

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 6442 - L2 Version 2  
Chandra X-Ray Center

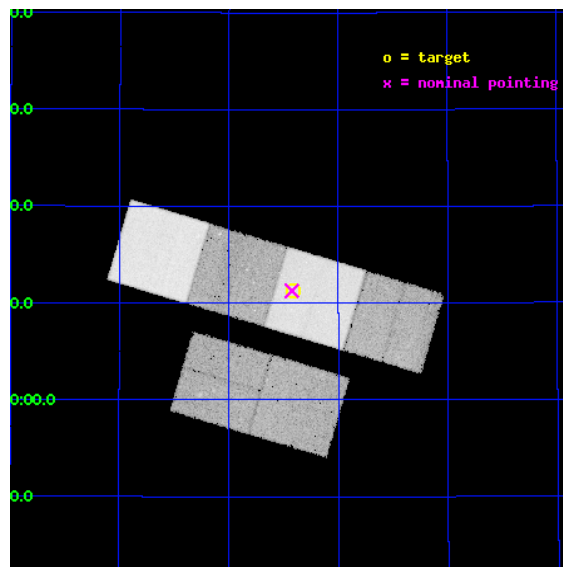
L2 Processing Date : Mar 25 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

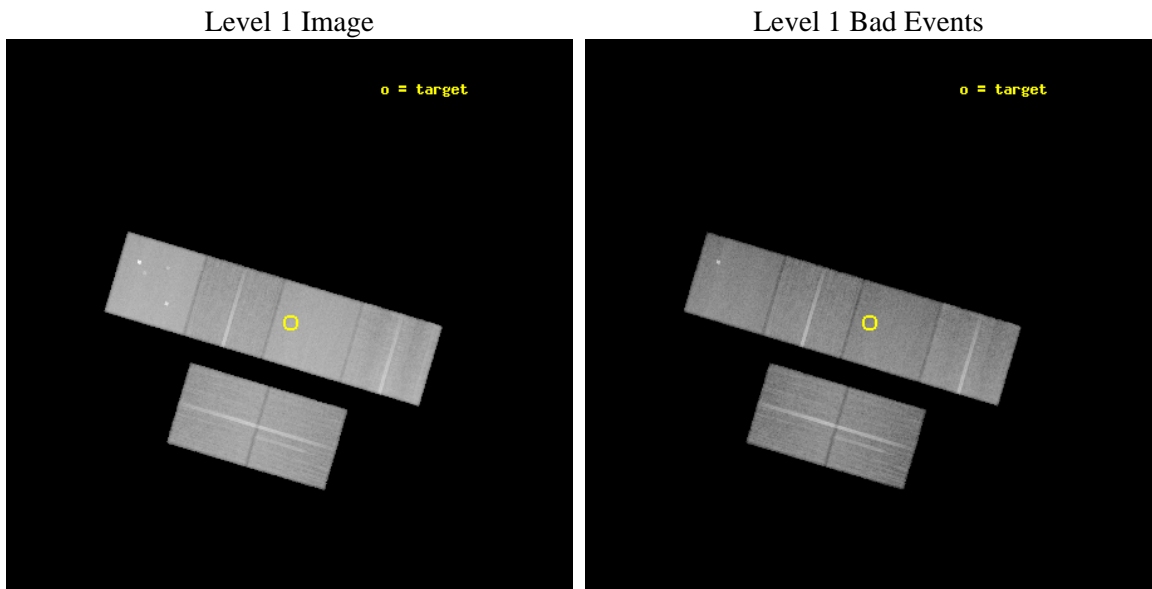
seq_num	200416	Sequence number
obs_id	6442	Observation id
title	X-Ray emission from high-mass protostar AFGL 2591	Proposal title
observer	Prof Arnold Benz	Principal investigator
object	AFGL 2591	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	307.35375	Observer's specified target RA [deg]
dec_targ	40.189167	Observer's specified target Dec [deg]
ra_nom	307.35594078477	Nominal RA [deg]
dec_nom	40.187906966423	Nominal Dec [deg]
roll_nom	16.517788678263	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30172.799887598	Sum of GTIs [s]
livetime	29790.733727542	Livetime [s]
ontime2	30166.317956984	Sum of GTIs [s]
ontime3	30169.558897376	Sum of GTIs [s]
ontime5	30172.799887598	Sum of GTIs [s]
ontime6	30166.317966968	Sum of GTIs [s]
ontime7	30172.799887598	Sum of GTIs [s]
ontime8	30169.558927327	Sum of GTIs [s]
l2events	419091	Number of level 2 events



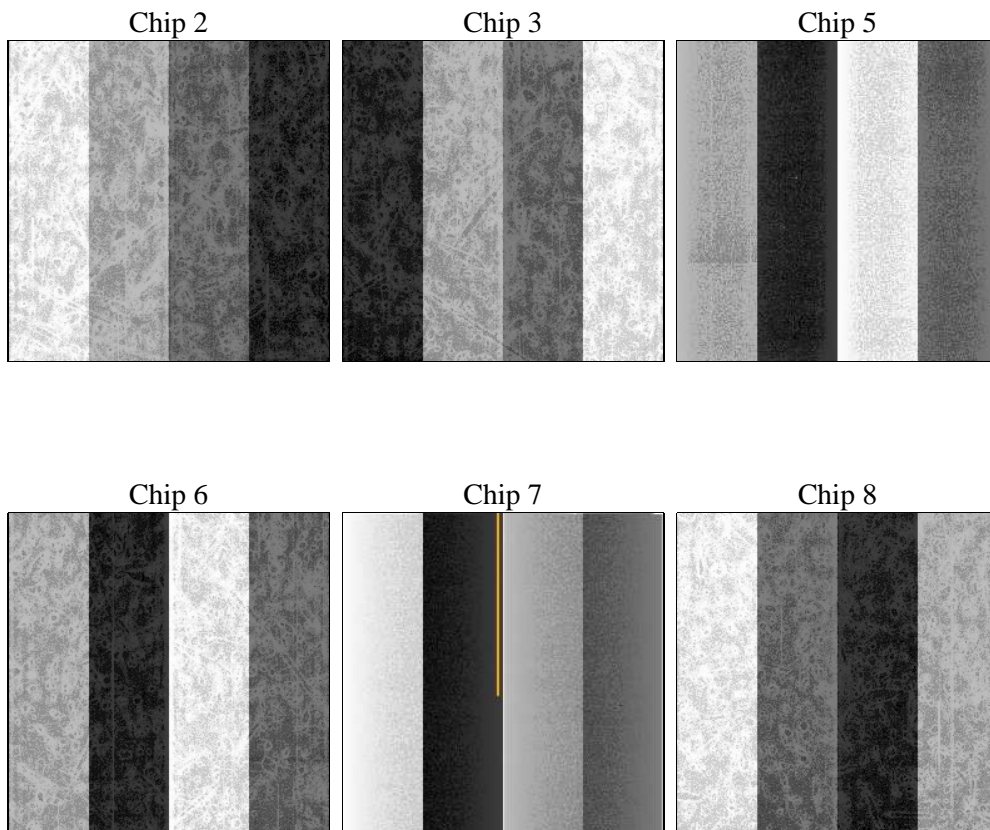
## 2 OBI

### 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	8.4.3	Processing system revision	ontime	30172.799887598	Sum of GTIs [s]
caldbver	4.4.8	&#160	ontime2	30166.317956984	Sum of GTIs [s]
date	2012-03-25T02:33:03	Date and time of file creation	ontime3	30169.558897376	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	30172.799887598	Sum of GTIs [s]
			ontime6	30166.317966968	Sum of GTIs [s]
			ontime7	30172.799887598	Sum of GTIs [s]
			ontime8	30169.558927327	Sum of GTIs [s]
			l1events	1842580	Number of level 1 events

