

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22025 - L2 Version 1
Chandra X-Ray Center

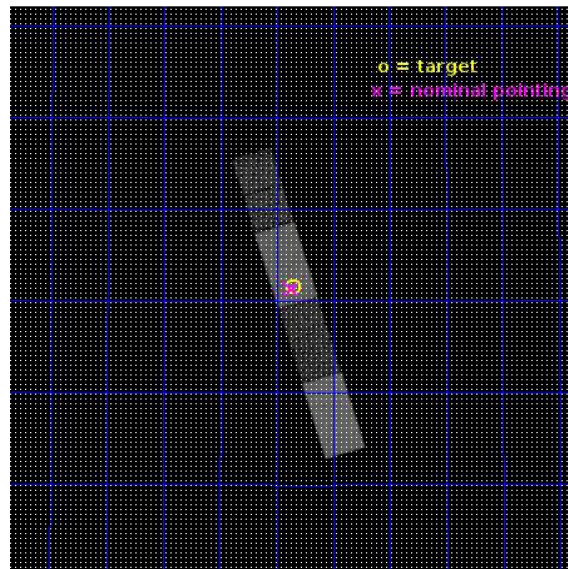
L2 Processing Date : Jan 6 2019

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

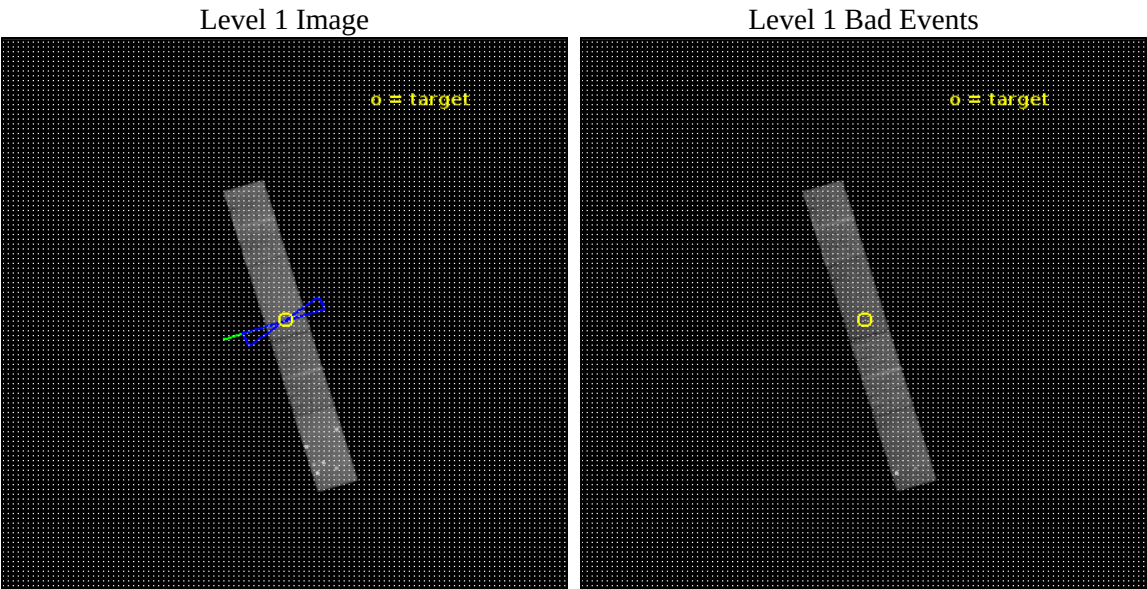
seq_num	703413	Sequence number
obs_id	22025	Observation id
title	The 3C111 Jet: X-ray Variability, Spectrum & Broadband SED	Proposa
observer	Eric Perlman	Principal investigator
object	3C 111	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	64.58875	Observer's specified target RA [deg]
dec_targ	38.026667	Observer's specified target Dec [deg]
ra_nom	64.592458430515	Nominal RA [deg]
dec_nom	38.023115978934	Nominal Dec [deg]
roll_nom	253.15435269741	Nominal Roll [deg]
revision	1	Processing version of data
ontime	16566.349075198	Sum of GTIs [s]
livetime	16175.845143039	Livetime [s]
ontime5	16566.308035254	Sum of GTIs [s]
ontime6	16564.525934935	Sum of GTIs [s]
ontime7	16566.349075198	Sum of GTIs [s]
ontime8	16566.225955248	Sum of GTIs [s]
l2events	104876	Number of level 2 events



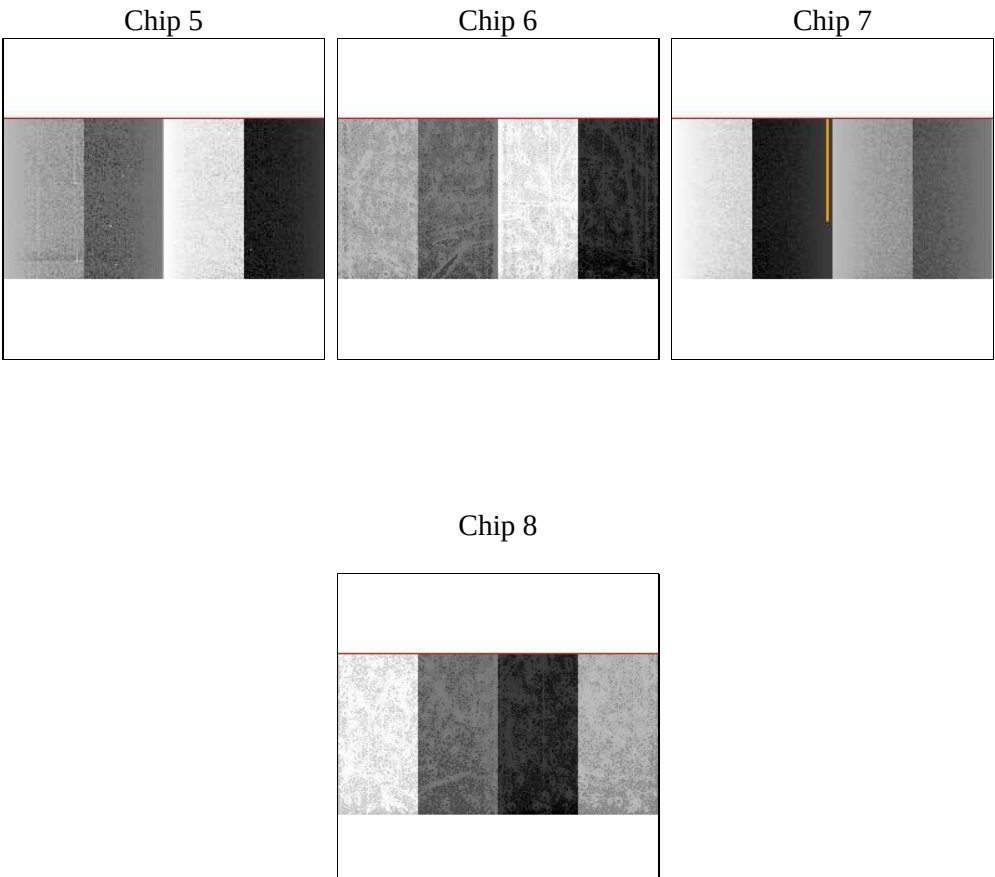
2 OBI

2.1 OBI

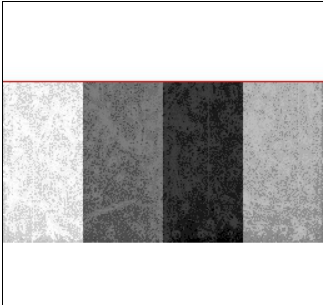
2.1.1 Images



2.1.2 Bias



Chip 8



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	16500.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	16566.349075198	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	16566.308035254	Sum of GTIs [s]
date	2019-01-06T22:35:34	Date and time of file creation	ontime6	16564.525934935	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	16566.349075198	Sum of GTIs [s]
			ontime8	16566.225955248	Sum of GTIs [s]
			l1events	396335	Number of level 1 events

2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	146013	69755	97182	83385
rejected events	63934	62061	50645	62628
rejected %	43%	88%	52%	75%

