

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 20919 - L2 Version 1
Chandra X-Ray Center

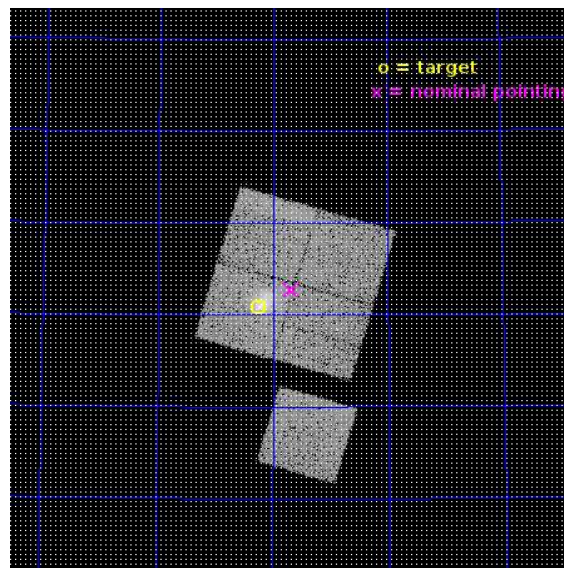
L2 Processing Date : May 27 2019

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 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

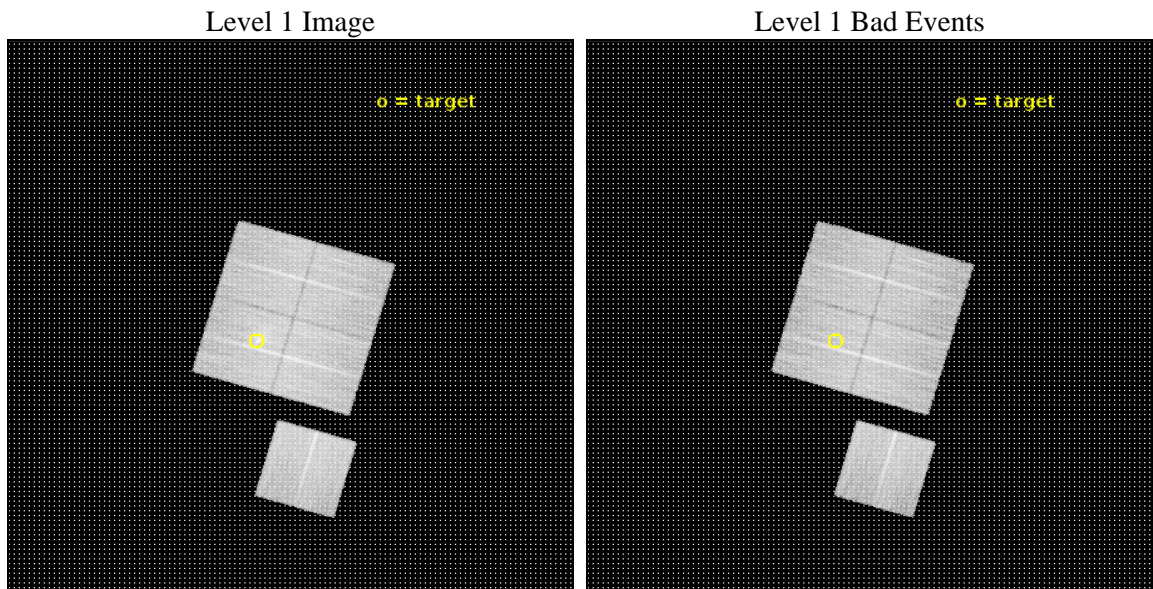
seq_num	801762	Sequence number
obs_id	20919	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.91921346841	Nominal RA [deg]
dec_nom	66.37919444978	Nominal Dec [deg]
roll_nom	196.33881812418	Nominal Roll [deg]
revision	1	Processing version of data
ontime	17062.318100691	Sum of GTIs [s]
livetime	16839.386353609	Livetime [s]
ontime0	17068.600131392	Sum of GTIs [s]
ontime1	17065.459091067	Sum of GTIs [s]
ontime2	17065.459100962	Sum of GTIs [s]
ontime3	17062.318100691	Sum of GTIs [s]
ontime6	17068.600131392	Sum of GTIs [s]
l2events	69544	Number of level 2 events



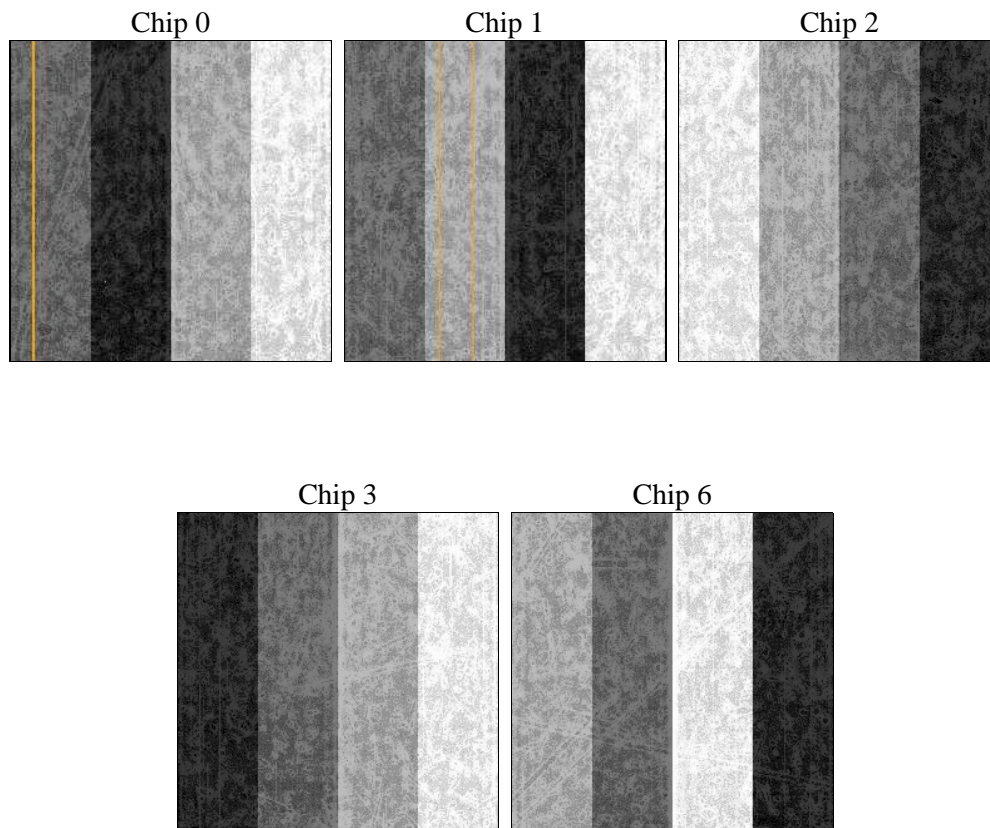
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	17000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	17062.318100691	Sum of GTIs [s]
caldbver	4.8.3	 	ontime0	17068.600131392	Sum of GTIs [s]
date	2019-05-27T13:16:12	Date and time of file creation	ontime1	17065.459091067	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	17065.459100962	Sum of GTIs [s]
			ontime3	17062.318100691	Sum of GTIs [s]
			ontime6	17068.600131392	Sum of GTIs [s]
			l1events	640562	Number of level 1 events

