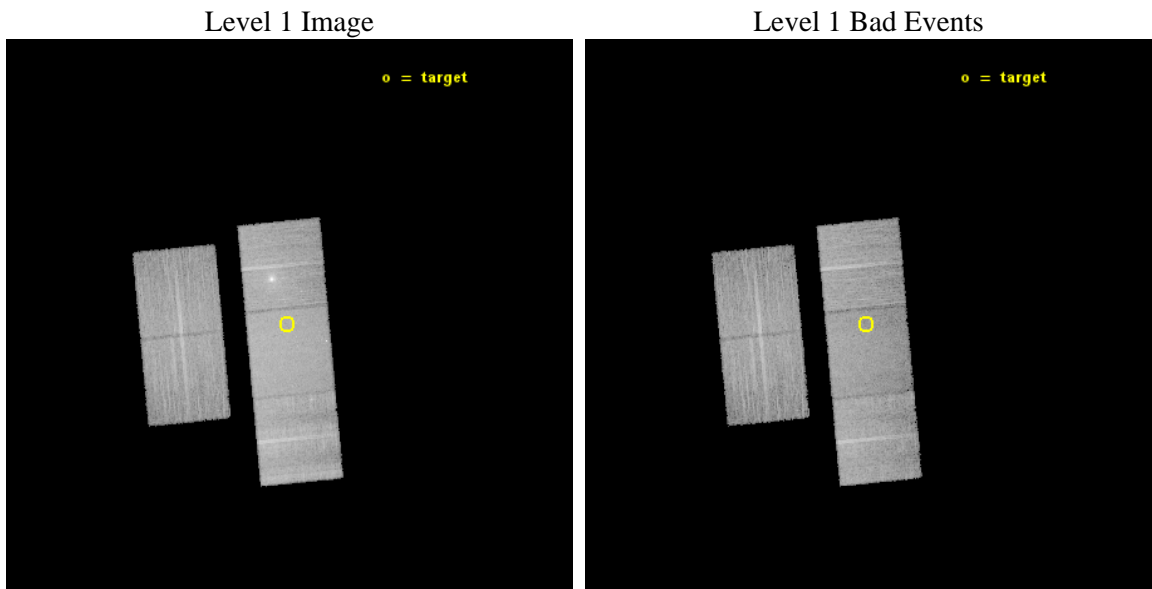
seq_num	601136	Sequence number
obs_id	16261	Observation id
title	Long-term X-ray and Optical Study of the Black Hole X-ray Binaries in the Elliptical Galaxy NGC 4472	Proposal title
observer	Steve Zepf	Principal investigator
object	XMMUJ122939.9 +075333	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.41625	Observer's specified target RA [deg]
dec_targ	7.925	Observer's specified target Dec [deg]
ra_nom	187.41378260205	Nominal RA [deg]
dec_nom	7.9269747063703	Nominal Dec [deg]
roll_nom	84.525246311382	Nominal Roll [deg]
revision	1	Processing version of data
ontime	23057.800177455	Sum of GTIs [s]
livetime	22756.533043231	Livetime [s]
ontime2	23057.800177455	Sum of GTIs [s]
ontime3	23057.800177455	Sum of GTIs [s]
ontime6	23057.800177455	Sum of GTIs [s]
ontime7	23057.800177455	Sum of GTIs [s]
ontime8	23057.800177455	Sum of GTIs [s]
l2events	143468	Number of level 2 events



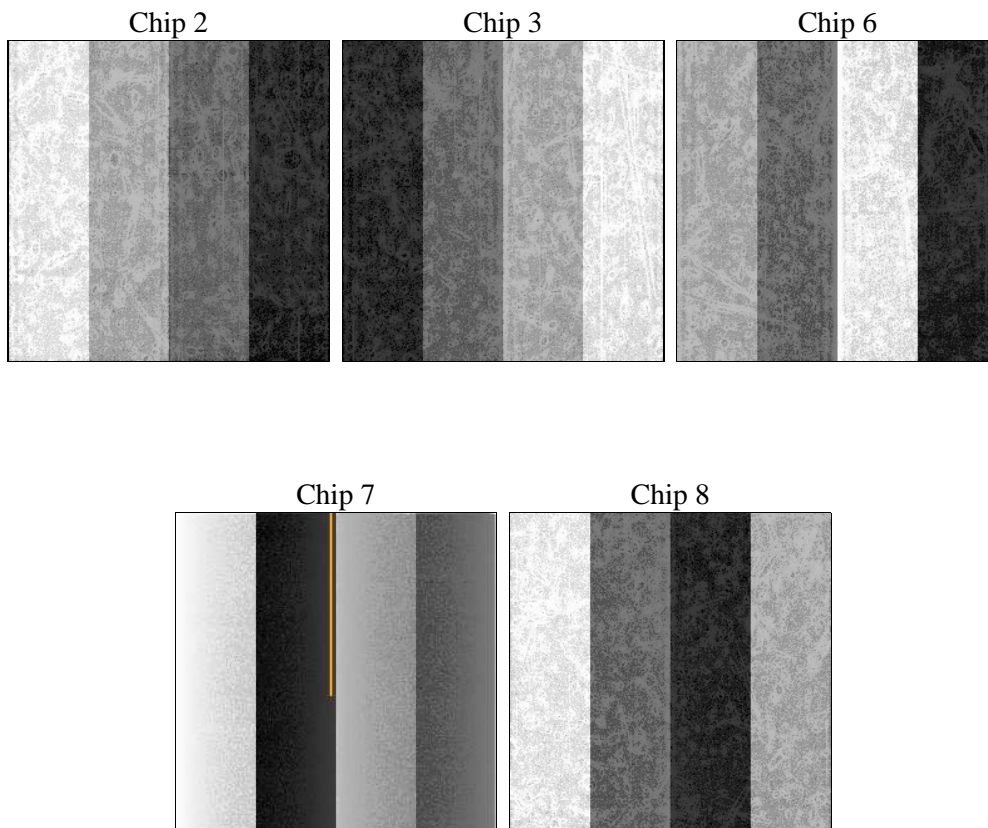
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	23057.800177455	Sum of GTIs [s]
caldbver	4.6.7	 	ontime2	23057.800177455	Sum of GTIs [s]
date	2015-02-25T04:27:52	Date and time of file creation	ontime3	23057.800177455	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	23057.800177455	Sum of GTIs [s]
			ontime7	23057.800177455	Sum of GTIs [s]
			ontime8	23057.800177455	Sum of GTIs [s]
			l1events	682276	Number of level 1 events

2.1.4 Events

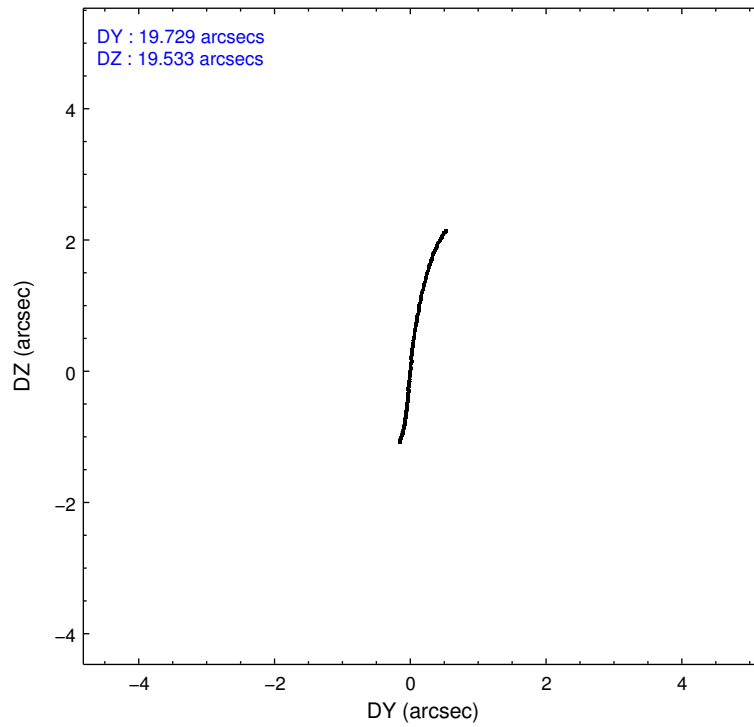
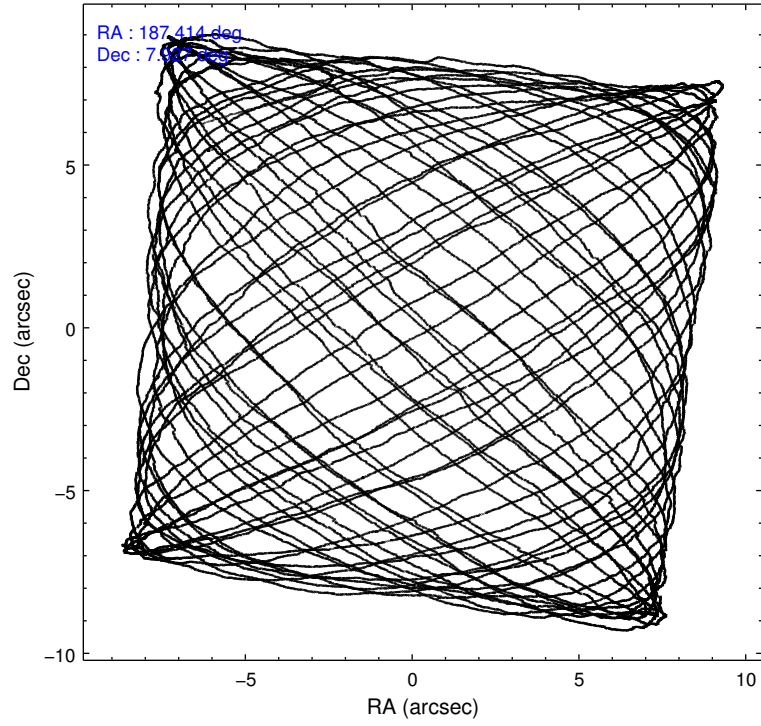
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	110707	110403	140471	162239	158456
rejected events	96892	97697	104813	87416	112344
rejected %	87%	88%	74%	53%	70%

