

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3134 - L2 Version 3  
Chandra X-Ray Center

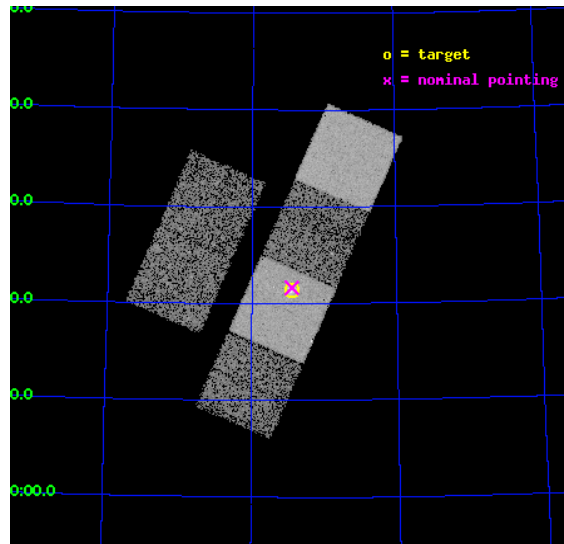
L2 Processing Date : Oct 16 2012

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# 1 Front

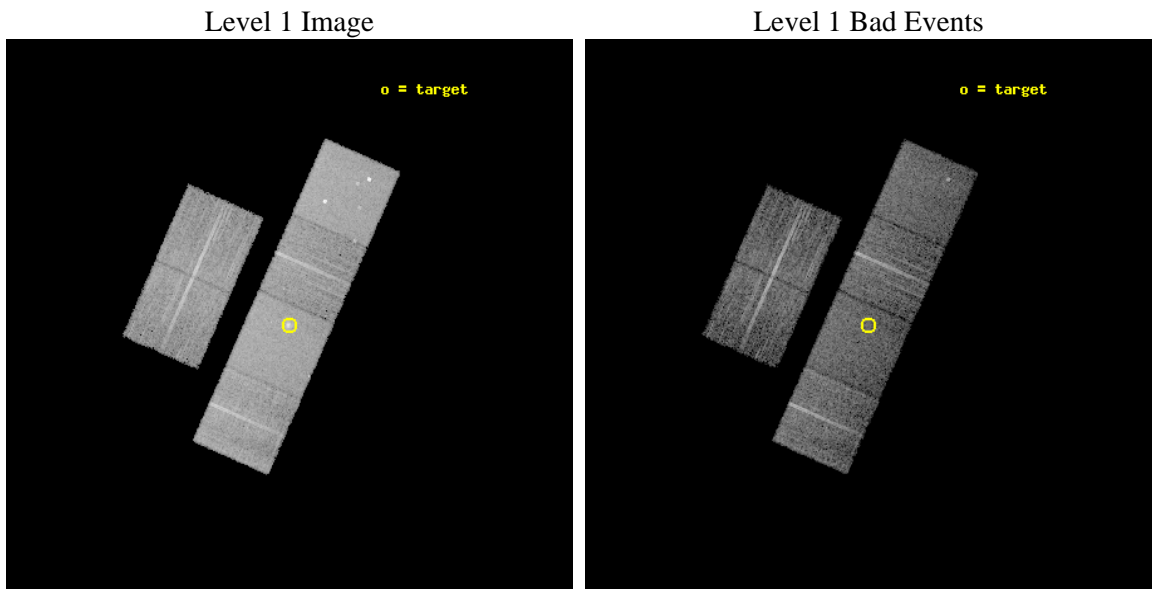
seq_num	700573	Sequence number
obs_id	3134	Observation id
title	SEARCH FOR AN INTERMEDIATE MASS BLACK HOLE IN THE STARBURST GALAXY NGC2146	Proposal title
observer	Dr Hironori Matsumoto	Principal investigator
object	NGC2146	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	94.655417	Observer's specified target RA [deg]
dec_targ	78.356556	Observer's specified target Dec [deg]
ra_nom	94.654933129302	Nominal RA [deg]
dec_nom	78.36087657264	Nominal Dec [deg]
roll_nom	113.84822167201	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9697.9318127632	Sum of GTIs [s]
livetime	9575.1307607565	Livetime [s]
ontime2	9697.9728527665	Sum of GTIs [s]
ontime3	9697.8086927533	Sum of GTIs [s]
ontime5	9697.8907727599	Sum of GTIs [s]
ontime6	9697.8497327566	Sum of GTIs [s]
ontime7	9697.9318127632	Sum of GTIs [s]
ontime8	9697.7676527798	Sum of GTIs [s]
l2events	96020	Number of level 2 events



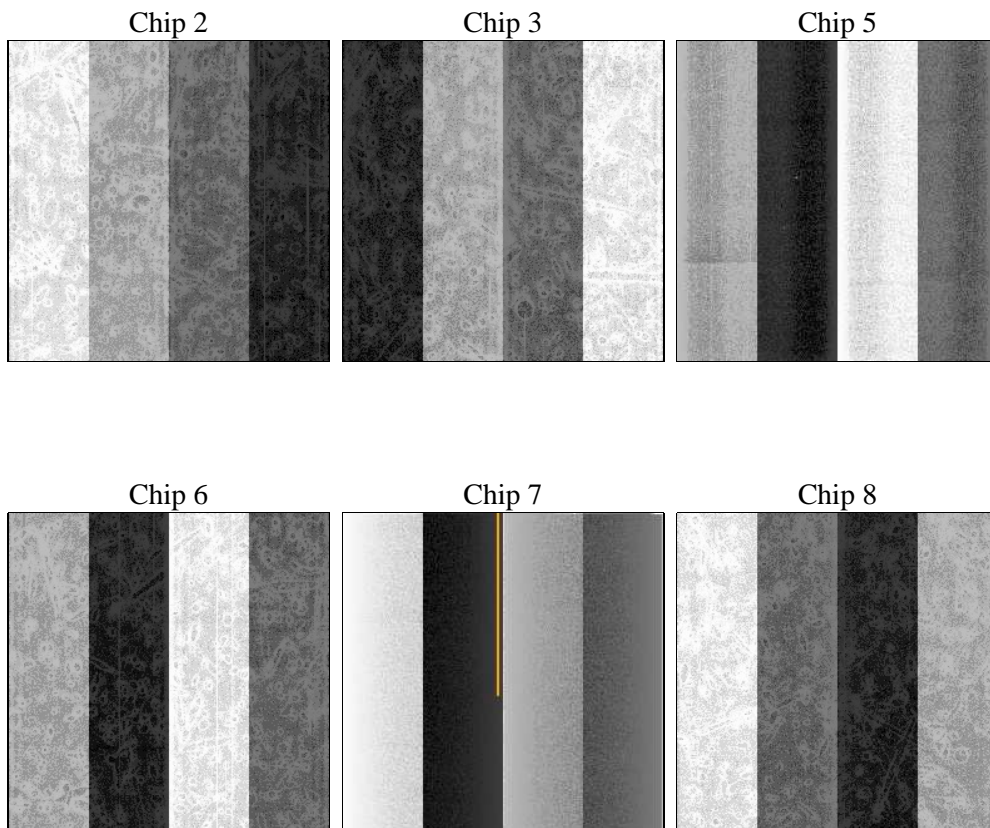
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9697.9318127632	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	9697.9728527665	Sum of GTIs [s]
date	2012-10-16T23:48:30	Date and time of file creation	ontime3	9697.8086927533	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9697.8907727599	Sum of GTIs [s]
			ontime6	9697.8497327566	Sum of GTIs [s]
			ontime7	9697.9318127632	Sum of GTIs [s]
			ontime8	9697.7676527798	Sum of GTIs [s]
			l1events	424677	Number of level 1 events

