

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22024 - L2 Version 1
Chandra X-Ray Center

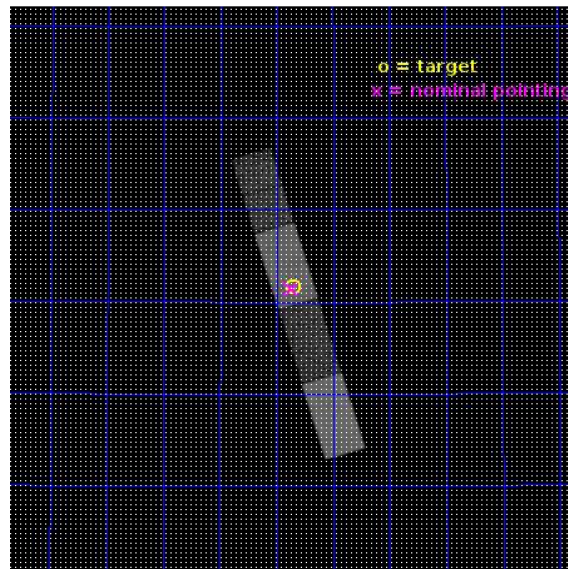
L2 Processing Date : Dec 29 2018

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
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

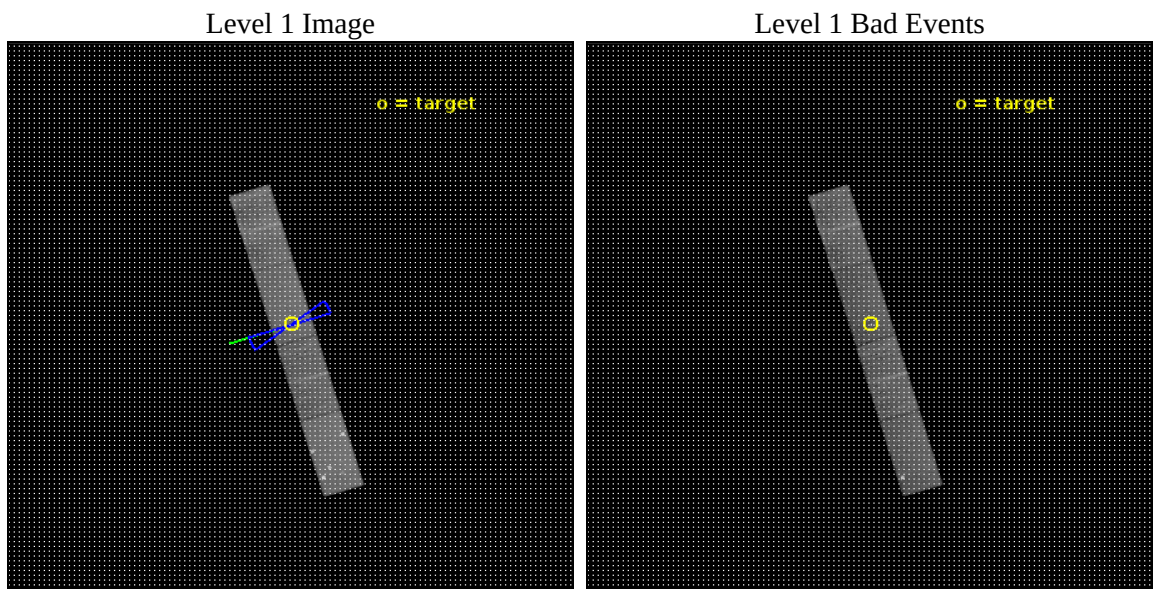
seq_num	703413	Sequence number
obs_id	22024	Observation id
title	The 3C111 Jet: X-ray Variability, Spectrum & Broadband SED	Proposa
observer	Eric Perlman	Principal investigator
object	3C 111	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	64.58875	Observer's specified target RA [deg]
dec_targ	38.026667	Observer's specified target Dec [deg]
ra_nom	64.592256422049	Nominal RA [deg]
dec_nom	38.024256690126	Nominal Dec [deg]
roll_nom	253.15444894438	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20070.200562954	Sum of GTIs [s]
livetime	19597.103430721	Livetime [s]
ontime5	20070.200562954	Sum of GTIs [s]
ontime6	20068.437244415	Sum of GTIs [s]
ontime7	20070.200562954	Sum of GTIs [s]
ontime8	20070.137254596	Sum of GTIs [s]
l2events	132160	Number of level 2 events



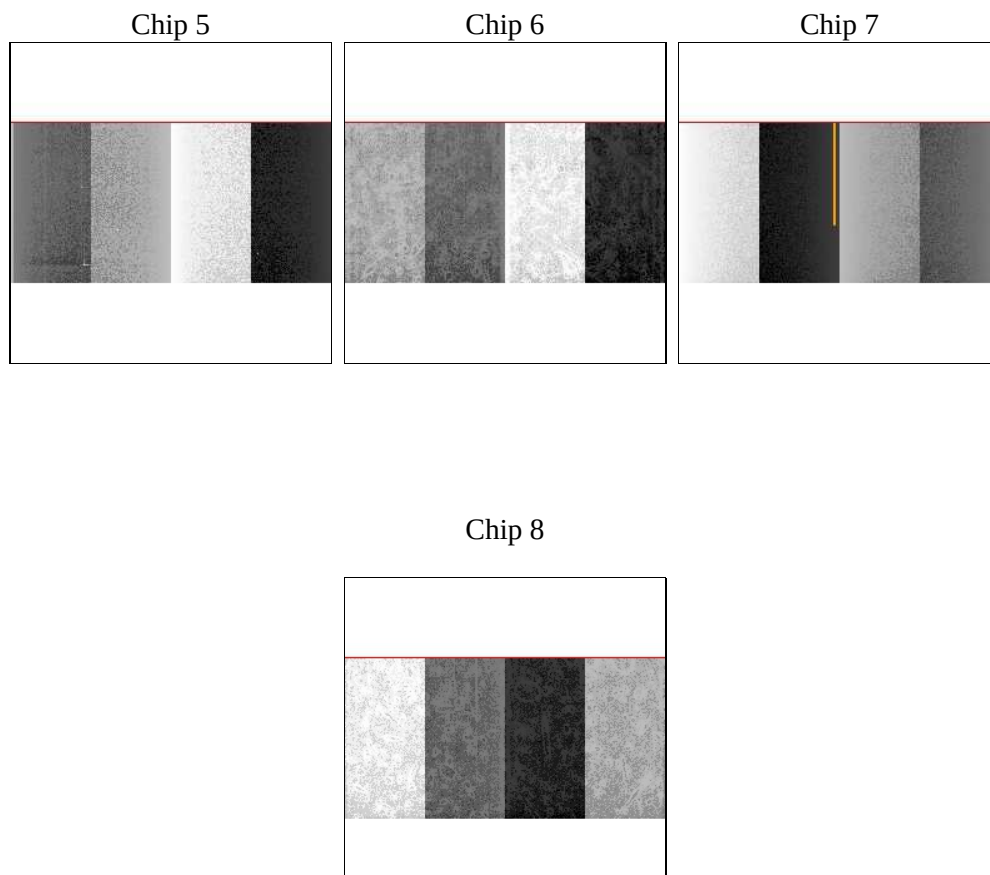
2 OBI

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	10.7.1	Processing system revision	ontime	20070.200562954	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	20070.200562954	Sum of GTIs [s]
date	2018-12-30T02:10:47	Date and time of file creation	ontime6	20068.437244415	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	20070.200562954	Sum of GTIs [s]
			ontime8	20070.137254596	Sum of GTIs [s]
			l1events	468327	Number of level 1 events

