

V&V Reference Report

L2 ASCDS Version : 10.4.1

Observation 17295 - L2 Version 2
Chandra X-Ray Center

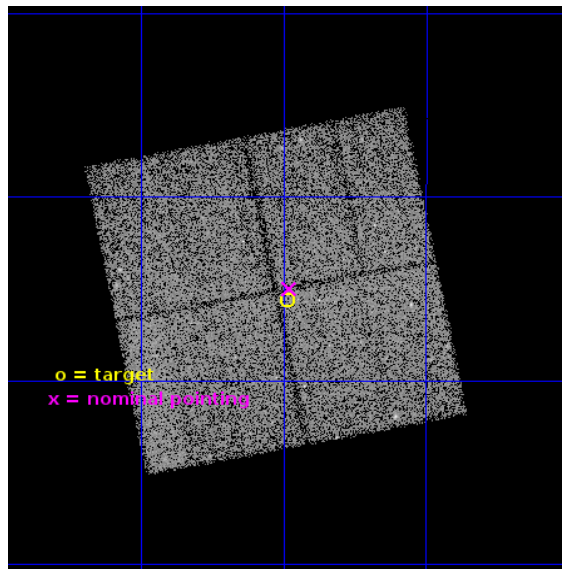
L2 Processing Date : Oct 1 2015

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1 Front

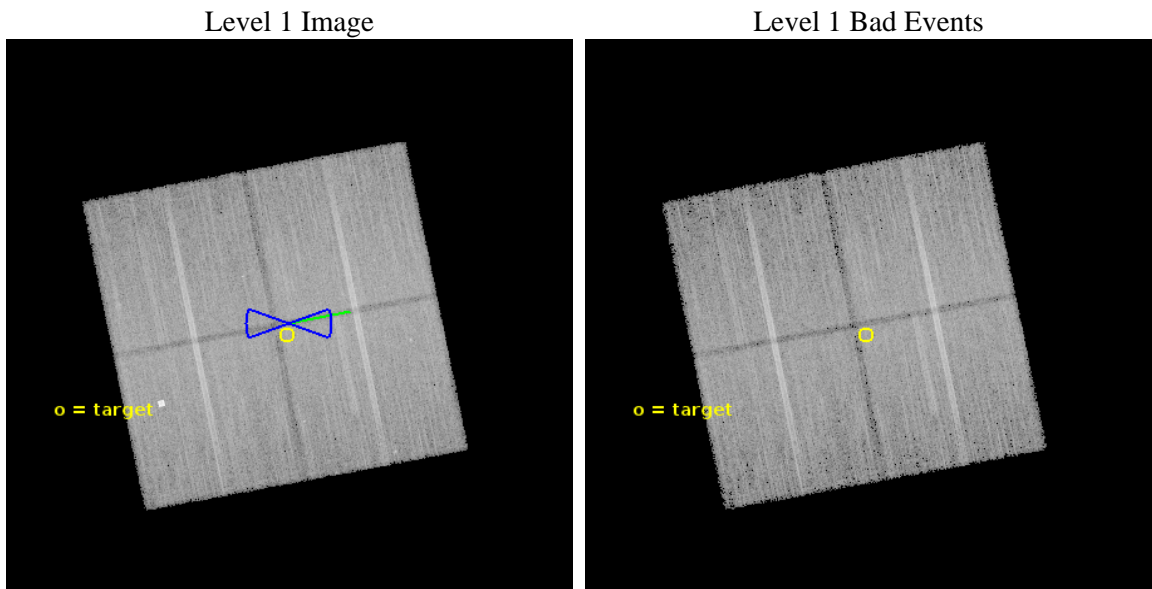
seq_num	901153	Sequence number
obs_id	17295	Observation id
title	Black Hole Fingerprints from Cosmic Dawn to Cosmic Noon	Proposal t
observer	Prof. Guenther Hasinger	Principal investigator
object	UDS	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	34.496054	Observer's specified target RA [deg]
dec_targ	-5.259945	Observer's specified target Dec [deg]
ra_nom	34.494652736885	Nominal RA [deg]
dec_nom	-5.2500079935315	Nominal Dec [deg]
roll_nom	78.908548406558	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46639.057761312	Sum of GTIs [s]
livetime	46029.684136485	Livetime [s]
ontime0	46638.934641361	Sum of GTIs [s]
ontime1	46635.834651113	Sum of GTIs [s]
ontime2	46635.875671029	Sum of GTIs [s]
ontime3	46639.057761312	Sum of GTIs [s]
l2events	94665	Number of level 2 events



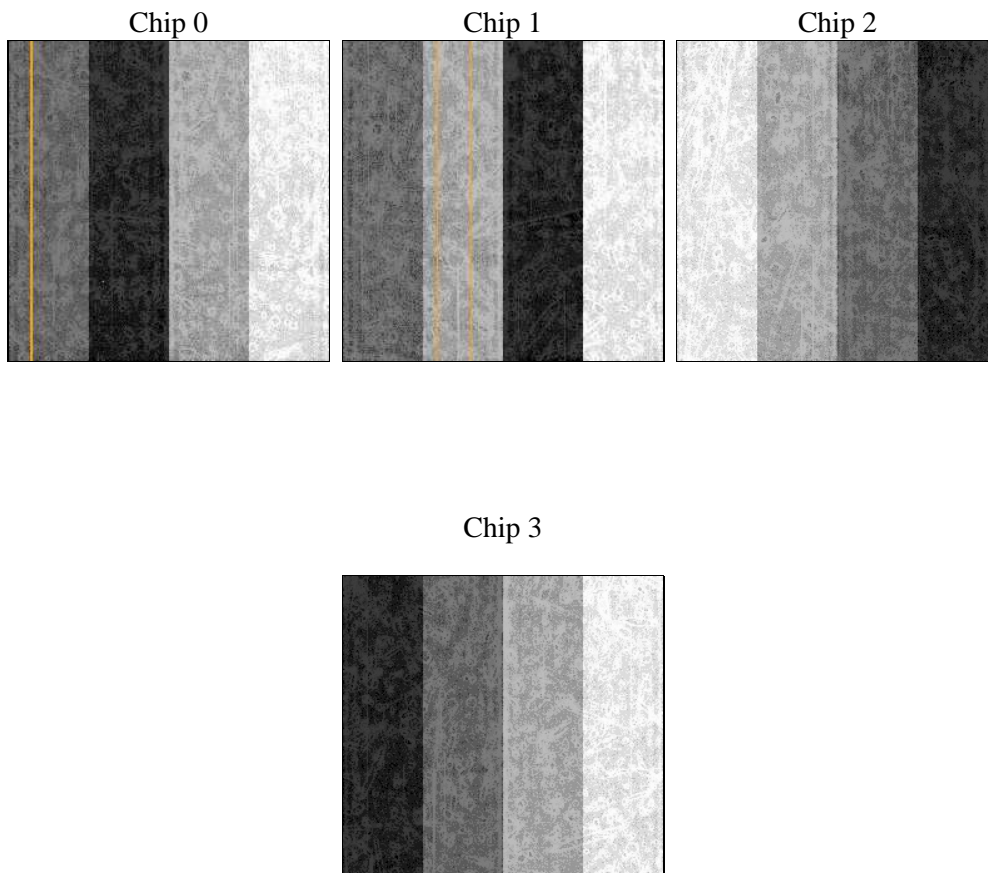
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	46555.967000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	46639.057761312	Sum of GTIs [s]
caldsver	4.6.10a	 	ontime0	46638.934641361	Sum of GTIs [s]
date	2015-10-01T22:20:00	Date and time of file creation	ontime1	46635.834651113	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	46635.875671029	Sum of GTIs [s]
			ontime3	46639.057761312	Sum of GTIs [s]
			l1events	986833	Number of level 1 events

