

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4078 - L2 Version 3  
Chandra X-Ray Center

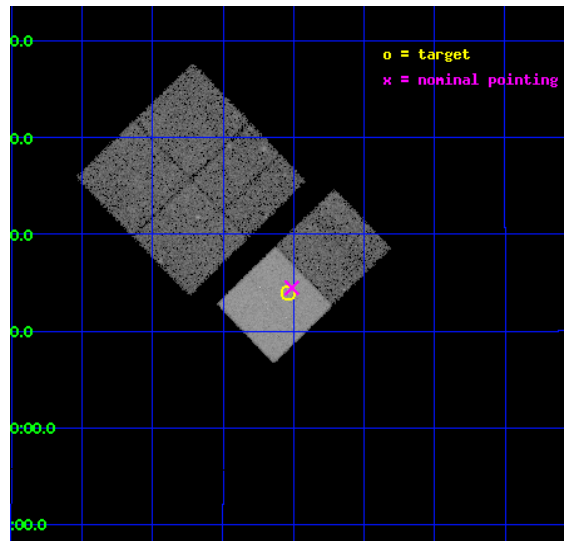
L2 Processing Date : Nov 1 2012

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# 1 Front

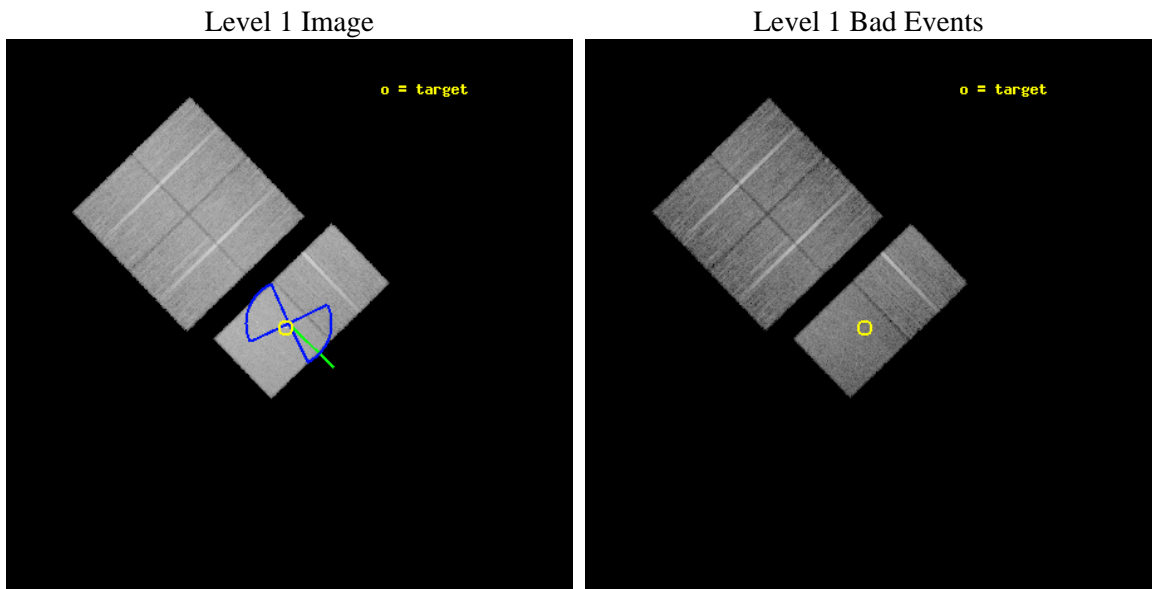
seq_num	700757	Sequence number
obs_id	4078	Observation id
title	PROBING THE STRUCTURE OF THE NARROW-LINE REGION IN SEYFERT GALAXIES WITH CXO IMAGING SPECTROSCOPY	Proposal title
observer	Dr. Steven Kraemer	Principal investigator
object	NGC 7212	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	331.75875	Observer's specified target RA [deg]
dec_targ	10.2335	Observer's specified target Dec [deg]
ra_nom	331.75298335944	Nominal RA [deg]
dec_nom	10.241368803237	Nominal Dec [deg]
roll_nom	135.94051466078	Nominal Roll [deg]
revision	3	Processing version of data
ontime	20150.399924934	Sum of GTIs [s]
livetime	19895.24342797	Livetime [s]
ontime0	20147.158924758	Sum of GTIs [s]
ontime1	20143.918004215	Sum of GTIs [s]
ontime2	20150.399924934	Sum of GTIs [s]
ontime3	20147.158944666	Sum of GTIs [s]
ontime6	20150.399924934	Sum of GTIs [s]
ontime7	20150.399924934	Sum of GTIs [s]
l2events	130261	Number of level 2 events



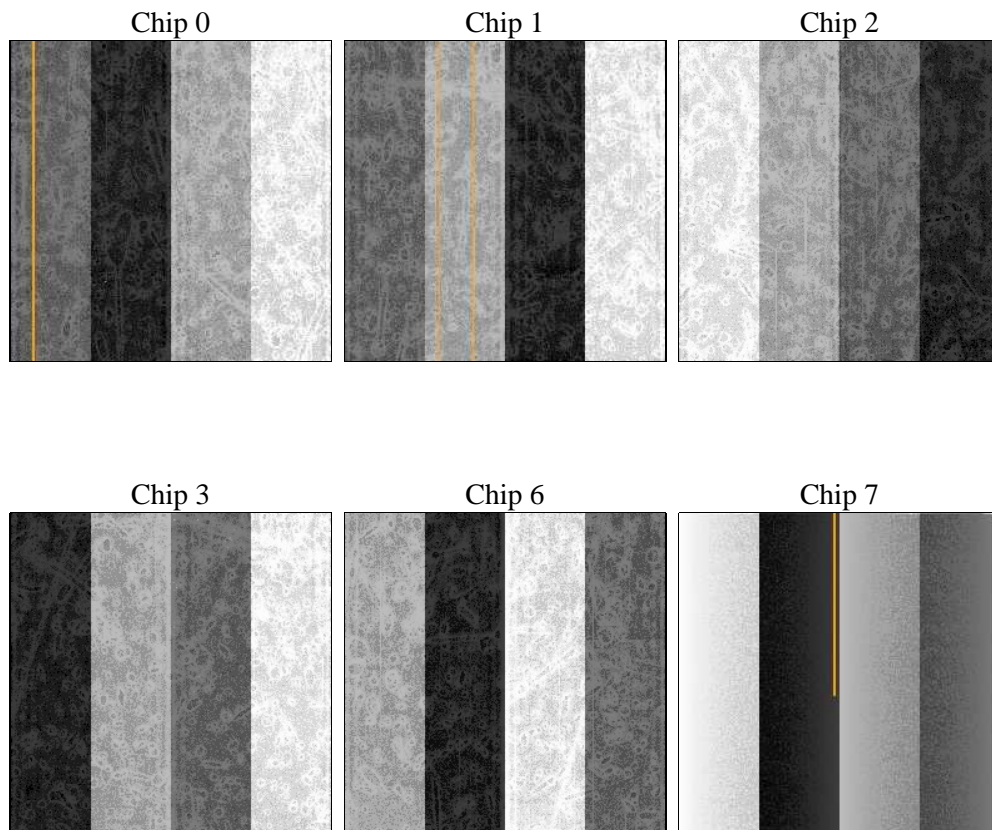
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	20150.399924934	Sum of GTIs [s]
caldbver	4.5.2	&#160	ontime0	20147.158924758	Sum of GTIs [s]
date	2012-11-01T05:17:09	Date and time of file creation	ontime1	20143.918004215	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	20150.399924934	Sum of GTIs [s]
			ontime3	20147.158944666	Sum of GTIs [s]
			ontime6	20150.399924934	Sum of GTIs [s]
			ontime7	20150.399924934	Sum of GTIs [s]
			l1events	974305	Number of level 1 events

