

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9848 - L2 Version 3
Chandra X-Ray Center

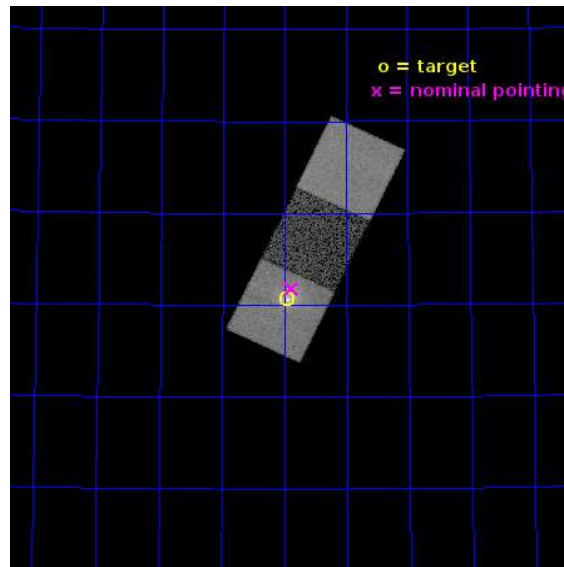
L2 Processing Date : Jul 20 2015

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

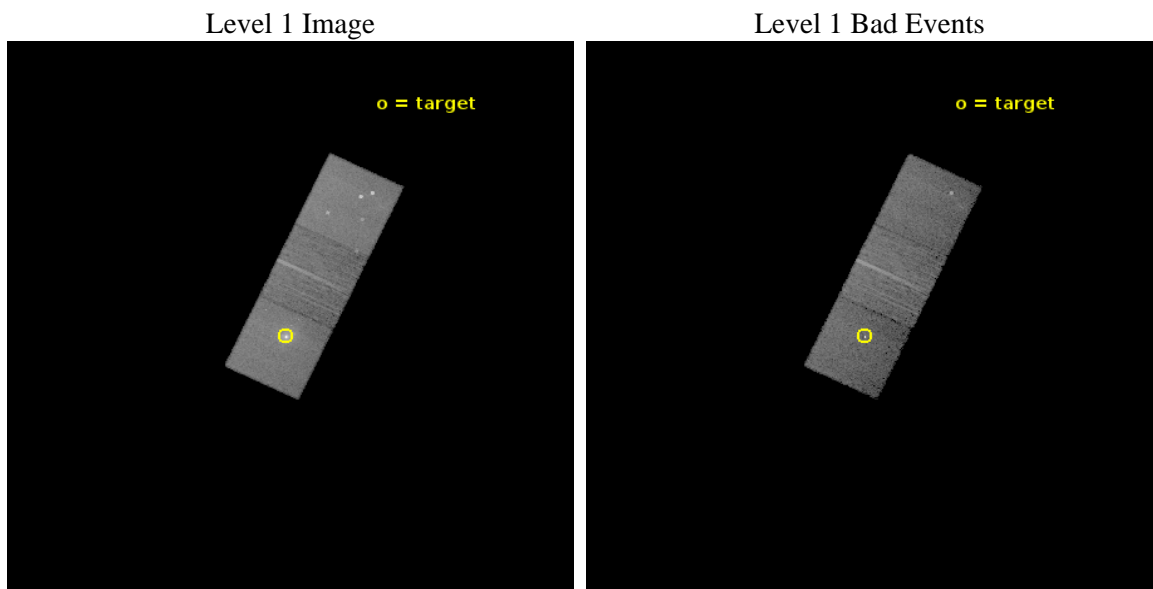
seq_num	800735	Sequence number
obs_id	9848	Observation id
title	The X-ray Luminous Cluster underlying the Radio-Quiet Quasar H1821+643	Proposal title
observer	Professor Andrew Fabian	Principal investigator
object	H1821+643	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	275.489167	Observer's specified target RA [deg]
dec_targ	64.343611	Observer's specified target Dec [deg]
ra_nom	275.47200547461	Nominal RA [deg]
dec_nom	64.363098852338	Nominal Dec [deg]
roll_nom	115.37212519413	Nominal Roll [deg]
revision	3	Processing version of data
ontime	11125.475046396	Sum of GTIs [s]
livetime	10980.11252446	Livetime [s]
ontime5	11125.475046396	Sum of GTIs [s]
ontime6	11125.475046396	Sum of GTIs [s]
ontime7	11125.475046396	Sum of GTIs [s]
l2events	130353	Number of level 2 events



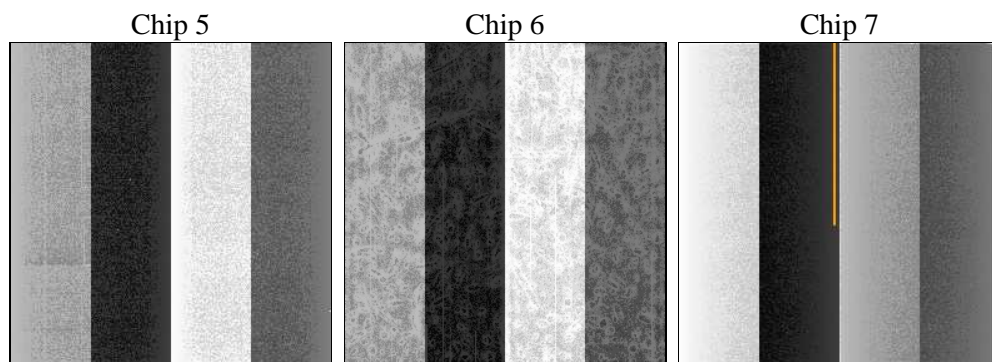
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	11125.475046396	Sum of GTIs [s]
caldsver	4.6.8	 	ontime5	11125.475046396	Sum of GTIs [s]
date	2015-07-20T16:44:29	Date and time of file creation	ontime6	11125.475046396	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	11125.475046396	Sum of GTIs [s]
			l1events	361312	Number of level 1 events

