

V&V Reference Report

L2 ASCDS Version : 10.4.2.1

Observation 16668 - L2 Version 1
Chandra X-Ray Center

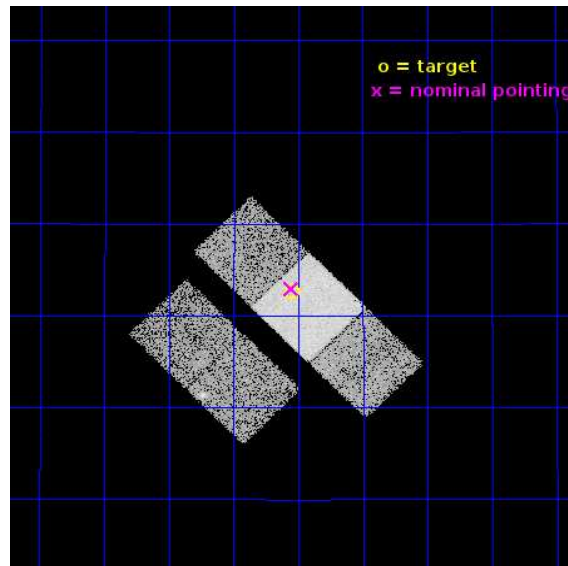
L2 Processing Date : Oct 17 2015

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

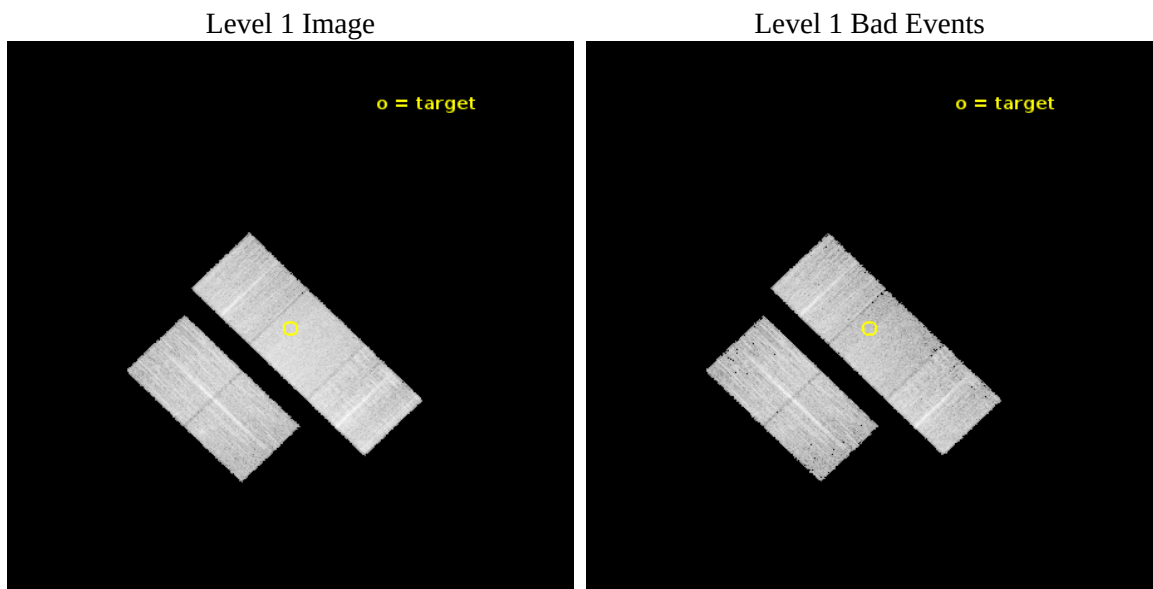
seq_num	200989	Sequence number
obs_id	16668	Observation id
title	Atmospheric heating in an irradiated transiting super-Earth and super-Neptune	Proposal title
observer	Brendan Miller	Principal investigator
object	HD 97658	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	168.637717	Observer's specified target RA [deg]
dec_targ	25.710597	Observer's specified target Dec [deg]
ra_nom	168.63828583026	Nominal RA [deg]
dec_nom	25.716007116435	Nominal Dec [deg]
roll_nom	45.156376818866	Nominal Roll [deg]
revision	1	Processing version of data
ontime	13065.431690335	Sum of GTIs [s]
livetime	12894.72220667	Livetime [s]
ontime2	13065.267530322	Sum of GTIs [s]
ontime3	13065.349610329	Sum of GTIs [s]
ontime6	13065.390650392	Sum of GTIs [s]
ontime7	13065.431690335	Sum of GTIs [s]
ontime8	13065.308570385	Sum of GTIs [s]
l2events	69382	Number of level 2 events



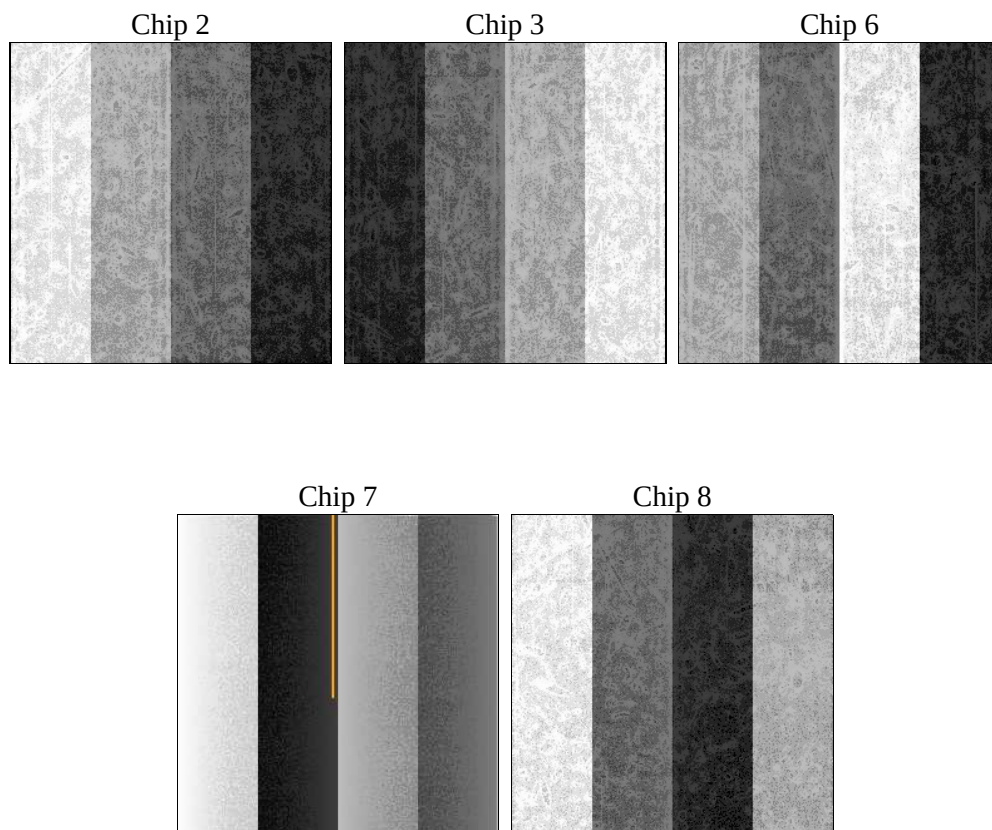
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	13000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.2.1	Processing system revision	ontime	13065.431690335	Sum of GTIs [s]
caldsver	4.6.10a	 	ontime2	13065.267530322	Sum of GTIs [s]
date	2015-10-17T22:38:01	Date and time of file creation	ontime3	13065.349610329	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	13065.390650392	Sum of GTIs [s]
			ontime7	13065.431690335	Sum of GTIs [s]
			ontime8	13065.308570385	Sum of GTIs [s]
			l1events	401609	Number of level 1 events

