

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14796 - L2 Version 3  
Chandra X-Ray Center

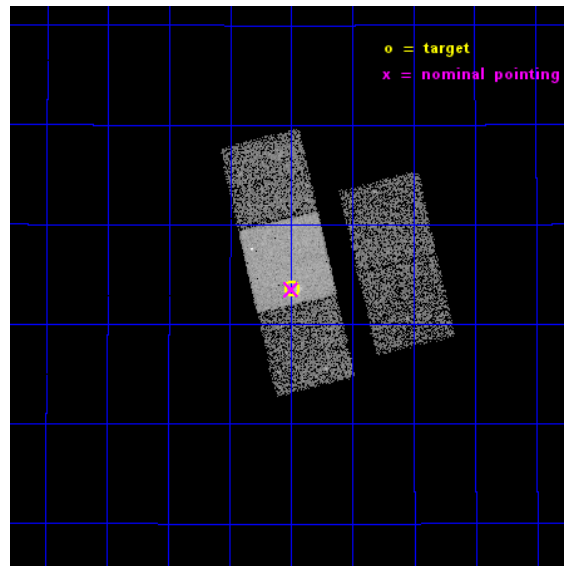
L2 Processing Date : Dec 4 2014

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# 1 Front

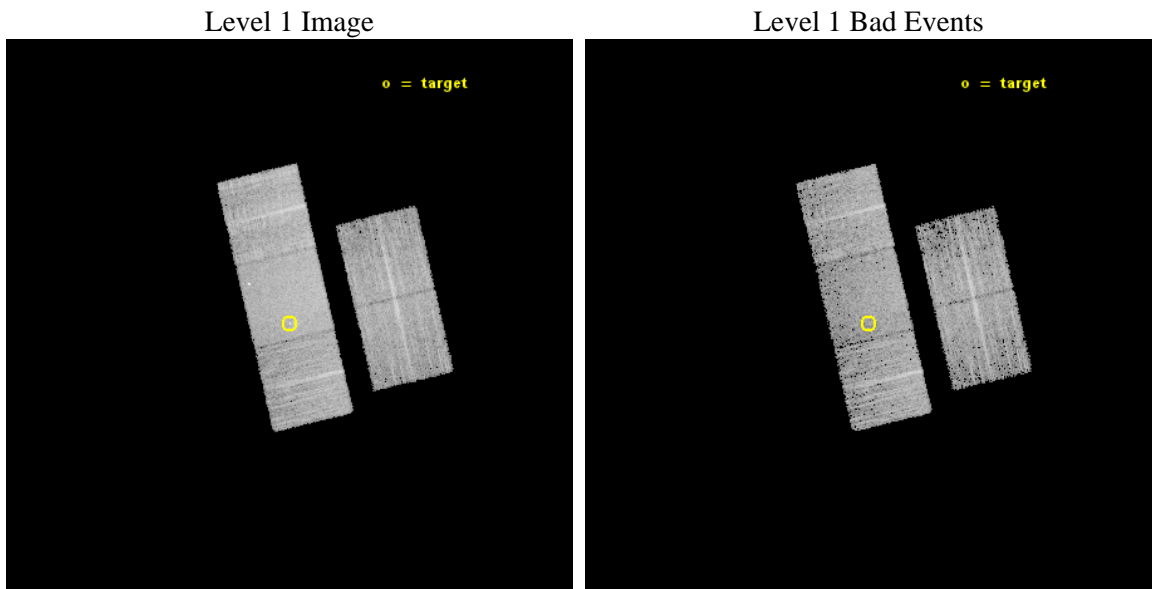
seq_num	501924	Sequence number
obs_id	14796	Observation id
title	The Energetics and Environments of Type Ibc Supernovae	Proposal ti
observer	Dr Alicia Soderberg	Principal investigator
object	SN2013df	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.622208	Observer's specified target RA [deg]
dec_targ	31.227306	Observer's specified target Dec [deg]
ra_nom	186.62461870919	Nominal RA [deg]
dec_nom	31.225112396648	Nominal Dec [deg]
roll_nom	256.63344102945	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10067.41908747	Sum of GTIs [s]
livetime	9935.8808455657	Livetime [s]
ontime2	10067.254927456	Sum of GTIs [s]
ontime3	10064.196037054	Sum of GTIs [s]
ontime6	10067.378047466	Sum of GTIs [s]
ontime7	10067.41908747	Sum of GTIs [s]
ontime8	10067.29596746	Sum of GTIs [s]
l2events	48927	Number of level 2 events



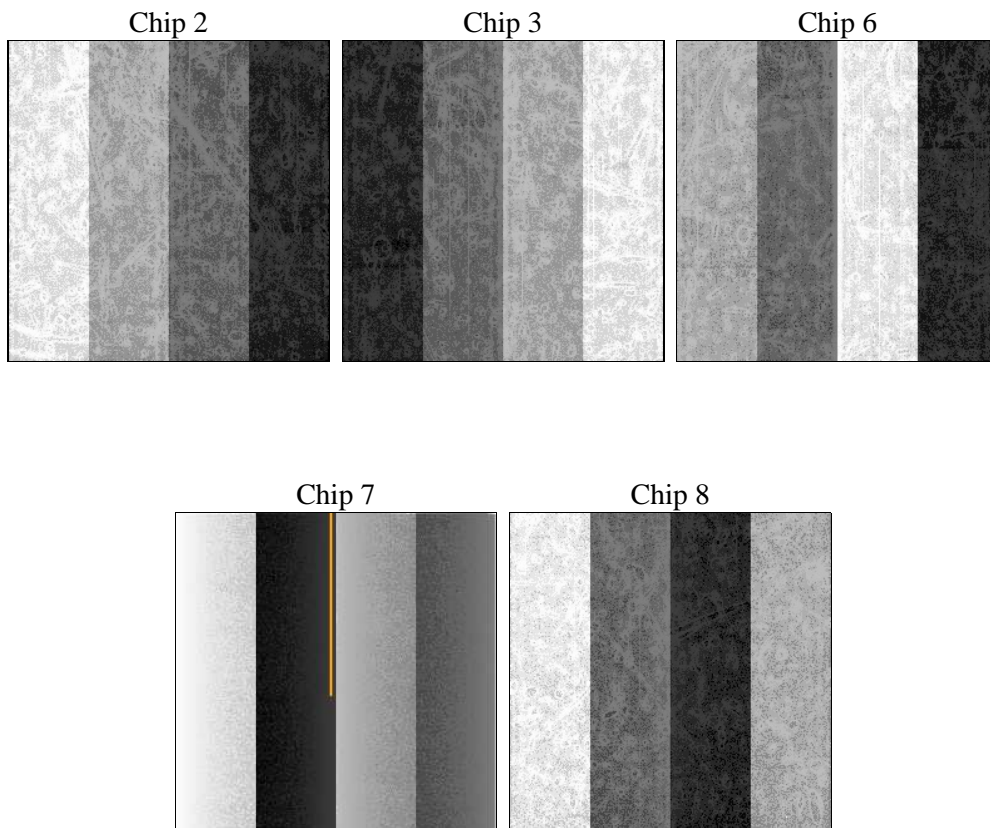
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	10067.41908747	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	10067.254927456	Sum of GTIs [s]
date	2014-12-04T10:02:29	Date and time of file creation	ontime3	10064.196037054	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	10067.378047466	Sum of GTIs [s]
			ontime7	10067.41908747	Sum of GTIs [s]
			ontime8	10067.29596746	Sum of GTIs [s]
			l1events	268736	Number of level 1 events

