

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12702 - L2 Version 2  
Chandra X-Ray Center

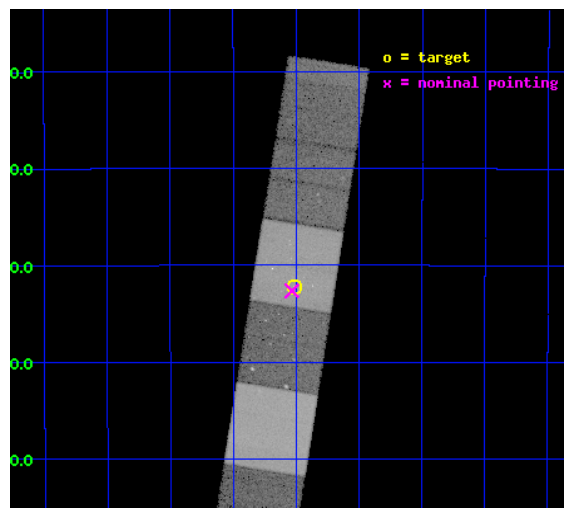
L2 Processing Date : Feb 20 2012

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# 1 Front

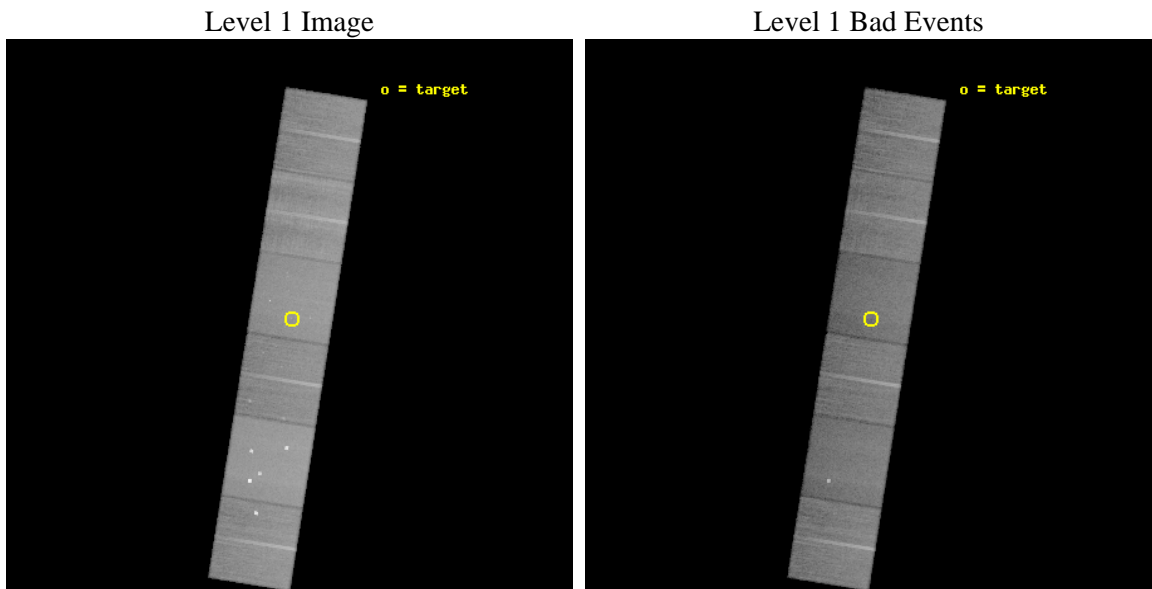
seq_num	501529	Sequence number
obs_id	12702	Observation id
title	The Astrophysics of the Most Energetic Gamma-Ray Bursts	Proposal t
observer	Dr. Andrew Fruchter	Principal investigator
object	GRB 110731A	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	280.504333	Observer's specified target RA [deg]
dec_targ	-28.537139	Observer's specified target Dec [deg]
ra_nom	280.50852857953	Nominal RA [deg]
dec_nom	-28.544104385106	Nominal Dec [deg]
roll_nom	279.04847434069	Nominal Roll [deg]
revision	2	Processing version of data
ontime	37049.599862039	Sum of GTIs [s]
livetime	36580.455519995	Livetime [s]
ontime4	37049.599862039	Sum of GTIs [s]
ontime5	37049.599862039	Sum of GTIs [s]
ontime6	37049.599862039	Sum of GTIs [s]
ontime7	37049.599862039	Sum of GTIs [s]
ontime8	37049.599862039	Sum of GTIs [s]
ontime9	37049.599862039	Sum of GTIs [s]
l2events	414518	Number of level 2 events



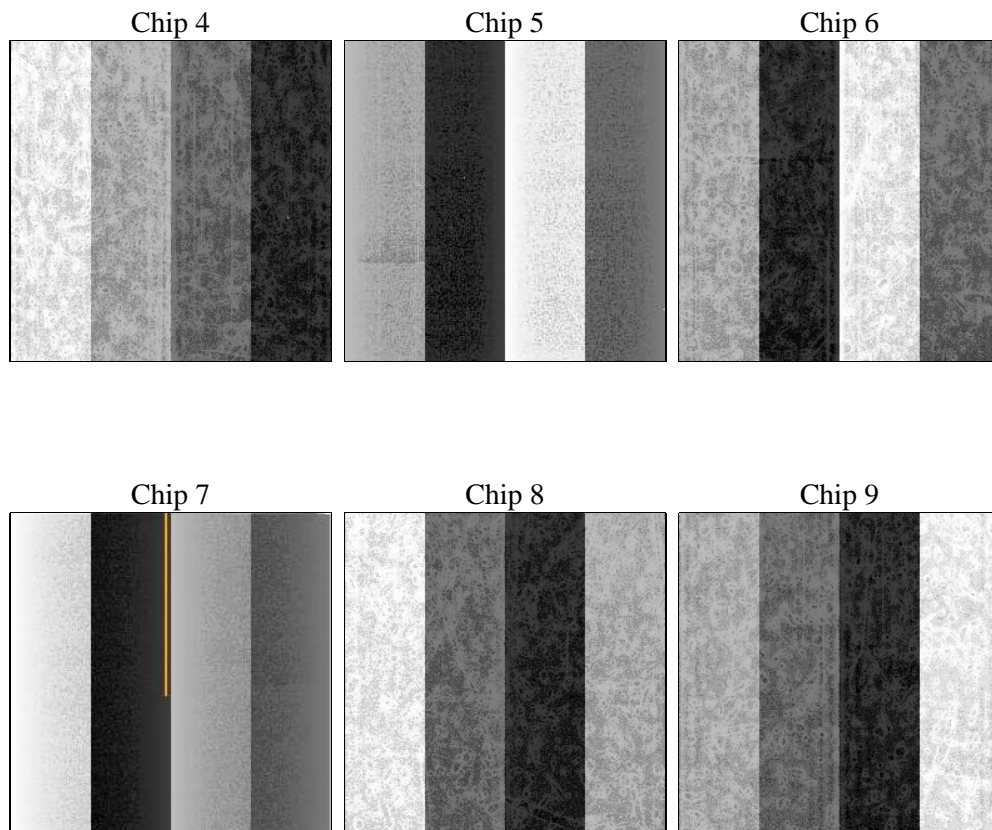
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	37049.599862039	Sum of GTIs [s]
caldbver	4.4.8	&#160	ontime4	37049.599862039	Sum of GTIs [s]
date	2012-02-20T23:09:24	Date and time of file creation	ontime5	37049.599862039	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	37049.599862039	Sum of GTIs [s]
			ontime7	37049.599862039	Sum of GTIs [s]
			ontime8	37049.599862039	Sum of GTIs [s]
			ontime9	37049.599862039	Sum of GTIs [s]
			l1events	1778413	Number of level 1 events

