

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22023 - L2 Version 1
Chandra X-Ray Center

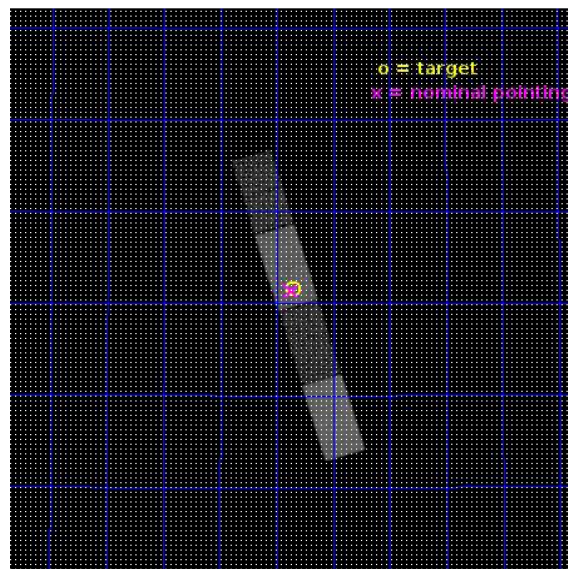
L2 Processing Date : Dec 30 2018

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
2.4.5	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

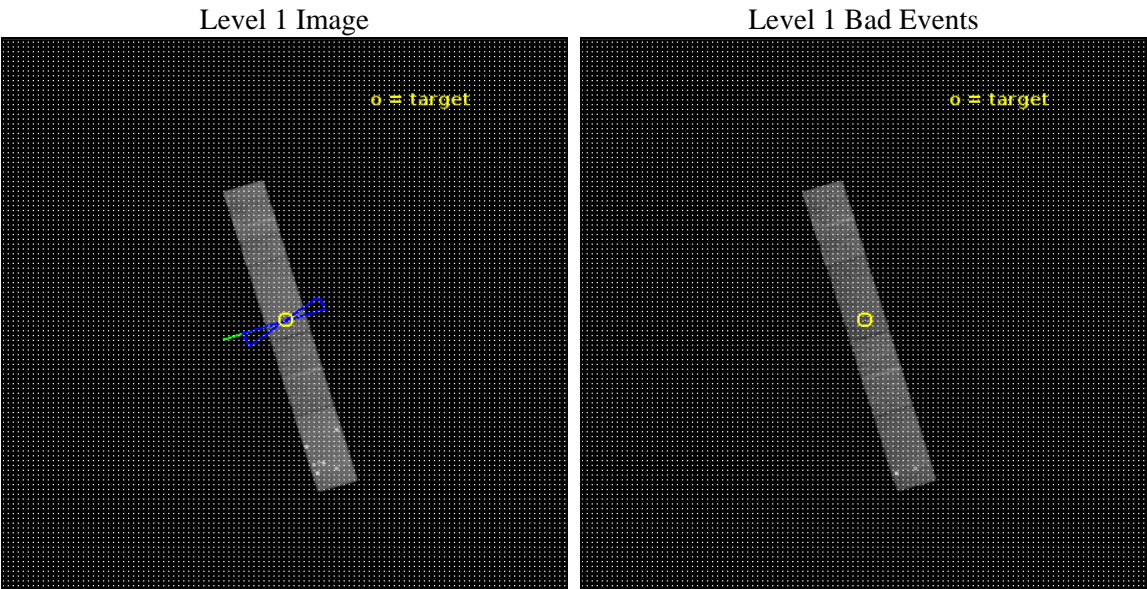
seq_num	703413	Sequence number
obs_id	22023	Observation id
title	The 3C111 Jet: X-ray Variability, Spectrum & Broadband SED	Proposa
observer	Eric Perlman	Principal investigator
object	3C 111	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	64.58875	Observer's specified target RA [deg]
dec_targ	38.026667	Observer's specified target Dec [deg]
ra_nom	64.592364871914	Nominal RA [deg]
dec_nom	38.023738791645	Nominal Dec [deg]
roll_nom	253.15440663857	Nominal Roll [deg]
revision	1	Processing version of data
ontime	16065.000450611	Sum of GTIs [s]
livetime	15686.314367297	Livetime [s]
ontime5	16065.000450611	Sum of GTIs [s]
ontime6	16065.000450611	Sum of GTIs [s]
ontime7	16065.000450611	Sum of GTIs [s]
ontime8	16065.000450611	Sum of GTIs [s]
l2events	103548	Number of level 2 events



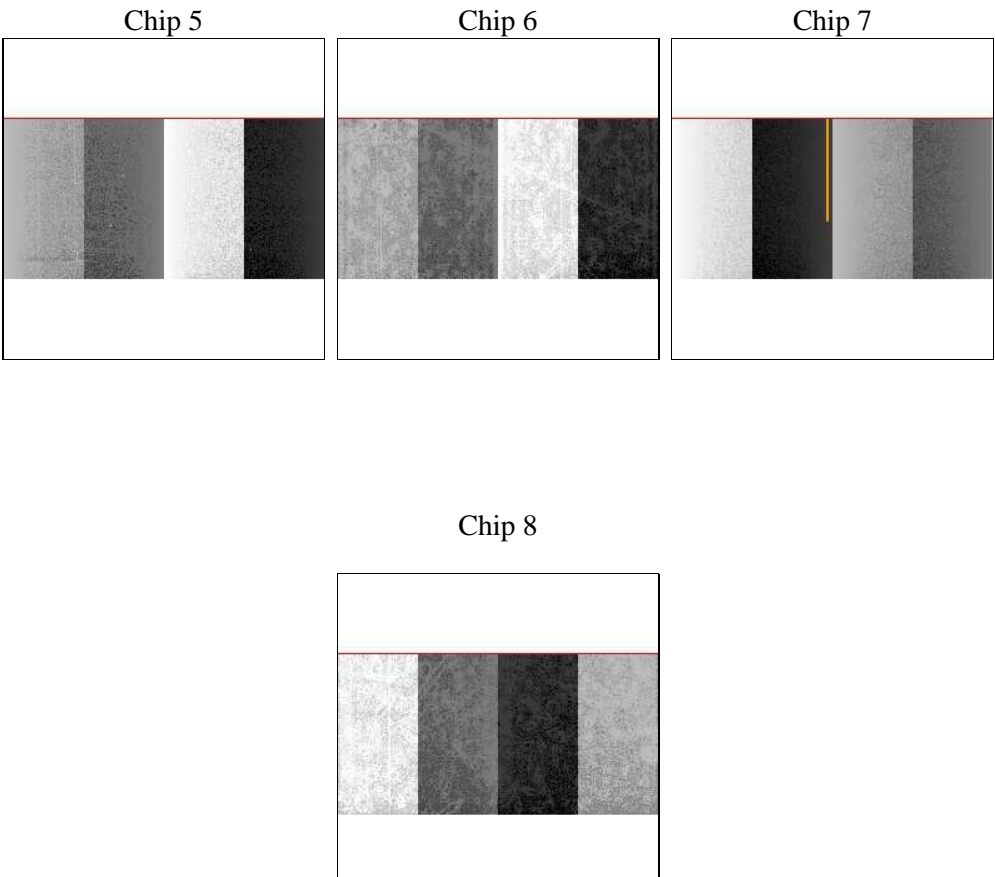
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	16065.000450611	Sum of GTIs [s]
caldbver	4.8.2	 	ontime5	16065.000450611	Sum of GTIs [s]
date	2018-12-30T21:41:32	Date and time of file creation	ontime6	16065.000450611	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	16065.000450611	Sum of GTIs [s]
			ontime8	16065.000450611	Sum of GTIs [s]
			l1events	399172	Number of level 1 events

