

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2792 - L2 Version 3  
Chandra X-Ray Center

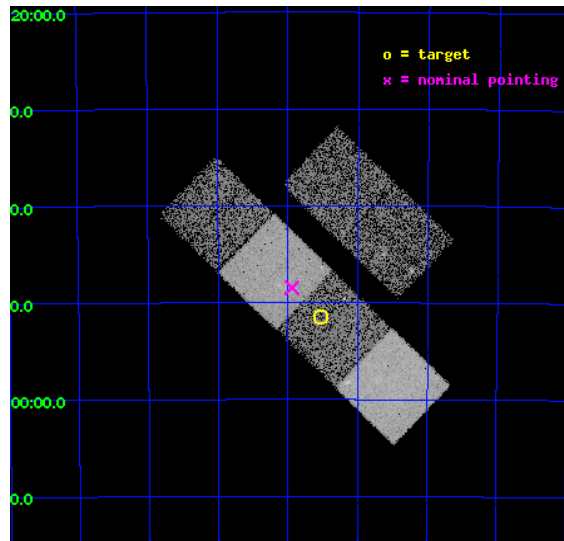
L2 Processing Date : Oct 14 2012

## 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

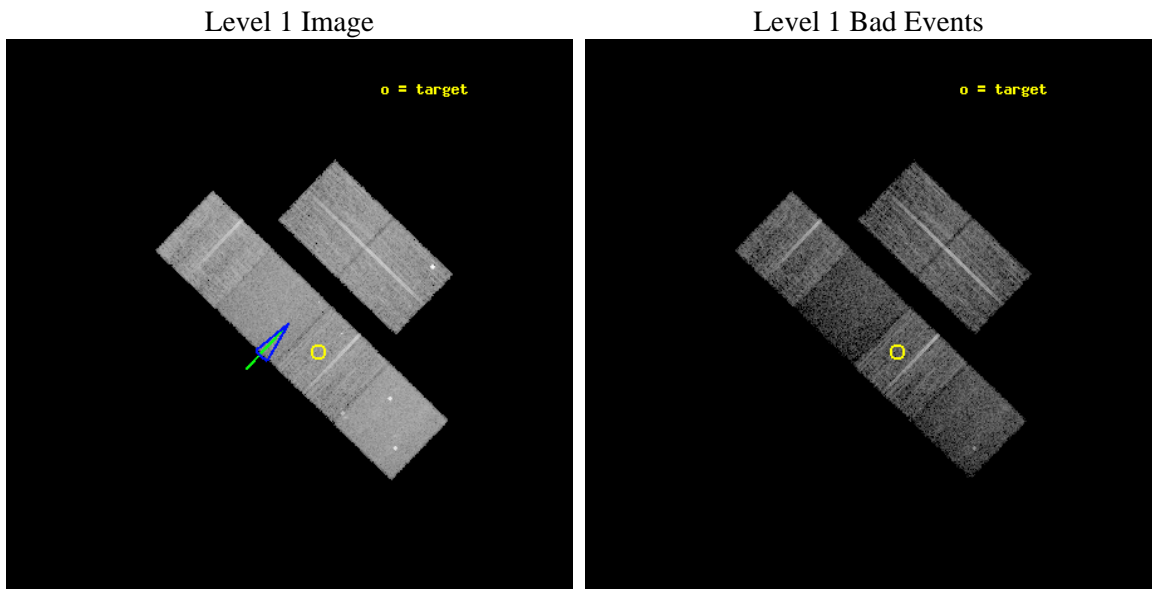
seq_num	500242	Sequence number
obs_id	2792	Observation id
title	IMAGING AND TIMING STUDIES OF THE VERY ENERGETIC PSR J1420-6048	Pr
observer	Prof. Roger Romani	Principal investigator
object	PSR J1420-6048	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.883333	Observer's specified target RA [deg]
dec_targ	-60.858333	Observer's specified target Dec [deg]
ra_nom	214.98618424472	Nominal RA [deg]
dec_nom	-60.808045273703	Nominal Dec [deg]
roll_nom	223.92767649171	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10060.785135478	Sum of GTIs [s]
livetime	9933.3894162148	Livetime [s]
ontime2	10051.077171355	Sum of GTIs [s]
ontime3	10051.021174729	Sum of GTIs [s]
ontime5	10060.799962521	Sum of GTIs [s]
ontime6	10060.785135478	Sum of GTIs [s]
ontime7	10060.799962521	Sum of GTIs [s]
ontime8	10060.703055501	Sum of GTIs [s]
l2events	74340	Number of level 2 events



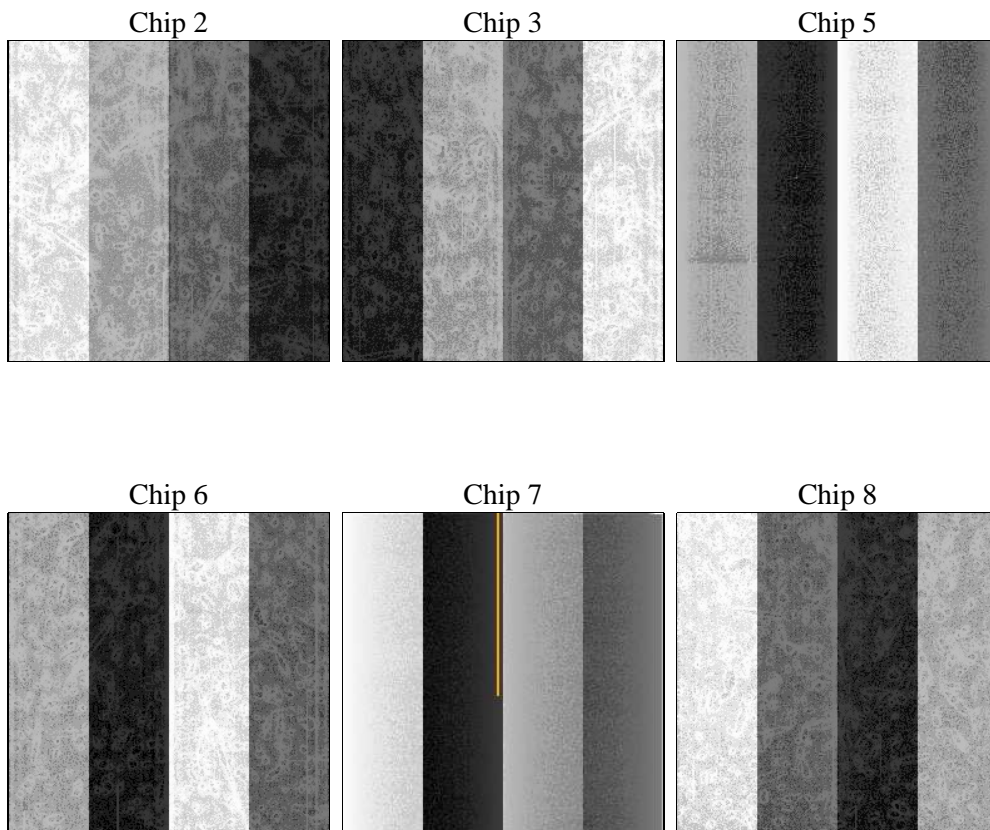
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10100.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10060.785135478	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime2	10051.077171355	Sum of GTIs [s]
date	2012-10-14T18:17:06	Date and time of file creation	ontime3	10051.021174729	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	10060.799962521	Sum of GTIs [s]
			ontime6	10060.785135478	Sum of GTIs [s]
			ontime7	10060.799962521	Sum of GTIs [s]
			ontime8	10060.703055501	Sum of GTIs [s]
			l1events	333899	Number of level 1 events

