

V&V Reference Report

L2 ASCDS Version : 10.5.4

Observation 19408 - L2 Version 2
Chandra X-Ray Center

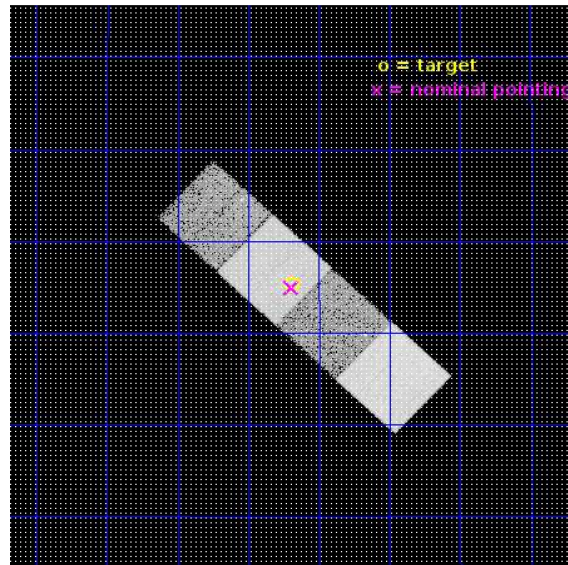
L2 Processing Date : Apr 20 2017

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 4	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

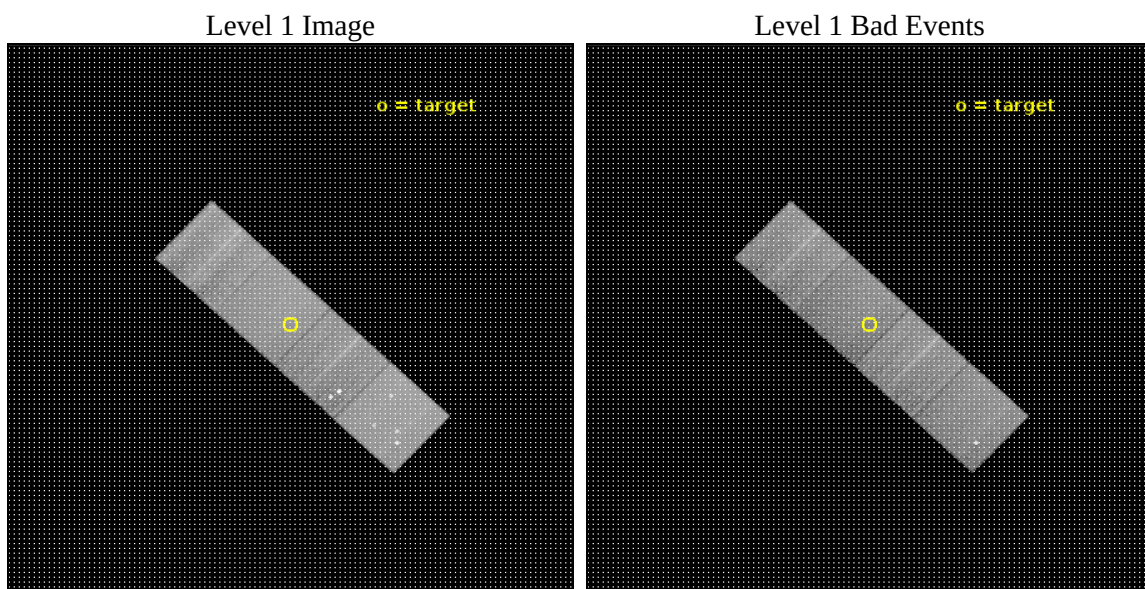
seq_num	601365	Sequence number
obs_id	19408	Observation id
title	Spiral galaxies of the Virgo cluster	Proposal title
observer	Roberto Soria	Principal investigator
object	NGC 4424	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.798333	Observer's specified target RA [deg]
dec_targ	9.420667	Observer's specified target Dec [deg]
ra_nom	186.79875585724	Nominal RA [deg]
dec_nom	9.4155231955657	Nominal Dec [deg]
roll_nom	223.27644670977	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	15059.759065747	Sum of GTIs [s]
l2events	164229	Number of level 2 events



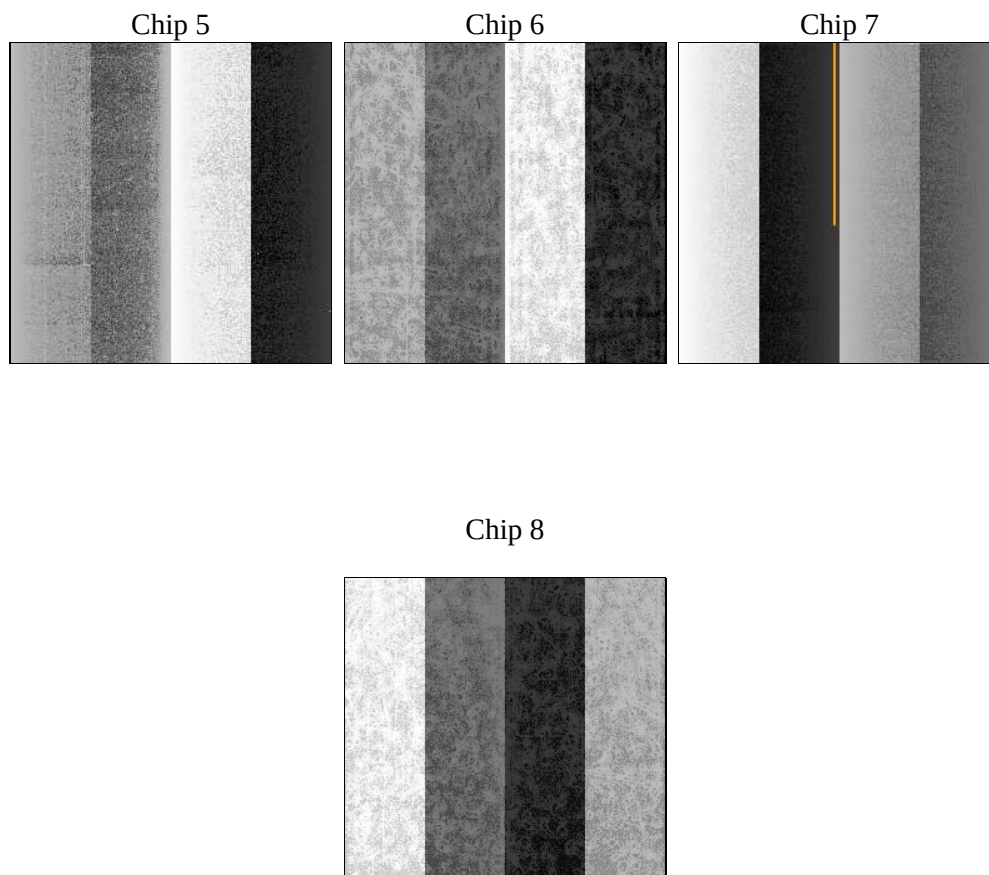
2 OBI

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]
caldsver	4.7.3	 	ontime5	15062.900115967	Sum of GTIs [s]
date	2017-04-20T14:32:31	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	15059.759065747	Sum of GTIs [s]
			l1events	600567	Number of level 1 events

