

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 18788 - L2 Version 1  
Chandra X-Ray Center

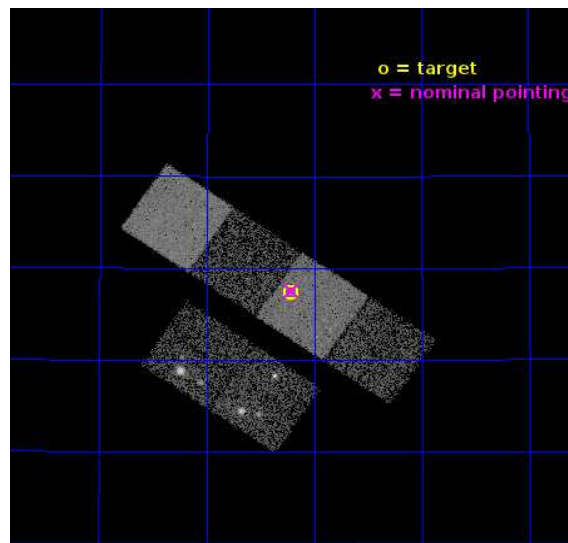
L2 Processing Date : Feb 25 2016

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# 1 Front

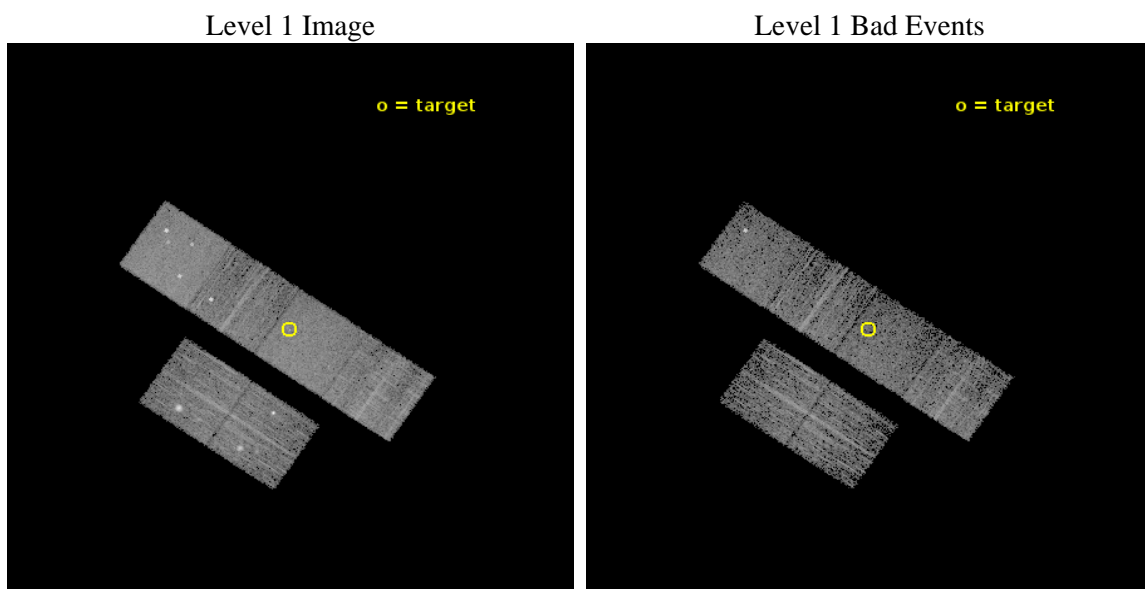
seq_num	401817	Sequence number
obs_id	18788	Observation id
title	Confirming X-ray brightening of the PSR J2032+4127 binary system	P
observer	Wynn Ho	Principal investigator
object	PSR J2032+4127	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	308.054583	Observer's specified target RA [deg]
dec_targ	41.456778	Observer's specified target Dec [deg]
ra_nom	308.05353662257	Nominal RA [deg]
dec_nom	41.459308059364	Nominal Dec [deg]
roll_nom	34.253691216993	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4956.139999032	Sum of GTIs [s]
livetime	4893.382370135	Livetime [s]
ontime2	4956.1810389757	Sum of GTIs [s]
ontime3	4956.0168789625	Sum of GTIs [s]
ontime5	4956.0989589691	Sum of GTIs [s]
ontime6	4956.0579190254	Sum of GTIs [s]
ontime7	4956.139999032	Sum of GTIs [s]
ontime8	4955.9758390188	Sum of GTIs [s]
l2events	61827	Number of level 2 events



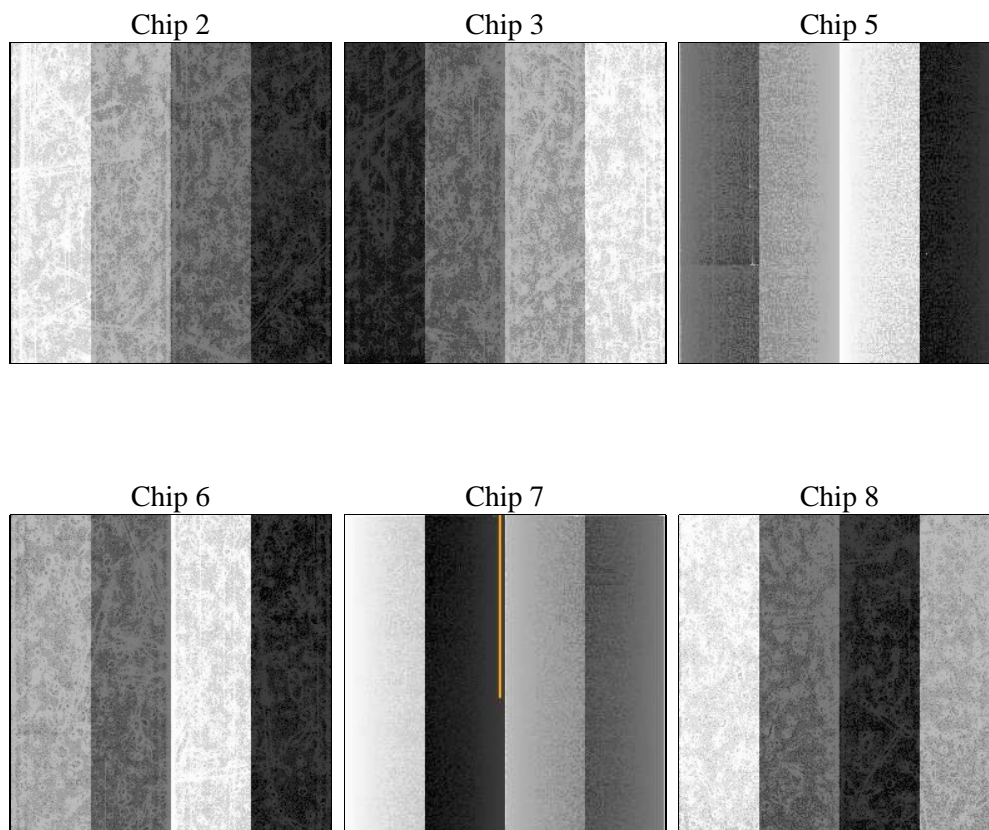
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	4956.139999032	Sum of GTIs [s]
caldbver	4.7.0	&#160	ontime2	4956.1810389757	Sum of GTIs [s]
date	2016-02-25T13:58:02	Date and time of file creation	ontime3	4956.0168789625	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	4956.0989589691	Sum of GTIs [s]
			ontime6	4956.0579190254	Sum of GTIs [s]
			ontime7	4956.139999032	Sum of GTIs [s]
			ontime8	4955.9758390188	Sum of GTIs [s]
			l1events	235106	Number of level 1 events