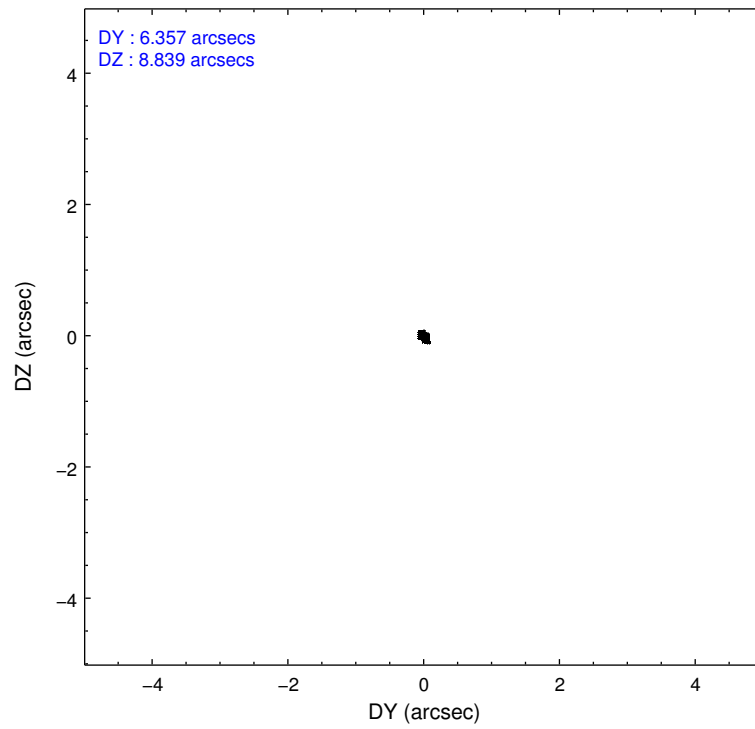
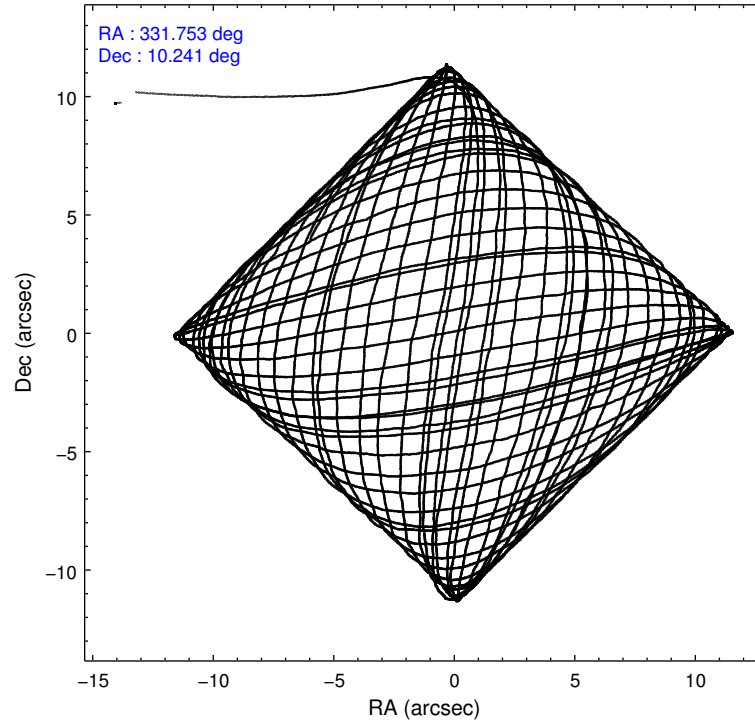
### 2.1.4 Events

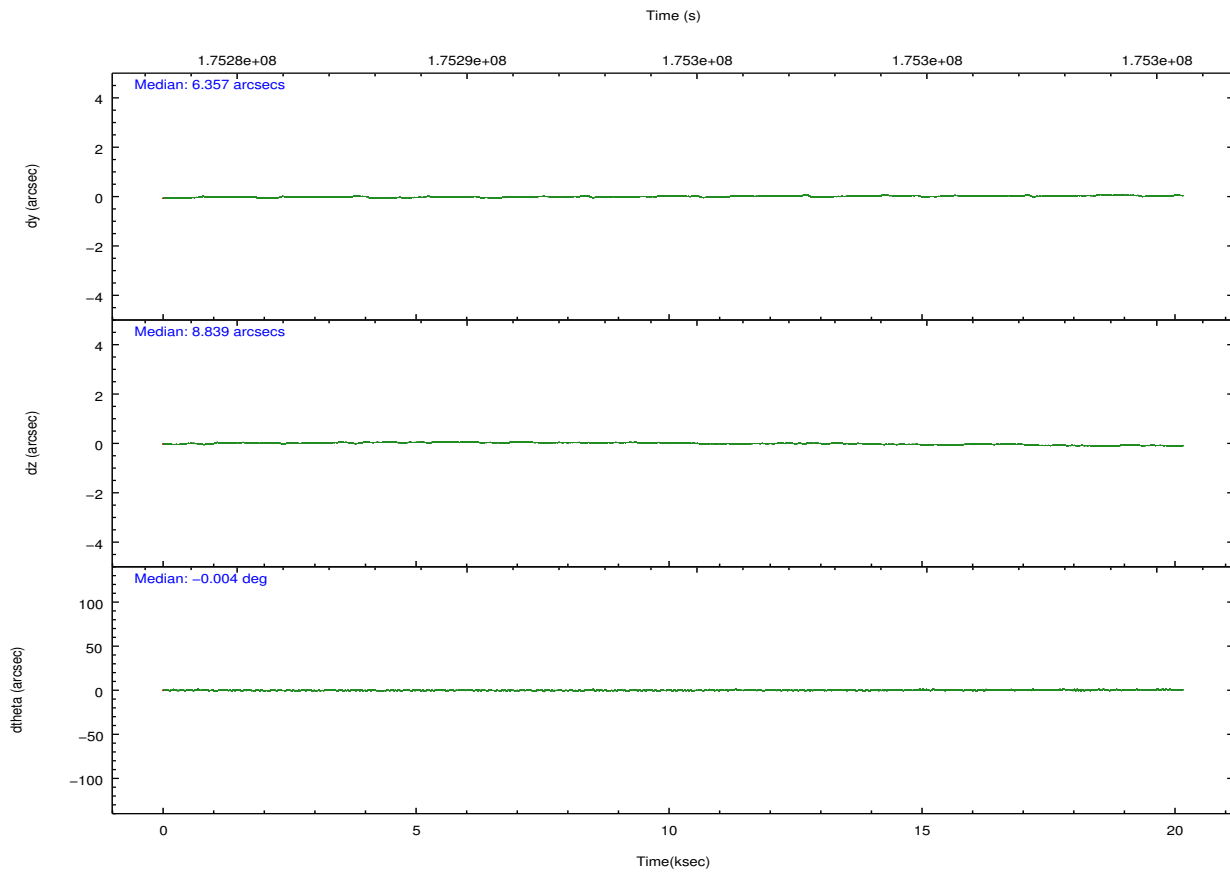
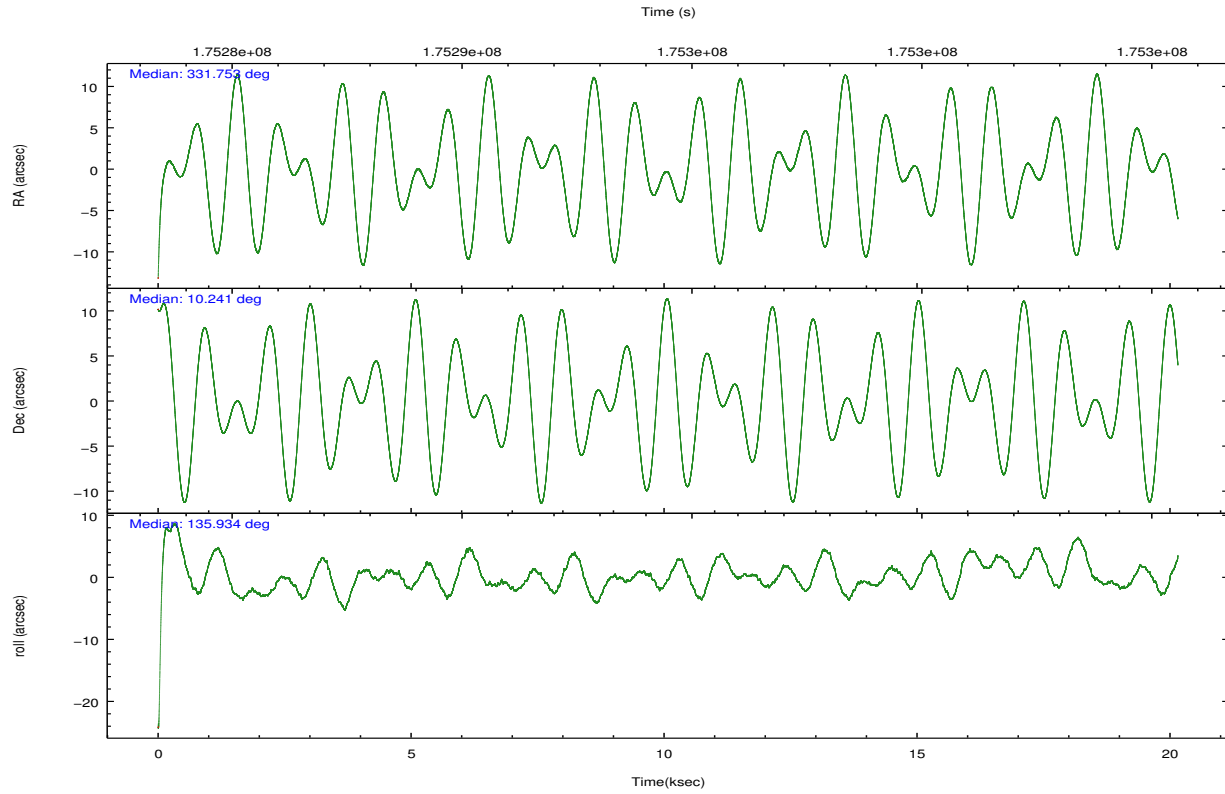
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	152397	146957	152365	152248	160718	209620	grade 0 events	19637	19274	19817	19839	19584	14774
rejected events	137267	131613	138061	137828	146442	140956		12%	13%	13%	13%	12%	7%
rejected %	90%	89%	90%	90%	91%	67%	grade 1 events	161	124	136	150	121	176
								0%	0%	0%	0%	0%	0%
							grade 2 events	7362	7653	6747	6762	7381	21135
								4%	5%	4%	4%	4%	10%
							grade 3 events	3158	3119	2899	3032	3055	9752
								2%	2%	1%	1%	1%	4%
							grade 4 events	2894	3054	2981	3106	2990	9513
								1%	2%	1%	2%	1%	4%
							grade 5 events	5571	5385	5156	5707	6015	17471
								3%	3%	3%	3%	3%	8%
							grade 6 events	6249	6657	5607	5789	7073	48455
								4%	4%	3%	3%	4%	23%
							grade 7 events	107365	101691	109022	107863	114499	88344
								70%	69%	71%	70%	71%	42%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	331.779924	331.7529833594369	Subarray requested	NONE	NONE
[deg] Pointing Dec	10.235077	10.24136880323701	Alternating exposures requested	N	N
[deg] Pointing Roll	135.779121	135.9405146607768	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	110.000000	110.000000			
[deg] Roll tolerance	45.000000	45.000000			
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	175284557.184000	175282777.58186			
Observation start date	2003-07-22T18:08:13	2003-07-22T17:39:37			
[s] Observation end time (MET)	175304557.184000	175305504.39533			
Observation end date	2003-07-22T23:41:33	2003-07-22T23:58:24			
Read mode	TIMED	TIMED			

