

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19020 - L2 Version 1  
Chandra X-Ray Center

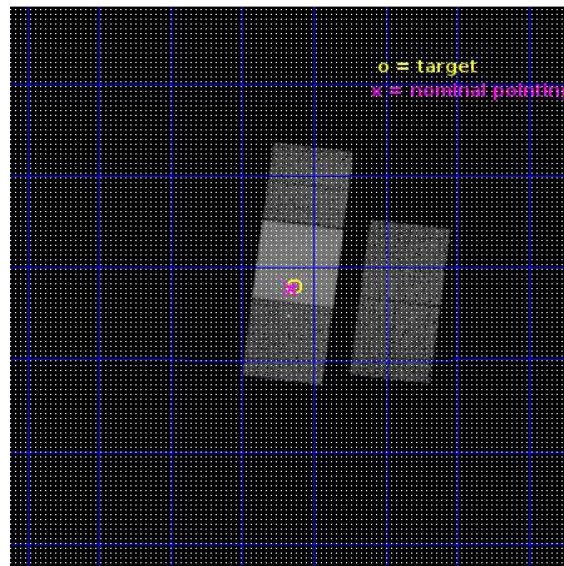
L2 Processing Date : Mar 1 2017

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# 1 Front

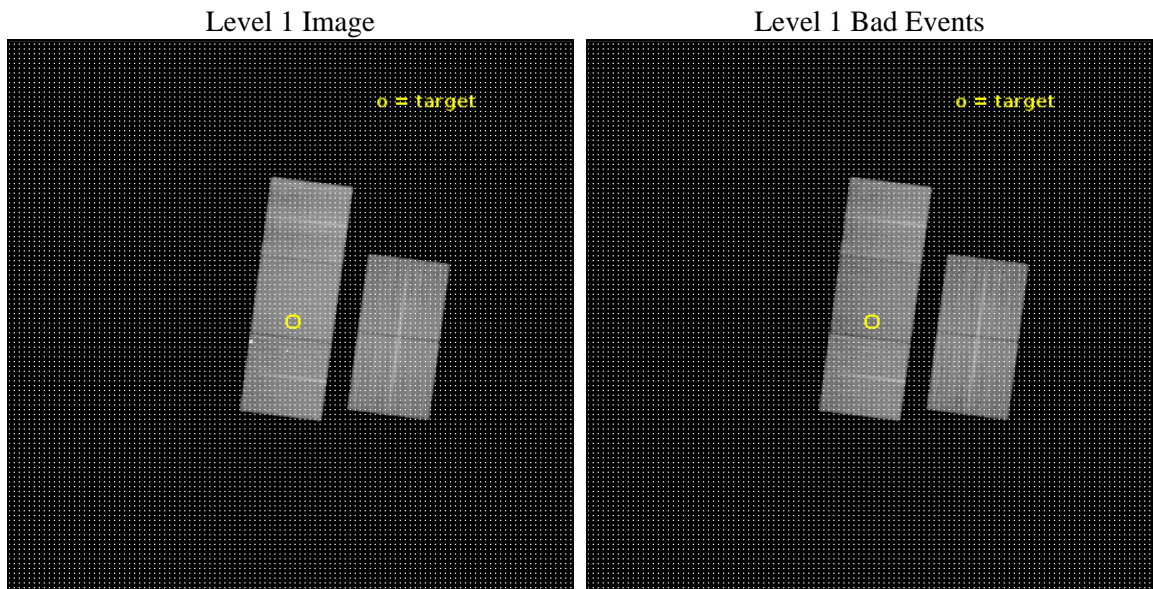
seq_num	502670	Sequence number
obs_id	19020	Observation id
title	X-Raying new Galactic Accelerators with Chandra	Proposal title
observer	Marco Ajello	Principal investigator
object	2FHL J0705.9+0245	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	106.5347	Observer's specified target RA [deg]
dec_targ	2.7987	Observer's specified target Dec [deg]
ra_nom	106.53926953497	Nominal RA [deg]
dec_nom	2.7957091857063	Nominal Dec [deg]
roll_nom	277.41261006021	Nominal Roll [deg]
revision	1	Processing version of data
ontime	24211.000186324	Sum of GTIs [s]
livetime	23894.665645011	Livetime [s]
ontime2	24211.000186324	Sum of GTIs [s]
ontime3	24204.718025804	Sum of GTIs [s]
ontime6	24207.859116197	Sum of GTIs [s]
ontime7	24211.000186324	Sum of GTIs [s]
ontime8	24211.000186324	Sum of GTIs [s]
l2events	162707	Number of level 2 events



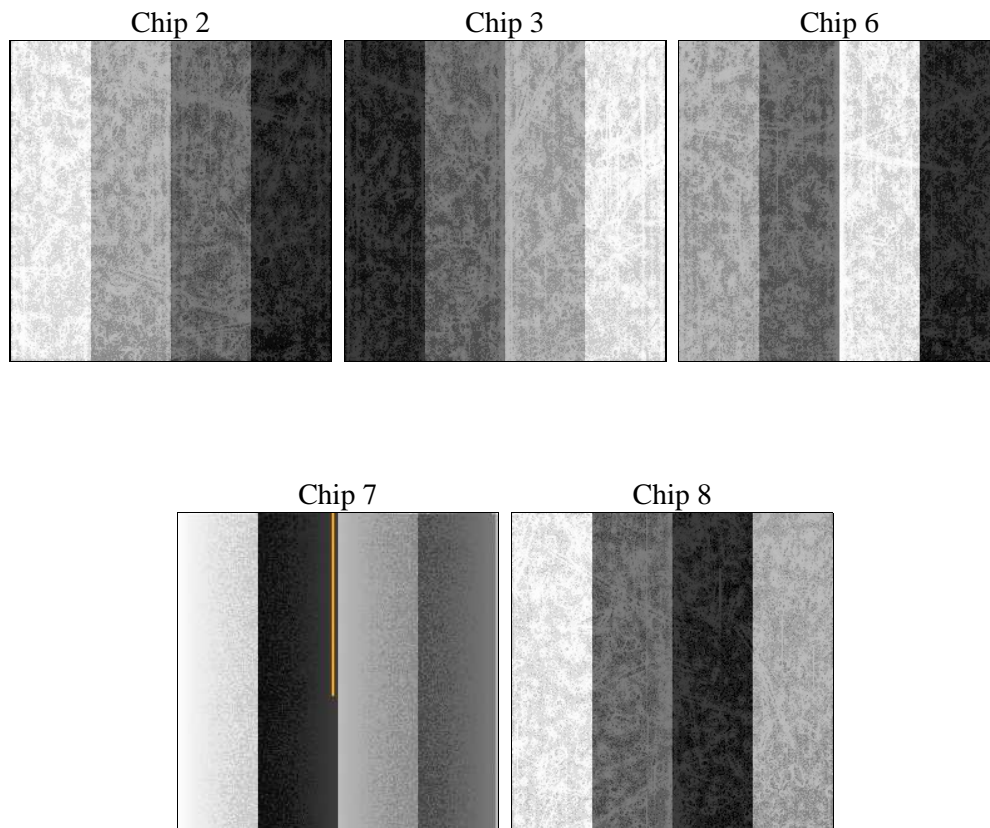
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	24167.226000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	24211.000186324	Sum of GTIs [s]
caldbver	4.7.3	&#160	ontime2	24211.000186324	Sum of GTIs [s]
date	2017-03-01T22:55:45	Date and time of file creation	ontime3	24204.718025804	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	24207.859116197	Sum of GTIs [s]
			ontime7	24211.000186324	Sum of GTIs [s]
			ontime8	24211.000186324	Sum of GTIs [s]
			l1events	991798	Number of level 1 events

