

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11351 - L2 Version 2  
Chandra X-Ray Center

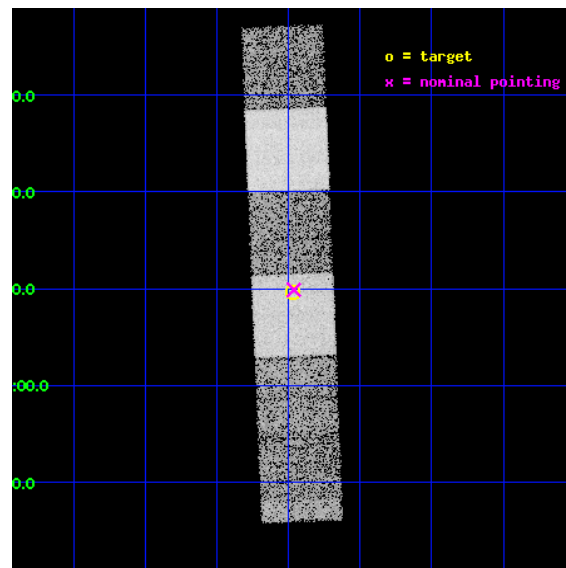
L2 Processing Date : Jun 14 2012

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# 1 Front

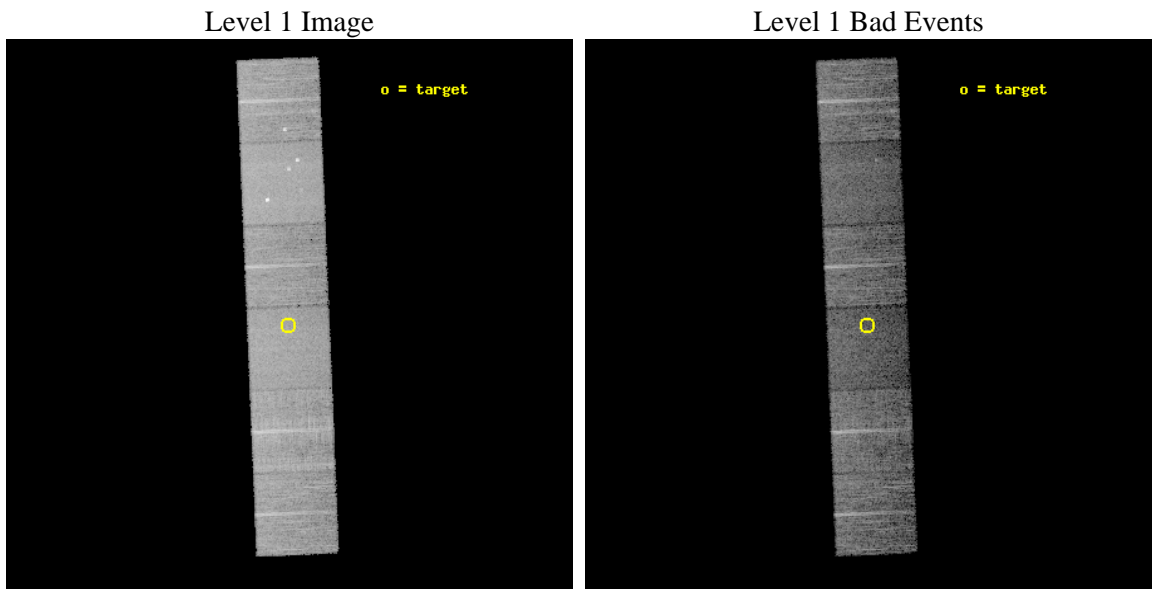
seq_num	600870	Sequence number
obs_id	11351	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	IC0225	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	36.6179	Observer's specified target RA [deg]
dec_targ	1.16048	Observer's specified target Dec [deg]
ra_nom	36.615450388388	Nominal RA [deg]
dec_nom	1.1646692765001	Nominal Dec [deg]
roll_nom	87.625682323998	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7555.1999719143	Sum of GTIs [s]
livetime	7459.5314806747	Livetime [s]
ontime4	7555.1999719143	Sum of GTIs [s]
ontime5	7555.1999719143	Sum of GTIs [s]
ontime6	7555.1999719143	Sum of GTIs [s]
ontime7	7555.1999719143	Sum of GTIs [s]
ontime8	7555.1999719143	Sum of GTIs [s]
ontime9	7555.1999719143	Sum of GTIs [s]
l2events	100935	Number of level 2 events



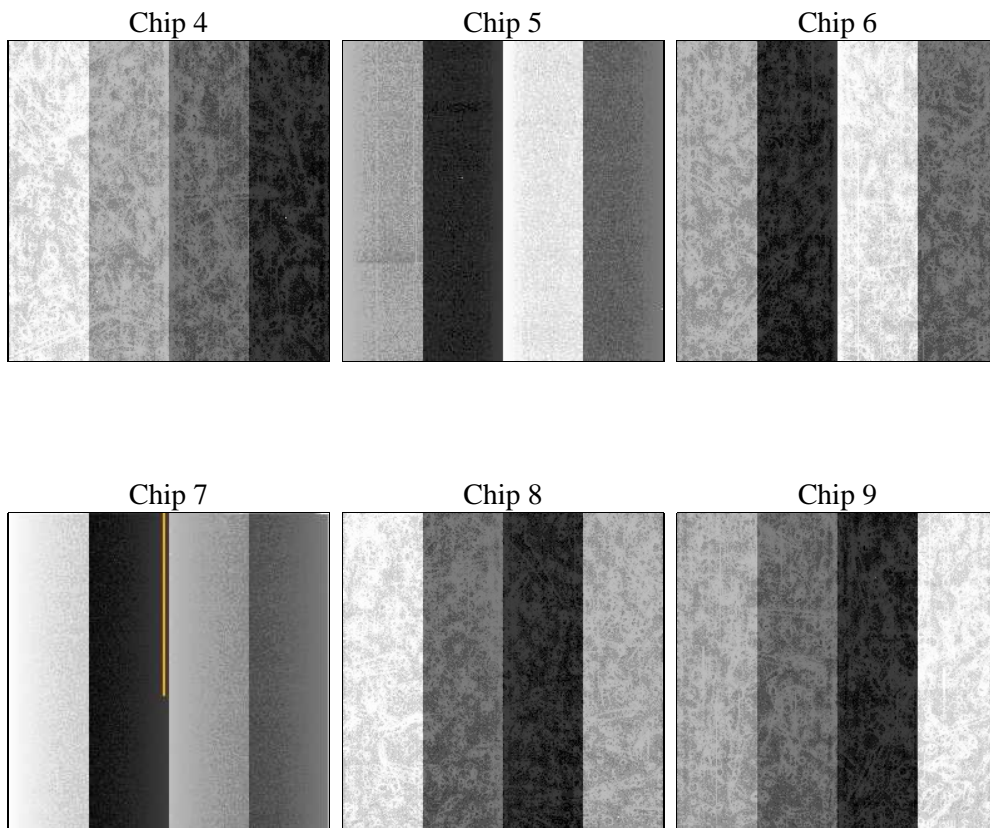
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7399.228000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7555.1999719143	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime4	7555.1999719143	Sum of GTIs [s]
date	2012-06-14T12:14:53	Date and time of file creation	ontime5	7555.1999719143	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	7555.1999719143	Sum of GTIs [s]
			ontime7	7555.1999719143	Sum of GTIs [s]
			ontime8	7555.1999719143	Sum of GTIs [s]
			ontime9	7555.1999719143	Sum of GTIs [s]
			l1events	474907	Number of level 1 events

