

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18137 - L2 Version 2  
Chandra X-Ray Center

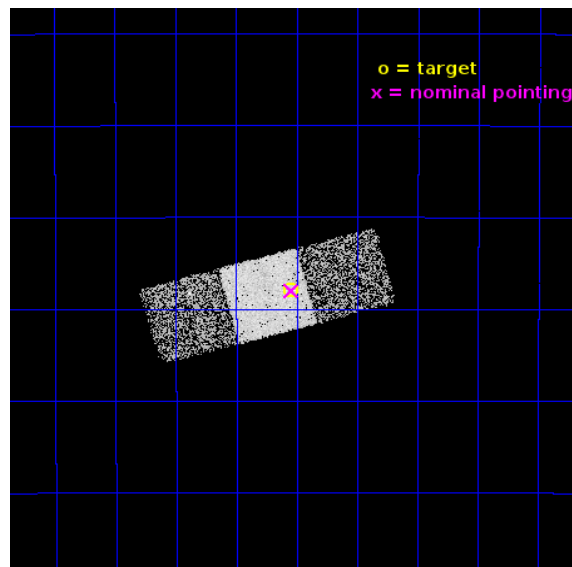
L2 Processing Date : Jun 1 2016

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# 1 Front

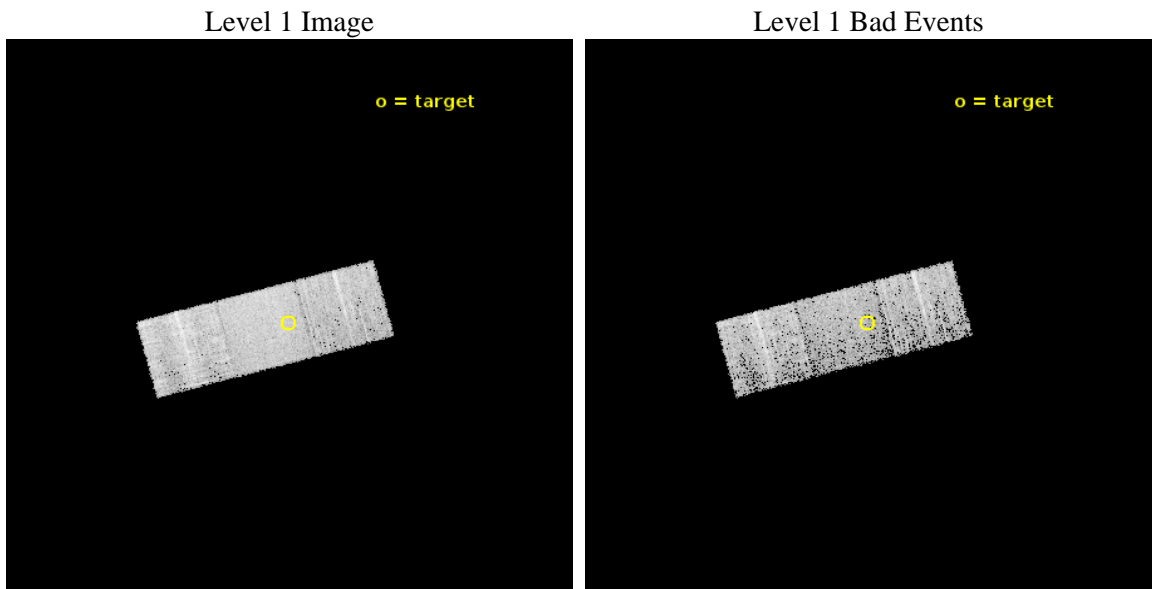
seq_num	703203	Sequence number
obs_id	18137	Observation id
title	X-RAYING FORNAX	Proposal title
observer	Elena Gallo	Principal investigator
object	fcc152	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	53.887917	Observer's specified target RA [deg]
dec_targ	-32.464889	Observer's specified target Dec [deg]
ra_nom	53.885977621695	Nominal RA [deg]
dec_nom	-32.467023732847	Nominal Dec [deg]
roll_nom	164.78004093088	Nominal Roll [deg]
revision	2	Processing version of data
ontime	4910.4000378847	Sum of GTIs [s]
livetime	4846.2420464058	Livetime [s]
ontime6	4910.4000378847	Sum of GTIs [s]
ontime7	4910.4000378847	Sum of GTIs [s]
ontime8	4910.4000378847	Sum of GTIs [s]
l2events	22886	Number of level 2 events



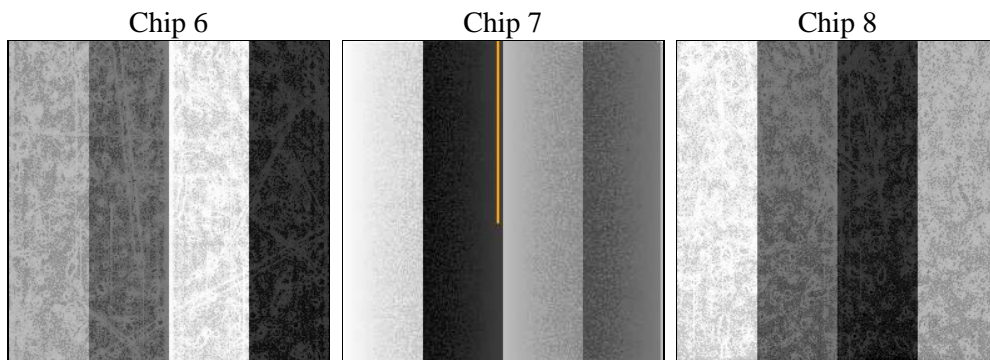
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4800.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	4910.4000378847	Sum of GTIs [s]
caldbver	4.7.2	&#160	ontime6	4910.4000378847	Sum of GTIs [s]
date	2016-06-01T21:49:23	Date and time of file creation	ontime7	4910.4000378847	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	4910.4000378847	Sum of GTIs [s]
			l1events	112263	Number of level 1 events

### 2.1.4 Events

	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	31609	39931	40723
rejected events	28119	22951	30519
rejected %	88%	57%	74%

