

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 22864 - L2 Version 2
Chandra X-Ray Center

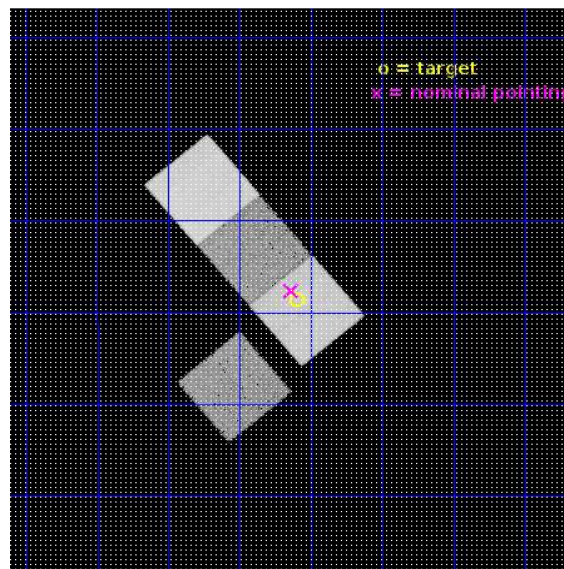
L2 Processing Date : Oct 8 2019

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1 Front

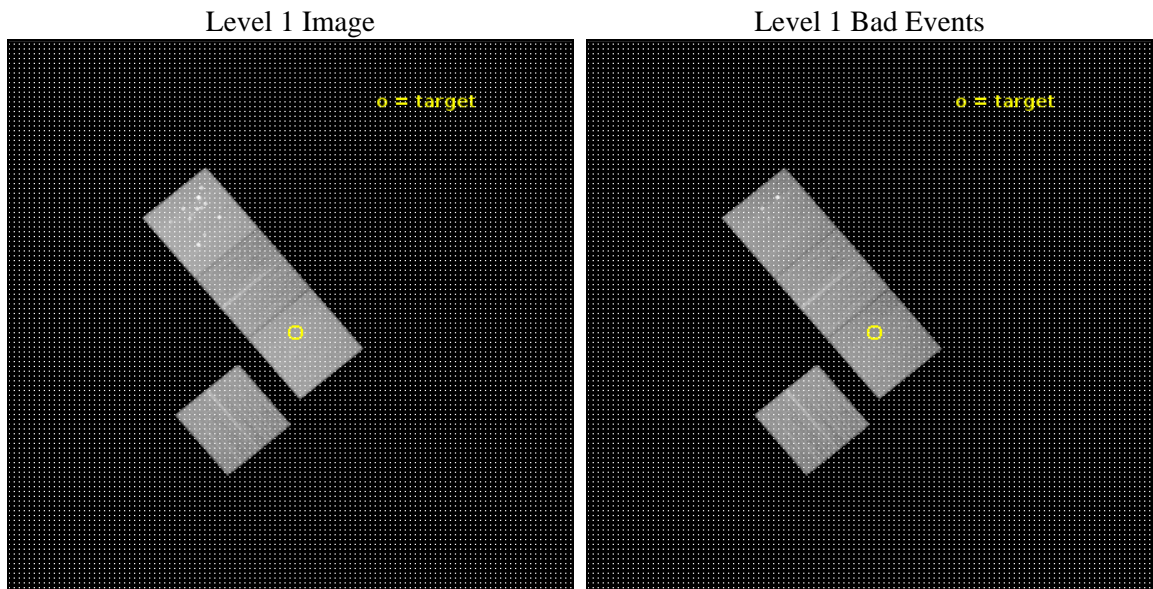
seq_num	801876	Sequence number
obs_id	22864	Observation id
title	Spiraling into the 'quotation mark' cluster	Proposal title
observer	Ming Sun	Principal investigator
object	MCXC J0157.4-0550	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	29.399917	Observer's specified target RA [deg]
dec_targ	-5.810972	Observer's specified target Dec [deg]
ra_nom	29.409256491899	Nominal RA [deg]
dec_nom	-5.7939336216739	Nominal Dec [deg]
roll_nom	50.157569851513	Nominal Roll [deg]
revision	2	Processing version of data
ontime	33063.62909627	Sum of GTIs [s]
livetime	32631.628441037	Livetime [s]
ontime3	33063.505976319	Sum of GTIs [s]
ontime5	33063.588056326	Sum of GTIs [s]
ontime6	33063.547016263	Sum of GTIs [s]
ontime7	33063.62909627	Sum of GTIs [s]
l2events	376368	Number of level 2 events



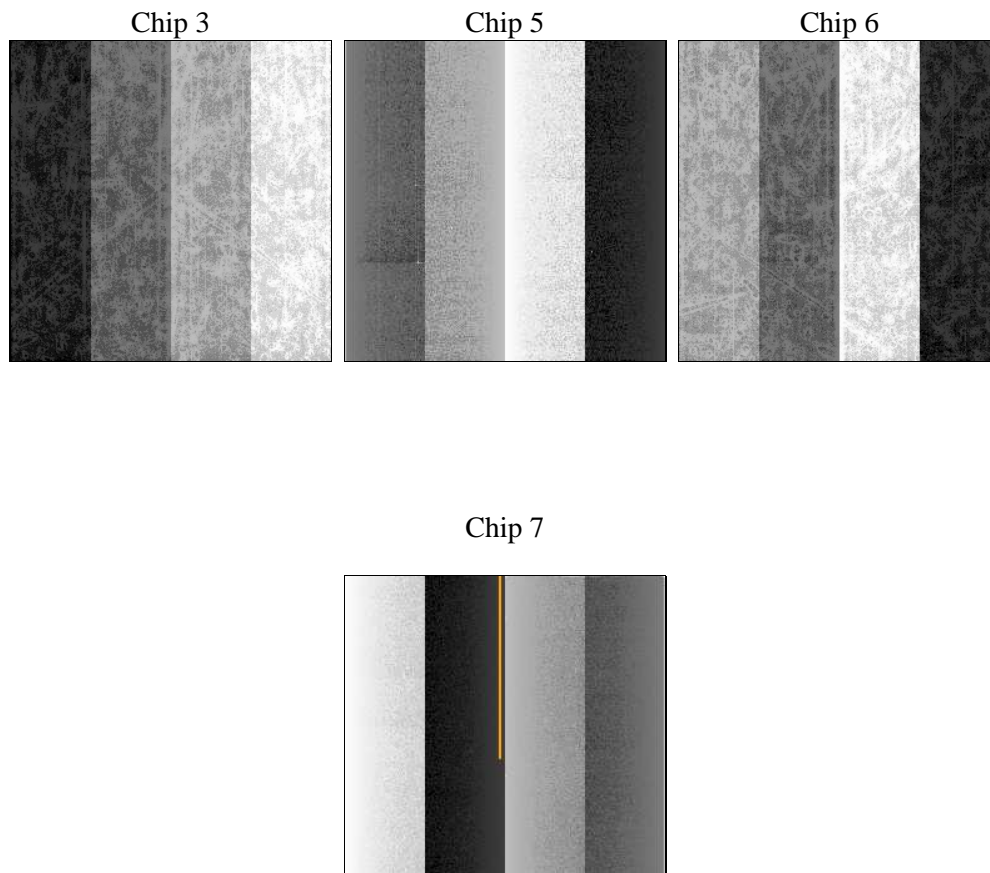
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	33000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	33063.62909627	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime3	33063.505976319	Sum of GTIs [s]
date	2019-10-08T22:14:58	Date and time of file creation	ontime5	33063.588056326	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	33063.547016263	Sum of GTIs [s]
			ontime7	33063.62909627	Sum of GTIs [s]
			l1events	1289164	Number of level 1 events