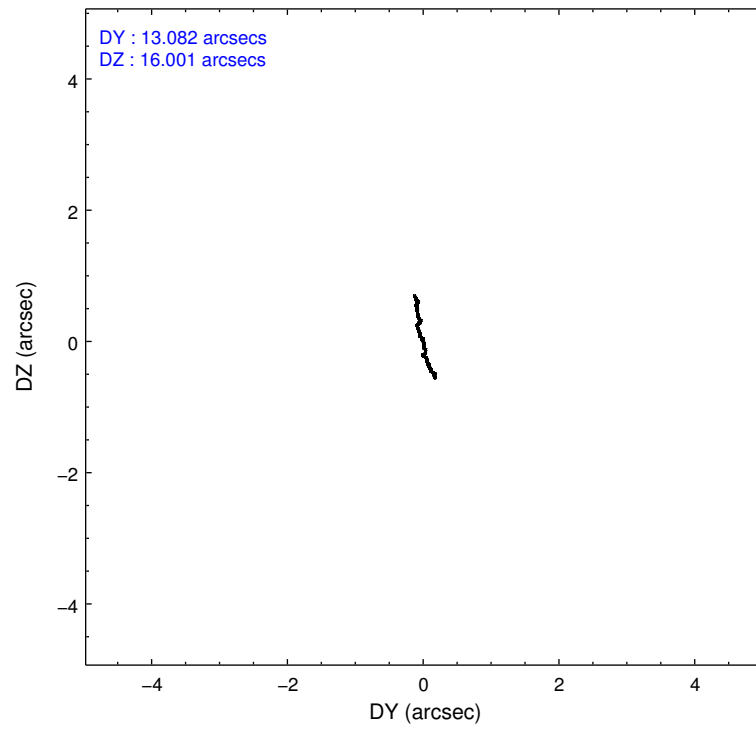
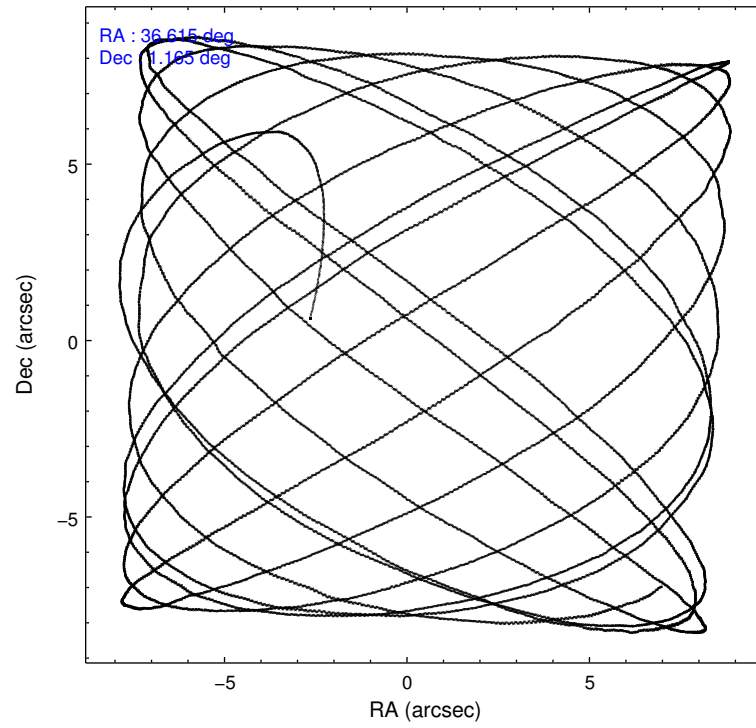
### 2.1.4 Events

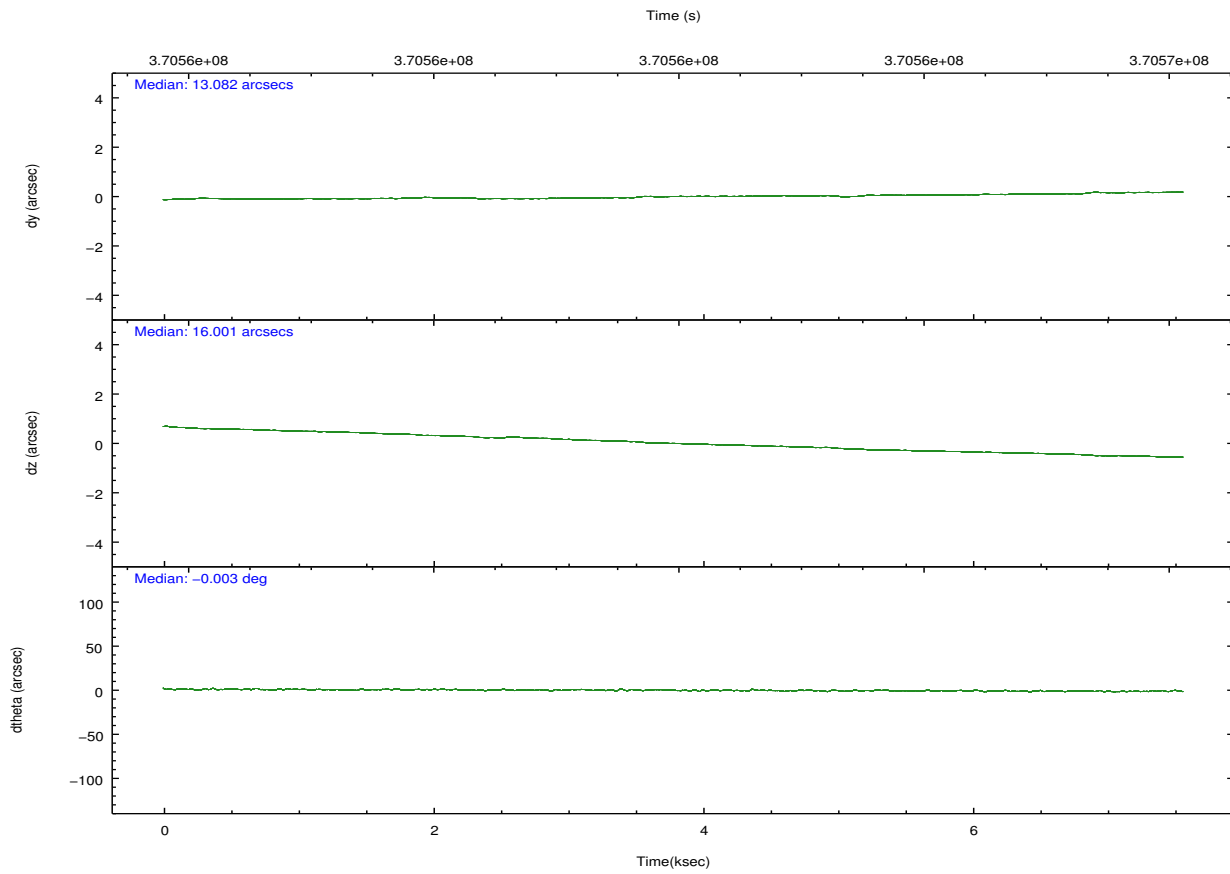
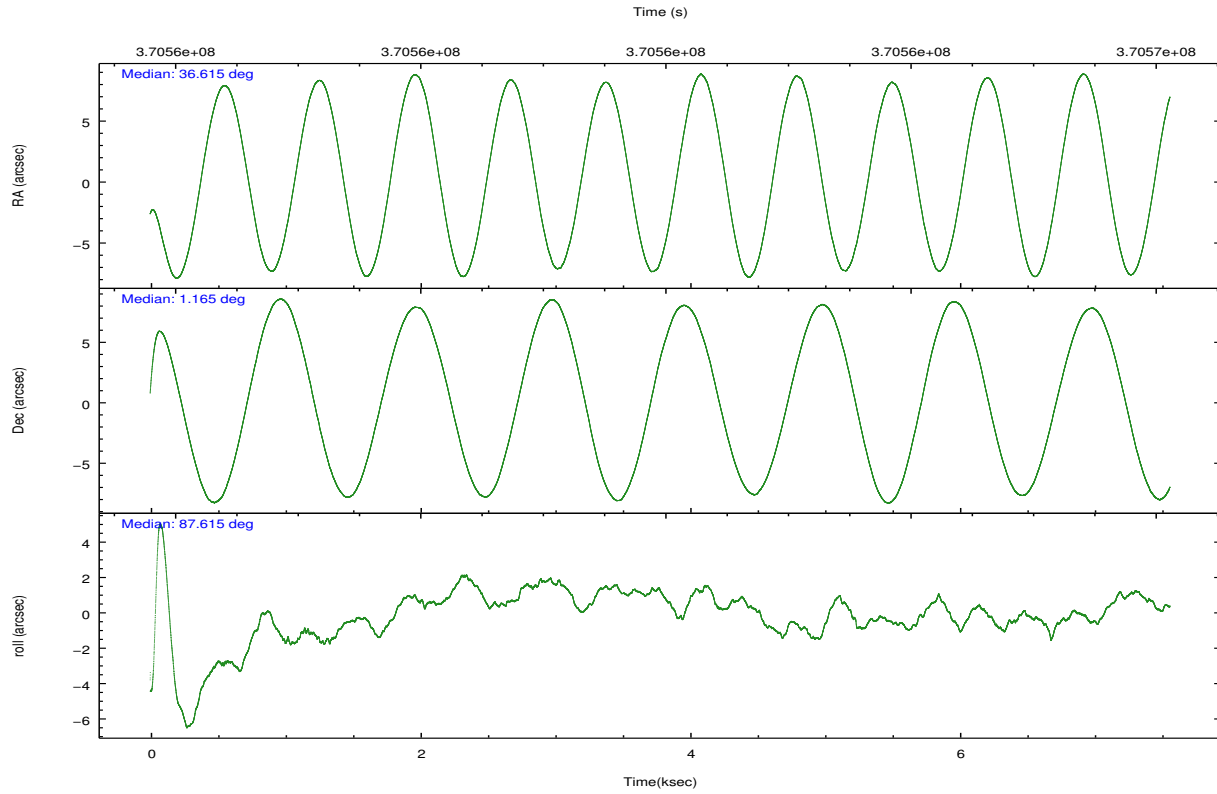
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	78576	98277	66714	77358	87236	66746	grade 0 events	3550	6470	2373	3241	6473	2743
rejected events	70561	50144	59908	43153	66139	59466		4%	6%	3%	4%	7%	4%
rejected %	89%	51%	89%	55%	75%	89%	grade 1 events	91	189	36	98	74	35
								0%	0%	0%	0%	0%	0%
							grade 2 events	1819	14492	1638	7202	5120	1553
								2%	14%	2%	9%	5%	2%
							grade 3 events	785	1945	725	3191	2293	846
								0%	1%	1%	4%	2%	1%
							grade 4 events	766	1751	726	3268	2051	781
								0%	1%	1%	4%	2%	1%
							grade 5 events	2737	7279	2769	8071	4147	3098
								3%	7%	4%	10%	4%	4%
							grade 6 events	1321	24892	1532	18303	5916	1563
								1%	25%	2%	23%	6%	2%
							grade 7 events	67507	41259	56915	33984	61162	56127
								85%	41%	85%	43%	70%	84%

