

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 19418 - L2 Version 1  
Chandra X-Ray Center

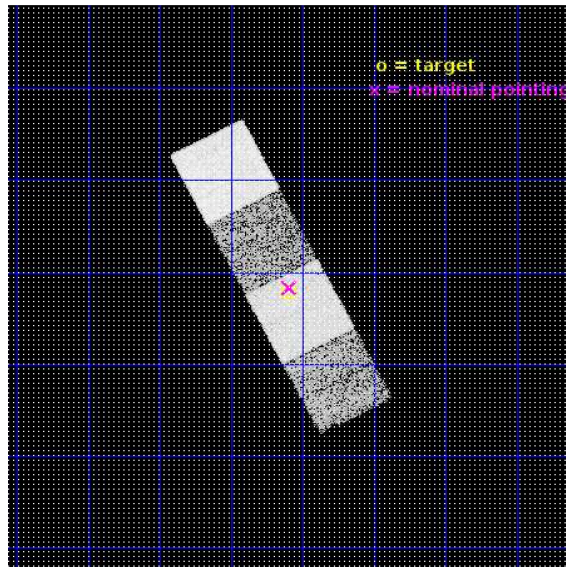
L2 Processing Date : Nov 24 2017

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# 1 Front

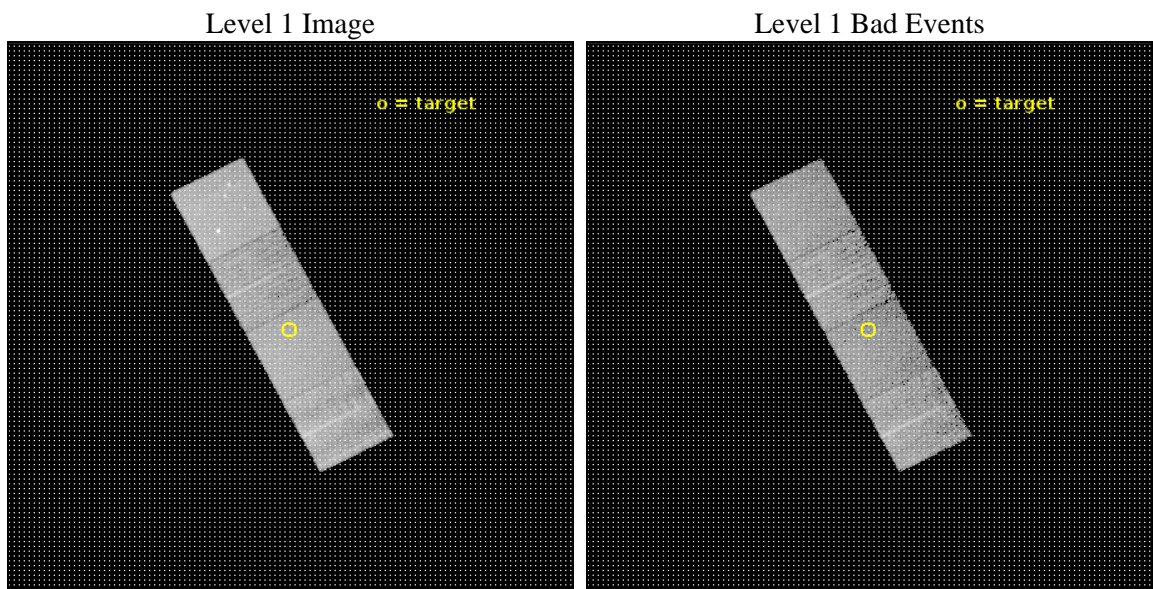
seq_num	601375	Sequence number
obs_id	19418	Observation id
title	Spiral galaxies of the Virgo cluster	Proposal title
observer	Roberto Soria	Principal investigator
object	NGC 4412	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.650417	Observer's specified target RA [deg]
dec_targ	3.964694	Observer's specified target Dec [deg]
ra_nom	186.64832837425	Nominal RA [deg]
dec_nom	3.9720478153867	Nominal Dec [deg]
roll_nom	62.622569240921	Nominal Roll [deg]
revision	1	Processing version of data
ontime	8063.1000621319	Sum of GTIs [s]
livetime	7957.7497238522	Livetime [s]
ontime5	8063.1000621319	Sum of GTIs [s]
ontime6	8063.1000621319	Sum of GTIs [s]
ontime7	8063.1000621319	Sum of GTIs [s]
ontime8	8063.1000621319	Sum of GTIs [s]
l2events	87786	Number of level 2 events



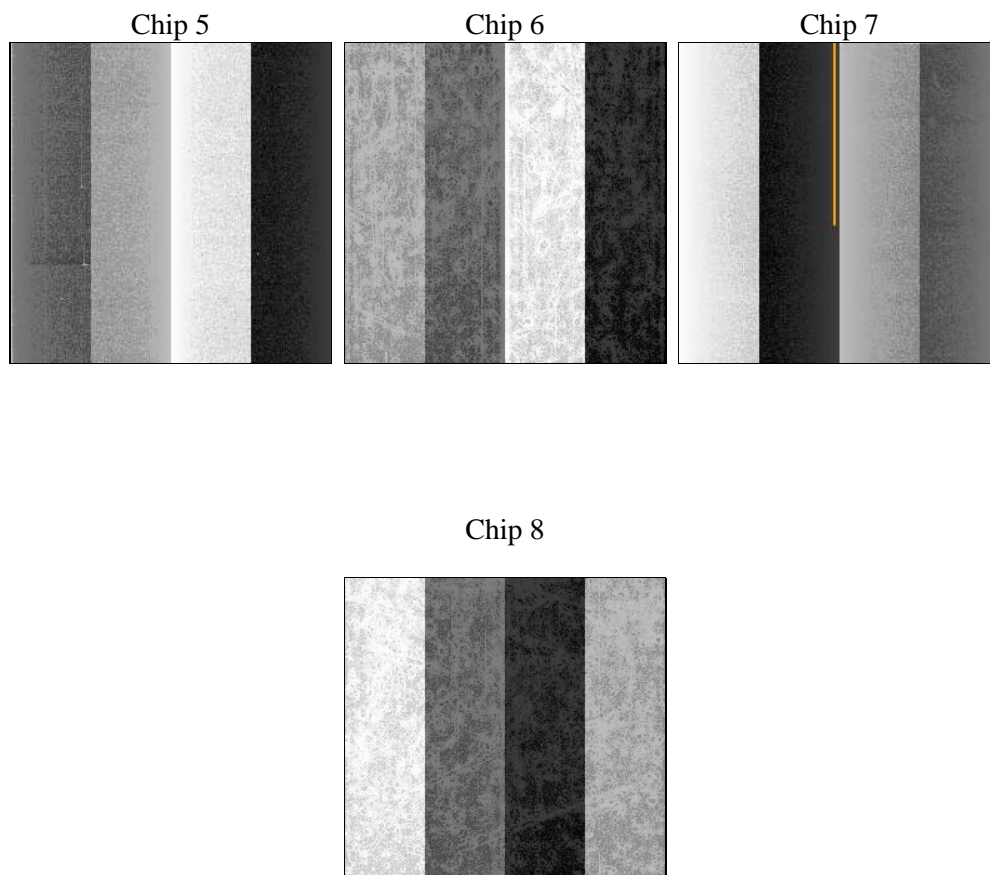
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8000.482000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	8063.1000621319	Sum of GTIs [s]
caldsver	4.7.6	&#160	ontime5	8063.1000621319	Sum of GTIs [s]
date	2017-11-24T07:01:45	Date and time of file creation	ontime6	8063.1000621319	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	8063.1000621319	Sum of GTIs [s]
			ontime8	8063.1000621319	Sum of GTIs [s]
			l1events	302618	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	93628	57526	74743	76721
rejected events	47119	50939	41847	54830
rejected %	50%	88%	55%	71%

