

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1521 - L2 Version 4  
Chandra X-Ray Center

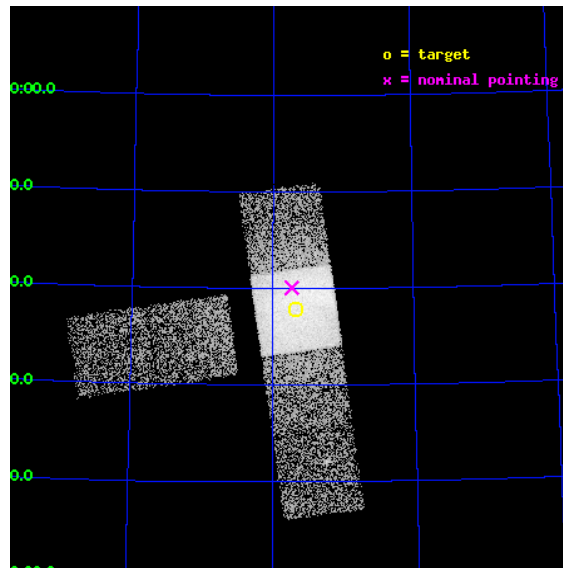
L2 Processing Date : Aug 23 2012

## 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

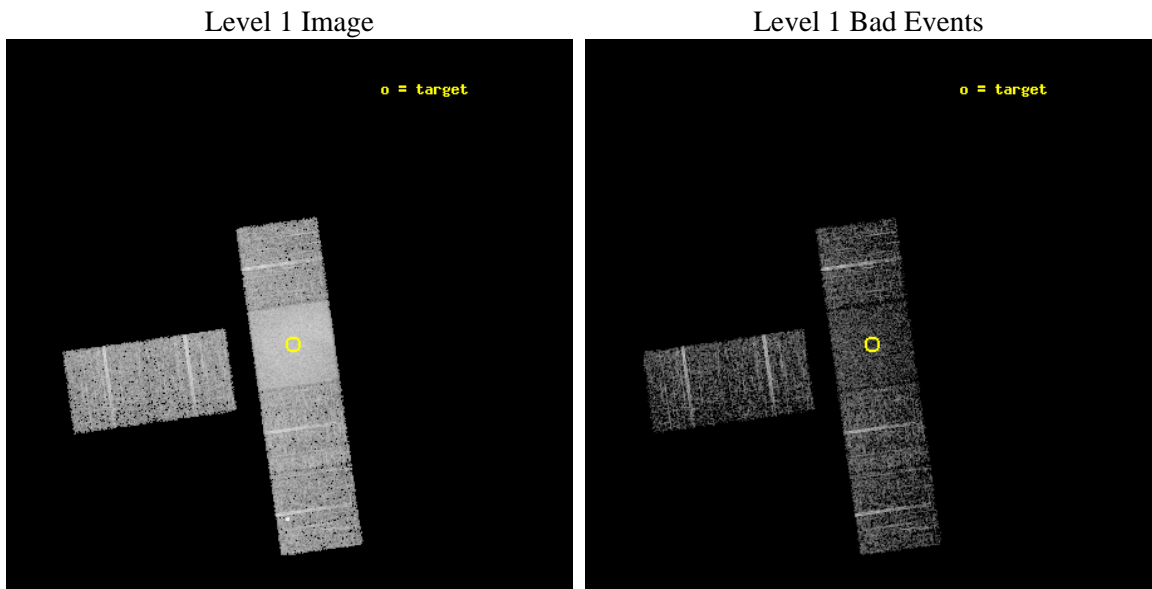
seq_num	800108	Sequence number
obs_id	1521	Observation id
title	MASS DISTRIBUTIONS OF RELAXED CLUSTERS	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	A2256	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	256.04479	Observer's specified target RA [deg]
dec_targ	78.631	Observer's specified target Dec [deg]
ra_nom	256.08140318396	Nominal RA [deg]
dec_nom	78.668019697229	Nominal Dec [deg]
roll_nom	81.977159266081	Nominal Roll [deg]
revision	4	Processing version of data
ontime	2972.8000027537	Sum of GTIs [s]
livetime	2935.1566191136	Livetime [s]
ontime1	2972.8000027537	Sum of GTIs [s]
ontime3	2972.8000027537	Sum of GTIs [s]
ontime6	2972.8000027537	Sum of GTIs [s]
ontime7	2972.8000027537	Sum of GTIs [s]
ontime8	2972.8000027537	Sum of GTIs [s]
ontime9	2972.8000027537	Sum of GTIs [s]
l2events	63355	Number of level 2 events



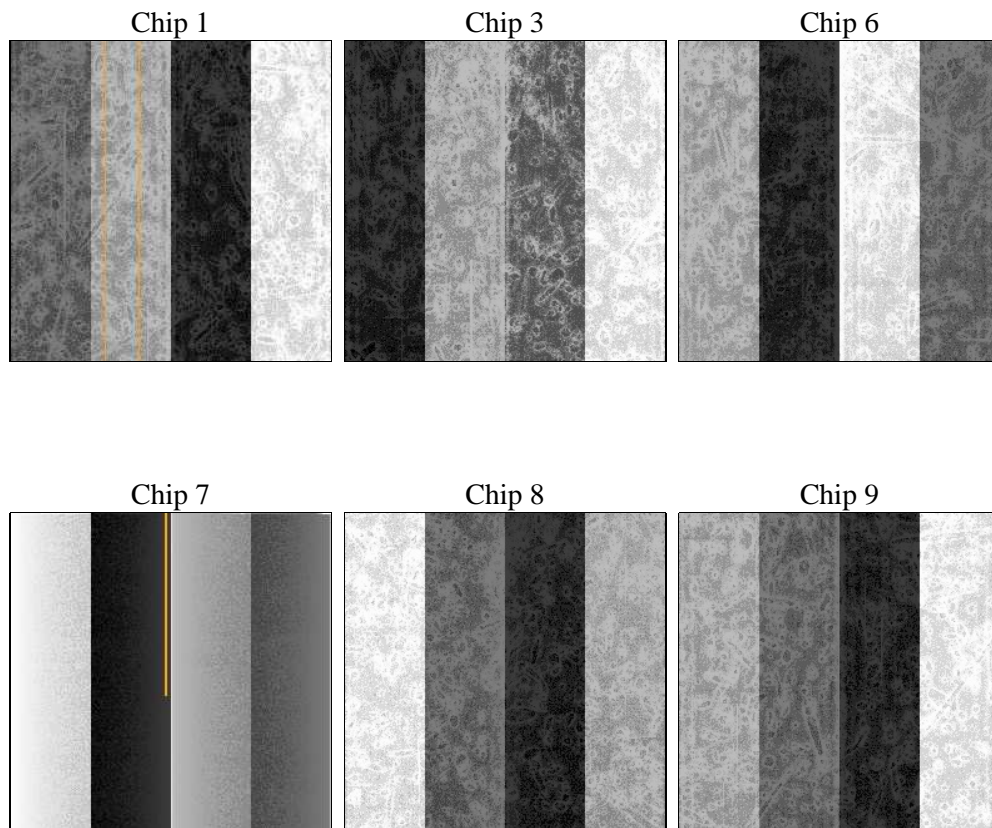
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3926.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	2972.8000027537	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime1	2972.8000027537	Sum of GTIs [s]
date	2012-08-23T13:44:13	Date and time of file creation	ontime3	2972.8000027537	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	2972.8000027537	Sum of GTIs [s]
			ontime7	2972.8000027537	Sum of GTIs [s]
			ontime8	2972.8000027537	Sum of GTIs [s]
			ontime9	2972.8000027537	Sum of GTIs [s]
			l1events	190213	Number of level 1 events

