

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10108 - L2 Version 2  
Chandra X-Ray Center

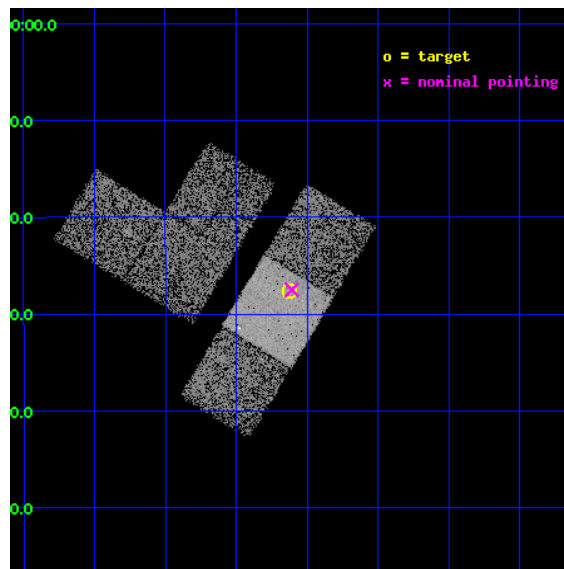
L2 Processing Date : Jun 9 2012

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# 1 Front

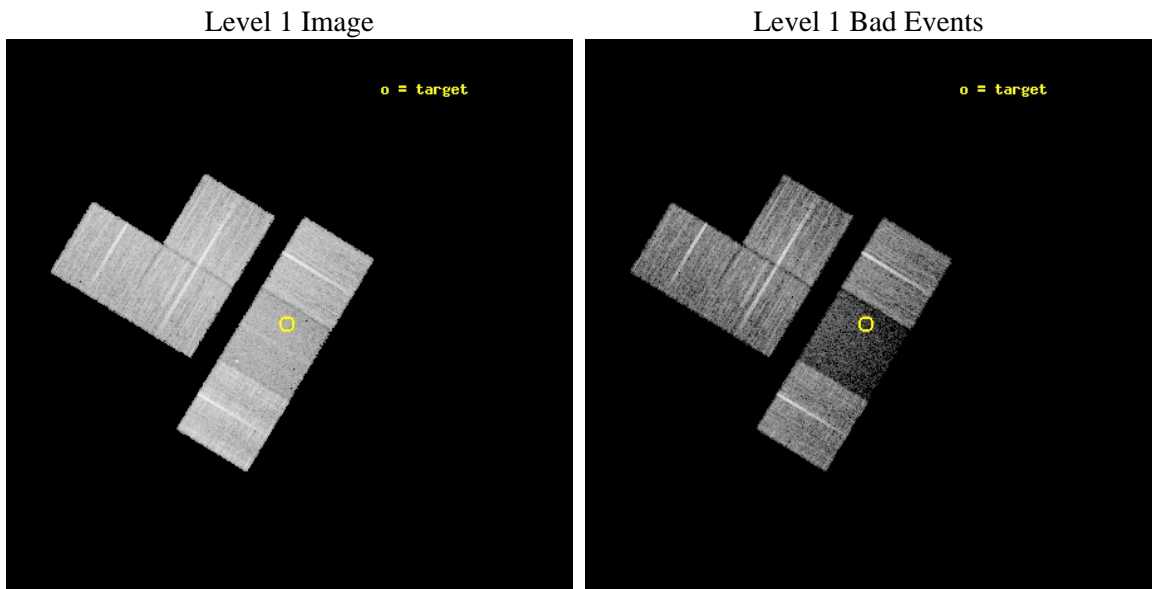
seq_num	501036	Sequence number
obs_id	10108	Observation id
title	Are all black widows alike?	Proposal title
observer	Dr. Vyacheslav Zavlin	Principal investigator
object	PSR J2051-0827	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	312.78125	Observer's specified target RA [deg]
dec_targ	-8.460556	Observer's specified target Dec [deg]
ra_nom	312.77684907935	Nominal RA [deg]
dec_nom	-8.4583204880868	Nominal Dec [deg]
roll_nom	121.2276230687	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8758.399967432	Sum of GTIs [s]
livetime	8647.4958333691	Livetime [s]
ontime1	8758.399967432	Sum of GTIs [s]
ontime2	8758.399967432	Sum of GTIs [s]
ontime3	8758.399967432	Sum of GTIs [s]
ontime6	8758.399967432	Sum of GTIs [s]
ontime7	8758.399967432	Sum of GTIs [s]
ontime8	8751.9179069996	Sum of GTIs [s]
l2events	45445	Number of level 2 events



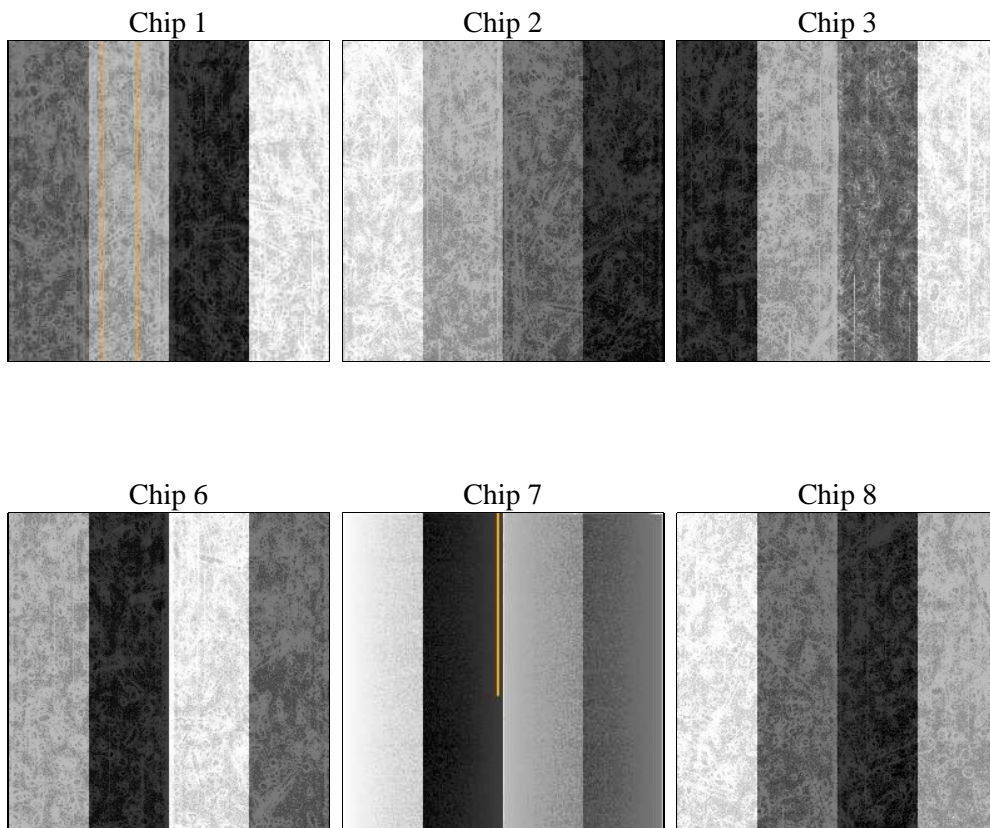
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	8758.399967432	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime1	8758.399967432	Sum of GTIs [s]
date	2012-06-09T21:56:59	Date and time of file creation	ontime2	8758.399967432	Sum of GTIs [s]
revision	2	Processing version of data	ontime3	8758.399967432	Sum of GTIs [s]
			ontime6	8758.399967432	Sum of GTIs [s]
			ontime7	8758.399967432	Sum of GTIs [s]
			ontime8	8751.9179069996	Sum of GTIs [s]
			l1events	381571	Number of level 1 events