2.1.4 Events

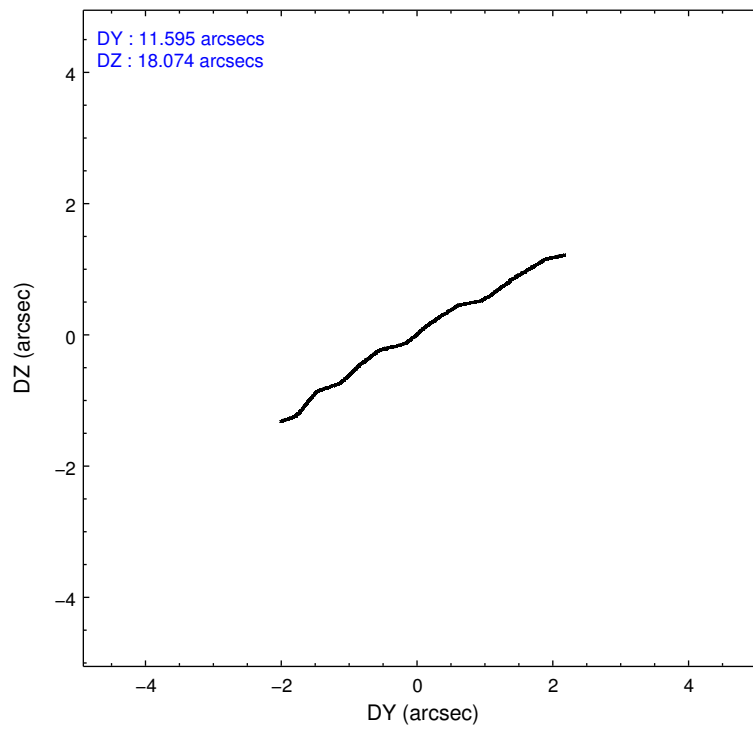
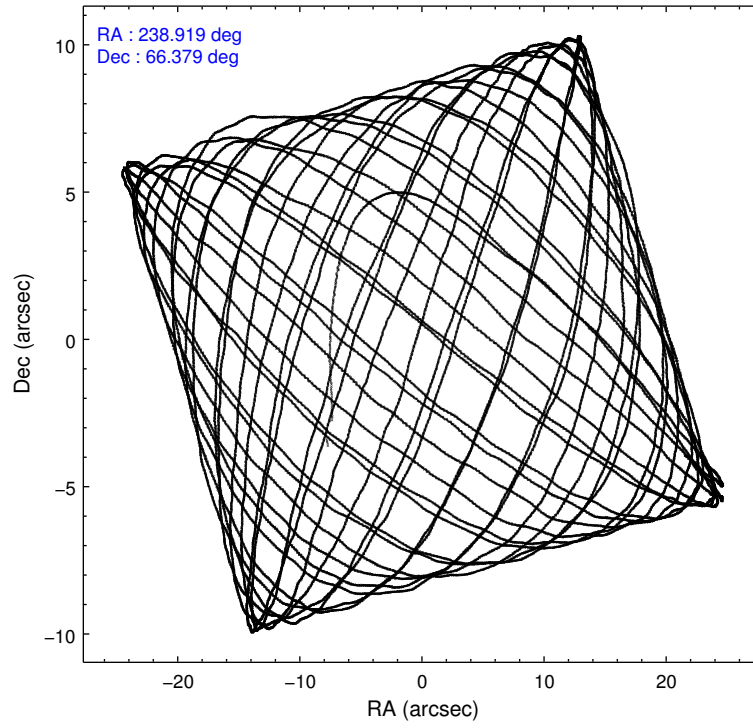
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	117333	123747	134857	136288	128337
rejected events	102592	107310	120505	114823	113951
rejected %	87%	86%	89%	84%	88%

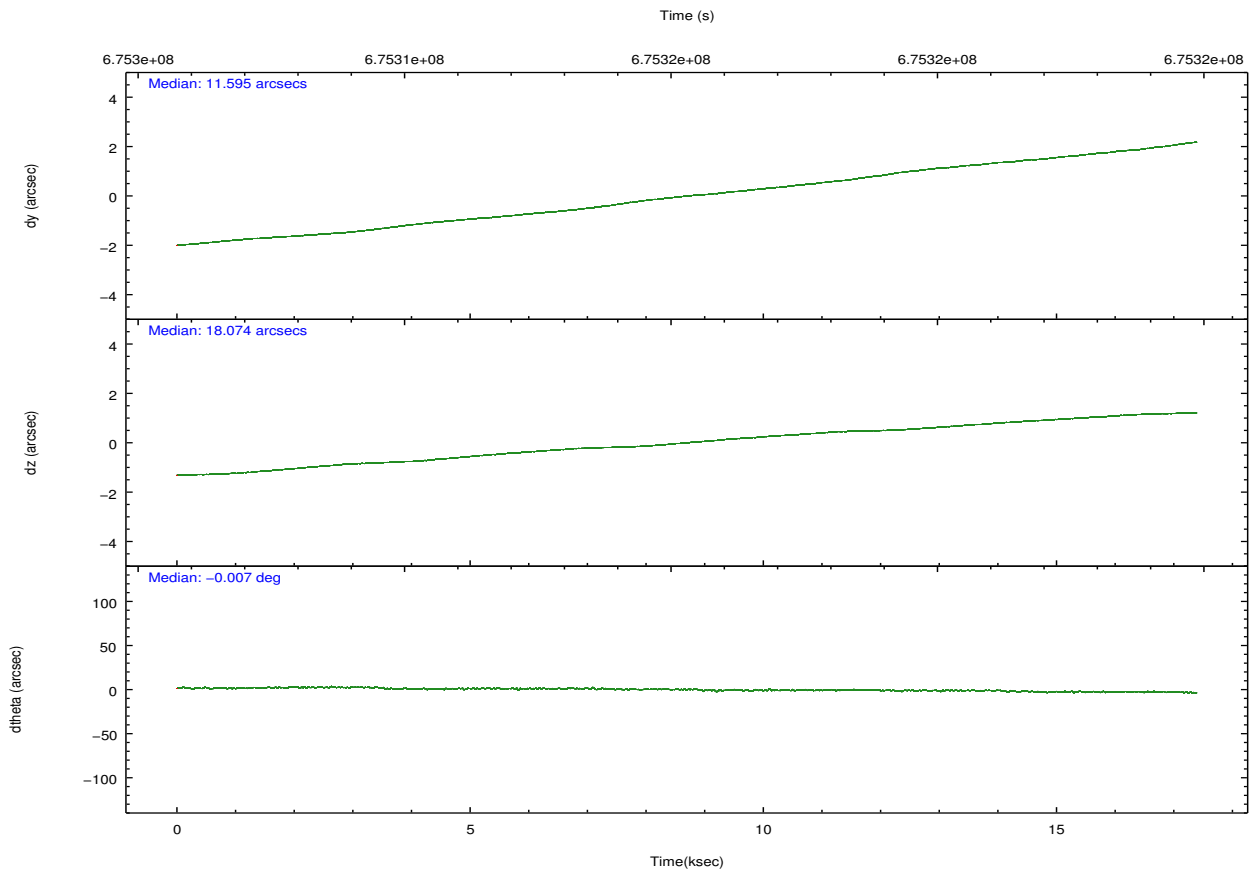
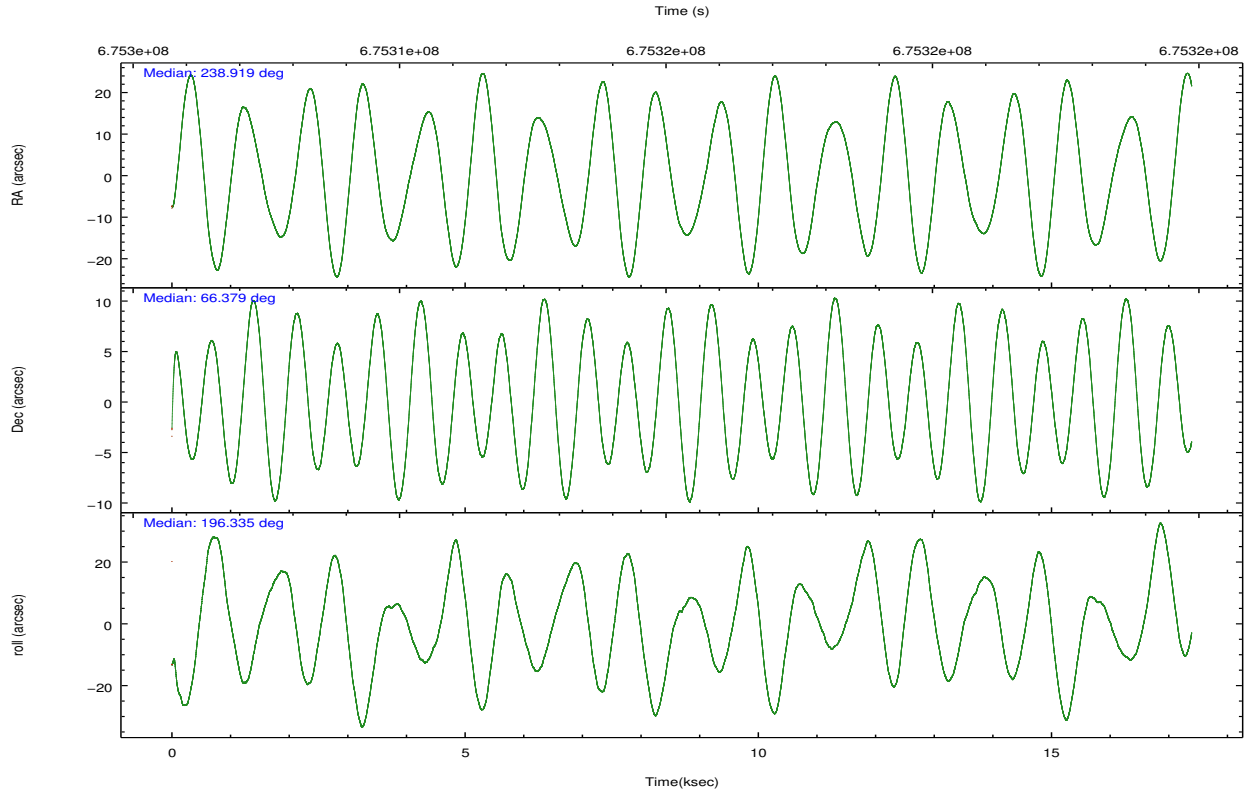
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4943	5347	5125	11118	4651
	4%	4%	3%	8%	3%
grade 1 events	74	63	80	117	78
	0%	0%	0%	0%	0%
grade 2 events	3808	4367	3539	3878	3435
	3%	3%	2%	2%	2%
grade 3 events	1405	1541	1367	1639	1387
	1%	1%	1%	1%	1%
grade 4 events	1436	1504	1463	1633	1387
	1%	1%	1%	1%	1%
grade 5 events	5633	5679	5222	6119	5859
	4%	4%	3%	4%	4%
grade 6 events	3151	3680	2861	3202	3530
	2%	2%	2%	2%	2%
grade 7 events	96883	101566	115200	108582	108010
	82%	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	238.966550	238.9192134684097	CCD I2 on	Y	Y
[deg] Pointing Dec	66.399236	66.37919444977992	CCD I3 on	Y	Y
[deg] Pointing Roll	196.086773	196.3388181241844	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)	675306967.184000	675305860.39183	CCD S5 on	N	N
Observation start date	2019-05-27T01:14:58	2019-05-27T00:57:40	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	675323967.184000	675324677.85546	On-chip summing requested	N	N
Observation end date	2019-05-27T05:58:18	2019-05-27T06:11:17	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





