

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12300 - L2 Version 3  
Chandra X-Ray Center

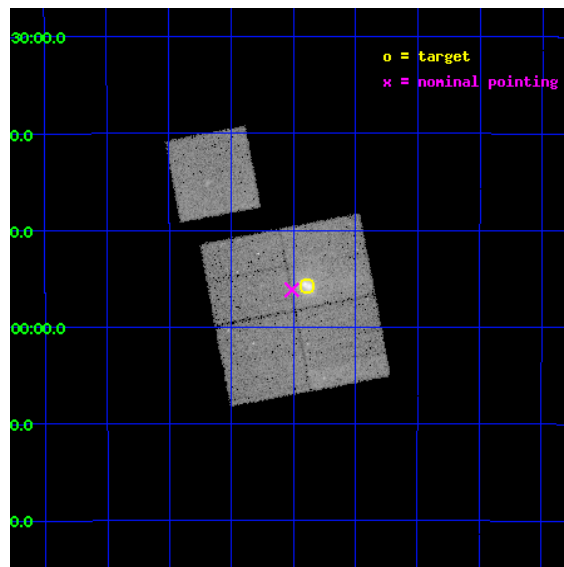
L2 Processing Date : Jul 9 2012

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# 1 Front

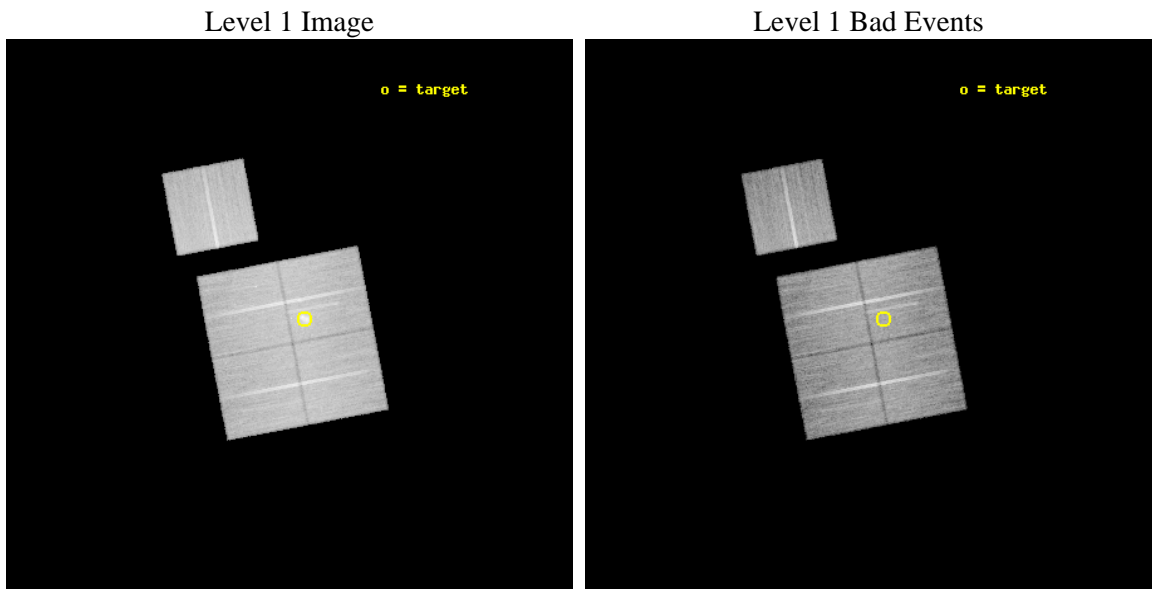
seq_num	801006	Sequence number
obs_id	12300	Observation id
title	An in-depth study of dark matter in the massive cluster merger MACSJ0358.8-2955	Proposal title
observer	Dr. Harald Ebeling	Principal investigator
object	MACSJ0358.8-2955	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	59.722083	Observer's specified target RA [deg]
dec_targ	-29.929167	Observer's specified target Dec [deg]
ra_nom	59.753074097526	Nominal RA [deg]
dec_nom	-29.936153191896	Nominal Dec [deg]
roll_nom	349.22414675241	Nominal Roll [deg]
revision	3	Processing version of data
ontime	30048.218220651	Sum of GTIs [s]
livetime	29655.616128422	Livetime [s]
ontime0	30051.359230816	Sum of GTIs [s]
ontime1	30054.500231147	Sum of GTIs [s]
ontime2	30054.500231147	Sum of GTIs [s]
ontime3	30048.218220651	Sum of GTIs [s]
ontime6	30045.077210307	Sum of GTIs [s]
l2events	115359	Number of level 2 events



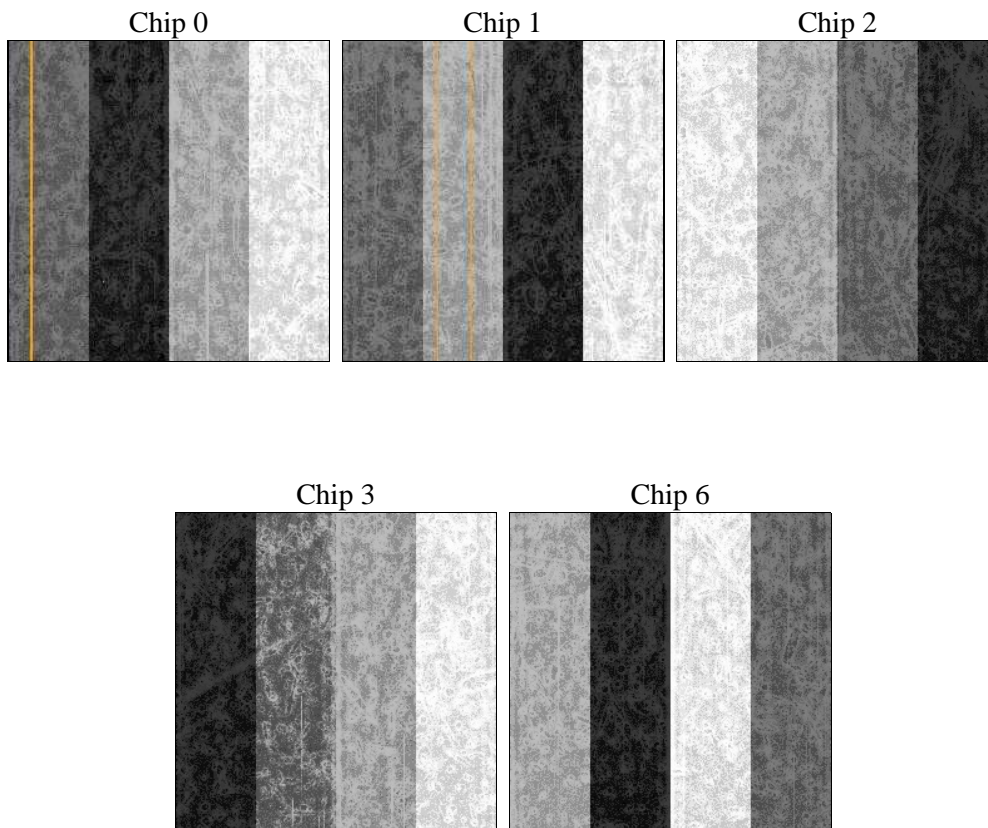
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	30048.218220651	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime0	30051.359230816	Sum of GTIs [s]
date	2012-07-09T14:05:21	Date and time of file creation	ontime1	30054.500231147	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	30054.500231147	Sum of GTIs [s]
			ontime3	30048.218220651	Sum of GTIs [s]
			ontime6	30045.077210307	Sum of GTIs [s]
			l1events	1049874	Number of level 1 events

