

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 20914 - L2 Version 1
Chandra X-Ray Center

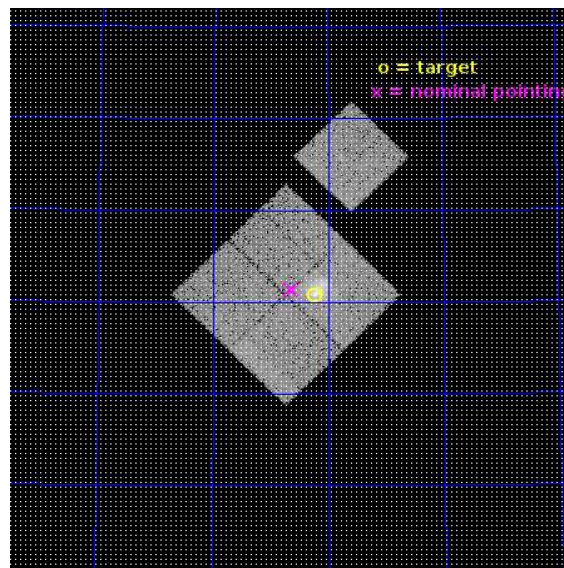
L2 Processing Date : Dec 25 2018

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1 Front

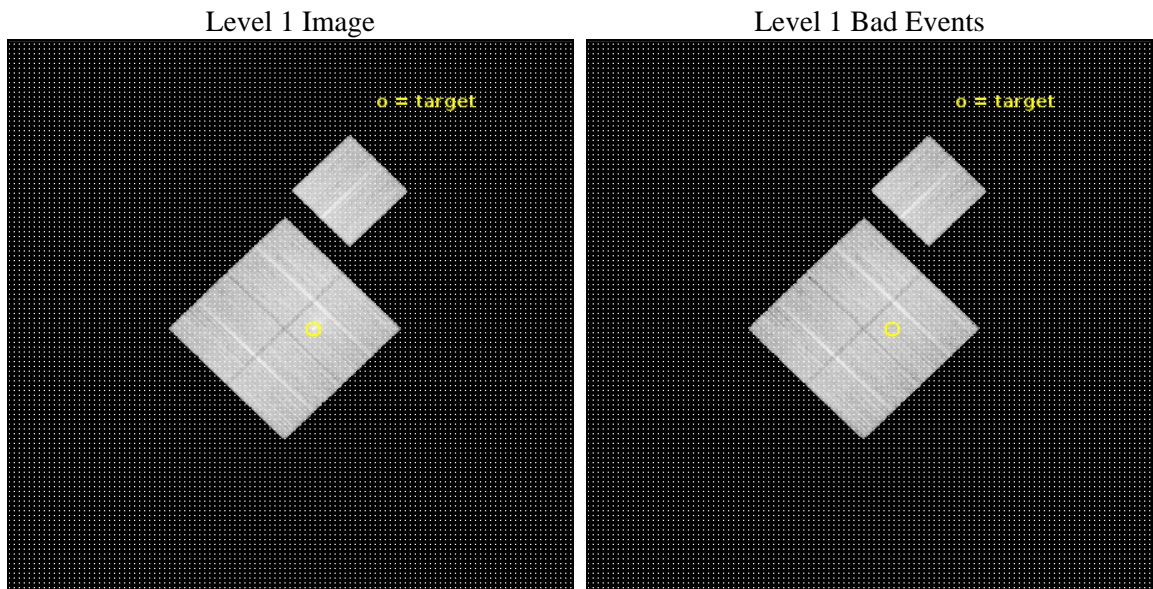
seq_num	801762	Sequence number
obs_id	20914	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	239.16048612558	Nominal RA [deg]
dec_nom	66.356186795626	Nominal Dec [deg]
roll_nom	45.117817609148	Nominal Roll [deg]
revision	1	Processing version of data
ontime	20320.459136009	Sum of GTIs [s]
livetime	20054.957377693	Livetime [s]
ontime0	20323.600156426	Sum of GTIs [s]
ontime1	20323.600156426	Sum of GTIs [s]
ontime2	20317.31811595	Sum of GTIs [s]
ontime3	20320.459136009	Sum of GTIs [s]
ontime6	20320.459136248	Sum of GTIs [s]
l2events	82796	Number of level 2 events



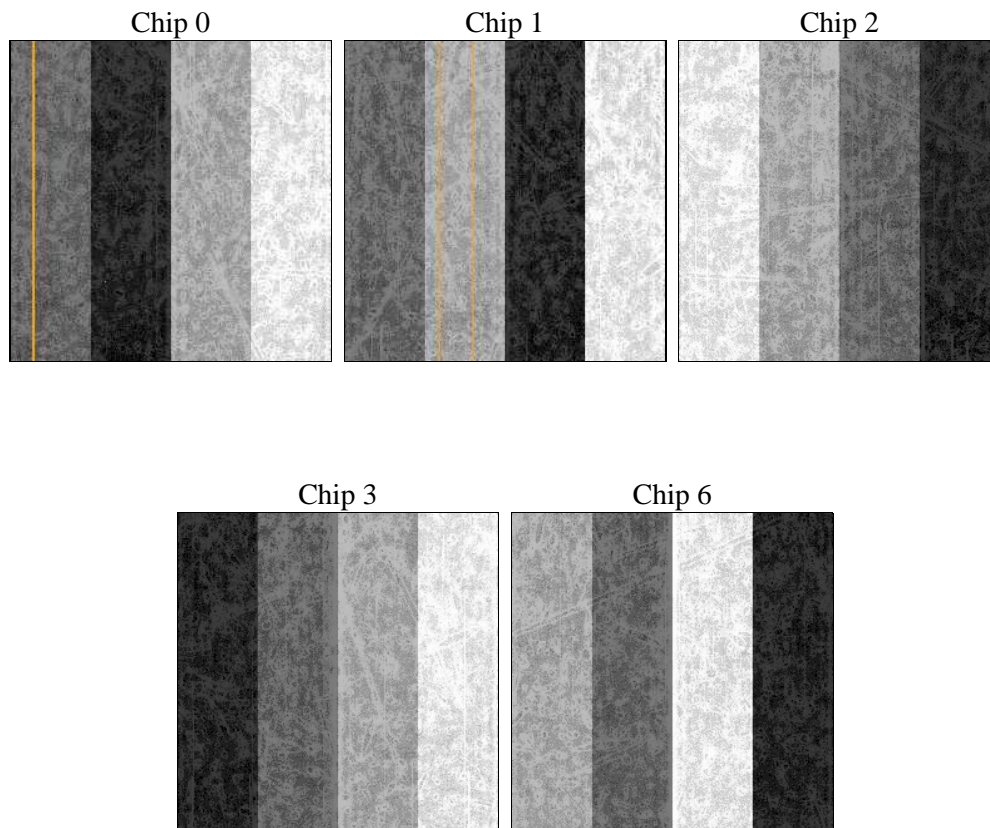
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20255.470000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	20320.459136009	Sum of GTIs [s]
caldbver	4.8.2	 	ontime0	20323.600156426	Sum of GTIs [s]
date	2018-12-25T14:52:32	Date and time of file creation	ontime1	20323.600156426	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	20317.31811595	Sum of GTIs [s]
			ontime3	20320.459136009	Sum of GTIs [s]
			ontime6	20320.459136248	Sum of GTIs [s]
			l1events	782006	Number of level 1 events