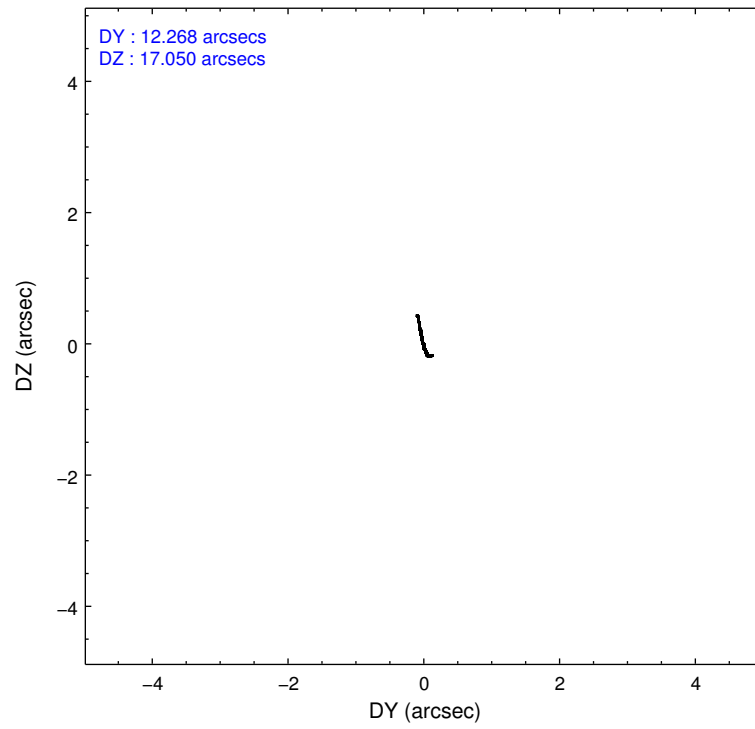
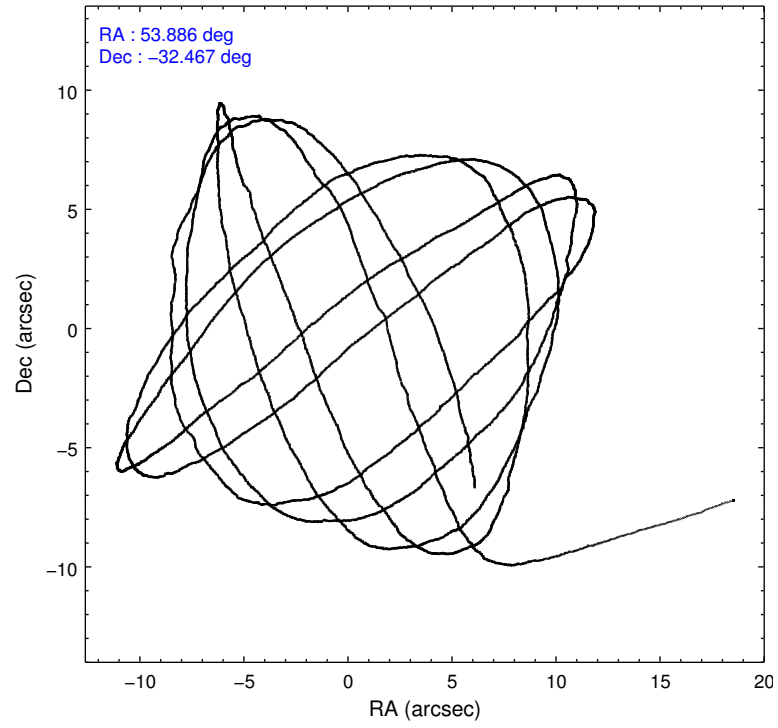
	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	1029	1381	2836
	3%	3%	6%
grade 1 events	16	41	15
	0%	0%	0%
grade 2 events	867	3570	2514
	2%	8%	6%
grade 3 events	315	1273	1034
	0%	3%	2%
grade 4 events	342	1195	990
	1%	2%	2%
grade 5 events	1360	3747	2060
	4%	9%	5%
grade 6 events	939	9574	2834
	2%	23%	6%
grade 7 events	26741	19150	28440
	84%	47%	69%

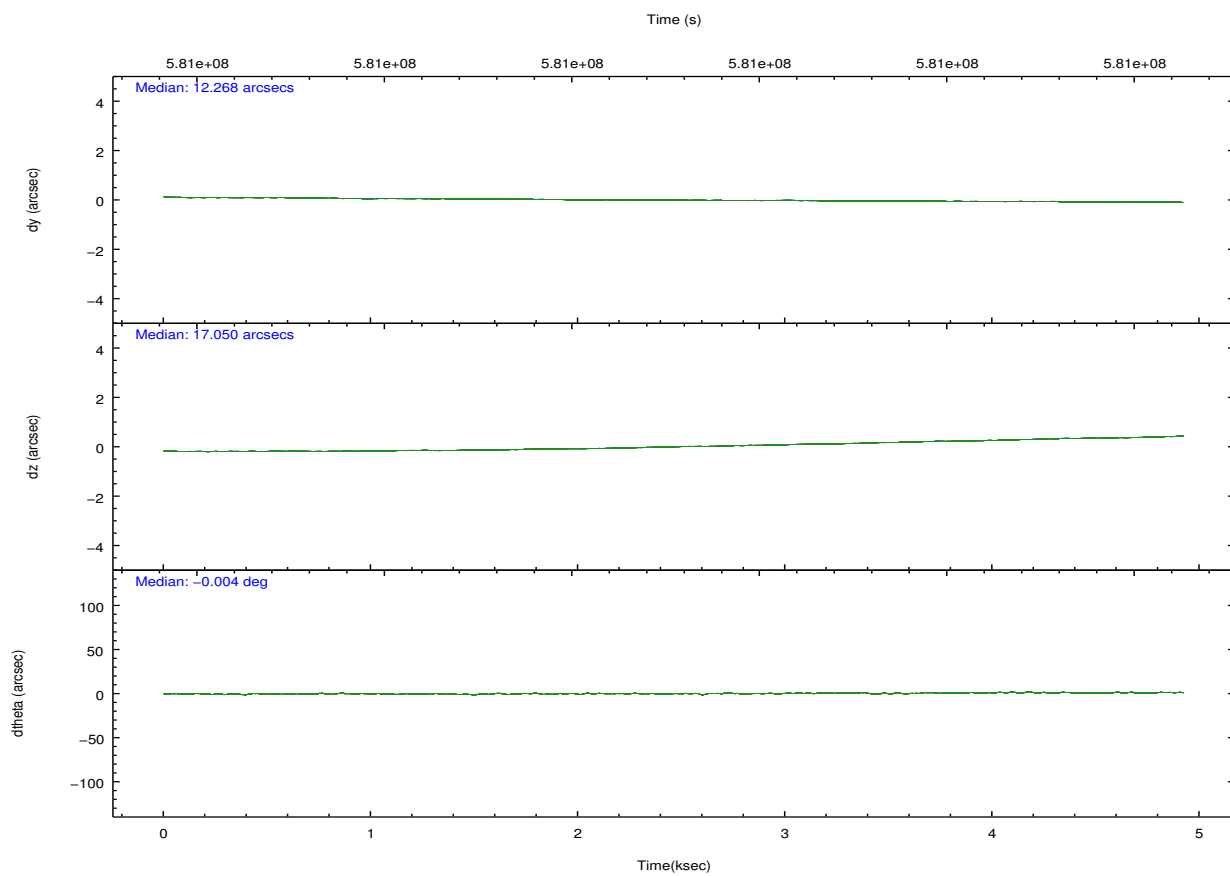
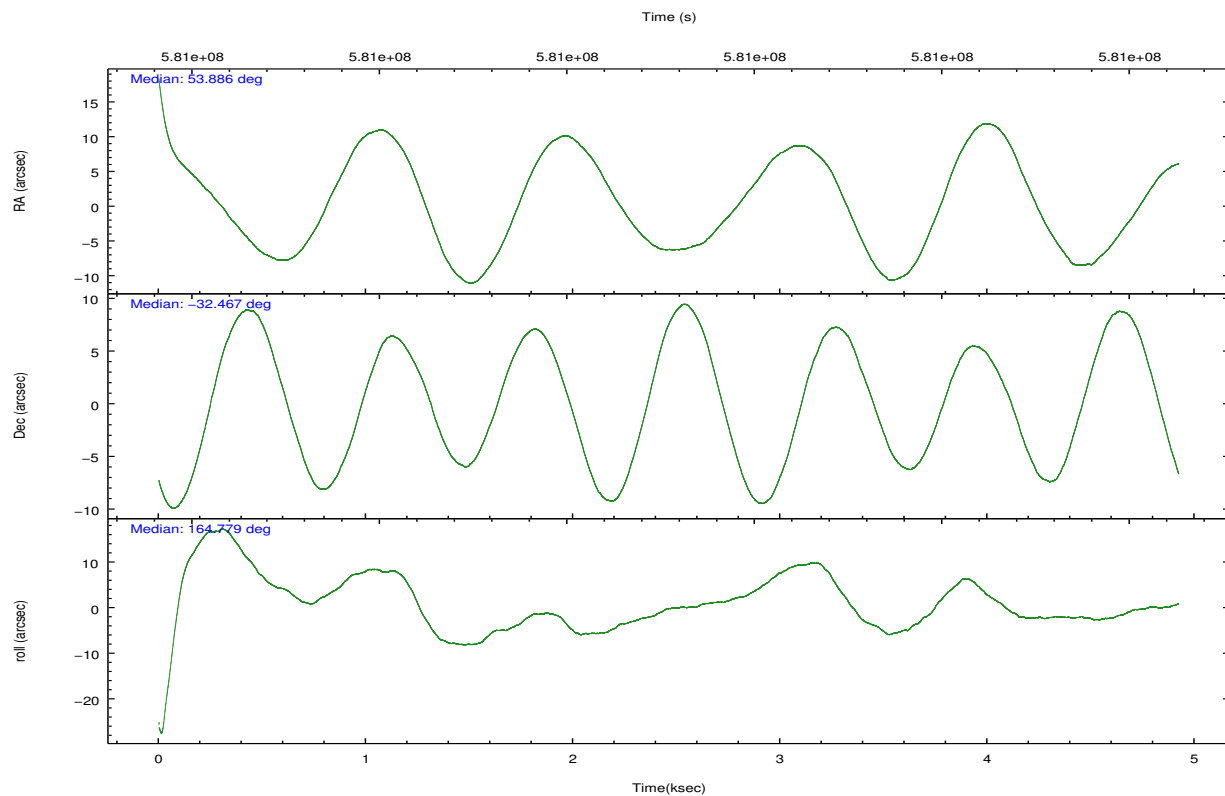


