

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 890 - L2 Version 3  
Chandra X-Ray Center

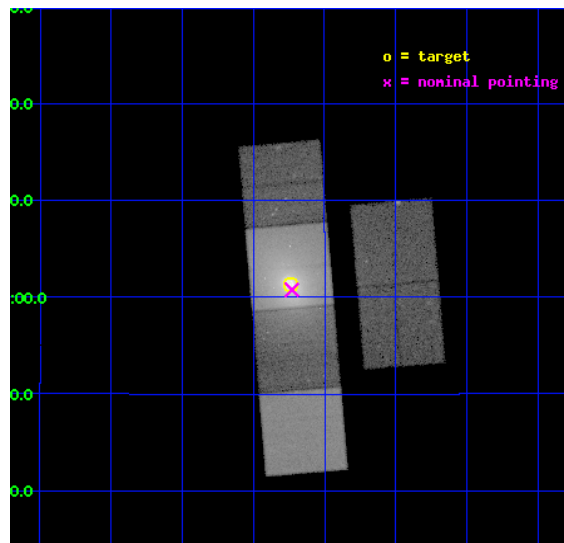
L2 Processing Date : Sep 1 2012

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# 1 Front

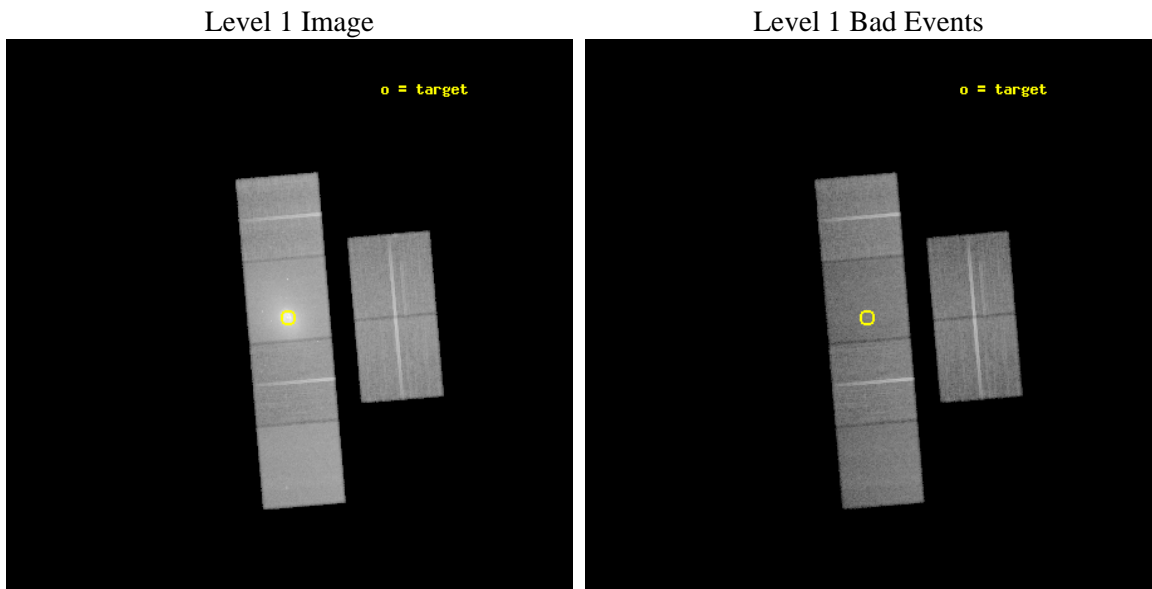
seq_num	800066	Sequence number
obs_id	890	Observation id
title	THE INTERACTION BETWEEN CLUSTER CENTRAL RADIO SOURCES AND COOLING FLOWS	Proposal title
observer	Dr. CRAIG SARAZIN	Principal investigator
object	A2052	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	229.185	Observer's specified target RA [deg]
dec_targ	7.022222	Observer's specified target Dec [deg]
ra_nom	229.18236208194	Nominal RA [deg]
dec_nom	7.0126669117783	Nominal Dec [deg]
roll_nom	265.13413232627	Nominal Roll [deg]
revision	3	Processing version of data
ontime	37224.898751333	Sum of GTIs [s]
livetime	36753.534669201	Livetime [s]
ontime2	37215.216940627	Sum of GTIs [s]
ontime3	37218.293690935	Sum of GTIs [s]
ontime5	37221.61675109	Sum of GTIs [s]
ontime6	37224.816671342	Sum of GTIs [s]
ontime7	37224.898751333	Sum of GTIs [s]
ontime8	37218.252650946	Sum of GTIs [s]
l2events	687997	Number of level 2 events



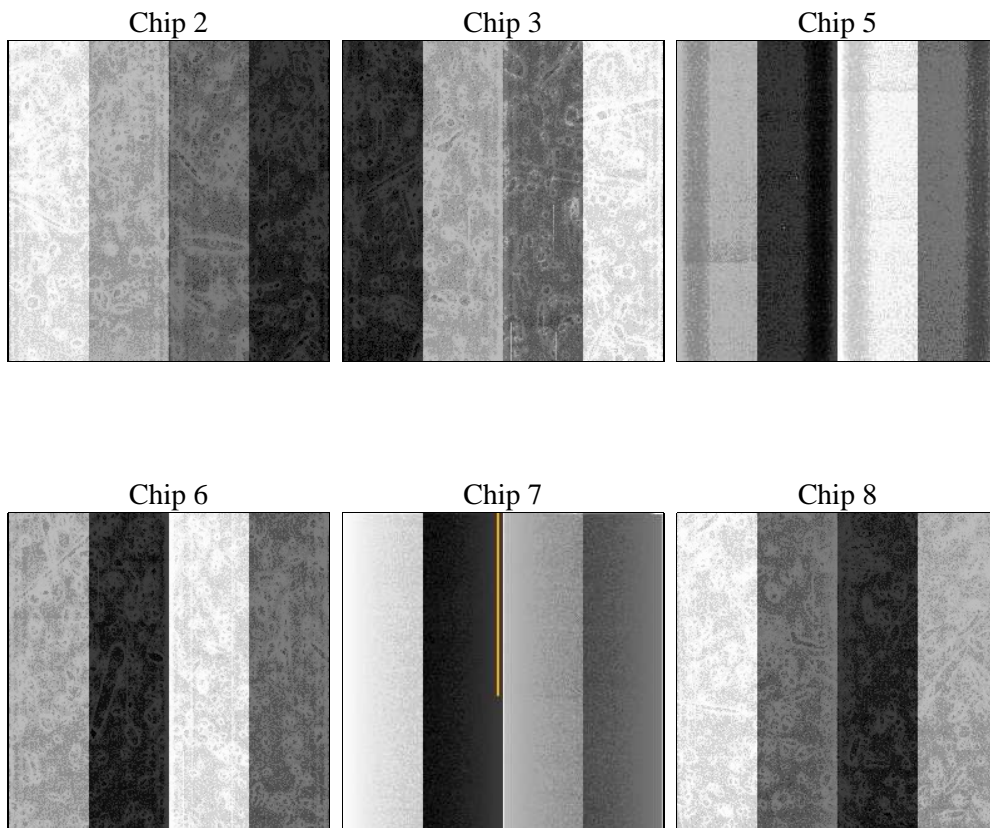
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37270.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	37224.898751333	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime2	37215.216940627	Sum of GTIs [s]
date	2012-09-01T15:59:14	Date and time of file creation	ontime3	37218.293690935	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	37221.61675109	Sum of GTIs [s]
			ontime6	37224.816671342	Sum of GTIs [s]
			ontime7	37224.898751333	Sum of GTIs [s]
			ontime8	37218.252650946	Sum of GTIs [s]
			l1events	1876056	Number of level 1 events

