

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 21416 - L2 Version 3
Chandra X-Ray Center

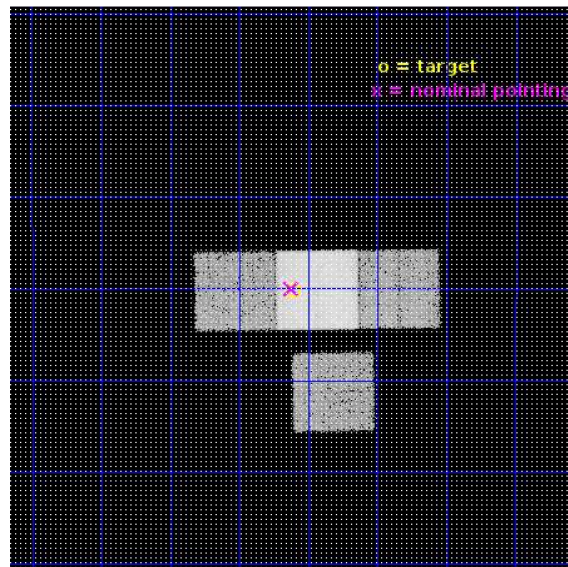
L2 Processing Date : Oct 1 2019

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1 Front

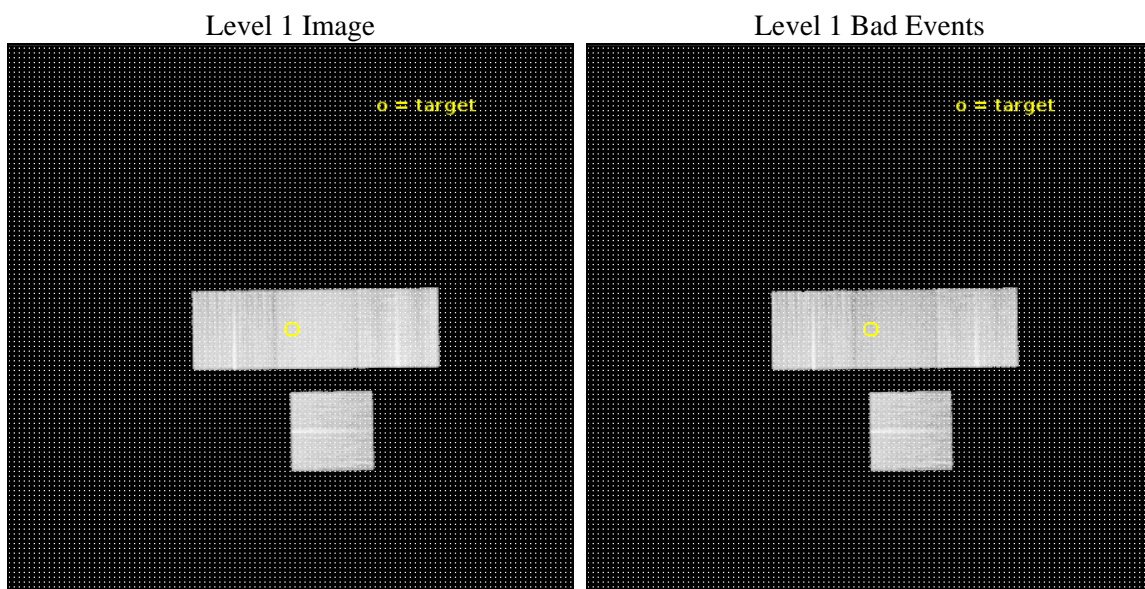
seq_num	703713	Sequence number
obs_id	21416	Observation id
title	X-rays from the brightest radio source at z~6	Proposal title
observer	Eduardo Banados	Principal investigator
object	P352-15	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	352.403333	Observer's specified target RA [deg]
dec_targ	-15.337333	Observer's specified target Dec [deg]
ra_nom	352.40599413605	Nominal RA [deg]
dec_nom	-15.333506330945	Nominal Dec [deg]
roll_nom	359.15729868271	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19313.000148654	Sum of GTIs [s]
livetime	19060.661583688	Livetime [s]
ontime3	19313.000148654	Sum of GTIs [s]
ontime6	19313.000148654	Sum of GTIs [s]
ontime7	19313.000148654	Sum of GTIs [s]
ontime8	19309.859058261	Sum of GTIs [s]
l2events	123358	Number of level 2 events



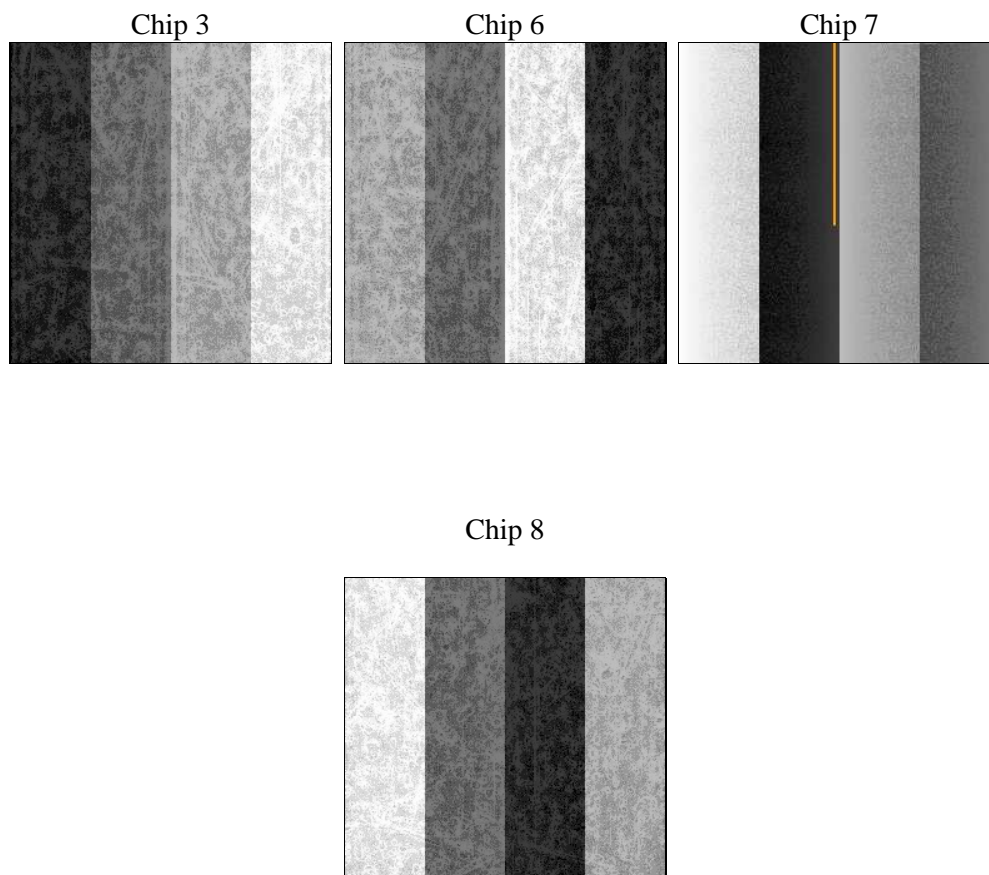
2 OBI

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	10.8	Processing system revision	ontime	19313.000148654	Sum of GTIs [s]
caldsver	4.8.4.1	 	ontime3	19313.000148654	Sum of GTIs [s]
date	2019-10-02T01:58:37	Date and time of file creation	ontime6	19313.000148654	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	19313.000148654	Sum of GTIs [s]
			ontime8	19309.859058261	Sum of GTIs [s]
			l1events	716423	Number of level 1 events