### 2.1.4 Events

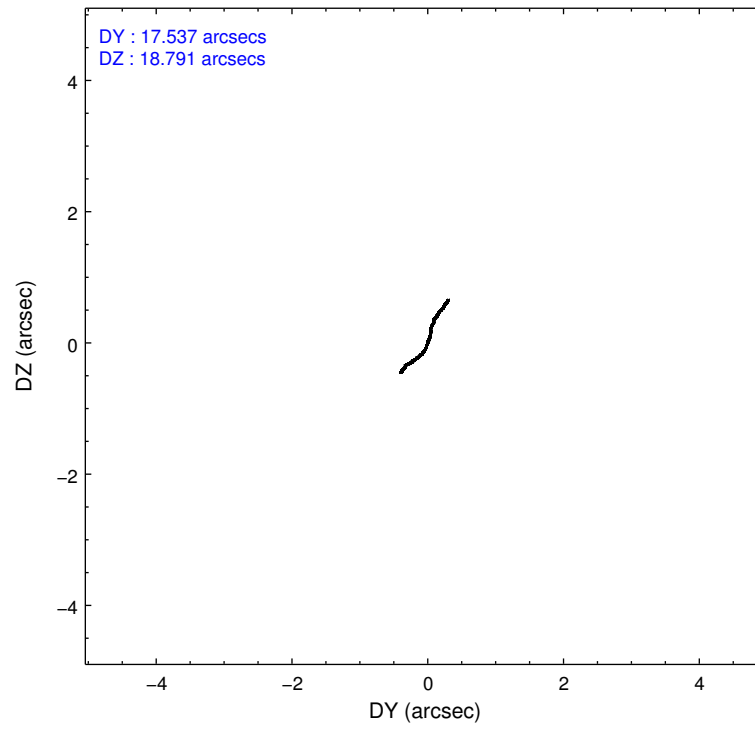
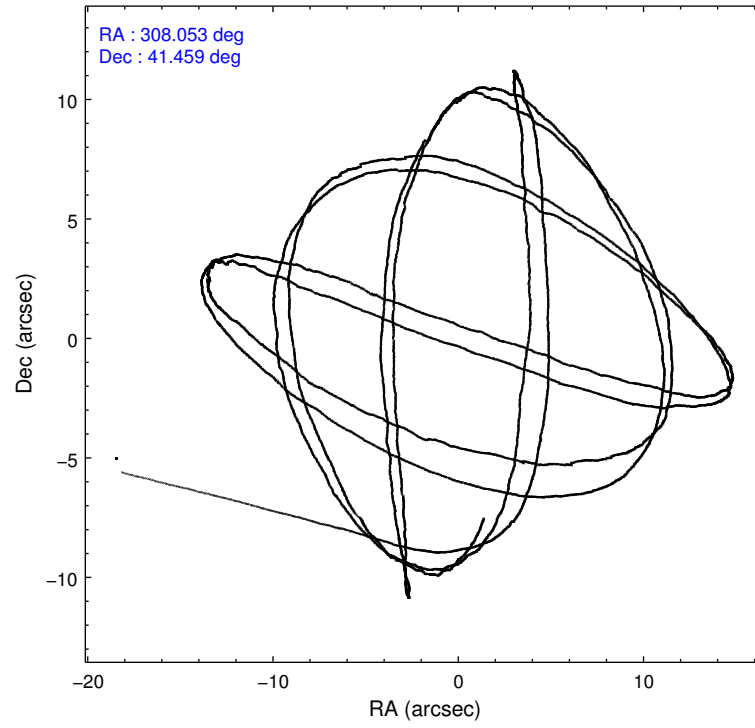
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	34427	33691	51587	33433	41466	40502	grade 0 events	4375	4422	2914	3235	1764	3616
rejected events	27106	26398	26524	27709	22769	29130		12%	13%	5%	9%	4%	8%
rejected %	78%	78%	51%	82%	54%	71%	grade 1 events	39	31	110	26	49	31
								0%	0%	0%	0%	0%	0%
							grade 2 events	1243	1165	7828	906	4030	2699
								3%	3%	15%	2%	9%	6%
							grade 3 events	473	463	742	373	1468	1078
								1%	1%	1%	1%	3%	2%
							grade 4 events	487	492	731	378	1556	998
								1%	1%	1%	1%	3%	2%
							grade 5 events	1317	1443	3439	1435	4003	2291
								3%	4%	6%	4%	9%	5%
							grade 6 events	754	759	12878	843	9901	2990
								2%	2%	24%	2%	23%	7%
							grade 7 events	25739	24916	22945	26237	18695	26799
								74%	73%	44%	78%	45%	66%

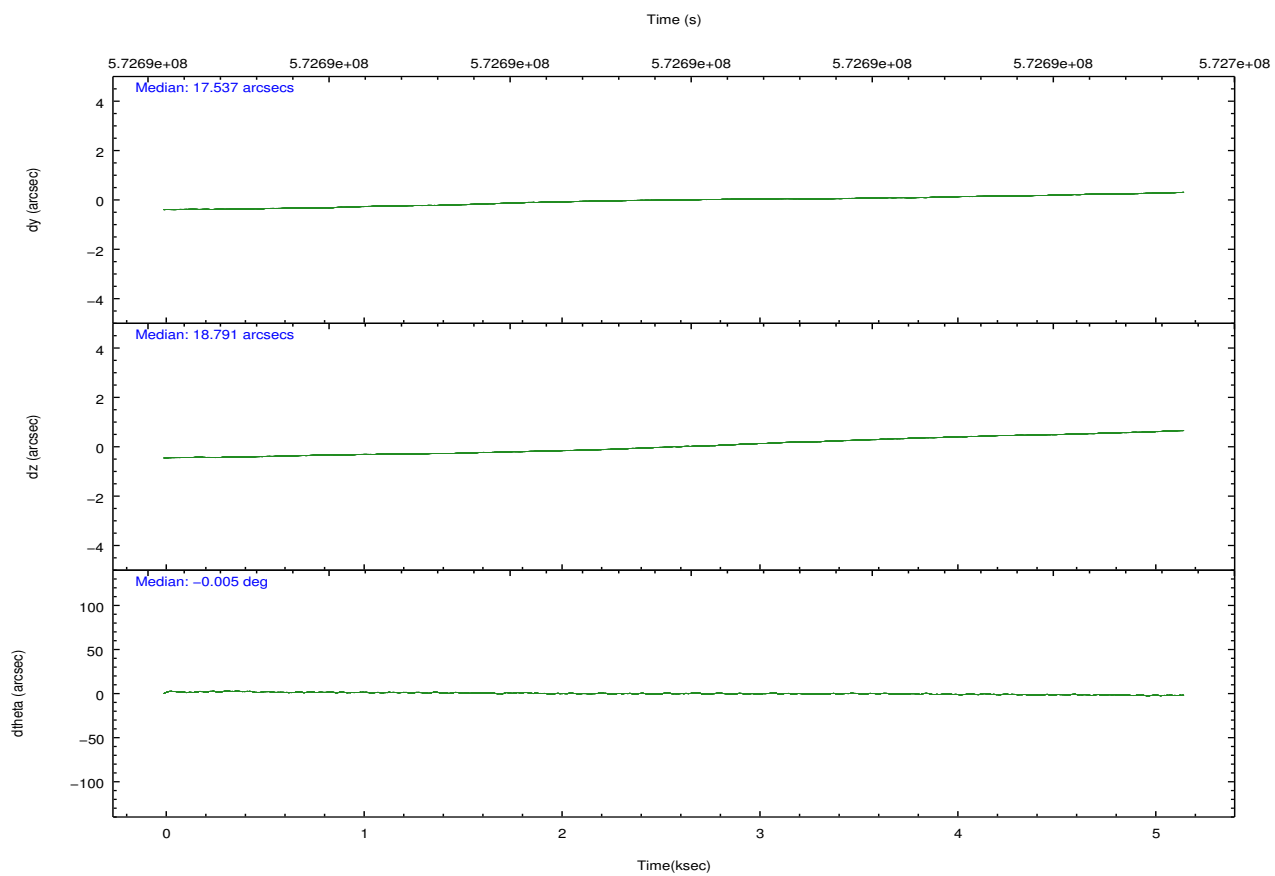
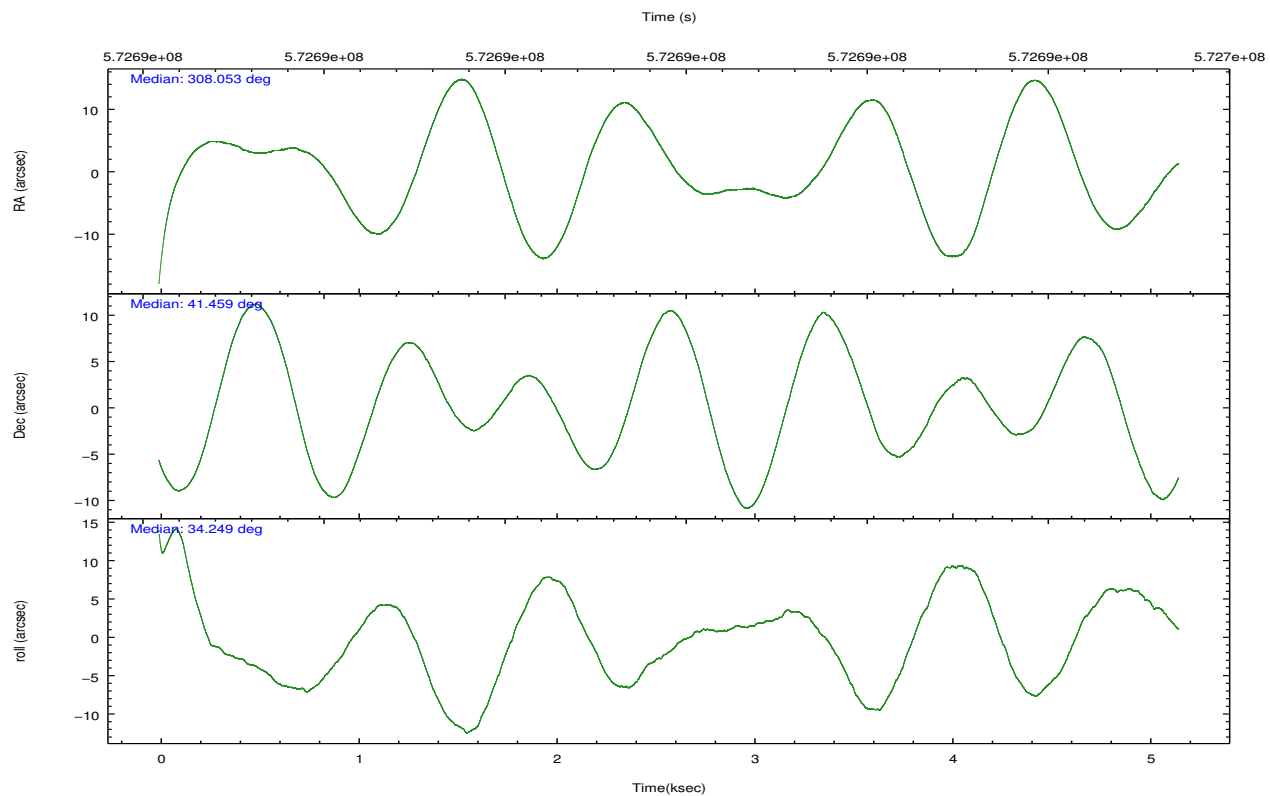


