

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19338 - L2 Version 1
Chandra X-Ray Center

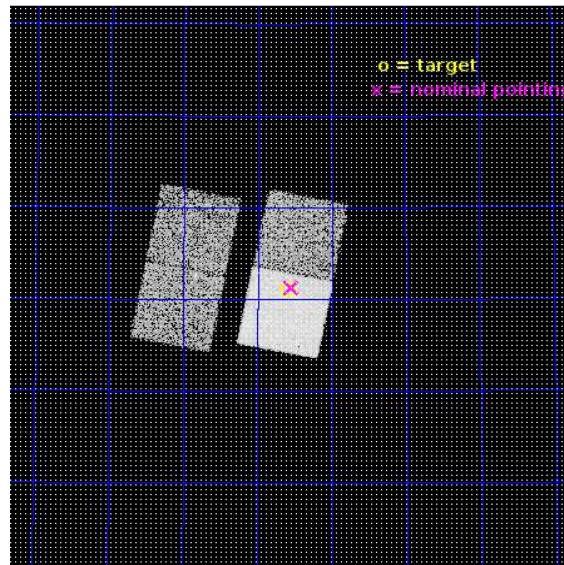
L2 Processing Date : Dec 11 2017

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1 Front

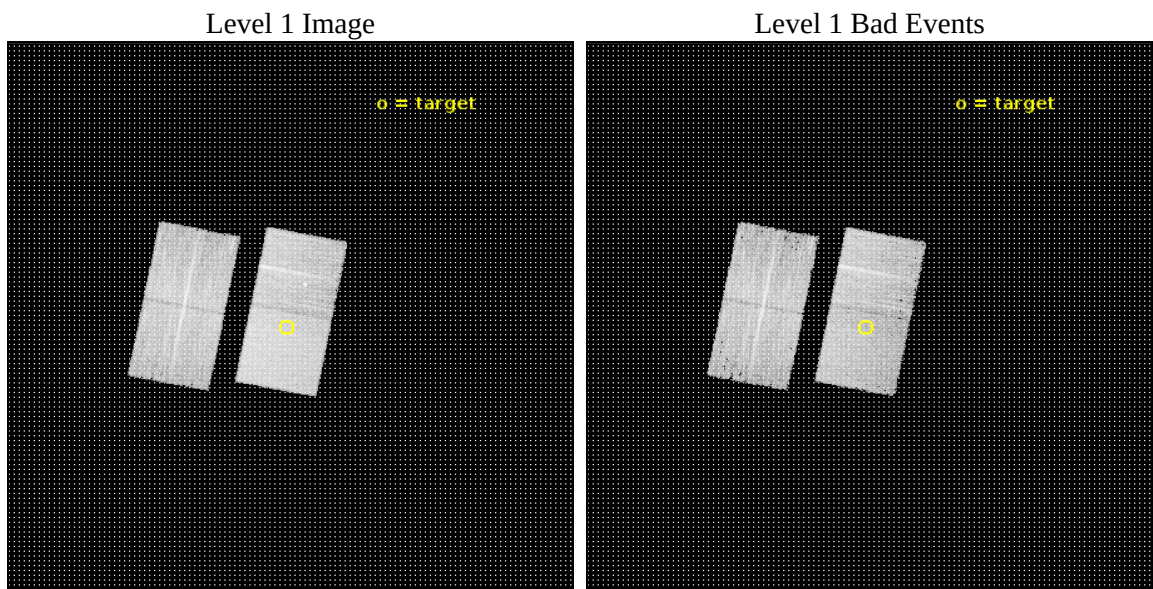
seq_num	601295	Sequence number
obs_id	19338	Observation id
title	A Statistically Complete High Resolution Chandra and Radio (eMERLIN) Survey of the Palomar Nearby Galaxies Sample	Proposal title
observer	Ian McHardy	Principal investigator
object	NGC 2950	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	145.64625	Observer's specified target RA [deg]
dec_targ	58.851222	Observer's specified target Dec [deg]
ra_nom	145.63604674187	Nominal RA [deg]
dec_nom	58.854501714932	Nominal Dec [deg]
roll_nom	101.16538230247	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10067.833922029	Sum of GTIs [s]
livetime	9936.2902600057	Livetime [s]
ontime2	10067.710802078	Sum of GTIs [s]
ontime3	10064.61078167	Sum of GTIs [s]
ontime6	10064.651821852	Sum of GTIs [s]
ontime7	10067.833922029	Sum of GTIs [s]
l2events	59825	Number of level 2 events



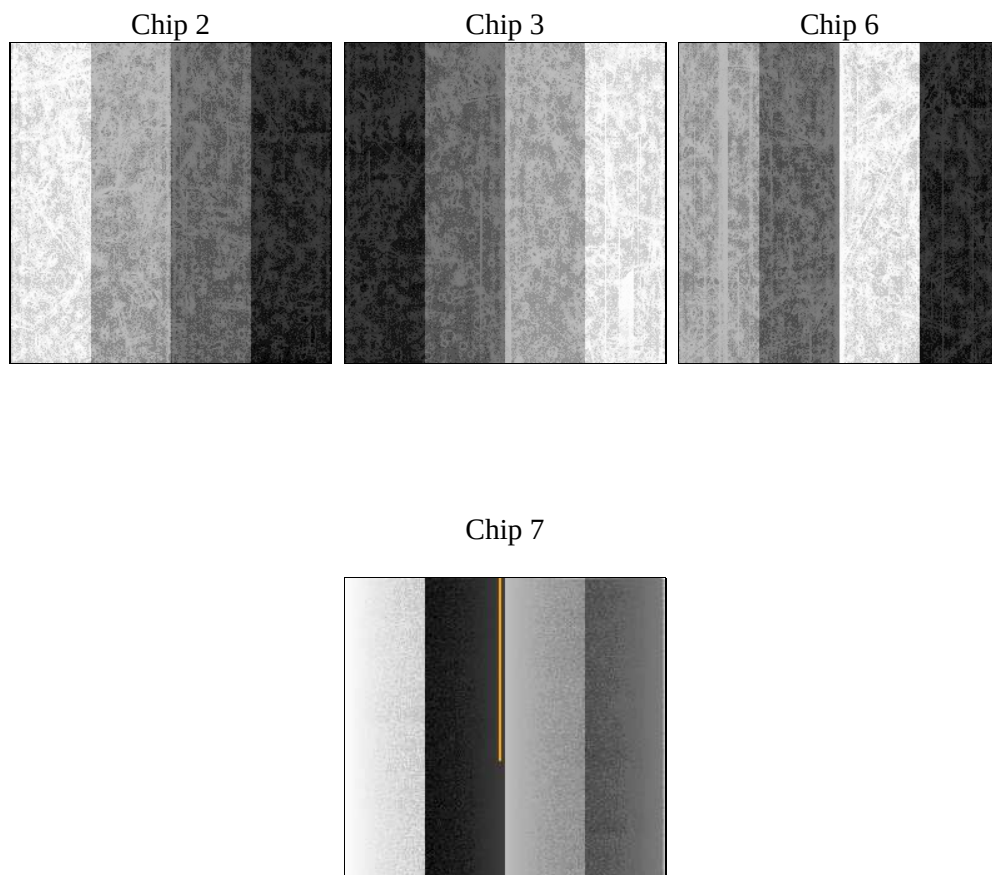
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	10067.833922029	Sum of GTIs [s]
caldsver	4.7.6	 	ontime2	10067.710802078	Sum of GTIs [s]
date	2017-12-11T16:45:29	Date and time of file creation	ontime3	10064.61078167	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	10064.651821852	Sum of GTIs [s]
			ontime7	10067.833922029	Sum of GTIs [s]
			l1events	303990	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	69798	66883	74136	93173
rejected events	62115	59564	65578	52350
rejected %	88%	89%	88%	56%

