

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 16495 - L2 Version 3
Chandra X-Ray Center

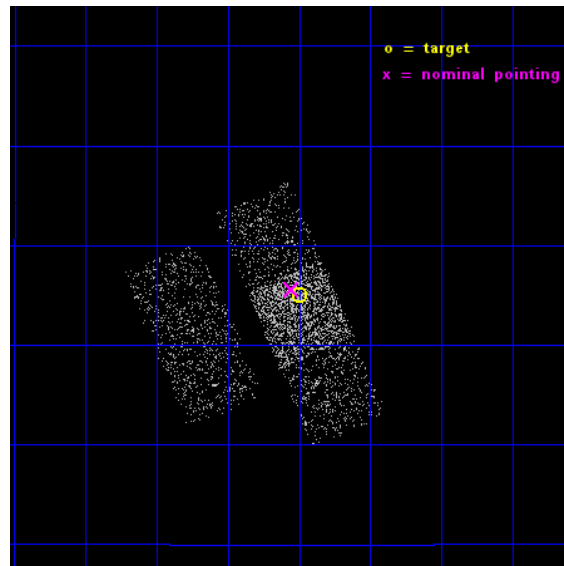
L2 Processing Date : Dec 7 2014

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1 Front

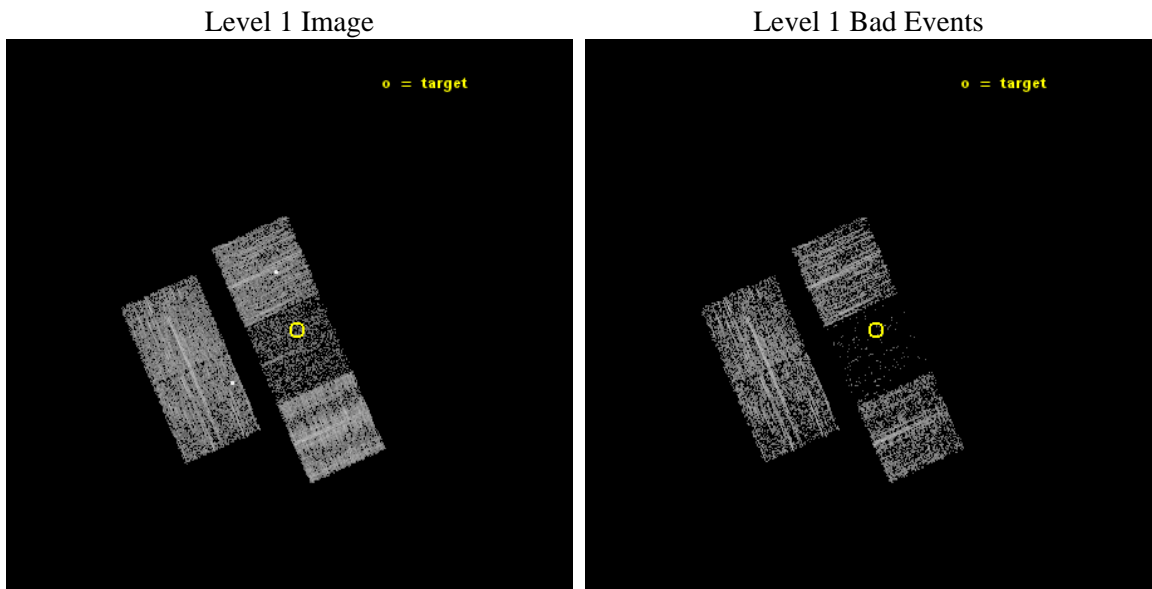
seq_num	100133	Sequence number
obs_id	16495	Observation id
title	Plumbing the Heights of the Solar Wind With Comet ISON	Proposal ti
observer	Dr. Carey Lisse	Principal investigator
object	Comet C/2012 S1 (ISON)	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	167.25	Observer's specified target RA [deg]
dec_targ	6.75	Observer's specified target Dec [deg]
ra_nom	167.26333916067	Nominal RA [deg]
dec_nom	6.759762206746	Nominal Dec [deg]
roll_nom	66.358972824138	Nominal Roll [deg]
revision	3	Processing version of data
ontime	4681.0000360012	Sum of GTIs [s]
livetime	4619.8393244288	Livetime [s]
ontime2	4681.0000360012	Sum of GTIs [s]
ontime3	4681.0000360012	Sum of GTIs [s]
ontime6	4681.0000360012	Sum of GTIs [s]
ontime7	4681.0000360012	Sum of GTIs [s]
ontime8	4677.8590456247	Sum of GTIs [s]
l2events	4202	Number of level 2 events



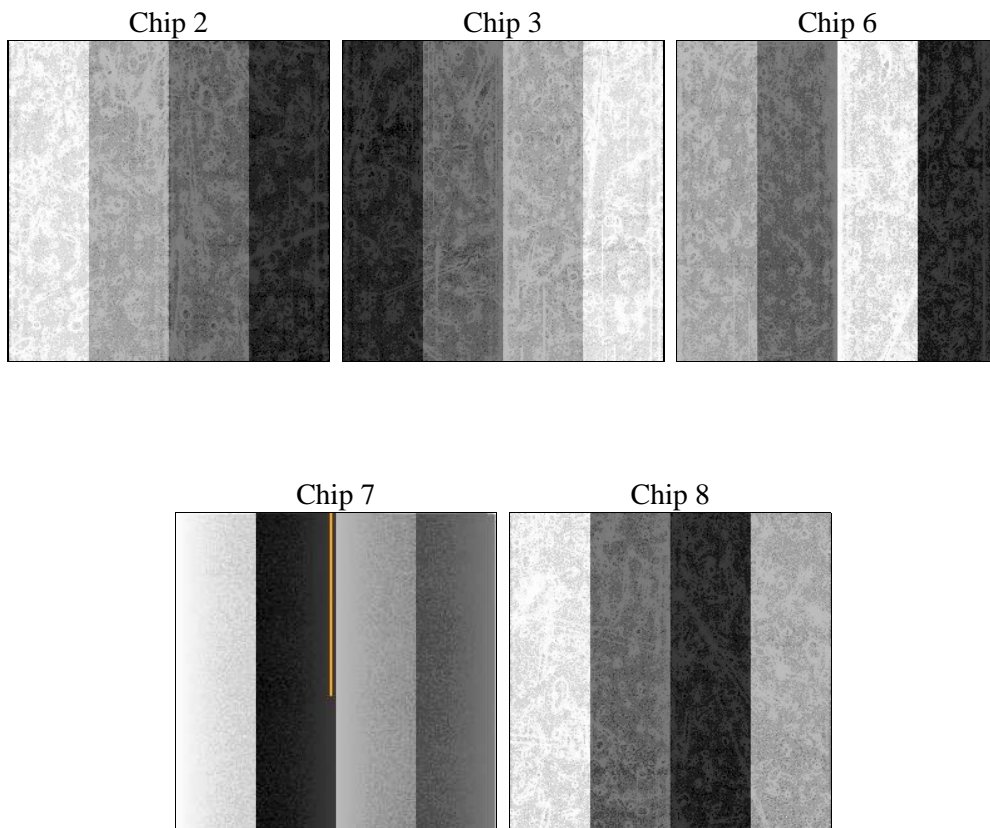
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	4500.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	4681.0000360012	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	4681.0000360012	Sum of GTIs [s]
date	2014-12-07T19:06:04	Date and time of file creation	ontime3	4681.0000360012	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	4681.0000360012	Sum of GTIs [s]
			ontime7	4681.0000360012	Sum of GTIs [s]
			ontime8	4677.8590456247	Sum of GTIs [s]
			l1events	72079	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	15595	15119	16790	3325	21250
rejected events	14675	13064	14531	940	11948
rejected %	94%	86%	86%	28%	56%

