

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12240 - L2 Version 3  
Chandra X-Ray Center

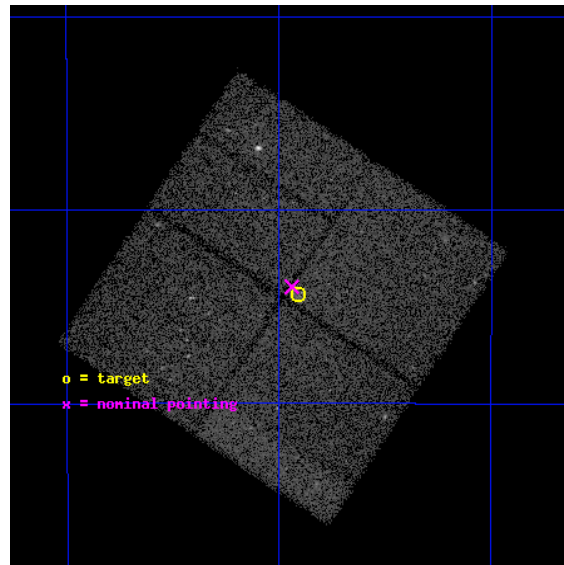
L2 Processing Date : Jul 2 2012

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# 1 Front

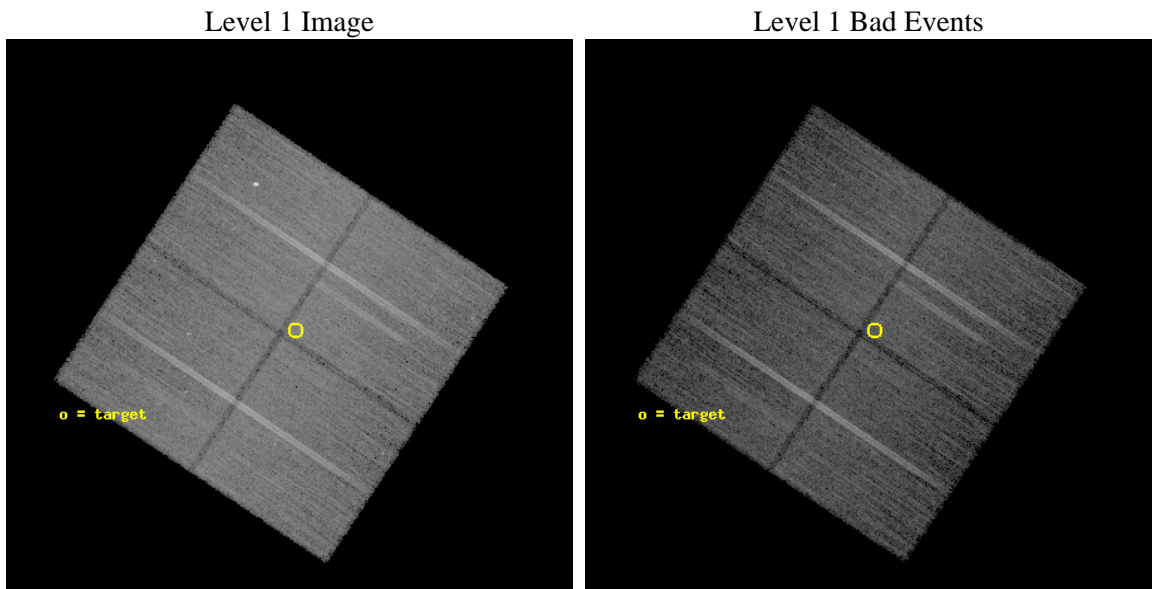
seq_num	702337	Sequence number
obs_id	12240	Observation id
title	The X-ray nature of the low luminosity Seyfert 2 galaxy NGC 7590	P
observer	Dr. Xinwen Shu	Principal investigator
object	NGC 7590	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	349.728333	Observer's specified target RA [deg]
dec_targ	-42.239167	Observer's specified target Dec [deg]
ra_nom	349.73522679525	Nominal RA [deg]
dec_nom	-42.232898302802	Nominal Dec [deg]
roll_nom	33.581635987112	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30060.700231194	Sum of GTIs [s]
livetime	29667.935052308	Livetime [s]
ontime0	30060.700231194	Sum of GTIs [s]
ontime1	30060.700231194	Sum of GTIs [s]
ontime2	30057.559250832	Sum of GTIs [s]
ontime3	30060.700231194	Sum of GTIs [s]
l2events	89692	Number of level 2 events



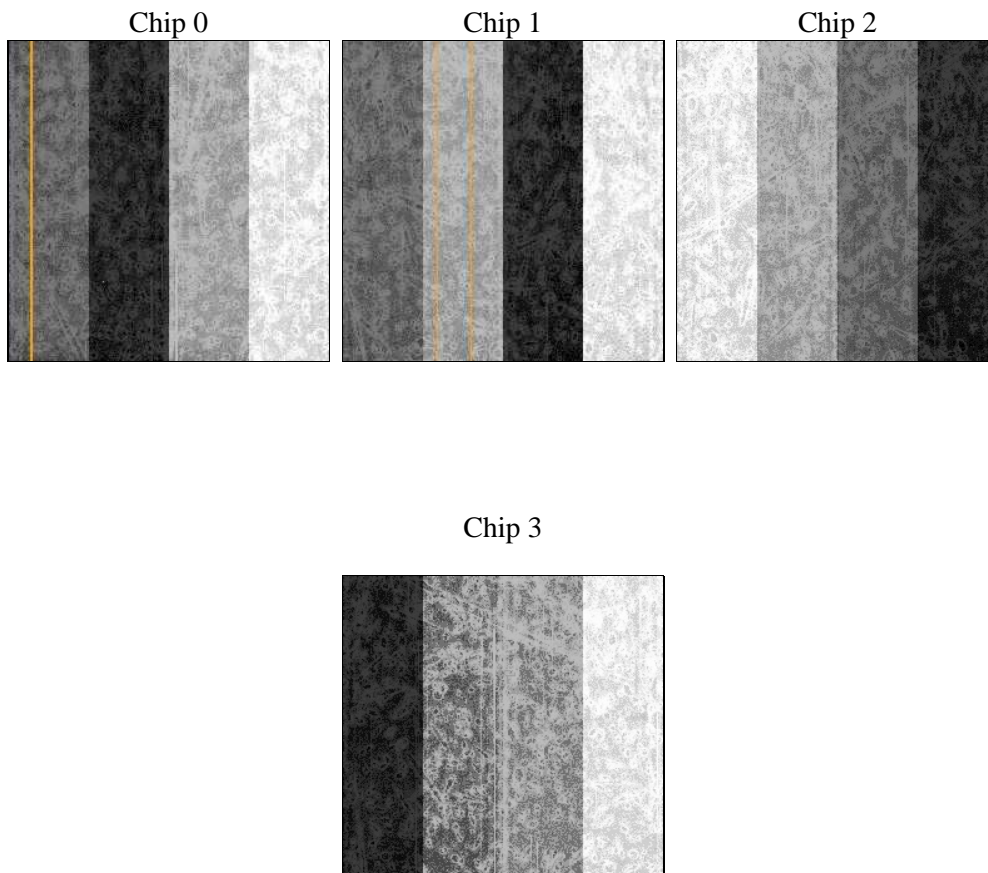
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	30060.700231194	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime0	30060.700231194	Sum of GTIs [s]
date	2012-07-02T22:46:31	Date and time of file creation	ontime1	30060.700231194	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	30057.559250832	Sum of GTIs [s]
			ontime3	30060.700231194	Sum of GTIs [s]
			l1events	882510	Number of level 1 events

