

V&V Reference Report

L2 ASCDS Version : 10

Observation 15095 - L2 Version 2
Chandra X-Ray Center

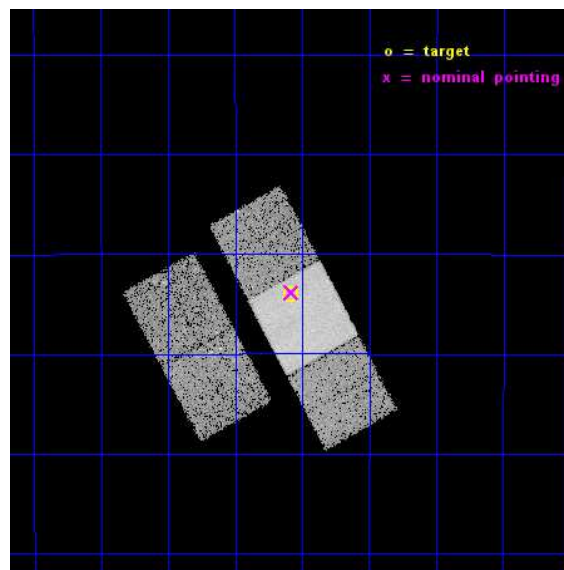
L2 Processing Date : Dec 6 2014

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1 Front

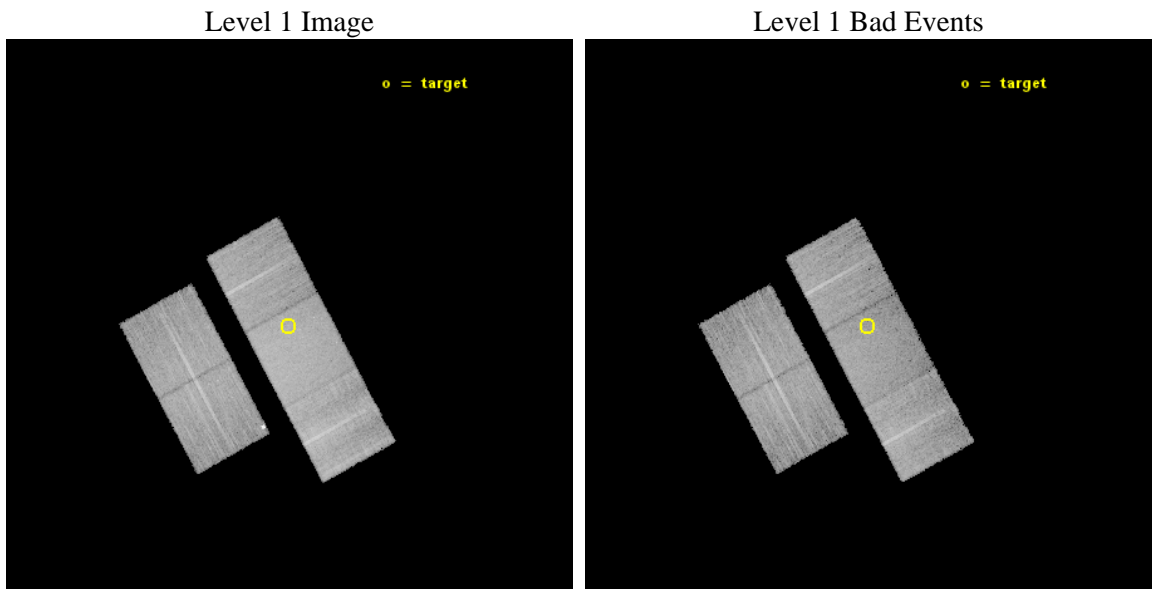
seq_num	801224	Sequence number
obs_id	15095	Observation id
title	Extreme constraints on ICM physics and cosmology: a deep observation of XMMUJ0044, the most distant massive cluster	Proposal title
observer	Dr Paolo Tozzi	Principal investigator
object	XMMUJ0044.0-2033	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	11.021667	Observer's specified target RA [deg]
dec_targ	-20.566583	Observer's specified target Dec [deg]
ra_nom	11.020108478282	Nominal RA [deg]
dec_nom	-20.563931939279	Nominal Dec [deg]
roll_nom	61.558665022586	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20069.130733132	Sum of GTIs [s]
livetime	19806.912765425	Livetime [s]
ontime2	20068.966573119	Sum of GTIs [s]
ontime3	20065.907622755	Sum of GTIs [s]
ontime6	20069.089693129	Sum of GTIs [s]
ontime7	20069.130733132	Sum of GTIs [s]
ontime8	20069.007613122	Sum of GTIs [s]
l2events	95308	Number of level 2 events



