

V&V Reference Report

L2 ASCDS Version : 10.4.1

Observation 17703 - L2 Version 2
Chandra X-Ray Center

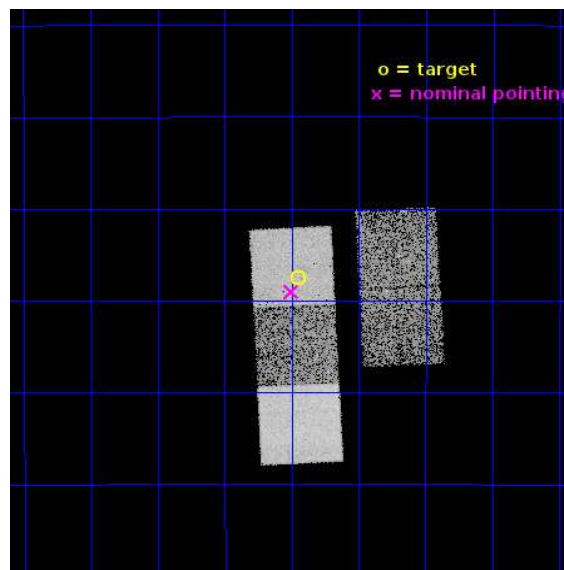
L2 Processing Date : Jul 27 2015

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1 Front

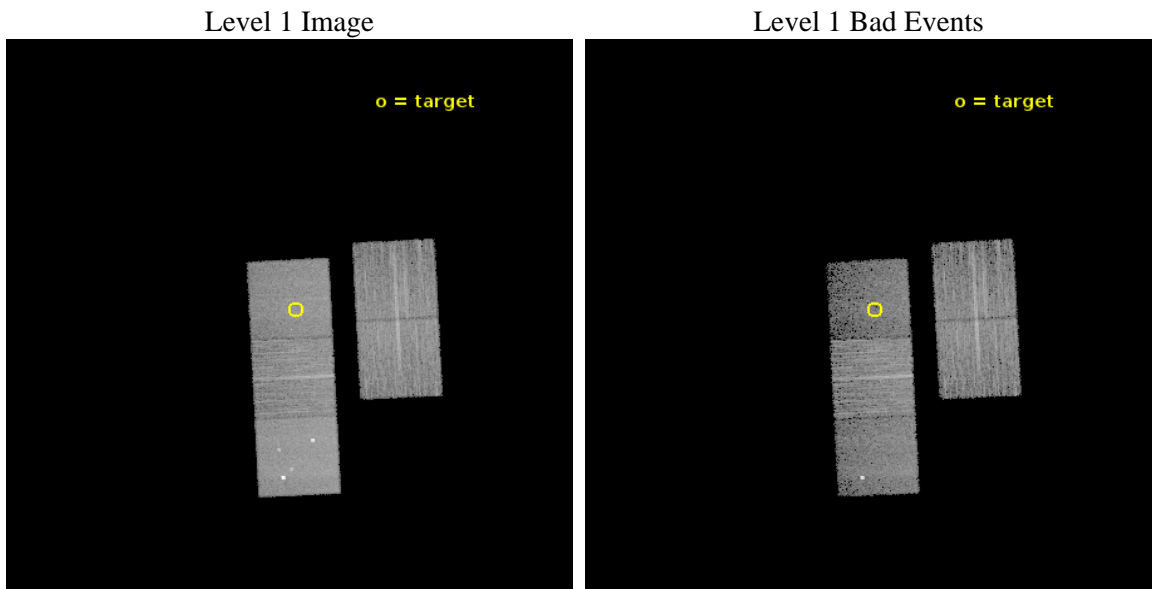
seq_num	100155	Sequence number
obs_id	17703	Observation id
title	Chandra Observations of Pluto's Escaping Atmosphere in Support of the New Horizons Encounter with Pluto	Proposal title
observer	Dr. Ralph McNutt, Jr.	Principal investigator
object	Pluto (134340)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	284.4869	Observer's specified target RA [deg]
dec_targ	-20.793	Observer's specified target Dec [deg]
ra_nom	284.50069195678	Nominal RA [deg]
dec_nom	-20.817271606442	Nominal Dec [deg]
roll_nom	267.15786651623	Nominal Roll [deg]
revision	2	Processing version of data
ontime	14088.740570307	Sum of GTIs [s]
livetime	13904.660802776	Livetime [s]
ontime2	14088.576410294	Sum of GTIs [s]
ontime3	14088.617450356	Sum of GTIs [s]
ontime5	14088.699530363	Sum of GTIs [s]
ontime6	14085.517500043	Sum of GTIs [s]
ontime7	14088.740570307	Sum of GTIs [s]
l2events	91113	Number of level 2 events



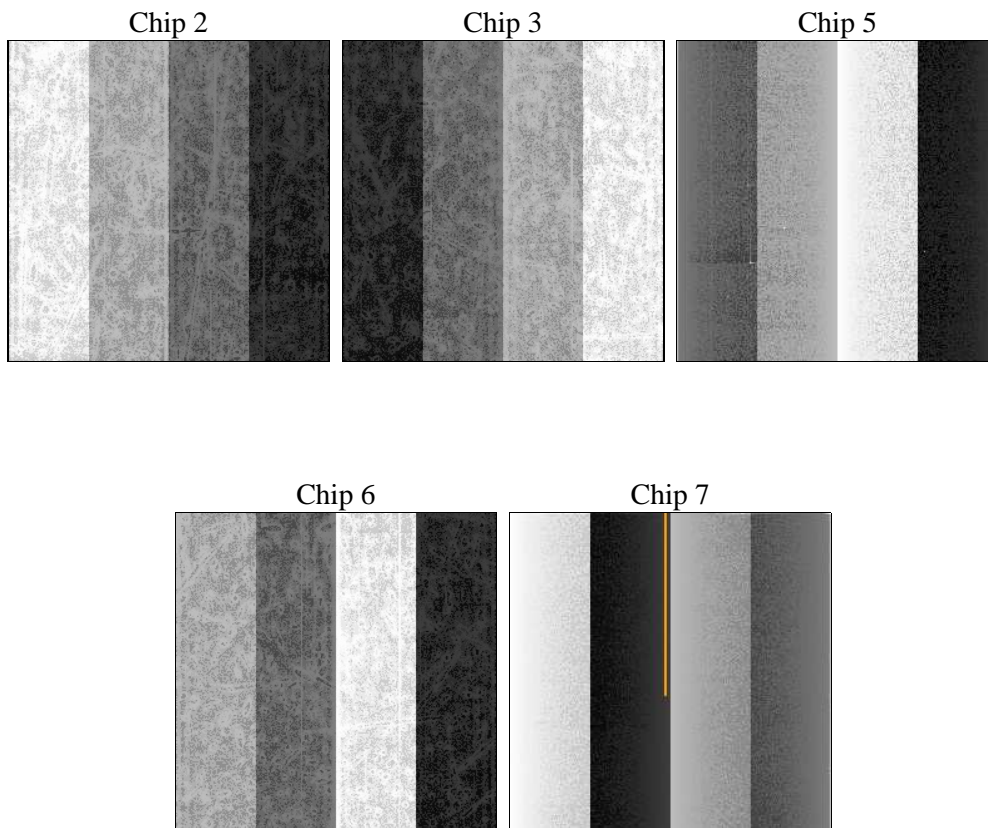
2 OBI

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	10.4.1	Processing system revision	ontime	14088.740570307	Sum of GTIs [s]
caldbver	4.6.8	 	ontime2	14088.576410294	Sum of GTIs [s]
date	2015-07-28T01:31:14	Date and time of file creation	ontime3	14088.617450356	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	14088.699530363	Sum of GTIs [s]
			ontime6	14085.517500043	Sum of GTIs [s]
			ontime7	14088.740570307	Sum of GTIs [s]
			l1events	333682	Number of level 1 events