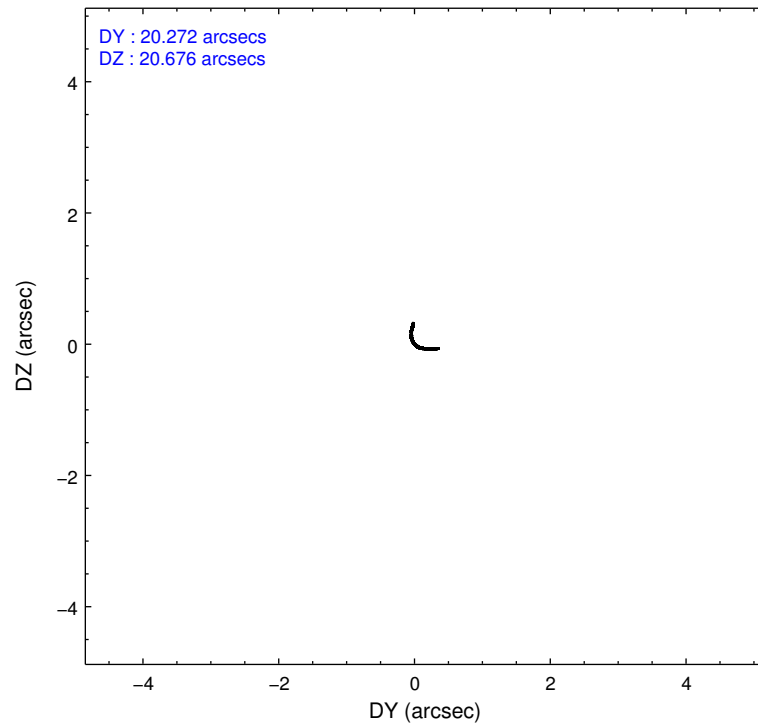
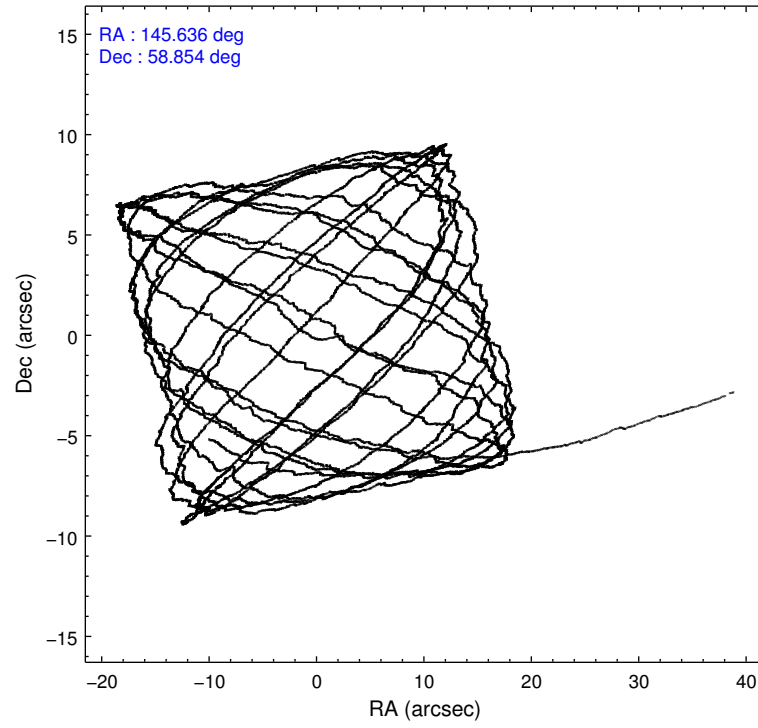
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2625	2596	3054	3436
	3%	3%	4%	3%
grade 1 events	33	29	42	135
	0%	0%	0%	0%
grade 2 events	1946	1559	1935	8689
	2%	2%	2%	9%
grade 3 events	778	790	809	3329
	1%	1%	1%	3%
grade 4 events	776	776	820	3237
	1%	1%	1%	3%
grade 5 events	2852	3278	3565	9178
	4%	4%	4%	9%
grade 6 events	1563	1602	1948	22154
	2%	2%	2%	23%
grade 7 events	59225	56253	61963	43015
	84%	84%	83%	46%

