

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 18916 - L2 Version 2
Chandra X-Ray Center

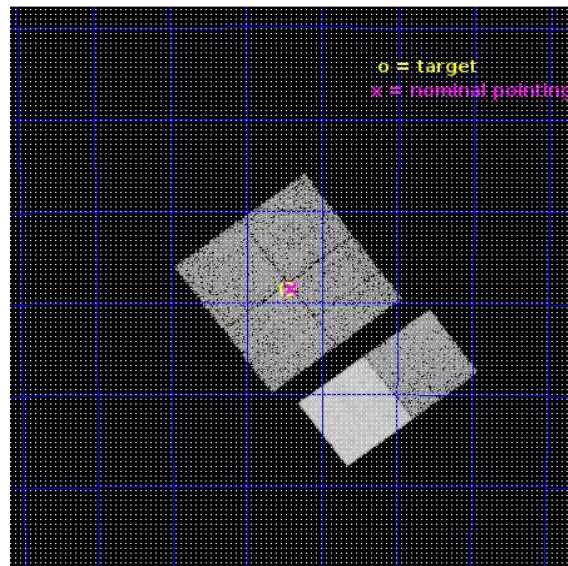
L2 Processing Date : Oct 4 2017

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 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

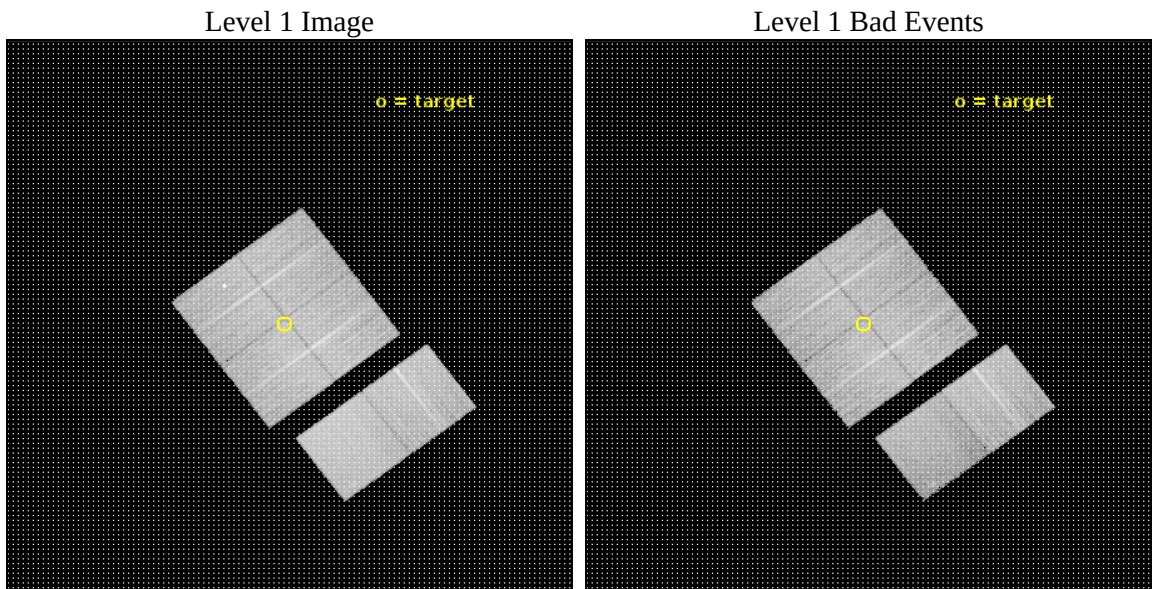
seq_num	201109	Sequence number
obs_id	18916	Observation id
title	An X-ray Census of the Young Stellar Population in a Massive Forming Cluster	Proposal title
observer	Jonathan Tan	Principal investigator
object	G286.21+0.17	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	159.617083	Observer's specified target RA [deg]
dec_targ	-58.309444	Observer's specified target Dec [deg]
ra_nom	159.60149379665	Nominal RA [deg]
dec_nom	-58.308048823622	Nominal Dec [deg]
roll_nom	143.19542496917	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19953.948968291	Sum of GTIs [s]
livetime	19701.280051629	Livetime [s]
ontime0	19960.307789087	Sum of GTIs [s]
ontime1	19953.866888404	Sum of GTIs [s]
ontime2	19960.389869094	Sum of GTIs [s]
ontime3	19953.948968291	Sum of GTIs [s]
ontime6	19960.512989044	Sum of GTIs [s]
ontime7	19960.4719491	Sum of GTIs [s]
l2events	122313	Number of level 2 events



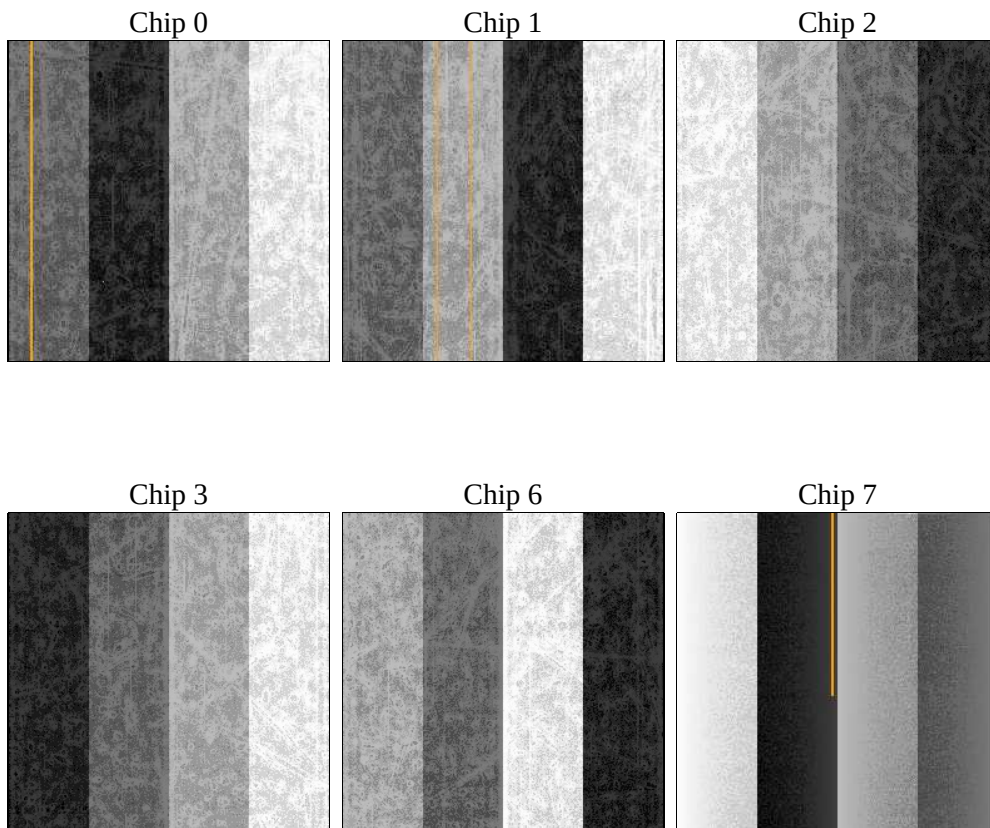
2 OBI

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	10.6	Processing system revision	ontime	19953.948968291	Sum of GTIs [s]
caldsver	4.7.6	 	ontime0	19960.307789087	Sum of GTIs [s]
date	2017-10-04T21:24:01	Date and time of file creation	ontime1	19953.866888404	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	19960.389869094	Sum of GTIs [s]
			ontime3	19953.948968291	Sum of GTIs [s]
			ontime6	19960.512989044	Sum of GTIs [s]
			ontime7	19960.4719491	Sum of GTIs [s]
			l1events	709475	Number of level 1 events