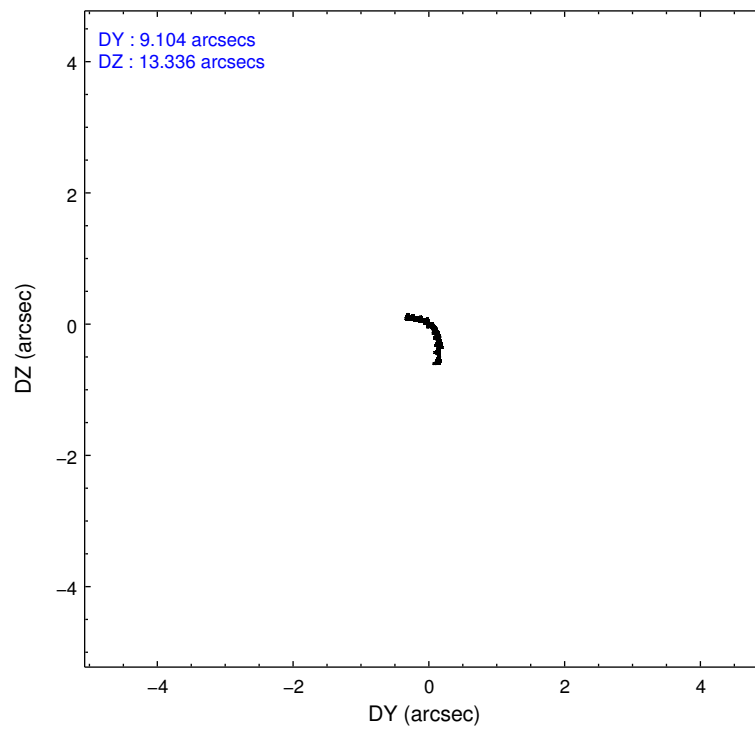
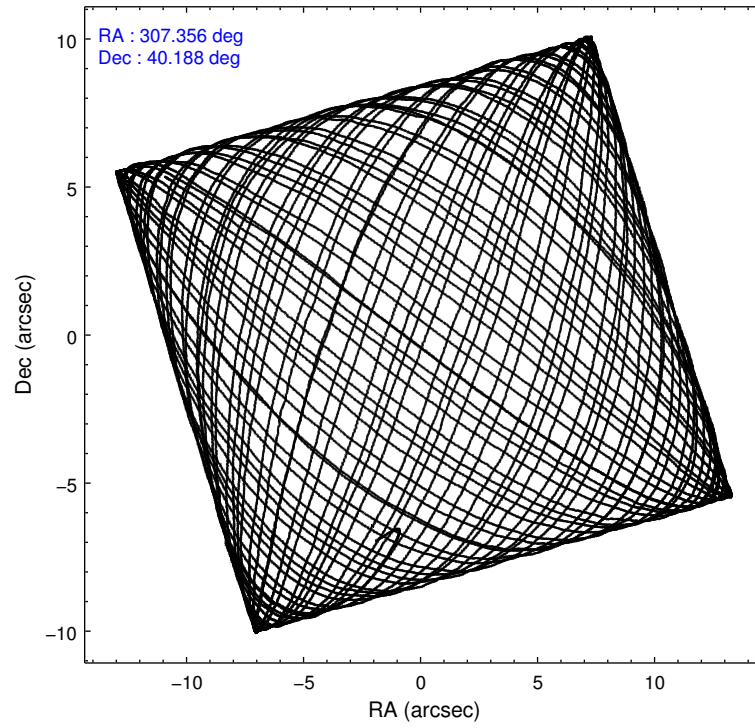
### 2.1.4 Events

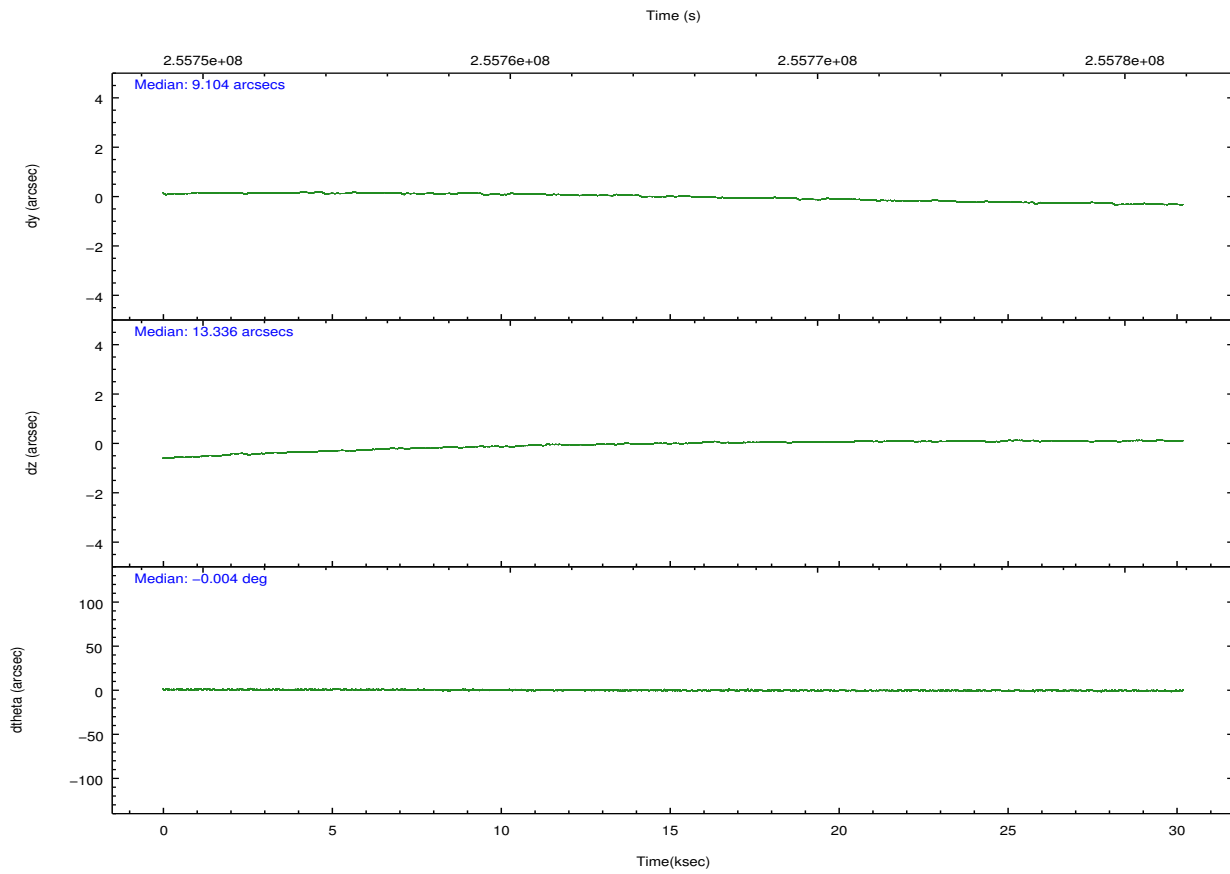
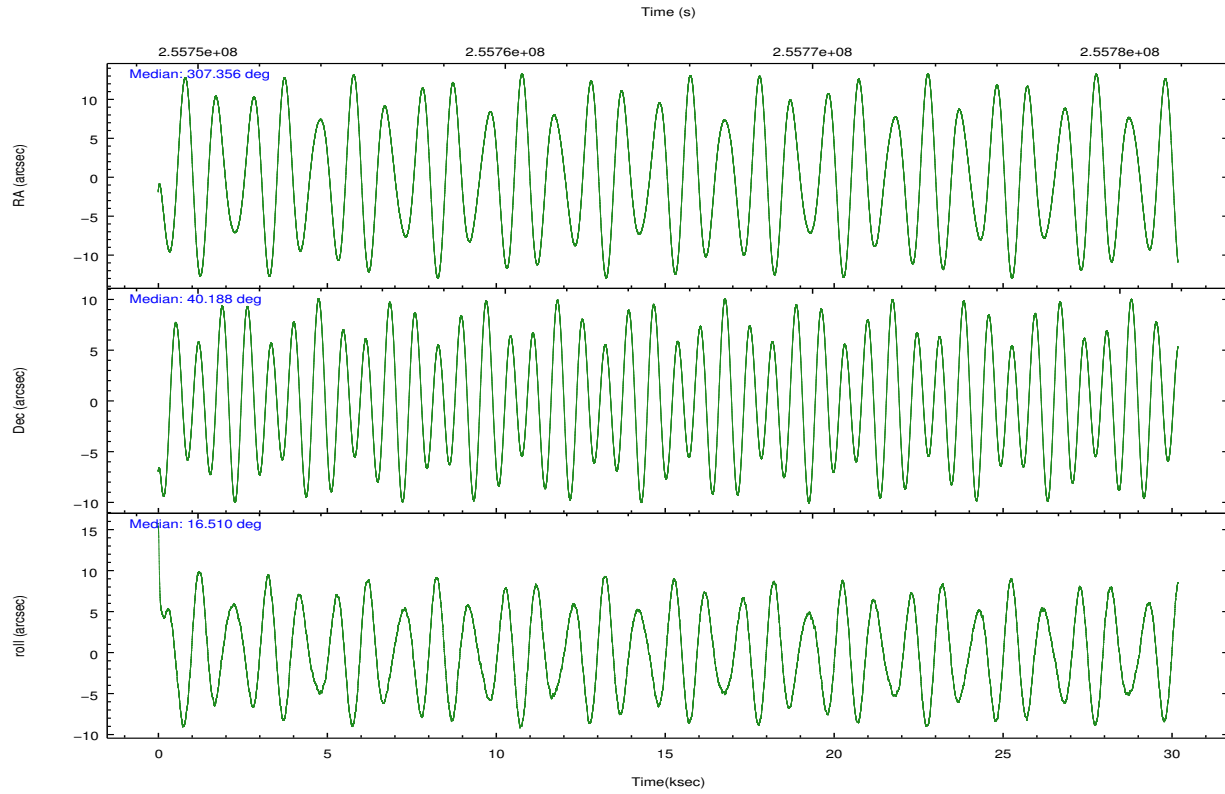
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	266889	245869	392153	257760	351176	328733	grade 0 events	14304	13541	19073	12622	13083	22839
rejected events	235783	215445	211963	226563	206006	257556		5%	5%	4%	4%	3%	6%
rejected %	88%	87%	54%	87%	58%	78%	grade 1 events	176	173	2427	140	325	248
								0%	0%	0%	0%	0%	0%
							grade 2 events	6431	5900	54850	6631	29425	16062
								2%	2%	13%	2%	8%	4%
							grade 3 events	2840	3072	7158	3000	12766	7290
								1%	1%	1%	1%	3%	2%
							grade 4 events	2841	2979	6899	2882	12757	6985
								1%	1%	1%	1%	3%	2%
							grade 5 events	9882	11367	28323	12145	33294	15820
								3%	4%	7%	4%	9%	4%
							grade 6 events	4965	5237	93936	6387	78492	18585
								1%	2%	23%	2%	22%	5%
							grade 7 events	225450	203600	179487	213953	171034	240904
								84%	82%	45%	83%	48%	73%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	307.331760	307.3559407847736	Subarray requested	NONE	NONE
[deg] Pointing Dec	40.167902	40.18790696642343	Alternating exposures requested	N	N
[deg] Pointing Roll	16.376759	16.51778867826335	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	255750382.184000	255749173.6184			
Observation start date	2006-02-08T01:45:17	2006-02-08T01:26:13			
[s] Observation end time (MET)	255780382.184000	255781075.20738			
Observation end date	2006-02-08T10:05:17	2006-02-08T10:17:55			
Read mode	TIMED	TIMED			