### 2.1.4 Events

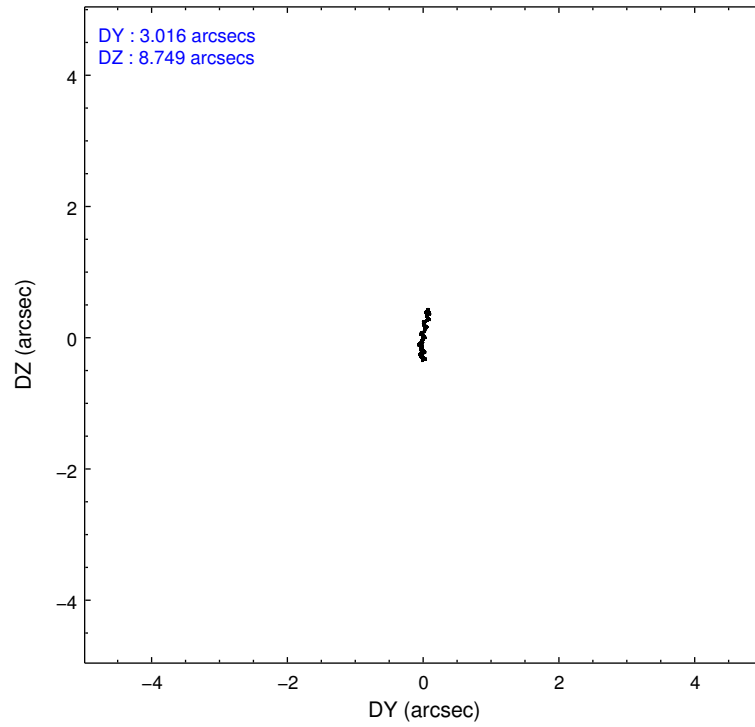
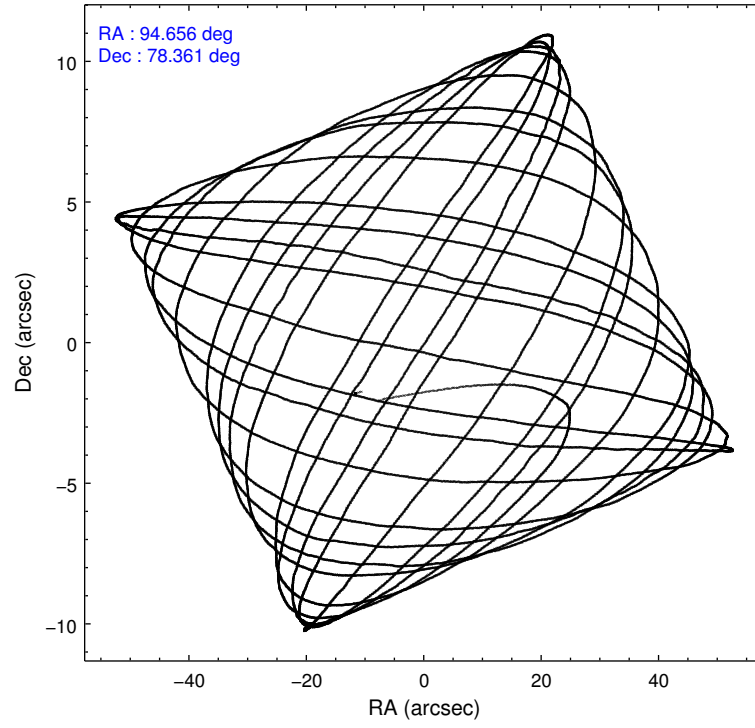
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	61169	56837	90075	60707	81501	74388	grade 0 events	3148	3250	5765	2815	3699	4743
rejected events	54284	49644	47511	53662	46448	59177		5%	5%	6%	4%	4%	6%
rejected %	88%	87%	52%	88%	56%	79%	grade 1 events	37	37	169	22	61	44
								0%	0%	0%	0%	0%	0%
							grade 2 events	1303	1329	12699	1408	7125	3212
								2%	2%	14%	2%	8%	4%
							grade 3 events	631	702	1671	747	3293	1707
								1%	1%	1%	1%	4%	2%
							grade 4 events	684	698	1605	704	3135	1570
								1%	1%	1%	1%	3%	2%
							grade 5 events	2306	2461	6635	2640	7503	3310
								3%	4%	7%	4%	9%	4%
							grade 6 events	1124	1217	20851	1376	17820	3987
								1%	2%	23%	2%	21%	5%
							grade 7 events	51936	47143	40680	50995	38865	55815
								84%	82%	45%	84%	47%	75%