2.1.4 Events

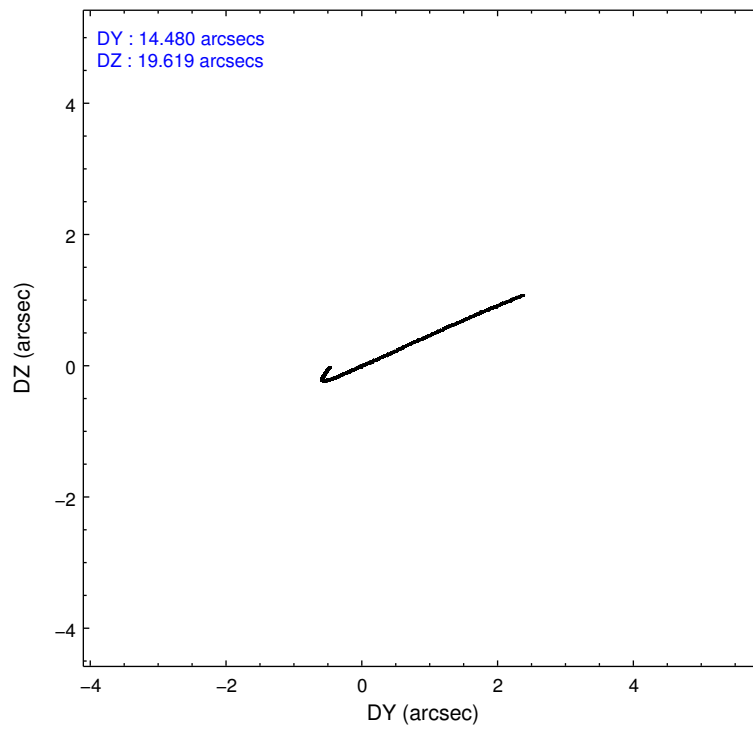
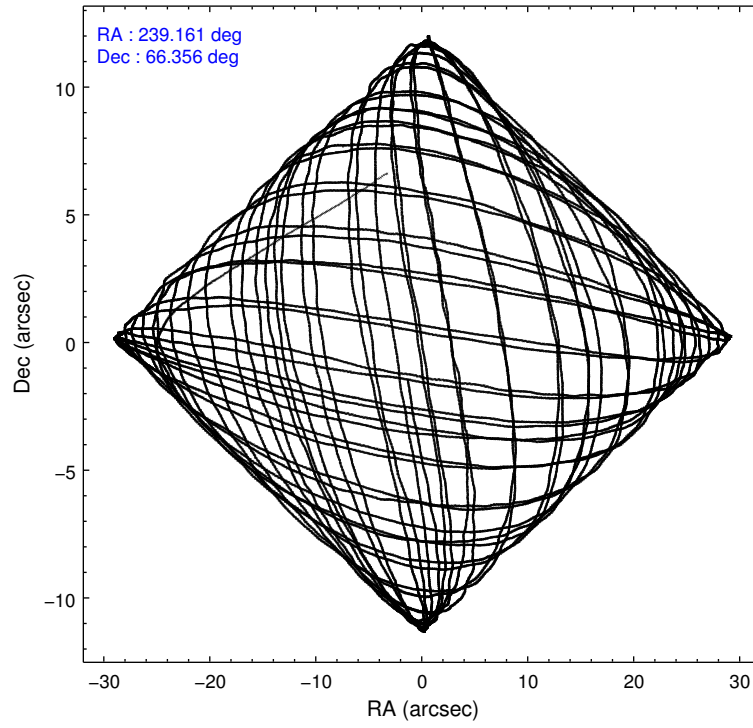
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	142836	151487	164400	166316	156967
rejected events	125310	132439	147493	139955	139428
rejected %	87%	87%	89%	84%	88%

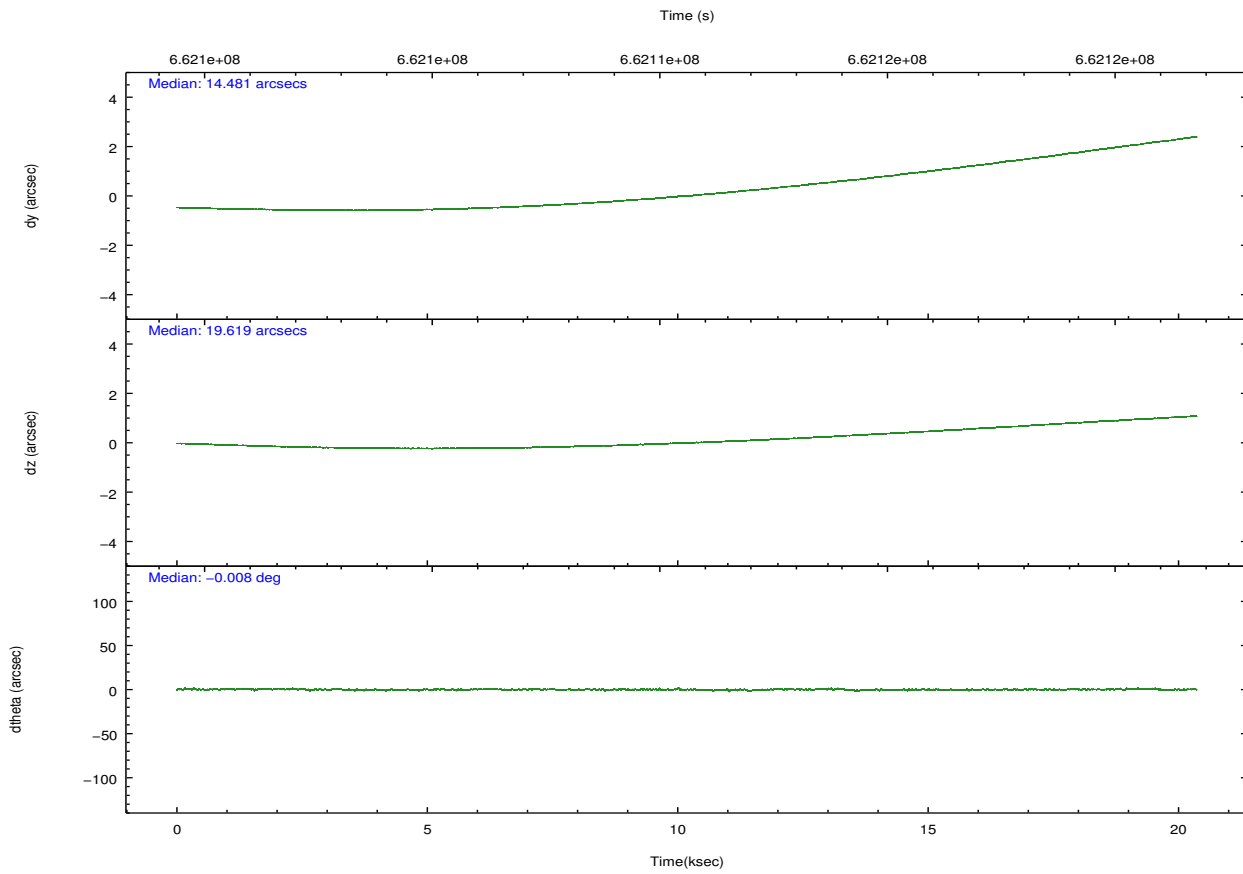
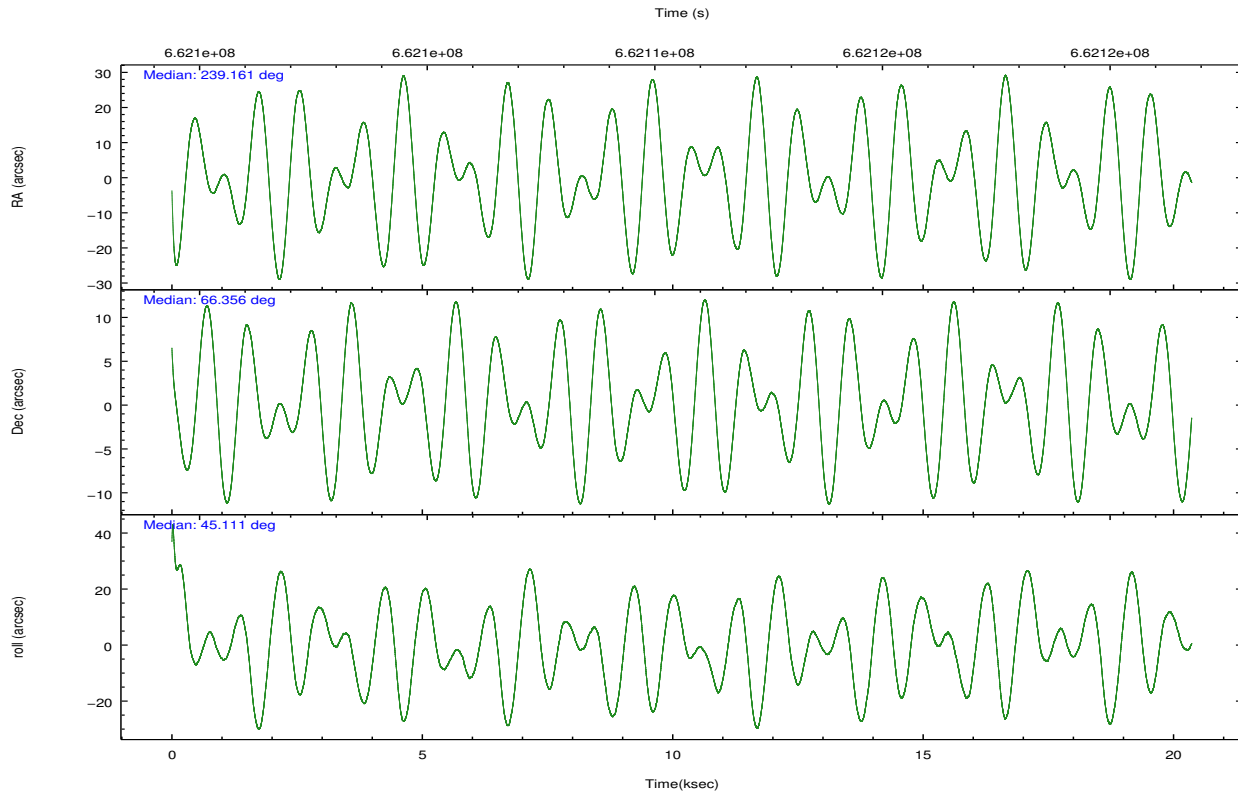
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5945	6370	5820	13962	5861
	4%	4%	3%	8%	3%
grade 1 events	69	64	105	135	75
	0%	0%	0%	0%	0%
grade 2 events	4496	5024	4374	4558	4191
	3%	3%	2%	2%	2%
grade 3 events	1798	1727	1594	2024	1713
	1%	1%	0%	1%	1%
grade 4 events	1676	1696	1698	1993	1622
	1%	1%	1%	1%	1%
grade 5 events	6474	6821	6320	7585	7087
	4%	4%	3%	4%	4%
grade 6 events	3612	4231	3425	3826	4154
	2%	2%	2%	2%	2%
grade 7 events	118766	125554	141064	132233	132264
	83%	82%	85%	79%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	239.143098	239.16048612558	CCD I2 on	Y	Y
[deg] Pointing Dec	66.329516	66.35618679562555	CCD I3 on	Y	Y
[deg] Pointing Roll	44.925035	45.11781760914846	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	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	662100541.184000	662099416.22703	CCD S5 on	N	N
Observation start date	2018-12-25T04:47:52	2018-12-25T04:30:16	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	662120797.184000	662121622.34086	On-chip summing requested	N	N
Observation end date	2018-12-25T10:25:28	2018-12-25T10:40:22	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