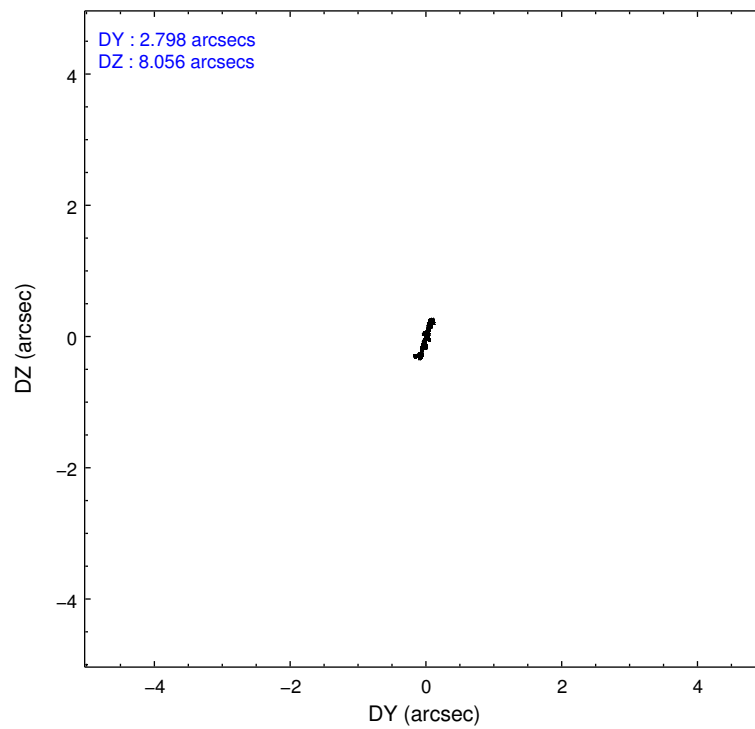
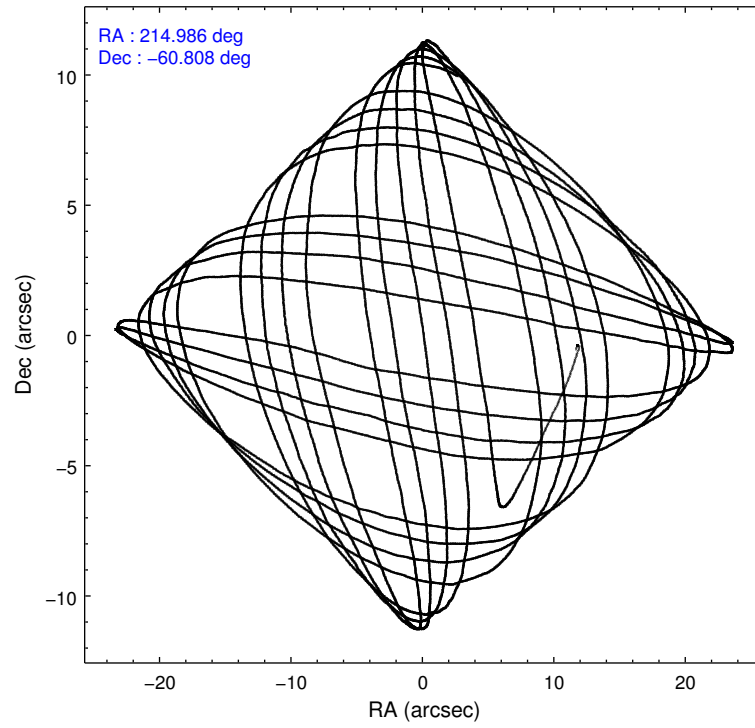
### 2.1.4 Events

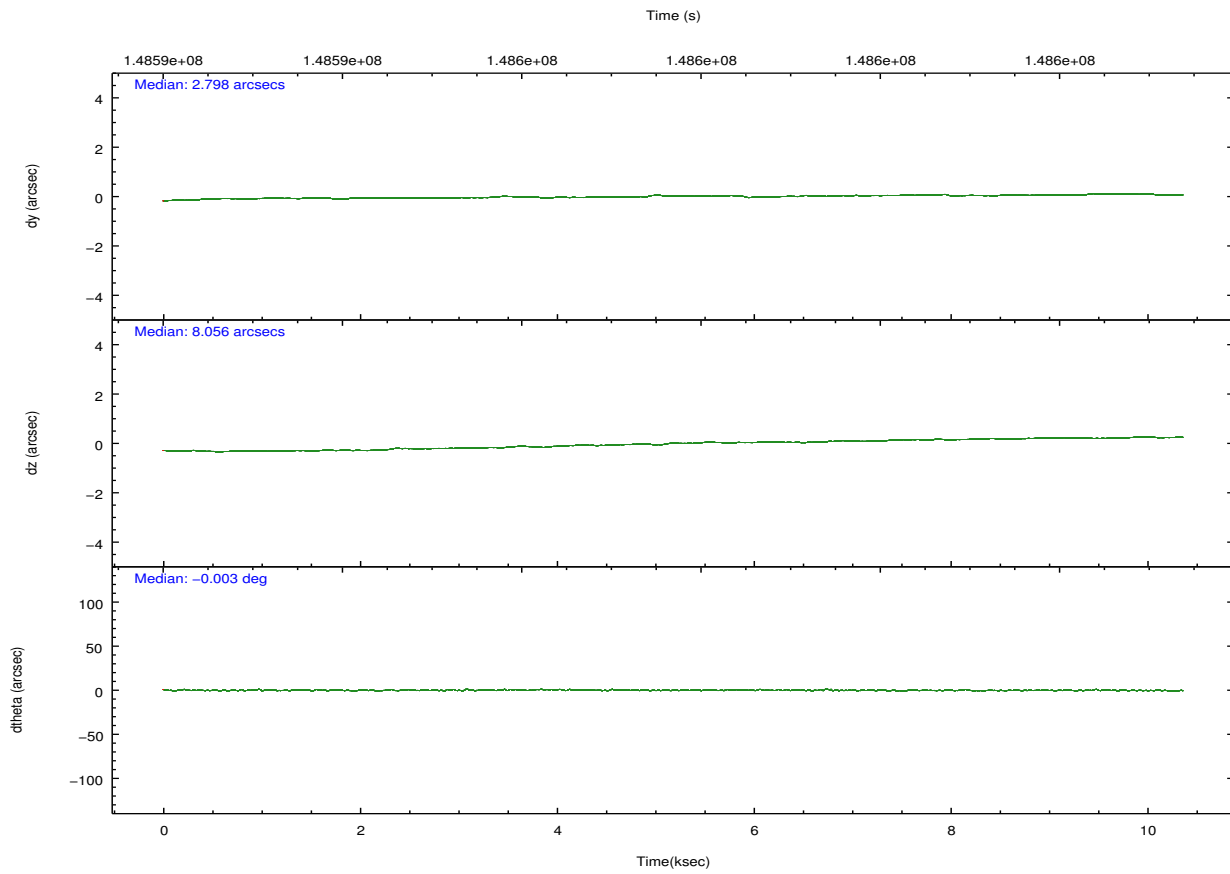
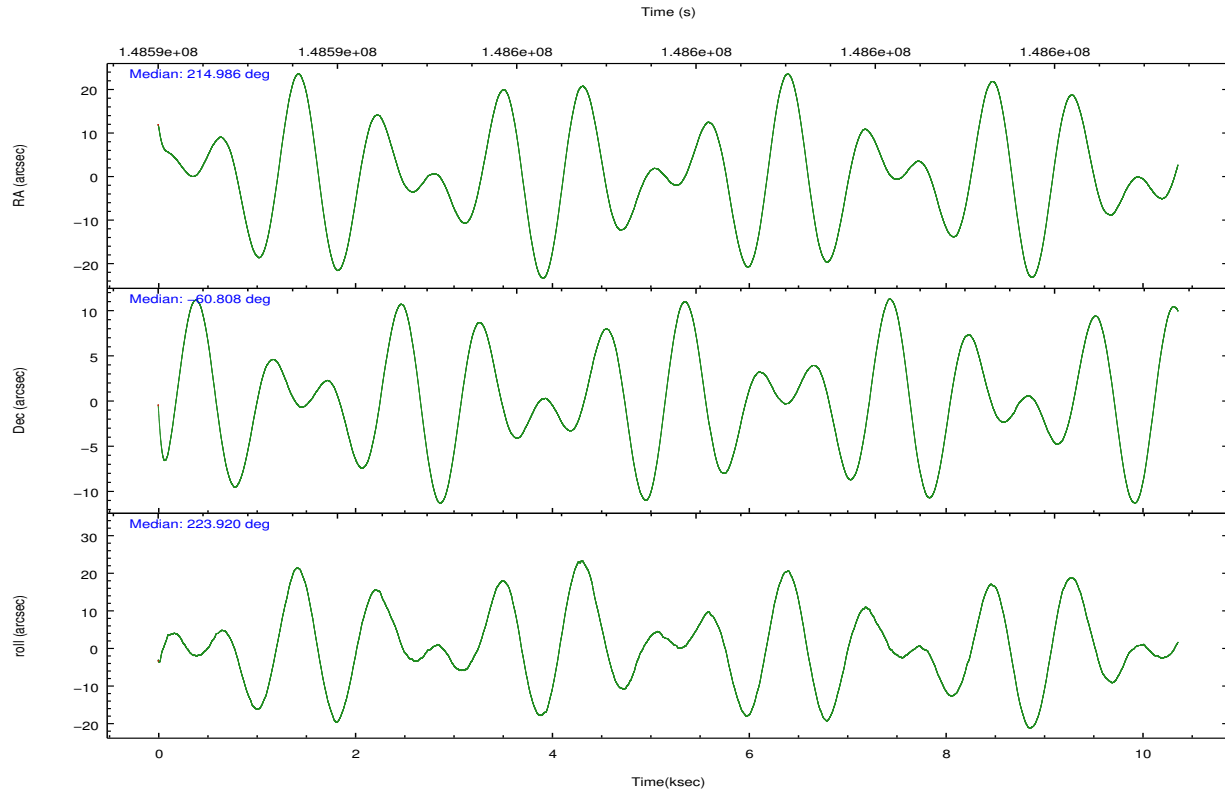
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	57330	51006	63060	51869	48078	62556	grade 0 events	5203	1904	5259	3103	2676	3840
rejected events	49111	46167	27998	45190	23433	48769		9%	3%	8%	5%	5%	6%
rejected %	85%	90%	44%	87%	48%	77%	grade 1 events	43	22	115	37	48	46
								0%	0%	0%	0%	0%	0%
							grade 2 events	1129	934	10237	1261	5291	3169
								1%	1%	16%	2%	11%	5%
							grade 3 events	536	584	1732	651	2520	1463
								0%	1%	2%	1%	5%	2%
							grade 4 events	547	519	1737	592	2492	1339
								0%	1%	2%	1%	5%	2%
							grade 5 events	1411	1581	5107	1652	5051	2410
								2%	3%	8%	3%	10%	3%
							grade 6 events	807	898	16111	1084	11674	3981
								1%	1%	25%	2%	24%	6%
							grade 7 events	47654	44564	22762	43489	18326	46308
								83%	87%	36%	83%	38%	74%

