

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 15298 - L2 Version 2  
Chandra X-Ray Center

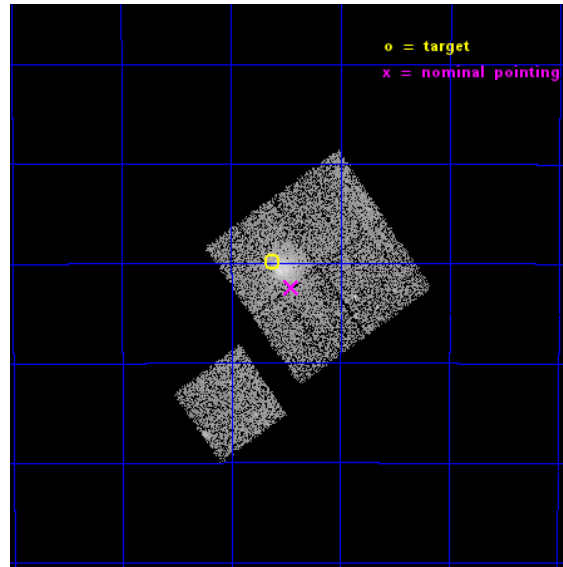
L2 Processing Date : Dec 6 2014

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# 1 Front

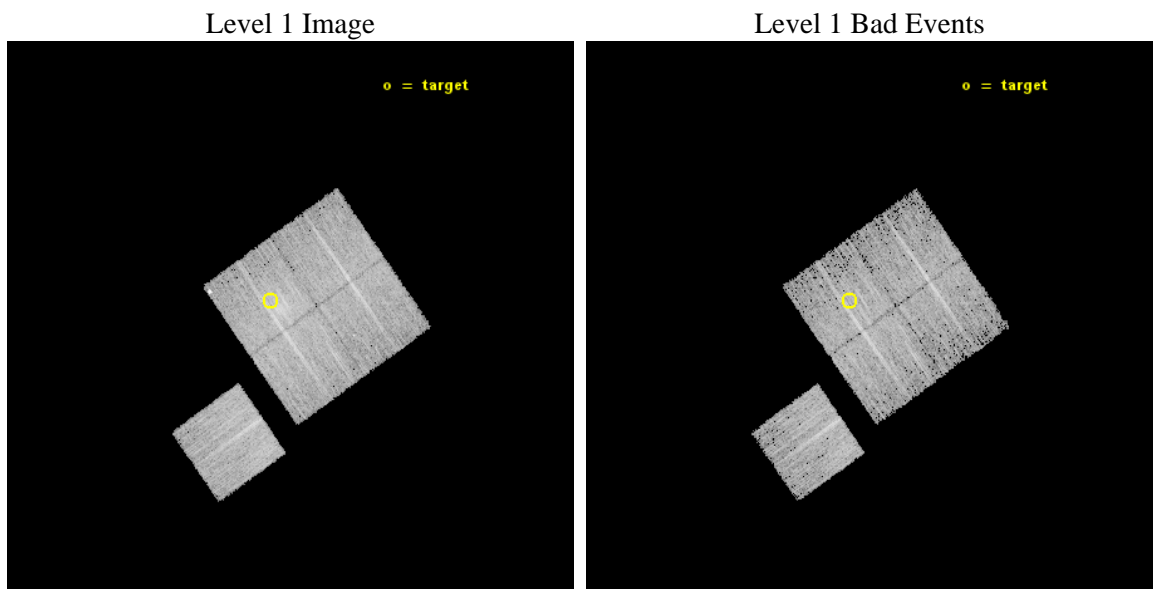
seq_num	801331	Sequence number
obs_id	15298	Observation id
title	Observing Distant Planck Clusters (Type A)	Proposal title
observer	Dr Stephen Murray	Principal investigator
object	PSZ226	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	221.905417	Observer's specified target RA [deg]
dec_targ	-40.330611	Observer's specified target Dec [deg]
ra_nom	221.86214508423	Nominal RA [deg]
dec_nom	-40.373855392907	Nominal Dec [deg]
roll_nom	234.74459481486	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10084.300077558	Sum of GTIs [s]
livetime	9952.5412730906	Livetime [s]
ontime0	10084.300077558	Sum of GTIs [s]
ontime1	10084.300077558	Sum of GTIs [s]
ontime2	10084.300077558	Sum of GTIs [s]
ontime3	10084.300077558	Sum of GTIs [s]
ontime6	10071.736186326	Sum of GTIs [s]
l2events	29959	Number of level 2 events



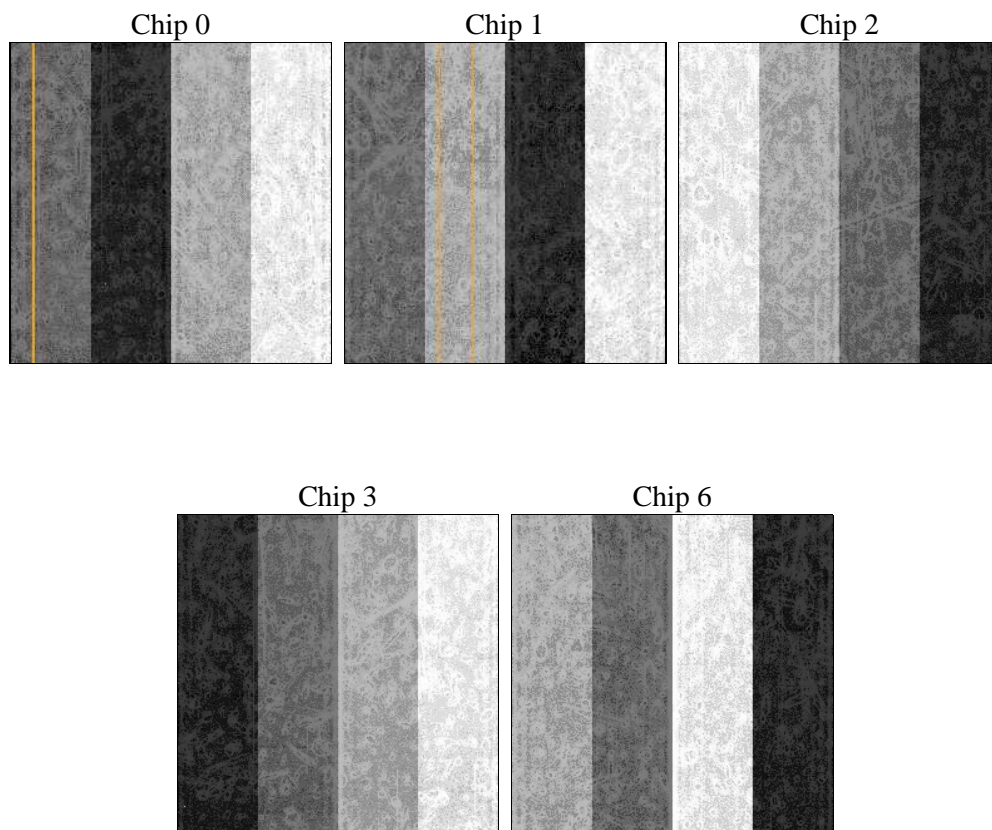
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.022000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10084.300077558	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	10084.300077558	Sum of GTIs [s]
date	2014-12-06T22:11:34	Date and time of file creation	ontime1	10084.300077558	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	10084.300077558	Sum of GTIs [s]
			ontime3	10084.300077558	Sum of GTIs [s]
			ontime6	10071.736186326	Sum of GTIs [s]
			l1events	237647	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	42513	43153	49130	51896	50955
rejected events	36293	36642	43090	41491	44682
rejected %	85%	84%	87%	79%	87%

