

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 22262 - L2 Version 1
Chandra X-Ray Center

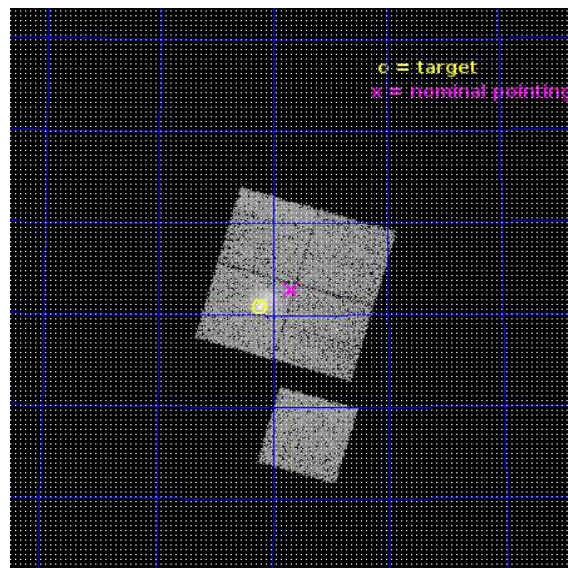
L2 Processing Date : Jun 26 2019

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

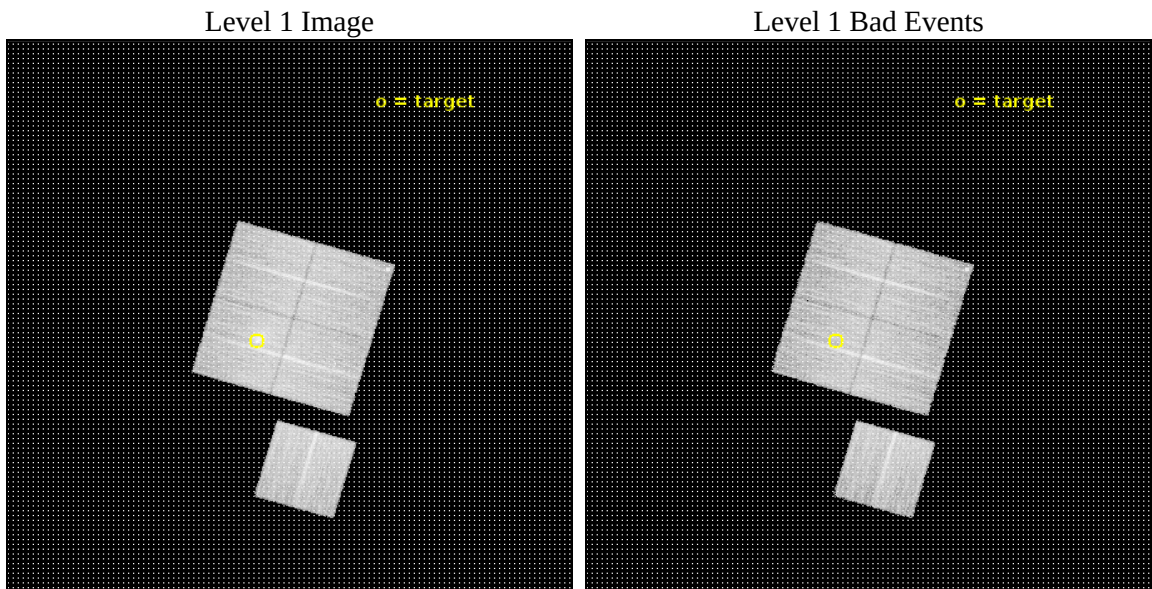
seq_num	801762	Sequence number
obs_id	22262	Observation id
title	Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146	Proposal title
observer	Helen Russell	Principal investigator
object	Abell 2146	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	239.06125	Observer's specified target RA [deg]
dec_targ	66.346917	Observer's specified target Dec [deg]
ra_nom	238.91974908225	Nominal RA [deg]
dec_nom	66.379423082502	Nominal Dec [deg]
roll_nom	196.33836889815	Nominal Roll [deg]
revision	1	Processing version of data
ontime	14066.673265219	Sum of GTIs [s]
livetime	13882.881823274	Livetime [s]
ontime0	14066.550155163	Sum of GTIs [s]
ontime1	14069.732175469	Sum of GTIs [s]
ontime2	14069.773215532	Sum of GTIs [s]
ontime3	14066.673265219	Sum of GTIs [s]
ontime6	14066.509125233	Sum of GTIs [s]
l2events	58316	Number of level 2 events



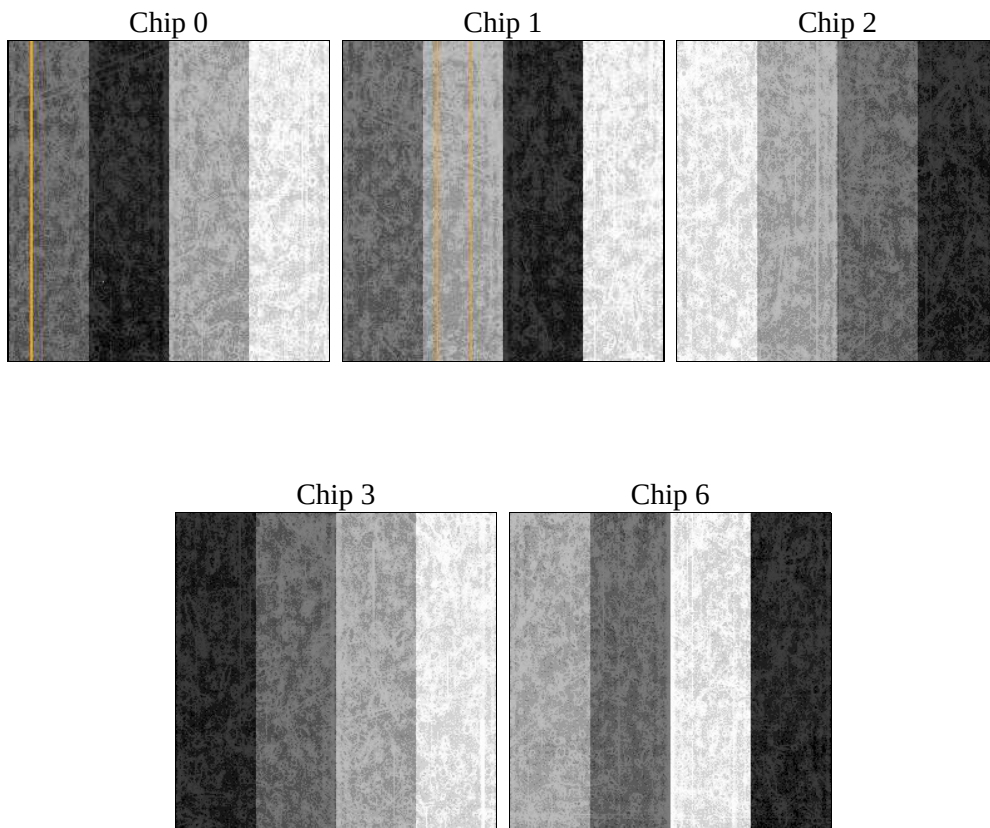
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	14066.673265219	Sum of GTIs [s]
caldsver	4.8.3	 	ontime0	14066.550155163	Sum of GTIs [s]
date	2019-06-26T22:57:01	Date and time of file creation	ontime1	14069.732175469	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	14069.773215532	Sum of GTIs [s]
			ontime3	14066.673265219	Sum of GTIs [s]
			ontime6	14066.509125233	Sum of GTIs [s]
			l1events	528444	Number of level 1 events