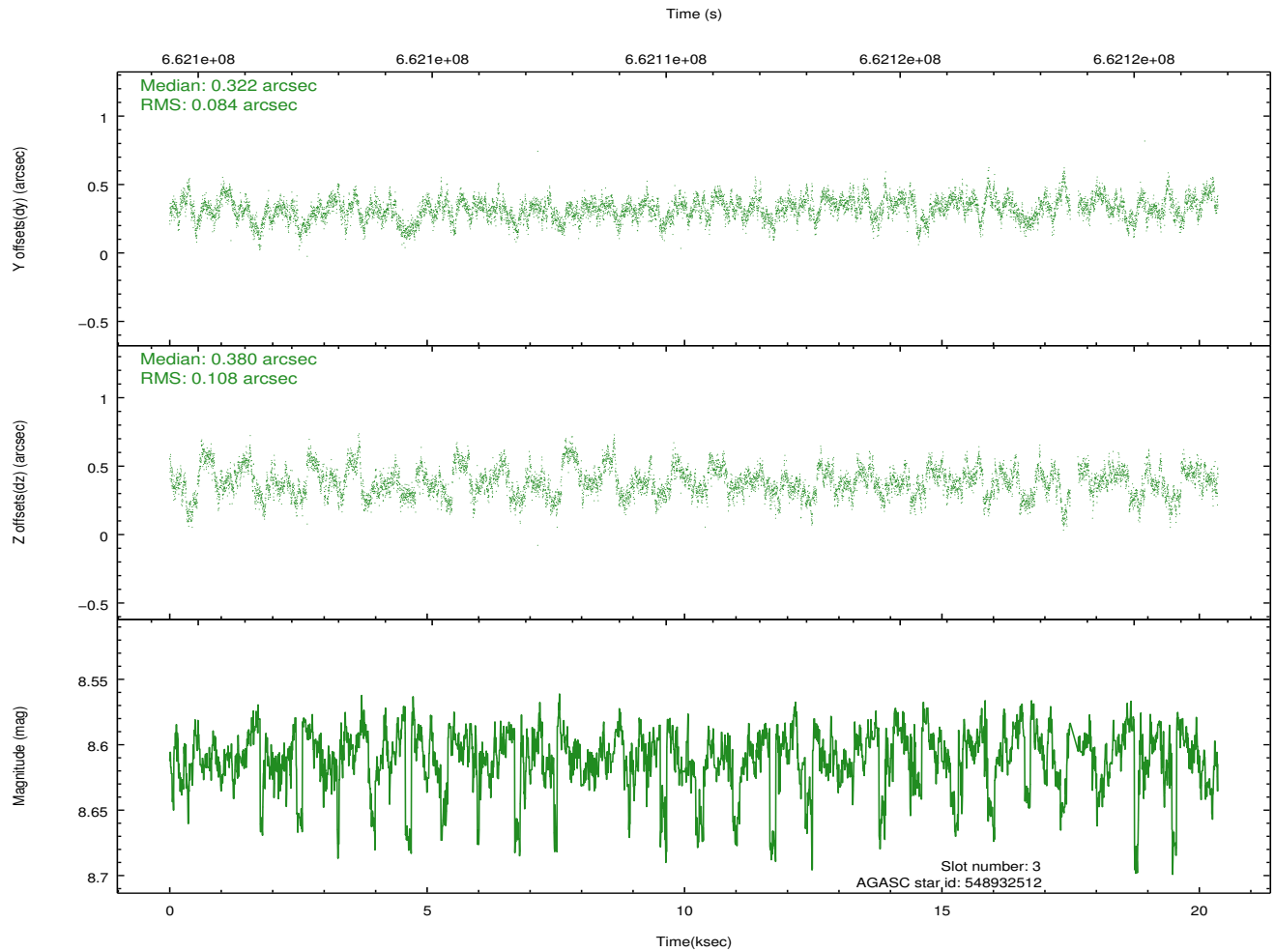
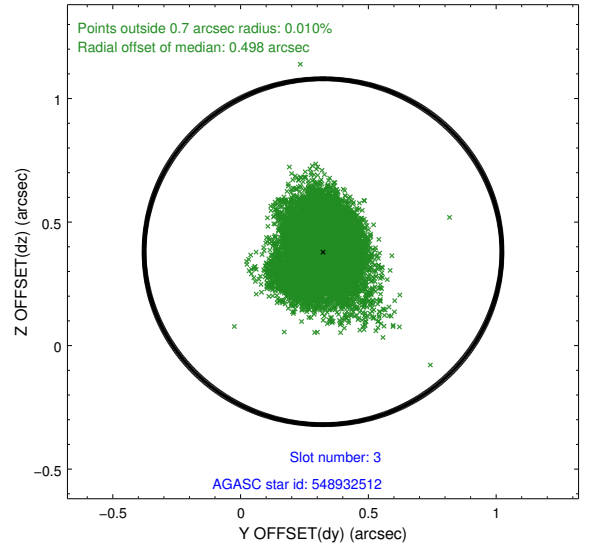
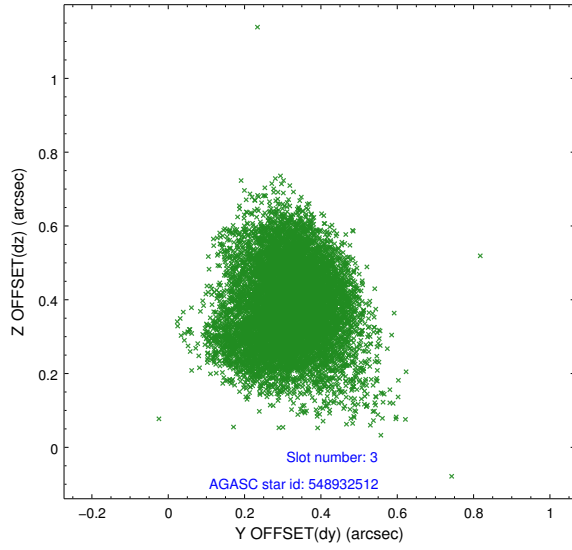
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.18	4967	1.000	0.082	-0.065	0.022	0.060	0.000000	0.000000	924.82	-843
1	FID		ACIS-I-5	7.18	4967	1.000	-0.505	-0.006	0.022	0.041	0.000000	0.000000	-1823.98	1053
2	FID		ACIS-I-6	7.19	4967	1.000	0.331	0.143	0.018	0.041	0.000000	0.000000	390.15	1698
3	GUIDE	used	548932512	8.61	9854	1.000	0.322	0.380	0.147	0.233	239.727627	66.054972	-89.46	-1298
4	GUIDE	used	548933960	8.44	9925	1.000	-0.001	0.101	0.149	0.253	237.671184	66.428675	-1231.60	1766
5	GUIDE	used	548937184	9.84	9845	1.000	-0.344	-0.189	0.240	0.420	238.771821	66.565432	224.15	978
6	GUIDE	used	549850848	8.84	9920	1.000	0.140	-0.192	0.206	0.384	241.459219	66.322658	2397.19	-2336
7	GUIDE	used	549850840	9.29	9923	1.000	-0.112	-0.110	0.221	0.365	241.038865	66.468628	2312.19	-1540

