

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 15153 - L2 Version 2  
Chandra X-Ray Center

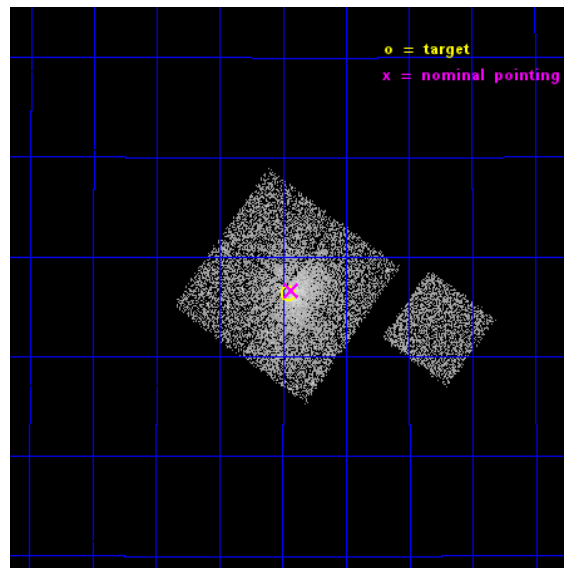
L2 Processing Date : Dec 1 2014

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# 1 Front

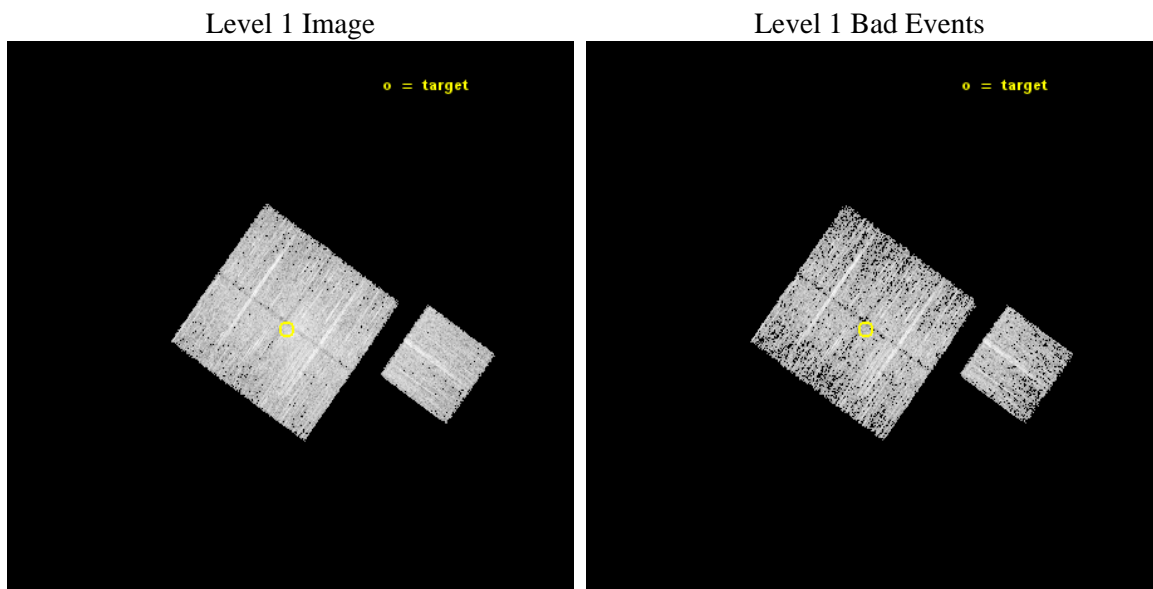
seq_num	801281	Sequence number
obs_id	15153	Observation id
title	COMPLETING eHIFLUGCS: THE ULTIMATE PRECISE AND ACCURATE LOCAL BASELINE	Proposal title
observer	Dr. Thomas Reiprich	Principal investigator
object	A1800	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	207.365	Observer's specified target RA [deg]
dec_targ	28.106	Observer's specified target Dec [deg]
ra_nom	207.35767760258	Nominal RA [deg]
dec_nom	28.110831629882	Nominal Dec [deg]
roll_nom	125.70048274469	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6088.4000468254	Sum of GTIs [s]
livetime	6008.8506179987	Livetime [s]
ontime0	6088.4000468254	Sum of GTIs [s]
ontime1	6088.4000468254	Sum of GTIs [s]
ontime2	6088.4000468254	Sum of GTIs [s]
ontime3	6088.4000468254	Sum of GTIs [s]
ontime6	6088.4000468254	Sum of GTIs [s]
l2events	21385	Number of level 2 events



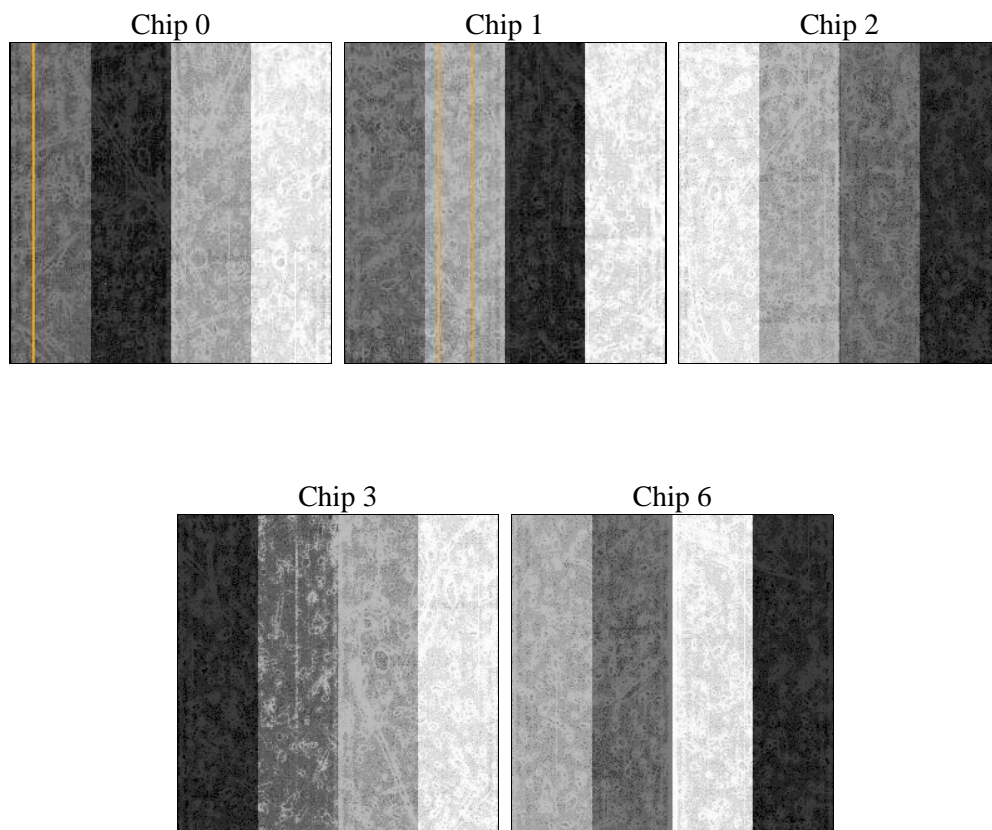
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6003.399000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	6088.4000468254	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime0	6088.4000468254	Sum of GTIs [s]
date	2014-12-02T03:09:01	Date and time of file creation	ontime1	6088.4000468254	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	6088.4000468254	Sum of GTIs [s]
			ontime3	6088.4000468254	Sum of GTIs [s]
			ontime6	6088.4000468254	Sum of GTIs [s]
			l1events	154984	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	27996	29389	34599	33167	29833
rejected events	23549	24960	28581	26823	26127
rejected %	84%	84%	82%	80%	87%