2.1.4 Events

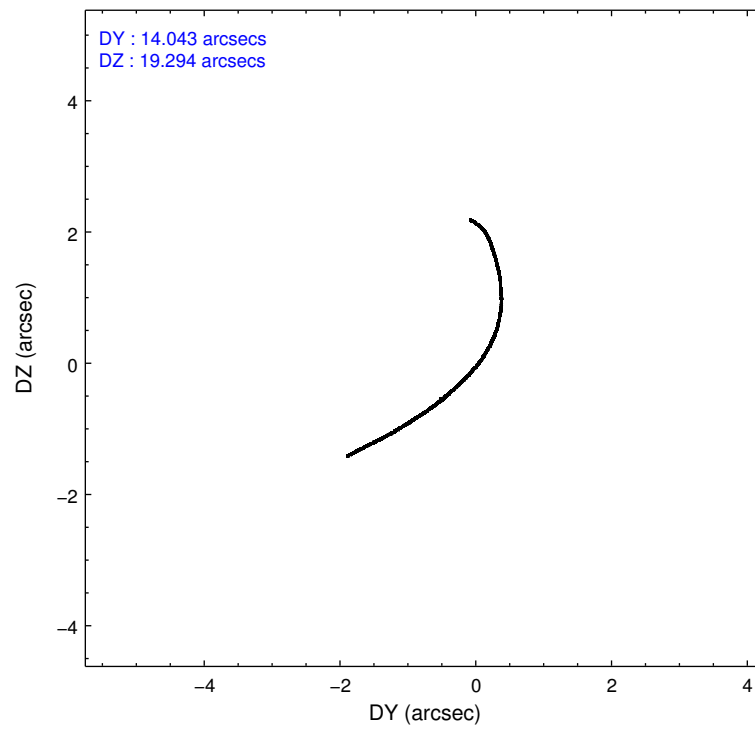
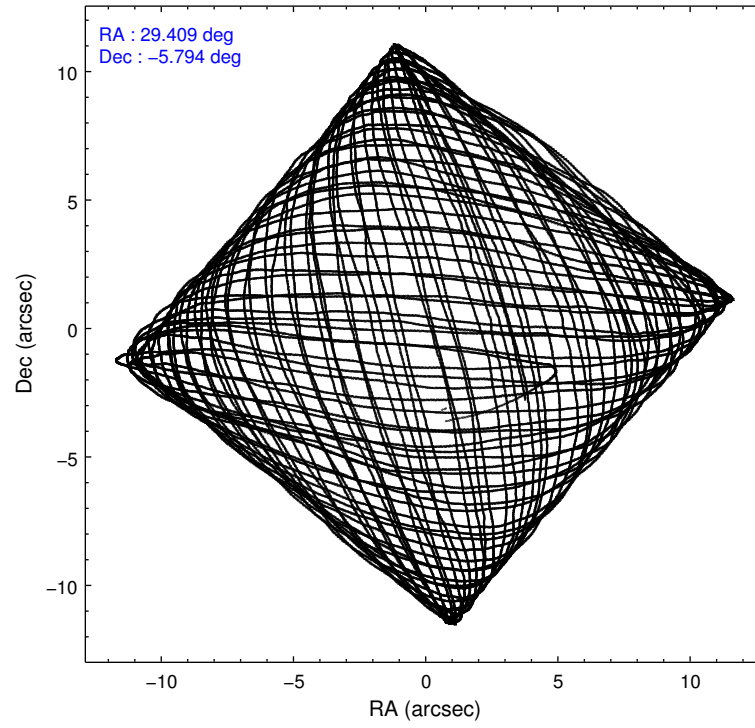
	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	237482	462520	255420	333742
rejected events	211768	224243	227102	187098
rejected %	89%	48%	88%	56%

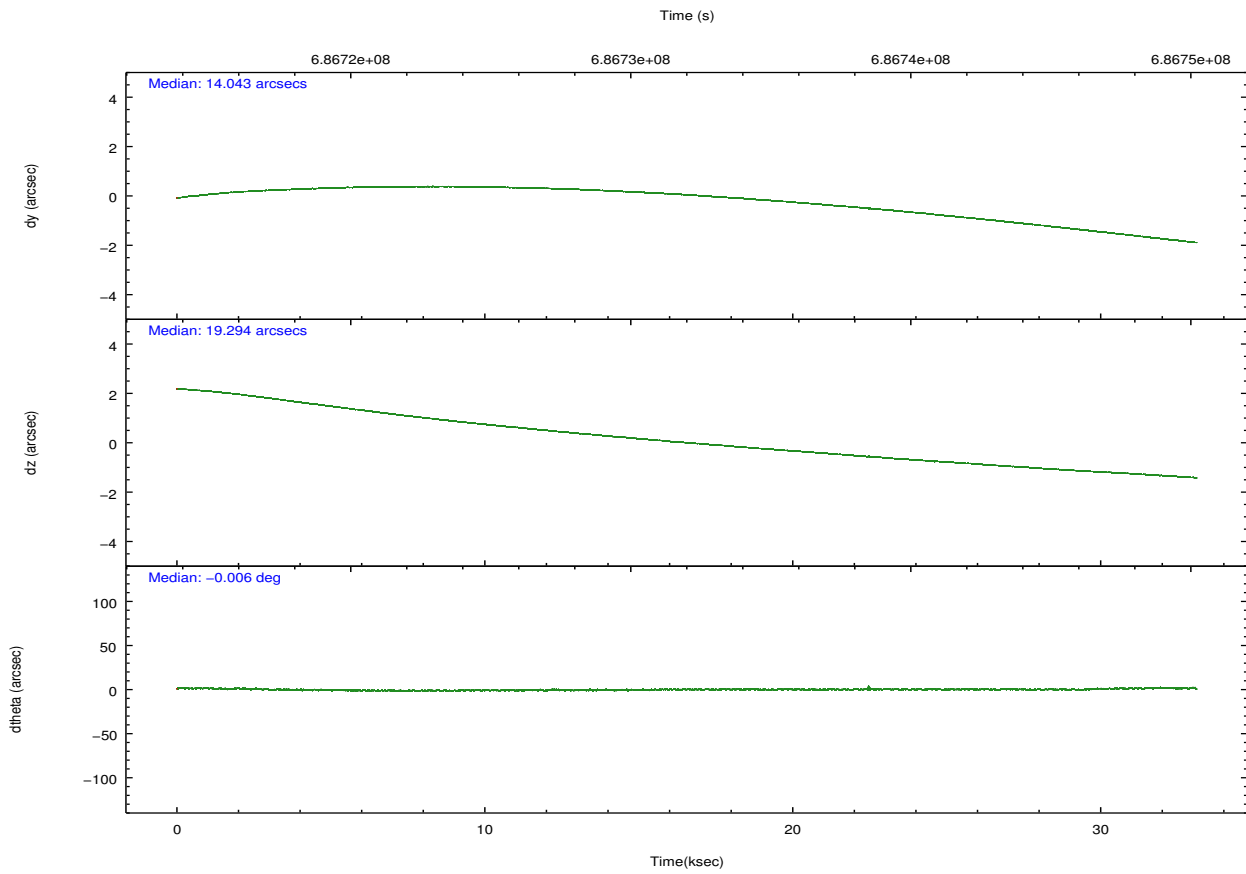
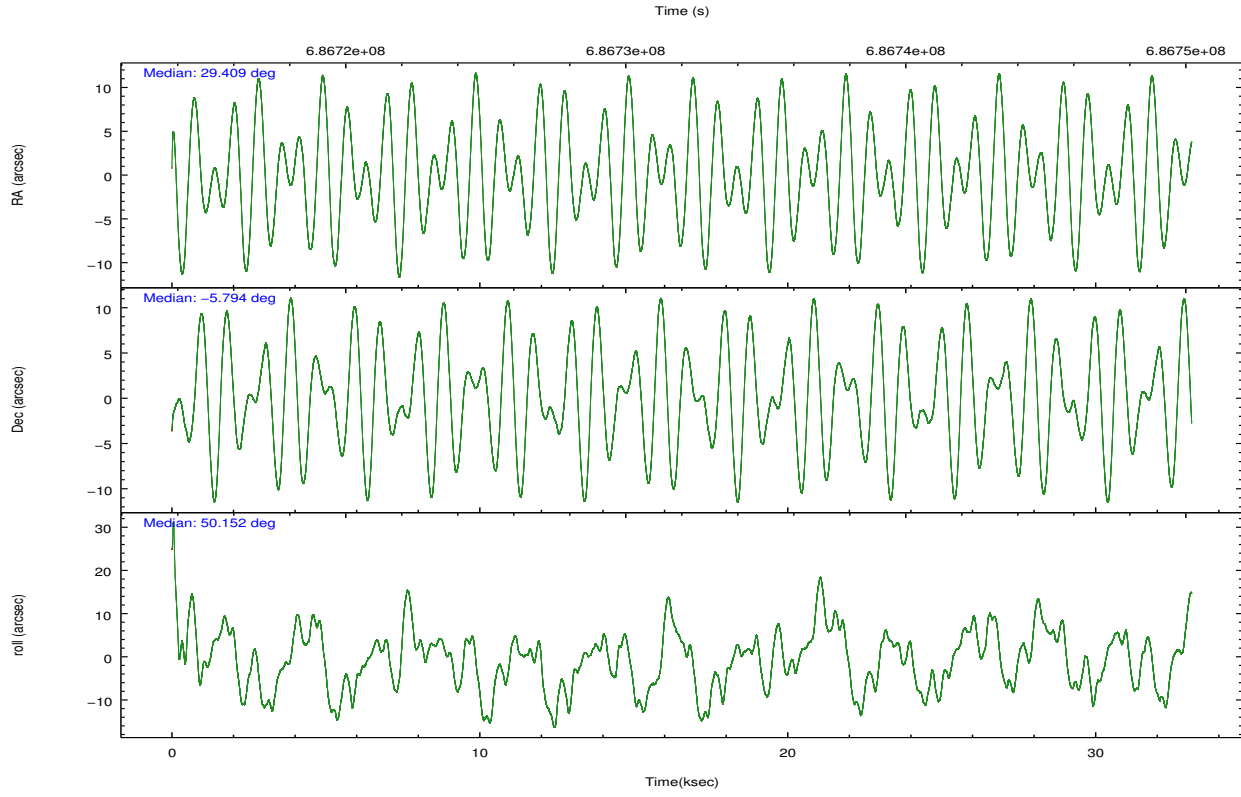
	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	8988	49308	9071	13030
	3%	10%	3%	3%
grade 1 events	139	993	140	491
	0%	0%	0%	0%
grade 2 events	5653	69256	6867	31896
	2%	14%	2%	9%
grade 3 events	2749	6625	2699	11546
	1%	1%	1%	3%
grade 4 events	2751	5495	2646	11410
	1%	1%	1%	3%
grade 5 events	11465	28238	11708	32275
	4%	6%	4%	9%
grade 6 events	5579	107652	7035	78783
	2%	23%	2%	23%
grade 7 events	200158	194953	215254	154311
	84%	42%	84%	46%