2.1.4 Events

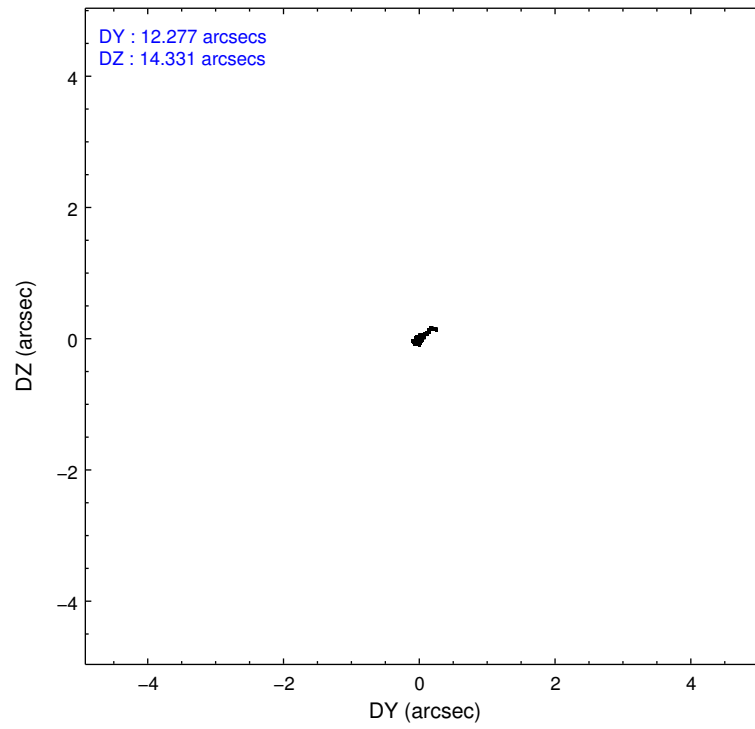
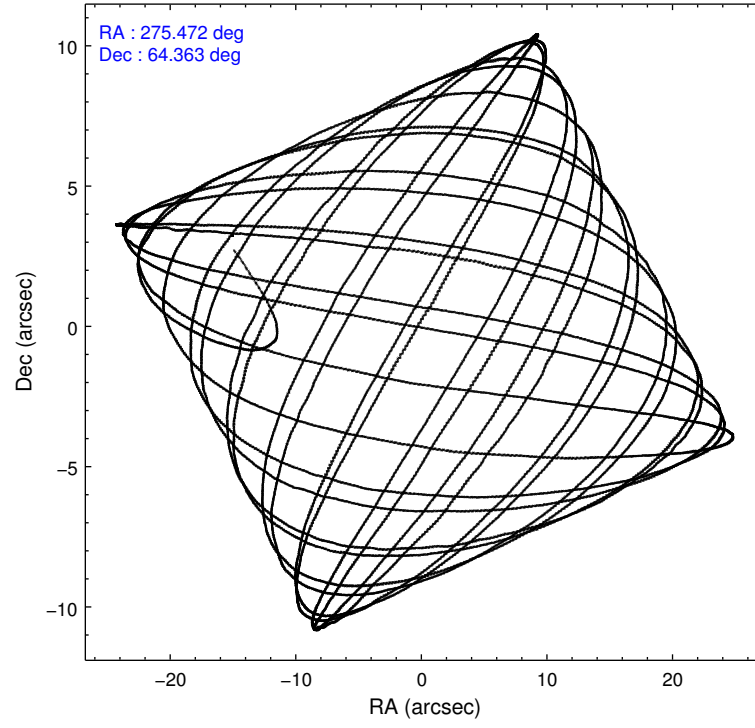
	ccd 5	ccd 6	ccd 7
level 1 events	138544	95082	127686
rejected events	71090	85445	63487
rejected %	51%	89%	49%

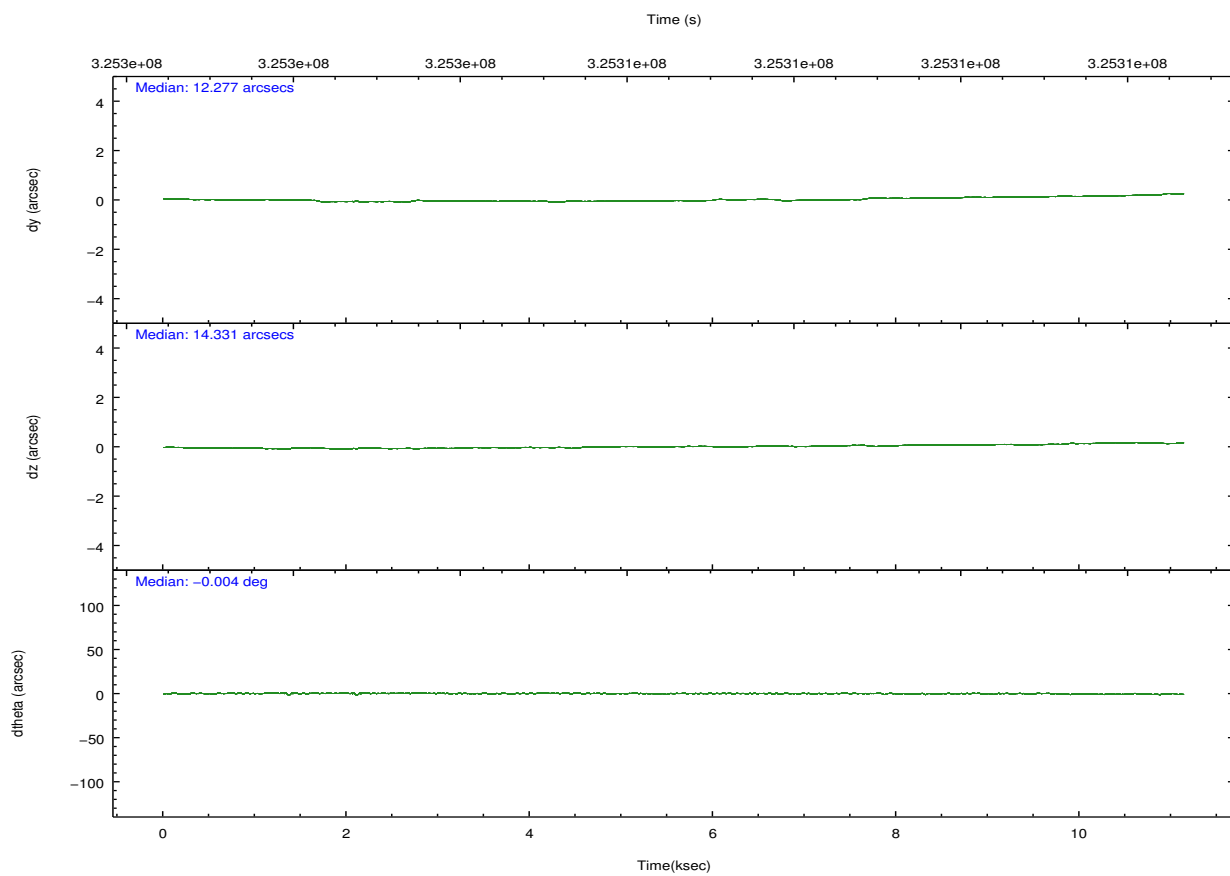
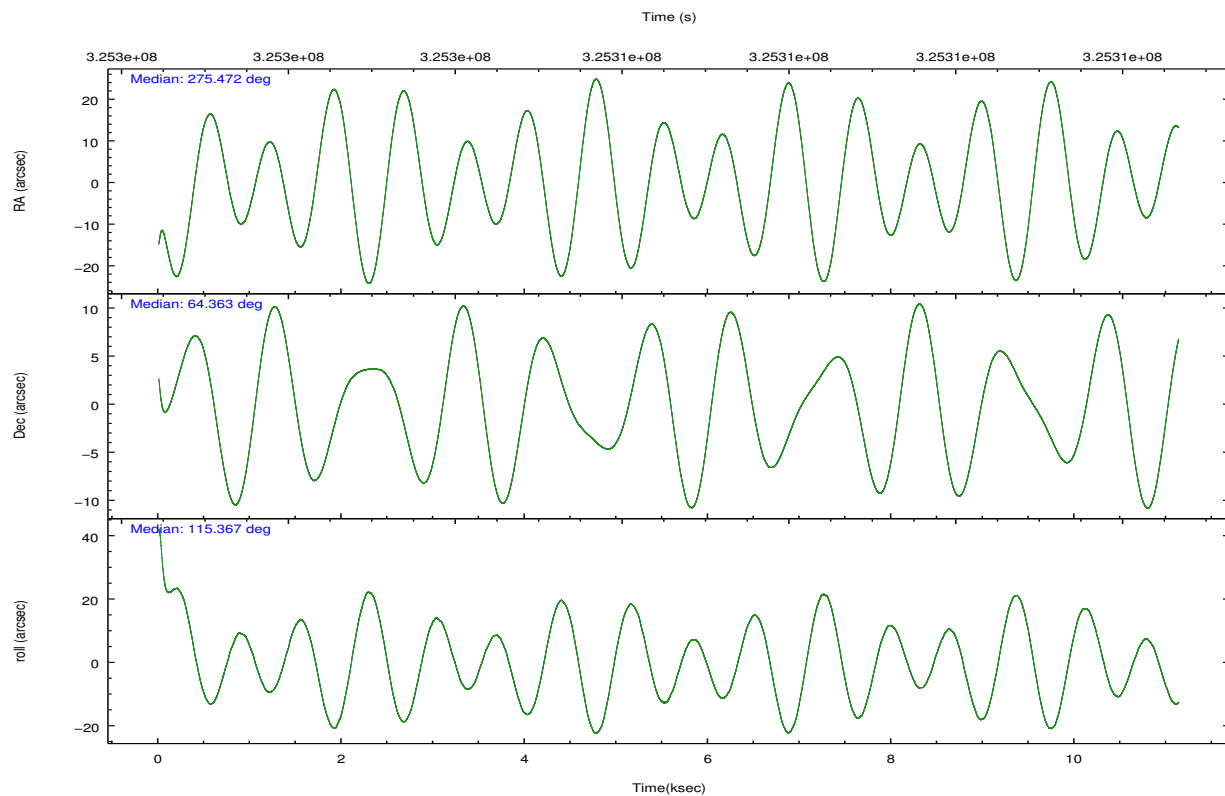
	ccd 5	ccd 6	ccd 7
grade 0 events	10012	3752	10074
	7%	3%	7%
grade 1 events	299	42	252
	0%	0%	0%
grade 2 events	21270	2287	14549
	15%	2%	11%
grade 3 events	2763	1053	6662
	1%	1%	5%
grade 4 events	2690	1086	6445
	1%	1%	5%
grade 5 events	10395	3951	11696
	7%	4%	9%
grade 6 events	34519	2102	29457
	24%	2%	23%
grade 7 events	56596	80809	48551
	40%	84%	38%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-567	ACIS-567	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	275.524529	275.4720054746147	Subarray requested	NONE	NONE
[deg] Pointing Dec	64.347863	64.36309885233835	Alternating exposures requested	N	N
[deg] Pointing Roll	115.168123	115.3721251941307	[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)	325301136.184000	325299976.3898			
Observation start date	2008-04-23T01:24:31	2008-04-23T01:06:16			
[s] Observation end time (MET)	325312136.184000	325312888.82793			
Observation end date	2008-04-23T04:27:51	2008-04-23T04:41:28			
Read mode	TIMED	TIMED			