### 2.1.4 Events

	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	44107	45560	49266	66059	63744
rejected events	38867	40282	43321	36728	46427
rejected %	88%	88%	87%	55%	72%

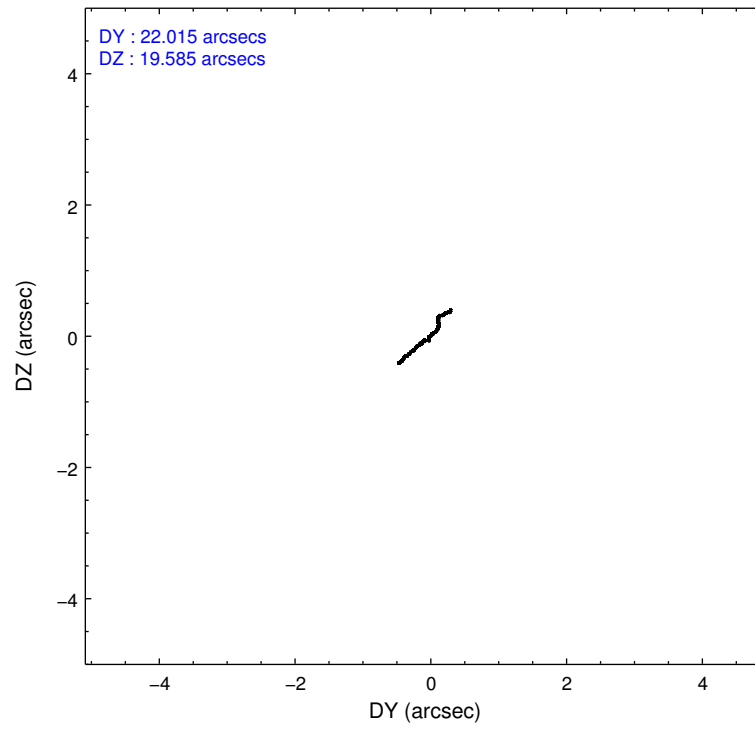
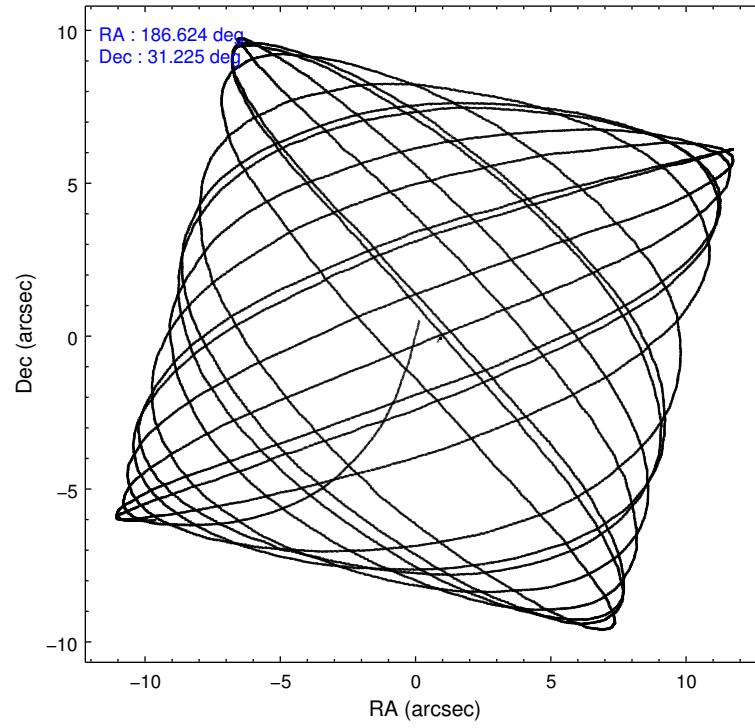
	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	1854	1814	2066	2866	5318
	4%	3%	4%	4%	8%
grade 1 events	27	30	19	83	47
	0%	0%	0%	0%	0%
grade 2 events	1337	1210	1344	6121	3909
	3%	2%	2%	9%	6%
grade 3 events	538	601	564	2496	1891
	1%	1%	1%	3%	2%
grade 4 events	508	577	598	2509	1751
	1%	1%	1%	3%	2%
grade 5 events	1964	2551	2446	6796	3711
	4%	5%	4%	10%	5%
grade 6 events	1008	1084	1376	15357	4456
	2%	2%	2%	23%	6%
grade 7 events	36871	37693	40853	29831	42661
	83%	82%	82%	45%	66%