2.1.4 Events

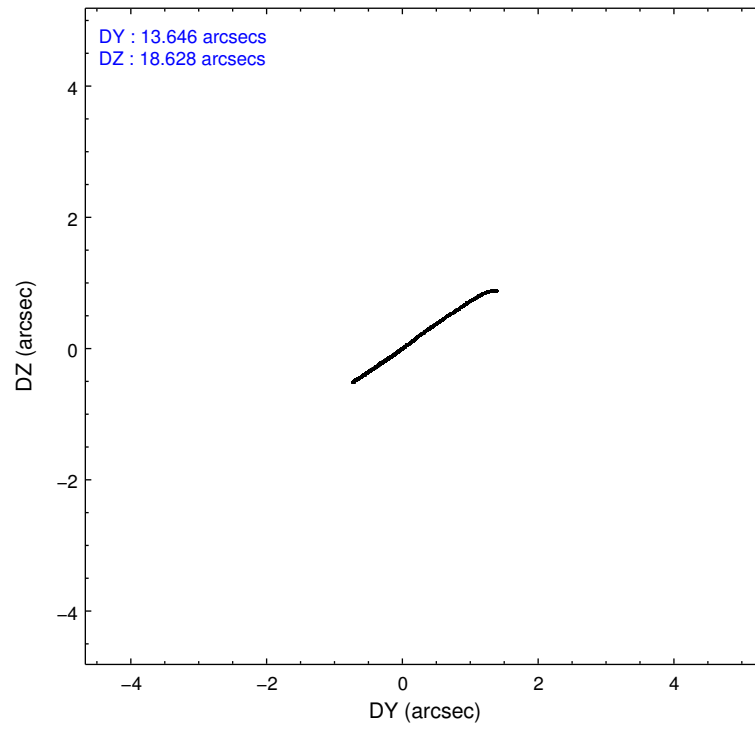
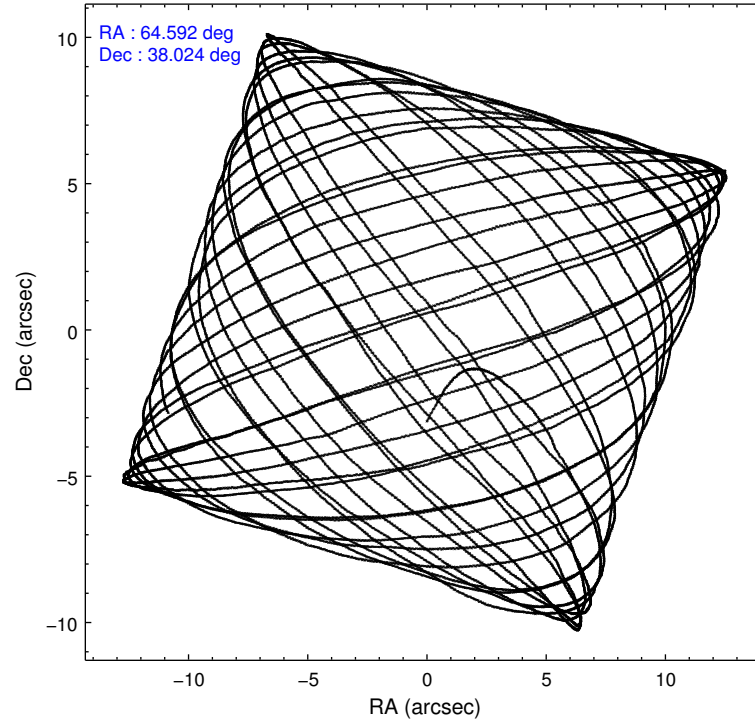
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	148235	69694	94849	86394
rejected events	64198	62189	49367	65012
rejected %	43%	89%	52%	75%

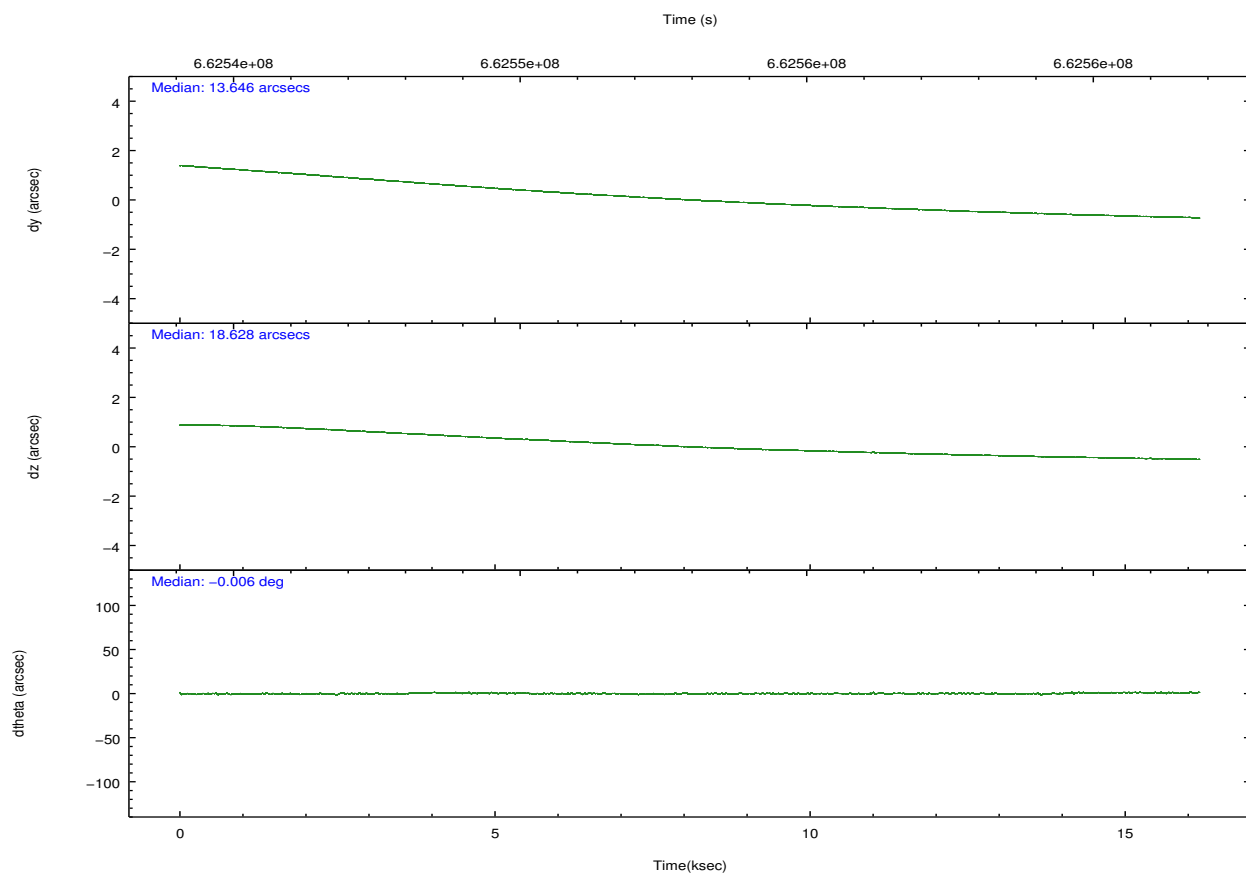
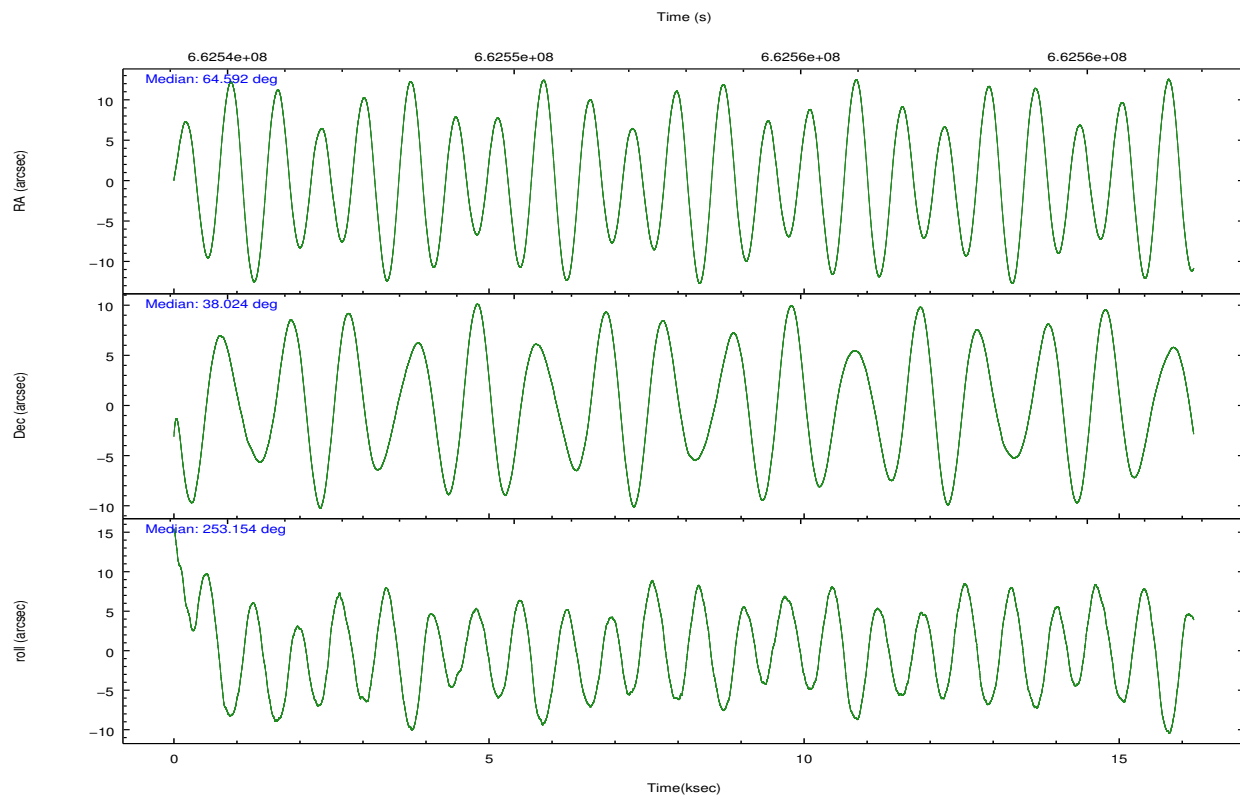
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	34583	2283	4801	5533
	23%	3%	5%	6%
grade 1 events	313	26	330	54
	0%	0%	0%	0%
grade 2 events	18246	1715	9612	5250
	12%	2%	10%	6%
grade 3 events	2870	849	4180	2276
	1%	1%	4%	2%
grade 4 events	1572	833	4009	2119
	1%	1%	4%	2%
grade 5 events	8220	2754	9233	4290
	5%	3%	9%	4%
grade 6 events	26788	1826	22887	6207
	18%	2%	24%	7%
grade 7 events	55643	59408	39797	60665
	37%	85%	41%	70%