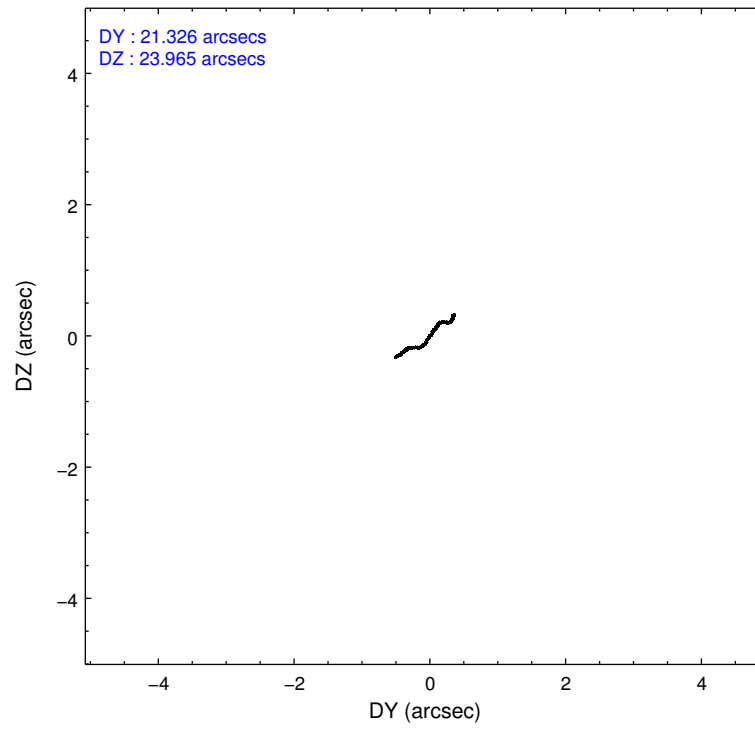
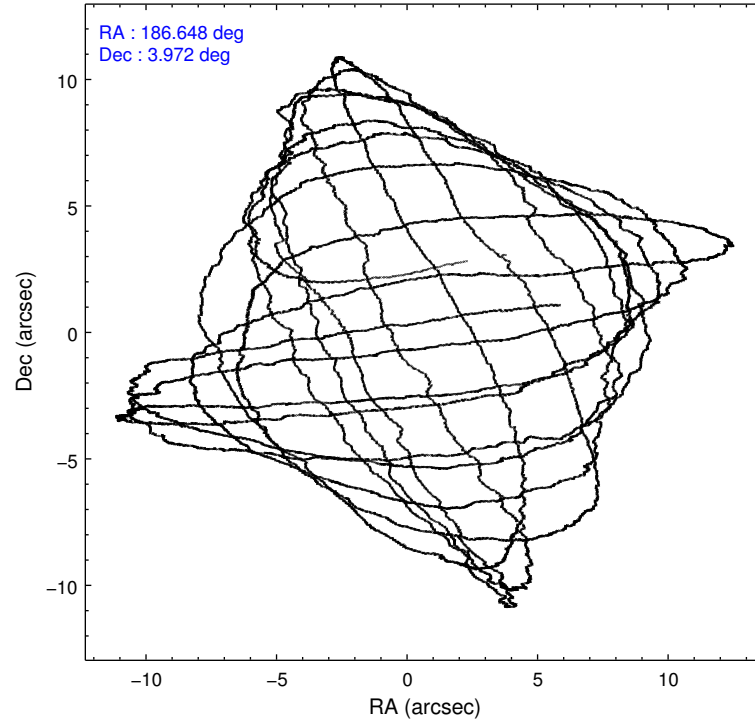
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	5386	2206	2879	6418
	5%	3%	3%	8%
grade 1 events	186	26	120	72
	0%	0%	0%	0%
grade 2 events	13864	1505	7052	5358
	14%	2%	9%	6%
grade 3 events	1497	671	2685	2197
	1%	1%	3%	2%
grade 4 events	1576	658	2728	2041
	1%	1%	3%	2%
grade 5 events	6849	2791	7721	4090
	7%	4%	10%	5%
grade 6 events	24229	1554	17576	5914
	25%	2%	23%	7%
grade 7 events	40041	48115	33982	50631
	42%	83%	45%	65%

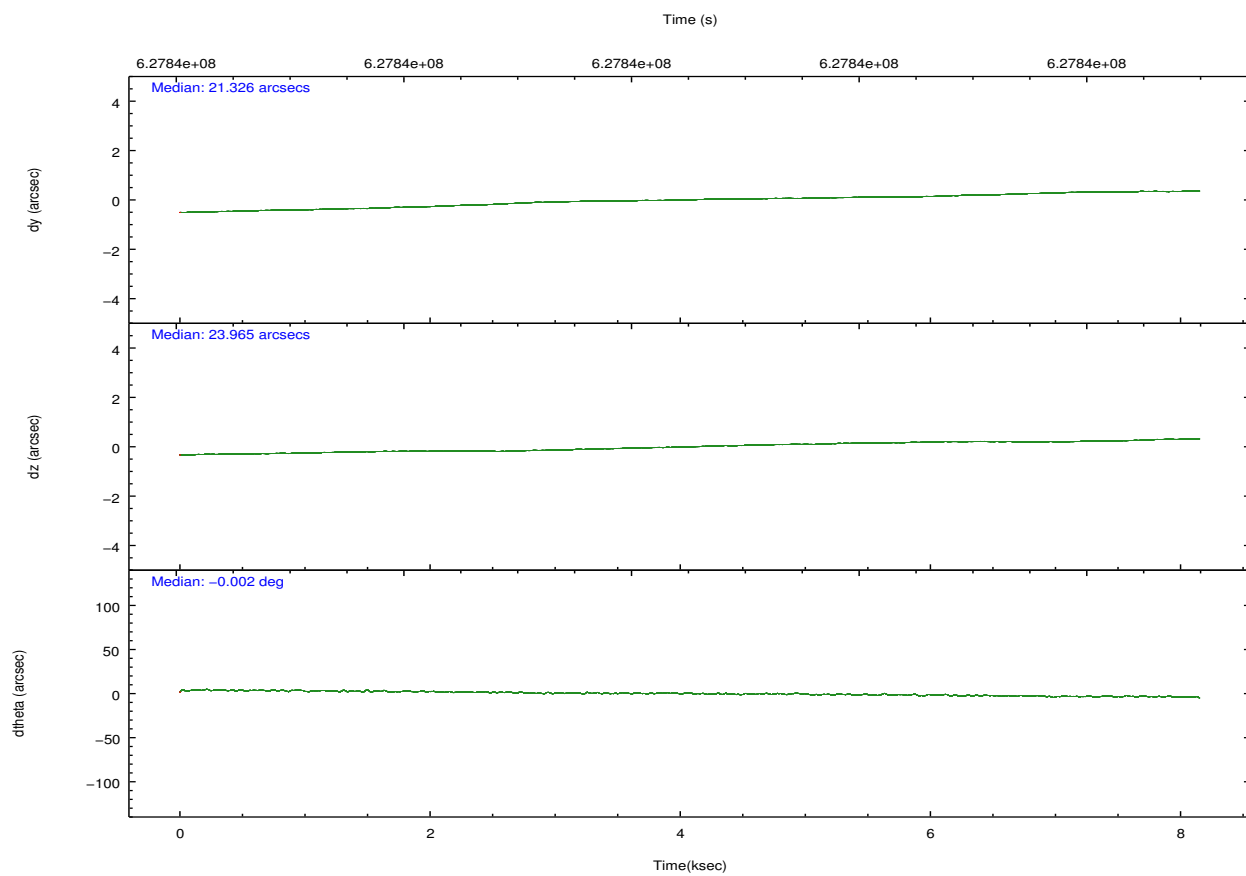
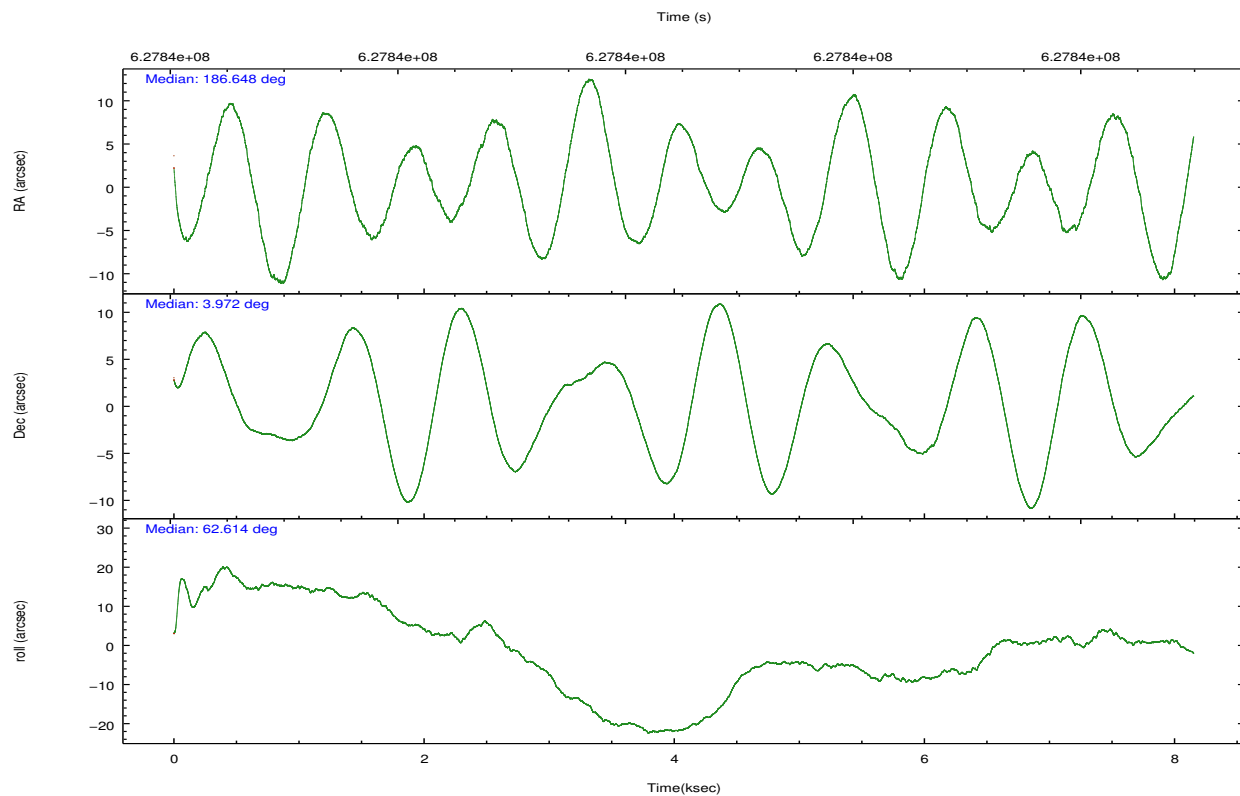


