

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 14526 - L2 Version 1  
Chandra X-Ray Center

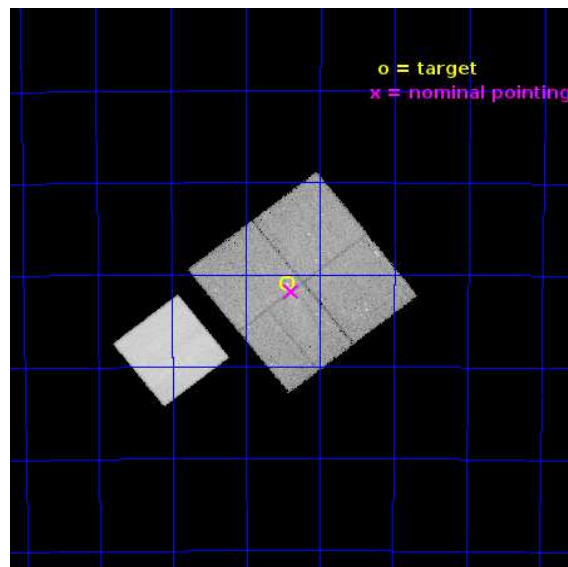
L2 Processing Date : Sep 25 2014

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# 1 Front

seq_num	501811	Sequence number
obs_id	14526	Observation id
title	A comparative study of two outstanding pulsar tails	Proposal title
observer	Prof Oleg Kargaltsev	Principal investigator
object	PSR J1509-5850 nebula	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	227.362917	Observer's specified target RA [deg]
dec_targ	-58.848917	Observer's specified target Dec [deg]
ra_nom	227.34624991126	Nominal RA [deg]
dec_nom	-58.863744759535	Nominal Dec [deg]
roll_nom	231.73183048852	Nominal Roll [deg]
revision	1	Processing version of data
ontime	95100.965572655	Sum of GTIs [s]
livetime	93858.401445136	Livetime [s]
ontime0	95103.983492792	Sum of GTIs [s]
ontime1	95104.024453104	Sum of GTIs [s]
ontime2	95110.347483575	Sum of GTIs [s]
ontime3	95100.965572655	Sum of GTIs [s]
ontime7	95110.429563582	Sum of GTIs [s]
l2events	316190	Number of level 2 events

