

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 15986 - L2 Version 1  
Chandra X-Ray Center

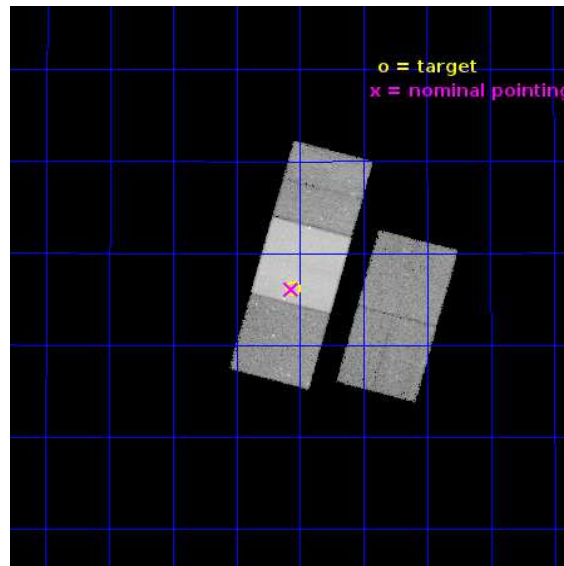
L2 Processing Date : Sep 22 2014

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# 1 Front

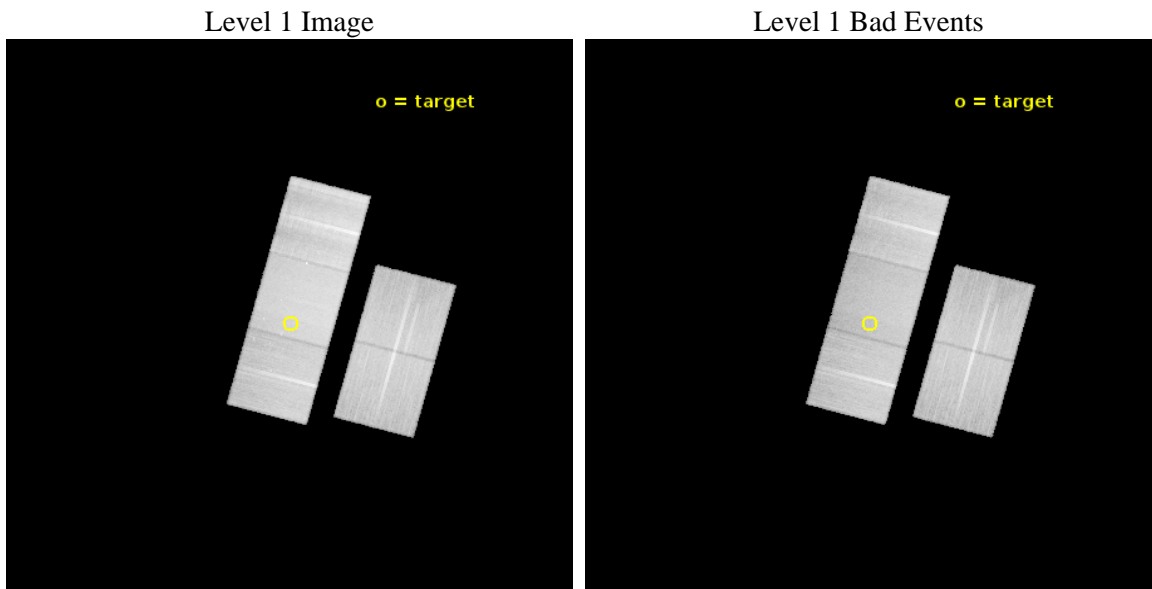
seq_num	502219	Sequence number
obs_id	15986	Observation id
title	The collimation and energetics of short gamma-ray bursts	Proposal
observer	Dr. Eleonora Troja	Principal investigator
object	GRB140903A	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	238.01363	Observer's specified target RA [deg]
dec_targ	27.6026	Observer's specified target Dec [deg]
ra_nom	238.01696423761	Nominal RA [deg]
dec_nom	27.60161902373	Nominal Dec [deg]
roll_nom	285.15509184066	Nominal Roll [deg]
revision	1	Processing version of data
ontime	60065.60046196	Sum of GTIs [s]
liveltime	59280.799172273	Livetime [s]
ontime2	60062.459471703	Sum of GTIs [s]
ontime3	60062.459491611	Sum of GTIs [s]
ontime6	60062.459491551	Sum of GTIs [s]
ontime7	60065.60046196	Sum of GTIs [s]
ontime8	60059.318481505	Sum of GTIs [s]
l2events	327525	Number of level 2 events



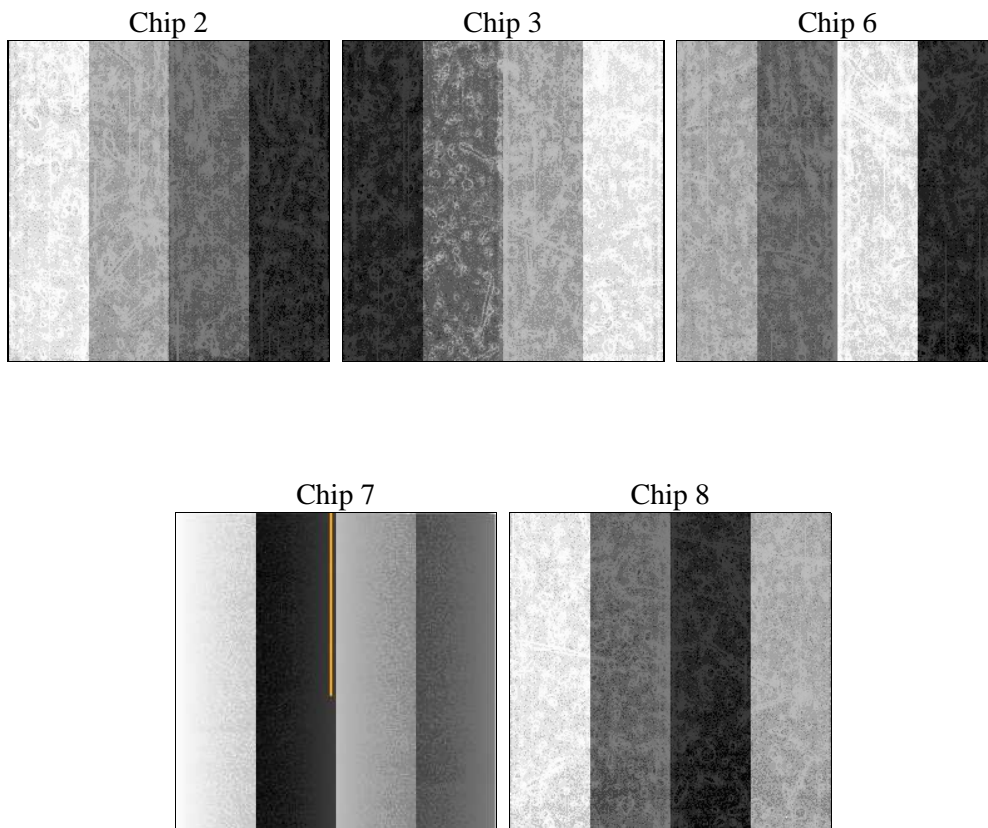
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	60000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	60065.60046196	Sum of GTIs [s]
caldbver	4.6.3	&#160	ontime2	60062.459471703	Sum of GTIs [s]
date	2014-09-22T19:31:52	Date and time of file creation	ontime3	60062.459491611	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	60062.459491551	Sum of GTIs [s]
			ontime7	60065.60046196	Sum of GTIs [s]
			ontime8	60059.318481505	Sum of GTIs [s]
			l1events	1841741	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	315389	313089	332435	441050	439778
rejected events	278850	277124	292346	247390	319806
rejected %	88%	88%	87%	56%	72%