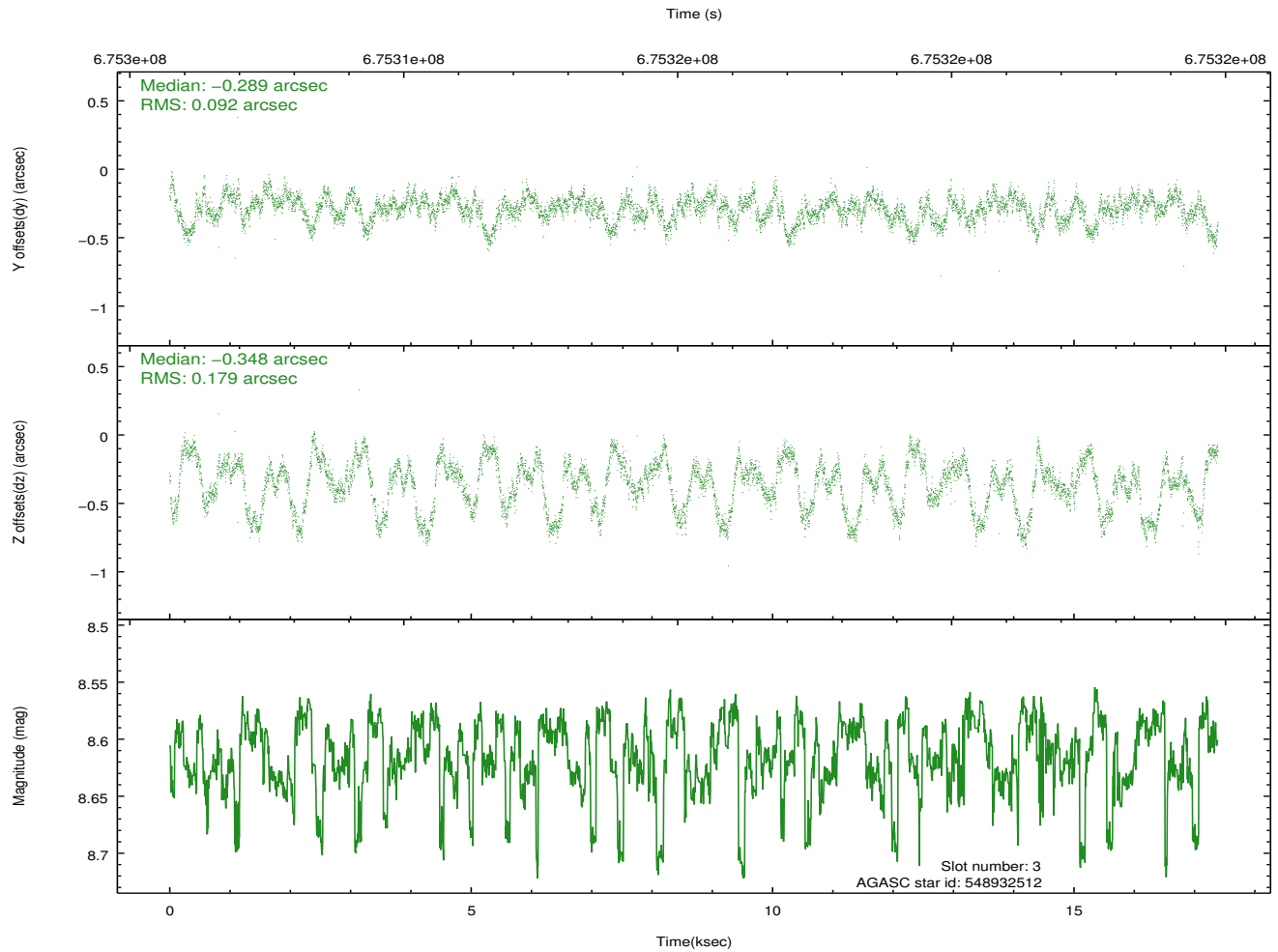
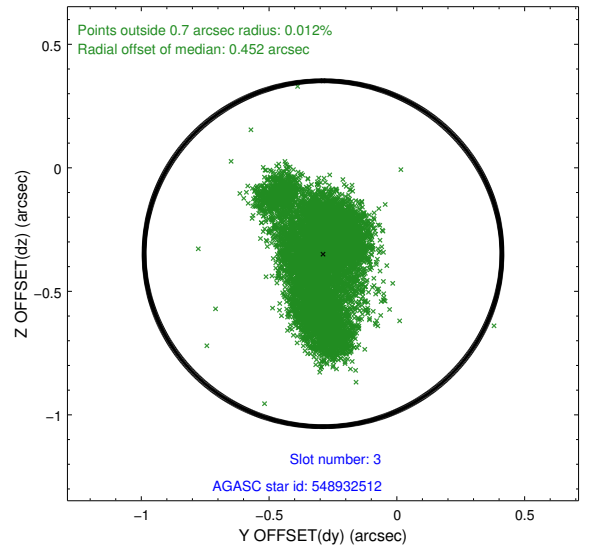
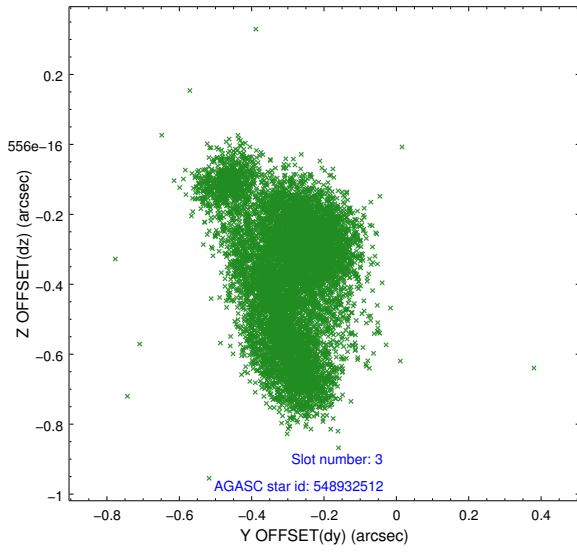
Slot Statistics