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	29.404908	29.40925649189883	CCD I2 on	O1	N
[deg] Pointing Dec	-5.821044	-5.793933621673873	CCD I3 on	Y	Y
[deg] Pointing Roll	50.000503	50.15756985151253	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	N	N
[s] Observation start time (MET)	686715570.184000	686714275.07743	CCD S5 on	N	N
Observation start date	2019-10-06T02:18:21	2019-10-06T01:57:55	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	686748570.184000	686749425.40455	On-chip summing requested	N	N
Observation end date	2019-10-06T11:28:21	2019-10-06T11:43:45	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





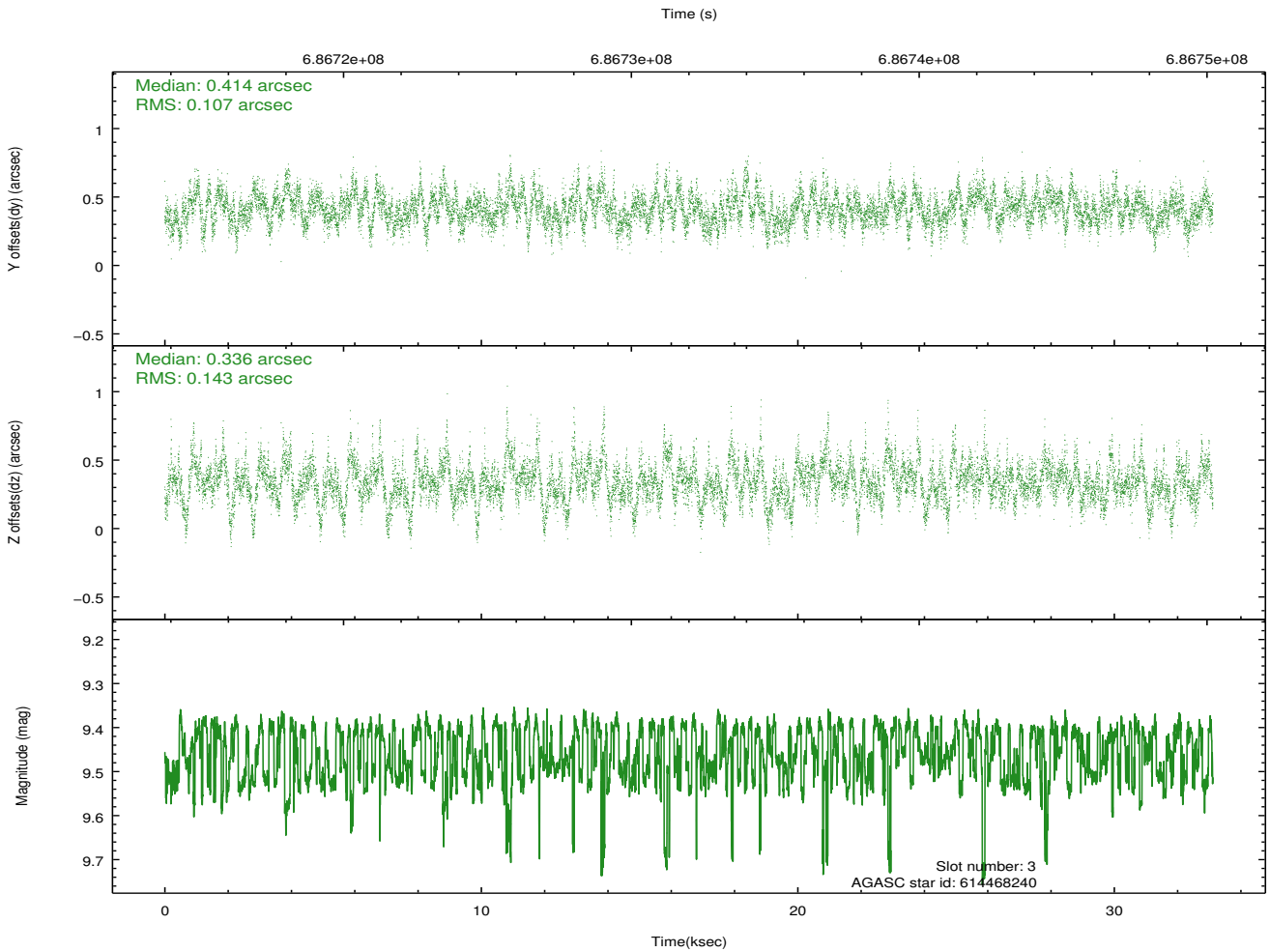
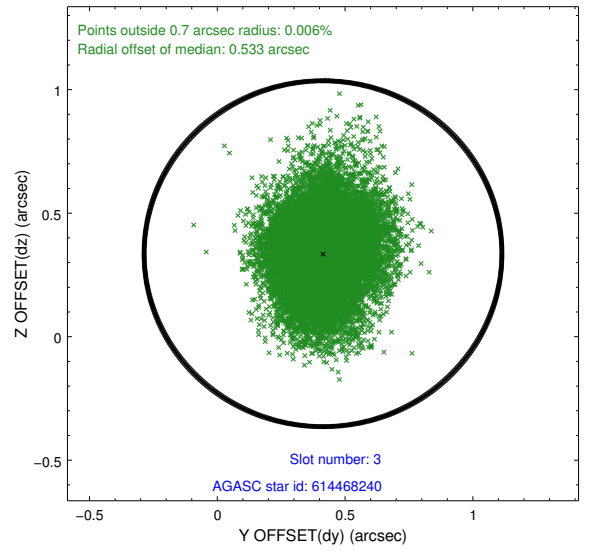
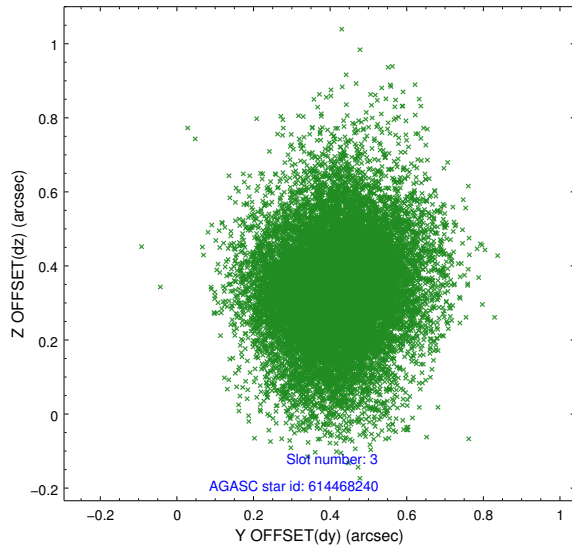
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.03	8077	1.000	-0.272	-0.193	0.043	0.056	0.000000	0.000000	-766.90	-1741
1	FID		ACIS-S-4	7.16	8078	1.000	0.756	0.181	0.024	0.061	0.000000	0.000000	2147.31	167
2	FID		ACIS-S-5	7.12	8078	1.000	-0.517	0.018	0.039	0.049	0.000000	0.000000	-1819.99	161
3	GUIDE	used	614468240	9.46	16105	1.000	0.414	0.336	0.185	0.315	29.532004	-6.036192	-300.80	-846
4	GUIDE	used	614469136	10.05	16069	1.000	0.064	-0.287	0.308	0.472	29.141549	-5.680215	-218.72	1047
5	GUIDE	used	614472688	9.73	16118	1.000	0.042	0.454	0.243	0.388	29.835321	-6.114229	180.73	-1859
6	GUIDE	used	614474240	9.01	16135	1.000	-0.384	-0.547	0.173	0.265	29.416788	-5.233432	1646.59	1320
7	GUIDE	used	614478000	9.56	15951	1.000	-0.139	0.025	0.287	0.448	29.986360	-5.420986	2443.19	-673

