

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14994 - L2 Version 2  
Chandra X-Ray Center

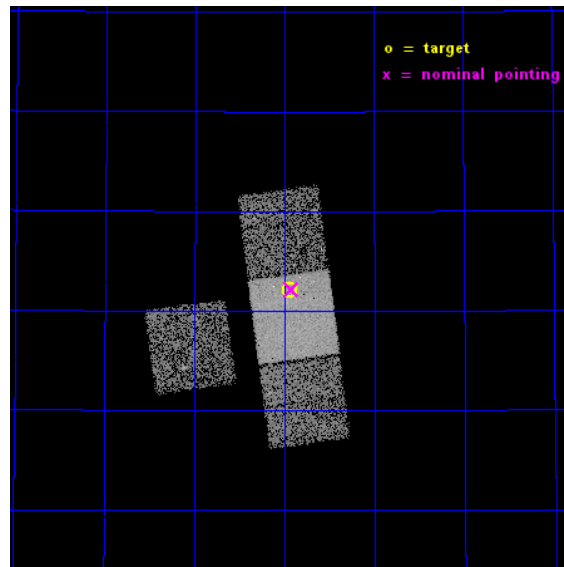
L2 Processing Date : Dec 3 2014

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# 1 Front

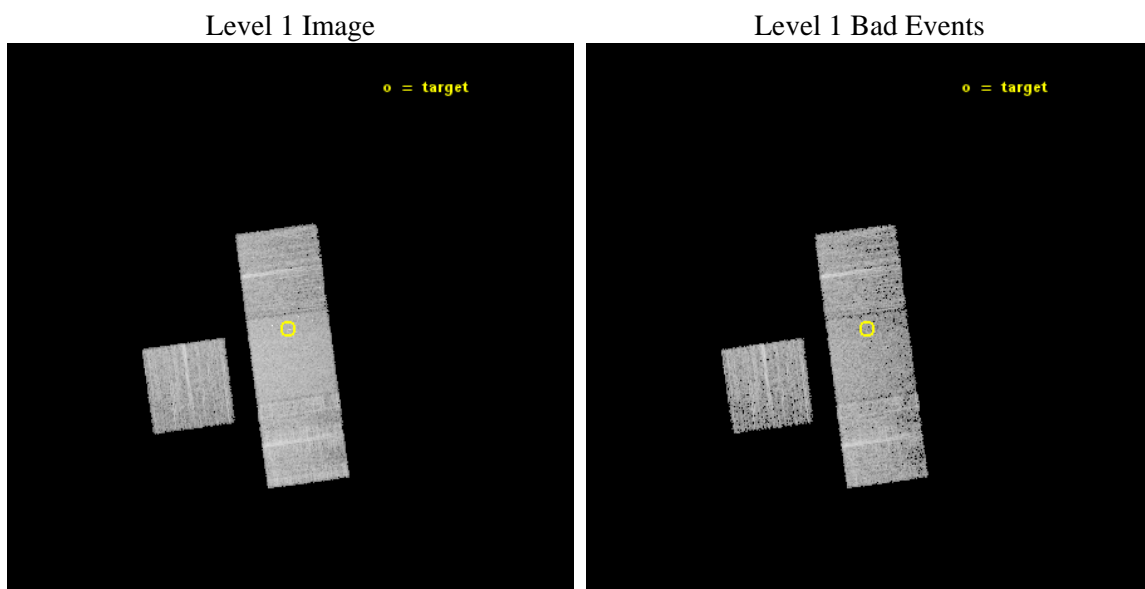
seq_num	702802	Sequence number
obs_id	14994	Observation id
title	The Herschel Legacy of powerful 3C radio galaxies and quasars II: observing Proposal.	Proposal title
observer	Dr Joanna Kuraszkiewicz	Principal investigator
object	3C22	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	12.734583	Observer's specified target RA [deg]
dec_targ	51.200833	Observer's specified target Dec [deg]
ra_nom	12.730904400313	Nominal RA [deg]
dec_nom	51.202754642282	Nominal Dec [deg]
roll_nom	82.344293413573	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9476.5509607196	Sum of GTIs [s]
livetime	9352.7328458825	Livetime [s]
ontime3	9476.468880713	Sum of GTIs [s]
ontime6	9476.5099207163	Sum of GTIs [s]
ontime7	9476.5509607196	Sum of GTIs [s]
ontime8	9476.4278407097	Sum of GTIs [s]
l2events	41902	Number of level 2 events



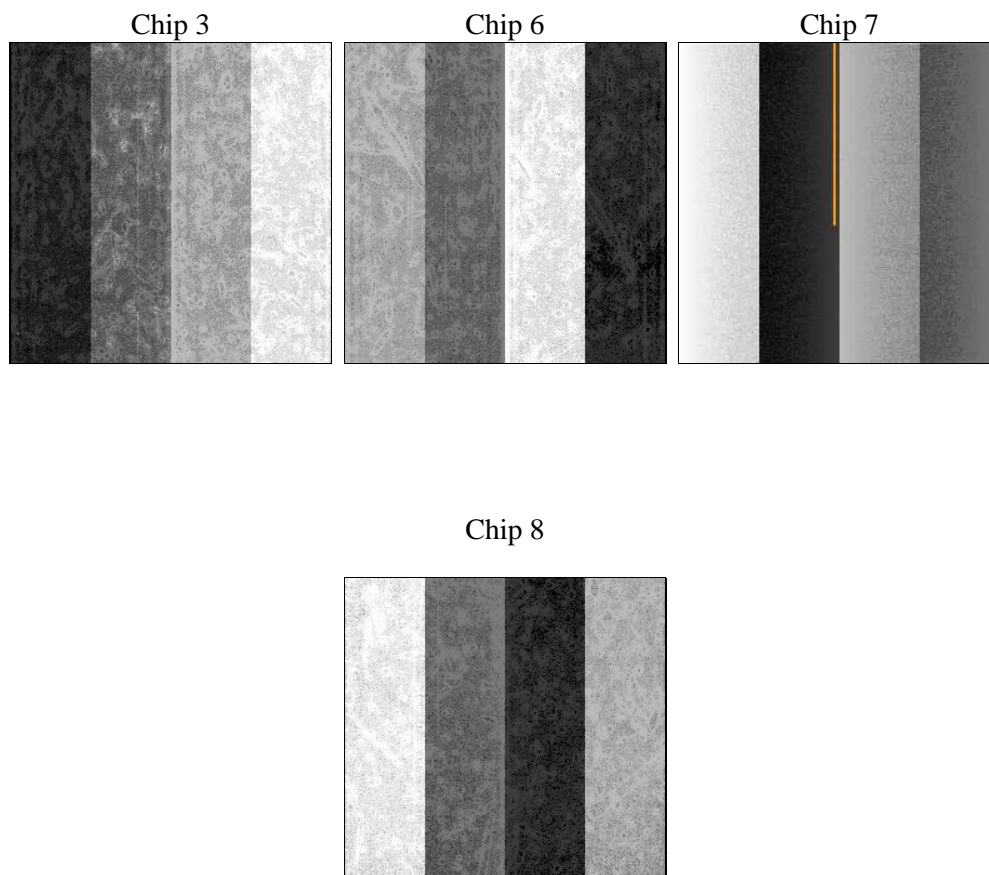
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9400.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	9476.5509607196	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime3	9476.468880713	Sum of GTIs [s]
date	2014-12-03T12:13:07	Date and time of file creation	ontime6	9476.5099207163	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	9476.5509607196	Sum of GTIs [s]
			ontime8	9476.4278407097	Sum of GTIs [s]
			l1events	210534	Number of level 1 events

### 2.1.4 Events

	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	43748	43882	62243	60661
rejected events	38687	38339	35062	44726
rejected %	88%	87%	56%	73%

