

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18039 - L2 Version 1  
Chandra X-Ray Center

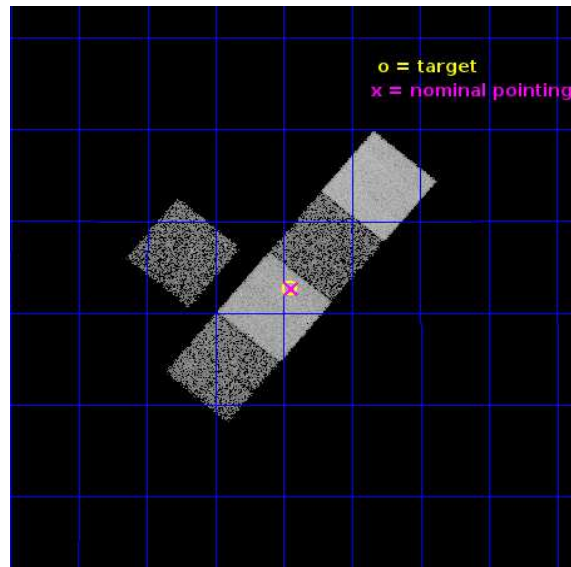
L2 Processing Date : Mar 30 2016

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# 1 Front

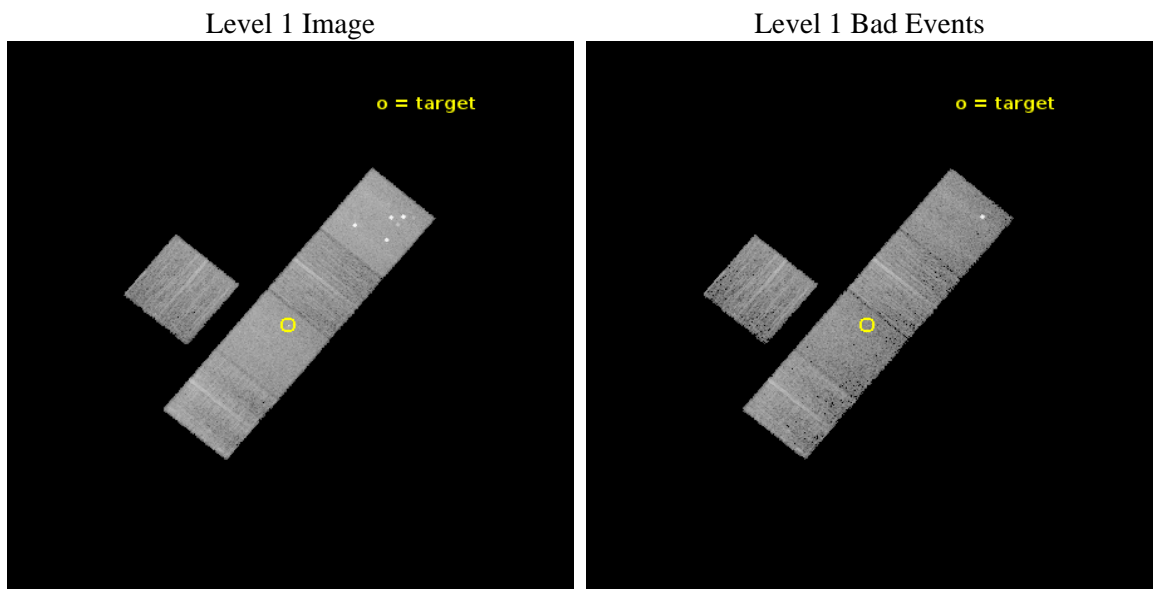
seq_num	601225	Sequence number
obs_id	18039	Observation id
title	The Most Luminous Field Early-type Galaxies	Proposal title
observer	Jimmy Irwin	Principal investigator
object	NGC 5490	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	212.48875	Observer's specified target RA [deg]
dec_targ	17.545556	Observer's specified target Dec [deg]
ra_nom	212.48612832623	Nominal RA [deg]
dec_nom	17.544498817339	Nominal Dec [deg]
roll_nom	129.67765096629	Nominal Roll [deg]
revision	1	Processing version of data
ontime	9055.1000697613	Sum of GTIs [s]
livetime	8936.7885210822	Livetime [s]
ontime3	9055.1000697613	Sum of GTIs [s]
ontime5	9055.1000697613	Sum of GTIs [s]
ontime6	9055.1000697613	Sum of GTIs [s]
ontime7	9055.1000697613	Sum of GTIs [s]
ontime8	9055.1000697613	Sum of GTIs [s]
l2events	87956	Number of level 2 events



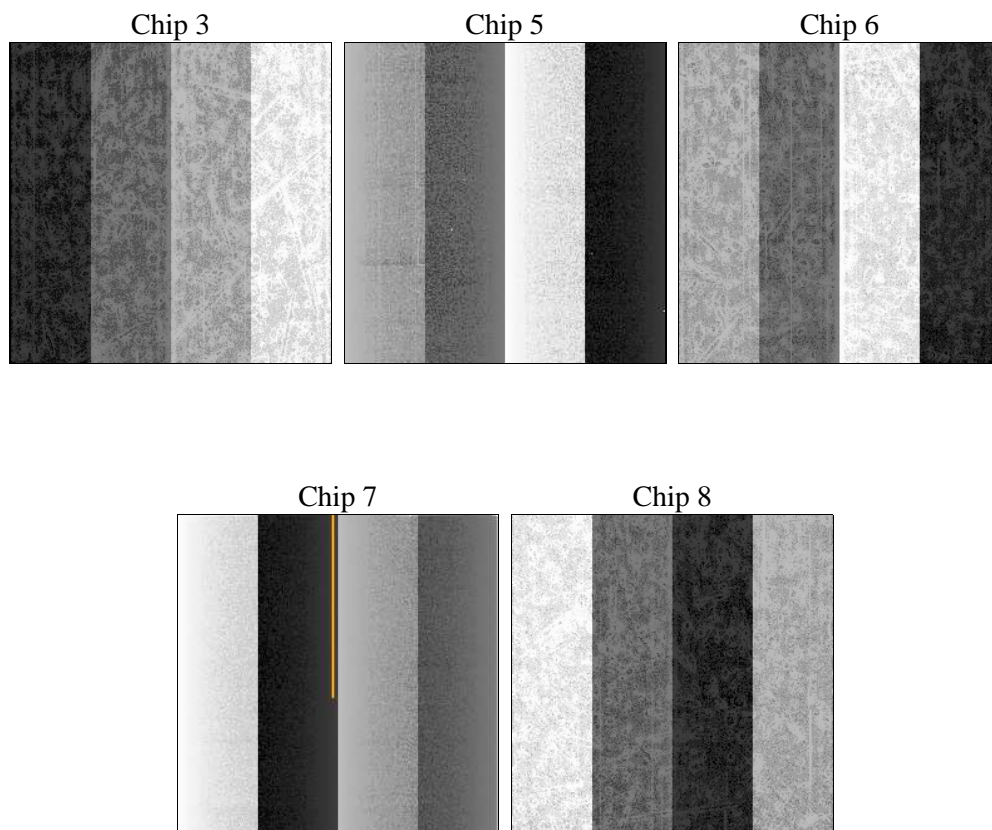
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	9055.1000697613	Sum of GTIs [s]
caldsver	4.7.1	&#160	ontime3	9055.1000697613	Sum of GTIs [s]
date	2016-03-30T13:36:27	Date and time of file creation	ontime5	9055.1000697613	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	9055.1000697613	Sum of GTIs [s]
			ontime7	9055.1000697613	Sum of GTIs [s]
			ontime8	9055.1000697613	Sum of GTIs [s]
			l1events	356451	Number of level 1 events