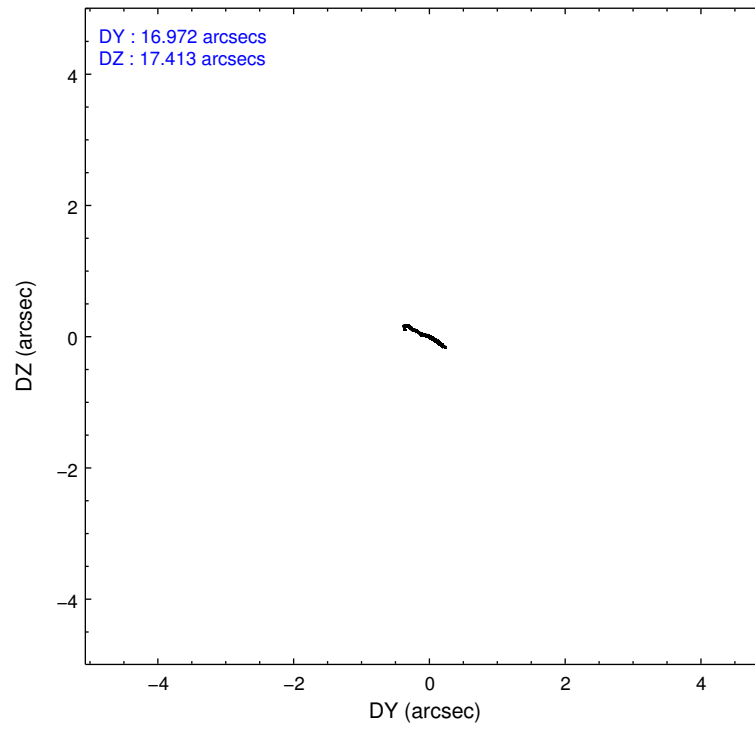
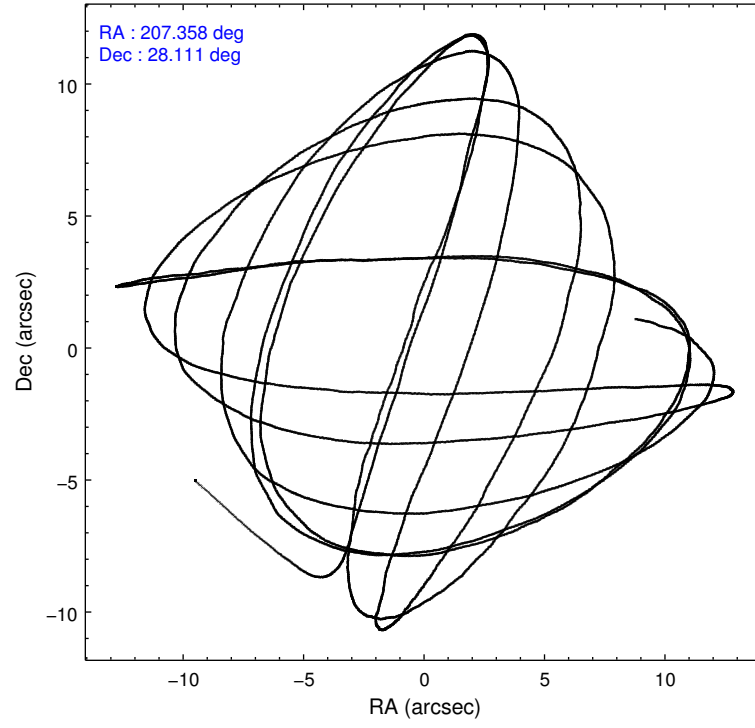
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1965	1873	3392	3674	1349
	7%	6%	9%	11%	4%
grade 1 events	20	12	33	34	10
	0%	0%	0%	0%	0%
grade 2 events	1039	919	1178	1035	807
	3%	3%	3%	3%	2%
grade 3 events	403	416	402	474	377
	1%	1%	1%	1%	1%
grade 4 events	360	421	416	425	393
	1%	1%	1%	1%	1%
grade 5 events	1166	1252	1001	1372	1231
	4%	4%	2%	4%	4%
grade 6 events	681	803	631	739	782
	2%	2%	1%	2%	2%
grade 7 events	22362	23693	27546	25414	24884
	79%	80%	79%	76%	83%

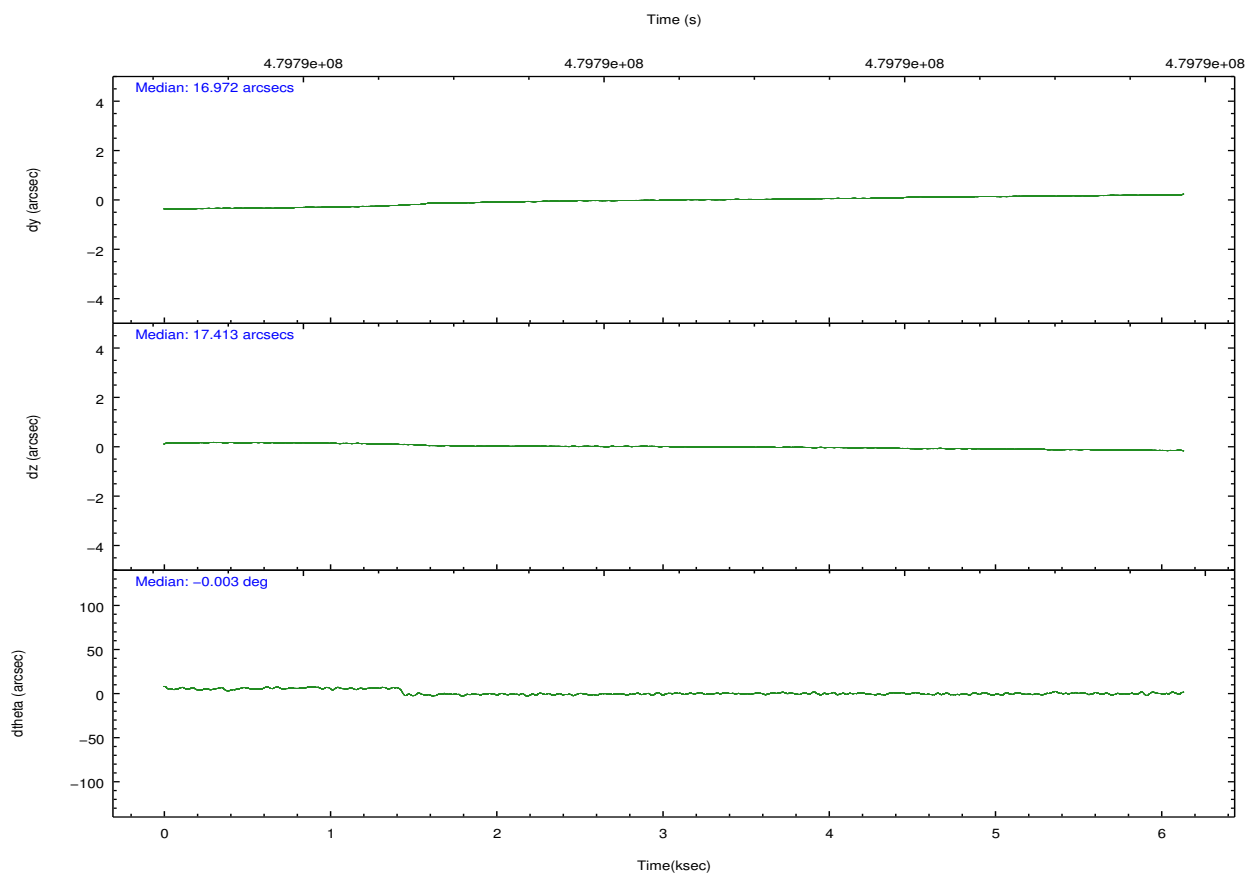
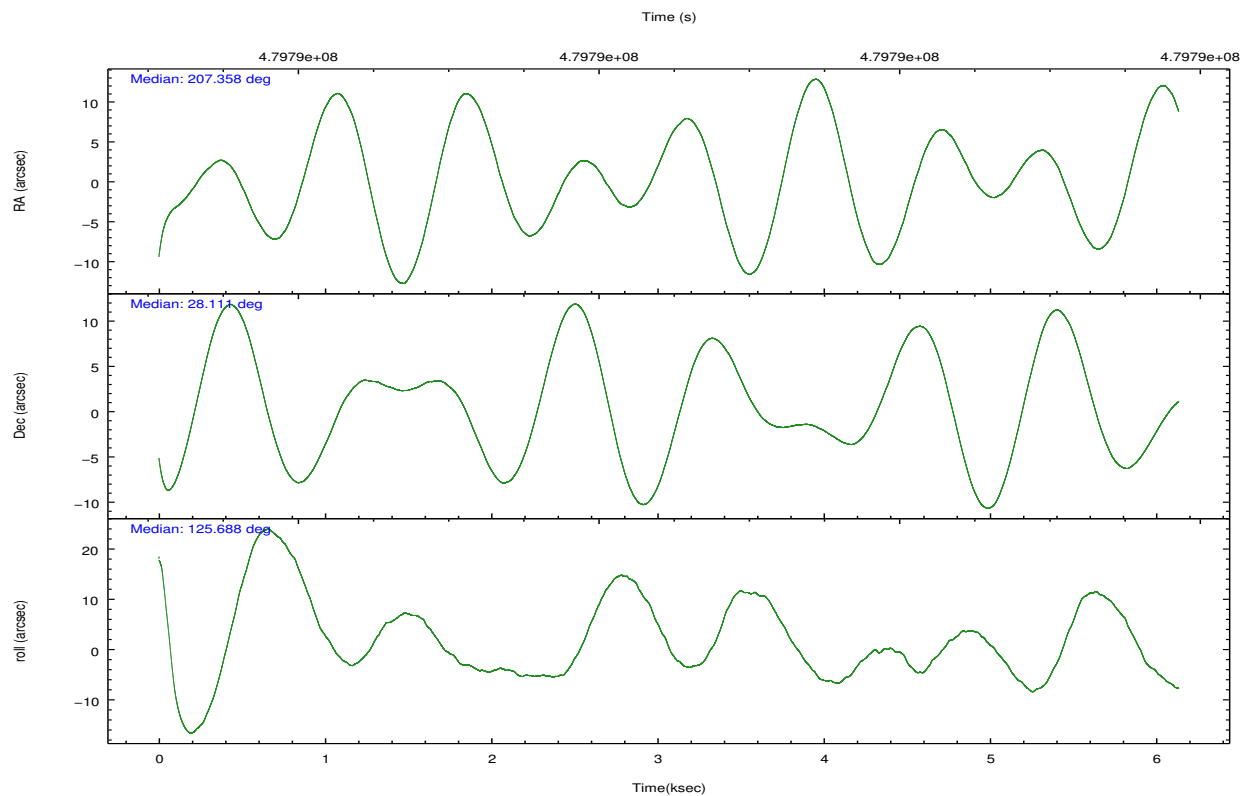


