

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 659 - L2 Version 4  
Chandra X-Ray Center

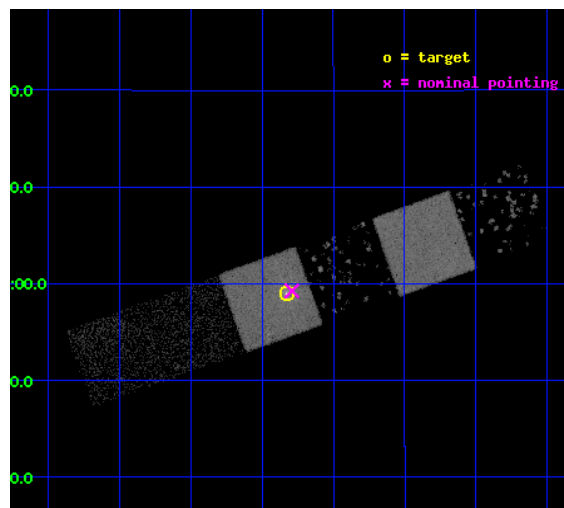
L2 Processing Date : Aug 30 2012

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# 1 Front

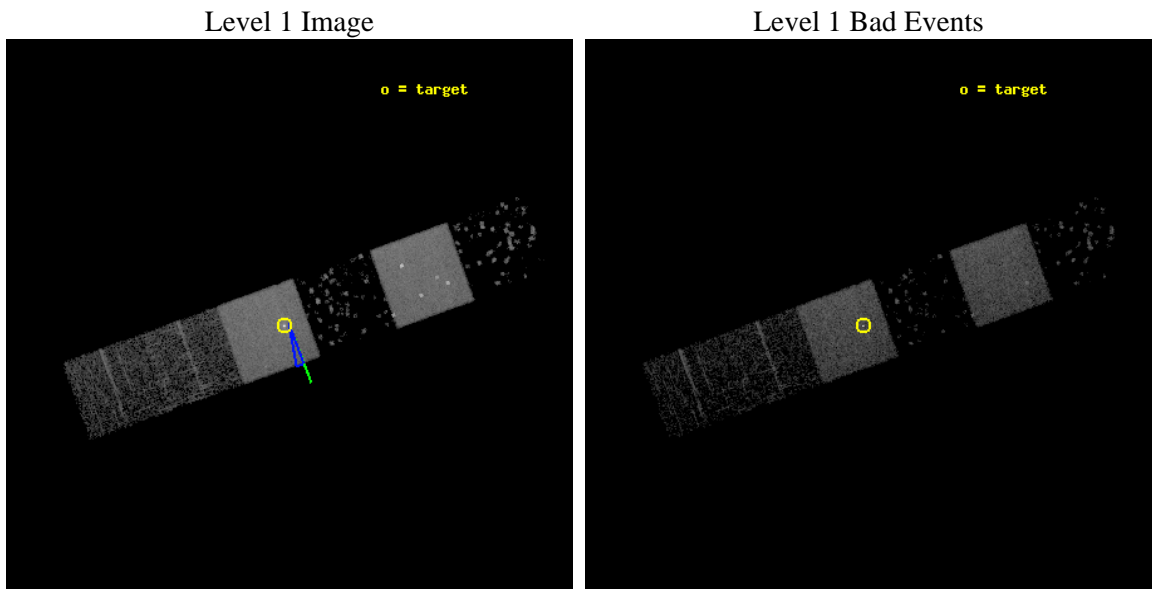
seq_num	400026	Sequence number
obs_id	659	Observation id
title	AN X-RAY IMAGING SURVEY OF JETS FROM X-RAY BINARIES : ENERGETICS OF OUTFLOWS FROM NEUTRON STARS AND BLACK HOLES	Proposal title
observer	Prof. Rob Fender	Principal investigator
object	SS 433 (EAST JET)	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.95625	Observer's specified target RA [deg]
dec_targ	4.982778	Observer's specified target Dec [deg]
ra_nom	287.94754512499	Nominal RA [deg]
dec_nom	4.9878305897396	Nominal Dec [deg]
roll_nom	160.15738487146	Nominal Roll [deg]
revision	4	Processing version of data
ontime	9780.2698366195	Sum of GTIs [s]
livetime	9656.4261709767	Livetime [s]
ontime4	712.30089300871	Sum of GTIs [s]
ontime5	9948.8000092506	Sum of GTIs [s]
ontime6	880.95801280439	Sum of GTIs [s]
ontime7	9780.2698366195	Sum of GTIs [s]
ontime8	1732.8832609951	Sum of GTIs [s]
ontime9	1730.1921618432	Sum of GTIs [s]
l2events	81383	Number of level 2 events



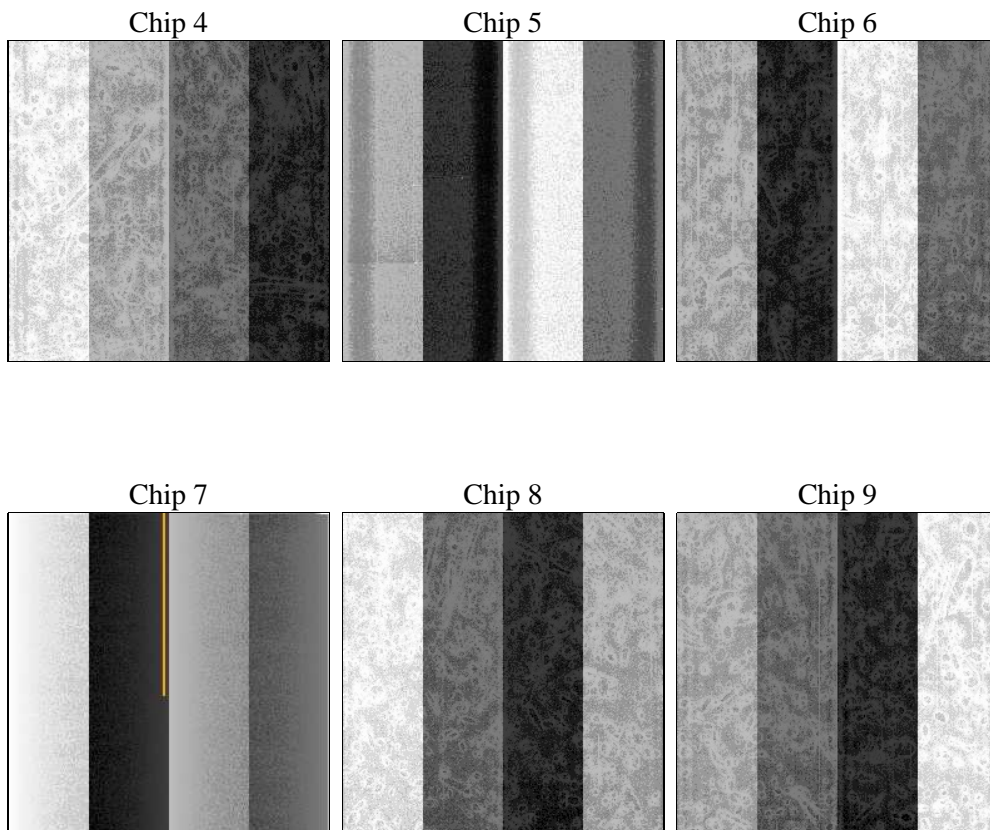
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9780.2698366195	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime4	712.30089300871	Sum of GTIs [s]
date	2012-08-29T23:26:20	Date and time of file creation	ontime5	9948.8000092506	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	880.95801280439	Sum of GTIs [s]
			ontime7	9780.2698366195	Sum of GTIs [s]
			ontime8	1732.8832609951	Sum of GTIs [s]
			ontime9	1730.1921618432	Sum of GTIs [s]
			l1events	754119	Number of level 1 events