### 2.1.4 Events

	ccd 1	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9		ccd 1	ccd 3	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	22993	25238	26181	61986	30233	23582	grade 0 events	1377	2108	3268	9410	3717	2488
rejected events	19998	21588	21026	15964	22703	19579		5%	8%	12%	15%	12%	10%
rejected %	86%	85%	80%	25%	75%	83%	grade 1 events	8	21	24	33	24	18
								0%	0%	0%	0%	0%	0%
							grade 2 events	539	580	766	10224	1274	523
								2%	2%	2%	16%	4%	2%
							grade 3 events	274	304	302	4553	645	272
								1%	1%	1%	7%	2%	1%
							grade 4 events	283	279	323	4644	625	268
								1%	1%	1%	7%	2%	1%
							grade 5 events	706	777	819	2768	1091	826
								3%	3%	3%	4%	3%	3%
							grade 6 events	528	388	505	17274	1281	457
								2%	1%	1%	27%	4%	1%
							grade 7 events	19278	20781	20174	13080	21576	18730
								83%	82%	77%	21%	71%	79%

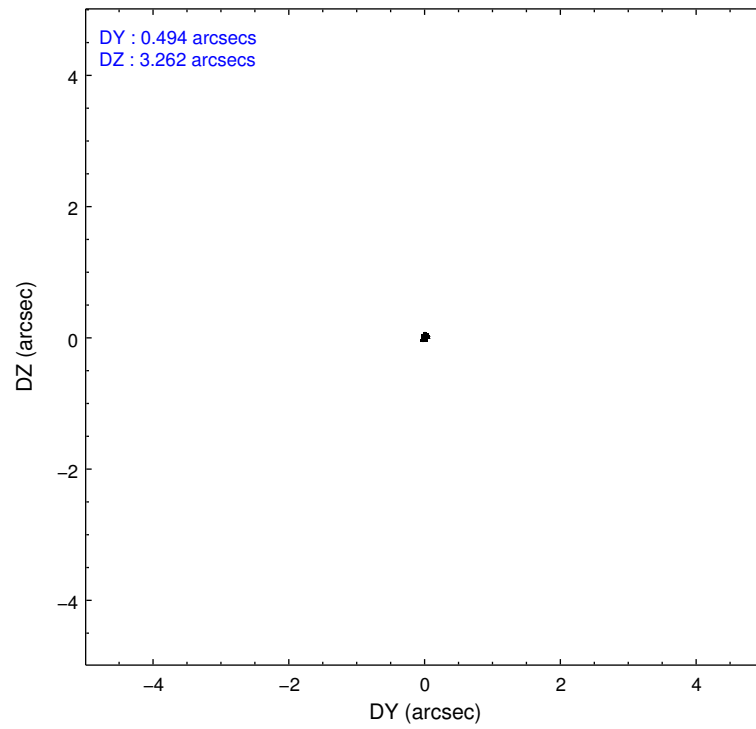
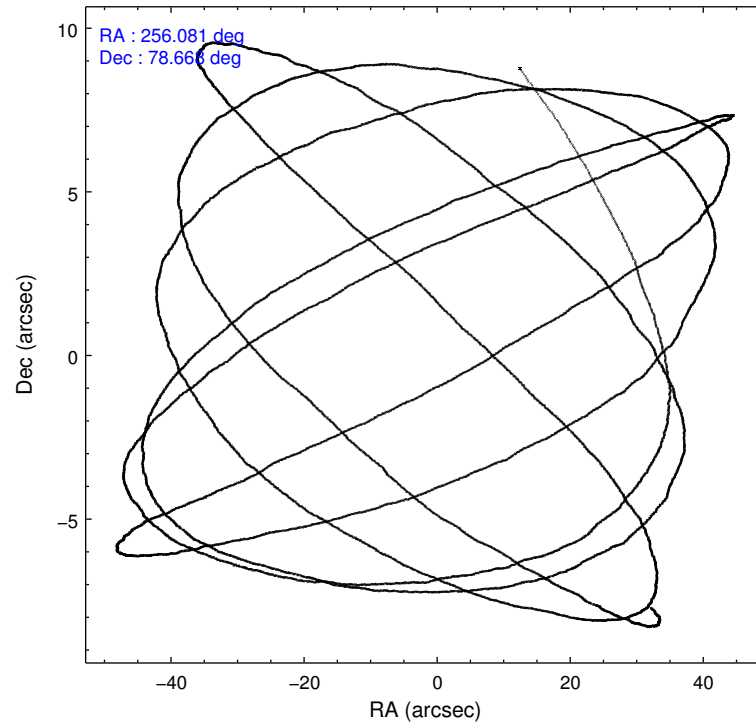