2.1.4 Events

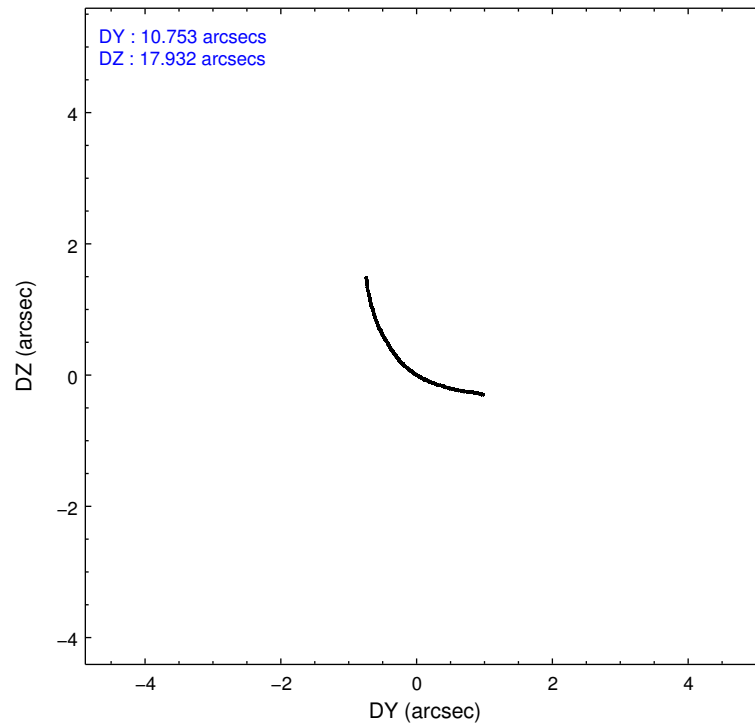
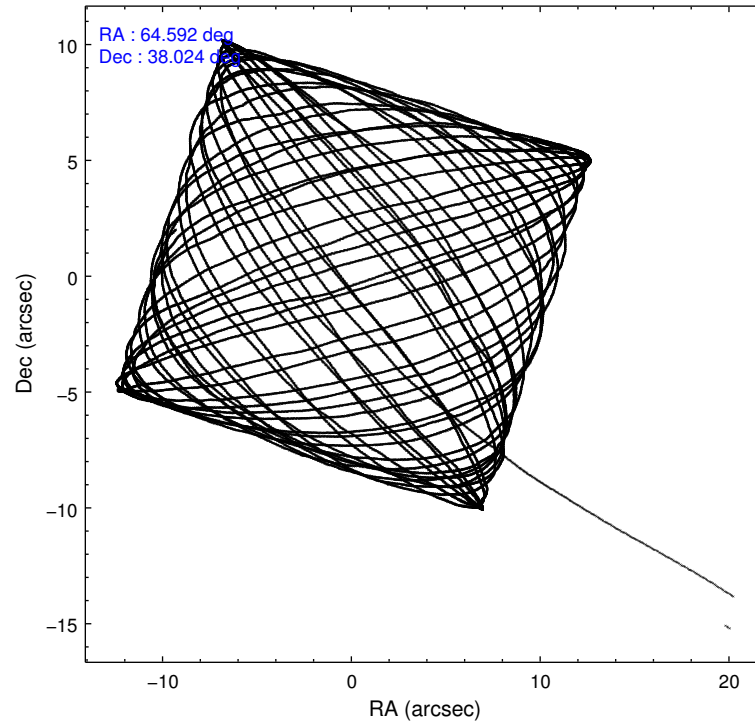
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	158763	83397	118048	108119
rejected events	71035	73693	60090	79299
rejected %	44%	88%	50%	73%

