

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3136 - L2 Version 3  
Chandra X-Ray Center

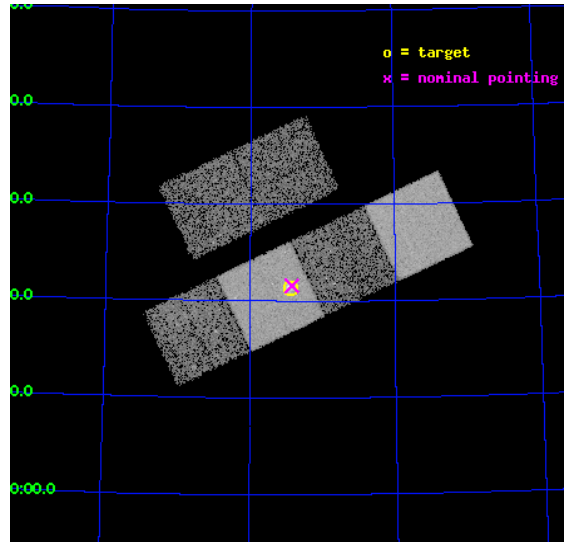
L2 Processing Date : Oct 18 2012

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# 1 Front

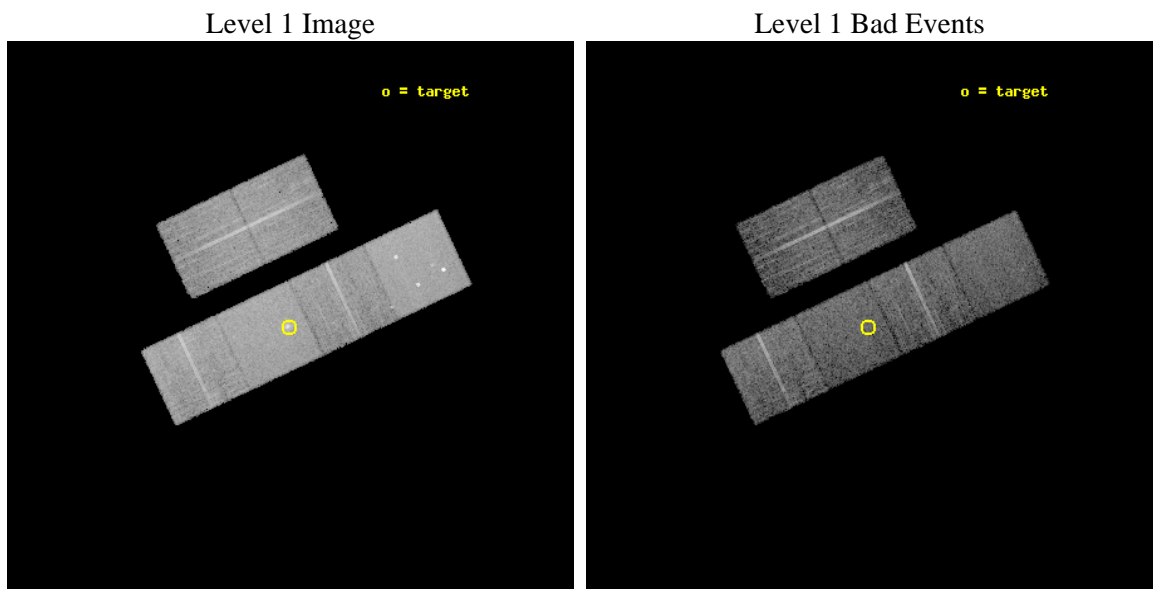
seq_num	700575	Sequence number
obs_id	3136	Observation id
title	SEARCH FOR AN INTERMEDIATE MASS BLACK HOLE IN THE STARBURST GALAXY NGC2146	Proposal title
observer	Dr Hironori Matsumoto	Principal investigator
object	NGC2146	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	94.655417	Observer's specified target RA [deg]
dec_targ	78.356556	Observer's specified target Dec [deg]
ra_nom	94.640896886869	Nominal RA [deg]
dec_nom	78.359819237161	Nominal Dec [deg]
roll_nom	154.71186882922	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9958.3589826226	Sum of GTIs [s]
livetime	9832.2602449808	Livetime [s]
ontime2	9961.5999628901	Sum of GTIs [s]
ontime3	9961.5946773589	Sum of GTIs [s]
ontime5	9961.5999628901	Sum of GTIs [s]
ontime6	9961.5999628901	Sum of GTIs [s]
ontime7	9958.3589826226	Sum of GTIs [s]
ontime8	9961.5536373854	Sum of GTIs [s]
l2events	104529	Number of level 2 events



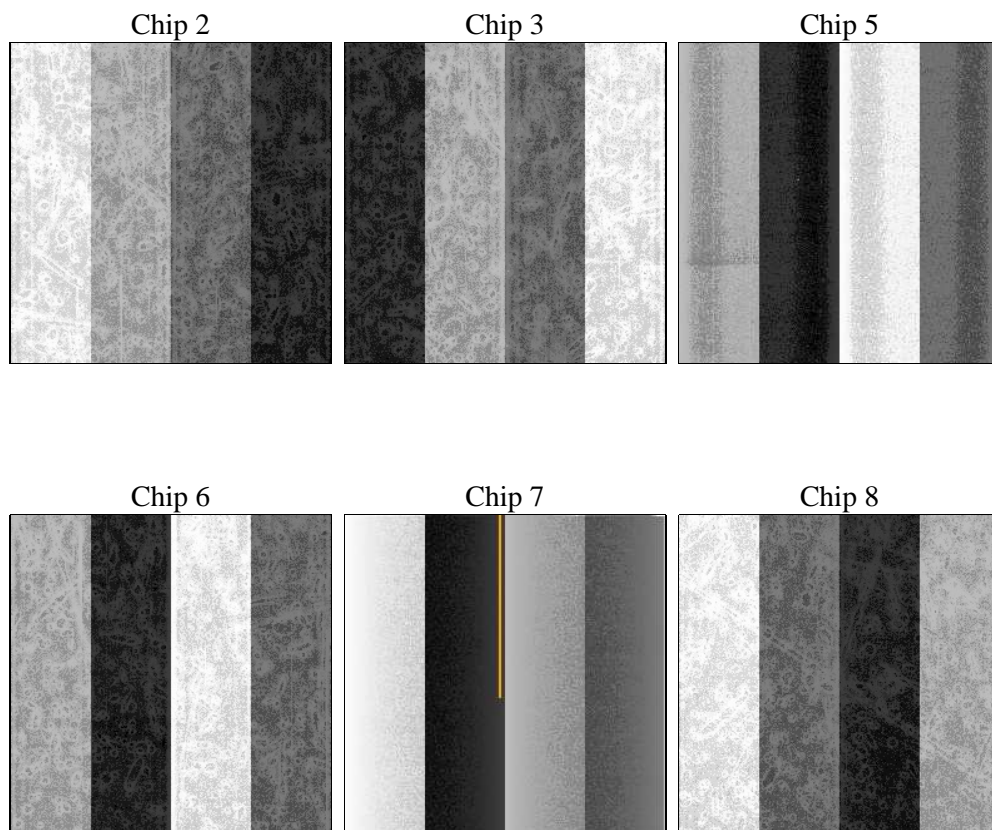
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9958.3589826226	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	9961.5999628901	Sum of GTIs [s]
date	2012-10-18T13:55:19	Date and time of file creation	ontime3	9961.5946773589	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9961.5999628901	Sum of GTIs [s]
			ontime6	9961.5999628901	Sum of GTIs [s]
			ontime7	9958.3589826226	Sum of GTIs [s]
			ontime8	9961.5536373854	Sum of GTIs [s]
			l1events	457210	Number of level 1 events

