

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7875 - L2 Version 3  
Chandra X-Ray Center

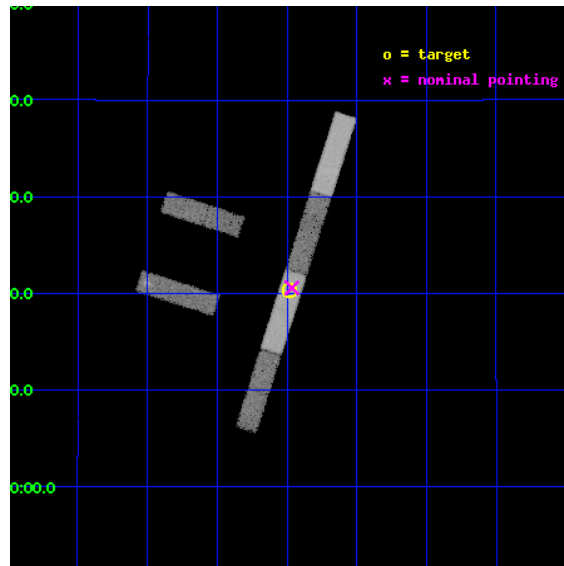
L2 Processing Date : Apr 21 2012

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# 1 Front

seq_num	701539	Sequence number
obs_id	7875	Observation id
title	Resolving the nature of PKS 1413+135 and its absorber	Proposal tit
observer	Prof. Eric Perlman	Principal investigator
object	PKS 1413+135	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.995	Observer's specified target RA [deg]
dec_targ	13.34	Observer's specified target Dec [deg]
ra_nom	213.9911790031	Nominal RA [deg]
dec_nom	13.343151748959	Nominal Dec [deg]
roll_nom	107.80890566399	Nominal Roll [deg]
revision	3	Processing version of data
ontime	20181.700437427	Sum of GTIs [s]
livetime	19455.821427092	Livetime [s]
ontime2	20181.700437427	Sum of GTIs [s]
ontime3	20181.700437427	Sum of GTIs [s]
ontime5	20181.700437427	Sum of GTIs [s]
ontime6	20181.700437427	Sum of GTIs [s]
ontime7	20181.700437427	Sum of GTIs [s]
ontime8	20181.700437427	Sum of GTIs [s]
l2events	85499	Number of level 2 events

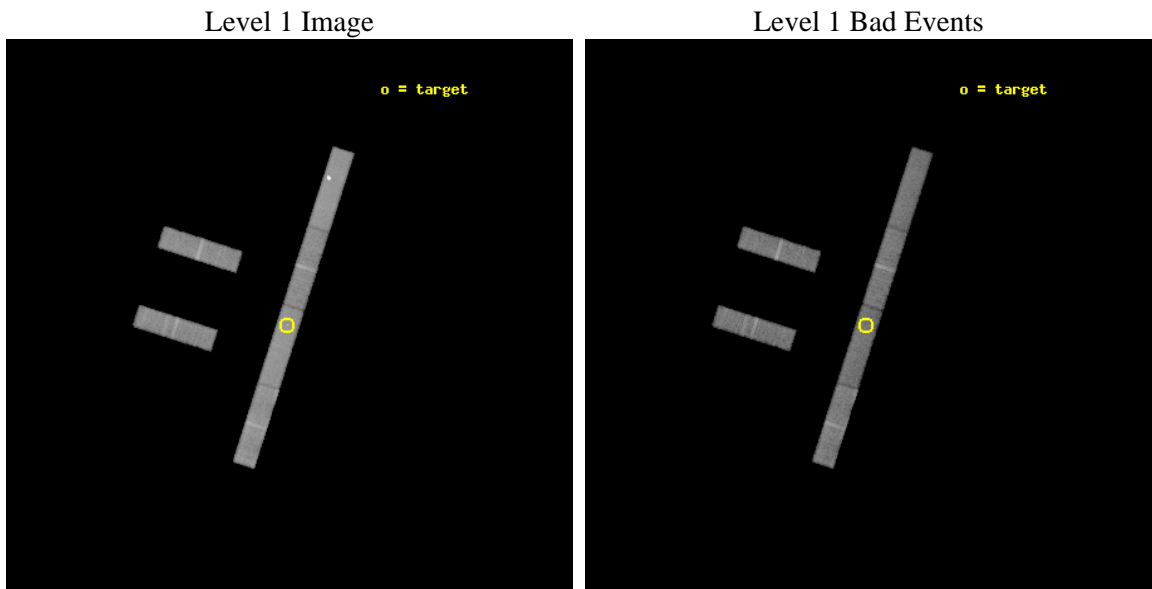




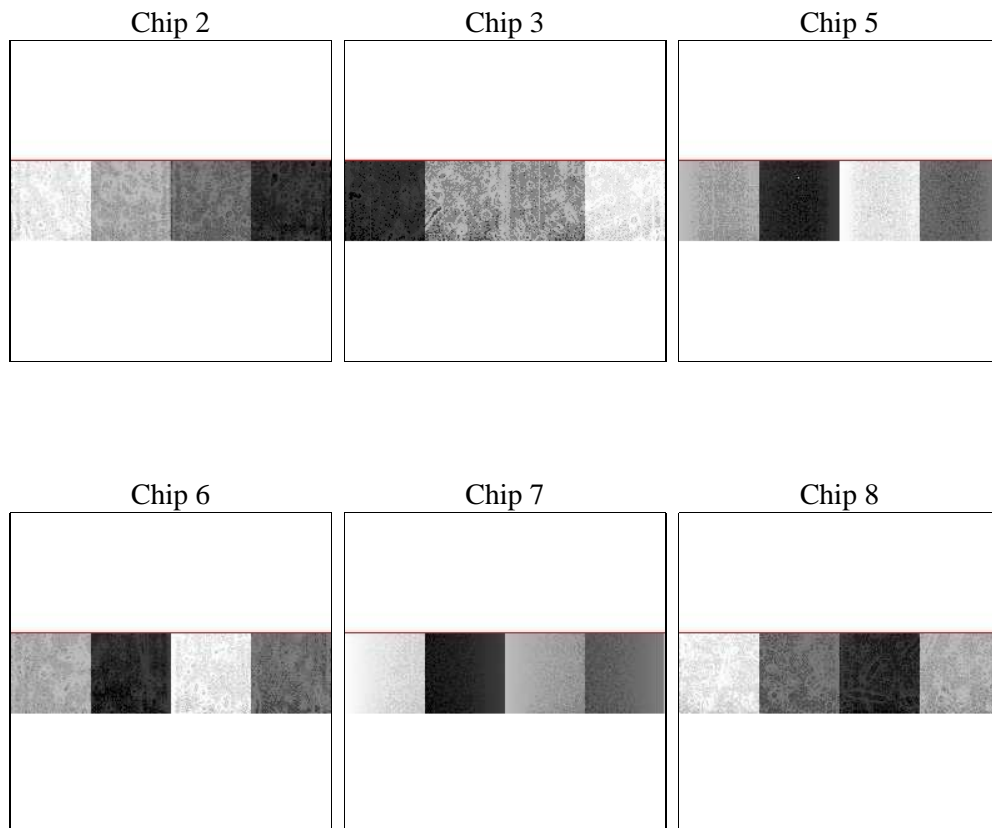
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	20181.700437427	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime2	20181.700437427	Sum of GTIs [s]
date	2012-04-21T16:31:23	Date and time of file creation	ontime3	20181.700437427	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	20181.700437427	Sum of GTIs [s]
			ontime6	20181.700437427	Sum of GTIs [s]
			ontime7	20181.700437427	Sum of GTIs [s]
			ontime8	20181.700437427	Sum of GTIs [s]
			l1events	406987	Number of level 1 events