2.1.4 Events

	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	152748	167391	198857	197427
rejected events	138066	150680	116825	150129
rejected %	90%	90%	58%	76%

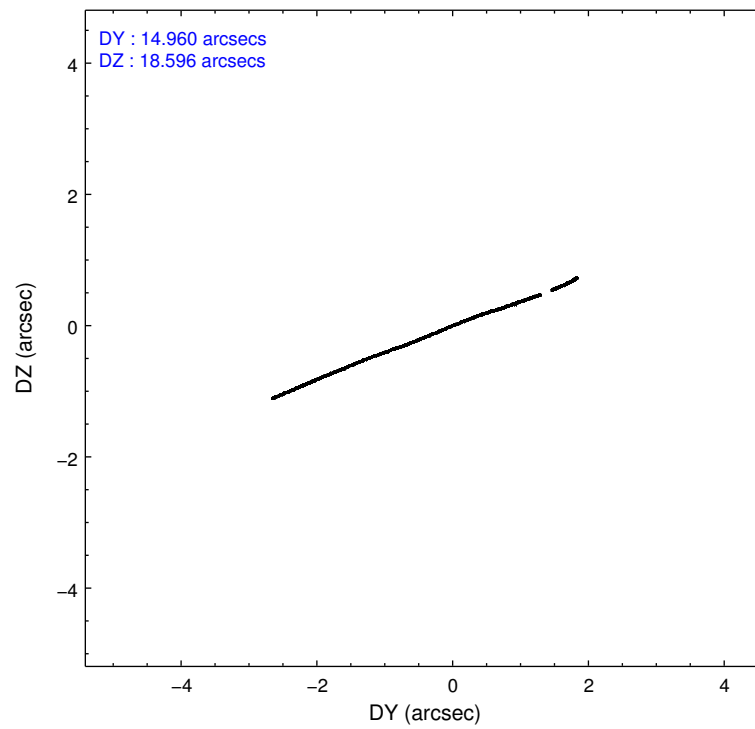
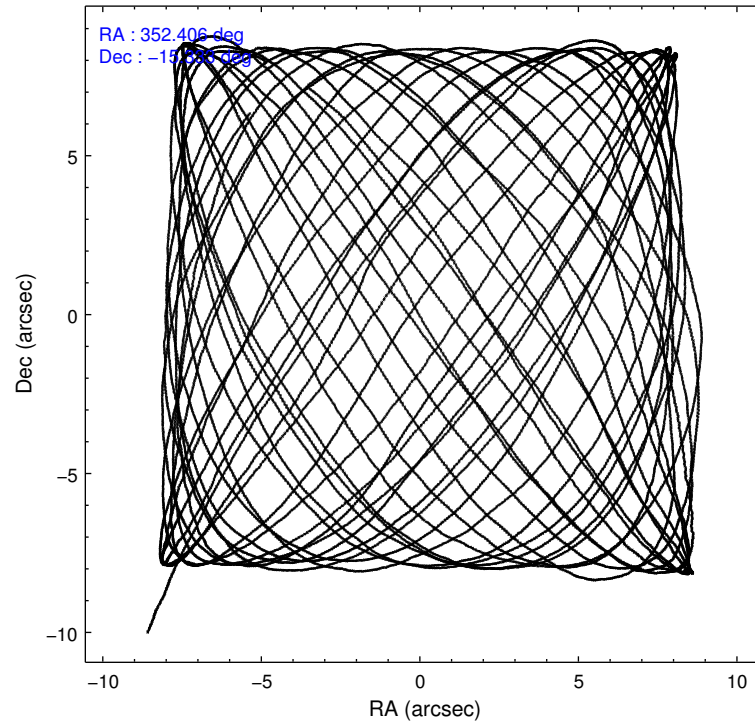
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	5102	4687	7001	13160
	3%	2%	3%	6%
grade 1 events	97	66	306	130
	0%	0%	0%	0%
grade 2 events	3449	4908	17915	12583
	2%	2%	9%	6%
grade 3 events	1560	1382	6453	4829
	1%	0%	3%	2%
grade 4 events	1575	1441	6332	4484
	1%	0%	3%	2%
grade 5 events	6712	6488	18975	10126
	4%	3%	9%	5%
grade 6 events	3566	4916	47509	14149
	2%	2%	23%	7%
grade 7 events	130687	143503	94366	137966
	85%	85%	47%	69%