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	7.17	4242	1.000	0.094	-0.057	0.032	0.087	0.000000	0.000000	928.14	-841
1	FID		ACIS-I-5	7.17	4242	1.000	-0.457	0.024	0.012	0.022	0.000000	0.000000	-1820.57	1055
2	FID		ACIS-I-6	7.16	4242	1.000	0.267	0.103	0.033	0.081	0.000000	0.000000	393.36	1700
3	GUIDE	used	548932512	8.62	8481	1.000	-0.289	-0.348	0.213	0.353	239.727627	66.054972	-727.19	1491
4	GUIDE	used	548933960	8.44	8480	1.000	-0.032	-0.182	0.175	0.298	237.671184	66.428675	1757.74	-635
5	GUIDE	used	548937184	9.87	8407	1.000	-0.036	0.080	0.319	0.516	238.771821	66.565432	102.35	-652
6	GUIDE	used	548939872	10.27	8374	1.000	0.223	0.082	0.392	0.624	238.964867	66.978384	-574.90	-2003
7	GUIDE	used	549849072	9.13	8474	1.000	0.133	0.392	0.179	0.264	240.420863	66.802816	-2389.94	-847

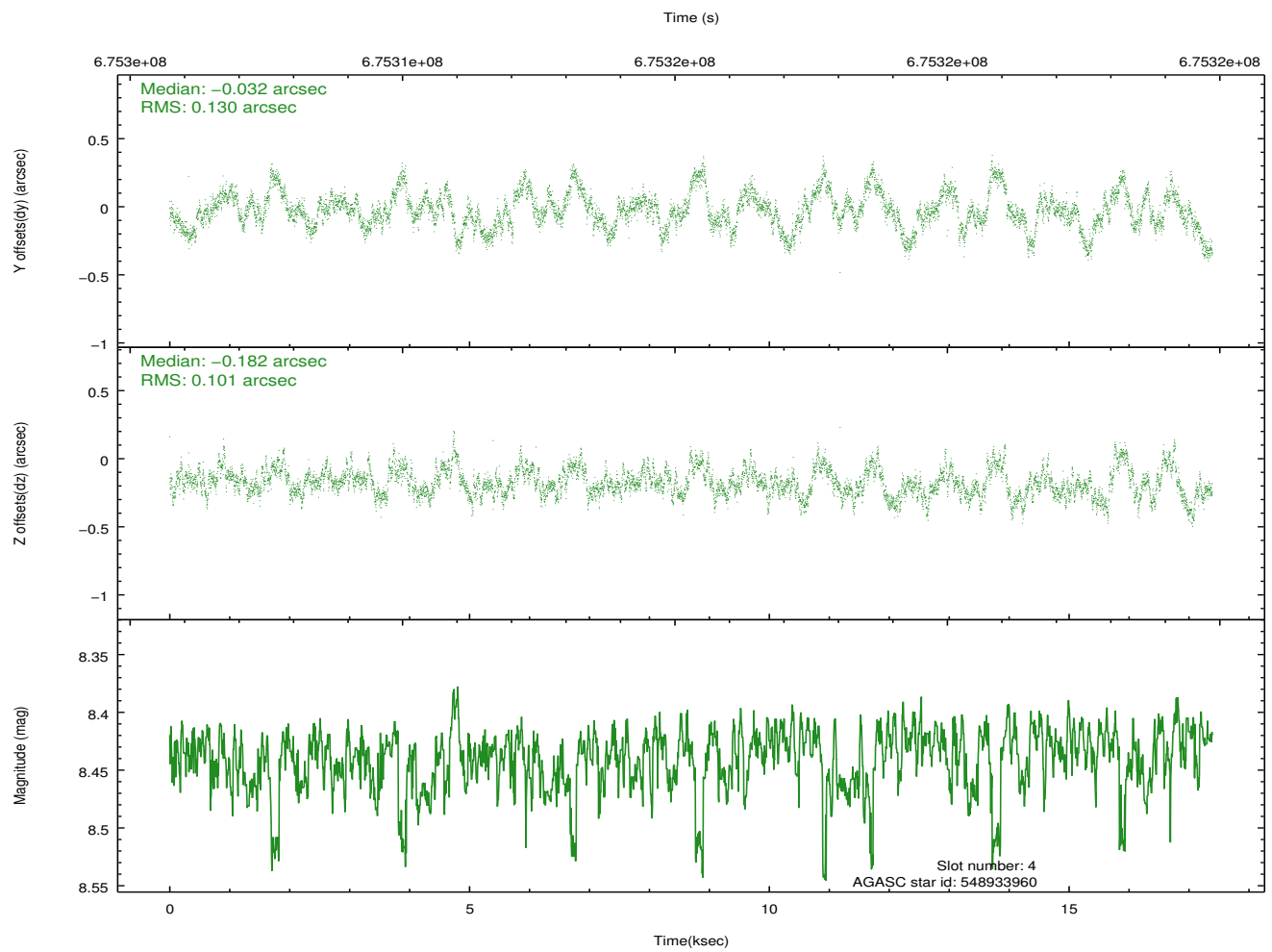
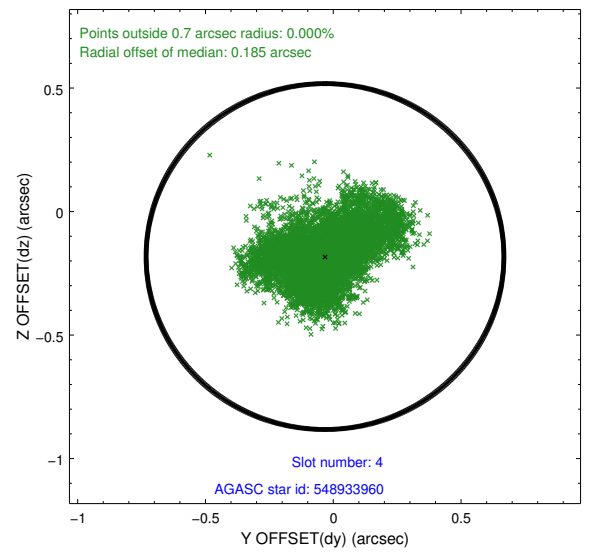
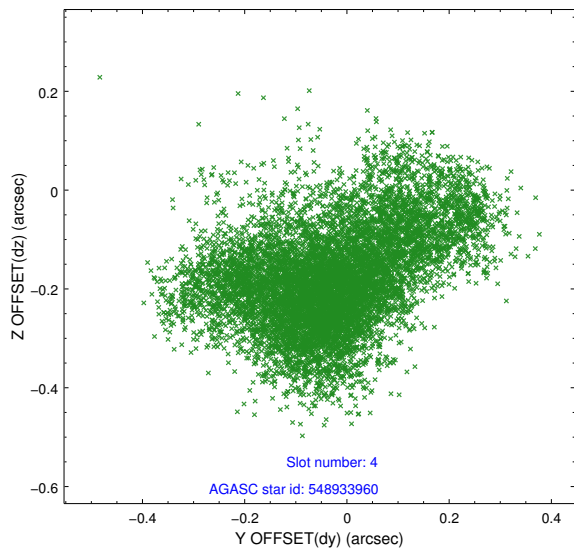
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2.4 Star Slots

