

V&V Reference Report

L2 ASCDS Version : 10.5.4

Observation 19435 - L2 Version 2
Chandra X-Ray Center

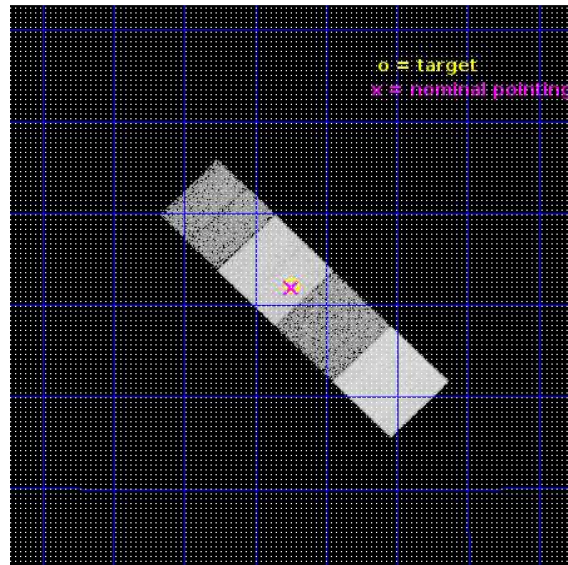
L2 Processing Date : Apr 20 2017

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 5	10
2.4.3	Slot 6	11
2.4.4	Slot 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

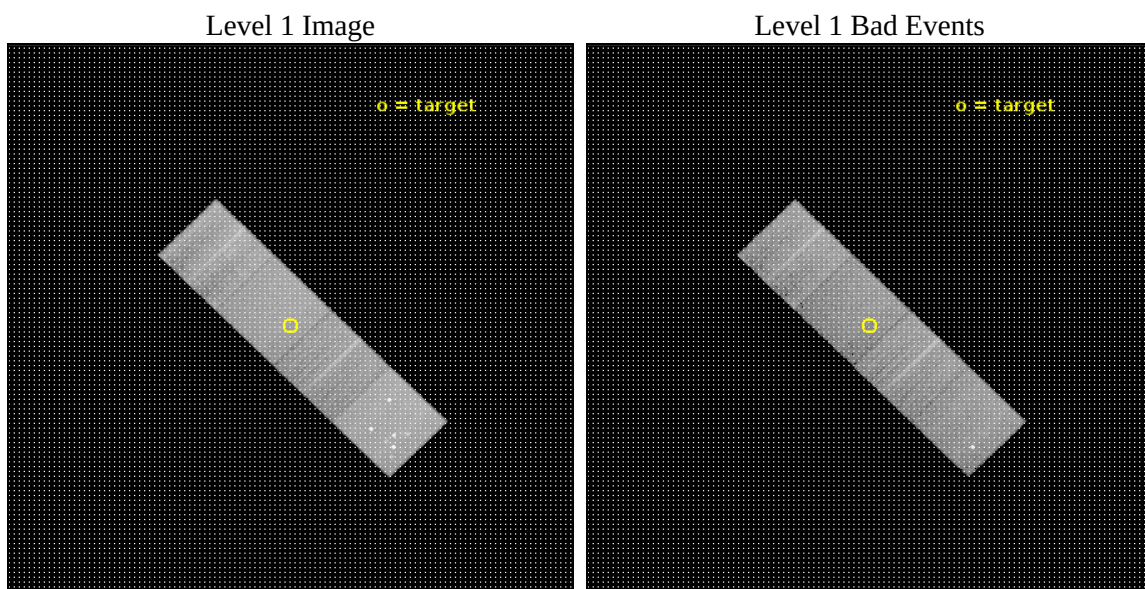
seq_num	601392	Sequence number
obs_id	19435	Observation id
title	Spiral galaxies of the Virgo cluster	Proposal title
observer	Roberto Soria	Principal investigator
object	NGC 4356	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.060417	Observer's specified target RA [deg]
dec_targ	8.535861	Observer's specified target Dec [deg]
ra_nom	186.06138290313	Nominal RA [deg]
dec_nom	8.5320514786023	Nominal Dec [deg]
roll_nom	225.04330355122	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15062.900115967	Sum of GTIs [s]
livetime	14866.092236806	Livetime [s]
ontime5	15062.900115967	Sum of GTIs [s]
ontime6	15062.900115967	Sum of GTIs [s]
ontime7	15062.900115967	Sum of GTIs [s]
ontime8	15062.873108506	Sum of GTIs [s]
l2events	163087	Number of level 2 events



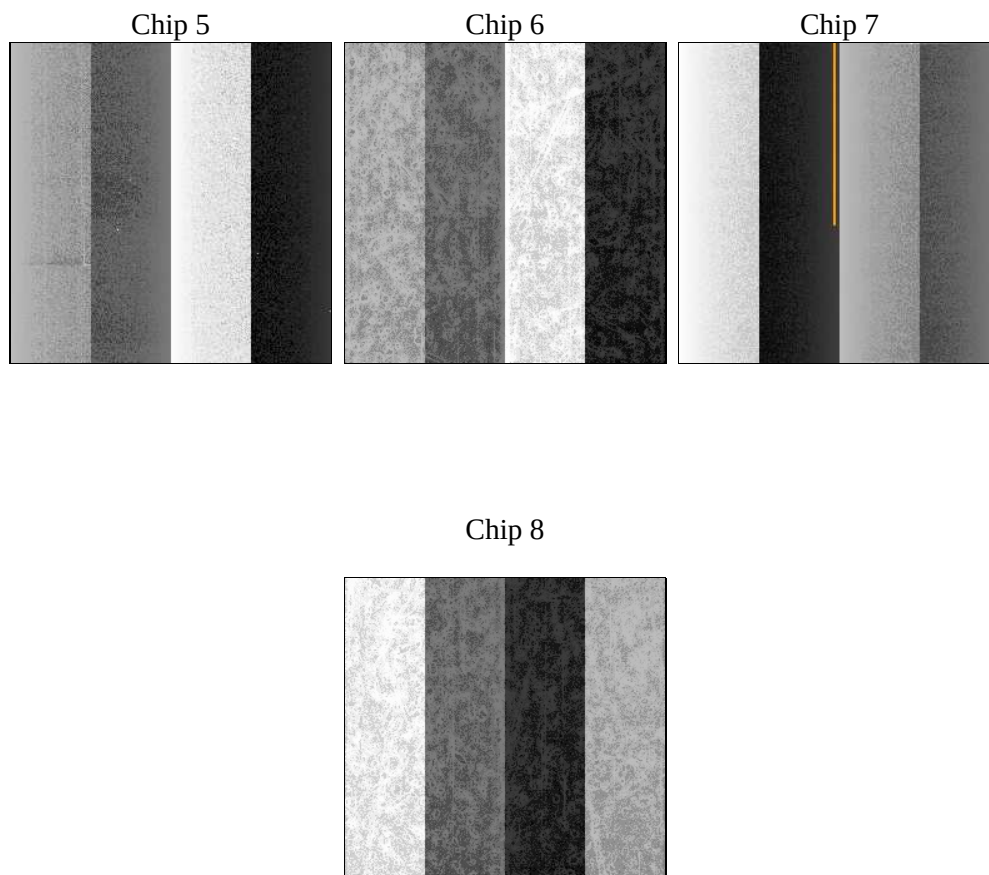
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.4	Processing system revision	ontime	15062.900115967	Sum of GTIs [s]
caldbver	4.7.3	 	ontime5	15062.900115967	Sum of GTIs [s]
date	2017-04-20T14:33:32	Date and time of file creation	ontime6	15062.900115967	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	15062.900115967	Sum of GTIs [s]
			ontime8	15062.873108506	Sum of GTIs [s]
			l1events	597279	Number of level 1 events

