

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7928 - L2 Version 2  
Chandra X-Ray Center

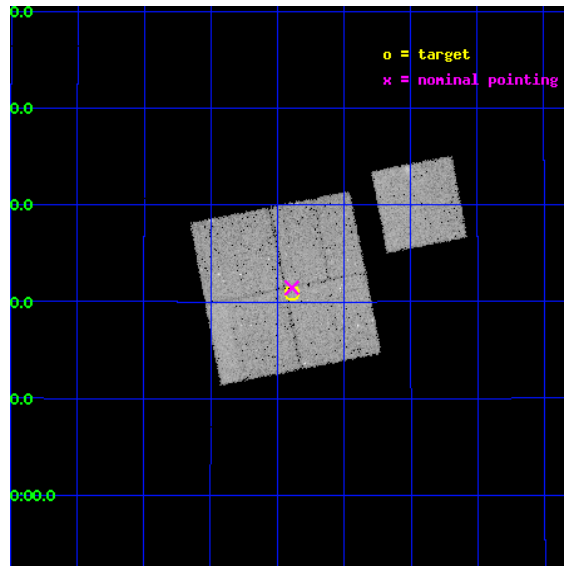
L2 Processing Date : Feb 14 2013

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# 1 Front

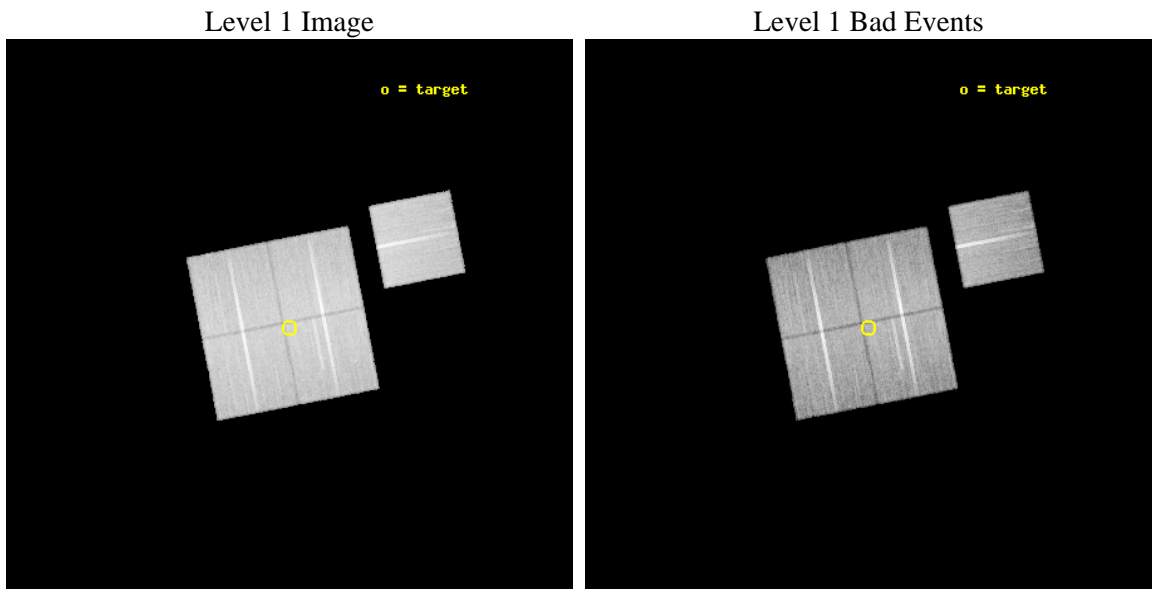
seq_num	800646	Sequence number
obs_id	7928	Observation id
title	A Complete Baryon Census in a Nearby Galaxy Group	Proposal title
observer	Dr. John Mulchaey	Principal investigator
object	NGC2563-P5	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	125.09875	Observer's specified target RA [deg]
dec_targ	21.349417	Observer's specified target Dec [deg]
ra_nom	125.09780187089	Nominal RA [deg]
dec_nom	21.357431575191	Nominal Dec [deg]
roll_nom	78.977966709964	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29967.700230479	Sum of GTIs [s]
livetime	29576.150165068	Livetime [s]
ontime0	29967.700230479	Sum of GTIs [s]
ontime1	29967.700230479	Sum of GTIs [s]
ontime2	29958.277399182	Sum of GTIs [s]
ontime3	29967.700230479	Sum of GTIs [s]
ontime6	29964.559240103	Sum of GTIs [s]
l2events	101938	Number of level 2 events



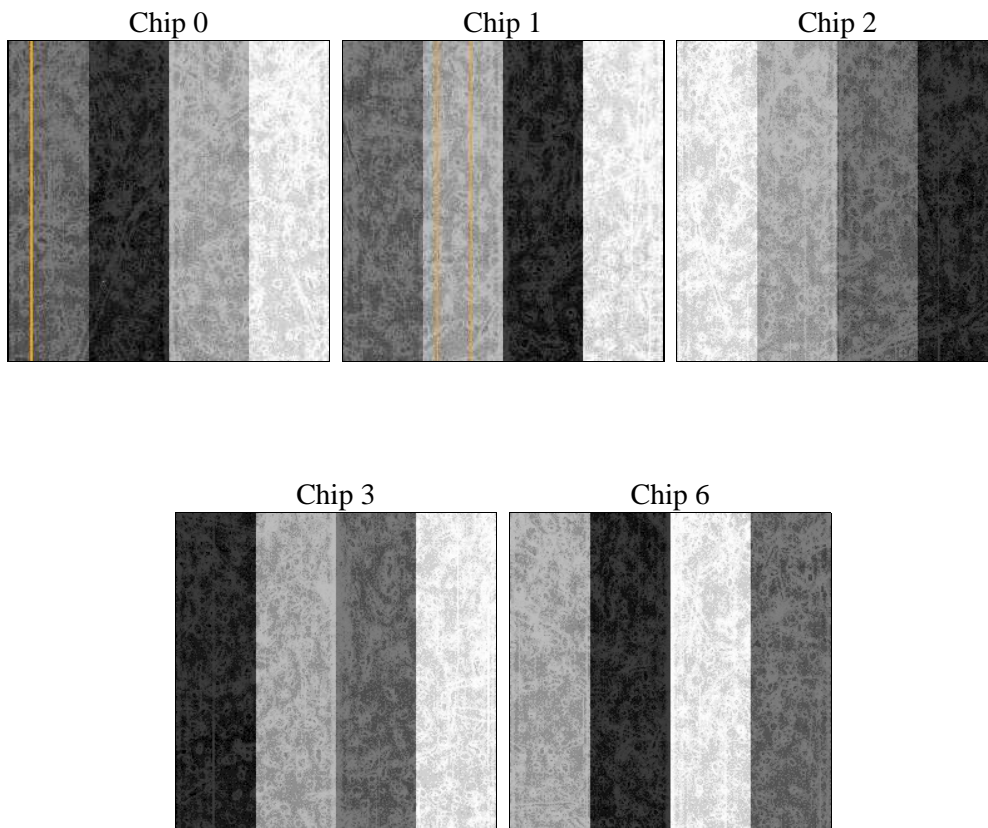
## 2 OBI

### 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	8.5.1.1	Processing system revision	ontime	29967.700230479	Sum of GTIs [s]
caldbver	4.5.5	&#160	ontime0	29967.700230479	Sum of GTIs [s]
date	2013-02-14T23:29:08	Date and time of file creation	ontime1	29967.700230479	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29958.277399182	Sum of GTIs [s]
			ontime3	29967.700230479	Sum of GTIs [s]
			ontime6	29964.559240103	Sum of GTIs [s]
			l1events	1185884	Number of level 1 events