### 2.1.4 Events

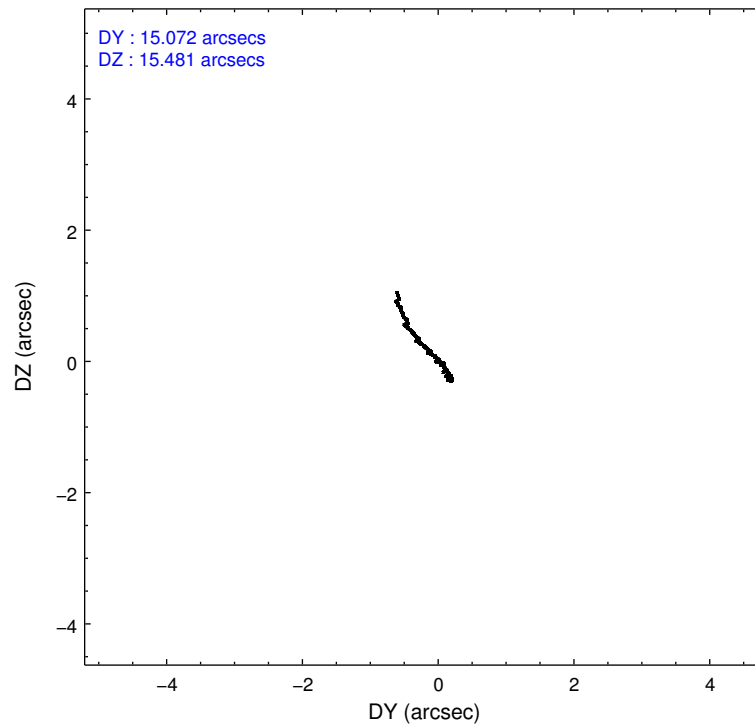
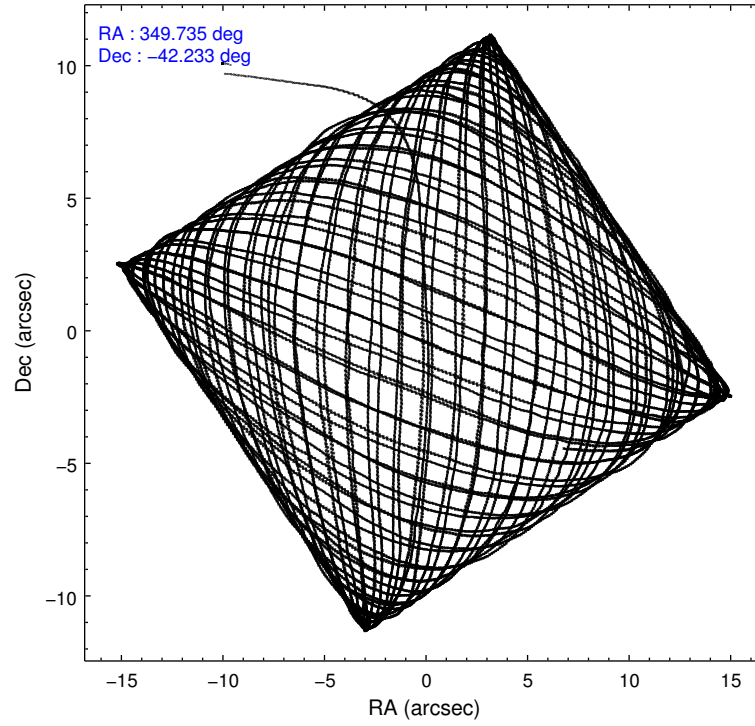
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	206761	211226	237841	226682
rejected events	181199	183339	207816	202372
rejected %	87%	86%	87%	89%