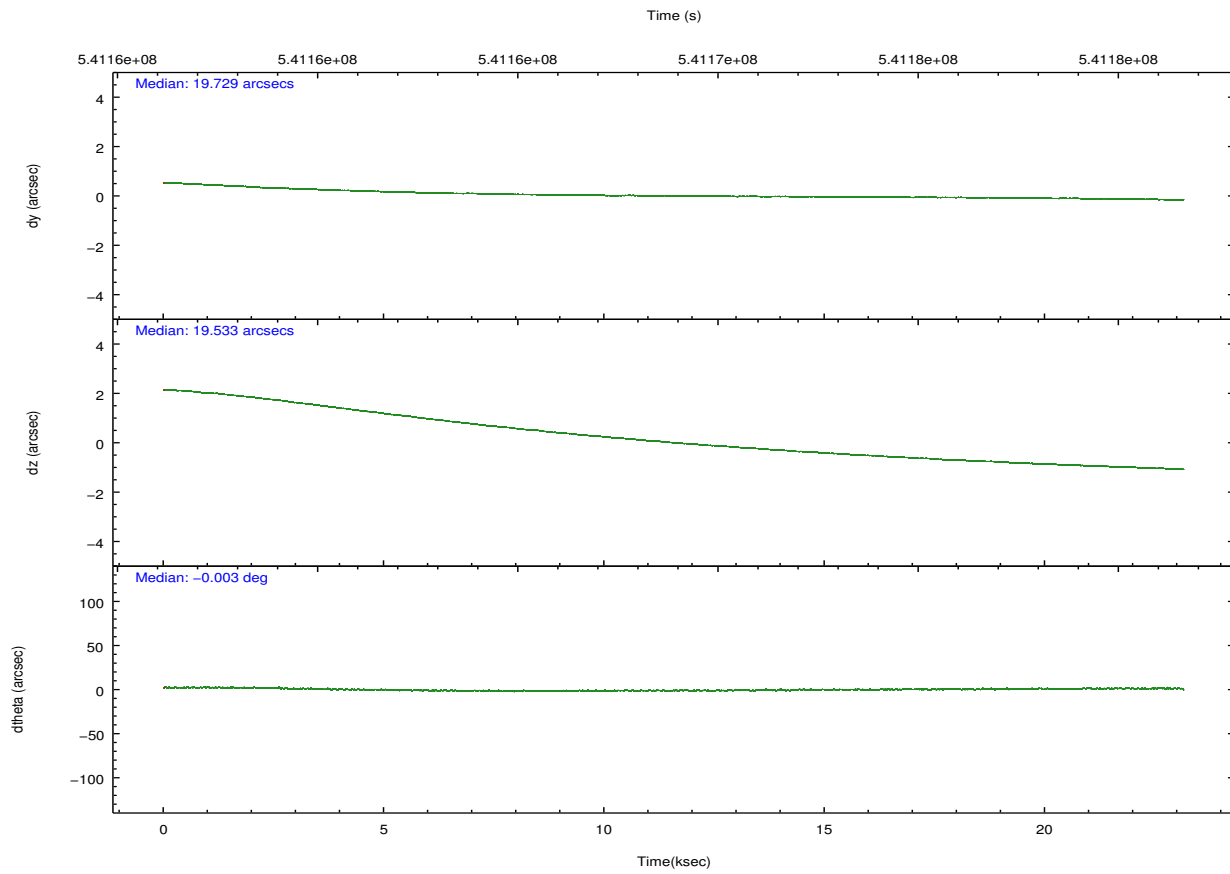
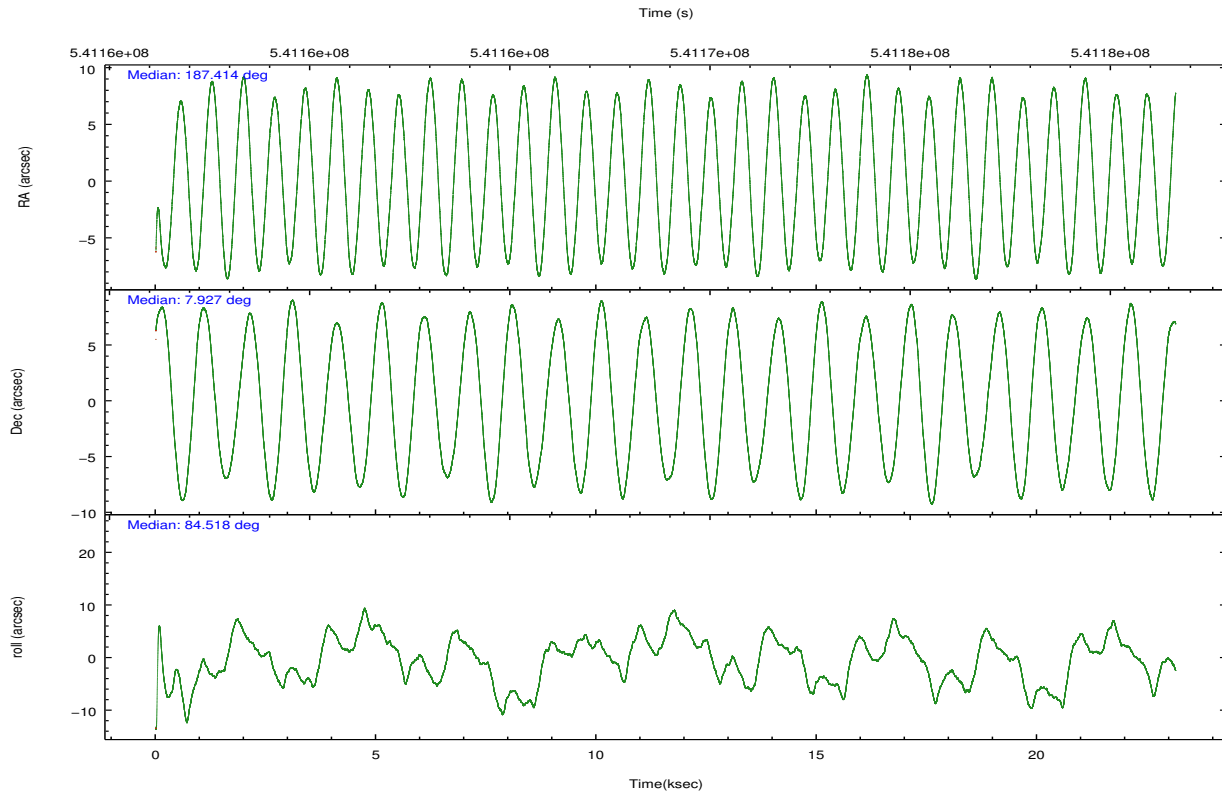
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5515	4616	23399	8329	13599
	4%	4%	16%	5%	8%
grade 1 events	58	77	124	204	133
	0%	0%	0%	0%	0%
grade 2 events	3257	2834	5062	16027	10593
	2%	2%	3%	9%	6%
grade 3 events	1283	1314	1916	6516	4945
	1%	1%	1%	4%	3%
grade 4 events	1278	1353	1818	6554	4909
	1%	1%	1%	4%	3%
grade 5 events	4635	5687	6004	15663	8847
	4%	5%	4%	9%	5%
grade 6 events	2484	2592	3474	37412	12076
	2%	2%	2%	23%	7%
grade 7 events	92197	91930	98674	71534	103354
	83%	83%	70%	44%	65%

