

# V&V Reference Report

## L2 ASCDS Version : 10

Observation 14588 - L2 Version 2  
Chandra X-Ray Center

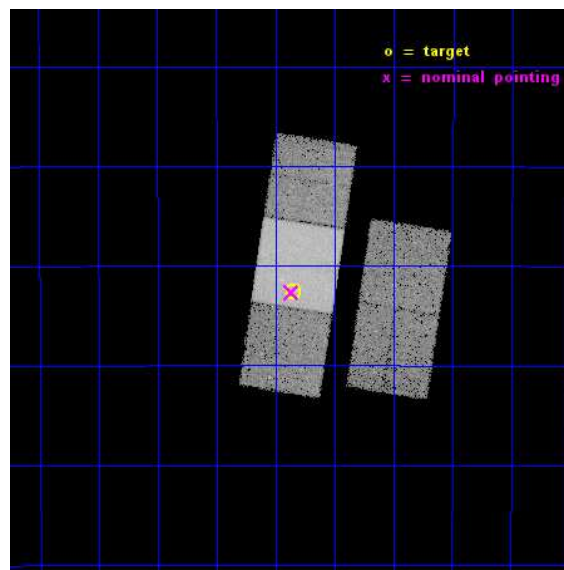
L2 Processing Date : Dec 3 2014

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# 1 Front

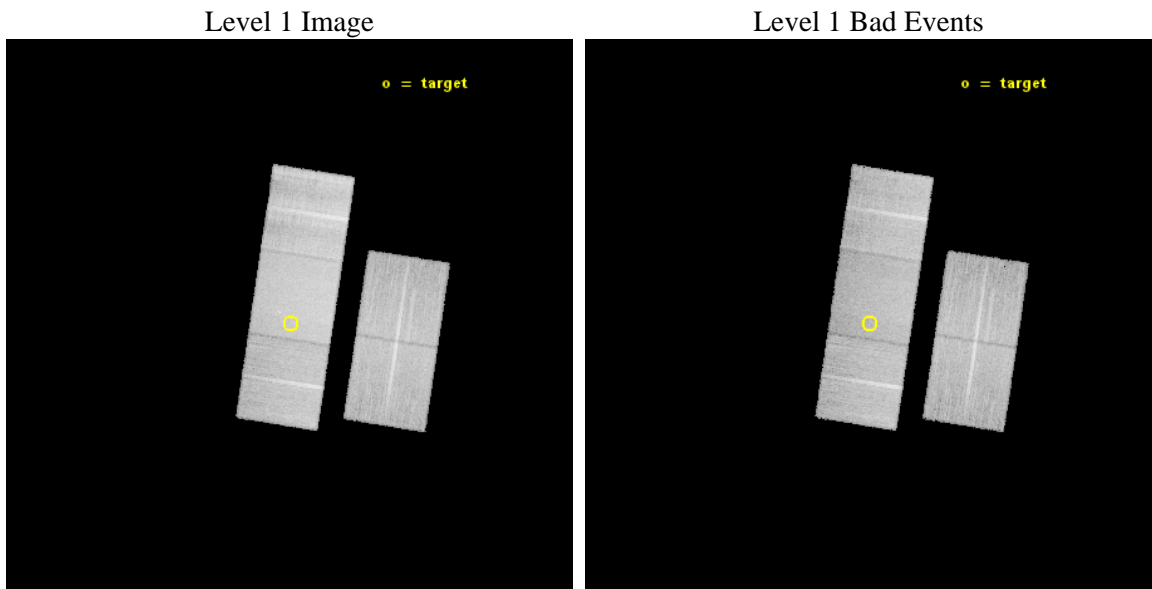
seq_num	200889	Sequence number
obs_id	14588	Observation id
title	COMPACT AND DIFFUSE X-RAY SOURCES IN THE YOUNGEST PLANETARY NEBULAE	&#160
observer	Dr. Joel Kastner	Principal investigator
object	NGC 6026	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	240.337917	Observer's specified target RA [deg]
dec_targ	-34.543278	Observer's specified target Dec [deg]
ra_nom	240.34129843964	Nominal RA [deg]
dec_nom	-34.544497821152	Nominal Dec [deg]
roll_nom	278.75829442853	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30038.221348107	Sum of GTIs [s]
livetime	29645.749872377	Livetime [s]
ontime2	30038.057188094	Sum of GTIs [s]
ontime3	30038.1392681	Sum of GTIs [s]
ontime6	30035.039267719	Sum of GTIs [s]
ontime7	30038.221348107	Sum of GTIs [s]
ontime8	30034.957197726	Sum of GTIs [s]
l2events	148909	Number of level 2 events



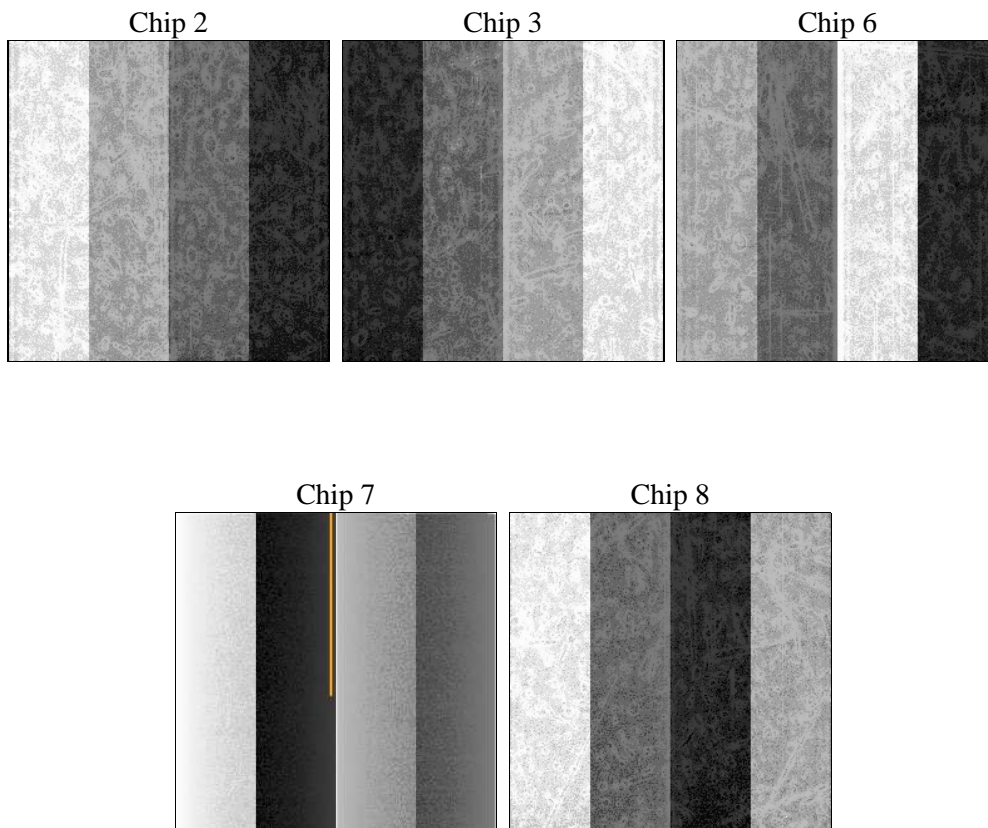
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29969.836000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	30038.221348107	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	30038.057188094	Sum of GTIs [s]
date	2014-12-04T01:46:52	Date and time of file creation	ontime3	30038.1392681	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30035.039267719	Sum of GTIs [s]
			ontime7	30038.221348107	Sum of GTIs [s]
			ontime8	30034.957197726	Sum of GTIs [s]
			l1events	816007	Number of level 1 events

