

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14963 - L2 Version 2  
Chandra X-Ray Center

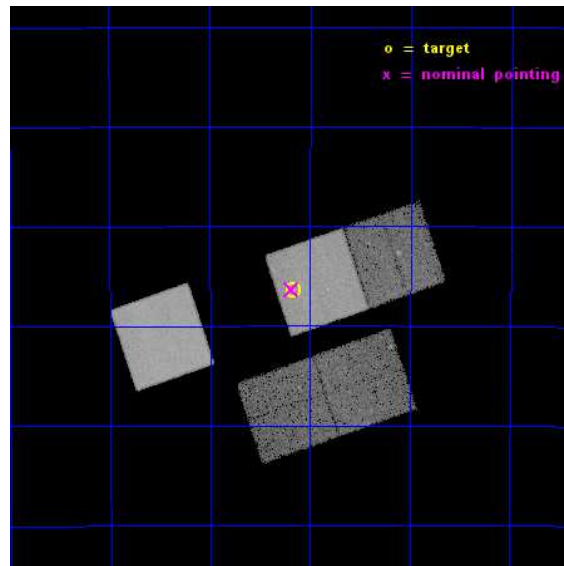
L2 Processing Date : Dec 4 2014

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# 1 Front

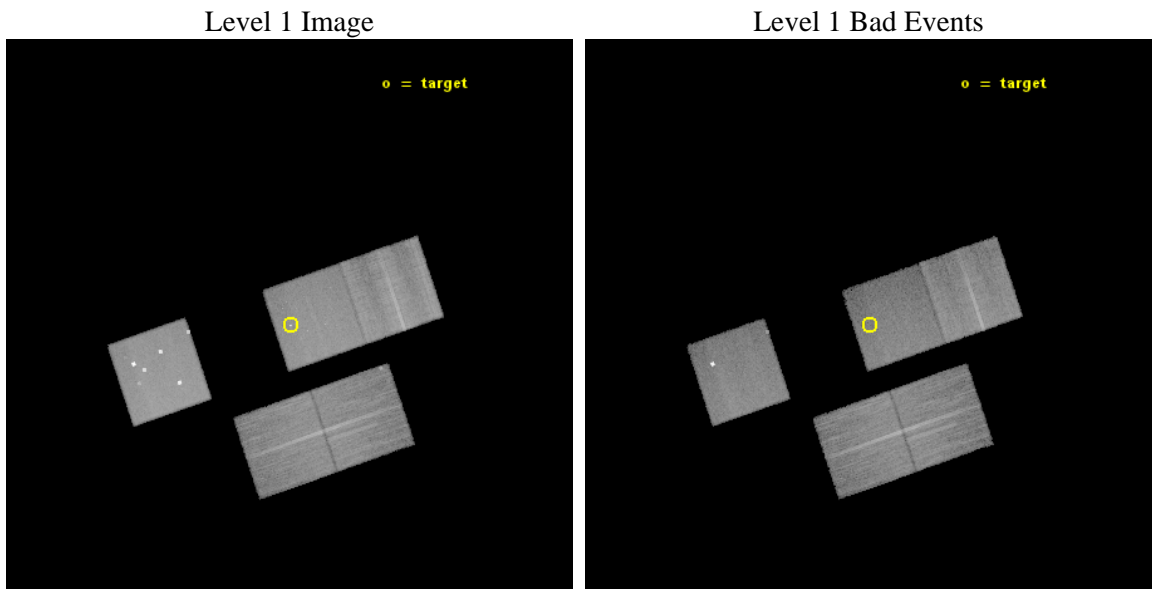
seq_num	702772	Sequence number
obs_id	14963	Observation id
title	Determination of Dark Matter Fractions and M/L in Elliptical Galaxies	Proposal title
observer	Dr. David Pooley	Principal investigator
object	WFI J2026-4536	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	306.543333	Observer's specified target RA [deg]
dec_targ	-45.607528	Observer's specified target Dec [deg]
ra_nom	306.54670055678	Nominal RA [deg]
dec_nom	-45.60563185577	Nominal Dec [deg]
roll_nom	341.19608971863	Nominal Roll [deg]
revision	2	Processing version of data
ontime	36065.080888987	Sum of GTIs [s]
livetime	35593.864056446	Livetime [s]
ontime2	36058.634648204	Sum of GTIs [s]
ontime3	36058.71672827	Sum of GTIs [s]
ontime5	36065.039848983	Sum of GTIs [s]
ontime7	36065.080888987	Sum of GTIs [s]
ontime8	36055.534577608	Sum of GTIs [s]
l2events	256307	Number of level 2 events



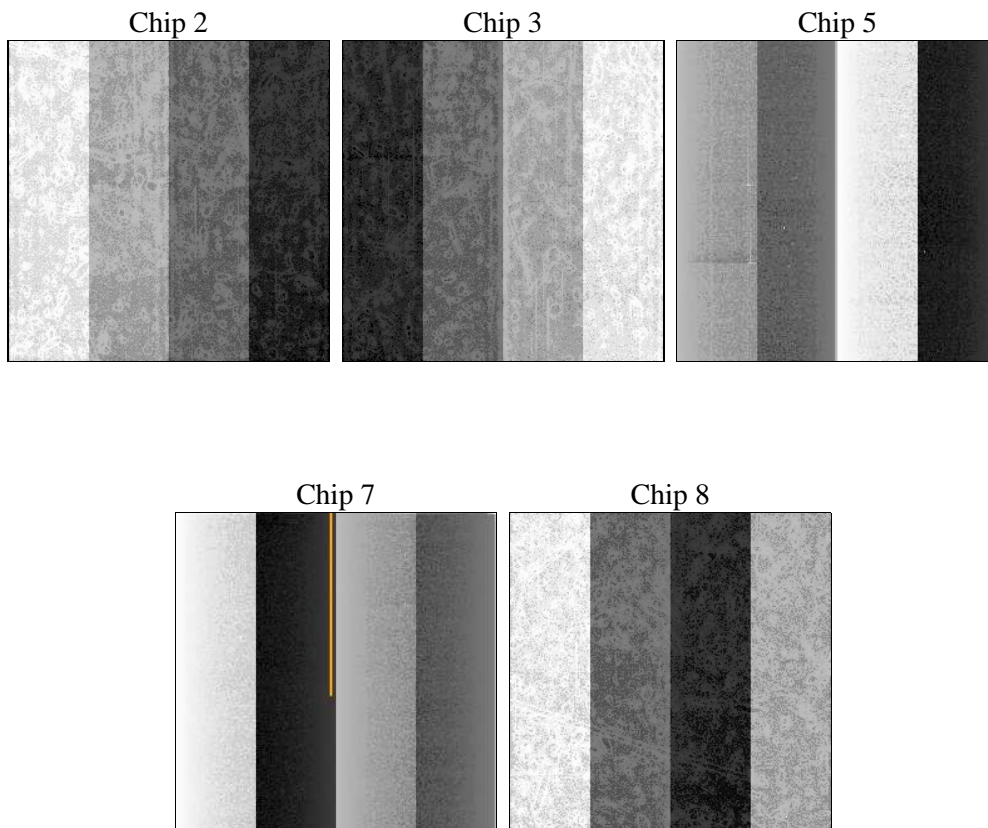
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	36000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	36065.080888987	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	36058.634648204	Sum of GTIs [s]
date	2014-12-04T21:58:24	Date and time of file creation	ontime3	36058.71672827	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	36065.039848983	Sum of GTIs [s]
			ontime7	36065.080888987	Sum of GTIs [s]
			ontime8	36055.534577608	Sum of GTIs [s]
			l1events	984508	Number of level 1 events