2.1.4 Events

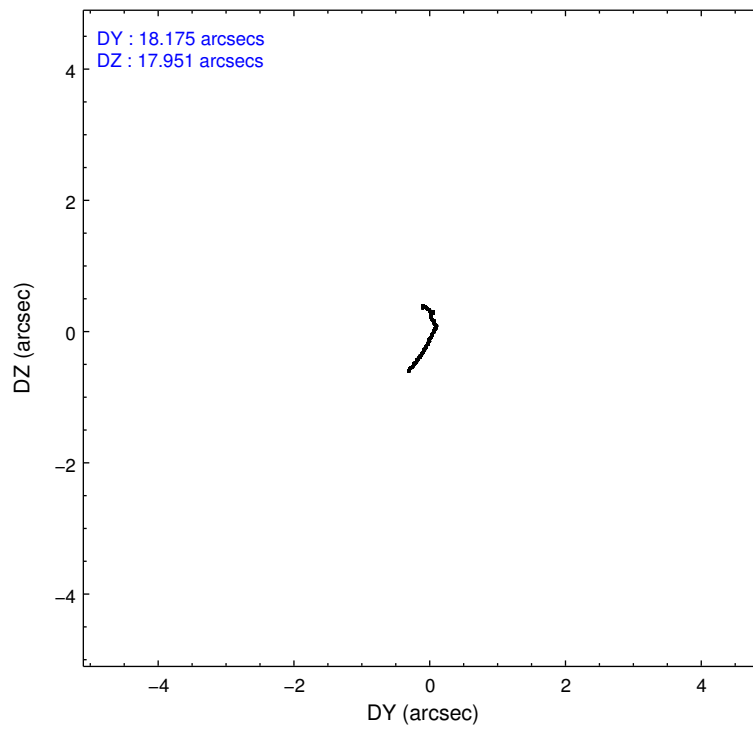
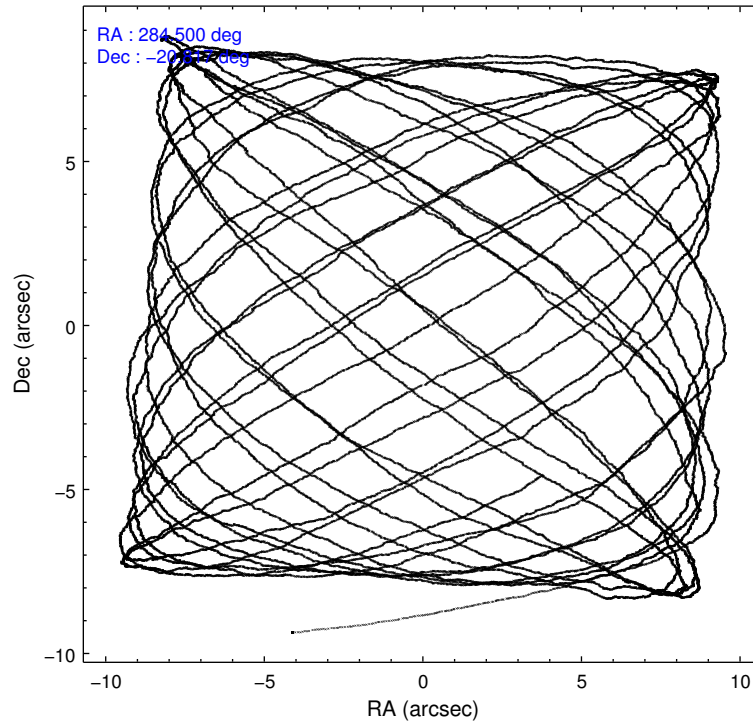
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	62166	57336	90042	63372	60766
rejected events	55243	50788	39921	55782	29760
rejected %	88%	88%	44%	88%	48%

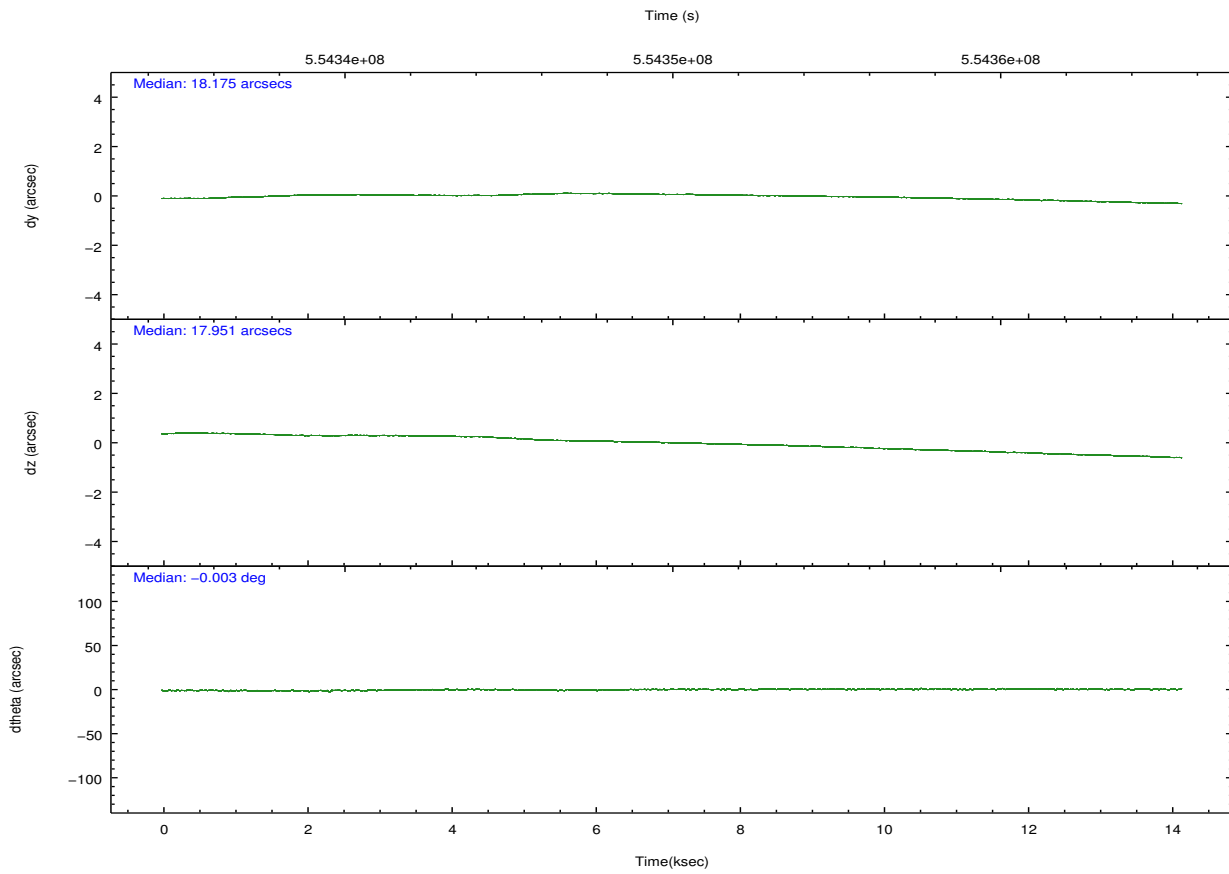
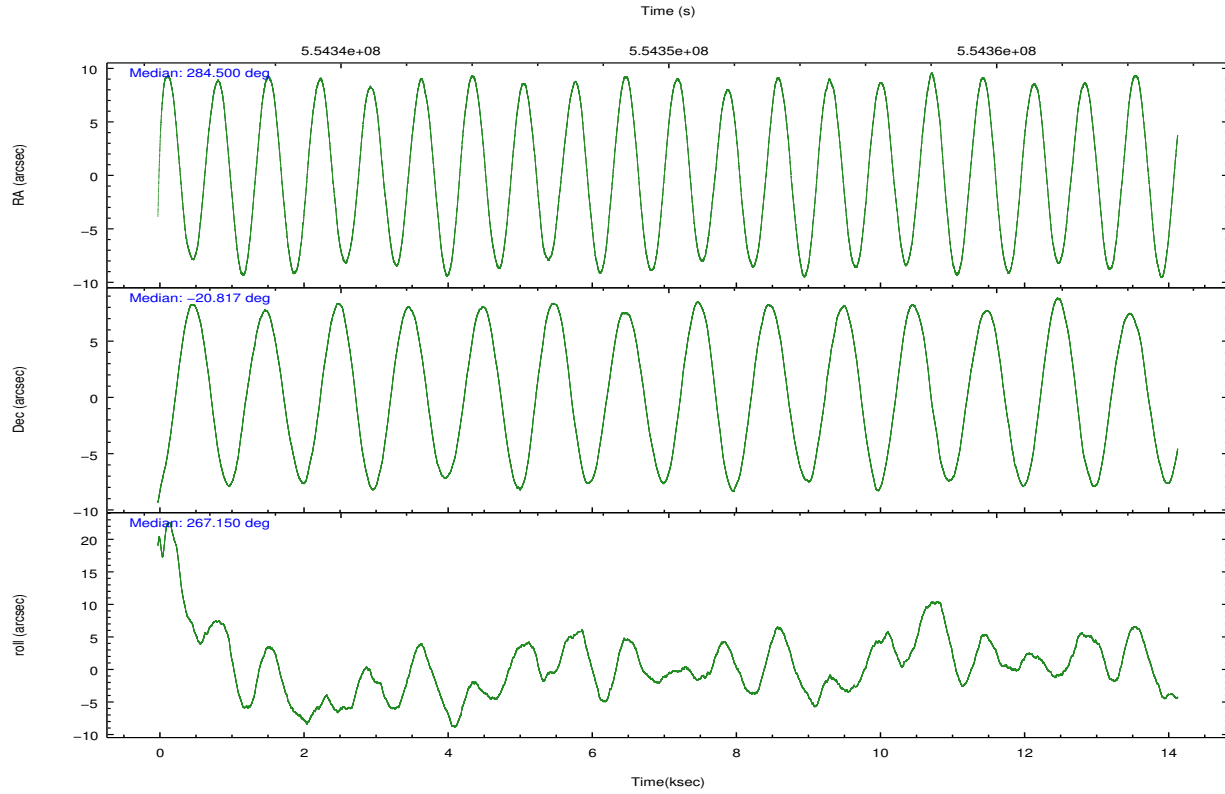
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	2689	2591	6918	2932	3478
	4%	4%	7%	4%	5%
grade 1 events	34	39	221	28	117
	0%	0%	0%	0%	0%
grade 2 events	1779	1452	16866	1744	7202
	2%	2%	18%	2%	11%
grade 3 events	650	678	1842	703	2848
	1%	1%	2%	1%	4%
grade 4 events	672	665	1652	765	2689
	1%	1%	1%	1%	4%
grade 5 events	1780	2163	6854	2297	6434
	2%	3%	7%	3%	10%
grade 6 events	1134	1164	22864	1448	14803
	1%	2%	25%	2%	24%
grade 7 events	53428	48584	32825	53455	23195
	85%	84%	36%	84%	38%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	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	284.486943	284.5006919567752	Subarray requested	NONE	NONE
[deg] Pointing Dec	-20.793004	-20.81727160644153	Alternating exposures requested	N	N
[deg] Pointing Roll	266.996340	267.1578665162269	[s] Primary exposure time	0.000000	3.1
[s] Window start time (MET)	553478468.184000	553478468.184000			
[s] Window stop time (MET)	555897668.184000	555897668.184000			
[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)	554343037.184000	554341800.81647			
Observation start date	2015-07-27T00:09:29	2015-07-26T23:50:00			
[s] Observation end time (MET)	554357037.184000	554357563.77986			
Observation end date	2015-07-27T04:02:49	2015-07-27T04:12:43			
Read mode	TIMED	TIMED			

