

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 22915 - L2 Version 1
Chandra X-Ray Center

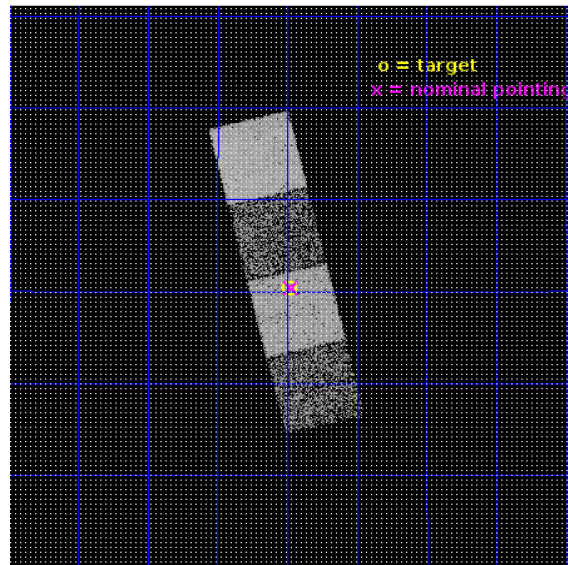
L2 Processing Date : Feb 3 2020

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1 Front

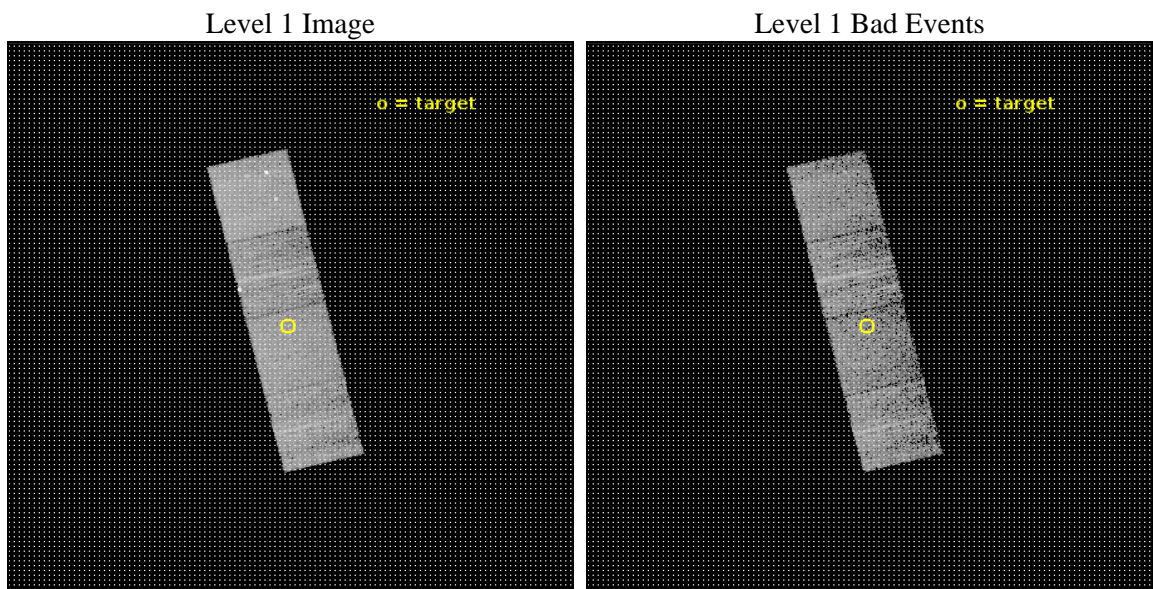
seq_num	704028	Sequence number
obs_id	22915	Observation id
title	Gravitational millilensing as a tool for studying the microarcsec-scale structure in PKS1413+135	Proposal title
observer	Ioannis Liodakis	Principal investigator
object	PKS 1413+135	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	213.995	Observer's specified target RA [deg]
dec_targ	13.339917	Observer's specified target Dec [deg]
ra_nom	213.99223518531	Nominal RA [deg]
dec_nom	13.340322047866	Nominal Dec [deg]
roll_nom	76.330669557138	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4057.9000313282	Sum of GTIs [s]
livetime	4004.8805800364	Livetime [s]
ontime5	4057.9000313282	Sum of GTIs [s]
ontime6	4057.9000313282	Sum of GTIs [s]
ontime7	4057.9000313282	Sum of GTIs [s]
ontime8	4057.9000313282	Sum of GTIs [s]
l2events	46879	Number of level 2 events



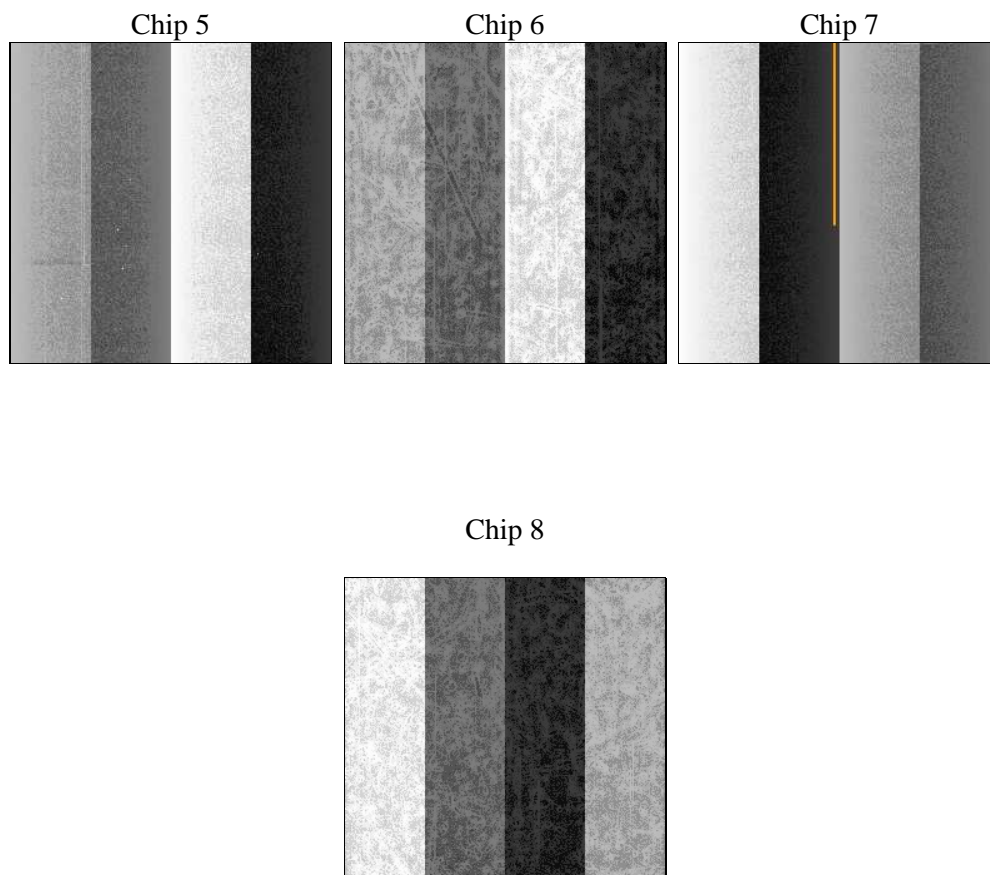
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	10.8.1	Processing system revision	ontime	4057.9000313282	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime5	4057.9000313282	Sum of GTIs [s]
date	2020-02-04T00:58:12	Date and time of file creation	ontime6	4057.9000313282	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	4057.9000313282	Sum of GTIs [s]
			ontime8	4057.9000313282	Sum of GTIs [s]
			l1events	168395	Number of level 1 events