## 2.3 Aspect



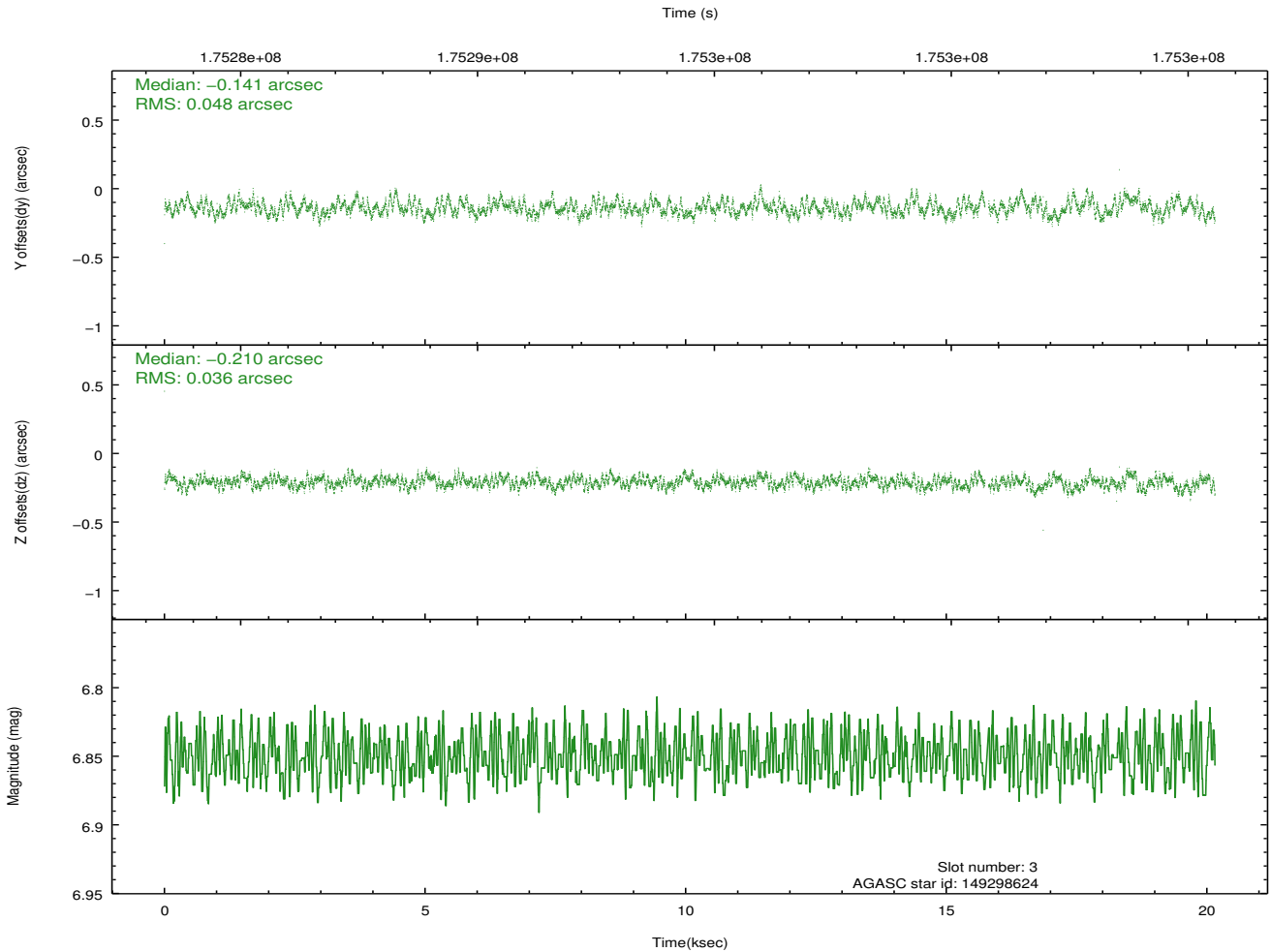
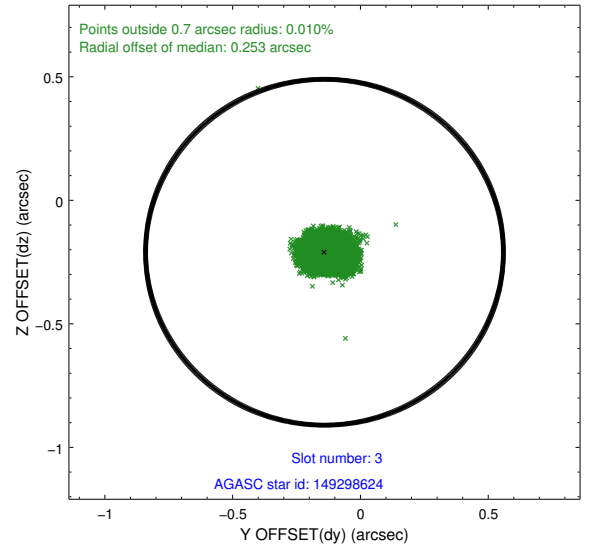
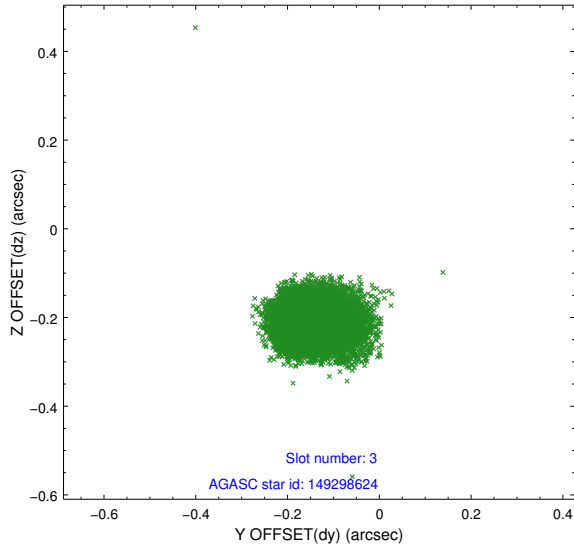


