

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 6972 - L2 Version 2  
Chandra X-Ray Center

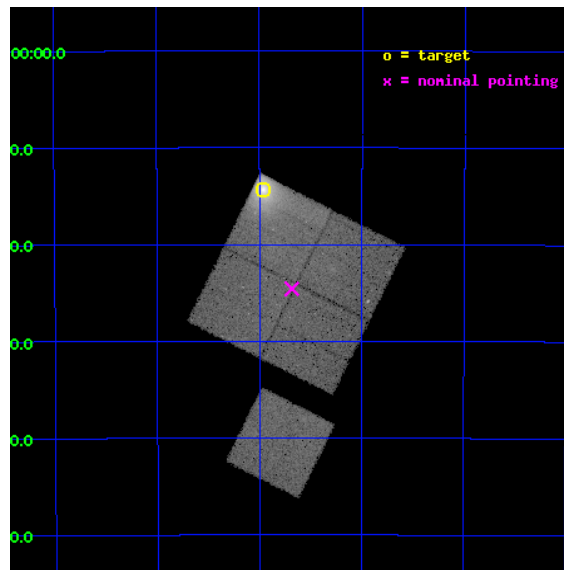
L2 Processing Date : Mar 30 2012

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# 1 Front

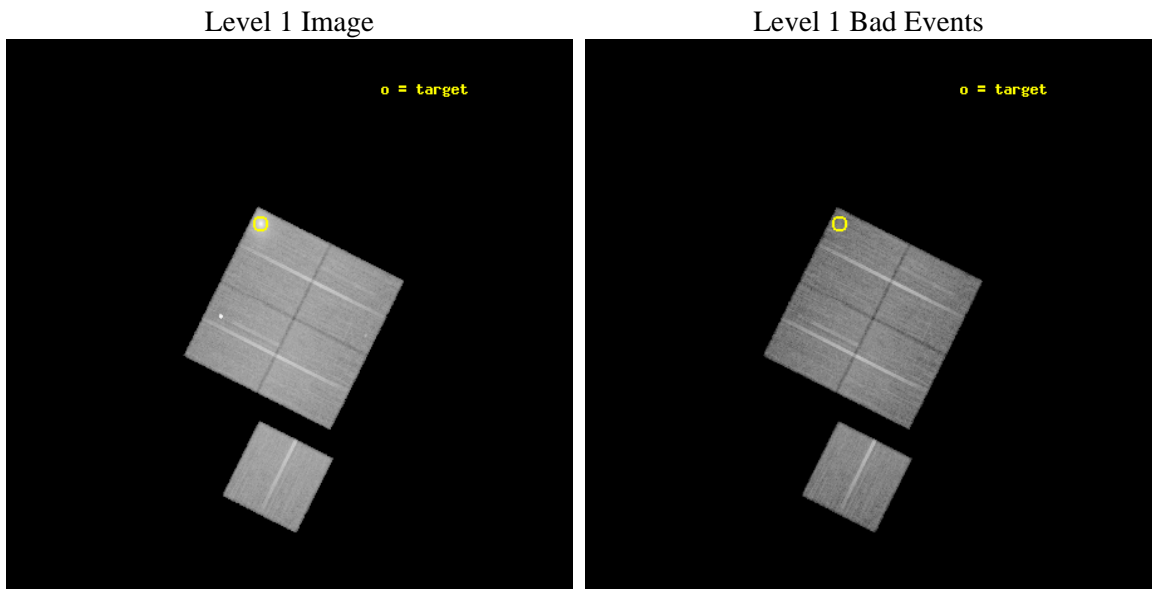
seq_num	800605	Sequence number
obs_id	6972	Observation id
title	VERIFICATION OF THE CLUSTER GAS FRACTION AS A COSMOLOGICAL TOOL	Pr
observer	Dr Maxim Markevitch	Principal investigator
object	A3112_OFF	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.490417	Observer's specified target RA [deg]
dec_targ	-44.238056	Observer's specified target Dec [deg]
ra_nom	49.420776866393	Nominal RA [deg]
dec_nom	-44.409681008486	Nominal Dec [deg]
roll_nom	206.59560795134	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30156.758951753	Sum of GTIs [s]
livetime	29762.738694966	Livetime [s]
ontime0	30156.758951813	Sum of GTIs [s]
ontime1	30156.758951753	Sum of GTIs [s]
ontime2	30150.477021188	Sum of GTIs [s]
ontime3	30159.899941981	Sum of GTIs [s]
ontime6	30156.758951843	Sum of GTIs [s]
l2events	179645	Number of level 2 events



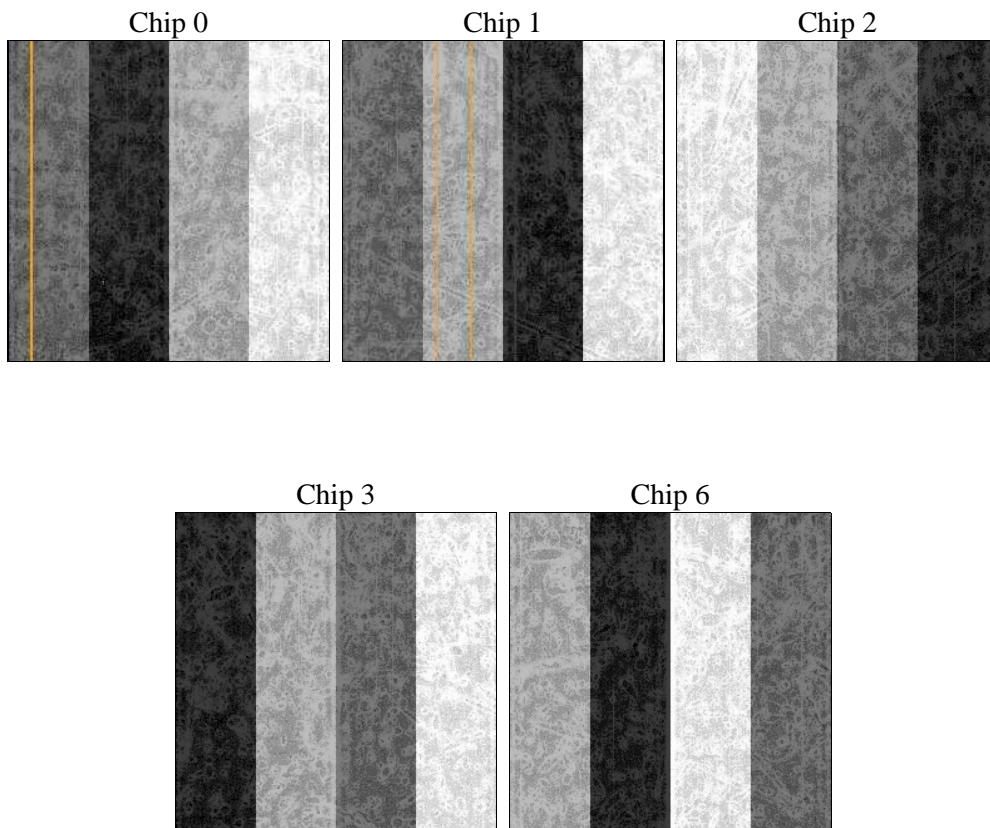
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29996.271000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	30156.758951753	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime0	30156.758951813	Sum of GTIs [s]
date	2012-03-30T07:20:31	Date and time of file creation	ontime1	30156.758951753	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	30150.477021188	Sum of GTIs [s]
			ontime3	30159.899941981	Sum of GTIs [s]
			ontime6	30156.758951843	Sum of GTIs [s]
			l1events	1207419	Number of level 1 events