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-678	ACIS-678	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	53.917331	53.88597762169492	CCD I2 on	N	N
[deg] Pointing Dec	-32.459679	-32.46702373284735	CCD I3 on	N	N
[deg] Pointing Roll	164.640373	164.7800409308756	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	O2	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	O1	Y
[s] Observation start time (MET)	580998206.184000	580997009.02933	CCD S5 on	N	N
Observation start date	2016-05-30T12:22:18	2016-05-30T12:03:29	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	581003006.184000	581003202.59219	On-chip summing requested	N	N
Observation end date	2016-05-30T13:42:18	2016-05-30T13:46:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



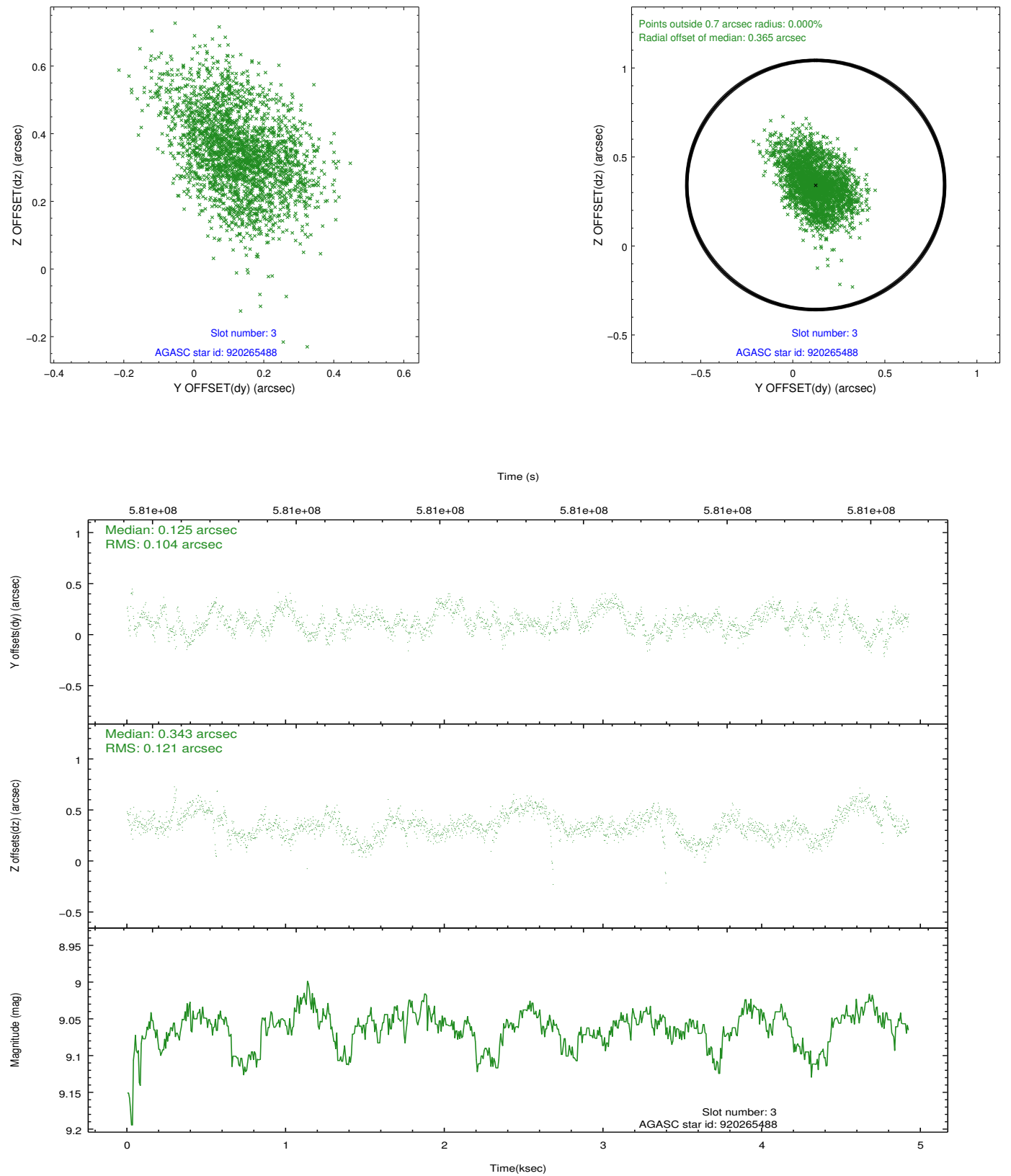