### 2.1.4 Events

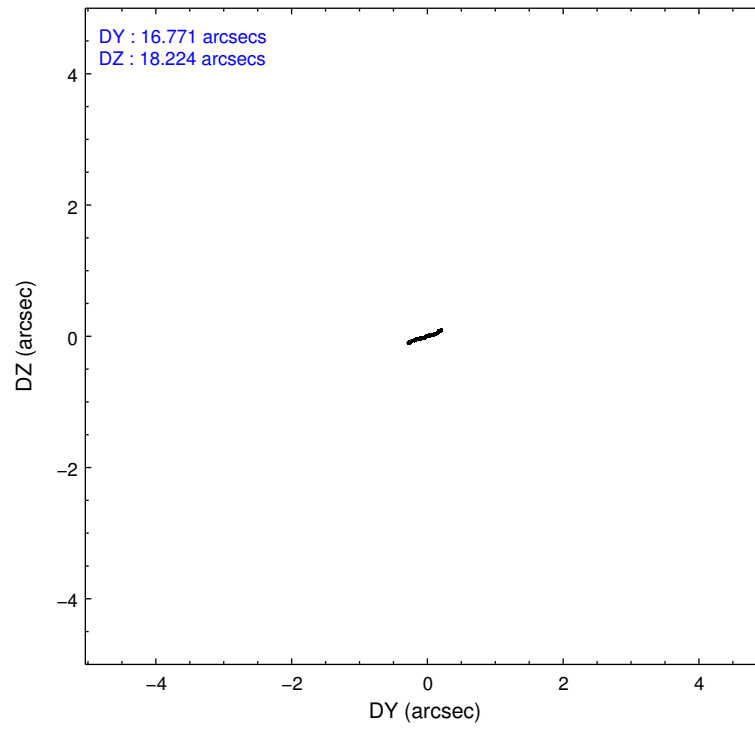
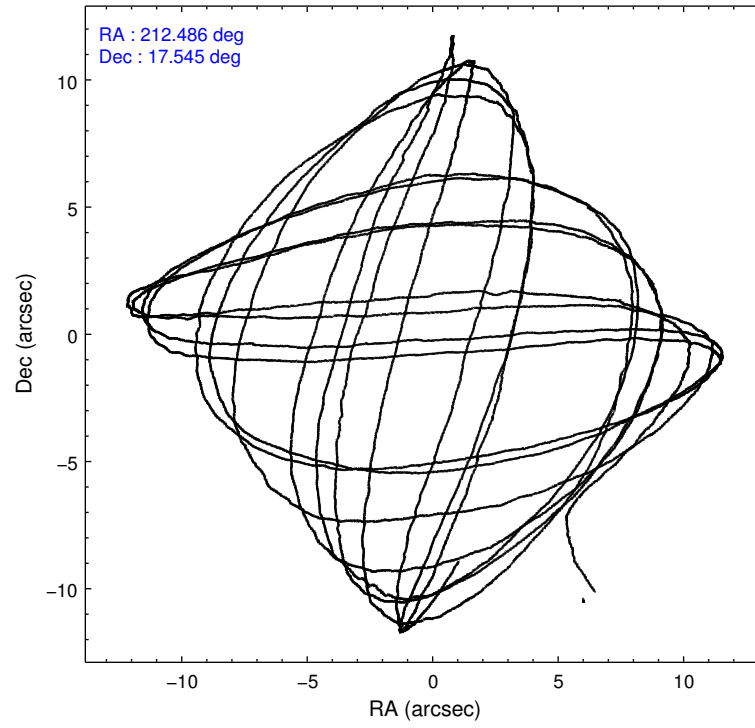
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	51564	100629	57103	73715	73440
rejected events	45867	49537	50763	42248	54961
rejected %	88%	49%	88%	57%	74%