## 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	215.000918	214.9861842447216	Subarray requested	NONE	NONE
[deg] Pointing Dec	-60.781804	-60.80804527370312	Alternating exposures requested	N	N
[deg] Pointing Roll	223.783930	223.9276764917059	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	220.000000	220.000000			
[deg] Roll tolerance	10.000000	10.000000			
Roll constraint allows 180D rotation	N	N			
[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)	148592766.184000	148591772.36077			
Observation start date	2002-09-16T19:45:02	2002-09-16T19:29:32			
[s] Observation end time (MET)	148602866.184000	148603000.72373			
Observation end date	2002-09-16T22:33:22	2002-09-16T22:36:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



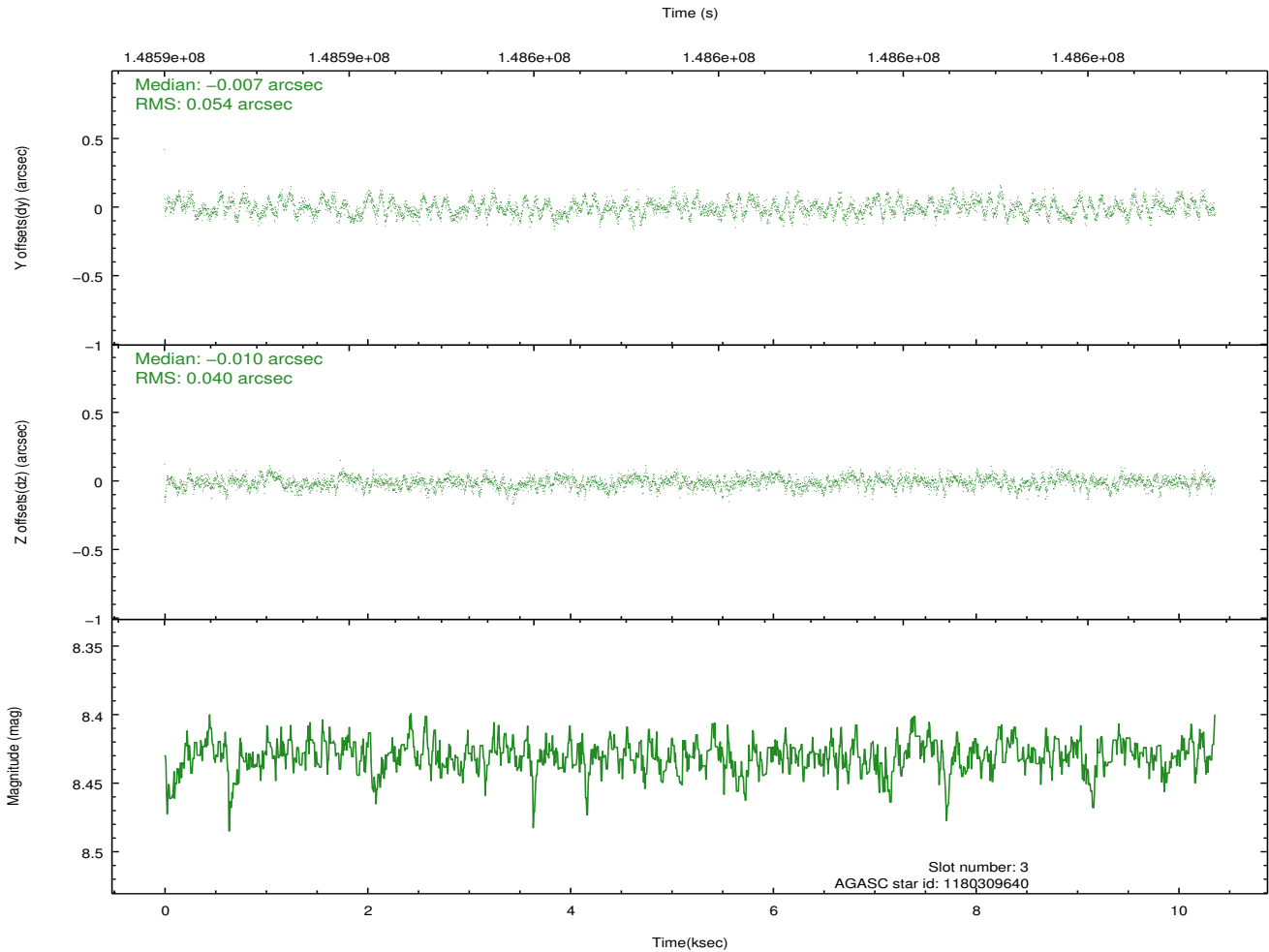
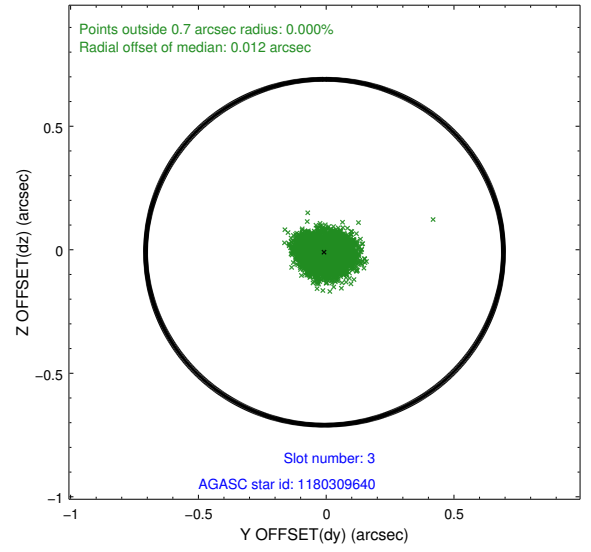
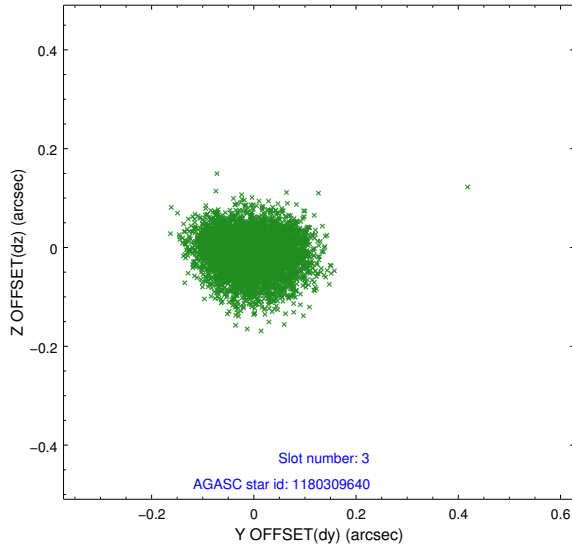