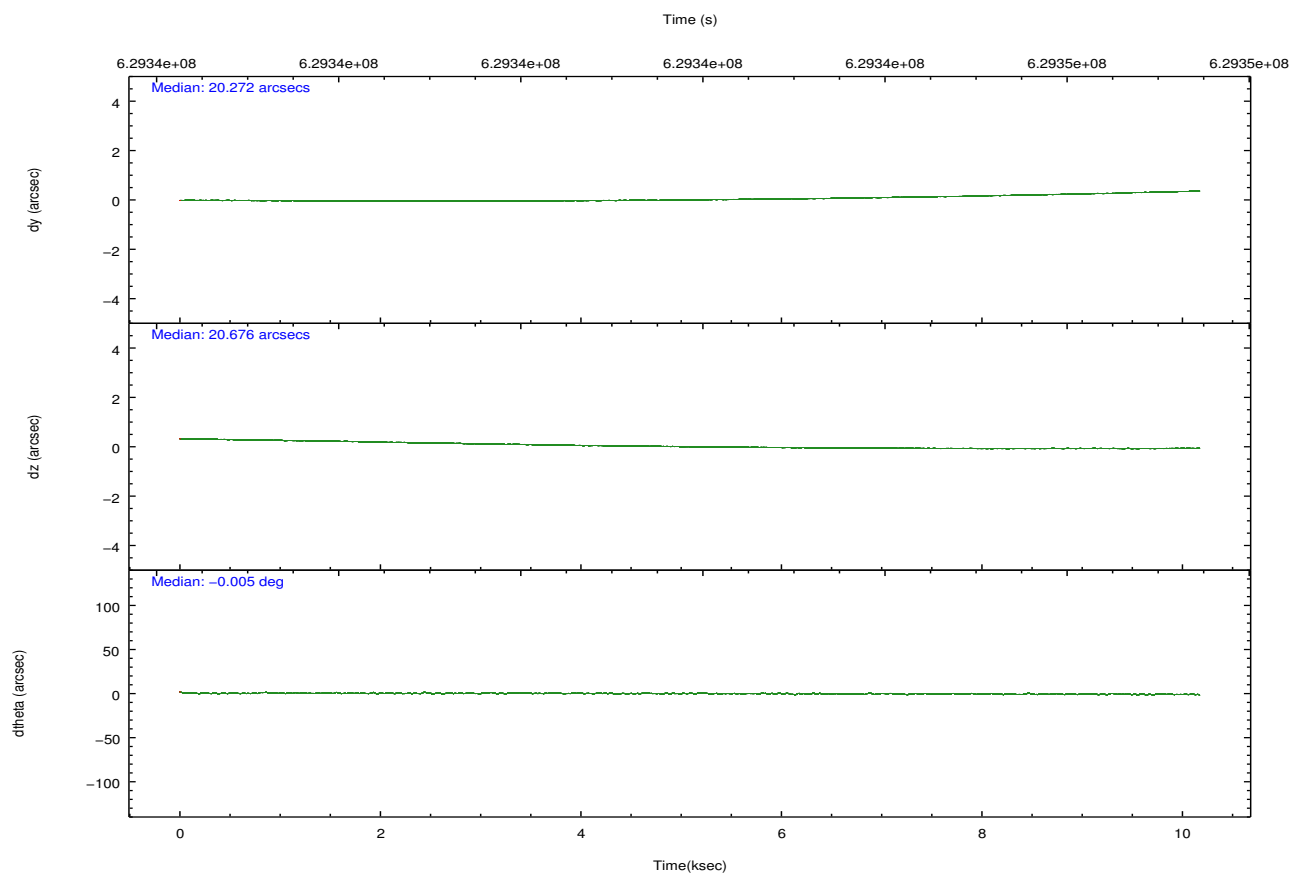
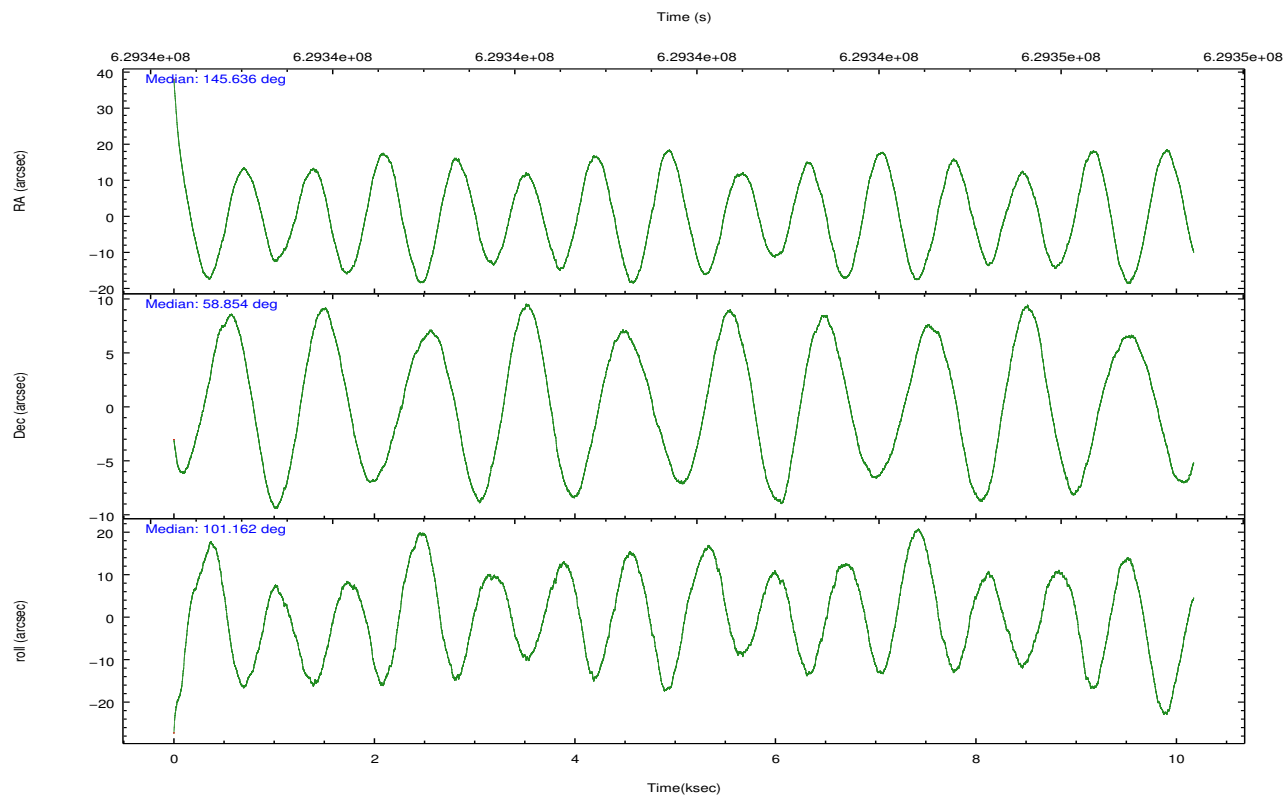
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-2367	ACIS-2367
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	145.671448	145.6360467418711
[deg] Pointing Dec	58.834112	58.85450171493196
[deg] Pointing Roll	100.978434	101.1653823024662
[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)	629336939.184000	629335716.12029
Observation start date	2017-12-10T23:47:50	2017-12-10T23:28:36
[s] Observation end time (MET)	629346939.184000	629347352.9459701
Observation end date	2017-12-11T02:34:30	2017-12-11T02:42:32
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