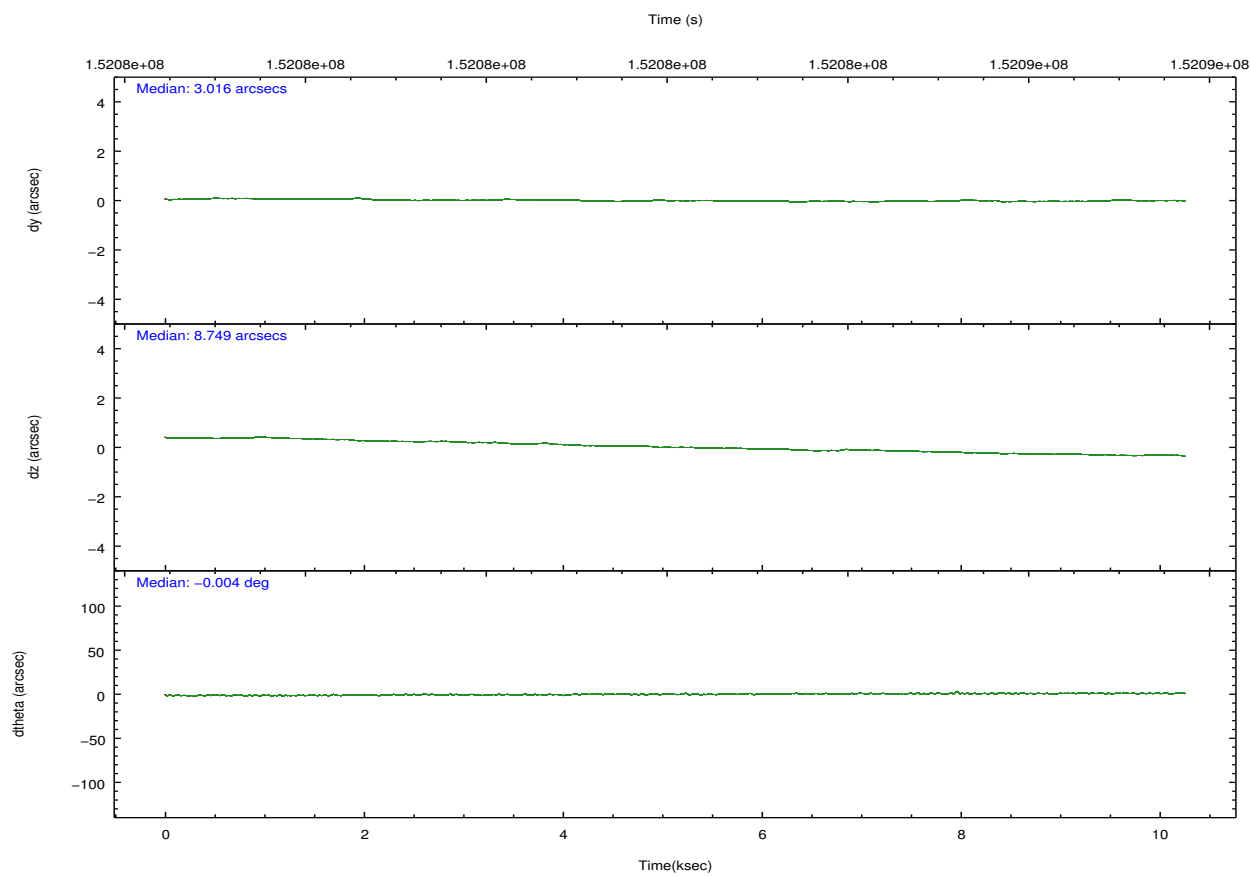
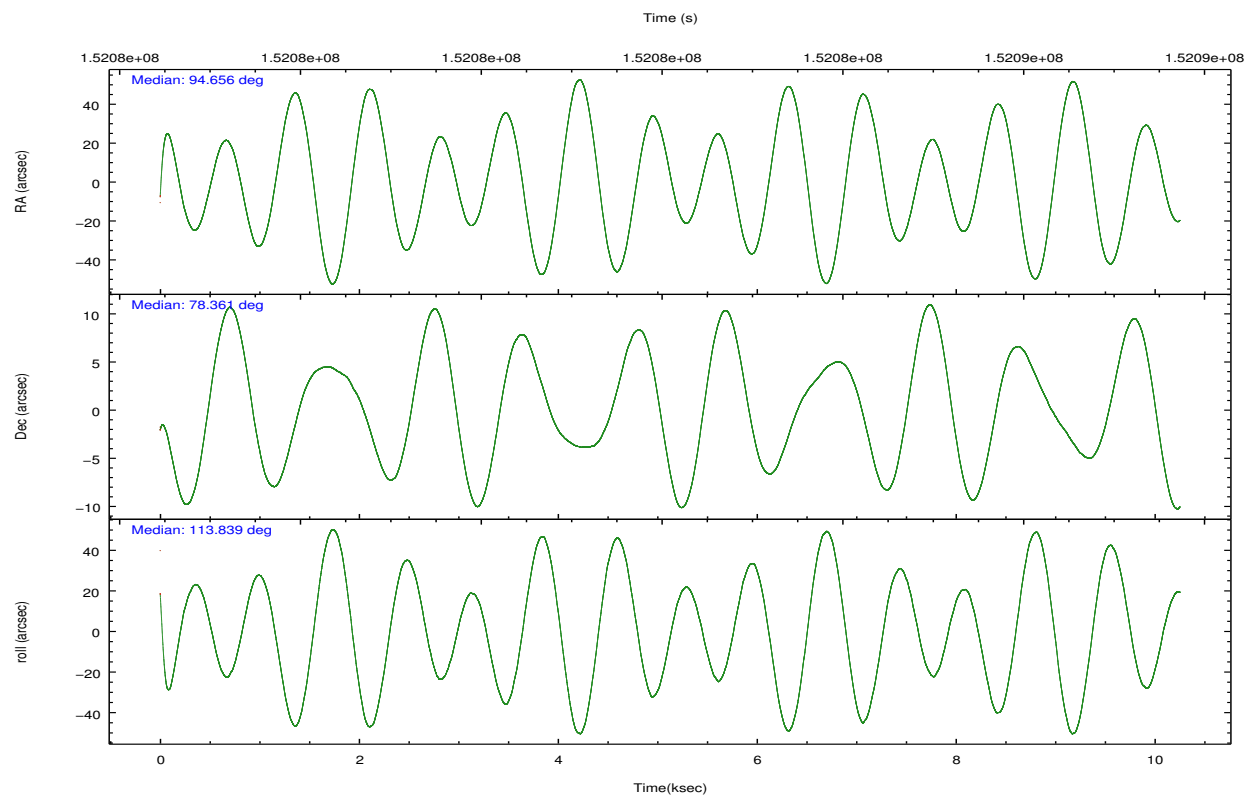


## 2.2 Compared Parameters

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	94.764882	94.65493312930211	Subarray requested	NONE	NONE
[deg] Pointing Dec	78.345138	78.36087657263964	Alternating exposures requested	N	N
[deg] Pointing Roll	113.583884	113.8482216720071	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	152077209.184000	152076201.06767			
Observation start date	2002-10-27T03:39:05	2002-10-27T03:23:21			
[s] Observation end time (MET)	152087209.184000	152087796.89315			
Observation end date	2002-10-27T06:25:45	2002-10-27T06:36:36			
Read mode	TIMED	TIMED			