### 2.1.4 Events

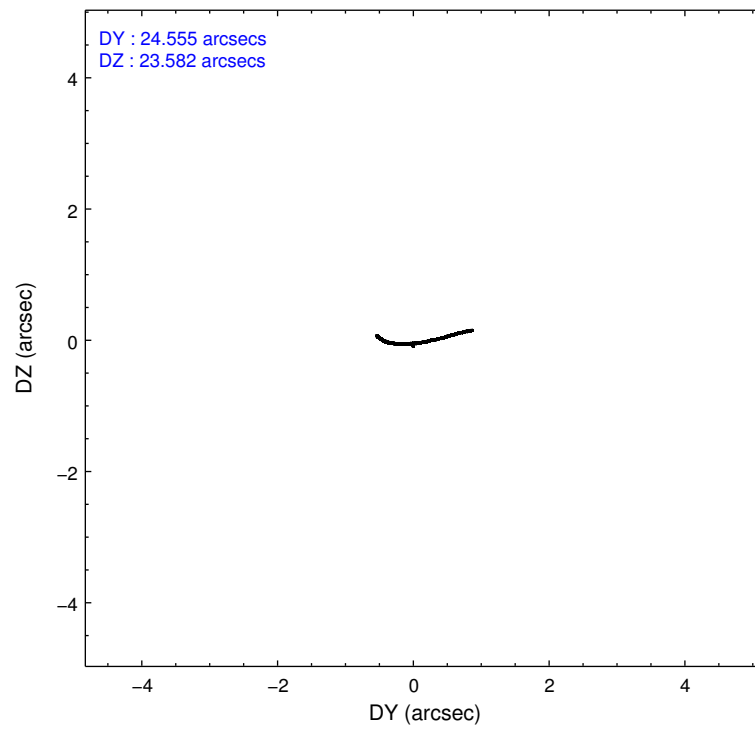
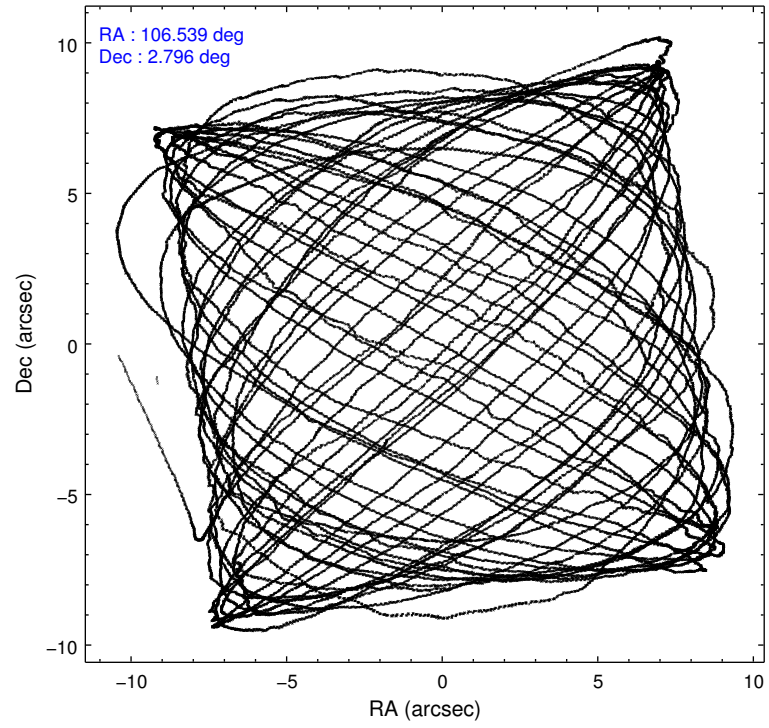
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	178927	166888	194470	222699	228814
rejected events	161293	149192	163760	128064	172053
rejected %	90%	89%	84%	57%	75%

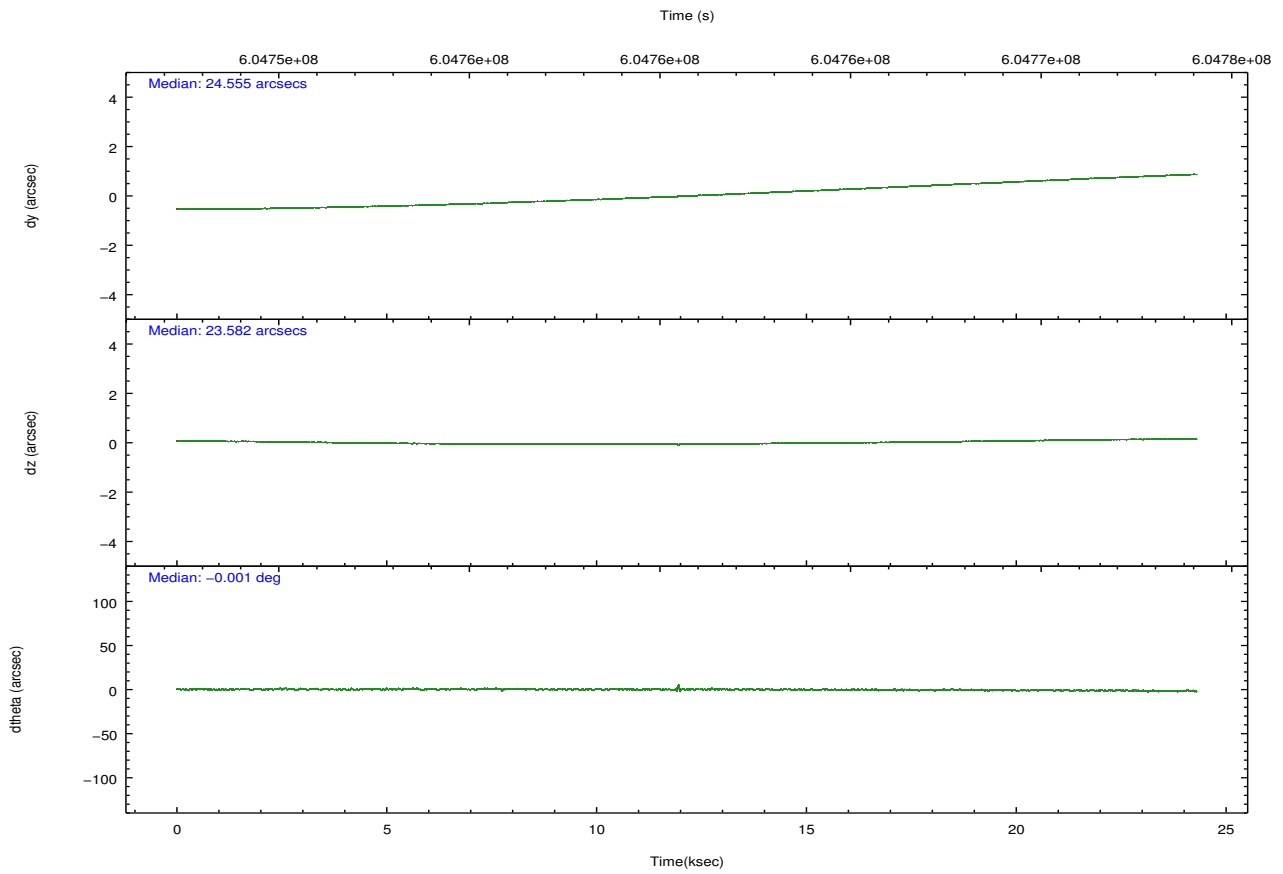
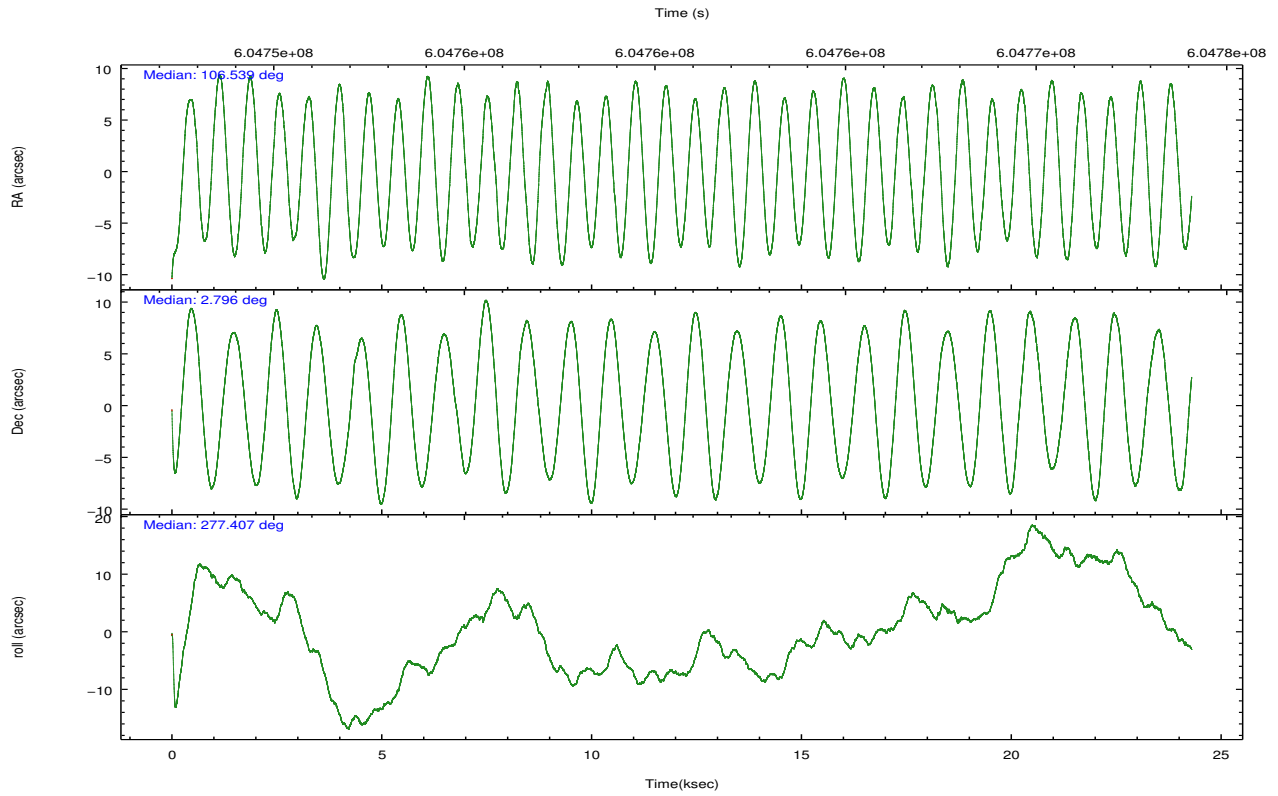
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6288	6264	16458	7422	15454
	3%	3%	8%	3%	6%
grade 1 events	84	96	193	303	215
	0%	0%	0%	0%	0%
grade 2 events	4091	3823	5283	20382	14263
	2%	2%	2%	9%	6%
grade 3 events	1843	1878	1891	7026	5649
	1%	1%	0%	3%	2%
grade 4 events	1804	1979	1961	6879	5203
	1%	1%	1%	3%	2%
grade 5 events	6378	8010	7659	21270	12011
	3%	4%	3%	9%	5%
grade 6 events	3615	3760	5124	52972	16197
	2%	2%	2%	23%	7%
grade 7 events	154824	141078	155901	106445	159822
	86%	84%	80%	47%	69%

