

V&V Reference Report

L2 ASCDS Version : 10.8.1

Observation 22914 - L2 Version 1
Chandra X-Ray Center

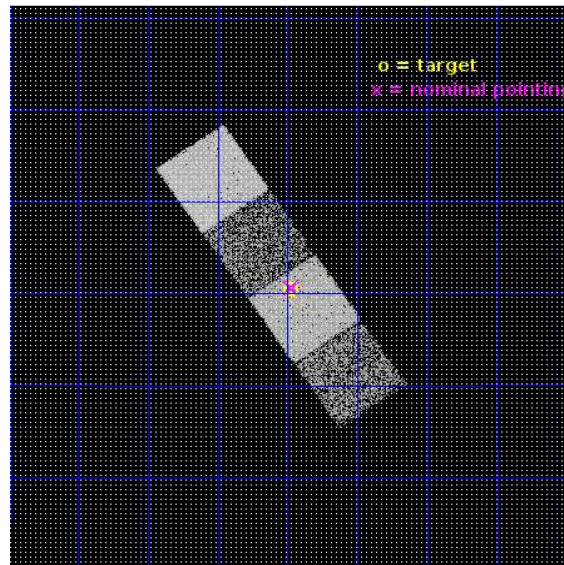
L2 Processing Date : Dec 21 2019

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1 Front

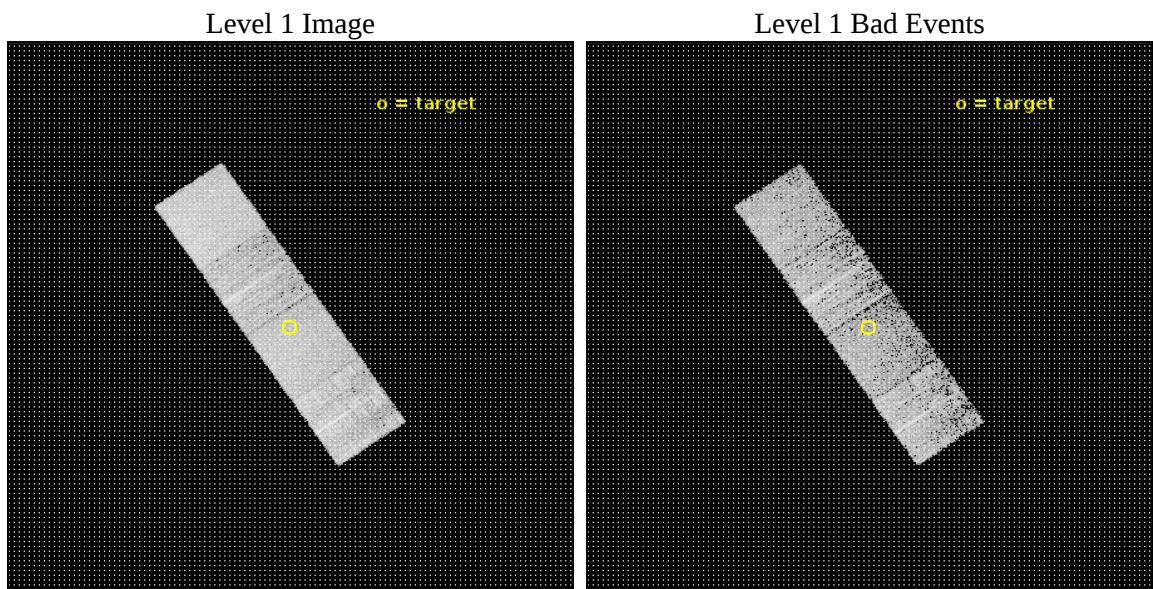
seq_num	704028	Sequence number
obs_id	22914	Observation id
title	Gravitational millilensing as a tool for studying the microarcsec-scale structure in PKS1413+135	Proposal title
observer	Ioannis Liodakis	Principal investigator
object	PKS 1413+135	Source name
dtcycle	0	
cycle	P	events from which exps? 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	213.99311099042	Nominal RA [deg]
dec_nom	13.343991178059	Nominal Dec [deg]
roll_nom	55.755812601578	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4064.1000313759	Sum of GTIs [s]
livetime	4010.999572519	Livetime [s]
ontime5	4064.0591019392	Sum of GTIs [s]
ontime6	4064.0180618763	Sum of GTIs [s]
ontime7	4064.1000313759	Sum of GTIs [s]
ontime8	4063.9770219326	Sum of GTIs [s]
l2events	46754	Number of level 2 events



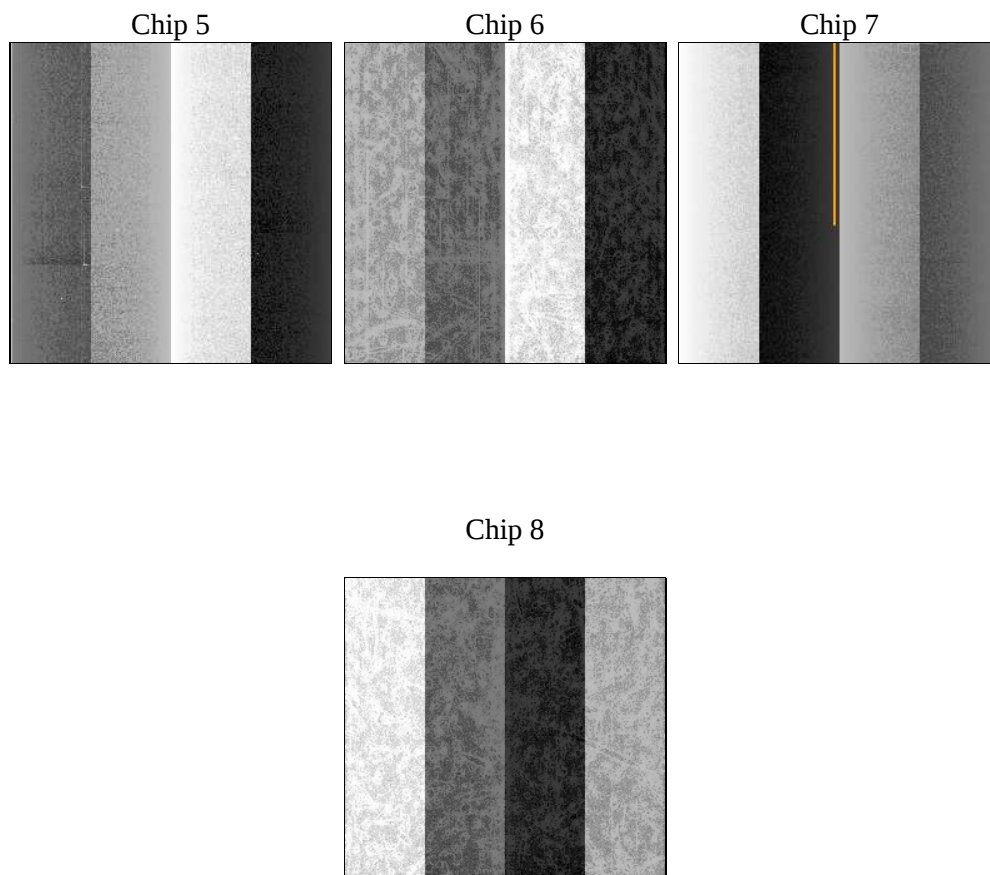
2 OBI

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	4064.1000313759	Sum of GTIs [s]
caldsver	4.8.4.2	 	ontime5	4064.0591019392	Sum of GTIs [s]
date	2019-12-21T14:13:01	Date and time of file creation	ontime6	4064.0180618763	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	4064.1000313759	Sum of GTIs [s]
			ontime8	4063.9770219326	Sum of GTIs [s]
			l1events	163260	Number of level 1 events

