

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 20583 - L2 Version 2
Chandra X-Ray Center

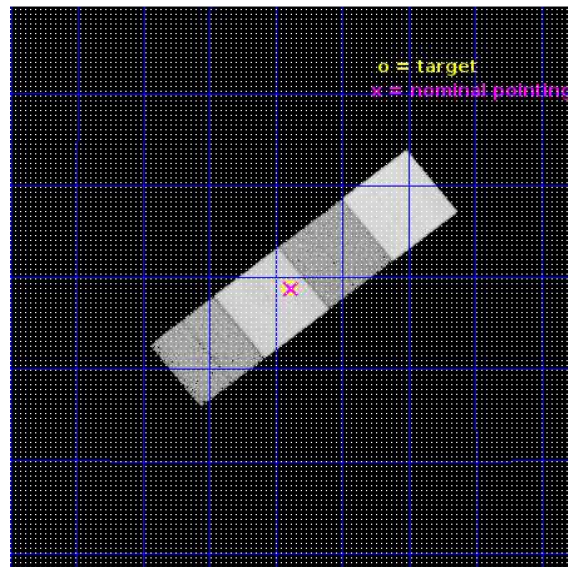
L2 Processing Date : Mar 7 2019

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1 Front

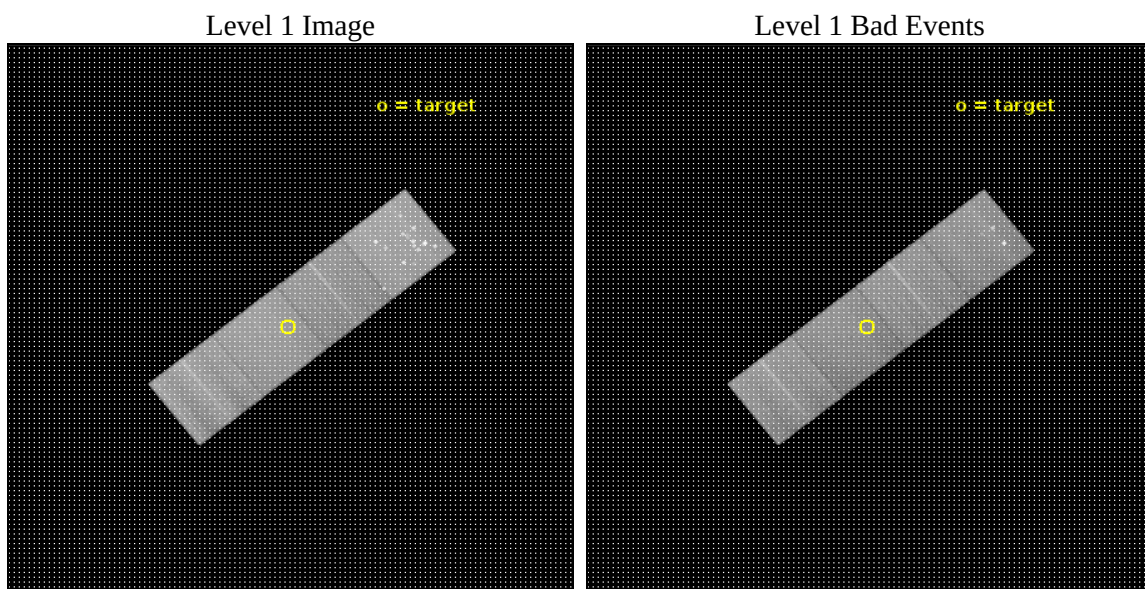
seq_num	801782	Sequence number
obs_id	20583	Observation id
title	Galaxy collisions and shocks in compact groups	Proposal title
observer	Ewan O'Sullivan	Principal investigator
object	HCG57	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	174.475	Observer's specified target RA [deg]
dec_targ	21.981389	Observer's specified target Dec [deg]
ra_nom	174.47112004836	Nominal RA [deg]
dec_nom	21.97977703816	Nominal Dec [deg]
roll_nom	141.65807695974	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35064.100269794	Sum of GTIs [s]
livetime	34605.961985955	Livetime [s]
ontime5	35064.100269794	Sum of GTIs [s]
ontime6	35057.81820941	Sum of GTIs [s]
ontime7	35064.100269794	Sum of GTIs [s]
ontime8	35064.100269794	Sum of GTIs [s]
l2events	397757	Number of level 2 events



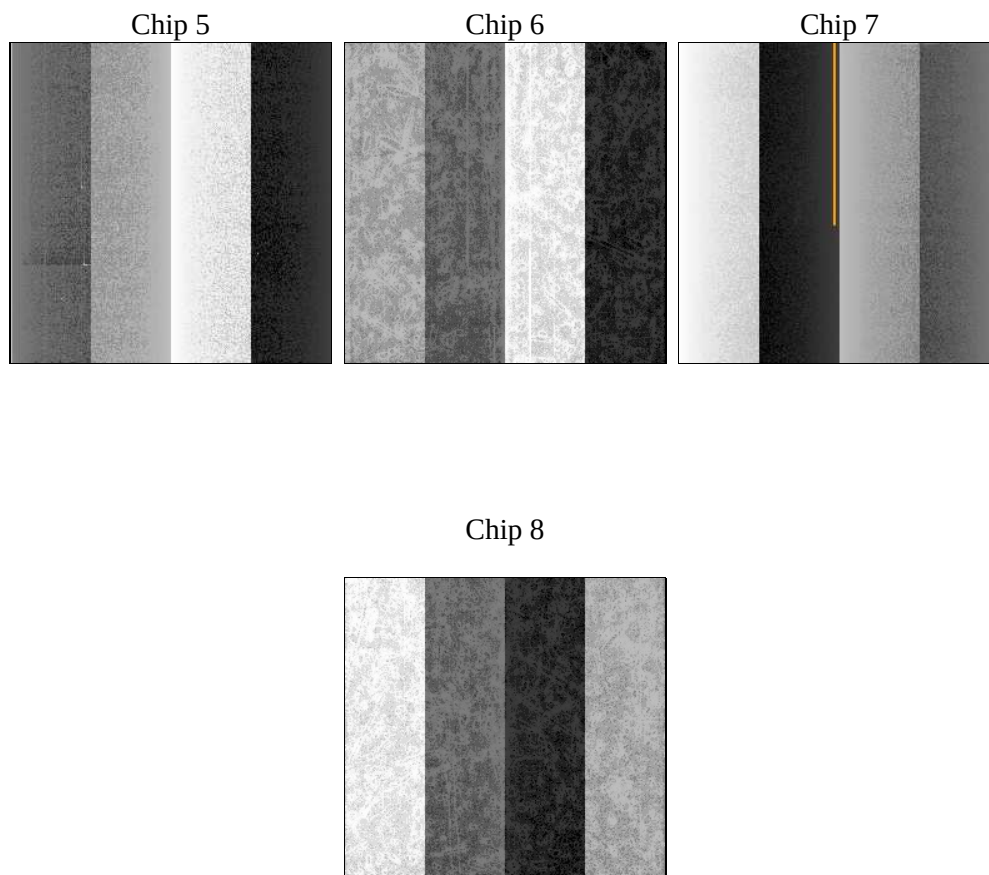
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	35064.100269794	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	35064.100269794	Sum of GTIs [s]
date	2019-03-07T22:45:03	Date and time of file creation	ontime6	35057.81820941	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	35064.100269794	Sum of GTIs [s]
			ontime8	35064.100269794	Sum of GTIs [s]
			l1events	1487970	Number of level 1 events