2.1.4 Events

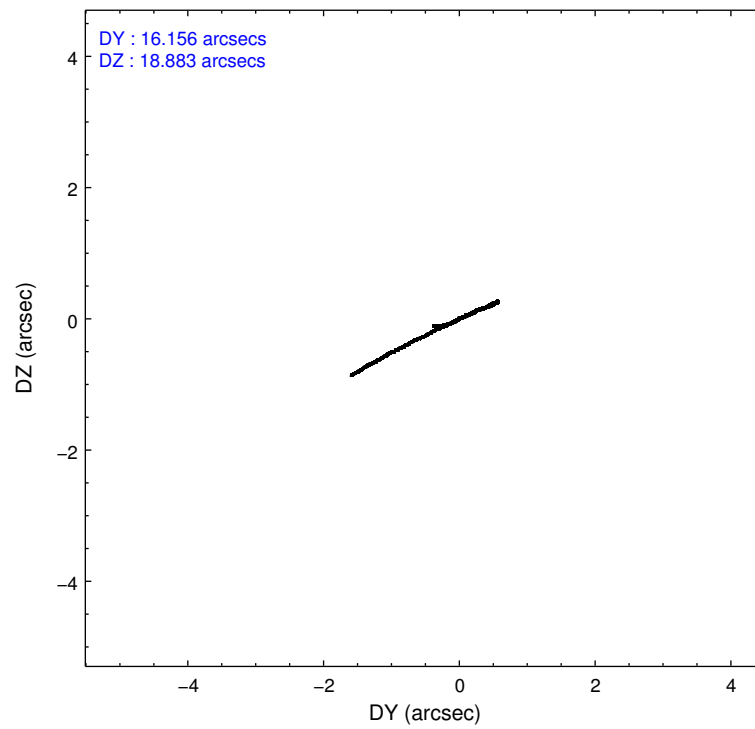
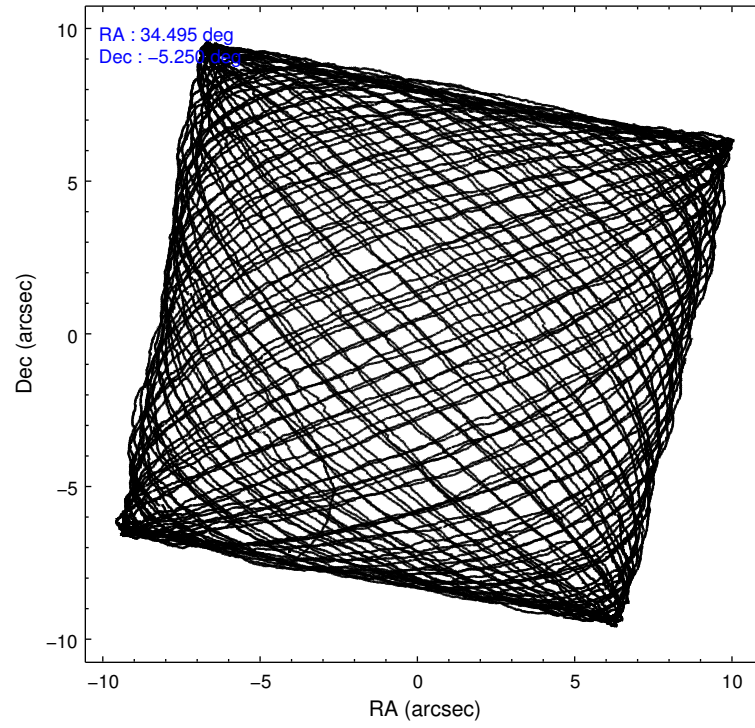
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	228109	246222	259347	253155
rejected events	200256	210897	232155	226139
rejected %	87%	85%	89%	89%

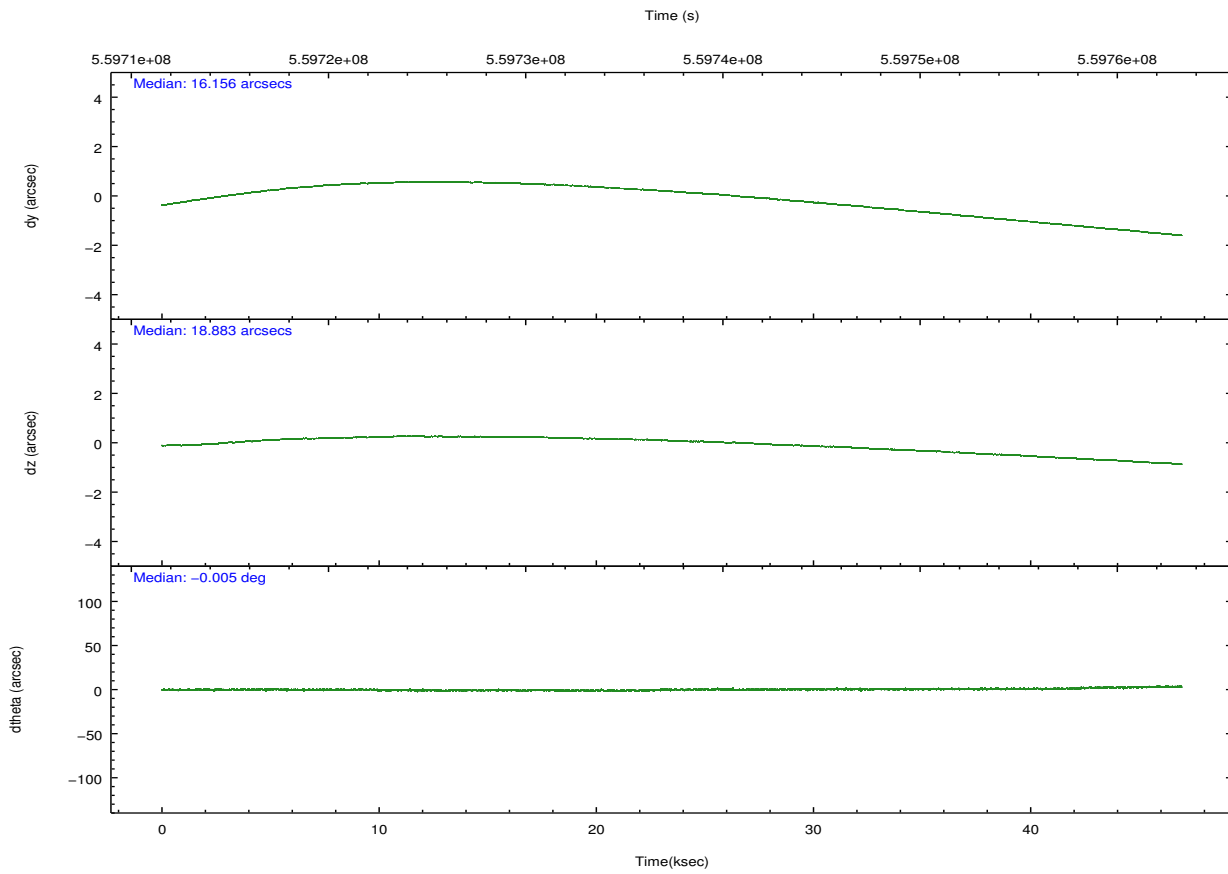
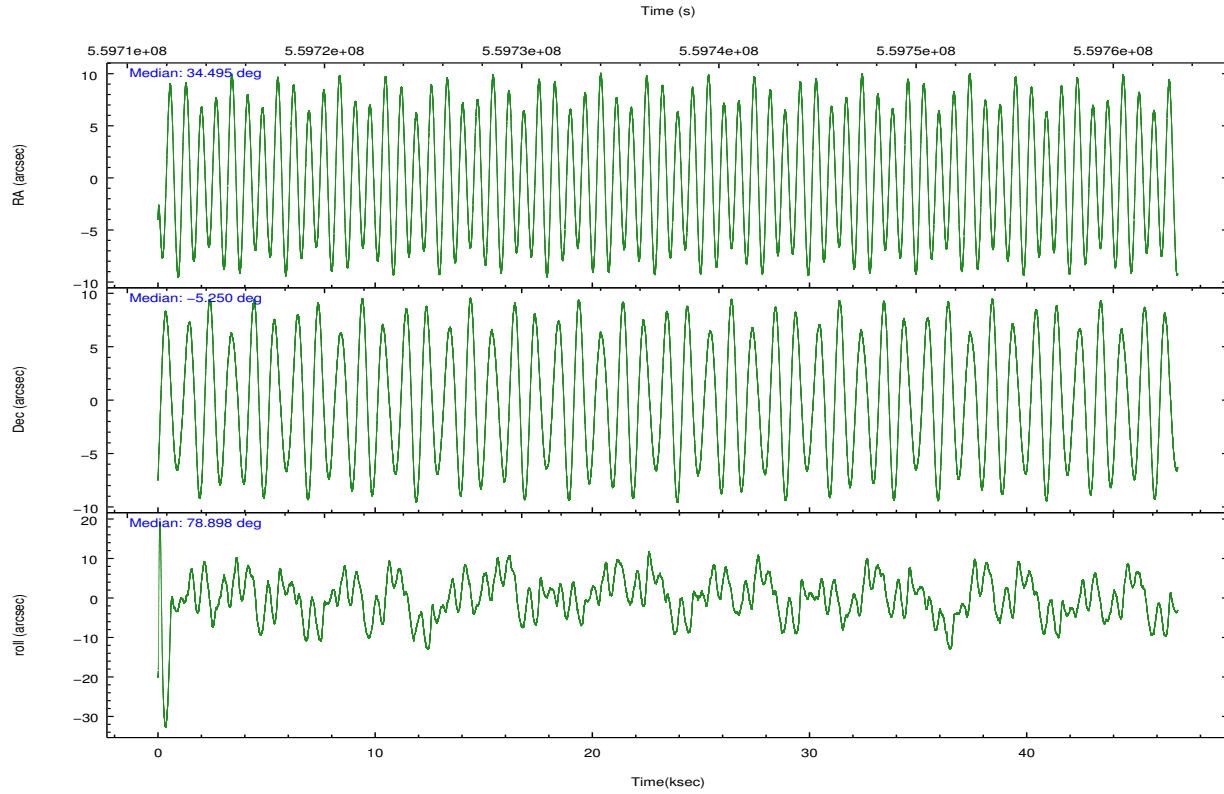
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9278	14756	9489	9447
	4%	5%	3%	3%
grade 1 events	133	145	155	138
	0%	0%	0%	0%
grade 2 events	6921	7446	6582	5959
	3%	3%	2%	2%
grade 3 events	3033	2953	2822	2899
	1%	1%	1%	1%
grade 4 events	2735	2895	2846	2902
	1%	1%	1%	1%
grade 5 events	11079	11529	10556	12730
	4%	4%	4%	5%
grade 6 events	5890	7280	5455	5811
	2%	2%	2%	2%
grade 7 events	189040	199218	221442	213269
	82%	80%	85%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	34.503743	34.49465273688482	CCD I2 on	Y	Y
[deg] Pointing Dec	-5.276094	-5.250007993531511	CCD I3 on	Y	Y
[deg] Pointing Roll	78.700702	78.9085484065575	CCD S0 on	N	N
[deg] Roll angle	0.000000	0.000000	CCD S1 on	N	N
[deg] Roll tolerance	20.000000	20.000000	CCD S2 on	O1	N
Roll constraint allows 180D rotation	Y	Y	CCD S3 on	O2	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S4 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S5 on	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	Number of optional ACIS chips dropped	2	2
[mm] SIM translation stage offset	0	-0.005018542100998502	On-chip summing requested	N	N
[s] Observation start time (MET)	559714317.184000	559713328.24595	Subarray requested	NONE	NONE
Observation start date	2015-09-27T04:10:49	2015-09-27T03:55:28	Alternating exposures requested	N	N
[s] Observation end time (MET)	559760873.184000	559761107.0861501	[s] Primary exposure time	0.000000	3.1
Observation end date	2015-09-27T17:06:45	2015-09-27T17:11:47			
Read mode	TIMED	TIMED			