2.1.4 Events

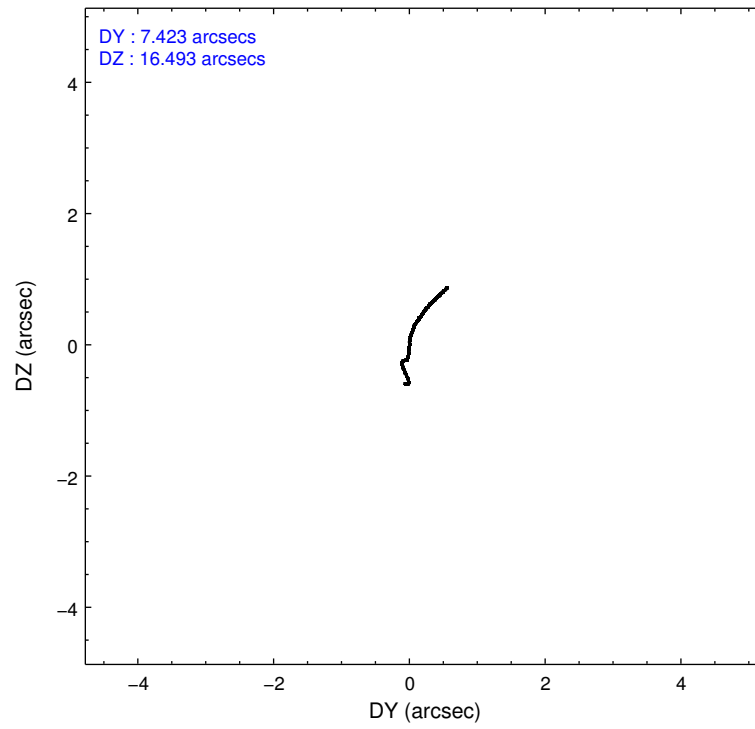
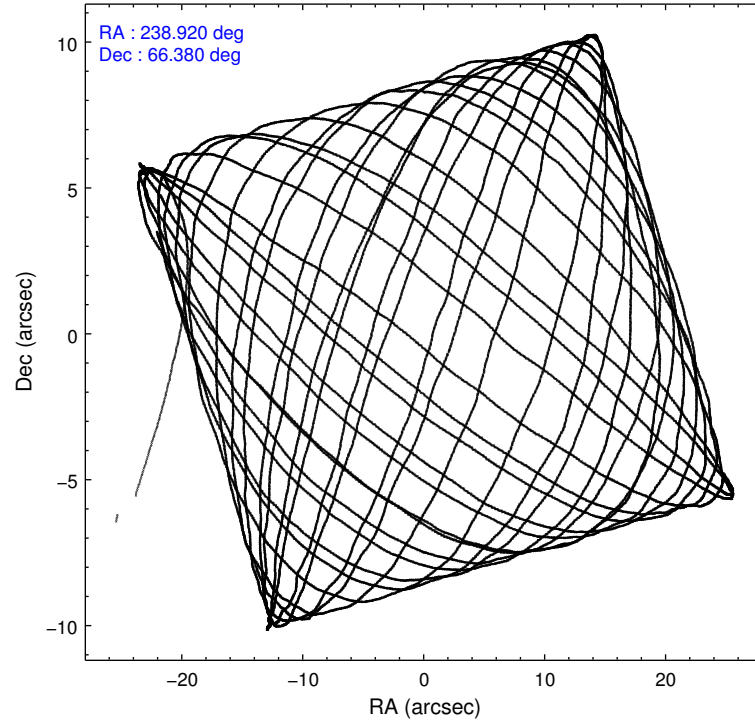
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	99729	101581	108875	110084	108175
rejected events	87248	87828	96538	92180	96073
rejected %	87%	86%	88%	83%	88%

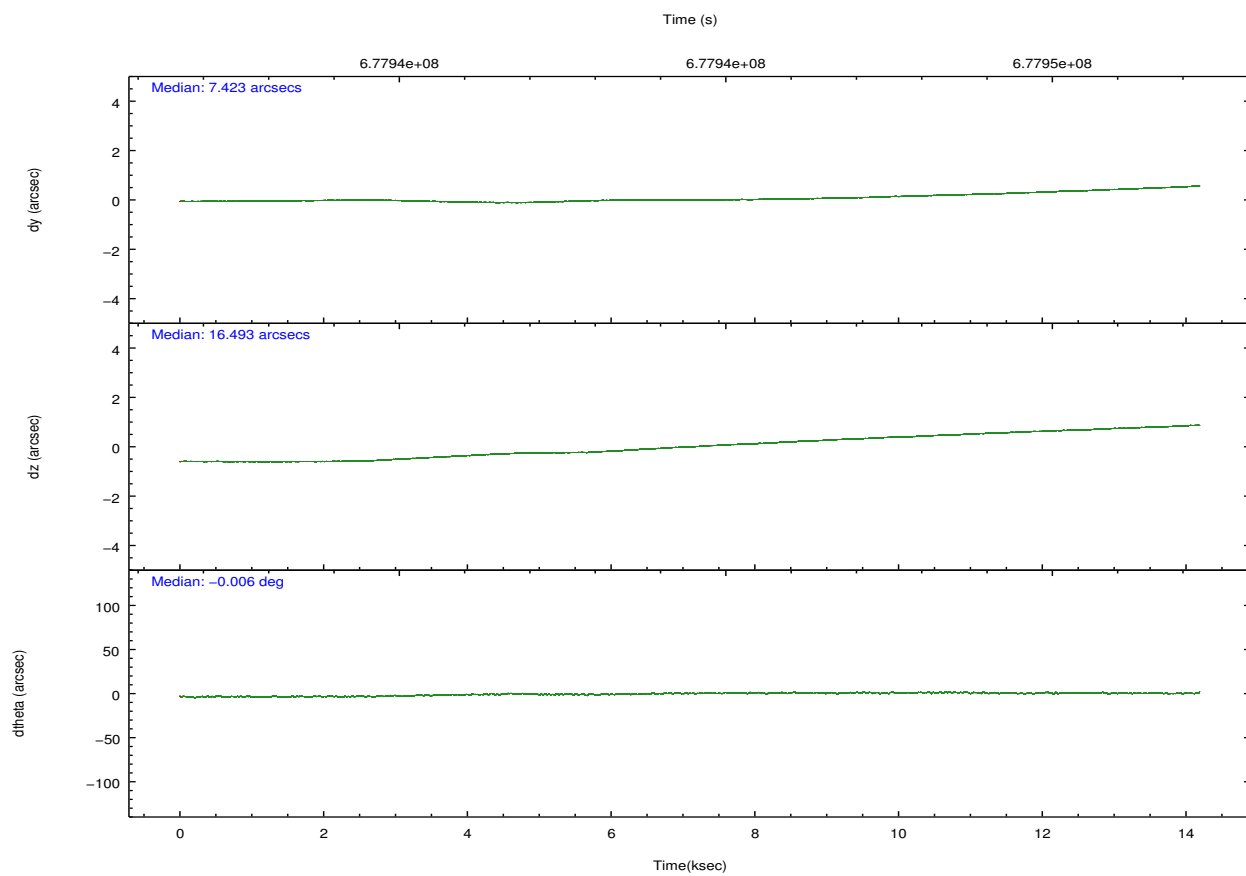
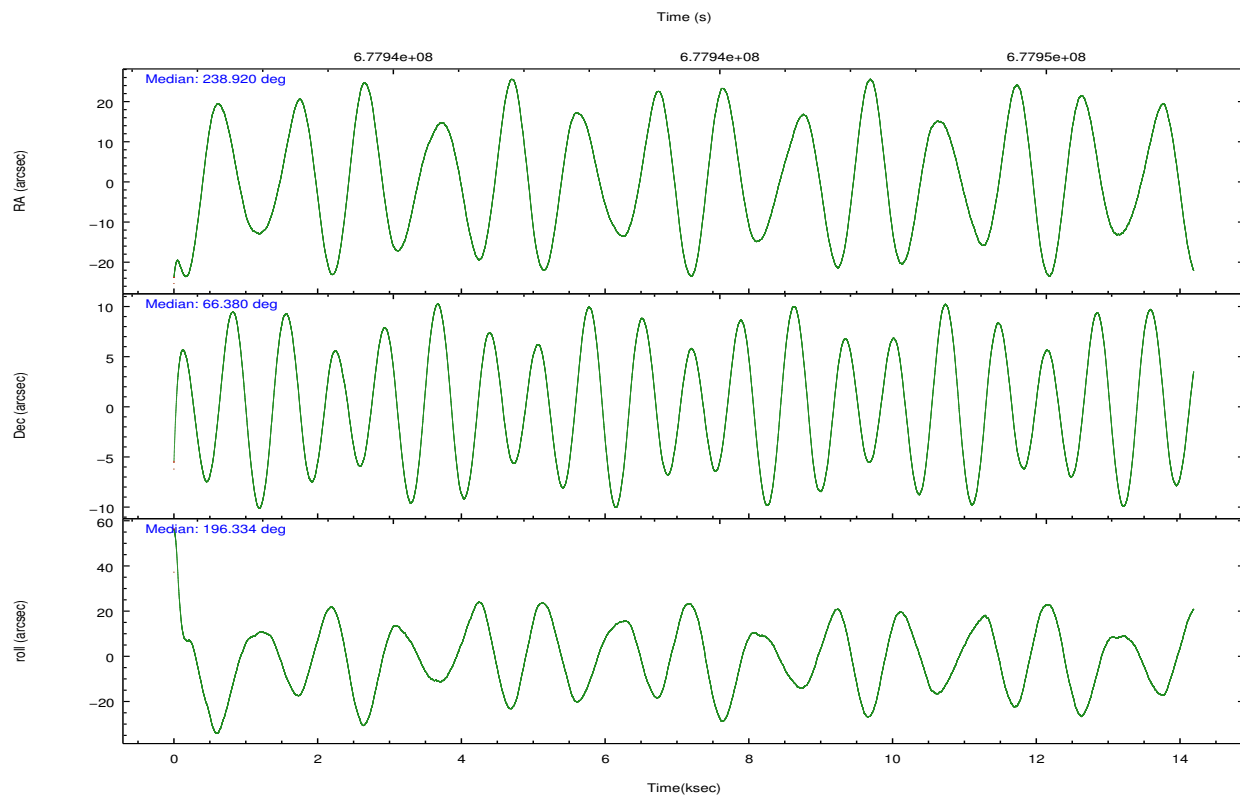
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4212	4638	4259	9010	3955
	4%	4%	3%	8%	3%
grade 1 events	580	62	74	86	57
	0%	0%	0%	0%	0%
grade 2 events	3254	3703	3075	3344	2898
	3%	3%	2%	3%	2%
grade 3 events	1258	1263	1243	1399	1221
	1%	1%	1%	1%	1%
grade 4 events	1169	1234	1240	1474	1177
	1%	1%	1%	1%	1%
grade 5 events	5011	5104	4792	5672	4997
	5%	5%	4%	5%	4%
grade 6 events	2589	2920	2525	2683	2857
	2%	2%	2%	2%	2%
grade 7 events	81656	82657	91667	86416	91013
	81%	81%	84%	78%	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	238.967246	238.9197490822493	CCD I2 on	Y	Y
[deg] Pointing Dec	66.399478	66.37942308250176	CCD I3 on	Y	Y
[deg] Pointing Roll	196.086130	196.3383688981512	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)	677937521.184000	677936462.06213	CCD S5 on	N	N
Observation start date	2019-06-26T11:57:32	2019-06-26T11:41:02	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	677951521.184000	677952822.08811	On-chip summing requested	N	N
Observation end date	2019-06-26T15:50:52	2019-06-26T16:13:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