2.1.4 Events

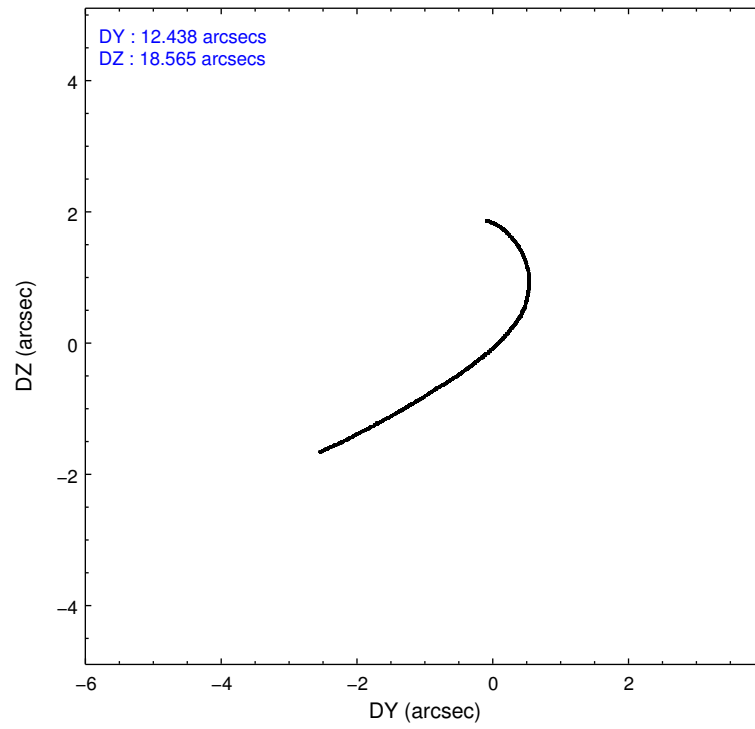
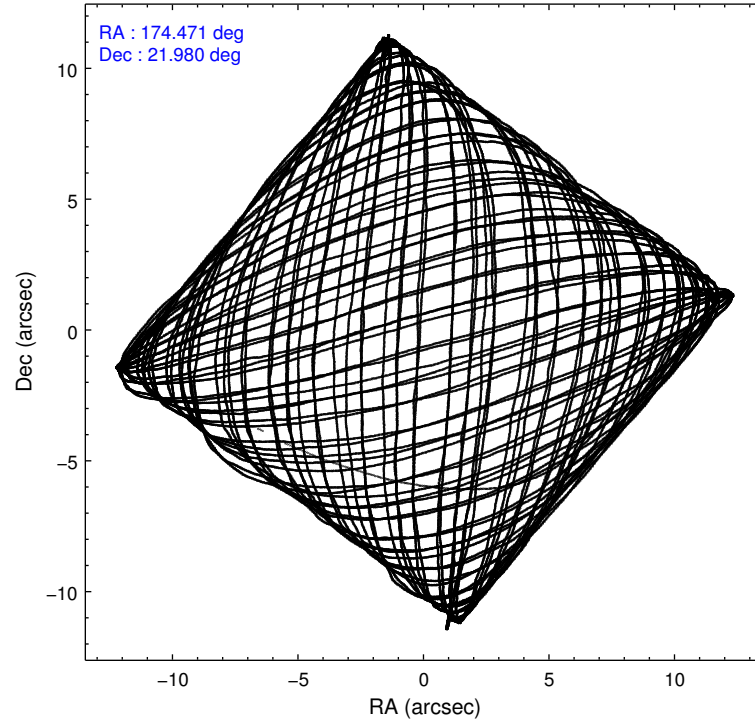
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	509577	278081	347919	352393
rejected events	240721	247385	197630	258283
rejected %	47%	88%	56%	73%

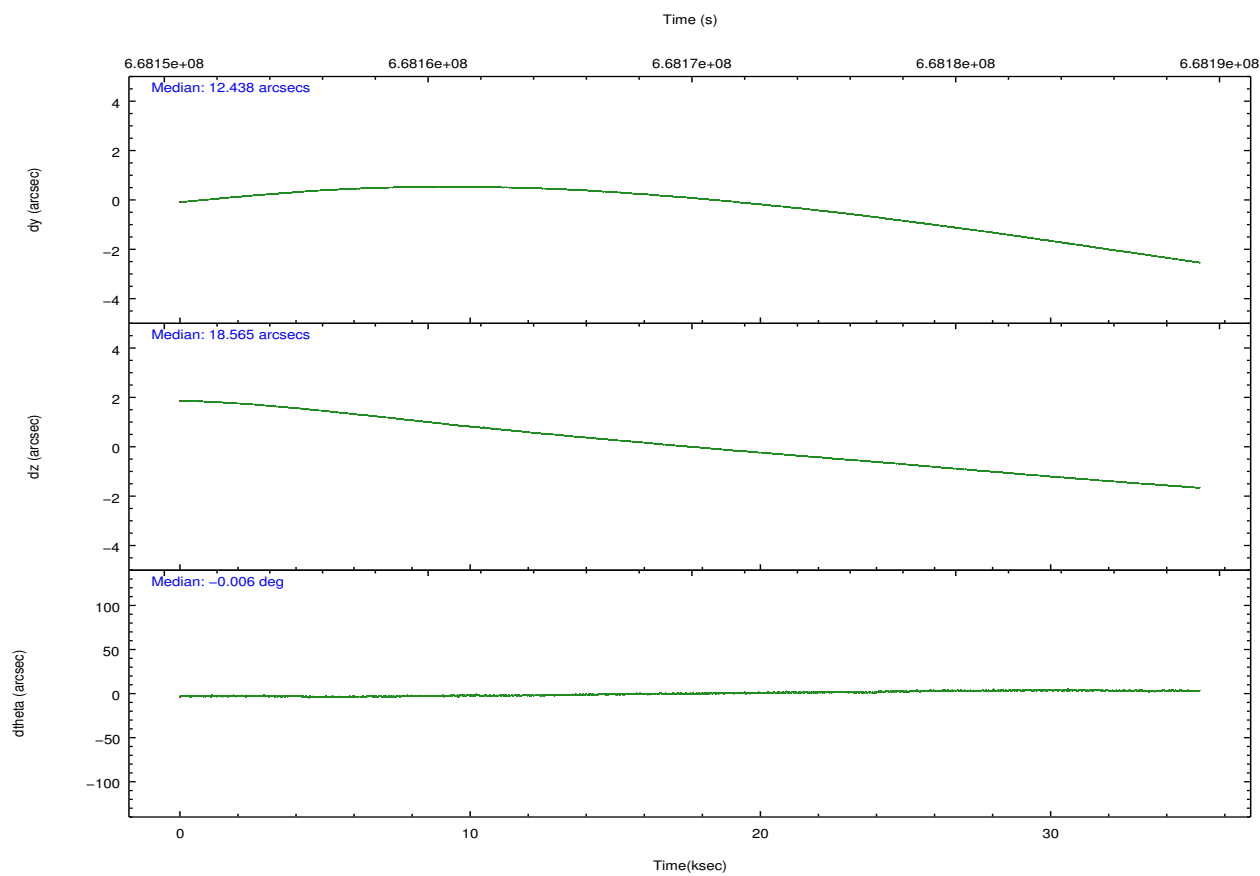
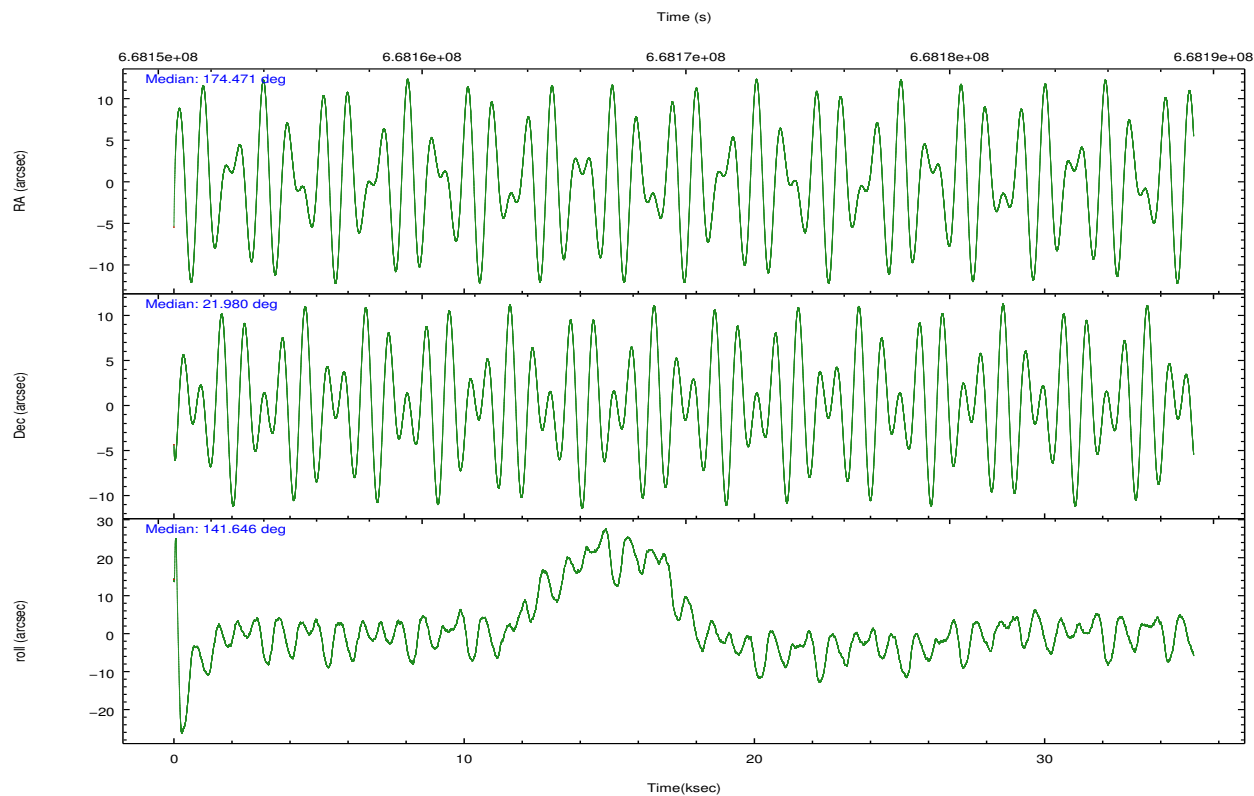
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	61465	9890	12634	26017
	12%	3%	3%	7%
grade 1 events	1210	132	476	262
	0%	0%	0%	0%
grade 2 events	77050	7630	31707	23125
	15%	2%	9%	6%
grade 3 events	7592	2799	11814	9777
	1%	1%	3%	2%
grade 4 events	7502	2877	11533	9245
	1%	1%	3%	2%
grade 5 events	31006	12266	33917	18746
	6%	4%	9%	5%
grade 6 events	115305	7503	82633	25970
	22%	2%	23%	7%
grade 7 events	208447	234984	163205	239251
	40%	84%	46%	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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	174.500445	174.4711200483565	CCD I2 on	O1	N
[deg] Pointing Dec	21.976152	21.97977703815987	CCD I3 on	O2	N
[deg] Pointing Roll	141.490474	141.6580769597428	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[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	Y	Y
[s] Observation start time (MET)	668152466.184000	668151124.72601	CCD S5 on	N	N
Observation start date	2019-03-05T05:53:17	2019-03-05T05:32:04	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	668187466.184000	668188193.85322	On-chip summing requested	N	N
Observation end date	2019-03-05T15:36:37	2019-03-05T15:49:53	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



