

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 15541 - L2 Version 2  
Chandra X-Ray Center

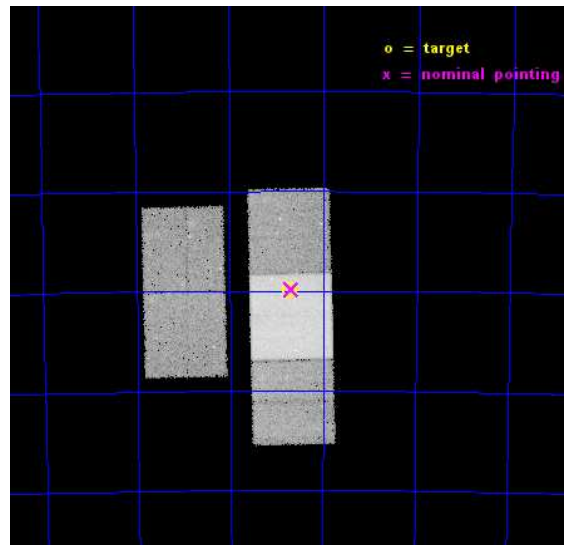
L2 Processing Date : Nov 27 2014

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# 1 Front

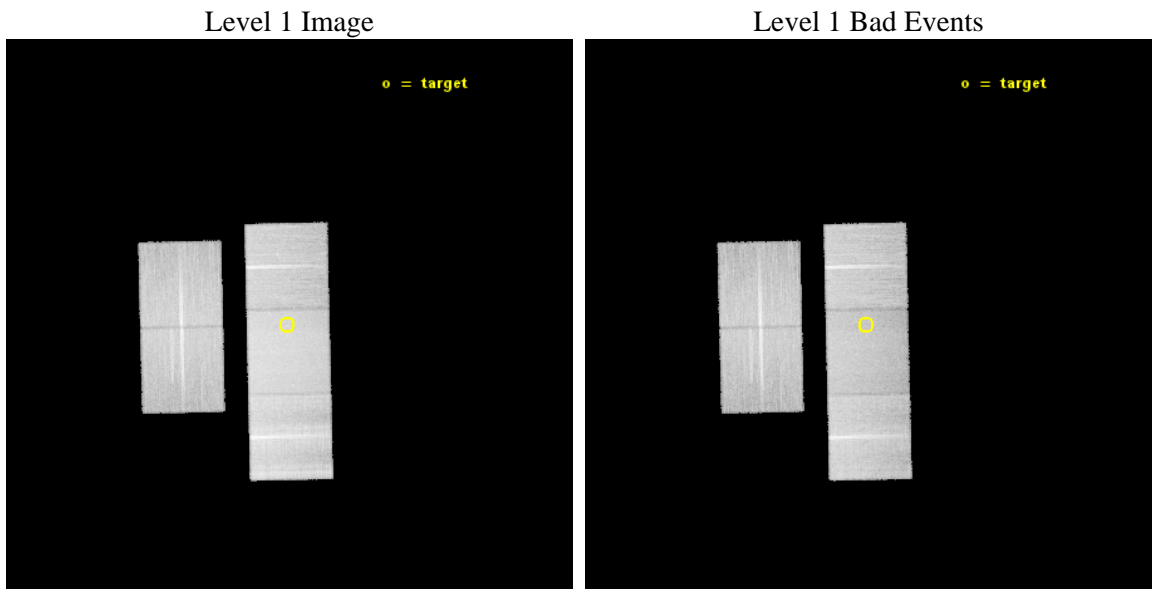
seq_num	501627	Sequence number
obs_id	15541	Observation id
title	The Astrophysics of the Most Energetic Gamma-Ray Bursts	Proposal t
observer	Dr. Andrew Fruchter	Principal investigator
object	GRB 120711A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	94.6785	Observer's specified target RA [deg]
dec_targ	-70.999111	Observer's specified target Dec [deg]
ra_nom	94.670769377702	Nominal RA [deg]
dec_nom	-70.997421685727	Nominal Dec [deg]
roll_nom	88.649313077785	Nominal Roll [deg]
revision	2	Processing version of data
ontime	41067.654118538	Sum of GTIs [s]
livetime	40531.074983912	Livetime [s]
ontime2	41067.489958525	Sum of GTIs [s]
ontime3	41067.572038531	Sum of GTIs [s]
ontime6	41067.613078535	Sum of GTIs [s]
ontime7	41067.654118538	Sum of GTIs [s]
ontime8	41064.390028179	Sum of GTIs [s]
l2events	224070	Number of level 2 events



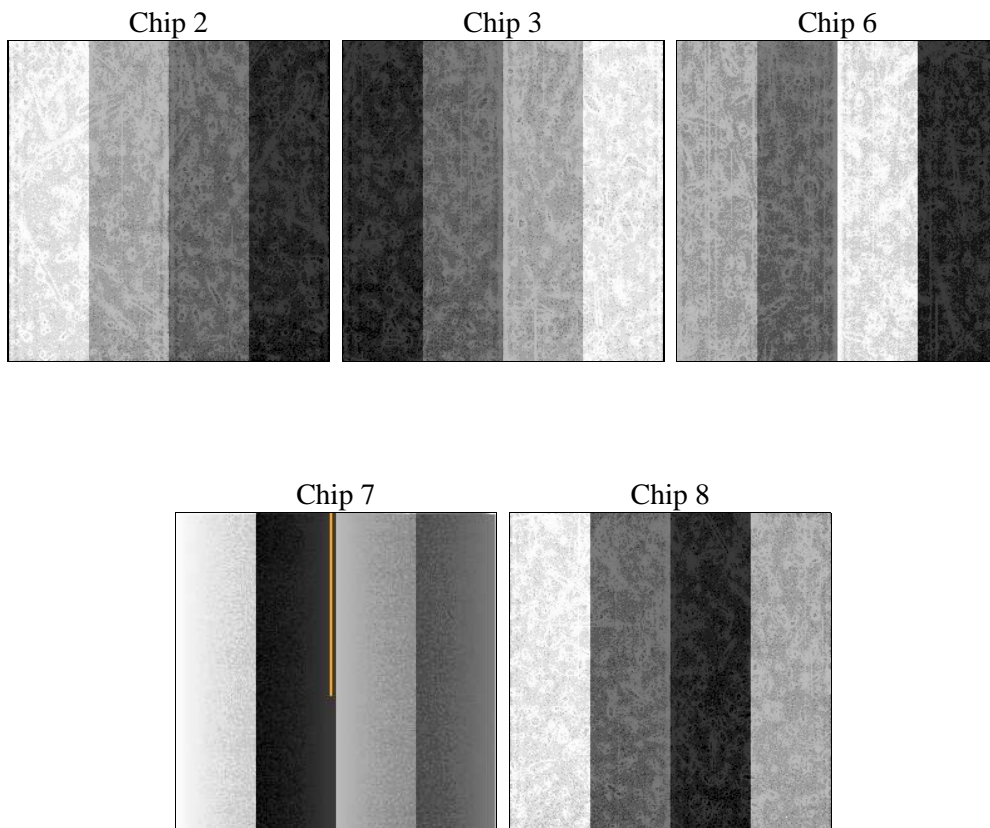
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	41000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	41067.654118538	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	41067.489958525	Sum of GTIs [s]
date	2014-11-27T07:48:14	Date and time of file creation	ontime3	41067.572038531	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	41067.613078535	Sum of GTIs [s]
			ontime7	41067.654118538	Sum of GTIs [s]
			ontime8	41064.390028179	Sum of GTIs [s]
			l1events	1268328	Number of level 1 events