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	12728	12837	13952	17585	35931
	4%	4%	4%	3%	8%
grade 1 events	167	195	183	510	334
	0%	0%	0%	0%	0%
grade 2 events	9127	7953	9203	40242	28003
	2%	2%	2%	9%	6%
grade 3 events	3666	3838	3960	16352	12136
	1%	1%	1%	3%	2%
grade 4 events	3731	3794	3912	16308	11598
	1%	1%	1%	3%	2%
grade 5 events	14256	16974	16872	45233	24320
	4%	5%	5%	10%	5%
grade 6 events	7293	7546	9067	103180	32307
	2%	2%	2%	23%	7%
grade 7 events	264421	259952	275286	201640	295149
	83%	83%	82%	45%	67%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	237.994715	238.0169642376086	CCD I2 on	Y	Y
[deg] Pointing Dec	27.620707	27.60161902372998	CCD I3 on	O1	Y
[deg] Pointing Roll	285.008774	285.1550918406621	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	527704311.184000	527702866.76478	CCD S5 on	N	N
Observation start date	2014-09-21T16:30:44	2014-09-21T16:07:46	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	527764311.184000	527765367.68075	On-chip summing requested	N	N
Observation end date	2014-09-22T09:10:44	2014-09-22T09:29:27	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



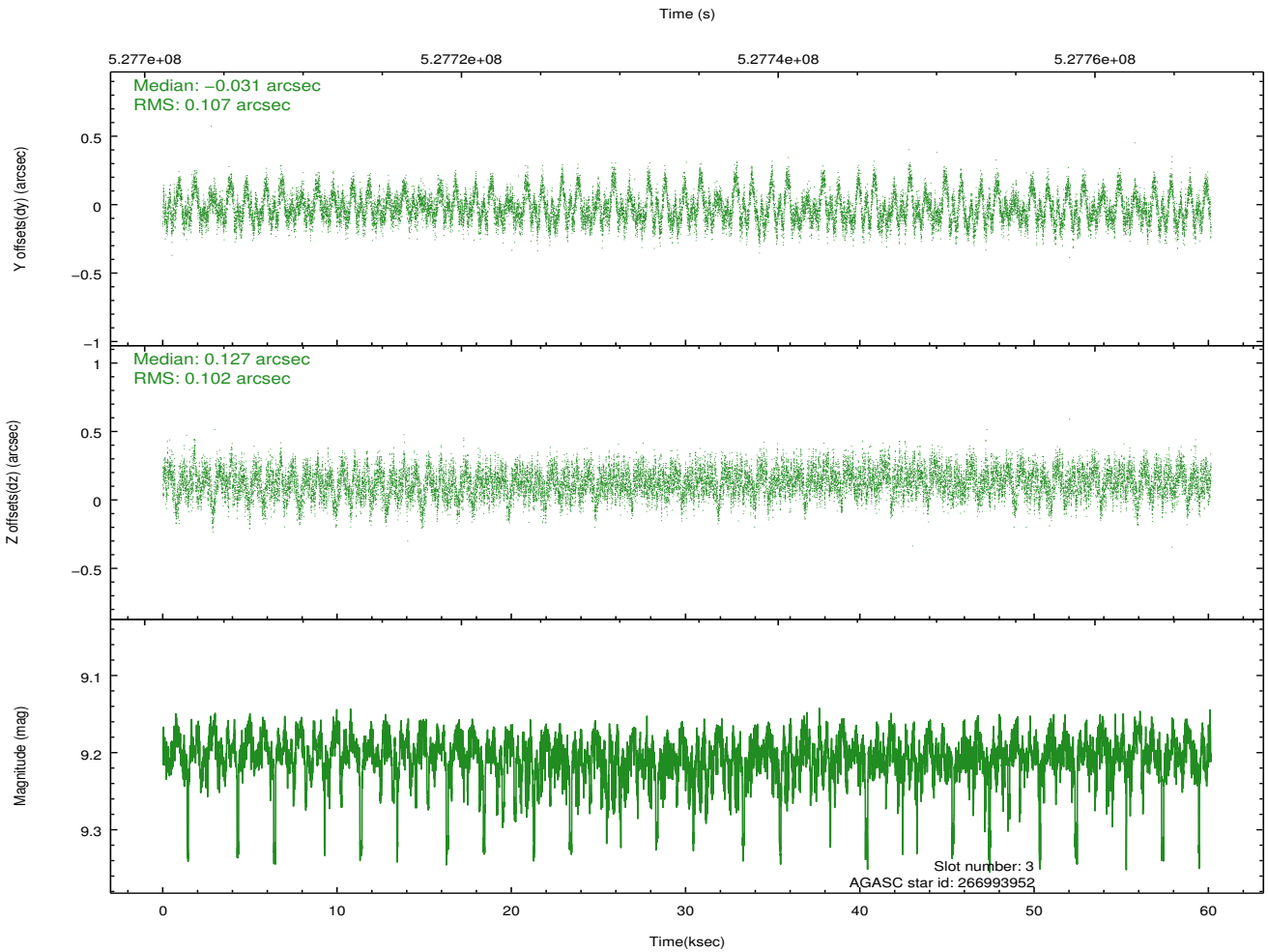
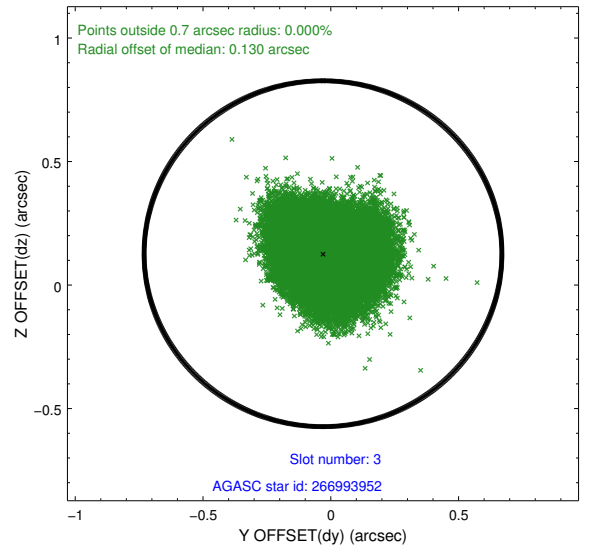
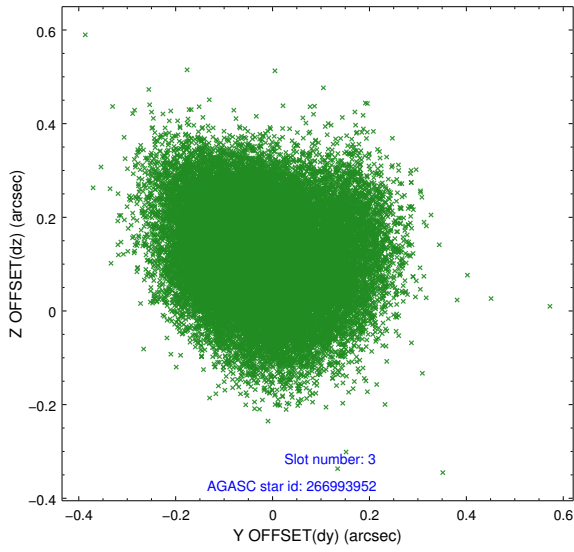
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	14667	-0.168	-0.039	0.011	0.046	0.000000	0.000000	-779.07	-1744.58
1	FID	ACIS-S-4	7.03	14668	0.324	0.091	0.007	0.026	0.000000	0.000000	2134.74	164.04
2	FID	ACIS-S-5	7.06	14668	-0.188	-0.044	0.010	0.041	0.000000	0.000000	-1831.97	157.57
3	GUIDE	266993952	9.20	29313	-0.031	0.127	0.159	0.249	237.448812	27.306504	637.48	-1978.00
4	GUIDE	266996160	9.17	29310	-0.114	-0.028	0.126	0.201	237.759236	26.946806	2147.57	-1357.72
5	GUIDE	267393408	8.17	29327	-0.106	-0.121	0.086	0.137	238.285267	27.814443	-434.83	1074.53
6	GUIDE	267393952	10.37	28611	0.021	-0.356	0.319	0.498	238.563395	27.896456	-493.97	2005.78
7	GUIDE	267393968	9.90	29273	0.234	0.365	0.219	0.358	237.462984	27.863539	-1285.28	-1406.72