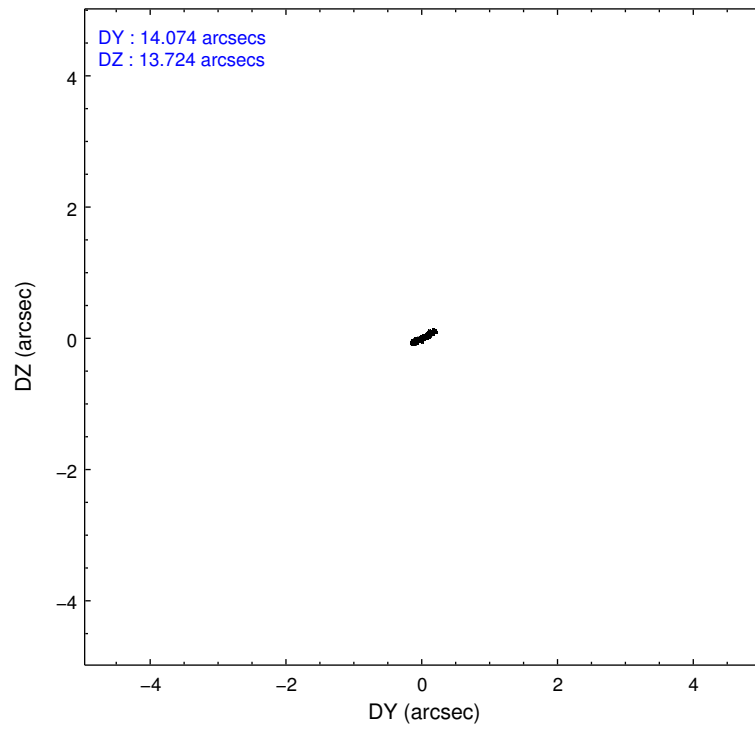
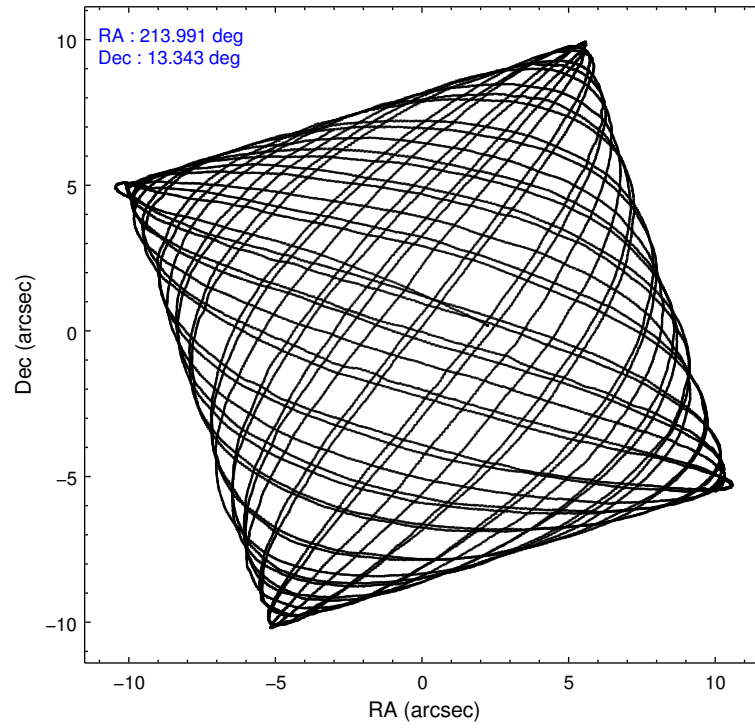
### 2.1.4 Events

