

# V&V Reference Report

## L2 ASCDS Version : 8.4.3.1

Observation 12959 - L2 Version 2  
Chandra X-Ray Center

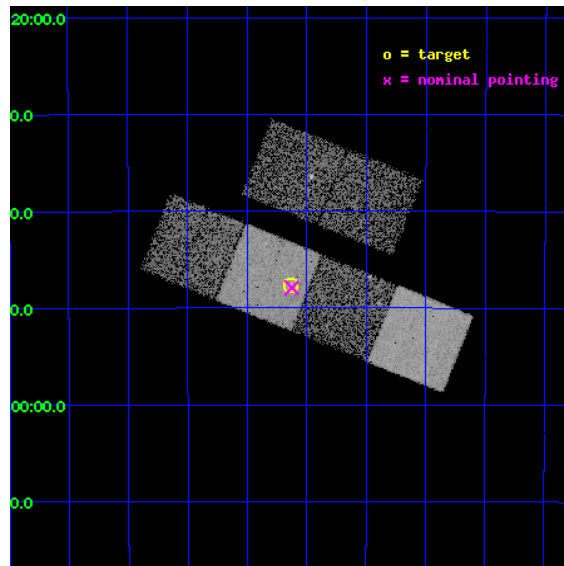
L2 Processing Date : Mar 19 2012

## 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

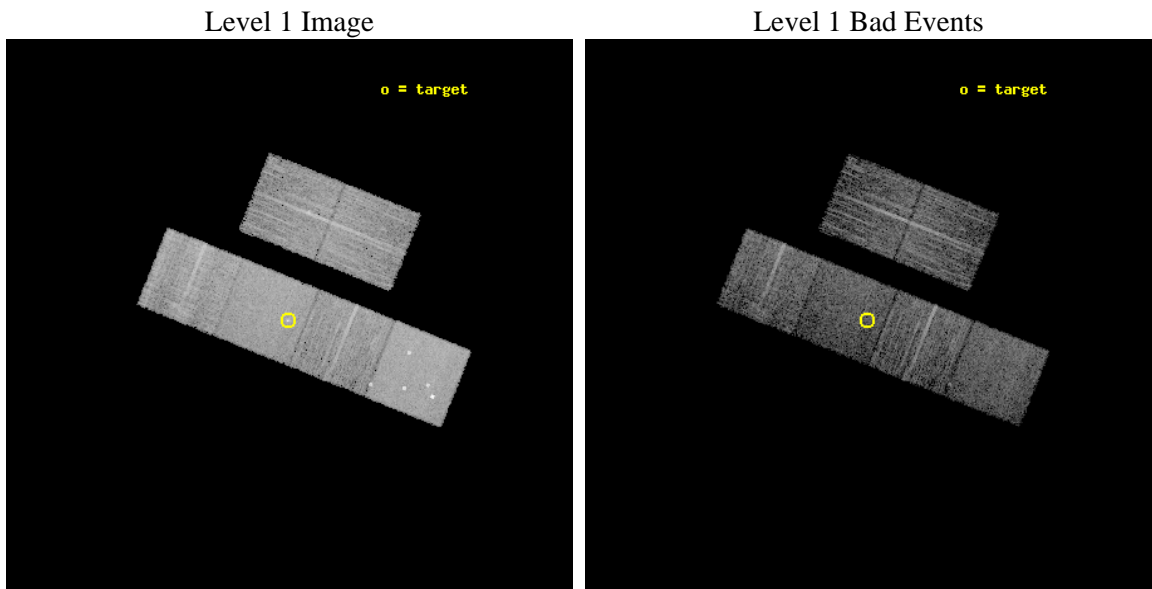
seq_num	600927	Sequence number
obs_id	12959	Observation id
title	Building a Chandra sample of Black Hole Masses	Proposal title
observer	Dr Philip Humphrey	Principal investigator
object	NGC 2663	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	131.284583	Observer's specified target RA [deg]
dec_targ	-33.79475	Observer's specified target Dec [deg]
ra_nom	131.28113083525	Nominal RA [deg]
dec_nom	-33.79865256882	Nominal Dec [deg]
roll_nom	201.8216240954	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7551.9999719262	Sum of GTIs [s]
livetime	7456.3720010132	Livetime [s]
ontime2	7551.9999719262	Sum of GTIs [s]
ontime3	7551.9999719262	Sum of GTIs [s]
ontime5	7551.9999719262	Sum of GTIs [s]
ontime6	7551.9999719262	Sum of GTIs [s]
ontime7	7551.9999719262	Sum of GTIs [s]
ontime8	7551.9999719262	Sum of GTIs [s]
l2events	77142	Number of level 2 events



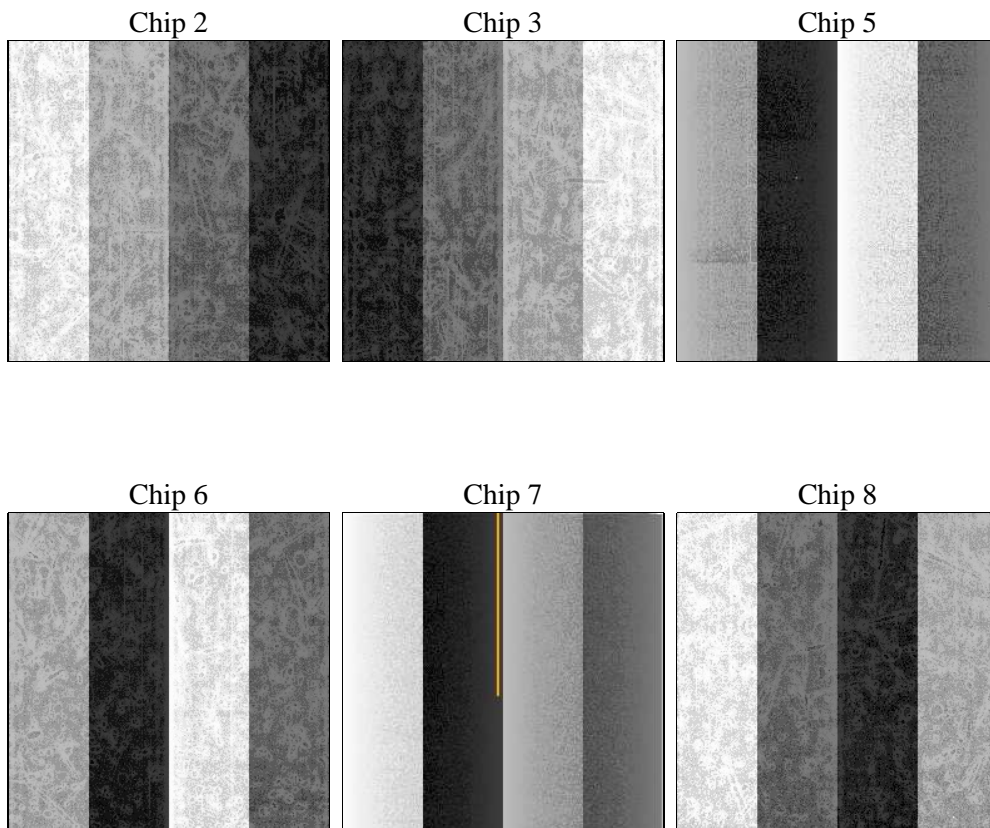
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3.1	Processing system revision	ontime	7551.9999719262	Sum of GTIs [s]
caldsver	4.4.8	&#160	ontime2	7551.9999719262	Sum of GTIs [s]
date	2012-03-19T12:17:47	Date and time of file creation	ontime3	7551.9999719262	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	7551.9999719262	Sum of GTIs [s]
			ontime6	7551.9999719262	Sum of GTIs [s]
			ontime7	7551.9999719262	Sum of GTIs [s]
			ontime8	7551.9999719262	Sum of GTIs [s]
			l1events	324404	Number of level 1 events