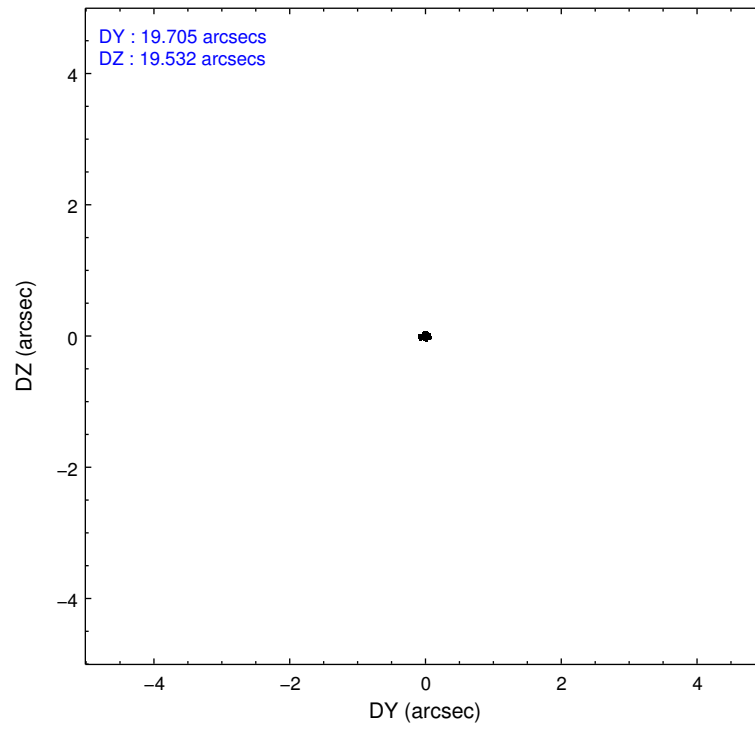
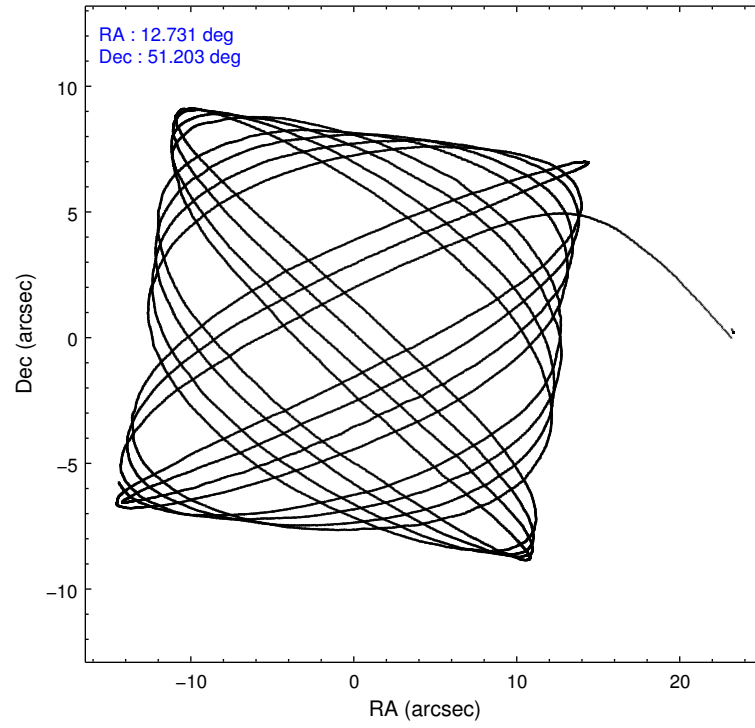
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1805	1888	2454	4889
	4%	4%	3%	8%
grade 1 events	23	24	99	36
	0%	0%	0%	0%
grade 2 events	1122	1252	5743	3582
	2%	2%	9%	5%
grade 3 events	525	553	2343	1760
	1%	1%	3%	2%
grade 4 events	556	569	2234	1585
	1%	1%	3%	2%
grade 5 events	2350	2340	6426	3416
	5%	5%	10%	5%
grade 6 events	1055	1289	14424	4146
	2%	2%	23%	6%
grade 7 events	36312	35967	28520	41247
	83%	81%	45%	67%

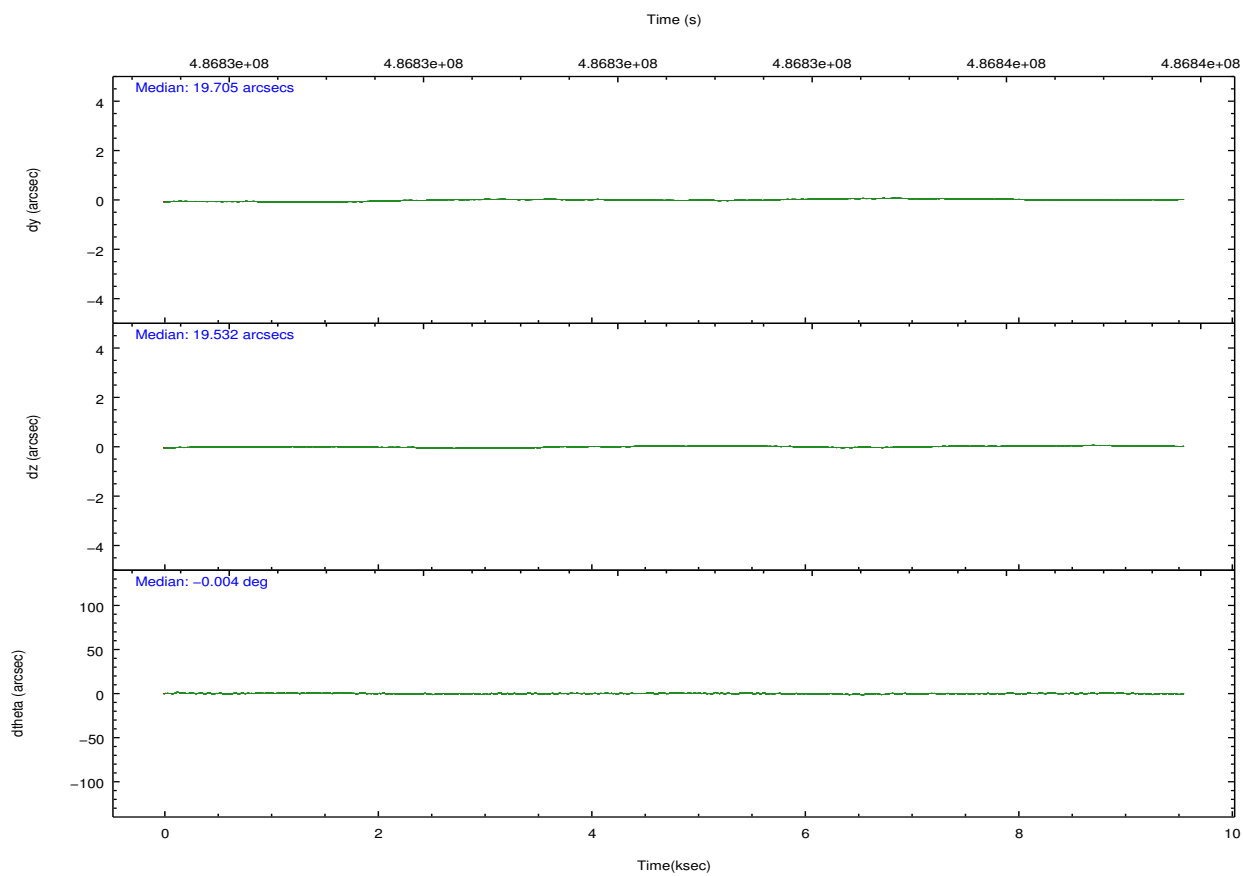
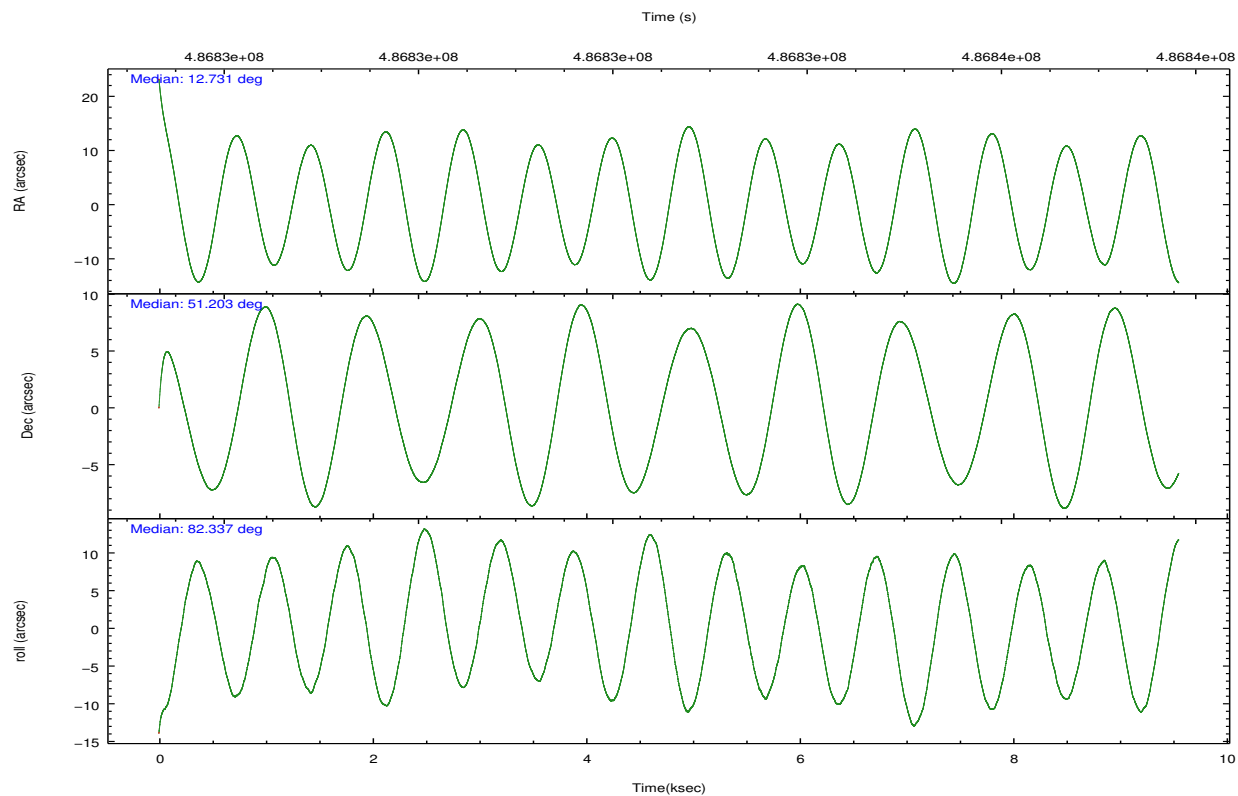