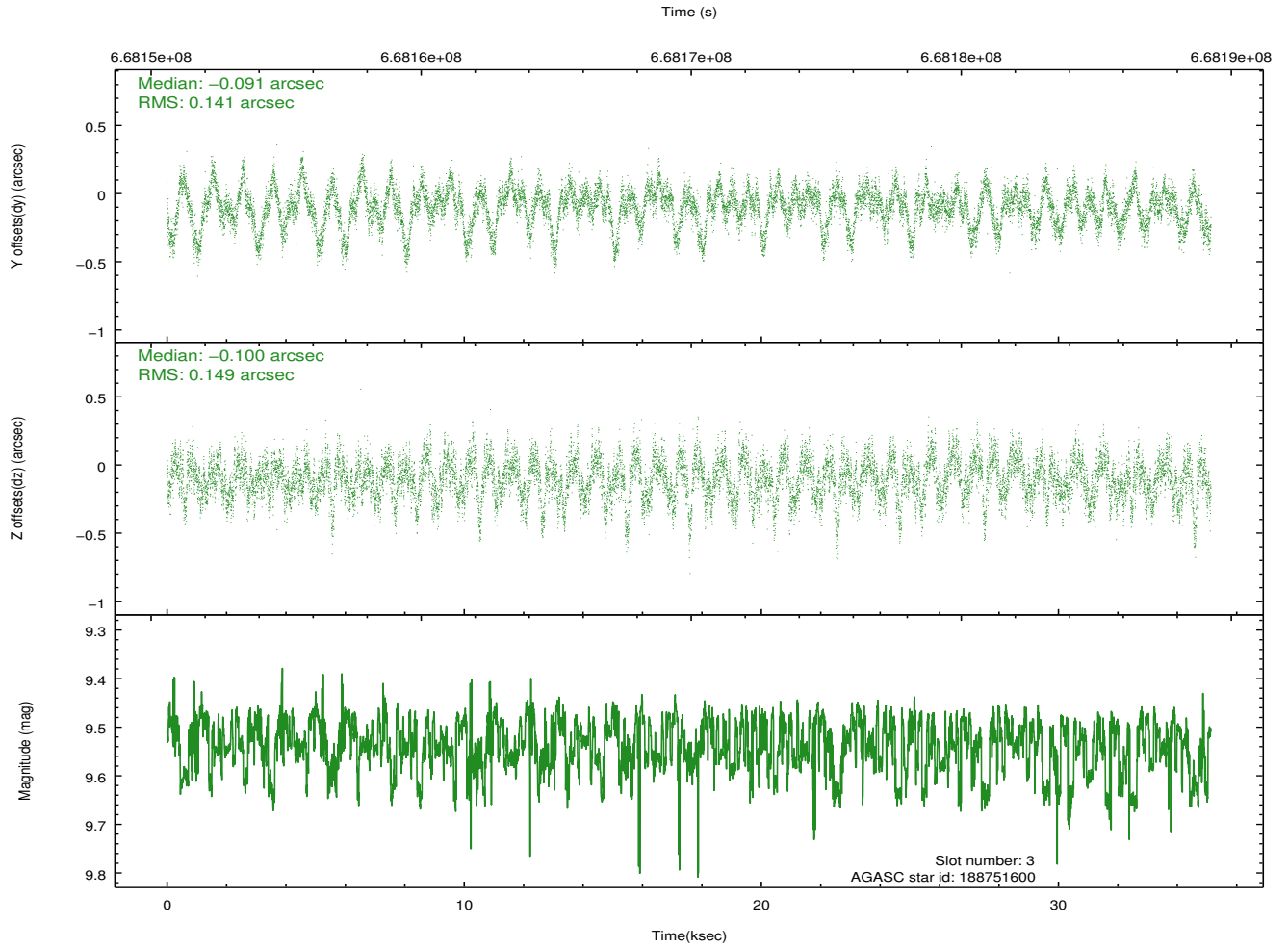
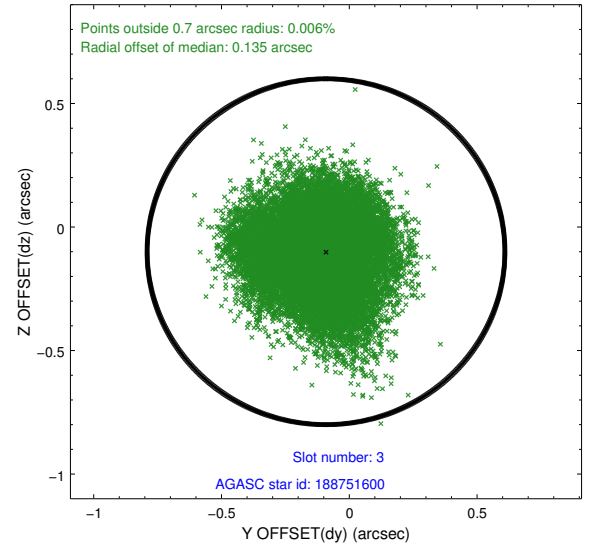
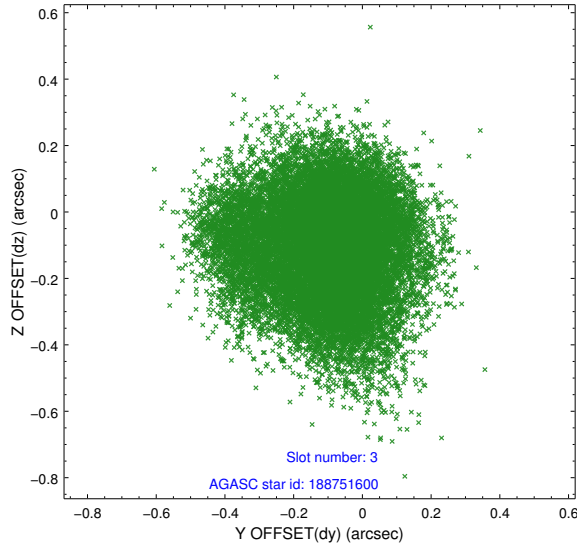