2.1.4 Events

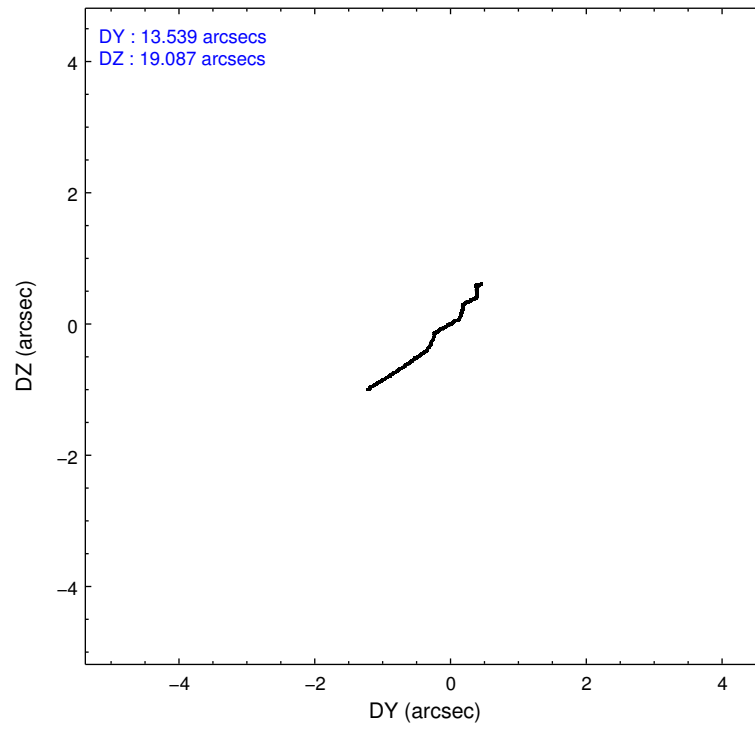
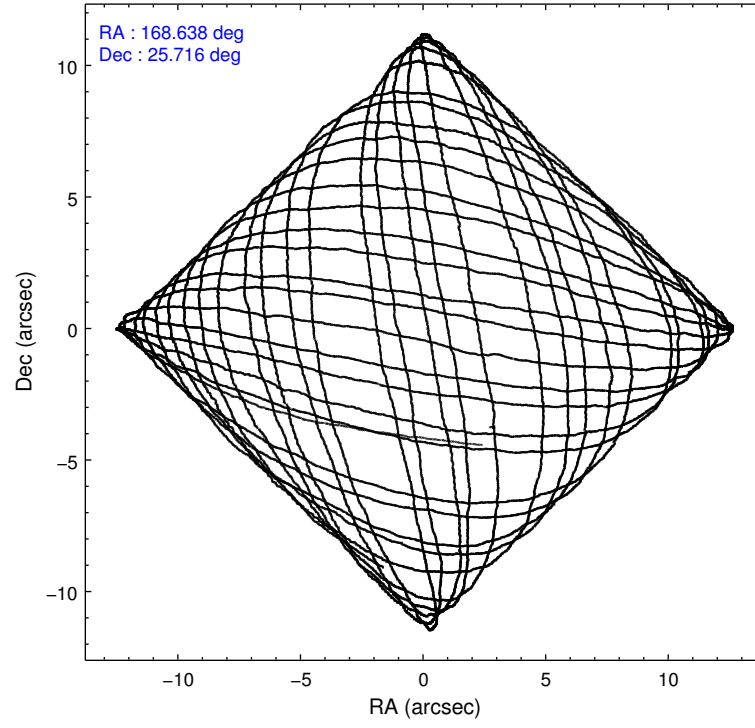
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	72943	65445	73355	93972	95894
rejected events	65050	57551	64849	53287	69736
rejected %	89%	87%	88%	56%	72%

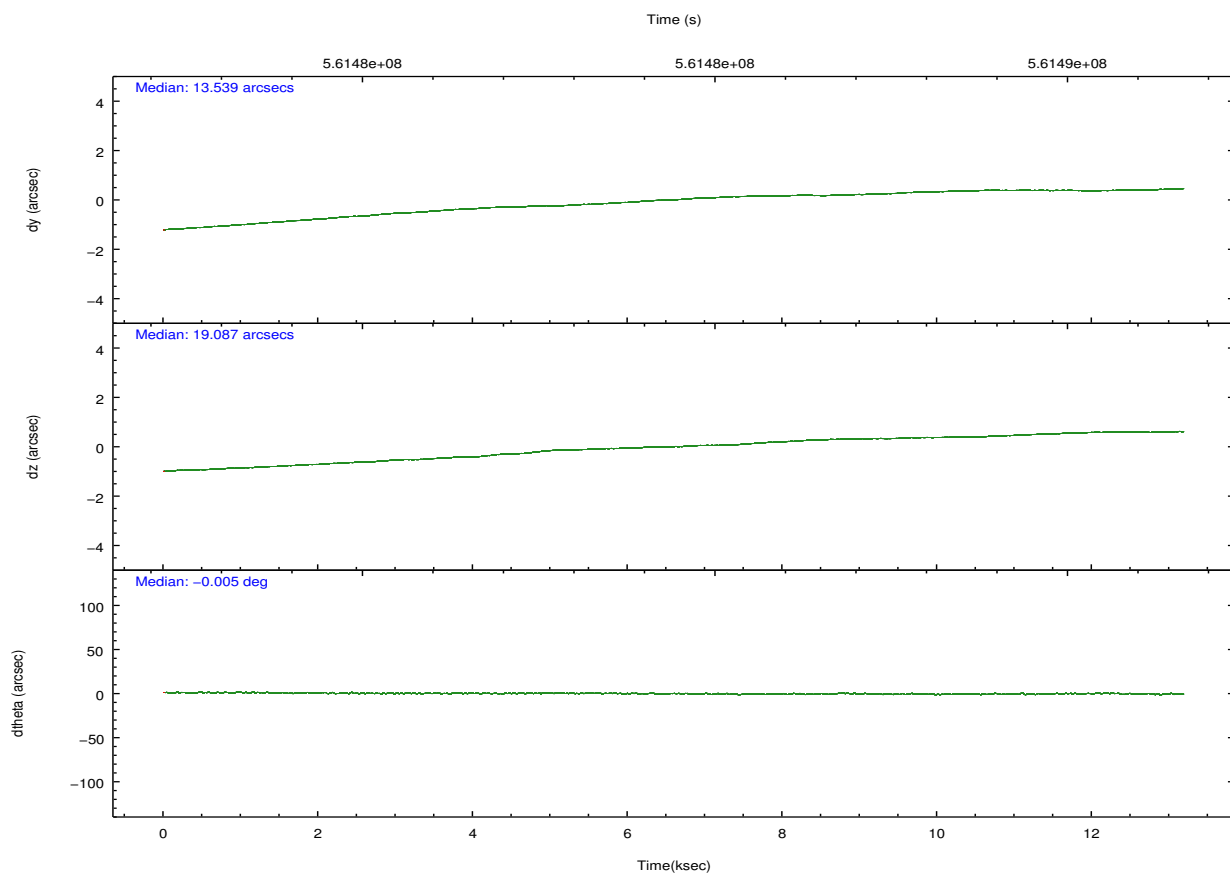
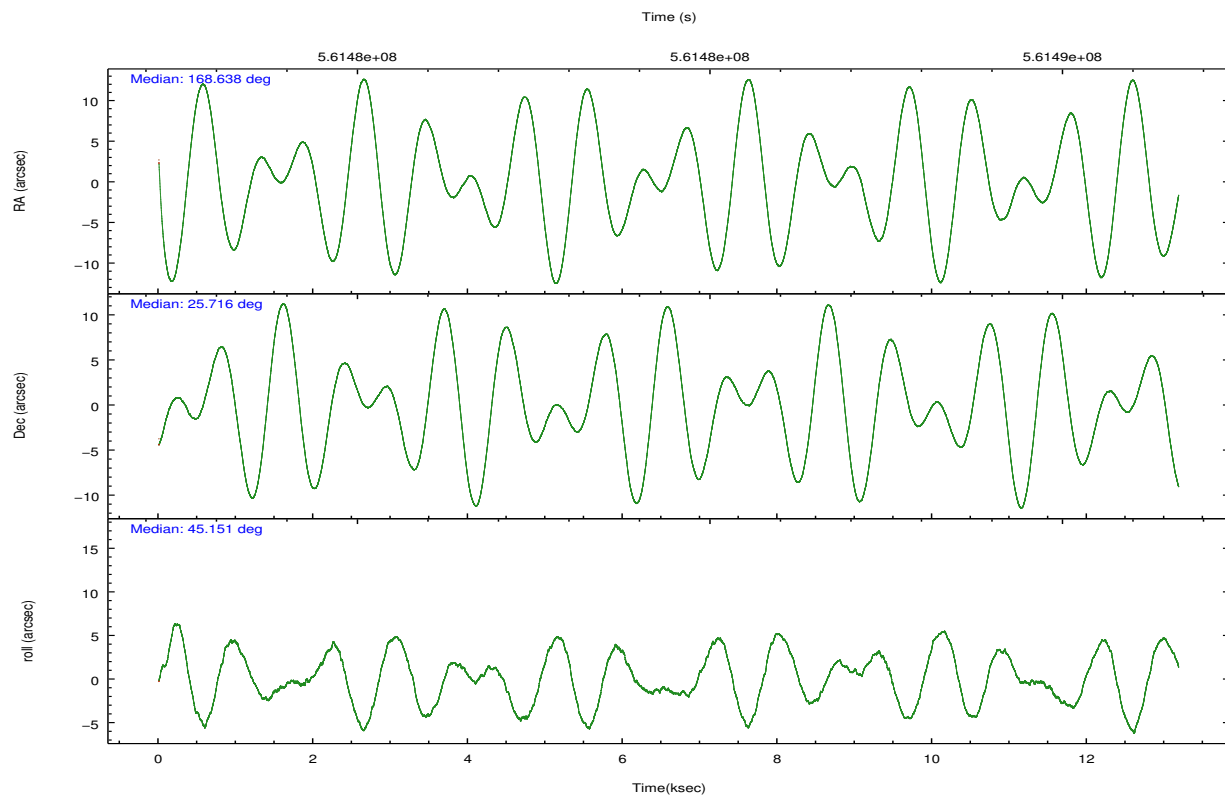
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2675	2978	2896	3545	7701
	3%	4%	3%	3%	8%
grade 1 events	47	43	40	114	65
	0%	0%	0%	0%	0%
grade 2 events	2116	1663	1979	8542	6171
	2%	2%	2%	9%	6%
grade 3 events	801	838	864	3333	2762
	1%	1%	1%	3%	2%
grade 4 events	767	798	860	3356	2455
	1%	1%	1%	3%	2%
grade 5 events	2735	3575	3632	9462	5237
	3%	5%	4%	10%	5%
grade 6 events	1536	1619	1912	21917	7070
	2%	2%	2%	23%	7%
grade 7 events	62266	53931	61172	43703	64433
	85%	82%	83%	46%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	168.630924	168.6382858302592	CCD I2 on	O1	Y
[deg] Pointing Dec	25.689381	25.71600711643546	CCD I3 on	O2	Y
[deg] Pointing Roll	45.002948	45.15637681886593	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O4	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	O3	Y
[s] Observation start time (MET)	561478019.184000	561476339.10818	CCD S5 on	N	N
Observation start date	2015-10-17T14:05:51	2015-10-17T13:38:59	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	561491019.184000	561491523.45904	On-chip summing requested	N	N
Observation end date	2015-10-17T17:42:31	2015-10-17T17:52:03	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