### 2.1.4 Events

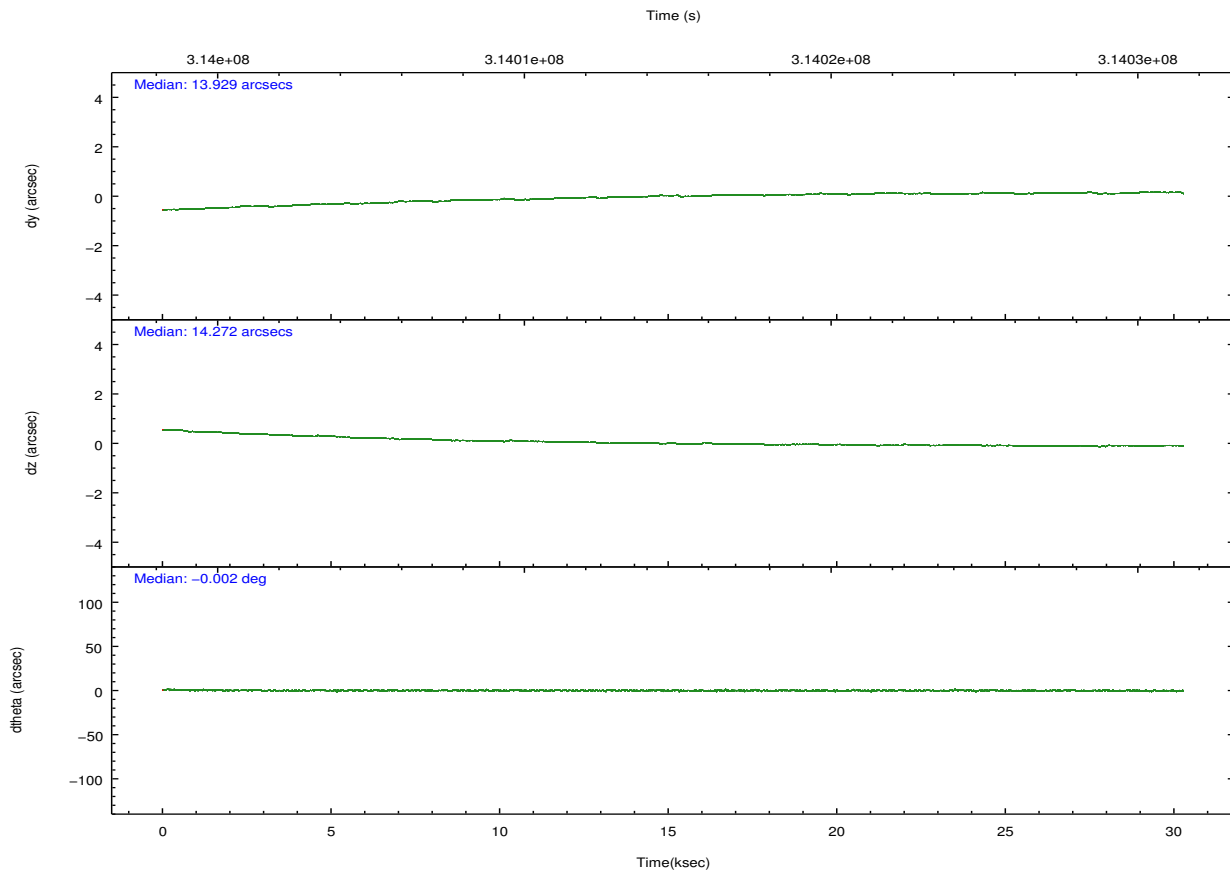
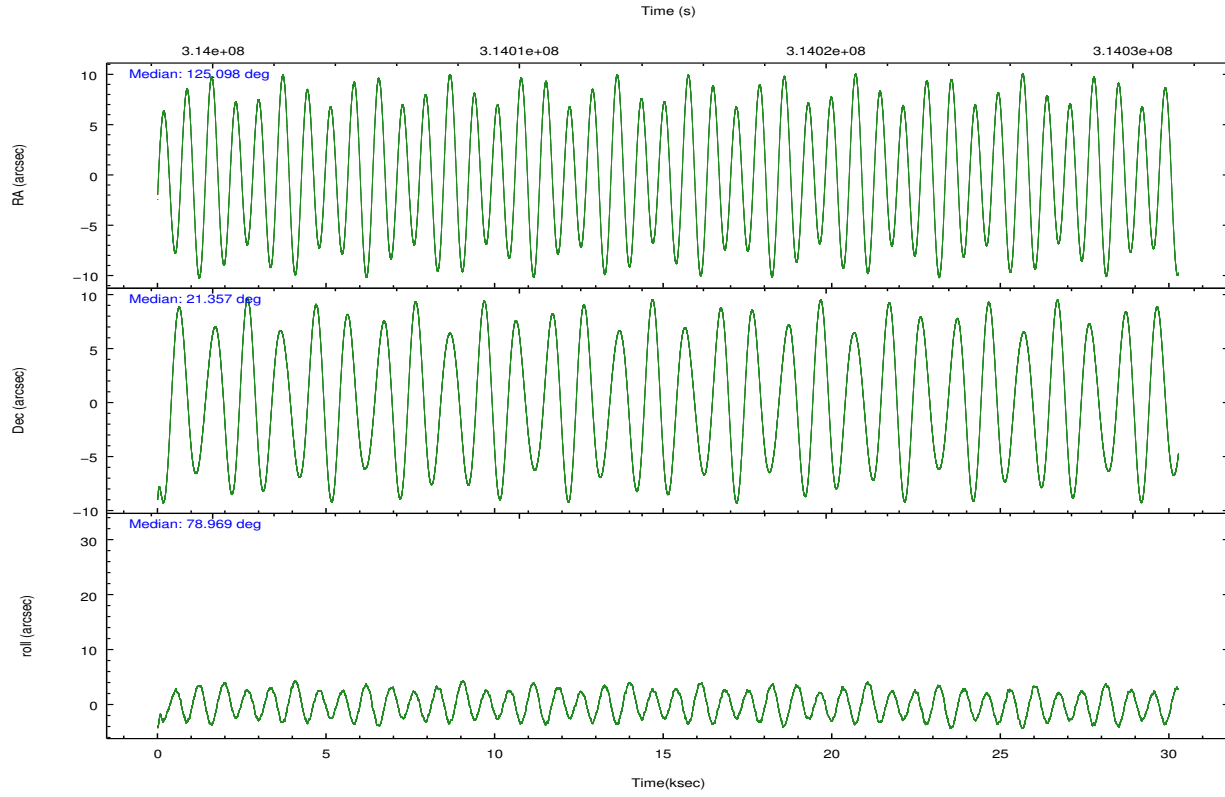
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	230704	229501	244197	240178	241304
rejected events	206224	202488	220562	217031	216889
rejected %	89%	88%	90%	90%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	8702	9824	8511	8480	8543
	3%	4%	3%	3%	3%
grade 1 events	119	132	135	153	136
	0%	0%	0%	0%	0%
grade 2 events	5864	6028	5703	5165	5286
	2%	2%	2%	2%	2%
grade 3 events	2676	2916	2584	2584	2688
	1%	1%	1%	1%	1%
grade 4 events	2585	2816	2555	2531	2686
	1%	1%	1%	1%	1%
grade 5 events	8362	9297	8047	9759	9476
	3%	4%	3%	4%	3%
grade 6 events	4719	5485	4344	4465	5284
	2%	2%	1%	1%	2%
grade 7 events	197677	193003	212318	207041	207205
	85%	84%	86%	86%	85%

## 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	125.107513	125.0978018708911	CCD I2 on	Y	Y
[deg] Pointing Dec	21.331481	21.35743157519084	CCD I3 on	Y	Y
[deg] Pointing Roll	78.765748	78.9779667099637	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	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	313999997.184000	313999023.35368	CCD S5 on	N	N
Observation start date	2007-12-14T06:12:12	2007-12-14T05:57:03	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	314029997.184000	314030954.66773	On-chip summing requested	N	N
Observation end date	2007-12-14T14:32:12	2007-12-14T14:49:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect