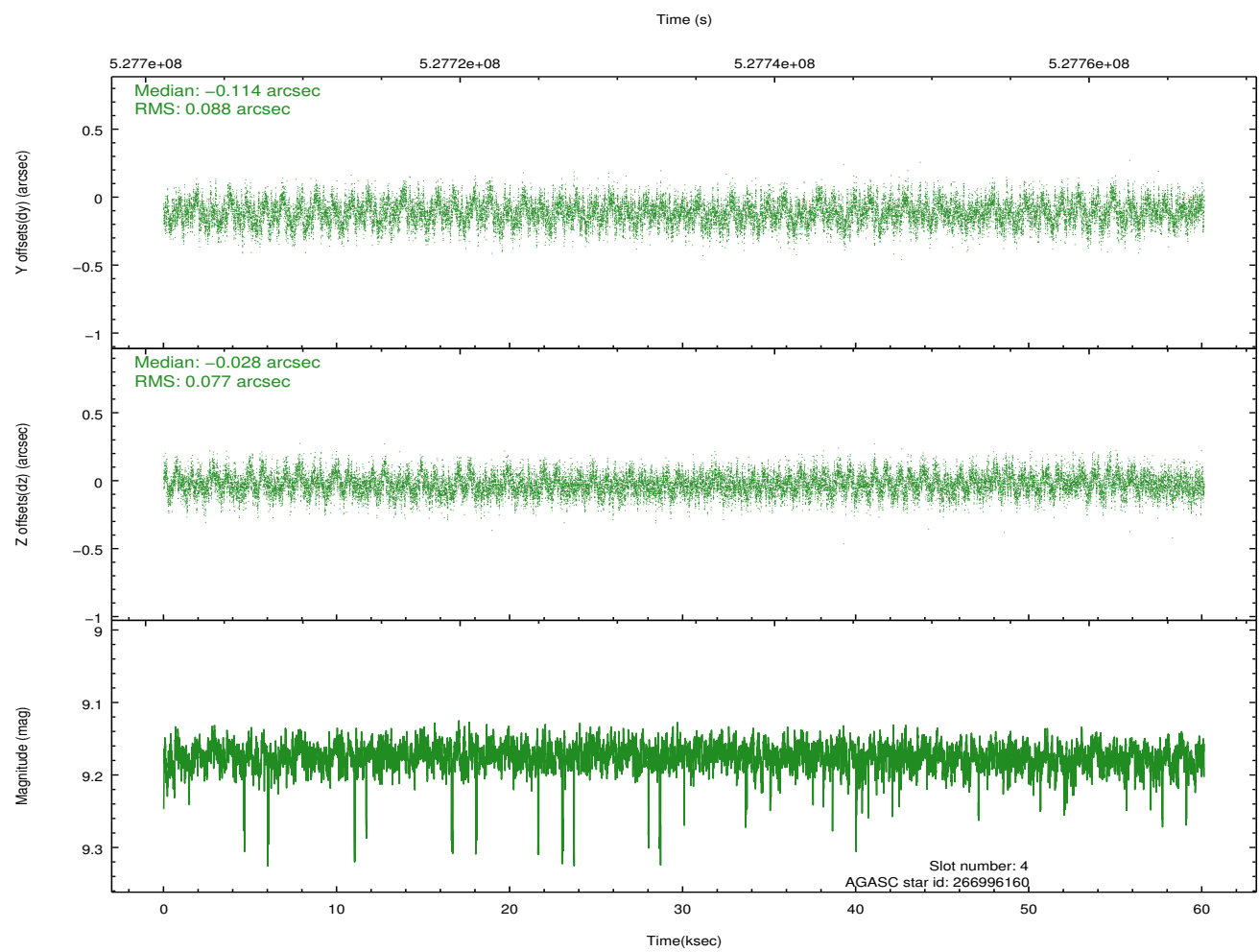
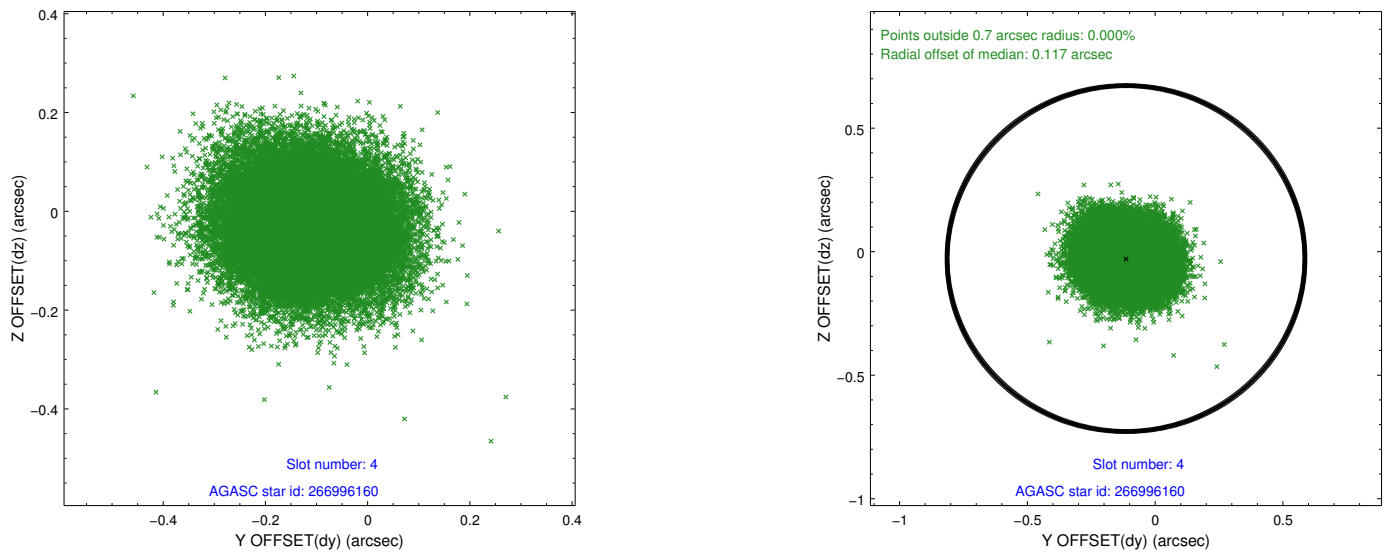
∞

