

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3039 - L2 Version 5  
Chandra X-Ray Center

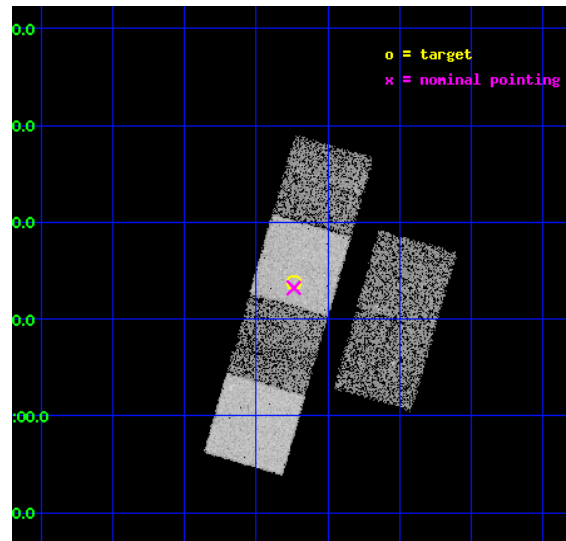
L2 Processing Date : Nov 30 2012

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# 1 Front

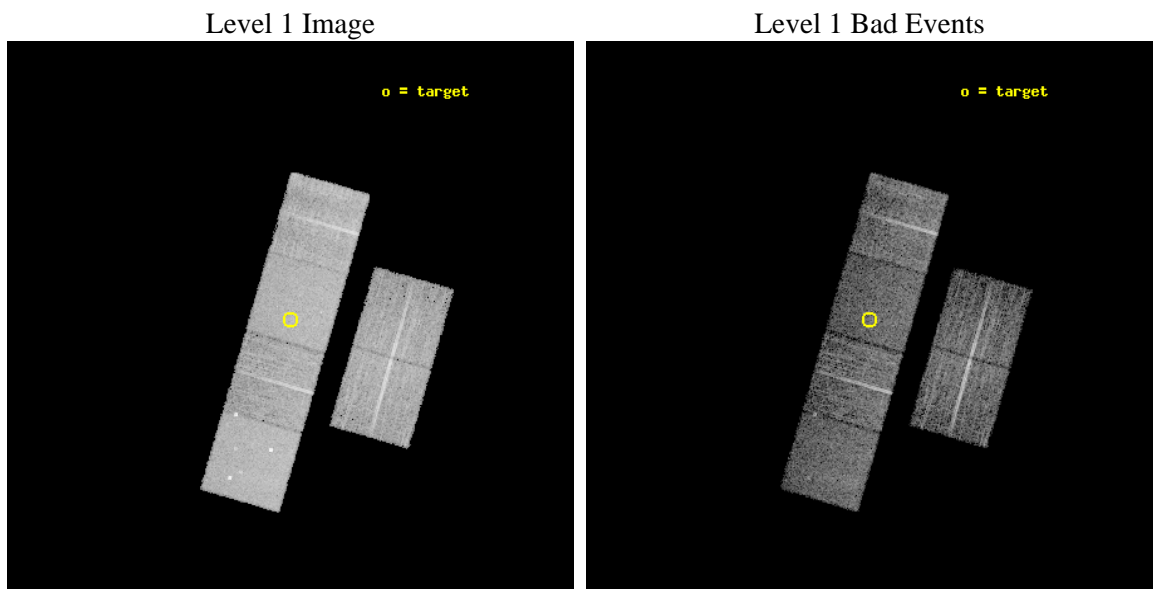
seq_num	700478	Sequence number
obs_id	3039	Observation id
title	A CHANDRA AND XMM-NEWTON STUDY OF THE MOST DISTANT QUASARS: X-RAYING THE FIRST MASSIVE BLACK HOLES	Proposal title
observer	Prof. William Brandt	Principal investigator
object	SDSS221644+001348	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	334.183333	Observer's specified target RA [deg]
dec_targ	0.230083	Observer's specified target Dec [deg]
ra_nom	334.18439362277	Nominal RA [deg]
dec_nom	0.22045941803519	Nominal Dec [deg]
roll_nom	286.19845071488	Nominal Roll [deg]
revision	5	Processing version of data
ontime	7503.9999720454	Sum of GTIs [s]
livetime	7408.9798060331	Livetime [s]
ontime2	7503.9999720454	Sum of GTIs [s]
ontime3	7503.9999720454	Sum of GTIs [s]
ontime5	7503.9999720454	Sum of GTIs [s]
ontime6	7503.9999720454	Sum of GTIs [s]
ontime7	7503.9999720454	Sum of GTIs [s]
ontime8	7500.7590017617	Sum of GTIs [s]
l2events	77391	Number of level 2 events



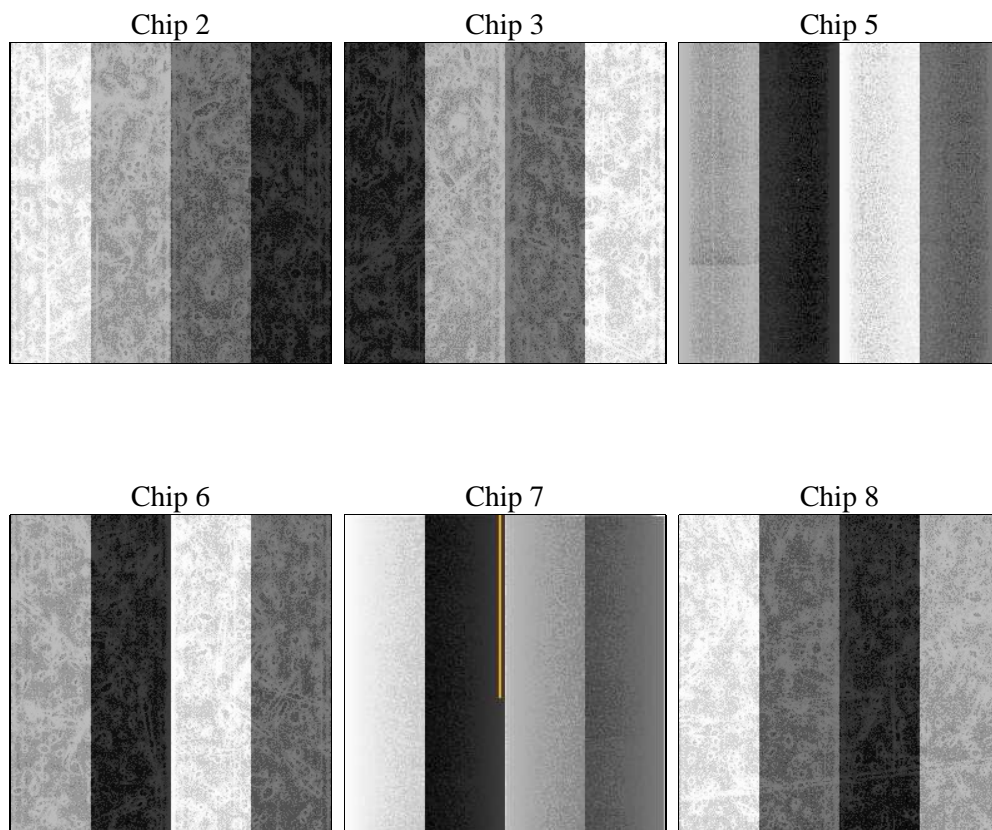
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	7750.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7503.9999720454	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime2	7503.9999720454	Sum of GTIs [s]
date	2012-11-30T20:06:04	Date and time of file creation	ontime3	7503.9999720454	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	7503.9999720454	Sum of GTIs [s]
			ontime6	7503.9999720454	Sum of GTIs [s]
			ontime7	7503.9999720454	Sum of GTIs [s]
			ontime8	7500.7590017617	Sum of GTIs [s]
			l1events	348060	Number of level 1 events