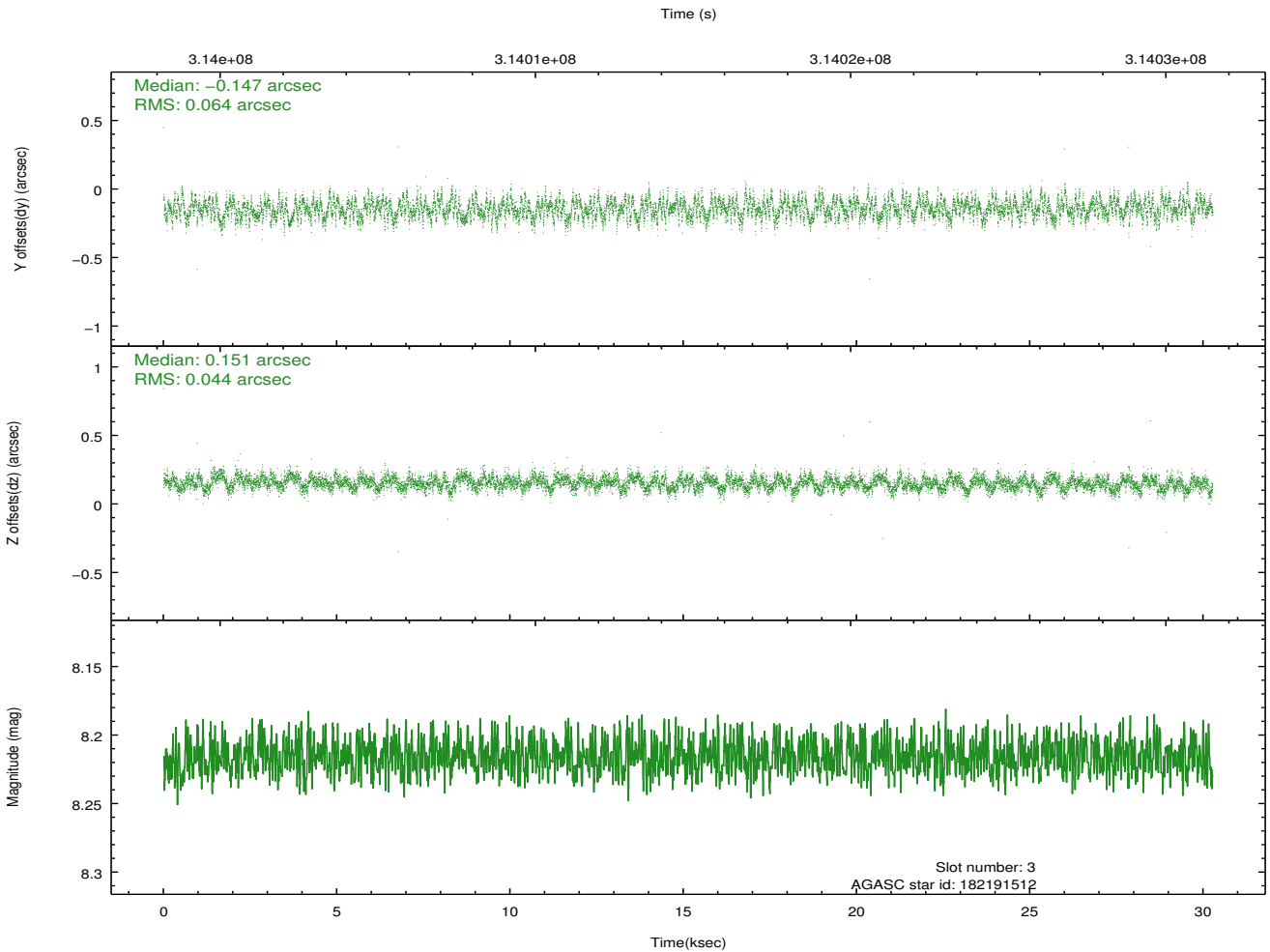
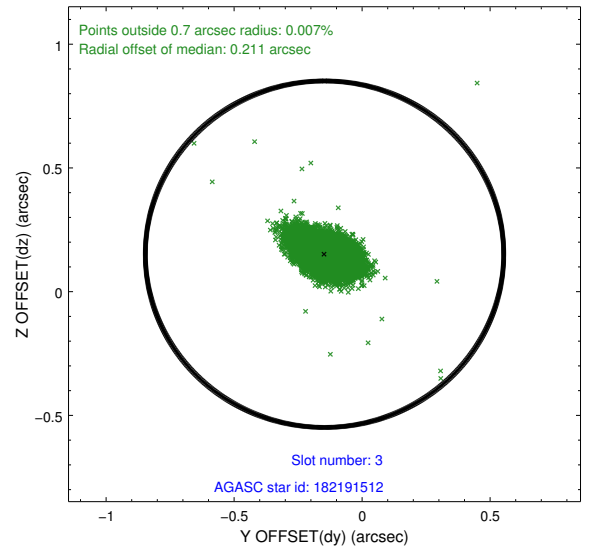
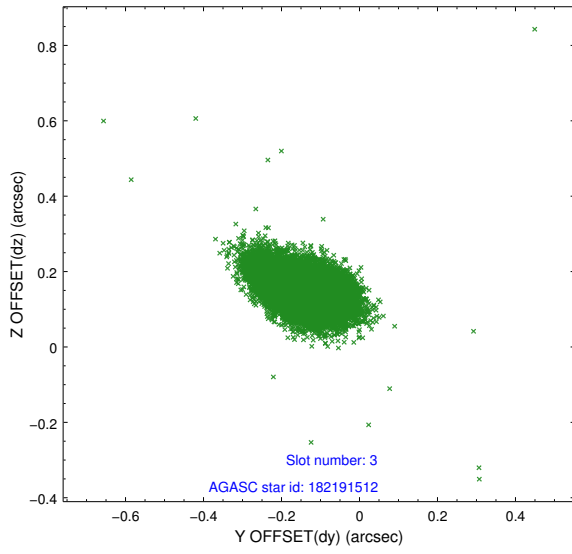