## 2.3 Aspect



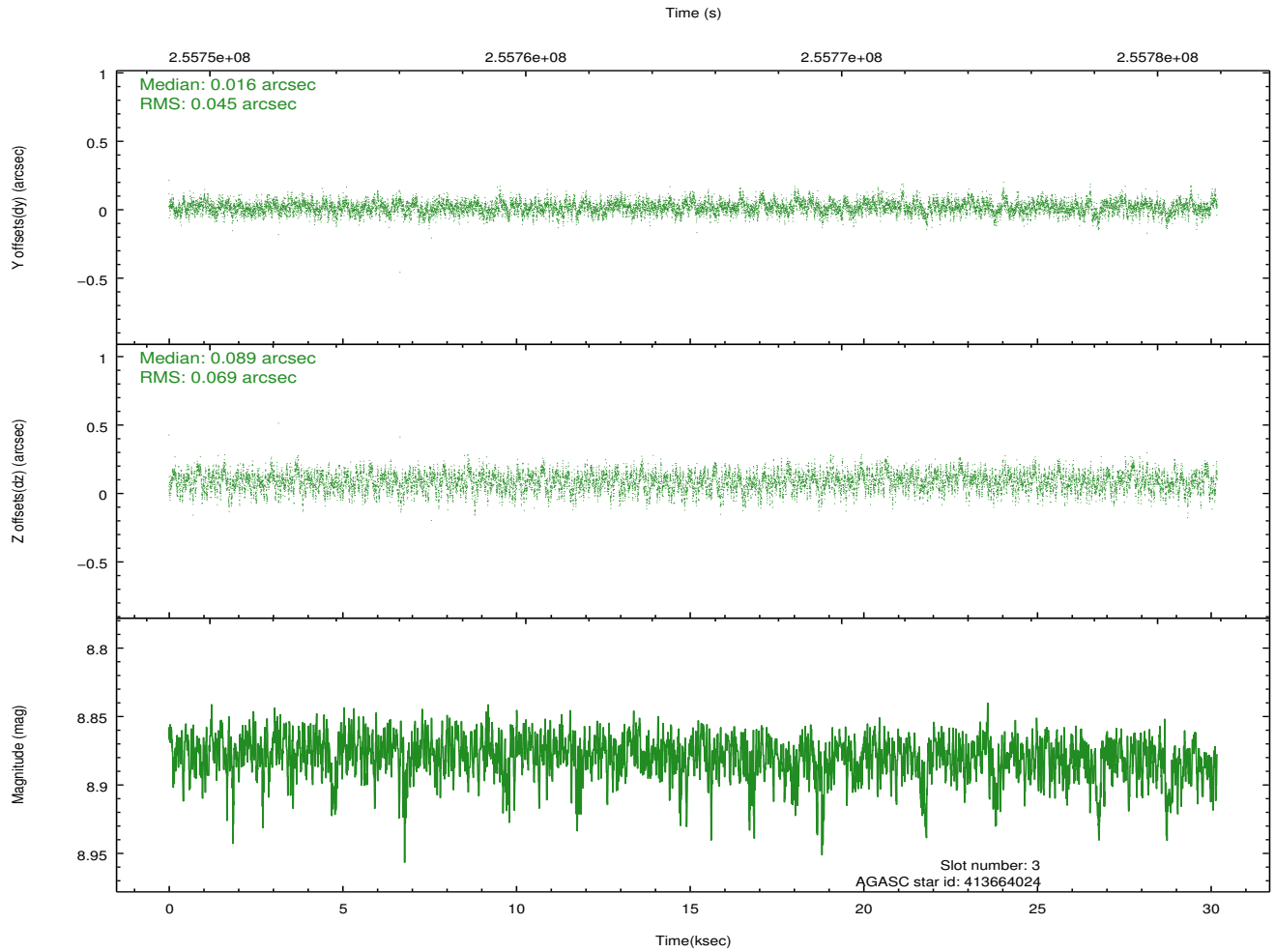
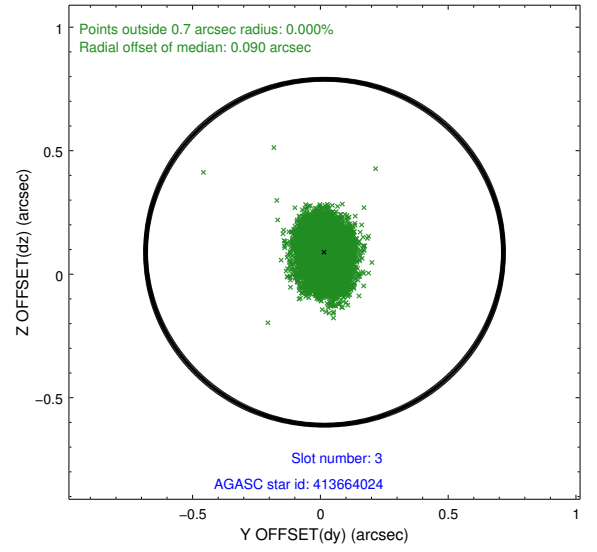
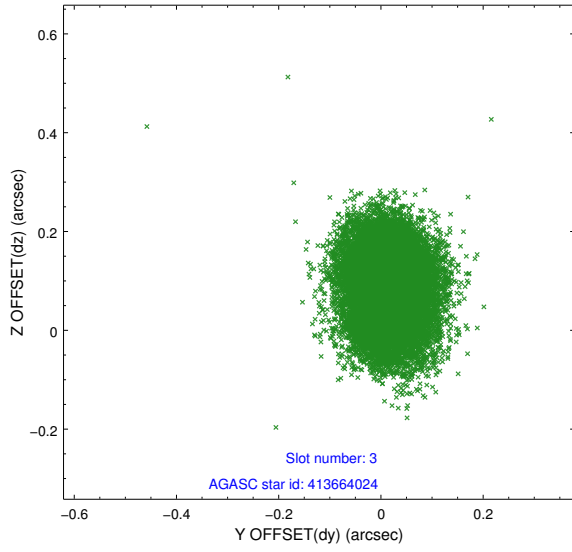