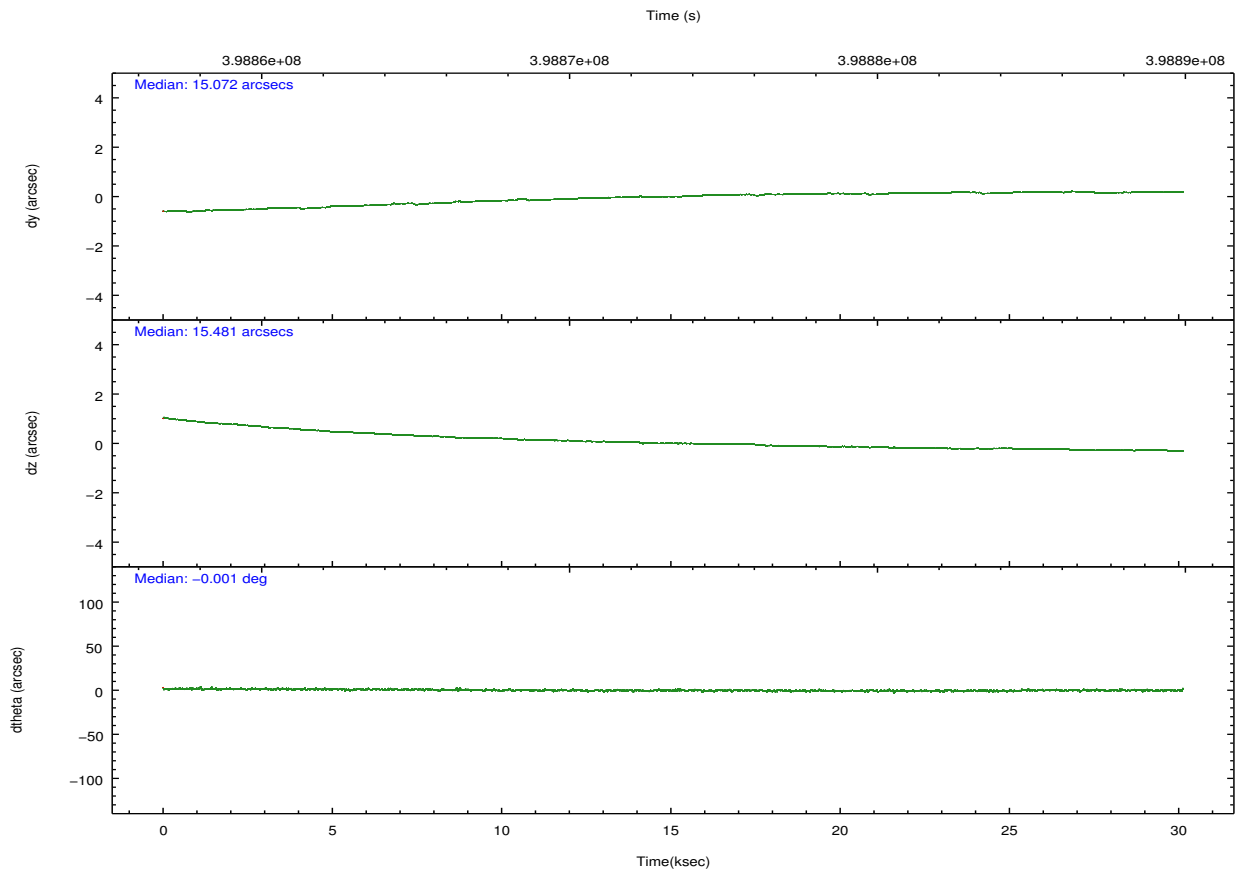
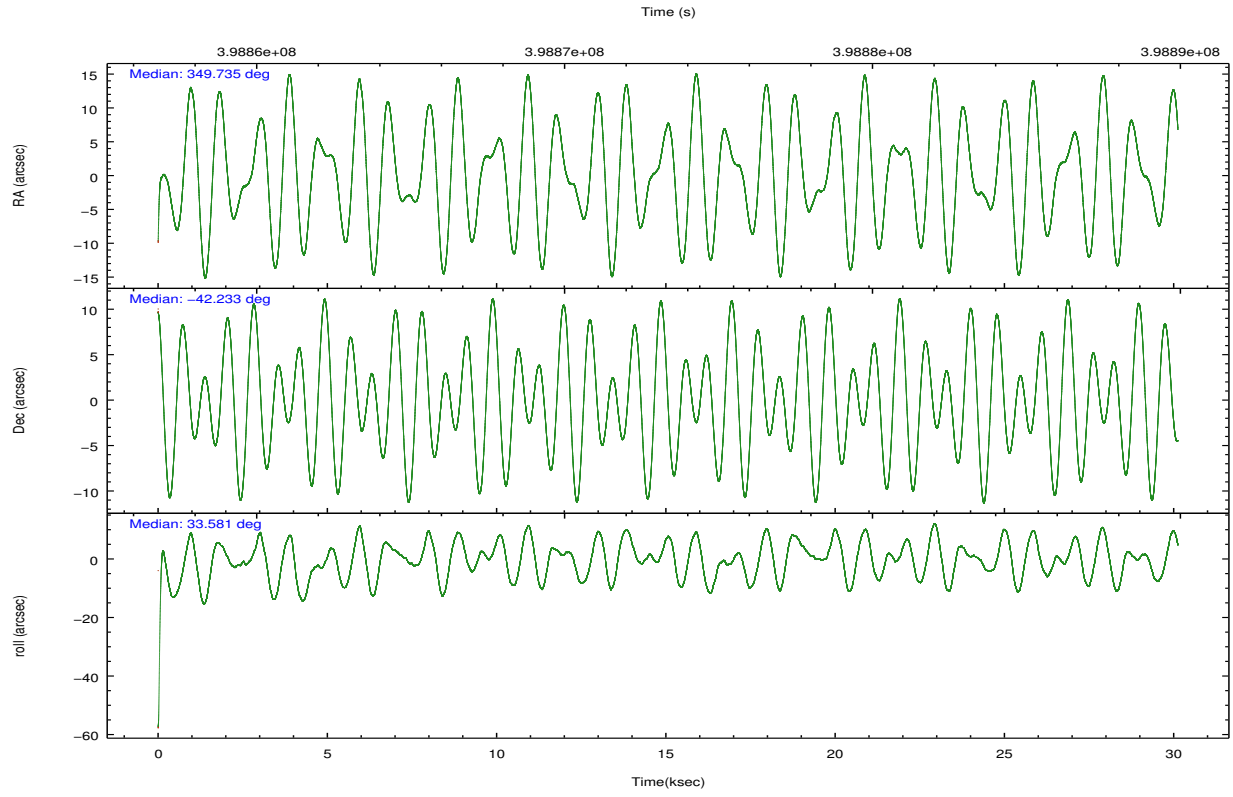
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	9308	10161	13411	9139
	4%	4%	5%	4%
grade 1 events	137	129	179	136
	0%	0%	0%	0%
grade 2 events	6071	6415	6580	5353
	2%	3%	2%	2%
grade 3 events	2711	2835	2696	2611
	1%	1%	1%	1%
grade 4 events	2546	2814	2723	2498
	1%	1%	1%	1%
grade 5 events	9018	9703	8483	10396
	4%	4%	3%	4%
grade 6 events	4932	5663	4624	4717
	2%	2%	1%	2%
grade 7 events	172038	173506	199145	191832
	83%	82%	83%	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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	349.718829	349.7352267952484	Subarray requested	NONE	NONE
[deg] Pointing Dec	-42.257562	-42.2328983028024	Alternating exposures requested	N	N
[deg] Pointing Roll	33.361951	33.58163598711221	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	398858430.184000	398857106.60011			
Observation start date	2010-08-22T09:59:24	2010-08-22T09:38:26			