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3678	ACIS-3678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	12.748026	12.73090440031339	CCD I2 on	N	N
[deg] Pointing Dec	51.177637	51.20275464228222	CCD I3 on	O1	Y
[deg] Pointing Roll	82.174329	82.344293413573	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O3	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O2	Y
[s] Observation start time (MET)	486827952.184000	486826637.36827	CCD S5 on	N	N
Observation start date	2013-06-05T13:58:05	2013-06-05T13:37:17	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	486837352.184000	486838163.4939	On-chip summing requested	N	N
Observation end date	2013-06-05T16:34:45	2013-06-05T16:49:23	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



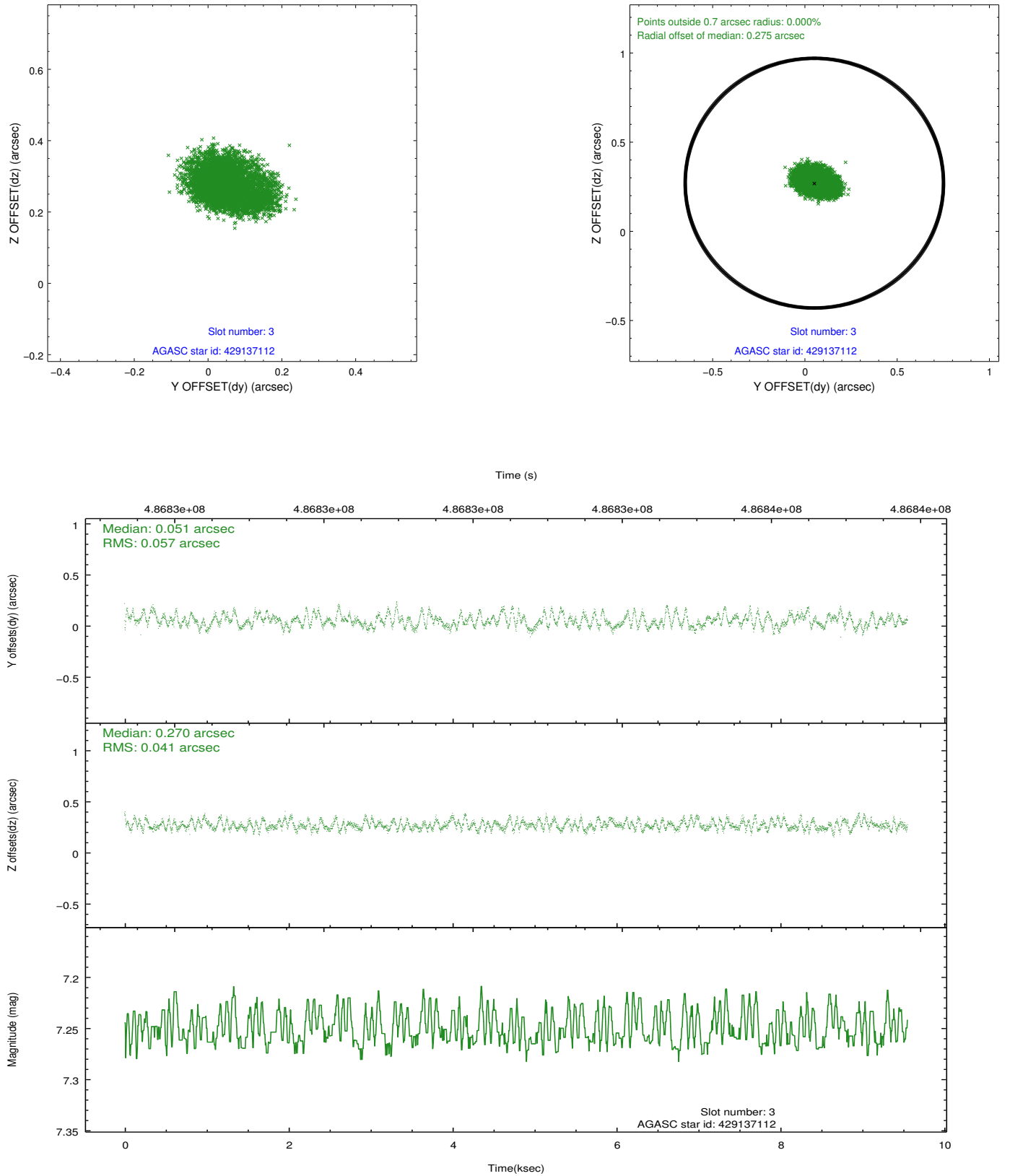


### Slot Statistics

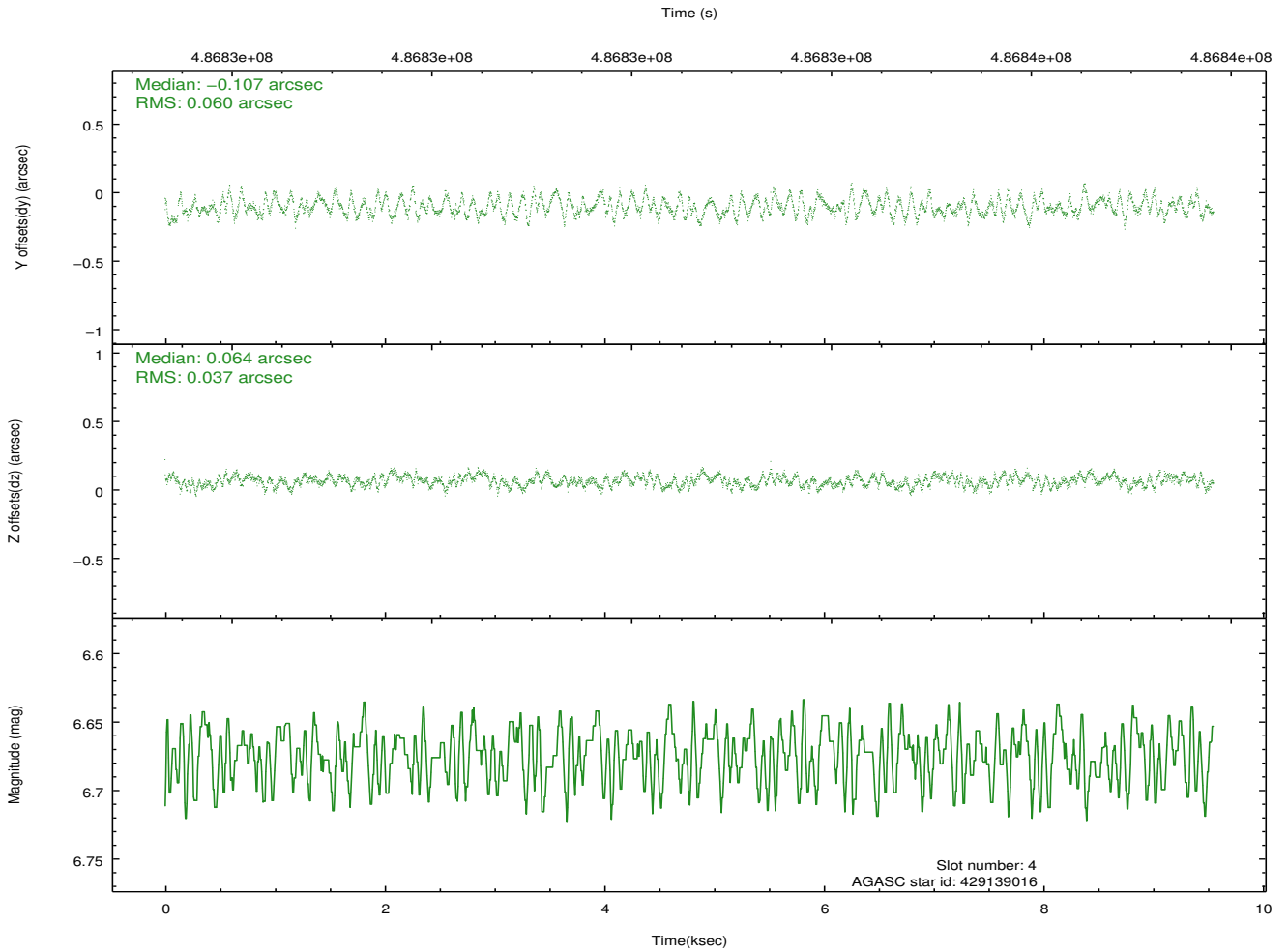
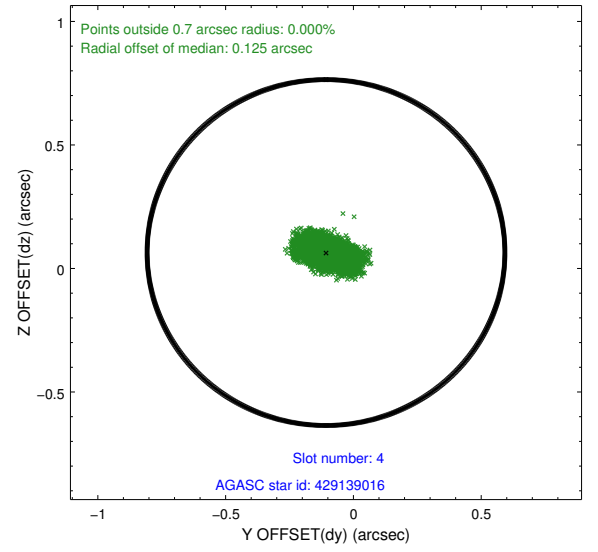
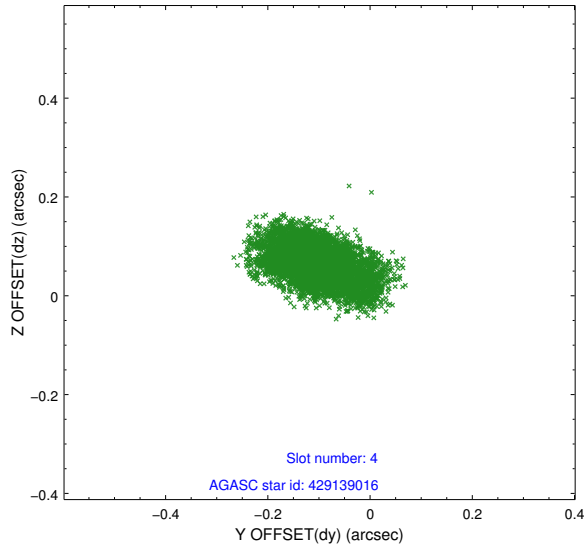
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	2331	-0.117	-0.008	0.007	0.011	0.000000	0.000000	-772.93	-1740.98
1	FID		ACIS-S-4	7.01	2331	0.223	0.059	0.005	0.010	0.000000	0.000000	2140.45	166.96
2	FID		ACIS-S-5	7.04	2330	-0.137	-0.042	0.006	0.010	0.000000	0.000000	-1825.05	161.20
3	GUIDE	used	429137112	7.25	4661	0.051	0.270	0.075	0.119	12.977030	50.774637	-1365.27	-713.87
4	GUIDE	used	429139016	6.67	4661	-0.107	0.064	0.075	0.123	12.890778	51.571430	1448.15	-123.12
5	GUIDE	used	429139912	7.99	4661	0.021	0.162	0.074	0.119	12.916577	51.199960	132.33	-365.23
6	GUIDE	used	429146056	7.31	4661	0.013	-0.272	0.070	0.112	11.852470	51.096026	-554.85	1967.53
7	GUIDE	used	429144864	7.63	4660	0.012	-0.231	0.071	0.111	11.876300	51.100045	-533.48	1915.89