2.3 Aspect





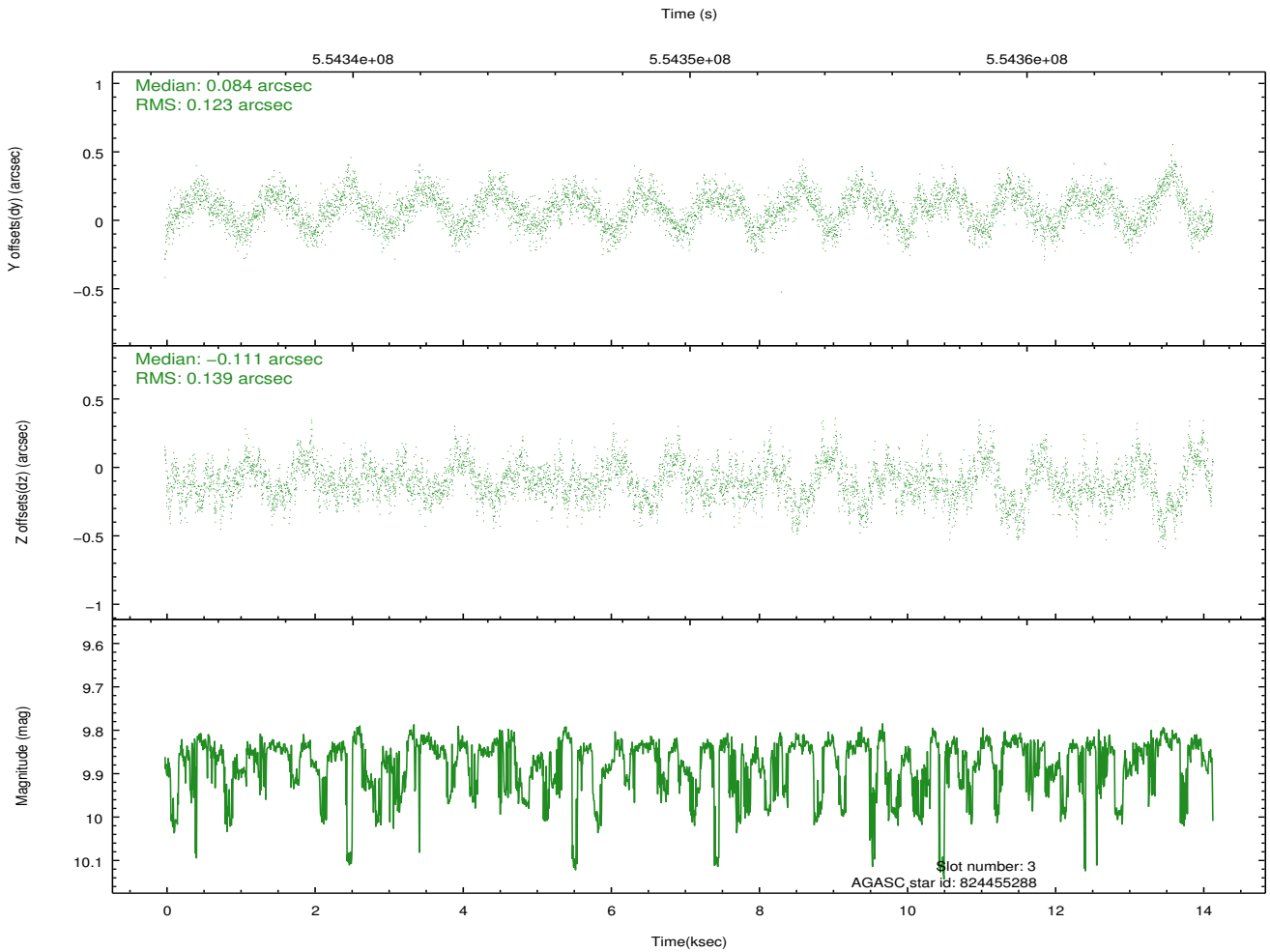
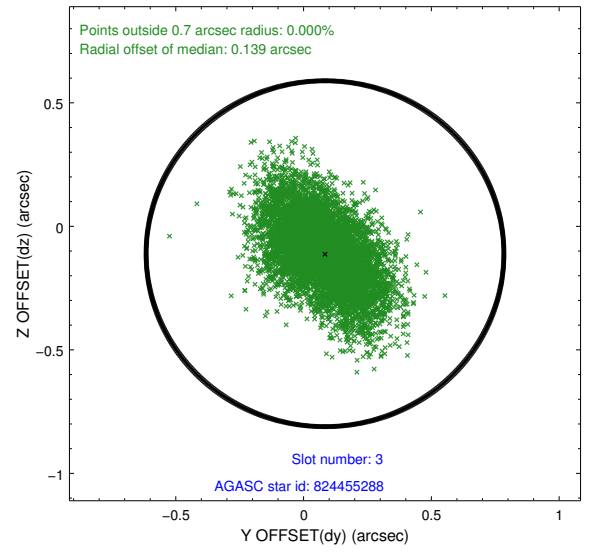
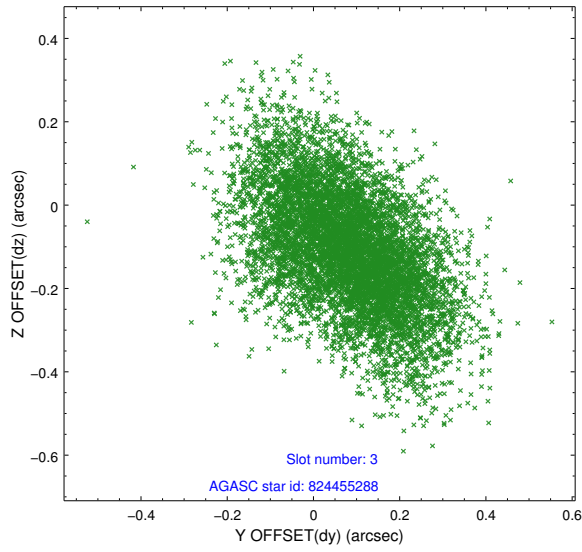
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.92	3452	-0.102	-0.079	0.009	0.015	0.000000	0.000000	-771.31	-1739.45
1	FID		ACIS-S-4	7.00	3452	0.326	0.071	0.006	0.013	0.000000	0.000000	2142.26	168.81
2	FID		ACIS-S-5	7.03	3453	-0.255	0.017	0.007	0.012	0.000000	0.000000	-1823.87	162.84
3	GUIDE	used	824455288	9.86	6882	0.084	-0.111	0.196	0.326	284.794931	-20.511833	-1064.02	984.52
4	GUIDE	used	824843280	9.16	6900	0.100	0.173	0.112	0.185	283.875586	-20.688032	-265.07	-2074.73
5	GUIDE	used	824335032	8.44	6904	0.048	0.143	0.110	0.195	283.798872	-20.256907	-1800.05	-2421.30
6	GUIDE	used	824970200	9.53	6901	-0.243	-0.210	0.131	0.210	284.845750	-21.379569	2048.87	1311.15
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