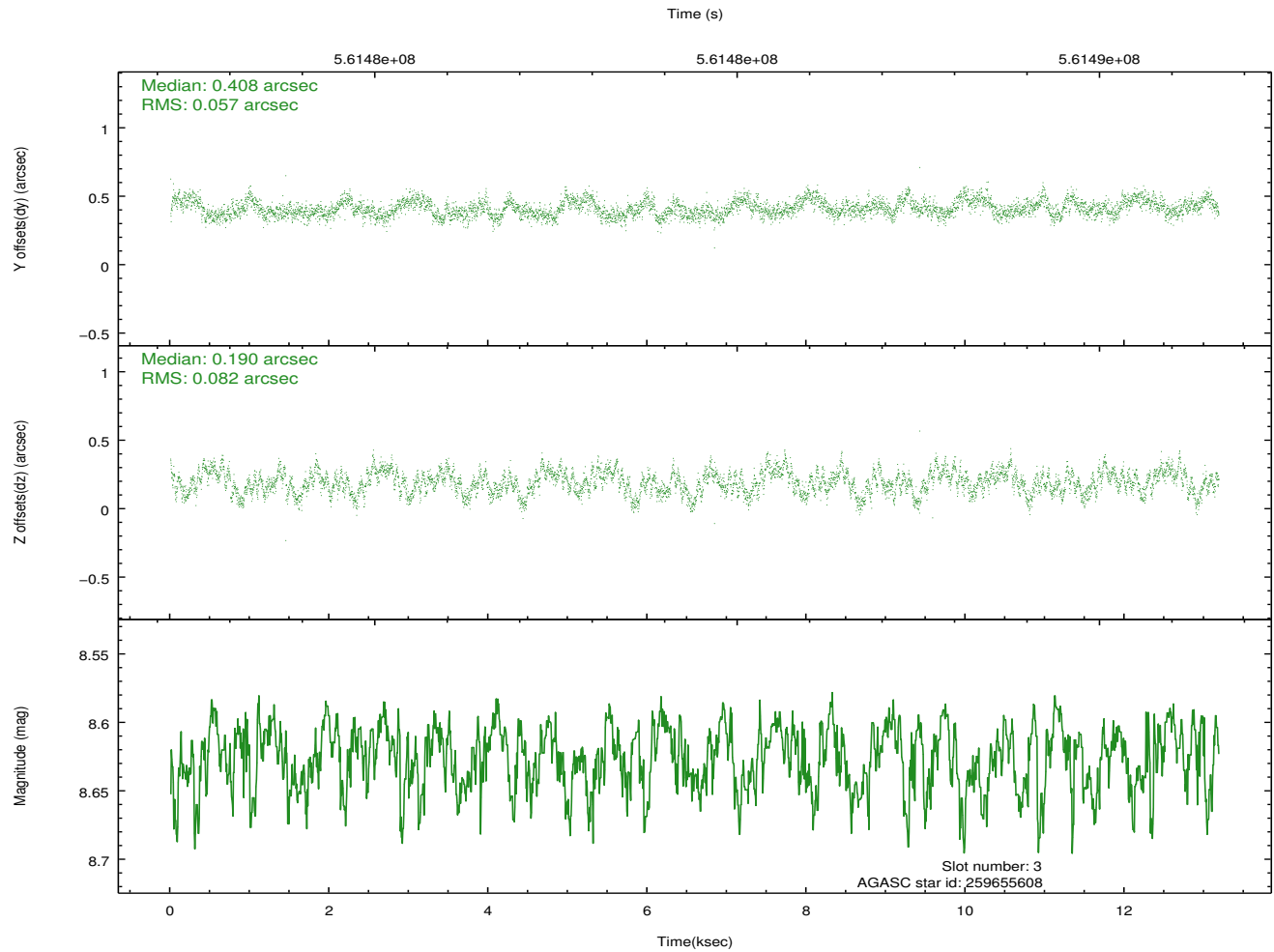
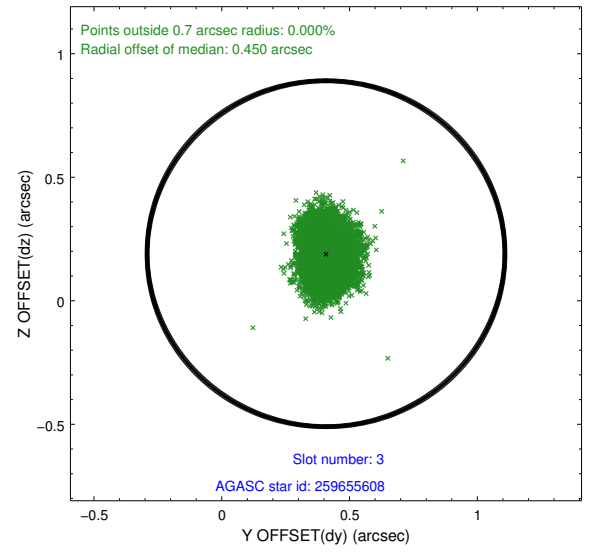
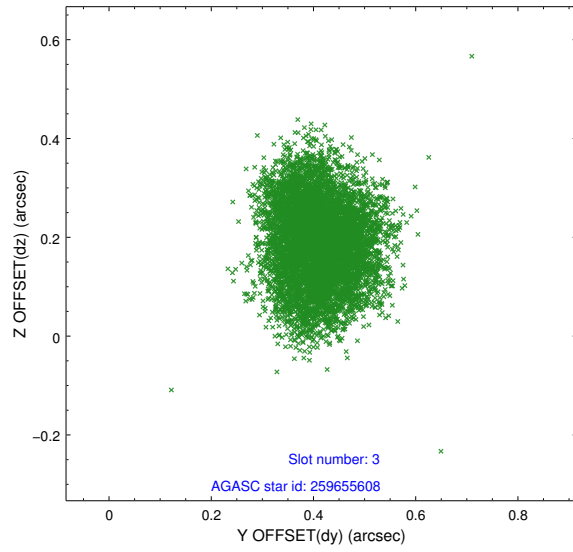