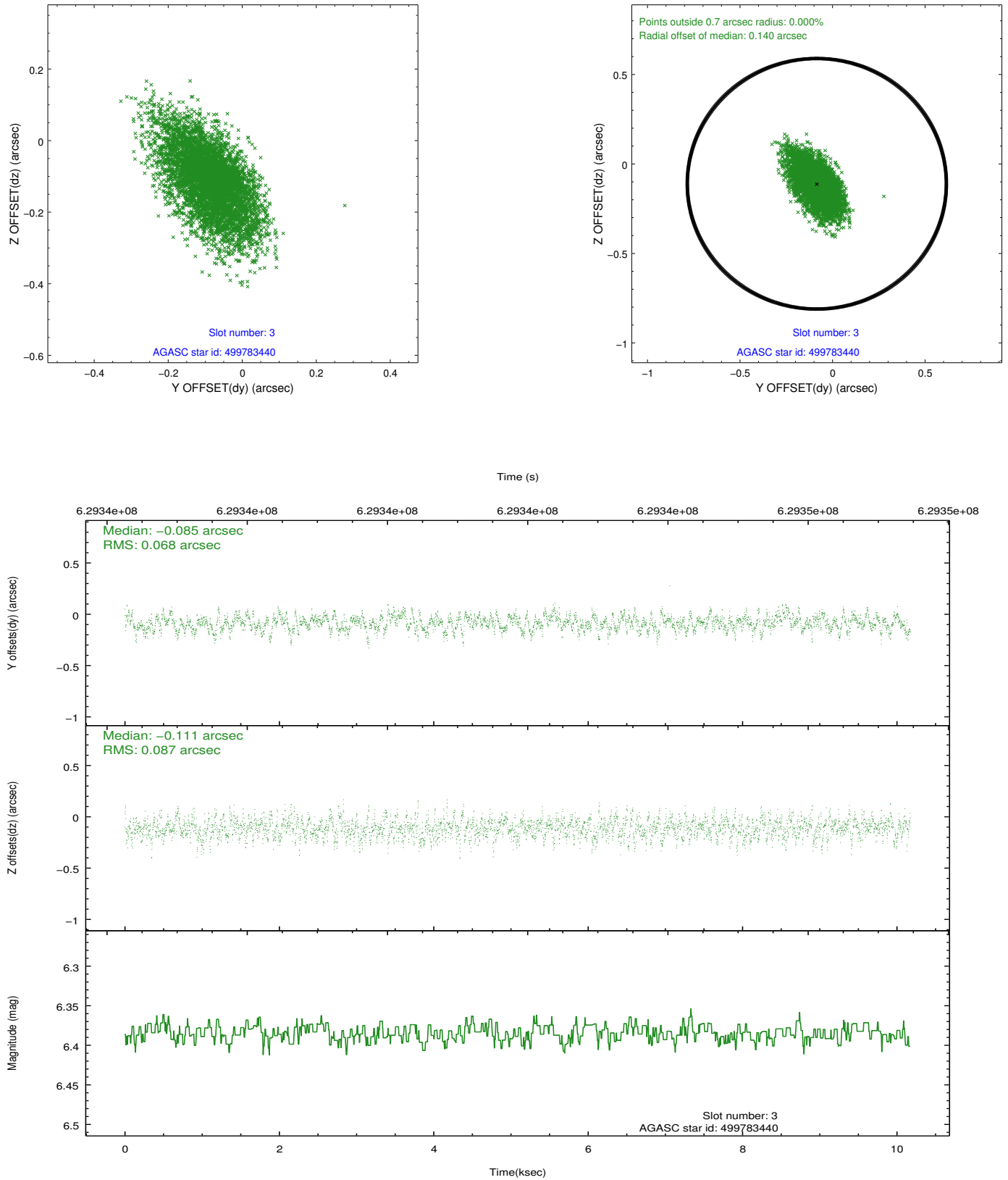


Slot Statistics

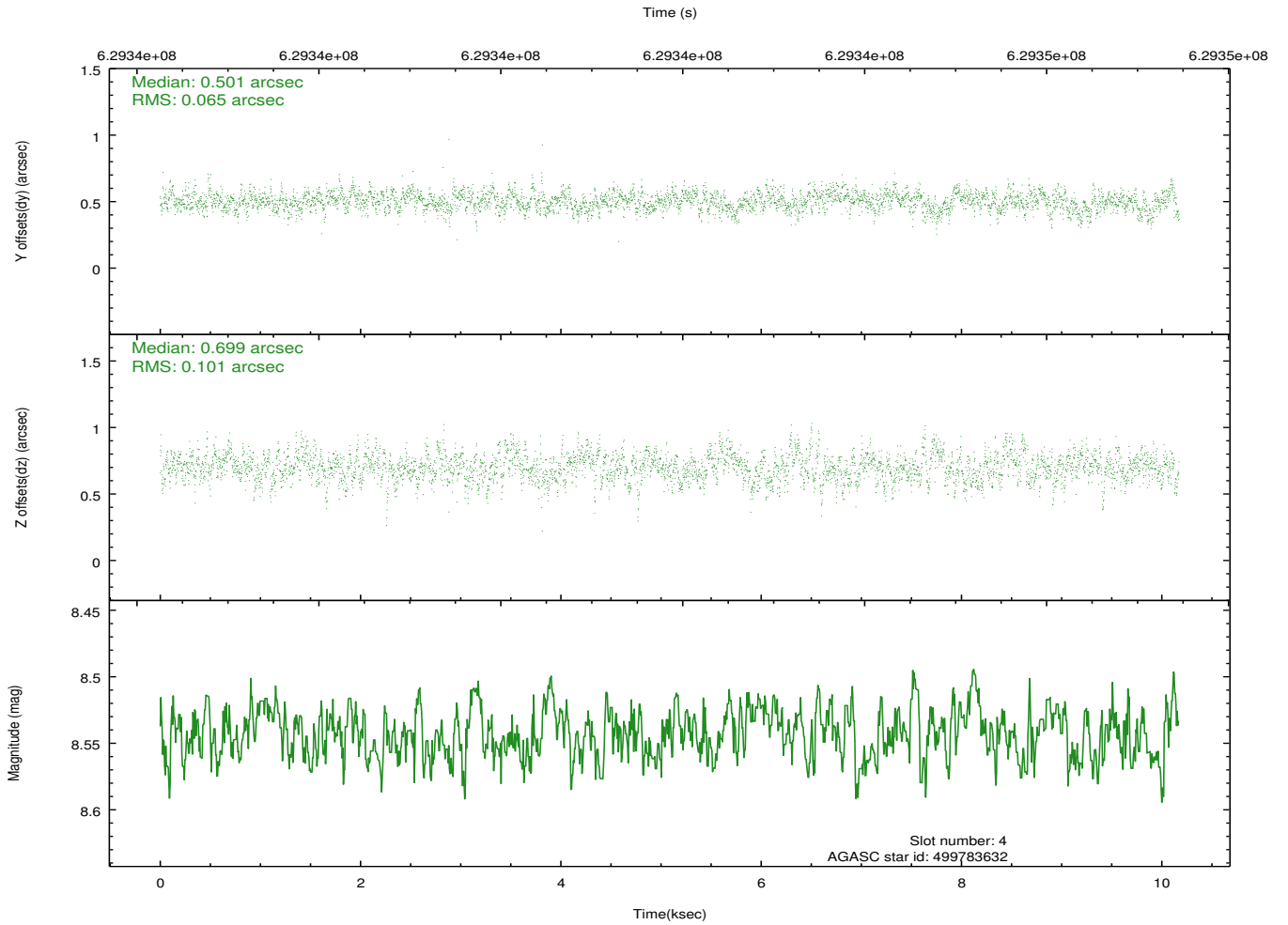
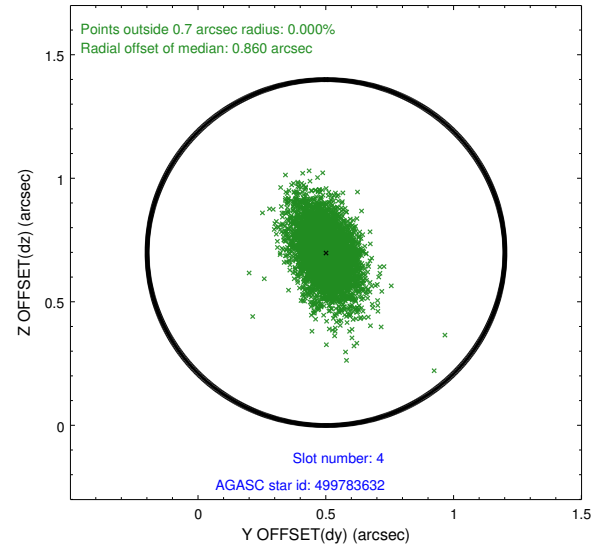
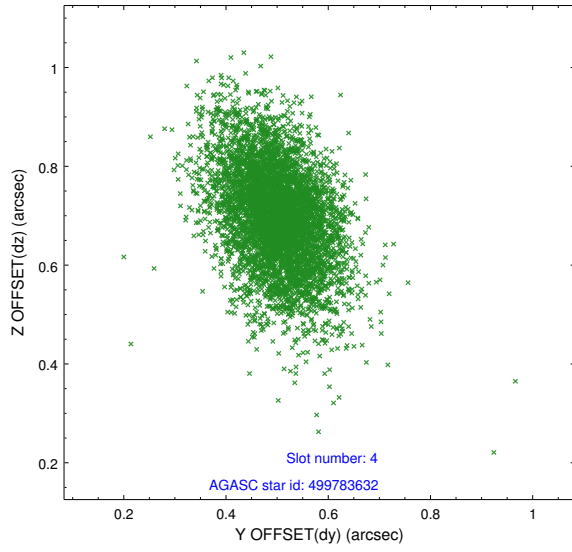
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.04	2482	-0.263	-0.116	0.007	0.012	0.000000	0.000000	-773.68	-1742.38
1	FID		ACIS-S-4	7.16	2482	0.535	0.158	0.006	0.011	0.000000	0.000000	2140.13	165.87
2	FID		ACIS-S-5	7.15	2482	-0.303	-0.033	0.007	0.012	0.000000	0.000000	-1825.93	159.89
3	GUIDE	used	499783440	6.38	4963	-0.085	-0.111	0.115	0.200	144.753026	58.548181	-670.44	1887.47
4	GUIDE	used	499783632	8.54	4957	0.501	0.699	0.124	0.219	146.265632	58.439161	-1604.03	-828.37
5	GUIDE	used	499784104	7.89	4961	0.123	-0.004	0.144	0.235	145.245227	58.589276	-710.82	952.75
6	GUIDE	used	499785216	8.87	4955	-0.210	-0.146	0.133	0.229	144.913862	58.865617	387.13	1361.38
7	GUIDE	used	499788568	9.22	4955	-0.329	-0.435	0.205	0.338	144.435875	58.942450	840.46	2174.50