2.1.4 Events

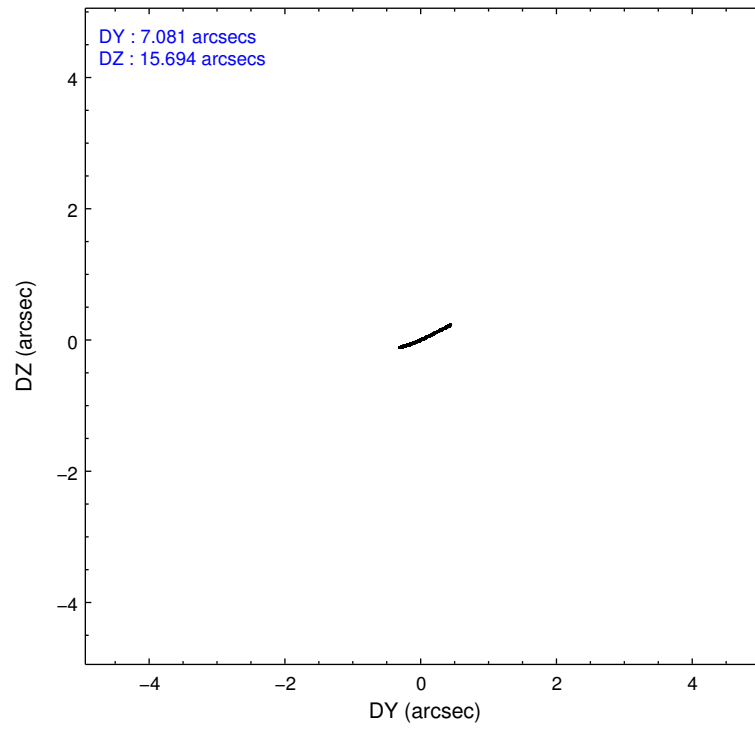
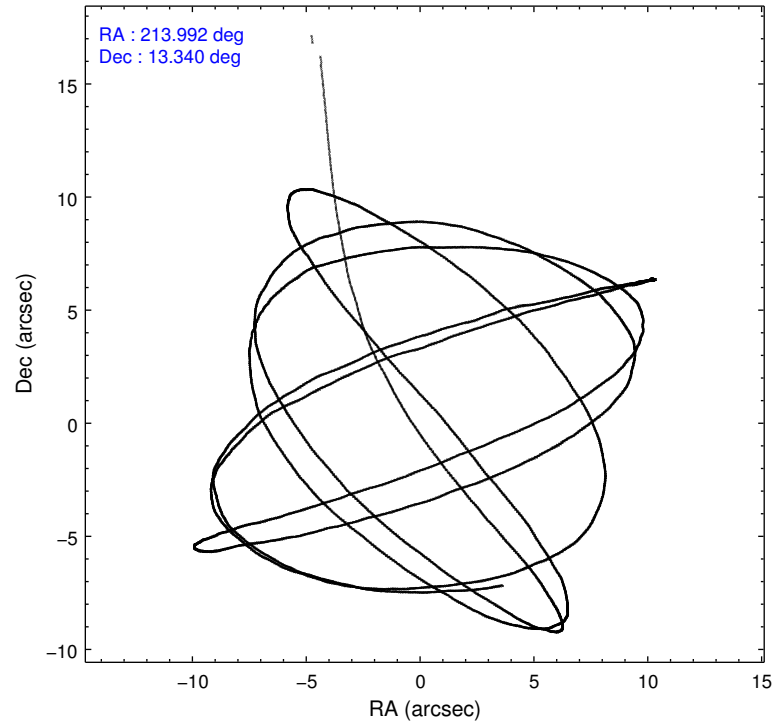
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	53191	34902	40837	39465
rejected events	27122	30048	23137	30122
rejected %	50%	86%	56%	76%

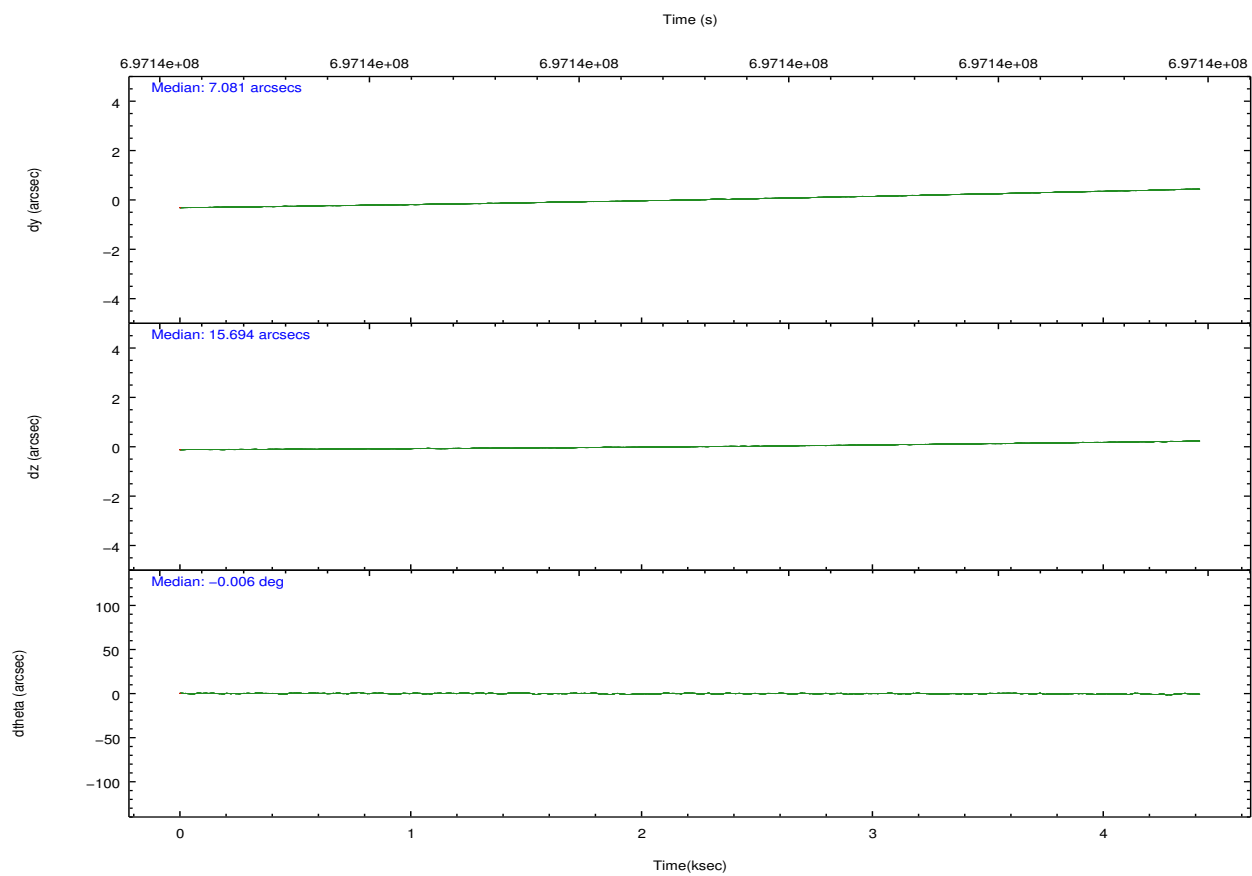
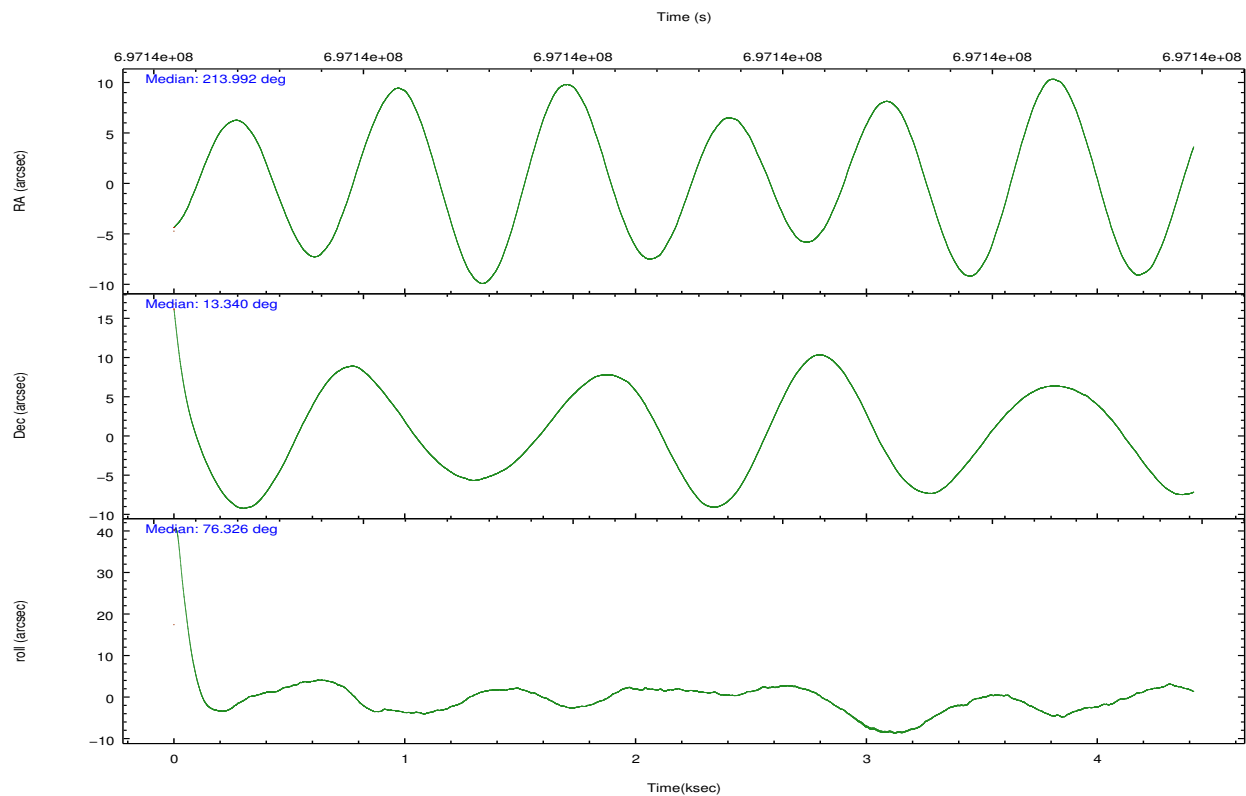
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	2506	2276	1545	2518
	4%	6%	3%	6%
grade 1 events	288	29	77	21
	0%	0%	0%	0%
grade 2 events	8065	1031	3640	2407
	15%	2%	8%	6%
grade 3 events	910	319	1320	878
	1%	0%	3%	2%
grade 4 events	801	264	1324	813
	1%	0%	3%	2%
grade 5 events	3222	1283	3890	2056
	6%	3%	9%	5%
grade 6 events	13821	978	9899	2732
	25%	2%	24%	6%
grade 7 events	23578	28722	19142	28040
	44%	82%	46%	71%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	214.000575	213.9922351853056	CCD I2 on	N	N
[deg] Pointing Dec	13.314163	13.34032204786618	CCD I3 on	N	N
[deg] Pointing Roll	76.172006	76.33066955713818	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	O2	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	O1	Y
[s] Observation start time (MET)	697140722.184000	697139722.90694	CCD S5 on	N	N
Observation start date	2020-02-03T18:10:53	2020-02-03T17:55:22	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	697144722.184000	697145871.88231	On-chip summing requested	N	N
Observation end date	2020-02-03T19:17:33	2020-02-03T19:37:51	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