### 2.1.4 Events

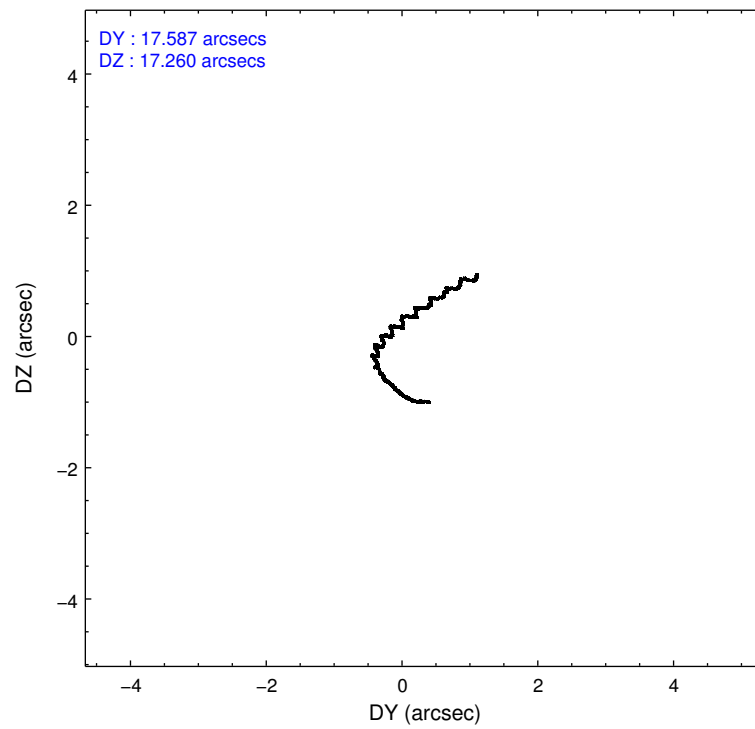
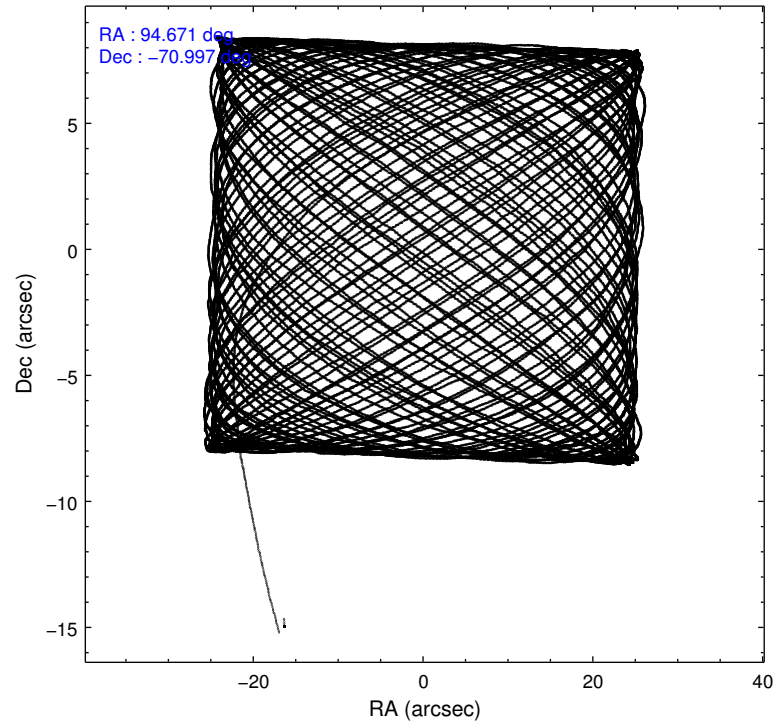
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	218513	210919	231523	300485	306888
rejected events	192373	186607	203799	168033	221150
rejected %	88%	88%	88%	55%	72%

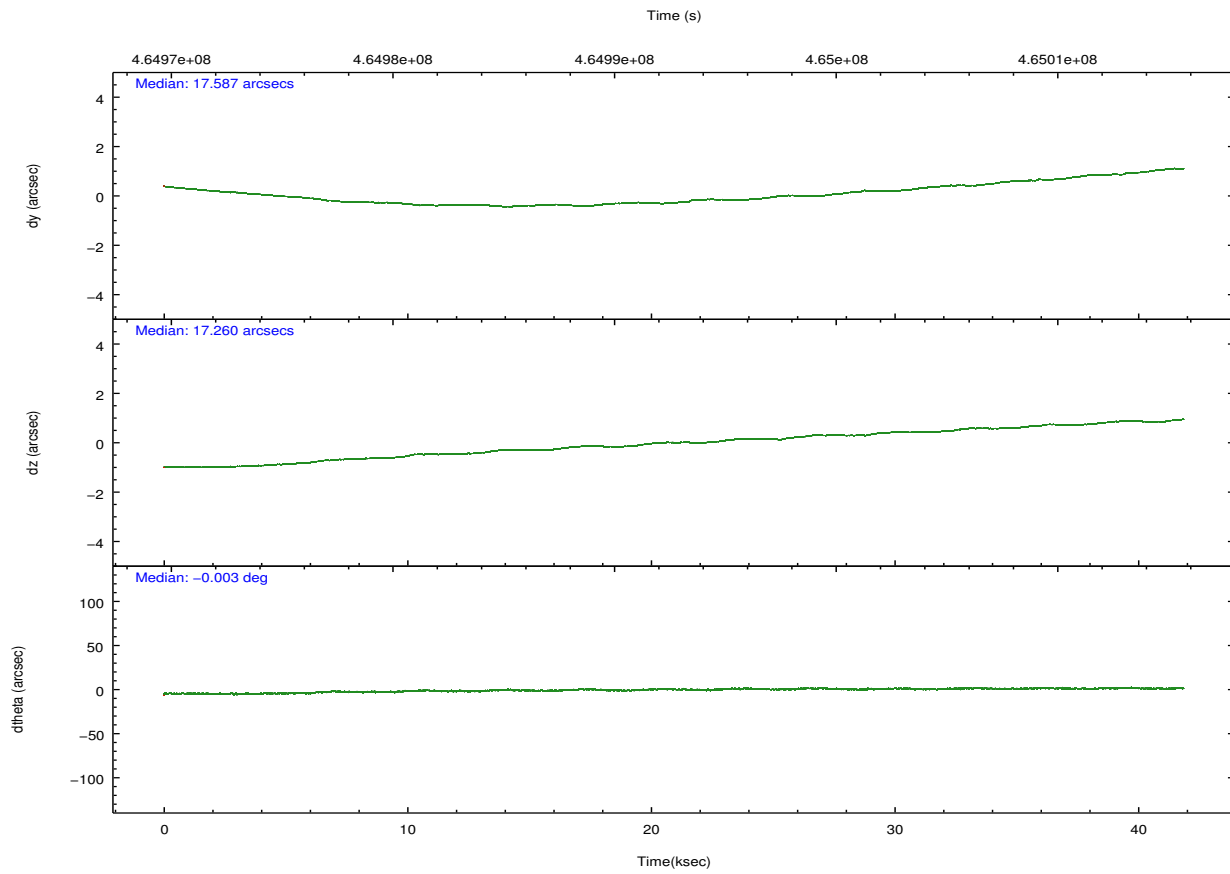
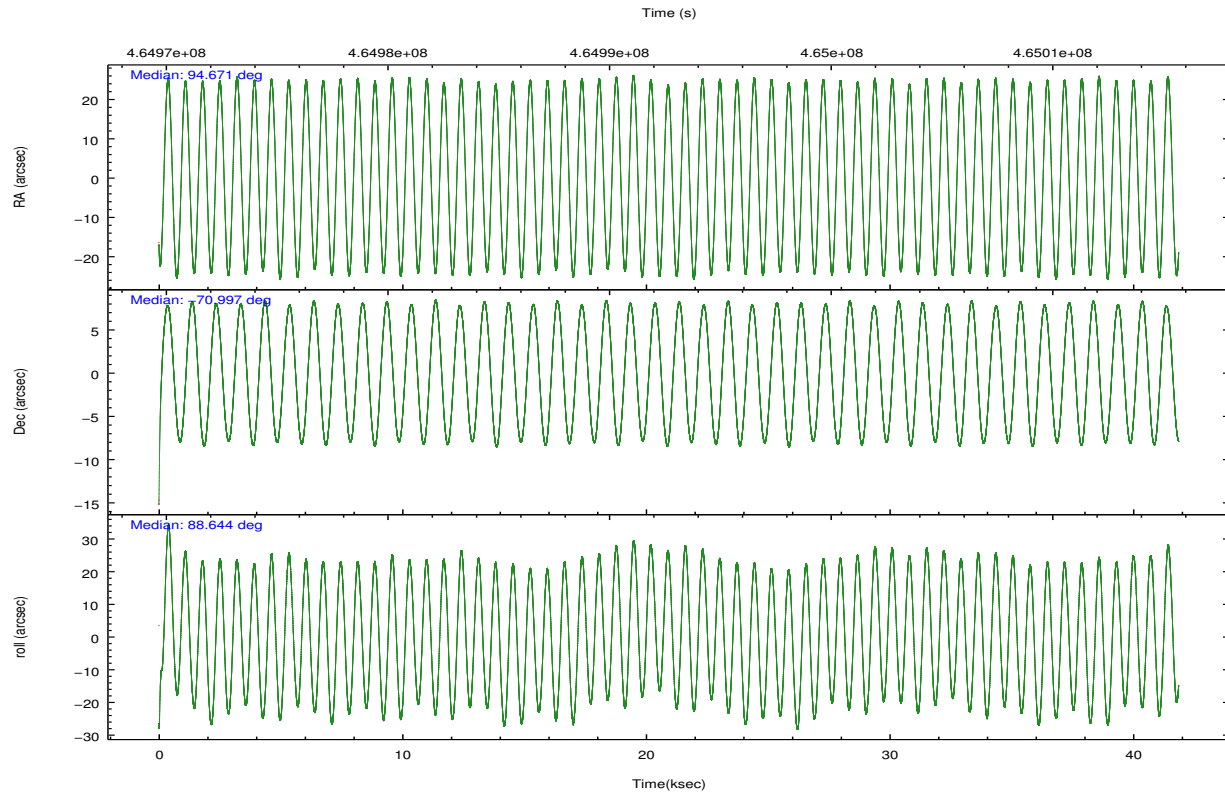
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	9547	8498	9512	11930	25078
	4%	4%	4%	3%	8%
grade 1 events	123	143	127	364	252
	0%	0%	0%	0%	0%
grade 2 events	6412	5398	6417	27184	19599
	2%	2%	2%	9%	6%
grade 3 events	2565	2559	2849	11272	9244
	1%	1%	1%	3%	3%
grade 4 events	2689	2664	2712	11140	8705
	1%	1%	1%	3%	2%
grade 5 events	9663	11409	11615	30615	16946
	4%	5%	5%	10%	5%
grade 6 events	4928	5195	6236	70932	23117
	2%	2%	2%	23%	7%
grade 7 events	182586	175053	192055	137048	203947
	83%	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-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	94.712104	94.67076937770202	Subarray requested	NONE	NONE
[deg] Pointing Dec	-71.021235	-70.99742168572732	Alternating exposures requested	N	N
[deg] Pointing Roll	88.531781	88.64931307778471	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	464972591.184000	464970807.70147			
Observation start date	2012-09-25T15:02:04	2012-09-25T14:33:27			
[s] Observation end time (MET)	465013591.184000	465014160.0787			
Observation end date	2012-09-26T02:25:24	2012-09-26T02:36:00			
Read mode	TIMED	TIMED			