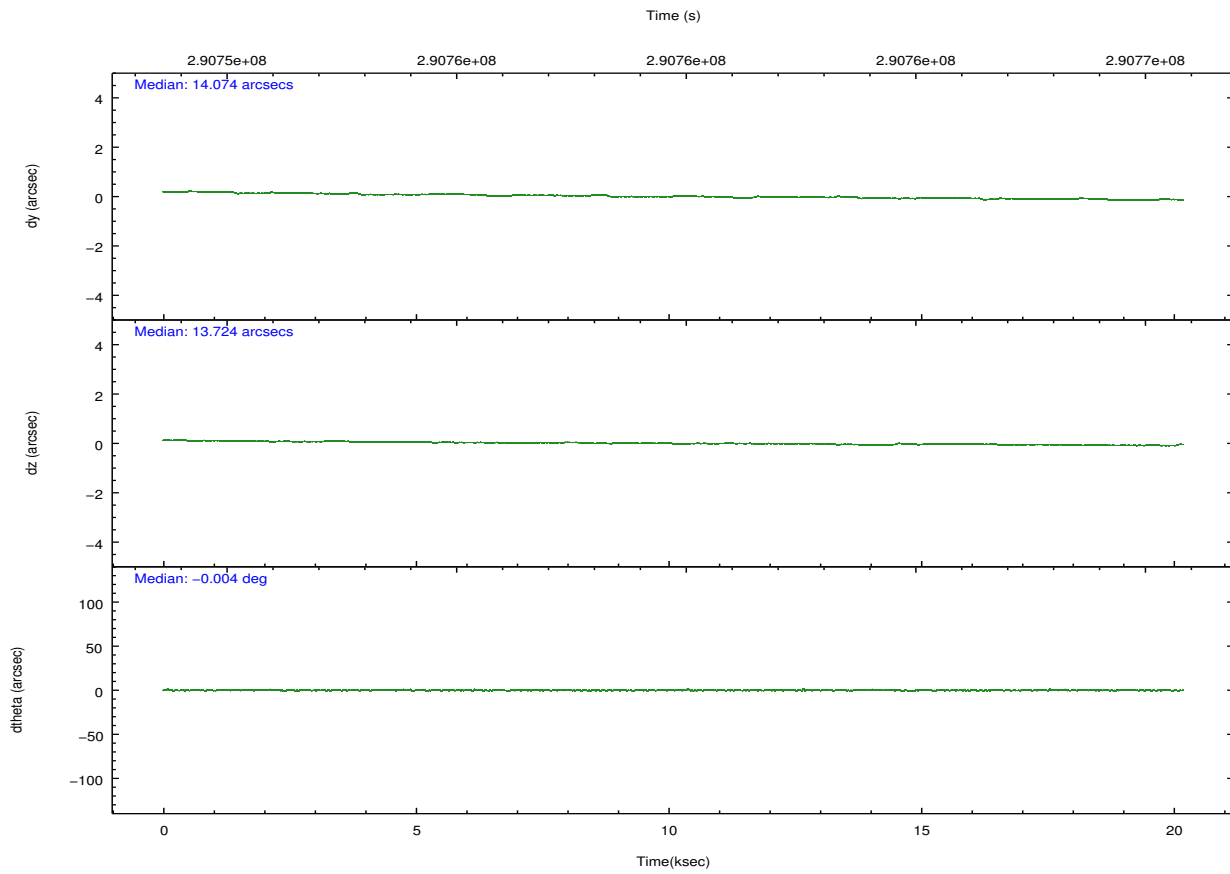
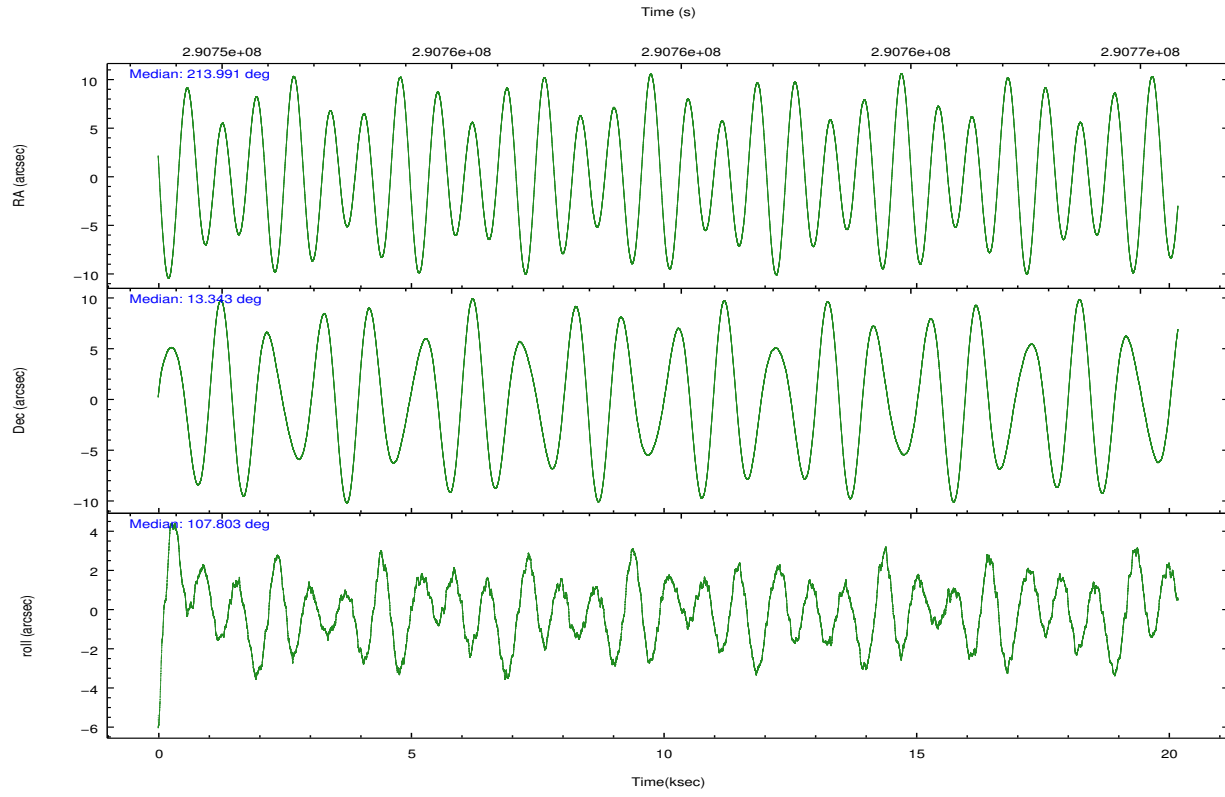
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	59289	55206	92825	55727	70952	72988	grade 0 events	2577	3013	19597	2423	3052	4376
rejected events	52774	48296	41565	48978	40679	58244		4%	5%	21%	4%	4%	5%
rejected %	89%	87%	44%	87%	57%	79%	grade 1 events	19	21	125	20	82	38
								0%	0%	0%	0%	0%	0%
							grade 2 events	1234	1129	10624	1337	6088	3099
								2%	2%	11%	2%	8%	4%
							grade 3 events	882	910	1777	847	3125	1706
								1%	1%	1%	1%	4%	2%
							grade 4 events	855	882	1735	894	3019	1574
								1%	1%	1%	1%	4%	2%
							grade 5 events	2161	2219	5803	2227	6681	3133
								3%	4%	6%	3%	9%	4%
							grade 6 events	1033	1038	17912	1309	15252	4128
								1%	1%	19%	2%	21%	5%
							grade 7 events	50528	45994	35252	46670	33653	54934
								85%	83%	37%	83%	47%	75%

## 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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	214.012289	213.9911790030977	CCD I2 on	O1	Y
[deg] Pointing Dec	13.325068	13.3431517489593	CCD I3 on	O2	Y
[deg] Pointing Roll	107.647405	107.8089056639895	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O4	Y
[s] Observation start time (MET)	290749802.184000	290748796.05063	CCD S5 on	N	N
Observation start date	2007-03-20T03:48:57	2007-03-20T03:33:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	290769802.184000	290770735.66417	On-chip summing requested	N	N
Observation end date	2007-03-20T09:22:17	2007-03-20T09:38:55	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	385	385
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.1