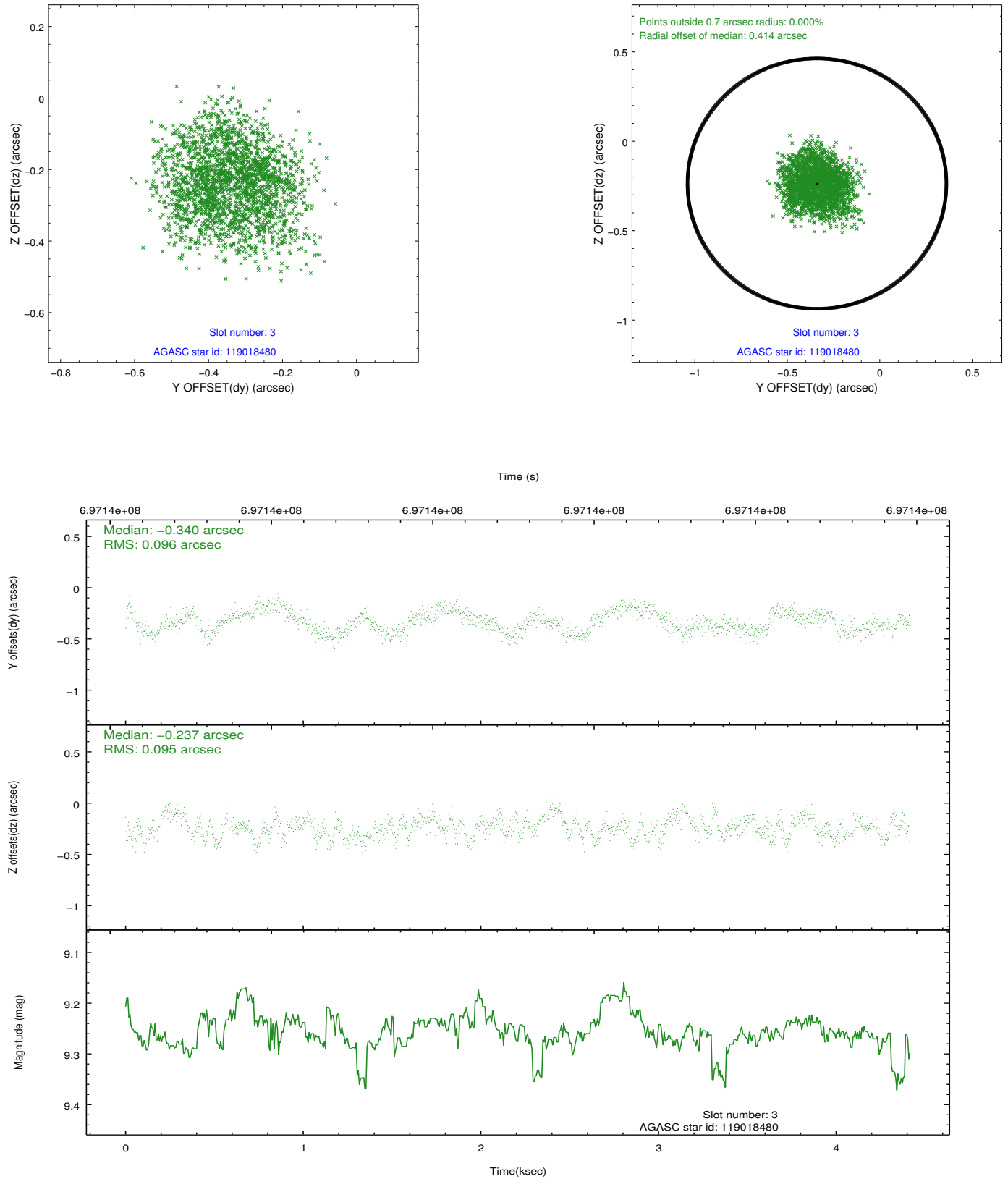


Slot Statistics

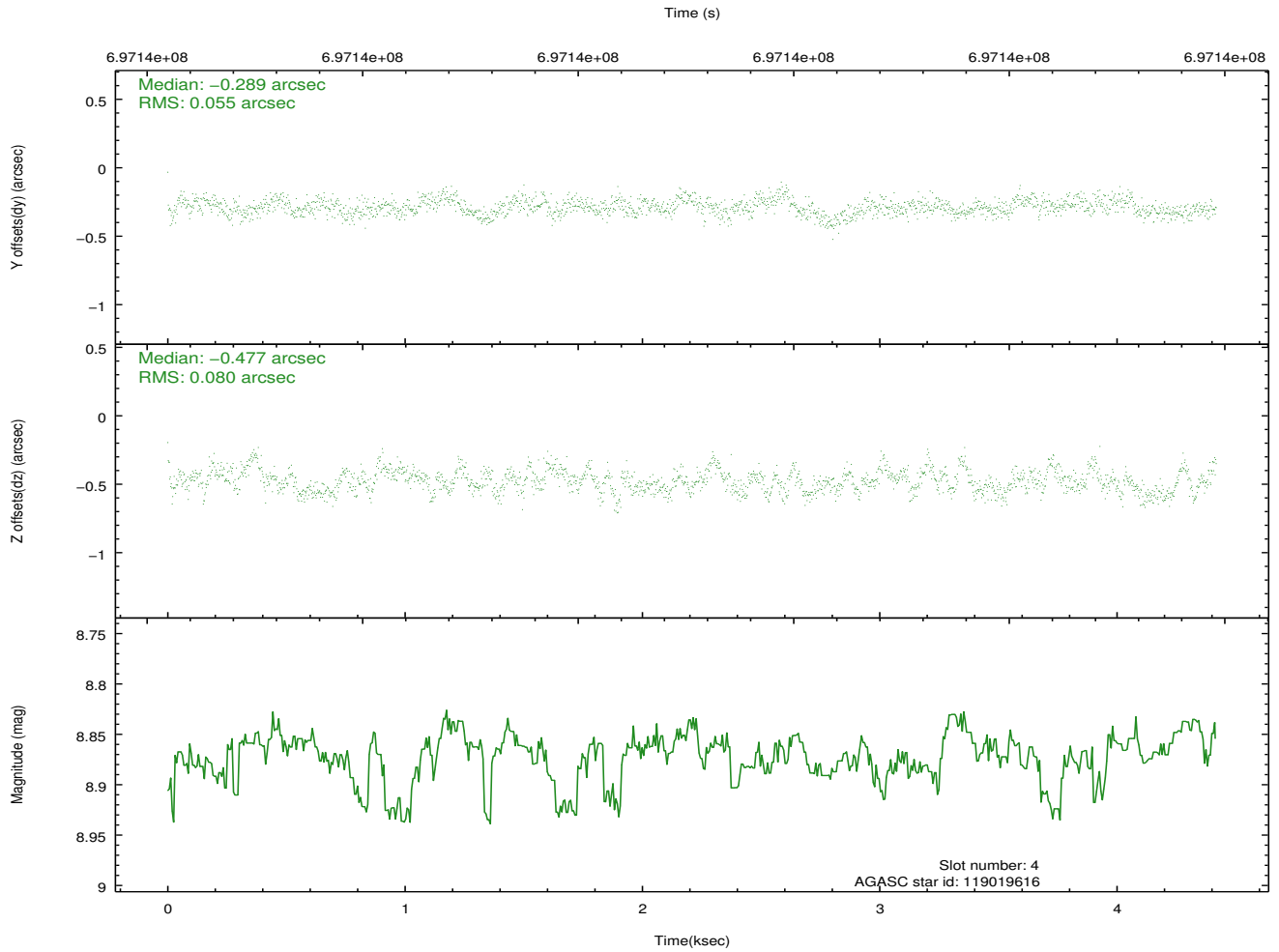
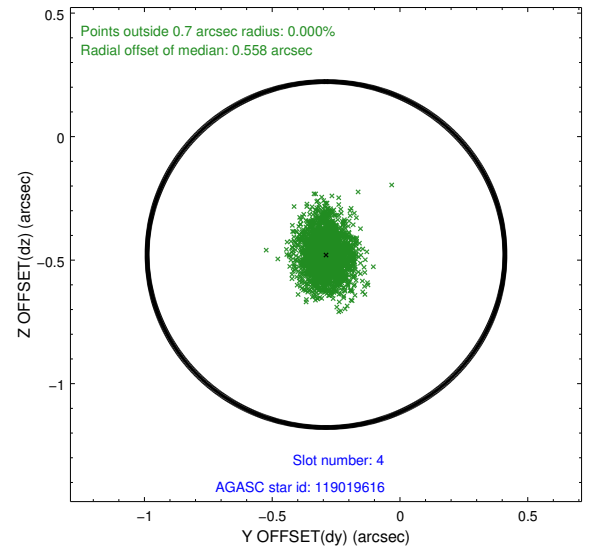
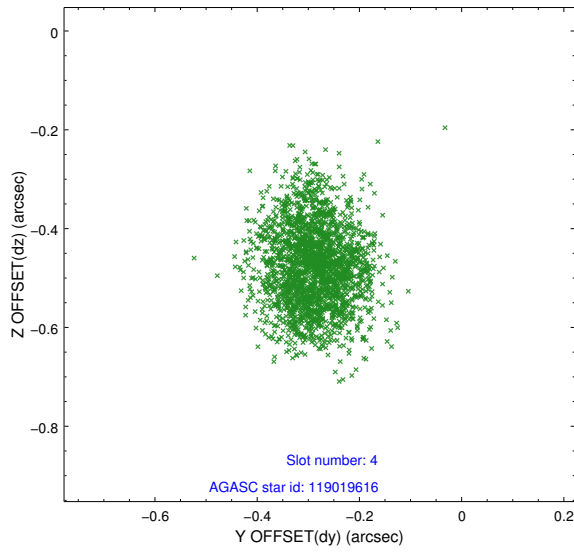
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.08	1078	1.000	-0.256	-0.089	0.011	0.016	0.000000	0.000000	-760.06	-1737
1	FID		ACIS-S-4	7.23	1078	1.000	0.566	0.147	0.007	0.011	0.000000	0.000000	2153.35	170
2	FID		ACIS-S-5	7.20	1078	1.000	-0.341	-0.049	0.012	0.020	0.000000	0.000000	-1811.25	165
3	GUIDE	used	119018480	9.26	2156	1.000	-0.340	-0.237	0.148	0.219	213.620759	13.541196	476.94	1486
4	GUIDE	used	119019616	8.87	2155	1.000	-0.289	-0.477	0.103	0.167	213.477237	13.654924	754.75	2071
5	GUIDE	used	119020736	8.62	2156	1.000	0.055	-0.163	0.148	0.218	213.541794	13.318952	-365.33	1565
6	GUIDE	used	119021632	7.95	2156	1.000	0.549	0.673	0.094	0.144	213.945008	12.750388	-2016.63	-294
7	GUIDE	used	119017400	7.43	2154	1.000	0.039	0.218	0.095	0.165	214.458443	13.903952	2445.17	-1045