Slot Statistics

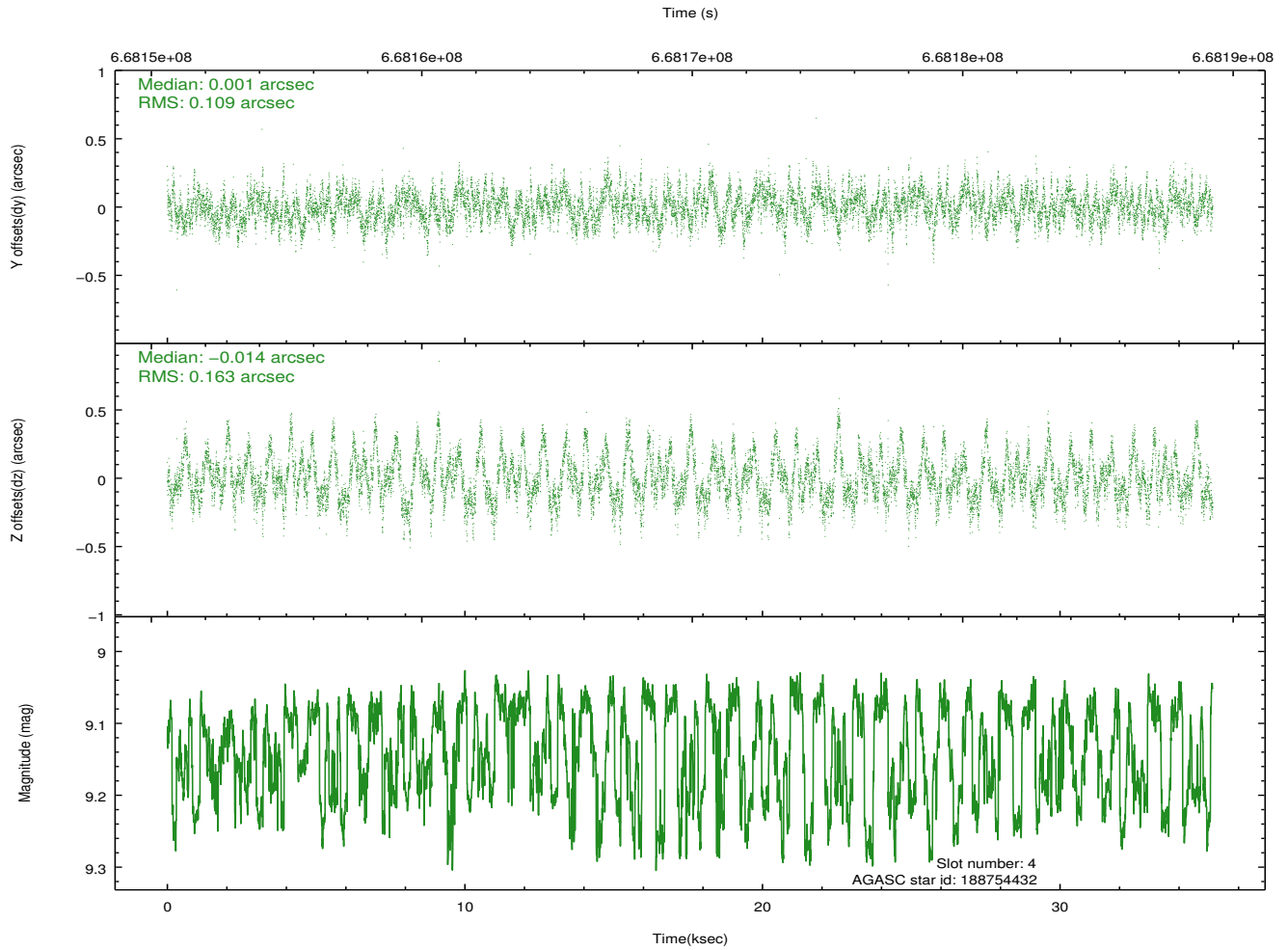
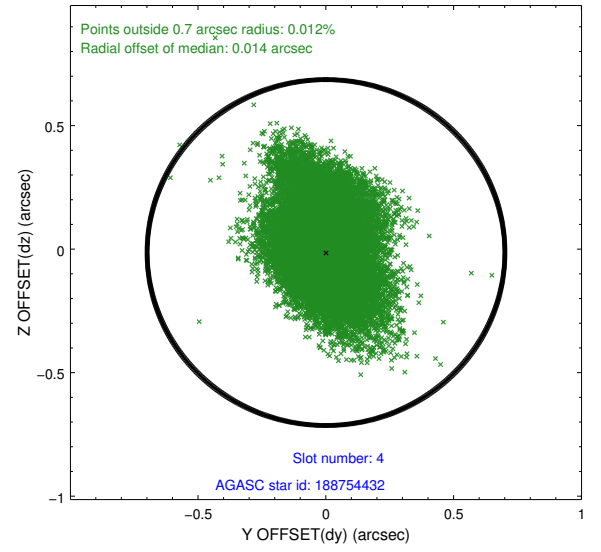
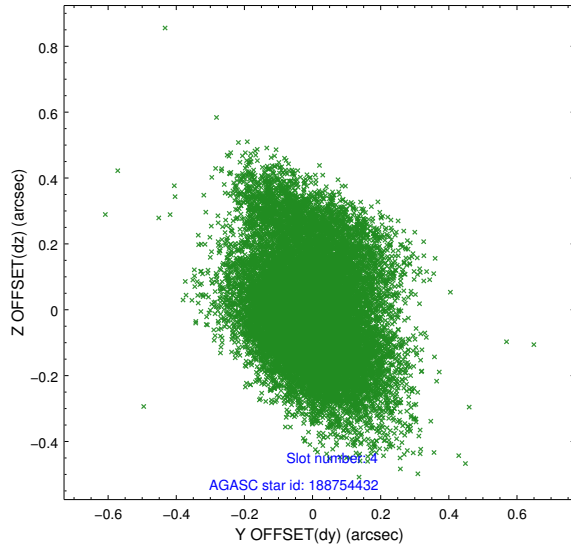
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.02	8569	1.000	-0.265	-0.170	0.022	0.054	0.000000	0.000000	-765.15	-1740
1	FID		ACIS-S-4	7.15	8569	1.000	0.692	0.172	0.020	0.032	0.000000	0.000000	2149.01	168
2	FID		ACIS-S-5	7.13	8569	1.000	-0.463	0.005	0.030	0.048	0.000000	0.000000	-1818.20	162
3	GUIDE	used	188751600	9.54	17063	1.000	-0.091	-0.100	0.221	0.348	174.166921	21.601986	35.28	1749
4	GUIDE	used	188754432	9.14	17113	1.000	0.001	-0.014	0.205	0.350	174.164183	22.388902	1802.30	-465
5	GUIDE	used	188758704	8.41	17129	1.000	0.044	0.044	0.143	0.216	174.474570	21.745106	-449.74	704
6	GUIDE	used	188760112	7.72	17136	1.000	-0.063	0.050	0.119	0.184	174.548855	21.871657	-360.27	194
7	GUIDE	used	188760296	9.09	17113	1.000	0.125	0.016	0.152	0.254	174.426696	21.691710	-444.16	955