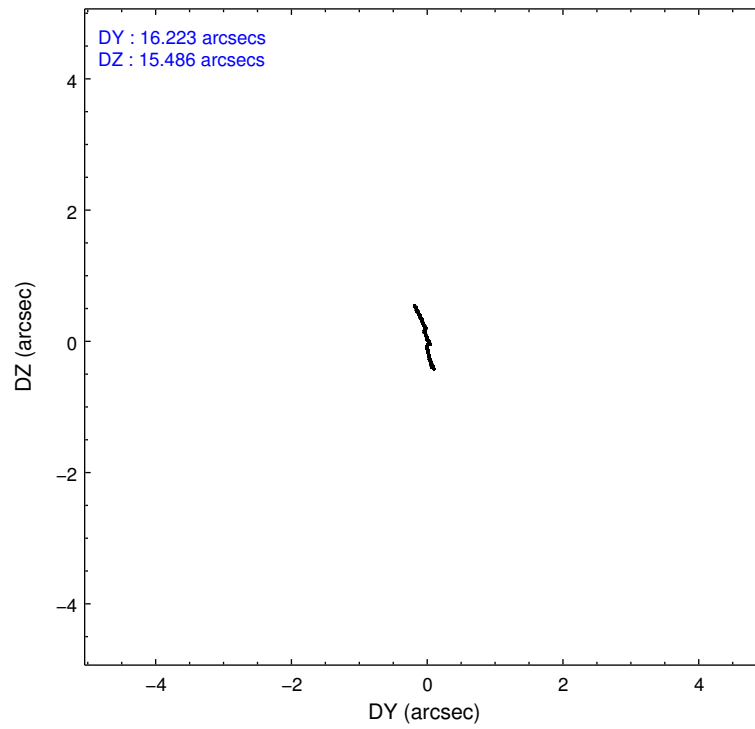
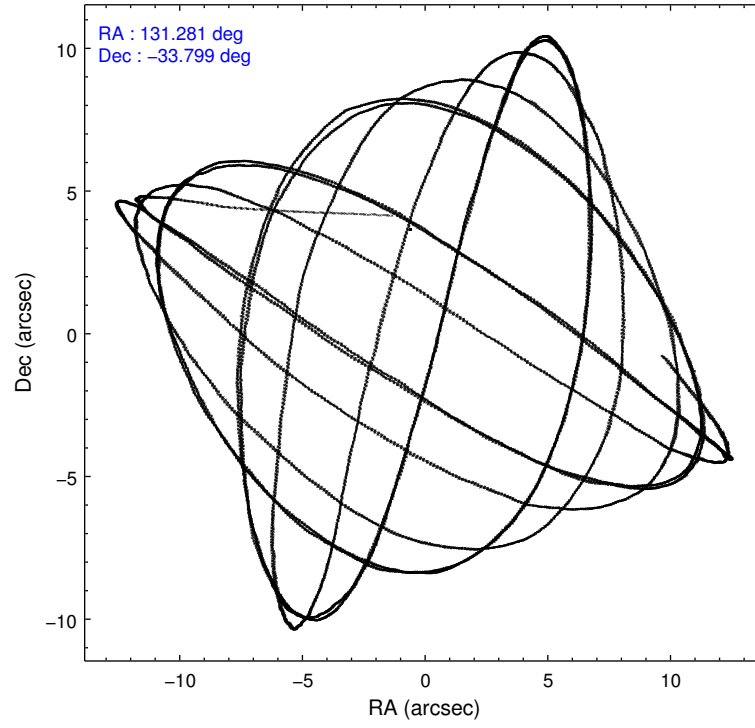
### 2.1.4 Events