### Slot Statistics

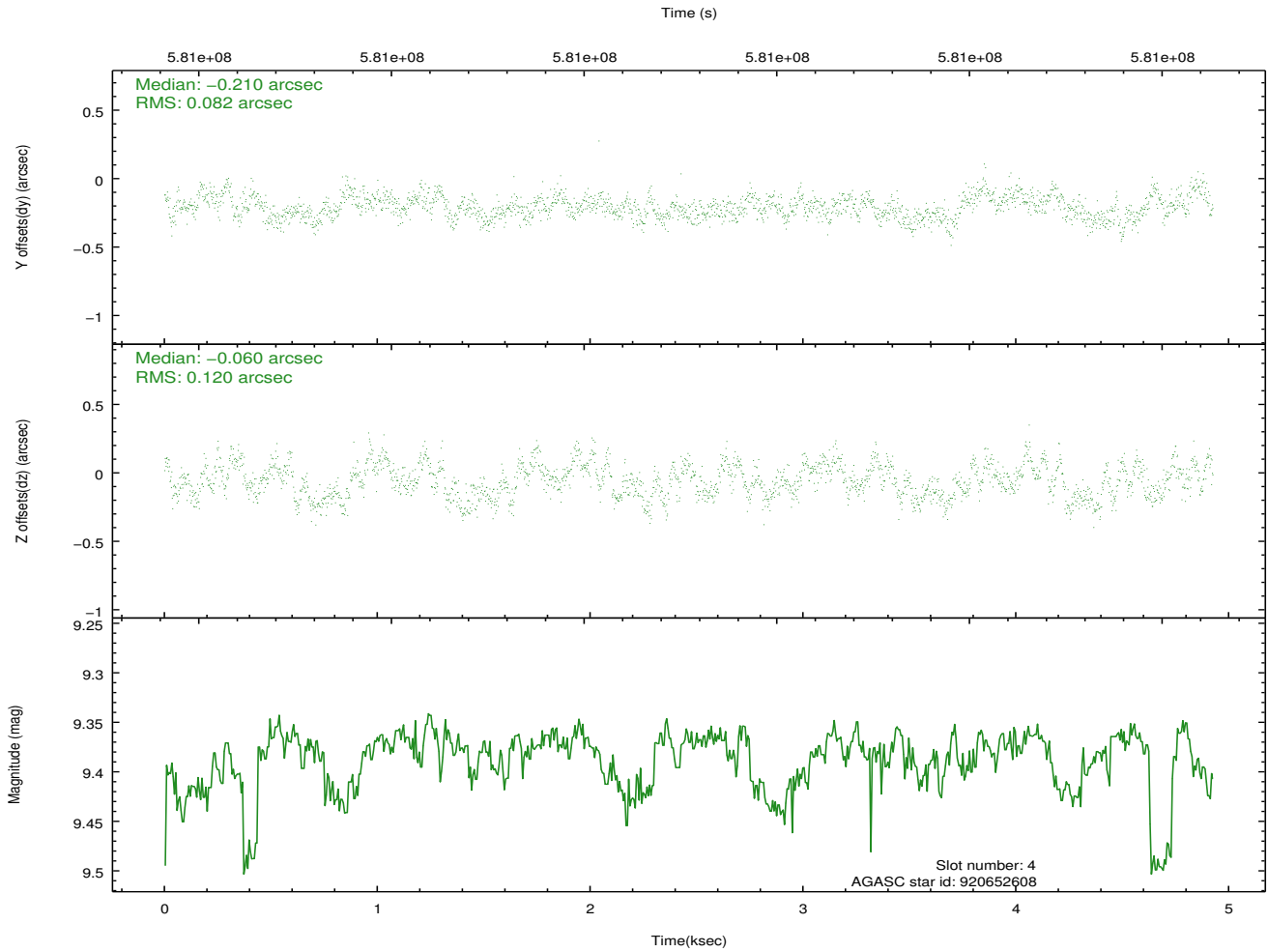
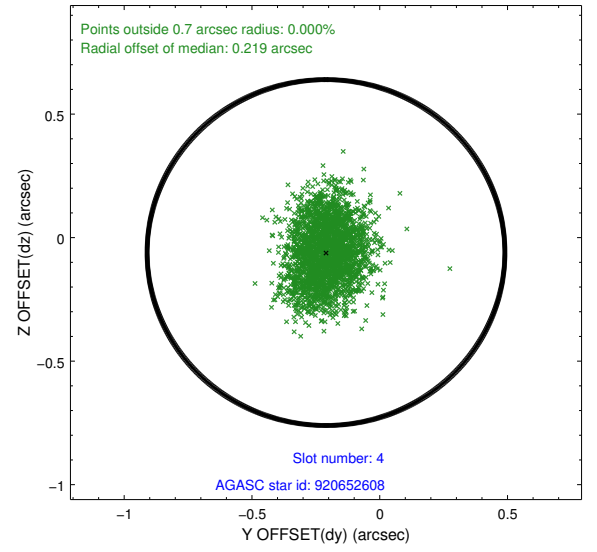
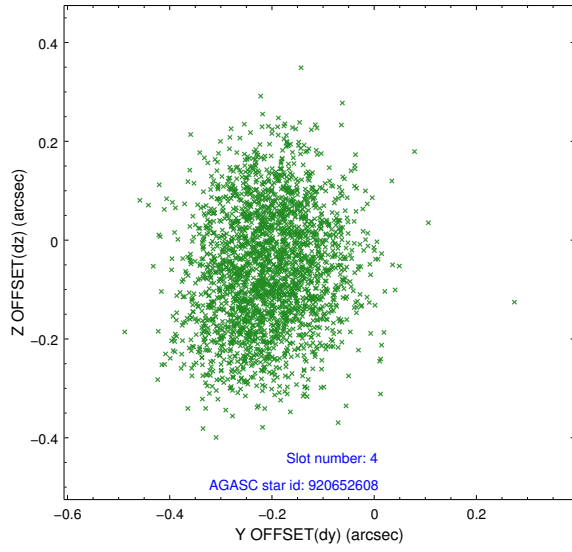
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.13	1201	-0.125	-0.100	0.008	0.014	0.000000	0.000000	-765.28	-1738.57
1	FID		ACIS-S-4	7.24	1201	0.379	0.087	0.006	0.011	0.000000	0.000000	2147.93	168.82
2	FID		ACIS-S-5	7.26	1201	-0.286	0.021	0.008	0.013	0.000000	0.000000	-1816.70	163.82
3	GUIDE	used	920265488	9.06	2400	0.125	0.343	0.169	0.282	53.497491	-31.773027	1893.07	-2040.76
4	GUIDE	used	920652608	9.38	2402	-0.210	-0.060	0.156	0.248	53.642752	-33.023136	262.42	2175.89
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	921568496	8.56	2398	0.052	0.147	0.100	0.163	54.514148	-32.741219	-2011.96	505.02
7	GUIDE	used	920256688	10.10	2399	0.028	-0.458	0.250	0.417	53.163255	-32.339451	2323.60	198.04