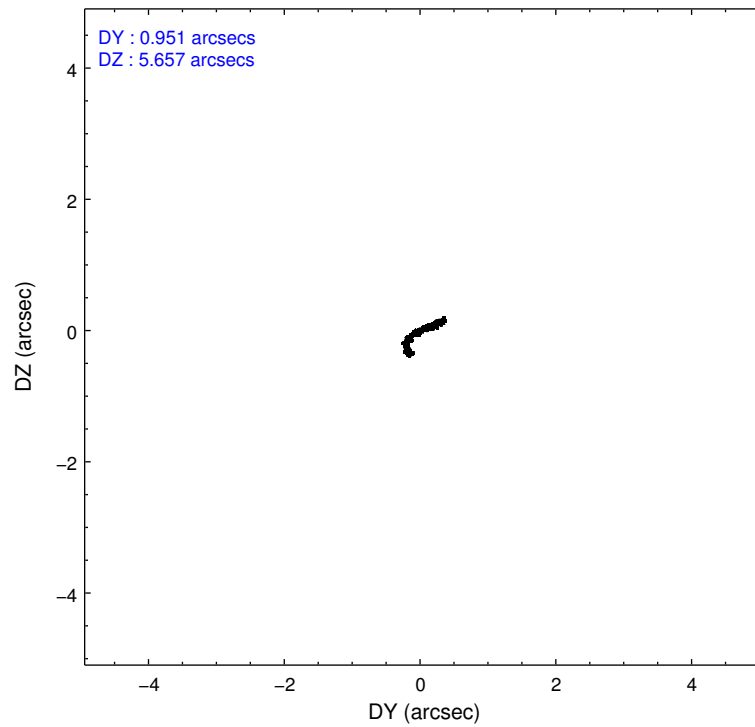
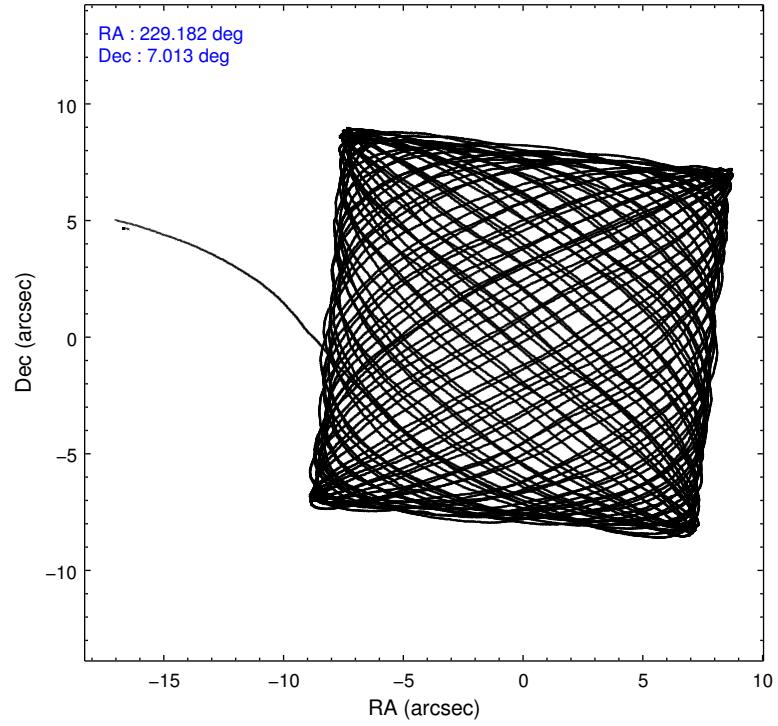
### 2.1.4 Events

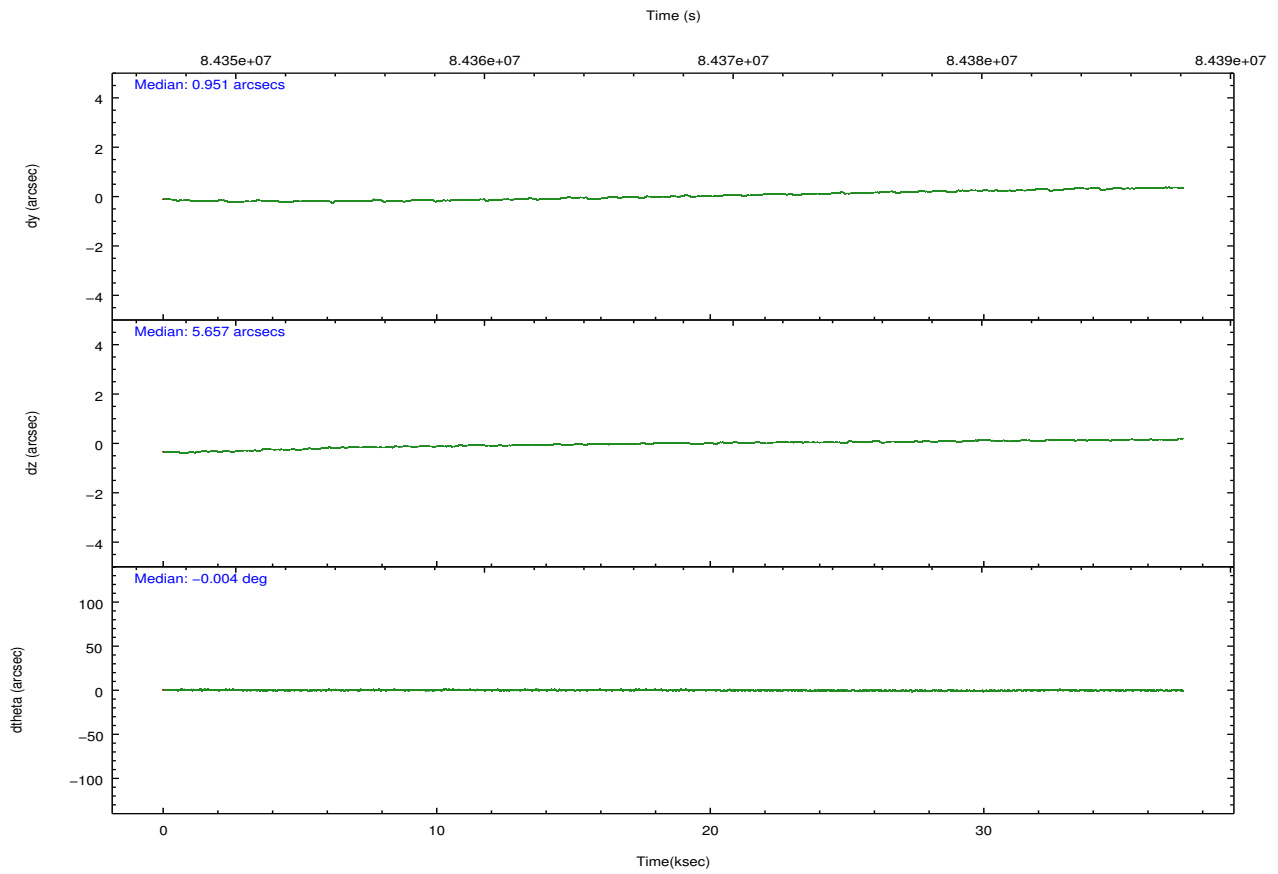
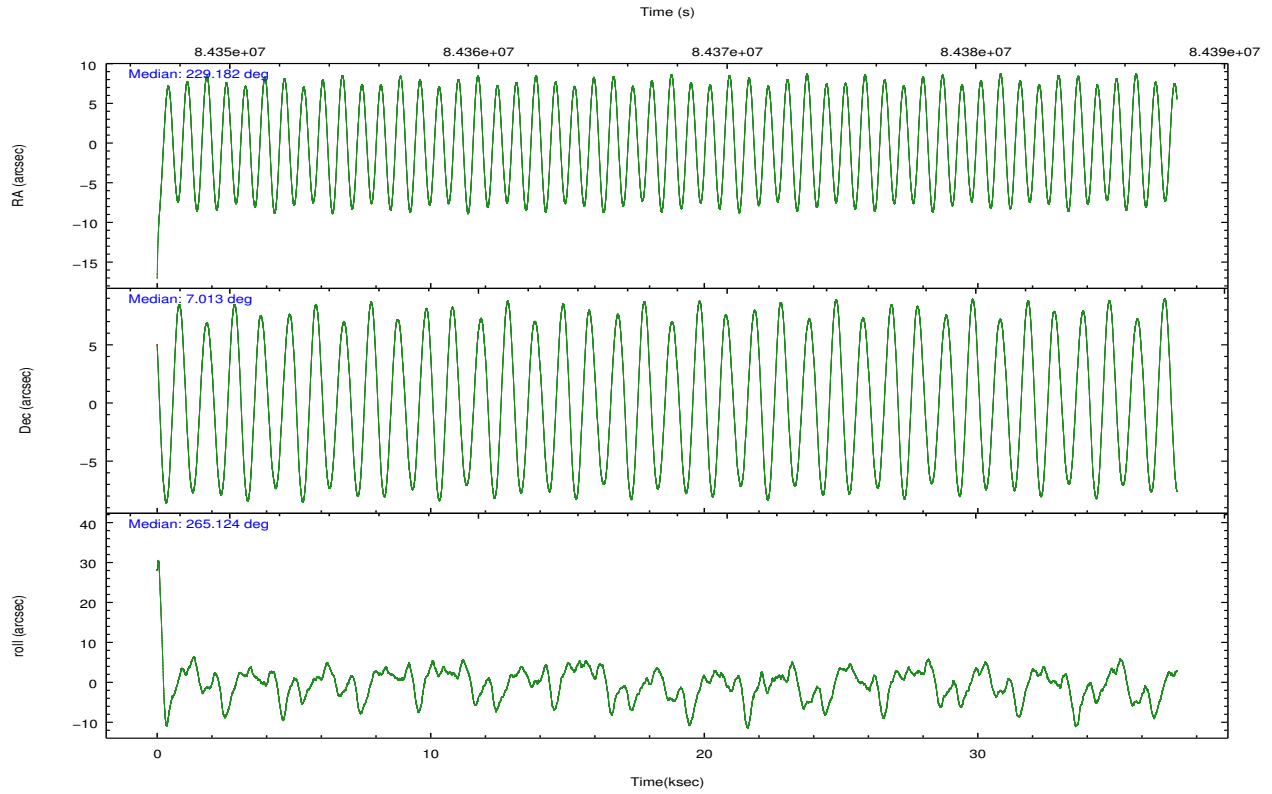
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	231790	217874	302113	256361	582381	285537	grade 0 events	13863	13992	14237	36193	112429	24333
rejected events	203093	189700	160867	200460	160386	223717		5%	6%	4%	14%	19%	8%
rejected %	87%	87%	53%	78%	27%	78%	grade 1 events	124	84	297	199	333	163
								0%	0%	0%	0%	0%	0%
							grade 2 events	5724	4981	41045	7663	102870	12444
								2%	2%	13%	2%	17%	4%
							grade 3 events	2434	2516	7093	3409	46439	5663
								1%	1%	2%	1%	7%	1%
							grade 4 events	2427	2424	6768	3244	45860	5452
								1%	1%	2%	1%	7%	1%
							grade 5 events	7493	7746	23433	9112	28503	11352
								3%	3%	7%	3%	4%	3%
							grade 6 events	4252	4268	72111	5400	114432	13940
								1%	1%	23%	2%	19%	4%
							grade 7 events	195473	181863	137129	191141	131515	212190
								84%	83%	45%	74%	22%	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	229.170493	229.1823620819426	Subarray requested	NONE	NONE
[deg] Pointing Dec	7.037370	7.012666911778297	Alternating exposures requested	N	N
[deg] Pointing Roll	264.978955	265.1341323262716	[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)	84348953.184000	84348082.6214			
Observation start date	2000-09-03T06:14:49	2000-09-03T06:01:22			
[s] Observation end time (MET)	84386223.184000	84386845.56035601			
Observation end date	2000-09-03T16:35:59	2000-09-03T16:47:25			
Read mode	TIMED	TIMED			