## 2.4 Star Slots

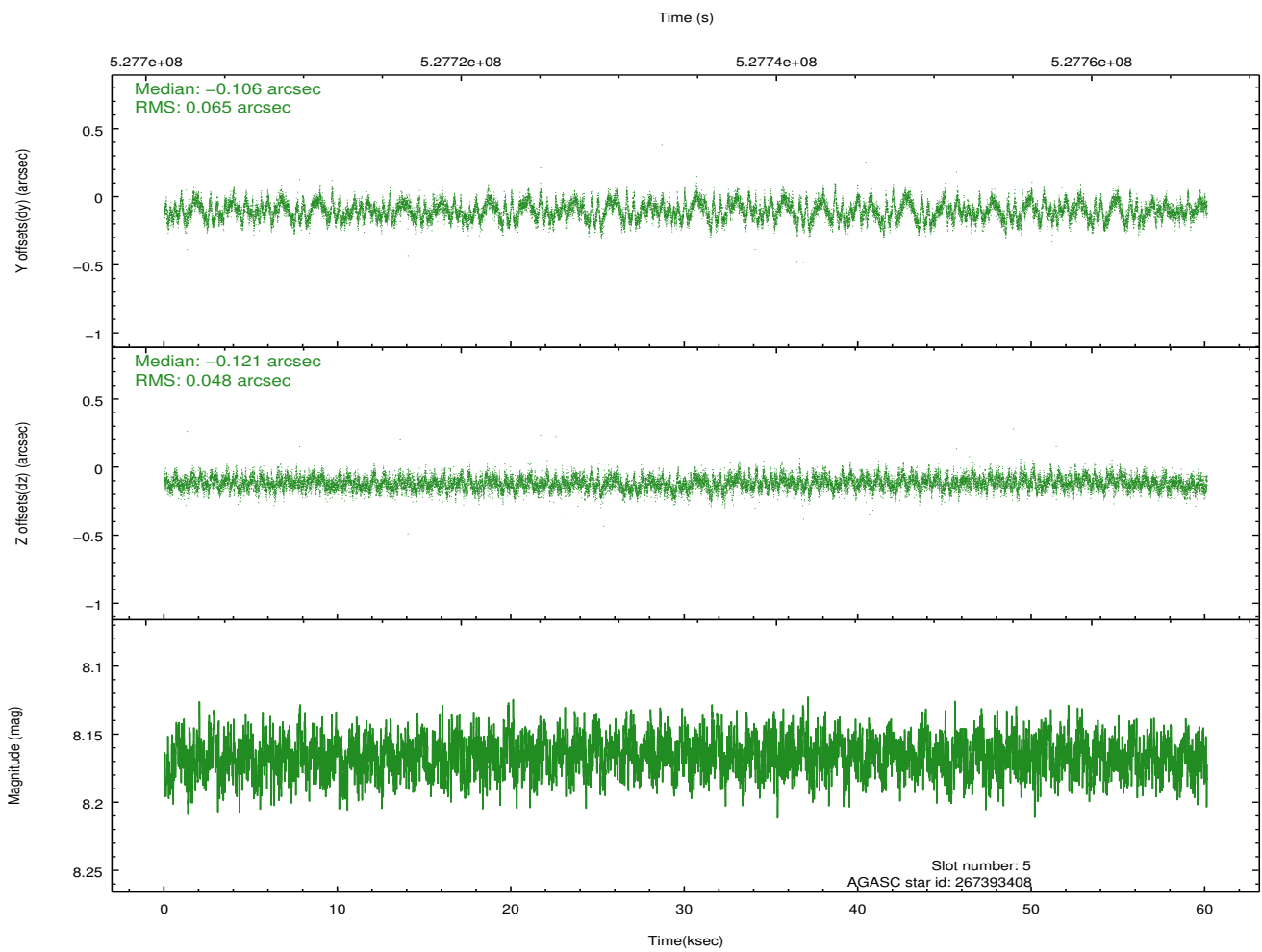
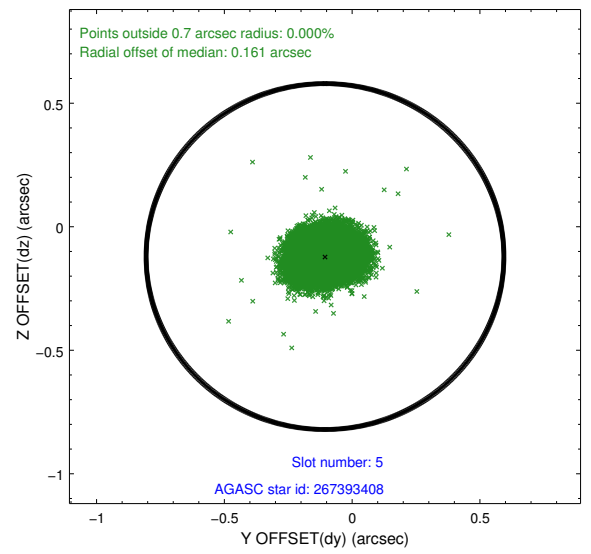
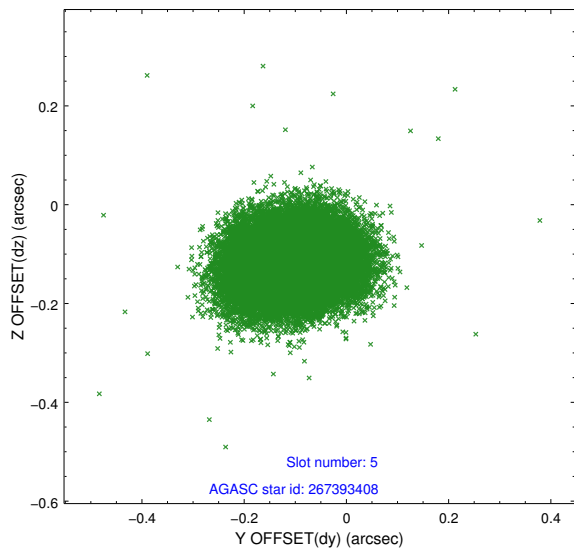
### 2.4.1 Slot 3



