

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11537 - L2 Version 2  
Chandra X-Ray Center

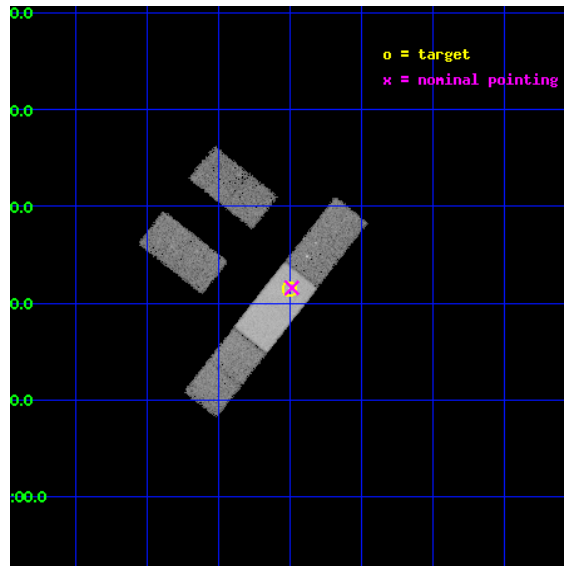
L2 Processing Date : Jul 1 2012

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# 1 Front

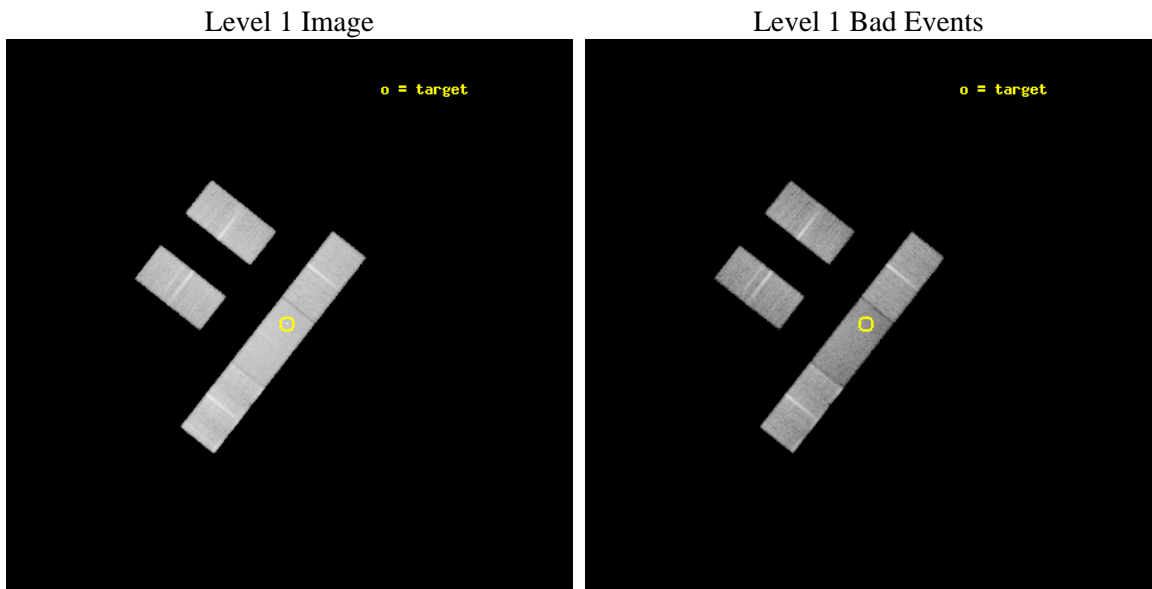
seq_num	702123	Sequence number
obs_id	11537	Observation id
title	The Size of Quasar Non-Thermal/X-ray Emission Regions	Proposal tit
observer	Prof. Christopher Kochanek	Principal investigator
object	Q2237+0305	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	340.12625	Observer's specified target RA [deg]
dec_targ	3.358	Observer's specified target Dec [deg]
ra_nom	340.12167091586	Nominal RA [deg]
dec_nom	3.3596678580796	Nominal Dec [deg]
roll_nom	128.15690497814	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30064.164270878	Sum of GTIs [s]
livetime	29355.488248686	Livetime [s]
ontime2	30064.000110865	Sum of GTIs [s]
ontime3	30064.082190871	Sum of GTIs [s]
ontime6	30064.123230875	Sum of GTIs [s]
ontime7	30064.164270878	Sum of GTIs [s]
ontime8	30064.041150868	Sum of GTIs [s]
l2events	107703	Number of level 2 events



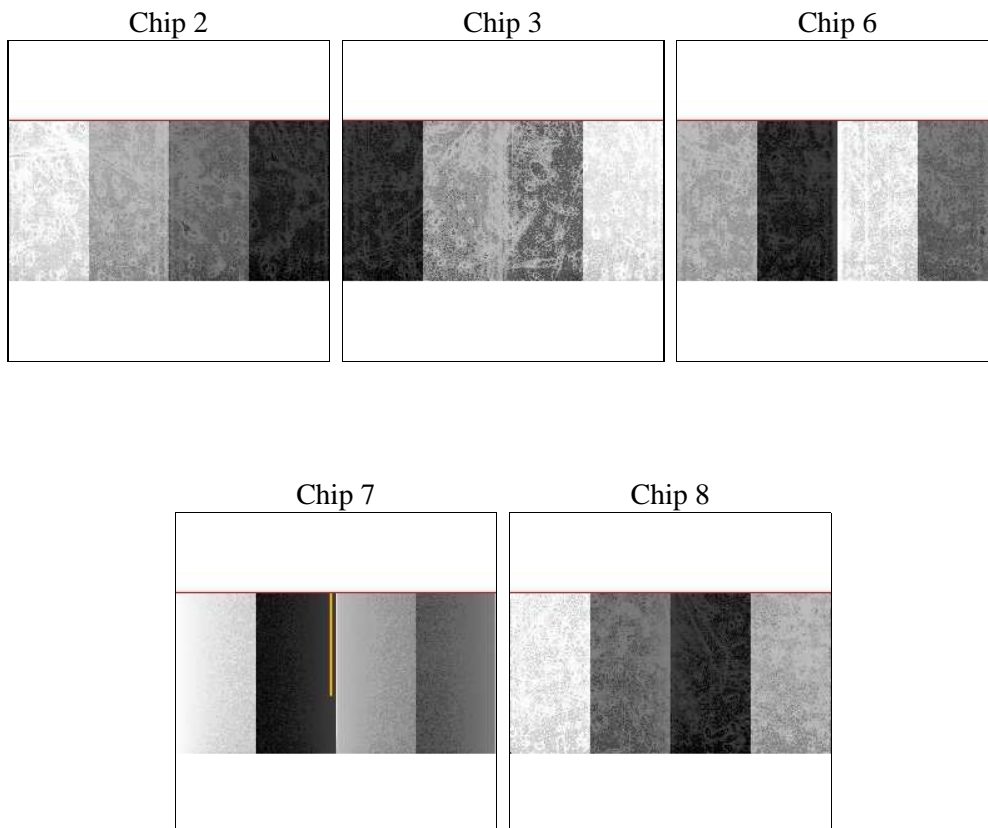
## 2 OBI

### 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	8.4.5	Processing system revision	ontime	30064.164270878	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime2	30064.000110865	Sum of GTIs [s]
date	2012-07-01T04:06:41	Date and time of file creation	ontime3	30064.082190871	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30064.123230875	Sum of GTIs [s]
			ontime7	30064.164270878	Sum of GTIs [s]
			ontime8	30064.041150868	Sum of GTIs [s]
			l1events	649925	Number of level 1 events