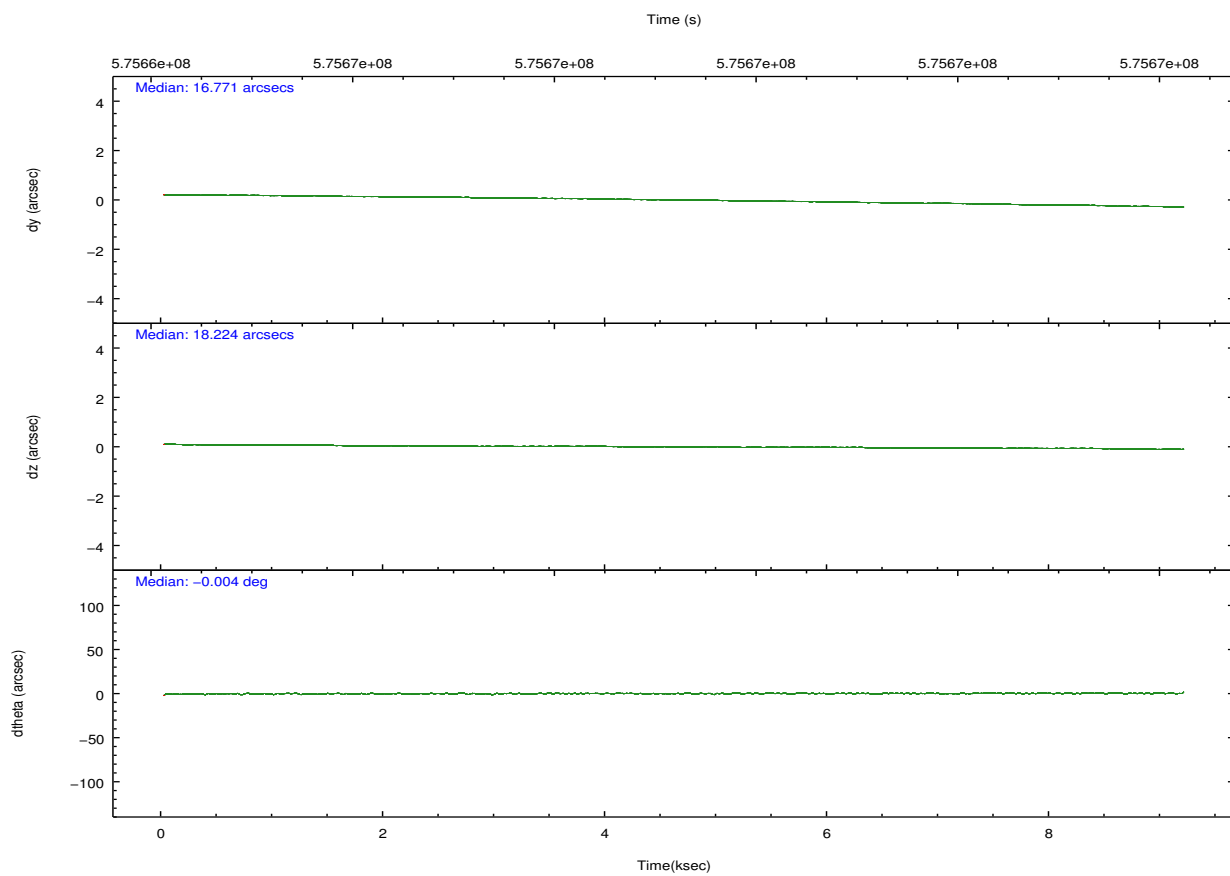
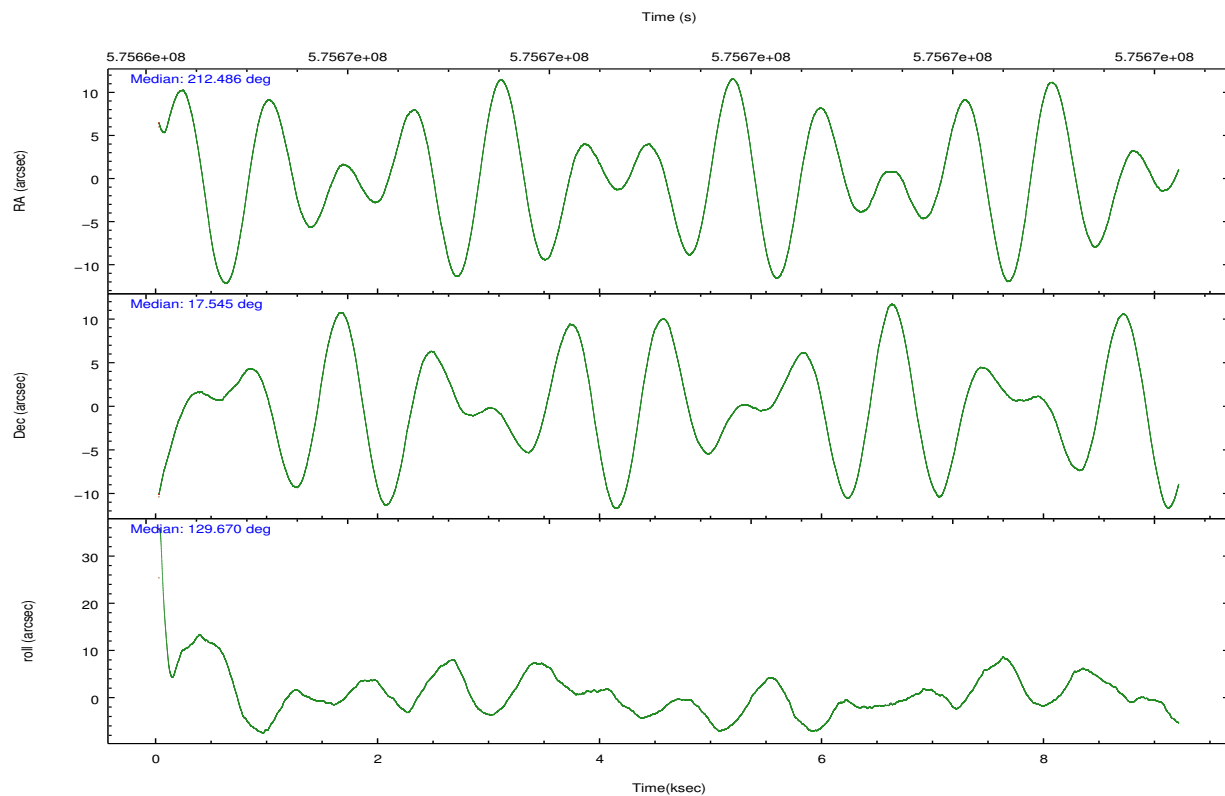
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	1967	11361	2115	2649	5116
	3%	11%	3%	3%	6%
grade 1 events	16	175	23	86	36
	0%	0%	0%	0%	0%
grade 2 events	1271	13354	1521	6594	4629
	2%	13%	2%	8%	6%
grade 3 events	597	1344	562	2430	1906
	1%	1%	0%	3%	2%
grade 4 events	644	1184	624	2481	1720
	1%	1%	1%	3%	2%
grade 5 events	2663	6040	2498	6992	3943
	5%	6%	4%	9%	5%
grade 6 events	1220	23892	1523	17338	5117
	2%	23%	2%	23%	6%
grade 7 events	43186	43279	48237	35145	50973
	83%	43%	84%	47%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	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	212.513221	212.4861283262325	CCD I2 on	N	N
[deg] Pointing Dec	17.535355	17.54449881733916	CCD I3 on	Y	Y
[deg] Pointing Roll	129.512794	129.6776509662908	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	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)	575664795.184000	575663317.1869	CCD S5 on	N	N
Observation start date	2016-03-29T18:52:07	2016-03-29T18:28:37	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	575673795.184000	575674128.88752	On-chip summing requested	N	N
Observation end date	2016-03-29T21:22:07	2016-03-29T21:28:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