### 2.1.4 Events

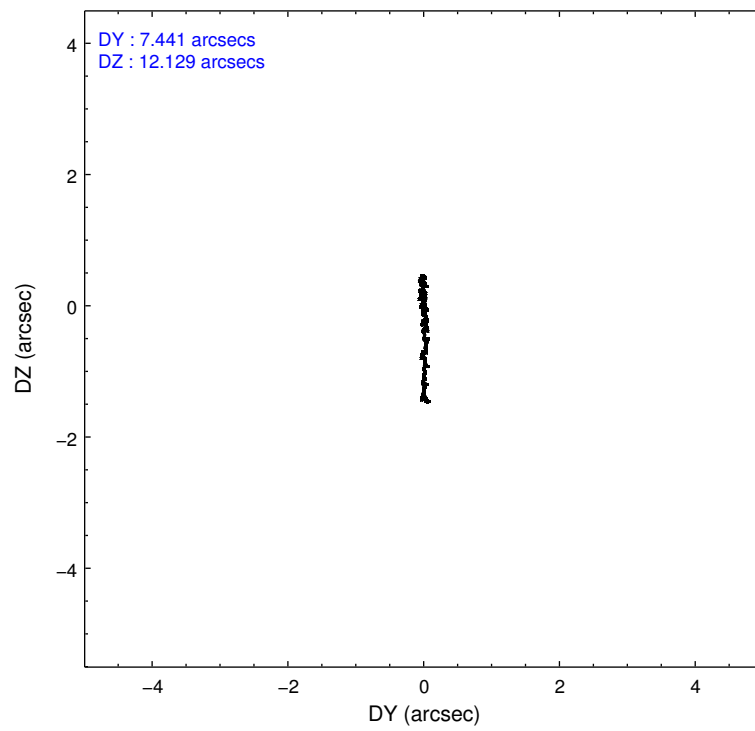
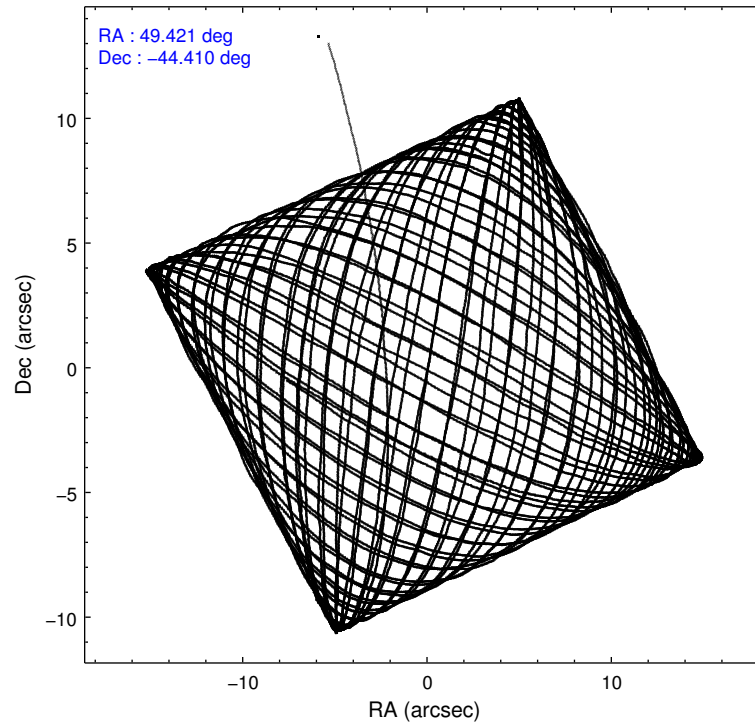
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	219218	280570	241274	234805	231552
rejected events	191345	186890	215072	199006	203761
rejected %	87%	66%	89%	84%	87%

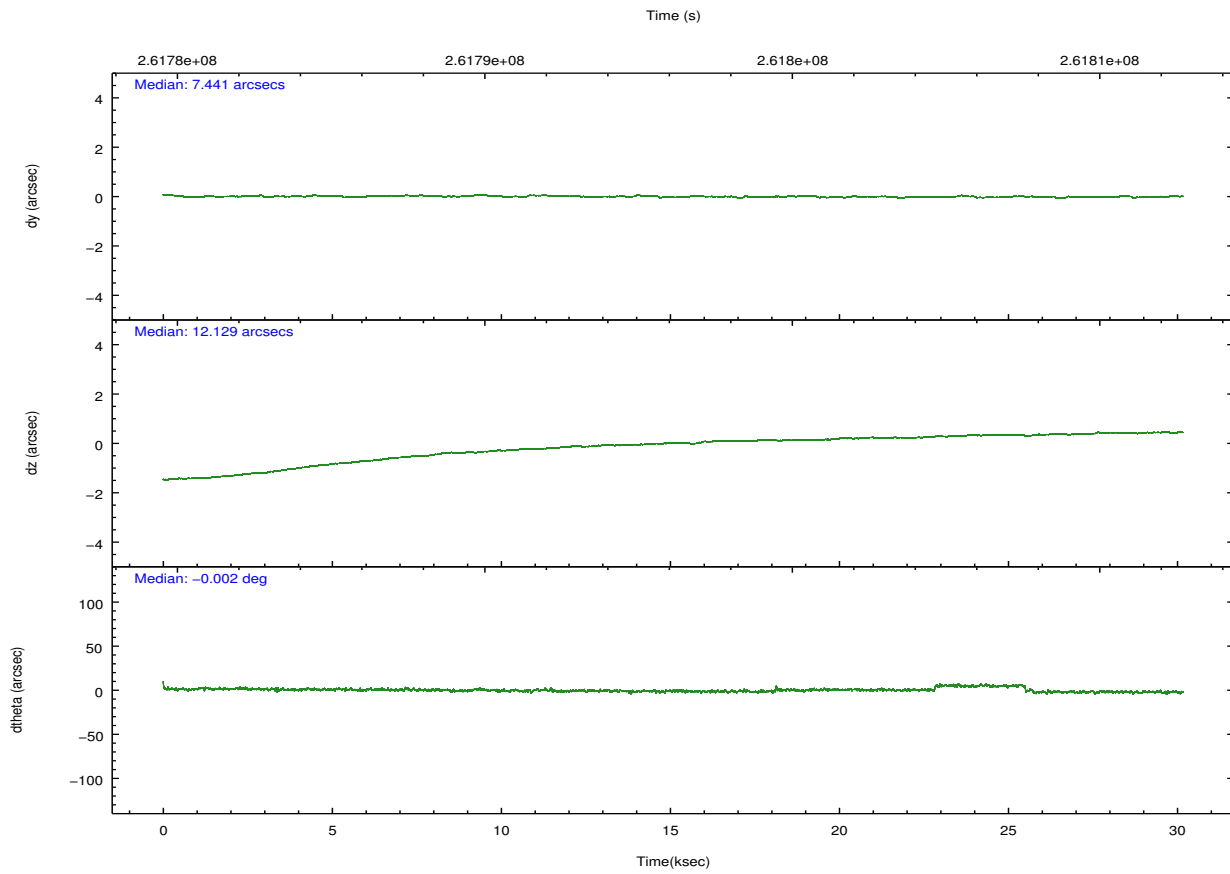
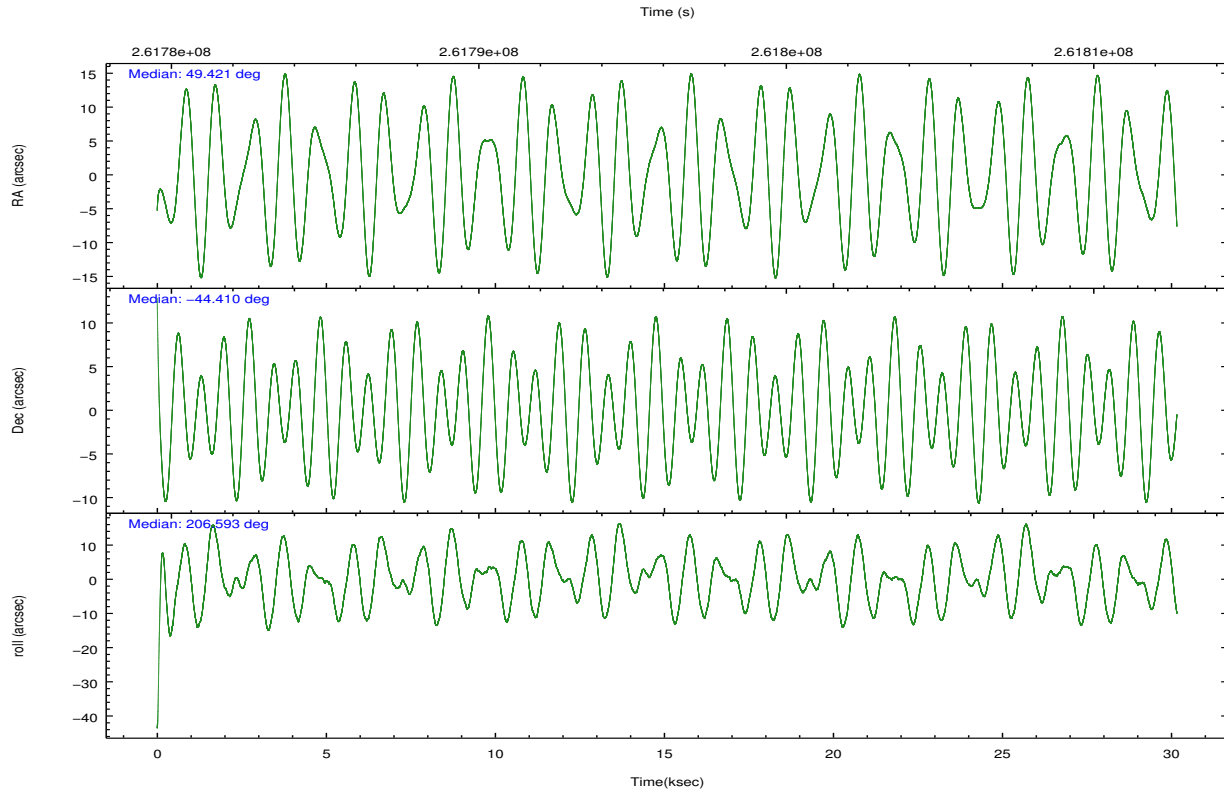
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	12529	64667	11325	21228	11900
	5%	23%	4%	9%	5%
grade 1 events	145	391	143	188	114
	0%	0%	0%	0%	0%
grade 2 events	5937	12684	5632	5172	5601
	2%	4%	2%	2%	2%
grade 3 events	2668	5085	2570	2649	2692
	1%	1%	1%	1%	1%
grade 4 events	2564	4803	2612	2691	2709
	1%	1%	1%	1%	1%
grade 5 events	7586	8643	7180	8827	8719
	3%	3%	2%	3%	3%
grade 6 events	4466	7115	4337	4469	5168
	2%	2%	1%	1%	2%
grade 7 events	183323	177182	207475	189581	194649
	83%	63%	85%	80%	84%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	49.441759	49.42077686639333	Subarray requested	NONE	NONE
[deg] Pointing Dec	-44.386738	-44.40968100848588	Alternating exposures requested	N	N
[deg] Pointing Roll	206.401625	206.5956079513414	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	261781204.184000	261780027.38645			
Observation start date	2006-04-18T20:58:59	2006-04-18T20:40:27			
[s] Observation end time (MET)	261811200.184000	261811437.48791			
Observation end date	2006-04-19T05:18:55	2006-04-19T05:23:57			
Read mode	TIMED	TIMED			