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	64.583970	64.5923648719136	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	38.050395	38.02373879164521	Subarray start row	257	257
[deg] Pointing Roll	253.002945	253.1544066385713	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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	662545069.184000	662544367.72858			
Observation start date	2018-12-30T08:16:40	2018-12-30T08:06:07			
[s] Observation end time (MET)	662561069.184000	662561924.44213			
Observation end date	2018-12-30T12:43:20	2018-12-30T12:58:44			
Read mode	TIMED	TIMED			

2.3 Aspect



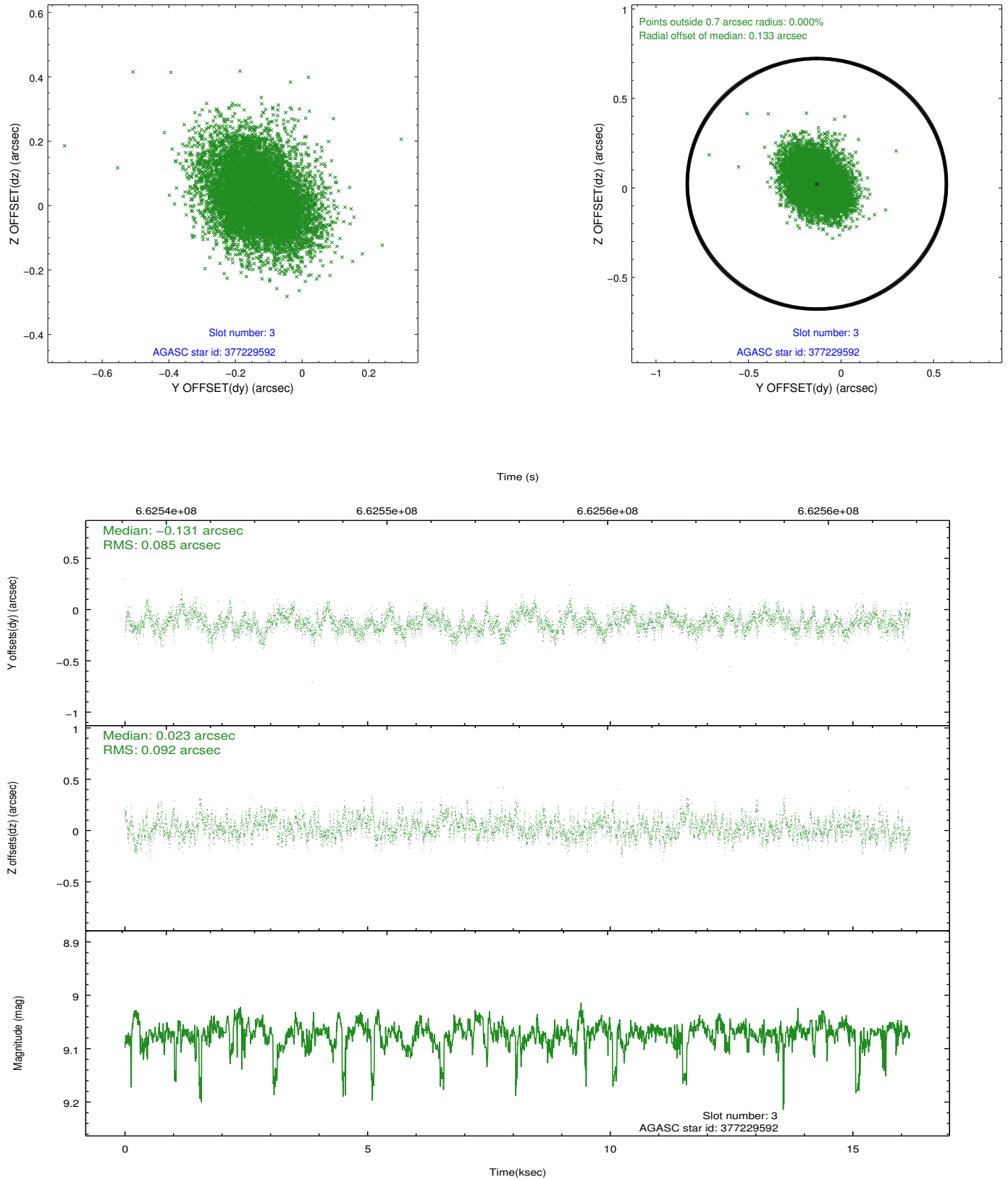


Slot Statistics

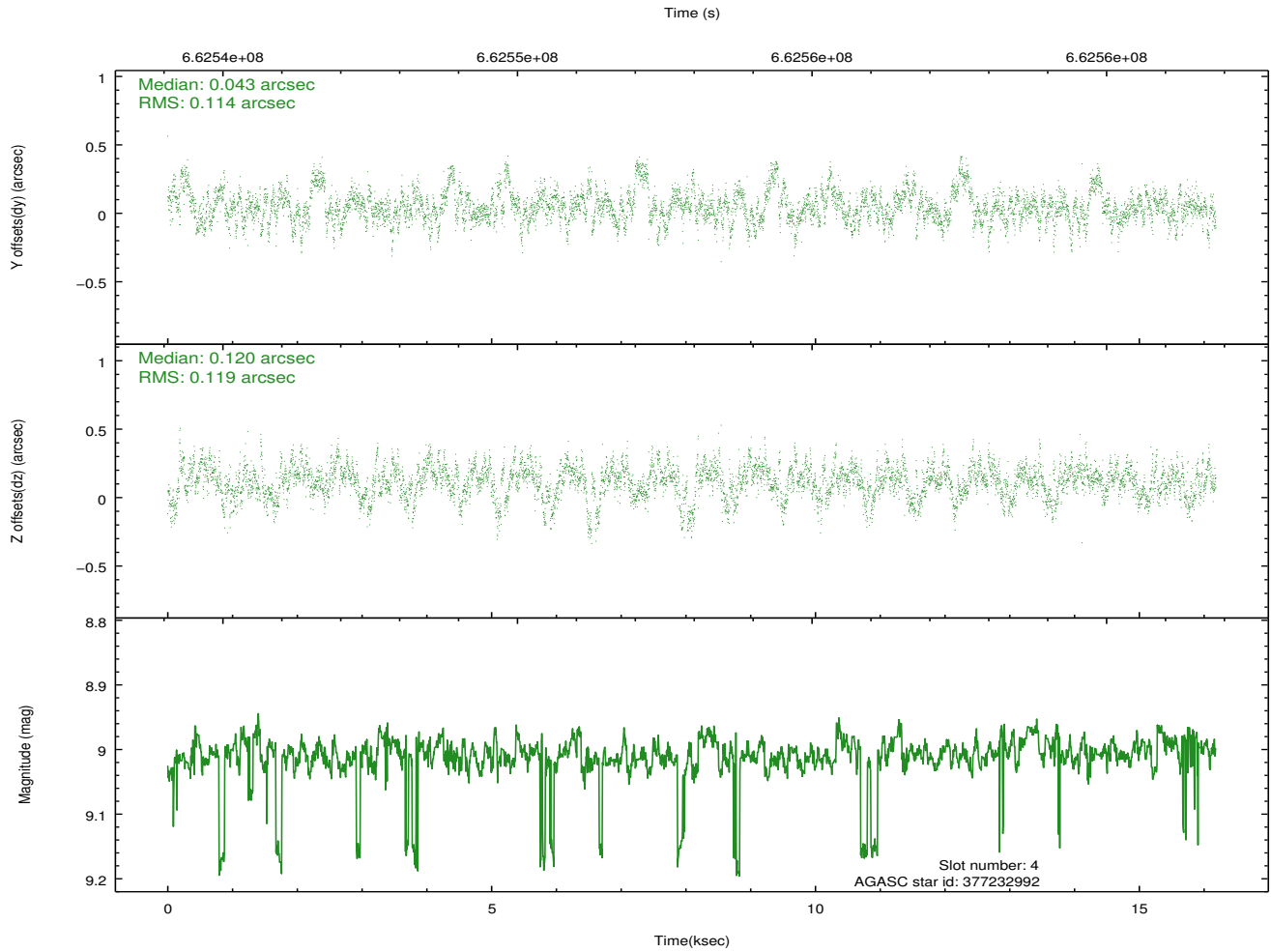
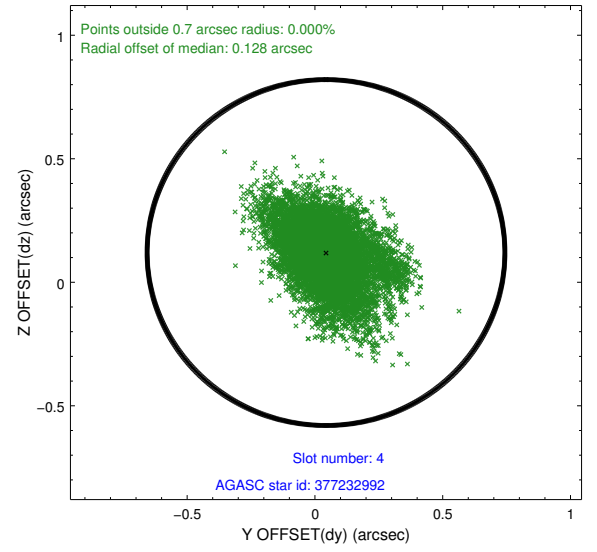
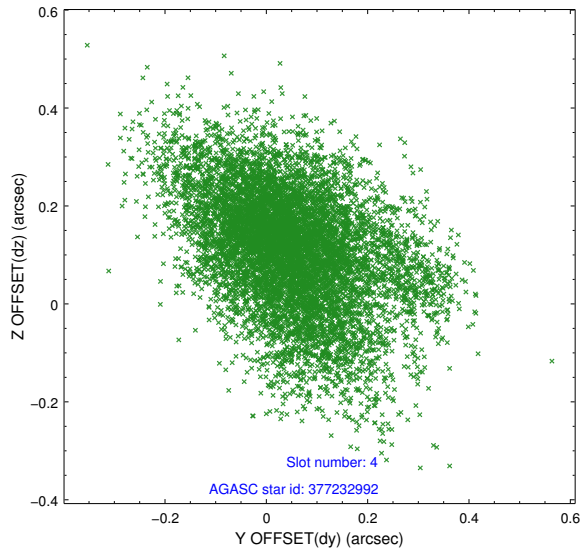
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.11	3947	1.000	-0.288	-0.227	0.033	0.076	0.000000	0.000000	-766.94	-1740
1	FID		ACIS-S-4	7.24	3947	1.000	0.795	0.200	0.041	0.055	0.000000	0.000000	2147.24	168
2	FID		ACIS-S-5	7.21	3947	1.000	-0.534	0.038	0.017	0.057	0.000000	0.000000	-1819.74	161
3	GUIDE	used	377229592	9.07	7887	1.000	-0.131	0.023	0.131	0.216	64.771333	38.350817	-1188.67	189
4	GUIDE	used	377232992	9.01	7876	1.000	0.043	0.120	0.172	0.298	63.776678	37.815935	1469.27	-1951
5	GUIDE	used	377363032	9.34	7814	1.000	0.192	-0.076	0.240	0.405	65.027918	38.365214	-1452.23	866
6	GUIDE	used	377233080	6.29	7892	1.000	0.188	-0.217	0.135	0.260	63.716955	37.542672	2460.99	-1835
7	GUIDE	used	377365280	7.11	7894	1.000	-0.275	0.154	0.112	0.174	65.229745	38.577157	-2350.43	1182