## 2.3 Aspect





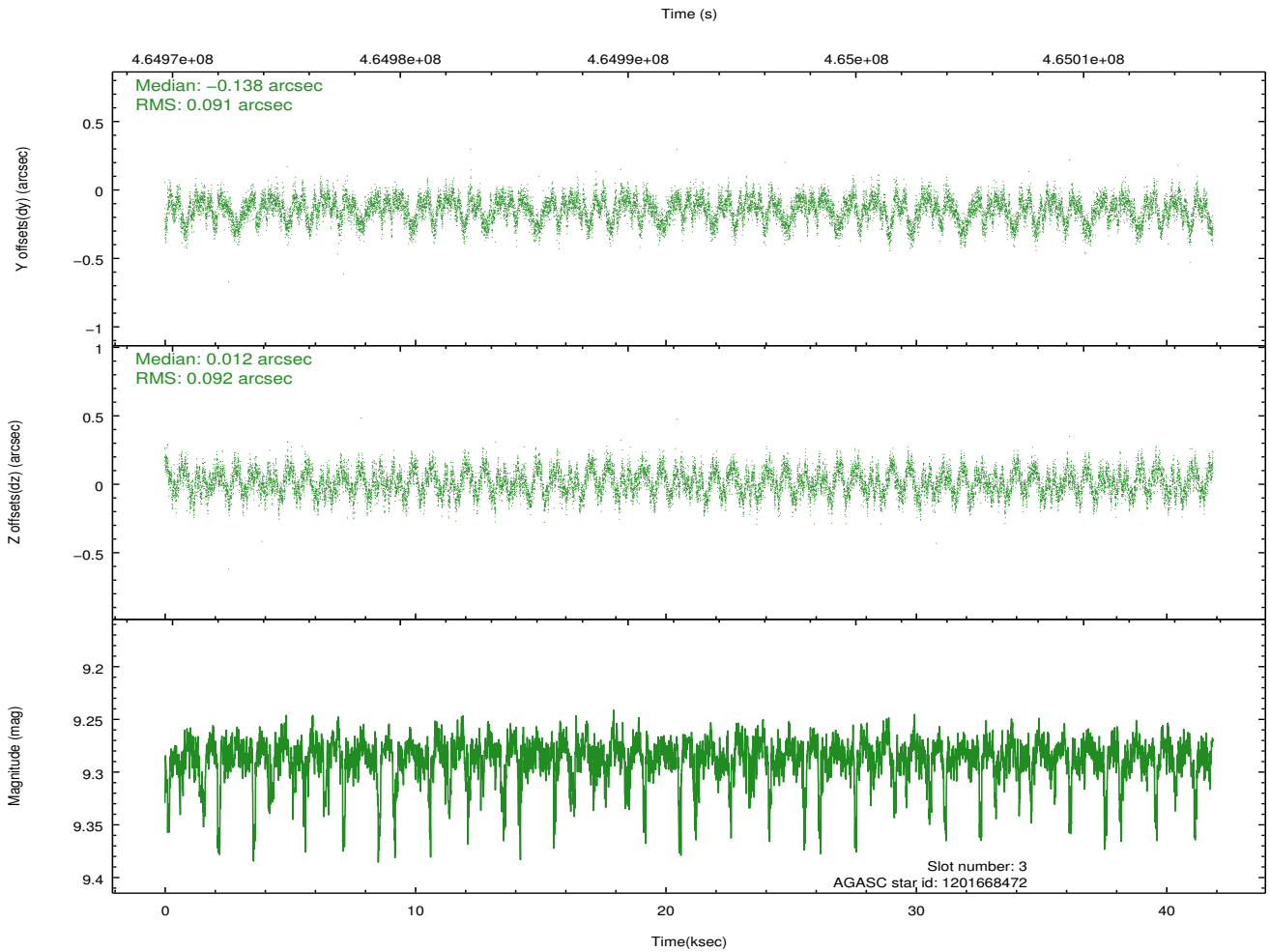
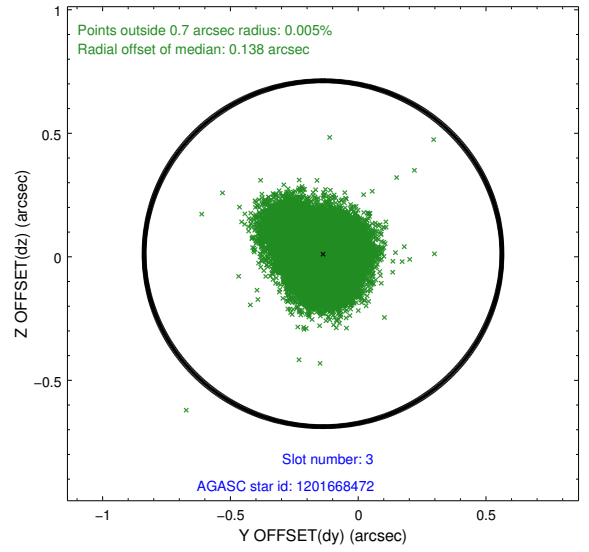
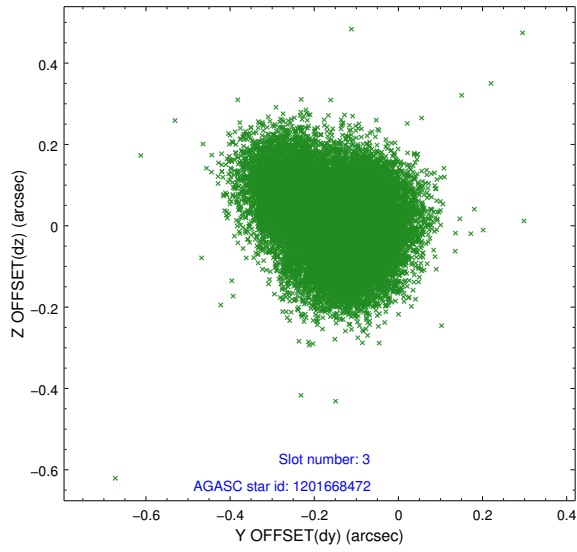
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	10209	-0.090	-0.041	0.017	0.037	0.000000	0.000000	-770.82	-1738.69
1	FID		ACIS-S-4	7.03	10210	0.242	0.053	0.012	0.035	0.000000	0.000000	2142.81	169.84
2	FID		ACIS-S-5	7.06	10210	-0.183	-0.002	0.024	0.037	0.000000	0.000000	-1823.73	163.50
3	GUIDE	used	1201668472	9.29	20371	-0.138	0.012	0.139	0.219	95.162780	-70.551287	1703.38	-496.52
4	GUIDE	used	1201673112	9.00	20393	-0.019	-0.130	0.092	0.149	93.755729	-70.460525	1979.68	1202.72
5	GUIDE	used	1201677552	9.37	20408	-0.432	-0.222	0.108	0.178	93.710140	-70.598114	1480.76	1235.86
6	GUIDE	used	1202196968	9.16	20397	0.388	0.354	0.128	0.194	94.954850	-71.380799	-1286.54	-311.75
7	GUIDE	used	1203896600	9.76	20400	0.213	-0.009	0.137	0.224	96.331520	-71.548408	-1873.94	-1893.82