### 2.1.4 Events

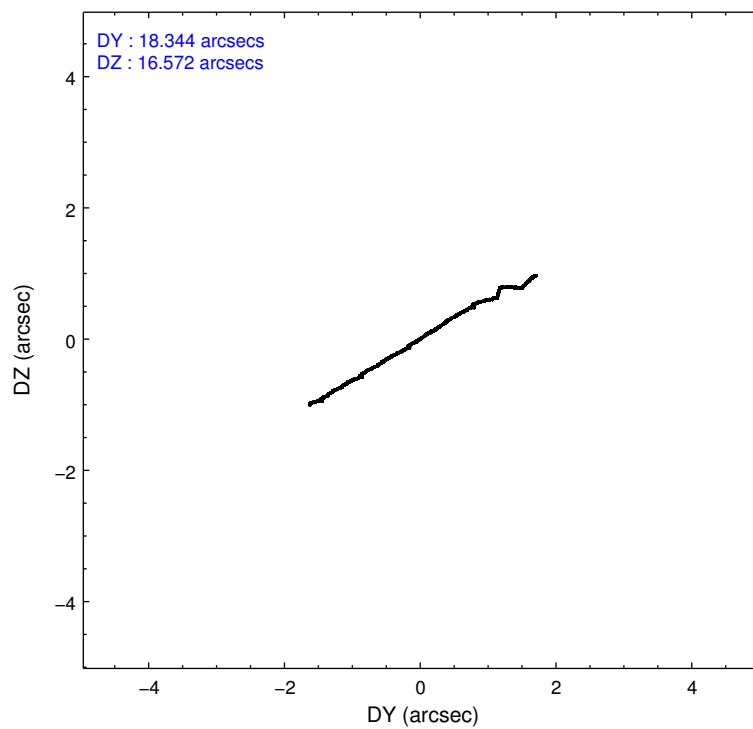
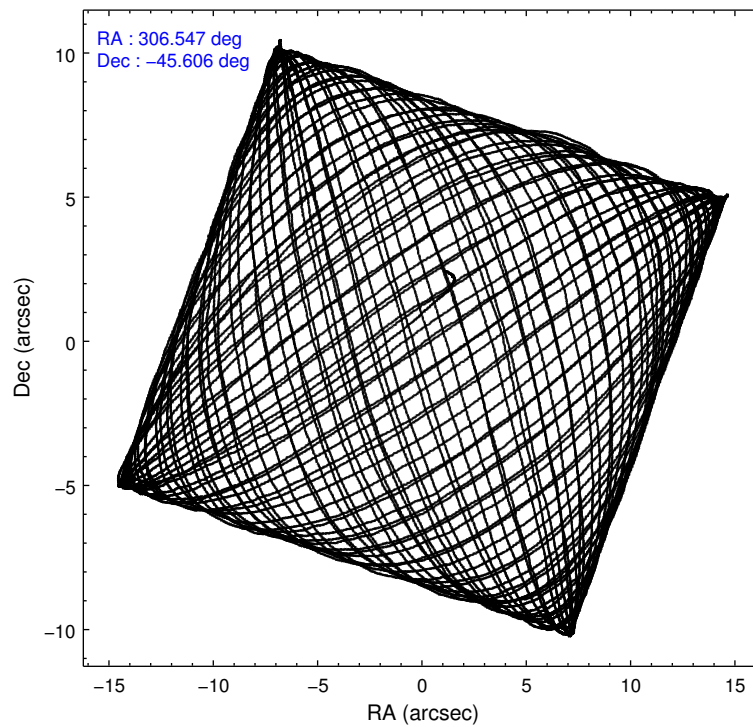
	ccd 2	ccd 3	ccd 5	ccd 7	ccd 8
level 1 events	154296	151635	278839	192291	207447
rejected events	136220	133510	129125	101376	149441
rejected %	88%	88%	46%	52%	72%

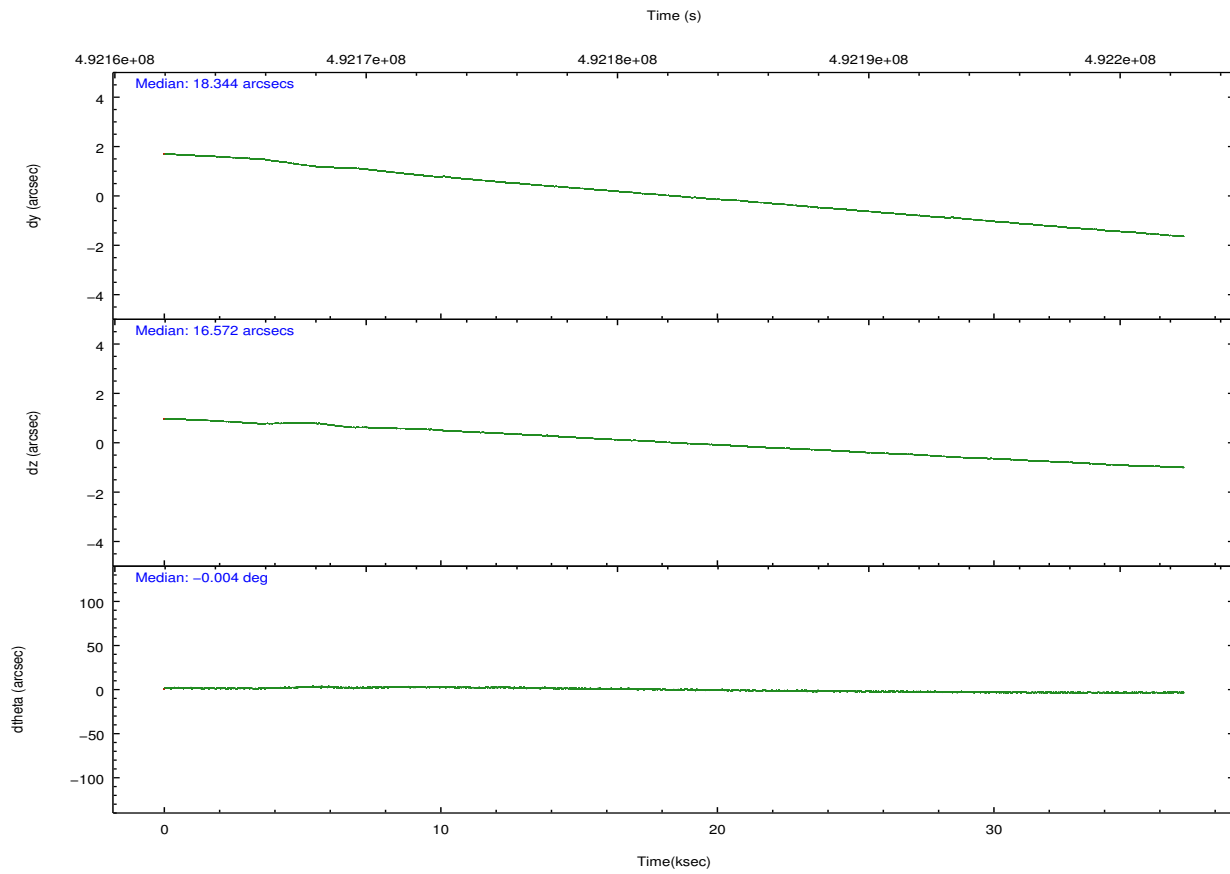
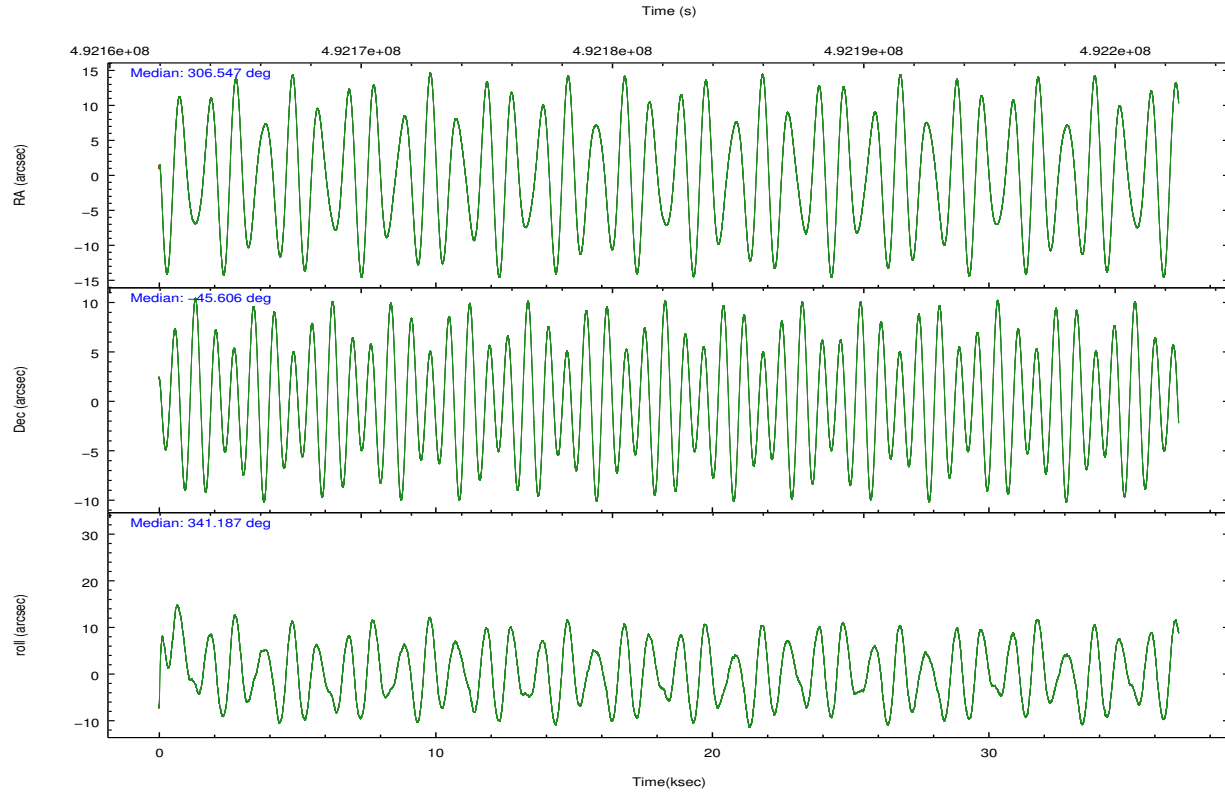
	ccd 2	ccd 3	ccd 5	ccd 7	ccd 8
grade 0 events	6651	6945	31514	9182	16266
	4%	4%	11%	4%	7%
grade 1 events	88	98	583	264	155
	0%	0%	0%	0%	0%
grade 2 events	4420	3941	41221	19731	13859
	2%	2%	14%	10%	6%
grade 3 events	1783	1885	5397	7940	6255
	1%	1%	1%	4%	3%
grade 4 events	1872	1850	4988	7842	5911
	1%	1%	1%	4%	2%
grade 5 events	6048	7351	20062	19987	11097
	3%	4%	7%	10%	5%
grade 6 events	3350	3508	66606	46226	15725
	2%	2%	23%	24%	7%
grade 7 events	130084	126057	108468	81119	138179
	84%	83%	38%	42%	66%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23578	ACIS-23578	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	306.508468	306.5467005567845	CCD I2 on	O5	Y
[deg] Pointing Dec	-45.611294	-45.60563185577003	CCD I3 on	O4	Y
[deg] Pointing Roll	341.012148	341.196089718631	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	N
[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	O2	Y
[s] Observation start time (MET)	492164669.184000	492162681.05846	CCD S5 on	N	N
Observation start date	2013-08-06T08:23:22	2013-08-06T07:51:21	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	492200669.184000	492201725.36059	On-chip summing requested	N	N
Observation end date	2013-08-06T18:23:22	2013-08-06T18:42:05	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