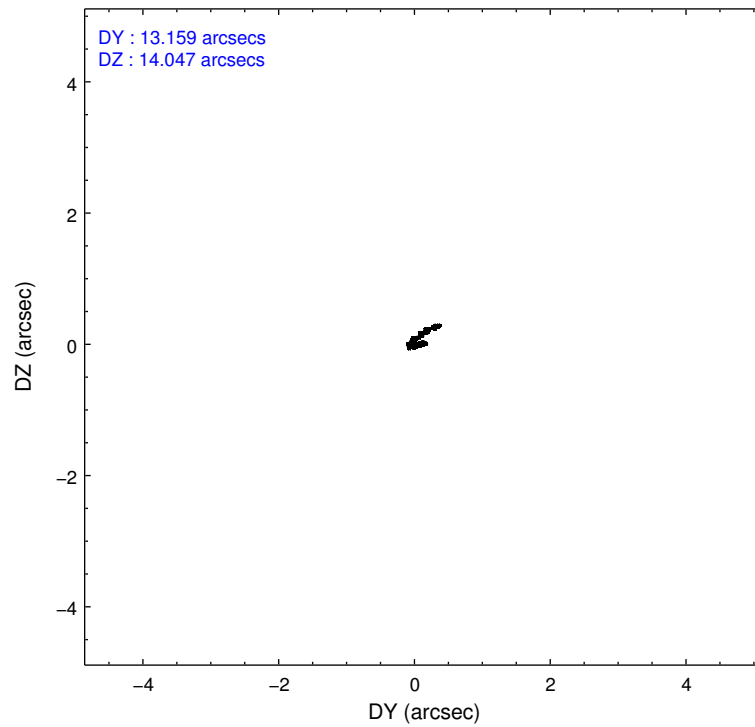
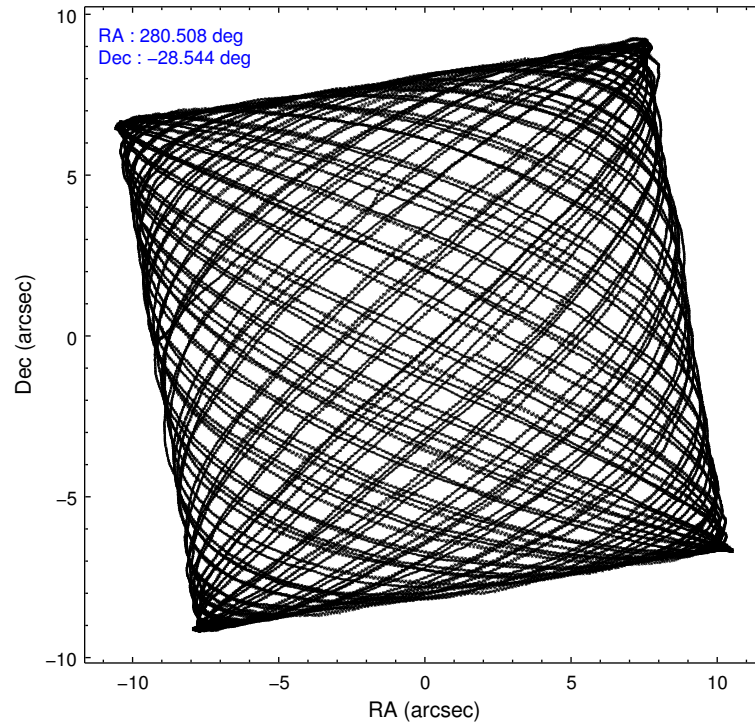
### 2.1.4 Events

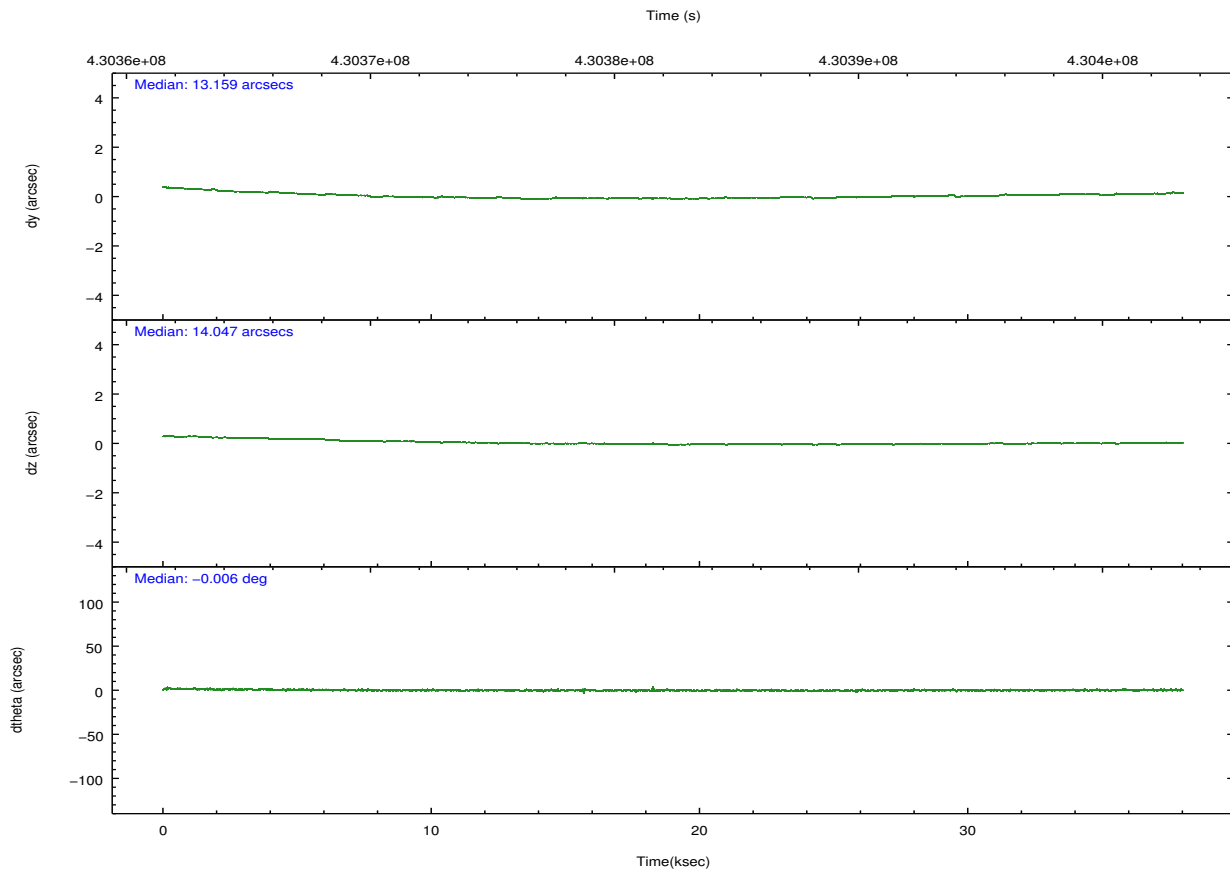
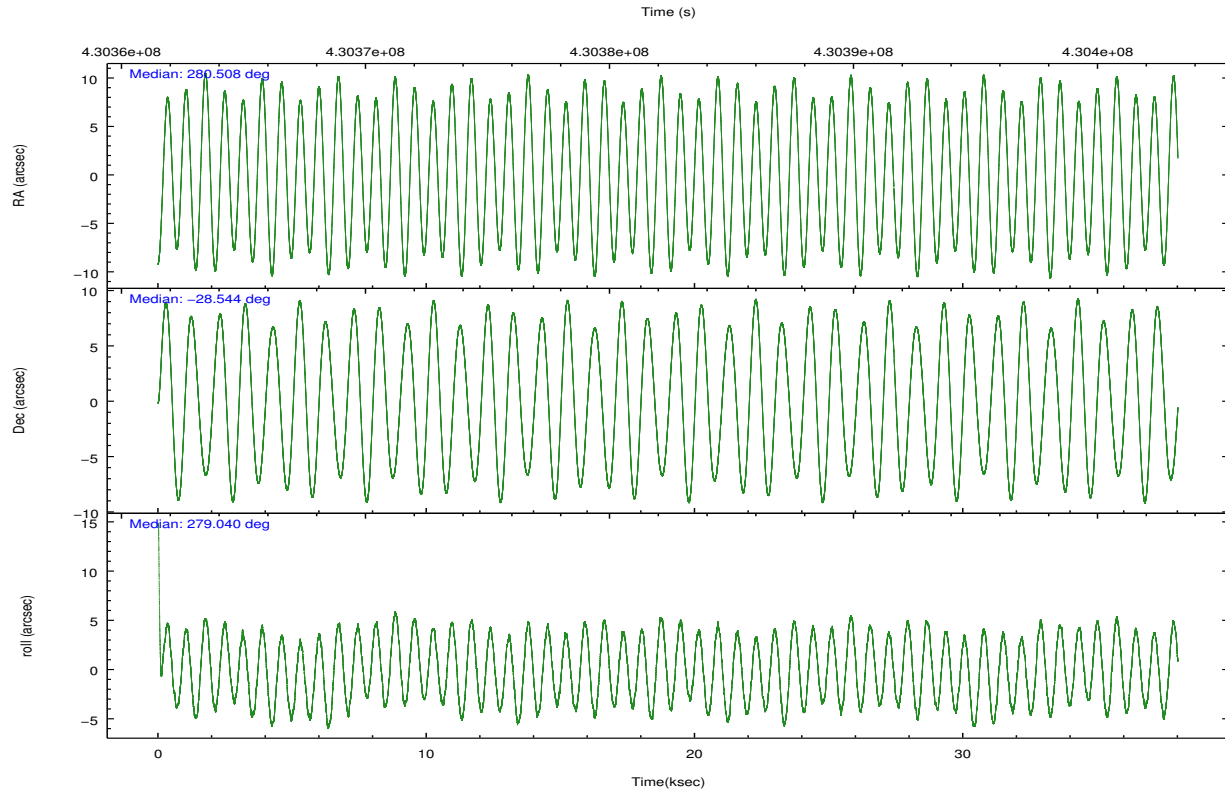
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	279054	401522	241905	307548	308375	240009	grade 0 events	20145	39059	13132	14222	24692	11977
rejected events	240977	189650	210377	168169	226768	209796		7%	9%	5%	4%	8%	4%
rejected %	86%	47%	86%	54%	73%	87%	grade 1 events	301	3001	138	359	246	146
								0%	0%	0%	0%	0%	0%
							grade 2 events	6958	59641	6499	28867	19116	6314
								2%	14%	2%	9%	6%	2%
							grade 3 events	3150	9397	2928	12548	8823	3046
								1%	2%	1%	4%	2%	1%
							grade 4 events	2916	7313	2841	12352	8067	2898
								1%	1%	1%	4%	2%	1%
							grade 5 events	11420	27926	11485	31418	16574	12505
								4%	6%	4%	10%	5%	5%
							grade 6 events	4915	96497	6133	71412	20937	5982
								1%	24%	2%	23%	6%	2%
							grade 7 events	229249	158688	198749	136370	209920	197141
								82%	39%	82%	44%	68%	82%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	280.488585	280.5085285795318	Subarray requested	NONE	NONE
[deg] Pointing Dec	-28.523098	-28.54410438510569	Alternating exposures requested	N	N
[deg] Pointing Roll	278.882319	279.0484743406857	[s] Primary exposure time	0.000000	3.2
[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)	430364413.184000	430362990.52145			
Observation start date	2011-08-22T01:39:07	2011-08-22T01:16:30			
[s] Observation end time (MET)	430401413.184000	430402236.23601			
Observation end date	2011-08-22T11:55:47	2011-08-22T12:10:36			
Read mode	TIMED	TIMED			