### 2.1.4 Events

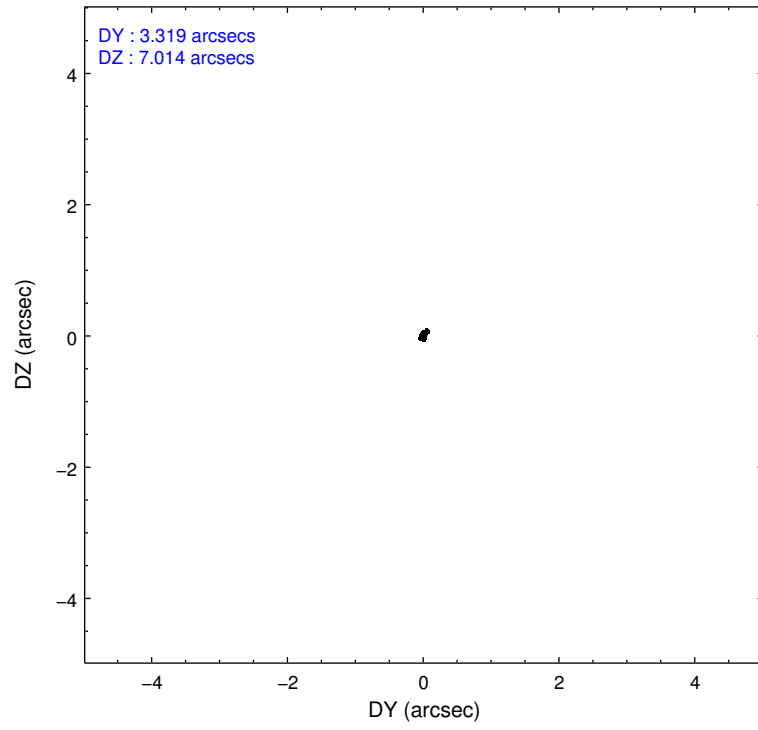
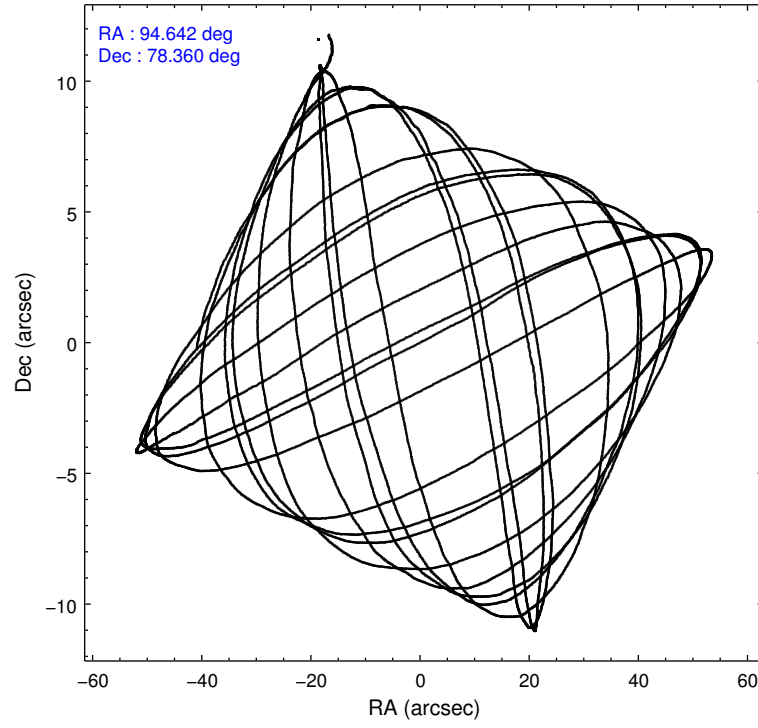
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	65860	62473	96453	64515	87999	79910	grade 0 events	3273	3088	6653	3125	4088	5707
rejected events	58526	55224	49929	56818	49880	63238		4%	4%	6%	4%	4%	7%
rejected %	88%	88%	51%	88%	56%	79%	grade 1 events	25	32	188	32	76	54
								0%	0%	0%	0%	0%	0%
							grade 2 events	1438	1404	13995	1598	7670	3546
								2%	2%	14%	2%	8%	4%
							grade 3 events	722	730	1908	747	3431	1730
								1%	1%	1%	1%	3%	2%
							grade 4 events	704	709	1755	764	3534	1686
								1%	1%	1%	1%	4%	2%
							grade 5 events	2445	2677	6930	3015	8185	3704
								3%	4%	7%	4%	9%	4%
							grade 6 events	1198	1320	22228	1464	19407	4006
								1%	2%	23%	2%	22%	5%
							grade 7 events	56055	52513	42796	53770	41608	59477
								85%	84%	44%	83%	47%	74%