### Slot Statistics

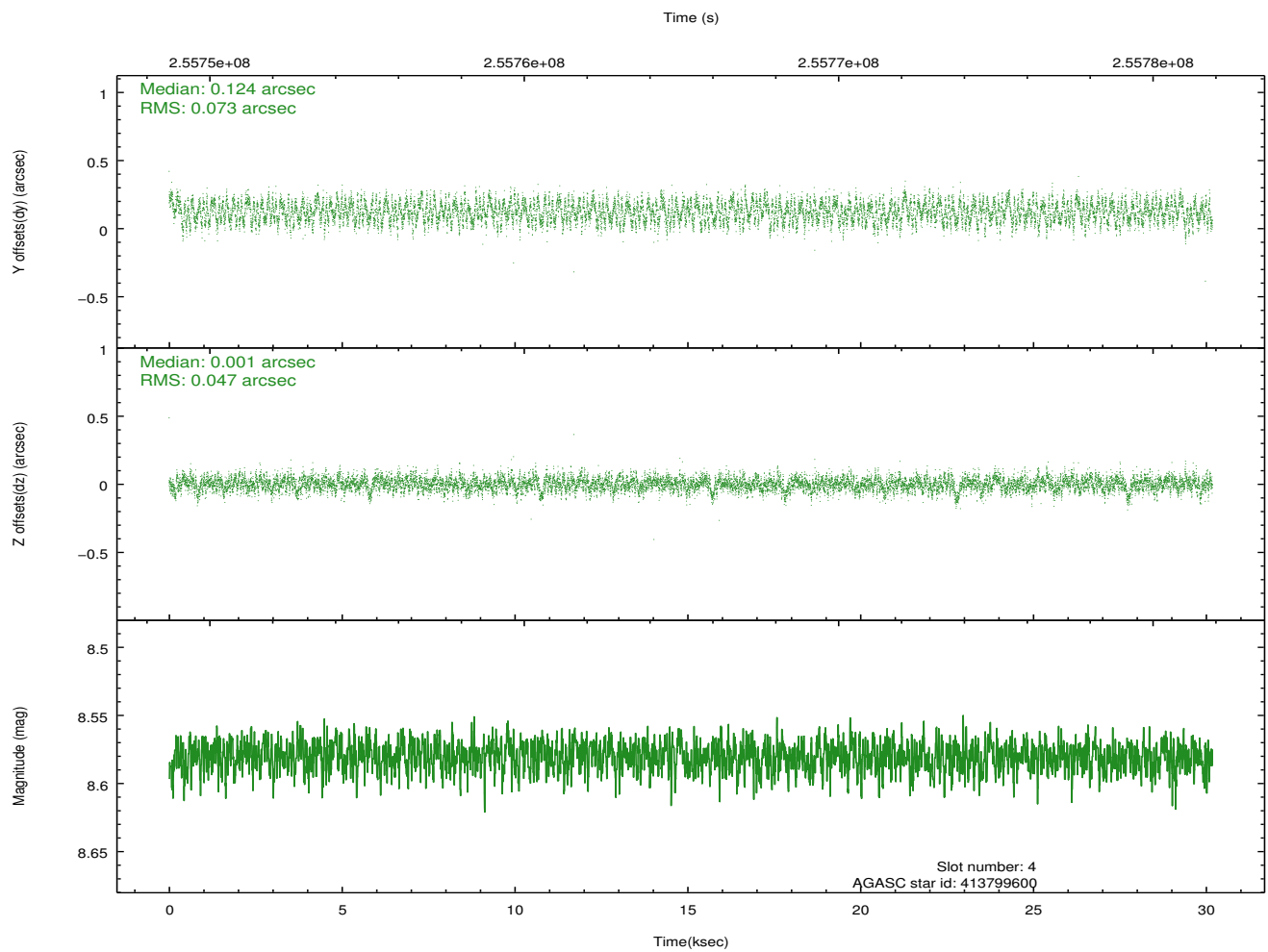
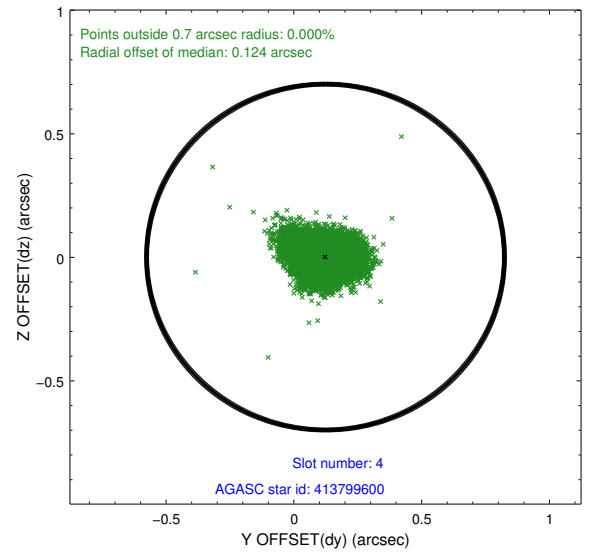
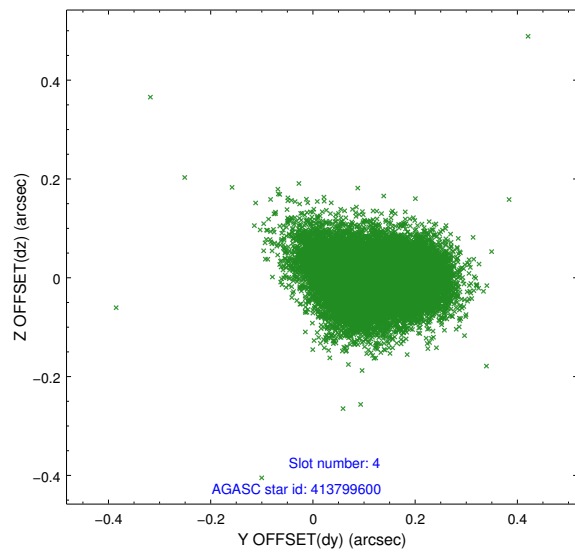
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7362	-0.013	-0.049	0.008	0.014	0.000000	0.000000	-761.91	-1734.63
1	FID	ACIS-S-4	7.19	7361	0.124	0.020	0.009	0.018	0.000000	0.000000	2151.49	173.82
2	FID	ACIS-S-5	7.23	7362	-0.142	0.038	0.010	0.017	0.000000	0.000000	-1814.77	167.62
3	GUIDE	413664024	8.88	14719	0.016	0.089	0.087	0.143	307.177353	39.473622	-1115.86	-2276.64
4	GUIDE	413799600	8.58	14718	0.124	0.001	0.092	0.145	308.280373	39.866891	2213.78	-1765.01
5	GUIDE	413681008	7.15	14723	-0.006	-0.042	0.084	0.148	306.516077	40.401711	-1904.98	1447.76
6	GUIDE	413664128	8.76	14720	-0.042	0.103	0.081	0.128	307.364799	39.472800	-617.05	-2426.38
7	GUIDE	413803288	6.99	14721	-0.098	-0.145	0.050	0.080	307.629978	40.506899	1127.67	942.12

## 2.4 Star Slots

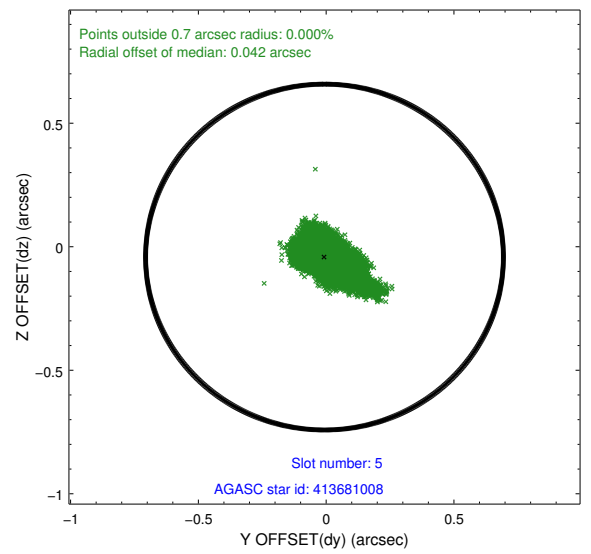
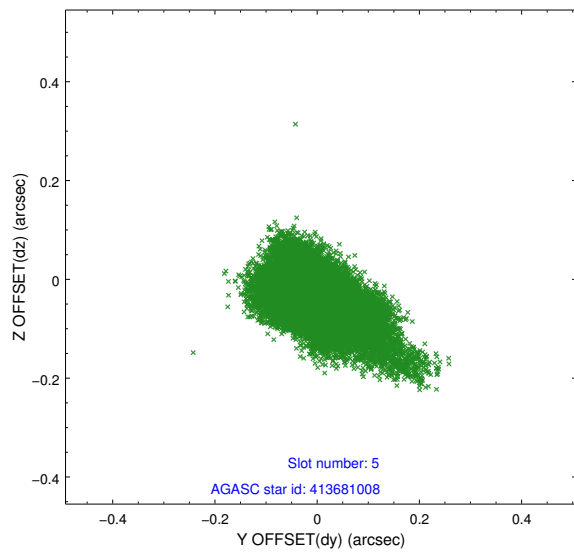
### 2.4.1 Slot 3