[s] Observation end time (MET)	398888430.184000	398889292.62676			
Observation end date	2010-08-22T18:19:24	2010-08-22T18:34:52			
Read mode	TIMED	TIMED			

## 2.3 Aspect





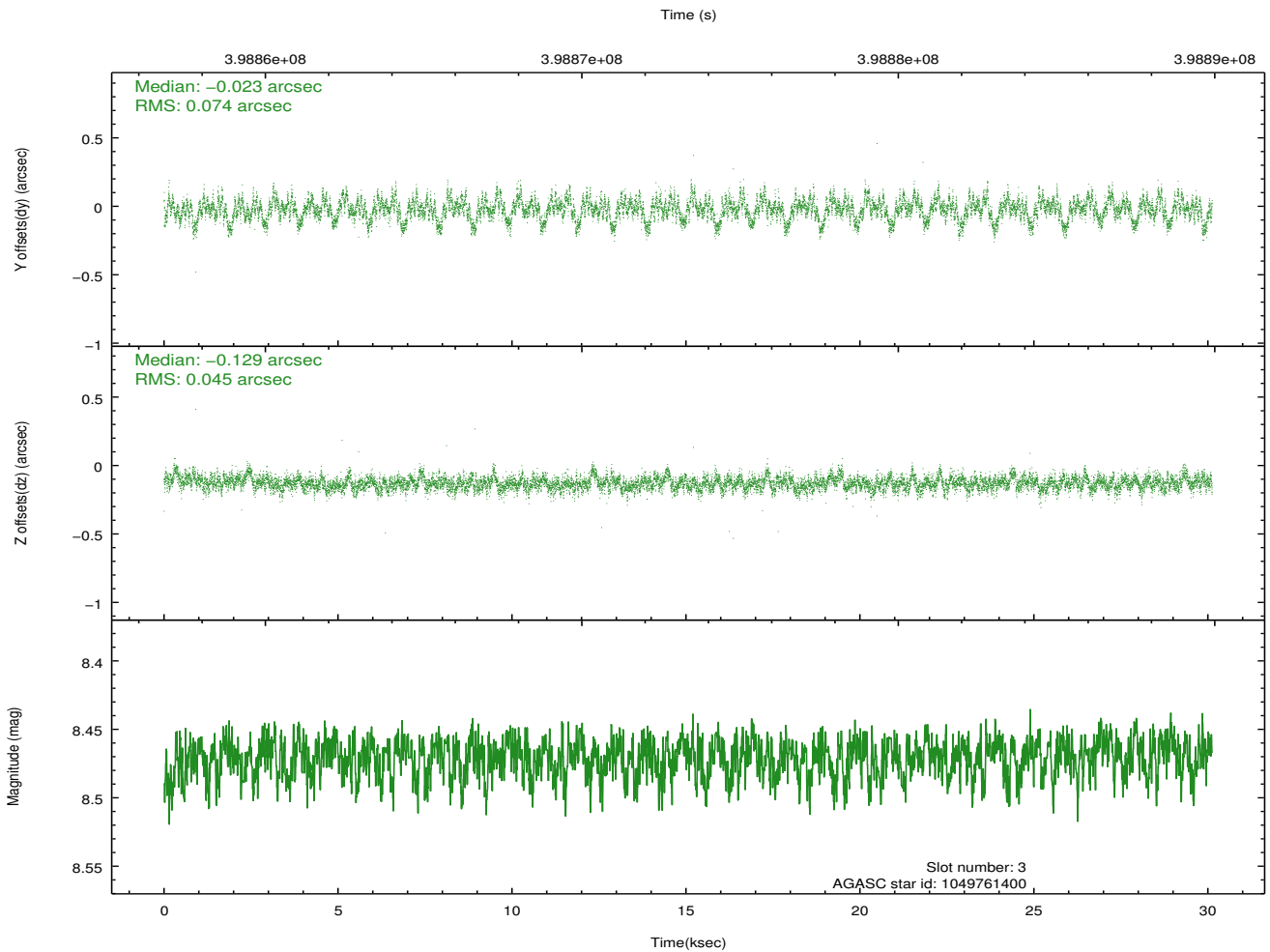
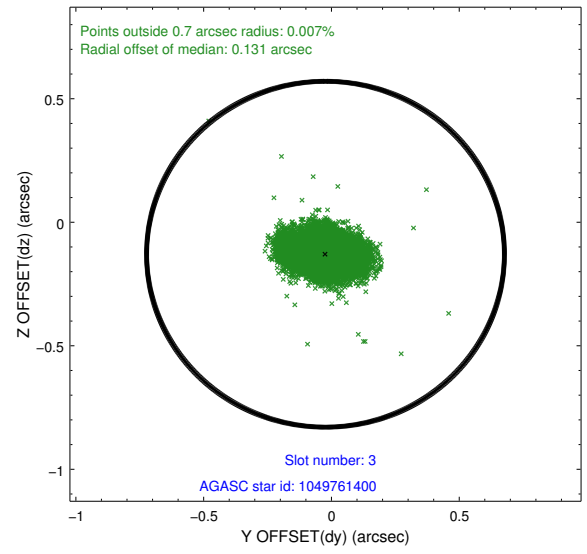
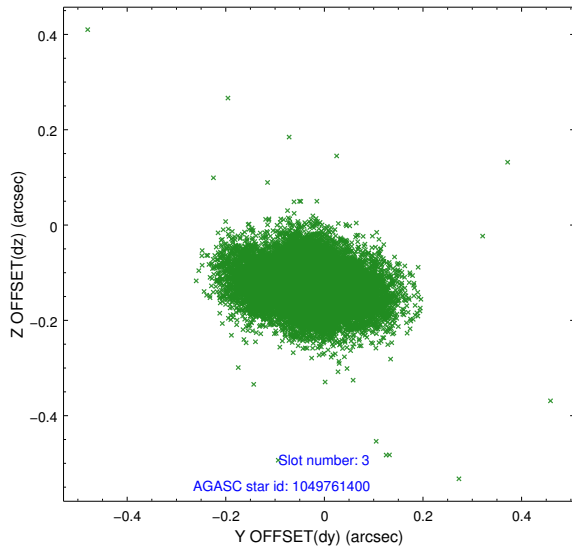
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.03	7347	0.016	0.034	0.013	0.037	0.000000	0.000000	924.47	-839.18
1	FID	ACIS-I-2	6.94	7347	-0.121	-0.068	0.010	0.017	0.000000	0.000000	-769.72	-845.73
2	FID	ACIS-I-6	7.03	7348	0.012	0.102	0.010	0.023	0.000000	0.000000	390.12	1702.68
3	GUIDE	1049761400	8.47	14688	-0.023	-0.129	0.090	0.154	348.802242	-41.955316	-1458.44	2247.17
4	GUIDE	1049761640	8.66	14686	-0.027	0.035	0.083	0.131	349.142415	-42.207499	-1187.61	991.69
5	GUIDE	1050675096	10.12	14661	-0.047	-0.022	0.169	0.266	350.027106	-41.505405	2182.37	1803.46
6	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	1050149120	9.12	14617	0.103	0.123	0.107	0.171	348.946168	-42.587694	-2368.91	125.85