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	186.649993	186.6483283742452	Subarray requested	NONE	NONE
[deg] Pointing Dec	3.944630	3.972047815386673	Alternating exposures requested	N	N
[deg] Pointing Roll	62.465858	62.62256924092077	[s] Primary exposure time	0.000000	3.1
[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)	627836614.184000	627835708.99471			
Observation start date	2017-11-23T15:02:25	2017-11-23T14:48:28			
[s] Observation end time (MET)	627844614.184000	627845684.2953			
Observation end date	2017-11-23T17:15:45	2017-11-23T17:34:44			
Read mode	TIMED	TIMED			

## 2.3 Aspect



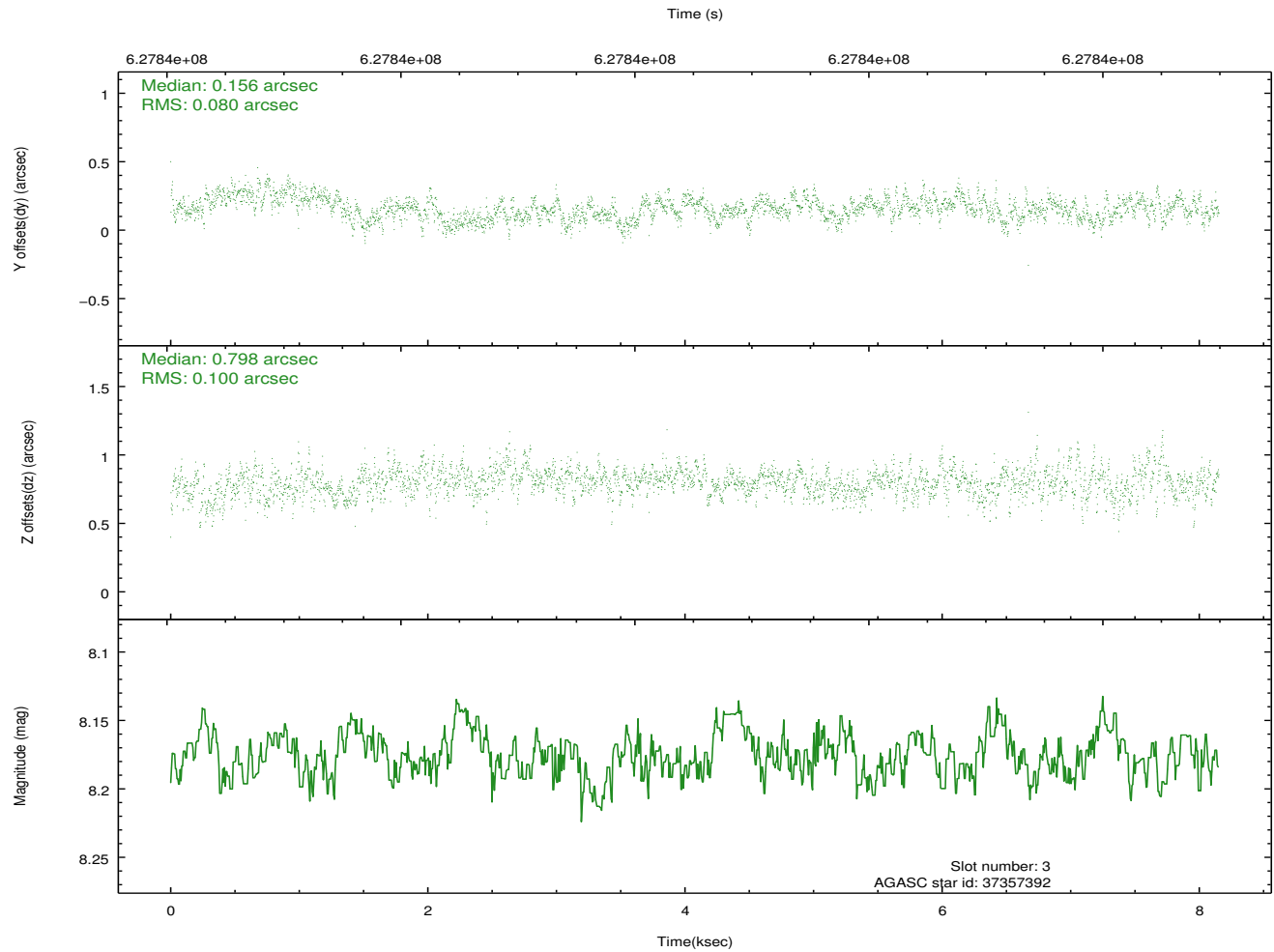
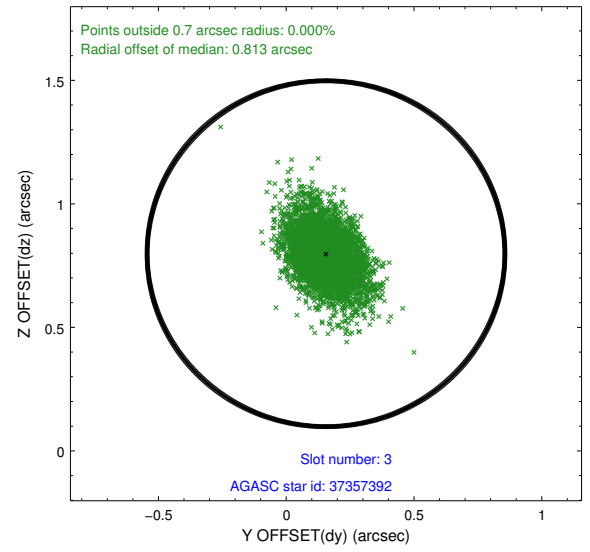
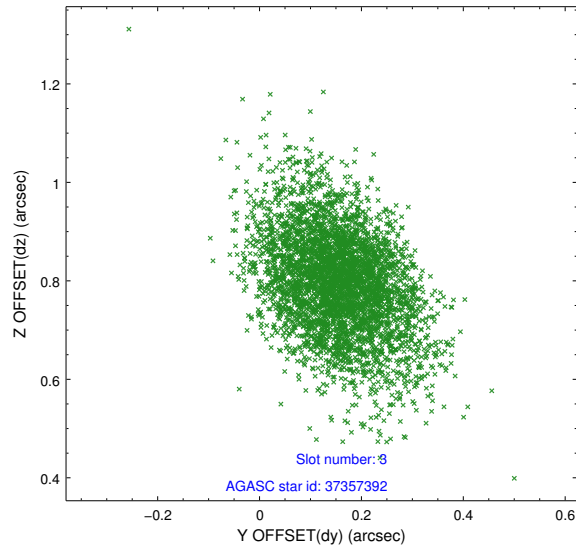