### Slot Statistics

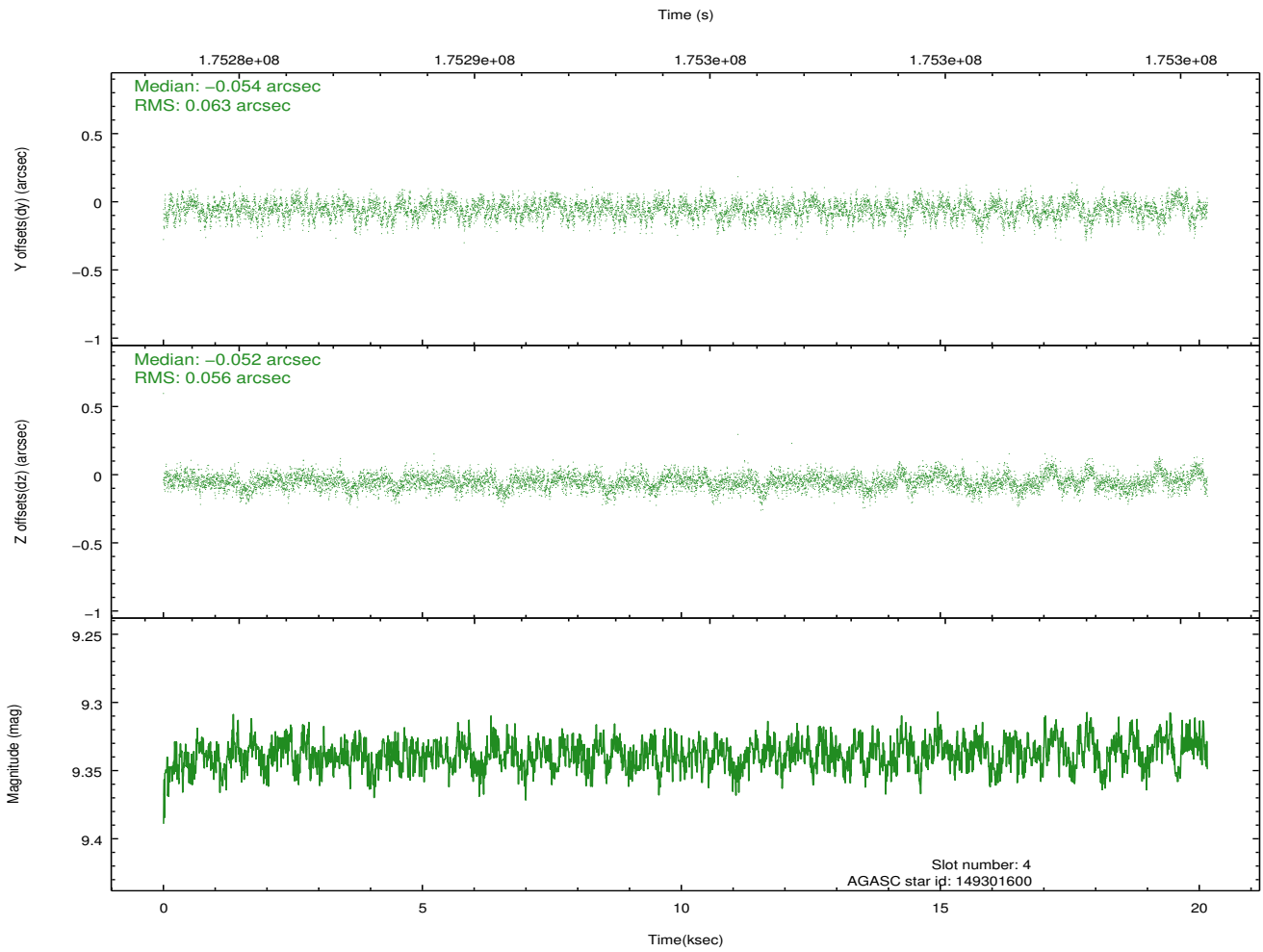
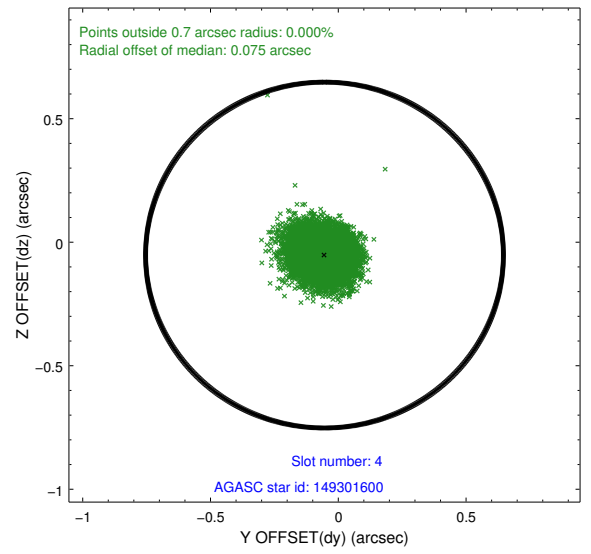
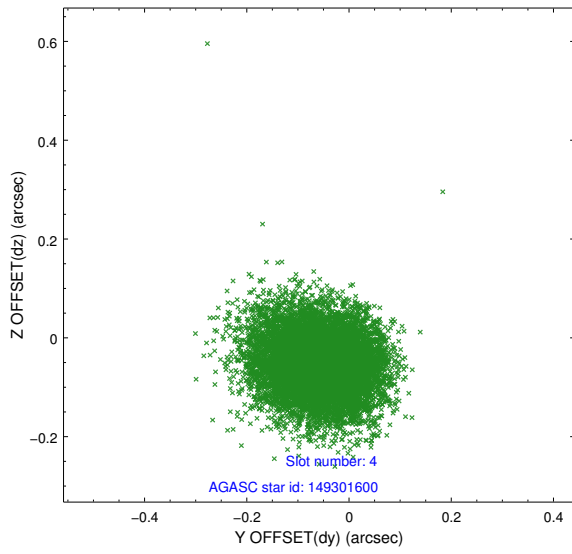
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	4917	-0.039	-0.041	0.007	0.010	0.000000	0.000000	-759.14	-1730.08
1	FID	ACIS-S-4	7.20	4917	0.063	0.030	0.006	0.010	0.000000	0.000000	2154.17	178.27
2	FID	ACIS-S-5	7.23	4917	-0.055	0.020	0.006	0.011	0.000000	0.000000	-1811.75	172.16
3	GUIDE	149298624	6.85	9797	-0.141	-0.210	0.065	0.102	331.129517	10.240318	1666.05	1592.07
4	GUIDE	149301600	9.34	9830	-0.054	-0.052	0.090	0.145	331.187914	10.167764	1335.83	1635.68
5	GUIDE	149422576	9.09	9830	0.122	0.089	0.079	0.124	332.176591	10.487328	-371.70	-1630.36
6	GUIDE	149423712	8.78	9831	0.152	0.099	0.065	0.105	332.085700	10.215641	-824.60	-705.68
7	GUIDE	149429576	8.77	9828	-0.081	0.070	0.096	0.165	331.975238	10.608542	442.71	-1445.49