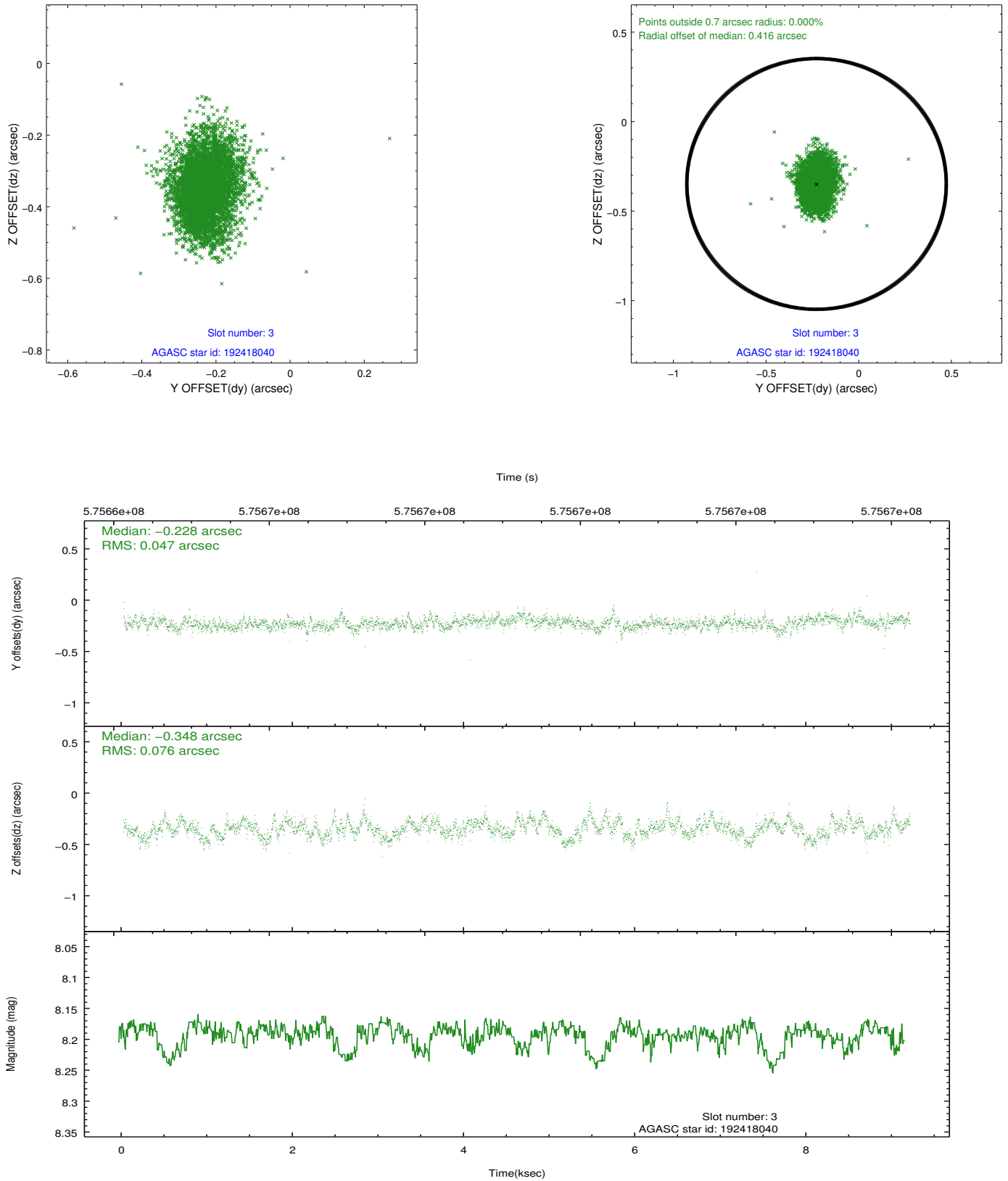


### Slot Statistics

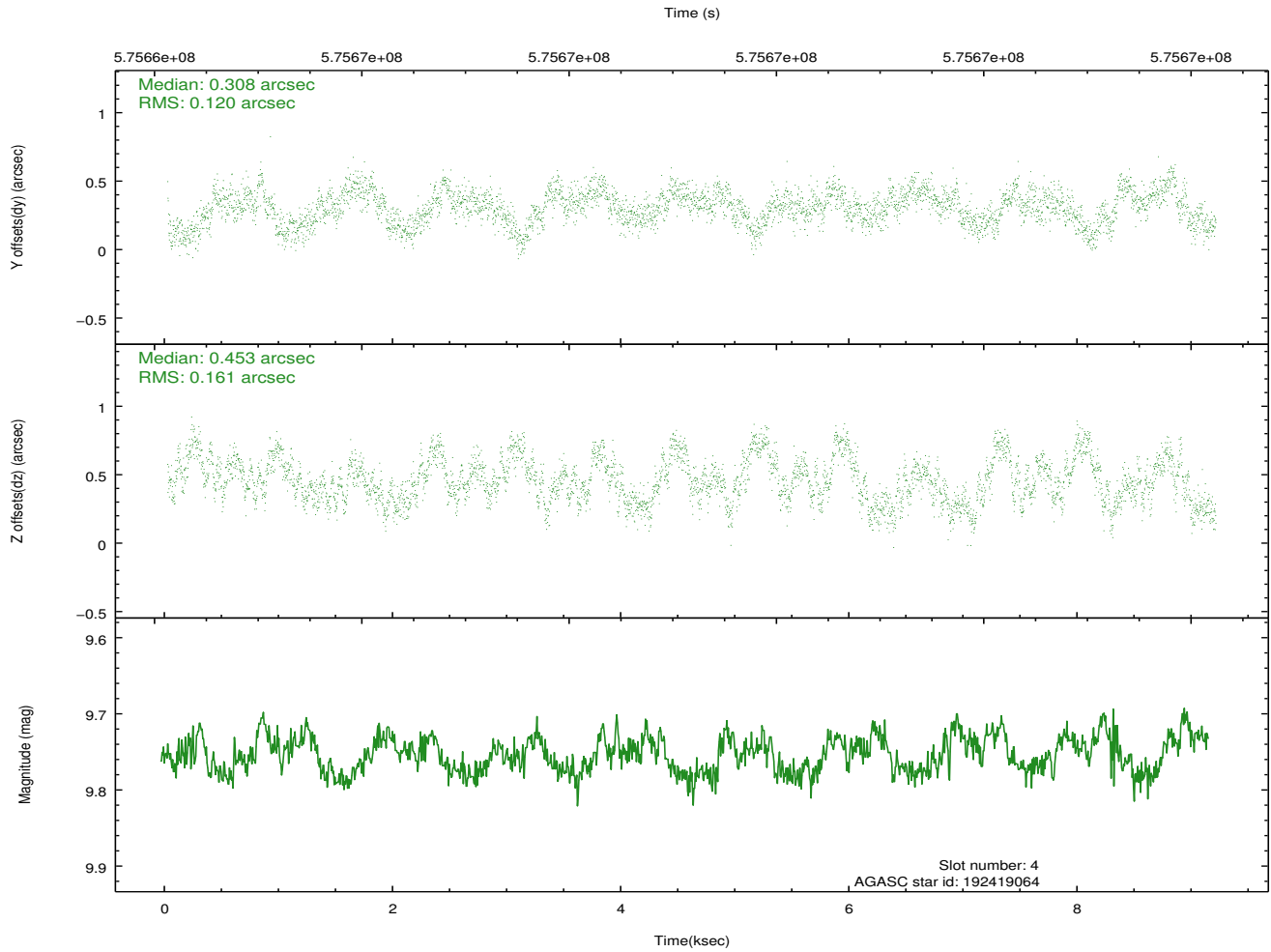
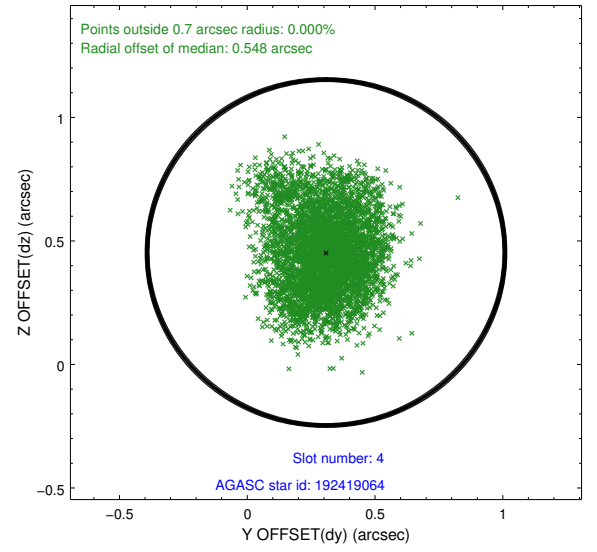
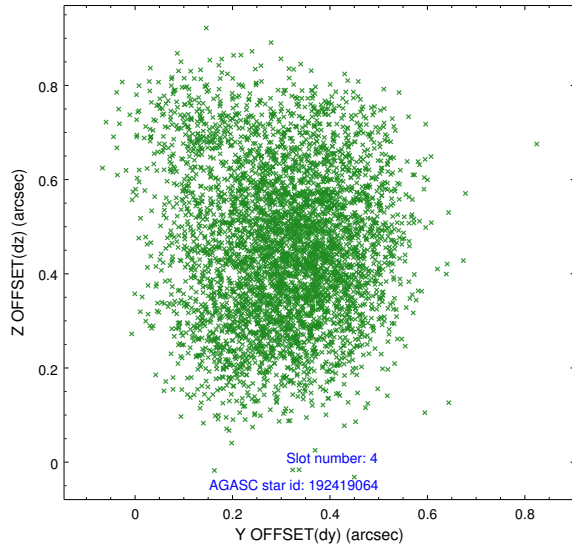
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	2242	-0.175	-0.145	0.007	0.011	0.000000	0.000000	-769.94	-1739.78
1	FID		ACIS-S-4	7.23	2242	0.441	0.123	0.005	0.010	0.000000	0.000000	2143.67	168.36
2	FID		ACIS-S-5	7.24	2242	-0.297	0.030	0.007	0.011	0.000000	0.000000	-1822.16	162.60
3	GUIDE	used	192418040	8.19	4482	-0.228	-0.348	0.093	0.157	212.096382	17.108010	-272.46	2084.47
4	GUIDE	used	192419064	9.75	4474	0.308	0.453	0.218	0.340	212.985284	17.129902	-2157.09	-323.77
5	GUIDE	used	192808144	8.73	4482	-0.042	0.274	0.155	0.239	212.694182	18.289160	1700.56	-2203.40
6	GUIDE	used	192815288	7.53	4483	-0.223	-0.293	0.107	0.173	212.182766	17.638914	1010.22	636.15
7	GUIDE	used	192807104	9.27	4482	0.192	-0.077	0.209	0.309	212.438083	18.326935	2362.84	-1614.07