2.4 Star Slots

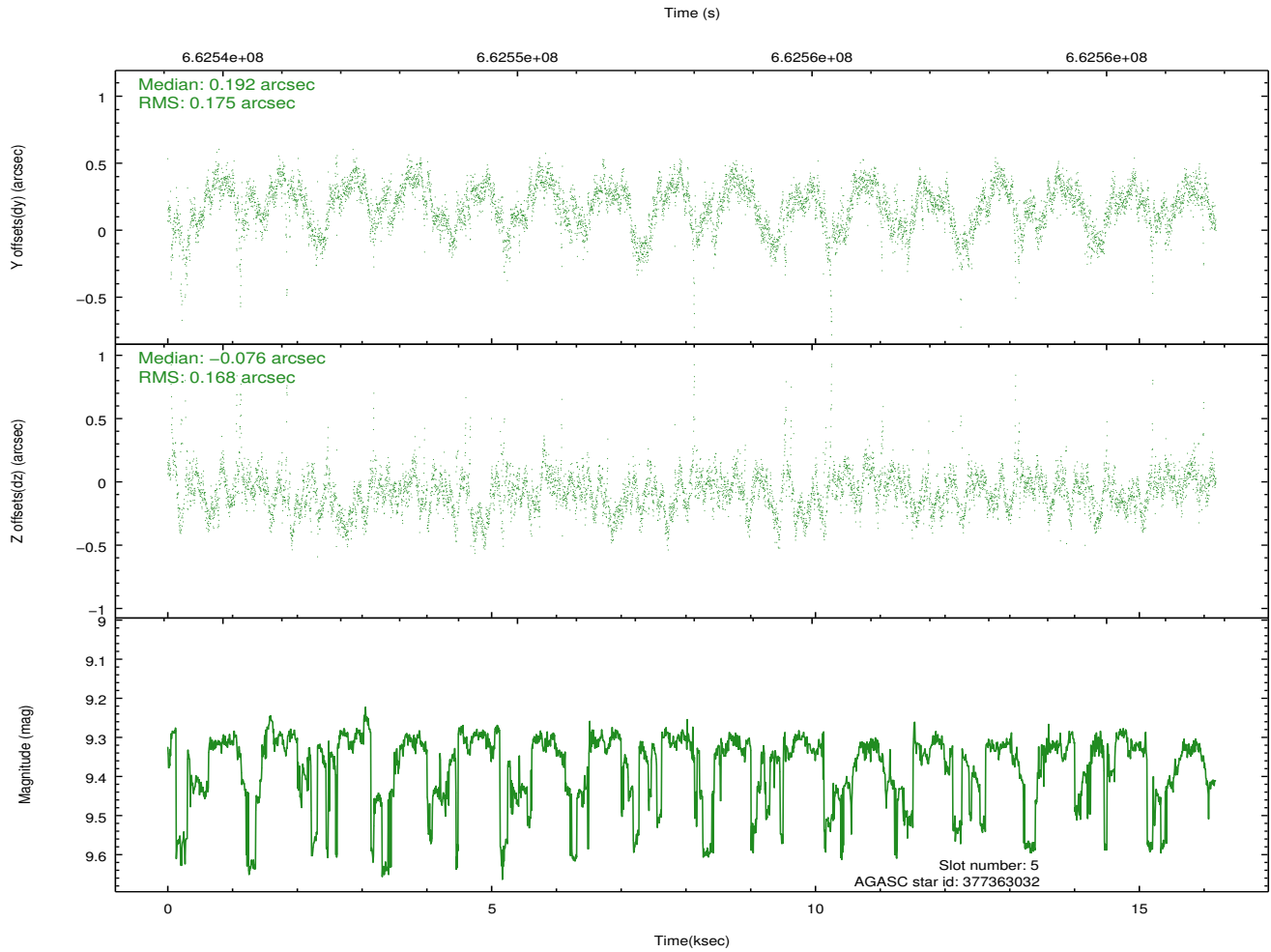
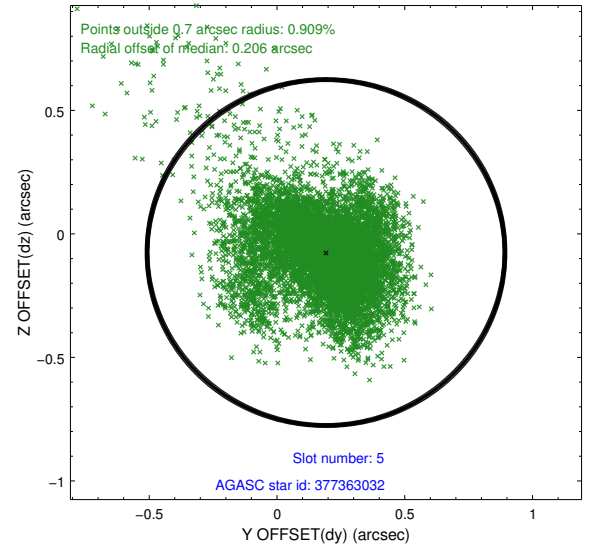
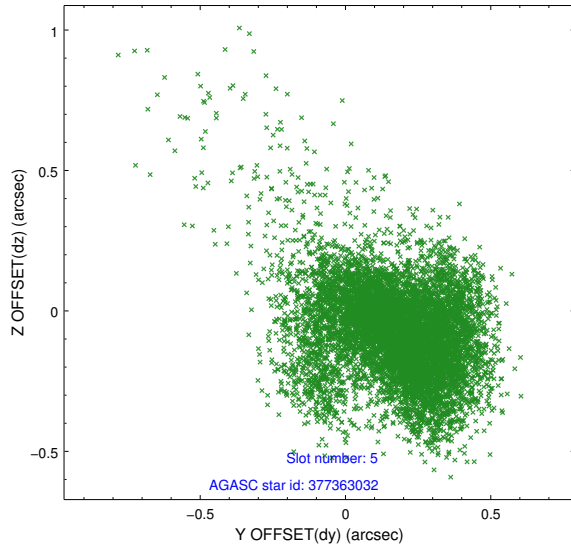
2.4.1 Slot 3