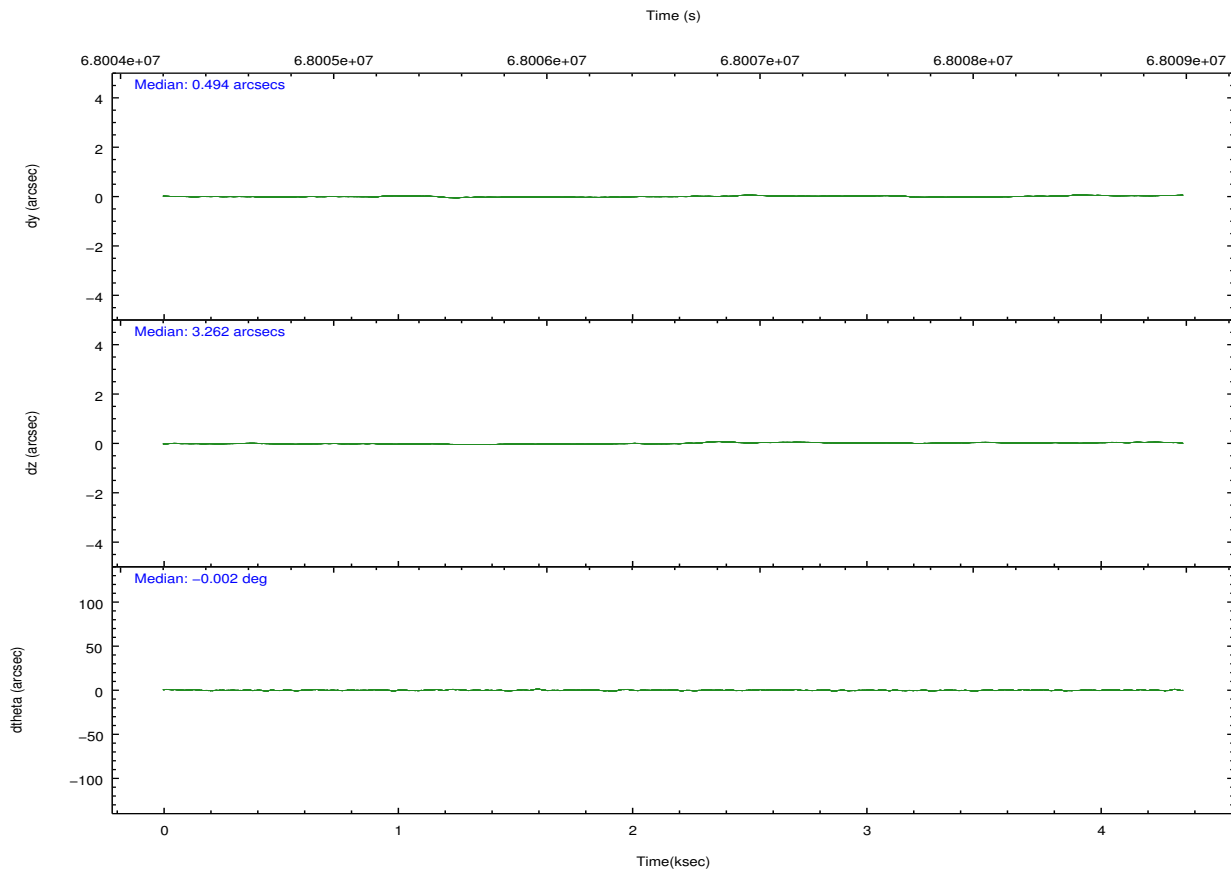
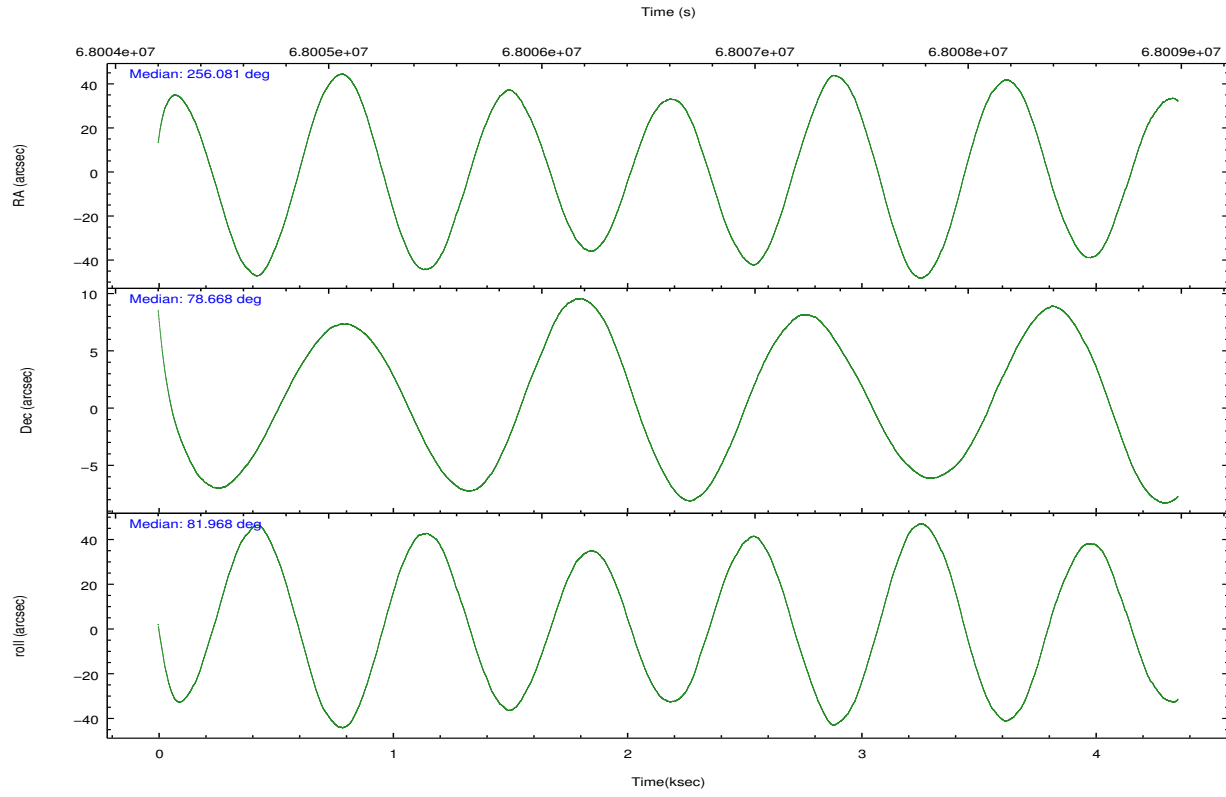
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-136789	ACIS-136789
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	256.133639	256.081403183963
[deg] Pointing Dec	78.642640	78.6680196972294
[deg] Pointing Roll	81.769274	81.97715926608076
[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)	68004840.184000	68003426.89370701
Observation start date	2000-02-27T02:12:56	2000-02-27T01:50:26
[s] Observation end time (MET)	68008766.184000	68009115.643915
Observation end date	2000-02-27T03:18:22	2000-02-27T03:25:15
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