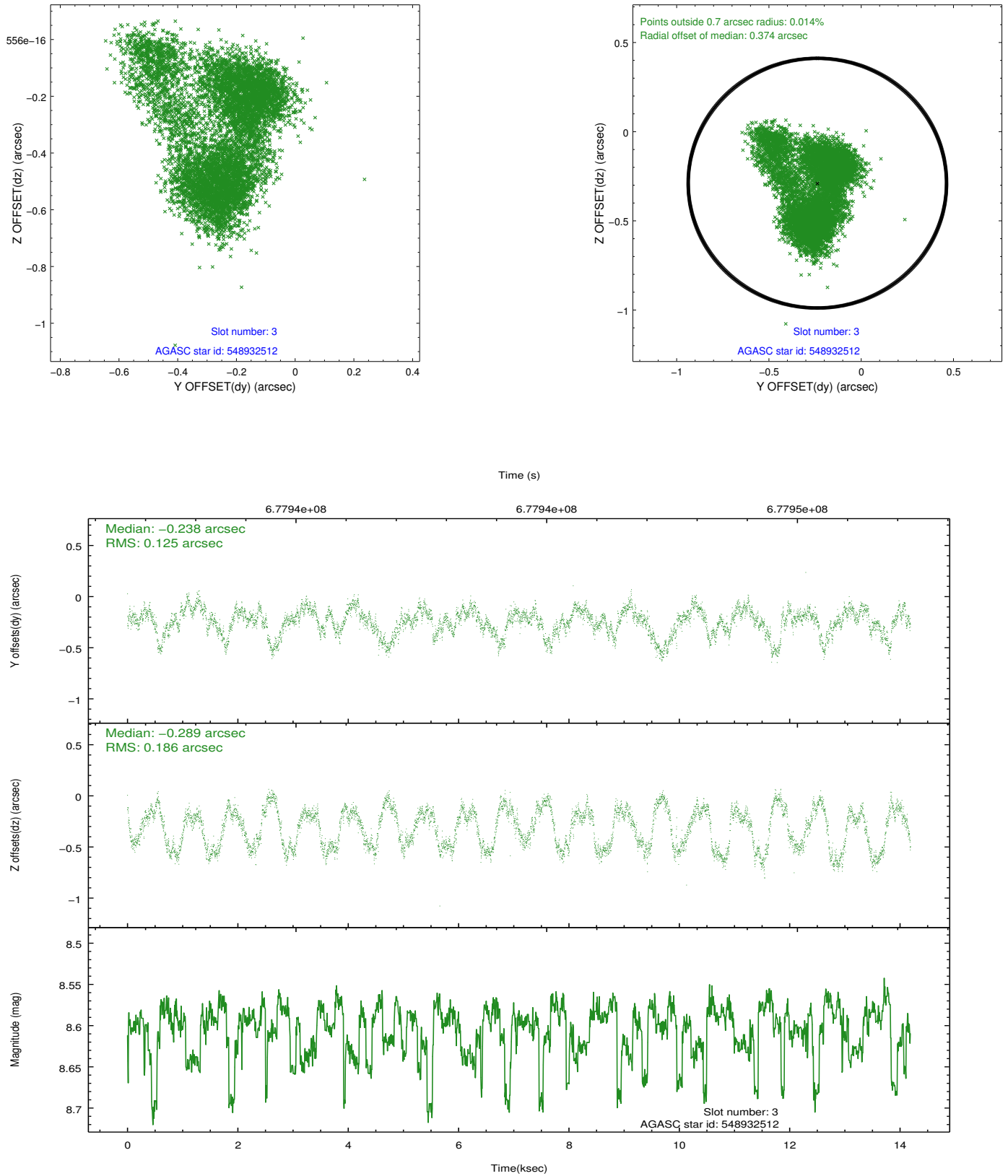


Slot Statistics

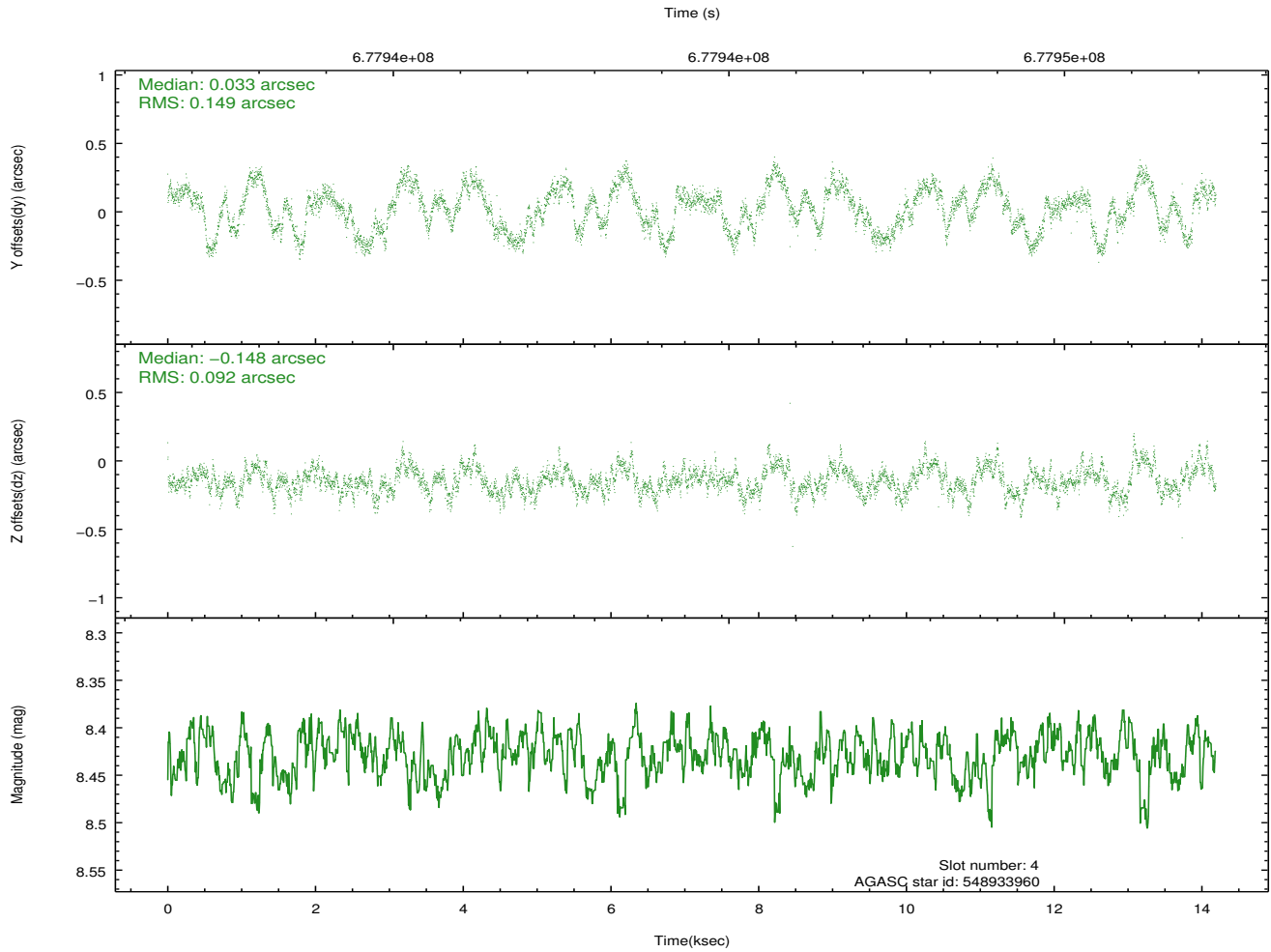
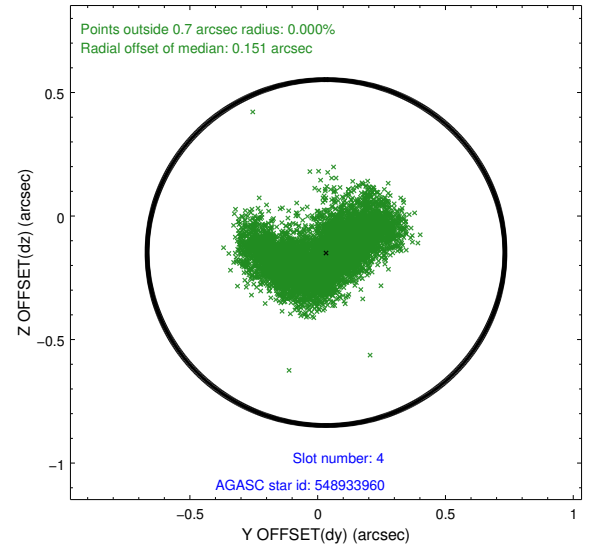
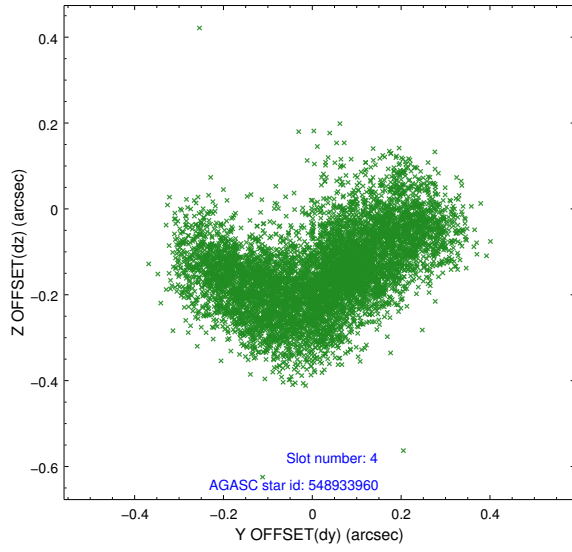
id	status	used	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		7.11	3462	1.000	0.120	-0.145	0.015	0.039	0.000000	0.000000	932.33	-840.00
1	FID		7.08	3461	1.000	-0.426	0.044	0.010	0.019	0.000000	0.000000	-1816.27	1057.00
2	FID		7.06	3460	1.000	0.214	0.174	0.018	0.043	0.000000	0.000000	397.44	1702.00
3	GUIDE	used	8.60	6915	1.000	-0.238	-0.289	0.244	0.364	239.727627	66.054972	-726.16	1492.00
4	GUIDE	used	8.43	6921	1.000	0.033	-0.148	0.194	0.296	237.671184	66.428675	1758.80	-634.00
5	GUIDE	used	9.88	6911	1.000	0.005	0.060	0.319	0.488	238.771821	66.565432	103.50	-651.00
6	GUIDE	used	10.24	6856	1.000	0.124	0.094	0.382	0.606	238.964867	66.978384	-573.92	-2003.00
7	GUIDE	used	9.12	6919	1.000	0.101	0.297	0.169	0.272	240.420863	66.802816	-2388.95	-847.00