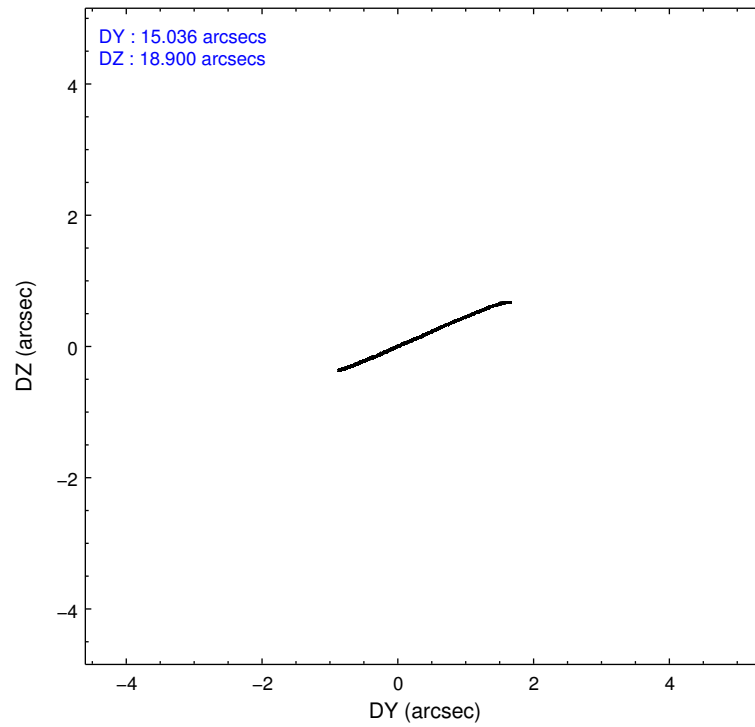
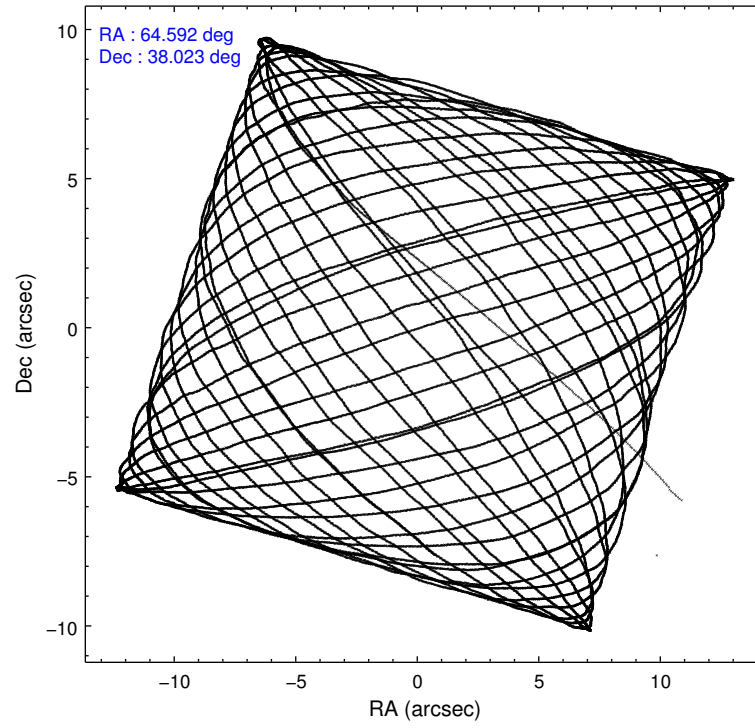
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	30480	2407	4624	5538
	20%	3%	4%	6%
grade 1 events	282	25	344	38
	0%	0%	0%	0%
grade 2 events	19909	1763	9683	4911
	13%	2%	9%	5%
grade 3 events	3441	841	4268	2208
	2%	1%	4%	2%
grade 4 events	1676	851	4182	2153
	1%	1%	4%	2%
grade 5 events	7365	2869	9242	4324
	5%	4%	9%	5%
grade 6 events	26591	1833	23793	5947
	18%	2%	24%	7%
grade 7 events	56269	59166	41046	58266
	38%	84%	42%	69%

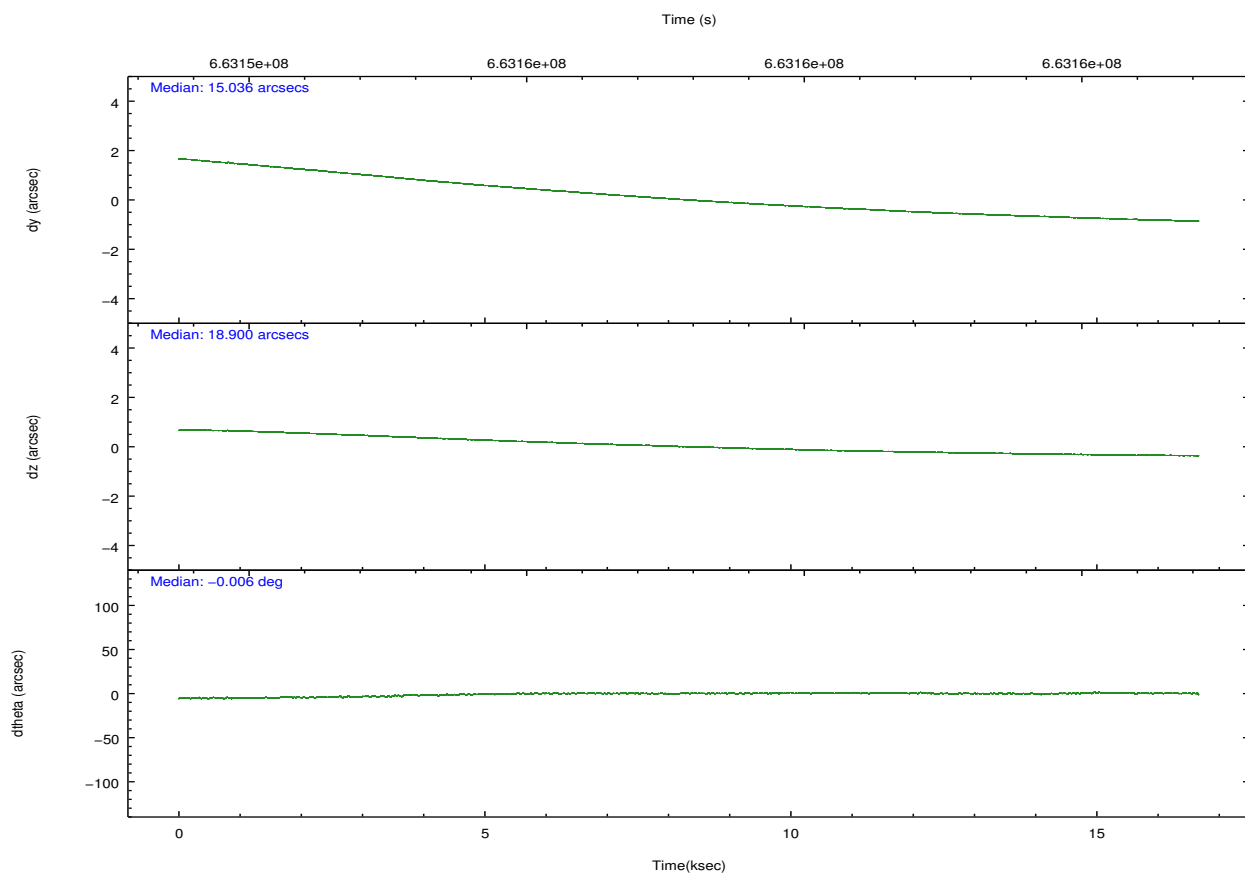
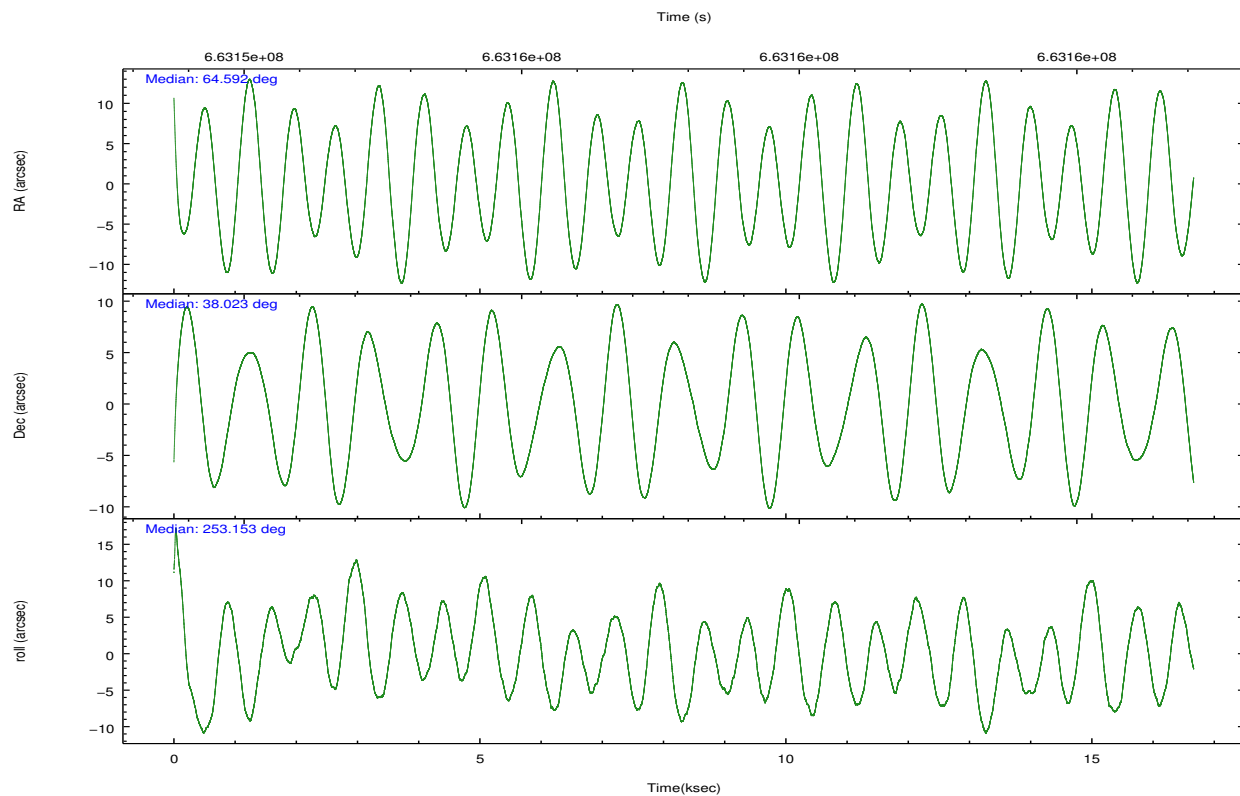
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-5678	ACIS-5678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	64.584080	64.5924584305149
[deg] Pointing Dec	38.049727	38.0231159789337
[deg] Pointing Roll	253.002881	253.1543526974122
[deg] Roll angle	63.500000	63.500000
[deg] Roll tolerance	10.000000	10.000000
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	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	663149764.184000	663148900.97716
Observation start date	2019-01-06T08:14:55	2019-01-06T08:01:40
[s] Observation end time (MET)	663166264.184000	663167368.9157701
Observation end date	2019-01-06T12:49:55	2019-01-06T13:09:28
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	1/2
Subarray start row	257	257
Subarray row count	512	512
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	1.7

