

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14583 - L2 Version 2  
Chandra X-Ray Center

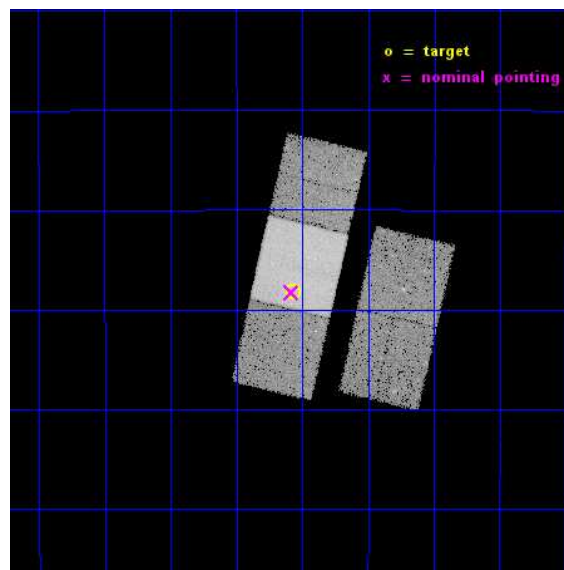
L2 Processing Date : Dec 6 2014

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# 1 Front

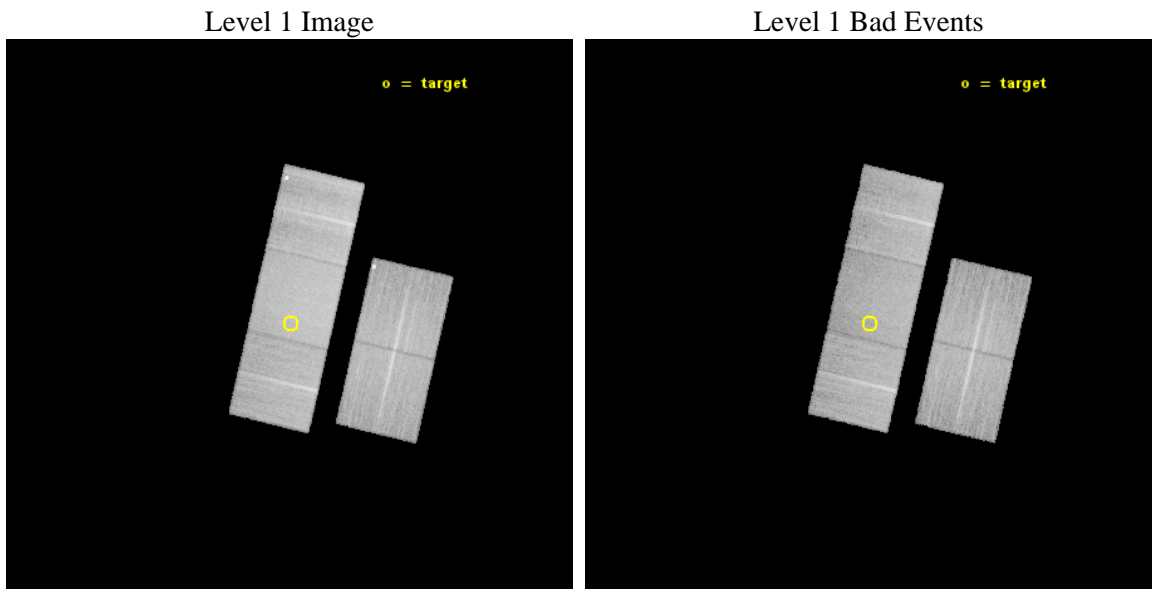
seq_num	200884	Sequence number
obs_id	14583	Observation id
title	COMPACT AND DIFFUSE X-RAY SOURCES IN THE YOUNGEST PLANETARY NEBULAE	&#160
observer	Dr. Joel Kastner	Principal investigator
object	ESO 526-3	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	296.6425	Observer's specified target RA [deg]
dec_targ	-23.136917	Observer's specified target Dec [deg]
ra_nom	296.64559208428	Nominal RA [deg]
dec_nom	-23.137915816335	Nominal Dec [deg]
roll_nom	283.18081658654	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30068.849156201	Sum of GTIs [s]
livetime	29675.97750561	Livetime [s]
ontime2	30068.684996188	Sum of GTIs [s]
ontime3	30062.484975755	Sum of GTIs [s]
ontime6	30068.808116198	Sum of GTIs [s]
ontime7	30068.849156201	Sum of GTIs [s]
ontime8	30059.302875459	Sum of GTIs [s]
l2events	146802	Number of level 2 events



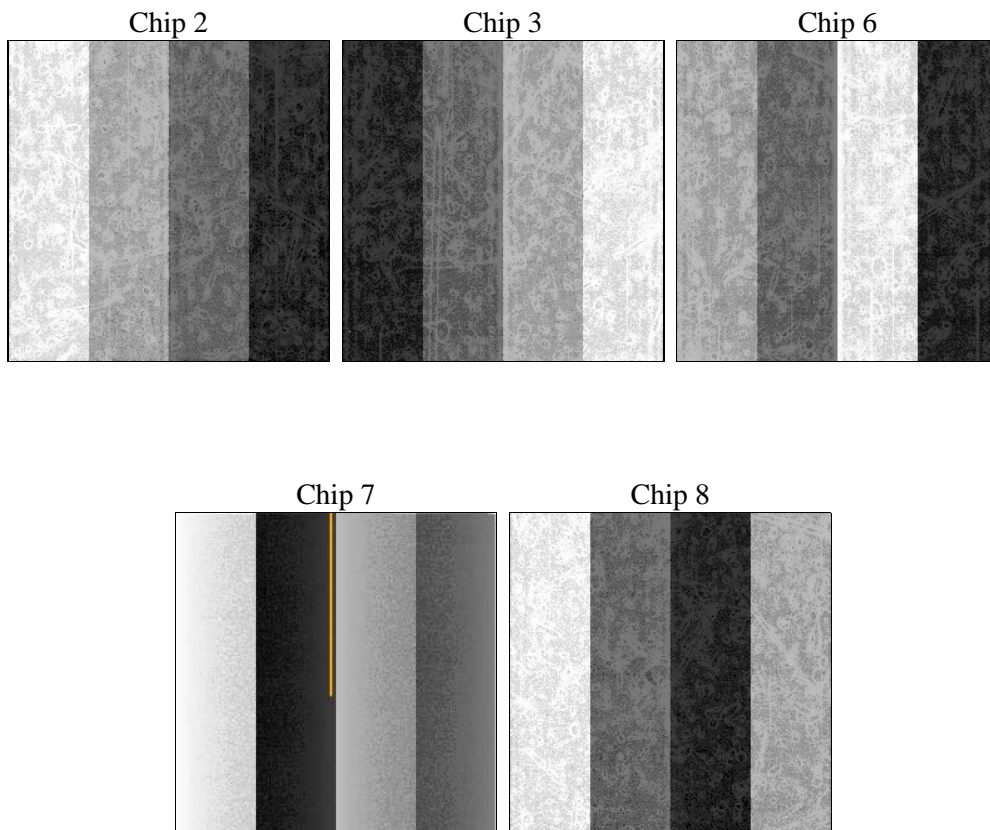
## 2 OBI

### 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	10.3.1	Processing system revision	ontime	30068.849156201	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	30068.684996188	Sum of GTIs [s]
date	2014-12-06T05:48:11	Date and time of file creation	ontime3	30062.484975755	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30068.808116198	Sum of GTIs [s]
			ontime7	30068.849156201	Sum of GTIs [s]
			ontime8	30059.302875459	Sum of GTIs [s]
			l1events	836915	Number of level 1 events