### Slot Statistics

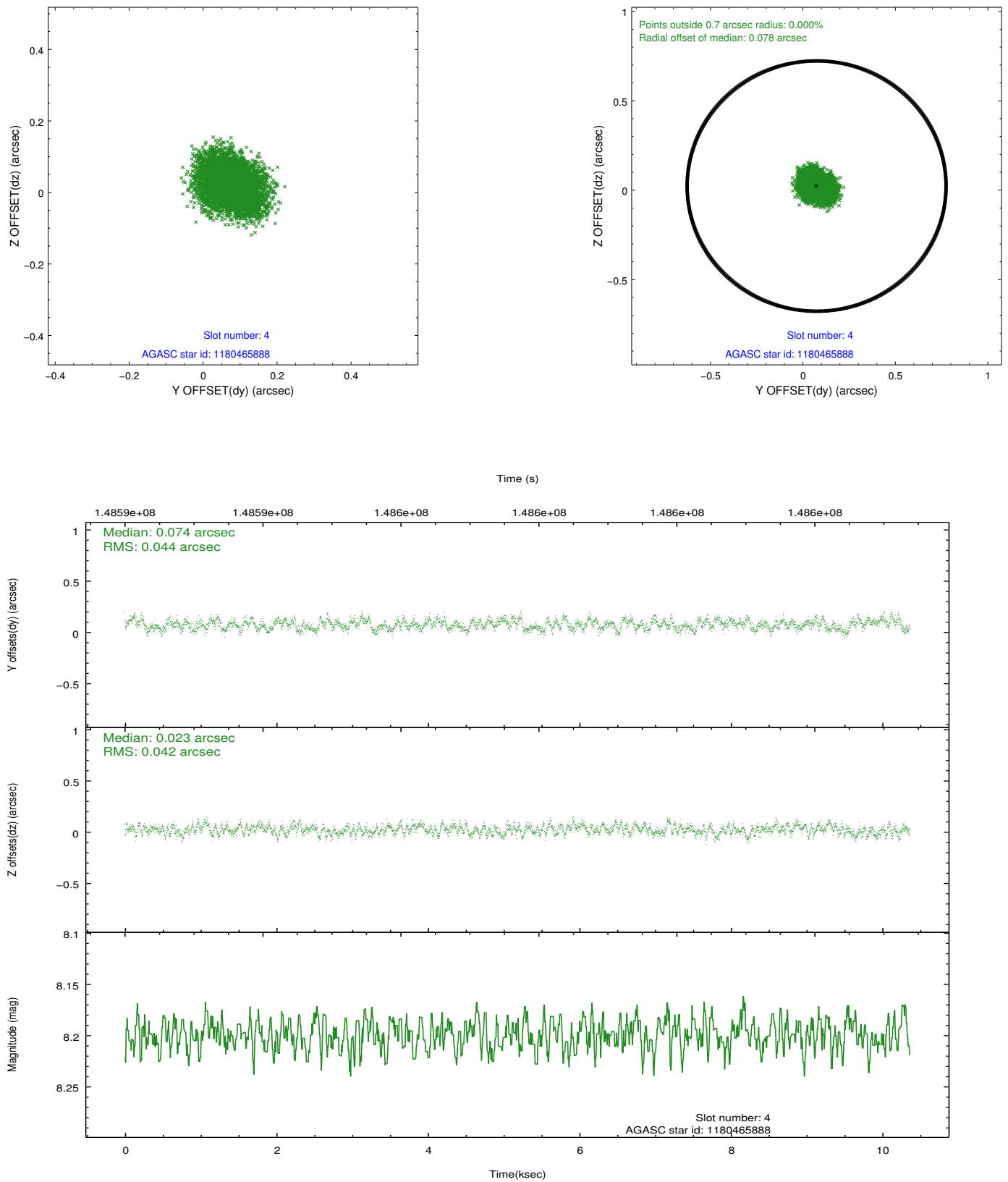
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2528	-0.008	-0.001	0.008	0.013	0.000000	0.000000	-755.45	-1729.21
1	FID	ACIS-S-4	7.20	2528	-0.020	0.004	0.007	0.011	0.000000	0.000000	2157.60	178.73
2	FID	ACIS-S-5	7.24	2528	-0.003	0.006	0.007	0.013	0.000000	0.000000	-1807.62	173.02
3	GUIDE	1180309640	8.43	5055	-0.007	-0.010	0.073	0.112	213.569198	-60.971155	2295.91	-1217.88
4	GUIDE	1180465888	8.20	5055	0.074	0.023	0.065	0.104	215.037670	-61.081836	701.18	824.49
5	GUIDE	1180465208	8.72	5055	-0.008	0.052	0.070	0.114	215.460543	-60.837299	-442.32	704.89
6	GUIDE	1180469776	9.40	5052	-0.069	-0.008	0.113	0.179	216.482615	-60.942296	-1451.05	2231.27
7	GUIDE	1180309344	9.56	5036	0.012	-0.051	0.105	0.171	213.429296	-60.678040	1764.20	-2161.65

