

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22177 - L2 Version 2
Chandra X-Ray Center

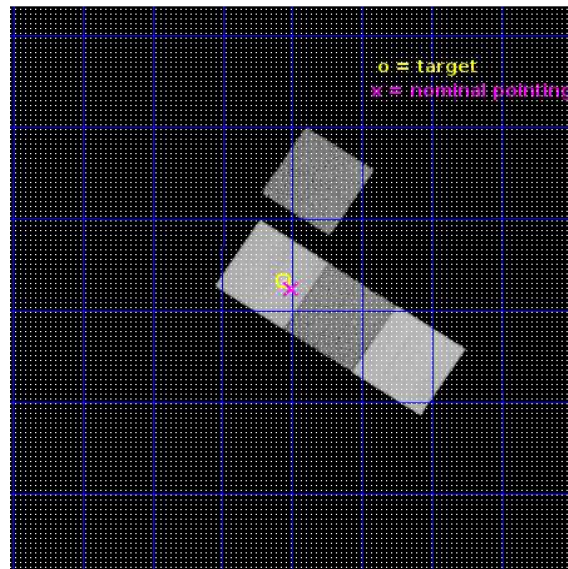
L2 Processing Date : Apr 17 2019

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1 Front

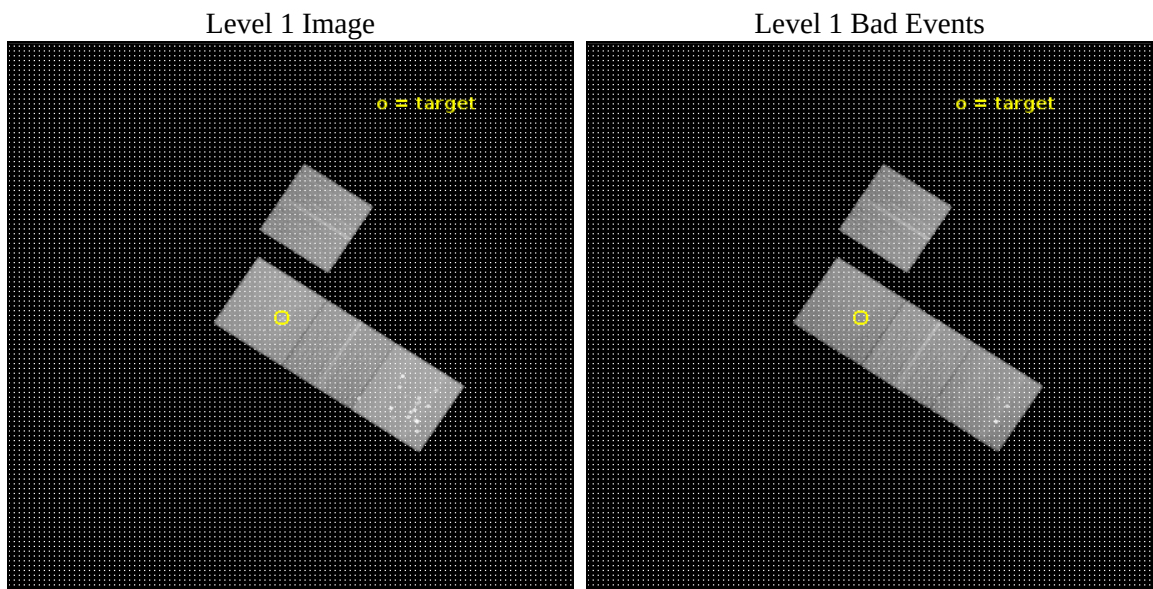
seq_num	801753	Sequence number
obs_id	22177	Observation id
title	Fuelling and self-regulation of AGN feedback at the Bondi radius of M84	Proposal title
observer	Helen Russell	Principal investigator
object	M84	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.265833	Observer's specified target RA [deg]
dec_targ	12.886944	Observer's specified target Dec [deg]
ra_nom	186.25161106528	Nominal RA [deg]
dec_nom	12.873443447914	Nominal Dec [deg]
roll_nom	213.15982928559	Nominal Roll [deg]
revision	2	Processing version of data
ontime	37063.600285172	Sum of GTIs [s]
livetime	36579.337061621	Livetime [s]
ontime3	37057.31814456	Sum of GTIs [s]
ontime5	37063.600285172	Sum of GTIs [s]
ontime6	37054.176973343	Sum of GTIs [s]
ontime7	37063.600285172	Sum of GTIs [s]
l2events	433423	Number of level 2 events



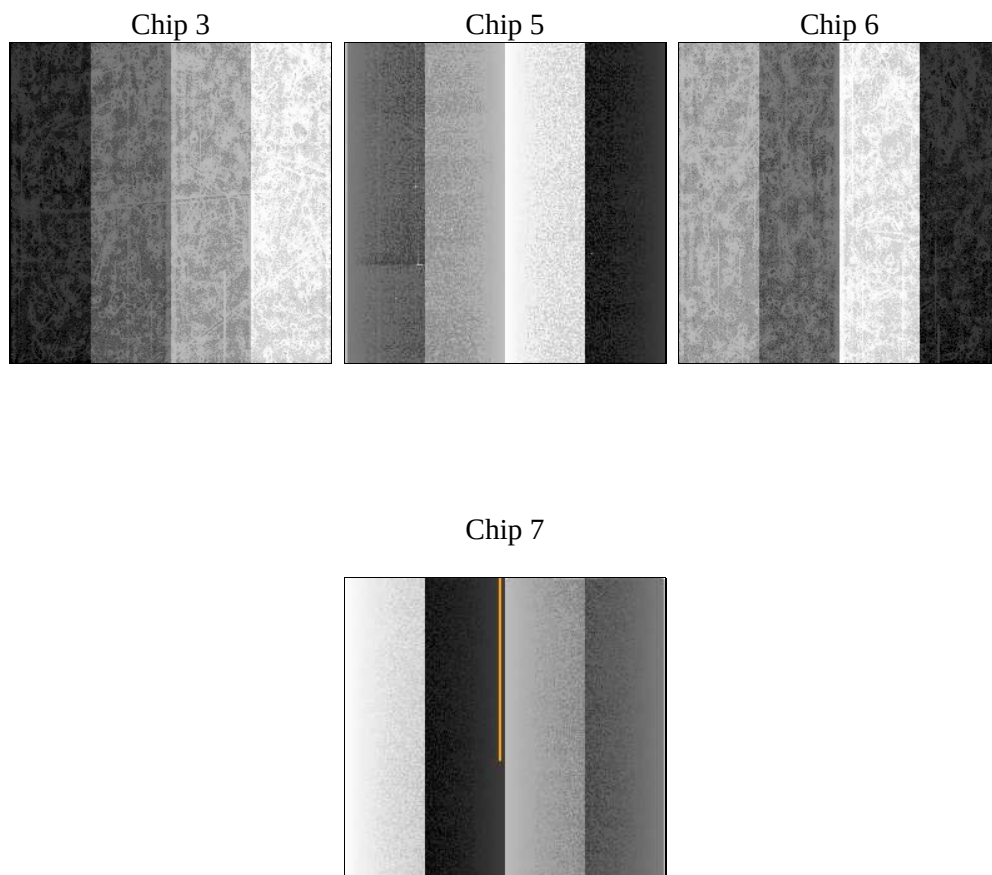
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	37000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	37063.600285172	Sum of GTIs [s]
caldsver	4.8.2	 	ontime3	37057.31814456	Sum of GTIs [s]
date	2019-04-17T17:50:14	Date and time of file creation	ontime5	37063.600285172	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	37054.176973343	Sum of GTIs [s]
			ontime7	37063.600285172	Sum of GTIs [s]
			l1events	1513875	Number of level 1 events