2.4 Star Slots

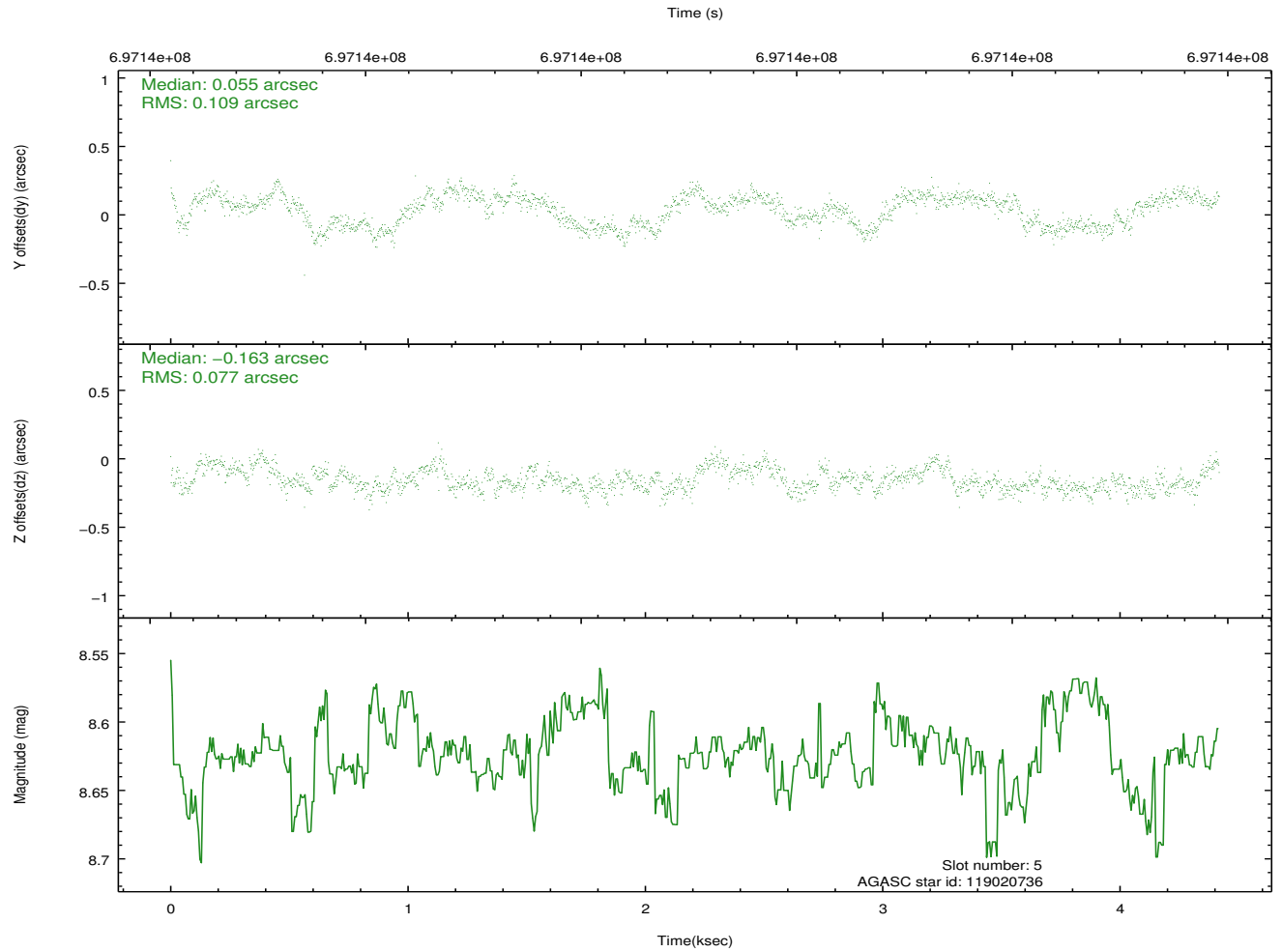
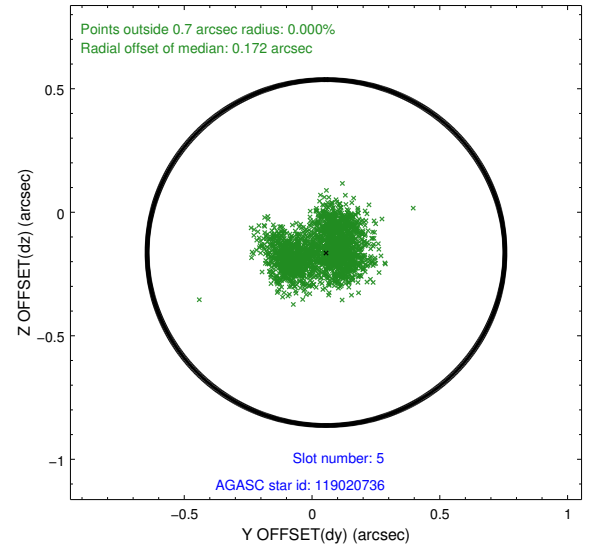
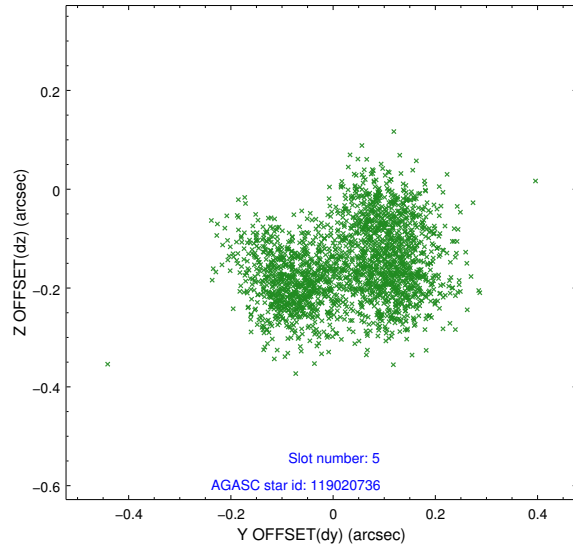