## 2.4 Star Slots

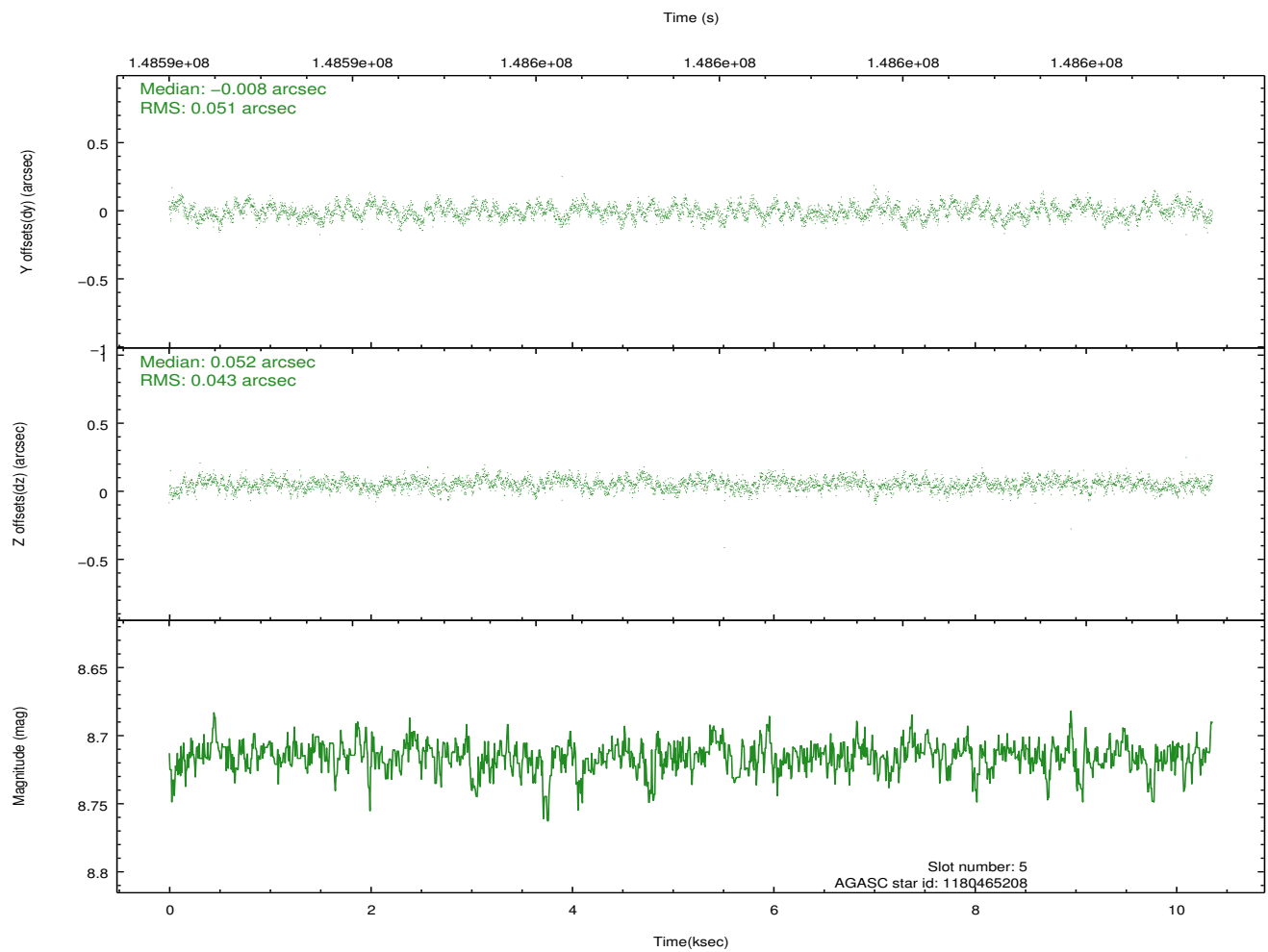
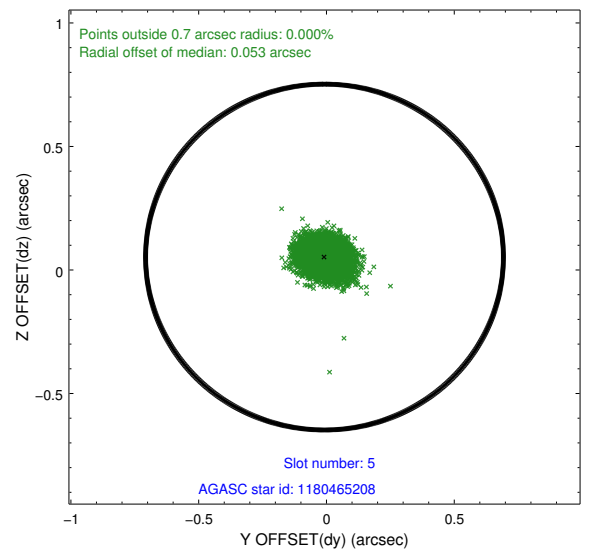
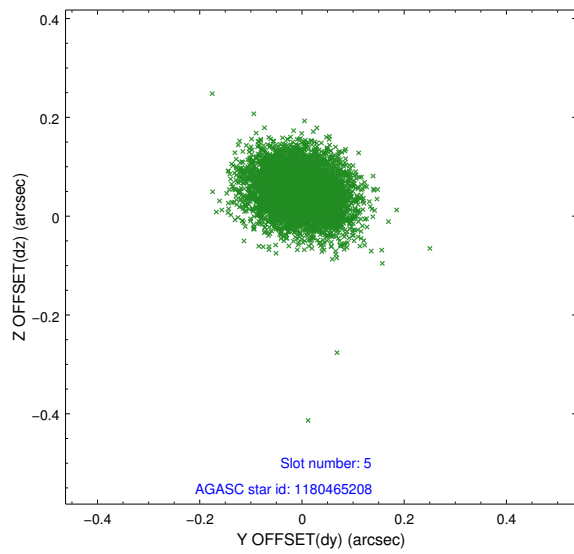
### 2.4.1 Slot 3



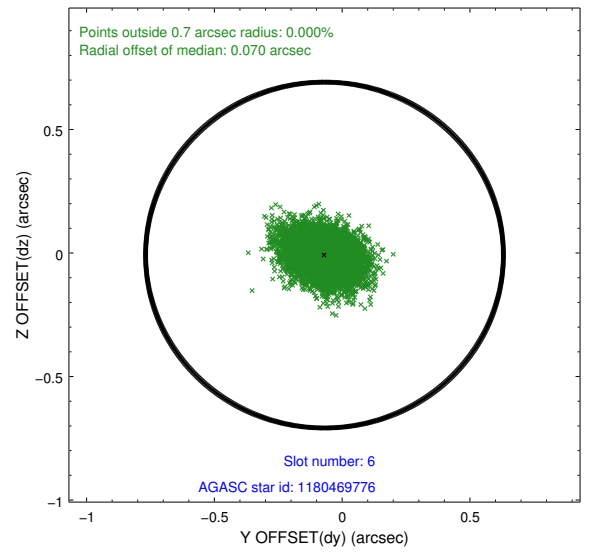
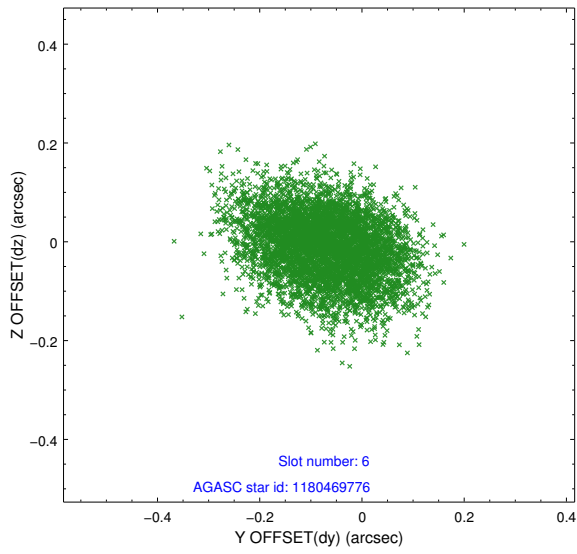
## 2.4.2 Slot 4