### 2.1.4 Events

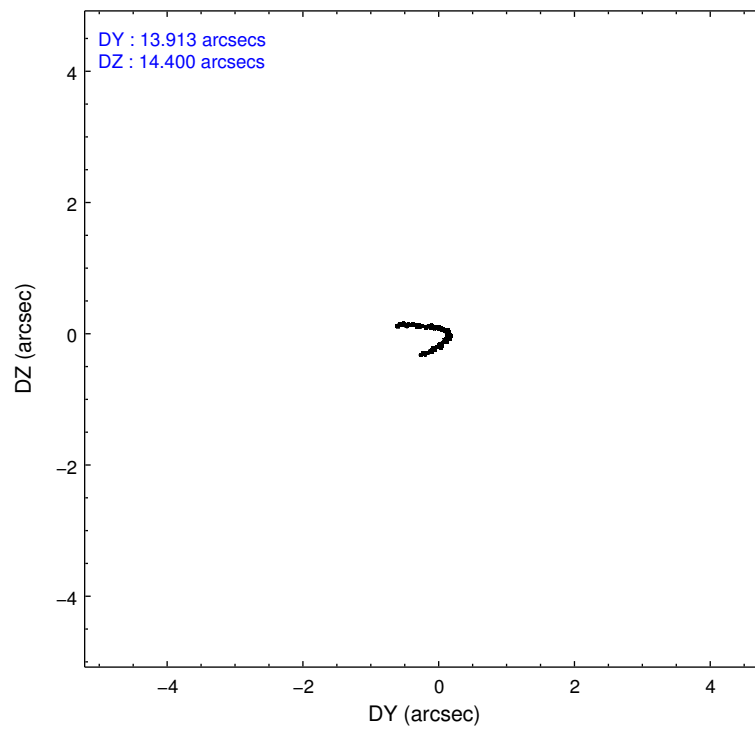
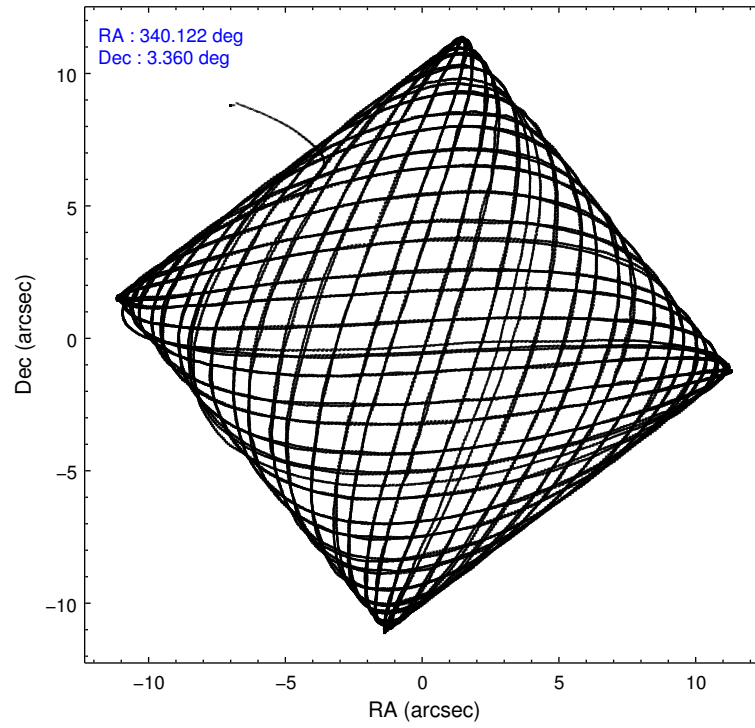
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	115596	112799	124317	138929	158284
rejected events	103584	100722	110474	74145	117518
rejected %	89%	89%	88%	53%	74%

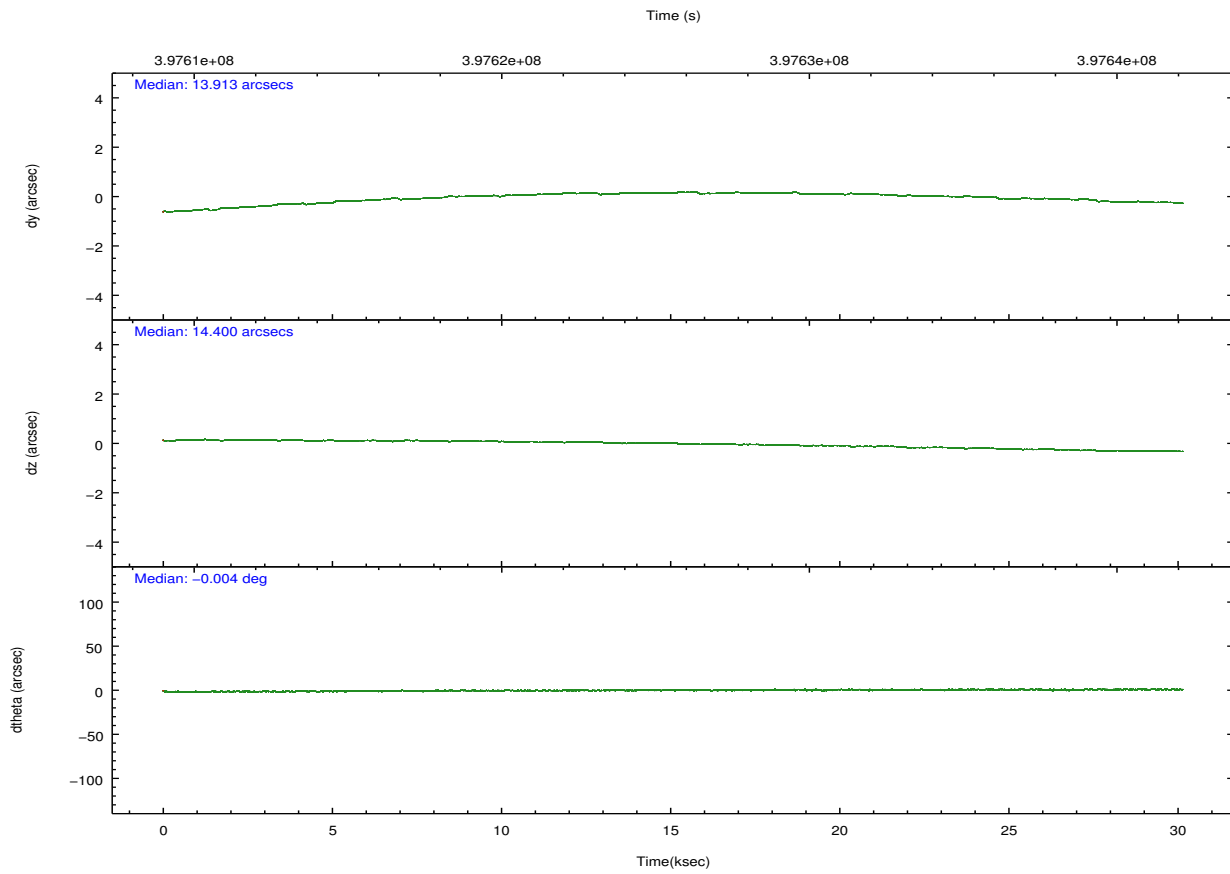
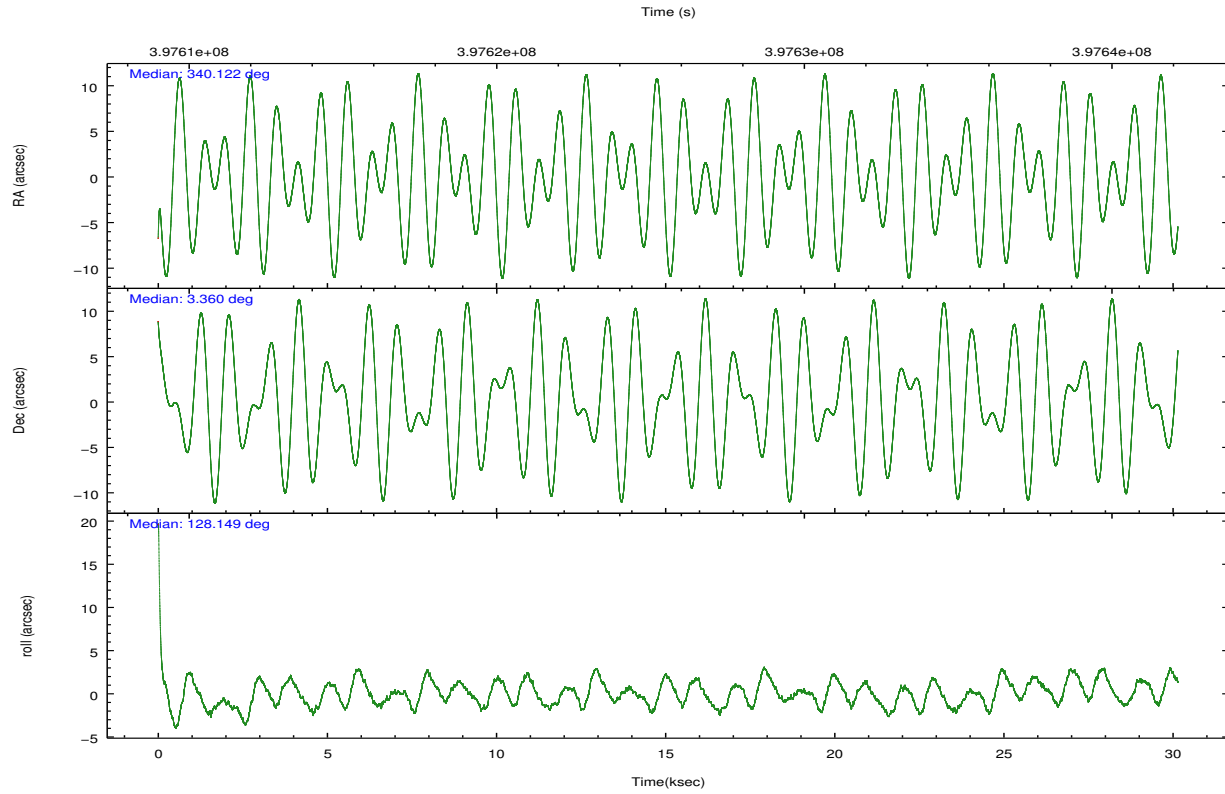
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	4005	3975	4625	6381	11584
	3%	3%	3%	4%	7%
grade 1 events	52	48	54	179	114
	0%	0%	0%	0%	0%
grade 2 events	2781	2628	2947	13541	9356
	2%	2%	2%	9%	5%
grade 3 events	1541	1571	1741	6483	4556
	1%	1%	1%	4%	2%
grade 4 events	1538	1511	1709	6460	4229
	1%	1%	1%	4%	2%
grade 5 events	4061	4999	5288	14714	7475
	3%	4%	4%	10%	4%
grade 6 events	2149	2393	2826	31930	11041
	1%	2%	2%	22%	6%
grade 7 events	99469	95674	105127	59241	109929
	86%	84%	84%	42%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	340.147251	340.121670915859	CCD I2 on	O4	Y
[deg] Pointing Dec	3.349843	3.359667858079573	CCD I3 on	O3	Y
[deg] Pointing Roll	127.998775	128.1569049781377	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	O1	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)	397610640.184000	397609490.88623	CCD S5 on	N	N
Observation start date	2010-08-07T23:22:54	2010-08-07T23:04:50	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	397640640.184000	397641822.46288	On-chip summing requested	N	N
Observation end date	2010-08-08T07:42:54	2010-08-08T08:03:42	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