2.3 Aspect



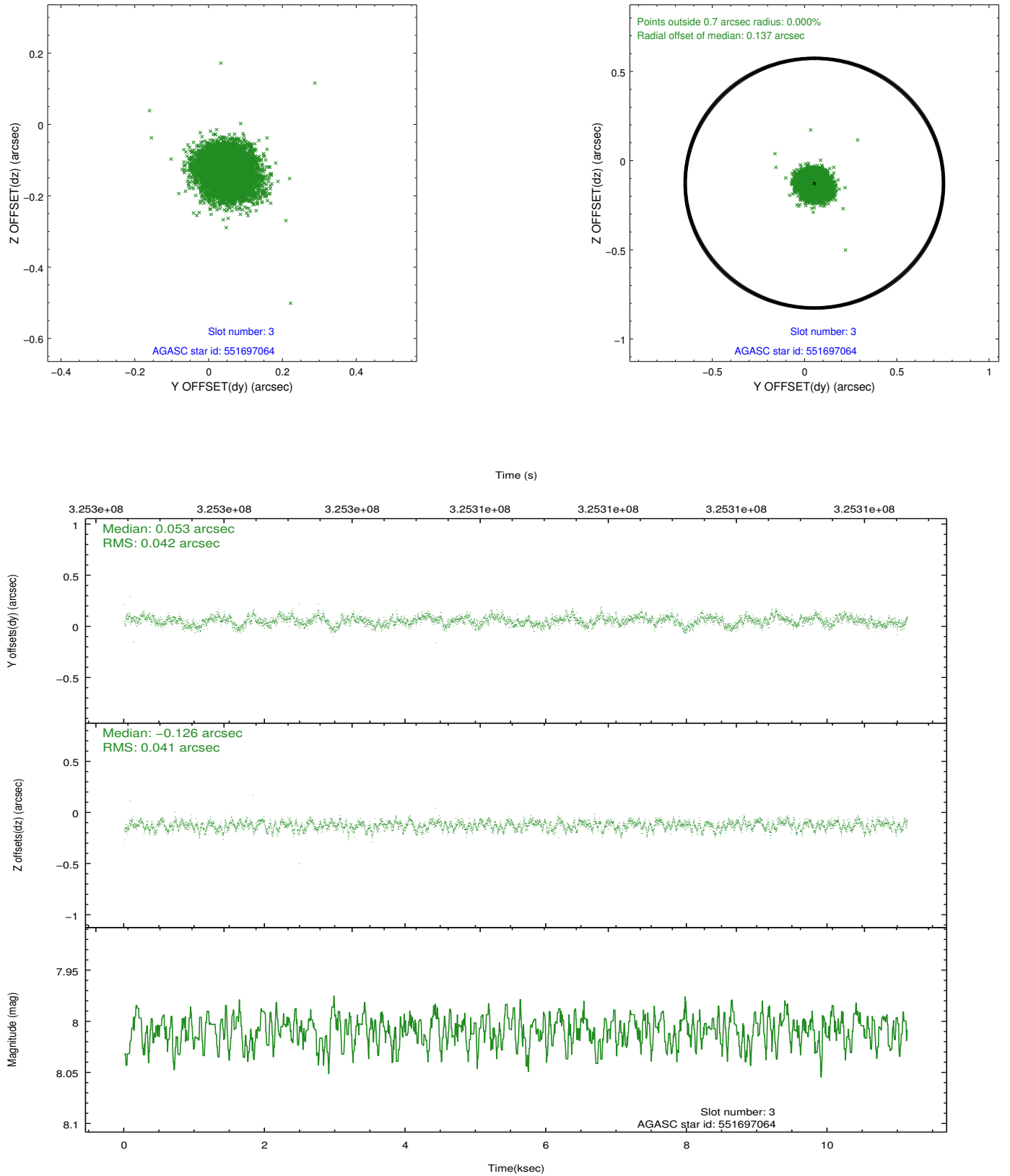


Slot Statistics

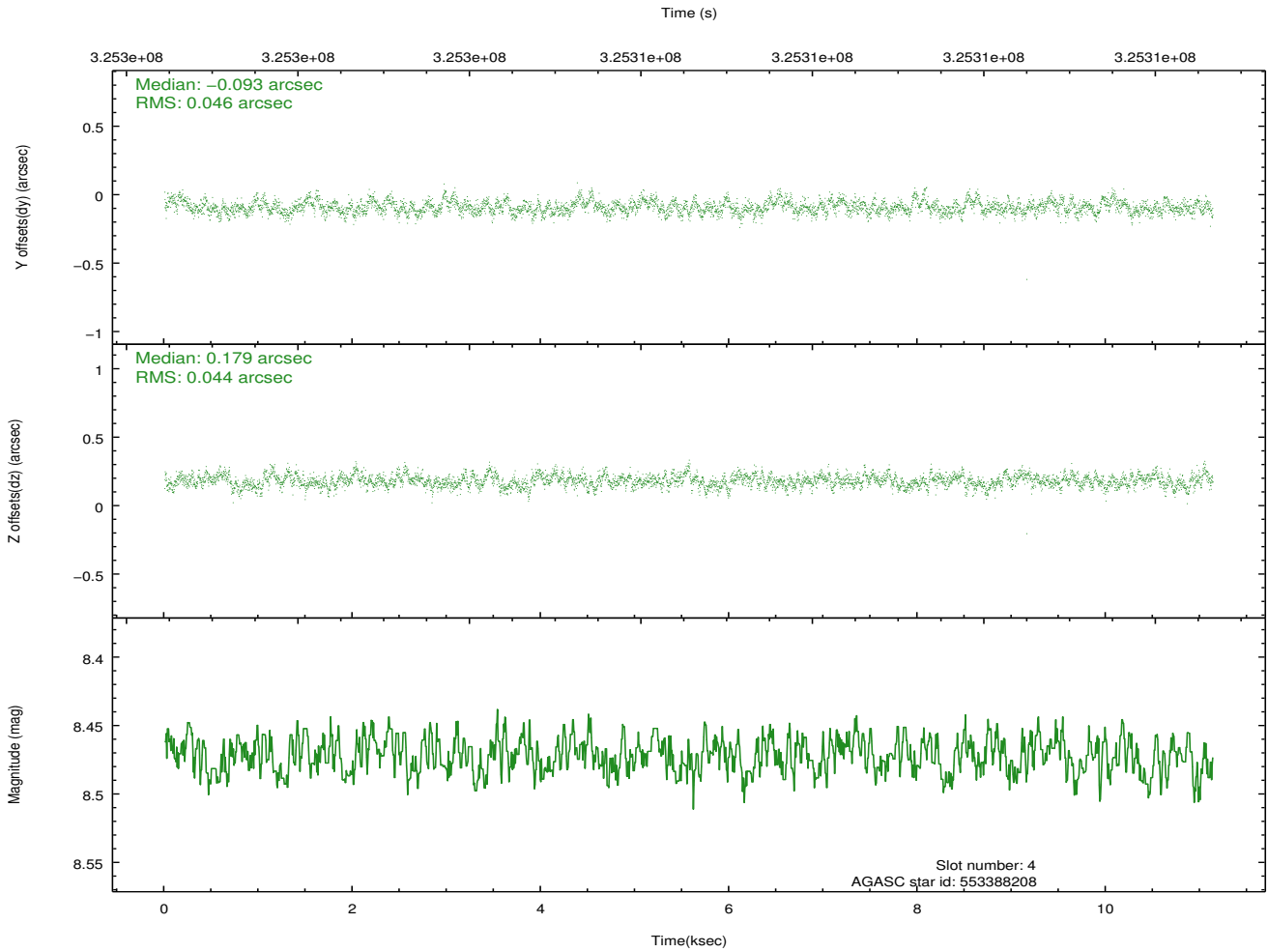
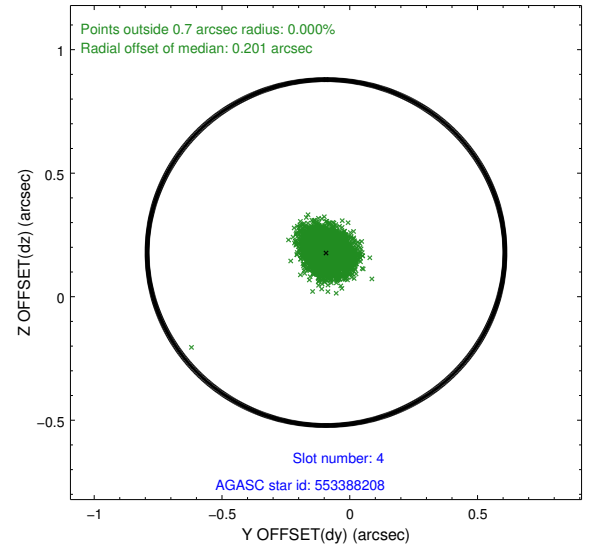
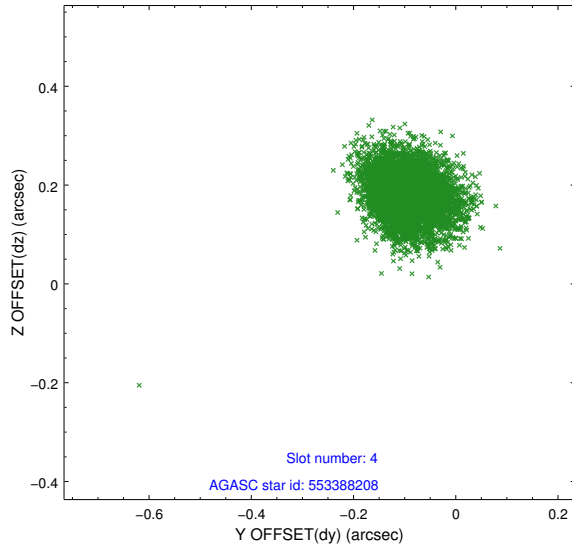
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.82	2715	-0.039	-0.004	0.007	0.011	0.000000	0.000000	-765.22	-1735.71
1	FID		ACIS-S-4	6.91	2715	0.109	0.020	0.007	0.014	0.000000	0.000000	2147.98	172.34
2	FID		ACIS-S-5	6.94	2715	-0.102	-0.007	0.007	0.012	0.000000	0.000000	-1817.55	166.47
3	GUIDE	used	551697064	8.01	5427	0.053	-0.126	0.062	0.097	274.138245	64.538359	1554.45	1640.14
4	GUIDE	used	553388208	8.47	5430	-0.093	0.179	0.067	0.109	276.332157	64.911426	1319.72	-1981.50
5	GUIDE	used	553396016	6.85	5431	-0.094	0.163	0.056	0.092	276.292154	64.838422	1106.27	-1817.61
6	GUIDE	used	553402720	7.31	5431	0.008	-0.173	0.061	0.097	275.081751	64.202988	-174.42	848.13
7	GUIDE	used	553404184	8.64	5425	0.119	-0.042	0.057	0.091	276.556964	64.060570	-1615.05	-1037.15