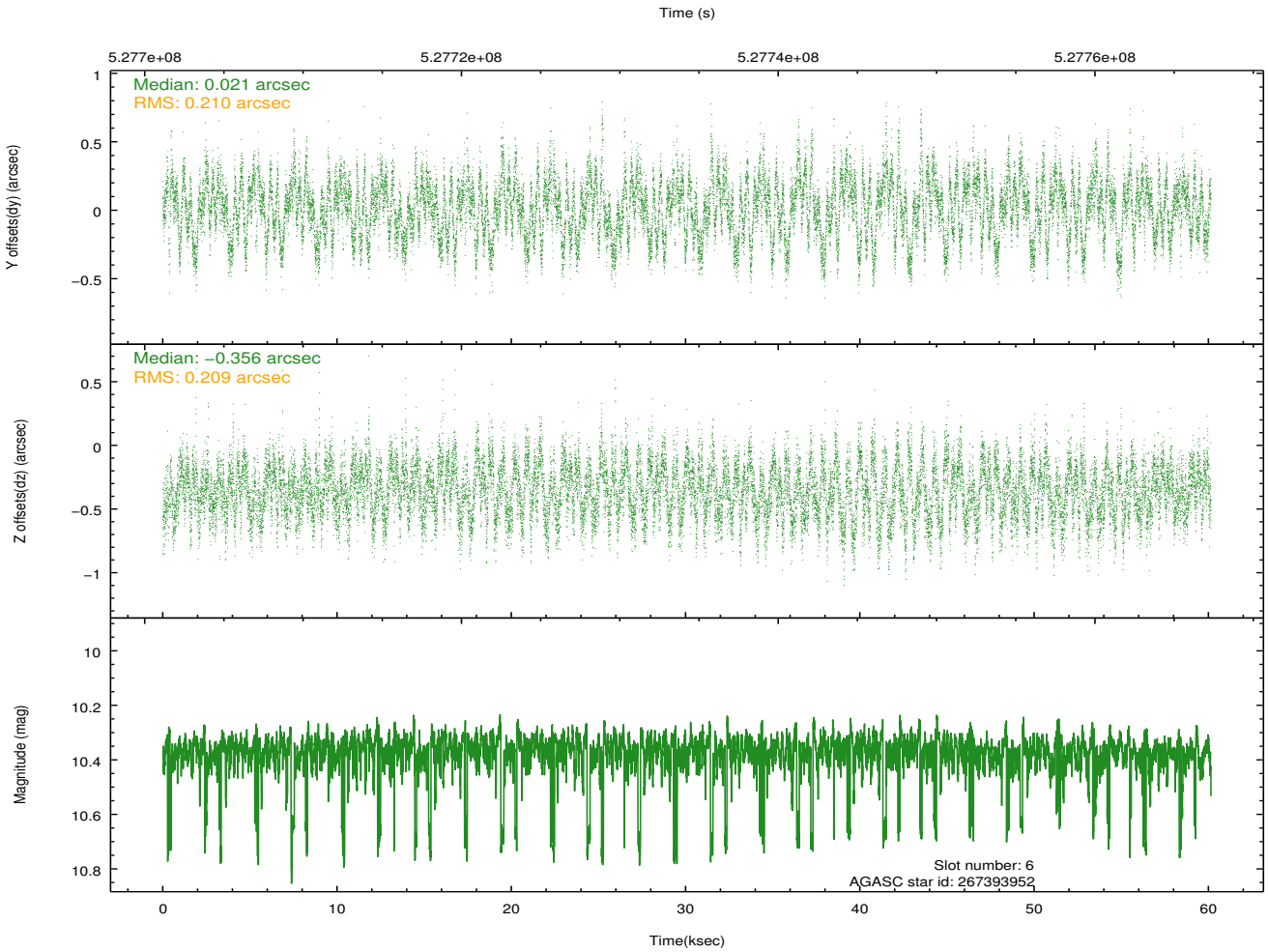
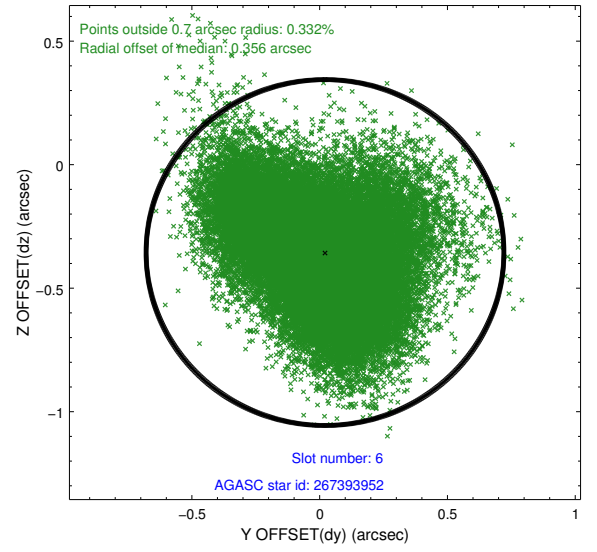
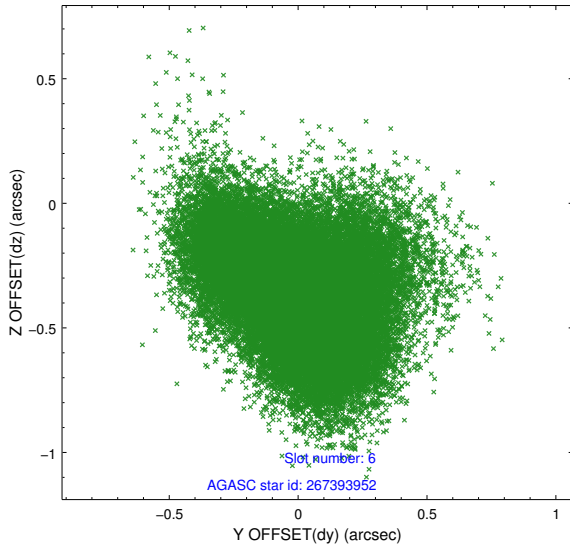
## 2.4.2 Slot 4