## 2.3 Aspect



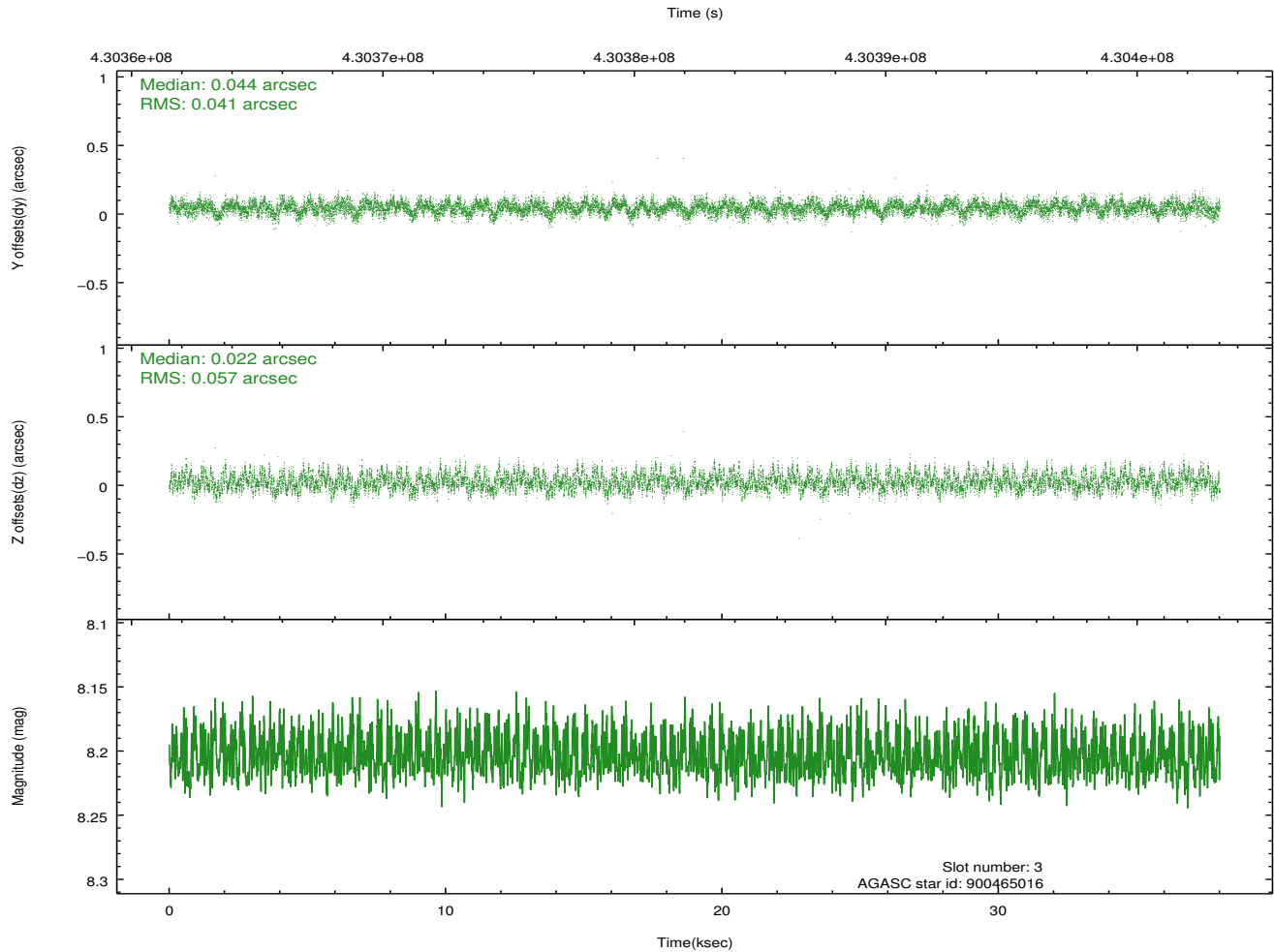
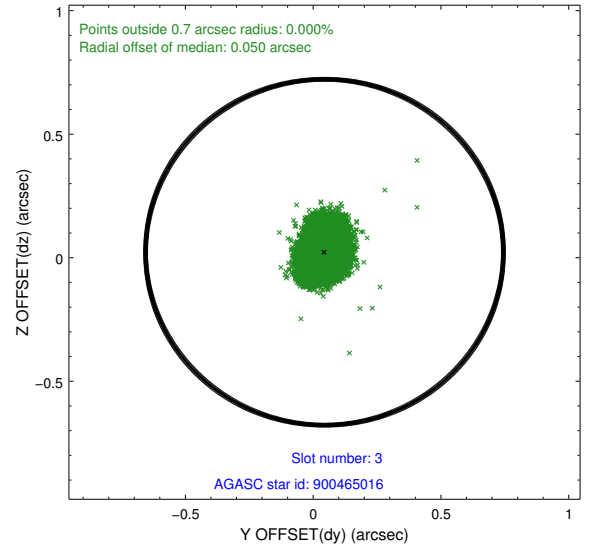
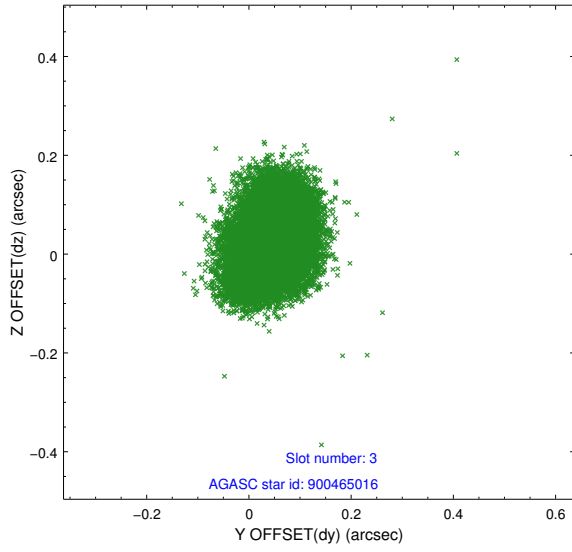


