

# V&V Reference Report

## L2 ASCDS Version : 10.0.1

Observation 14893 - L2 Version 2  
Chandra X-Ray Center

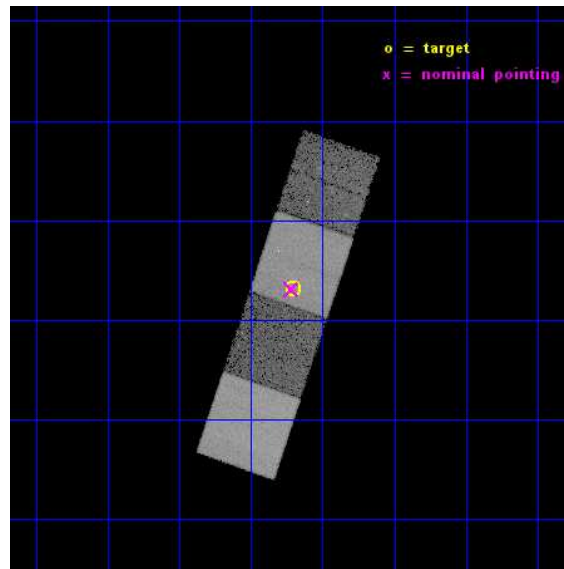
L2 Processing Date : Dec 6 2014

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# 1 Front

seq_num	502017	Sequence number
obs_id	14893	Observation id
title	X-Ray Signatures of Late-Time Circumstellar Interaction in Type II <sub>n</sub> Supernovae	Proposal title
observer	Ori Fox	Principal investigator
object	SN 2008gm	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	348.551667	Observer's specified target RA [deg]
dec_targ	-2.781222	Observer's specified target Dec [deg]
ra_nom	348.55463620842	Nominal RA [deg]
dec_nom	-2.781933548478	Nominal Dec [deg]
roll_nom	288.96188571174	Nominal Roll [deg]
revision	2	Processing version of data
ontime	25066.600192785	Sum of GTIs [s]
livetime	24739.086607504	Livetime [s]
ontime5	25066.600192785	Sum of GTIs [s]
ontime6	25066.600192785	Sum of GTIs [s]
ontime7	25066.600192785	Sum of GTIs [s]
ontime8	25066.600192785	Sum of GTIs [s]
l2events	191575	Number of level 2 events

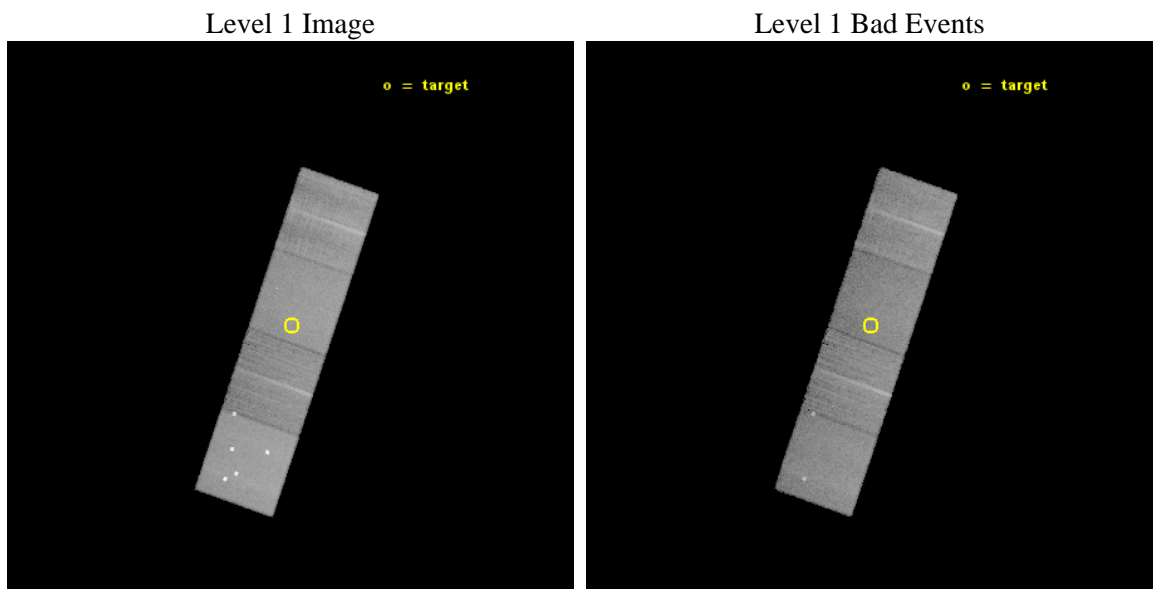




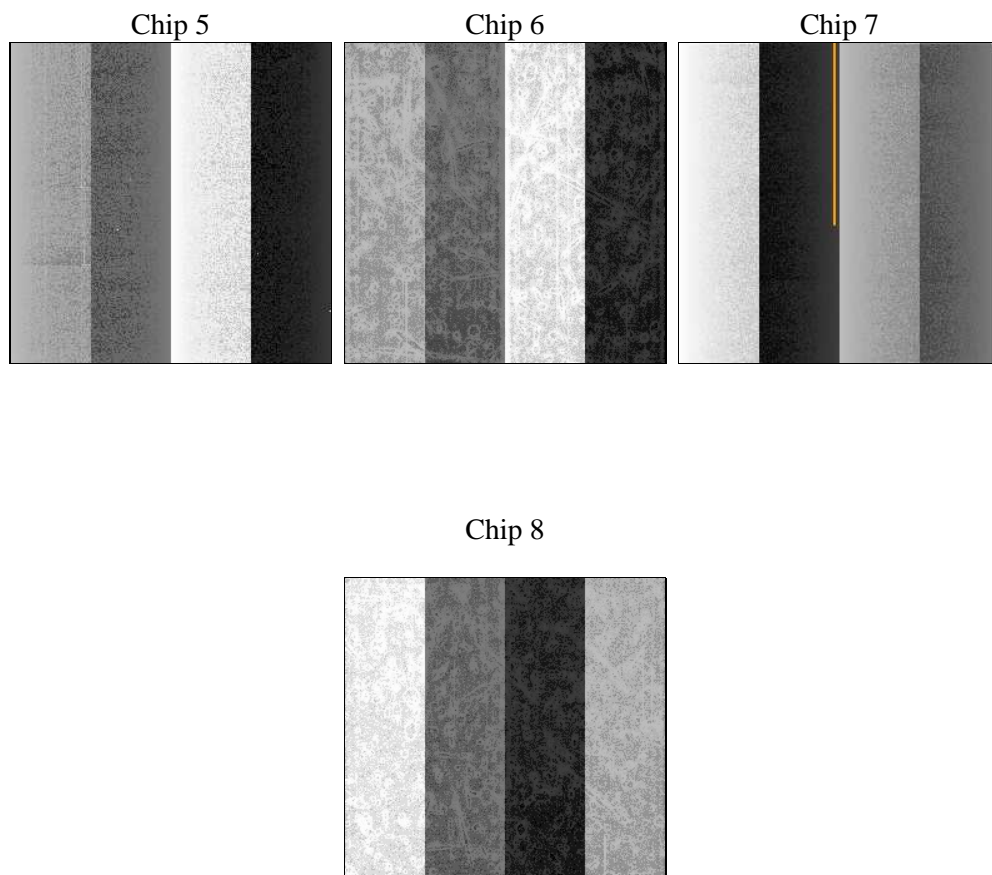
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	25066.600192785	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime5	25066.600192785	Sum of GTIs [s]
date	2014-12-07T00:00:05	Date and time of file creation	ontime6	25066.600192785	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	25066.600192785	Sum of GTIs [s]
			ontime8	25066.600192785	Sum of GTIs [s]
			l1events	696776	Number of level 1 events