### 2.1.4 Events

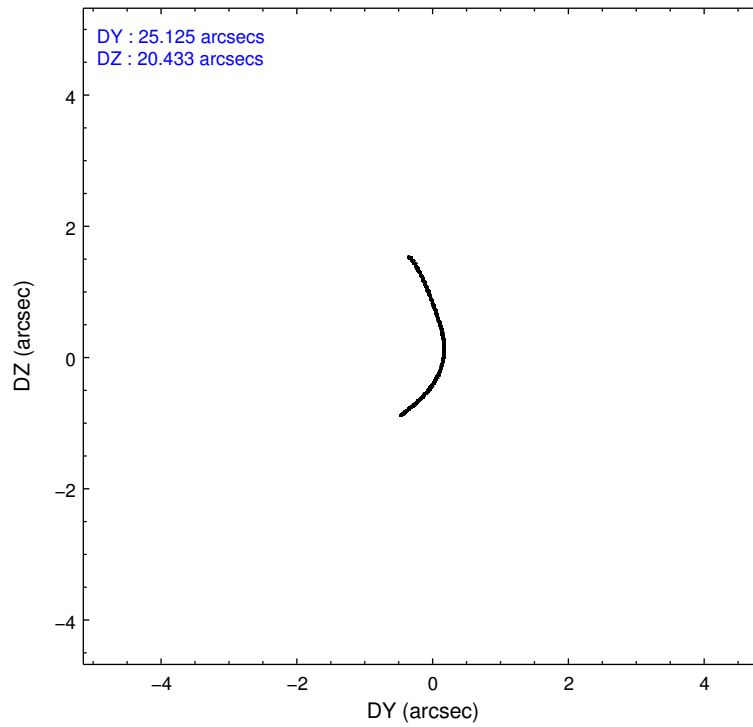
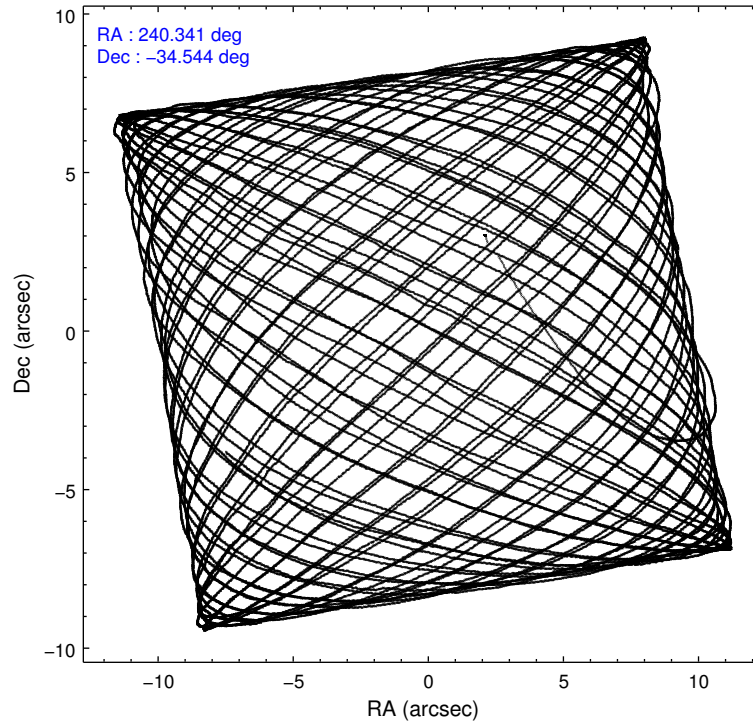
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	136873	135393	147544	198193	198004
rejected events	119985	119115	128736	111119	139683
rejected %	87%	87%	87%	56%	70%

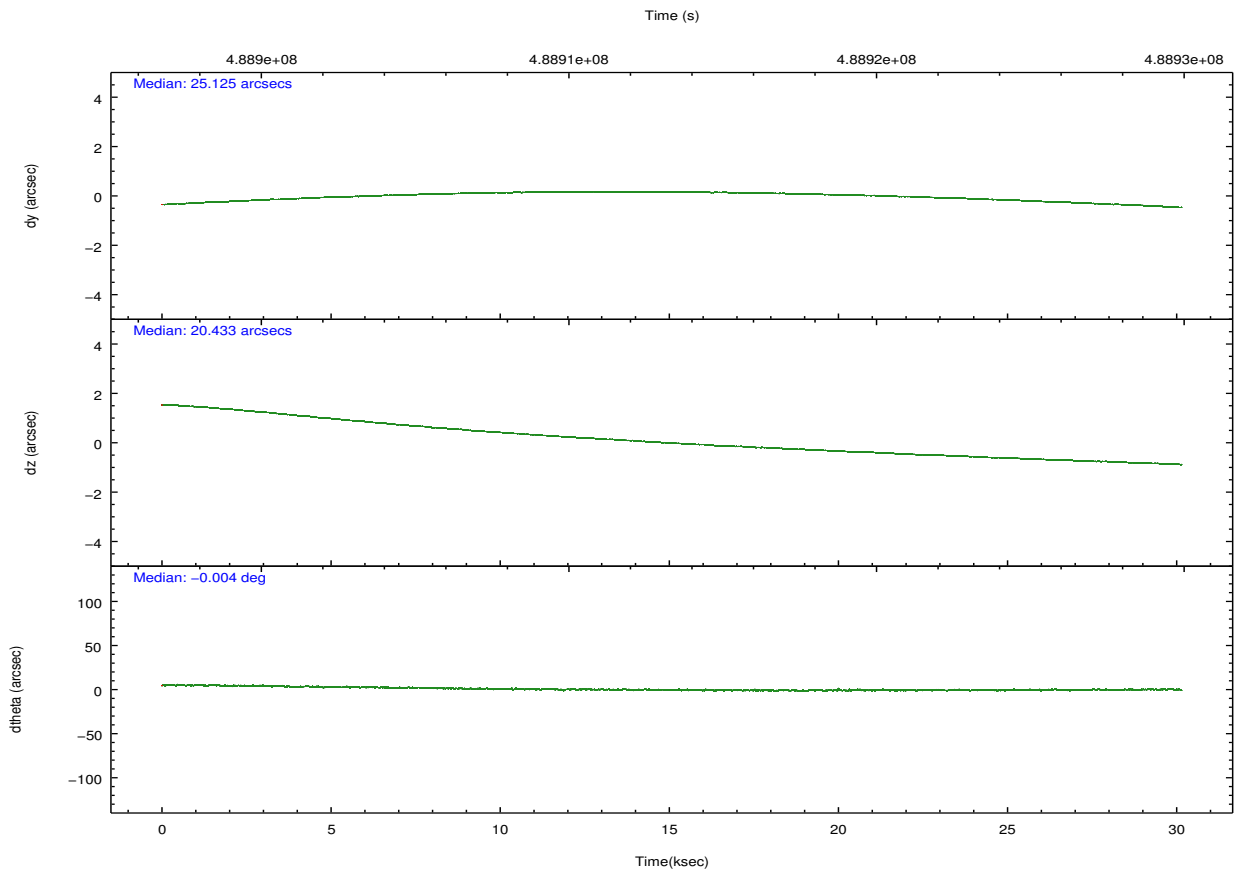
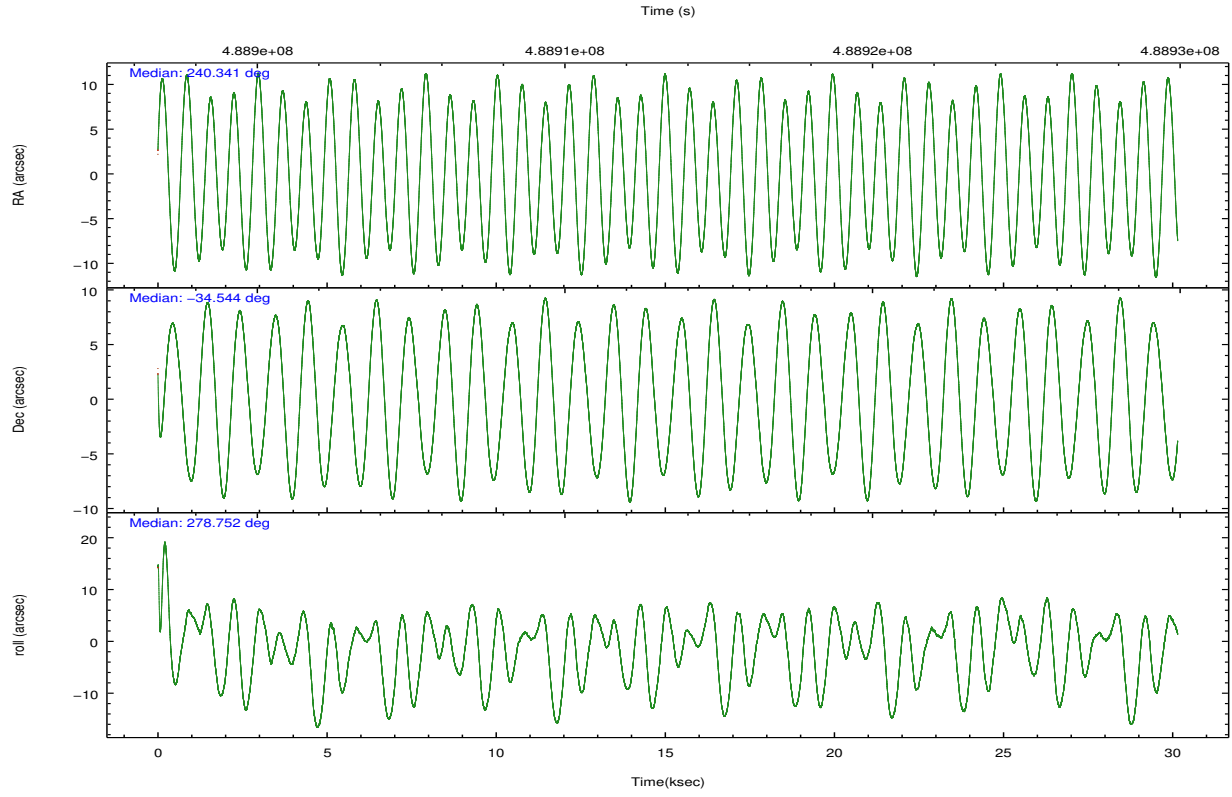
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6485	6015	6903	8306	18240
	4%	4%	4%	4%	9%
grade 1 events	83	90	82	272	172
	0%	0%	0%	0%	0%
grade 2 events	4015	3551	4081	17832	12582
	2%	2%	2%	8%	6%
grade 3 events	1562	1661	1879	7517	6761
	1%	1%	1%	3%	3%
grade 4 events	1649	1726	1748	7302	6395
	1%	1%	1%	3%	3%
grade 5 events	5938	7715	7708	19767	10852
	4%	5%	5%	9%	5%
grade 6 events	3181	3328	4200	46132	14348
	2%	2%	2%	23%	7%
grade 7 events	113960	111307	120943	91065	128654
	83%	82%	81%	45%	64%