### 2.1.4 Events

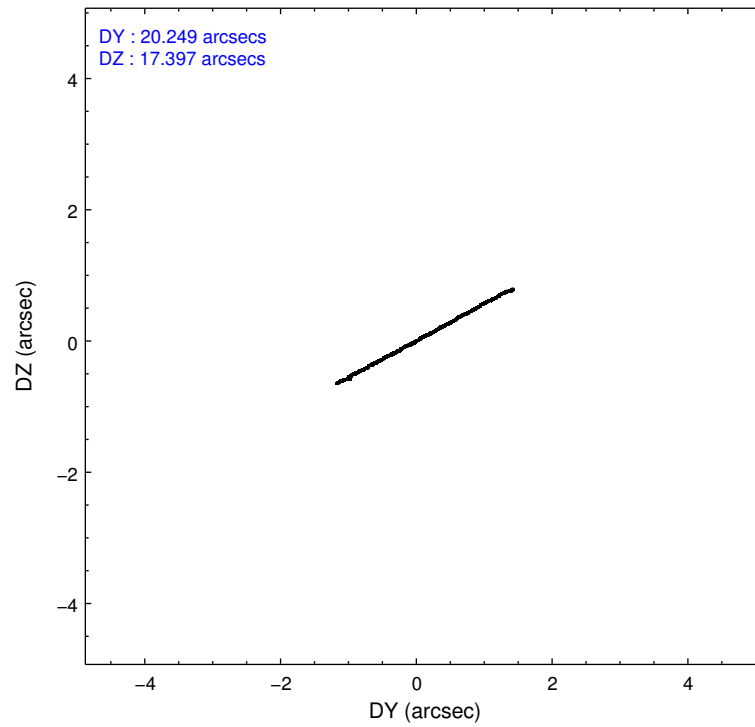
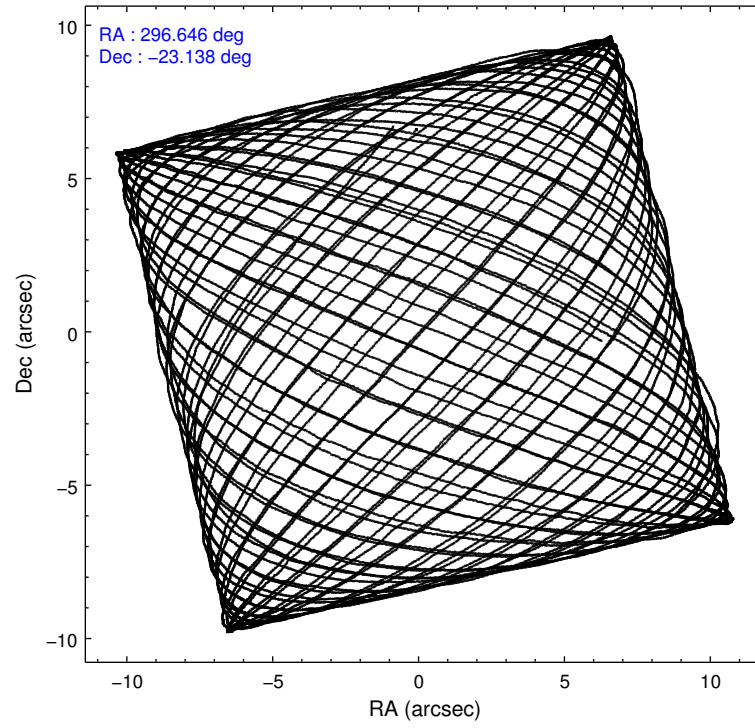
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	142009	144538	152221	202199	195948
rejected events	125437	126066	134303	115212	142467
rejected %	88%	87%	88%	56%	72%

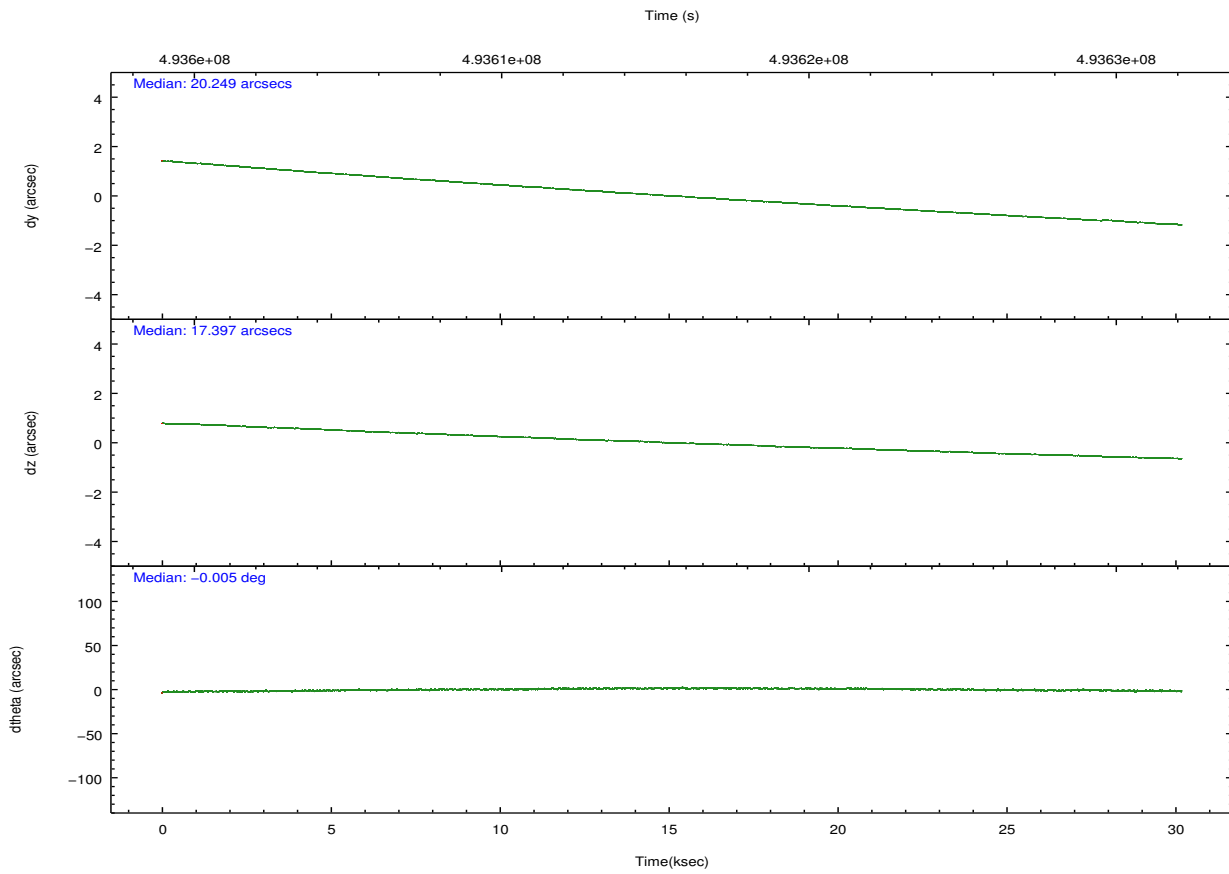
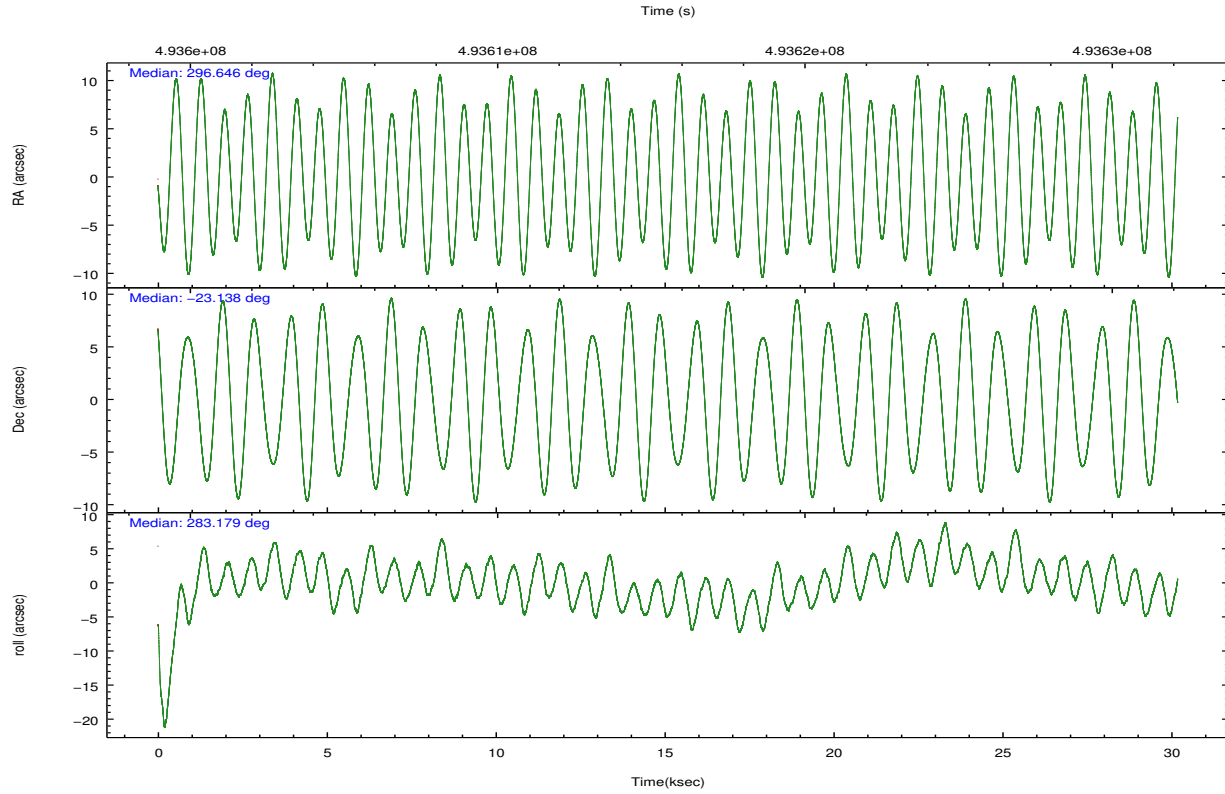
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5929	7844	5992	7599	16535
	4%	5%	3%	3%	8%
grade 1 events	76	103	65	222	152
	0%	0%	0%	0%	0%
grade 2 events	3966	3621	4047	18053	12330
	2%	2%	2%	8%	6%
grade 3 events	1726	1718	1807	7277	5571
	1%	1%	1%	3%	2%
grade 4 events	1694	1768	1793	7187	5250
	1%	1%	1%	3%	2%
grade 5 events	6360	7771	7886	20741	11294
	4%	5%	5%	10%	5%
grade 6 events	3260	3522	4281	46877	13797
	2%	2%	2%	23%	7%
grade 7 events	118998	118191	126350	94243	131019
	83%	81%	83%	46%	66%