## 2.2 Compared Parameters

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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	308.038094	308.0535366225695	CCD I2 on	O3	Y
[deg] Pointing Dec	41.434511	41.45930805936434	CCD I3 on	O2	Y
[deg] Pointing Roll	34.107328	34.25369121699319	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	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	O4	Y
[s] Observation start time (MET)	572689486.184000	572688448.30656	CCD S5 on	N	N
Observation start date	2016-02-24T08:23:38	2016-02-24T08:07:28	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	572694486.184000	572695522.34446	On-chip summing requested	N	N
Observation end date	2016-02-24T09:46:58	2016-02-24T10:05:22	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



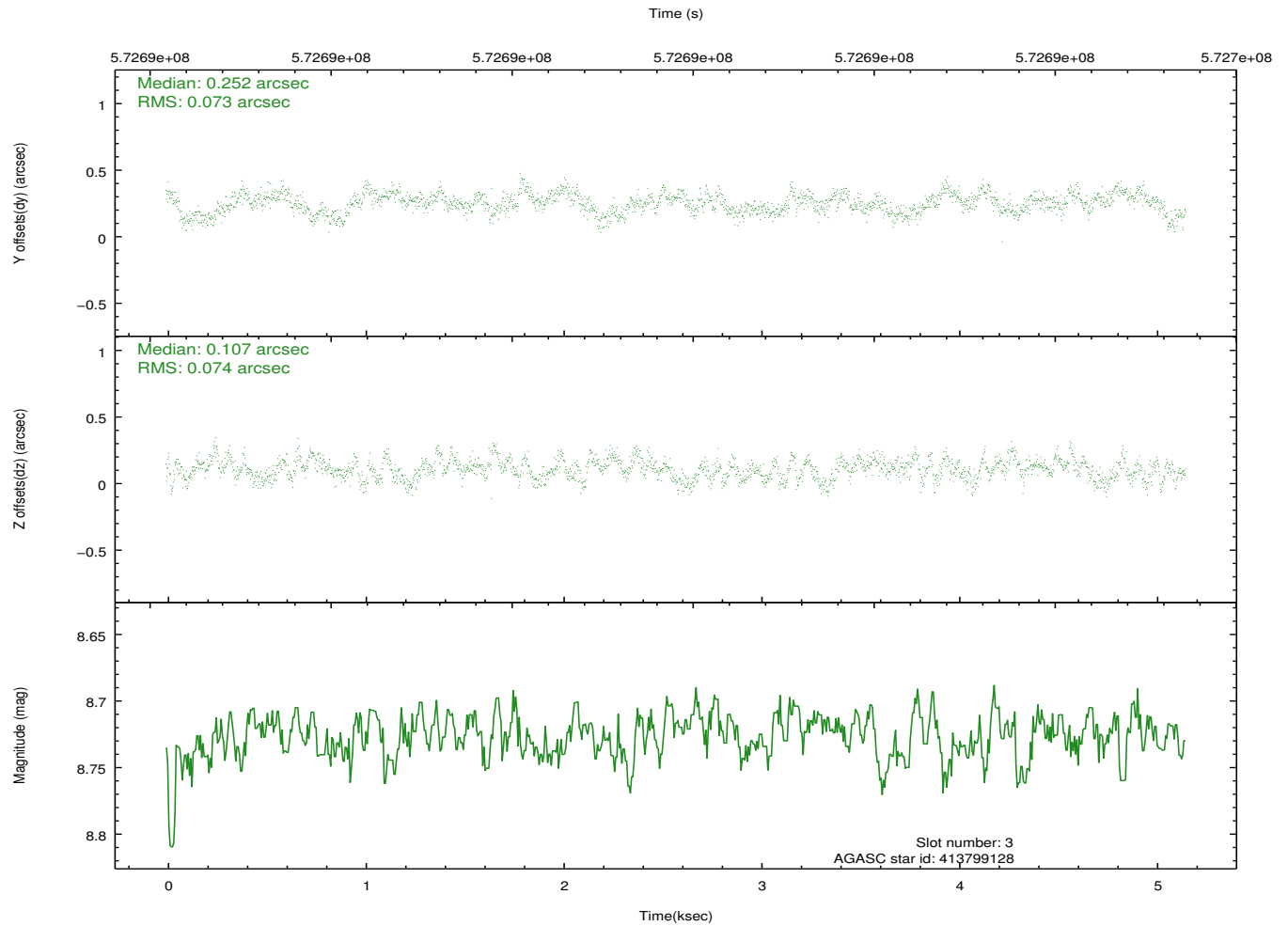
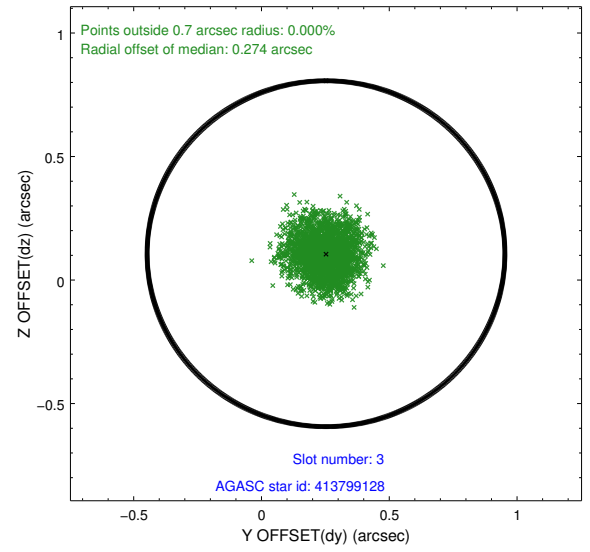
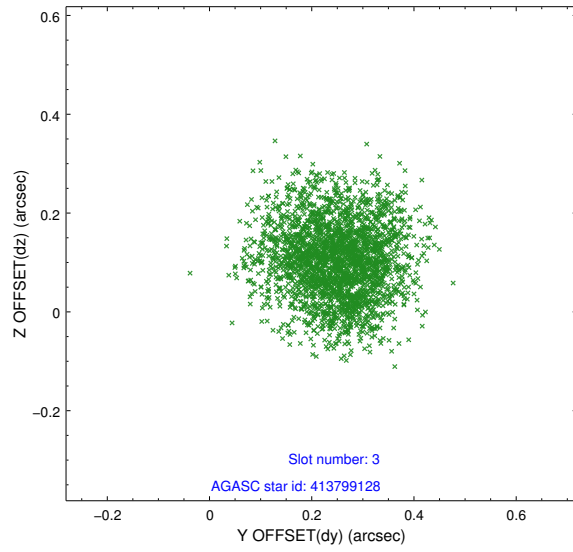