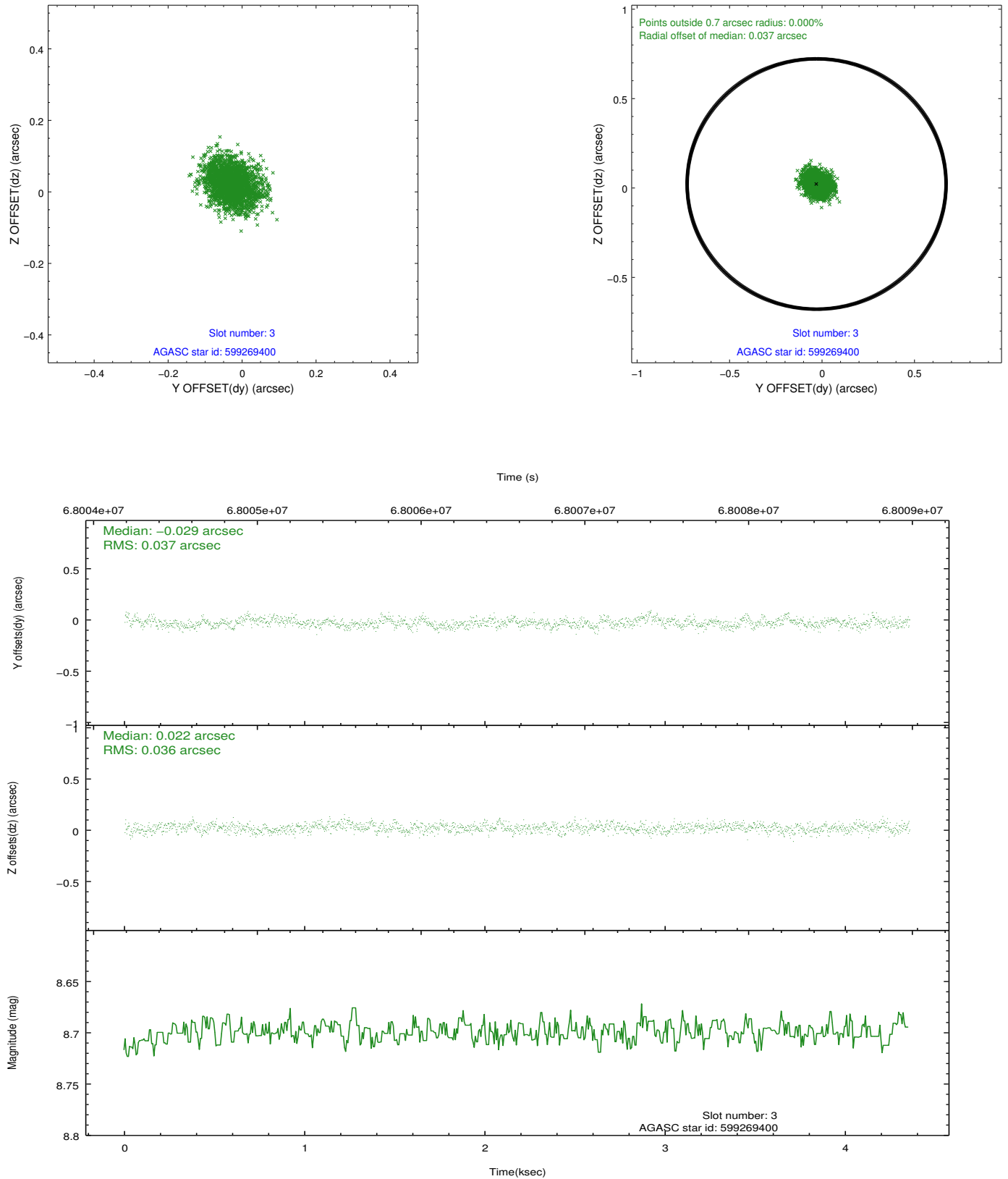


### Slot Statistics

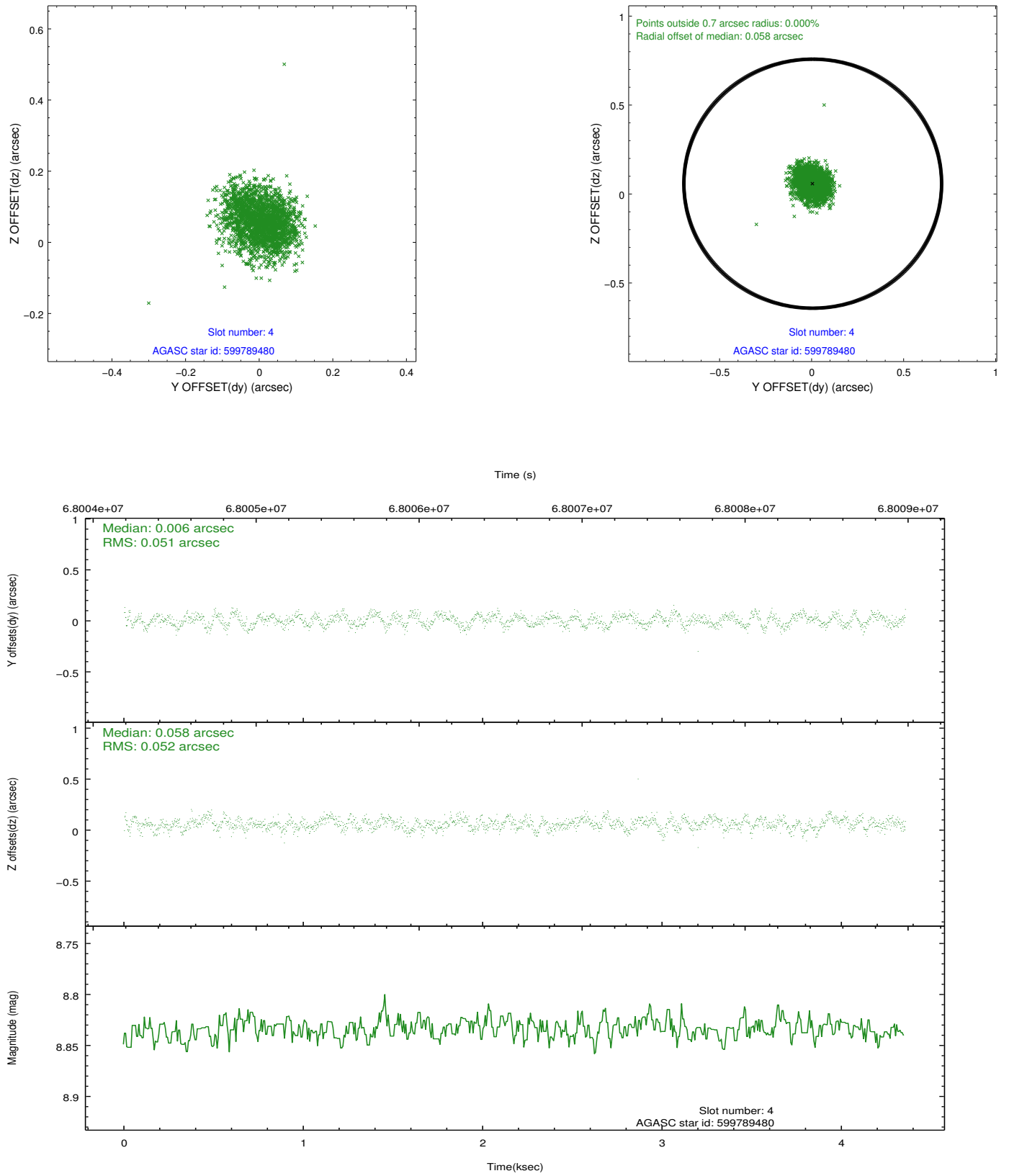
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	1062	-0.011	-0.033	0.007	0.012	0.000000	0.000000	-753.13	-1724.34
1	FID	ACIS-S-4	7.21	1062	0.048	0.014	0.007	0.014	0.000000	0.000000	2159.62	182.65
2	FID	ACIS-S-5	7.24	1063	-0.068	0.027	0.007	0.013	0.000000	0.000000	-1804.15	178.06
3	GUIDE	599269400	8.70	2125	-0.029	0.022	0.056	0.091	254.398050	78.499006	-670.97	1161.19
4	GUIDE	599789480	8.83	2125	0.006	0.058	0.078	0.121	253.845424	78.947438	891.01	1724.71
5	GUIDE	599785600	9.23	2123	0.022	-0.056	0.090	0.145	259.639486	78.927525	1435.67	-2239.41
6	GUIDE	599263768	9.70	2125	-0.030	-0.045	0.094	0.151	258.248120	78.312570	-925.79	-1693.30
7	GUIDE	599264552	9.71	2123	0.028	0.020	0.090	0.150	254.730914	78.648351	-109.67	987.35