### 2.1.4 Events

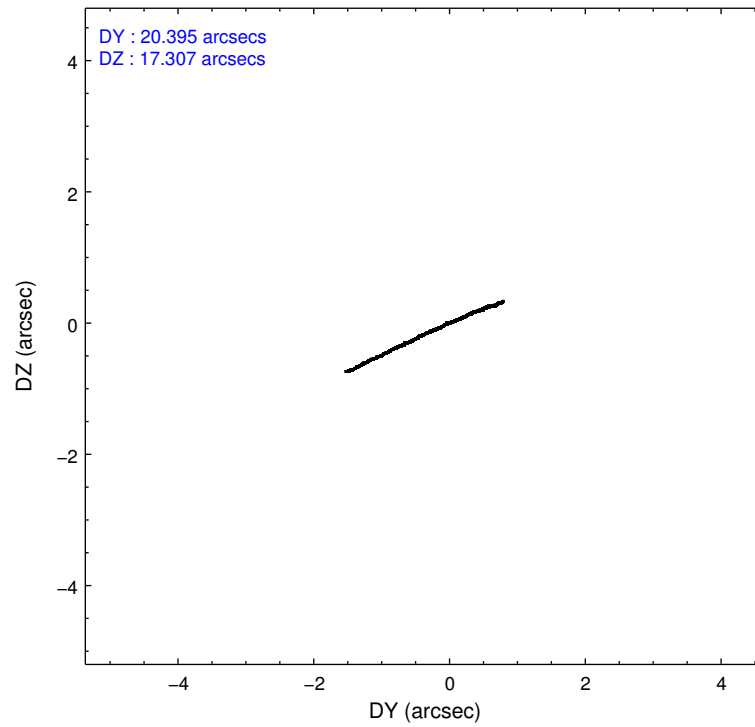
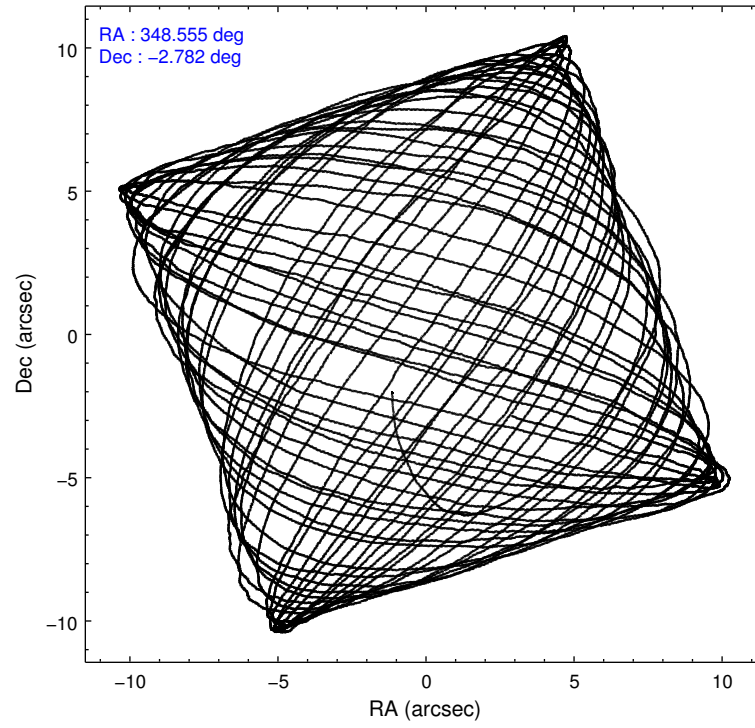
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	232803	123100	170501	170372
rejected events	109508	108310	96555	126381
rejected %	47%	87%	56%	74%

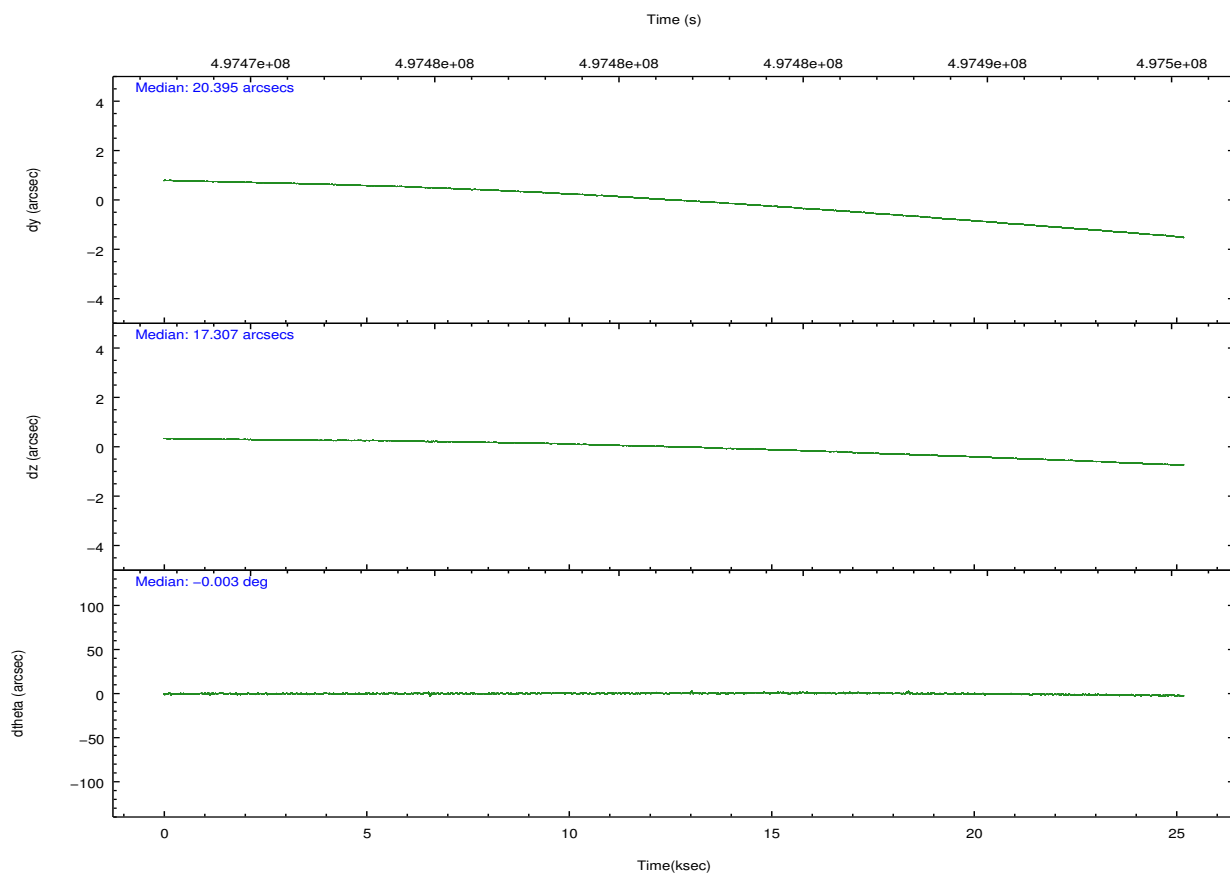
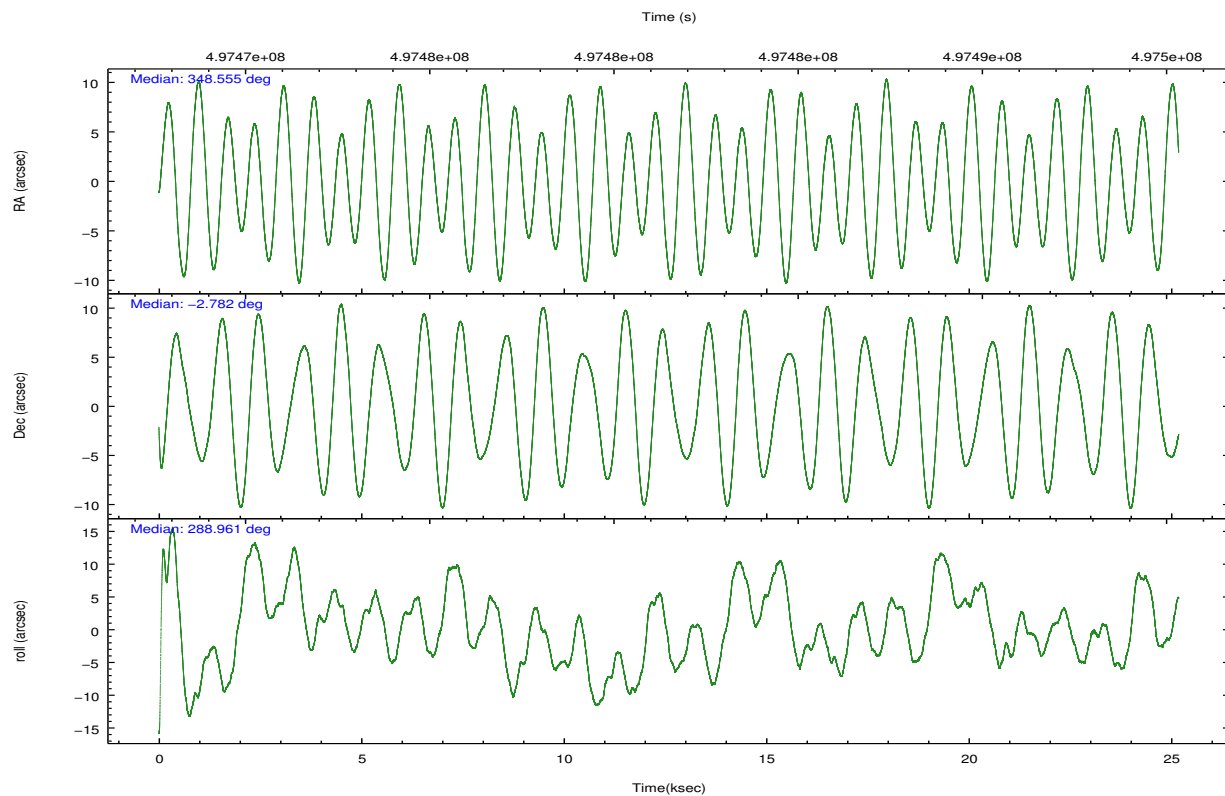
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	27533	4869	6539	11703
	11%	3%	3%	6%
grade 1 events	921	56	201	133
	0%	0%	0%	0%
grade 2 events	35645	3376	15086	10565
	15%	2%	8%	6%
grade 3 events	3014	1548	6044	4751
	1%	1%	3%	2%
grade 4 events	2871	1471	6055	4396
	1%	1%	3%	2%
grade 5 events	14387	6489	17314	9528
	6%	5%	10%	5%
grade 6 events	54252	3527	40231	12587
	23%	2%	23%	7%
grade 7 events	94180	101764	79031	116709
	40%	82%	46%	68%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	348.533719	348.5546362084204	Subarray requested	NONE	NONE
[deg] Pointing Dec	-2.764258	-2.781933548478045	Alternating exposures requested	N	N
[deg] Pointing Roll	288.804265	288.9618857117437	[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)	497469068.184000	497467726.18548			
Observation start date	2013-10-06T17:50:01	2013-10-06T17:28:46			
[s] Observation end time (MET)	497494068.184000	497494666.26195			
Observation end date	2013-10-07T00:46:41	2013-10-07T00:57:46			
Read mode	TIMED	TIMED			