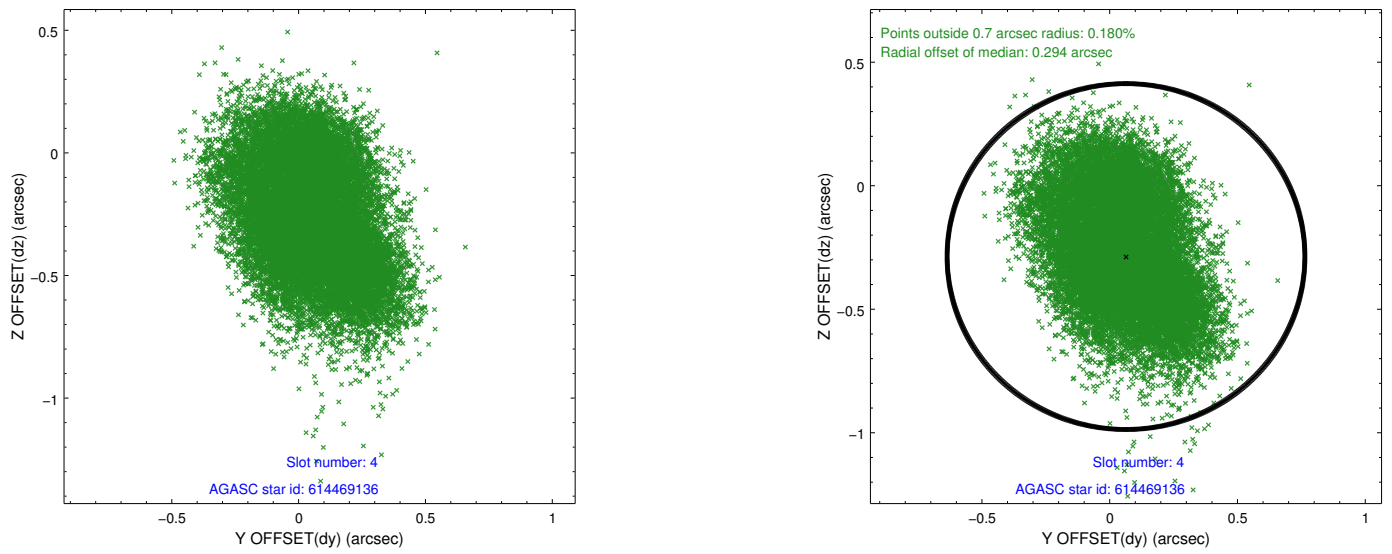
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2.4 Star Slots

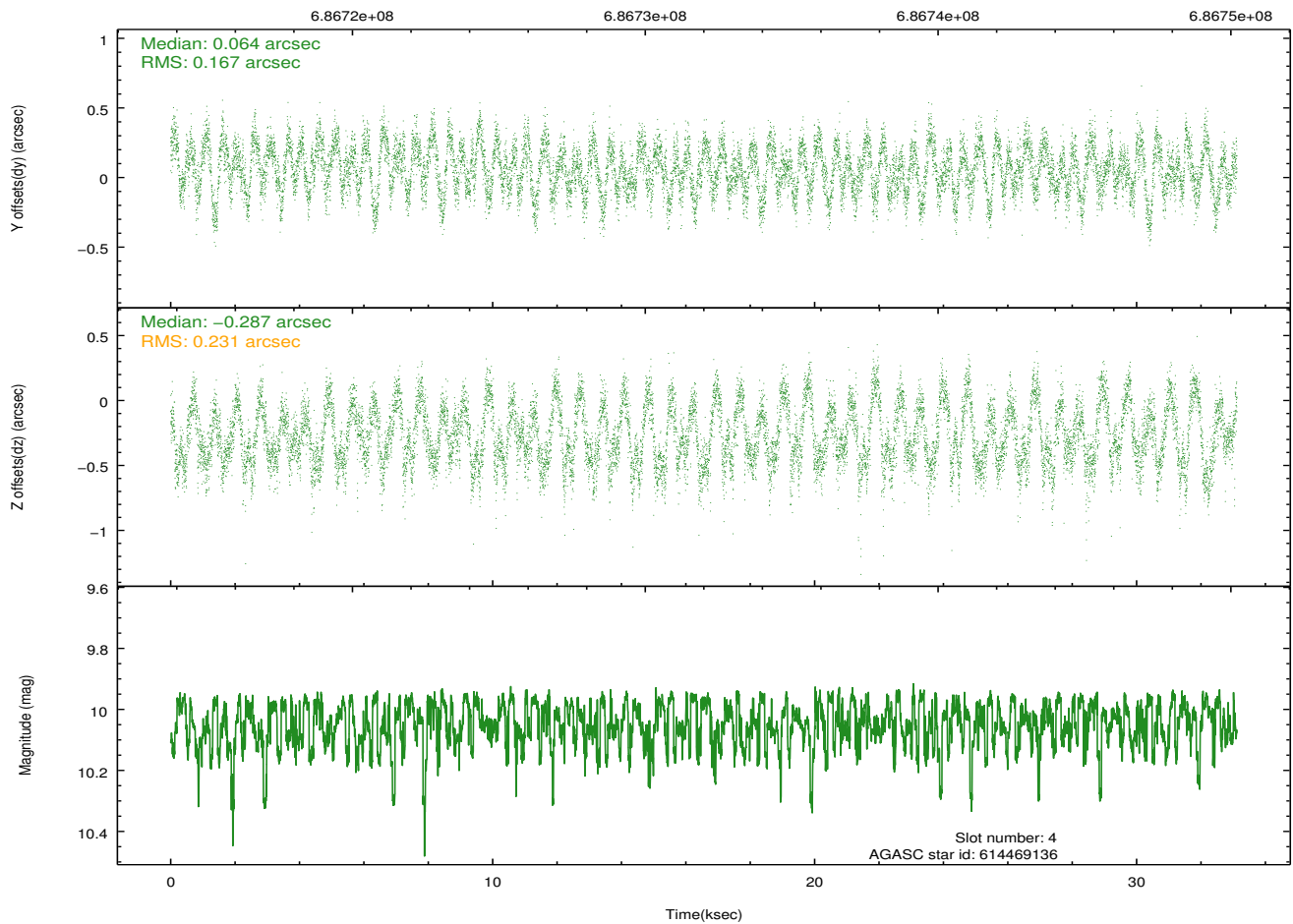
2.4.1 Slot 3



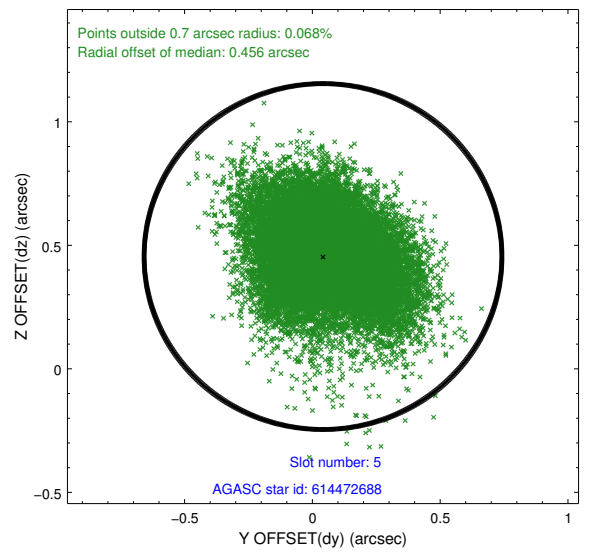
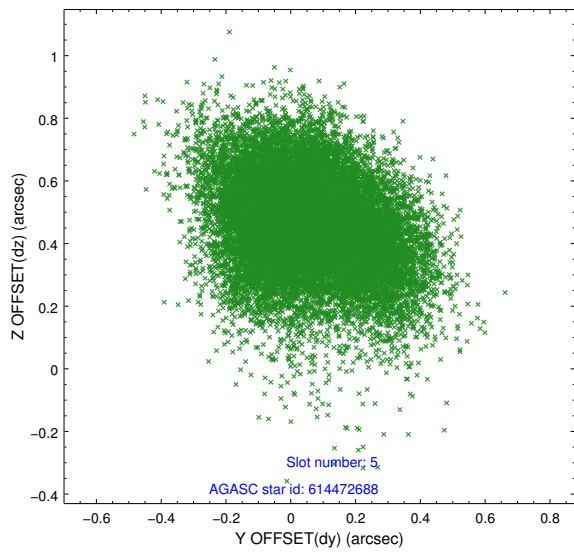
2.4.2 Slot 4



