

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1540 - L2 Version 3  
Chandra X-Ray Center

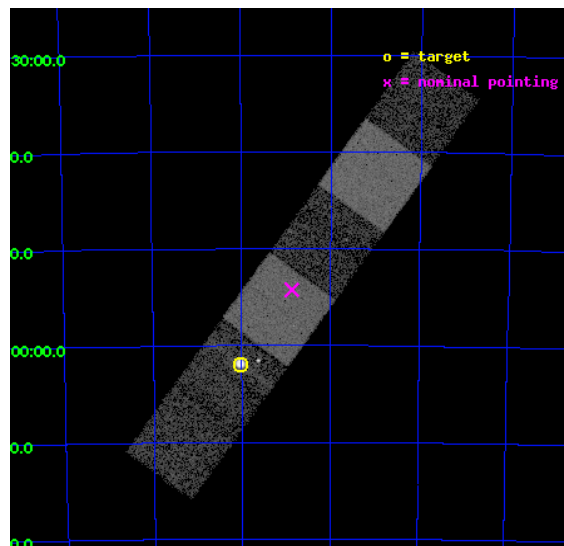
L2 Processing Date : Sep 17 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

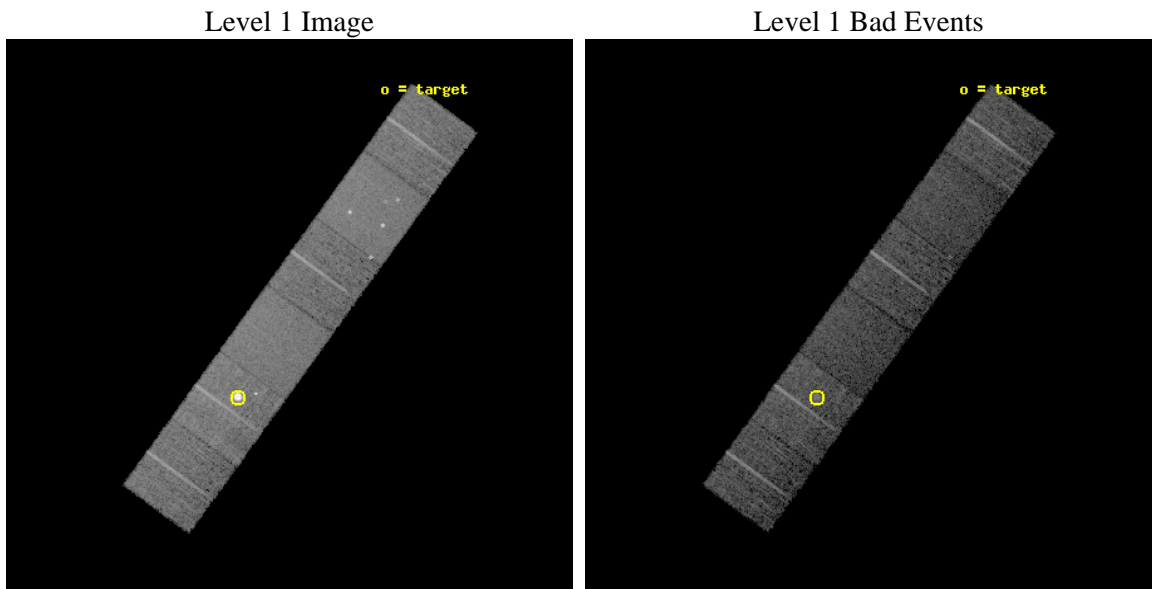
seq_num	590149	Sequence number
obs_id	1540	Observation id
title	ACIS CALIBRATION OBSERVATION OF THE SUPERNOVA REMNANT E0102-72 (JUNE 2001)	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	E0102-72.3 [Chip S4, T=120, Offsets=-9,0,0]	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	16.01	Observer's specified target RA [deg]
dec_targ	-72.032028	Observer's specified target Dec [deg]
ra_nom	15.717101211406	Nominal RA [deg]
dec_nom	-71.904300510601	Nominal Dec [deg]
roll_nom	126.01527491034	Nominal Roll [deg]
revision	3	Processing version of data
ontime	7513.6000069827	Sum of GTIs [s]
livetime	7418.4582795475	Livetime [s]
ontime4	7513.6000069827	Sum of GTIs [s]
ontime5	7513.6000069827	Sum of GTIs [s]
ontime6	7513.6000069827	Sum of GTIs [s]
ontime7	7513.6000069827	Sum of GTIs [s]
ontime8	7513.6000069827	Sum of GTIs [s]
ontime9	7513.6000069827	Sum of GTIs [s]
l2events	104557	Number of level 2 events



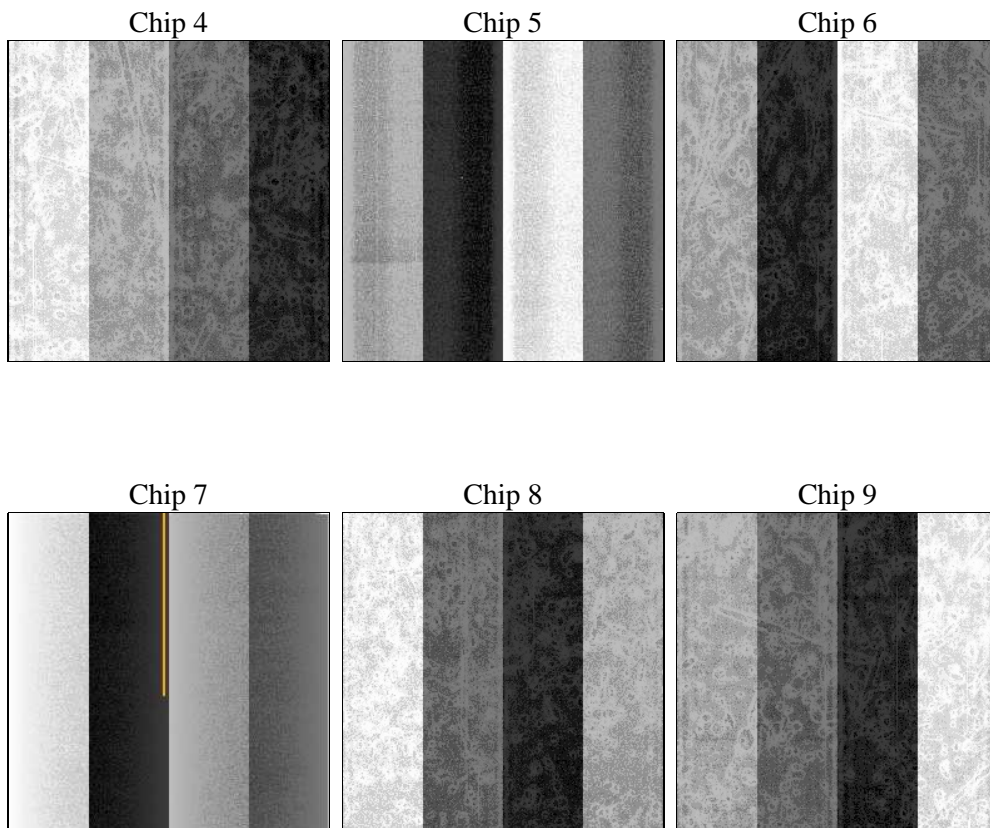
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7755.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7513.6000069827	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime4	7513.6000069827	Sum of GTIs [s]
date	2012-09-17T18:25:15	Date and time of file creation	ontime5	7513.6000069827	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	7513.6000069827	Sum of GTIs [s]
			ontime7	7513.6000069827	Sum of GTIs [s]
			ontime8	7513.6000069827	Sum of GTIs [s]
			ontime9	7513.6000069827	Sum of GTIs [s]
			l1events	385386	Number of level 1 events