### Slot Statistics

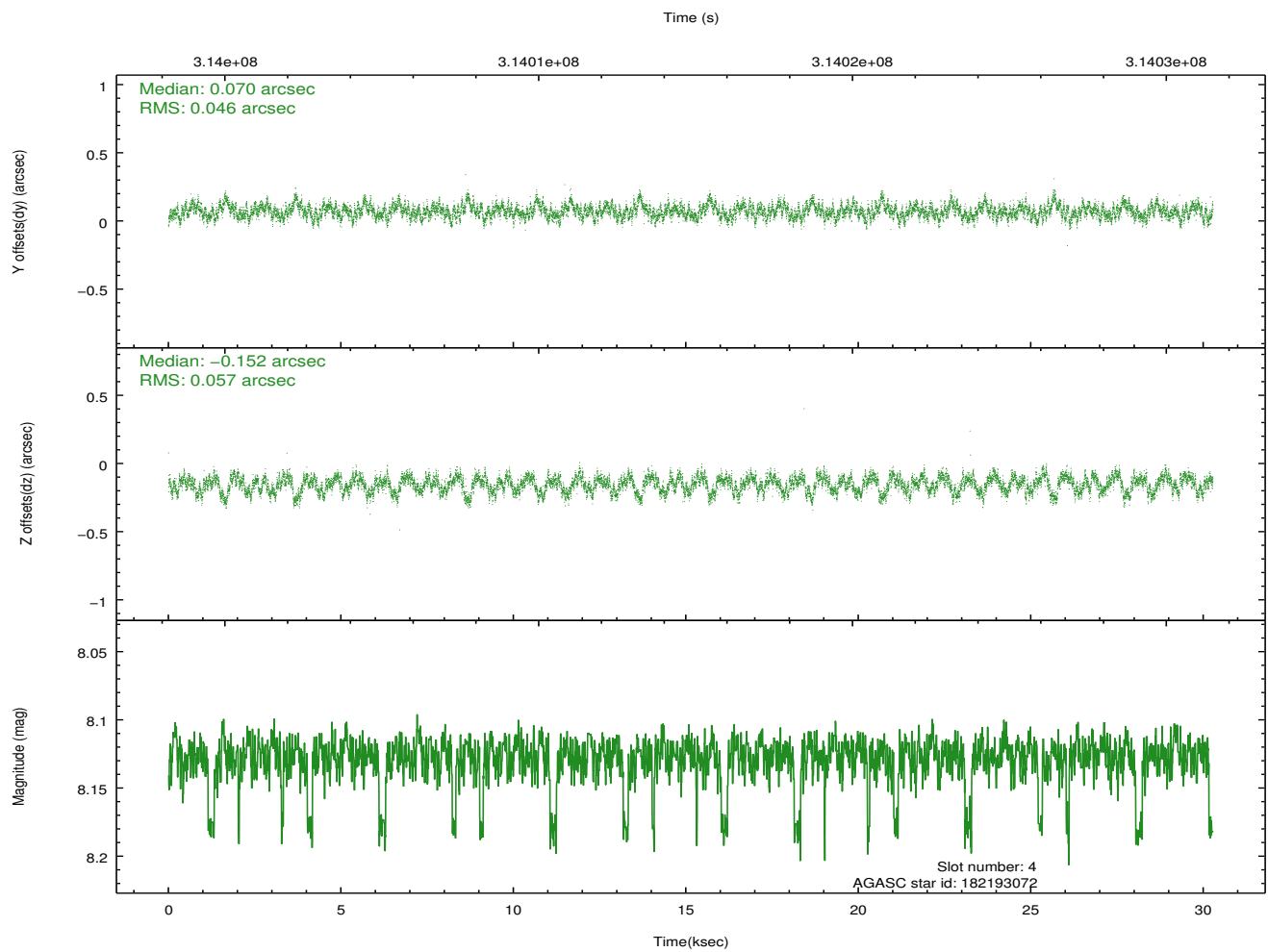
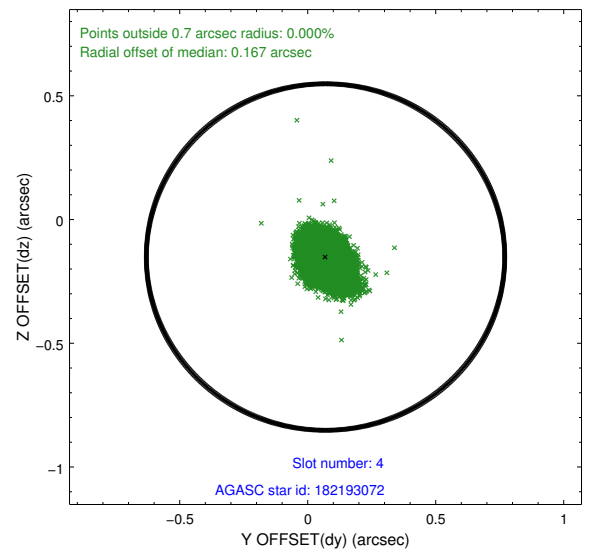
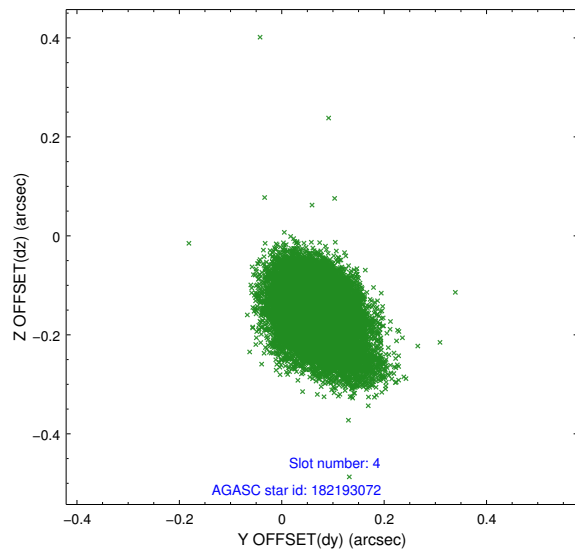
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	7384	0.027	0.012	0.008	0.013	0.000000	0.000000	925.67	-837.90
1	FID	ACIS-I-5	7.23	7381	-0.217	0.033	0.009	0.016	0.000000	0.000000	-1822.66	1059.55
2	FID	ACIS-I-6	7.23	7382	0.098	0.025	0.009	0.017	0.000000	0.000000	391.18	1704.15
3	GUIDE	182191512	8.22	14762	-0.147	0.151	0.080	0.134	125.905406	21.821214	2255.98	-2270.18
4	GUIDE	182193072	8.13	14770	0.070	-0.152	0.077	0.126	124.468170	21.177590	-957.12	1997.67
5	GUIDE	182195136	8.57	14760	0.124	0.048	0.072	0.116	124.931899	20.918080	-1574.20	289.43
6	GUIDE	182201632	7.62	14768	-0.093	-0.024	0.065	0.099	124.727284	21.494130	327.42	1363.81
7	GUIDE	182202936	7.82	14768	0.044	-0.019	0.061	0.093	124.849962	21.257255	-429.72	795.56