## 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	296.624969	296.6455920842772	CCD I2 on	O3	Y
[deg] Pointing Dec	-23.118236	-23.13791581633532	CCD I3 on	O2	Y
[deg] Pointing Roll	283.016091	283.1808165865382	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	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)	493600618.184000	493599094.09926	CCD S5 on	N	N
Observation start date	2013-08-22T23:15:51	2013-08-22T22:51:34	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	493630618.184000	493631509.72603	On-chip summing requested	N	N
Observation end date	2013-08-23T07:35:51	2013-08-23T07:51:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





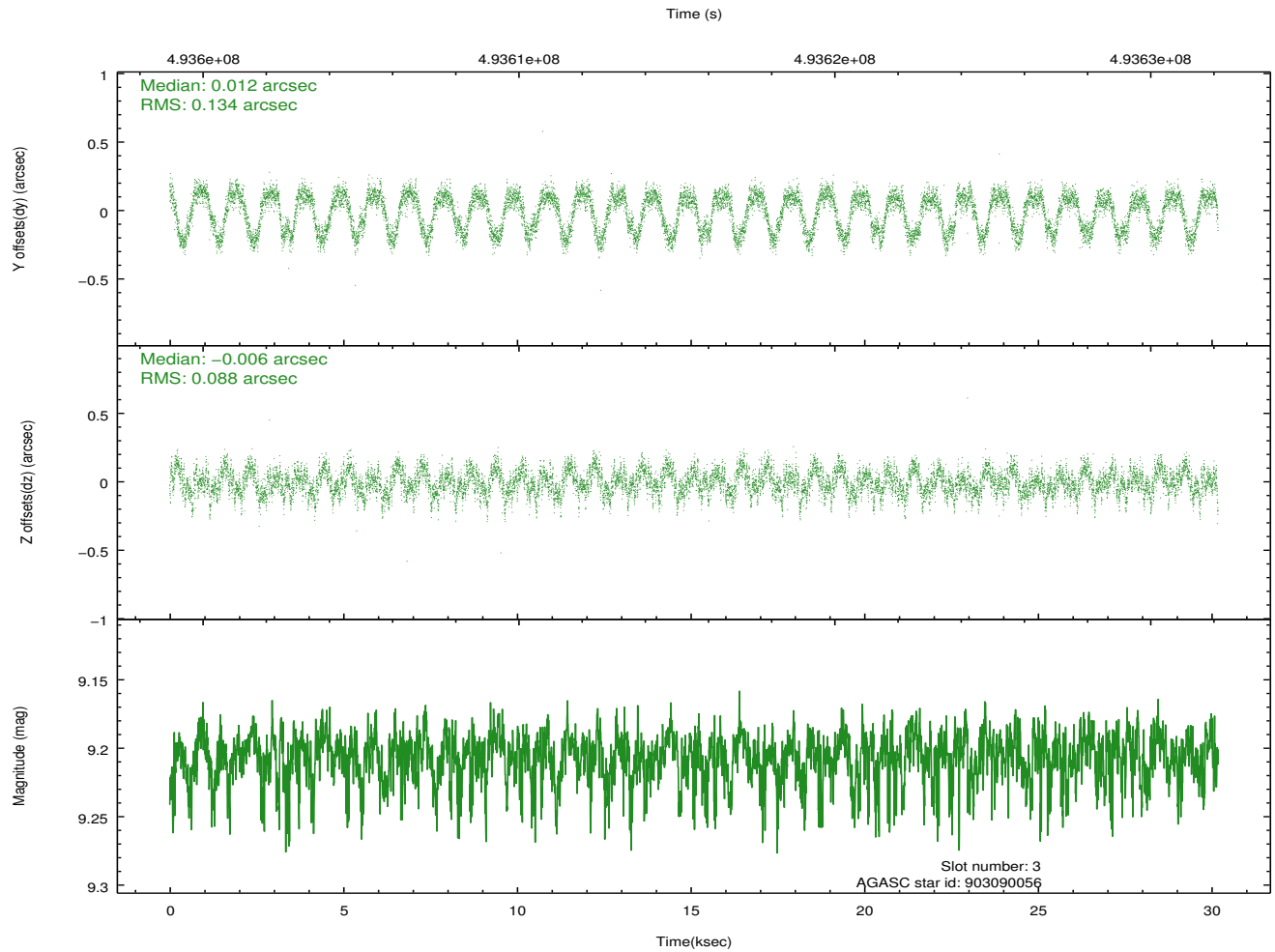
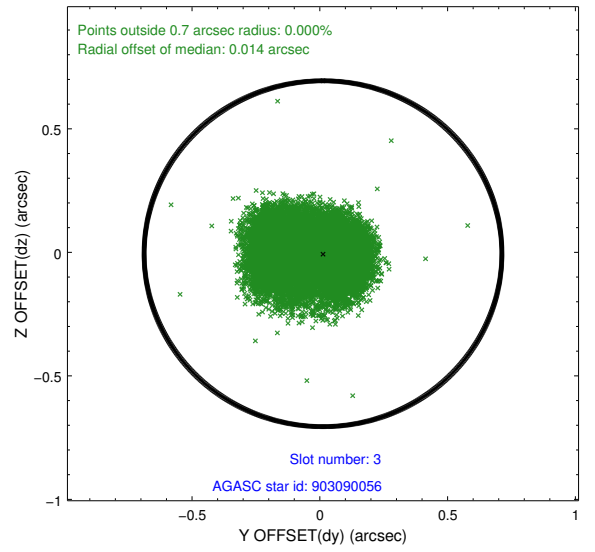
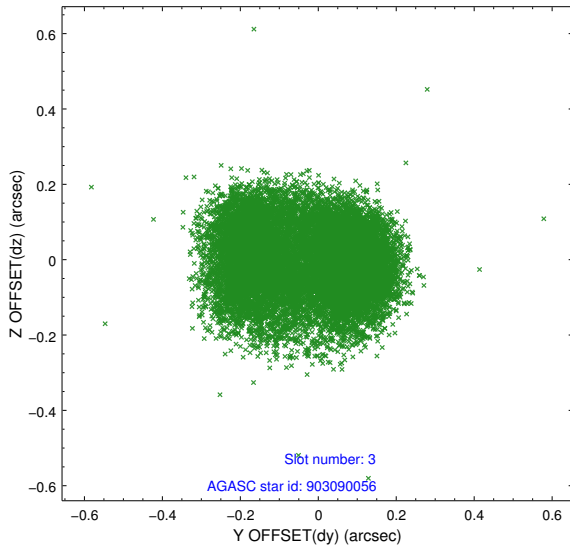
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.11	7363	0.101	-0.076	0.025	0.051	0.000000	0.000000	922.73	-1734.57
1	FID		ACIS-S-5	7.15	7363	-0.191	0.055	0.021	0.039	0.000000	0.000000	-1826.52	163.04
2	FID		ACIS-S-6	7.26	7363	0.069	0.034	0.034	0.045	0.000000	0.000000	388.18	807.06
3	GUIDE	used	903090056	9.21	14681	0.012	-0.006	0.173	0.269	296.782594	-22.798716	-1001.97	769.11
4	GUIDE	used	903092224	7.64	14725	0.029	0.053	0.104	0.170	296.136027	-22.855774	-1282.61	-1367.67
5	GUIDE	used	903096144	6.83	14725	-0.020	-0.055	0.091	0.148	296.169100	-23.264166	175.58	-1587.78
6	GUIDE	used	903100576	9.06	14708	0.042	-0.159	0.111	0.181	296.794847	-23.381140	1049.60	333.71
7	GUIDE	used	903107088	9.34	14714	-0.056	0.171	0.207	0.355	296.565137	-23.577897	1569.13	-563.79