2.3 Aspect



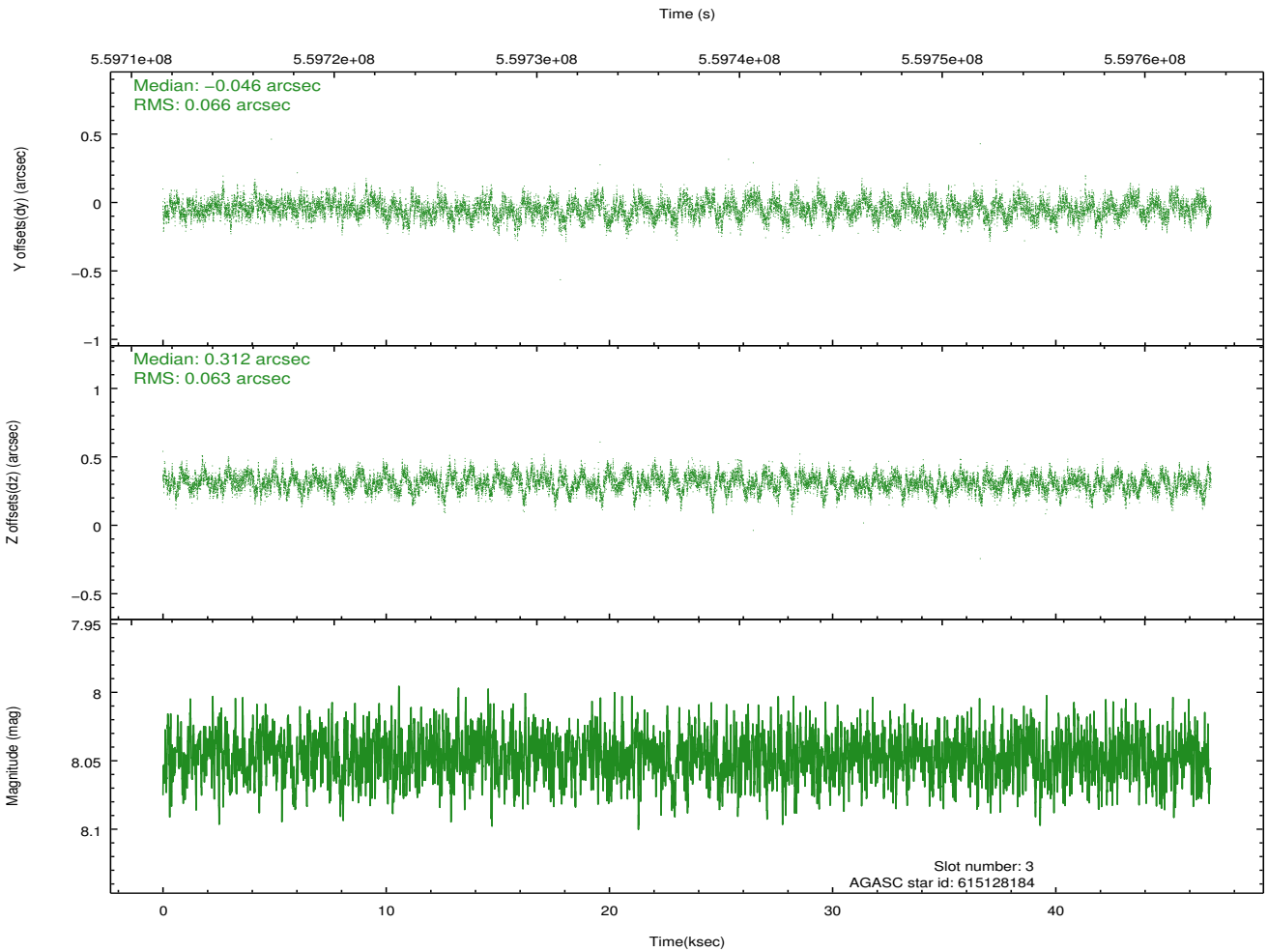
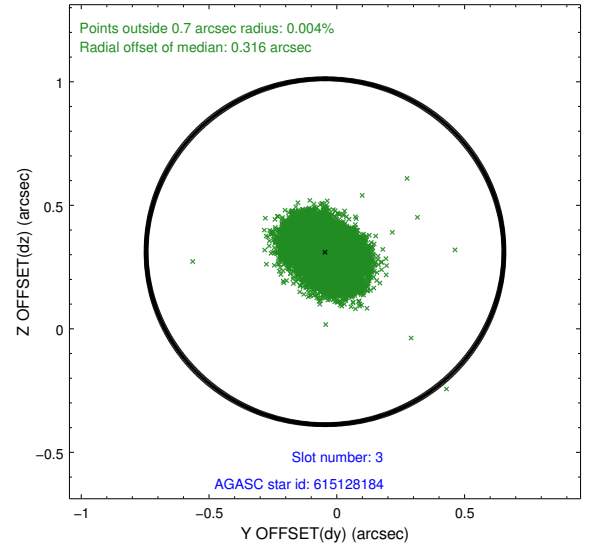
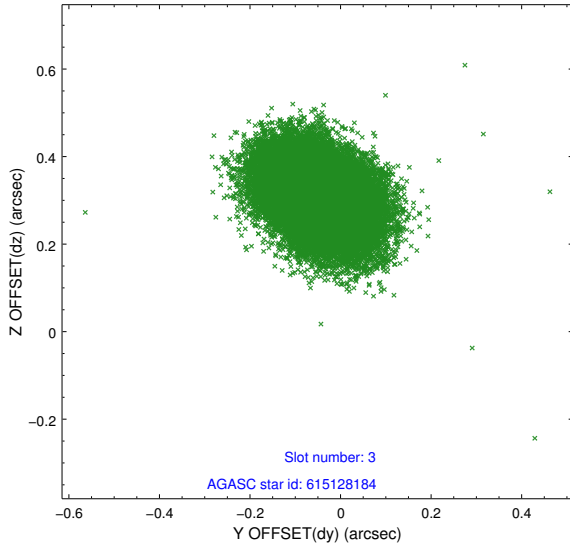