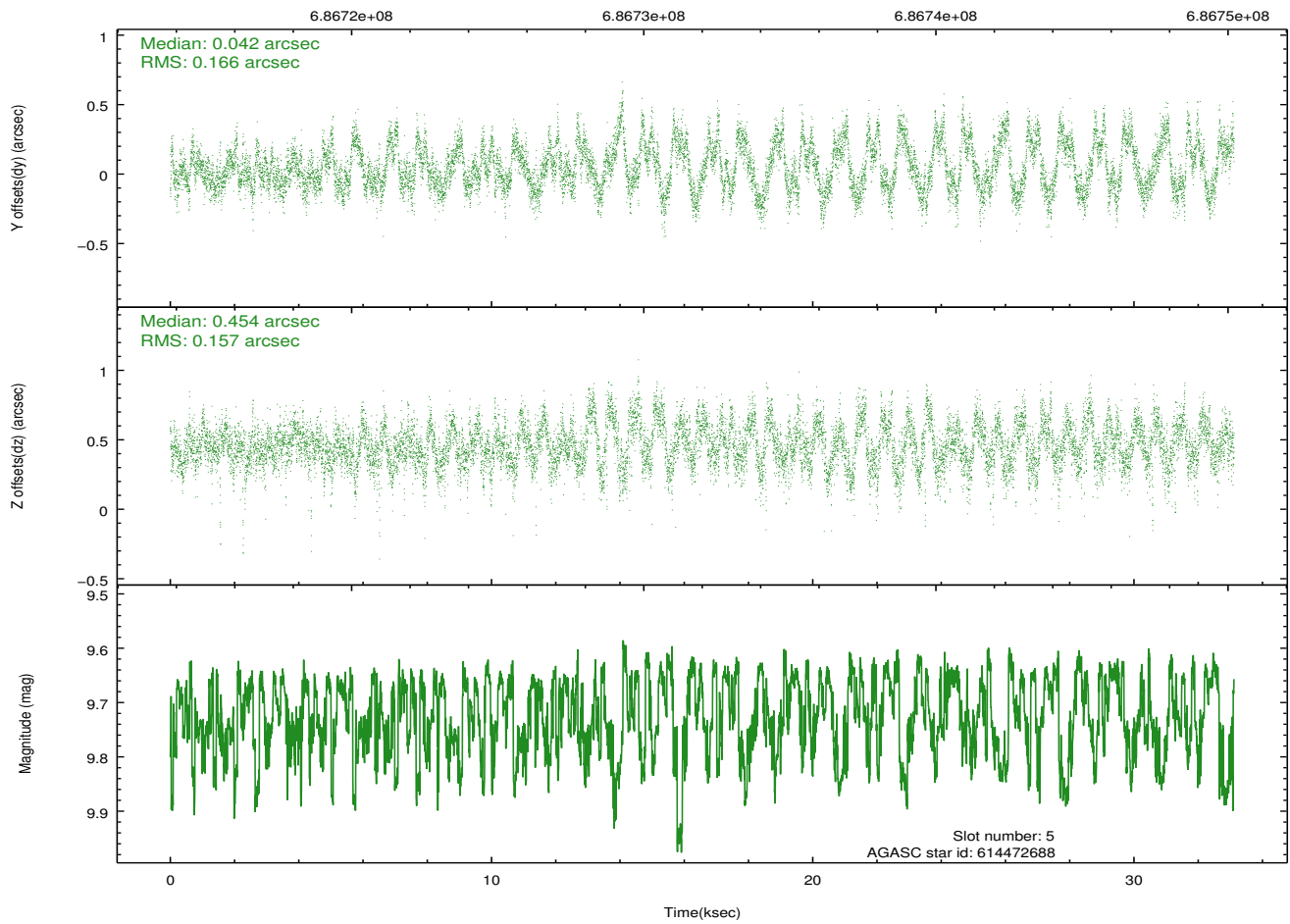
Time (s)



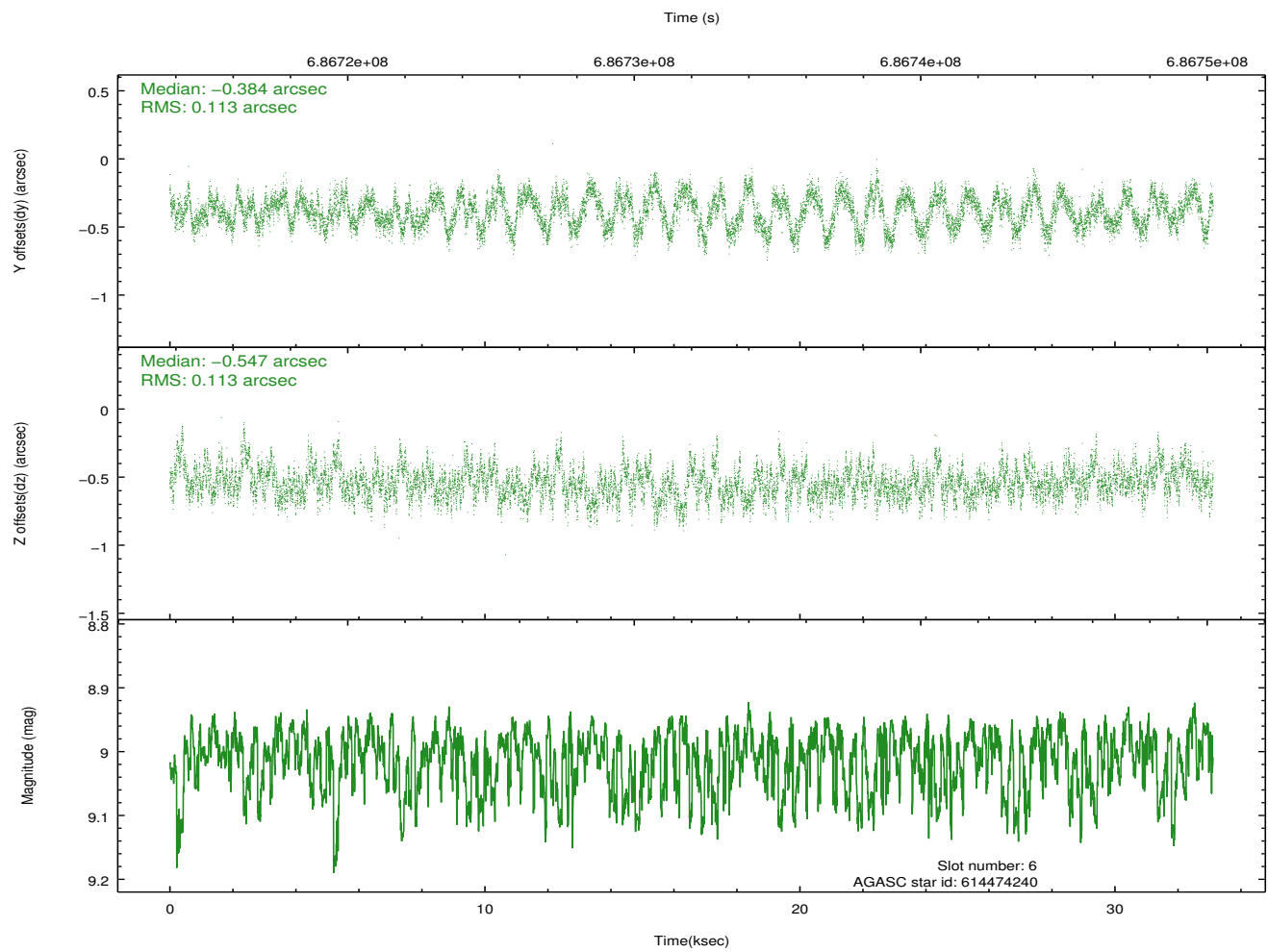
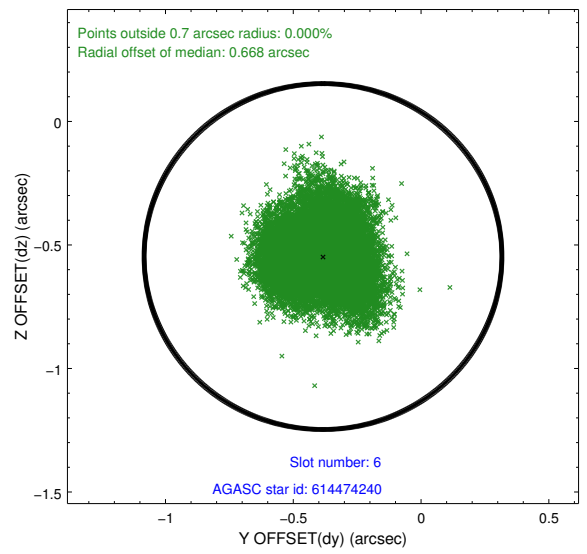
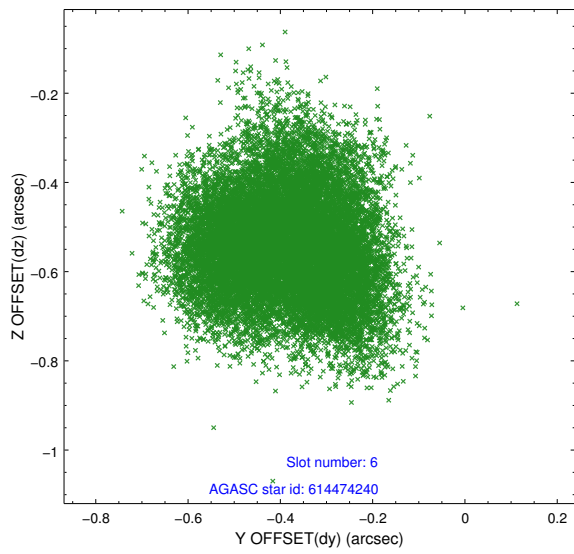
2.4.3 Slot 5