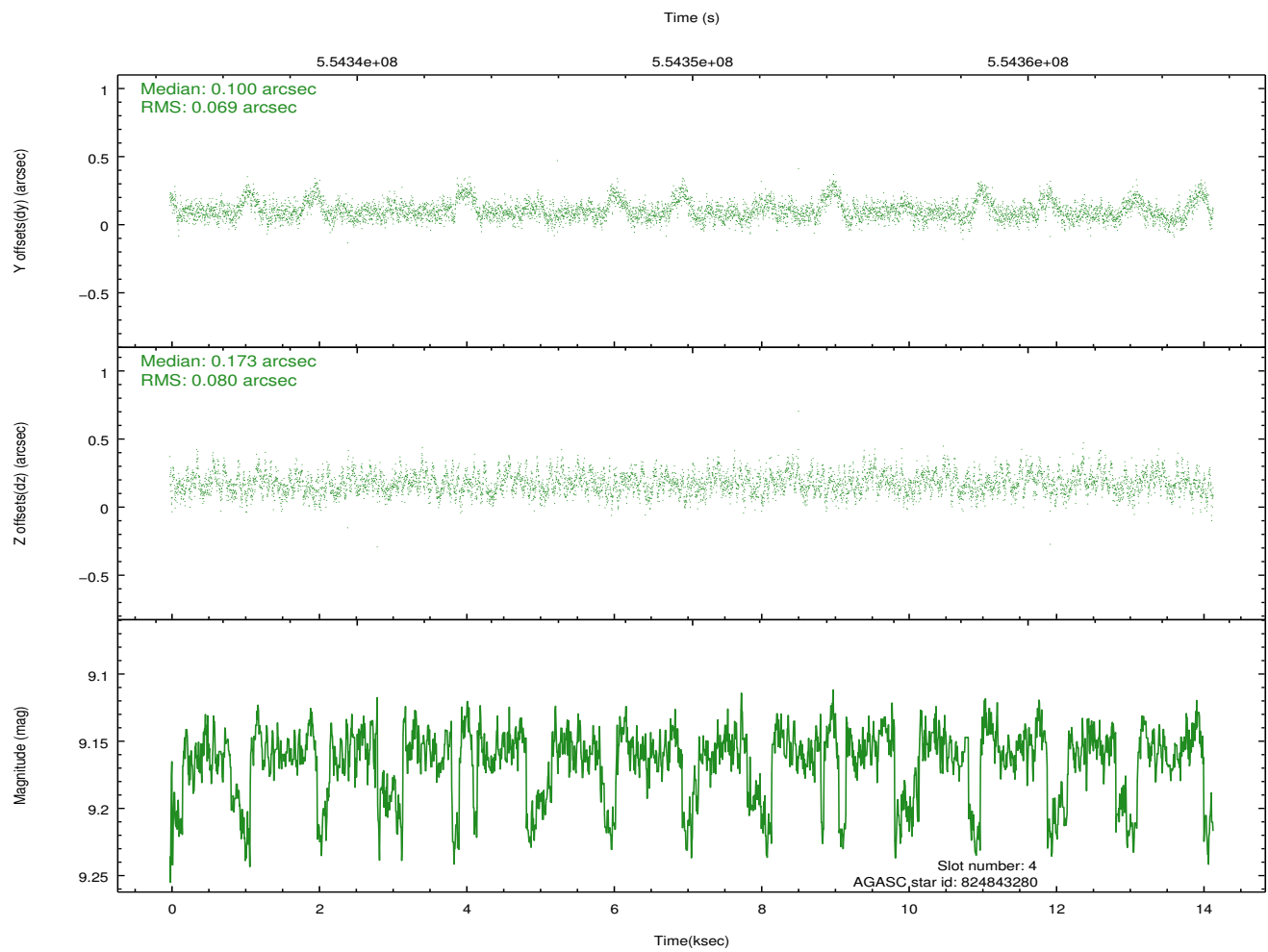
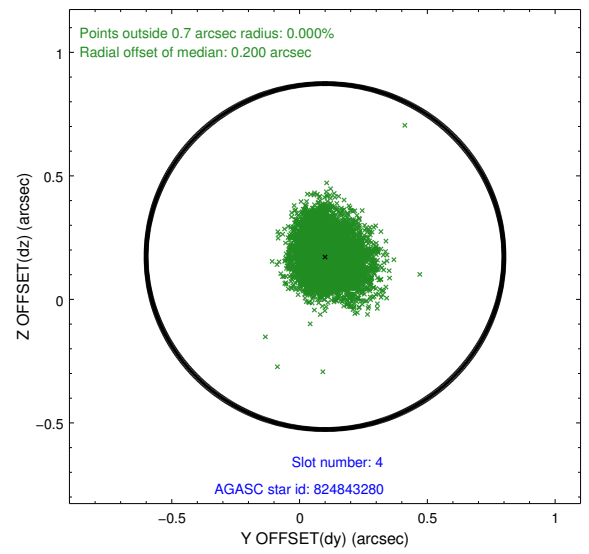
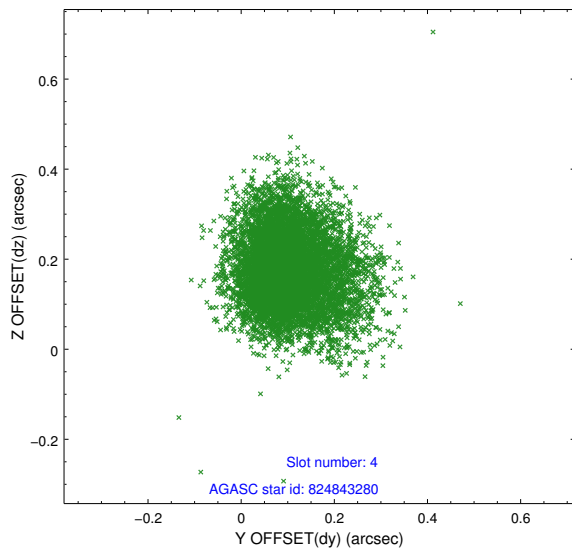
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2.4 Star Slots