## 2.4 Star Slots

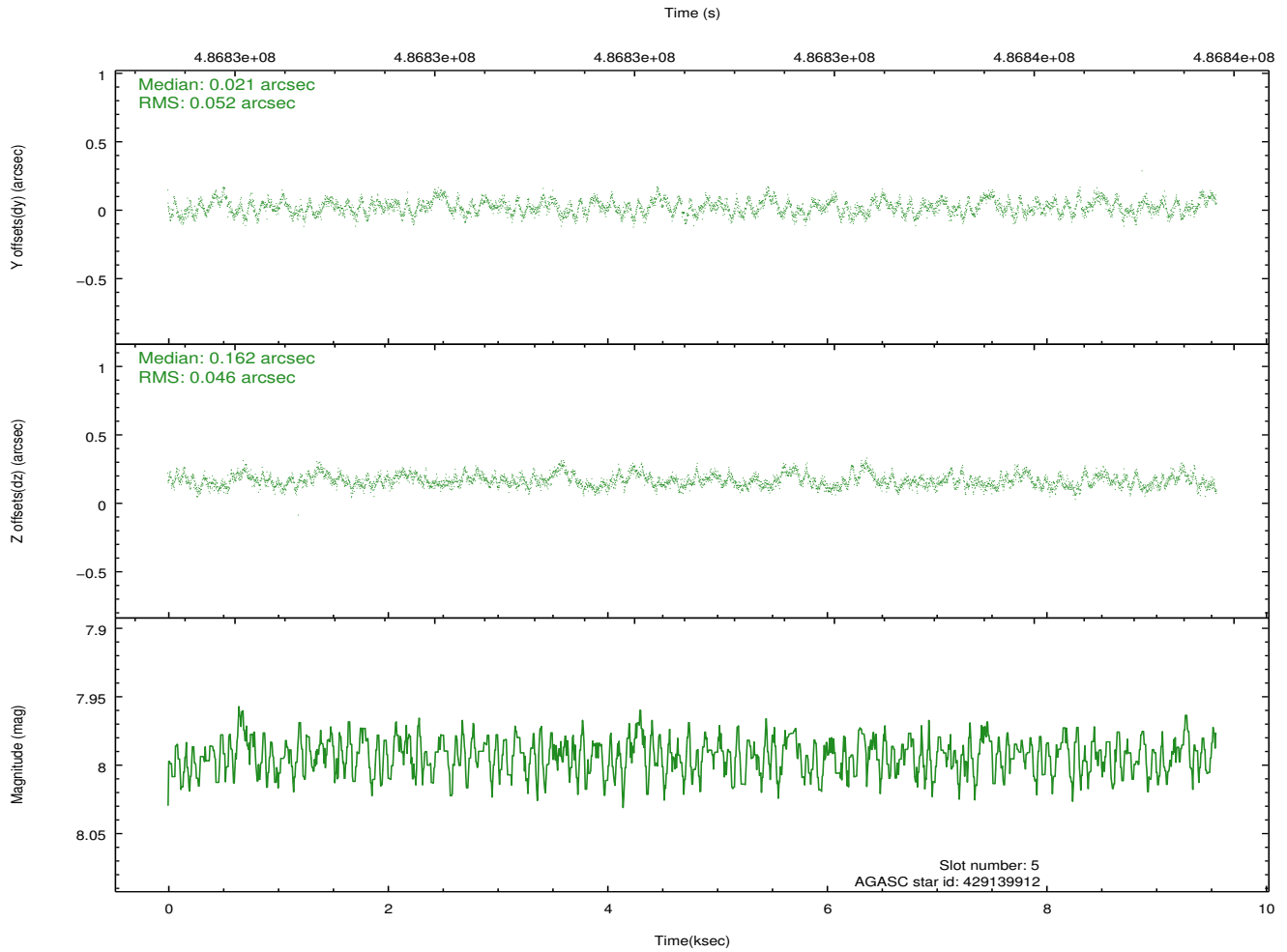
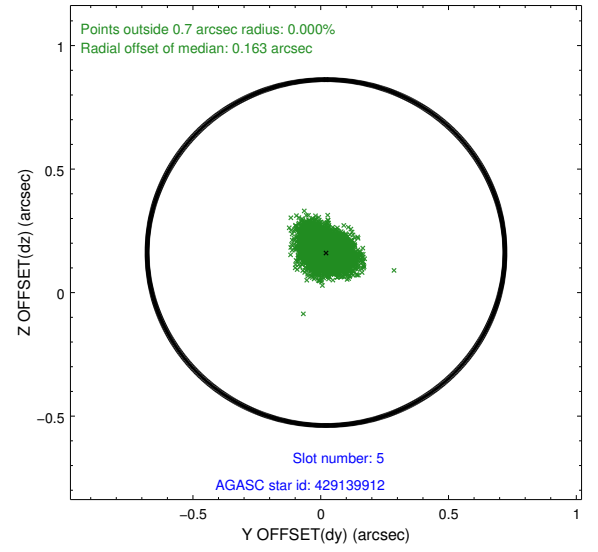
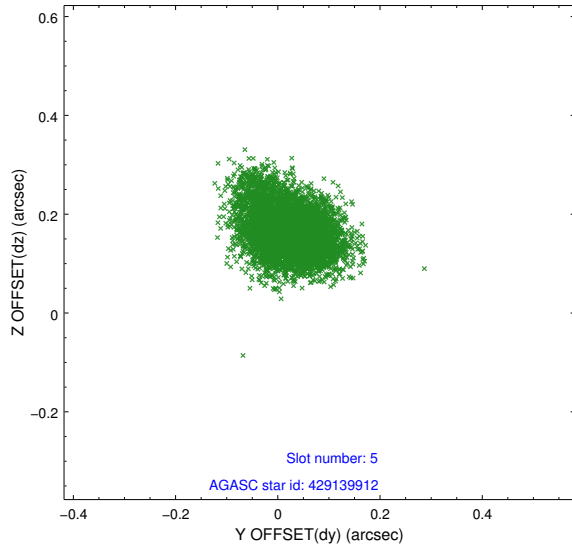