2.1.4 Events

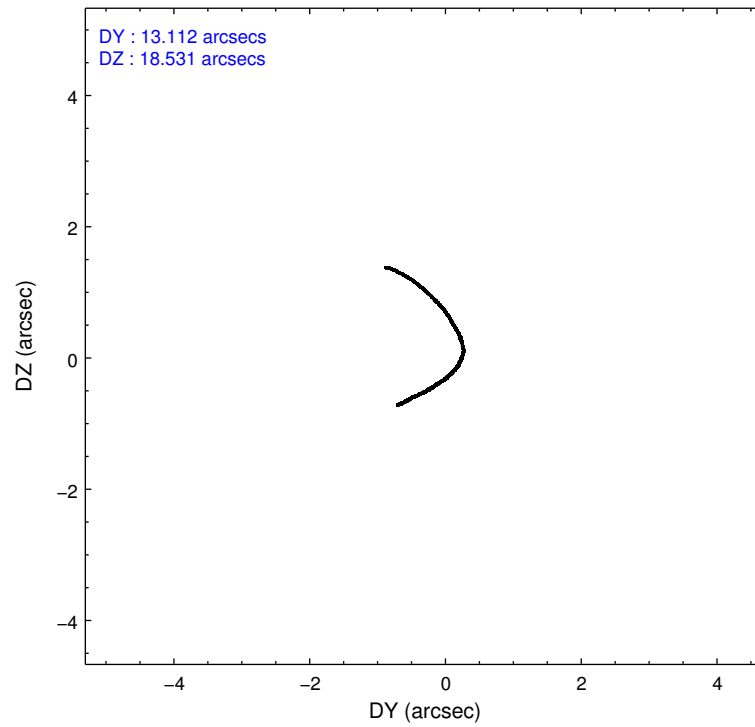
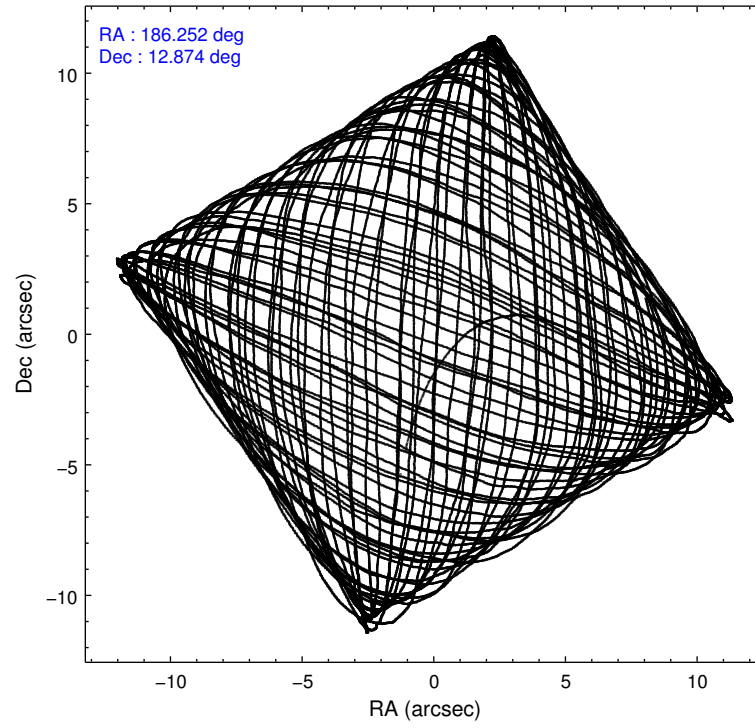
	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	280216	553782	301405	378472
rejected events	249136	258616	267163	208853
rejected %	88%	46%	88%	55%

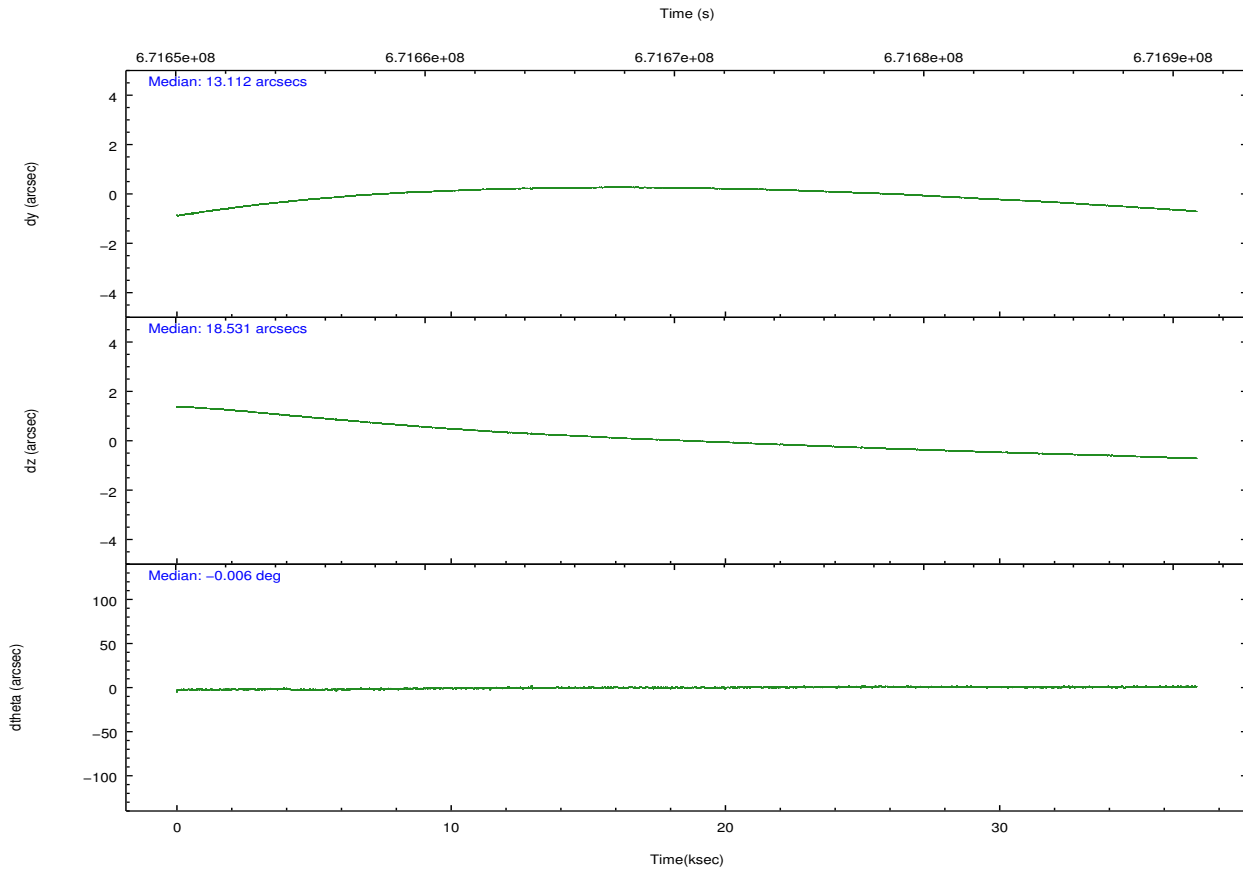
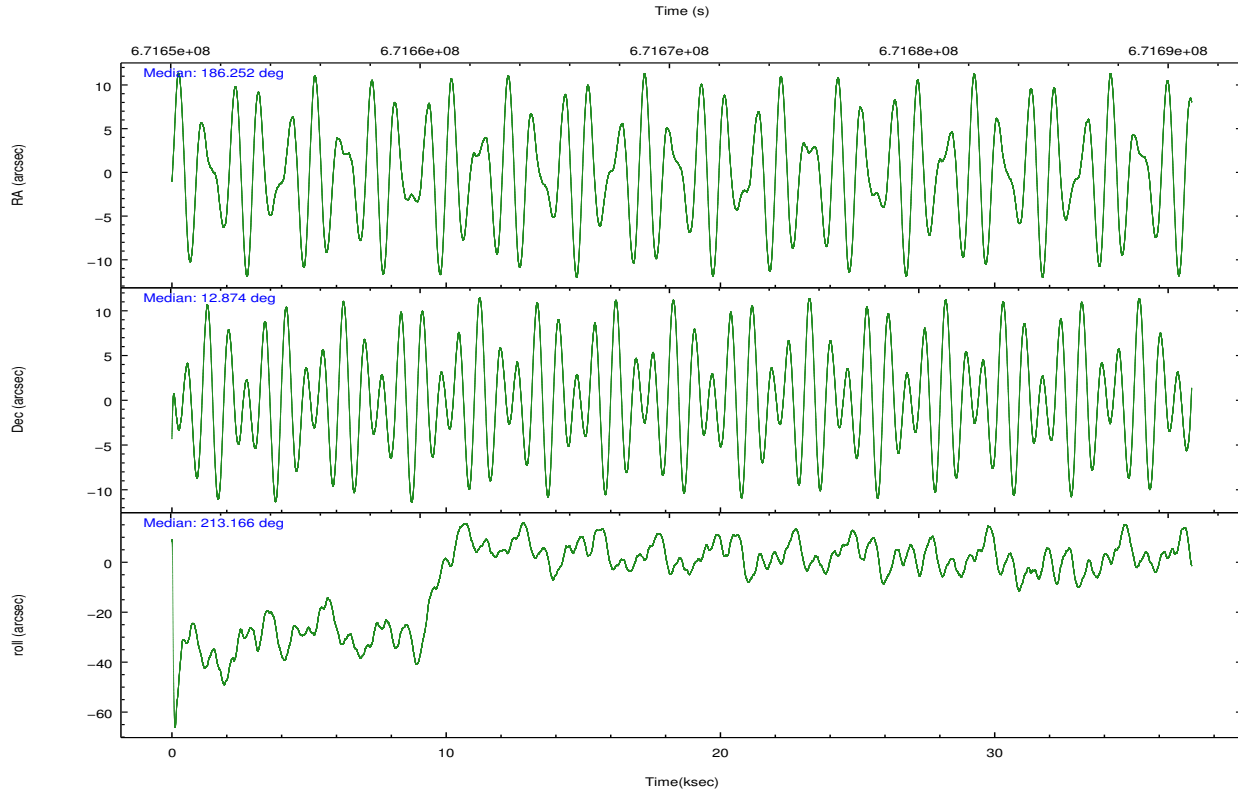
	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	11756	73592	11899	16397
	4%	13%	3%	4%
grade 1 events	138	1254	140	576
	0%	0%	0%	0%
grade 2 events	6576	82809	8287	36996
	2%	14%	2%	9%
grade 3 events	3222	8091	2888	13538
	1%	1%	0%	3%
grade 4 events	3090	8501	2934	13149
	1%	1%	0%	3%
grade 5 events	12706	33326	12583	35326
	4%	6%	4%	9%
grade 6 events	6442	122247	8246	89559
	2%	22%	2%	23%
grade 7 events	236286	223962	254428	172931
	84%	40%	84%	45%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3567	ACIS-3567	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	186.263971	186.251611065282	CCD I2 on	O1	N
[deg] Pointing Dec	12.898102	12.87344344791402	CCD I3 on	Y	Y
[deg] Pointing Roll	213.000410	213.1598292855886	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O2	N
[s] Observation start time (MET)	671652068.184000	671650963.86037	CCD S5 on	N	N
Observation start date	2019-04-14T17:59:59	2019-04-14T17:42:43	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	671689068.184000	671689906.1752	On-chip summing requested	N	N
Observation end date	2019-04-15T04:16:39	2019-04-15T04:31:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