2.3 Aspect



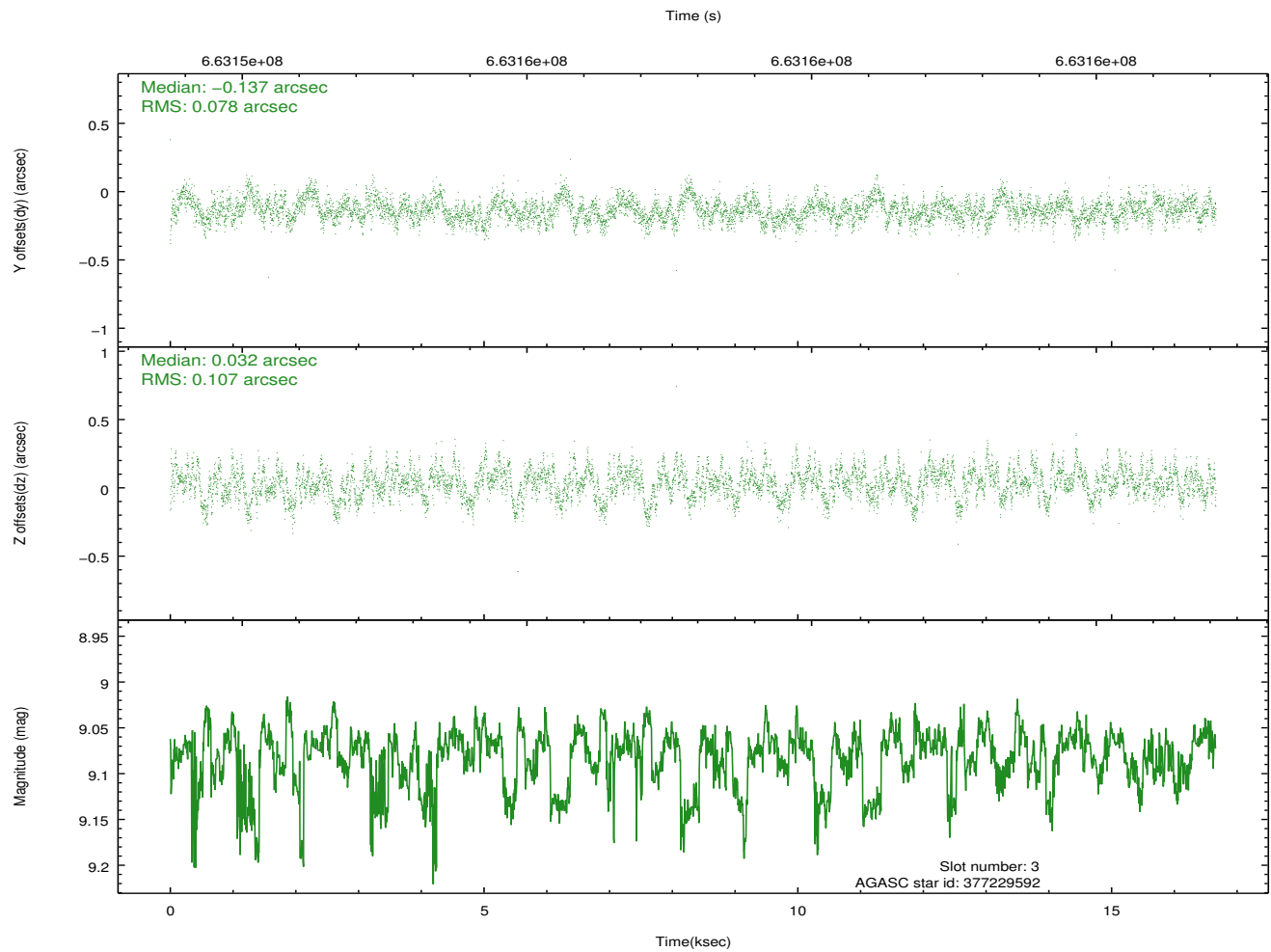
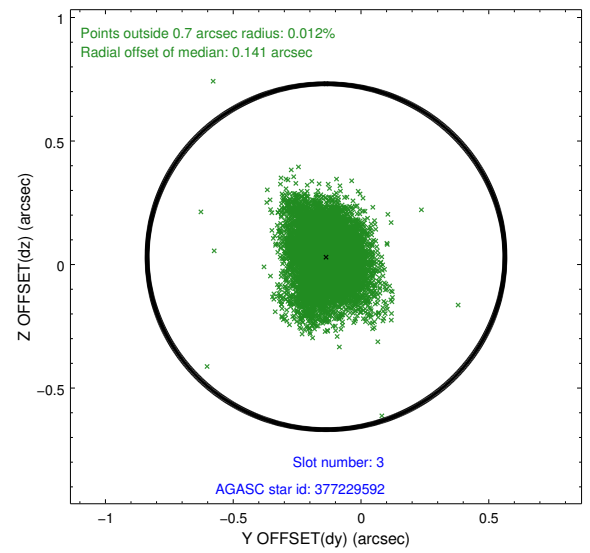
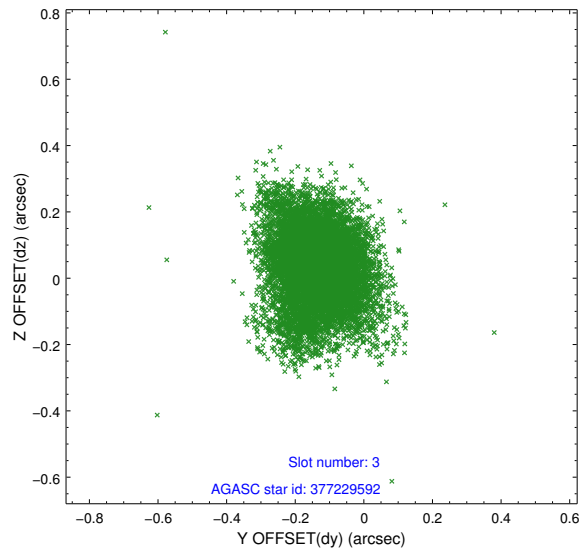