### 2.1.4 Events

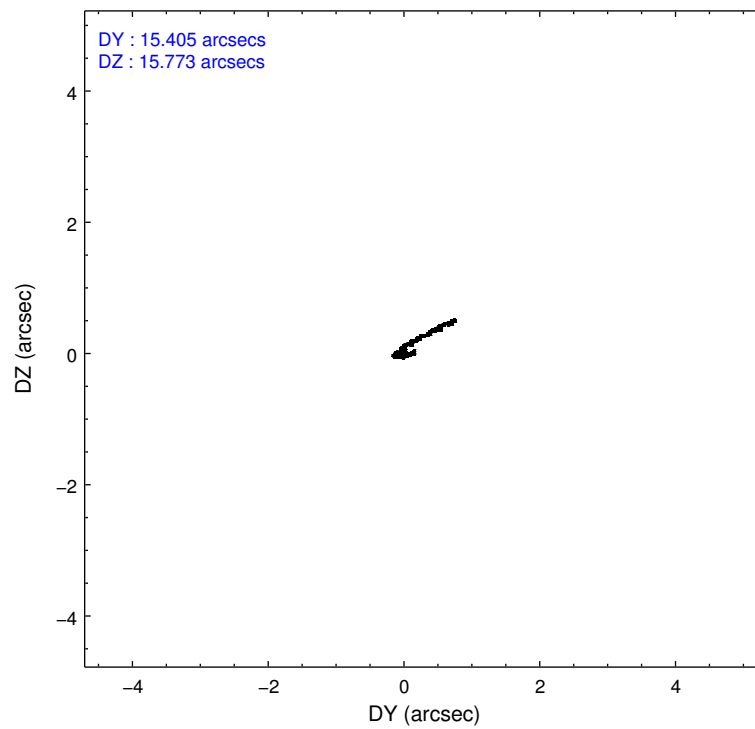
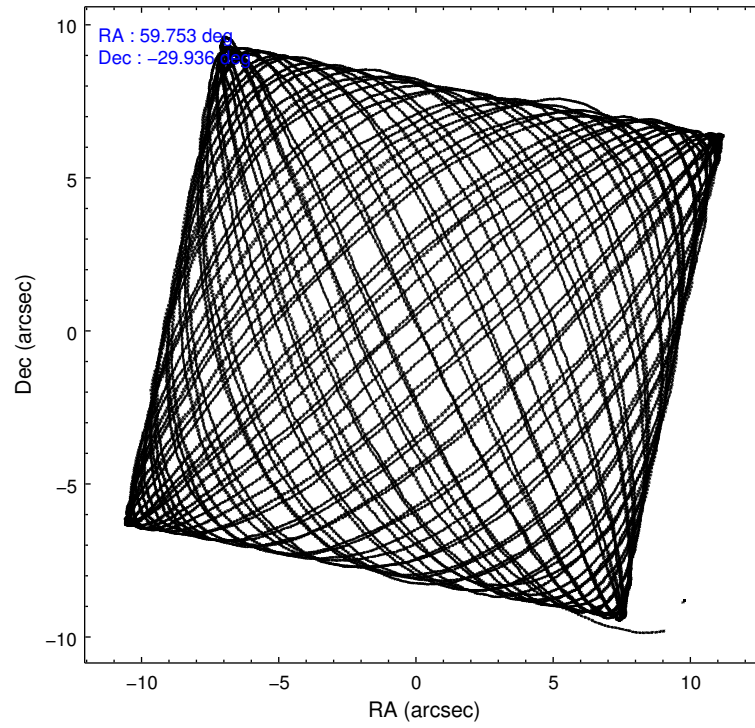
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	195197	202787	211283	225698	214909
rejected events	171295	176286	187771	188466	191072
rejected %	87%	86%	88%	83%	88%