## 2.3 Aspect



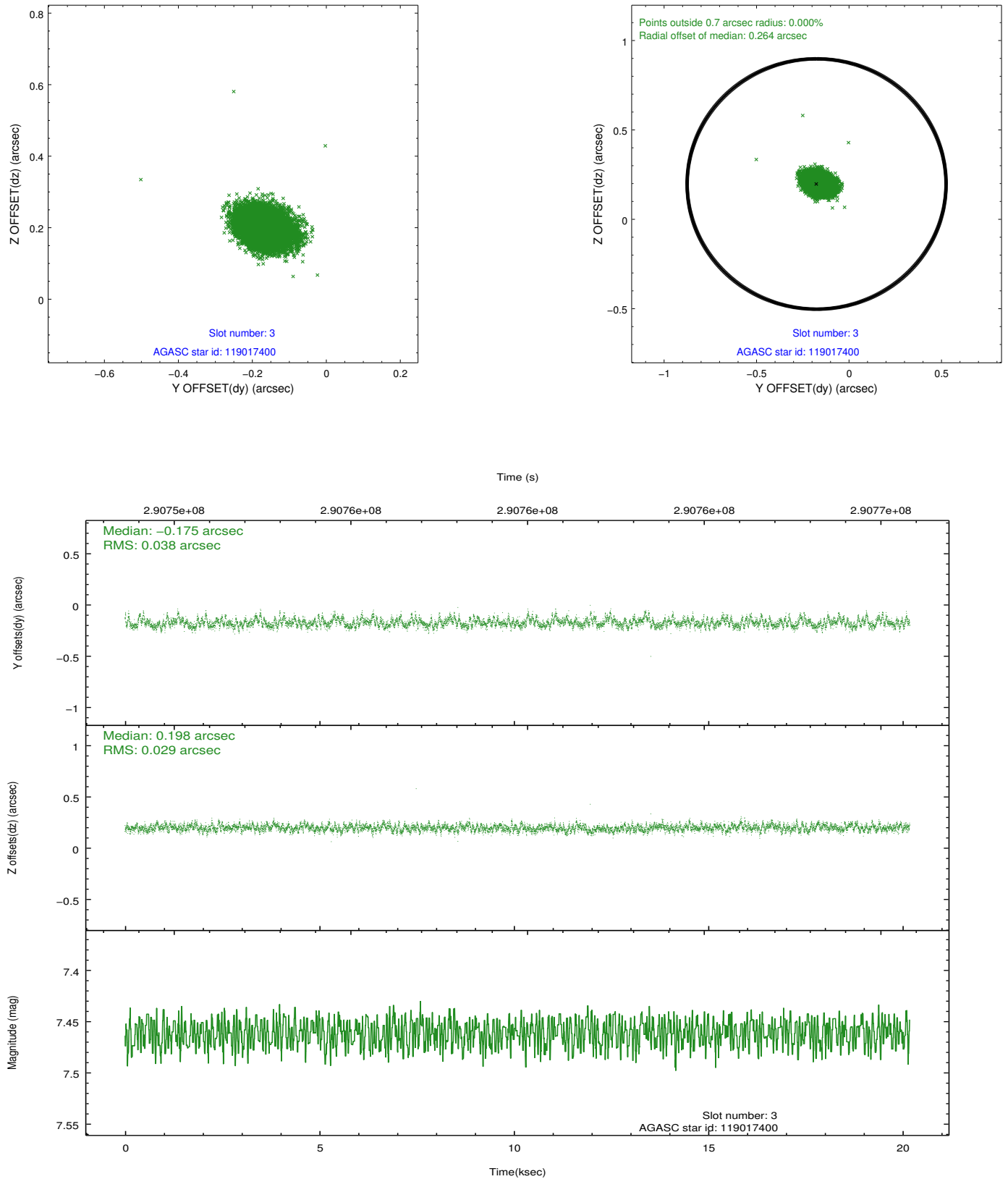


### Slot Statistics

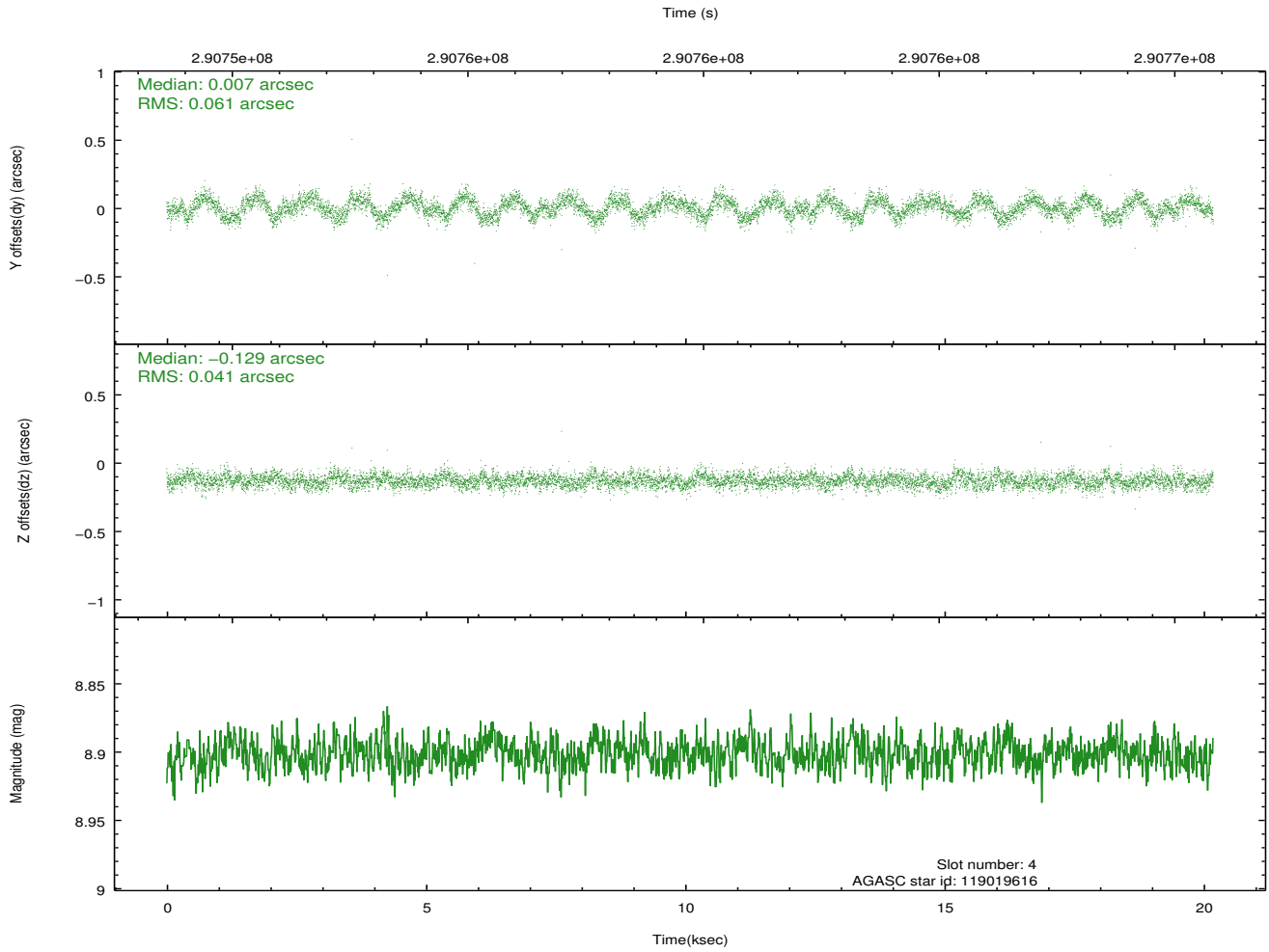
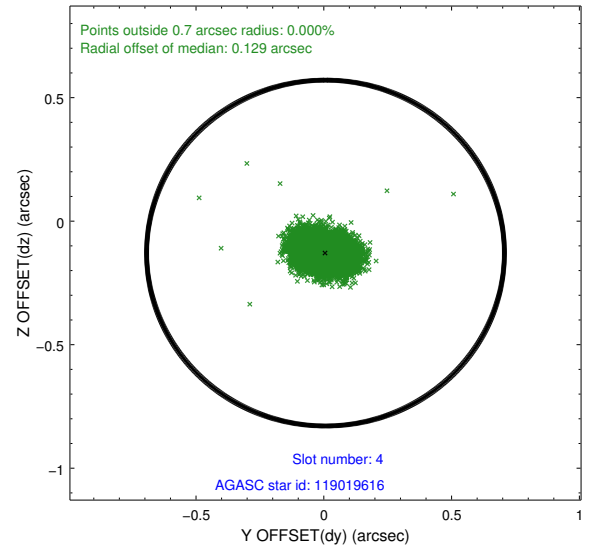
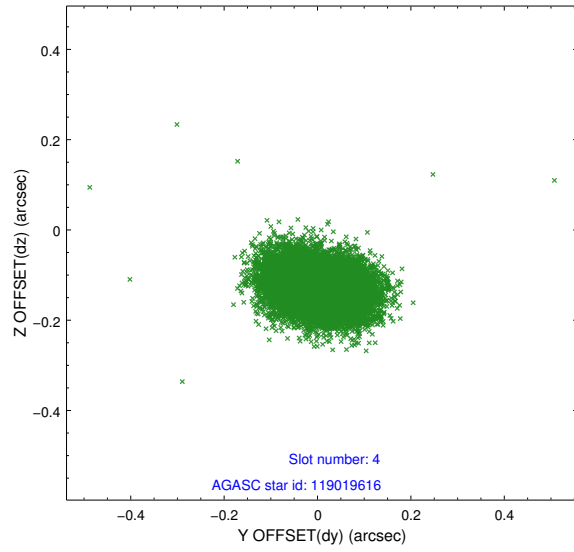
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	4923	-0.061	-0.070	0.008	0.014	0.000000	0.000000	-767.10	-1735.14
1	FID	ACIS-S-4	7.20	4923	0.204	0.048	0.007	0.014	0.000000	0.000000	2146.37	173.25
2	FID	ACIS-S-5	7.23	4923	-0.174	0.031	0.007	0.011	0.000000	0.000000	-1819.81	167.14
3	GUIDE	119017400	7.46	9844	-0.175	0.198	0.050	0.083	214.458443	13.903952	1514.82	-2117.63
4	GUIDE	119019616	8.90	9839	0.007	-0.129	0.078	0.126	213.477237	13.654924	1700.69	1422.99
5	GUIDE	119020736	8.64	9841	-0.094	-0.041	0.068	0.110	213.541794	13.318952	480.23	1577.03
6	GUIDE	119021632	7.93	9844	0.118	-0.025	0.060	0.097	213.945008	12.750388	-1899.64	852.30
7	GUIDE	119932368	6.87	9846	0.143	-0.002	0.041	0.066	214.520331	13.167637	-1077.89	-1525.57