## 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	106.522306	106.5392695349667	CCD I2 on	O1	Y
[deg] Pointing Dec	2.817283	2.795709185706291	CCD I3 on	Y	Y
[deg] Pointing Roll	277.256797	277.4126100602091	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	604748705.184000	604747085.01059	CCD S5 on	N	N
Observation start date	2017-03-01T09:43:56	2017-03-01T09:18:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	604772872.184000	604773099.5121	On-chip summing requested	N	N
Observation end date	2017-03-01T16:26:43	2017-03-01T16:31:39	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



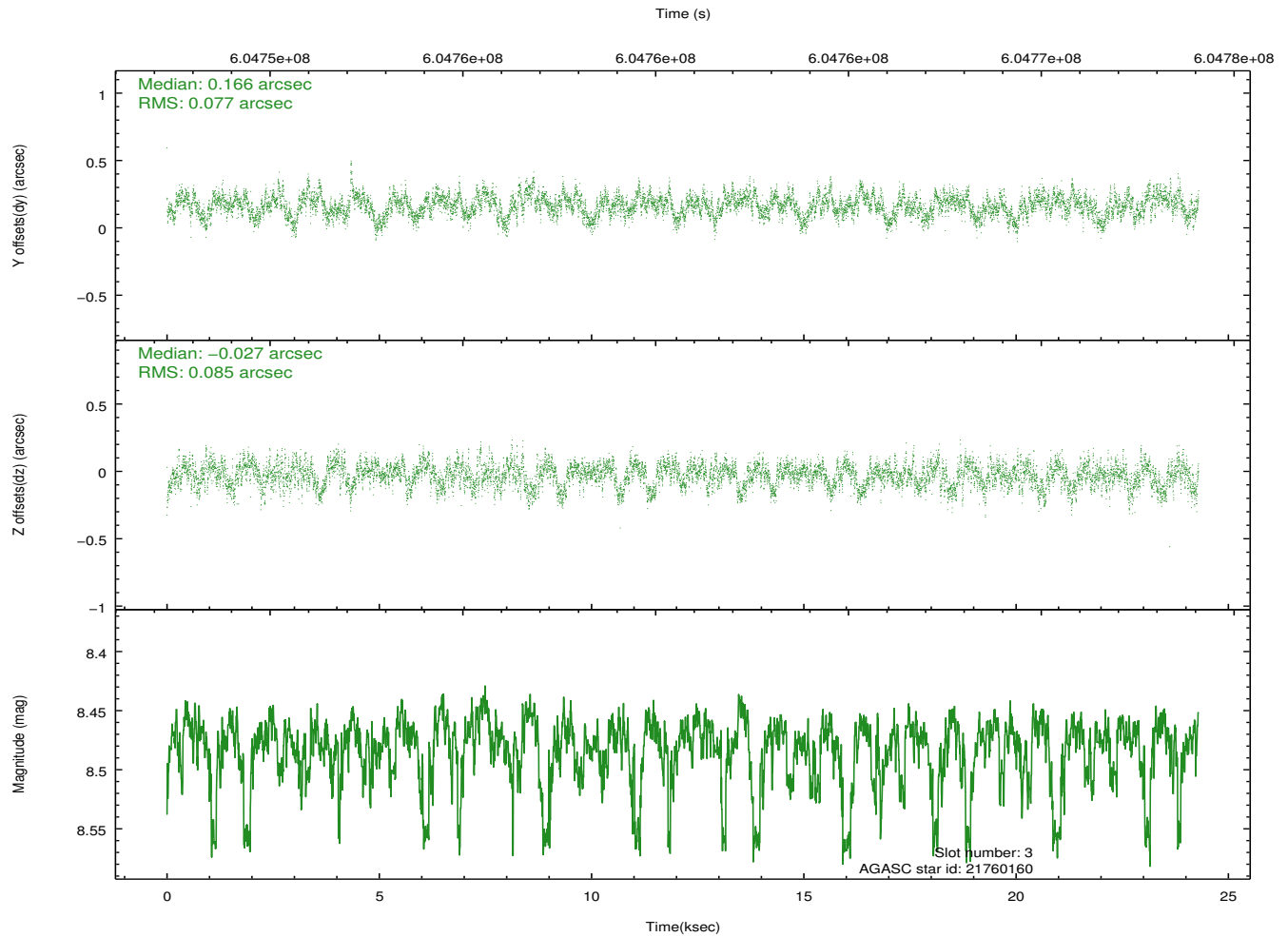
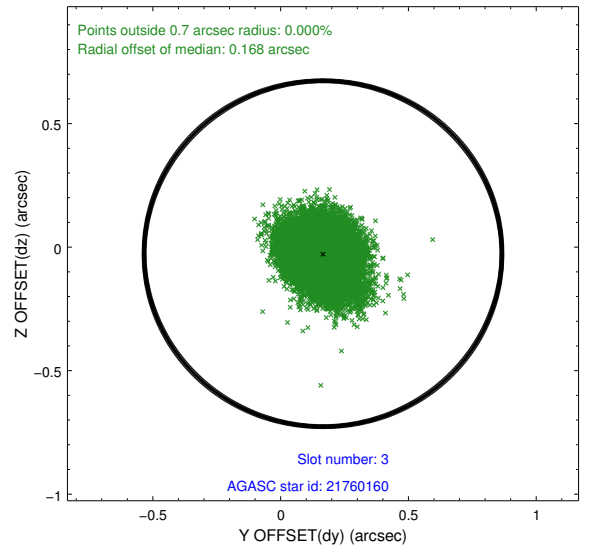
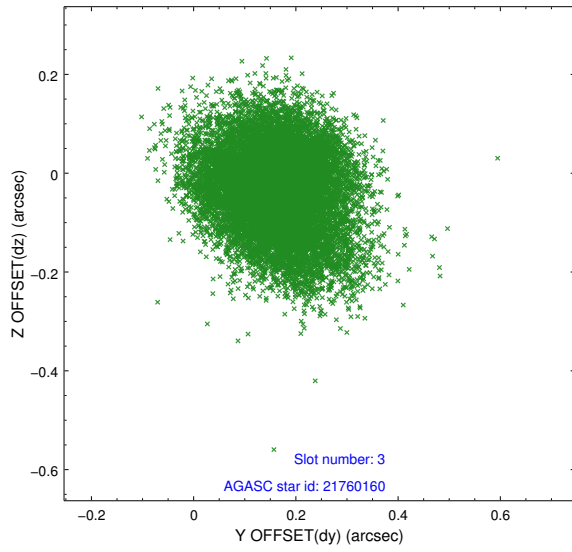