2.1.4 Events

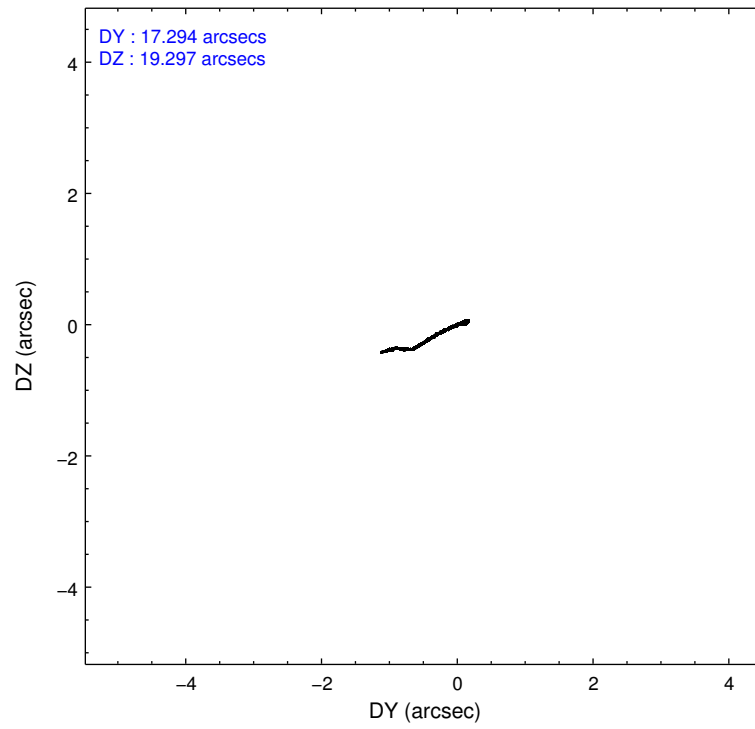
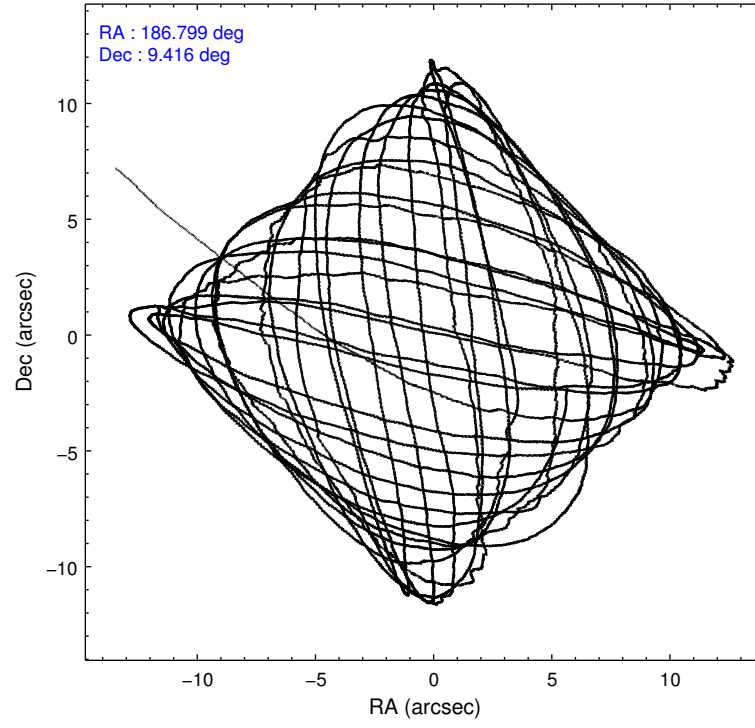
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	184491	127549	141788	146739
rejected events	94877	100579	79874	106962
rejected %	51%	78%	56%	72%