## 2.4 Star Slots

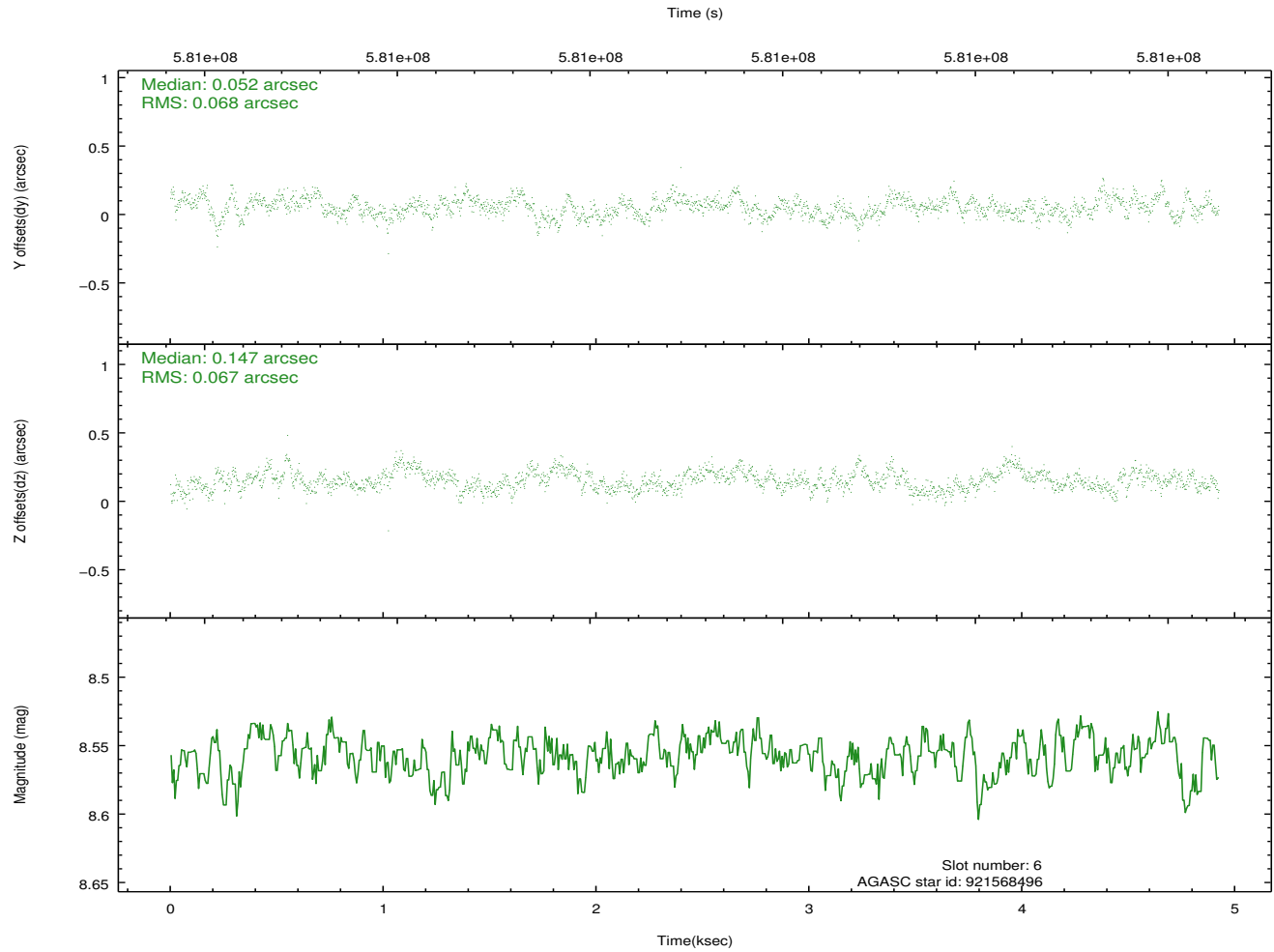
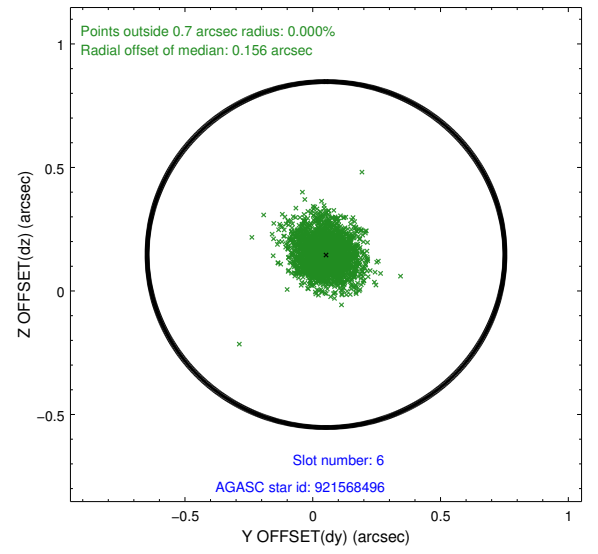
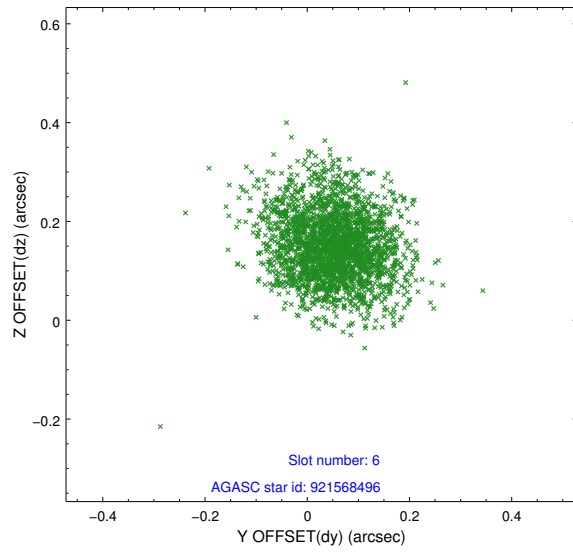
### 2.4.1 Slot 3