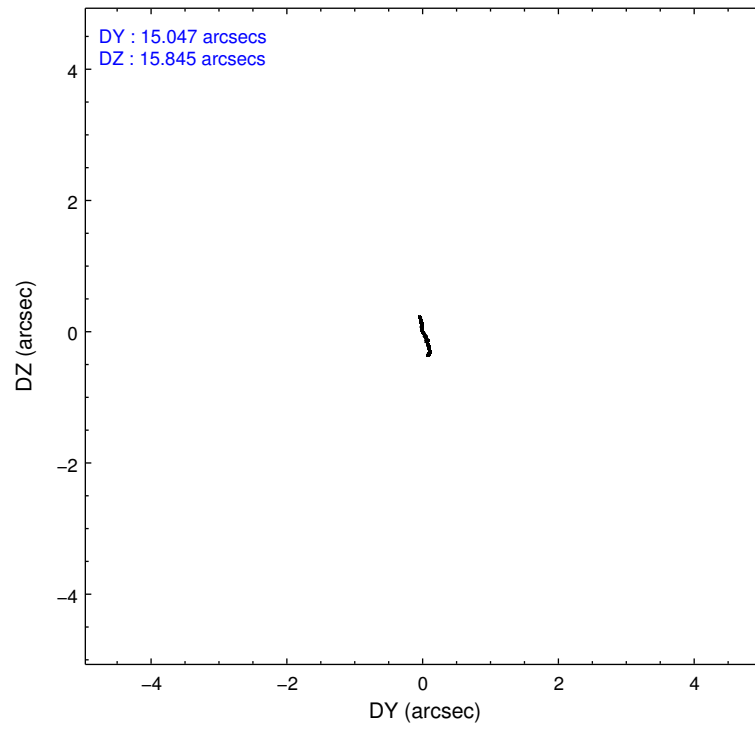
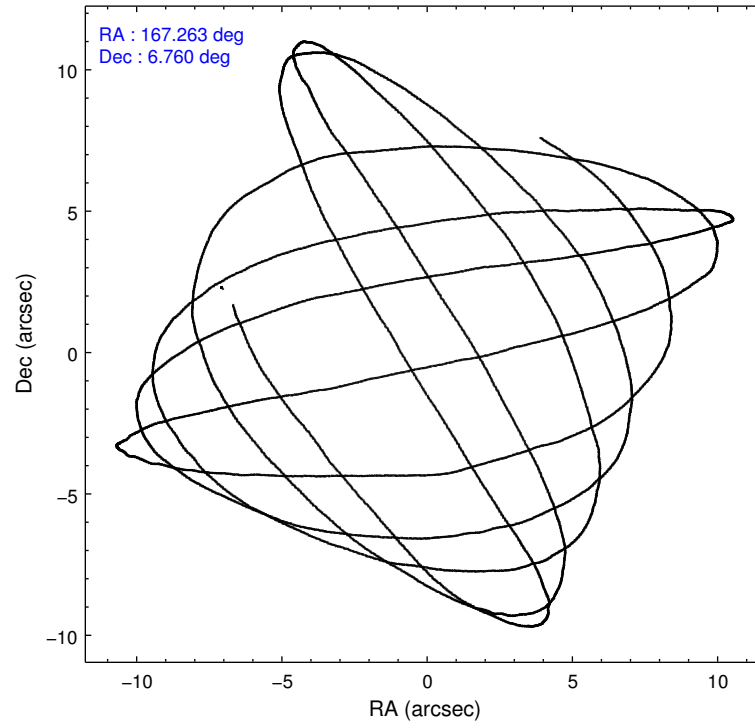
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	419	1830	1943	766	3453
	2%	12%	11%	23%	16%
grade 1 events	3	16	14	34	35
	0%	0%	0%	1%	0%
grade 2 events	246	101	176	749	1505
	1%	0%	1%	22%	7%
grade 3 events	79	78	96	325	1504
	0%	0%	0%	9%	7%
grade 4 events	128	69	92	304	1429
	0%	0%	0%	9%	6%
grade 5 events	24	21	18	122	165
	0%	0%	0%	3%	0%
grade 6 events	89	66	60	312	1758
	0%	0%	0%	9%	8%
grade 7 events	14607	12938	14391	713	11401
	93%	85%	85%	21%	53%

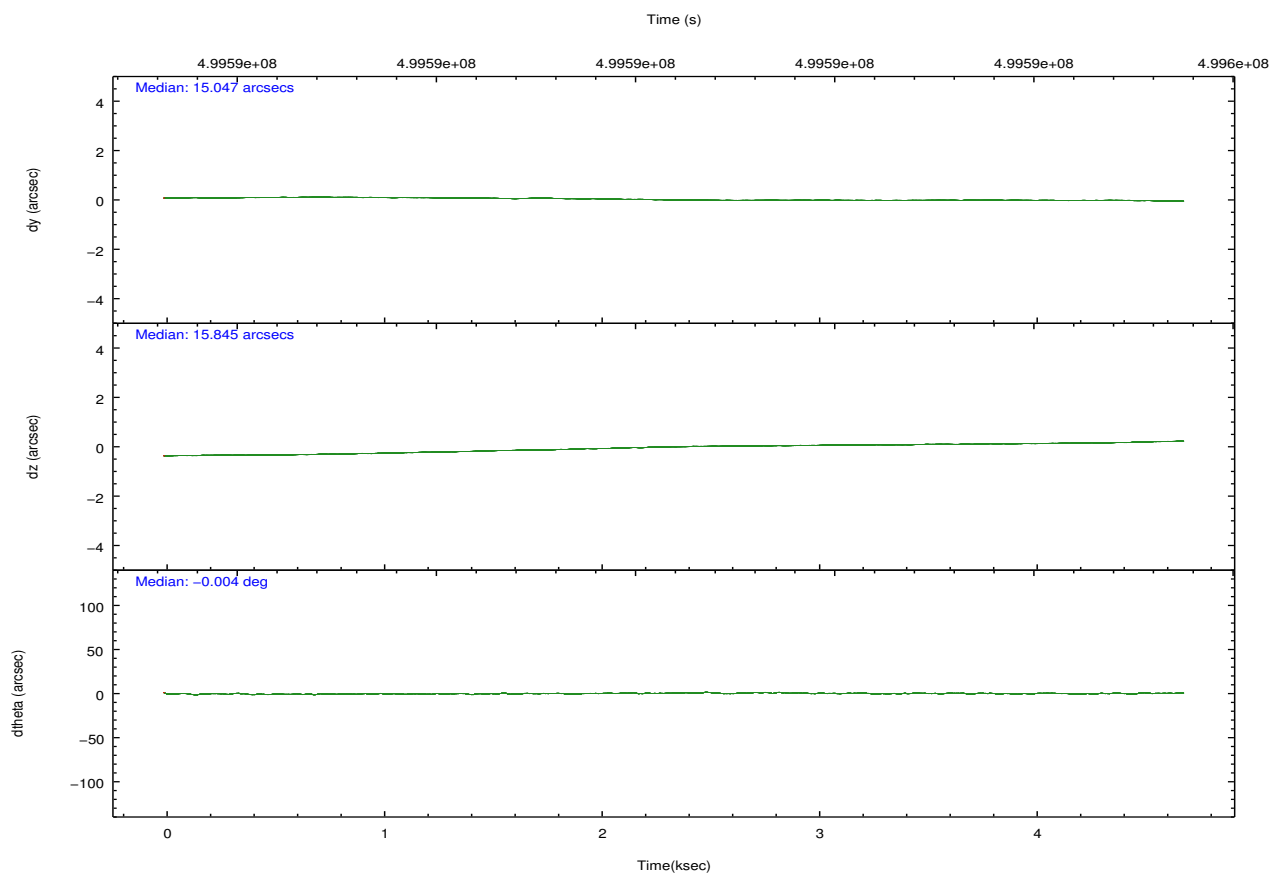
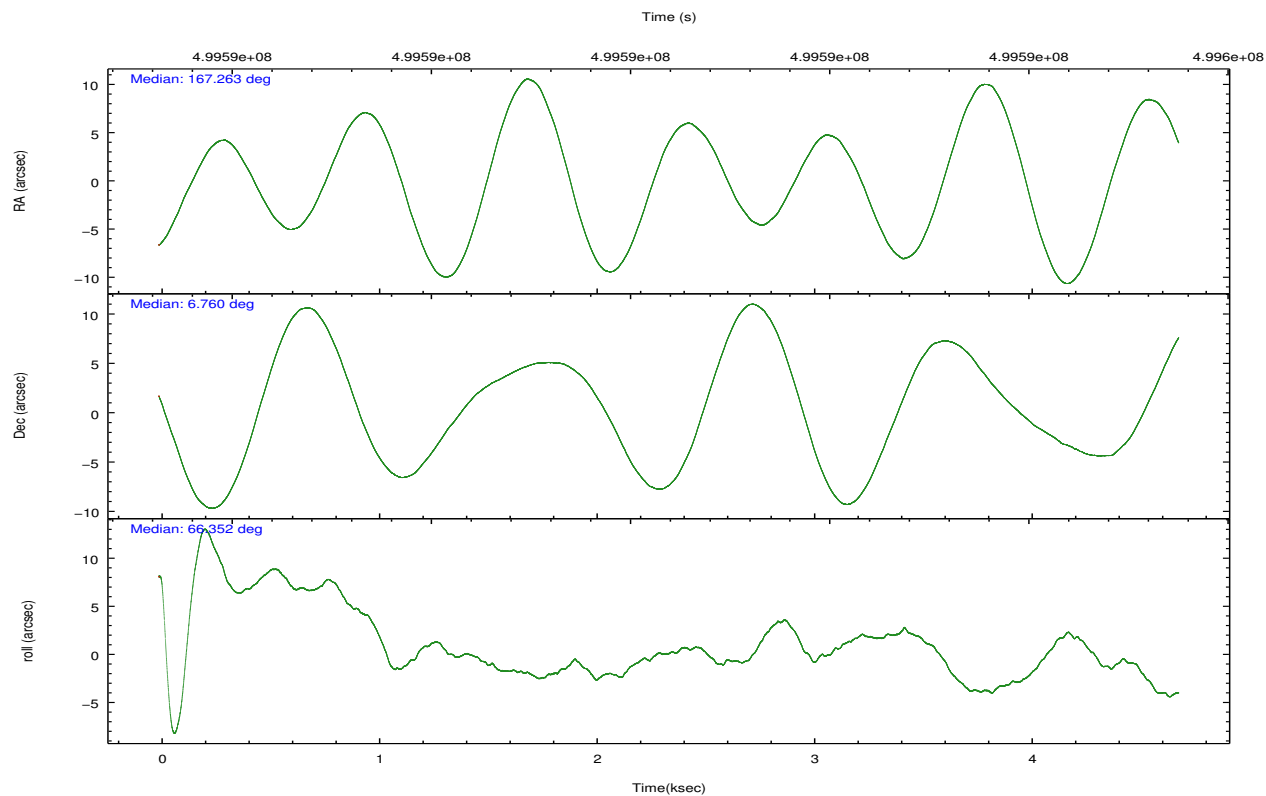
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-23678	ACIS-23678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	167.266717	167.2633391606698
[deg] Pointing Dec	6.732744	6.759762206746037
[deg] Pointing Roll	66.201903	66.35897282413762
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	499590030.184000	499589654.13911
Observation start date	2013-10-31T06:59:23	2013-10-31T06:54:14
[s] Observation end time (MET)	499594530.184000	499594724.30189
Observation end date	2013-10-31T08:14:23	2013-10-31T08:18:44
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