### 2.1.4 Events

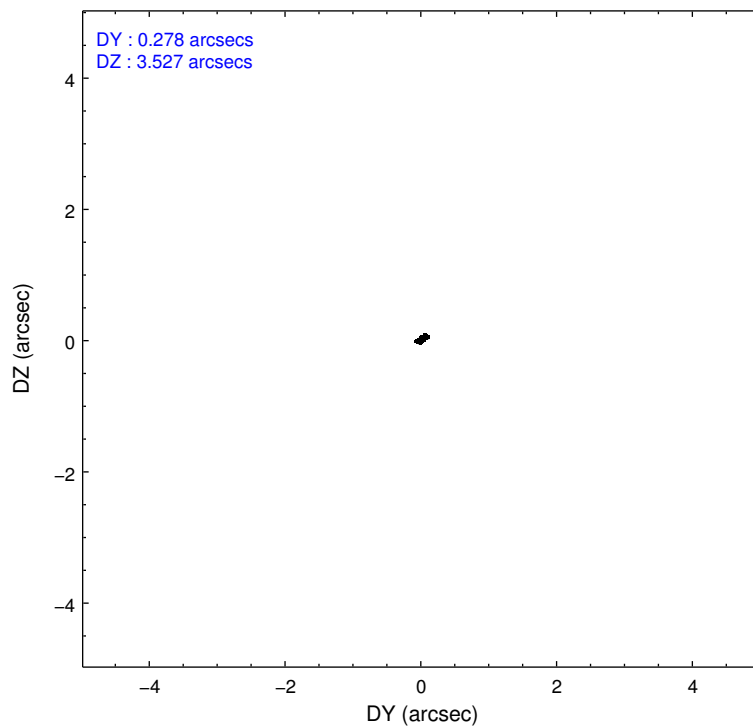
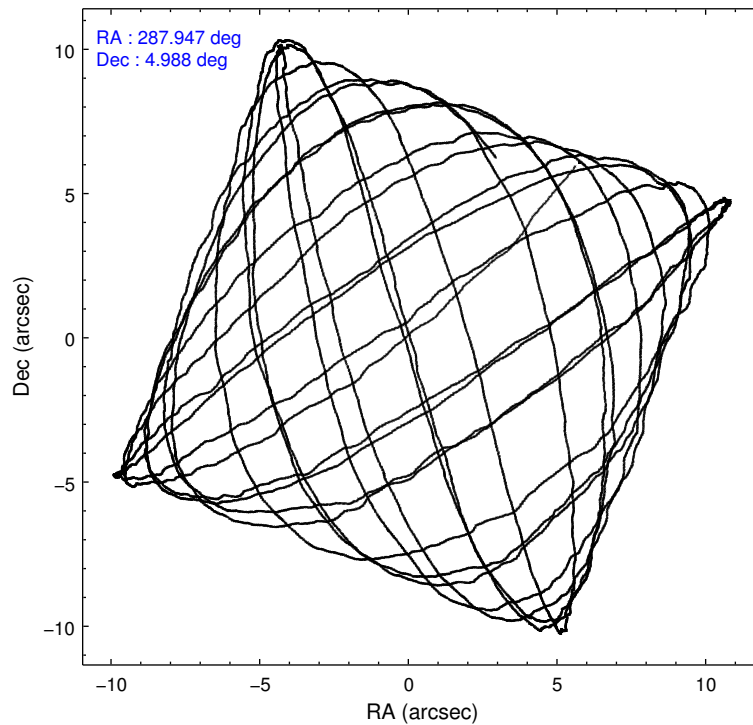
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	278842	87650	277357	84968	14291	11011
rejected events	3587	44265	2625	44894	10989	9484
rejected %	1%	50%	0%	52%	76%	86%

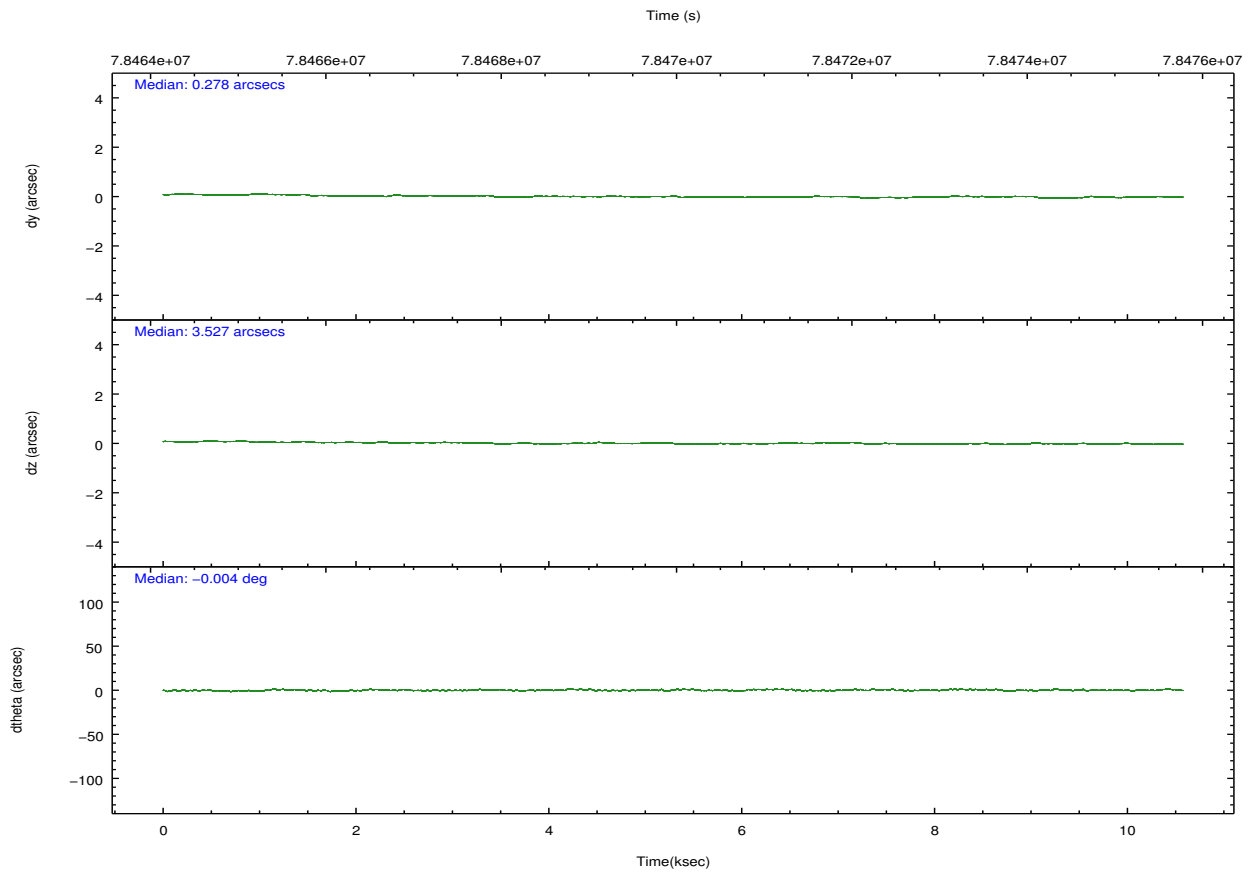
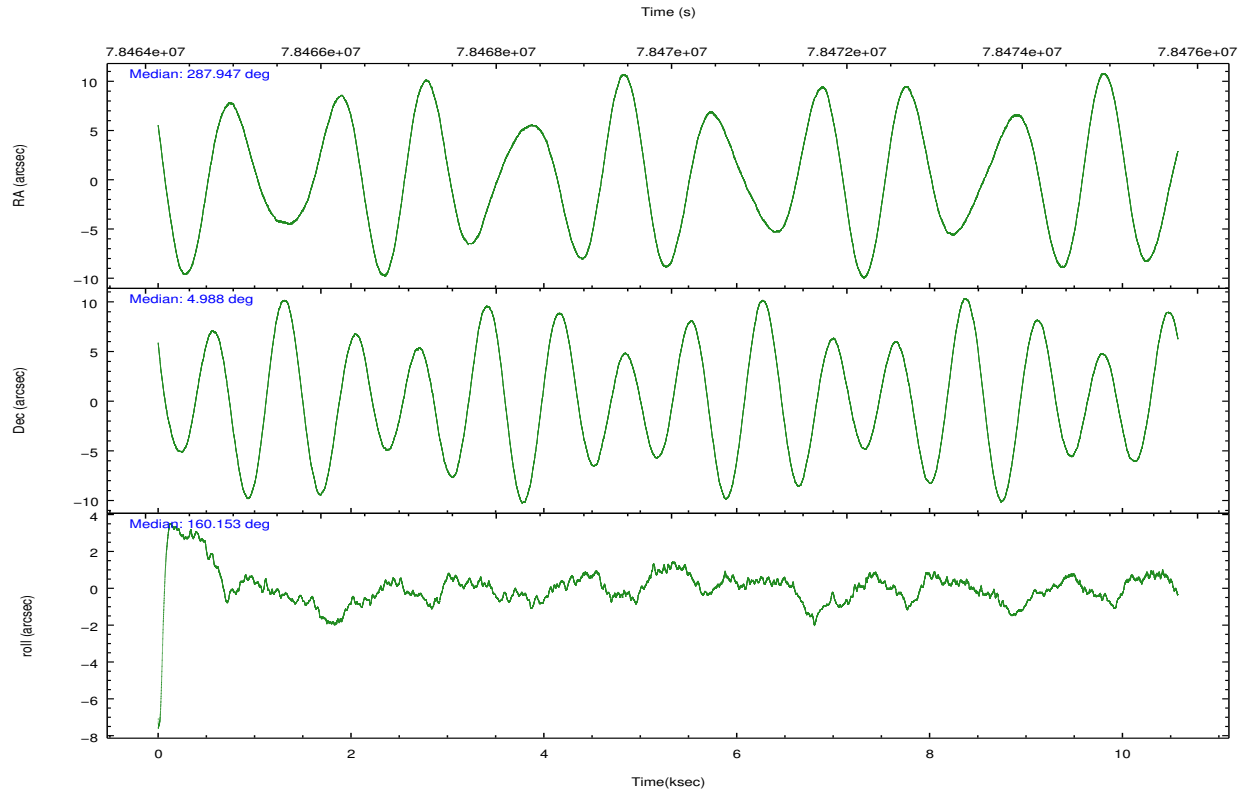
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	276022	7958	275309	5043	1117	707
	98%	9%	99%	5%	7%	6%
grade 1 events	538	311	399	151	10	6
	0%	0%	0%	0%	0%	0%
grade 2 events	153	11687	145	8319	581	289
	0%	13%	0%	9%	4%	2%
grade 3 events	157	1876	102	3868	418	132
	0%	2%	0%	4%	2%	1%
grade 4 events	96	1858	68	3787	397	128
	0%	2%	0%	4%	2%	1%
grade 5 events	275	6552	214	7545	506	408
	0%	7%	0%	8%	3%	3%
grade 6 events	100	20020	113	19065	789	271
	0%	22%	0%	22%	5%	2%
grade 7 events	1501	37388	1007	37190	10473	9070
	0%	42%	0%	43%	73%	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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	287.974672	287.9475451249882	Subarray requested	NONE	NONE
[deg] Pointing Dec	4.992763	4.987830589739628	Alternating exposures requested	N	N
[deg] Pointing Roll	159.998397	160.157384871461	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	165.000000	165.000000			
[deg] Roll tolerance	5.000000	5.000000			
Roll constraint allows 180D rotation	N	N			
[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)	78465248.184000	78464096.55248199			
Observation start date	2000-06-27T03:53:04	2000-06-27T03:34:56			
[s] Observation end time (MET)	78475248.184000	78475640.615408			
Observation end date	2000-06-27T06:39:44	2000-06-27T06:47:20			
Read mode	TIMED	TIMED			

