

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4044 - L2 Version 3  
Chandra X-Ray Center

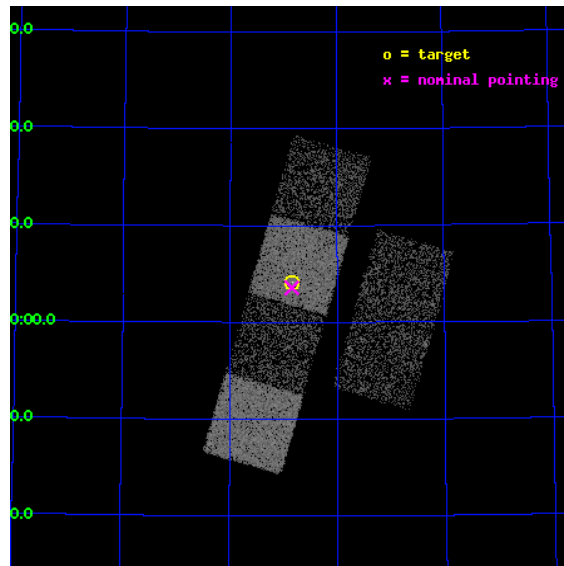
L2 Processing Date : Nov 3 2012

## 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

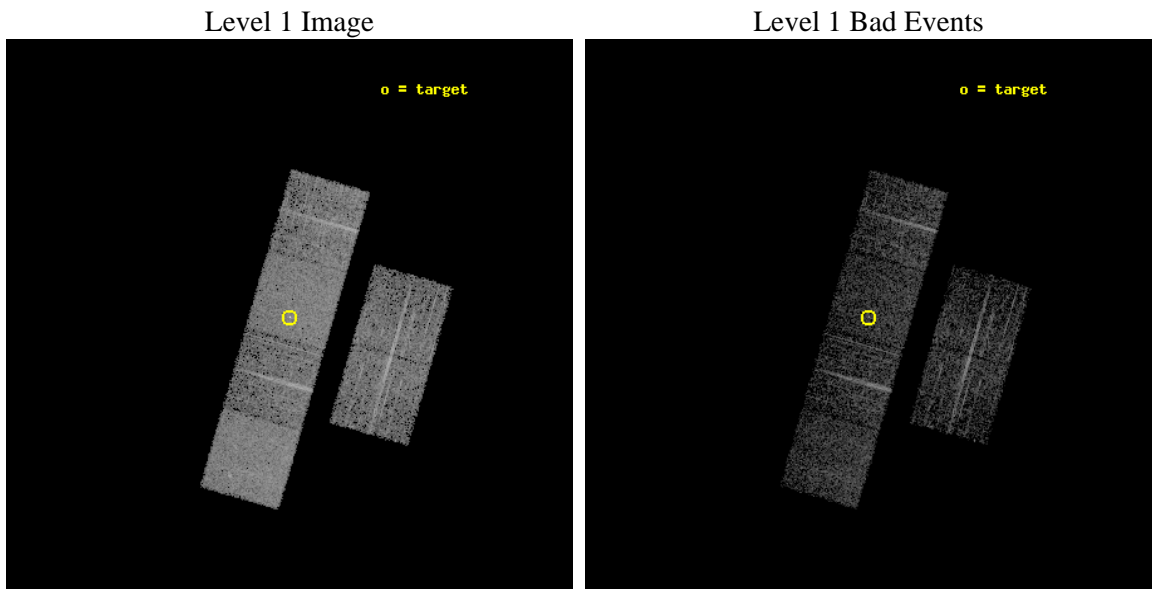
seq_num	700723	Sequence number
obs_id	4044	Observation id
title	WHY DO WE SEE BROAD LINES IN X-RAY ABSORBED AGN?	Proposal title
observer	Dr. Belinda Wilkes	Principal investigator
object	2MASS141850+680410	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	214.708333	Observer's specified target RA [deg]
dec_targ	68.069333	Observer's specified target Dec [deg]
ra_nom	214.71116633918	Nominal RA [deg]
dec_nom	68.059602671291	Nominal Dec [deg]
roll_nom	286.15749046951	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3539.1999868155	Sum of GTIs [s]
livetime	3494.384505532	Livetime [s]
ontime2	3539.1999868155	Sum of GTIs [s]
ontime3	3539.1999868155	Sum of GTIs [s]
ontime5	3539.1999868155	Sum of GTIs [s]
ontime6	3539.1999868155	Sum of GTIs [s]
ontime7	3539.1999868155	Sum of GTIs [s]
ontime8	3539.1999868155	Sum of GTIs [s]
l2events	34215	Number of level 2 events



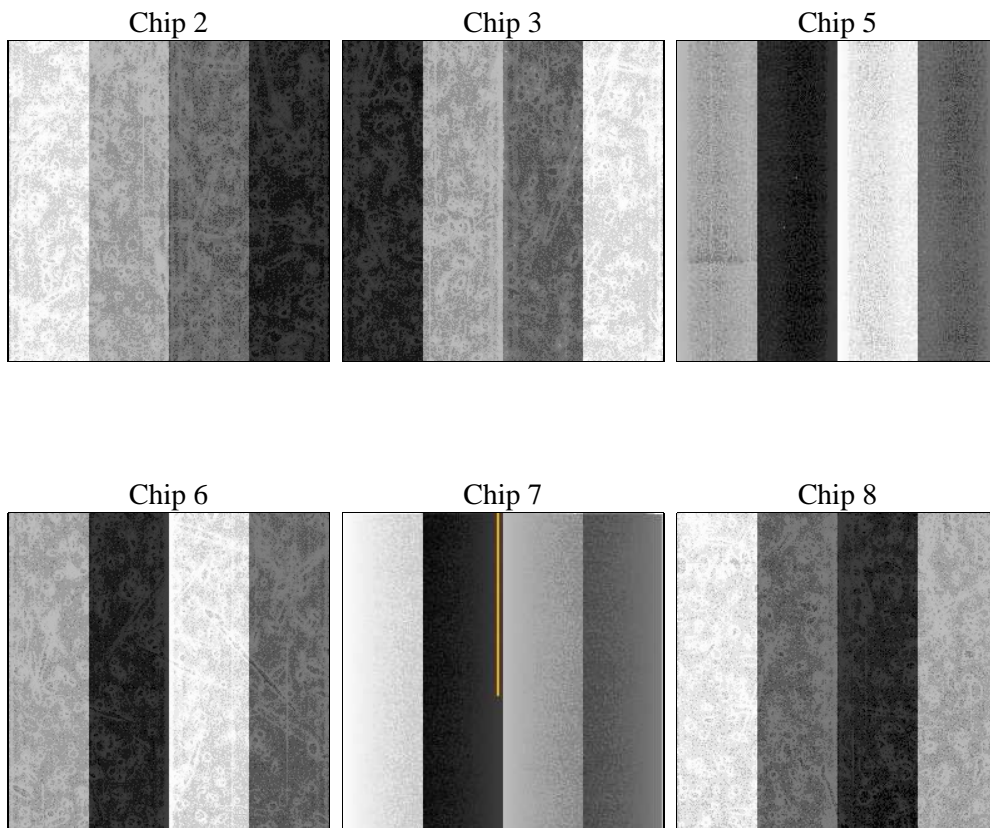
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	3539.1999868155	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime2	3539.1999868155	Sum of GTIs [s]
date	2012-11-03T14:26:49	Date and time of file creation	ontime3	3539.1999868155	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	3539.1999868155	Sum of GTIs [s]
			ontime6	3539.1999868155	Sum of GTIs [s]
			ontime7	3539.1999868155	Sum of GTIs [s]
			ontime8	3539.1999868155	Sum of GTIs [s]
			l1events	226427	Number of level 1 events