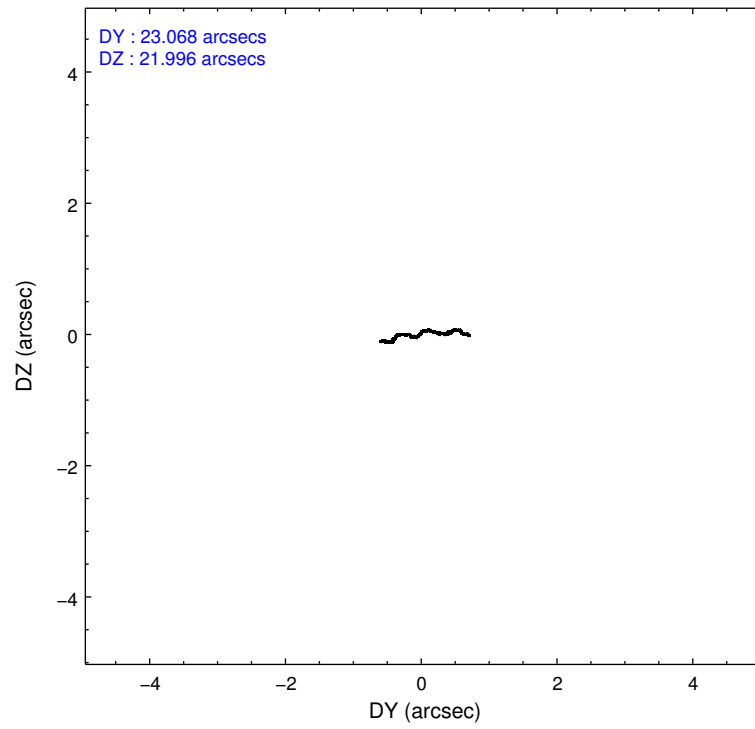
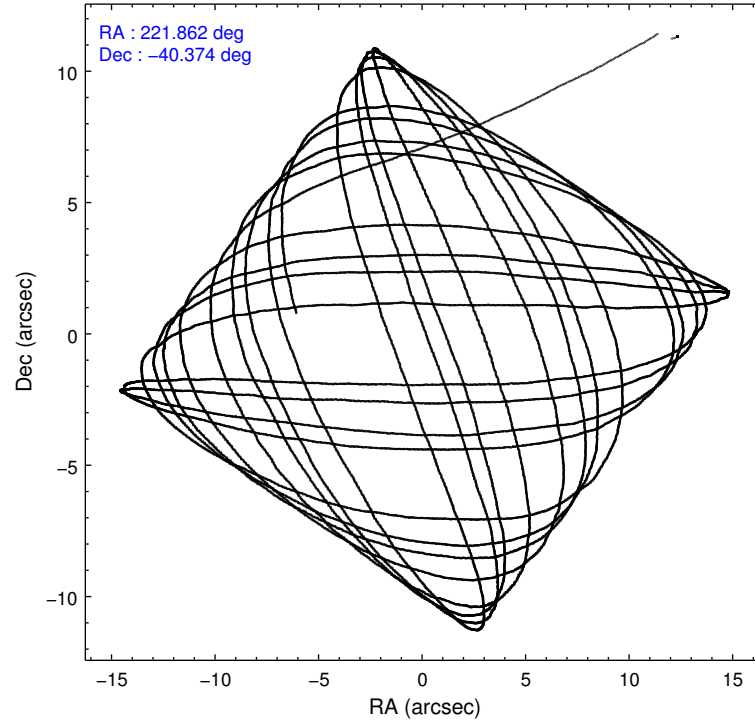
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	2221	2301	2341	6058	2281
	5%	5%	4%	11%	4%
grade 1 events	24	21	29	45	24
	0%	0%	0%	0%	0%
grade 2 events	1513	1556	1441	1738	1308
	3%	3%	2%	3%	2%
grade 3 events	595	636	584	678	654
	1%	1%	1%	1%	1%
grade 4 events	607	648	576	692	630
	1%	1%	1%	1%	1%
grade 5 events	2231	2436	2031	2725	2596
	5%	5%	4%	5%	5%
grade 6 events	1287	1374	1101	1244	1406
	3%	3%	2%	2%	2%
grade 7 events	34035	34181	41027	38716	42056
	80%	79%	83%	74%	82%

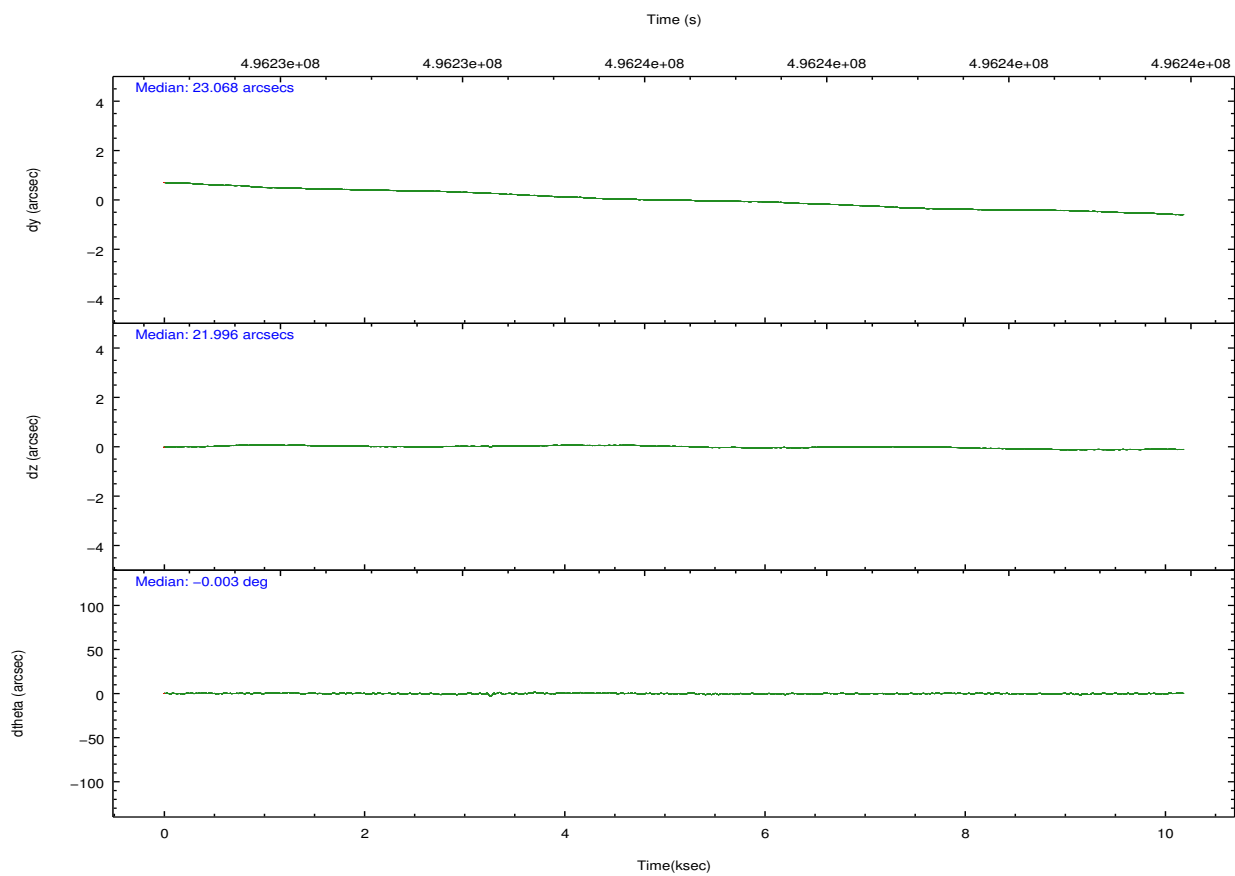
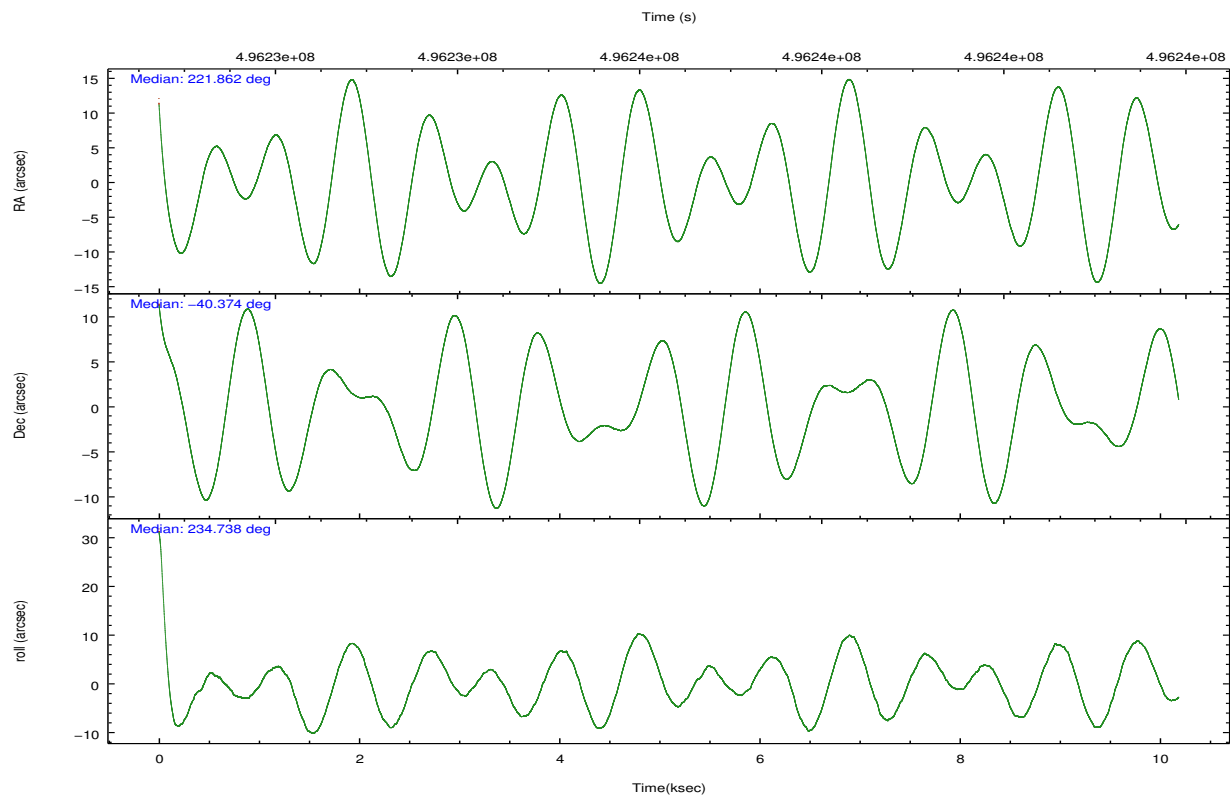