### 2.1.4 Events

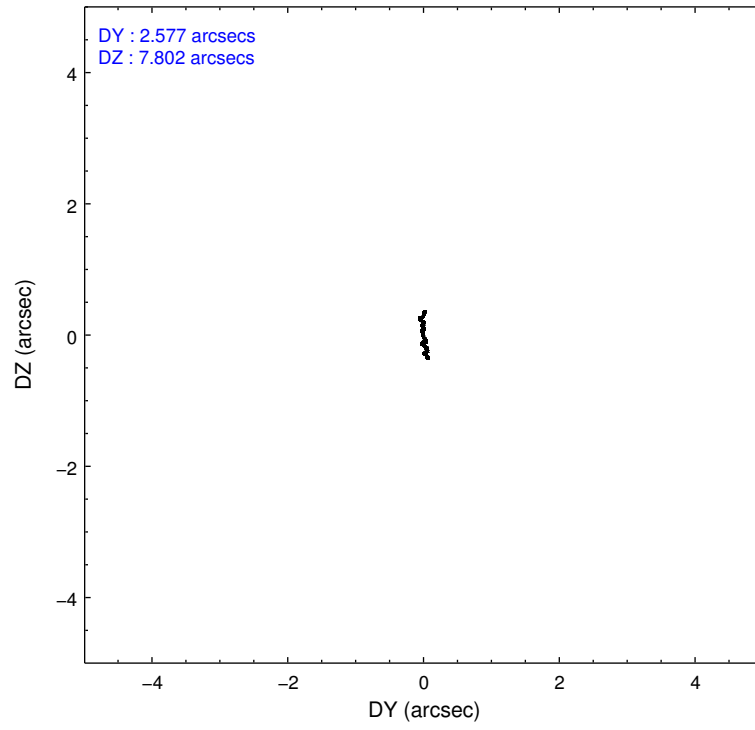
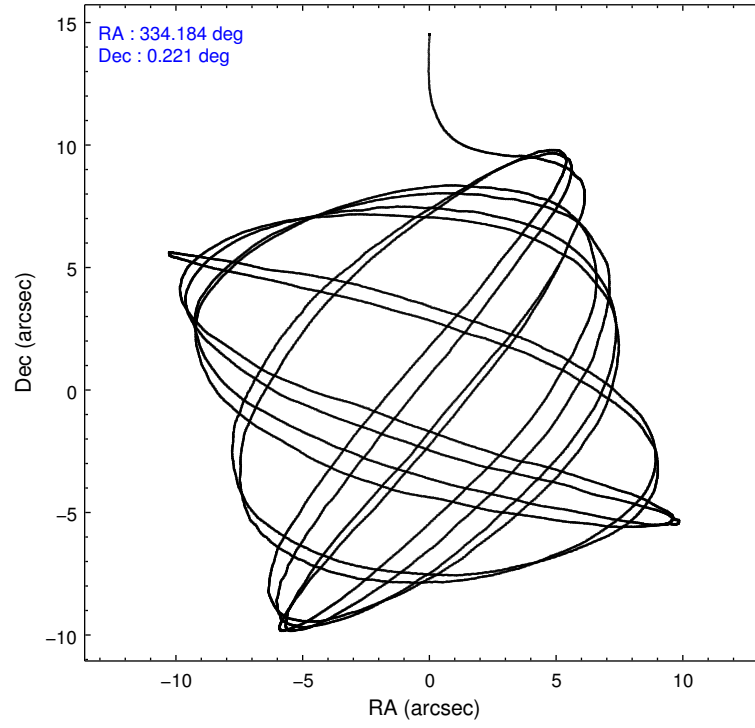
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	51951	46087	71742	49892	63953	64435	grade 0 events	2663	2621	4402	2499	2563	4665
rejected events	46062	40293	38112	43896	37149	50228		5%	5%	6%	5%	4%	7%
rejected %	88%	87%	53%	87%	58%	77%	grade 1 events	28	28	165	21	74	54
								0%	0%	0%	0%	0%	0%
							grade 2 events	1135	1060	9567	1247	5416	2777
								2%	2%	13%	2%	8%	4%
							grade 3 events	528	528	1407	561	2382	1774
								1%	1%	1%	1%	3%	2%
							grade 4 events	551	592	1321	554	2363	1629
								1%	1%	1%	1%	3%	2%
							grade 5 events	1932	1977	5355	2145	6047	2735
								3%	4%	7%	4%	9%	4%
							grade 6 events	1012	996	16951	1139	14089	3365
								1%	2%	23%	2%	22%	5%
							grade 7 events	44102	38285	32574	41726	31019	47436
								84%	83%	45%	83%	48%	73%