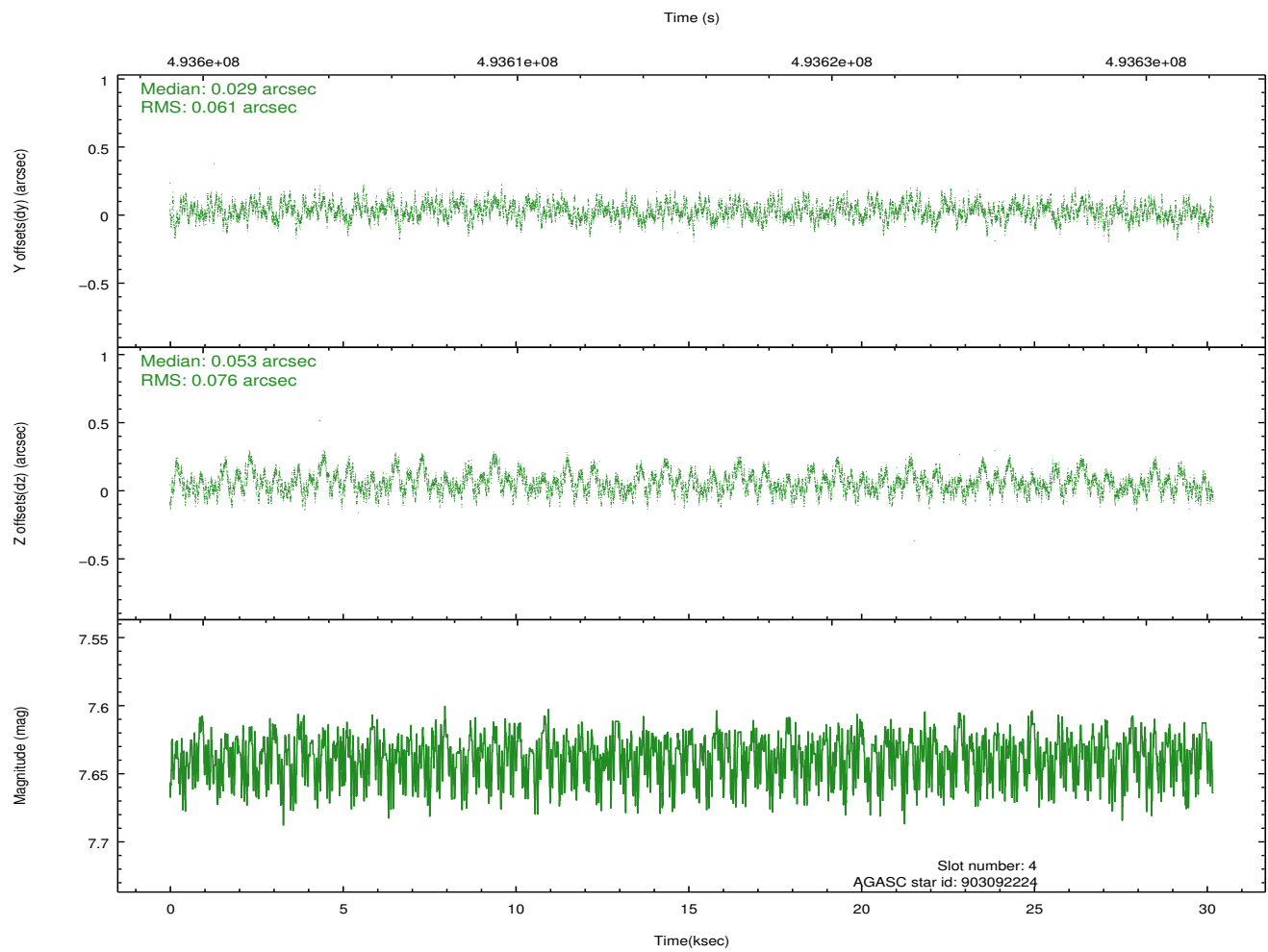
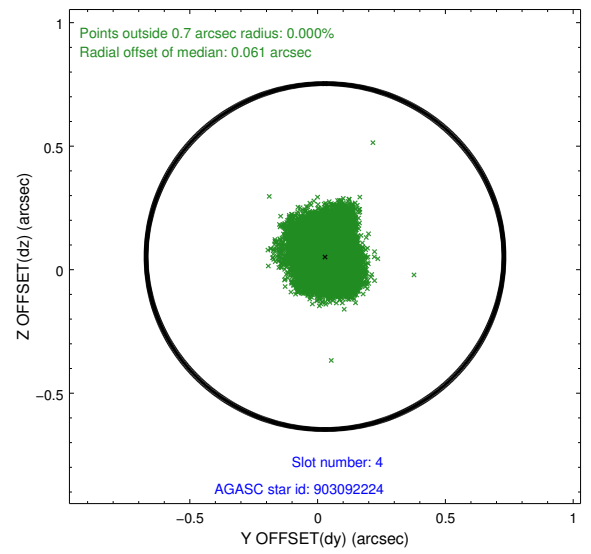
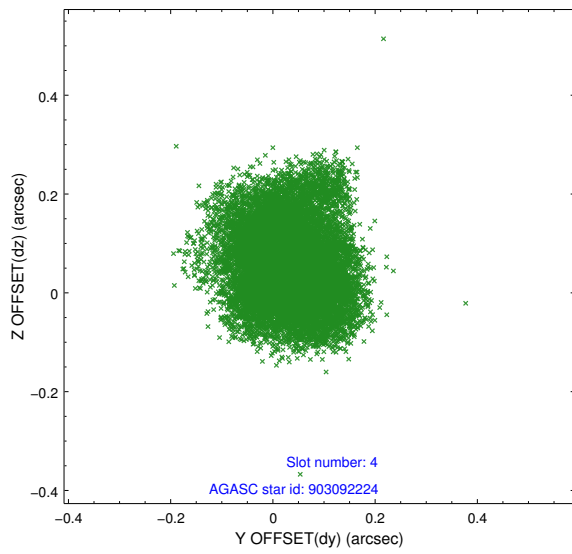
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## 2.4 Star Slots