## 2.3 Aspect



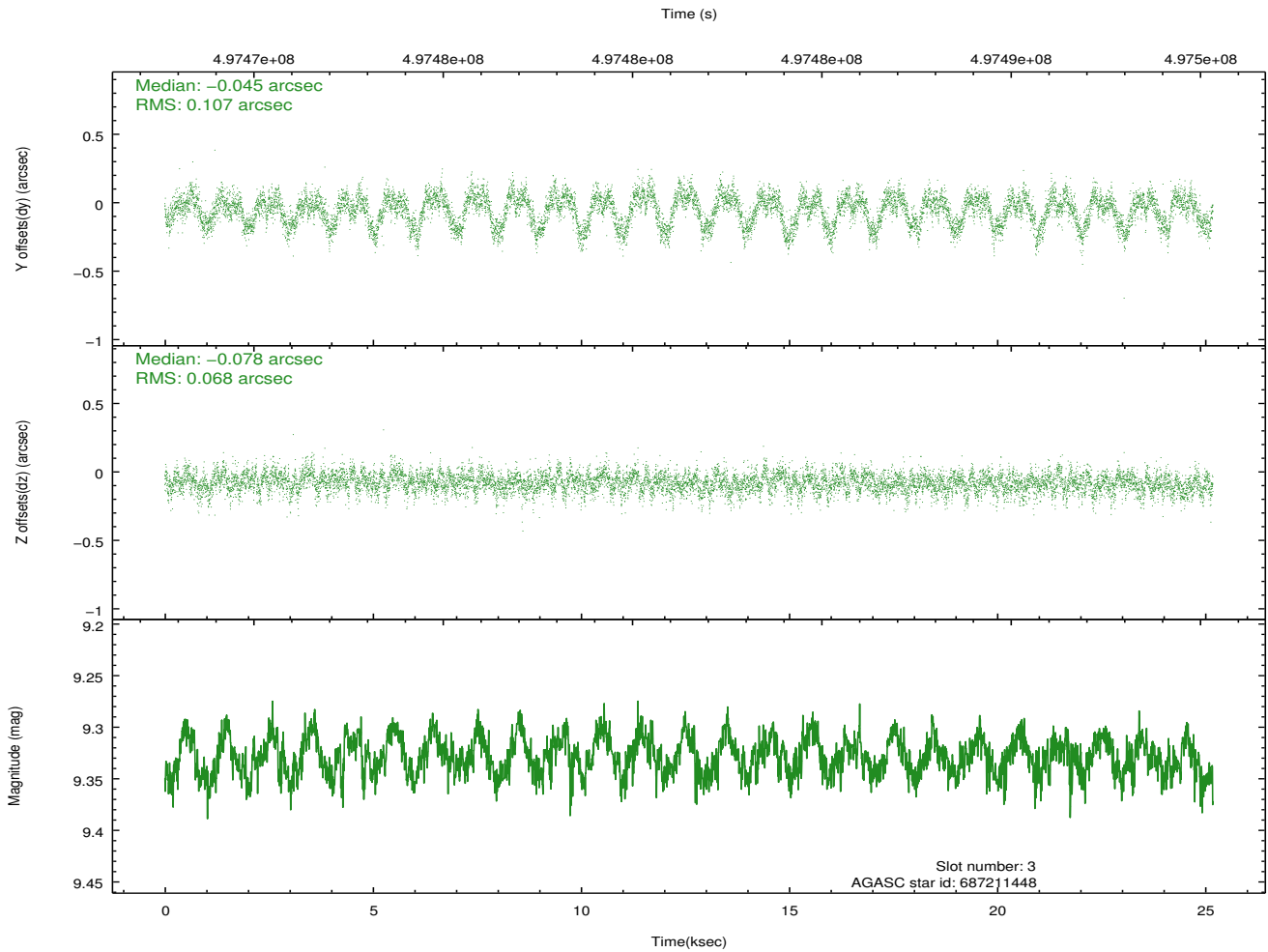
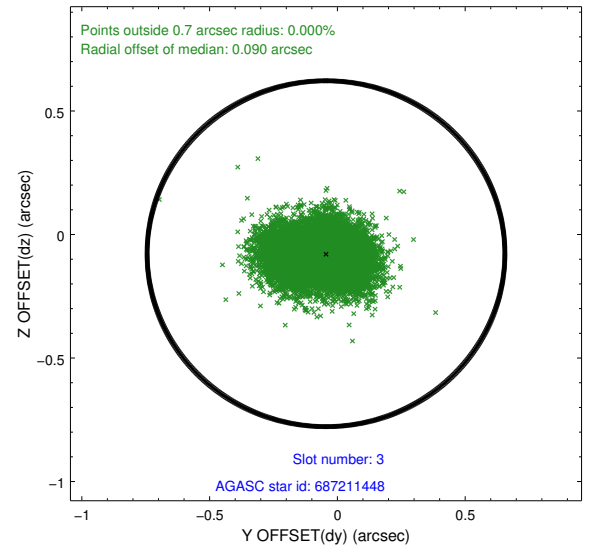
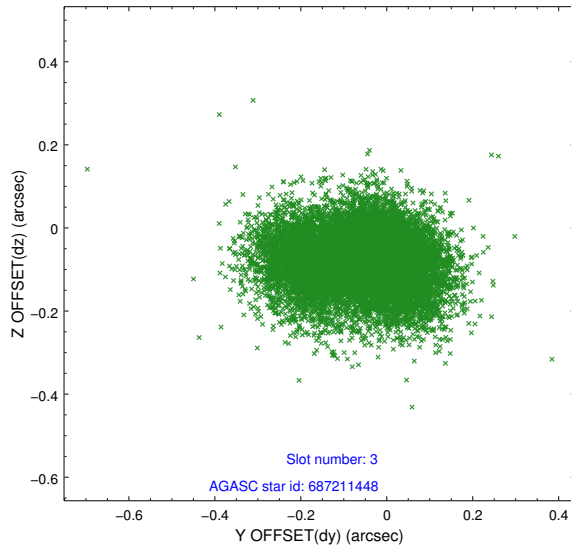