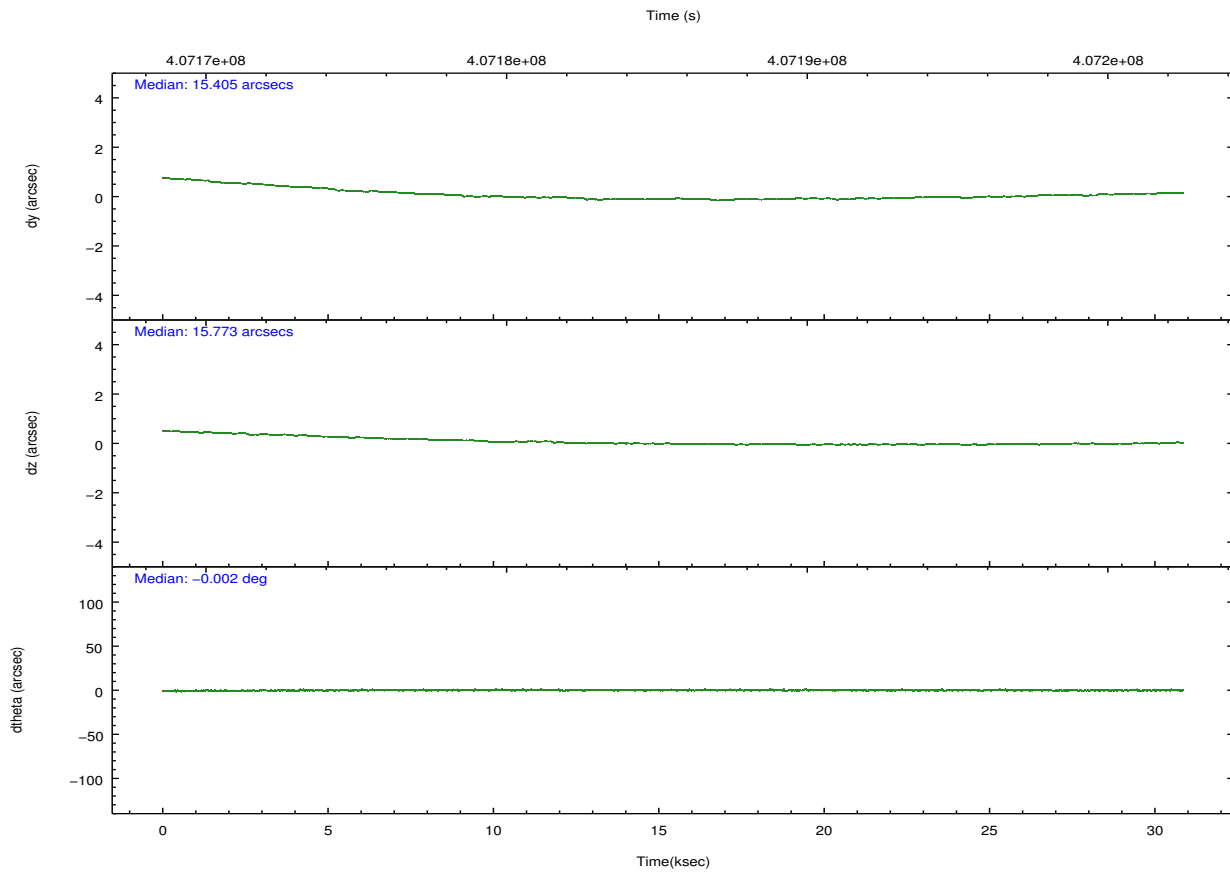
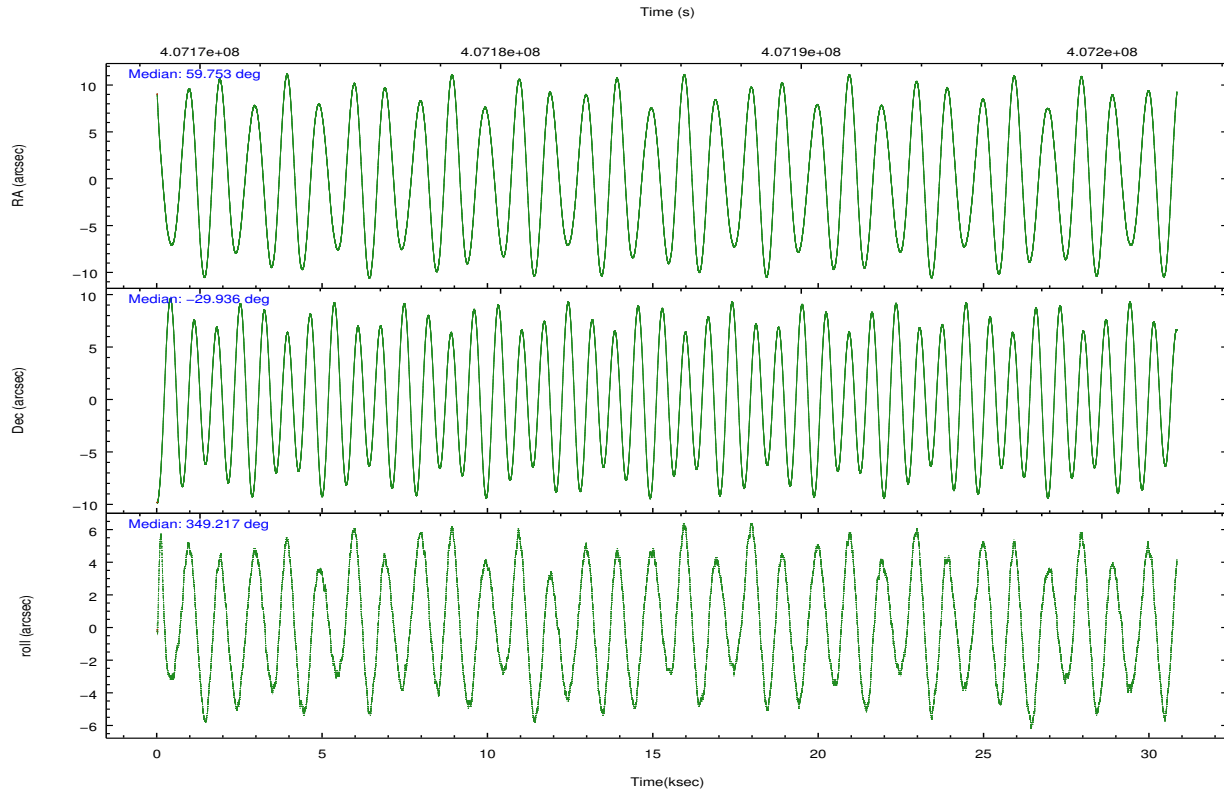
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	8413	9553	8594	19762	8136
	4%	4%	4%	8%	3%
grade 1 events	125	119	136	189	113
	0%	0%	0%	0%	0%
grade 2 events	5817	6174	5658	6745	5282
	2%	3%	2%	2%	2%
grade 3 events	2527	2705	2482	2911	2610
	1%	1%	1%	1%	1%
grade 4 events	2371	2642	2390	2879	2435
	1%	1%	1%	1%	1%
grade 5 events	9077	9438	8571	9975	9626
	4%	4%	4%	4%	4%
grade 6 events	4777	5432	4389	4941	5375
	2%	2%	2%	2%	2%
grade 7 events	162090	166724	179063	178296	181332
	83%	82%	84%	78%	84%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	59.723164	59.75307409752623	Subarray requested	NONE	NONE
[deg] Pointing Dec	-29.945302	-29.93615319189641	Alternating exposures requested	N	N
[deg] Pointing Roll	349.000534	349.224146752412	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-229.442463	-229.4438428438578			
[mm] SIM translation stage offset	-4.15	-4.148610159071865			
[s] Observation start time (MET)	407170958.184000	407169555.16484			
Observation start date	2010-11-26T15:01:32	2010-11-26T14:39:15			
[s] Observation end time (MET)	407200958.184000	407201532.09148			
Observation end date	2010-11-26T23:21:32	2010-11-26T23:32:12			
Read mode	TIMED	TIMED			

## 2.3 Aspect



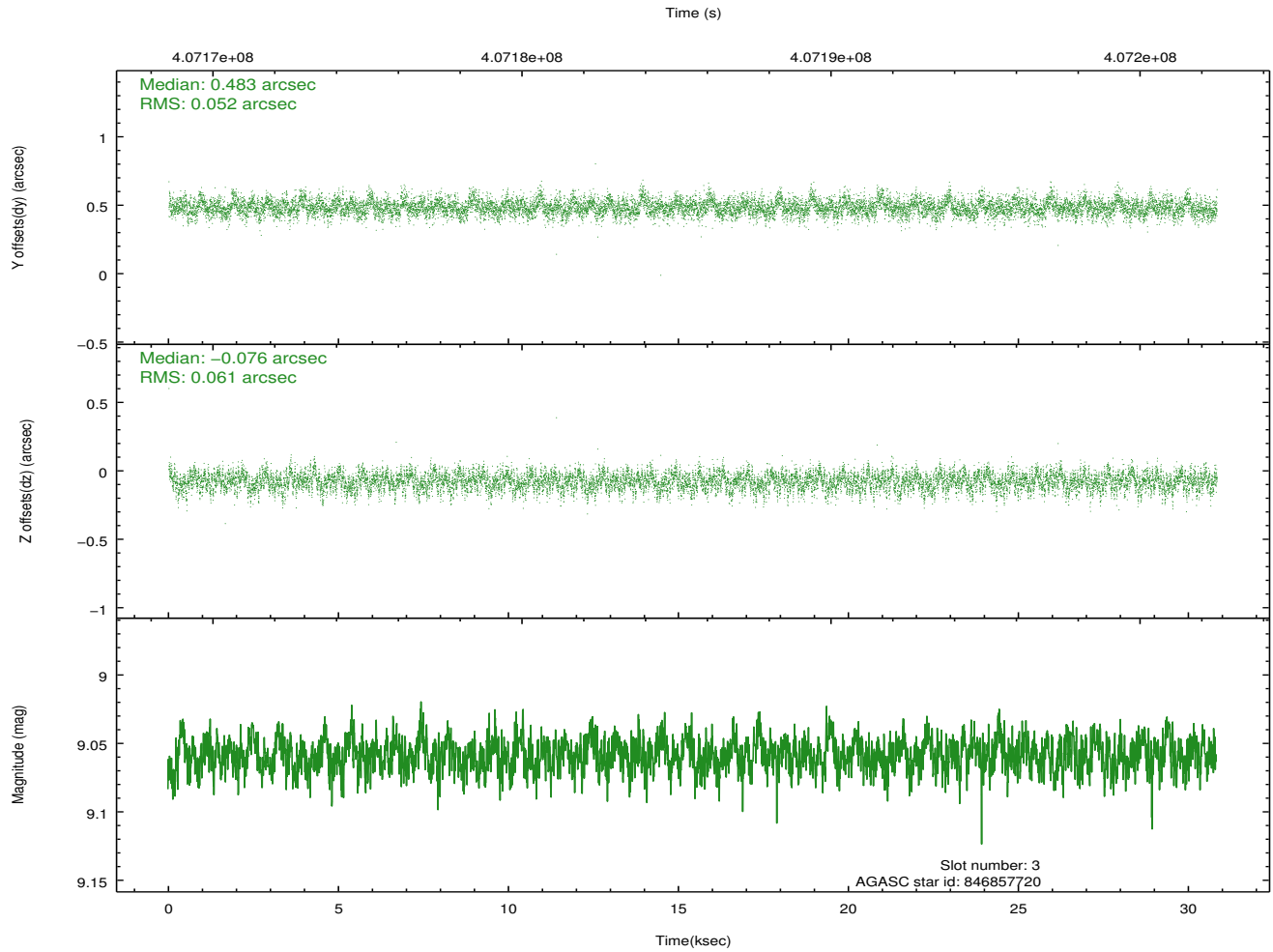
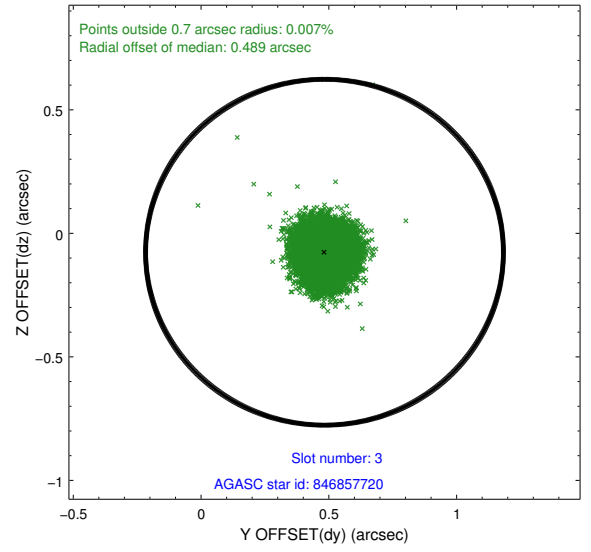
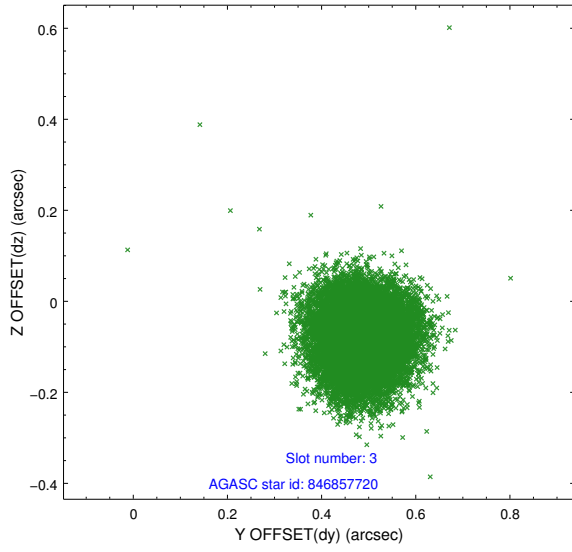