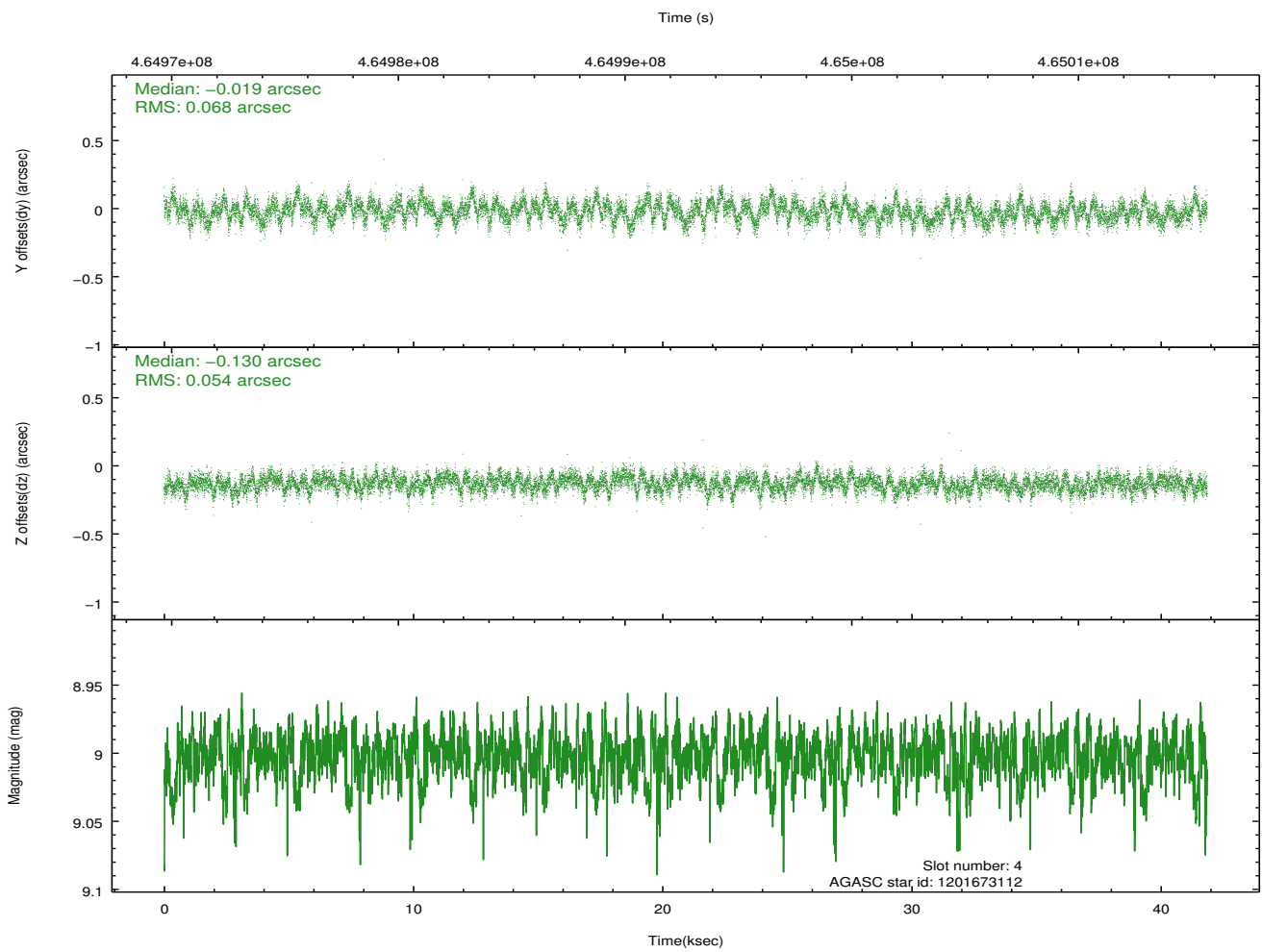
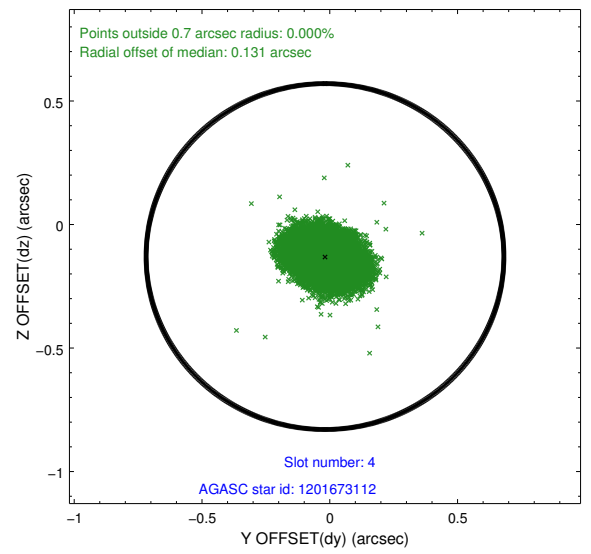
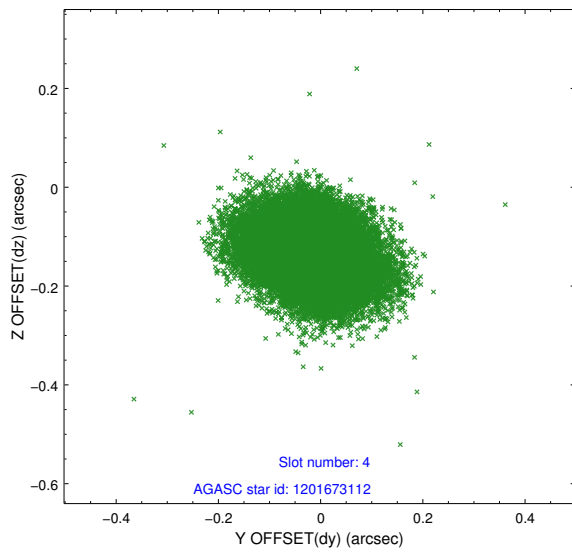
∞