## 2.3 Aspect



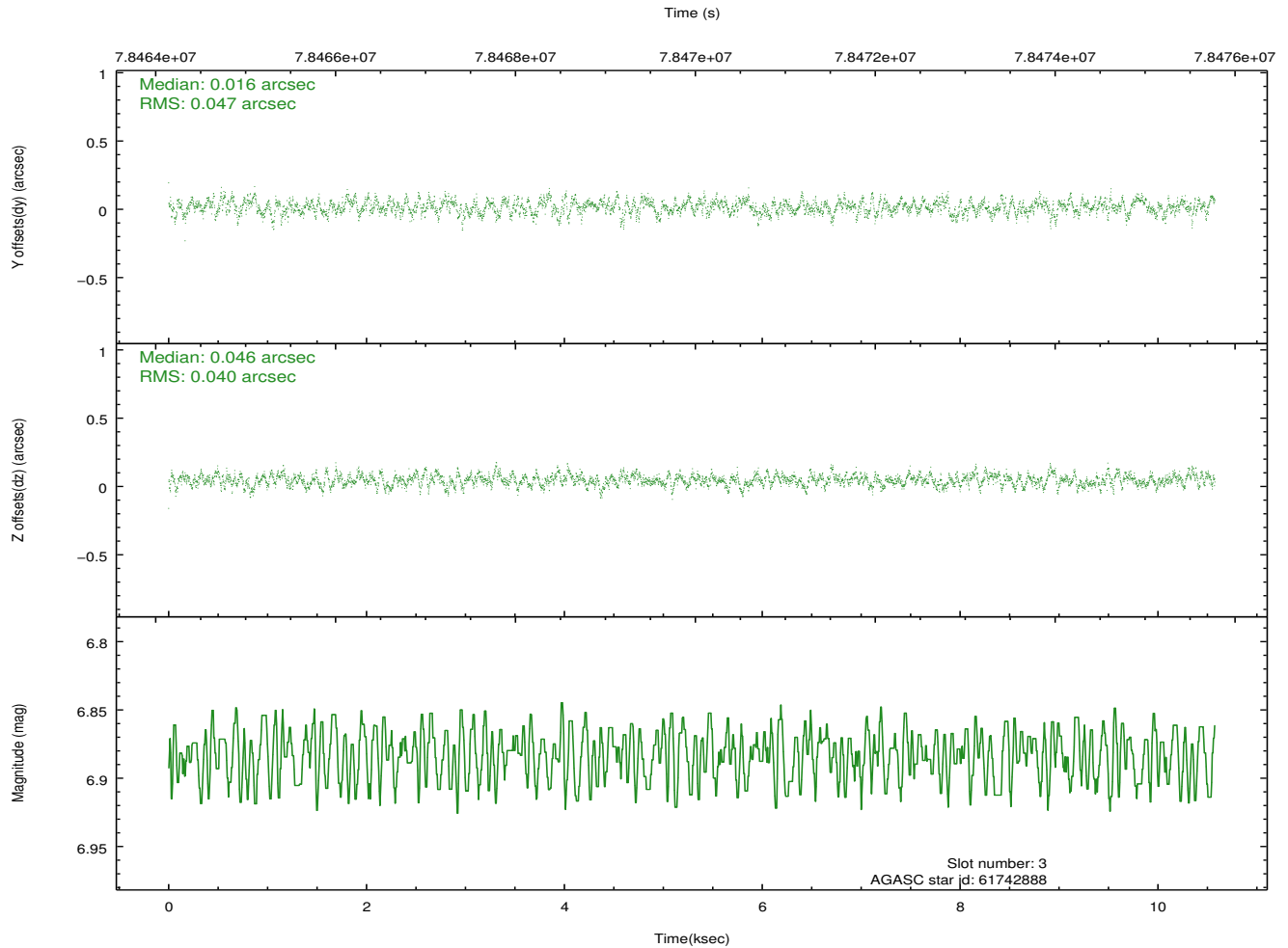
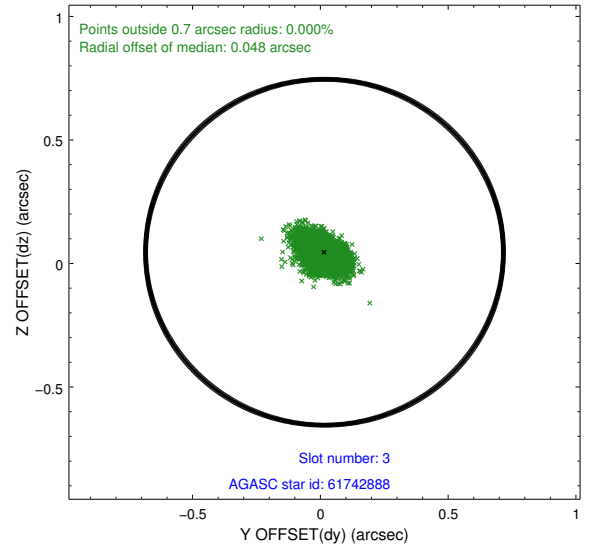
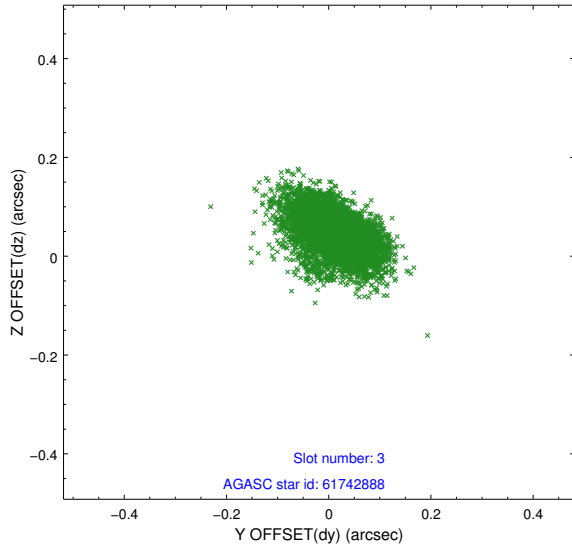