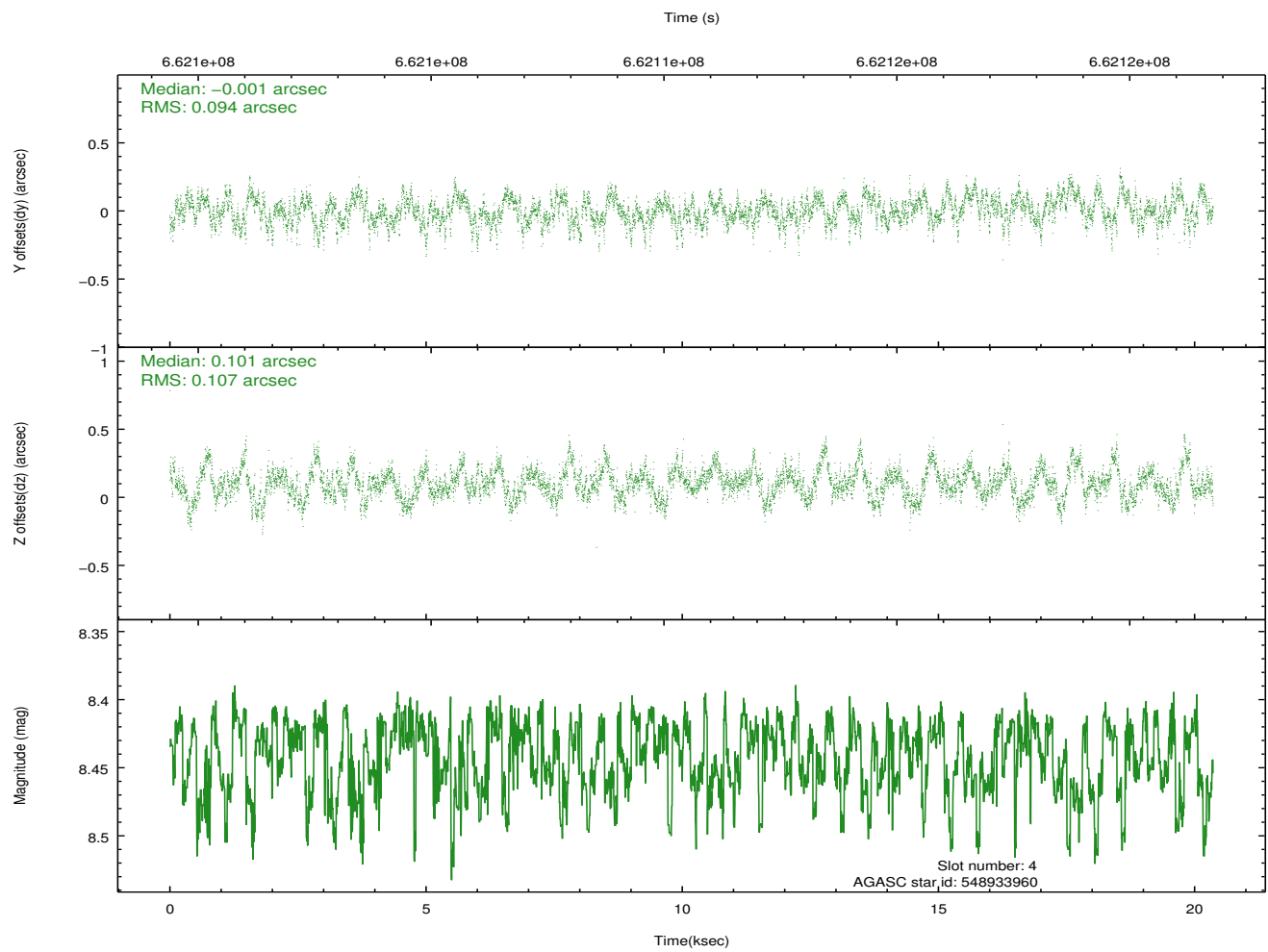
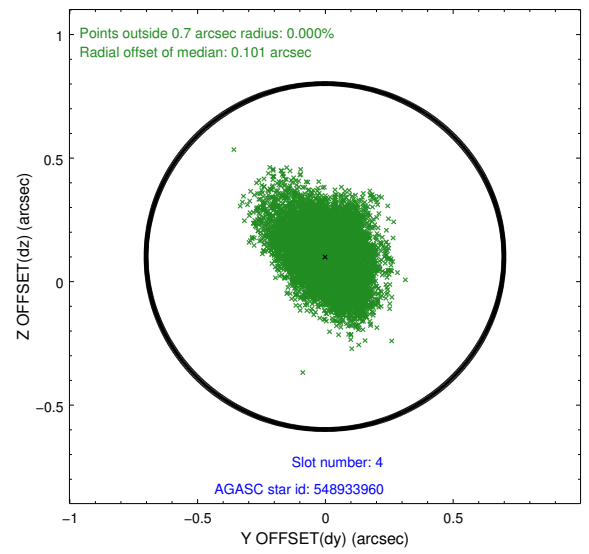
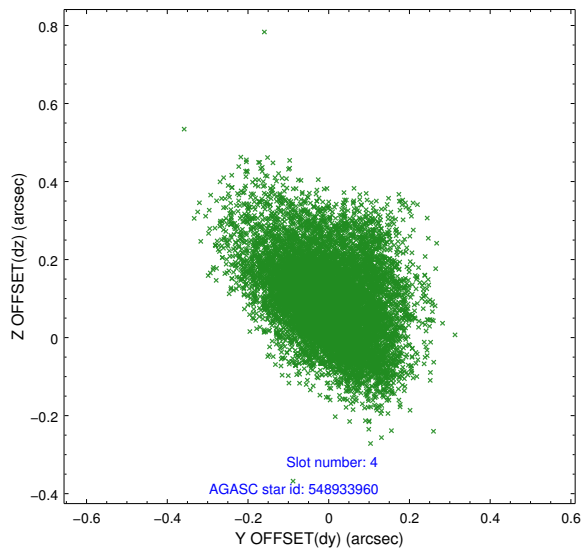
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2.4 Star Slots