## 2.3 Aspect



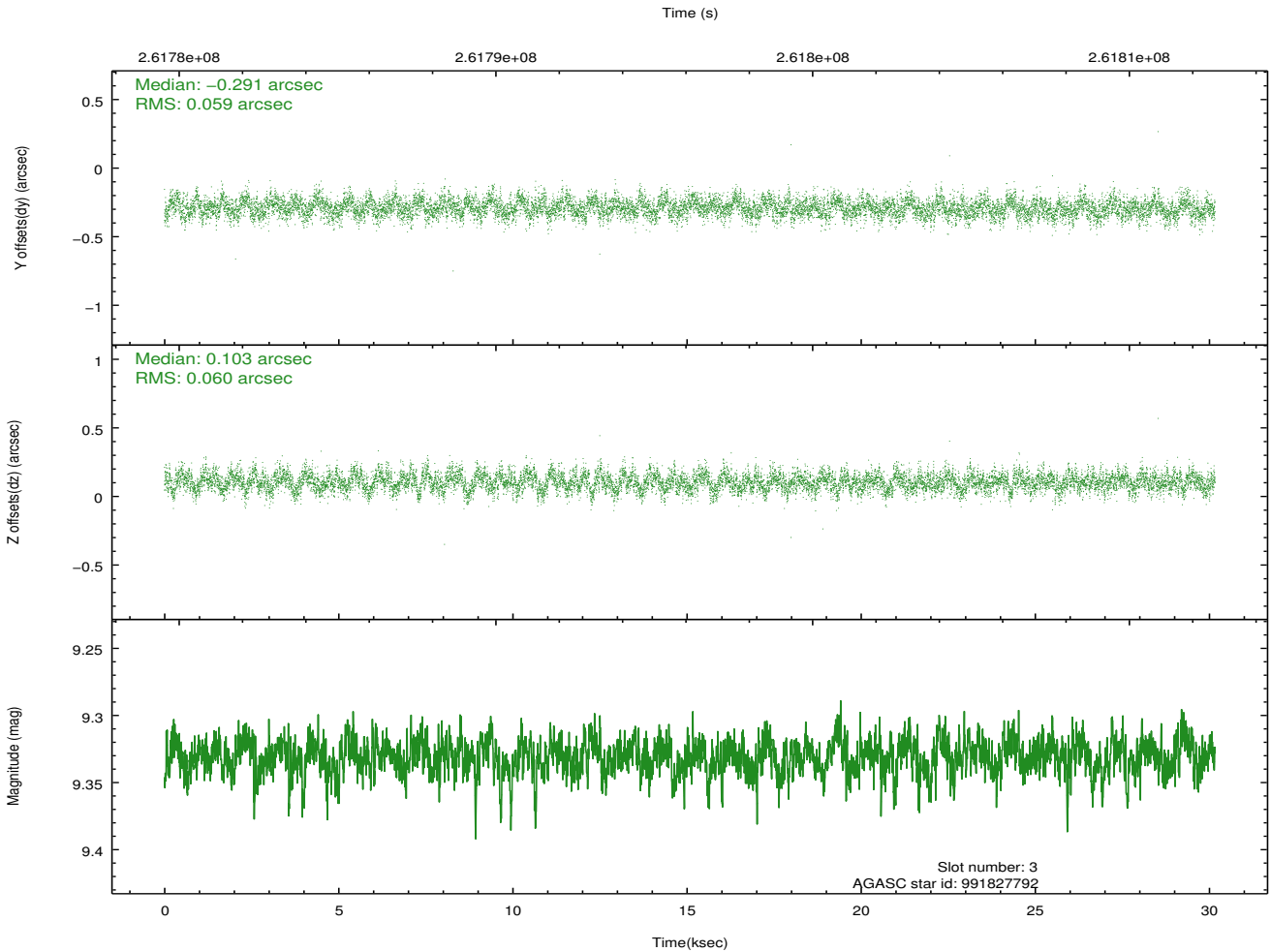
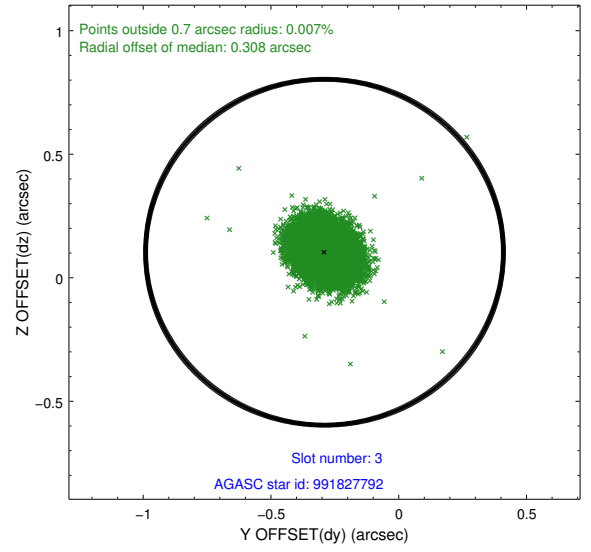
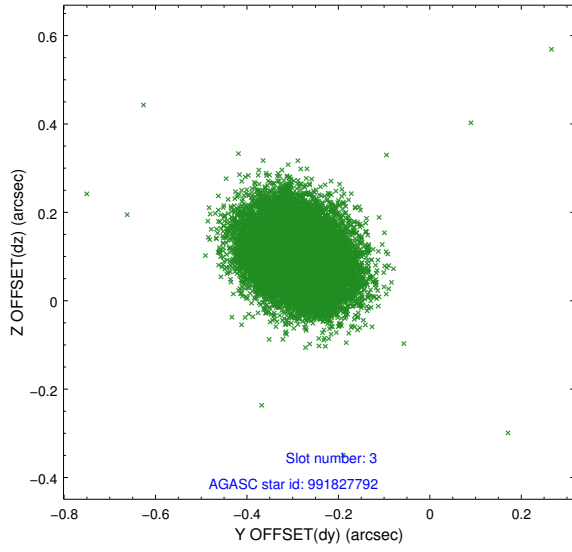