2.4 Star Slots

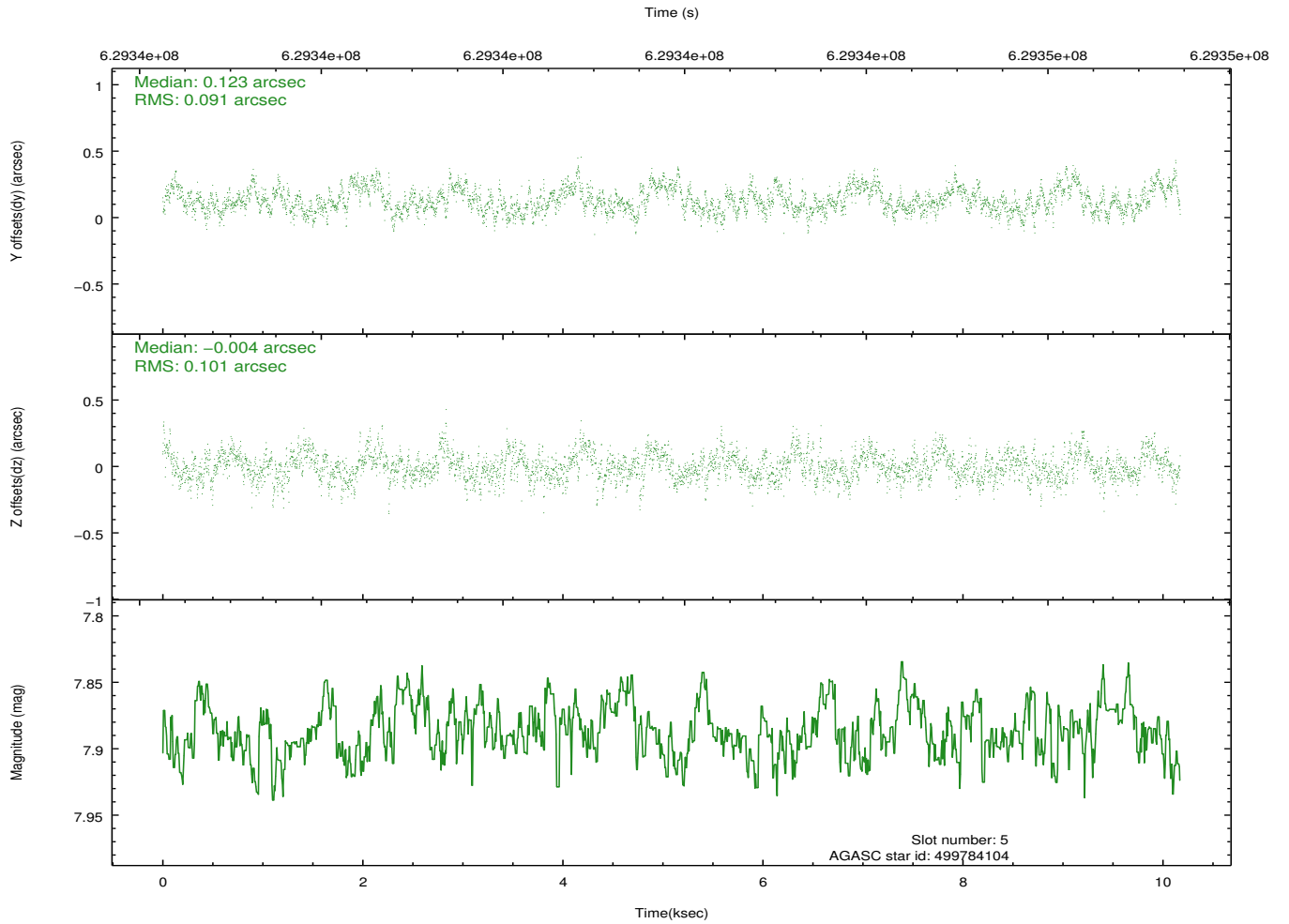
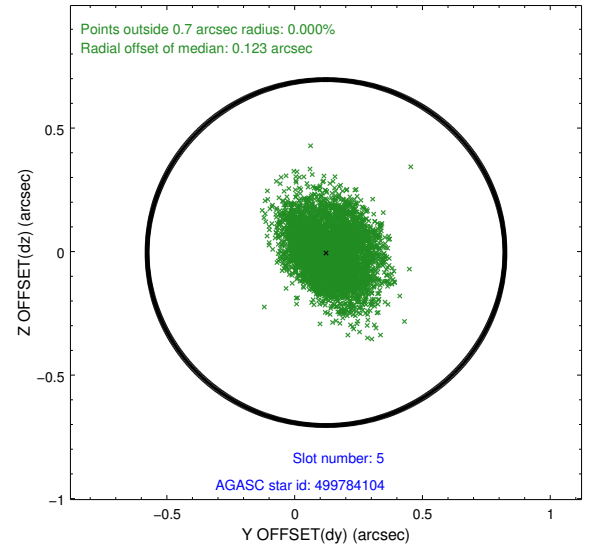
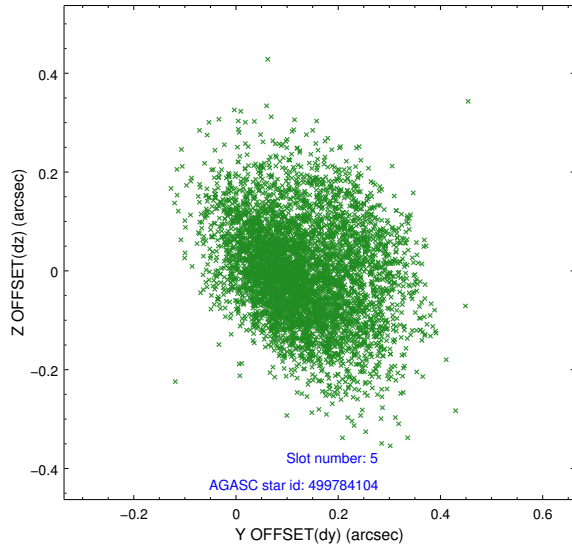
2.4.1 Slot 3