## 2.3 Aspect



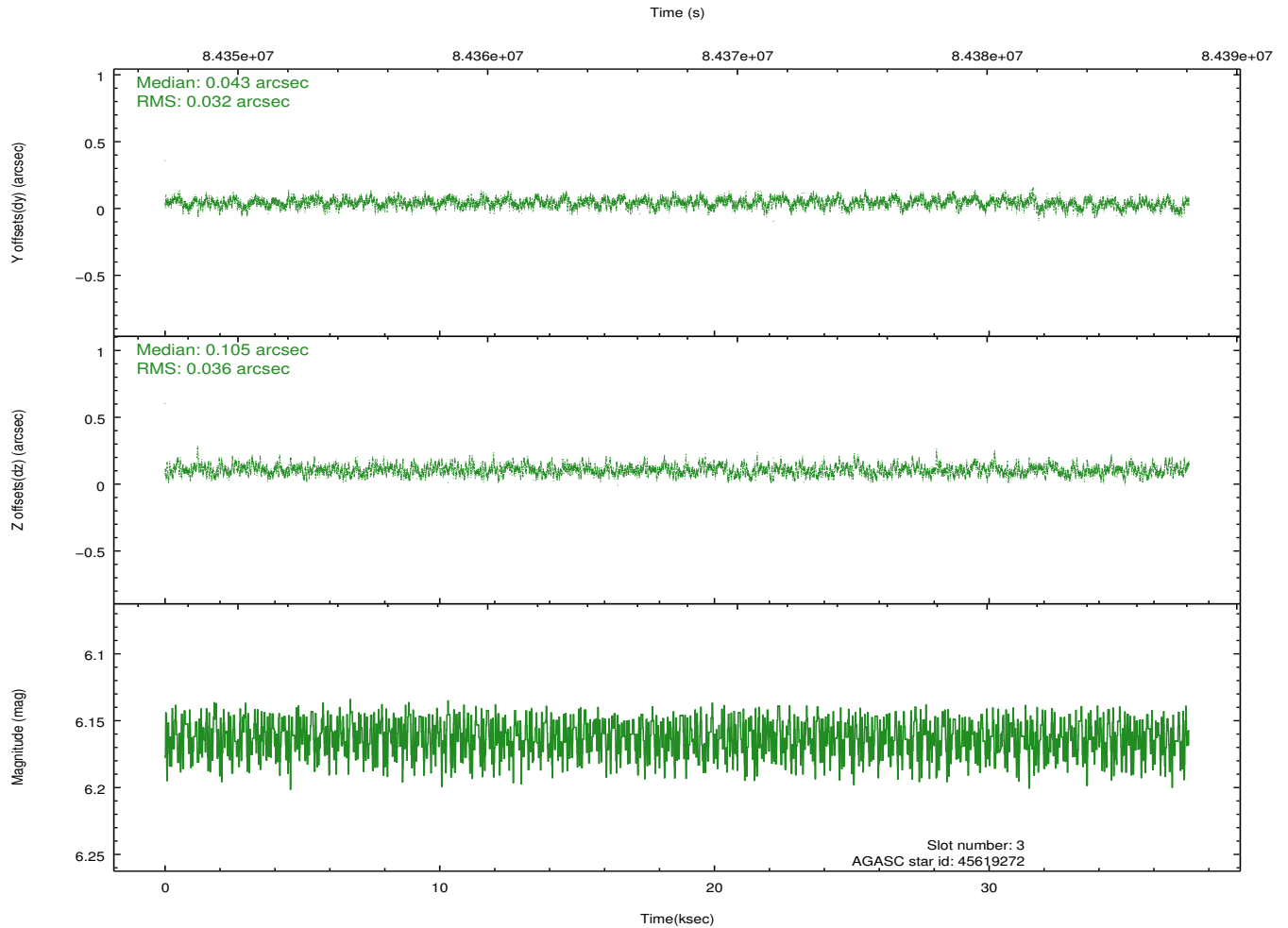
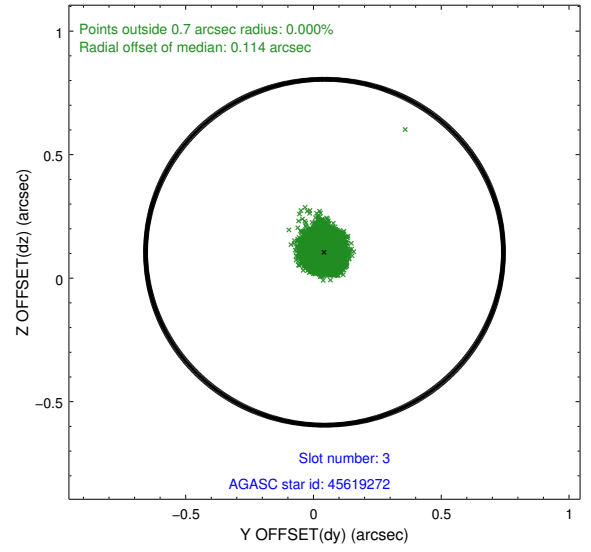
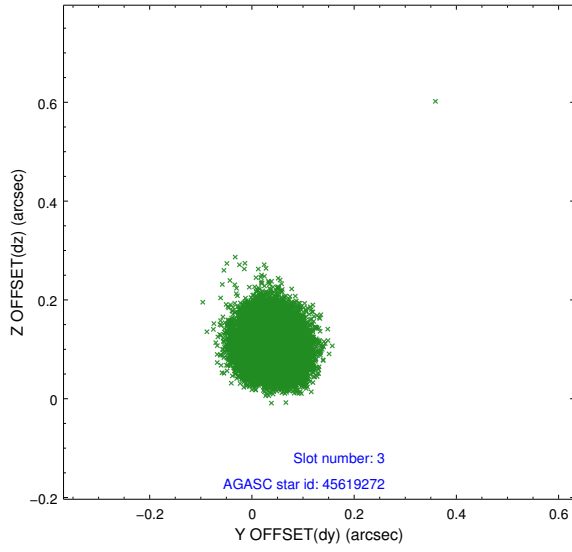