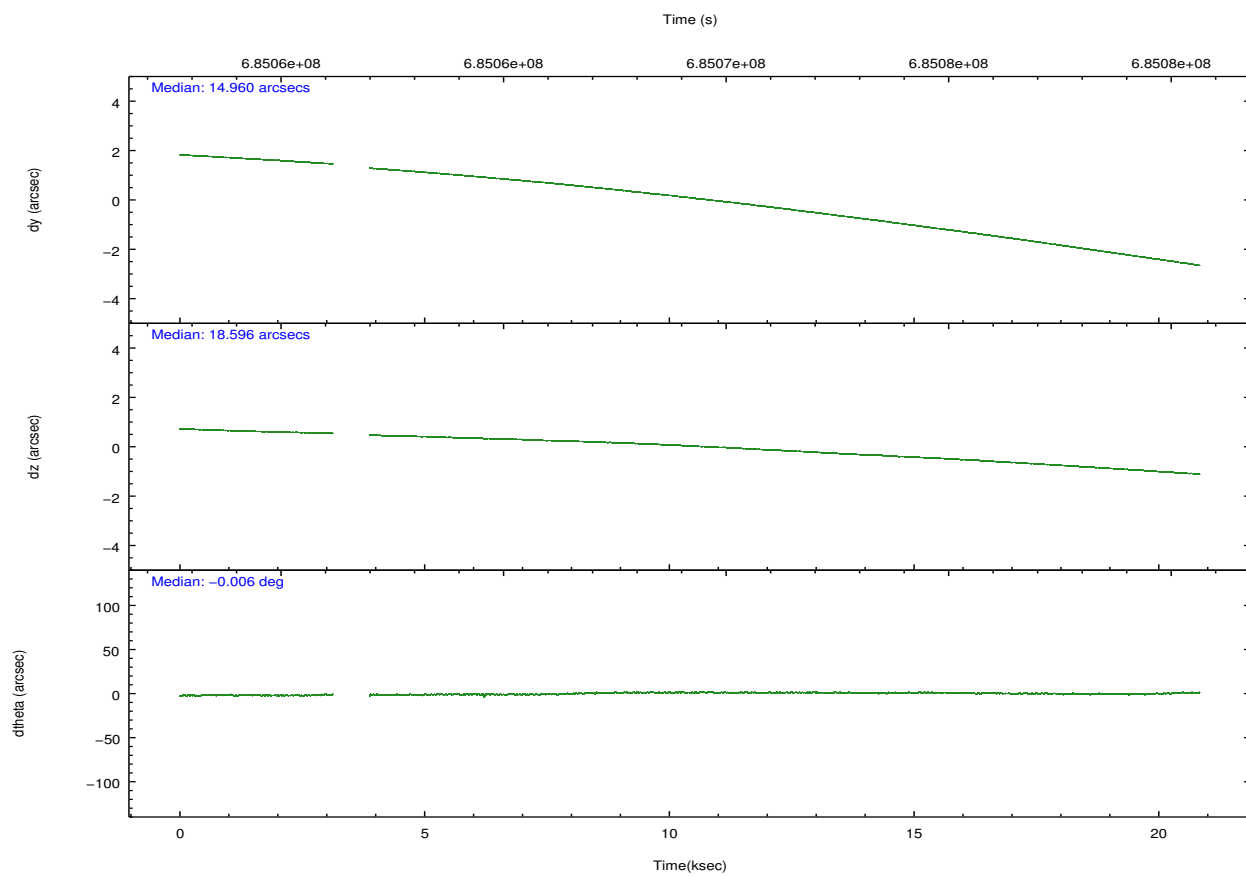
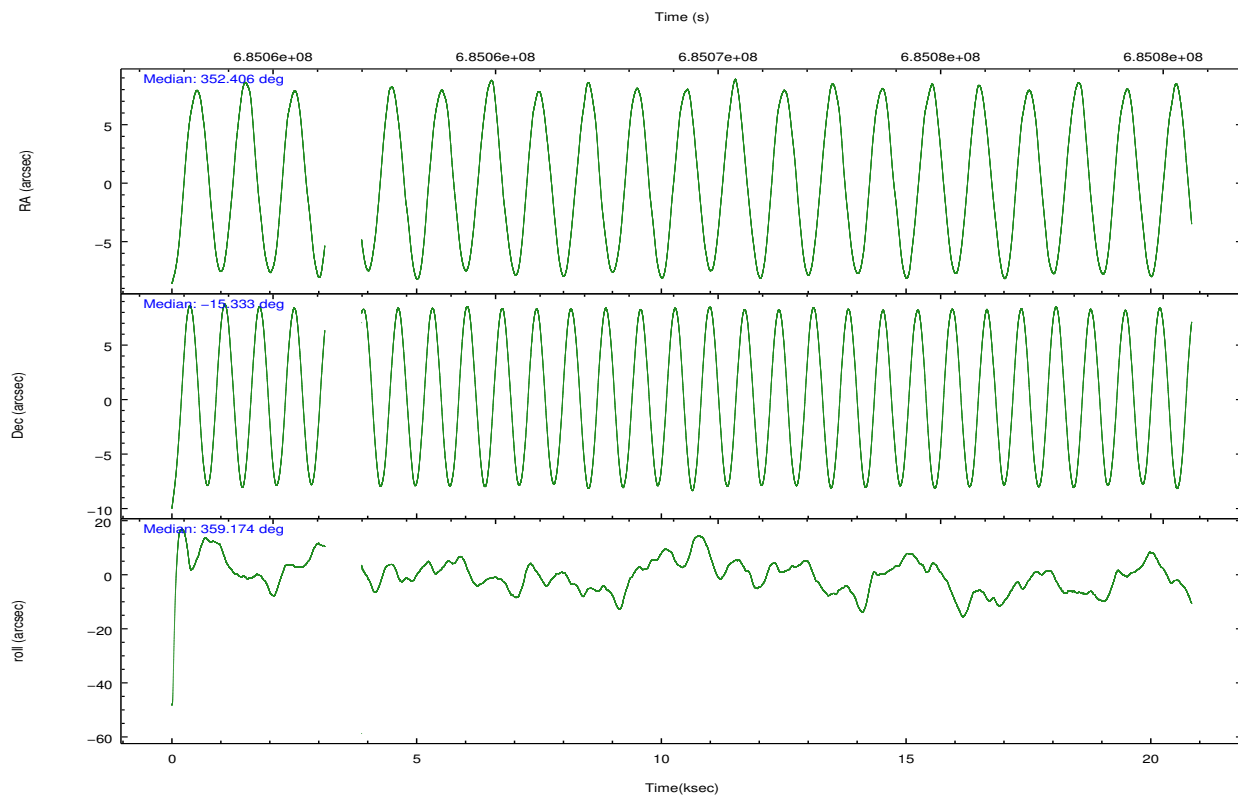
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-3678	ACIS-3678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	352.381312	352.4059941360485
[deg] Pointing Dec	-15.347186	-15.33350633094535
[deg] Pointing Roll	358.994180	359.1572986827108
[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)	685059611.184000	685058407.97771
Observation start date	2019-09-16T22:19:02	2019-09-16T22:00:07
[s] Observation end time (MET)	685079611.184000	685080476.7415299
Observation end date	2019-09-17T03:52:22	2019-09-17T04:07:56
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	N
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	1	1
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