2.4 Star Slots

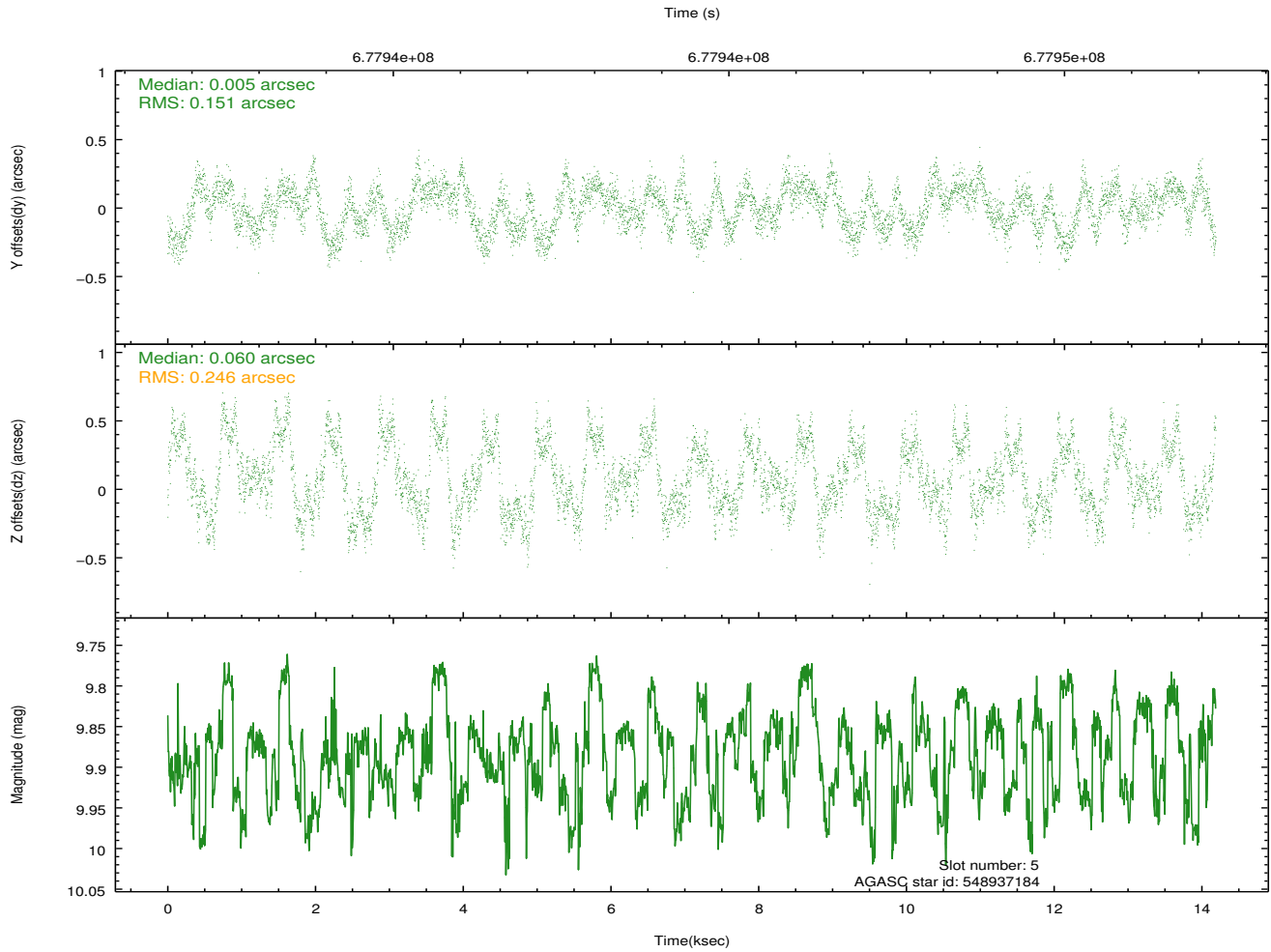
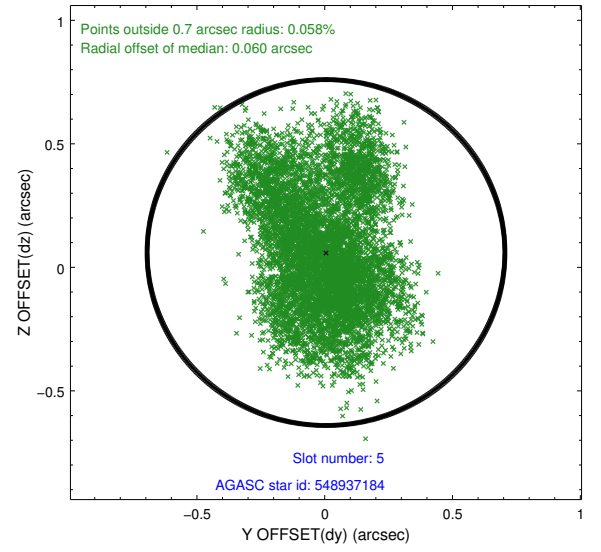
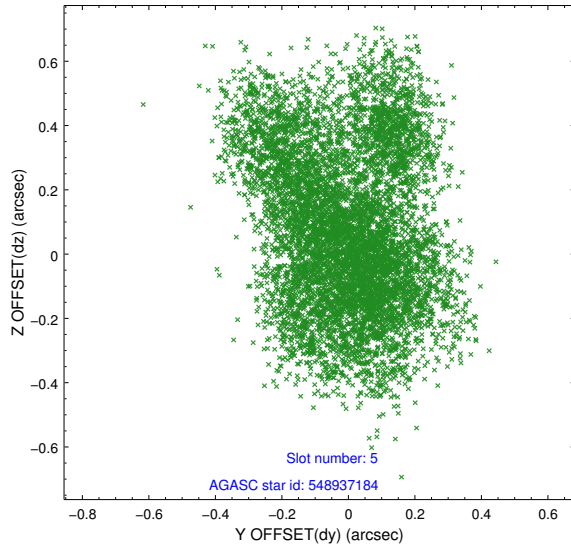