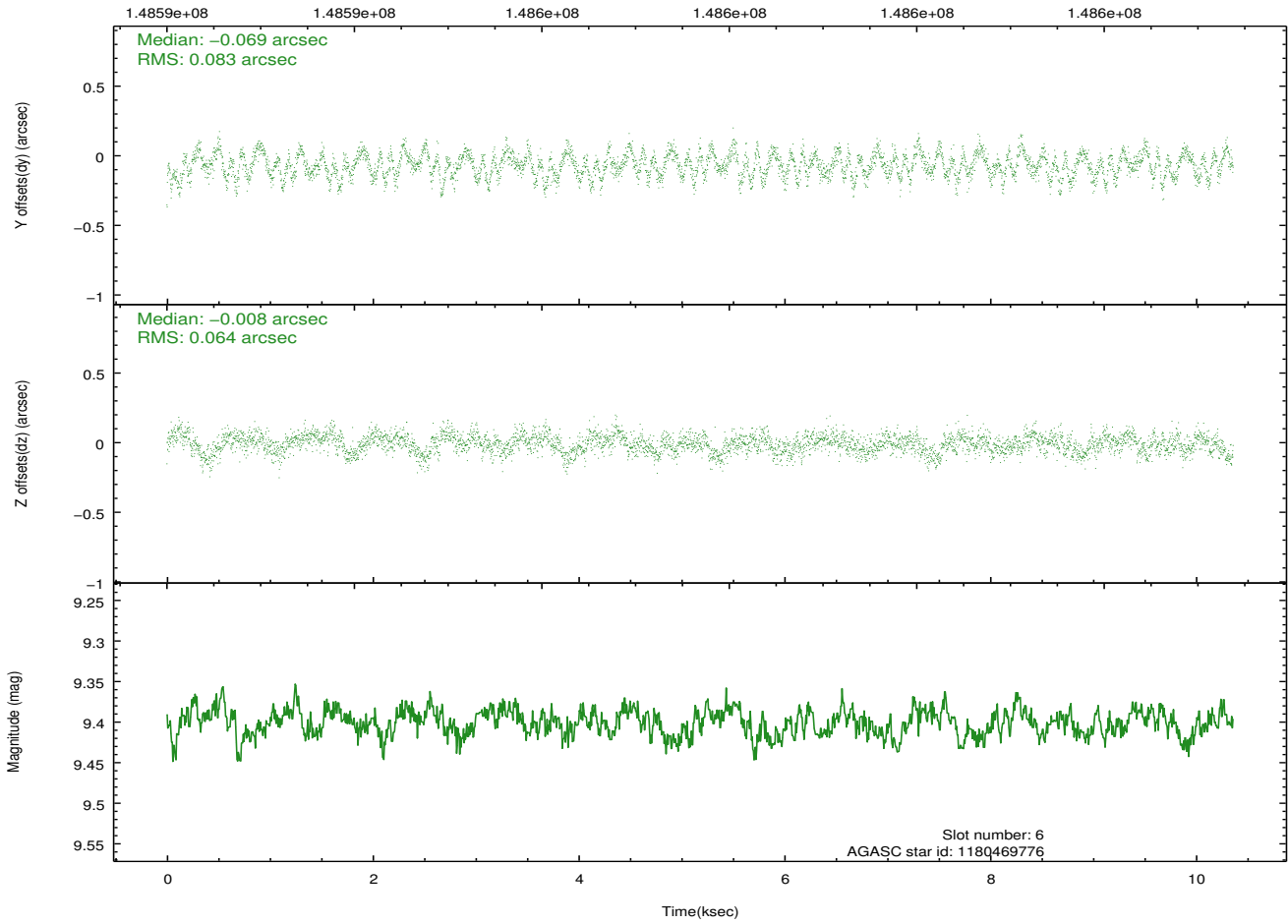
### 2.4.3 Slot 5



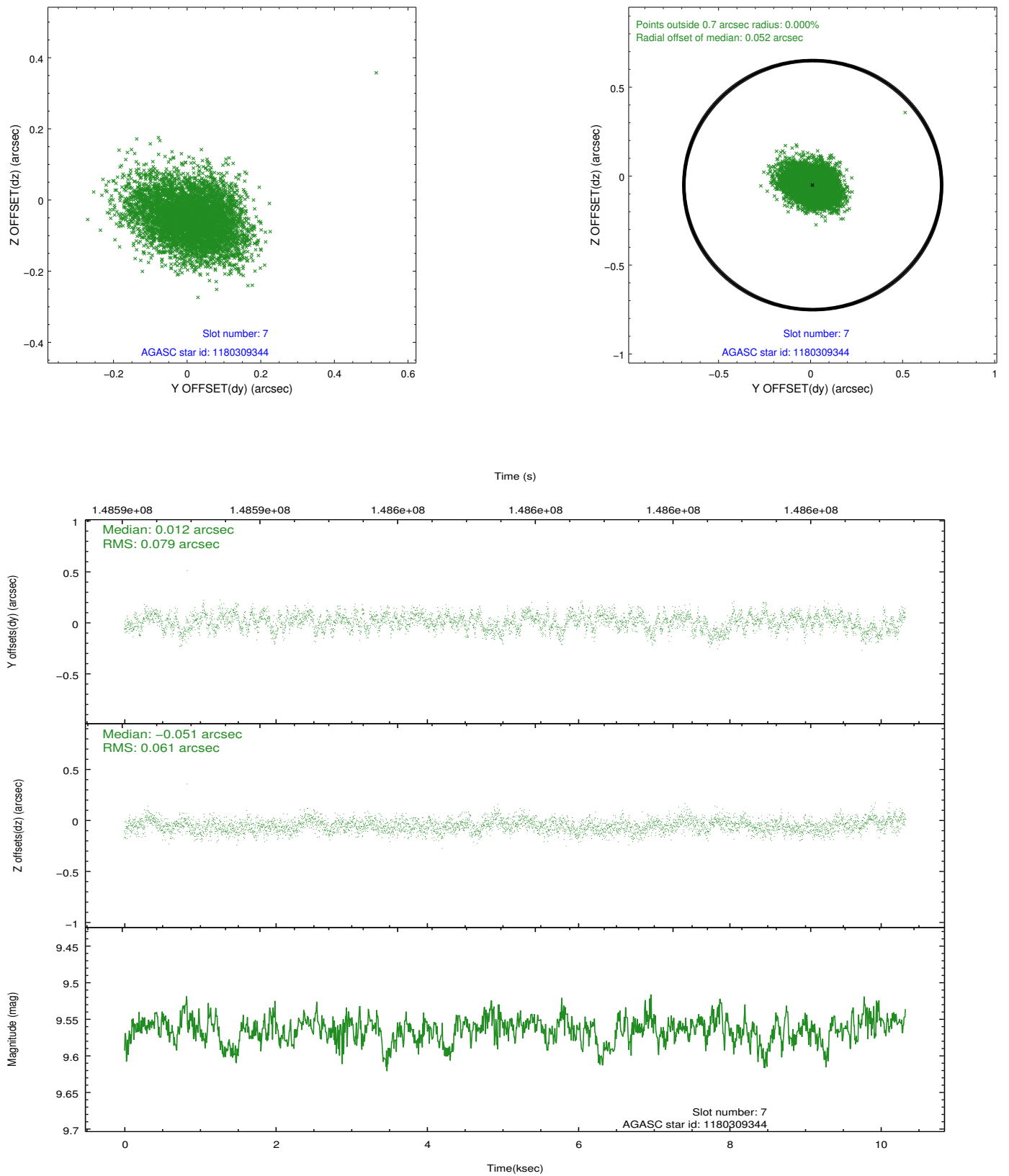
### 2.4.4 Slot 6



Time (s)