2.4 Star Slots

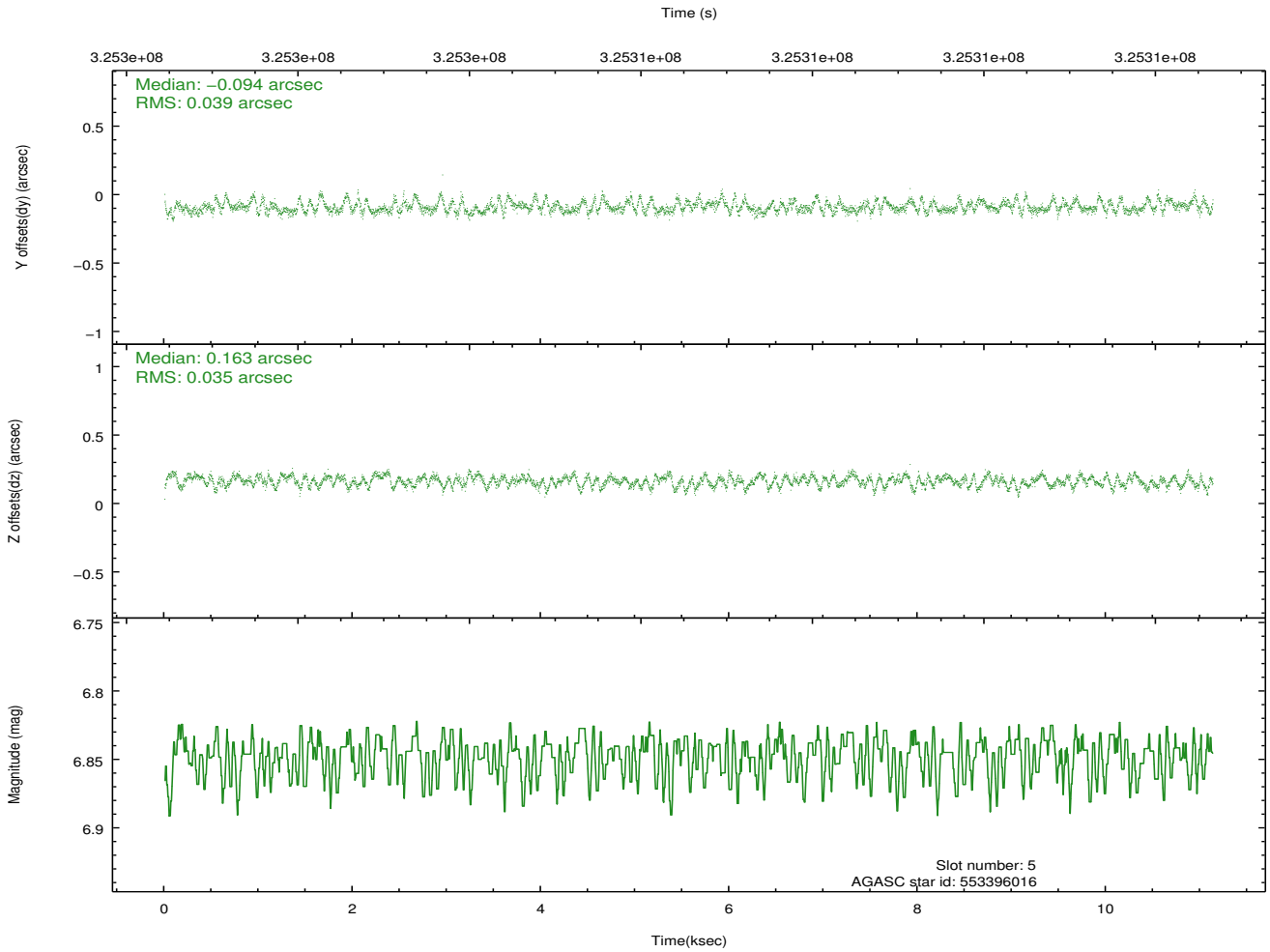
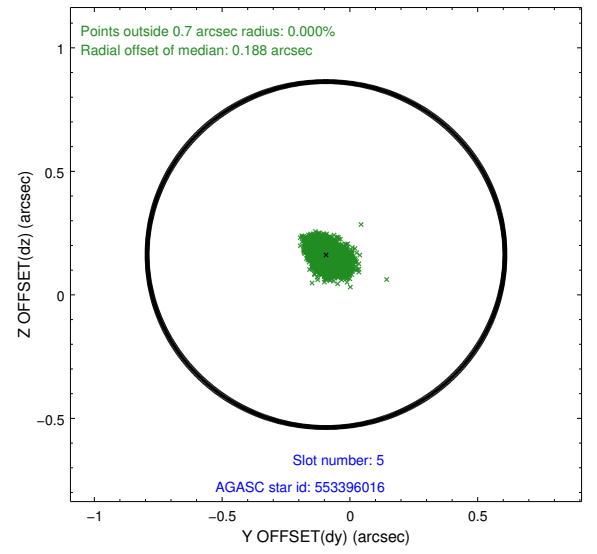
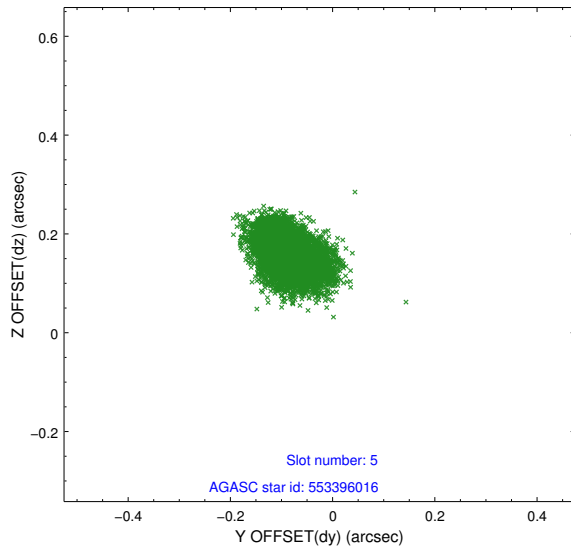