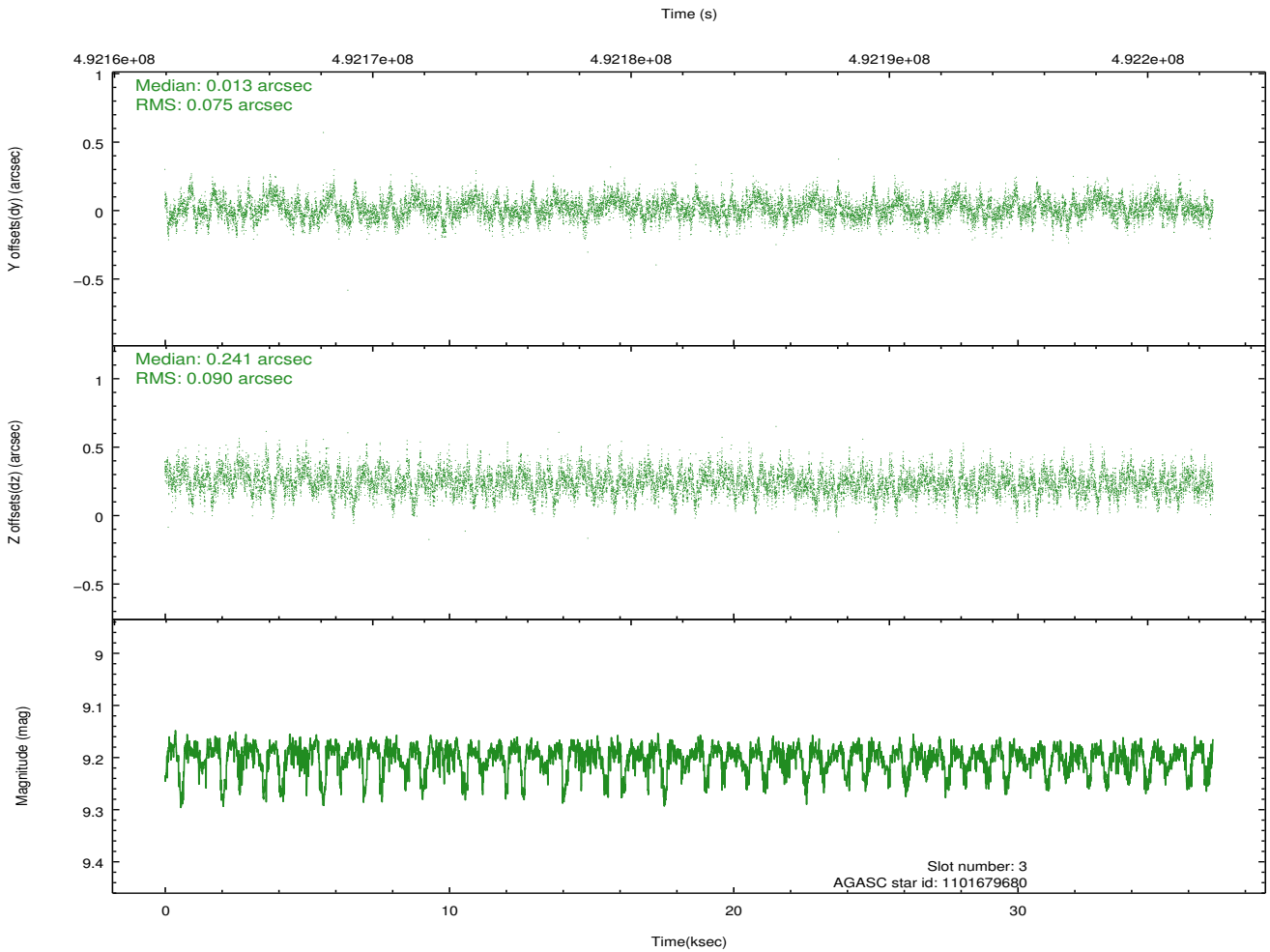
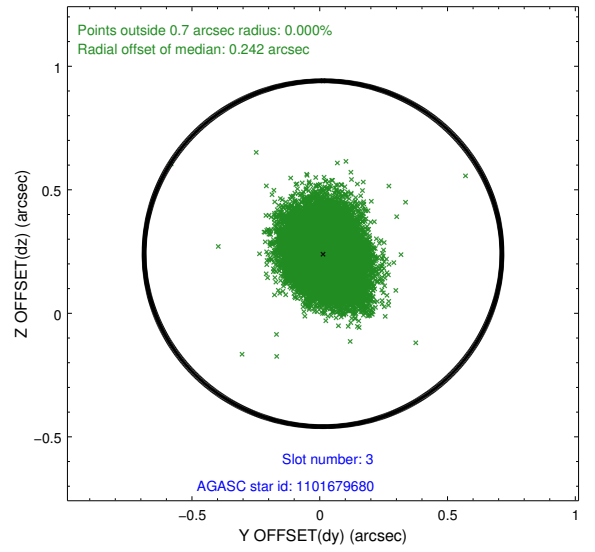
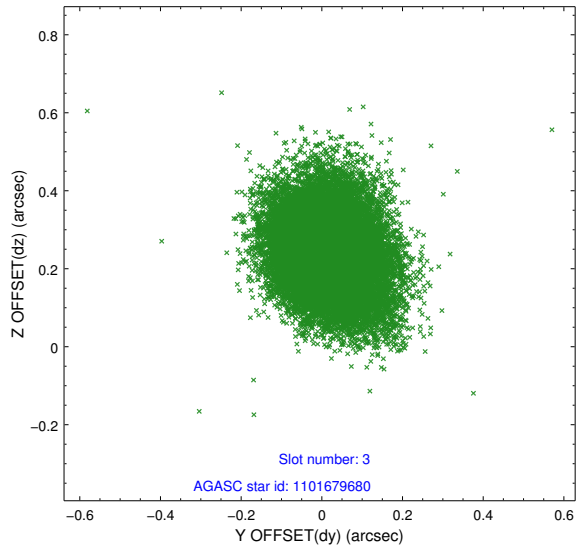
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.99	8994	-0.108	-0.017	0.024	0.033	0.000000	0.000000	-771.55	-1738.01
1	FID		ACIS-S-4	7.07	8995	0.268	0.055	0.022	0.039	0.000000	0.000000	2142.10	170.50
2	FID		ACIS-S-5	7.10	8995	-0.191	-0.028	0.023	0.052	0.000000	0.000000	-1824.42	164.15
3	GUIDE	used	1101679680	9.20	17961	0.013	0.241	0.123	0.203	306.516696	-46.158156	660.74	-1854.68
4	GUIDE	used	1101798376	7.93	17984	-0.047	-0.186	0.087	0.139	306.726374	-45.593530	498.97	238.04
5	GUIDE	used	1101800008	9.17	17975	0.021	0.083	0.106	0.167	306.835427	-46.111499	1358.66	-1438.63
6	GUIDE	used	1101803448	8.78	17978	0.029	-0.027	0.082	0.129	307.191118	-45.387101	1372.51	1317.42
7	GUIDE	used	1101798712	8.61	17980	-0.019	-0.113	0.079	0.127	307.377198	-45.382879	1813.53	1481.19