### Slot Statistics

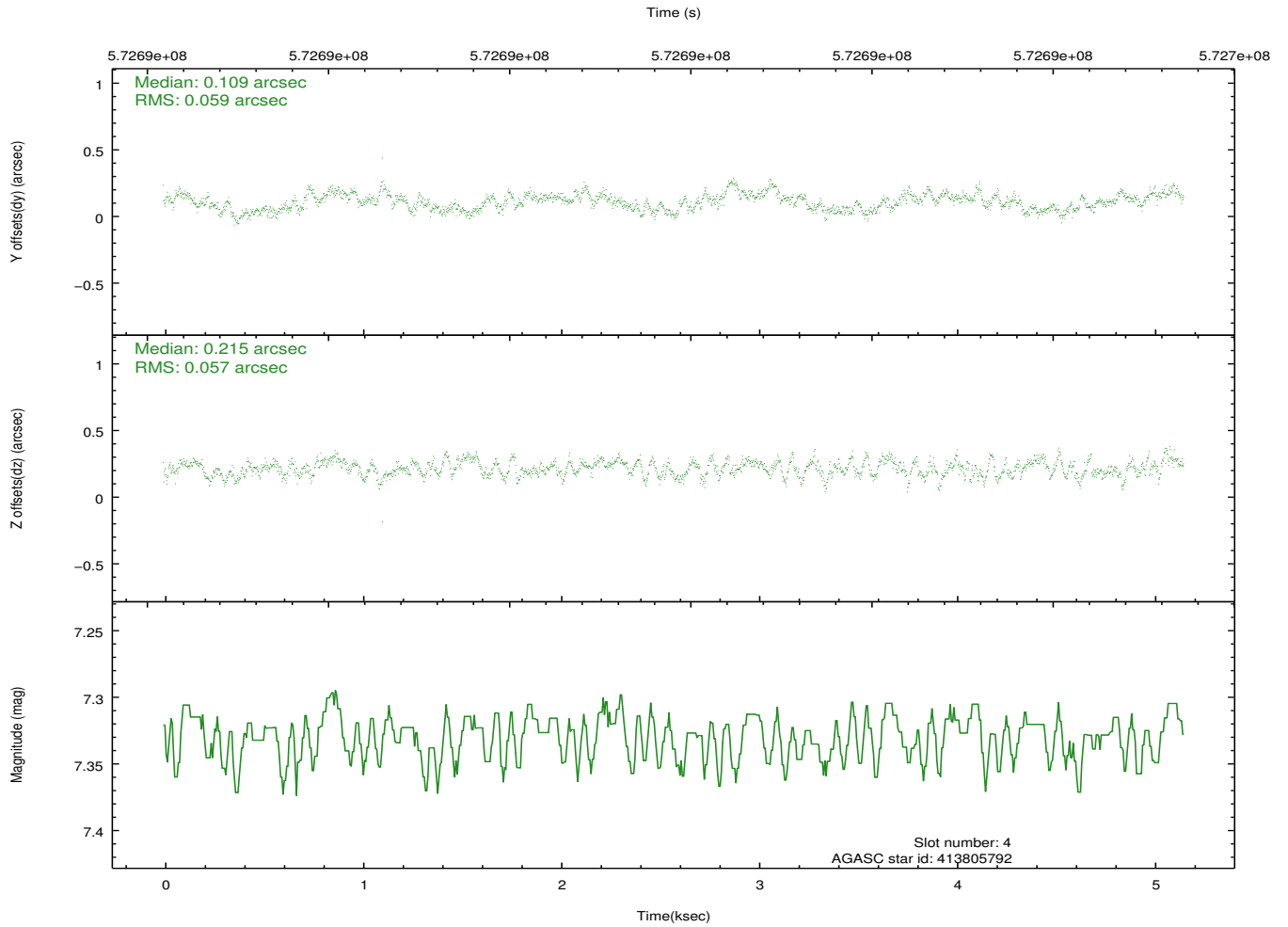
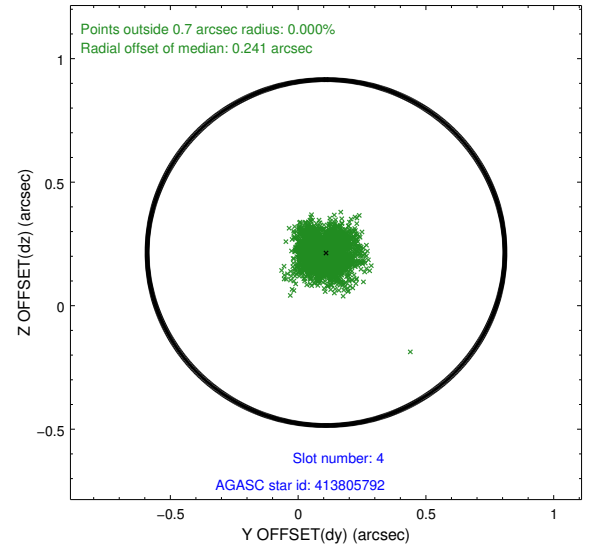
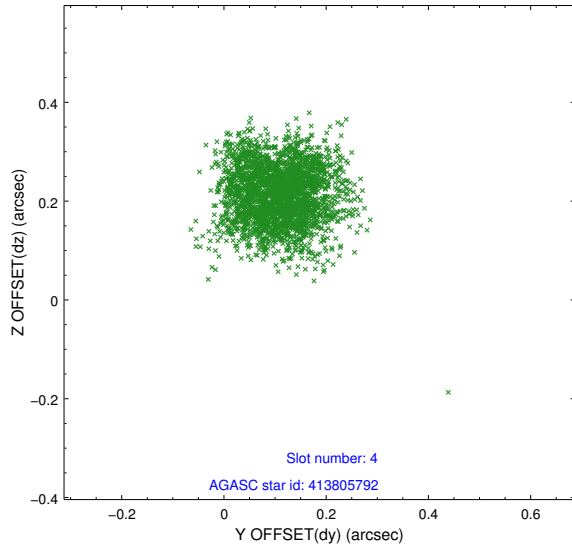
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	1257	-0.170	-0.151	0.012	0.022	0.000000	0.000000	-770.68	-1740.42
1	FID		ACIS-S-4	7.21	1257	0.447	0.122	0.009	0.016	0.000000	0.000000	2142.65	167.14
2	FID		ACIS-S-5	7.23	1257	-0.308	0.038	0.012	0.020	0.000000	0.000000	-1822.17	162.03
3	GUIDE	used	413799128	8.73	2514	0.252	0.107	0.112	0.176	307.948219	41.110579	-854.38	-828.42
4	GUIDE	used	413805792	7.33	2515	0.109	0.215	0.089	0.139	307.778748	40.858024	-1746.94	-1320.96
5	GUIDE	used	414324952	9.01	2513	-0.273	-0.386	0.119	0.193	307.998954	42.060645	1176.82	1924.63
6	GUIDE	used	414326136	7.35	2515	-0.079	0.036	0.086	0.131	308.256176	41.473642	567.96	-211.06
7	GUIDE	used	414328464	9.16	2513	-0.000	0.030	0.127	0.200	308.778827	41.333671	1460.03	-1415.84