2.4.1 Slot 3



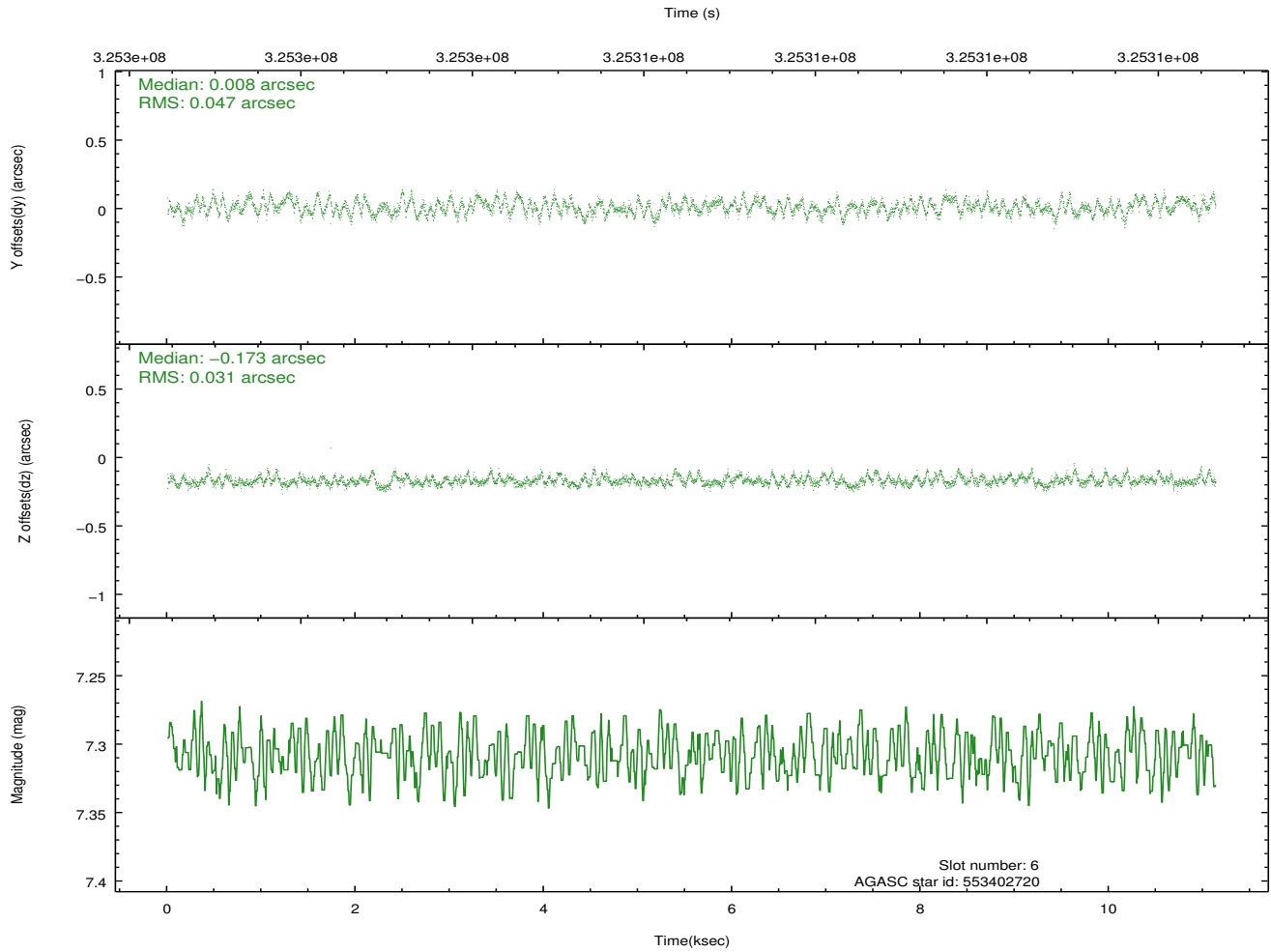
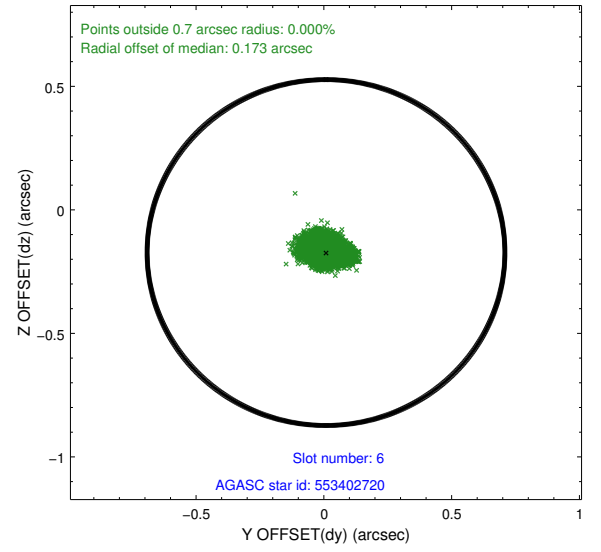
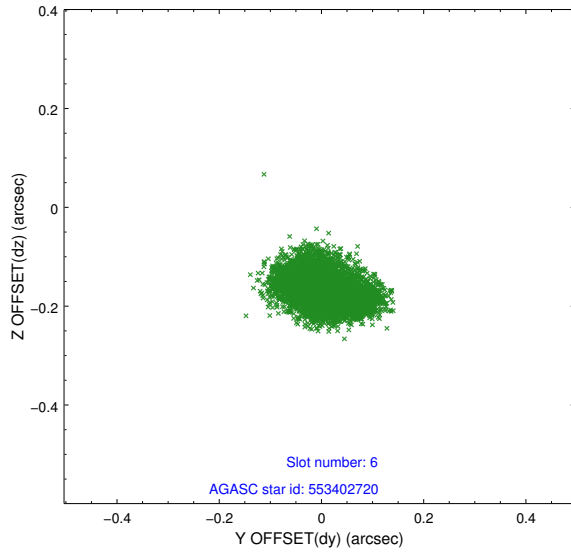
2.4.2 Slot 4