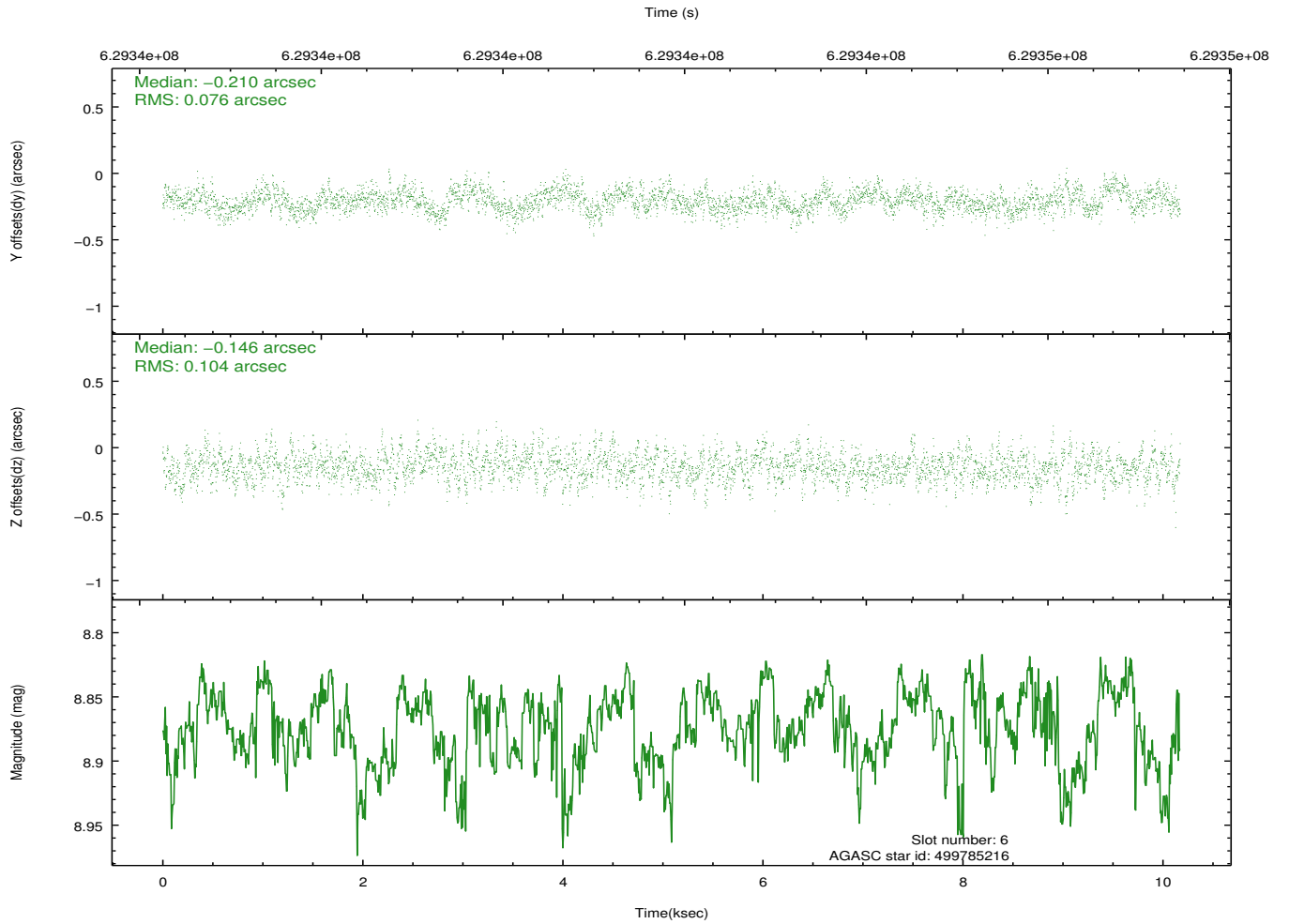
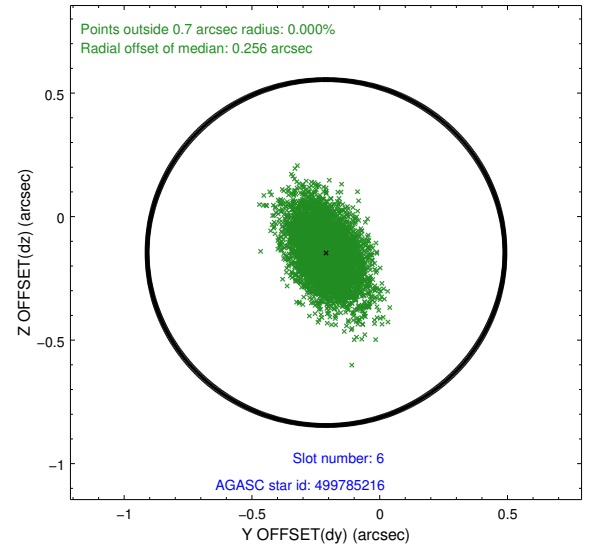
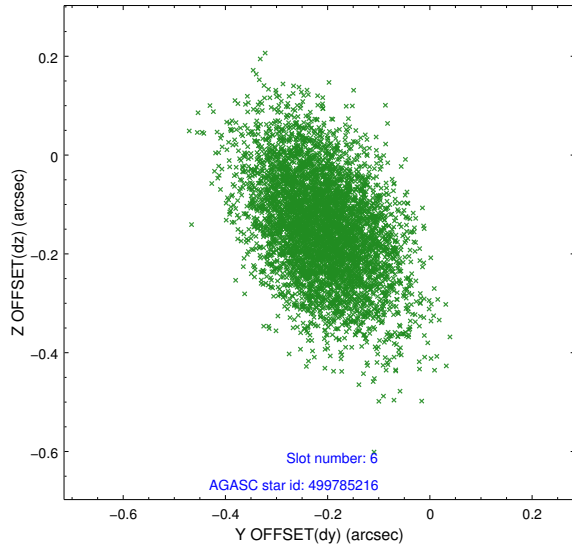
2.4.2 Slot 4



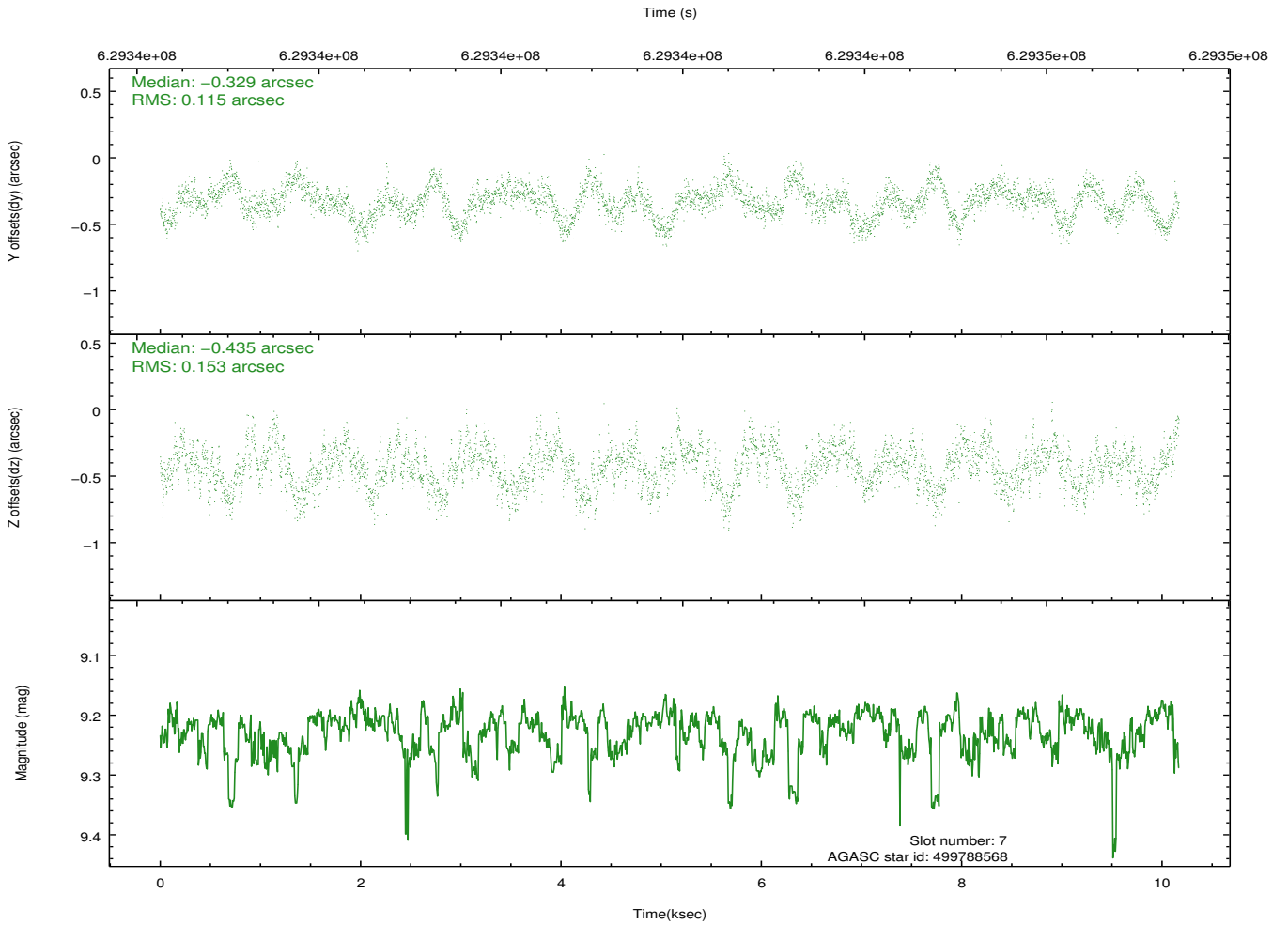
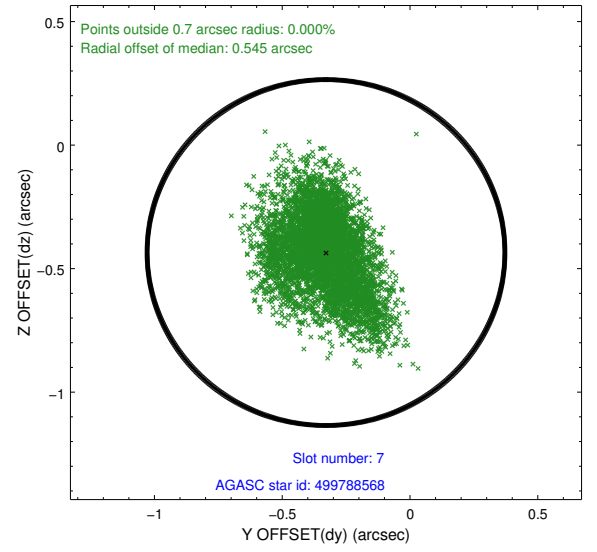
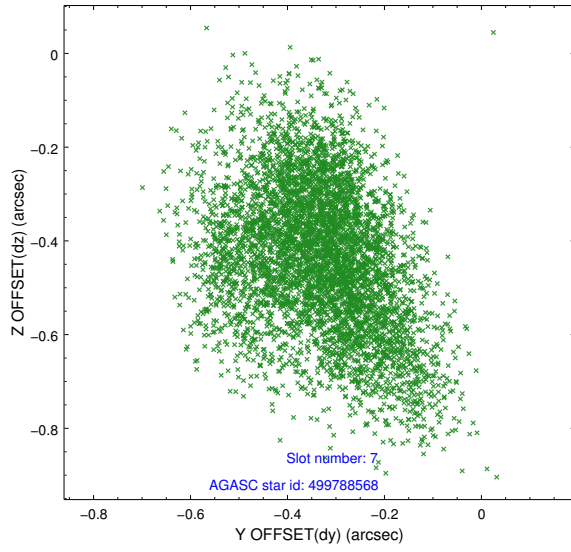
2.4.3 Slot 5