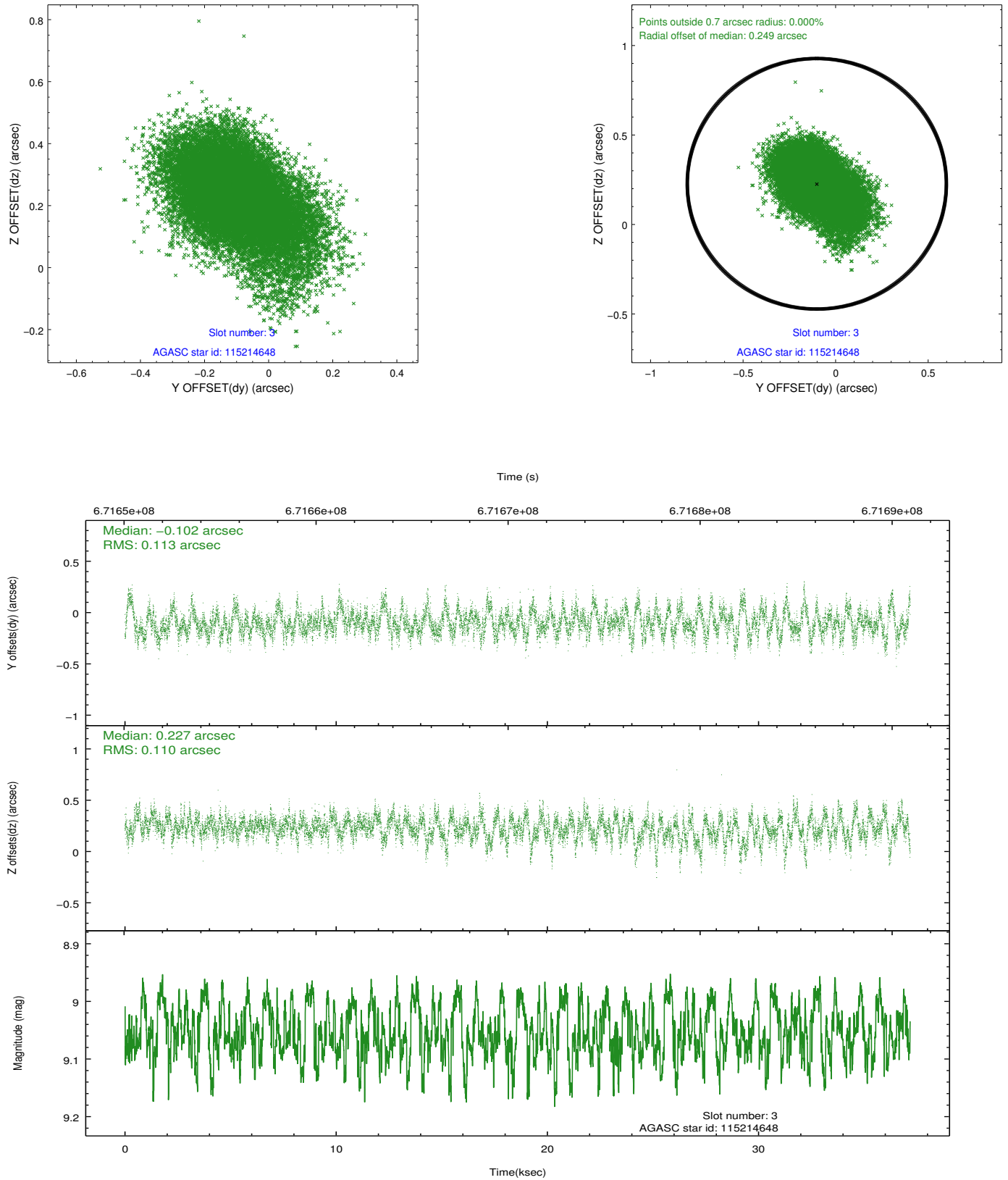


Slot Statistics

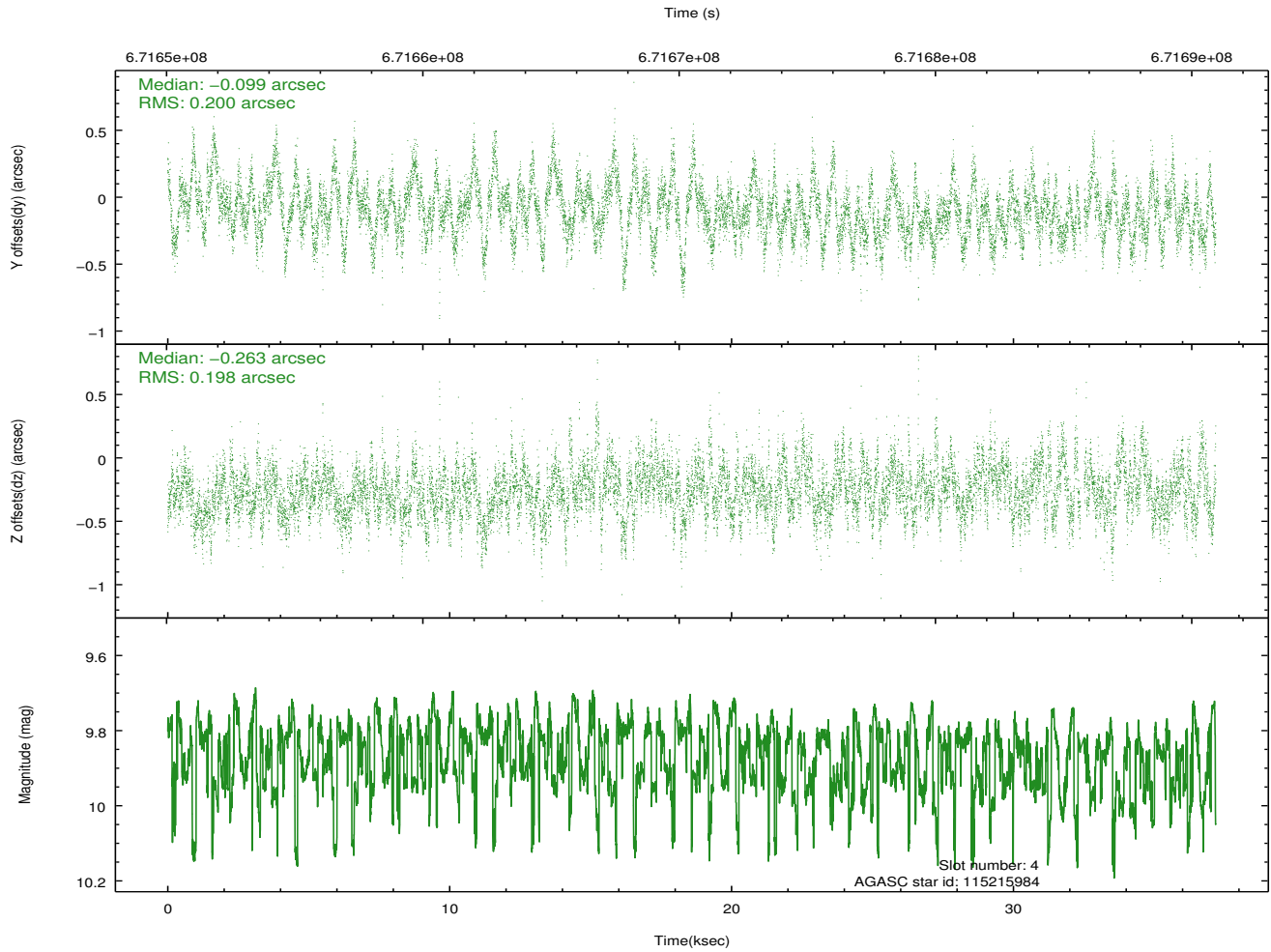
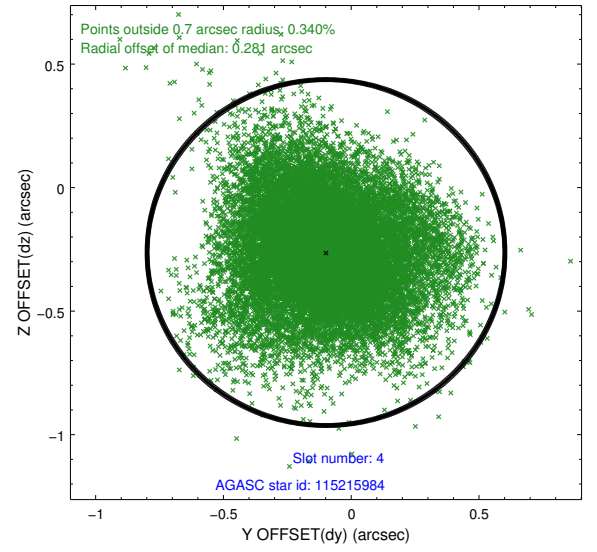
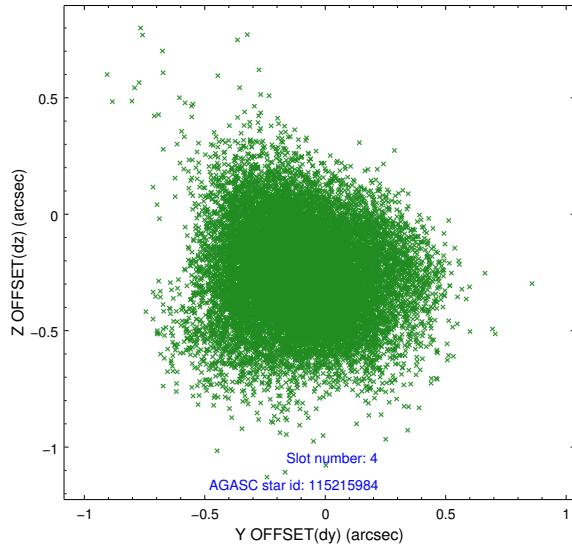
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.05	9069	1.000	-0.247	-0.205	0.021	0.076	0.000000	0.000000	-766.11	-1740
1	FID		ACIS-S-4	7.18	9069	1.000	0.721	0.171	0.011	0.058	0.000000	0.000000	2148.03	168
2	FID		ACIS-S-5	7.14	9069	1.000	-0.509	0.040	0.021	0.096	0.000000	0.000000	-1819.25	161
3	GUIDE	used	115214648	9.06	18115	1.000	-0.102	0.227	0.163	0.285	185.771147	12.685188	1869.66	-301
4	GUIDE	used	115215984	9.86	17961	1.000	-0.099	-0.263	0.298	0.492	186.134733	12.875031	426.70	-176
5	GUIDE	used	115216184	9.60	18106	1.000	-0.270	-0.323	0.211	0.343	185.973150	12.580247	1481.51	406
6	GUIDE	used	115347480	9.63	18100	1.000	0.091	0.134	0.307	0.460	186.668576	13.310410	-1996.73	-472
7	GUIDE	used	115349448	9.69	18040	1.000	0.370	0.215	0.244	0.433	186.471080	13.770115	-2315.95	-2238