### 2.1.4 Events

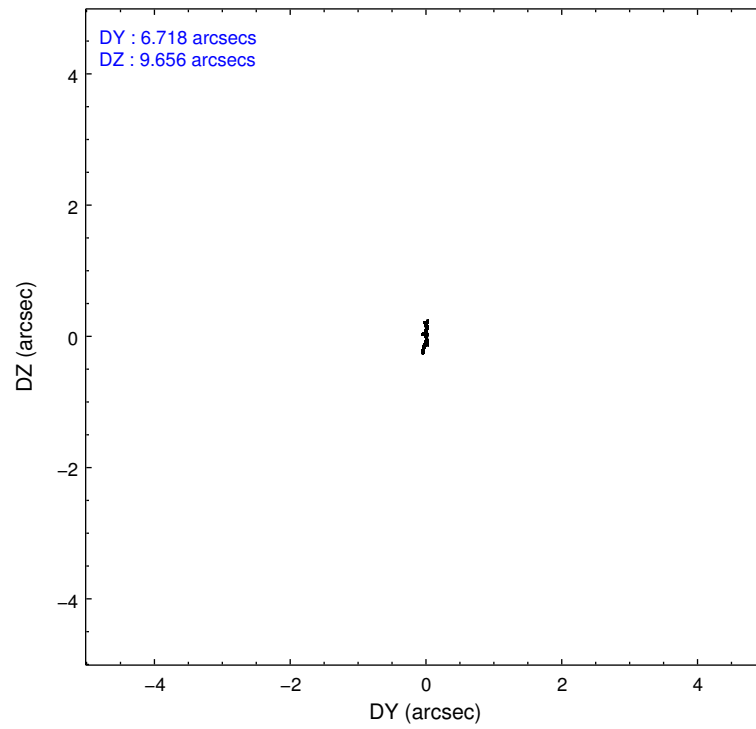
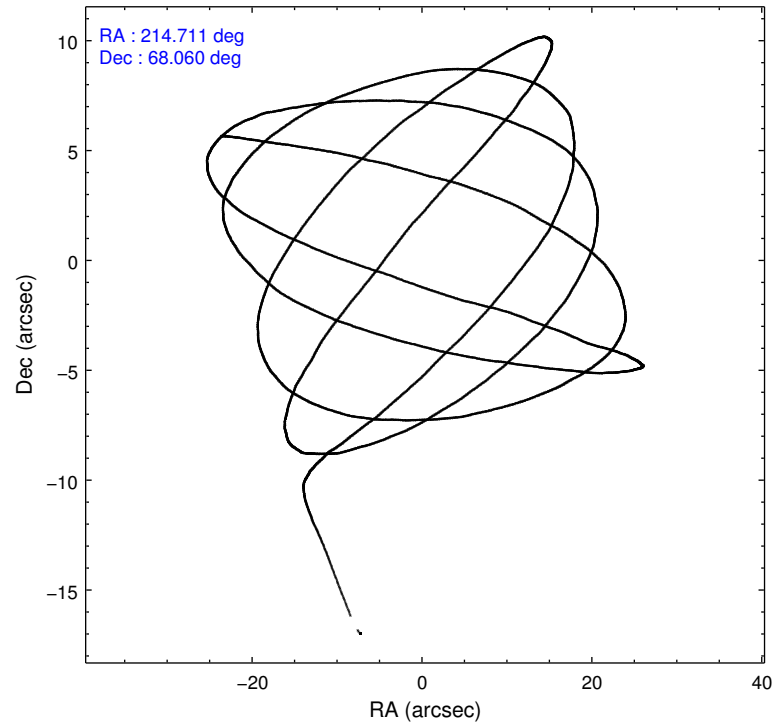
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	31399	31388	47623	32350	44160	39507	grade 0 events	1816	1714	2358	1559	1895	2563
rejected events	28815	28926	34009	29816	31800	34361		5%	5%	4%	4%	4%	6%
rejected %	91%	92%	71%	92%	72%	86%	grade 1 events	10	17	97	14	35	20
								0%	0%	0%	0%	0%	0%
							grade 2 events	739	664	6238	815	3721	1726
								2%	2%	13%	2%	8%	4%
							grade 3 events	342	389	817	393	1632	891
								1%	1%	1%	1%	3%	2%
							grade 4 events	364	376	769	387	1630	758
								1%	1%	1%	1%	3%	1%
							grade 5 events	1280	1385	3315	1430	4242	1895
								4%	4%	6%	4%	9%	4%
							grade 6 events	647	631	11529	787	9814	2025
								2%	2%	24%	2%	22%	5%
							grade 7 events	26201	26212	22500	26965	21191	29629
								83%	83%	47%	83%	47%	74%