2.1.4 Events

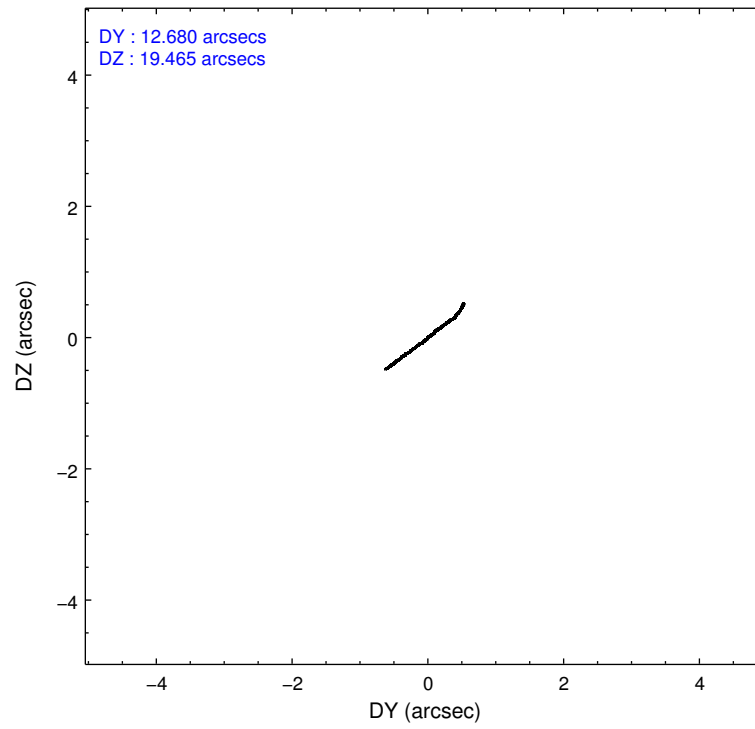
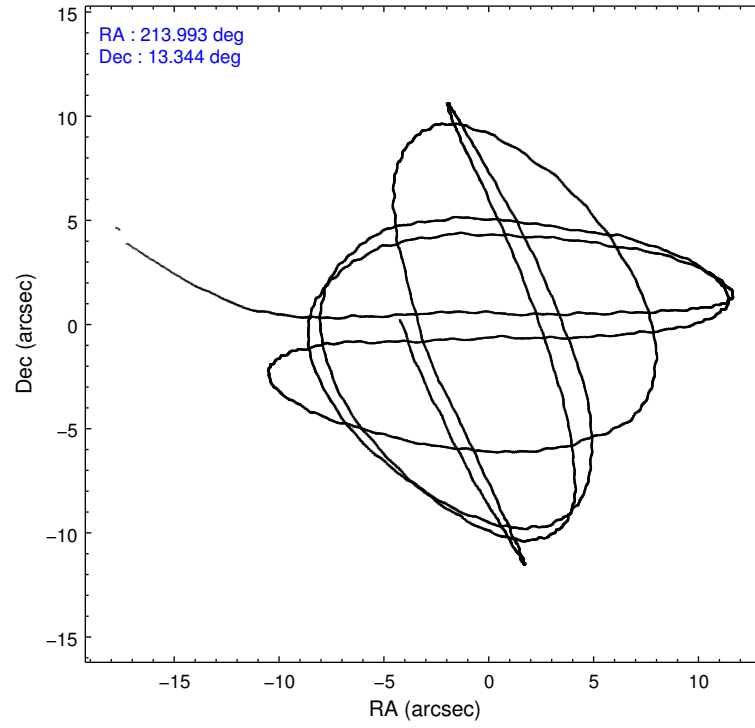
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	48980	32745	39845	41690
rejected events	25648	29123	22329	29938
rejected %	52%	88%	56%	71%

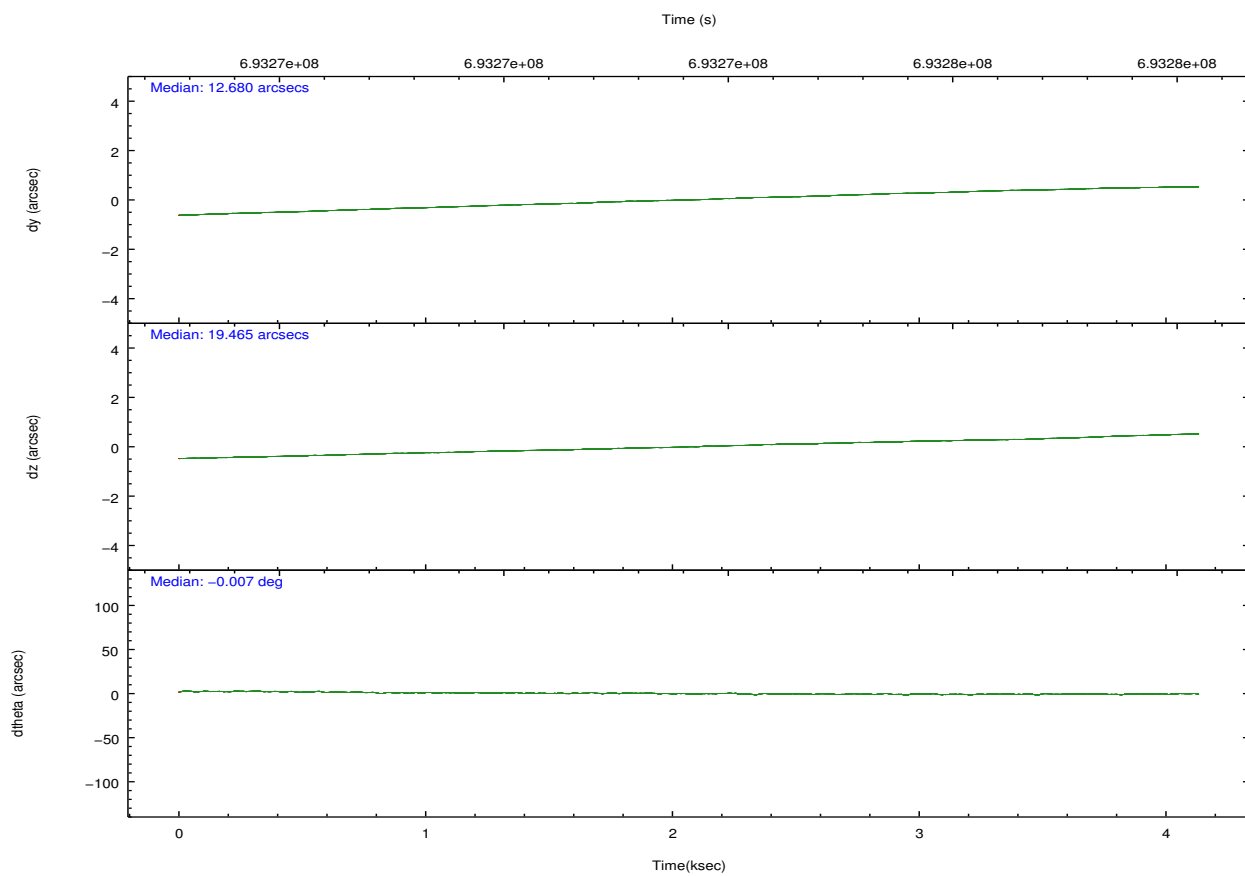
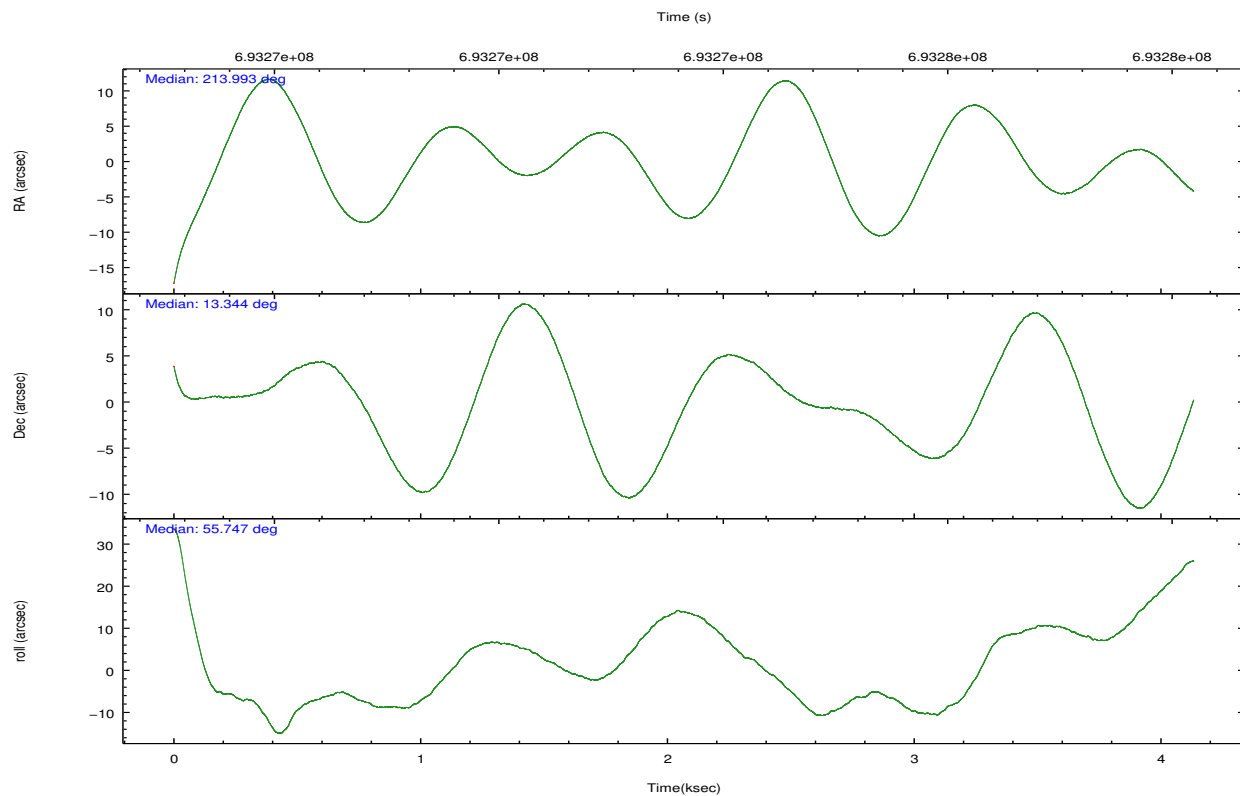
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	1272	1133	1527	3329
	2%	3%	3%	7%
grade 1 events	159	22	65	39
	0%	0%	0%	0%
grade 2 events	7339	928	3706	2797
	14%	2%	9%	6%
grade 3 events	656	321	1383	1238
	1%	0%	3%	2%
grade 4 events	674	323	1333	1204
	1%	0%	3%	2%
grade 5 events	3277	1373	3895	2232
	6%	4%	9%	5%
grade 6 events	13416	921	9577	3188
	27%	2%	24%	7%
grade 7 events	22187	27724	18359	27663
	45%	84%	46%	66%