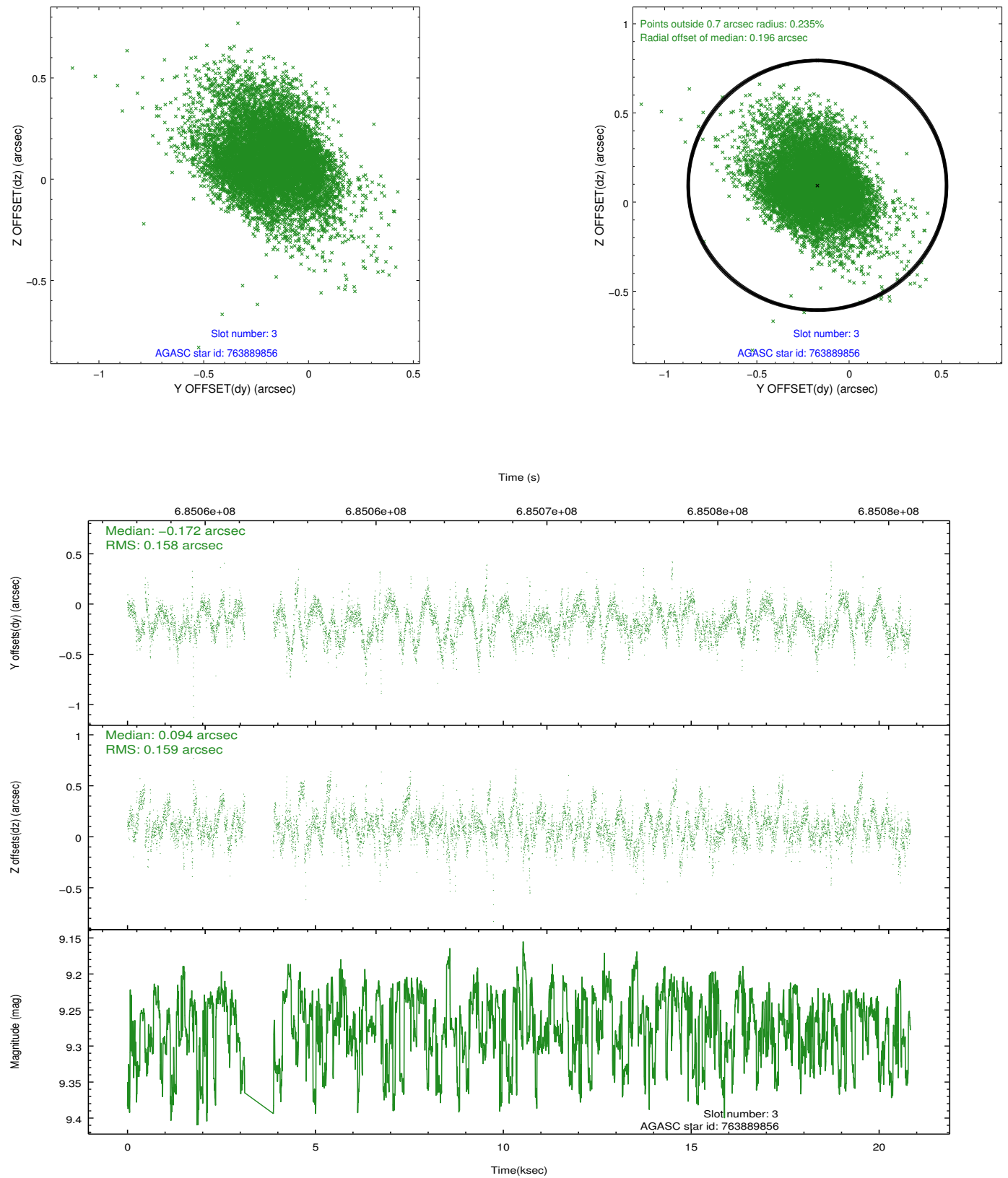


Slot Statistics

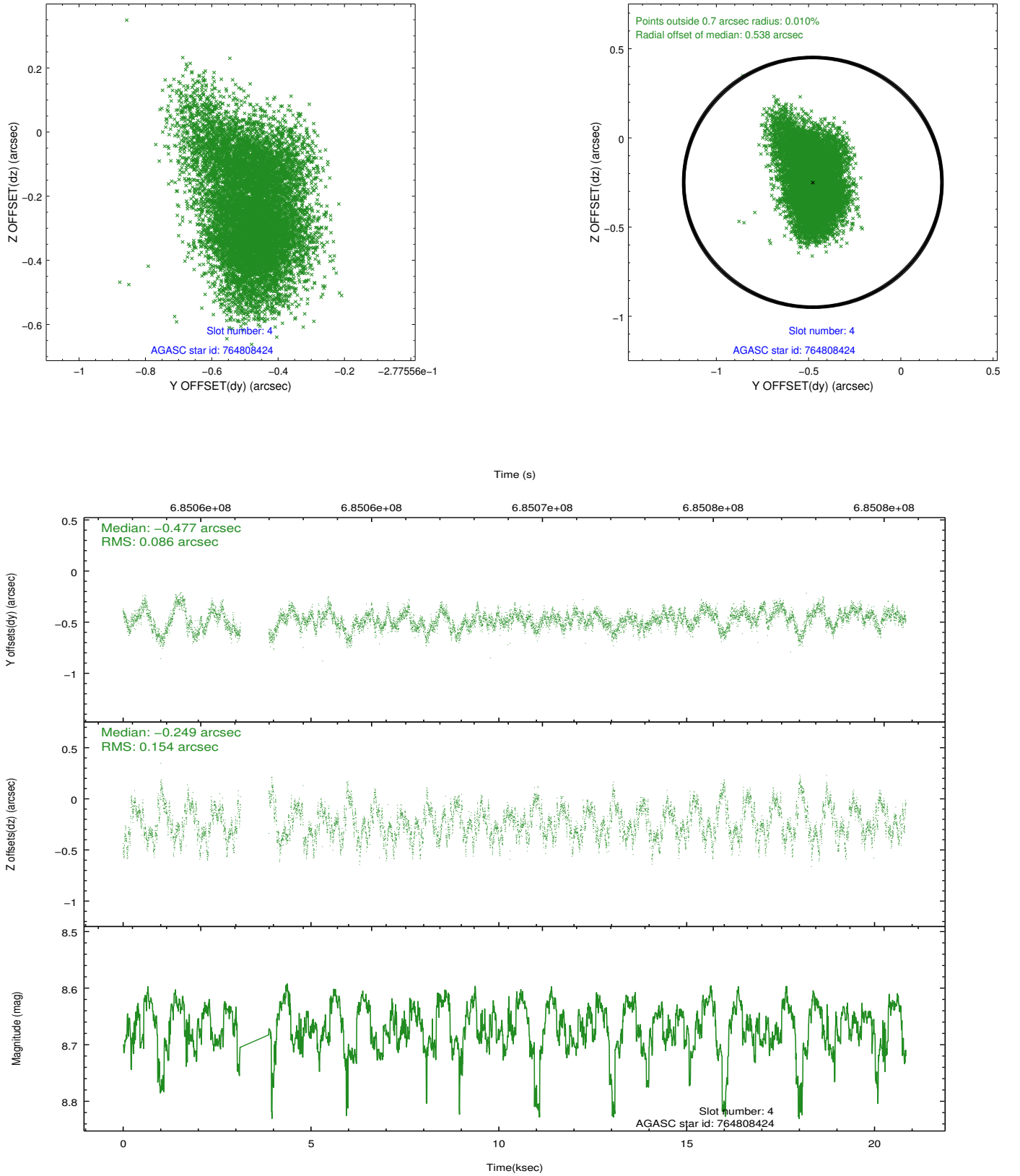
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.10	4899	1.000	-0.299	-0.243	0.029	0.072	0.000000	0.000000	-768.01	-1740
1	FID		ACIS-S-4	7.22	4898	1.000	0.825	0.209	0.029	0.100	0.000000	0.000000	2146.22	168
2	FID		ACIS-S-5	7.17	4899	1.000	-0.560	0.049	0.021	0.033	0.000000	0.000000	-1820.95	162
3	GUIDE	used	763889856	9.27	9779	1.000	-0.172	0.094	0.227	0.398	351.806840	-14.828602	-2031.59	1828
4	GUIDE	used	764808424	8.67	9788	1.000	-0.477	-0.249	0.183	0.310	352.864993	-14.696878	1643.57	2366
5	GUIDE	used	839255272	9.53	9768	1.000	0.117	-0.176	0.204	0.337	352.744944	-15.268463	1257.63	302
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	839262176	10.12	9723	1.000	0.536	0.336	0.304	0.516	352.214109	-15.129954	-593.51	771