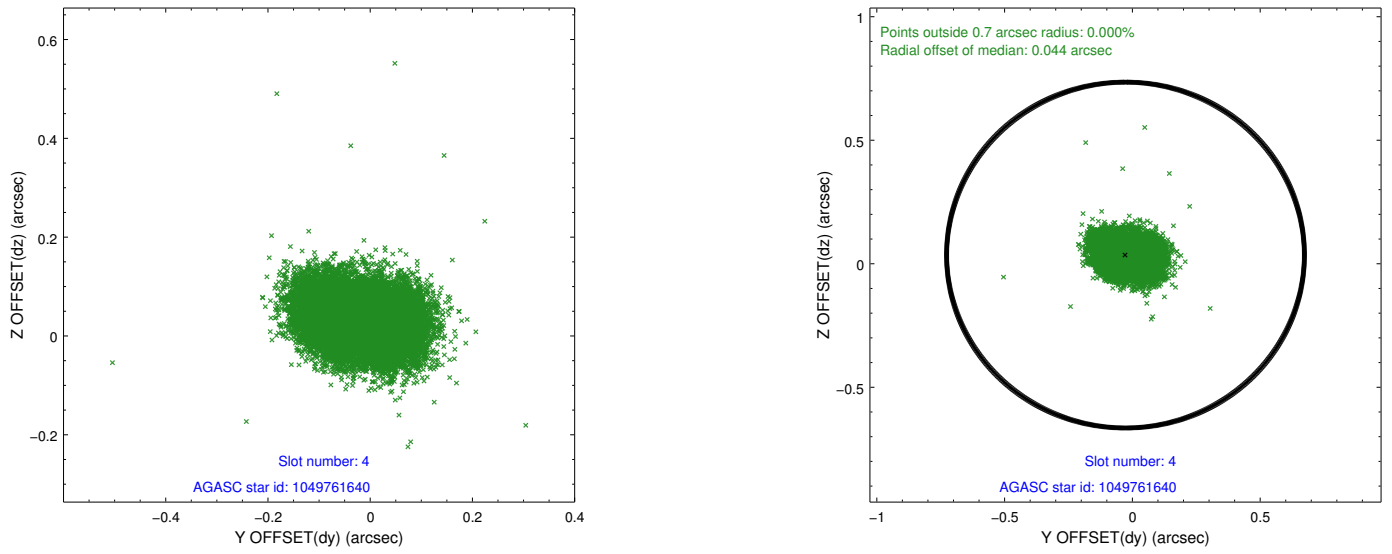
∞

## 2.4 Star Slots

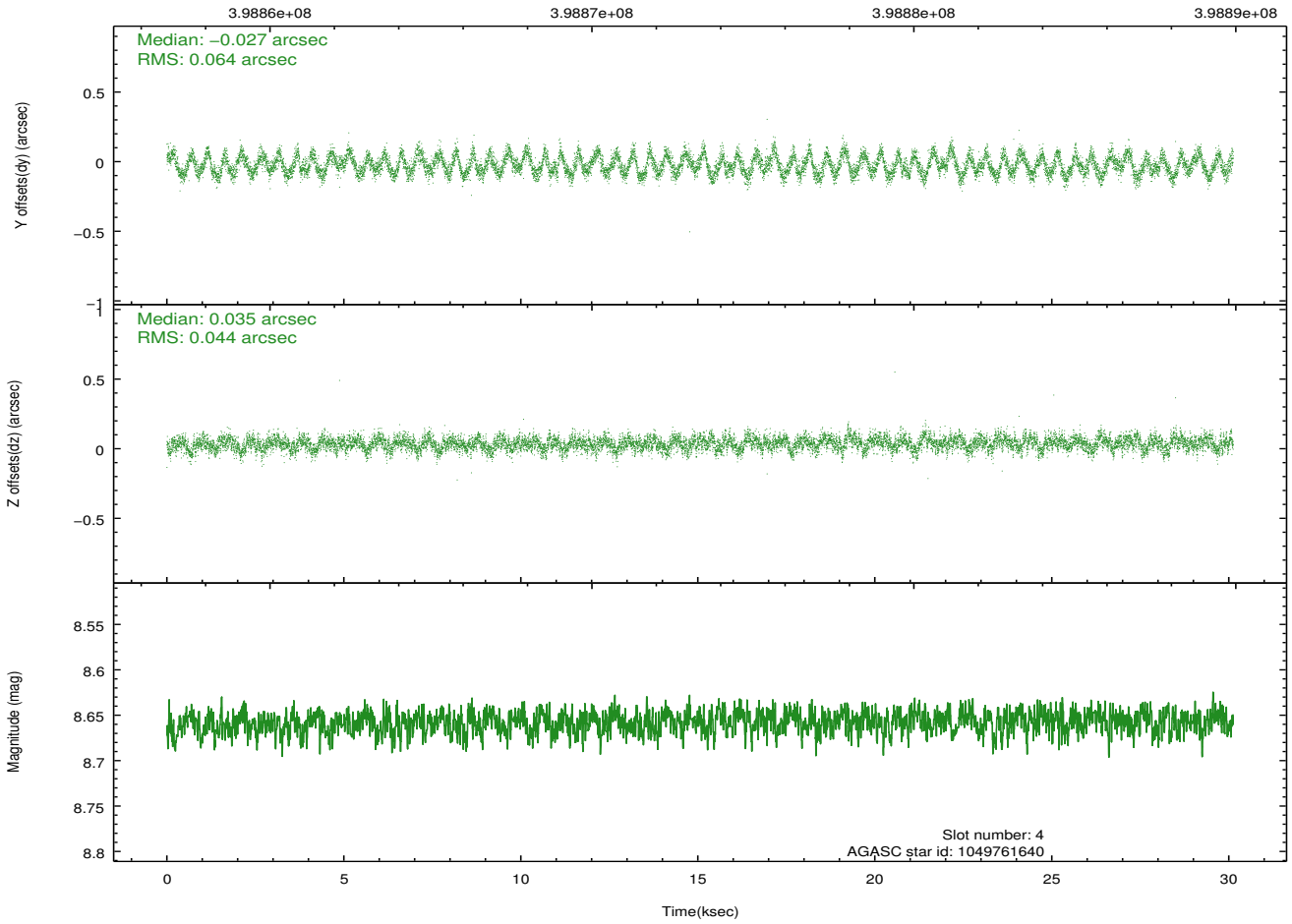
### 2.4.1 Slot 3



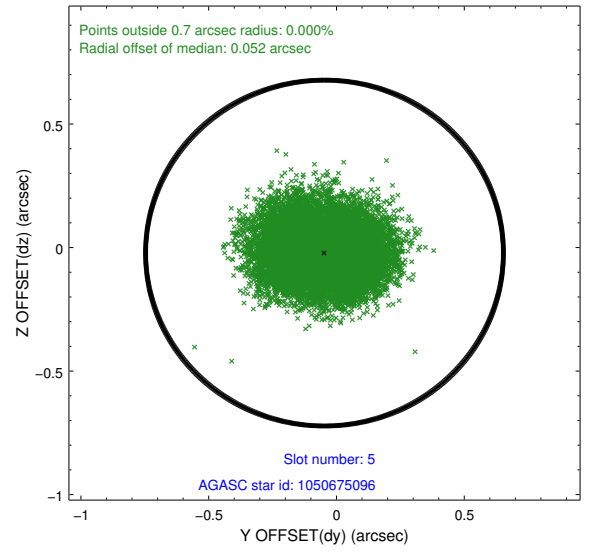
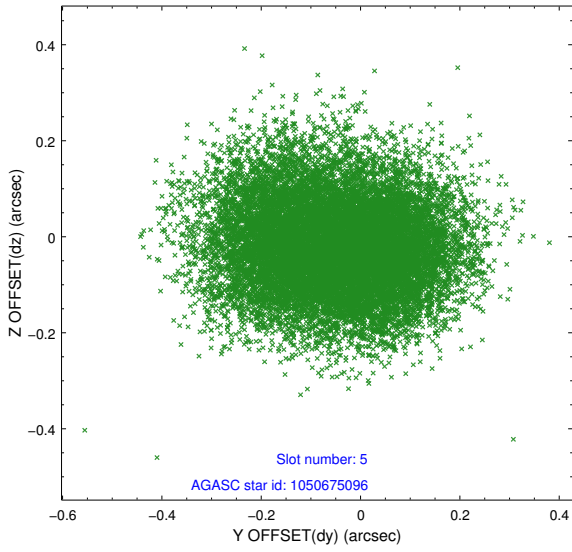
## 2.4.2 Slot 4



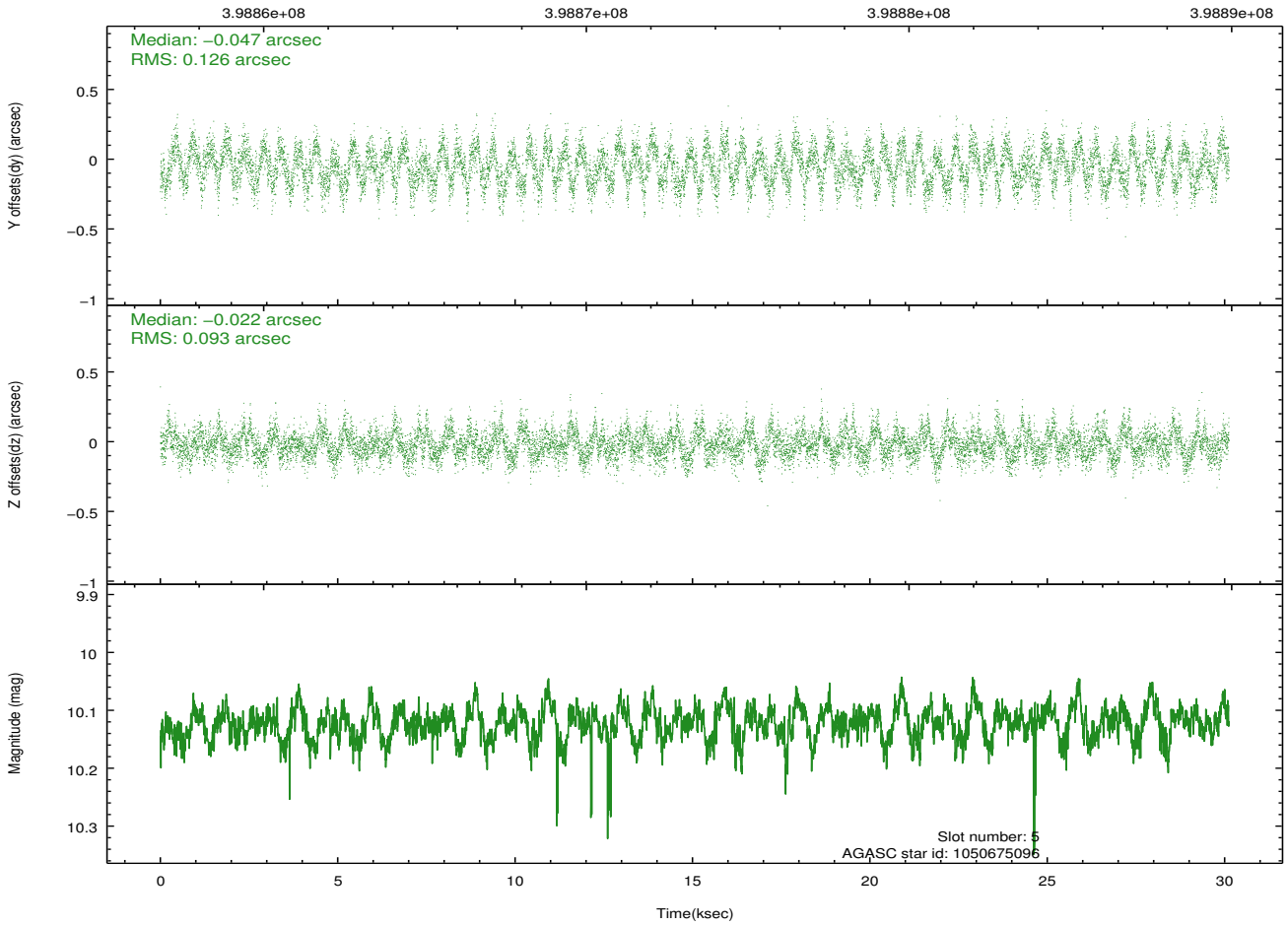
Time (s)