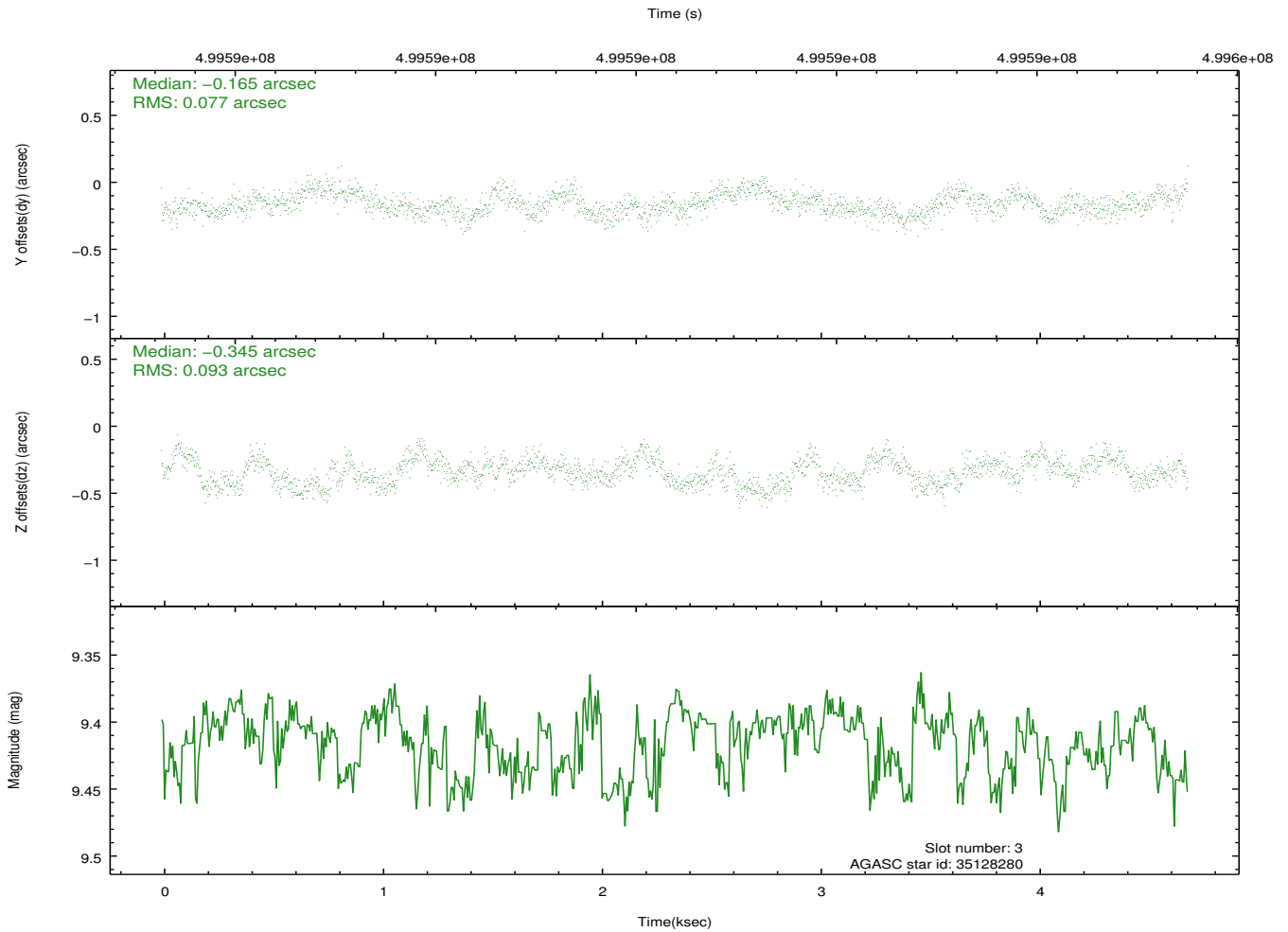
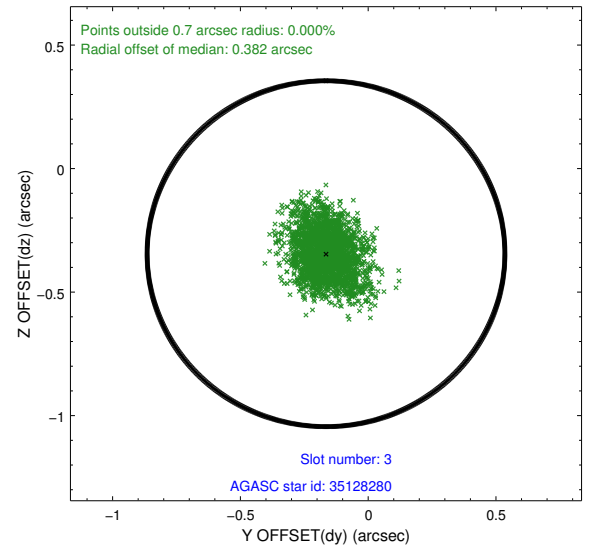
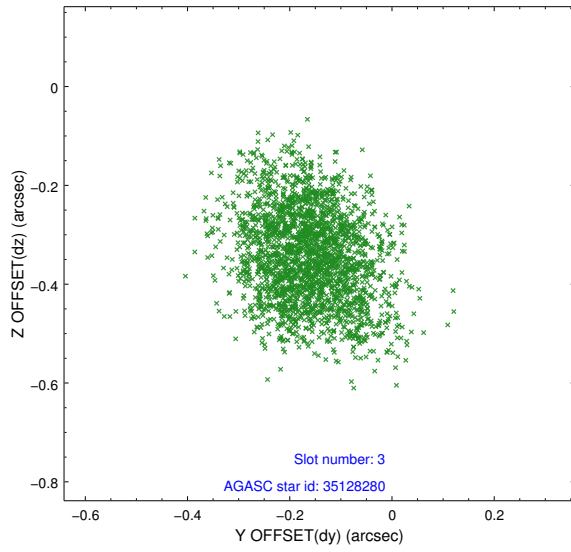