### Slot Statistics

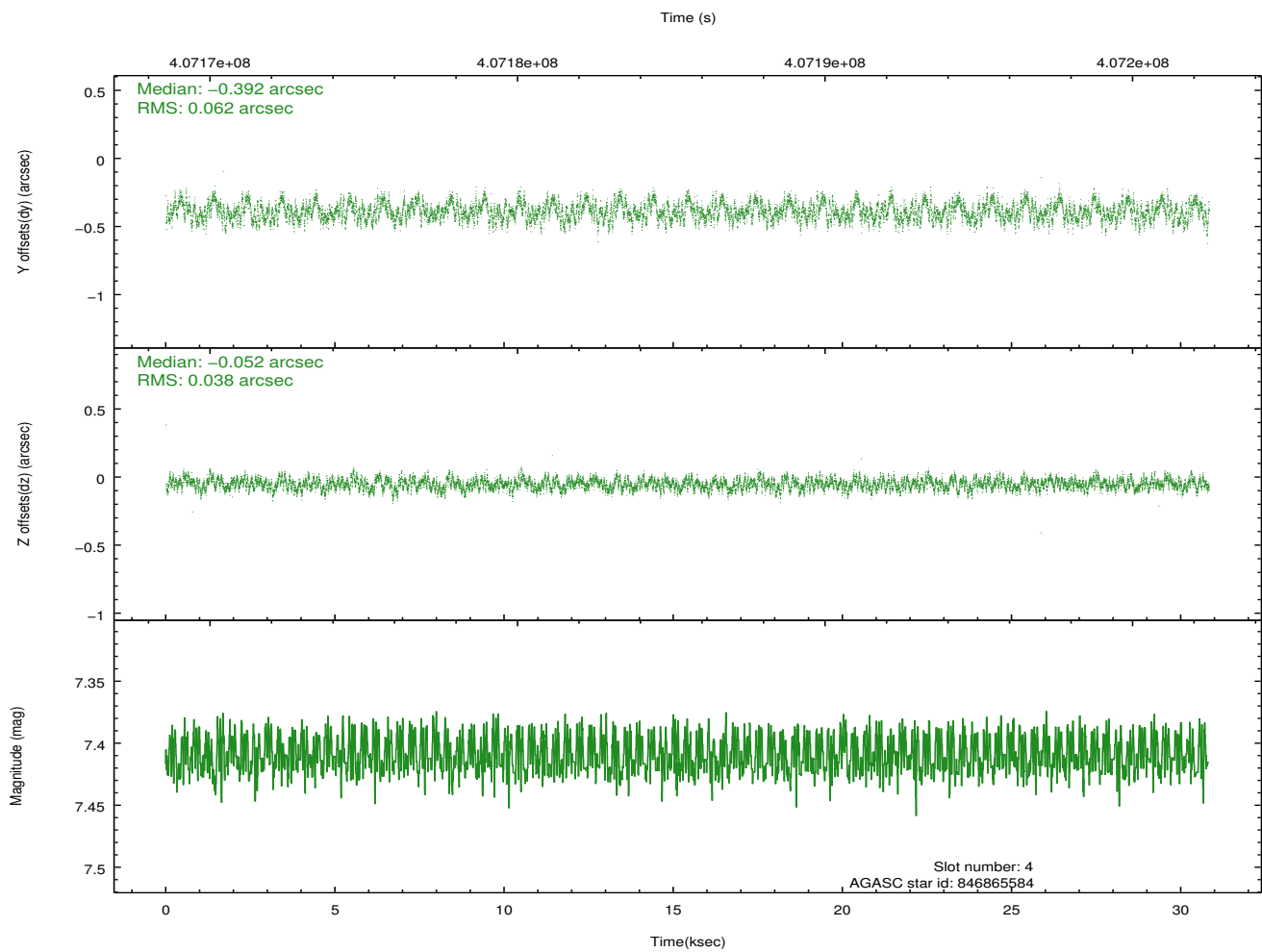
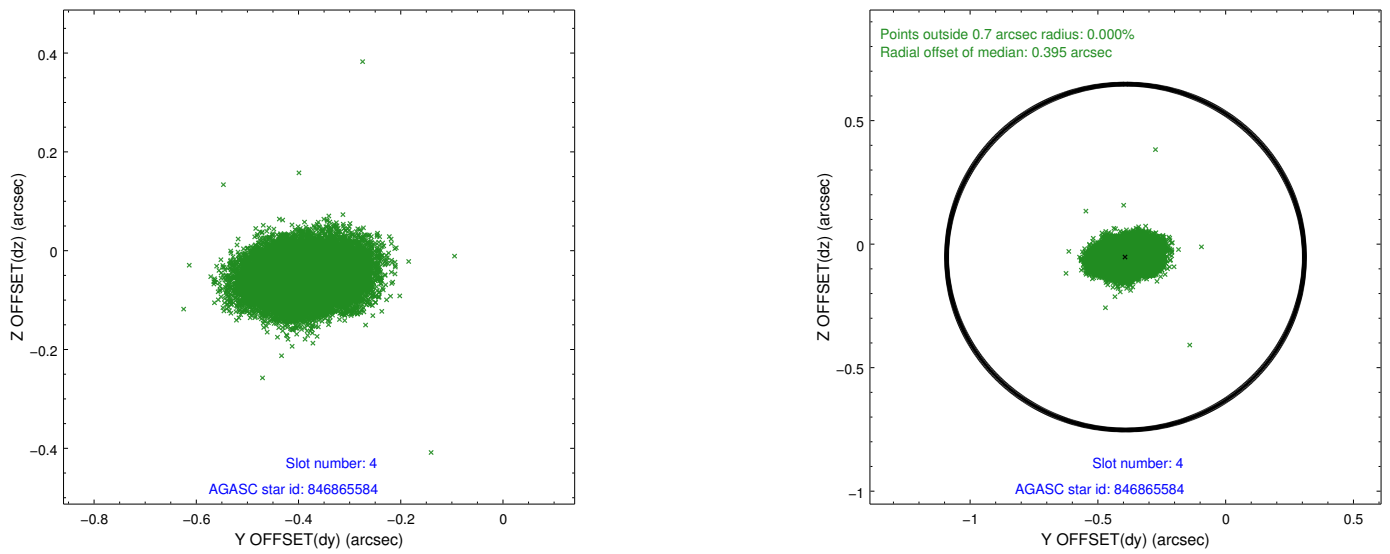
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.04	7520	0.128	-0.072	0.007	0.011	0.000000	0.000000	924.00	-924.67
1	FID	ACIS-I-5	7.03	7520	-0.270	0.113	0.007	0.011	0.000000	0.000000	-1824.46	972.97
2	FID	ACIS-I-6	7.03	7521	0.051	0.030	0.008	0.013	0.000000	0.000000	389.41	1617.46
3	GUIDE	846857720	9.06	15031	0.483	-0.076	0.085	0.137	59.409213	-29.868084	-1013.85	84.79
4	GUIDE	846865584	7.41	15040	-0.392	-0.052	0.078	0.123	59.046247	-29.660497	-2272.95	596.12
5	GUIDE	921448776	6.44	15041	0.212	-0.012	0.068	0.120	60.169401	-30.490701	1734.88	-1665.28
6	GUIDE	921308360	9.43	15024	-0.312	0.140	0.095	0.158	58.897739	-30.169794	-2365.35	-1292.46
7	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