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	221.865337	221.8621450842305	CCD I2 on	Y	Y
[deg] Pointing Dec	-40.346511	-40.37385539290663	CCD I3 on	Y	Y
[deg] Pointing Roll	234.537957	234.7445948148565	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-225.840463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.752	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	496231415.184000	496229953.03033	CCD S5 on	N	N
Observation start date	2013-09-22T10:02:28	2013-09-22T09:39:13	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	496241415.184000	496241649.81847	On-chip summing requested	N	N
Observation end date	2013-09-22T12:49:08	2013-09-22T12:54:09	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



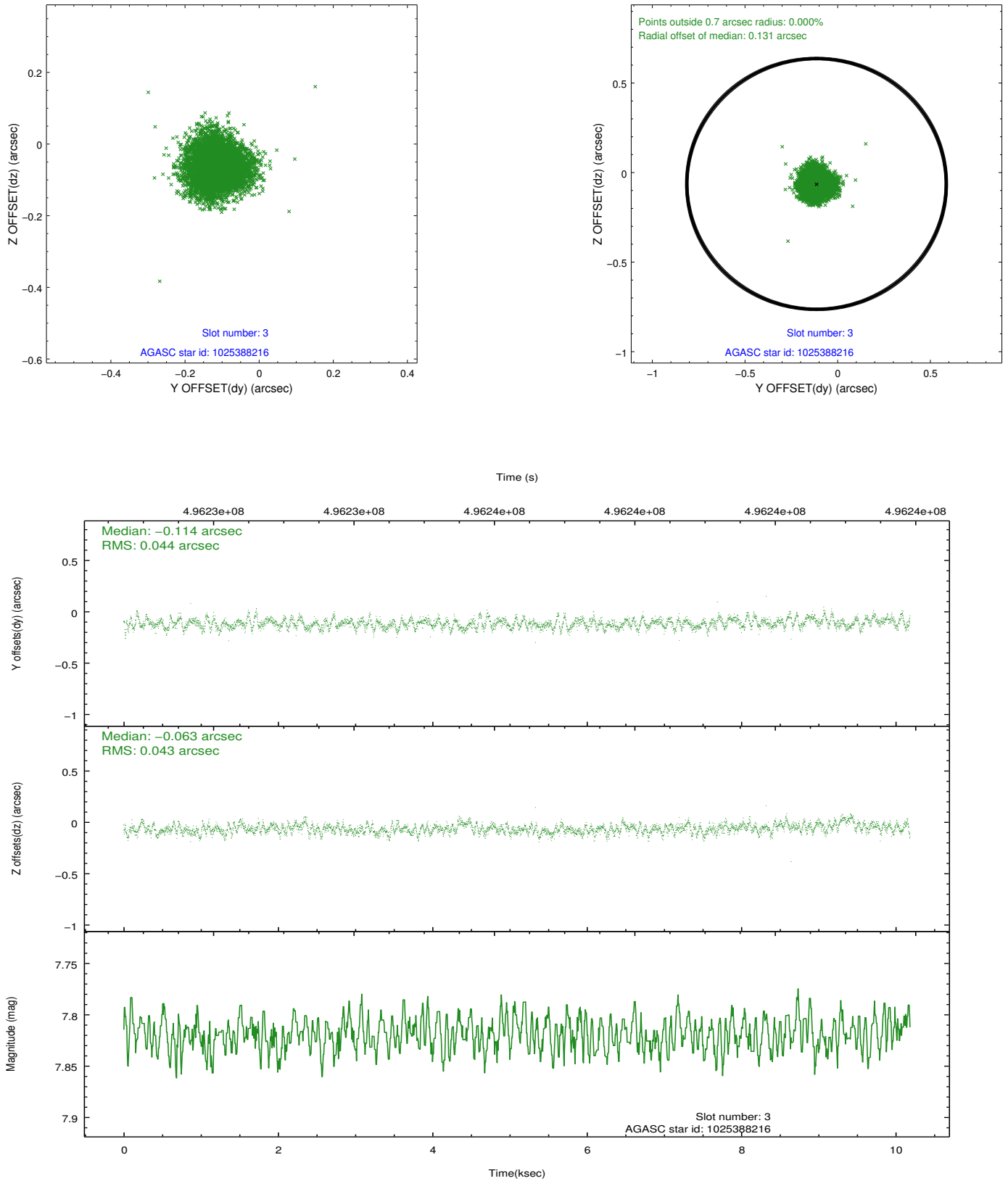


### Slot Statistics

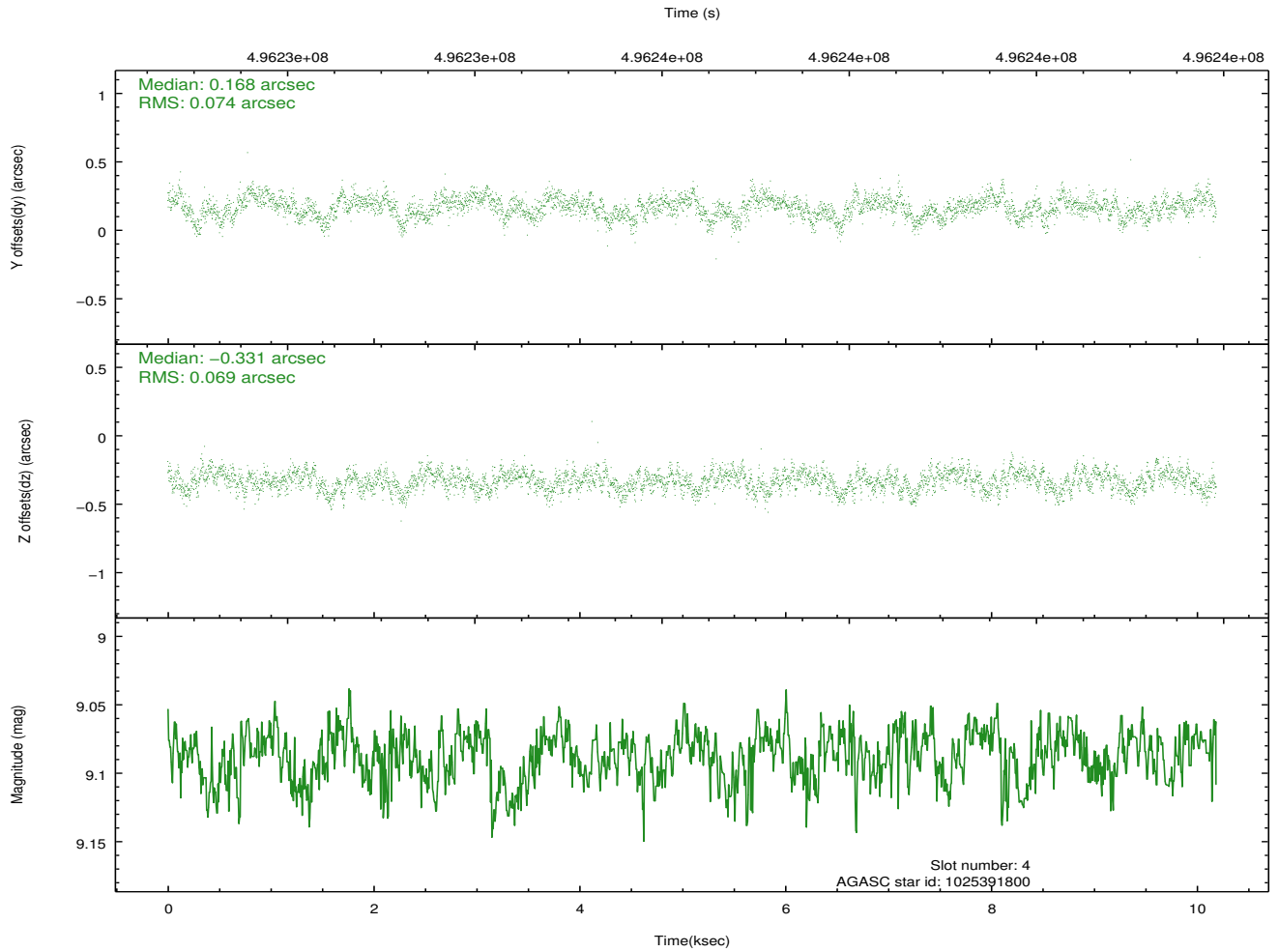
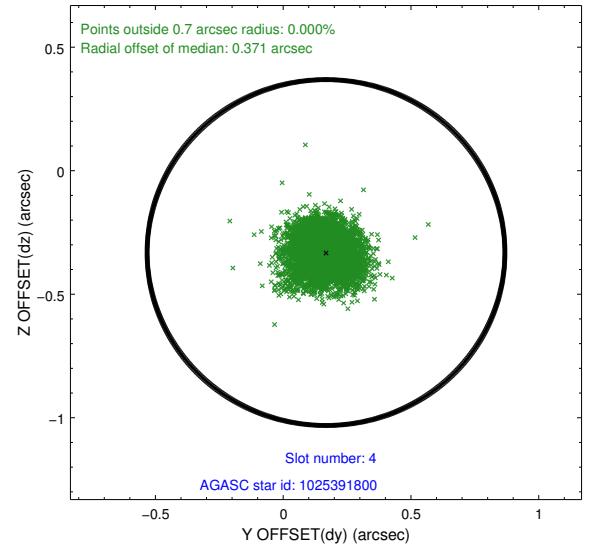
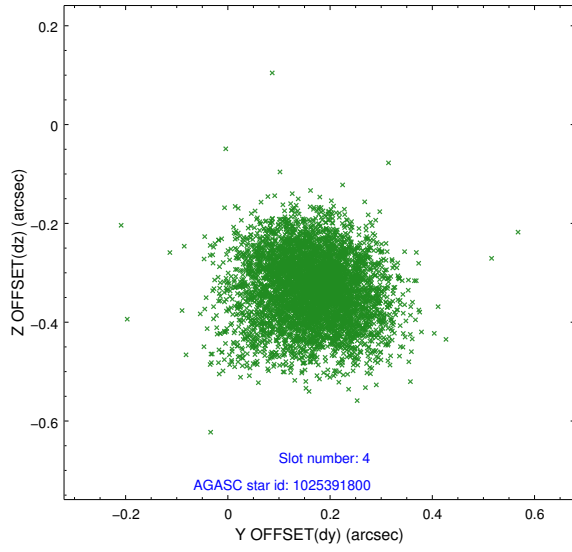
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	2485	0.147	-0.092	0.010	0.022	0.000000	0.000000	916.17	-1004.93
1	FID		ACIS-I-5	7.07	2484	-0.356	0.104	0.015	0.024	0.000000	0.000000	-1832.19	892.40
2	FID		ACIS-I-6	7.08	2485	0.121	0.059	0.016	0.026	0.000000	0.000000	381.08	1537.48
3	GUIDE	used	1025388216	7.82	4970	-0.114	-0.063	0.066	0.104	222.037579	-41.017282	1696.91	1782.87
4	GUIDE	used	1025391800	9.09	4966	0.168	-0.331	0.107	0.172	221.808790	-40.516699	589.73	229.84
5	GUIDE	used	1025392744	7.09	4970	-0.116	-0.035	0.075	0.121	222.244323	-40.420933	-382.11	1002.88
6	GUIDE	used	1025396192	7.39	4970	-0.052	0.189	0.092	0.144	221.945580	-39.926406	-1359.53	-696.67
7	GUIDE	used	1025387168	9.36	4952	0.108	0.242	0.123	0.204	221.129013	-39.989058	137.96	-2395.50