## 2.3 Aspect



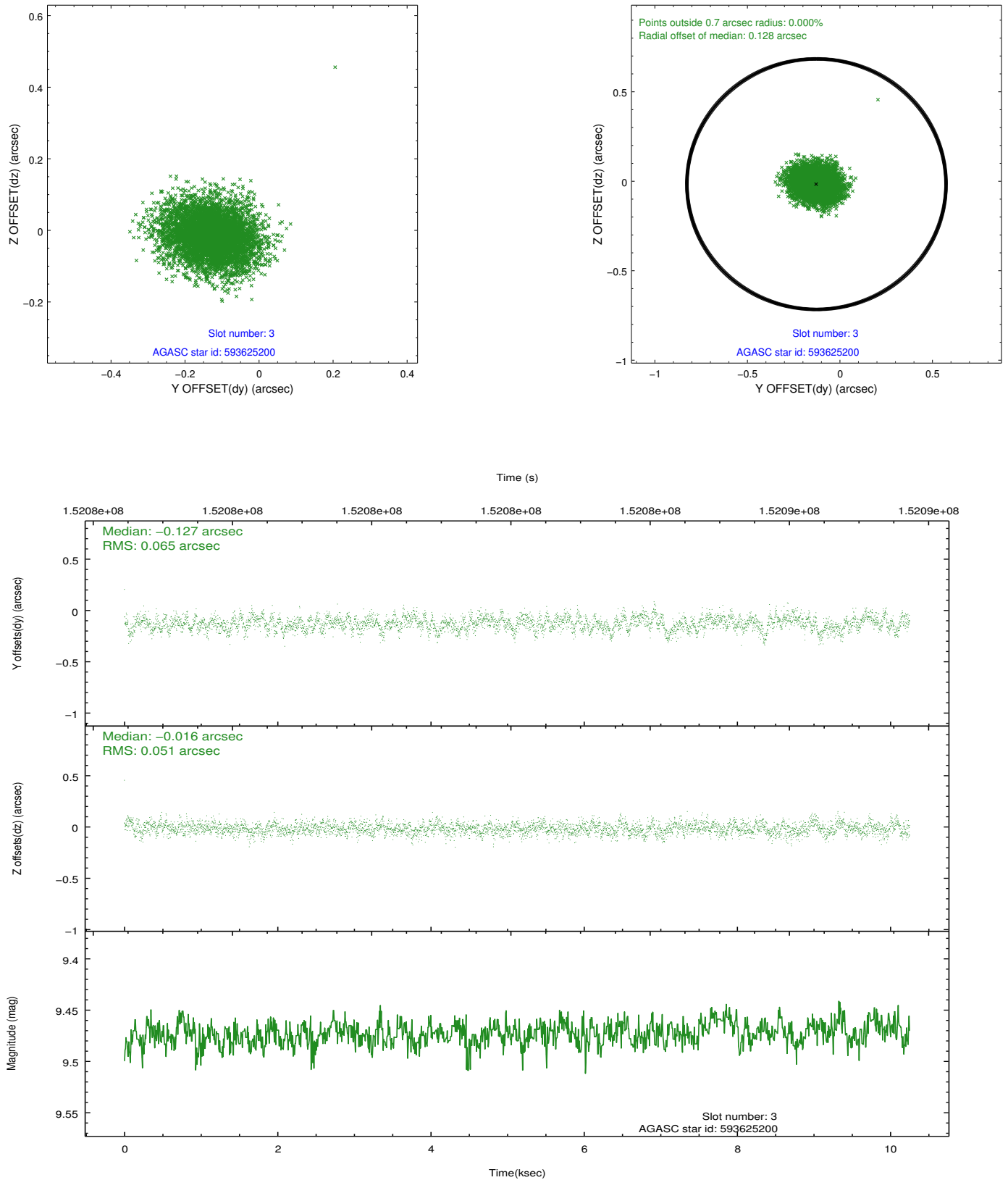


### Slot Statistics

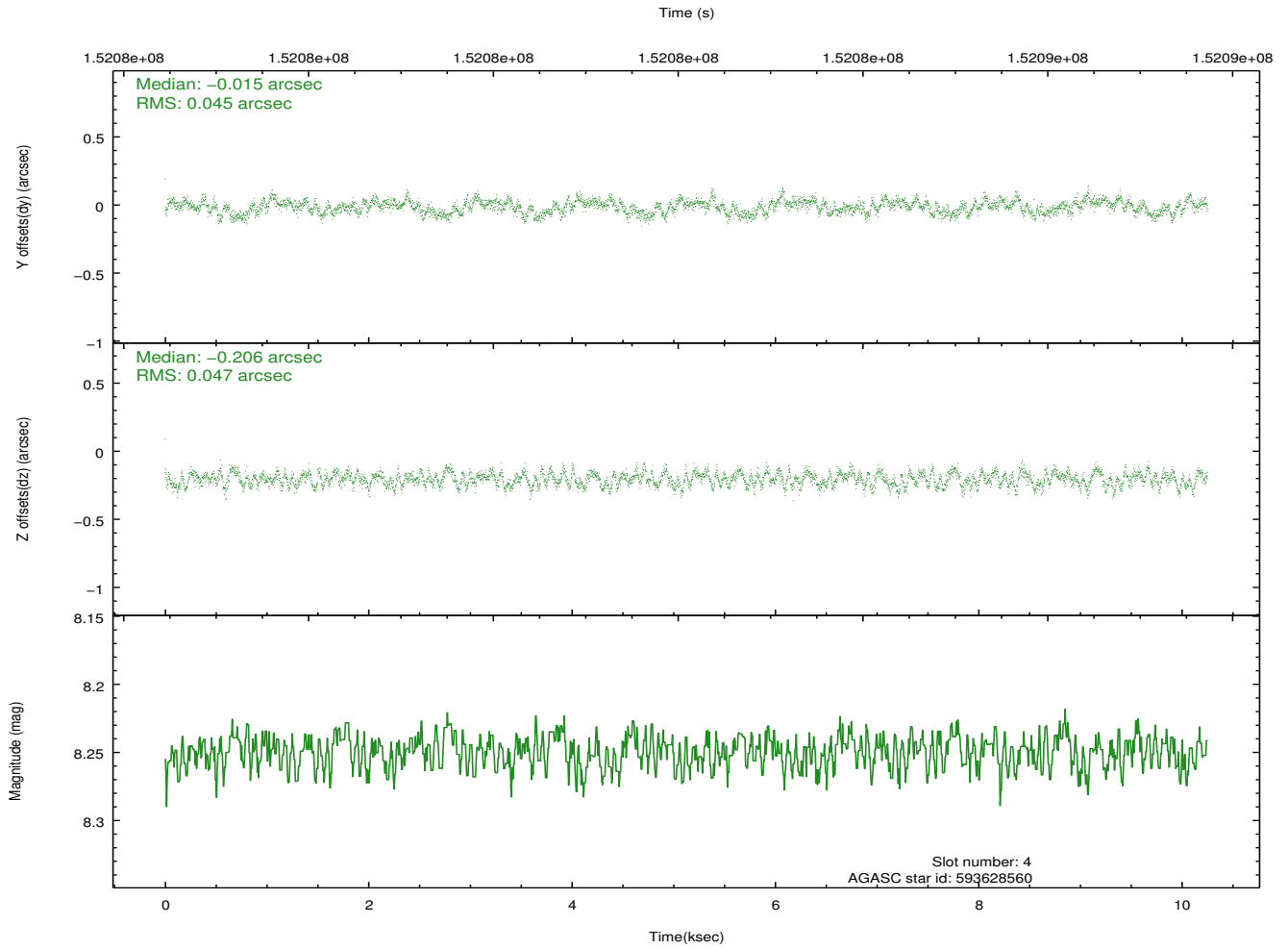
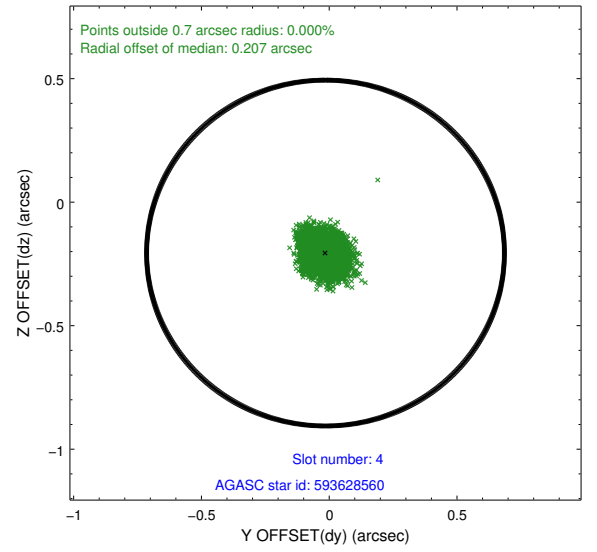
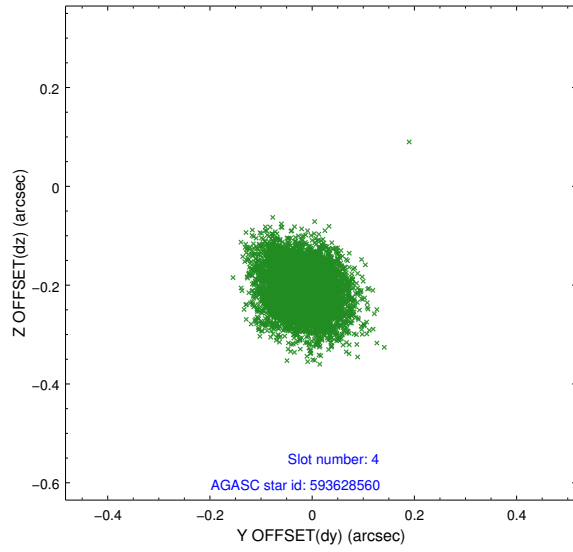
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2501	-0.021	-0.009	0.008	0.013	0.000000	0.000000	-755.69	-1730.00
1	FID	ACIS-S-4	7.20	2501	0.005	0.012	0.008	0.013	0.000000	0.000000	2157.38	177.97
2	FID	ACIS-S-5	7.24	2501	-0.015	0.005	0.007	0.012	0.000000	0.000000	-1807.86	172.22
3	GUIDE	593625200	9.47	5001	-0.127	-0.016	0.086	0.144	91.931681	78.701164	2018.52	1299.48
4	GUIDE	593628560	8.25	5002	-0.015	-0.206	0.070	0.111	92.260818	78.027017	-264.28	2156.17
5	GUIDE	593629992	7.56	5002	-0.020	0.135	0.069	0.106	98.350838	78.168477	-1566.10	-2201.39
6	GUIDE	593637632	9.37	5002	0.264	-0.068	0.087	0.143	95.478024	77.755599	-2159.38	348.58
7	GUIDE	594154400	9.13	5000	-0.100	0.153	0.088	0.140	96.629306	78.815756	1051.31	-1878.15