### Slot Statistics

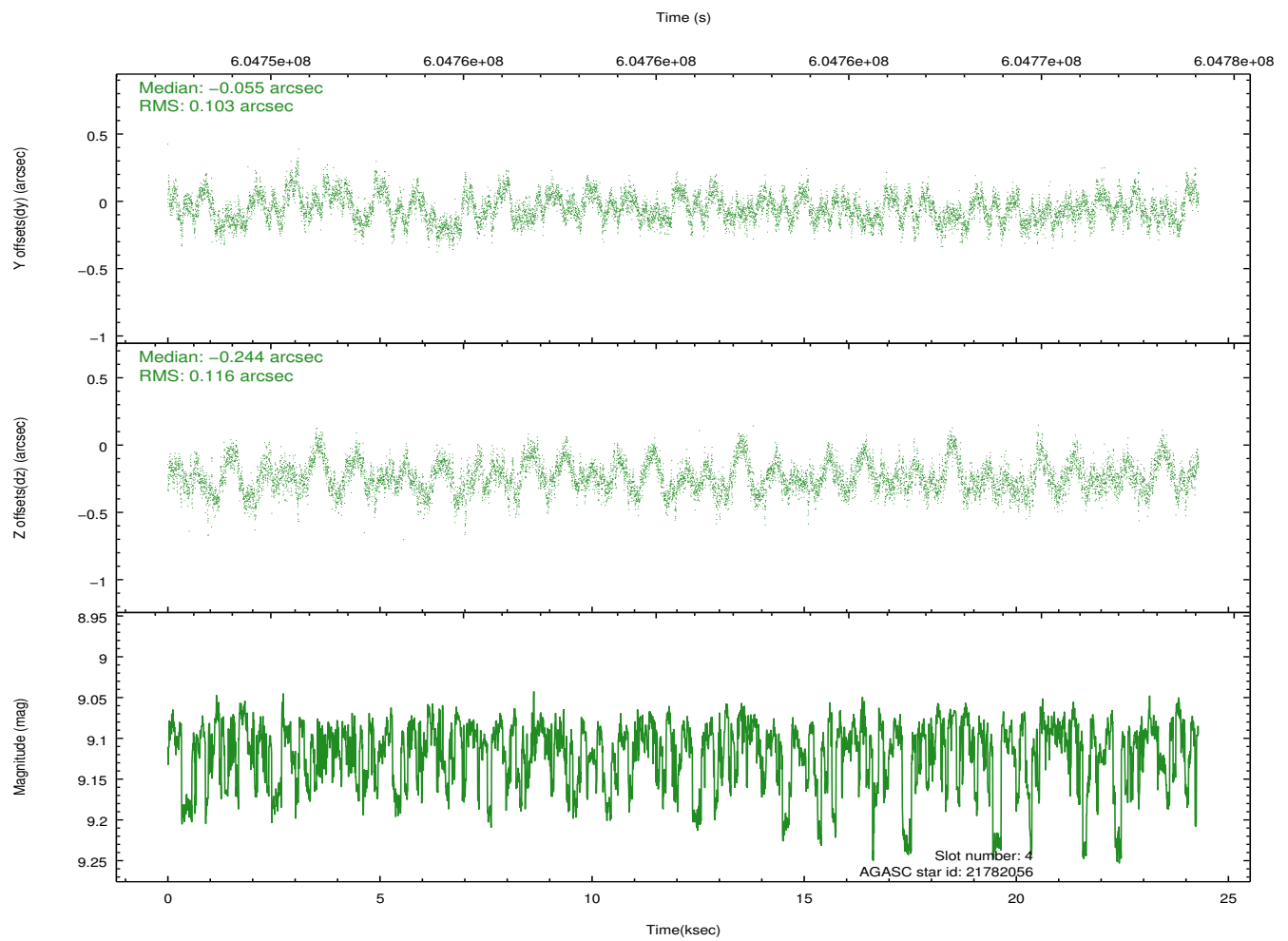
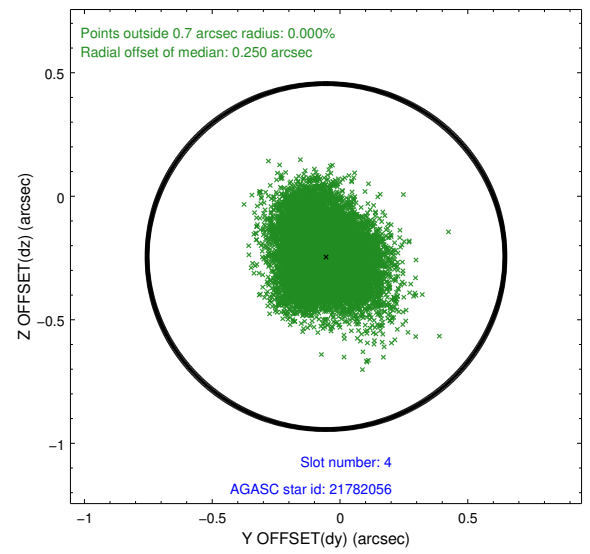
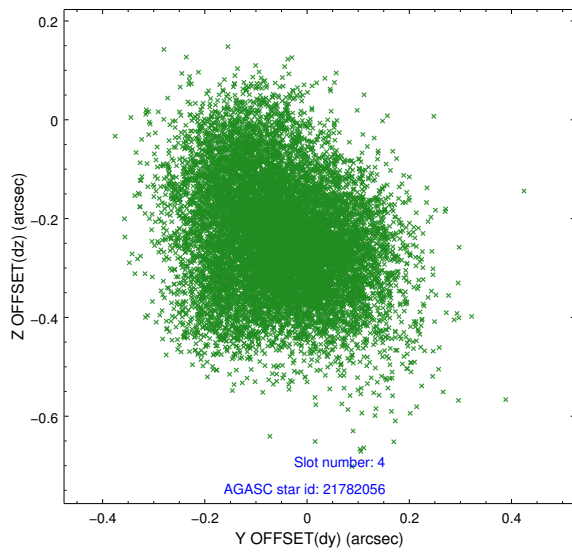
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.13	5926	-0.375	-0.243	0.007	0.012	0.000000	0.000000	-778.29	-1745.41
1	FID		ACIS-S-4	7.22	5927	0.402	0.225	0.013	0.025	0.000000	0.000000	2135.79	163.27
2	FID		ACIS-S-6	7.39	5927	-0.055	0.025	0.012	0.023	0.000000	0.000000	384.28	800.69
3	GUIDE	used	21760160	8.48	11851	0.166	-0.027	0.123	0.195	106.562841	2.893200	-252.66	178.50
4	GUIDE	used	21782056	9.11	11840	-0.055	-0.244	0.167	0.265	106.815612	3.319052	-1658.75	1273.75
5	GUIDE	used	21897064	8.71	11836	-0.344	-0.523	0.106	0.180	107.114507	2.513152	1354.34	1974.58
6	GUIDE	used	21778408	8.54	11843	0.181	0.647	0.123	0.217	105.782547	3.225471	-1793.62	-2451.12
7	GUIDE	used	21783784	6.99	11853	0.054	0.157	0.107	0.180	105.894046	2.437313	1071.49	-2414.05