Slot Statistics

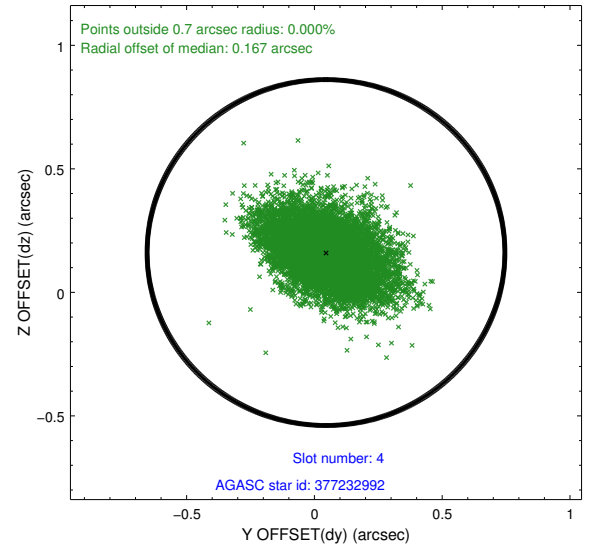
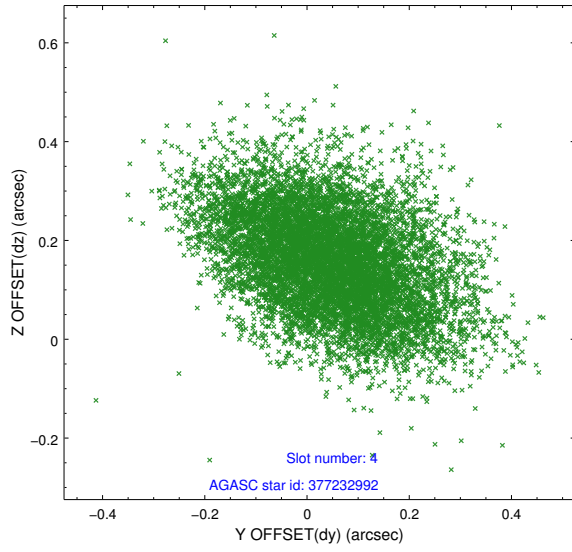
id	status	used	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.07	4065	1.000	-0.349	-0.229	0.021	0.046	0.000000	0.000000	-768.44 -1740
1	FID		ACIS-S-4	7.19	4063	1.000	0.834	0.230	0.015	0.030	0.000000	0.000000	2145.83 168
2	FID		ACIS-S-5	7.16	4065	1.000	-0.520	0.010	0.018	0.033	0.000000	0.000000	-1821.20 161
3	GUIDE	used	377229592	9.08	8118	1.000	-0.137	0.032	0.139	0.234	64.771333	38.350817	-1190.73 189
4	GUIDE	used	377232992	9.01	8110	1.000	0.045	0.161	0.169	0.283	63.776678	37.815935	1467.23 -1951
5	GUIDE	used	377363032	9.33	8025	1.000	0.121	-0.120	0.207	0.383	65.027918	38.365214	-1454.39 865
6	GUIDE	used	377365280	7.12	8129	1.000	-0.280	0.212	0.096	0.169	65.229745	38.577157	-2352.99 1182
7	GUIDE	used	377233080	6.30	8123	1.000	0.250	-0.281	0.163	0.322	63.716955	37.542672	2458.91 -1836