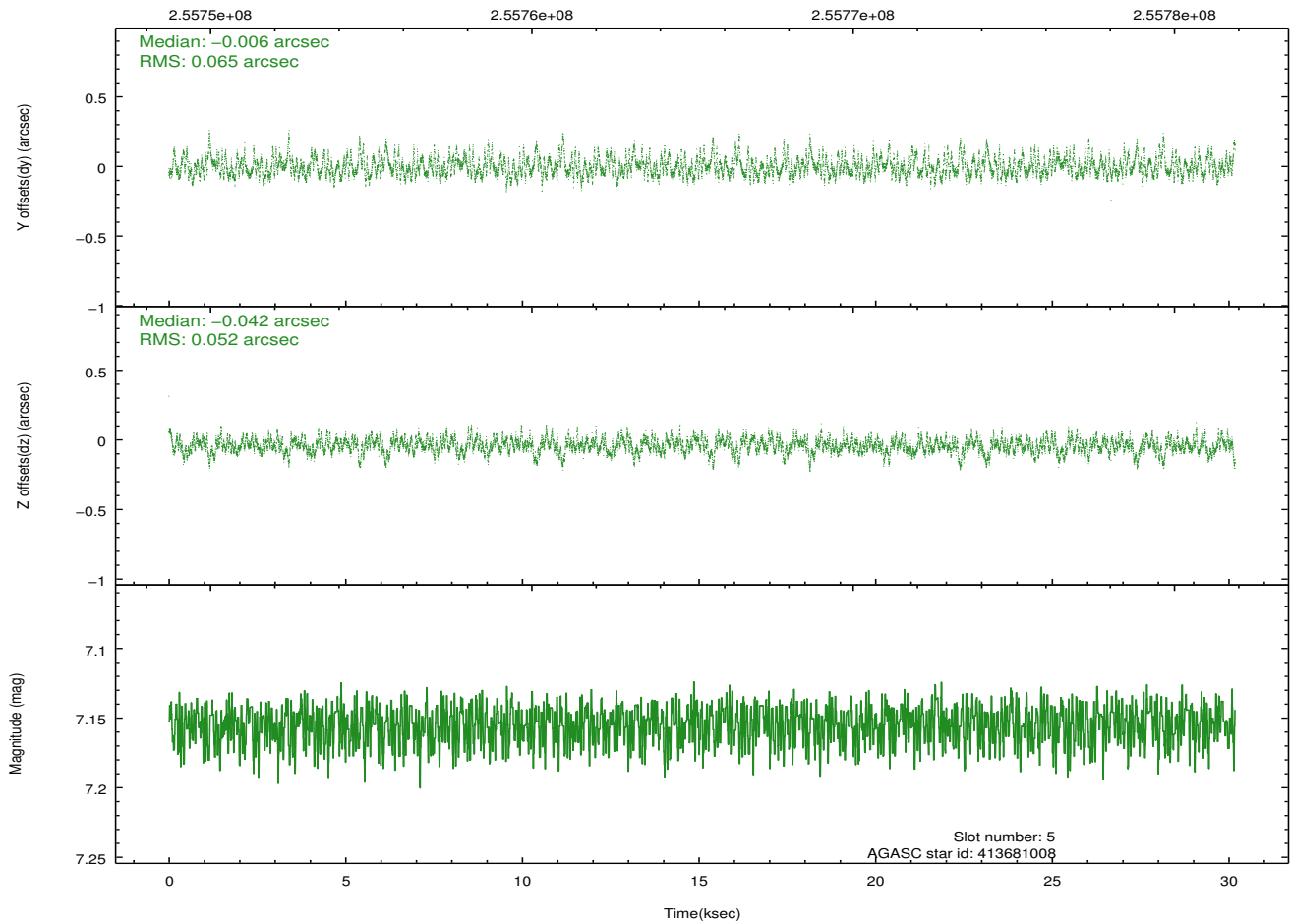
## 2.4.2 Slot 4



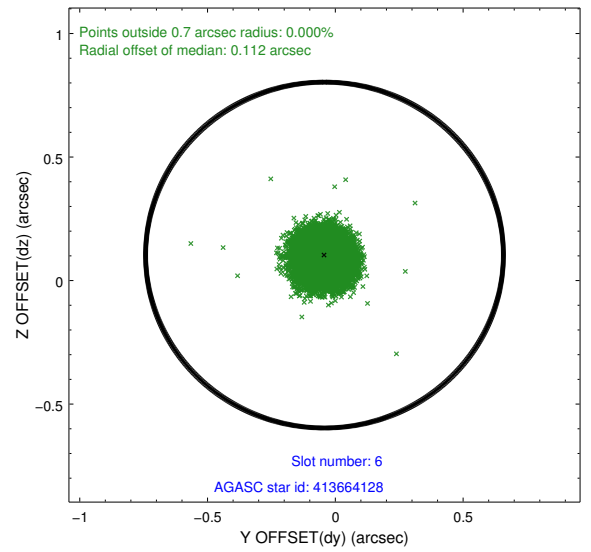
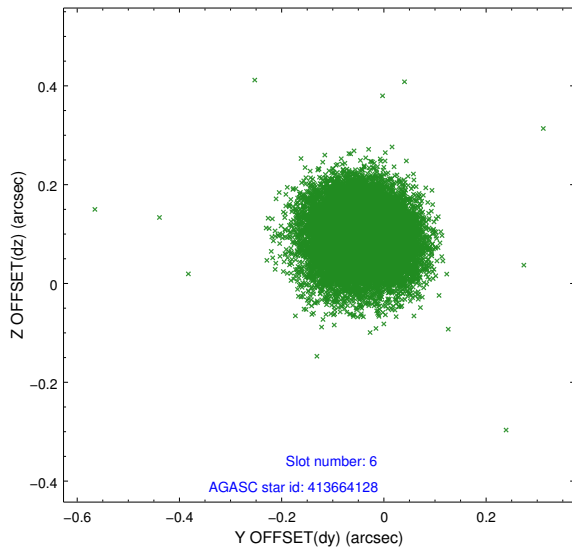
### 2.4.3 Slot 5



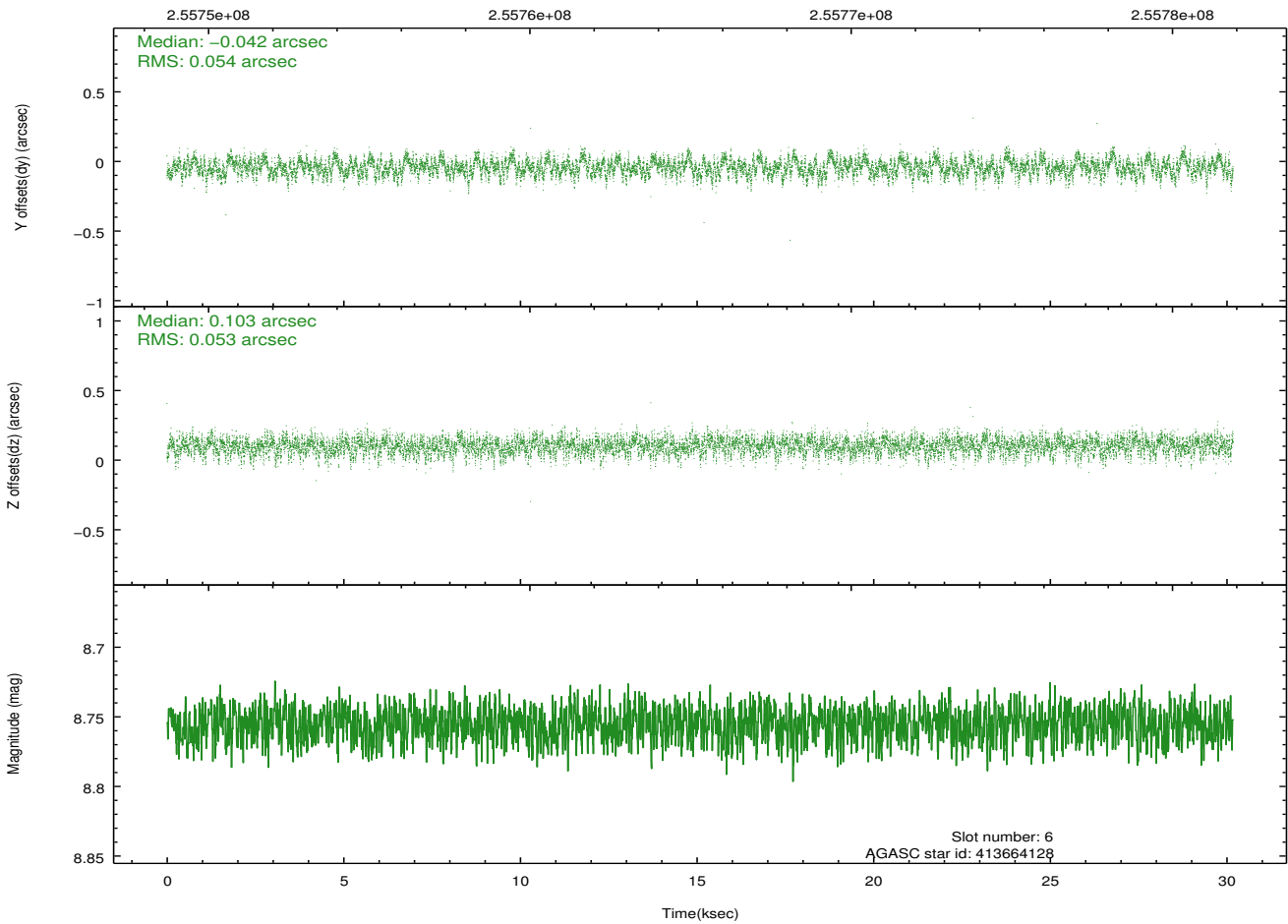
Time (s)