## 2.4 Star Slots

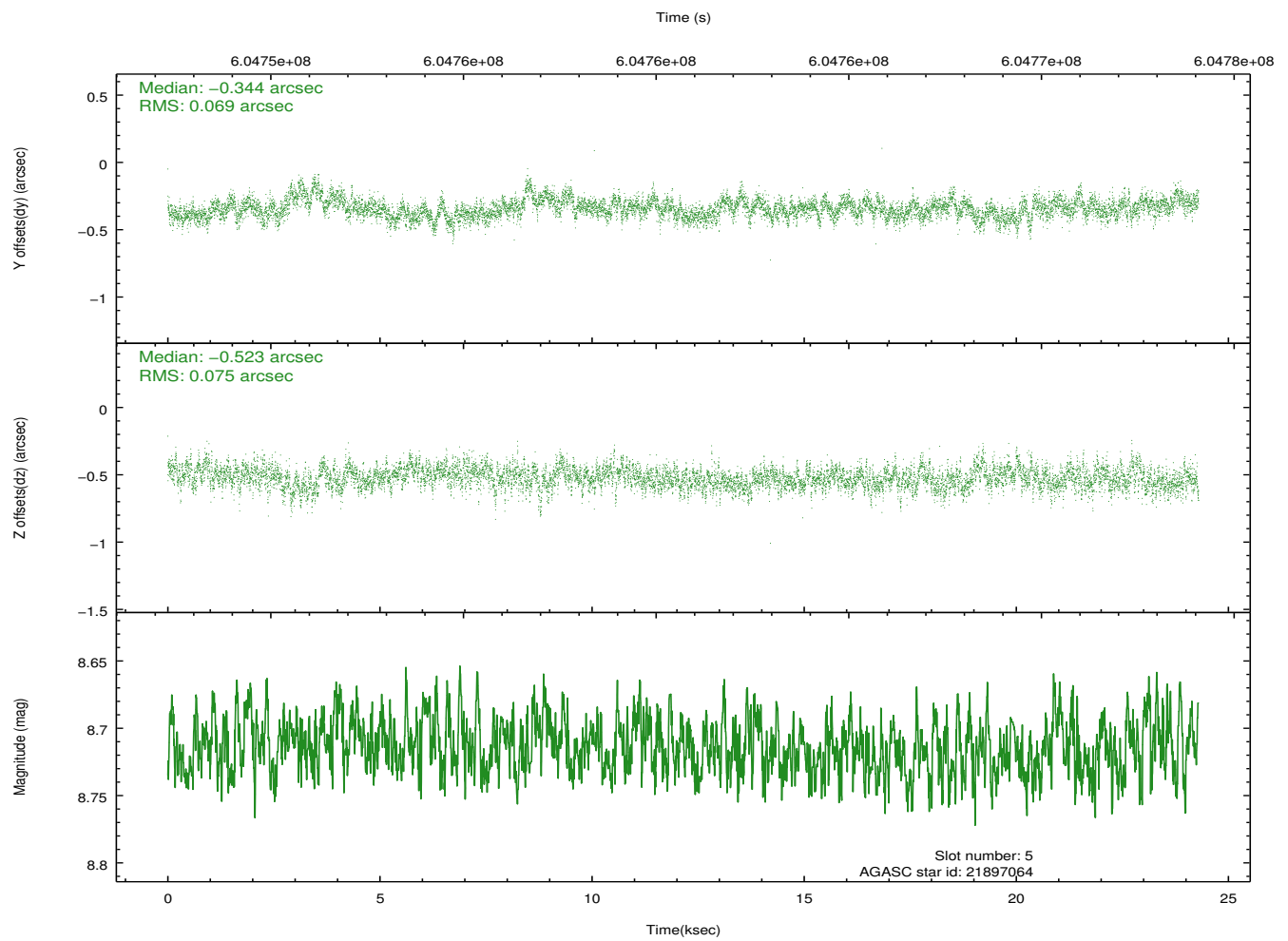
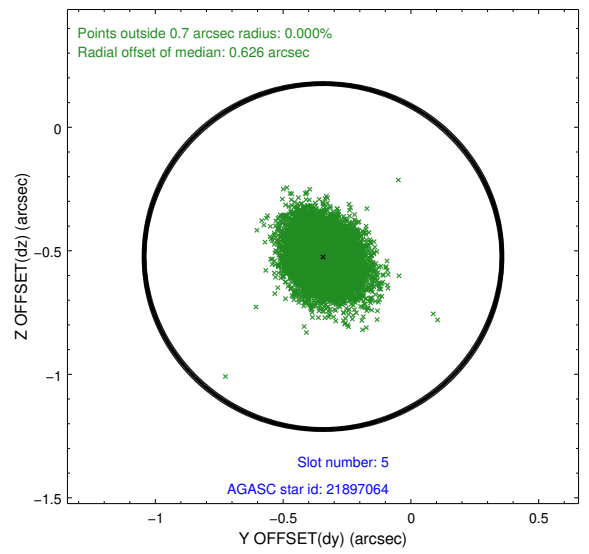
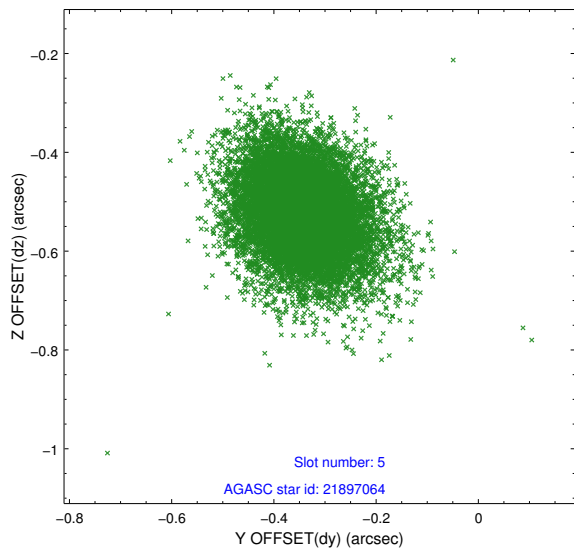
### 2.4.1 Slot 3