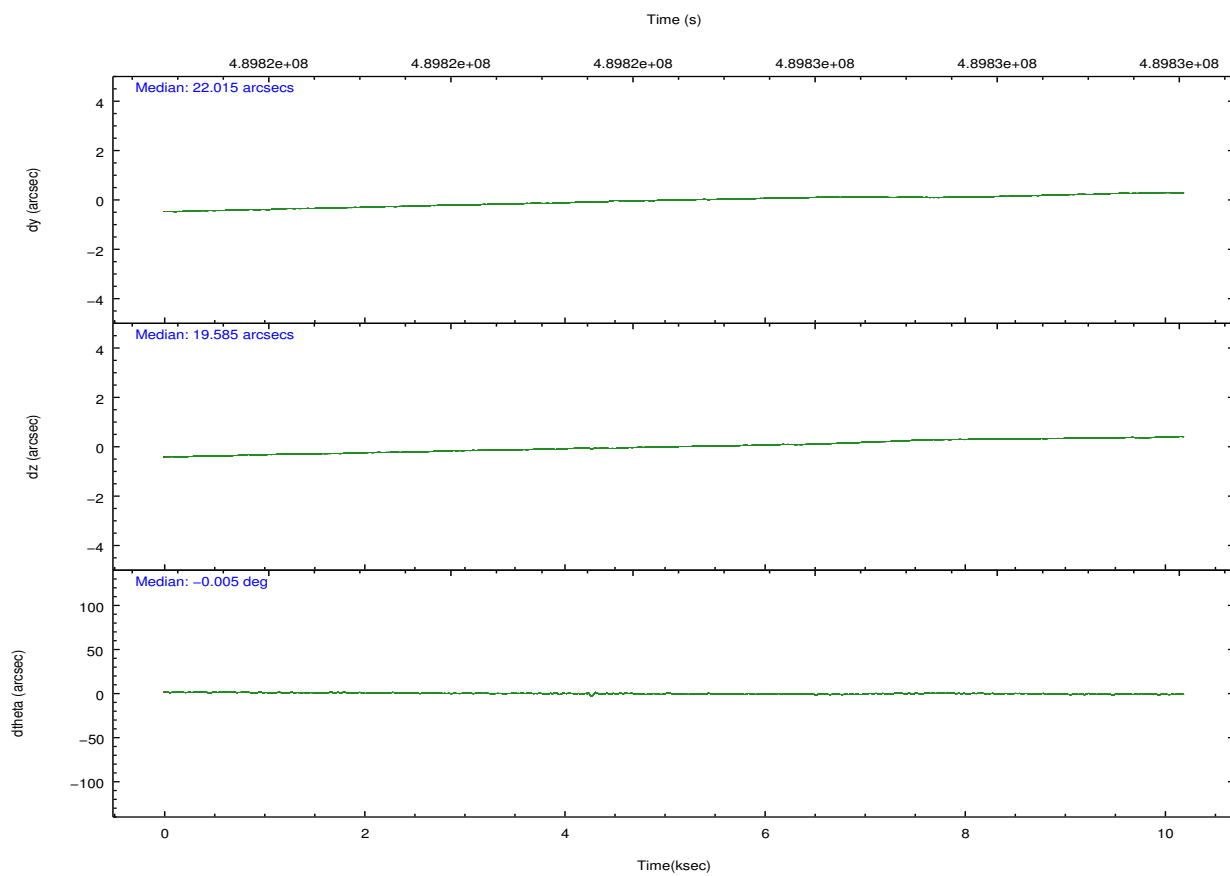
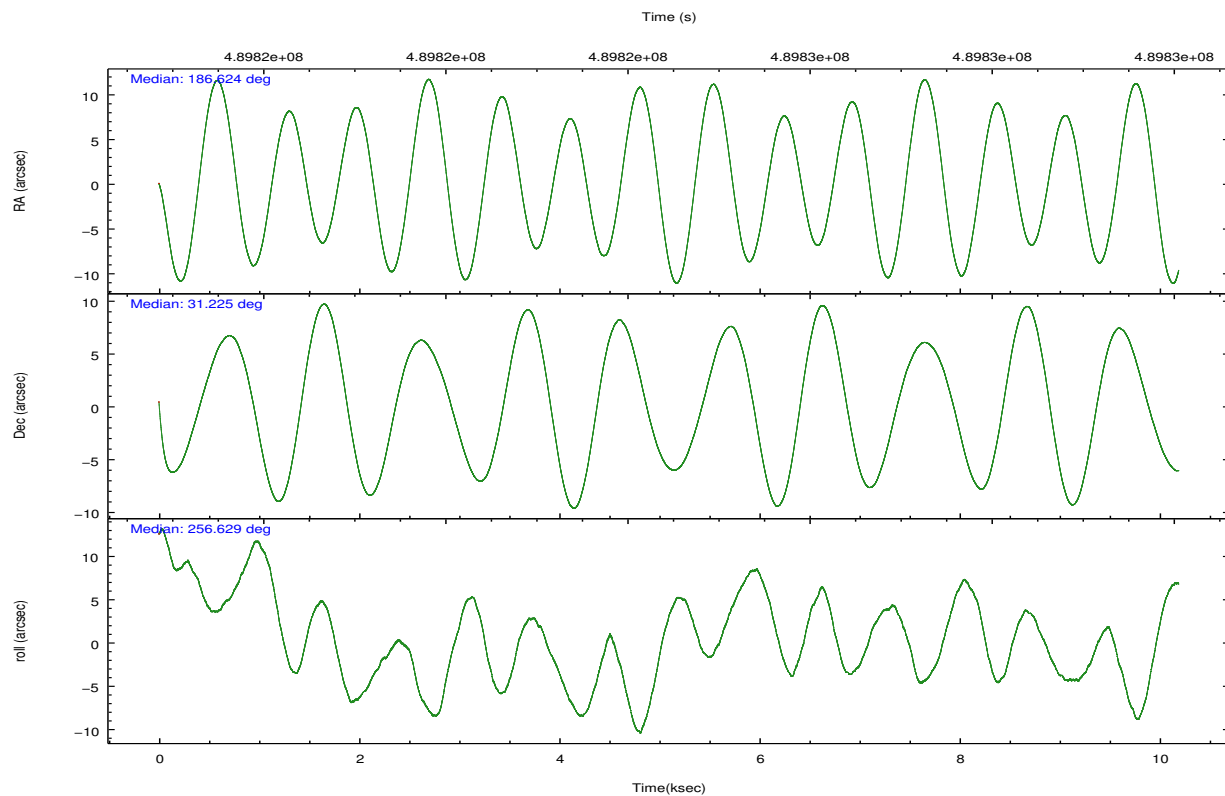


## 2.2 Compared Parameters

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	186.615094	186.6246187091876	Subarray requested	NONE	NONE
[deg] Pointing Dec	31.251222	31.22511239664845	Alternating exposures requested	N	N
[deg] Pointing Roll	256.481764	256.6334410294476	[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)	489819542.184000	489818012.90576			
Observation start date	2013-07-10T04:57:55	2013-07-10T04:33:32			
[s] Observation end time (MET)	489829542.184000	489830151.98142			
Observation end date	2013-07-10T07:44:35	2013-07-10T07:55:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect



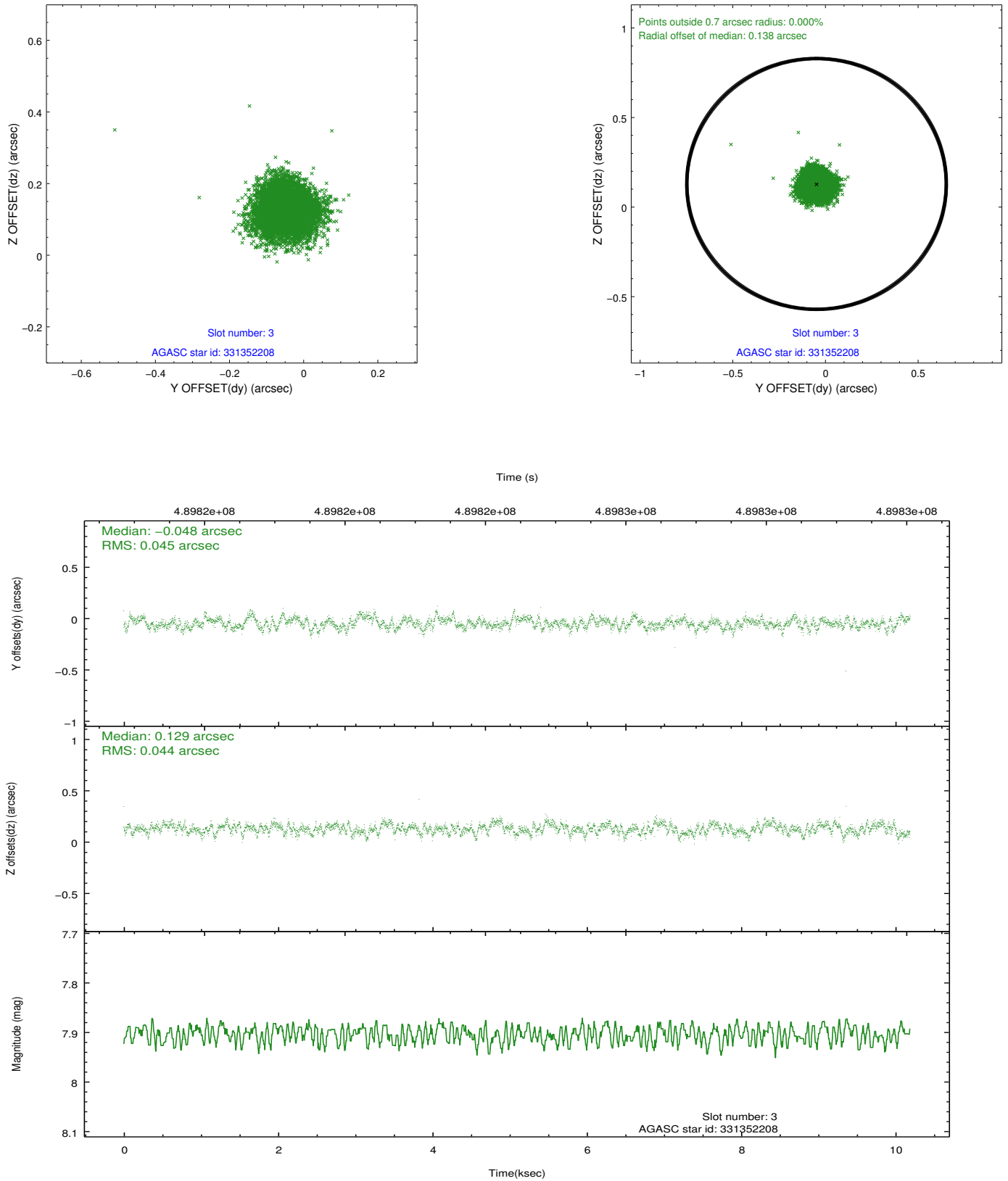


### Slot Statistics

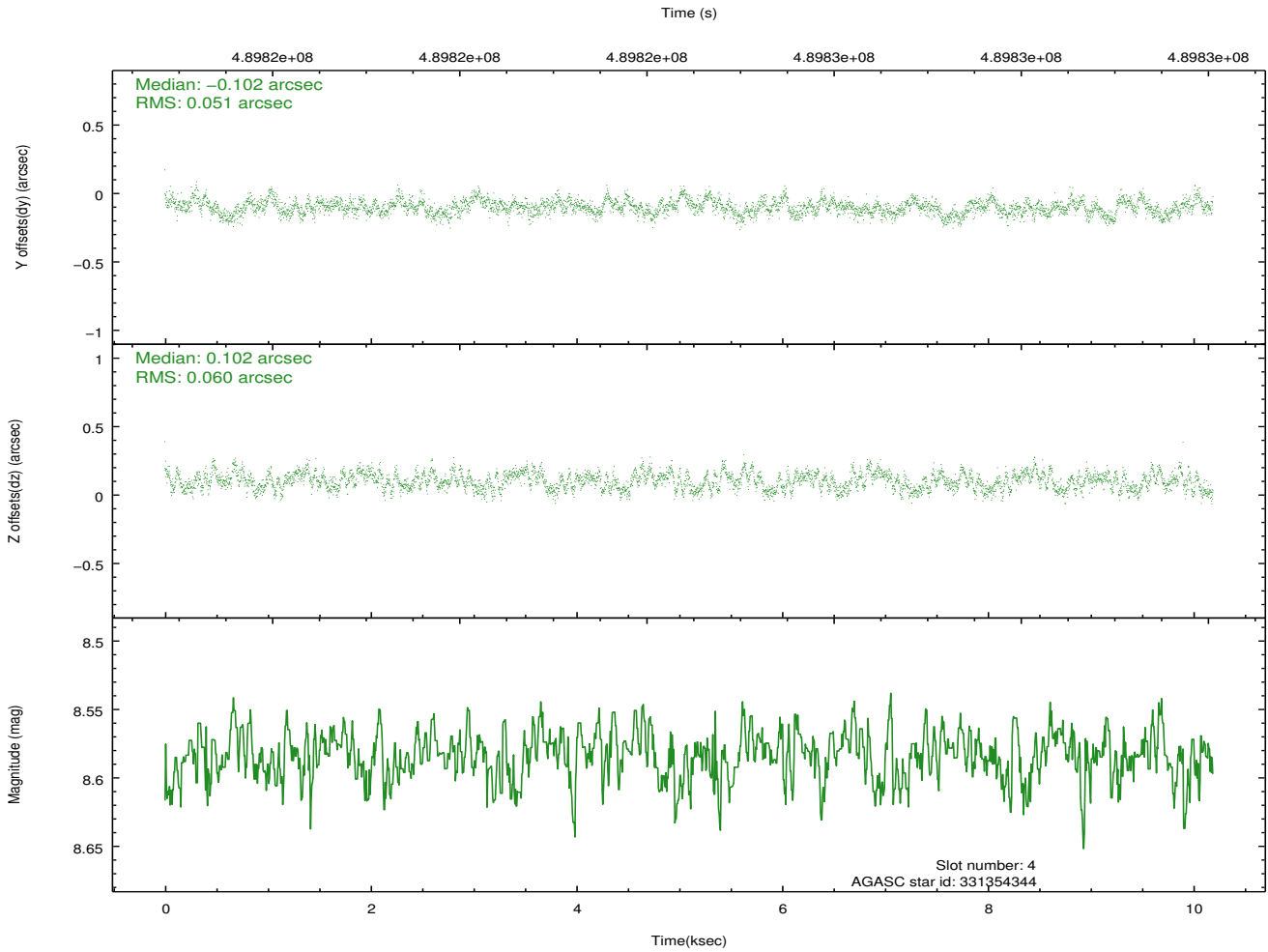
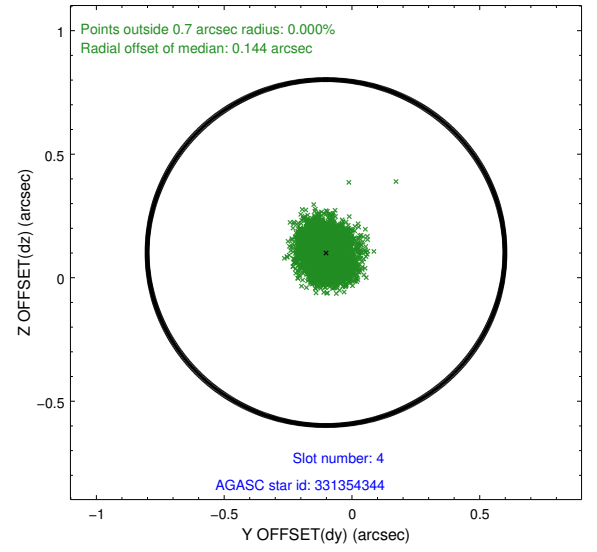
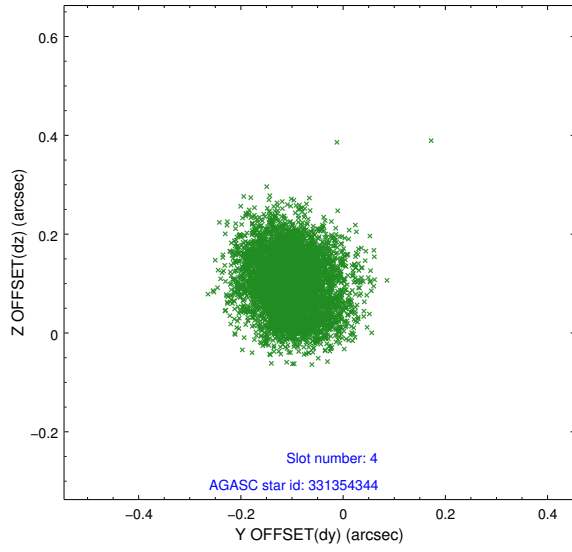
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.85	2486	-0.119	-0.014	0.007	0.012	0.000000	0.000000	-775.22	-1741.12
1	FID		ACIS-S-4	6.93	2486	0.252	0.061	0.010	0.018	0.000000	0.000000	2138.17	166.93
2	FID		ACIS-S-5	6.96	2486	-0.164	-0.038	0.009	0.016	0.000000	0.000000	-1827.47	161.05
3	GUIDE	used	331352208	7.90	4972	-0.048	0.129	0.067	0.106	186.216521	31.823159	-1718.23	-1666.02
4	GUIDE	used	331354344	8.58	4971	-0.102	0.102	0.086	0.133	186.327107	31.864251	-1936.84	-1375.88
5	GUIDE	used	331354424	8.79	4972	-0.027	-0.088	0.102	0.163	186.124806	31.280357	247.70	-1494.27
6	GUIDE	used	331354520	9.85	4964	-0.164	-0.006	0.135	0.222	187.123469	31.673606	-1845.84	1157.10
7	GUIDE	used	331354016	8.56	4956	0.345	-0.153	0.163	0.266	185.691721	30.800938	2232.56	-2399.10