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	213.991398	213.9931109904237	CCD I2 on	N	N
[deg] Pointing Dec	13.316650	13.3439911780593	CCD I3 on	N	N
[deg] Pointing Roll	55.599544	55.75581260157794	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)	693271906.184000	693270531.14794	CCD S5 on	N	N
Observation start date	2019-12-20T23:30:37	2019-12-20T23:08:51	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	693275906.184000	693277038.87333	On-chip summing requested	N	N
Observation end date	2019-12-21T00:37:17	2019-12-21T00:57:18	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



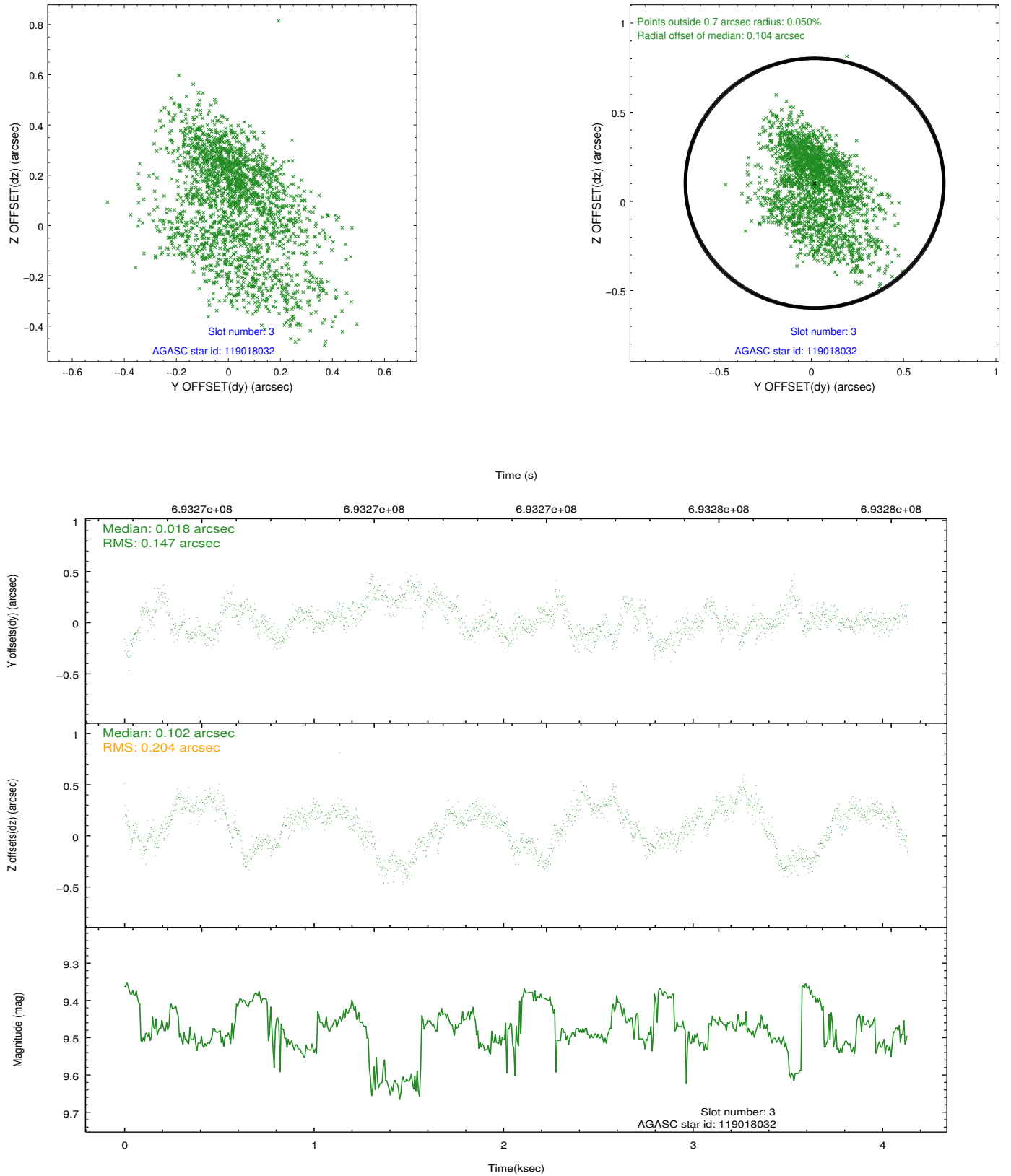


Slot Statistics

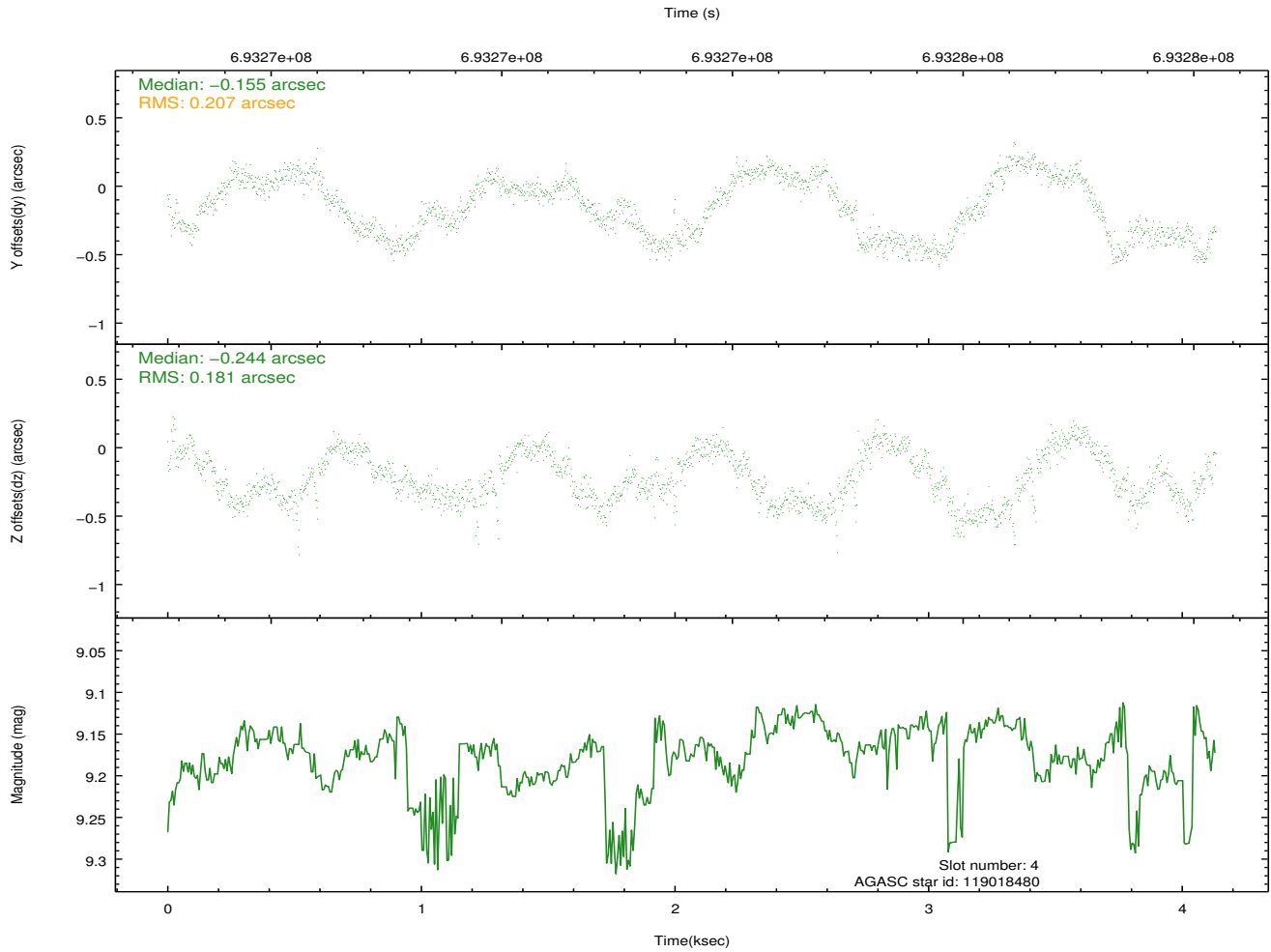
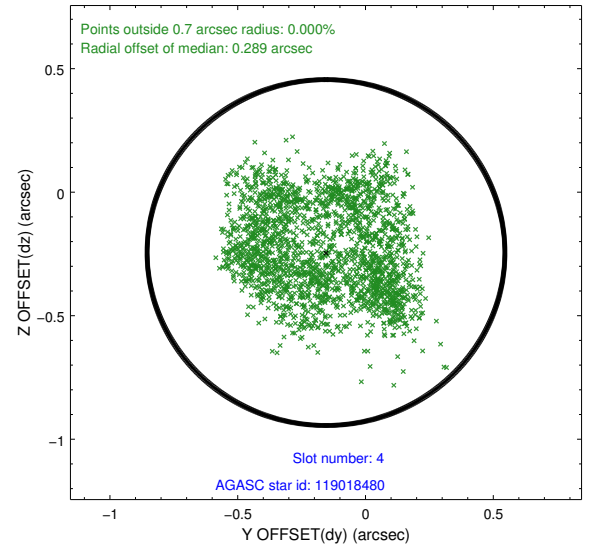
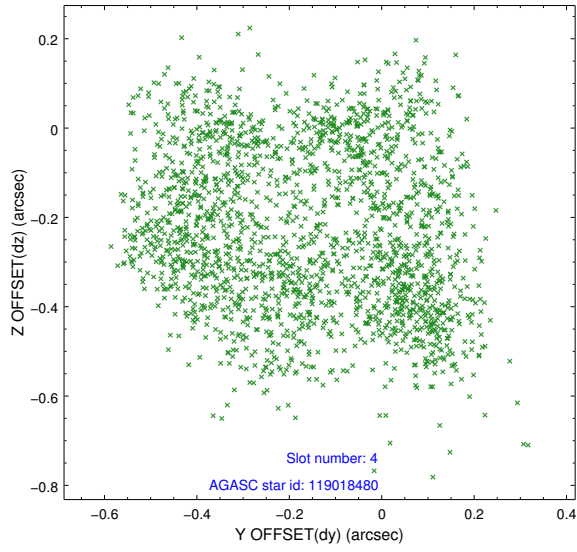
id	status	used	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.02	1009	1.000	-0.246	-0.161	0.008	0.015	0.000000	0.000000	-765.75 -1741
1	FID		ACIS-S-4	7.16	1009	1.000	0.706	0.162	0.019	0.031	0.000000	0.000000	2147.71 166
2	FID		ACIS-S-5	7.13	1009	1.000	-0.492	0.007	0.016	0.024	0.000000	0.000000	-1817.00 161
3	GUIDE	used	119018032	9.48	2009	1.000	0.018	0.102	0.258	0.448	214.411370	13.737114	2079.93 -355
4	GUIDE	used	119018480	9.17	2015	1.000	-0.155	-0.244	0.303	0.413	213.620759	13.541196	-64.14 1527
5	GUIDE	used	119020736	8.62	2016	1.000	-0.046	-0.102	0.129	0.221	213.541794	13.318952	-881.71 1305
6	GUIDE	used	119021632	7.90	2014	1.000	0.352	0.764	0.120	0.205	213.945008	12.750388	-1773.64 -1016
7	GUIDE	used	119019616	8.88	2014	1.000	-0.179	-0.518	0.160	0.255	213.477237	13.654924	-11.54 2171