### Slot Statistics

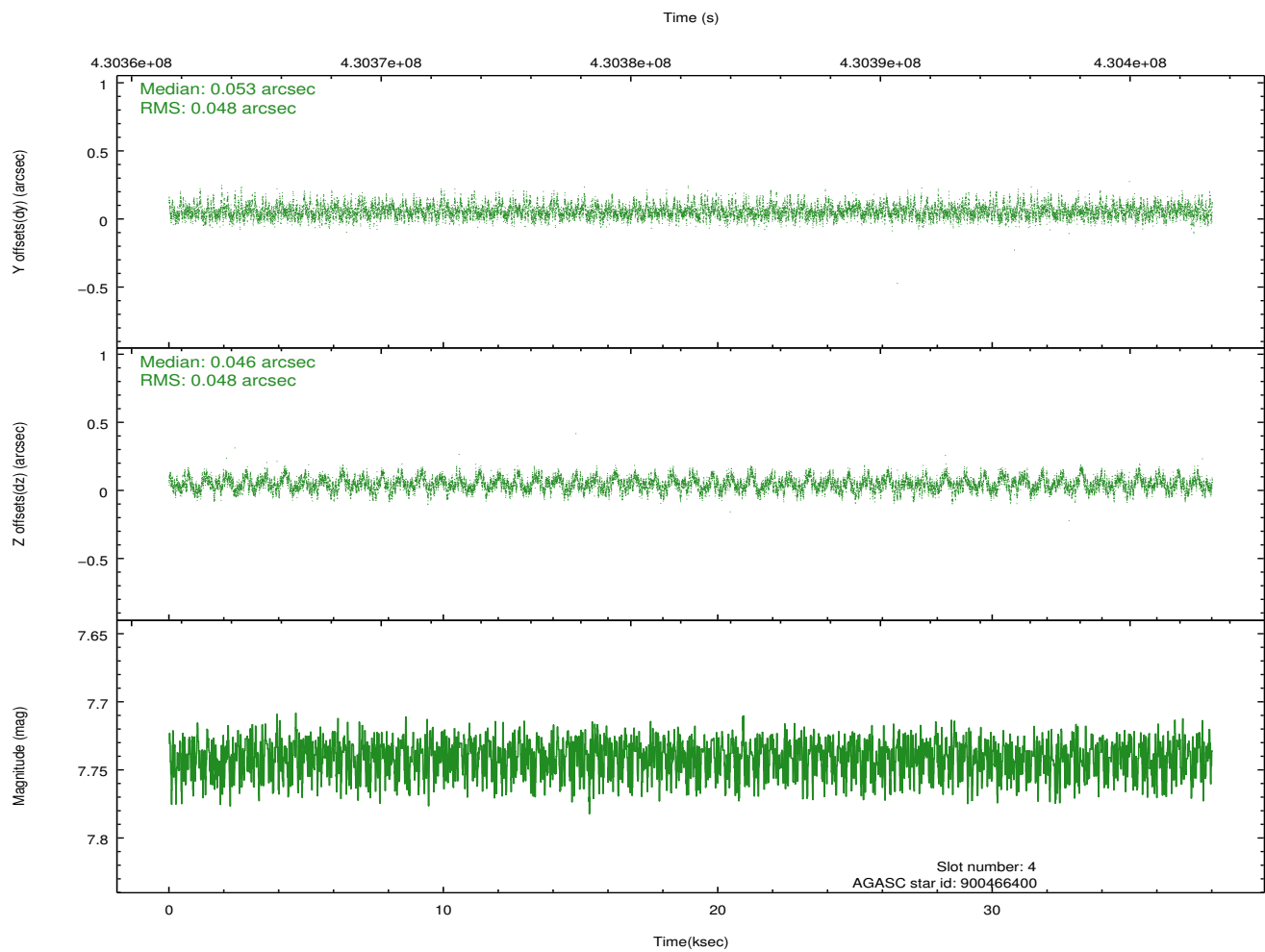
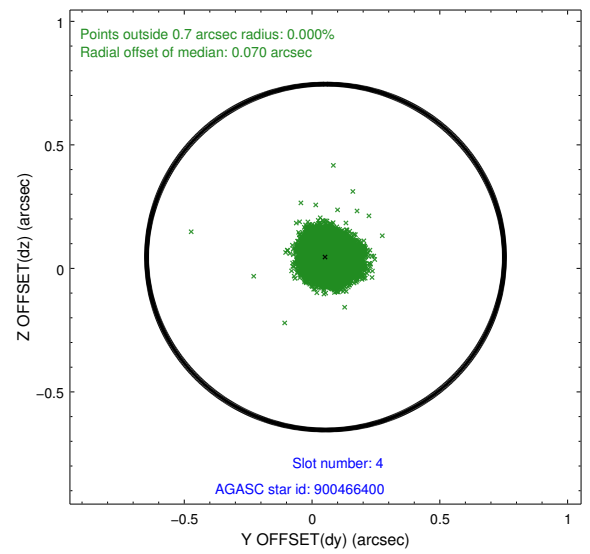
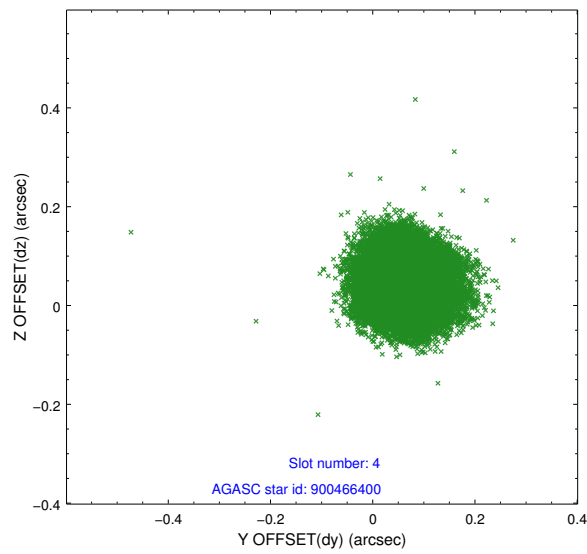
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.08	9272	0.101	-0.002	0.007	0.012	0.000000	0.000000	930.03	-1731.07
1	FID	ACIS-S-2	6.99	9271	-0.119	-0.015	0.007	0.014	0.000000	0.000000	-766.08	-1735.66
2	FID	ACIS-S-6	7.21	9272	-0.001	0.023	0.007	0.014	0.000000	0.000000	395.57	810.27
3	GUIDE	900465016	8.20	18536	0.044	0.022	0.075	0.122	279.807291	-28.180647	-1545.34	-1946.61
4	GUIDE	900466400	7.74	18541	0.053	0.046	0.074	0.115	280.270968	-28.255487	-1057.55	-533.14
5	GUIDE	900088296	8.37	18535	-0.143	-0.049	0.089	0.143	281.146058	-28.041082	-1386.69	2331.04
6	GUIDE	900472072	8.90	18535	-0.045	0.073	0.083	0.131	279.749239	-28.648530	93.02	-2378.17
7	GUIDE	900605064	8.46	18532	0.089	-0.095	0.115	0.160	281.119162	-28.936379	1782.19	1732.70

## 2.4 Star Slots

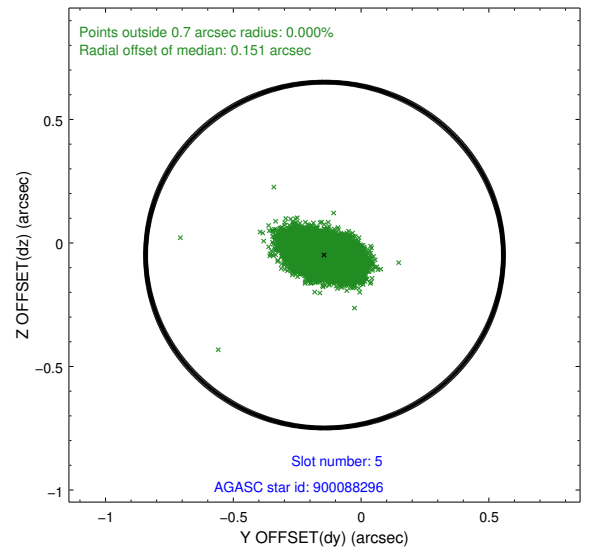
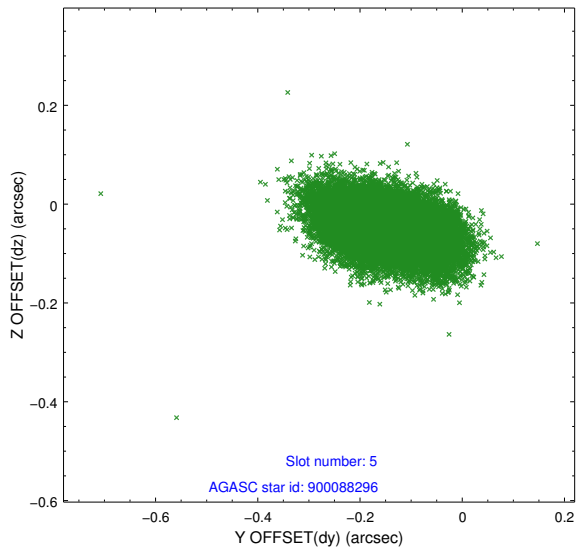
### 2.4.1 Slot 3