## 2.4 Star Slots

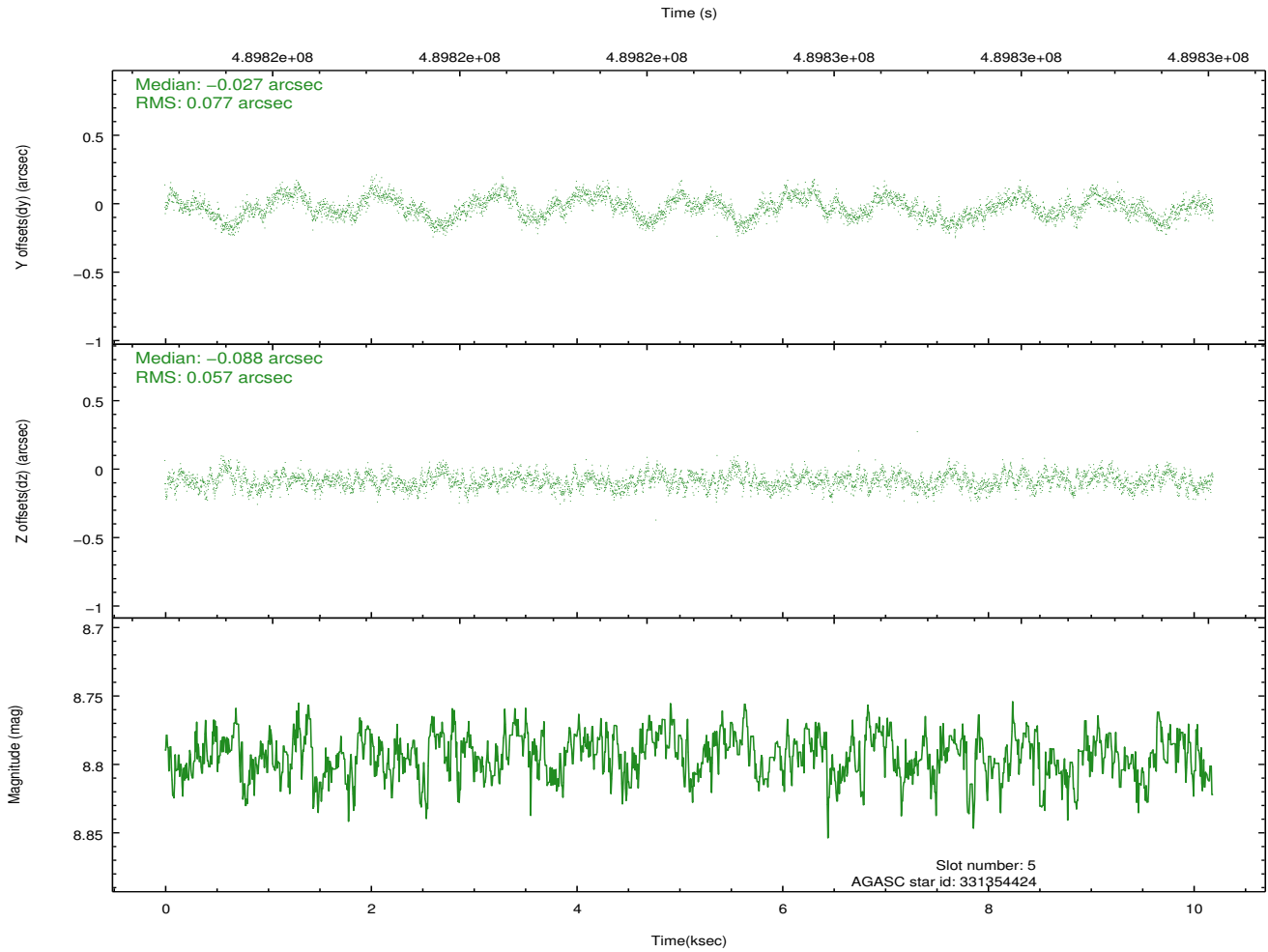
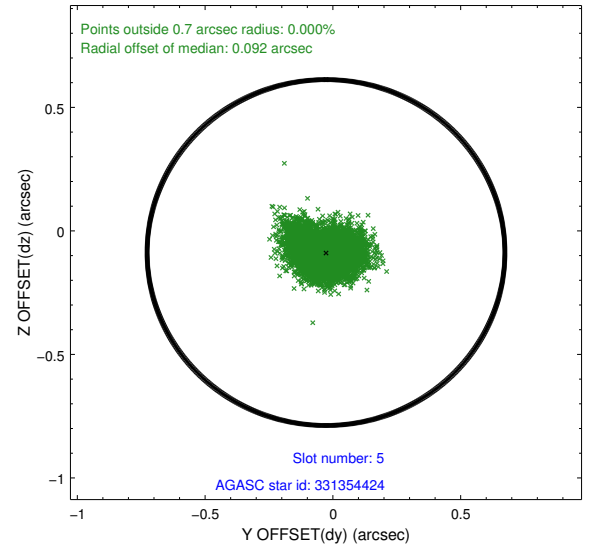
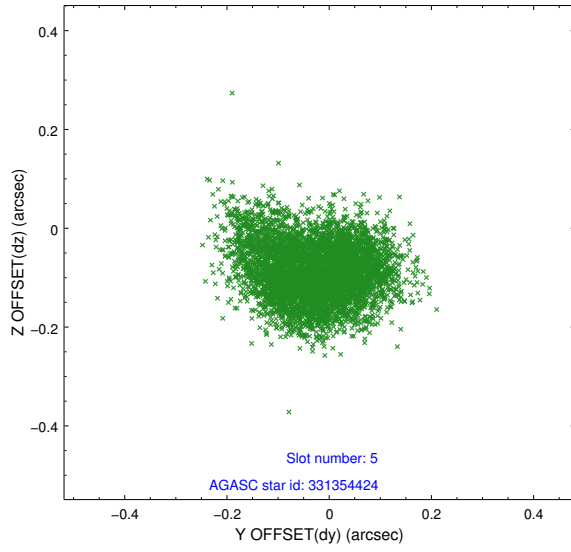
### 2.4.1 Slot 3