### Slot Statistics

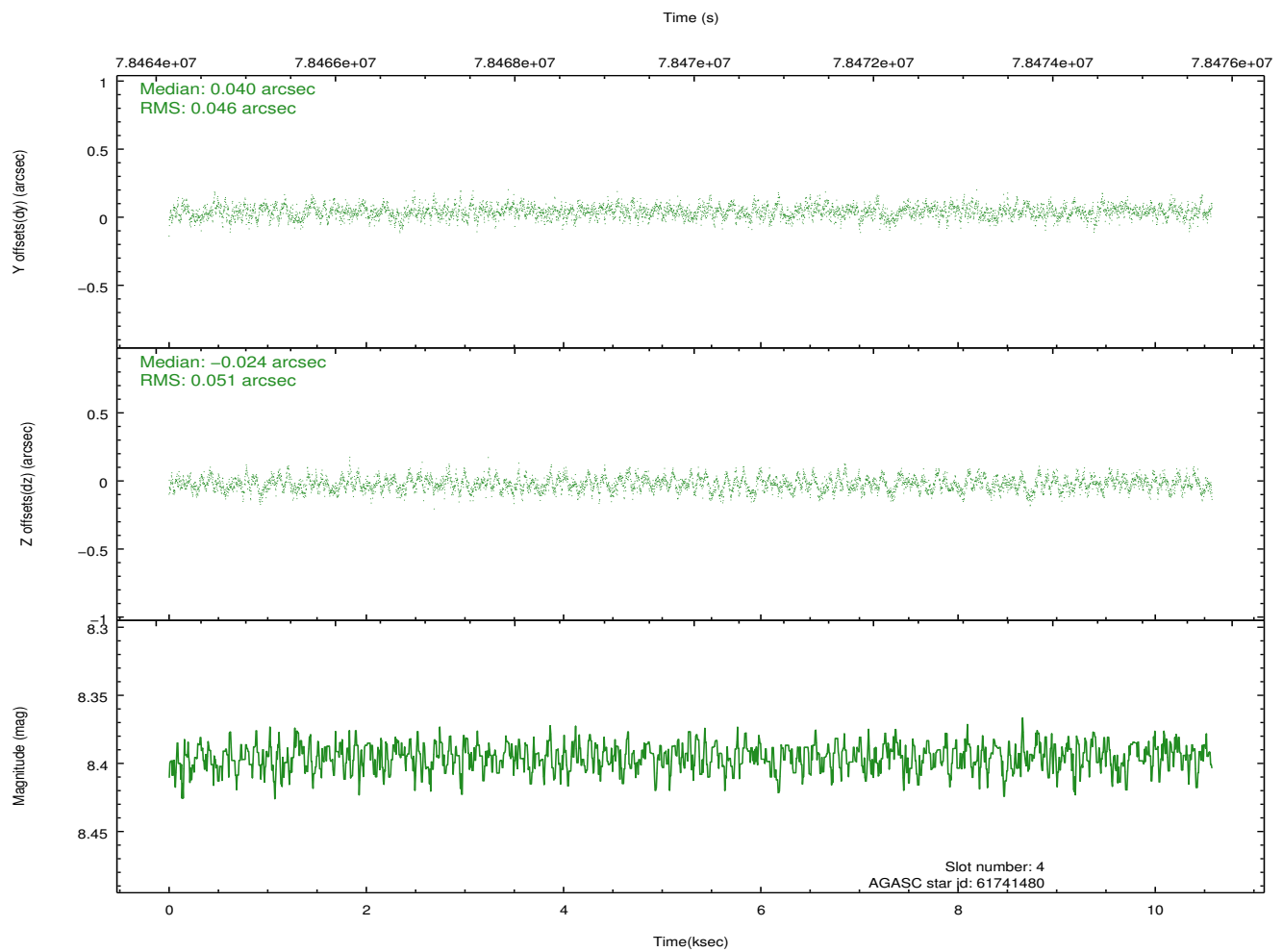
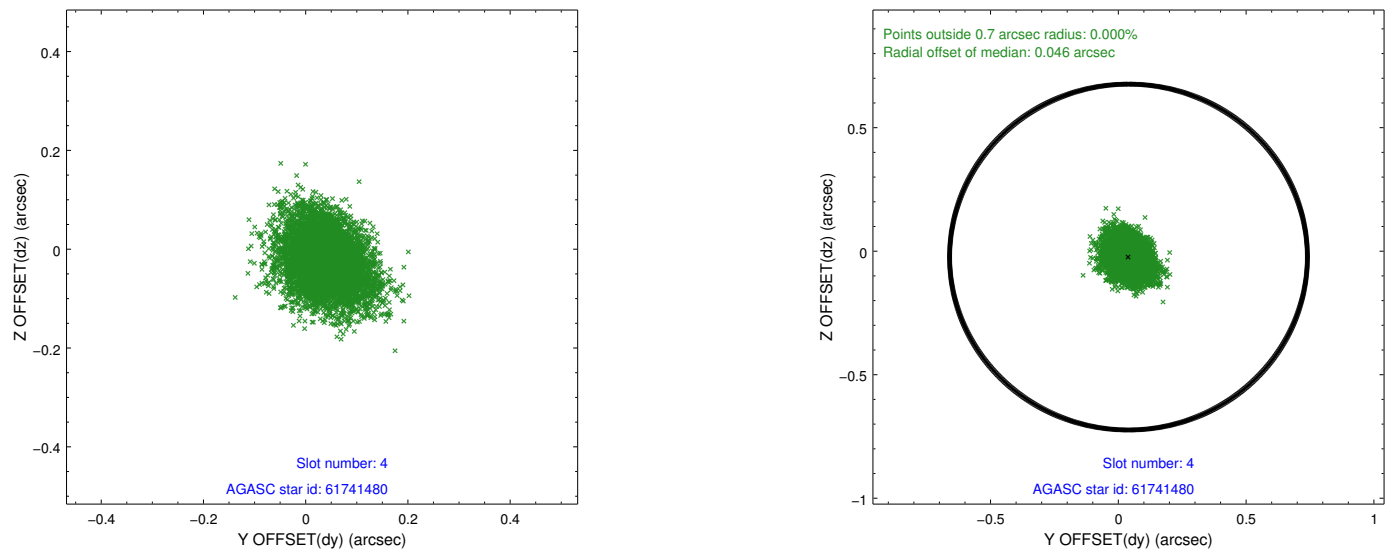
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	2580	0.015	0.020	0.009	0.016	0.000000	0.000000	943.15	-1720.25
1	FID	ACIS-S-5	7.24	2580	-0.056	0.019	0.008	0.013	0.000000	0.000000	-1805.59	176.89
2	FID	ACIS-S-6	7.36	2580	0.019	-0.027	0.008	0.013	0.000000	0.000000	408.25	821.29
3	GUIDE	61742888	6.88	5160	0.016	0.046	0.065	0.109	288.433450	5.515613	-900.96	-2331.63
4	GUIDE	61741480	8.39	5160	0.040	-0.024	0.073	0.119	287.973237	4.806511	-225.03	631.34
5	GUIDE	61747728	9.10	5158	0.036	-0.044	0.074	0.123	288.191054	4.754353	-1023.39	540.86
6	GUIDE	61738096	9.45	5152	0.034	0.019	0.083	0.138	287.831592	4.762953	198.81	953.09
7	GUIDE	61752640	9.52	5158	-0.123	0.003	0.094	0.155	287.386963	5.148676	2172.00	192.83