## 2.4 Star Slots

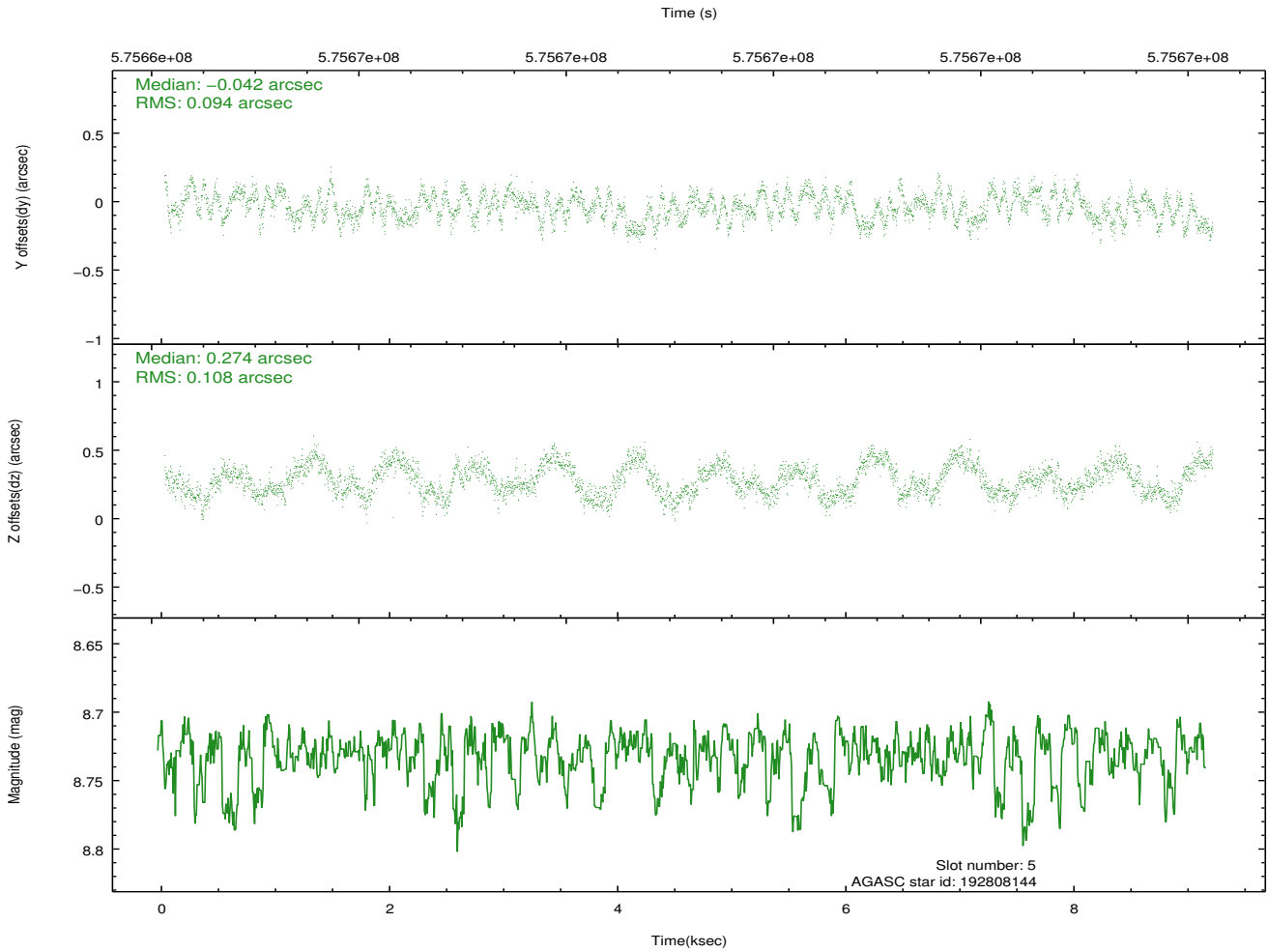
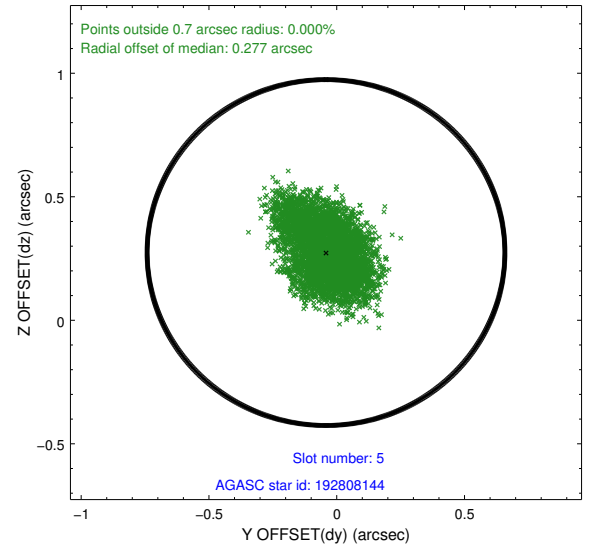
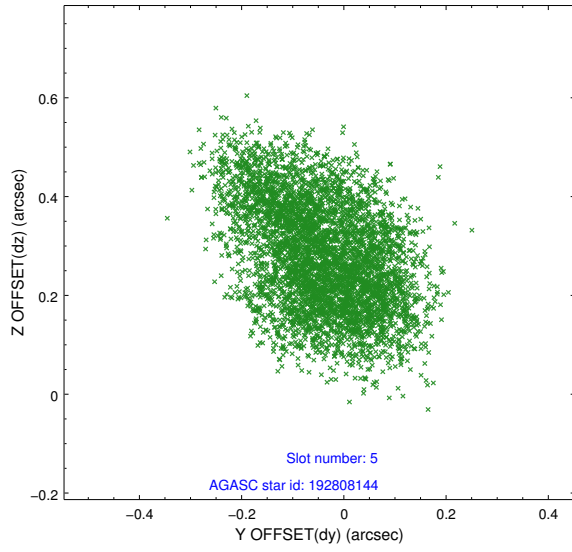
### 2.4.1 Slot 3