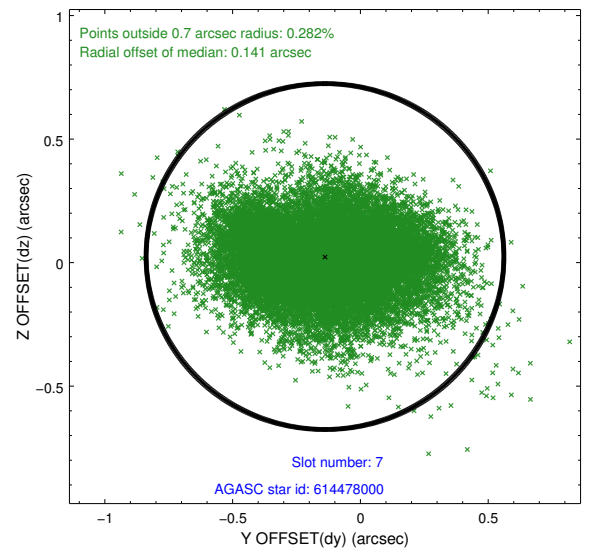
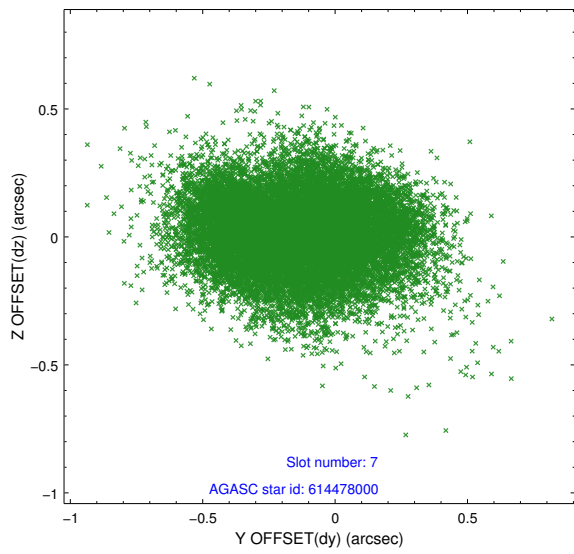
Time (s)