## 2.4 Star Slots

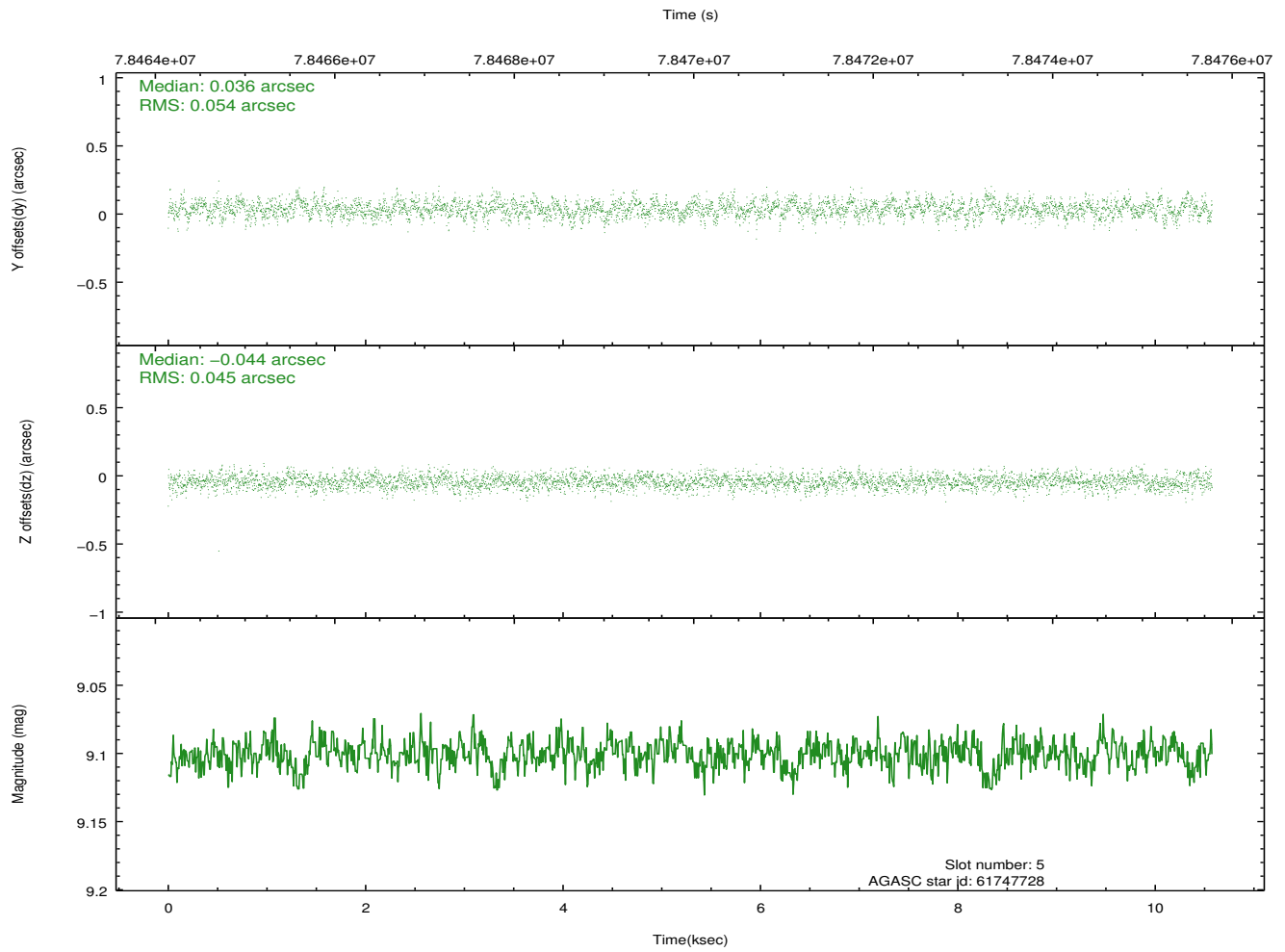
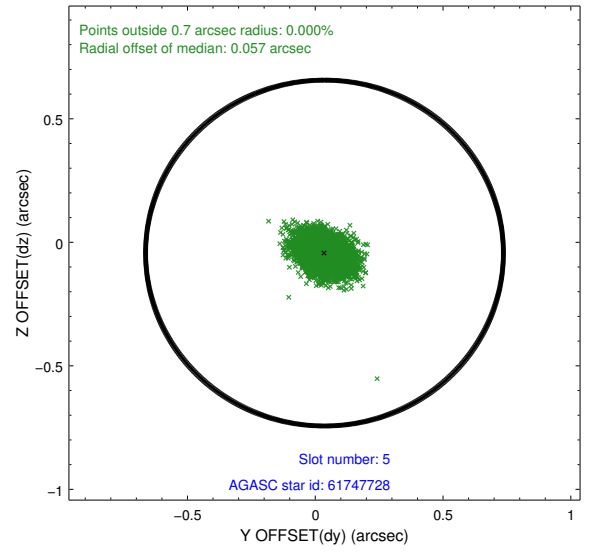
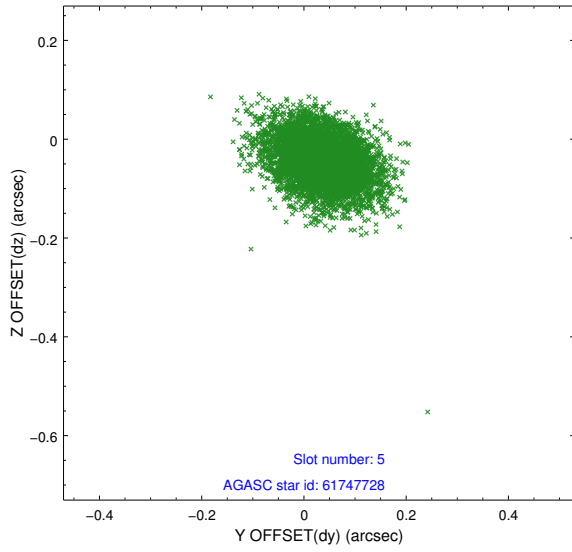
### 2.4.1 Slot 3