2.4 Star Slots

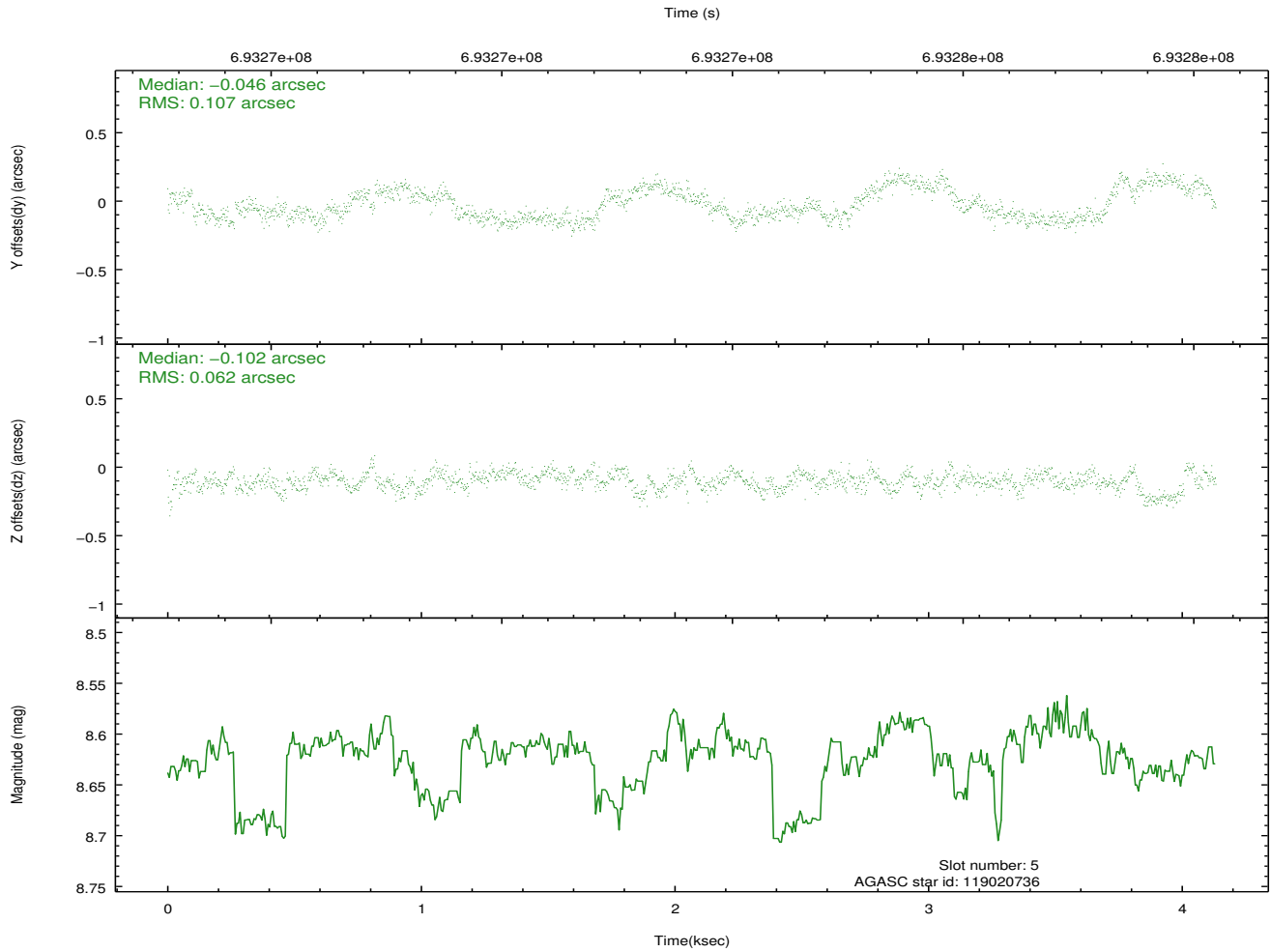
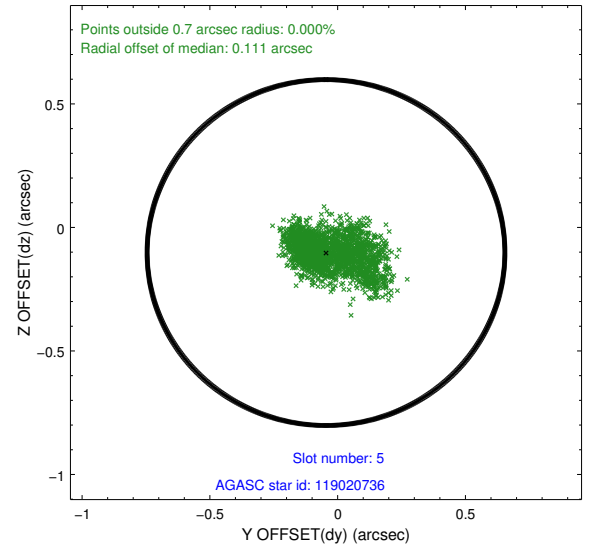
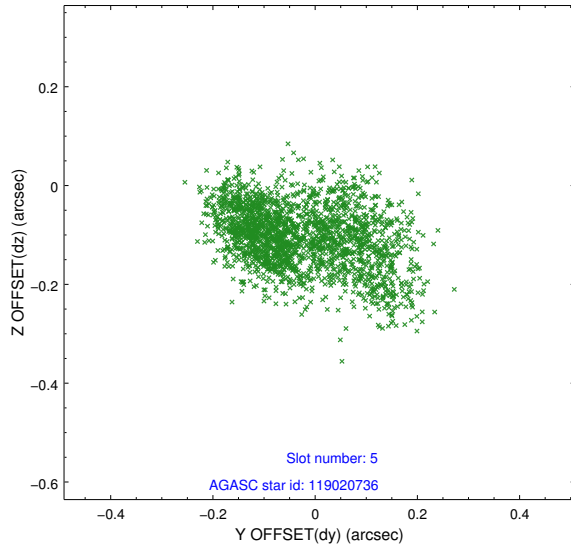
2.4.1 Slot 3