2.1.4 Events

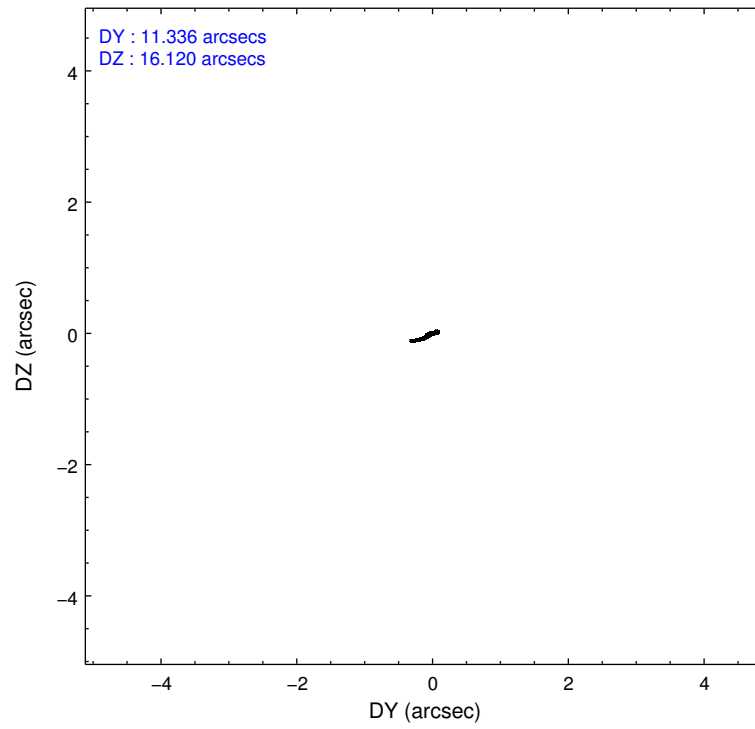
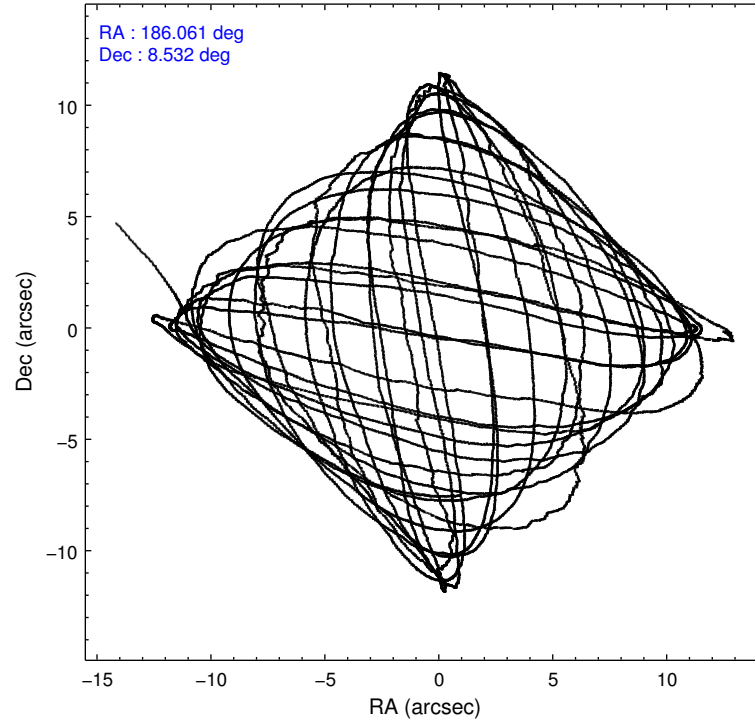
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	193699	113693	142891	146996
rejected events	95051	101098	81314	108341
rejected %	49%	88%	56%	73%