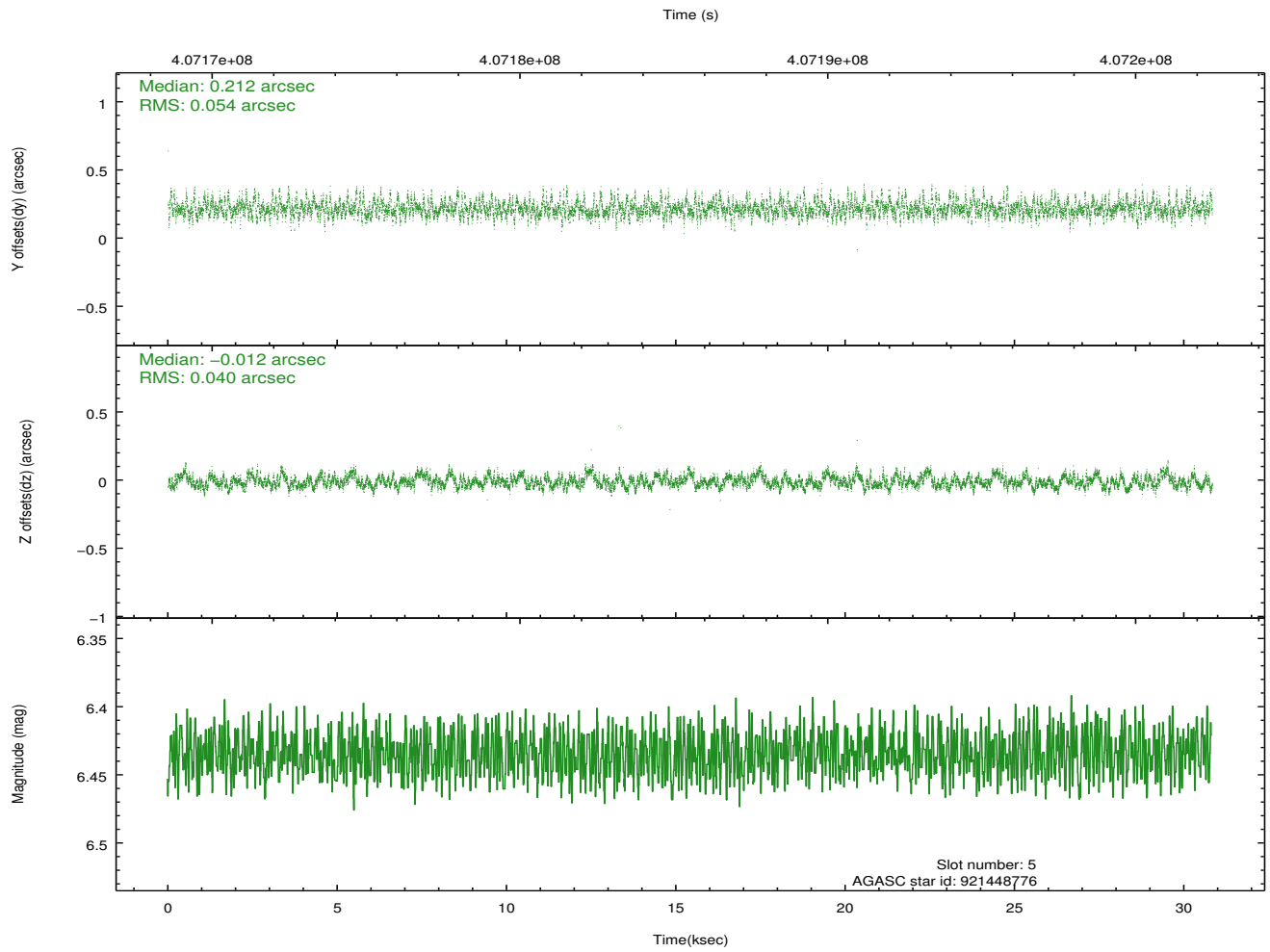
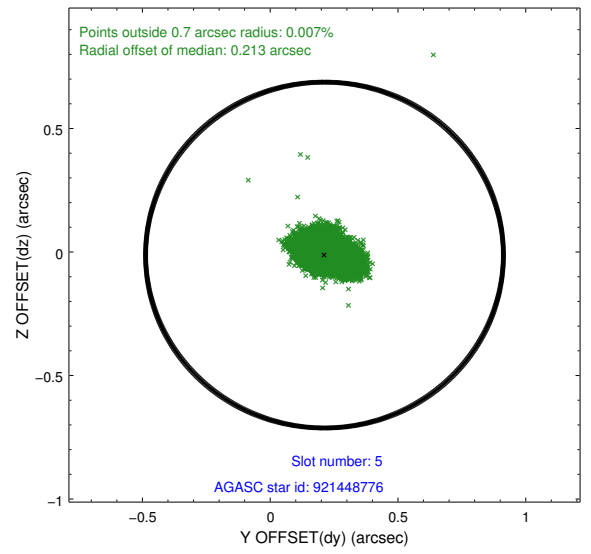
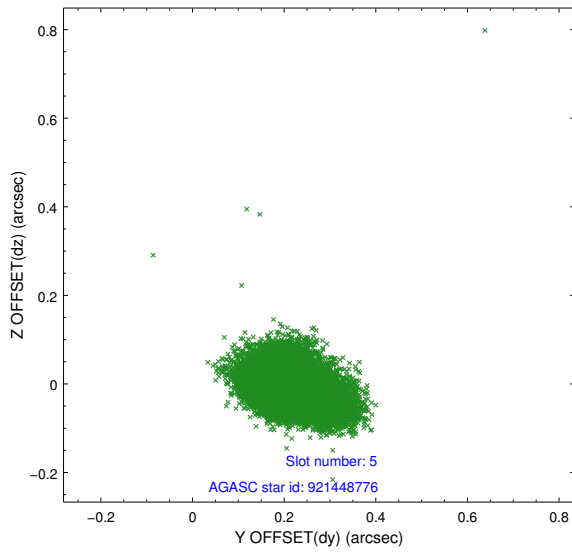
### 2.4.1 Slot 3