## 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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	36.628541	36.61545038838783	CCD I2 on	N	N
[deg] Pointing Dec	1.140657	1.164669276500099	CCD I3 on	N	N
[deg] Pointing Roll	87.468808	87.62568232399754	CCD S0 on	O1	Y
[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	Y	Y
[s] Observation start time (MET)	370558329.184000	370557154.46414	CCD S5 on	O2	Y
Observation start date	2009-09-28T20:51:03	2009-09-28T20:32:34	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	370565728.184000	370565954.08958	On-chip summing requested	N	N
Observation end date	2009-09-28T22:54:22	2009-09-28T22:59:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



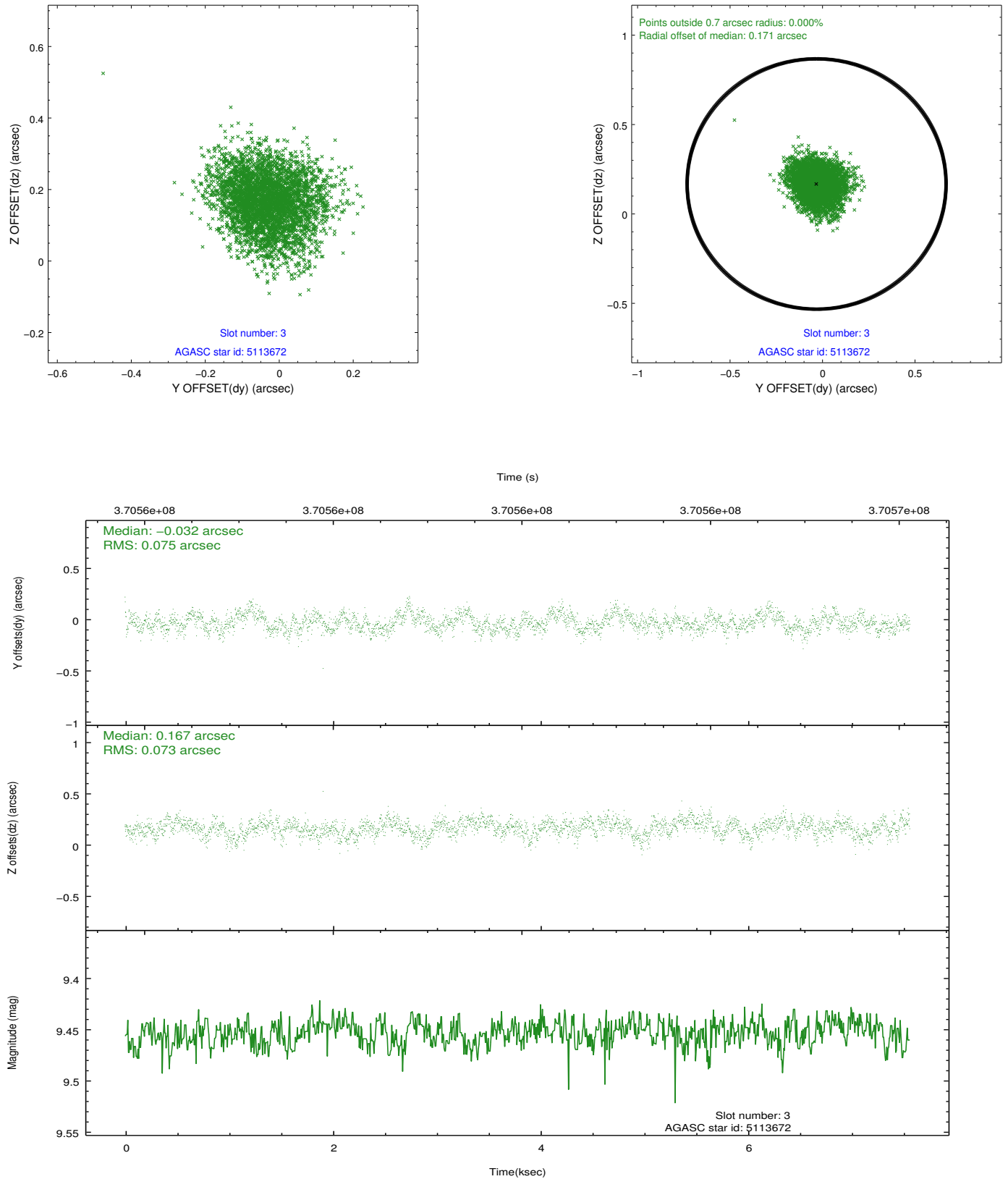


### Slot Statistics

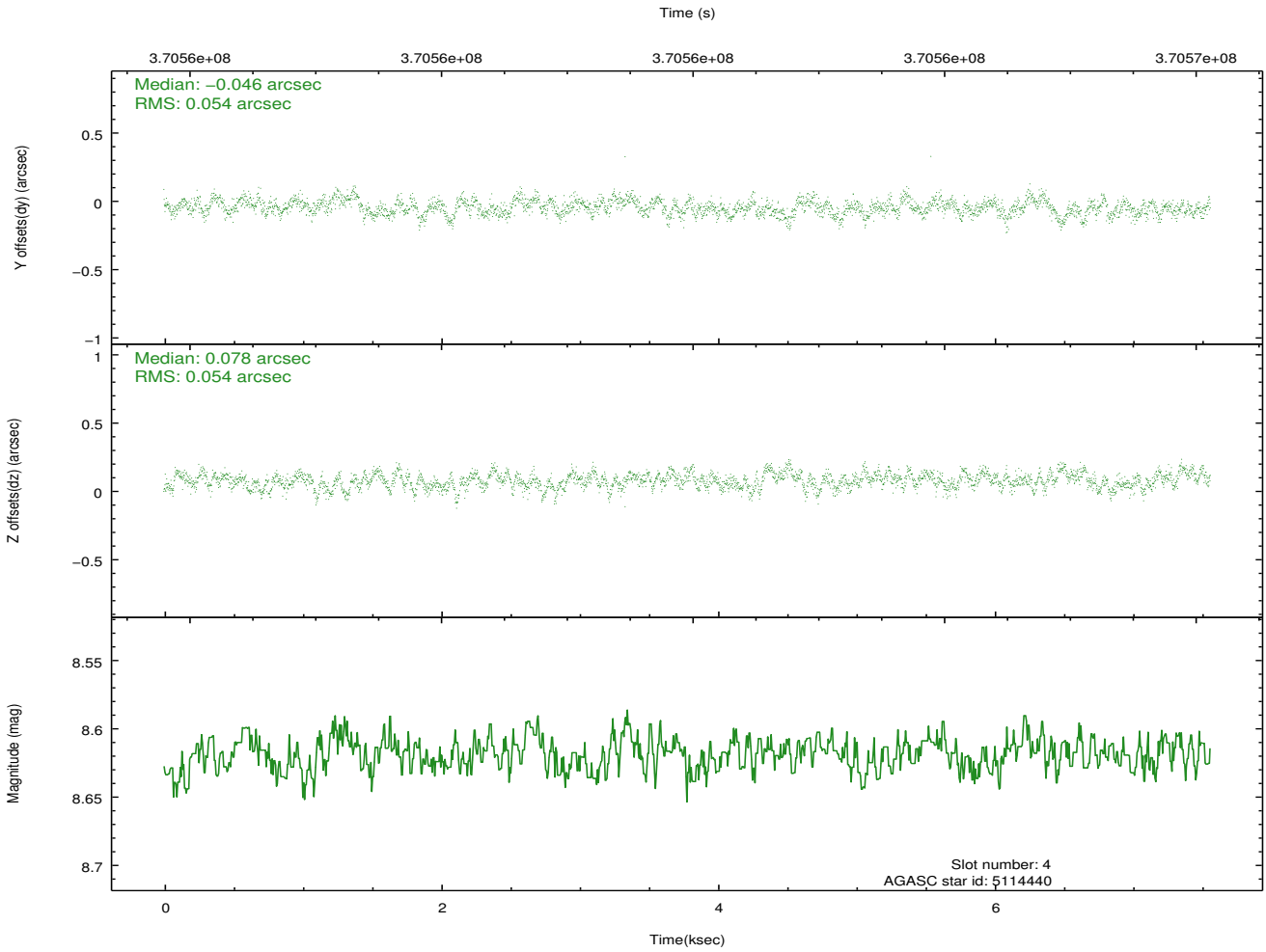
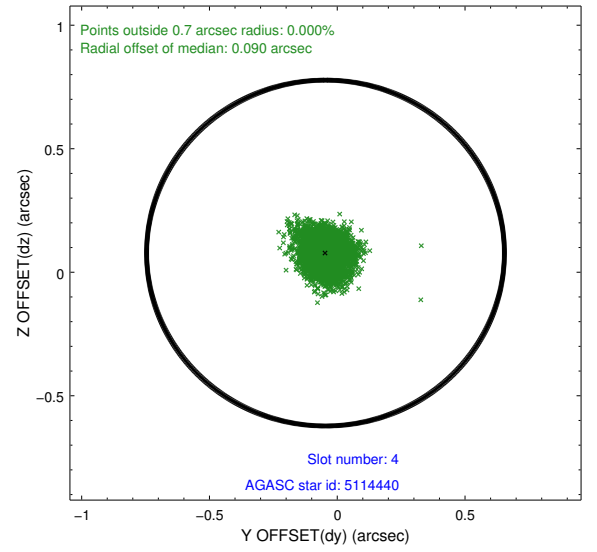
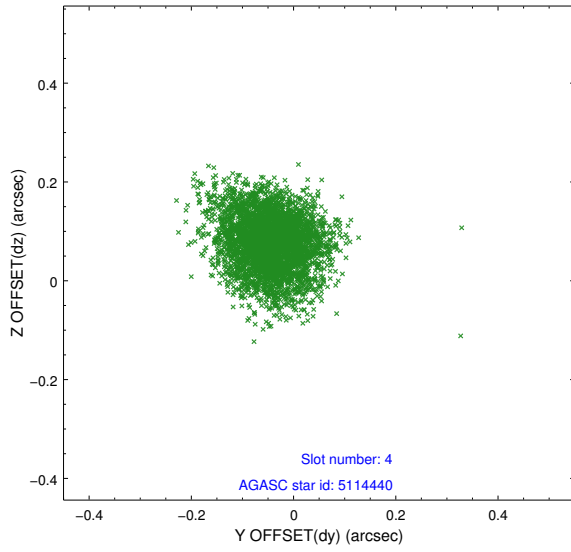
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.96	1844	0.044	-0.054	0.020	0.029	0.000000	0.000000	930.01	-1733.10
1	FID	ACIS-S-2	6.87	1845	-0.103	-0.006	0.012	0.018	0.000000	0.000000	-765.62	-1738.32
2	FID	ACIS-S-4	6.95	1845	0.033	0.065	0.011	0.016	0.000000	0.000000	2146.97	170.36
3	GUIDE	5113672	9.45	3683	-0.032	0.167	0.112	0.179	37.272228	1.529006	1499.97	-2252.54
4	GUIDE	5114440	8.62	3689	-0.046	0.078	0.081	0.131	37.095498	1.481540	1300.59	-1625.02
5	GUIDE	5115264	8.56	3687	-0.012	-0.145	0.094	0.154	36.340664	1.374130	794.34	1071.27
6	GUIDE	5115488	9.21	3689	-0.069	-0.110	0.105	0.175	36.407489	1.225671	270.96	808.32
7	GUIDE	5115776	9.65	3681	0.160	0.009	0.133	0.213	36.405971	0.913022	-853.48	764.10