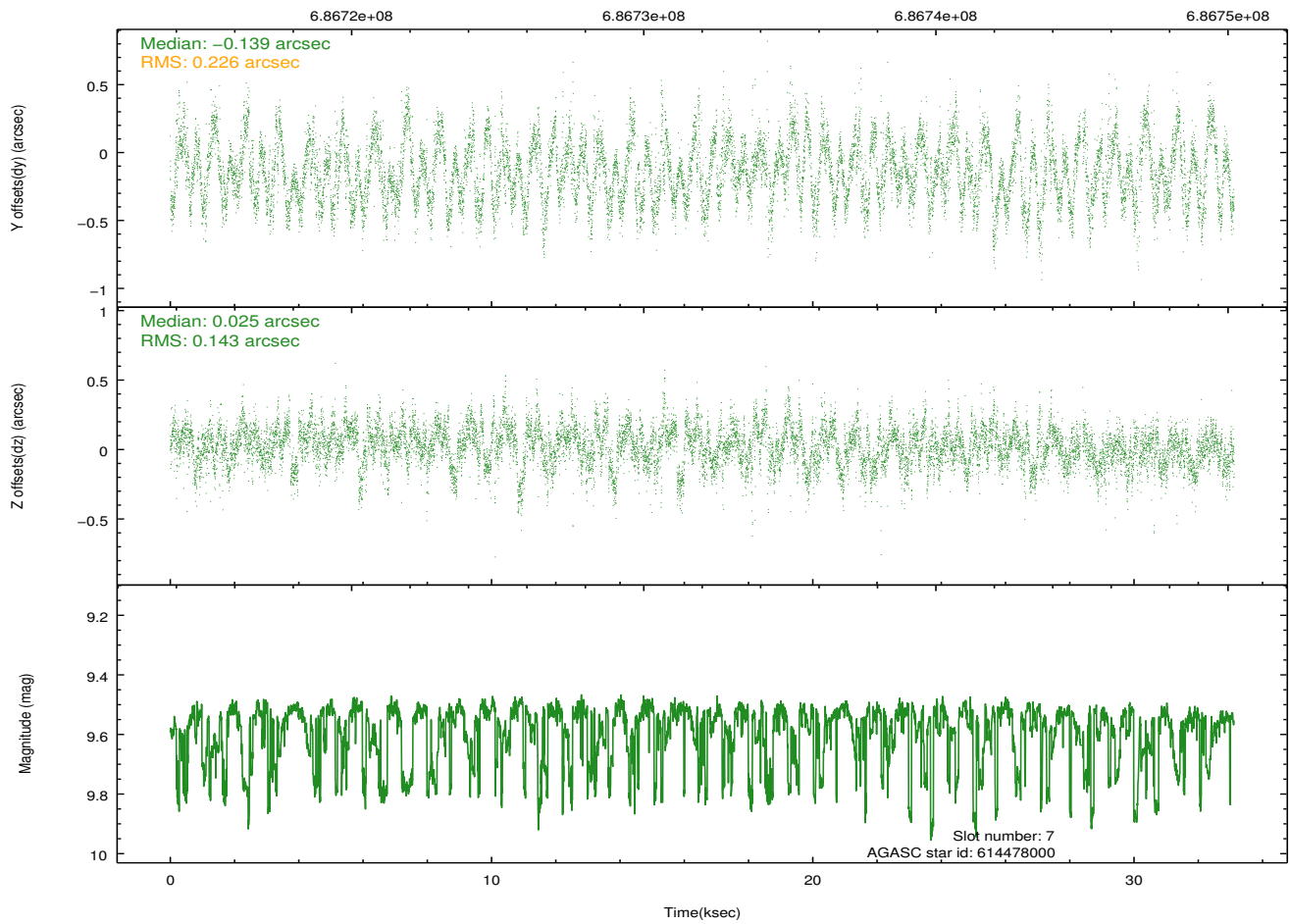
2.4.4 Slot 6



2.4.5 Slot 7

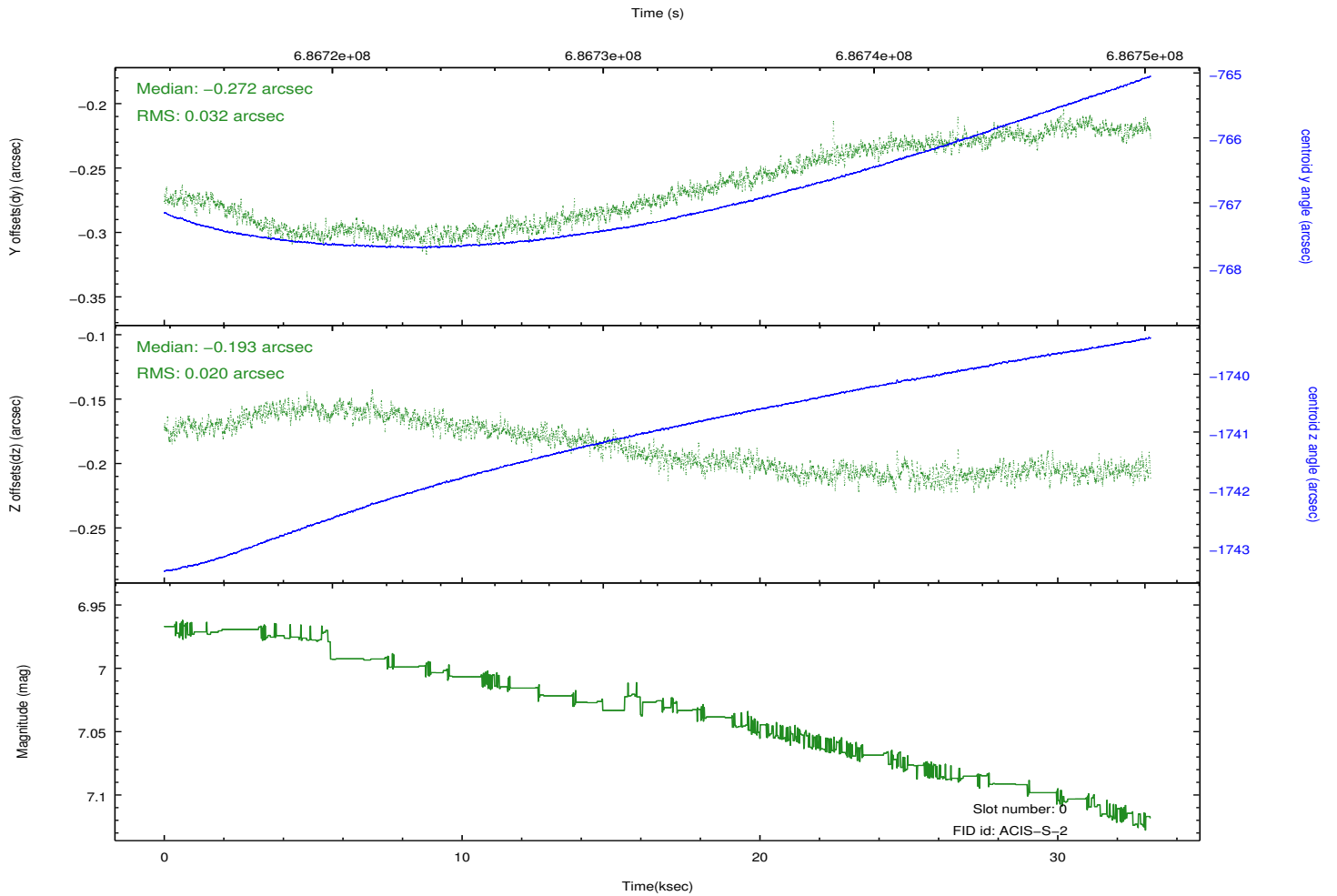
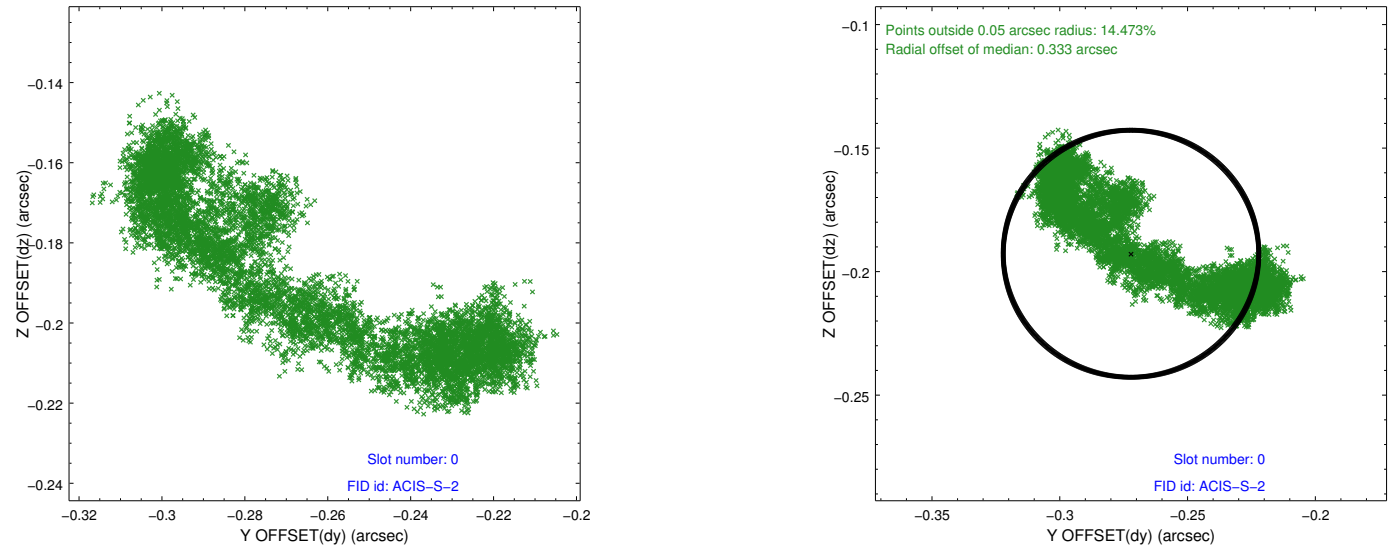


Time (s)

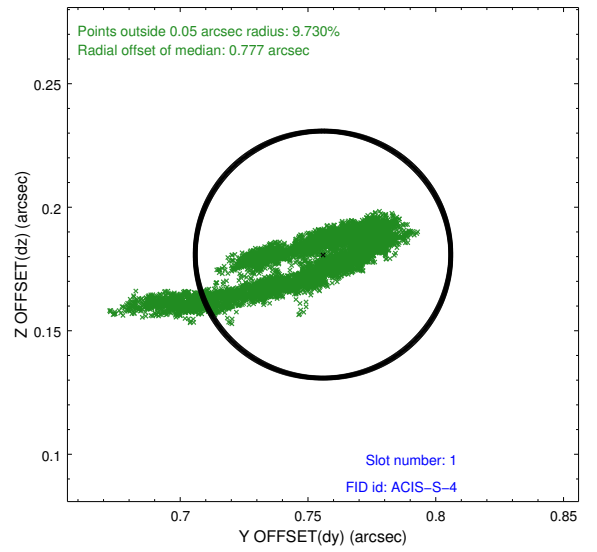
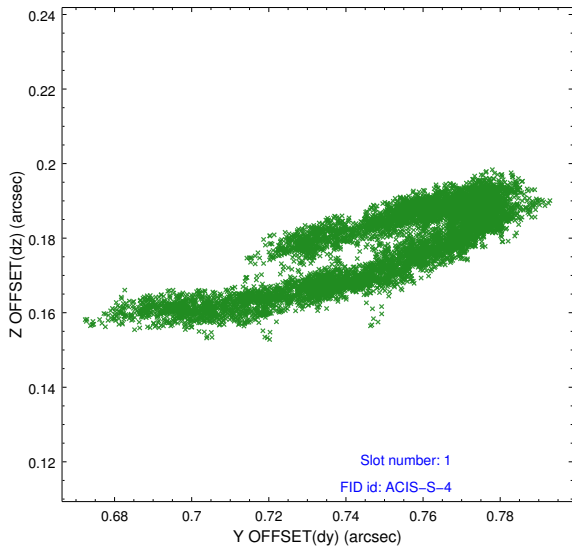