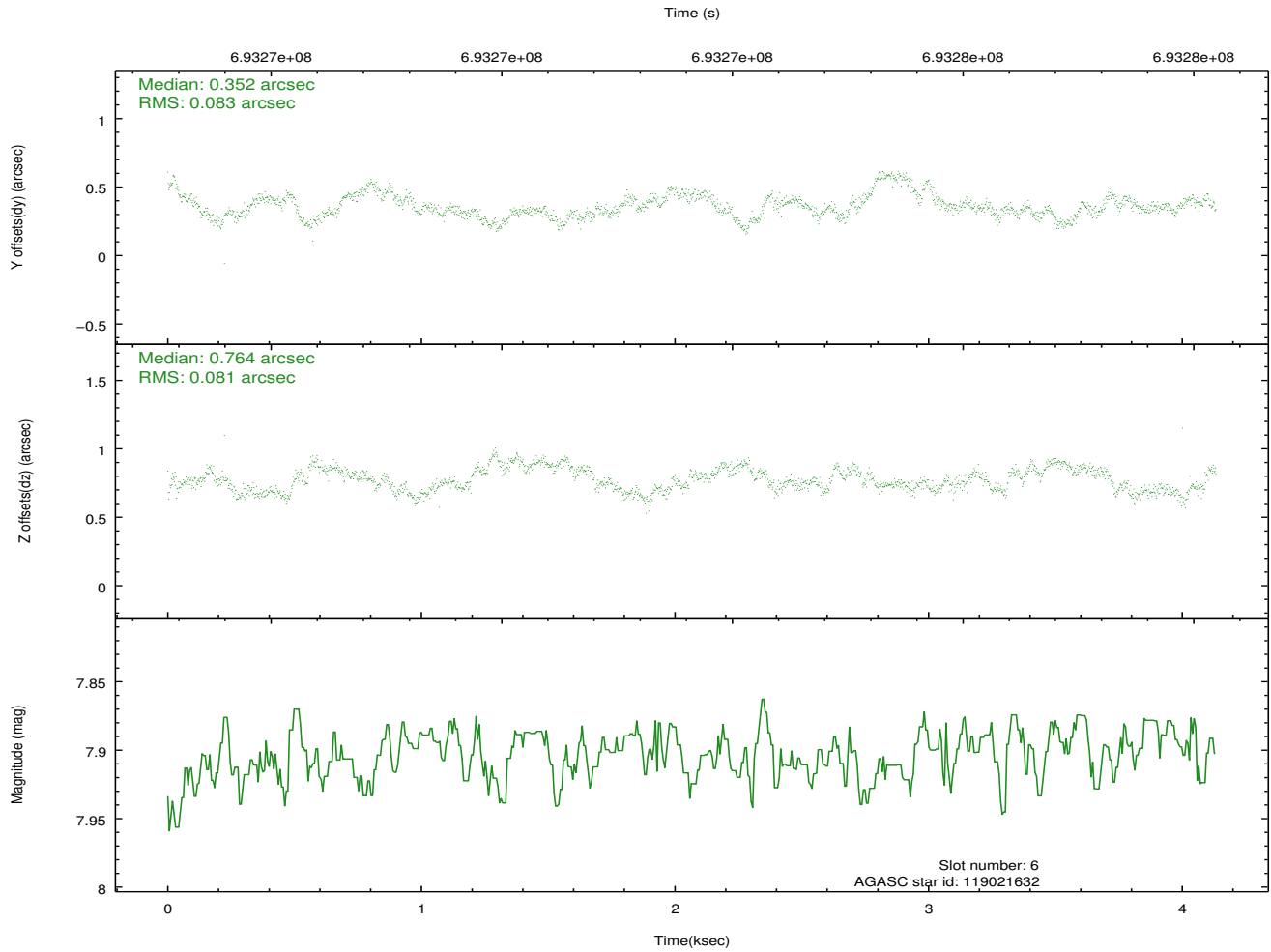
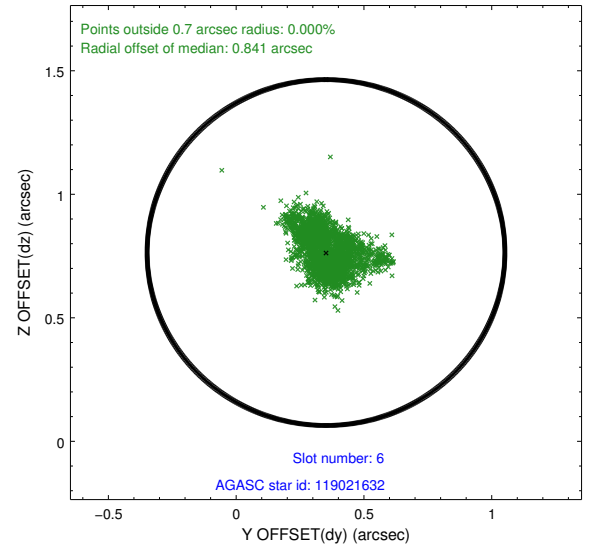
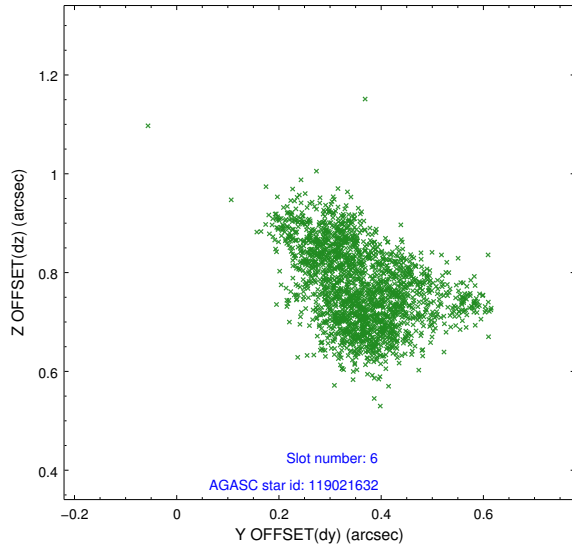
2.4.2 Slot 4