## 2.4 Star Slots

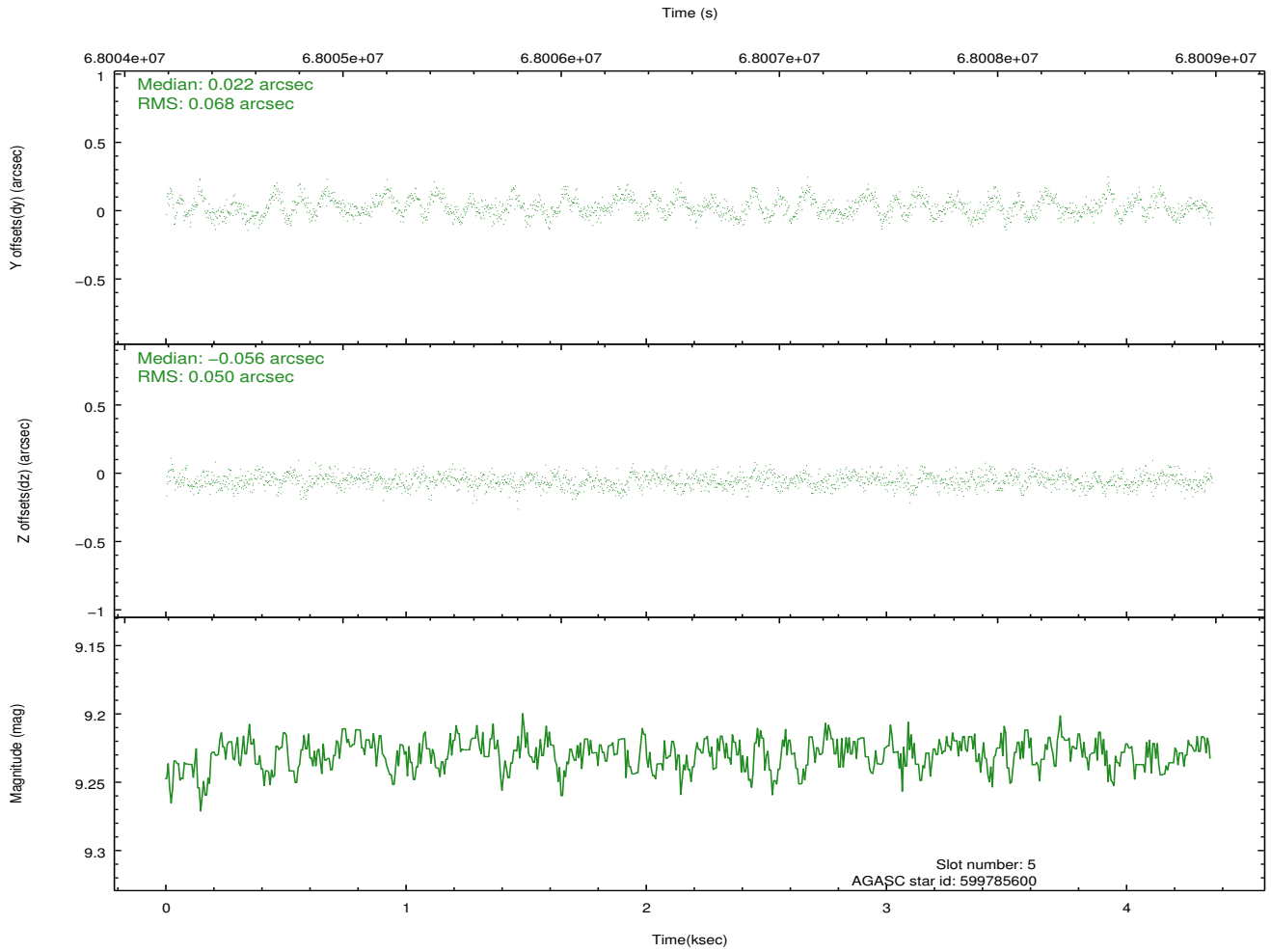
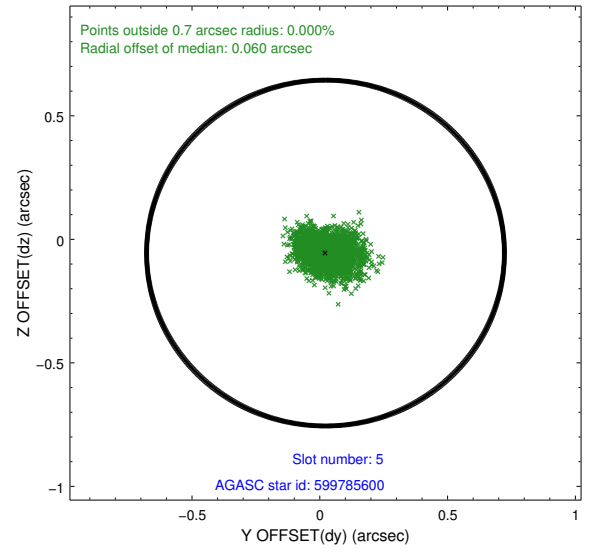
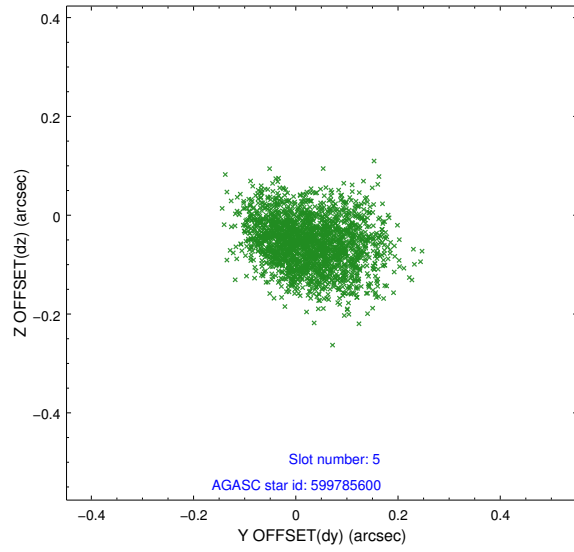
### 2.4.1 Slot 3