2.4 Star Slots

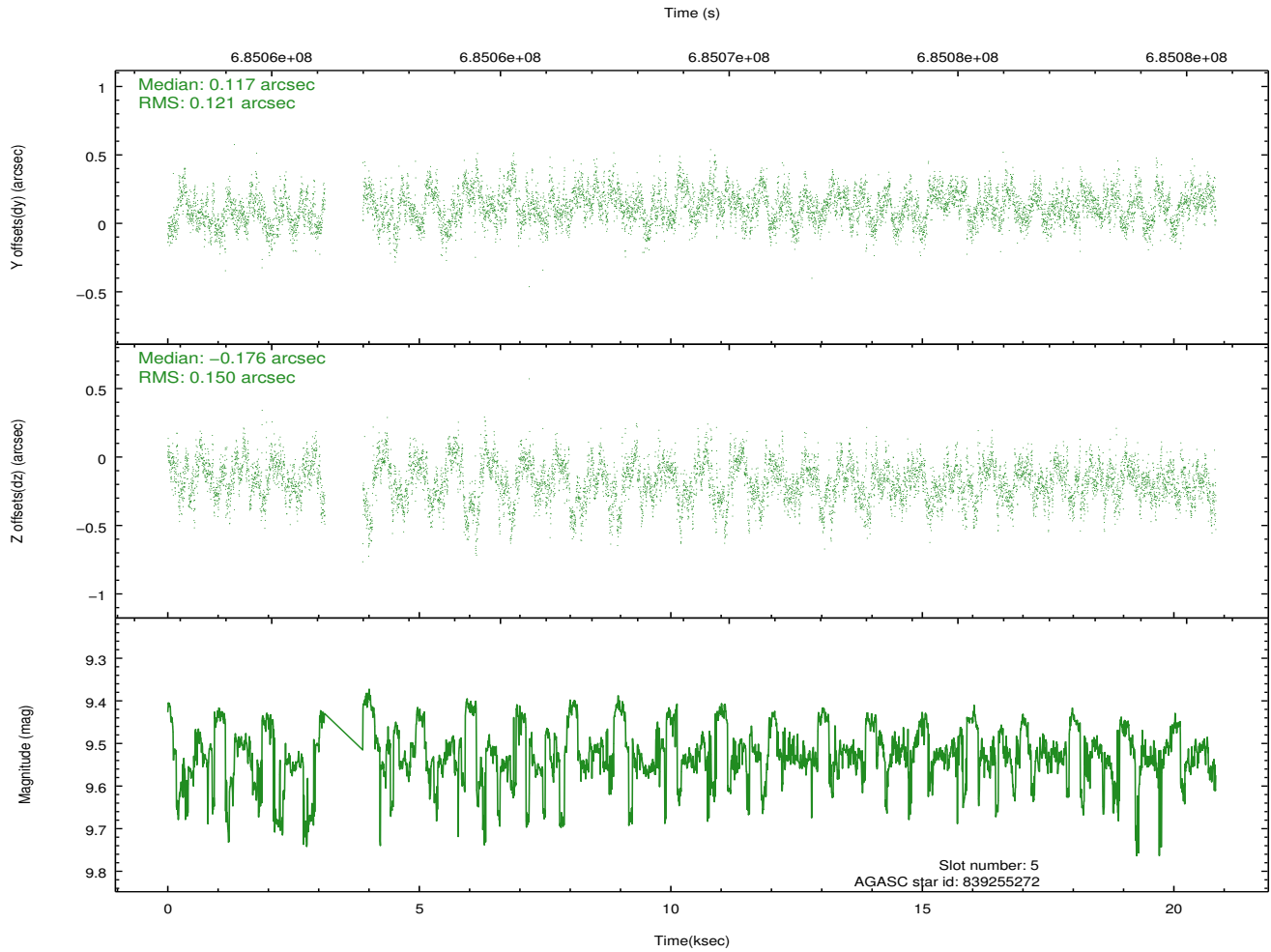
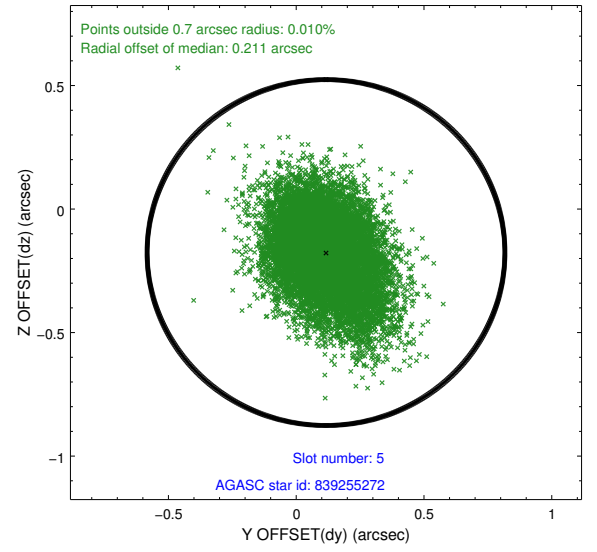
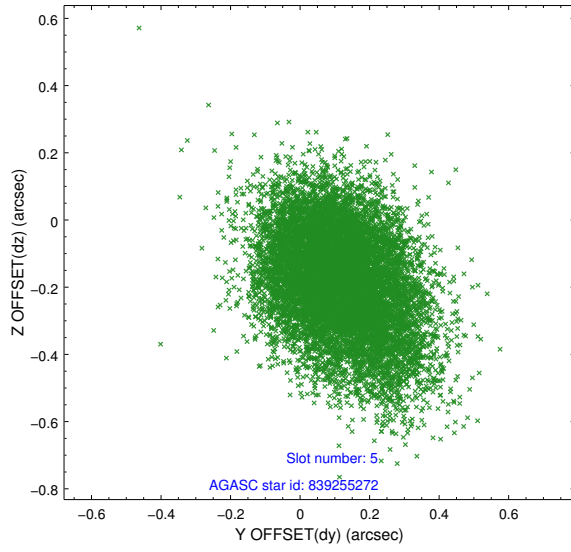
2.4.1 Slot 3