2.4 Star Slots

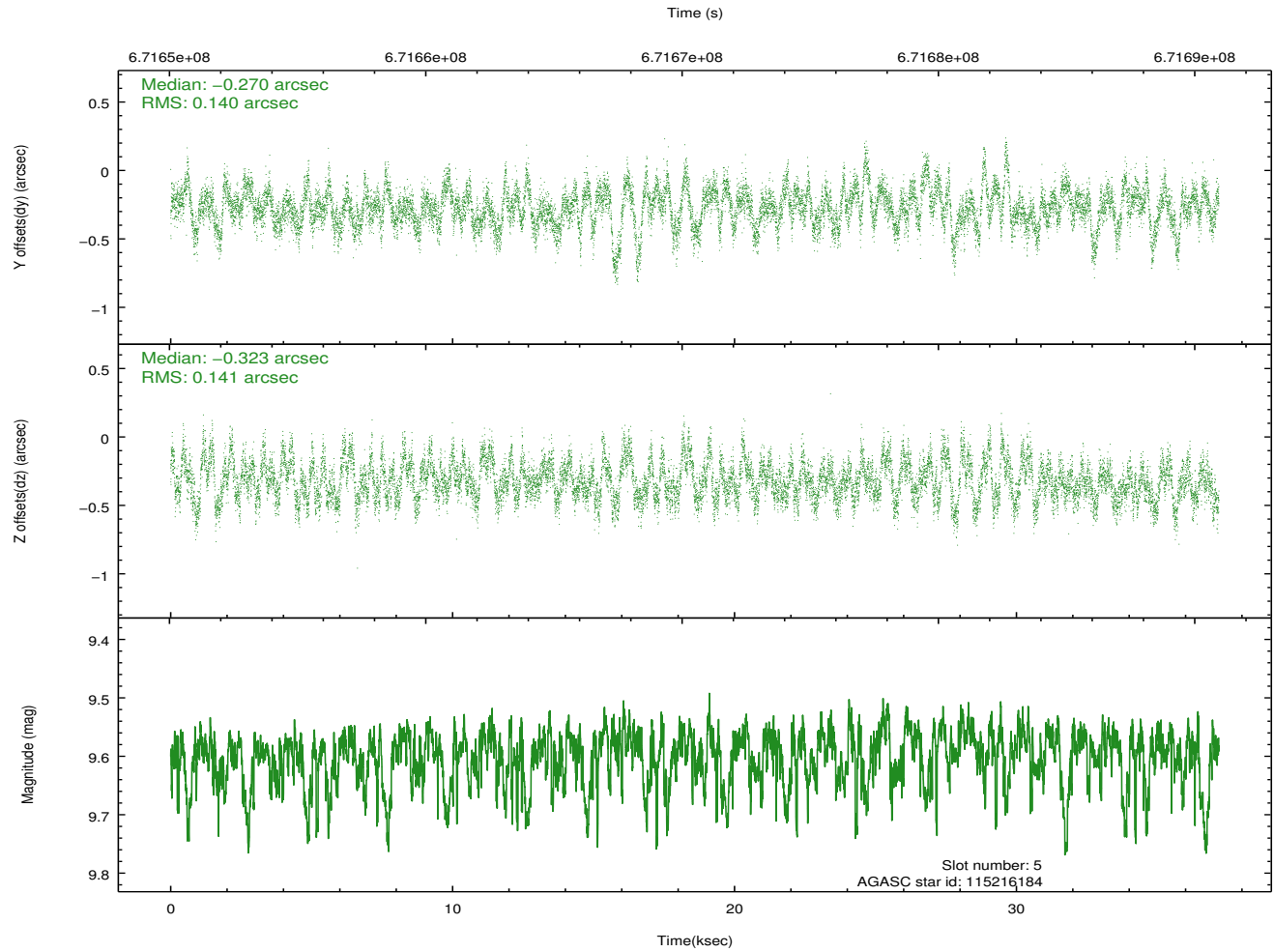
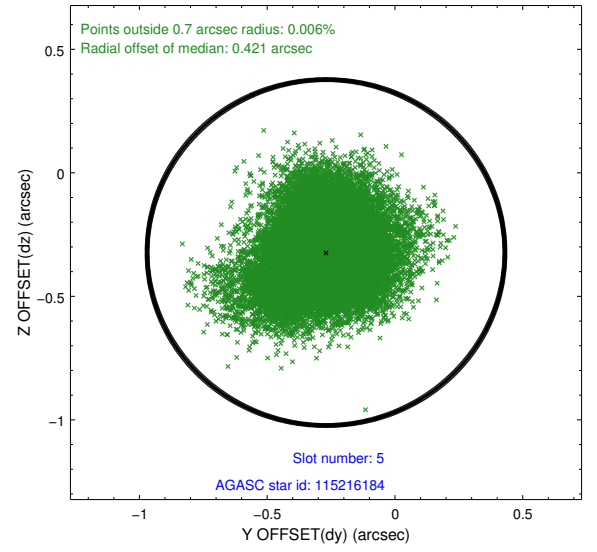
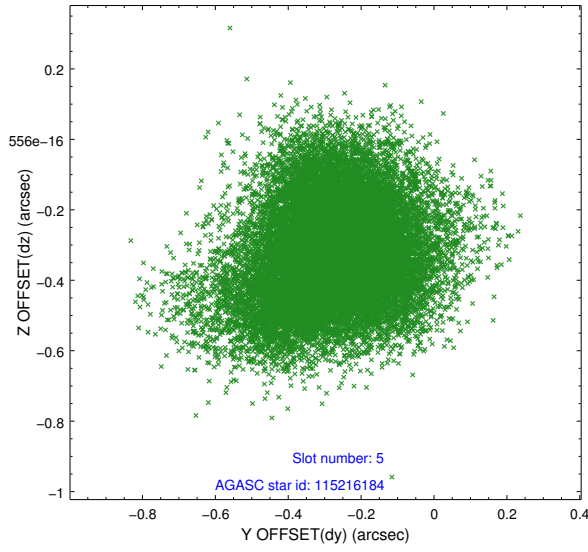
2.4.1 Slot 3