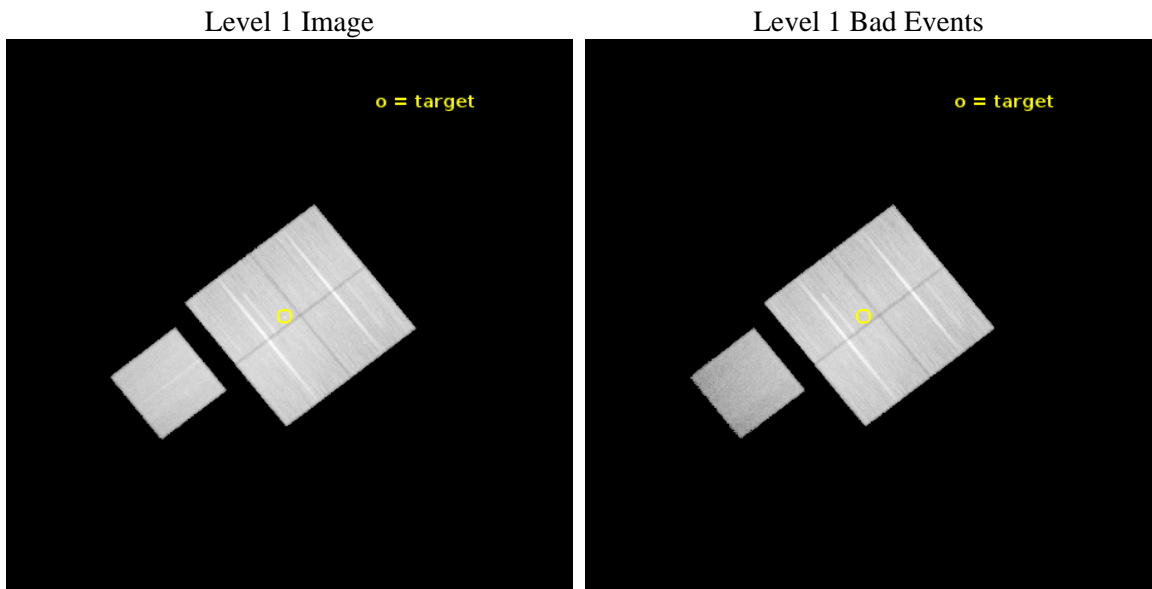




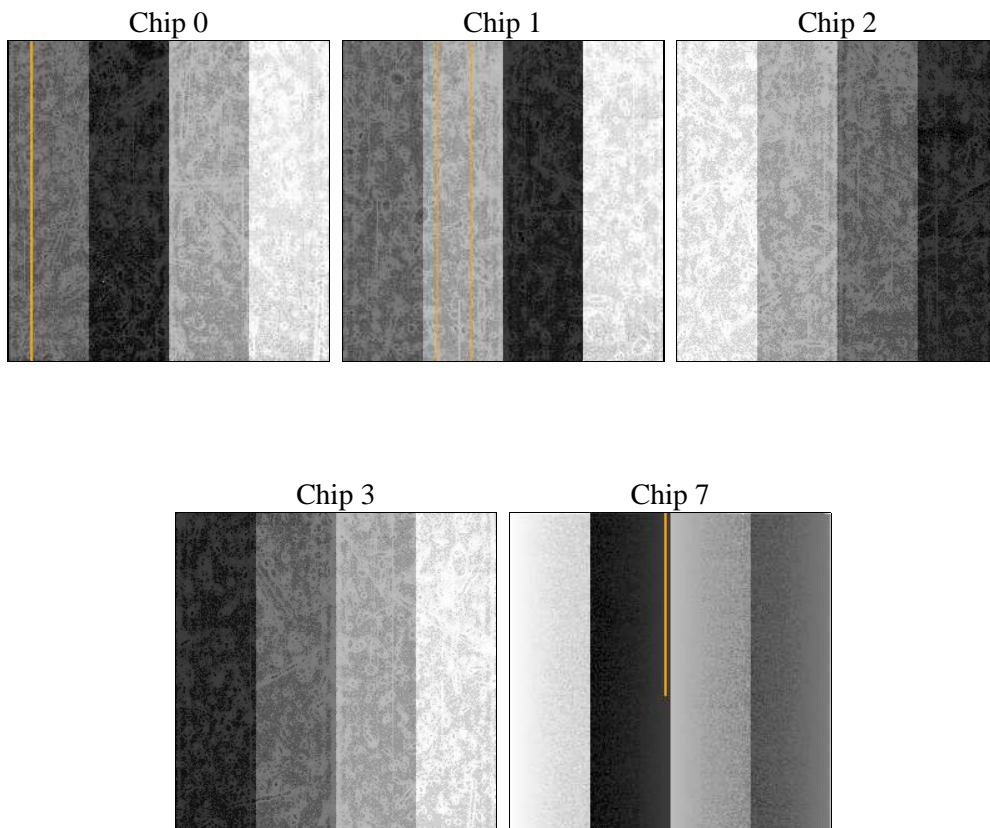
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	95000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	95100.965572655	Sum of GTIs [s]
caldbver	4.6.3	&#160	ontime0	95103.983492792	Sum of GTIs [s]
date	2014-09-25T04:05:05	Date and time of file creation	ontime1	95104.024453104	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	95110.347483575	Sum of GTIs [s]
			ontime3	95100.965572655	Sum of GTIs [s]
			ontime7	95110.429563582	Sum of GTIs [s]
			l1events	1870603	Number of level 1 events

### 2.1.4 Events

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	367436	370978	423519	395336	313334
rejected events	321706	321688	377215	352167	139288
rejected %	87%	86%	89%	89%	44%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	18847	20183	19504	18141	21469
	5%	5%	4%	4%	6%
grade 1 events	244	223	243	259	797
	0%	0%	0%	0%	0%
grade 2 events	11564	11443	11558	9432	42483
	3%	3%	2%	2%	13%
grade 3 events	4552	4901	4132	4295	16467
	1%	1%	0%	1%	5%
grade 4 events	4100	4744	4373	4244	15898
	1%	1%	1%	1%	5%
grade 5 events	9933	11108	9064	11557	31966
	2%	2%	2%	2%	10%
grade 6 events	6668	8023	6740	7061	77739
	1%	2%	1%	1%	24%
grade 7 events	311528	310353	367905	340347	106515
	84%	83%	86%	86%	33%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	227.353726	227.3462499112588	CCD I2 on	Y	Y
[deg] Pointing Dec	-58.836421	-58.86374475953546	CCD I3 on	Y	Y
[deg] Pointing Roll	231.529545	231.7318304885232	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	N	N
[mm] SIM translation stage pos	-231.544963	-231.5382674900573	CCD S3 on	O1	Y
[mm] SIM translation stage offset	-2.0475	-2.054185512872408	CCD S4 on	N	N
[s] Observation start time (MET)	527876625.184000	527875416.81187	CCD S5 on	N	N
Observation start date	2014-09-23T16:22:38	2014-09-23T16:03:36	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	527971625.184000	527972463.30475	On-chip summing requested	N	N
Observation end date	2014-09-24T18:45:58	2014-09-24T19:01:03	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect

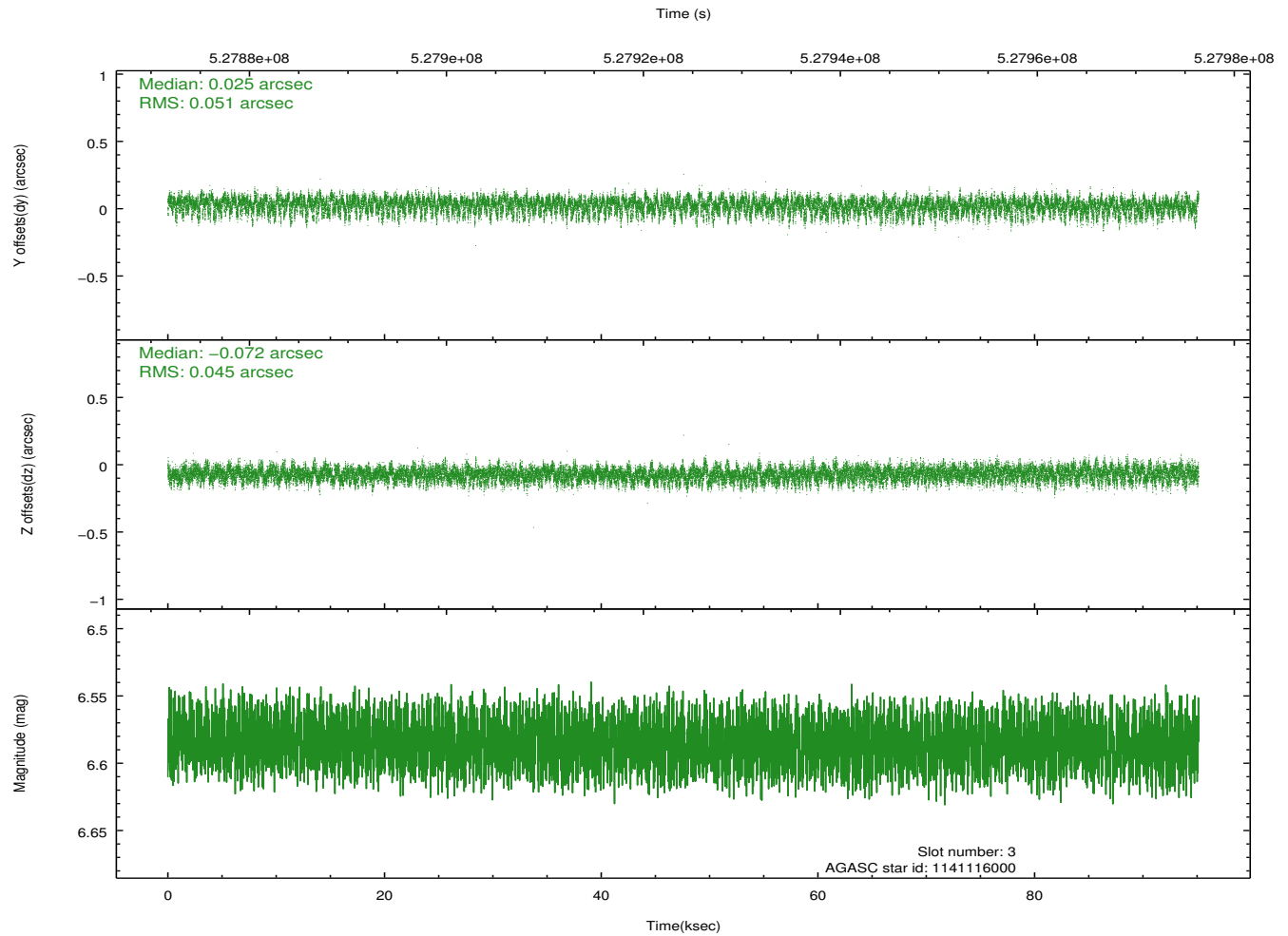


### Slot Statistics

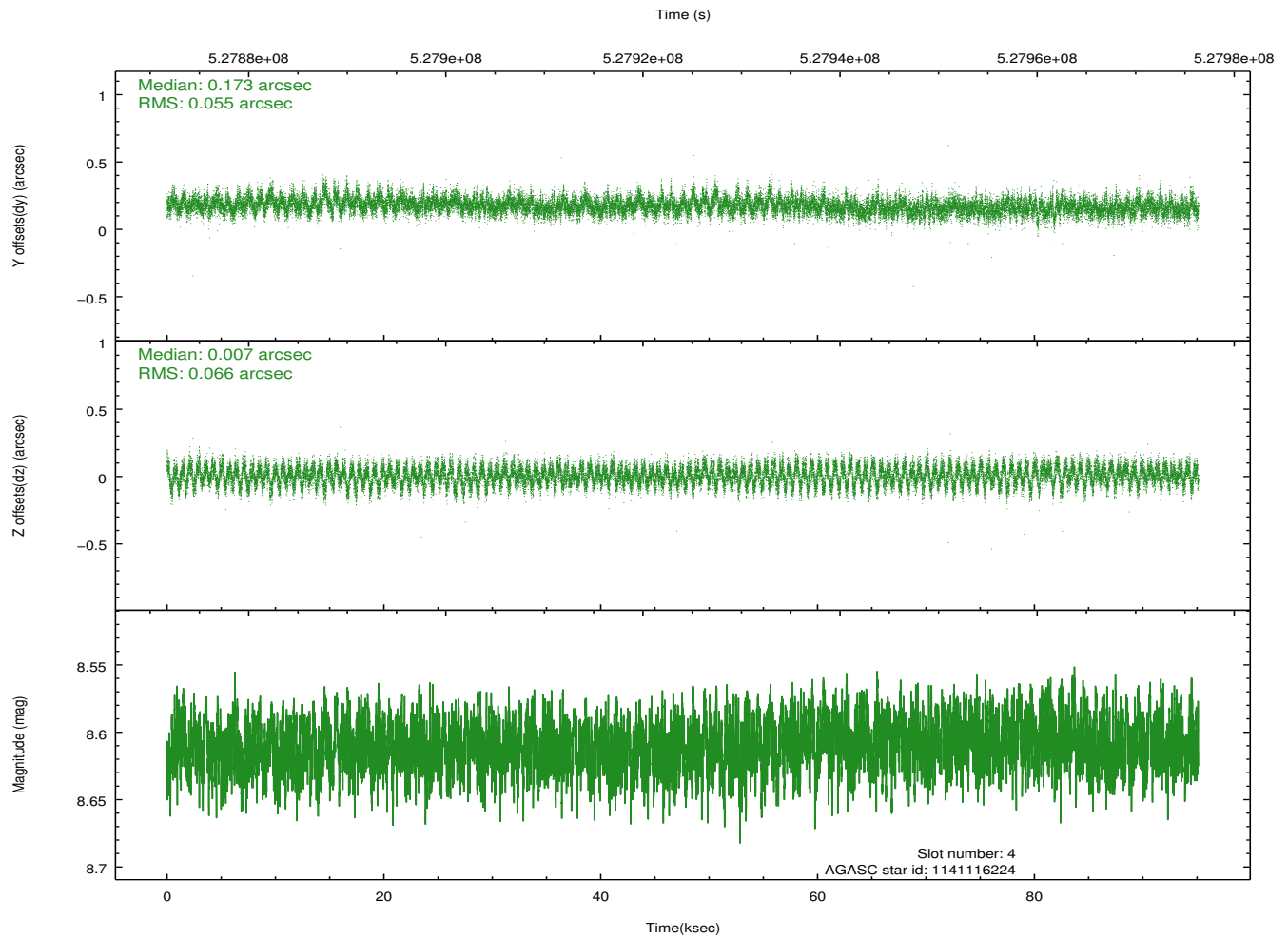
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.07	23207	0.055	0.005	0.023	0.040	0.000000	0.000000	914.25	-888.41
1	FID	ACIS-I-5	7.07	23206	-0.292	0.043	0.016	0.024	0.000000	0.000000	-1834.35	1009.02
2	FID	ACIS-I-6	7.08	23205	0.145	0.022	0.018	0.030	0.000000	0.000000	379.85	1653.52
3	GUIDE	1141116000	6.59	46413	0.025	-0.072	0.073	0.116	227.224564	-59.142142	1010.34	498.23
4	GUIDE	1141116224	8.61	46390	0.173	0.007	0.091	0.149	226.951673	-59.390300	2022.00	664.92
5	GUIDE	1141117728	9.50	46372	0.147	-0.147	0.111	0.184	228.608878	-58.618268	-2061.32	1367.42
6	GUIDE	1141121072	9.07	46372	-0.173	0.009	0.147	0.220	227.898628	-59.420815	1030.03	2092.66
7	GUIDE	1141116568	8.52	46392	-0.166	0.206	0.105	0.162	228.578452	-58.520066	-2307.76	1107.66