## 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	240.320150	240.3412984396355	CCD I2 on	O3	Y
[deg] Pointing Dec	-34.523404	-34.54449782115177	CCD I3 on	O2	Y
[deg] Pointing Roll	278.589678	278.7582944285282	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	488898450.184000	488897439.85574	CCD S5 on	N	N
Observation start date	2013-06-29T13:06:23	2013-06-29T12:50:39	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	488928420.184000	488928646.49494	On-chip summing requested	N	N
Observation end date	2013-06-29T21:25:53	2013-06-29T21:30:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





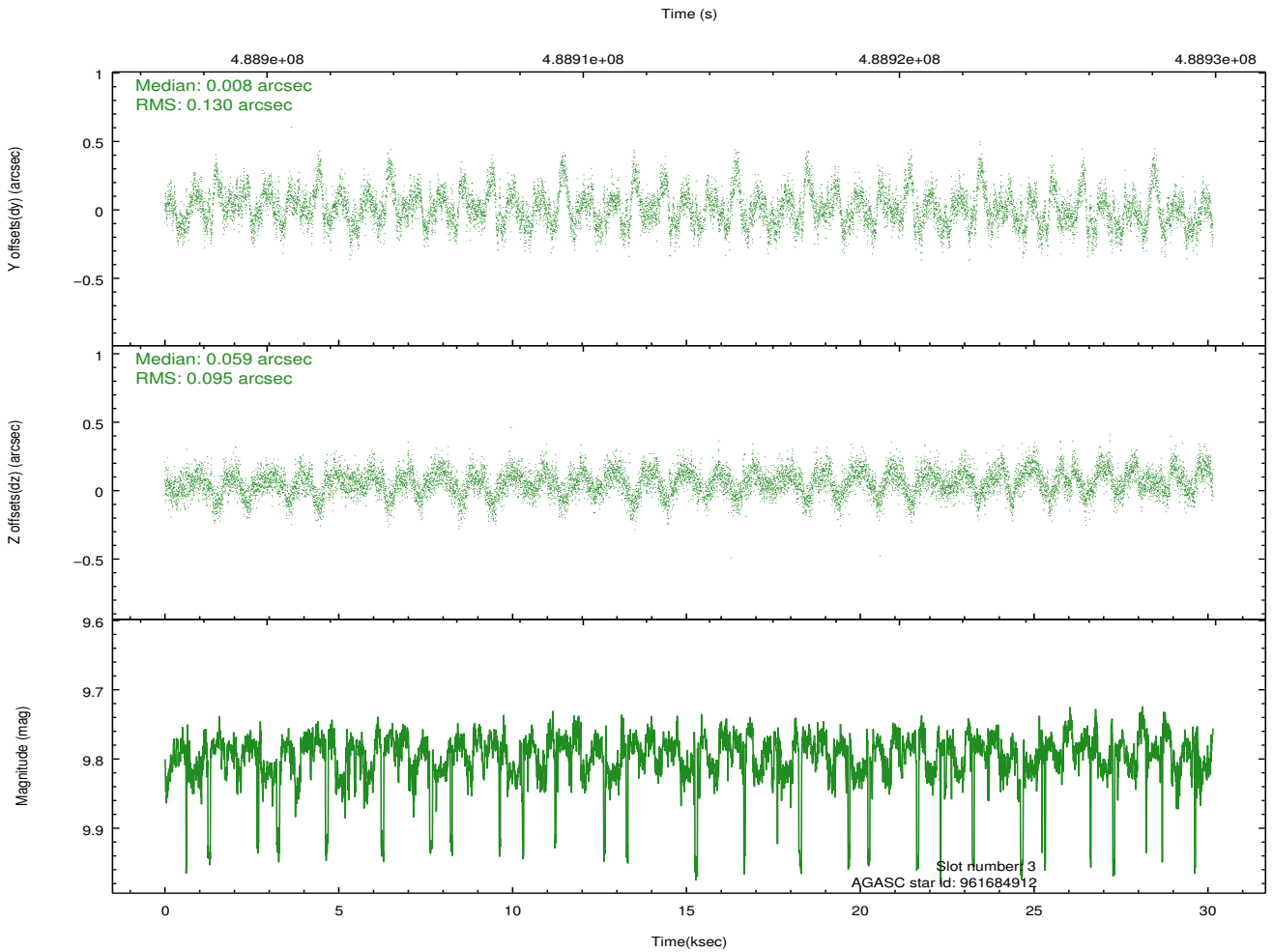
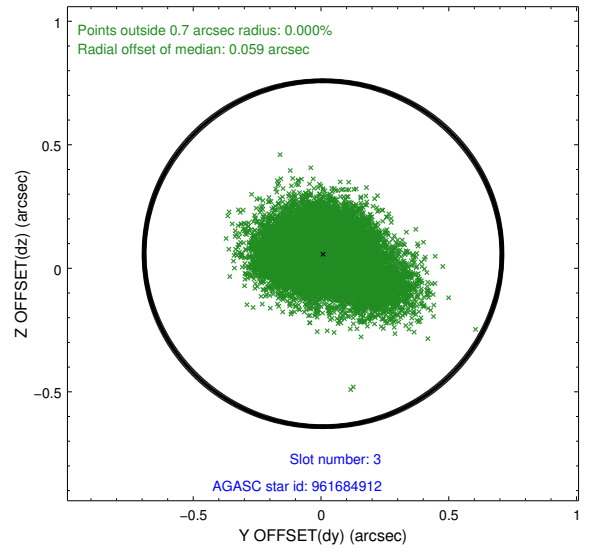
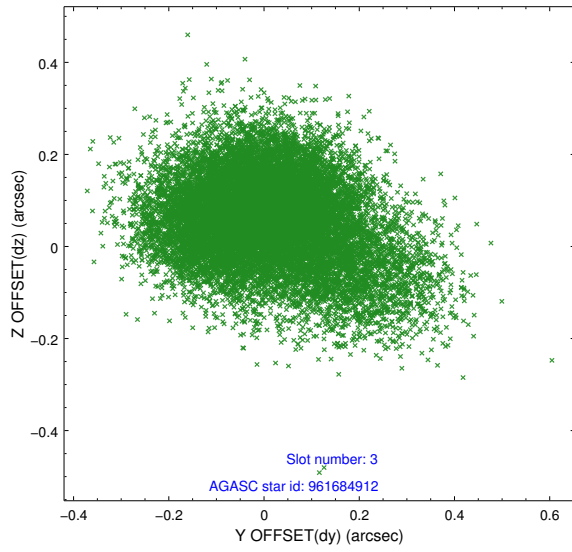
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.97	7354	-0.185	-0.016	0.017	0.039	0.000000	0.000000	-778.52	-1742.04
1	FID		ACIS-S-4	7.06	7353	0.347	0.092	0.016	0.025	0.000000	0.000000	2135.26	166.46
2	FID		ACIS-S-5	7.09	7354	-0.197	-0.068	0.014	0.031	0.000000	0.000000	-1831.28	160.07
3	GUIDE	used	961684912	9.79	14601	0.008	0.059	0.168	0.288	240.131271	-34.986112	1564.82	-799.44
4	GUIDE	used	961685968	9.16	14681	0.058	0.128	0.118	0.185	239.945591	-34.607346	135.90	-1142.86
5	GUIDE	used	961686368	8.82	14694	0.018	0.004	0.086	0.135	240.711246	-34.130505	-1222.06	1363.18
6	GUIDE	used	961686896	9.30	14667	0.026	-0.178	0.136	0.214	240.439674	-34.948059	1564.91	120.23
7	GUIDE	used	961817576	8.79	14636	-0.113	-0.008	0.096	0.153	240.794522	-34.711668	883.31	1286.52