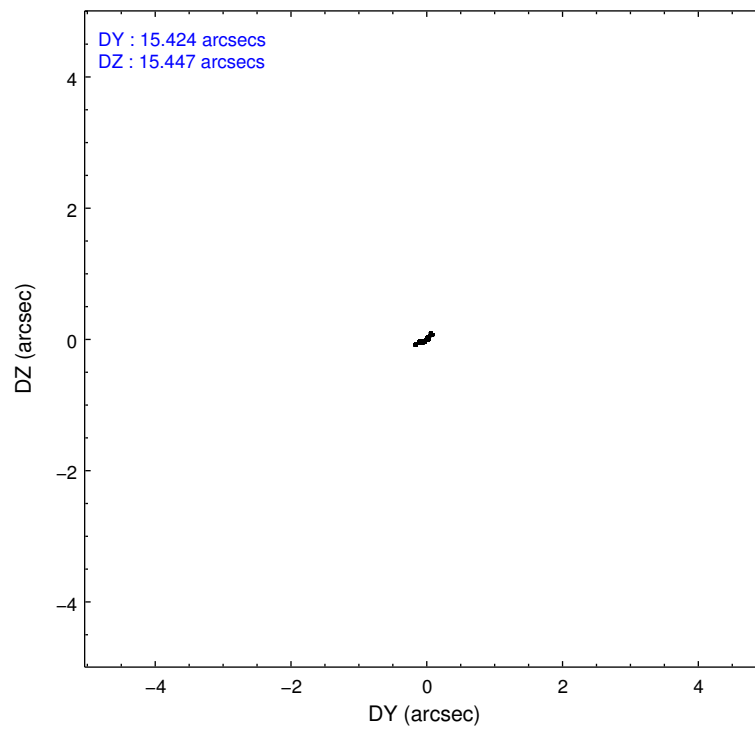
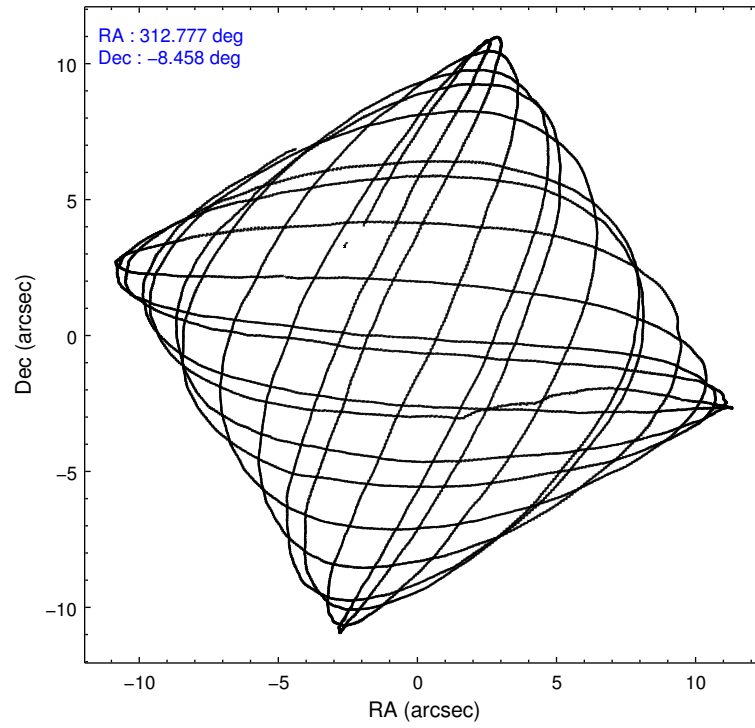
### 2.1.4 Events

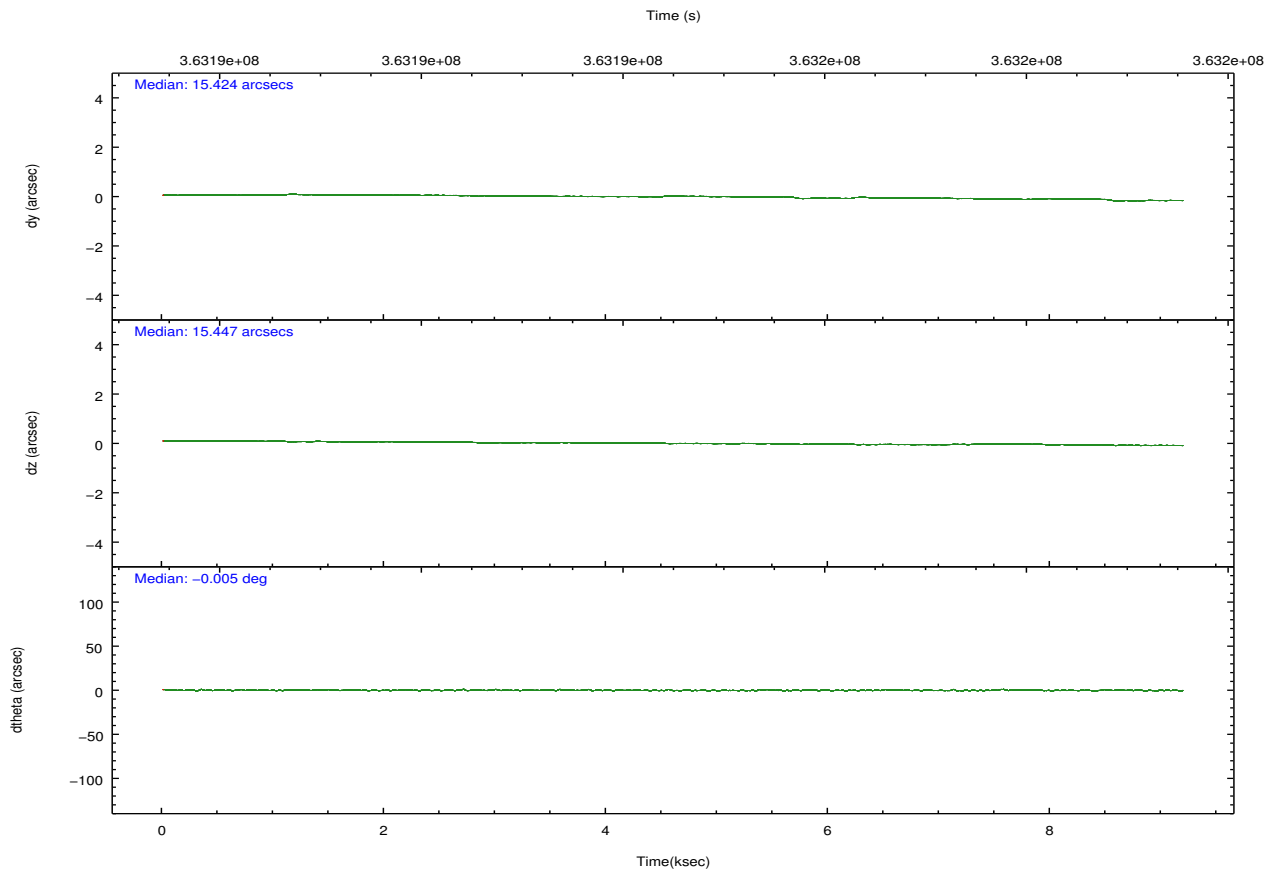
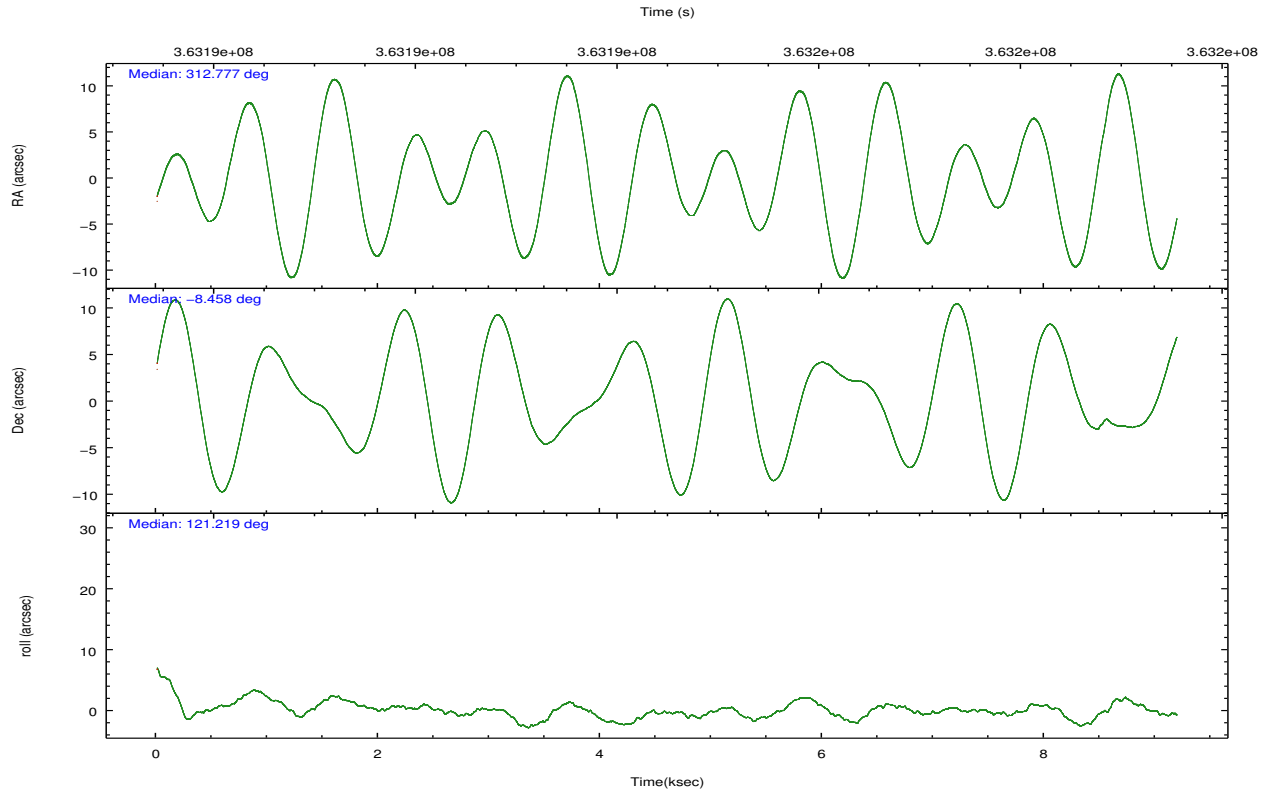
	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8		ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	61363	69455	64632	63951	39799	82371	grade 0 events	2255	2321	2052	2346	3012	6228
rejected events	55389	63920	59479	58067	16889	60658		3%	3%	3%	3%	7%	7%
rejected %	90%	92%	92%	90%	42%	73%	grade 1 events	33	39	32	32	107	79
								0%	0%	0%	0%	0%	0%
							grade 2 events	1338	1282	1087	1341	5660	5002
								2%	1%	1%	2%	14%	6%
							grade 3 events	690	579	571	624	2280	2492
								1%	0%	0%	0%	5%	3%
							grade 4 events	697	585	607	625	2168	2248
								1%	0%	0%	0%	5%	2%
							grade 5 events	1295	1030	1350	1373	4195	2350
								2%	1%	2%	2%	10%	2%
							grade 6 events	997	771	836	949	9795	5762
								1%	1%	1%	1%	24%	6%
							grade 7 events	54058	62848	58097	56661	12582	58210
								88%	90%	89%	88%	31%	70%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-123678	ACIS-123678	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	O1	Y
[deg] Pointing RA	312.801298	312.7768490793525	CCD I2 on	Y	Y
[deg] Pointing Dec	-8.471188	-8.458320488086752	CCD I3 on	Y	Y
[deg] Pointing Roll	121.074594	121.2276230686992	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O2	Y
[s] Observation start time (MET)	363190093.184000	363189717.51997	CCD S5 on	N	N
Observation start date	2009-07-05T14:07:07	2009-07-05T14:01:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	363199093.184000	363199703.07047	On-chip summing requested	N	N
Observation end date	2009-07-05T16:37:07	2009-07-05T16:48:23	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