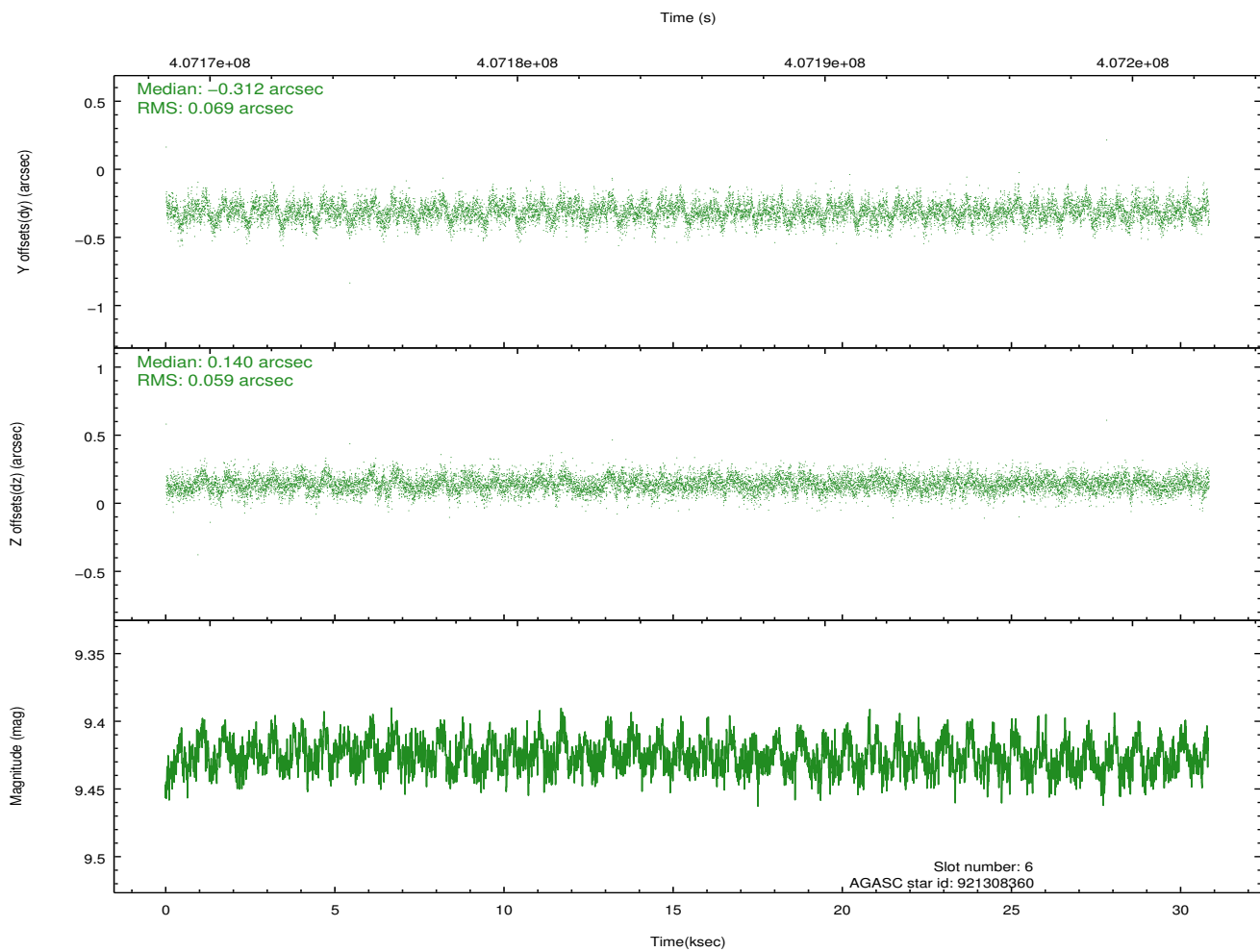
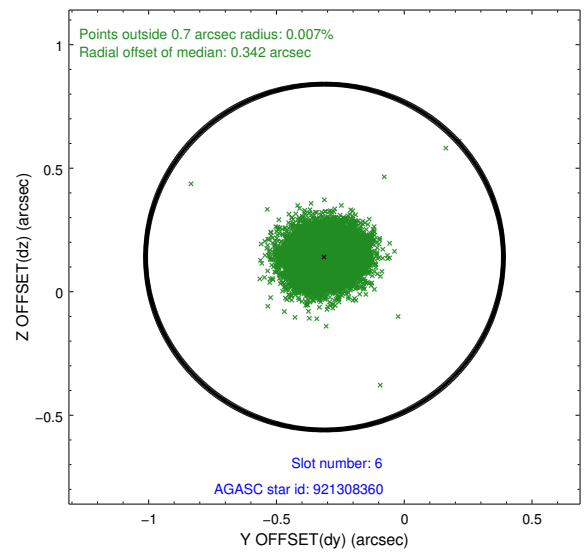
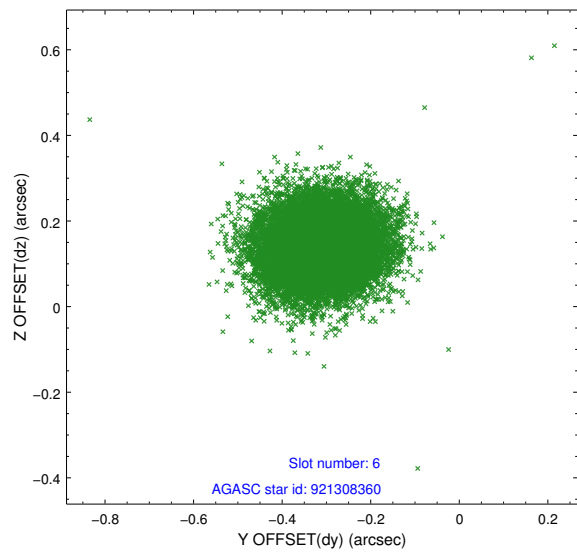
## 2.4.2 Slot 4