## 2.4 Star Slots

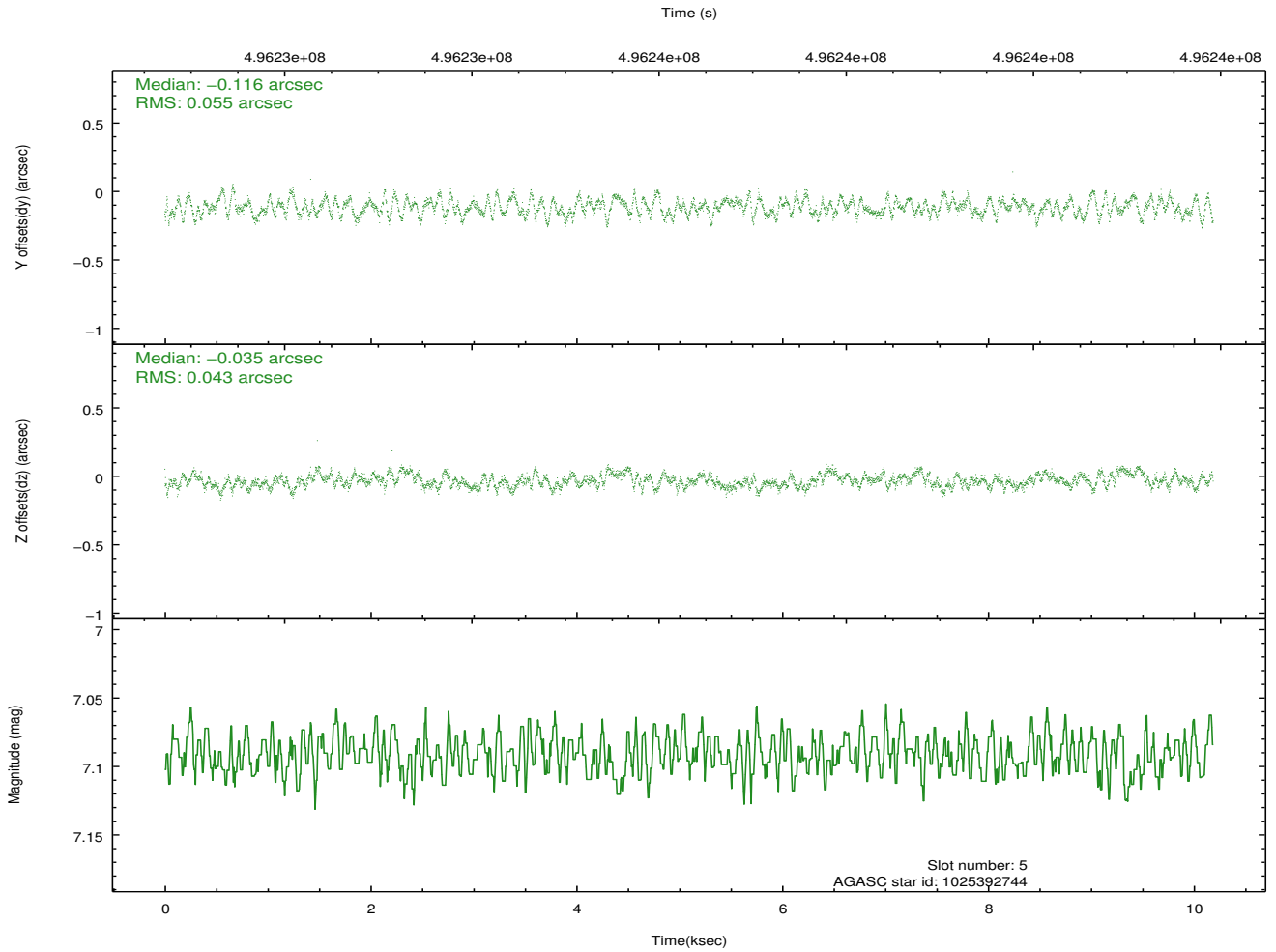
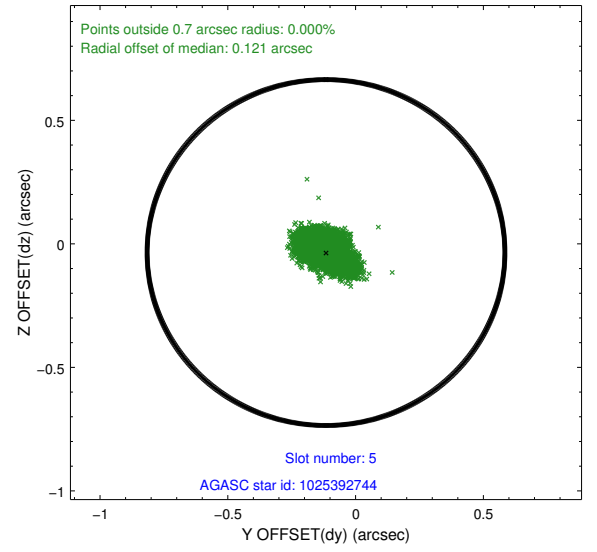
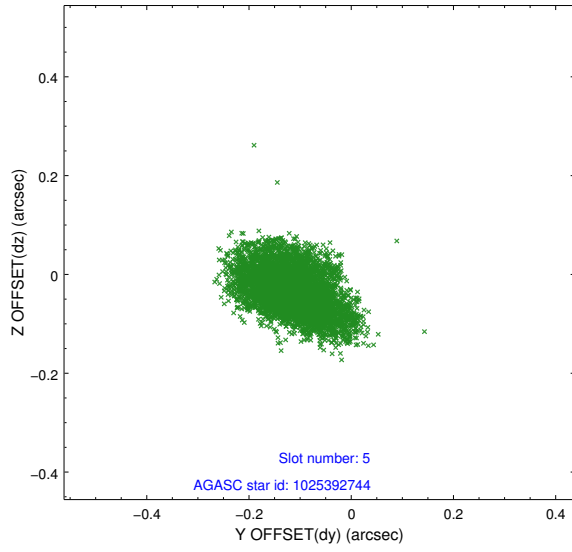
### 2.4.1 Slot 3