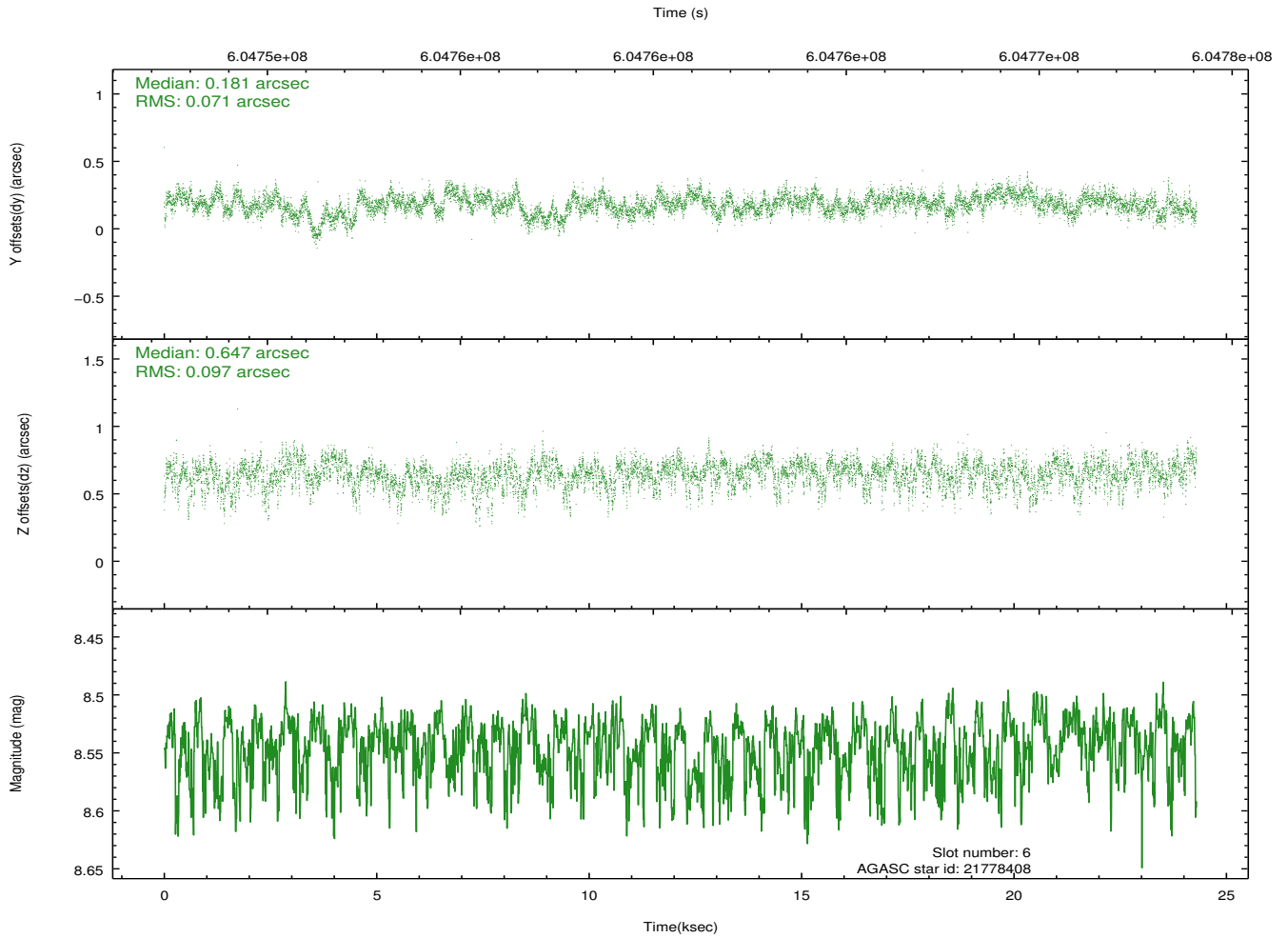
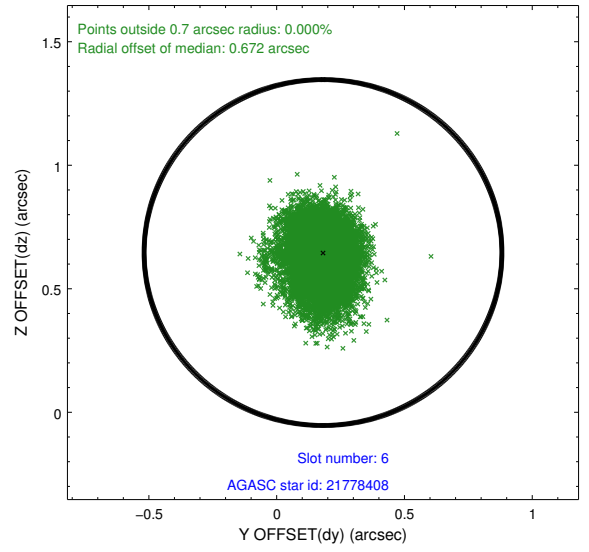
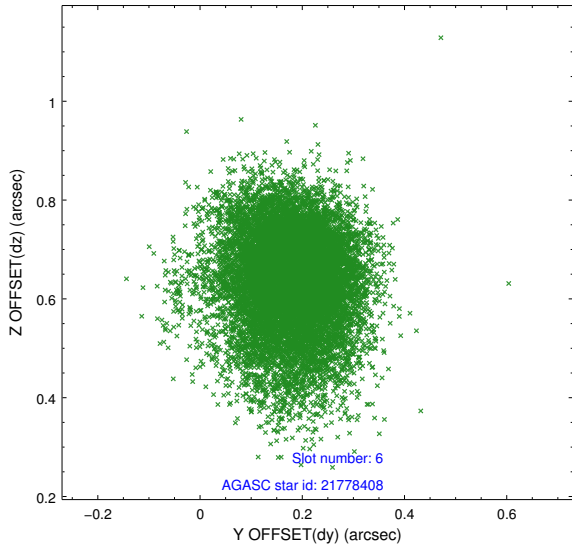
## 2.4.2 Slot 4



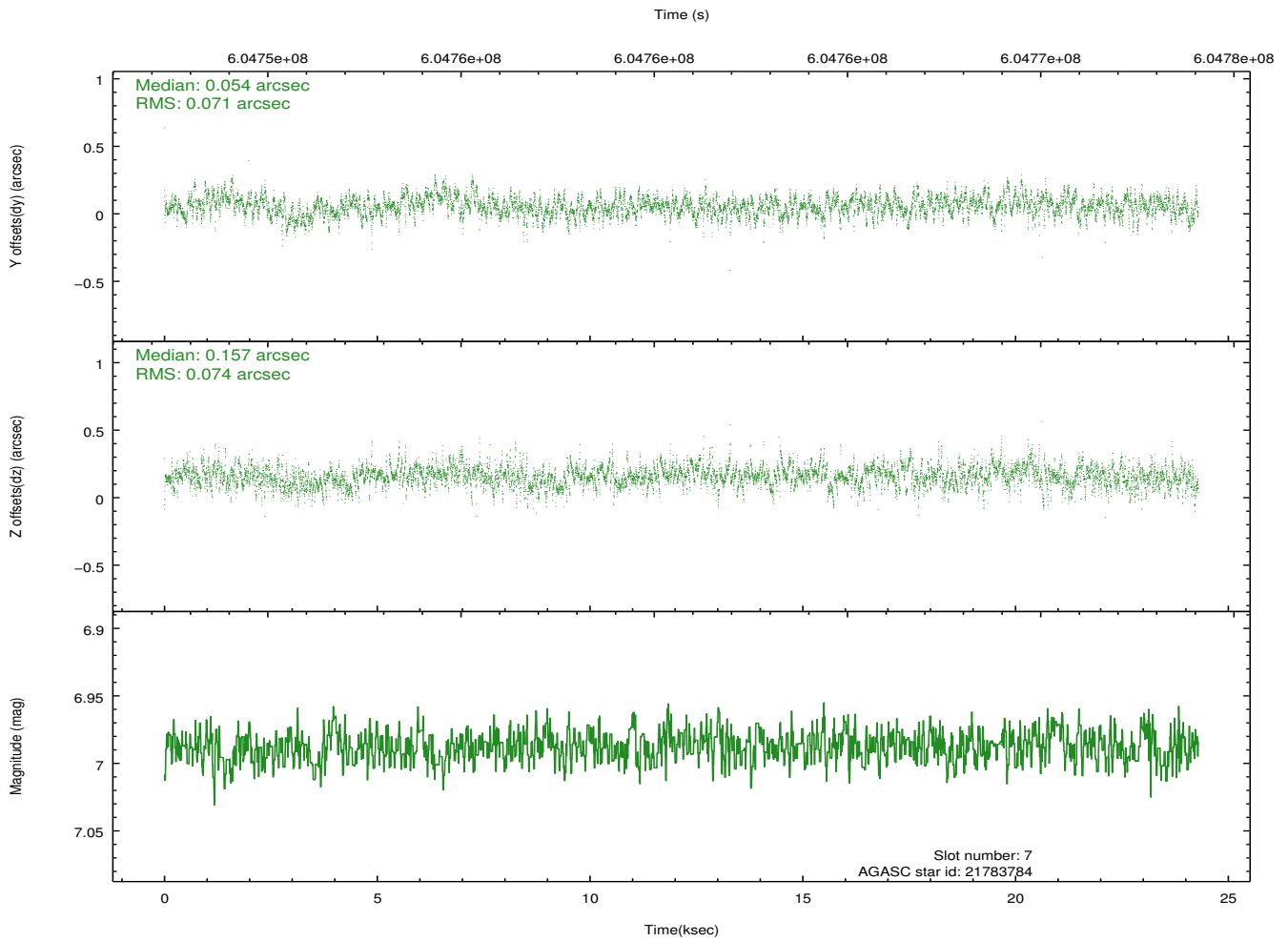
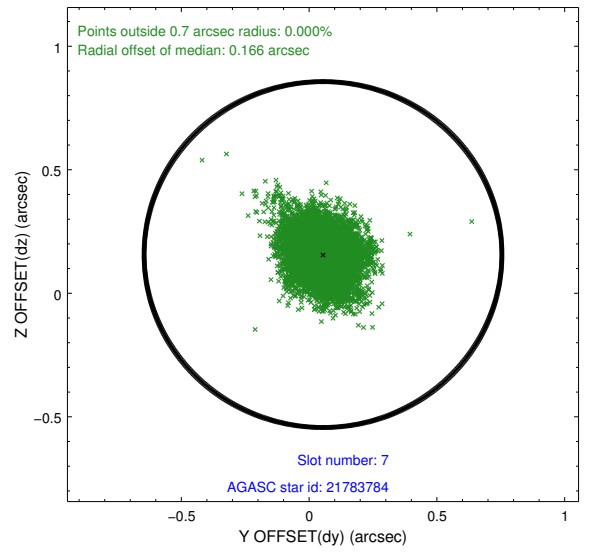
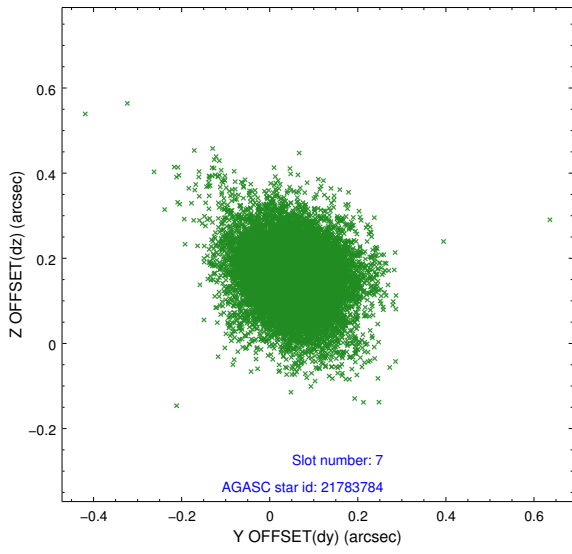
### 2.4.3 Slot 5