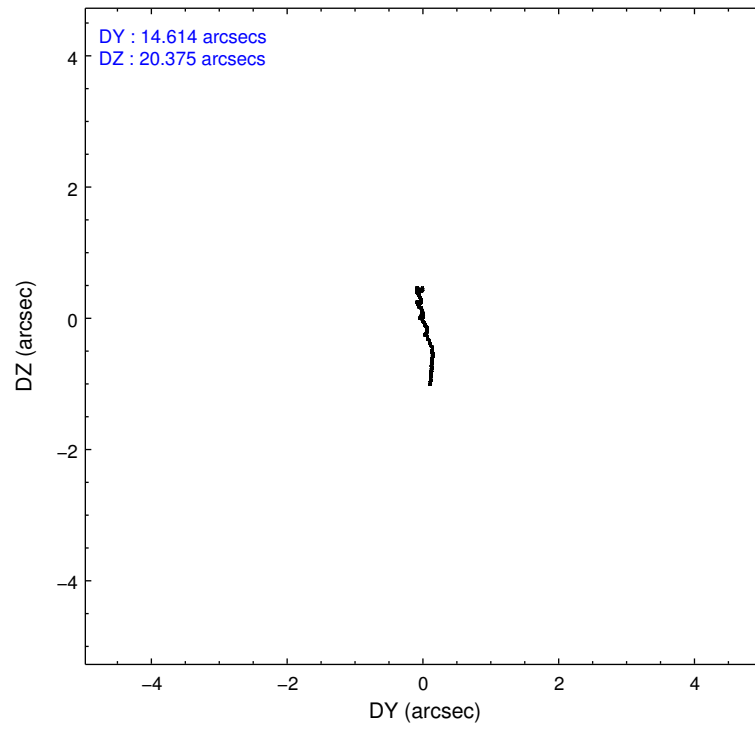
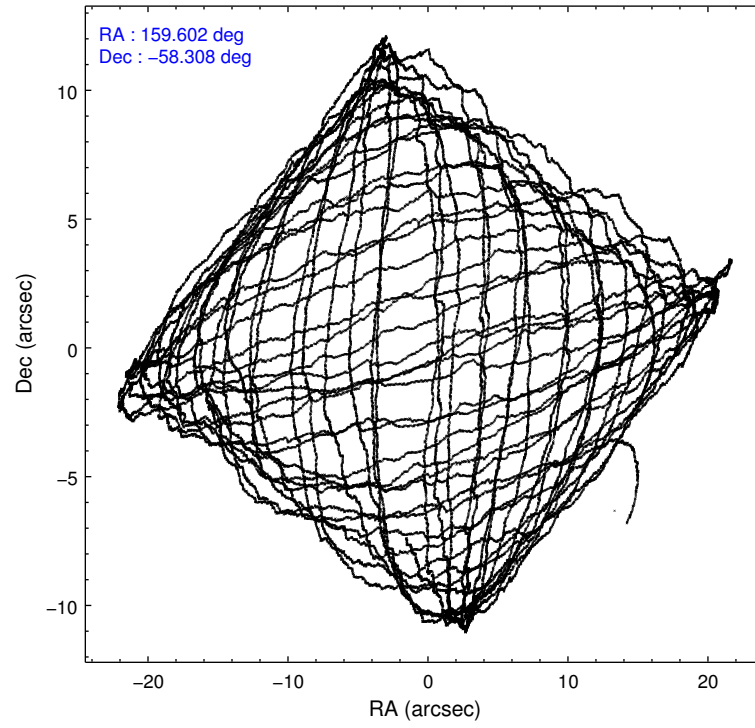
2.1.4 Events