## 2.4 Star Slots

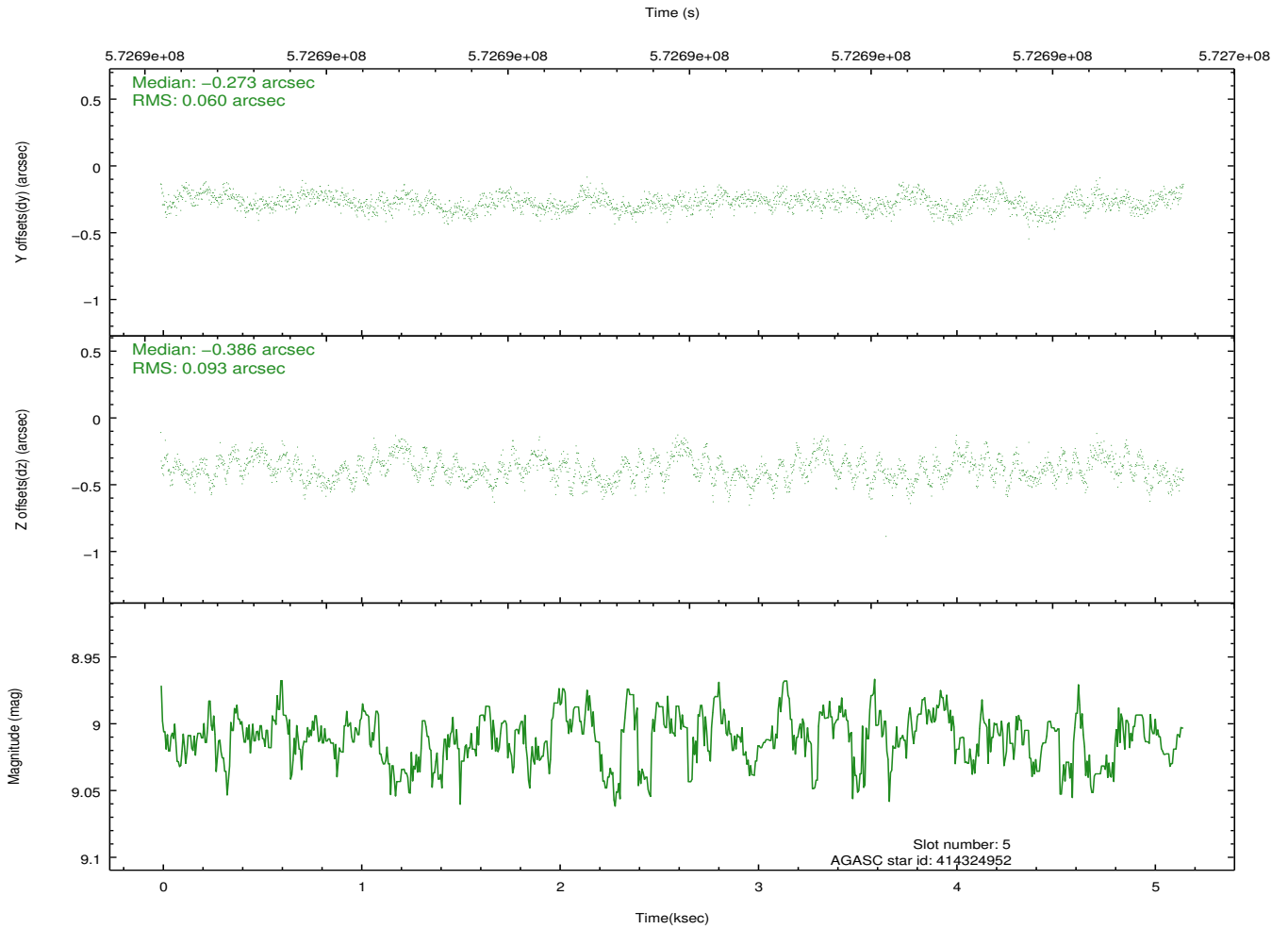
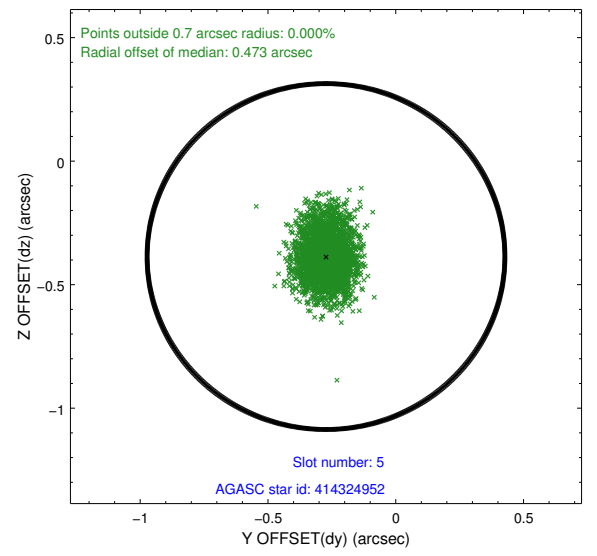
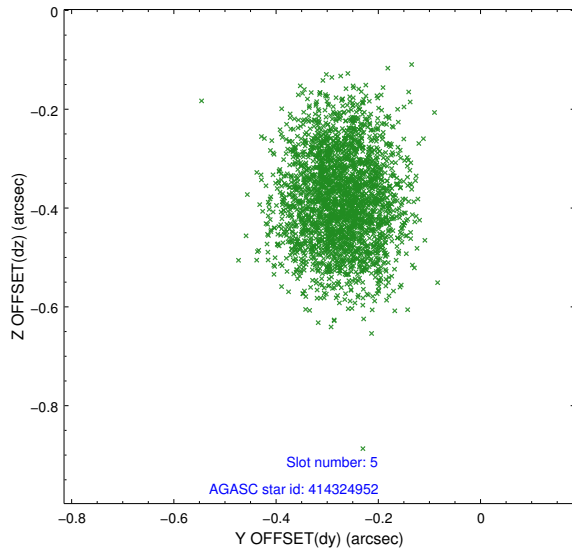
### 2.4.1 Slot 3