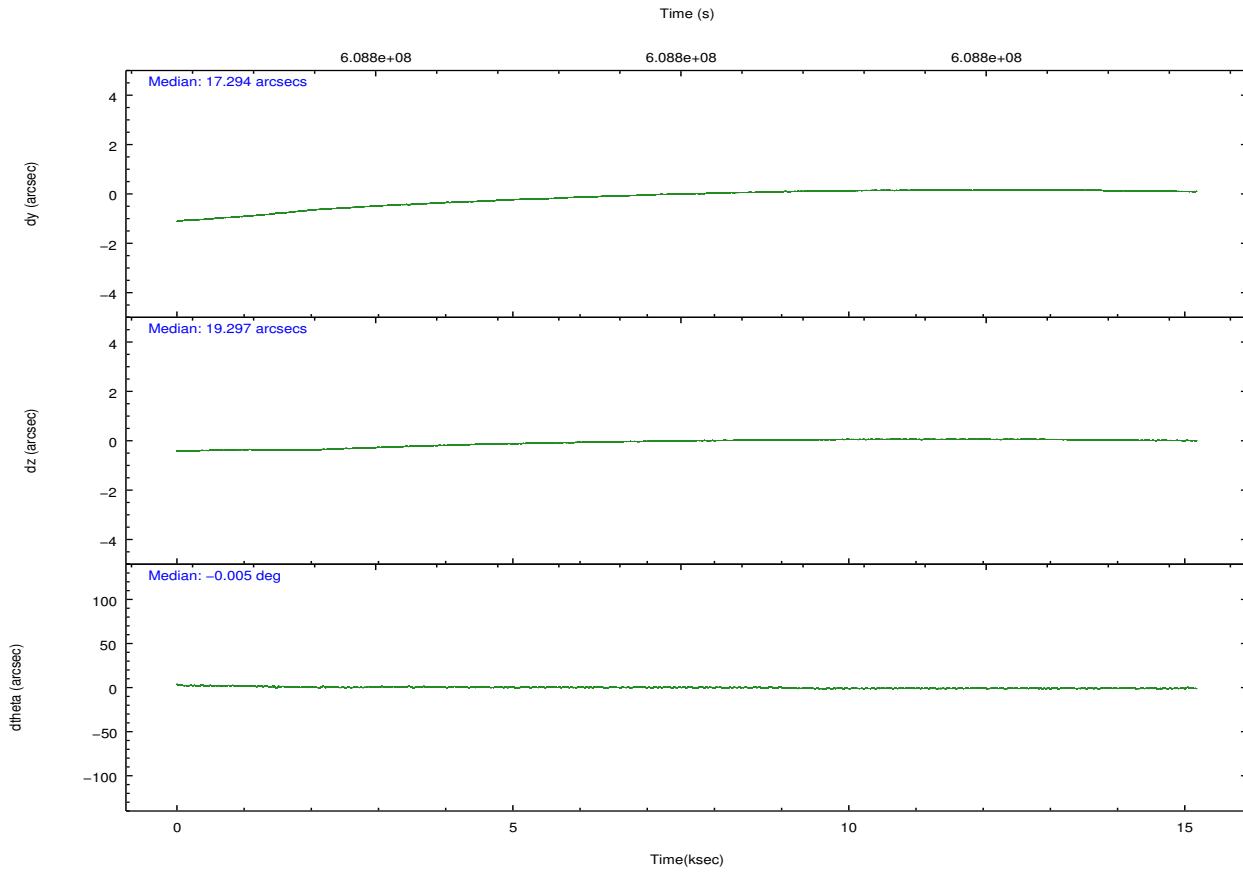
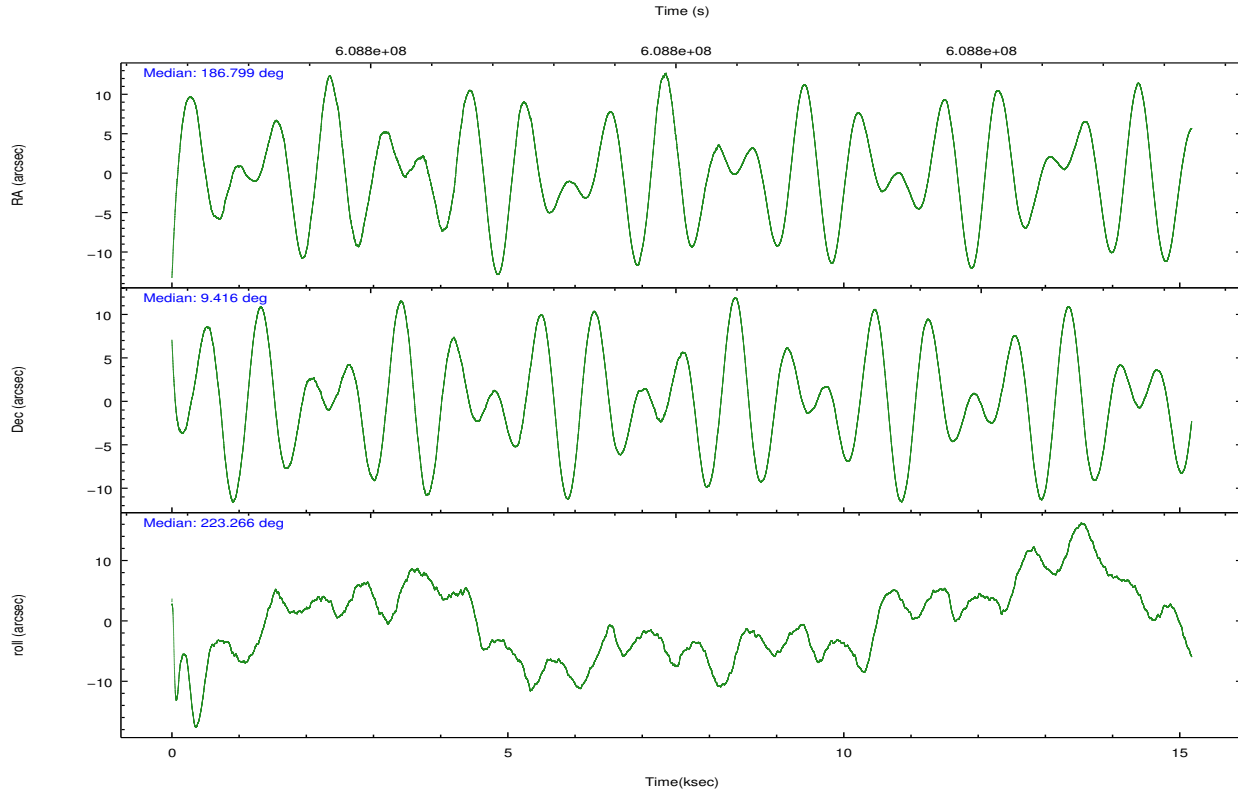
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	11157	4493	5308	11718
	6%	3%	3%	7%
grade 1 events	405	88	212	124
	0%	0%	0%	0%
grade 2 events	26712	16895	13191	9703
	14%	13%	9%	6%
grade 3 events	2723	1313	4973	4095
	1%	1%	3%	2%
grade 4 events	2532	1222	4901	3818
	1%	0%	3%	2%
grade 5 events	12669	5298	14199	7877
	6%	4%	10%	5%
grade 6 events	46508	3053	33557	10472
	25%	2%	23%	7%
grade 7 events	81785	95187	65447	98932
	44%	74%	46%	67%

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	186.806394	186.7987558572445	Subarray requested	NONE	NONE
[deg] Pointing Dec	9.441942	9.415523195565694	Alternating exposures requested	N	N
[deg] Pointing Roll	223.118540	223.2764467097744	[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)	608792684.184000	608791798.79528			
Observation start date	2017-04-17T05:03:35	2017-04-17T04:49:58			
[s] Observation end time (MET)	608807684.184000	608808343.83374			
Observation end date	2017-04-17T09:13:35	2017-04-17T09:25:43			
Read mode	TIMED	TIMED			