### 2.4.1 Slot 3



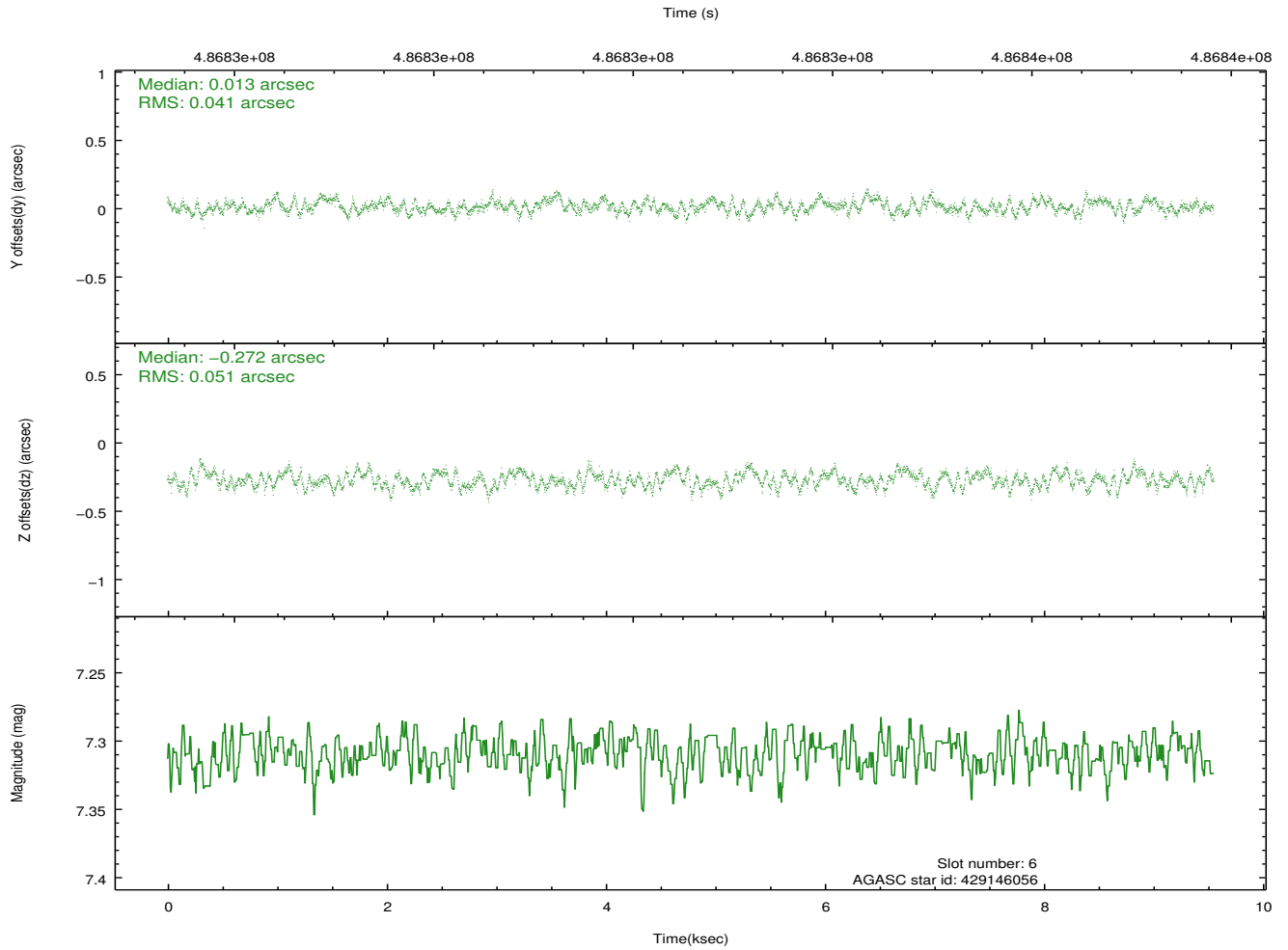
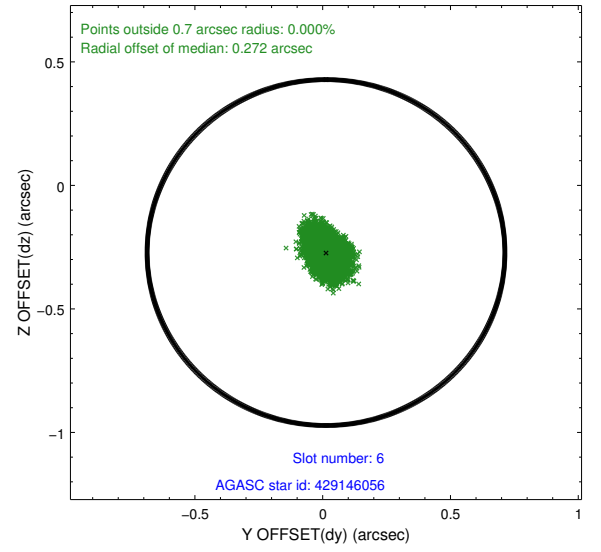
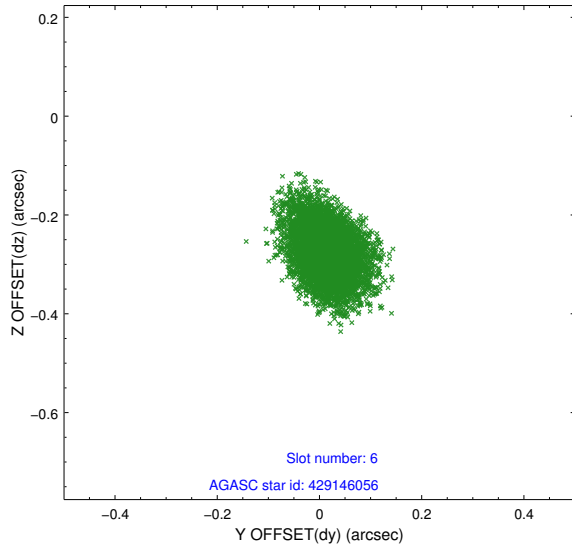
## 2.4.2 Slot 4