Slot Statistics

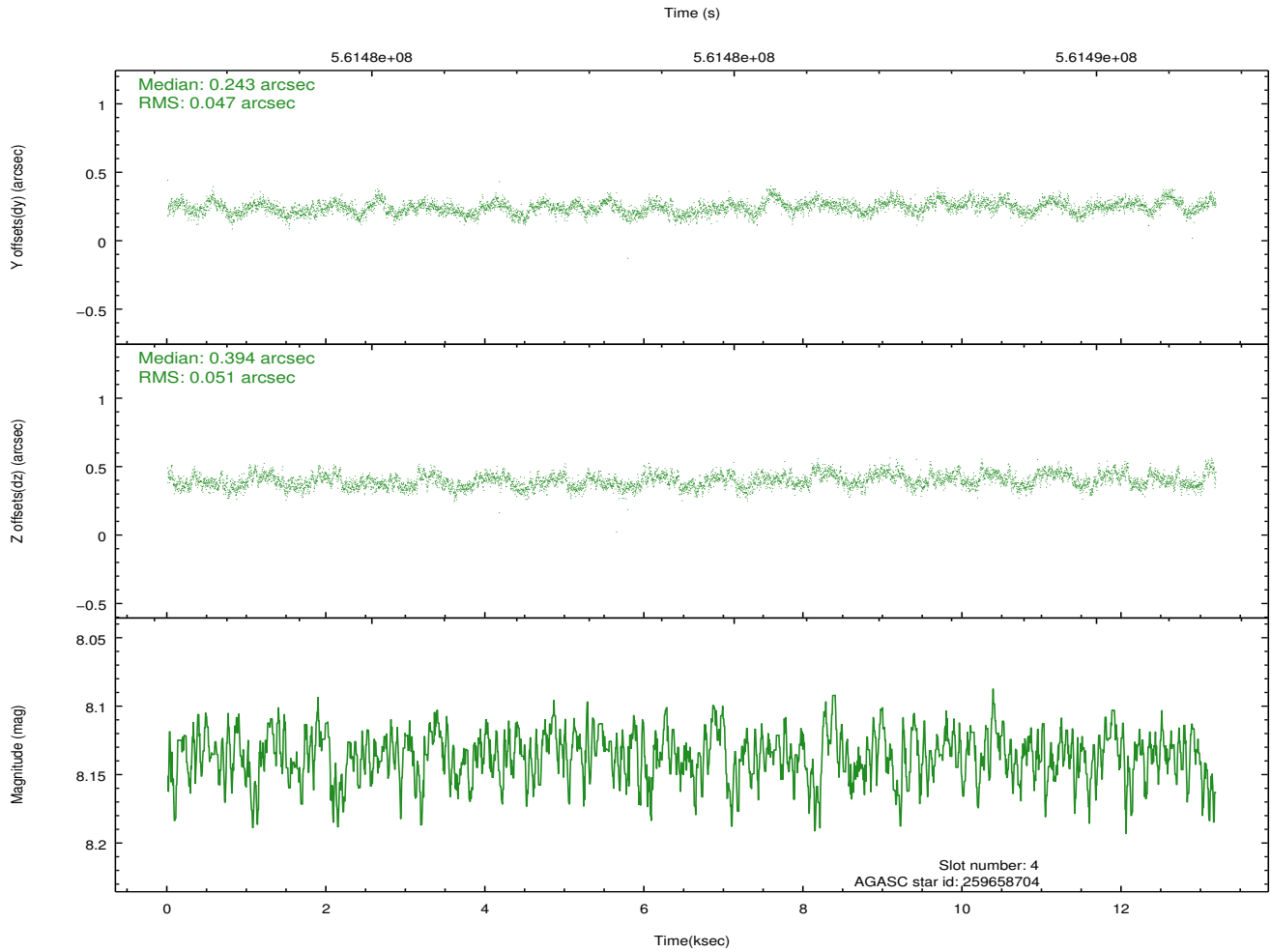
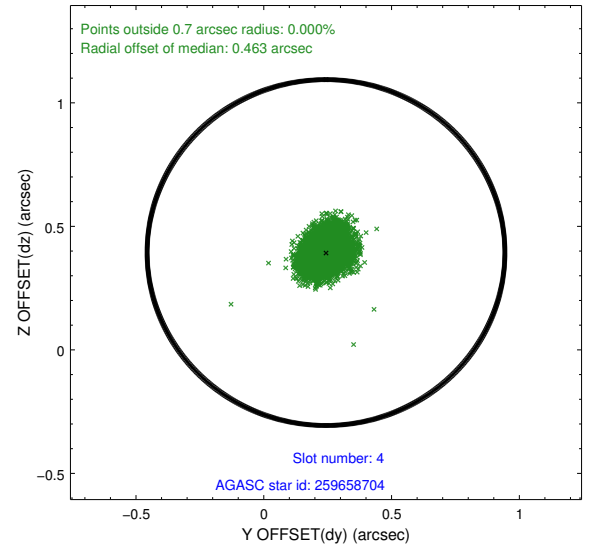
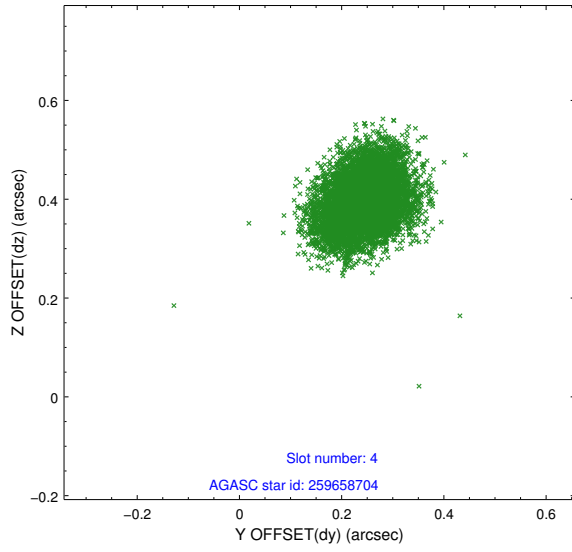
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.09	3216	-0.133	-0.112	0.032	0.041	0.000000	0.000000	-766.44	-1740.63
1	FID		ACIS-S-4	7.20	3216	0.405	0.095	0.029	0.061	0.000000	0.000000	2147.17	167.71
2	FID		ACIS-S-5	7.22	3214	-0.297	0.030	0.024	0.035	0.000000	0.000000	-1819.00	161.68
3	GUIDE	used	259655608	8.62	6428	0.408	0.190	0.108	0.168	168.421819	25.104102	-1972.18	-1007.17
4	GUIDE	used	259658704	8.14	6430	0.243	0.394	0.073	0.118	168.725856	24.984815	-1574.89	-2012.54
5	GUIDE	used	259919240	8.78	6424	-0.125	-0.477	0.115	0.186	168.772383	26.262082	1780.84	1134.12
6	GUIDE	used	259657752	7.79	6430	0.117	0.145	0.093	0.147	169.420557	25.460392	1237.45	-2391.89
7	GUIDE	used	259917416	8.36	6429	-0.647	-0.263	0.074	0.120	168.835751	26.450070	2403.46	1469.48