### 2.1.4 Events

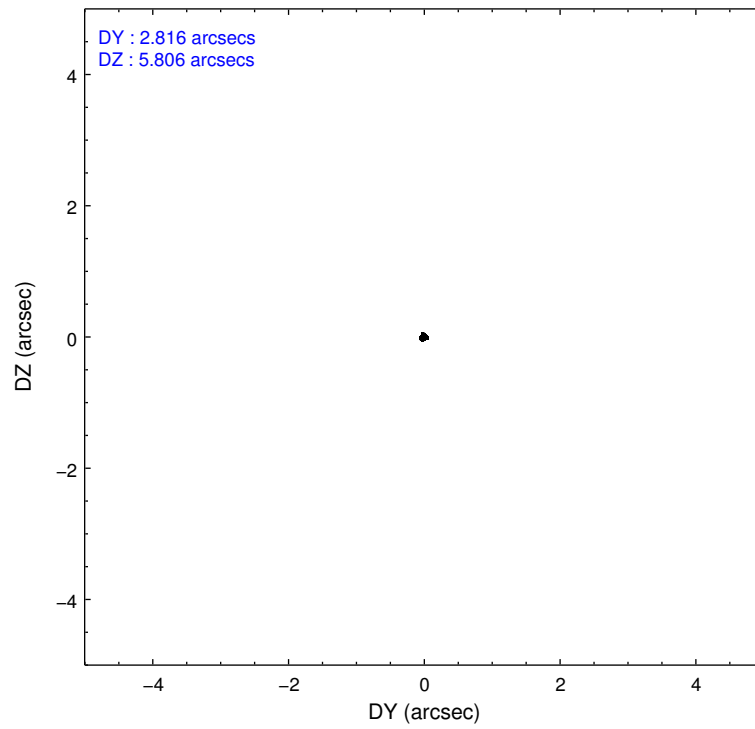
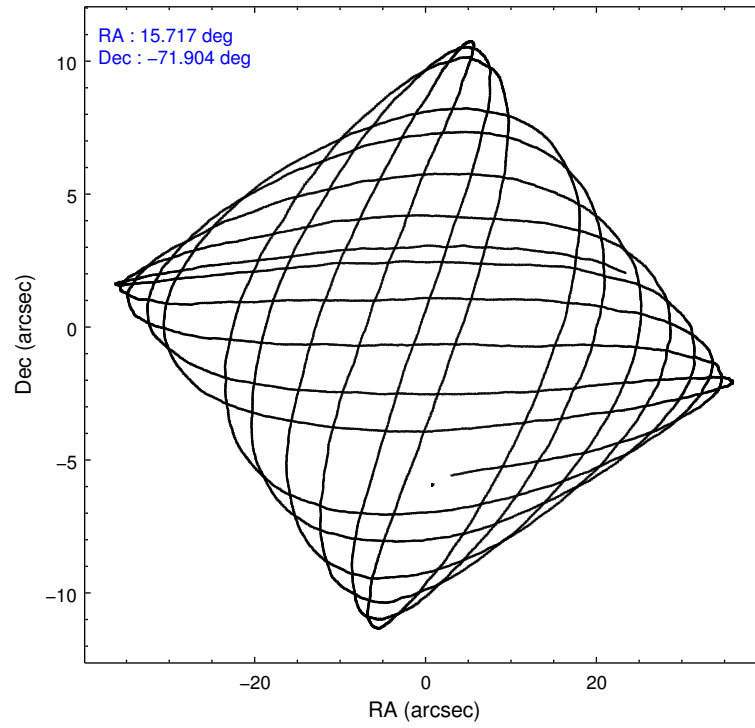
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	56283	71523	51123	63120	94835	48502	grade 0 events	2557	6167	2344	2738	29986	2991
rejected events	50094	37263	45318	36504	52476	41949		4%	8%	4%	4%	31%	6%
rejected %	89%	52%	88%	57%	55%	86%	grade 1 events	38	180	19	59	279	18
								0%	0%	0%	0%	0%	0%
							grade 2 events	1487	9074	1192	5333	4806	1239
								2%	12%	2%	8%	5%	2%
							grade 3 events	551	1344	577	2408	2176	584
								0%	1%	1%	3%	2%	1%
							grade 4 events	577	1384	550	2490	2015	552
								1%	1%	1%	3%	2%	1%
							grade 5 events	1773	5395	2047	6070	2821	2059
								3%	7%	4%	9%	2%	4%
							grade 6 events	1022	16307	1143	13656	3385	1188
								1%	22%	2%	21%	3%	2%
							grade 7 events	48278	31672	43251	30366	49367	39871
								85%	44%	84%	48%	52%	82%