## 2.4 Star Slots

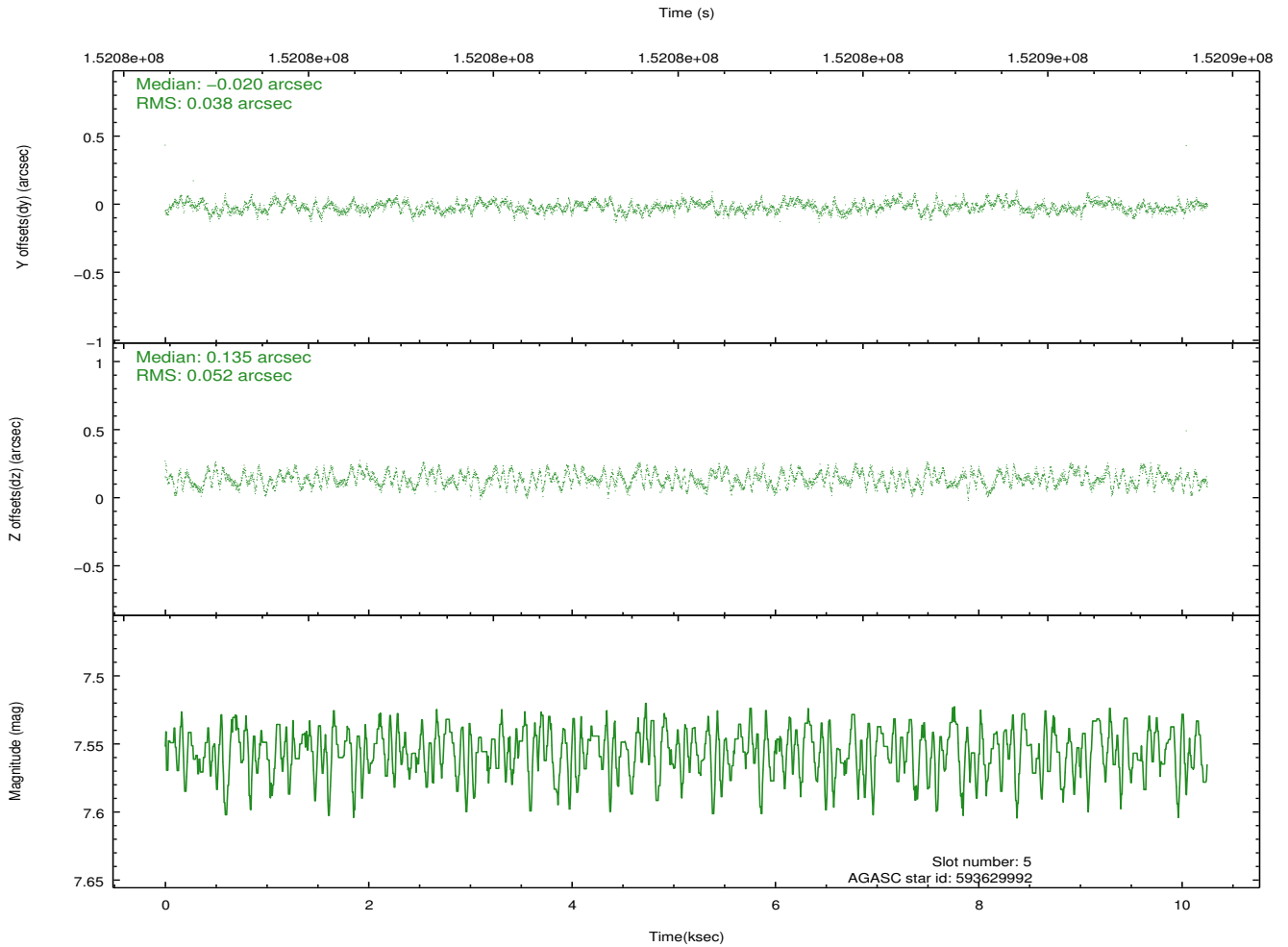
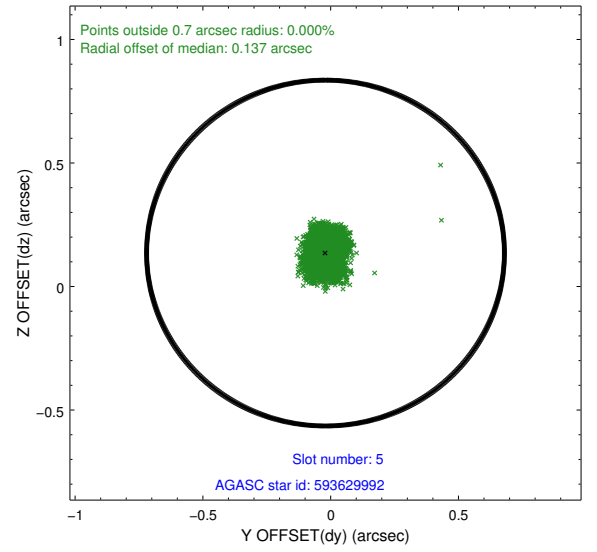
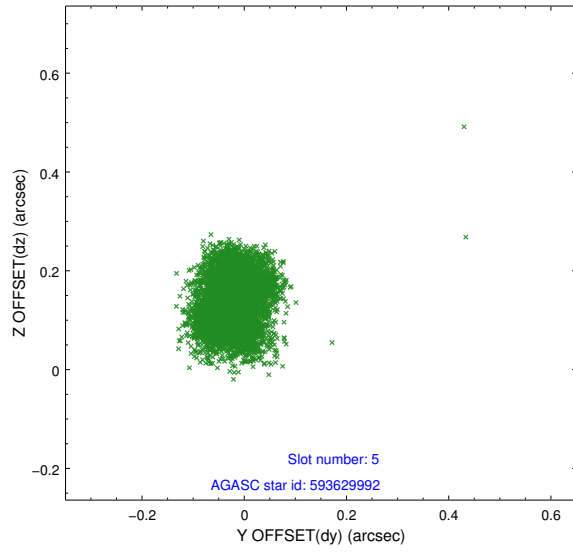
### 2.4.1 Slot 3