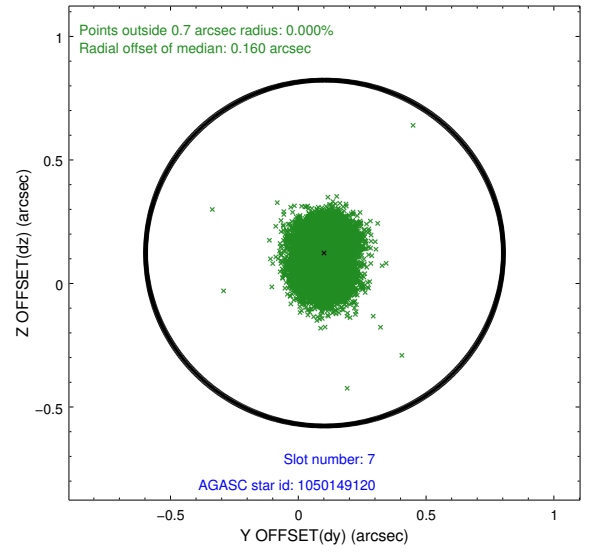
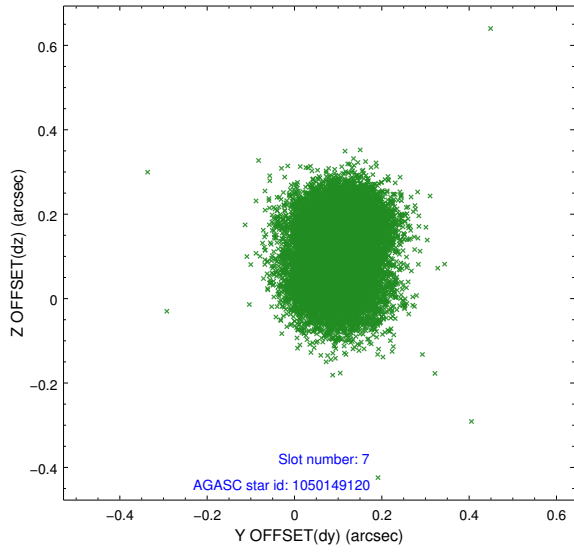
### 2.4.3 Slot 5



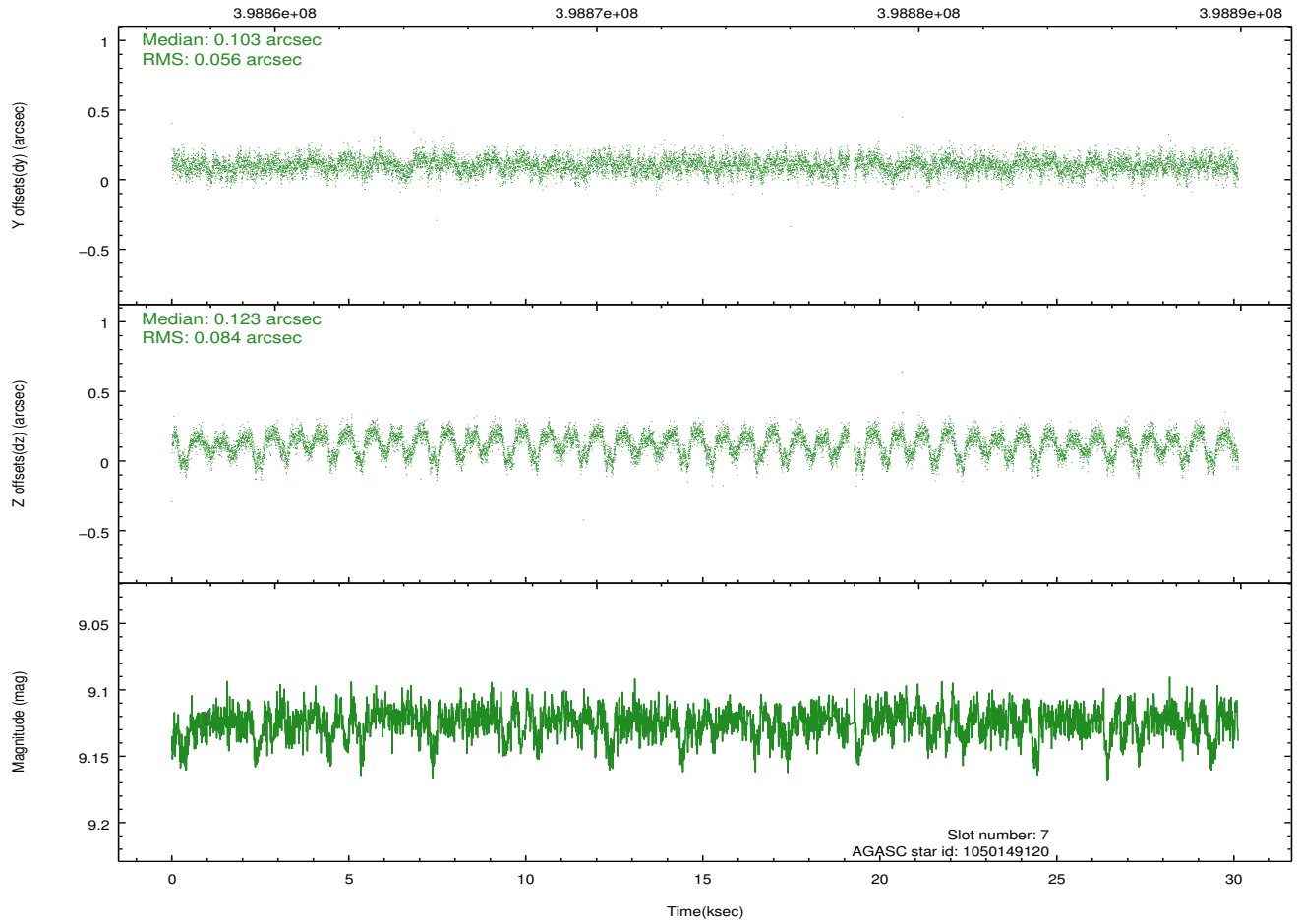
Time (s)