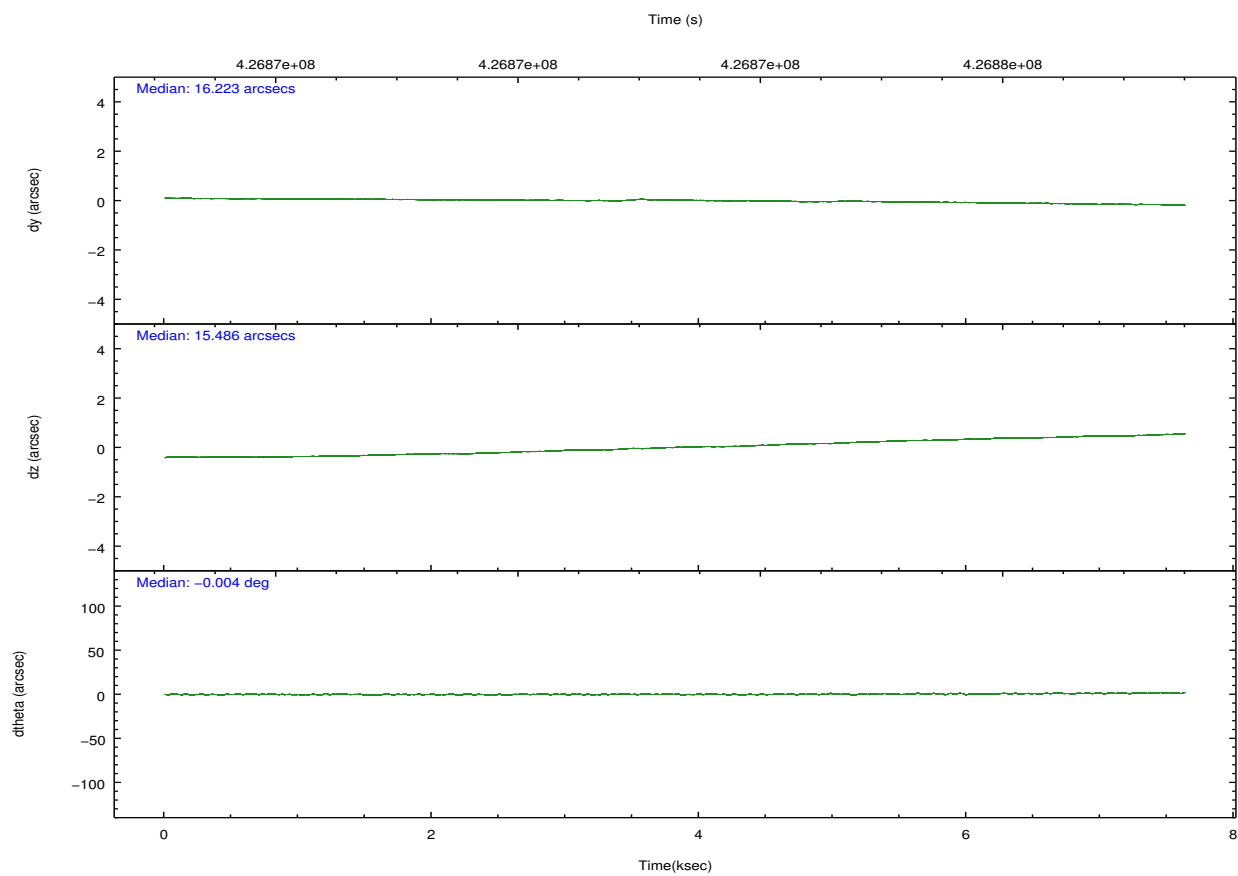
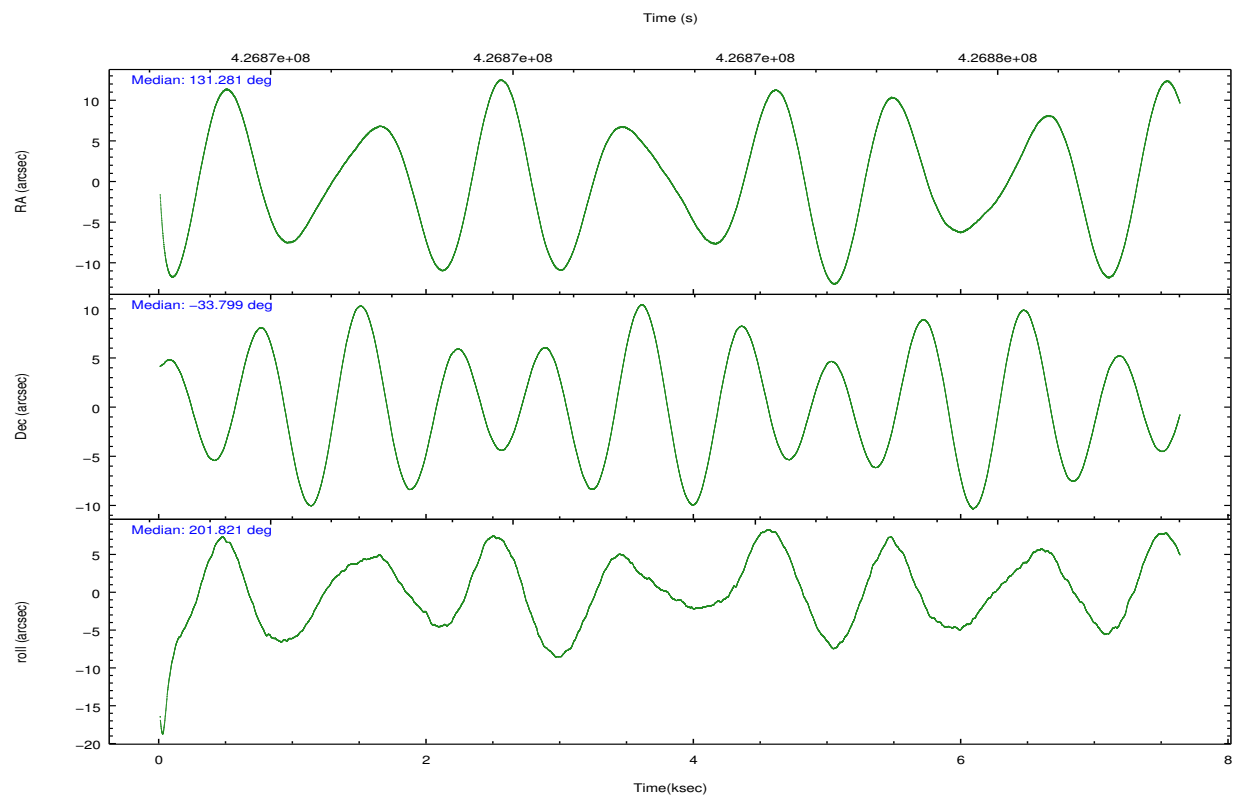
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	44812	42768	74328	44991	58604	58901	grade 0 events	1809	1899	5552	2053	2539	4339
rejected events	39729	37817	36230	39506	32213	43871		4%	4%	7%	4%	4%	7%
rejected %	88%	88%	48%	87%	54%	74%	grade 1 events	32	30	166	27	67	53
								0%	0%	0%	0%	0%	0%
							grade 2 events	1244	1043	11406	1212	5440	3596
								2%	2%	15%	2%	9%	6%
							grade 3 events	536	520	1341	527	2265	1621
								1%	1%	1%	1%	3%	2%
							grade 4 events	516	517	1250	559	2298	1424
								1%	1%	1%	1%	3%	2%
							grade 5 events	1879	2105	5538	2180	5969	3273
								4%	4%	7%	4%	10%	5%
							grade 6 events	980	980	18585	1137	13868	4056
								2%	2%	25%	2%	23%	6%
							grade 7 events	37816	35674	30490	37296	26158	40539
								84%	83%	41%	82%	44%	68%

## 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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	131.301094	131.2811308352465	CCD I2 on	O2	Y
[deg] Pointing Dec	-33.776923	-33.79865256881982	CCD I3 on	Y	Y
[deg] Pointing Roll	201.676119	201.8216240954046	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O1	Y
[s] Observation start time (MET)	426869613.184000	426868433.75101	CCD S5 on	N	N
Observation start date	2011-07-12T14:52:27	2011-07-12T14:33:53	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	426877113.184000	426878089.76401	On-chip summing requested	N	N
Observation end date	2011-07-12T16:57:27	2011-07-12T17:14:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