## 2.2 Compared Parameters

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	207.386142	207.3576776025799	CCD I2 on	Y	Y
[deg] Pointing Dec	28.099654	28.11083162988167	CCD I3 on	Y	Y
[deg] Pointing Roll	125.478307	125.7004827446916	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)	479787522.184000	479786365.03691	CCD S5 on	N	N
Observation start date	2013-03-16T02:17:35	2013-03-16T01:59:25	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	479793525.184000	479793763.48731	On-chip summing requested	N	N
Observation end date	2013-03-16T03:57:38	2013-03-16T04:02:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



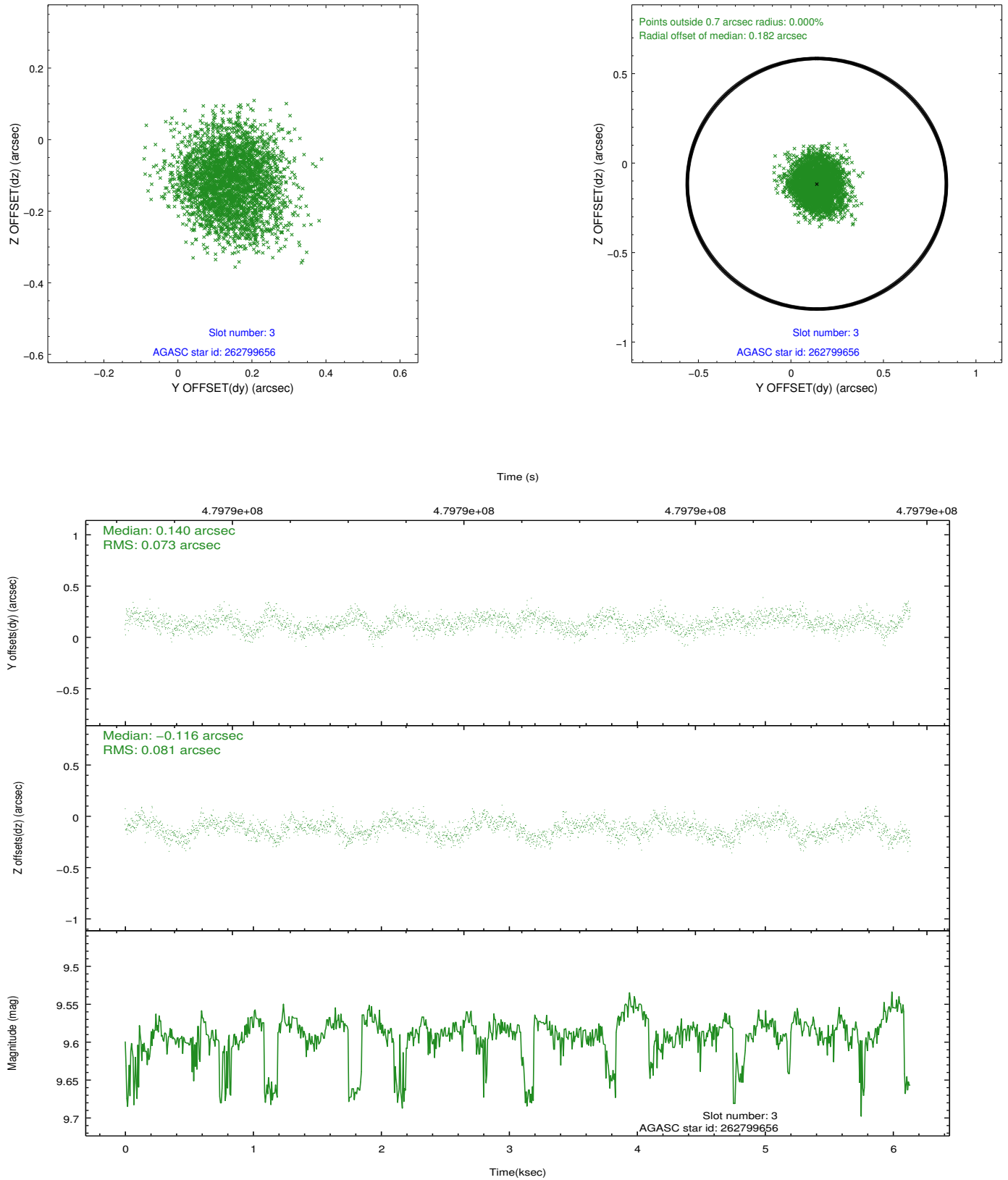


### Slot Statistics

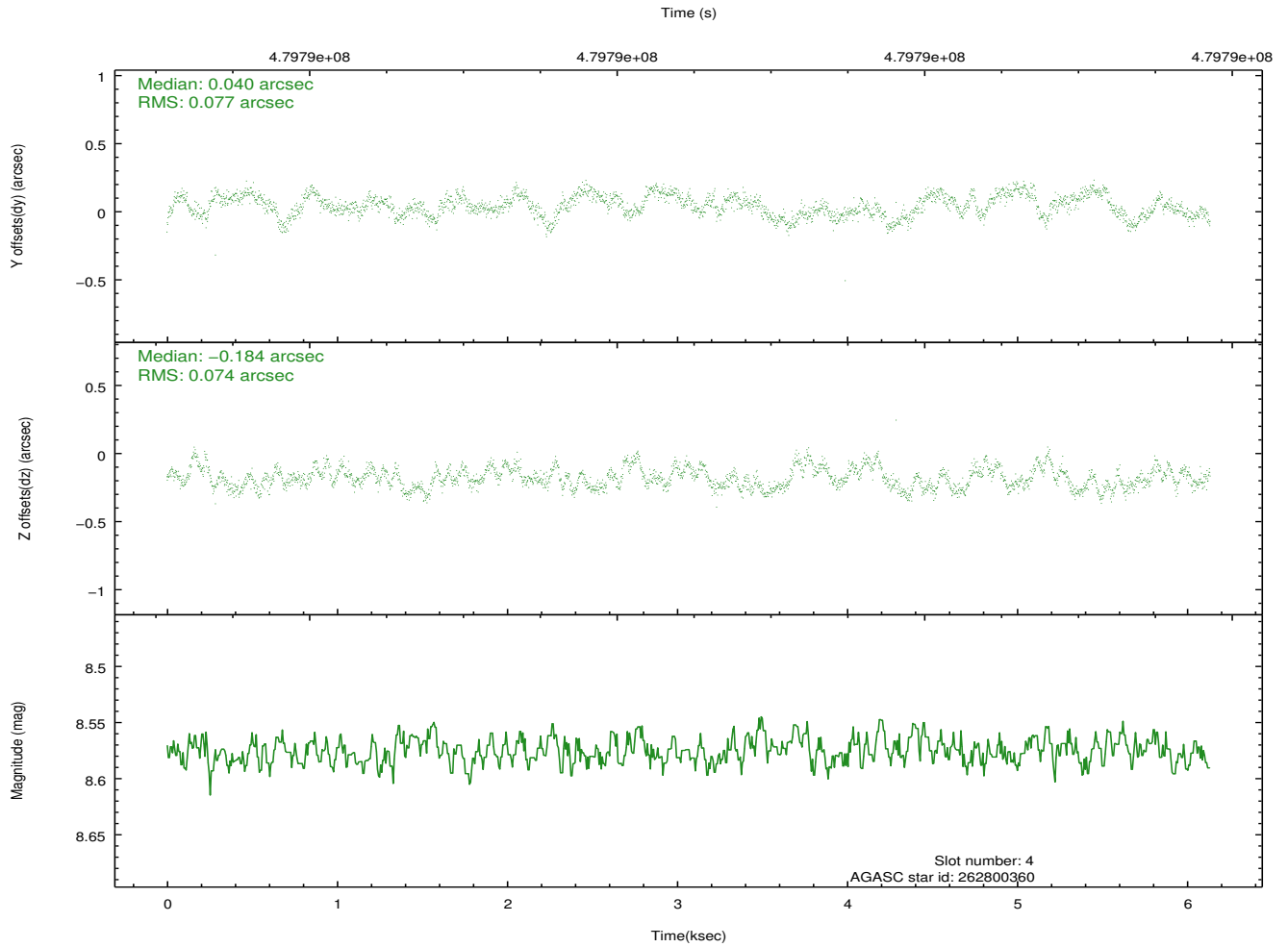
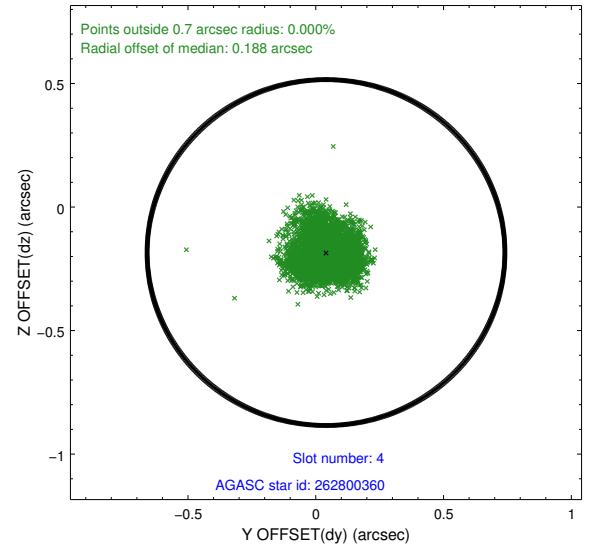
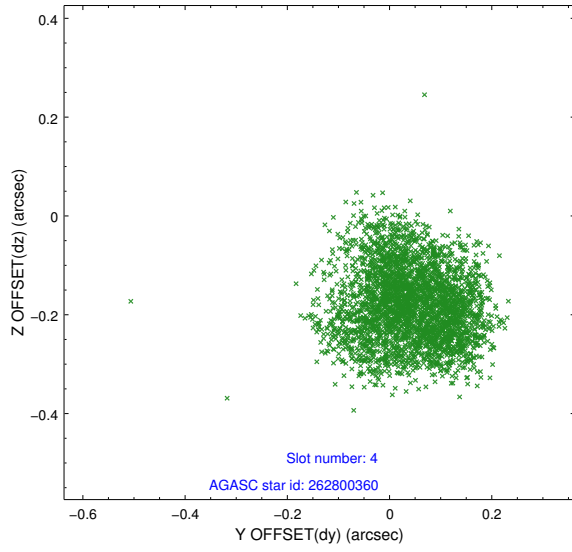