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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	187.425637	187.4137826020514	CCD I2 on	O1	Y
[deg] Pointing Dec	7.902143	7.92697470637029	CCD I3 on	O2	Y
[deg] Pointing Roll	84.366999	84.52524631138151	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	O4	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	O3	Y
[s] Observation start time (MET)	541157471.184000	541156220.06436	CCD S5 on	N	N
Observation start date	2015-02-24T09:30:04	2015-02-24T09:10:20	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	541180471.184000	541181331.02826	On-chip summing requested	N	N
Observation end date	2015-02-24T15:53:24	2015-02-24T16:08:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



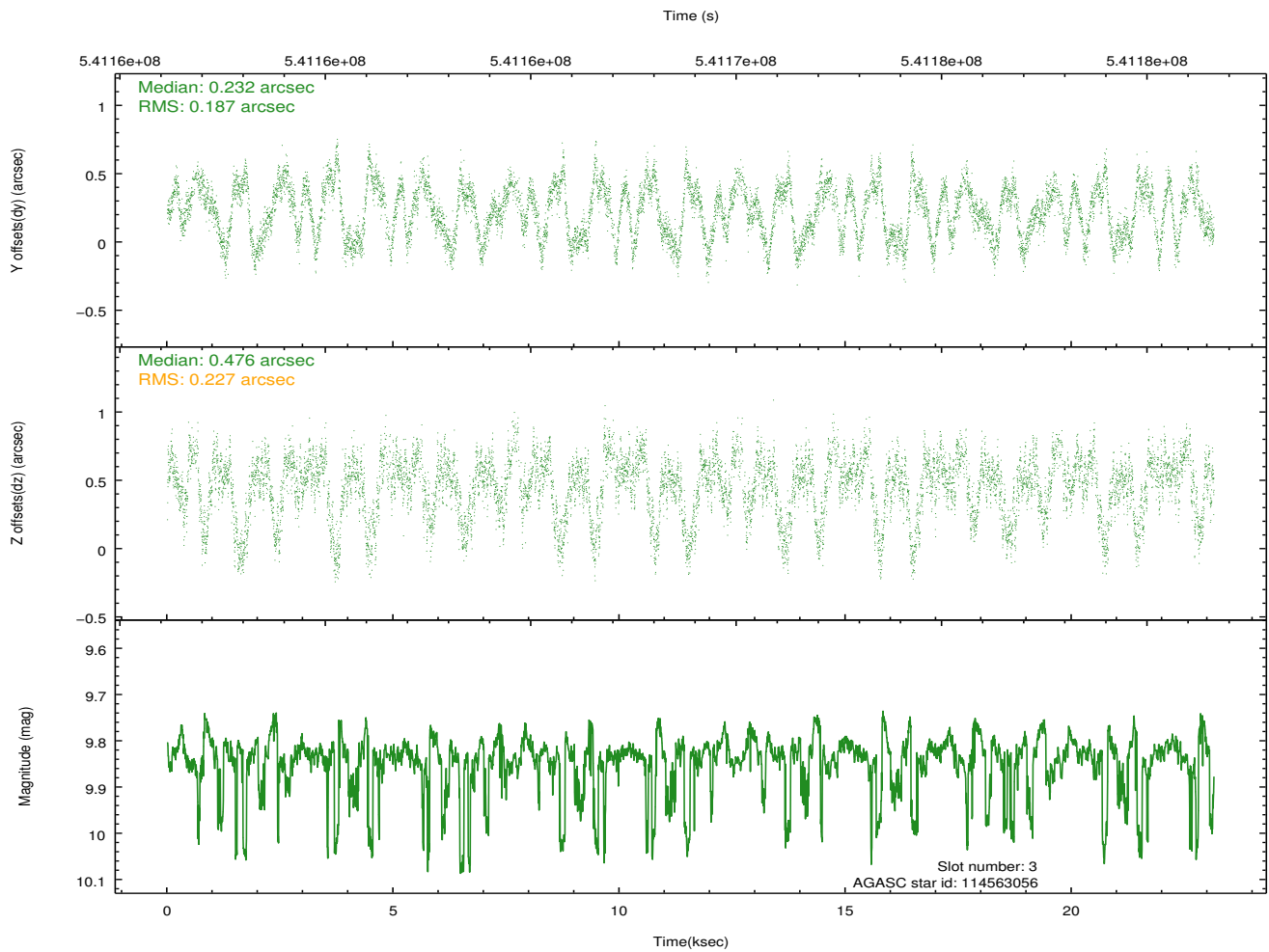
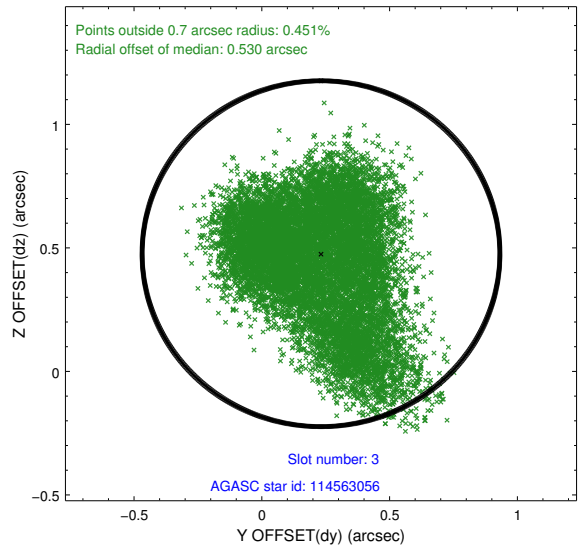
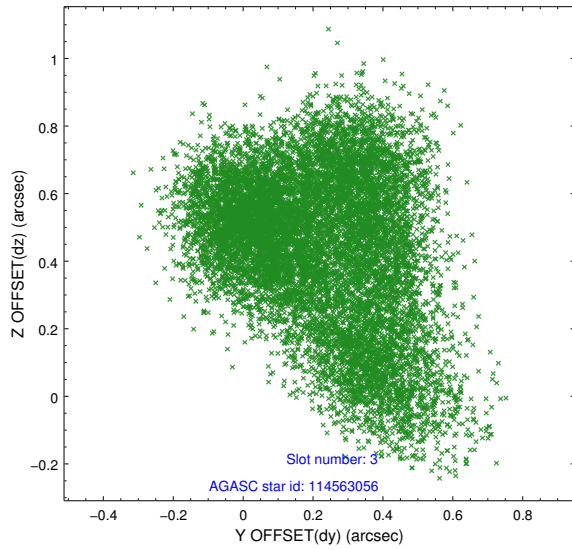