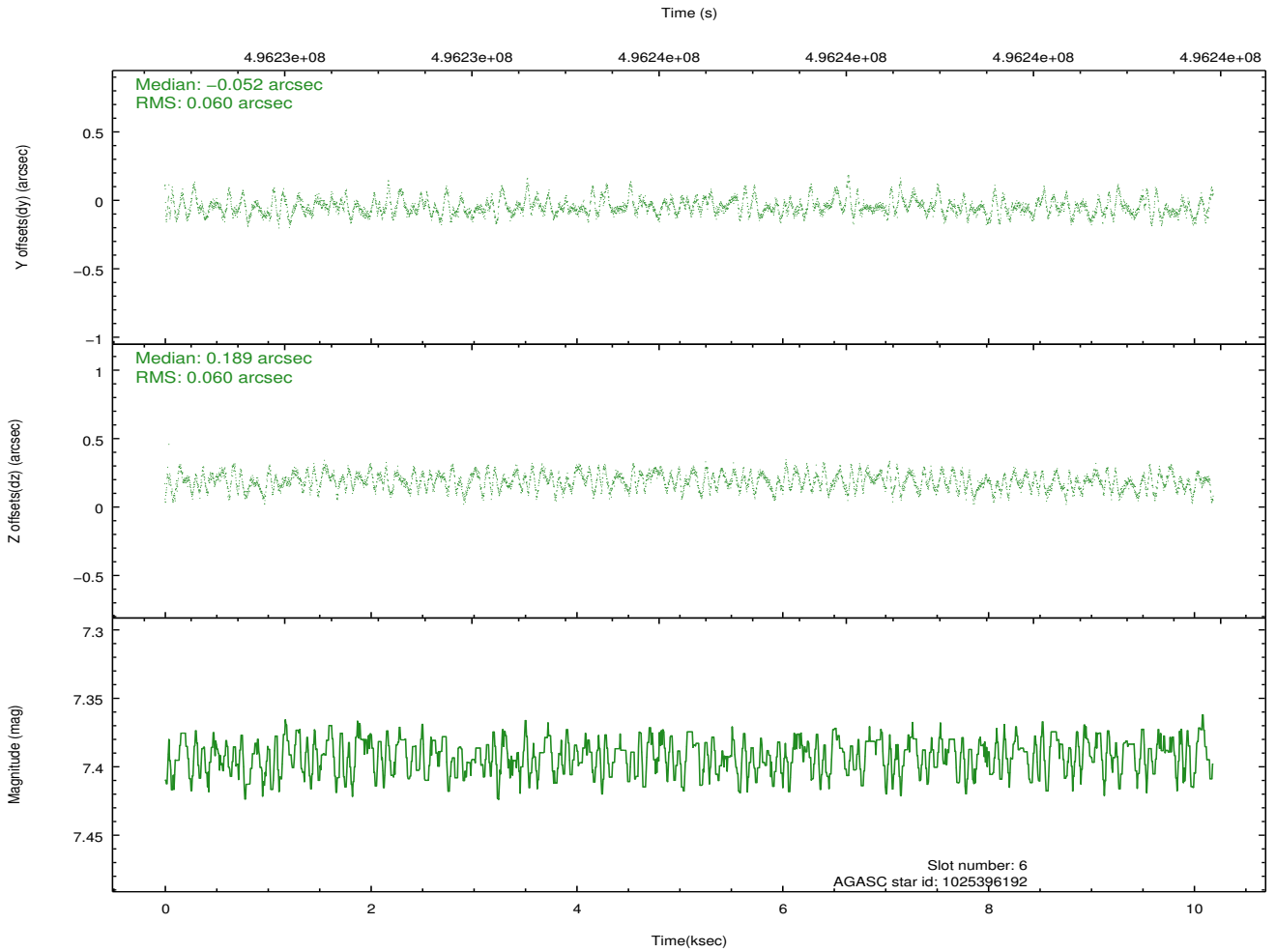
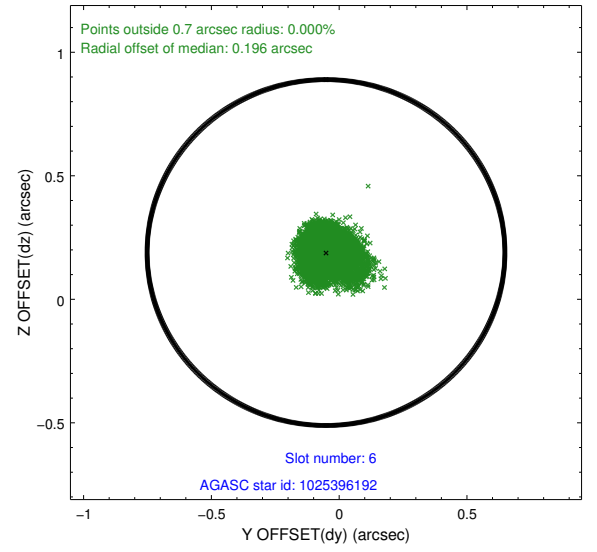
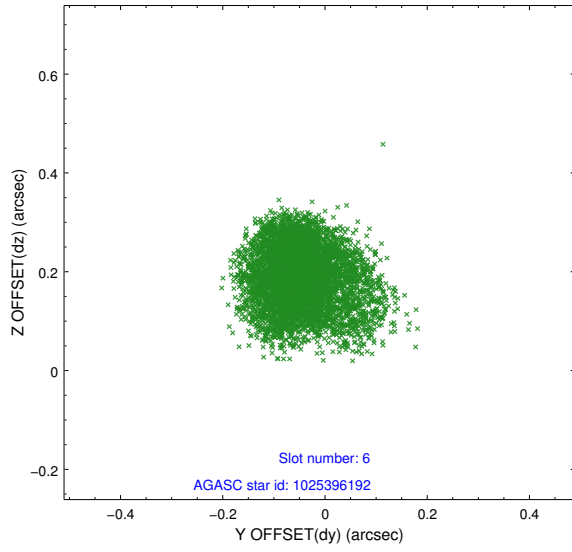