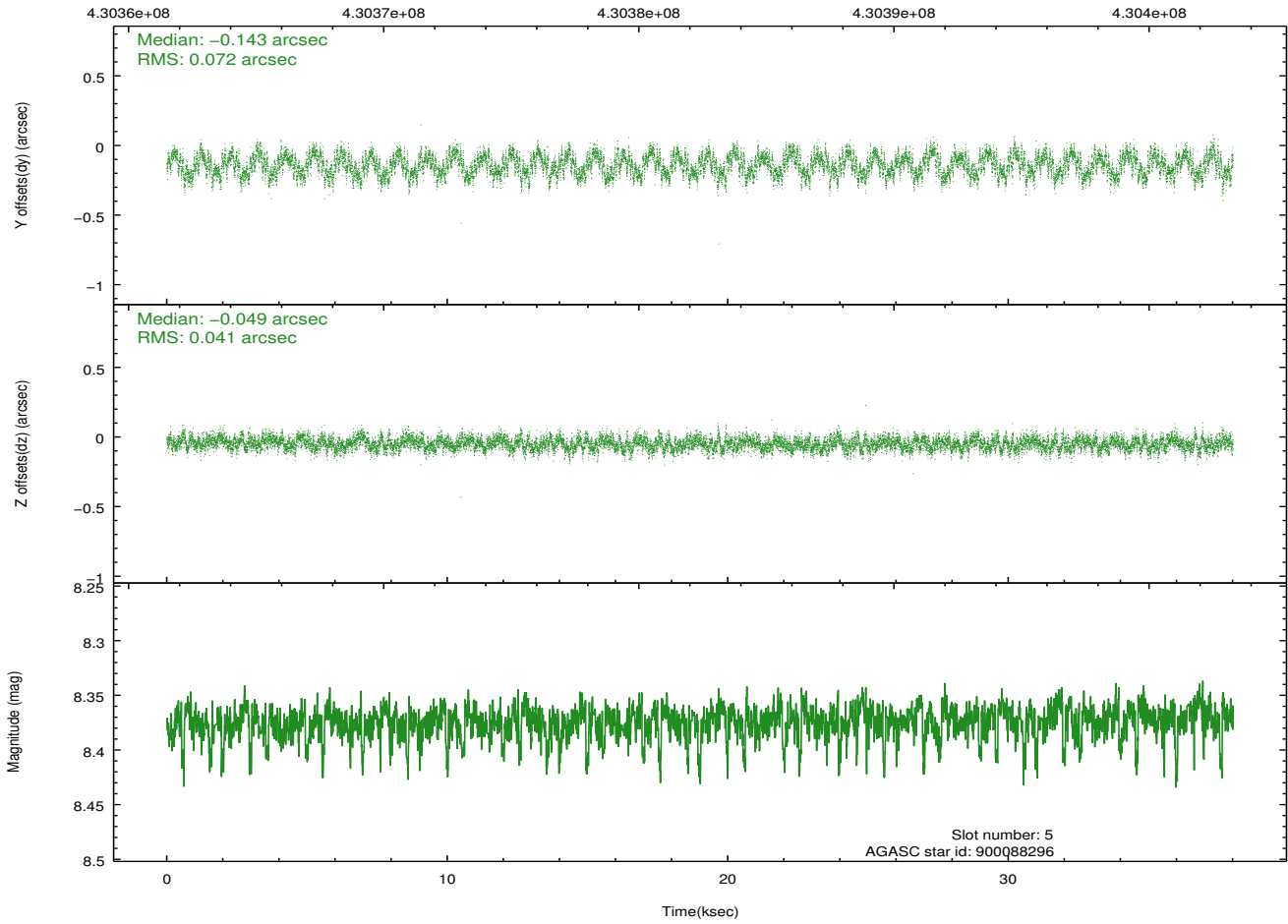
## 2.4.2 Slot 4



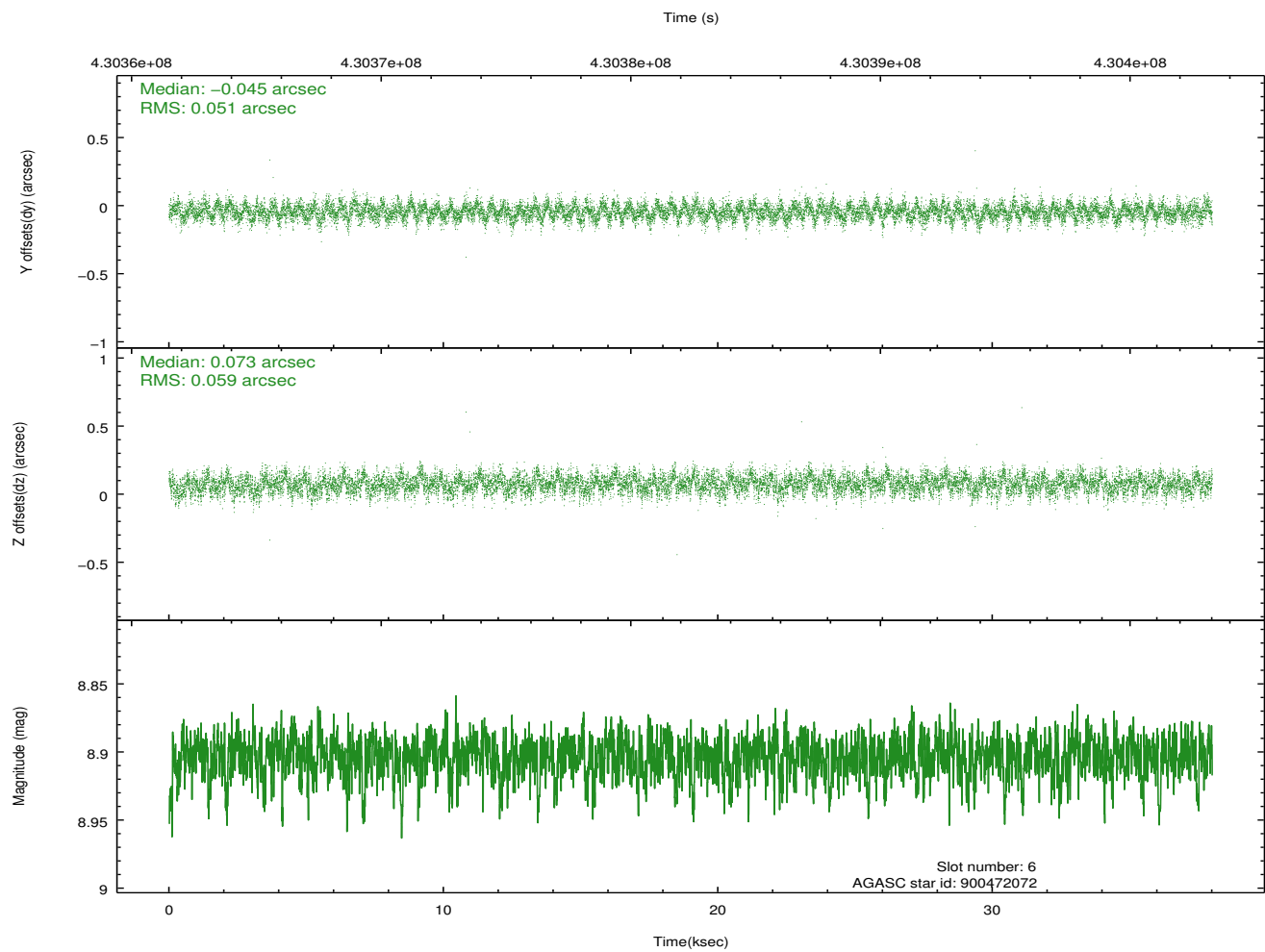
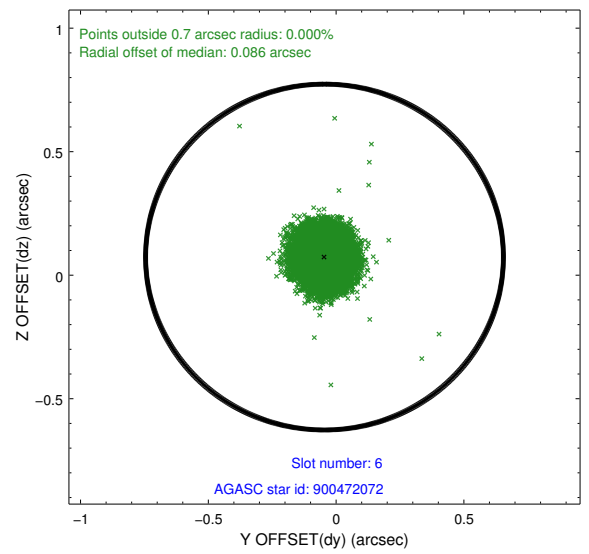
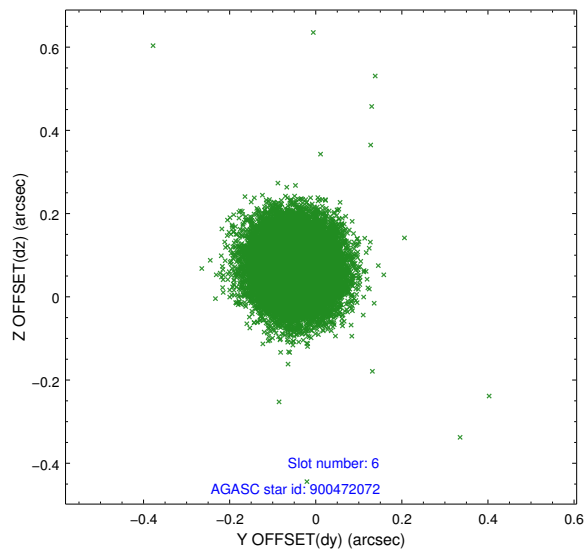
### 2.4.3 Slot 5