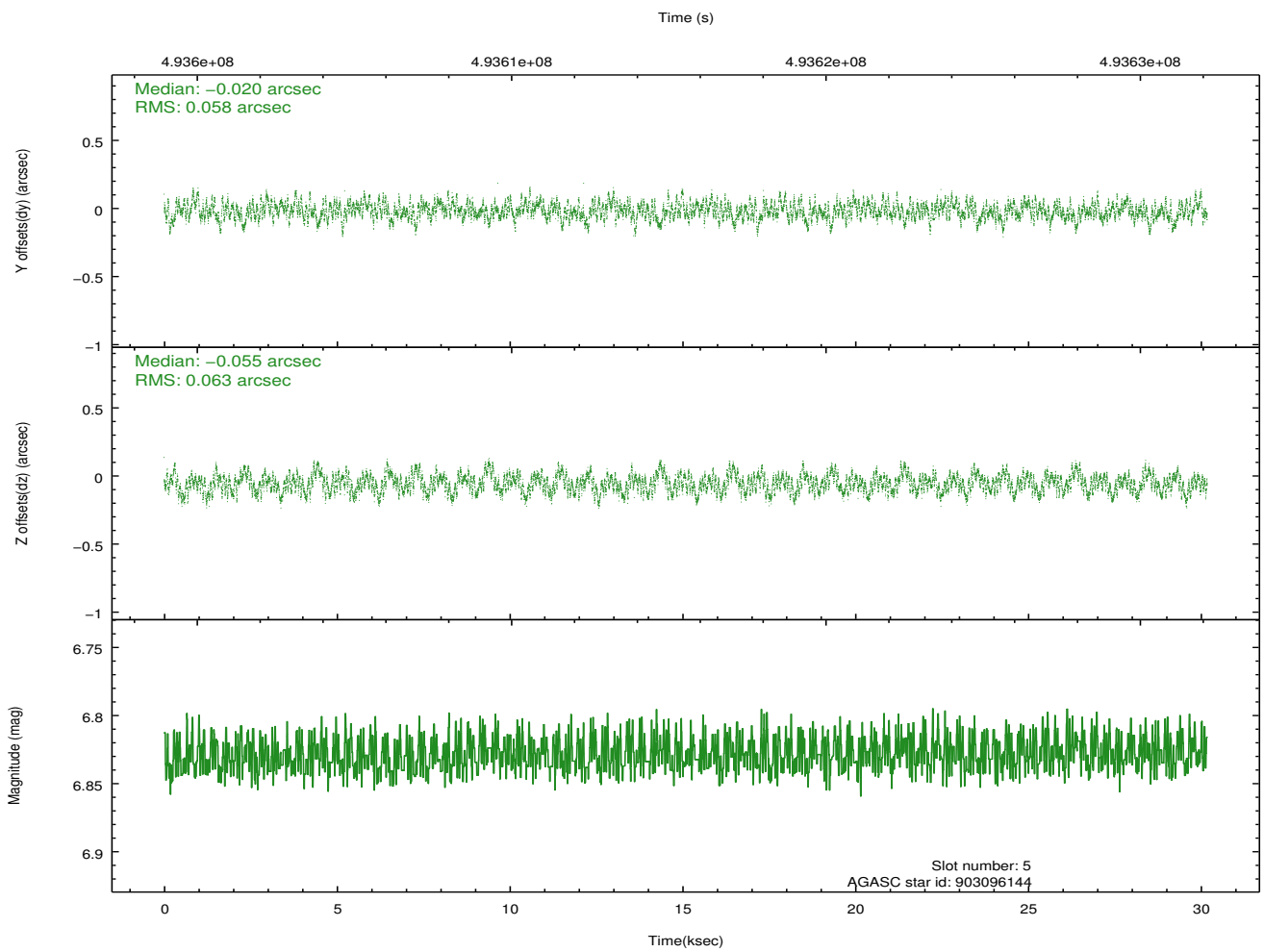
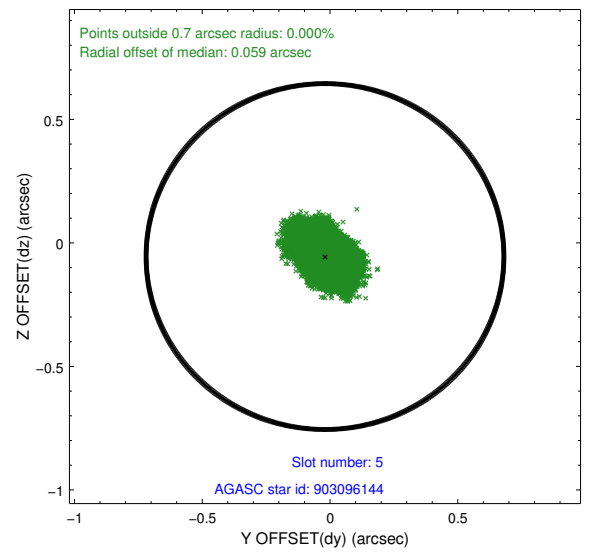
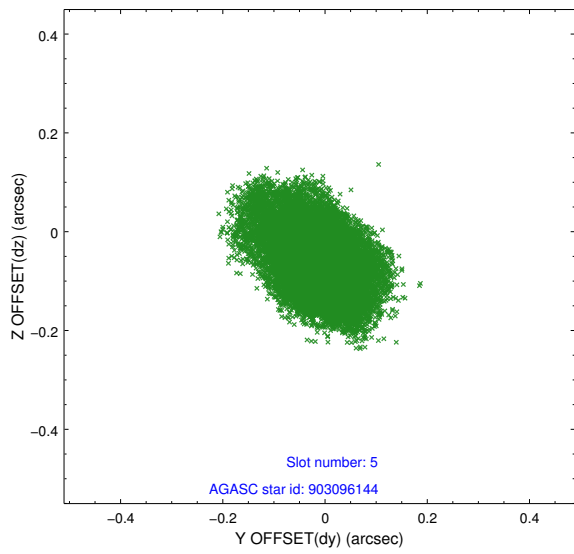
### 2.4.1 Slot 3



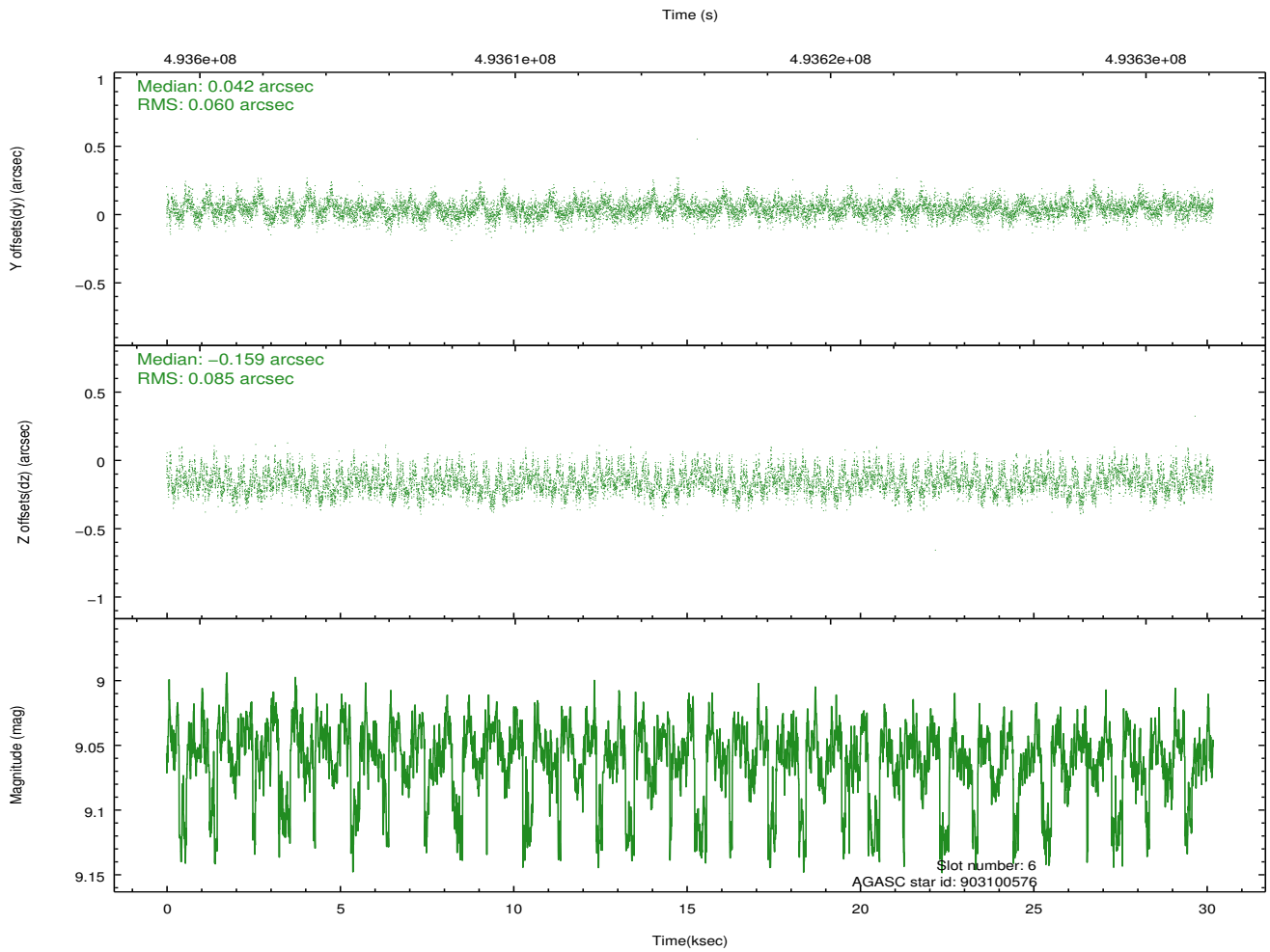
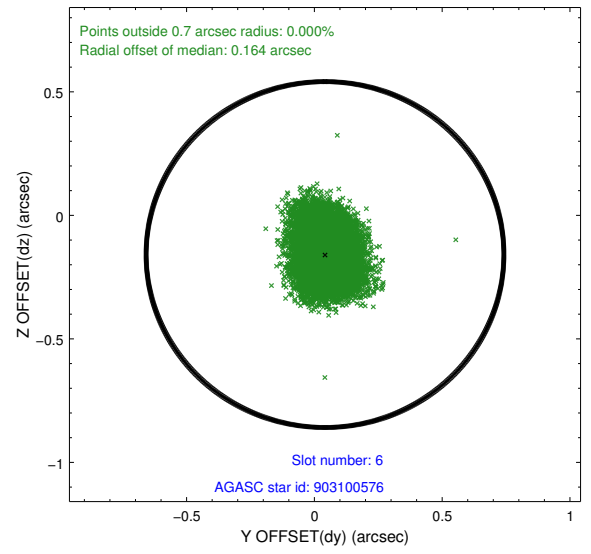
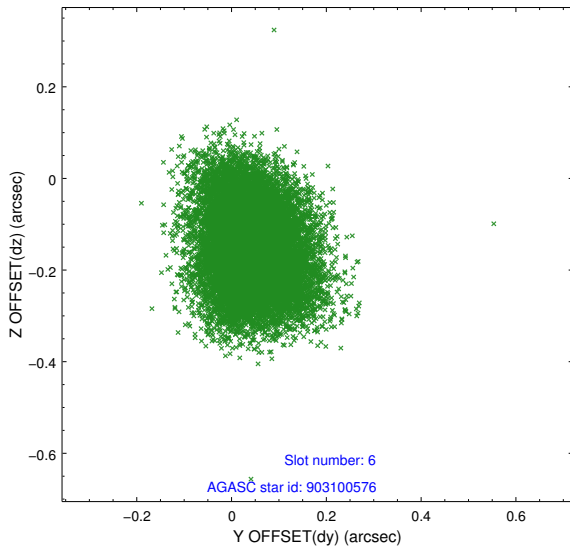
## 2.4.2 Slot 4