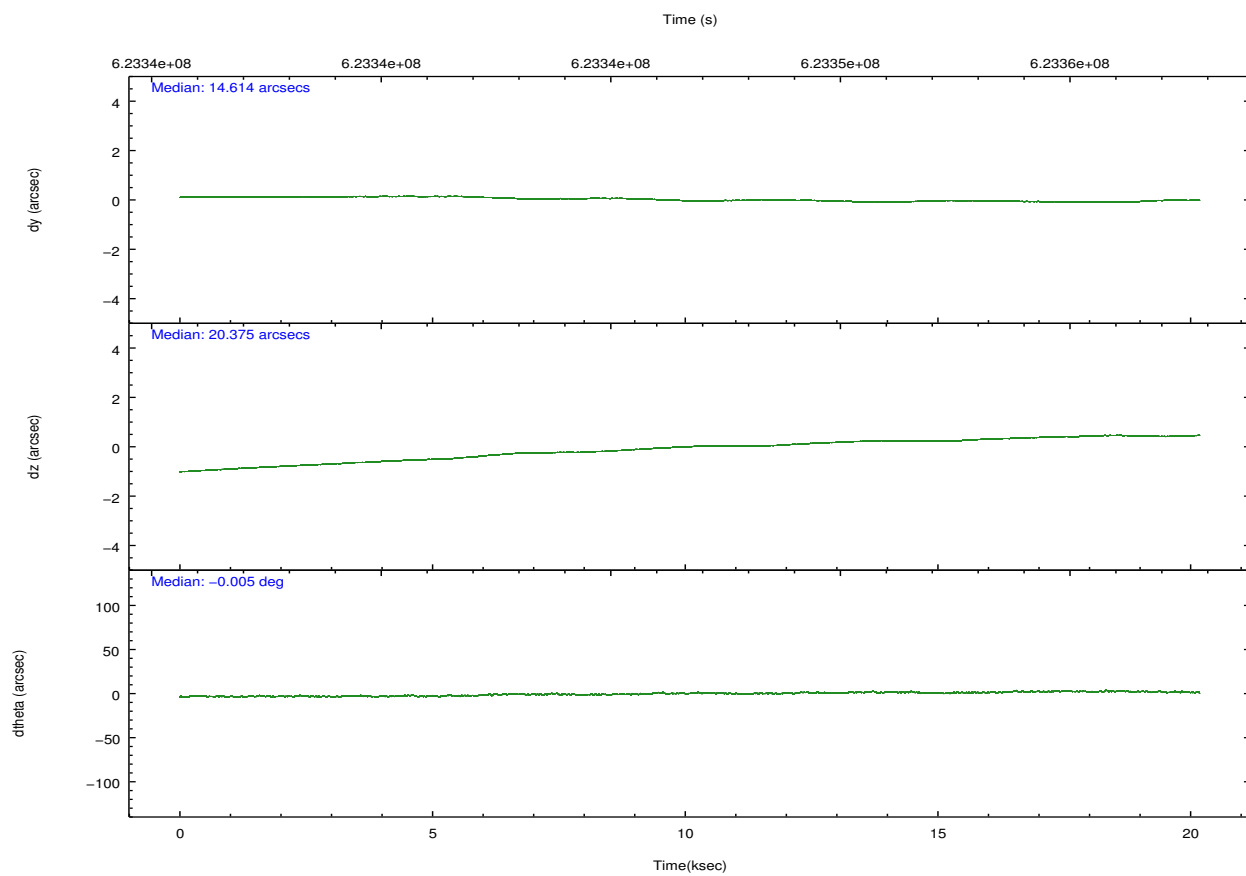
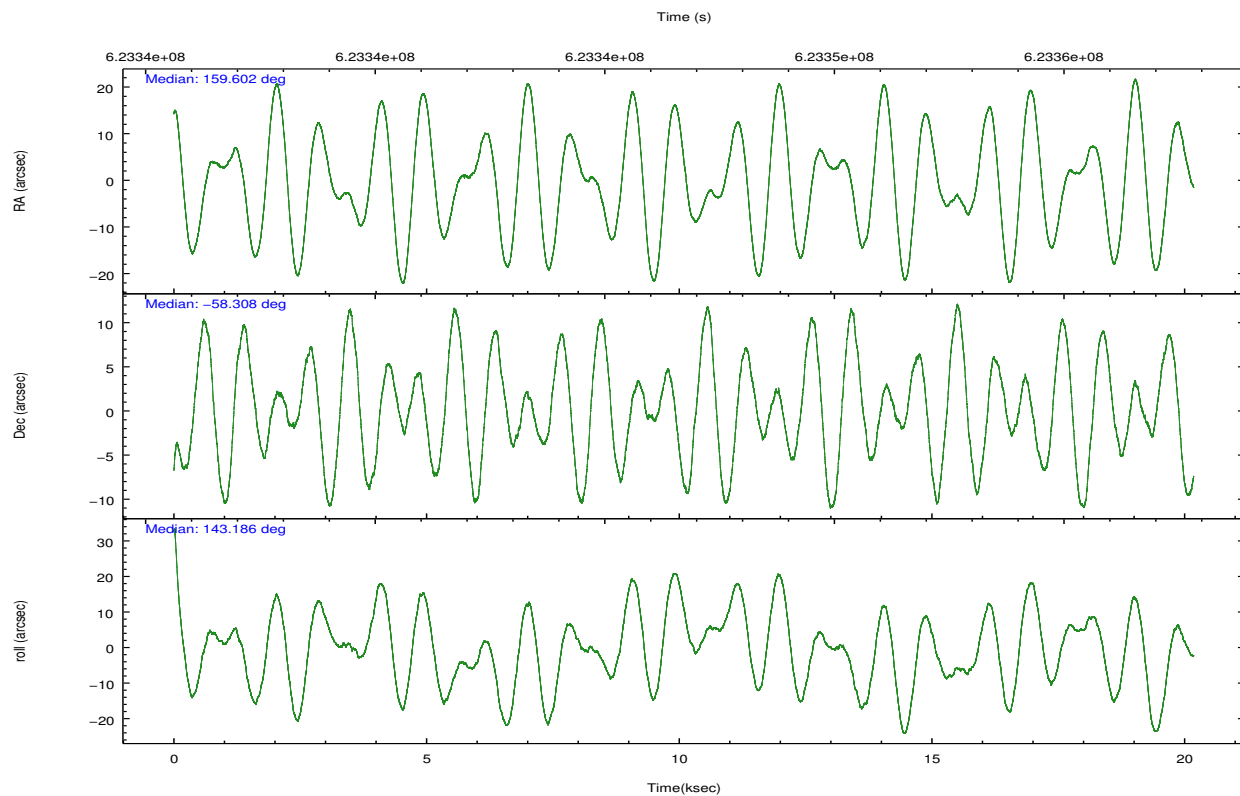
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	107691	109317	117830	115341	122491	136805	grade 0 events	5361	6474	5148	5409	5415	6245
rejected events	93475	93673	104051	101720	107643	71717		4%	5%	4%	4%	4%	4%
rejected %	86%	85%	88%	88%	87%	52%	grade 1 events	68	75	68	96	71	237
								0%	0%	0%	0%	0%	0%
							grade 2 events	3561	3378	3445	2967	3397	14317
								3%	3%	2%	2%	2%	10%
							grade 3 events	1400	1461	1350	1382	1501	5390
								1%	1%	1%	1%	1%	3%
							grade 4 events	1250	1409	1336	1368	1342	5347
								1%	1%	1%	1%	1%	3%
							grade 5 events	4468	4722	4290	5177	5111	13914
								4%	4%	3%	4%	4%	10%
							grade 6 events	2649	2925	2501	2495	3196	33799
								2%	2%	2%	2%	2%	24%
							grade 7 events	88934	88873	99692	96447	102458	57556
								82%	81%	84%	83%	83%	42%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	159.653673	159.6014937966467	CCD I2 on	Y	Y
[deg] Pointing Dec	-58.311196	-58.30804882362223	CCD I3 on	Y	Y
[deg] Pointing Roll	143.031137	143.1954249691696	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	623336817.184000	623335946.43094	CCD S5 on	N	N
Observation start date	2017-10-02T13:05:48	2017-10-02T12:52:26	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	623356817.184000	623357702.56971	On-chip summing requested	N	N
Observation end date	2017-10-02T18:39:08	2017-10-02T18:55:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