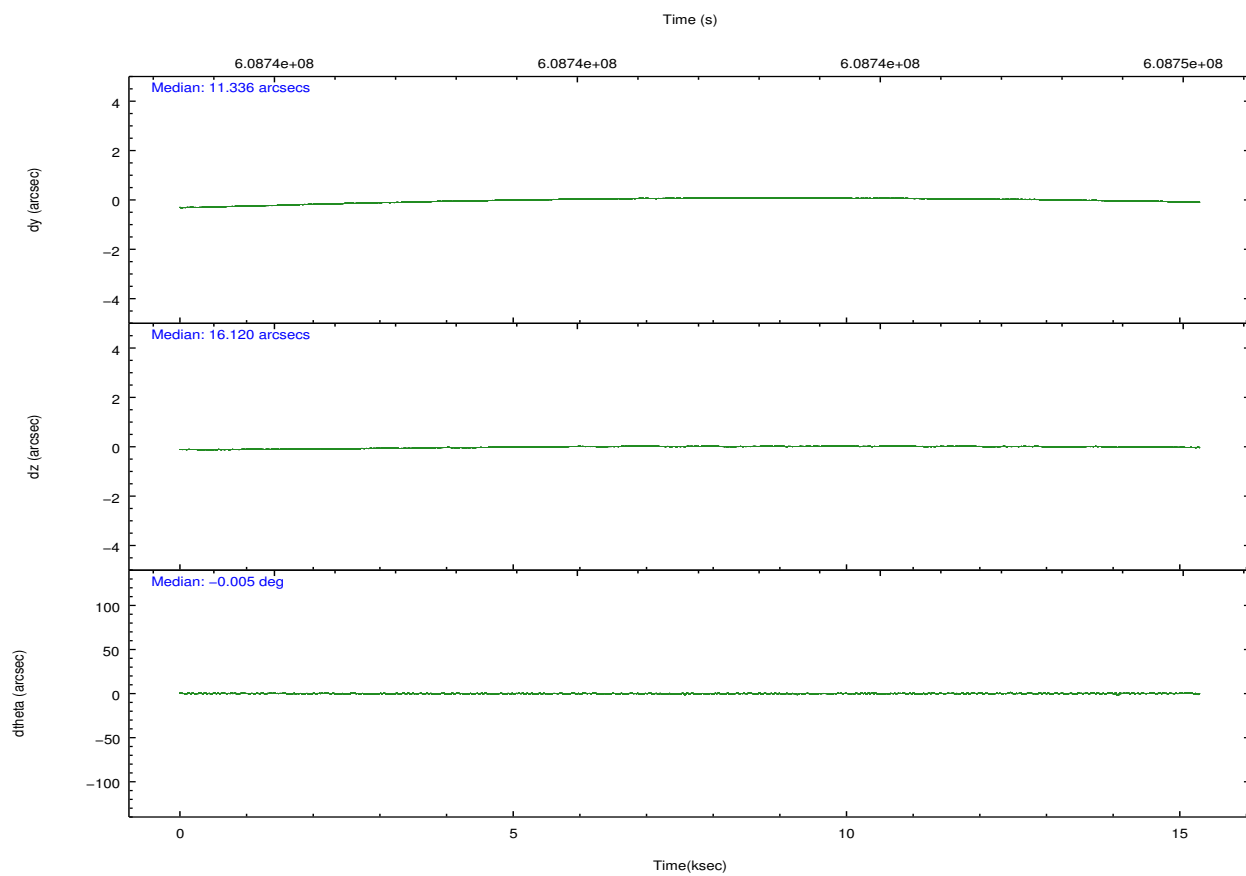
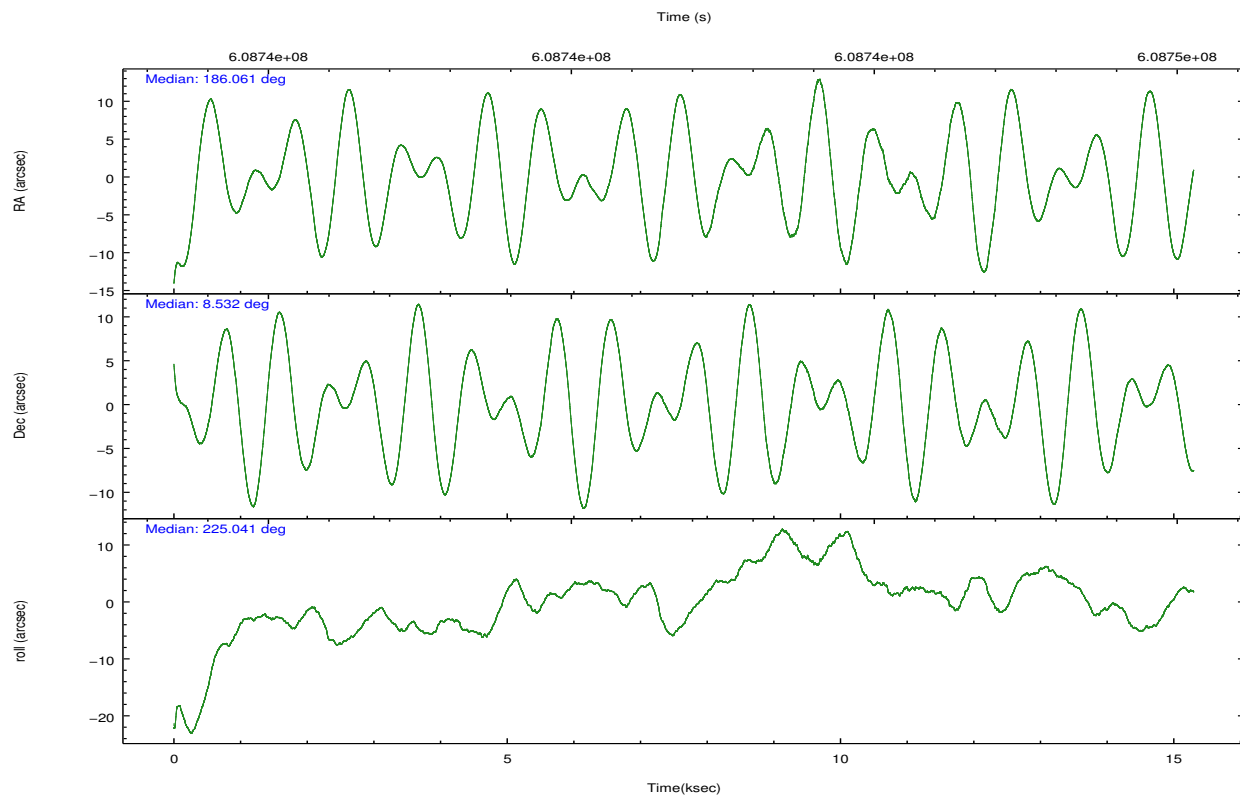
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	18427	4270	4978	10727
	9%	3%	3%	7%
grade 1 events	408	46	209	128
	0%	0%	0%	0%
grade 2 events	28092	2930	13042	10064
	14%	2%	9%	6%
grade 3 events	2710	1285	4941	3881
	1%	1%	3%	2%
grade 4 events	2494	1238	4807	3655
	1%	1%	3%	2%
grade 5 events	12670	5205	14019	7791
	6%	4%	9%	5%
grade 6 events	46956	2875	33820	10369
	24%	2%	23%	7%
grade 7 events	81942	95844	67075	100381
	42%	84%	46%	68%

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	186.068241	186.0613829031263	Subarray requested	NONE	NONE
[deg] Pointing Dec	8.558674	8.532051478602321	Alternating exposures requested	N	N
[deg] Pointing Roll	224.885660	225.0433035512182	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	608734518.184000	608733569.5669			
Observation start date	2017-04-16T12:54:09	2017-04-16T12:39:29			
[s] Observation end time (MET)	608749518.184000	608750164.31787			
Observation end date	2017-04-16T17:04:09	2017-04-16T17:16:04			
Read mode	TIMED	TIMED			