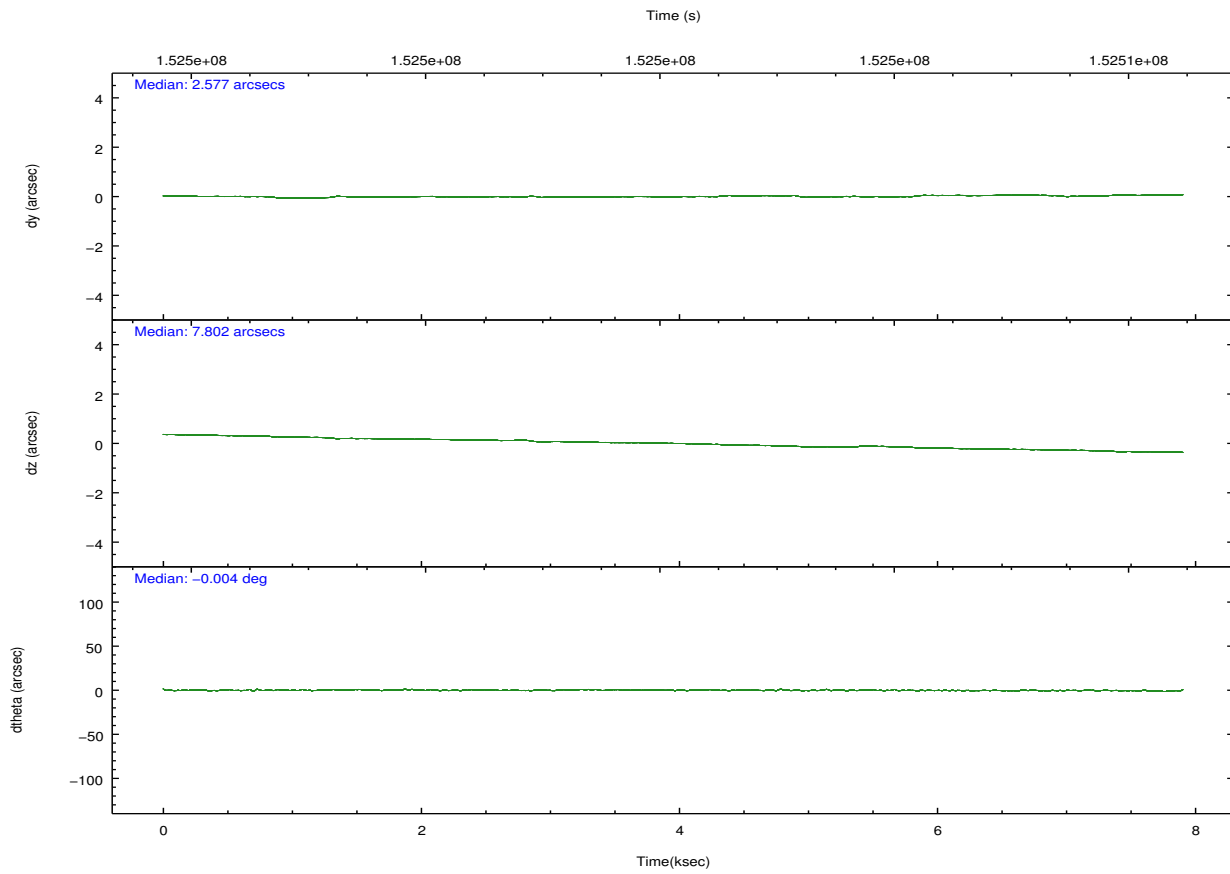
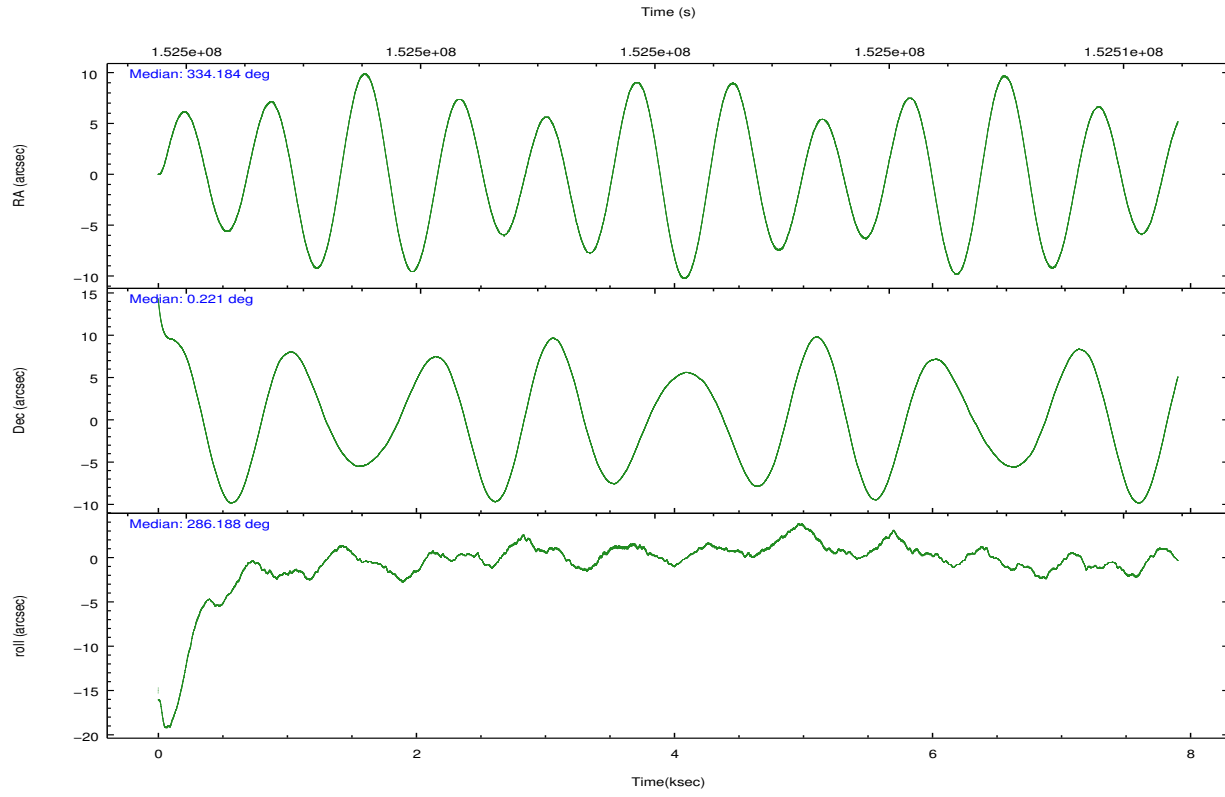