## 2.3 Aspect



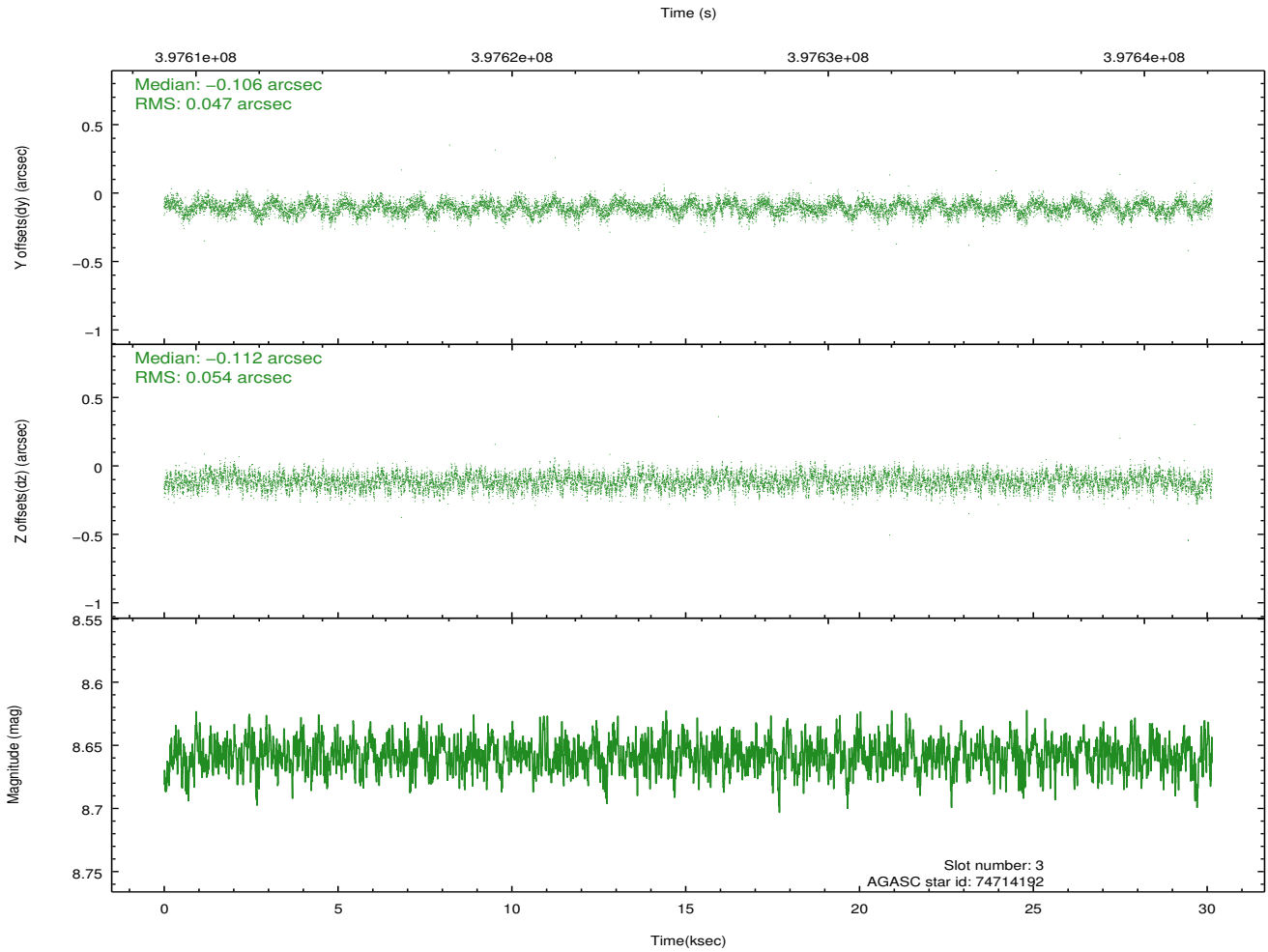
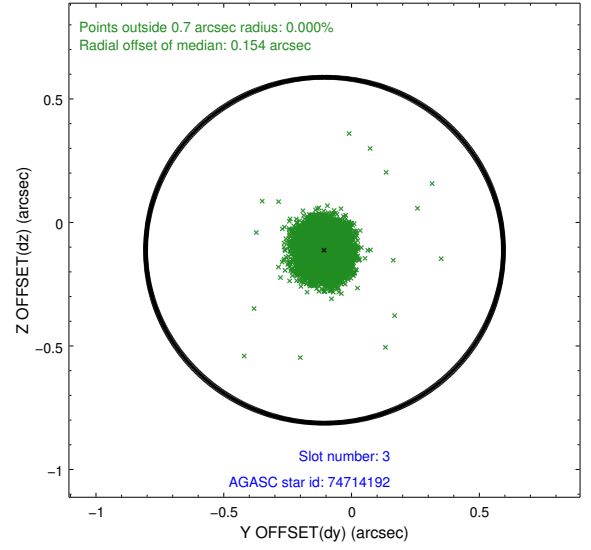
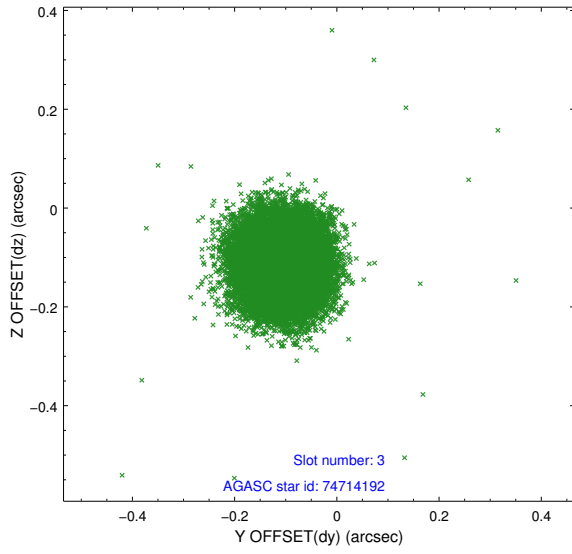