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.08	1497	-0.080	-0.025	0.012	0.055	0.000000	0.000000	922.40	-841.09
1	FID		ACIS-I-2	6.99	1497	-0.175	-0.086	0.009	0.019	0.000000	0.000000	-771.25	-848.10
2	FID		ACIS-I-4	7.01	1497	0.159	0.179	0.010	0.056	0.000000	0.000000	2142.07	1058.42
3	GUIDE	used	262799656	9.59	2976	0.140	-0.116	0.118	0.185	207.617982	27.536378	-2080.05	574.16
4	GUIDE	used	262800360	8.58	2994	0.040	-0.184	0.118	0.174	207.437814	27.569136	-1651.50	974.34
5	GUIDE	used	262802080	9.92	2991	-0.009	0.134	0.240	0.388	208.253374	28.111487	-1555.61	-2271.98
6	GUIDE	used	262802104	8.82	2991	-0.074	0.212	0.094	0.146	208.223872	28.192957	-1261.05	-2364.77
7	GUIDE	used	262407800	10.07	2992	-0.092	-0.038	0.165	0.268	207.321181	27.251762	-2364.72	1942.39

## 2.4 Star Slots

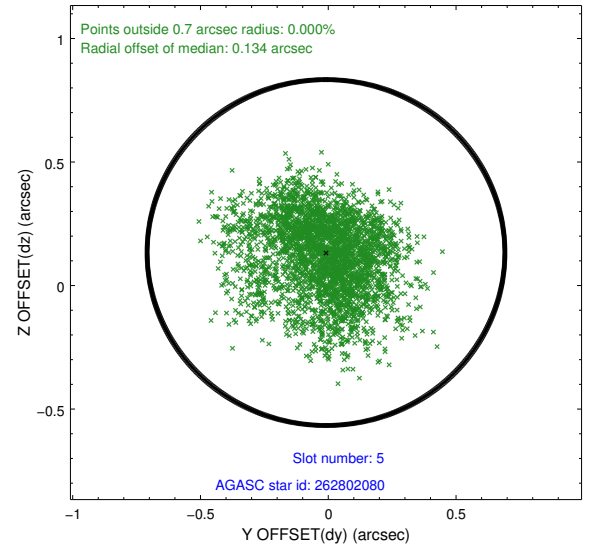
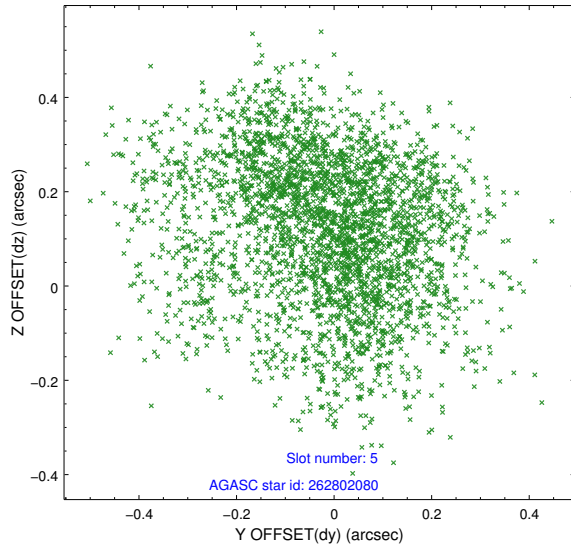
### 2.4.1 Slot 3