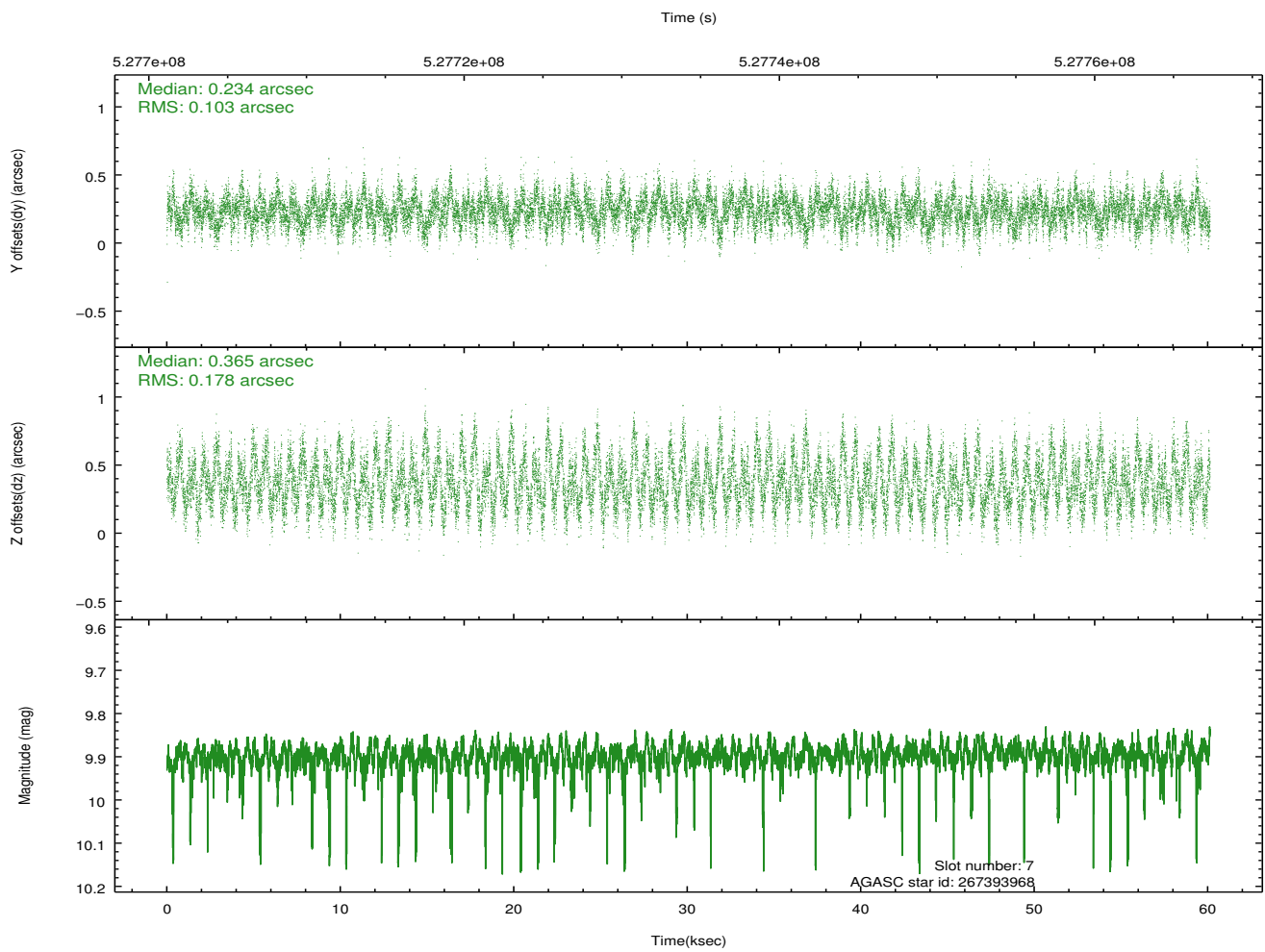
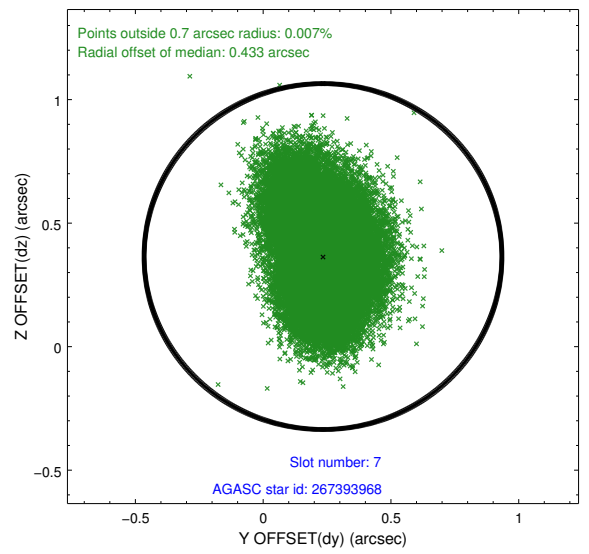
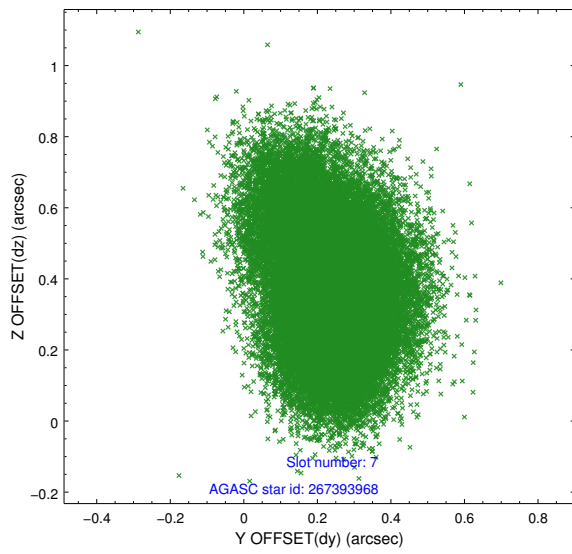
### 2.4.3 Slot 5



### 2.4.4 Slot 6

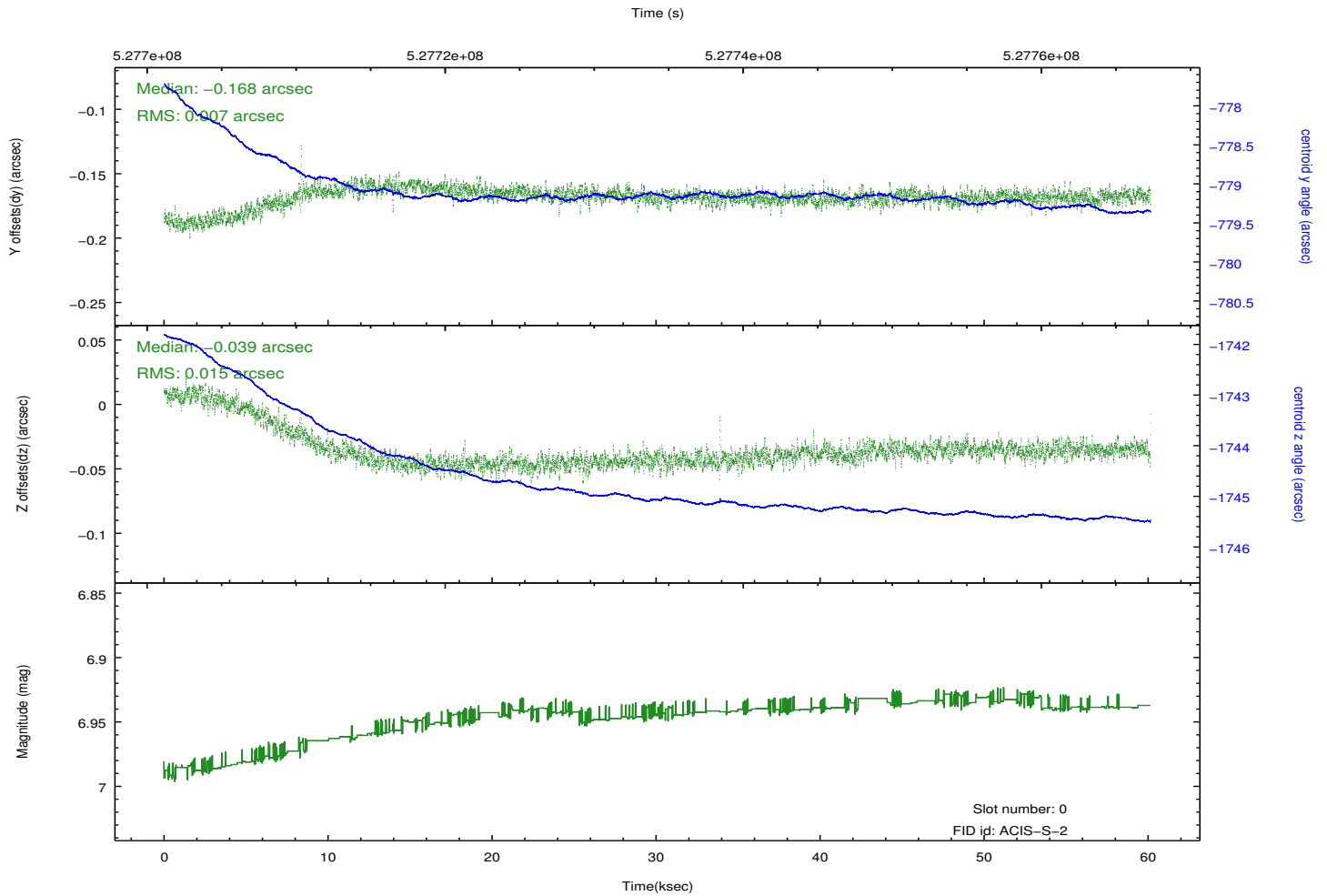
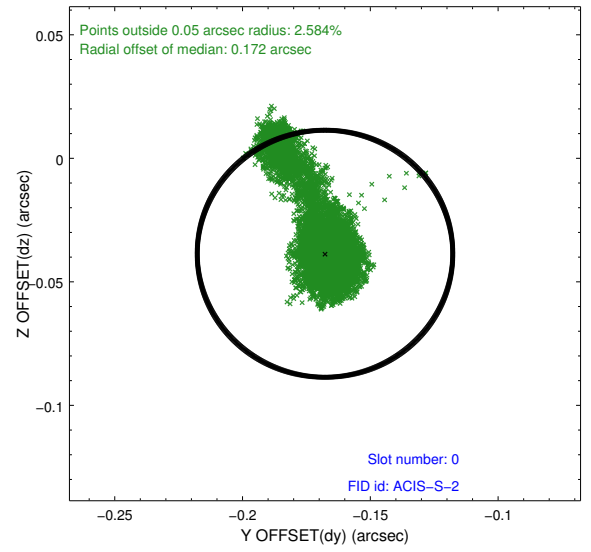
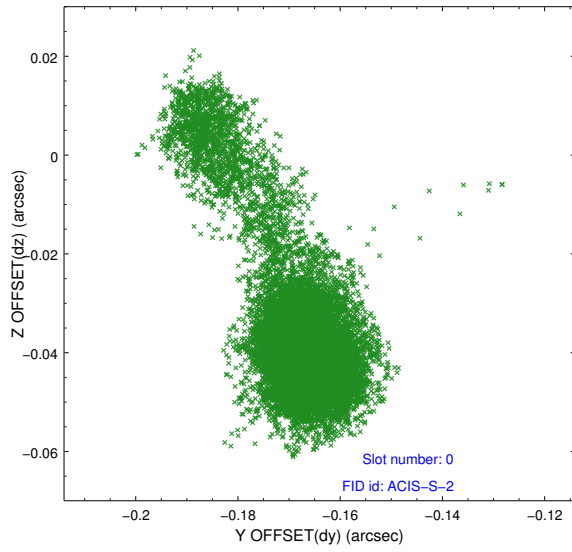