### 2.4.4 Slot 7

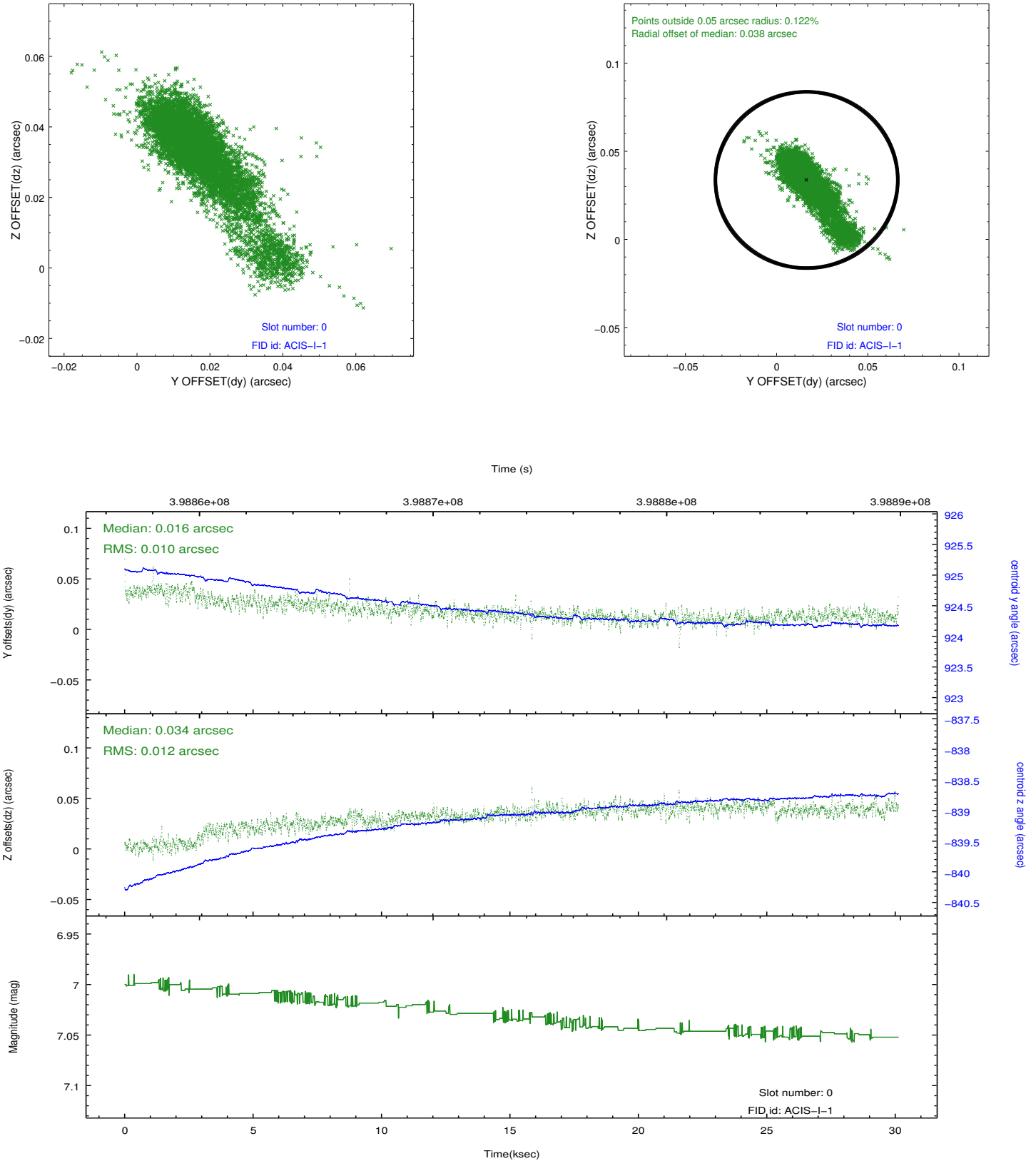


Time (s)

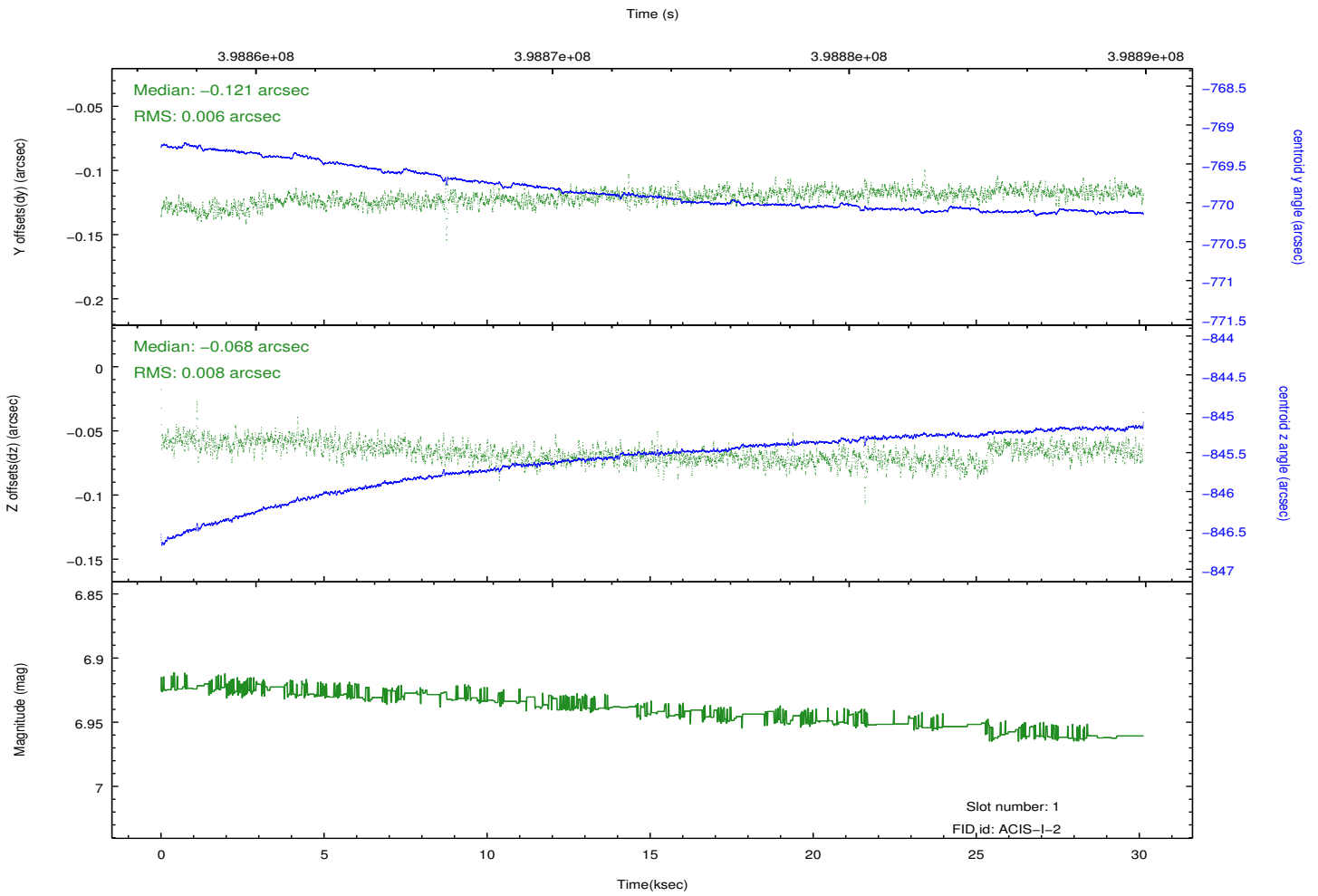
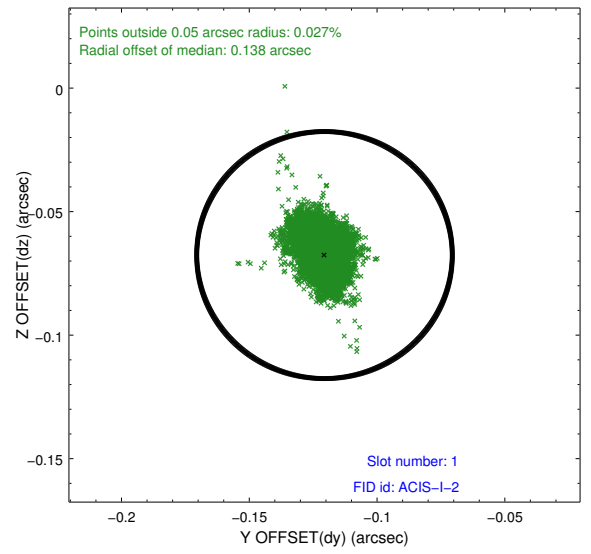
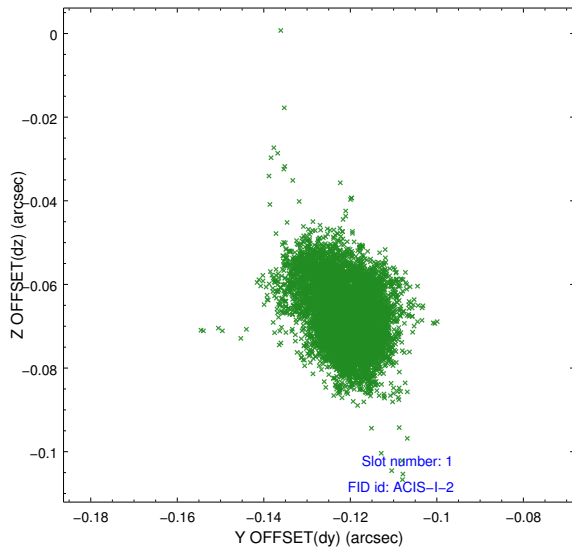