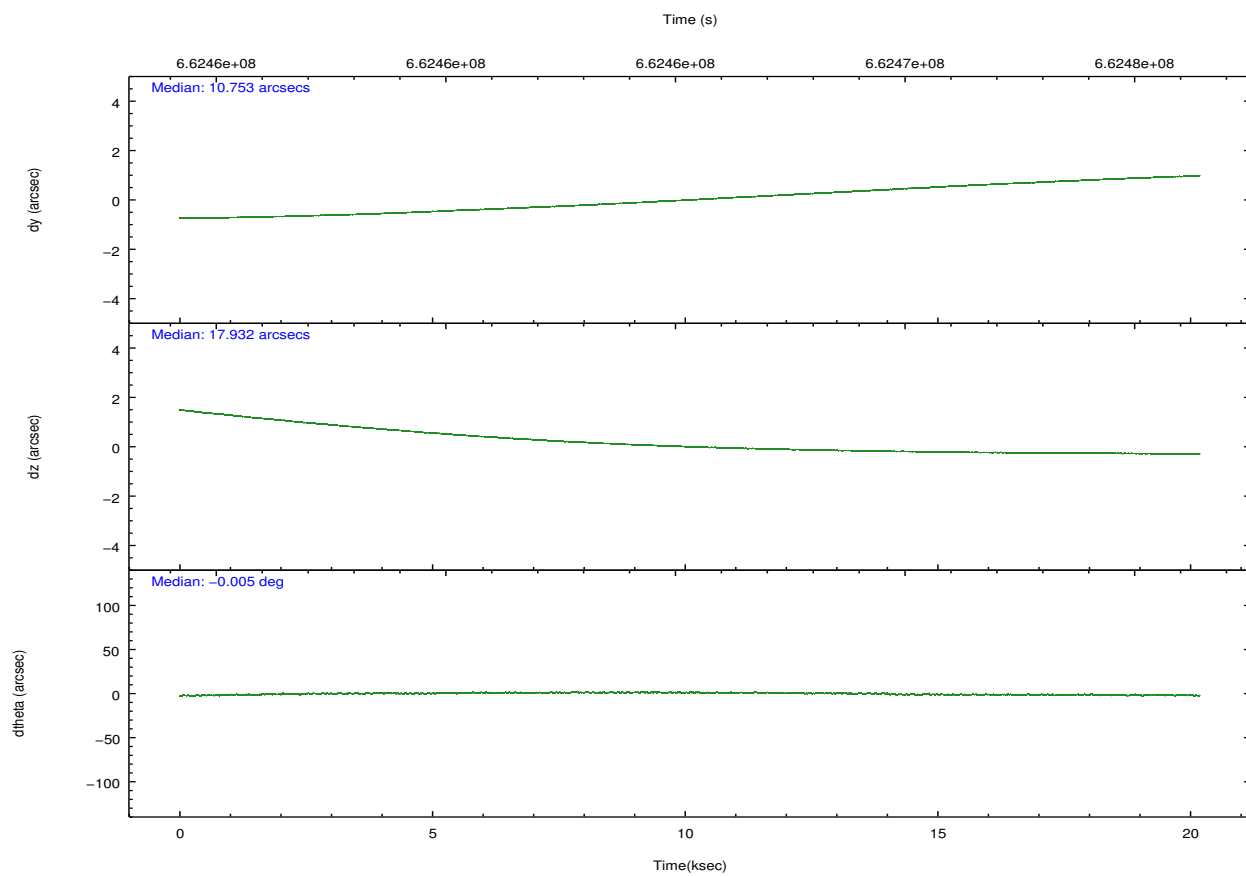
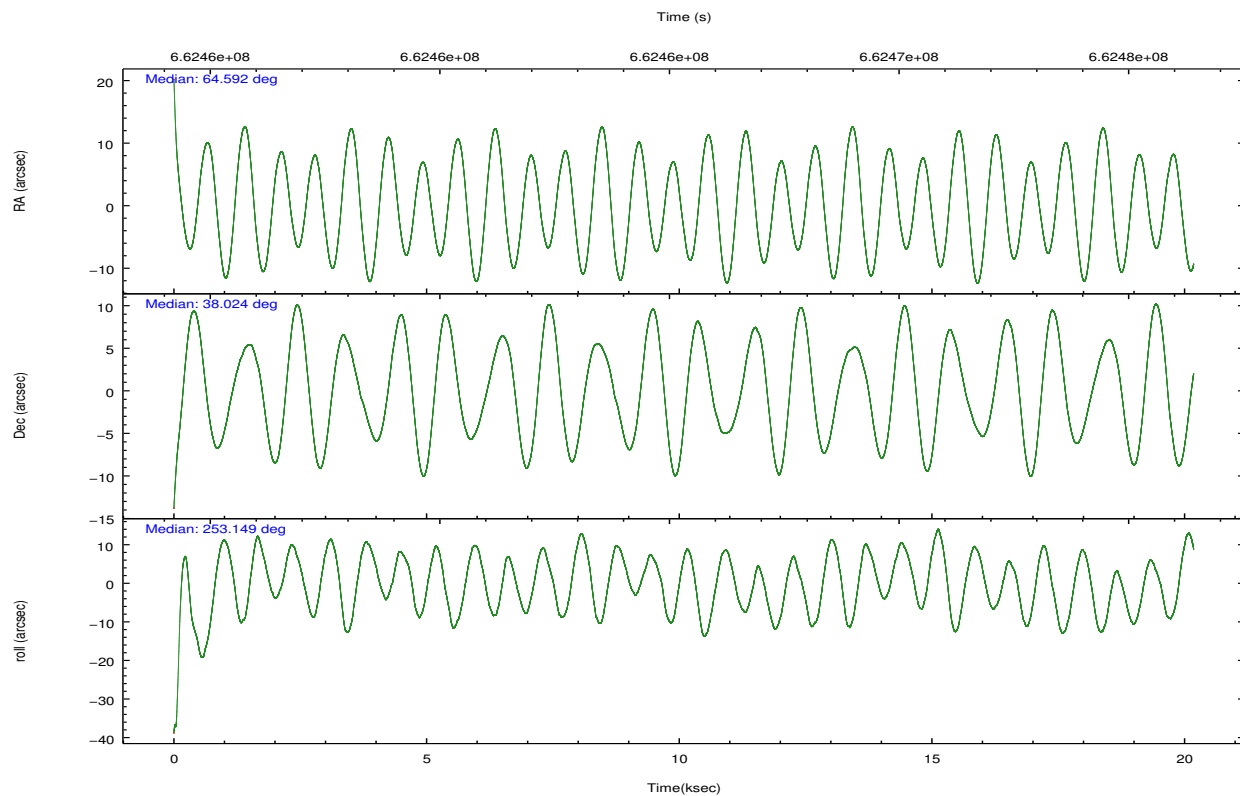
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	26809	3070	6185	7933
	16%	3%	5%	7%
grade 1 events	342	33	397	59
	0%	0%	0%	0%
grade 2 events	23184	2102	12505	6910
	14%	2%	10%	6%
grade 3 events	3240	1168	5360	3170
	2%	1%	4%	2%
grade 4 events	2470	1247	5318	2947
	1%	1%	4%	2%
grade 5 events	10764	3692	11727	5785
	6%	4%	9%	5%
grade 6 events	32035	2118	28596	7861
	20%	2%	24%	7%
grade 7 events	59919	69967	47960	73454
	37%	83%	40%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	64.583874	64.59225642204891	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	38.050908	38.02425669012596	Subarray start row	257	257
[deg] Pointing Roll	253.003002	253.1544489443845	Subarray row count	512	512
[deg] Roll angle	63.500000	63.500000	Alternating exposures requested	N	N
[deg] Roll tolerance	10.000000	10.000000	[s] Primary exposure time	0.000000	1.7
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)	662455426.184000	662453795.13568			
Observation start date	2018-12-29T07:22:37	2018-12-29T06:56:35			
[s] Observation end time (MET)	662475426.184000	662476811.51205			
Observation end date	2018-12-29T12:55:57	2018-12-29T13:20:11			
Read mode	TIMED	TIMED			