### Slot Statistics

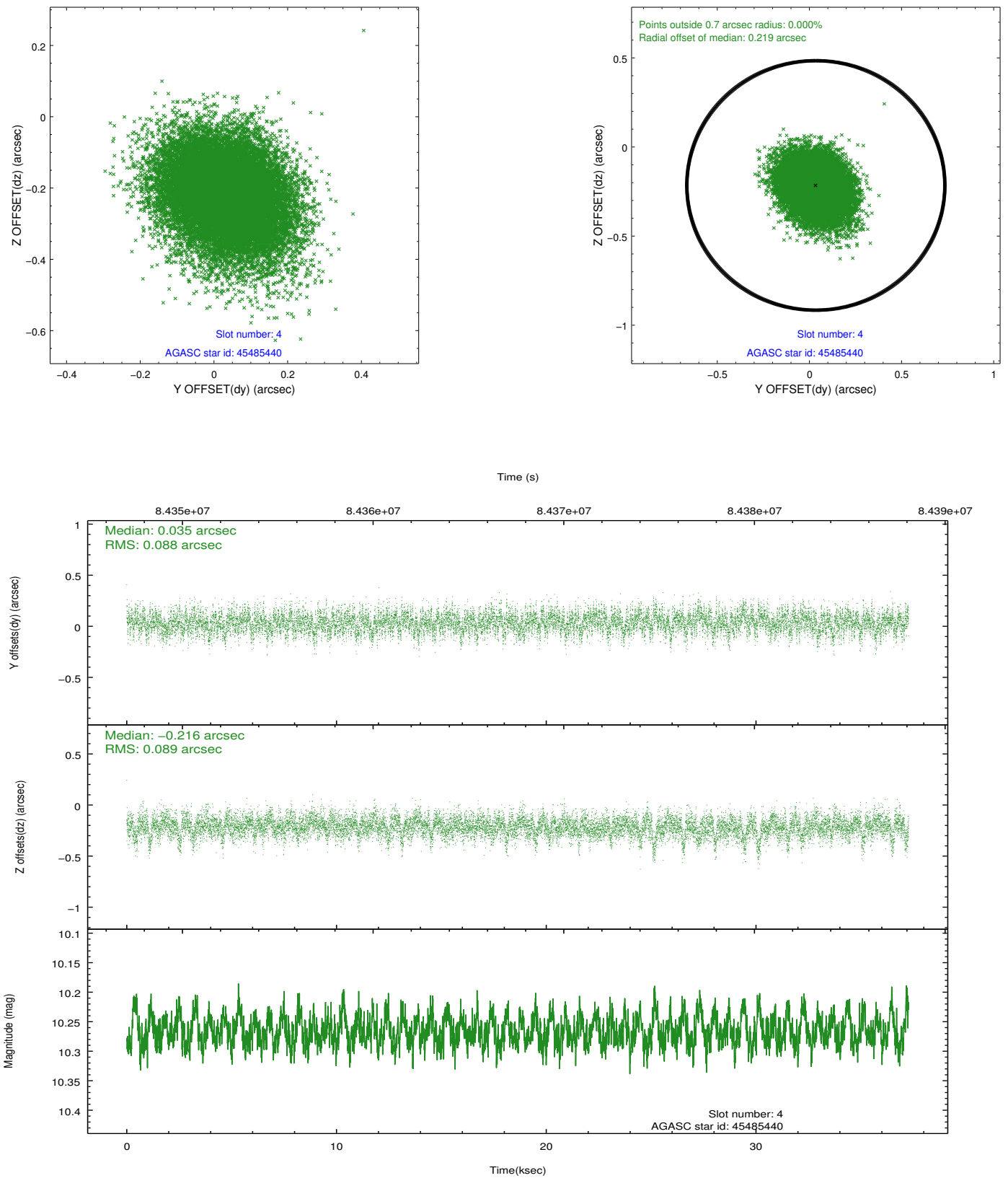
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	9091	-0.037	-0.044	0.007	0.033	0.000000	0.000000	-753.60	-1726.79
1	FID	ACIS-S-4	7.21	9086	0.003	0.011	0.008	0.024	0.000000	0.000000	2159.70	181.72
2	FID	ACIS-S-6	7.35	9088	0.005	0.040	0.008	0.014	0.000000	0.000000	408.46	819.17
3	GUIDE	45619272	6.16	18177	0.043	0.105	0.052	0.083	228.973190	6.464840	2114.85	-521.10
4	GUIDE	45485440	10.27	18162	0.035	-0.216	0.132	0.220	228.571035	6.780820	1106.70	-2052.99
5	GUIDE	120599960	10.20	18132	-0.161	0.229	0.135	0.217	229.604732	7.524393	-1883.44	1391.30
6	GUIDE	120598184	10.15	18162	-0.034	-0.029	0.129	0.213	228.939530	7.597810	-1937.89	-996.83
7	GUIDE	45617816	10.08	18167	0.119	-0.092	0.125	0.206	228.997066	7.166043	-407.34	-656.73