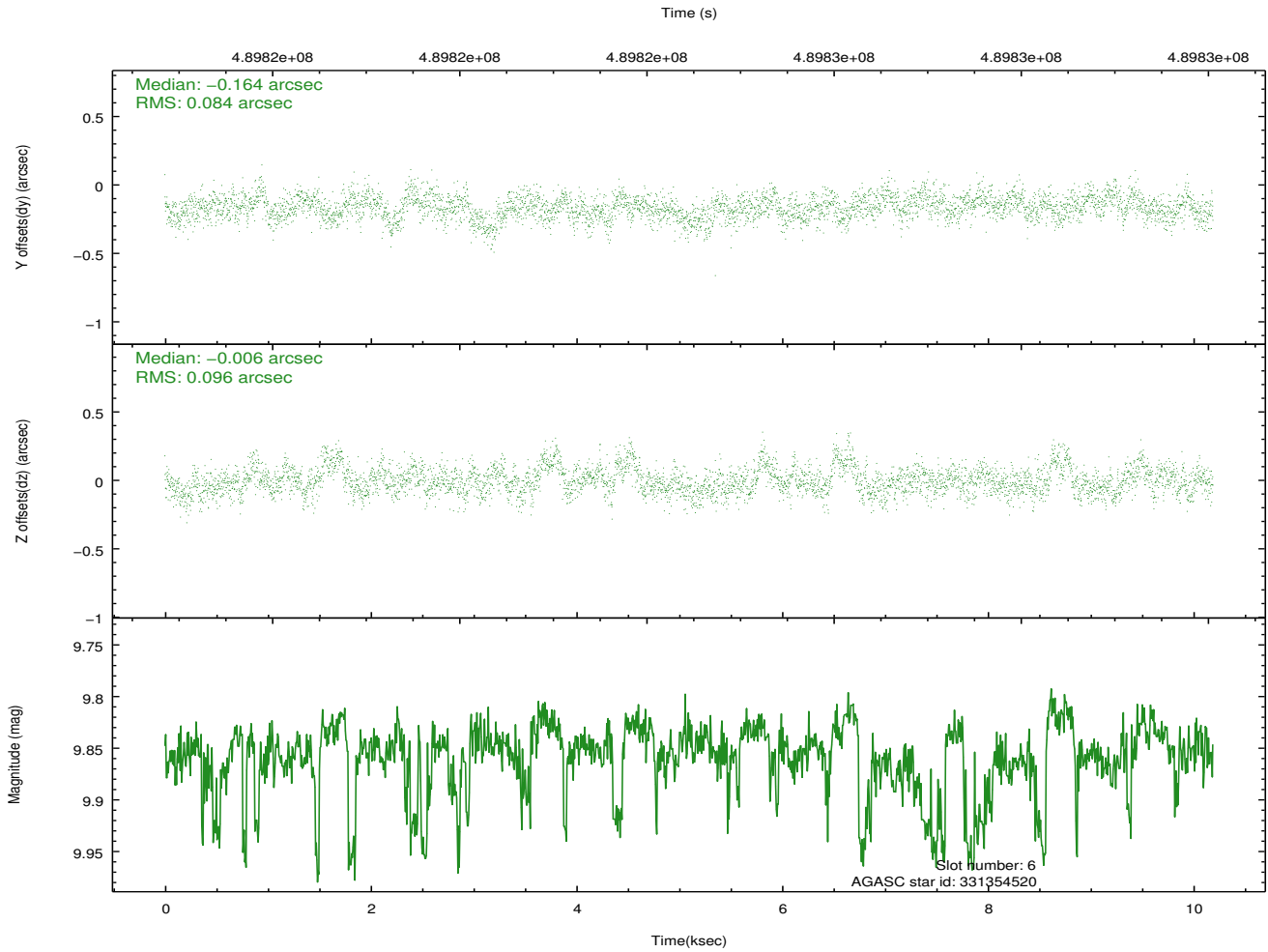
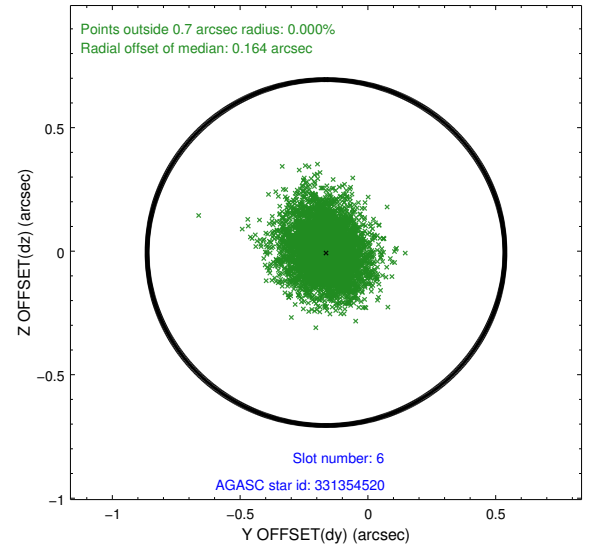
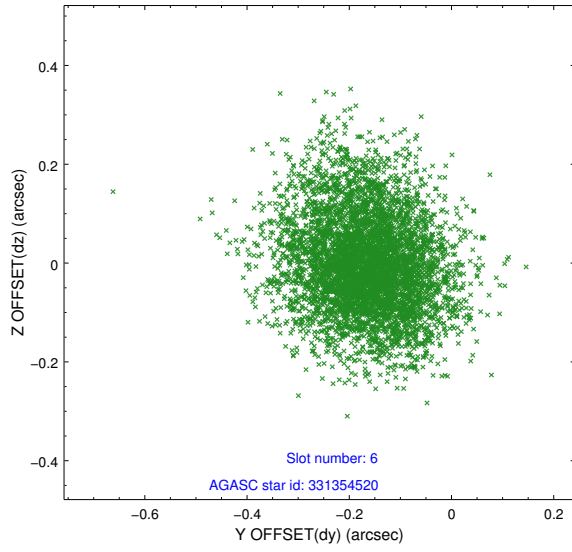
## 2.4.2 Slot 4