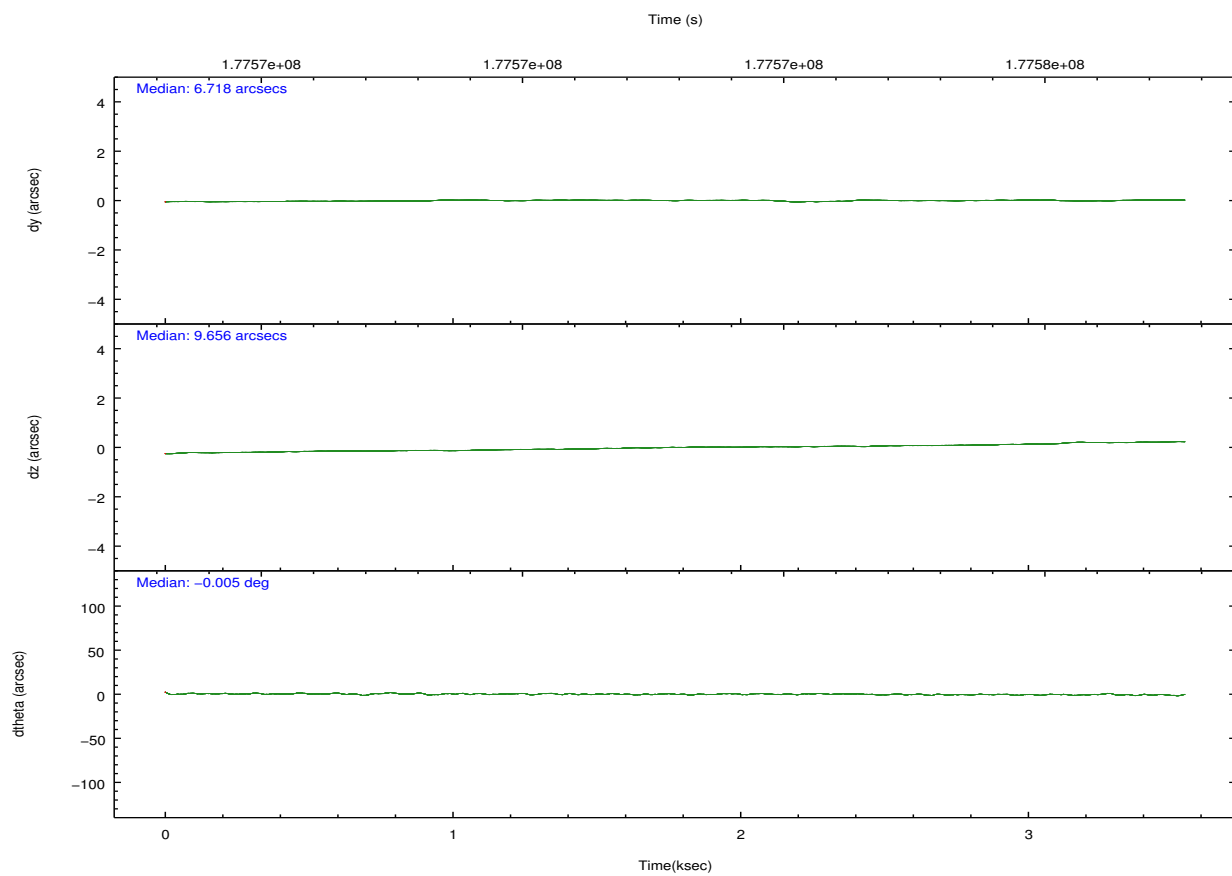
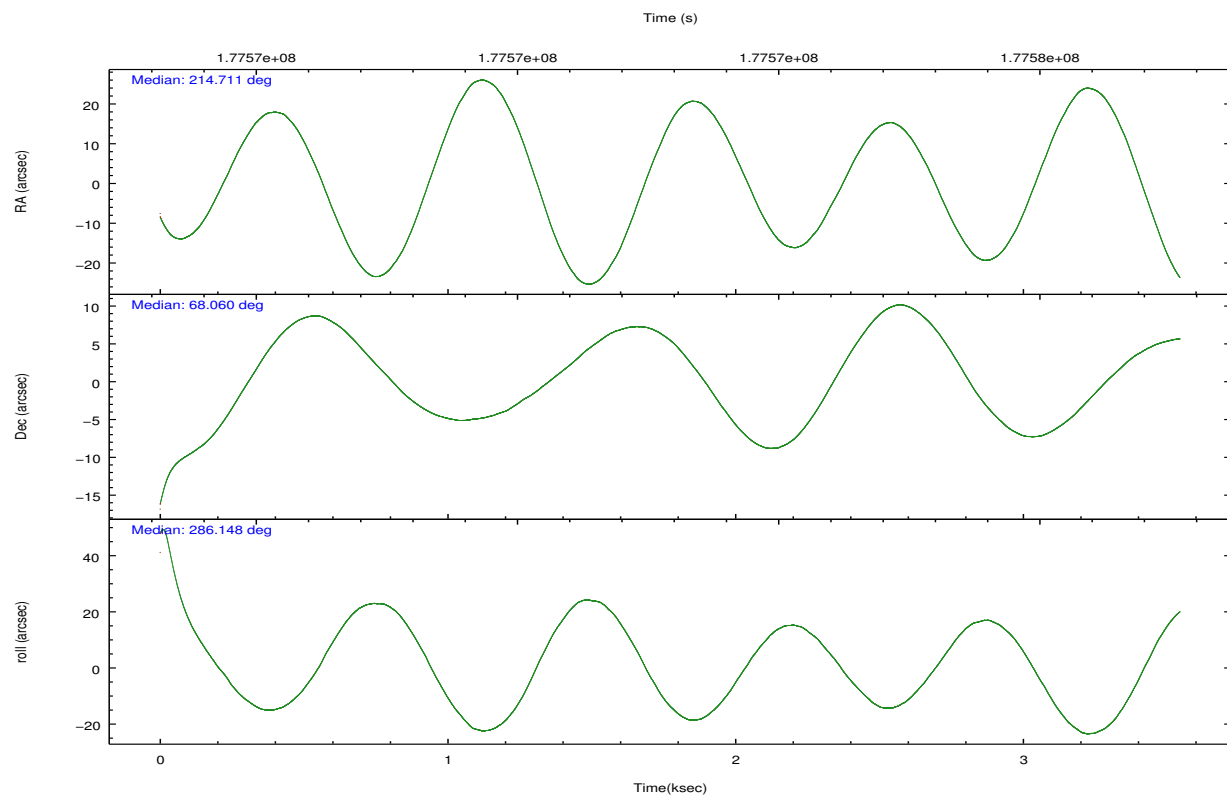


## 2.2 Compared Parameters

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	214.657766	214.7111663391839	Subarray requested	NONE	NONE
[deg] Pointing Dec	68.078297	68.05960267129117	Alternating exposures requested	N	N
[deg] Pointing Roll	286.050259	286.1574904695087	[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)	177571952.184000	177569917.067			
Observation start date	2003-08-18T05:31:28	2003-08-18T04:58:37			
[s] Observation end time (MET)	177575352.184000	177575684.74225			
Observation end date	2003-08-18T06:28:08	2003-08-18T06:34:44			
Read mode	TIMED	TIMED			