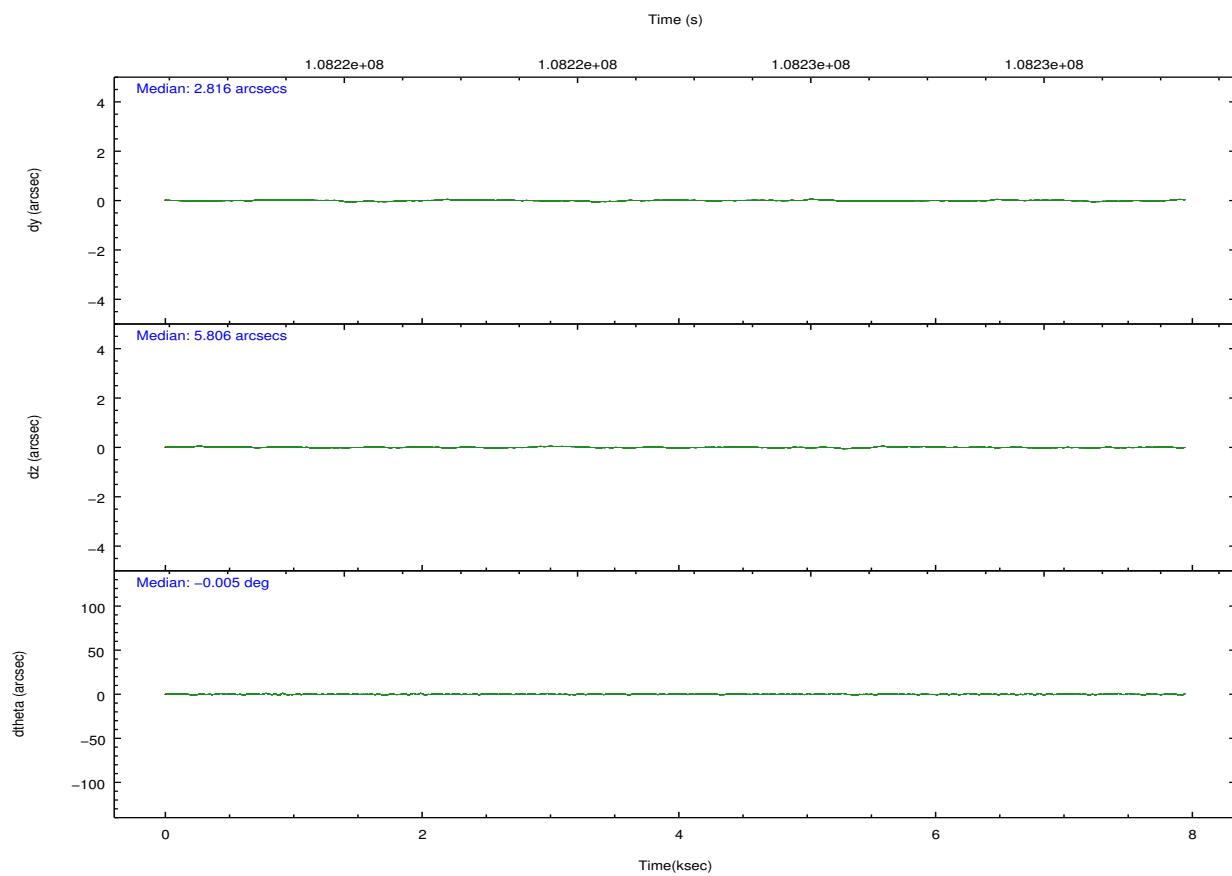
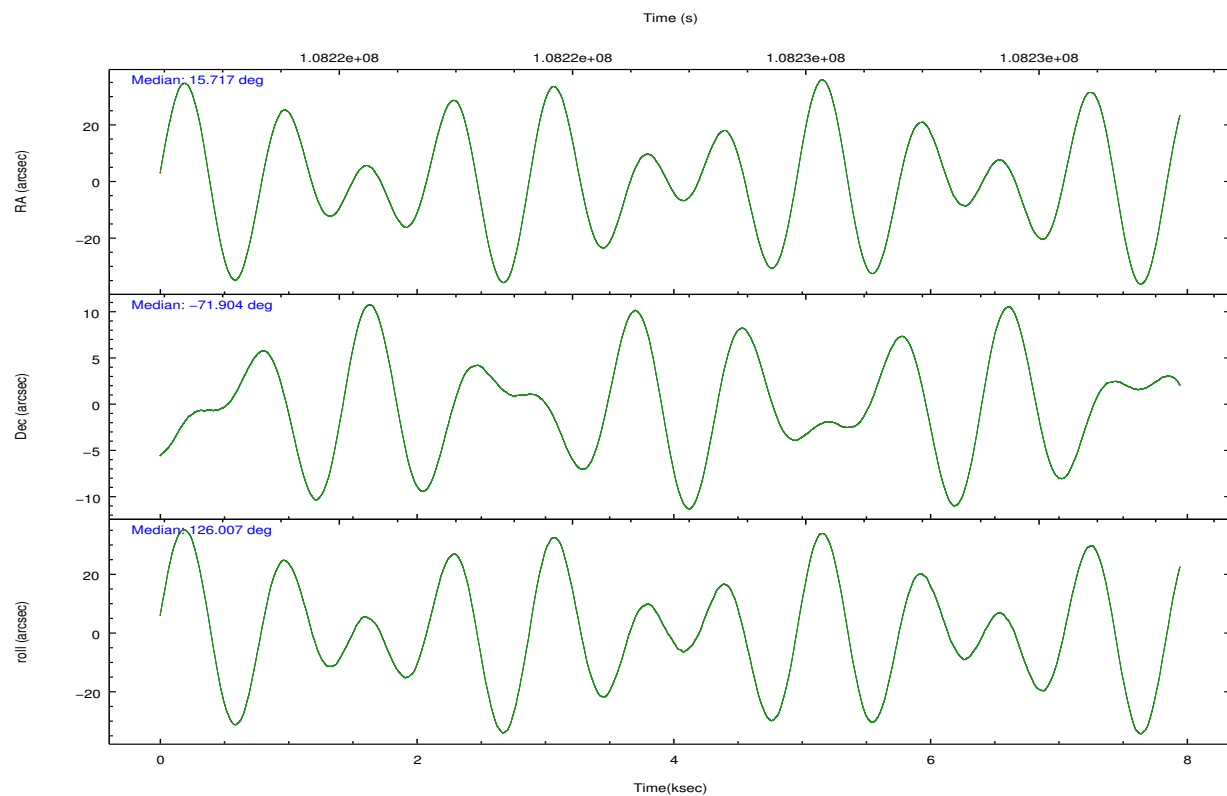


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	15.797766	15.71710121140643	Subarray requested	NONE	NONE
[deg] Pointing Dec	-71.915128	-71.90430051060119	Alternating exposures requested	N	N
[deg] Pointing Roll	125.935326	126.0152749103426	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	107740864.184000	107740864.184000			
[s] Window stop time (MET)	110246464.184000	110246464.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	108221051.184000	108220674.8618			
Observation start date	2001-06-06T13:23:07	2001-06-06T13:17:54			
[s] Observation end time (MET)	108228806.184000	108228939.94962			
Observation end date	2001-06-06T15:32:22	2001-06-06T15:35:39			
Read mode	TIMED	TIMED			