## 2.4 Star Slots

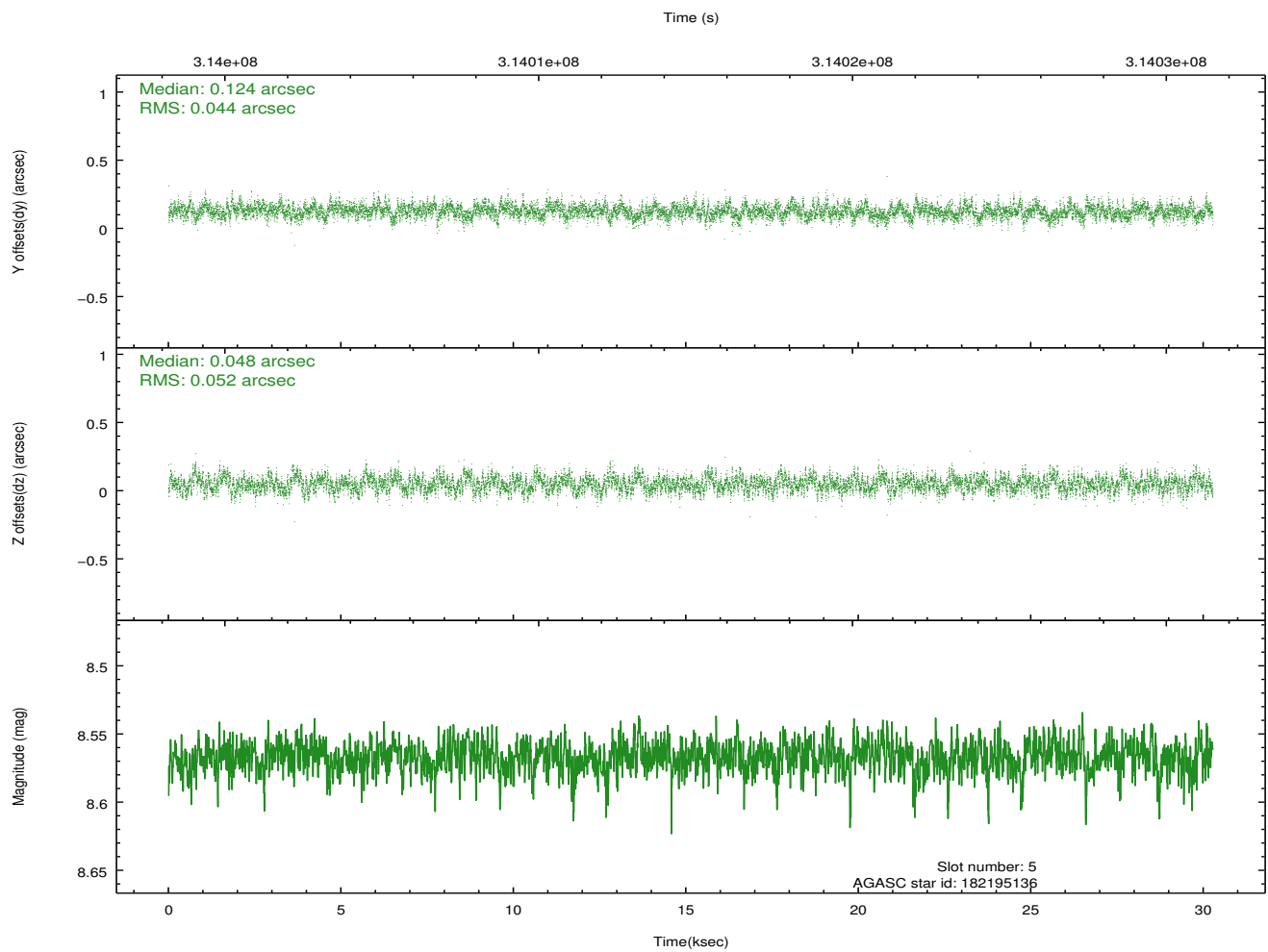
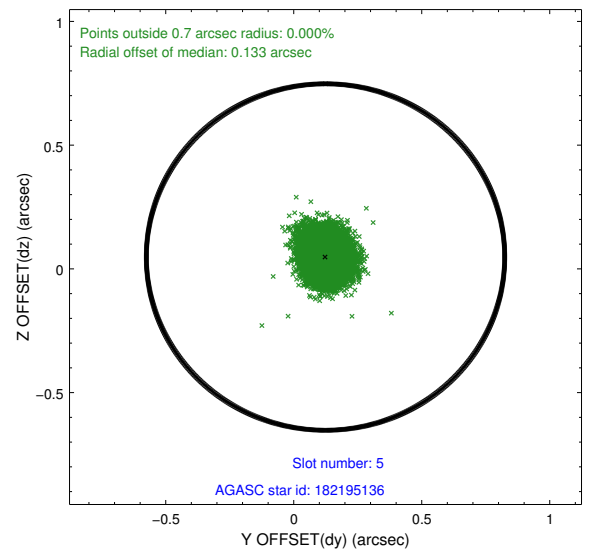
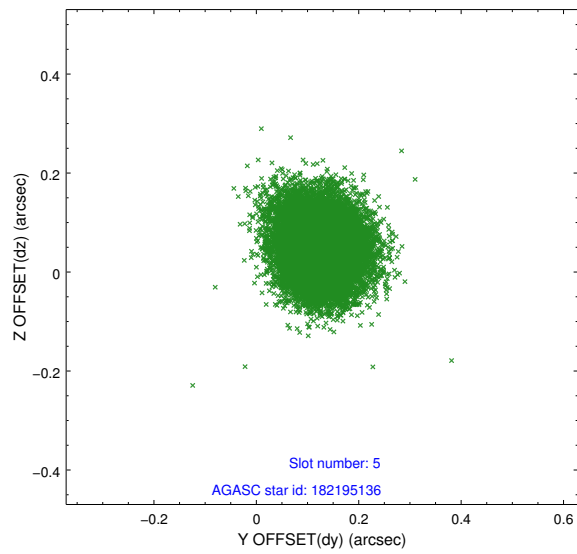
### 2.4.1 Slot 3



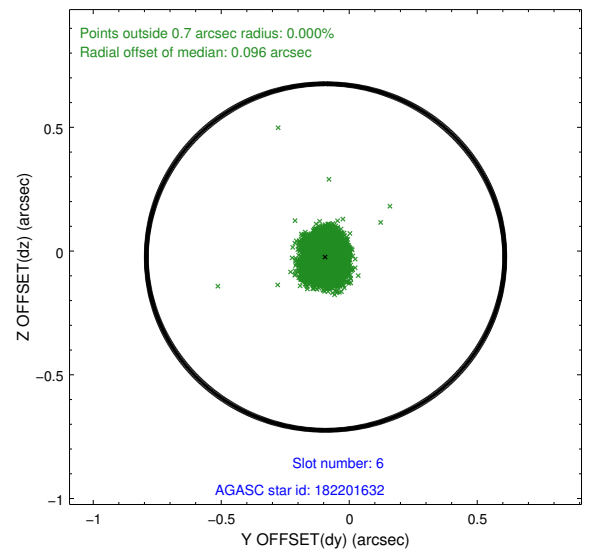
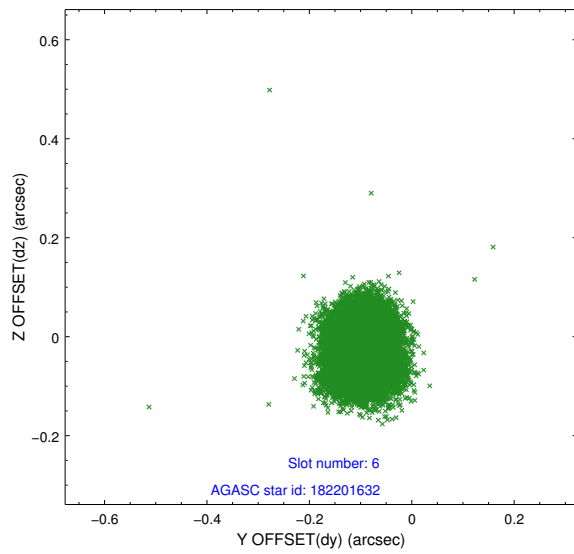
## 2.4.2 Slot 4