### 2.4.3 Slot 5

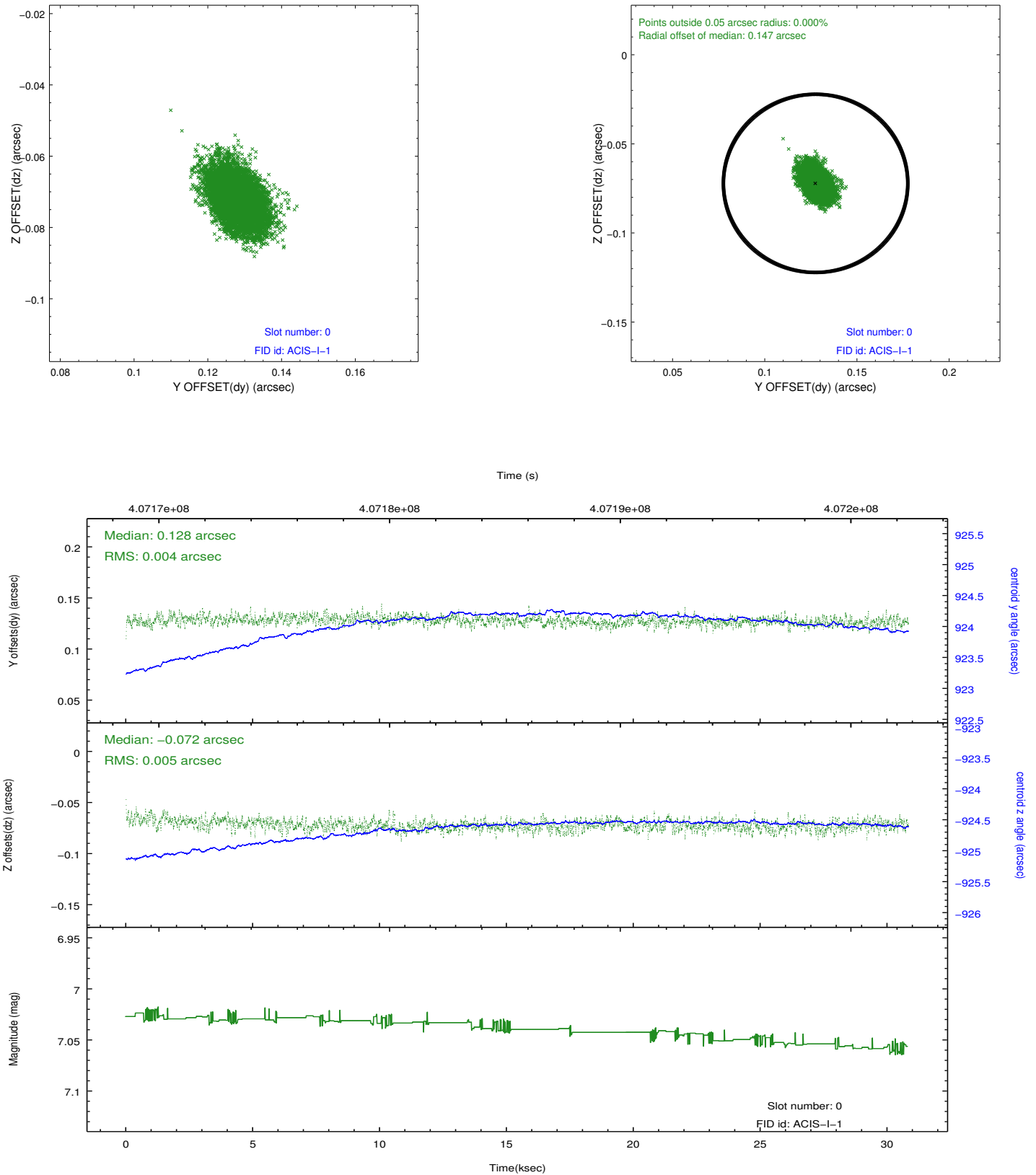


## 2.4.4 Slot 6

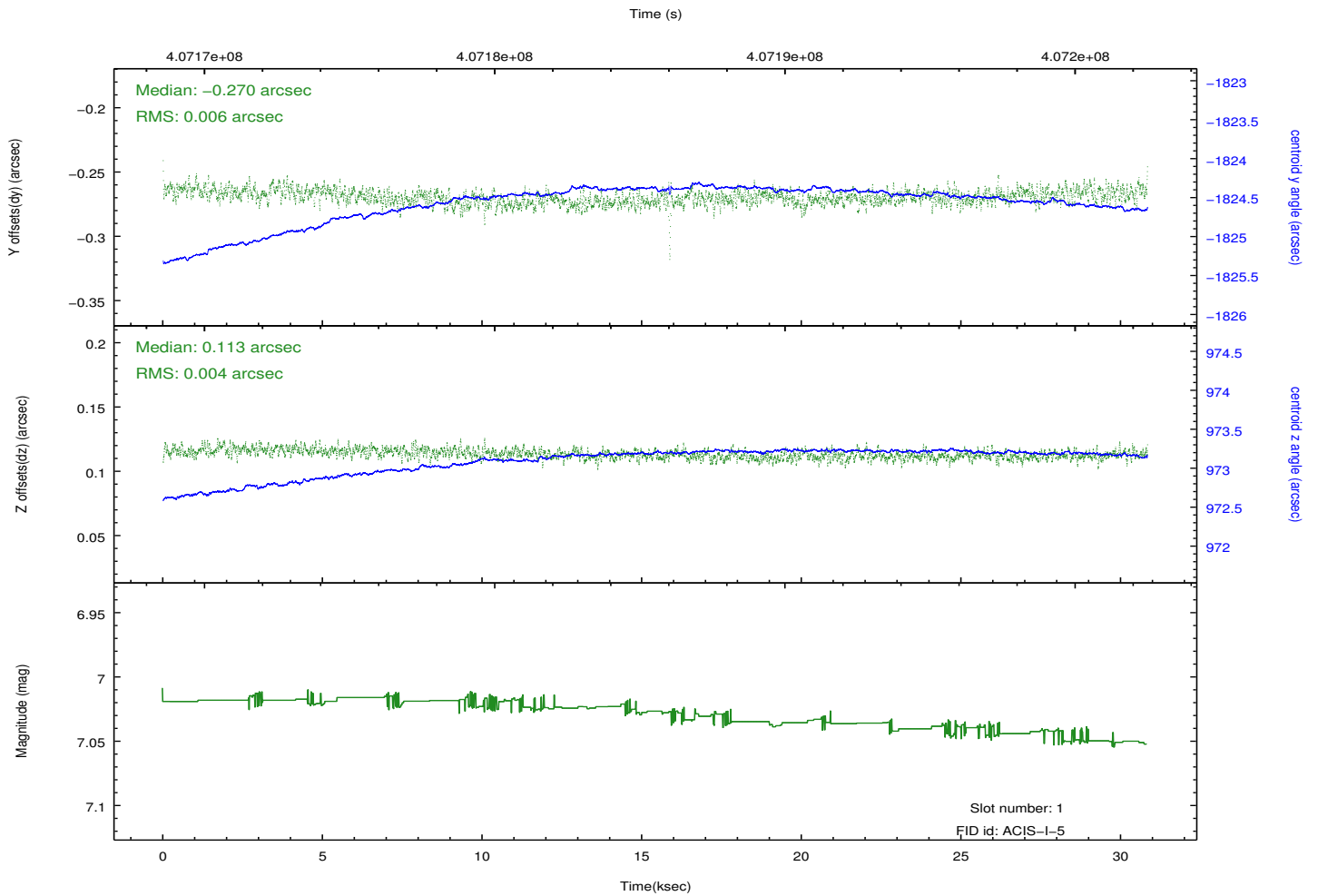
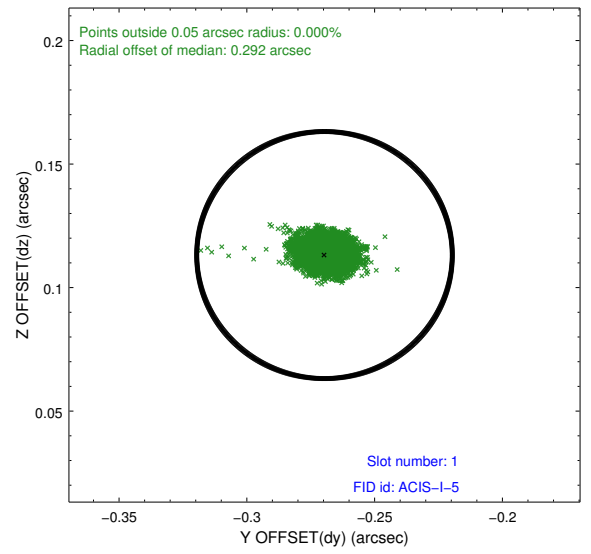
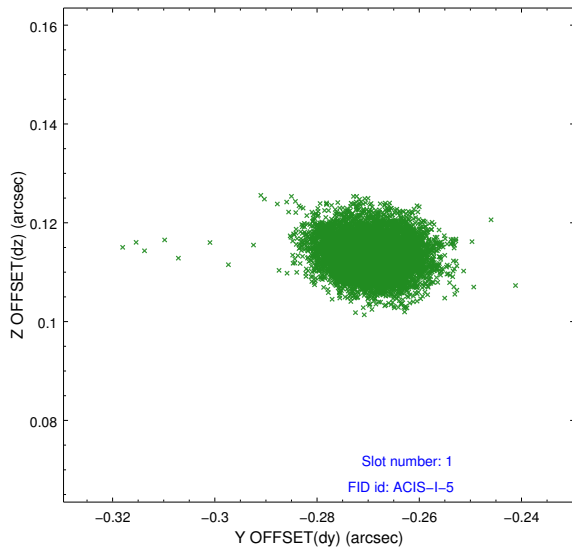