## 2.3 Aspect



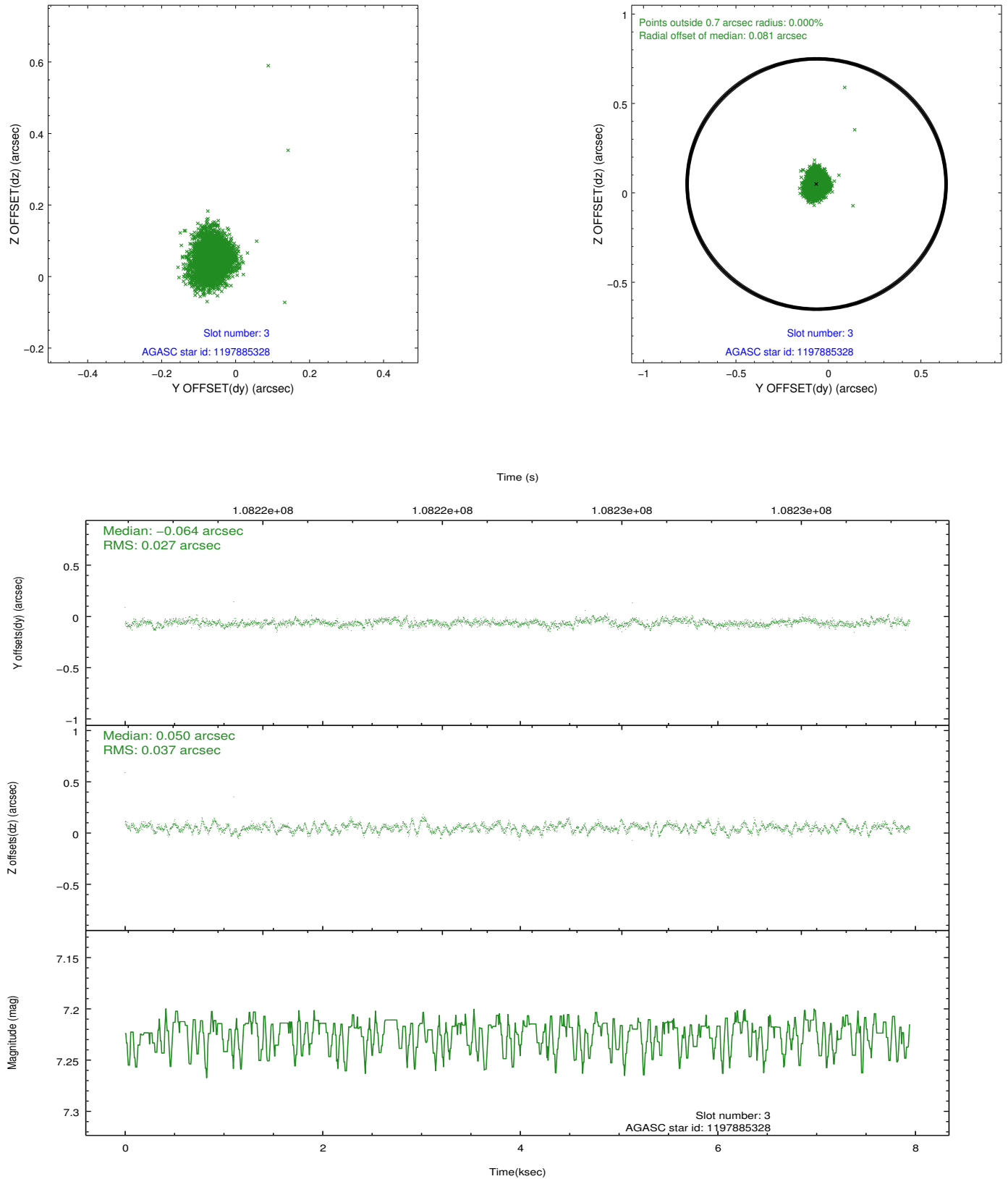


### Slot Statistics

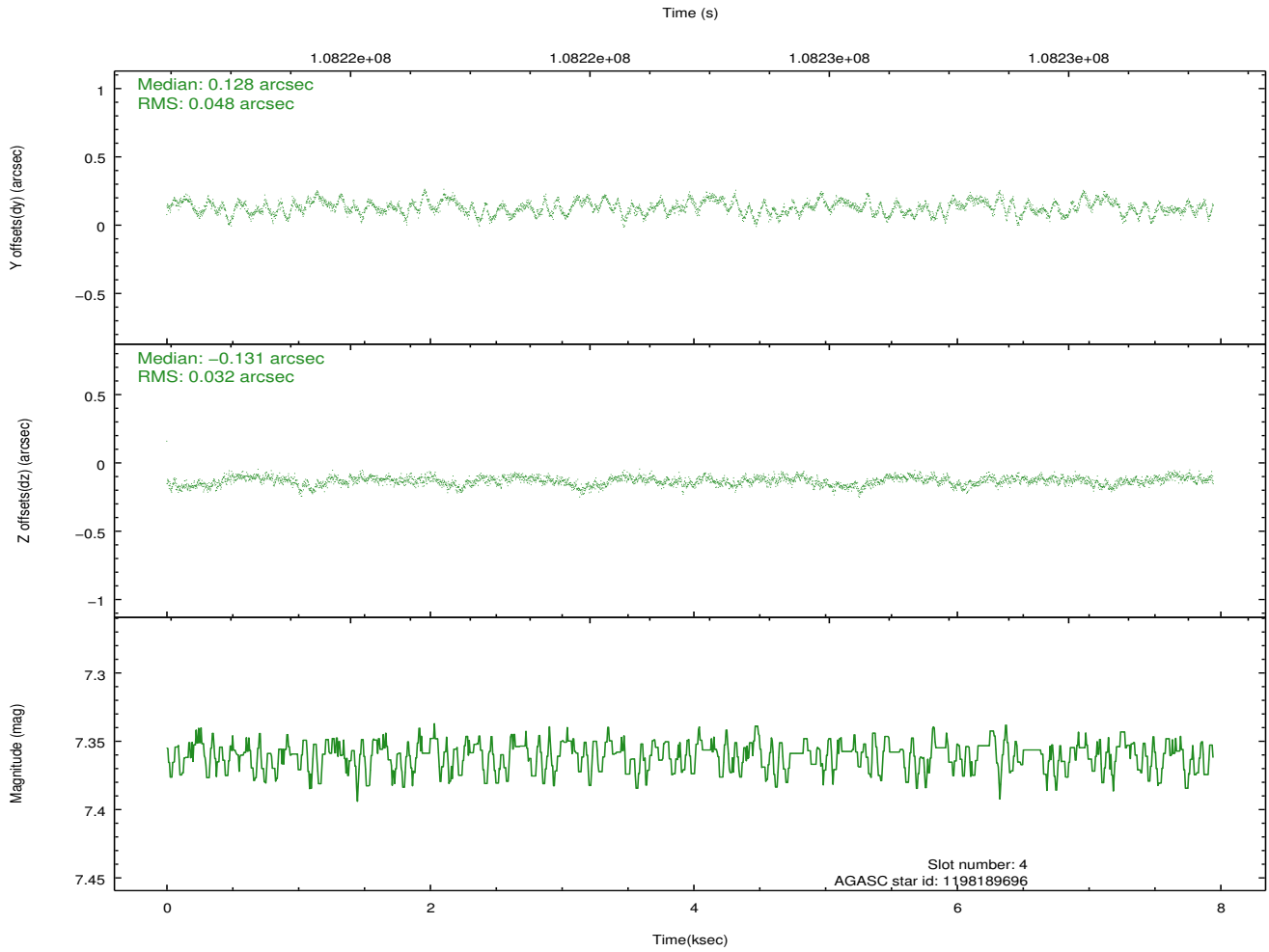
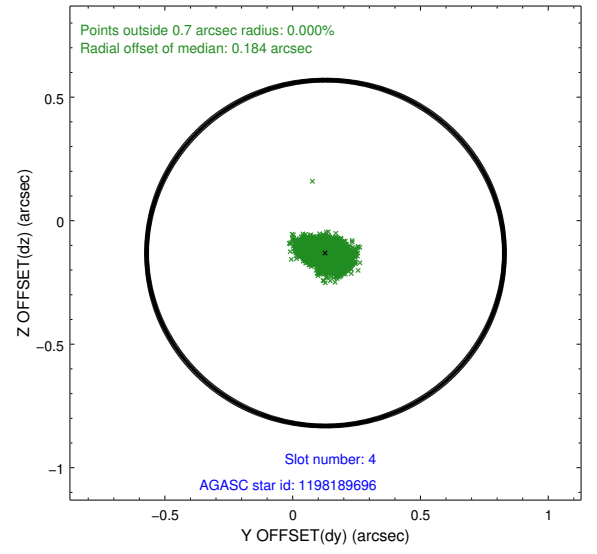
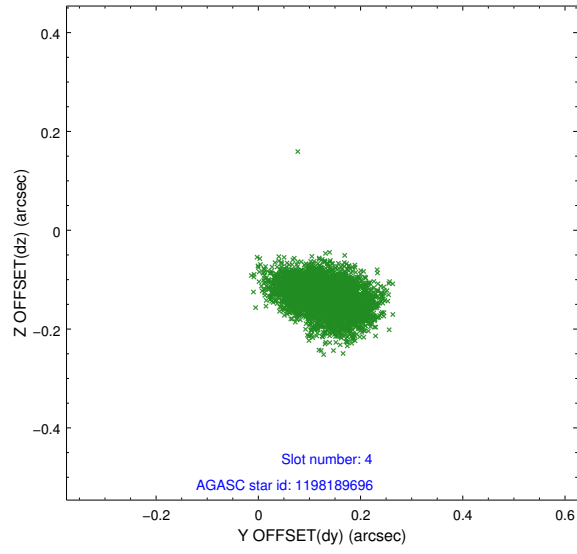
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.36	1937	-0.094	-0.043	0.007	0.011	0.000000	0.000000	57.67	-1855.99
1	FID	ACIS-S-4	7.20	1938	-0.011	0.070	0.005	0.009	0.000000	0.000000	2157.91	180.89
2	FID	ACIS-S-5	7.23	1938	0.077	-0.017	0.006	0.011	0.000000	0.000000	-1807.30	175.31
3	GUIDE	1197885328	7.22	3876	-0.064	0.050	0.047	0.077	16.283090	-71.733943	205.27	-824.98
4	GUIDE	1198189696	7.36	3876	0.128	-0.131	0.062	0.099	15.223750	-72.697522	-1922.20	2151.76
5	GUIDE	1197750936	7.56	3876	-0.091	0.067	0.048	0.077	15.387940	-71.549550	1338.04	-392.55
6	GUIDE	1197884536	8.50	3876	0.013	0.044	0.066	0.107	17.160729	-71.835289	-678.08	-1397.13
7	GUIDE	1197884712	8.30	3874	0.011	-0.024	0.060	0.098	16.087398	-72.252690	-1171.05	455.72