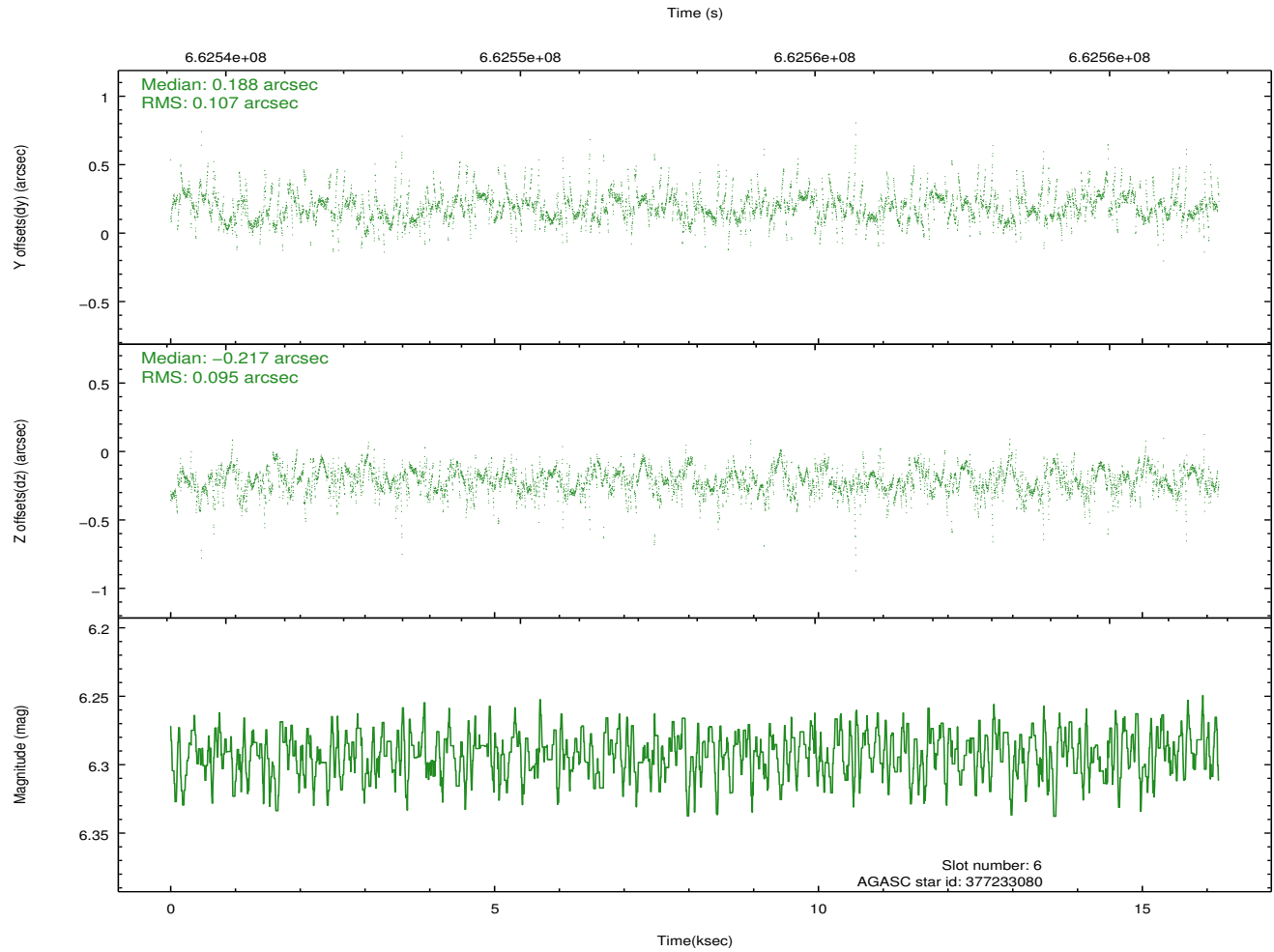
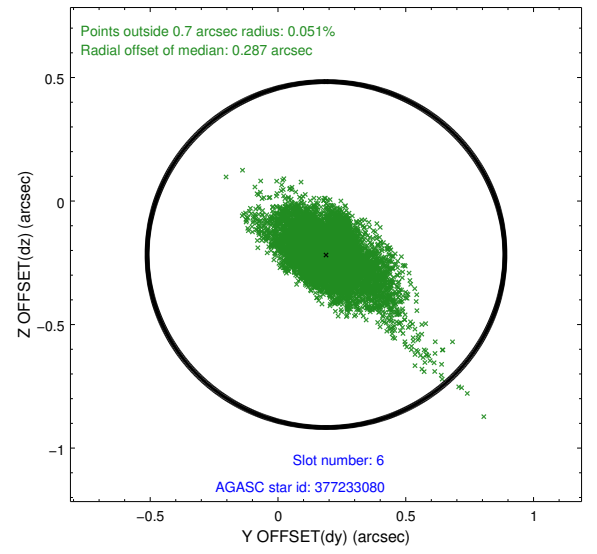
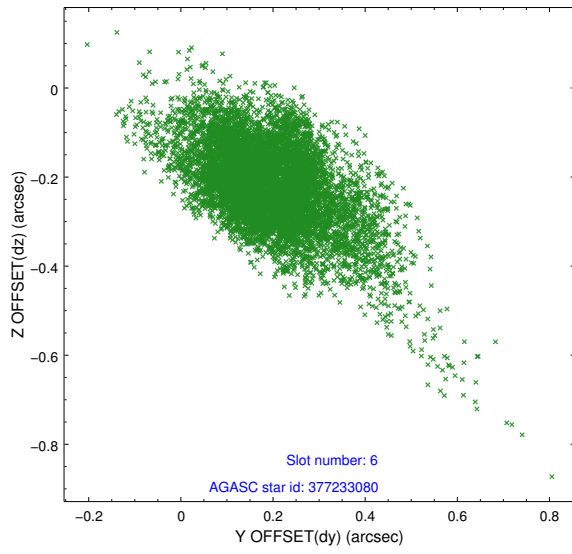
2.4.2 Slot 4