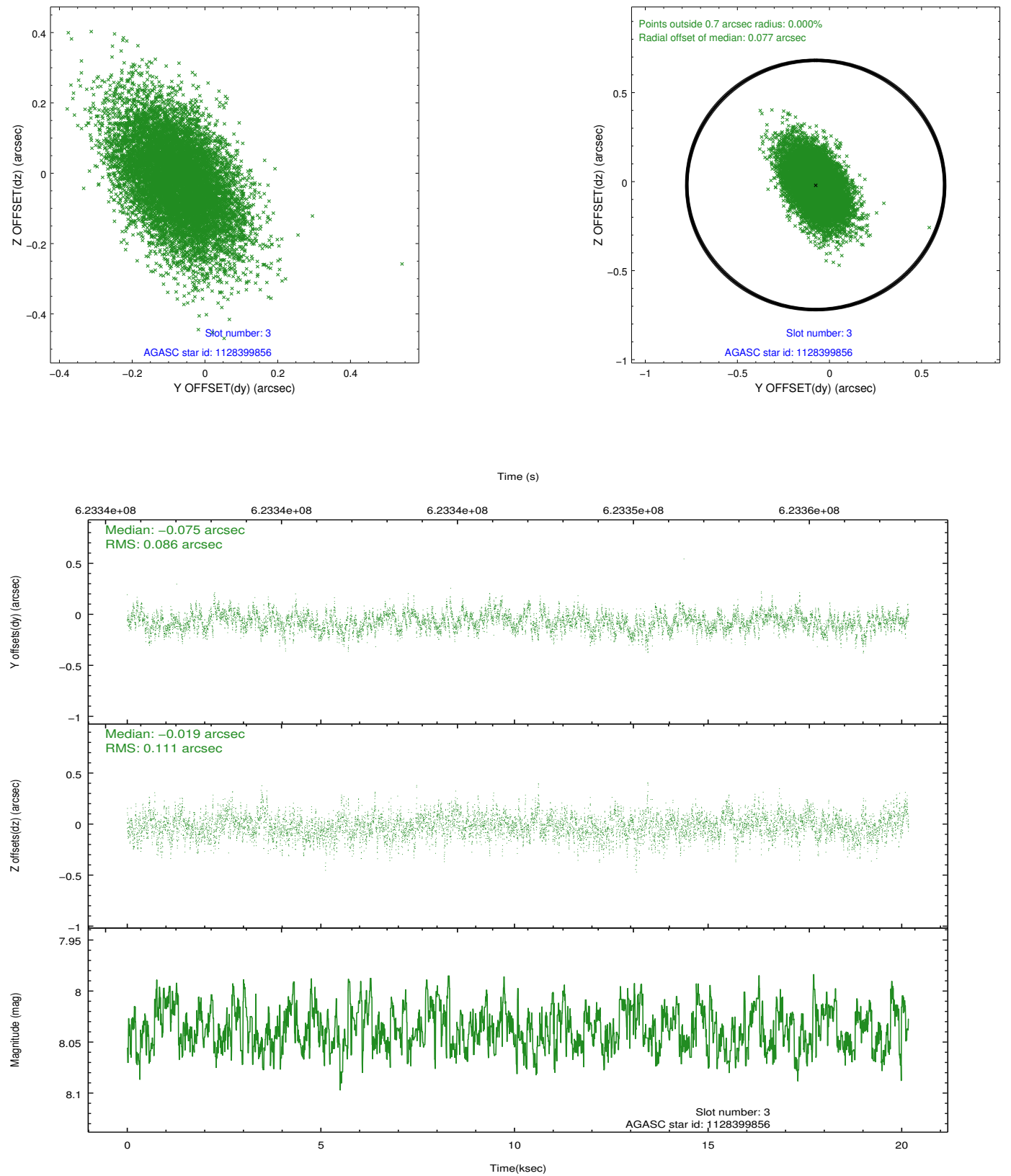


Slot Statistics

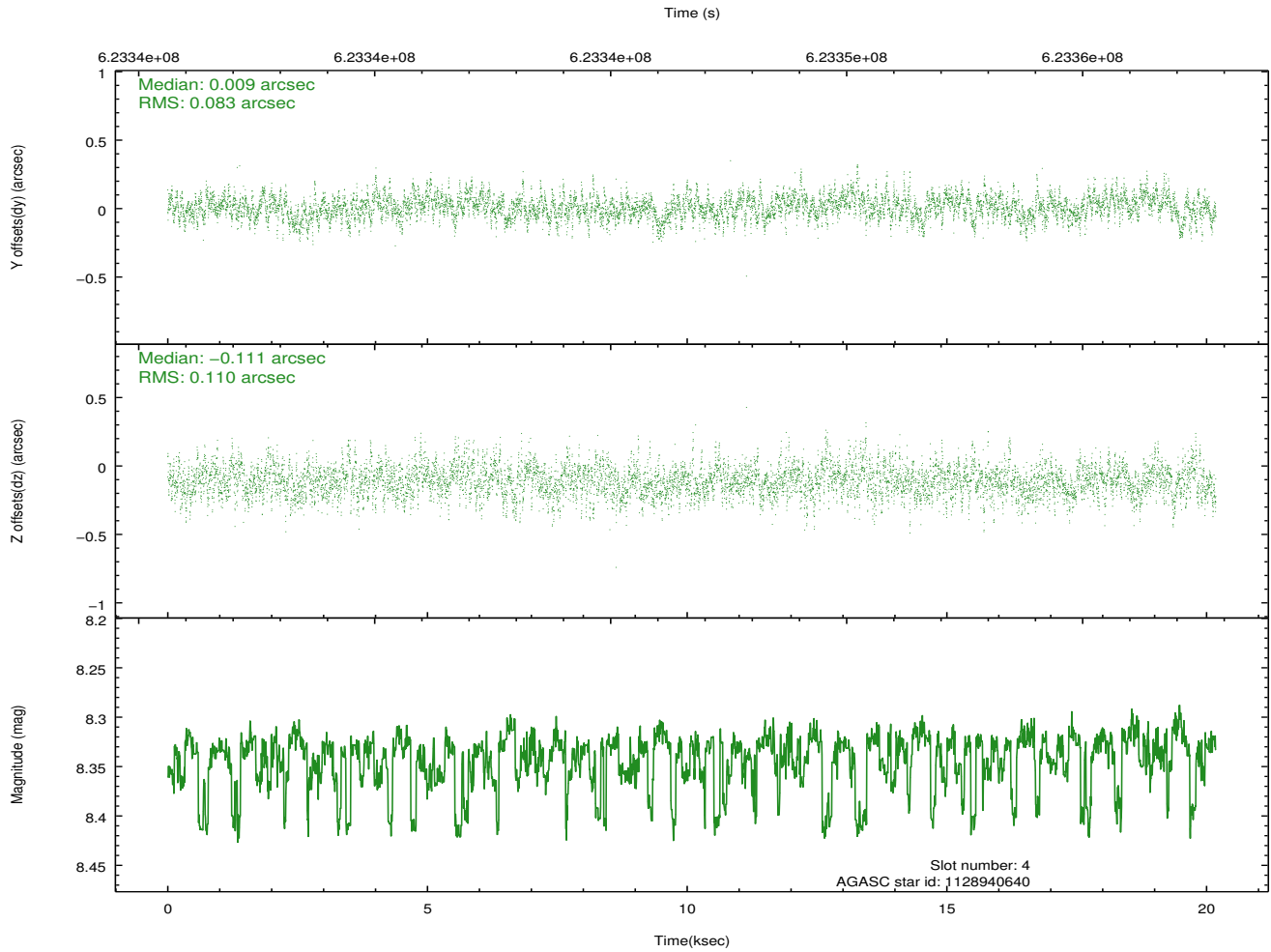
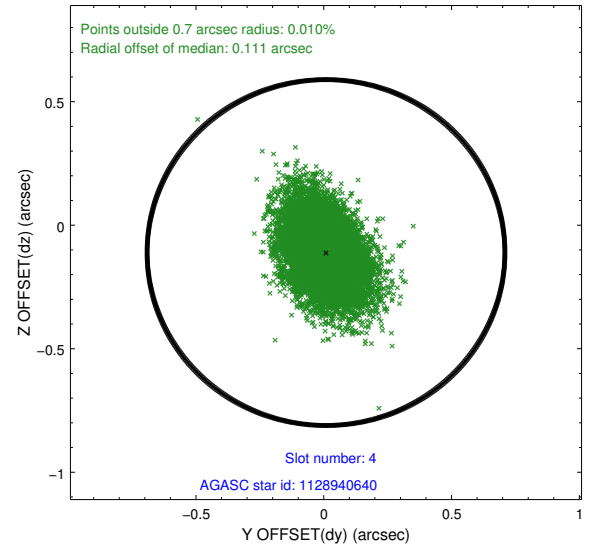
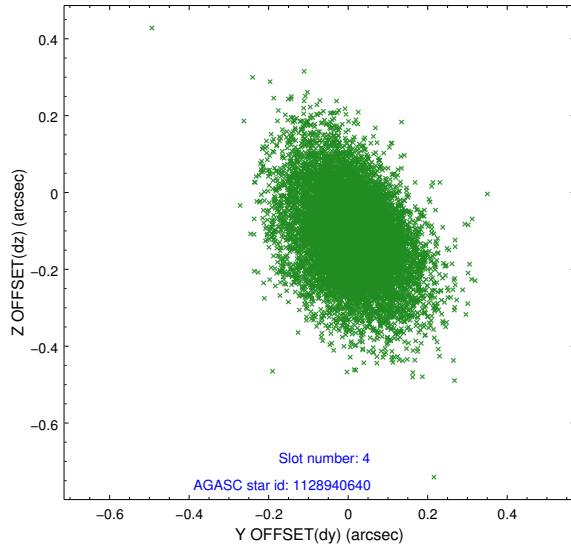
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.10	4922	0.056	-0.027	0.021	0.040	0.000000	0.000000	924.93	-843.98
1	FID		ACIS-I-5	7.09	4919	-0.339	0.021	0.010	0.016	0.000000	0.000000	-1823.57	1053.32
2	FID		ACIS-I-6	7.10	4921	0.192	0.075	0.015	0.031	0.000000	0.000000	390.28	1698.20
3	GUIDE	used	1128399856	8.04	9842	-0.075	-0.019	0.145	0.253	159.643120	-57.562425	1637.86	-2140.99
4	GUIDE	used	1128940640	8.34	9839	0.009	-0.111	0.141	0.247	159.517239	-59.074495	-1451.13	2347.11
5	GUIDE	used	1130105176	6.51	9845	0.049	0.149	0.130	0.231	160.221059	-57.935597	-55.58	-1728.21
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	used	1128927824	8.91	9841	0.024	-0.011	0.170	0.298	159.654739	-59.125305	-1764.41	2340.17