## 2.5 FID Slots

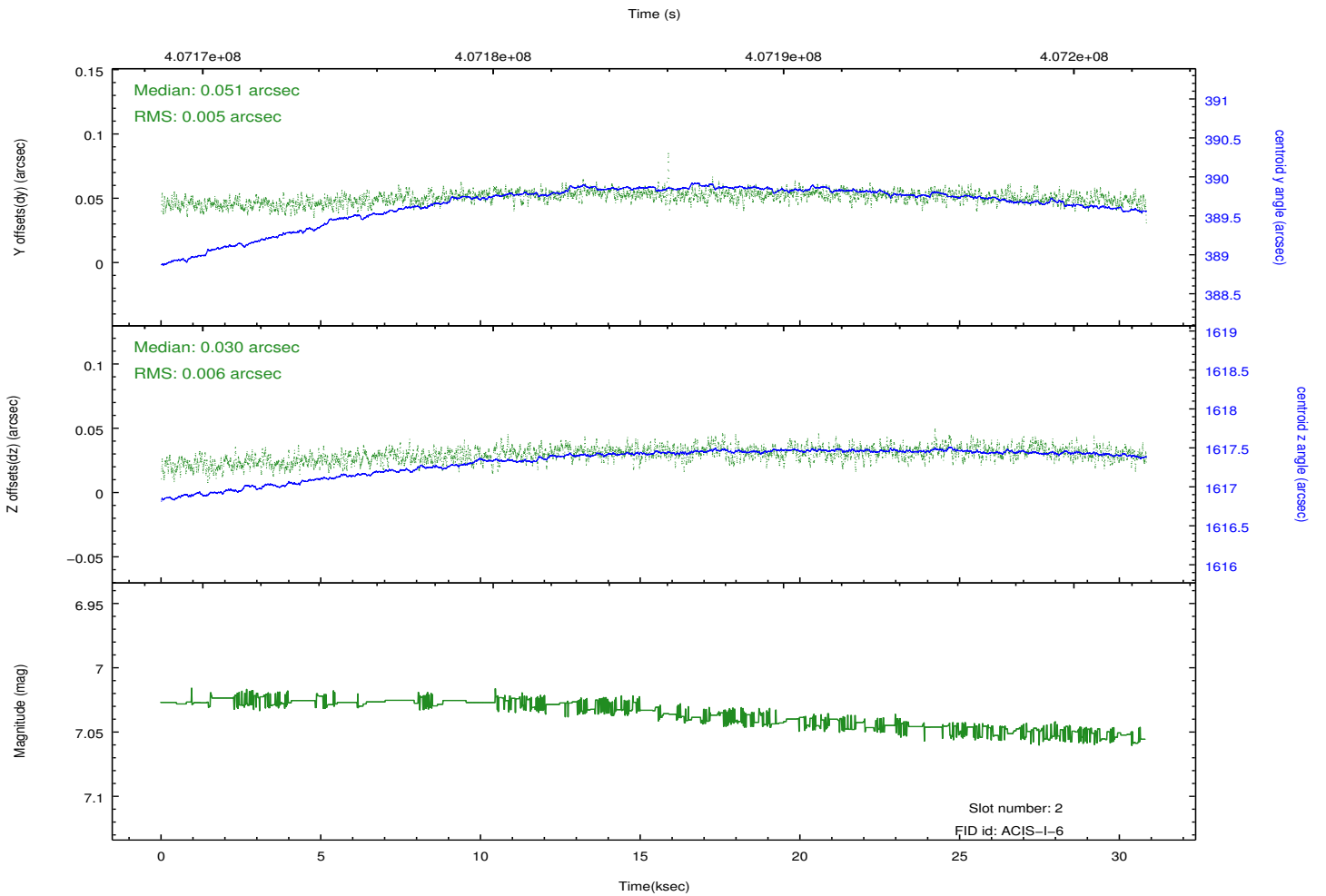
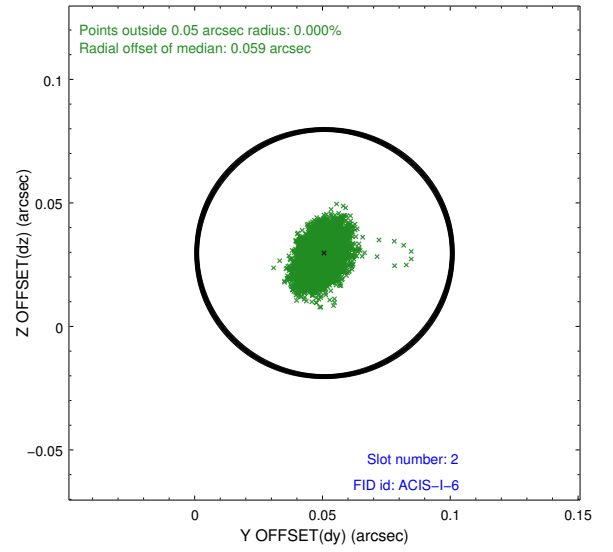
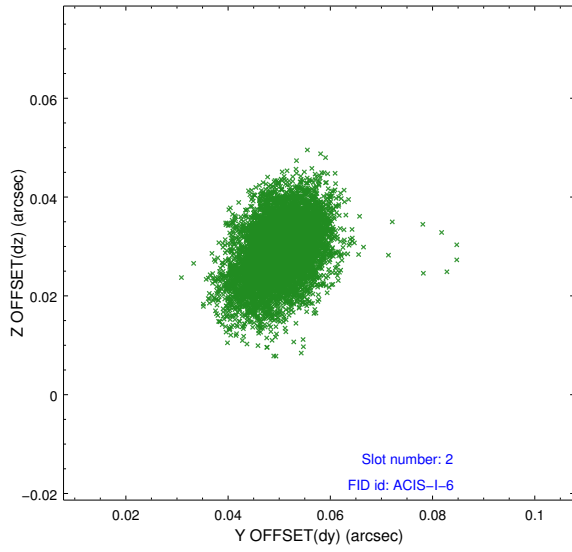
### 2.5.1 Slot 0



## 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)	2012.07.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.048218220592

## A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.