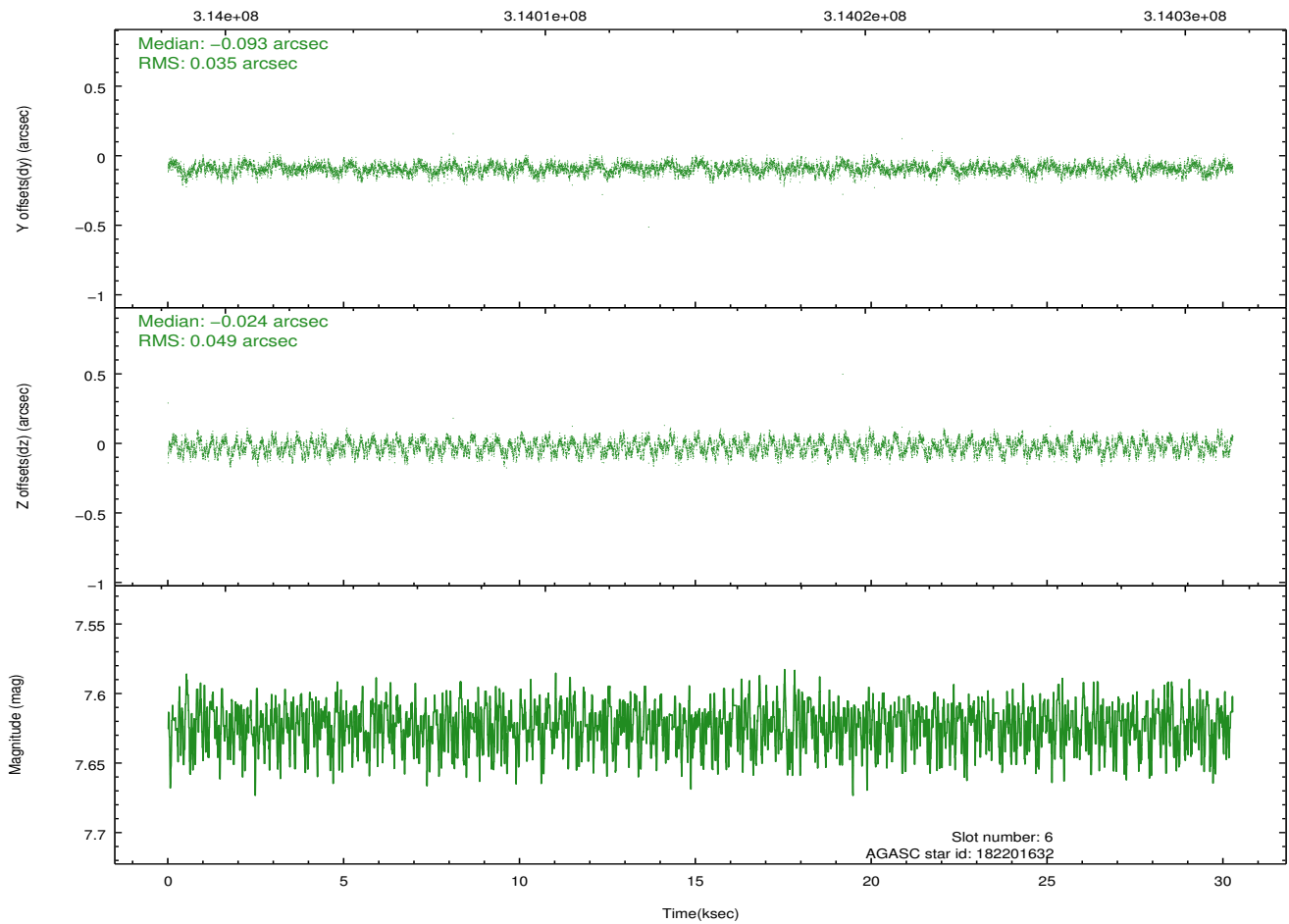
### 2.4.3 Slot 5



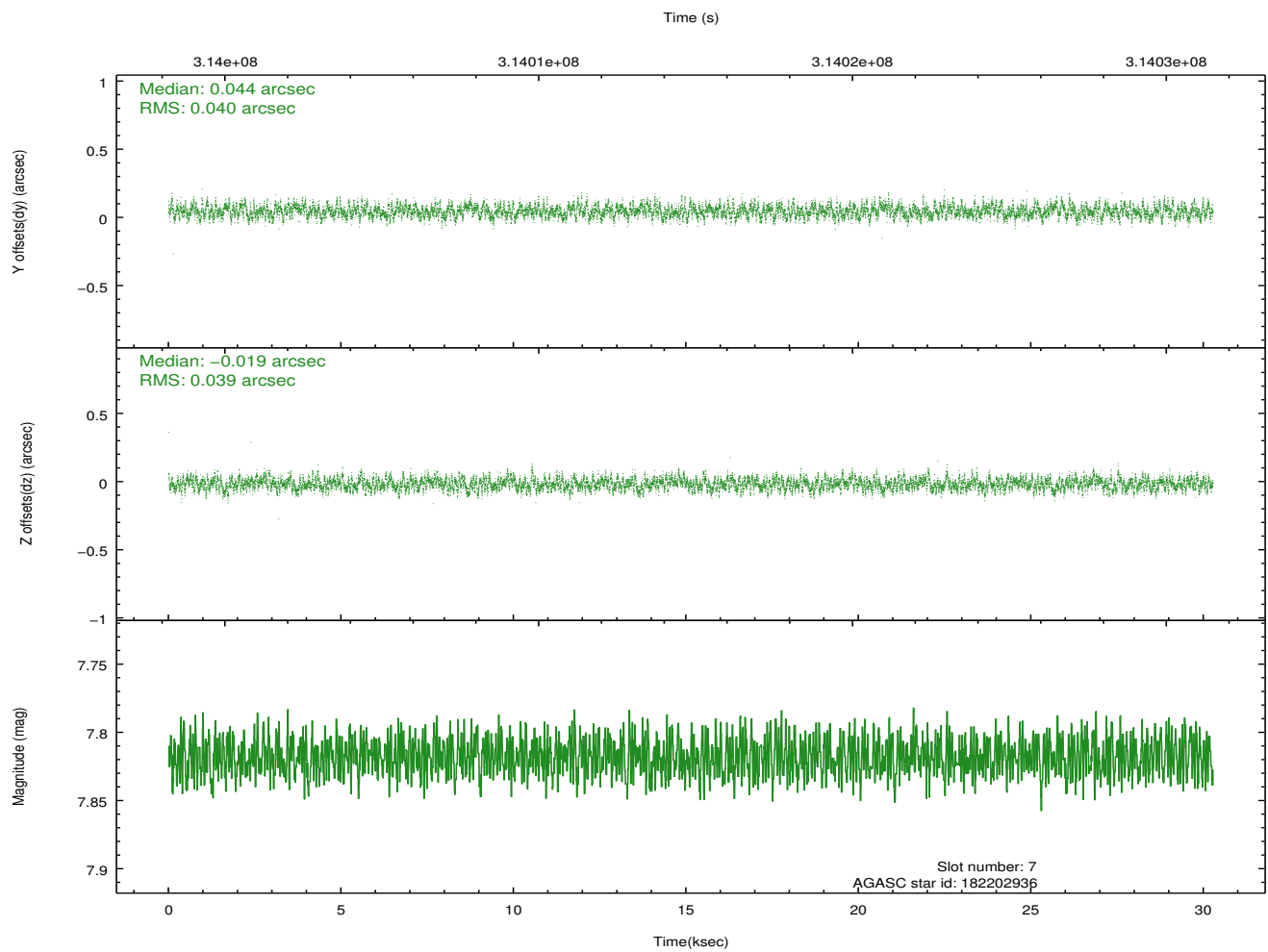
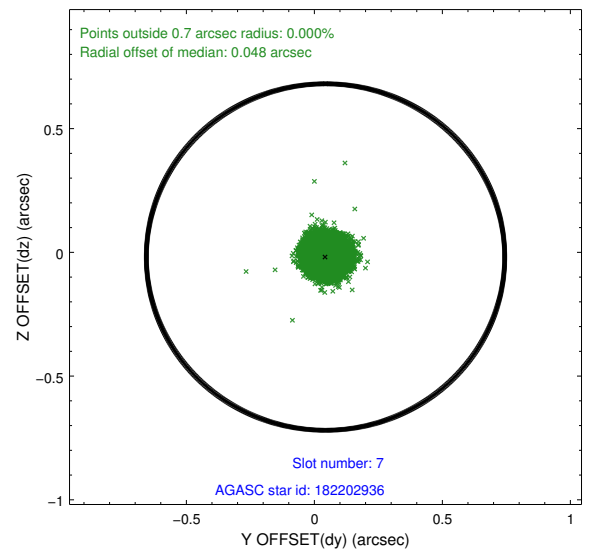
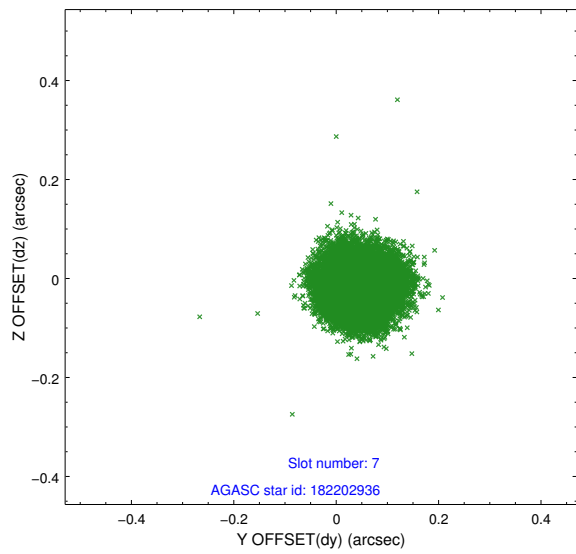
## 2.4.4 Slot 6



Time (s)