Slot Statistics

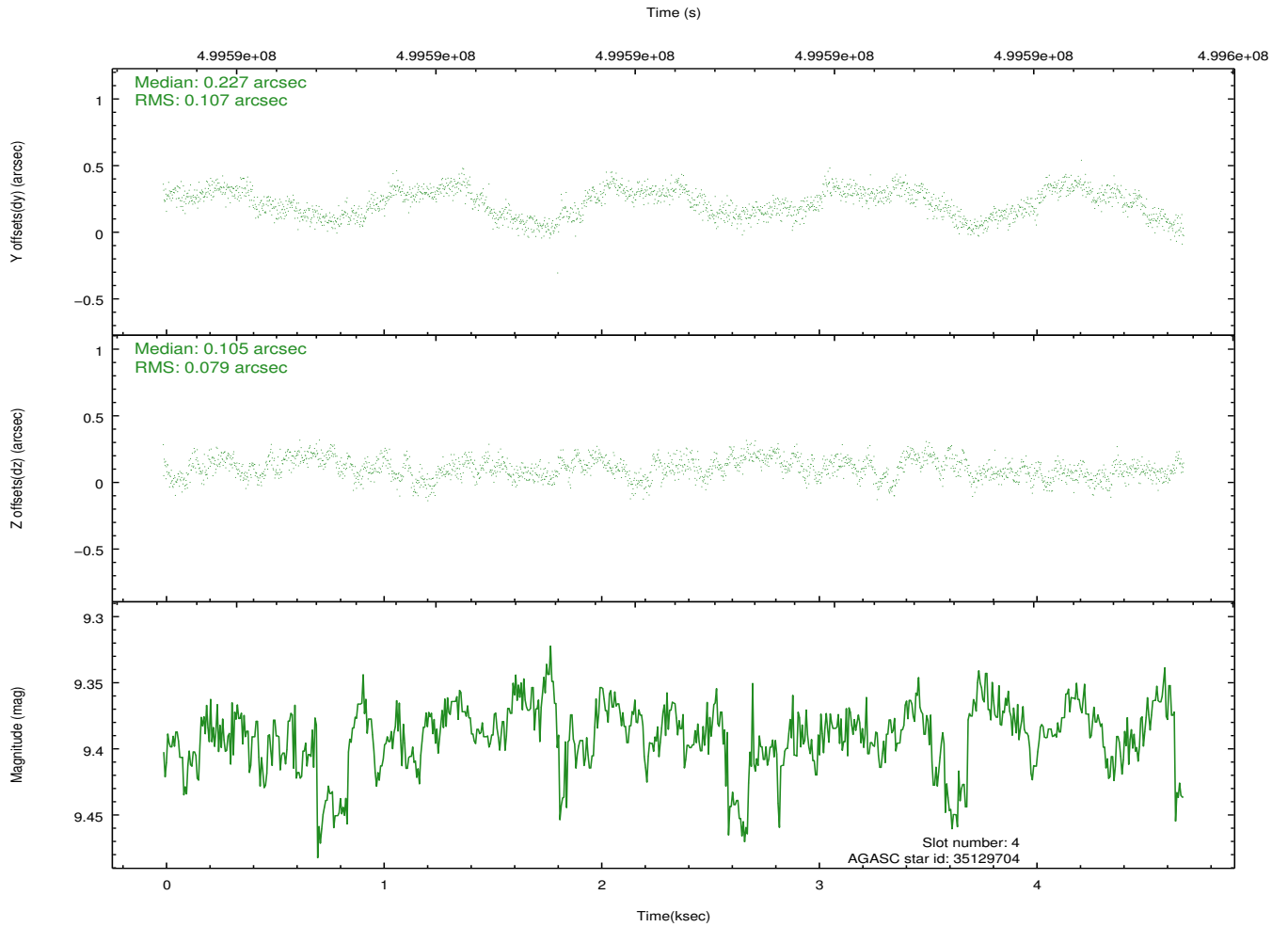
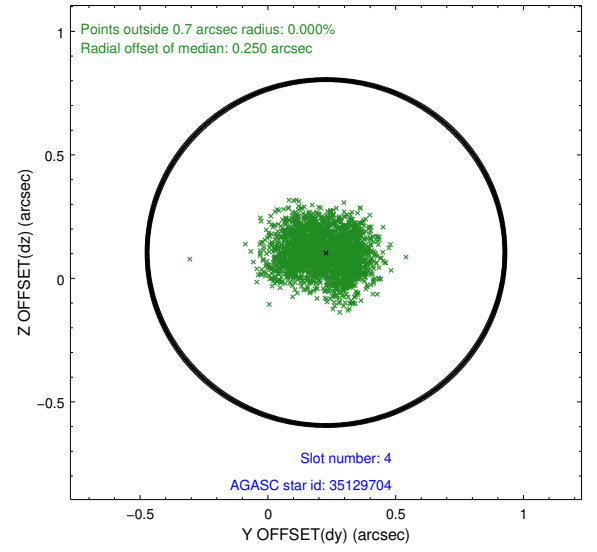
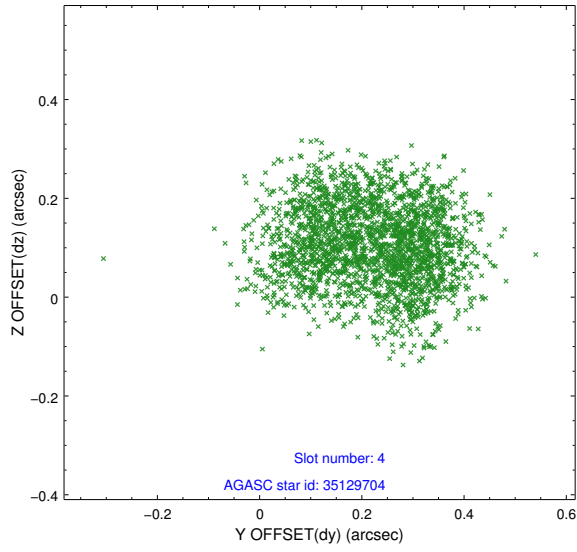
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.06	1144	-0.122	-0.008	0.008	0.012	0.000000	0.000000	-768.16	-1737.15
1	FID		ACIS-S-4	7.15	1144	0.244	0.061	0.006	0.012	0.000000	0.000000	2144.87	170.06
2	FID		ACIS-S-5	7.18	1144	-0.154	-0.044	0.007	0.012	0.000000	0.000000	-1819.37	165.10
3	GUIDE	used	35128280	9.41	2288	-0.165	-0.345	0.128	0.205	167.246023	6.904426	536.10	317.62
4	GUIDE	used	35129704	9.39	2288	0.227	0.105	0.144	0.218	167.497145	6.165570	-1534.14	-1577.80
5	GUIDE	used	35260640	9.07	2287	0.176	-0.016	0.138	0.204	167.546632	6.305790	-1001.99	-1536.20
6	GUIDE	used	35260712	9.17	2287	-0.276	0.307	0.128	0.199	167.955262	6.654148	736.41	-2365.65
7	GUIDE	used	35129752	10.07	2283	0.057	-0.057	0.242	0.357	166.831812	6.353286	-1876.28	872.35