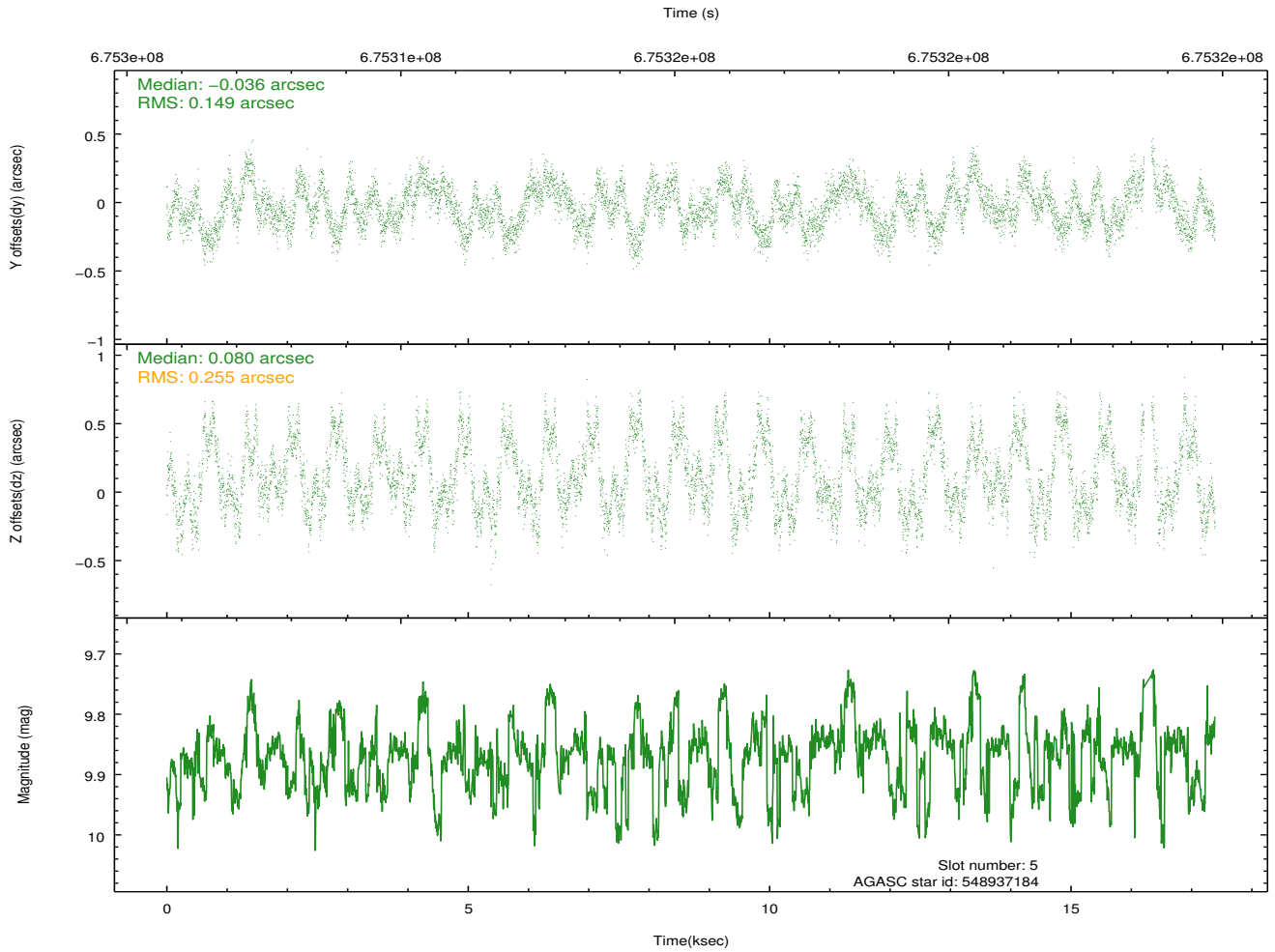
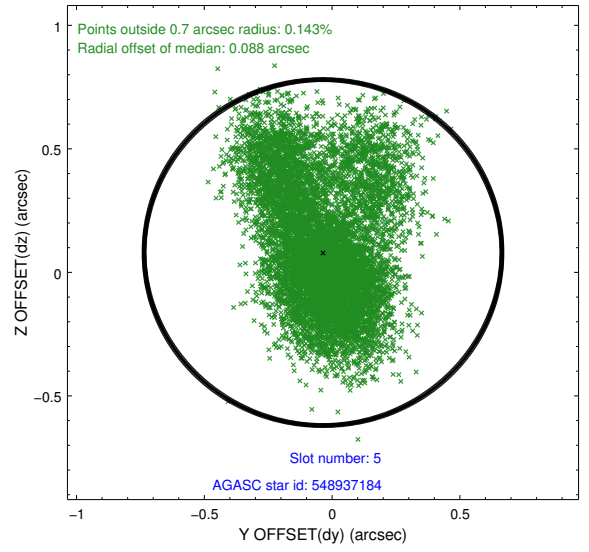
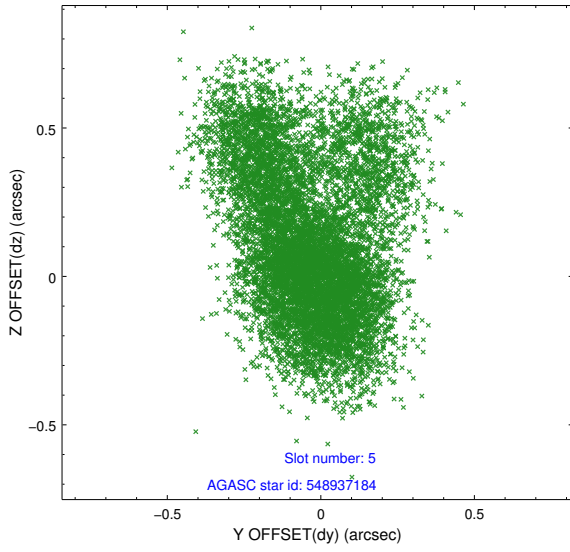
2.4.1 Slot 3



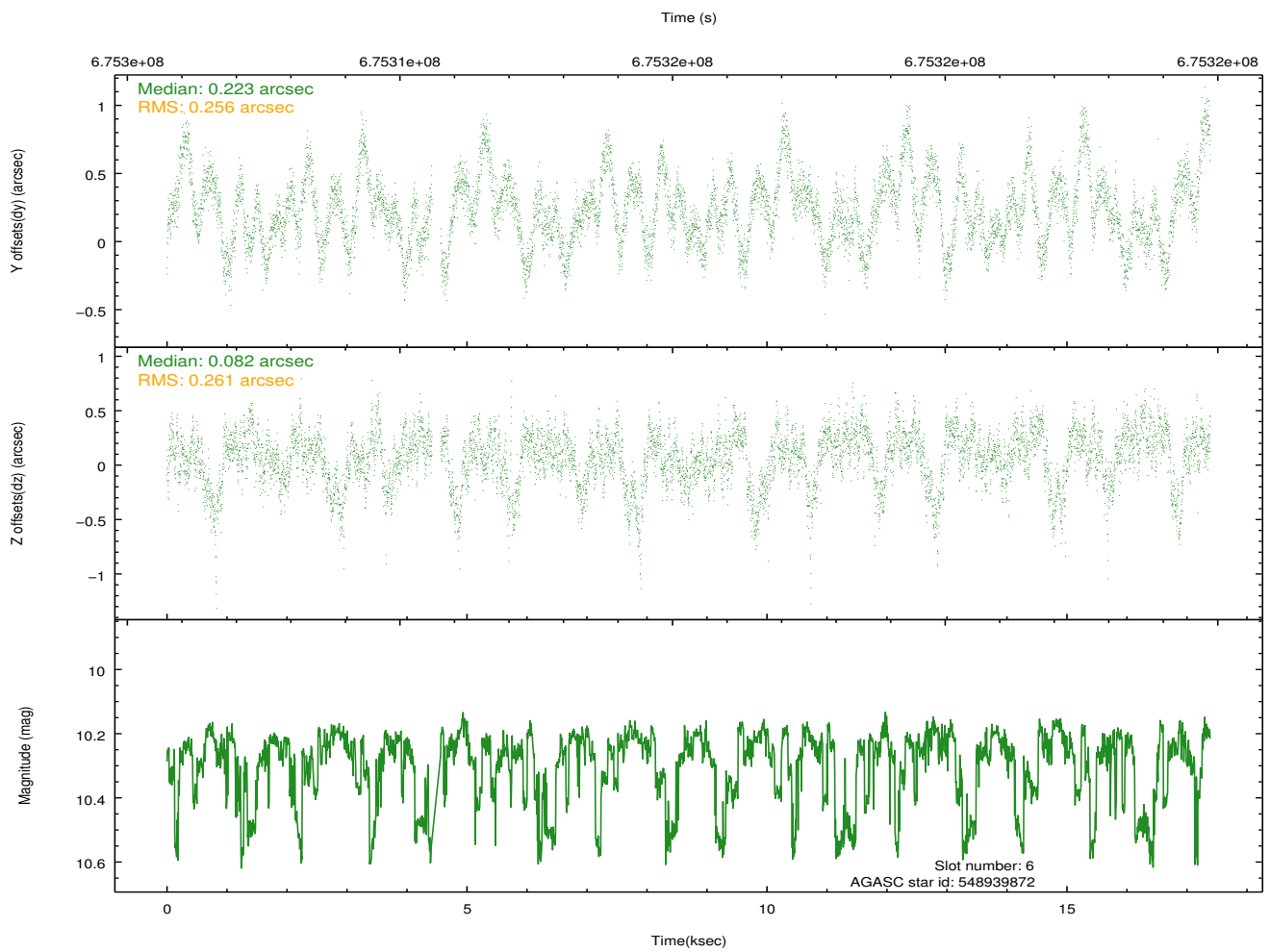
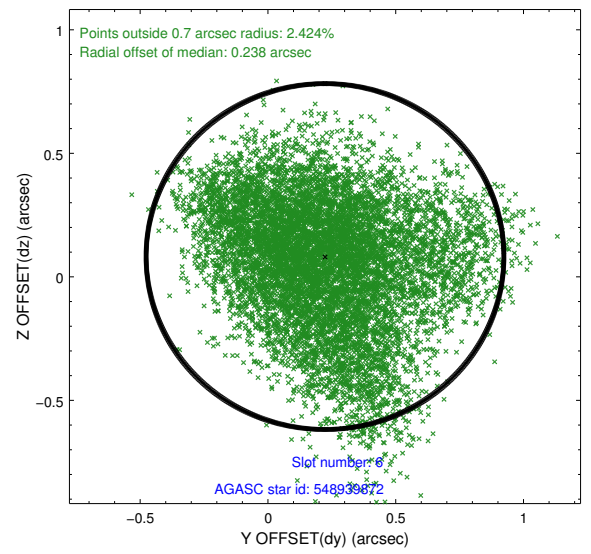
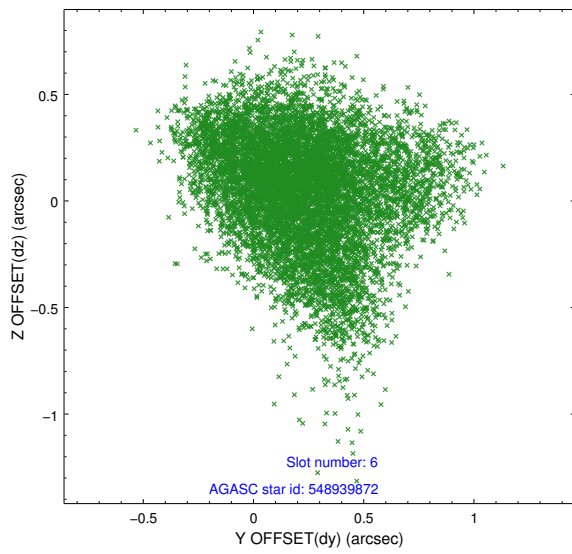
2.4.2 Slot 4