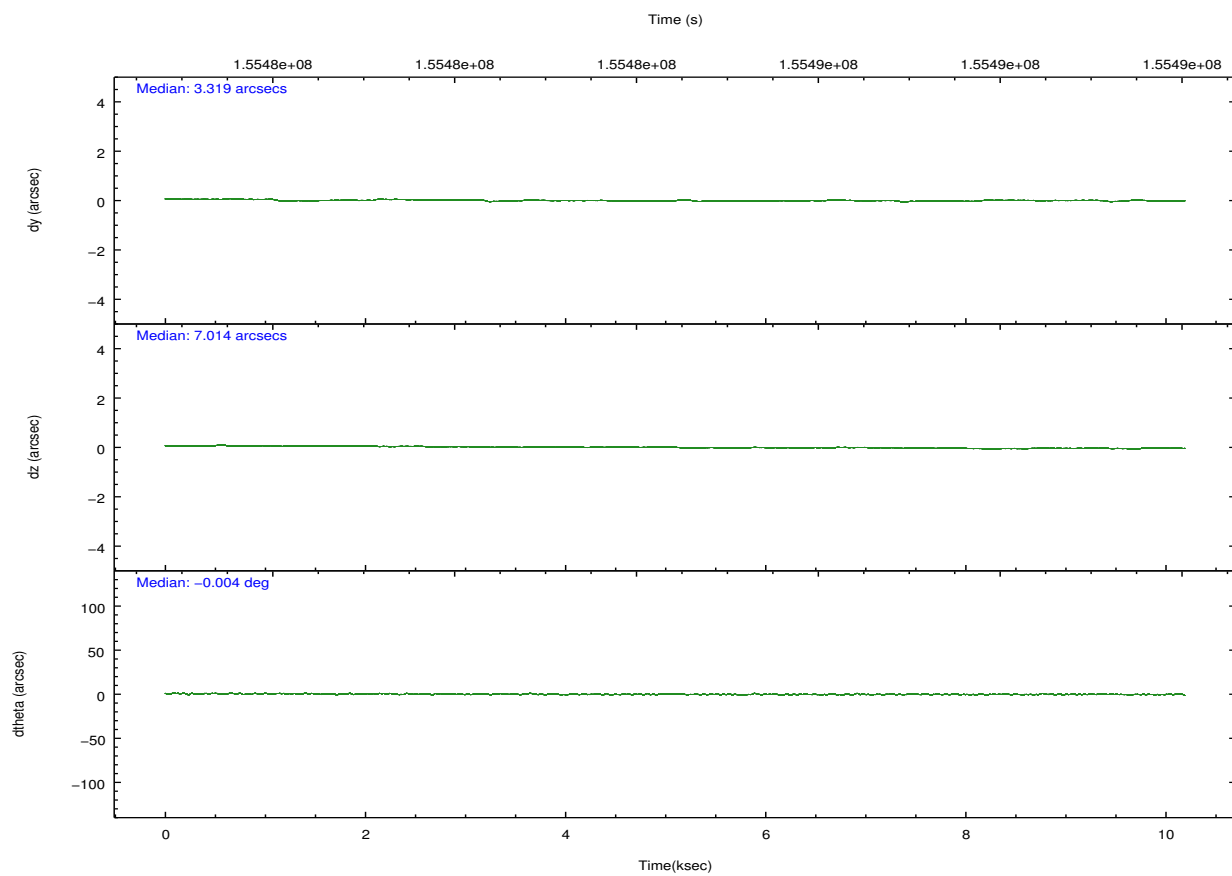
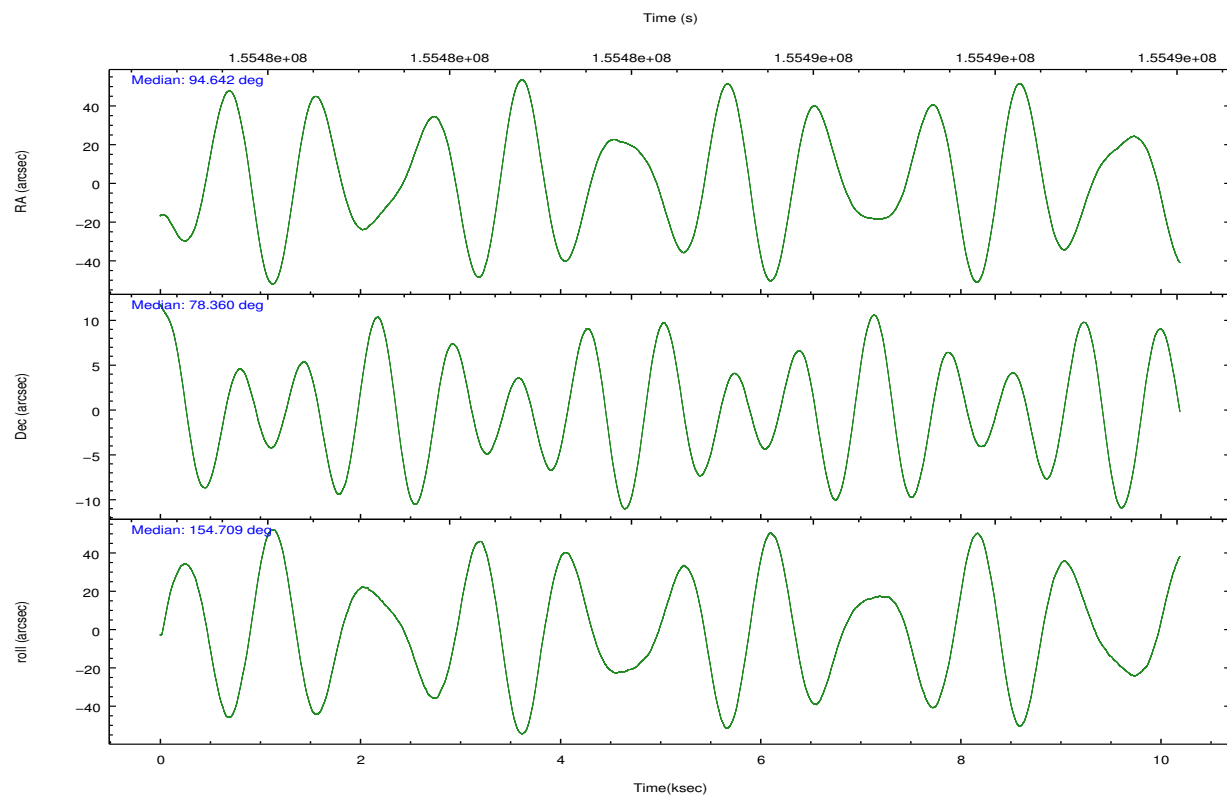


## 2.2 Compared Parameters

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	94.775346	94.64089688686884	Subarray requested	NONE	NONE
[deg] Pointing Dec	78.362345	78.35981923716123	Alternating exposures requested	N	N
[deg] Pointing Roll	154.423572	154.7118688292191	[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)	155479517.184000	155478550.33428			
Observation start date	2002-12-05T12:44:13	2002-12-05T12:29:10			
[s] Observation end time (MET)	155489517.184000	155490338.34727			
Observation end date	2002-12-05T15:30:53	2002-12-05T15:45:38			
Read mode	TIMED	TIMED			