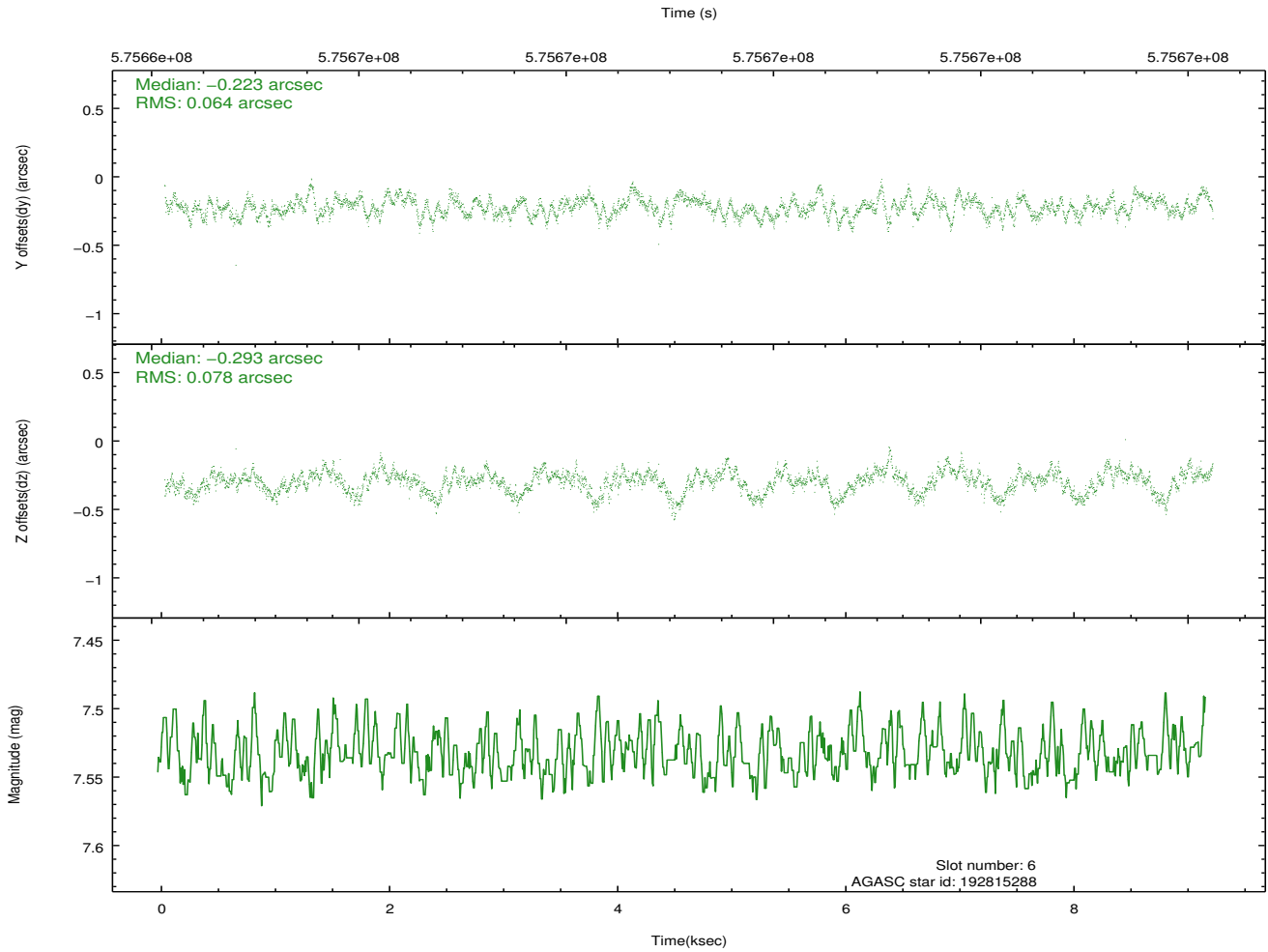
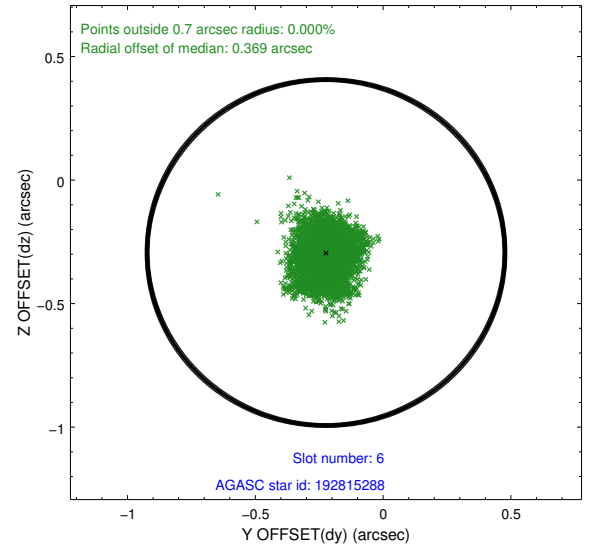
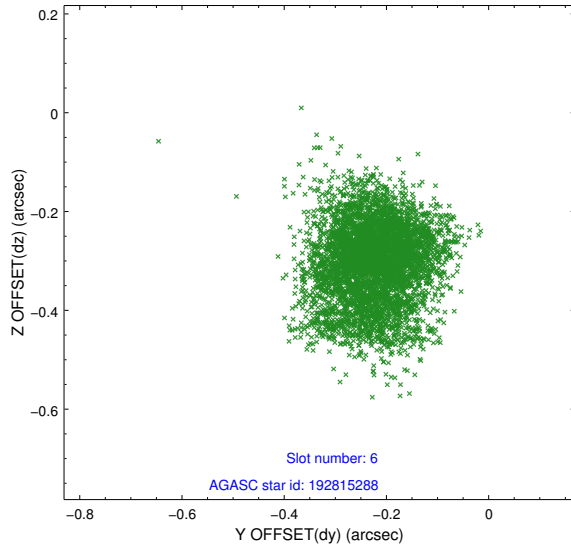
## 2.4.2 Slot 4