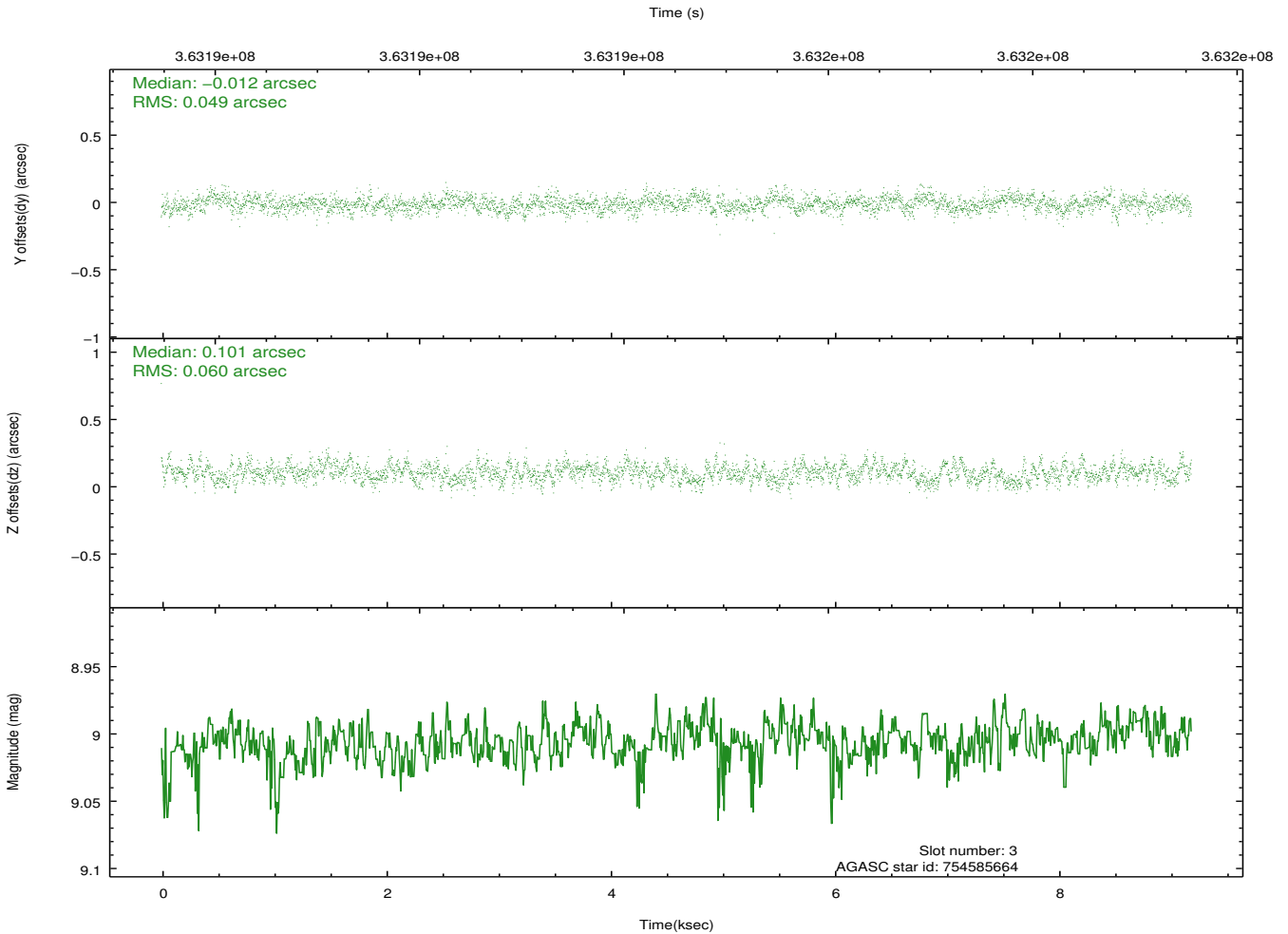
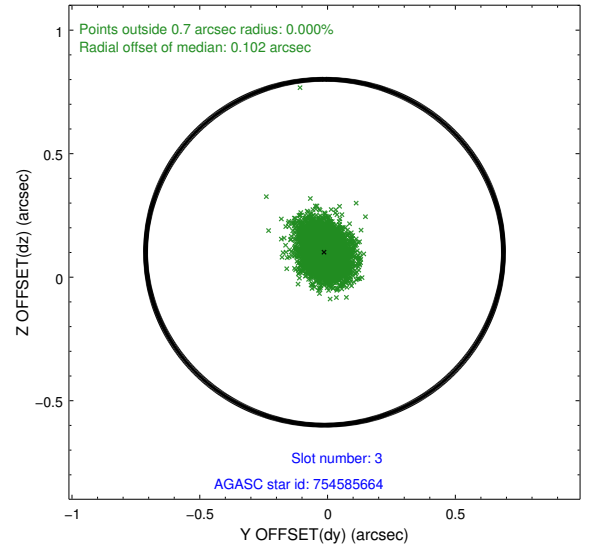
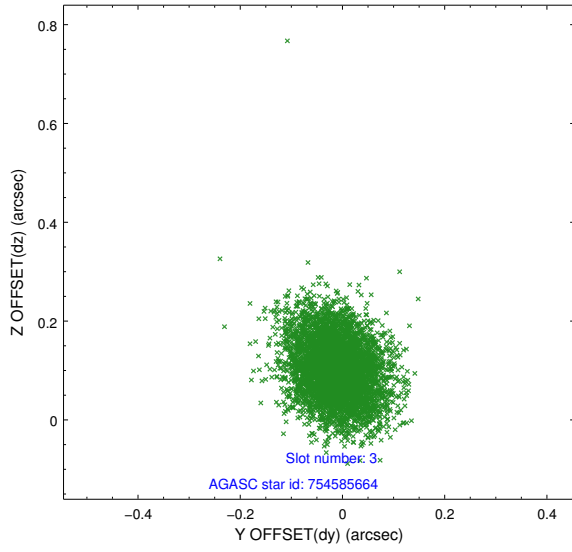