2.4 Star Slots

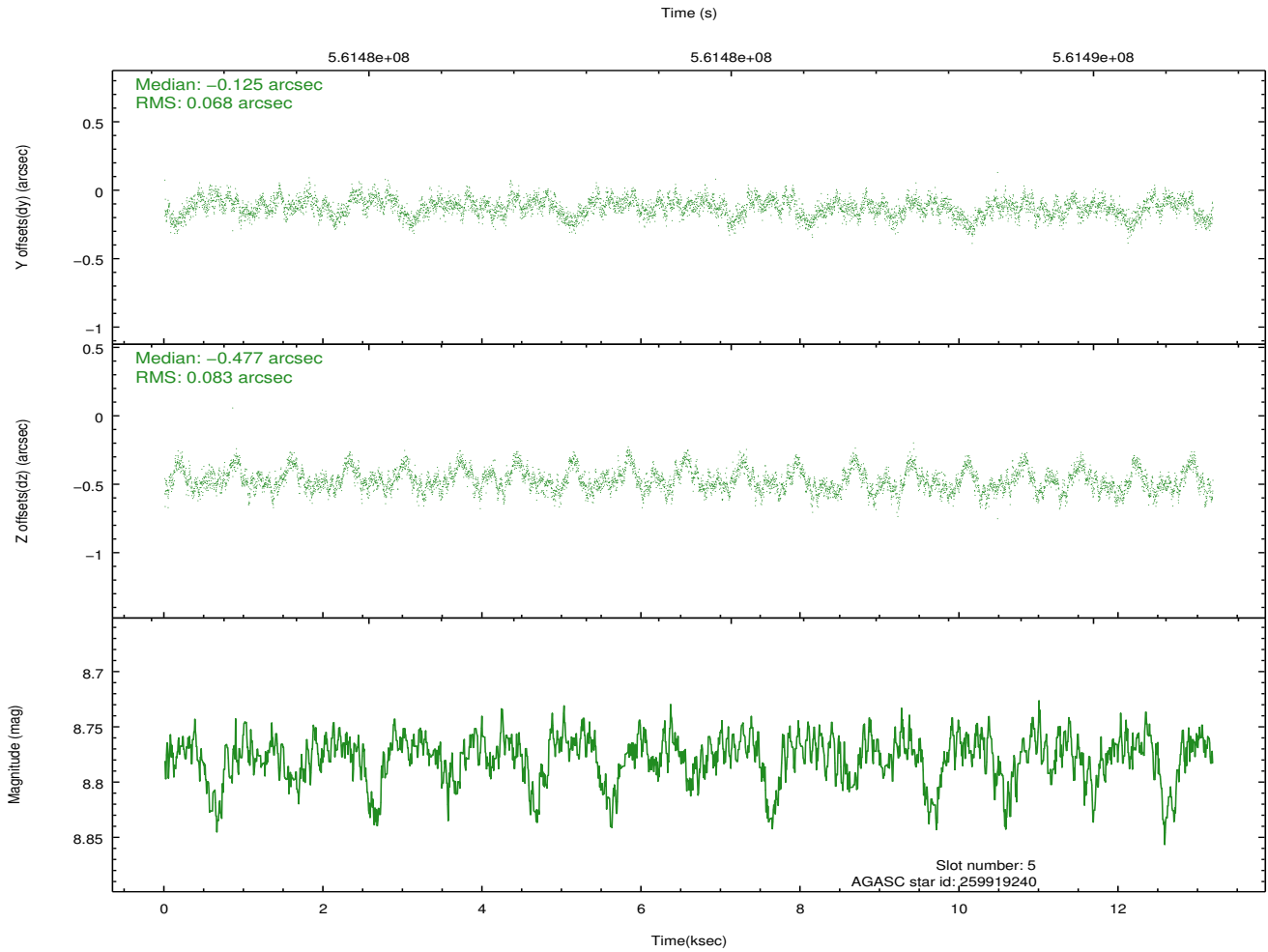
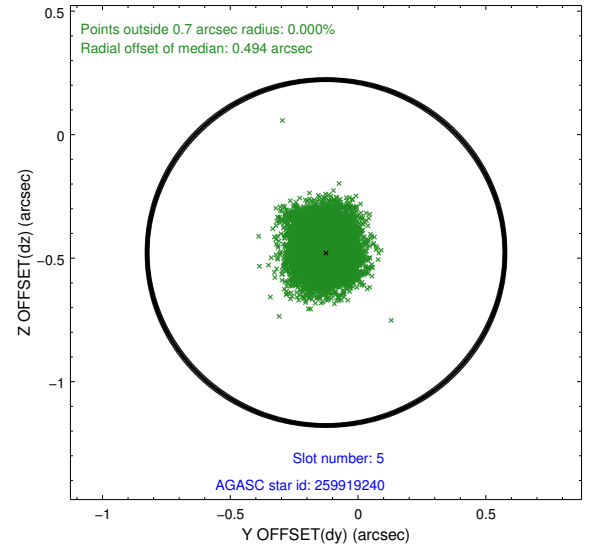
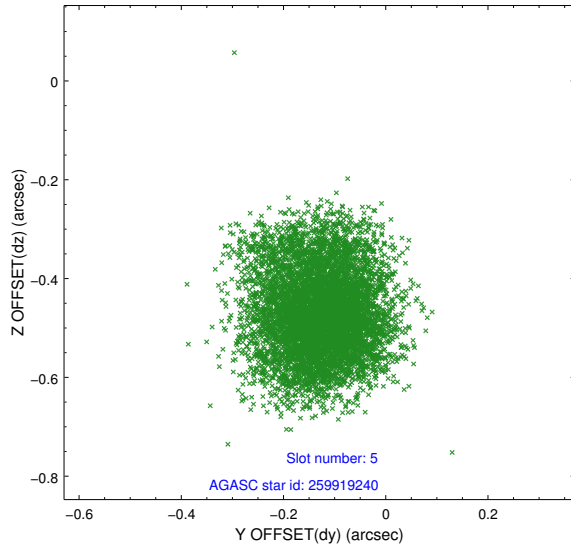
2.4.1 Slot 3