## 2.3 Aspect



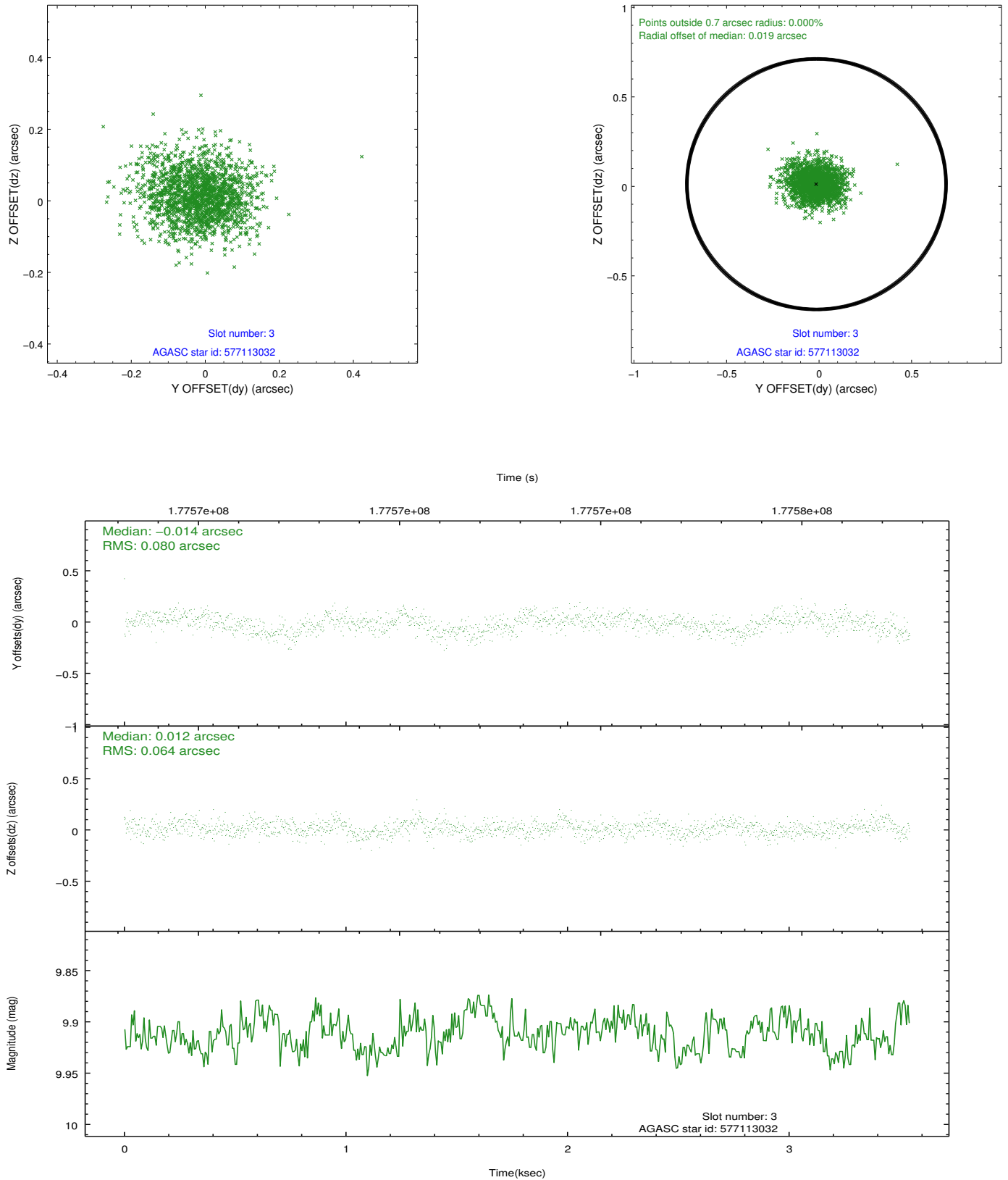


Slot Statistics

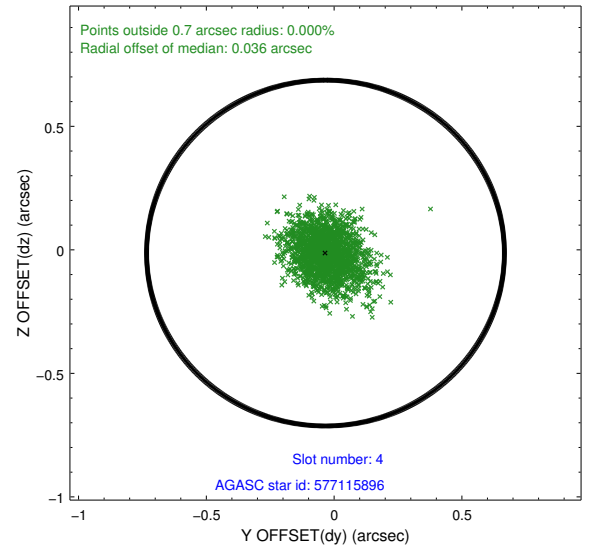
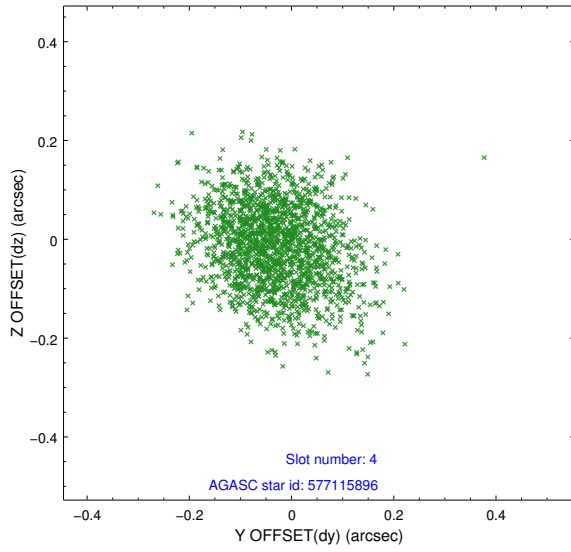
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	865	0.025	-0.018	0.008	0.013	0.000000	0.000000	936.60	-1726.52
1	FID	ACIS-S-5	7.24	865	-0.052	0.022	0.007	0.012	0.000000	0.000000	-1811.47	169.24
2	FID	ACIS-S-6	7.35	865	0.006	0.008	0.009	0.015	0.000000	0.000000	400.22	815.20
3	GUIDE	577113032	9.91	1728	-0.014	0.012	0.107	0.180	215.104484	67.662580	1605.18	174.59
4	GUIDE	577115896	9.69	1725	-0.034	-0.013	0.122	0.196	215.171569	68.455951	-1120.68	1029.40
5	GUIDE	547619880	10.59	1724	-0.052	0.169	0.205	0.344	214.170012	67.346354	2341.85	-1376.98
6	GUIDE	577113072	9.95	1729	-0.093	-0.021	0.136	0.221	213.902524	67.723195	939.08	-1342.80
7	GUIDE	577111440	10.49	1713	0.194	-0.162	0.225	0.355	215.240797	67.850554	1003.79	534.08