2.4 Star Slots

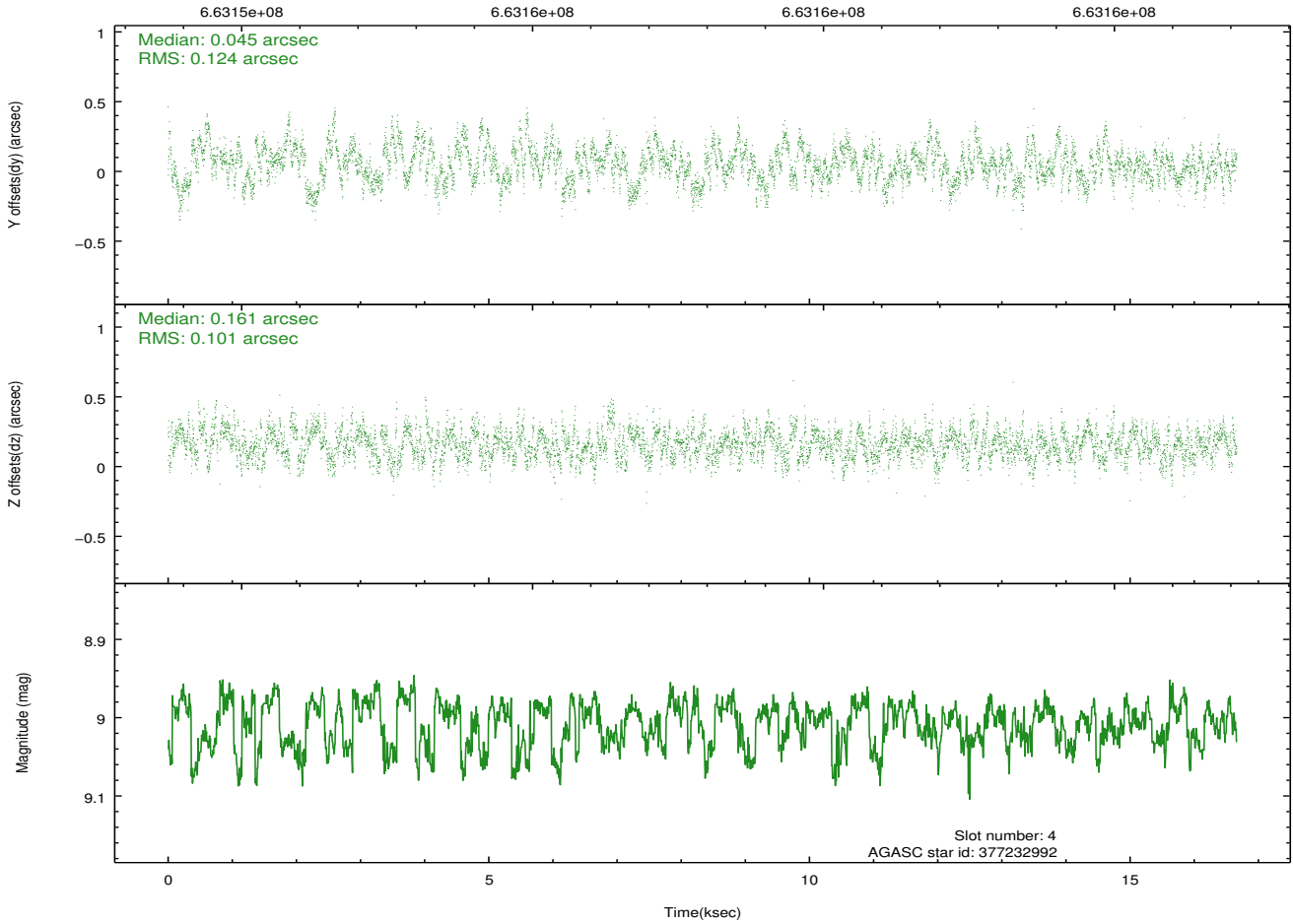
2.4.1 Slot 3



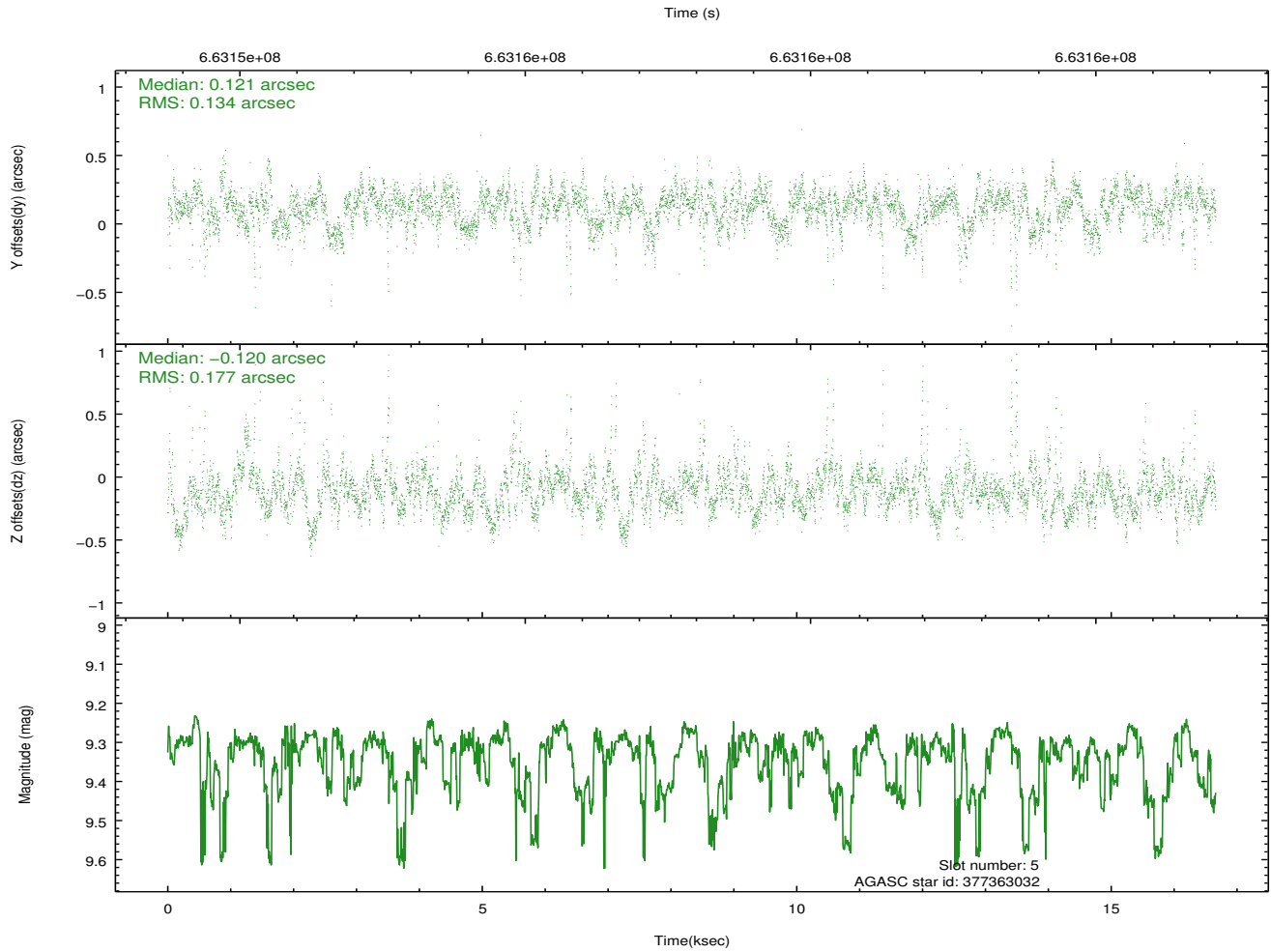
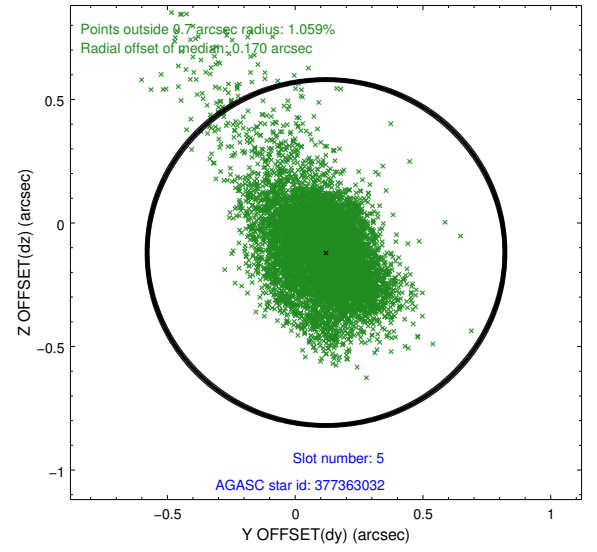
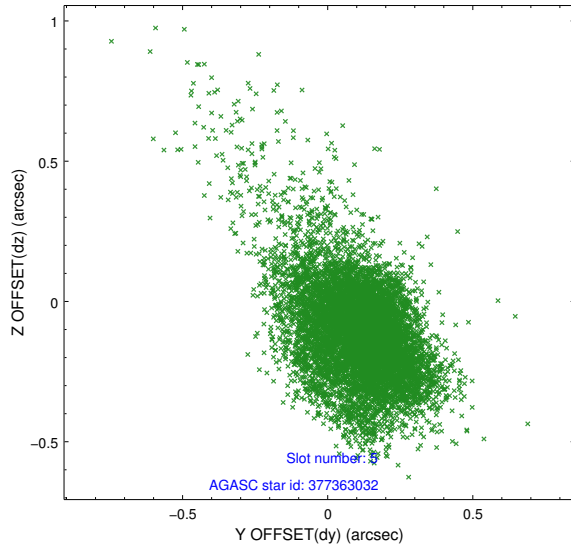
2.4.2 Slot 4