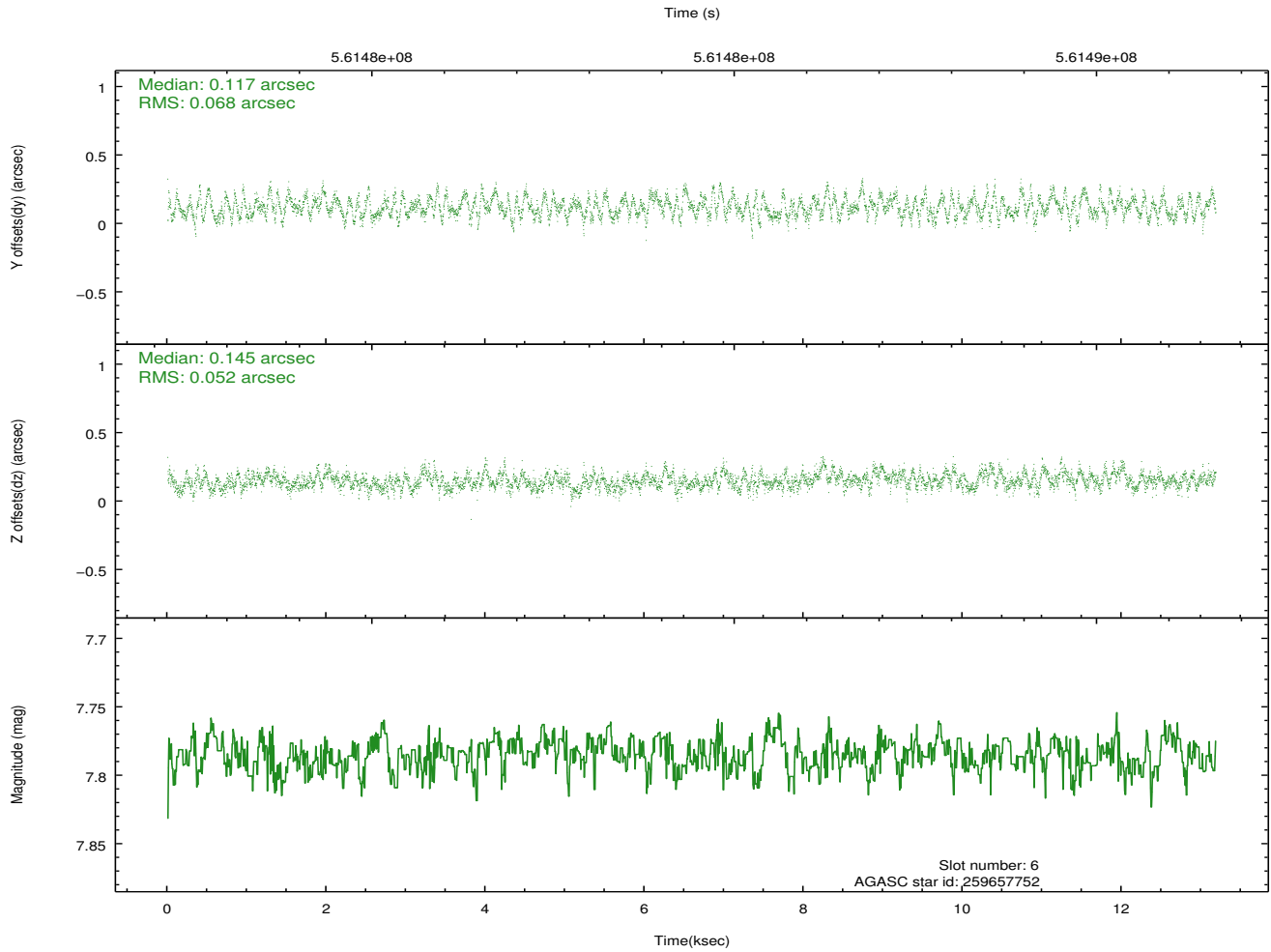
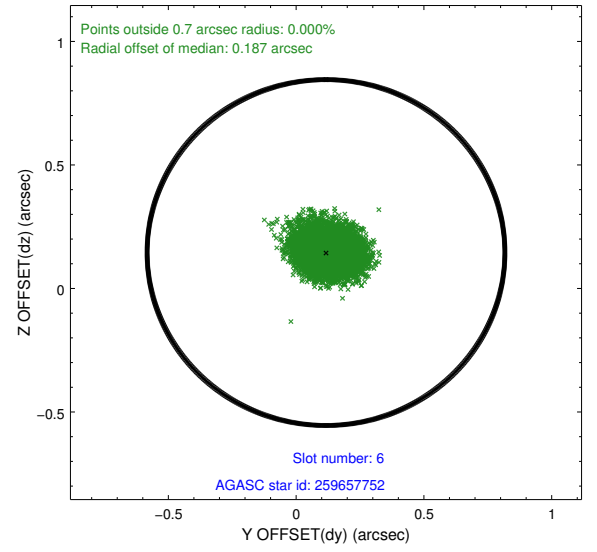
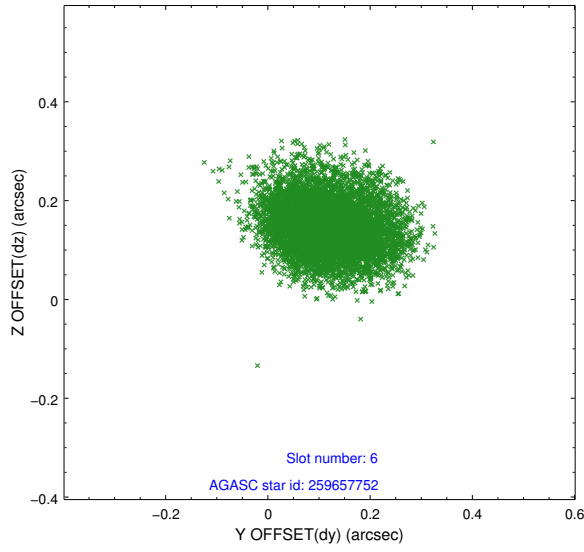
2.4.2 Slot 4



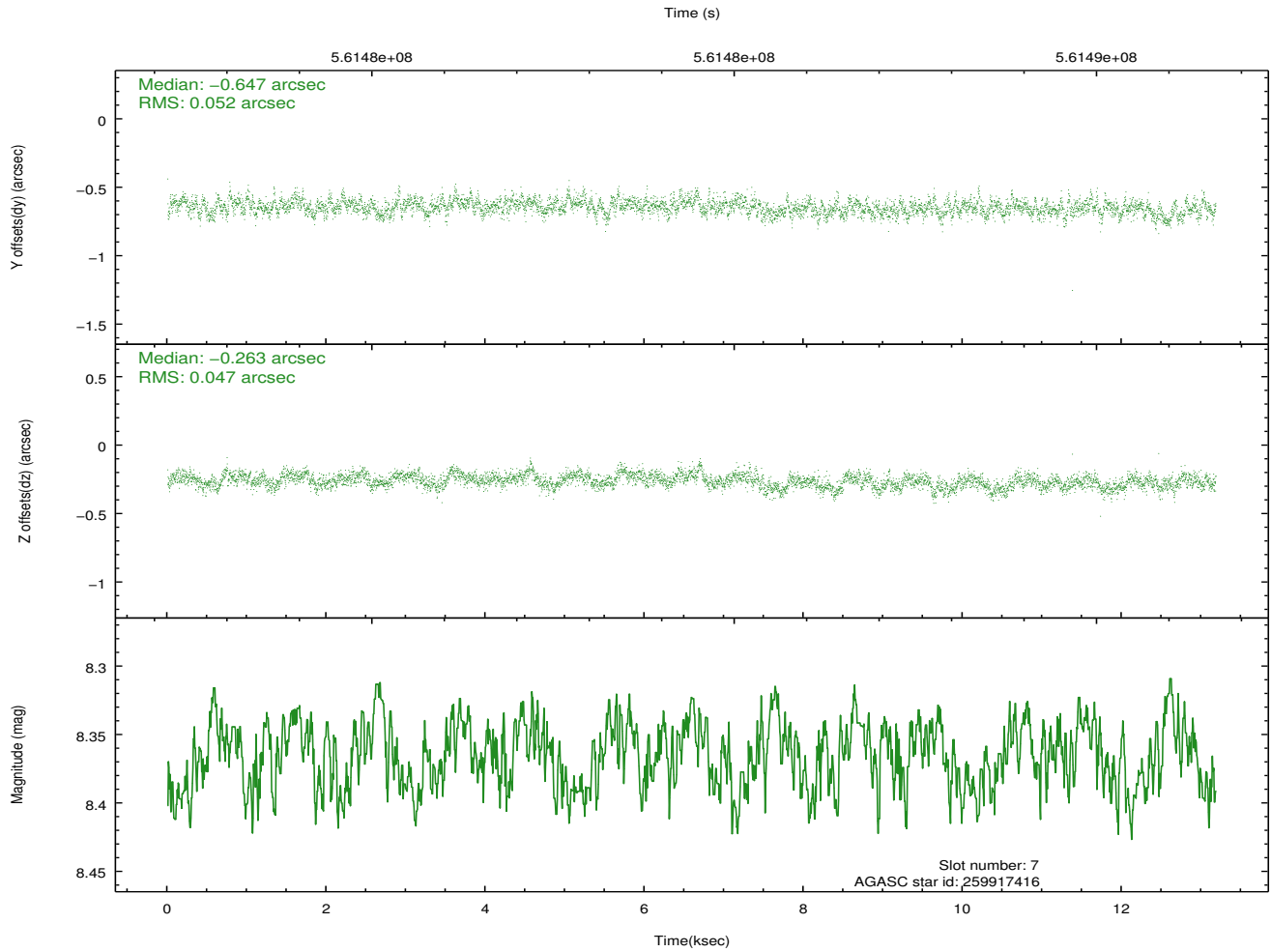
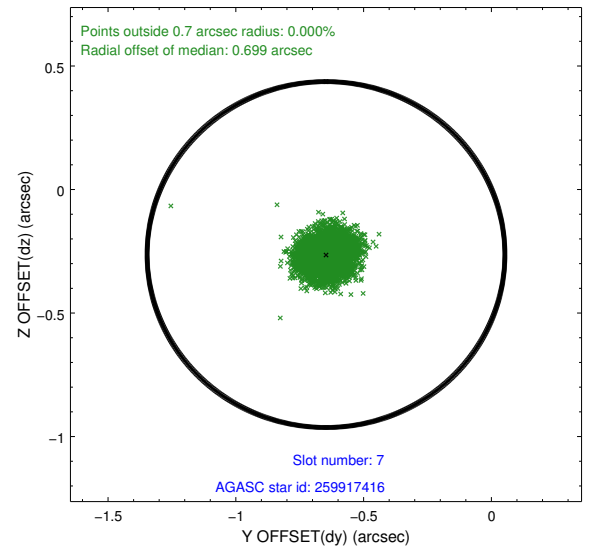
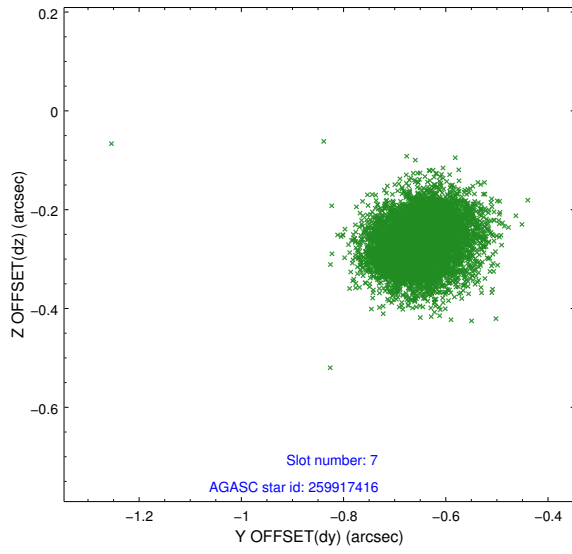
2.4.3 Slot 5