## 2.4 Star Slots

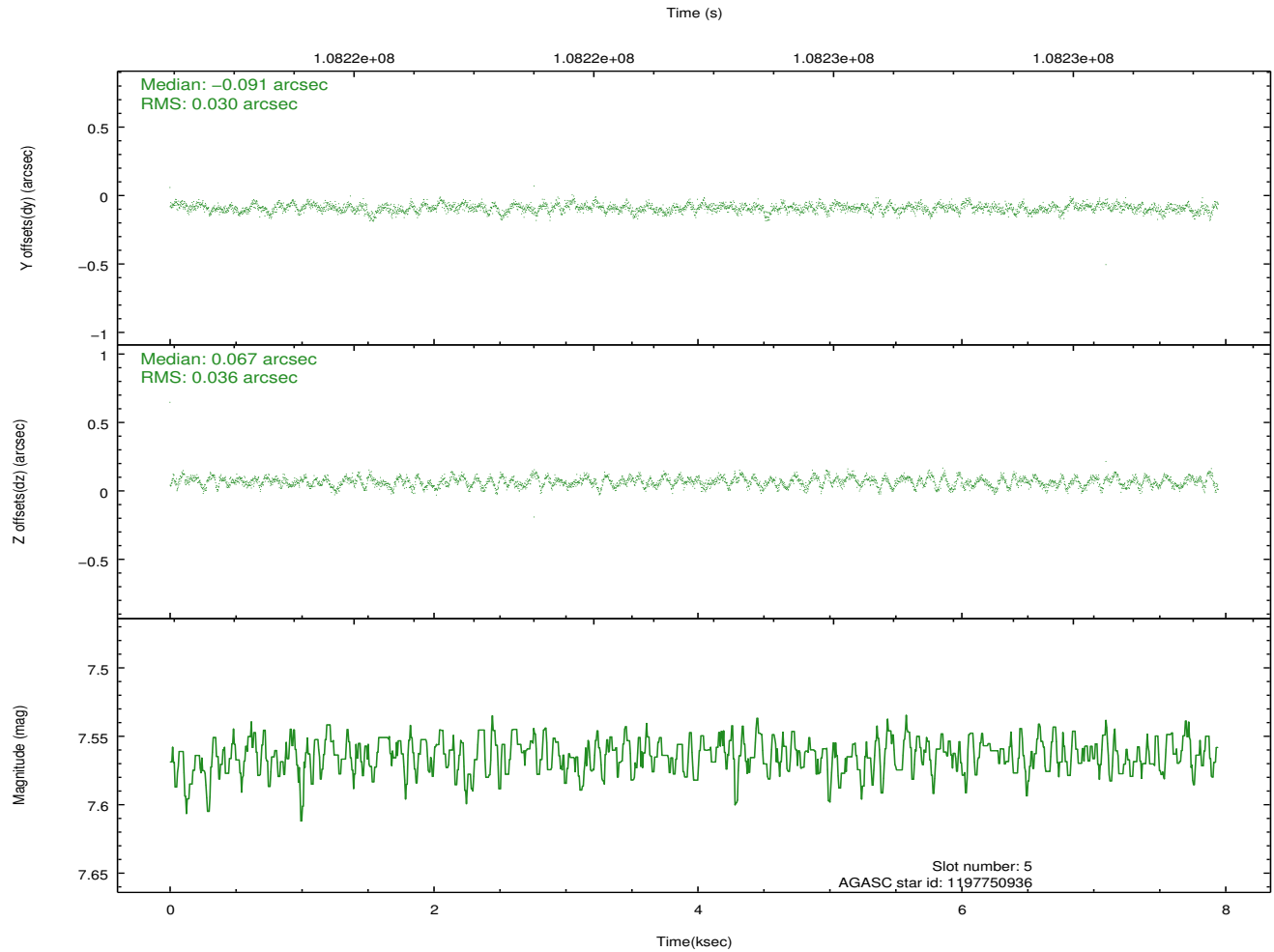
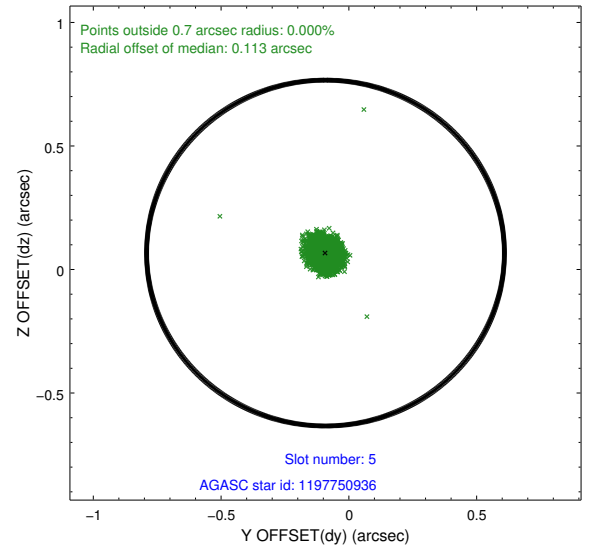
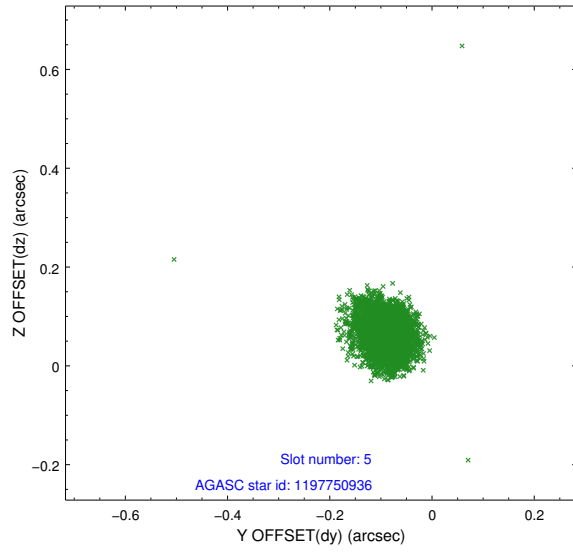
### 2.4.1 Slot 3