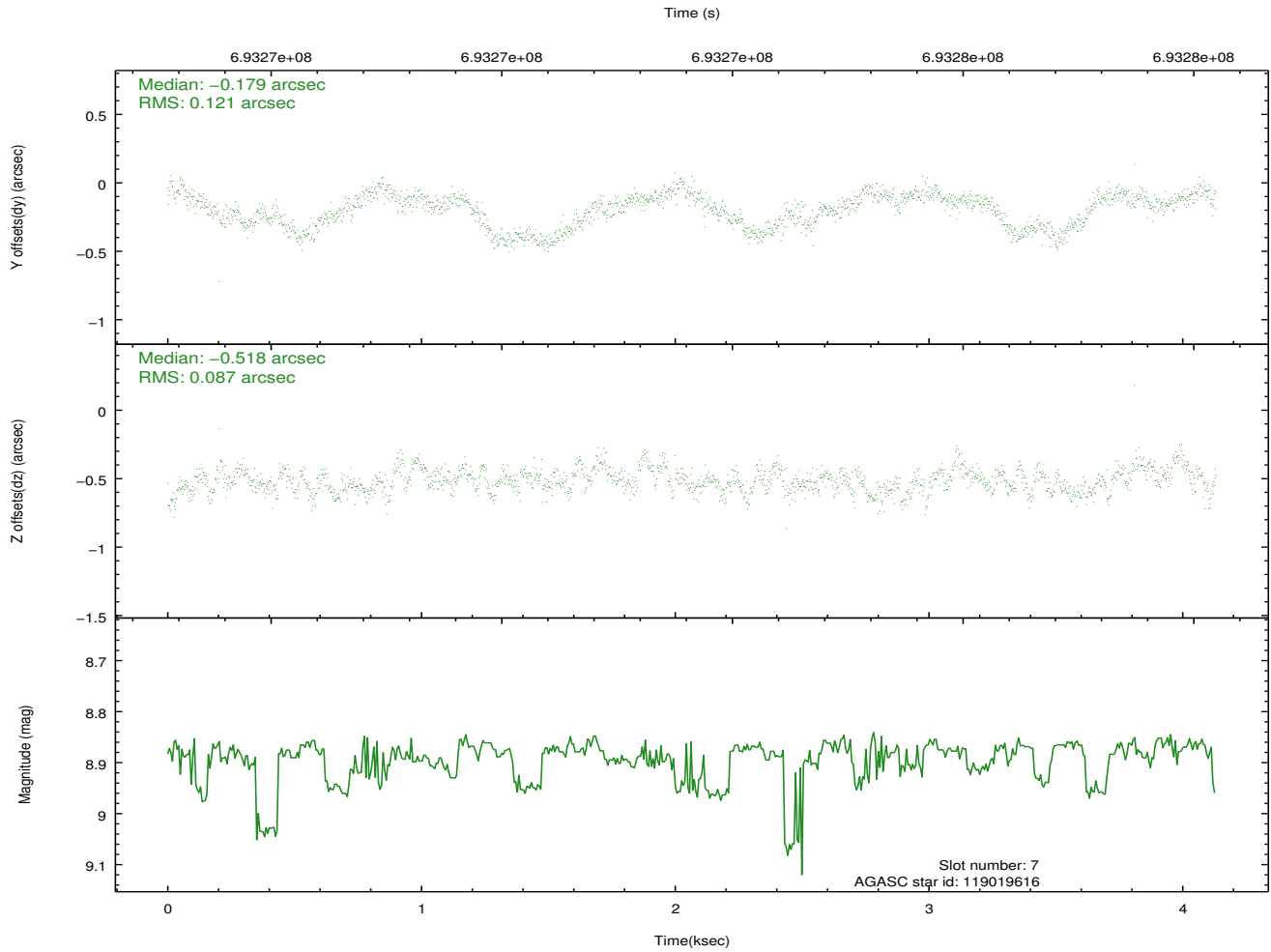
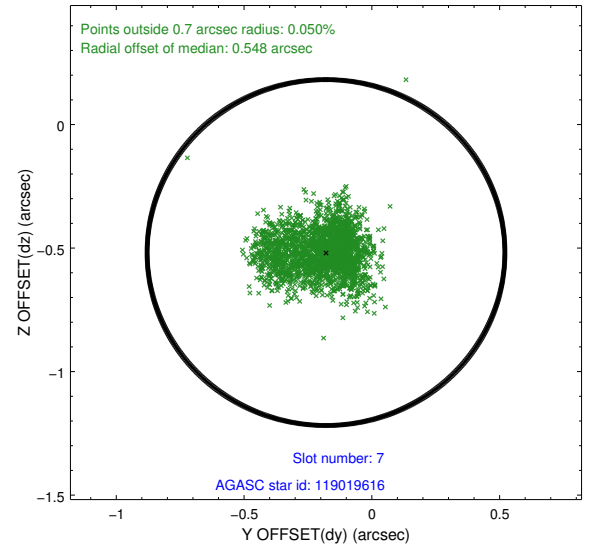
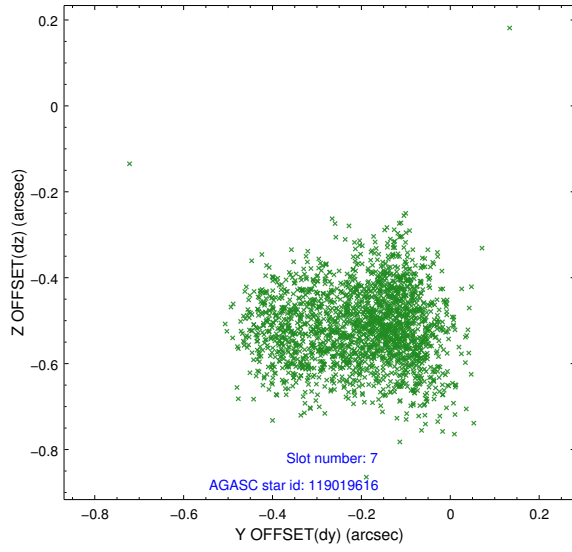
2.4.3 Slot 5