### Slot Statistics

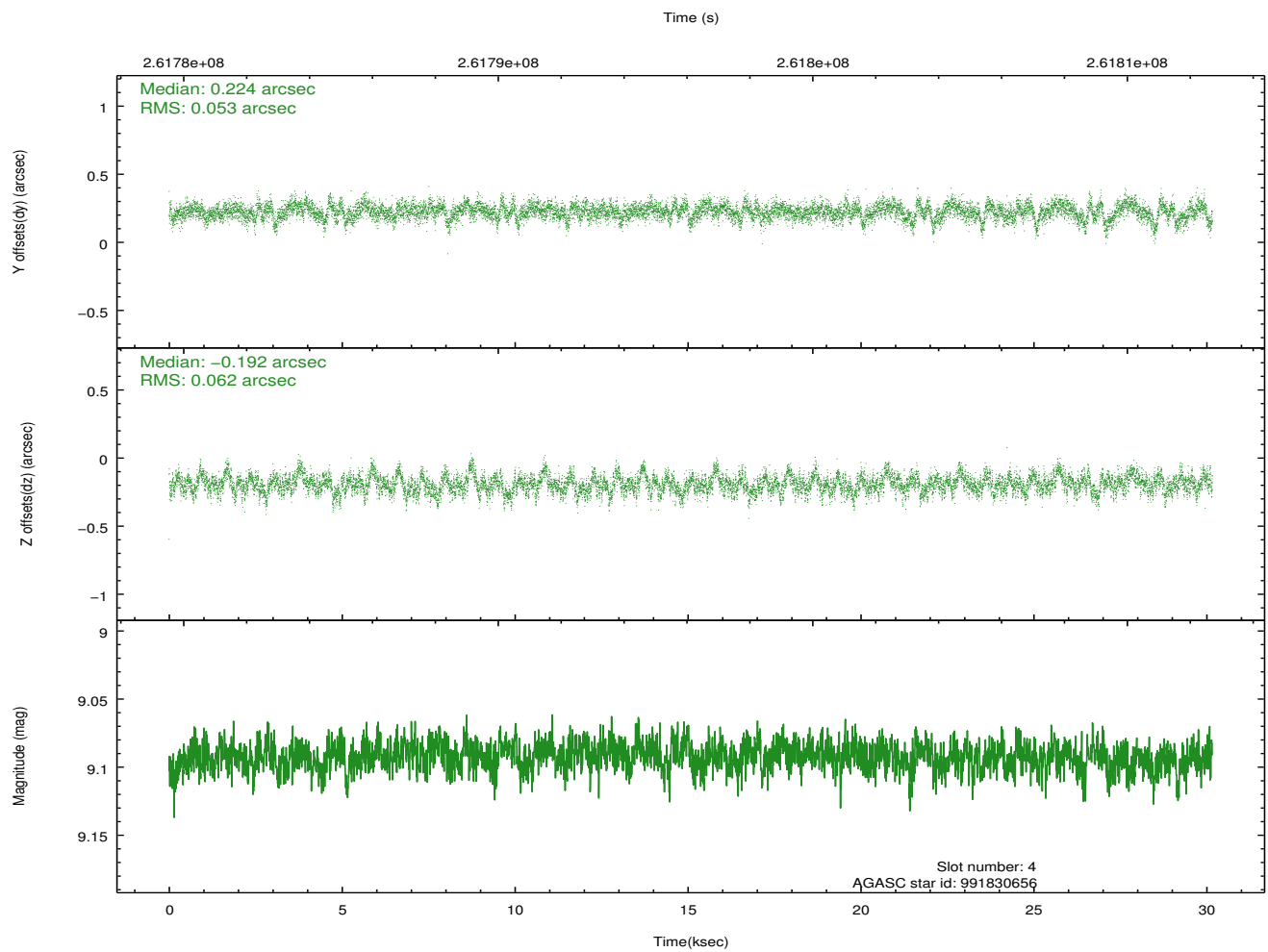
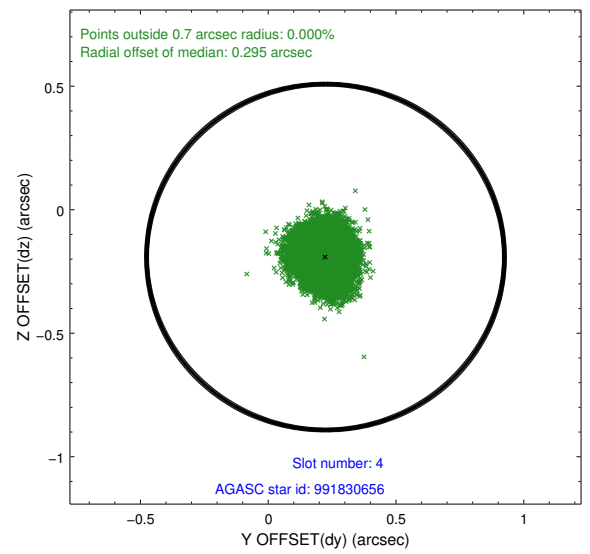
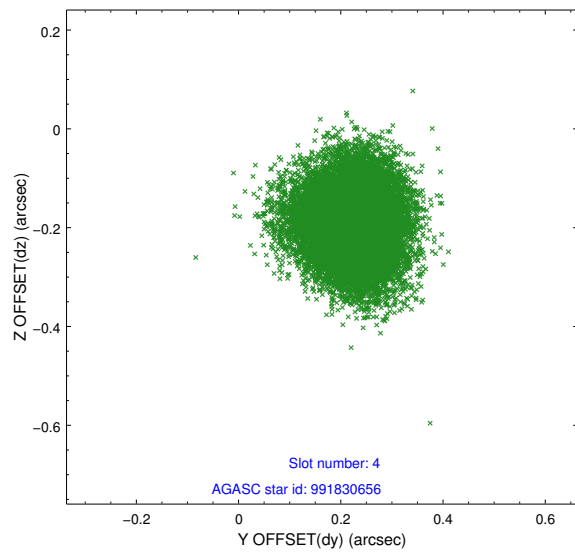
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.14	7357	-0.174	-0.086	0.018	0.045	0.000000	0.000000	-762.12	-841.92
1	FID	ACIS-I-4	7.18	7356	0.100	0.108	0.016	0.035	0.000000	0.000000	2152.18	1064.41
2	FID	ACIS-I-6	7.25	7357	-0.026	0.039	0.028	0.050	0.000000	0.000000	398.19	1706.61
3	GUIDE	991827792	9.33	14706	-0.291	0.103	0.089	0.145	48.737837	-44.562562	1902.19	-228.41
4	GUIDE	991830656	9.09	14708	0.224	-0.192	0.087	0.142	49.908080	-44.245128	-1301.49	81.31
5	GUIDE	991830952	9.39	14700	0.003	0.018	0.090	0.147	49.257291	-44.425398	487.21	-85.37
6	GUIDE	991831072	7.75	14712	-0.055	-0.083	0.064	0.103	48.737752	-44.120462	1207.15	-1660.36
7	GUIDE	991824776	10.05	14662	0.124	0.153	0.117	0.190	49.926666	-44.024984	-1701.12	-604.75