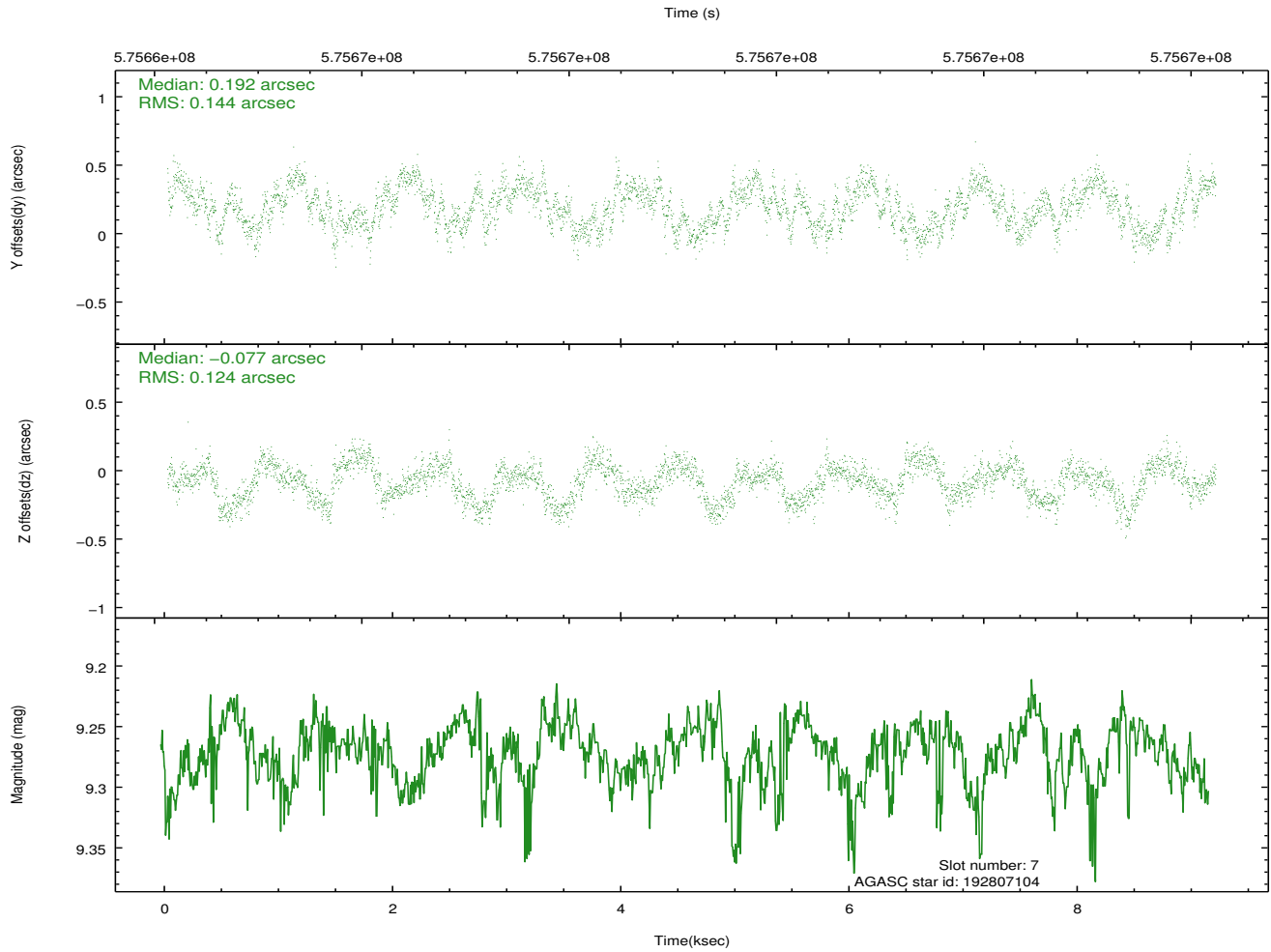
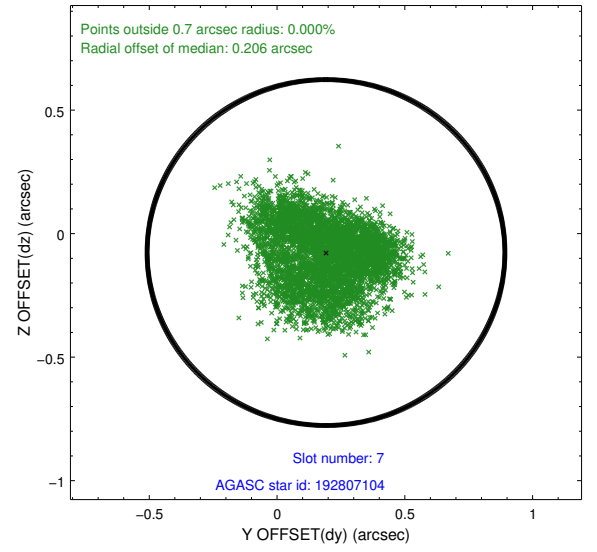
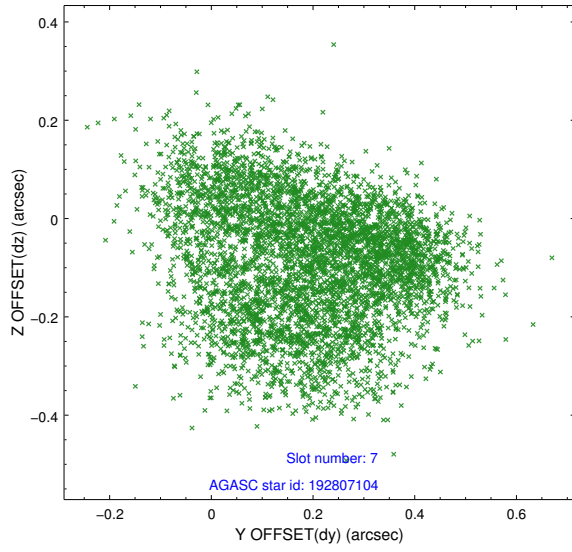
### 2.4.3 Slot 5