## 2.4 Star Slots

### 2.4.1 Slot 3

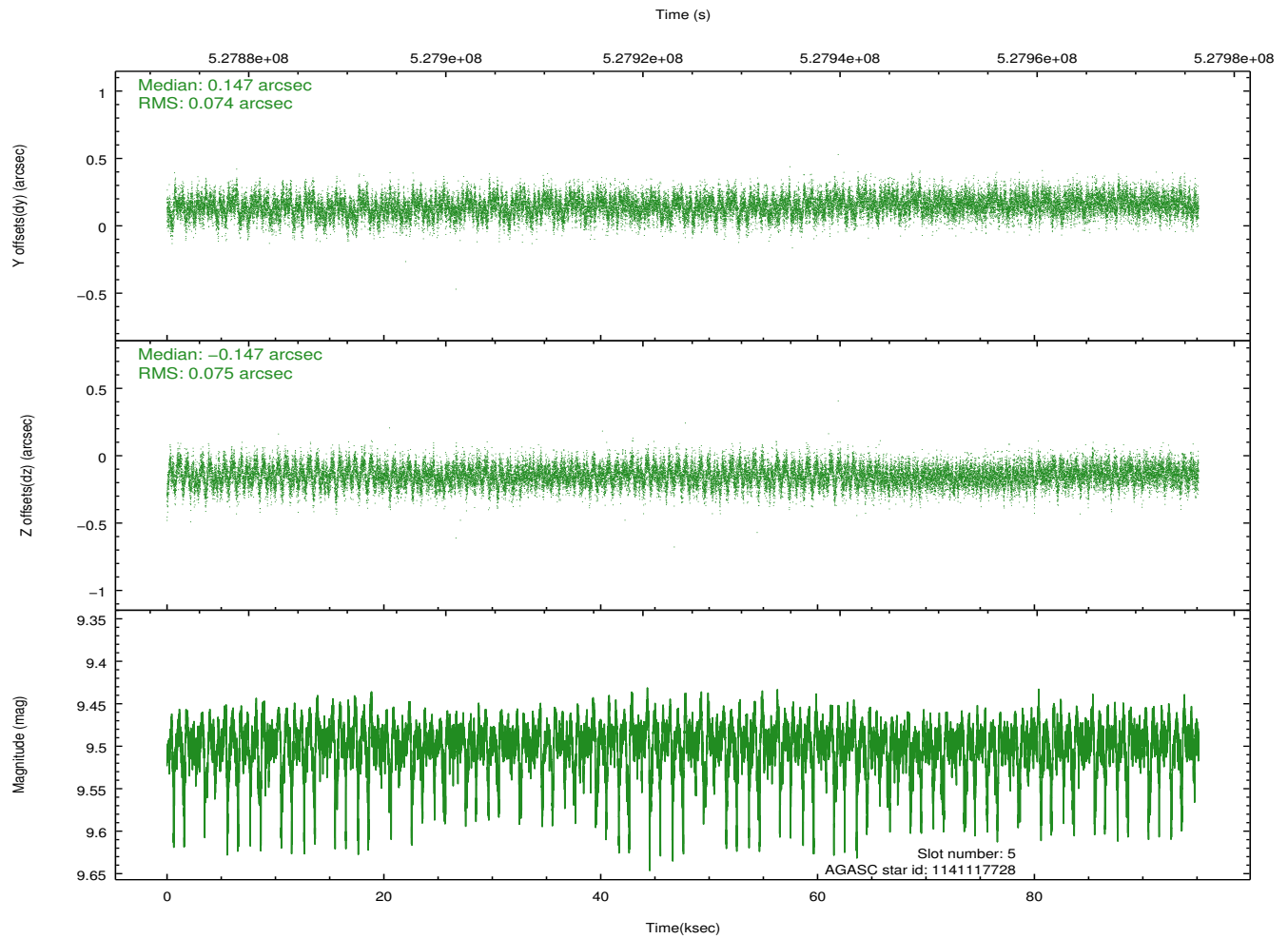


## 2.4.2 Slot 4

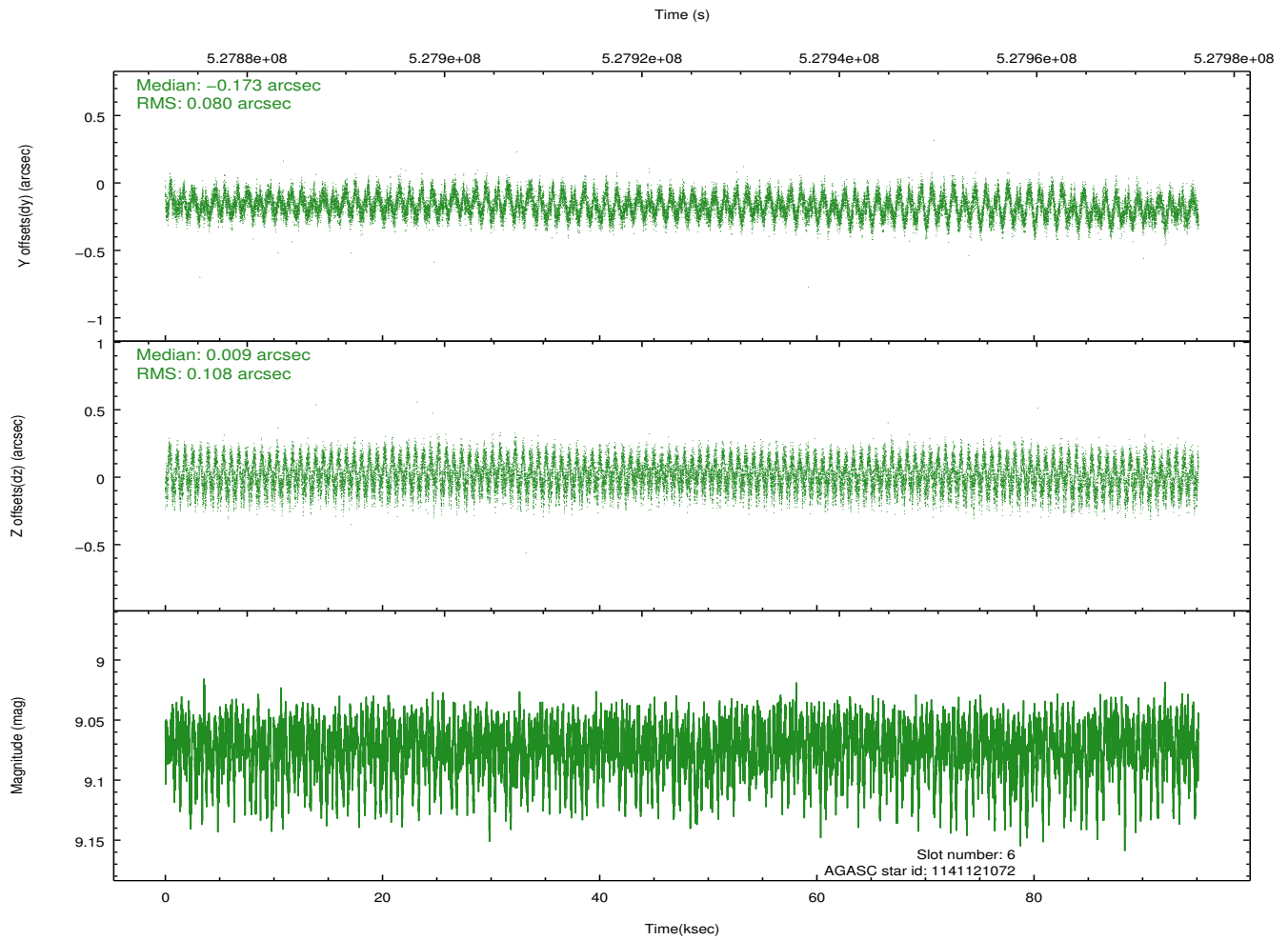