### Slot Statistics

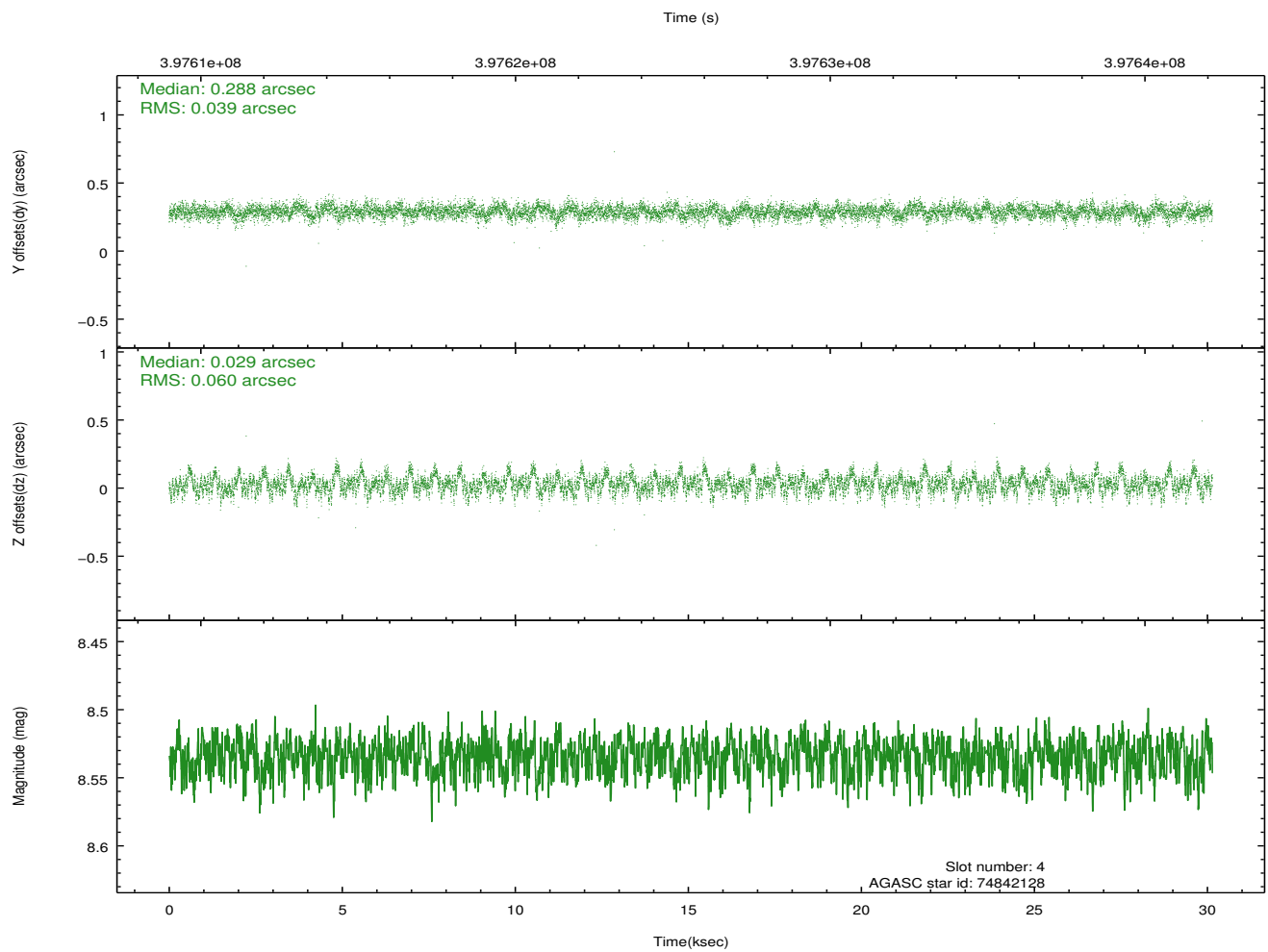
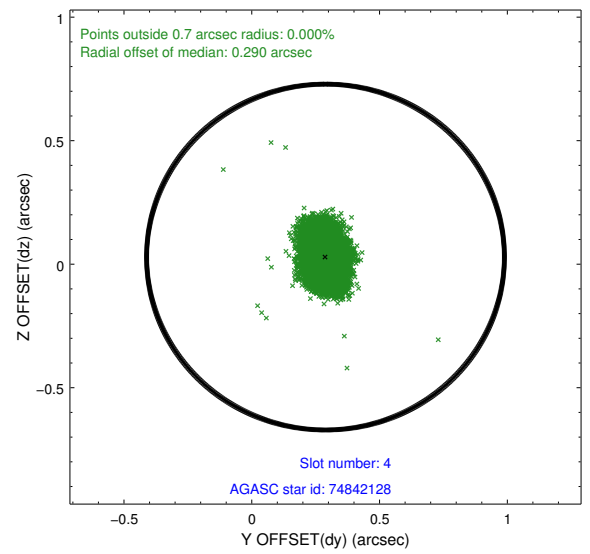
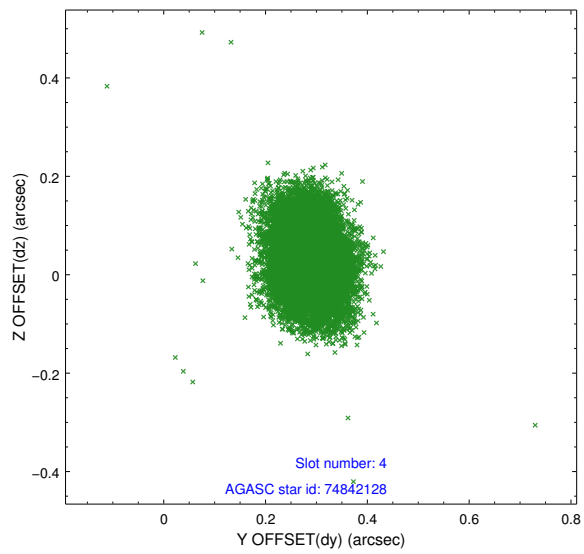
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	7353	-0.065	-0.054	0.011	0.019	0.000000	0.000000	-766.84	-1735.73
1	FID	ACIS-S-4	6.99	7354	0.216	0.046	0.012	0.026	0.000000	0.000000	2146.67	172.79
2	FID	ACIS-S-5	7.02	7354	-0.181	0.016	0.009	0.015	0.000000	0.000000	-1819.72	166.50
3	GUIDE	74714192	8.66	14698	-0.106	-0.112	0.077	0.120	339.623837	3.342441	1137.37	1498.44
4	GUIDE	74842128	8.53	14704	0.288	0.029	0.075	0.126	340.118134	3.132788	-550.84	563.85
5	GUIDE	74854992	8.27	14706	0.112	0.200	0.067	0.113	340.342808	3.603730	288.10	-1115.87
6	GUIDE	74855640	8.85	14701	-0.103	-0.057	0.081	0.130	340.341123	3.746937	698.11	-1429.05
7	GUIDE	74727584	6.96	14706	-0.192	-0.057	0.057	0.090	339.633744	3.463732	1459.39	1201.40