### 2.4.4 Slot 6

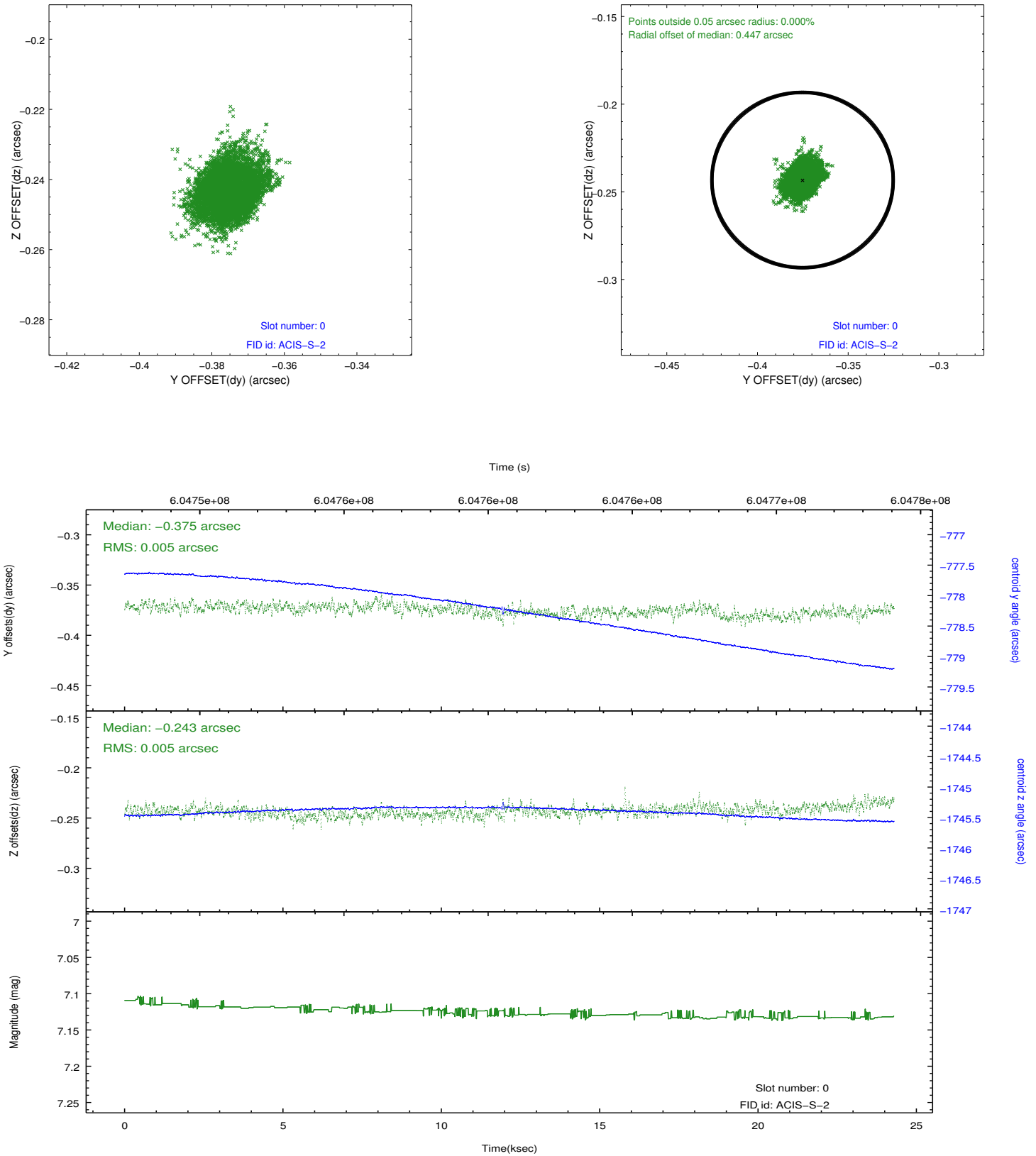


### 2.4.5 Slot 7

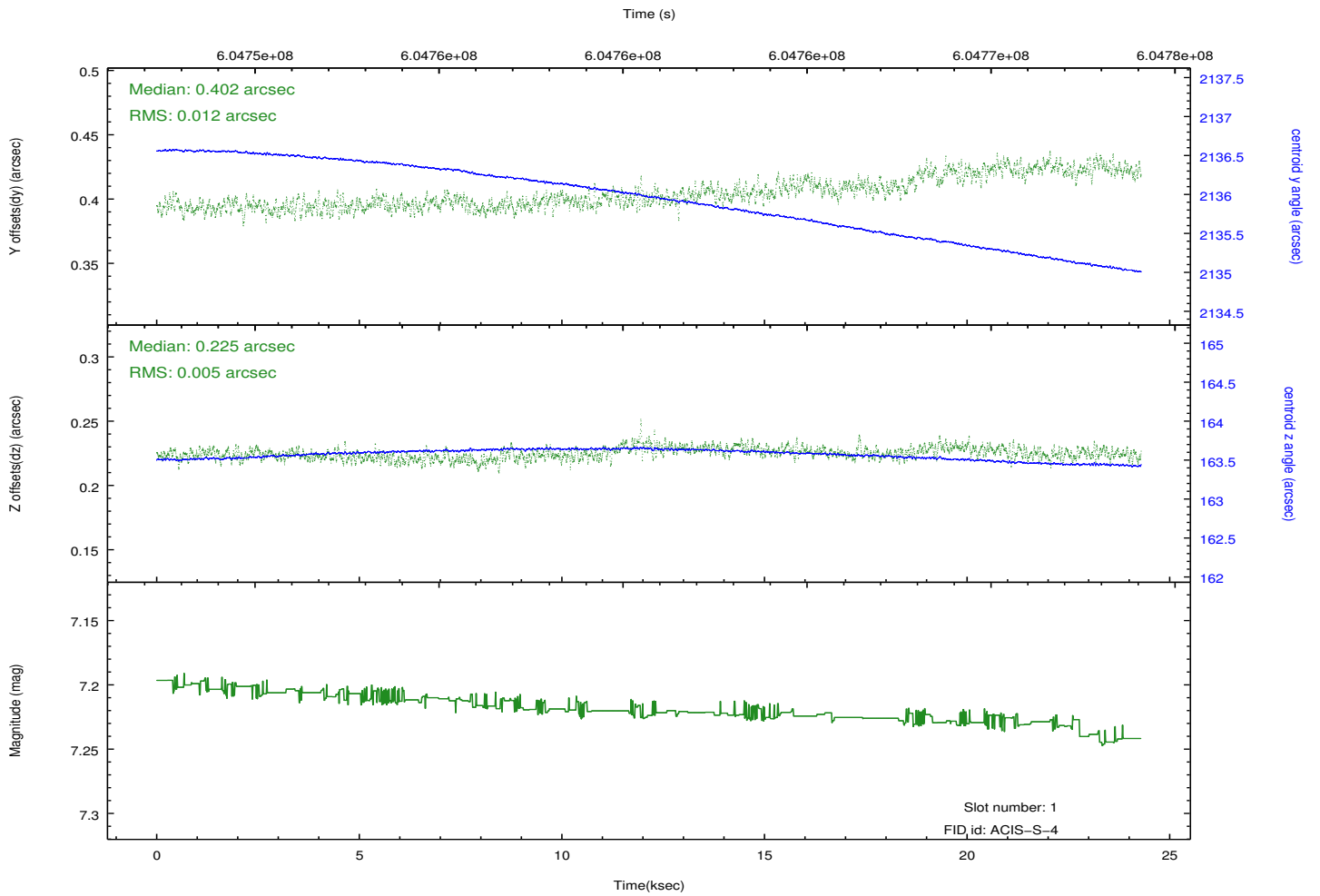
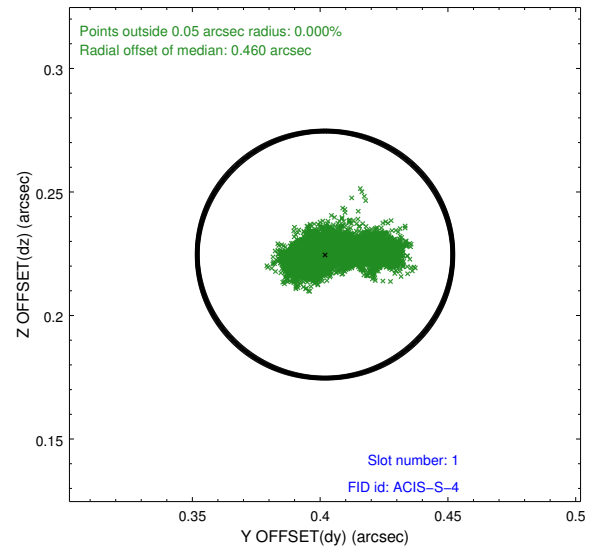
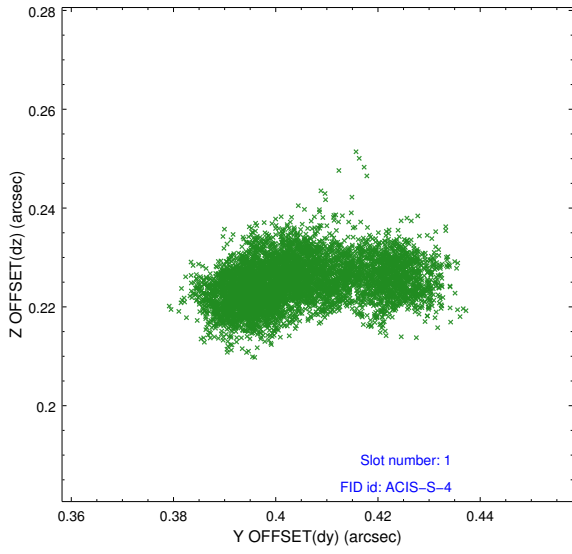