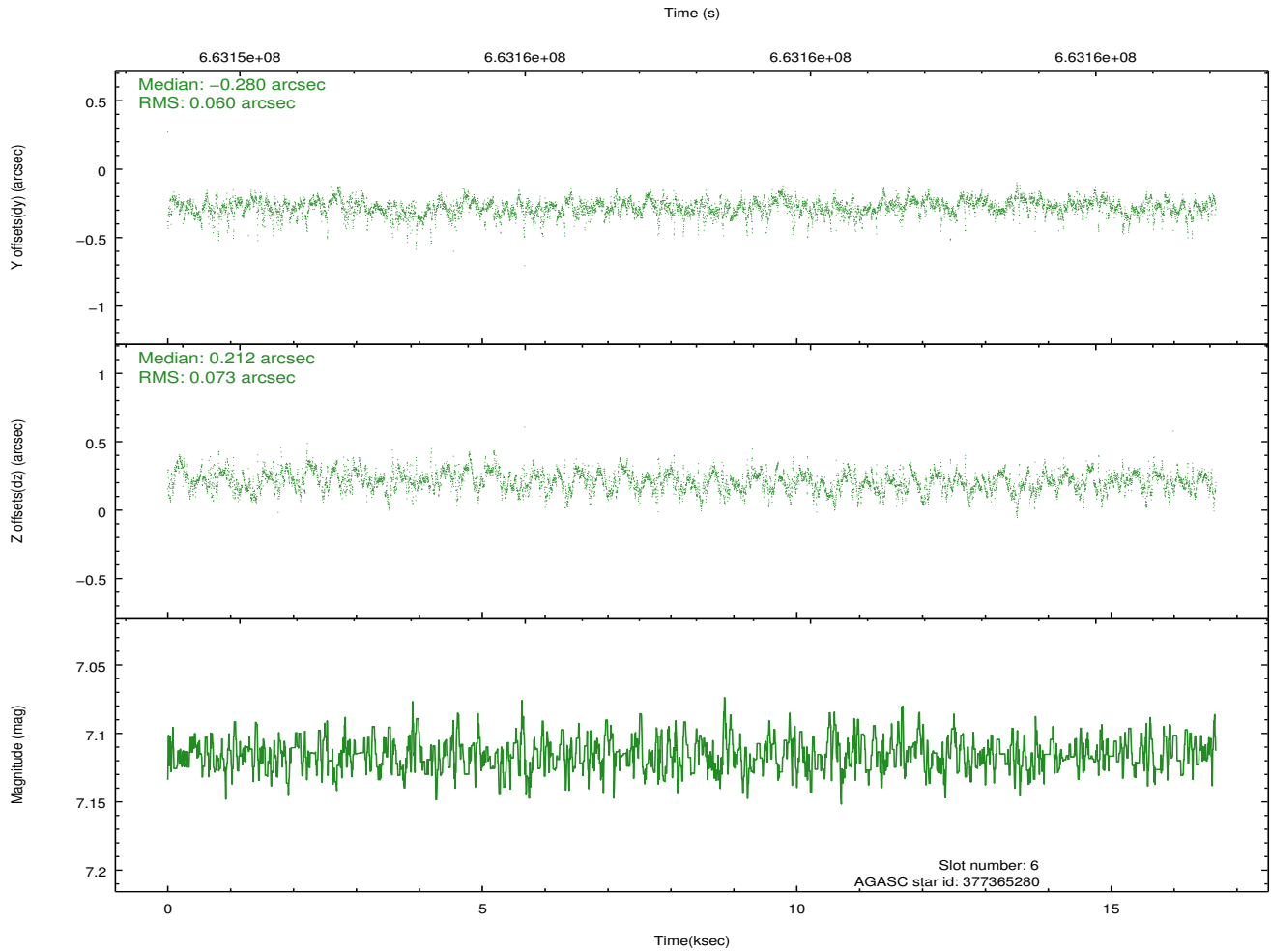
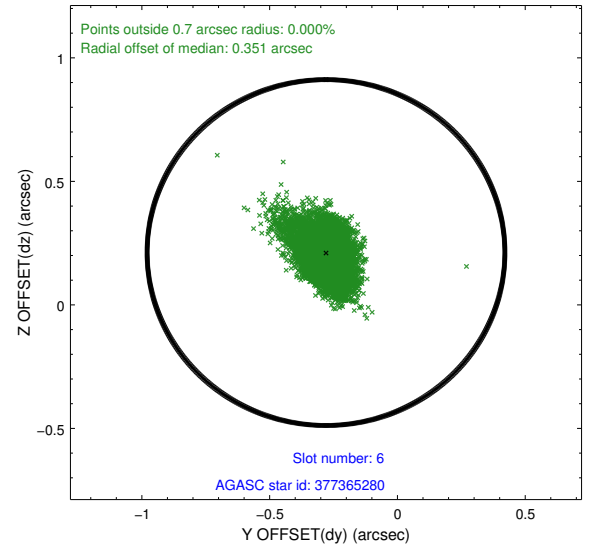
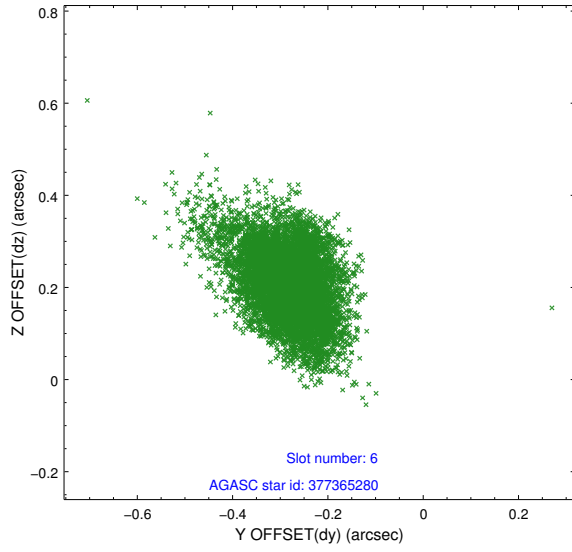
Time (s)



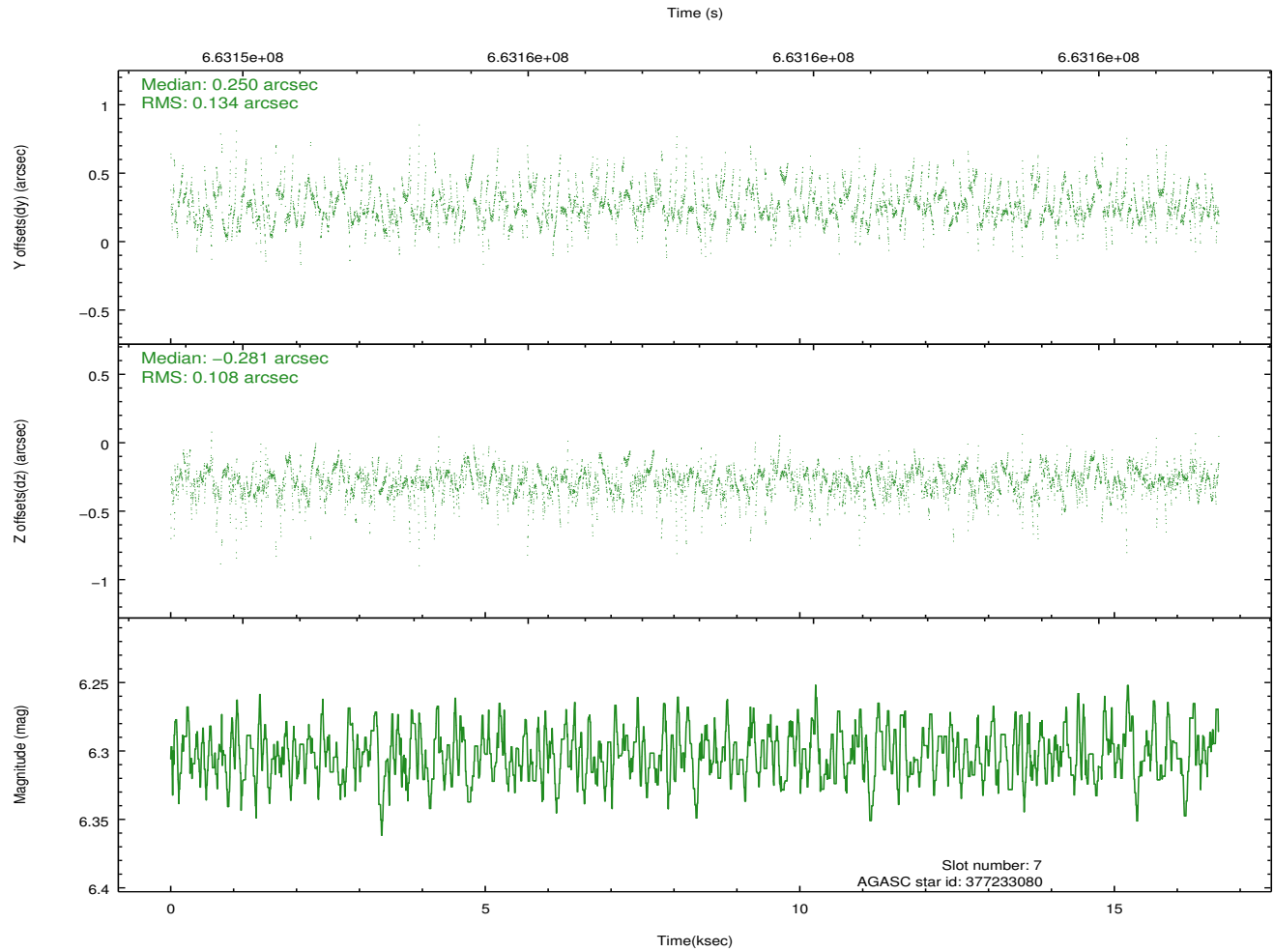
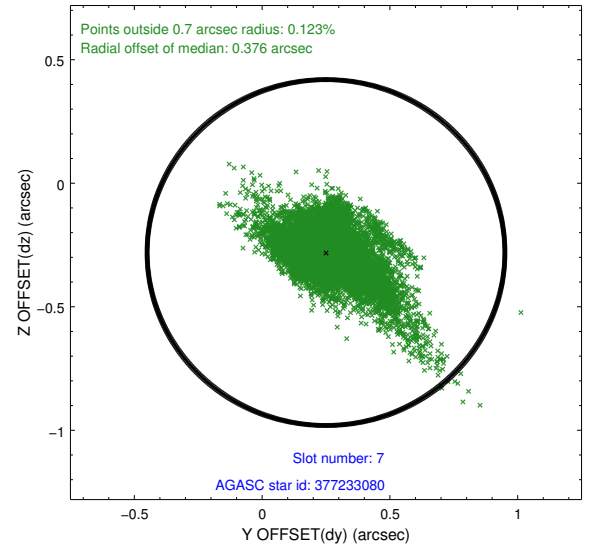
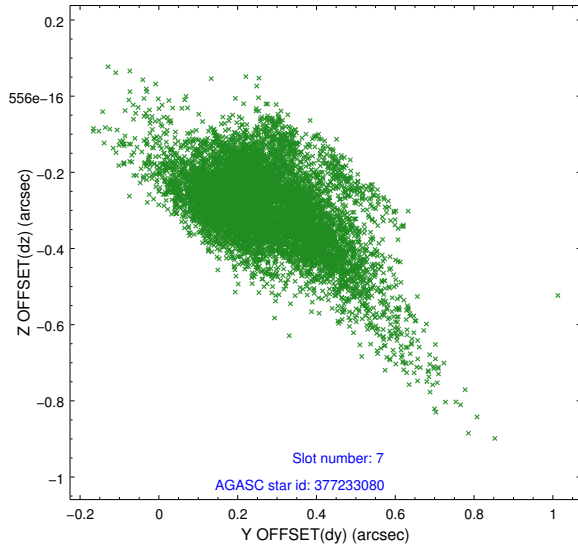
2.4.3 Slot 5