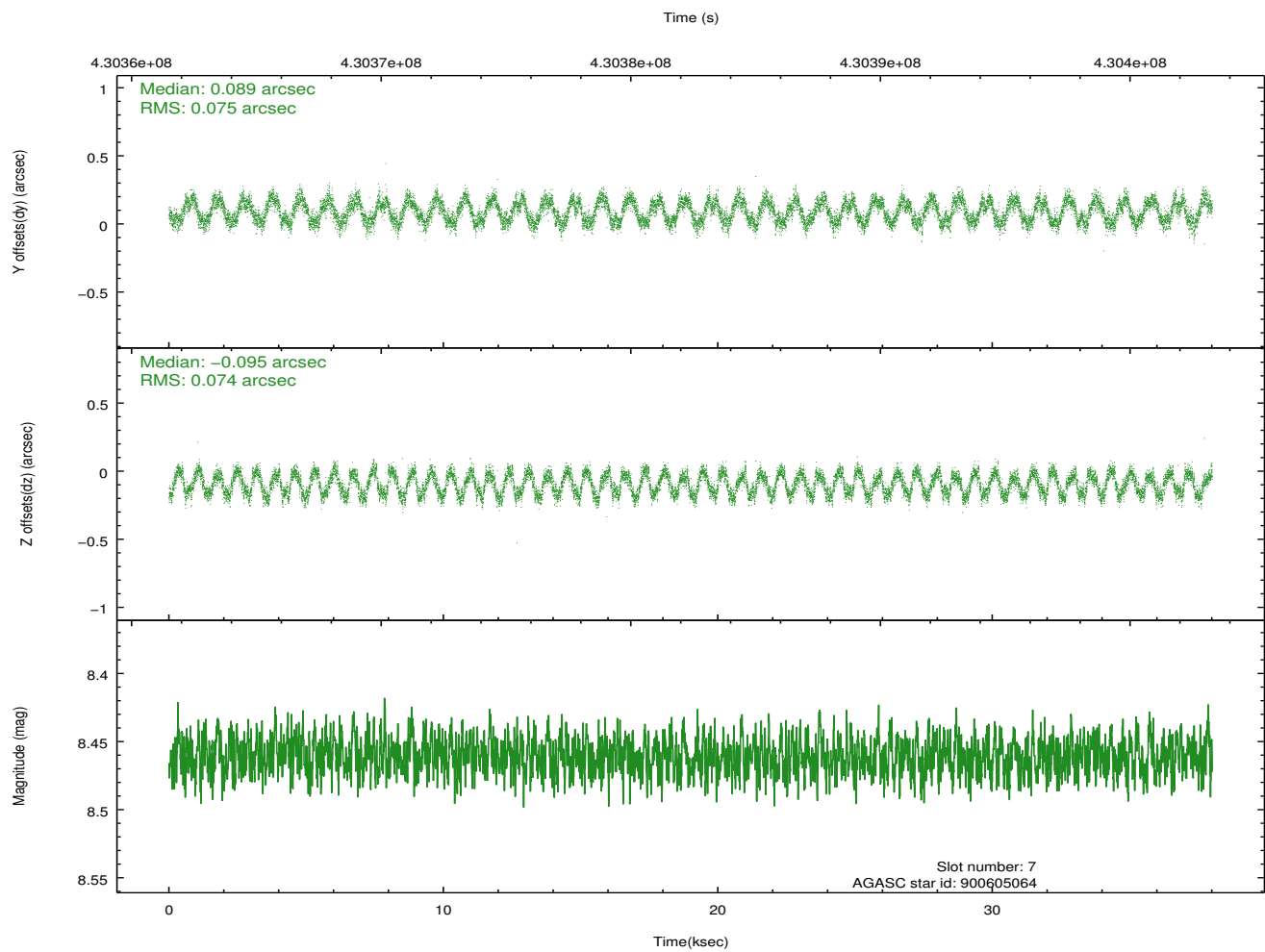
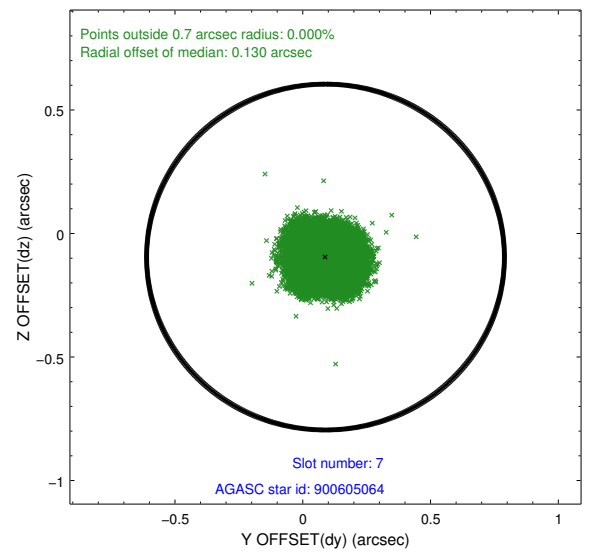
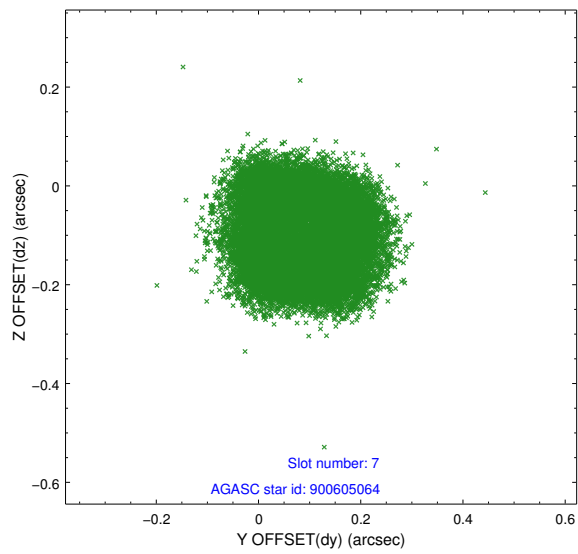
Time (s)