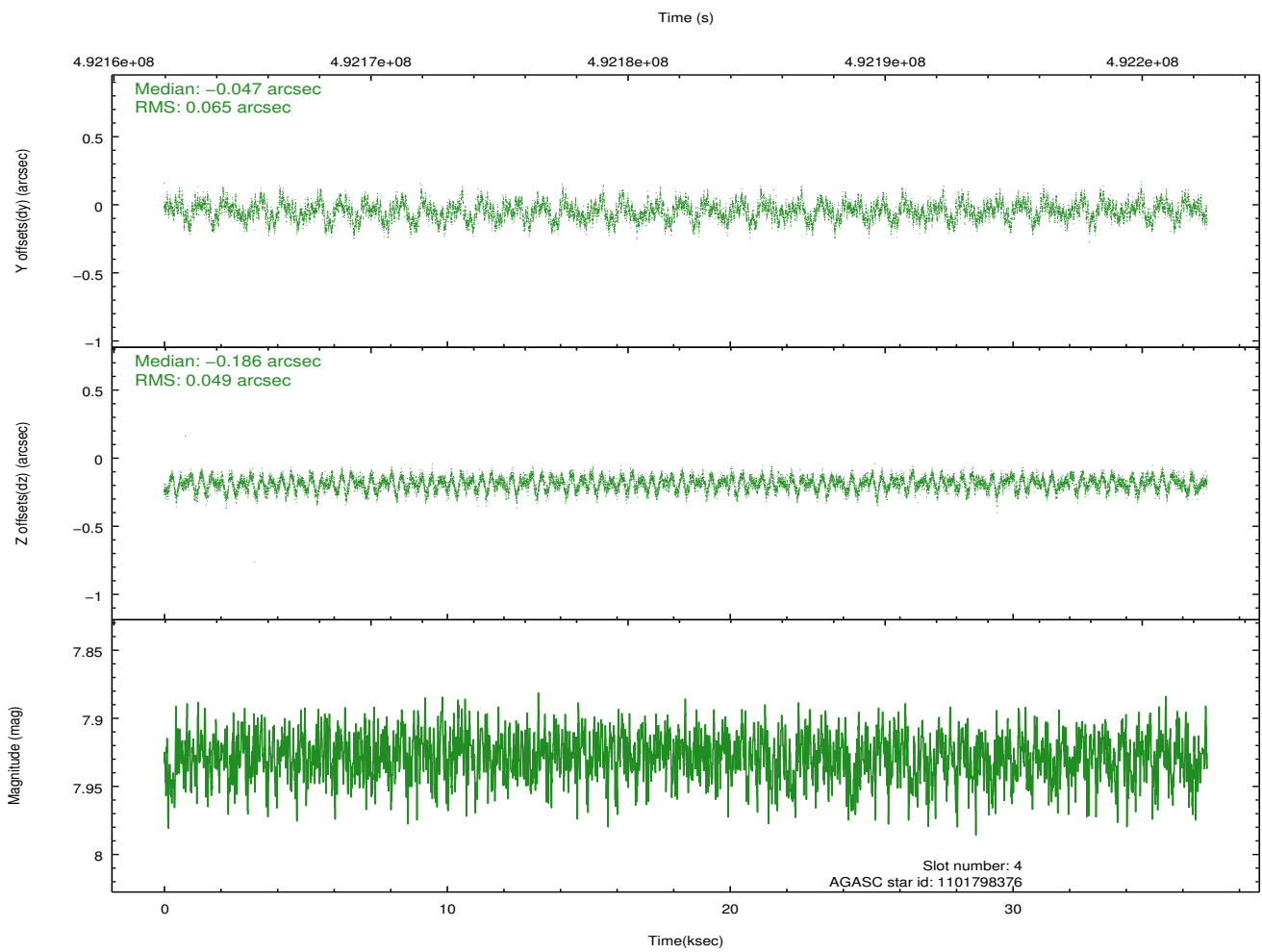
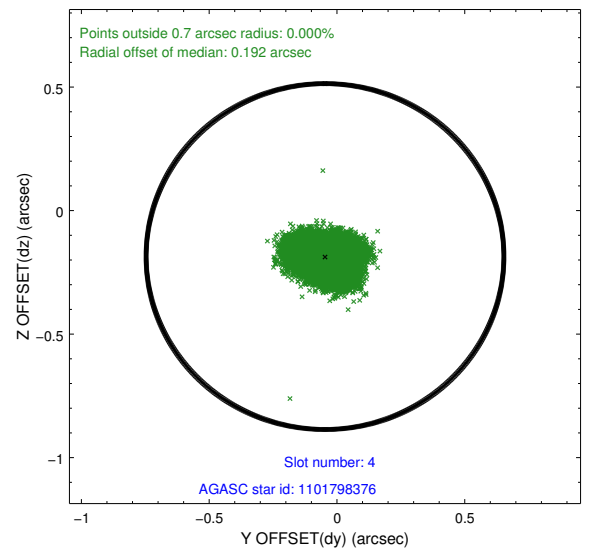
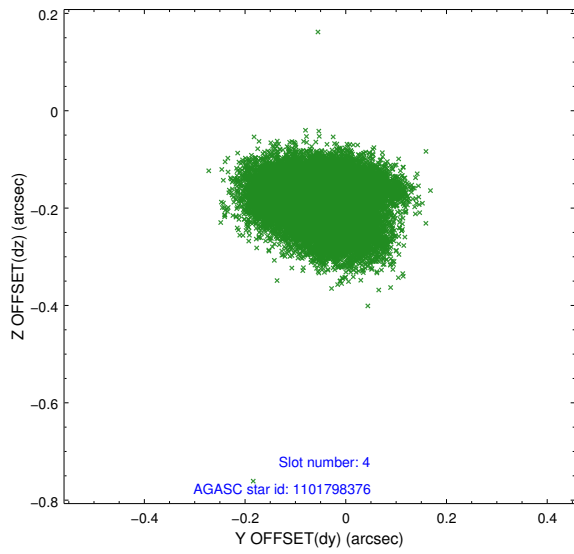
∞