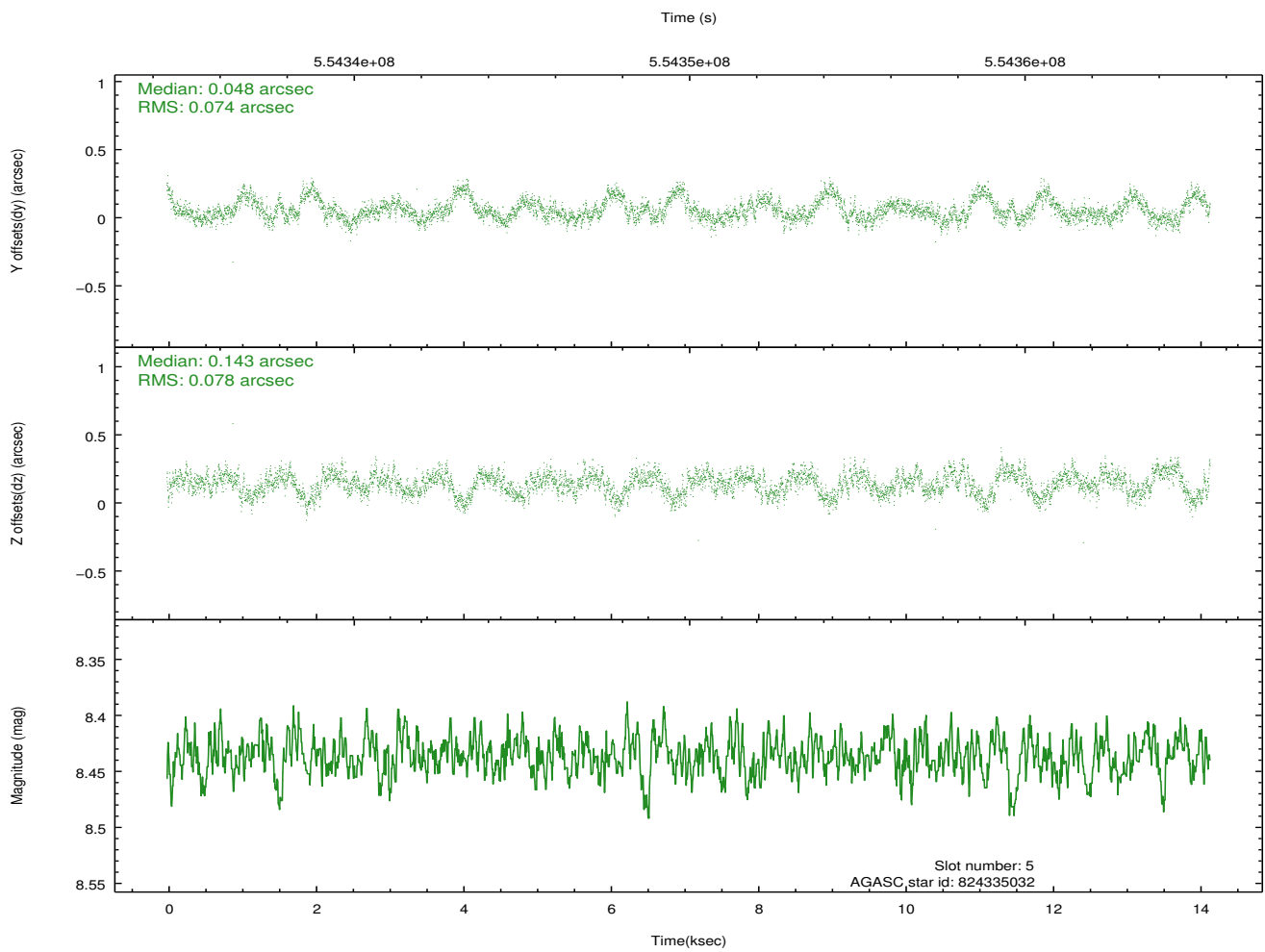
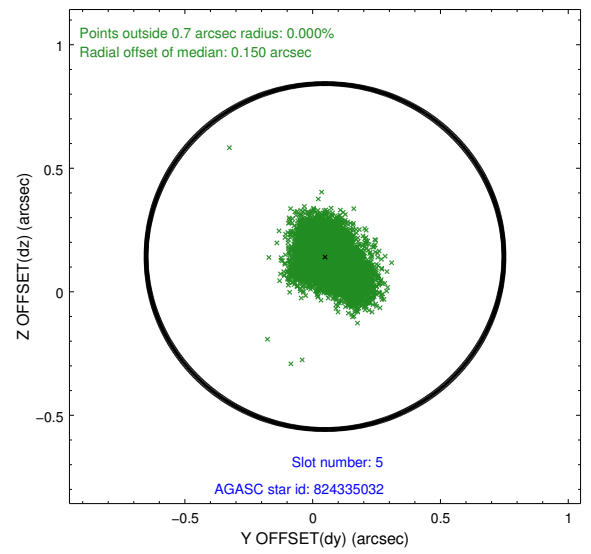
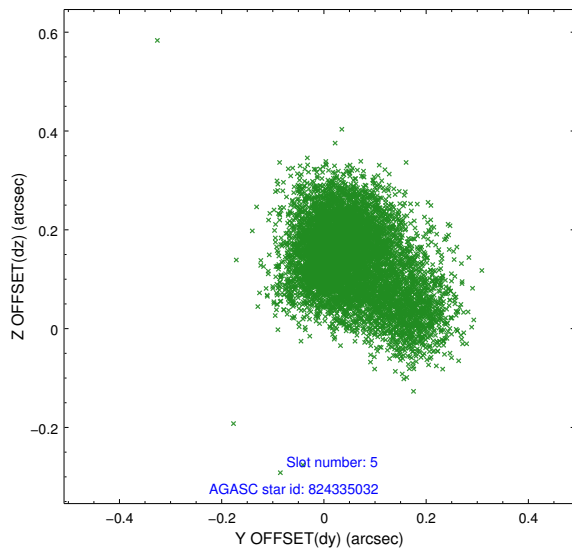
2.4.1 Slot 3