## 2.4 Star Slots

### 2.4.1 Slot 3

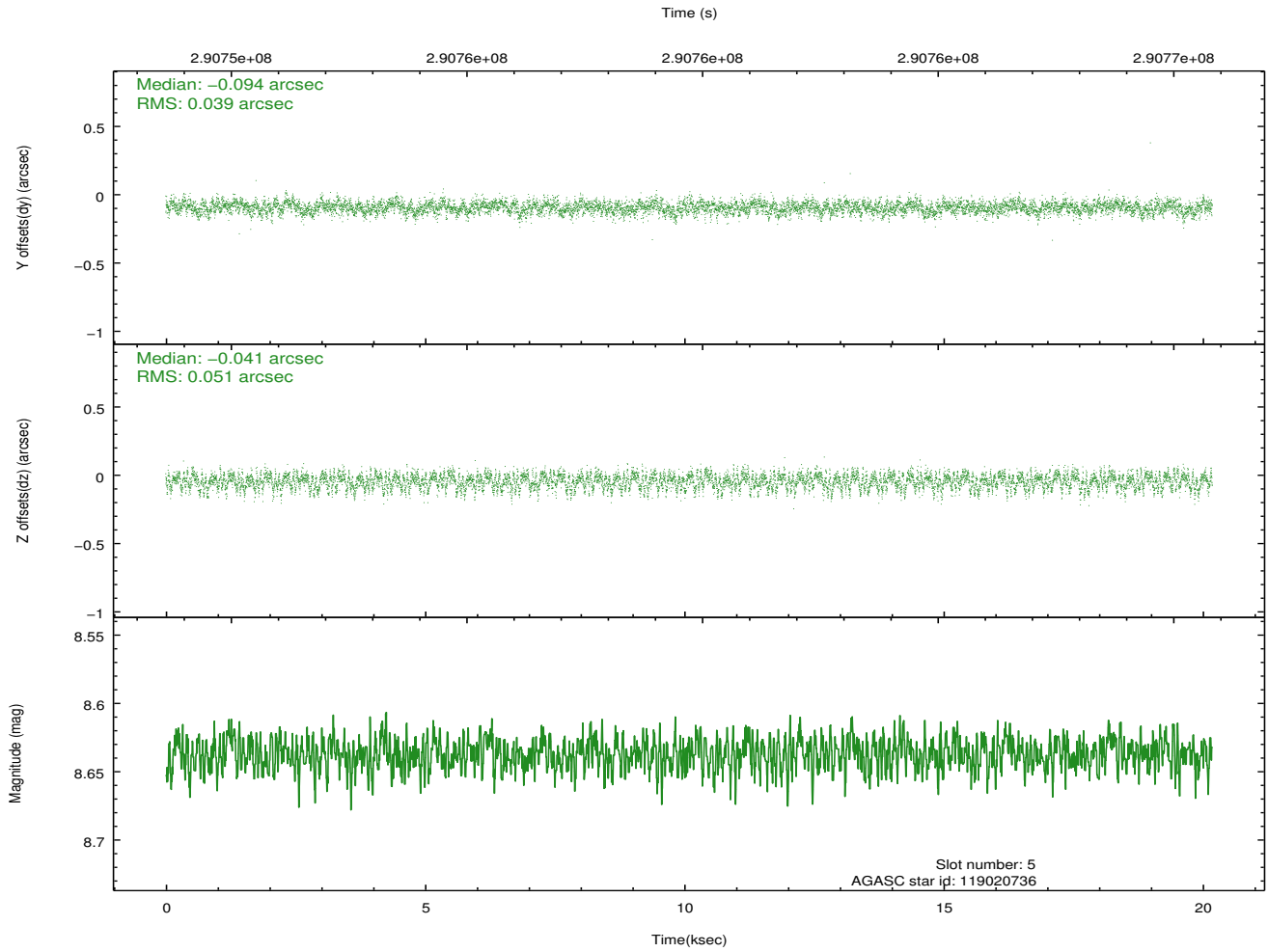
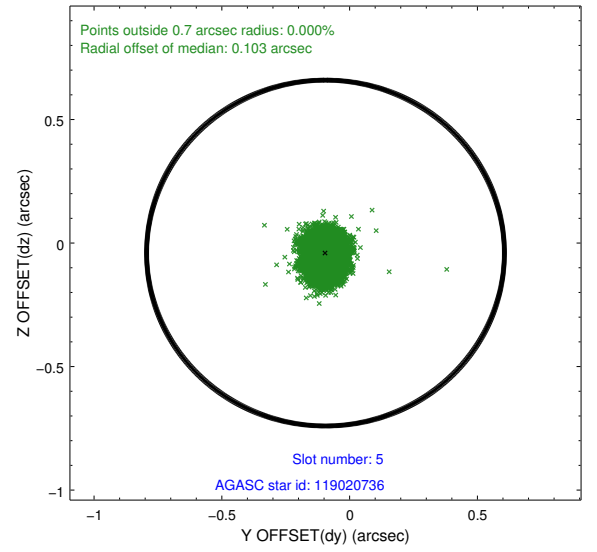
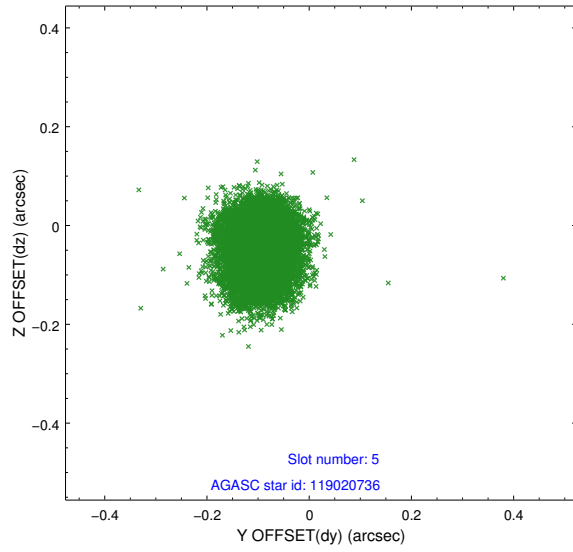