## 2.4 Star Slots

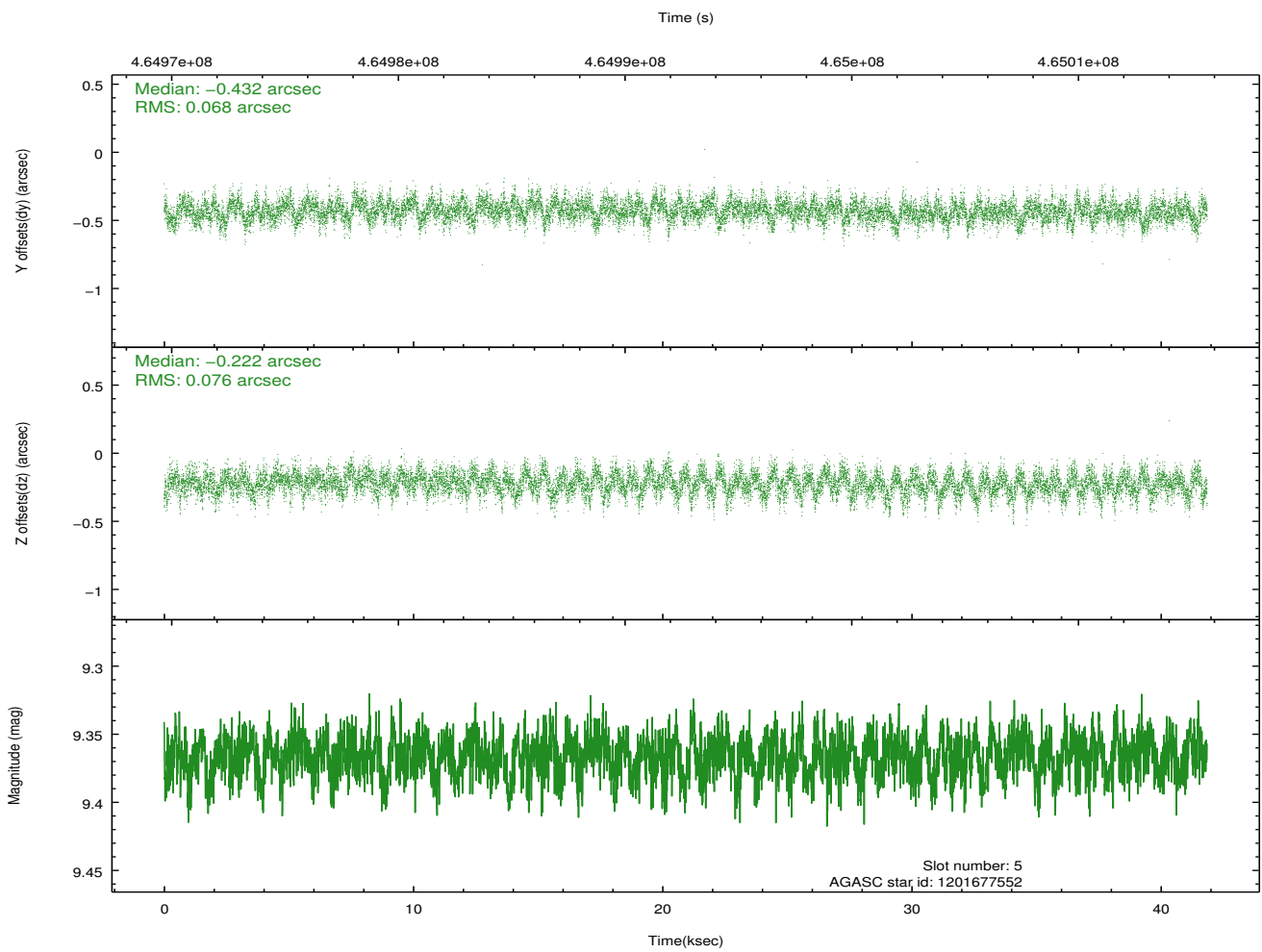
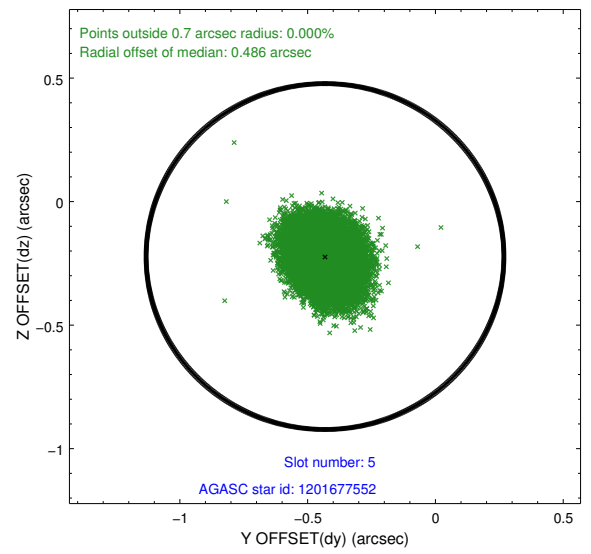
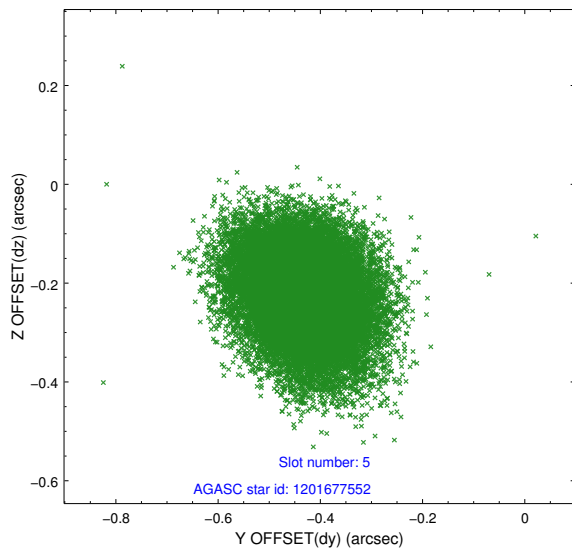
### 2.4.1 Slot 3



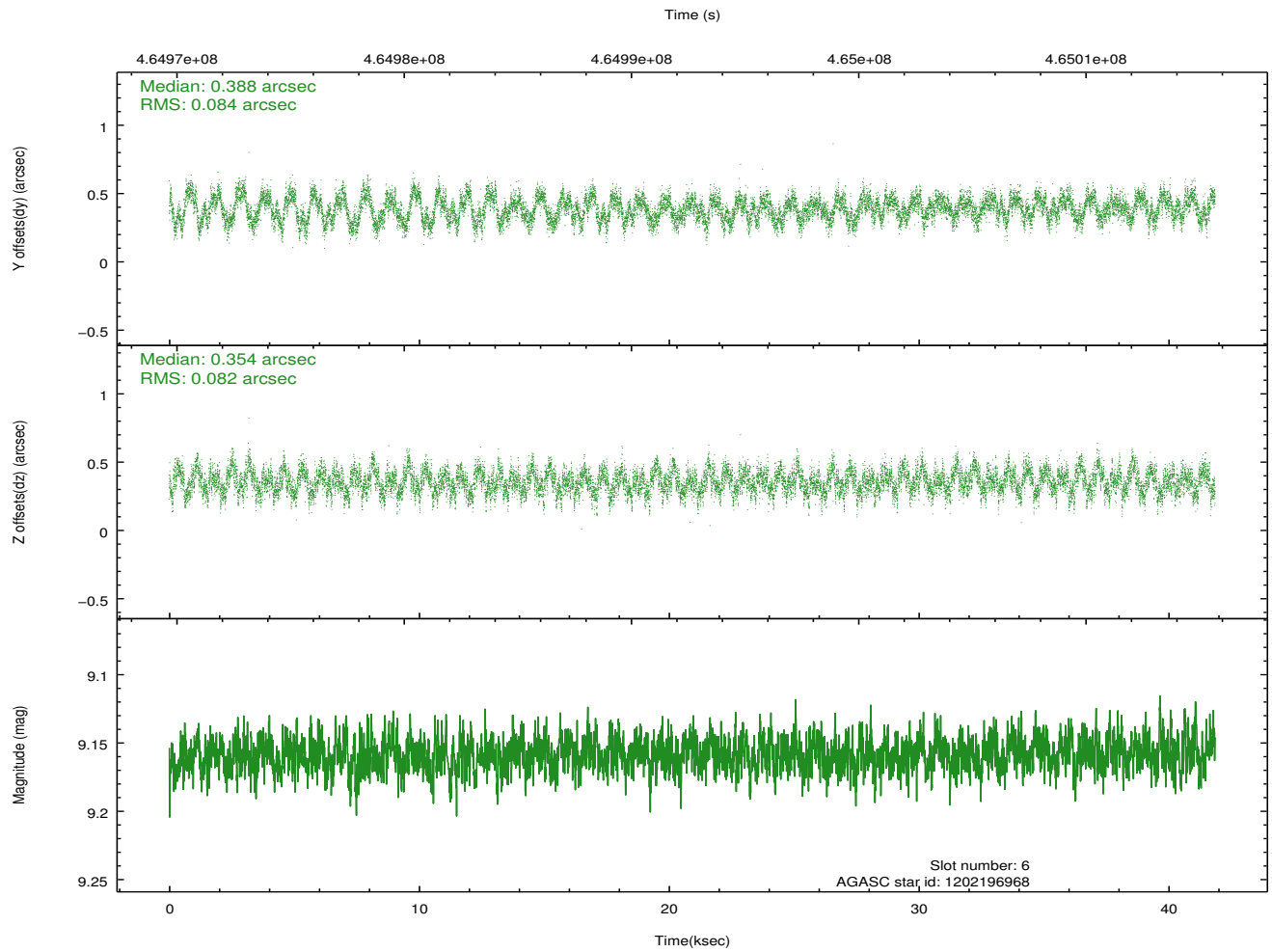
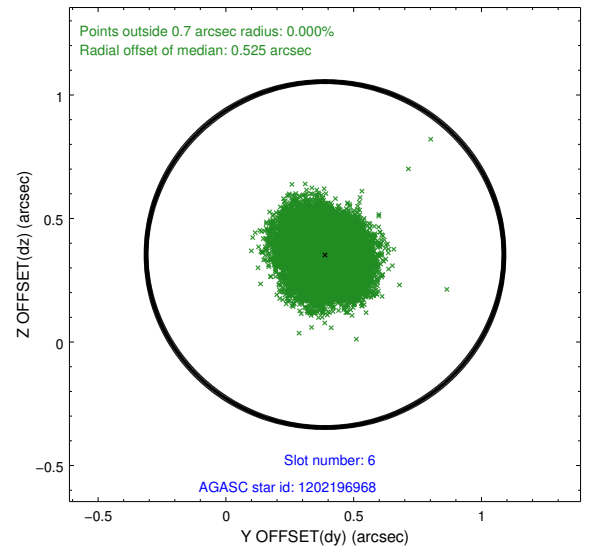
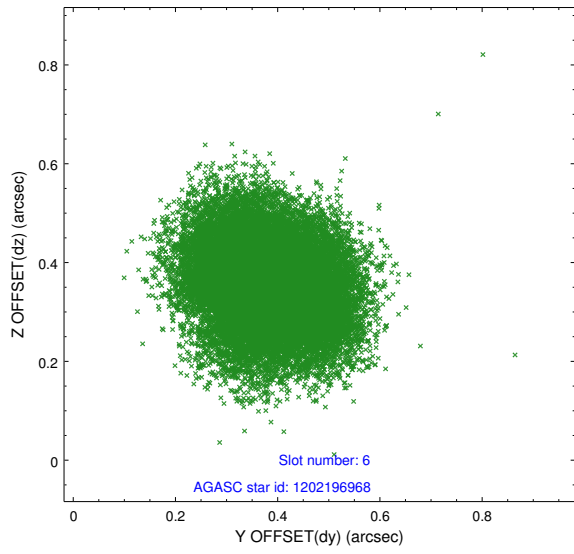
## 2.4.2 Slot 4