## 2.4 Star Slots

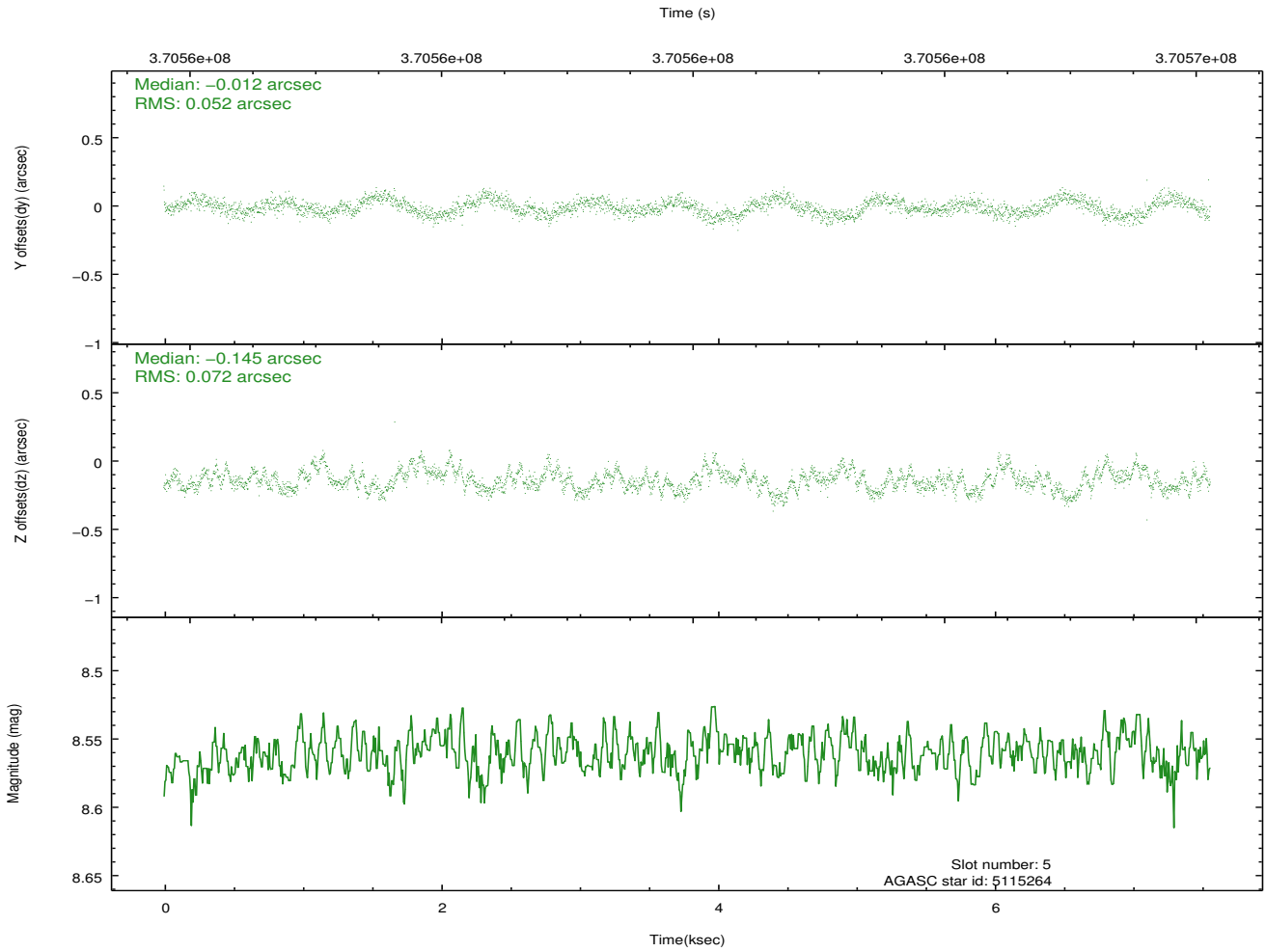
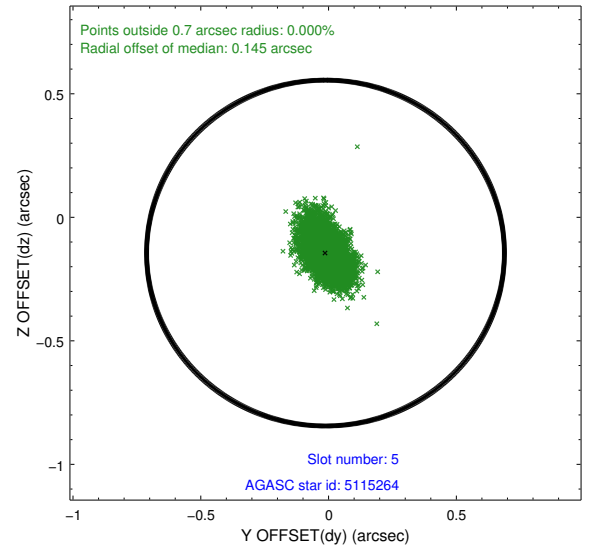
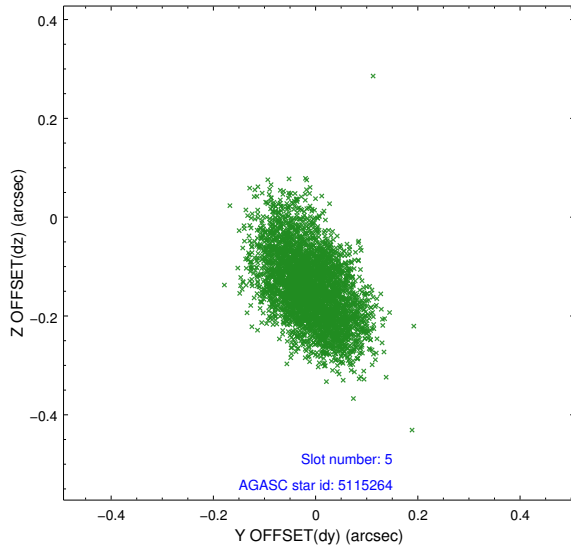
### 2.4.1 Slot 3