### Slot Statistics

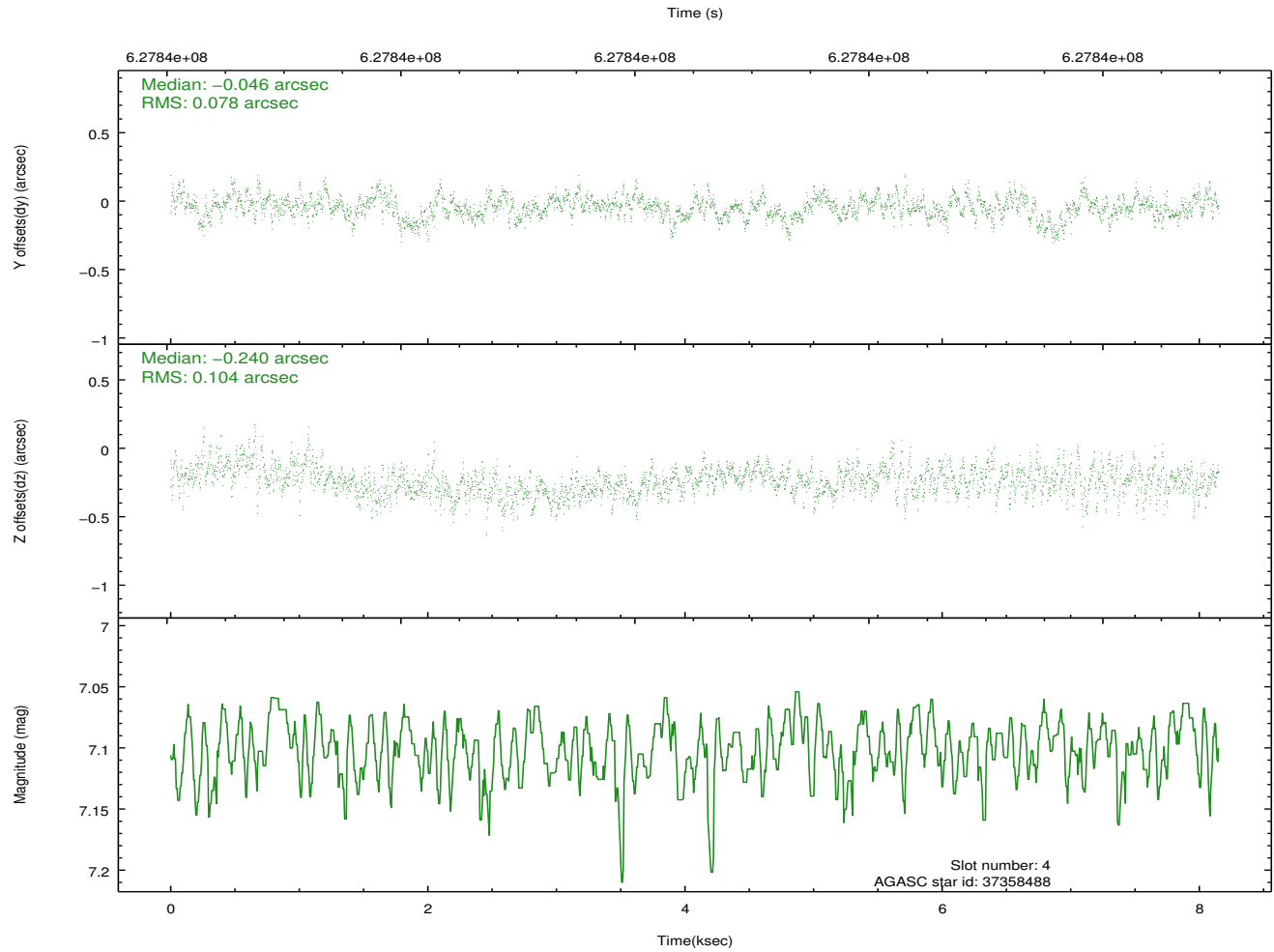
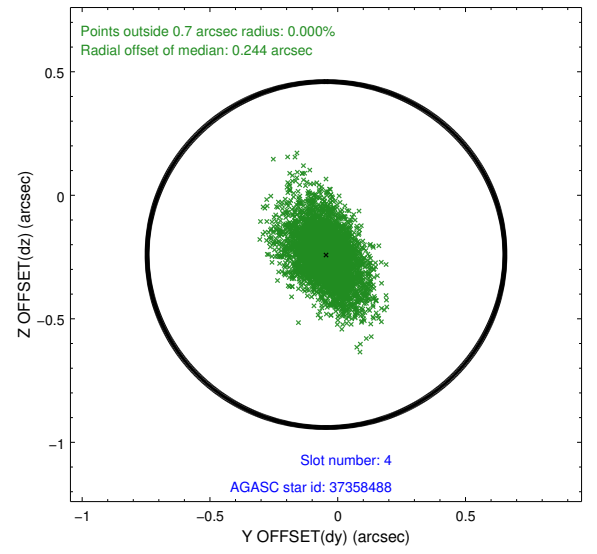
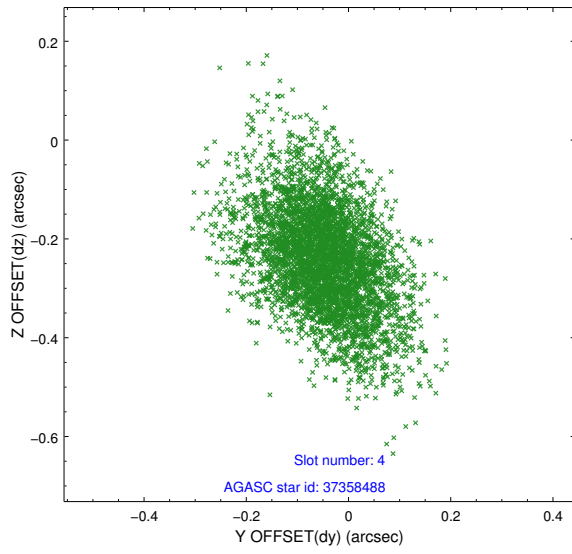
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.01	1989	-0.055	-0.096	0.012	0.022	0.000000	0.000000	-774.54	-1745.60
1	FID		ACIS-S-5	7.13	1989	-0.192	-0.051	0.012	0.020	0.000000	0.000000	-1828.05	155.73
2	FID		ACIS-S-6	7.27	1989	0.221	0.155	0.006	0.011	0.000000	0.000000	386.67	800.56
3	GUIDE	used	37357392	8.18	3973	0.156	0.798	0.132	0.230	187.068134	3.697099	-94.66	-1742.99
4	GUIDE	used	37358488	7.10	3977	-0.046	-0.240	0.132	0.233	187.076739	4.396562	2150.87	-605.73
5	GUIDE	used	37359816	9.44	3973	0.094	-0.399	0.211	0.335	186.448439	3.847681	-643.18	480.04
6	GUIDE	used	37363008	9.72	3967	-0.005	0.080	0.244	0.385	187.186016	4.024063	1143.67	-1574.03
7	GUIDE	used	37359240	7.26	3977	-0.188	-0.234	0.155	0.252	186.478383	4.199753	529.94	970.44