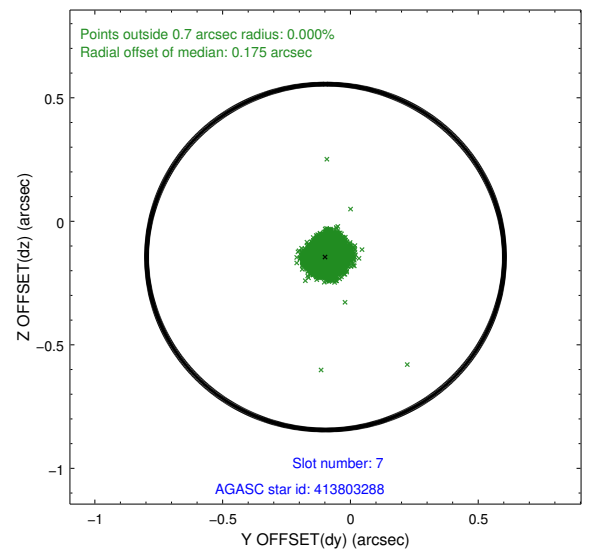
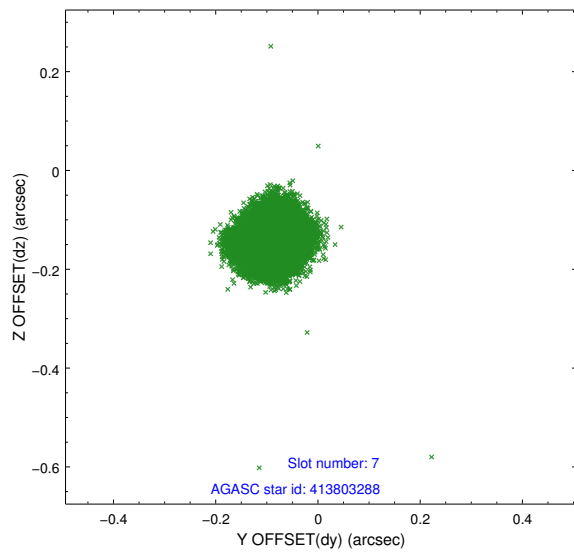
## 2.4.4 Slot 6



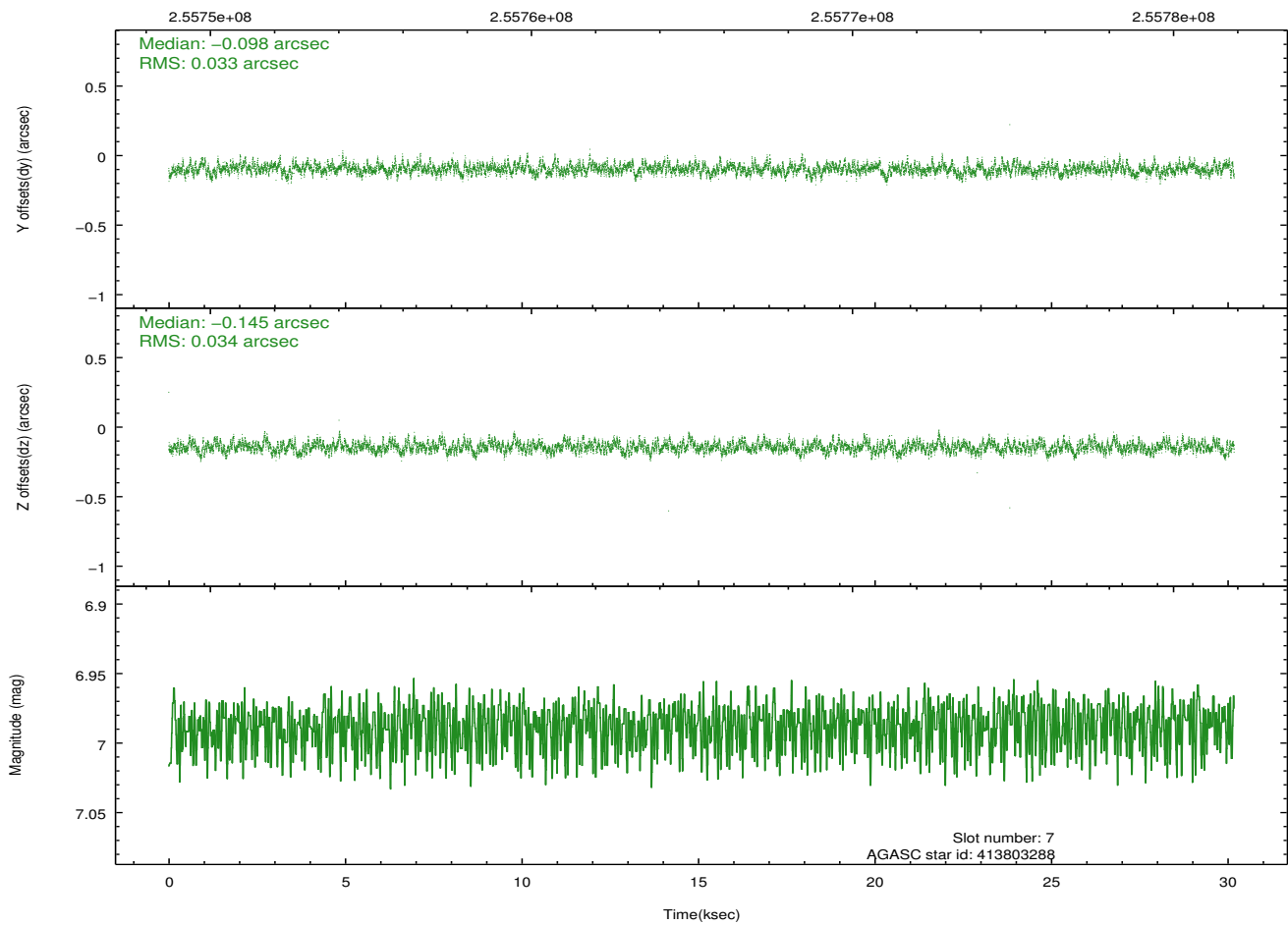
Time (s)