## 2.4 Star Slots

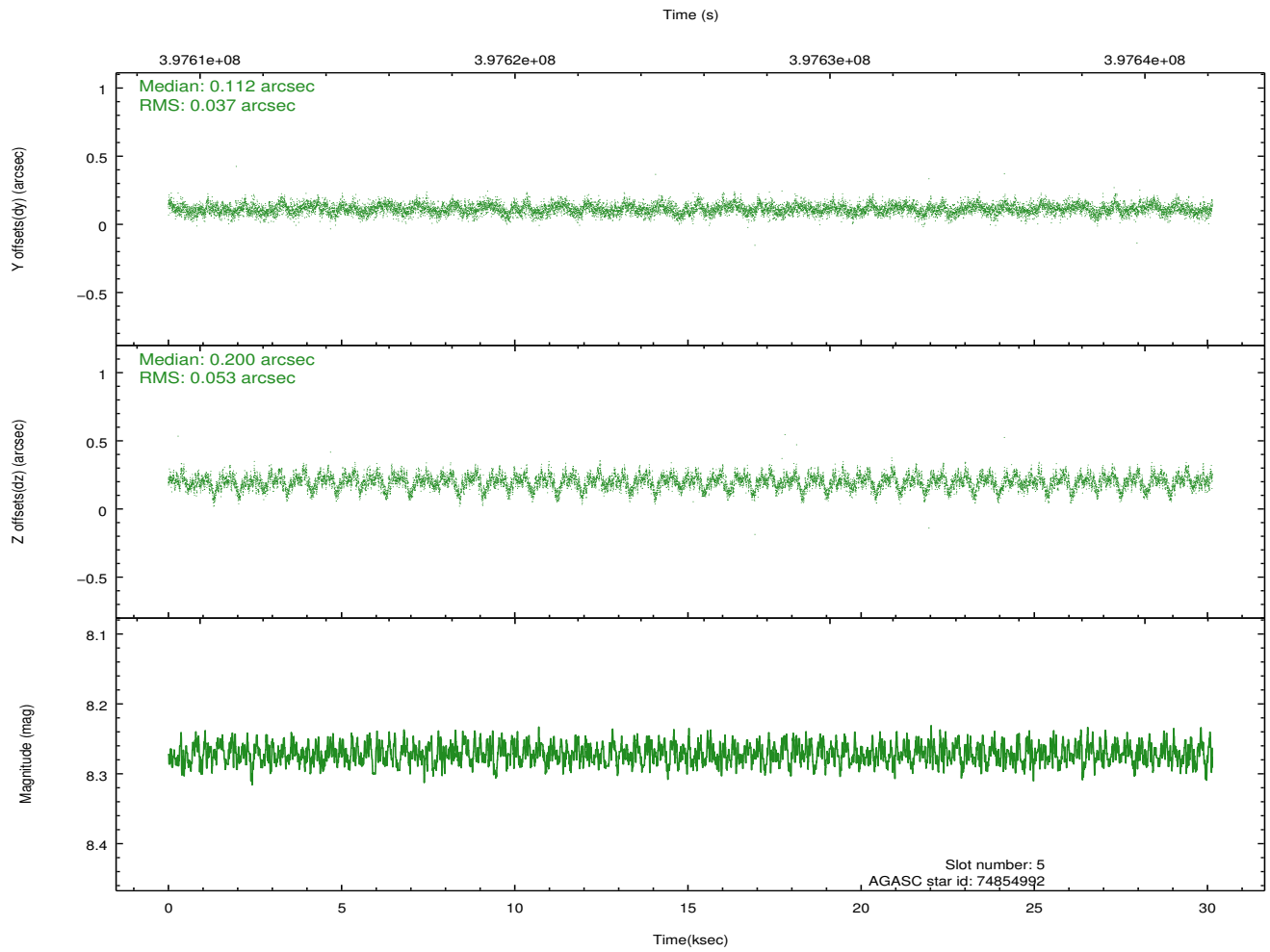
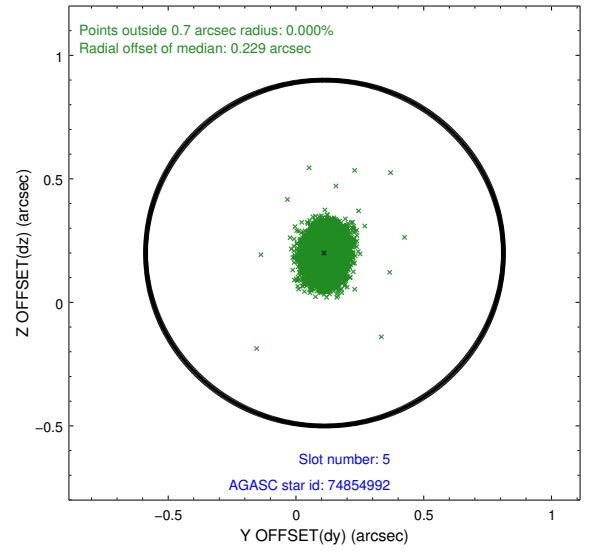
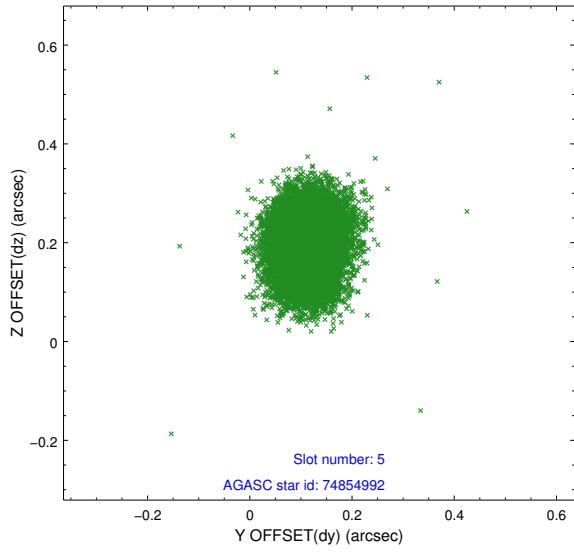
### 2.4.1 Slot 3



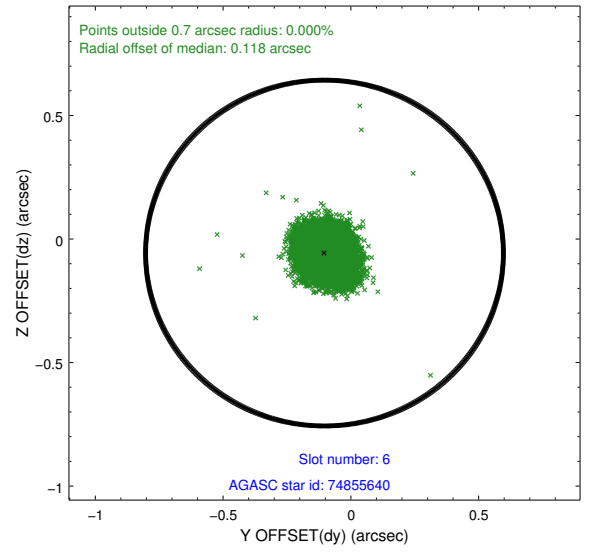
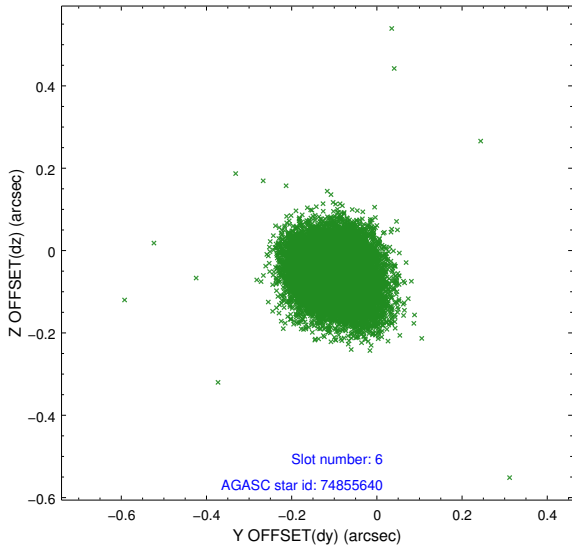
## 2.4.2 Slot 4