2.3 Aspect



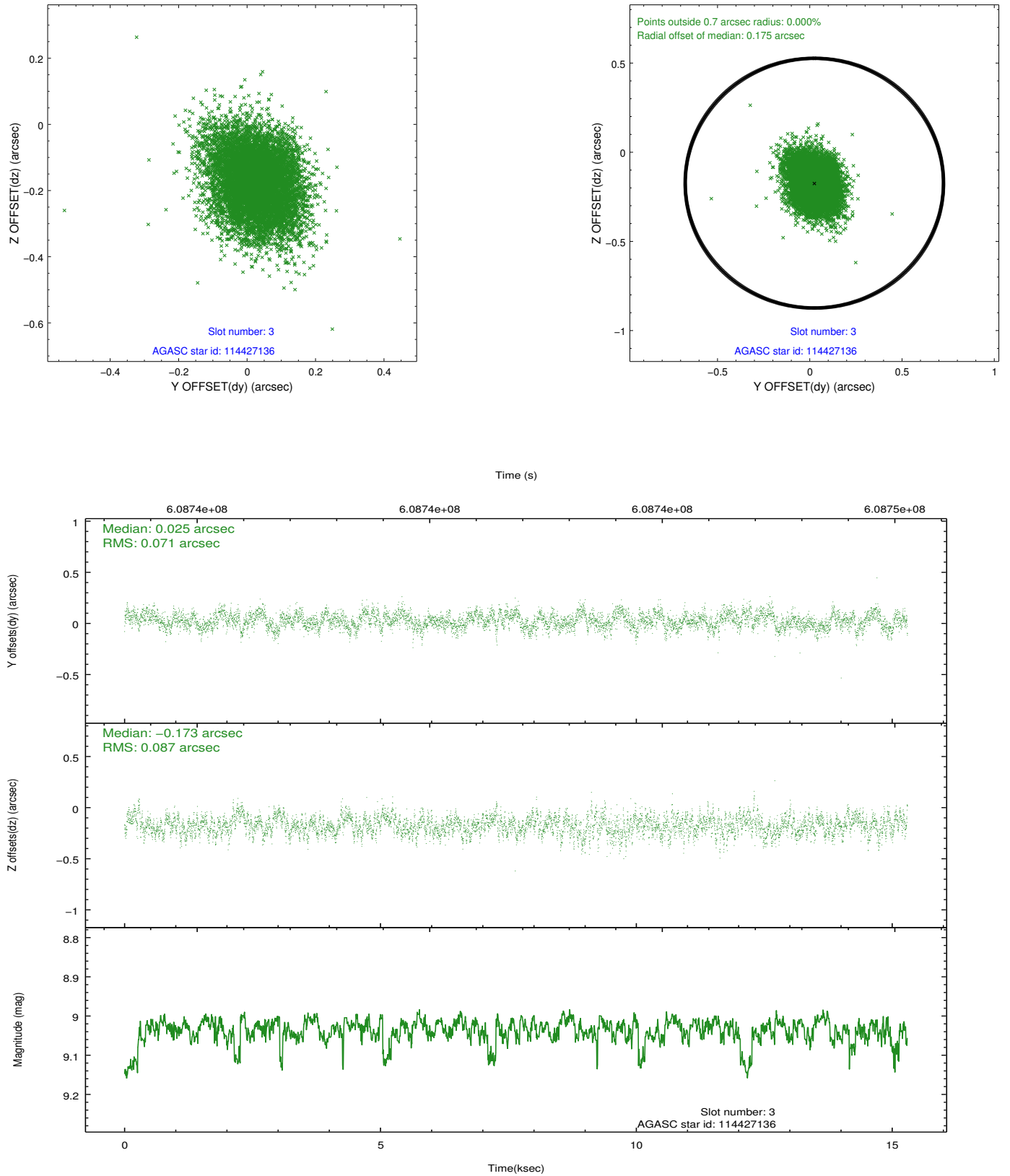


Slot Statistics

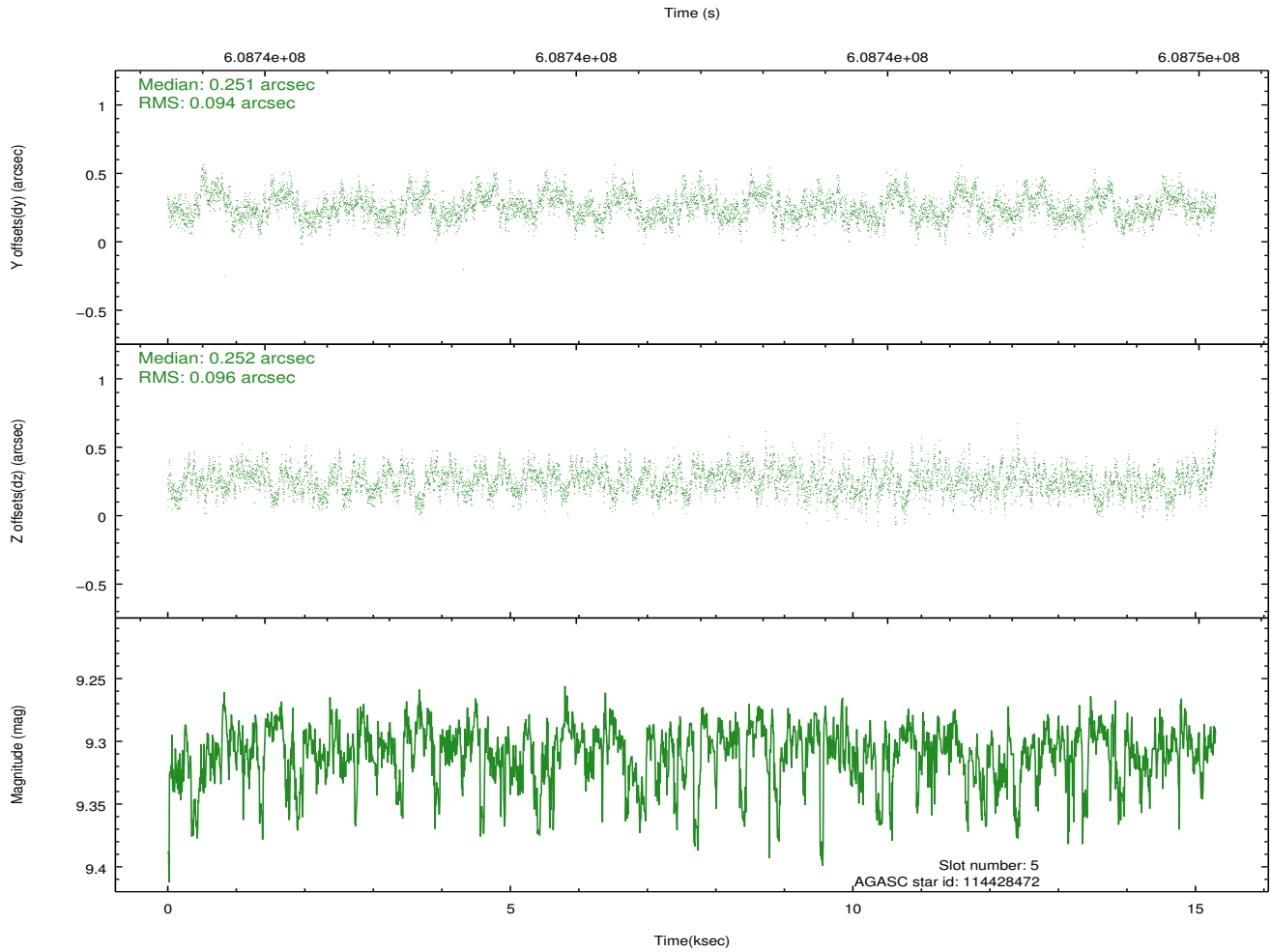
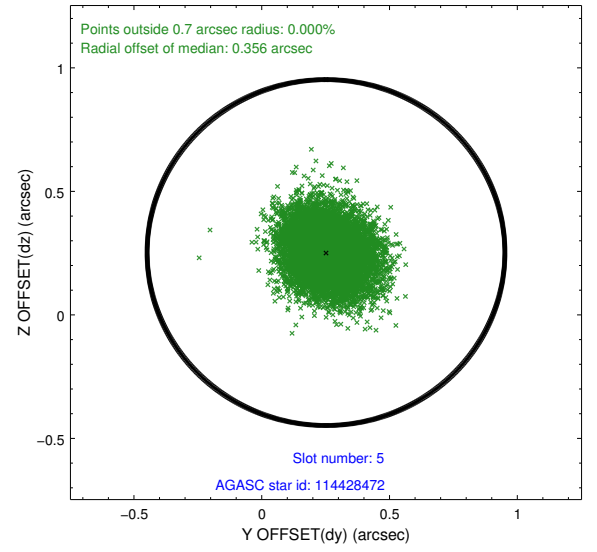
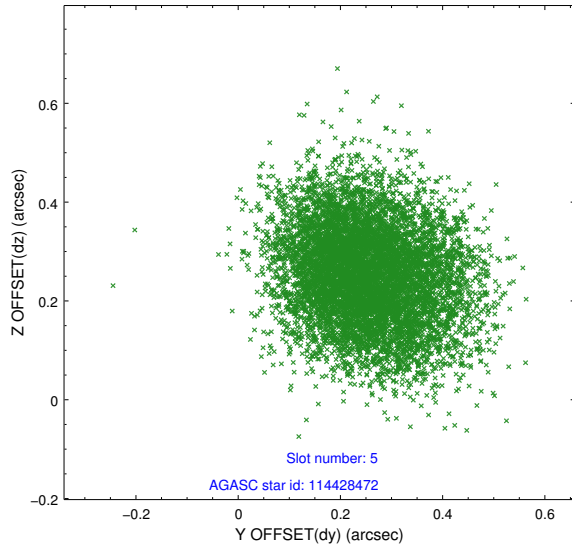
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.04	3731	-0.160	-0.055	0.008	0.014	0.000000	0.000000	-764.30	-1737.58
1	FID		ACIS-S-4	7.16	3732	0.391	0.092	0.006	0.012	0.000000	0.000000	2149.36	170.80
2	FID		ACIS-S-5	7.15	3732	-0.262	-0.028	0.009	0.015	0.000000	0.000000	-1816.91	164.61
3	GUIDE	used	114427136	9.04	7453	0.025	-0.173	0.119	0.193	185.962563	8.343983	812.60	281.96
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	GUIDE	used	114428472	9.31	7453	0.251	0.252	0.144	0.228	185.686963	8.270901	1693.53	-224.43
6	GUIDE	used	114565400	6.31	7464	-0.318	0.168	0.115	0.201	186.925333	8.610343	-2295.40	2019.43
7	GUIDE	used	114428296	9.16	7455	0.045	-0.246	0.137	0.227	185.626025	8.050776	2406.78	182.23