## 2.2 Compared Parameters

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	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	334.164451	334.1843936227652	Subarray requested	NONE	NONE
[deg] Pointing Dec	0.239046	0.2204594180351884	Alternating exposures requested	N	N
[deg] Pointing Roll	286.041887	286.1984507148791	[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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	152498312.184000	152496491.06014			
Observation start date	2002-11-01T00:37:28	2002-11-01T00:08:11			
[s] Observation end time (MET)	152506062.184000	152506743.62307			
Observation end date	2002-11-01T02:46:38	2002-11-01T02:59:03			
Read mode	TIMED	TIMED			

## 2.3 Aspect



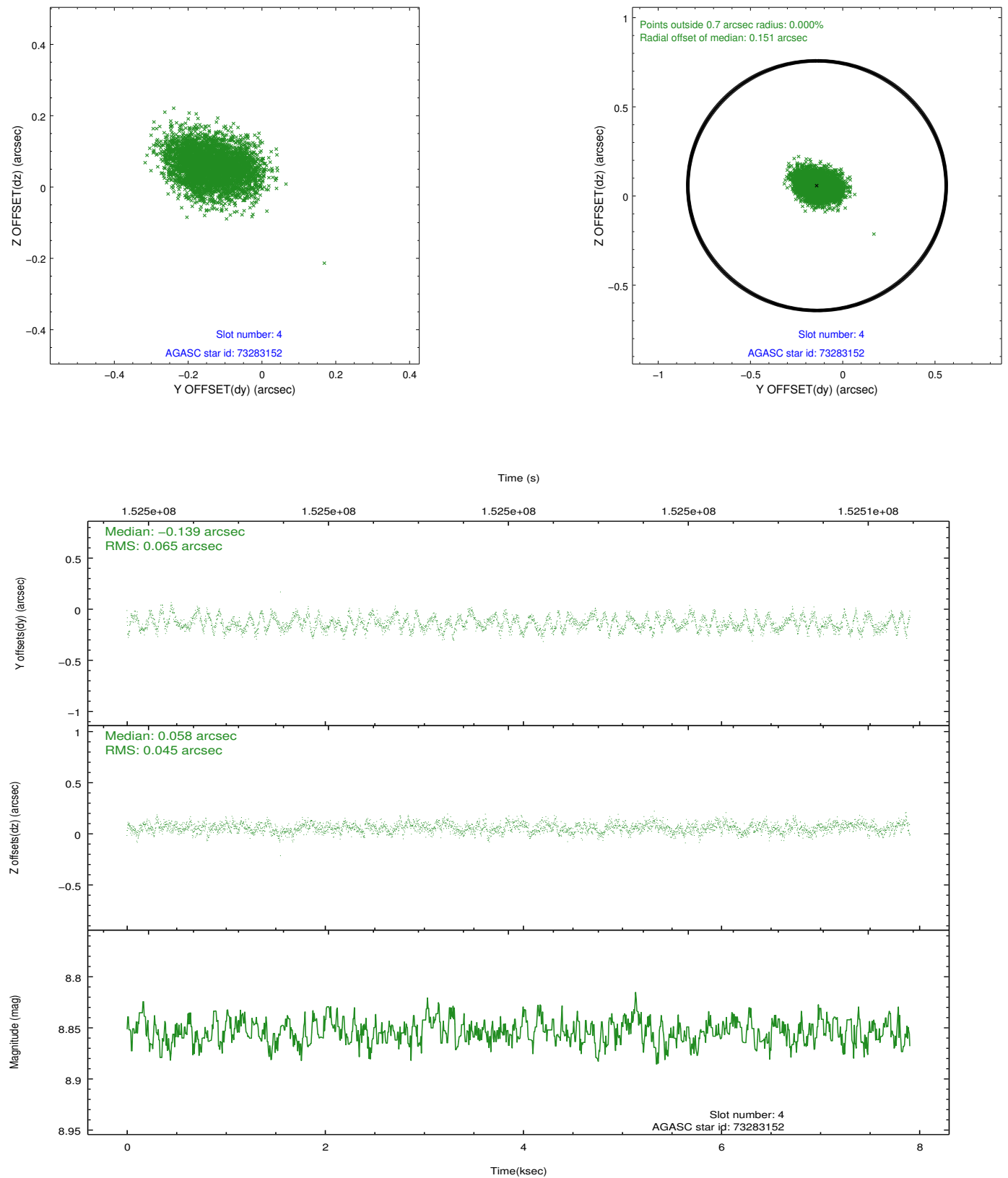


Slot Statistics

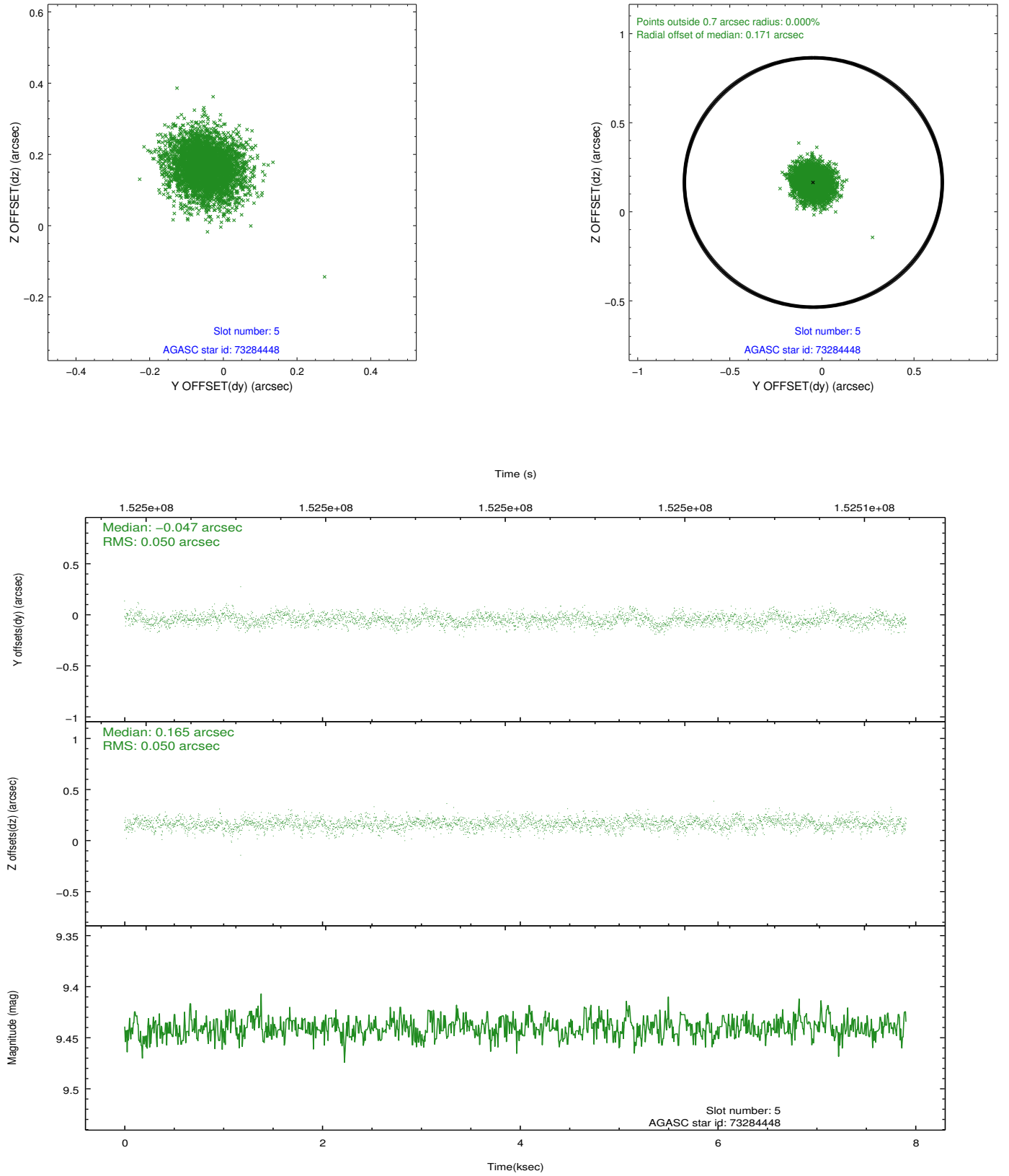
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1927	-0.010	0.002	0.007	0.011	0.000000	0.000000	-755.24	-1728.92
1	FID	ACIS-S-4	7.21	1927	-0.028	0.004	0.006	0.010	0.000000	0.000000	2157.71	178.81
2	FID	ACIS-S-5	7.24	1928	0.007	0.003	0.007	0.012	0.000000	0.000000	-1807.13	173.32
3	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	73283152	8.85	3854	-0.139	0.058	0.085	0.132	334.629700	0.871456	-1725.53	2238.31
5	GUIDE	73284448	9.44	3854	-0.047	0.165	0.074	0.125	333.986577	0.512546	-1123.24	-342.93
6	GUIDE	684853448	9.36	3853	0.077	-0.138	0.087	0.143	333.686956	-0.382363	1675.71	-2270.19
7	GUIDE	73279648	9.44	3853	0.104	-0.085	0.081	0.134	333.975275	0.037033	511.82	-856.19