2.3 Aspect



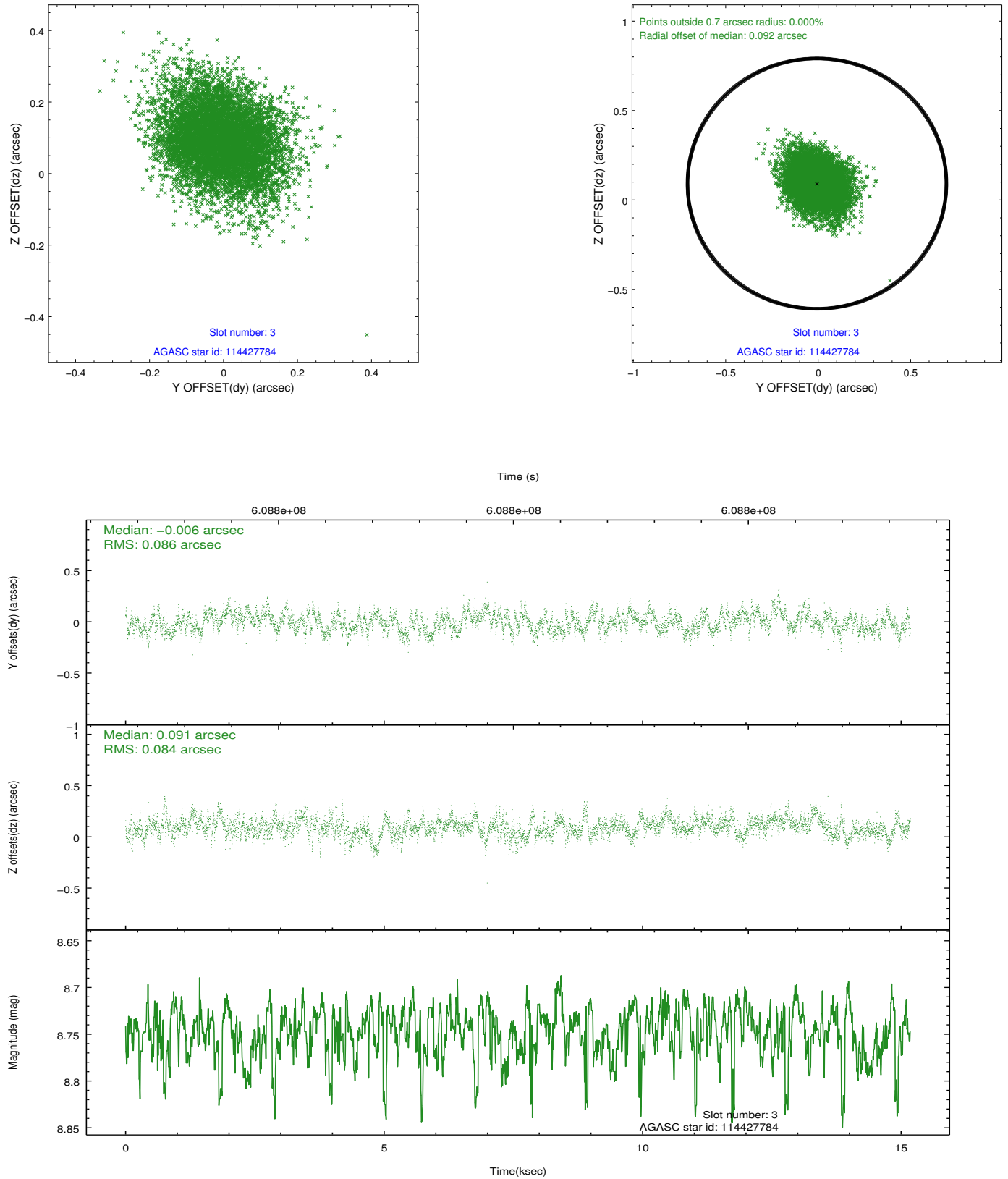


Slot Statistics

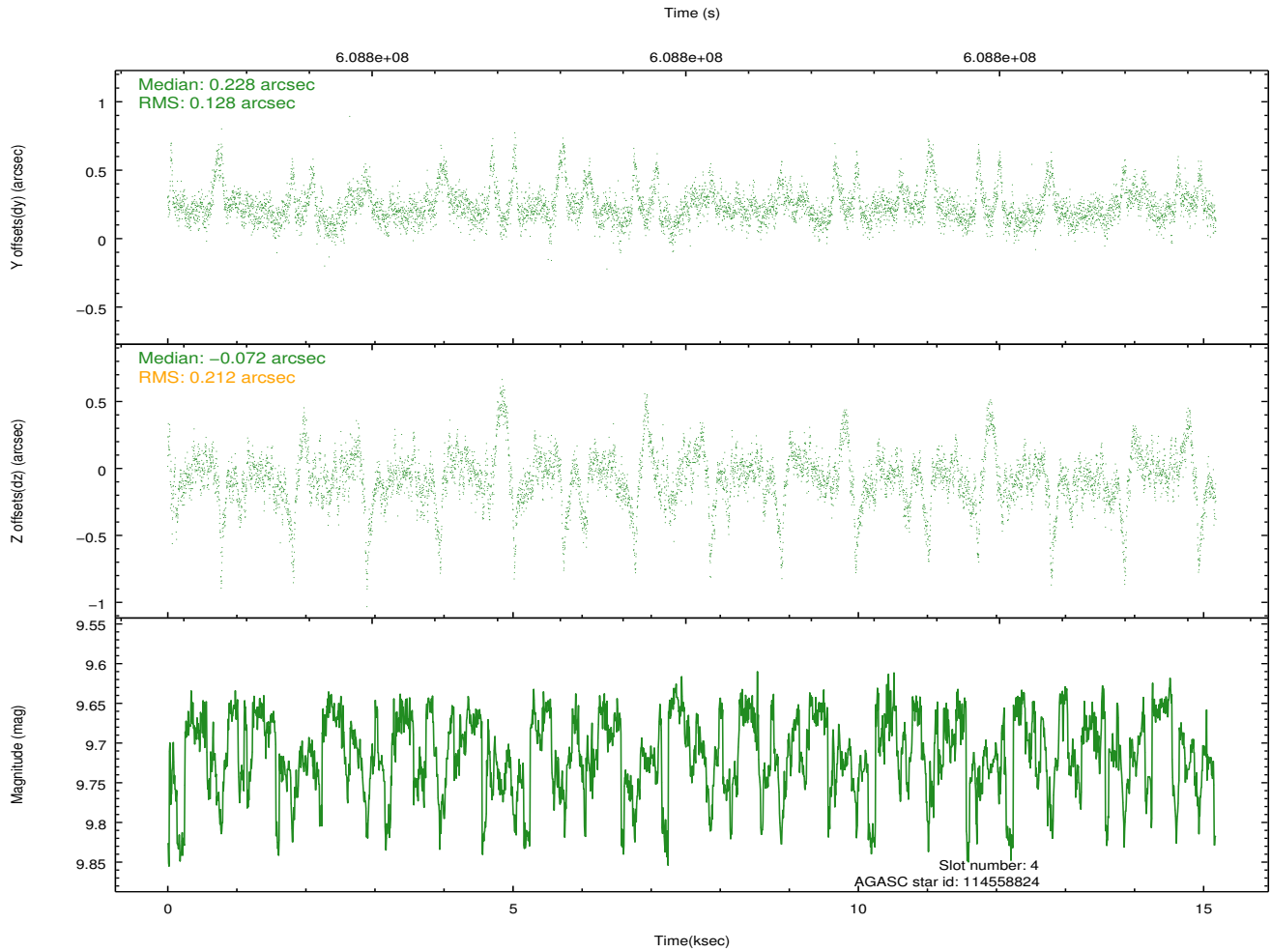
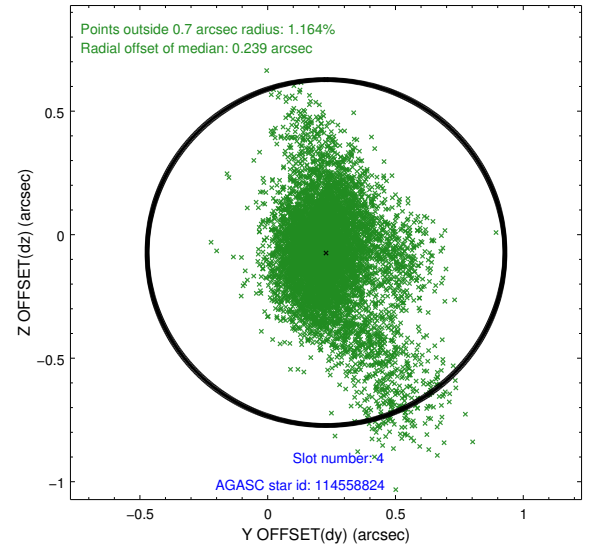
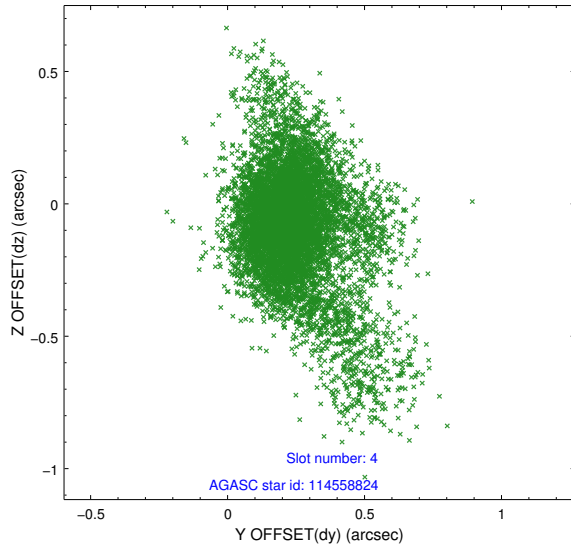
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.04	3702	-0.208	-0.132	0.010	0.015	0.000000	0.000000	-770.33	-1740.85
1	FID		ACIS-S-4	7.14	3702	0.514	0.136	0.015	0.022	0.000000	0.000000	2143.49	167.65
2	FID		ACIS-S-5	7.13	3702	-0.338	0.005	0.014	0.022	0.000000	0.000000	-1822.96	161.44
3	GUIDE	used	114427784	8.75	7401	-0.006	0.091	0.128	0.209	186.068583	9.508052	1748.63	-1966.19
4	GUIDE	used	114558824	9.71	7387	0.228	-0.072	0.225	0.501	187.023305	9.331255	-289.71	817.55
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	114562600	8.71	7397	-0.157	-0.198	0.159	0.255	186.973653	8.898661	902.24	1833.66
7	GUIDE	used	114429600	7.37	7403	-0.085	0.193	0.127	0.213	186.379936	9.751764	342.79	-1848.70