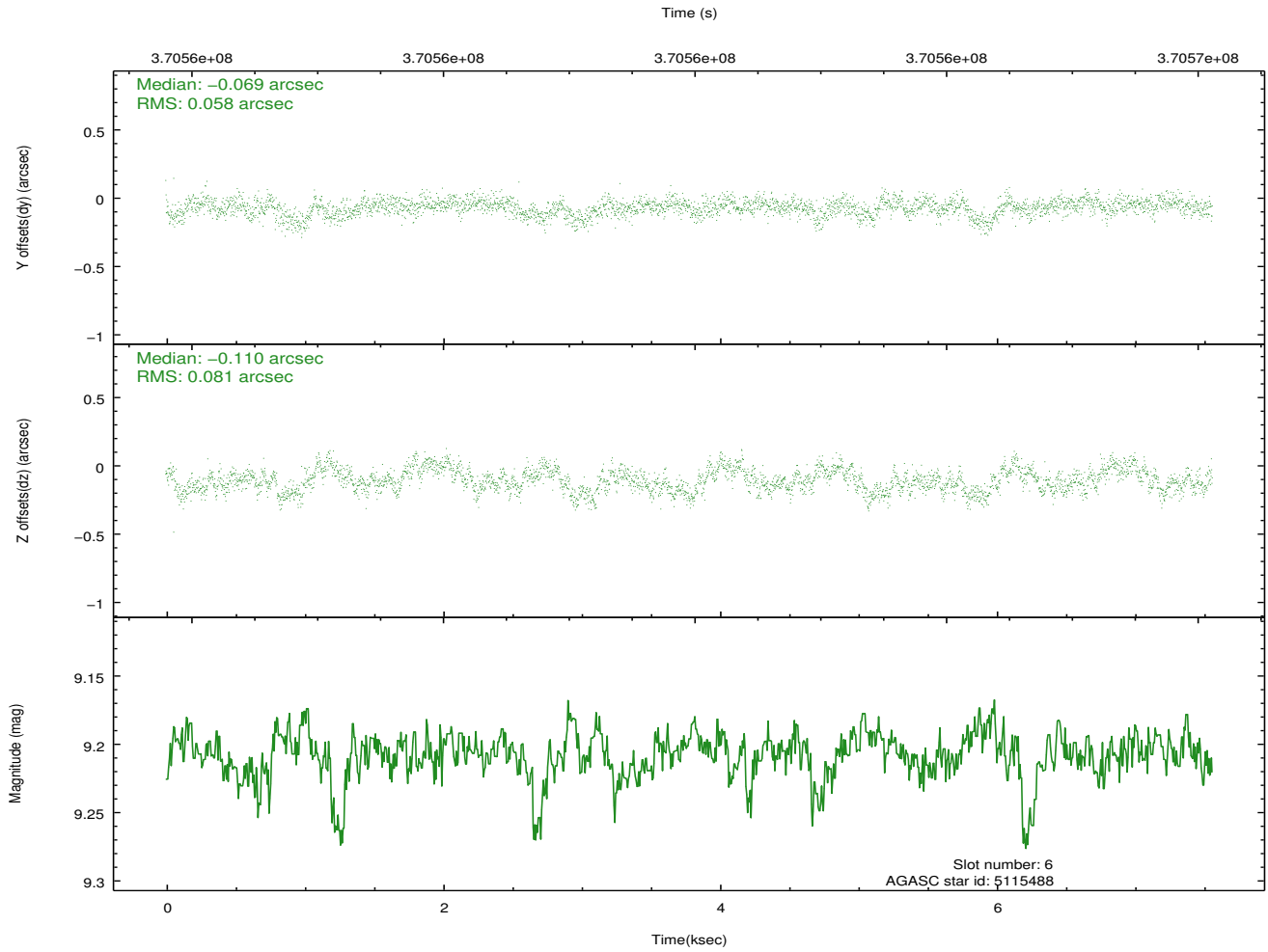
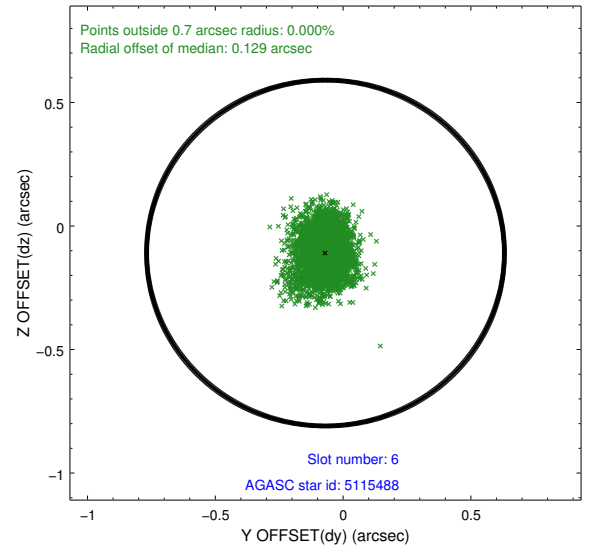
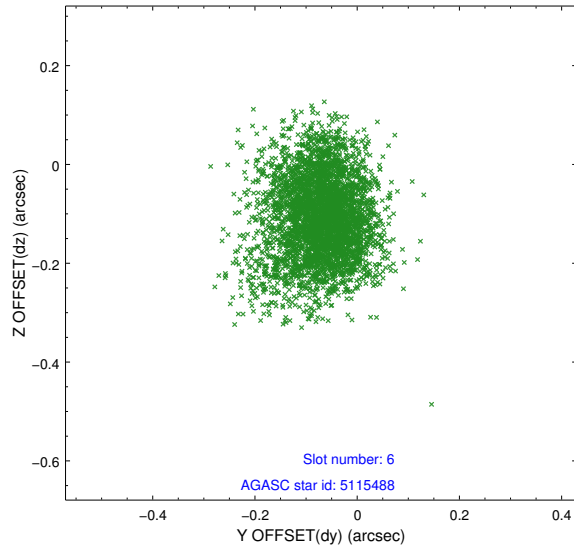
## 2.4.2 Slot 4