## 2.4.2 Slot 4



### 2.4.3 Slot 5

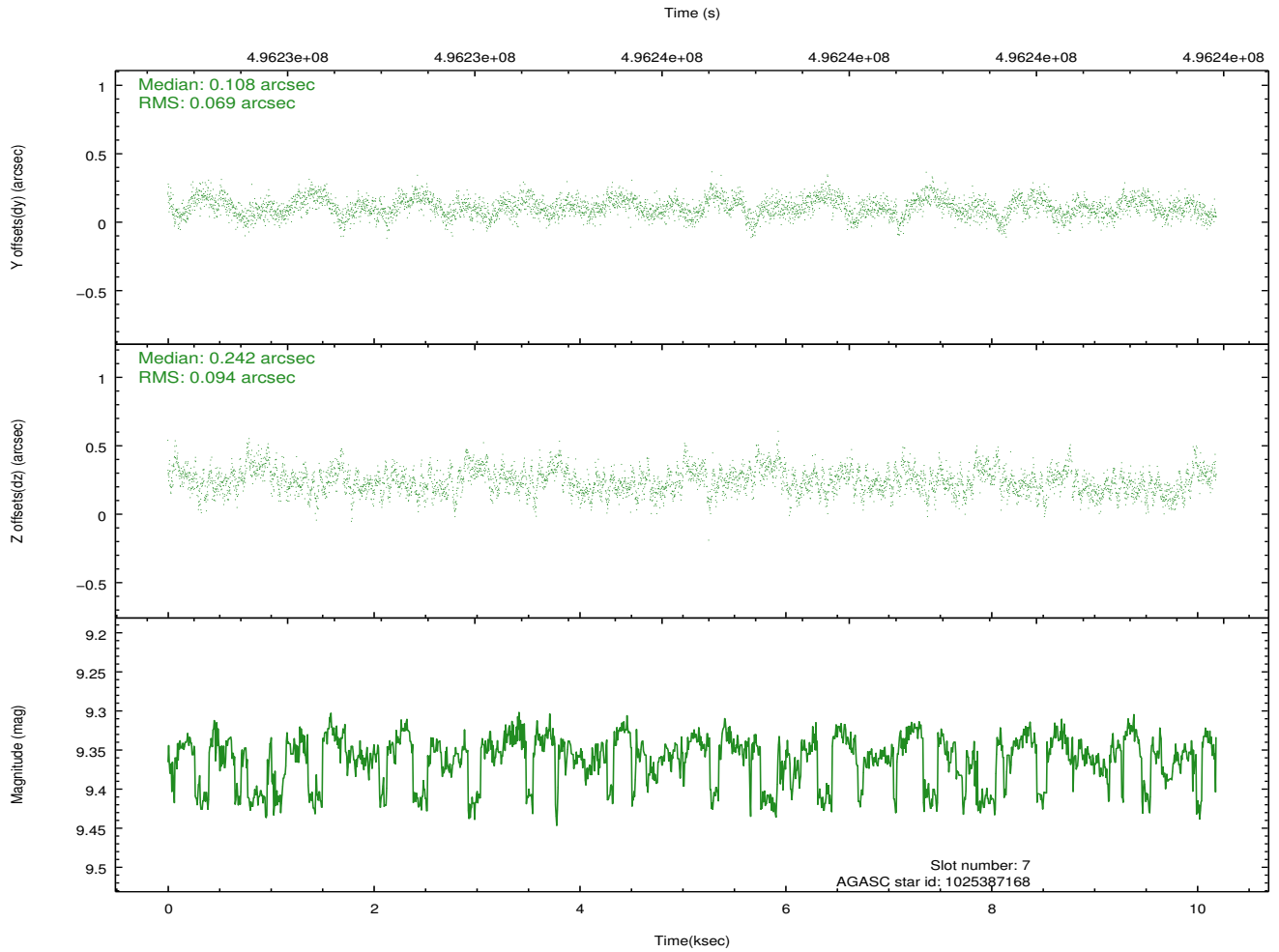
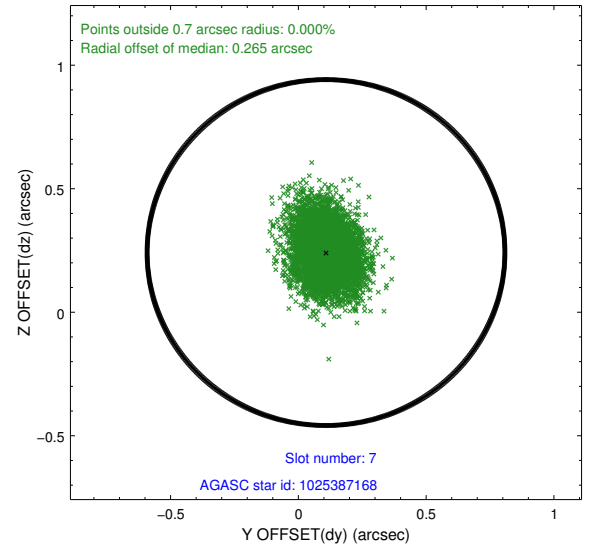
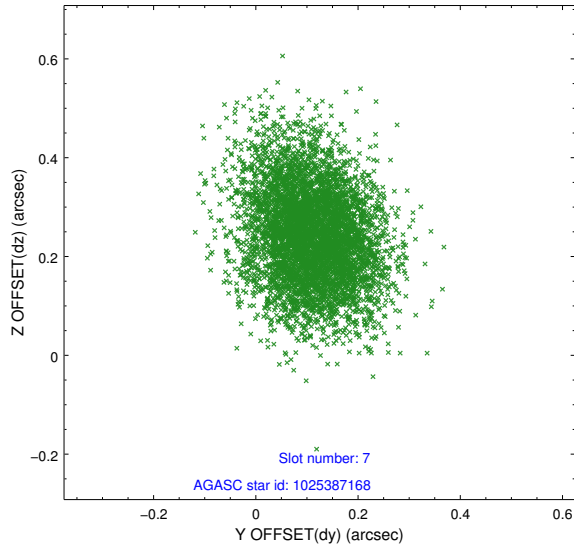