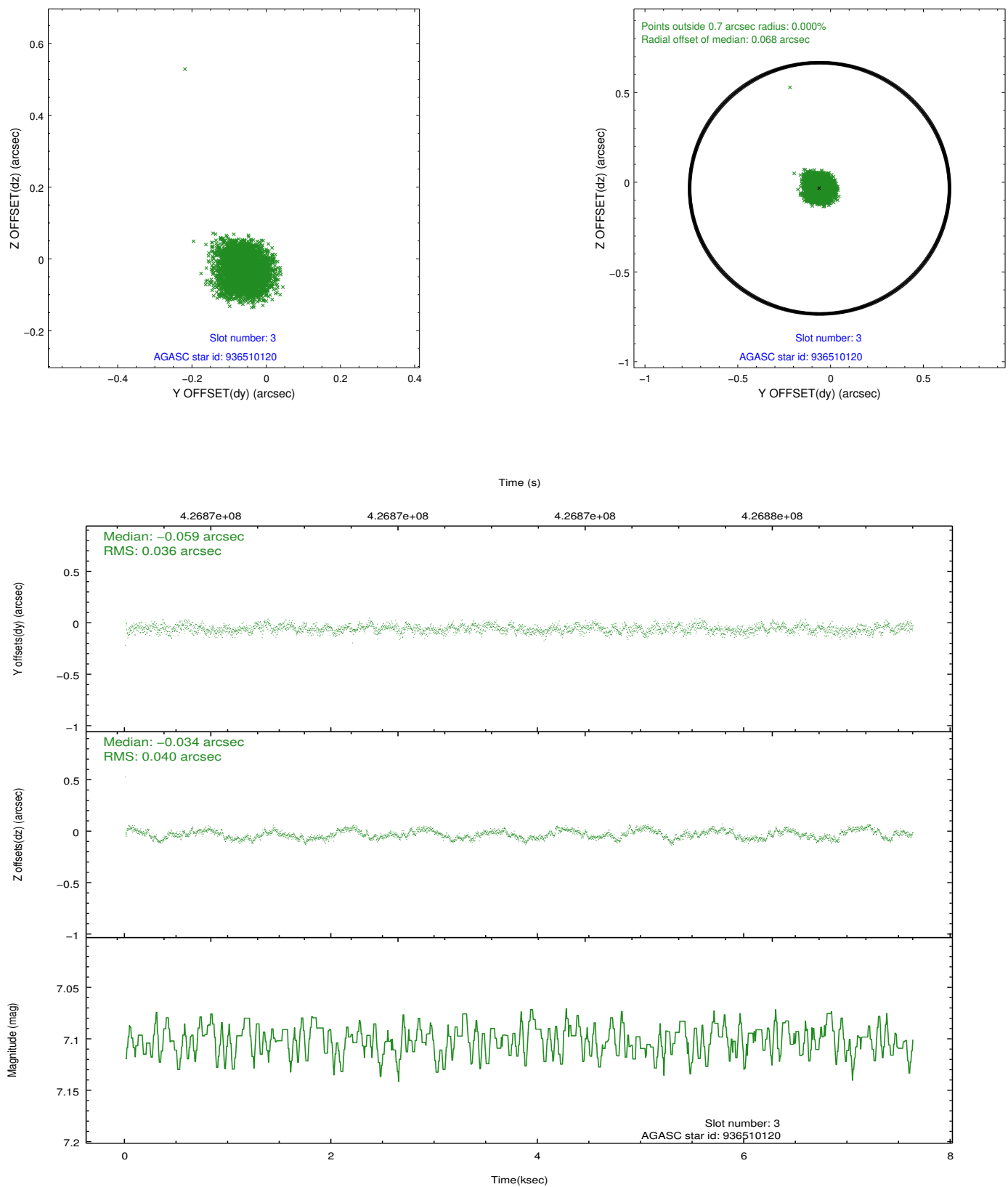


### Slot Statistics

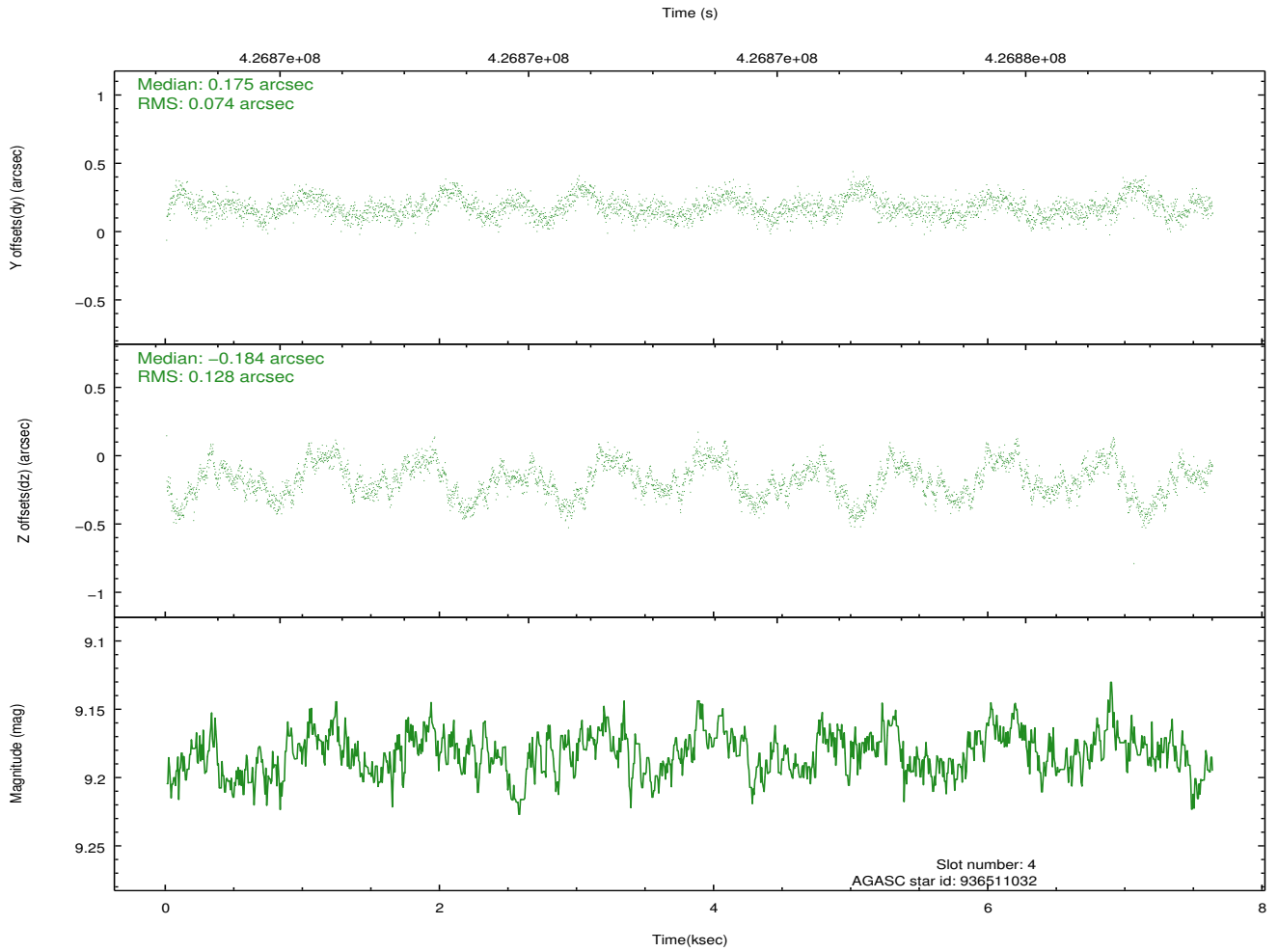
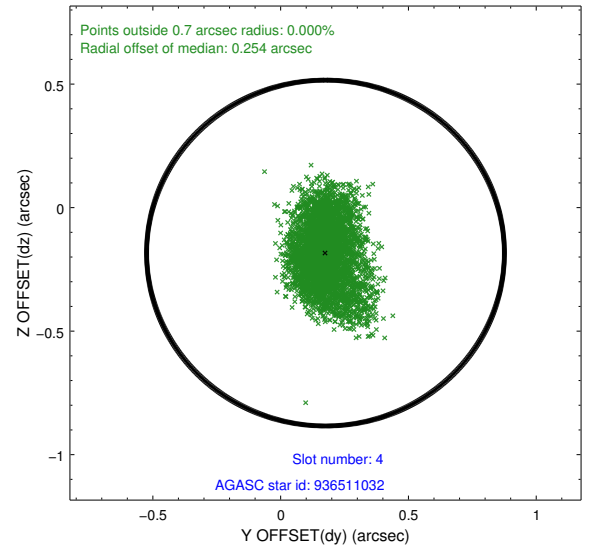
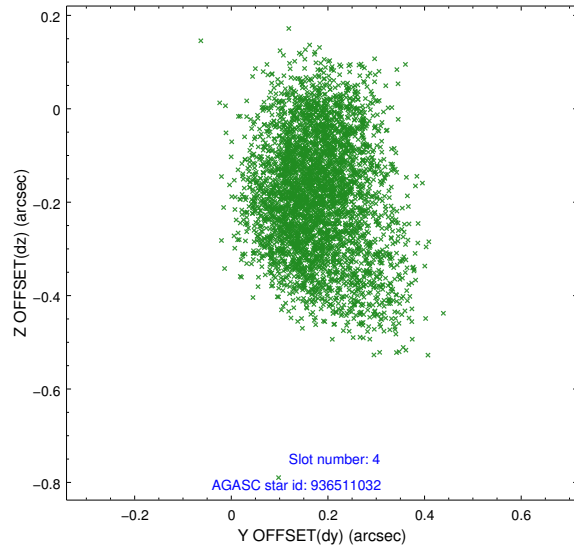
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.97	1861	-0.140	-0.051	0.007	0.012	0.000000	0.000000	-769.35	-1736.89
1	FID	ACIS-S-4	7.05	1861	0.298	0.081	0.005	0.010	0.000000	0.000000	2144.02	170.95
2	FID	ACIS-S-5	7.08	1861	-0.189	-0.021	0.007	0.011	0.000000	0.000000	-1821.29	165.37
3	GUIDE	936510120	7.10	3723	-0.059	-0.034	0.058	0.086	130.808797	-34.072057	1758.16	448.32
4	GUIDE	936511032	9.18	3722	0.175	-0.184	0.157	0.256	131.034660	-33.918090	928.58	179.34
5	GUIDE	936529072	8.05	3722	0.152	0.043	0.071	0.118	131.714697	-34.067120	-758.88	1428.97
6	GUIDE	935990096	7.70	3720	0.082	0.173	0.062	0.103	131.910809	-33.317124	-2313.83	-855.20
7	GUIDE	936518376	9.25	3720	-0.352	-0.003	0.131	0.200	131.553812	-34.389356	116.18	2326.95