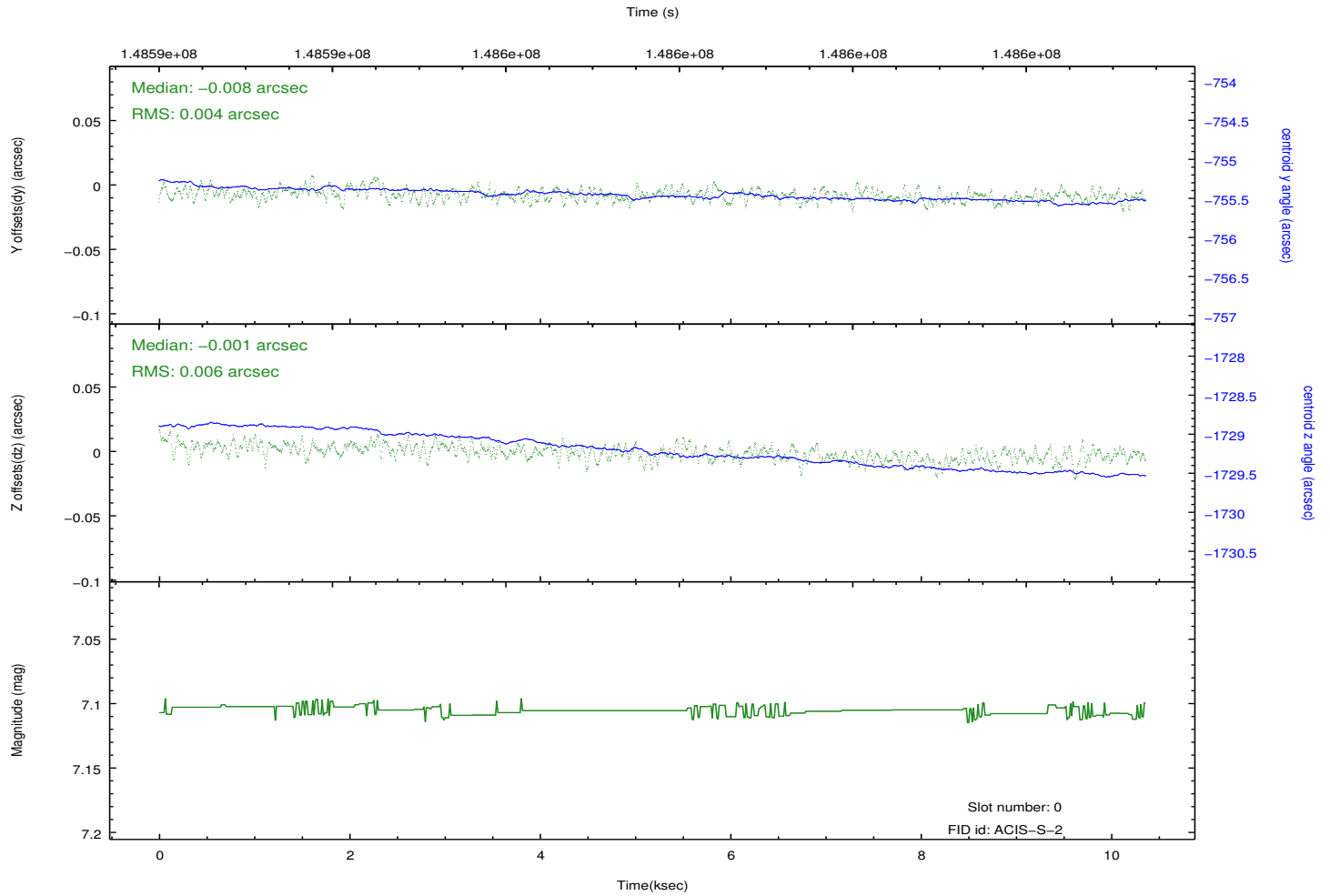
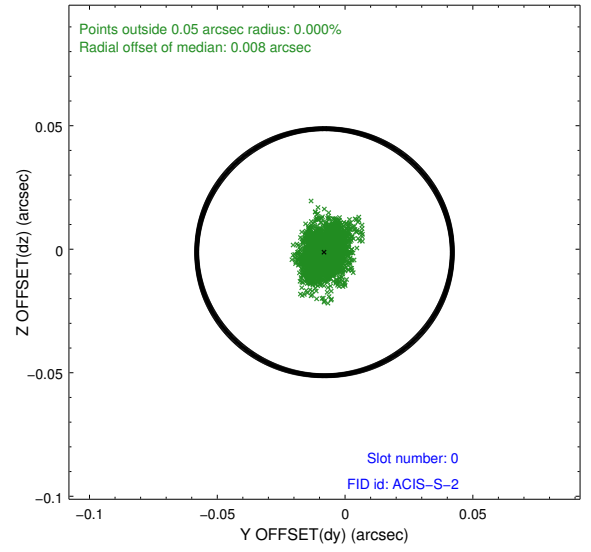
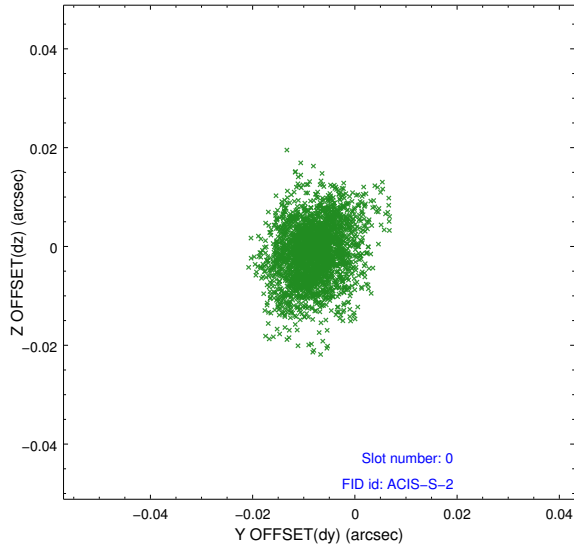


## 2.4.5 Slot 7

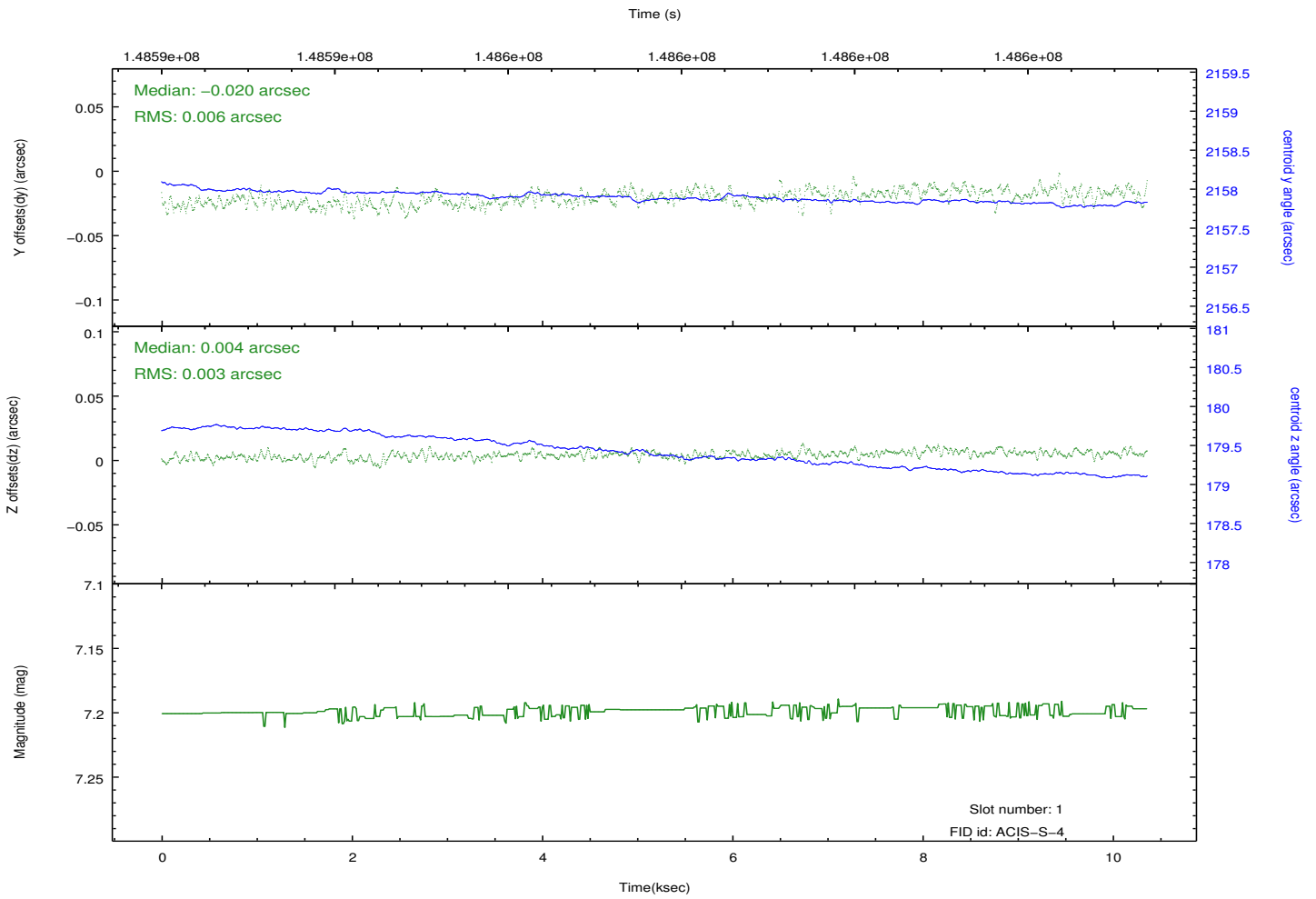
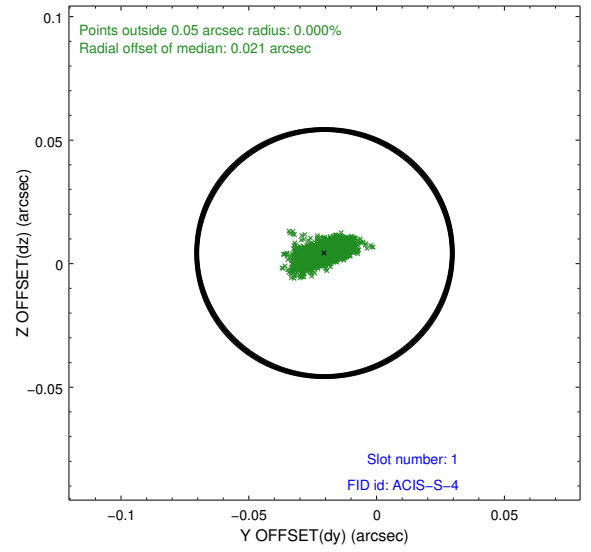
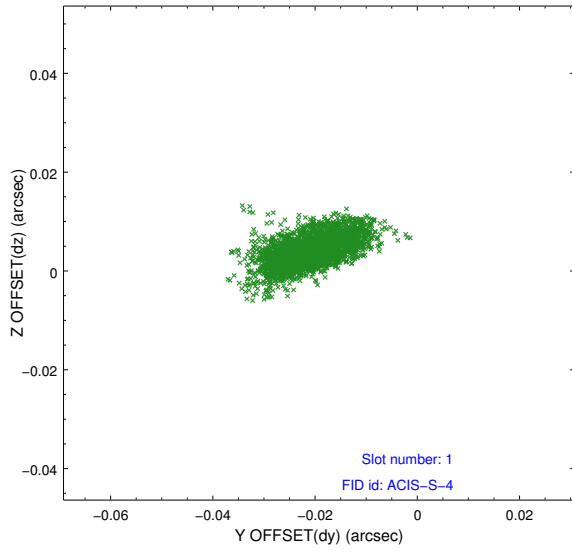