Slot Statistics

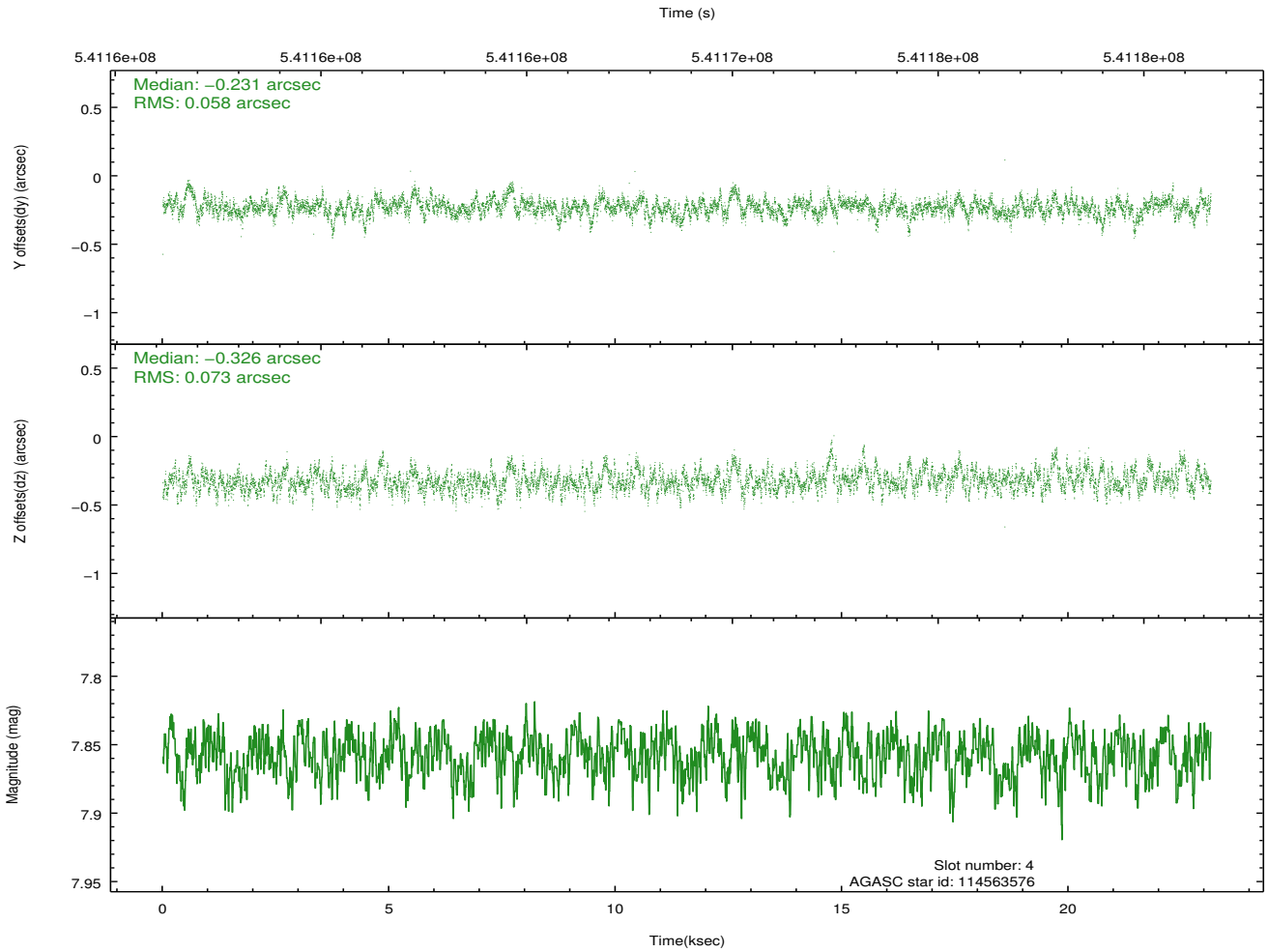
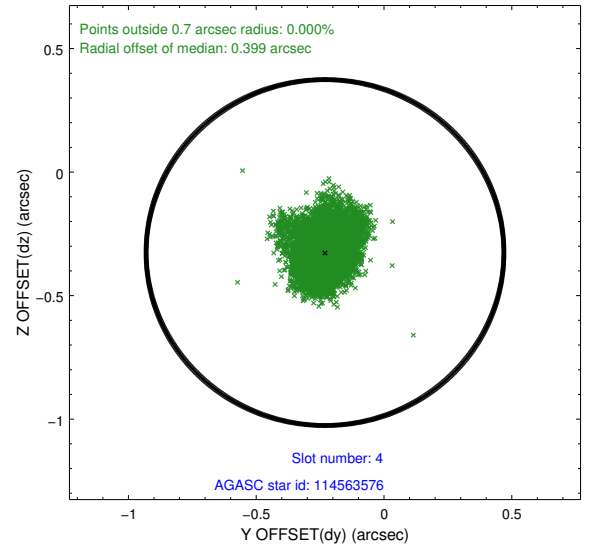
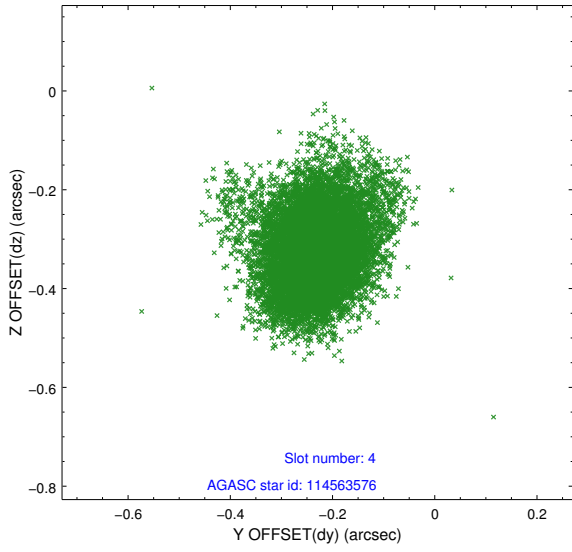
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.97	5645	-0.151	-0.063	0.019	0.028	0.000000	0.000000	-773.06	-1741.32
1	FID		ACIS-S-4	7.07	5645	0.350	0.090	0.009	0.033	0.000000	0.000000	2140.67	167.14
2	FID		ACIS-S-5	7.07	5645	-0.228	-0.018	0.022	0.030	0.000000	0.000000	-1825.77	160.90
3	GUIDE	used	114563056	9.83	10857	0.232	0.476	0.306	0.513	188.043188	7.639178	-724.30	-2285.21
4	GUIDE	used	114563576	7.86	11288	-0.231	-0.326	0.096	0.169	186.867039	8.012388	200.18	2021.12
5	GUIDE	used	114563648	9.73	11056	0.070	-0.096	0.340	0.474	187.009208	7.938475	-14.41	1490.77
6	GUIDE	used	114565064	9.95	11262	0.234	0.537	0.229	0.361	187.898151	7.788605	-240.03	-1716.60
7	GUIDE	used	114565400	6.31	11287	-0.302	-0.565	0.108	0.176	186.925333	8.610343	2363.15	2021.78