### 2.4.3 Slot 5

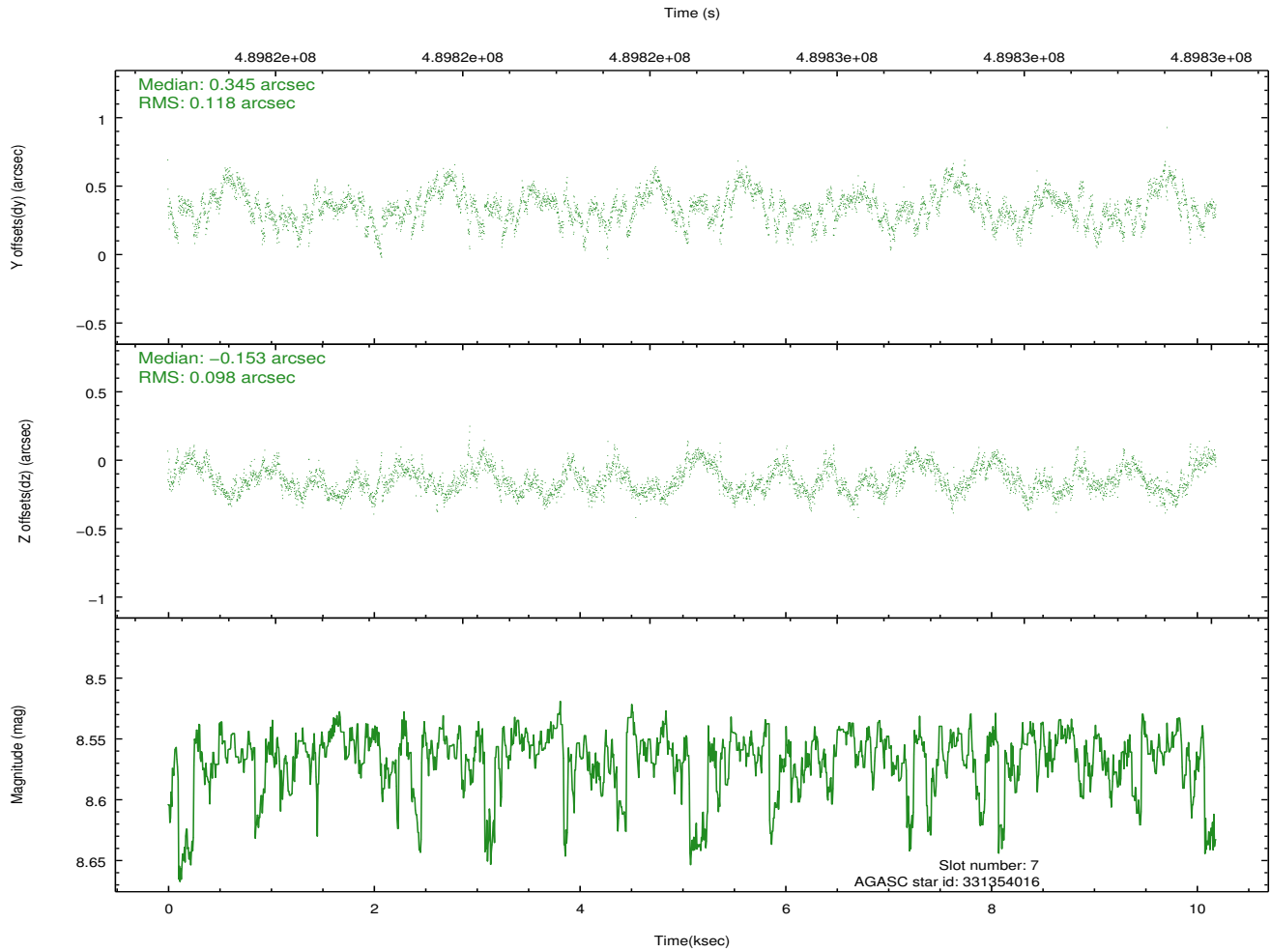
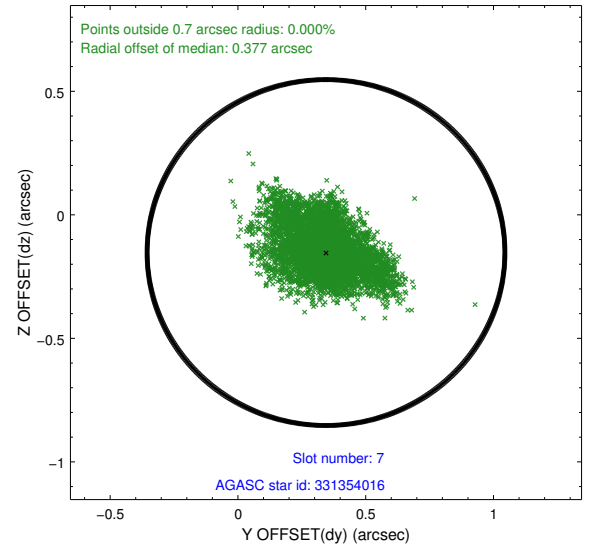
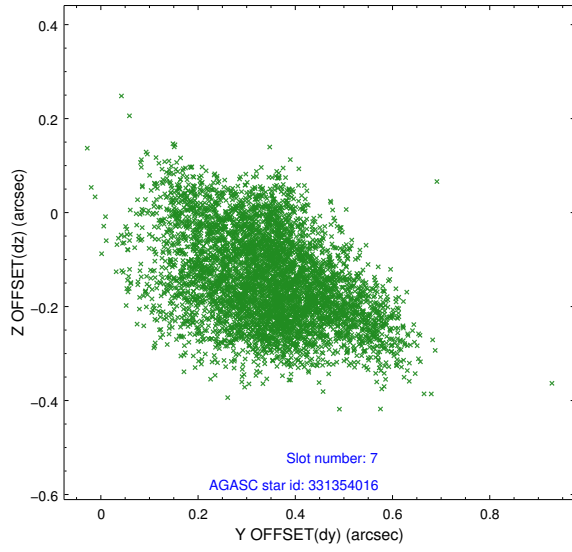