## 2.4 Star Slots

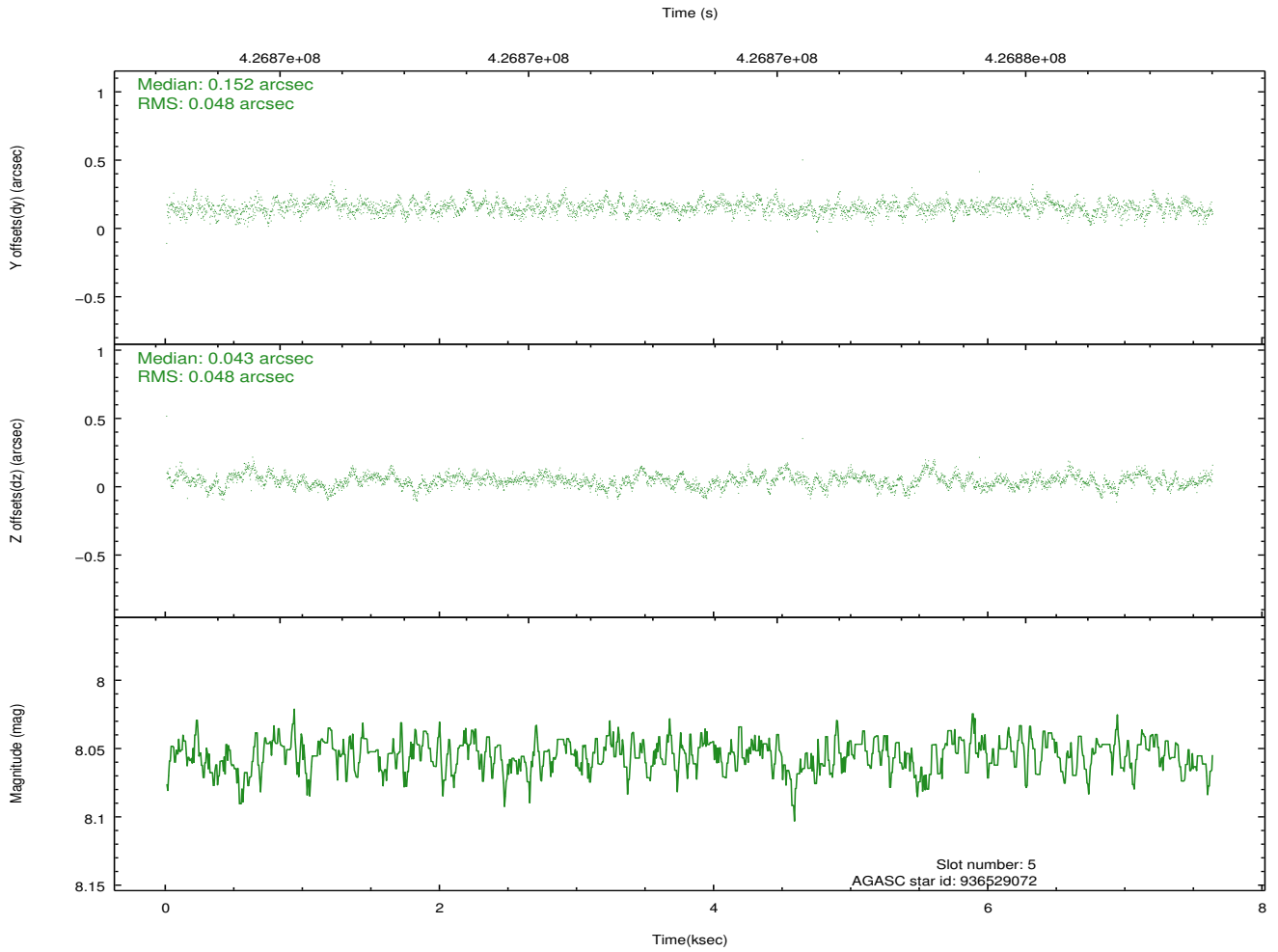
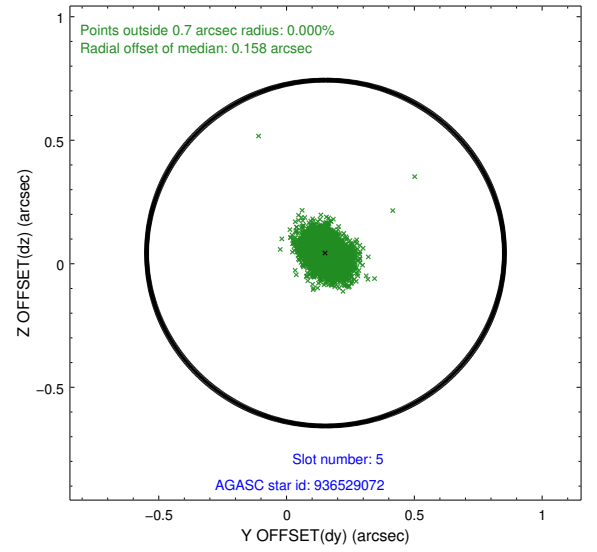
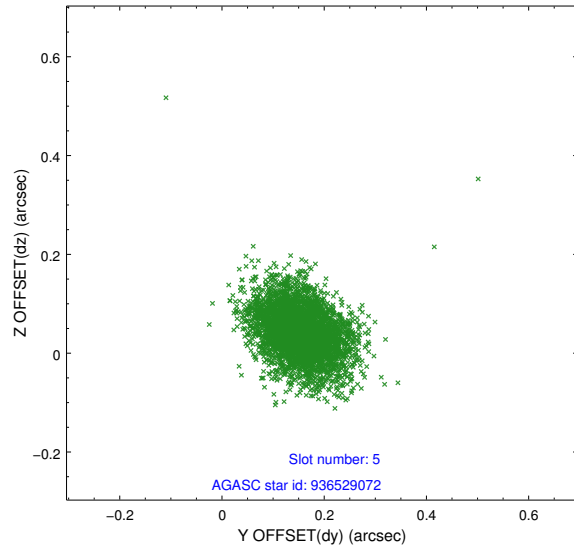
### 2.4.1 Slot 3