Slot Statistics

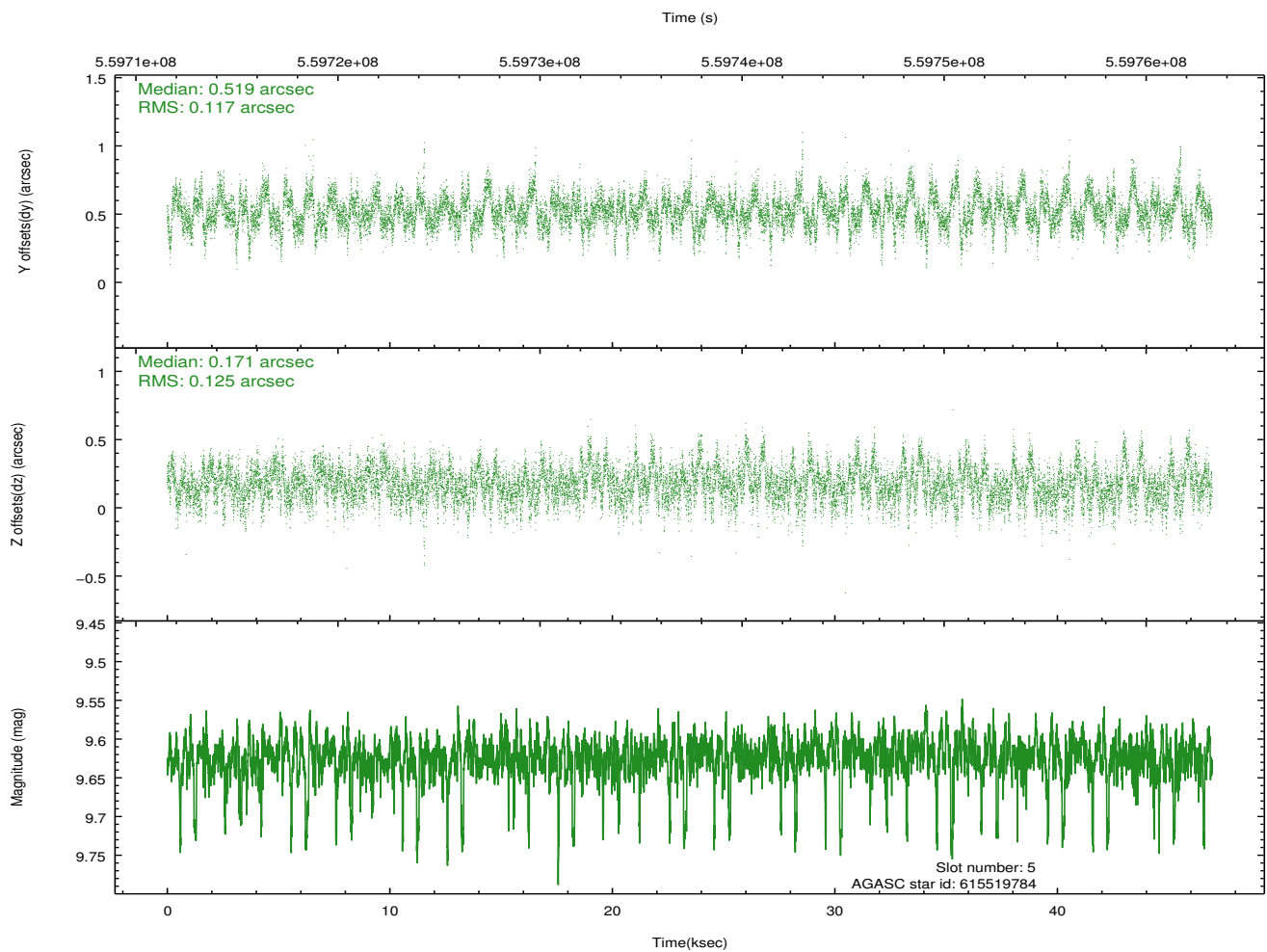
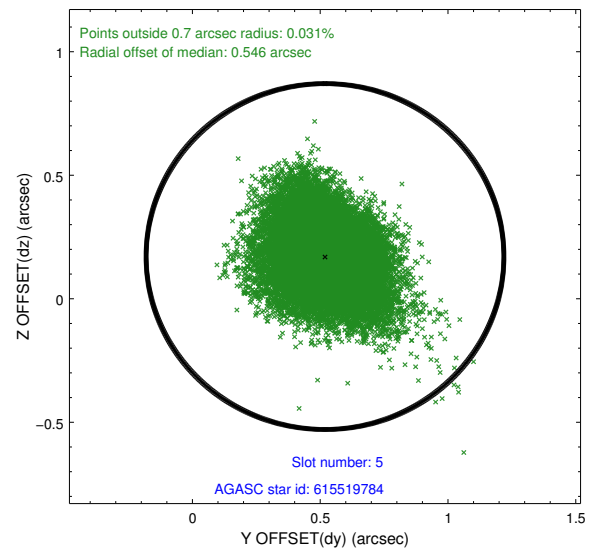
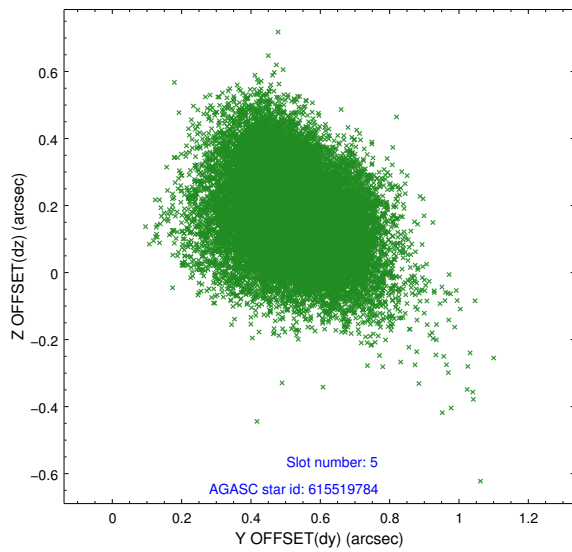
lot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.25	11453	0.076	-0.019	0.011	0.023	0.000000	0.000000	923.56	-842.46
1	FID		ACIS-I-5	7.26	11453	-0.365	0.039	0.017	0.024	0.000000	0.000000	-1825.08	1054.97
2	FID		ACIS-I-6	7.26	11453	0.198	0.051	0.018	0.028	0.000000	0.000000	389.12	1699.57
3	GUIDE	used	615128184	8.05	22904	-0.046	0.312	0.096	0.157	34.627231	-4.869545	1522.30	-146.88
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	GUIDE	used	615519784	9.62	22691	0.519	0.171	0.181	0.298	33.905889	-5.455828	-1054.69	1974.17
6	GUIDE	used	615520664	9.45	22882	-0.212	0.010	0.174	0.274	34.931323	-5.027518	1177.82	-1327.97
7	BAD	used	615521424	9.97	21922	-0.267	-0.508	0.161	0.272	34.185589	-5.674448	-1629.84	836.84