## 2.4 Star Slots

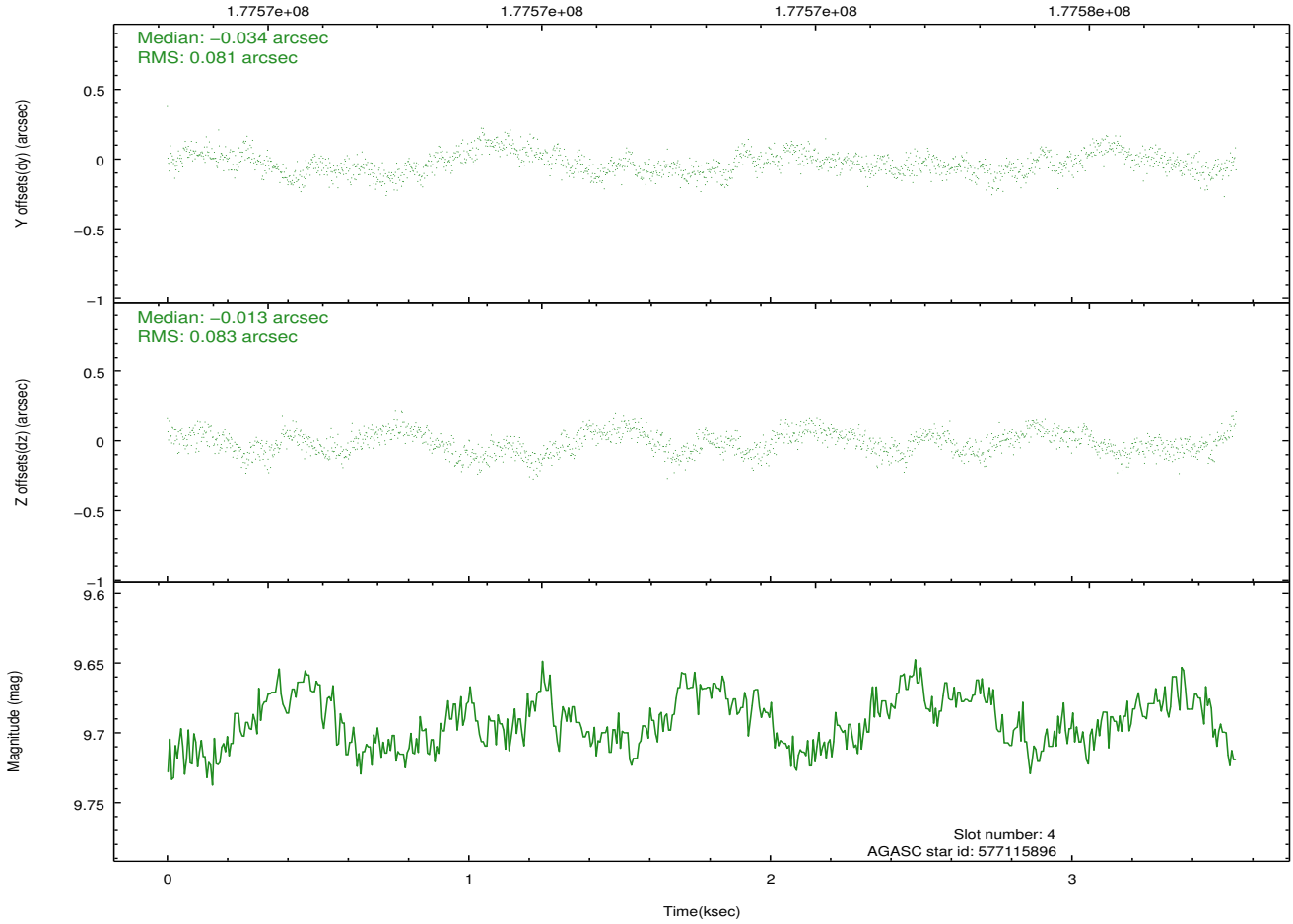
### 2.4.1 Slot 3



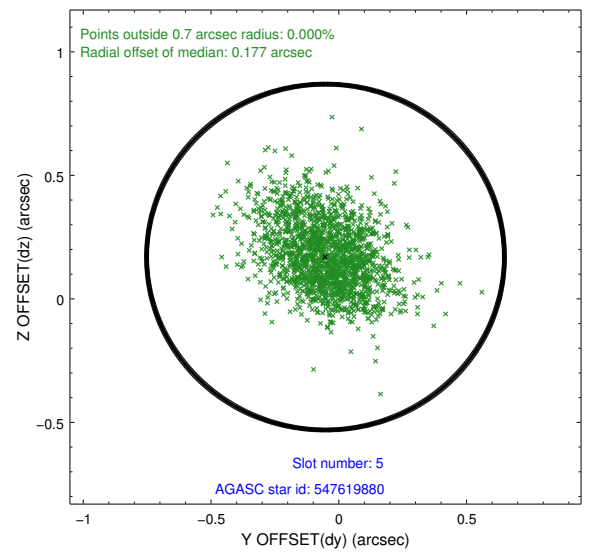
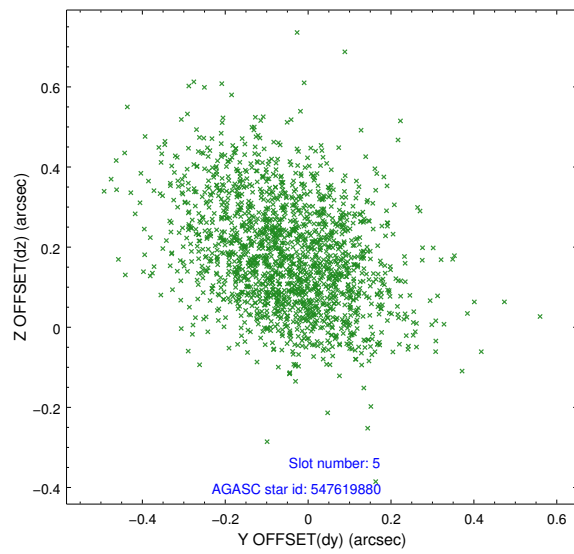
## 2.4.2 Slot 4



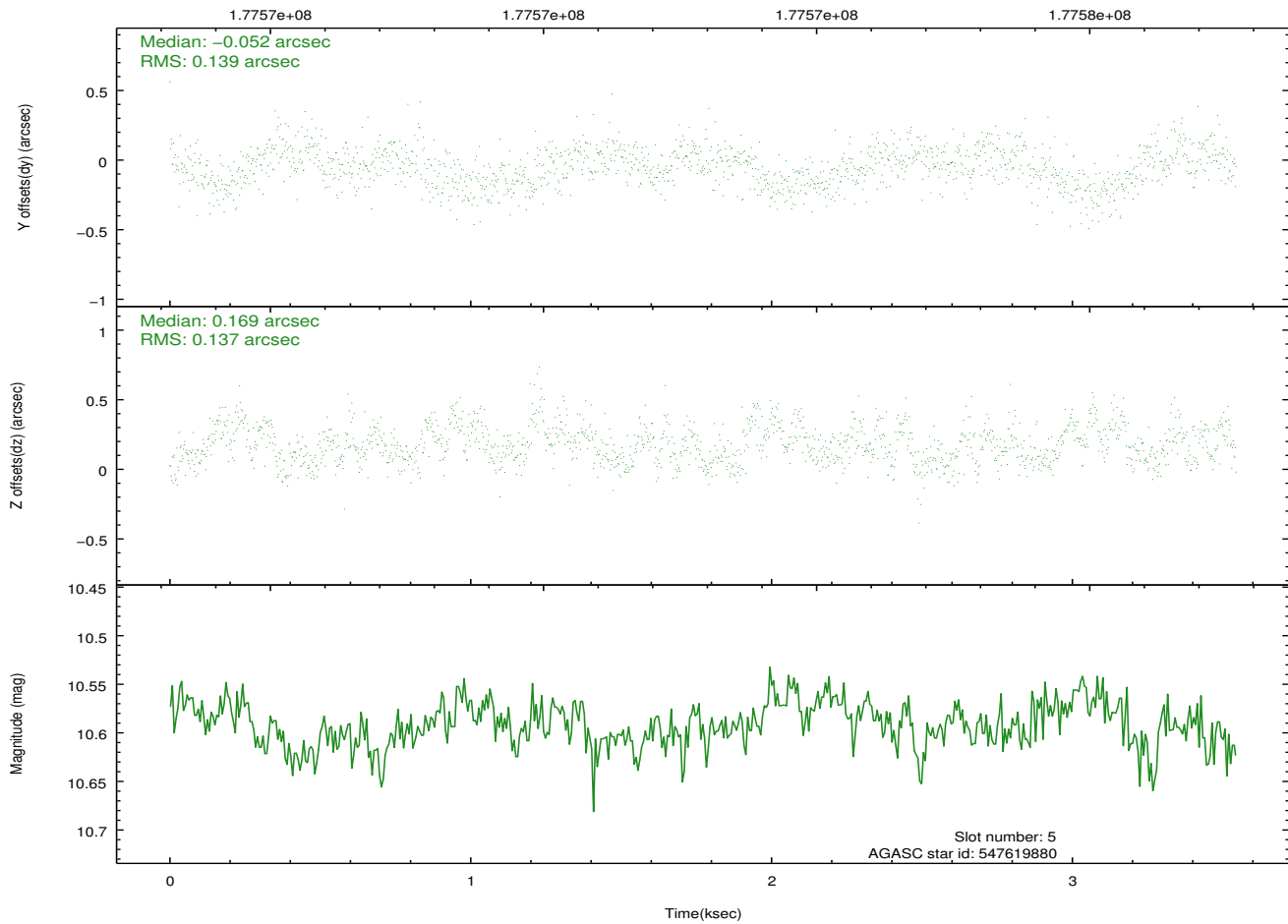
Time (s)