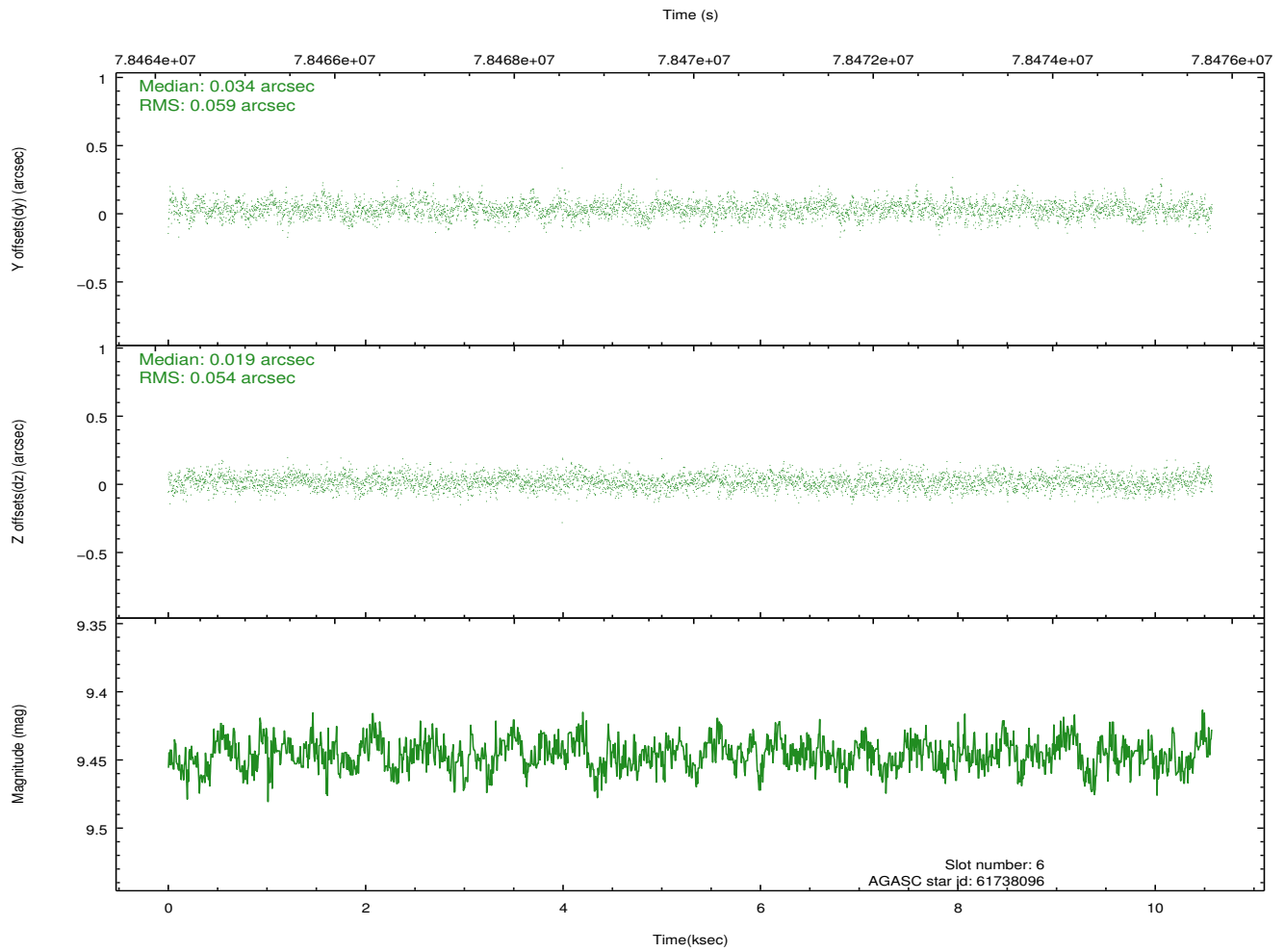
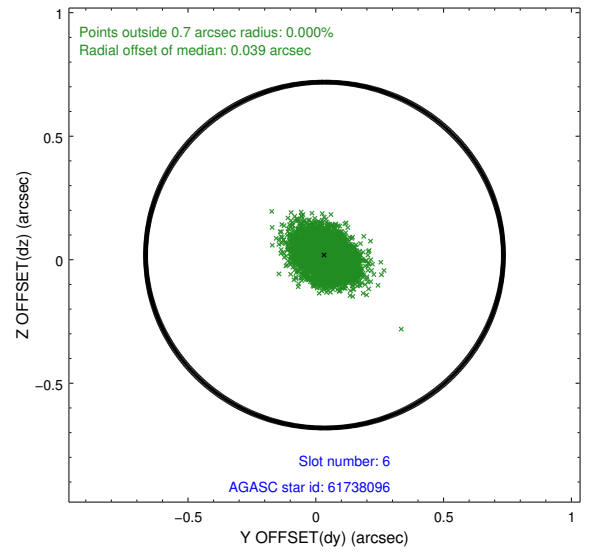
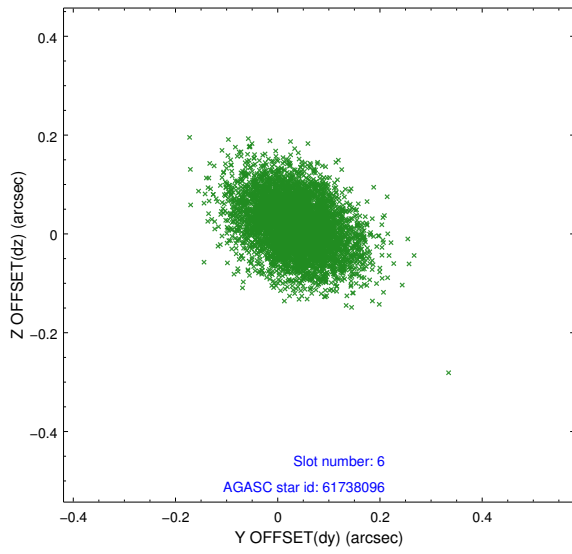
## 2.4.2 Slot 4



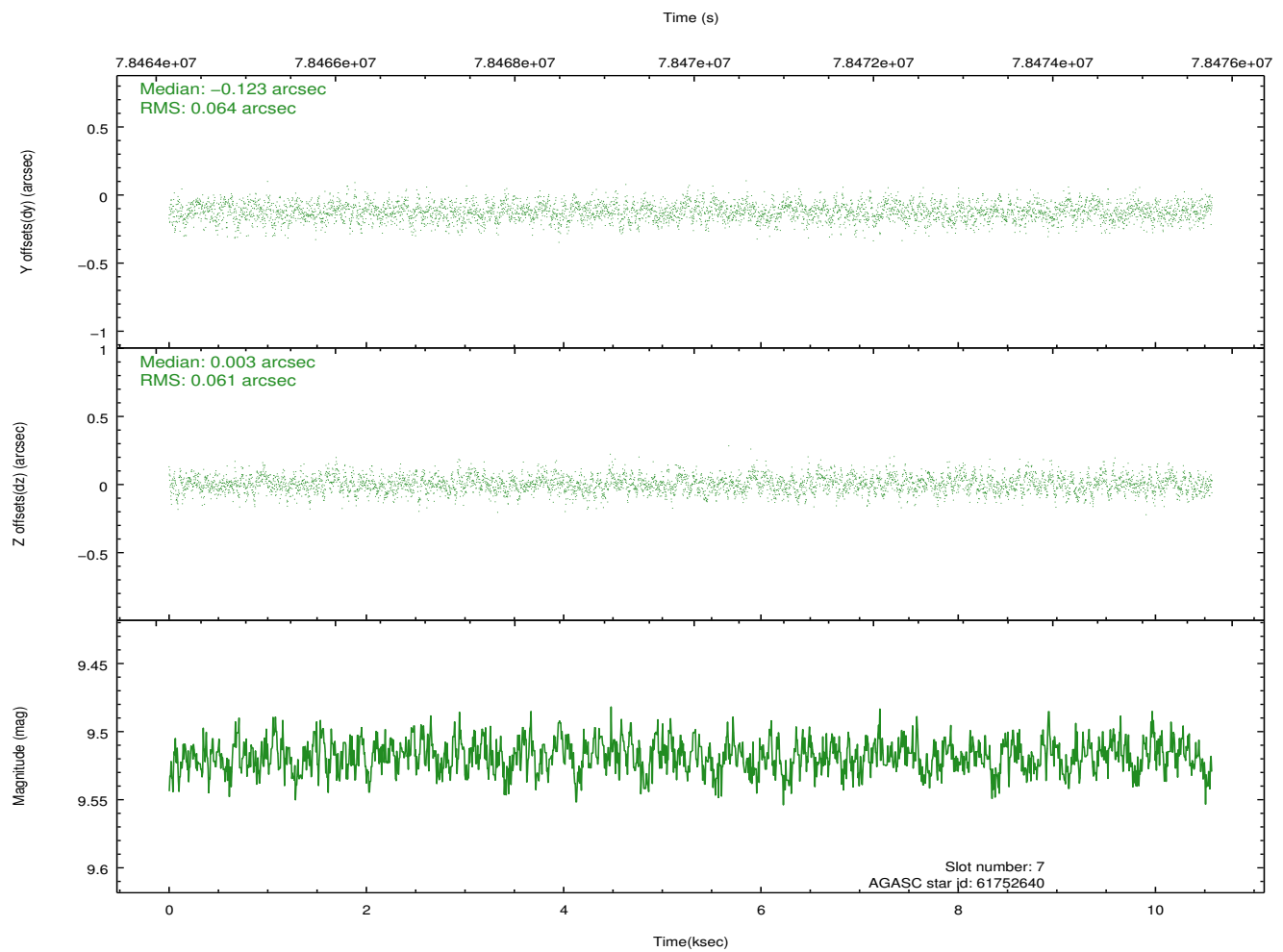
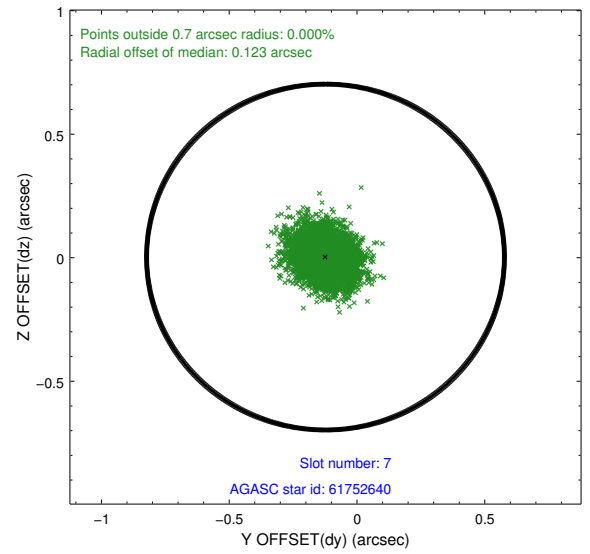
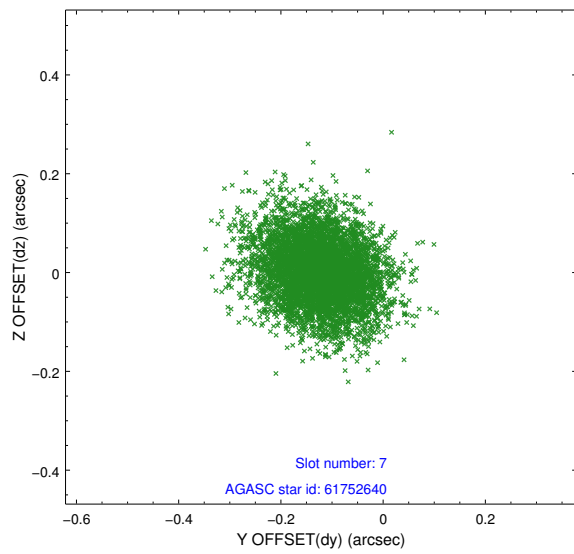
### 2.4.3 Slot 5