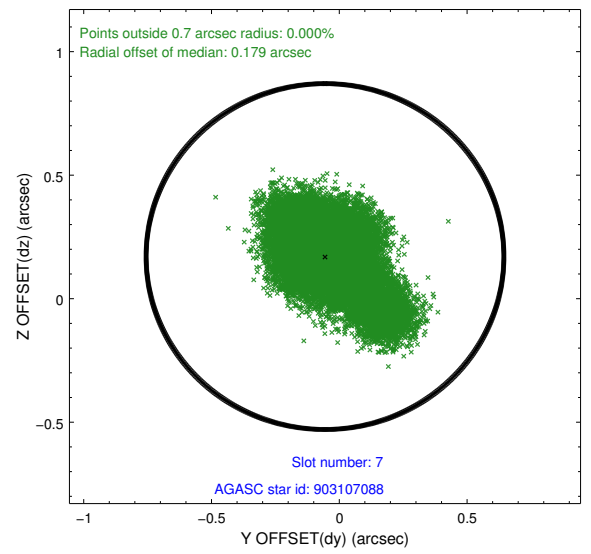
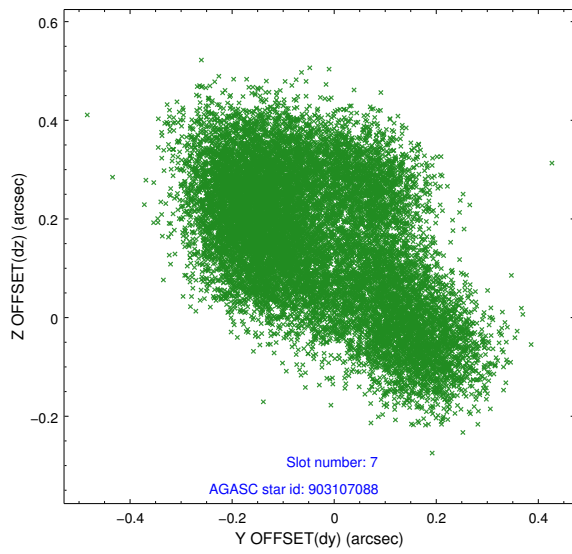
### 2.4.3 Slot 5