2.4 Star Slots

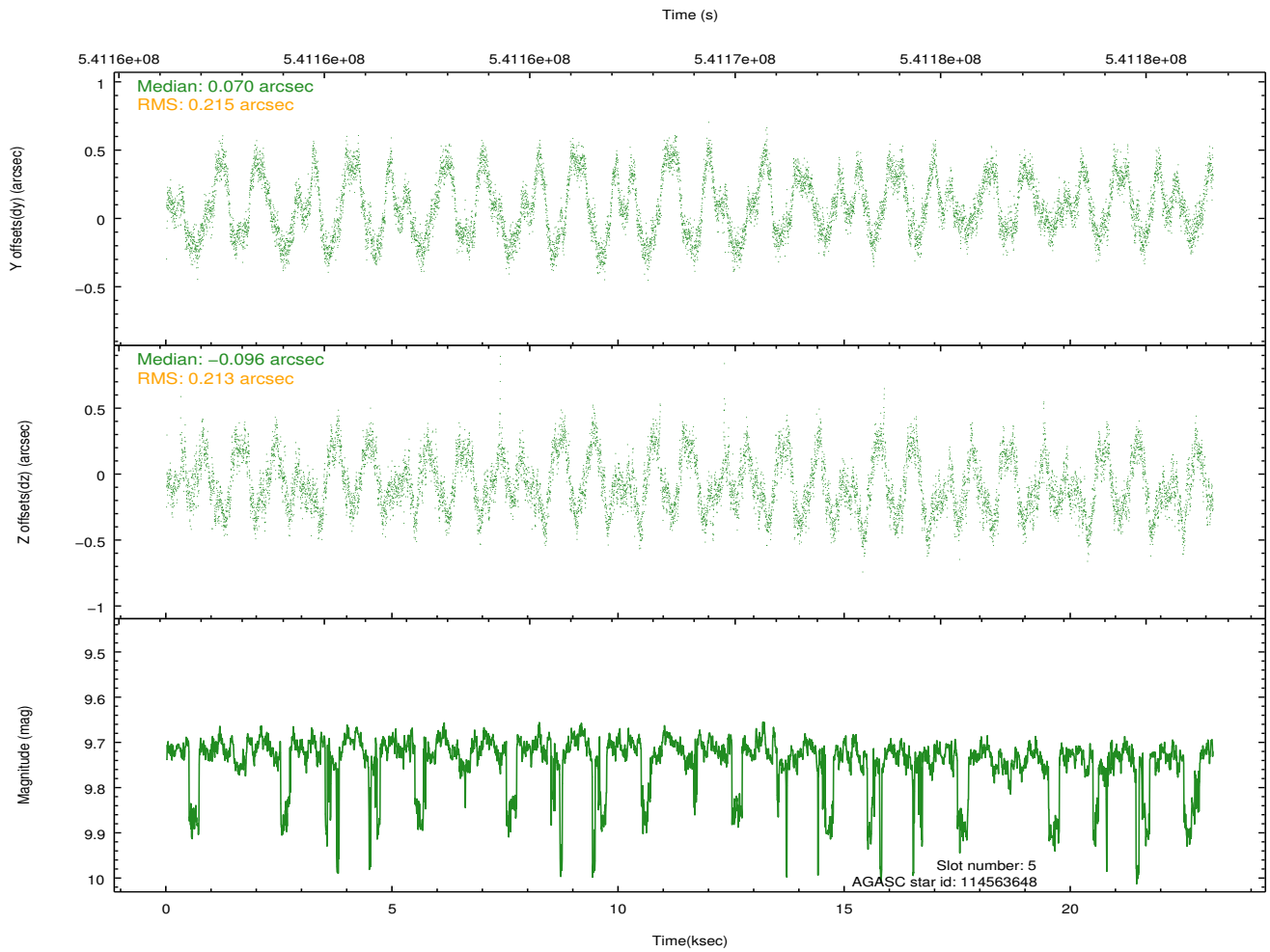
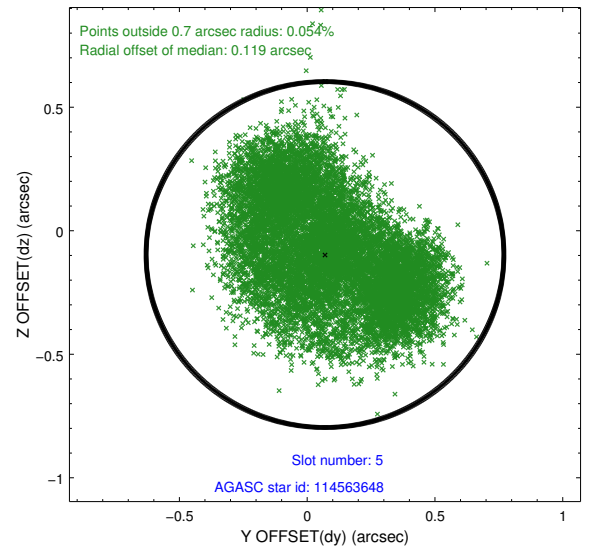
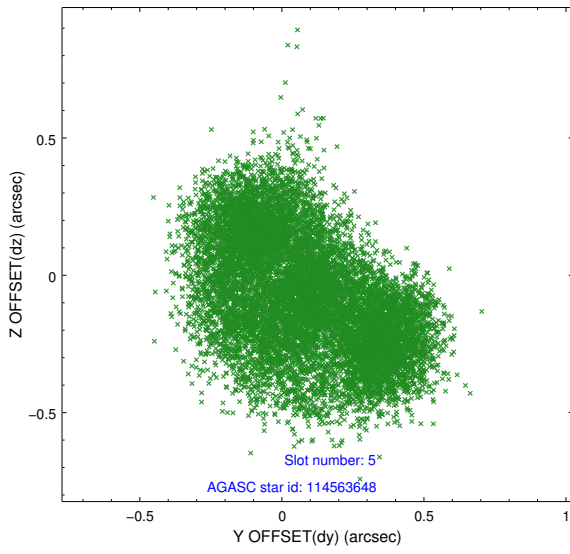
2.4.1 Slot 3



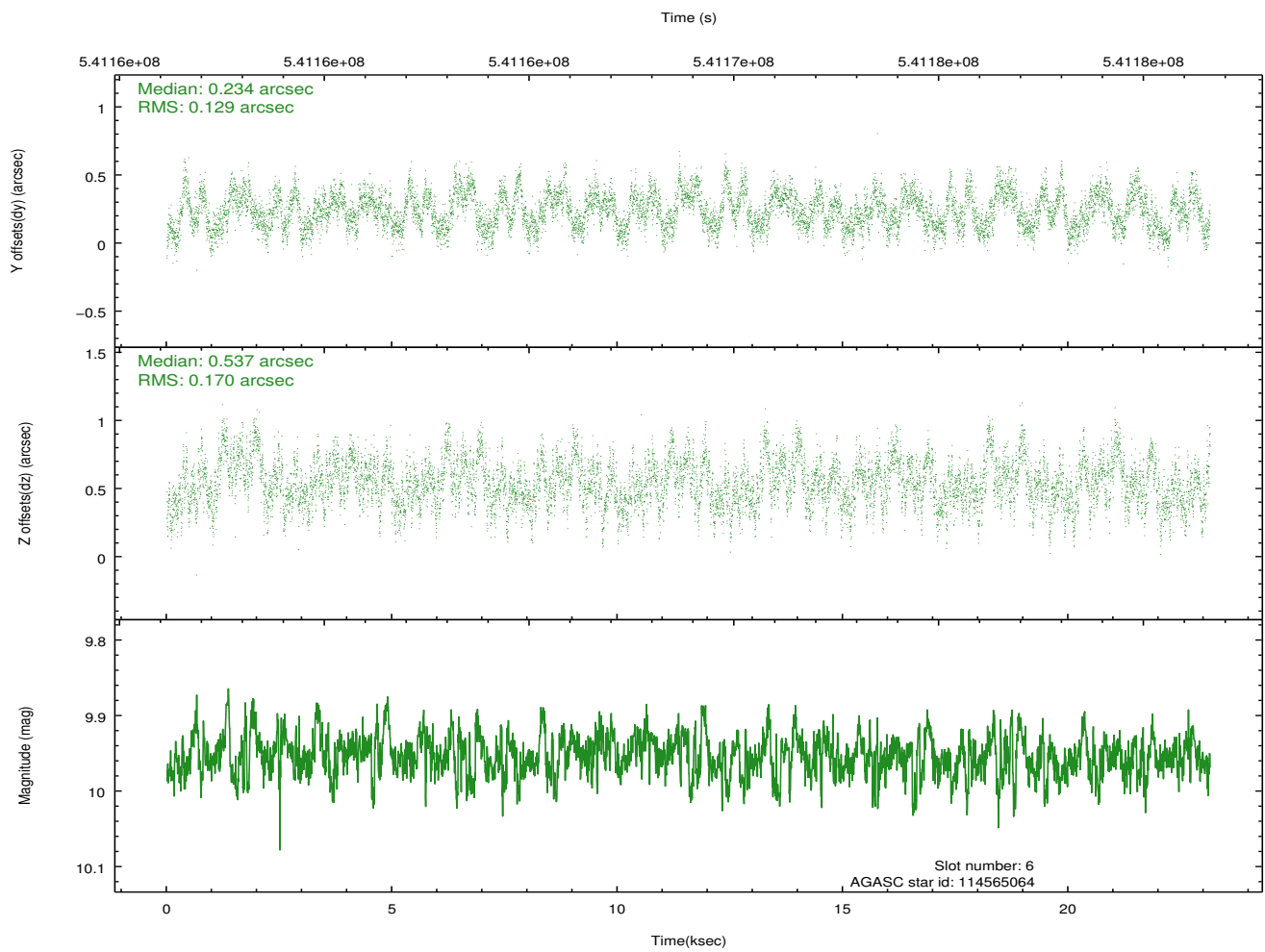
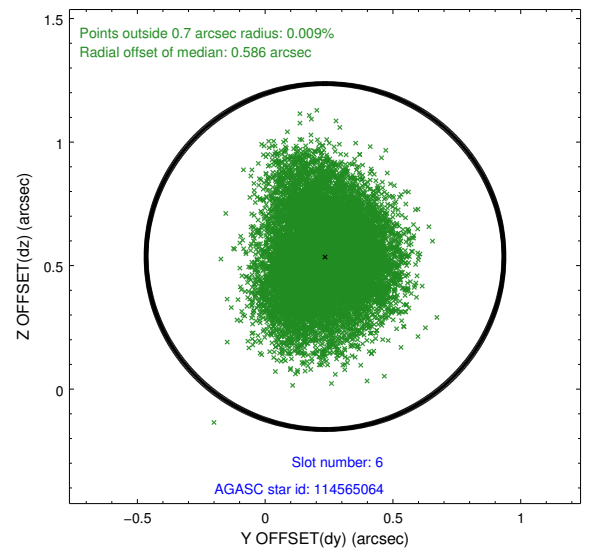
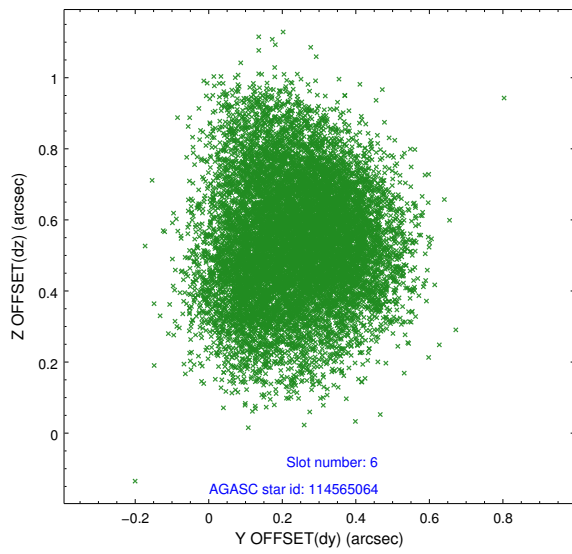
2.4.2 Slot 4