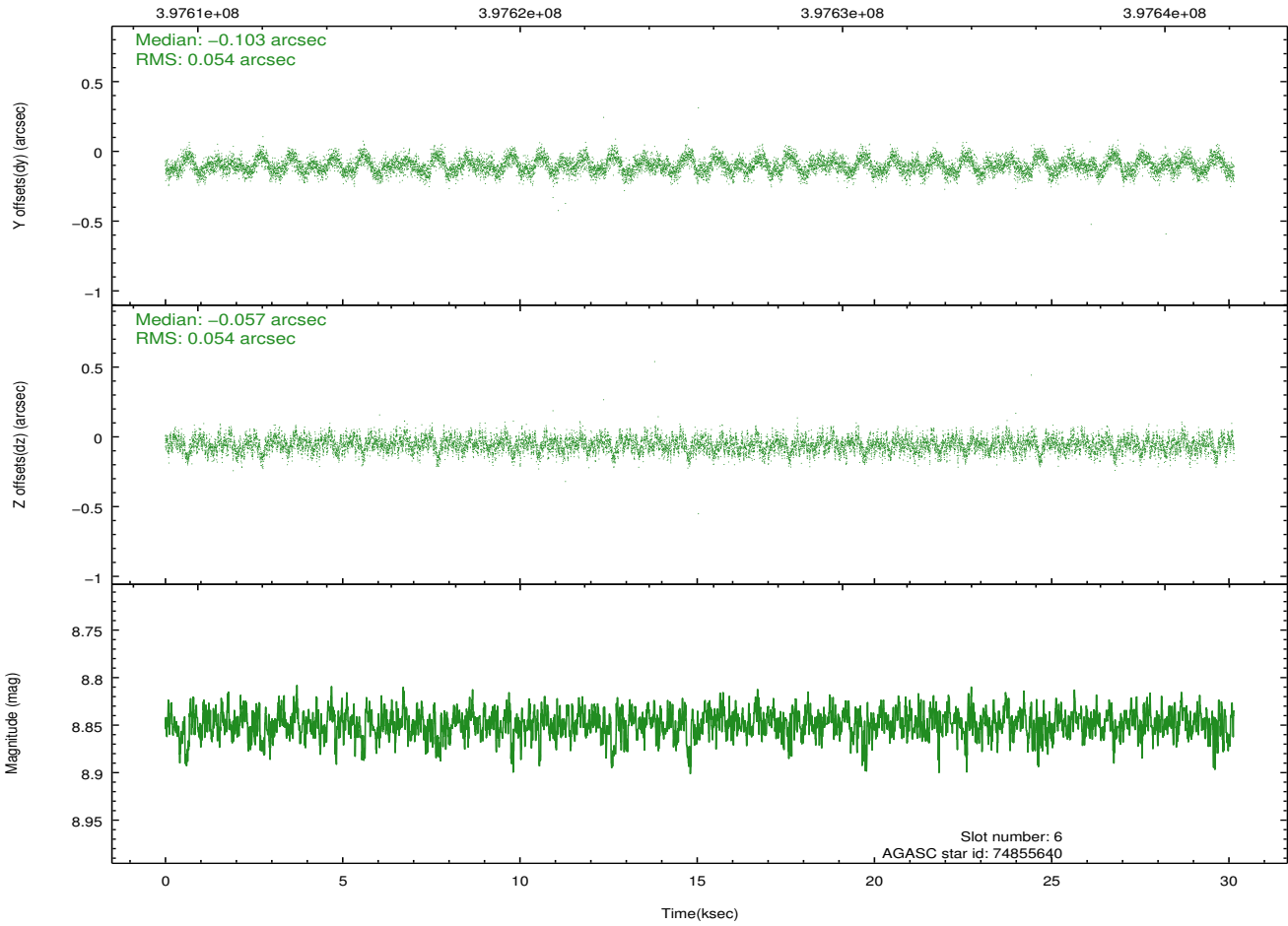
### 2.4.3 Slot 5



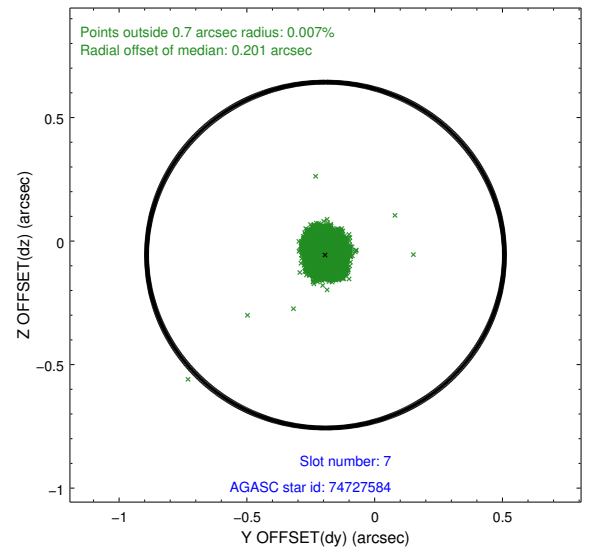
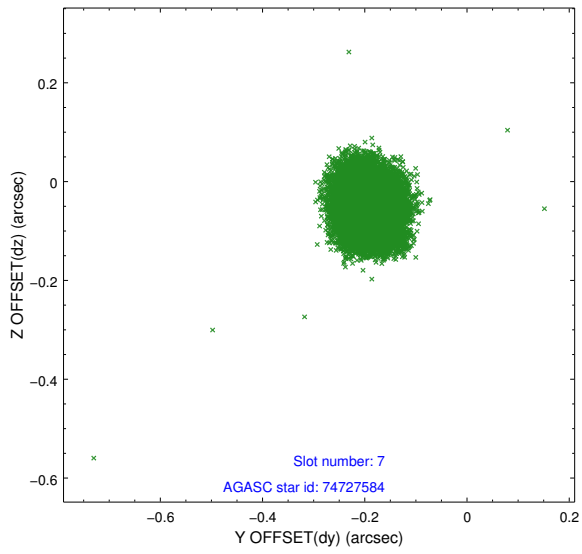
### 2.4.4 Slot 6



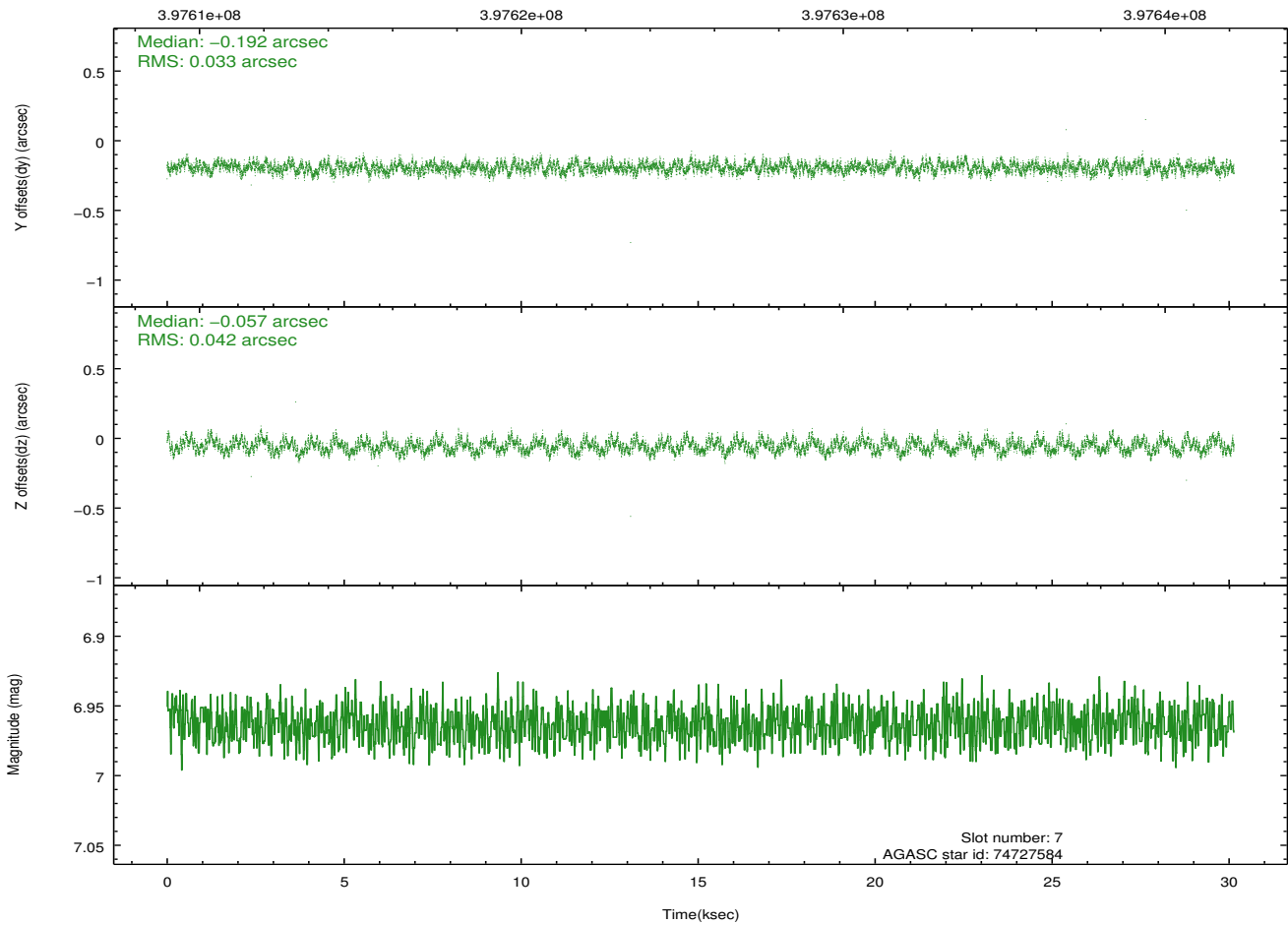
Time (s)