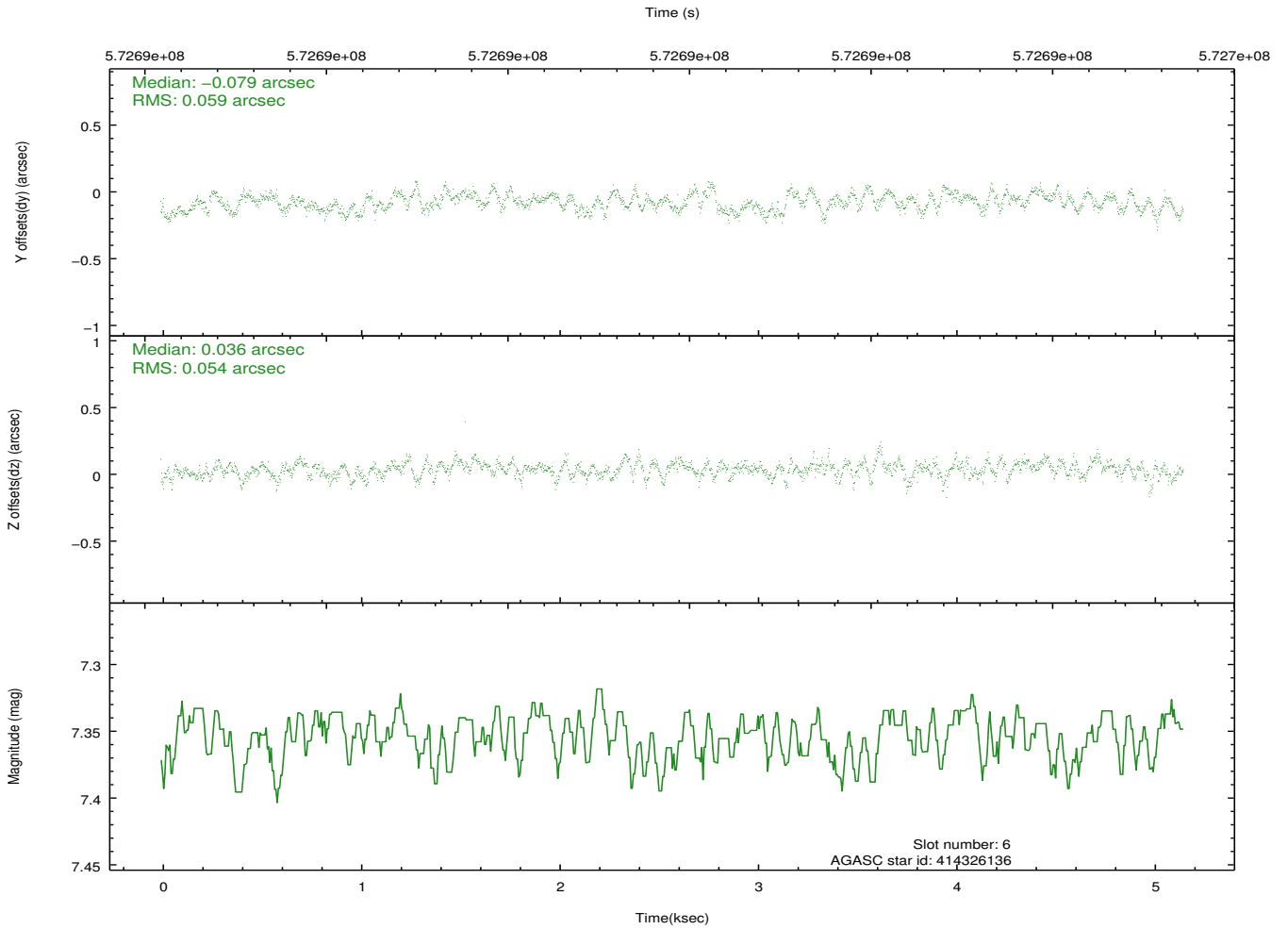
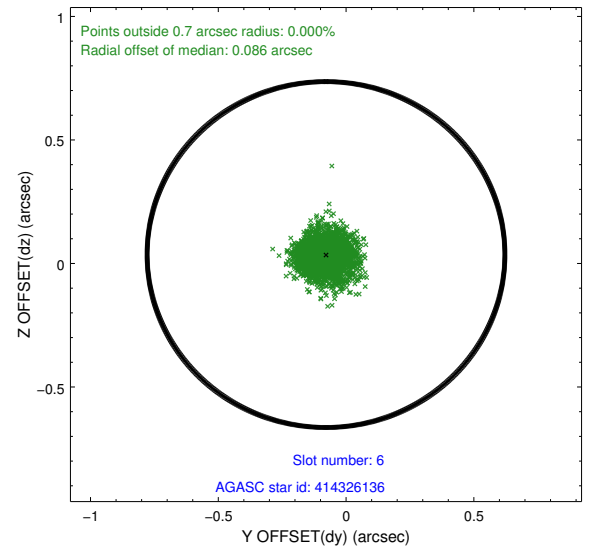
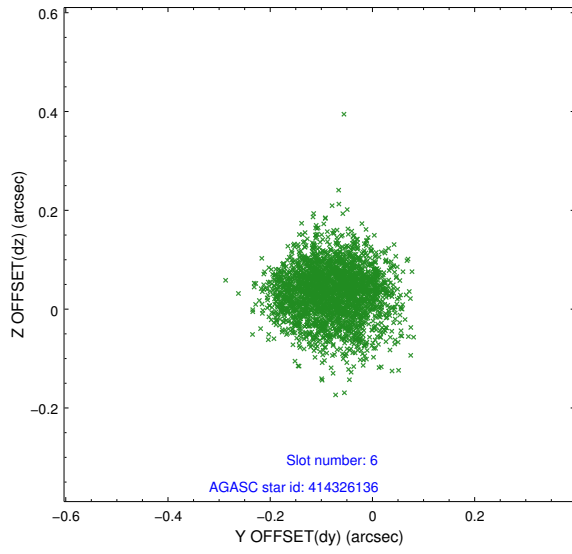
## 2.4.2 Slot 4



### 2.4.3 Slot 5

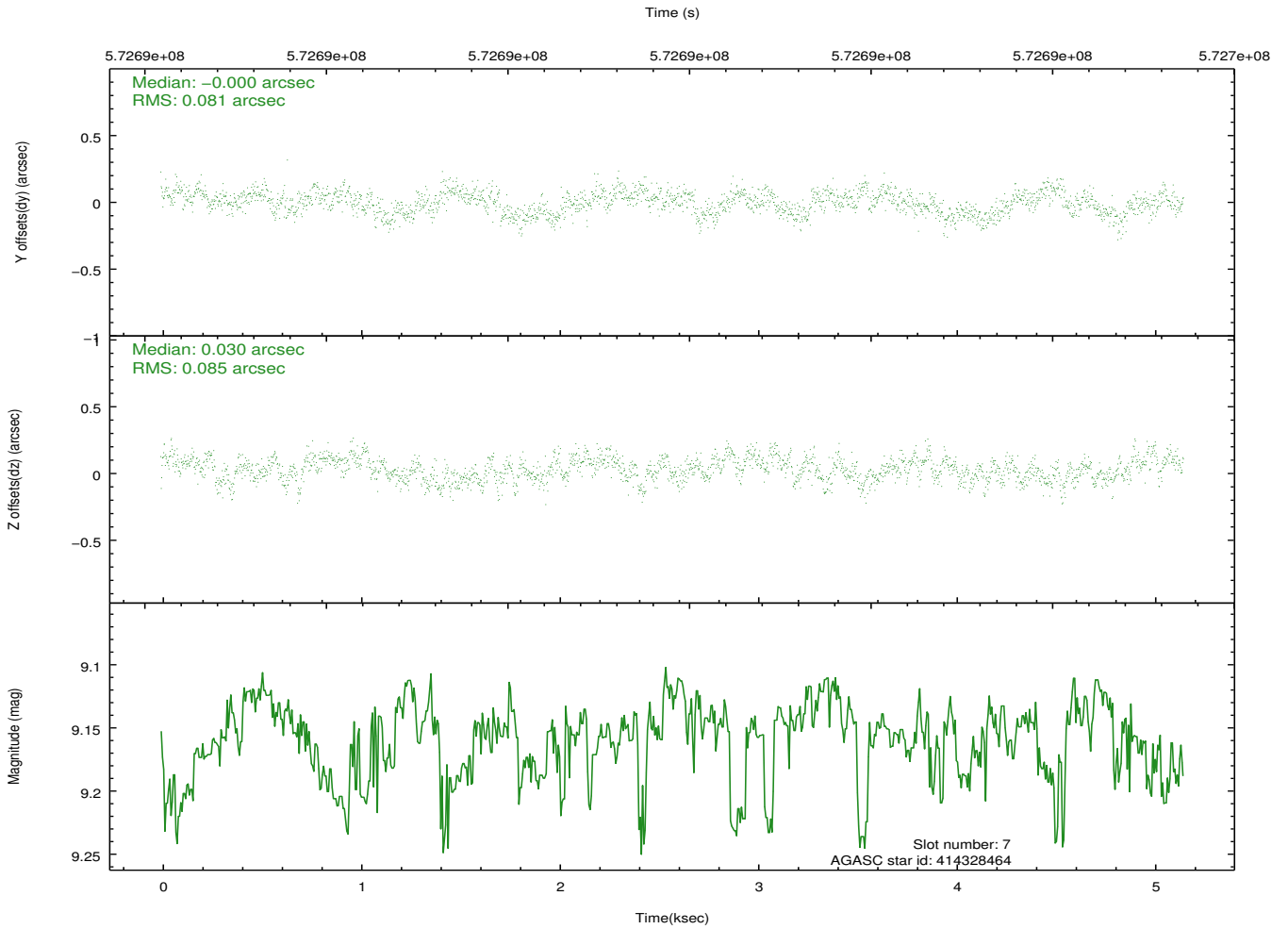
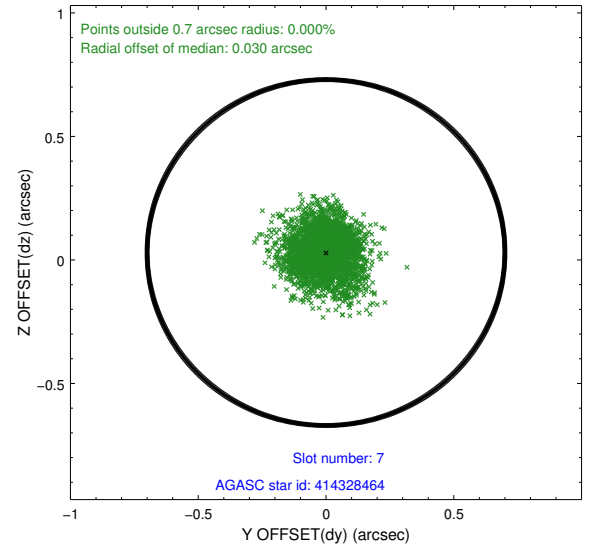
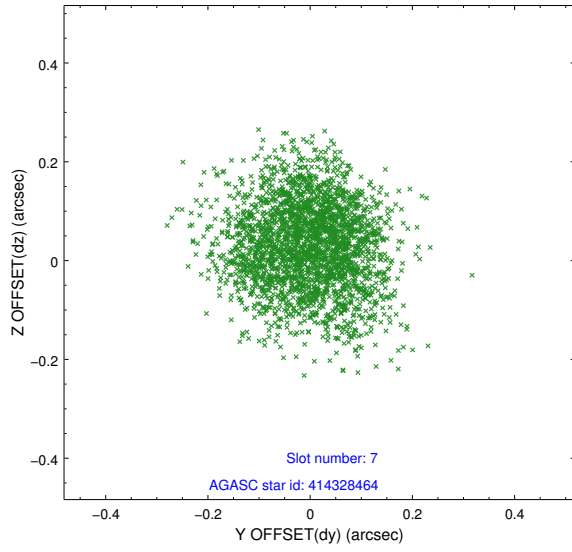