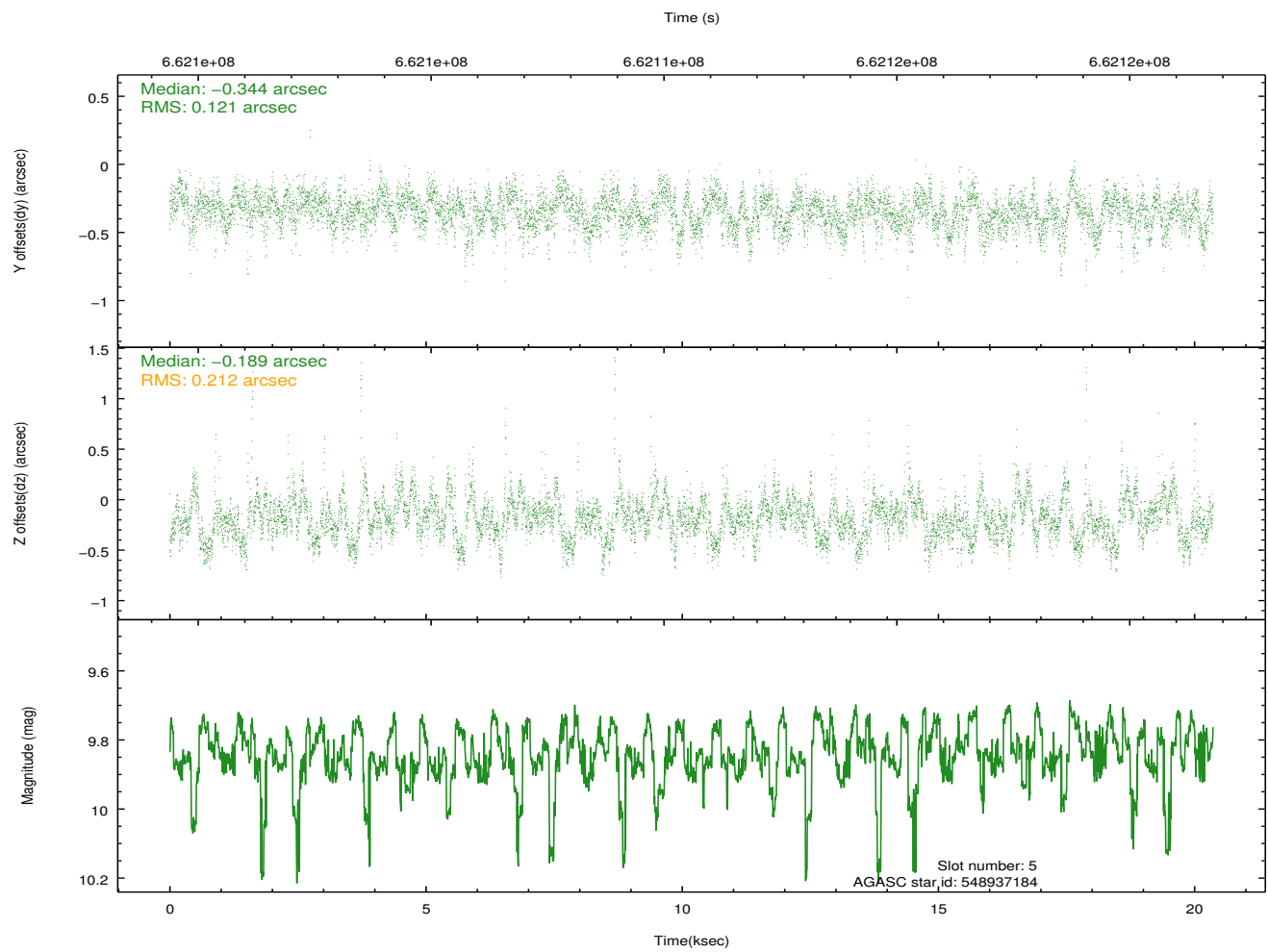
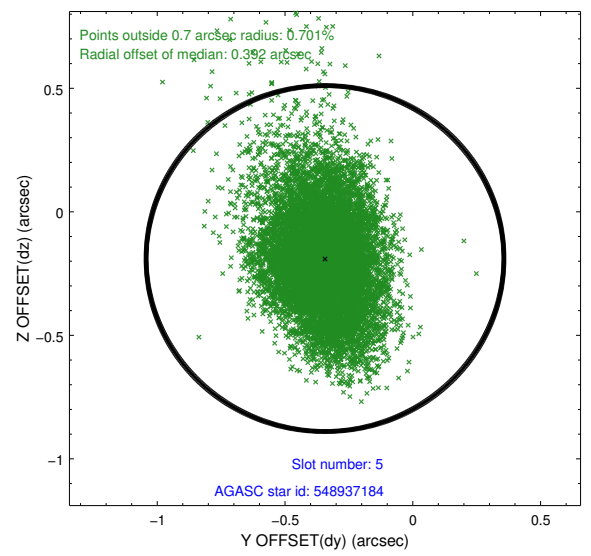
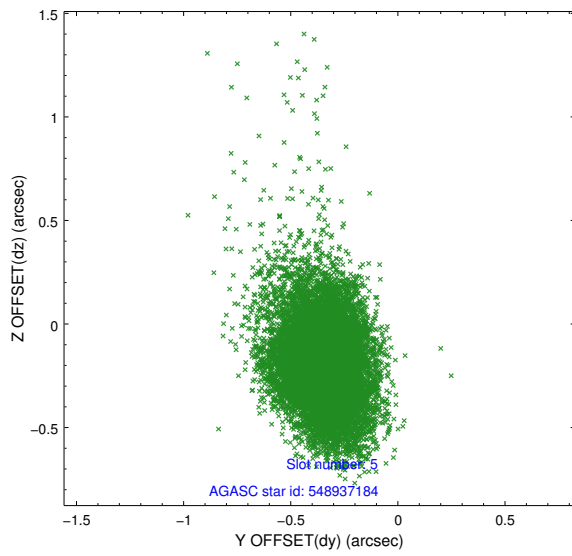
2.4.1 Slot 3



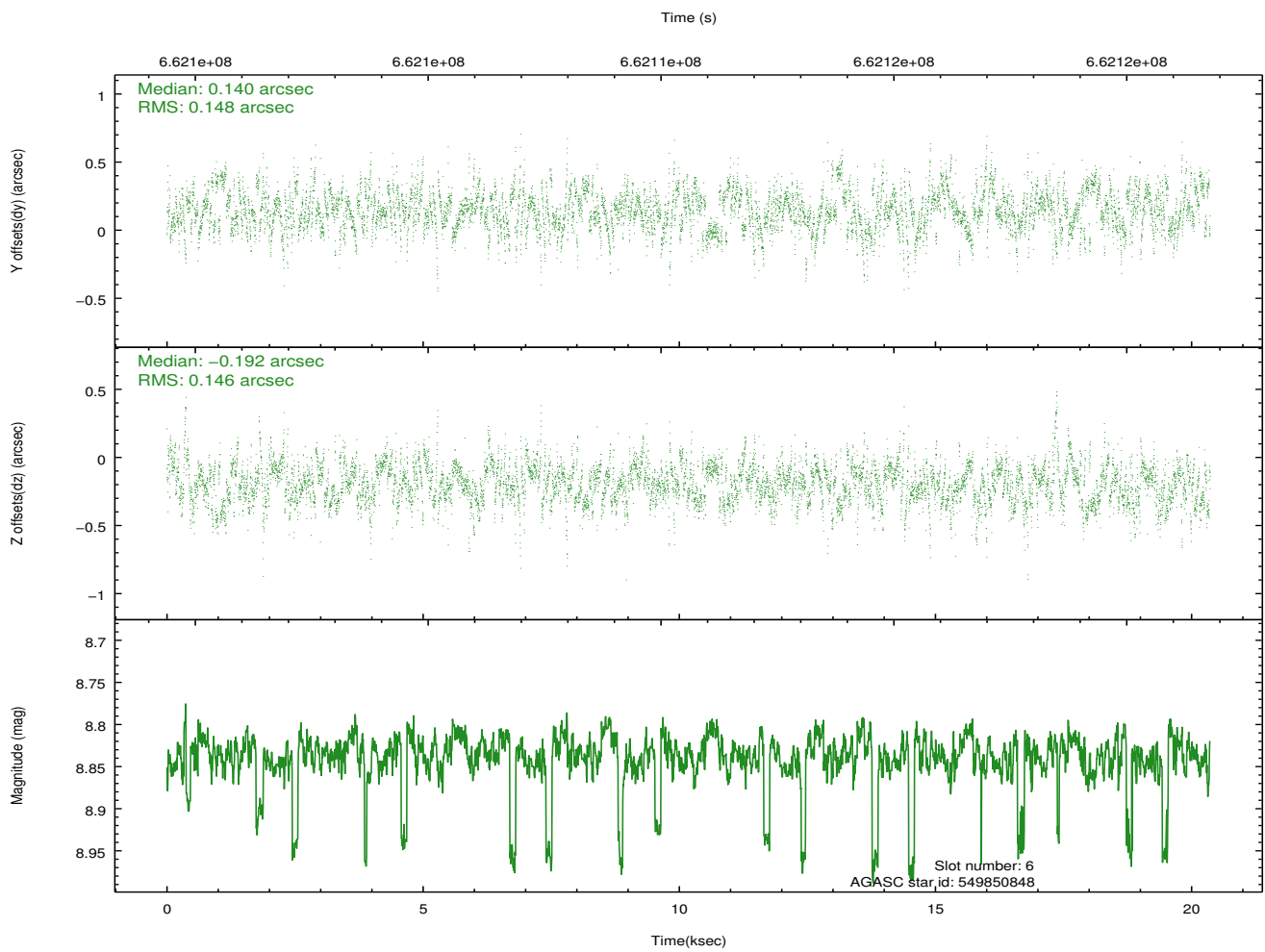
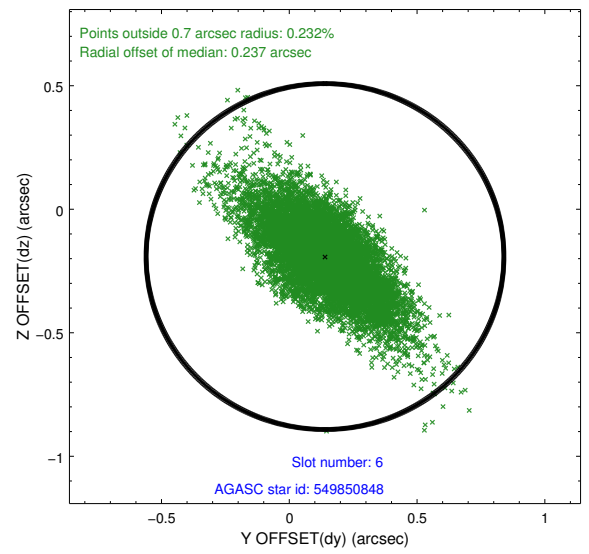
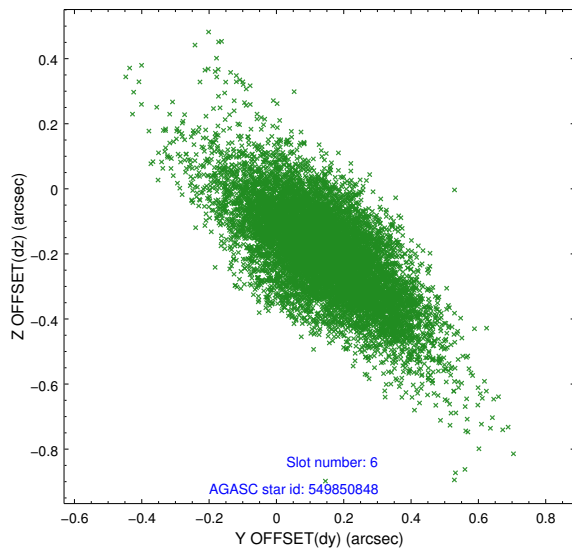
2.4.2 Slot 4