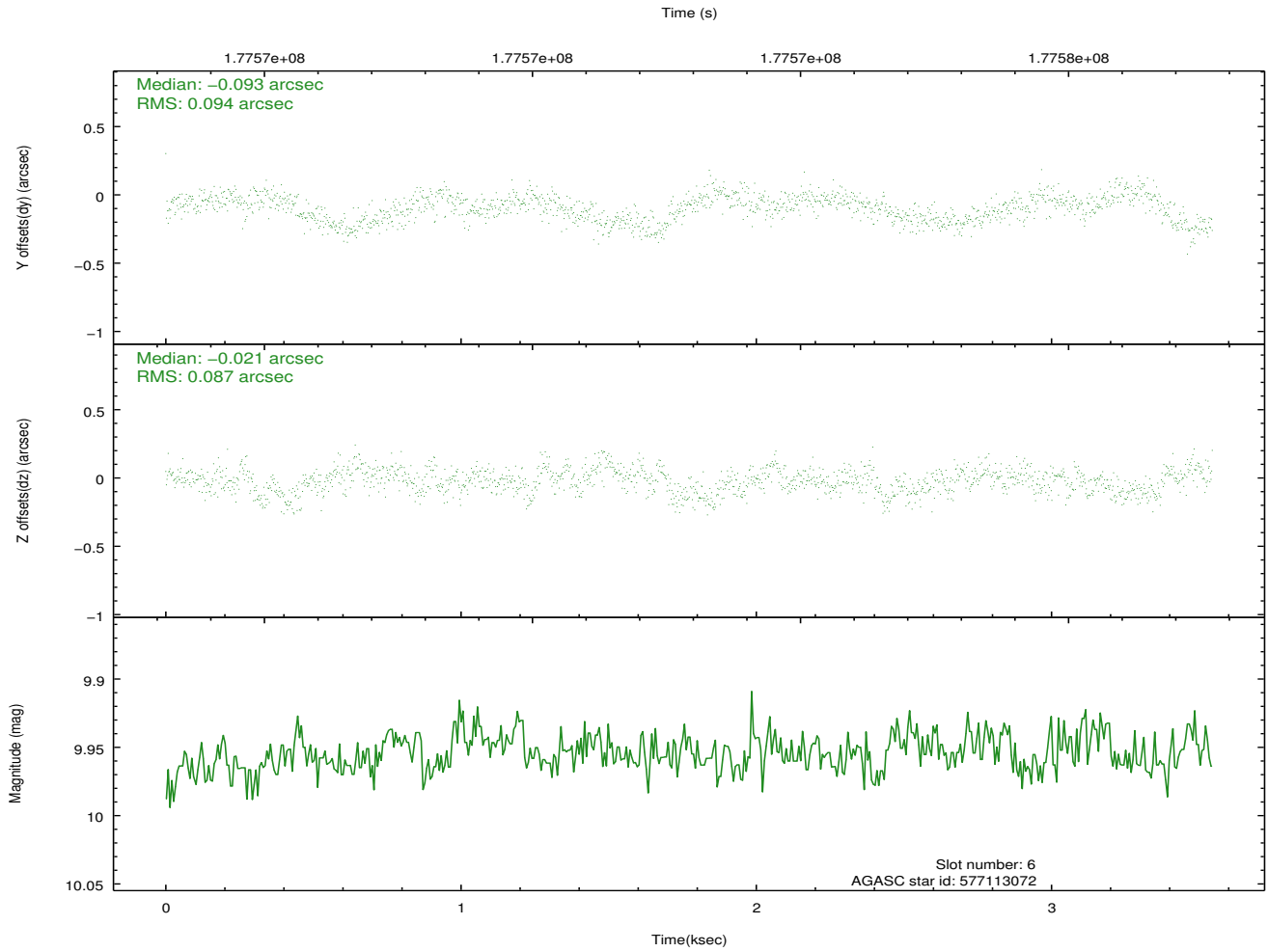
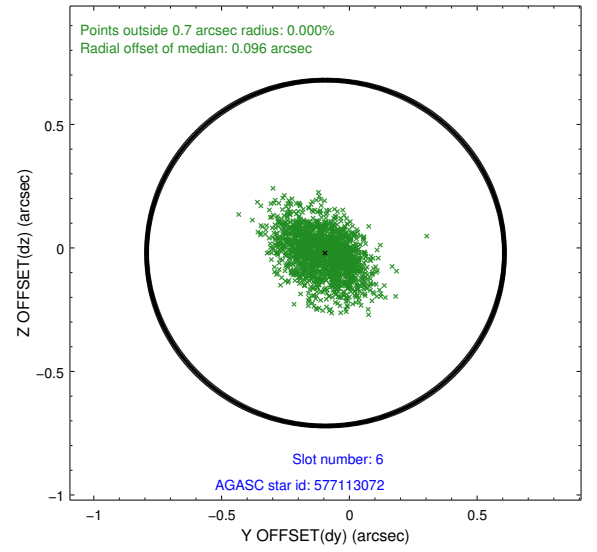
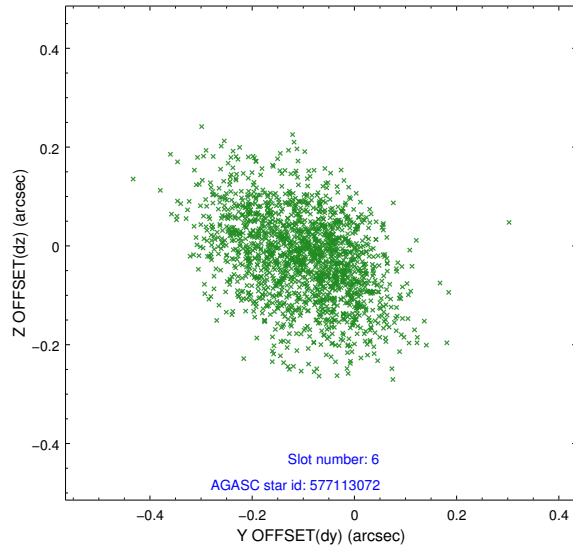
### 2.4.3 Slot 5



Time (s)