2.4 Star Slots

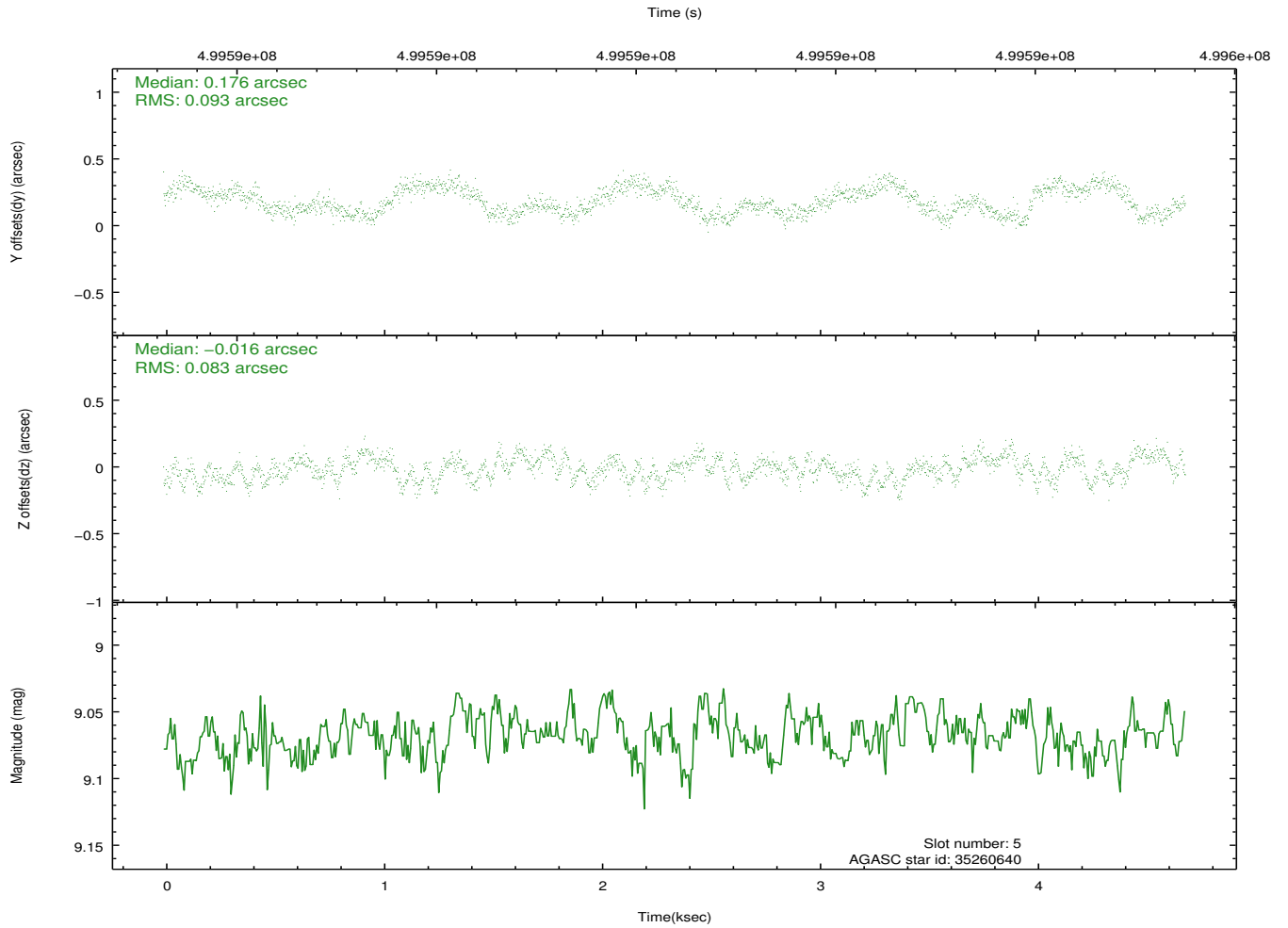
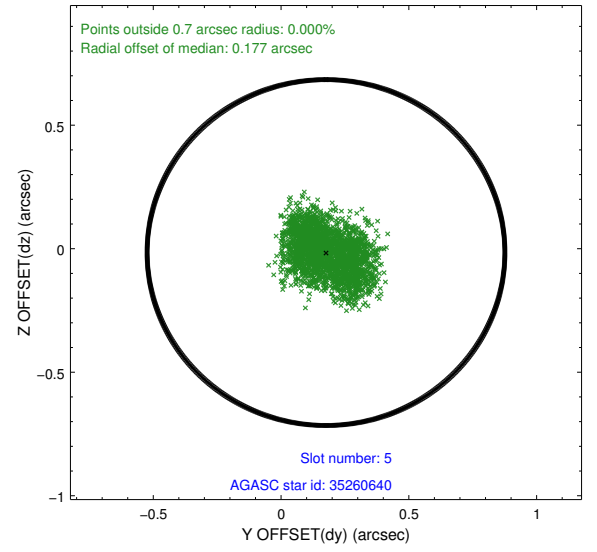
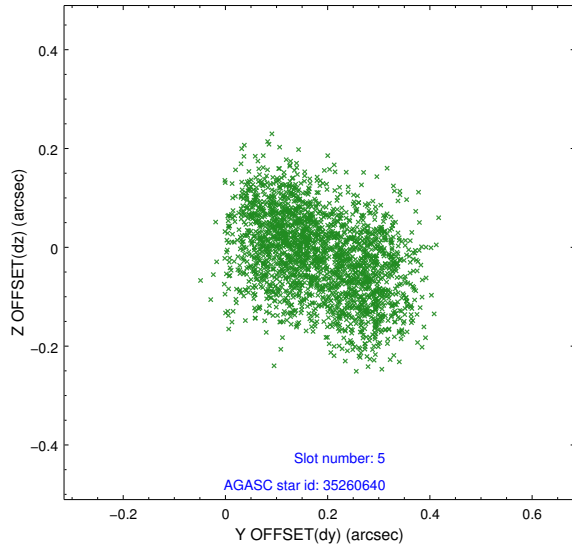
2.4.1 Slot 3