## 2.4.5 Slot 7

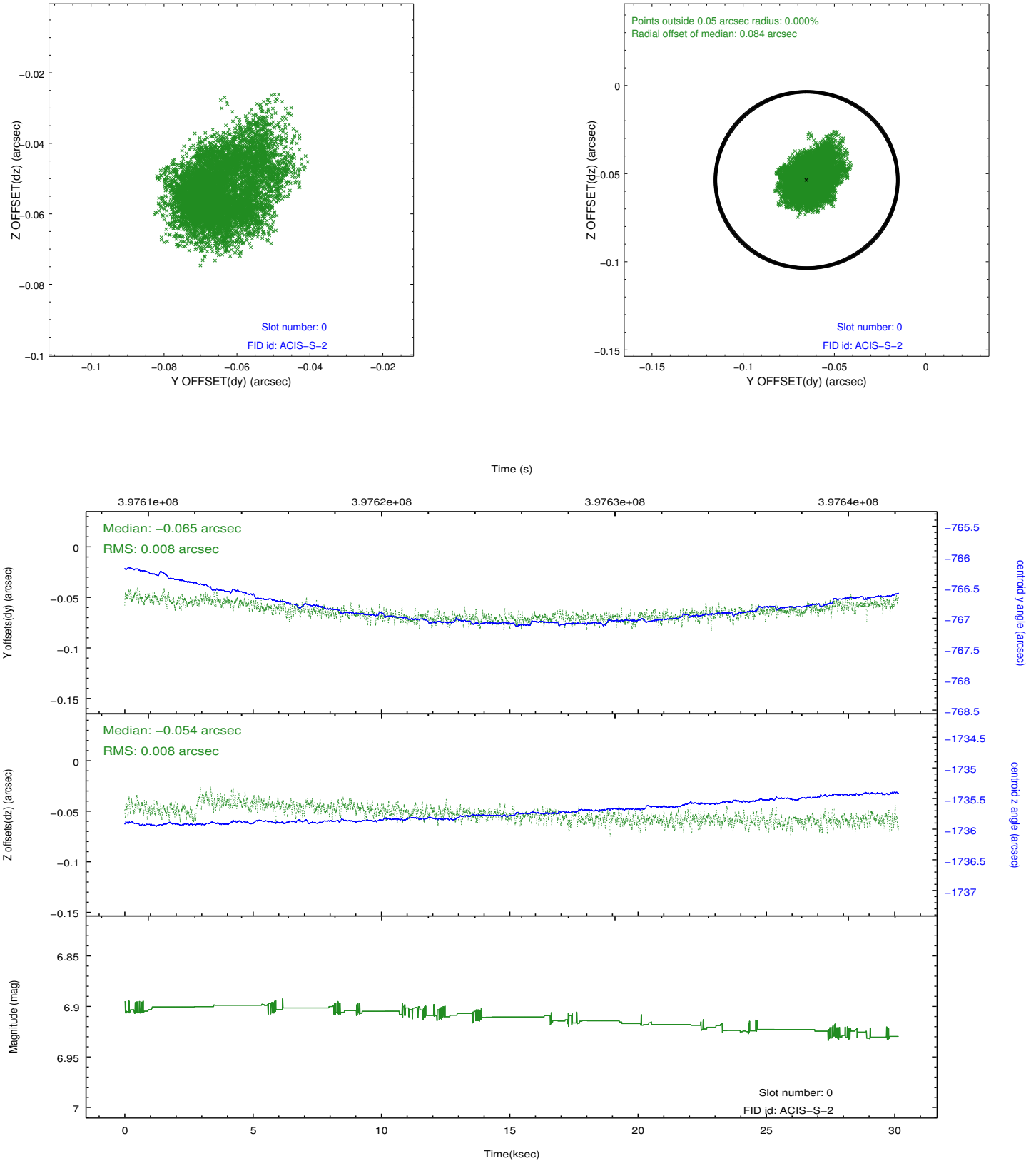


Time (s)

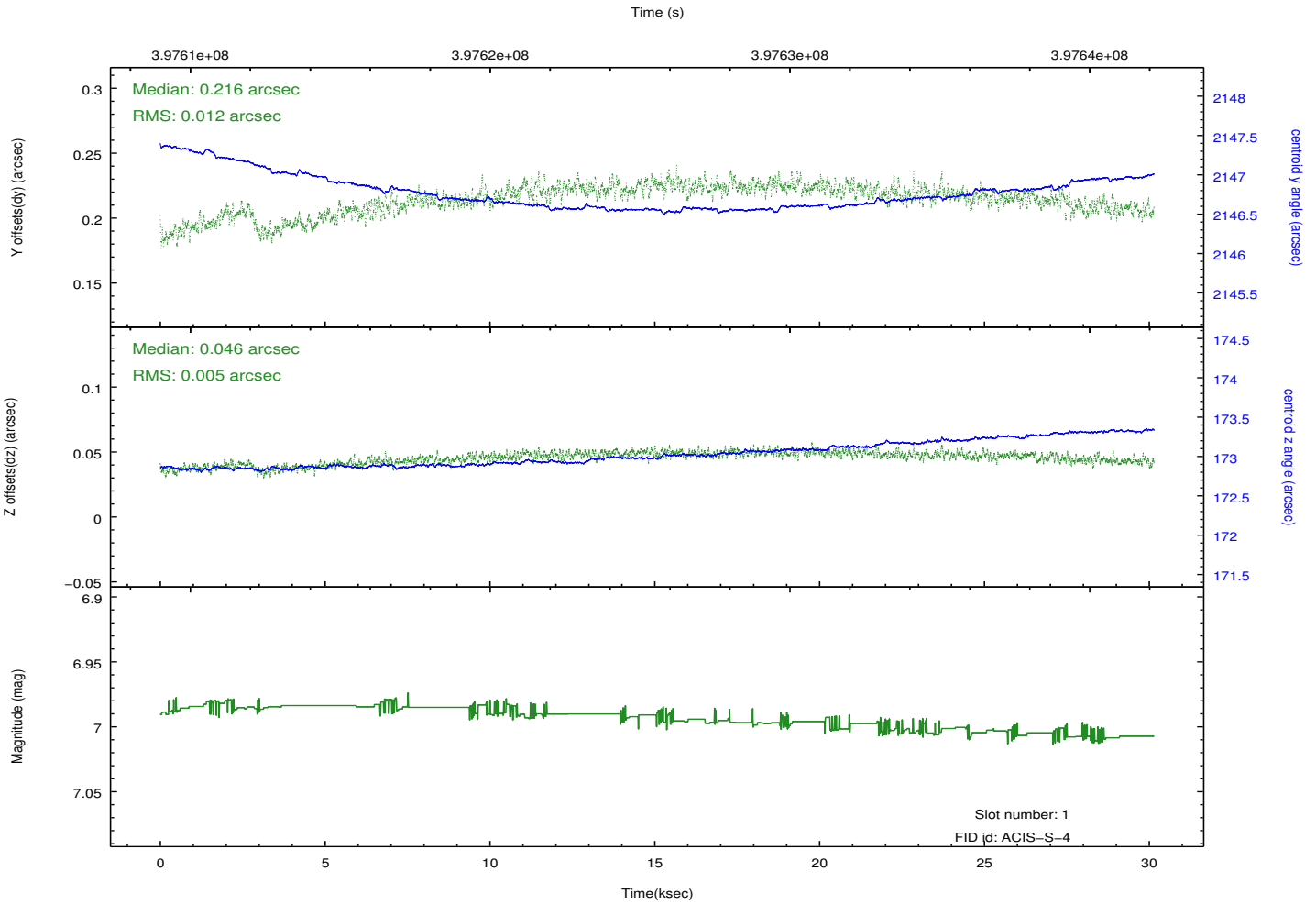
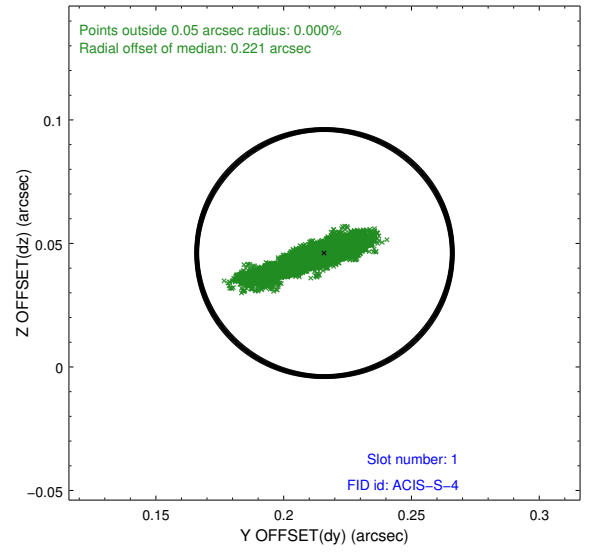
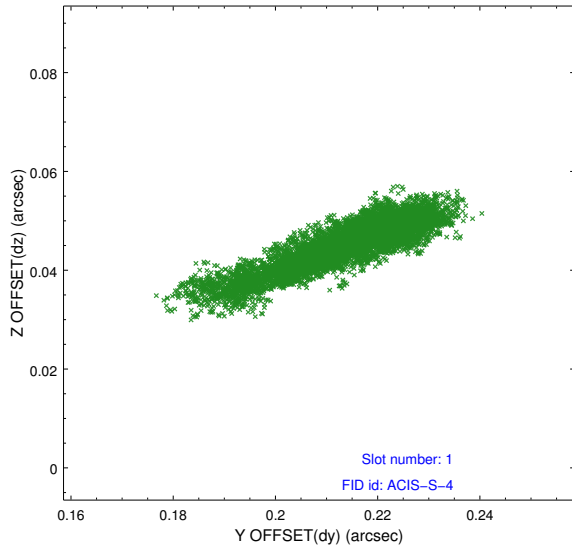