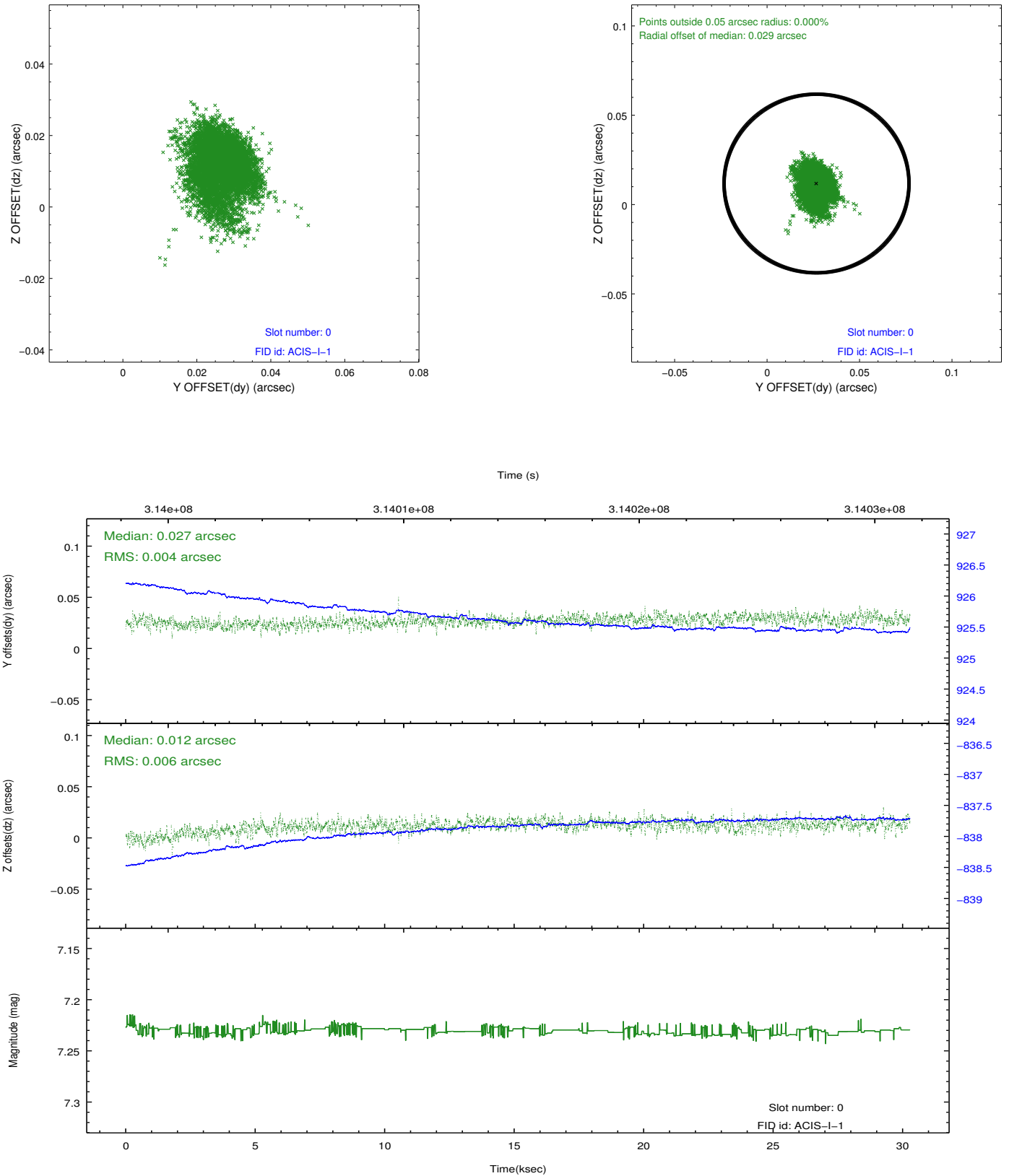


## 2.4.5 Slot 7

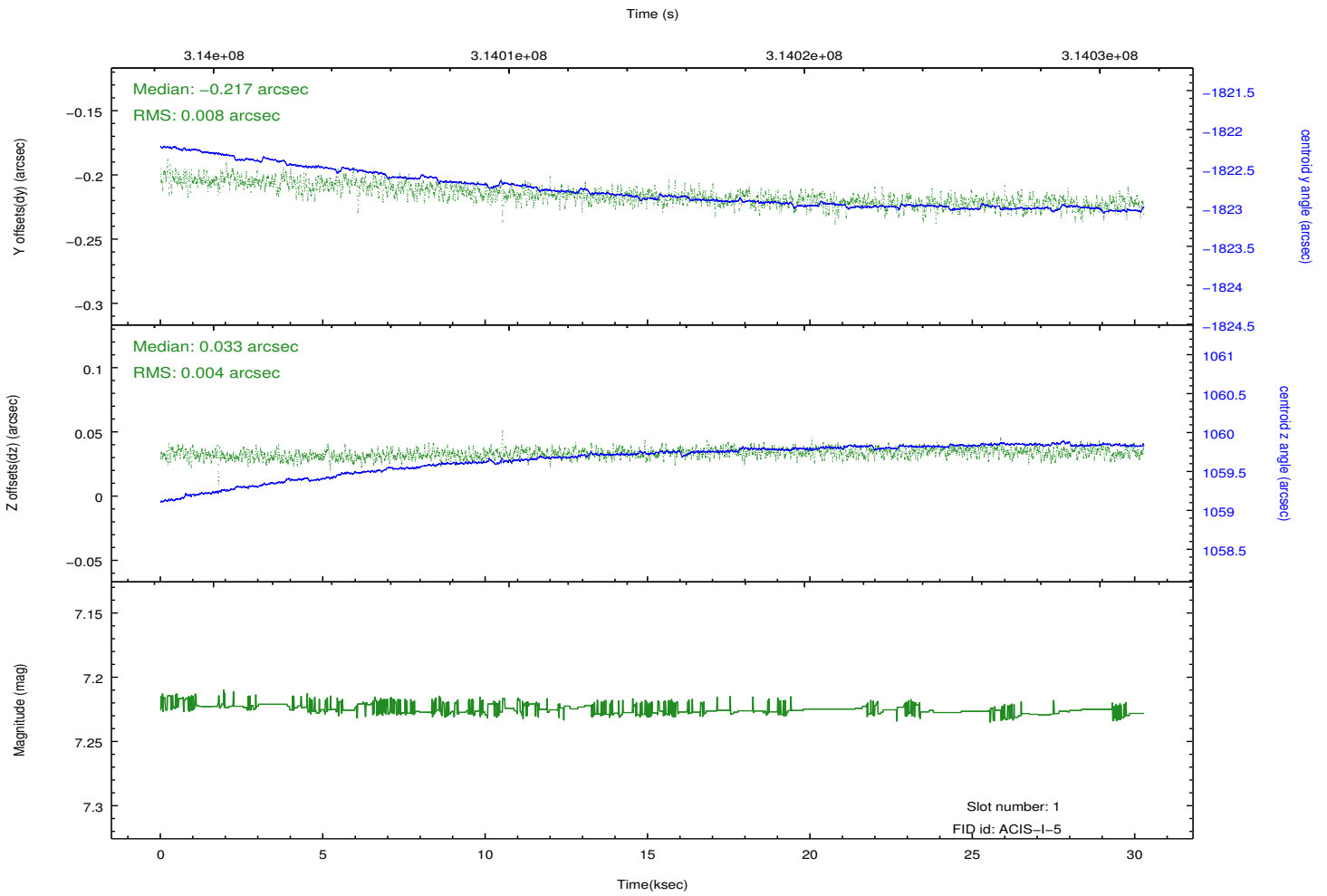
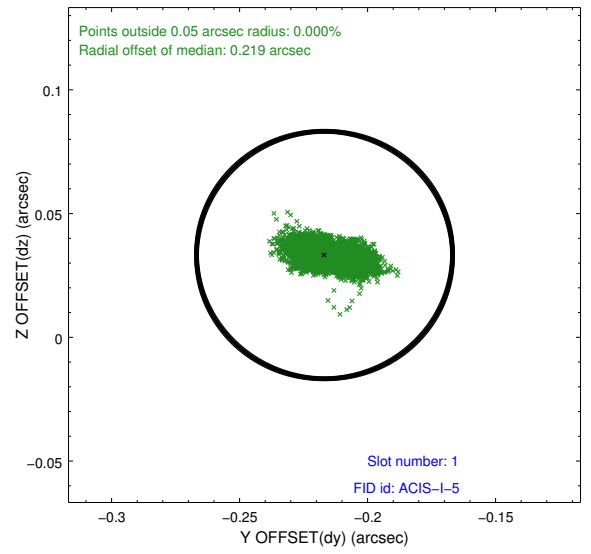
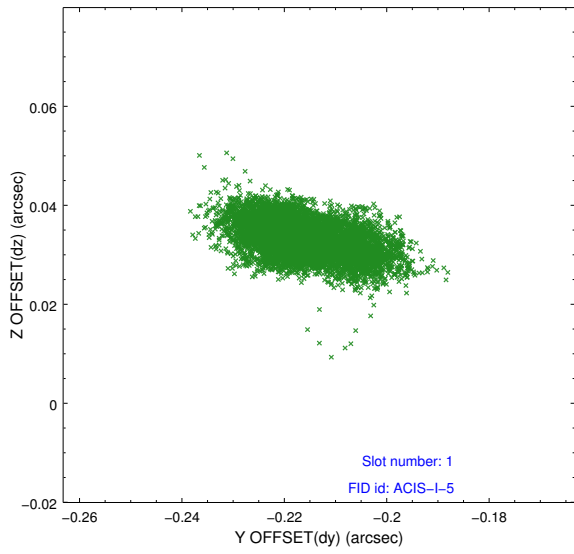