## 2.4 Star Slots

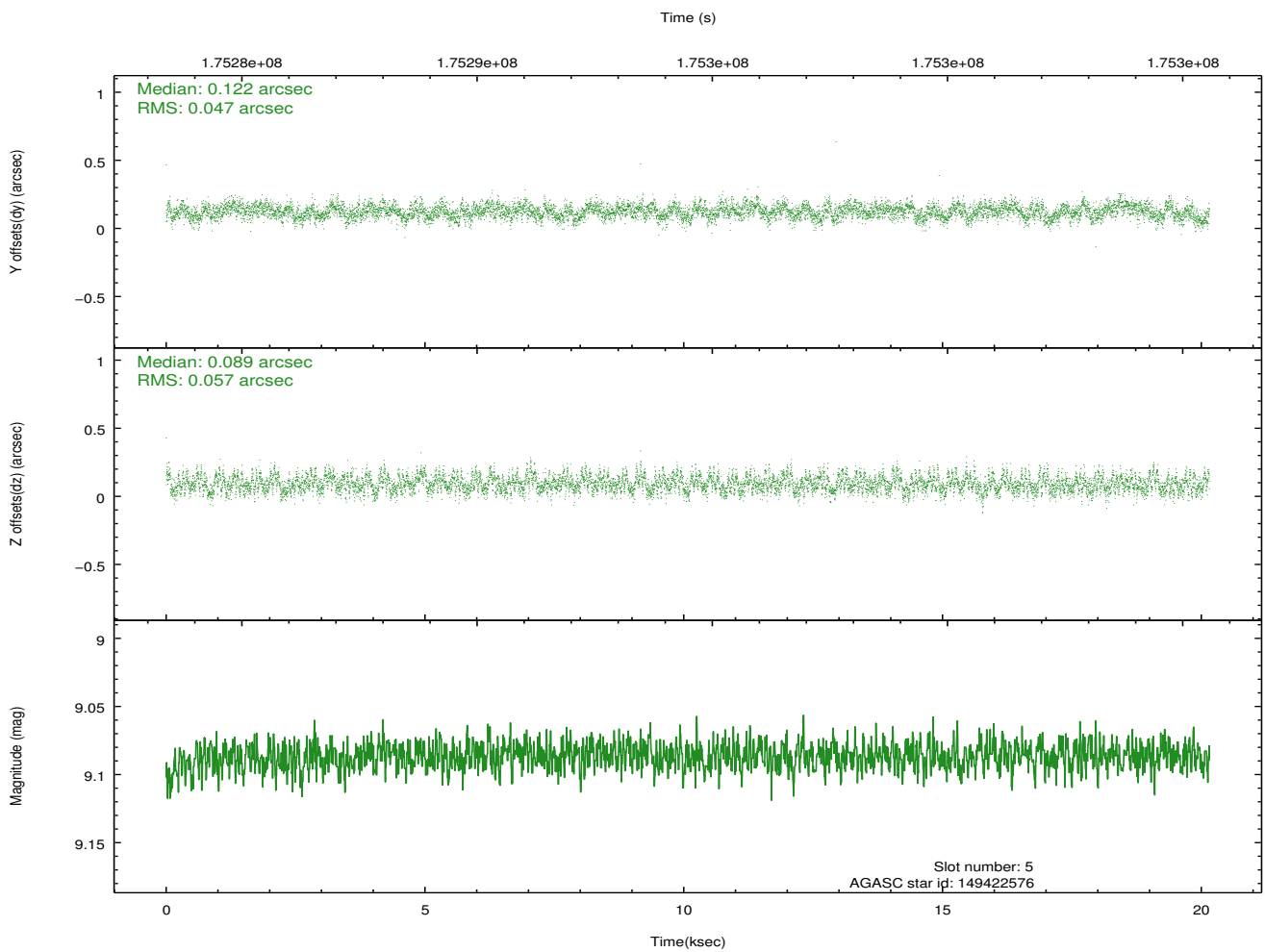
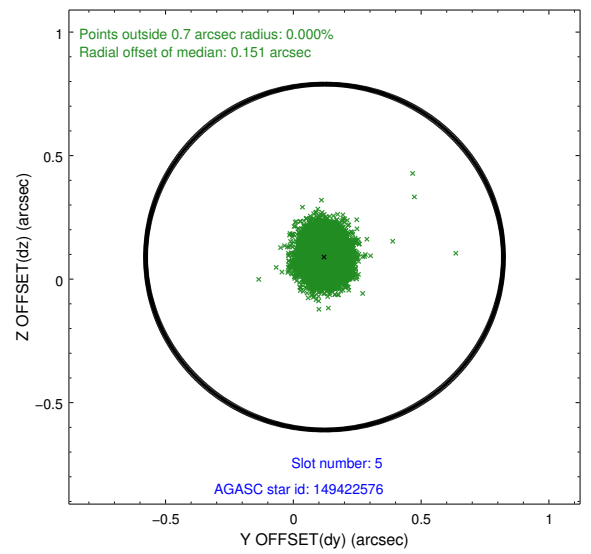
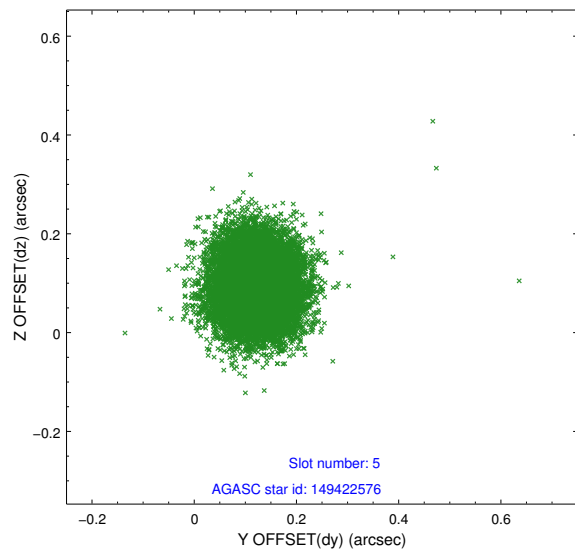
### 2.4.1 Slot 3



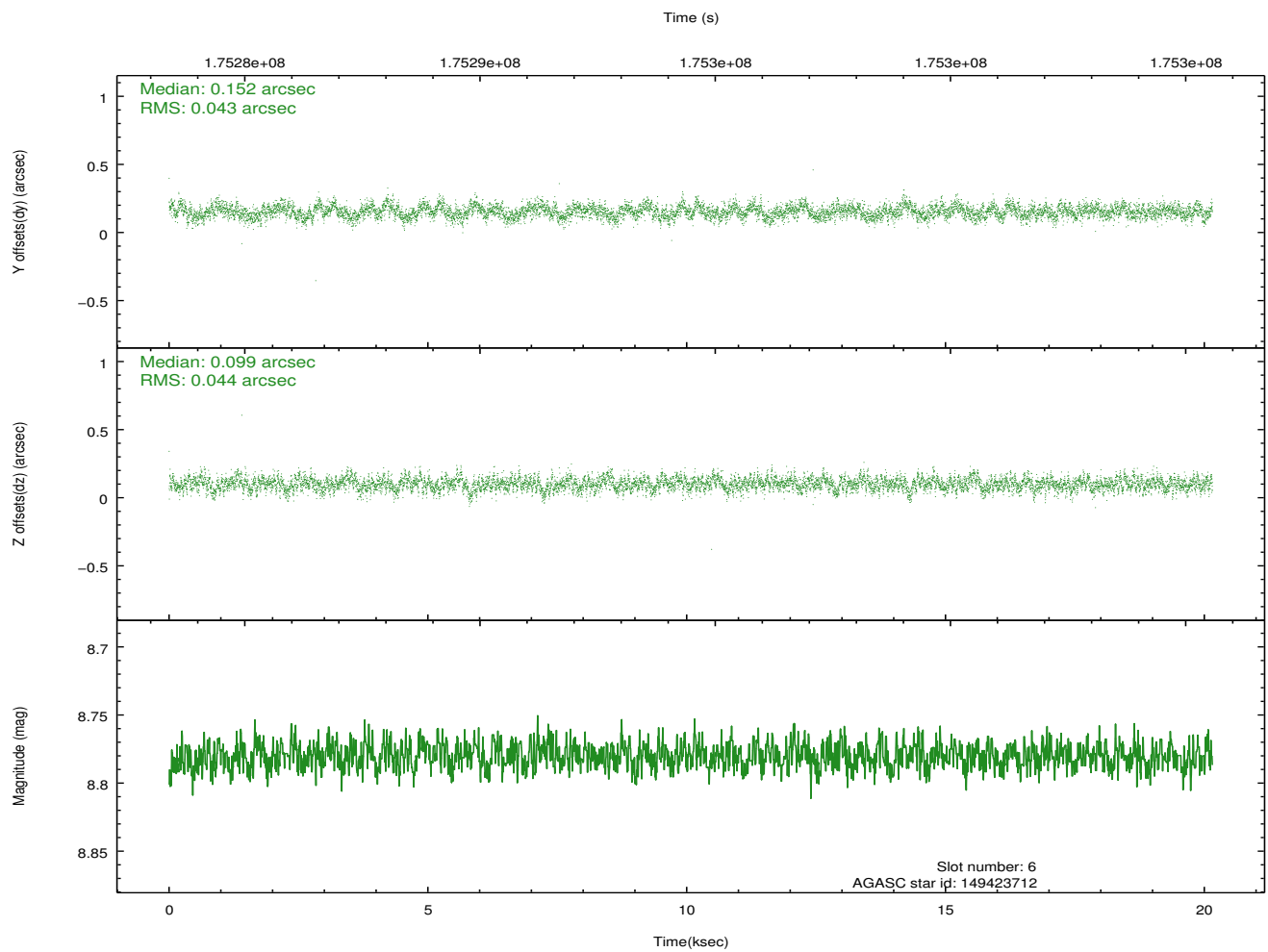
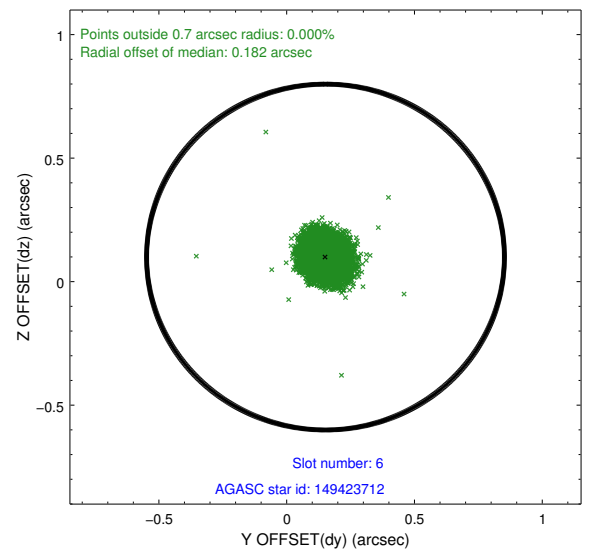
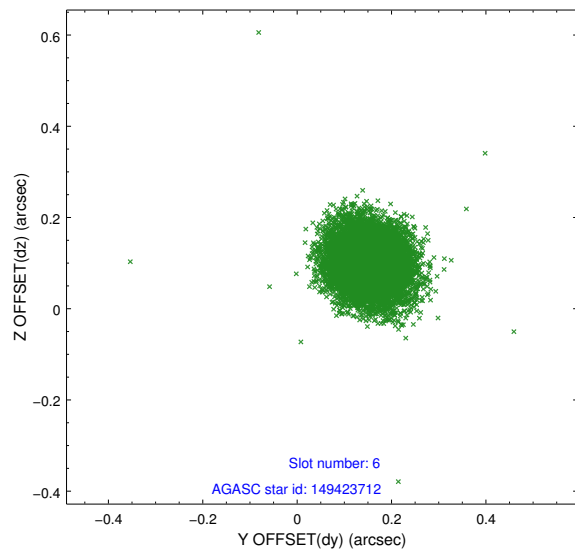
## 2.4.2 Slot 4