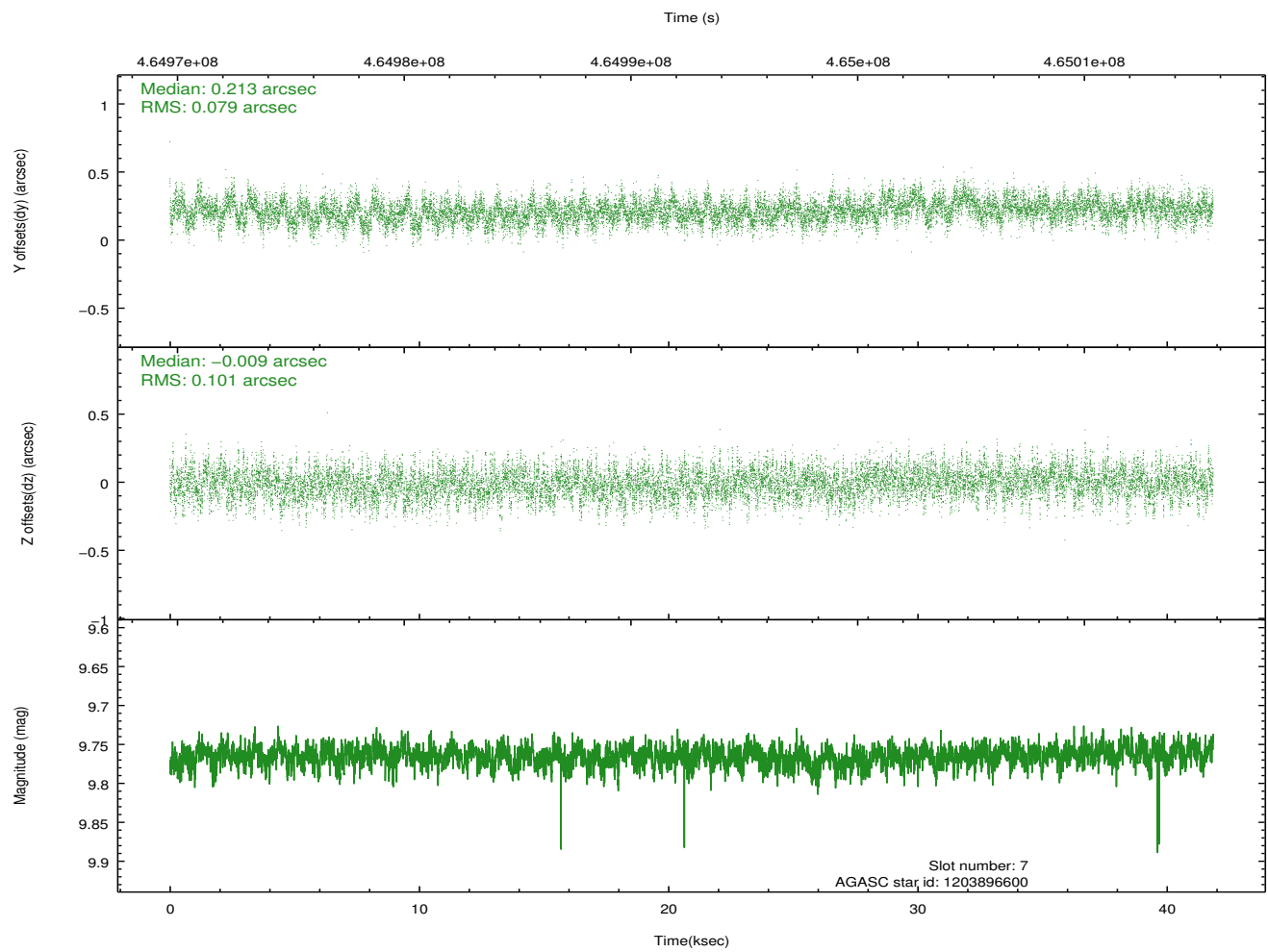
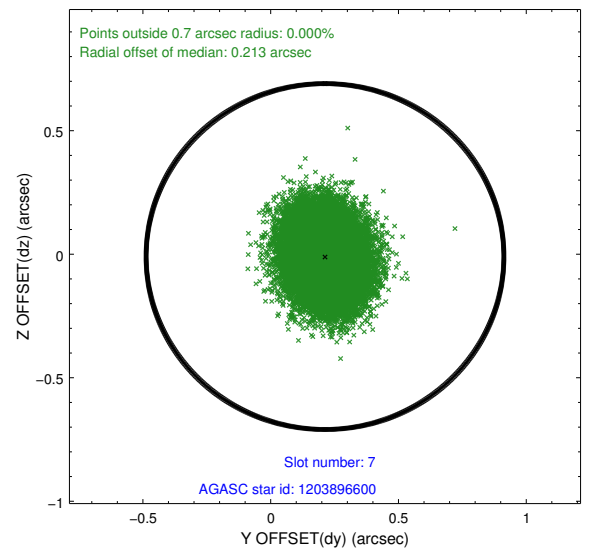
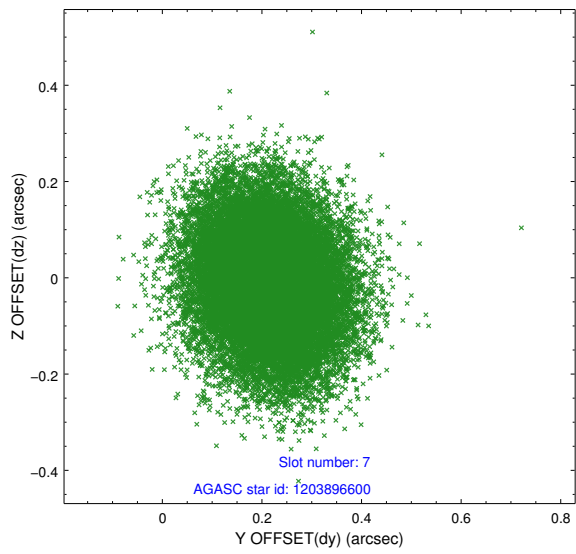
### 2.4.3 Slot 5