2.4.1 Slot 3



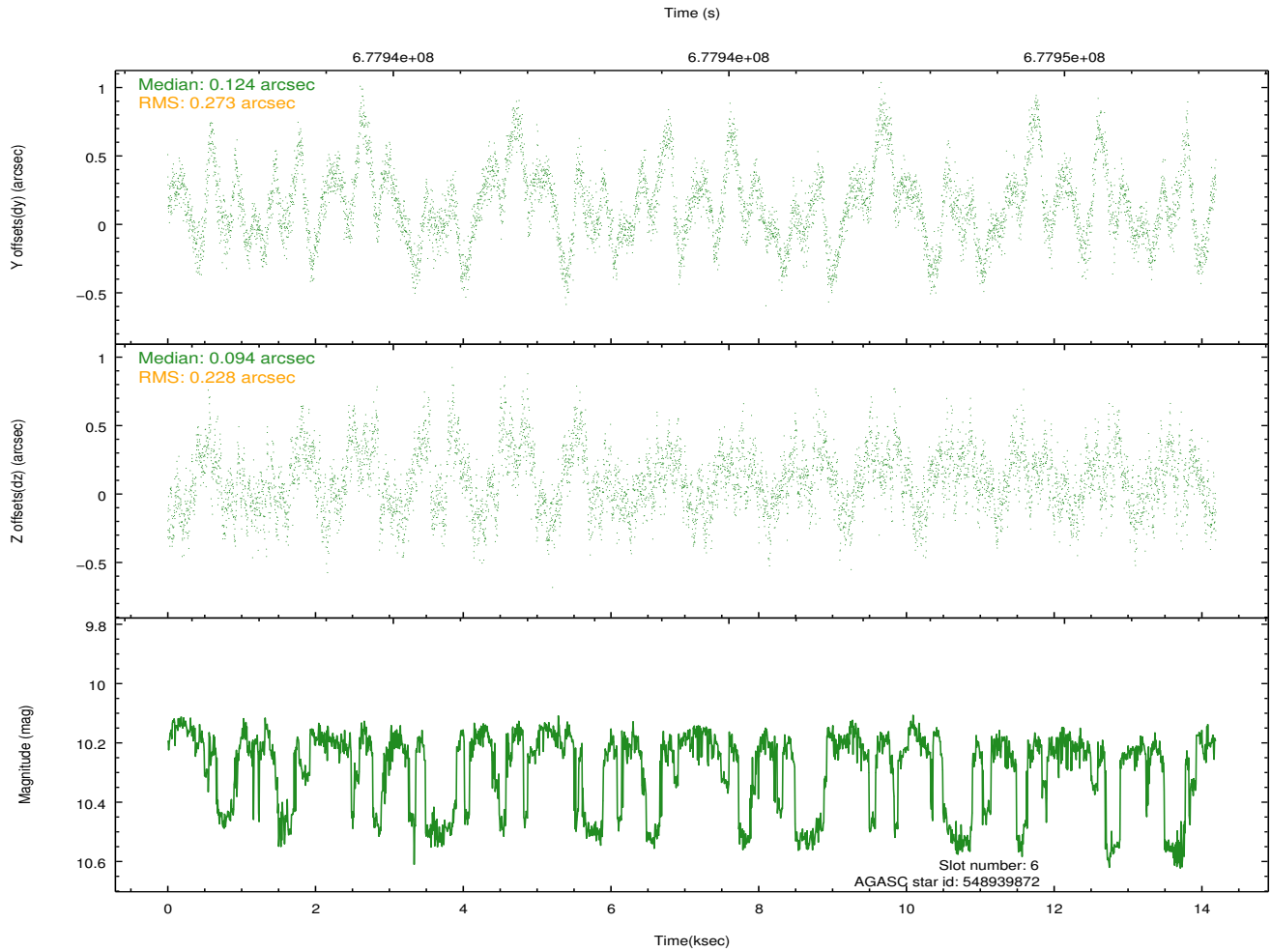
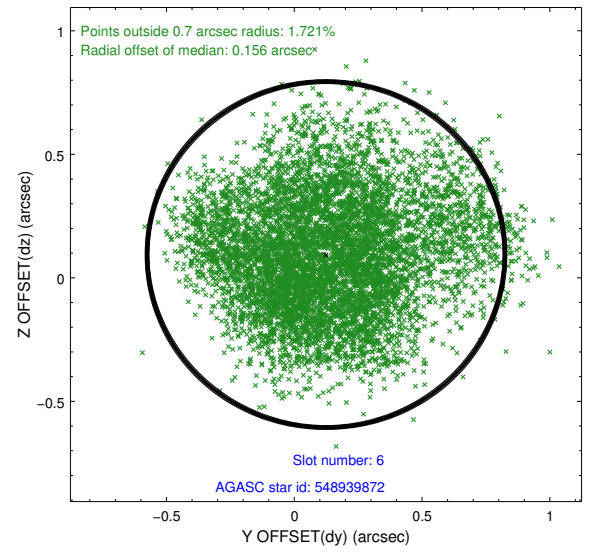
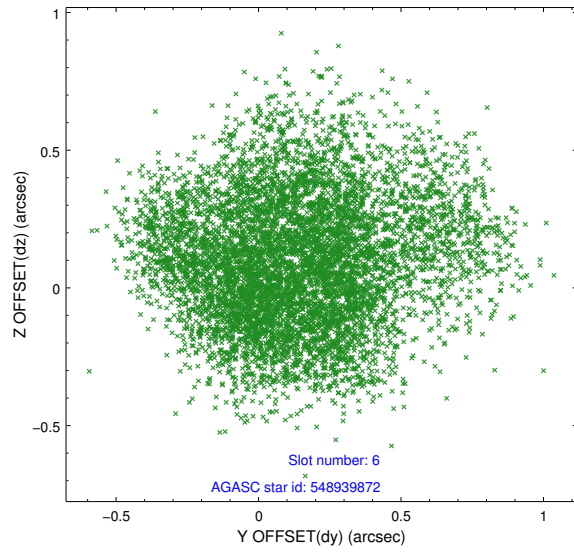
2.4.2 Slot 4