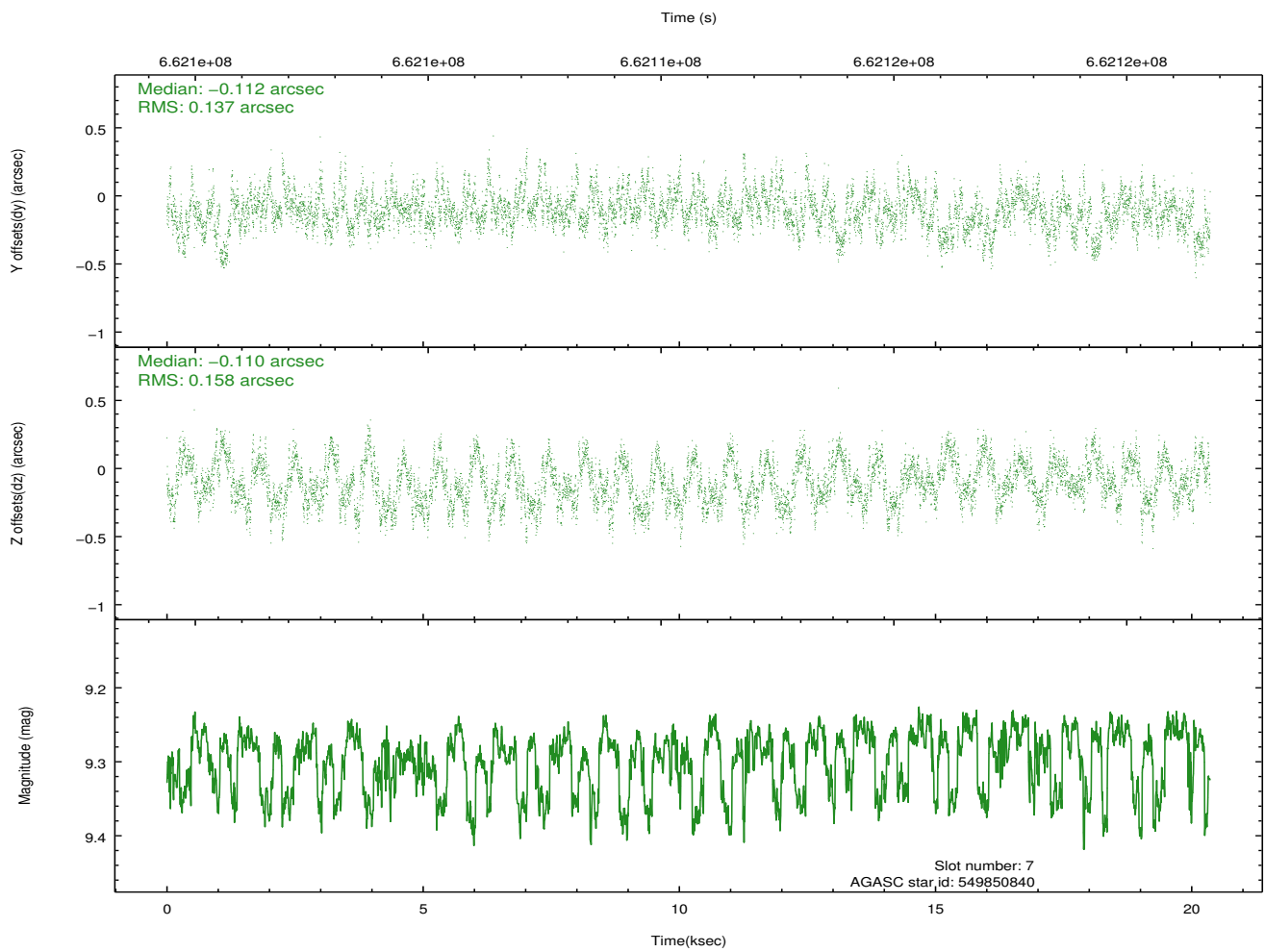
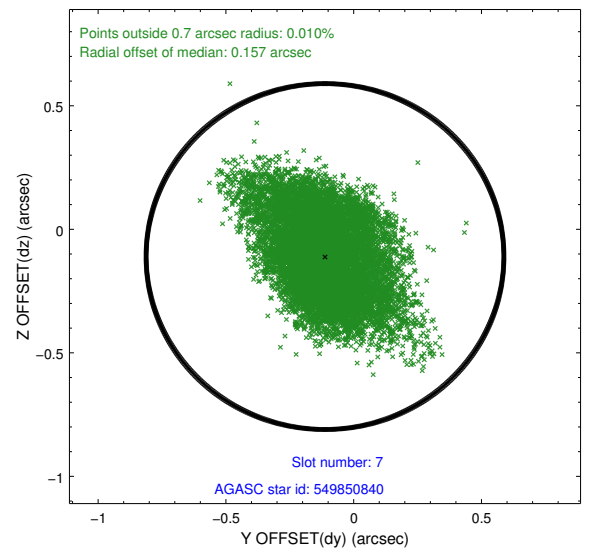
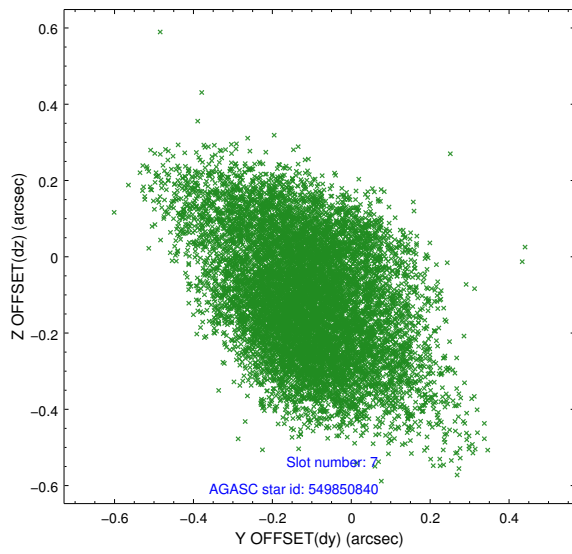
2.4.3 Slot 5