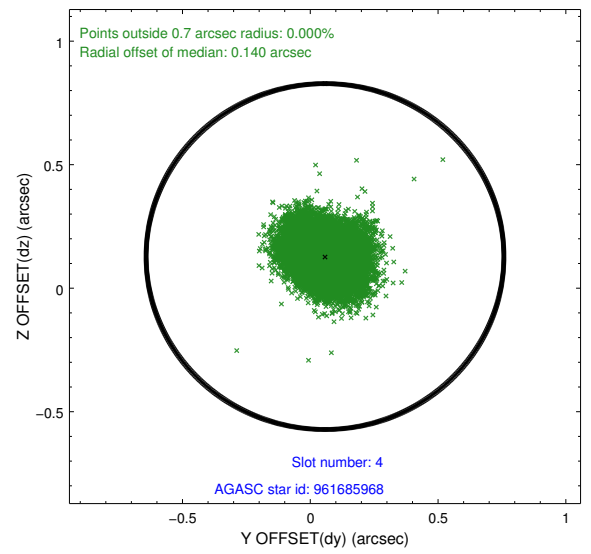
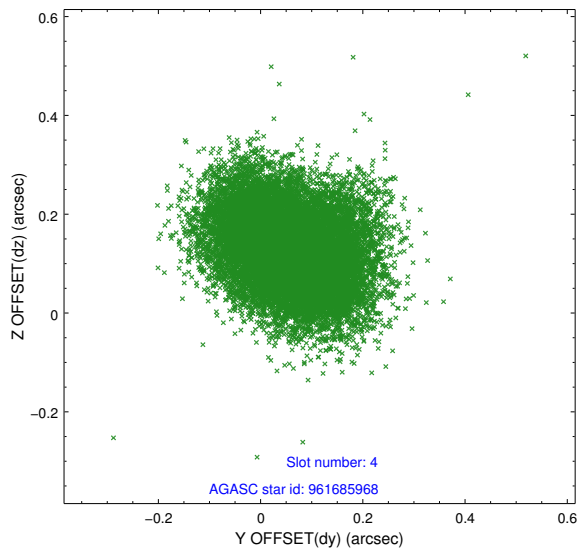
∞