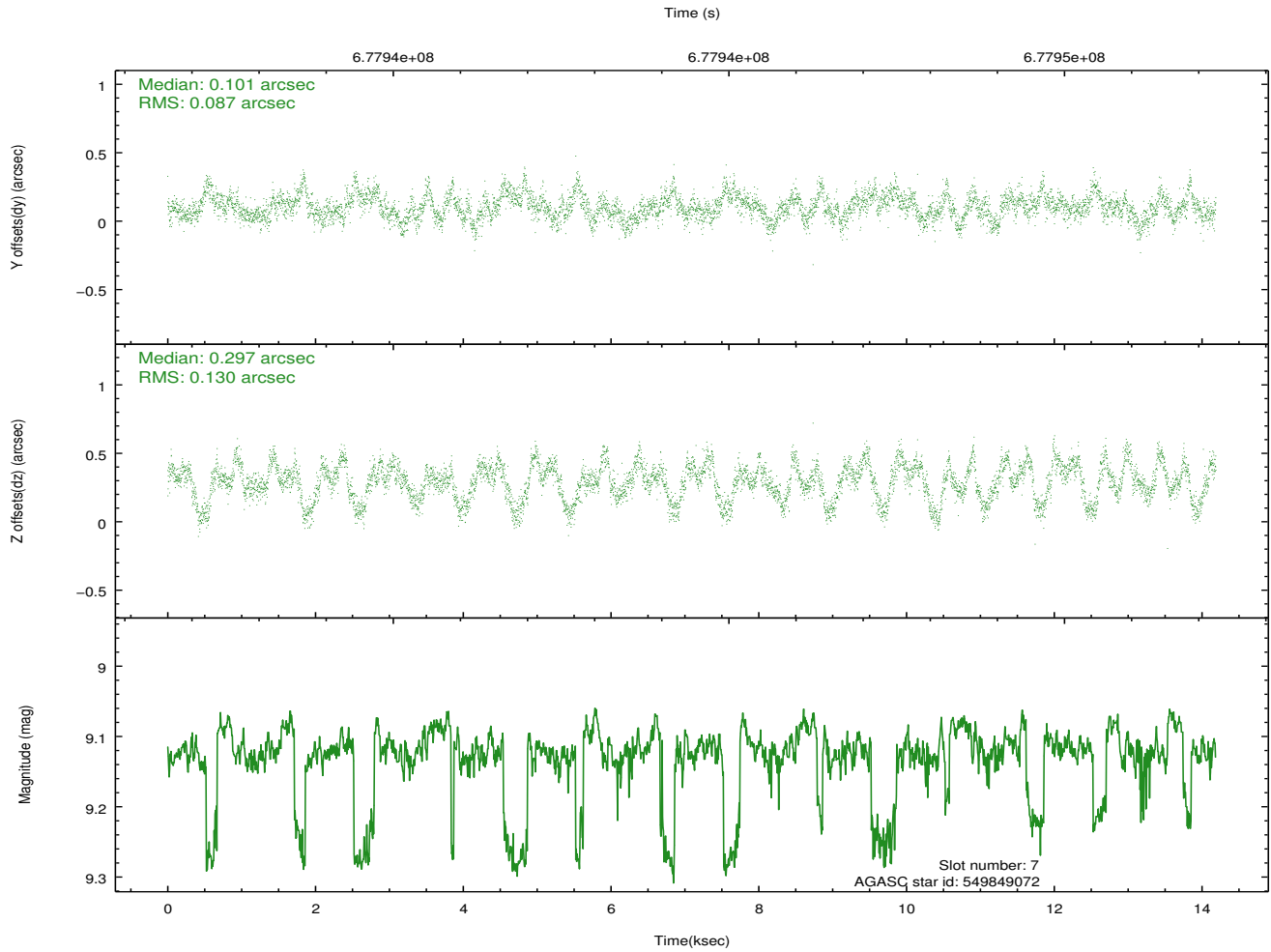
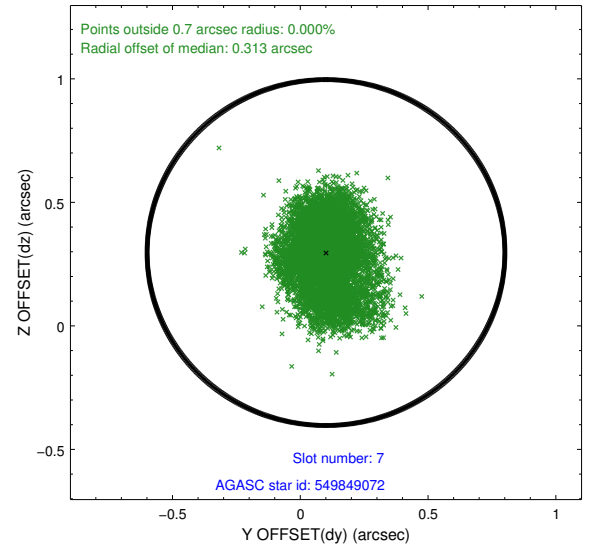
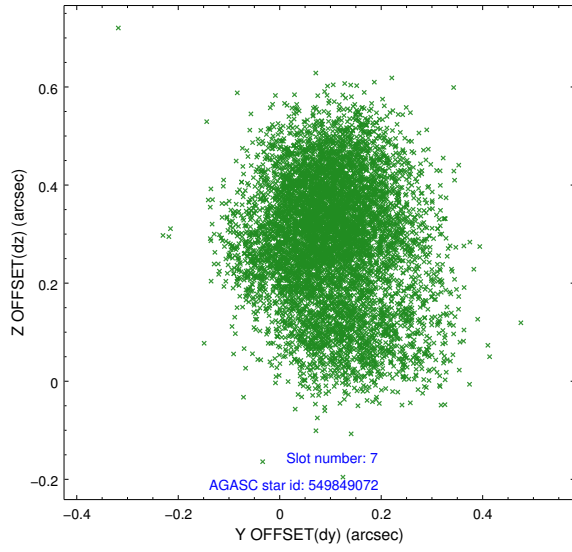
2.4.3 Slot 5