2.4.4 Slot 6

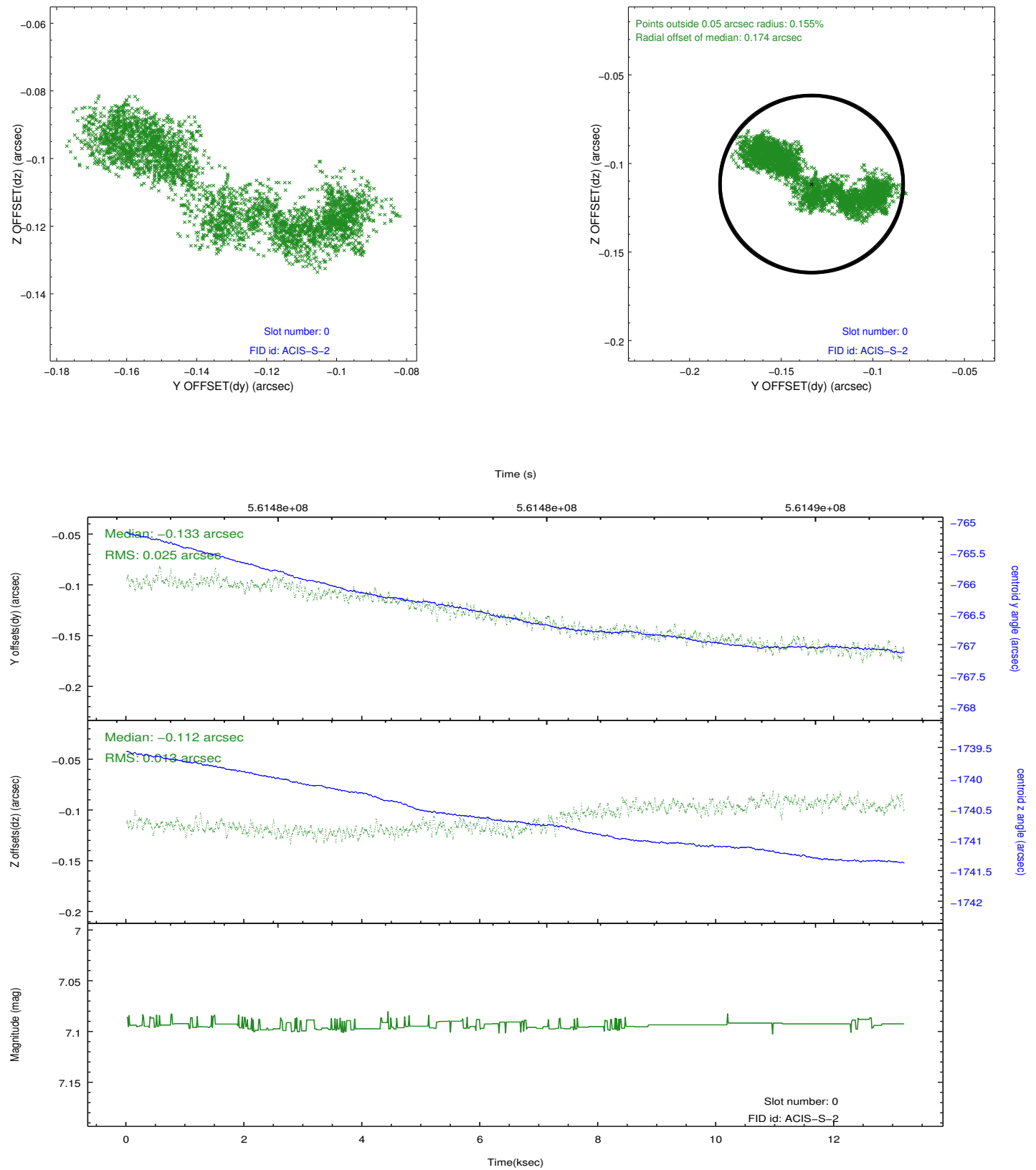


2.4.5 Slot 7

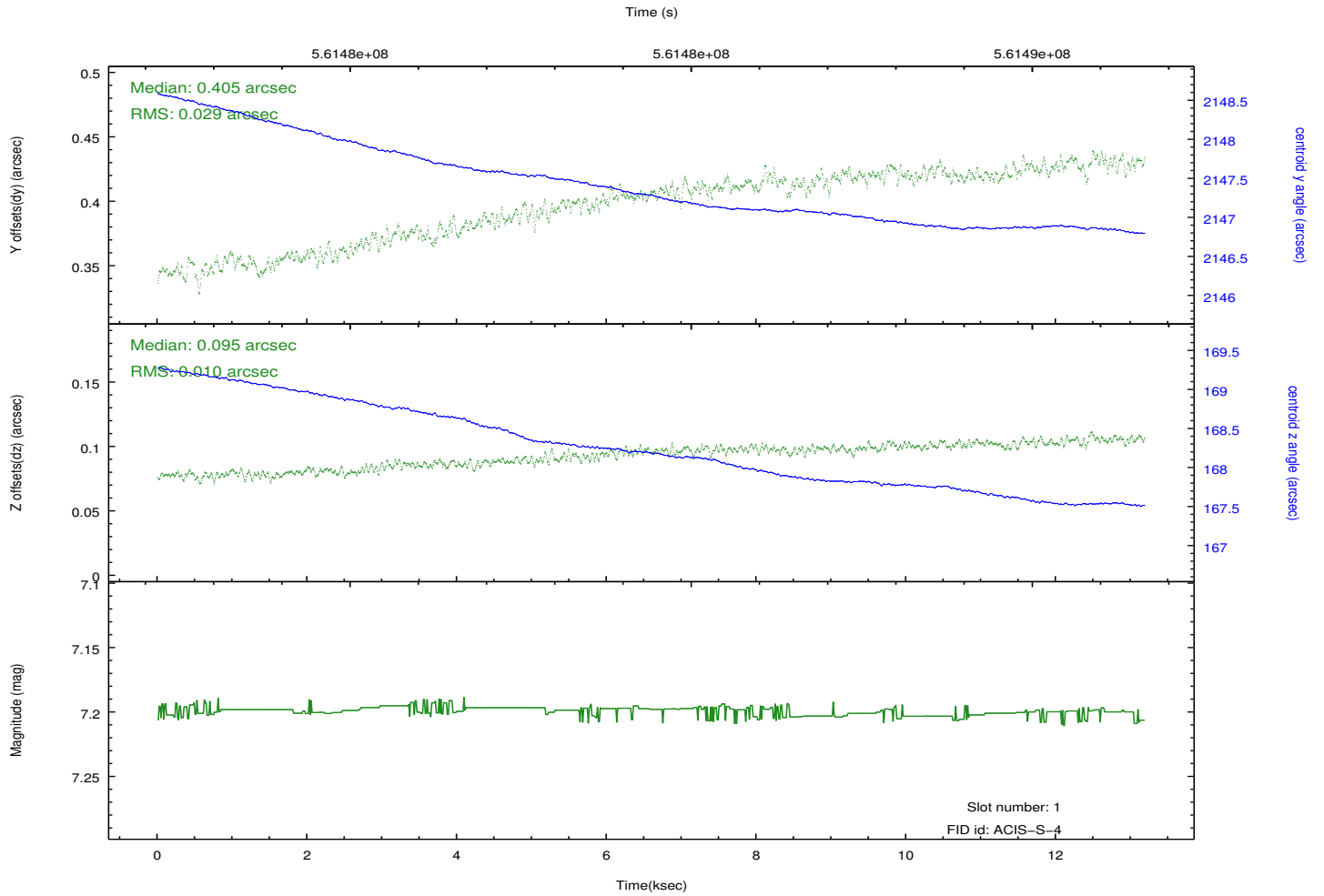
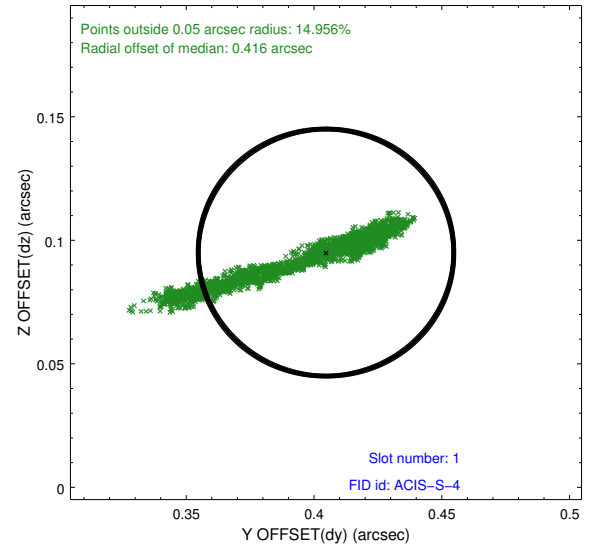
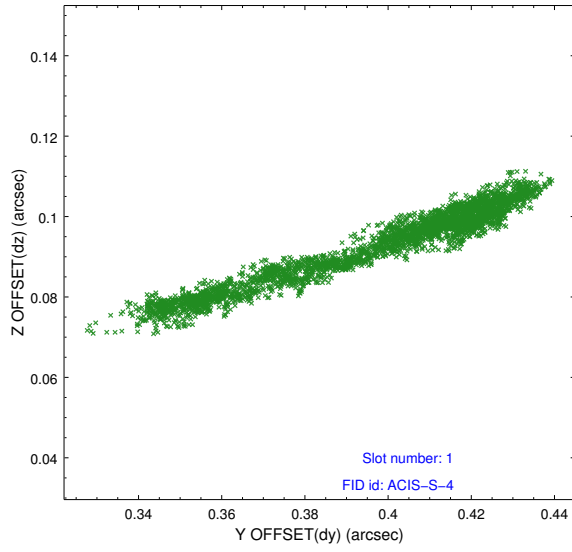


2.5 FID Slots

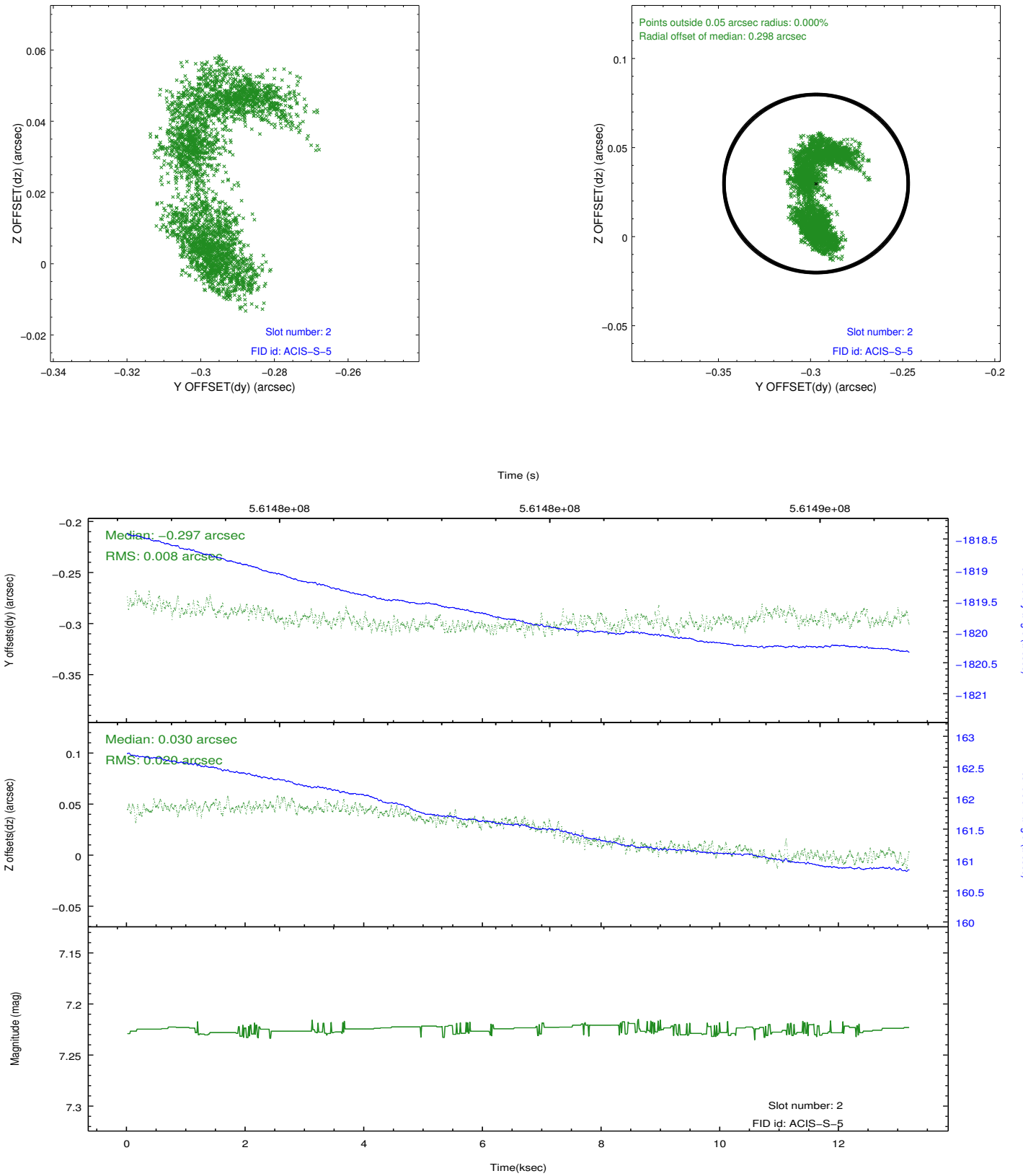
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.10.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.065431690335

A.2 Comments

SAP Team: The slot 1 radial offset of 0.416 arcsec is acceptable per Aspect Review.