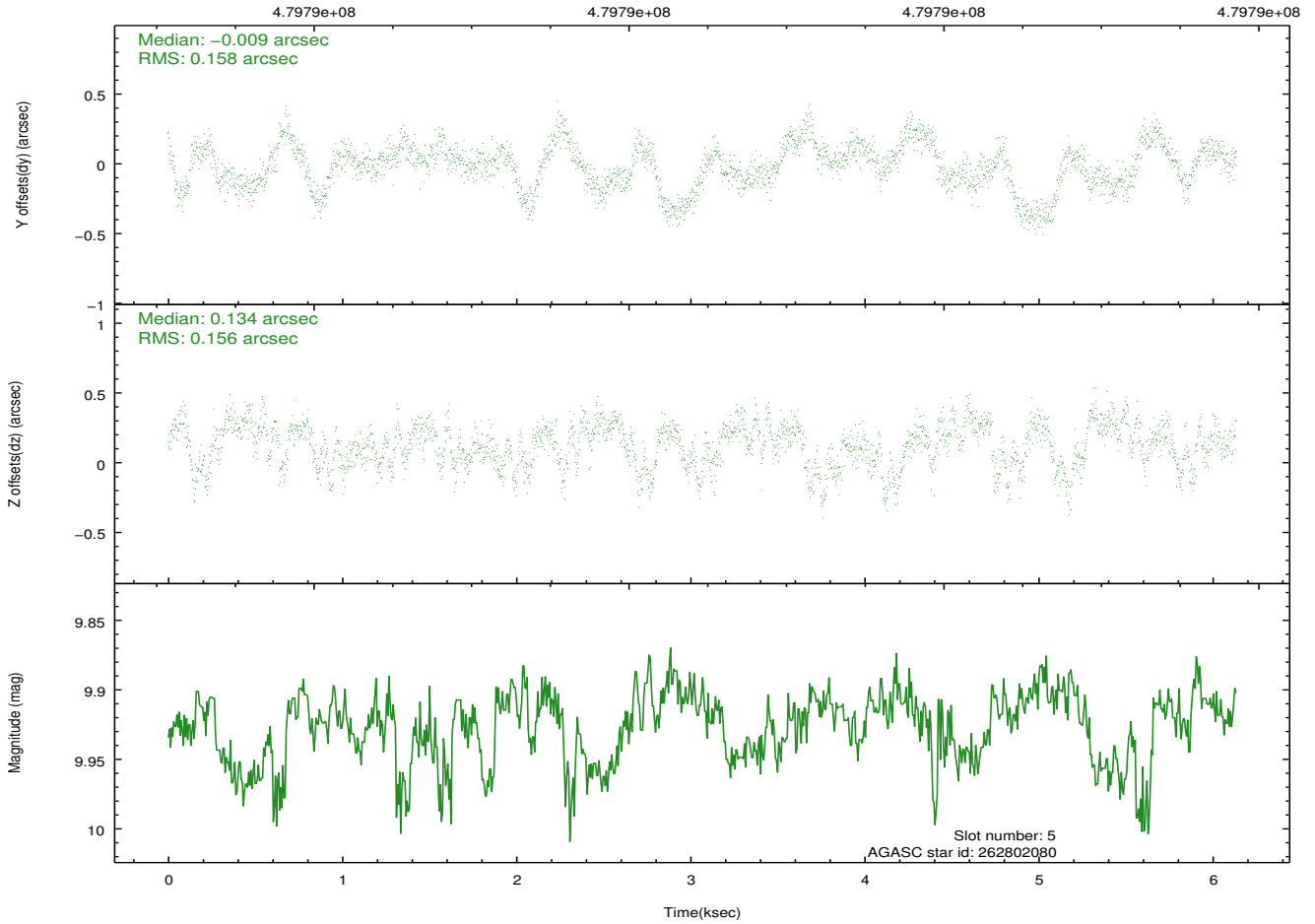
## 2.4.2 Slot 4



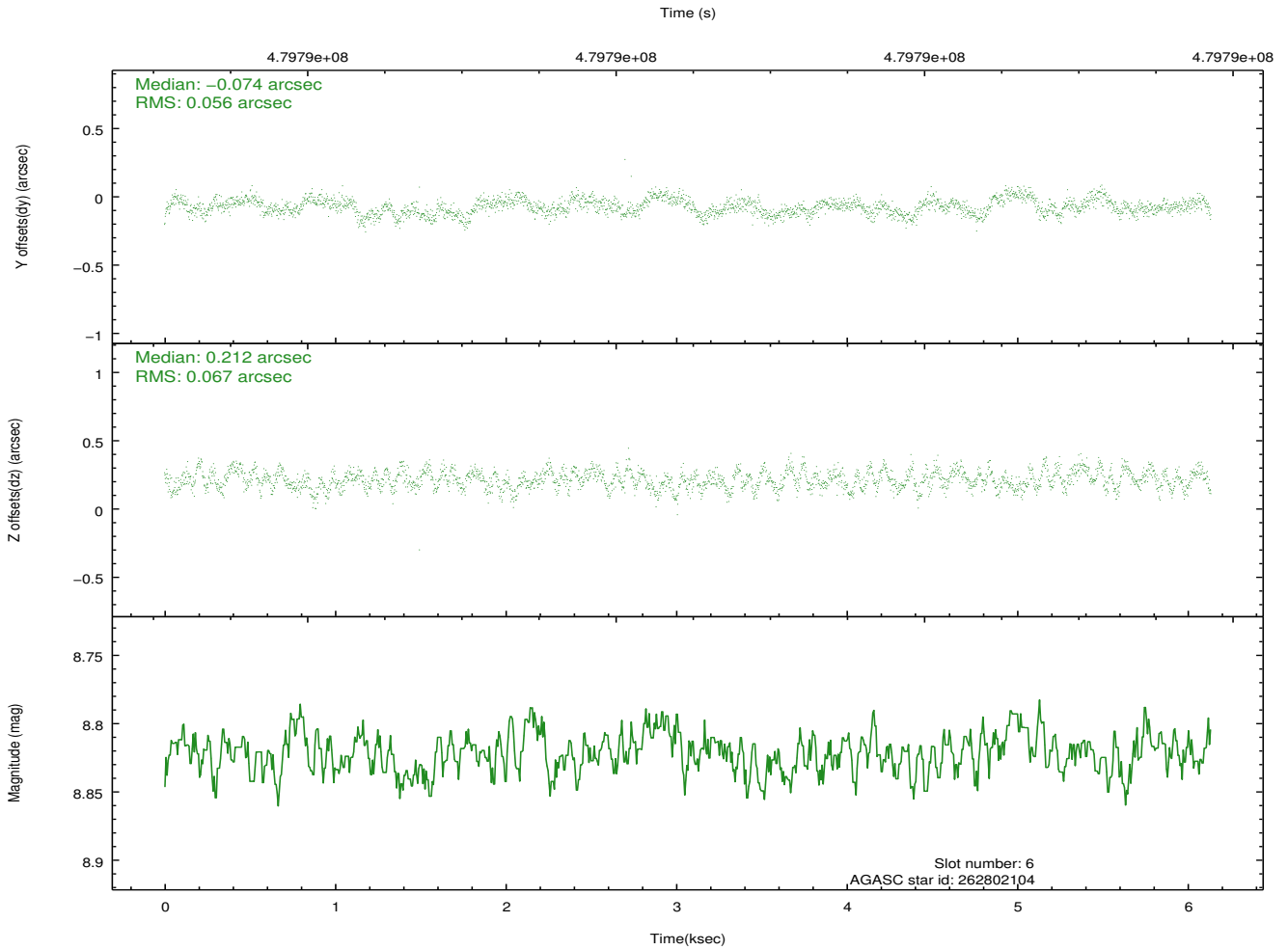
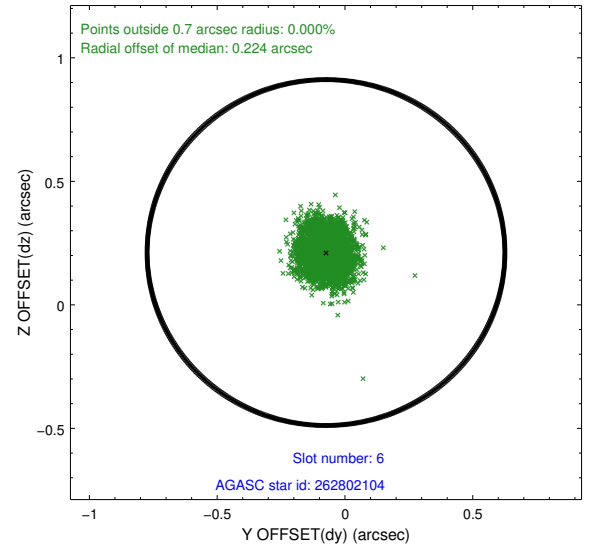
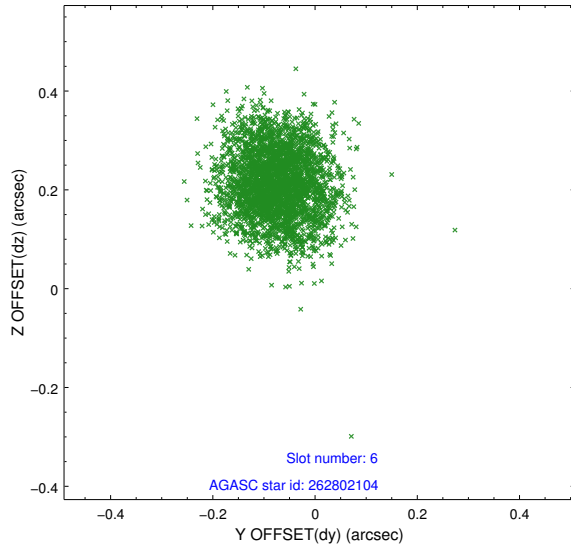
### 2.4.3 Slot 5