## 2.4 Star Slots

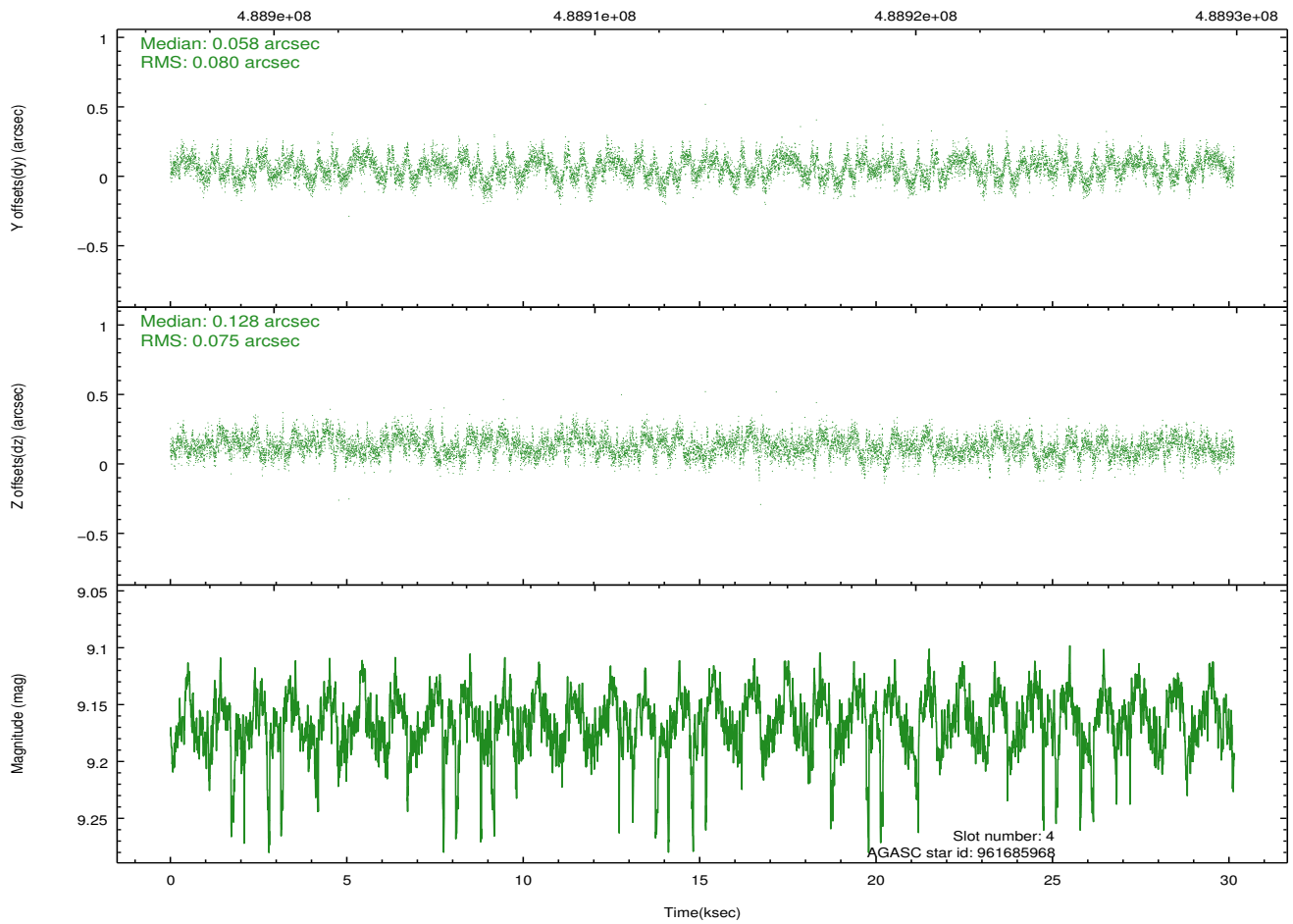
### 2.4.1 Slot 3



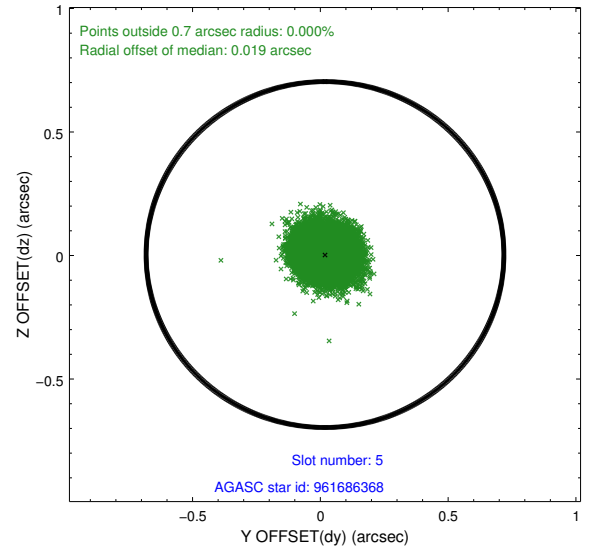
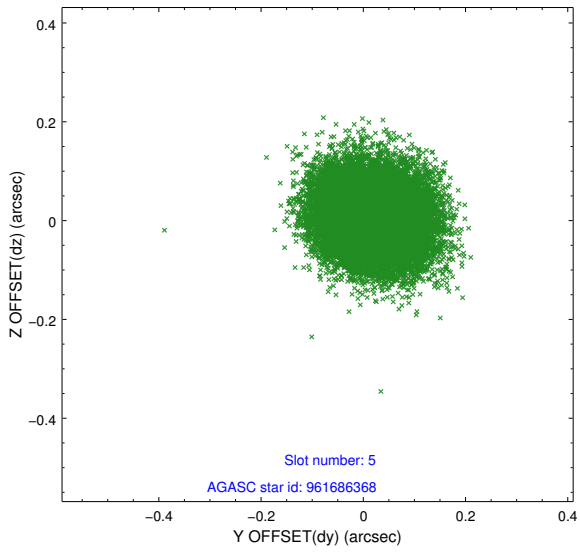
## 2.4.2 Slot 4



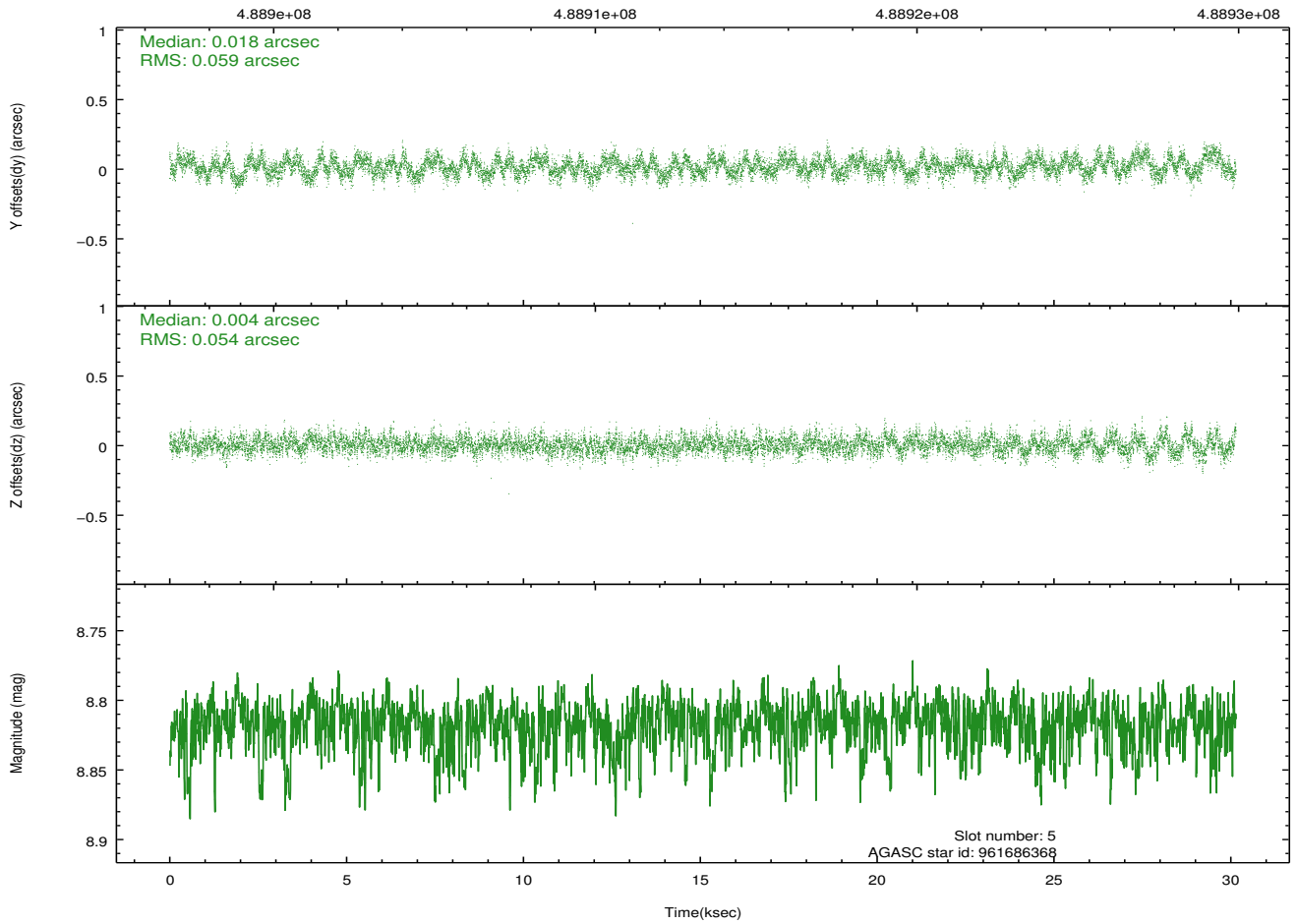
Time (s)



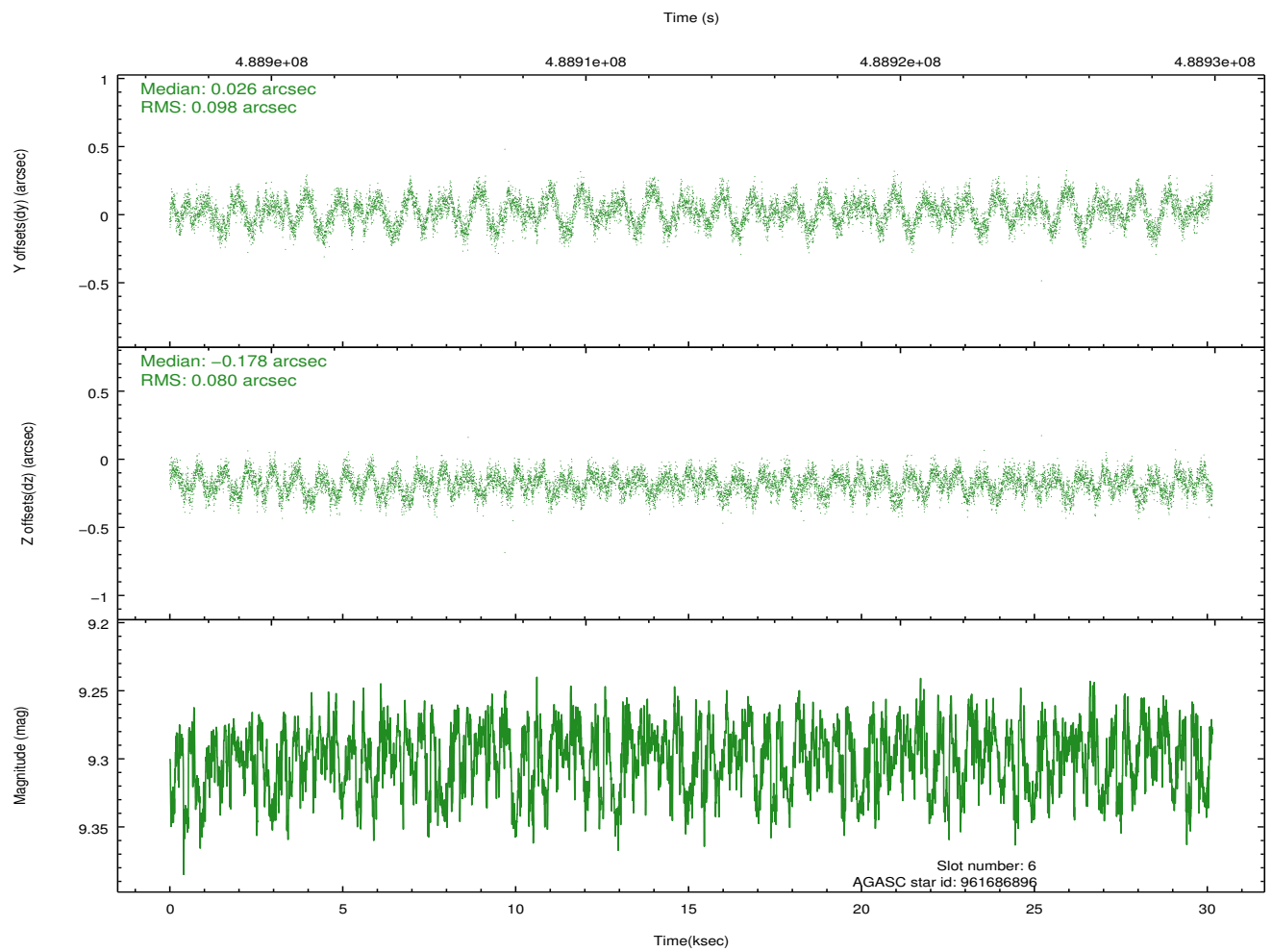
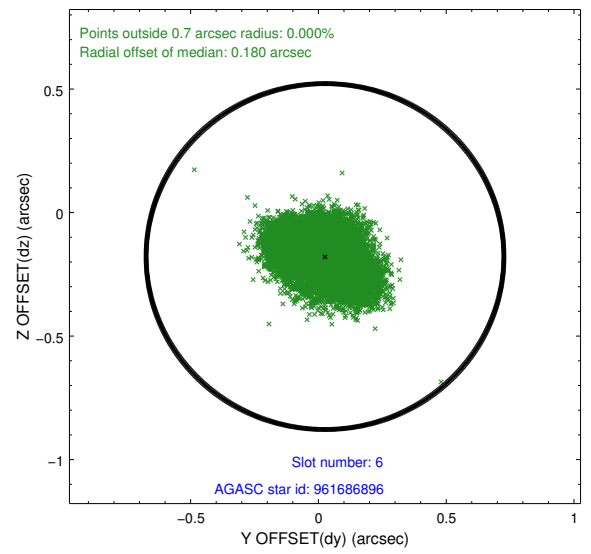
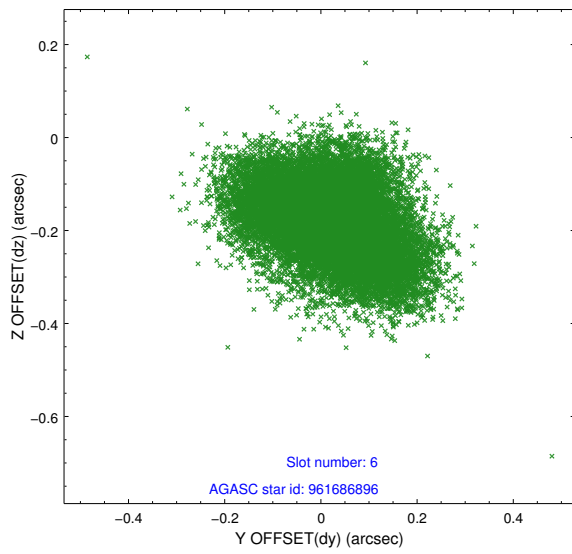
### 2.4.3 Slot 5