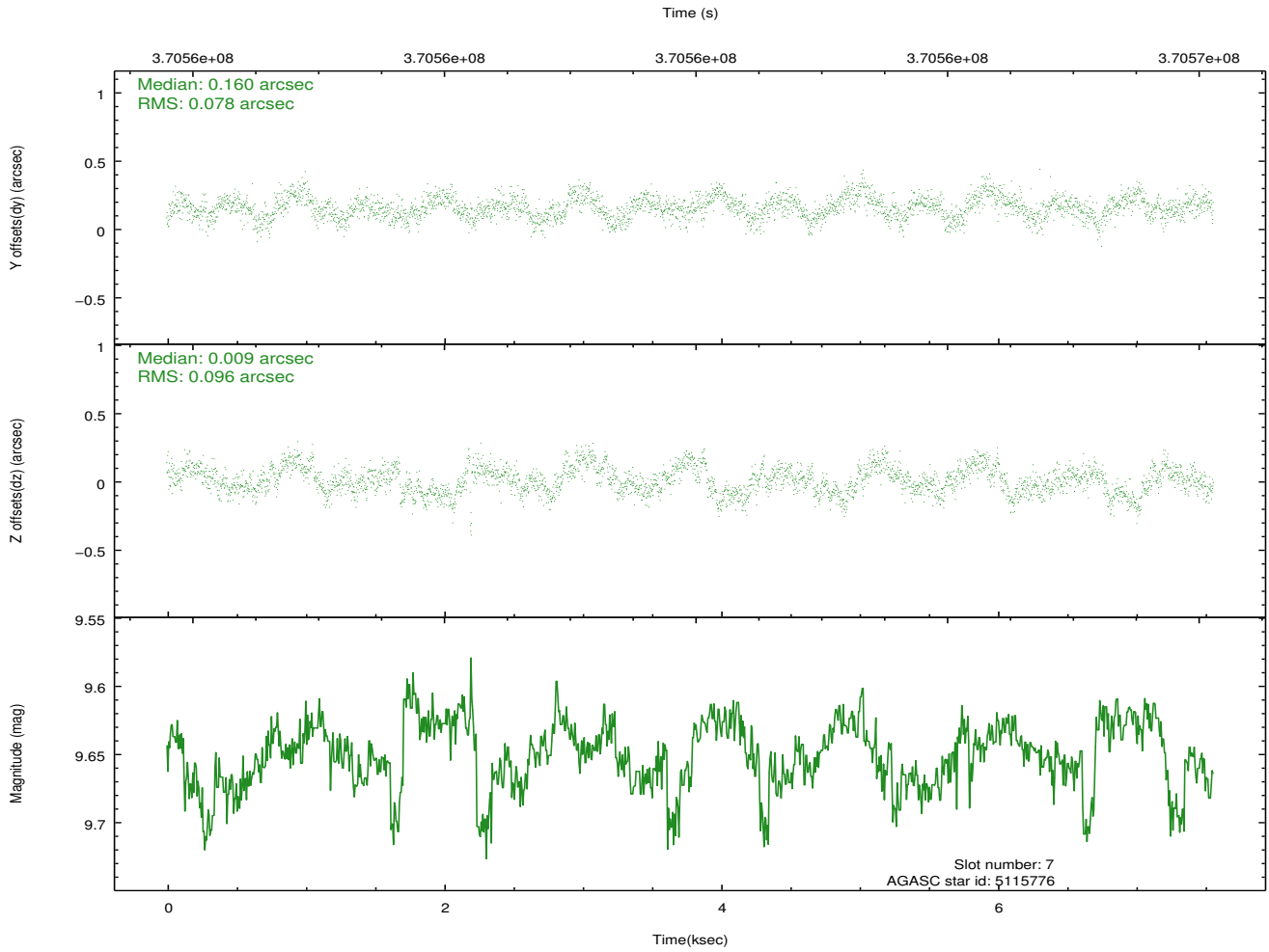
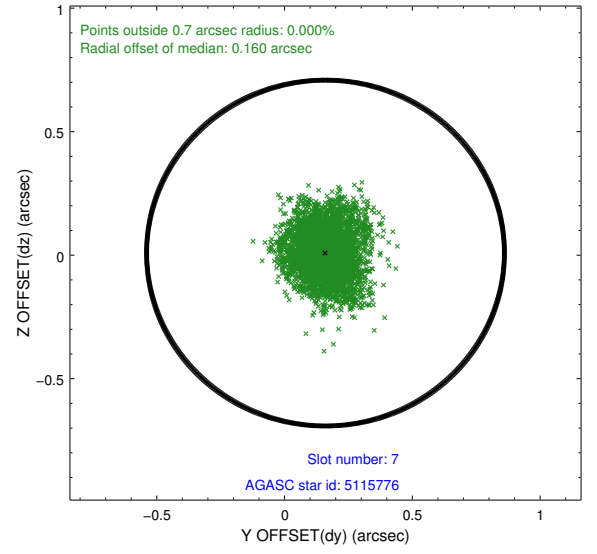
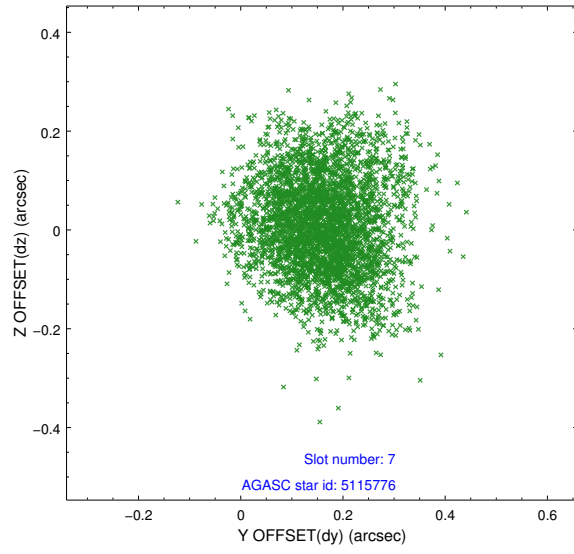
### 2.4.3 Slot 5