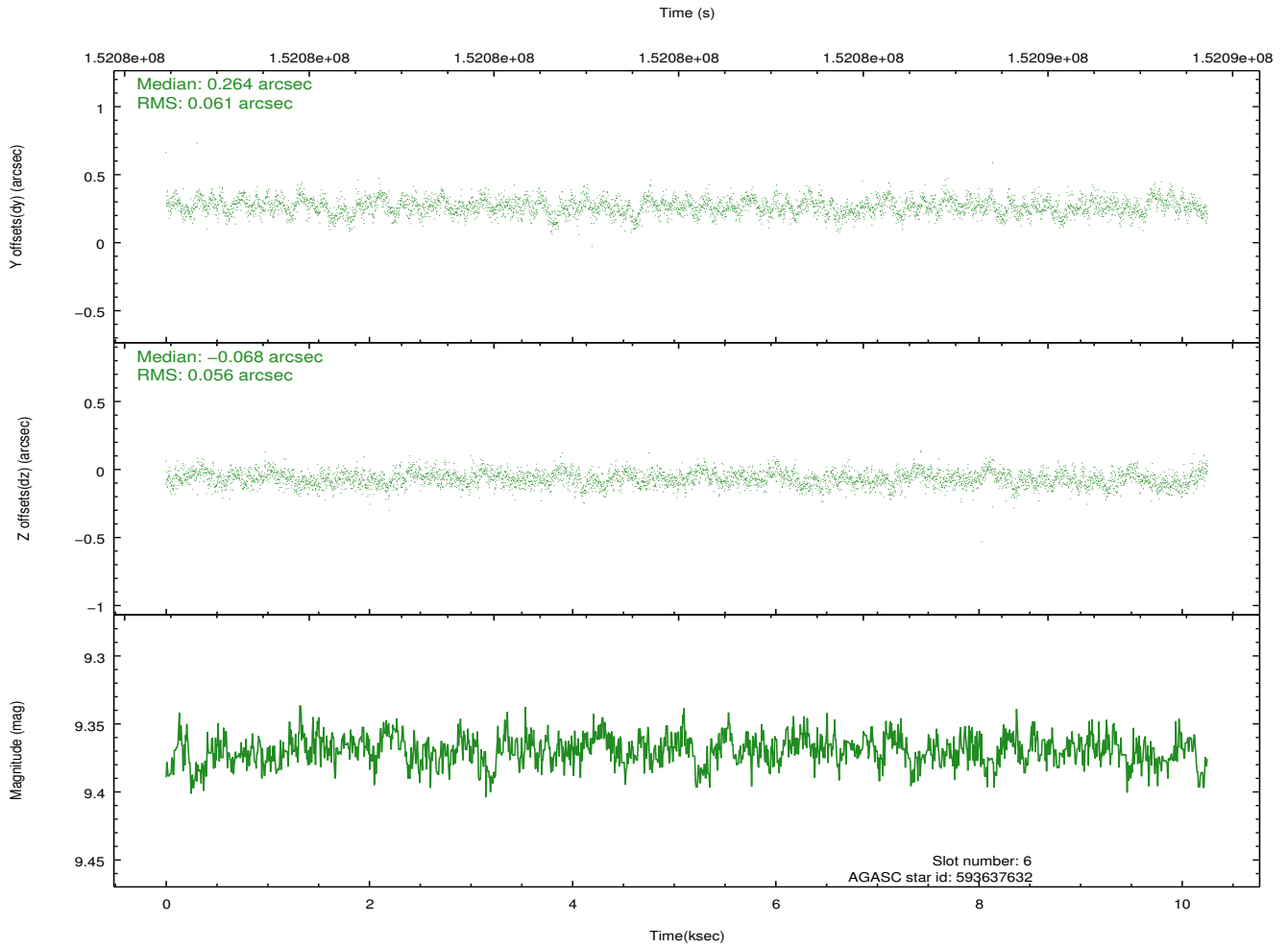
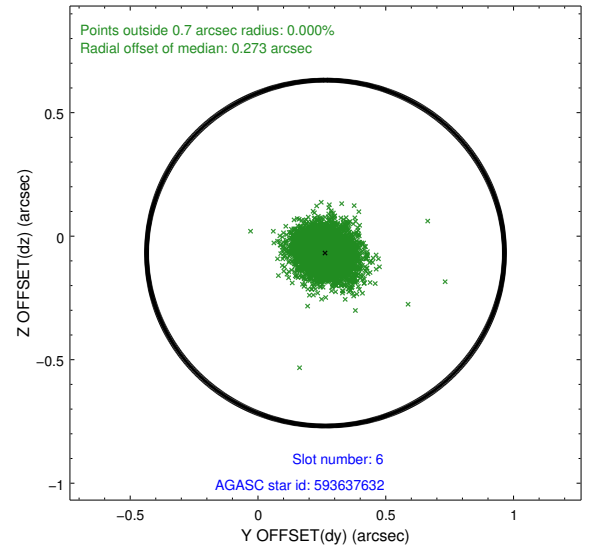
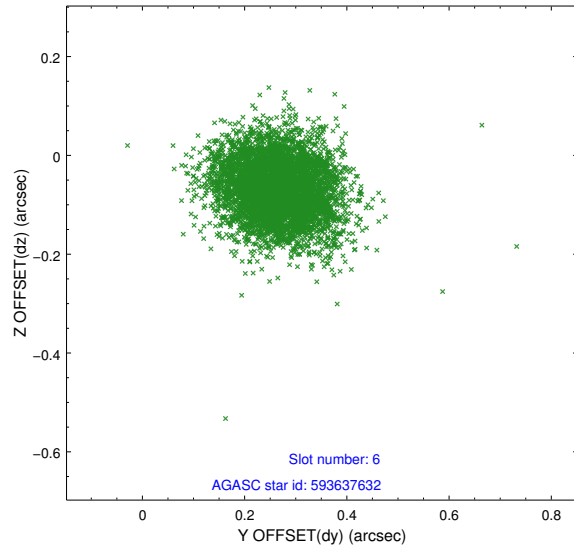
## 2.4.2 Slot 4