## 2.4 Star Slots

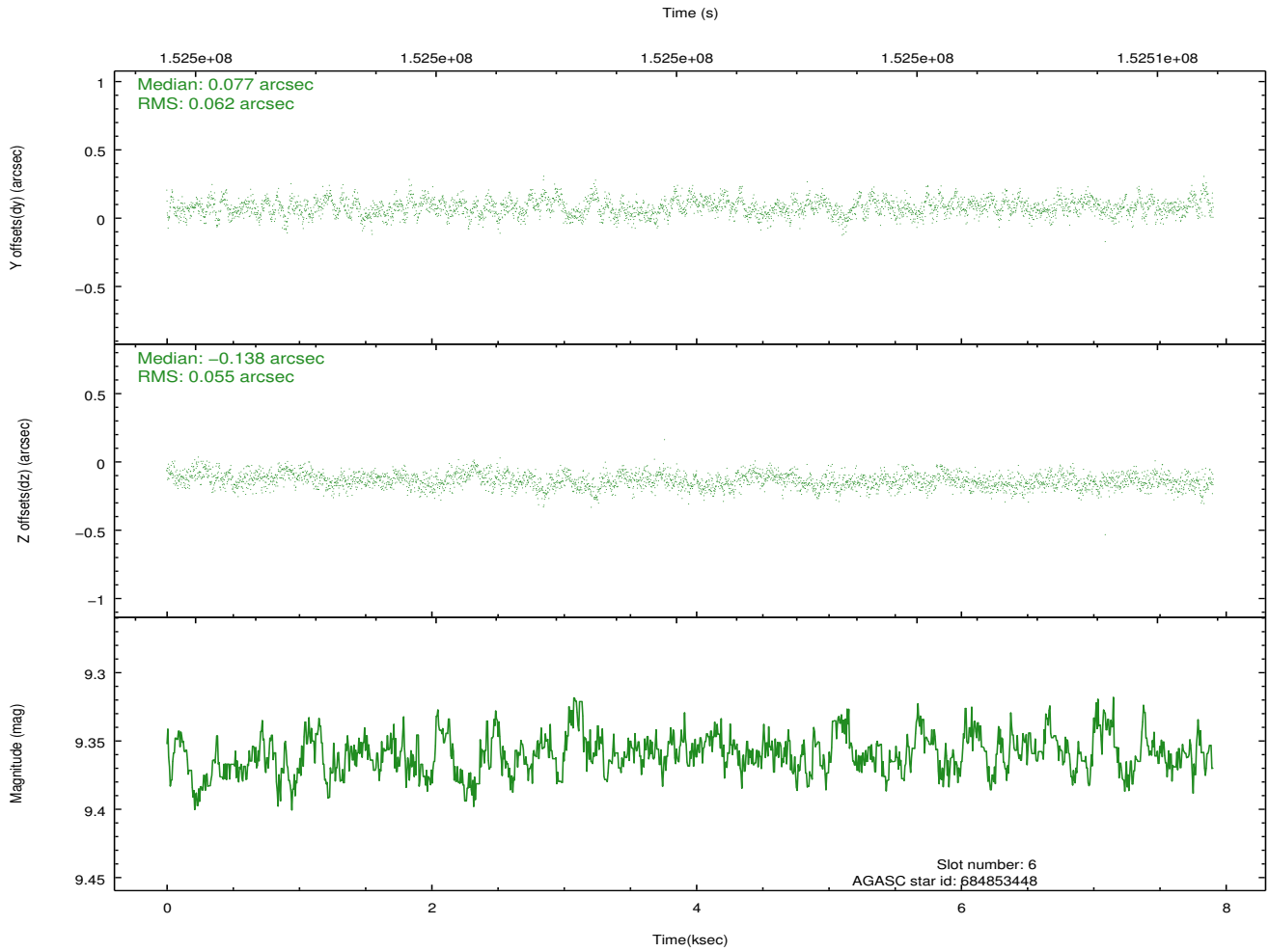
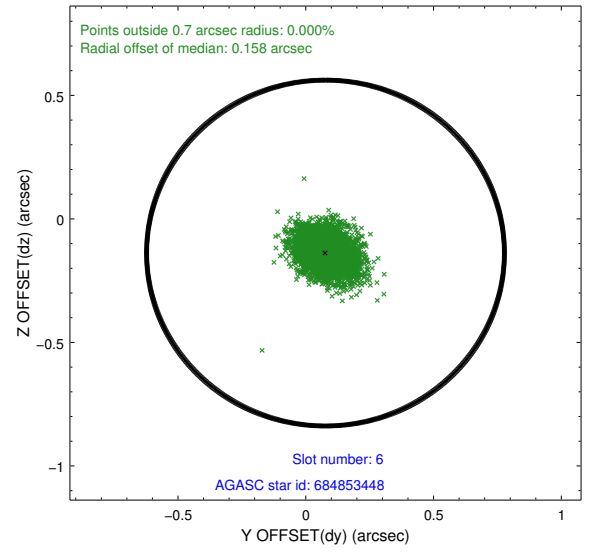
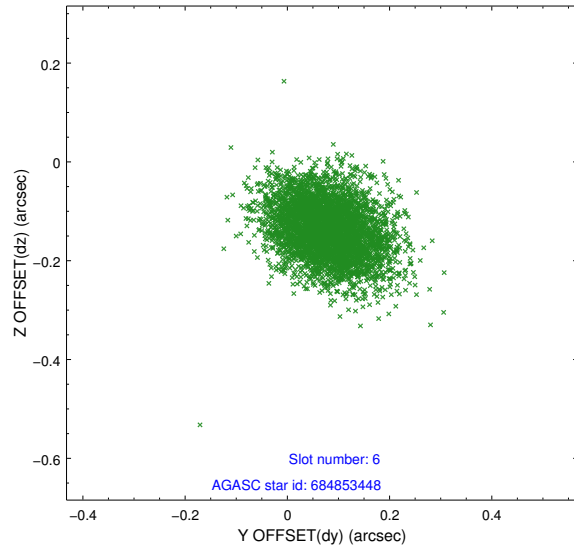
### 2.4.1 Slot 4