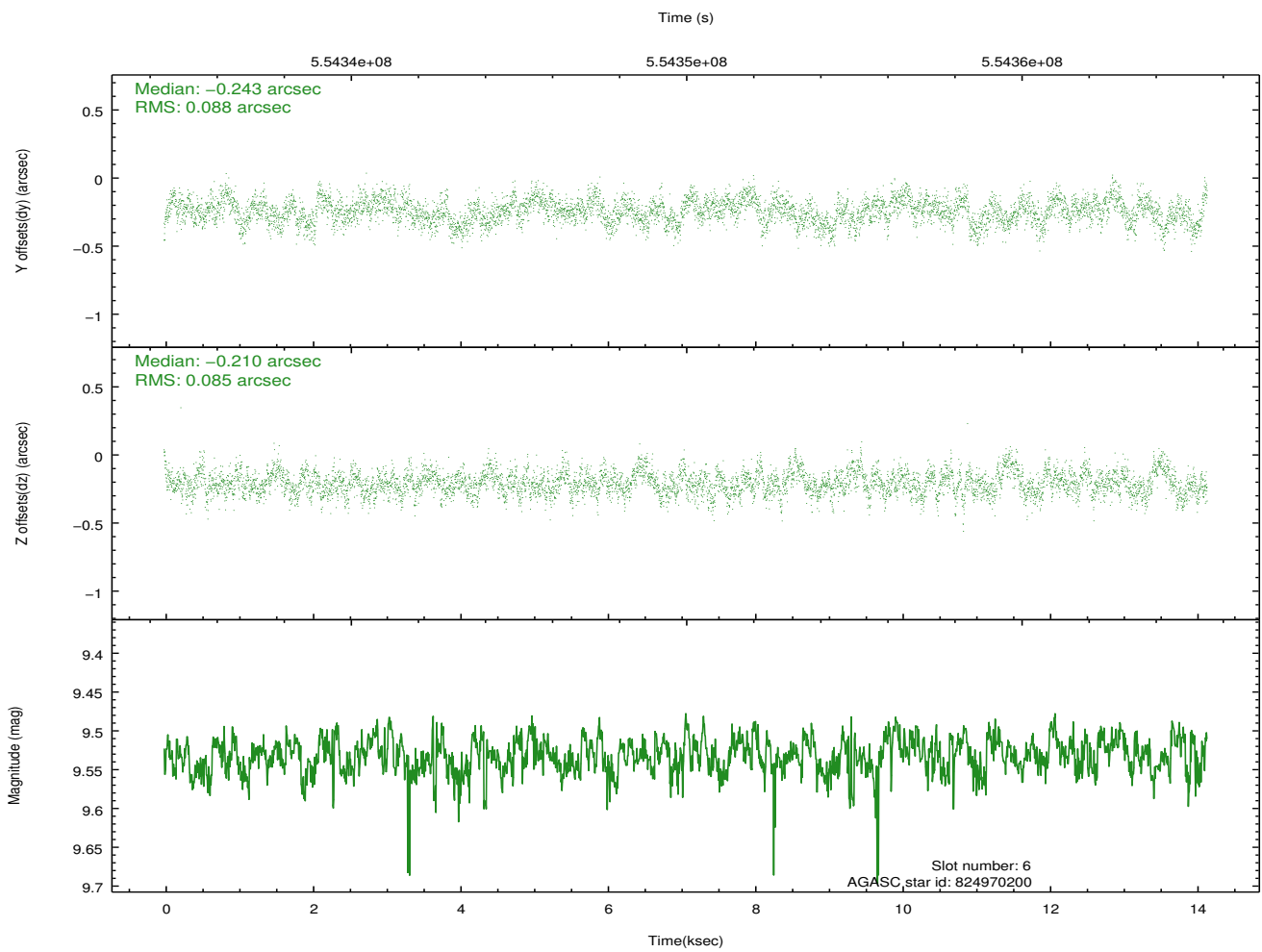
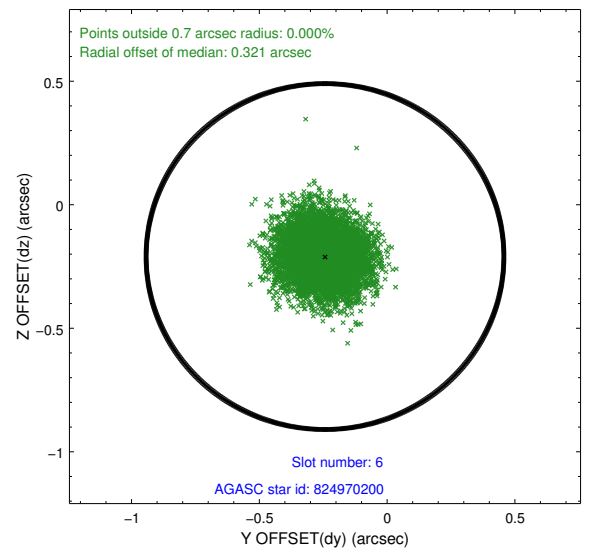
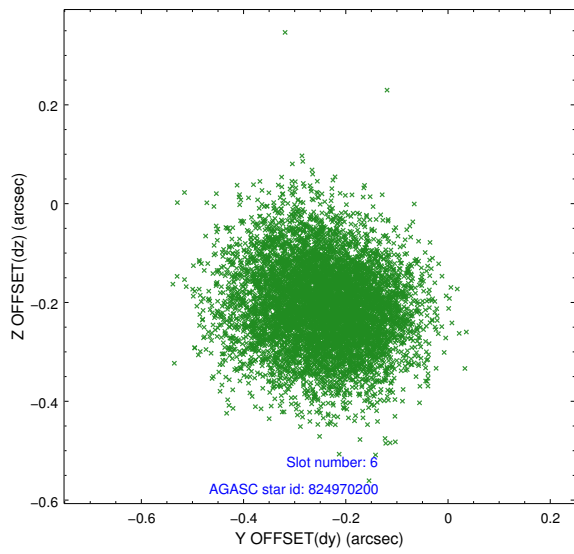
2.4.2 Slot 4