## 2.3 Aspect



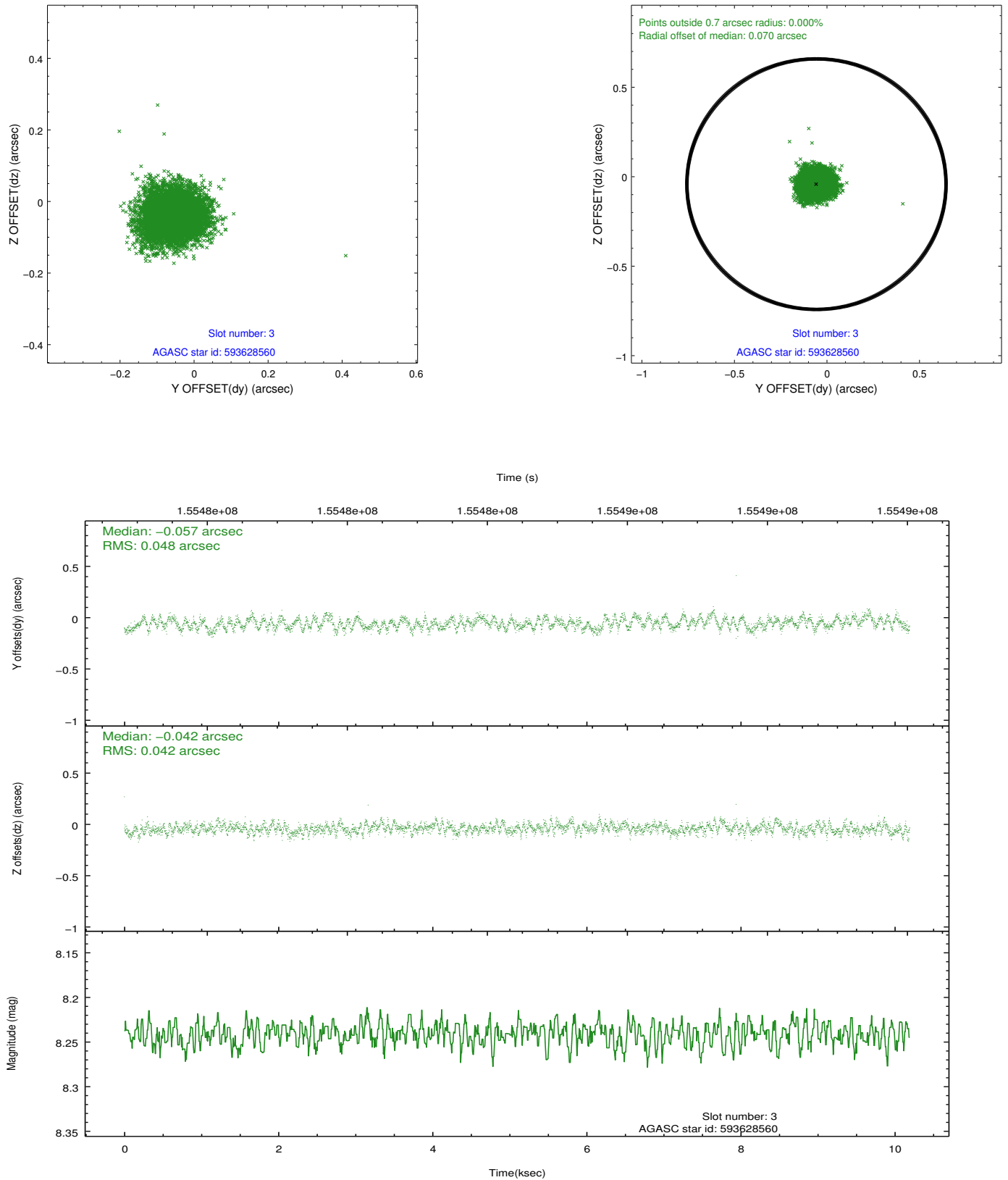


Slot Statistics

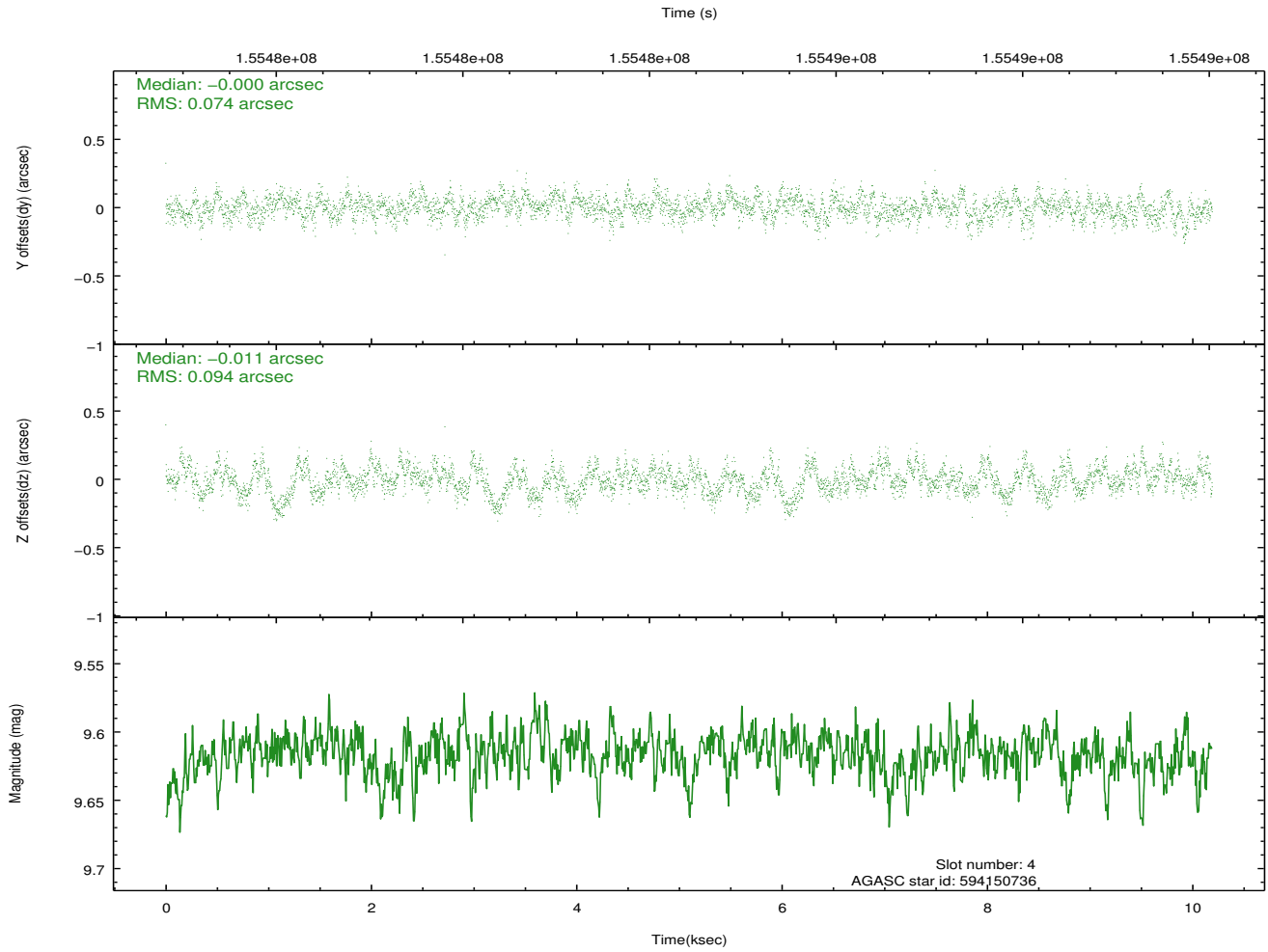
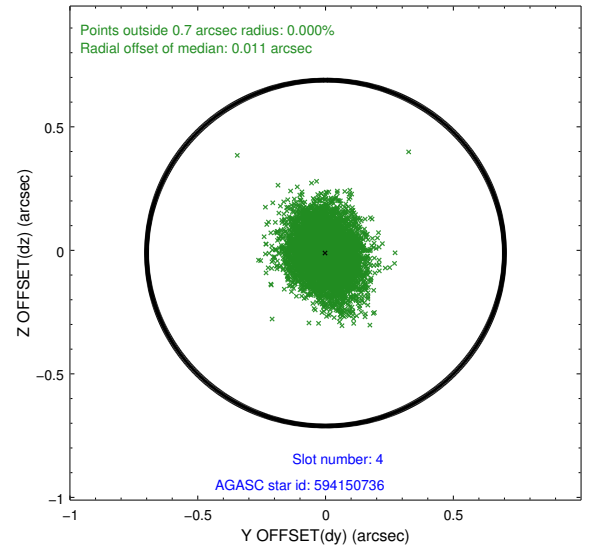
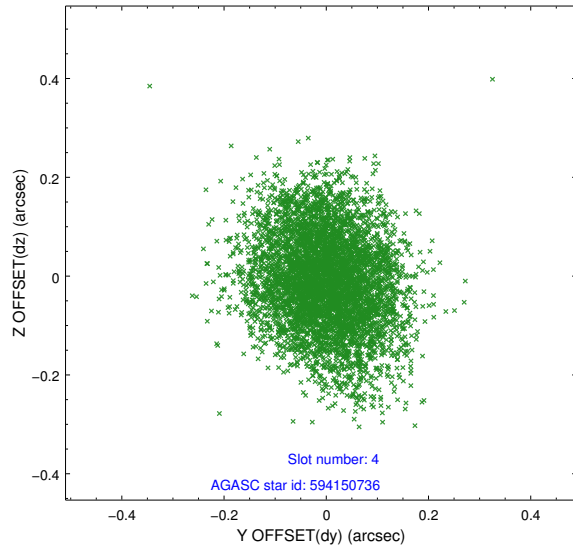
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	2486	-0.020	-0.002	0.009	0.019	0.000000	0.000000	-755.99	-1728.19
1	FID	ACIS-S-4	7.20	2486	0.015	0.010	0.010	0.028	0.000000	0.000000	2157.08	179.78
2	FID	ACIS-S-5	7.24	2487	-0.025	0.000	0.008	0.017	0.000000	0.000000	-1808.17	174.02
3	GUIDE	593628560	8.24	4968	-0.057	-0.042	0.068	0.107	92.260818	78.027017	1190.06	1863.29
4	GUIDE	594150736	9.62	4962	-0.000	-0.011	0.129	0.206	92.798234	78.971982	2186.09	-1411.98
5	GUIDE	593630824	7.87	4971	0.031	0.172	0.068	0.105	97.139560	77.959365	-2210.93	510.05
6	GUIDE	593631272	8.35	4972	0.105	-0.279	0.067	0.109	97.229274	77.907214	-2359.48	644.35
7	GUIDE	594154400	9.13	4971	-0.077	0.163	0.108	0.167	96.629306	78.815756	-453.98	-2049.08