2.4 Star Slots

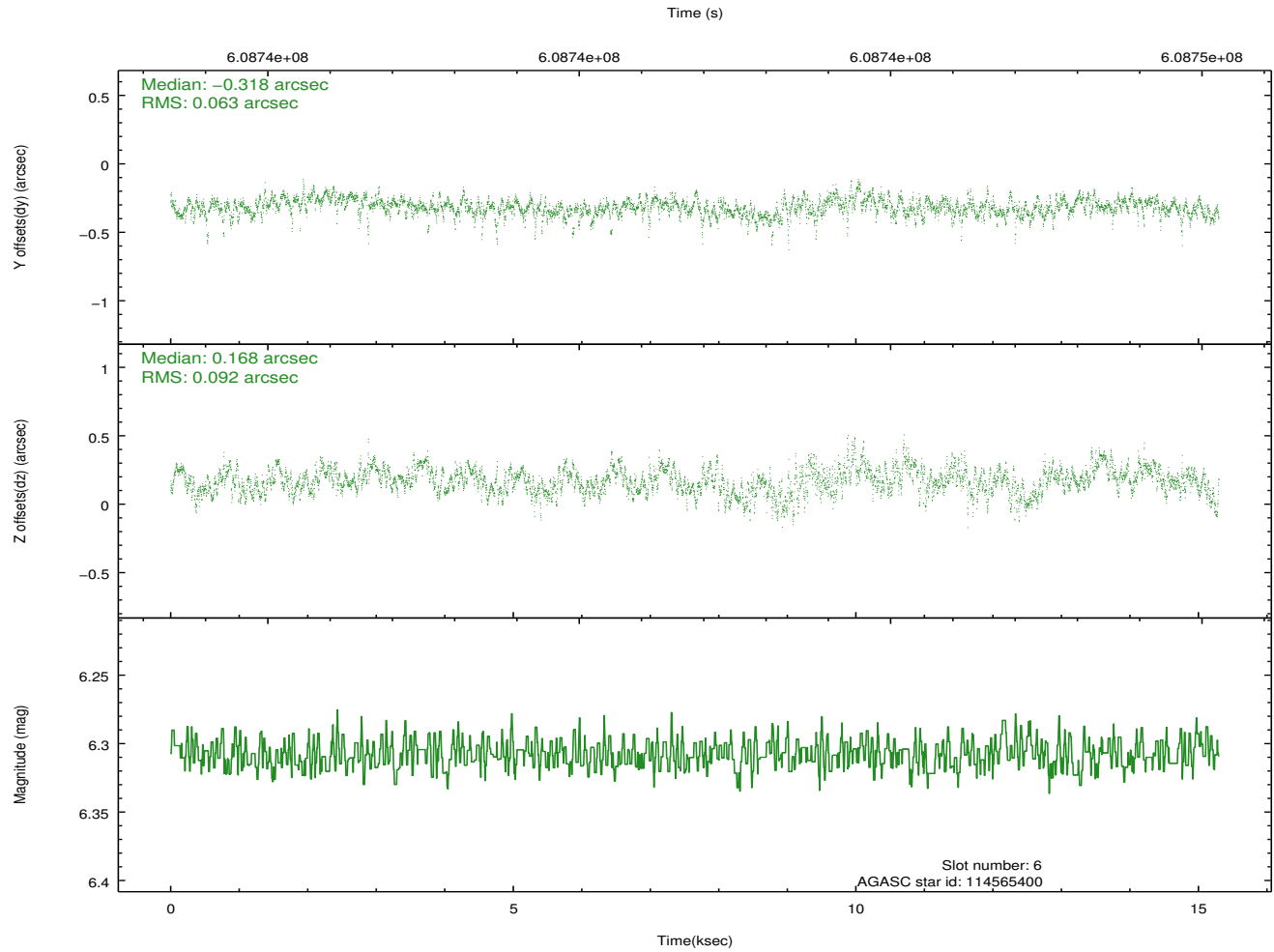
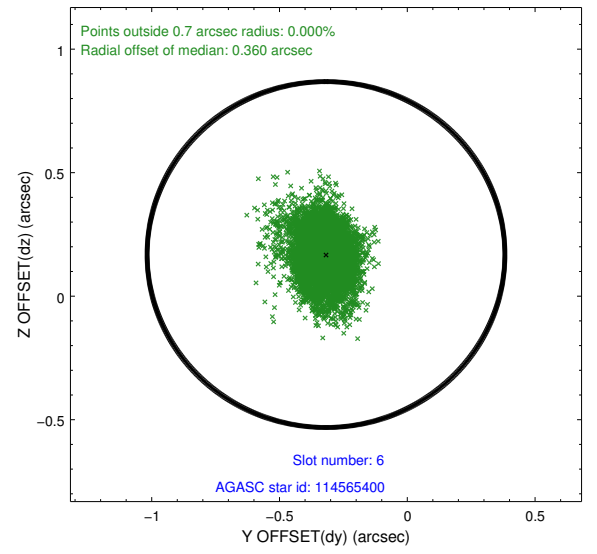
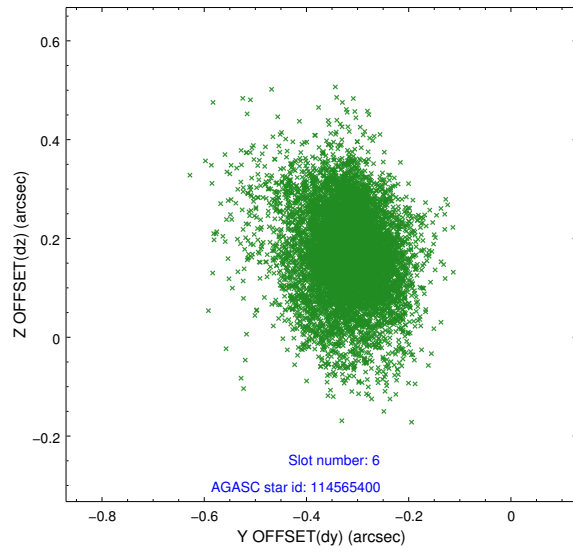
2.4.1 Slot 3