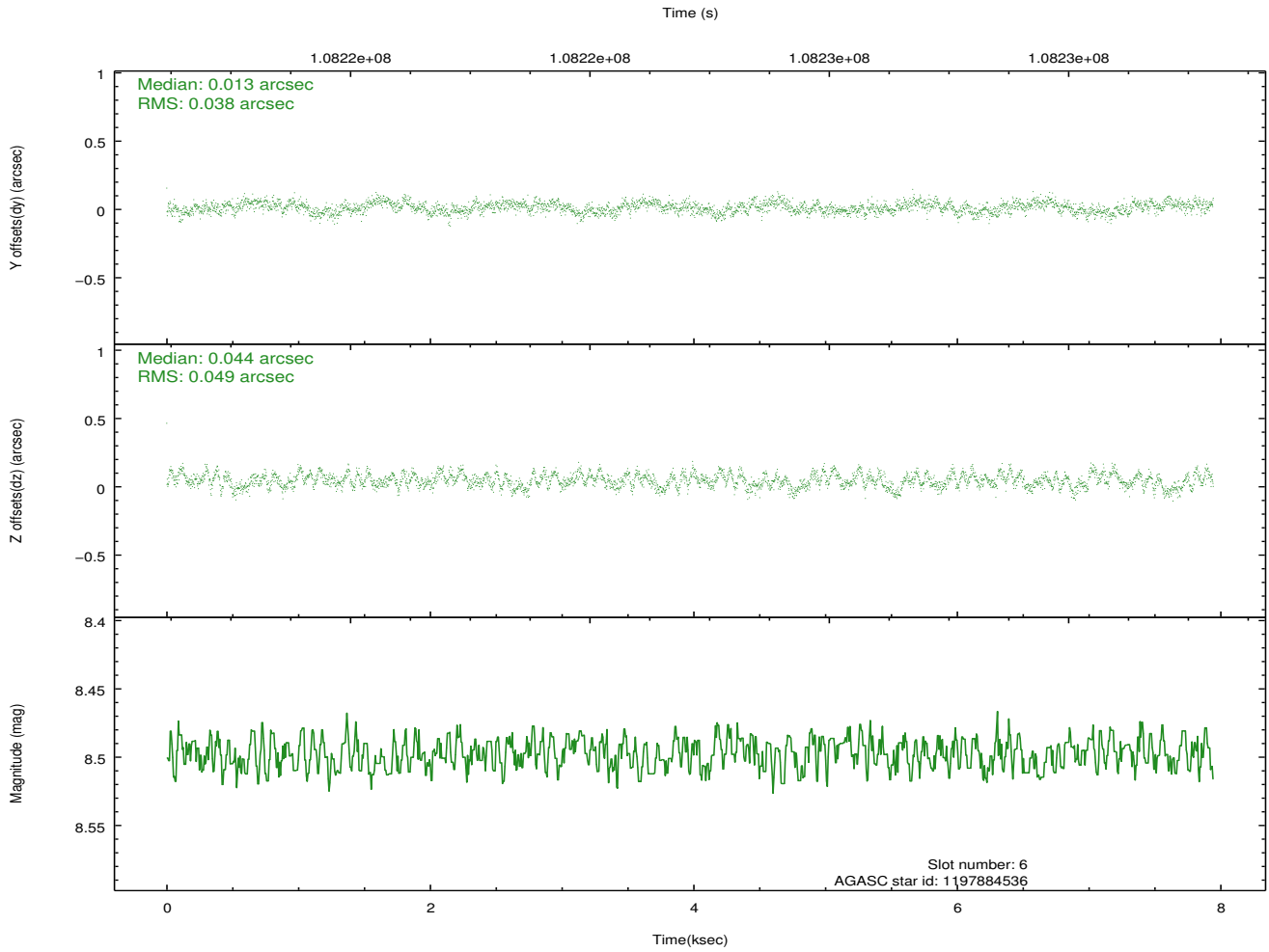
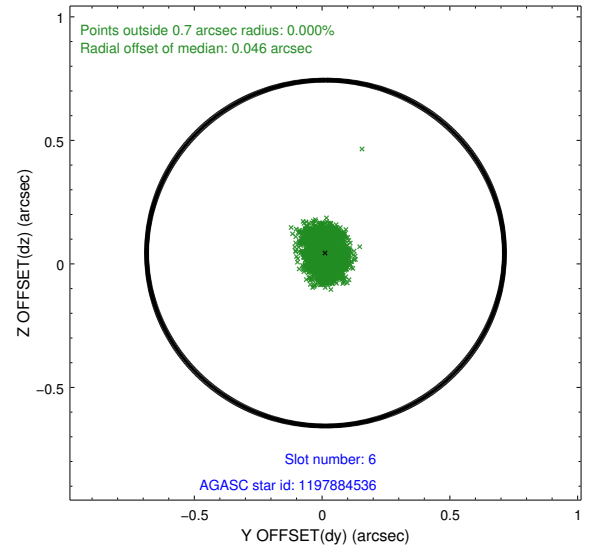
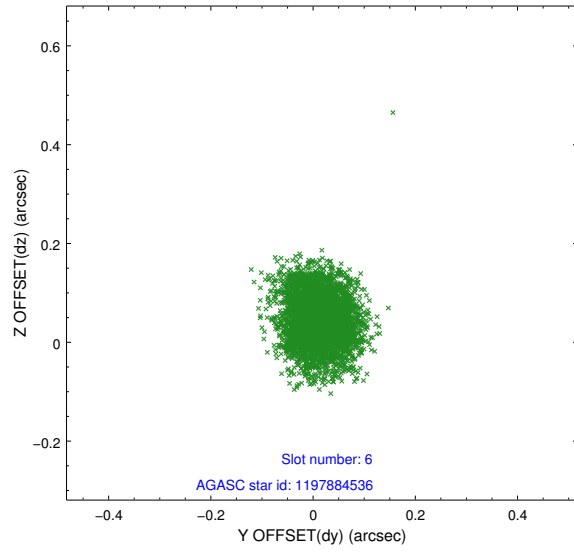
## 2.4.2 Slot 4