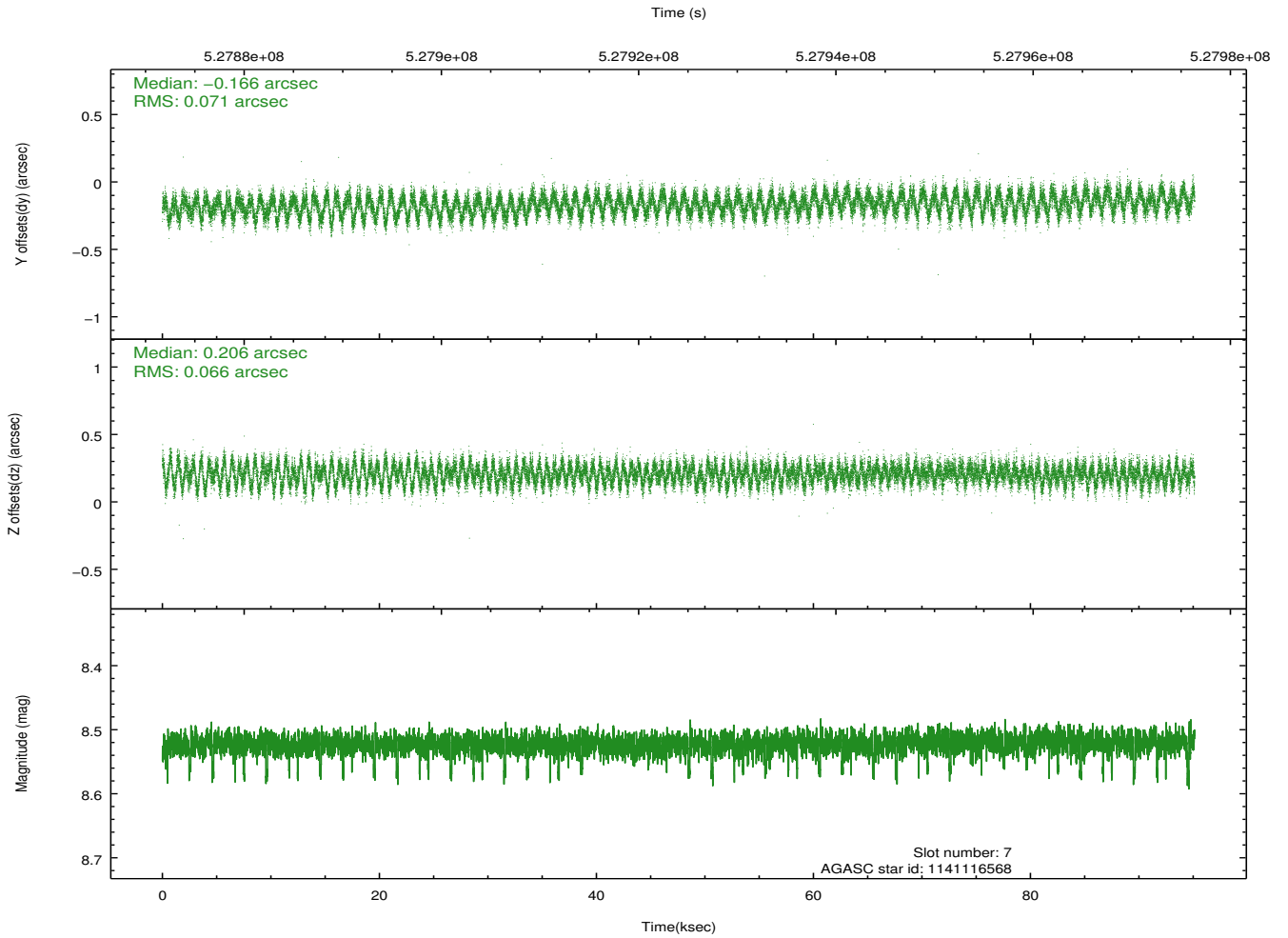
### 2.4.3 Slot 5



## 2.4.4 Slot 6

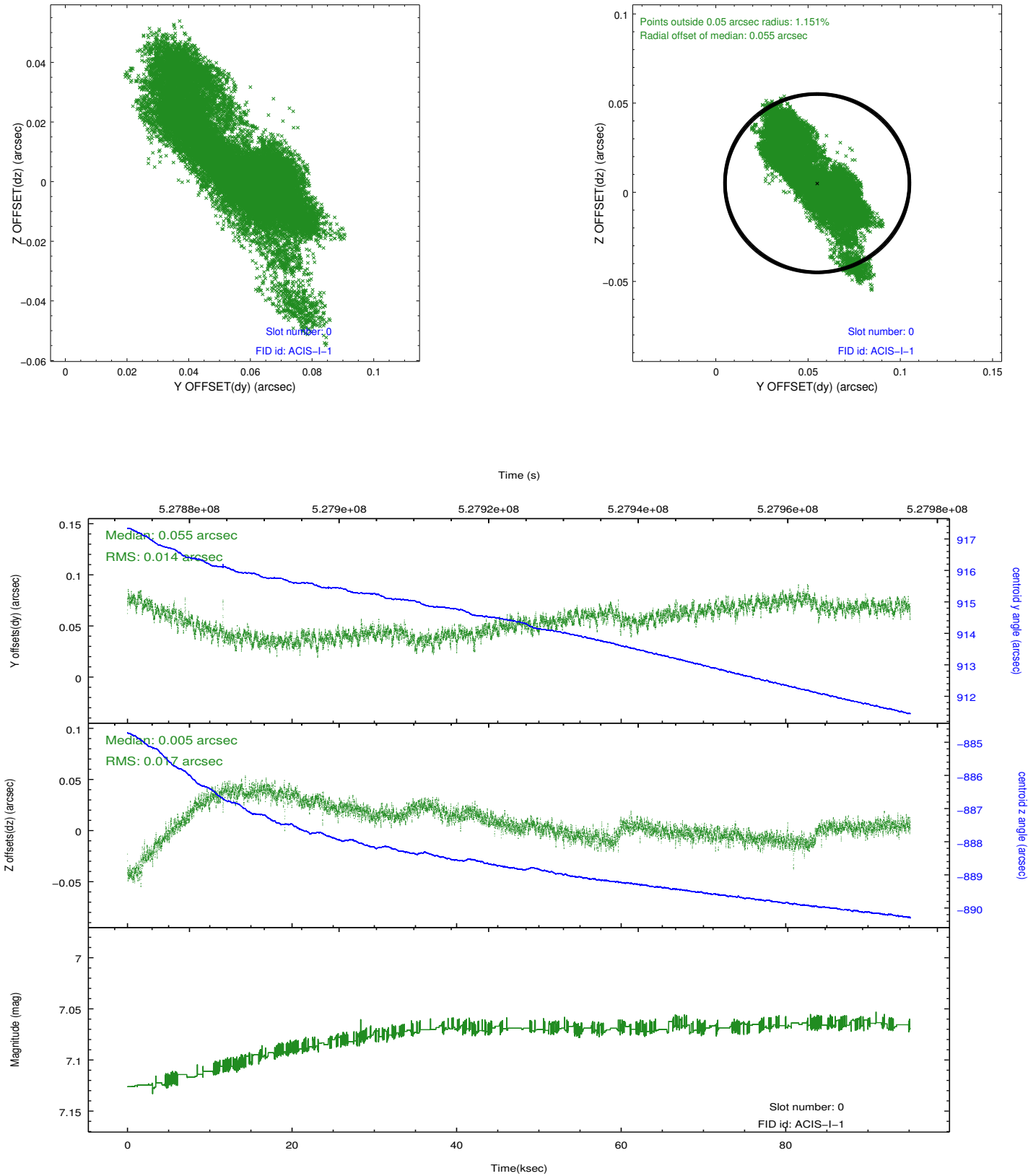