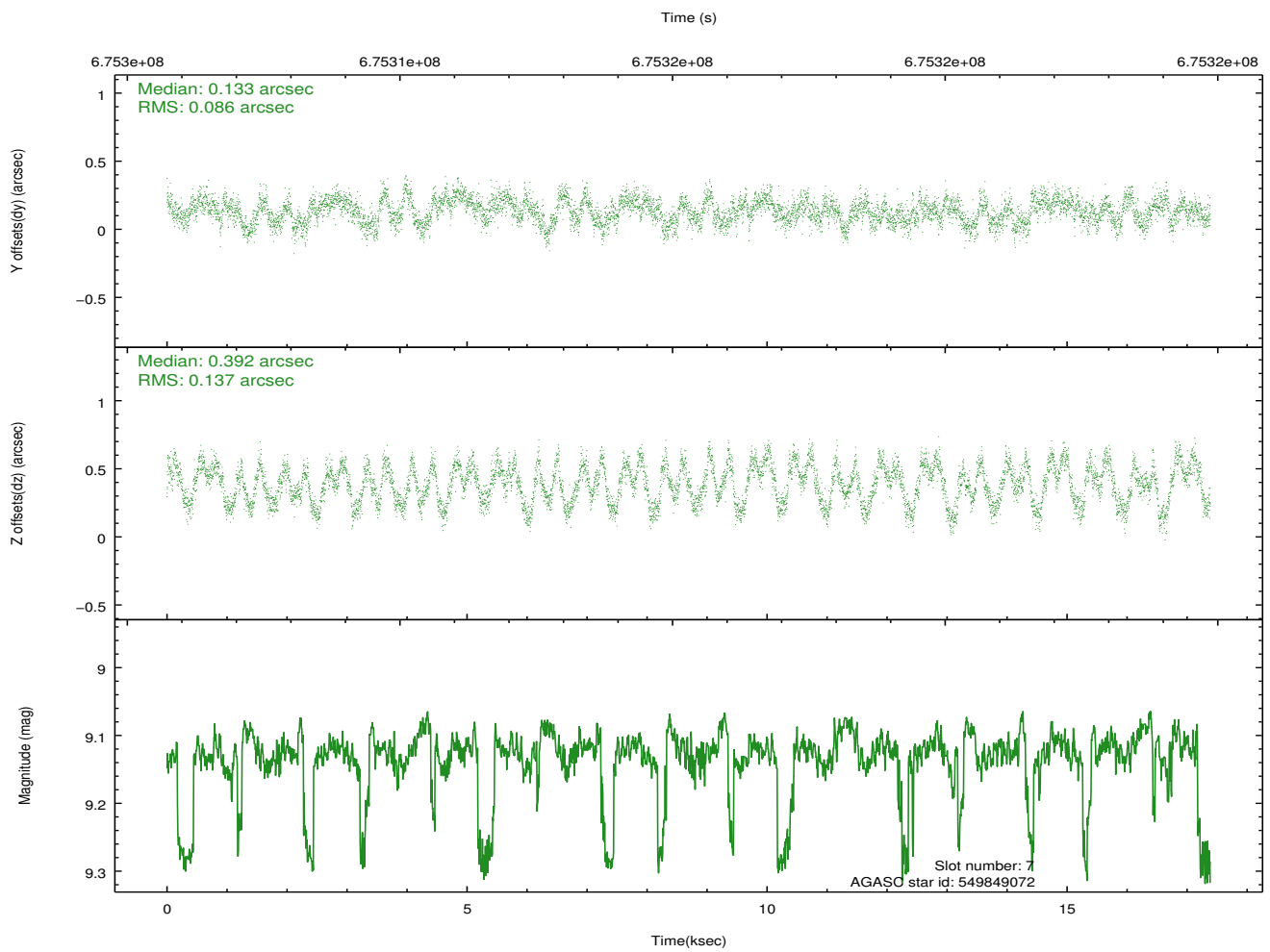
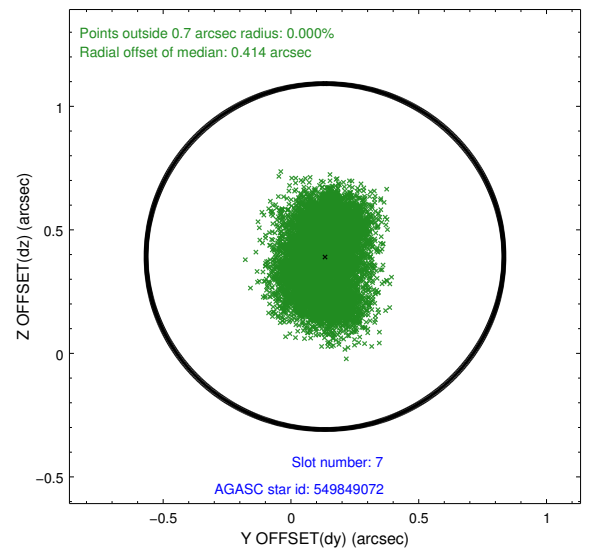
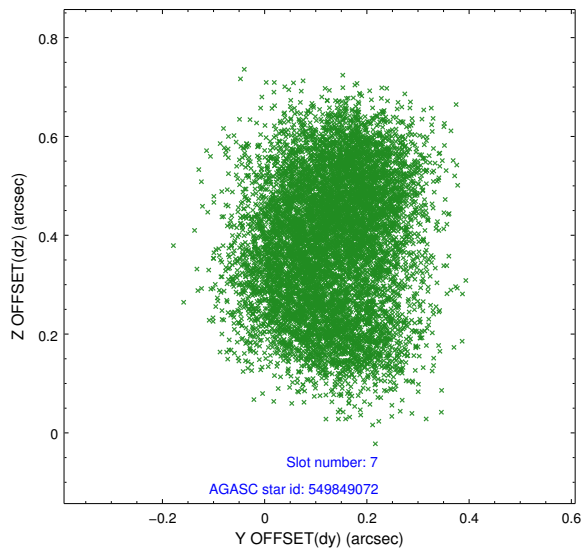
2.4.3 Slot 5