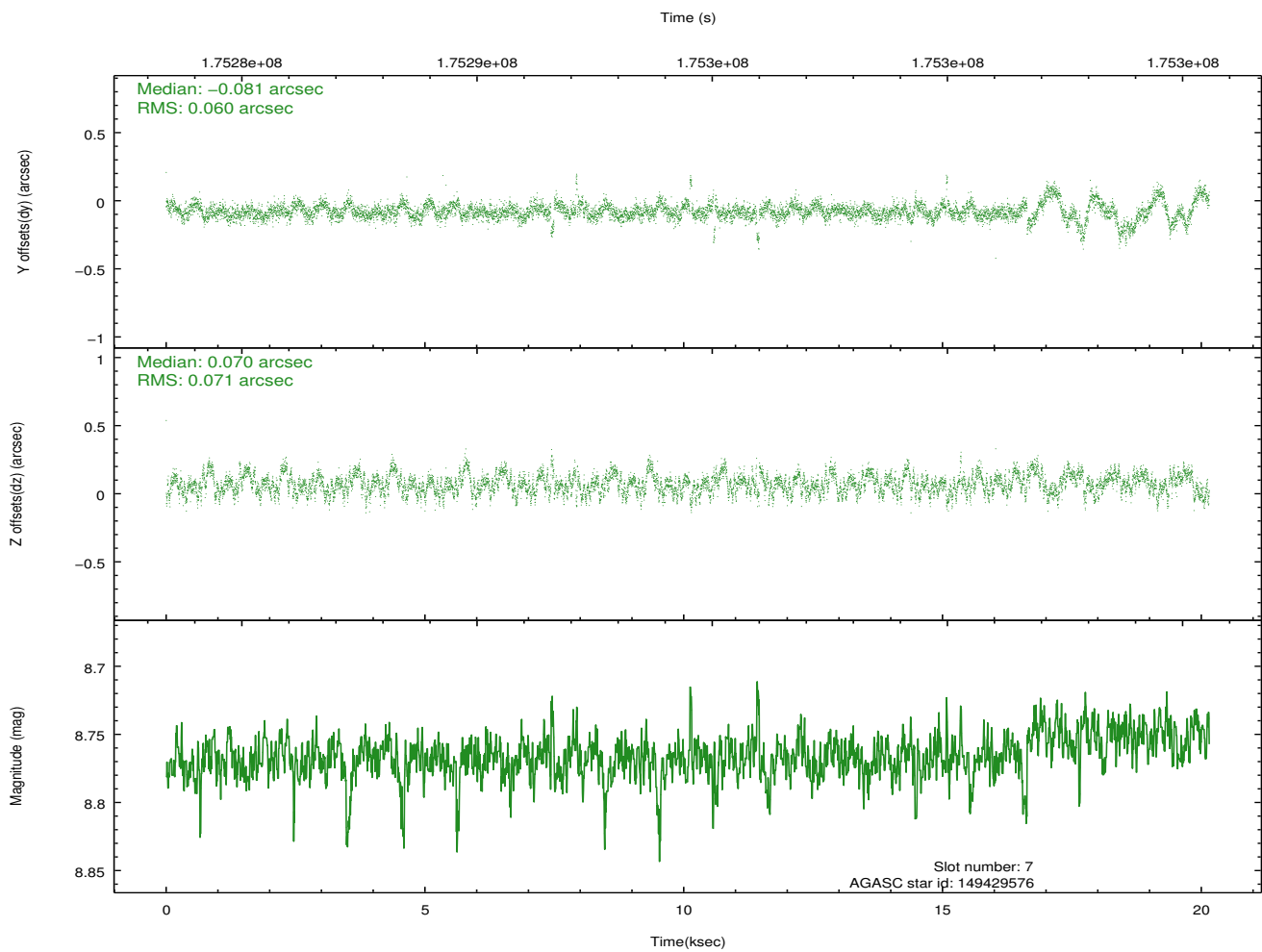
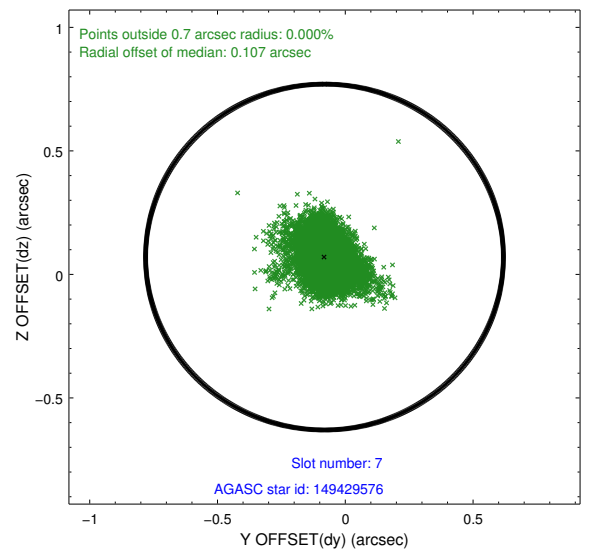
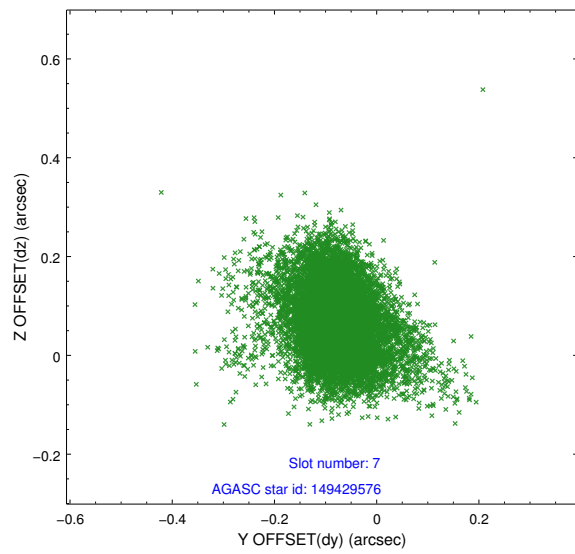
### 2.4.3 Slot 5