## 2.4 Star Slots

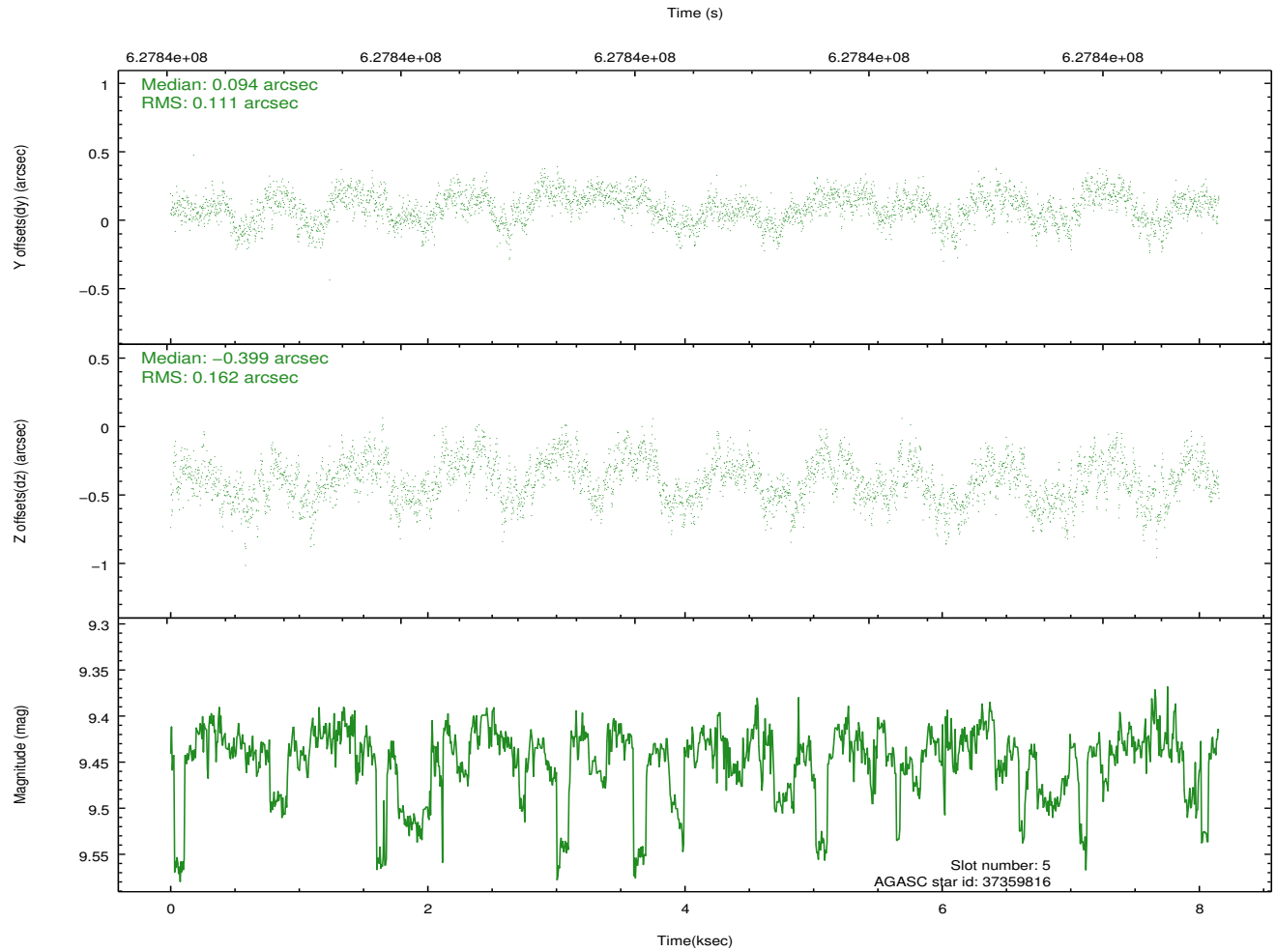
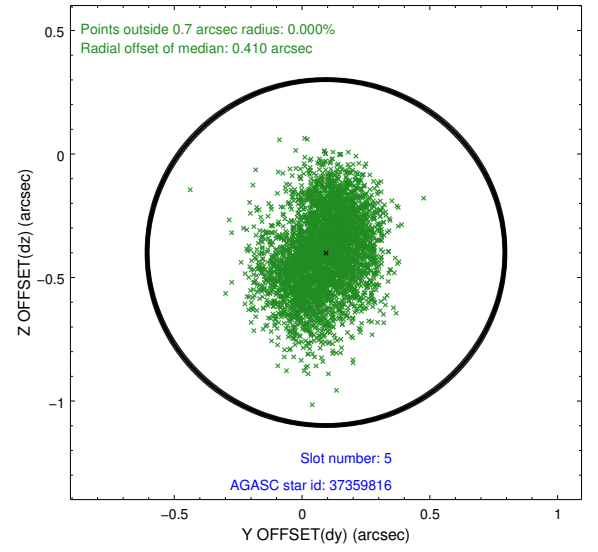
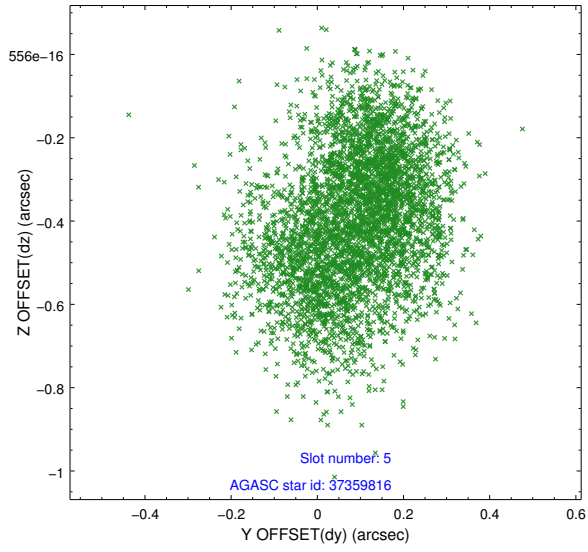
### 2.4.1 Slot 3