2.4 Star Slots

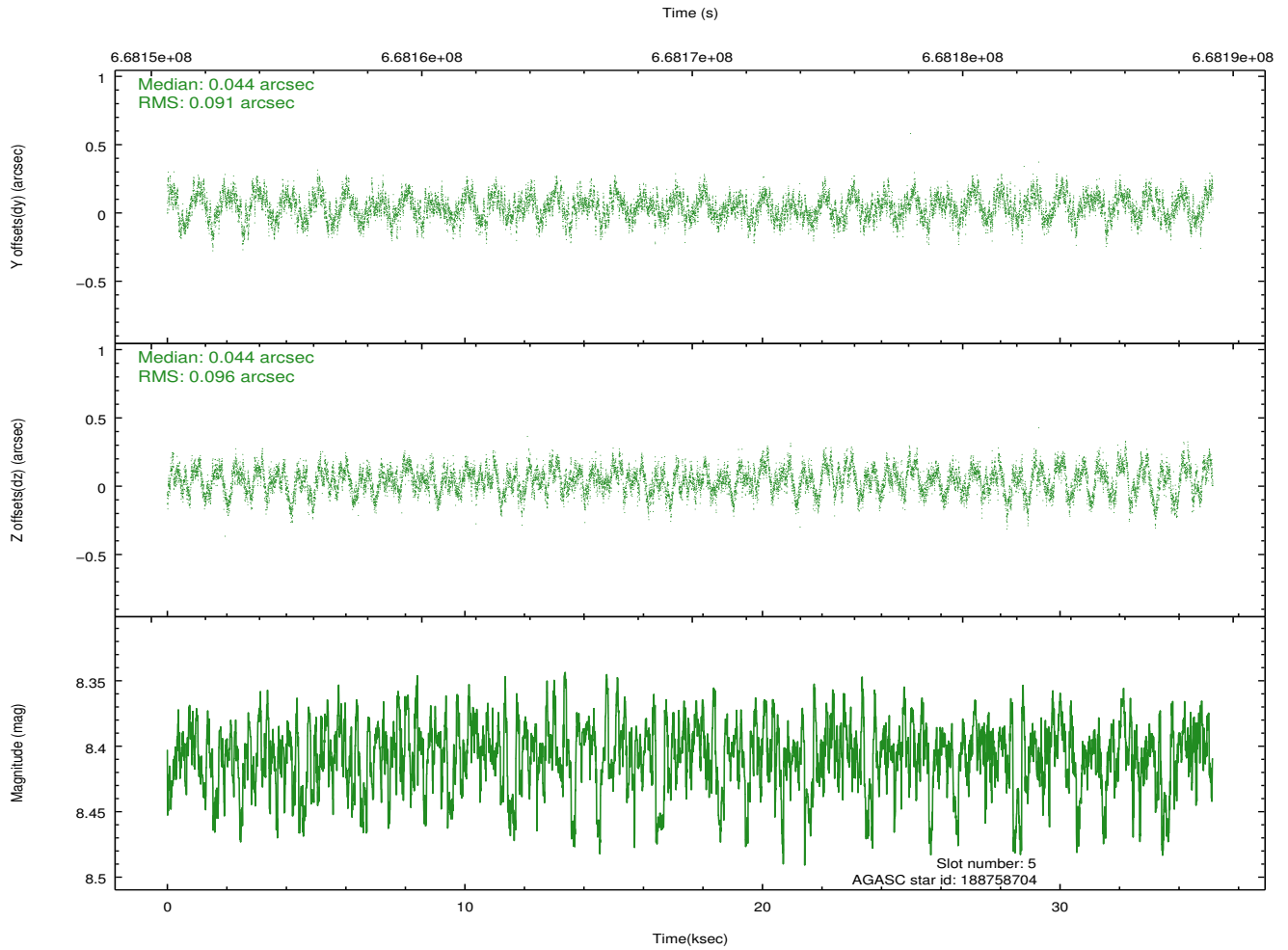
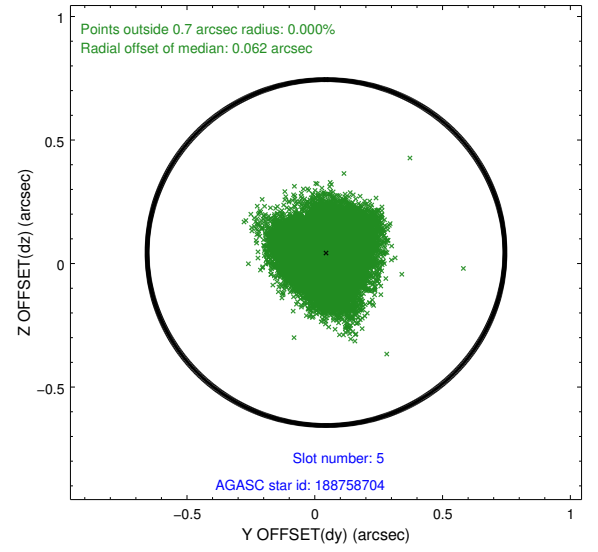
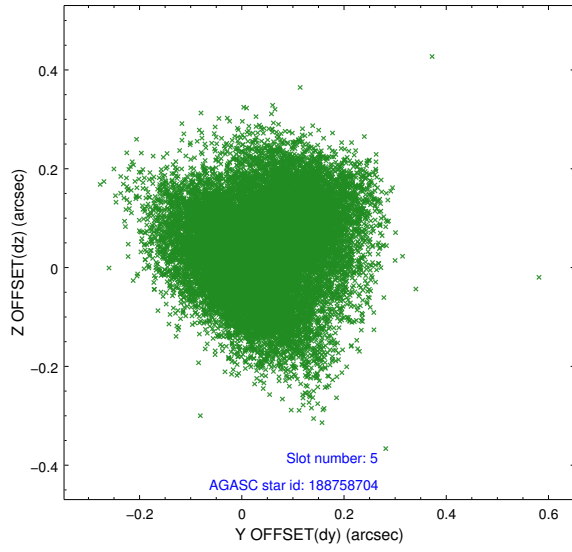
2.4.1 Slot 3