## 2.4 Star Slots

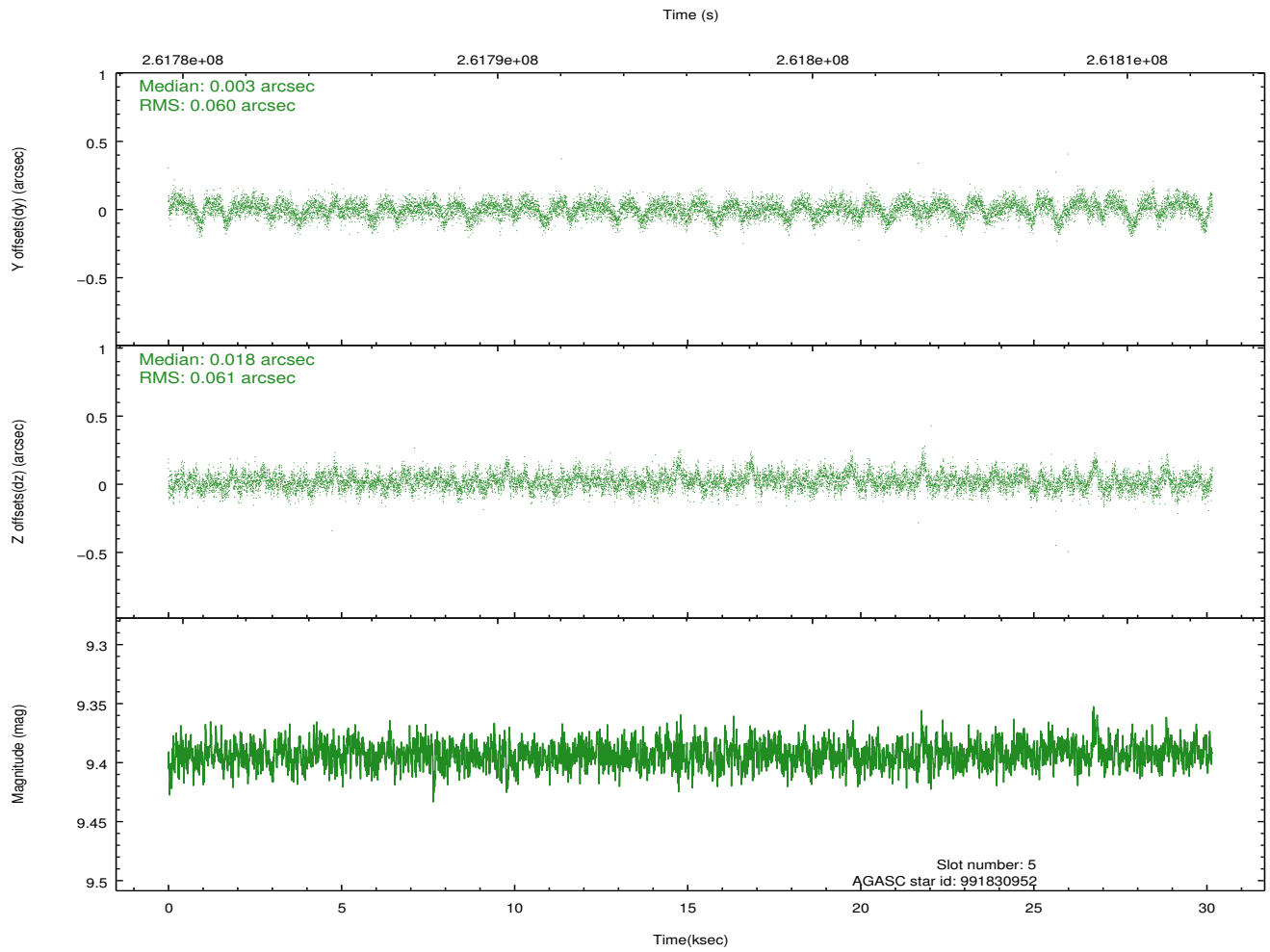
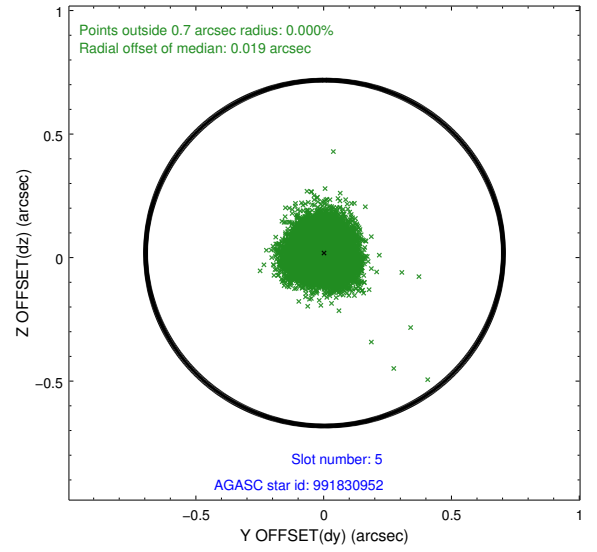
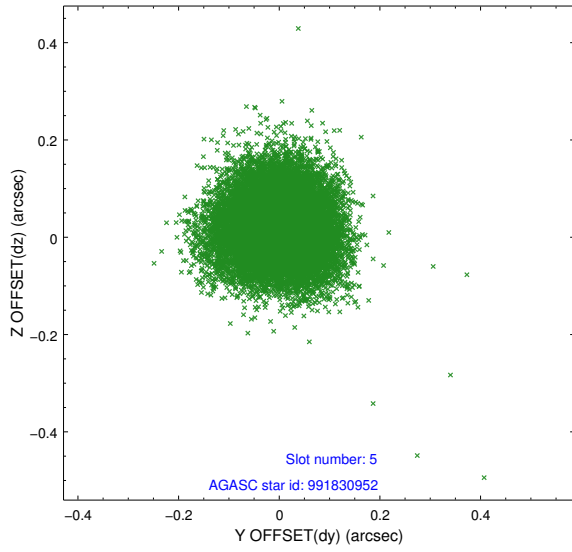
### 2.4.1 Slot 3



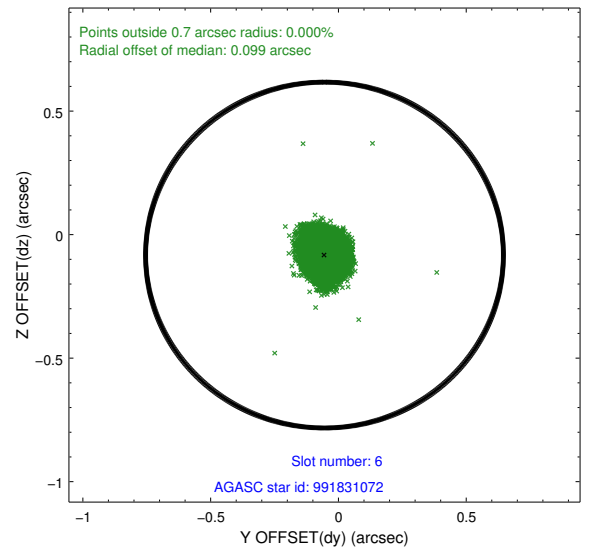
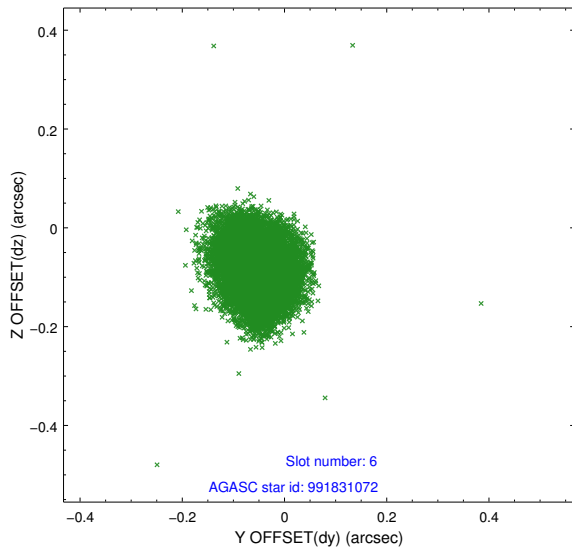
## 2.4.2 Slot 4