### Slot Statistics

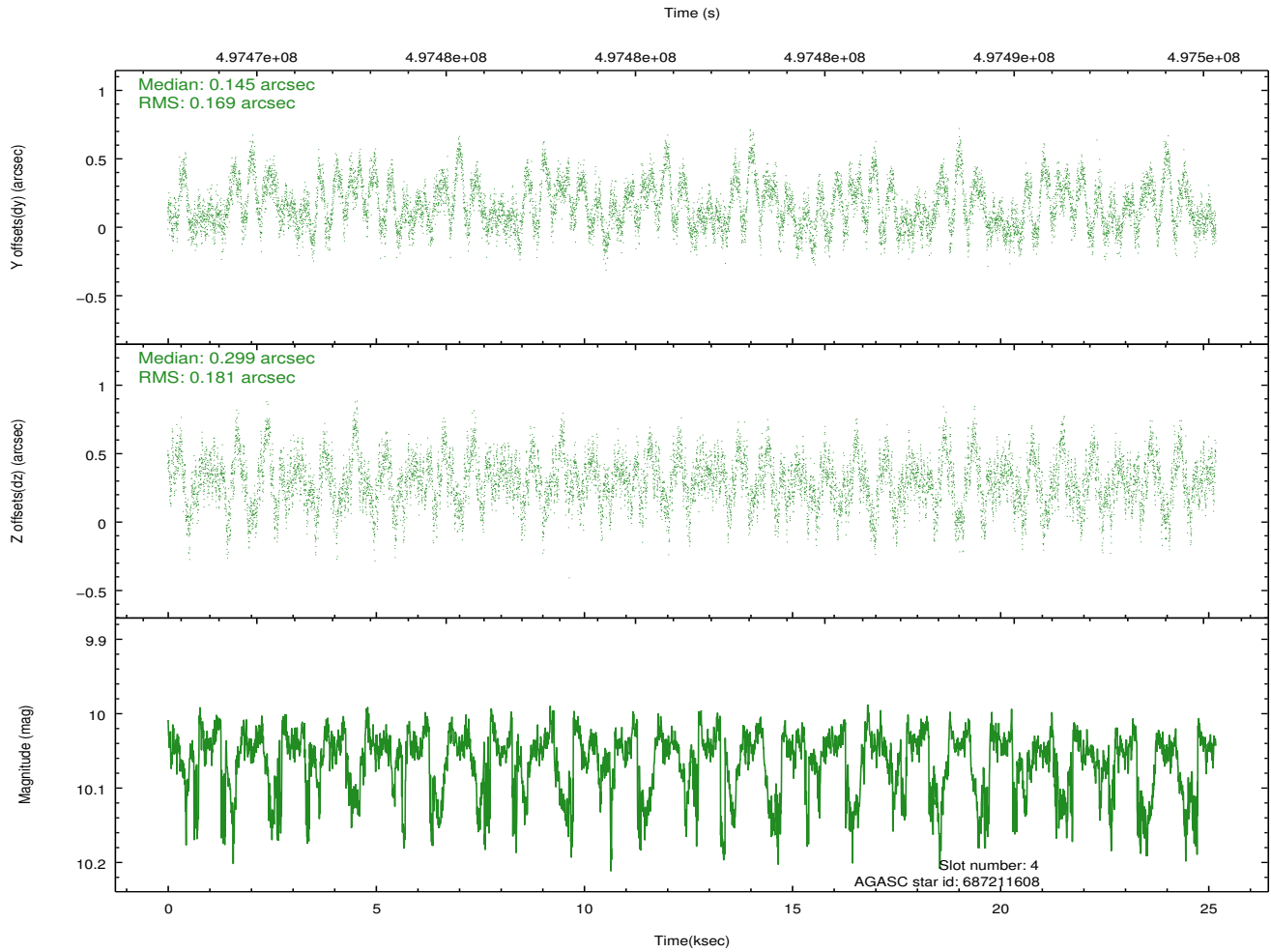
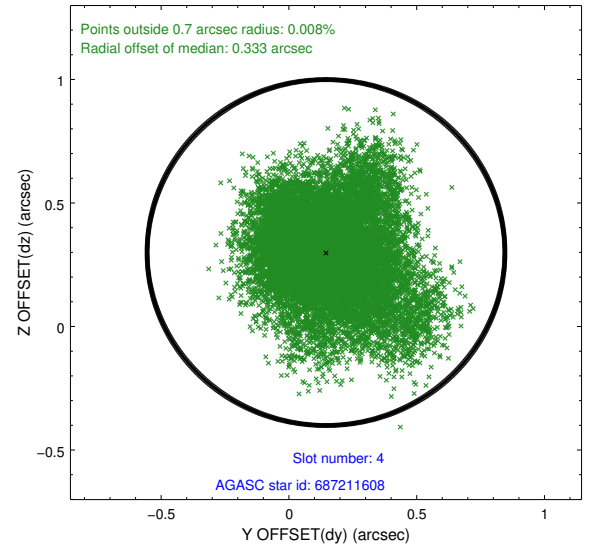
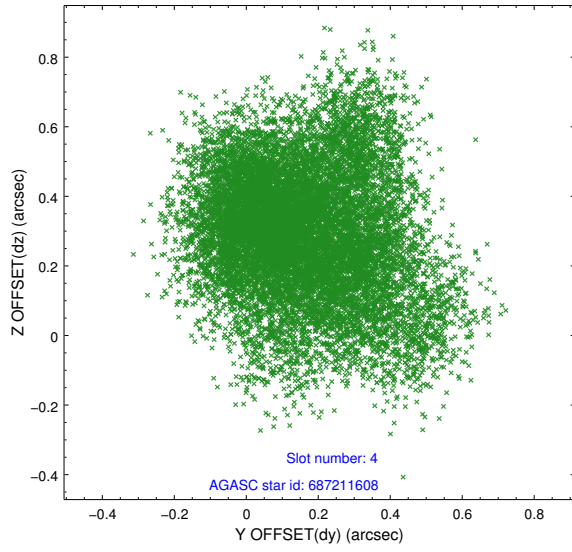
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.07	6141	-0.119	-0.045	0.016	0.025	0.000000	0.000000	-773.53	-1738.70
1	FID		ACIS-S-4	7.17	6142	0.258	0.069	0.018	0.028	0.000000	0.000000	2140.10	169.72
2	FID		ACIS-S-5	7.19	6142	-0.171	-0.017	0.018	0.028	0.000000	0.000000	-1826.25	163.51
3	GUIDE	used	687211448	9.33	12248	-0.045	-0.078	0.134	0.221	348.676572	-2.074237	-2185.34	1288.40
4	GUIDE	used	687211608	10.06	12210	0.145	0.299	0.264	0.436	347.915332	-2.490272	-1649.40	-1789.24
5	GUIDE	used	687608464	10.17	12106	0.079	0.165	0.227	0.361	348.392233	-3.061366	848.83	-825.94
6	GUIDE	used	687609200	9.90	12131	-0.124	-0.270	0.203	0.338	349.235960	-2.922169	1352.97	2206.59
7	GUIDE	used	687613368	9.40	12211	-0.072	-0.127	0.134	0.211	349.051836	-3.141994	1888.67	1324.73