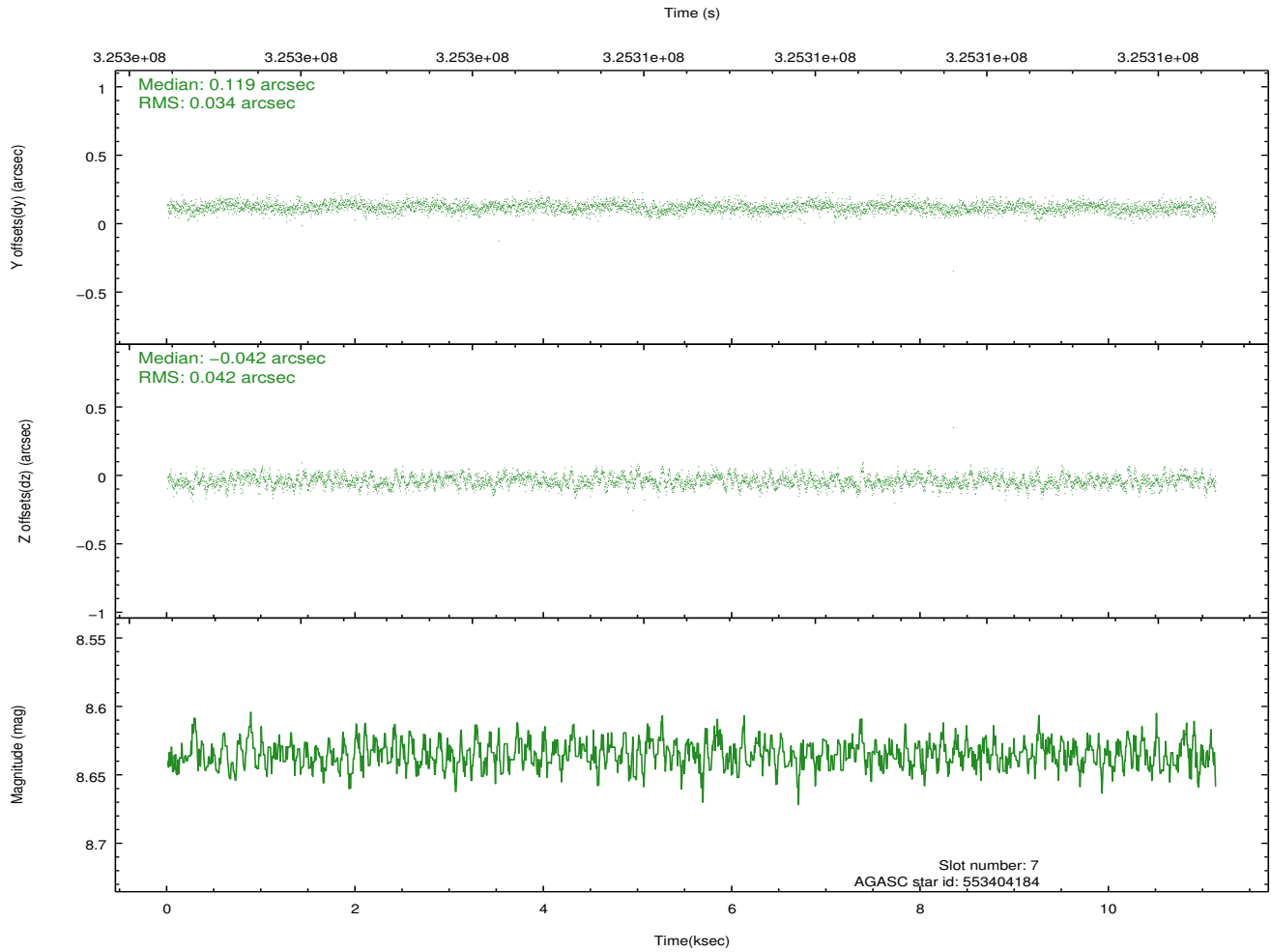
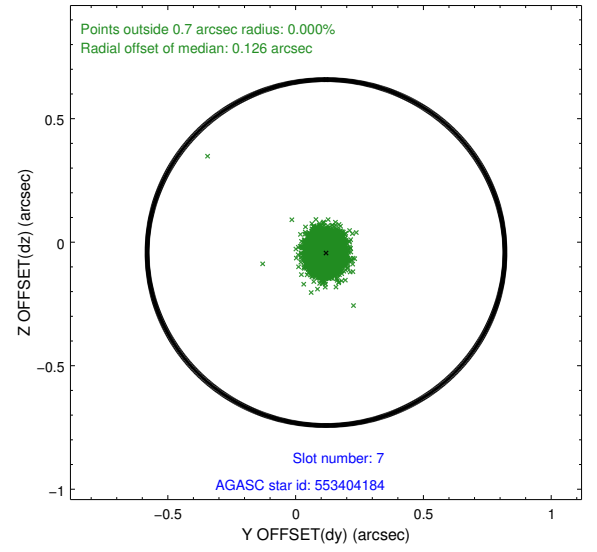
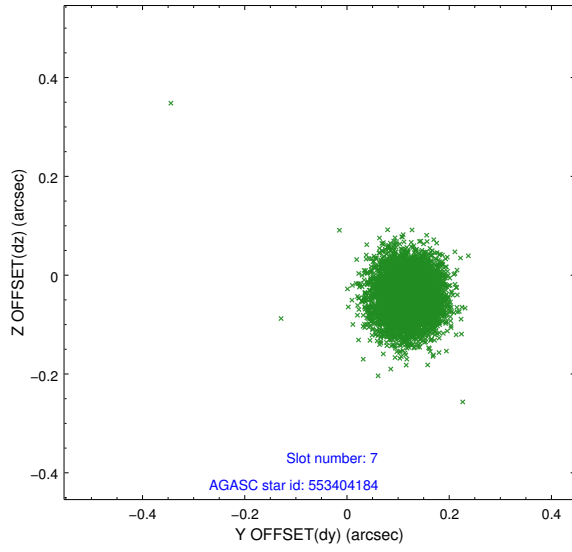
2.4.3 Slot 5