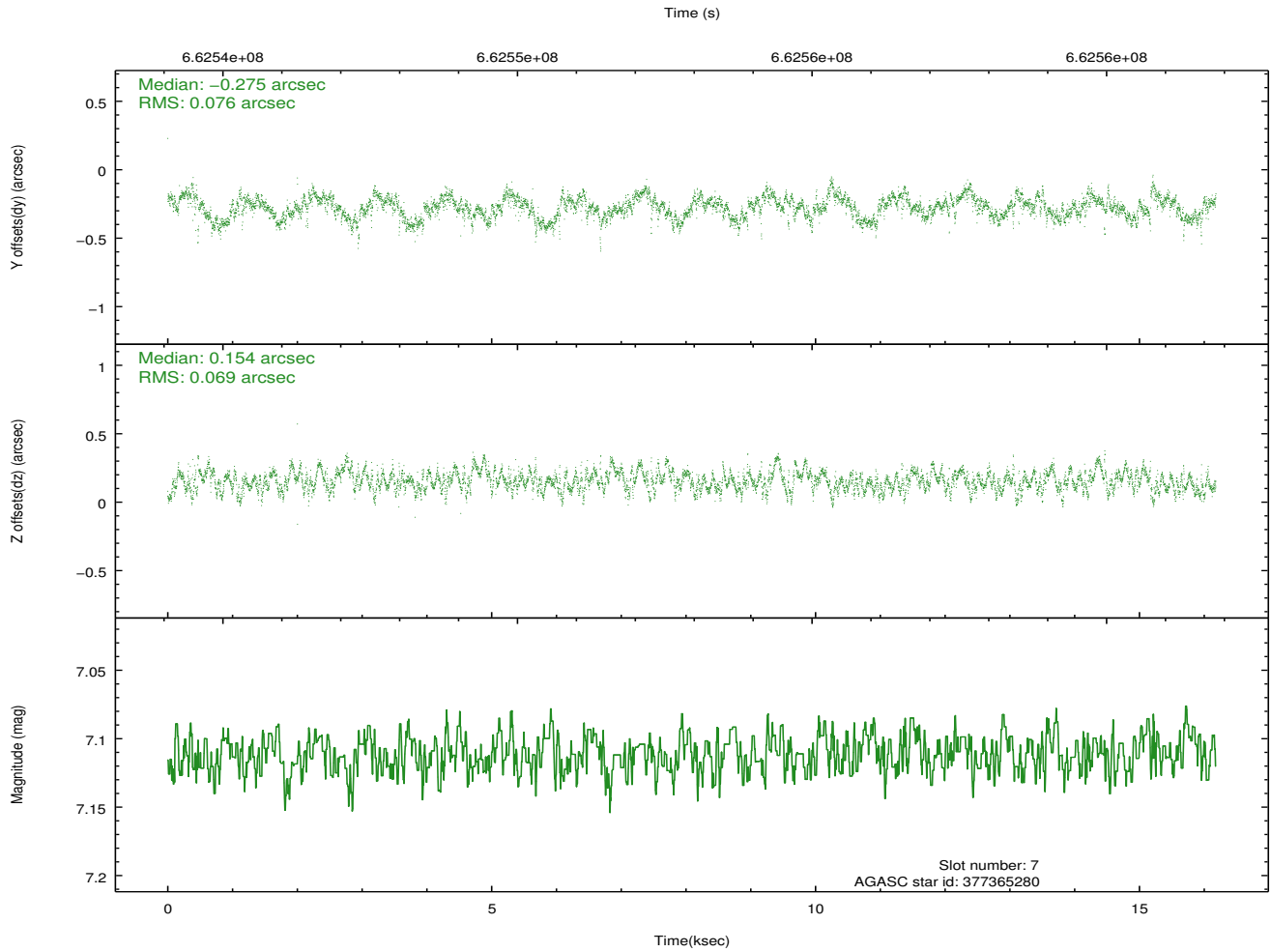
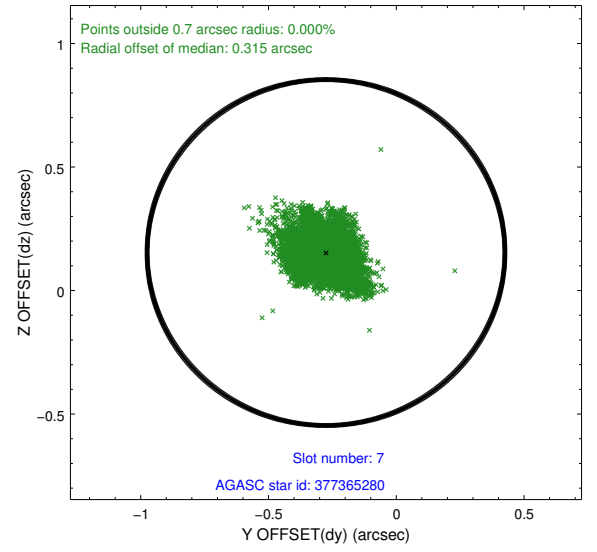
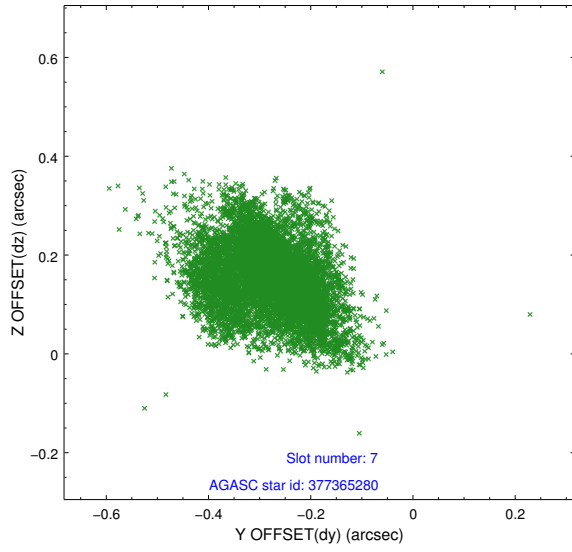
2.4.3 Slot 5