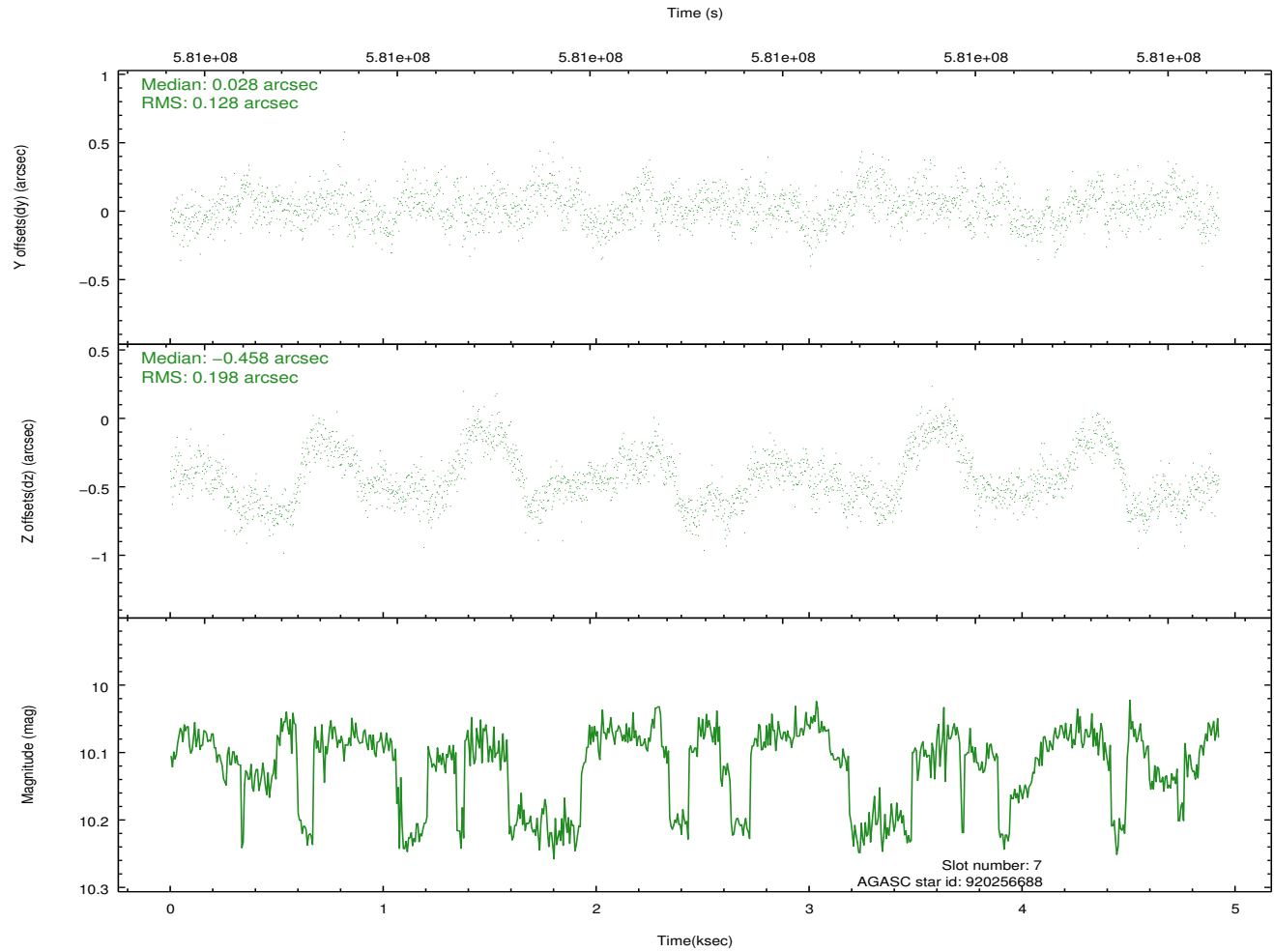
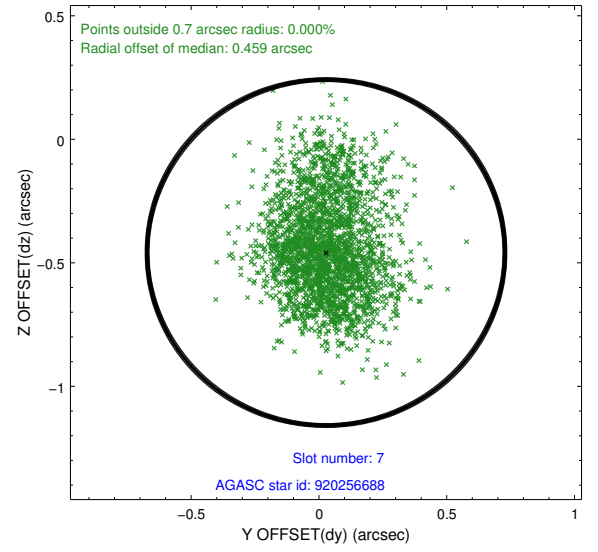
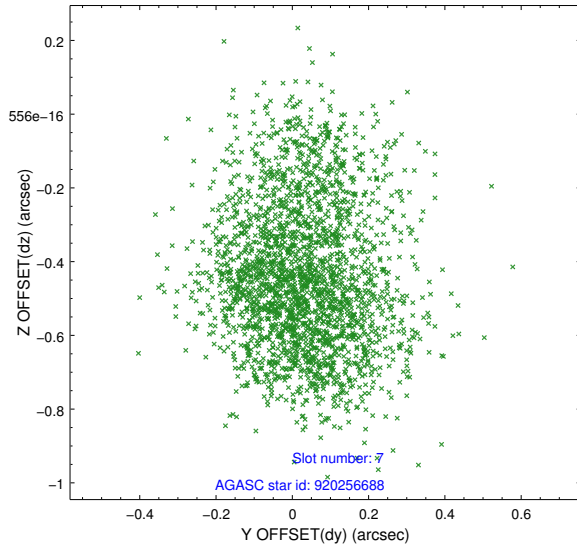
## 2.4.2 Slot 4