2.4 Star Slots

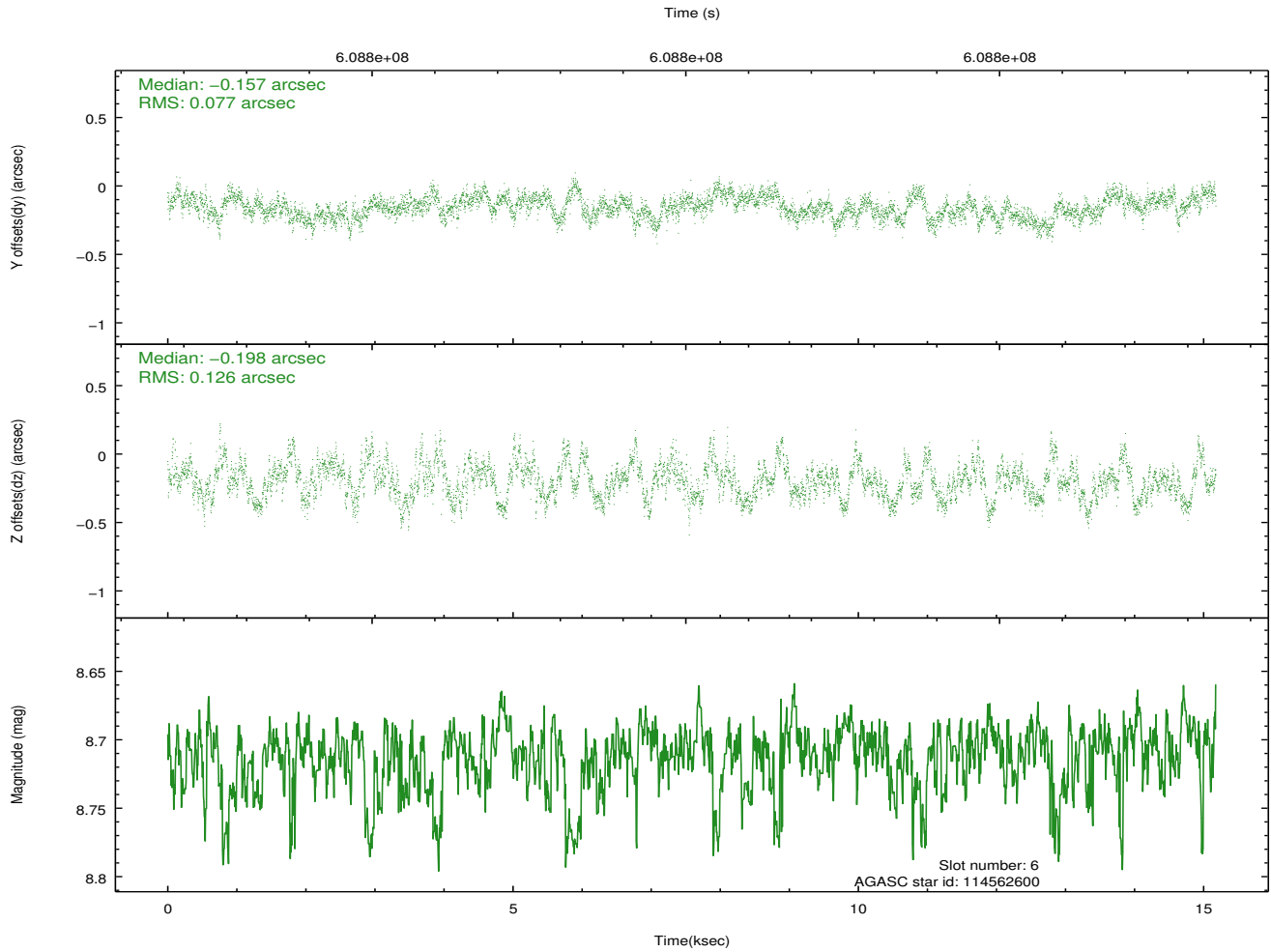
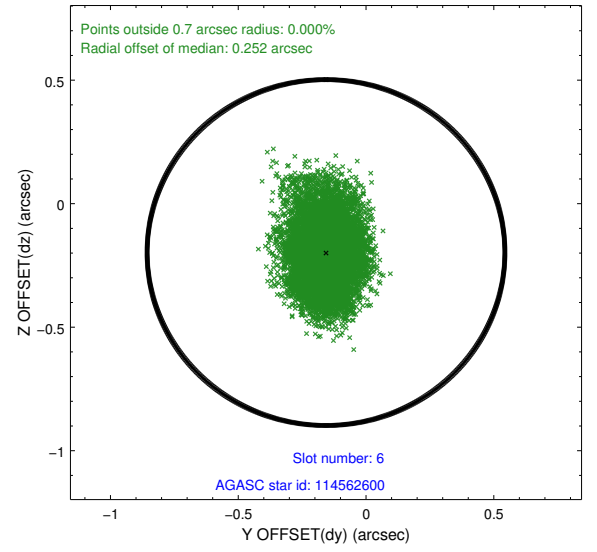
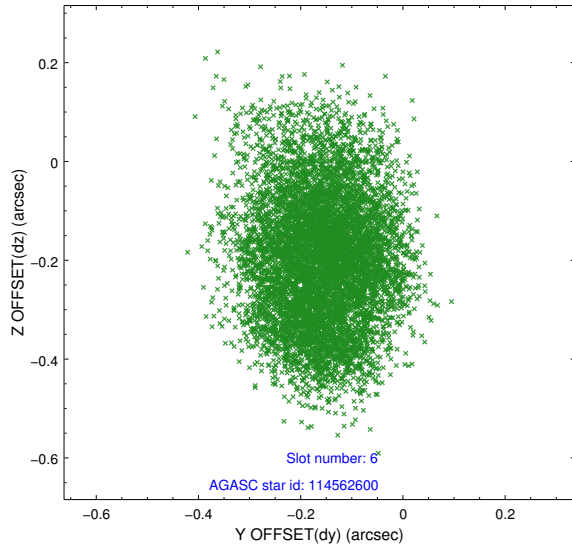
2.4.1 Slot 3