## 2.5 FID Slots

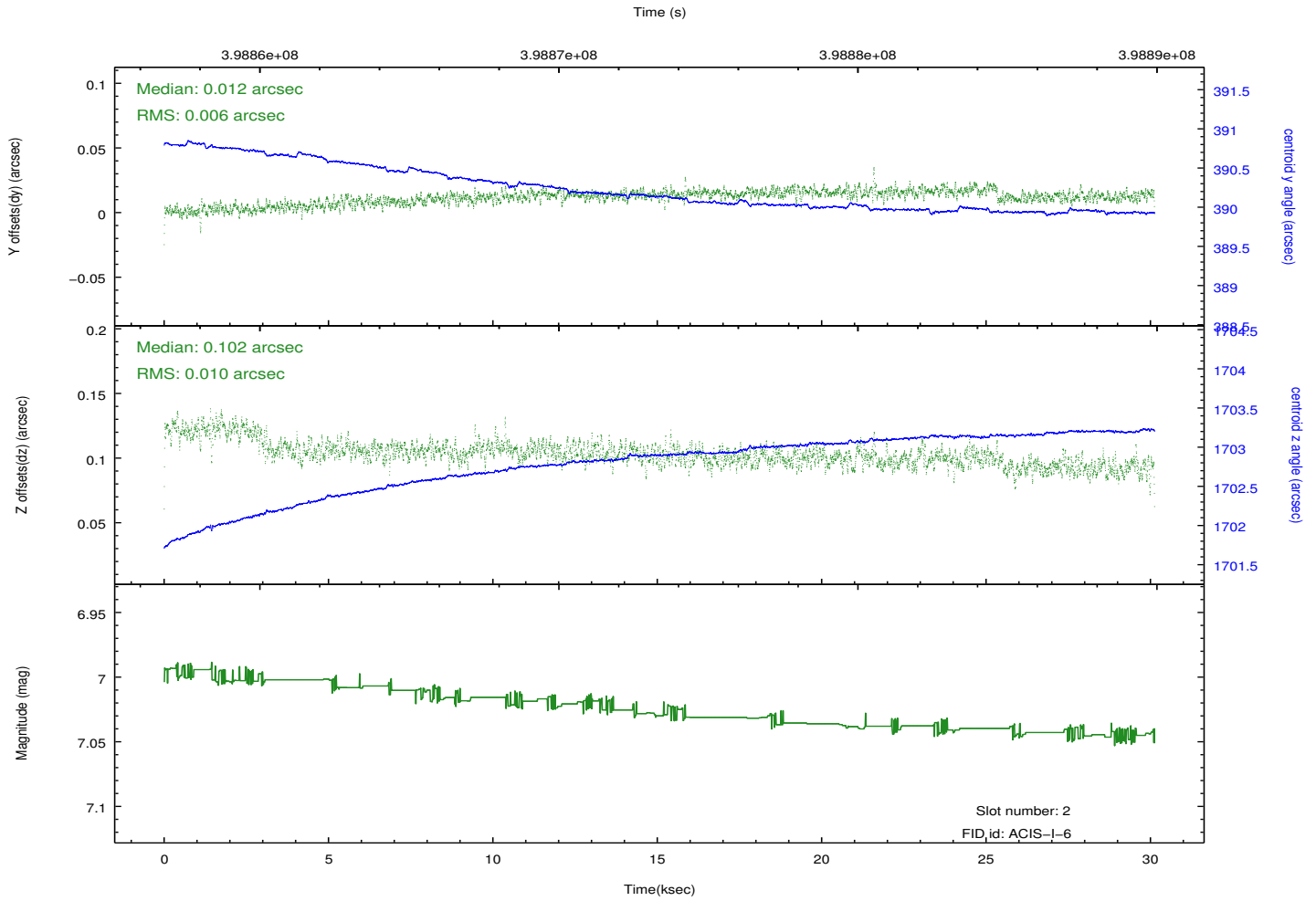
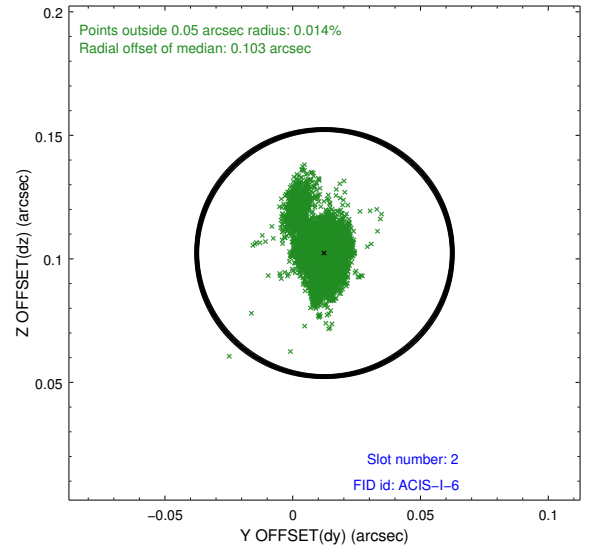
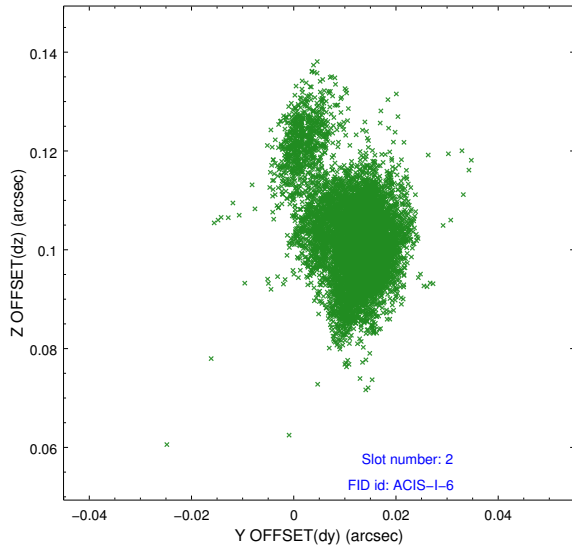
### 2.5.1 Slot 0



## 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)	2012.07.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.060700231194

## A.2 Comments

The guide star in slot 6 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.