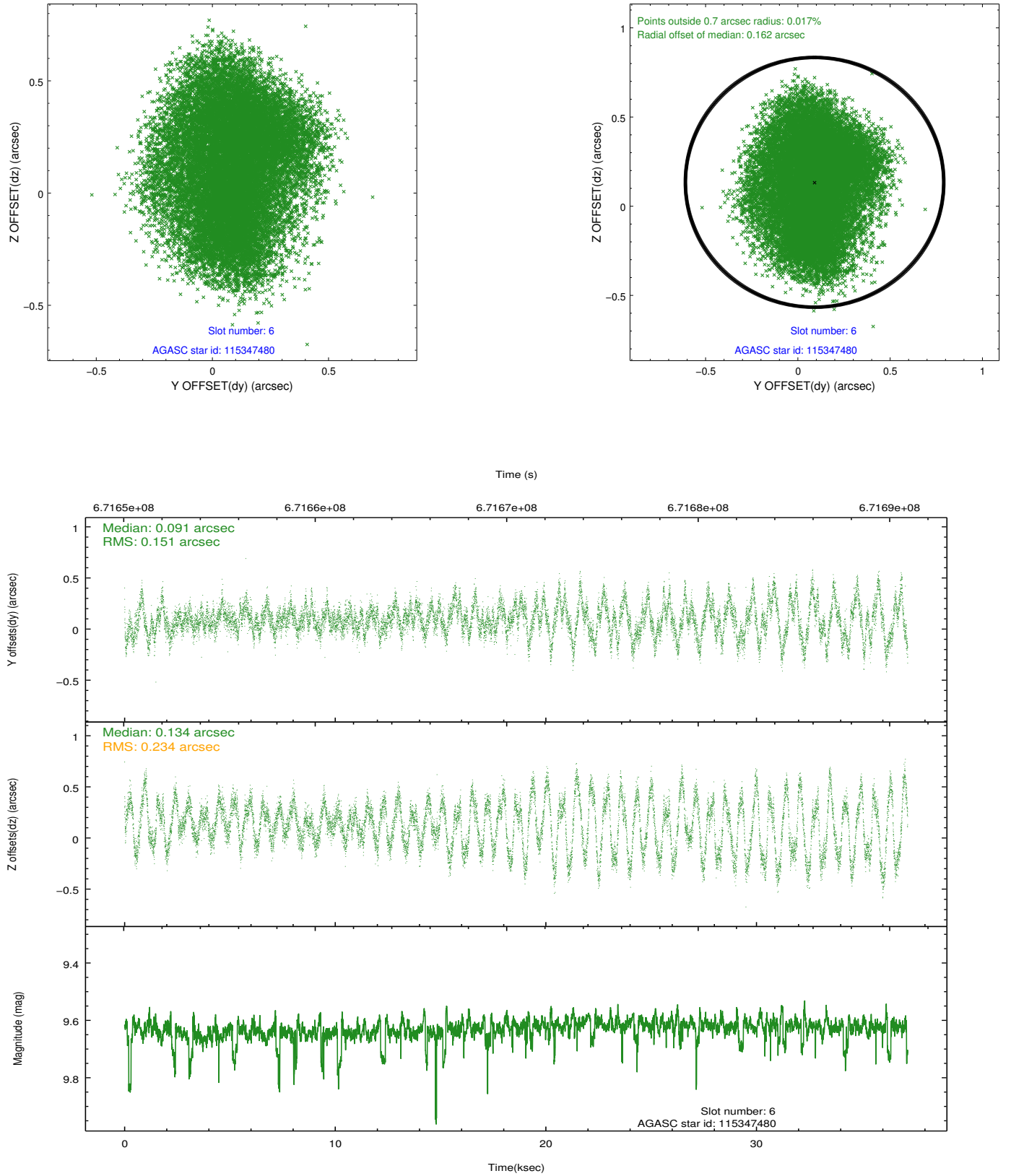
2.4.2 Slot 4



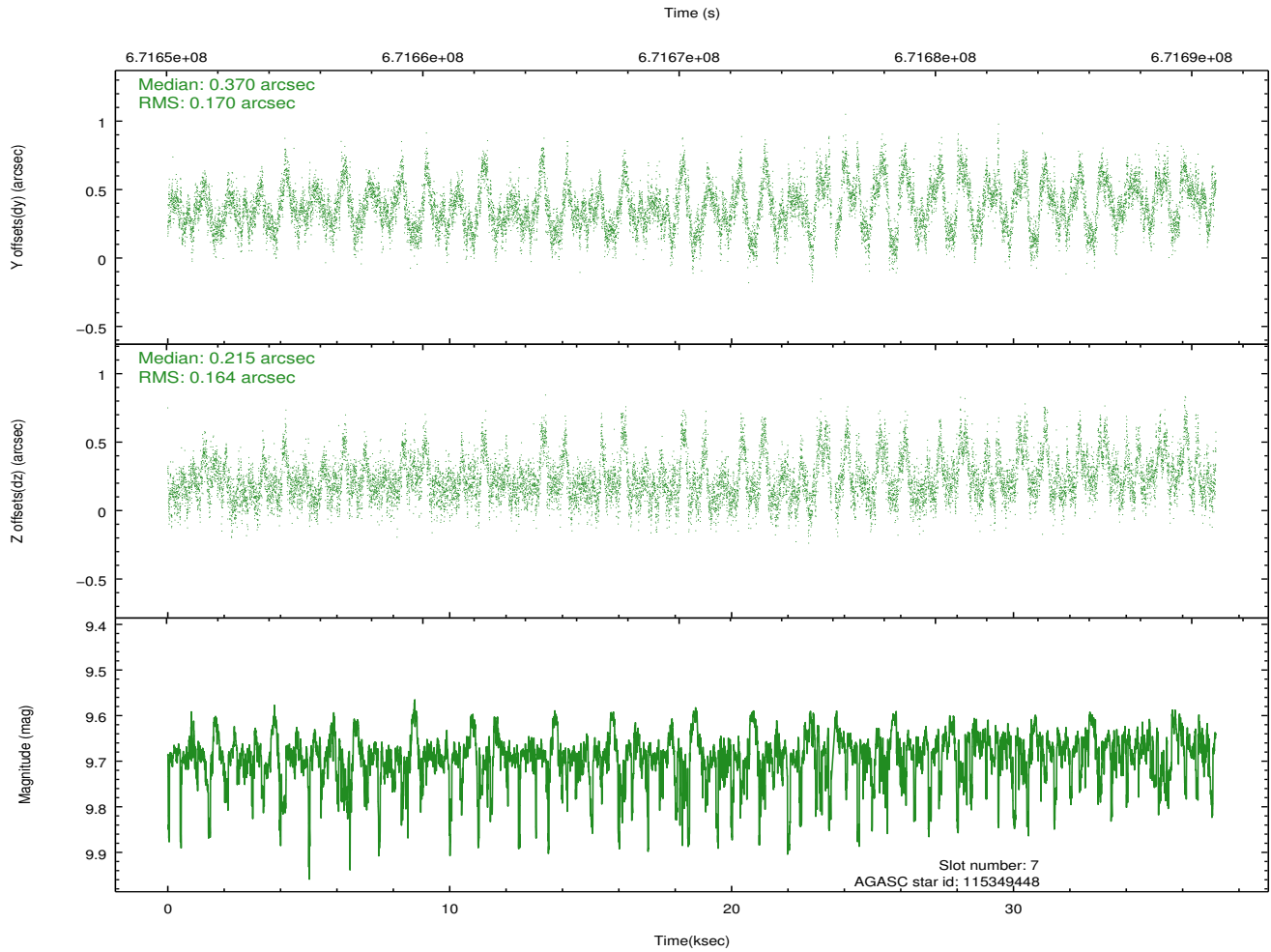
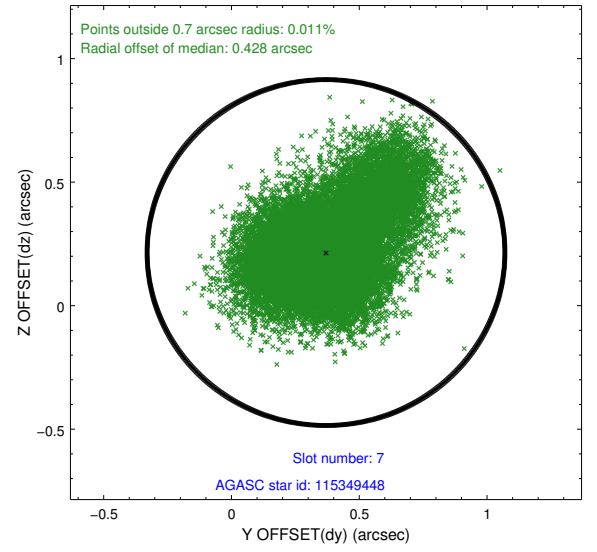
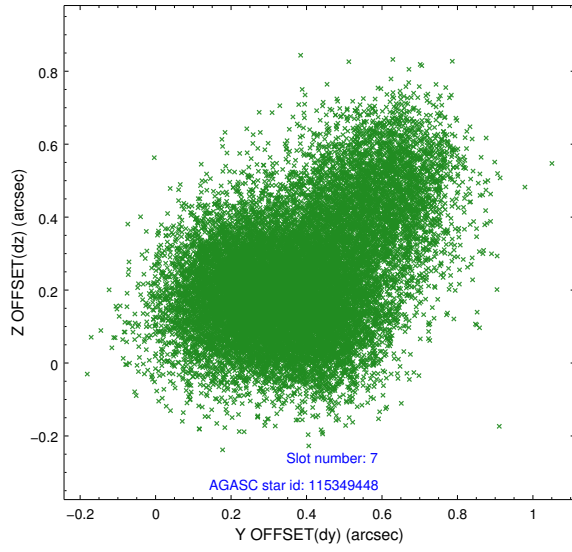
2.4.3 Slot 5