2.4.4 Slot 6

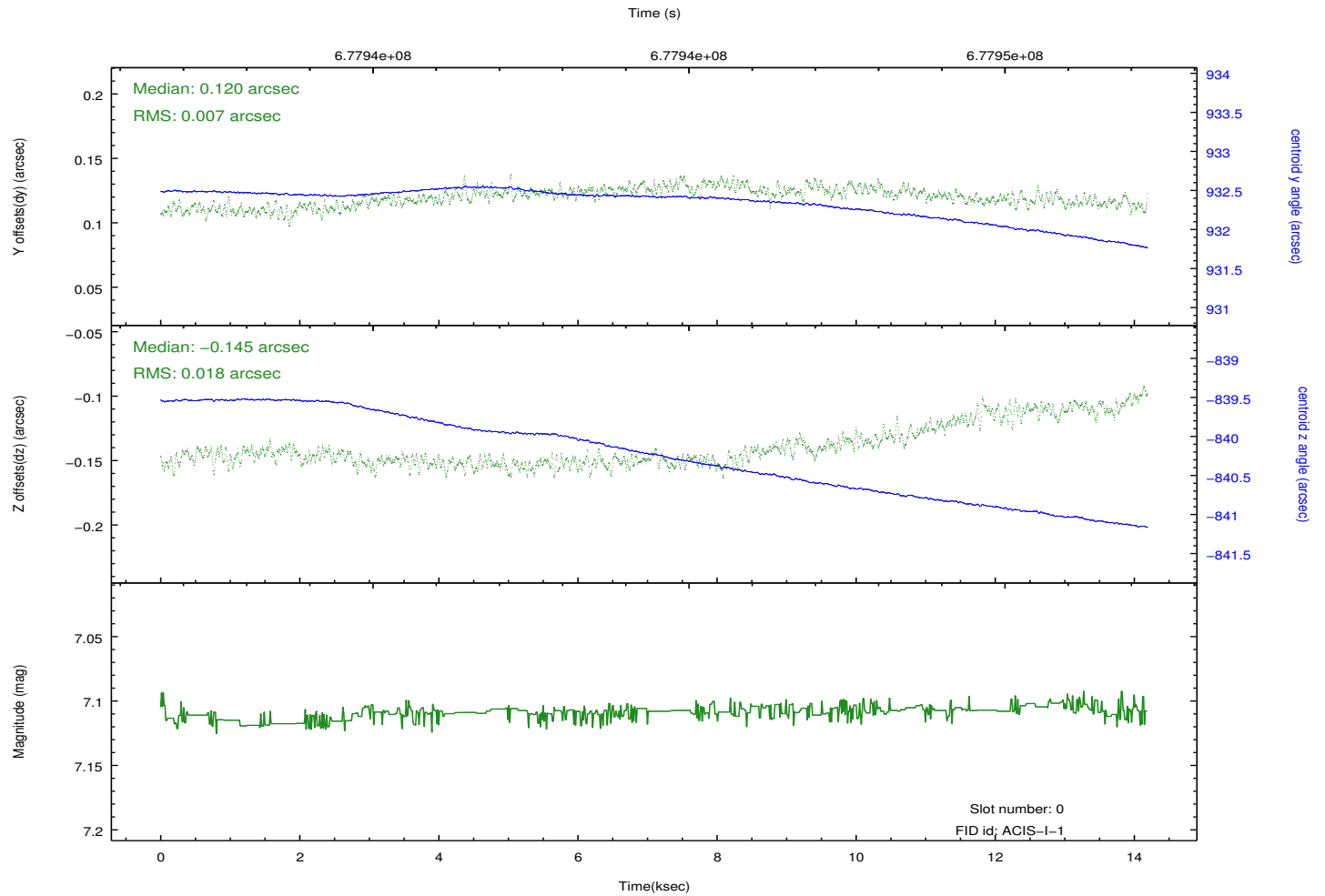
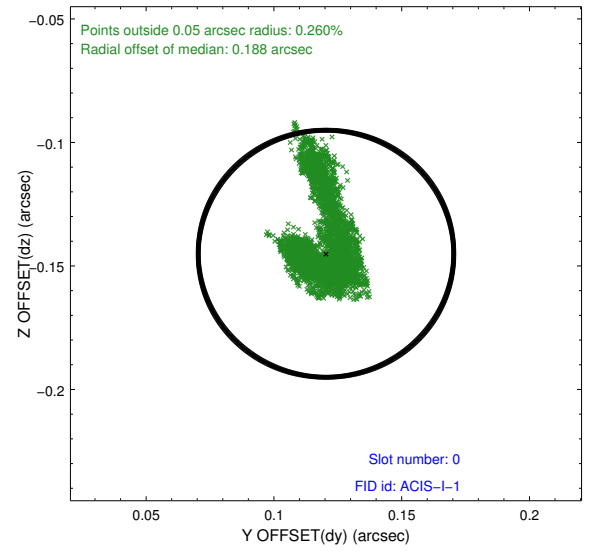
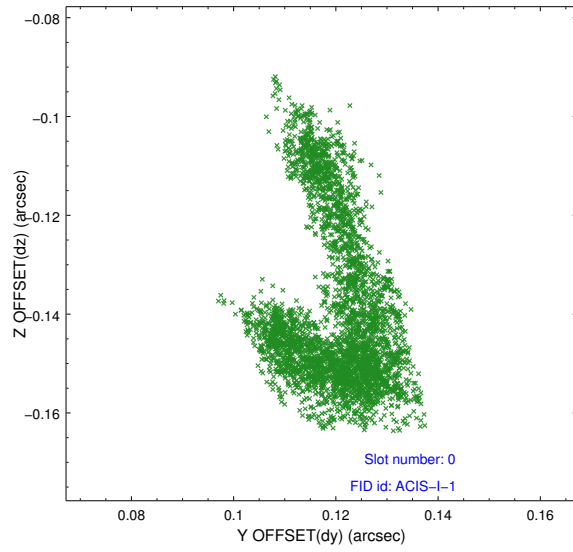