2.4 Star Slots

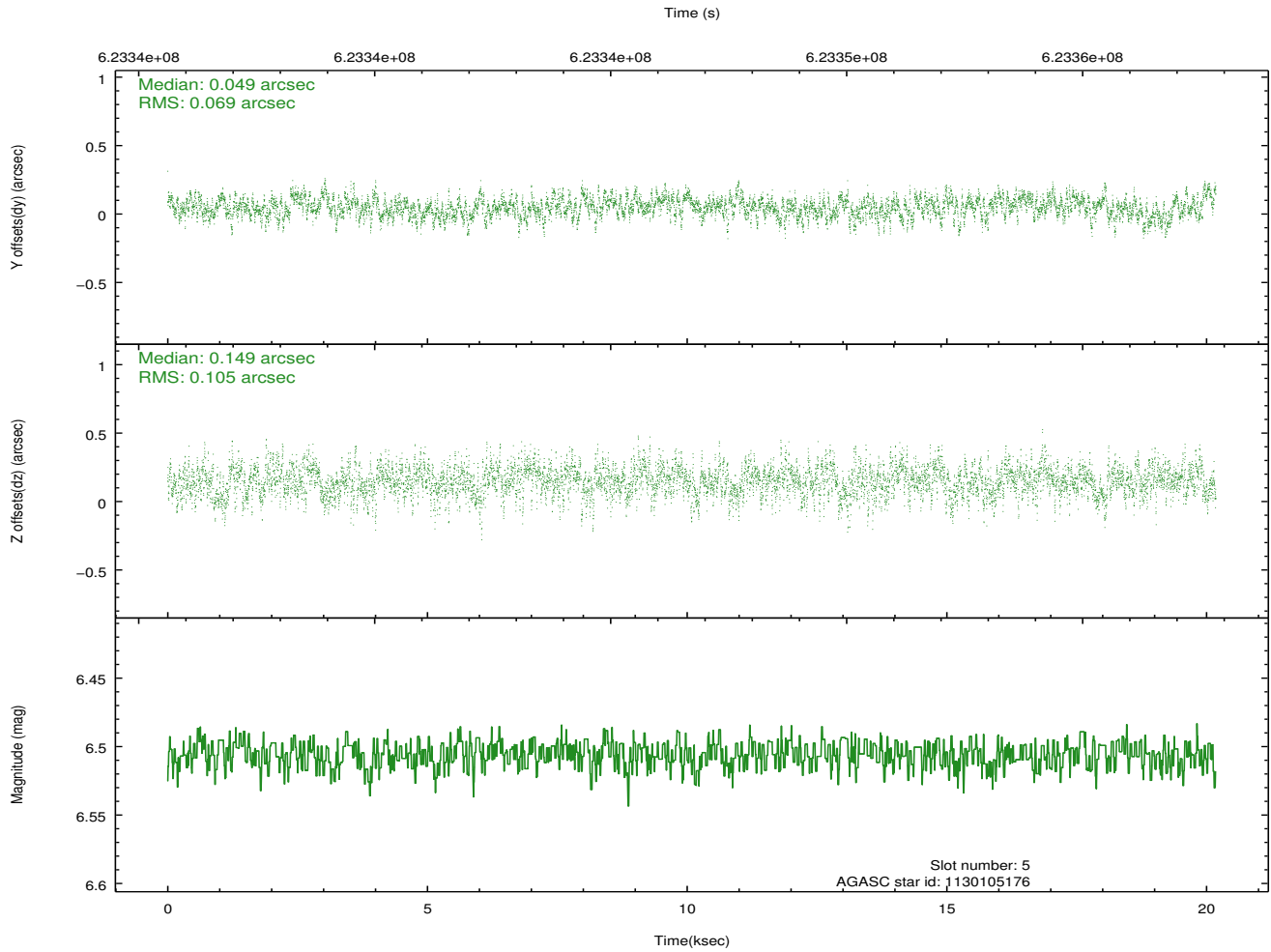
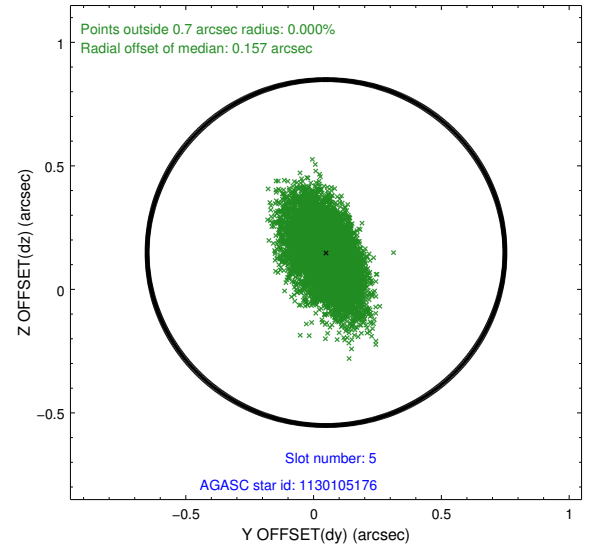
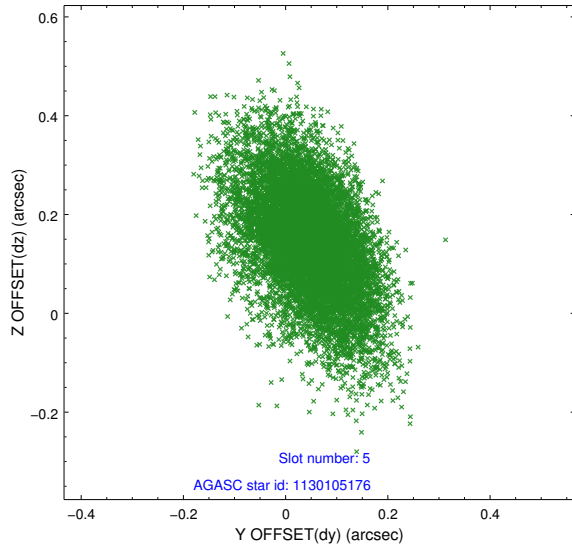
2.4.1 Slot 3