## 2.4 Star Slots

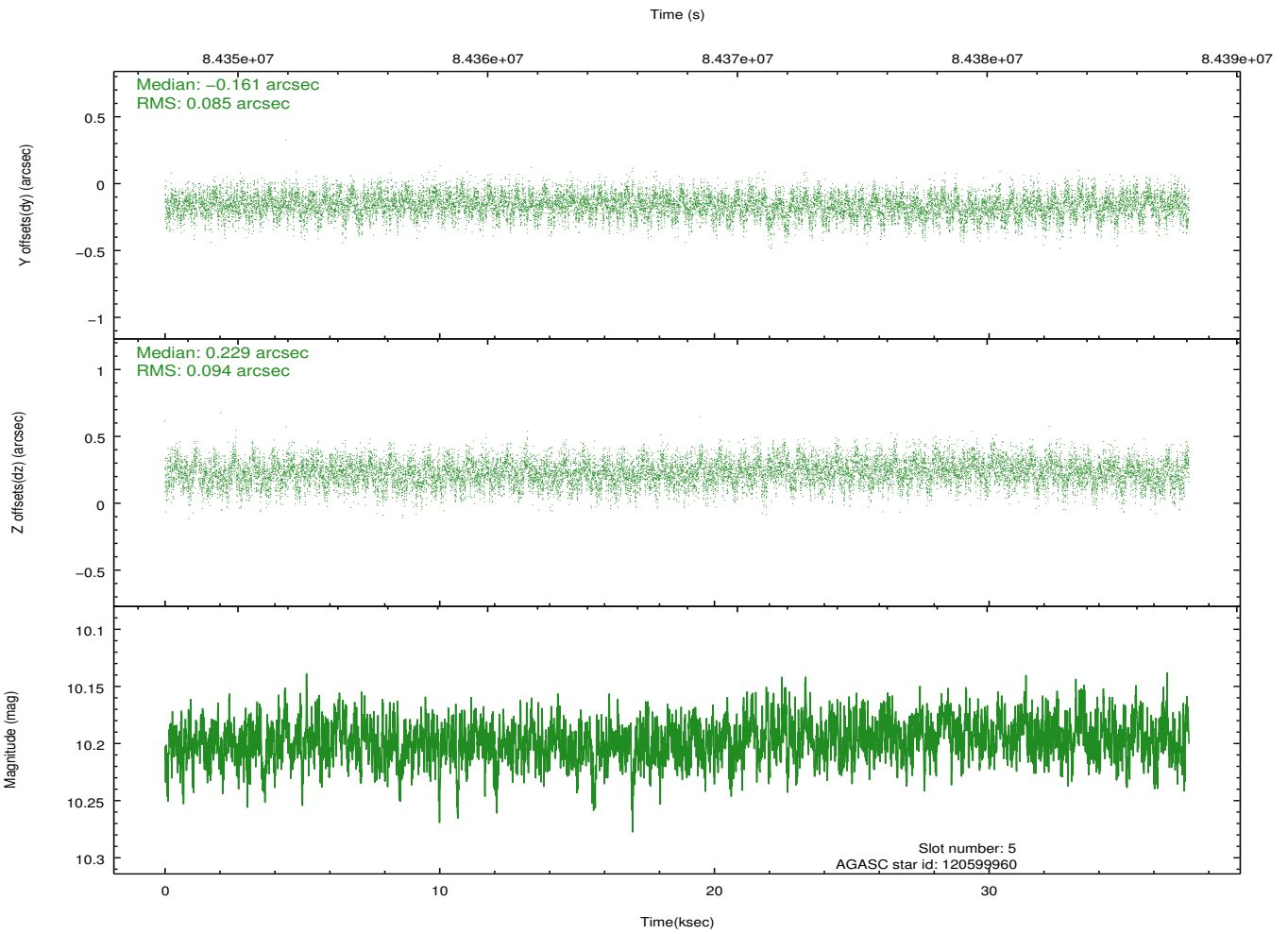
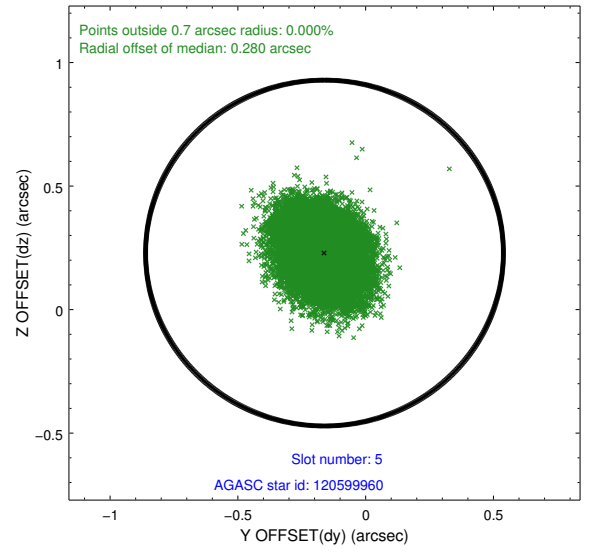
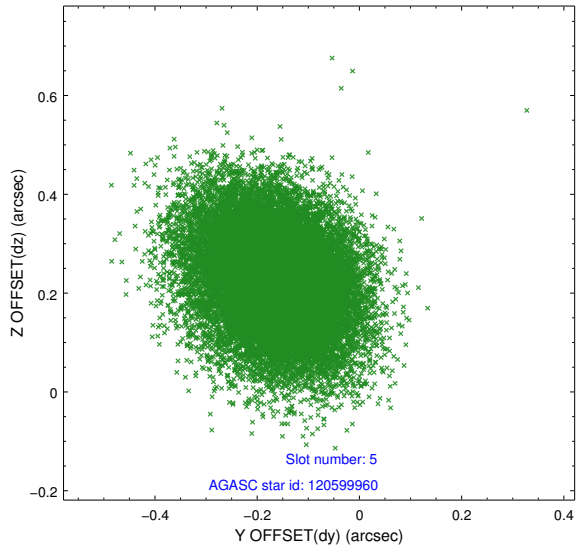
### 2.4.1 Slot 3



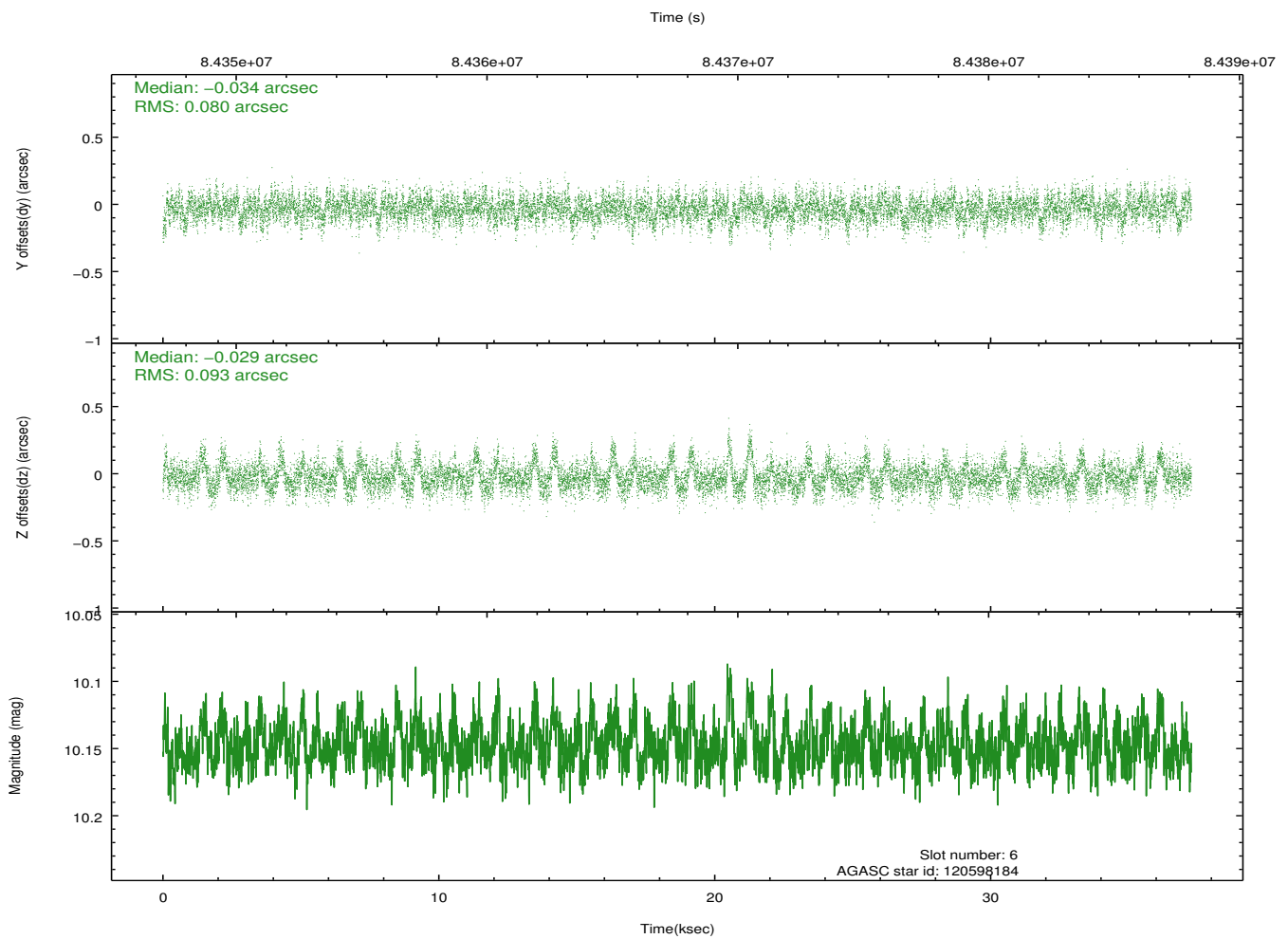
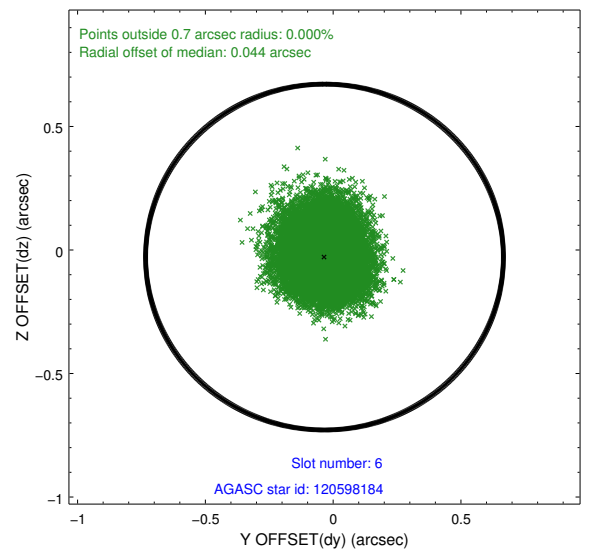
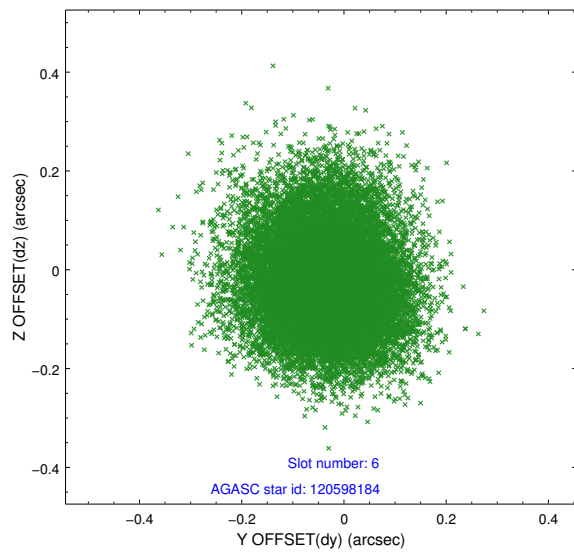
## 2.4.2 Slot 4