2.4.3 Slot 5

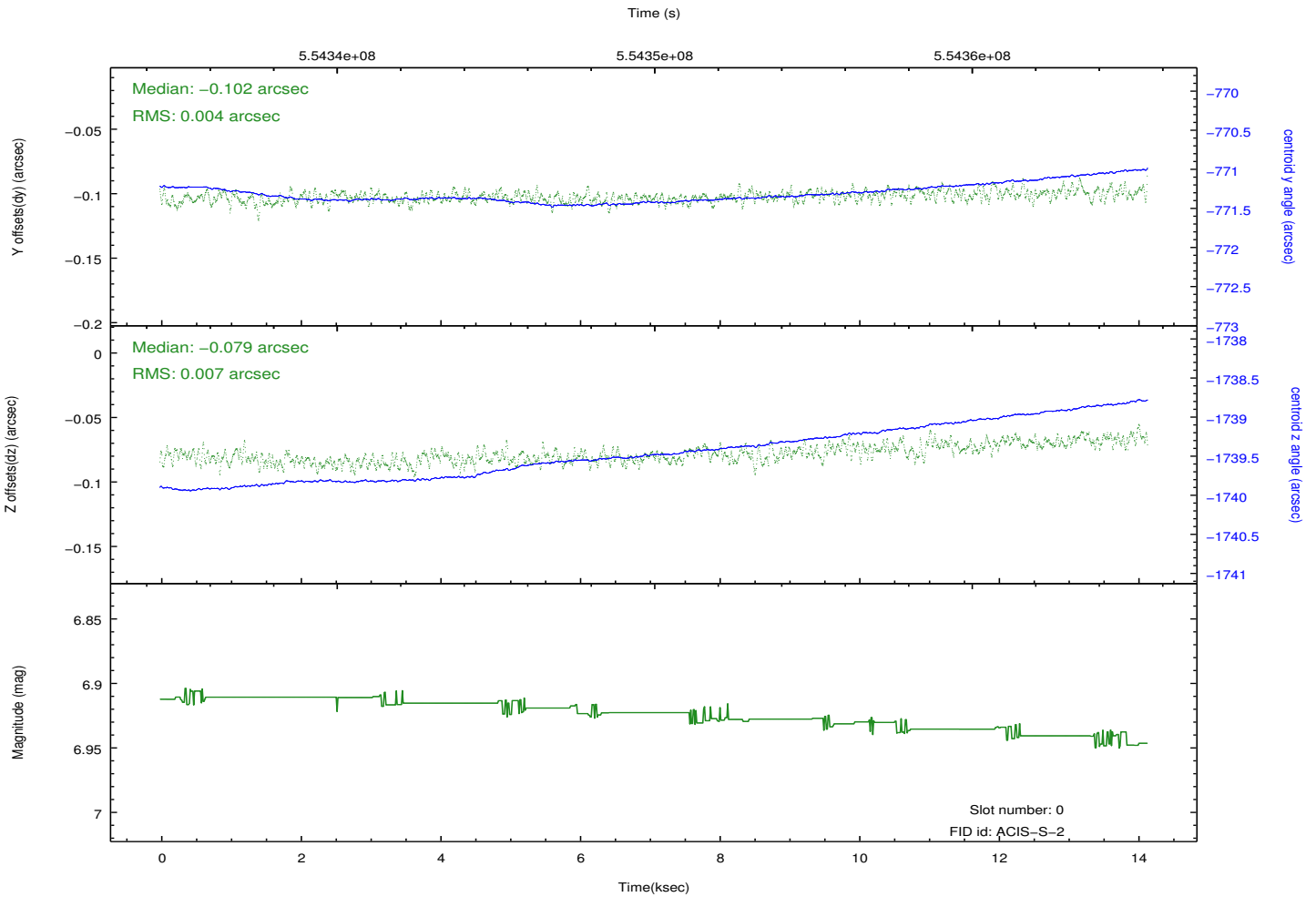
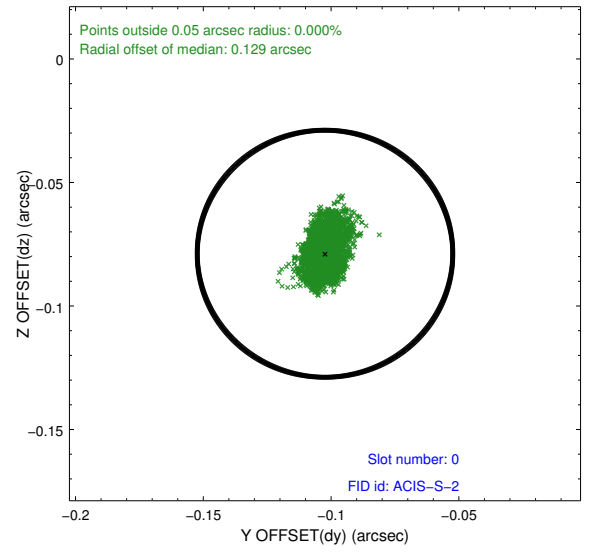
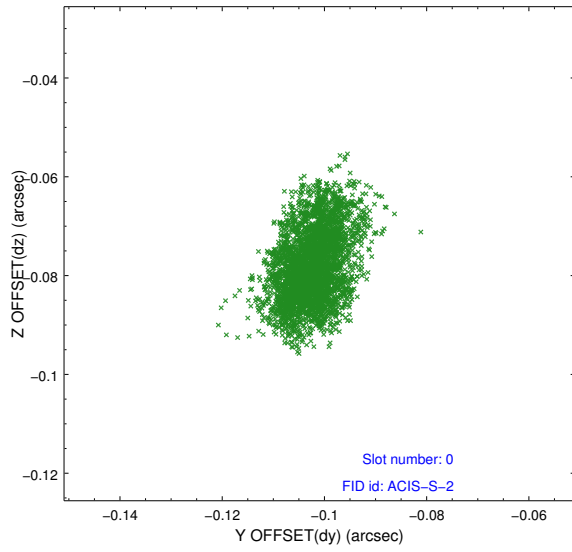


2.4.4 Slot 6

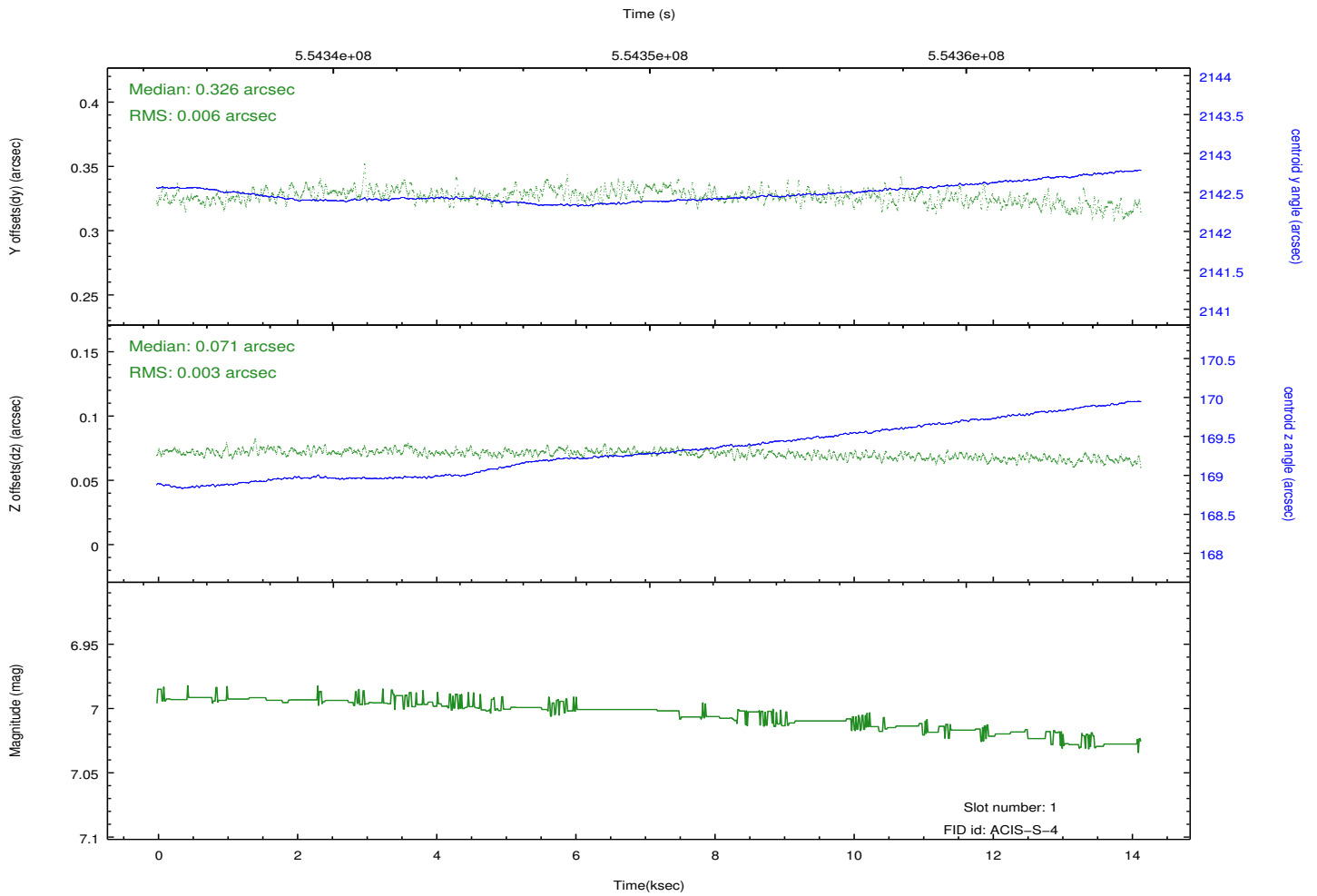
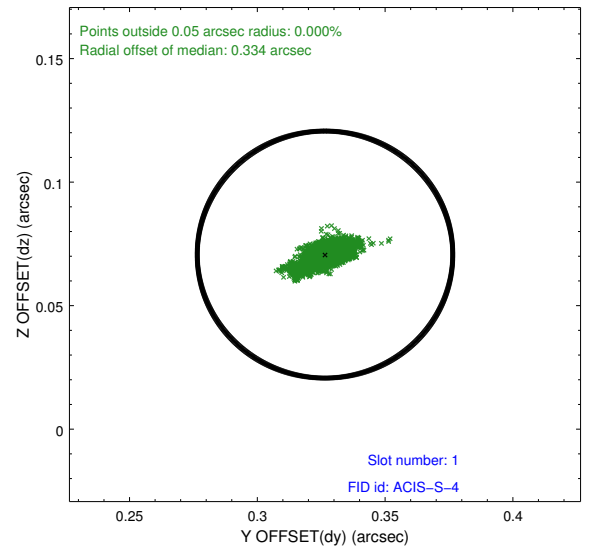
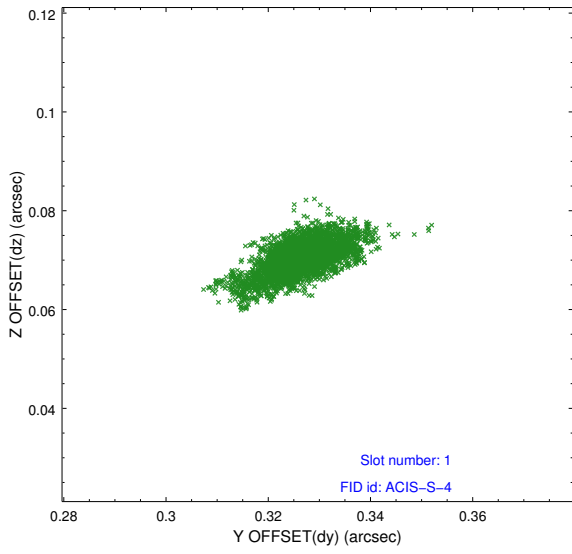