## 2.4.4 Slot 6

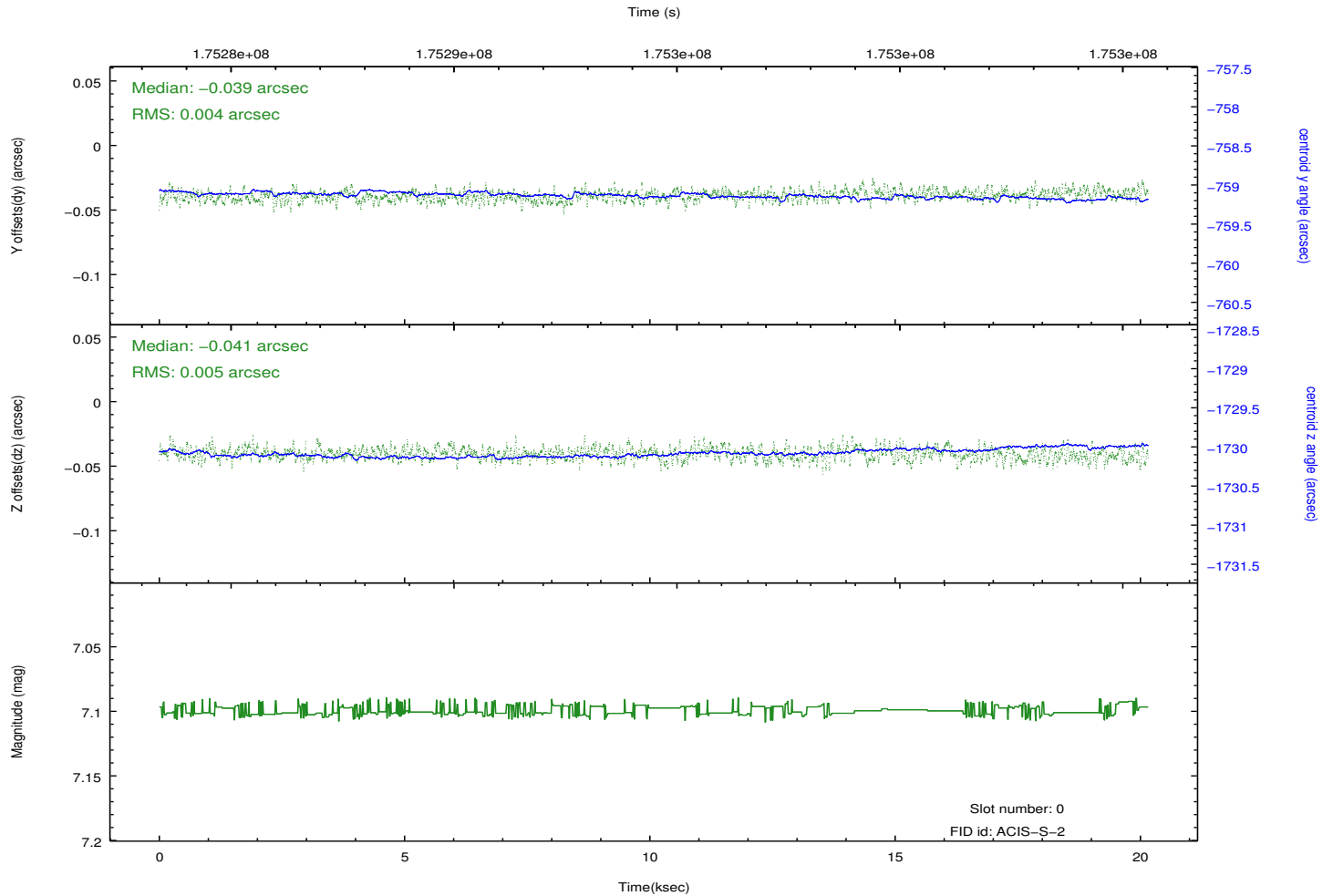
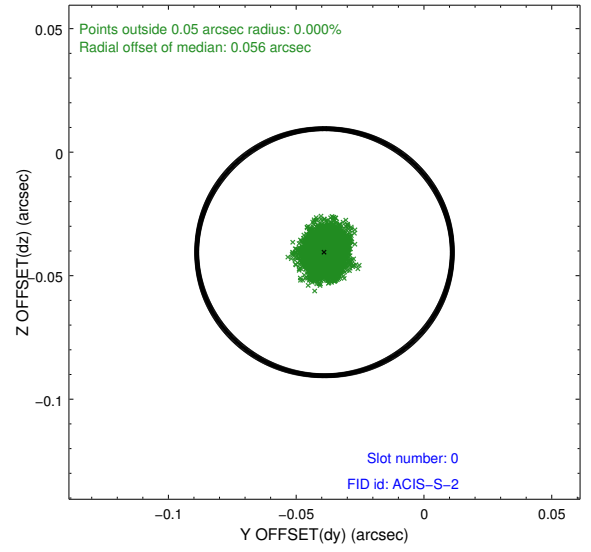
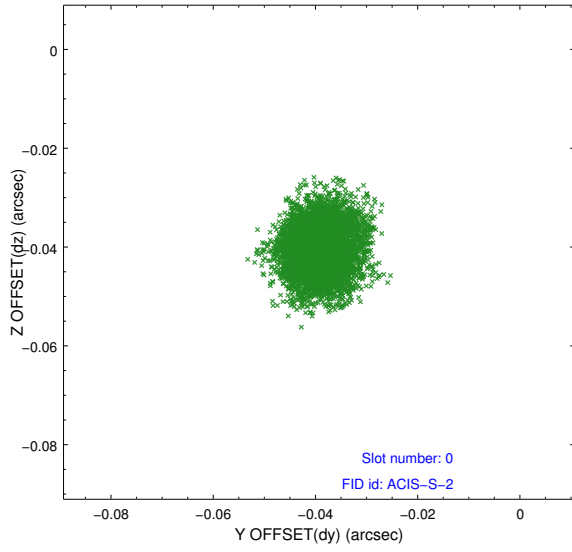


## 2.4.5 Slot 7

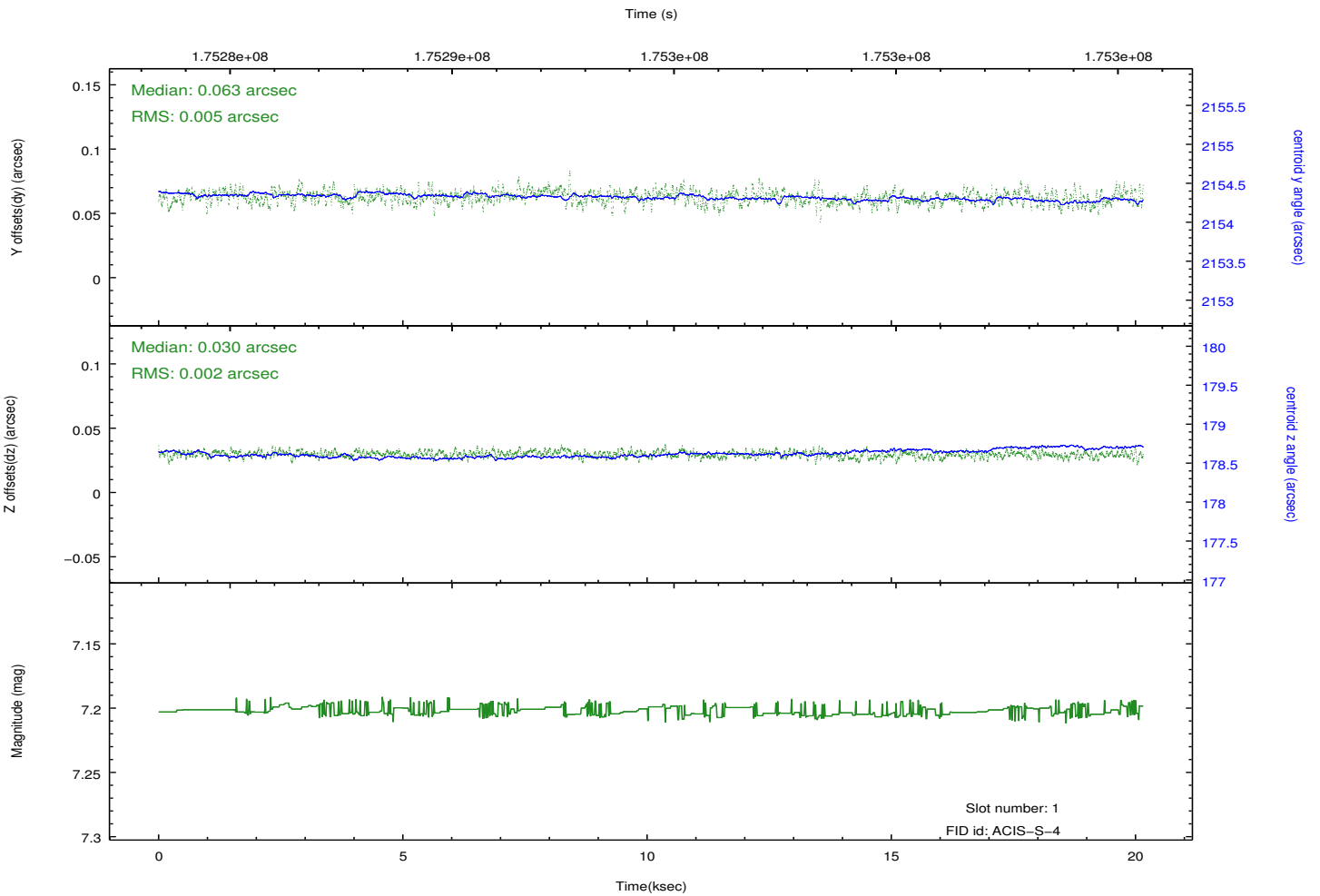
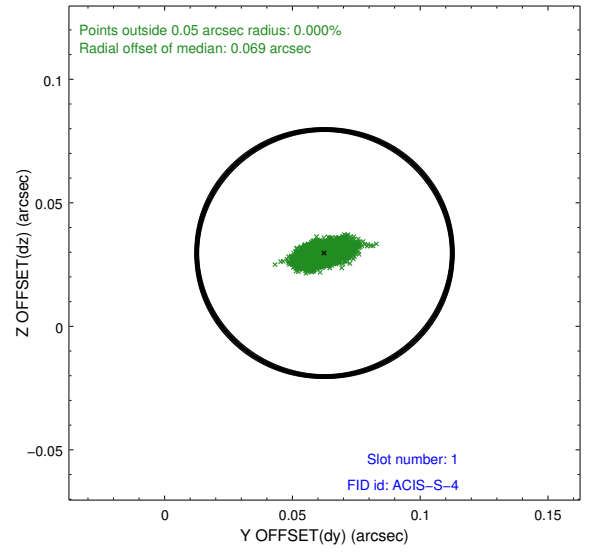
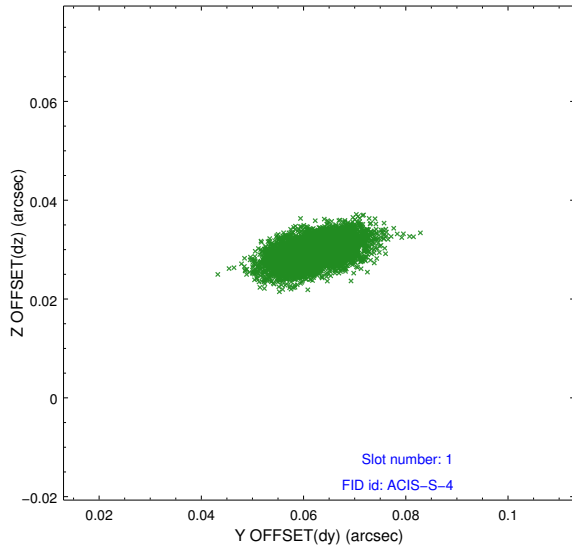