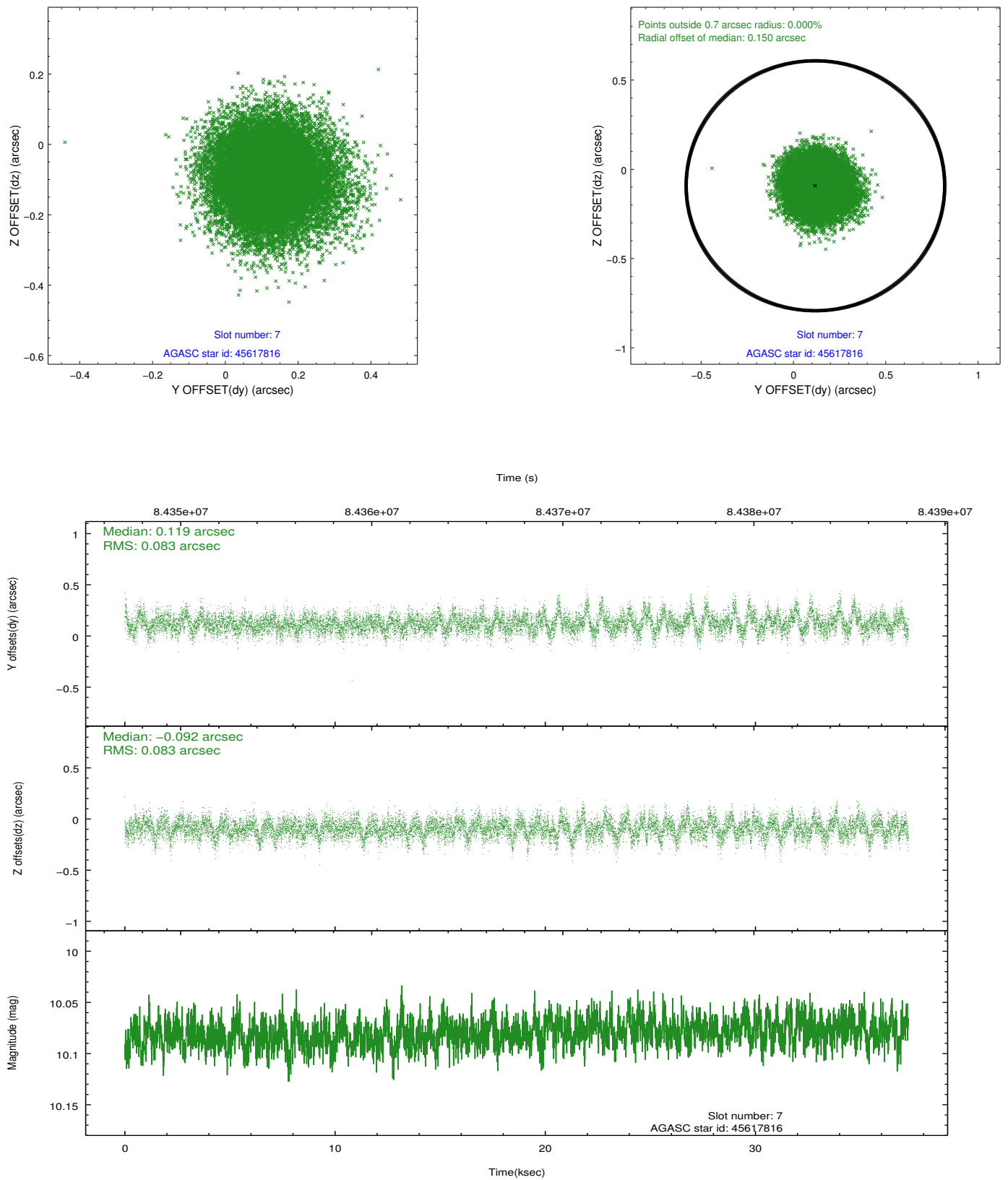
### 2.4.3 Slot 5



## 2.4.4 Slot 6

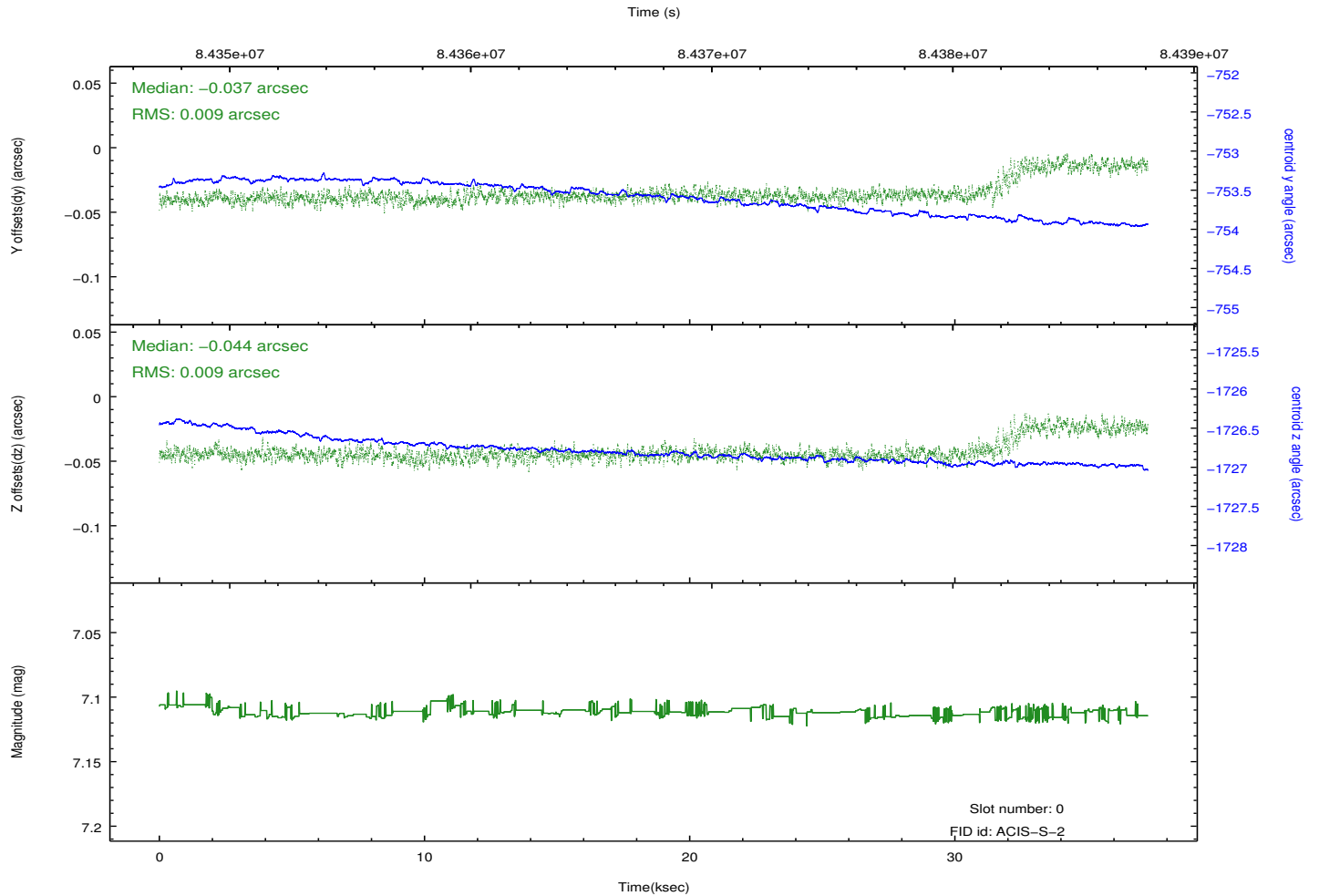
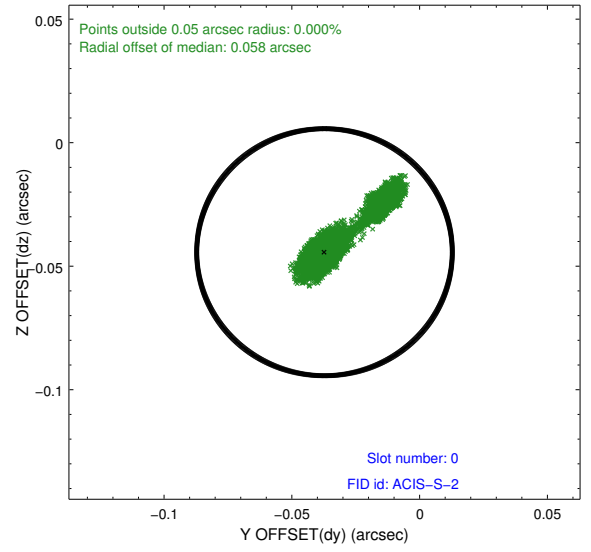