### 2.4.3 Slot 5

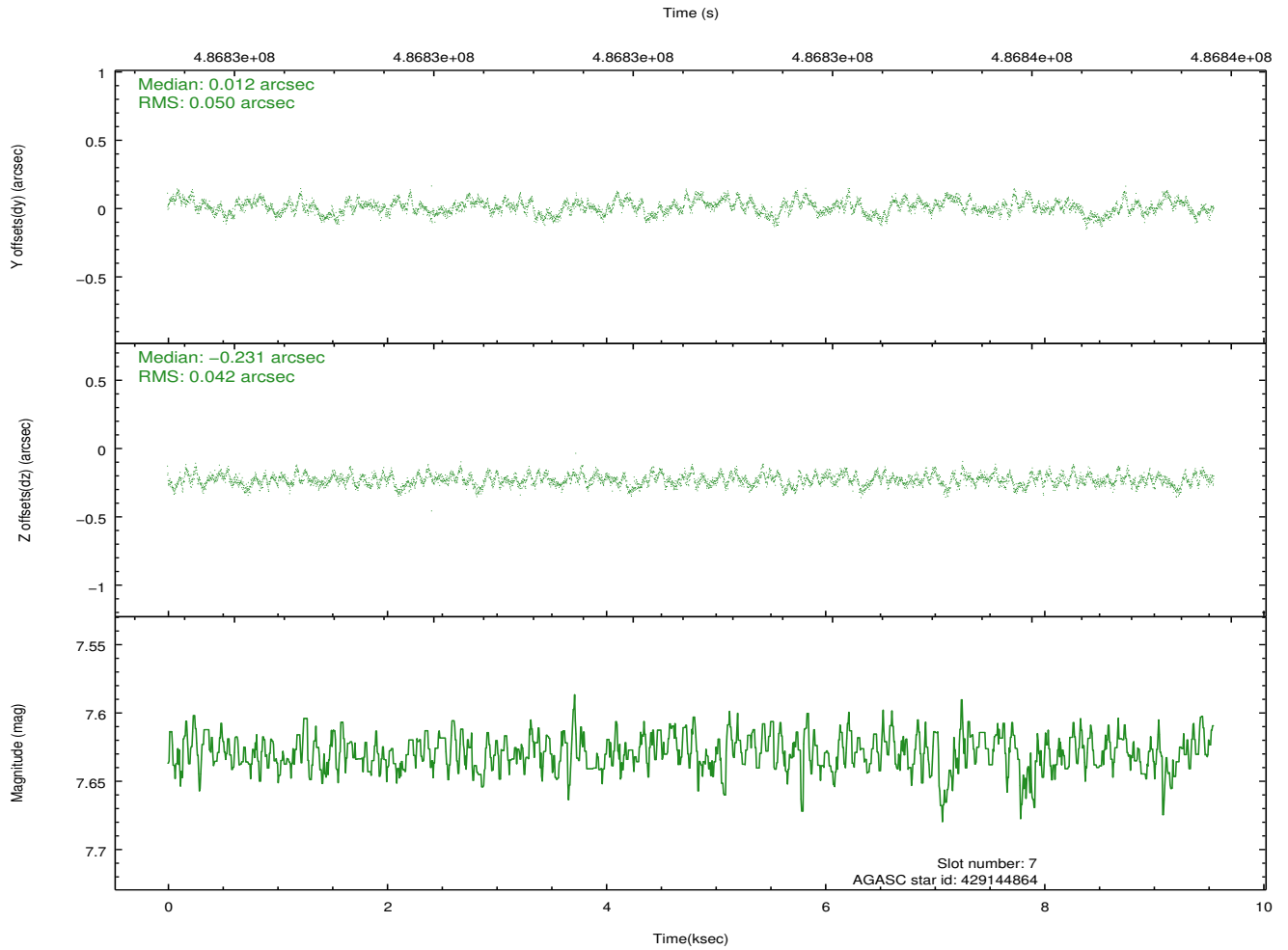
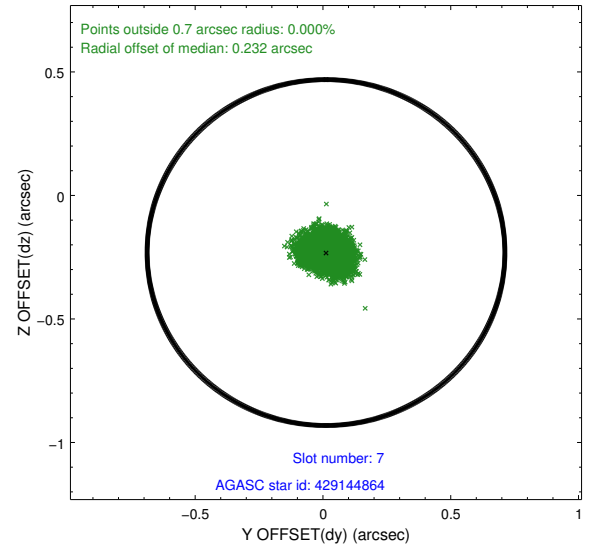
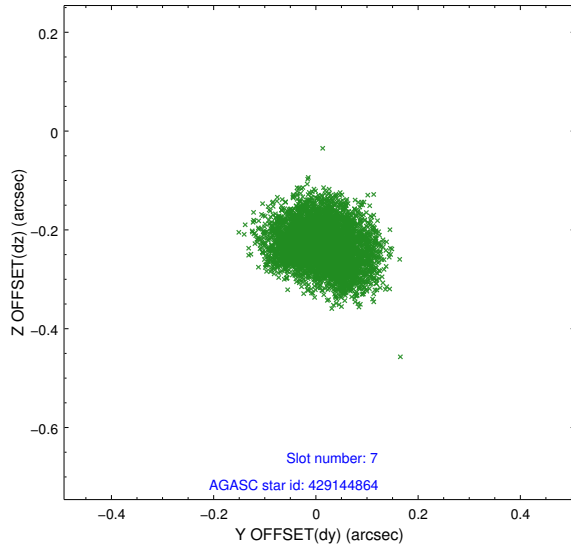