## 2.4 Star Slots

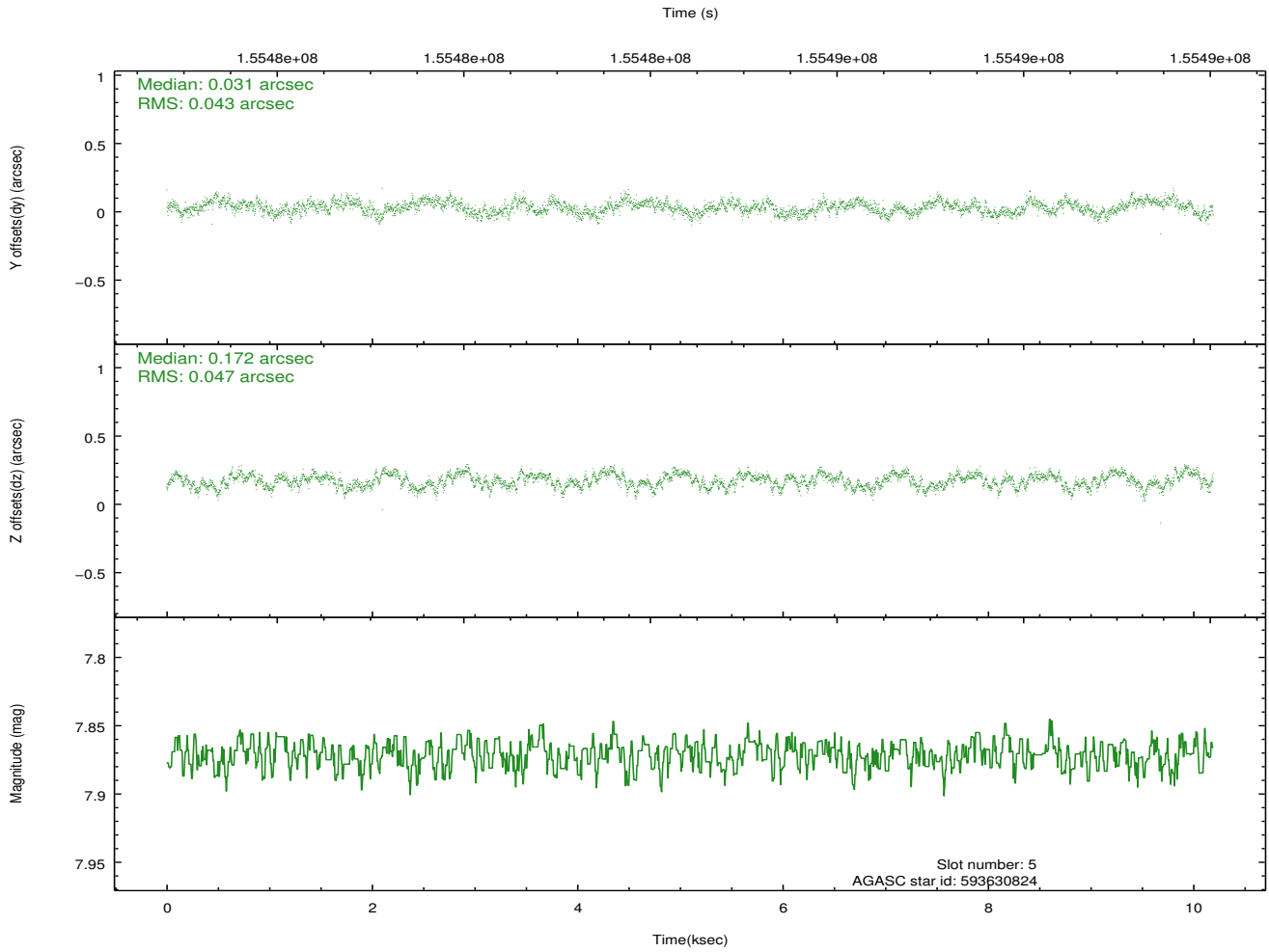
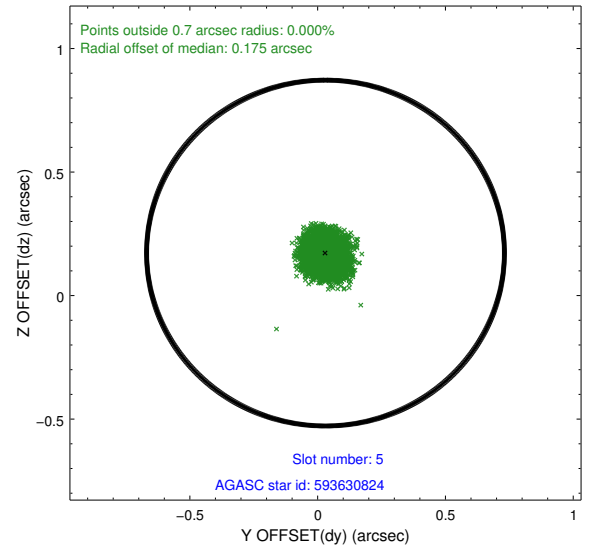
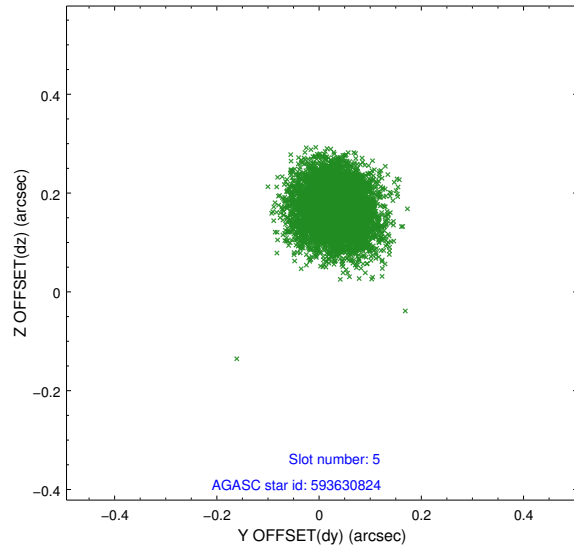
### 2.4.1 Slot 3