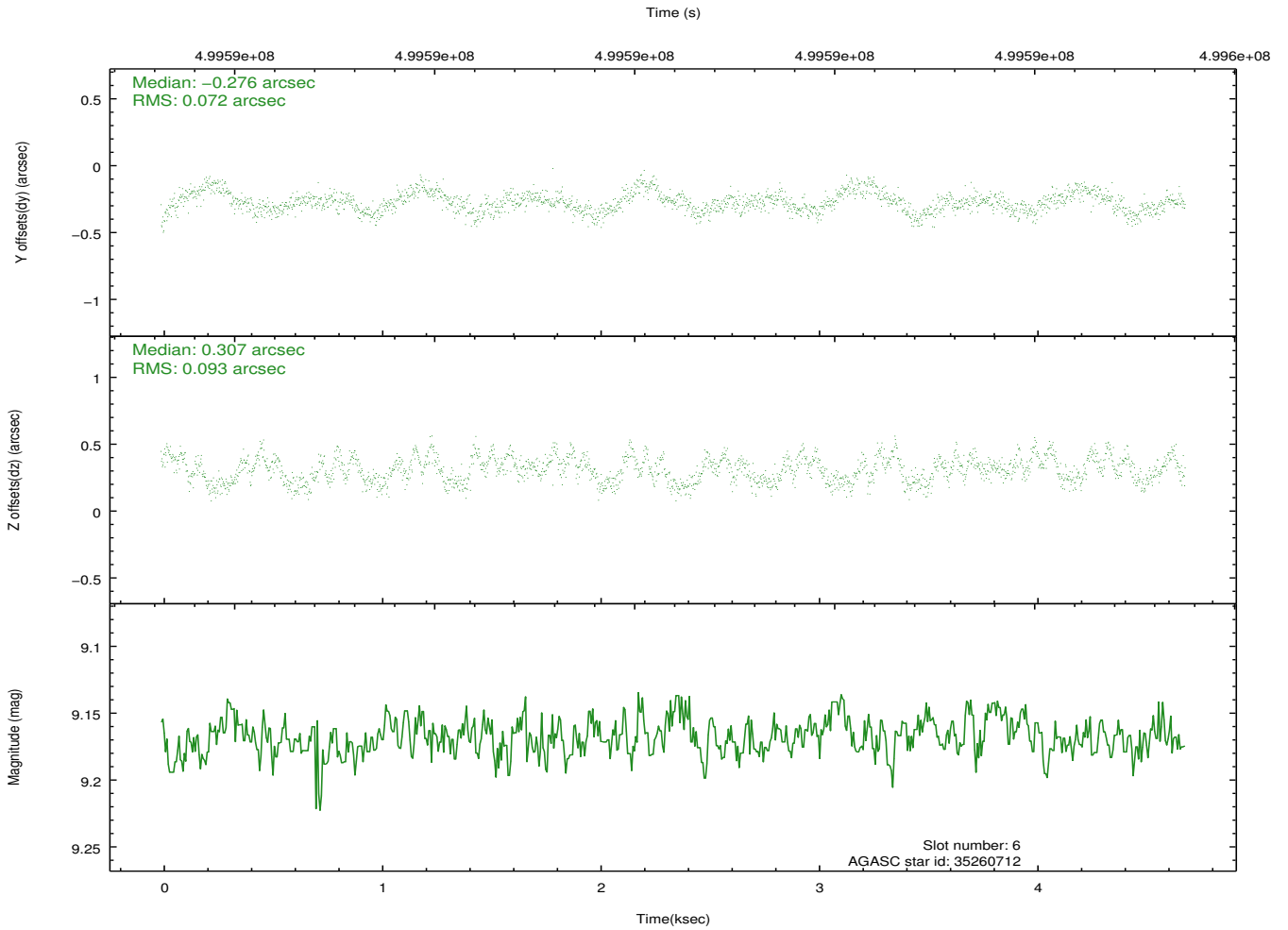
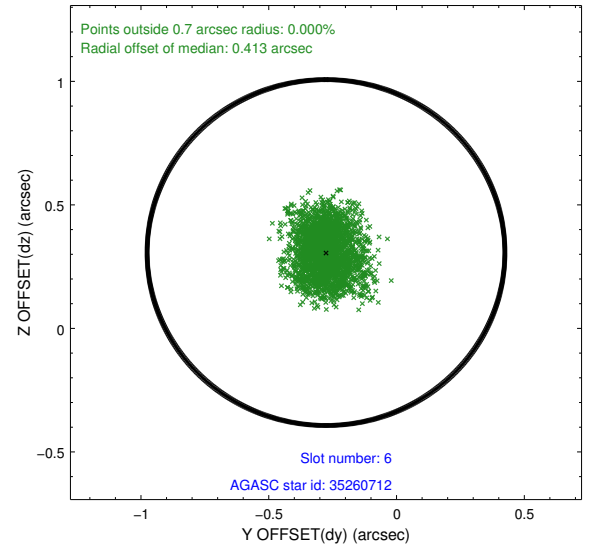
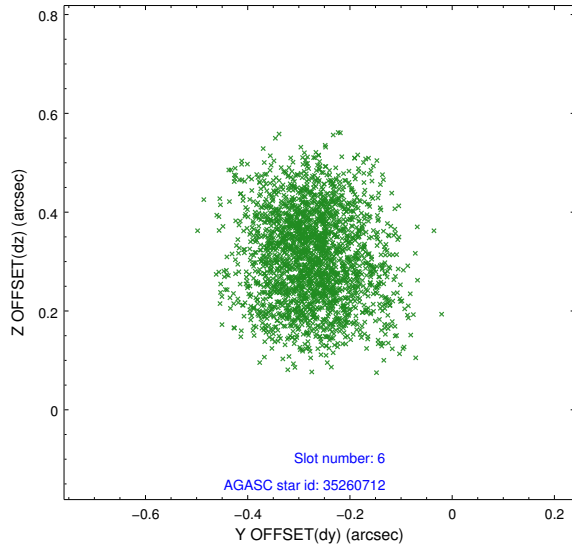
2.4.2 Slot 4



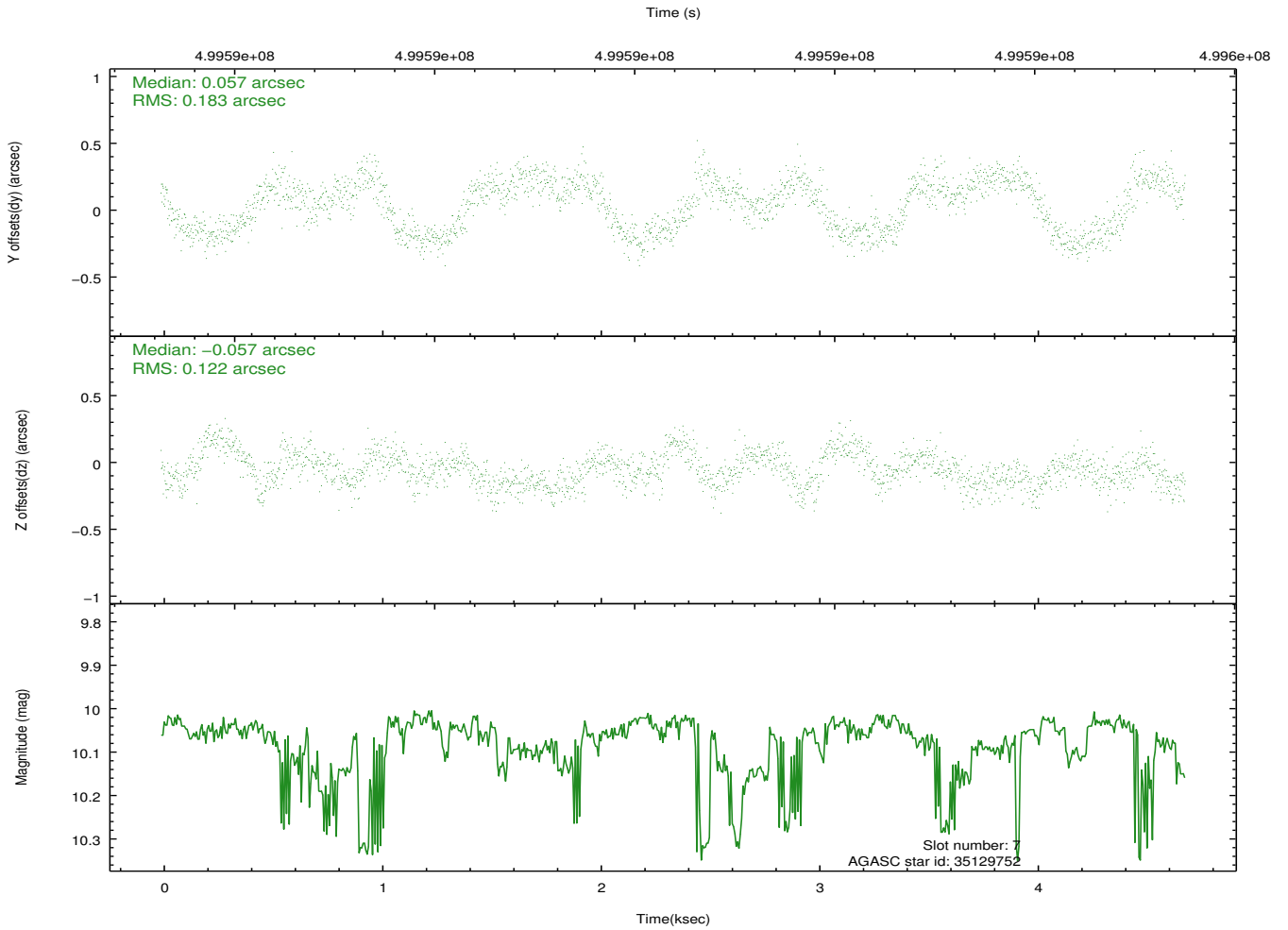
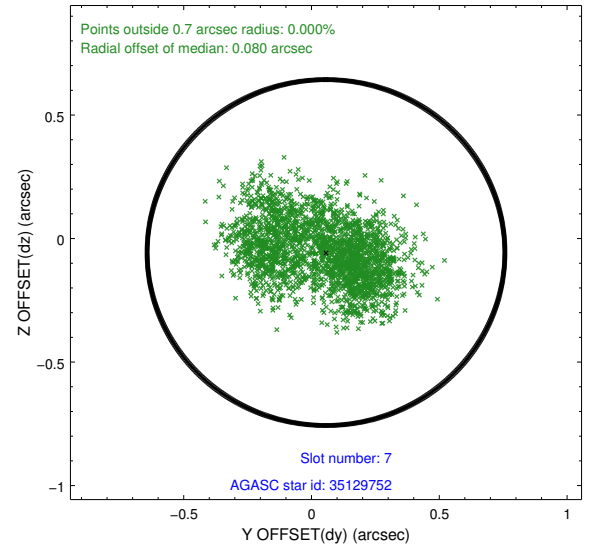
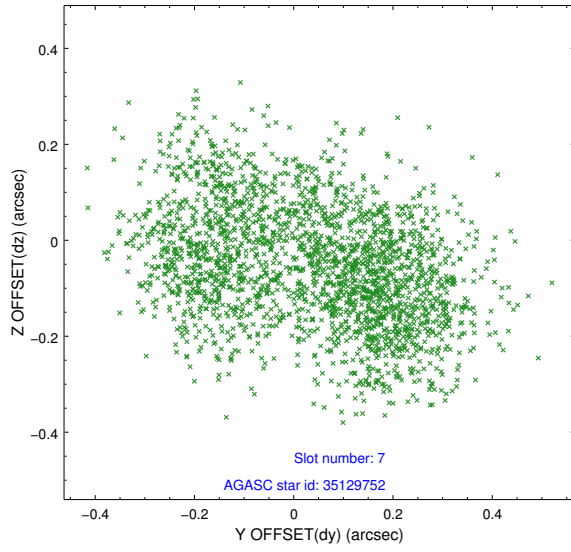
2.4.3 Slot 5