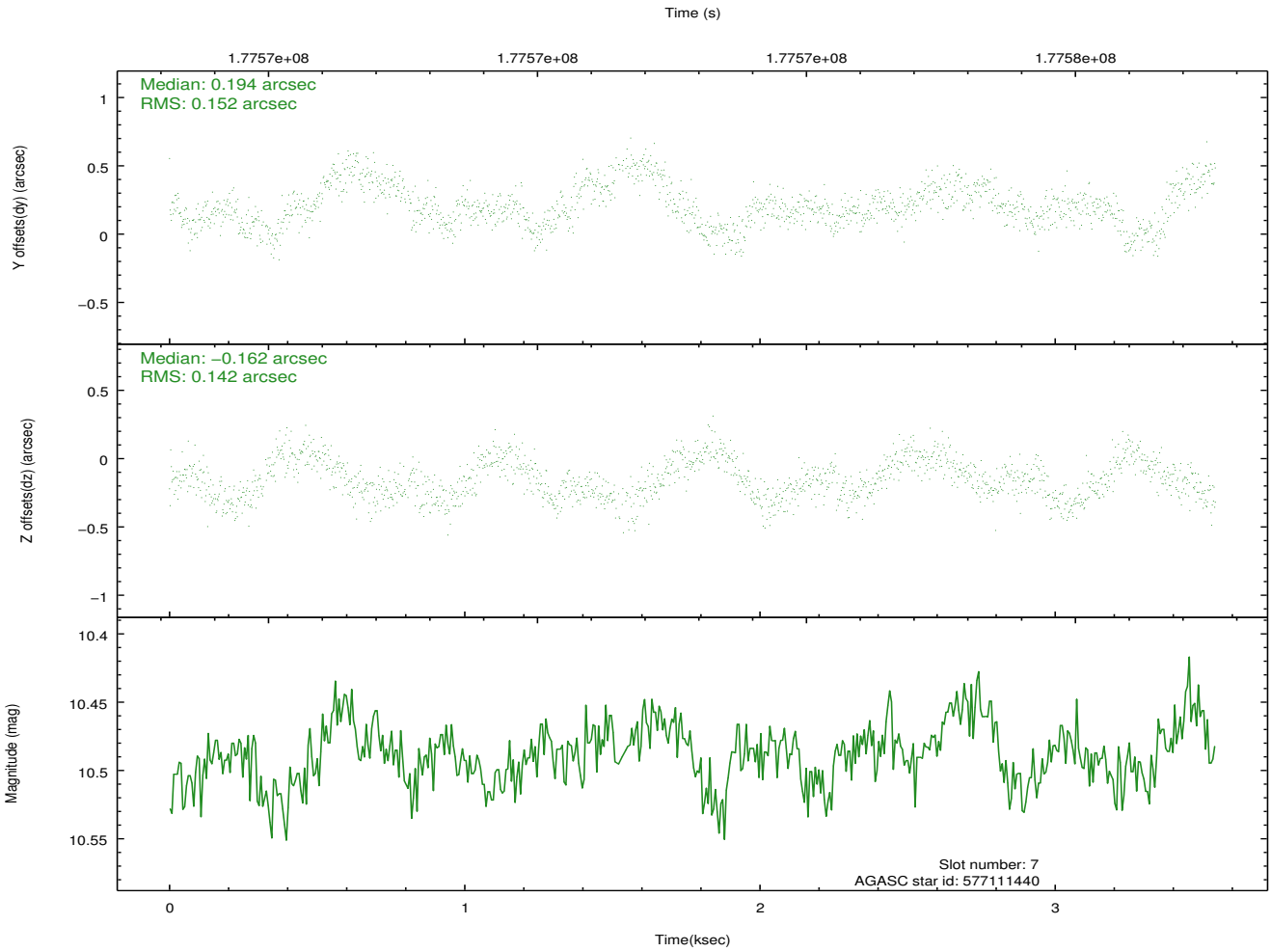
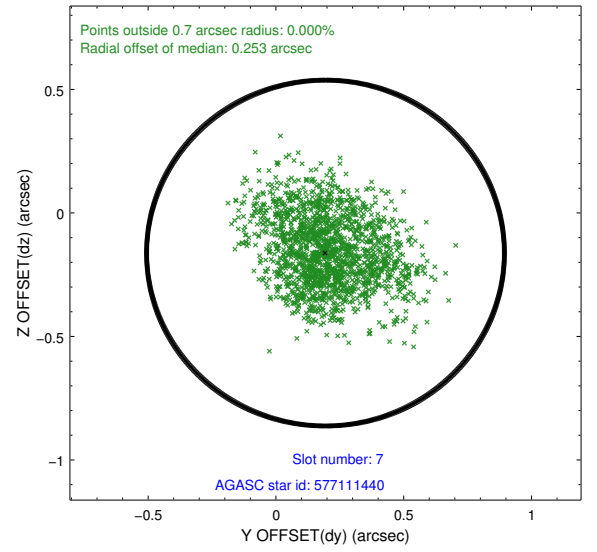
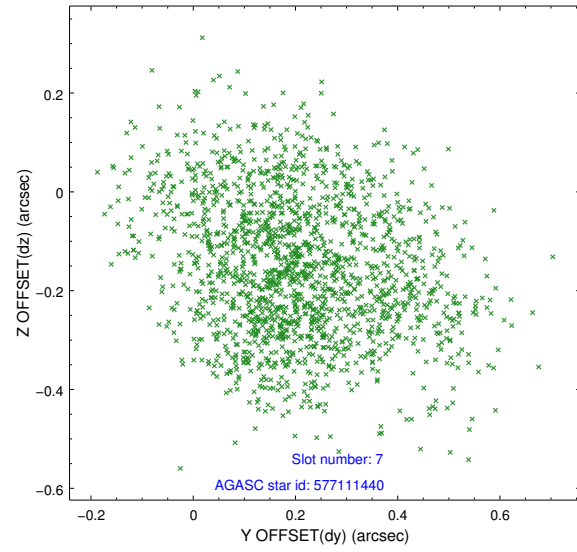