Time (s)

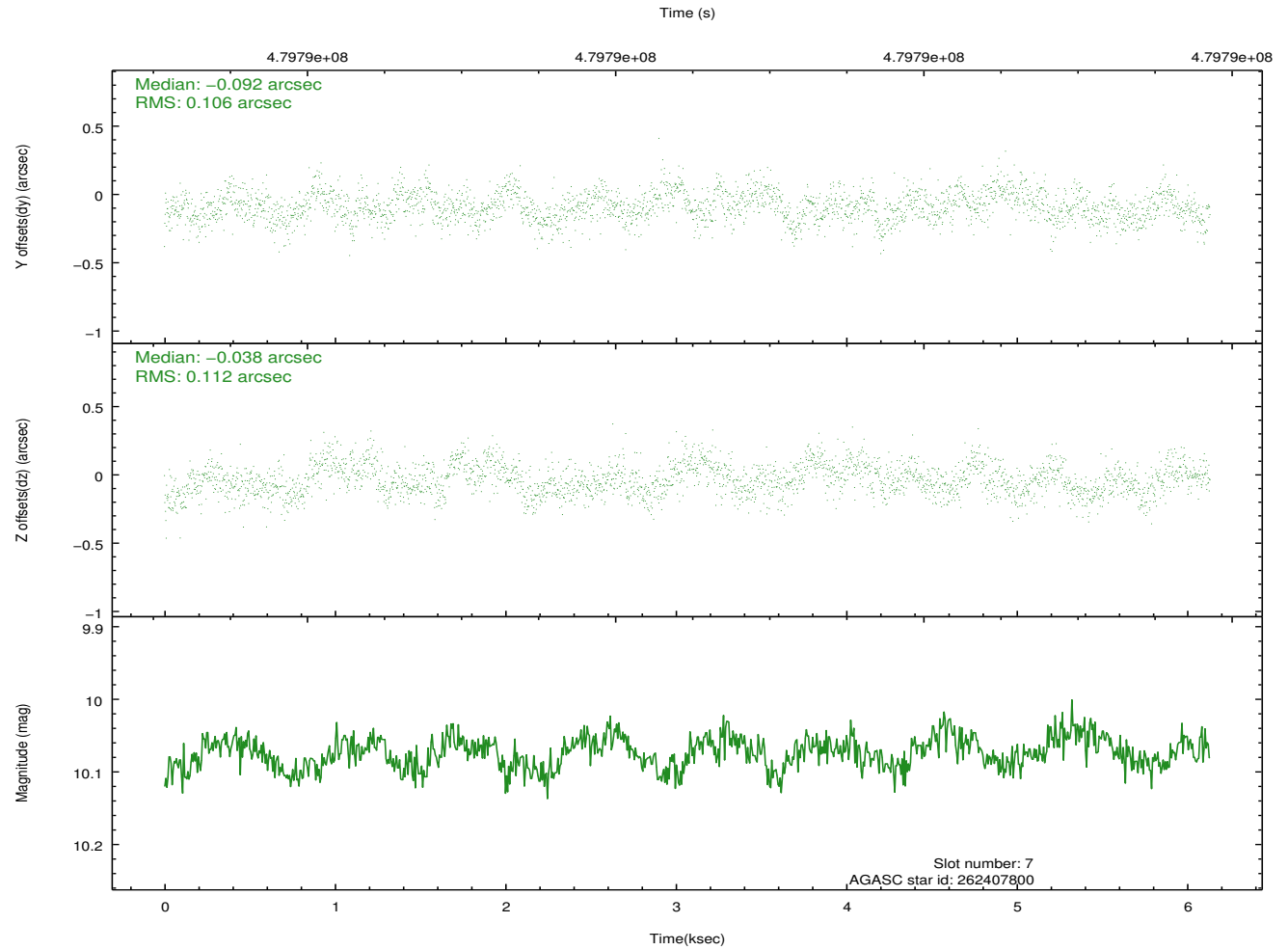
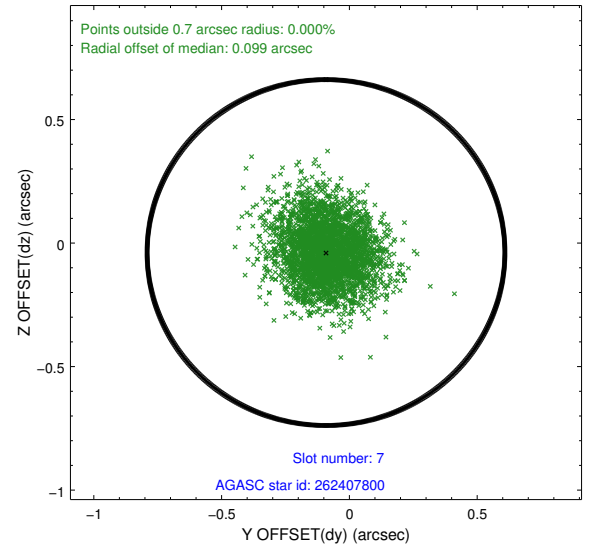
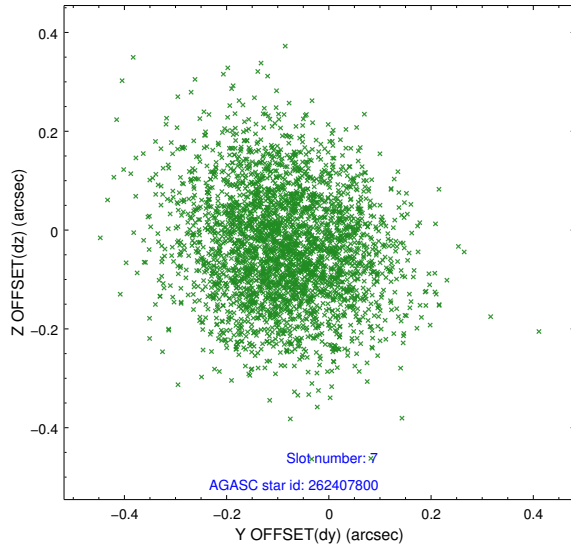