2.4.1 Slot 3



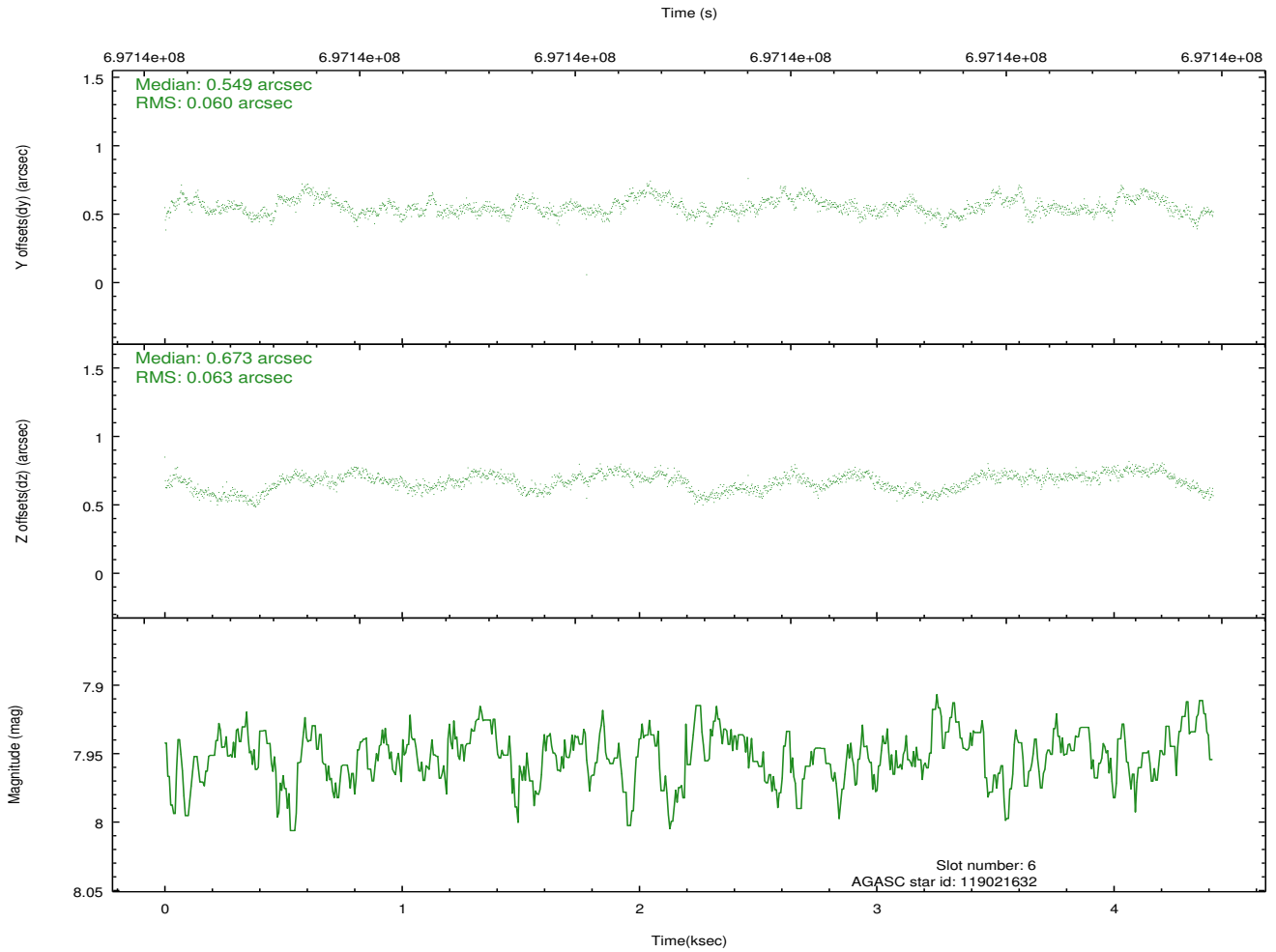
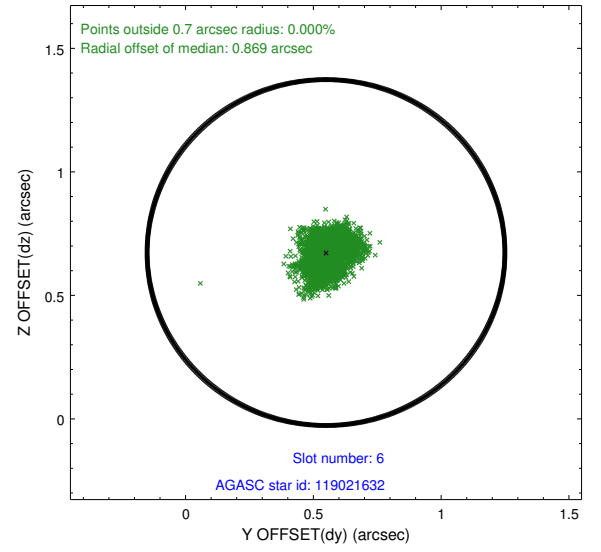
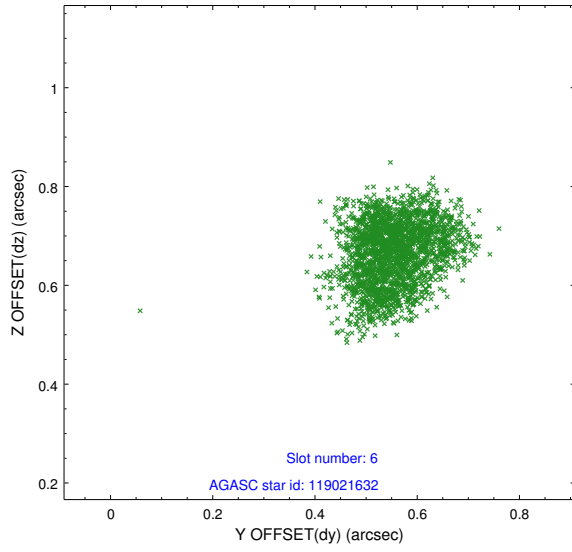
2.4.2 Slot 4