2.3 Aspect



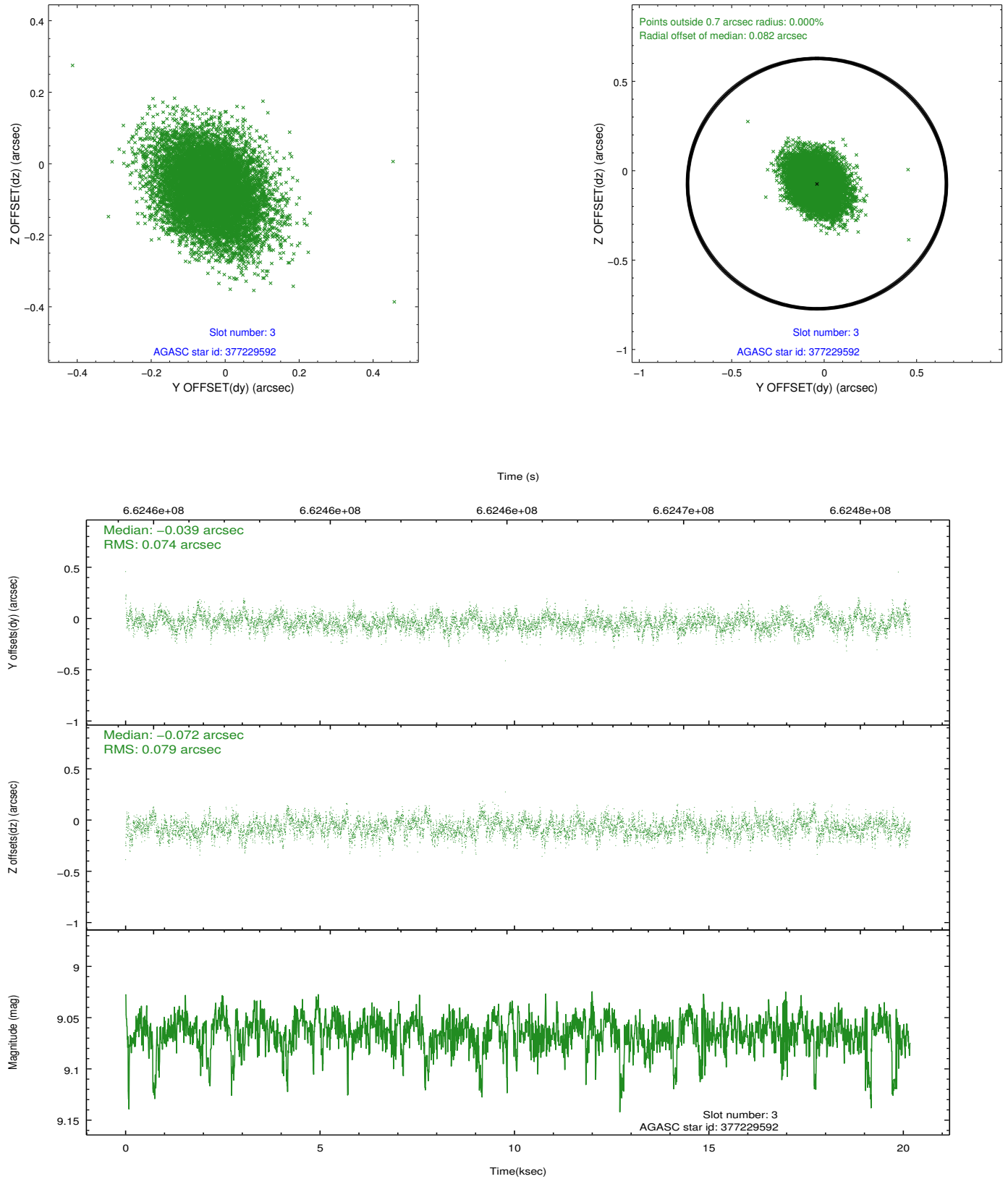


Slot Statistics

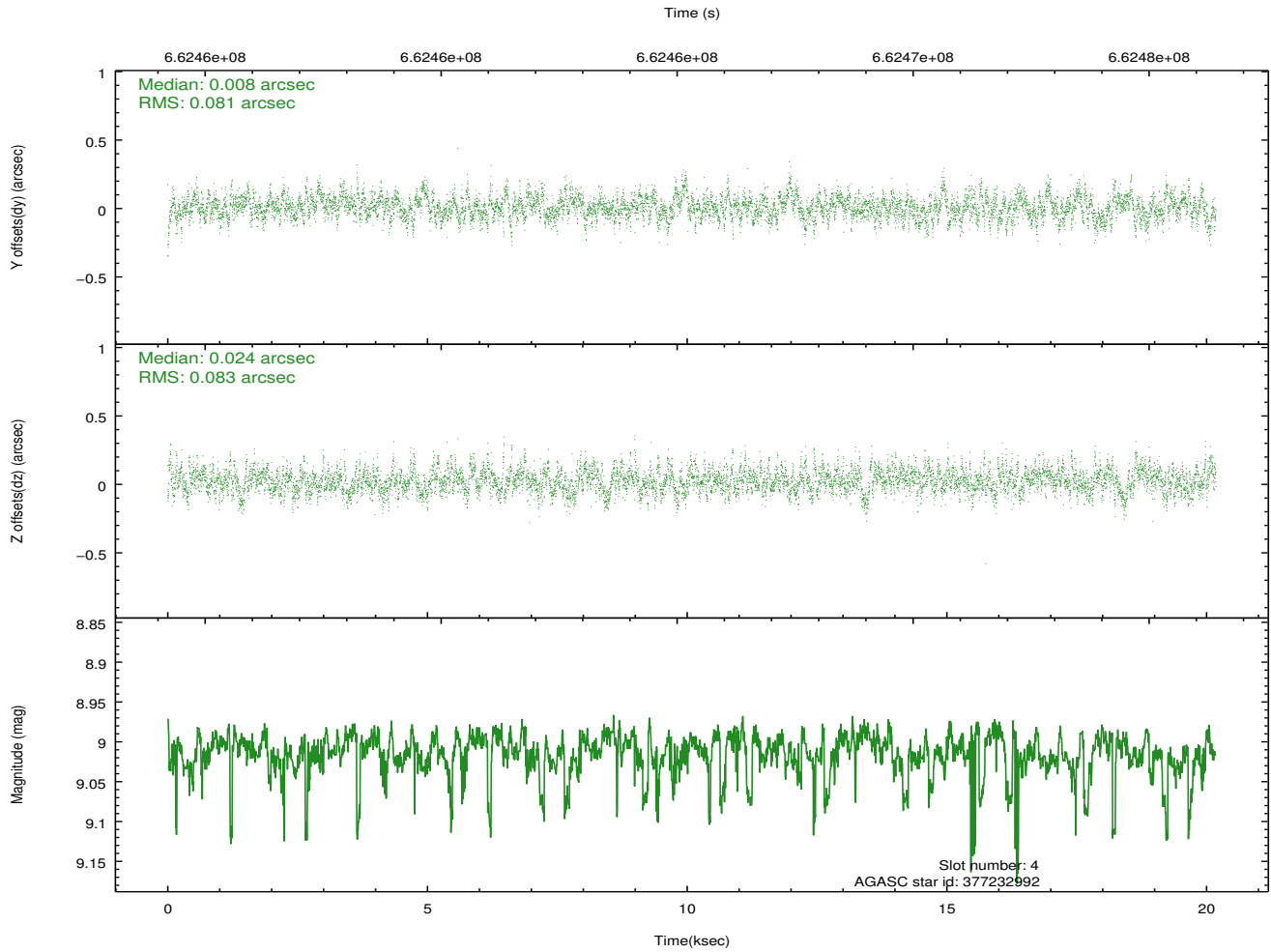
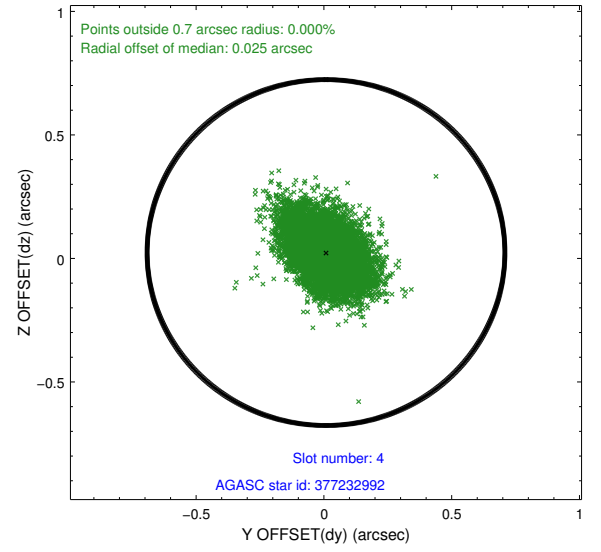
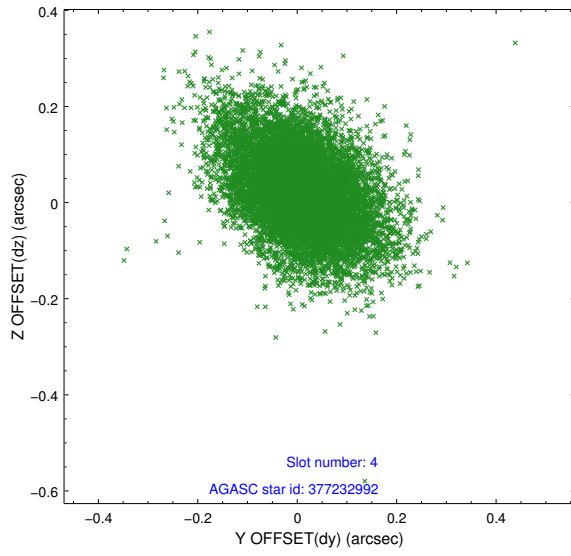
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.99	4923	1.000	-0.261	-0.169	0.016	0.042	0.000000	0.000000	-763.88	-1739
1	FID		ACIS-S-4	7.12	4922	1.000	0.651	0.171	0.008	0.013	0.000000	0.000000	2150.19	168
2	FID		ACIS-S-5	7.10	4923	1.000	-0.421	0.007	0.019	0.049	0.000000	0.000000	-1816.68	162
3	GUIDE	used	377229592	9.06	9832	1.000	-0.039	-0.072	0.114	0.190	64.771333	38.350817	-1187.21	190
4	GUIDE	used	377232992	9.01	9827	1.000	0.008	0.024	0.120	0.208	63.776678	37.815935	1470.82	-1950
5	GUIDE	used	377363032	9.34	9819	1.000	0.202	-0.076	0.165	0.294	65.027918	38.365214	-1450.96	867
6	GUIDE	used	377365280	7.11	9844	1.000	-0.163	0.112	0.087	0.144	65.229745	38.577157	-2349.50	1183
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