2.4.4 Slot 6

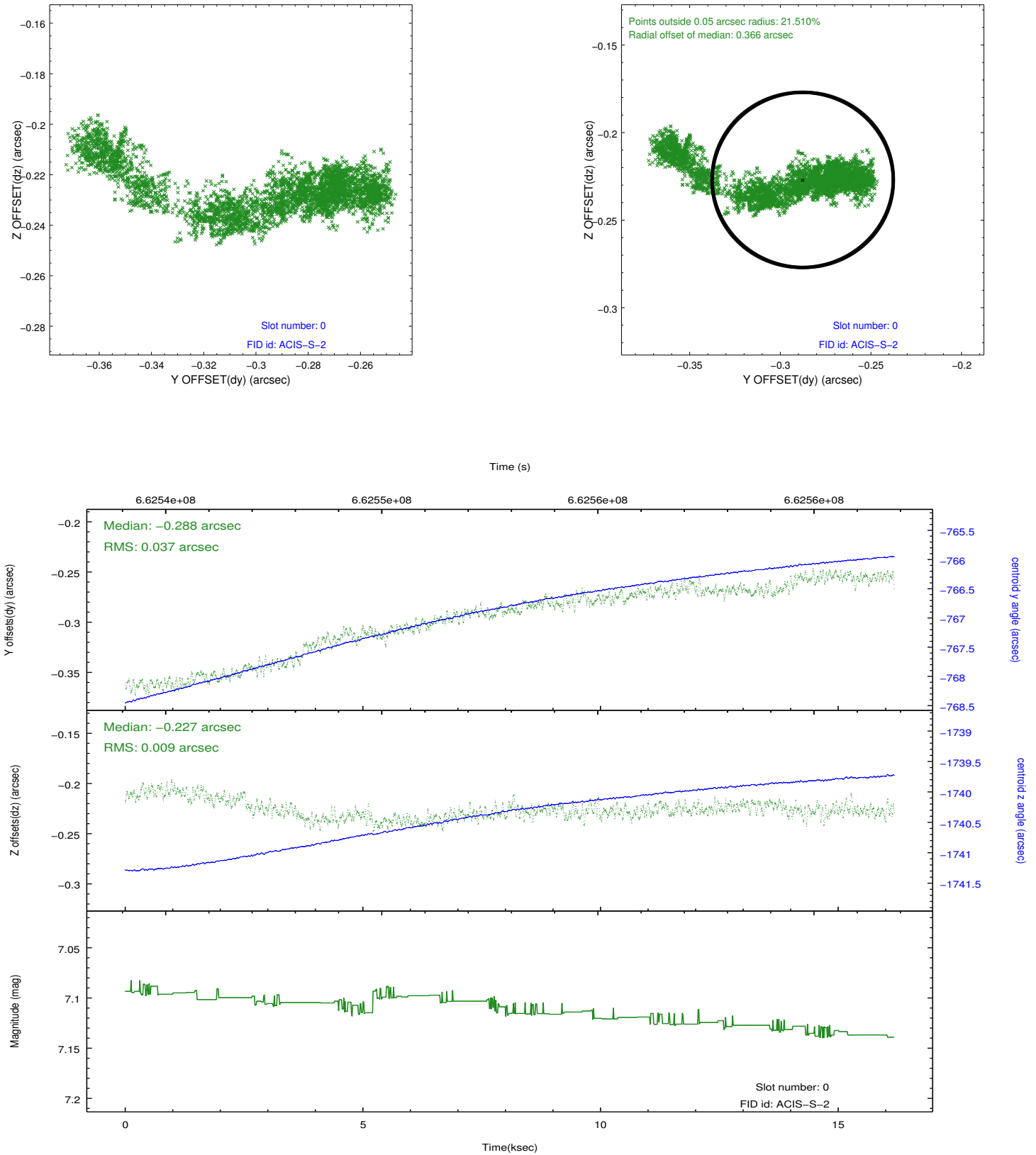


2.4.5 Slot 7

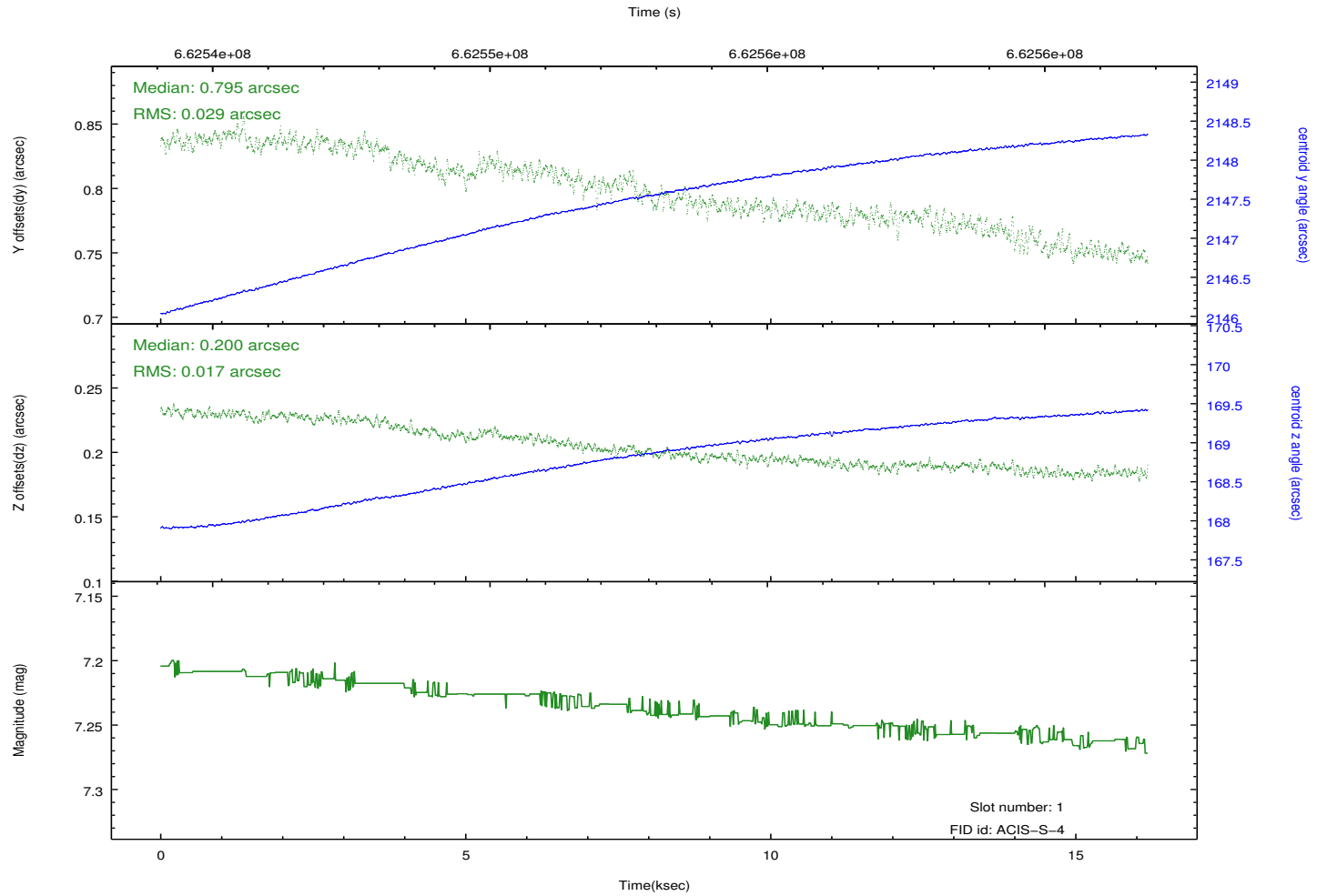
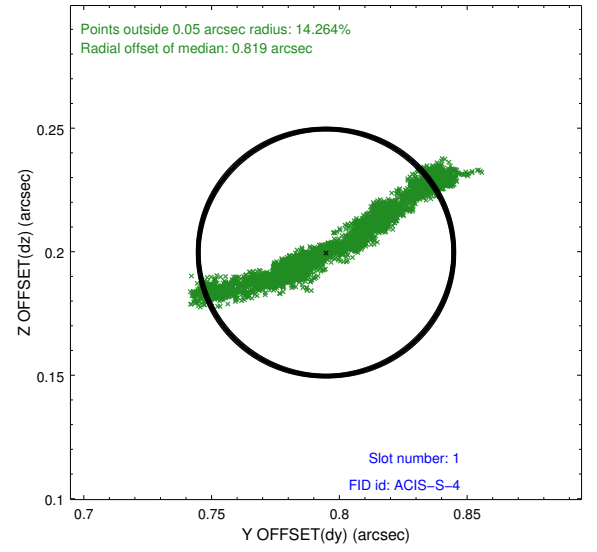
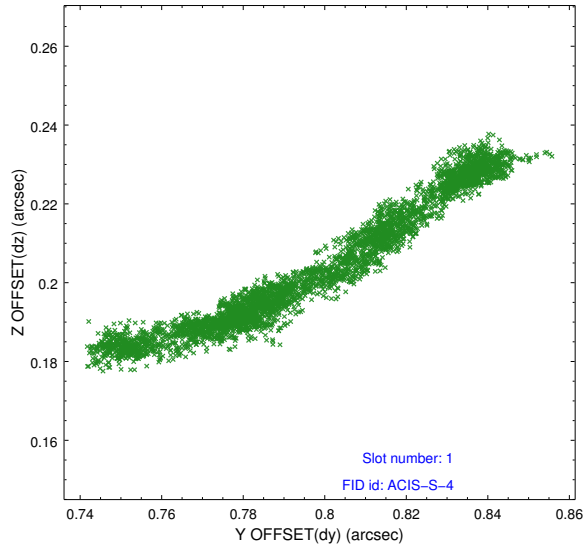


2.5 FID Slots

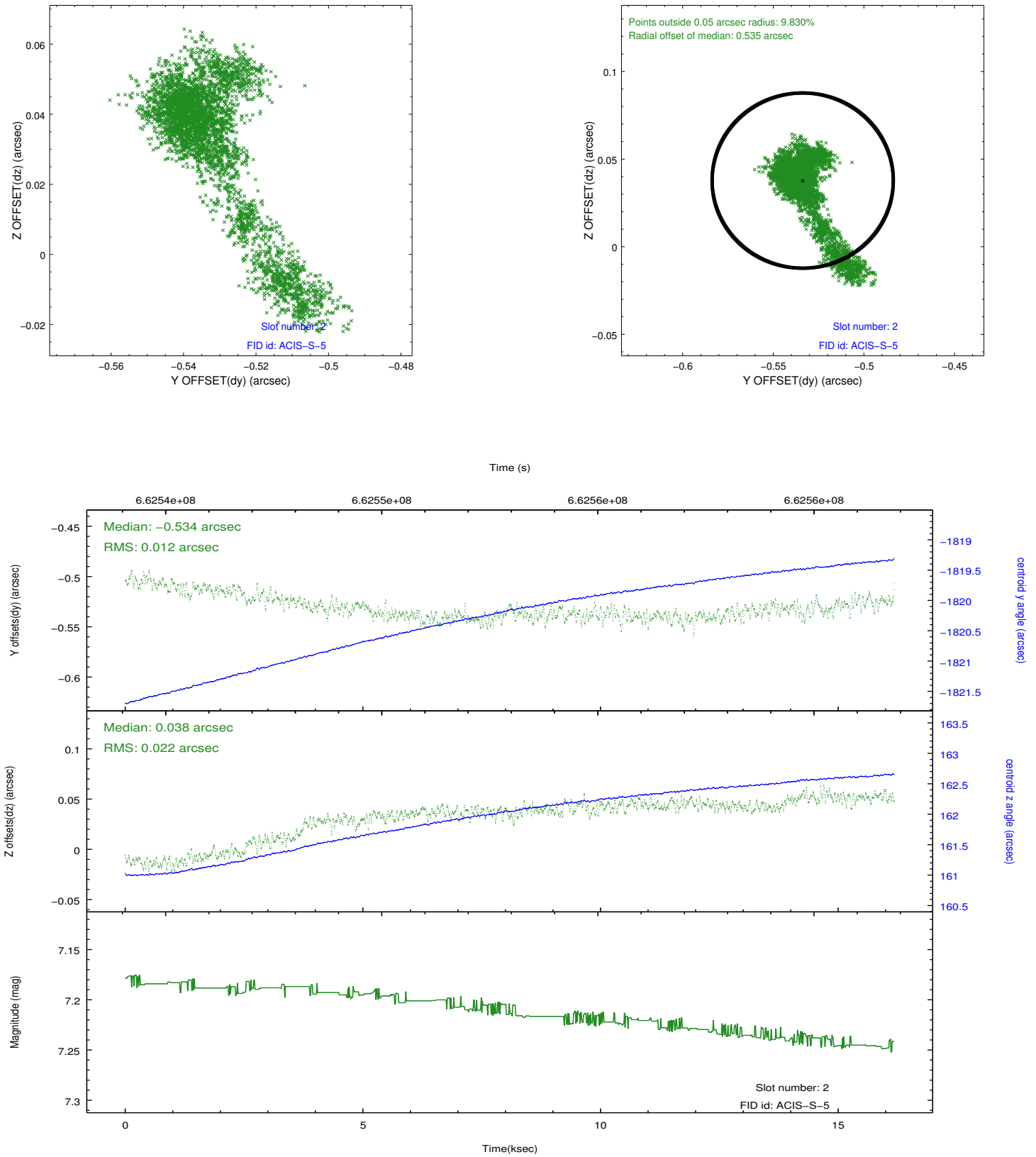
2.5.1 Slot 0



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)	2018.12.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.065000450611

A.2 Comments

Joint proposal with HST and NuSTAR.

Observation coordinated with HST and NuSTAR.

Roll preference met.