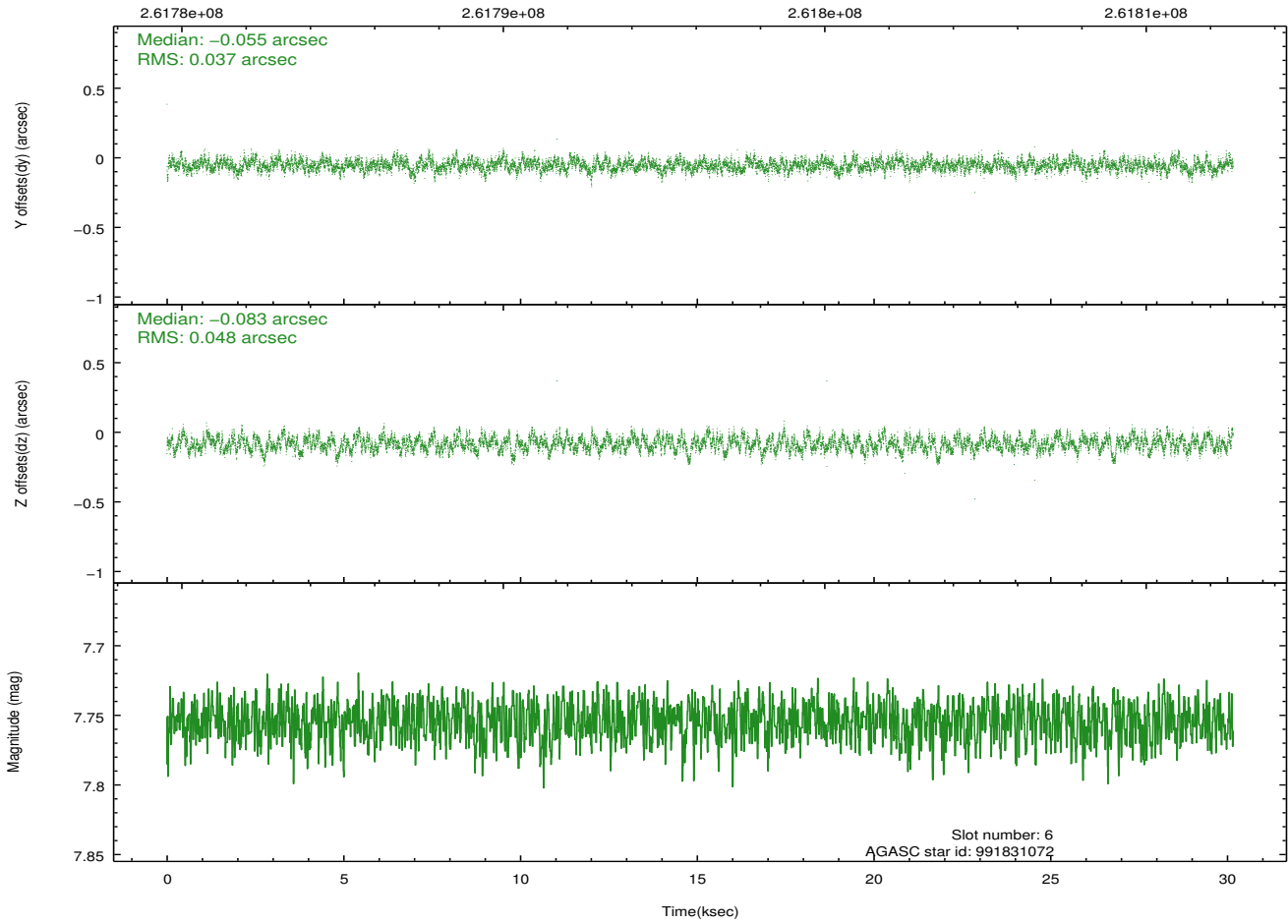
### 2.4.3 Slot 5



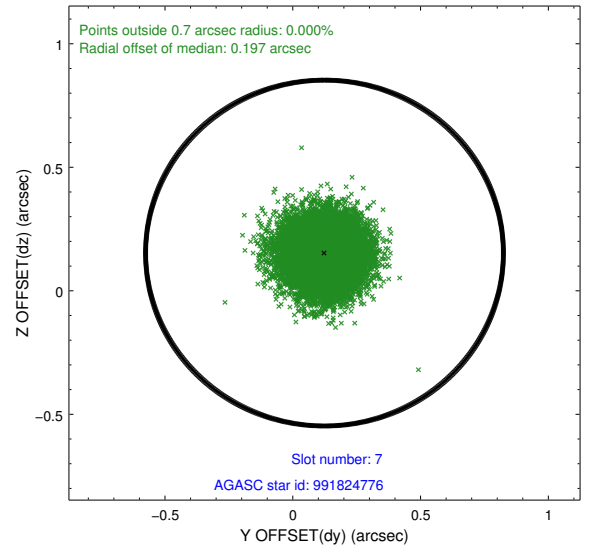
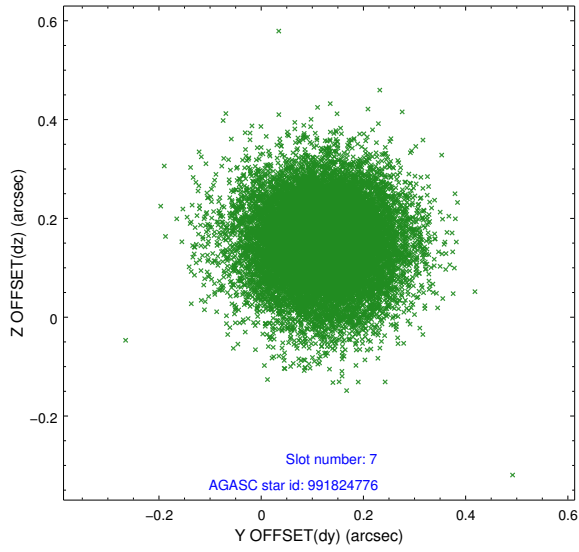
### 2.4.4 Slot 6



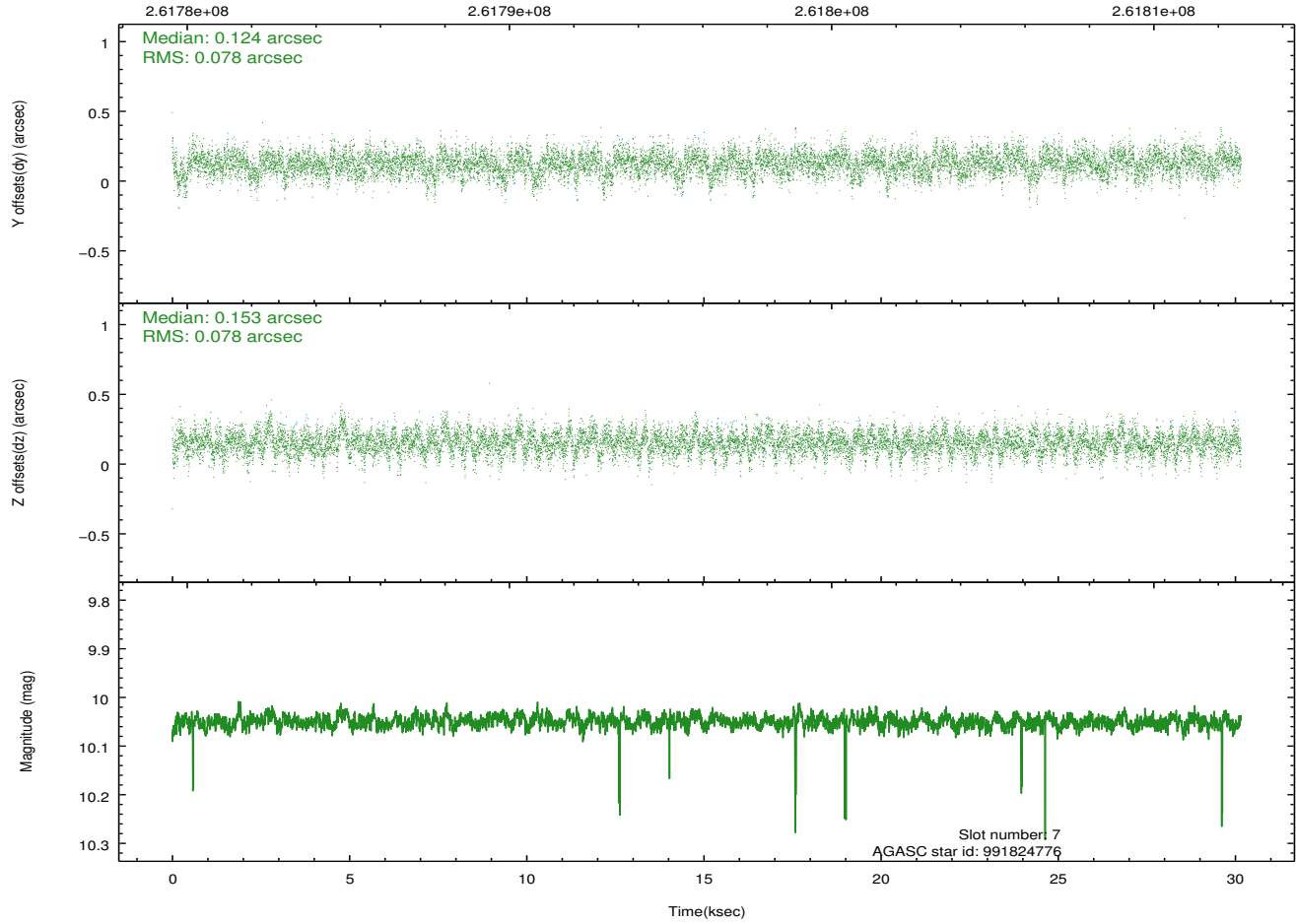
Time (s)