### 2.4.4 Slot 6

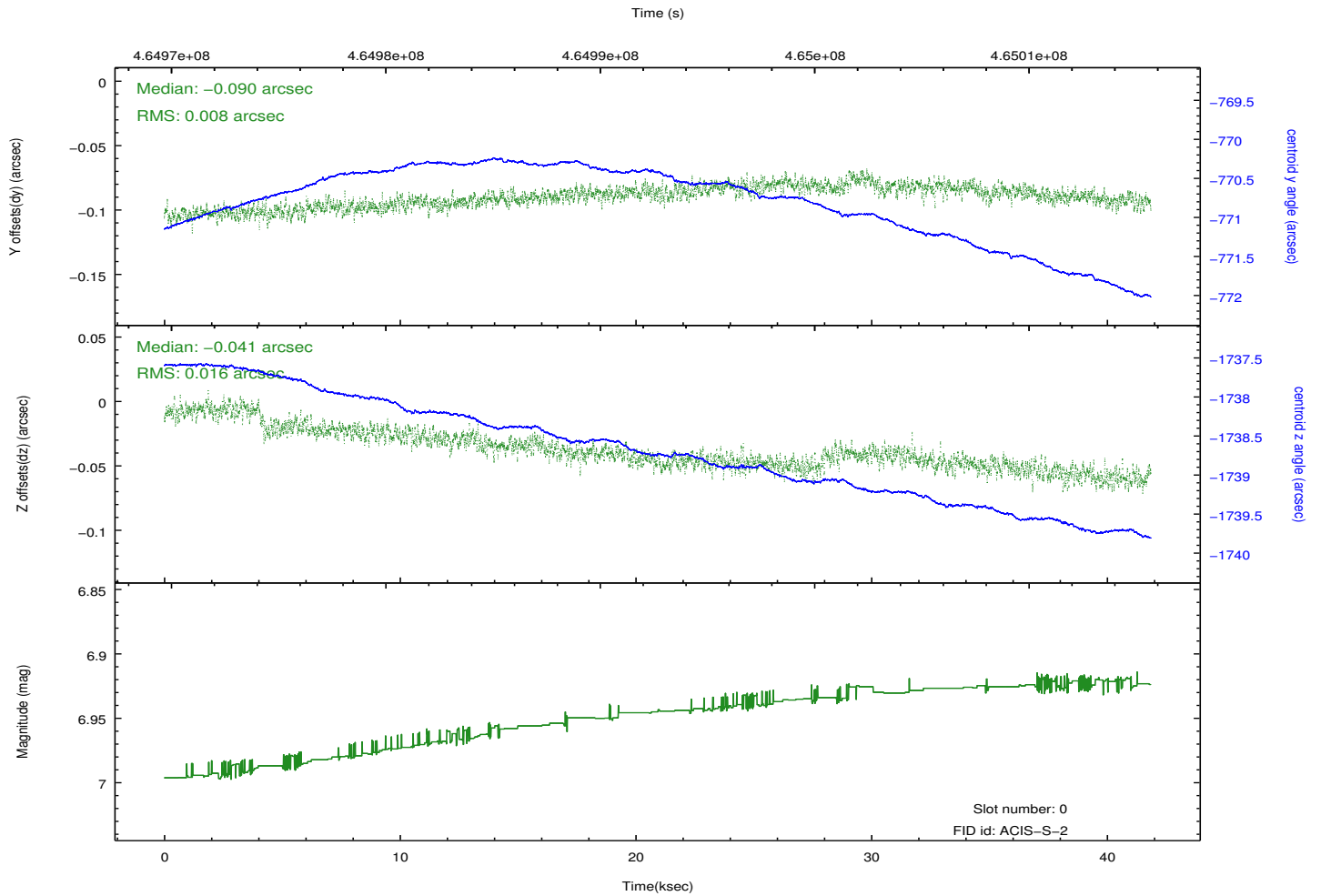
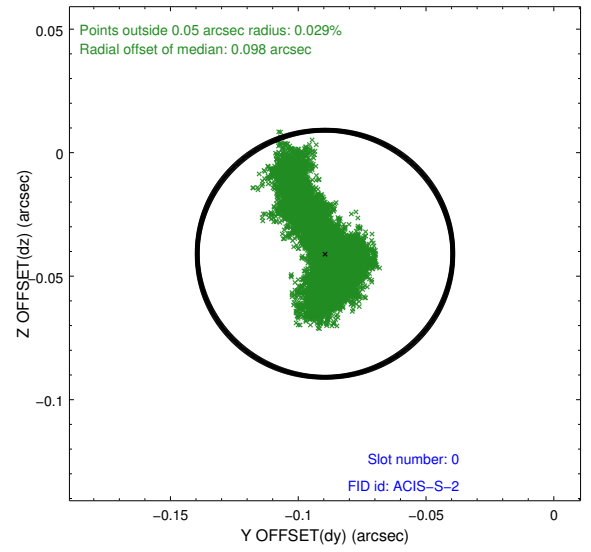
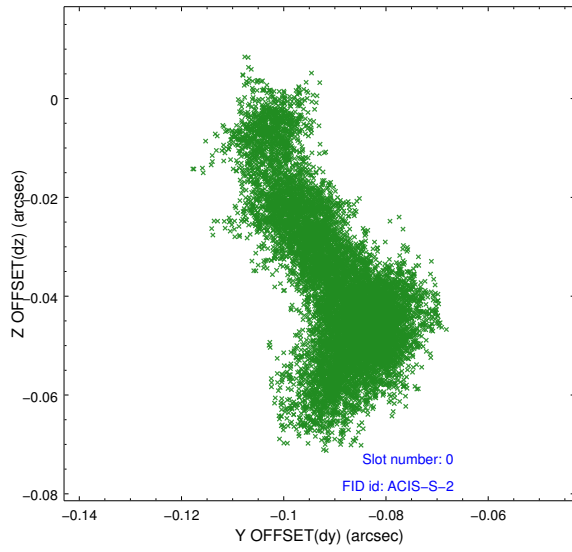


## 2.4.5 Slot 7

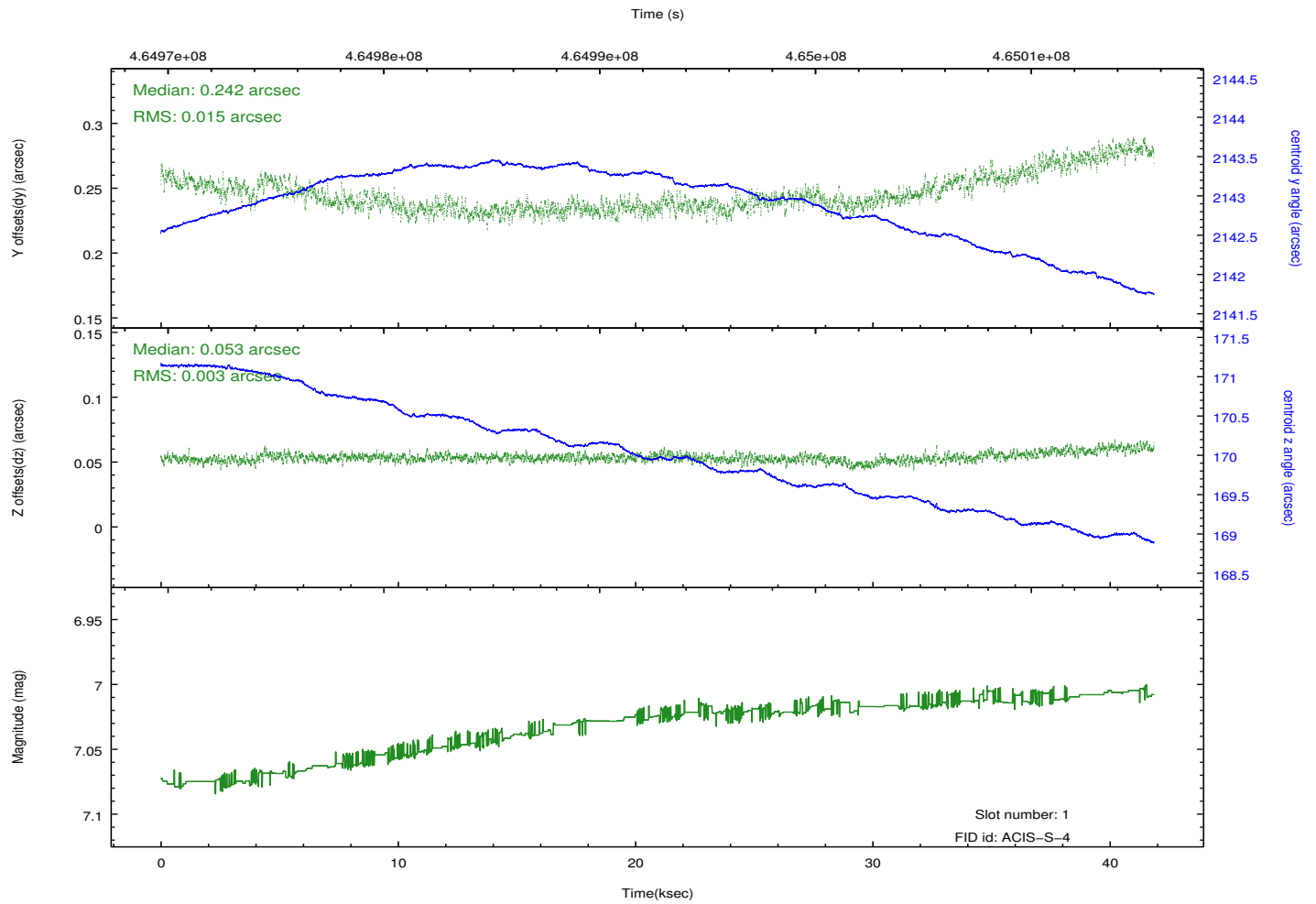
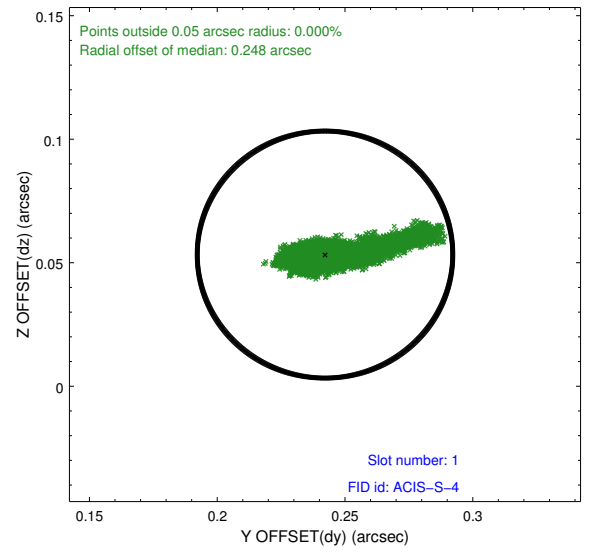
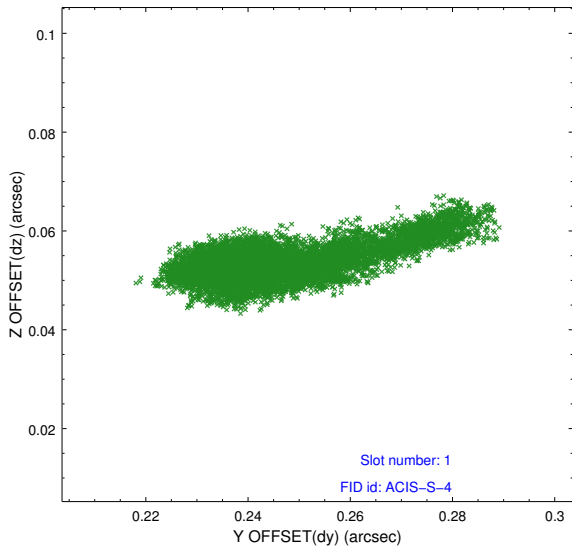