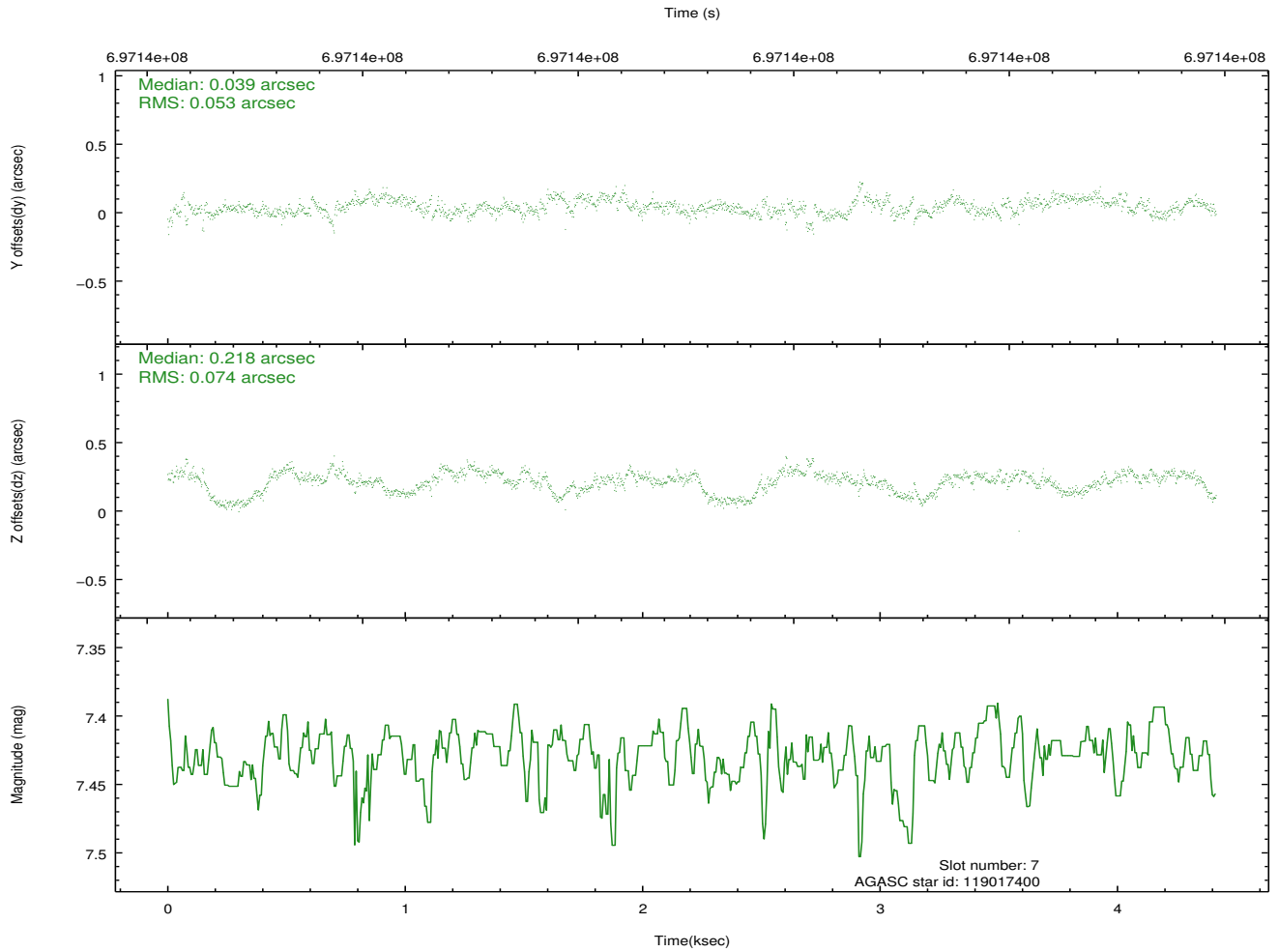
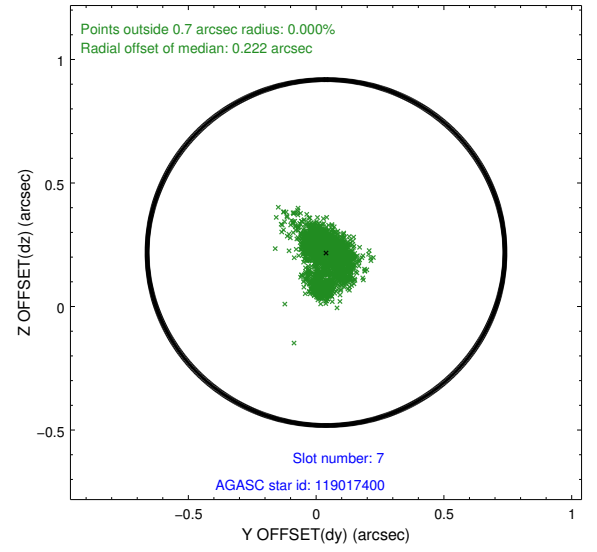
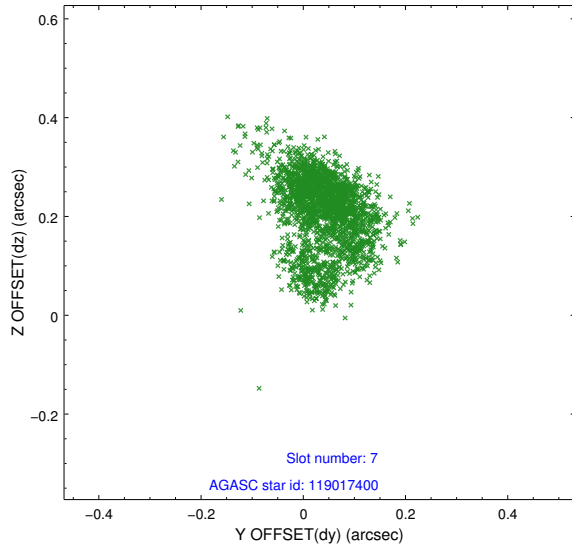
2.4.3 Slot 5