### 2.4.3 Slot 5

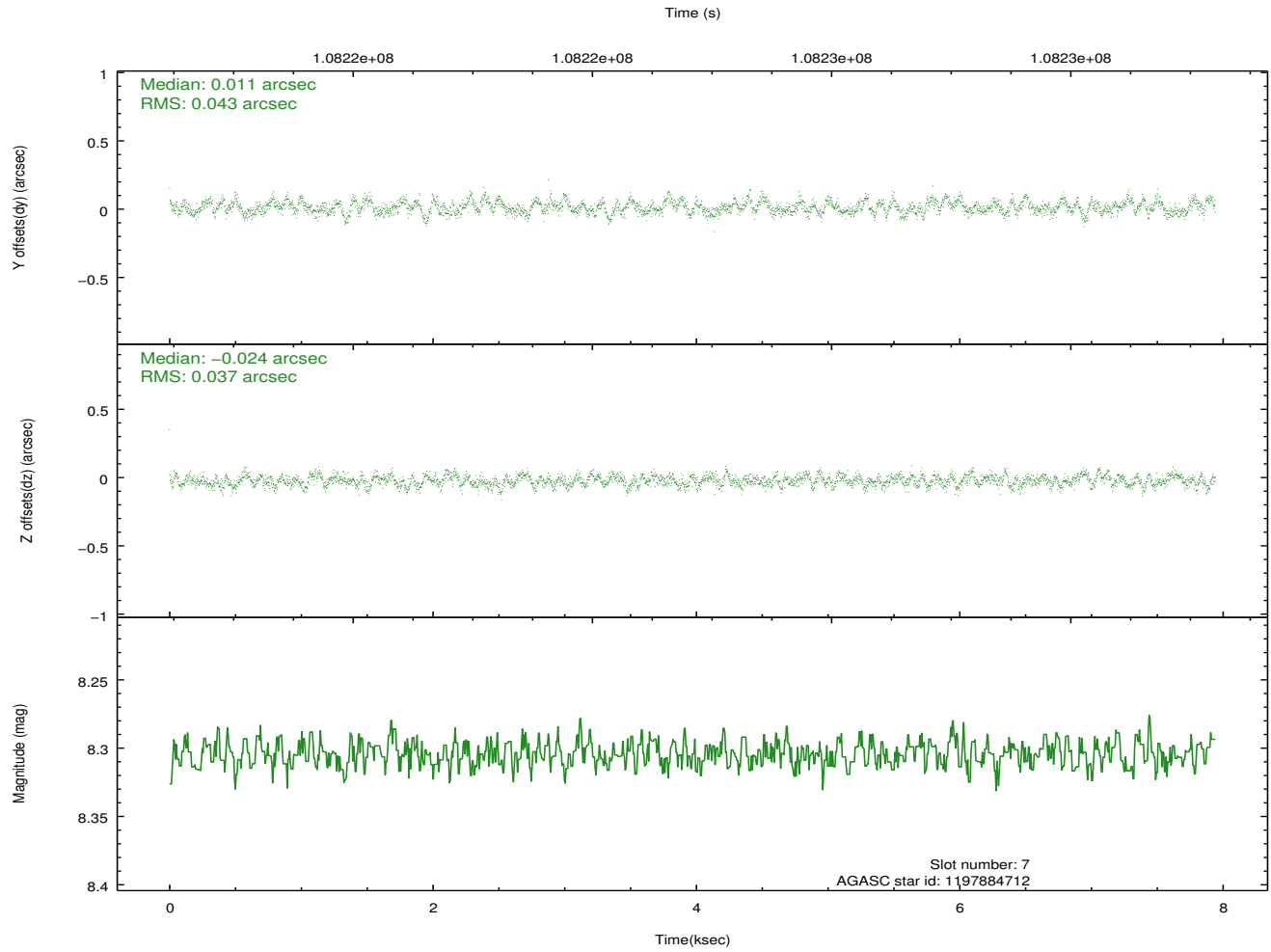
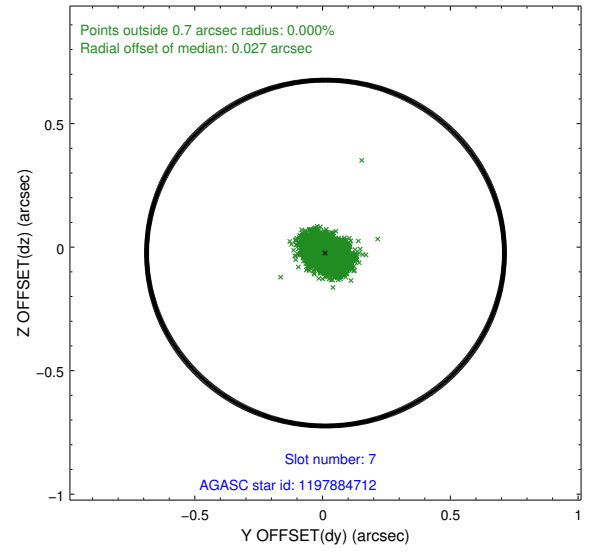
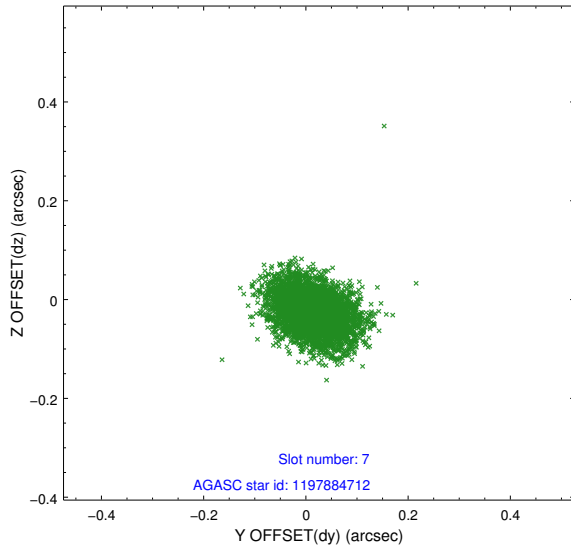