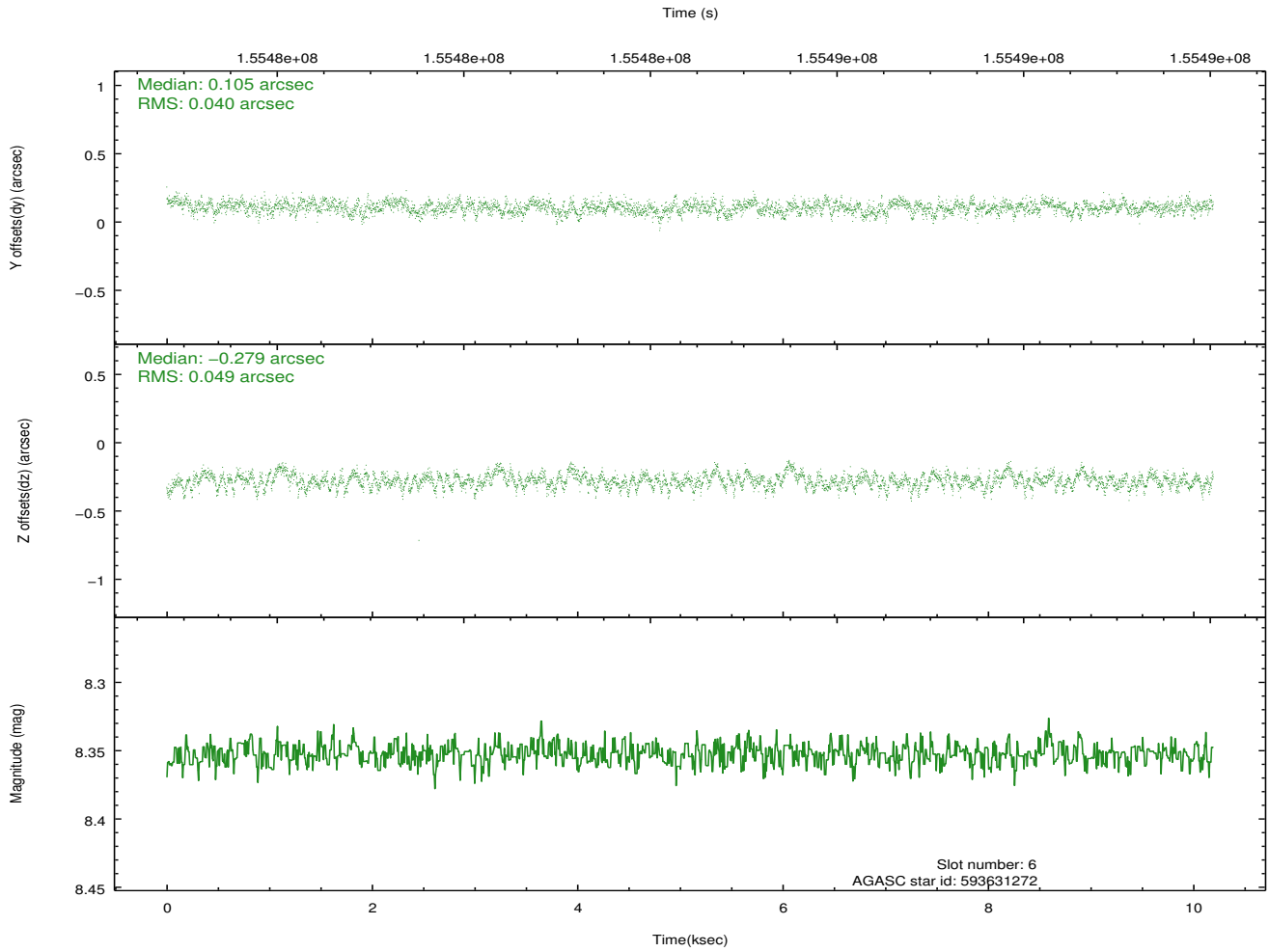
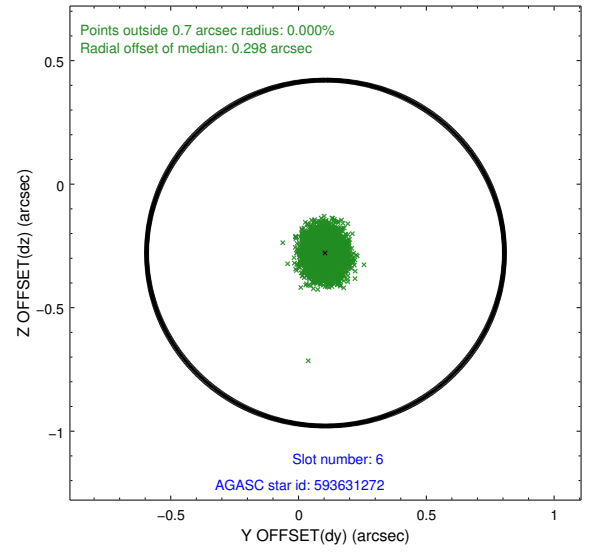
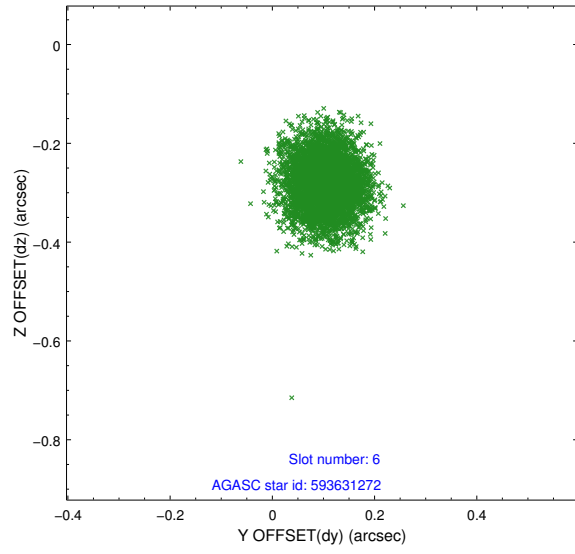
## 2.4.2 Slot 4