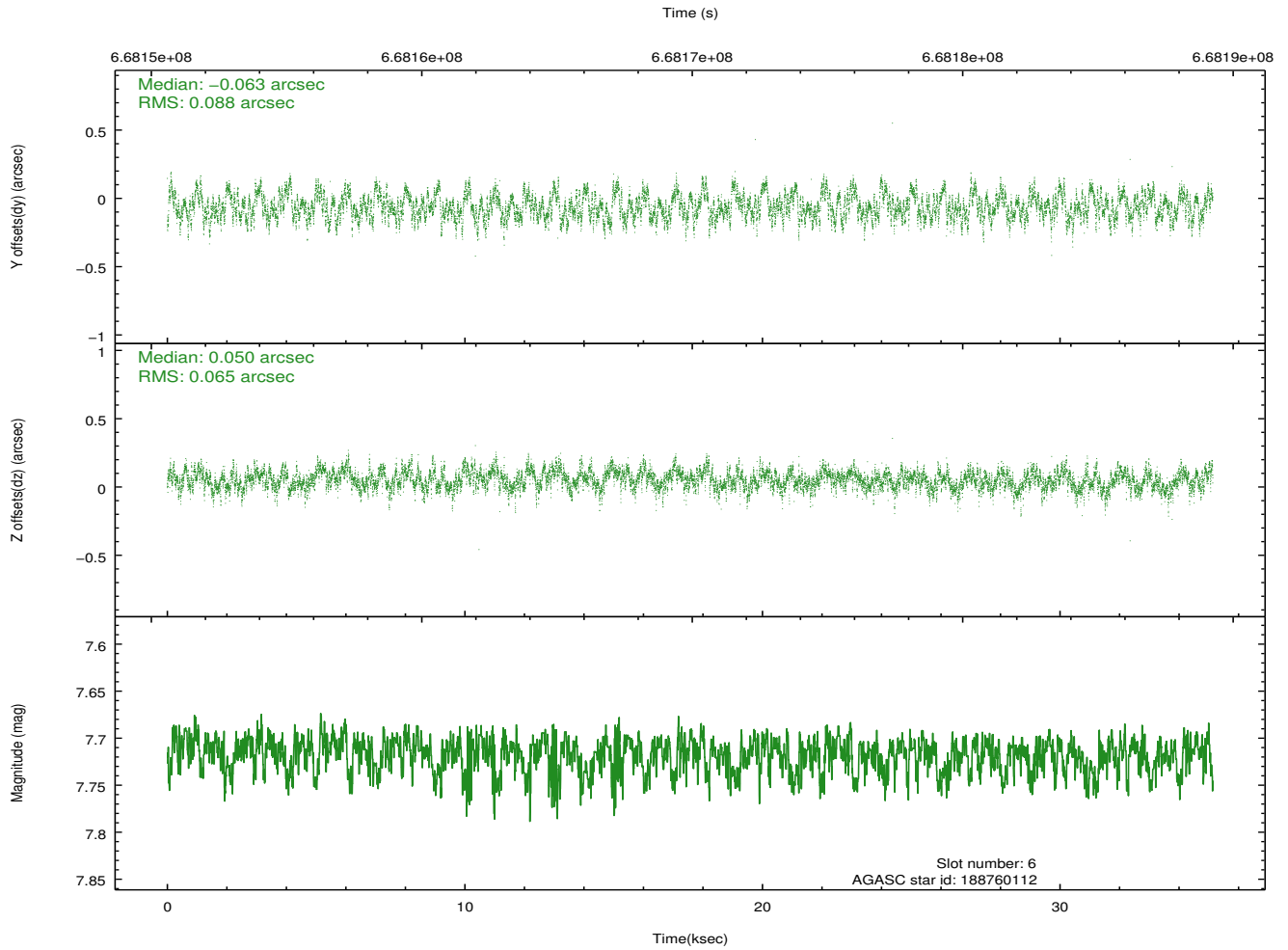
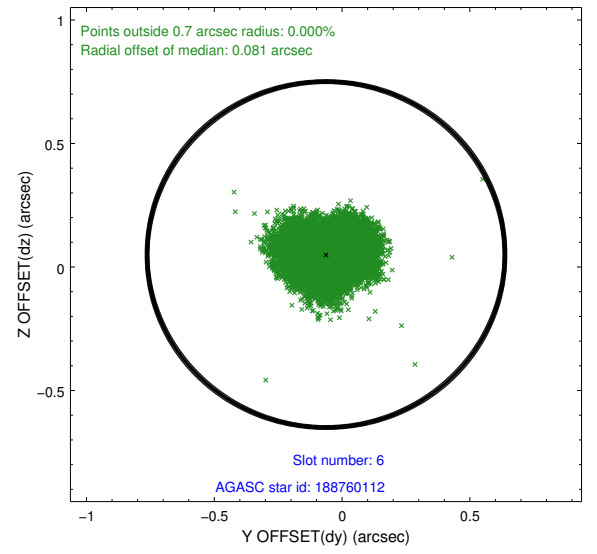
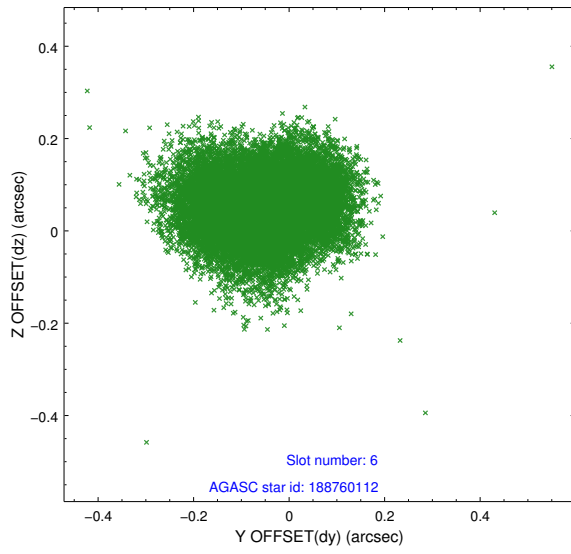
2.4.2 Slot 4



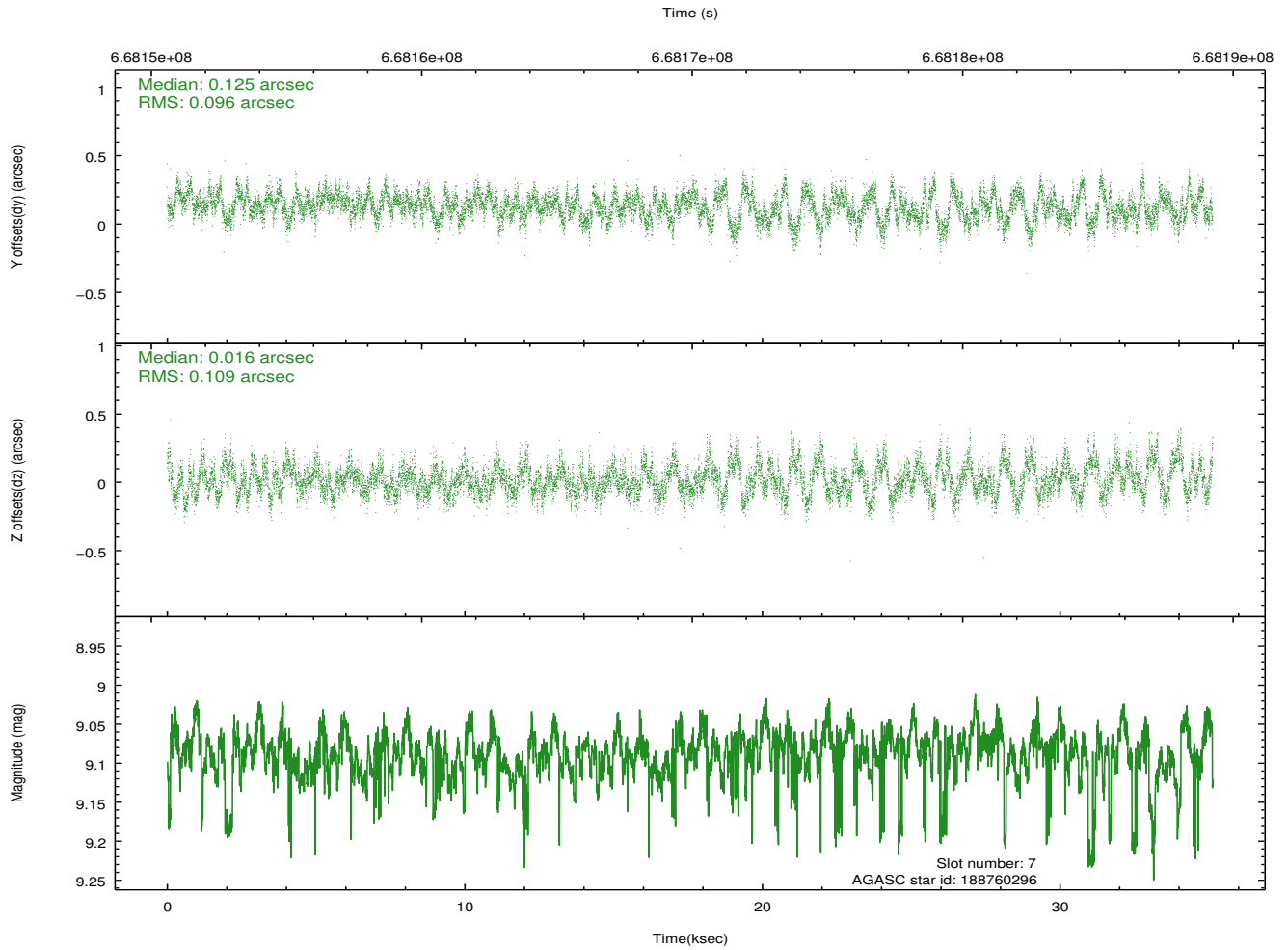
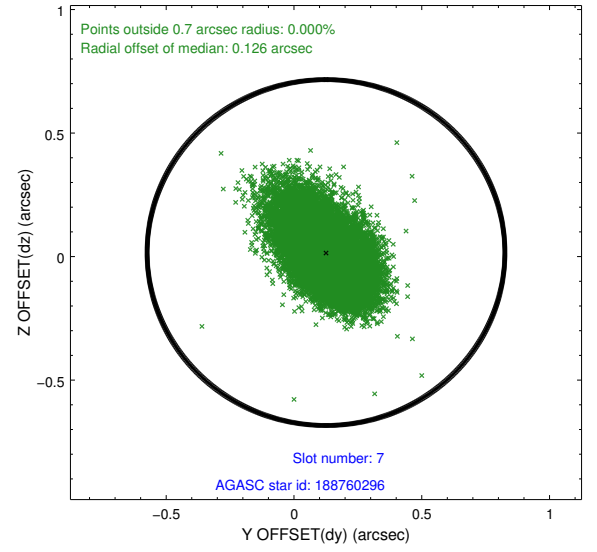
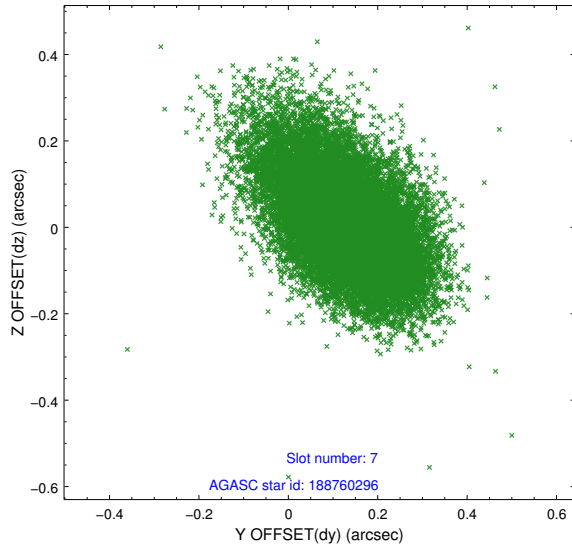
2.4.3 Slot 5