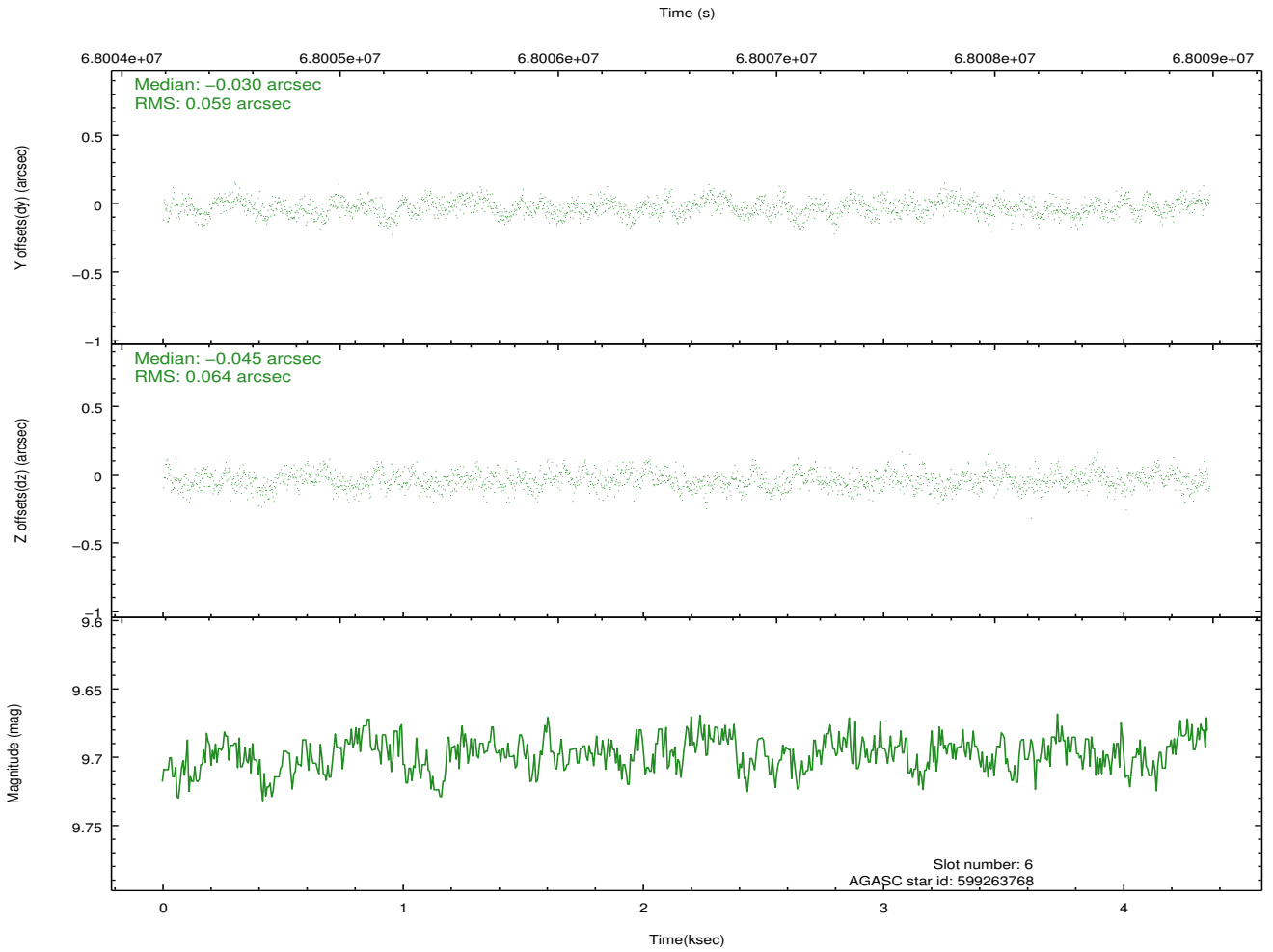
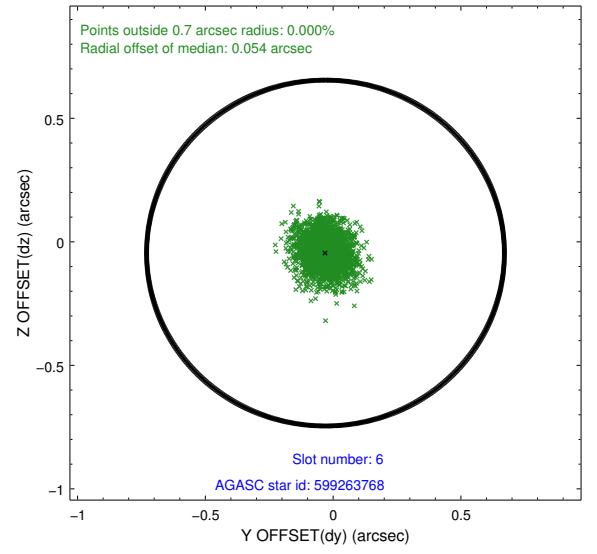
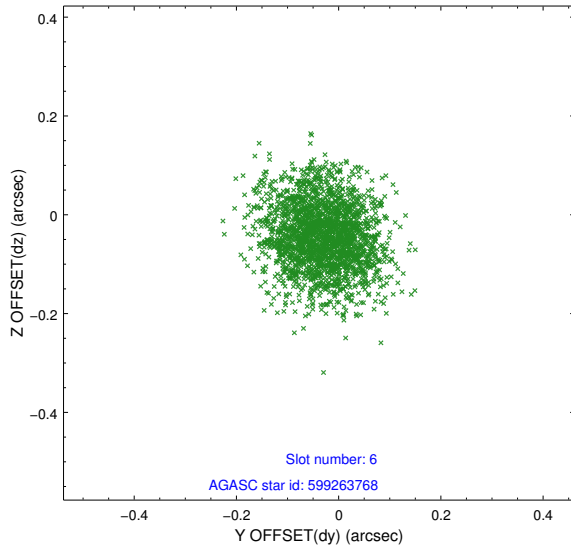