2.4.4 Slot 6

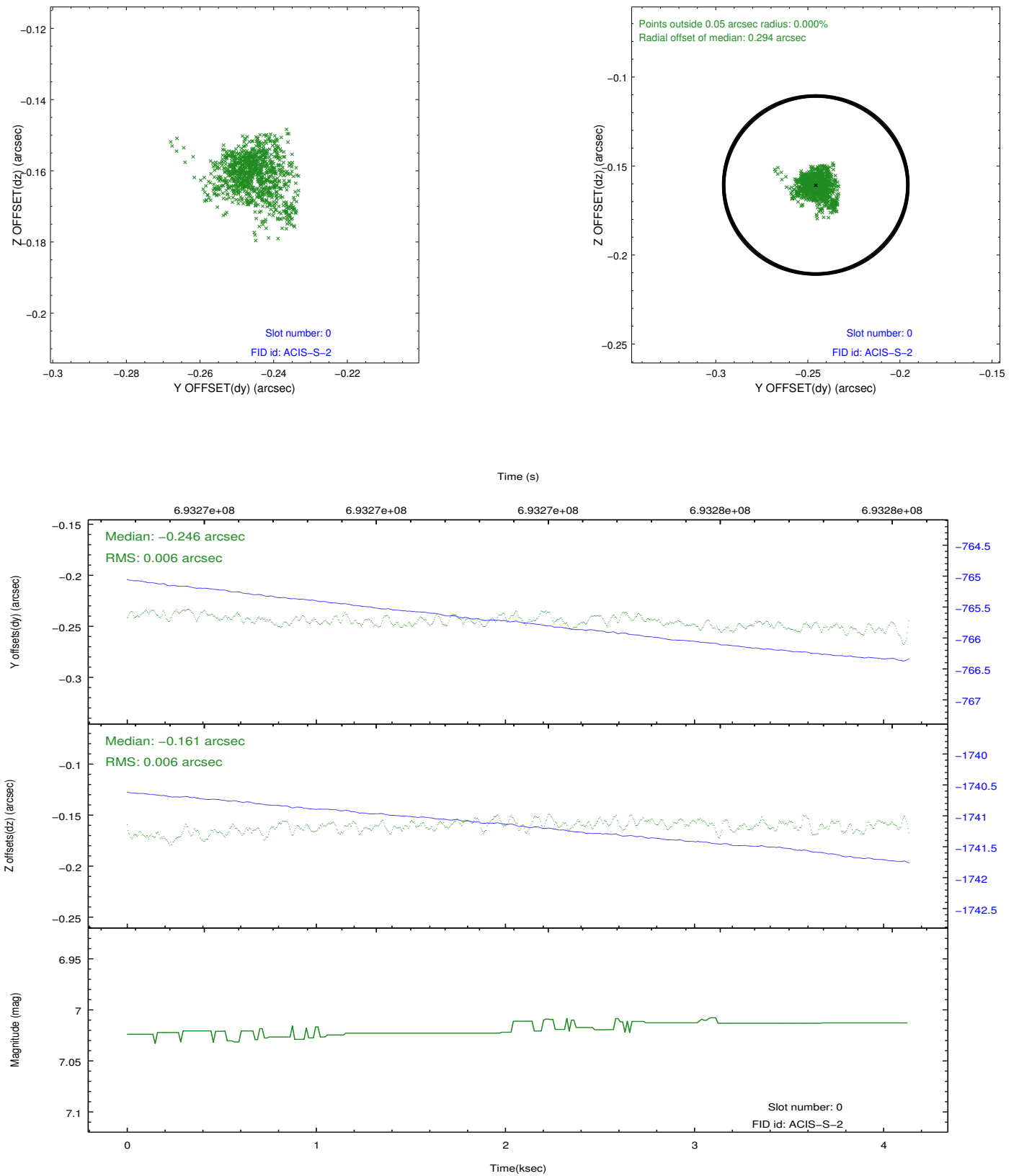


2.4.5 Slot 7

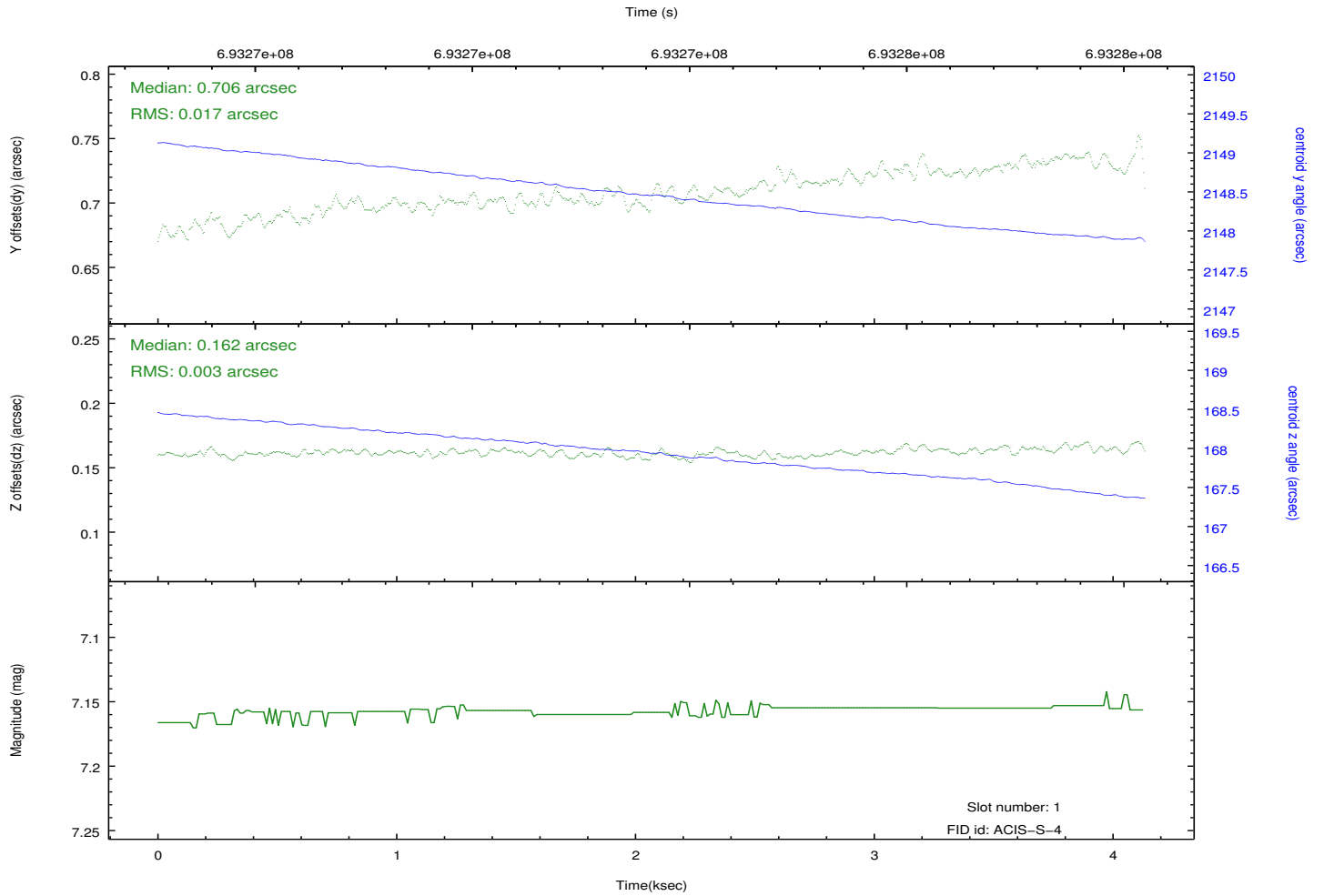
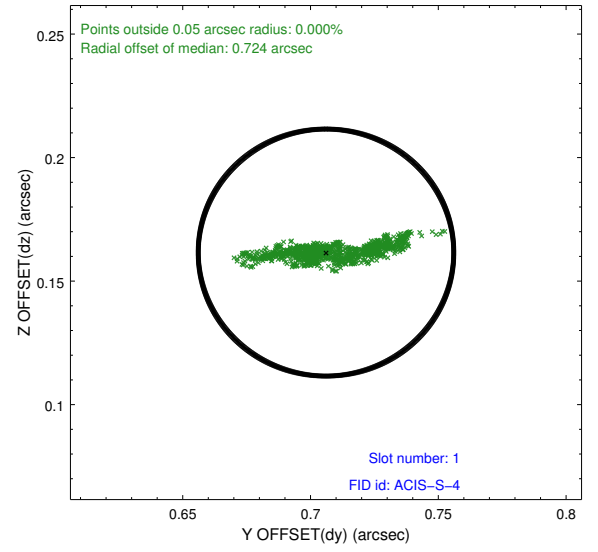
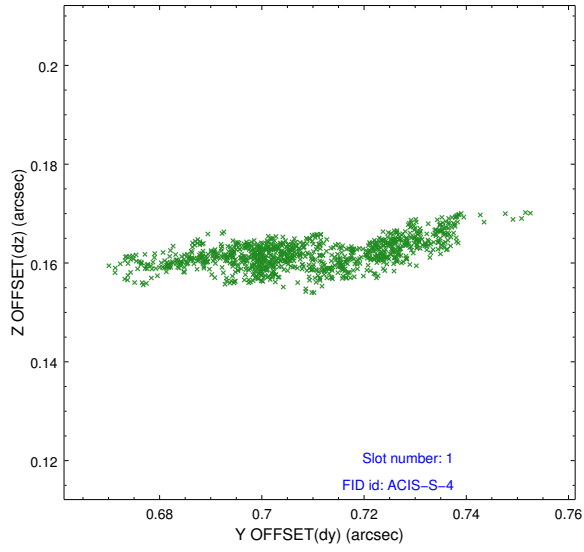


2.5 FID Slots