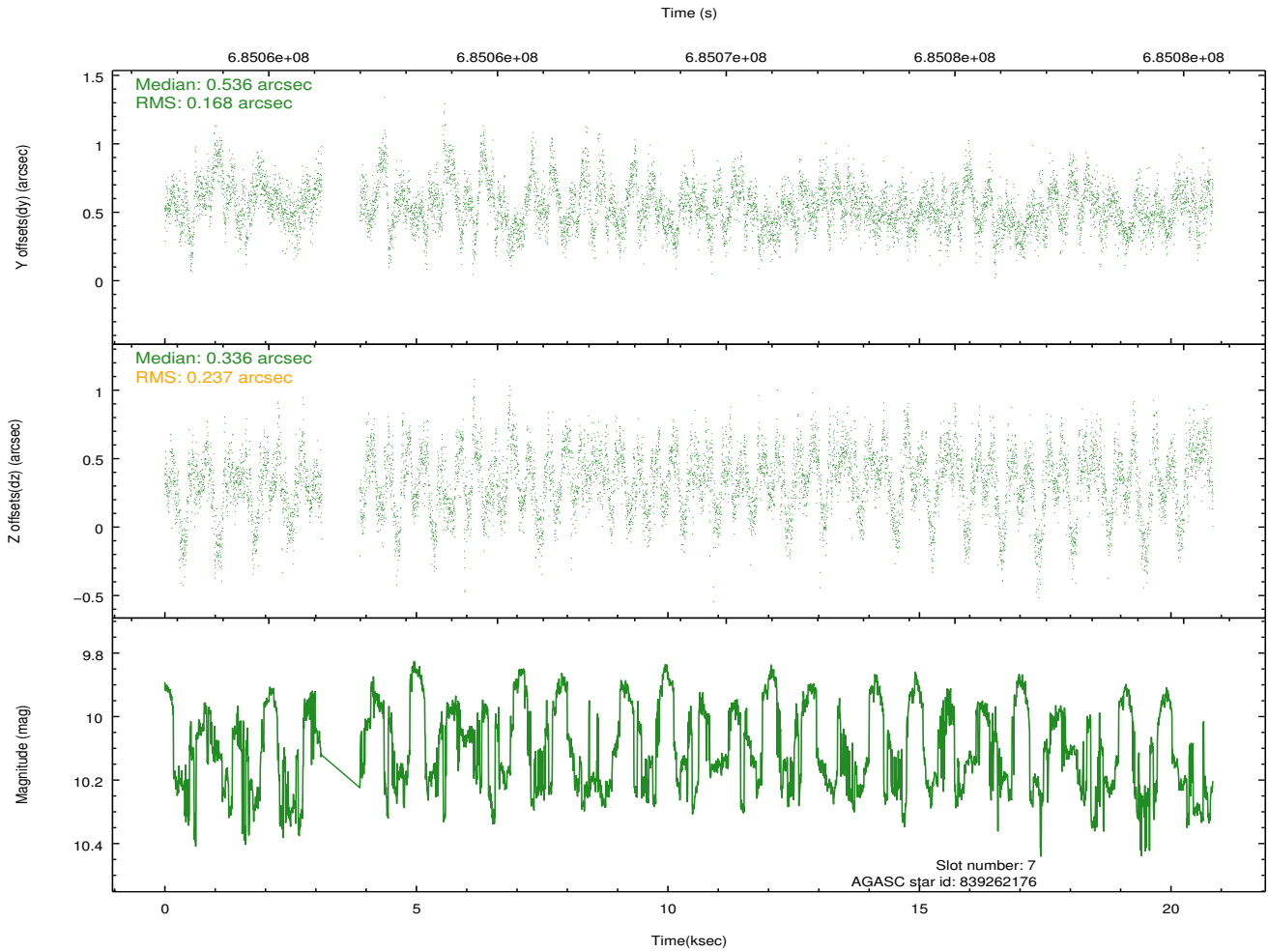
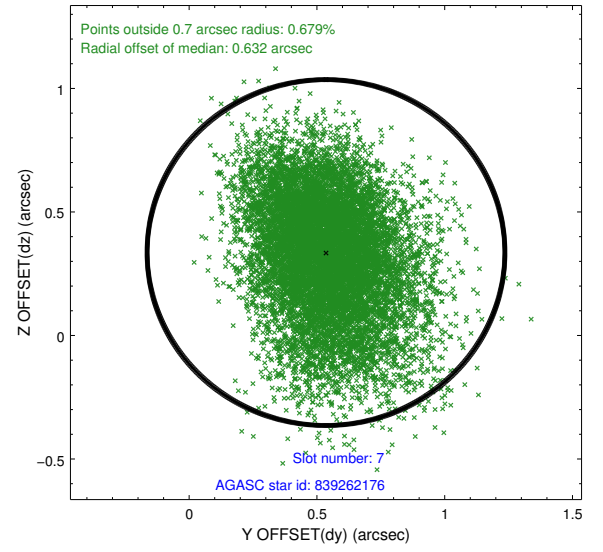
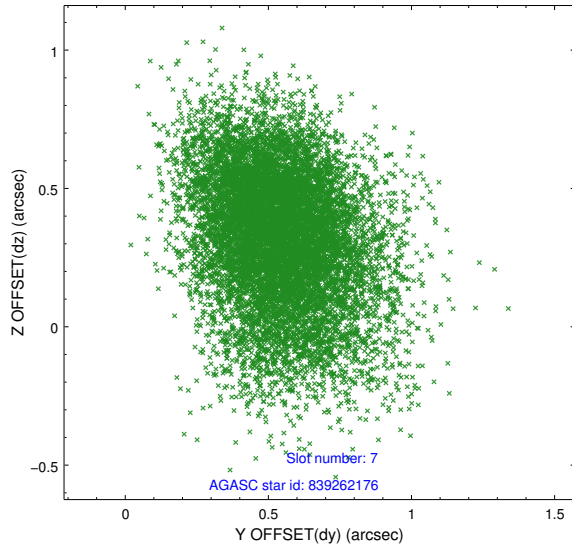
2.4.2 Slot 4