## 2.5 FID Slots

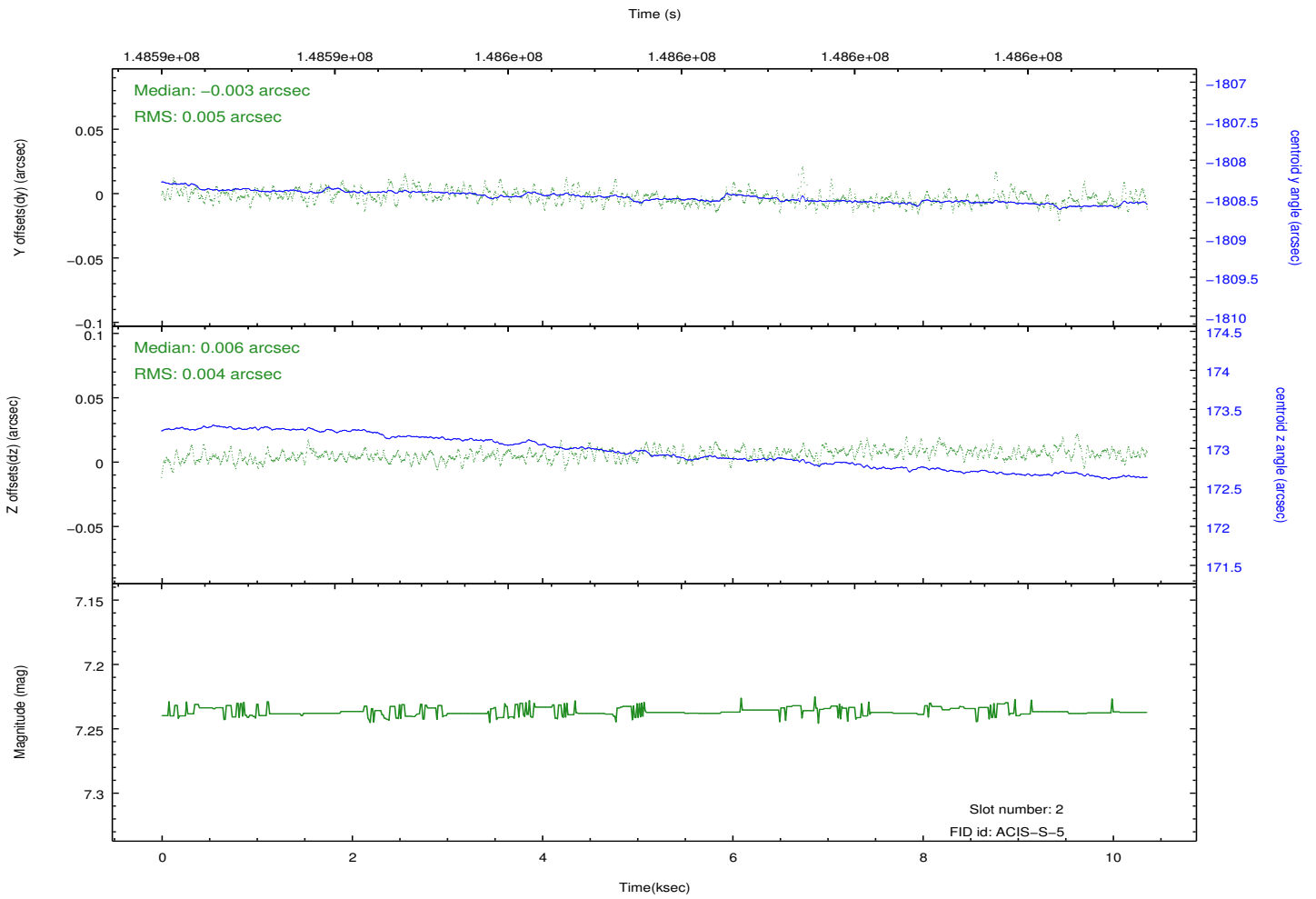
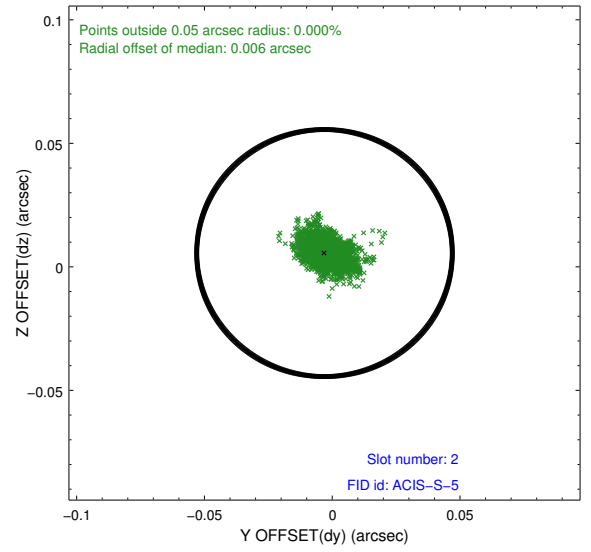
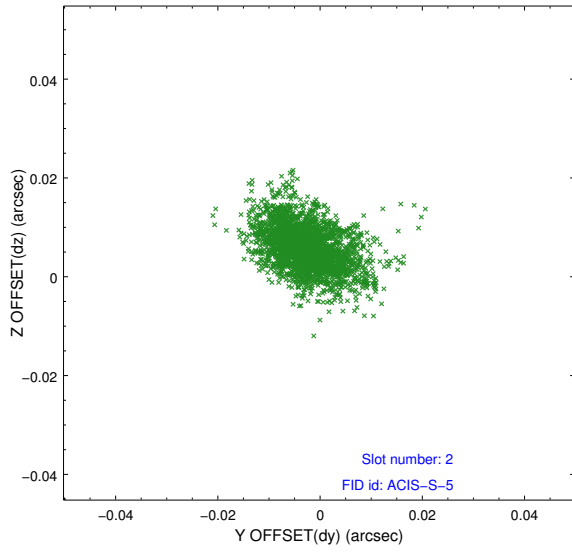
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.10.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.063

## A.2 Comments

Roll constraint met.