## 2.4.5 Slot 7

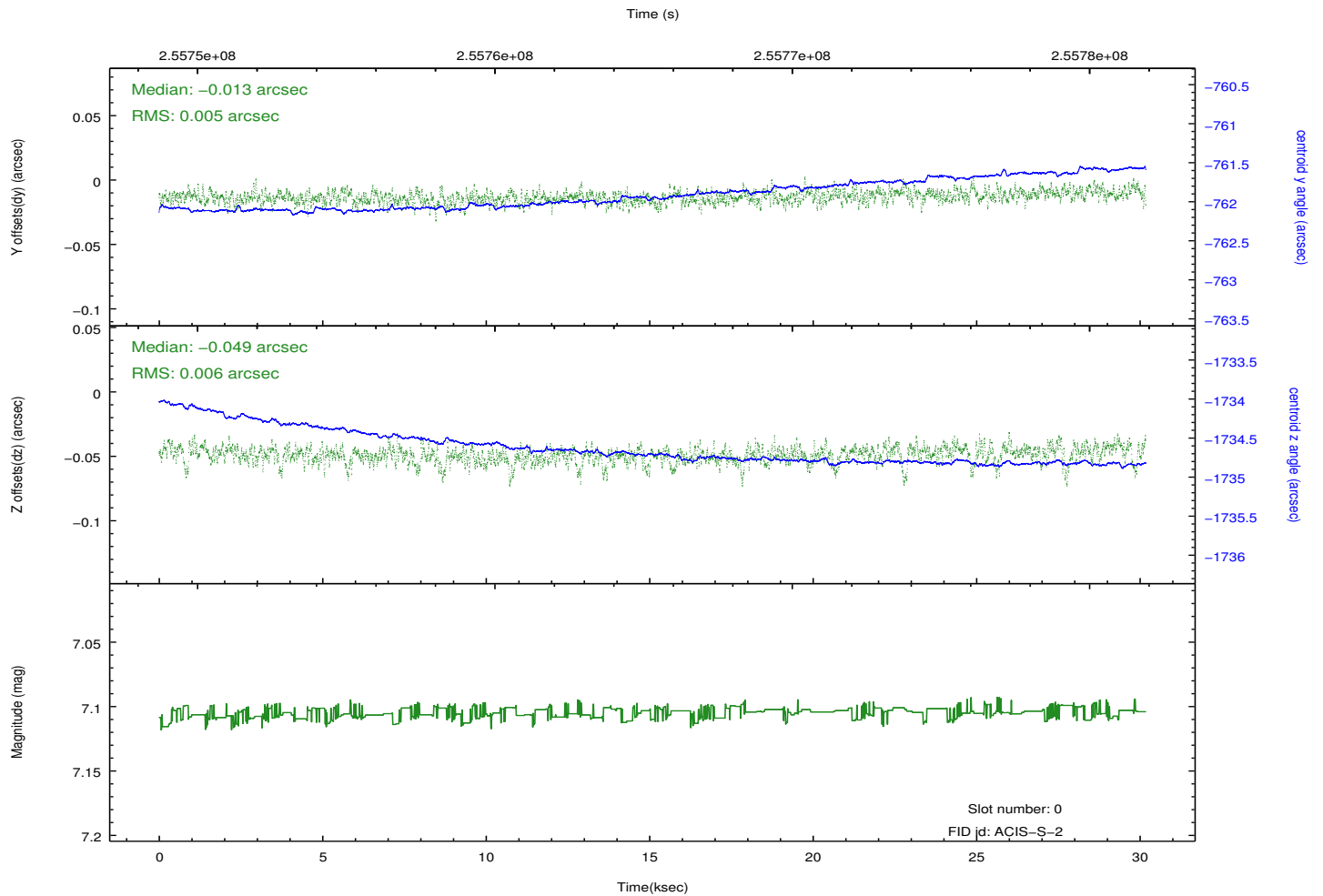
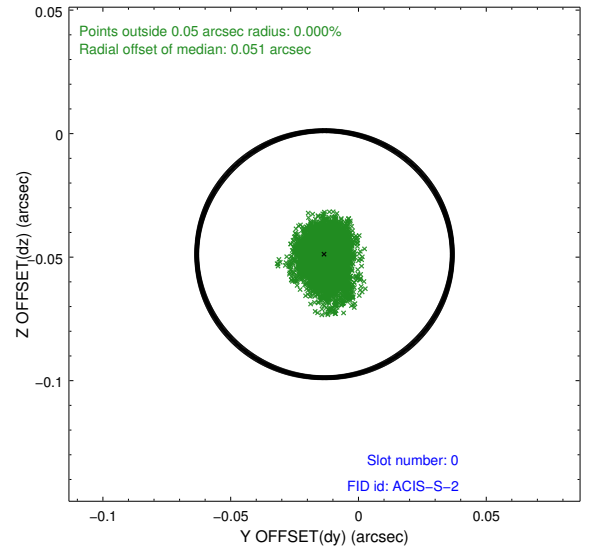
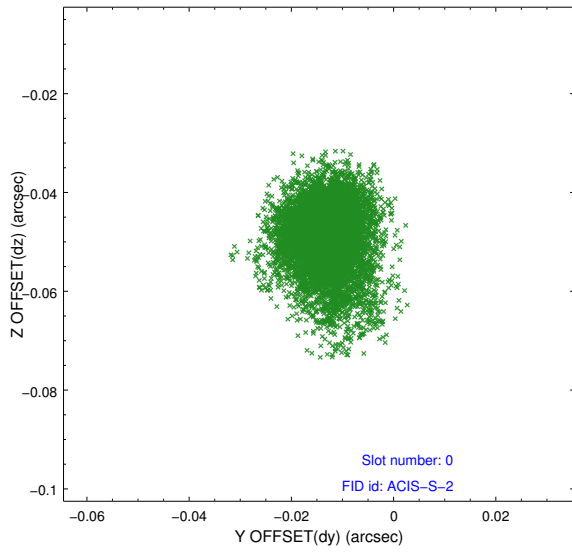


Time (s)

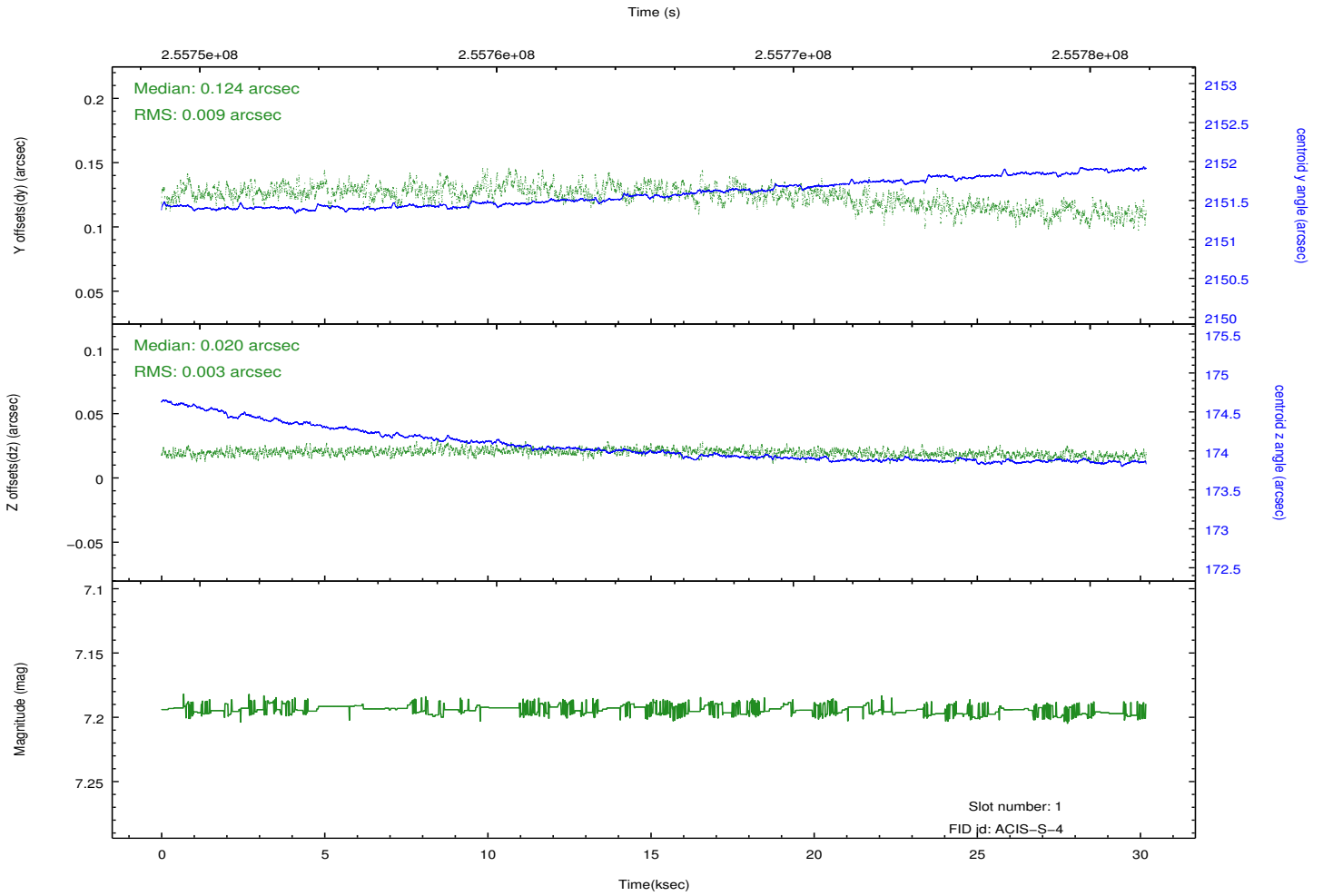
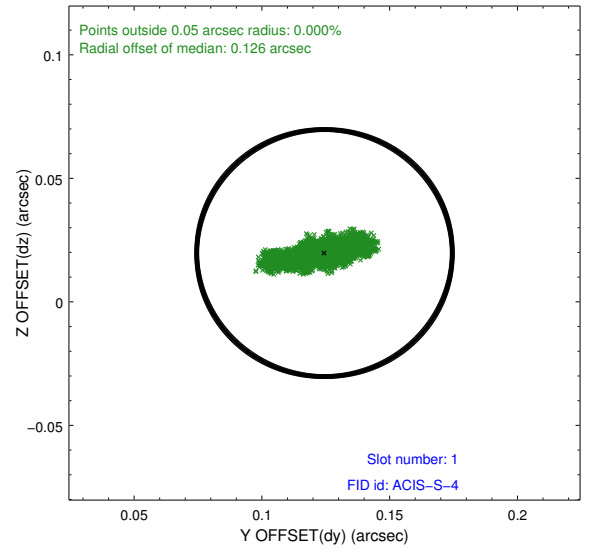
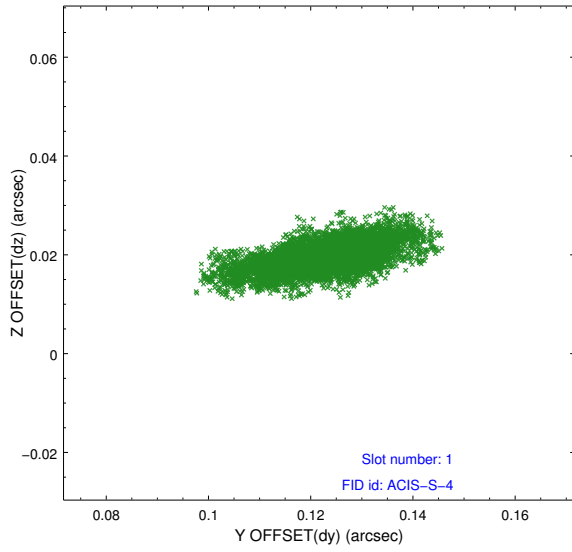