2.4.4 Slot 6

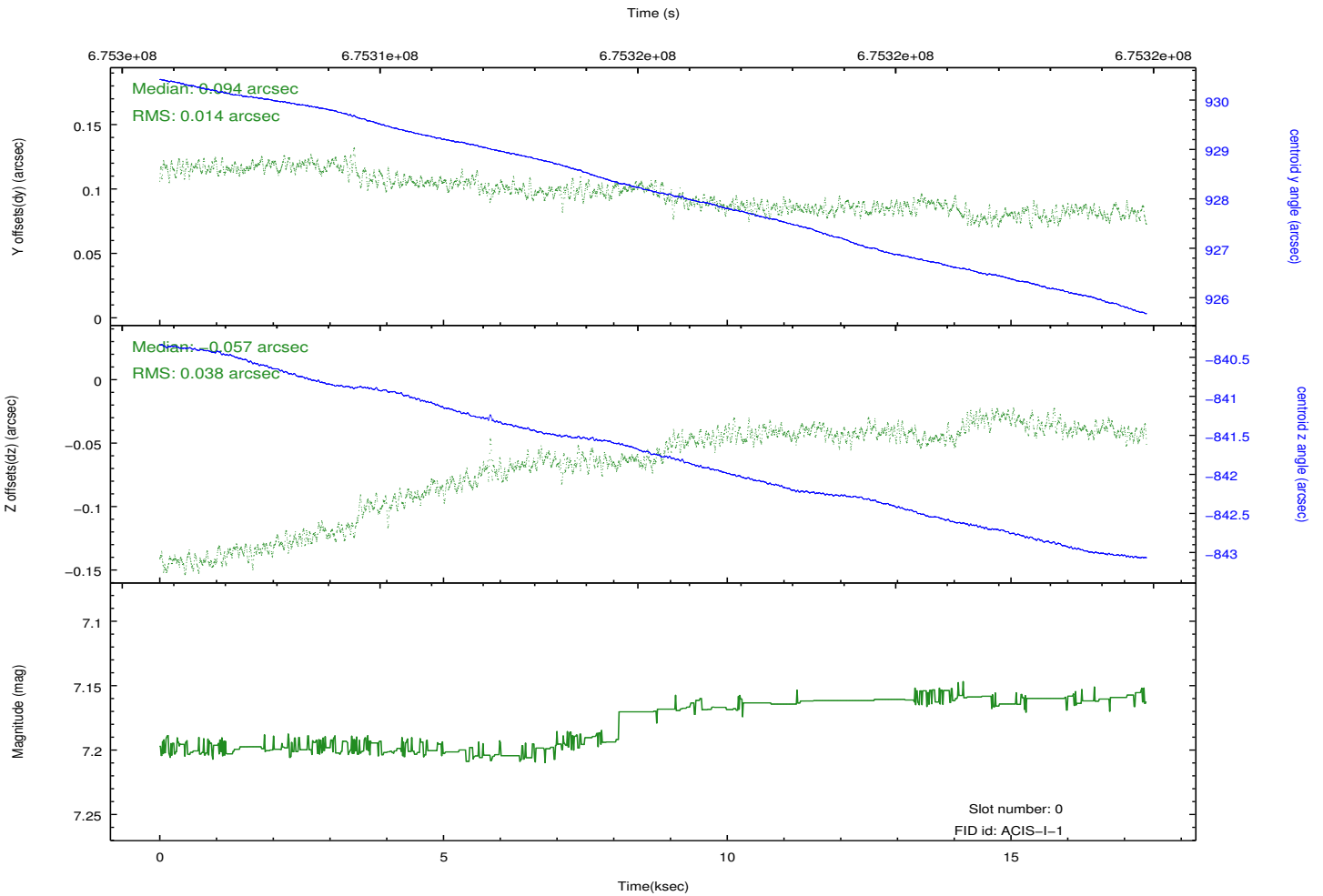
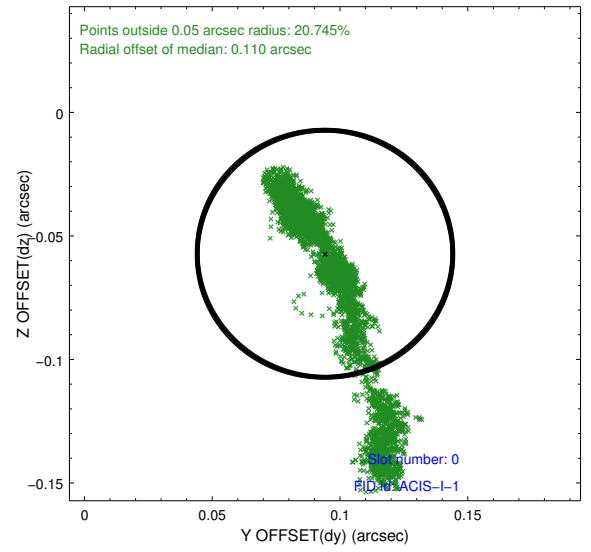
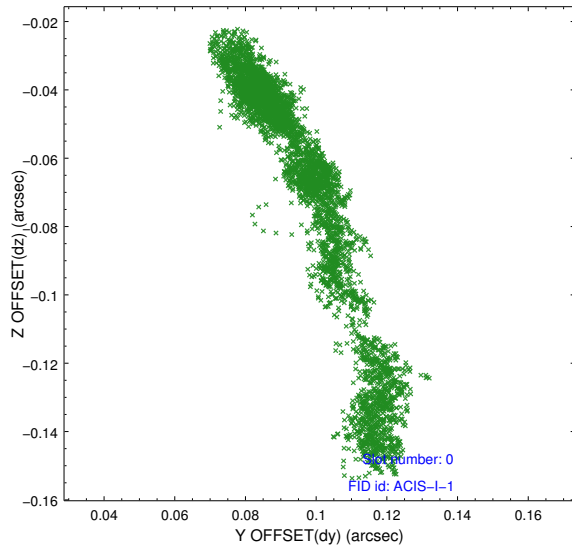


2.4.5 Slot 7

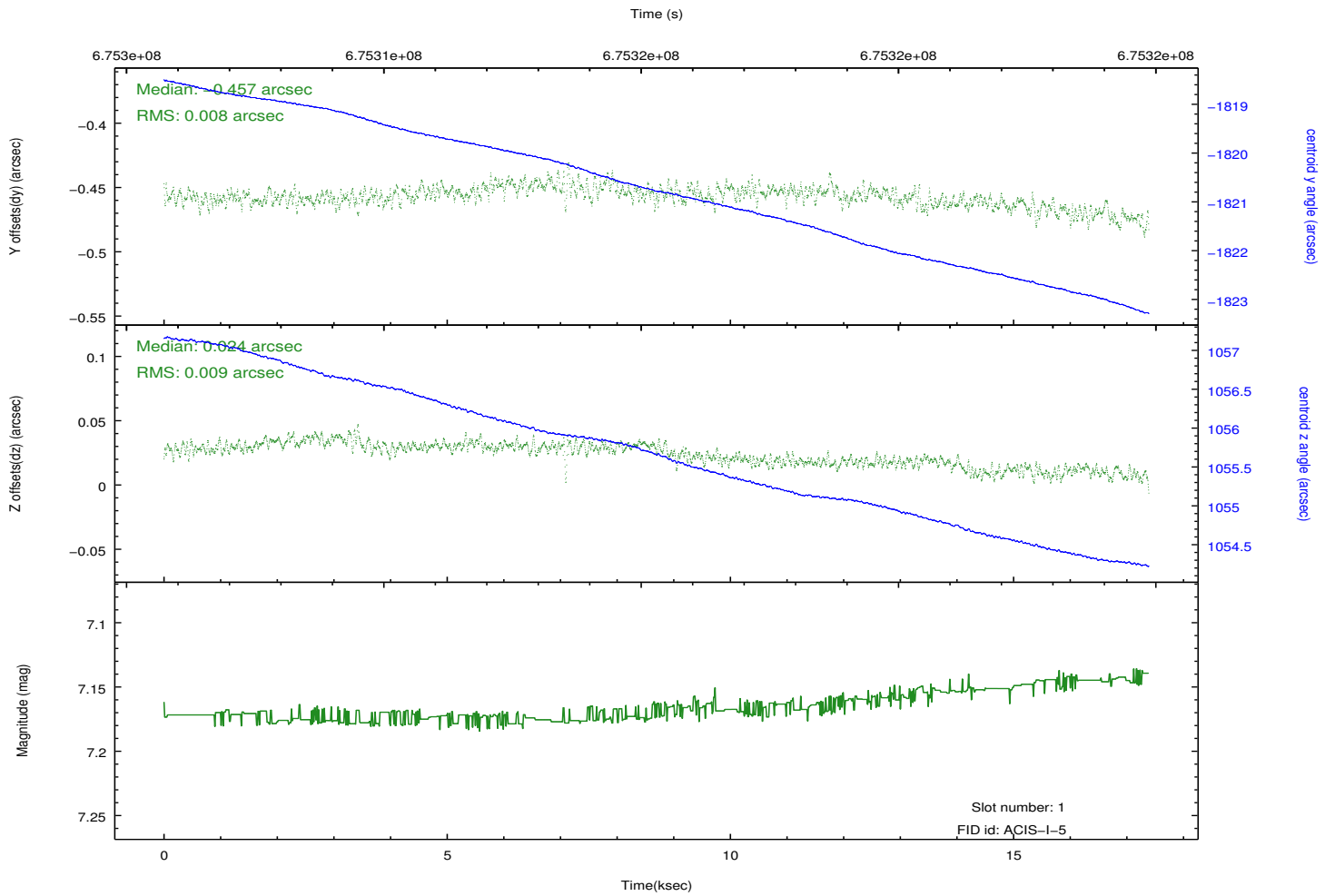
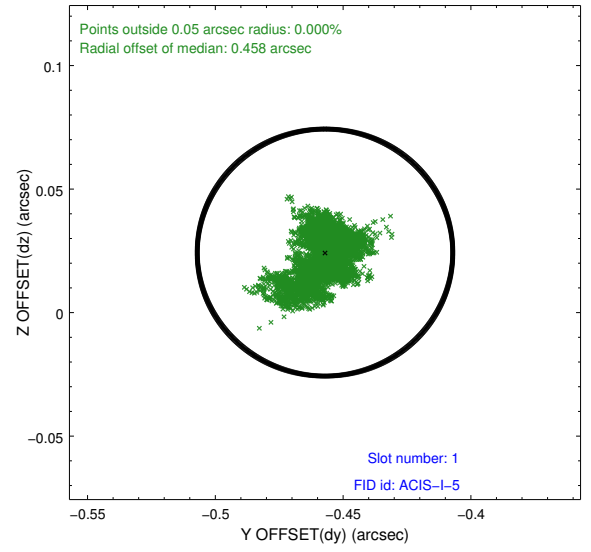
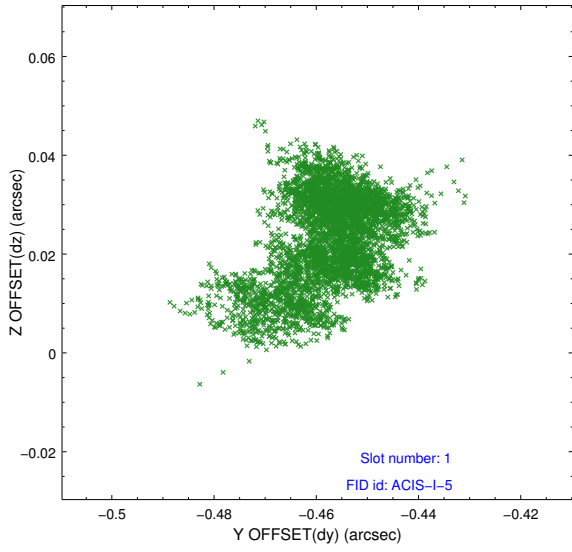