### Slot Statistics

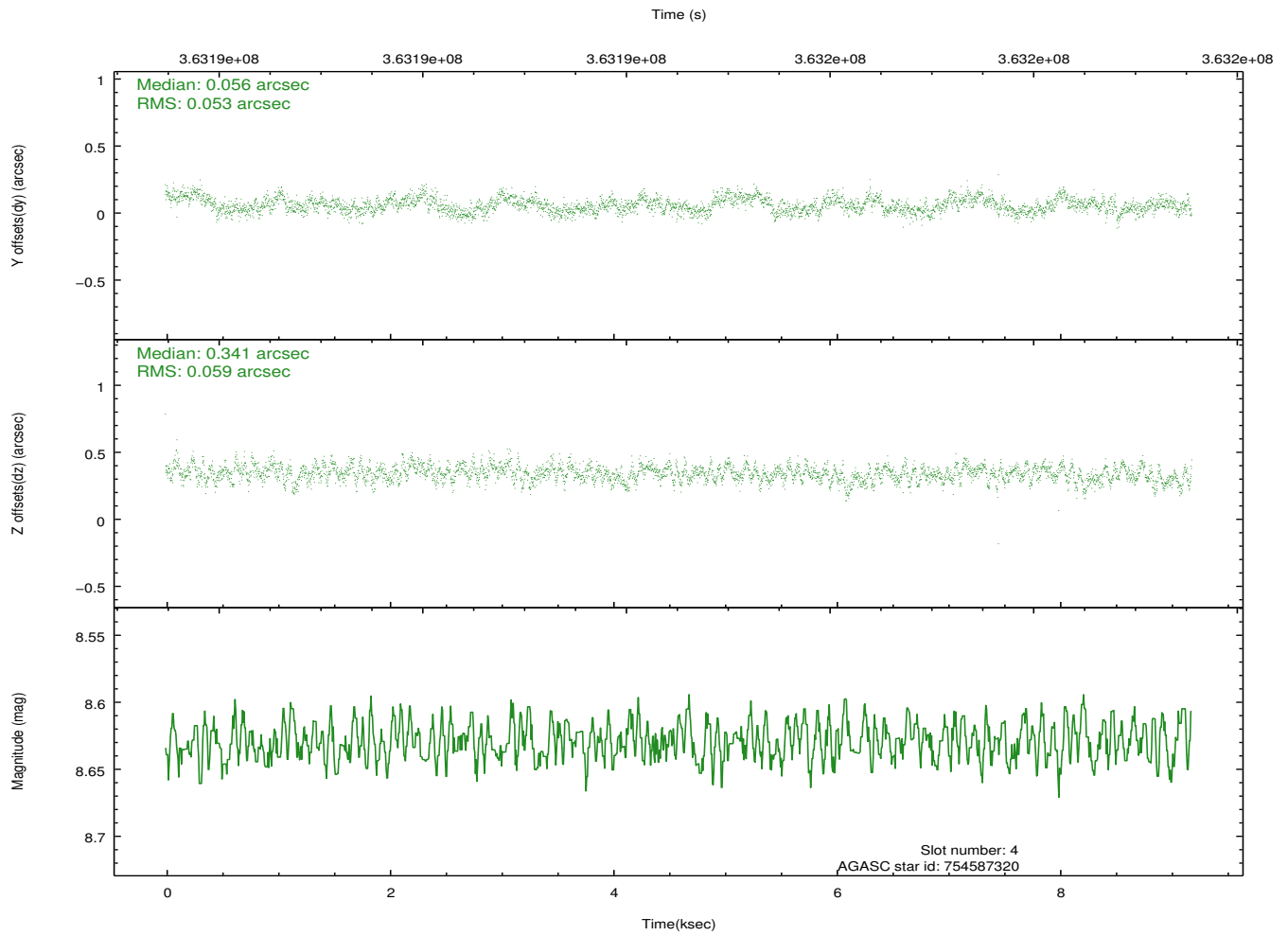
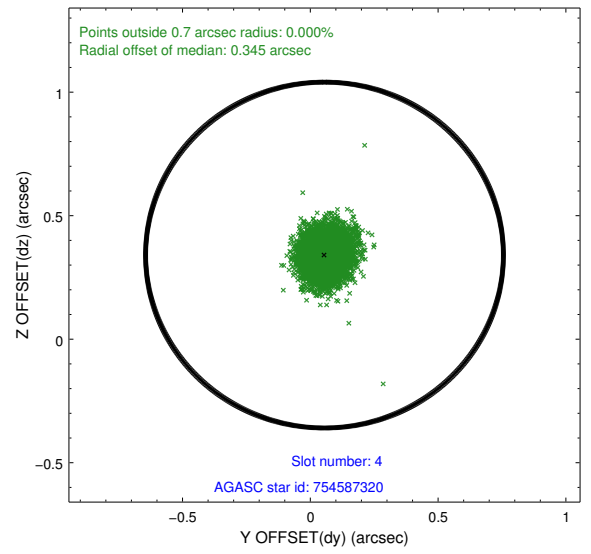
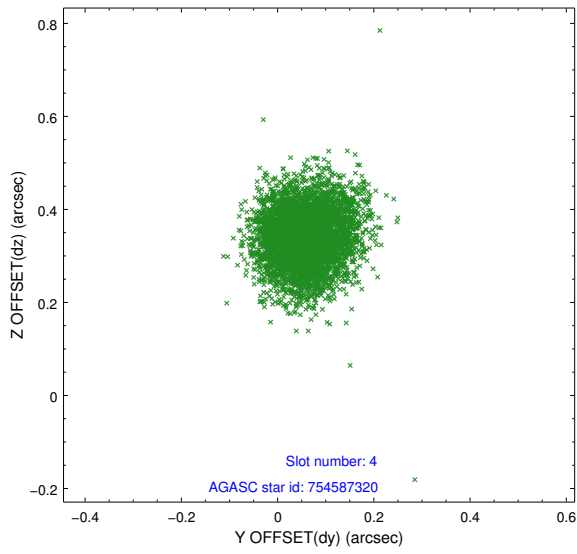
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.96	2242	-0.110	-0.035	0.007	0.013	0.000000	0.000000	-768.48	-1736.84
1	FID	ACIS-S-4	7.05	2242	0.226	0.062	0.009	0.016	0.000000	0.000000	2144.84	171.16
2	FID	ACIS-S-5	7.08	2242	-0.148	-0.019	0.008	0.015	0.000000	0.000000	-1820.62	165.38
3	GUIDE	754585664	9.01	4478	-0.012	0.101	0.081	0.133	313.121538	-8.063030	669.19	-1735.48
4	GUIDE	754587320	8.63	4482	0.056	0.341	0.084	0.134	313.590335	-8.511412	-1576.00	-2330.25
5	GUIDE	754590240	8.97	4482	0.091	-0.070	0.075	0.125	312.912479	-8.998883	-1831.56	641.29
6	GUIDE	754594632	6.42	4483	-0.101	-0.274	0.049	0.080	312.330933	-8.794047	-133.68	2033.72
7	GUIDE	754595784	8.49	4481	-0.033	-0.098	0.070	0.111	312.372598	-8.652506	227.88	1648.32