## 2.4.2 Slot 4

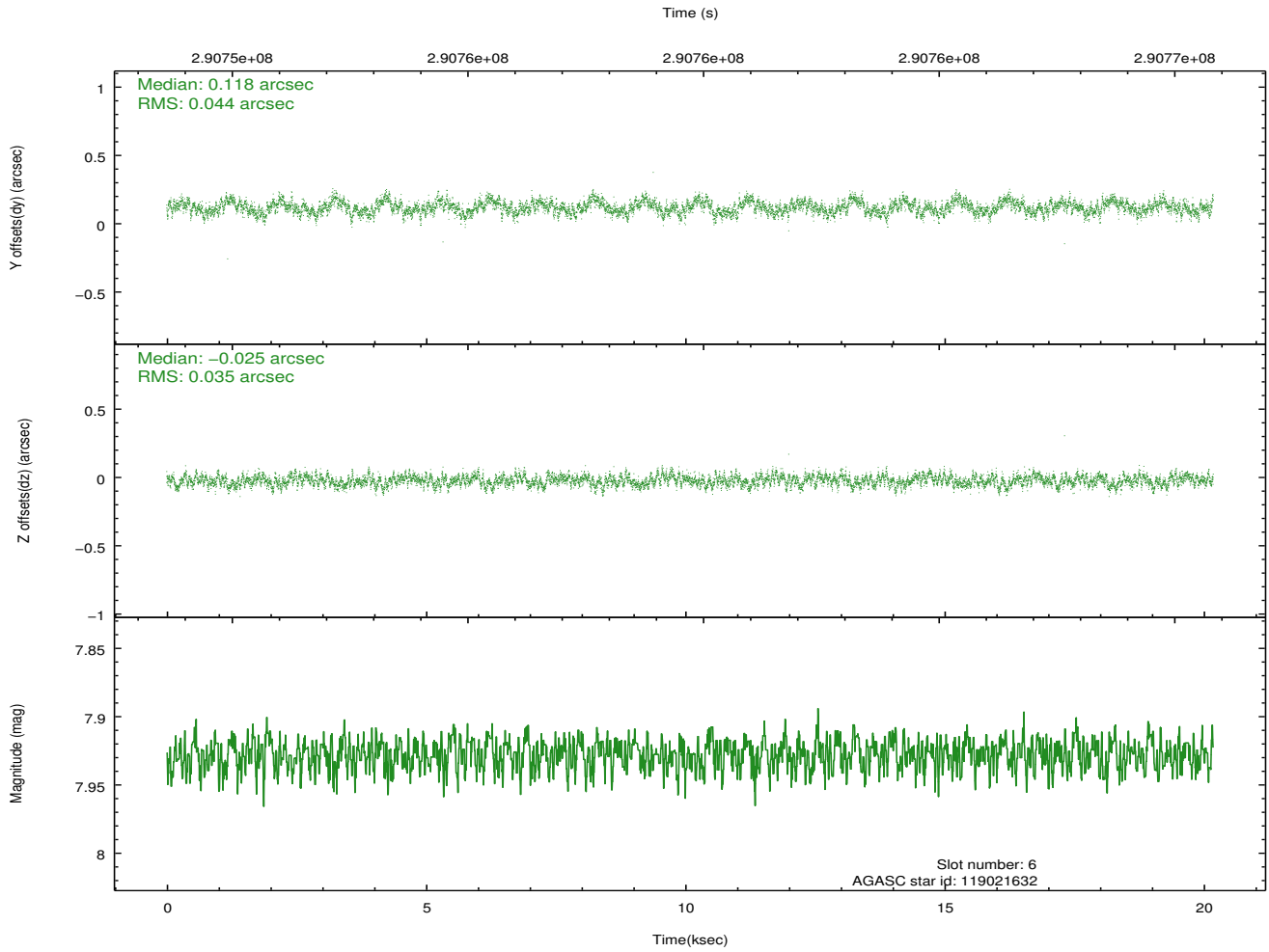
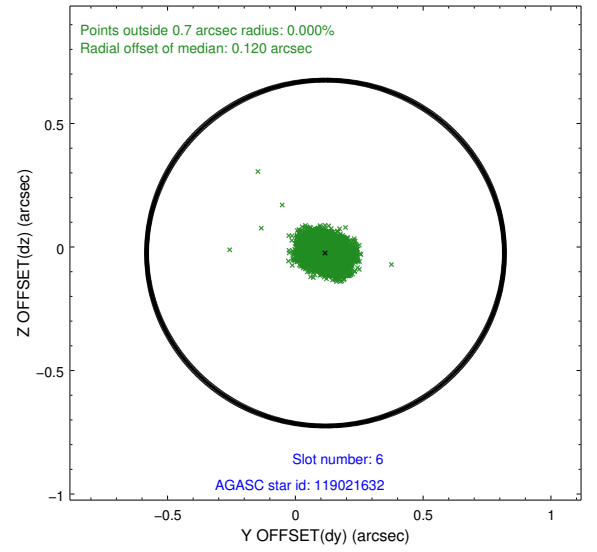
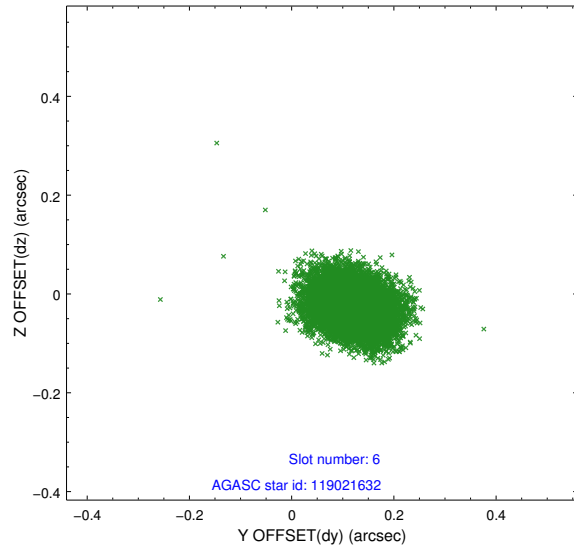