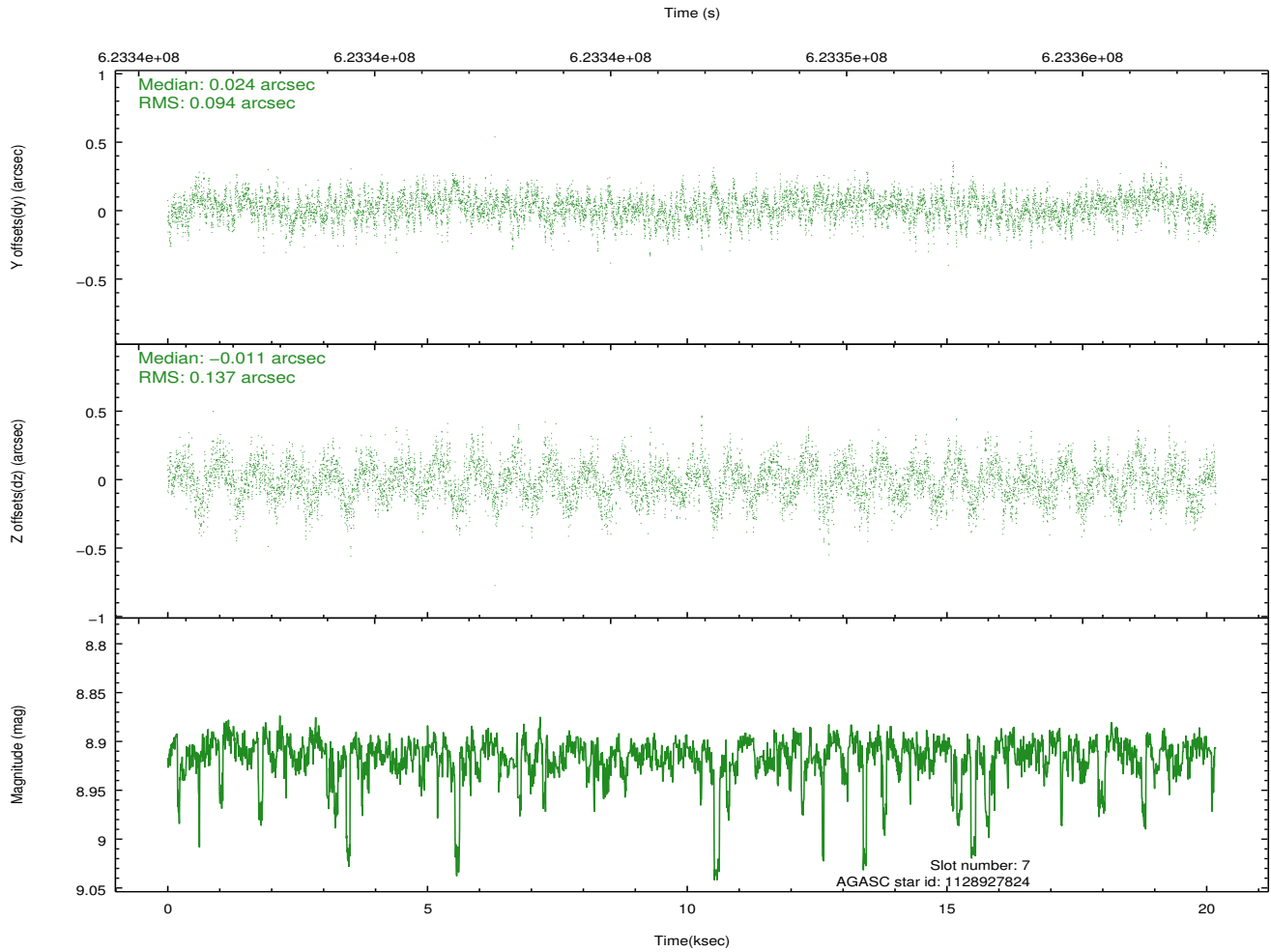
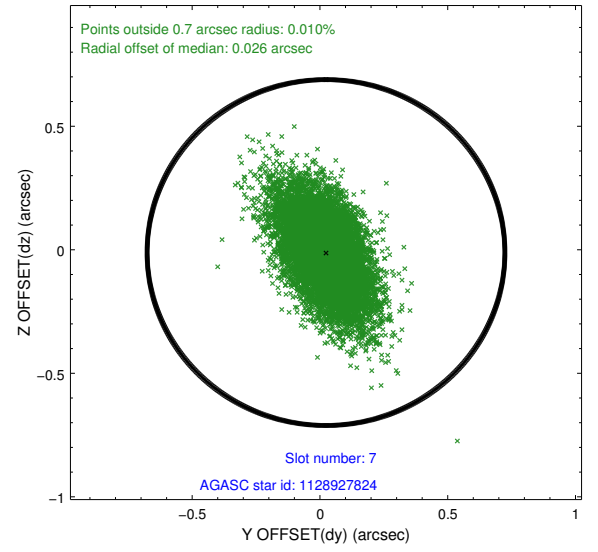
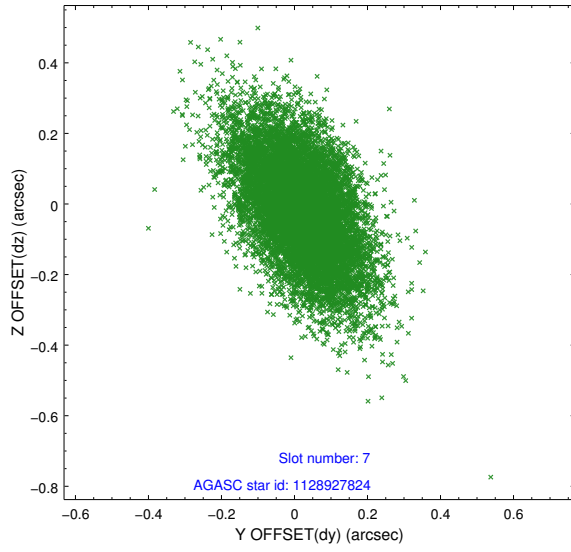
2.4.2 Slot 4