2.5 FID Slots

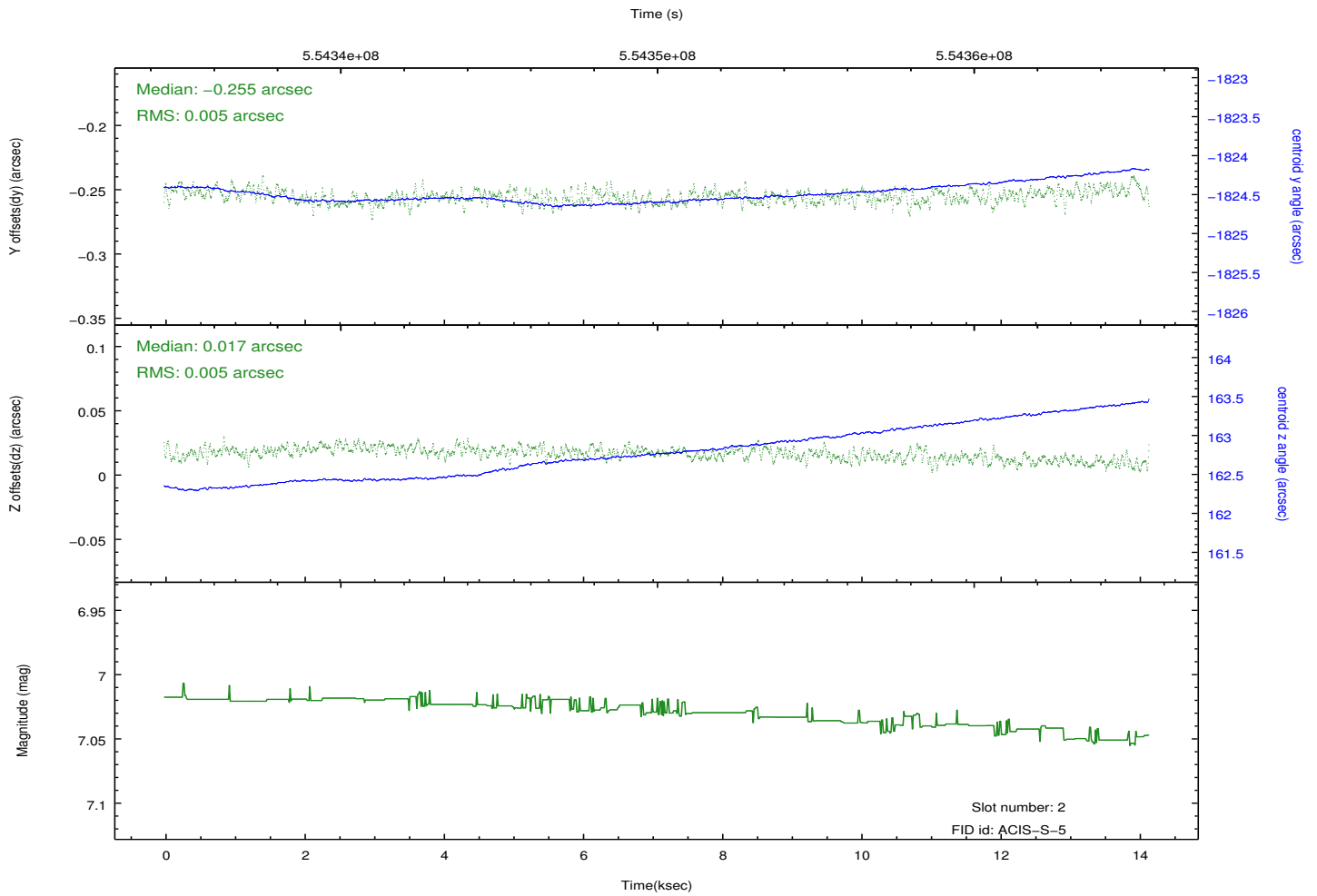
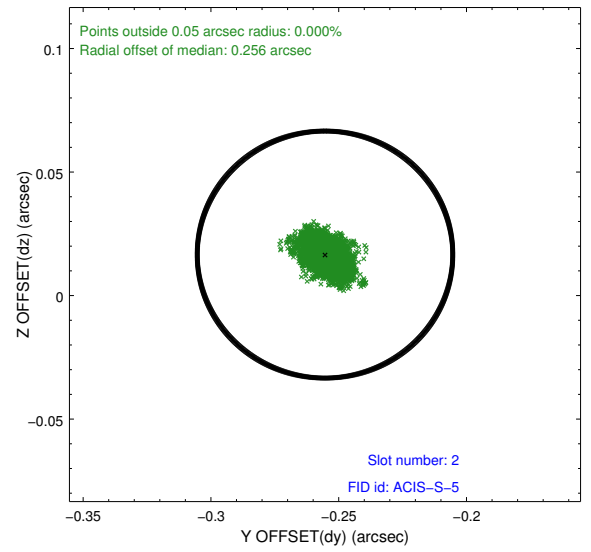
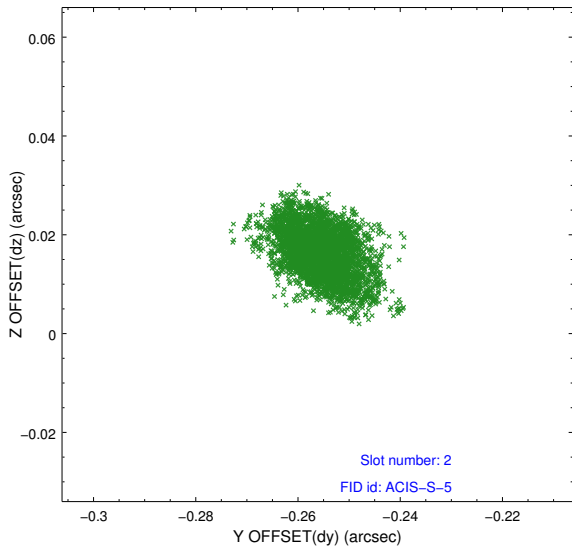
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2015.07.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.088740570307

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.

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Window constraint met.