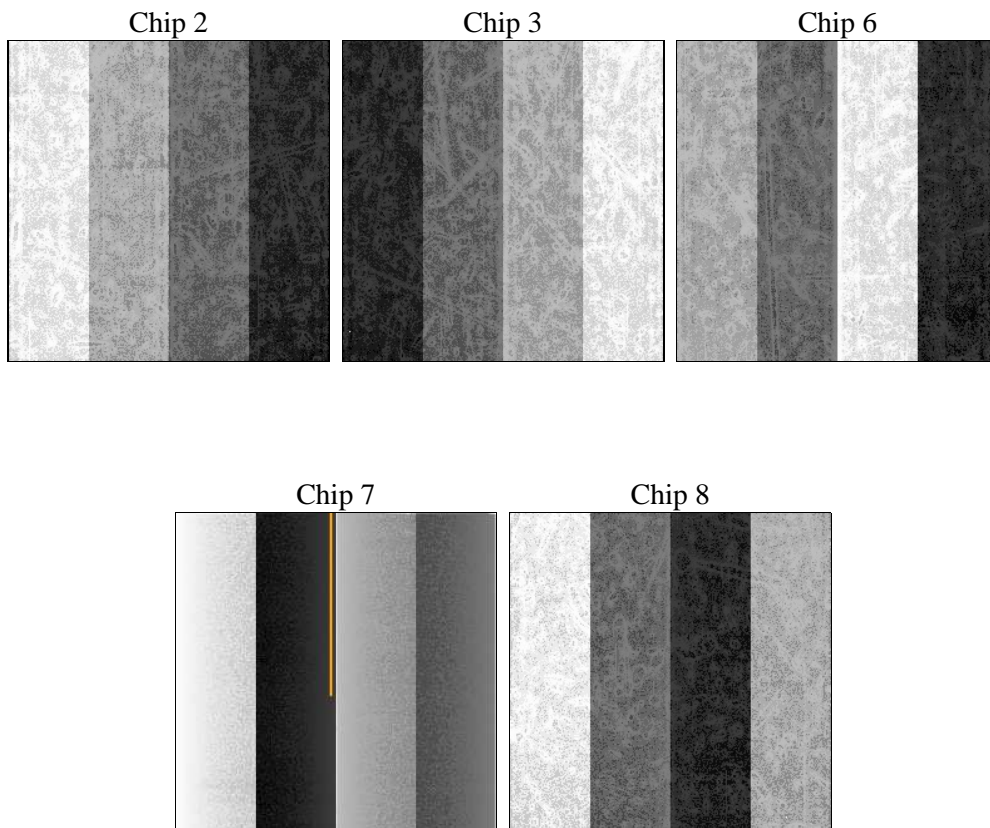
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	20069.130733132	Sum of GTIs [s]
caldbver	4.6.4	 	ontime2	20068.966573119	Sum of GTIs [s]
date	2014-12-06T16:00:07	Date and time of file creation	ontime3	20065.907622755	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	20069.089693129	Sum of GTIs [s]
			ontime7	20069.130733132	Sum of GTIs [s]
			ontime8	20069.007613122	Sum of GTIs [s]
			l1events	533036	Number of level 1 events

2.1.4 Events

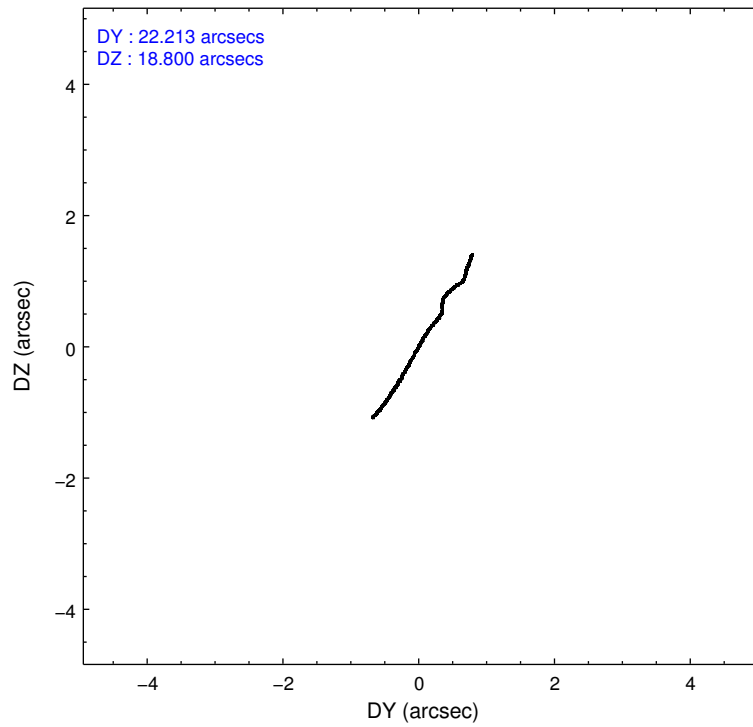
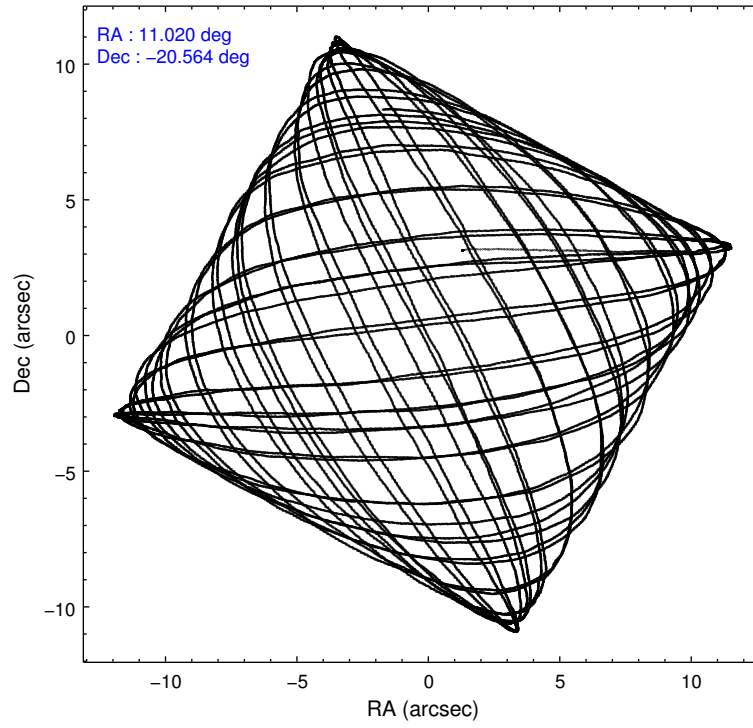
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	91076	94744	94153	129617	123446
rejected events	80267	81715	82693	73231	91126
rejected %	88%	86%	87%	56%	73%