### 2.4.5 Slot 7

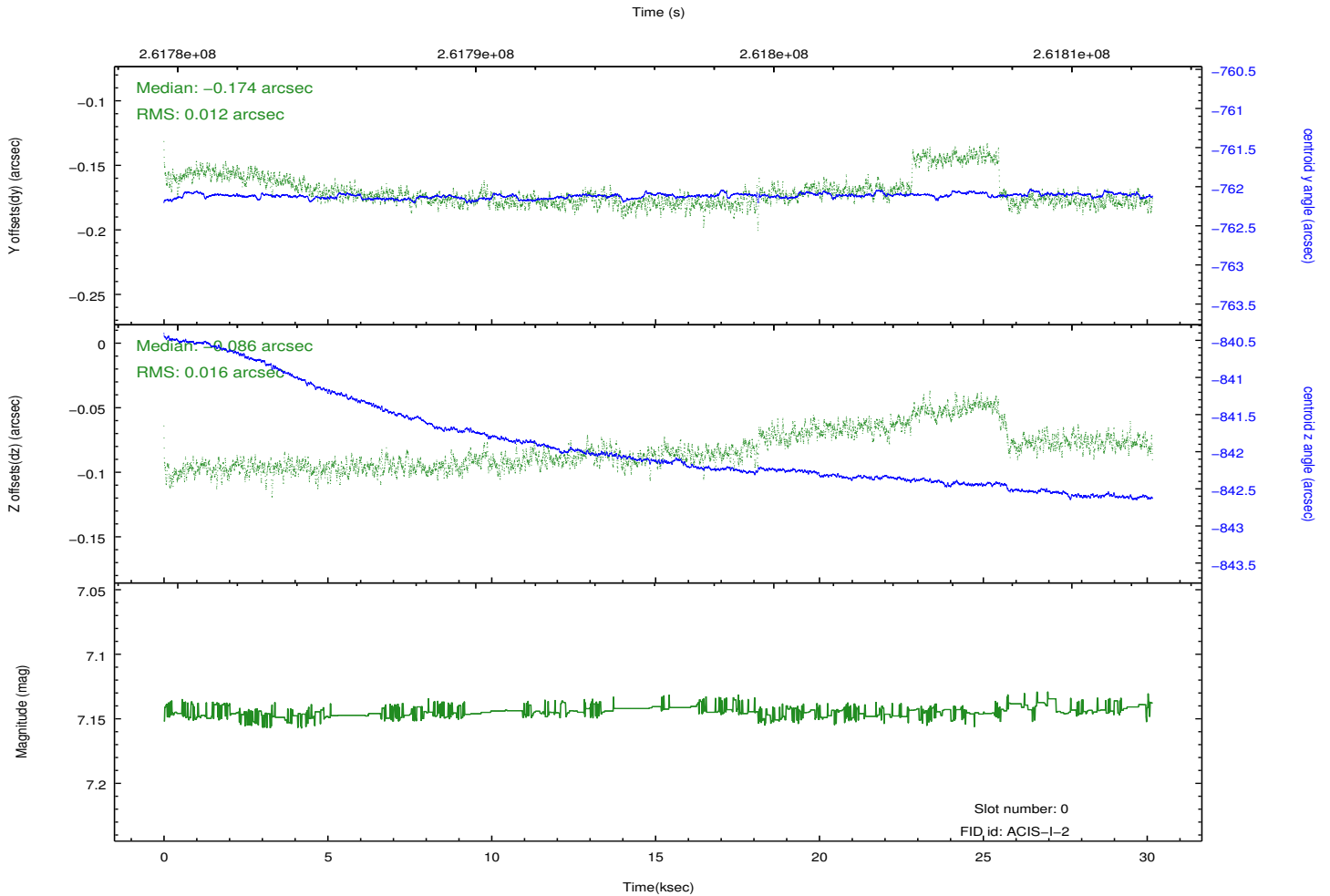
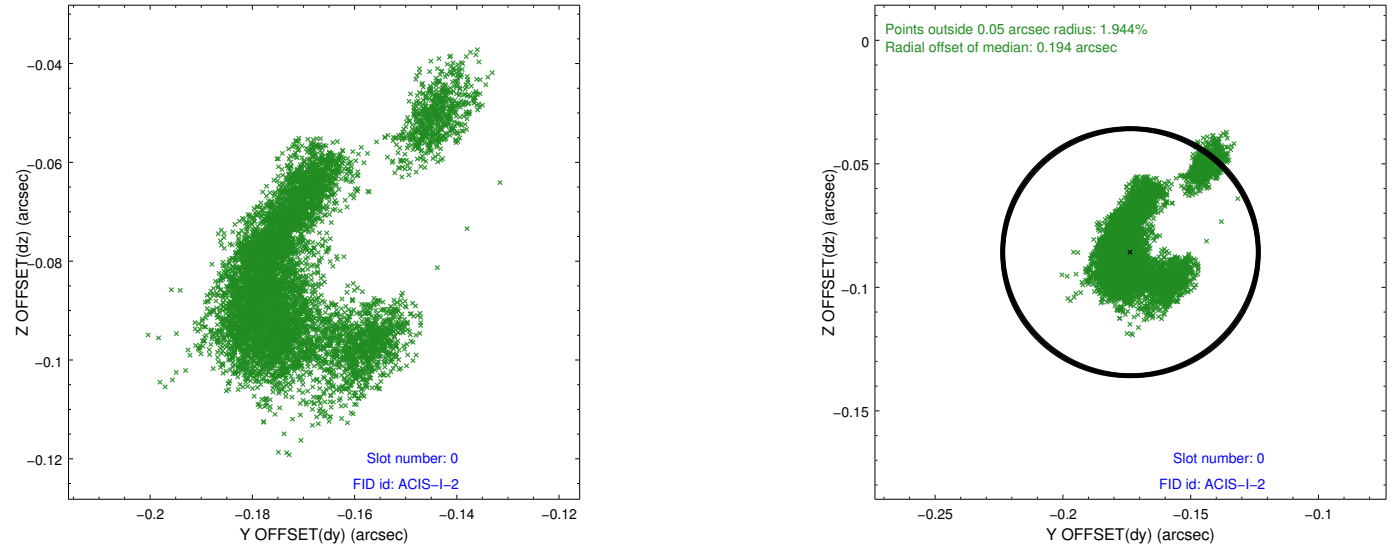


Time (s)

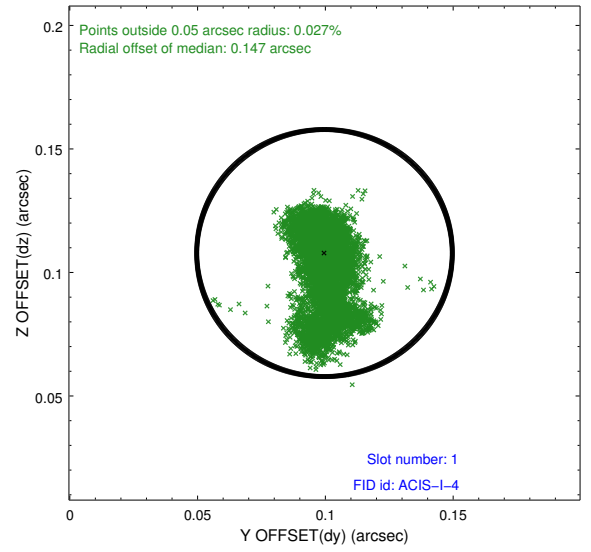
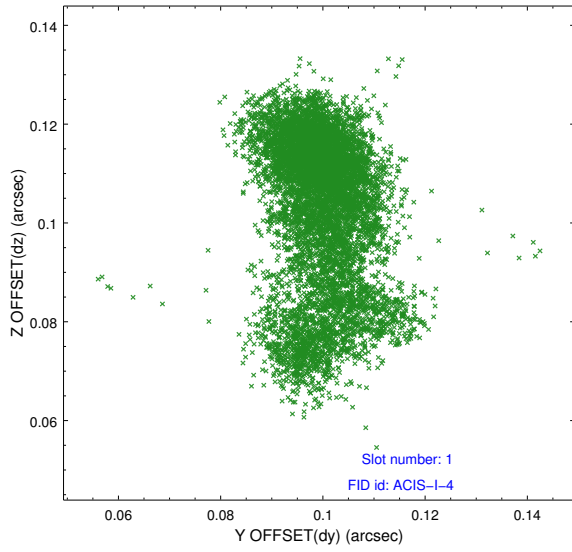