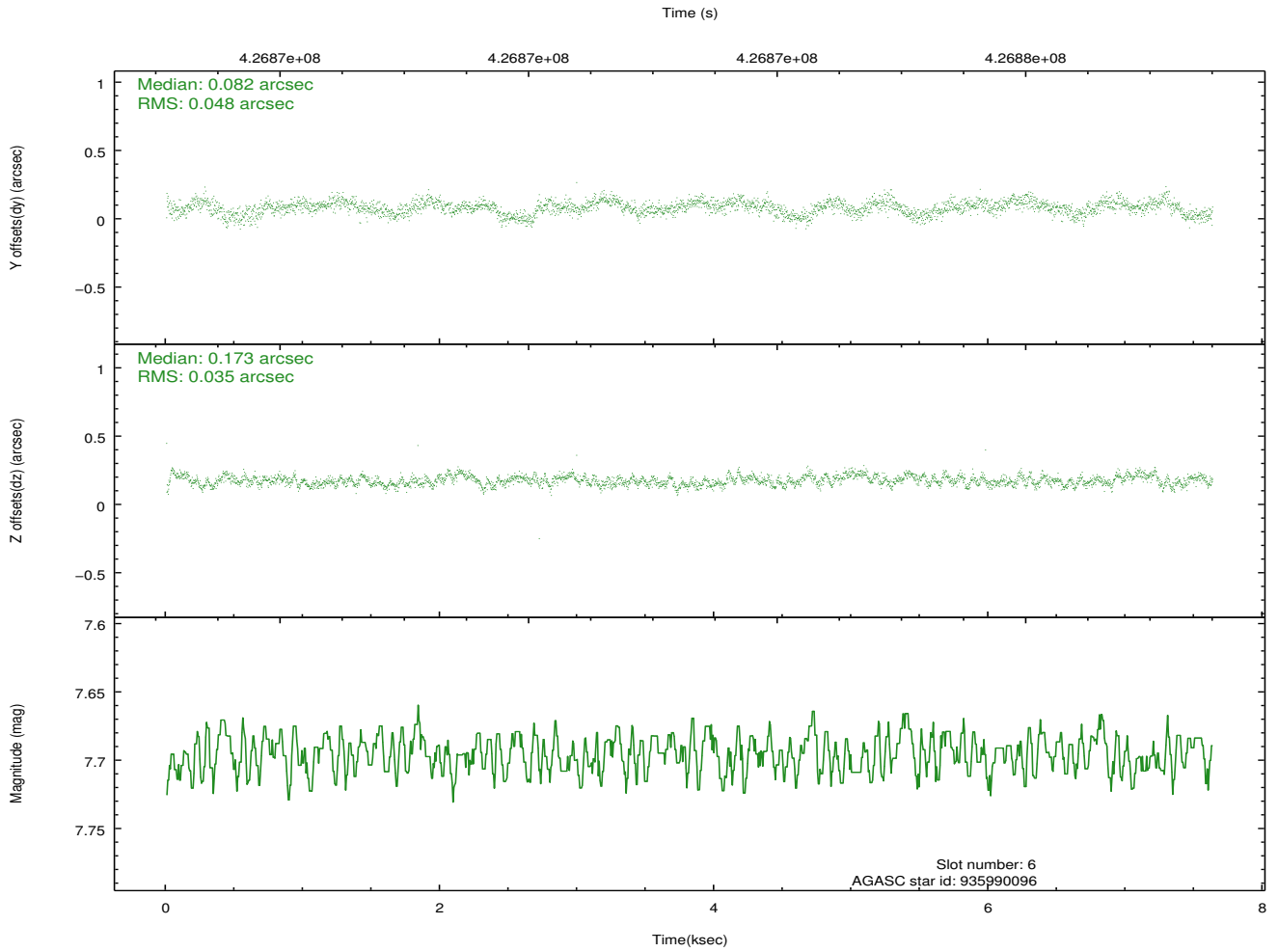
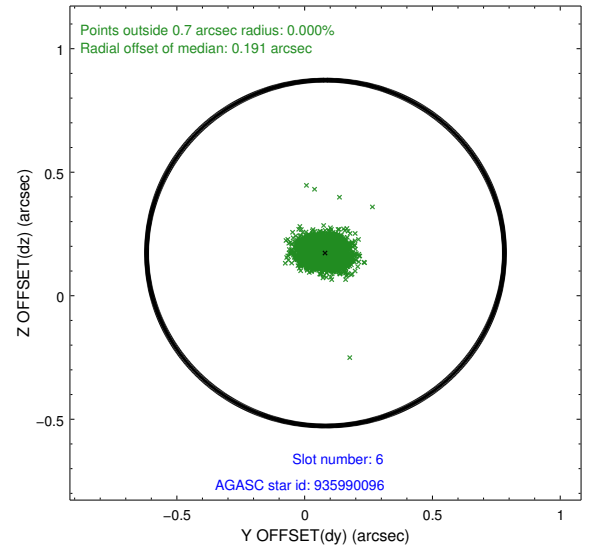
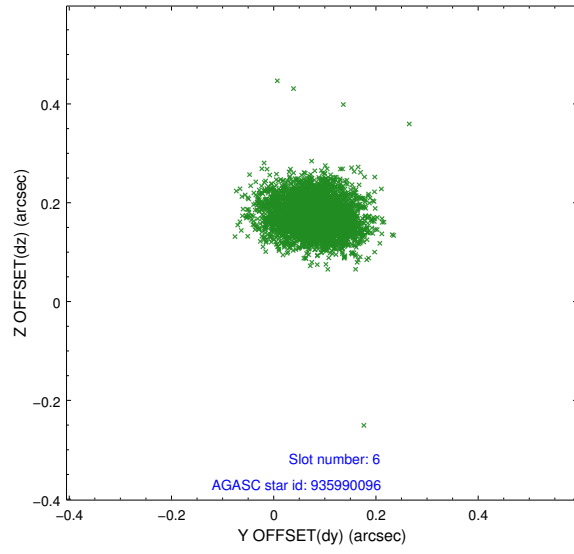
## 2.4.2 Slot 4