## 2.4 Star Slots

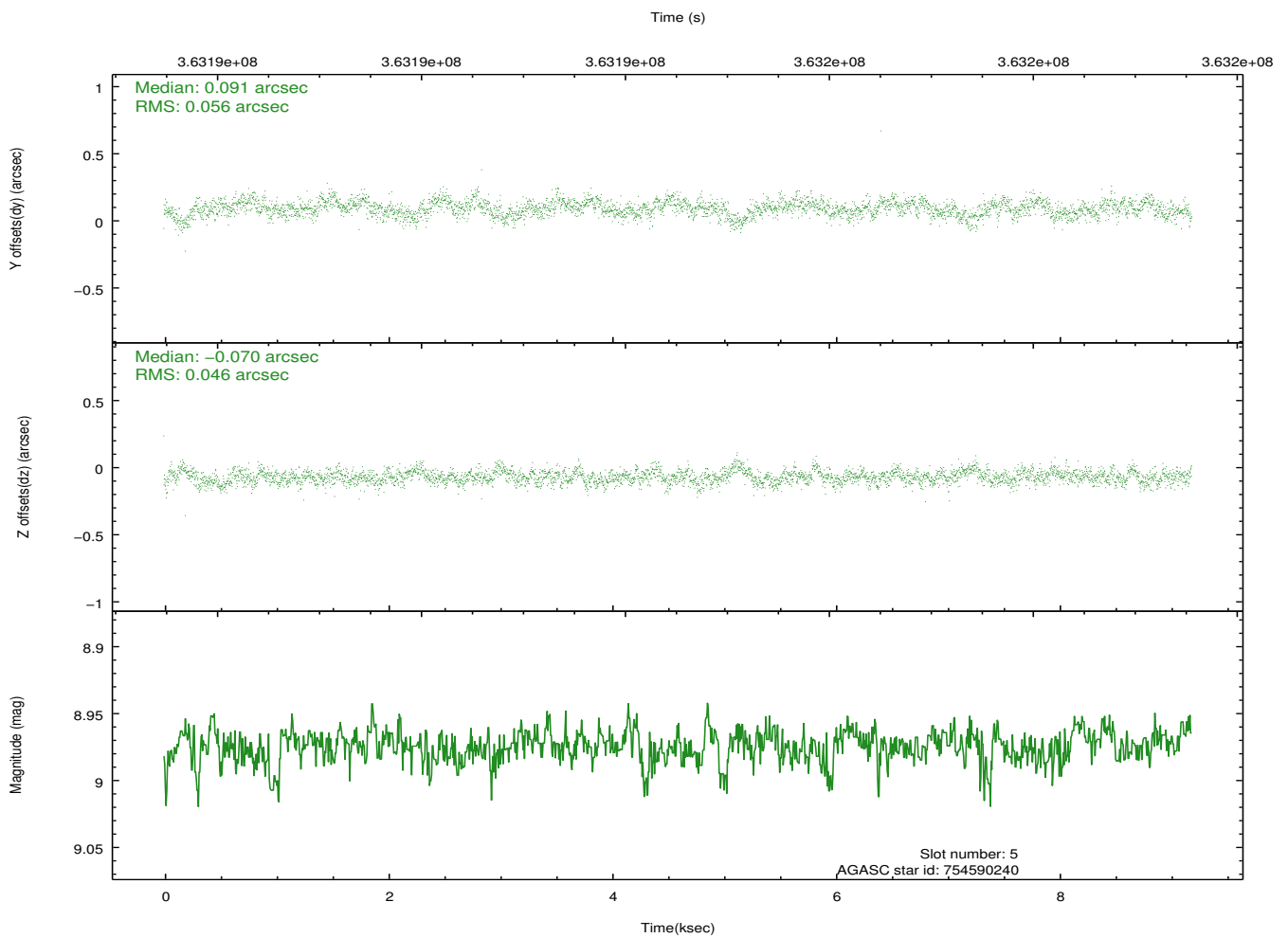
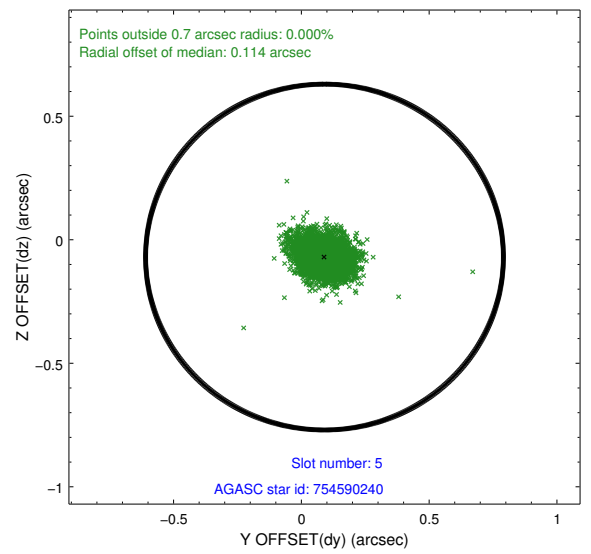
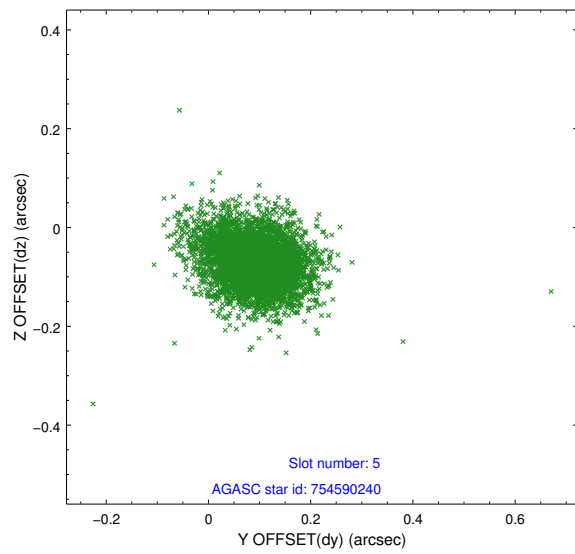
### 2.4.1 Slot 3



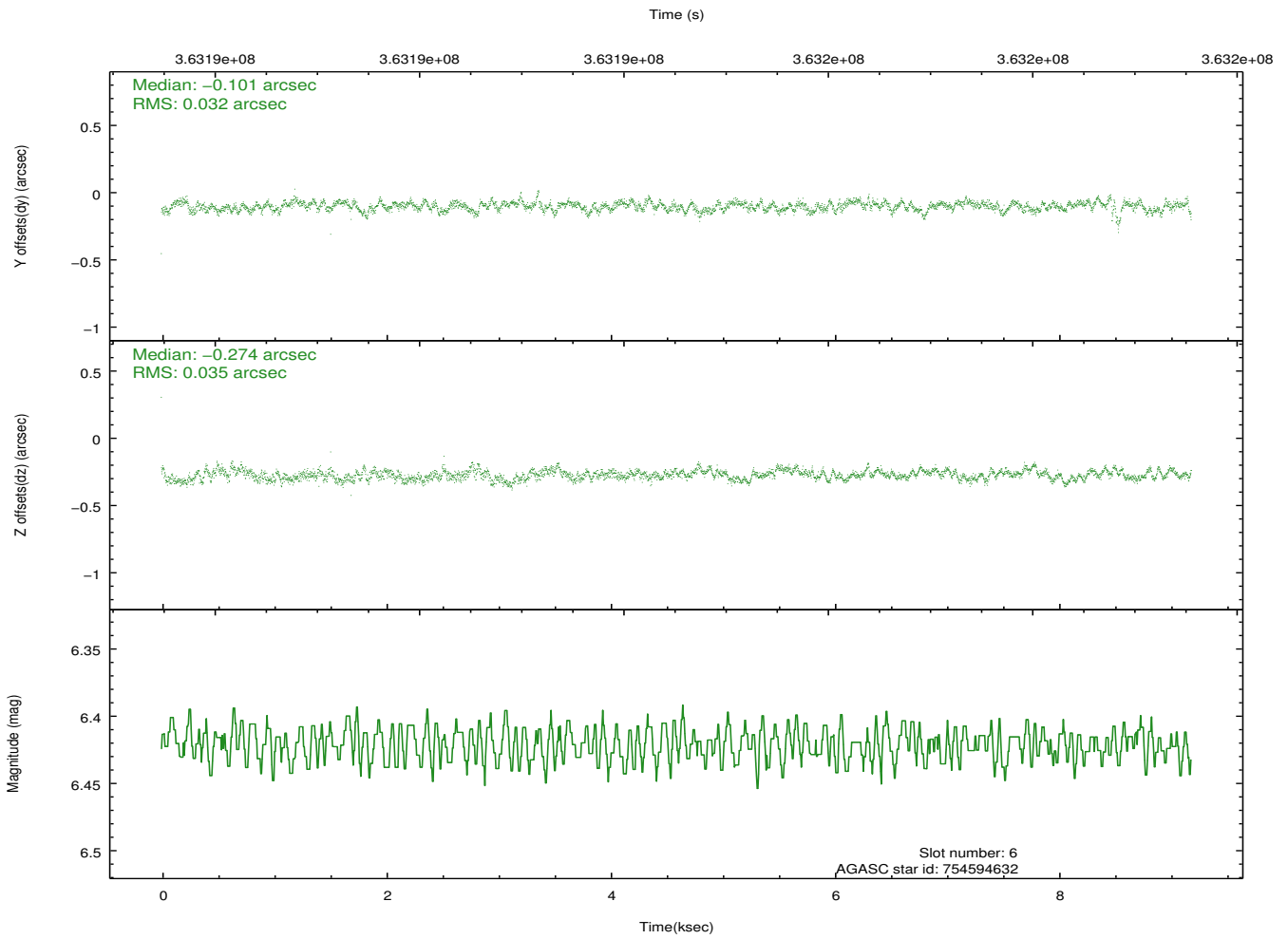
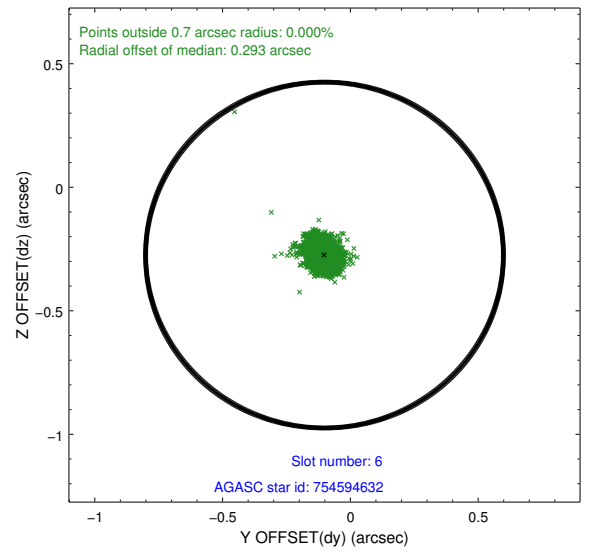
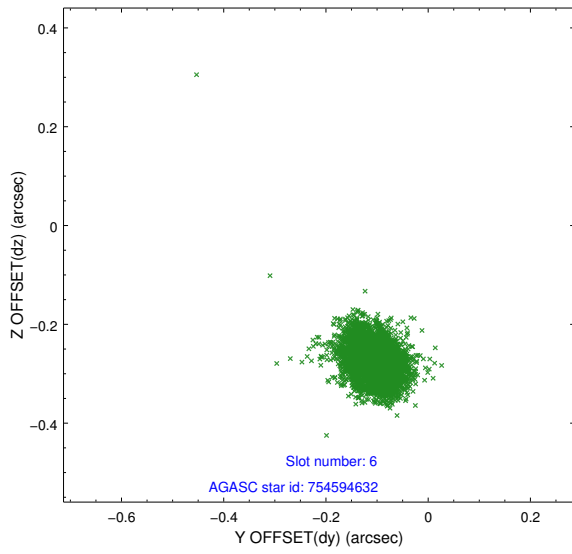
## 2.4.2 Slot 4