2.4.4 Slot 6

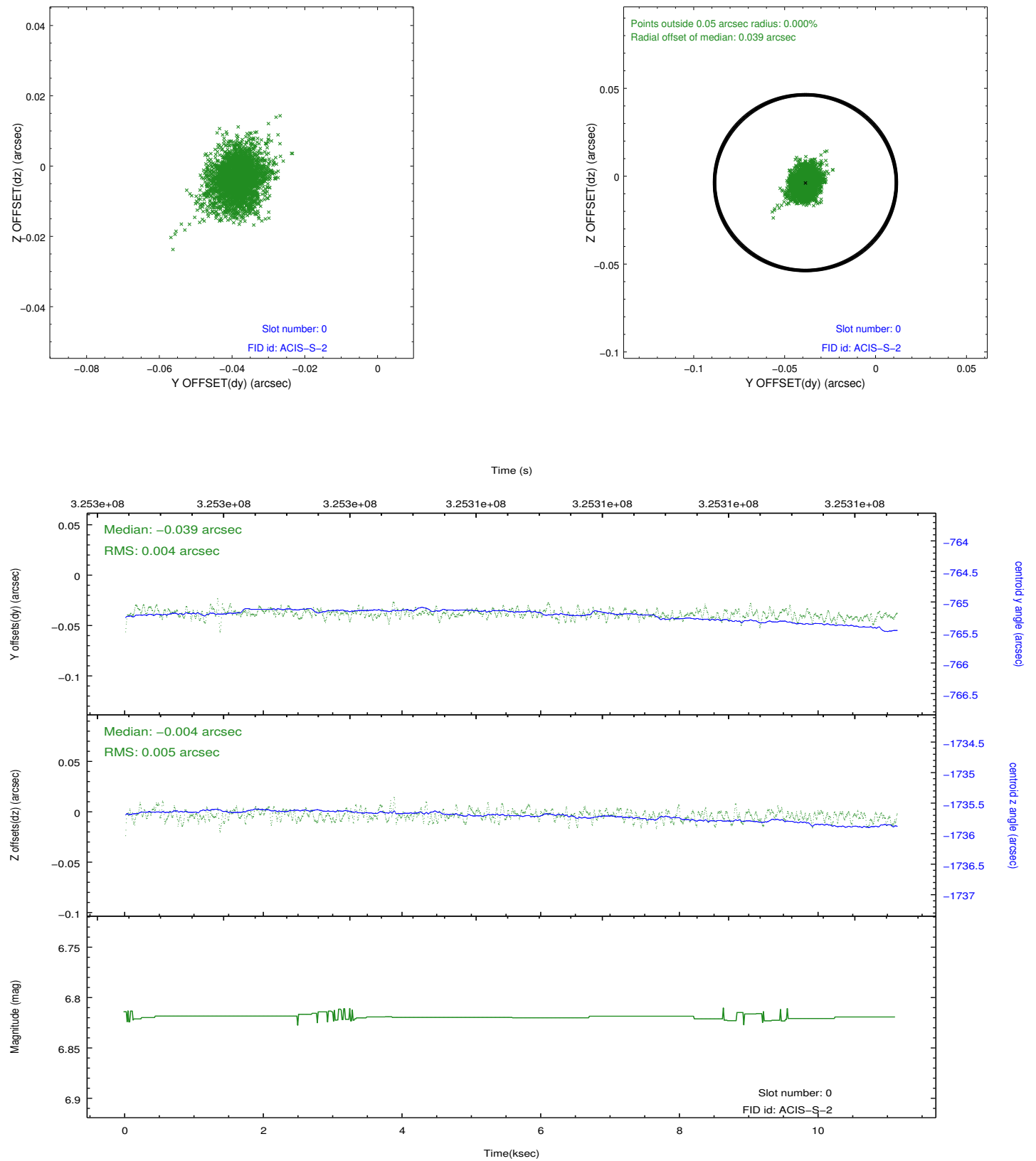


2.4.5 Slot 7

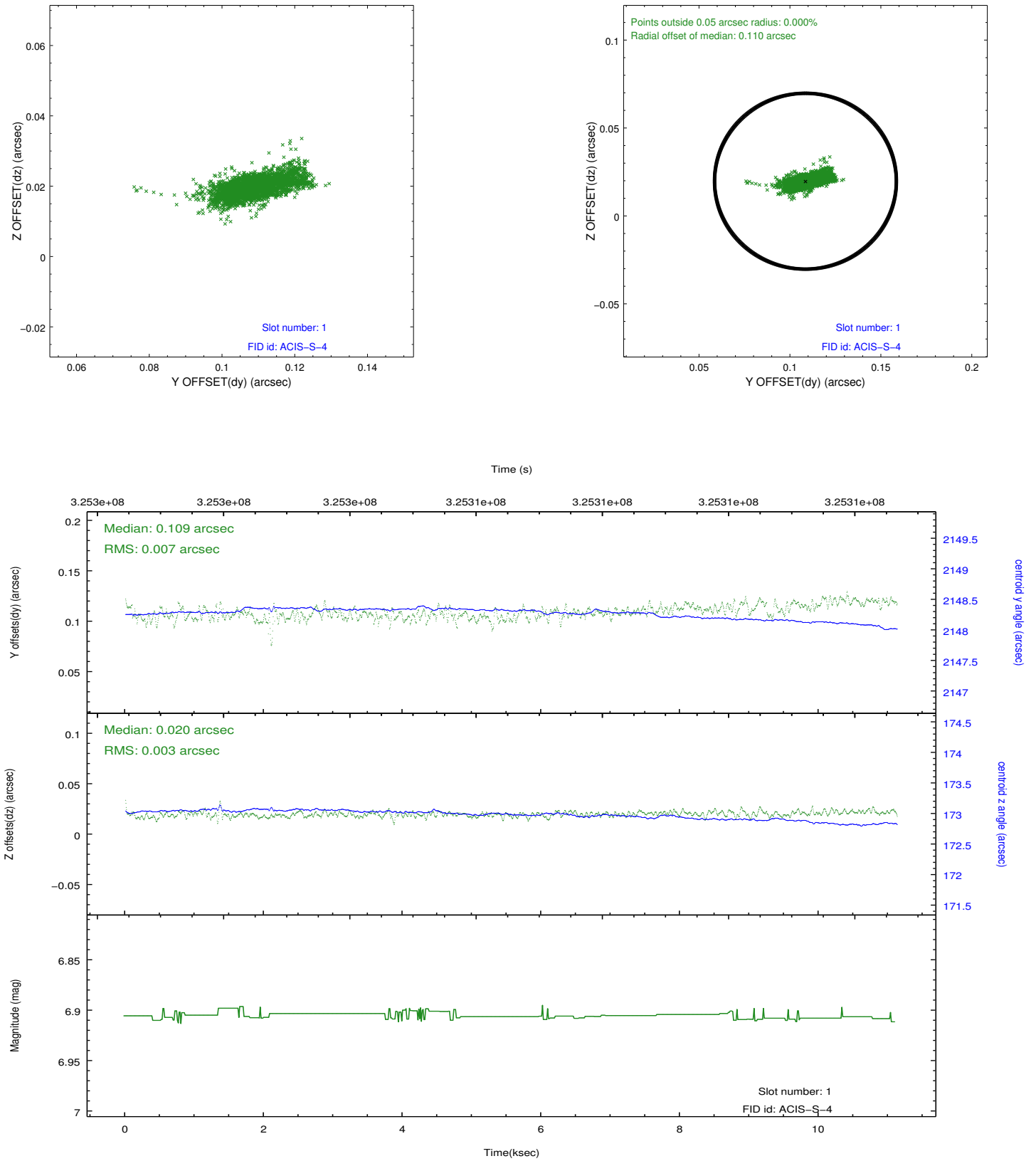


2.5 FID Slots

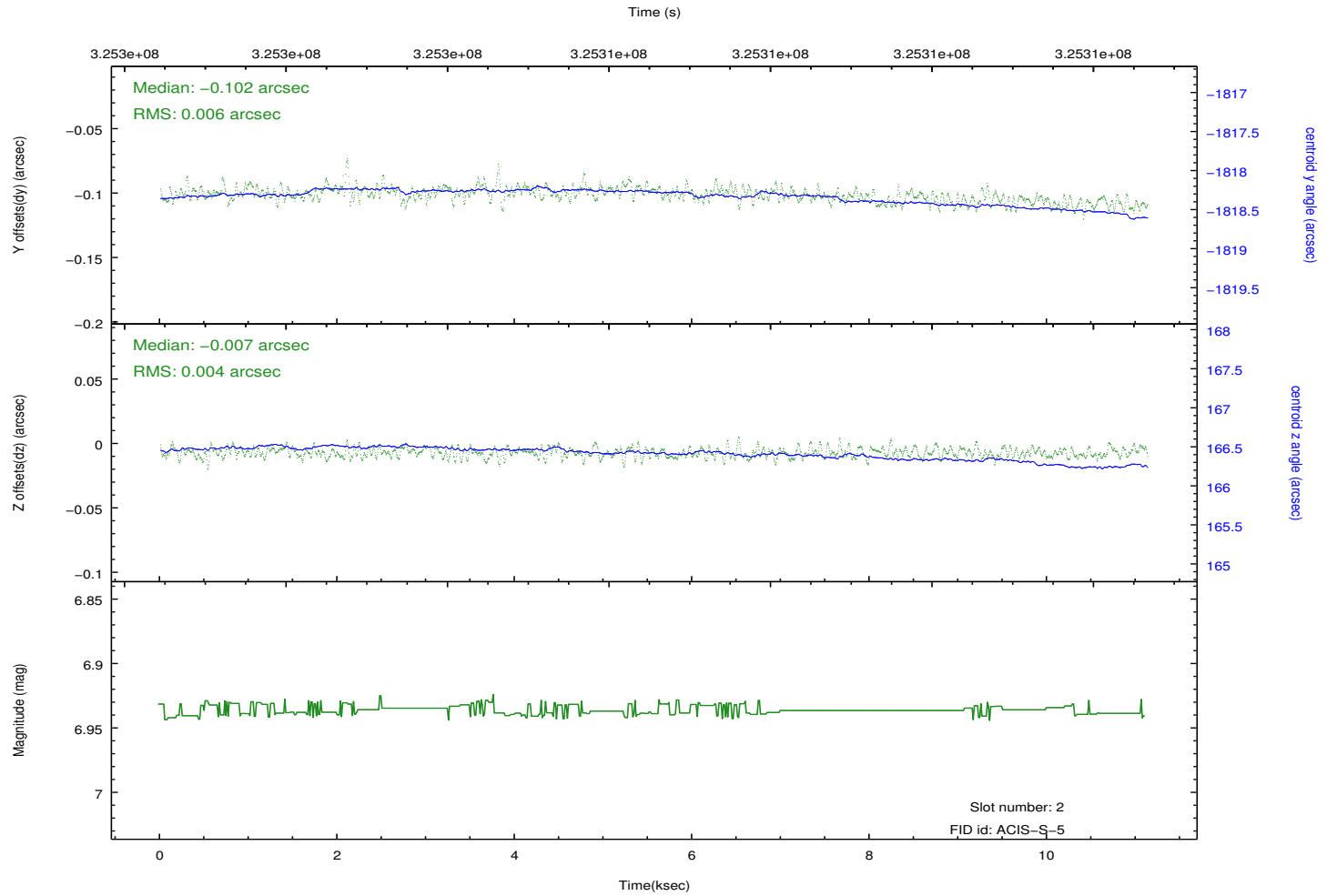
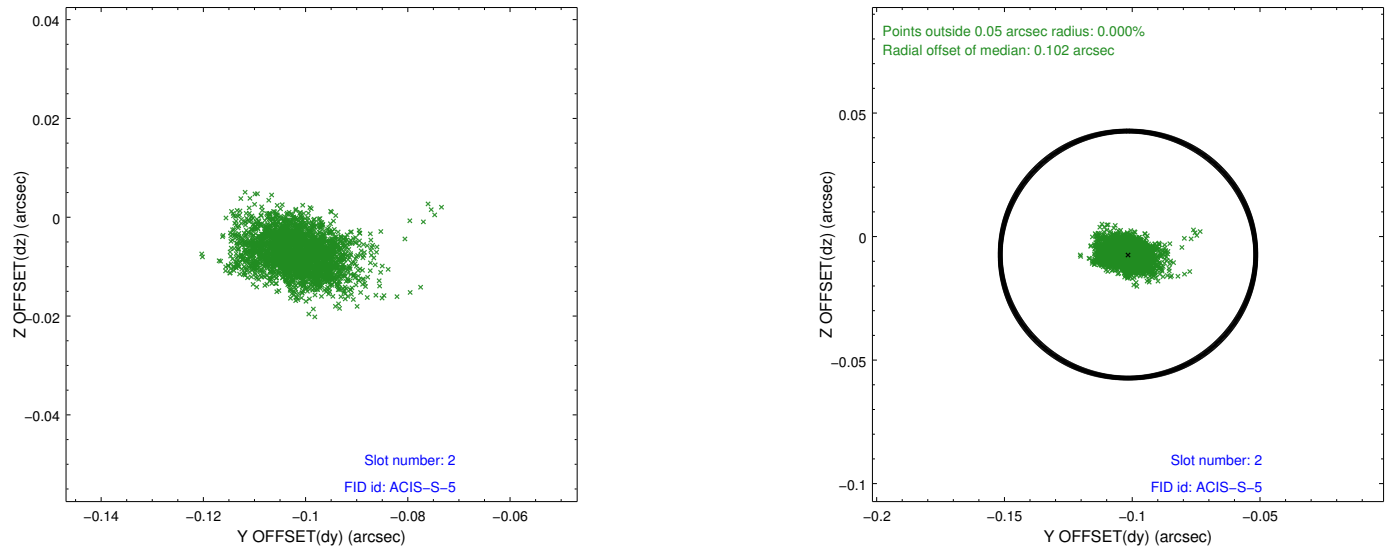
2.5.1 Slot 0



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)	2015.07.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.1259

A.2 Comments

Because an aspect solution is determined in a finite time interval, a small number of events registered within the delta time before the first aspect solution do not have proper sky coordinates. We apply a manual workaround to exclude those events with incorrect sky positions until the complete s/w resolution is obtained.