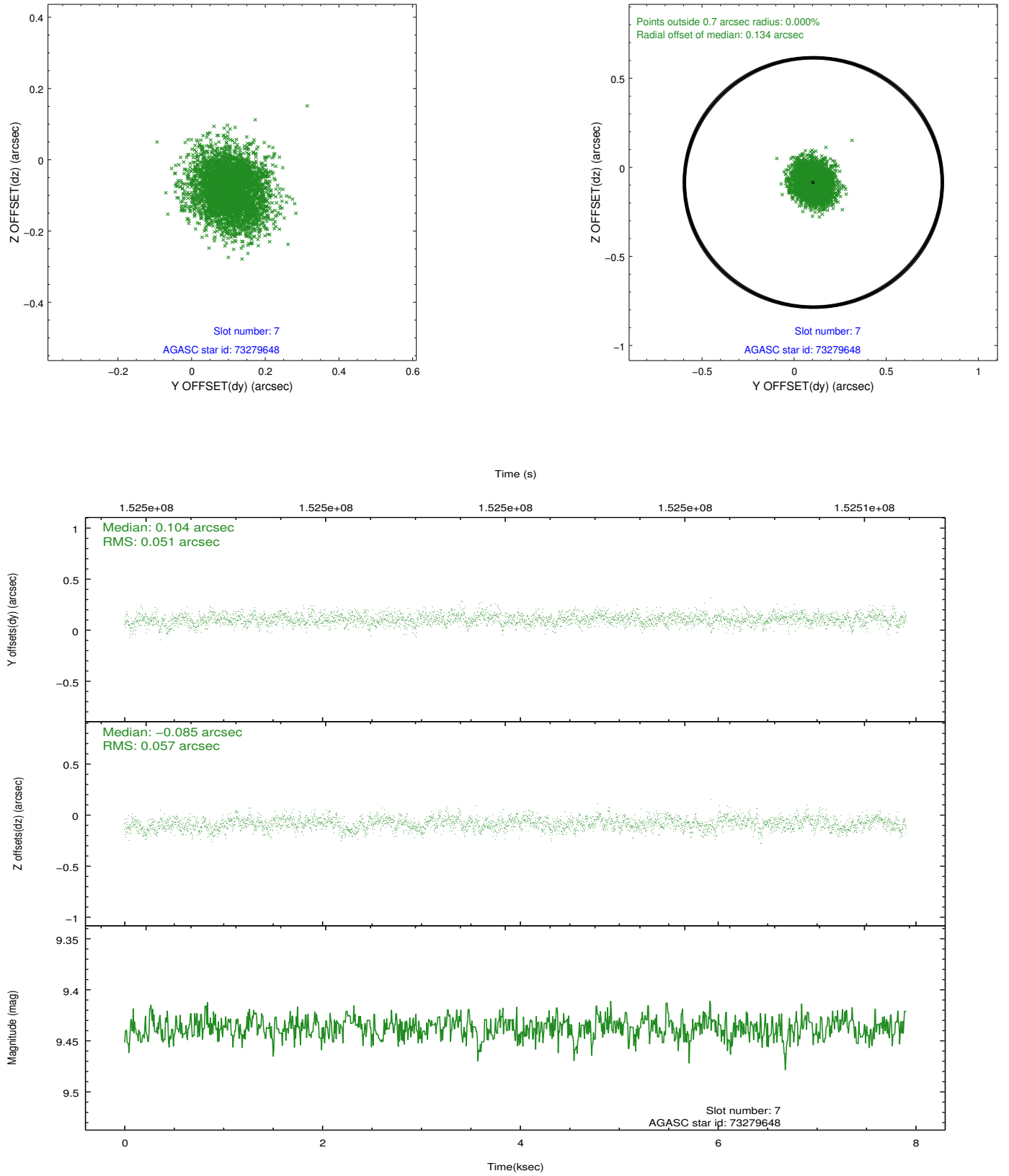
## 2.4.2 Slot 5



### 2.4.3 Slot 6



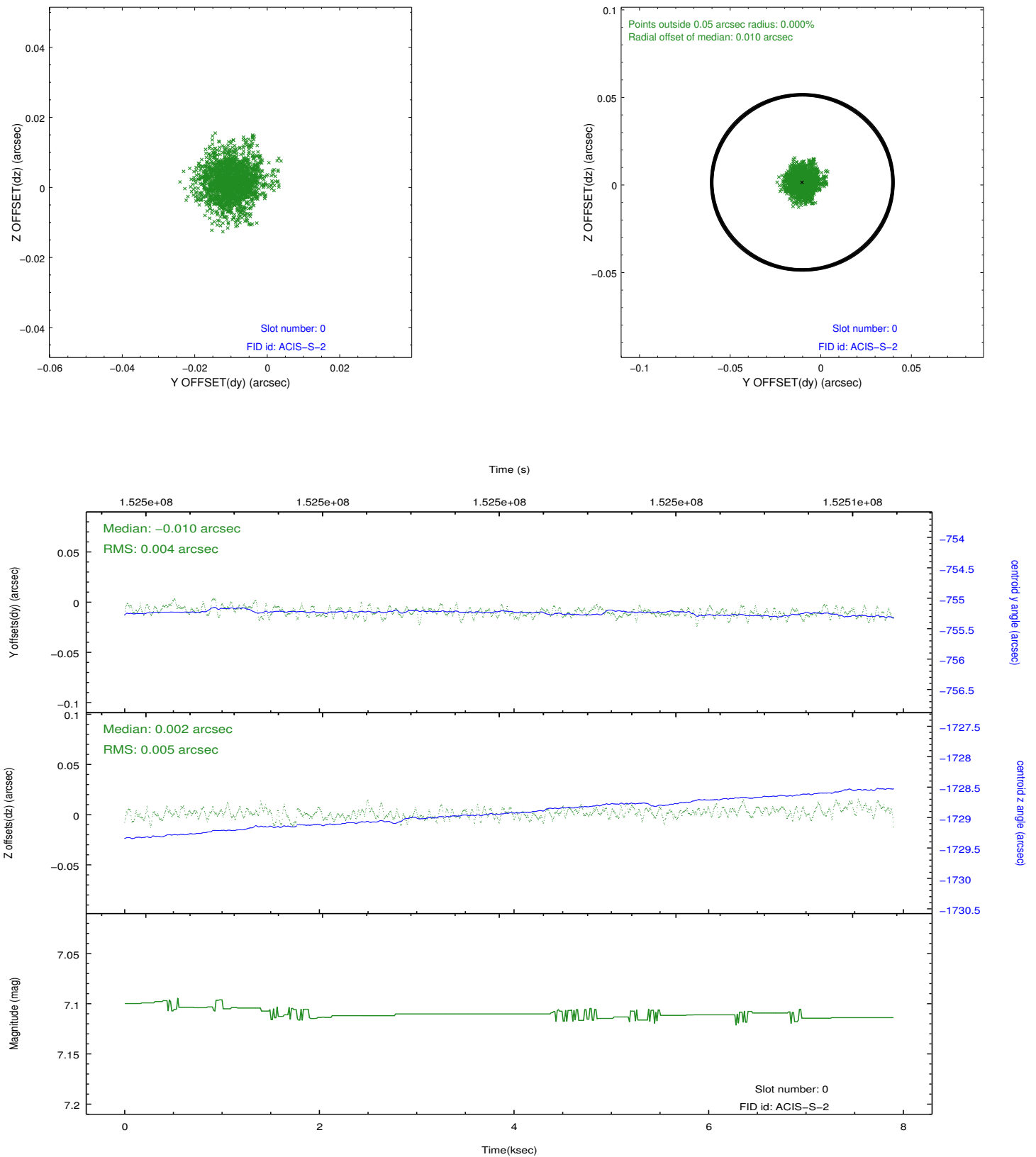
## 2.4.4 Slot 7