2.4 Star Slots

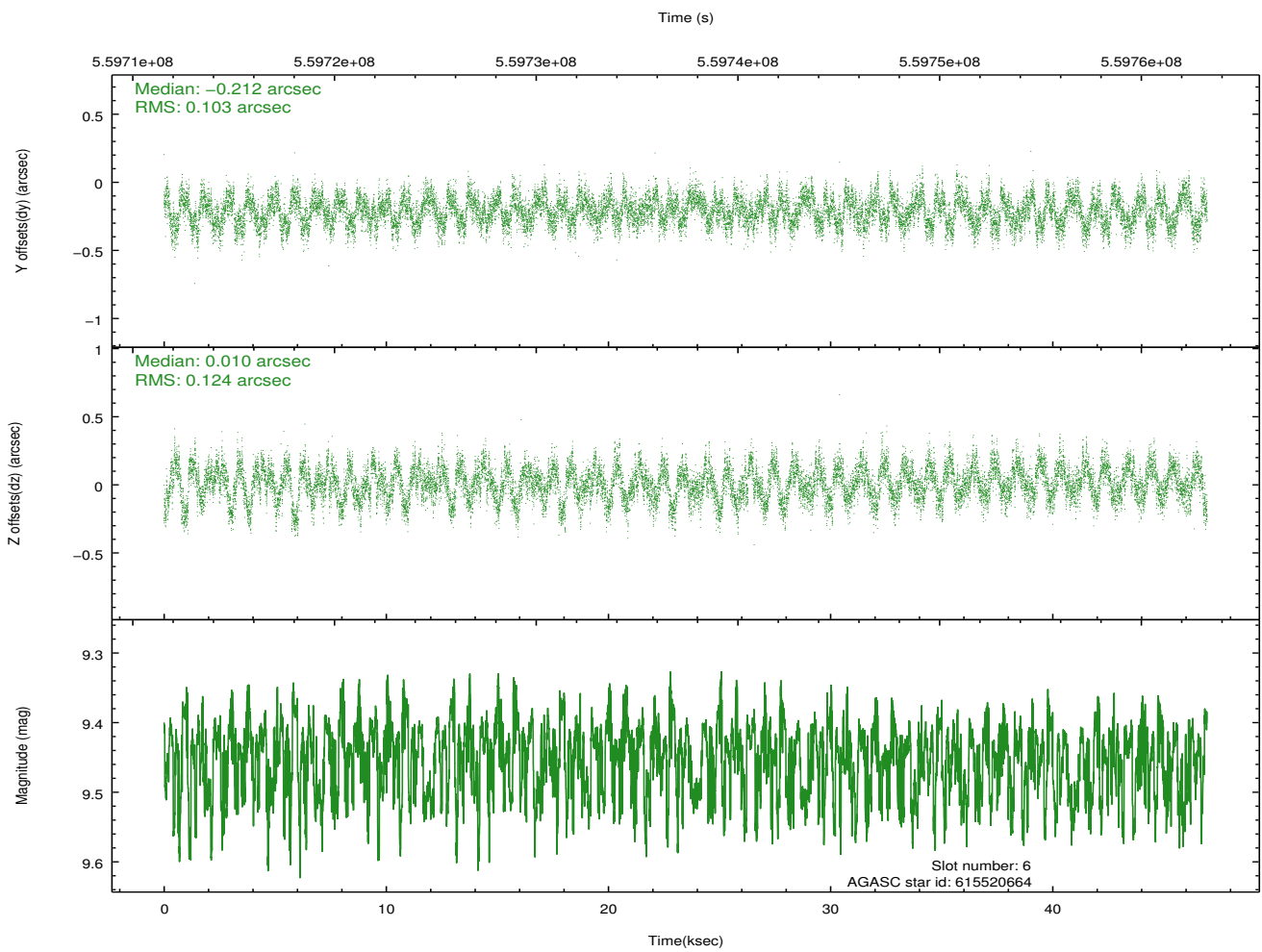
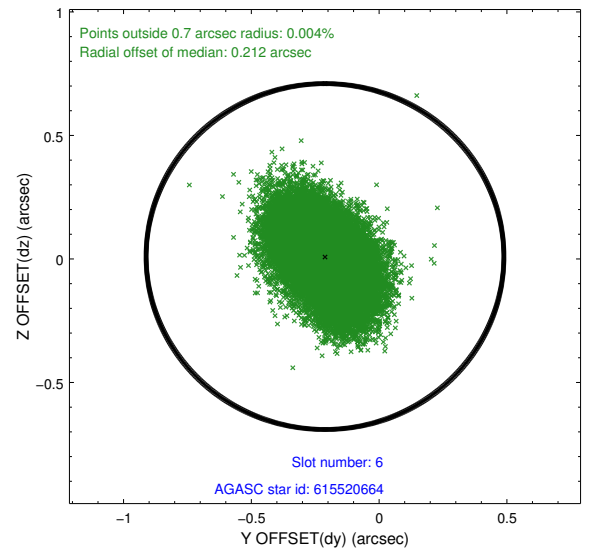
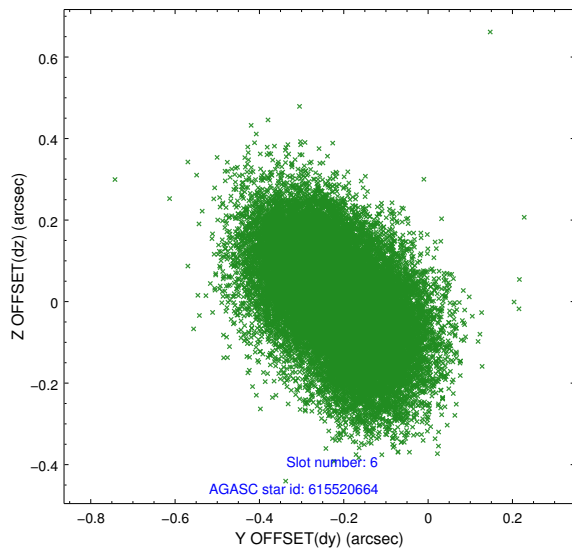
2.4.1 Slot 3