2.4.4 Slot 6

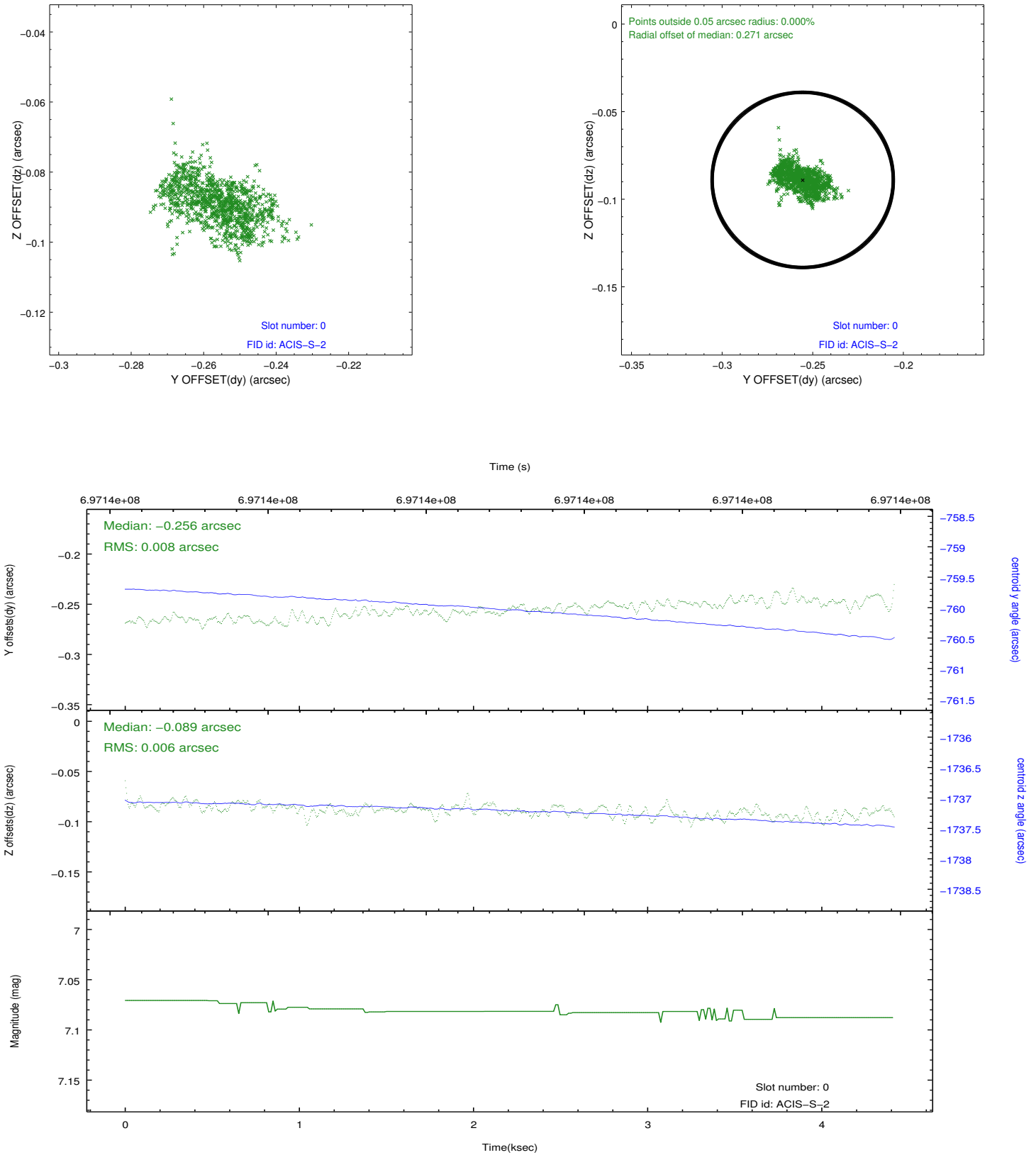


2.4.5 Slot 7

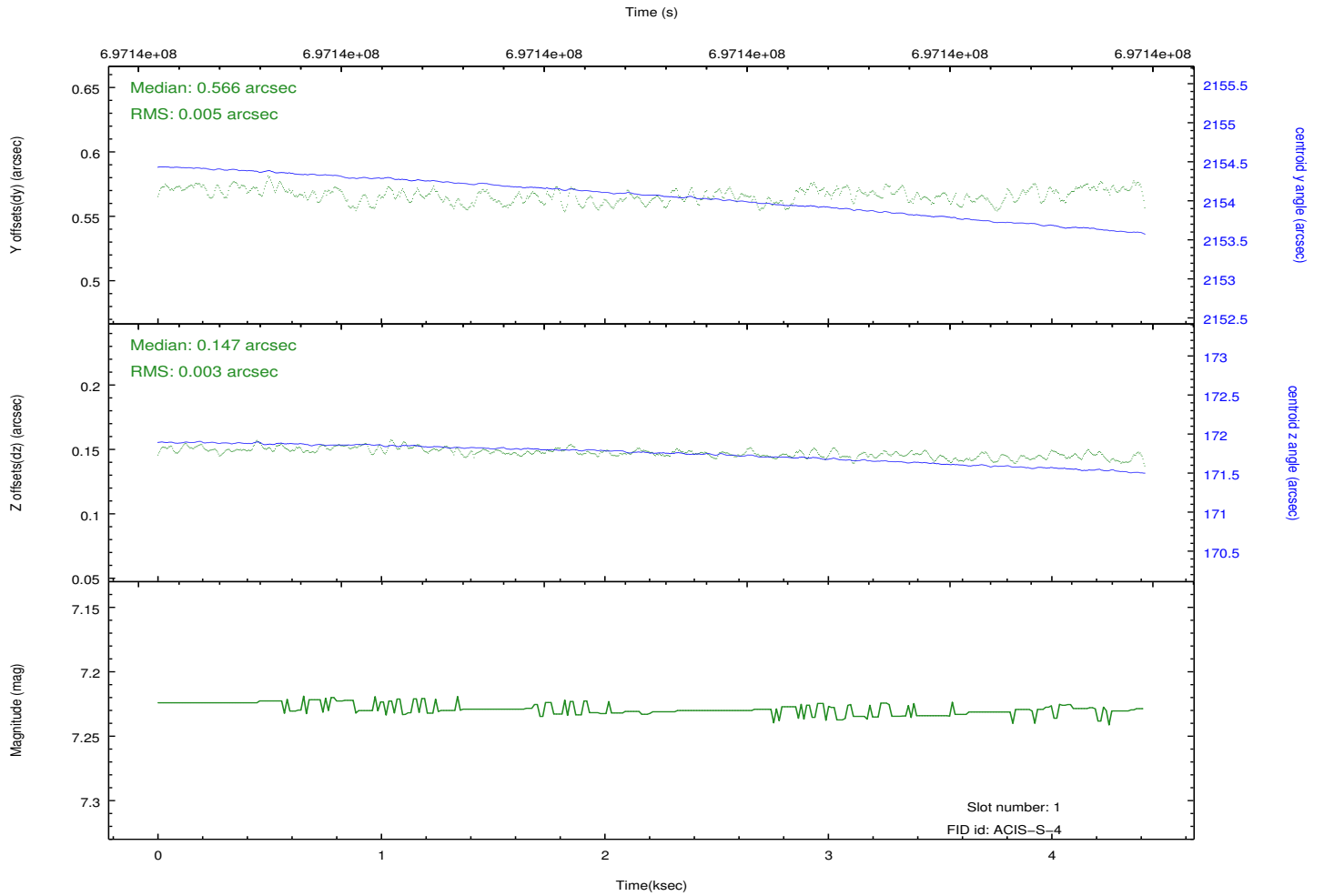
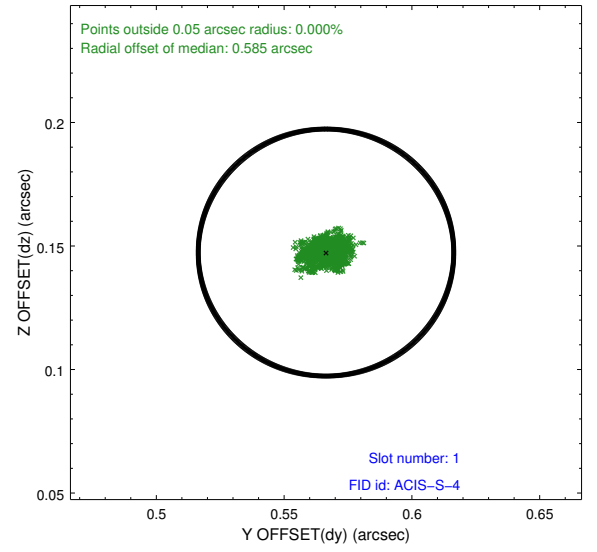
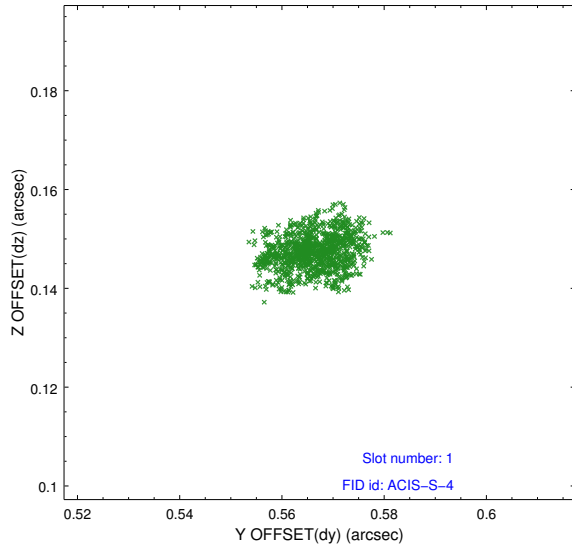