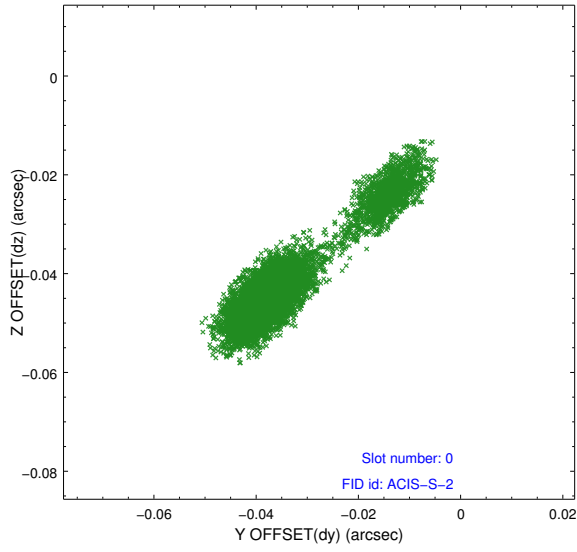


## 2.4.5 Slot 7

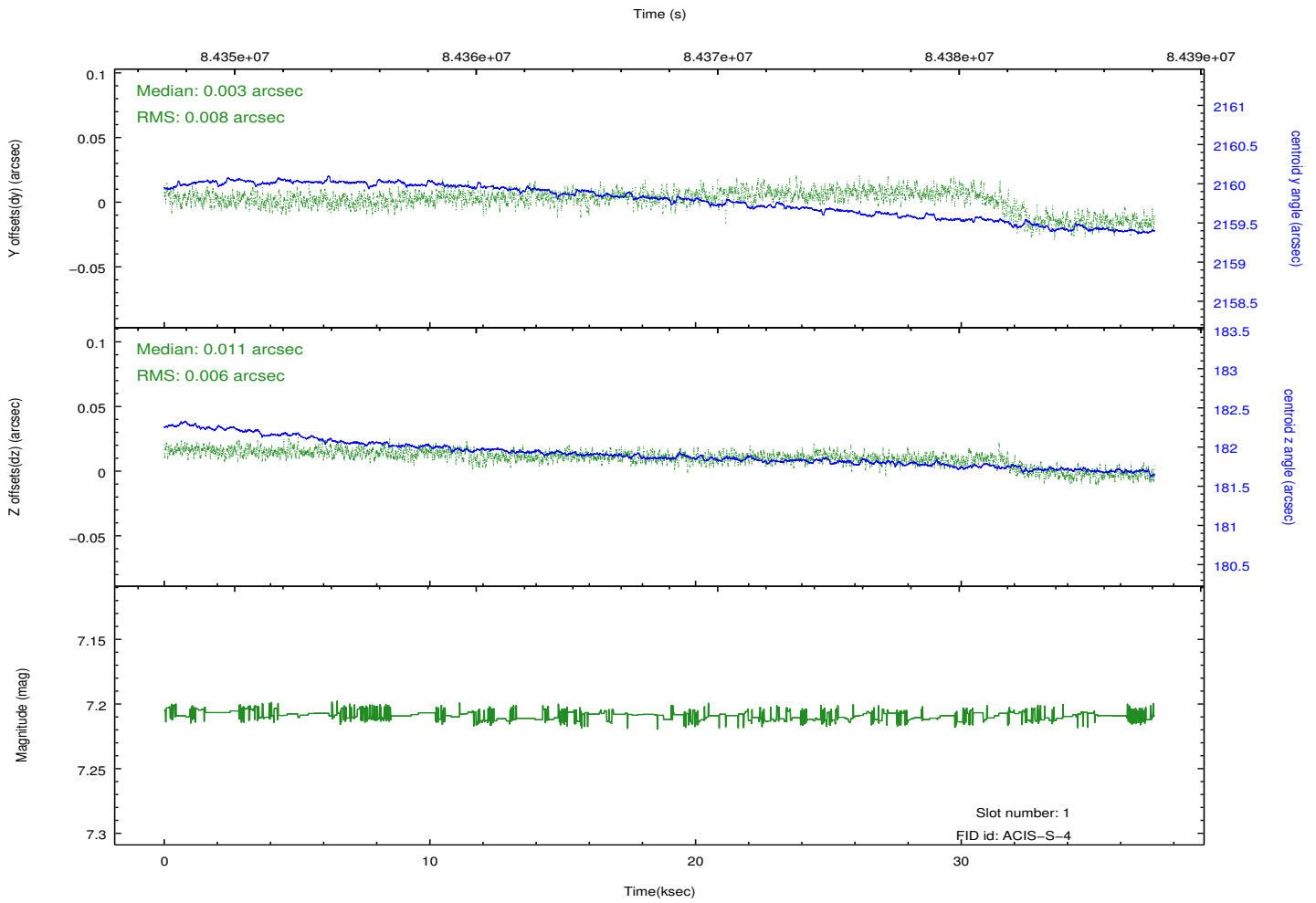
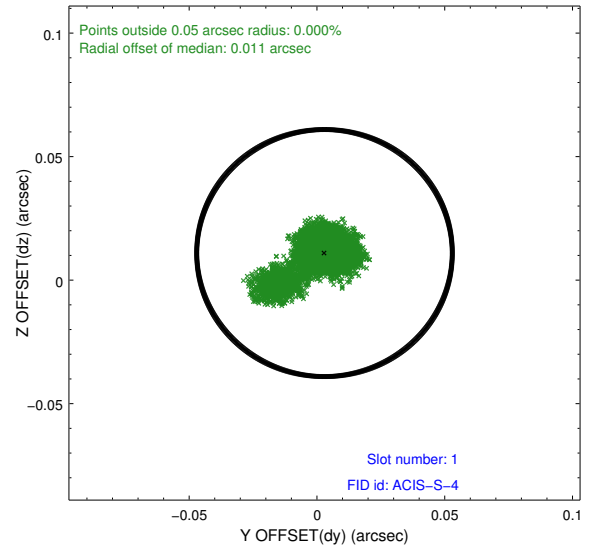
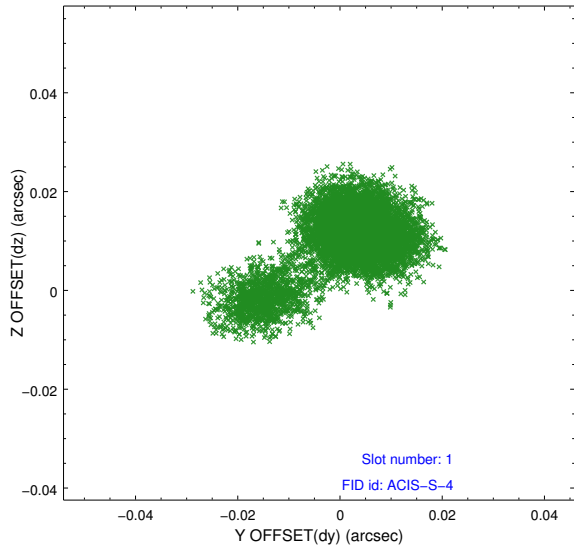