2.4 Star Slots

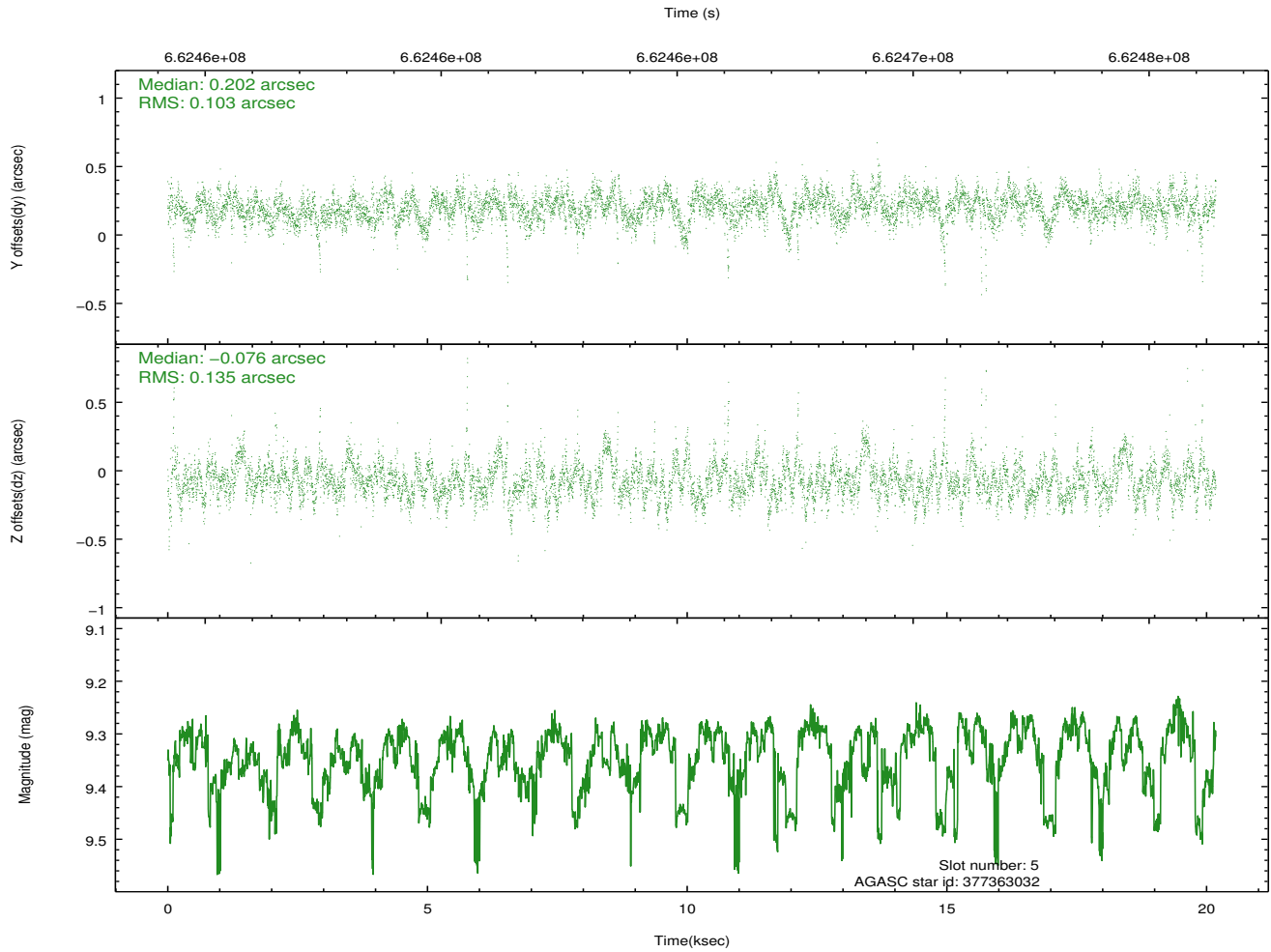
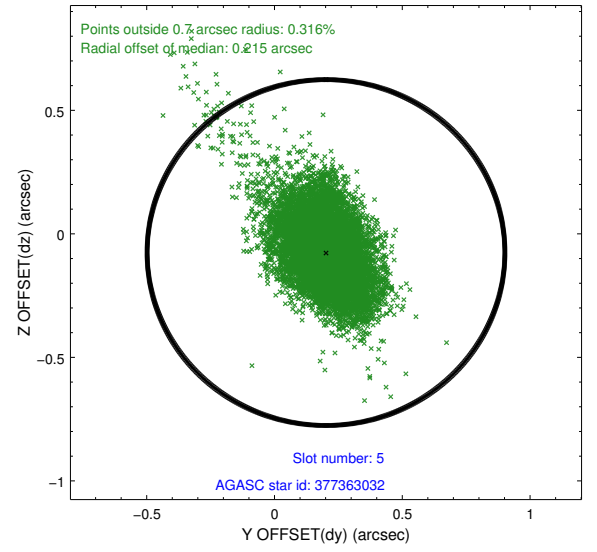
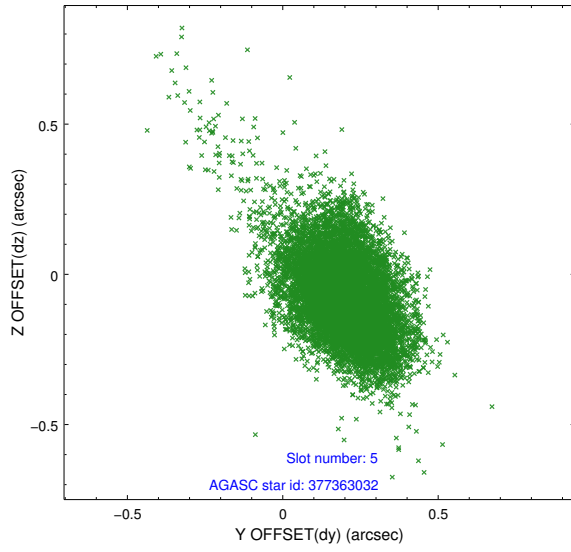
2.4.1 Slot 3