## 2.5 FID Slots

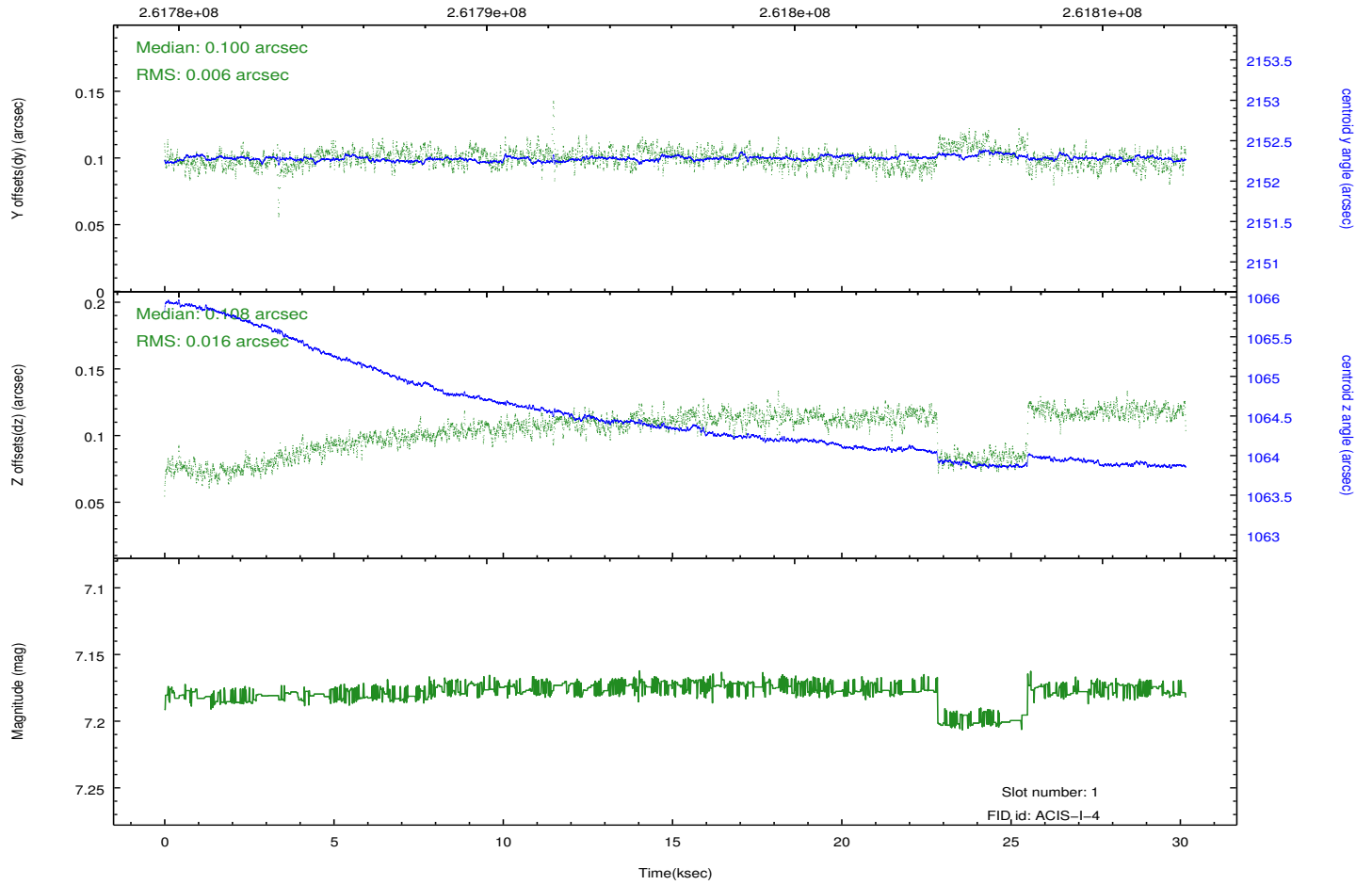
### 2.5.1 Slot 0



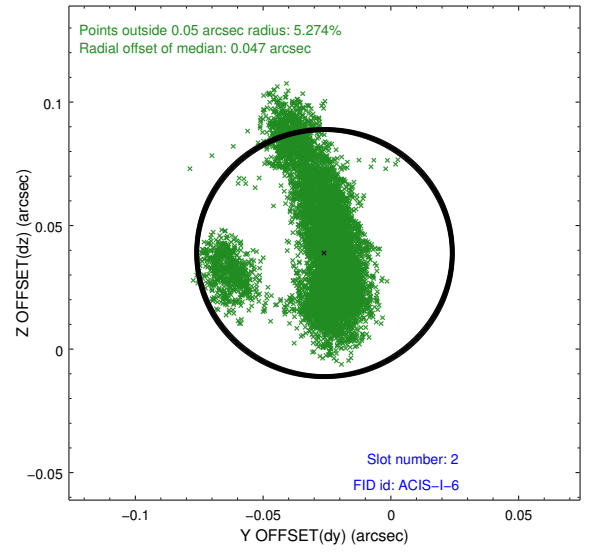
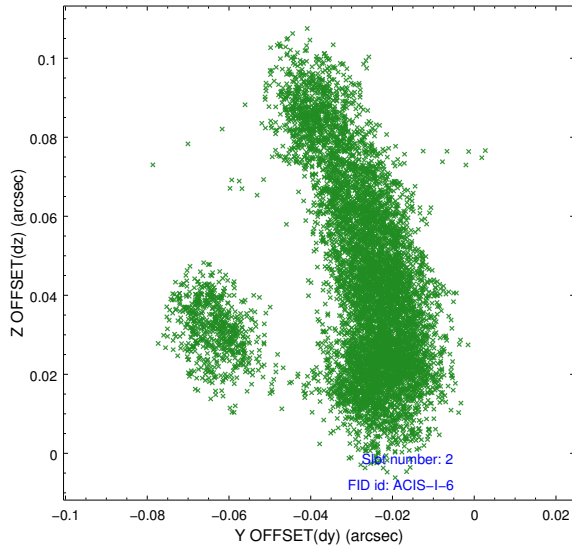
## 2.5.2 Slot 1



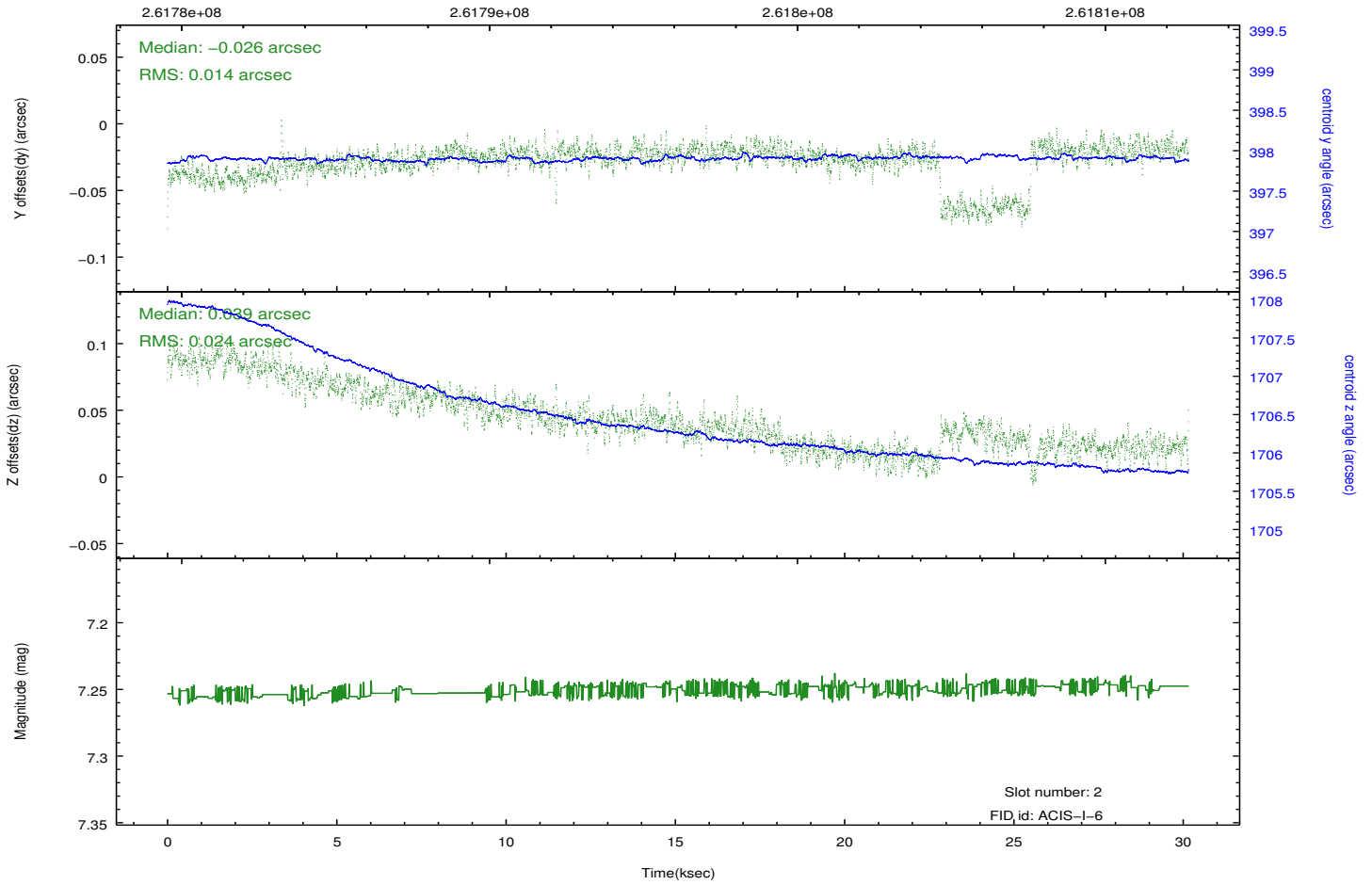
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.04.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.1567589

## A.2 Comments