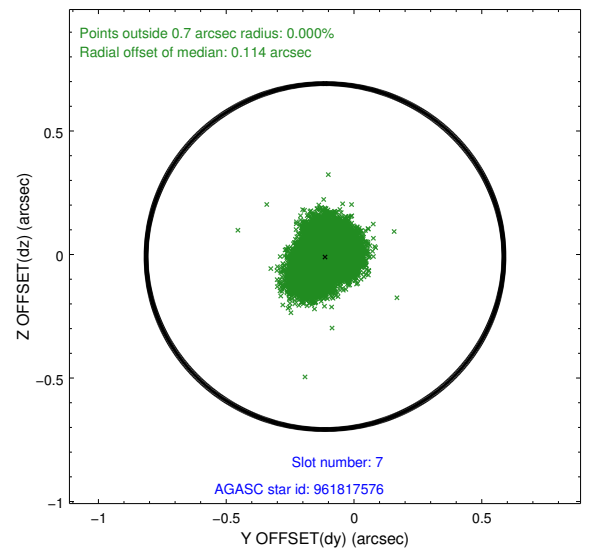
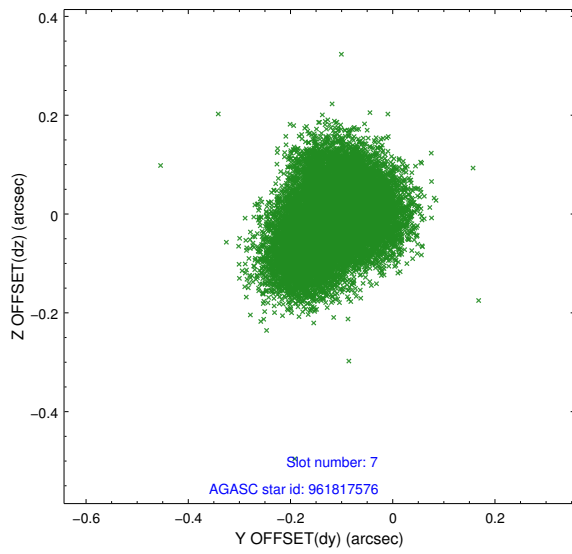
Time (s)