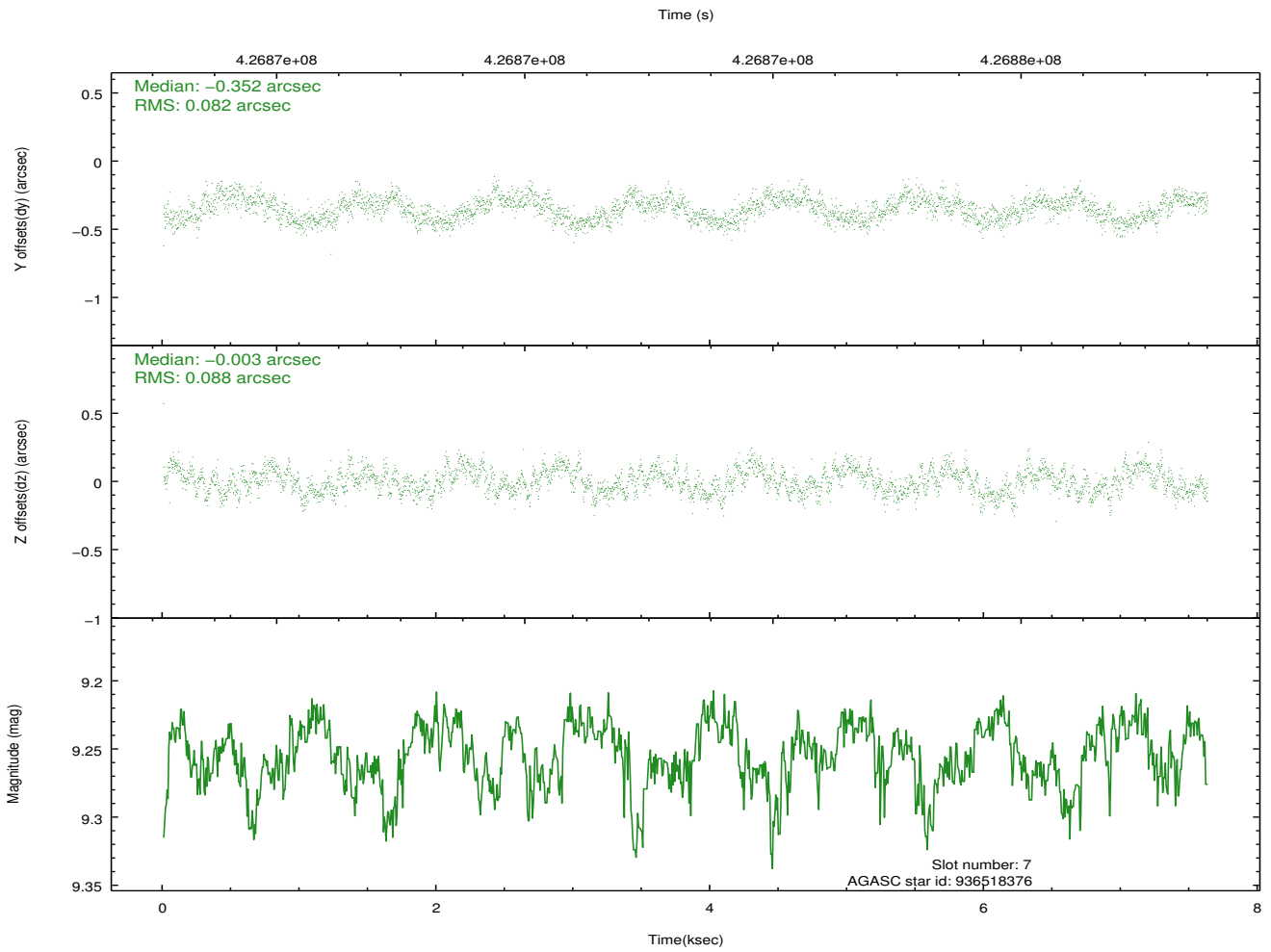
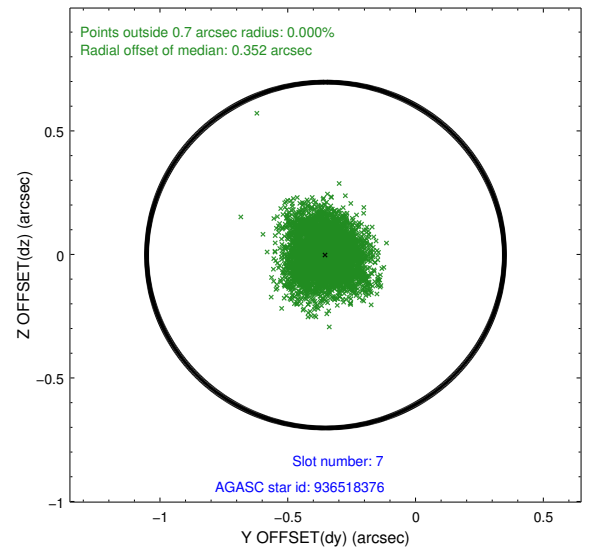
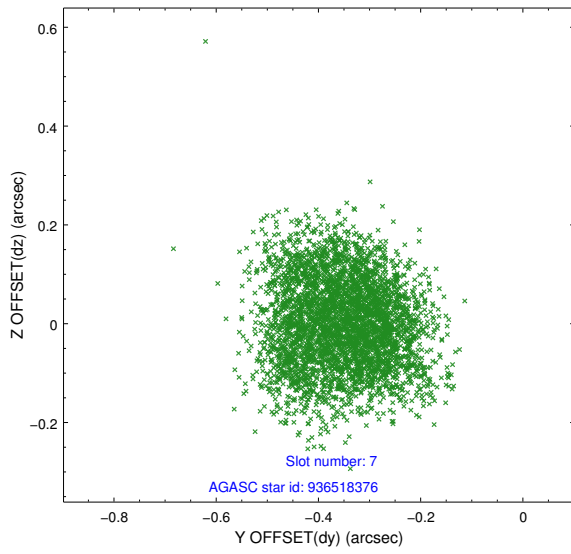
### 2.4.3 Slot 5