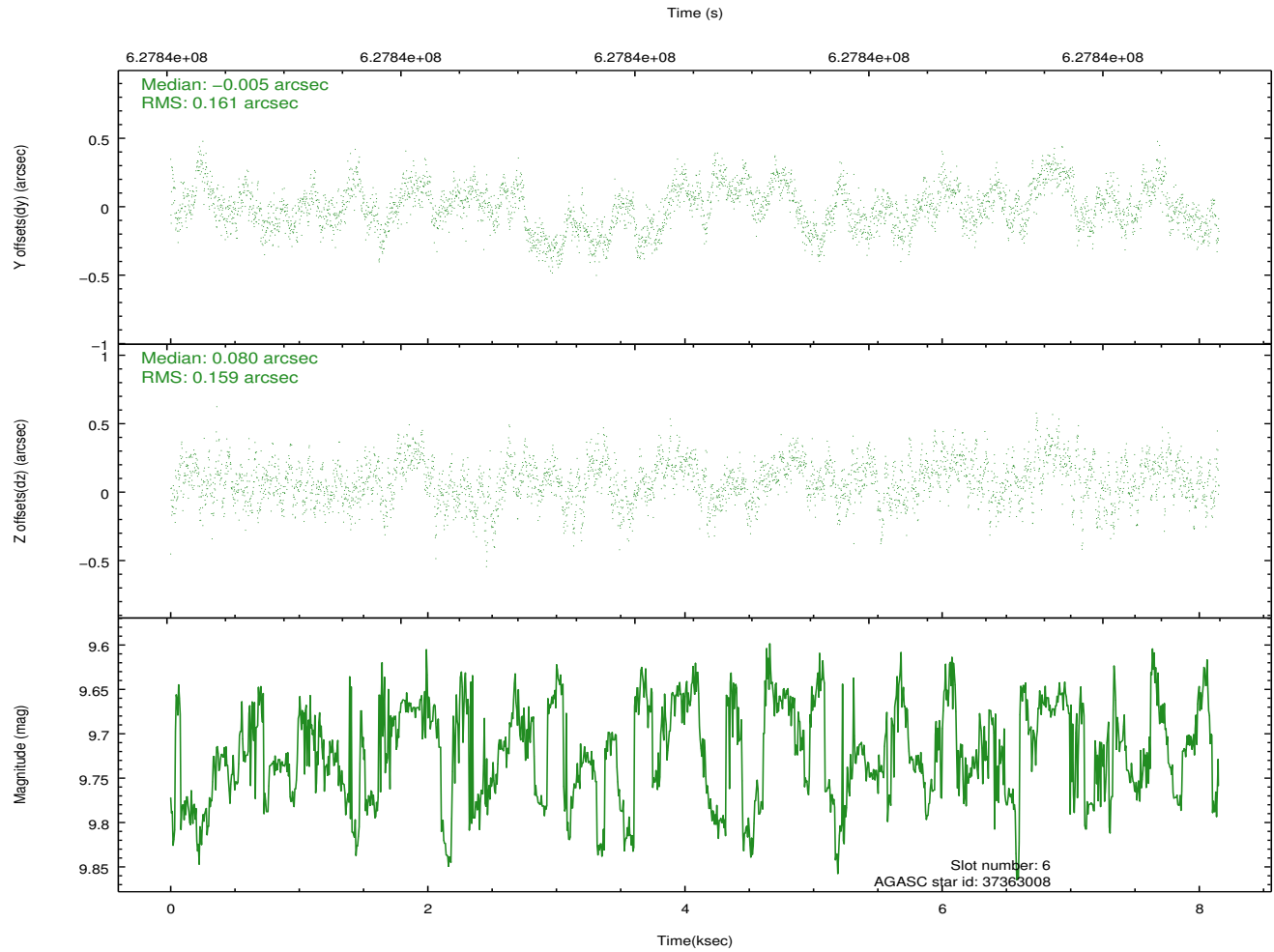
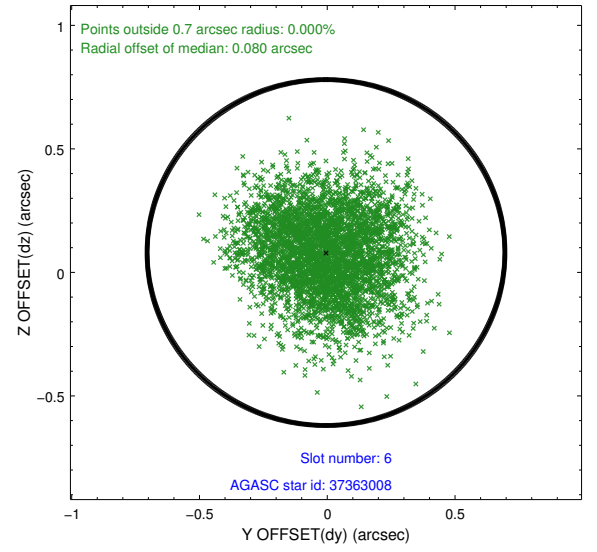
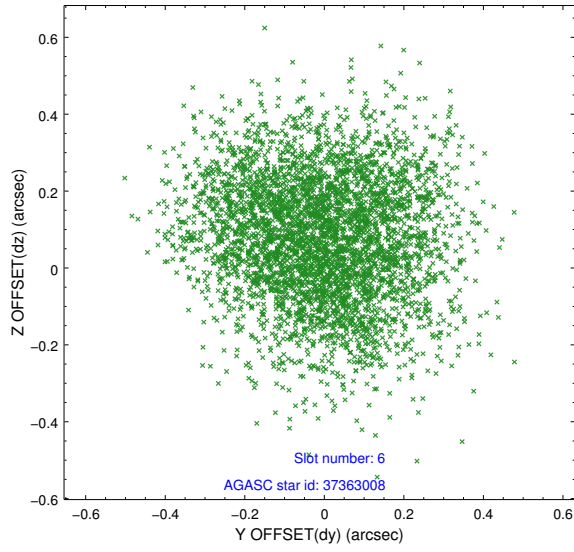
## 2.4.2 Slot 4



### 2.4.3 Slot 5

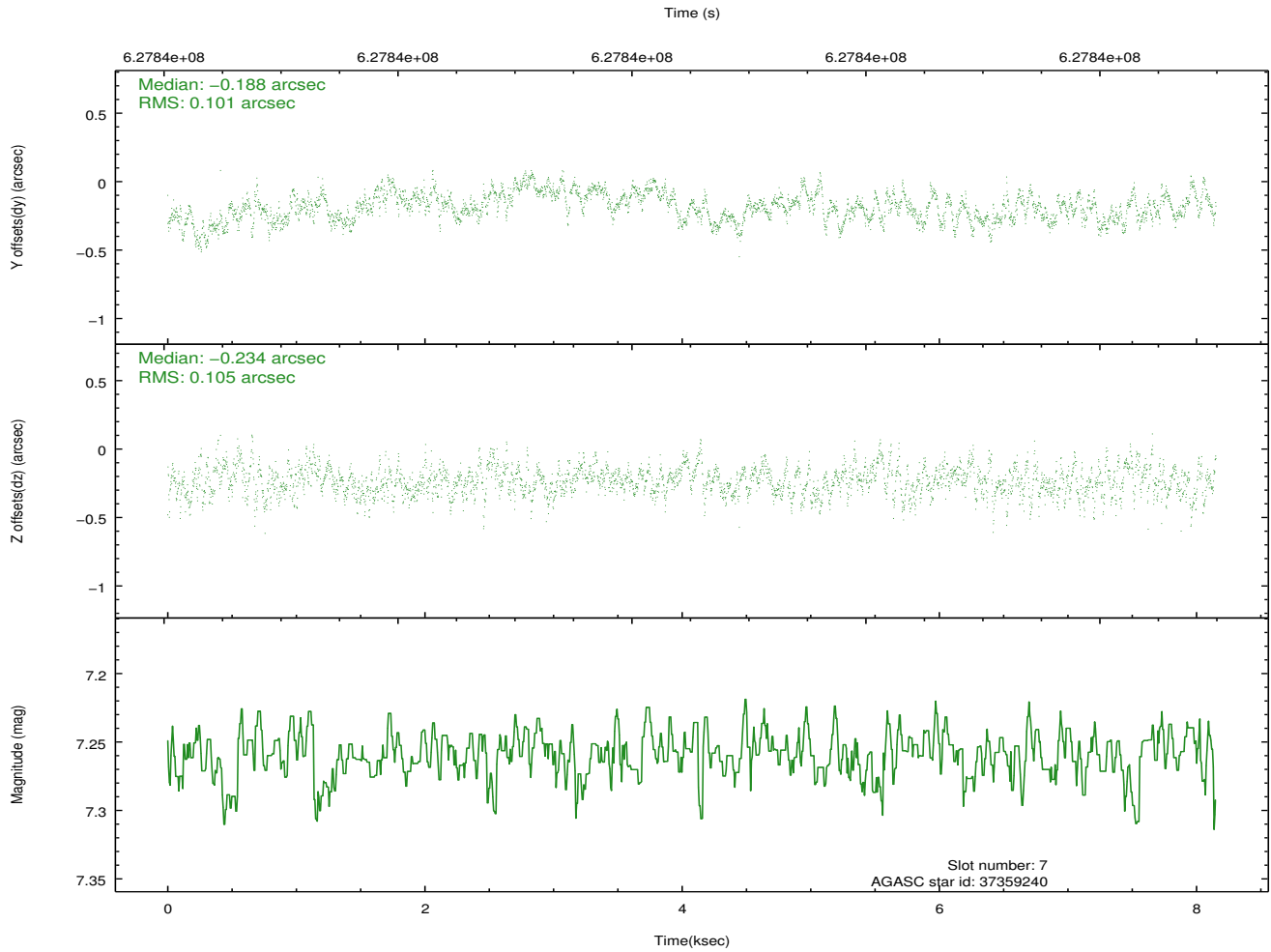
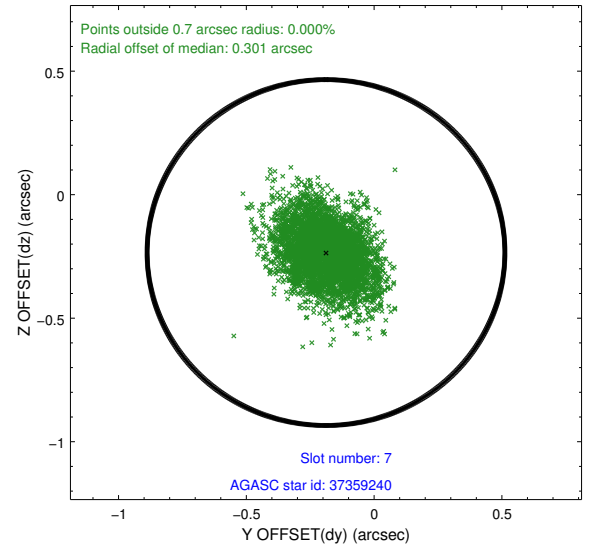
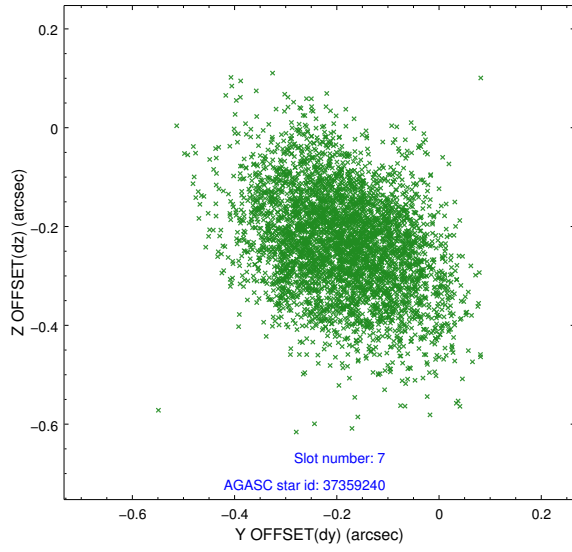