## 2.4.4 Slot 6

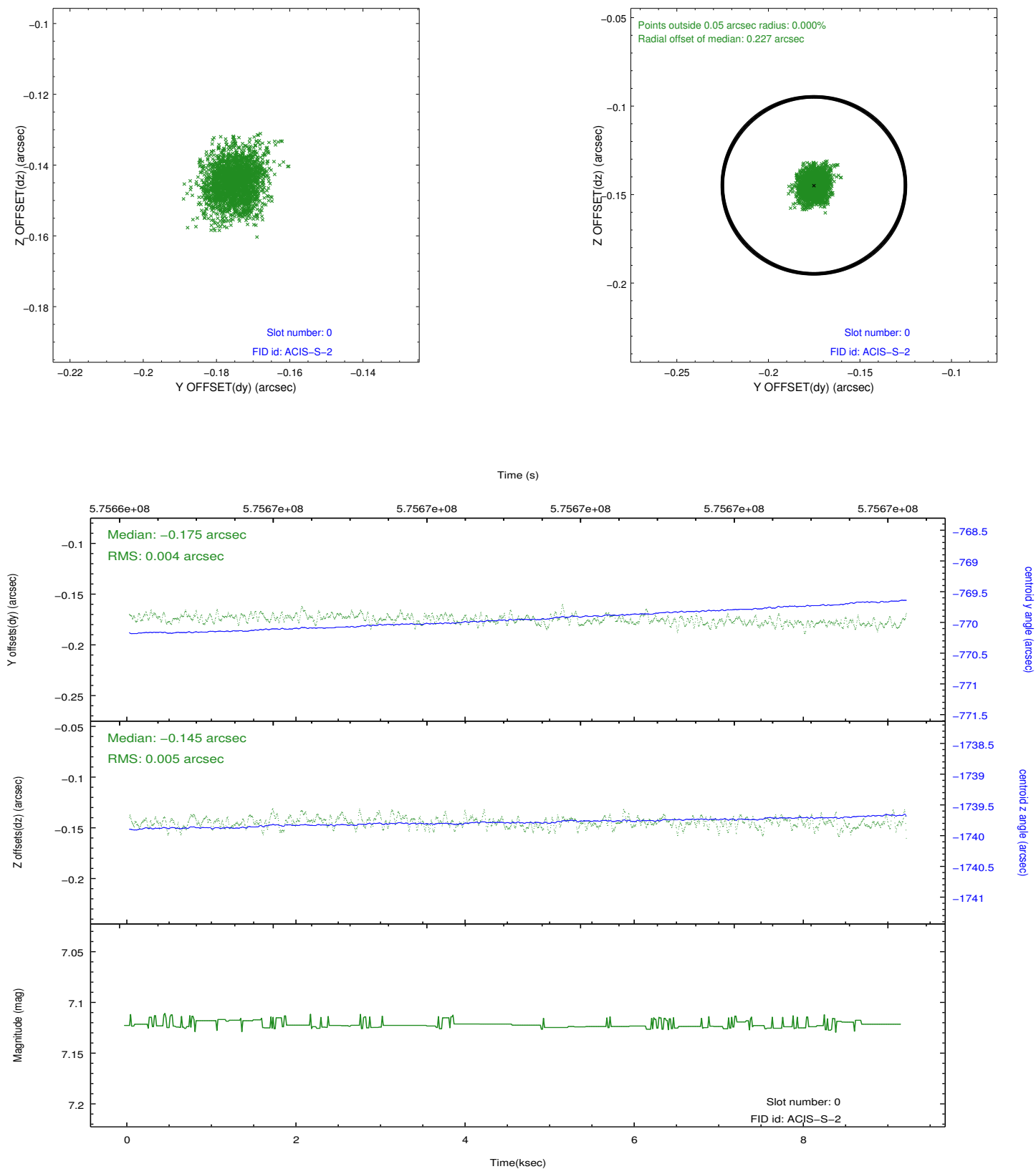


## 2.4.5 Slot 7

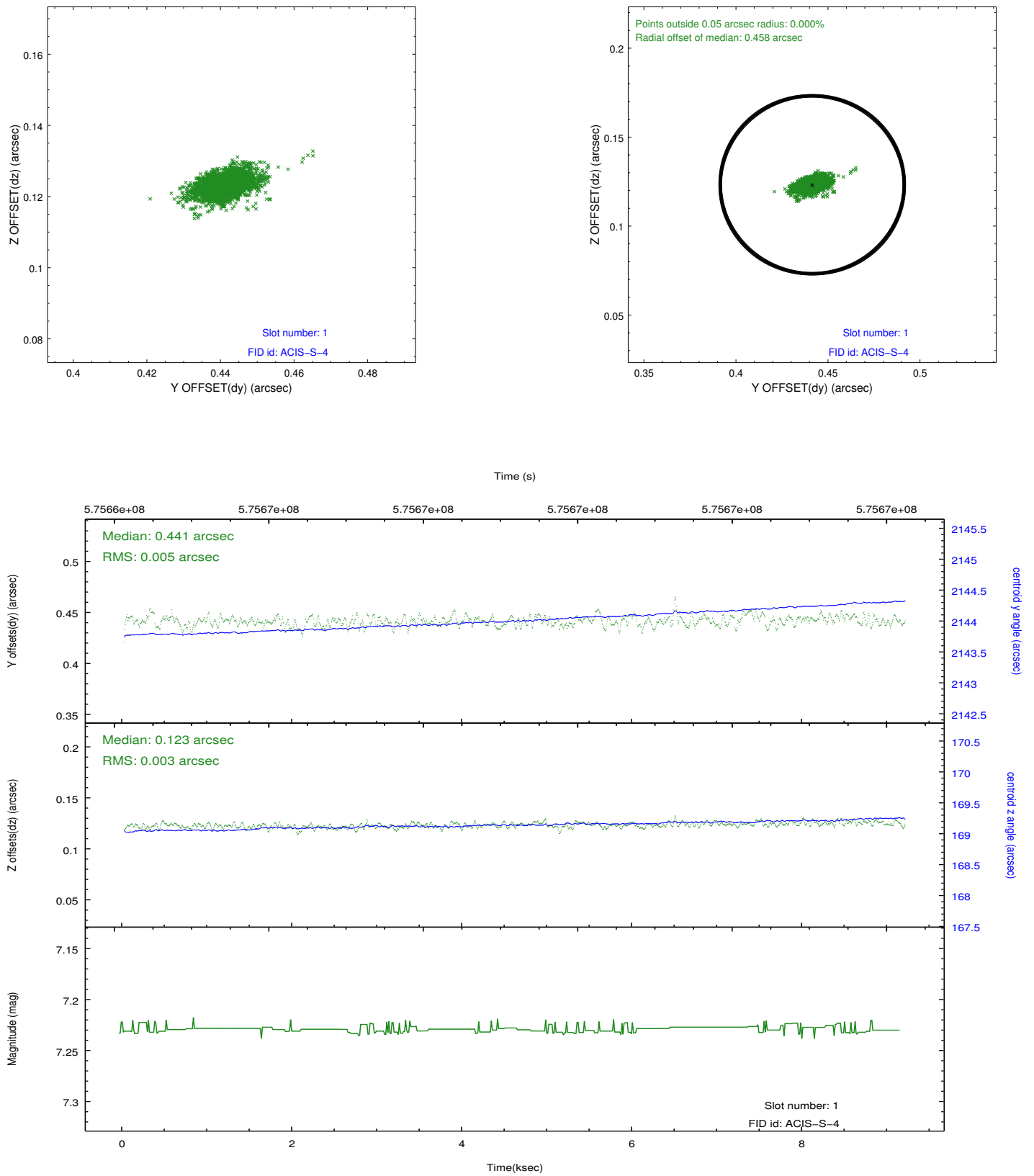


# 2.5 FID Slots

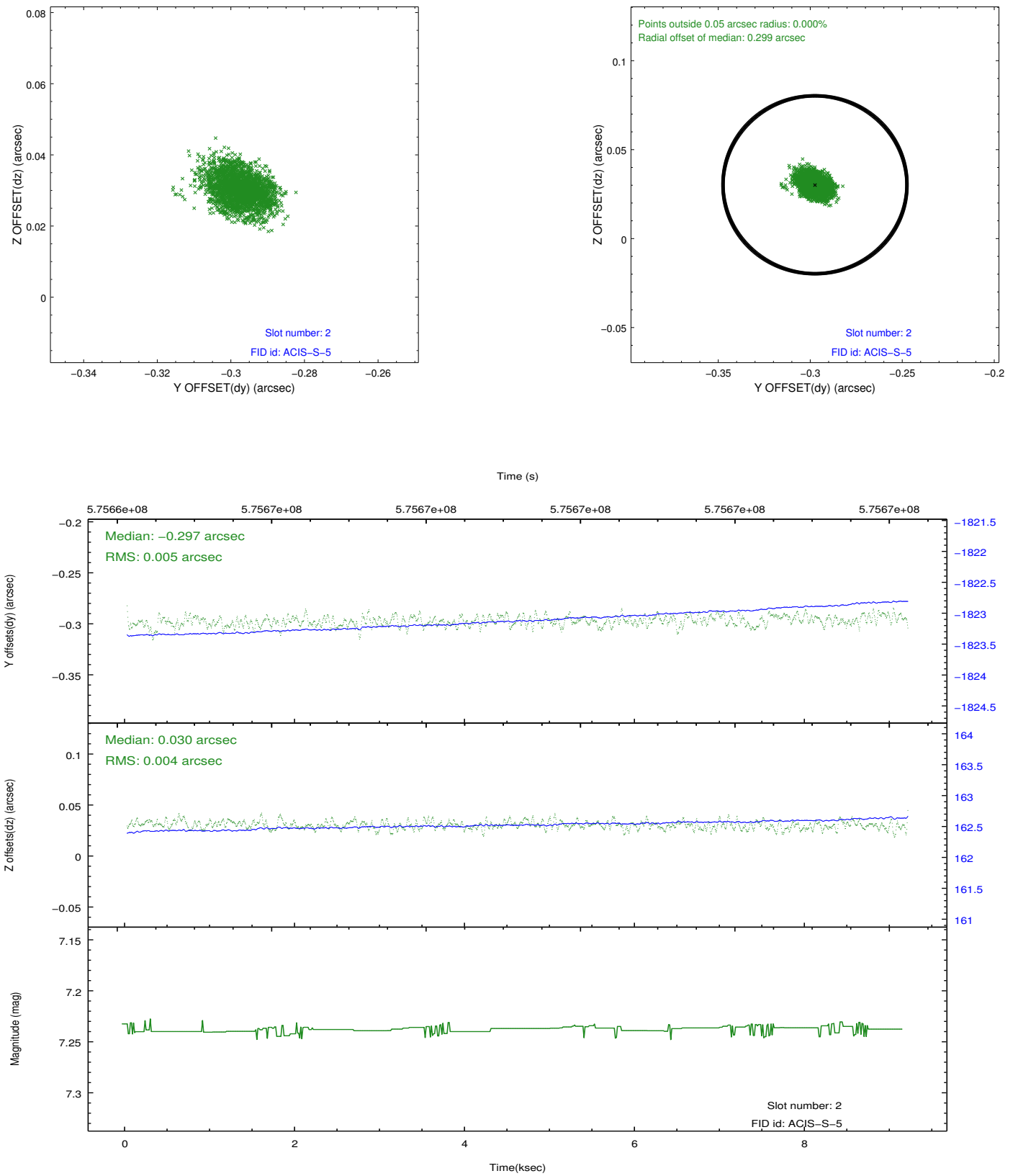
## 2.5.1 Slot 0



## 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)	2016.03.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.0551000697613

### A.2 Comments