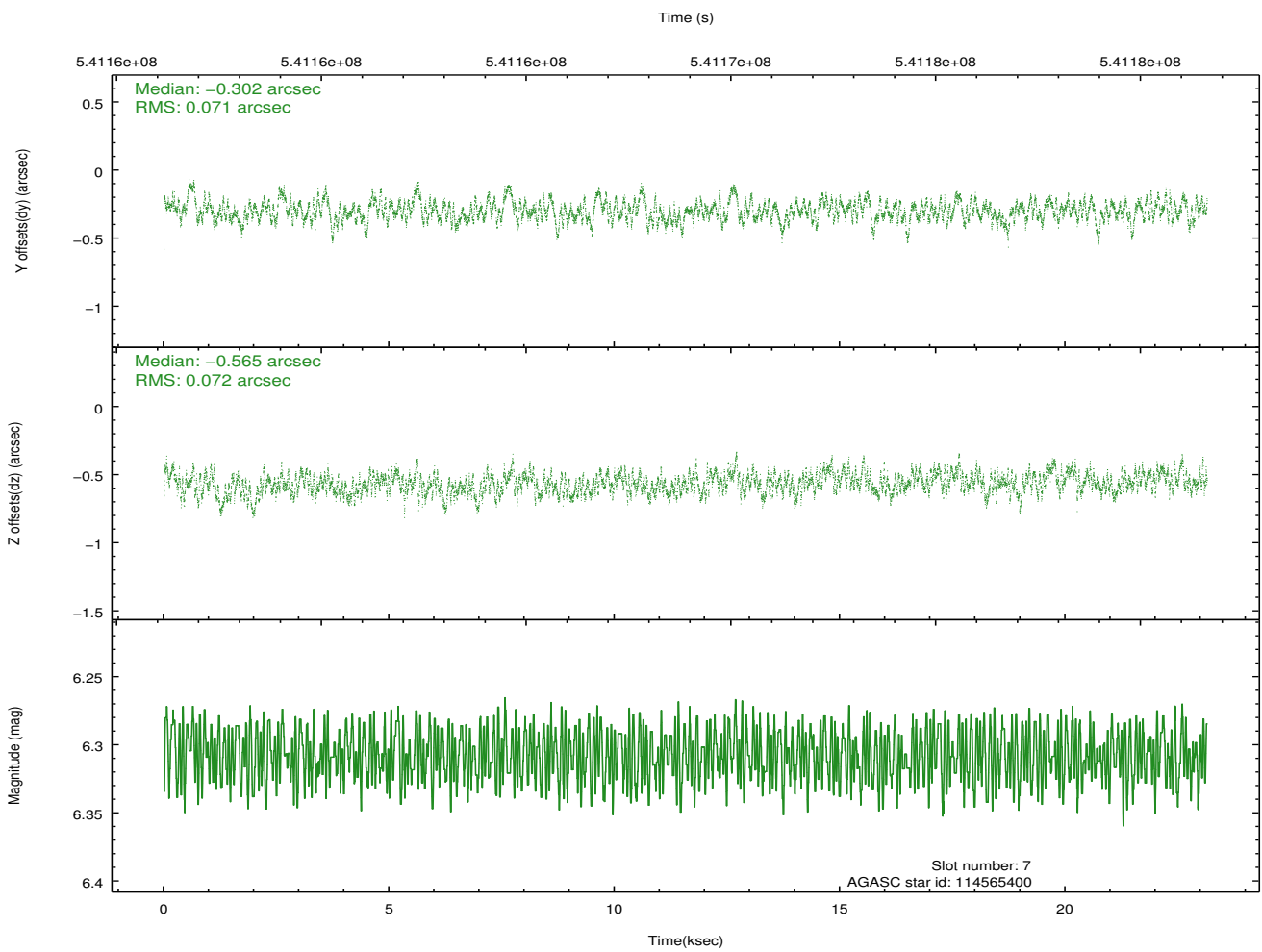
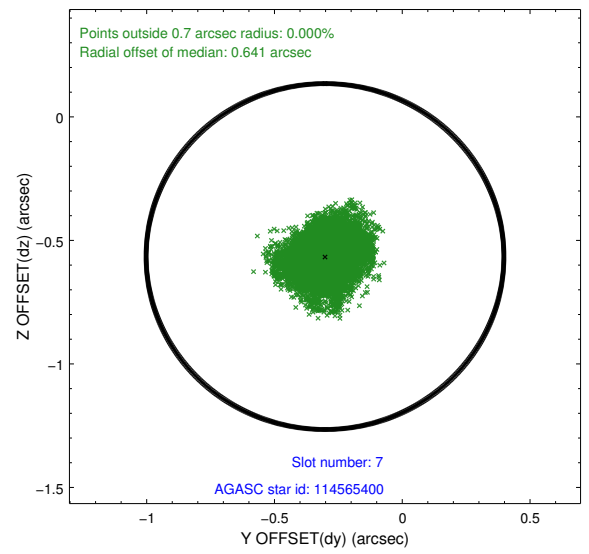
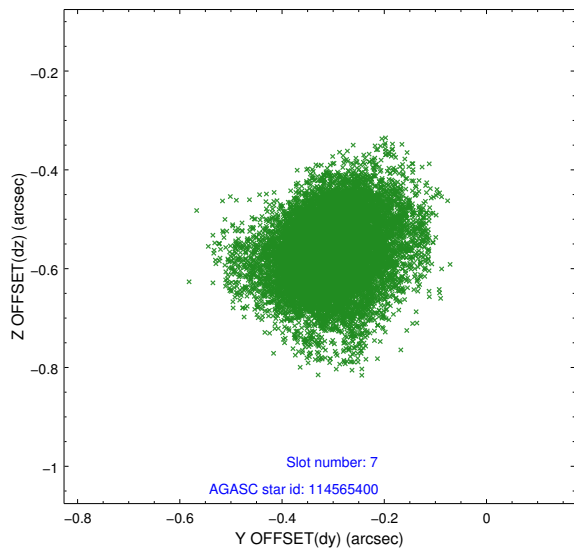
2.4.3 Slot 5