2.4.4 Slot 6

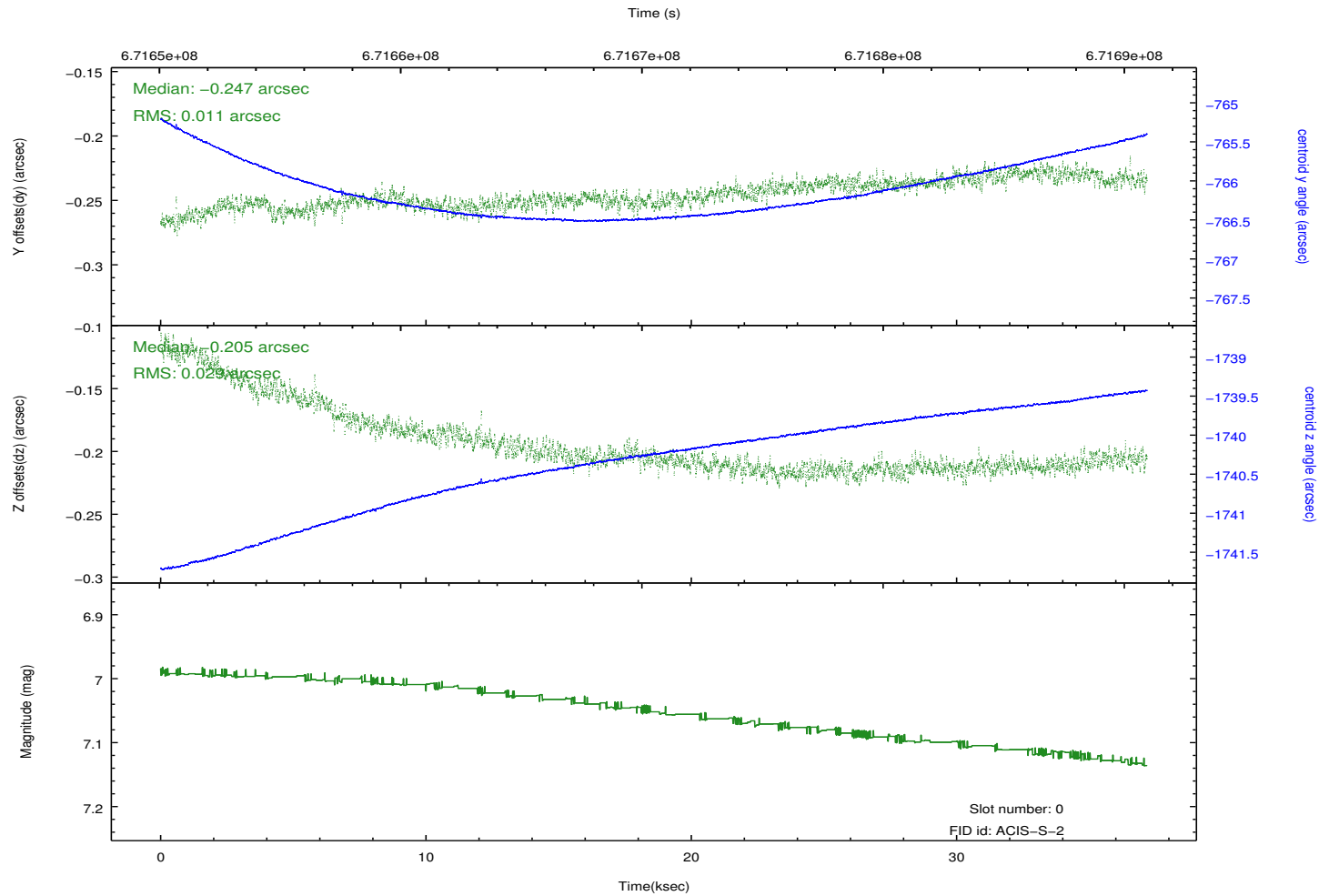
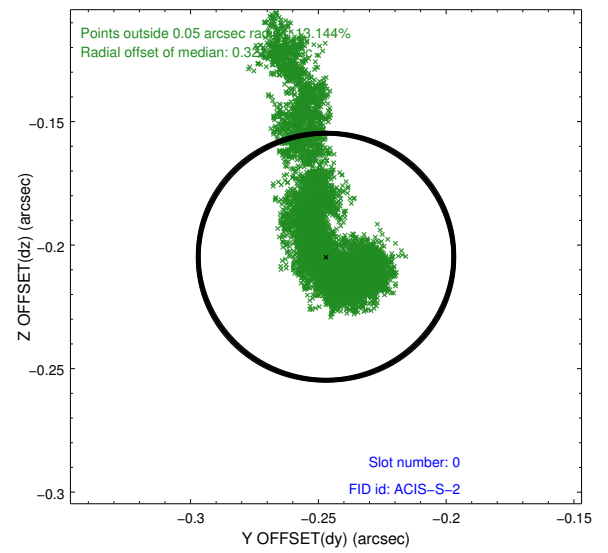
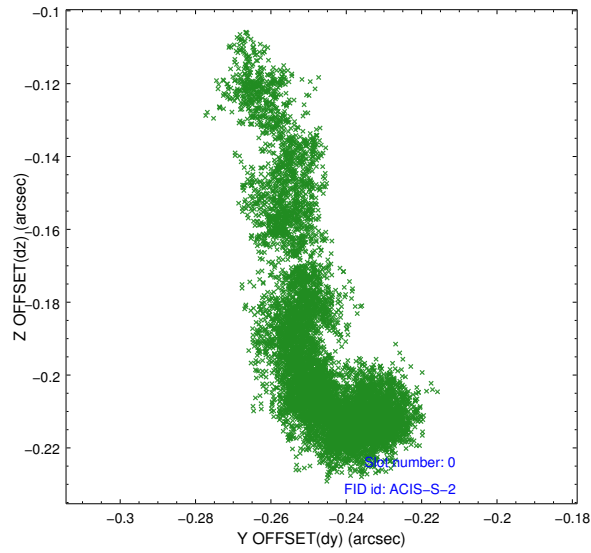