## 2.5 FID Slots

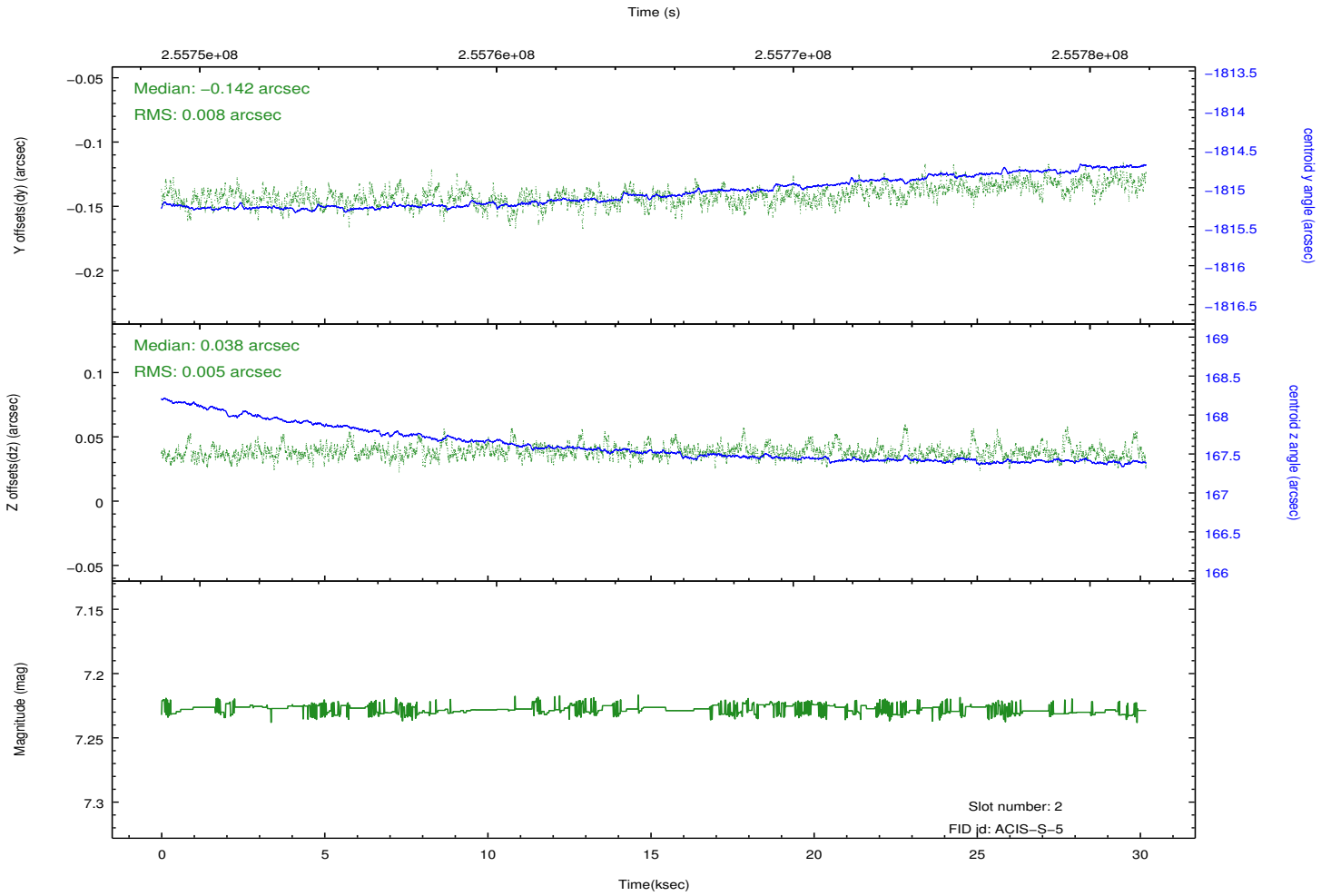
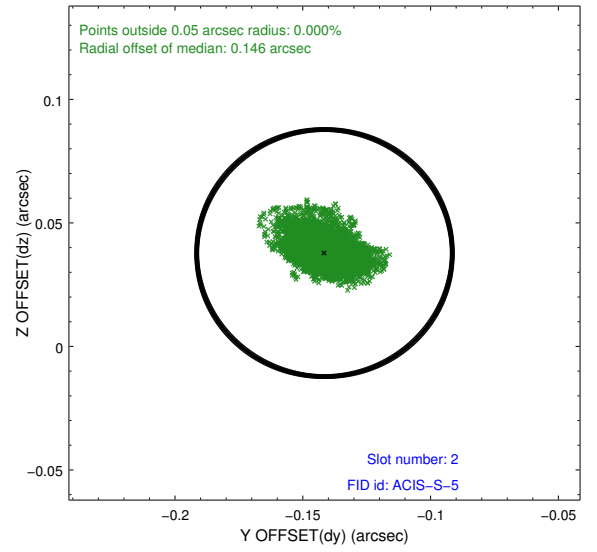
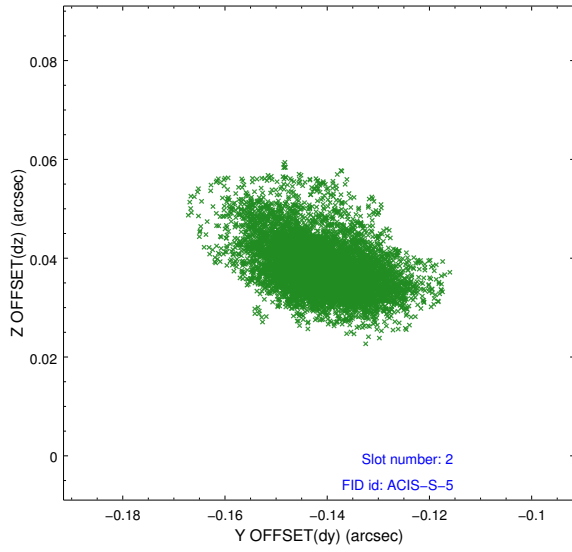
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.03.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.1727998

## A.2 Comments