2.4.4 Slot 6

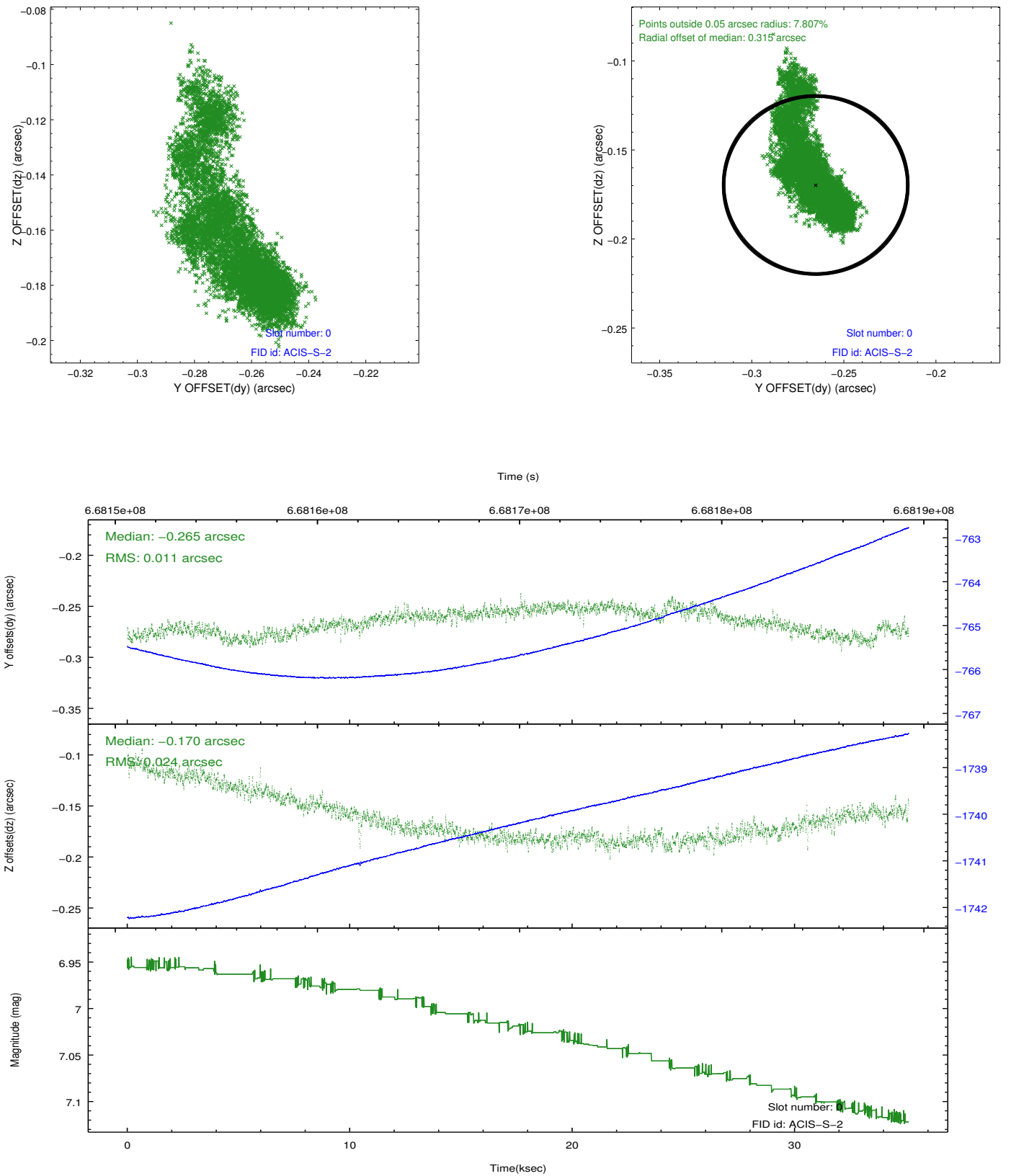


2.4.5 Slot 7

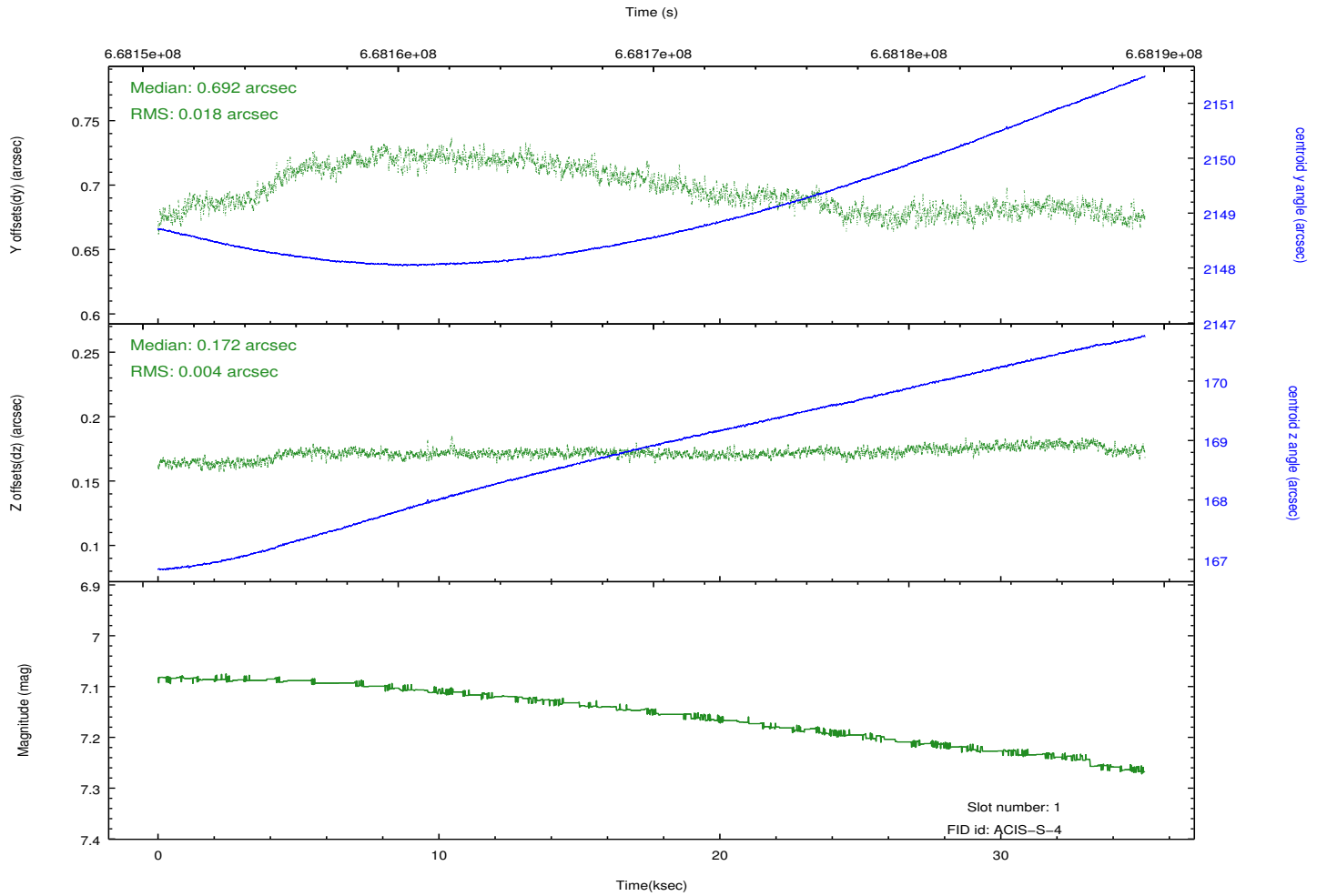
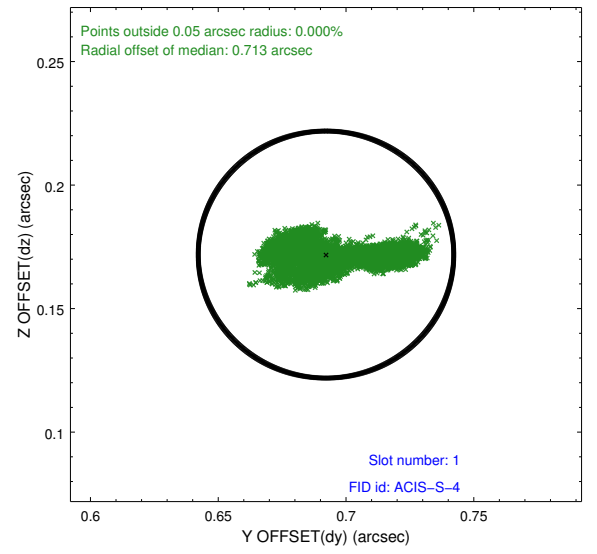
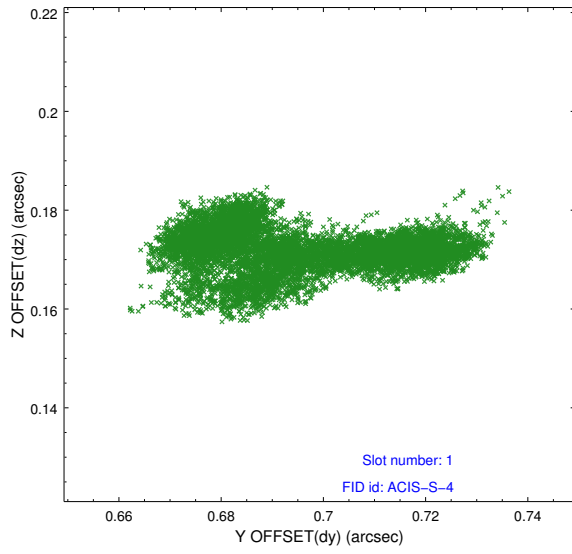


2.5 FID Slots

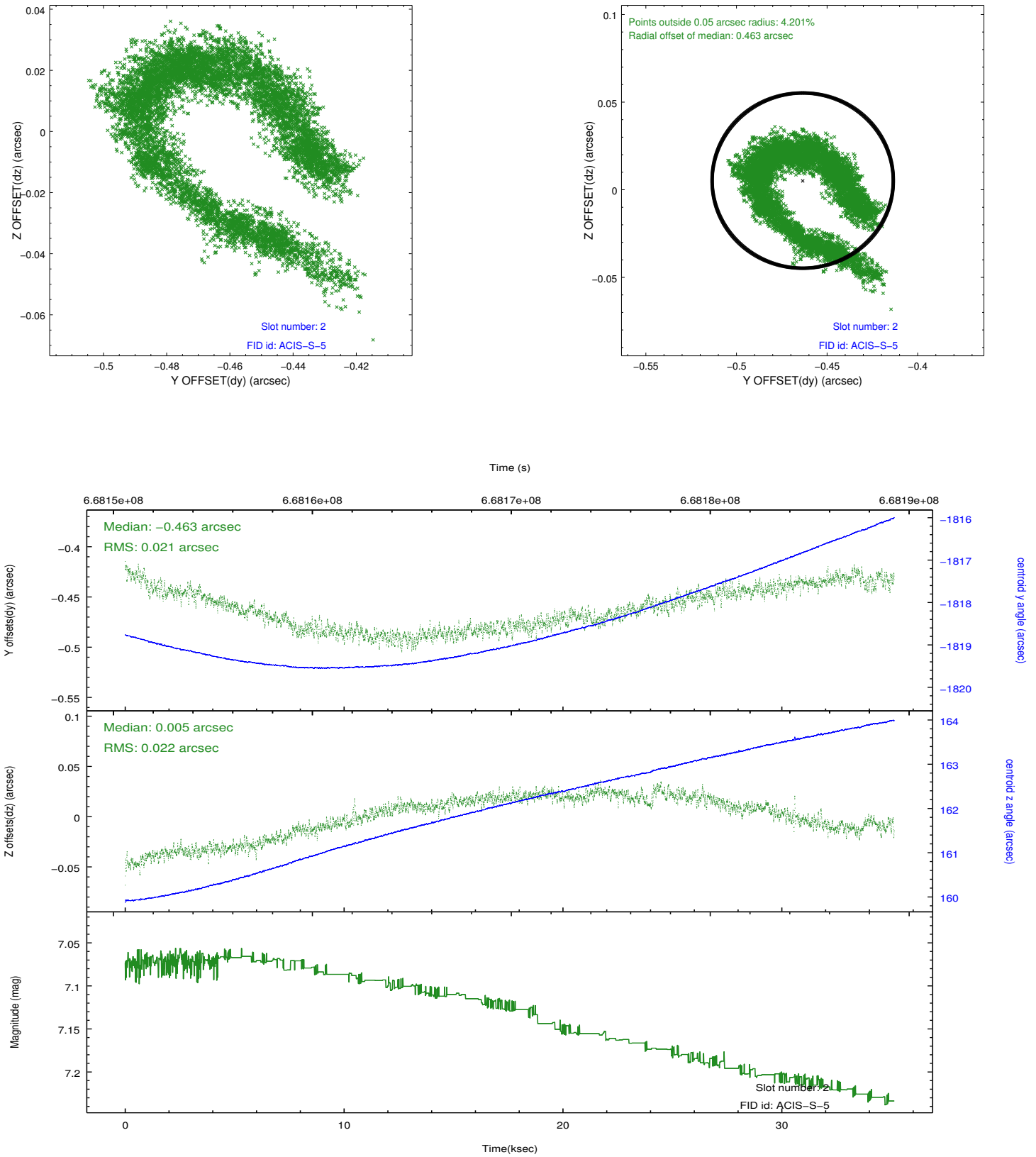
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2019.03.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.064100269794

A.2 Comments

Joint Proposal: XMM. Roll preference met. Optional chips I2 and I3 not included.

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To compensate for a few bad pixels not marked as bad that were not removed in the Level 2 processing, a custom bad pixel file with additional bad pixels at (chipx, chipy) = (232:234,322:339) in S1 was added in this processing. As a result, the user will NOT find a relatively bright square of pixels on the S1 chip for level 2 data caused by the application of the dither algorithm to the bad pixels in question, as opposed to previous processing(s).