2.4.4 Slot 6

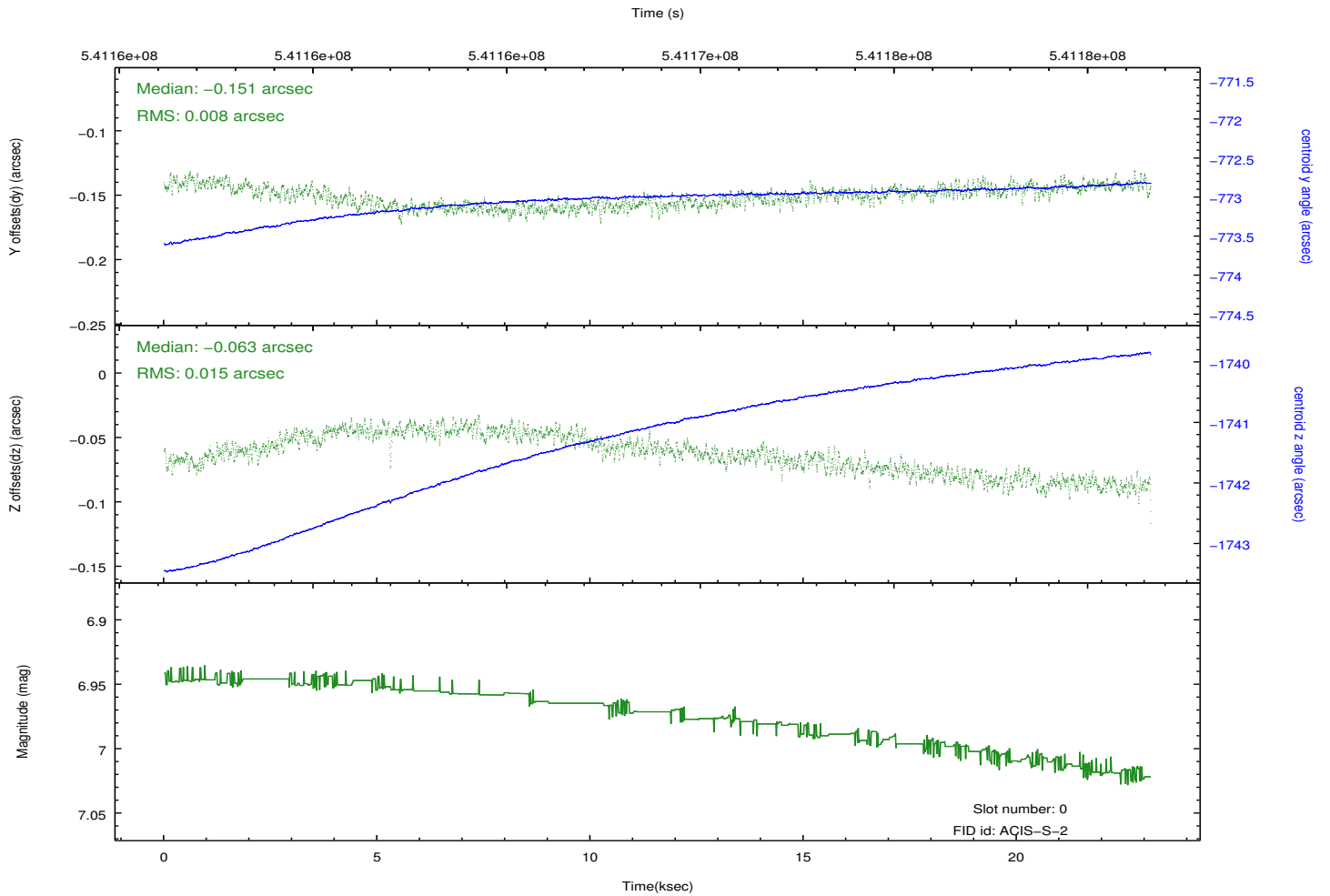
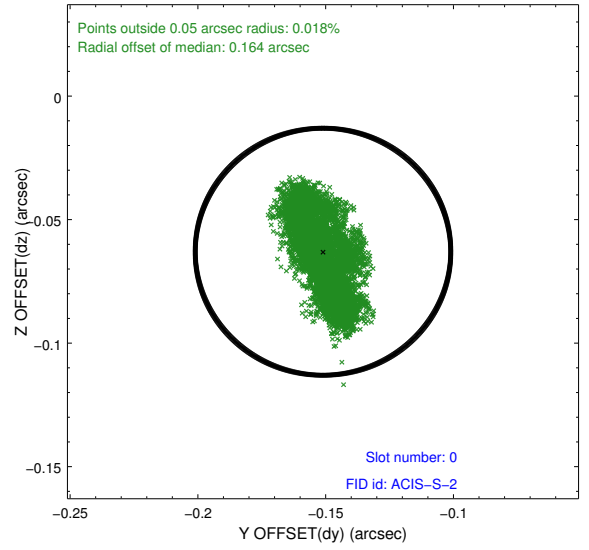
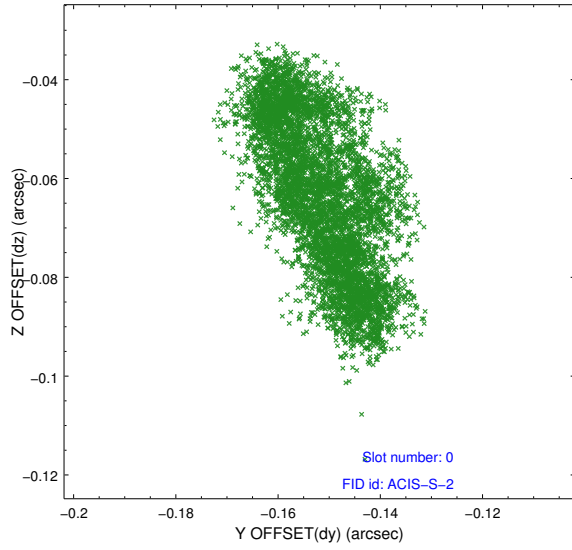


2.4.5 Slot 7

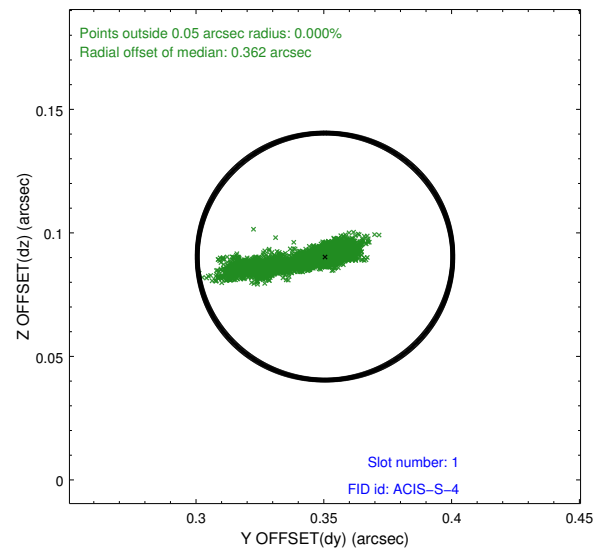
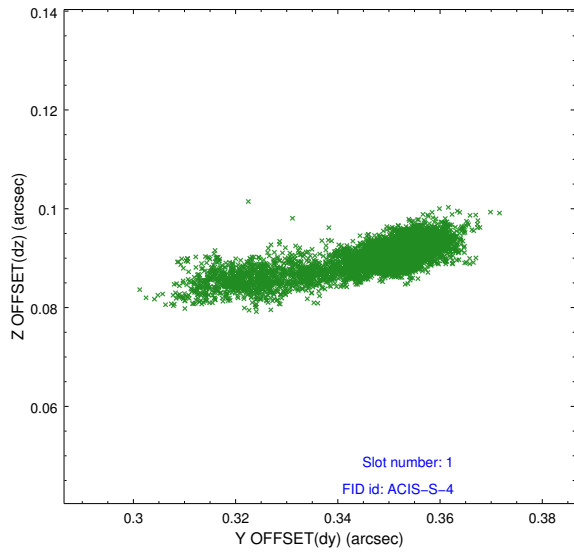