2.4.4 Slot 6

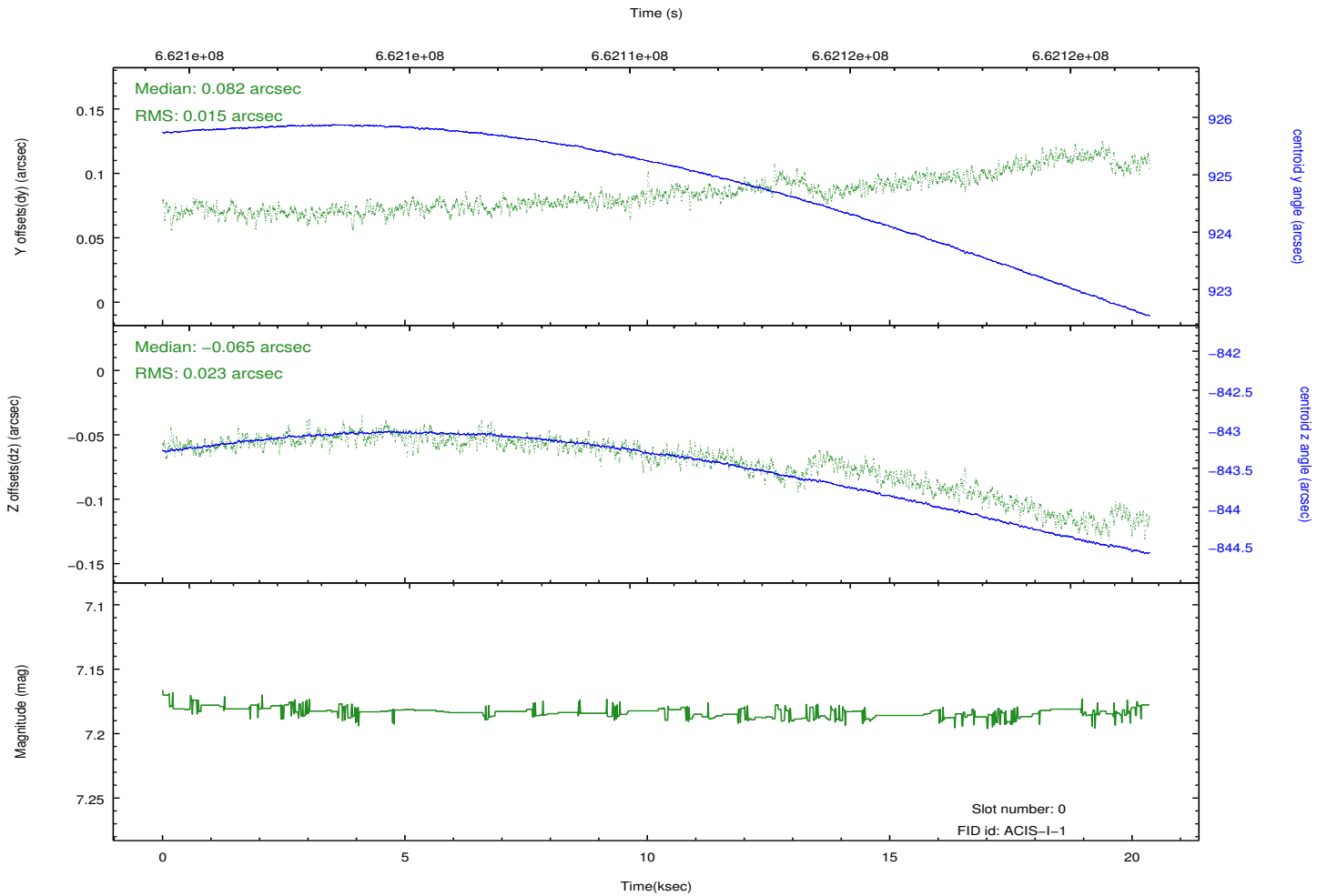
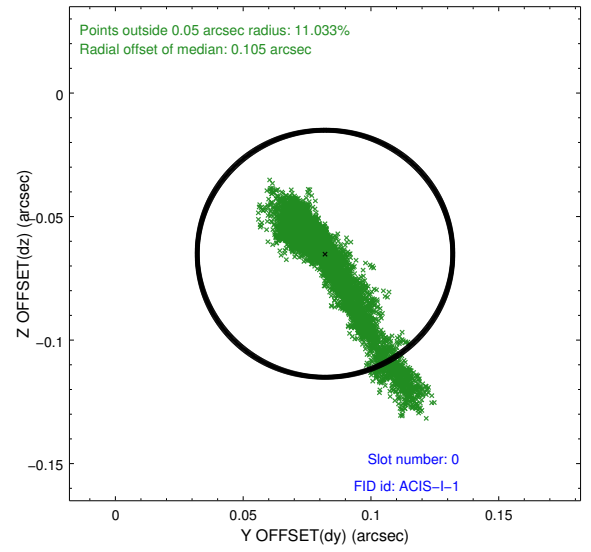
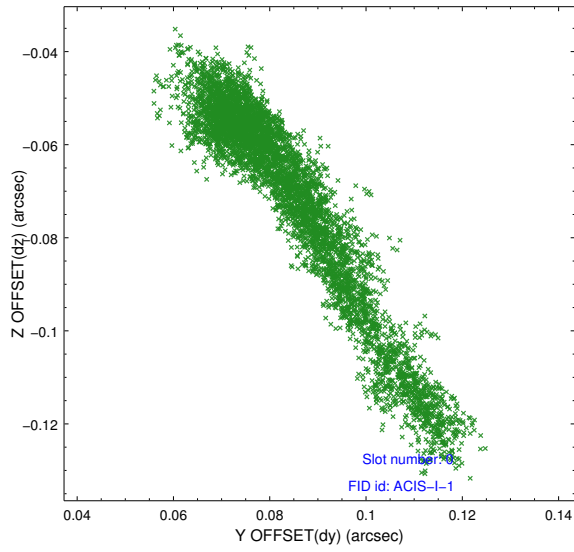


2.4.5 Slot 7

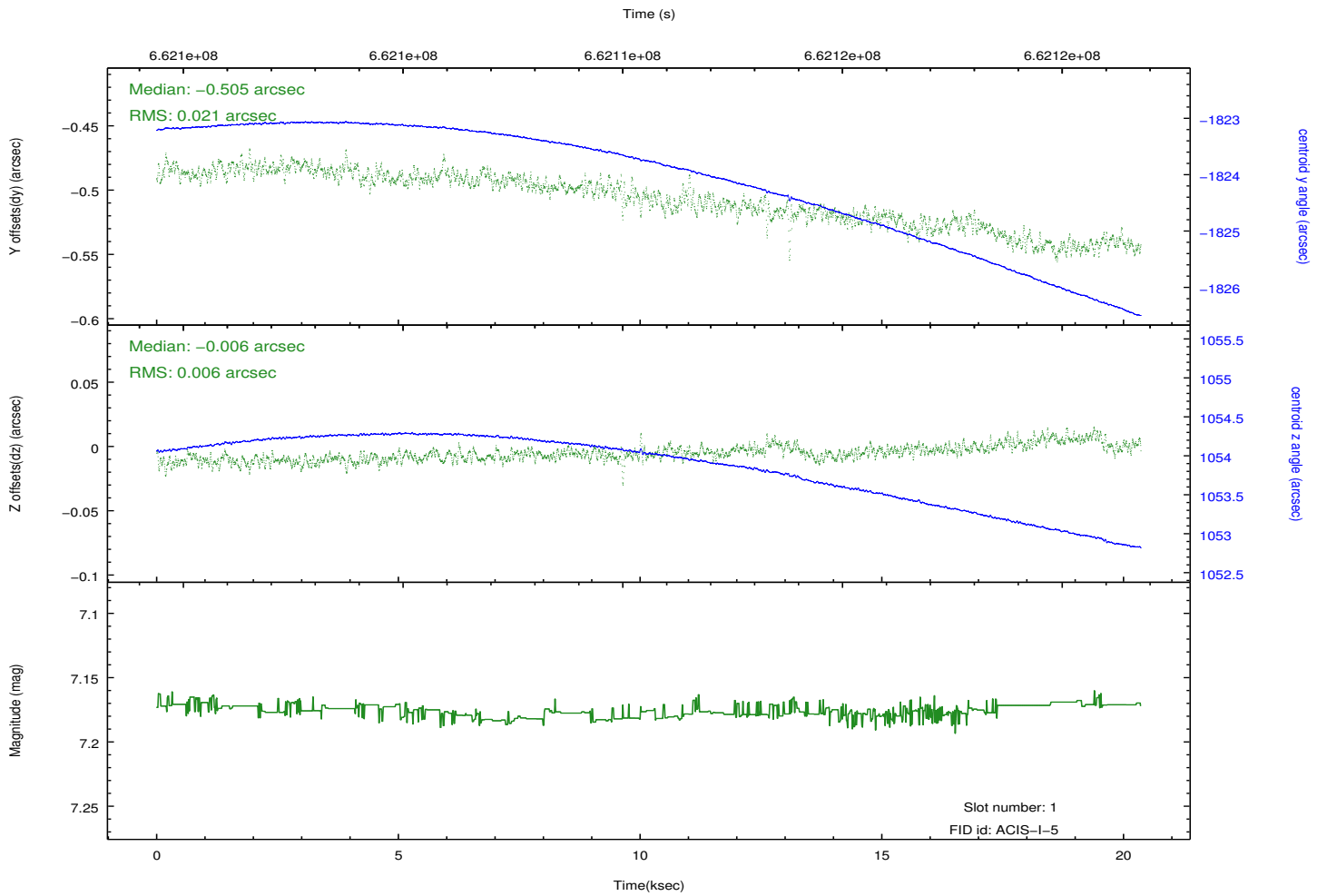
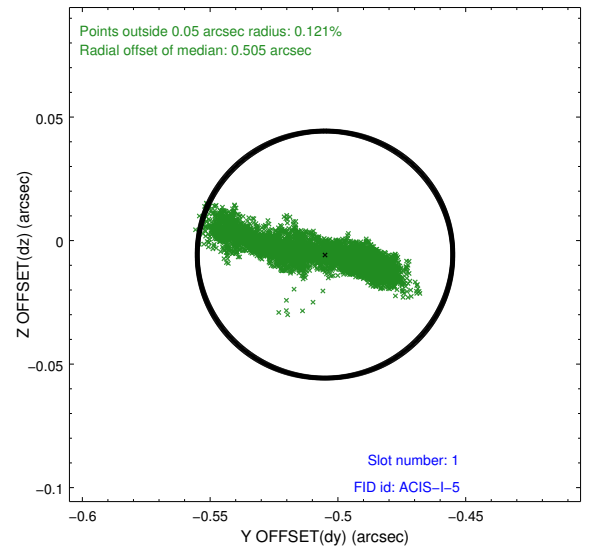
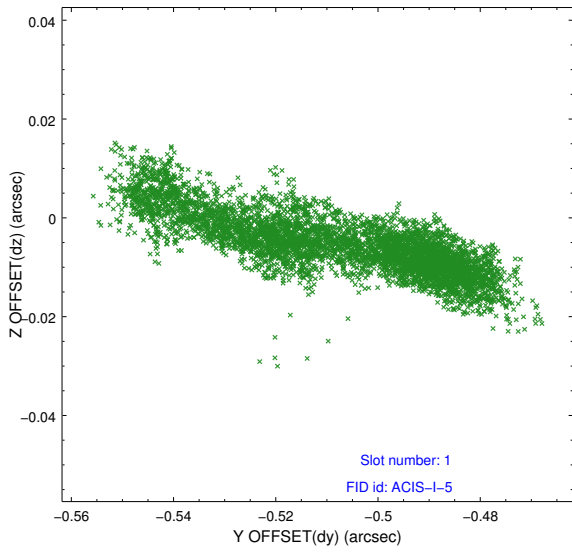