## 2.4.5 Slot 7

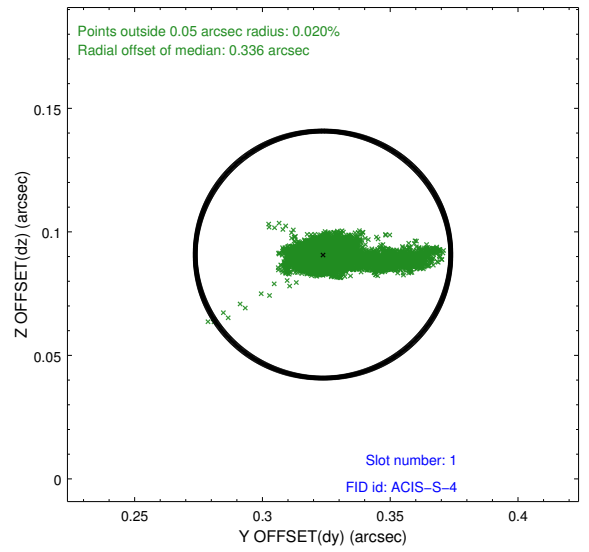
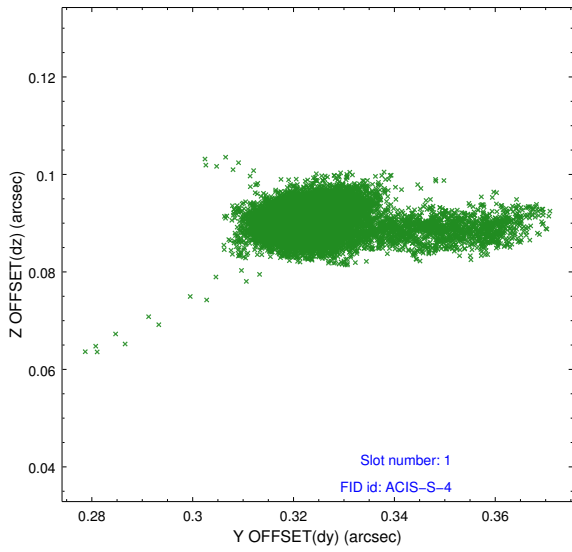