### 2.4.4 Slot 6

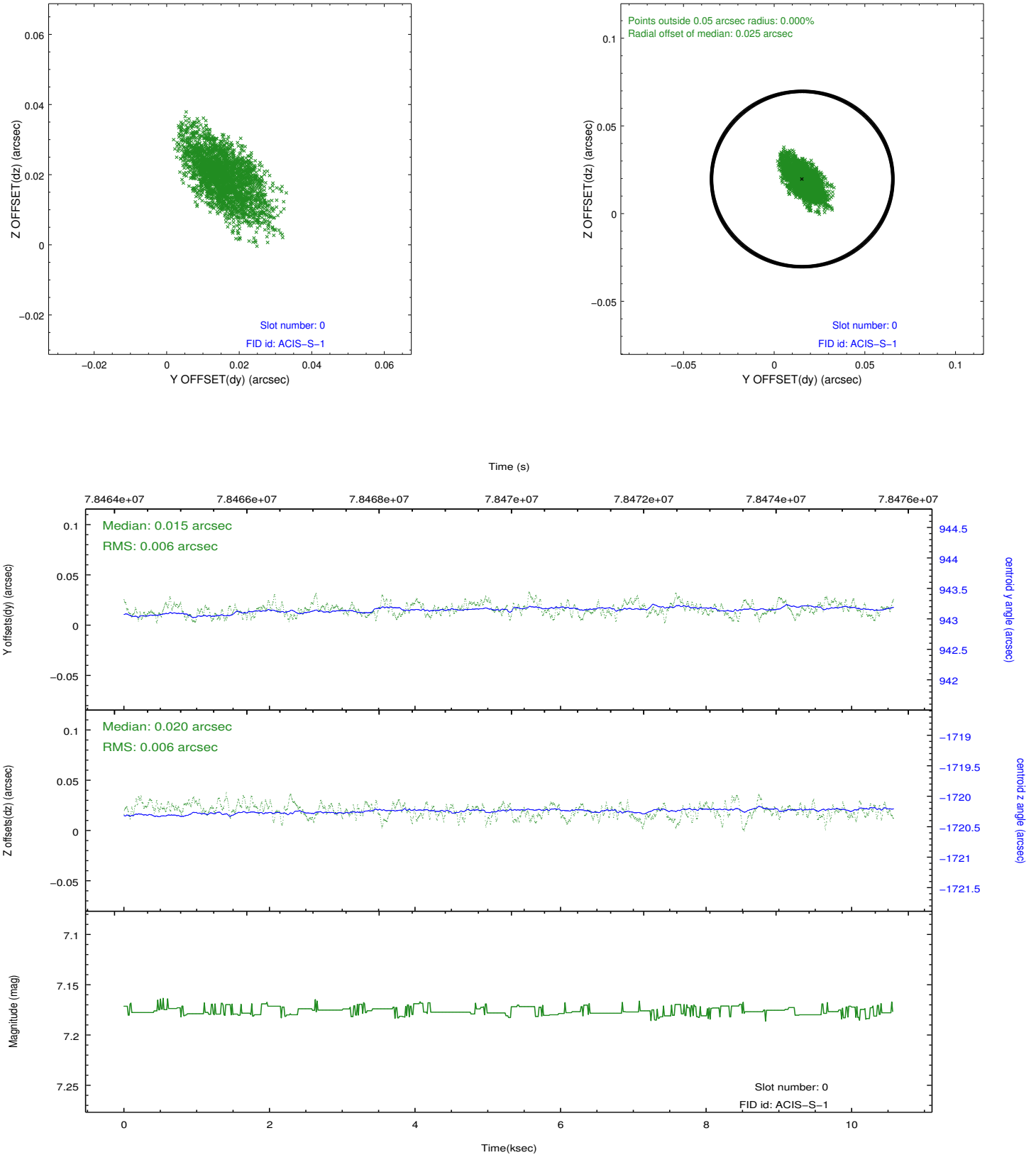


## 2.4.5 Slot 7

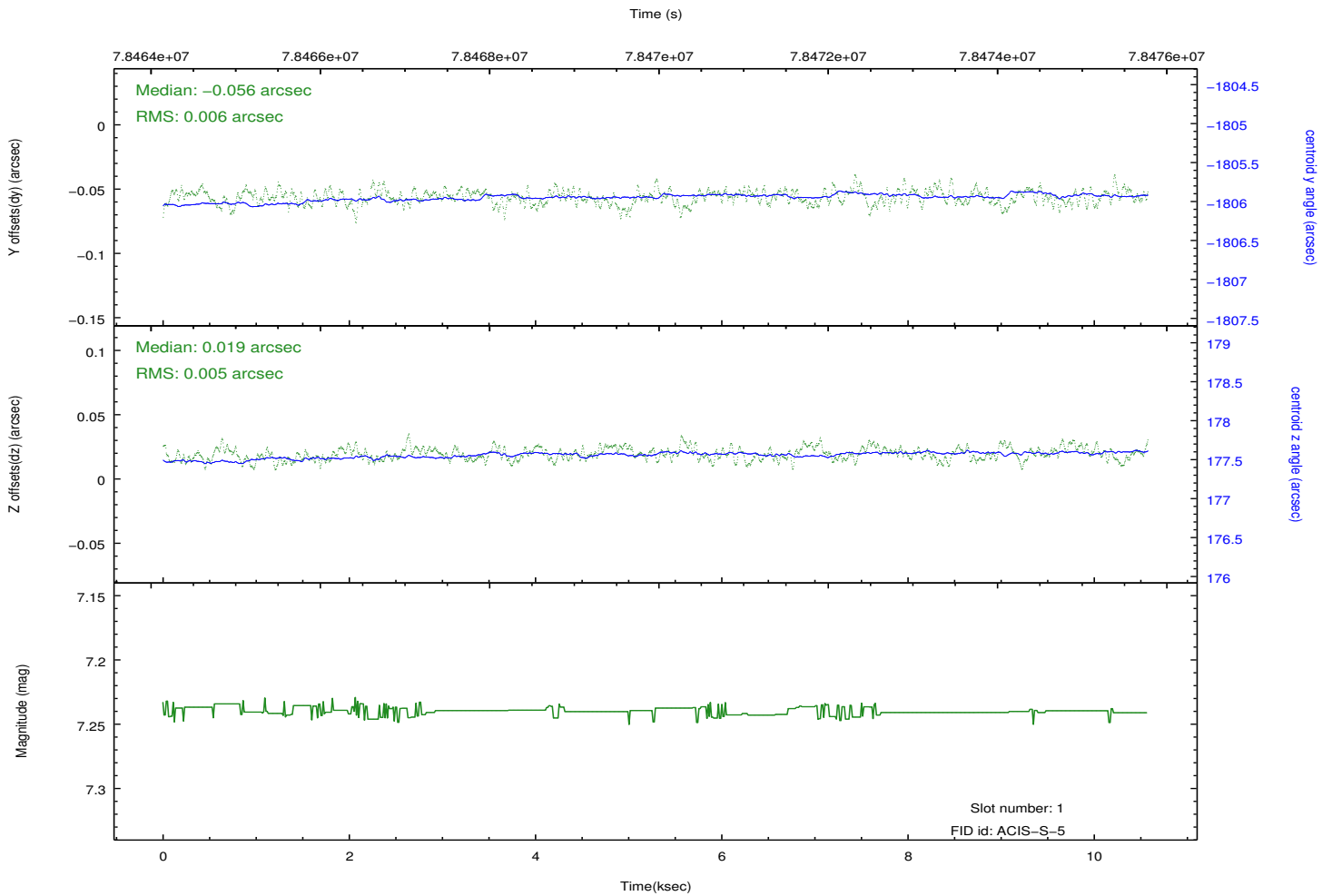
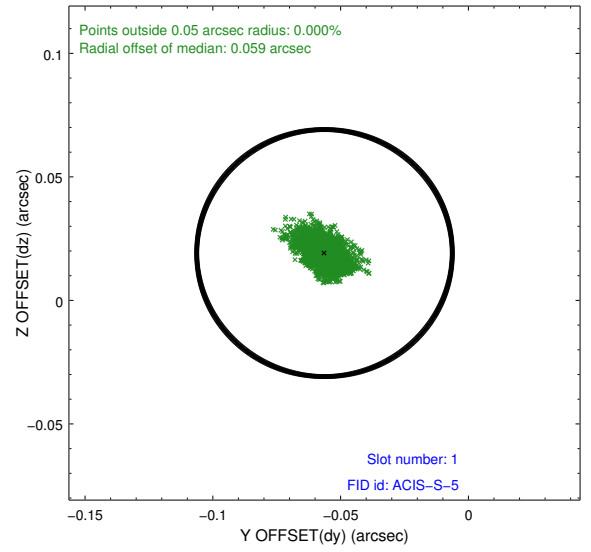
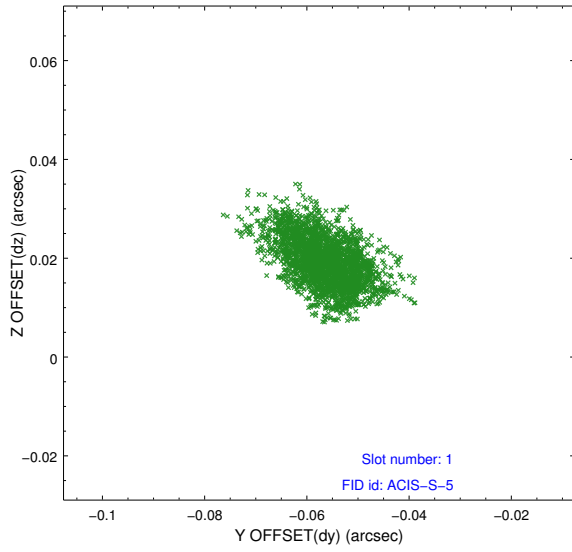