## 2.4.4 Slot 6



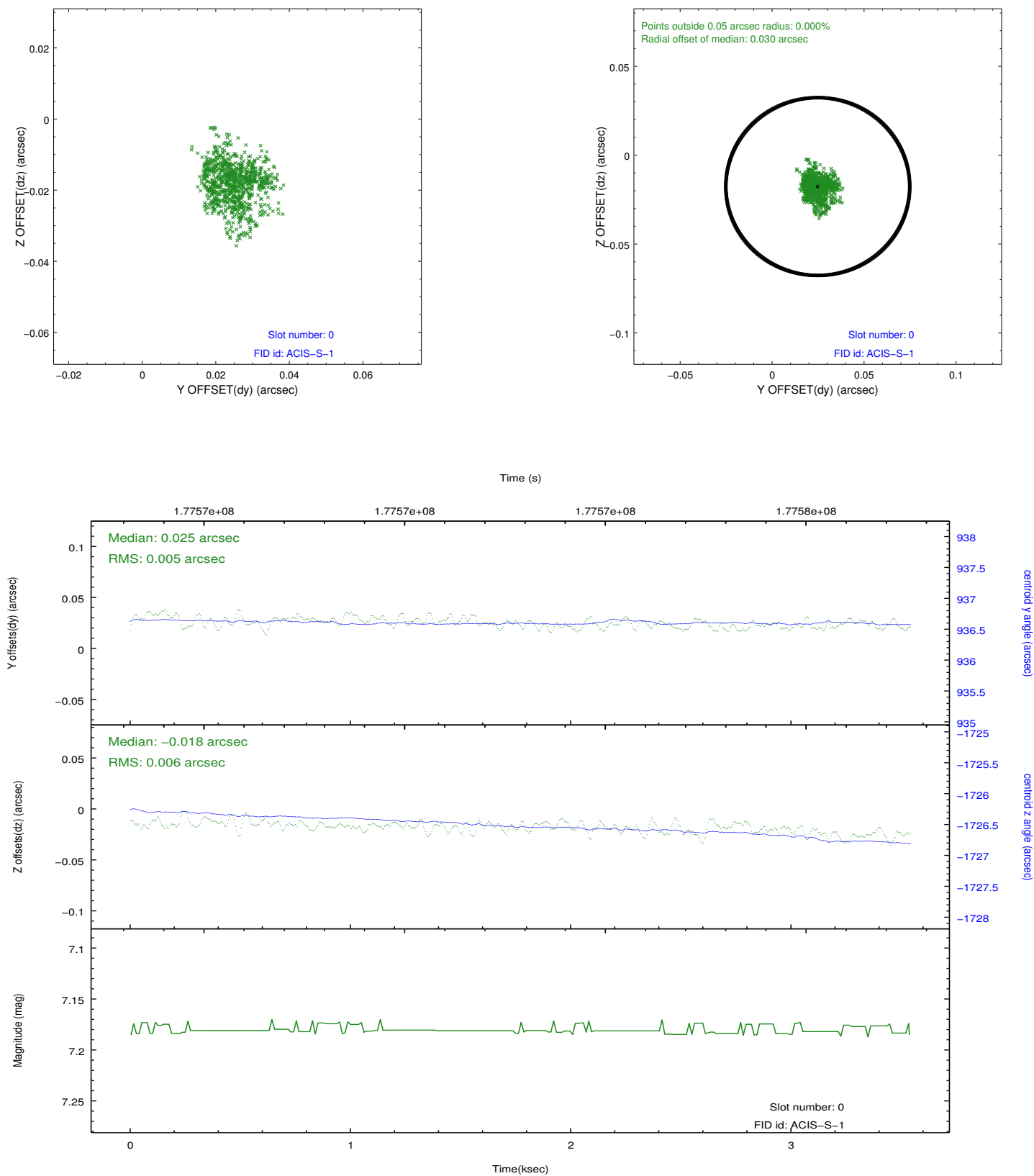


## 2.4.5 Slot 7

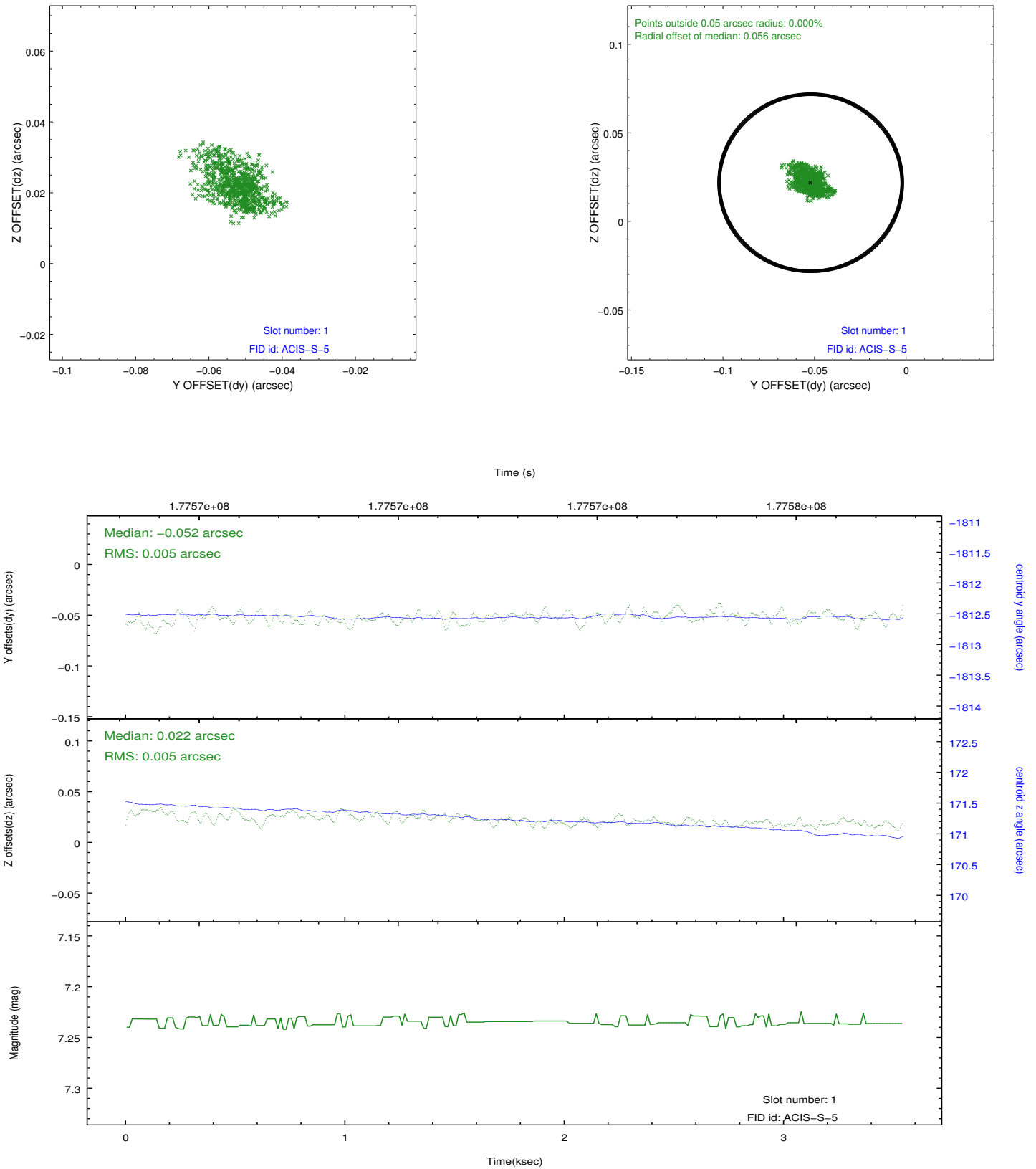


## 2.5 FID Slots

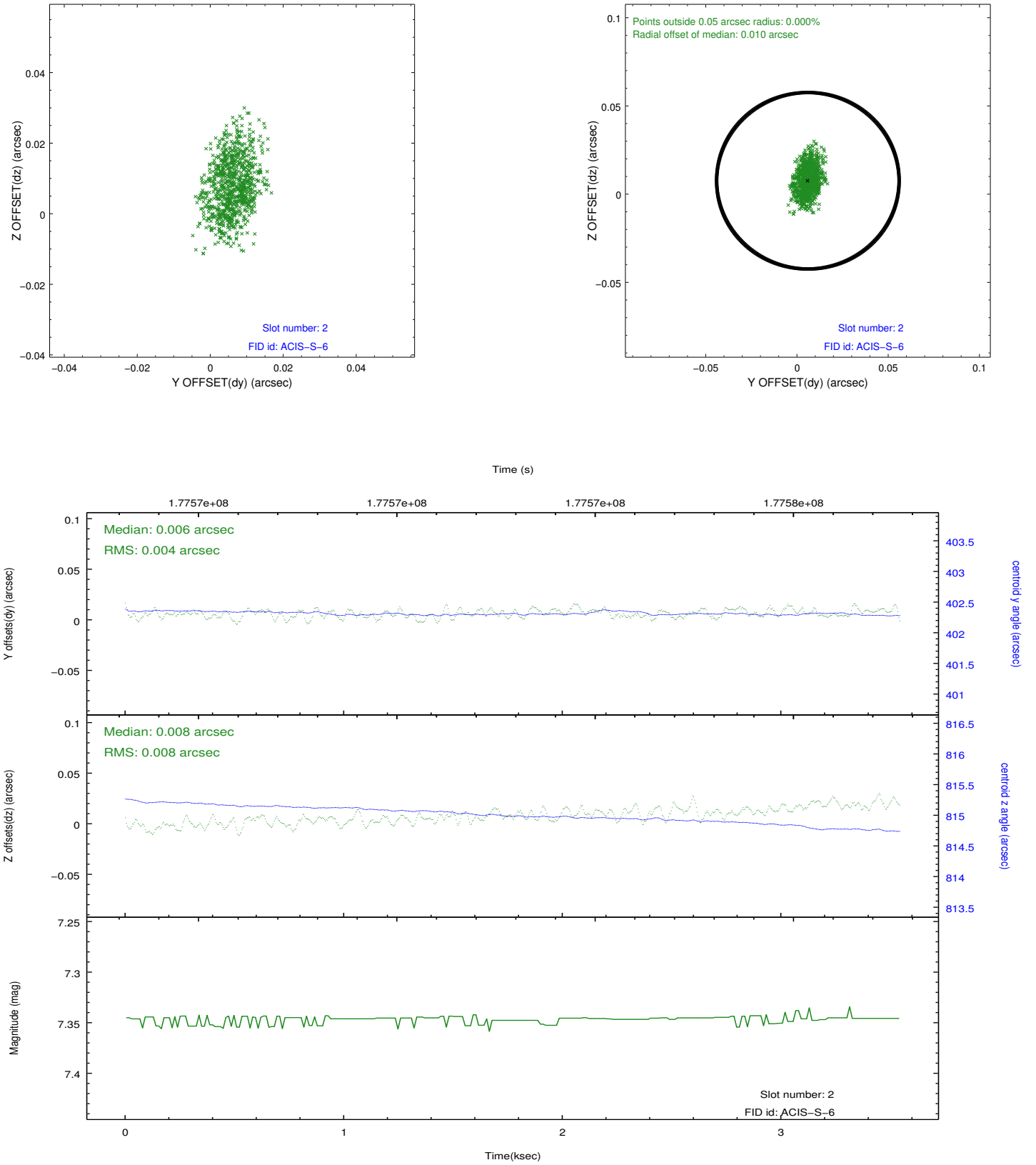
### 2.5.1 Slot 0



## 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)	2012.11.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.539

### **A.2 Comments**