## 2.4 Star Slots

### 2.4.1 Slot 3

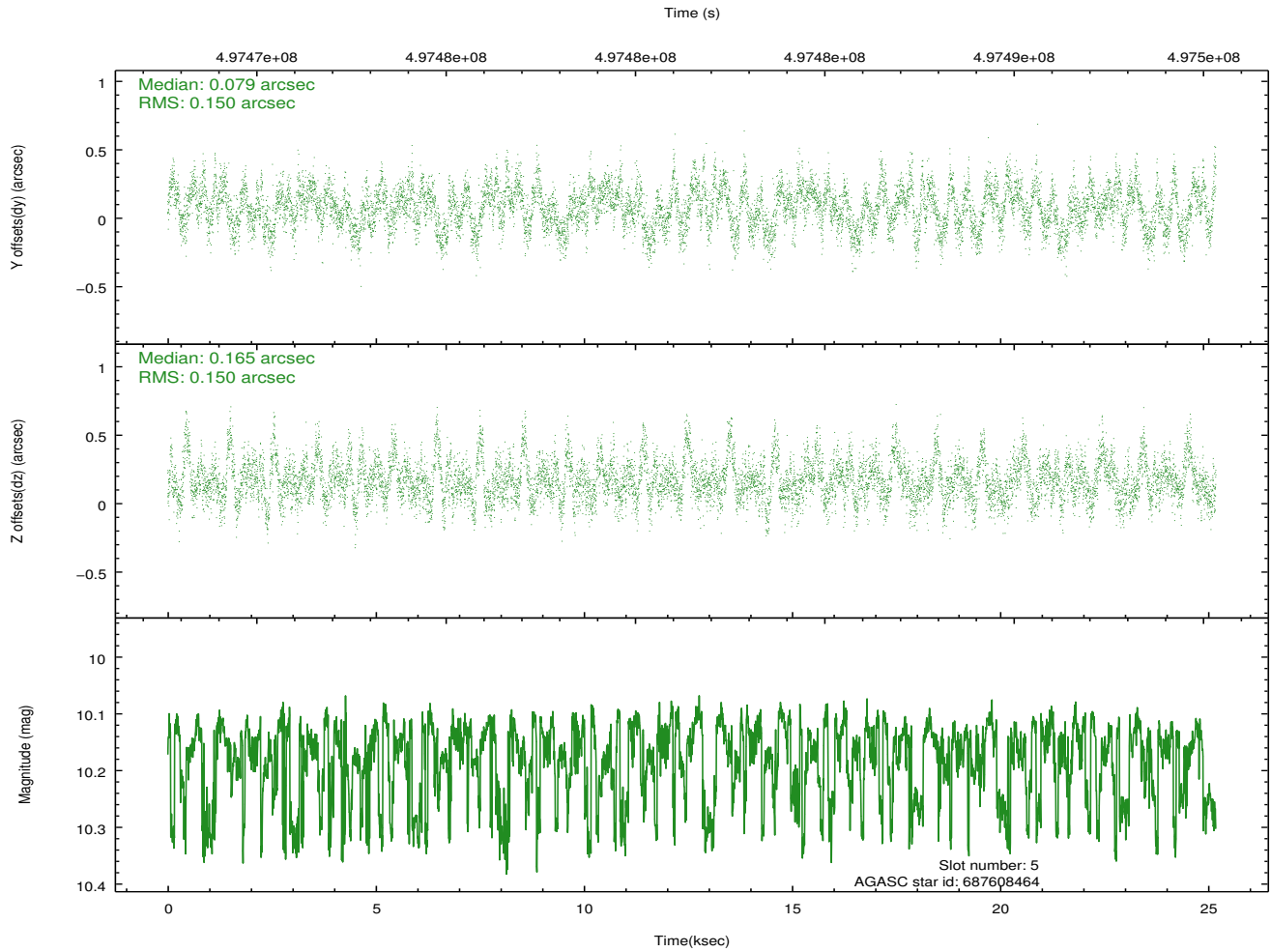
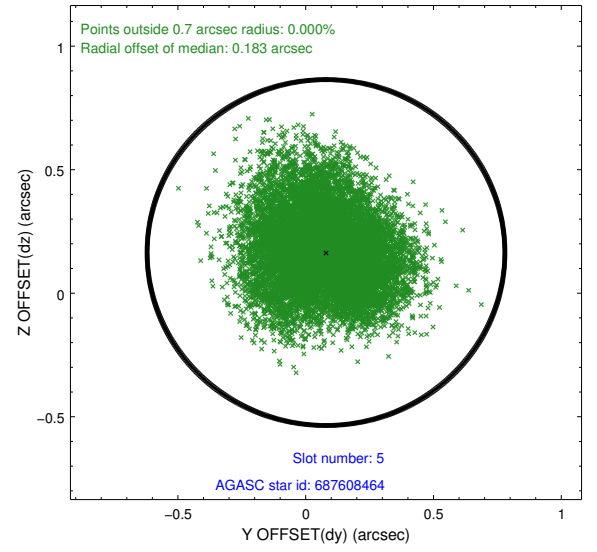
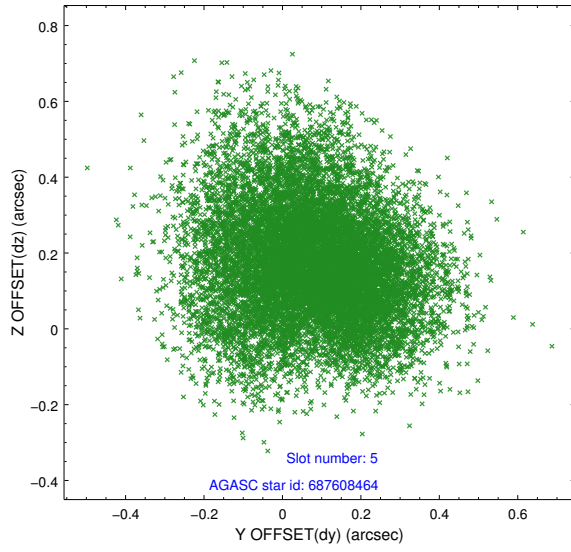