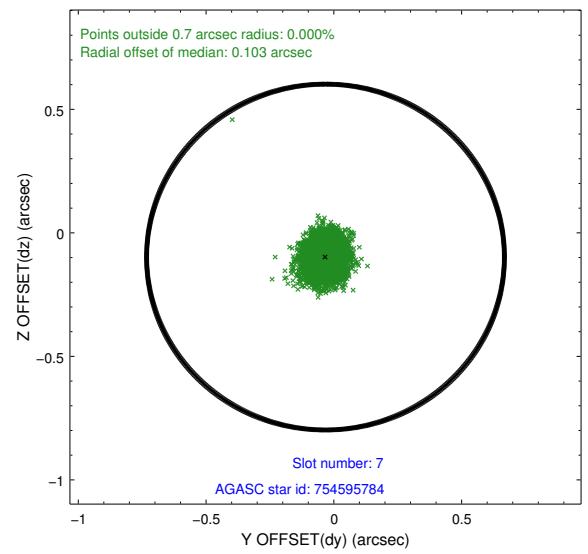
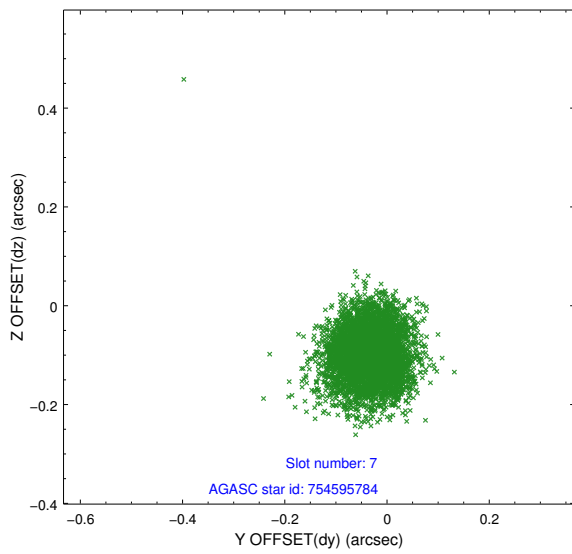
### 2.4.3 Slot 5