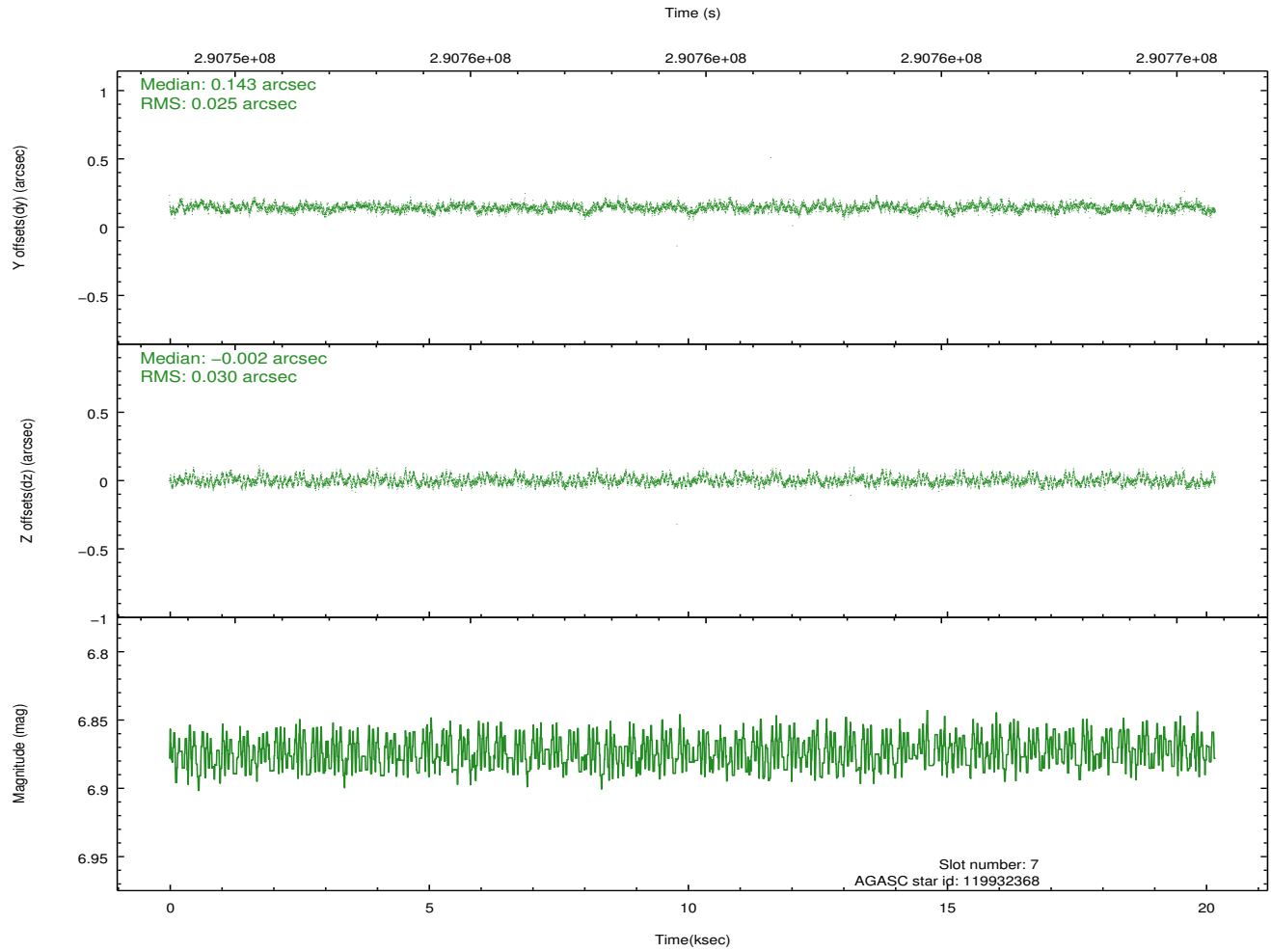
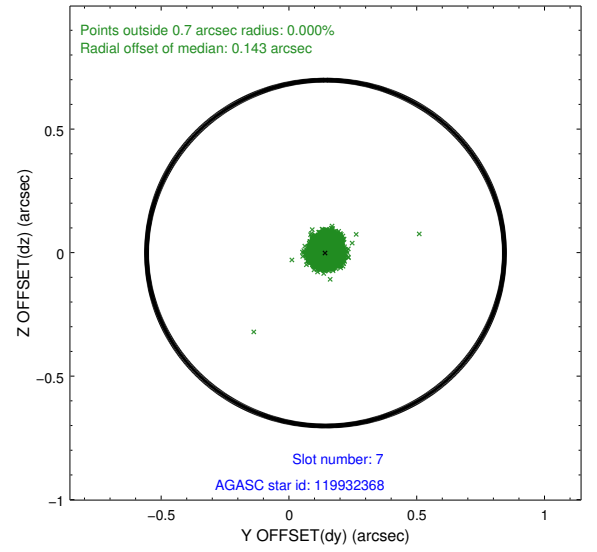
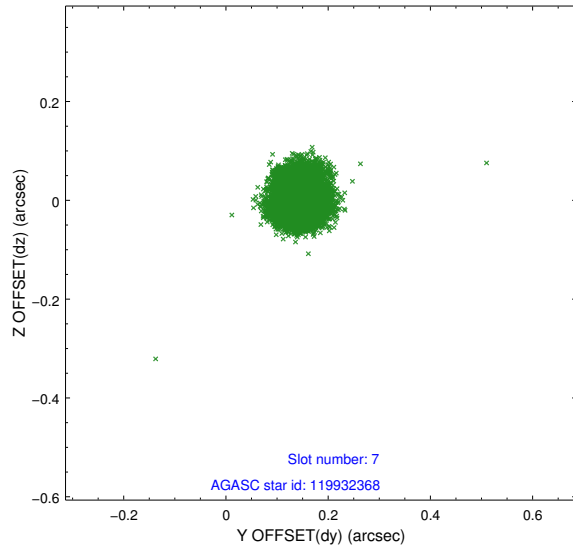
### 2.4.3 Slot 5