2.4.4 Slot 6

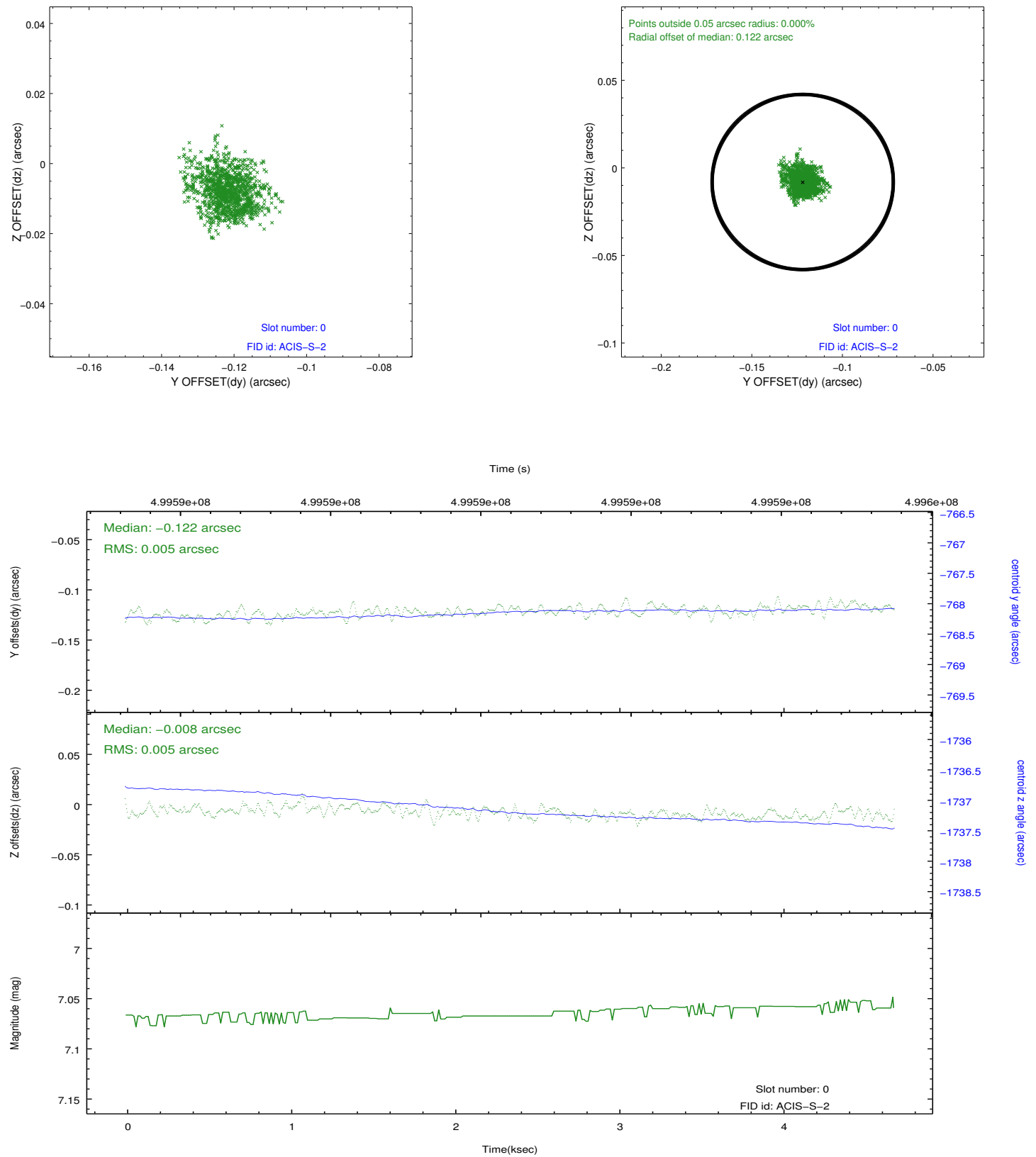


2.4.5 Slot 7

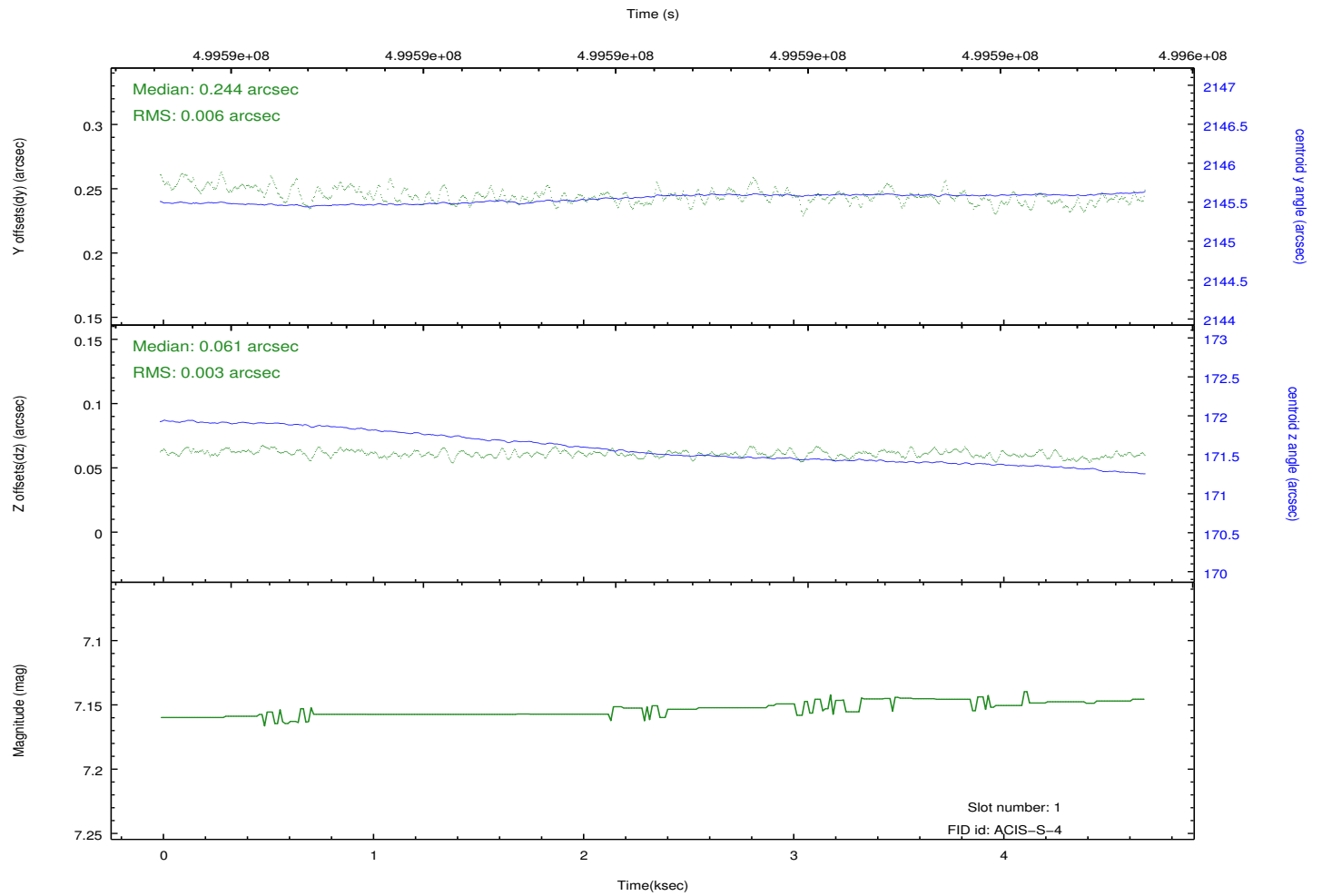
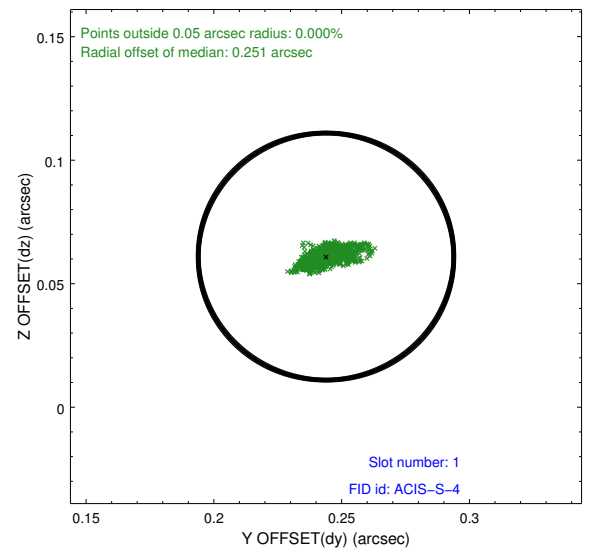
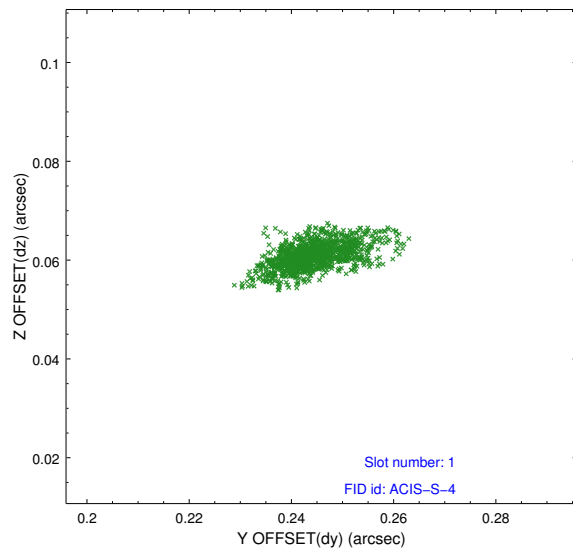


2.5 FID Slots

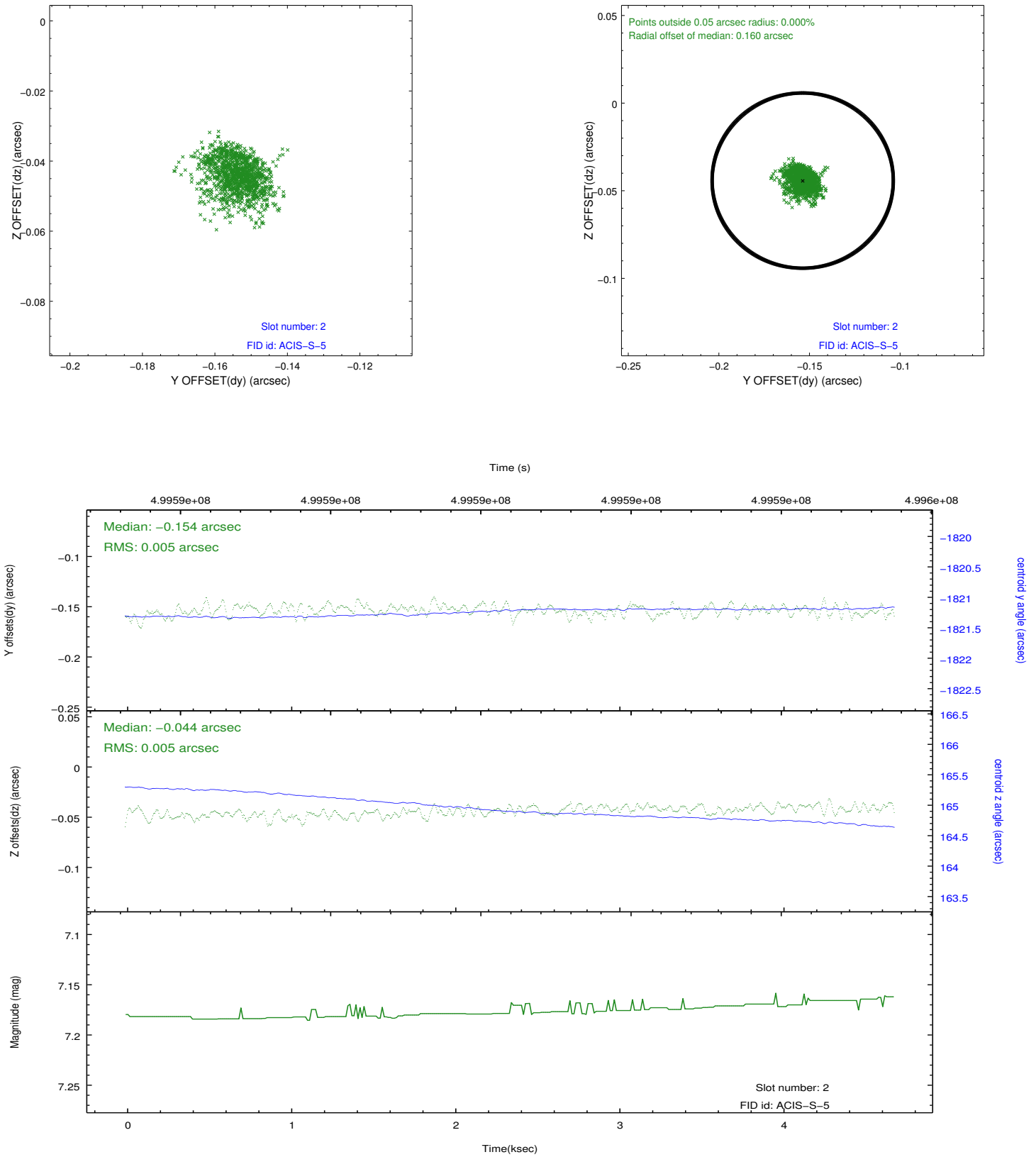
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	4.6810000360012

A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.

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These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.