## 2.5 FID Slots

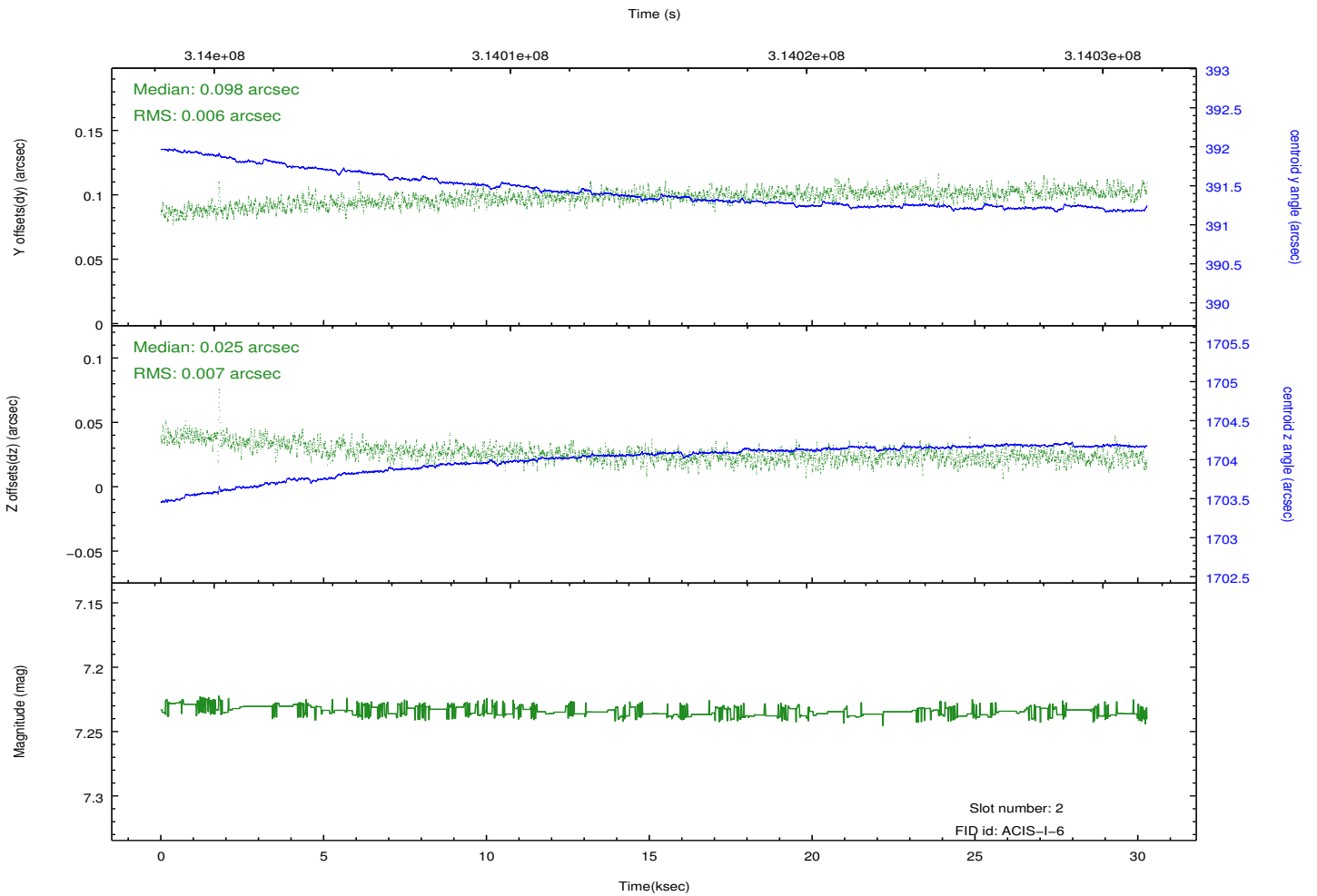
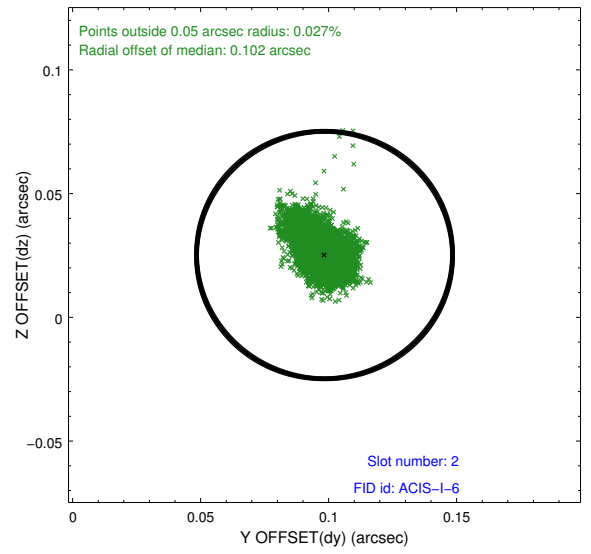
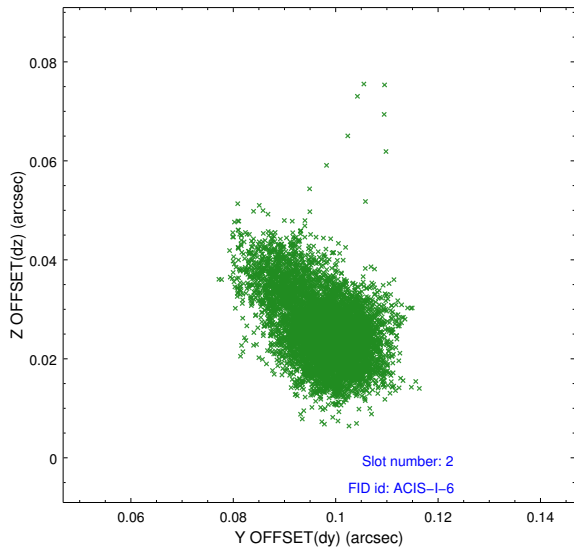
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.02.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.0483002

## A.2 Comments

Charge time for this ObsId remains at previous value of 30.0483002 ks, although with the current processing the charge time would be 29.9677 ks.

===

No ACIS housekeeping data were collected and downlinked for this observation, due to an unexpected shutdown of DPA side B. The only negative impact on the observation is the lack of an accurate focal plane temperature which is used for instrument calibration. In order to process the data, ACIS housekeeping files were constructed that assumed a focal plane temperature of -118.75 degrees C. This value was determined by interpolating between the FP temp values before the anomaly and after DPA side B was turned back on. Data for the analysis was obtained from MTA group in dataseeker. Details of workaround procedure are documented in log file for ACIS level 1 processing.