2.5 FID Slots

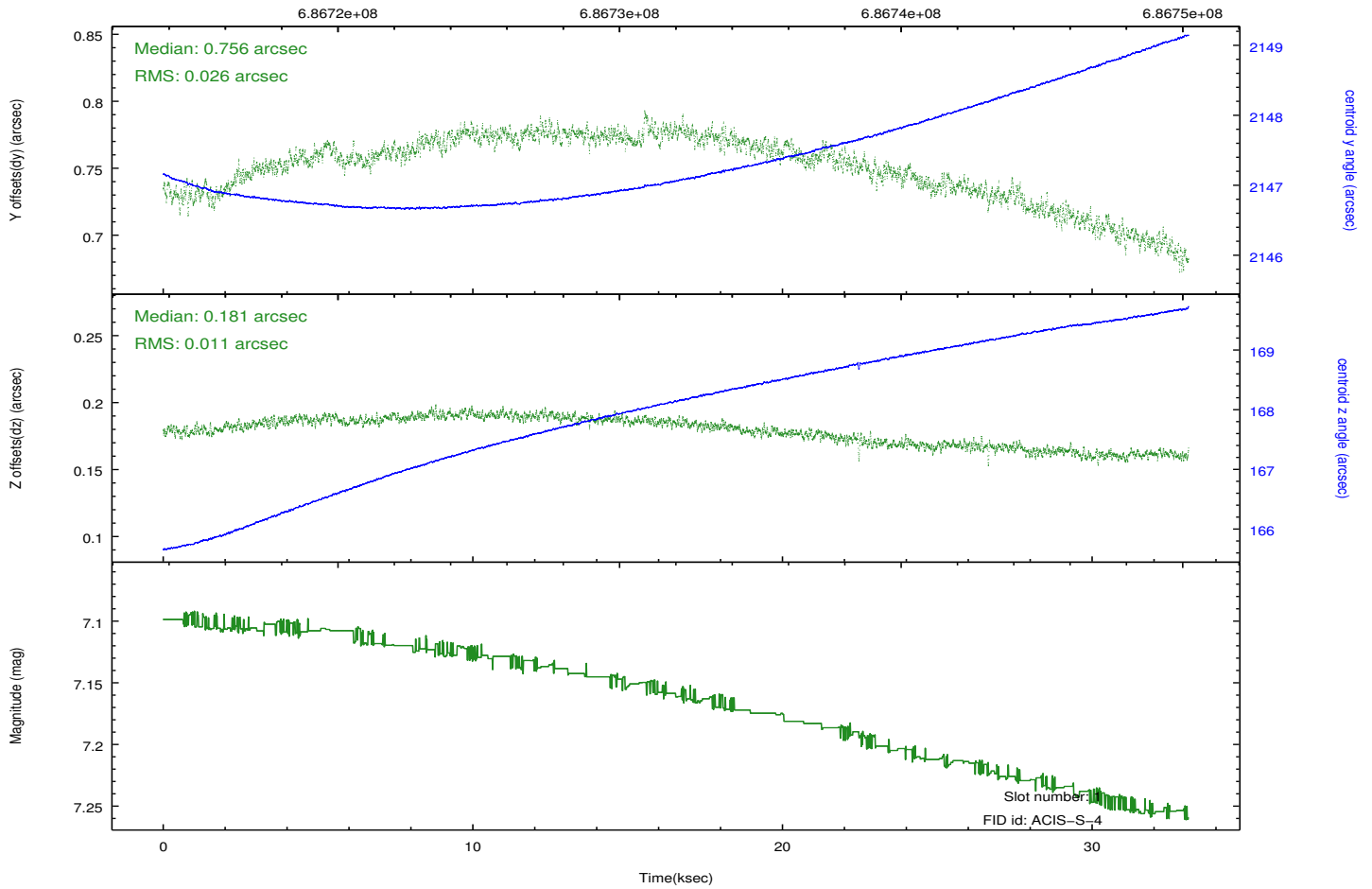
2.5.1 Slot 0



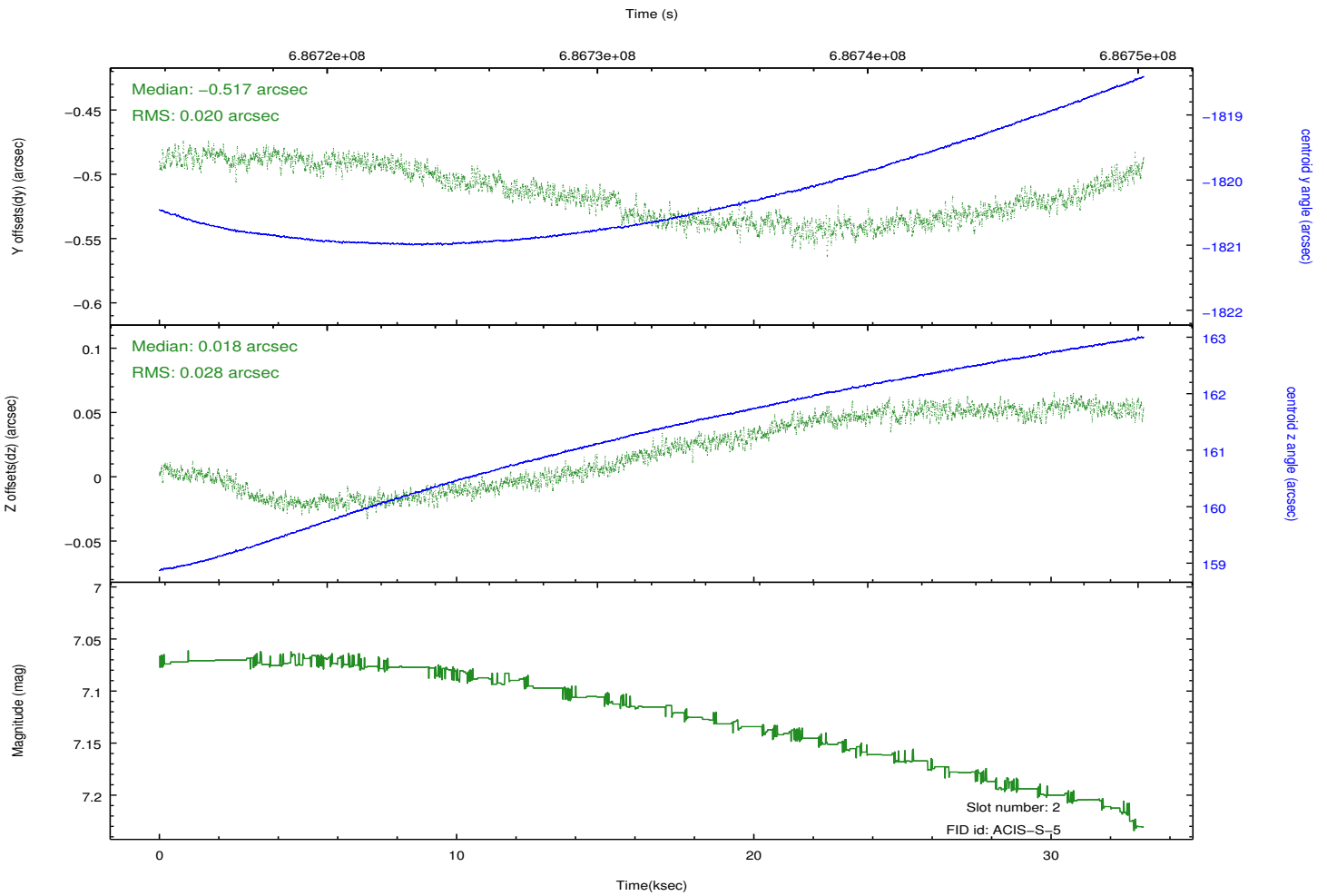
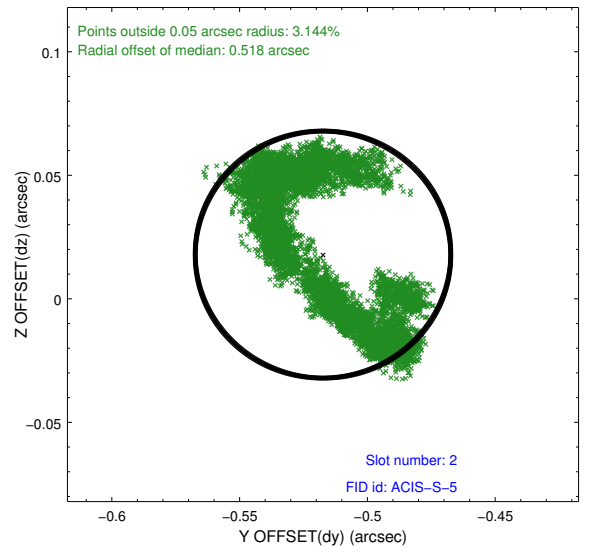
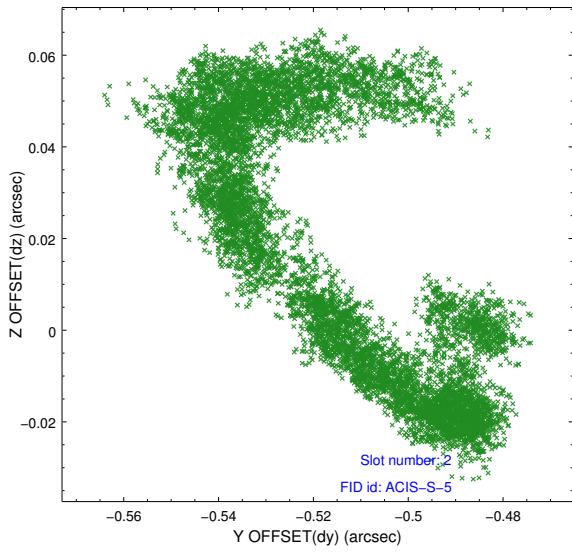
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2019.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	33.06362909627

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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Optional chip I2 not included.