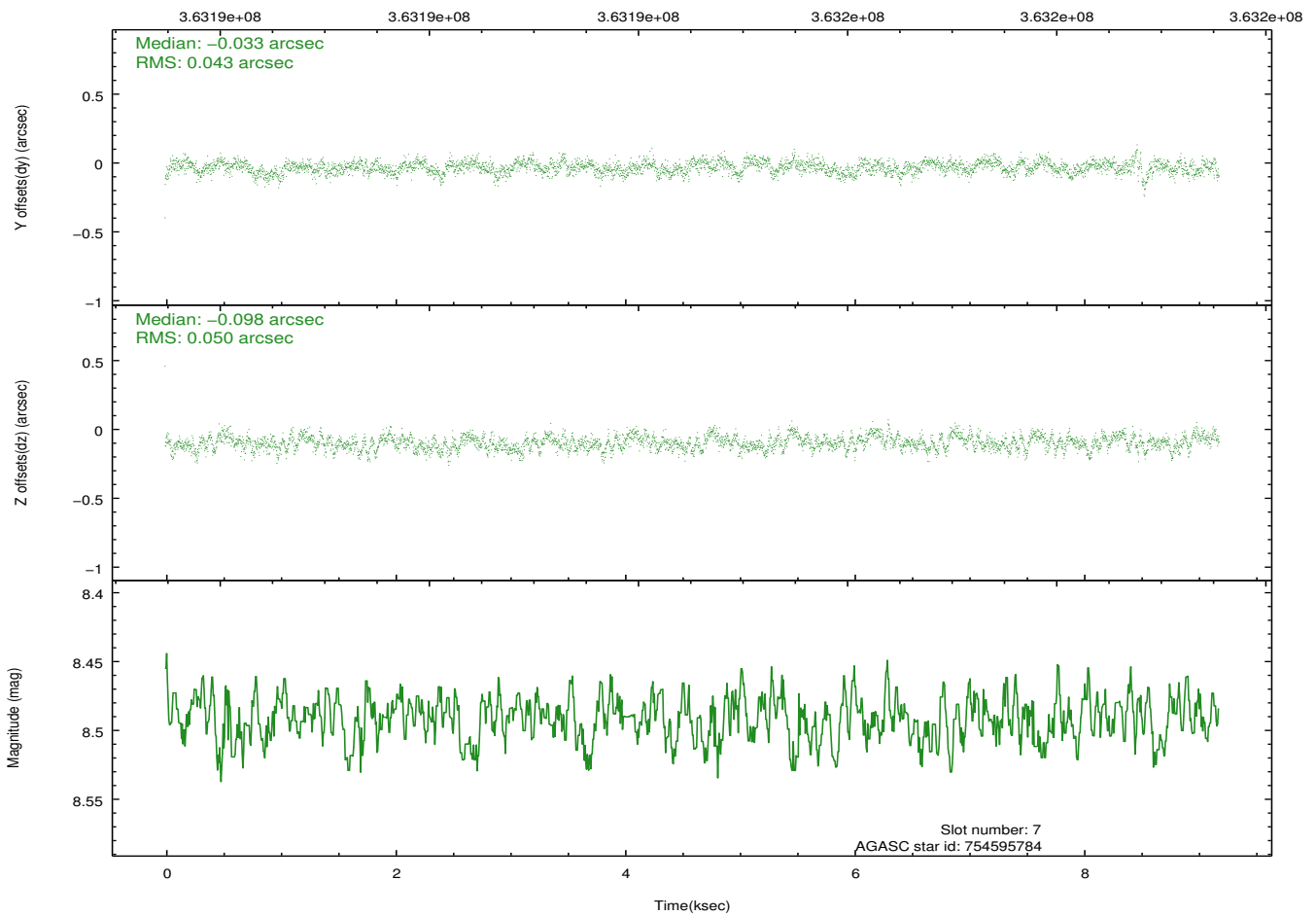
### 2.4.4 Slot 6



## 2.4.5 Slot 7

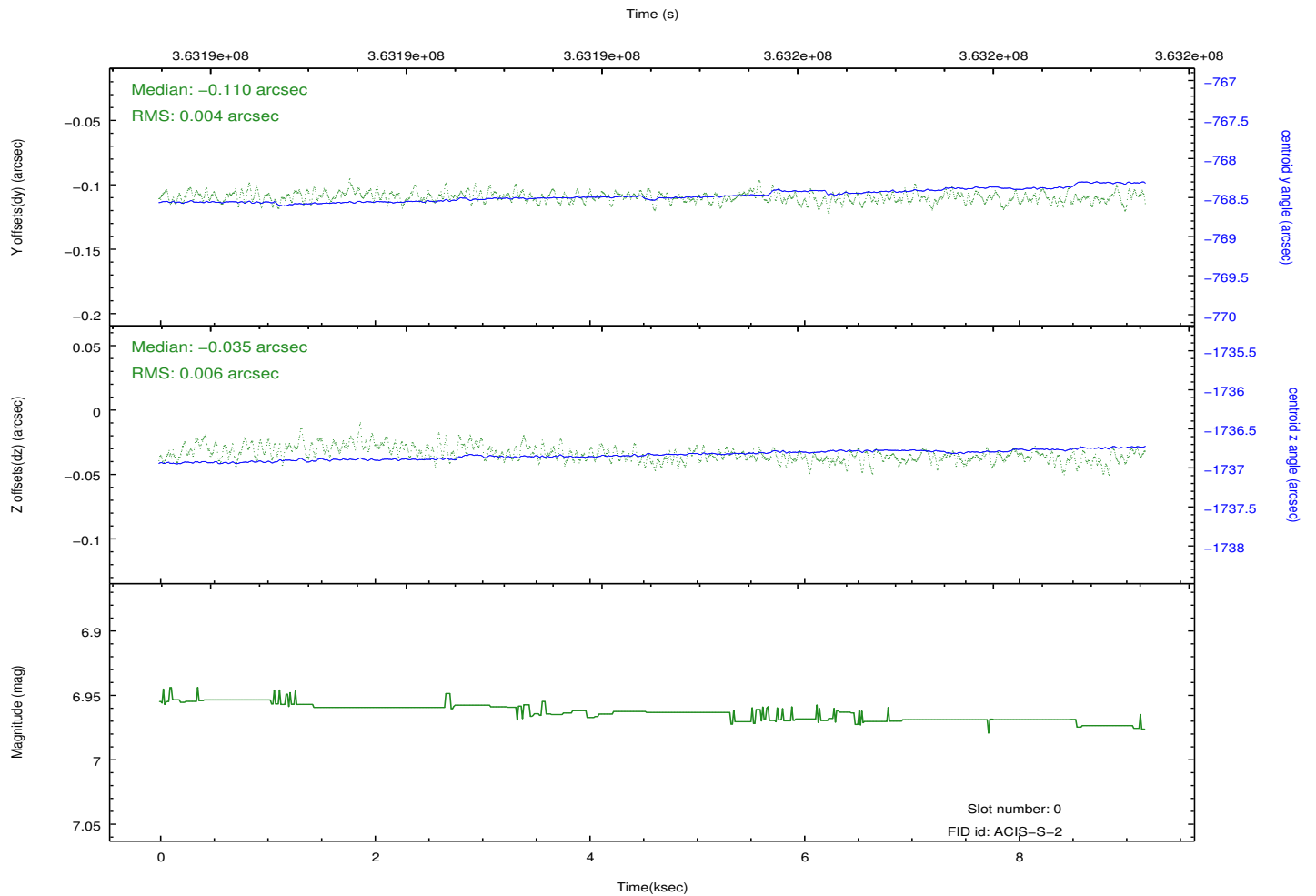
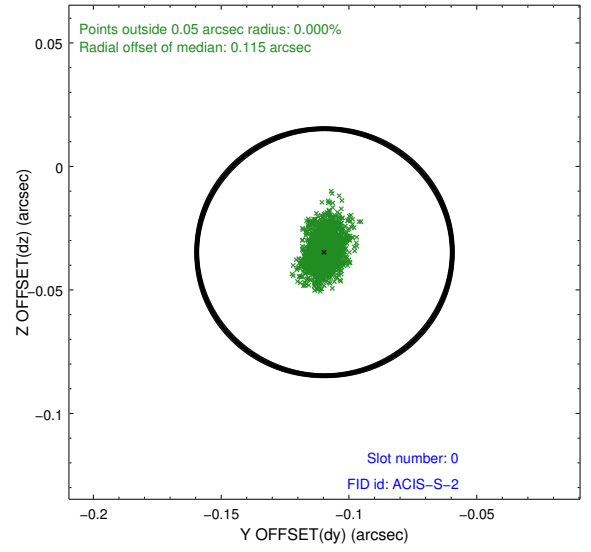
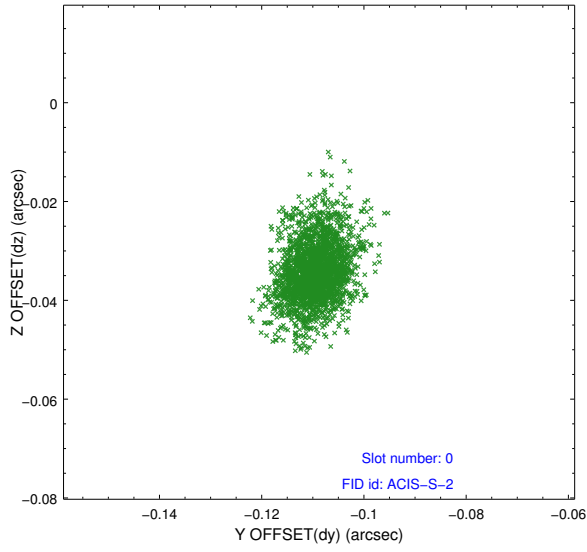


Time (s)

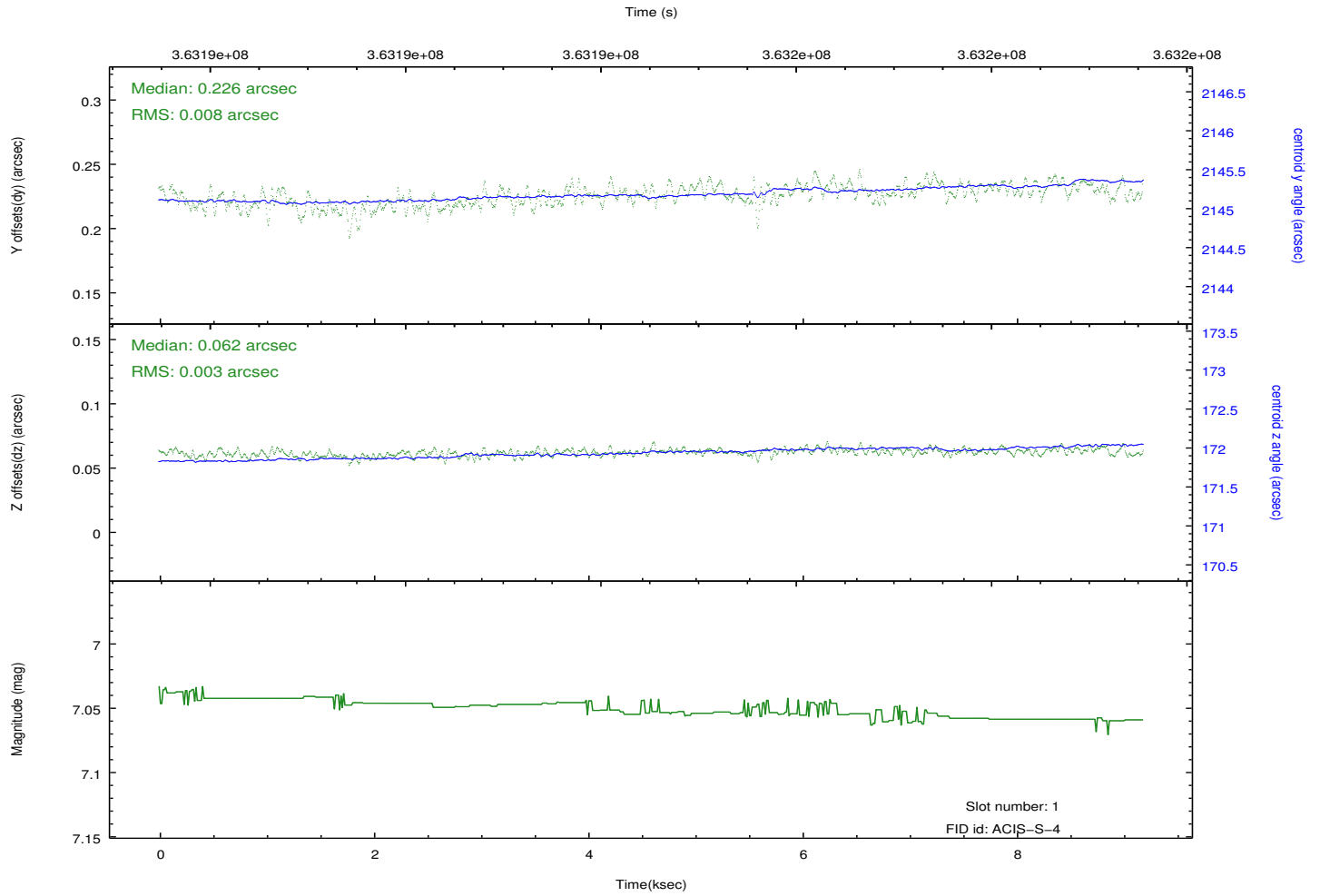
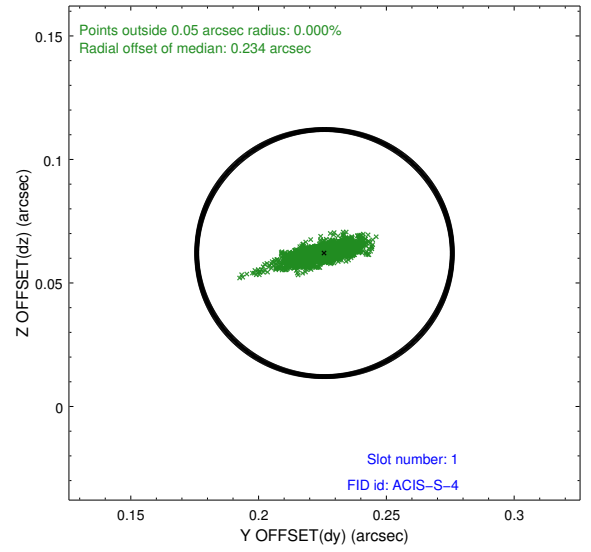
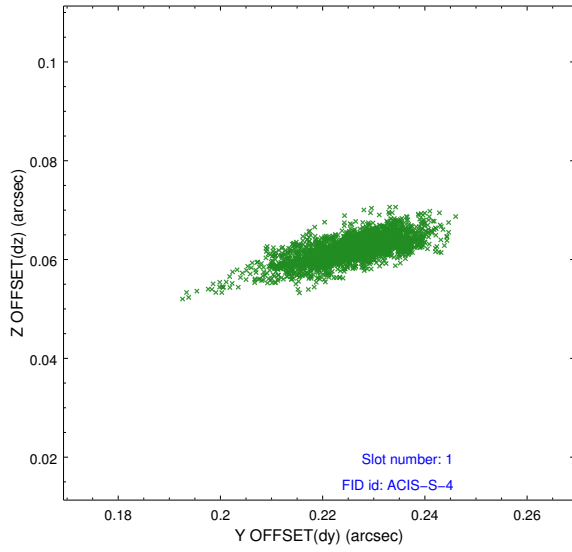