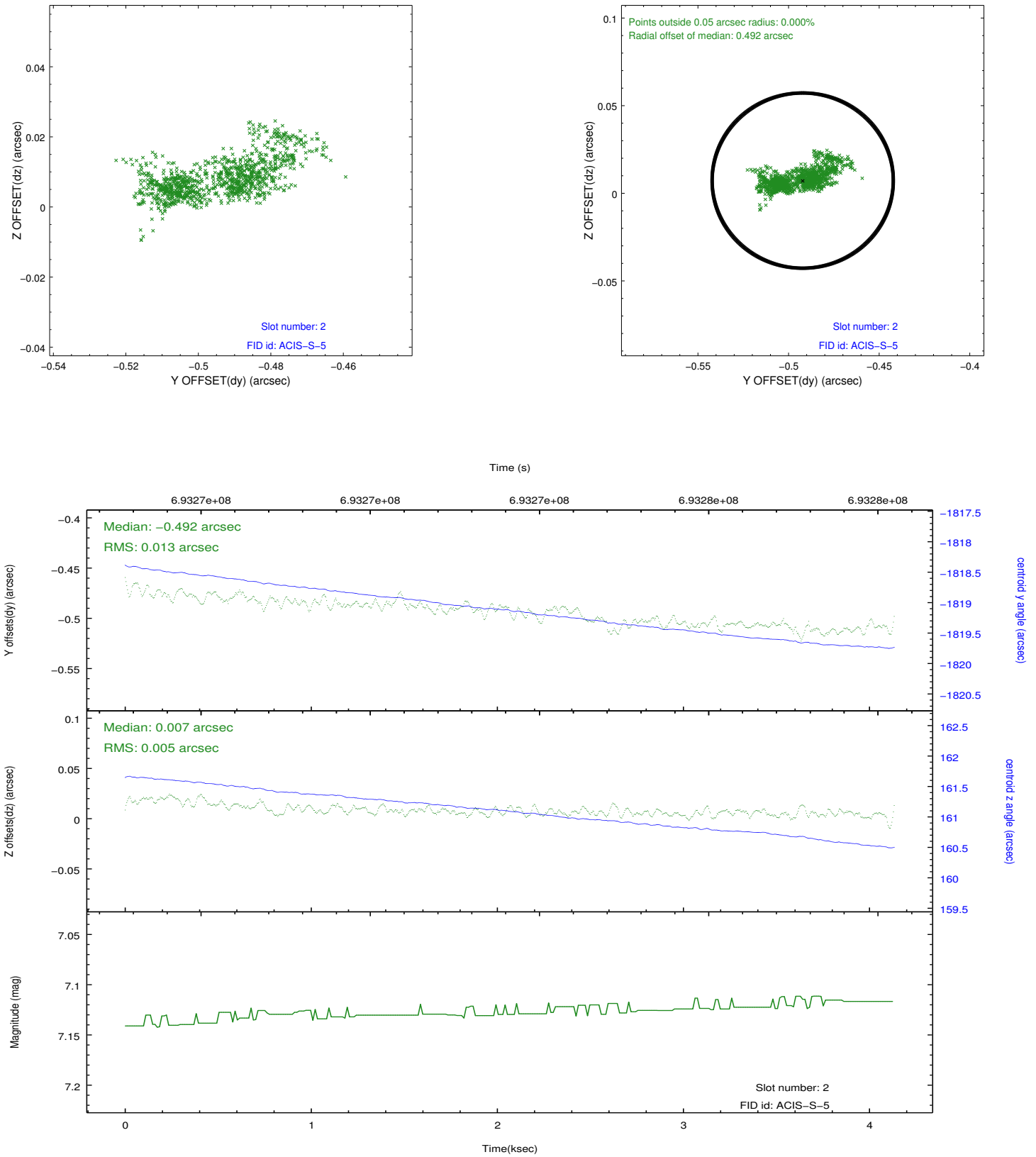
2.5.1 Slot 0



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)	2019.12.23
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.0641000313759

A.2 Comments