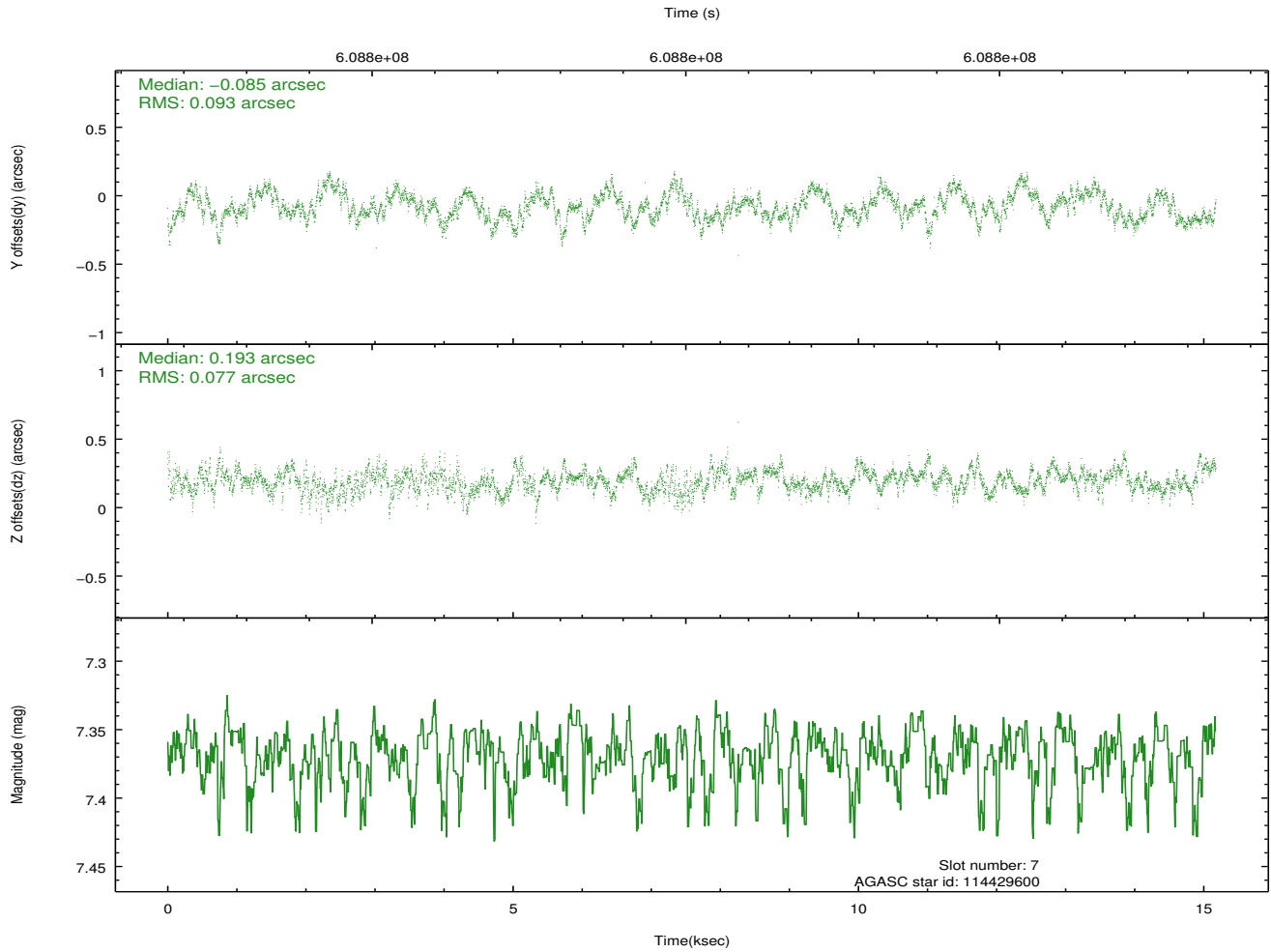
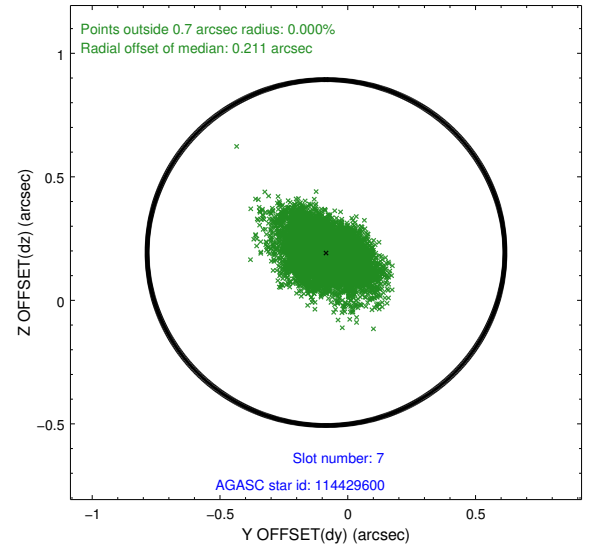
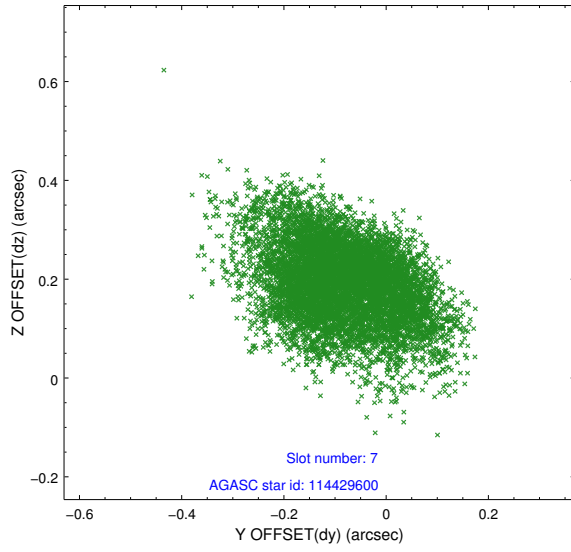
2.4.2 Slot 4