## 2.4.4 Slot 6



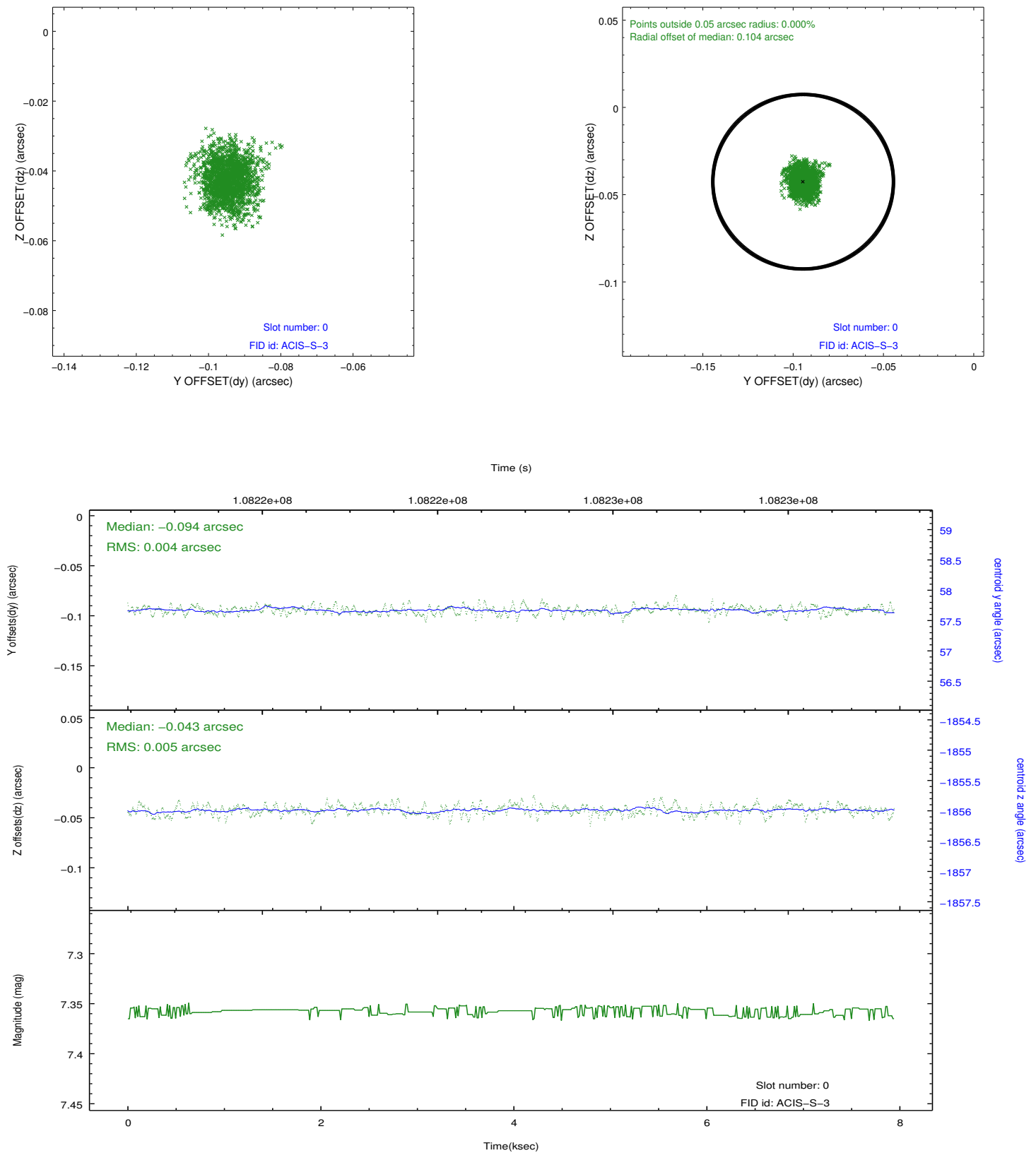


## 2.4.5 Slot 7

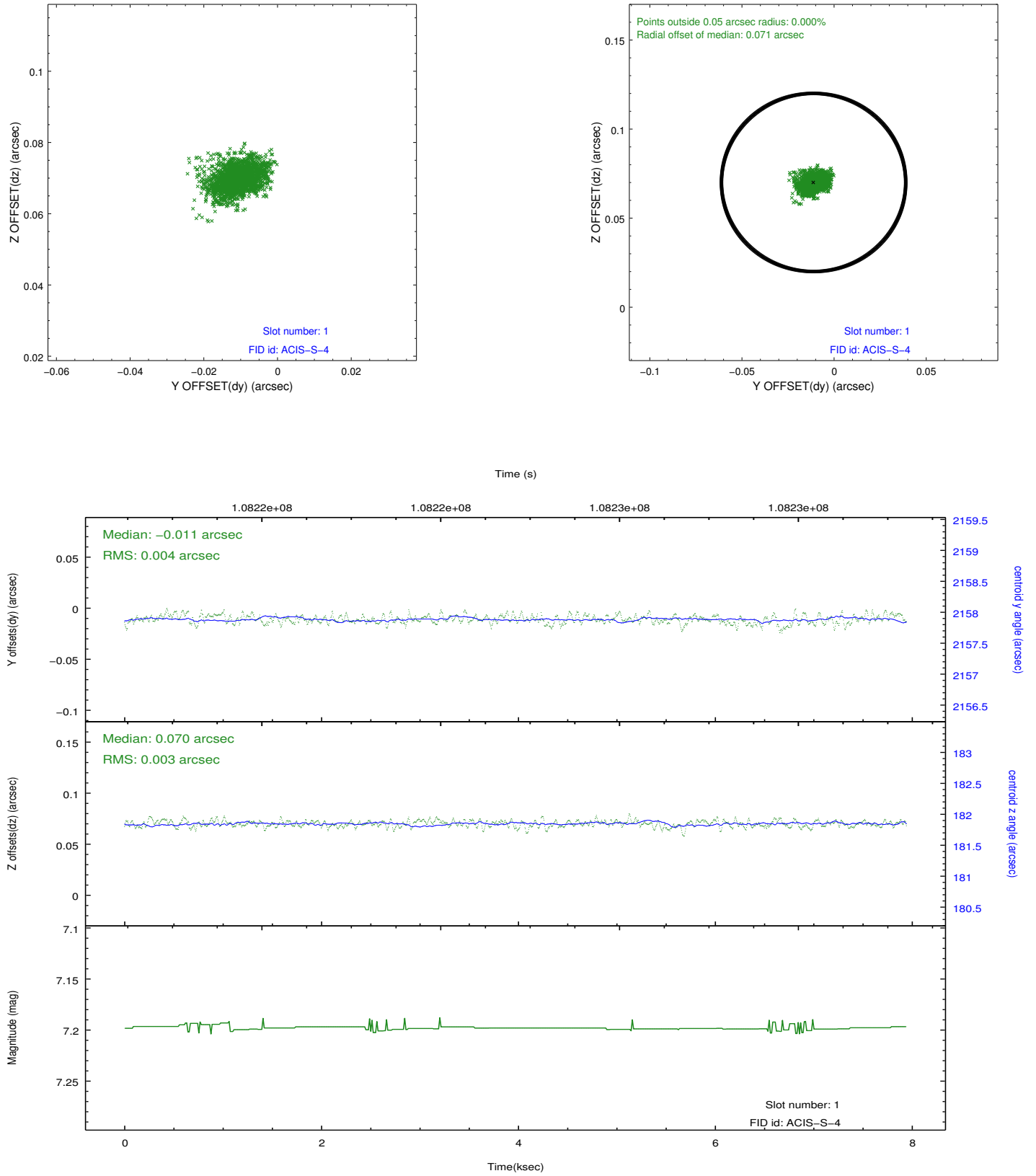


## 2.5 FID Slots

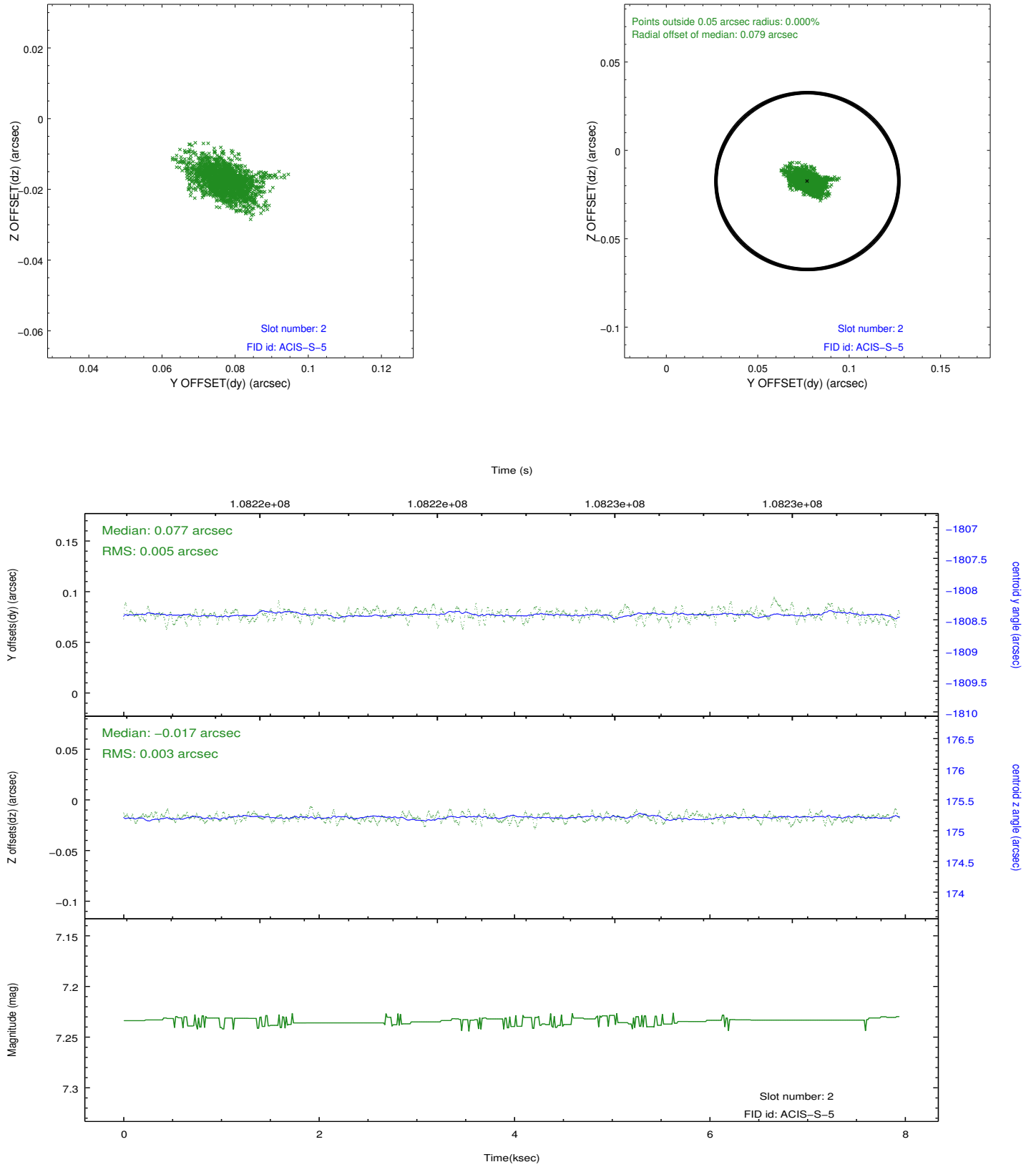
### 2.5.1 Slot 0



## 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)	2012.09.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.51

### A.2 Comments

Window constraint met.