## 2.4.2 Slot 4



### 2.4.3 Slot 5

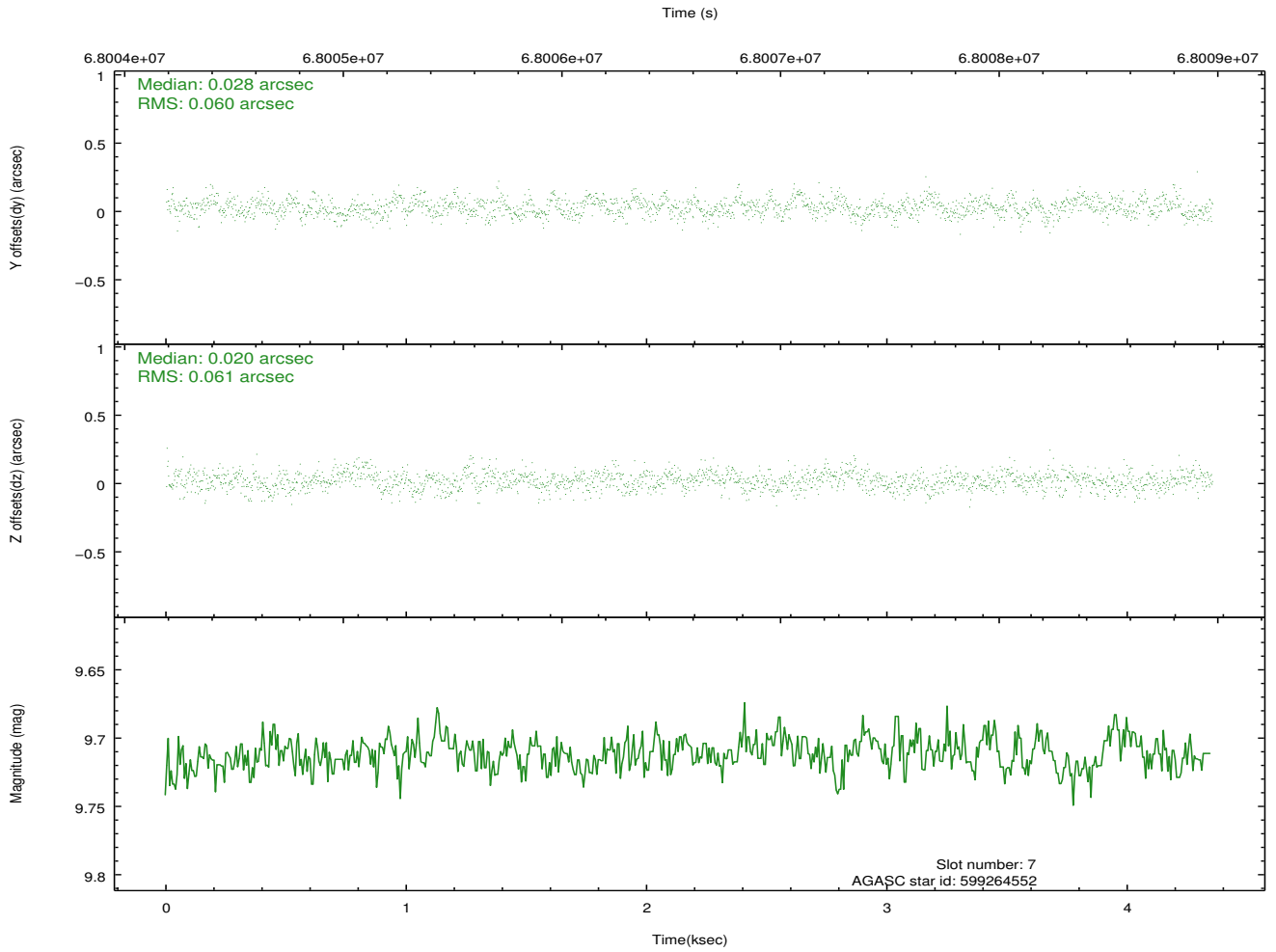
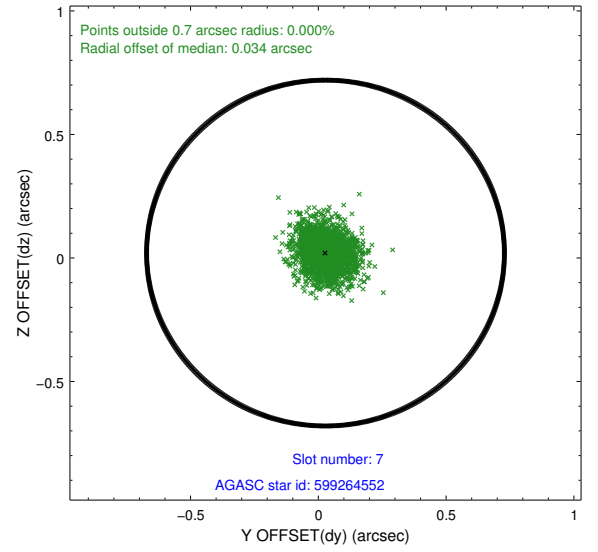
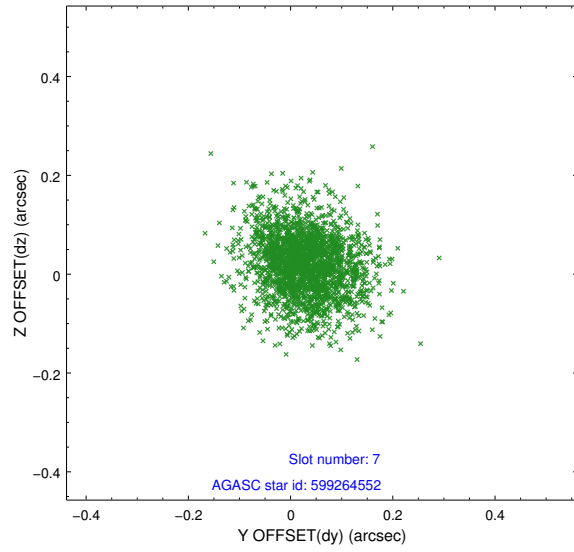