## 2.4.2 Slot 4

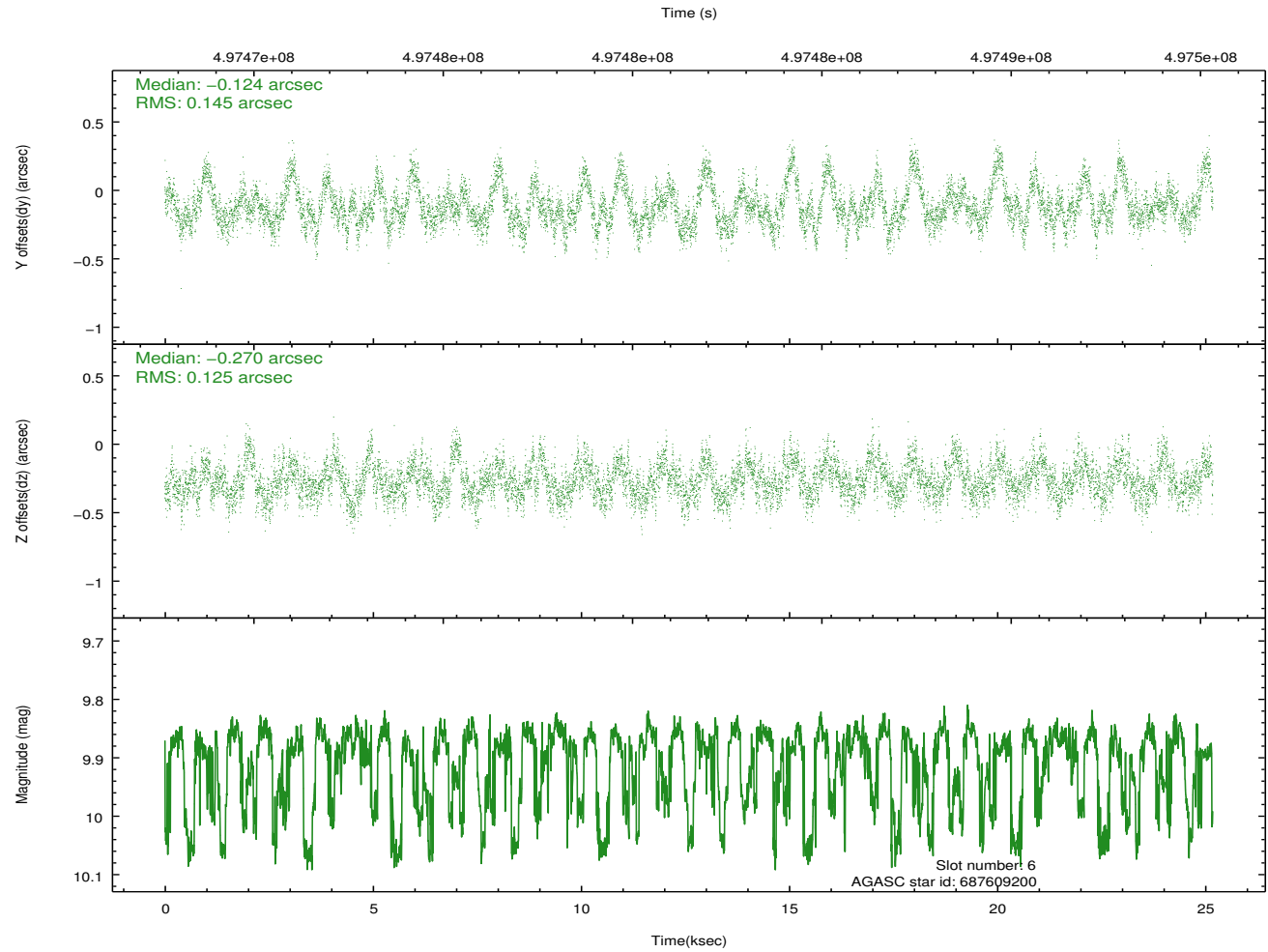
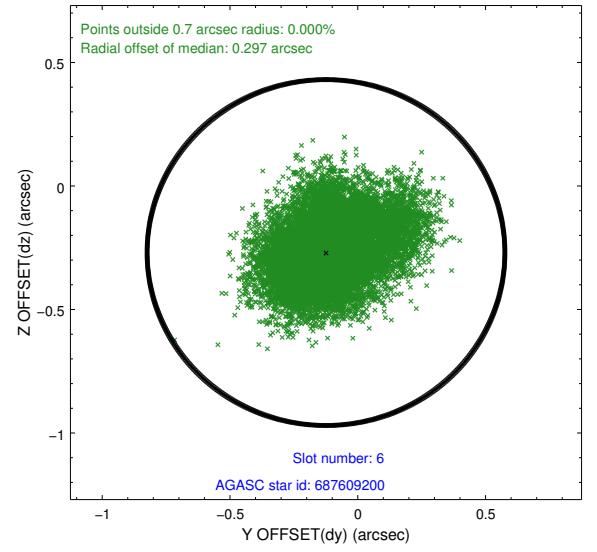
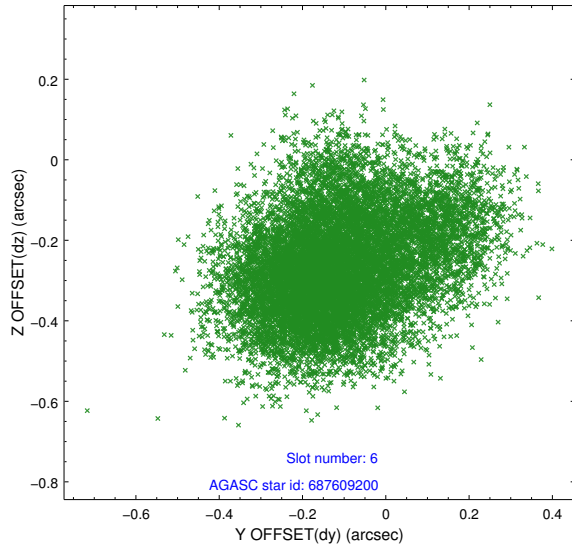




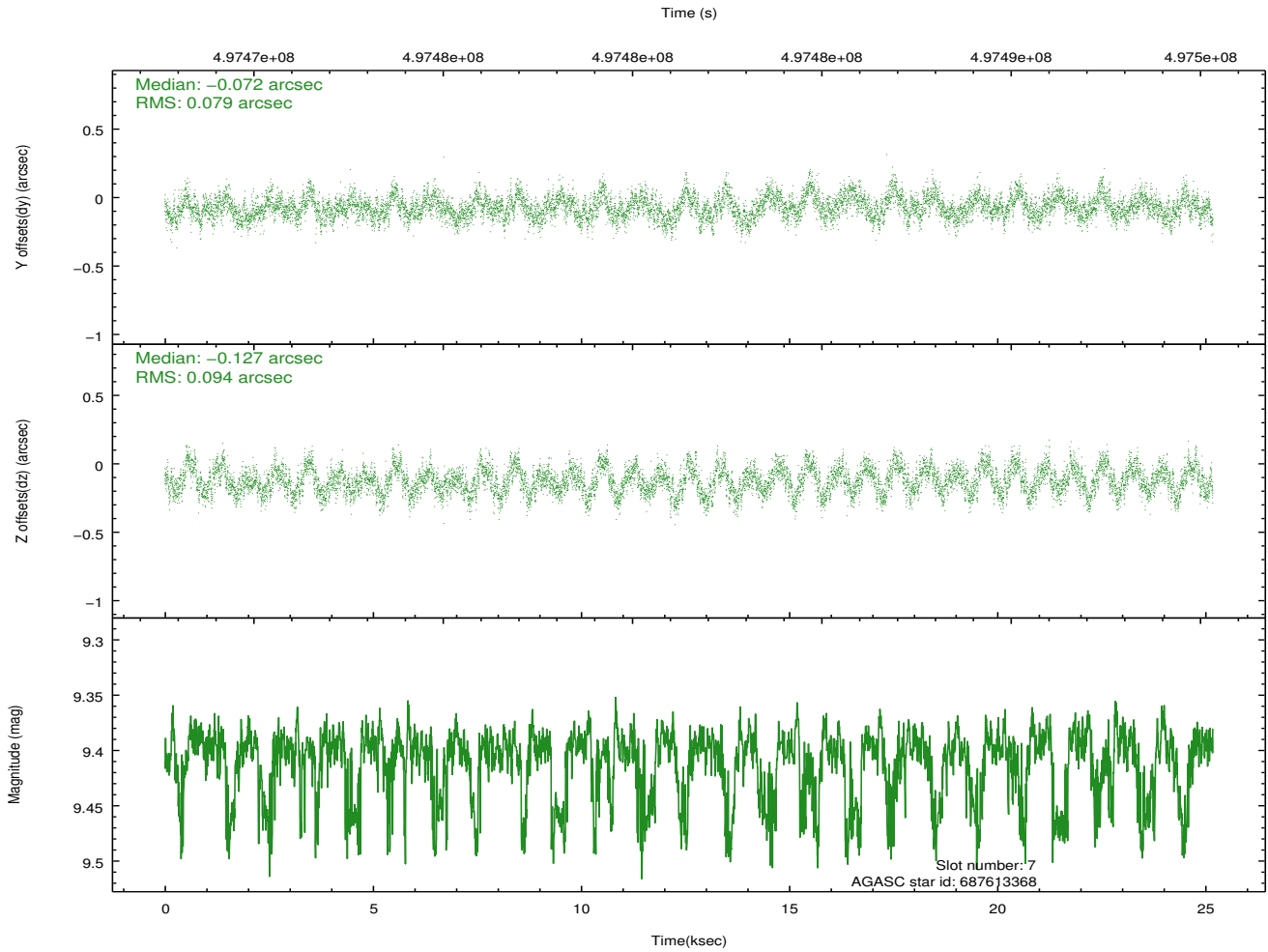
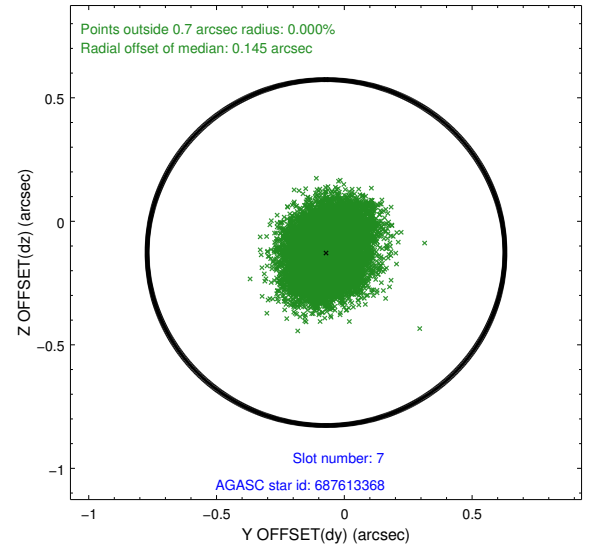
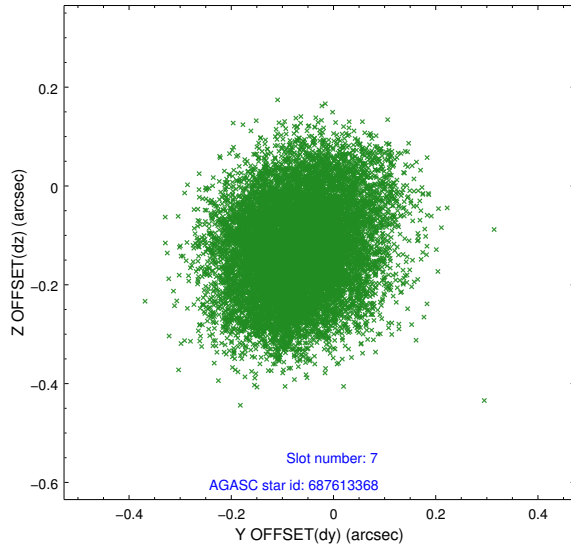
### 2.4.3 Slot 5