## 2.4.4 Slot 6



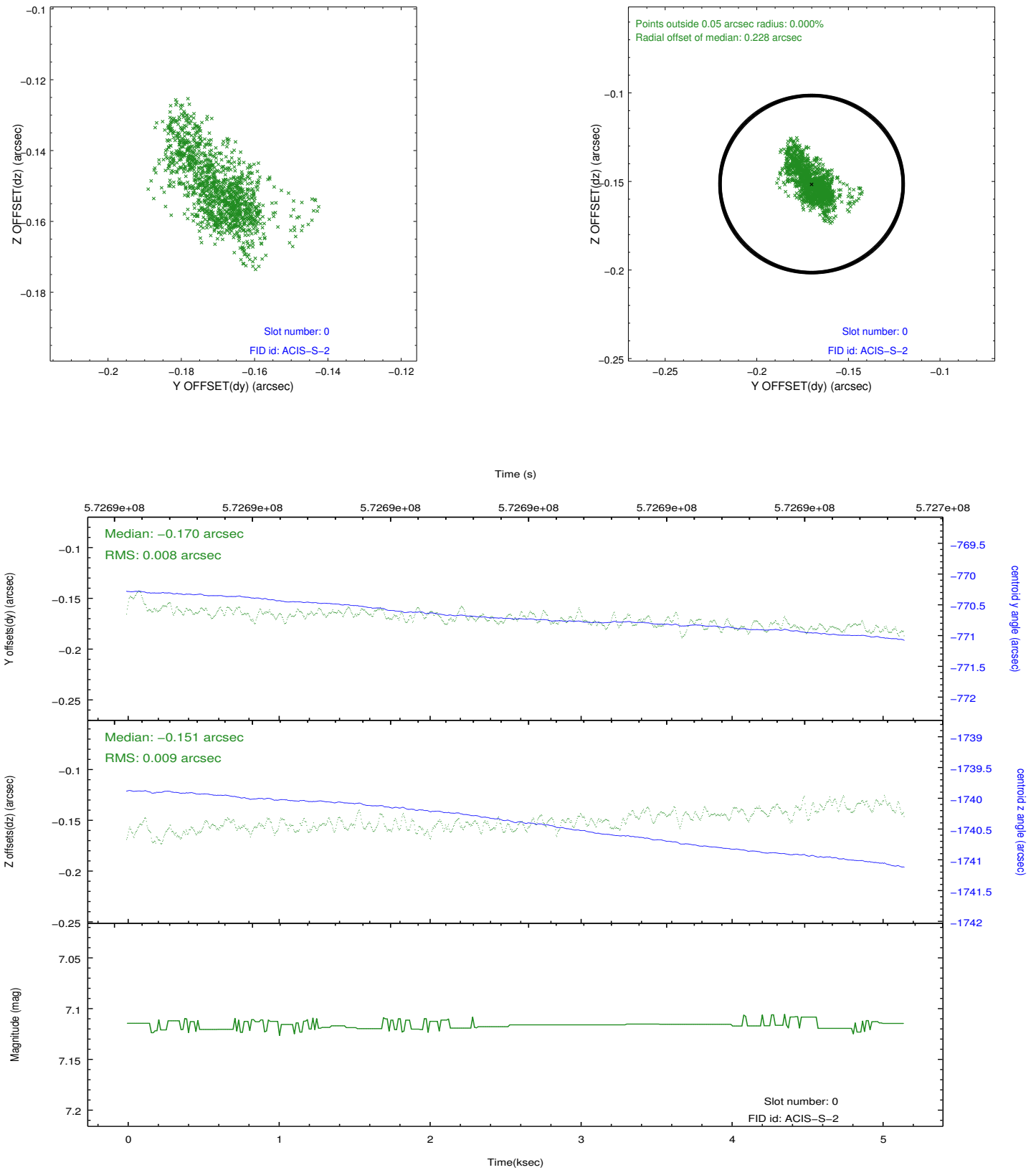


## 2.4.5 Slot 7

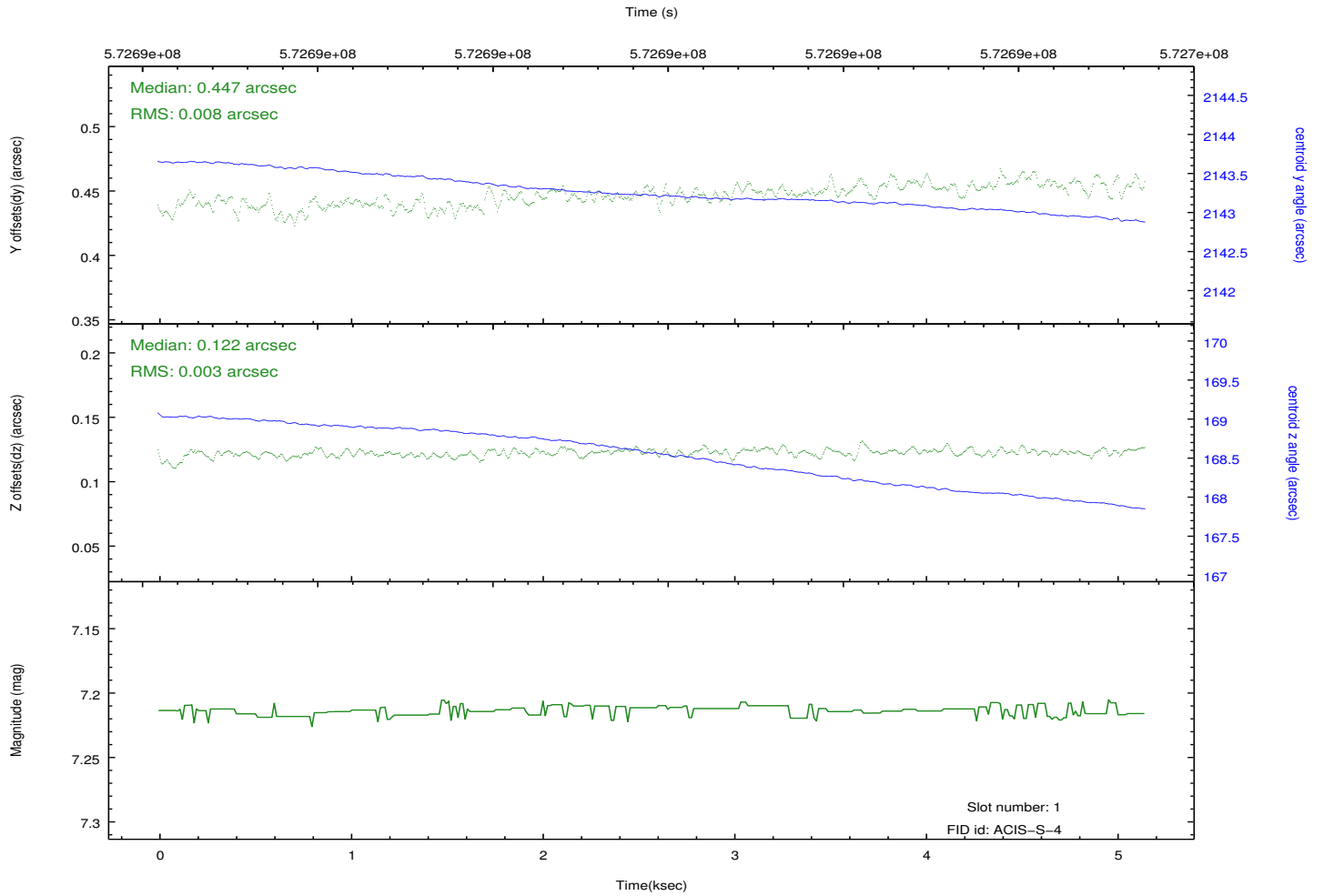
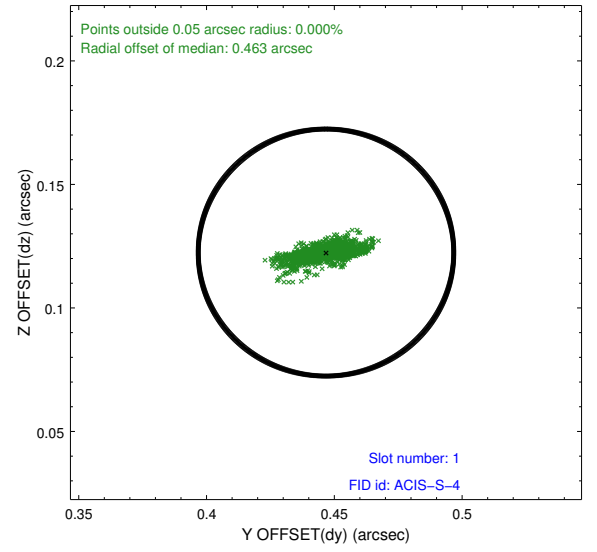
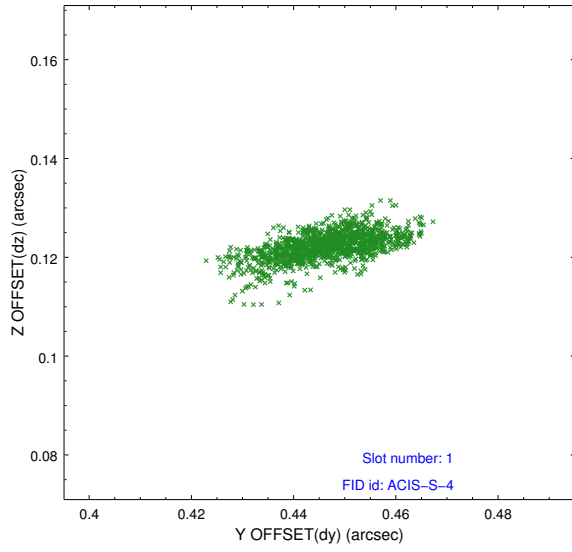