2.4.3 Slot 6

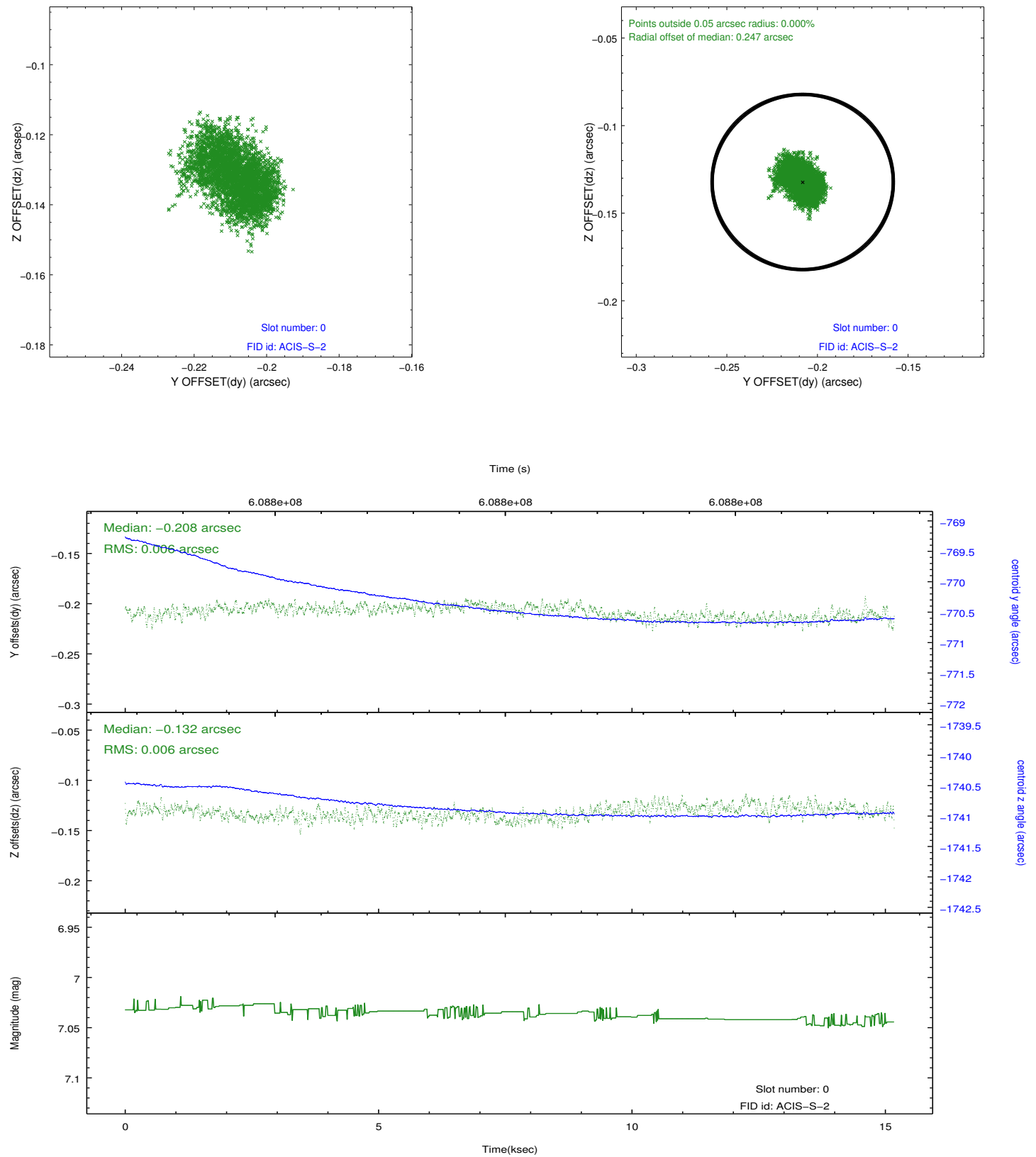


2.4.4 Slot 7

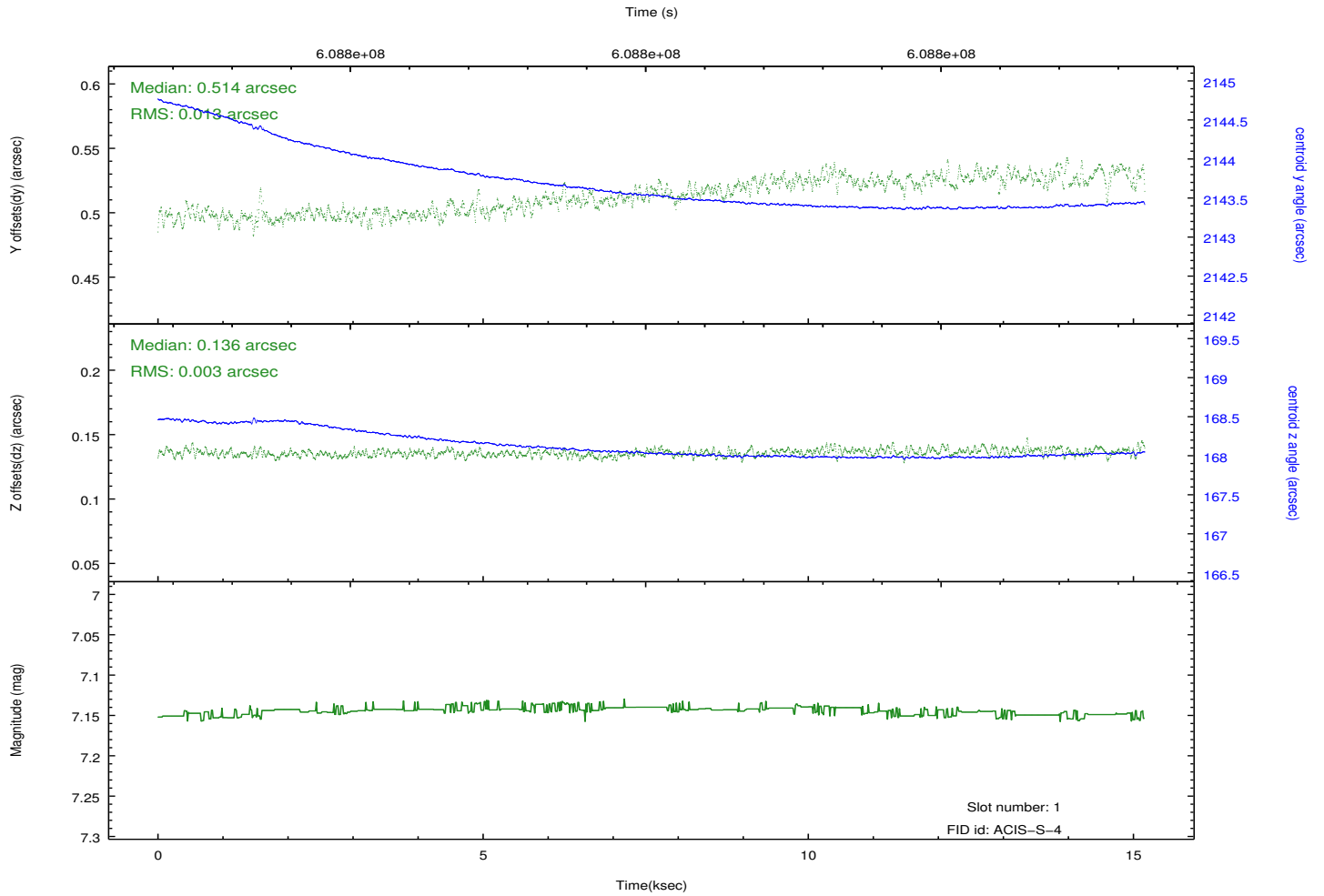
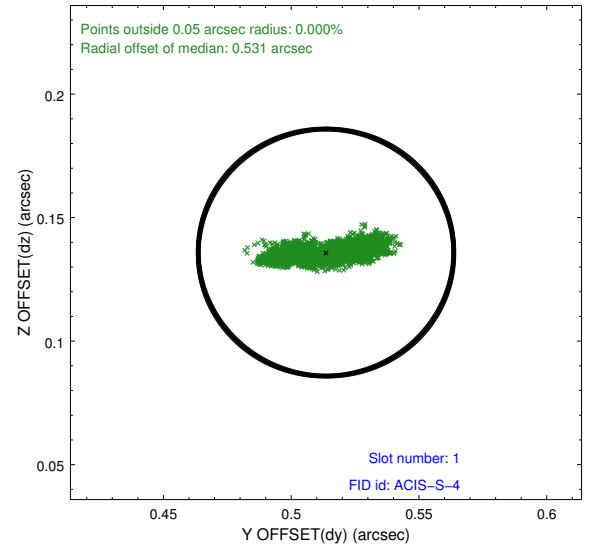
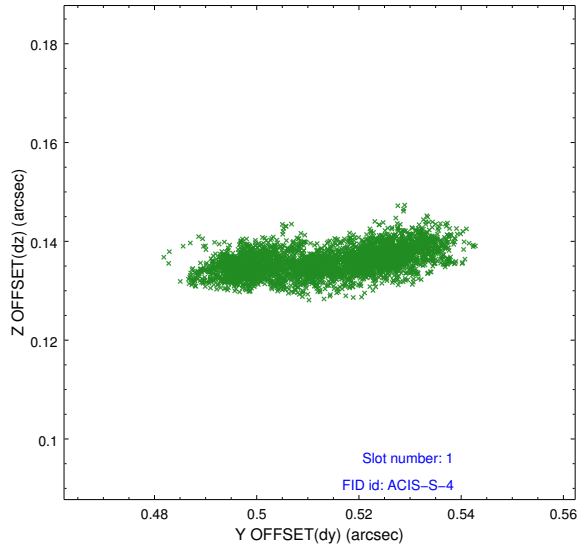