2.4.4 Slot 6

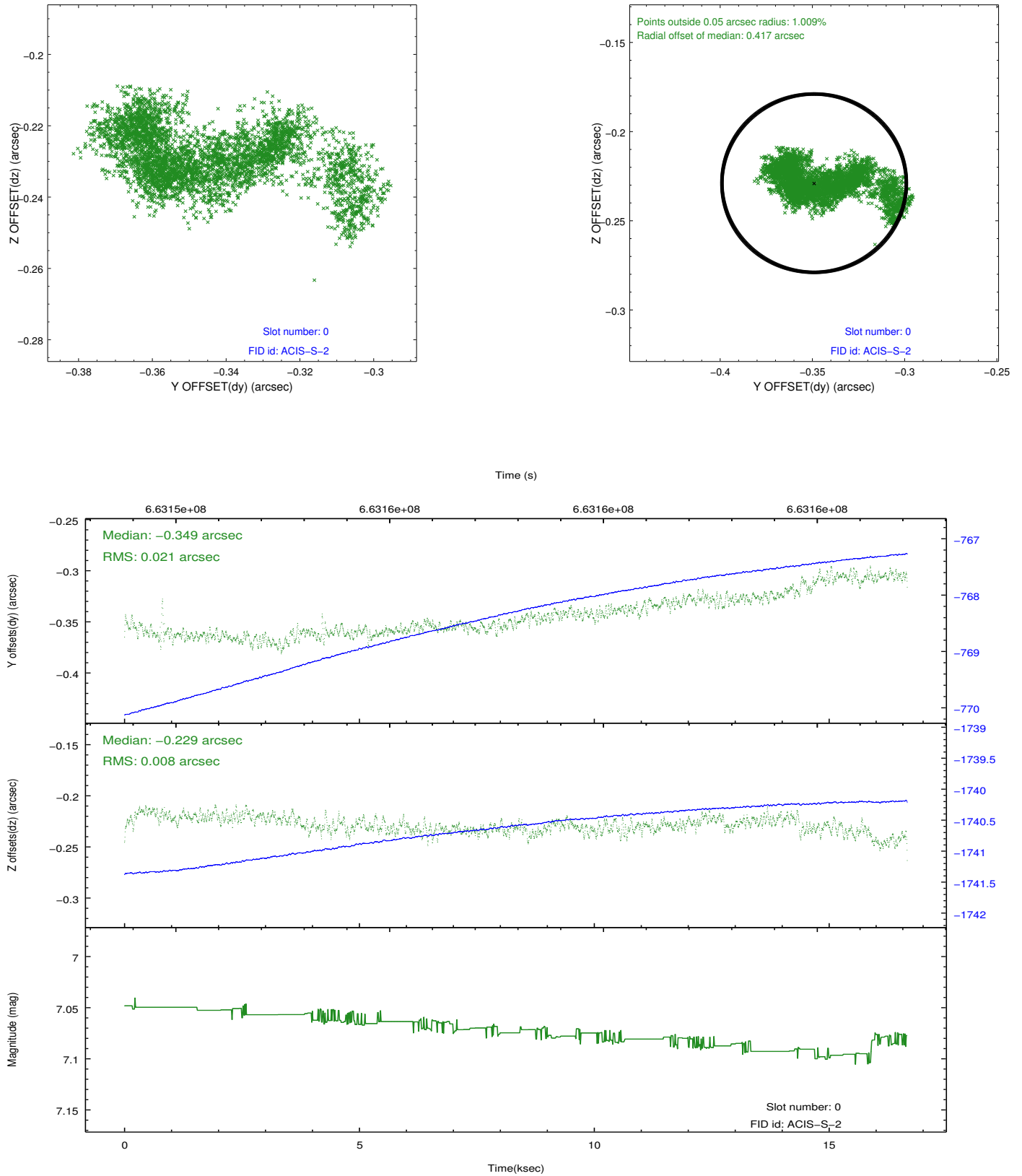


2.4.5 Slot 7

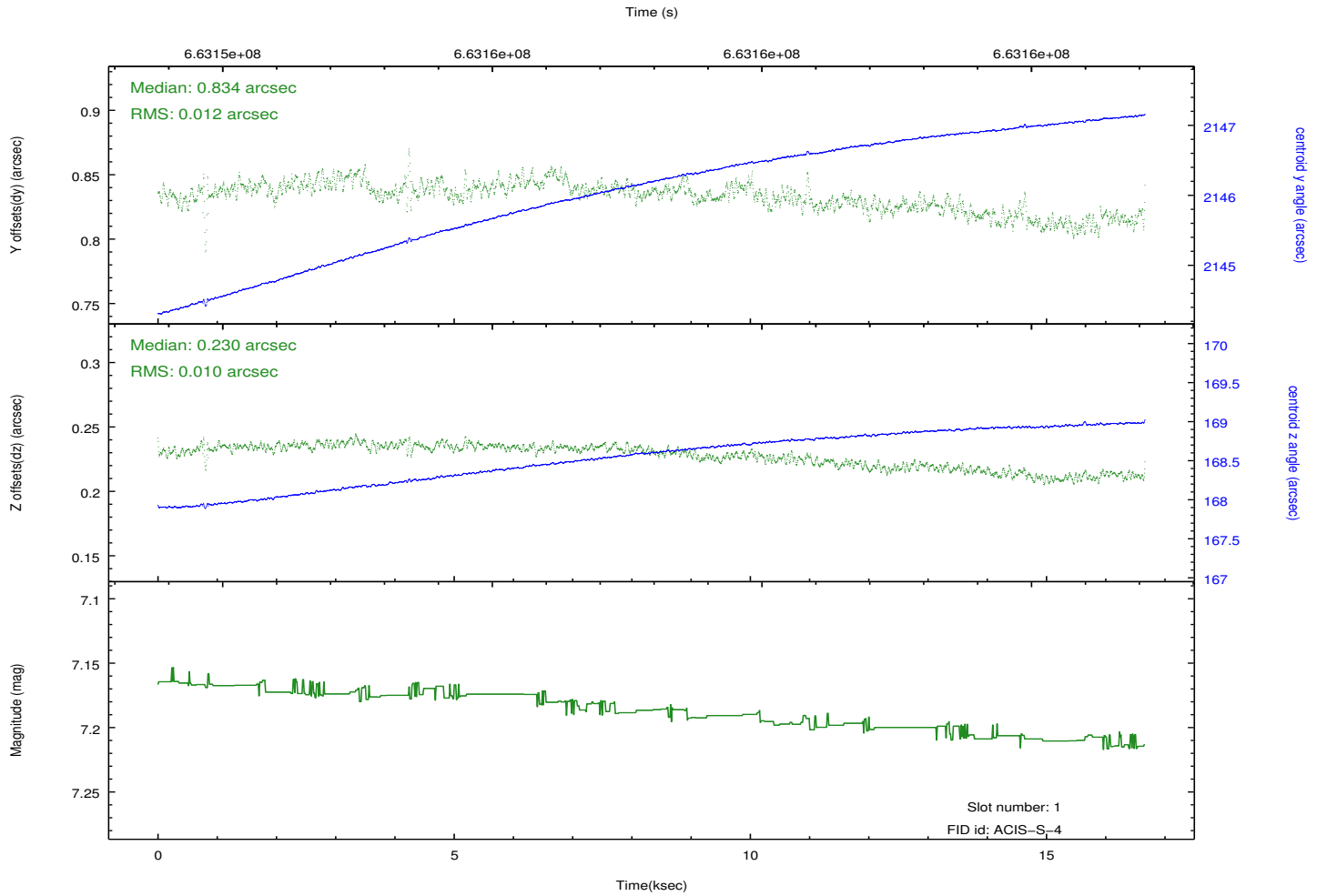
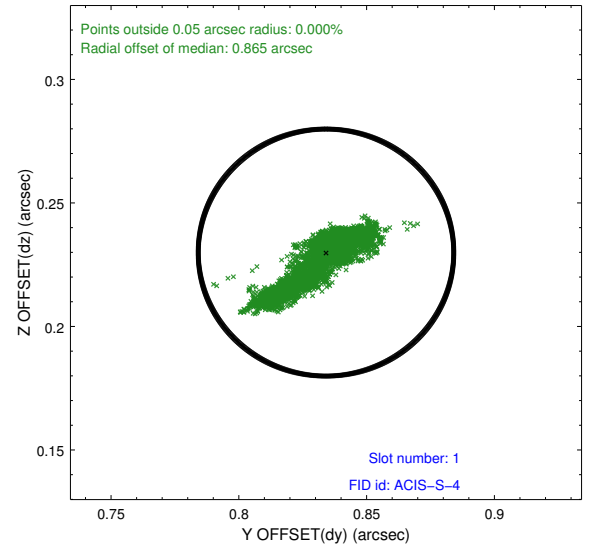
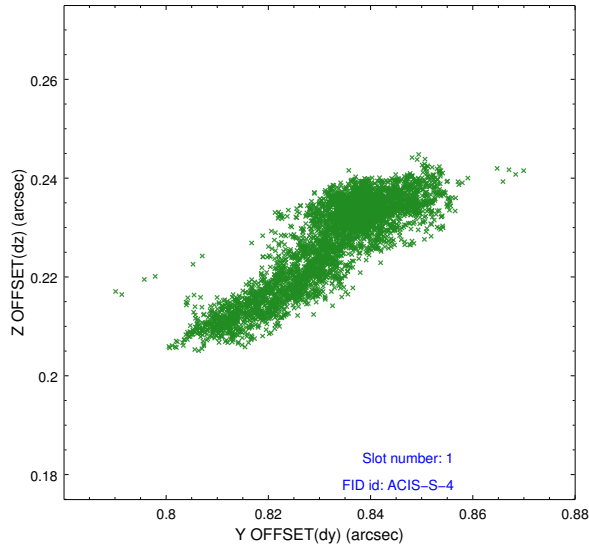


2.5 FID Slots

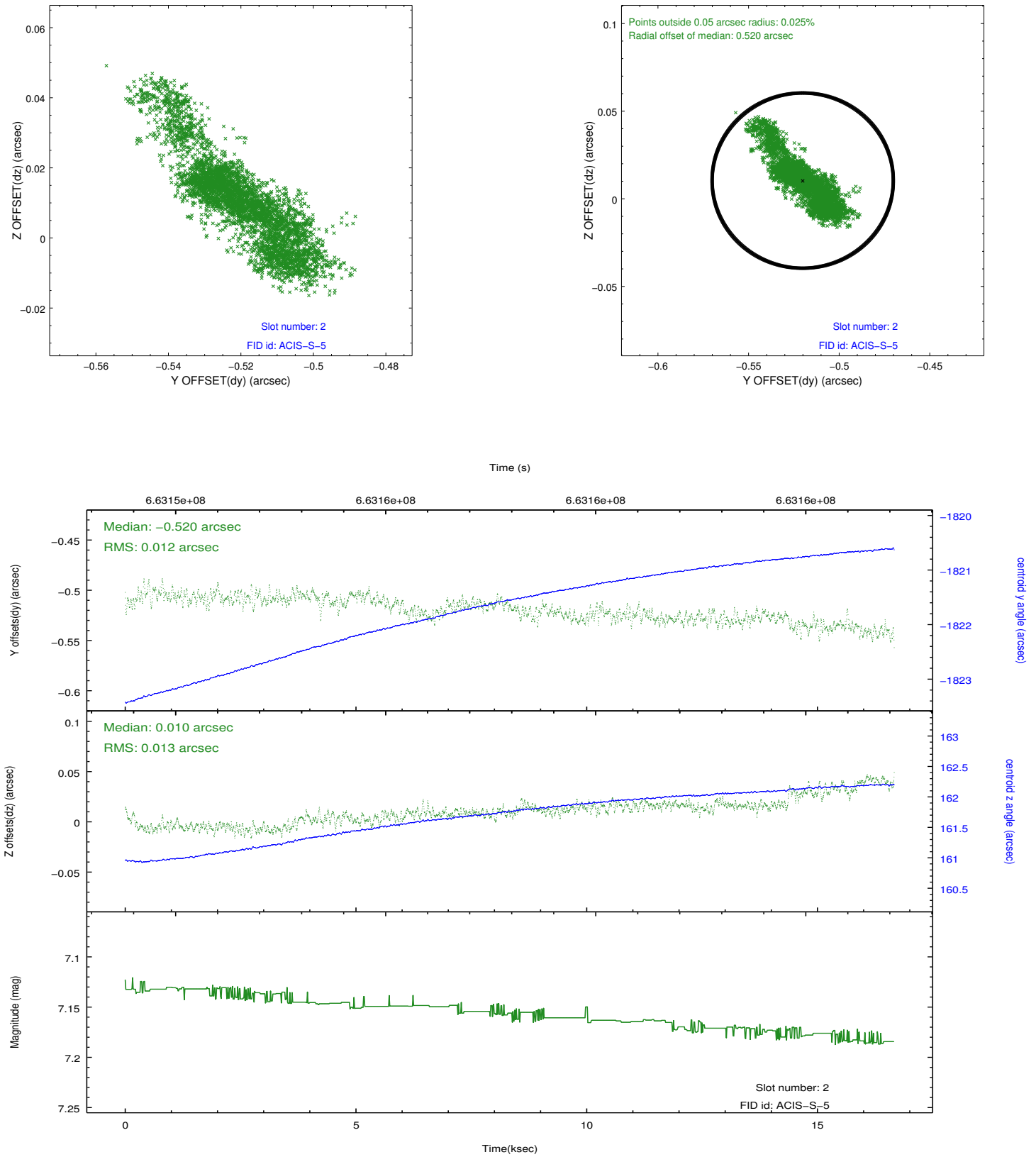
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2019.01.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.566349075198

A.2 Comments

Joint Proposal: HST+NuSTAR. Roll constraint met. Monitor constraint met.