### 2.4.3 Slot 6



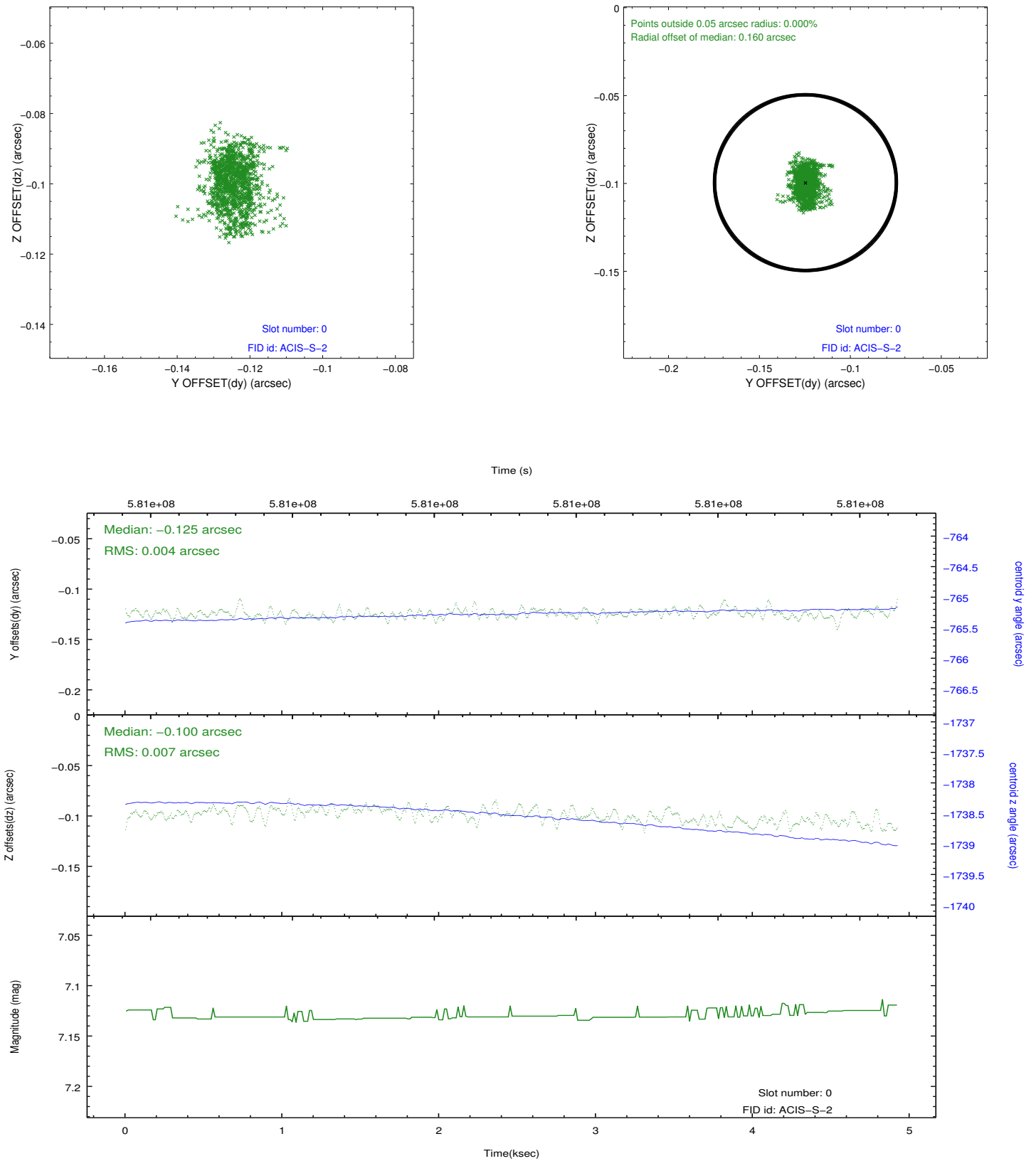
## 2.4.4 Slot 7



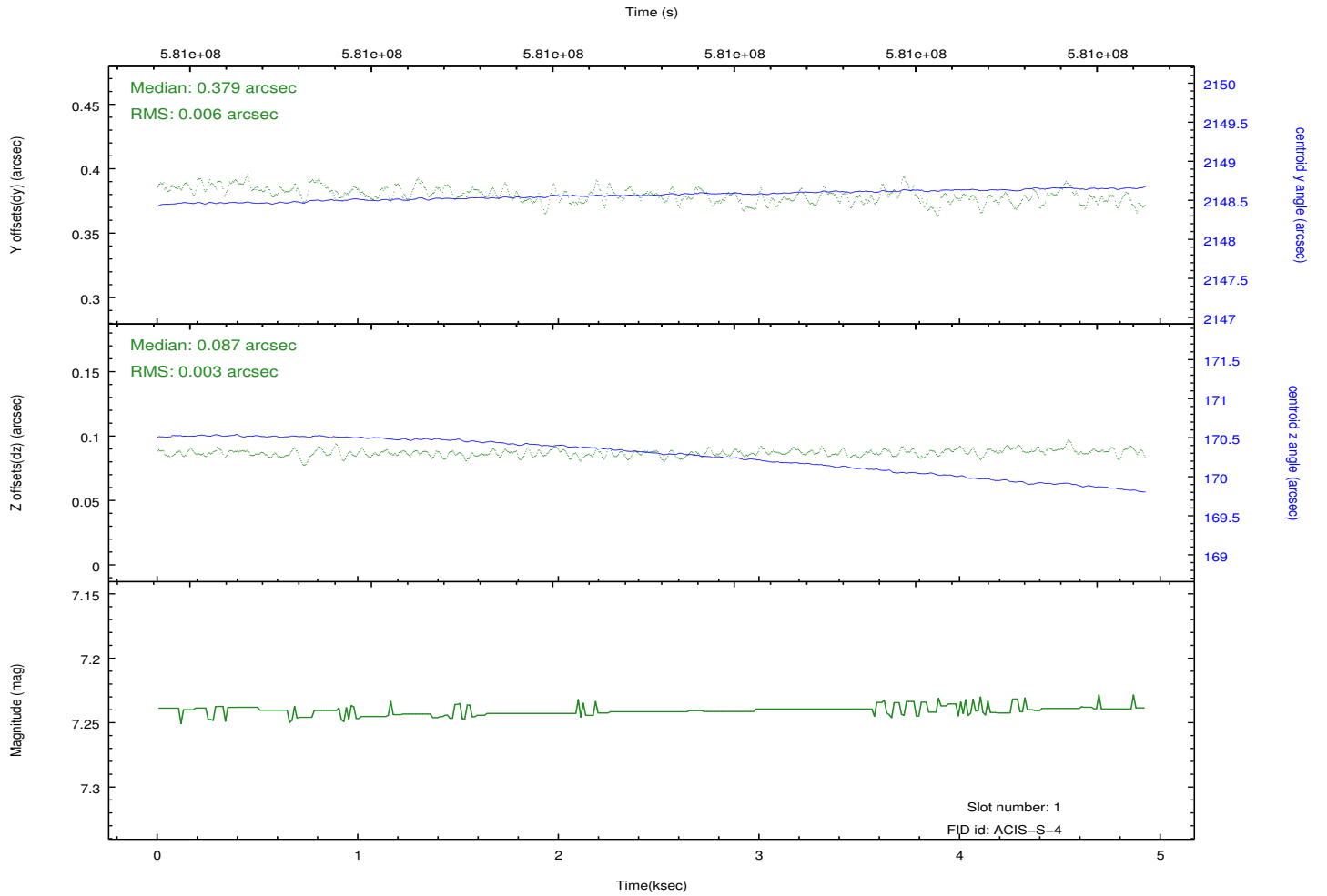
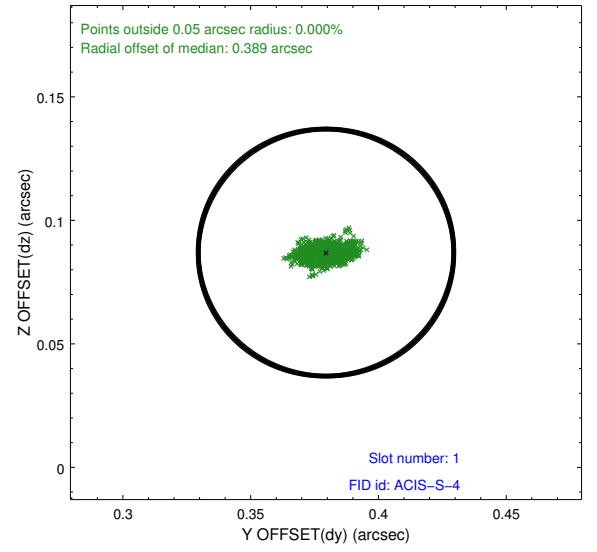
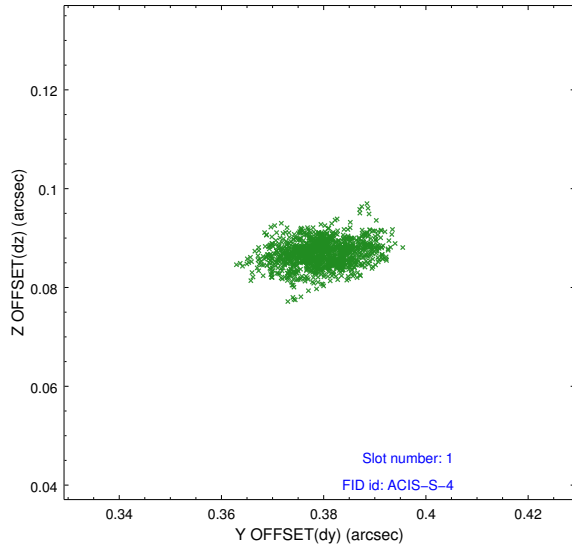