## 2.4.4 Slot 6



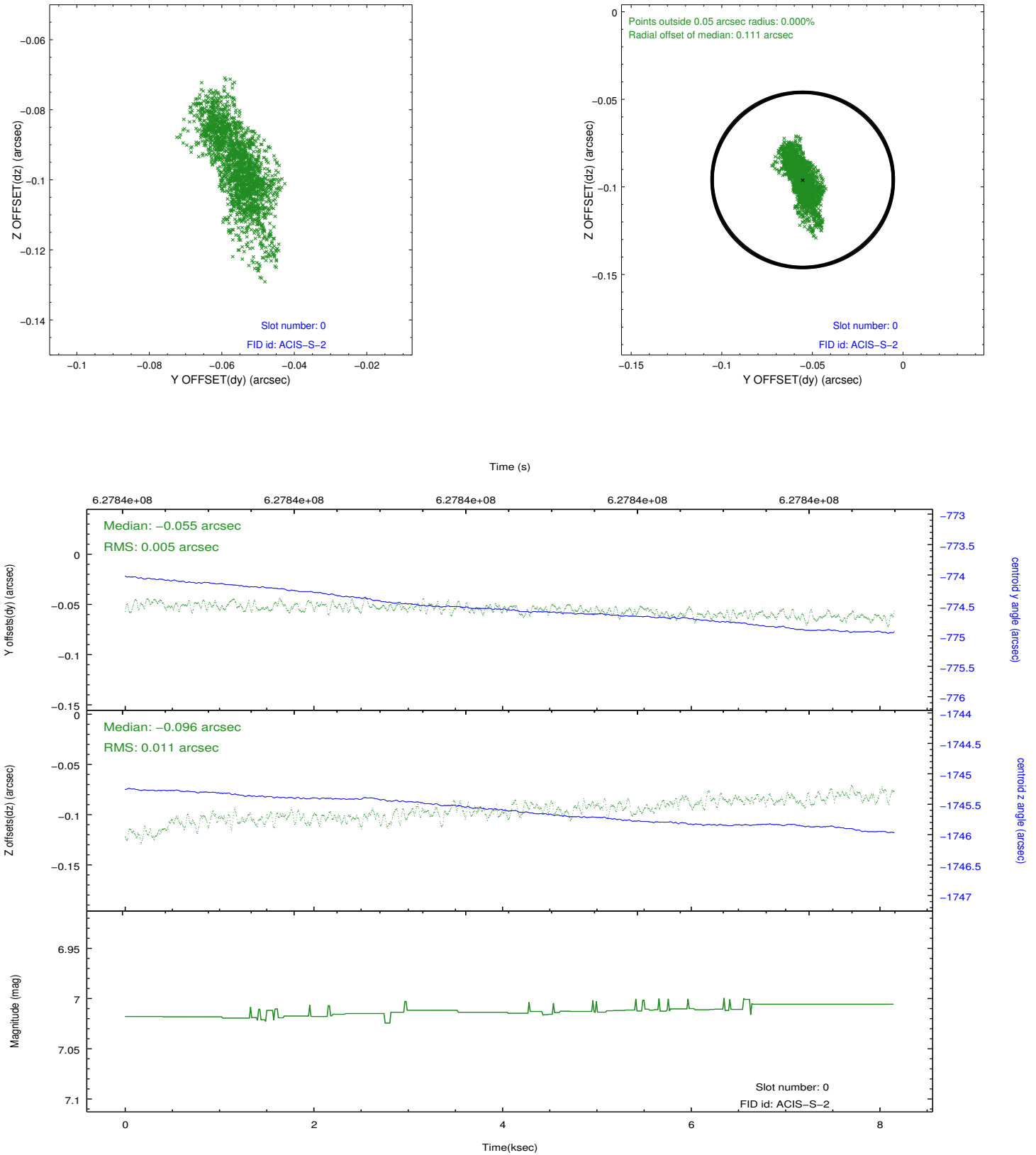


## 2.4.5 Slot 7

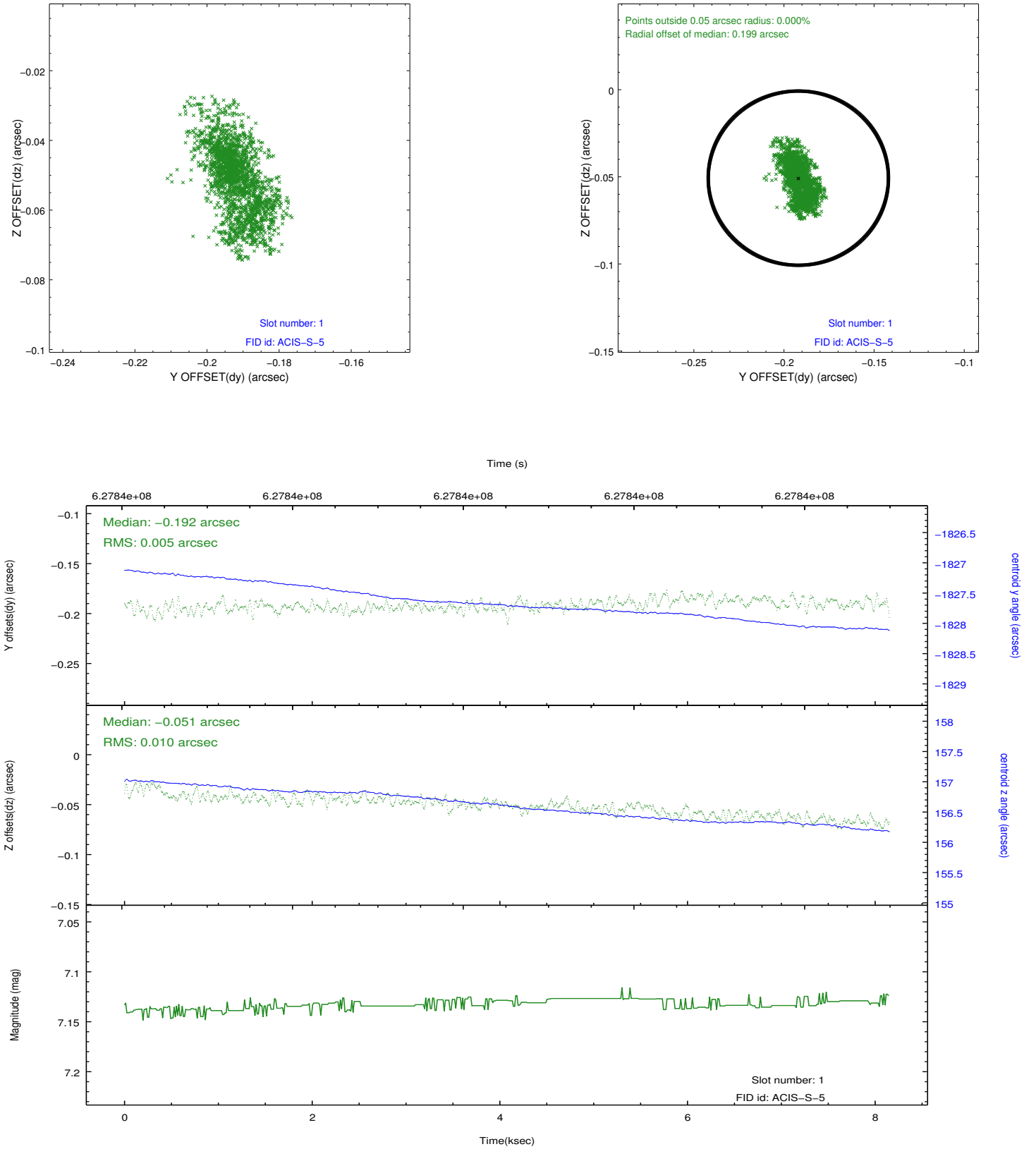


## 2.5 FID Slots

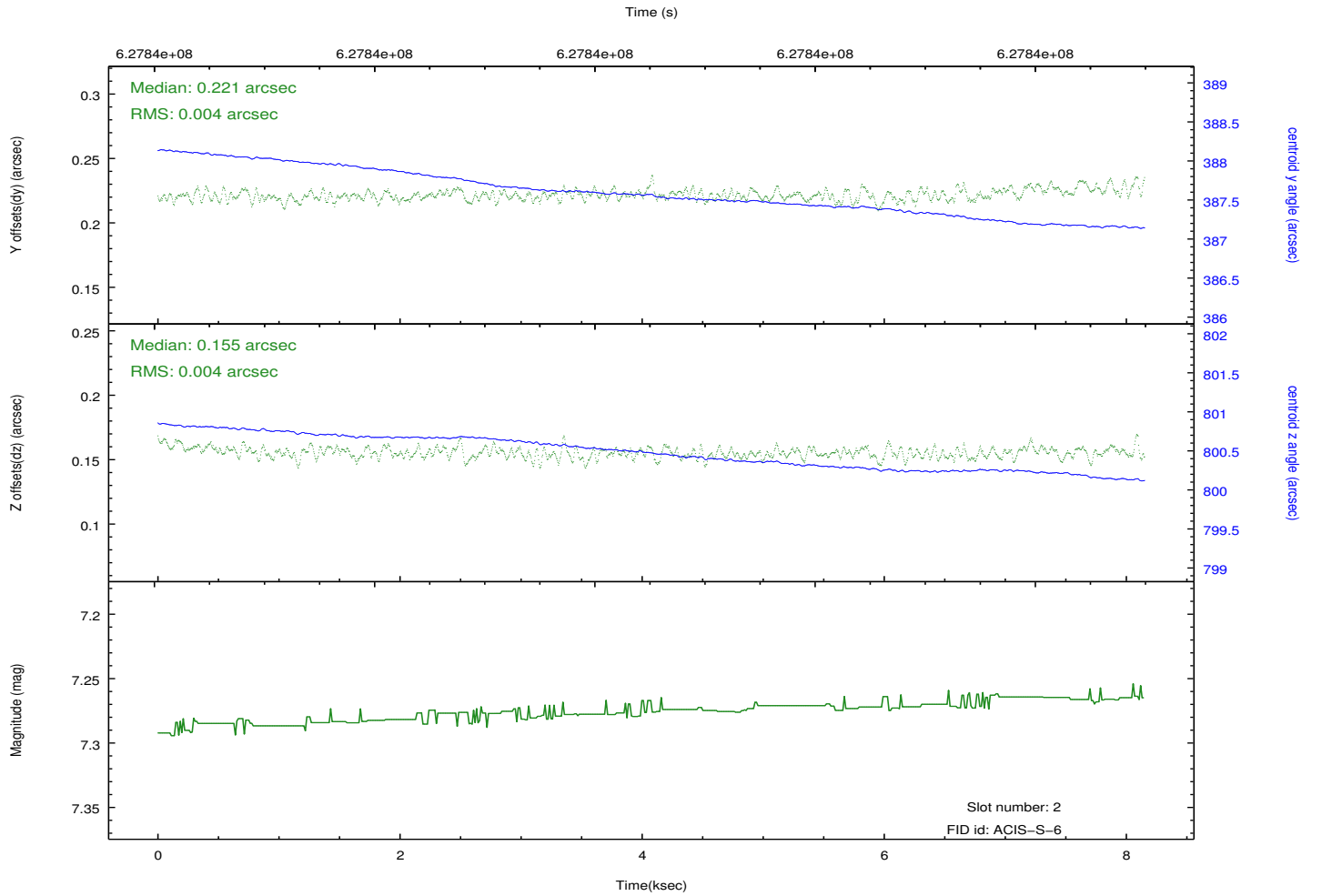
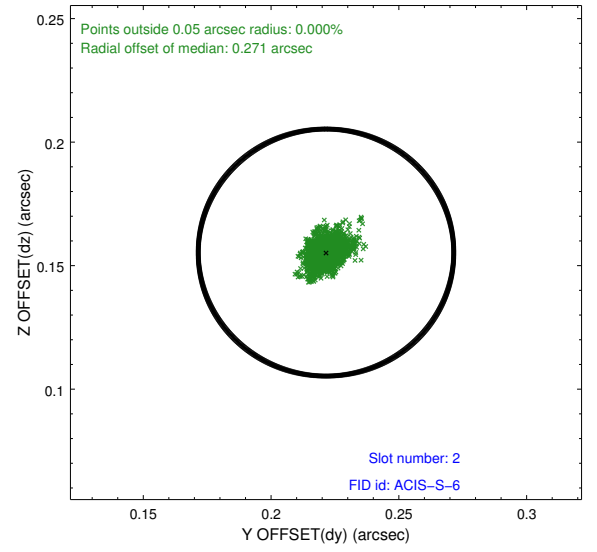
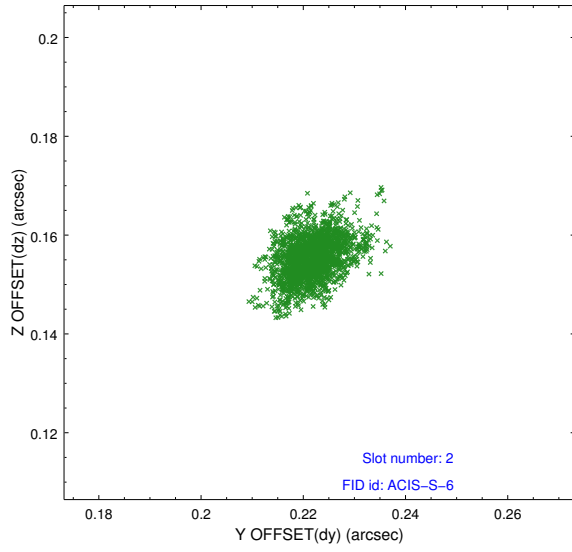
### 2.5.1 Slot 0



## 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)	2017.11.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.0631000621319

### **A.2 Comments**