## 2.4 Star Slots

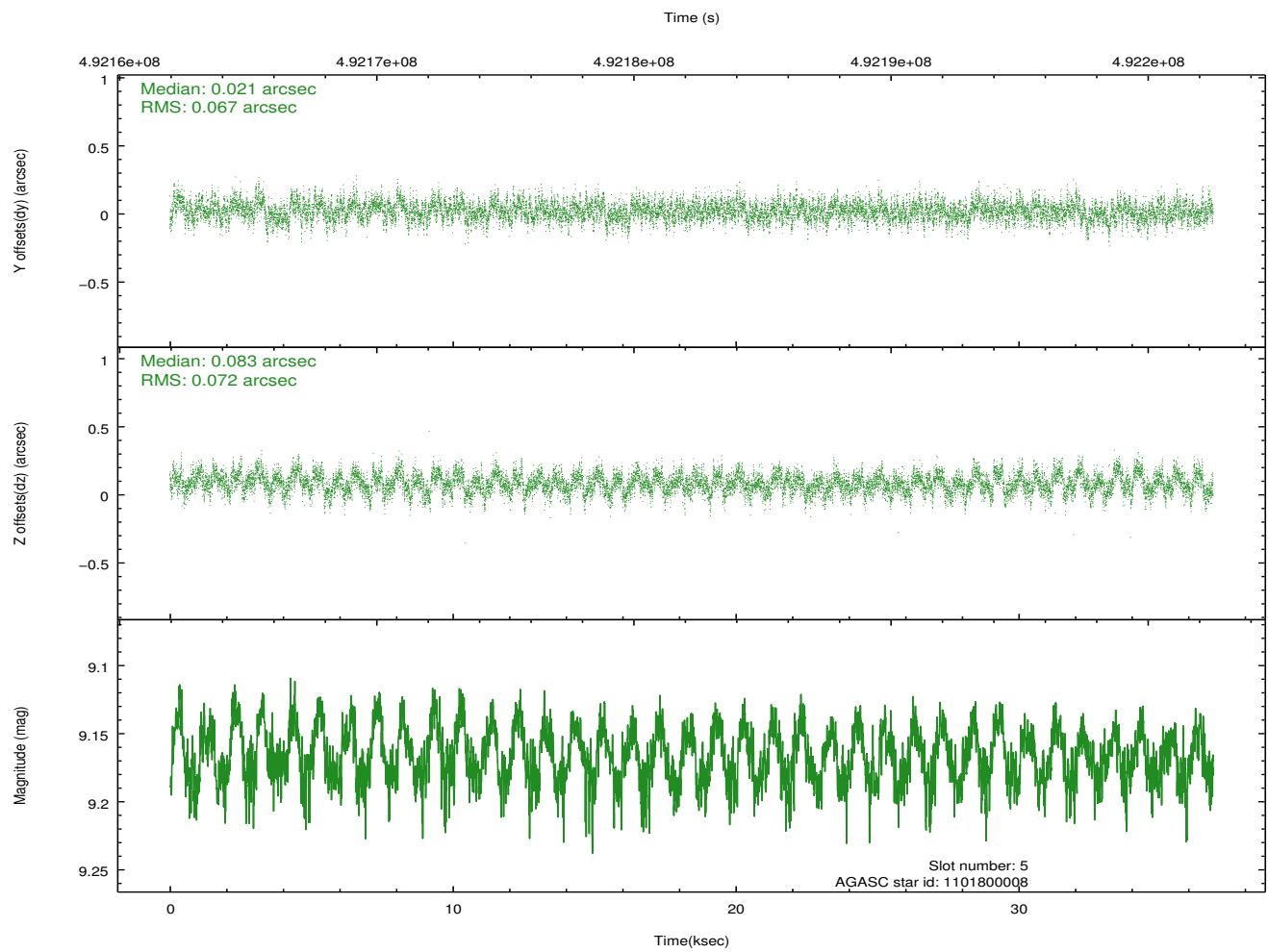
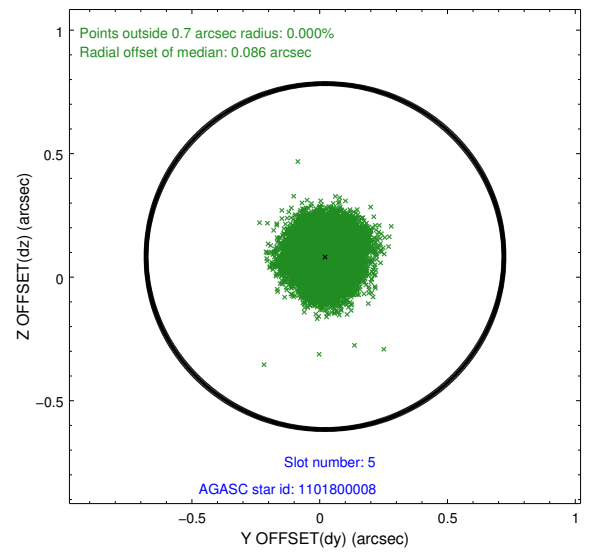
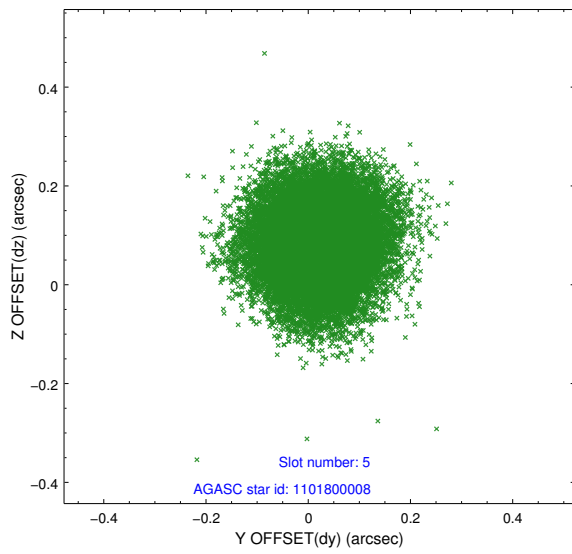
### 2.4.1 Slot 3



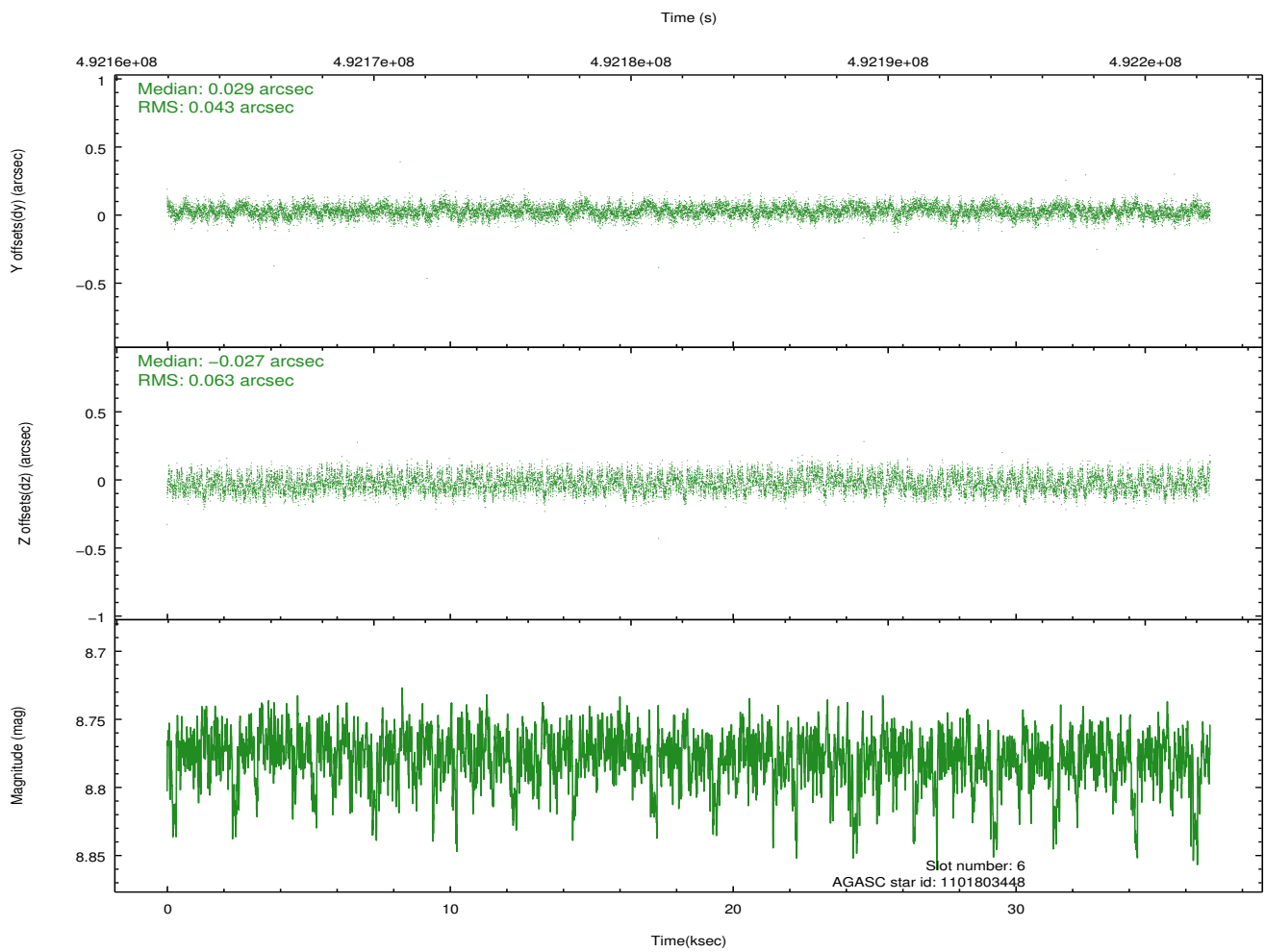
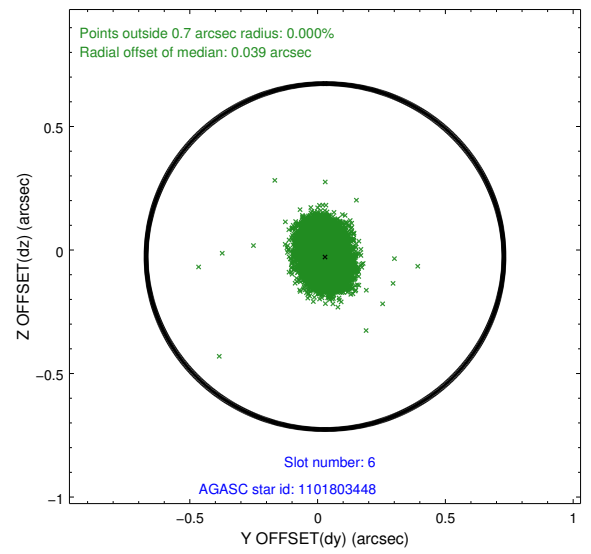
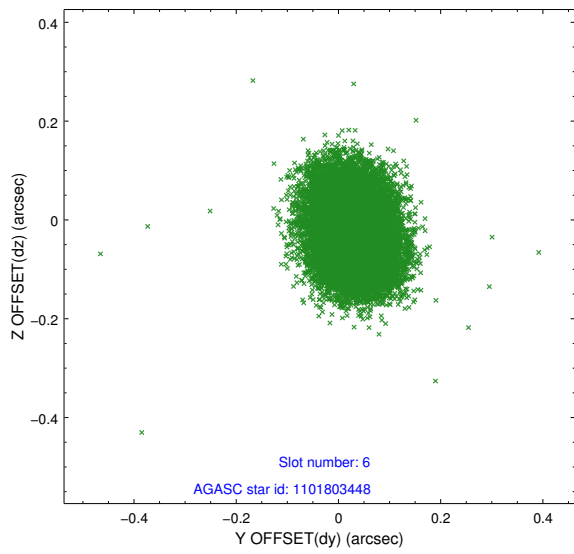
## 2.4.2 Slot 4