## 2.5 FID Slots

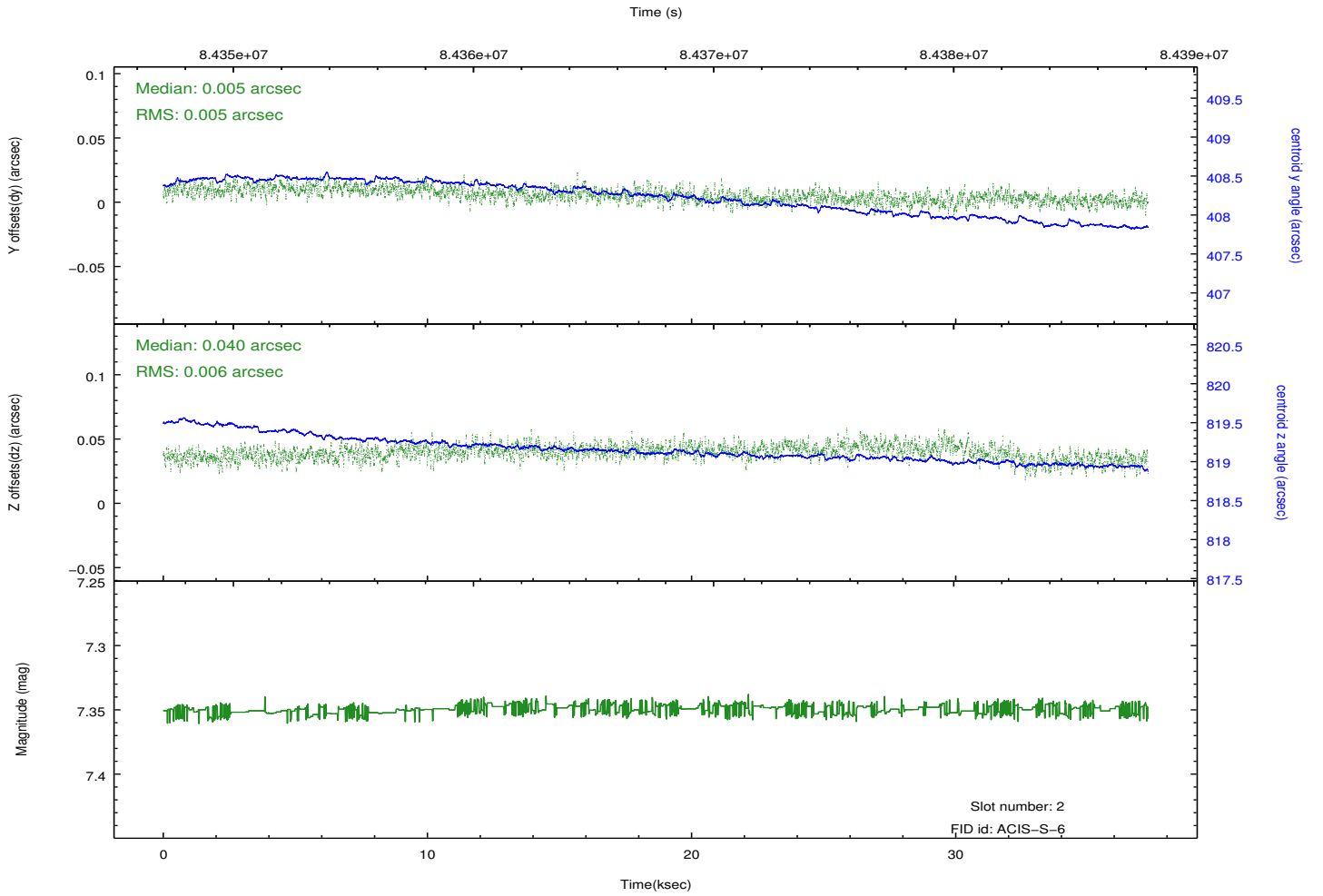
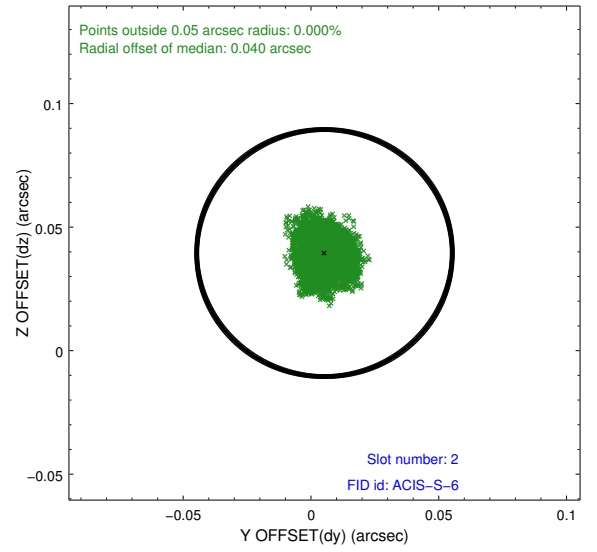
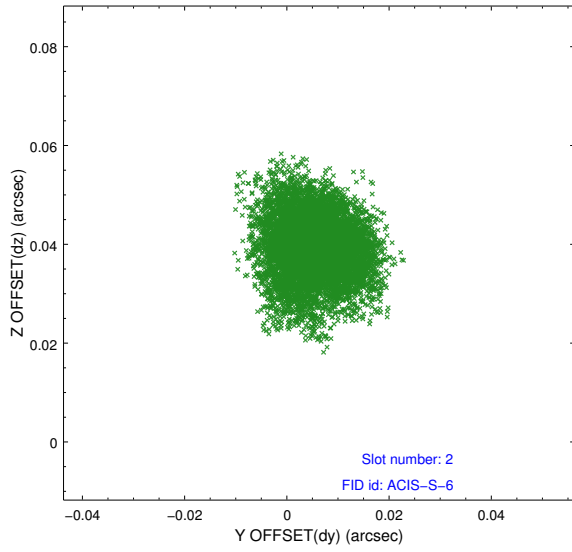
### 2.5.1 Slot 0



## 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)	2012.09.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.225

## A.2 Comments