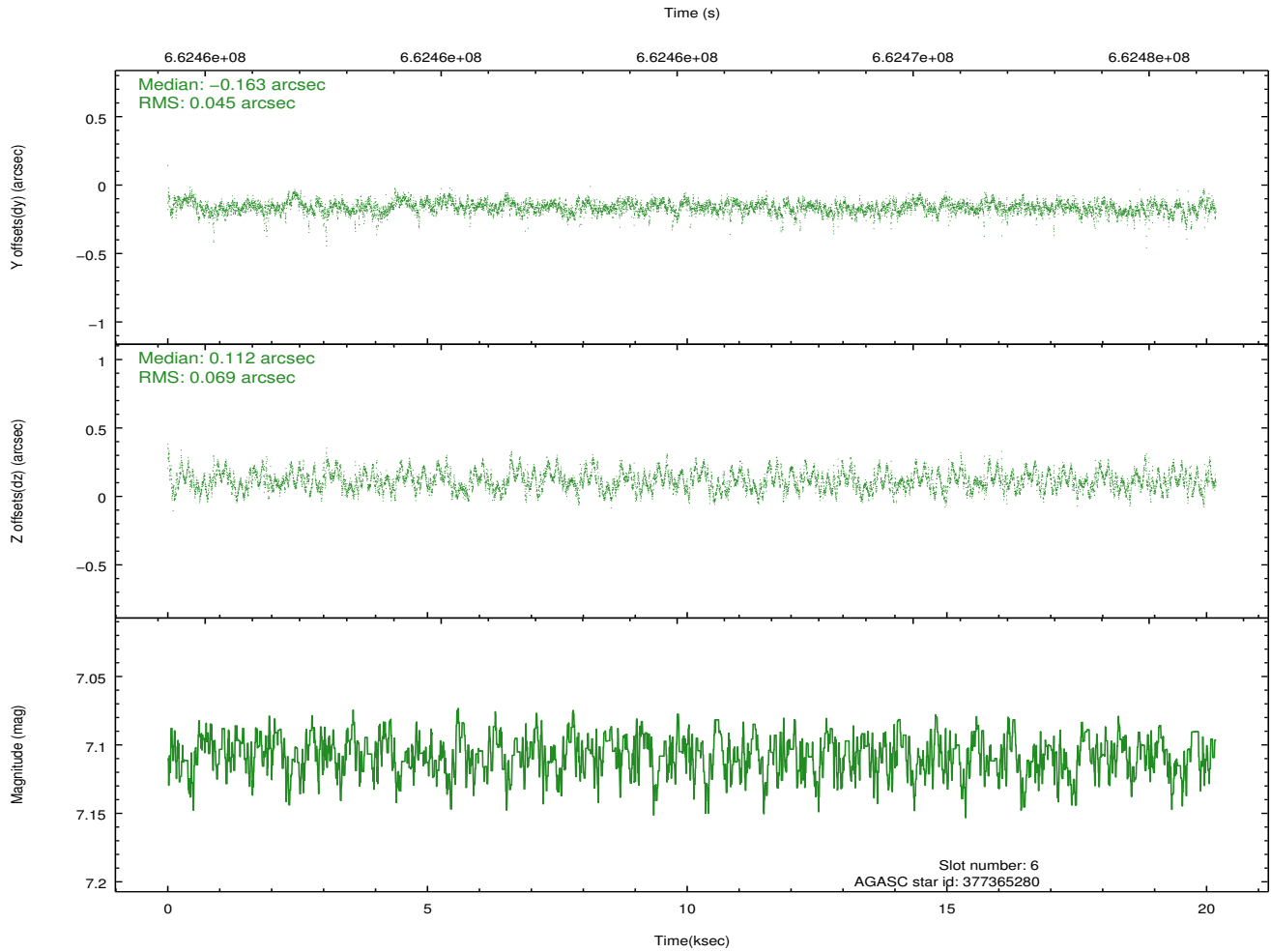
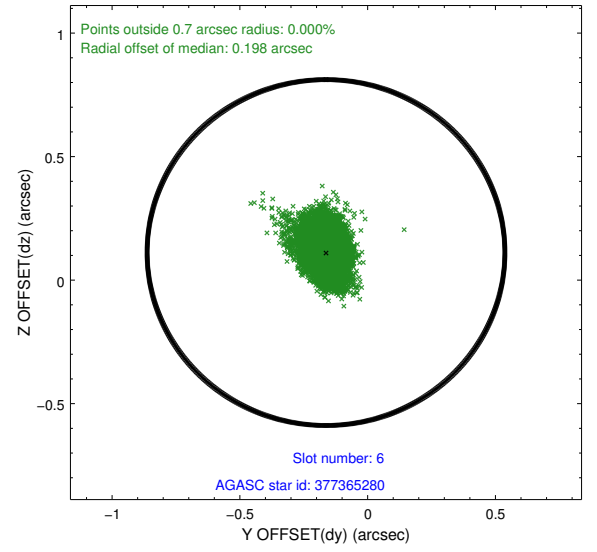
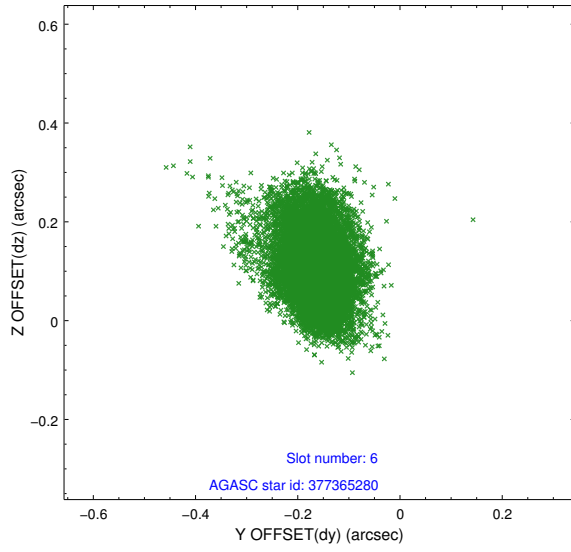
2.4.2 Slot 4