2.5 FID Slots

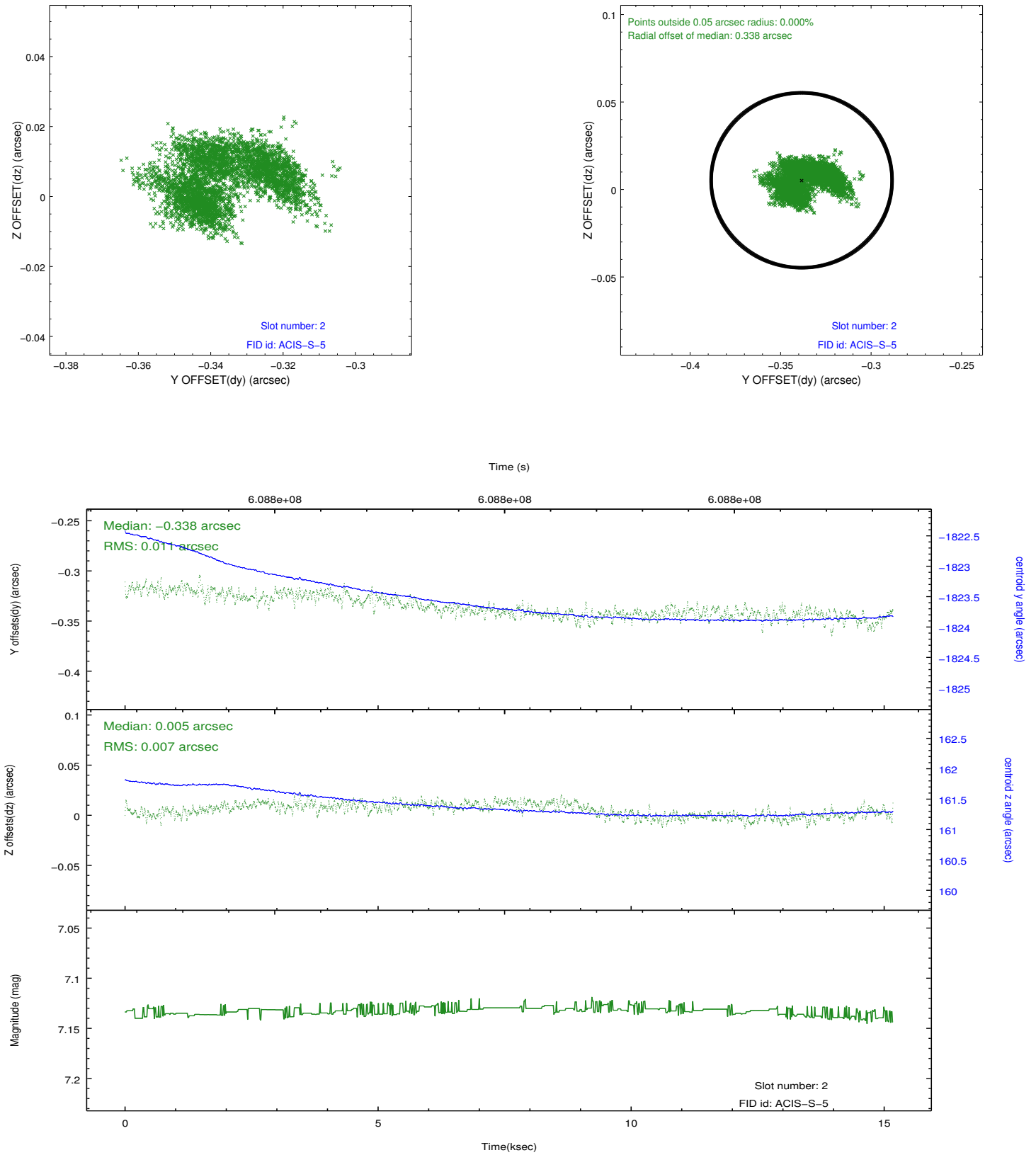
2.5.1 Slot 0



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 5 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.