2.5 FID Slots

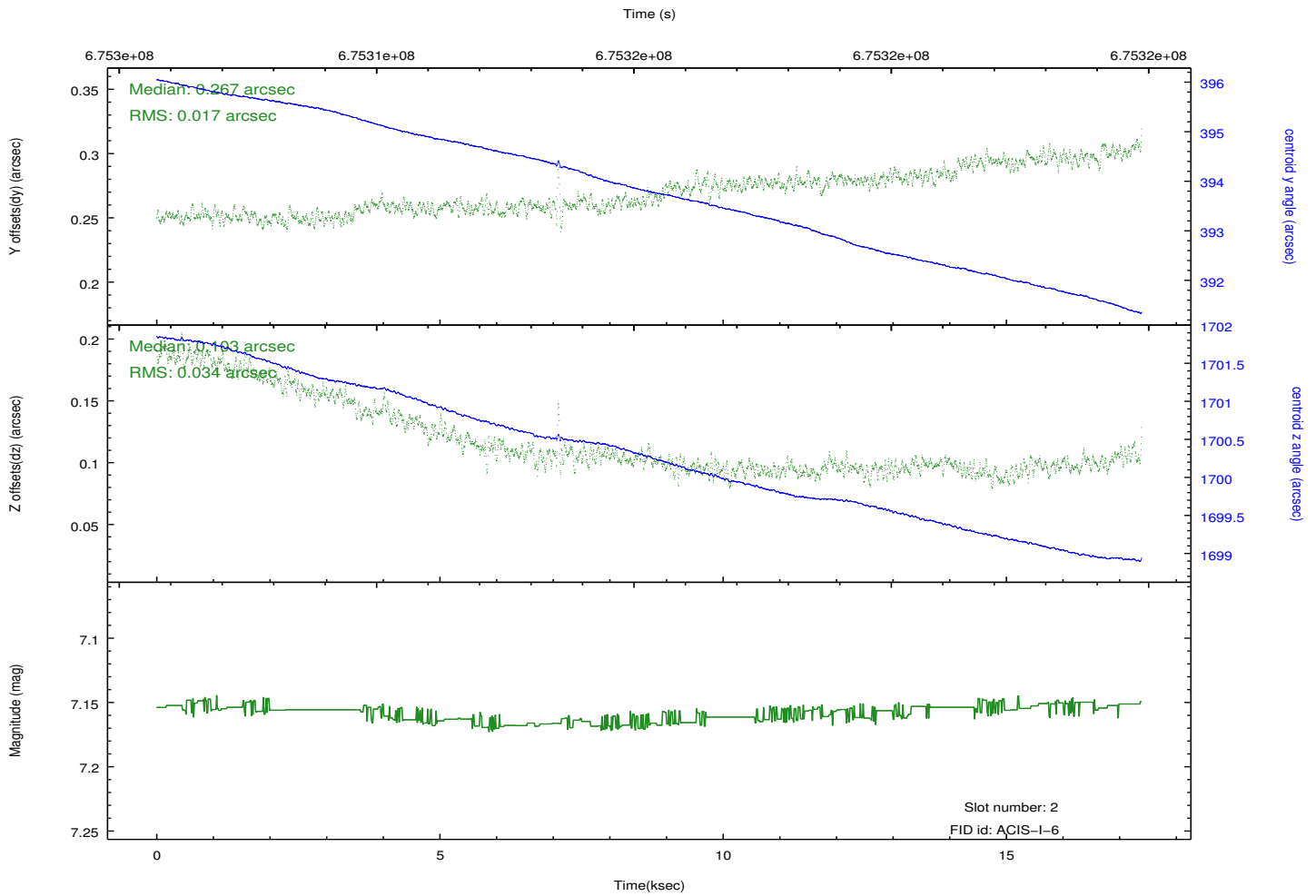
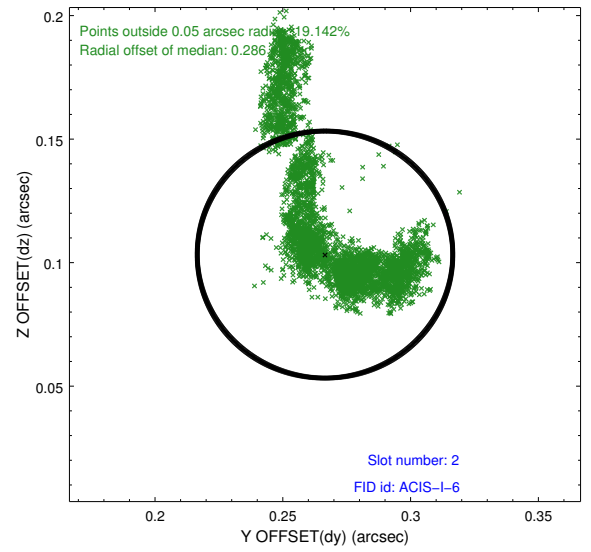
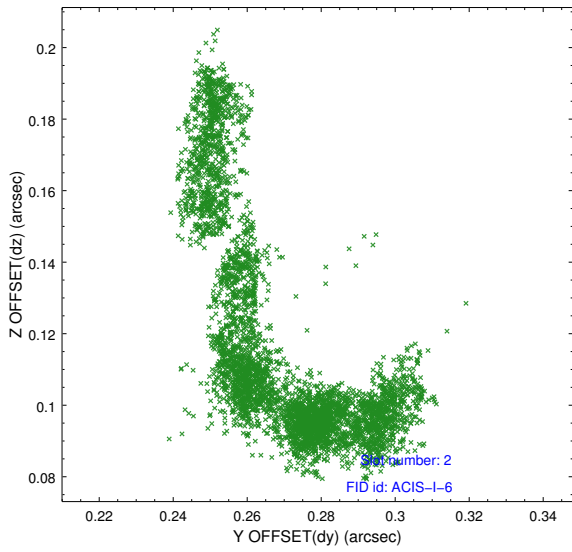
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2019.05.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	17.062318100691

A.2 Comments