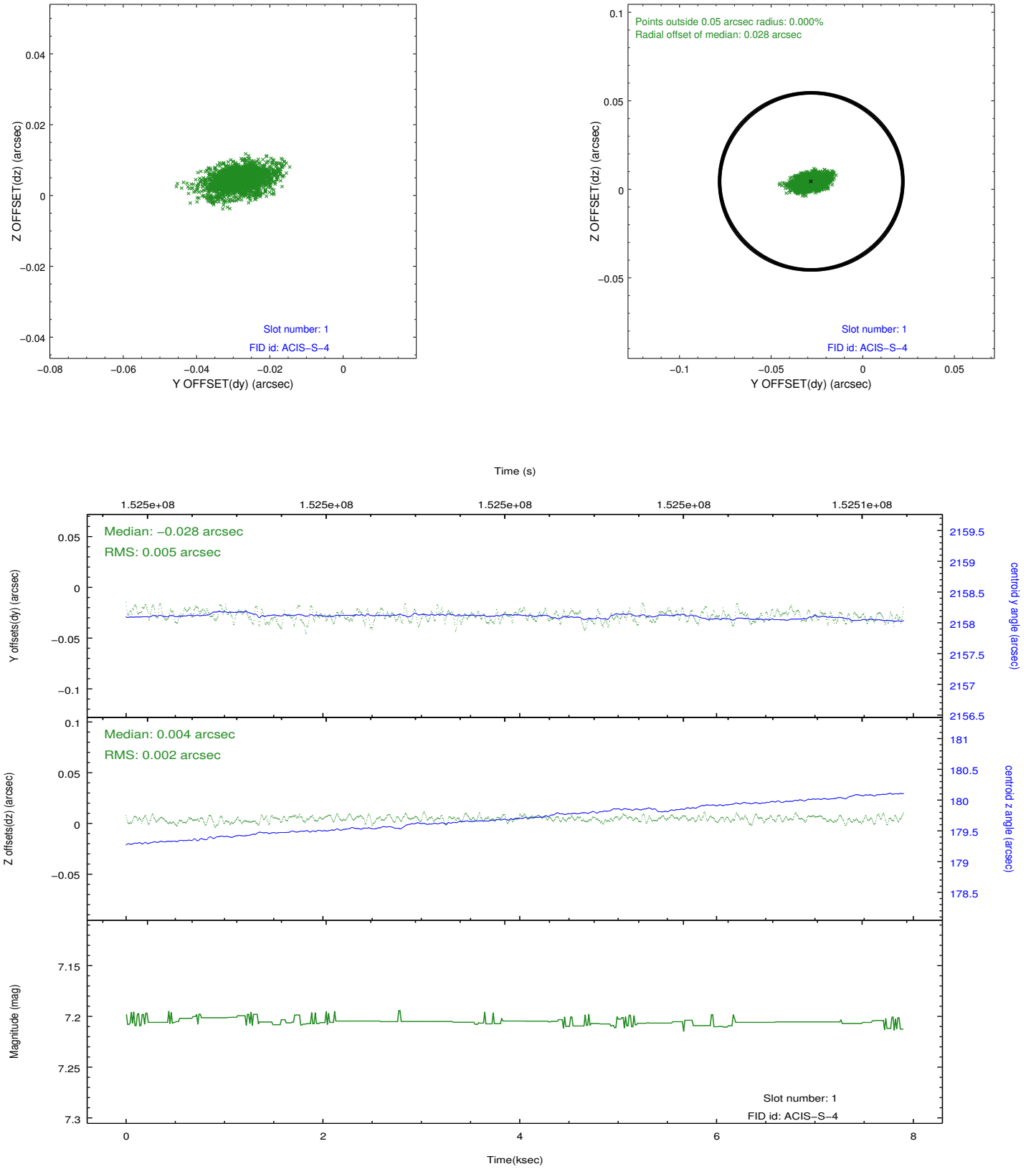


## 2.5 FID Slots

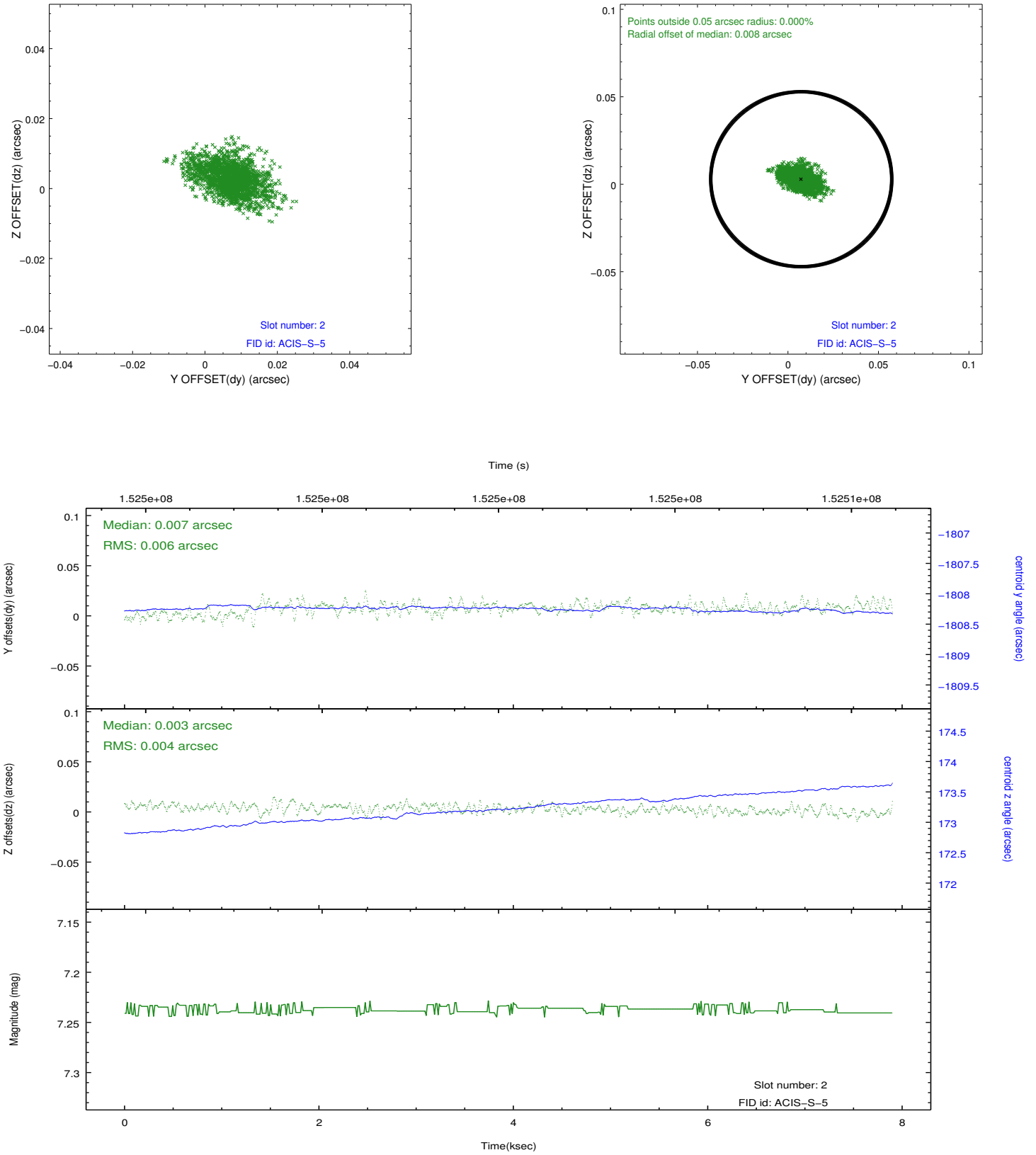
### 2.5.1 Slot 0



## 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)	2012.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.507

## A.2 Comments

The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.