## 2.5 FID Slots

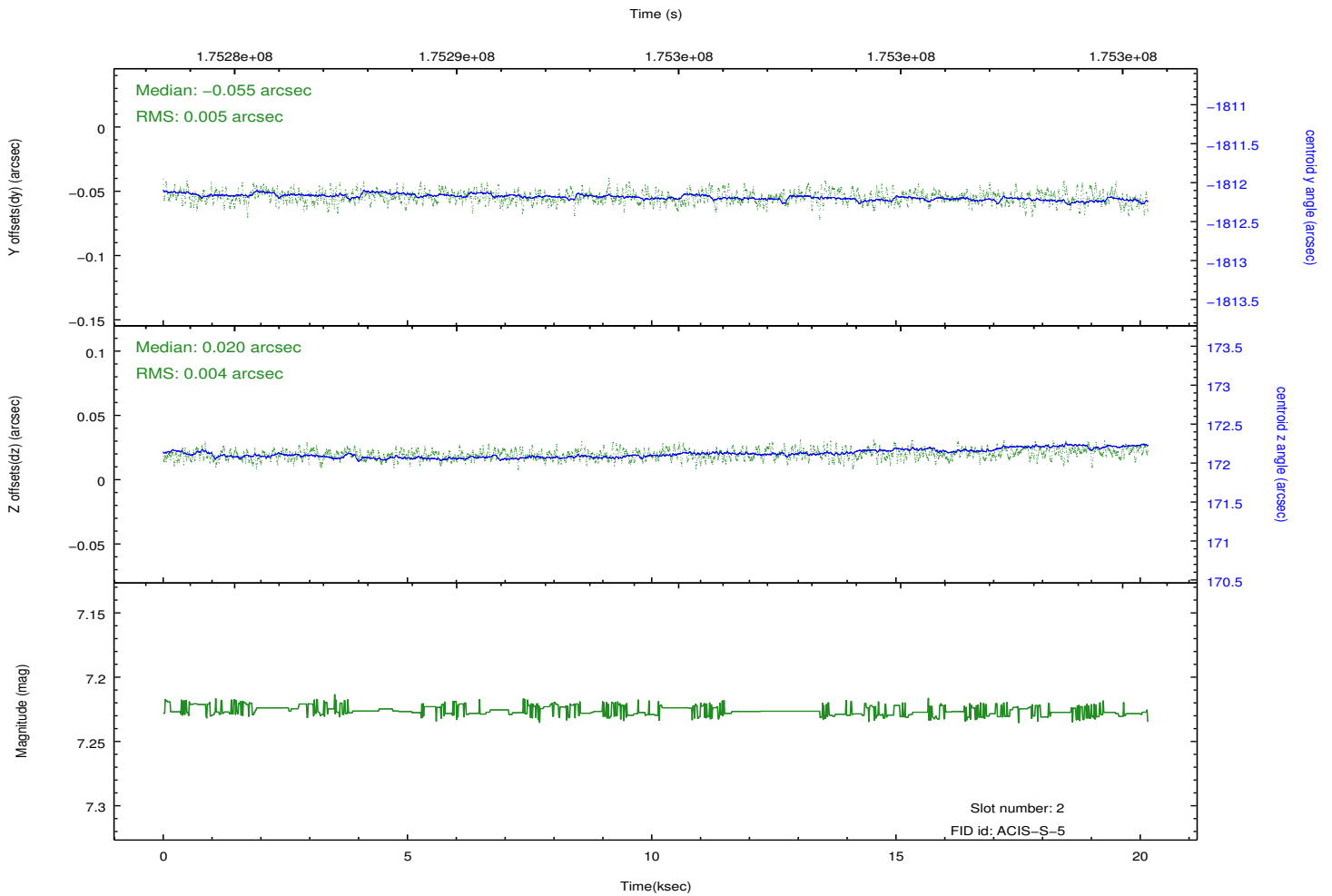
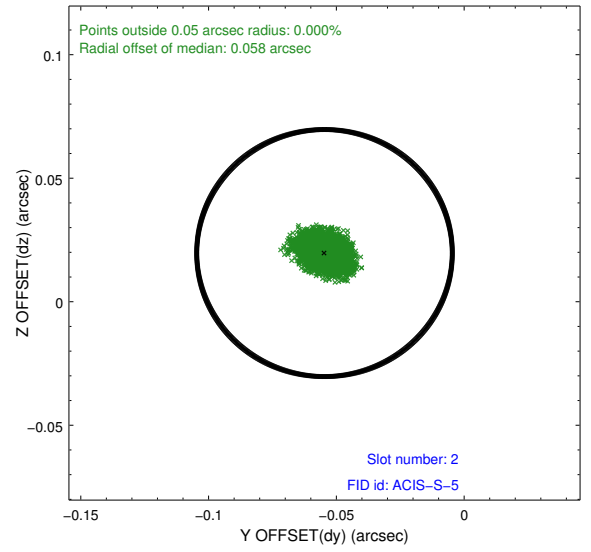
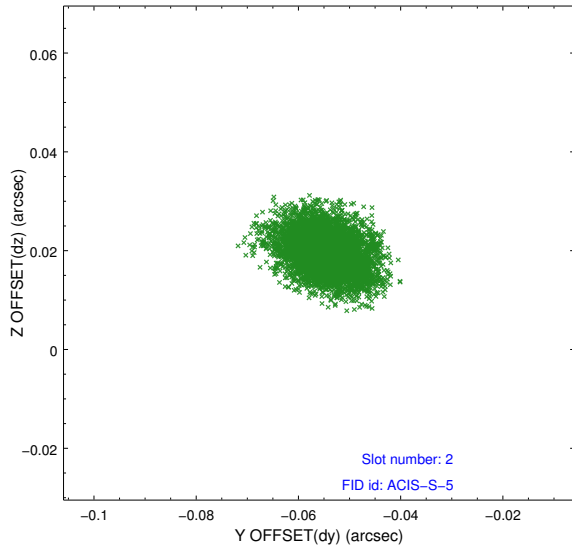
### 2.5.1 Slot 0



## 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)	2012.11.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.15

## A.2 Comments

Joint proposal with HST.

Roll preference met.