2.4.3 Slot 5

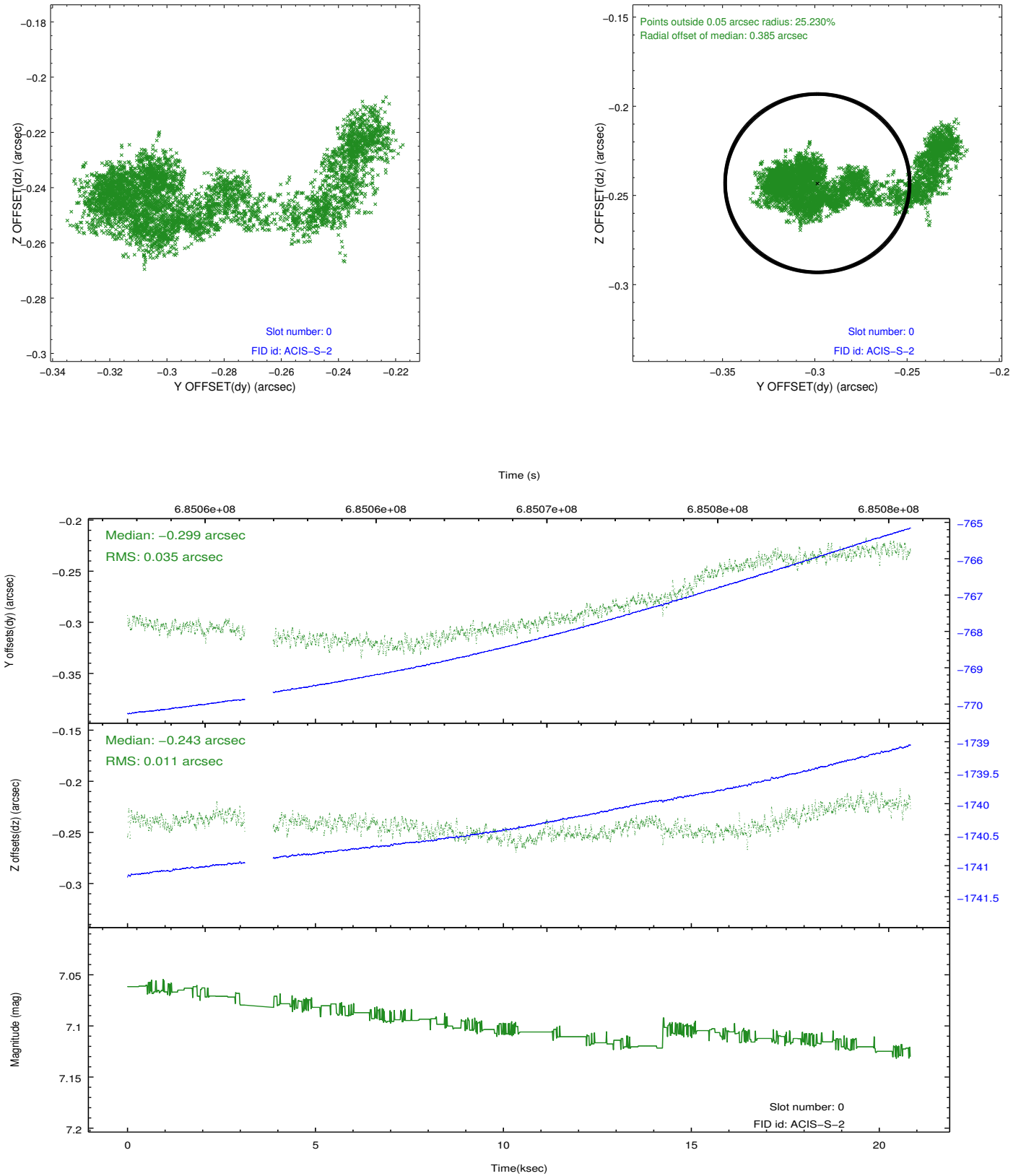


2.4.4 Slot 7

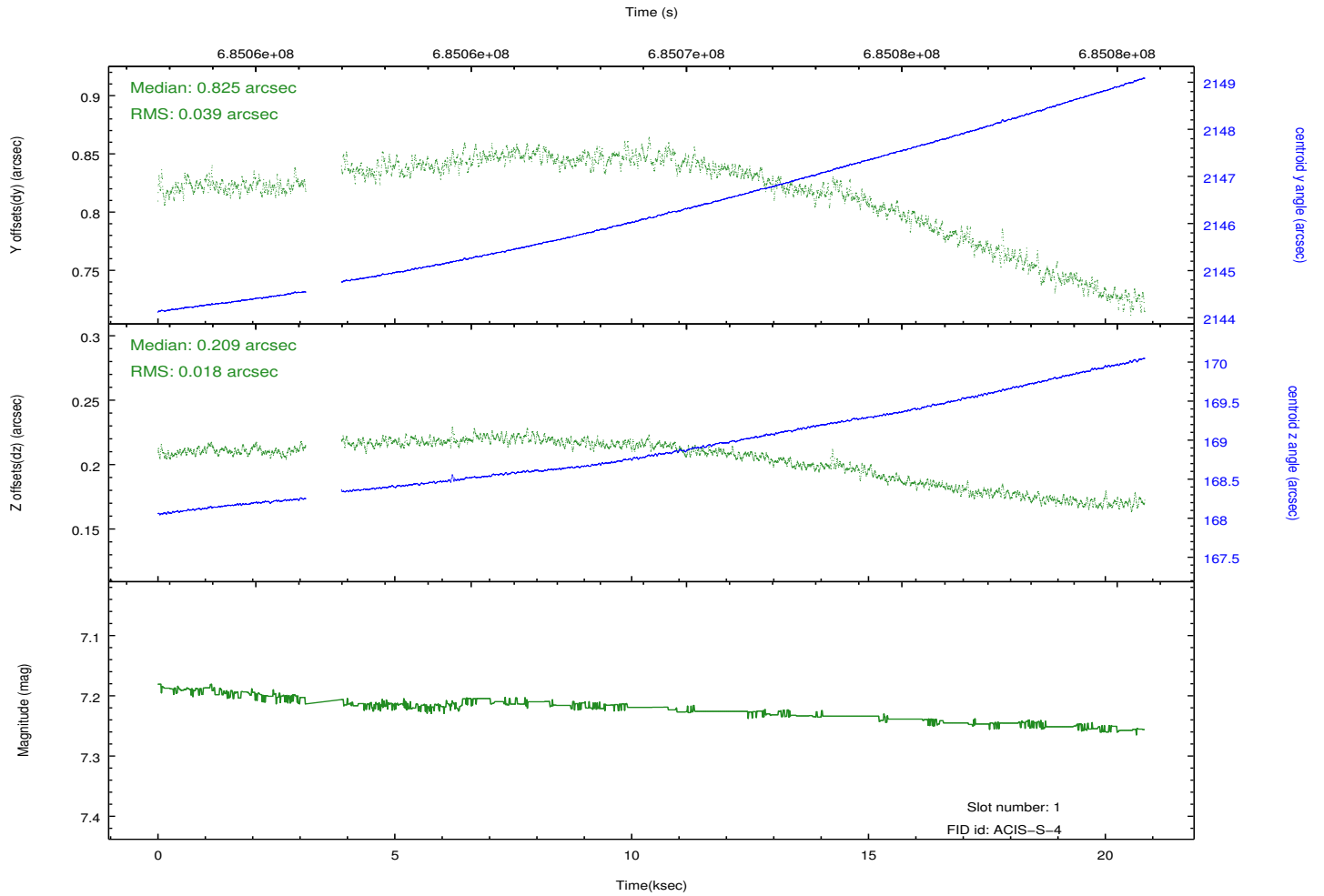
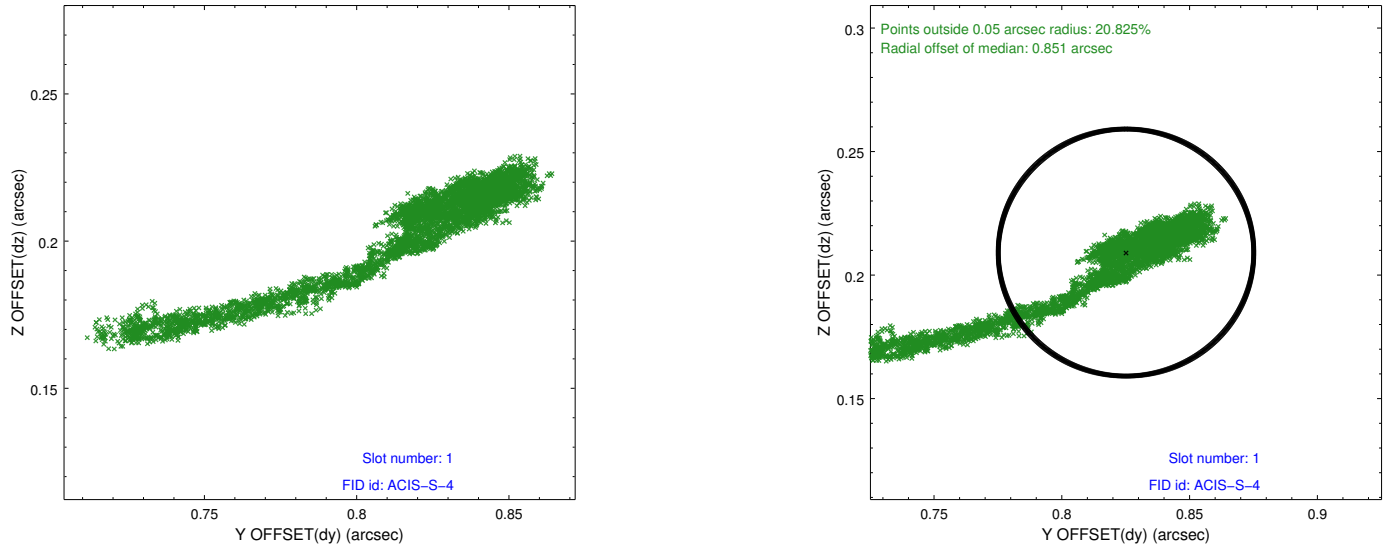