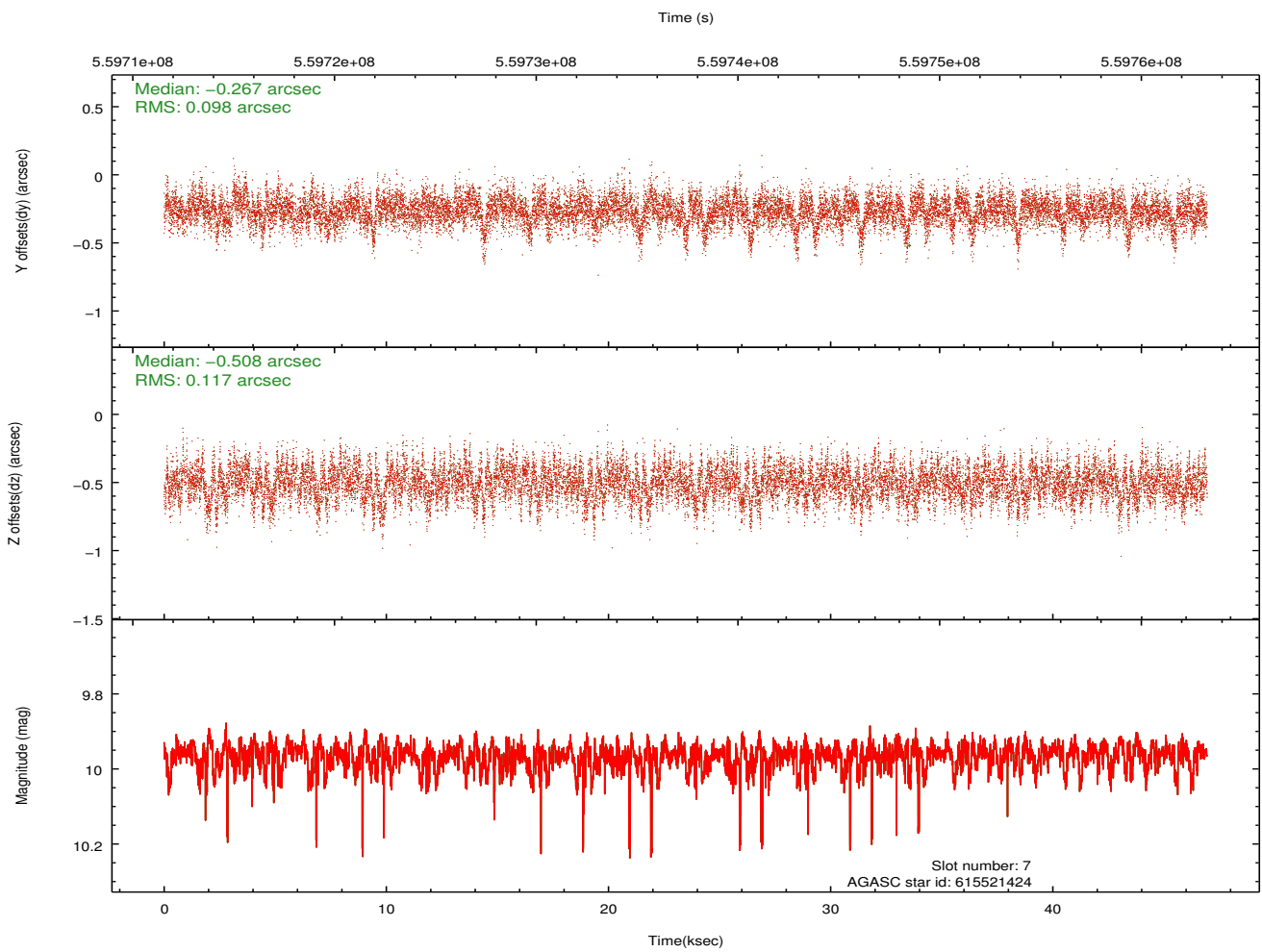
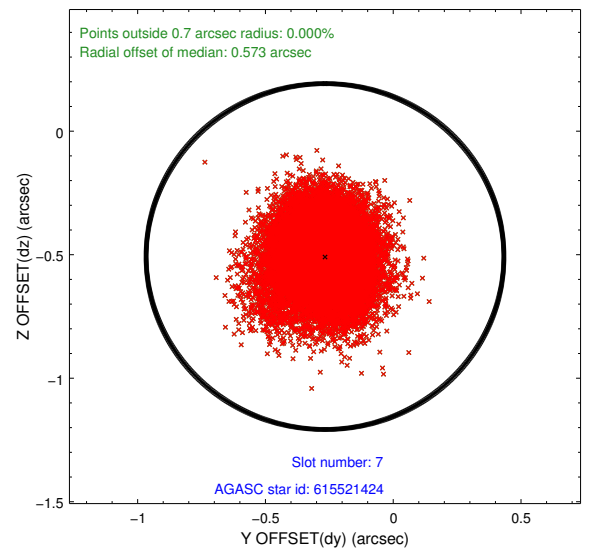
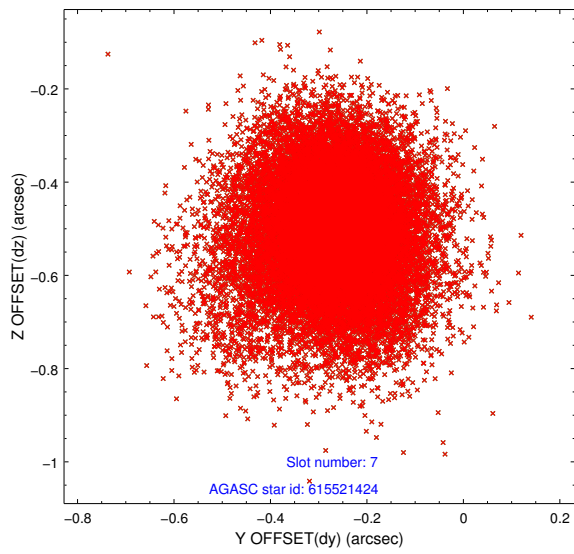
2.4.2 Slot 5