## 2.5 FID Slots

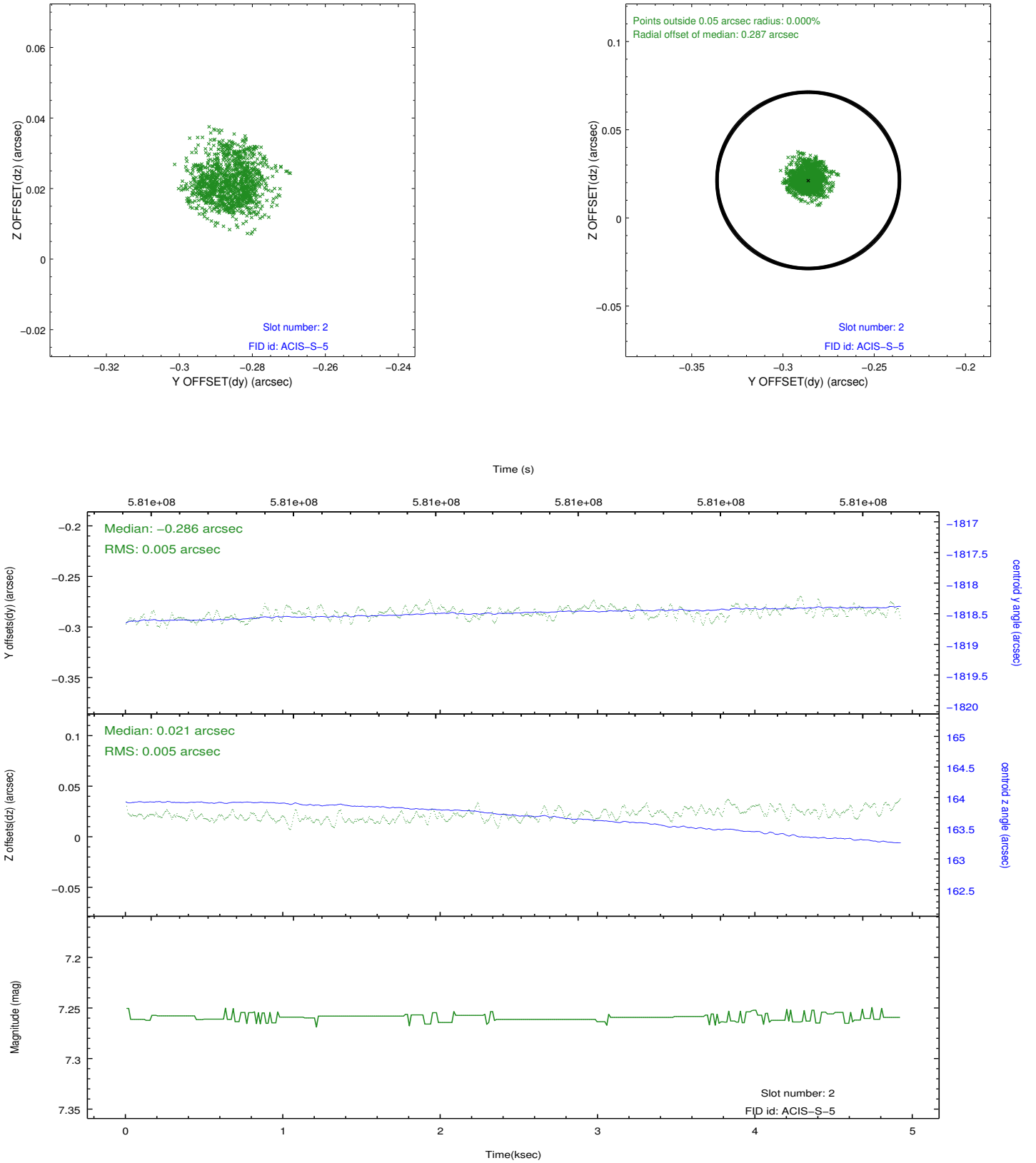
### 2.5.1 Slot 0



## 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)	2016.06.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.9104000378847

### A.2 Comments

The guide star in slot 5 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.