## 2.4.4 Slot 6



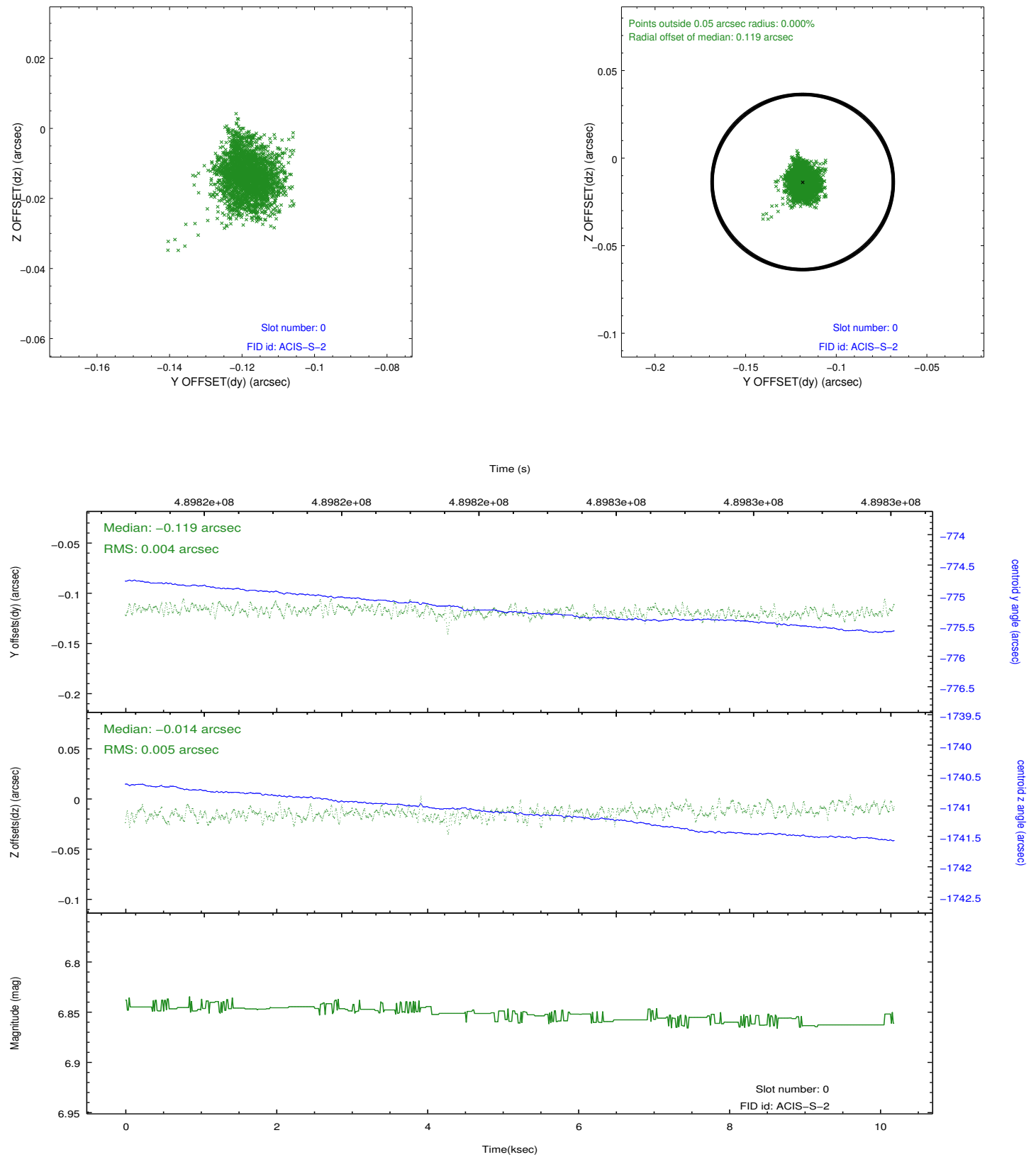


## 2.4.5 Slot 7

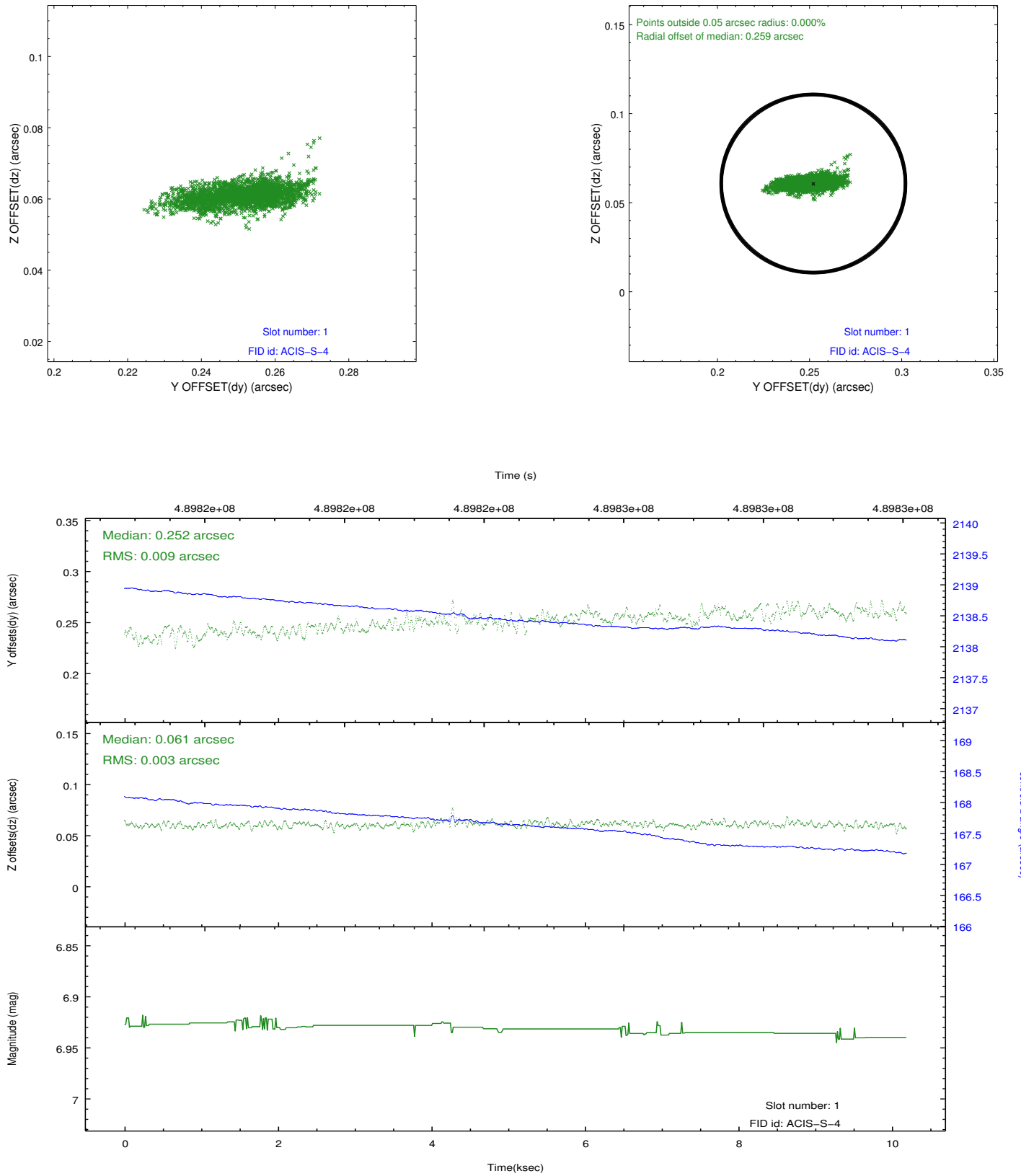


## 2.5 FID Slots

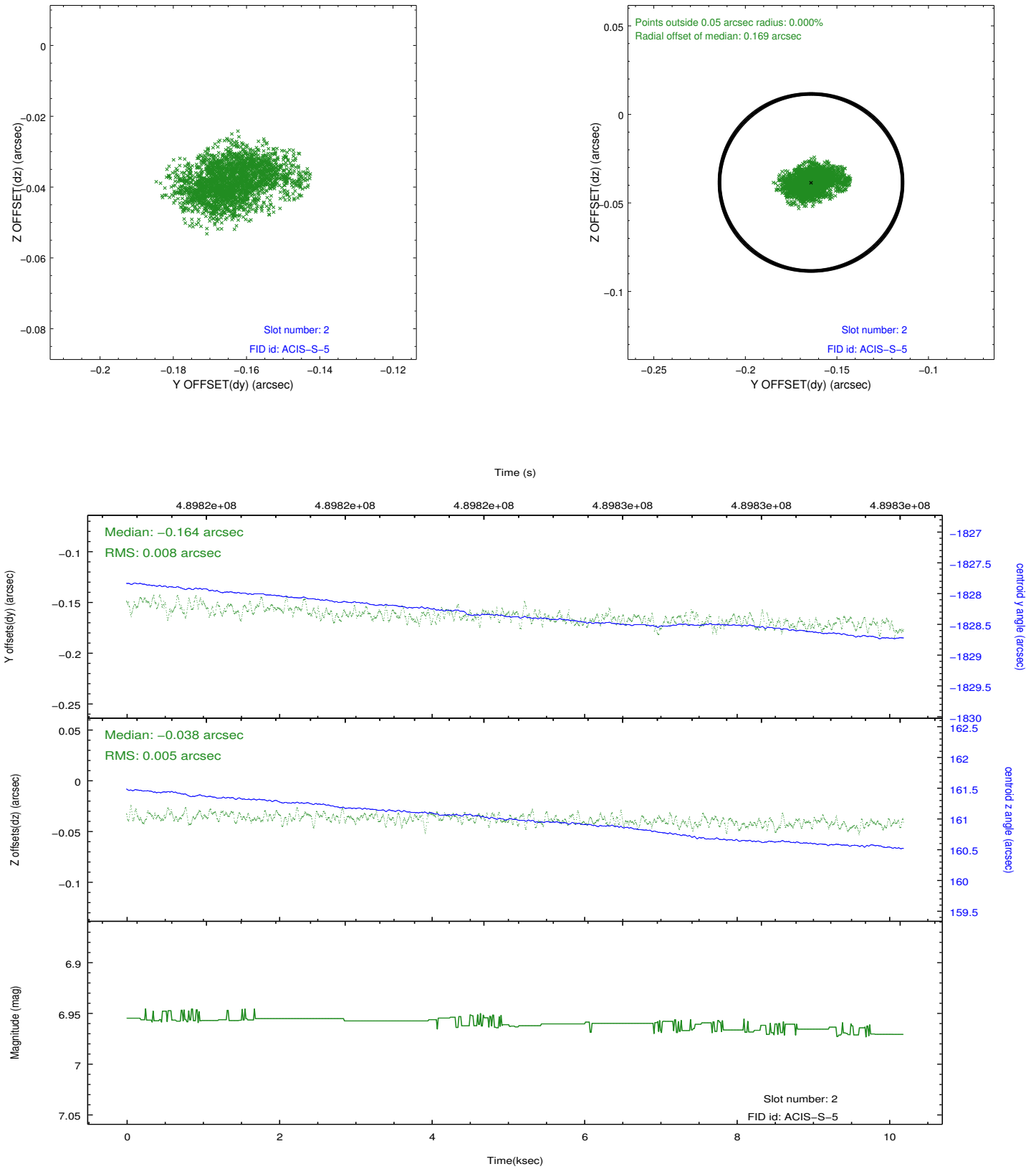
### 2.5.1 Slot 0



## 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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.06741908747

## 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.