2.4.3 Slot 5

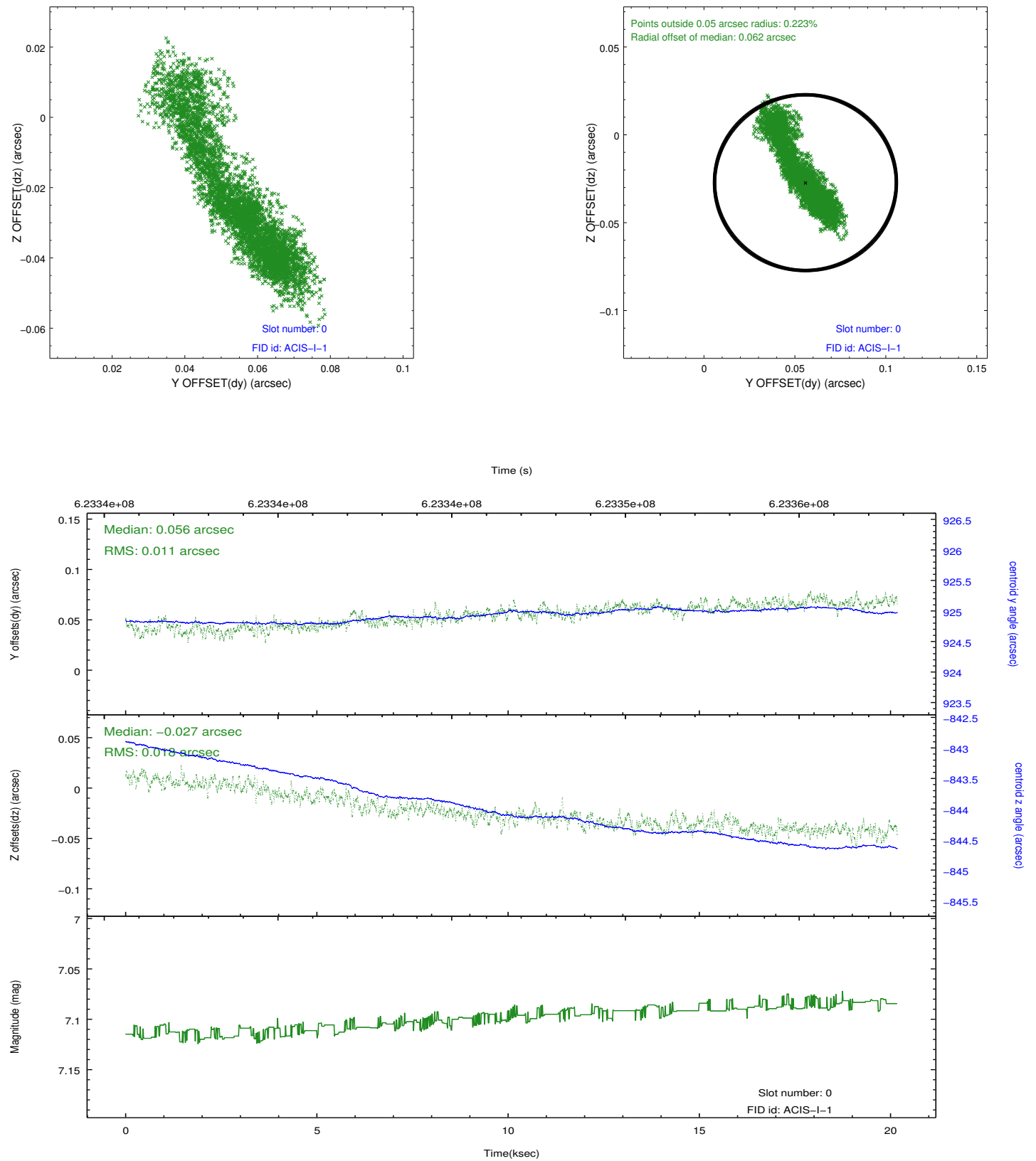


2.4.4 Slot 7

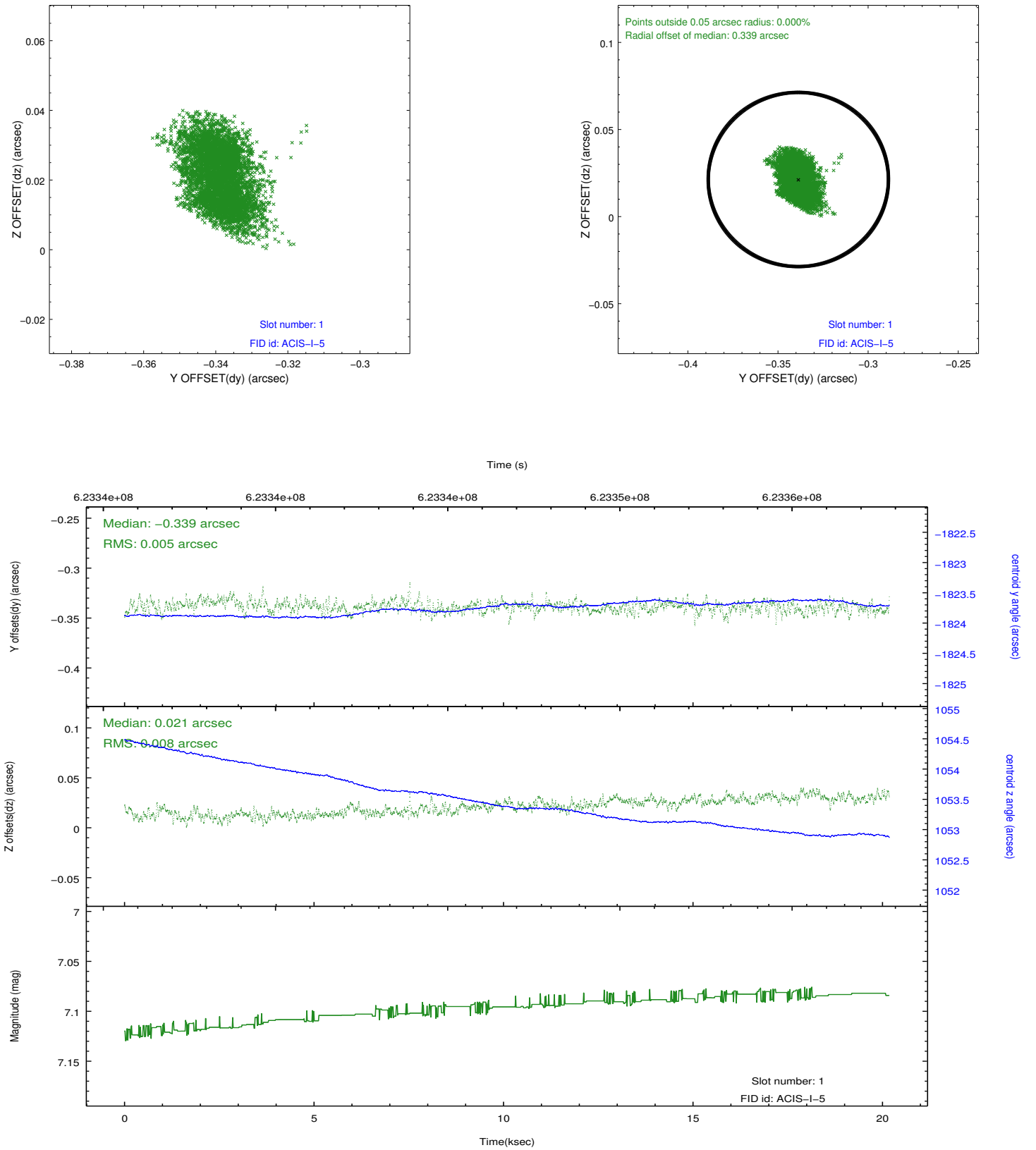


2.5 FID Slots

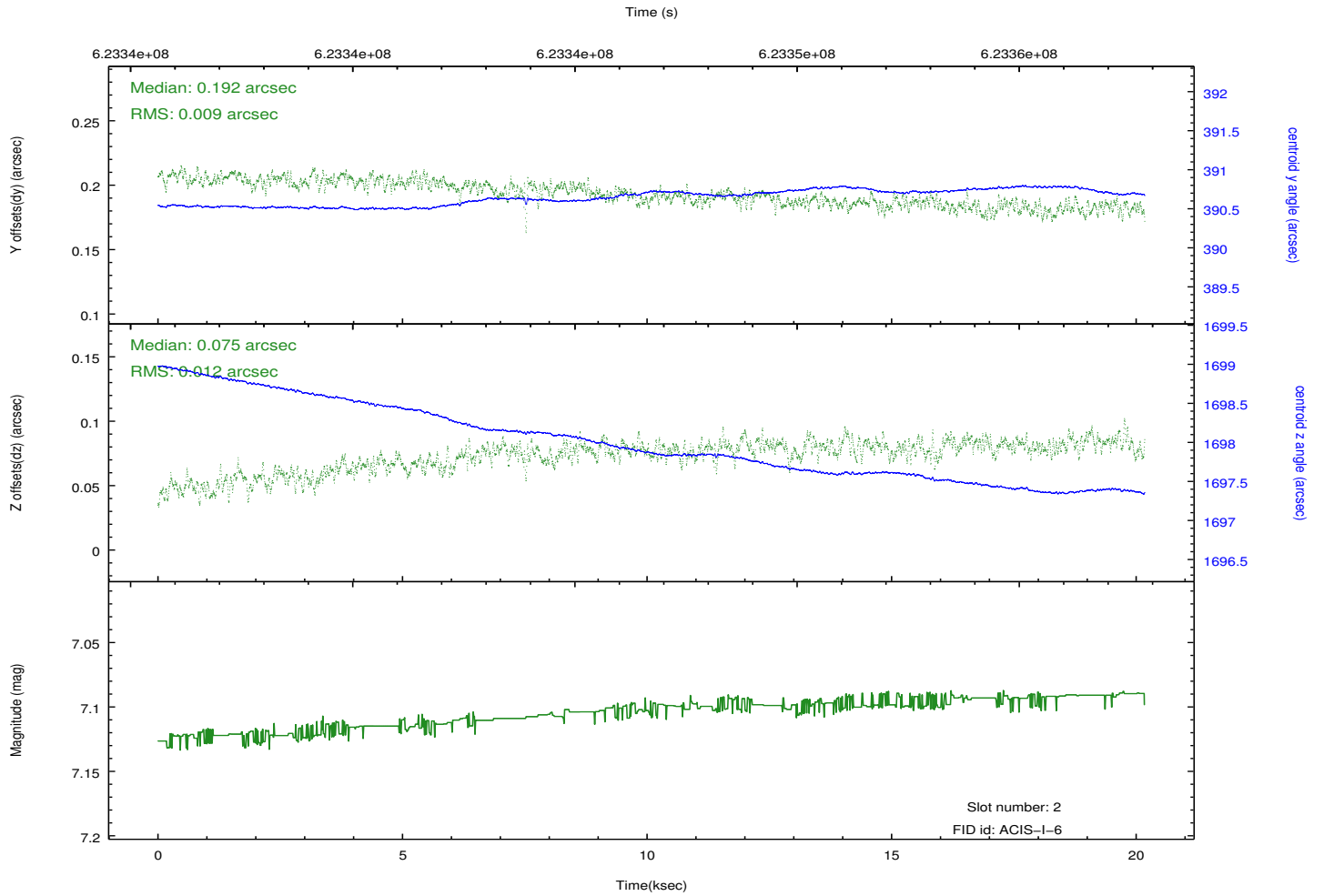
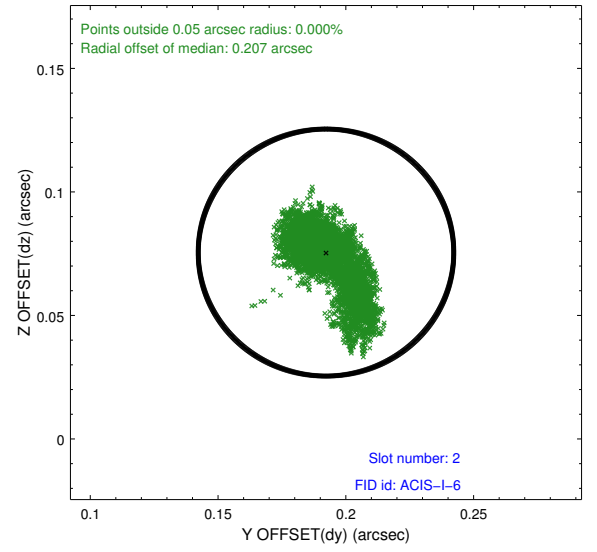
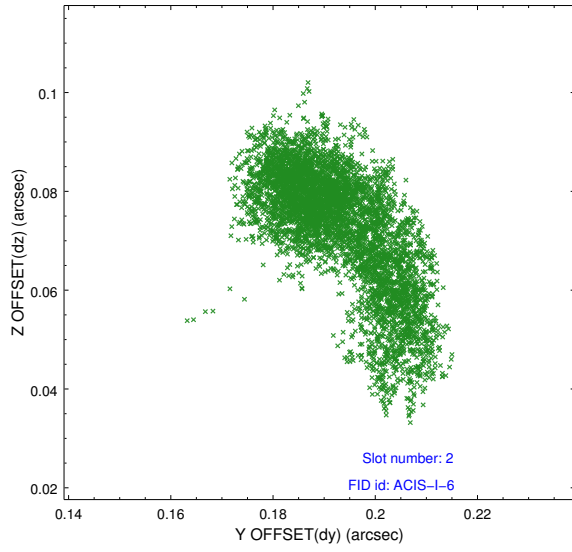
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2017.10.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.953948968291

A.2 Comments

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.