2.5 FID Slots

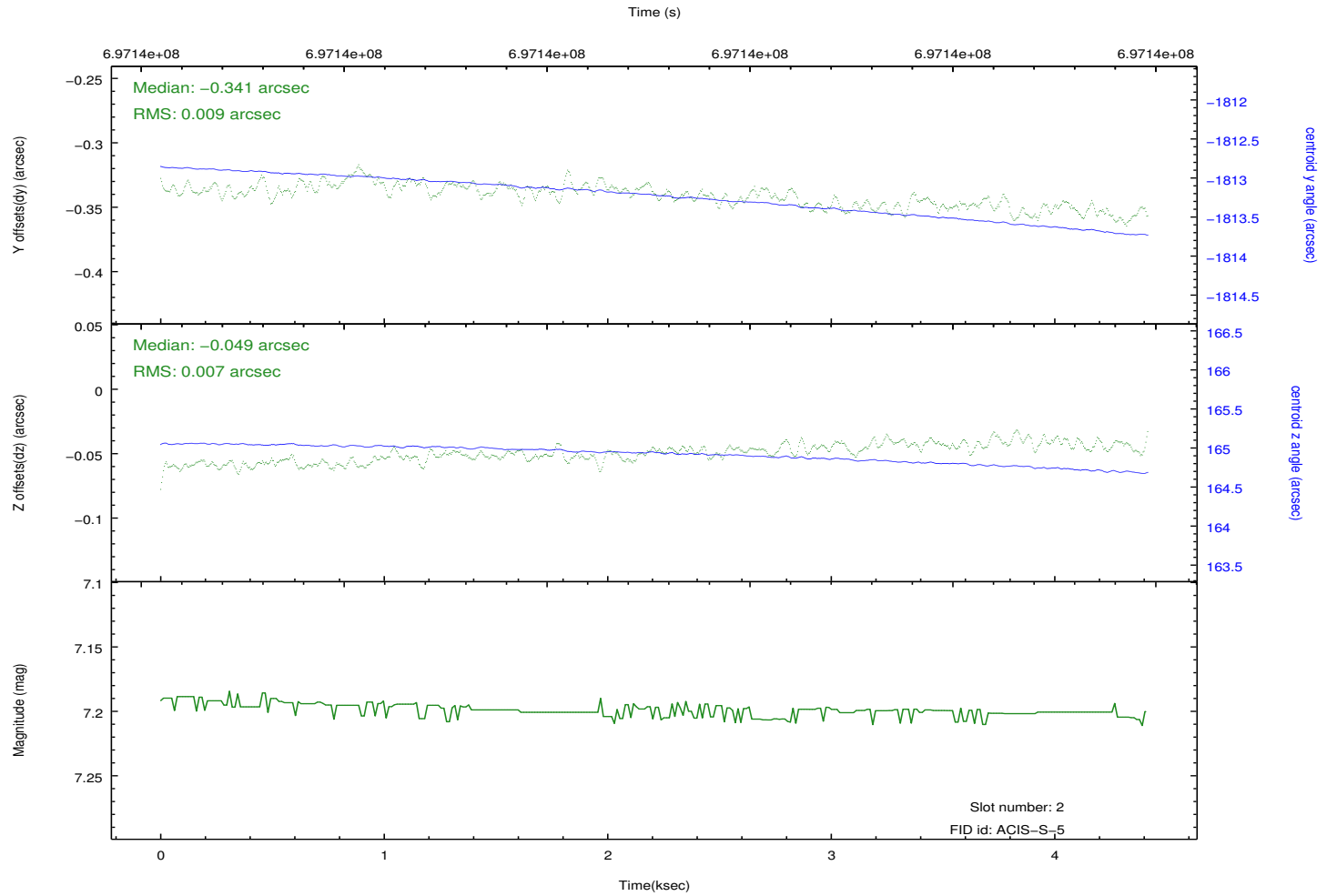
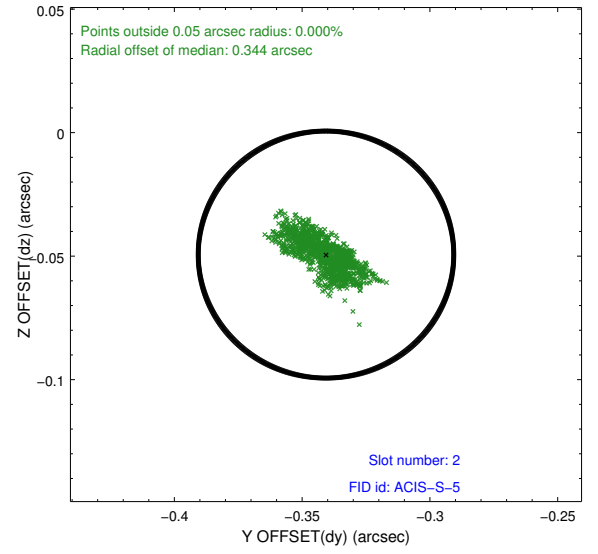
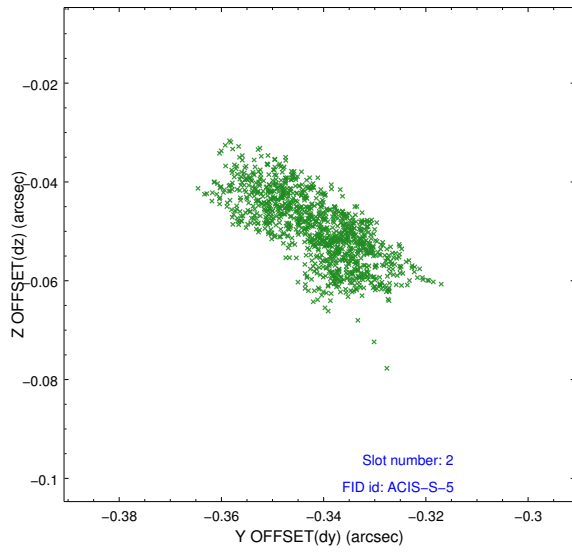
2.5.1 Slot 0



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)	2020.02.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.0579000313282

A.2 Comments