## 2.4.5 Slot 7

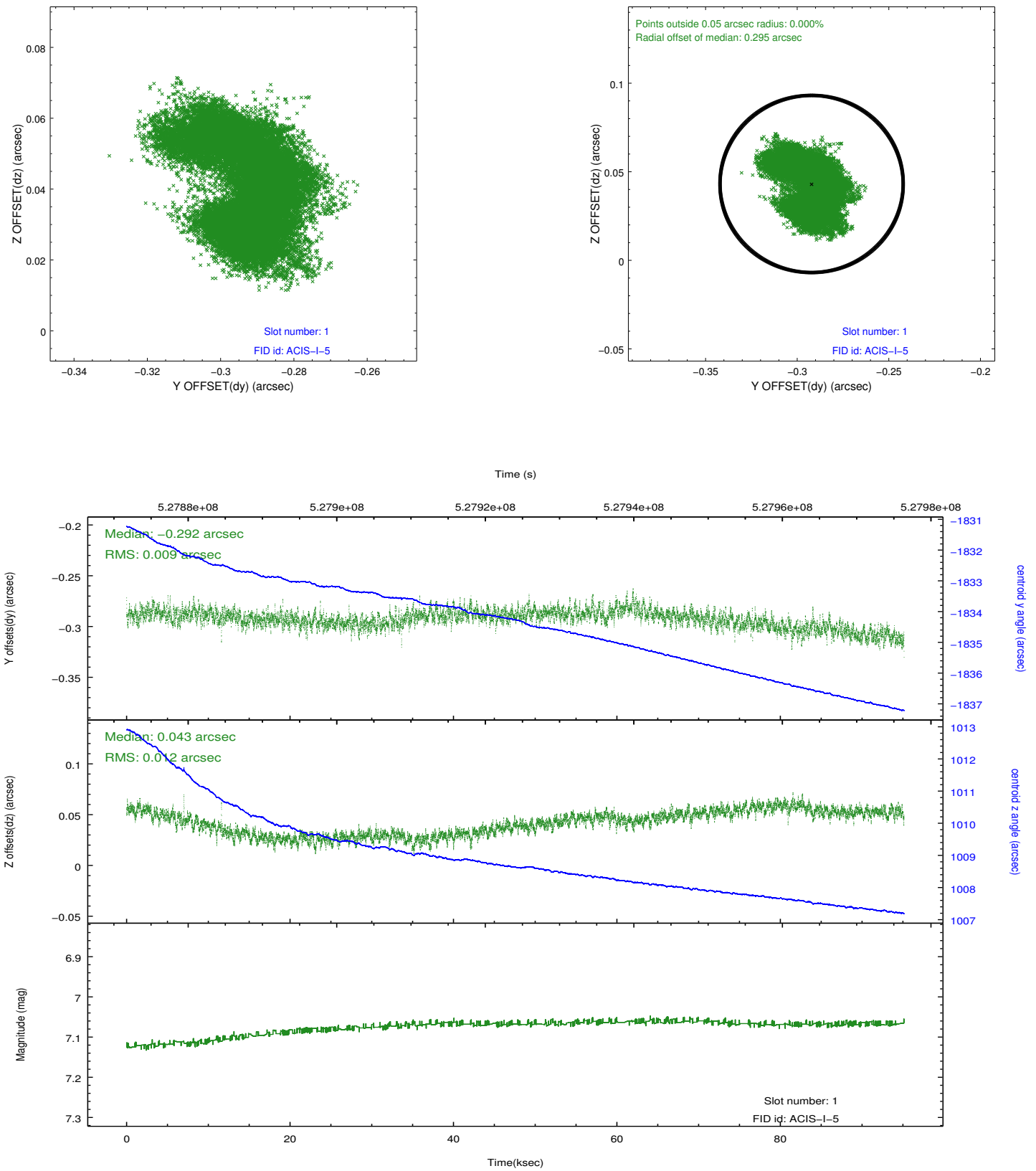


## 2.5 FID Slots

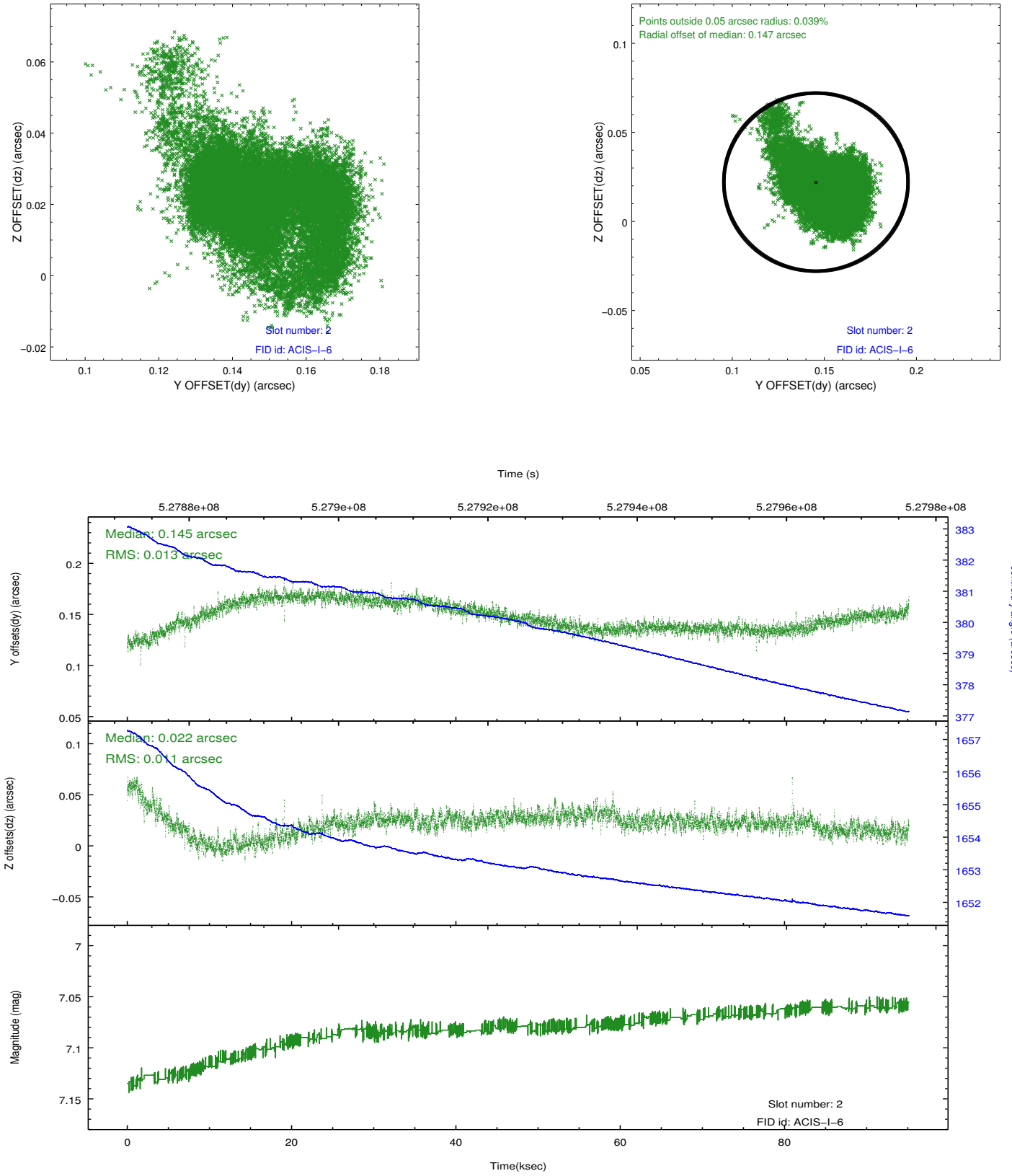
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2014.09.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	95.100965572655

### A.2 Comments