## 2.4.4 Slot 6



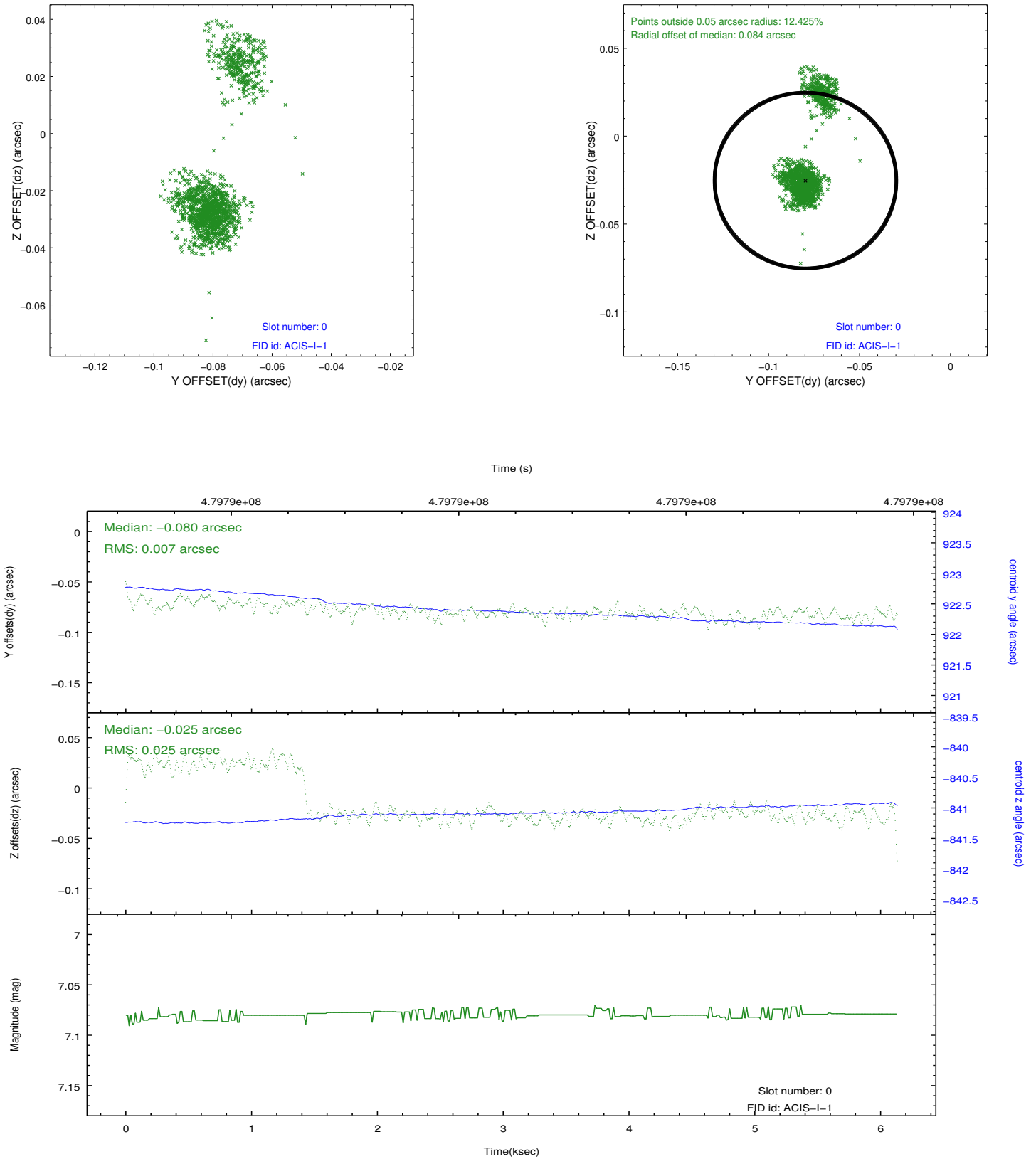


## 2.4.5 Slot 7

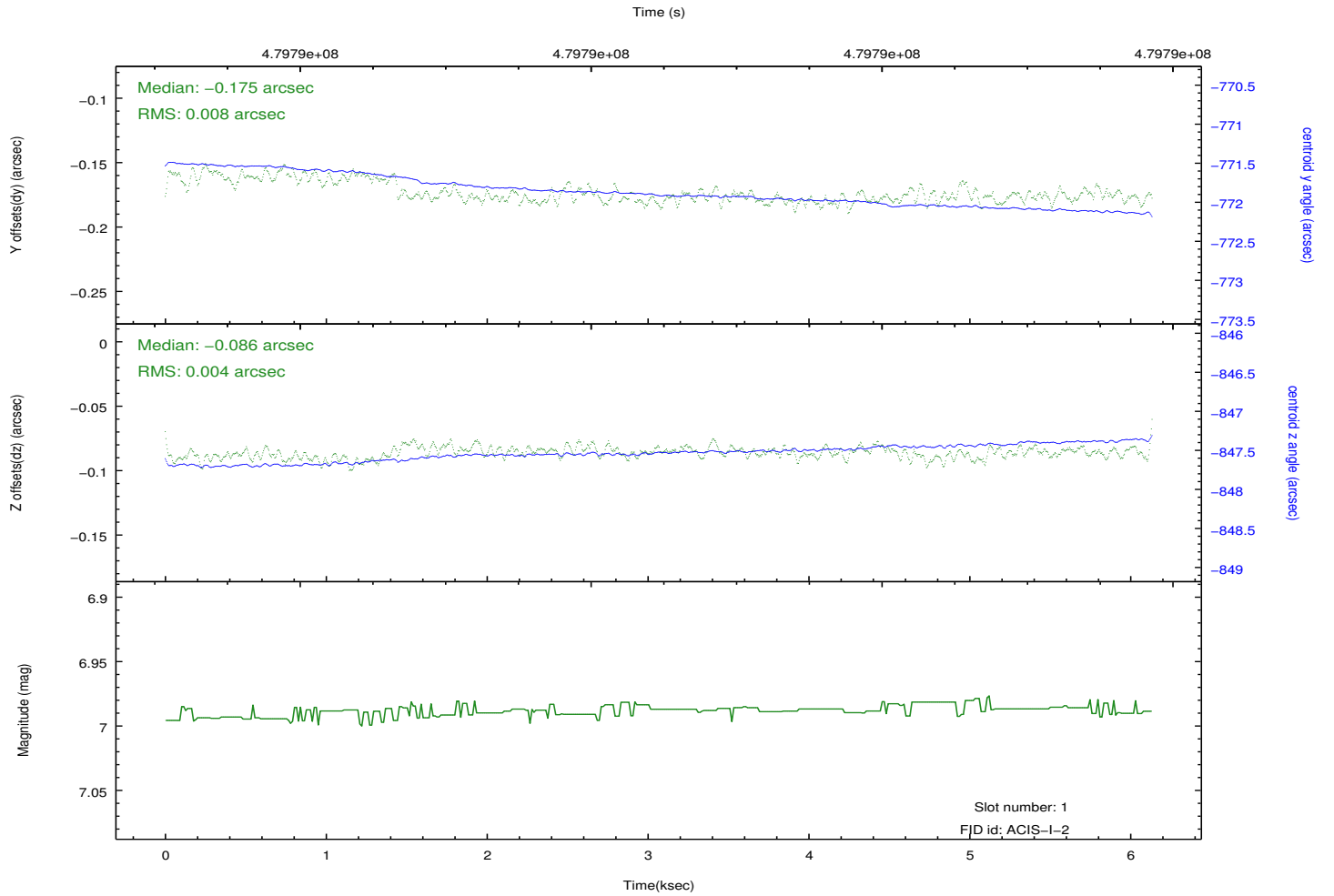
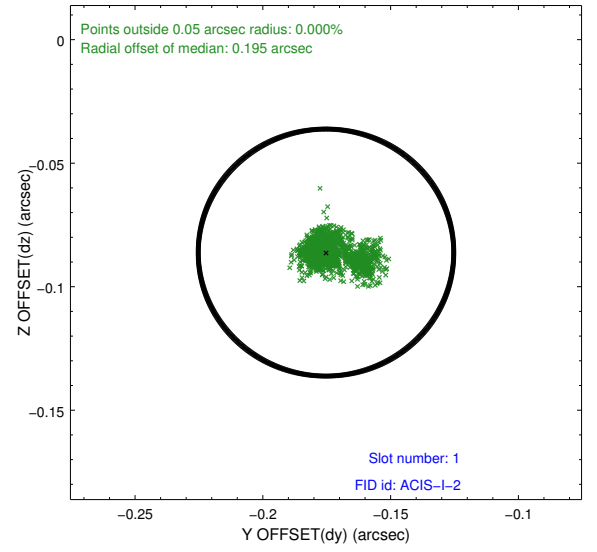
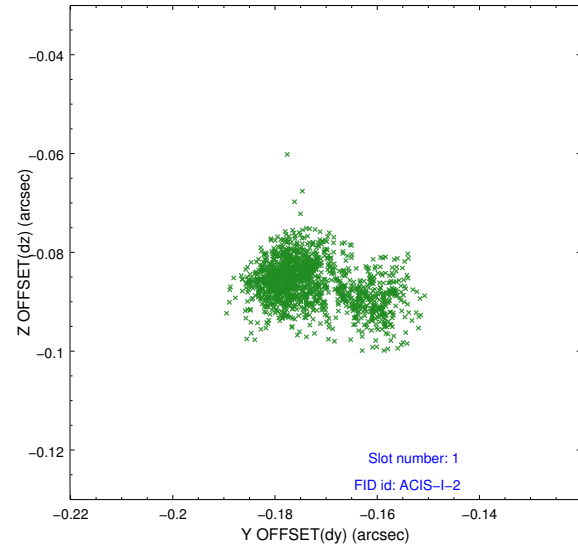