## 2.4.4 Slot 6

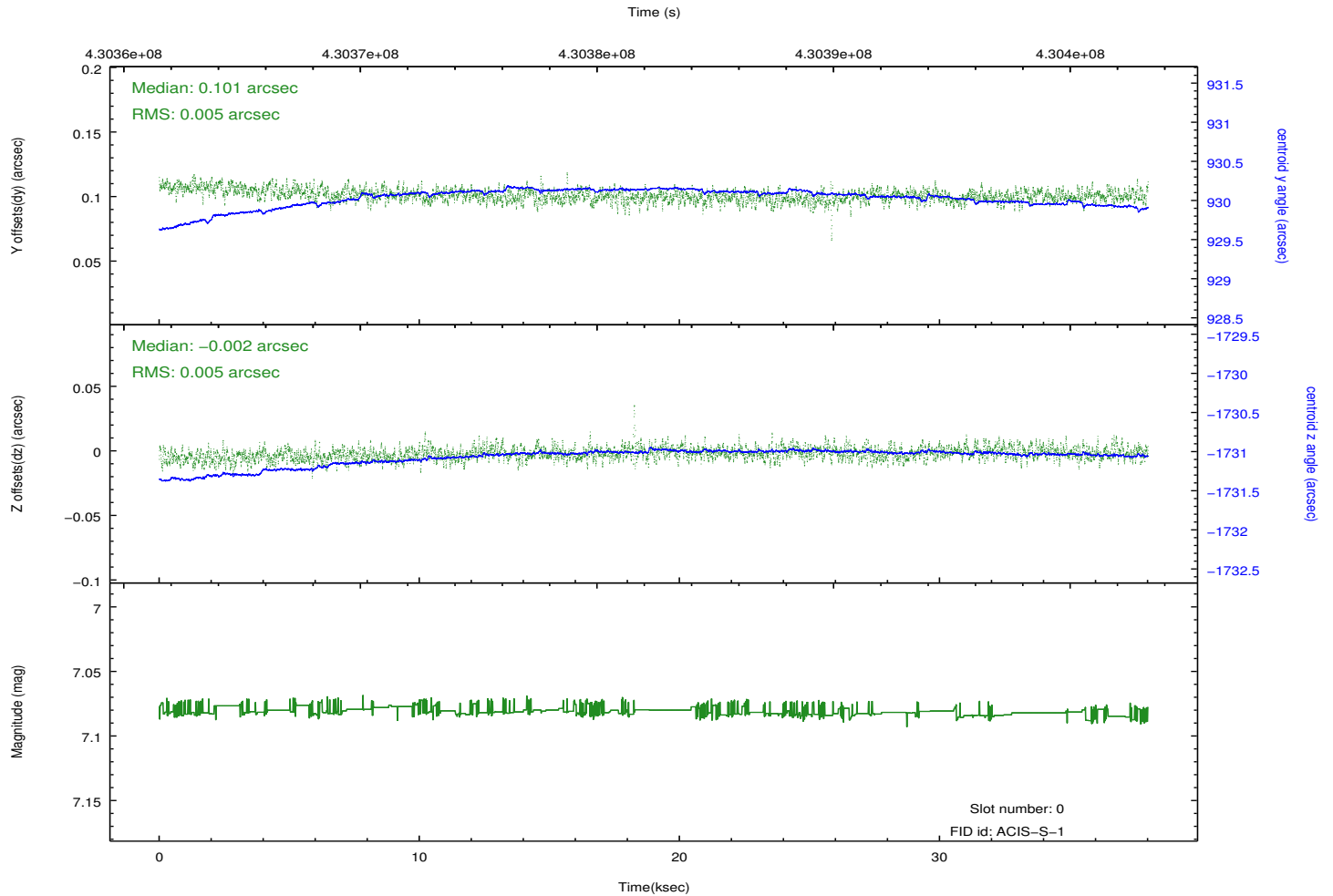
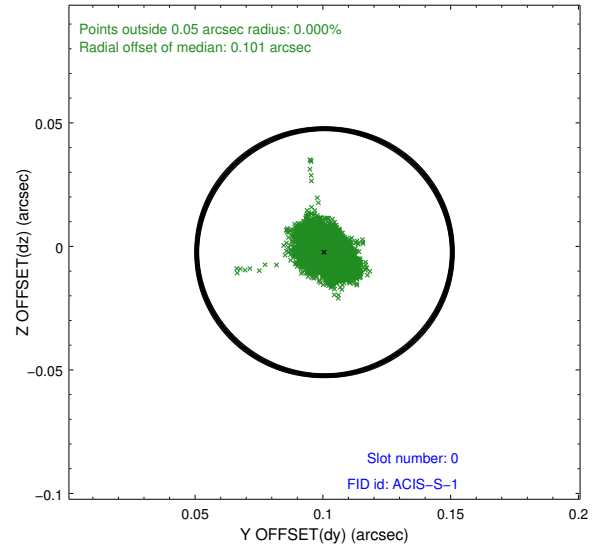
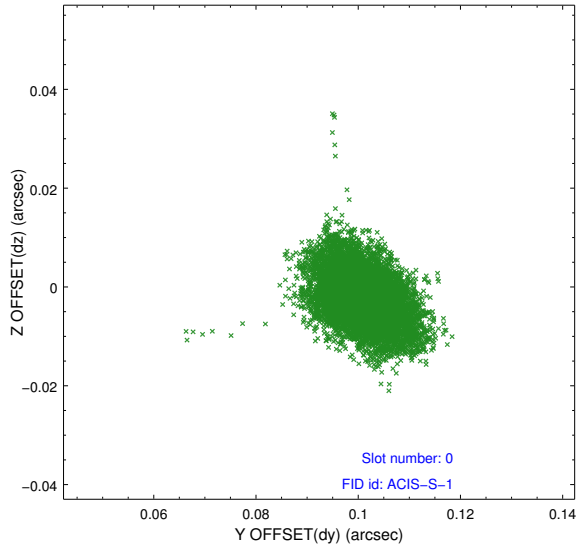


## 2.4.5 Slot 7

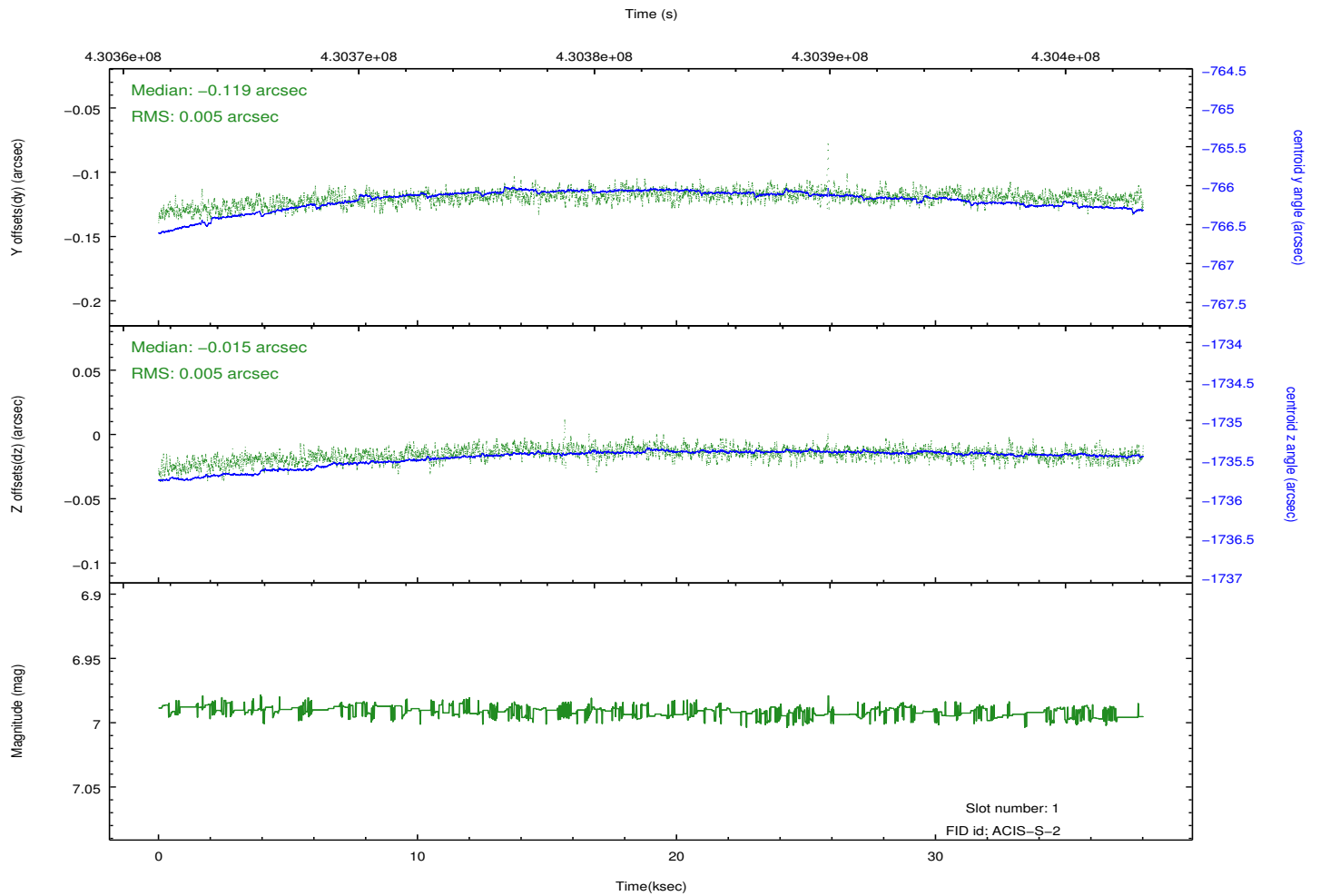
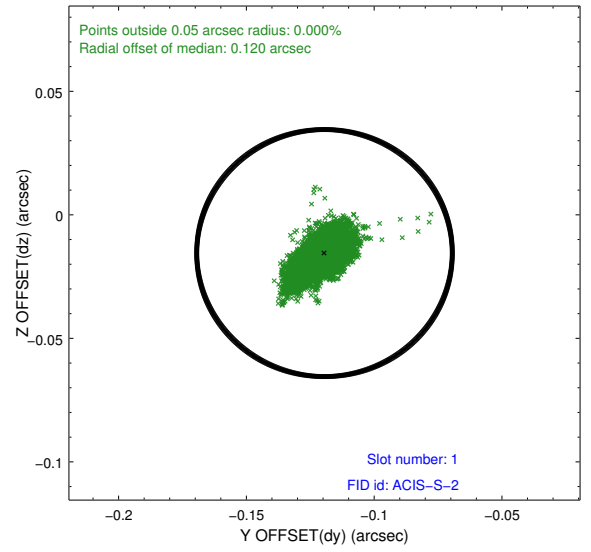
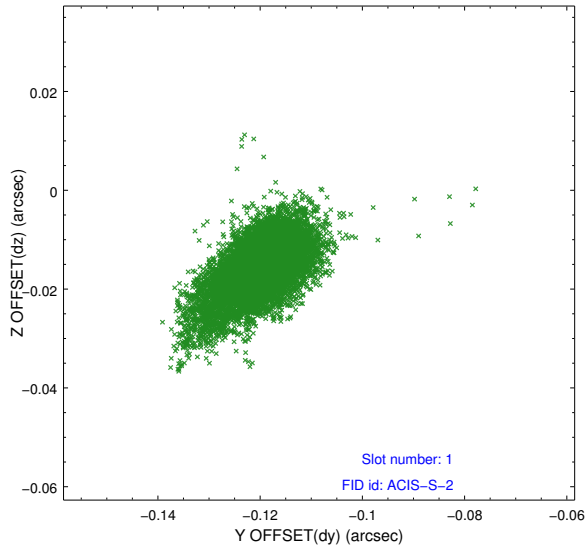