2.4.3 Slot 6

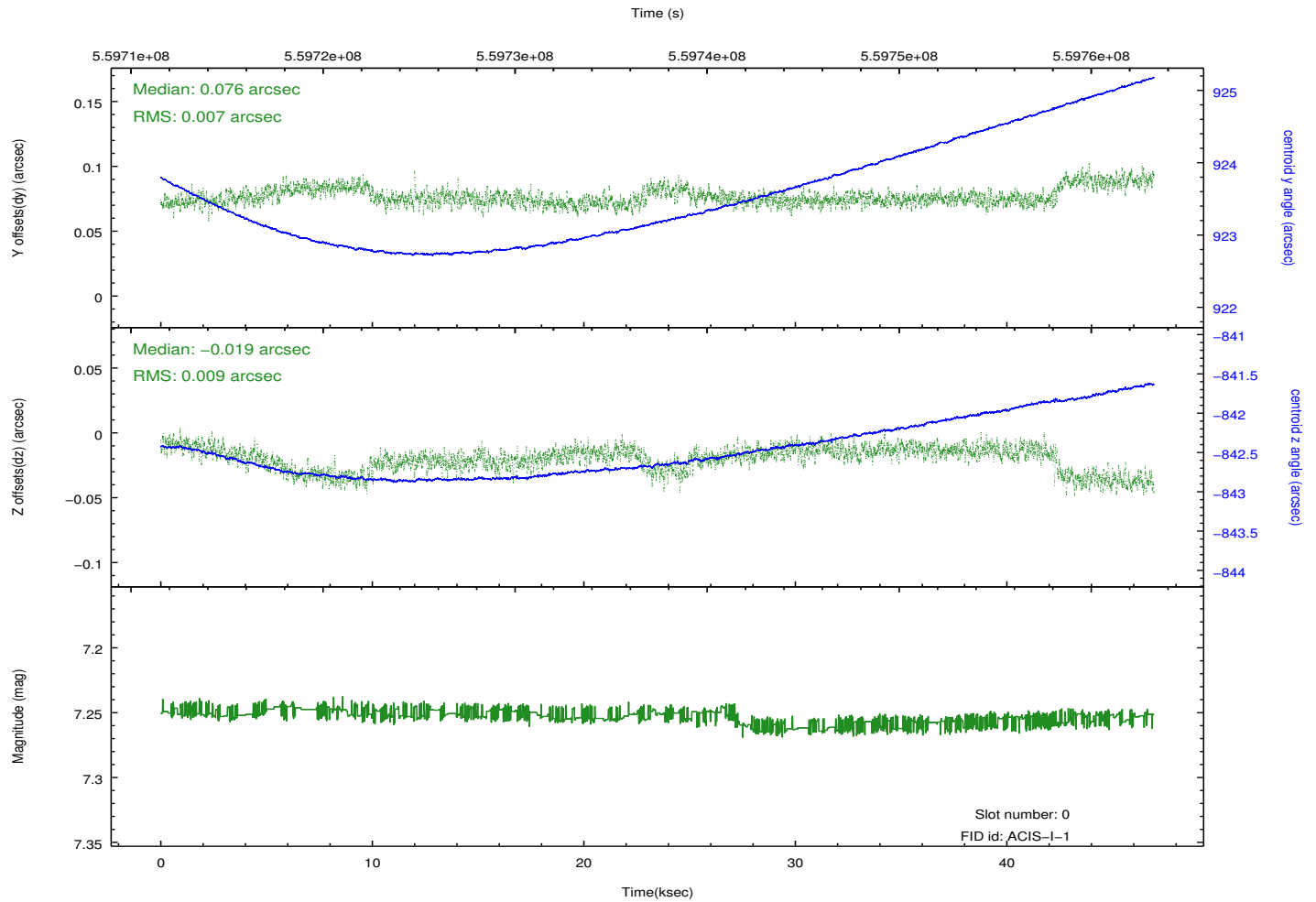
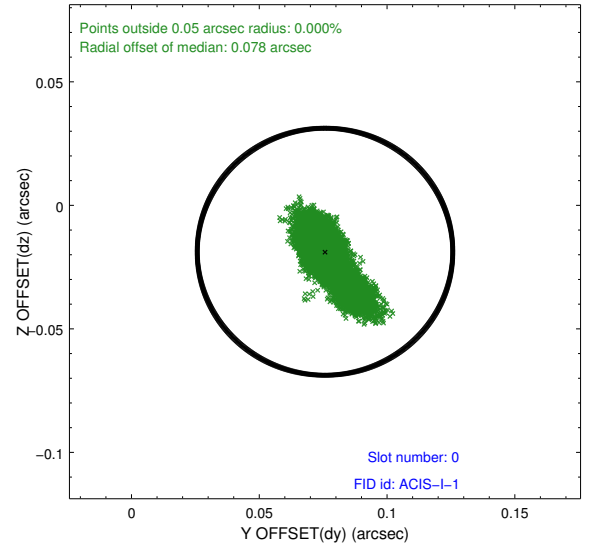
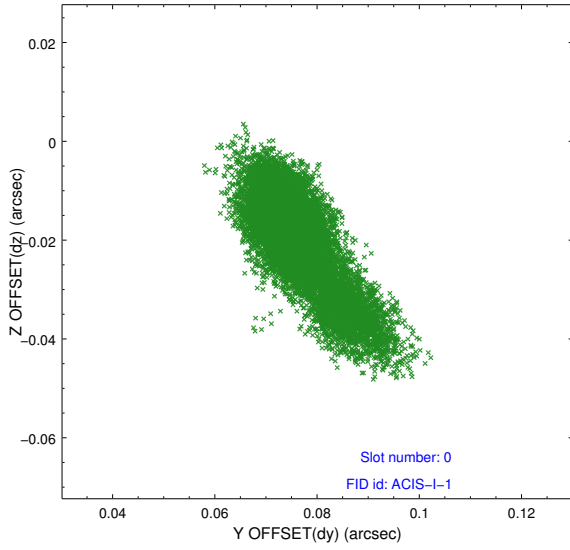


2.4.4 Slot 7

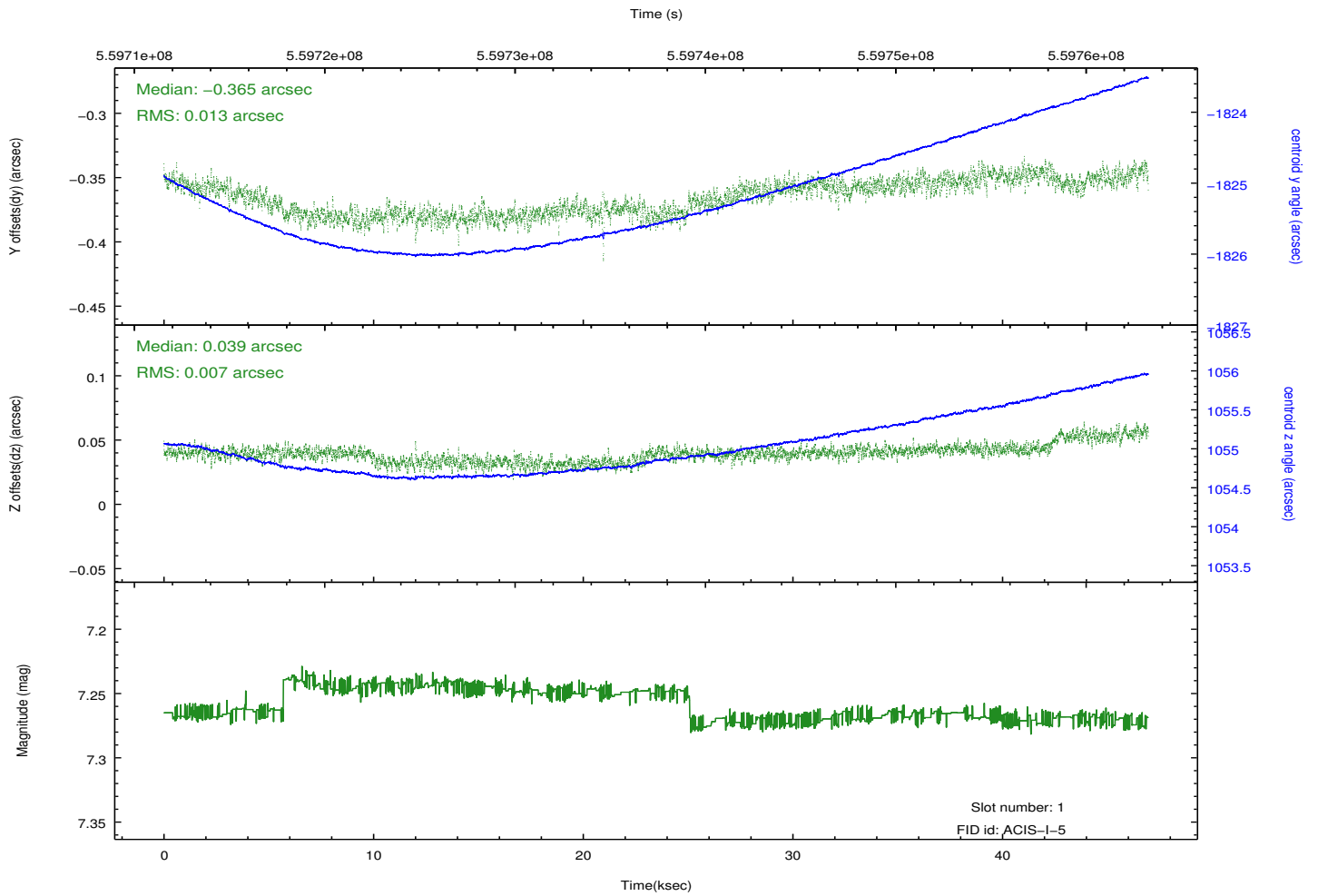
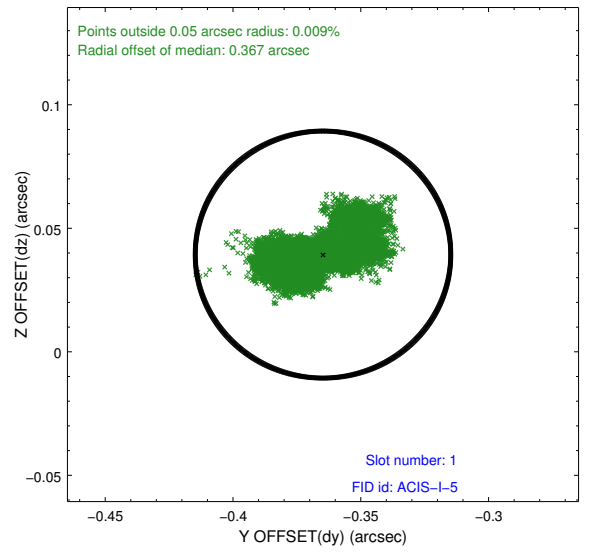
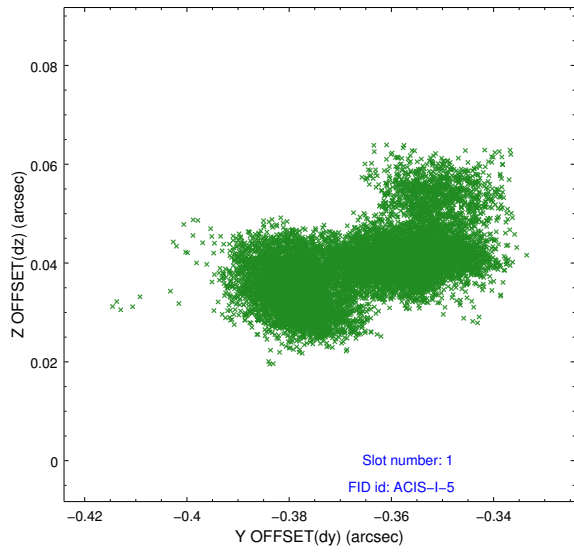