## 2.4.4 Slot 6

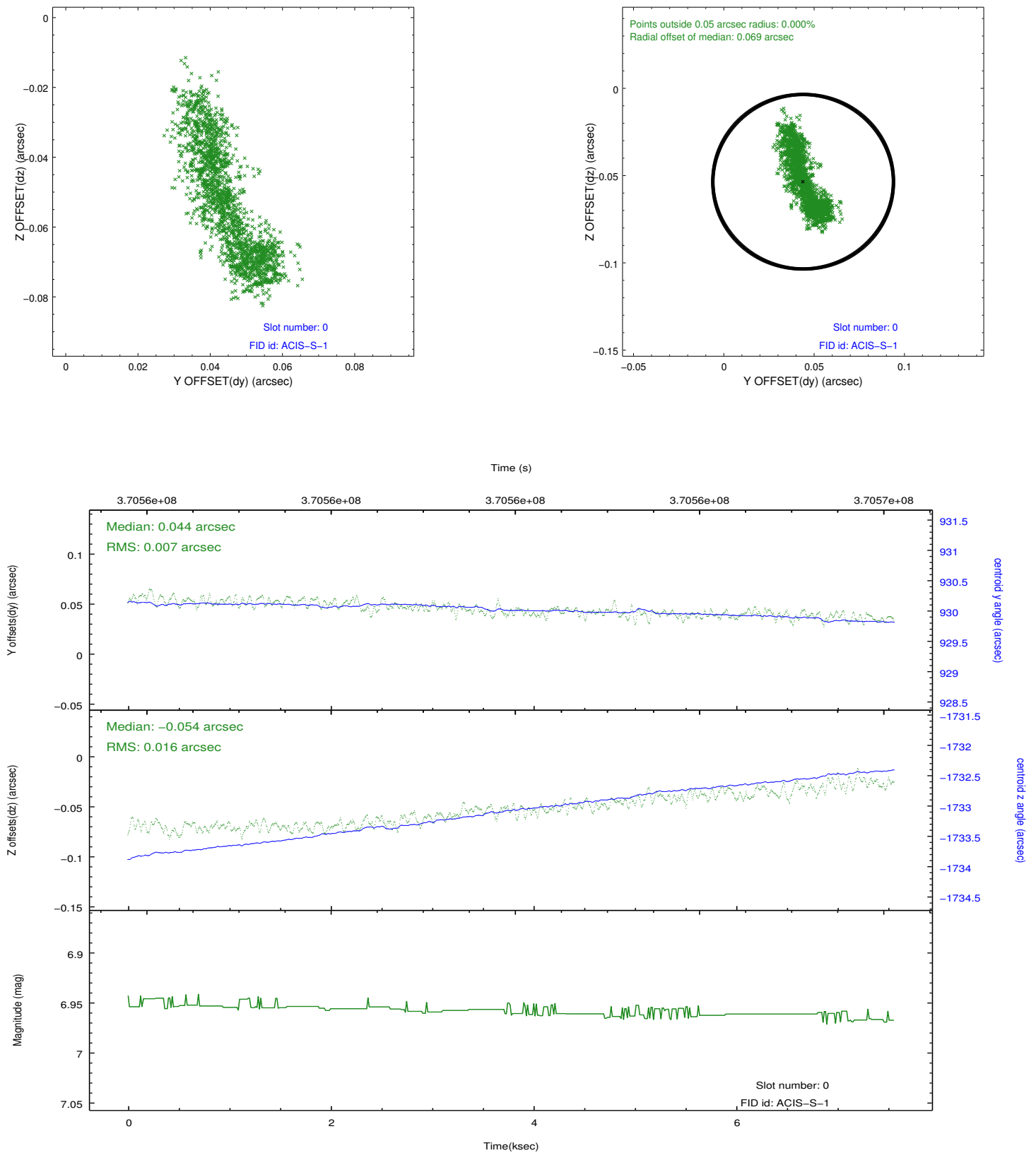


## 2.4.5 Slot 7

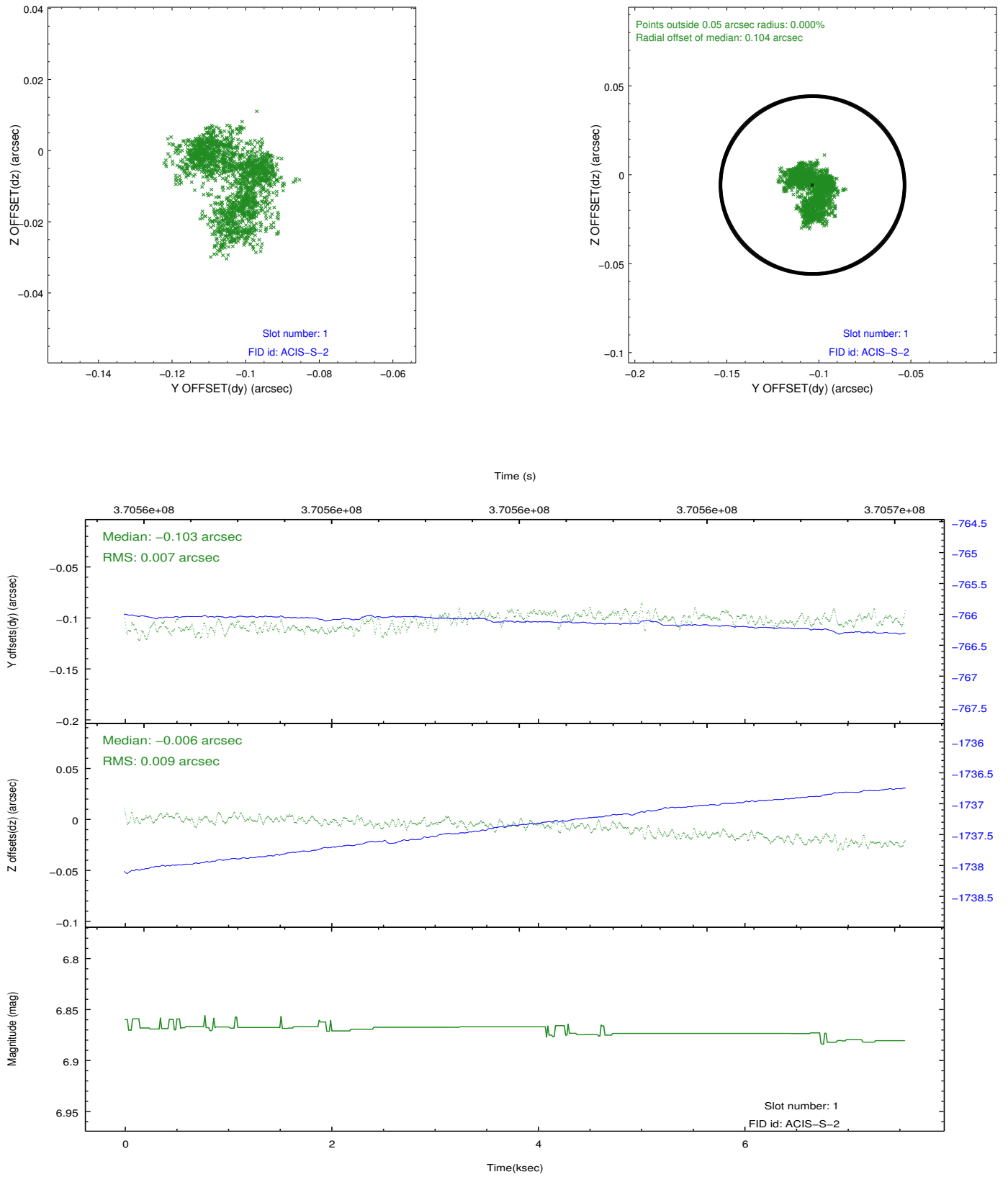


## 2.5 FID Slots

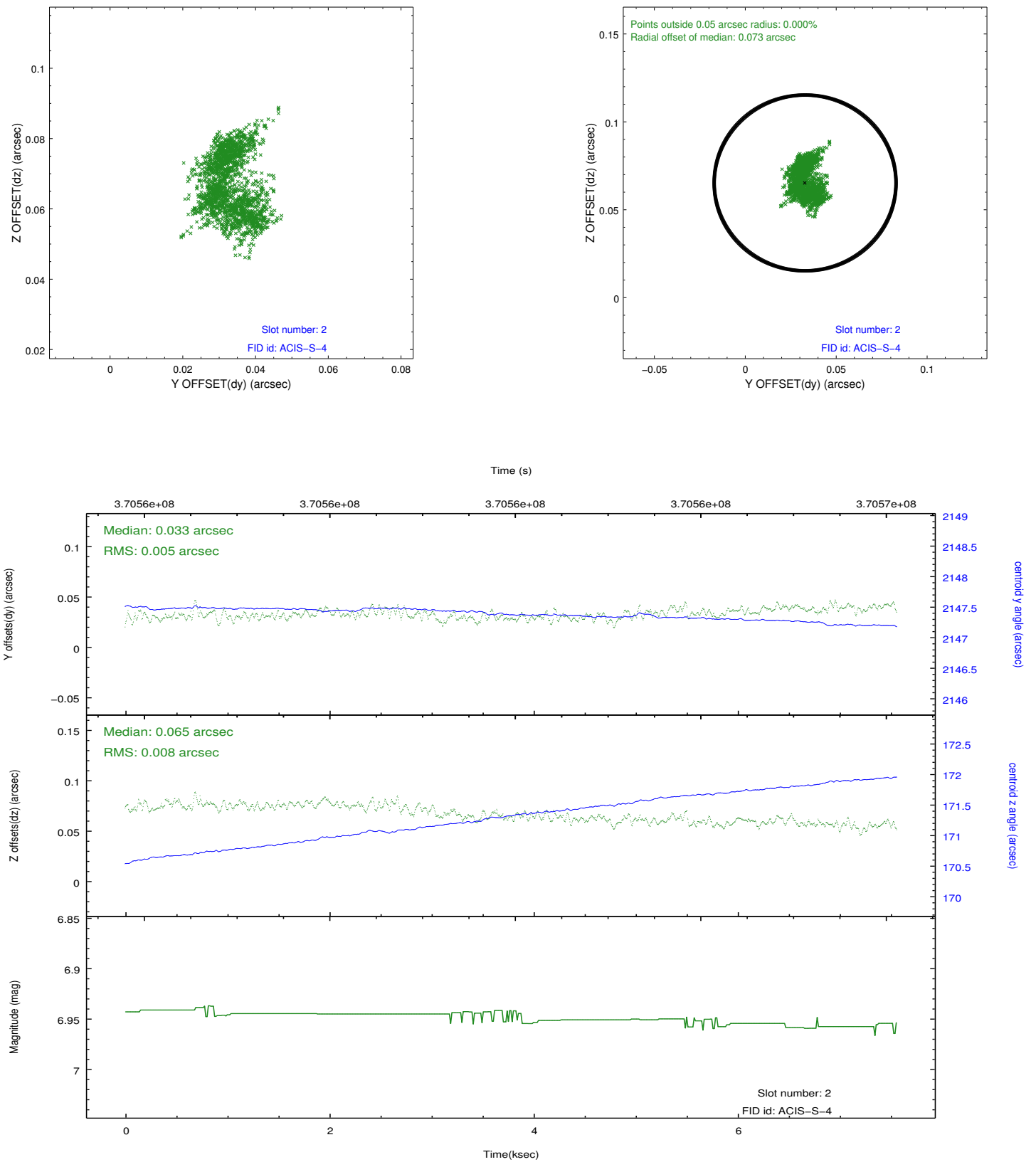
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.06.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.5551999719143

### A.2 Comments