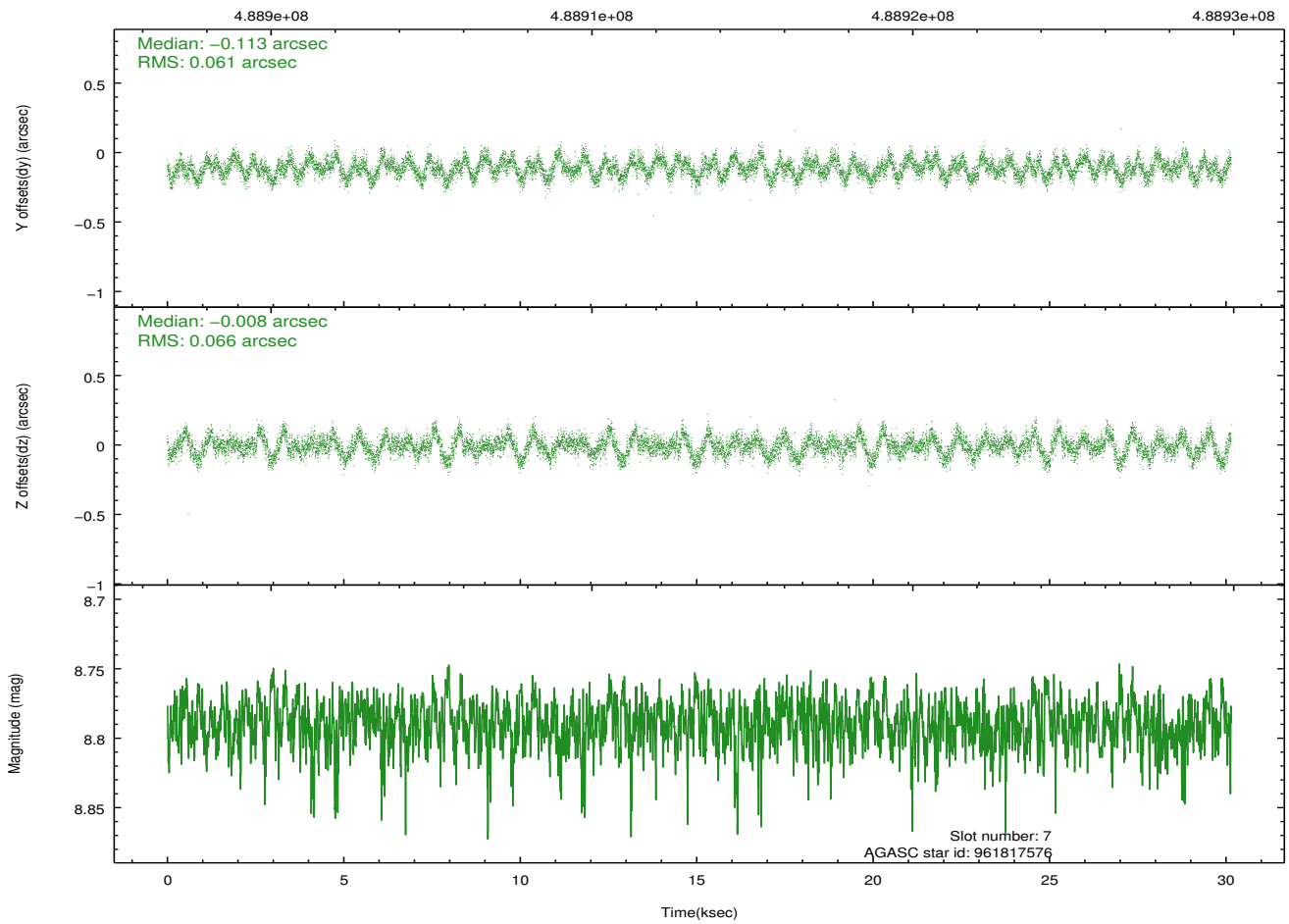
## 2.4.4 Slot 6



## 2.4.5 Slot 7

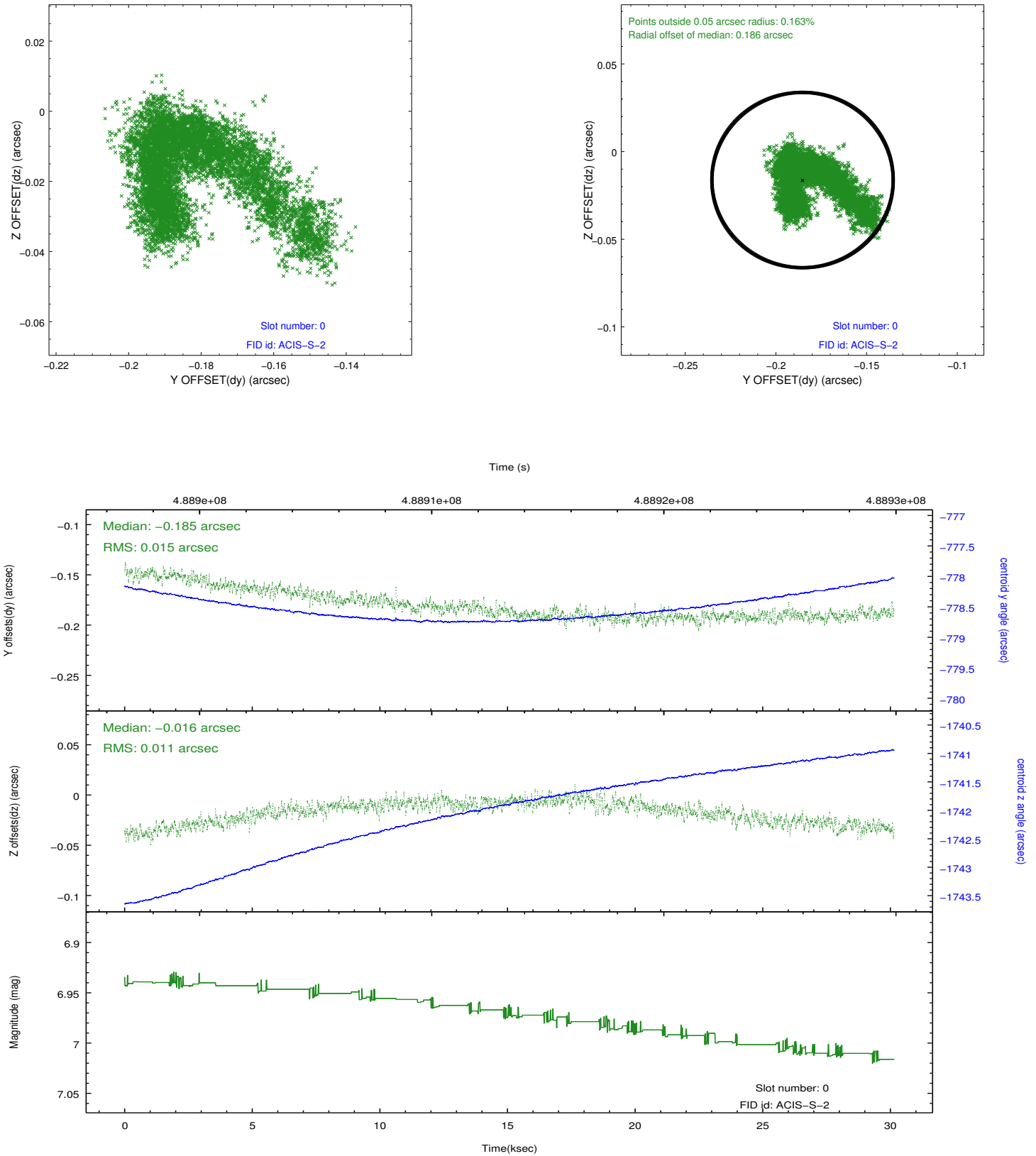


Time (s)

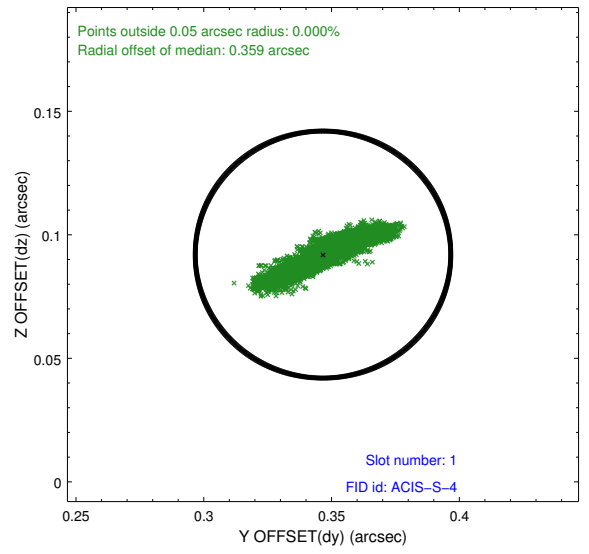
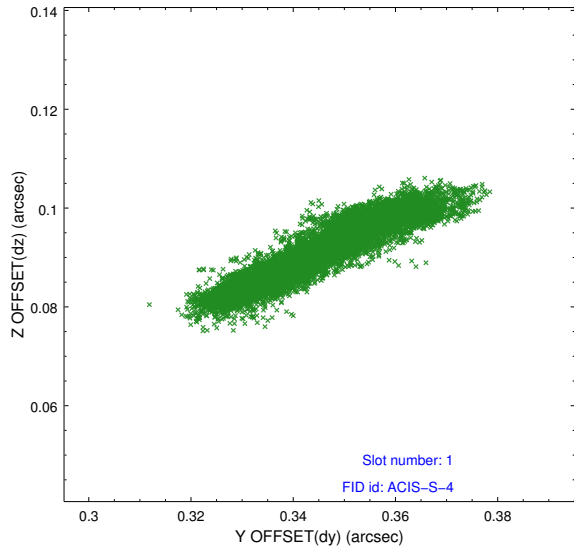