### 2.4.3 Slot 5

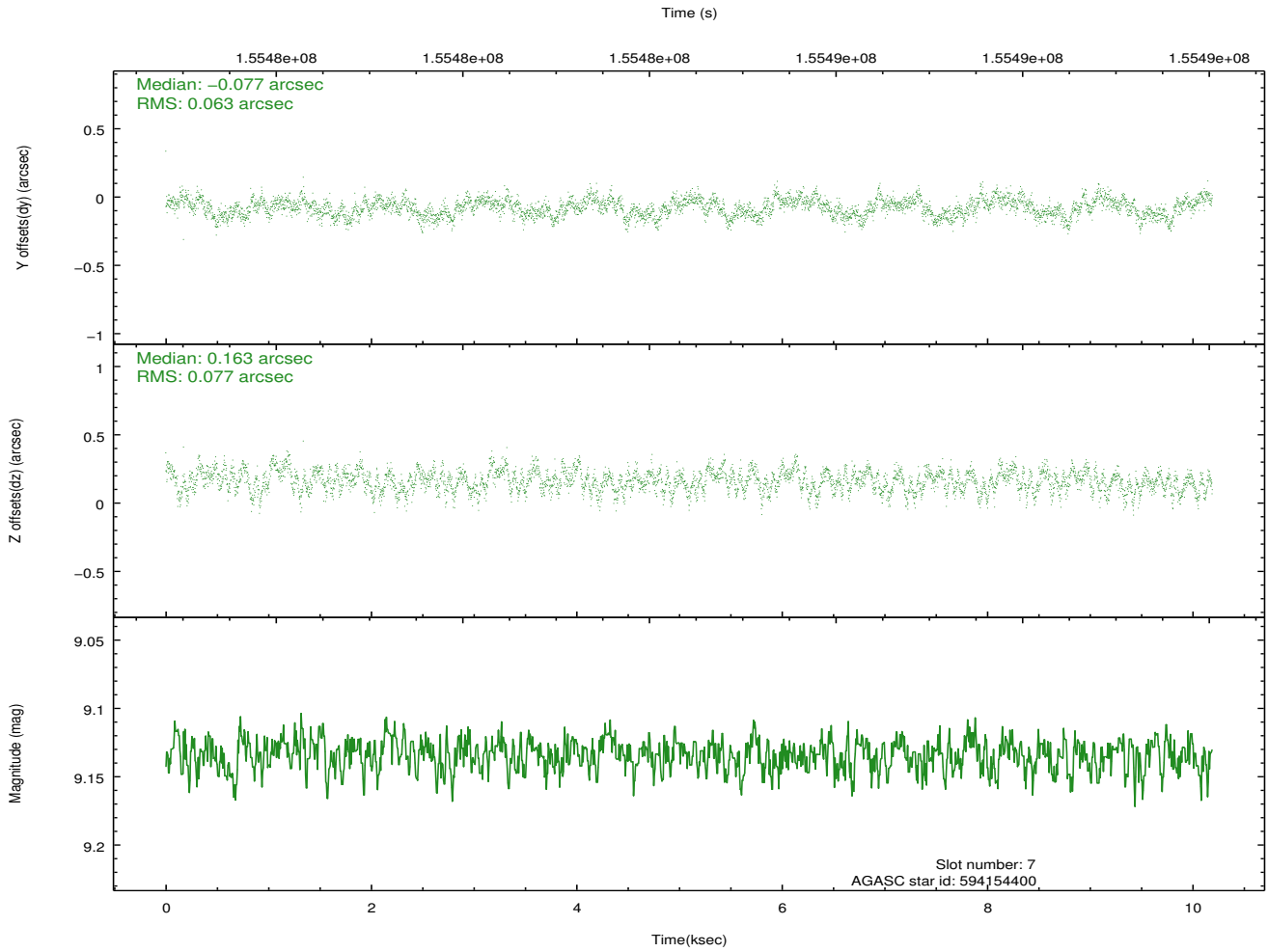
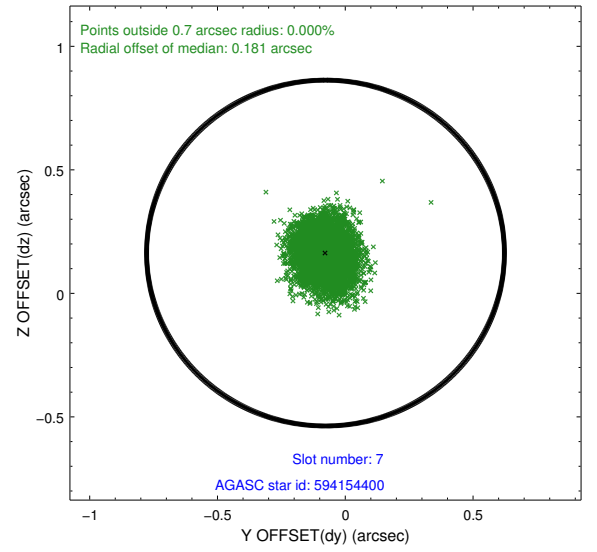
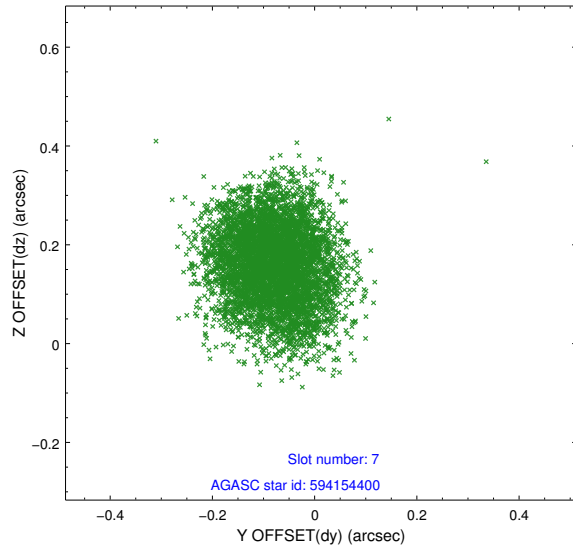