## 2.5 FID Slots

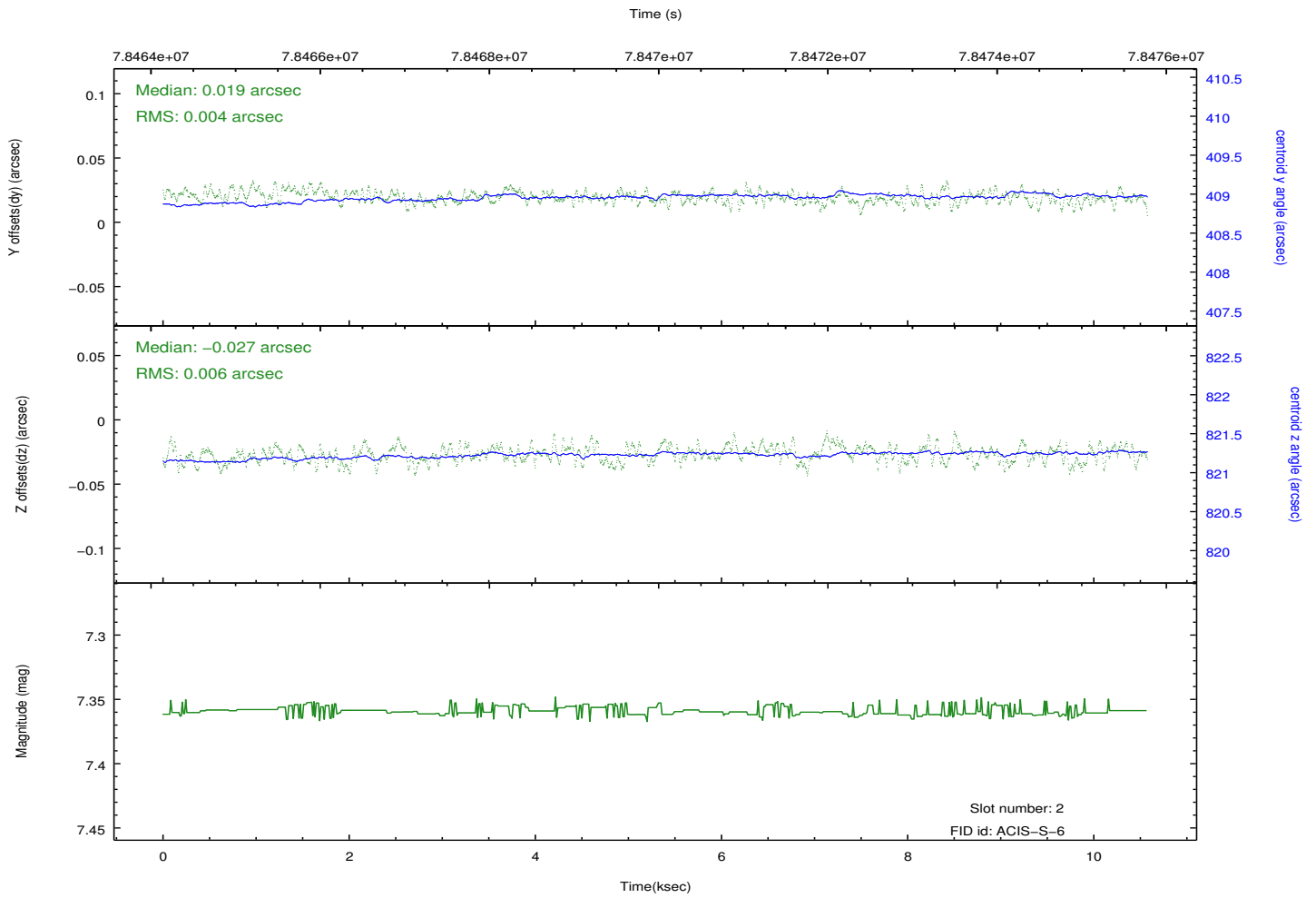
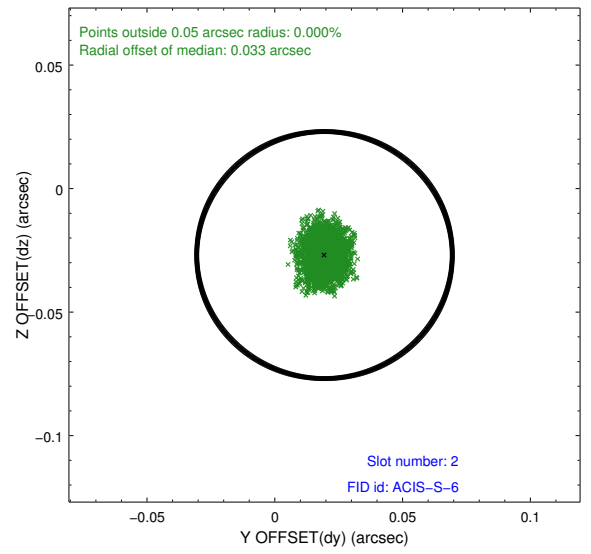
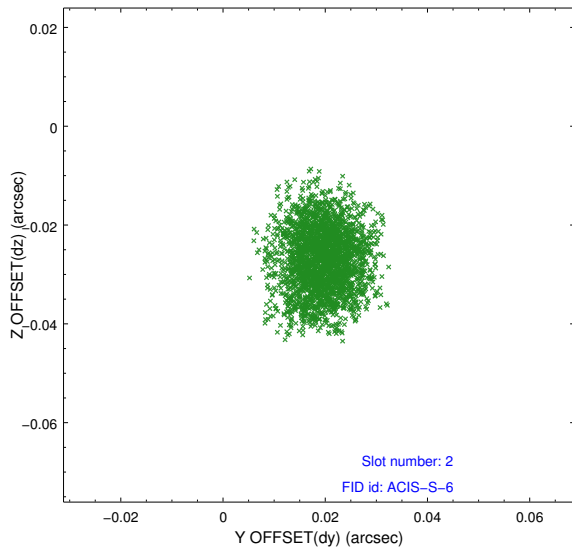
### 2.5.1 Slot 0



## 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)	2012.09.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.785

## A.2 Comments

Threshold-plane latchup did not impact the target on S3 (CCD\_ID = 7).  
Ontimes for chips 4, 6, 8, and 9 are reduced because of the T-plane  
latchup. Roll constraint met.