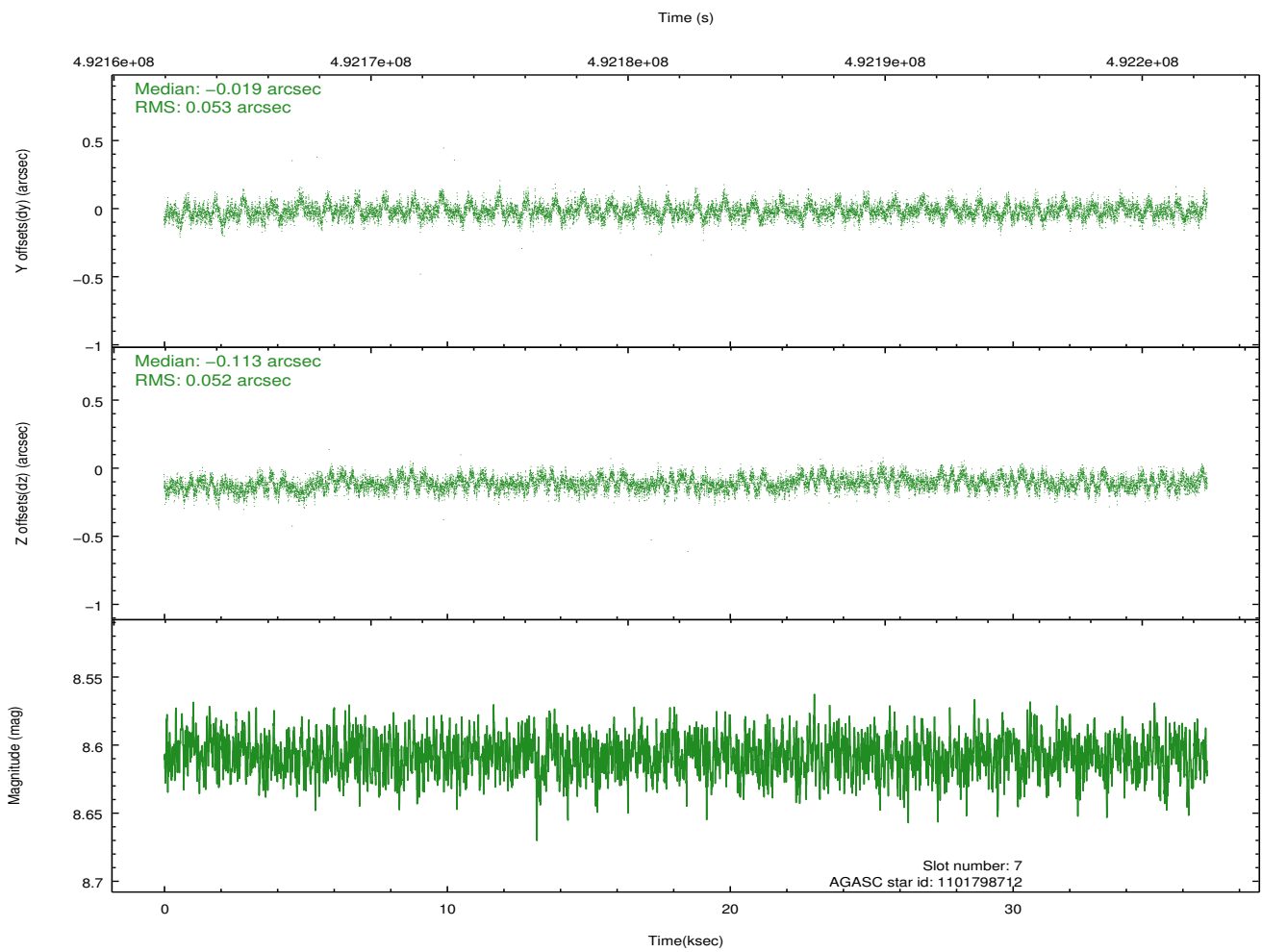
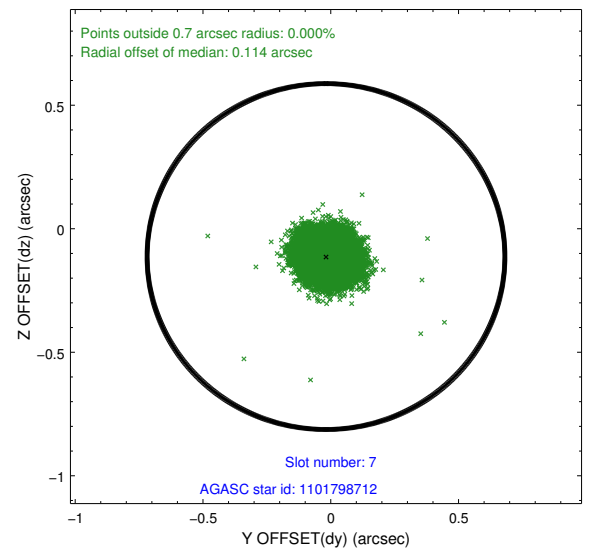
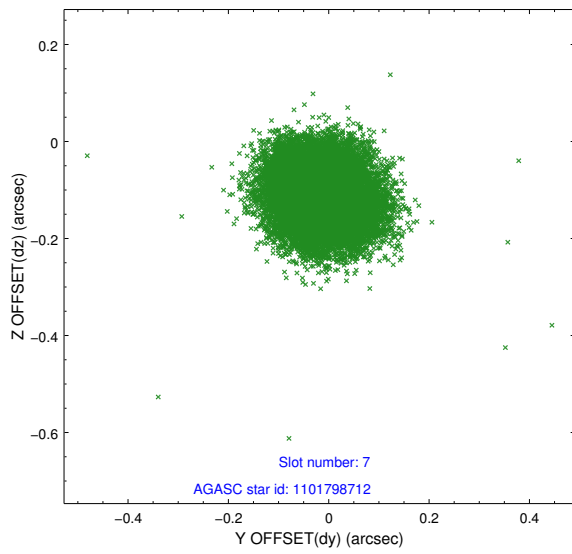
### 2.4.3 Slot 5