### 2.4.3 Slot 5

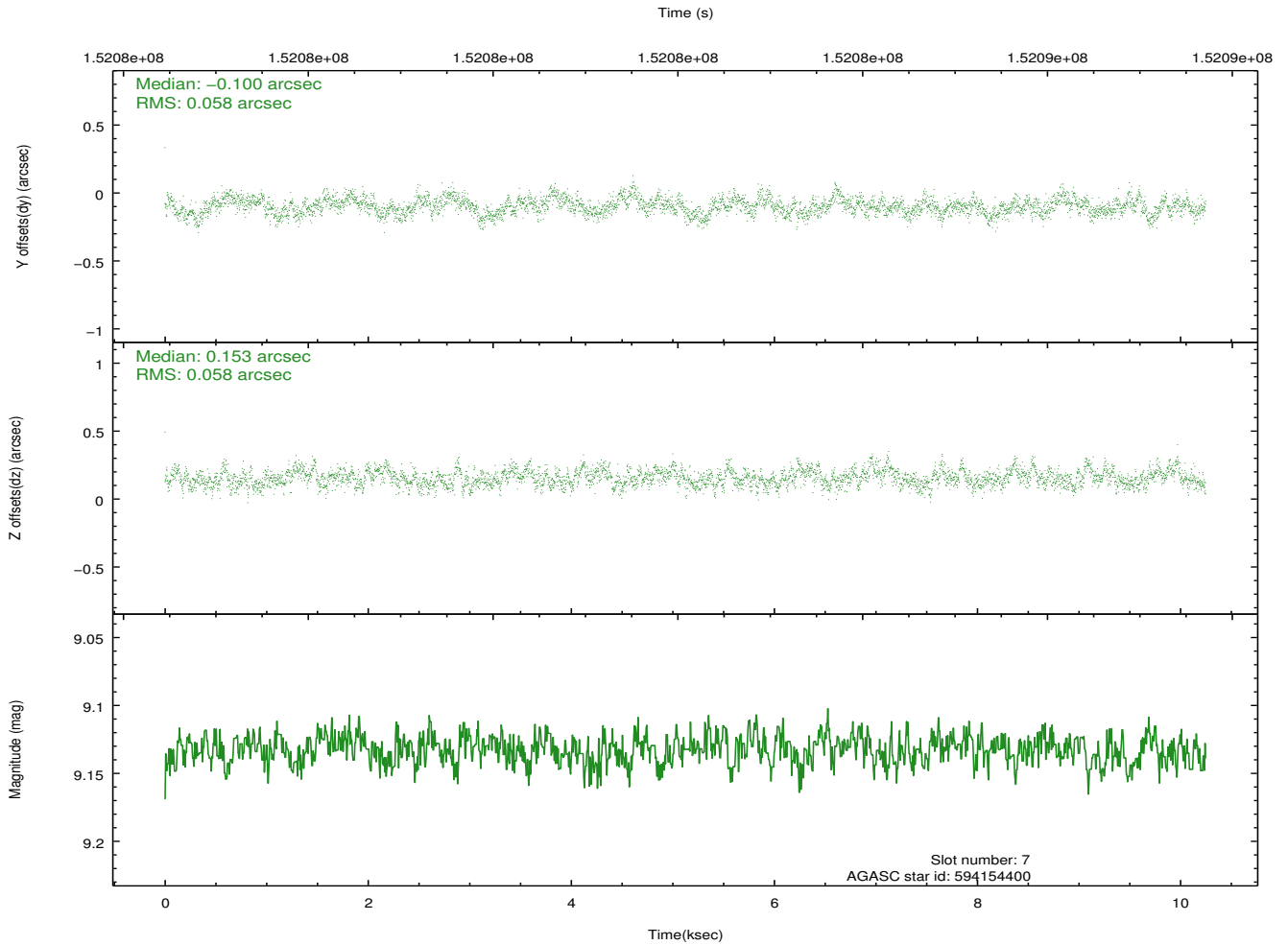
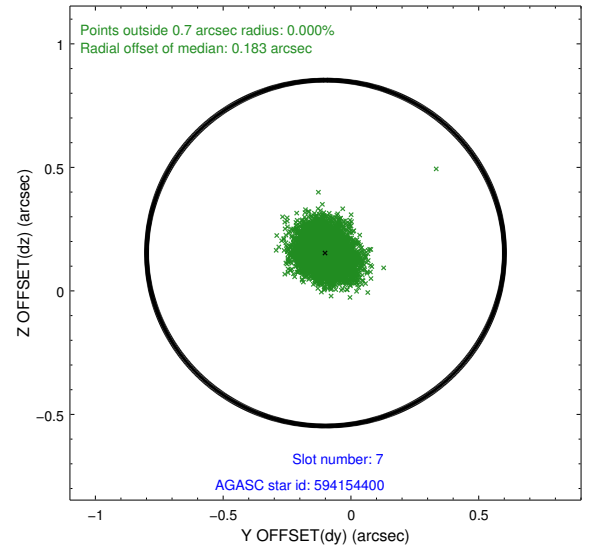
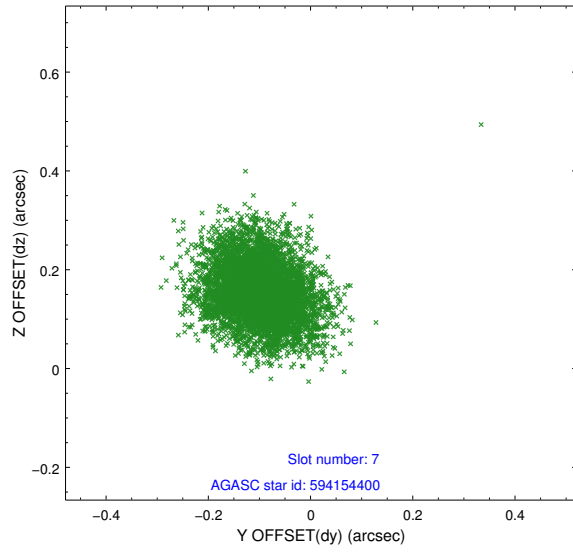