## 2.4.4 Slot 6



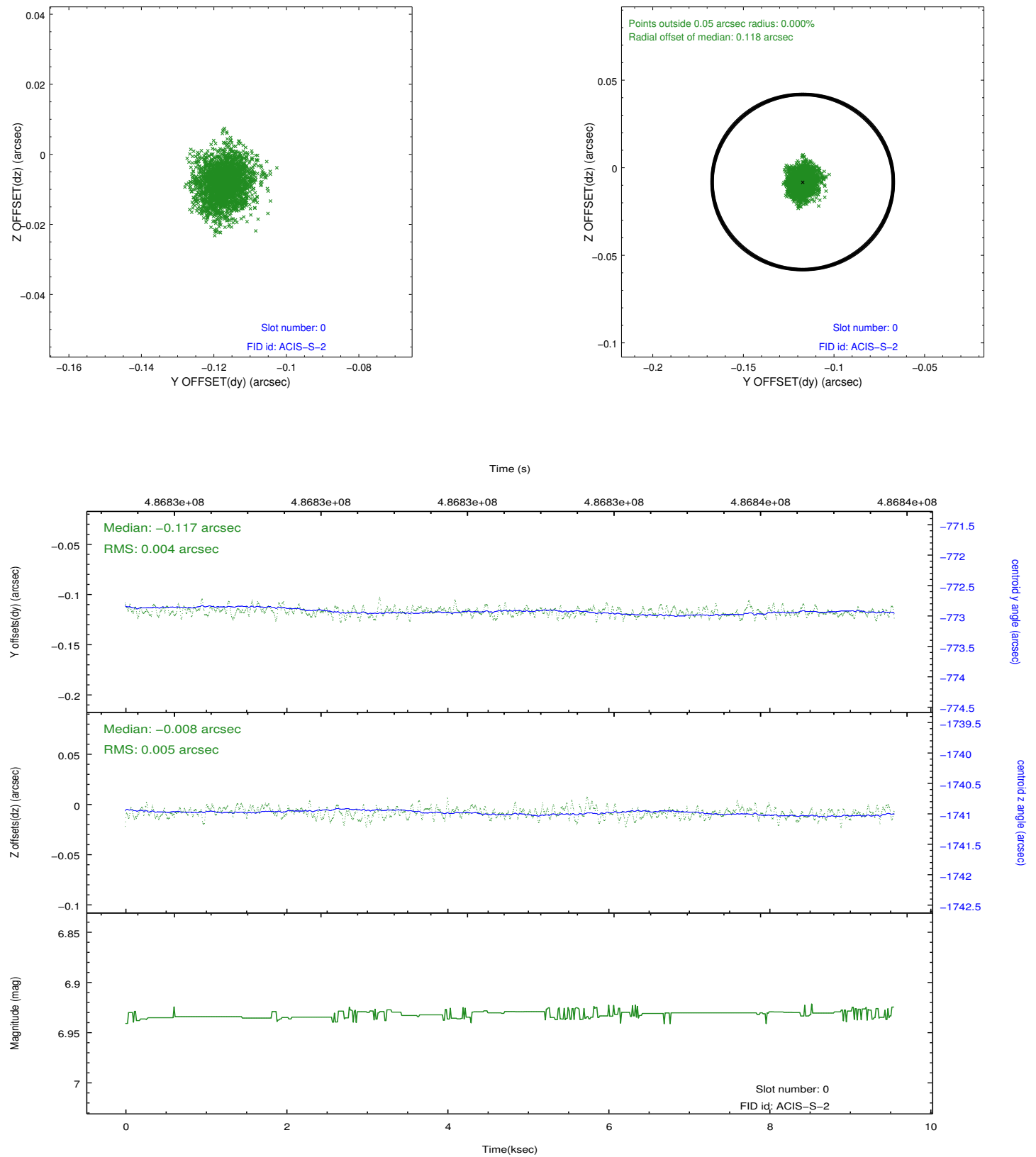


## 2.4.5 Slot 7

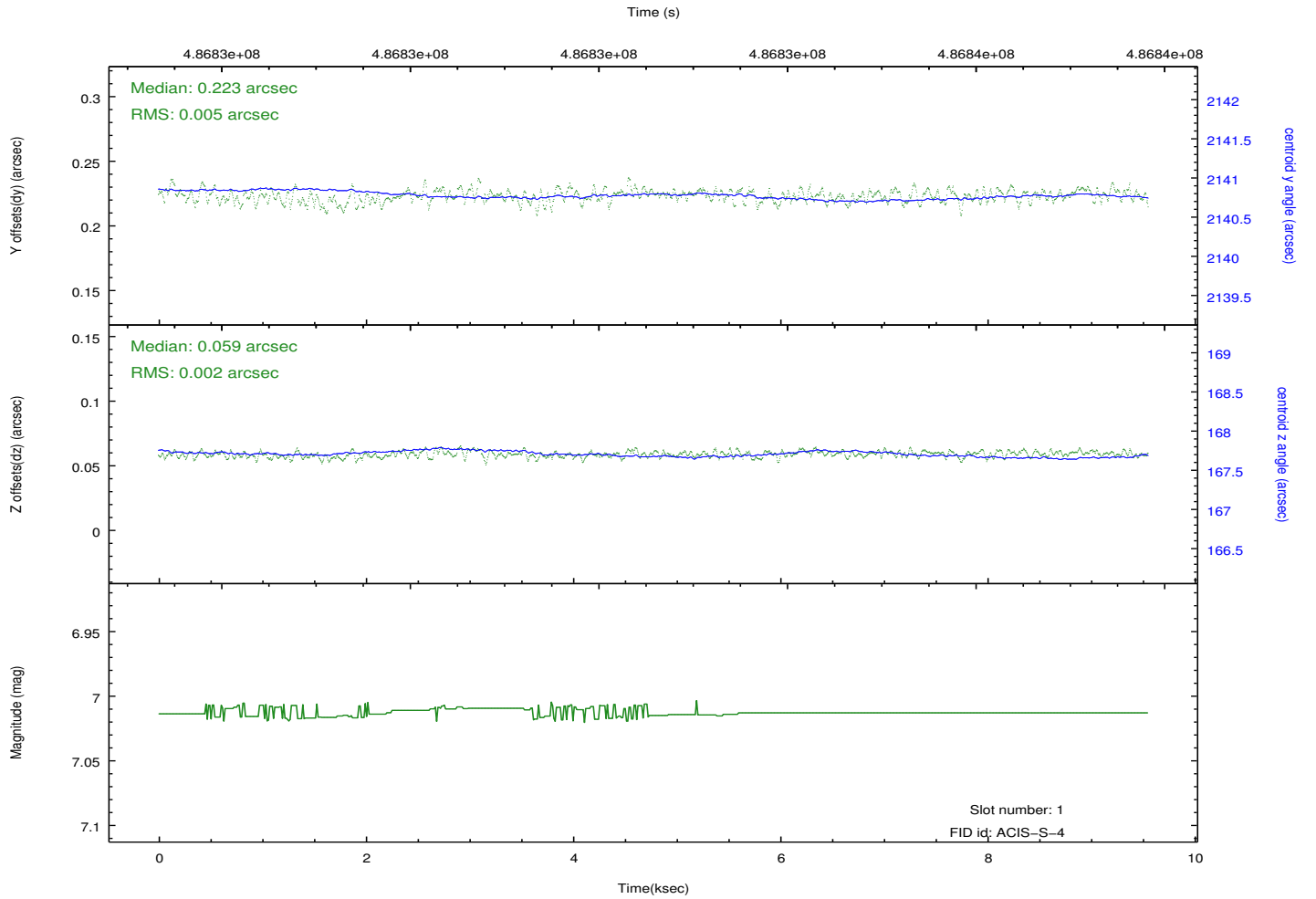
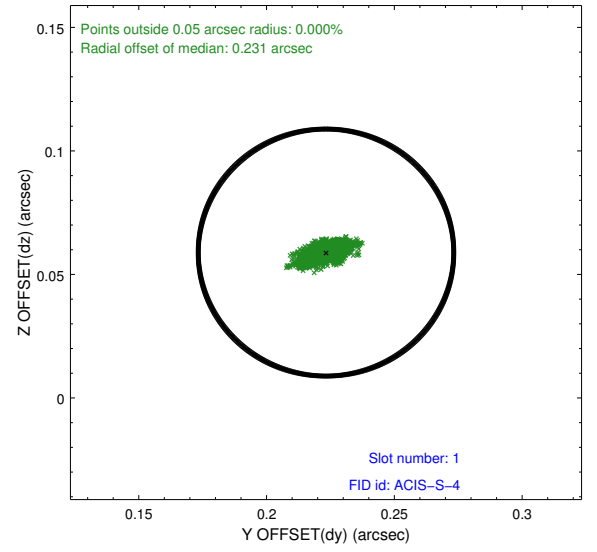
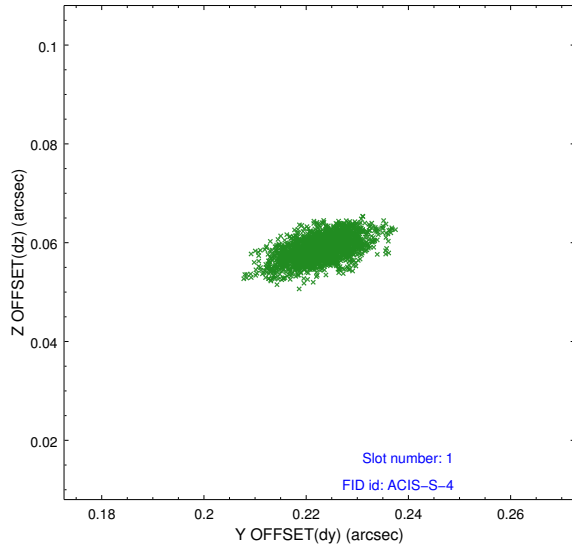