2.4.5 Slot 7

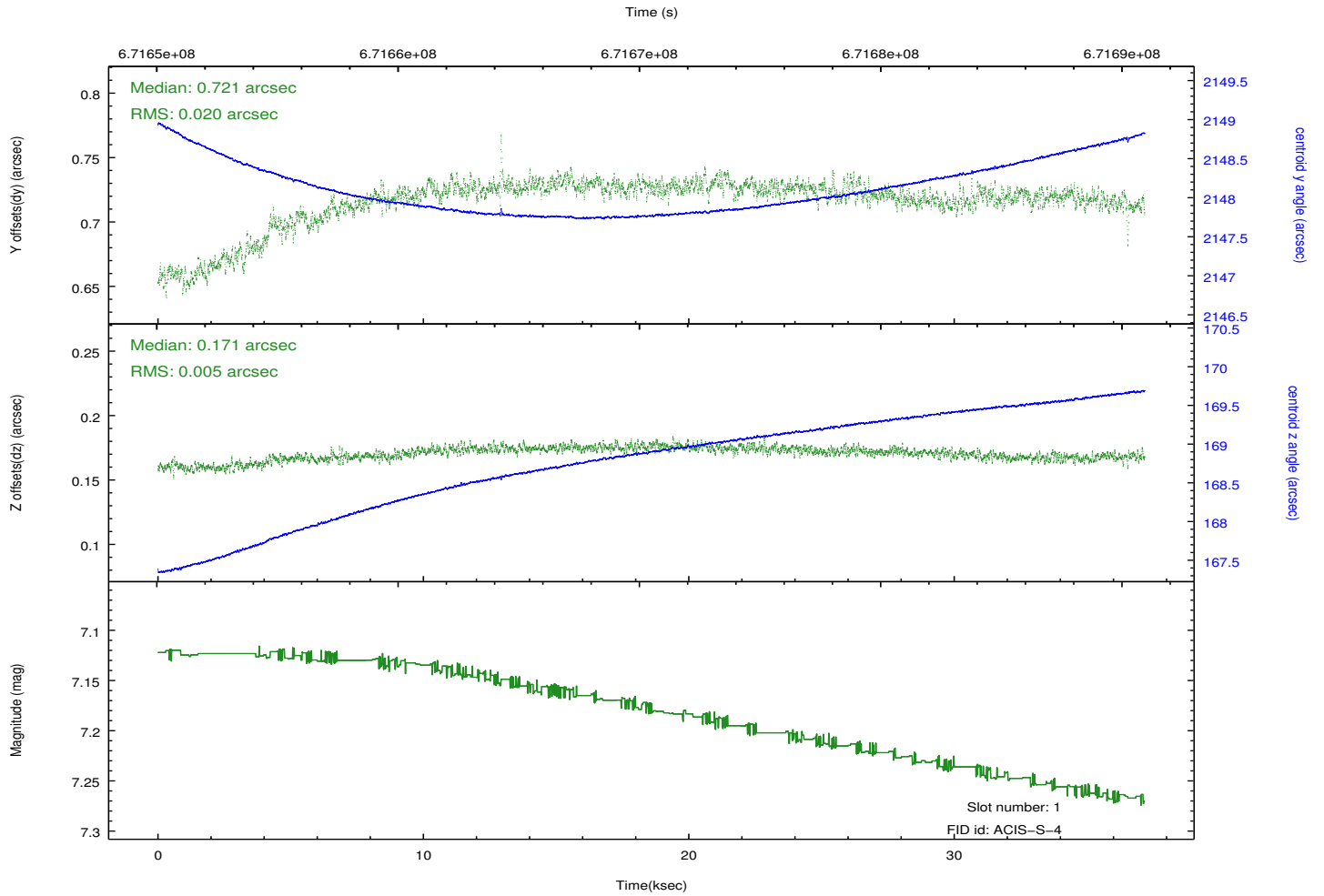
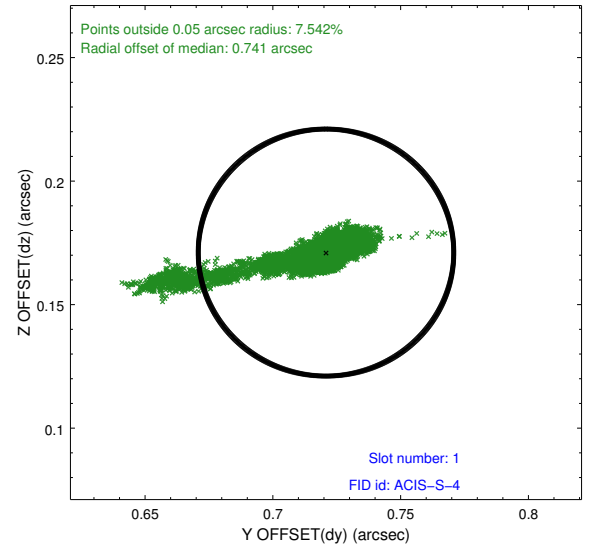
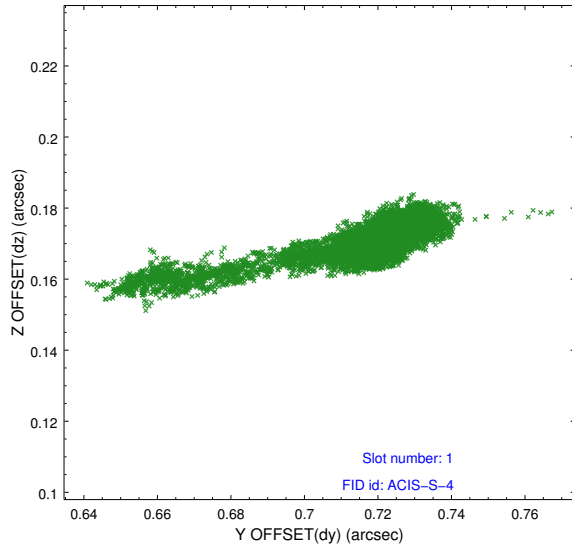


2.5 FID Slots

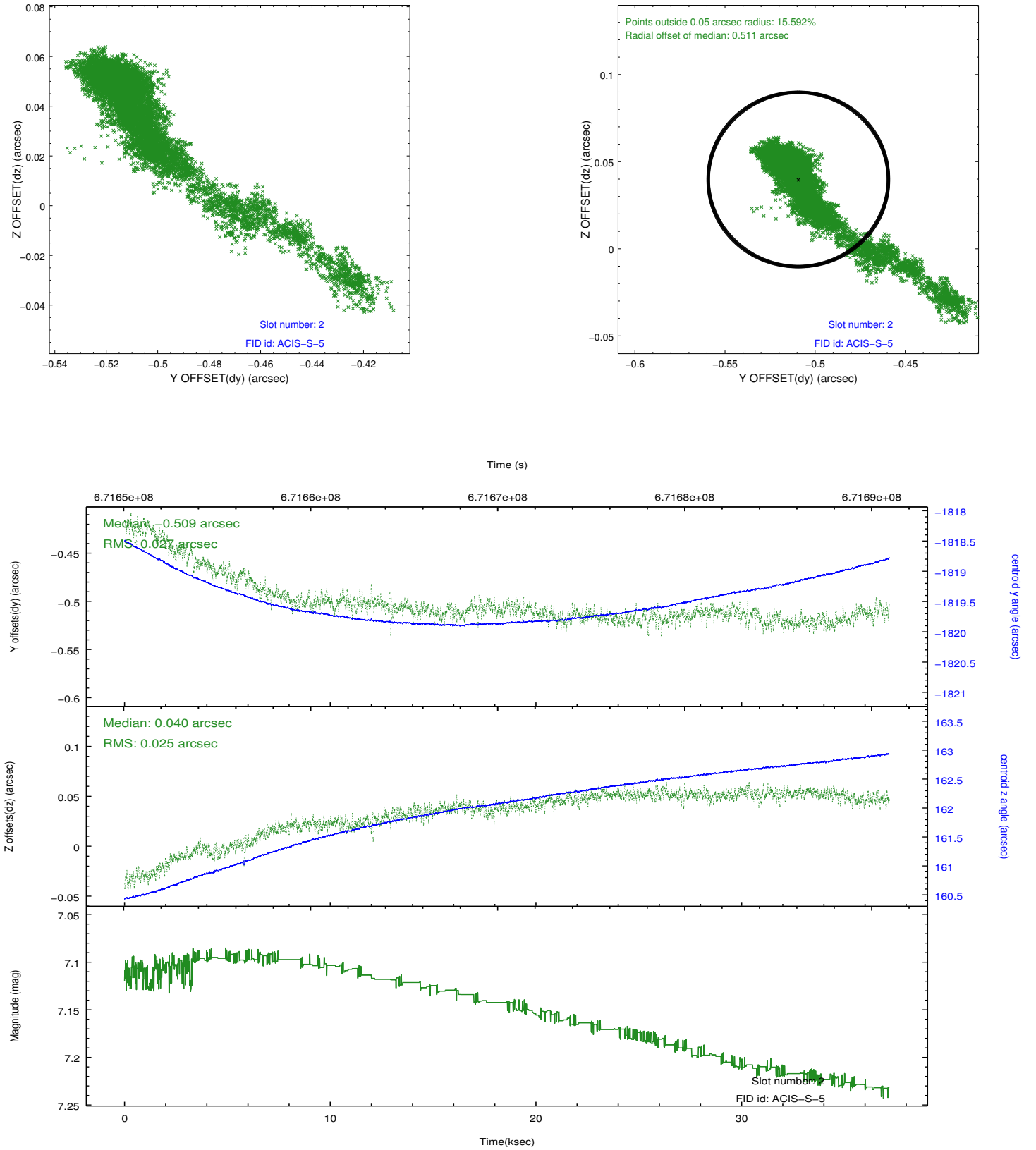
2.5.1 Slot 0



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)	2019.04.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	37.063600285172

A.2 Comments

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).

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Two optional chips were dropped.