## 2.5 FID Slots

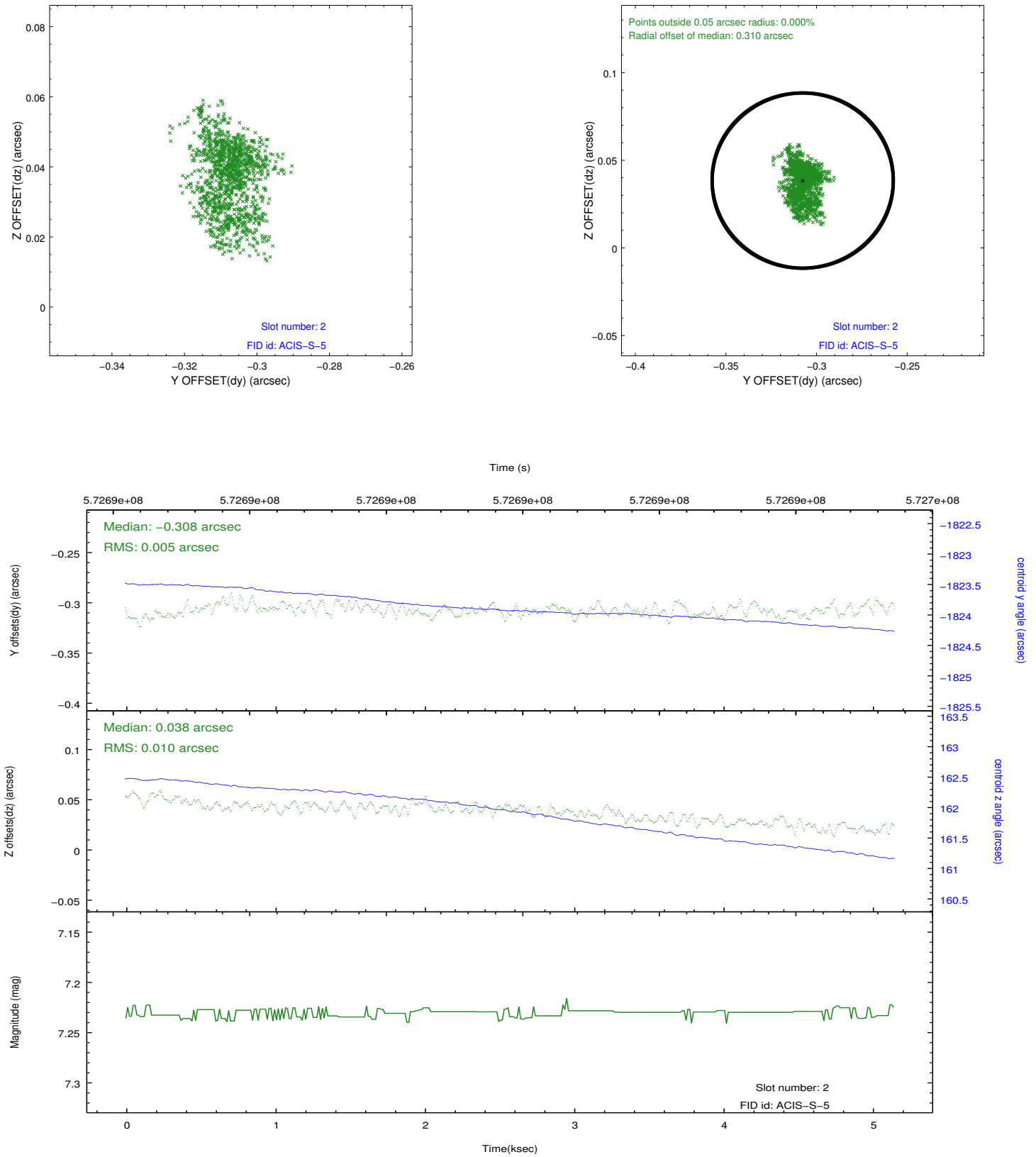
### 2.5.1 Slot 0



## 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)	2016.02.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.956139999032

### A.2 Comments