## 2.5 FID Slots

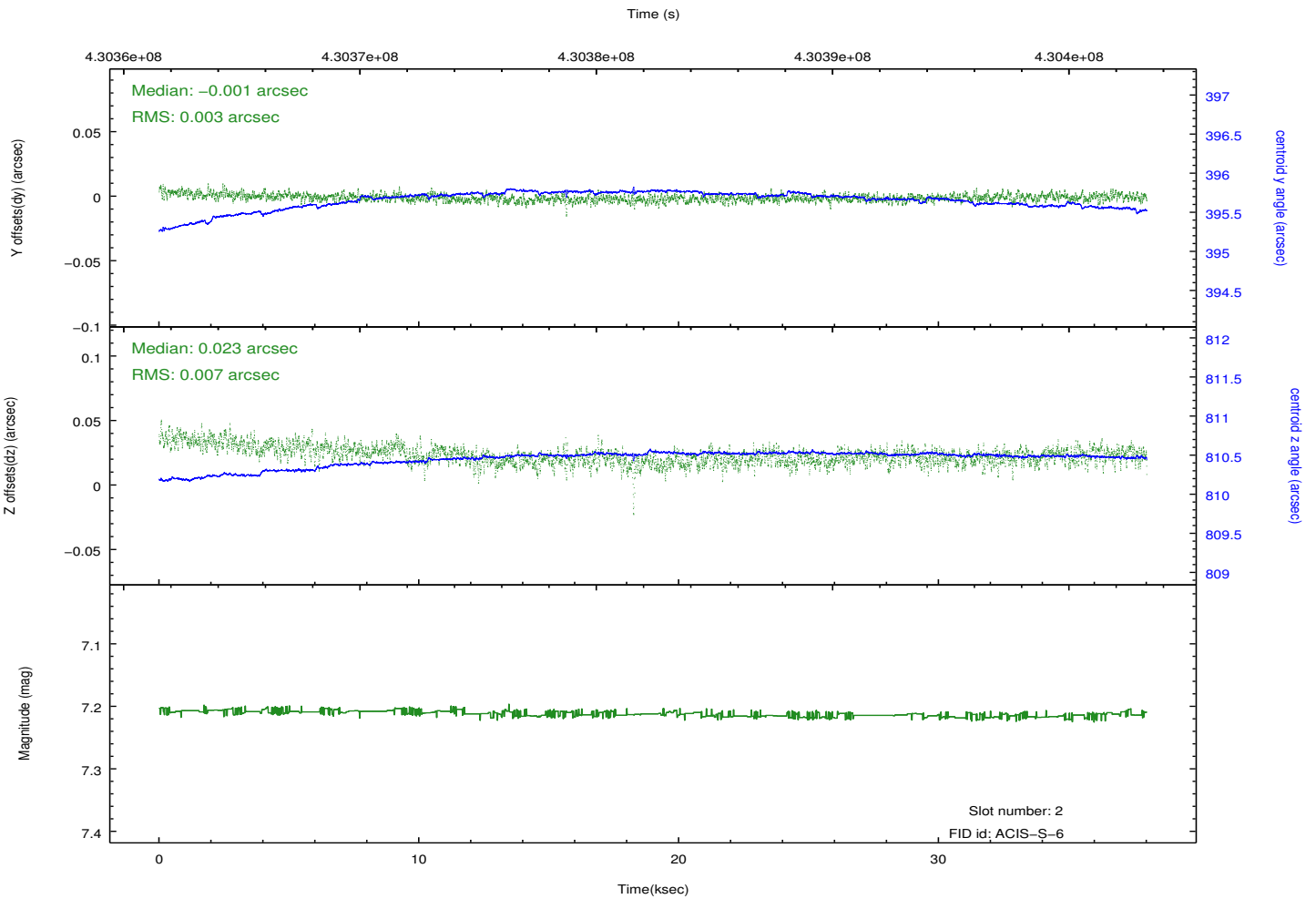
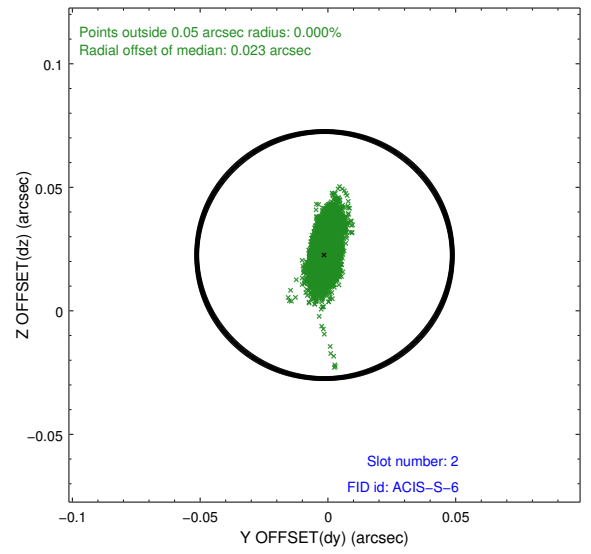
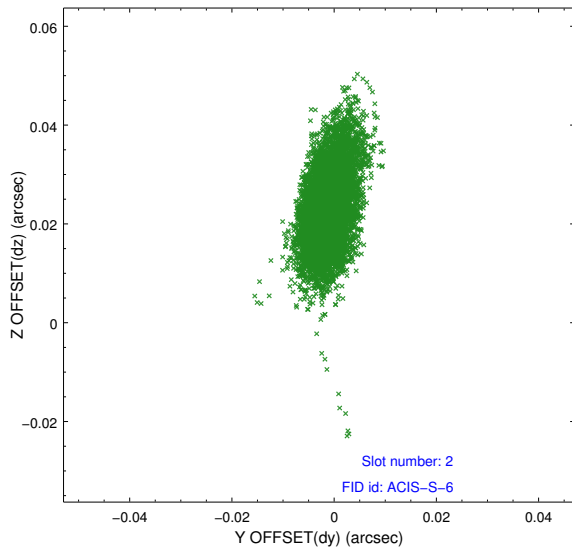
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.02.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.049599862039

## A.2 Comments

Joint proposal with HST.