## 2.4.4 Slot 6

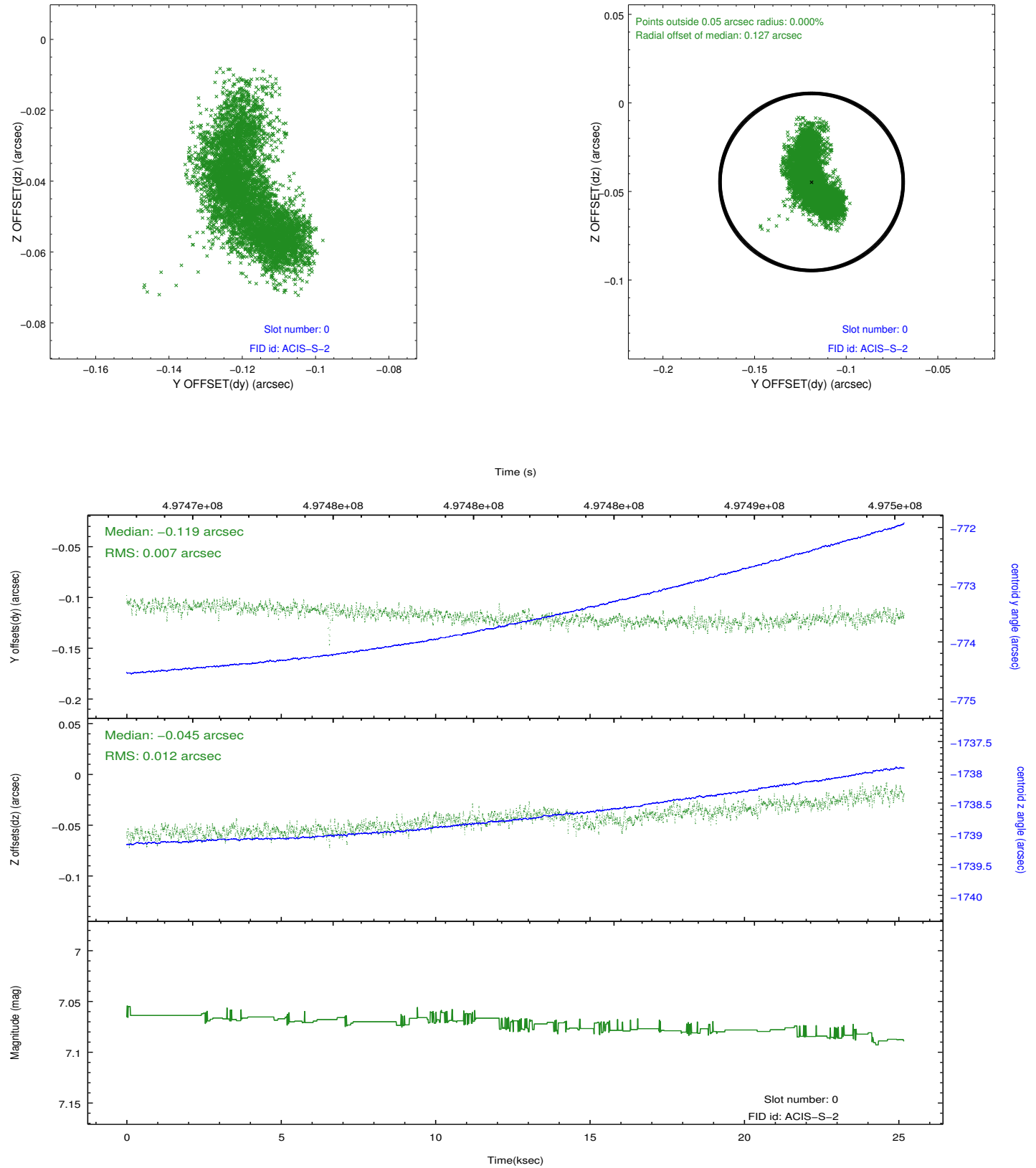


## 2.4.5 Slot 7

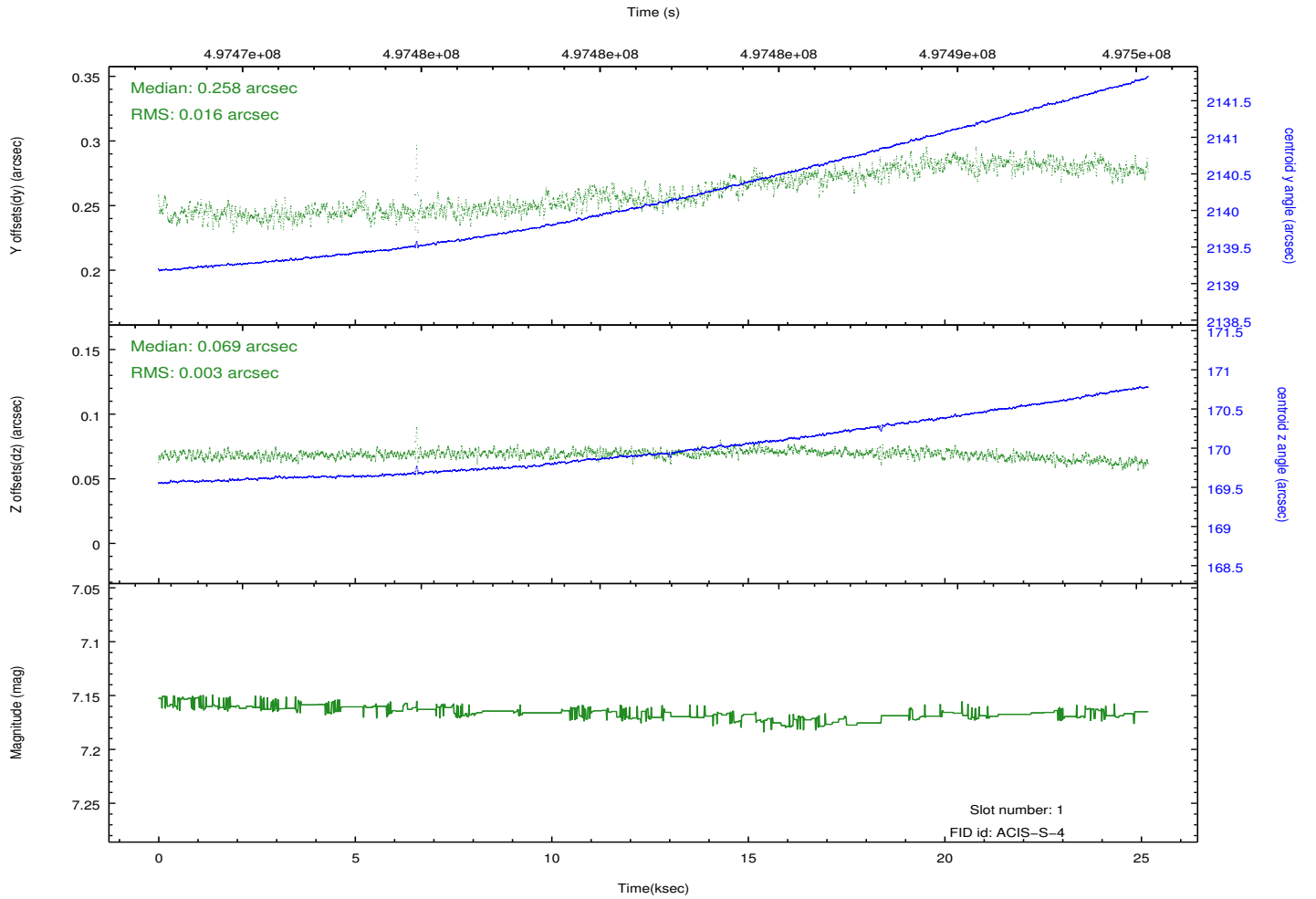
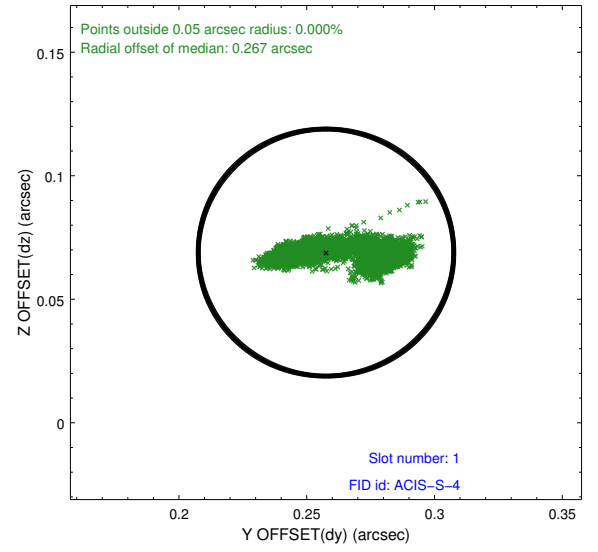
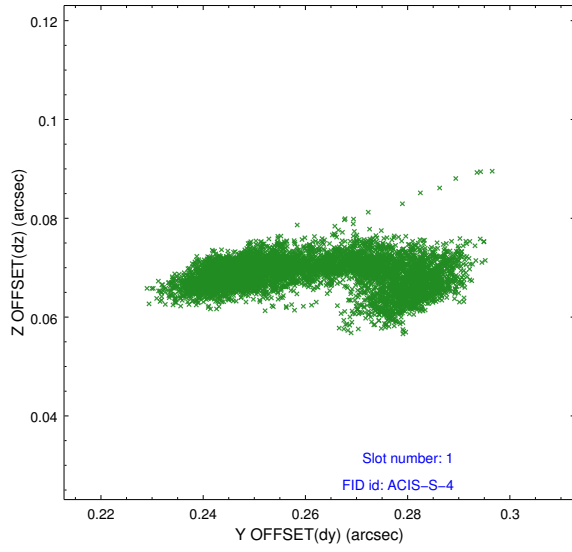


## 2.5 FID Slots

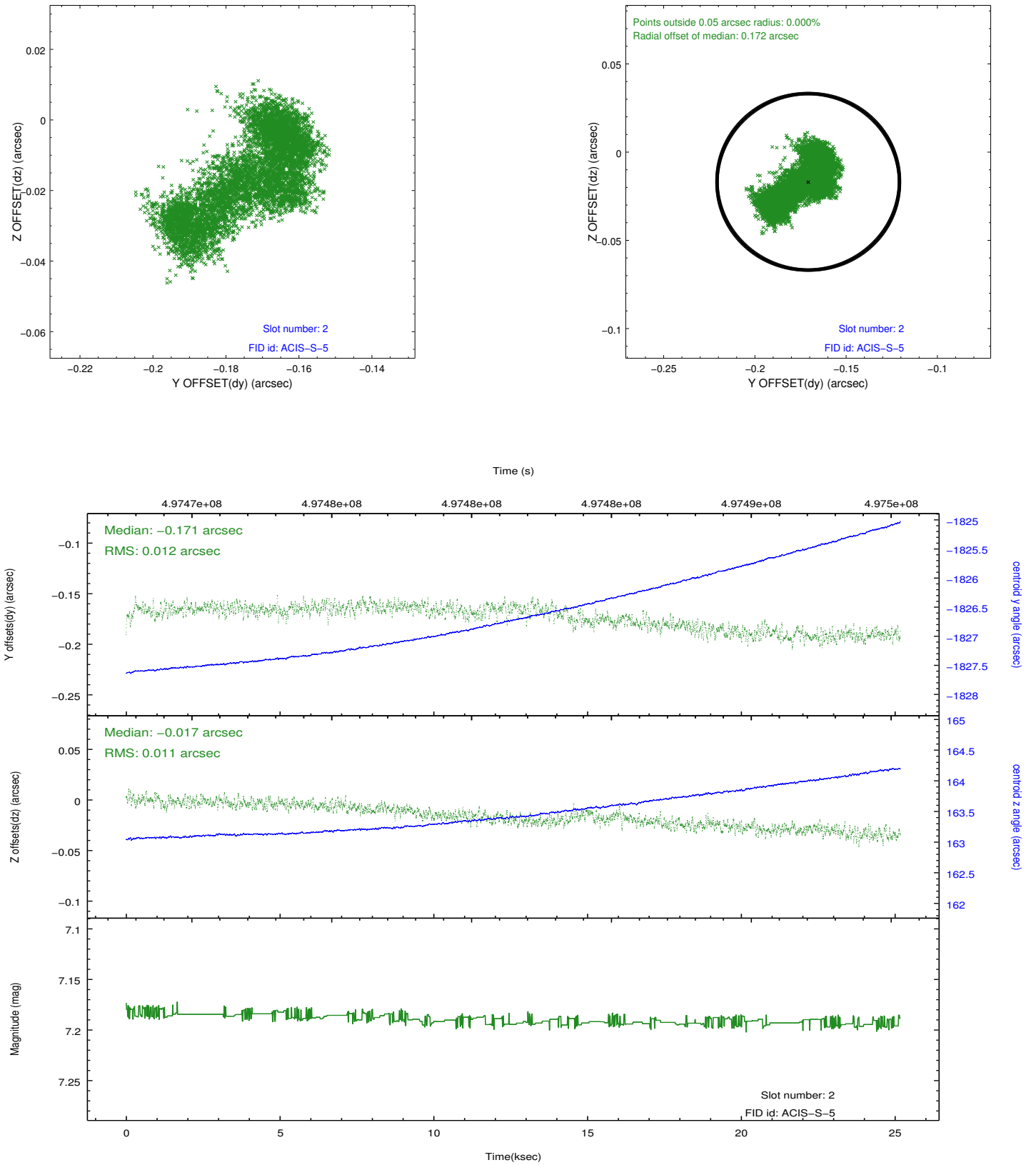
### 2.5.1 Slot 0



## 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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.066600192785

## A.2 Comments

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.