## 2.4.4 Slot 6

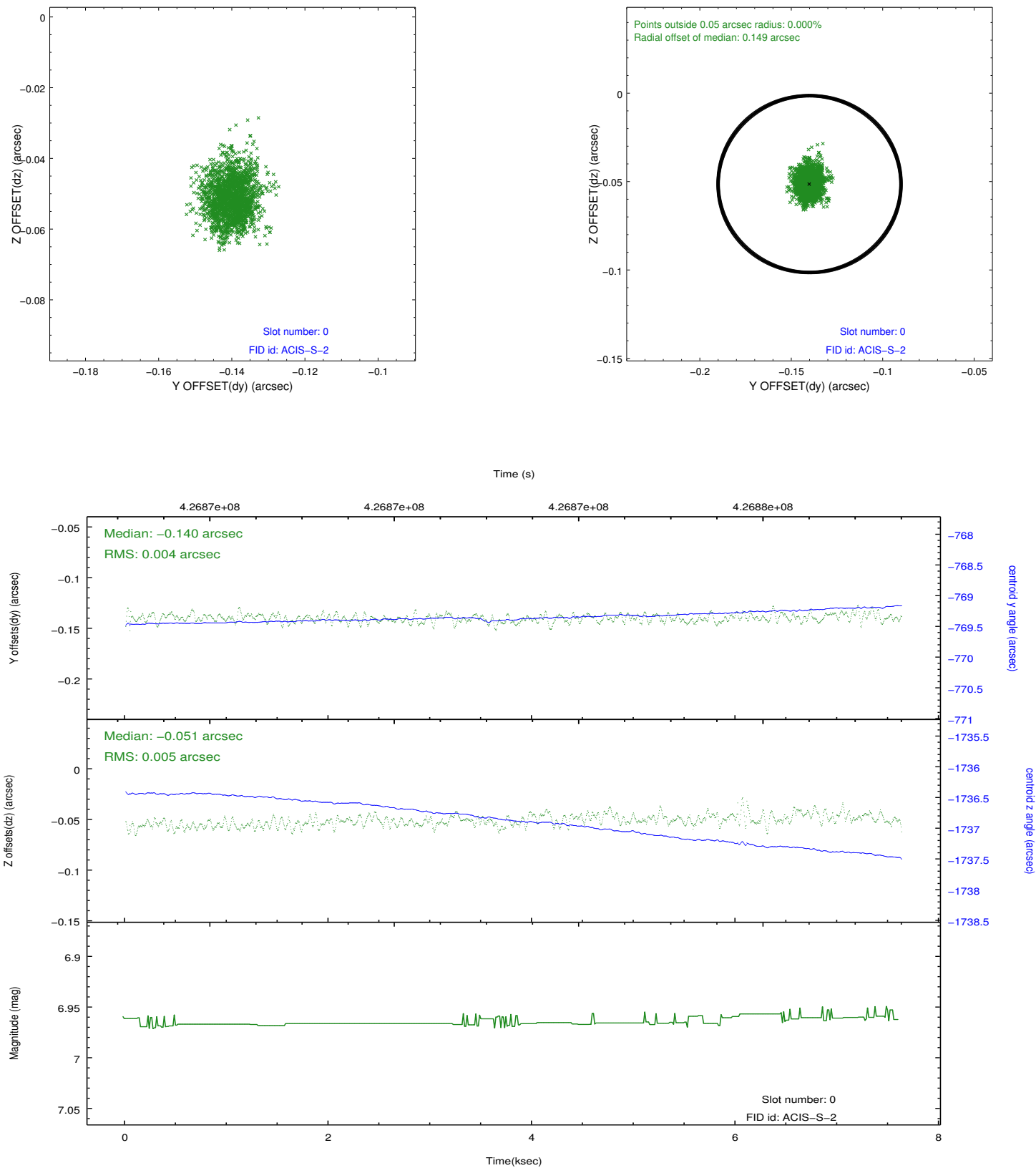


## 2.4.5 Slot 7

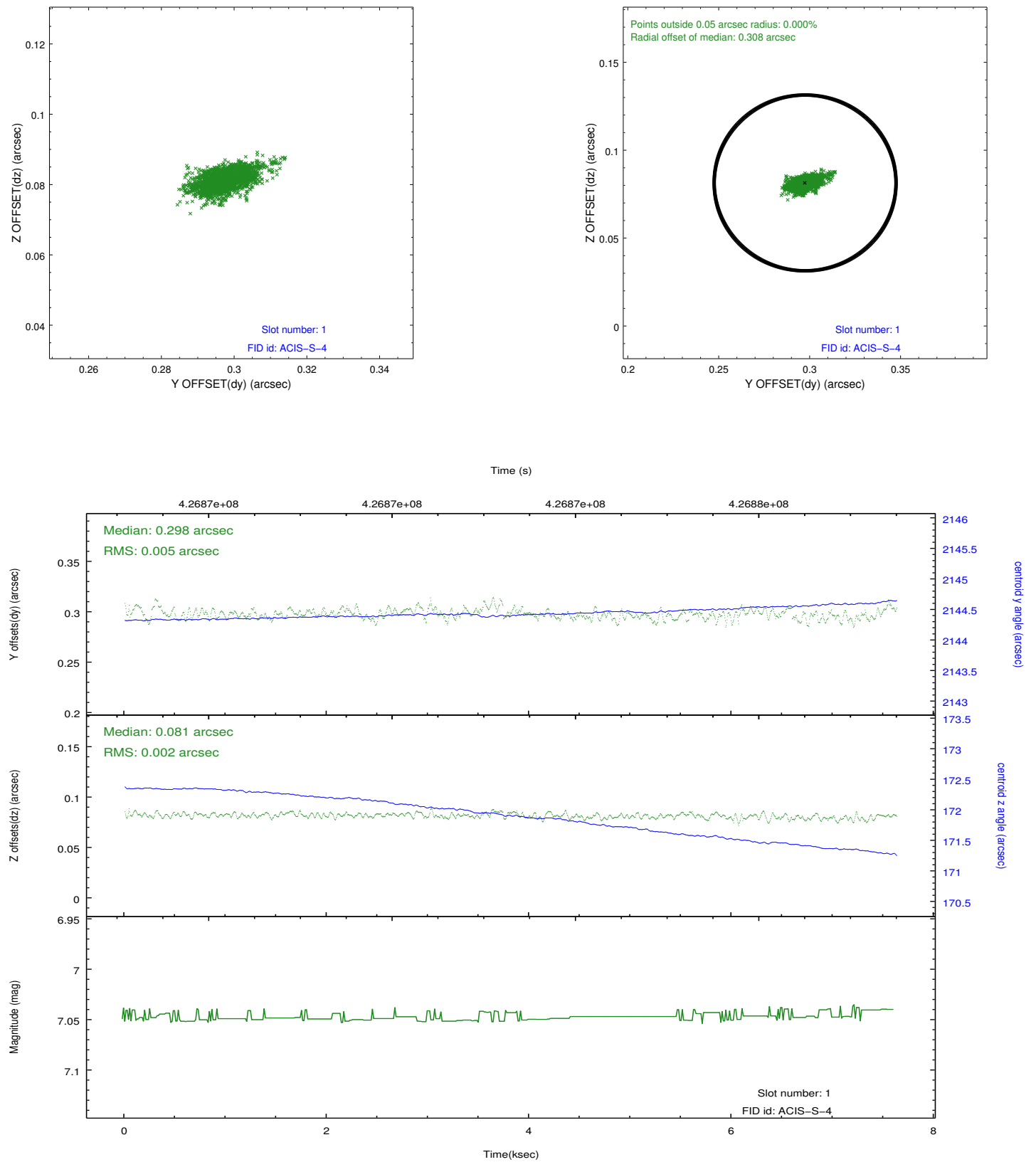


## 2.5 FID Slots

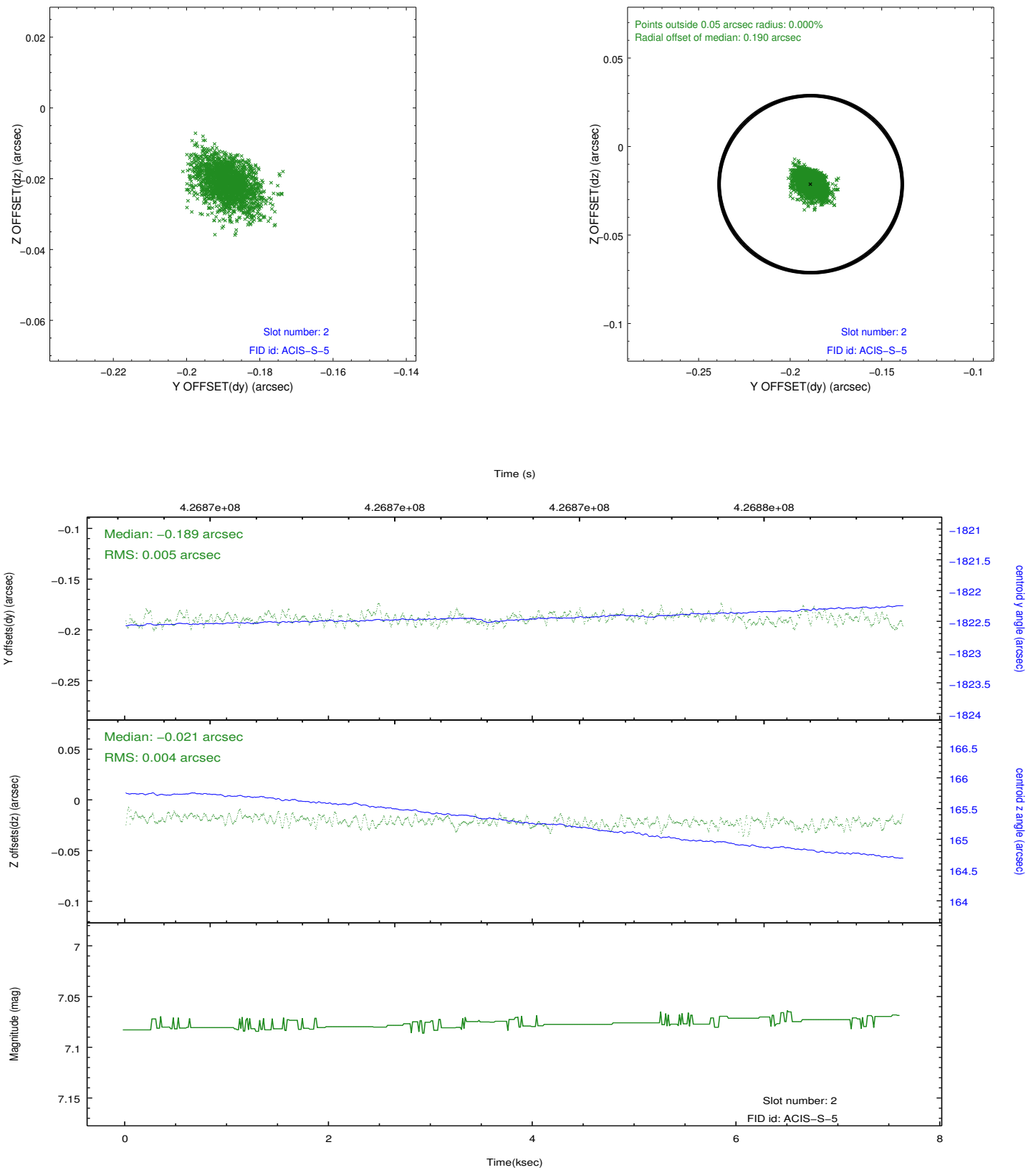
### 2.5.1 Slot 0



## 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)	2012.03.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.5519999719262

### A.2 Comments