2.4.5 Slot 7

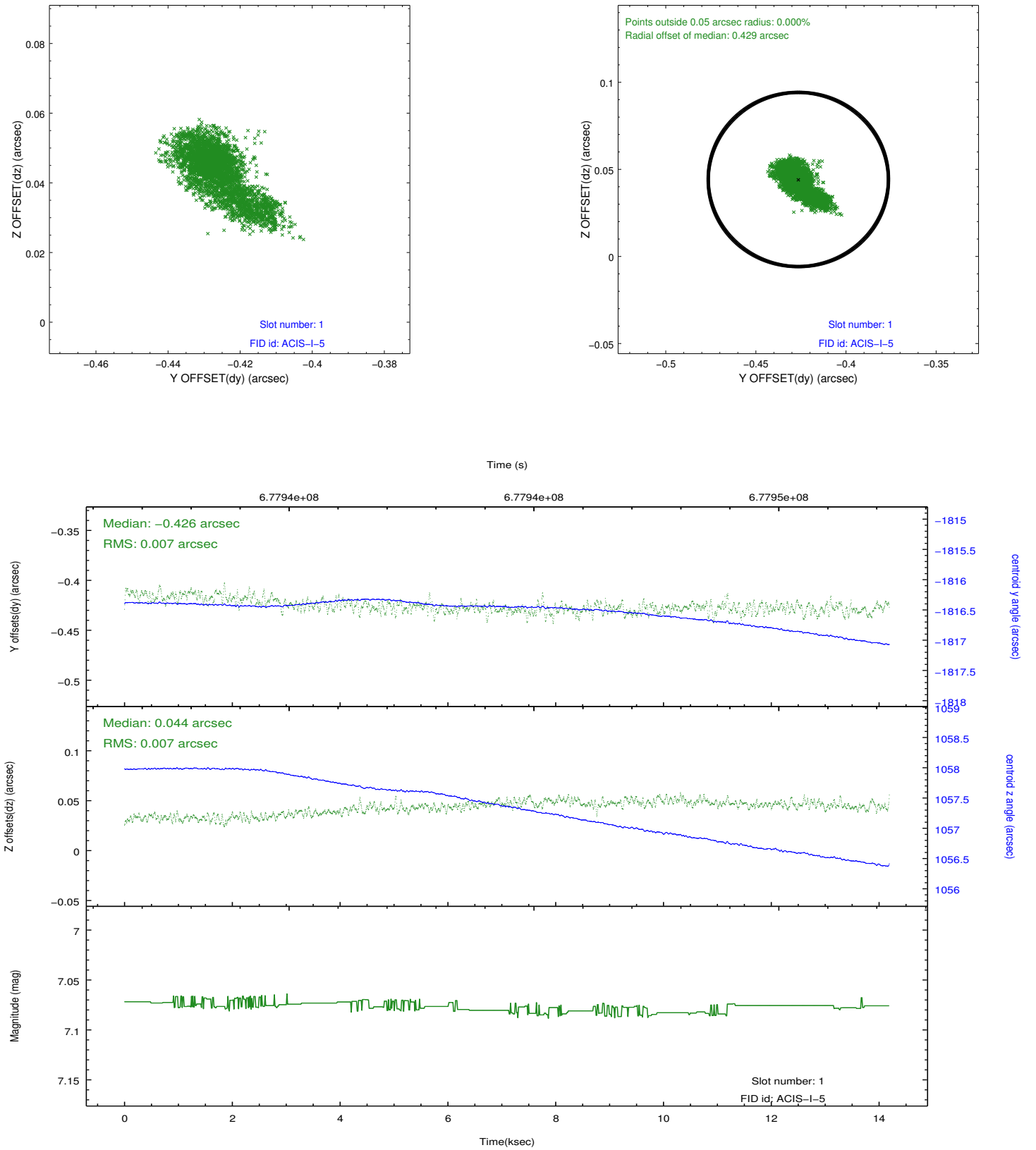


2.5 FID Slots

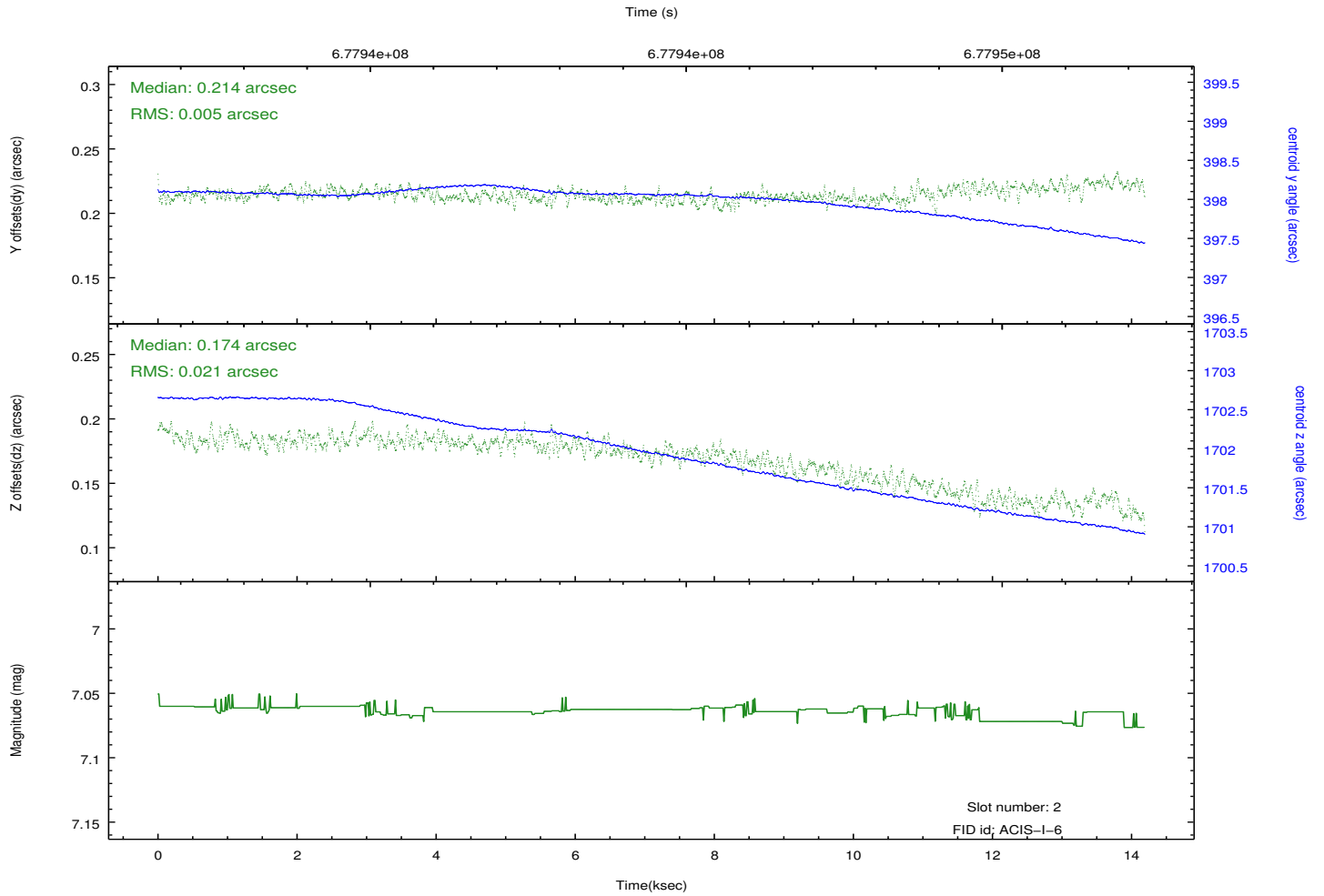
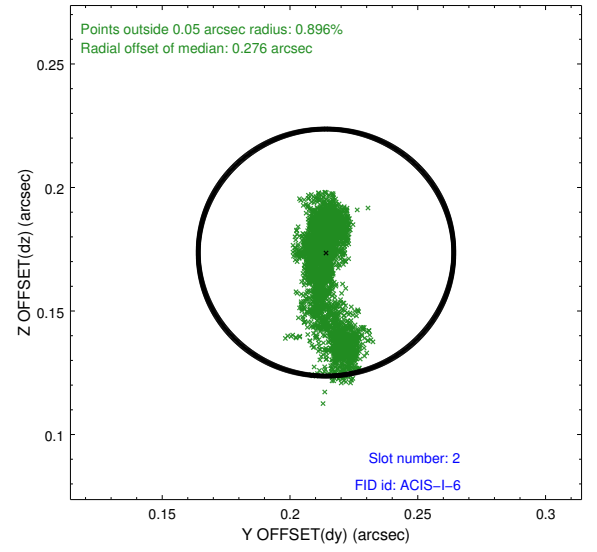
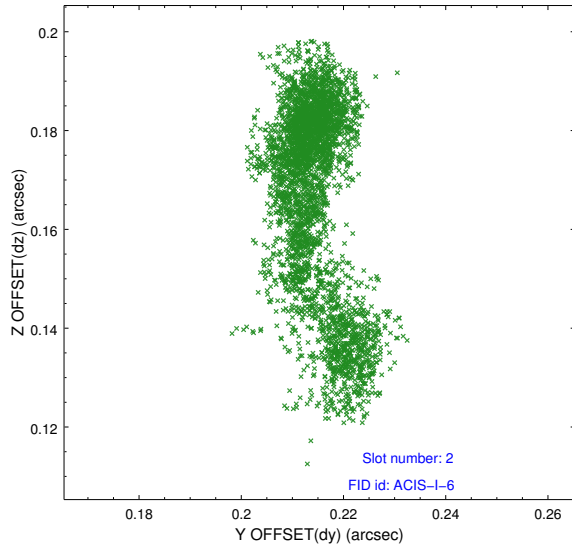
2.5.1 Slot 0



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)	2019.06.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.066673265219

A.2 Comments