## 2.5 FID Slots

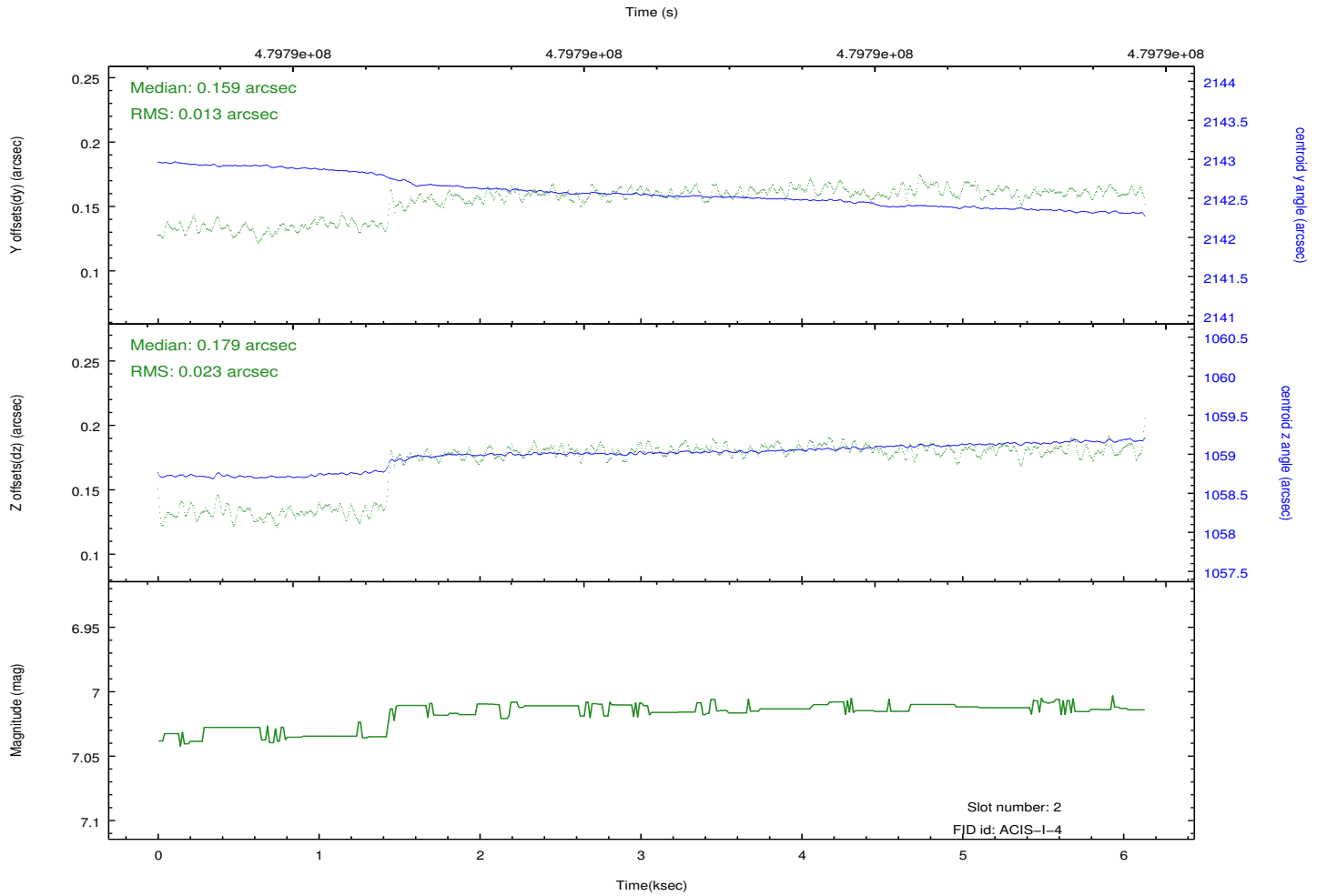
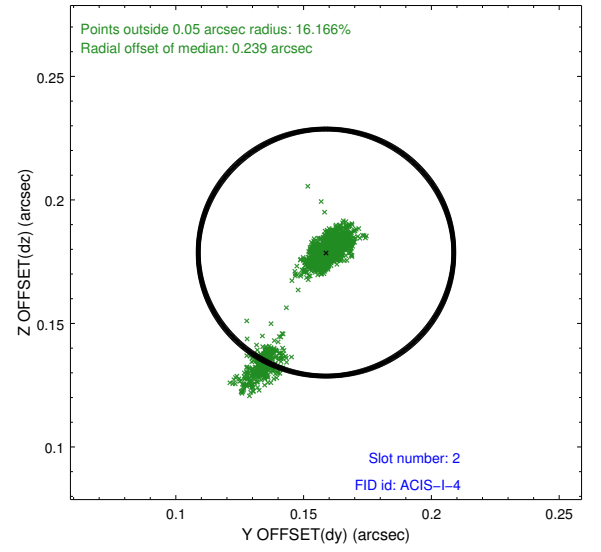
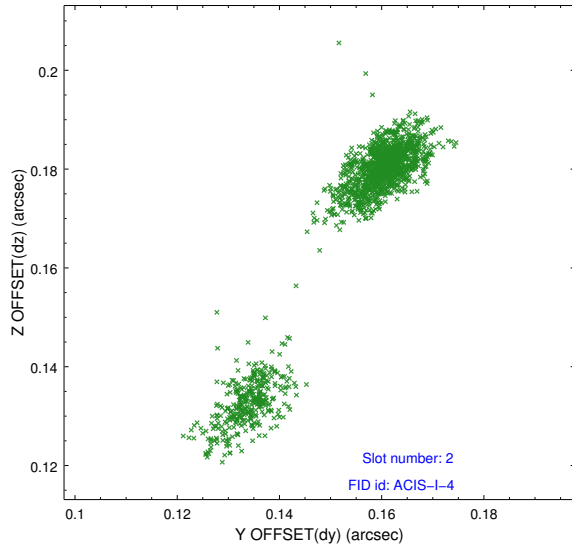
### 2.5.1 Slot 0



## 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)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.0884000468254

## 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.