## 2.5 FID Slots

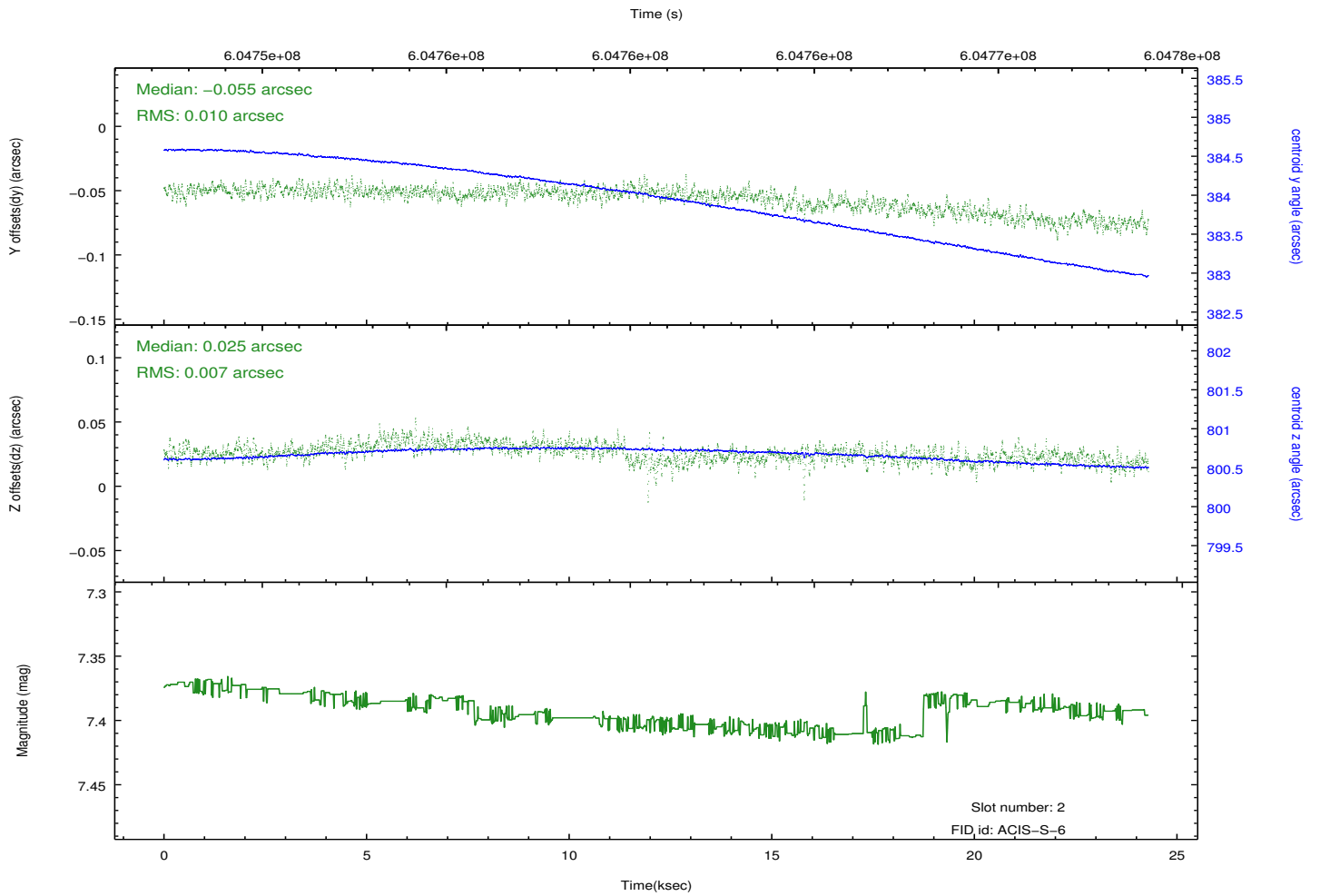
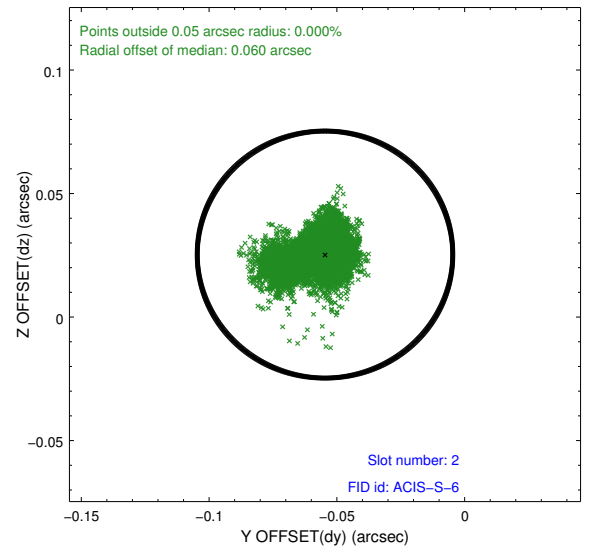
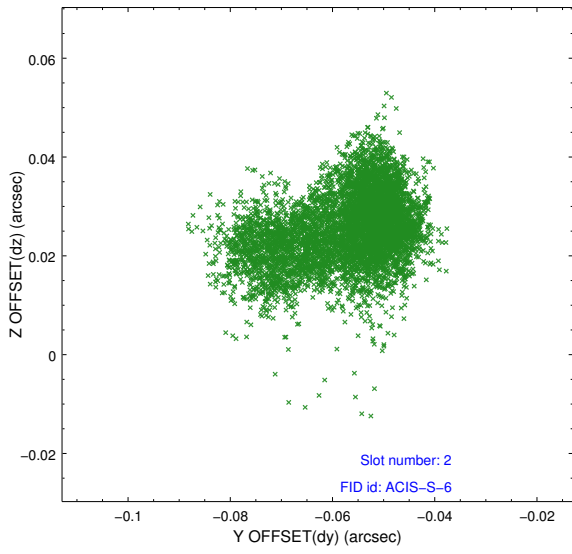
### 2.5.1 Slot 0



## 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)	2017.03.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.211000186324

## A.2 Comments