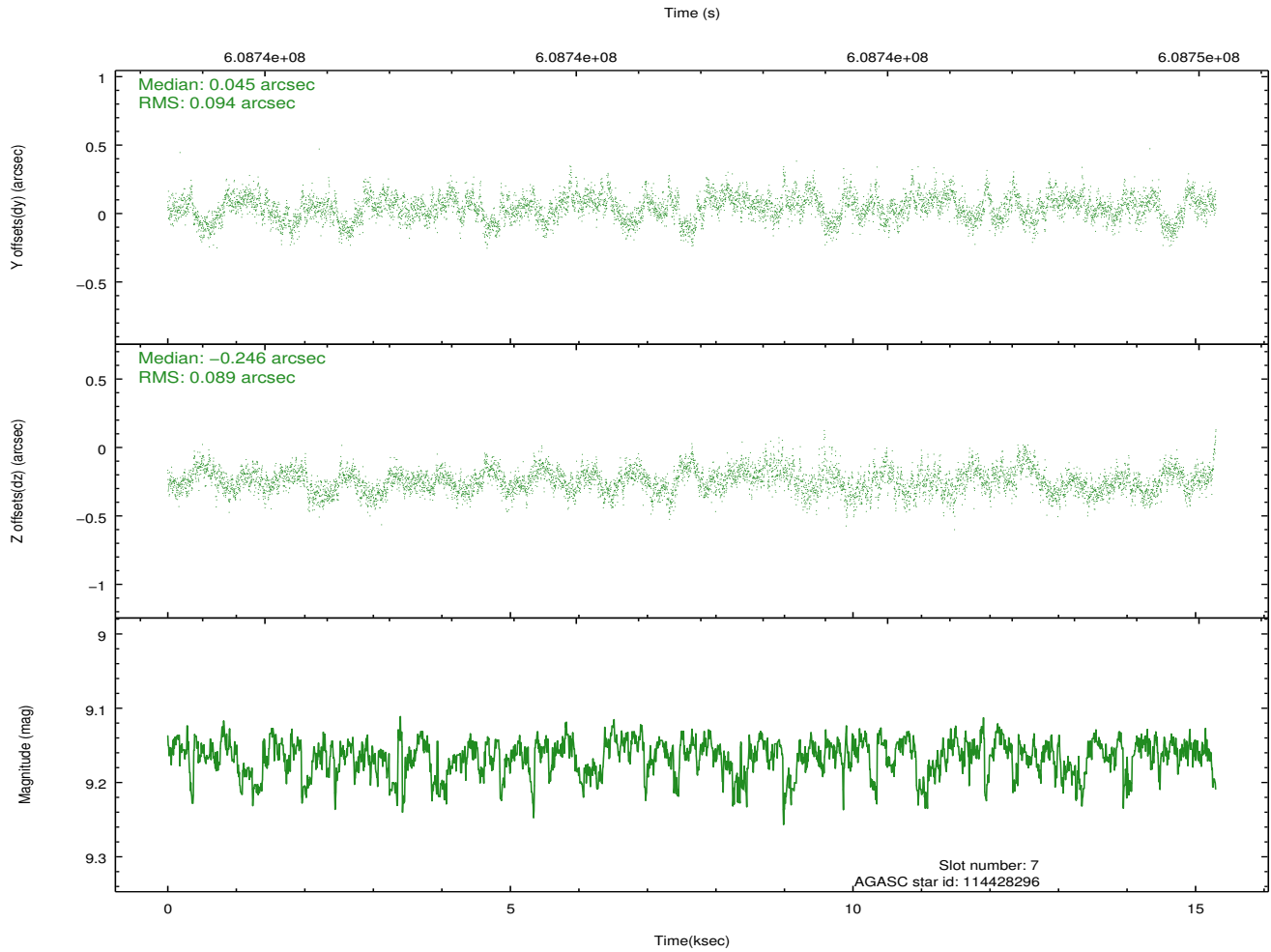
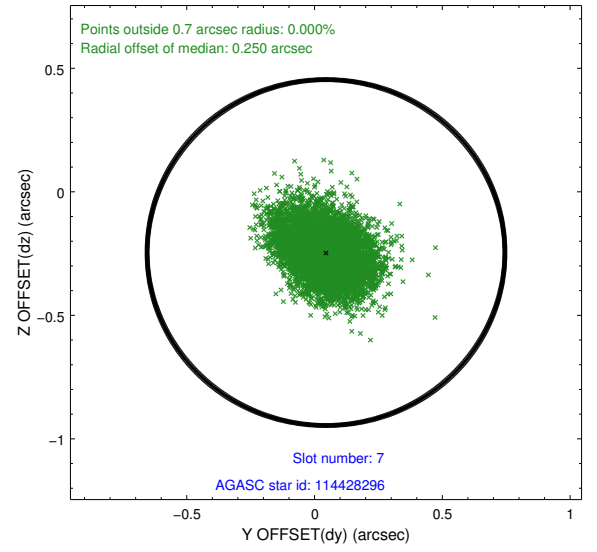
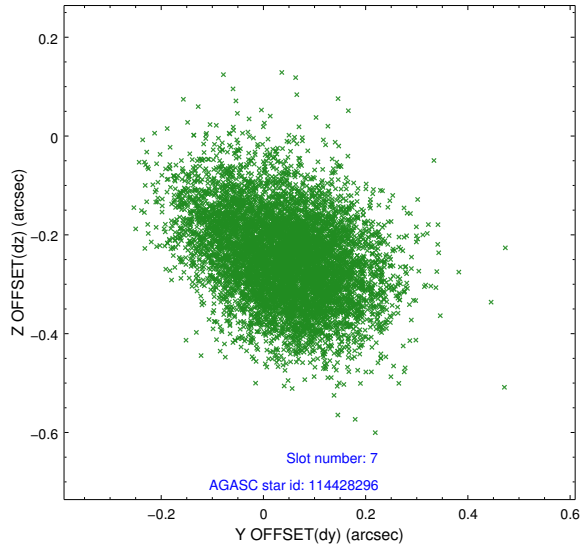
2.4.2 Slot 5