## 2.5 FID Slots

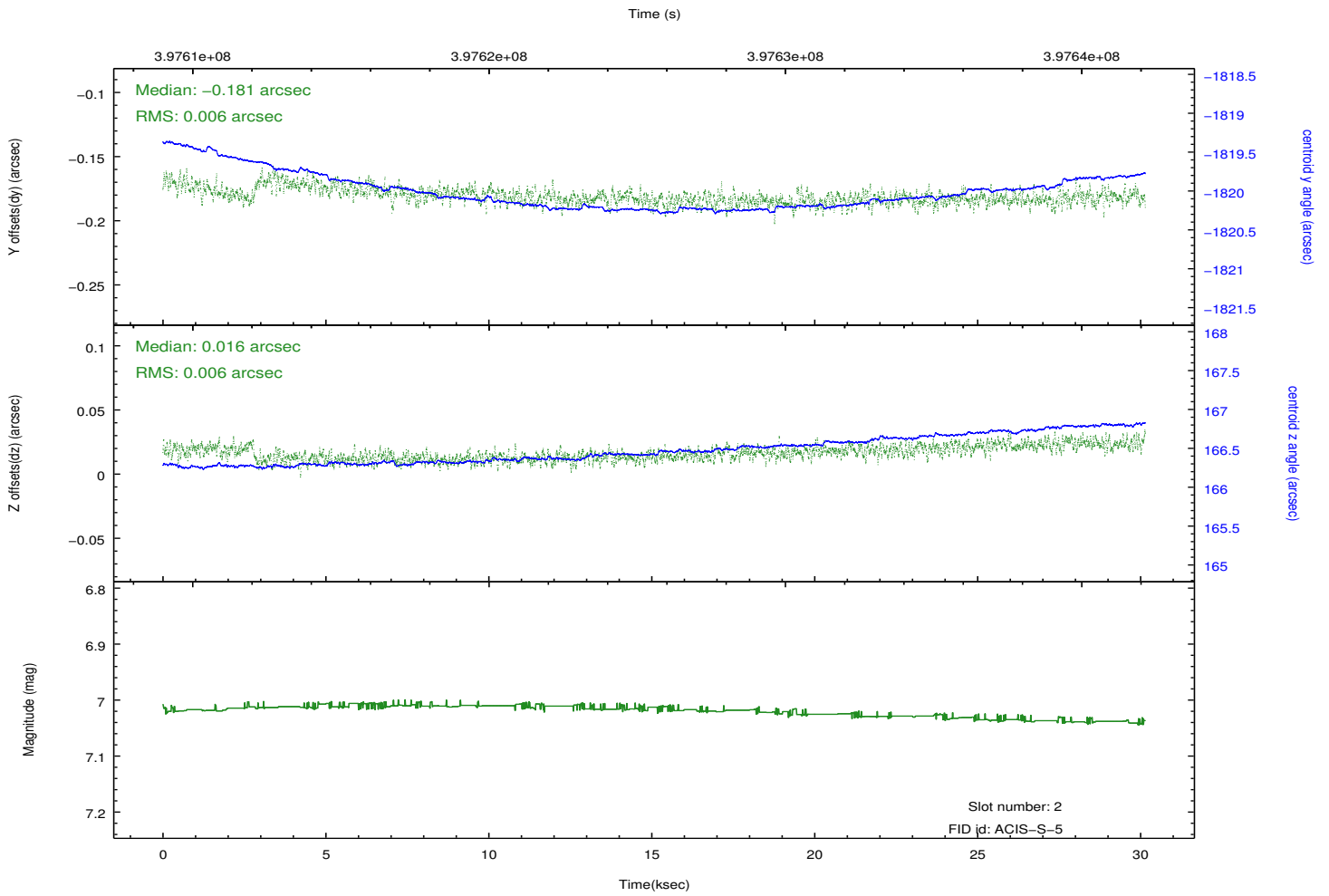
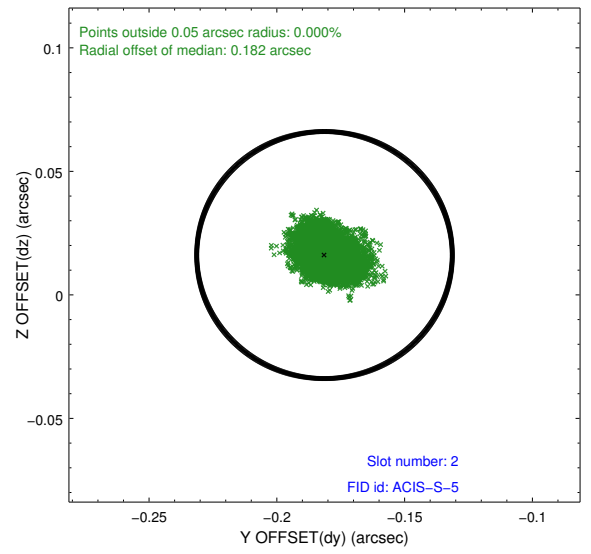
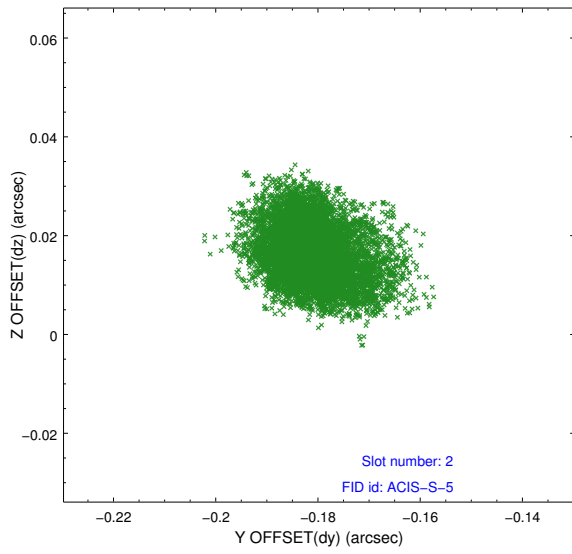
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.07.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.064164262533

## A.2 Comments

Monitor constraint met, follows obs11536 by 41 days.