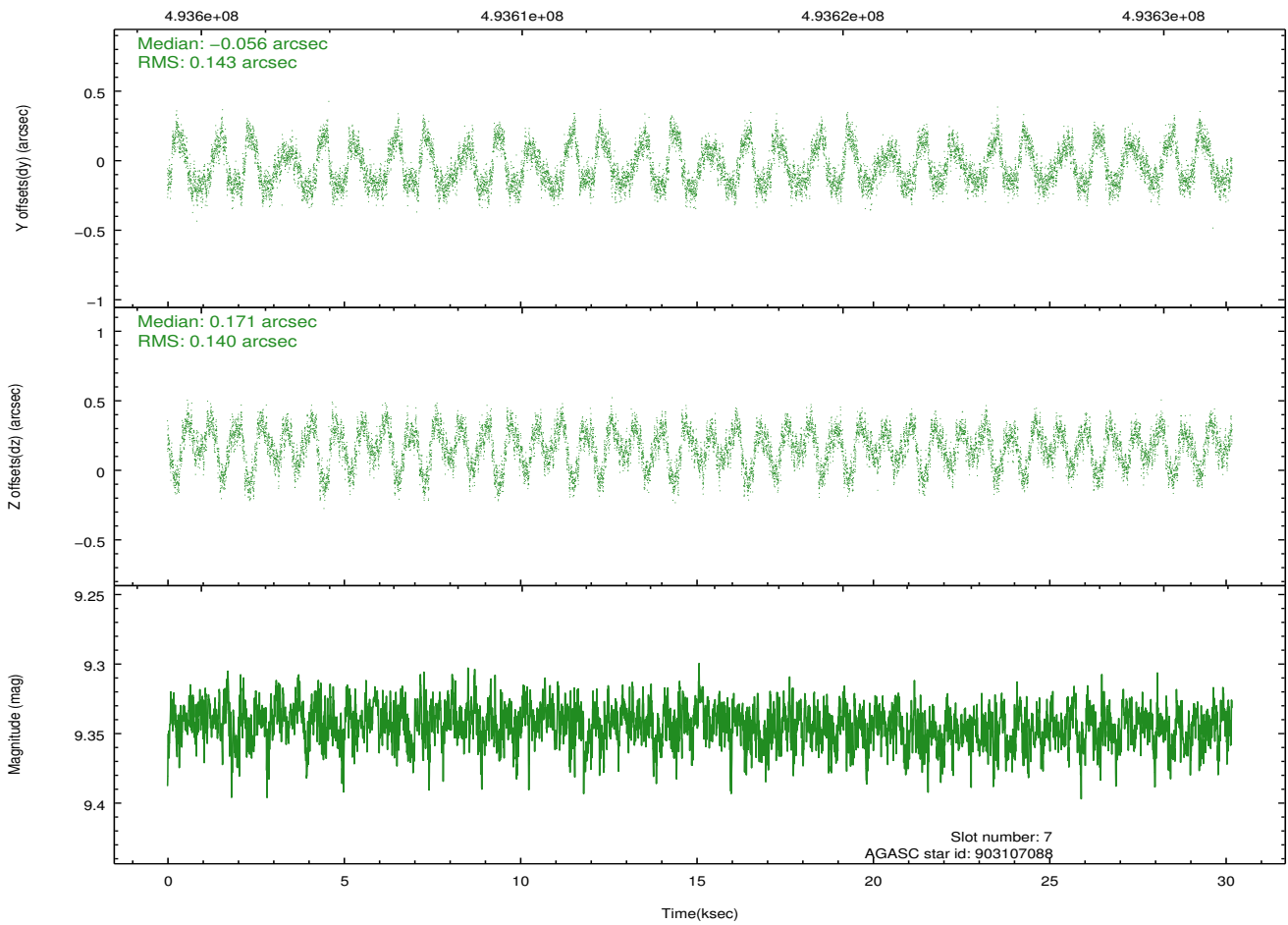
### 2.4.4 Slot 6



## 2.4.5 Slot 7

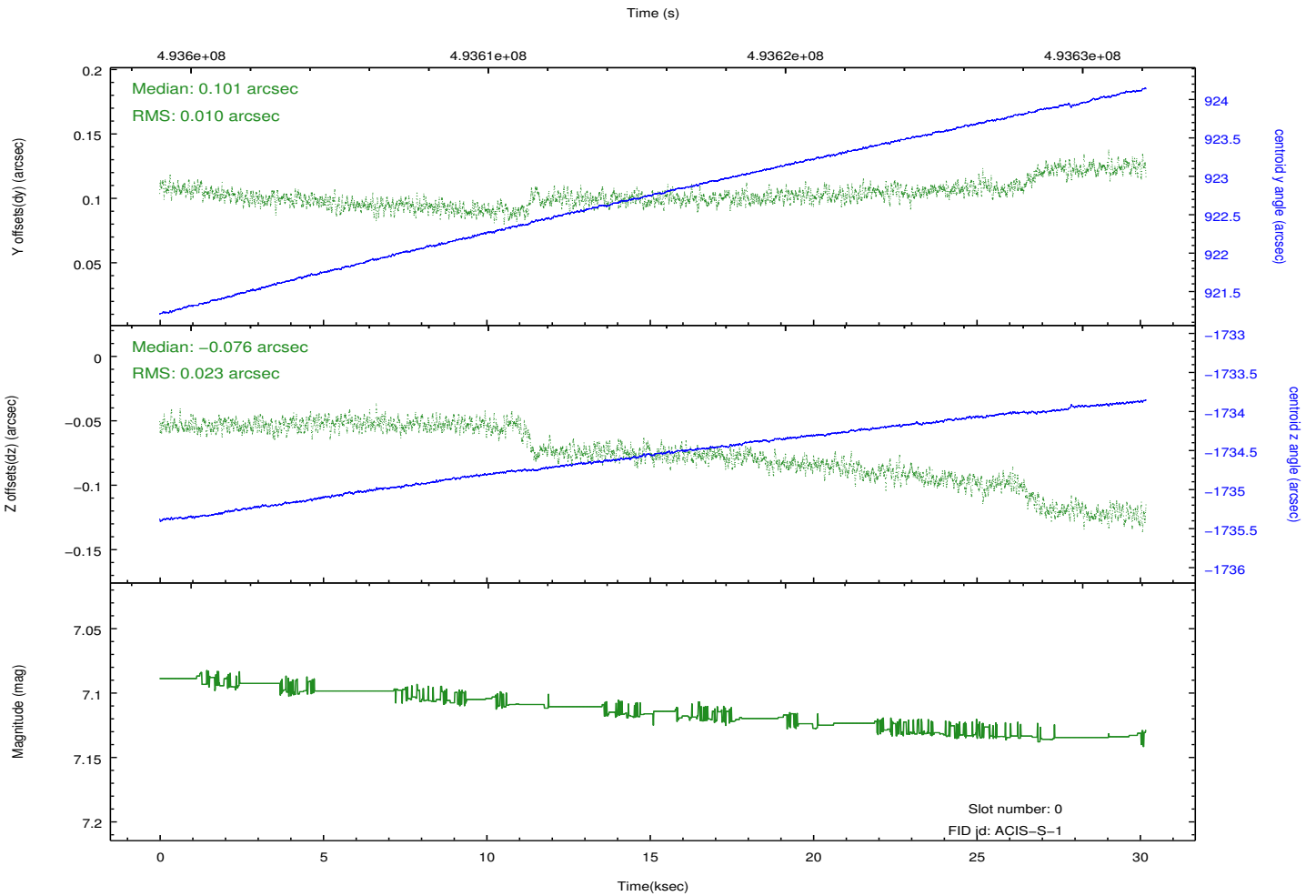
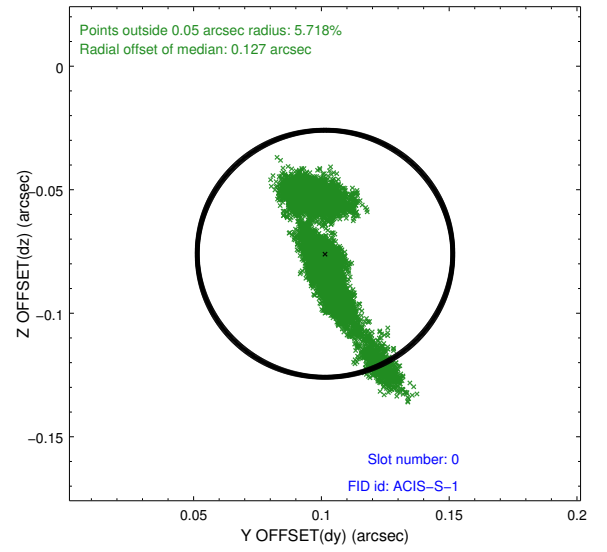
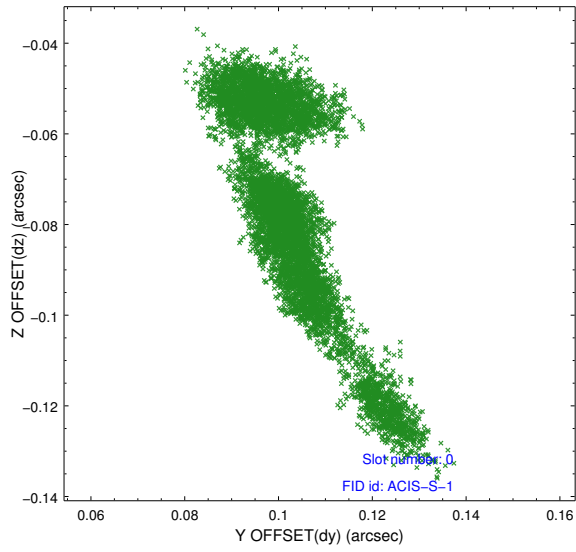


Time (s)

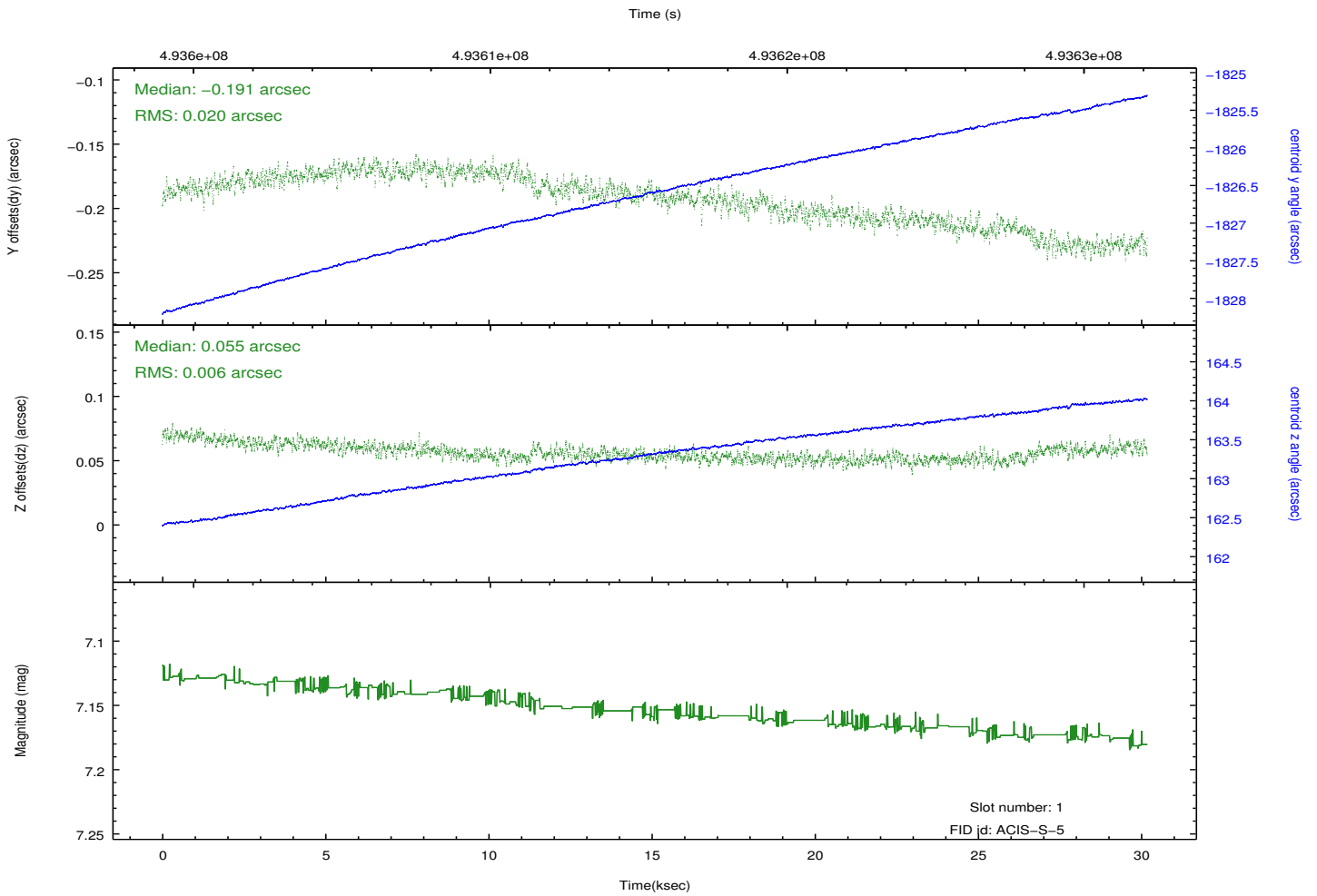
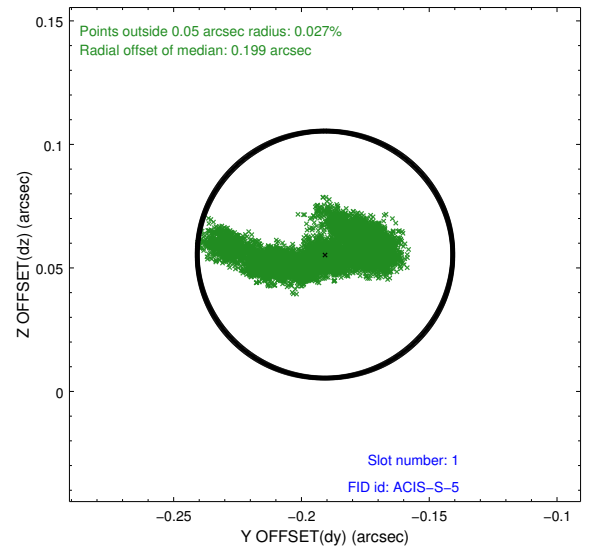
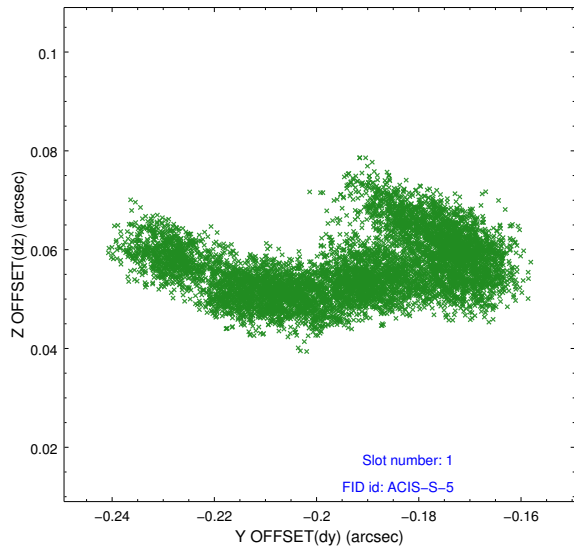