2.5 FID Slots

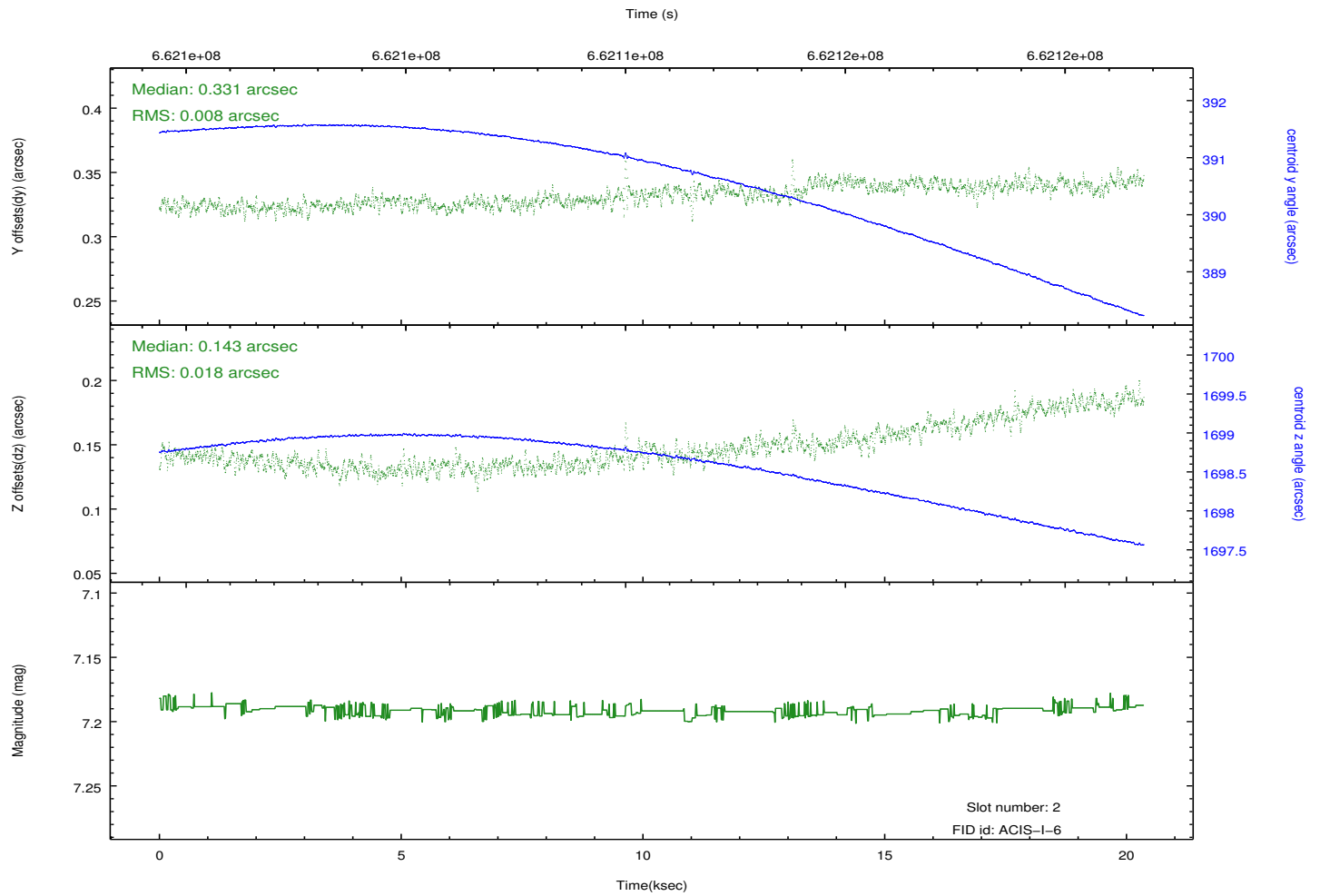
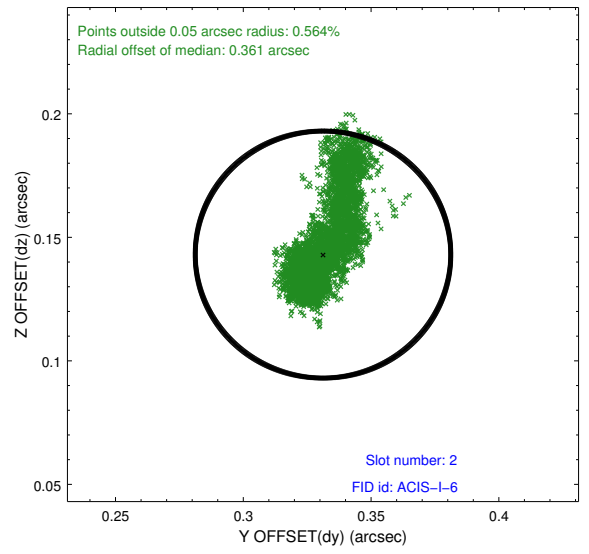
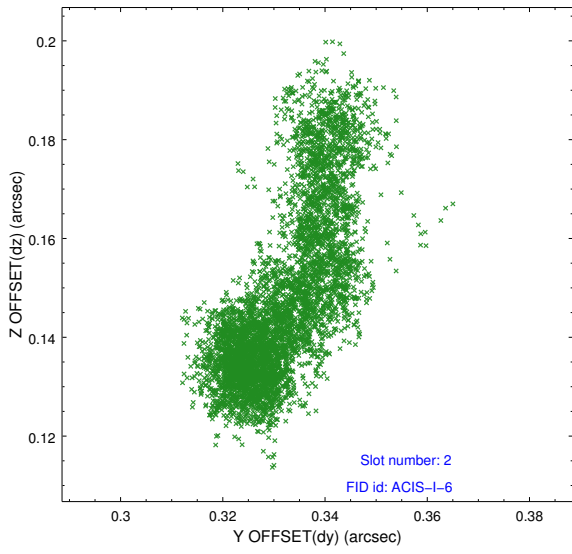
2.5.1 Slot 0



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)	2018.12.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.320459136009

A.2 Comments