## 2.4.4 Slot 6



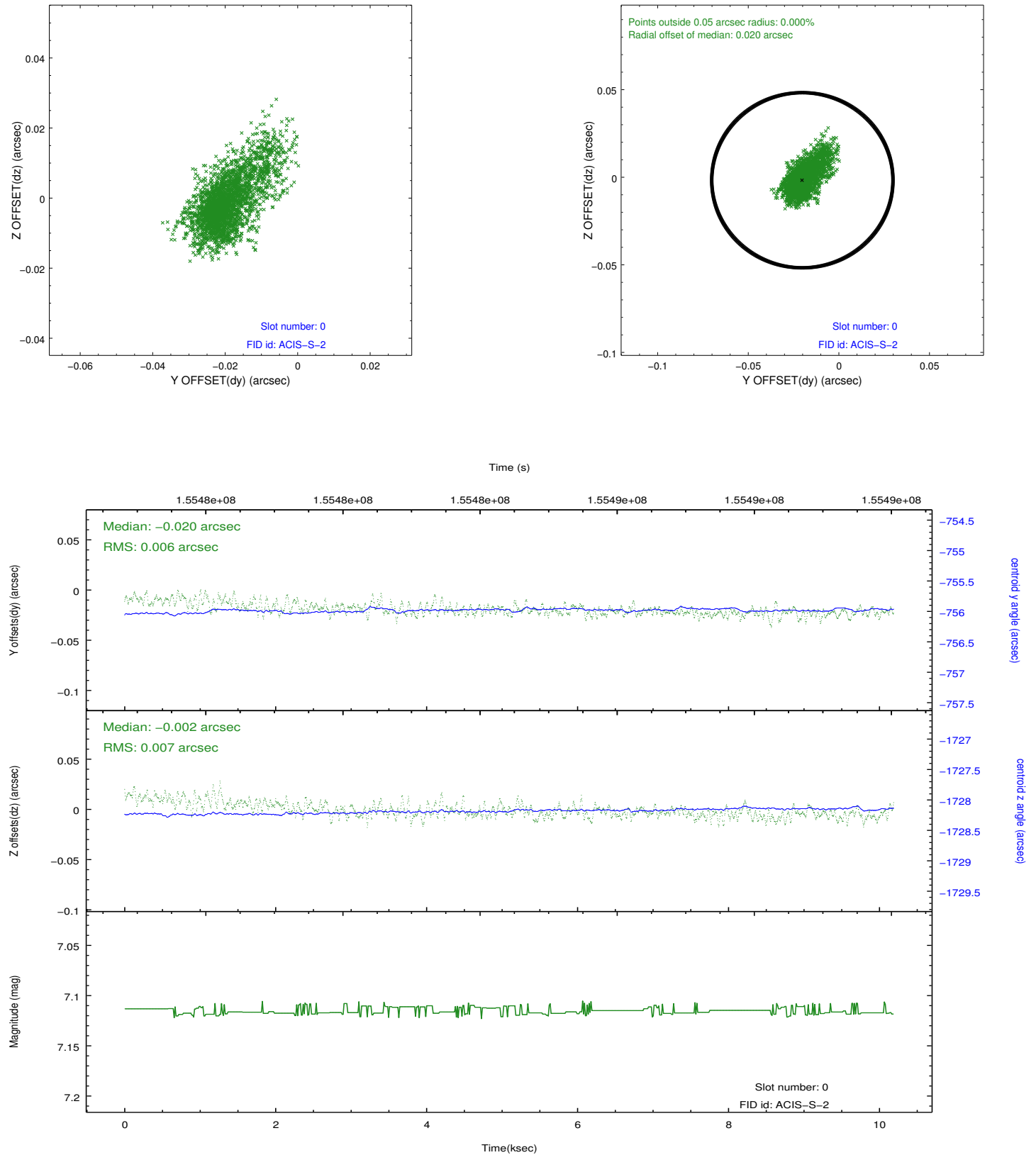


## 2.4.5 Slot 7

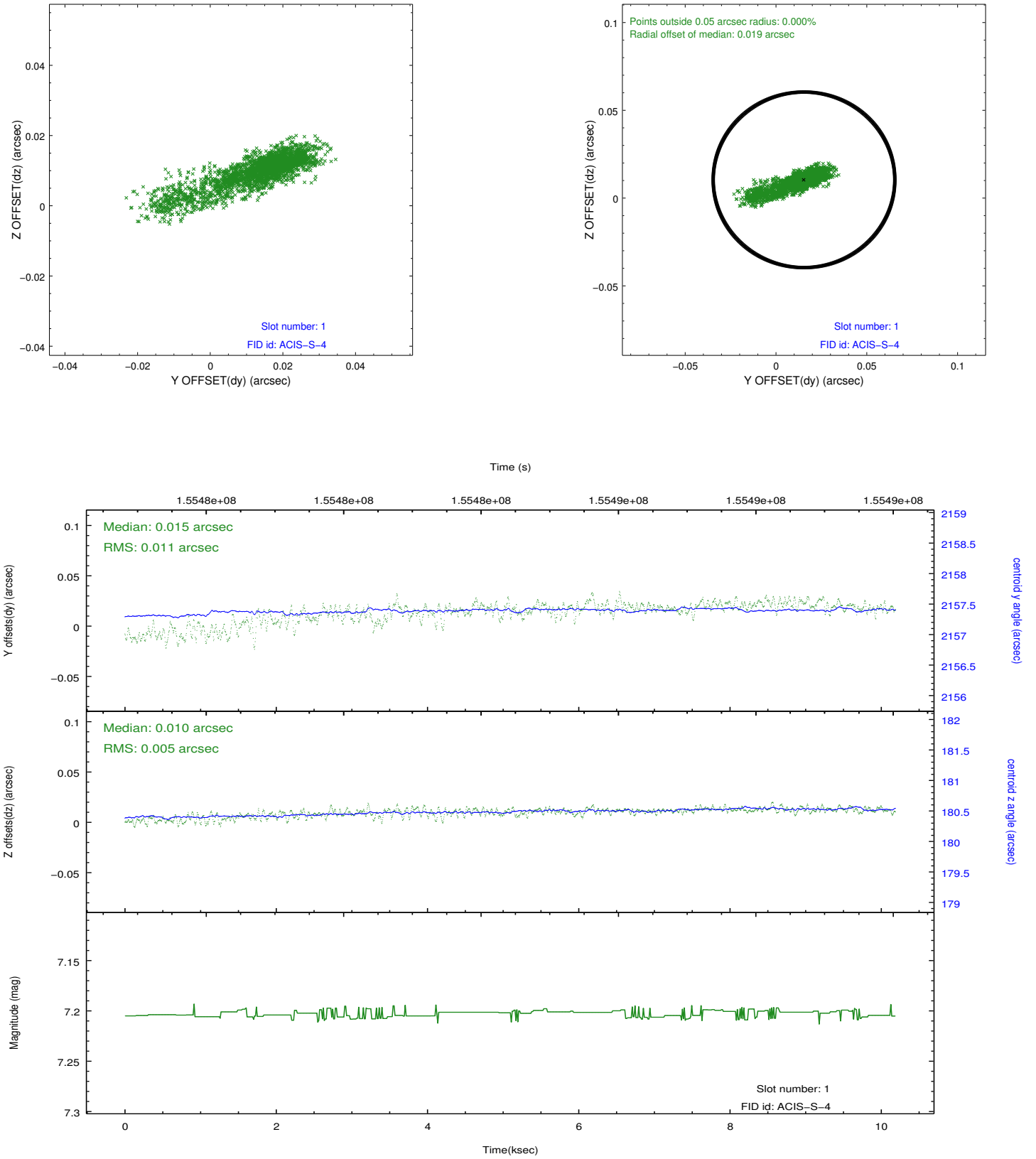


## 2.5 FID Slots

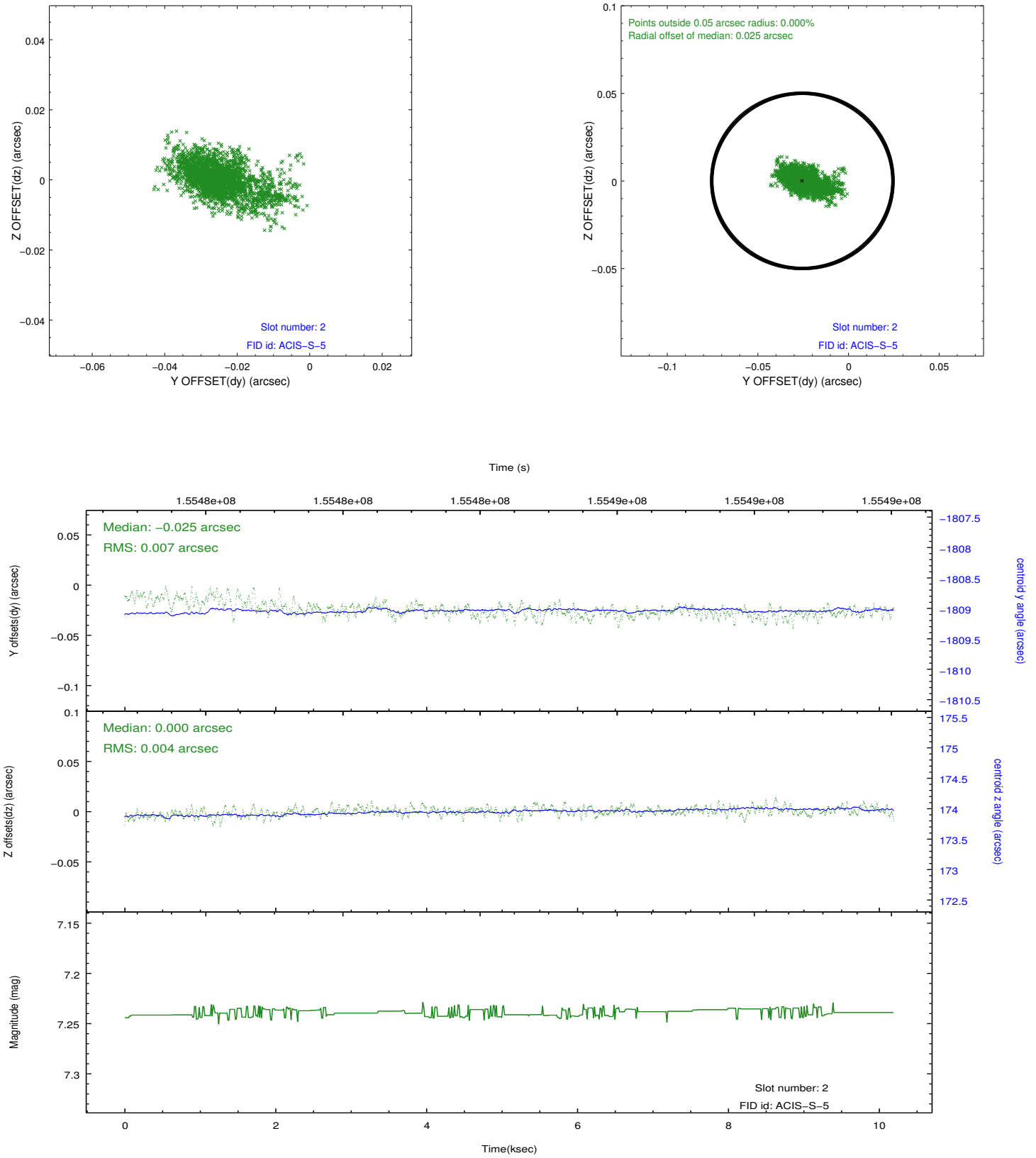
### 2.5.1 Slot 0



## 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)	2012.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.961

### A.2 Comments