2.4.4 Slot 6

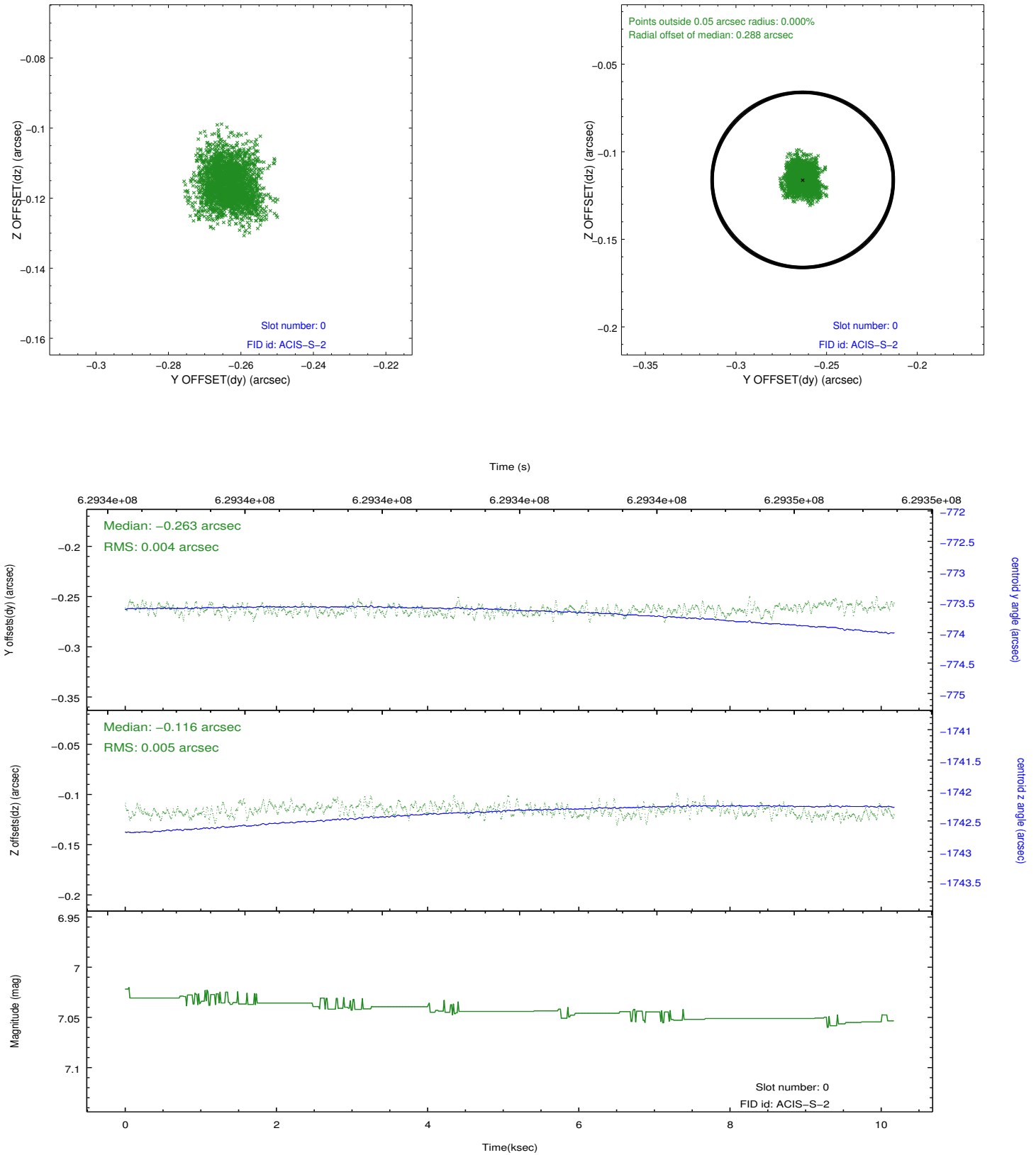


2.4.5 Slot 7

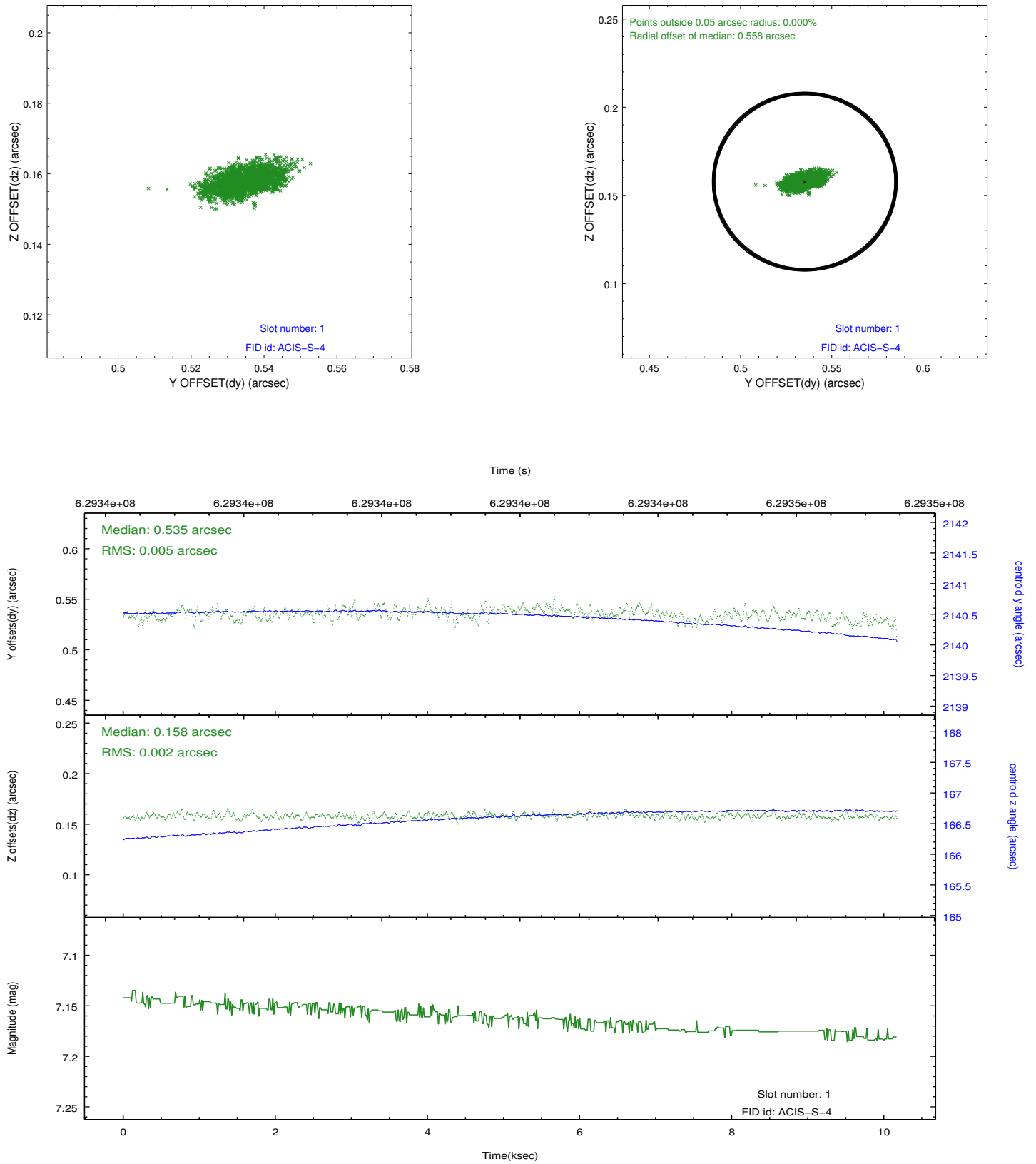


2.5 FID Slots

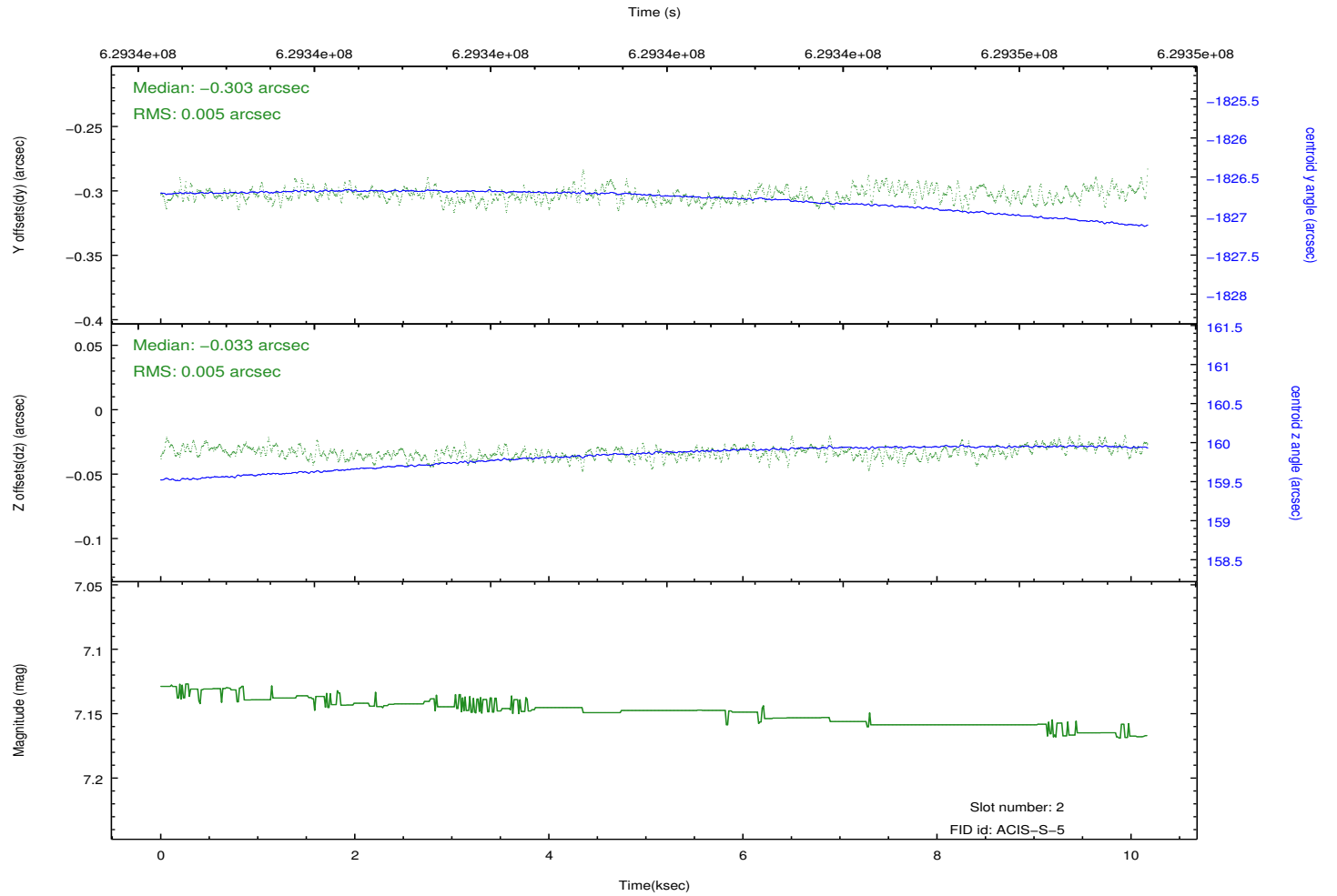
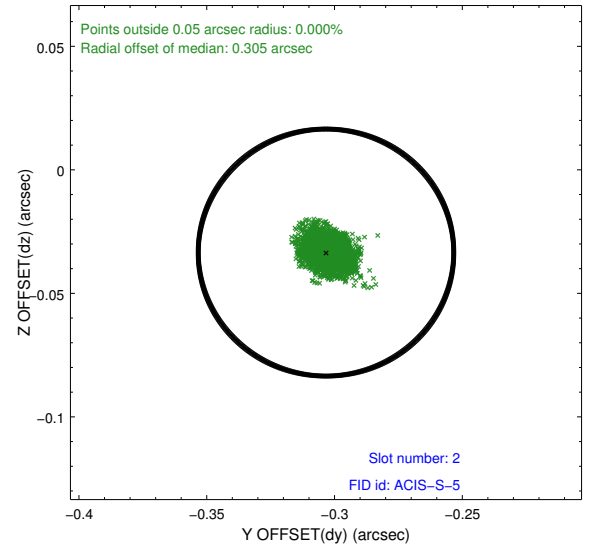
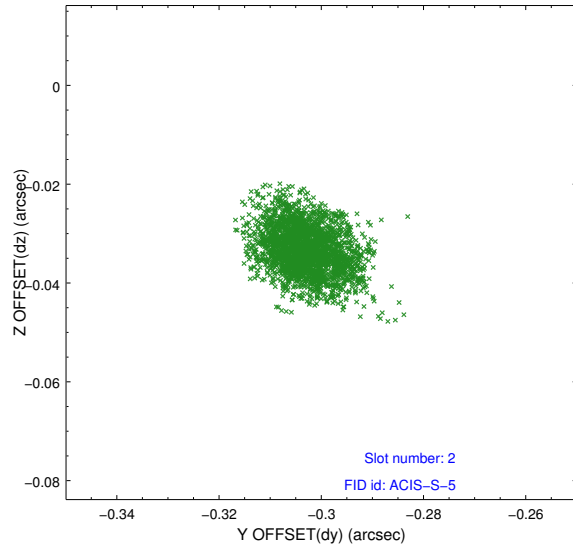
2.5.1 Slot 0



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)	2017.12.11
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	10.067833922029

A.2 Comments

A spatial region of the original bias maps for CCD = 3 and CCD = 6 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this anomaly. In this case, the bias maps for CCD = 3 and CCD = 6 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias maps used in this processing are the original bias maps telemetered with the observation.