2.4.3 Slot 5

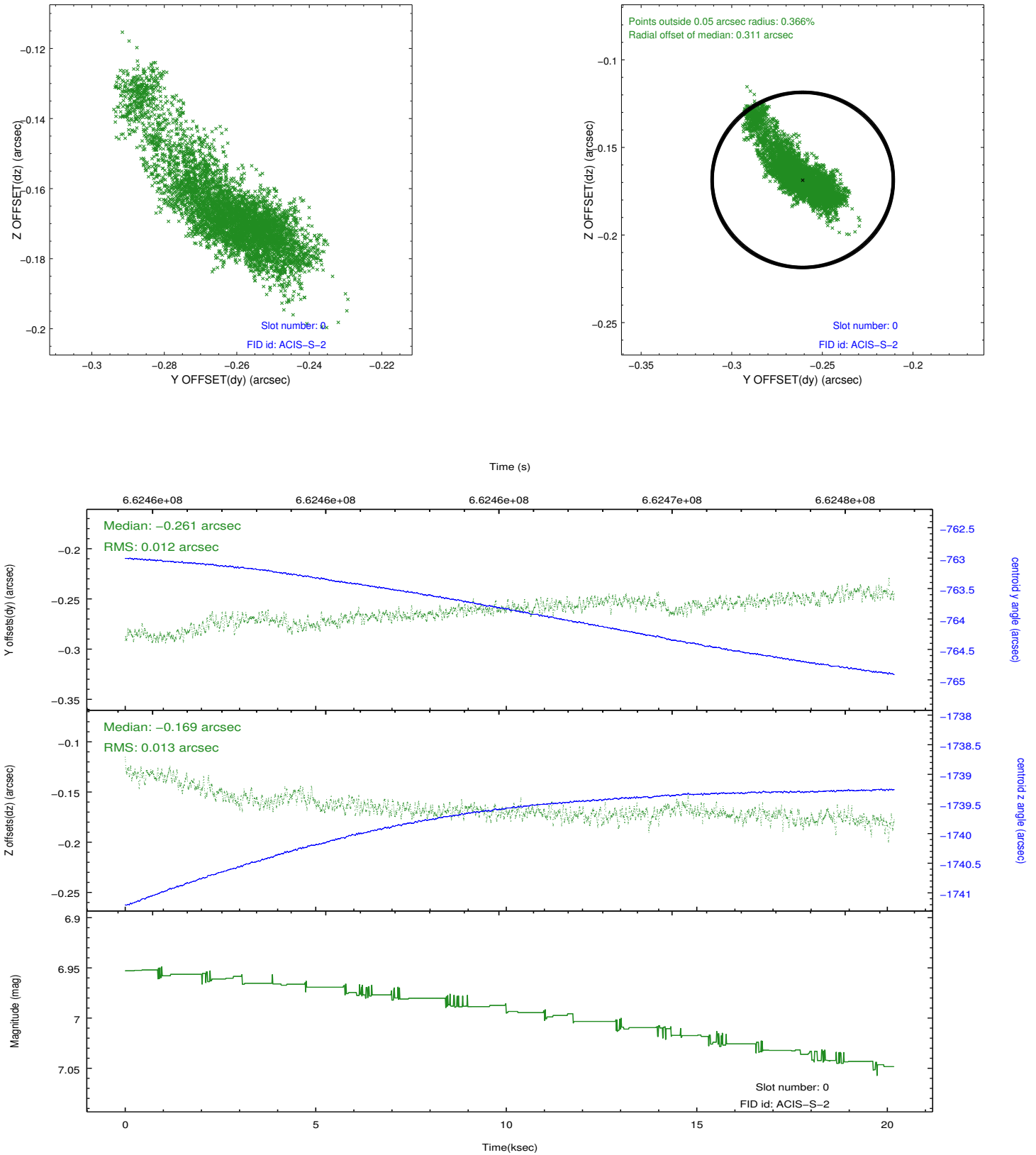


2.4.4 Slot 6

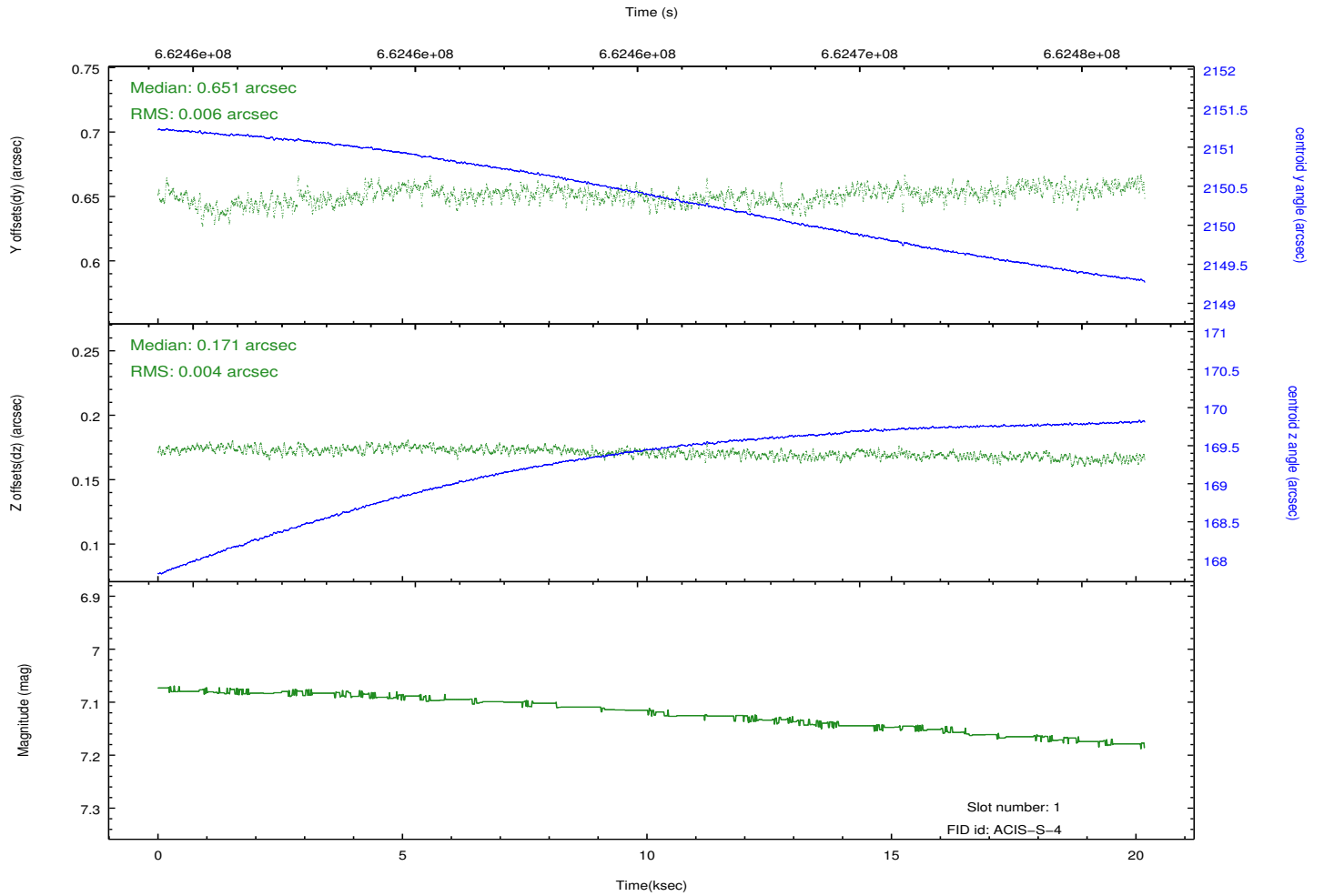
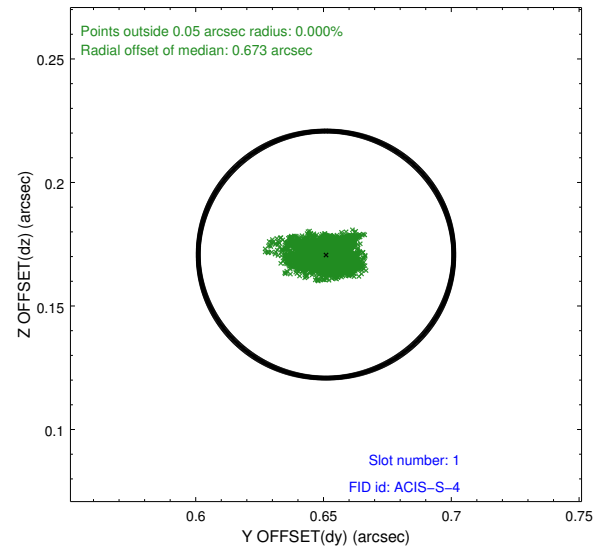
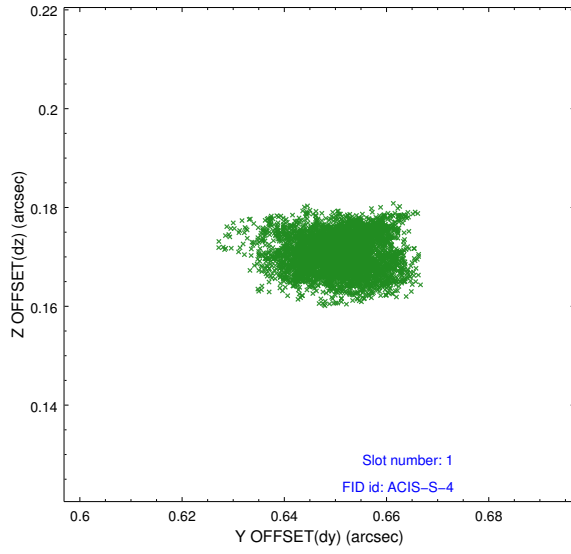


2.5 FID Slots

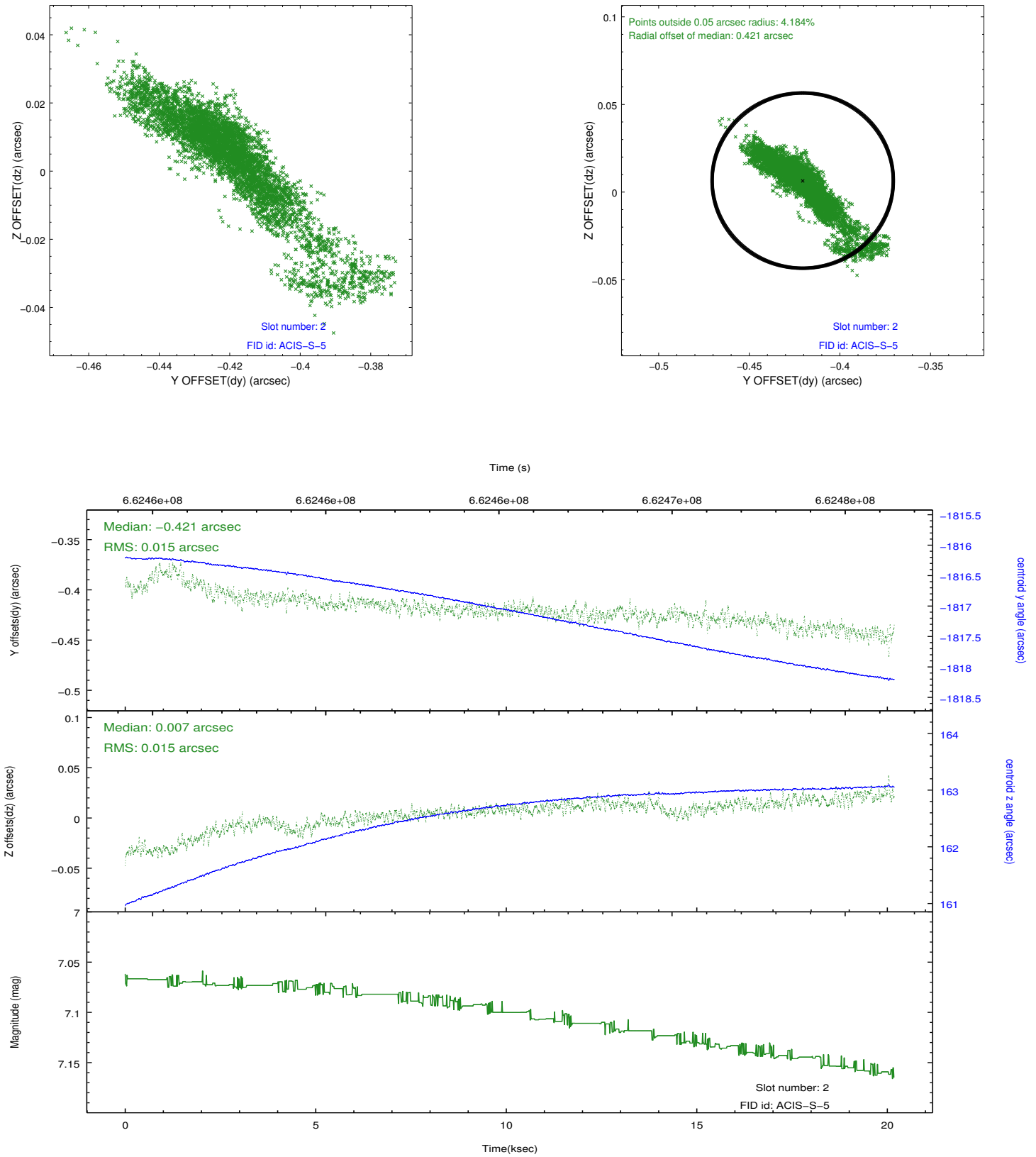
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2018.12.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.070200562954

A.2 Comments

Roll constraint met.

===The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.