## 2.4.4 Slot 6



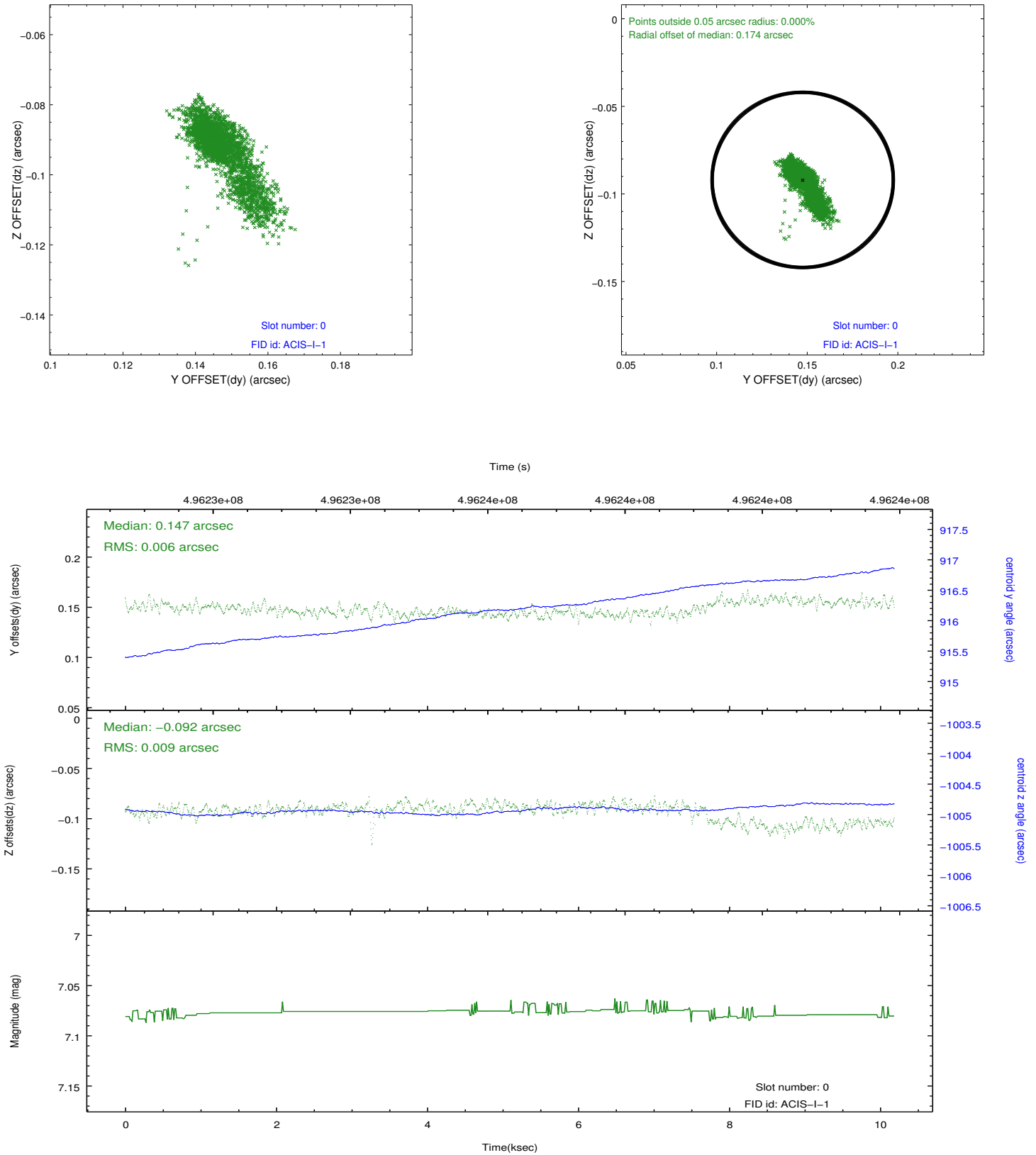


## 2.4.5 Slot 7

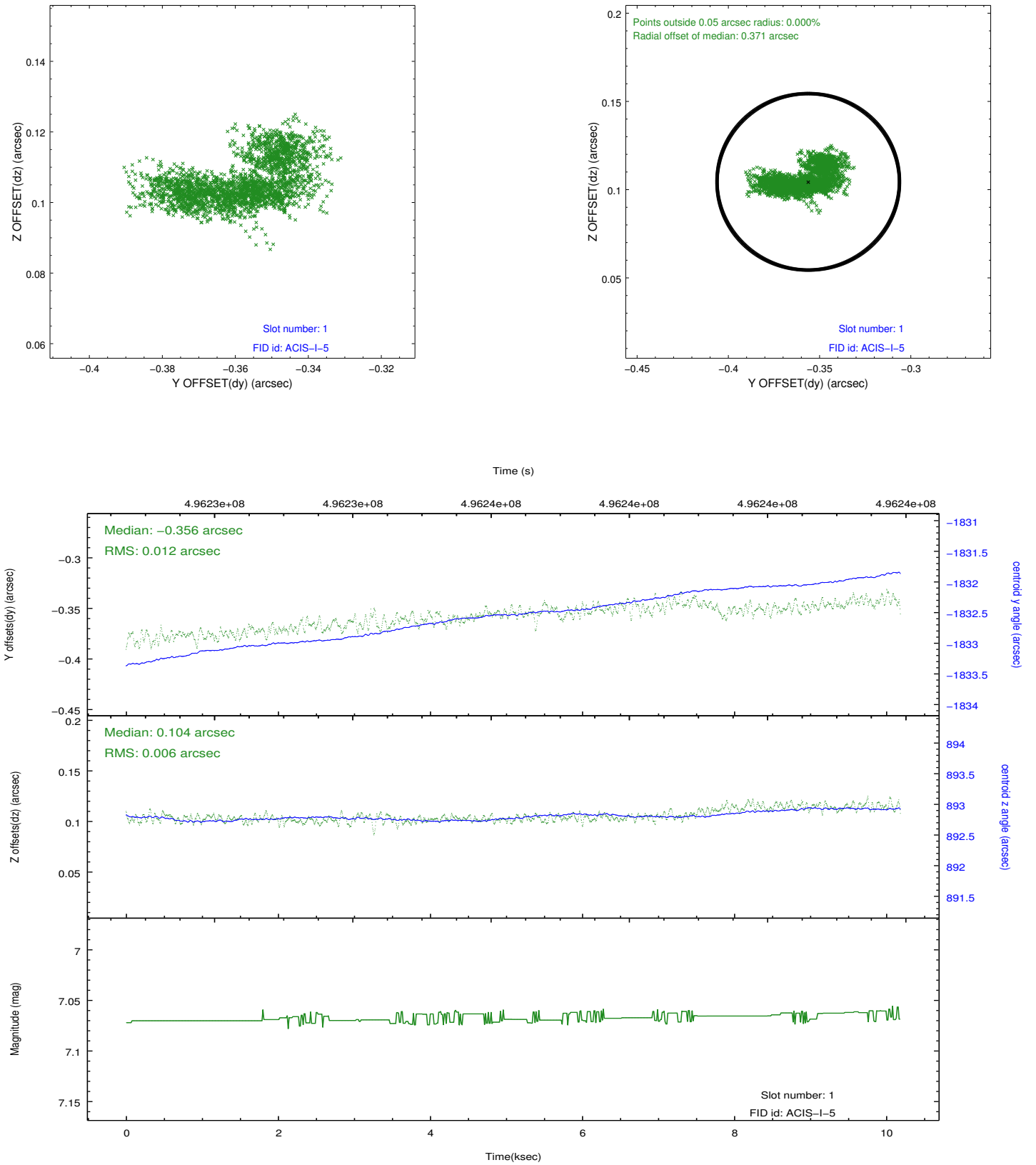


## 2.5 FID Slots

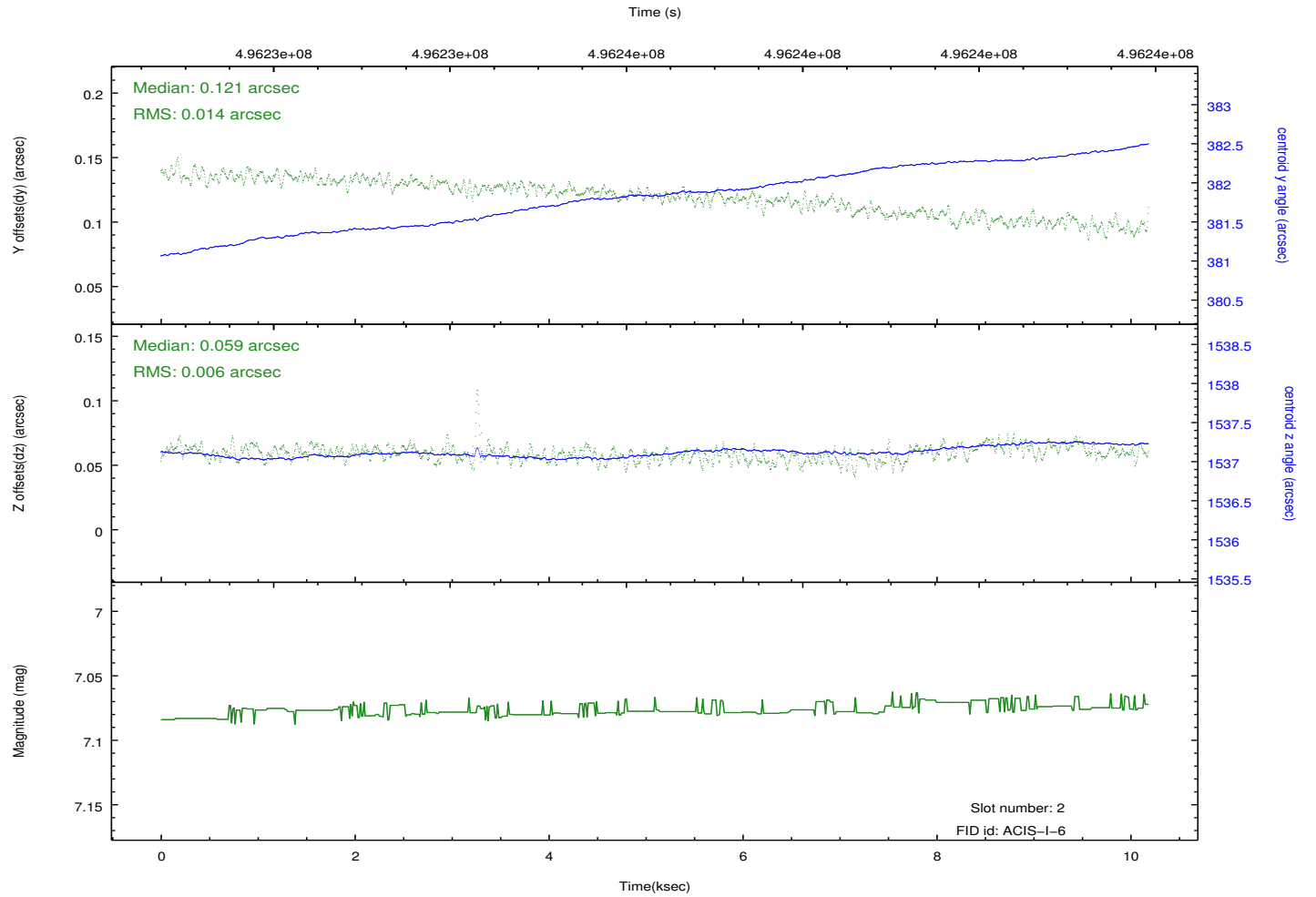
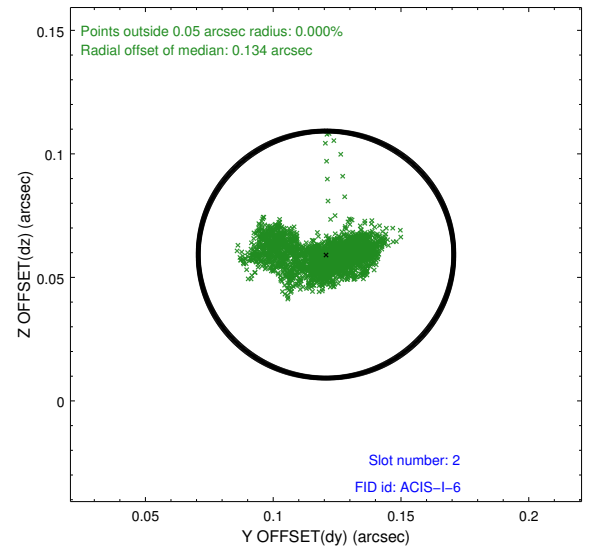
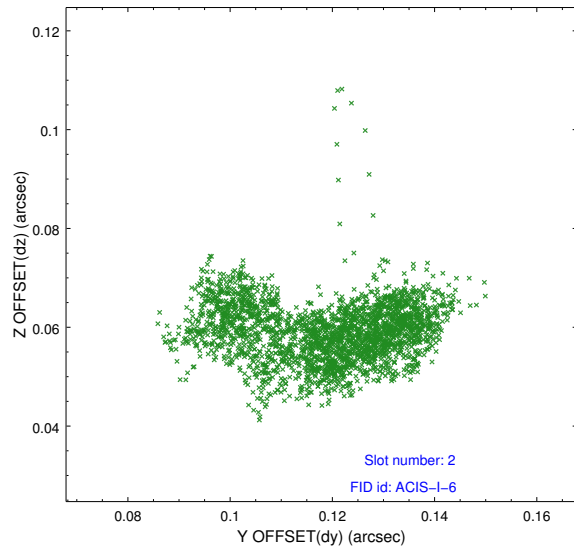
### 2.5.1 Slot 0



## 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	10.084300077558

## 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.