## 2.5 FID Slots

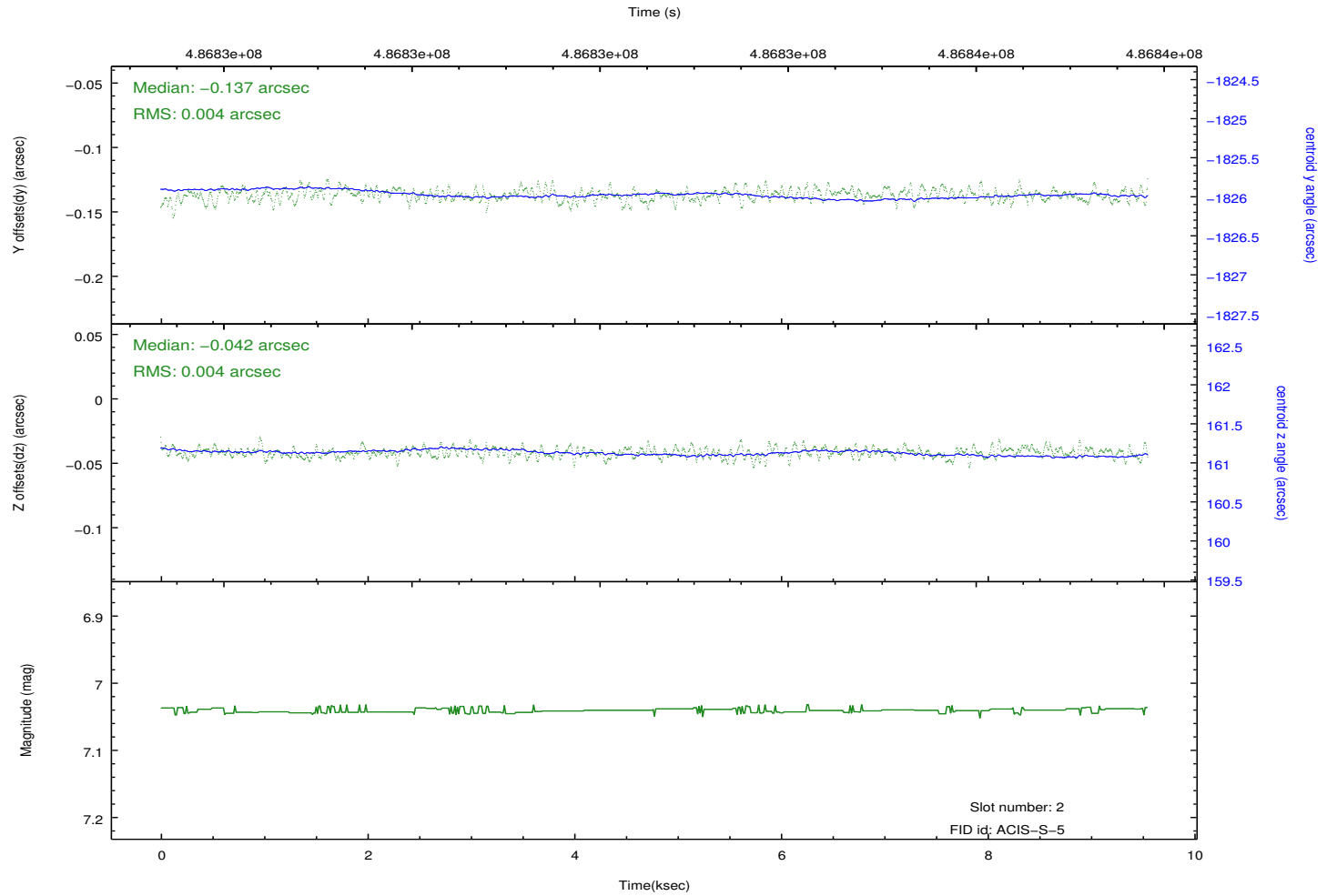
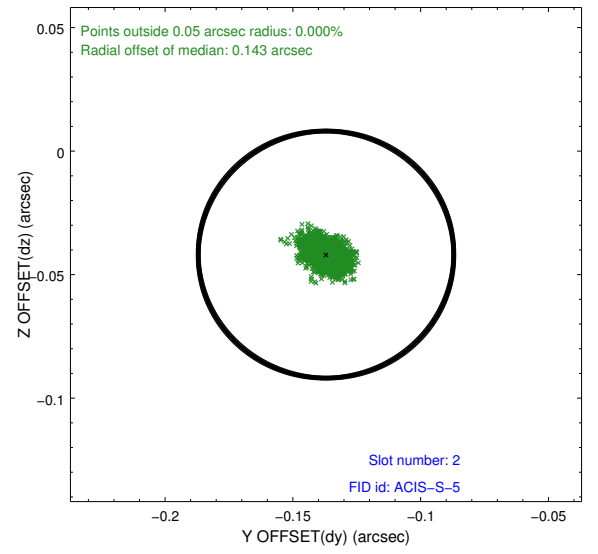
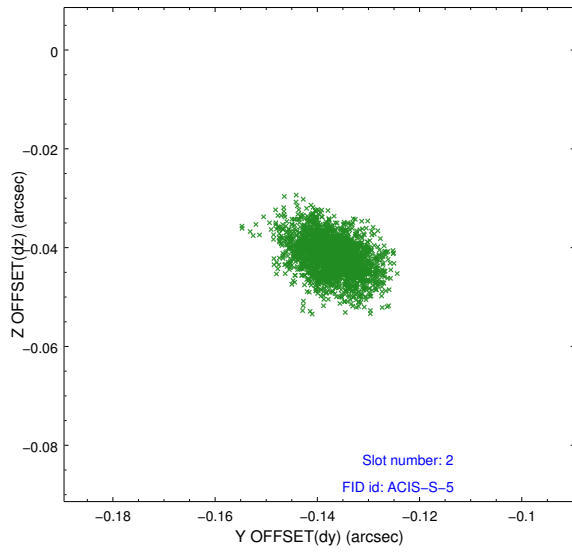
### 2.5.1 Slot 0



## 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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.4765509607196

## 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.