2.5 FID Slots

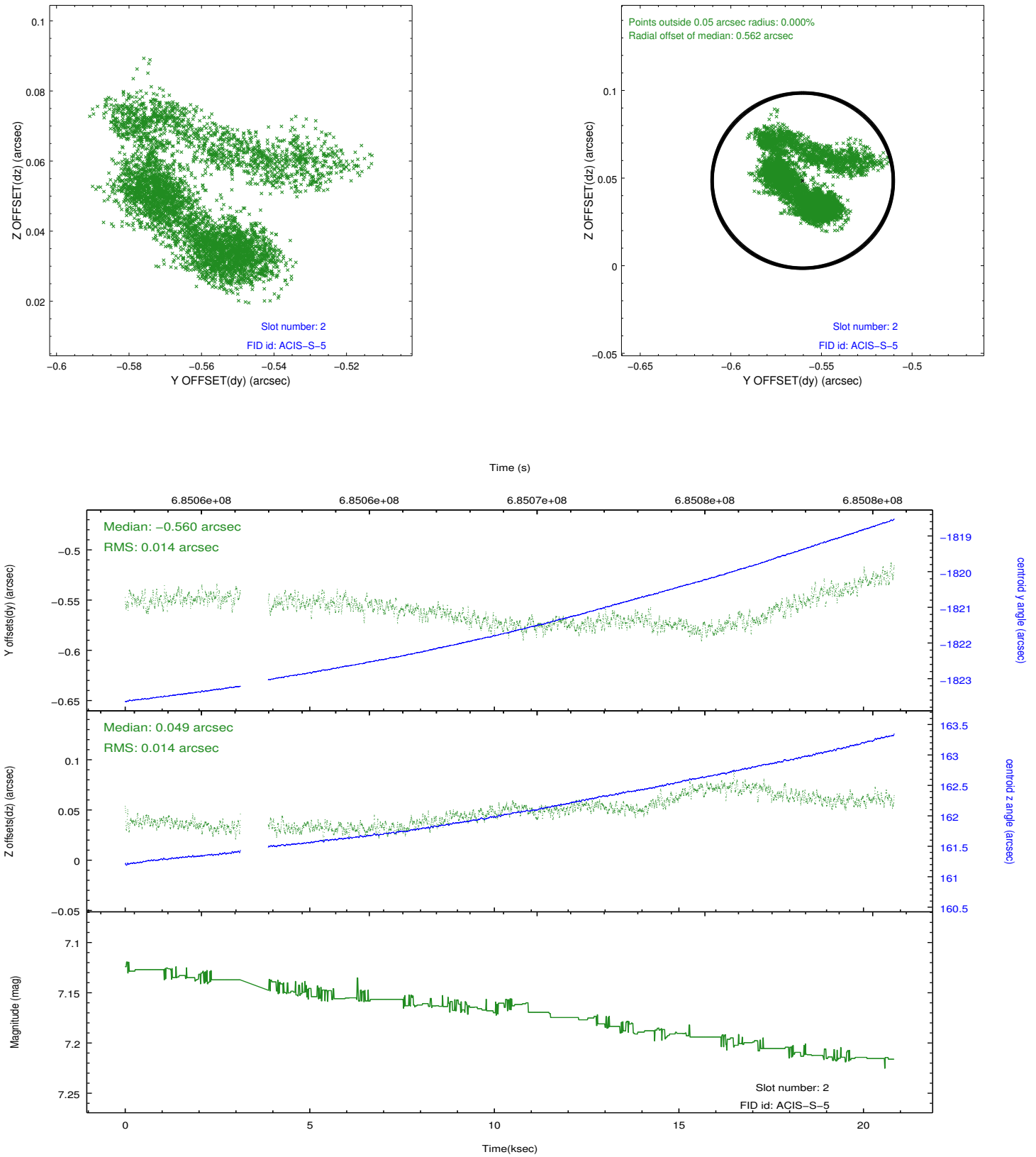
2.5.1 Slot 0



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)	2019.10.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.557900150537

A.2 Comments

Charge time:

Charge time for this ObsId remains at previous value of 19.56 ks although with the current processing it would have been 19.31 ks.

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The interval of poor centroid data caused by the ACA high background anomaly during this observation has been successfully cut from the aspect solution by breaking the time into two aspect intervals. The interval removed from the aspect solution began at MET=685061900 sec and ended at MET=685062651 sec.

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One optional chip was dropped. The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.