## 2.4.4 Slot 6



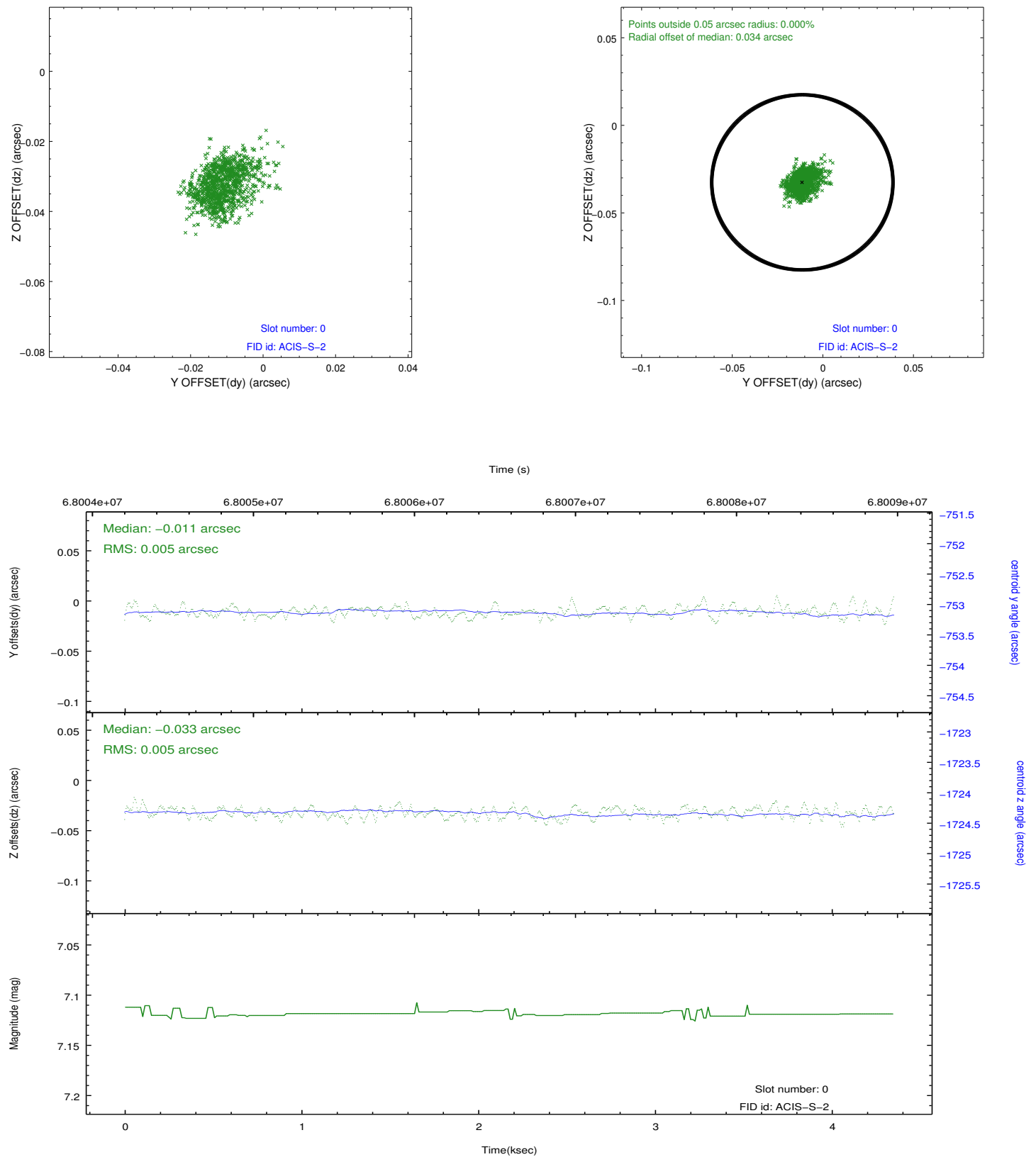


## 2.4.5 Slot 7

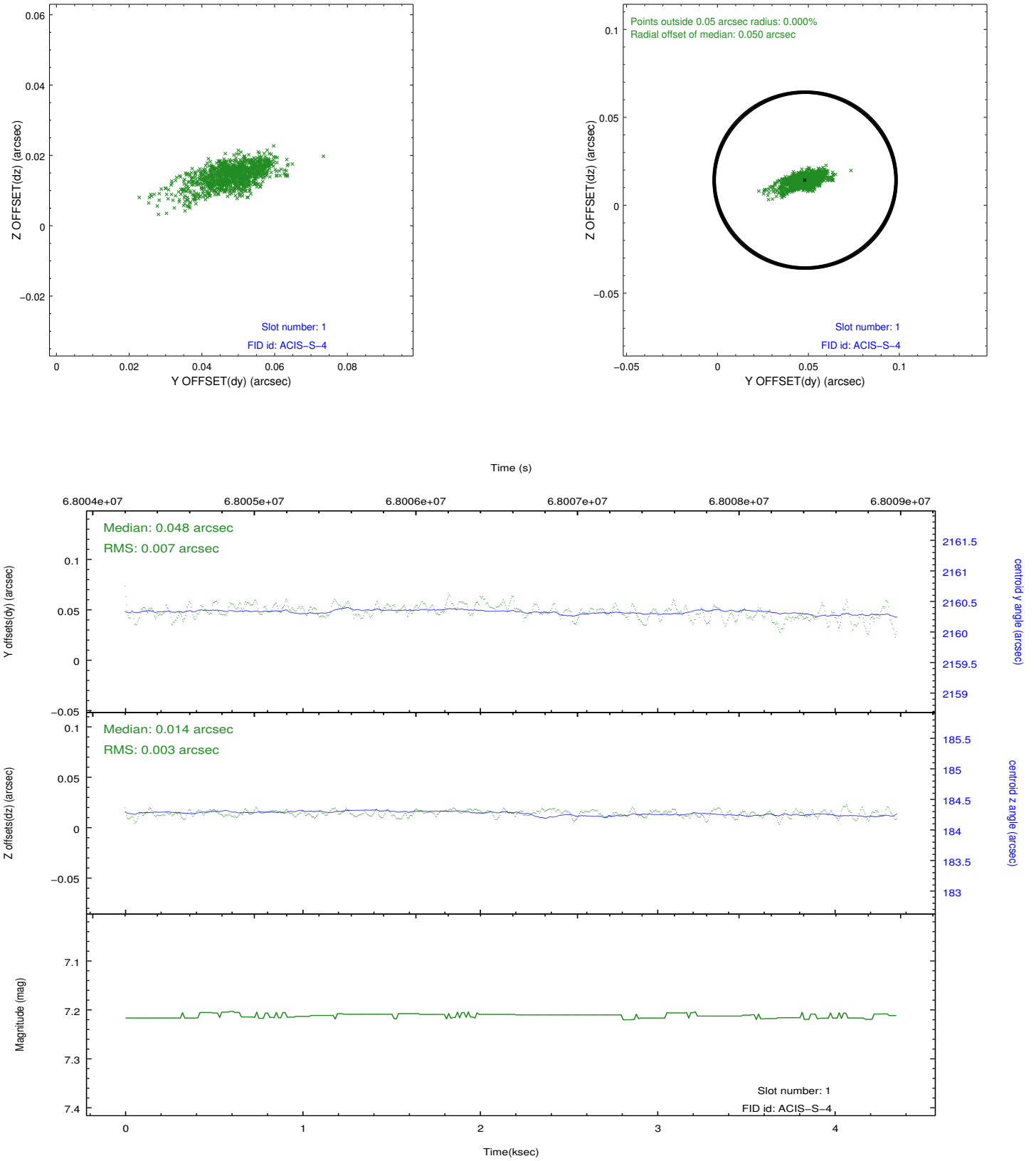


## 2.5 FID Slots

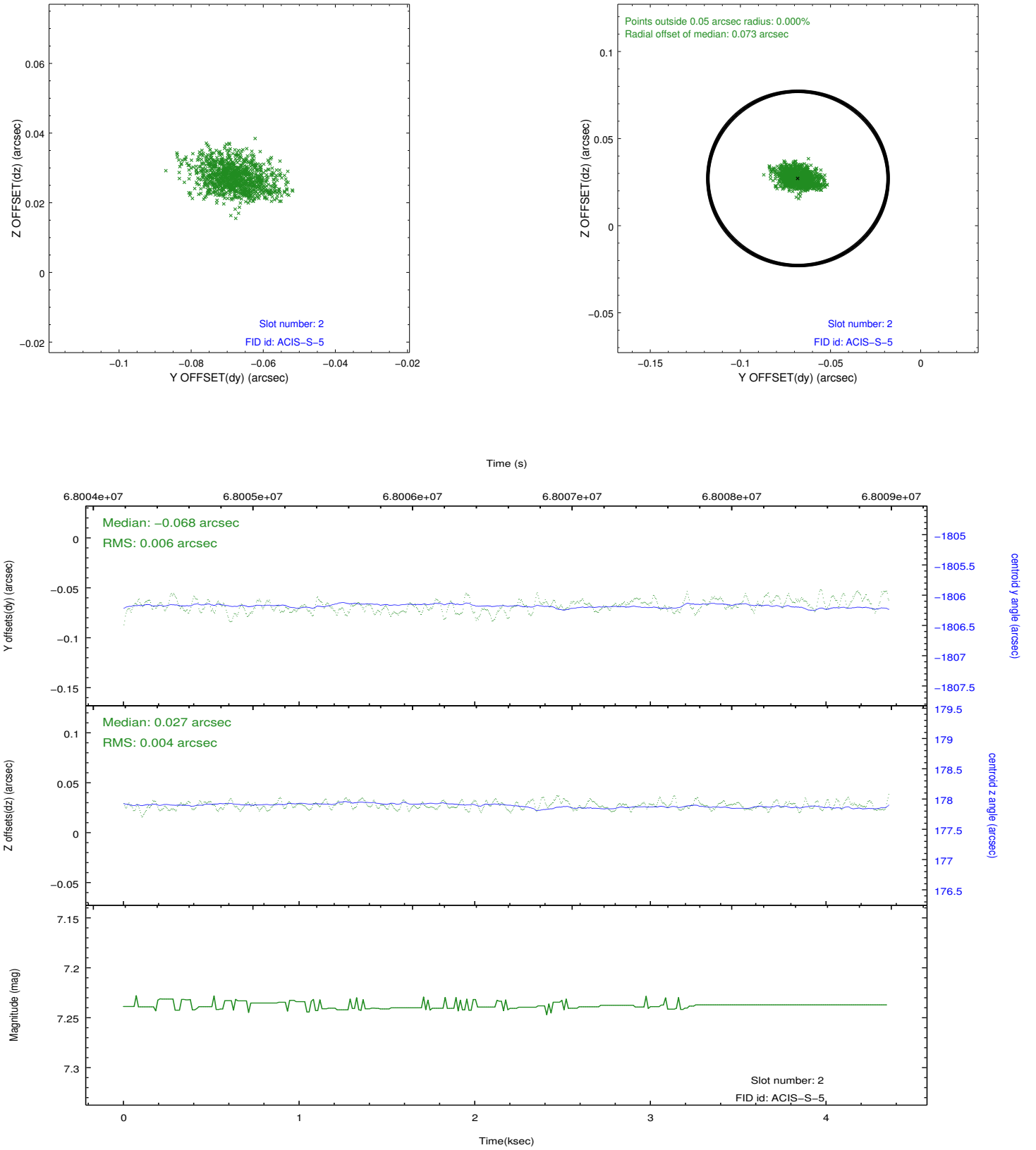
### 2.5.1 Slot 0



## 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)	2012.08.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.976

### A.2 Comments