2.5 FID Slots

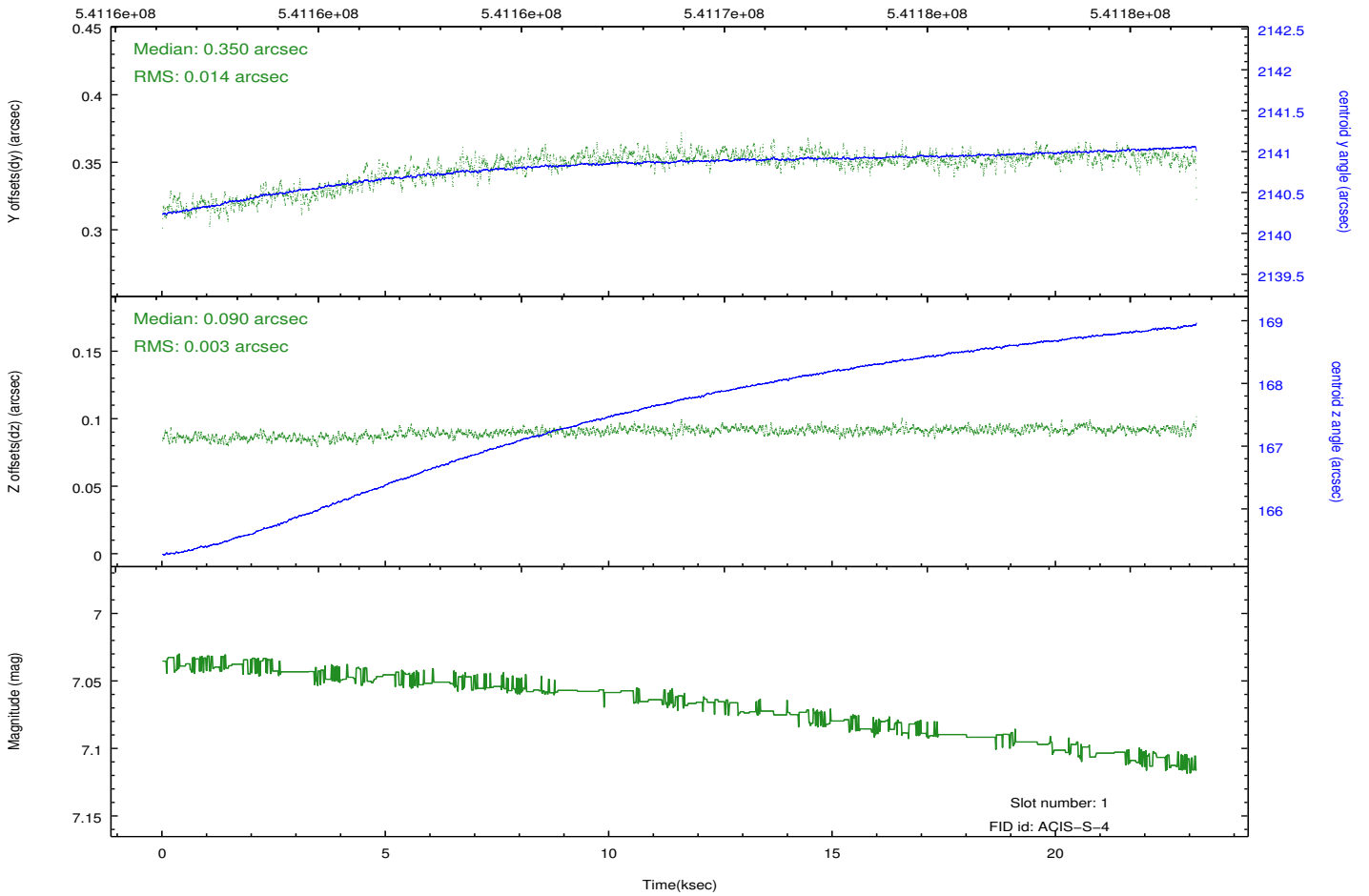
2.5.1 Slot 0



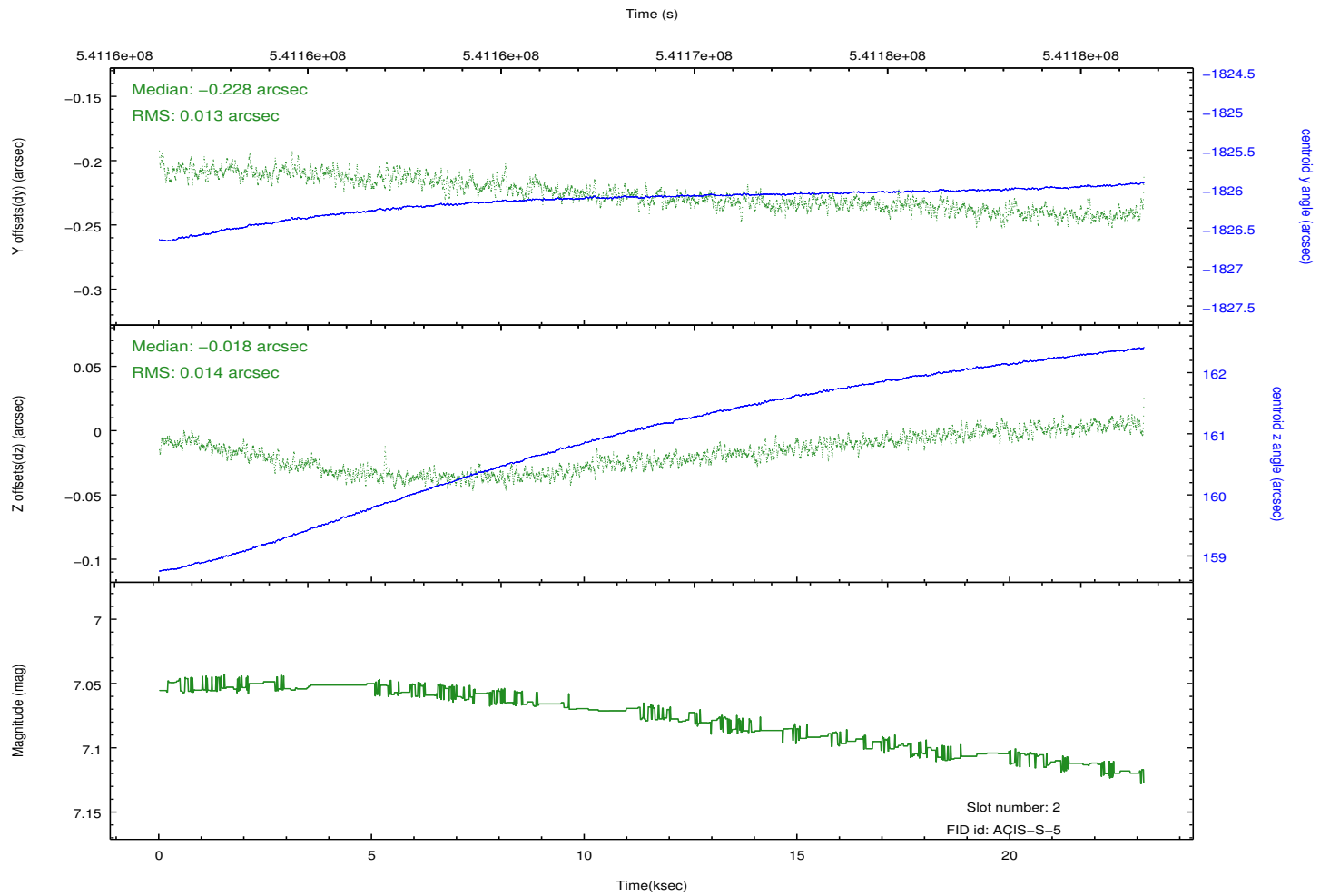
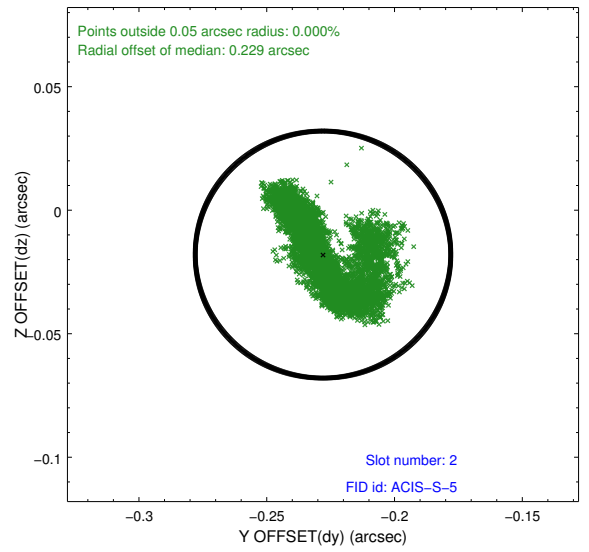
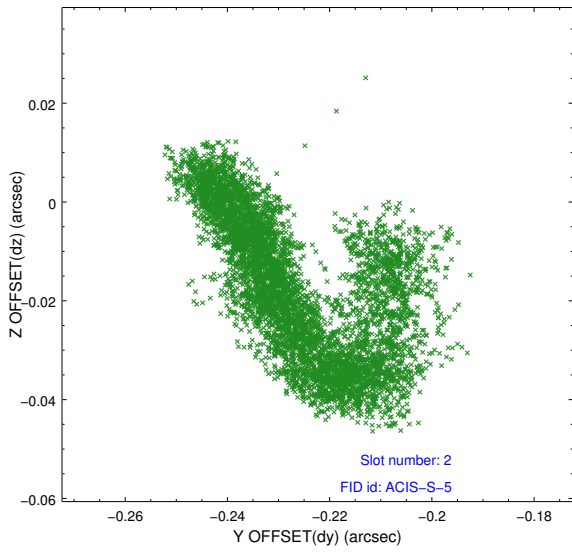
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.02.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.057800177455

A.2 Comments

The RMS violations on slots 3 and 5 are acceptable for the aspect solution.