## 2.4.4 Slot 6

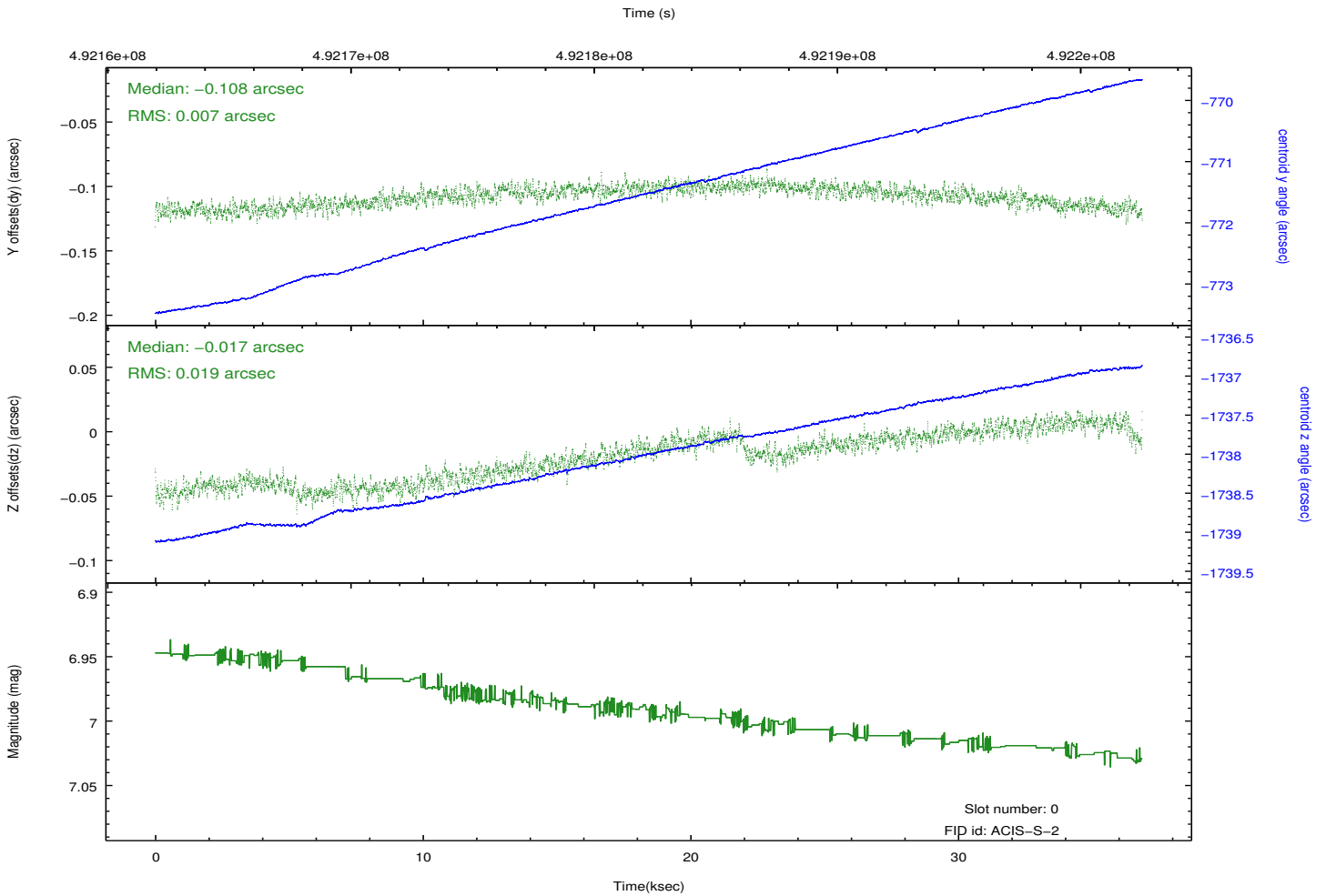
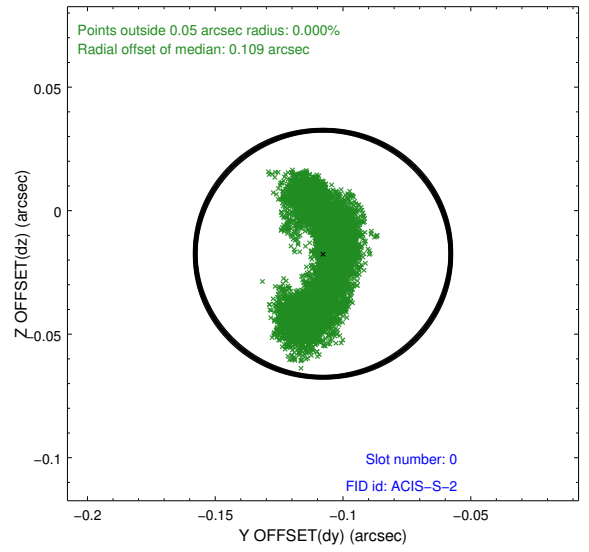
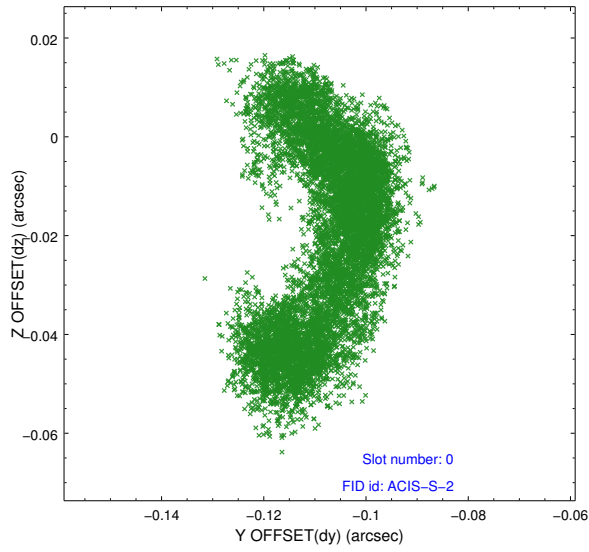


## 2.4.5 Slot 7

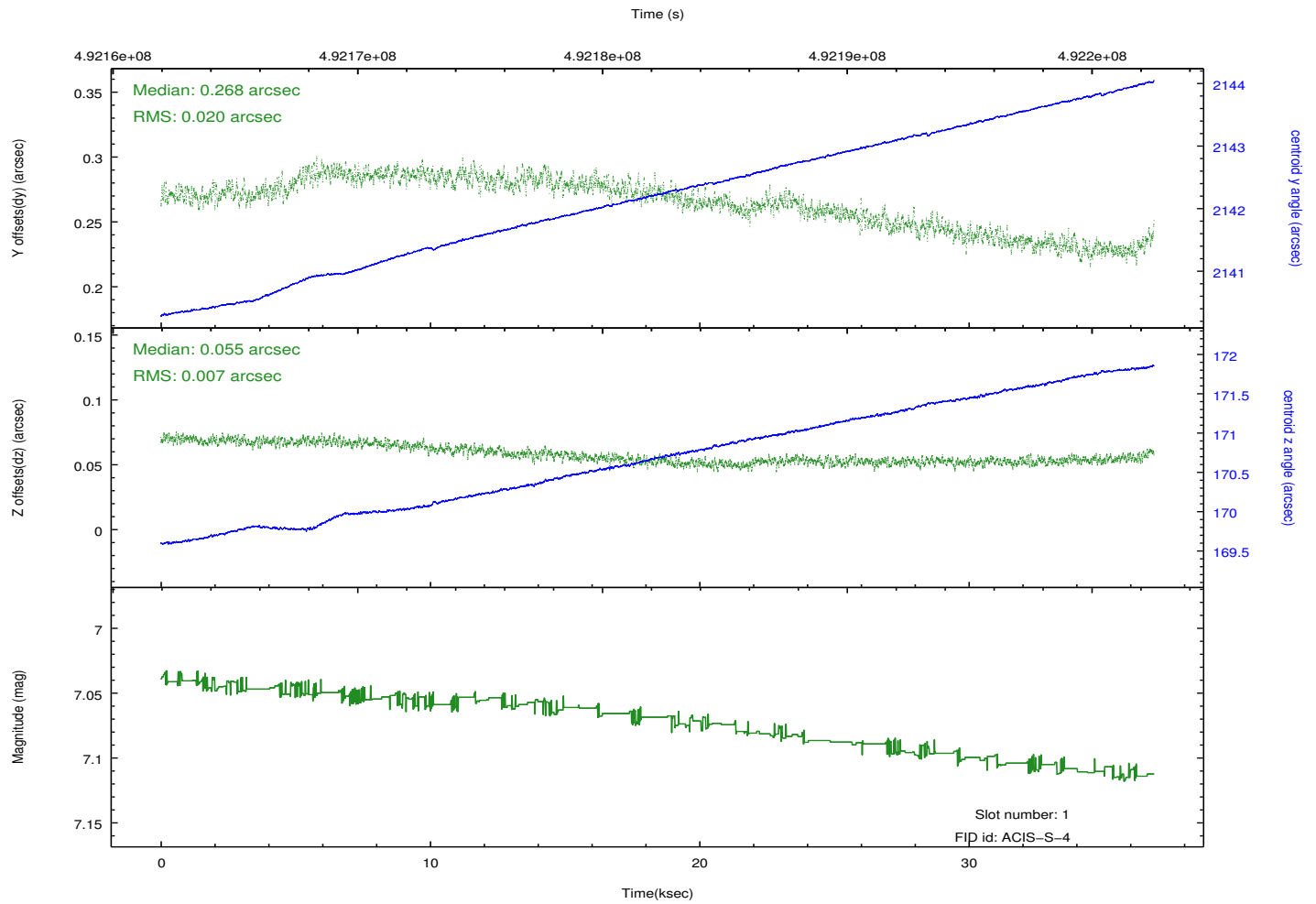
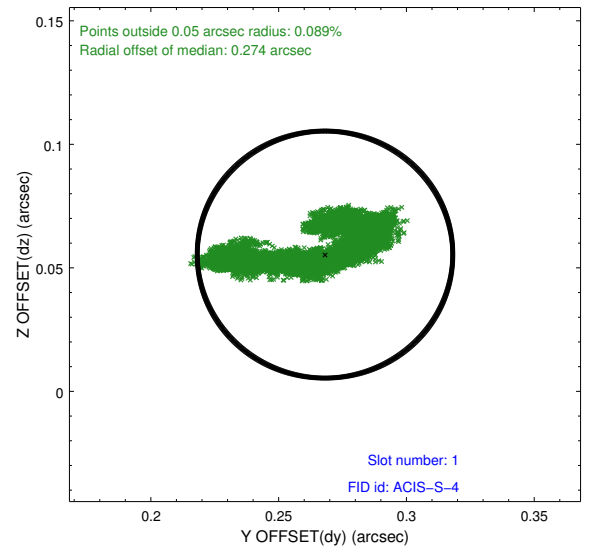
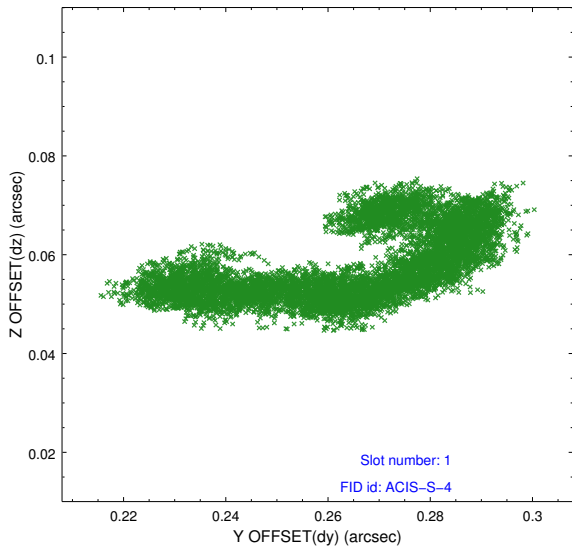