## 2.5 FID Slots

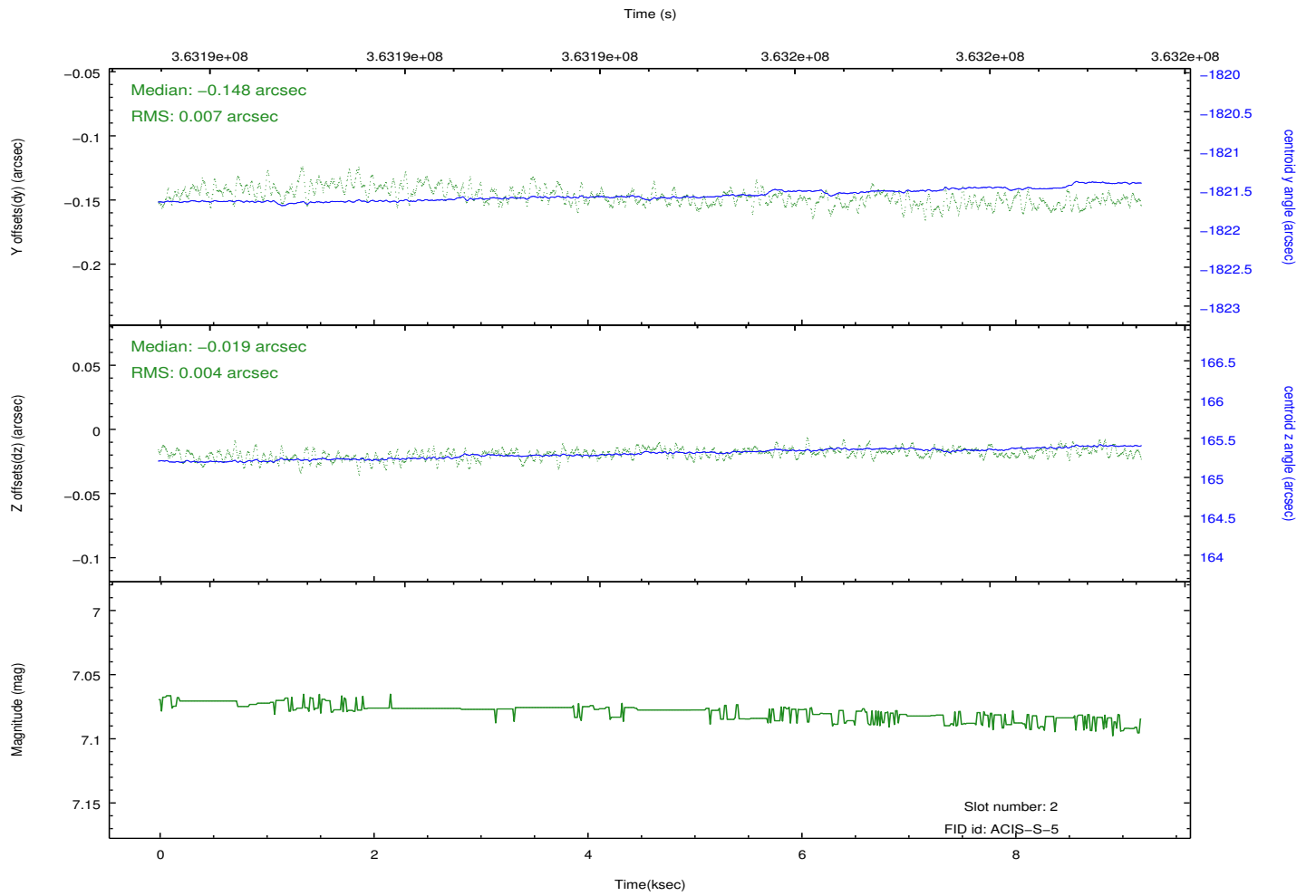
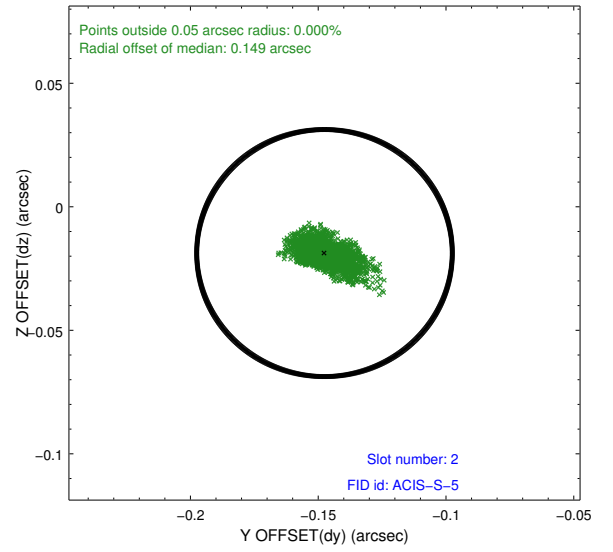
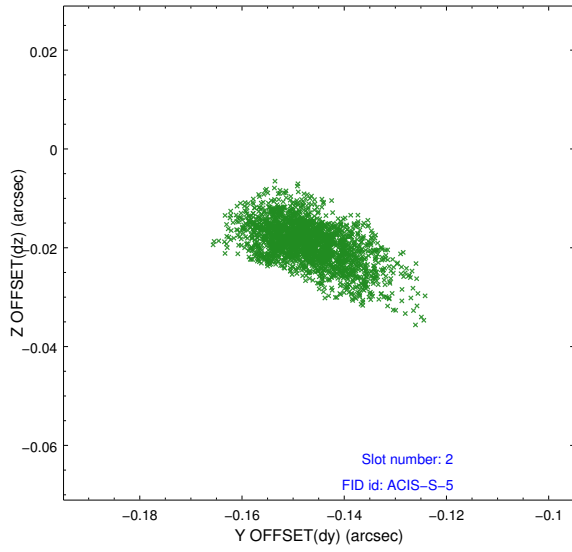
### 2.5.1 Slot 0



## 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)	2012.06.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.75839996

## A.2 Comments