## 2.5 FID Slots

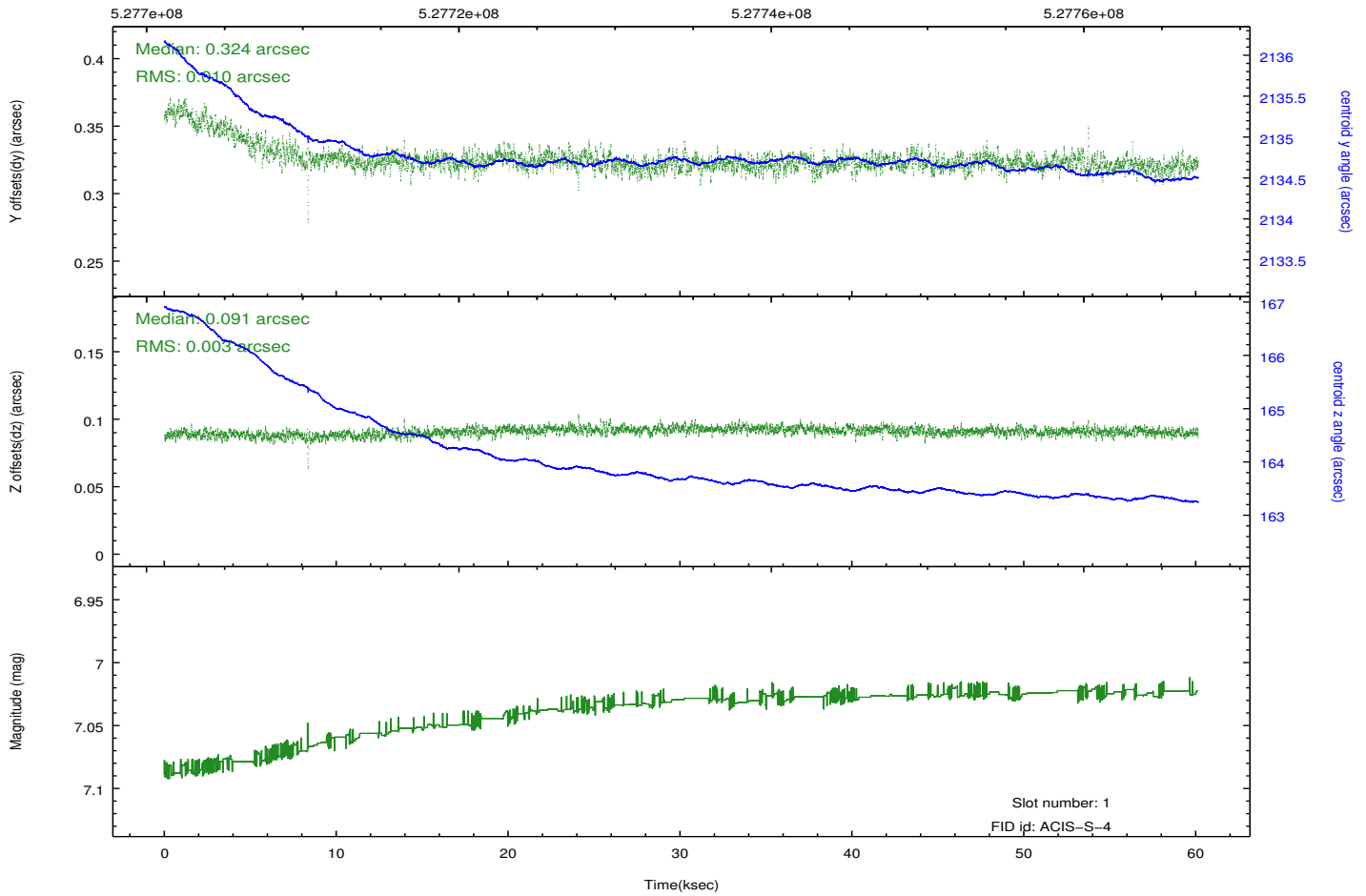
### 2.5.1 Slot 0



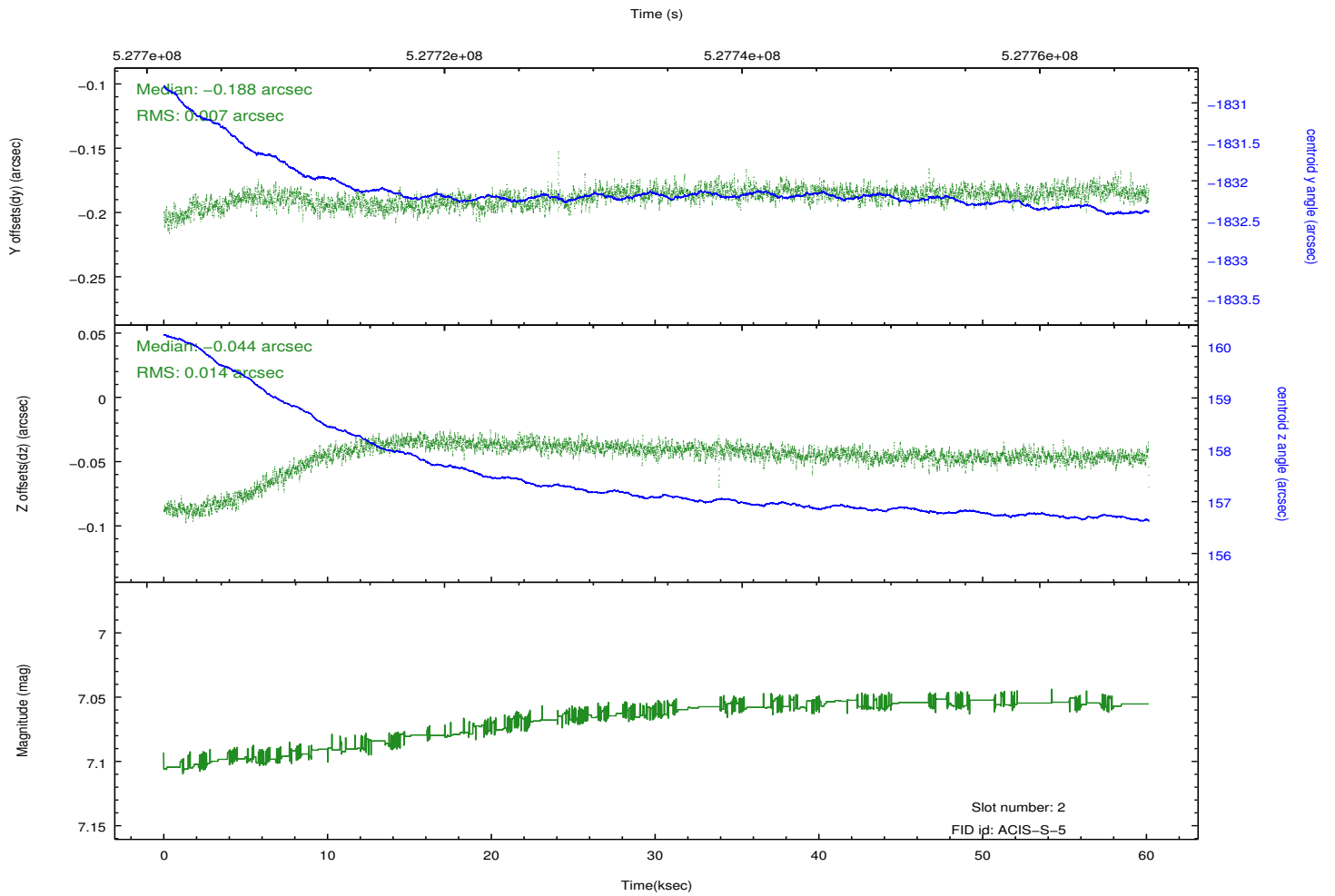
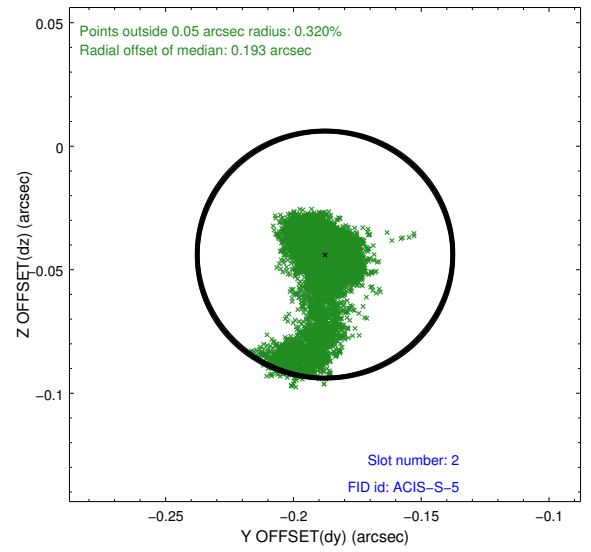
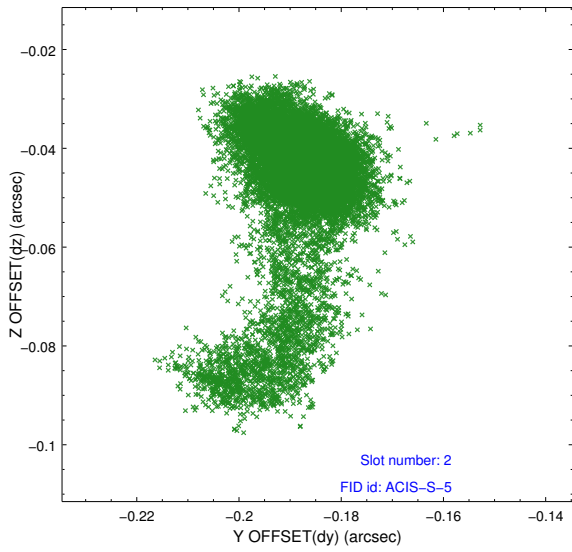
## 2.5.2 Slot 1



Time (s)



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.09.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	60.06560046196

## A.2 Comments