## 2.4.4 Slot 6

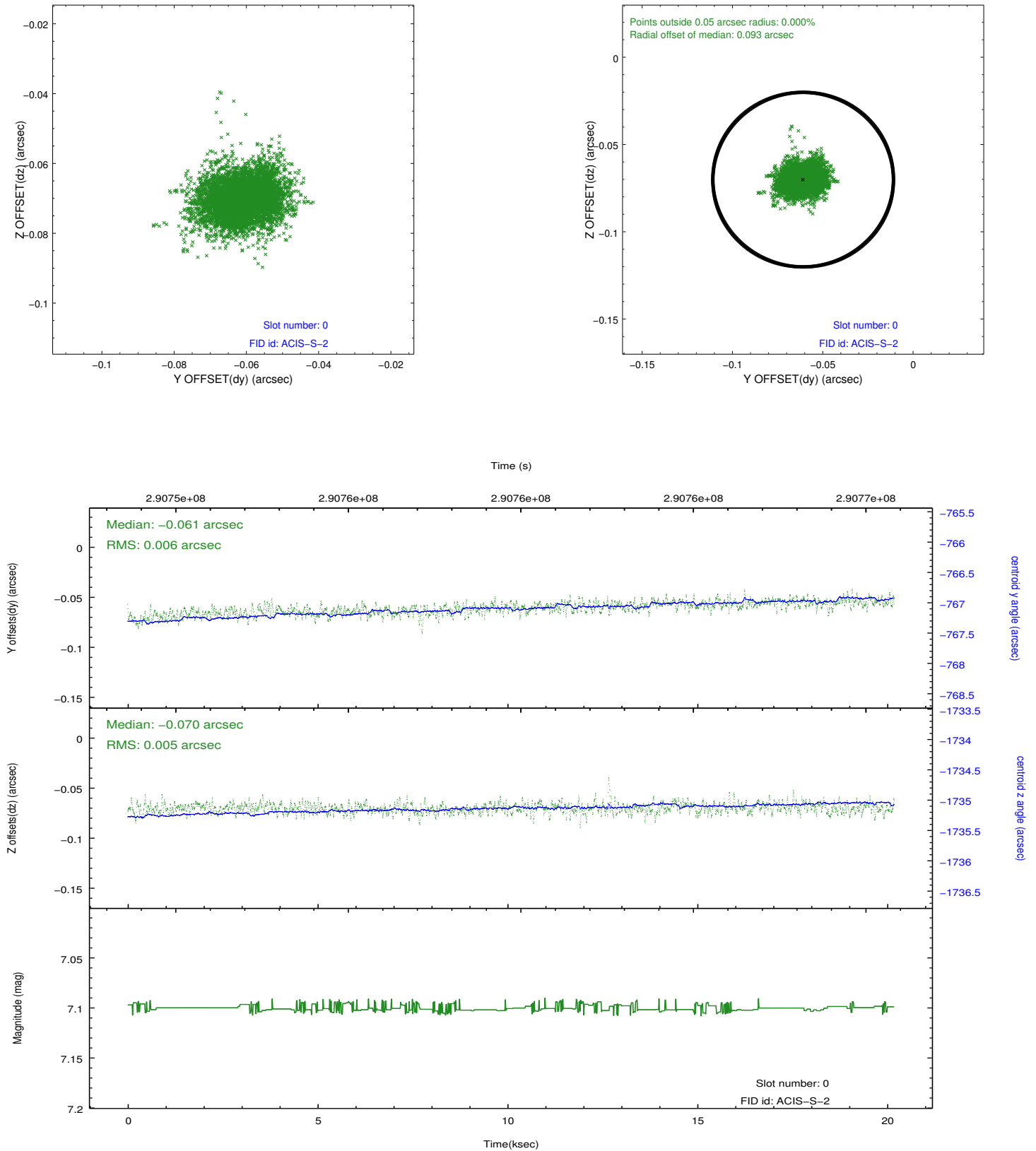


## 2.4.5 Slot 7

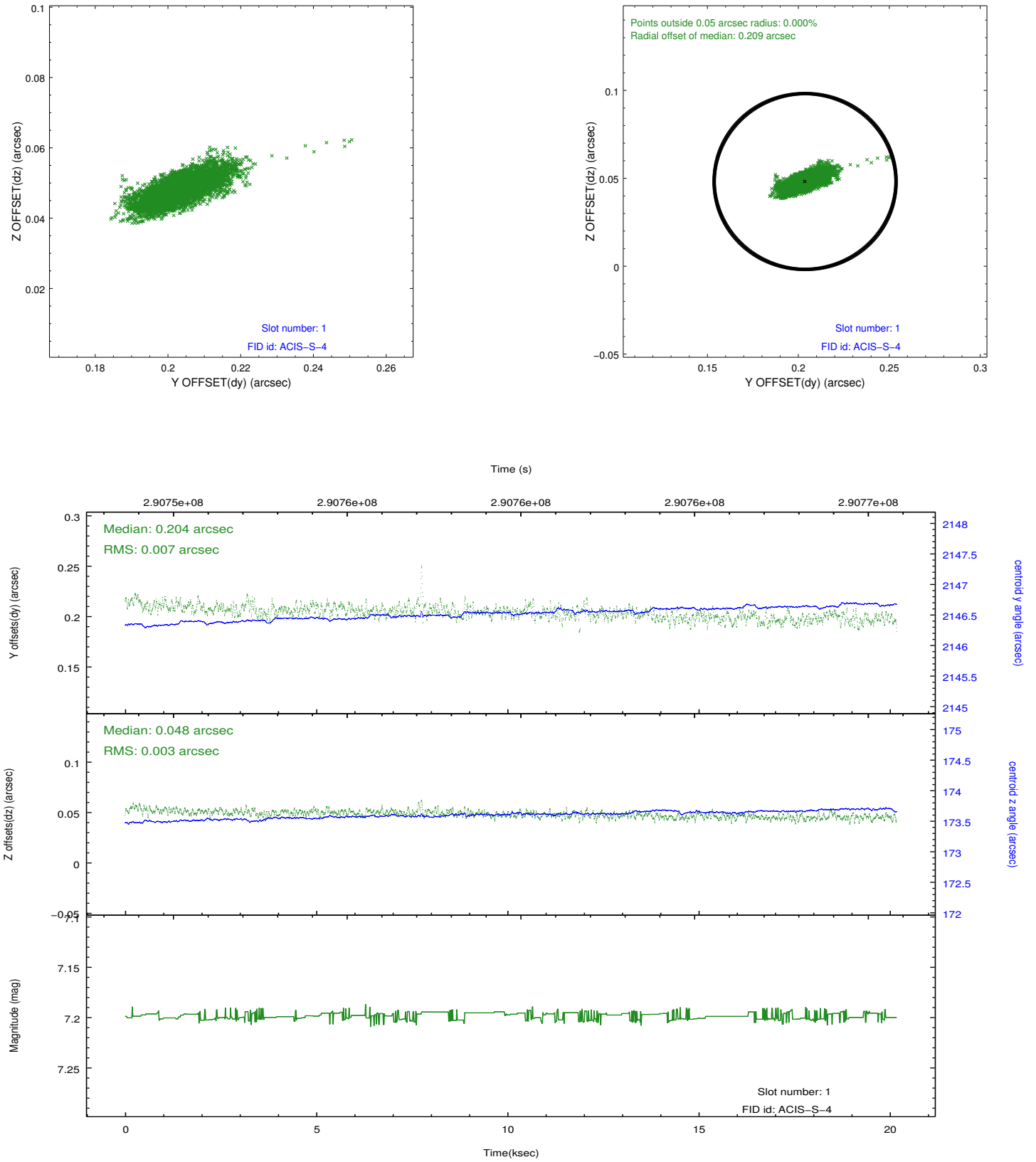


## 2.5 FID Slots

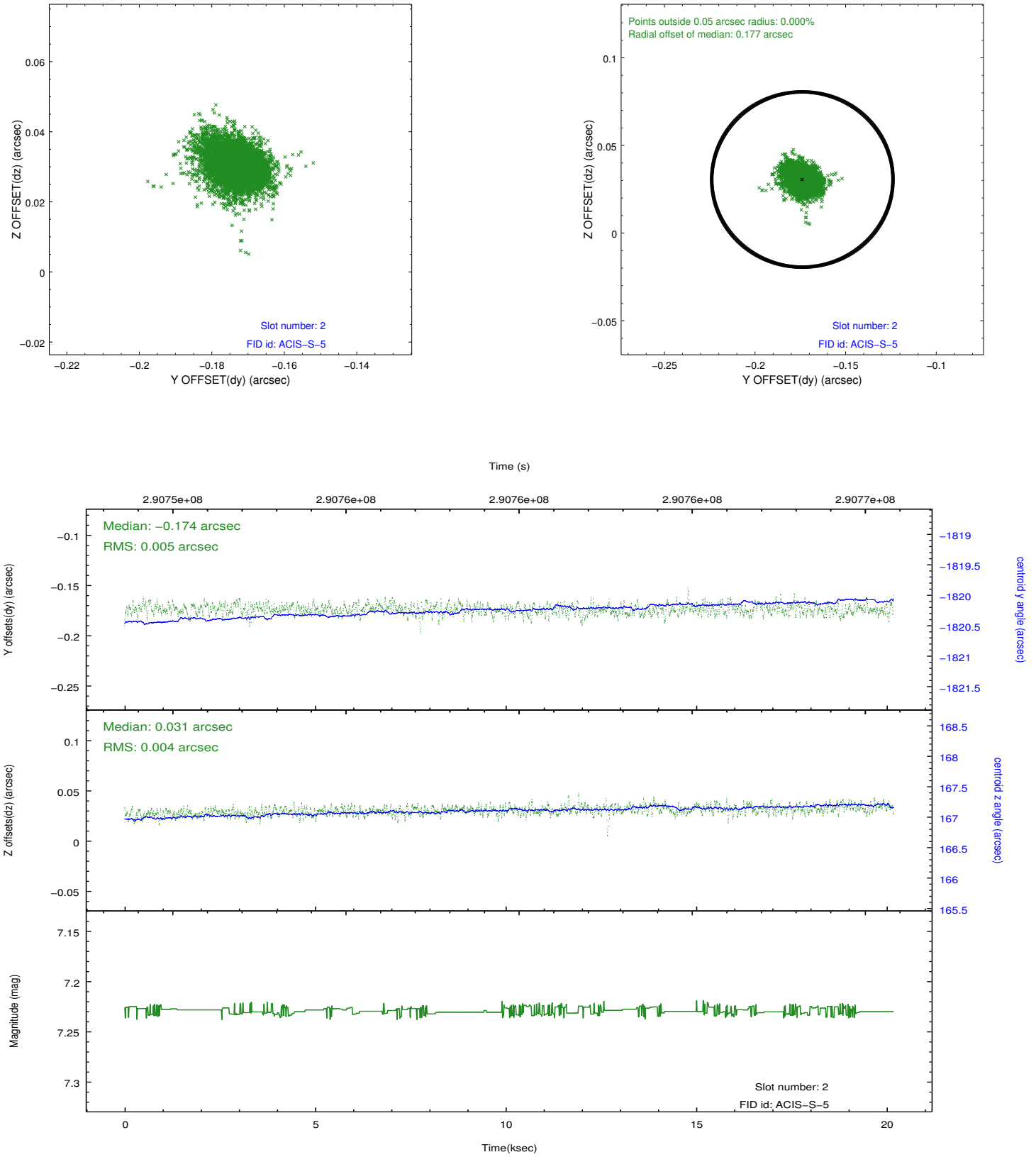
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.04.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.1817004

### A.2 Comments