2.5 FID Slots

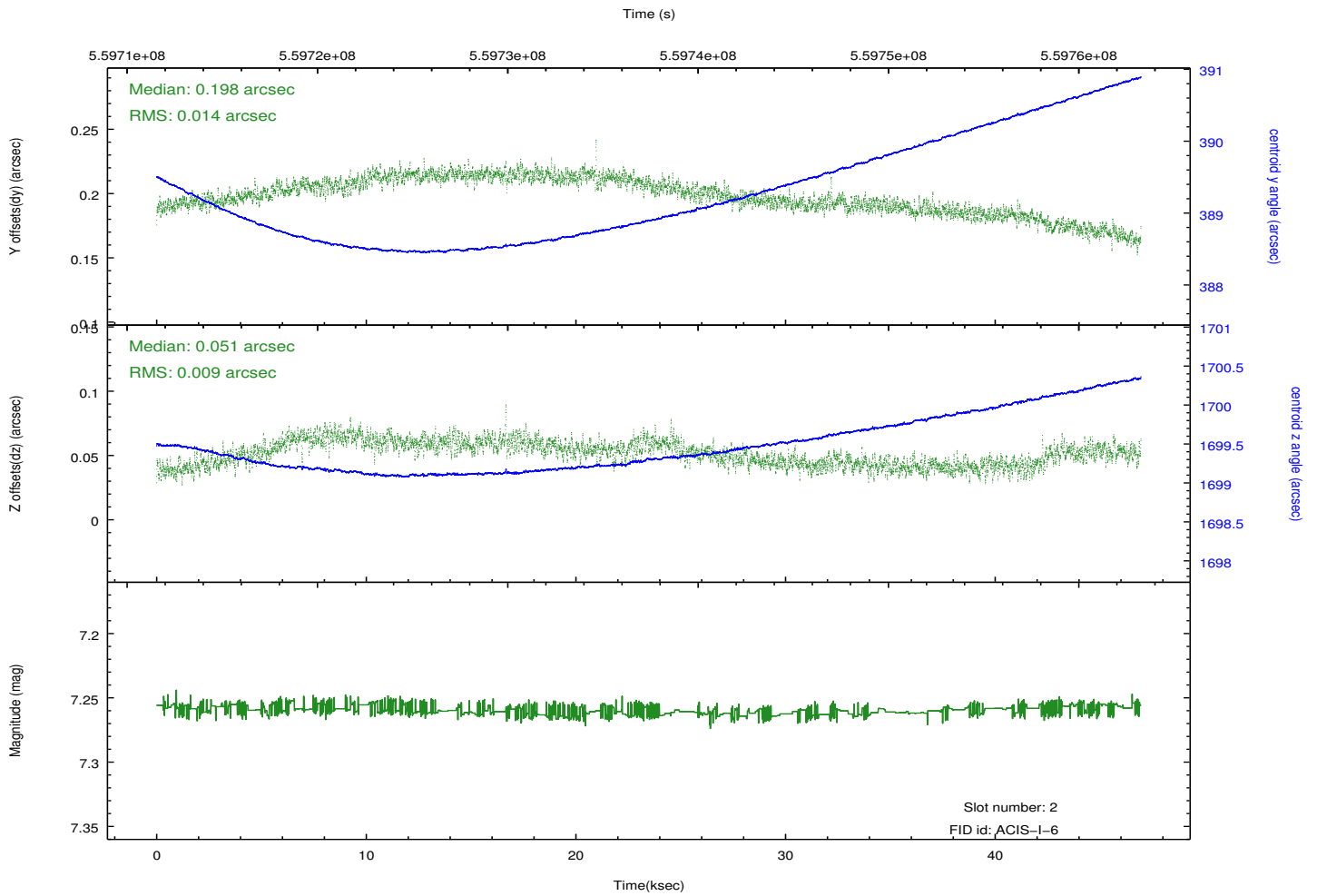
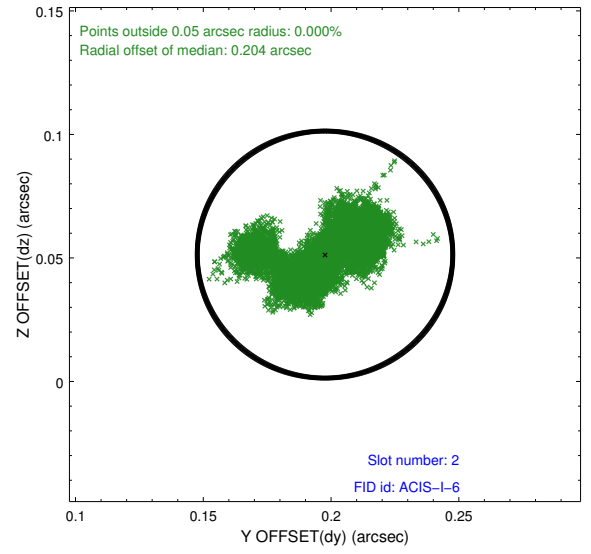
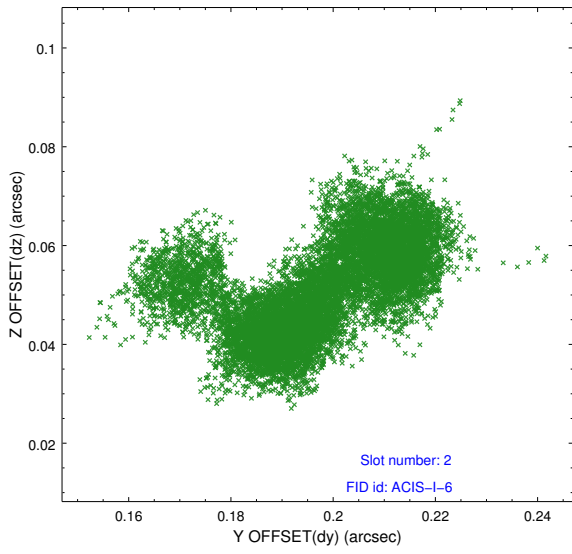
2.5.1 Slot 0



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)	2015.10.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.639057761312

A.2 Comments

Roll preference met.

The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.