## 2.5 FID Slots

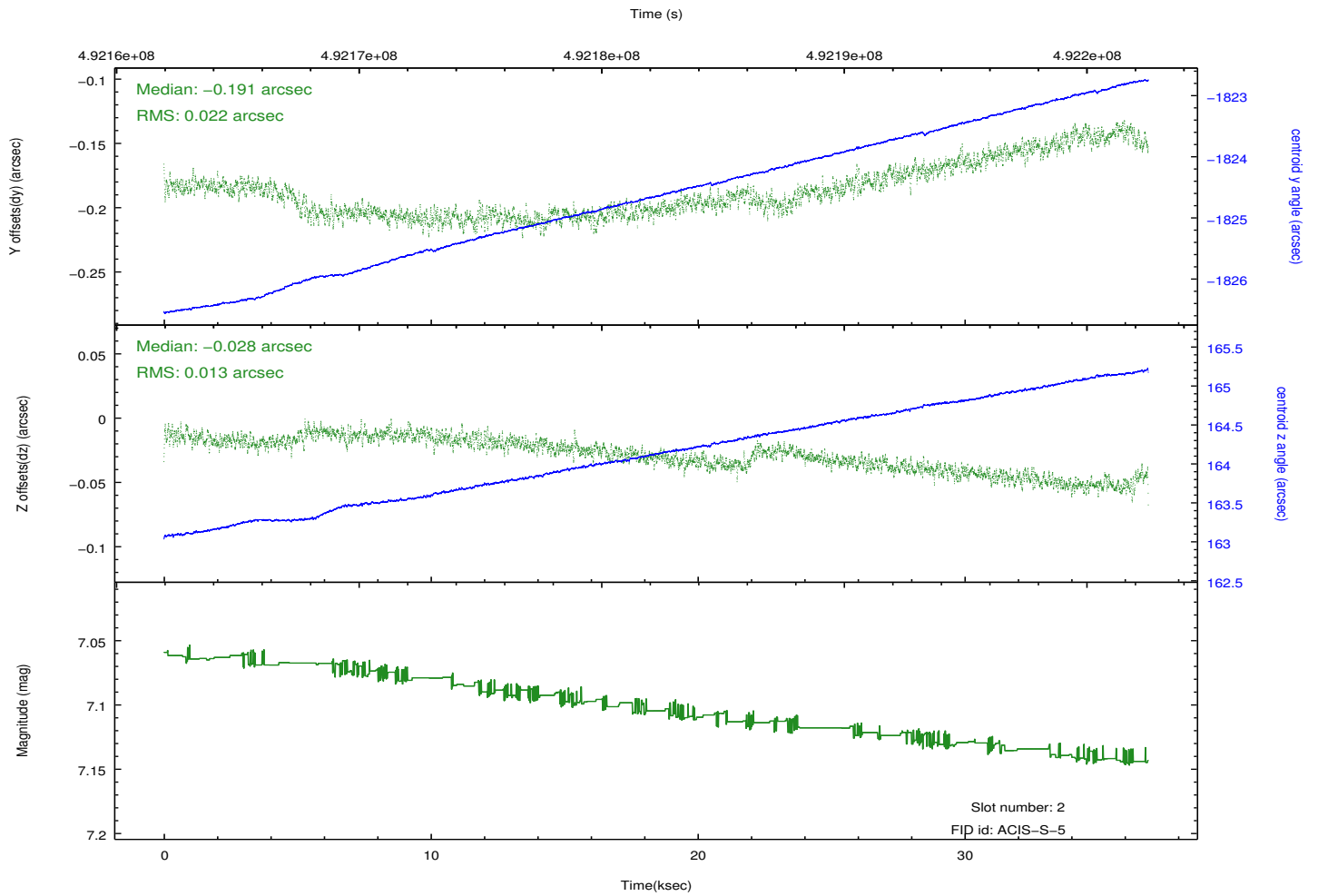
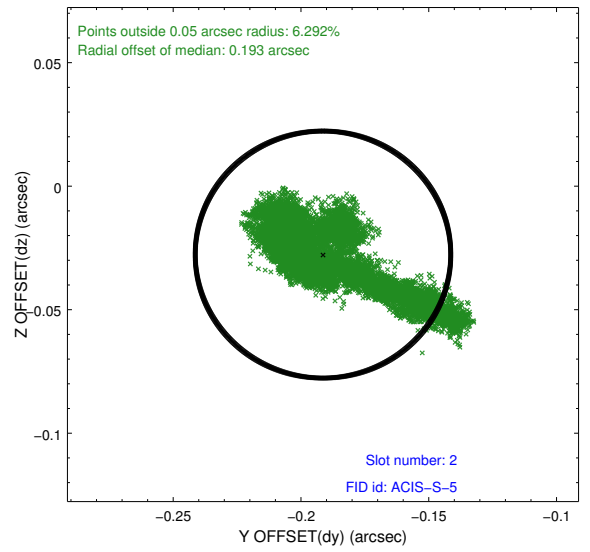
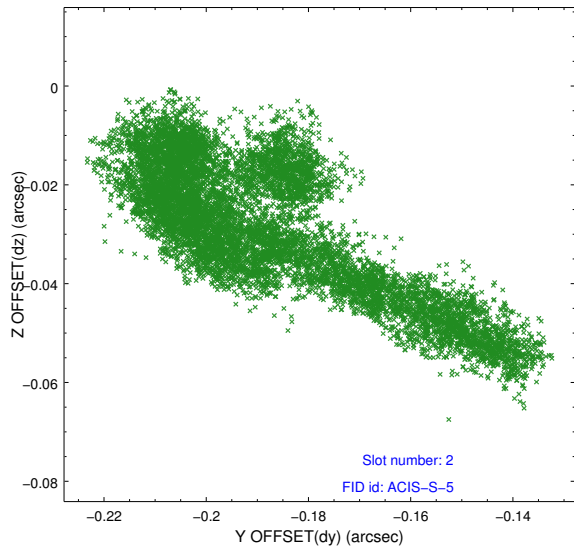
### 2.5.1 Slot 0



## 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)	2014.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	36.065080888987

## A.2 Comments

Optional chip S2 was dropped.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.