## 2.5 FID Slots

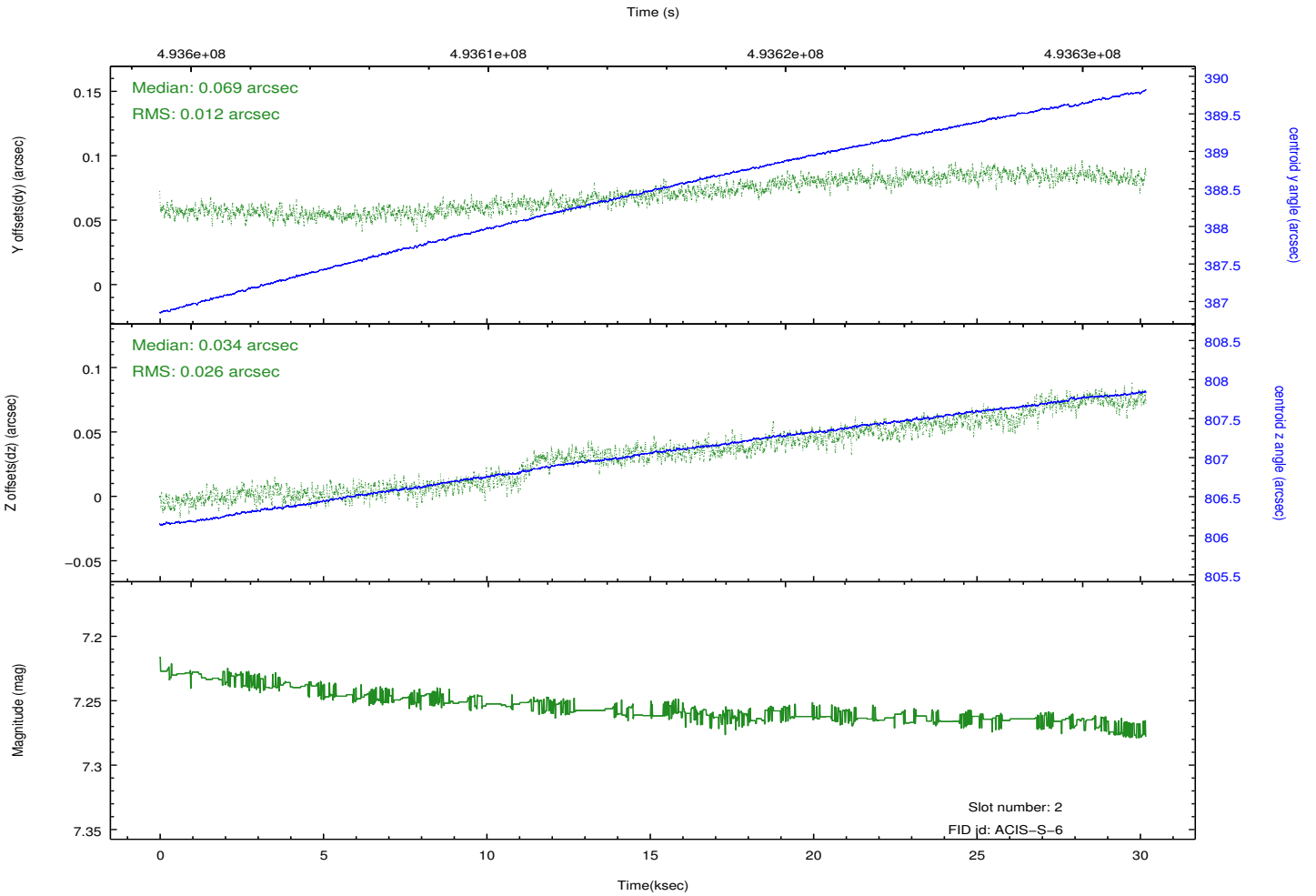
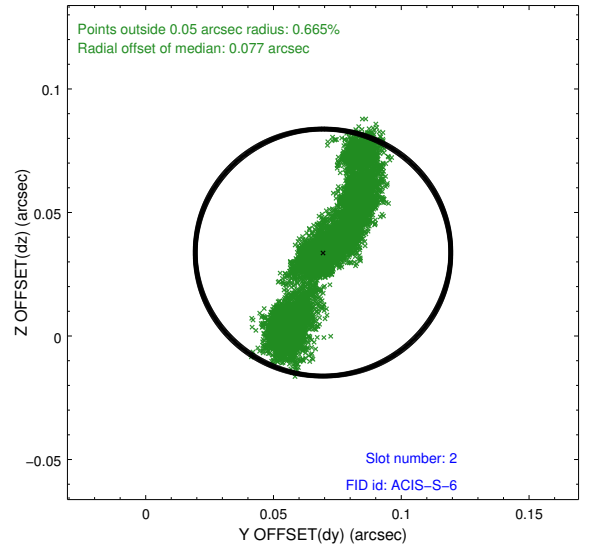
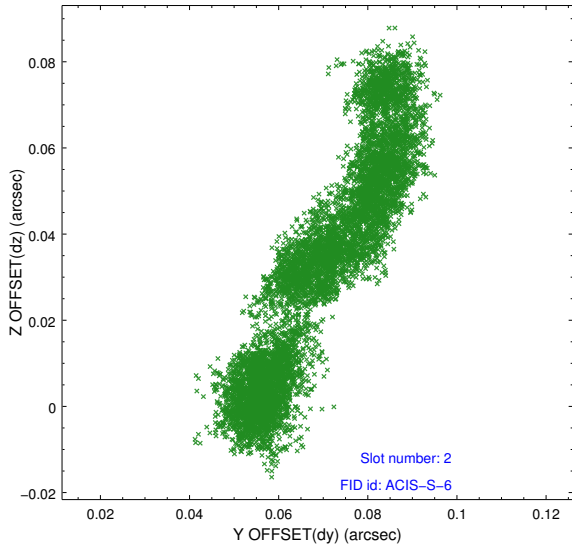
### 2.5.1 Slot 0



## 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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.068849156201

## A.2 Comments

Optional chip S1 not used.

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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.