## 2.4.4 Slot 6



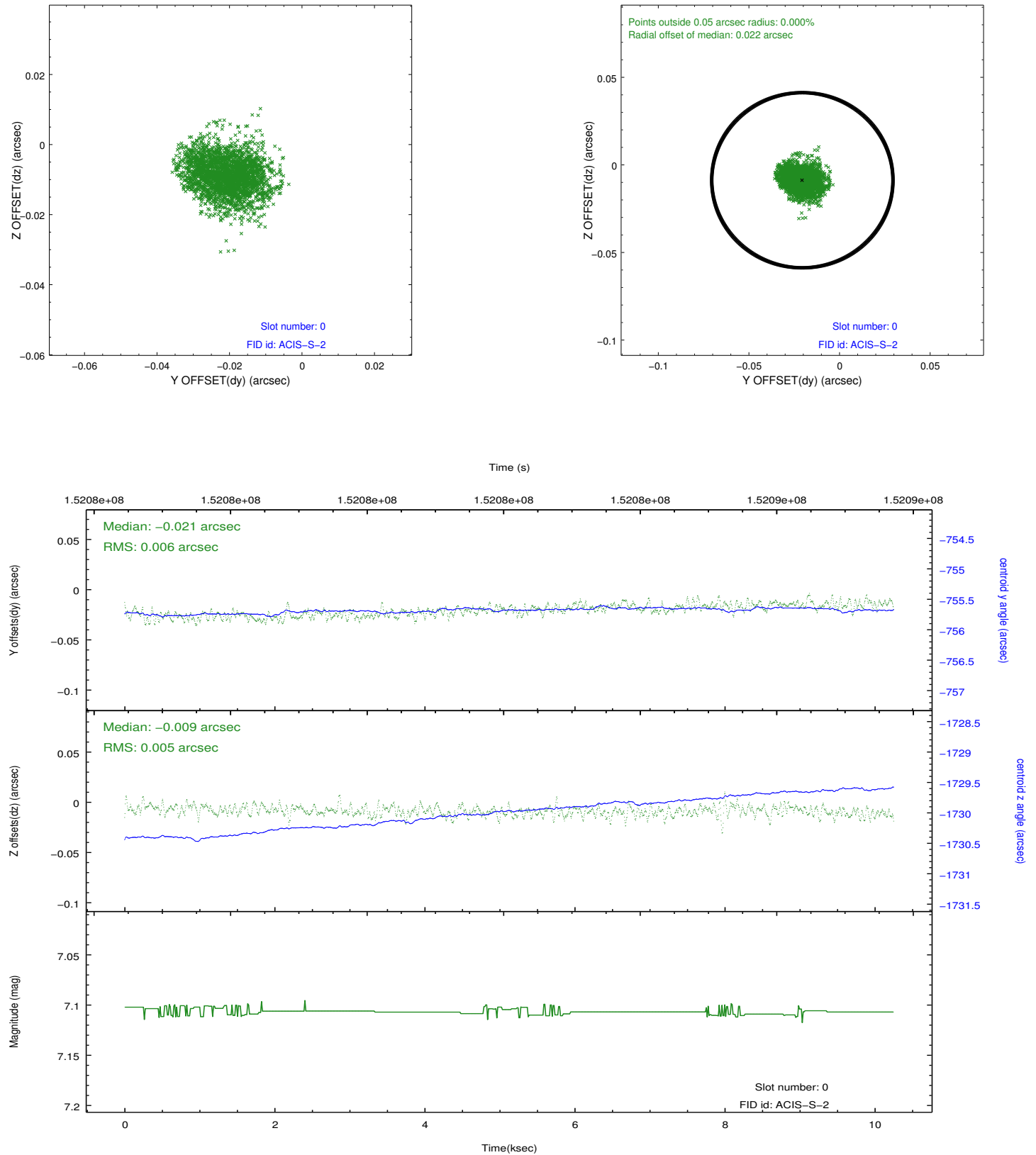


## 2.4.5 Slot 7

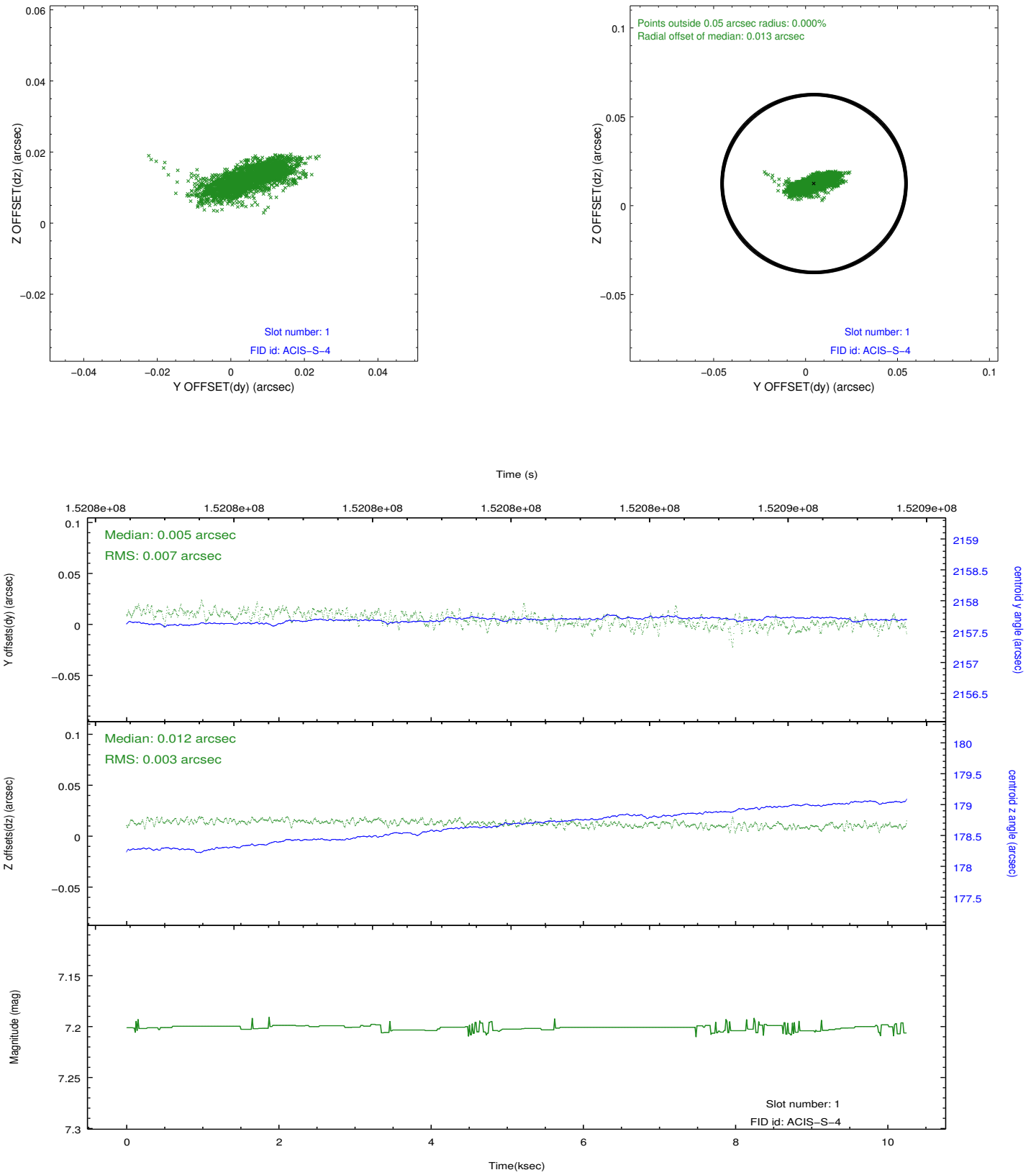


## 2.5 FID Slots

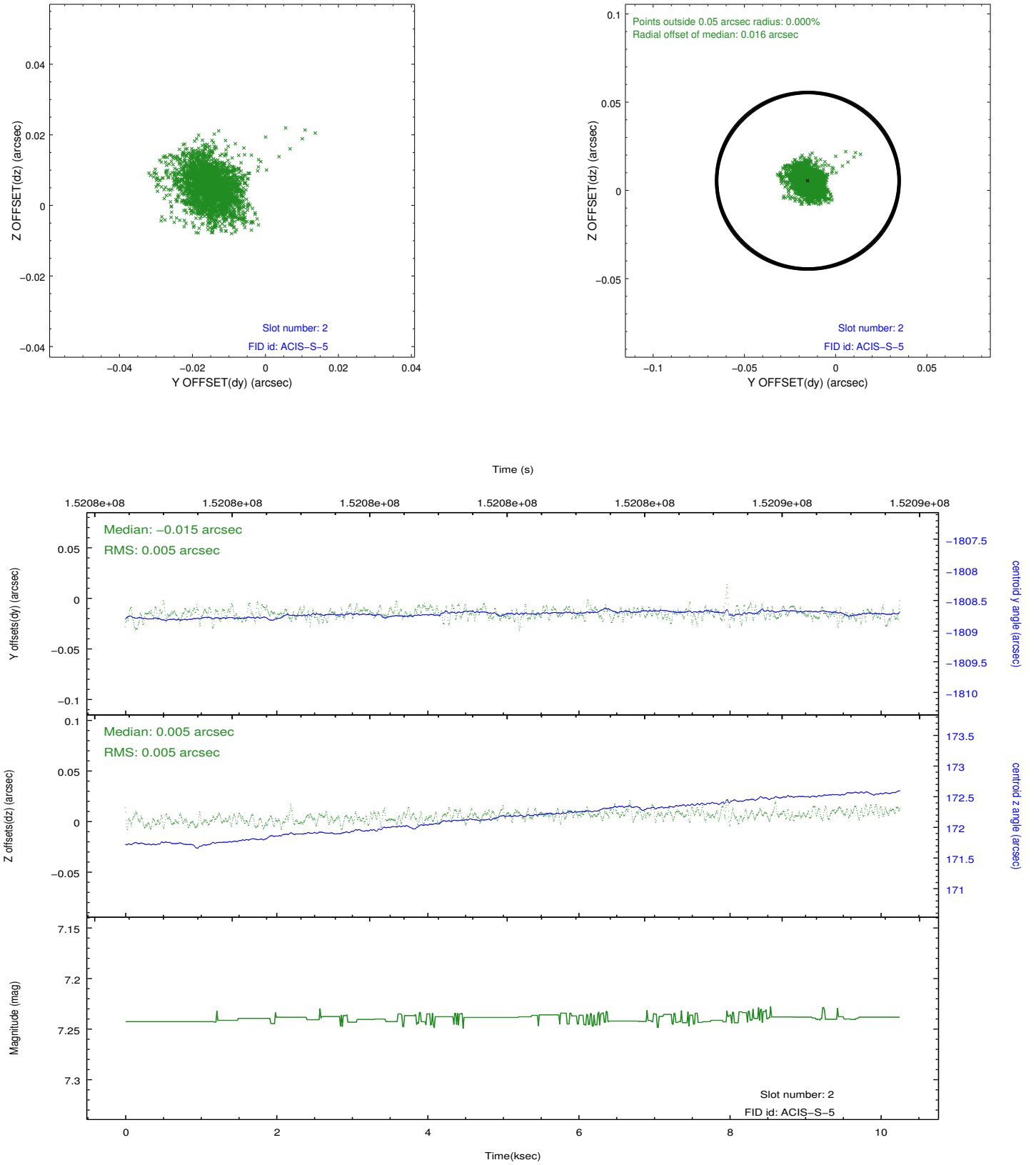
### 2.5.1 Slot 0



## 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)	2012.10.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.699

### A.2 Comments