## 2.5 FID Slots

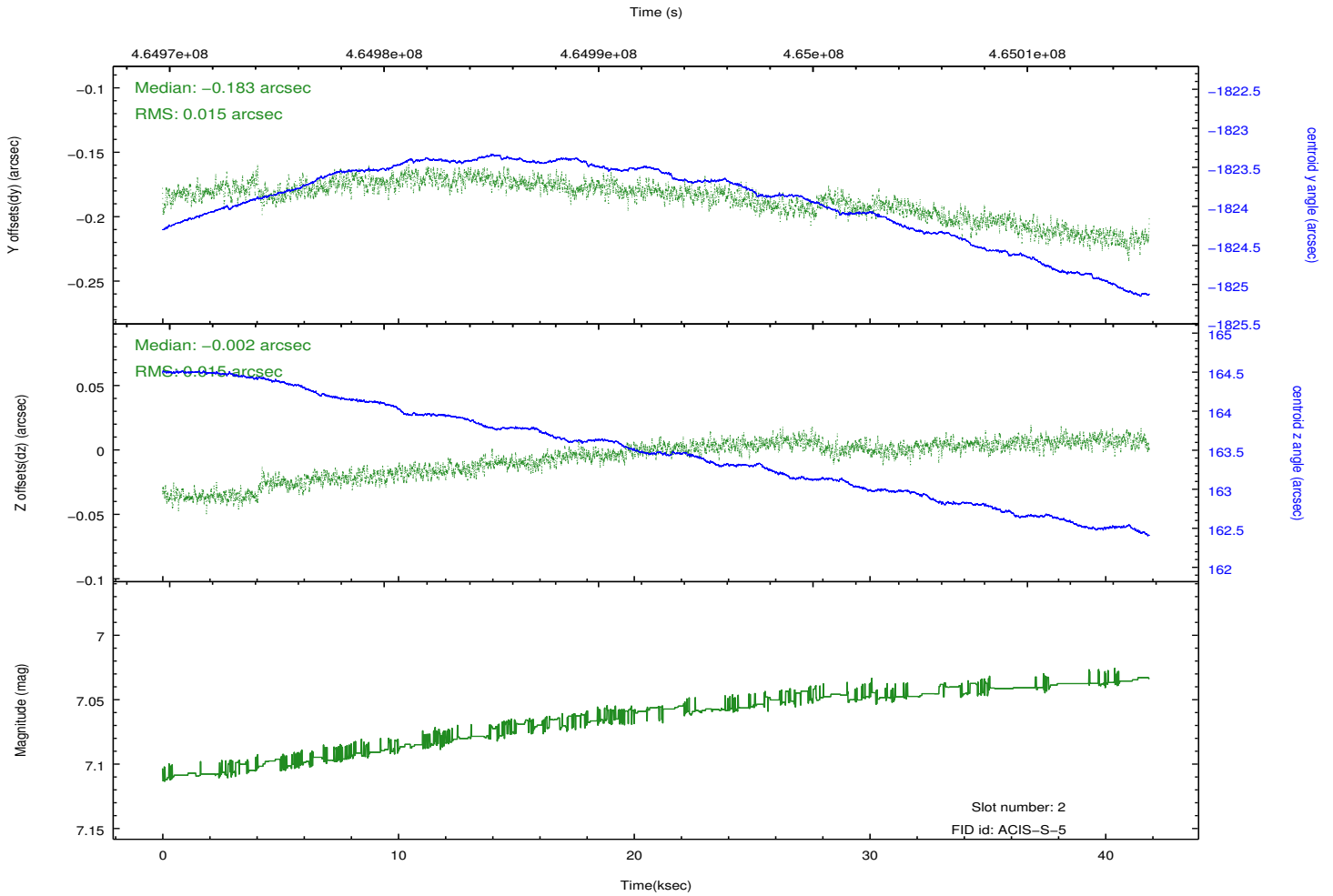
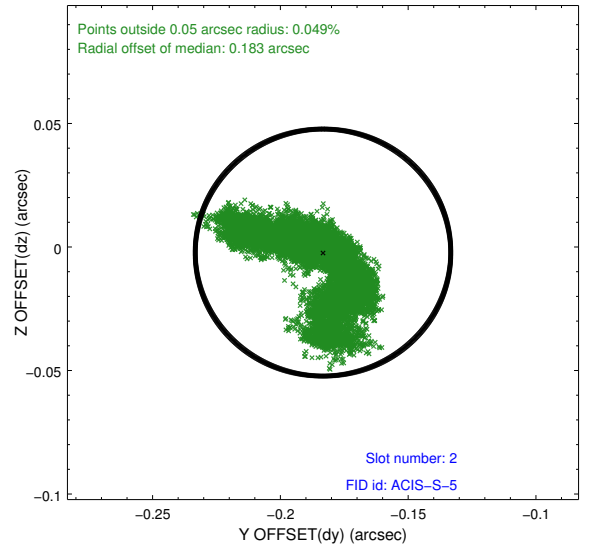
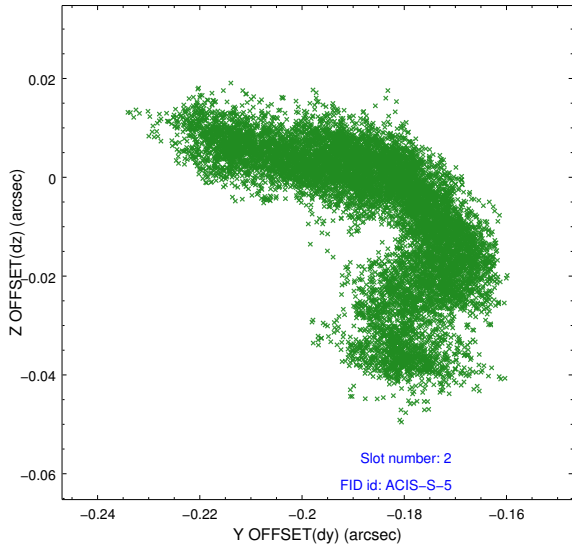
### 2.5.1 Slot 0



## 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)	2014.12.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.067654118538

## 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.