2.4.3 Slot 6

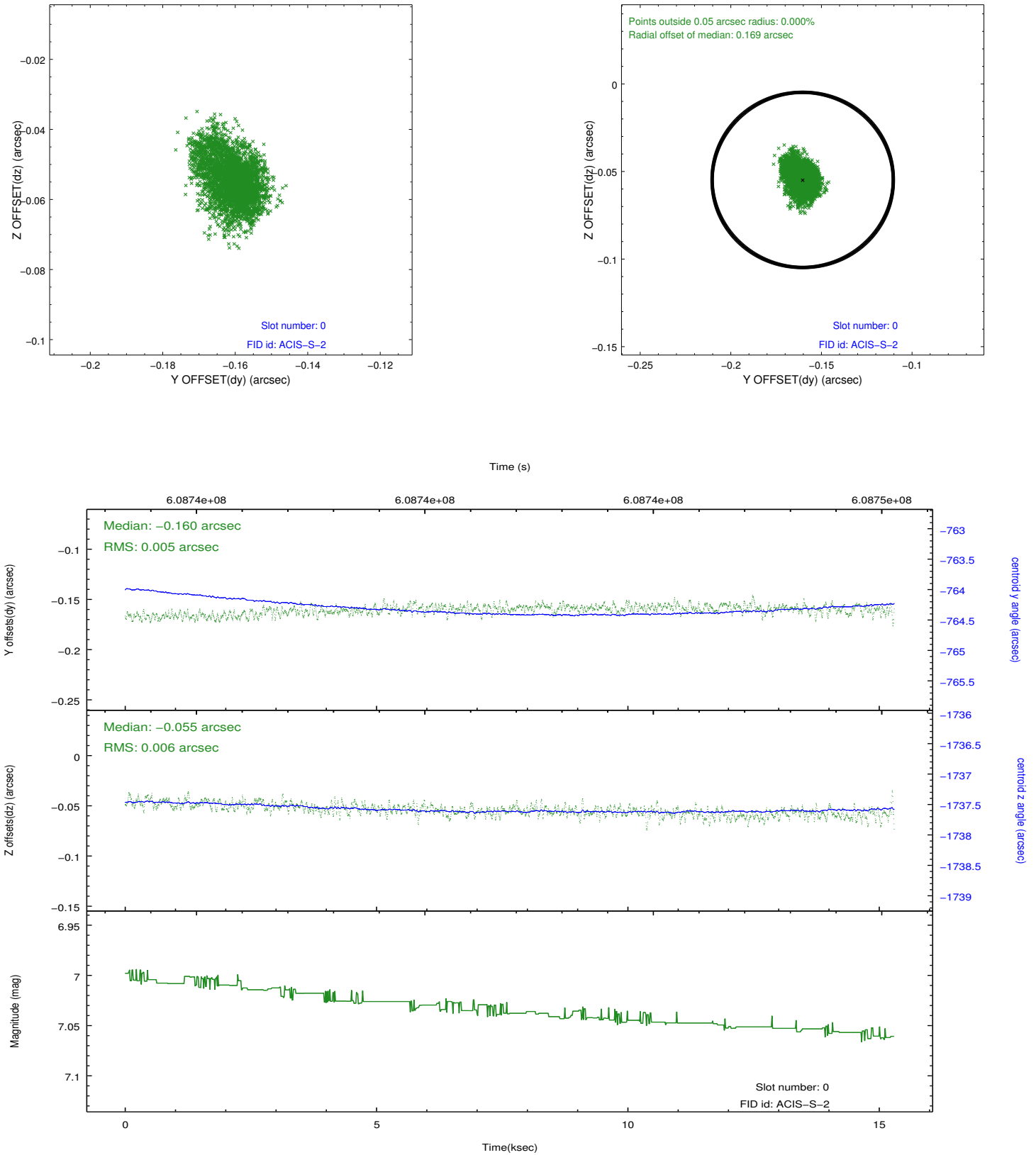


2.4.4 Slot 7

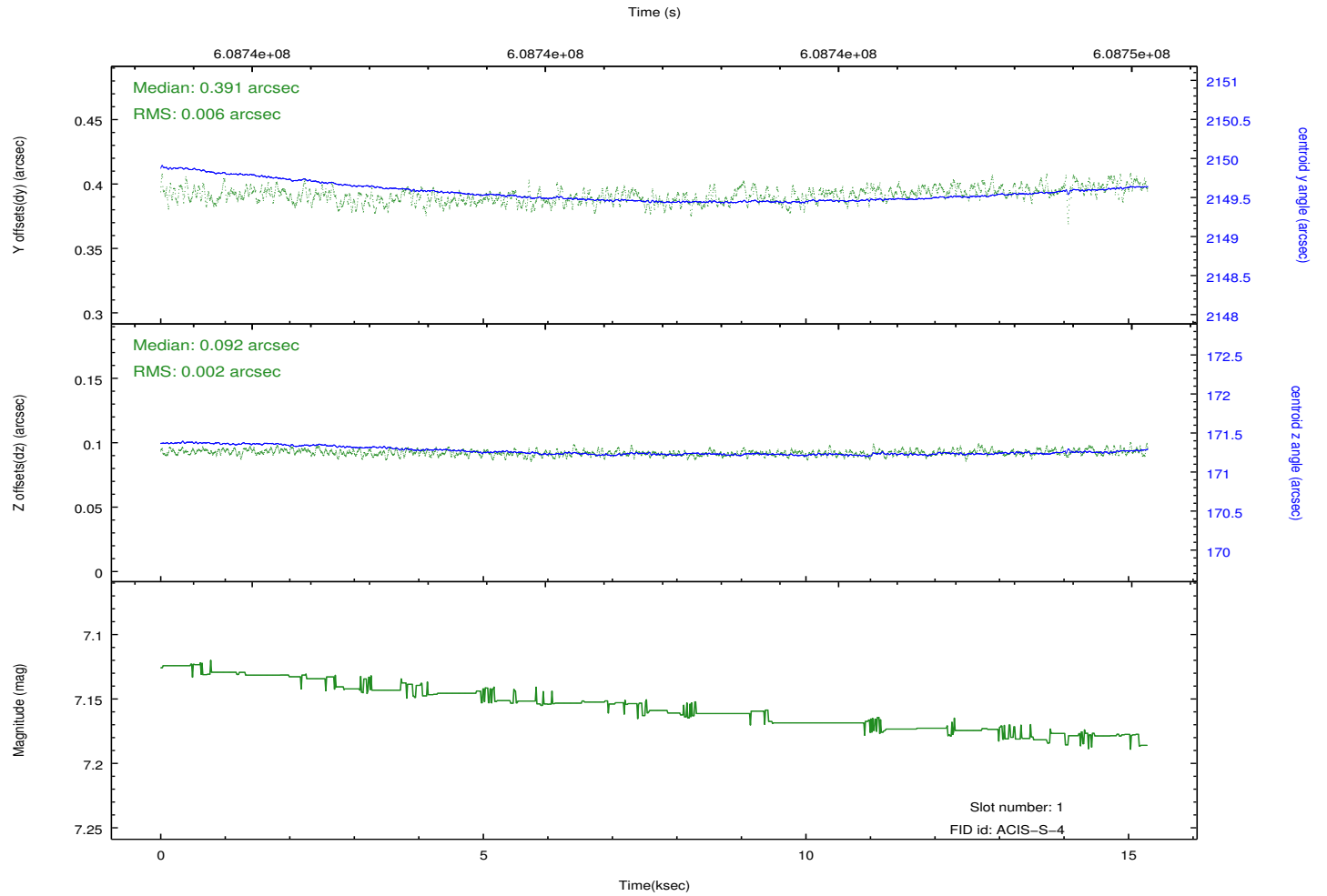
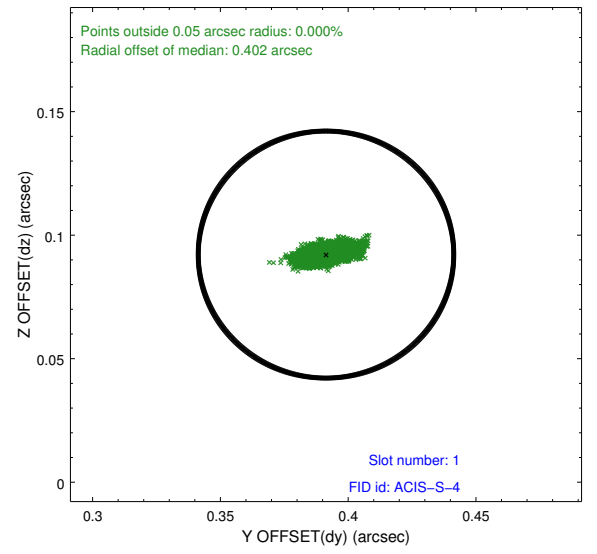
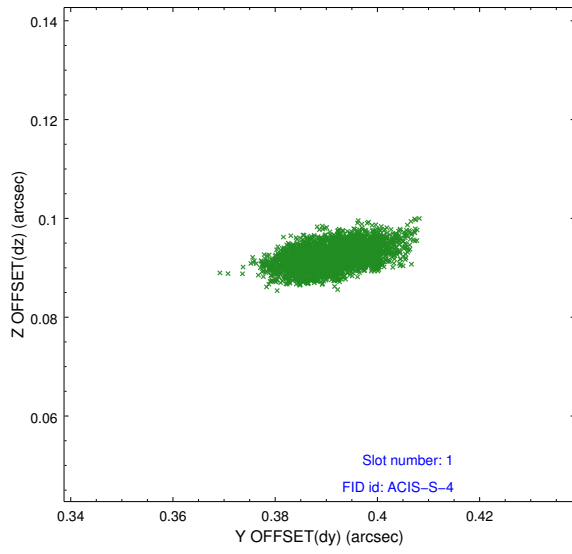


2.5 FID Slots

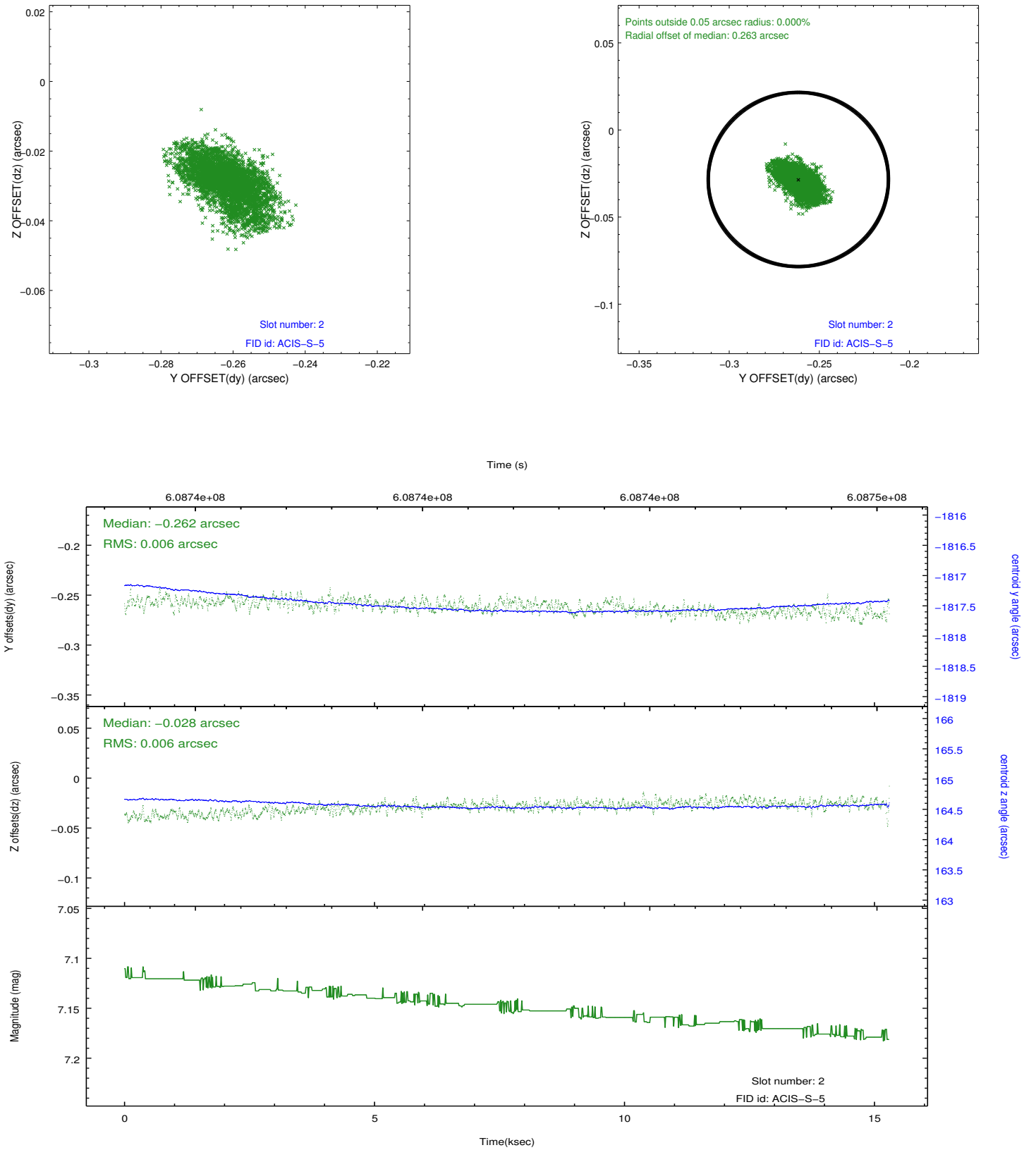
2.5.1 Slot 0



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)	2017.04.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.062900115967

A.2 Comments

The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.