## 2.5 FID Slots

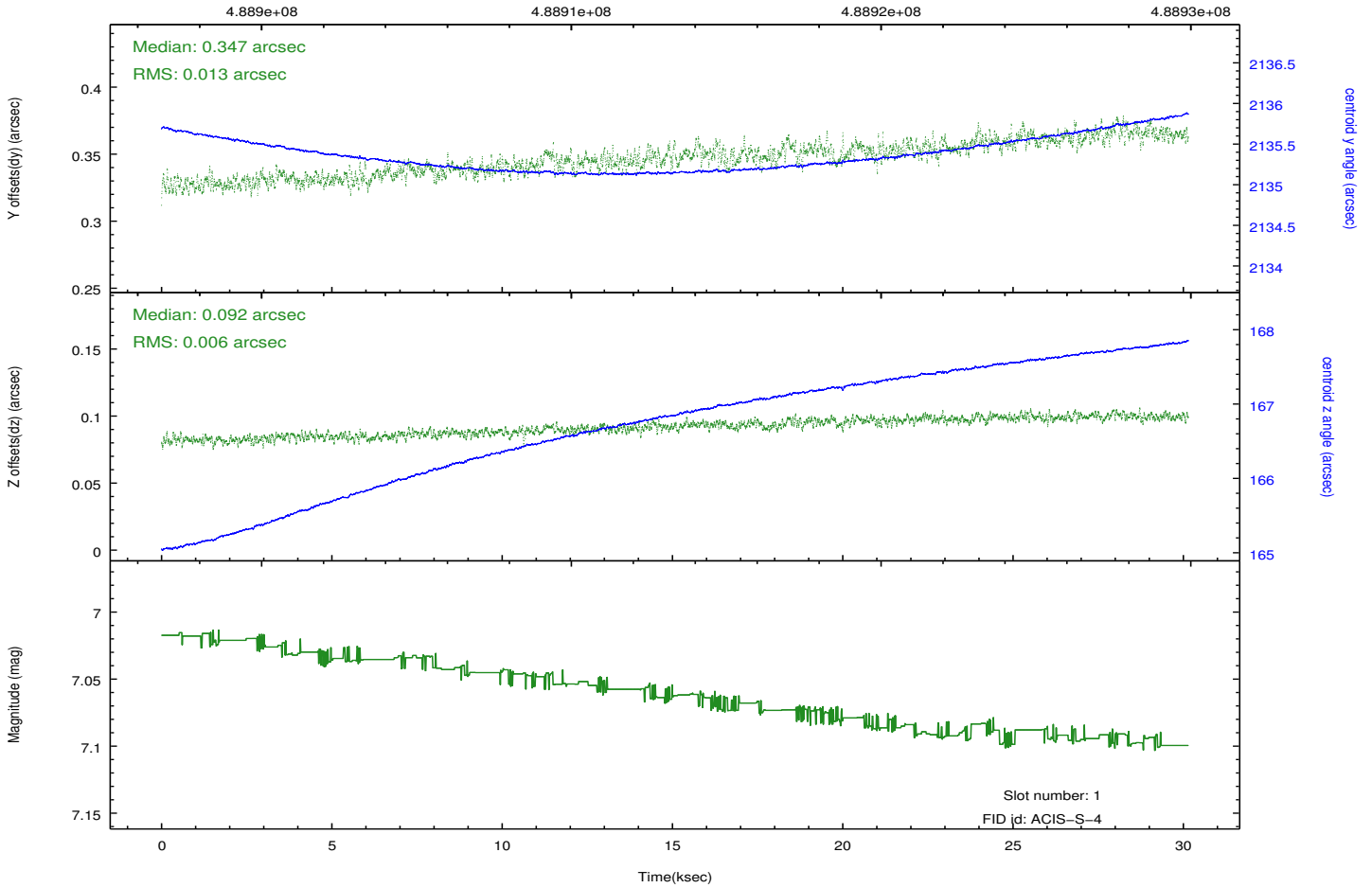
### 2.5.1 Slot 0



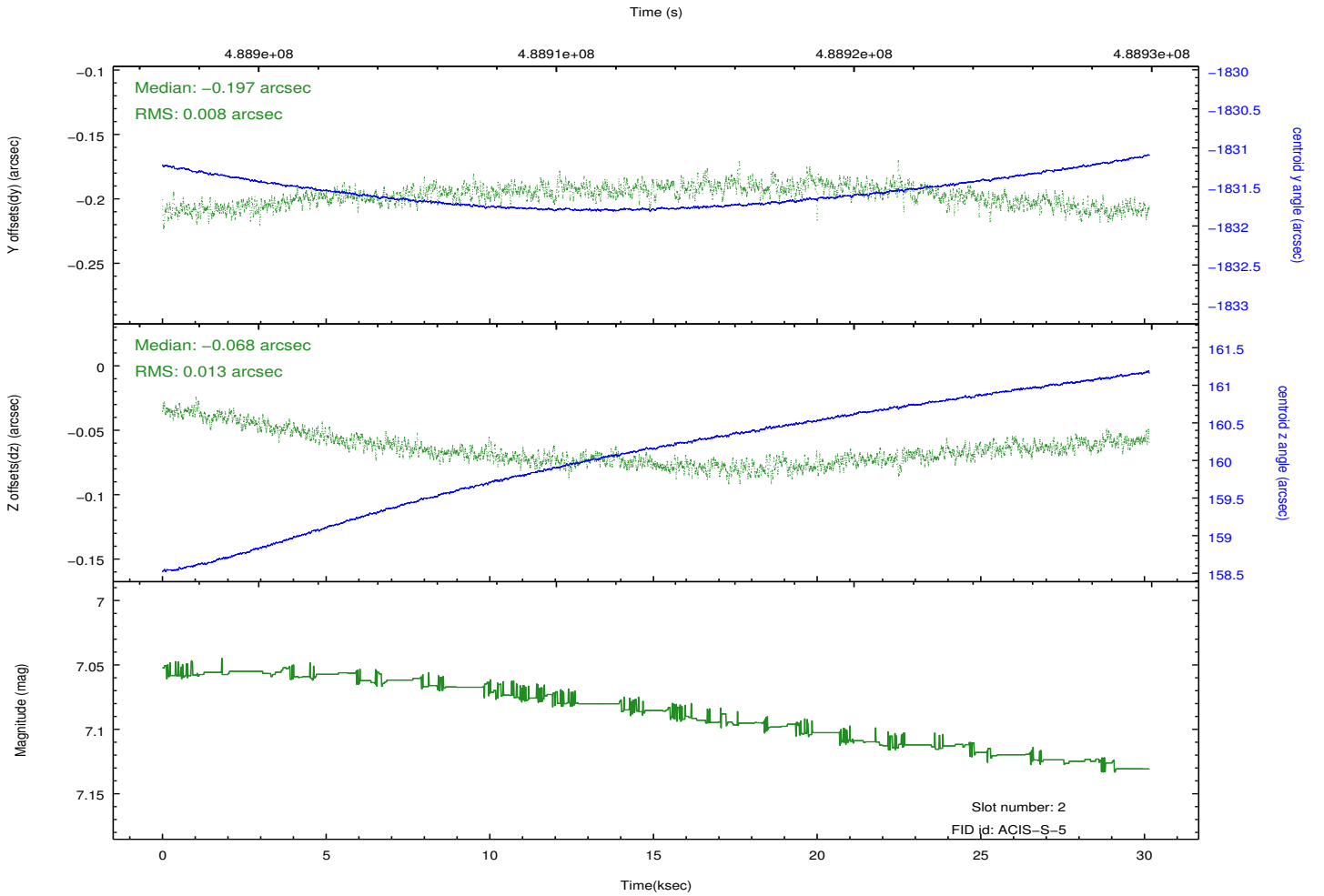
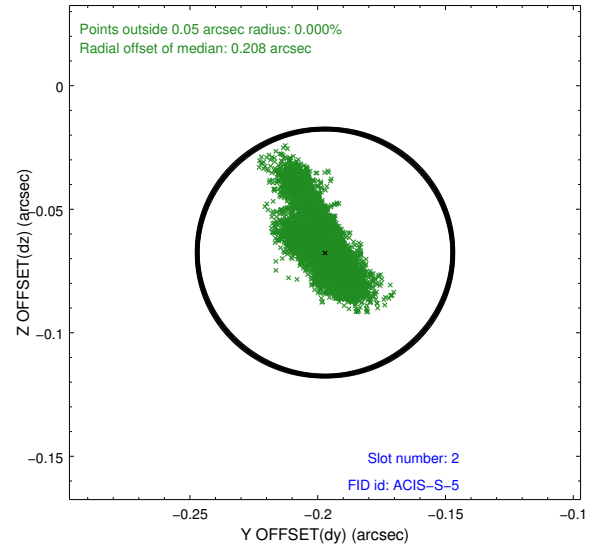
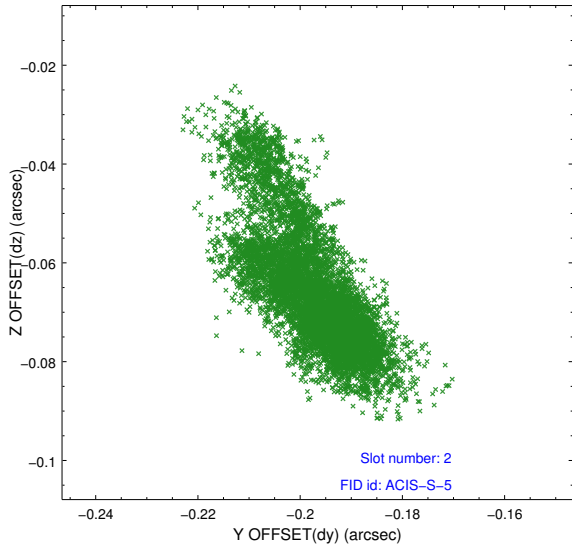
## 2.5.2 Slot 1



Time (s)



### 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	30.038221348107

## A.2 Comments

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.