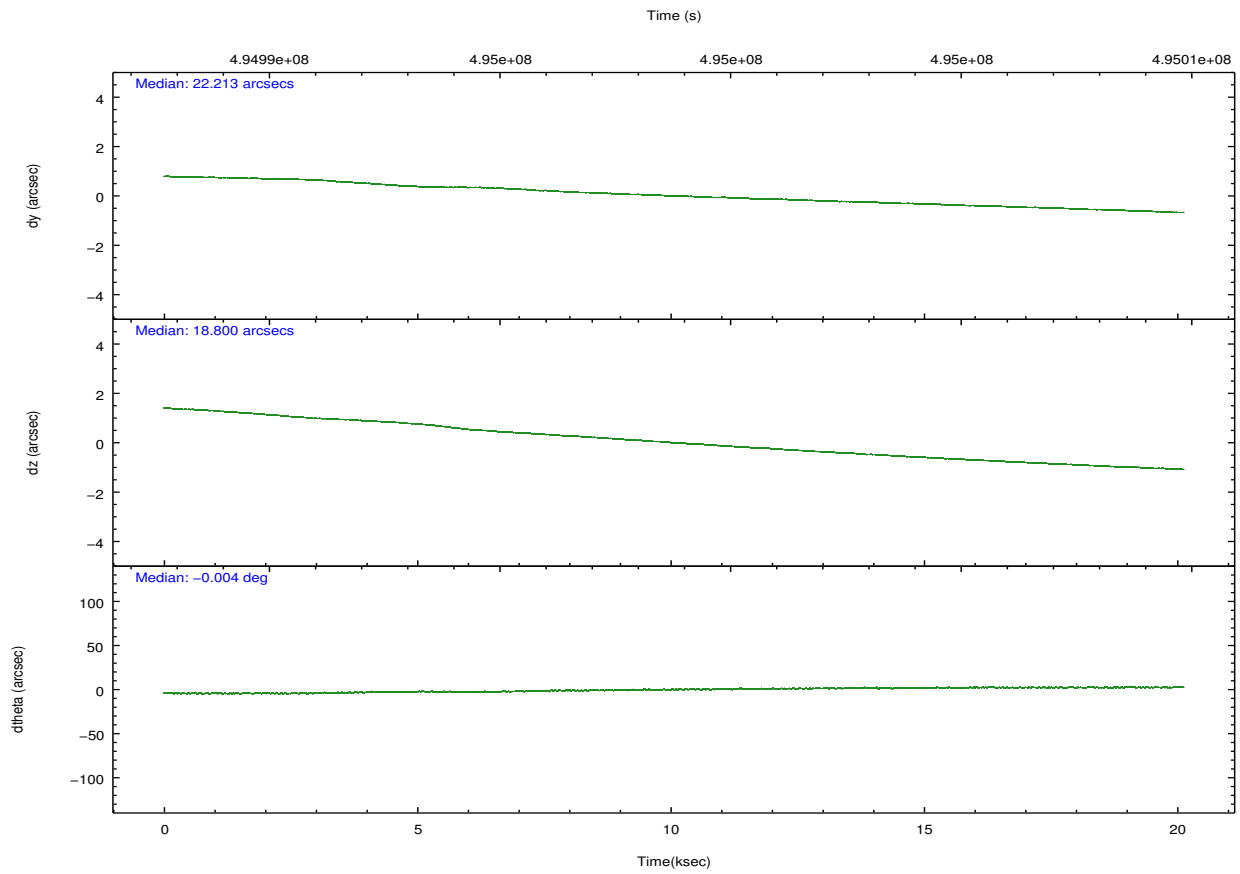
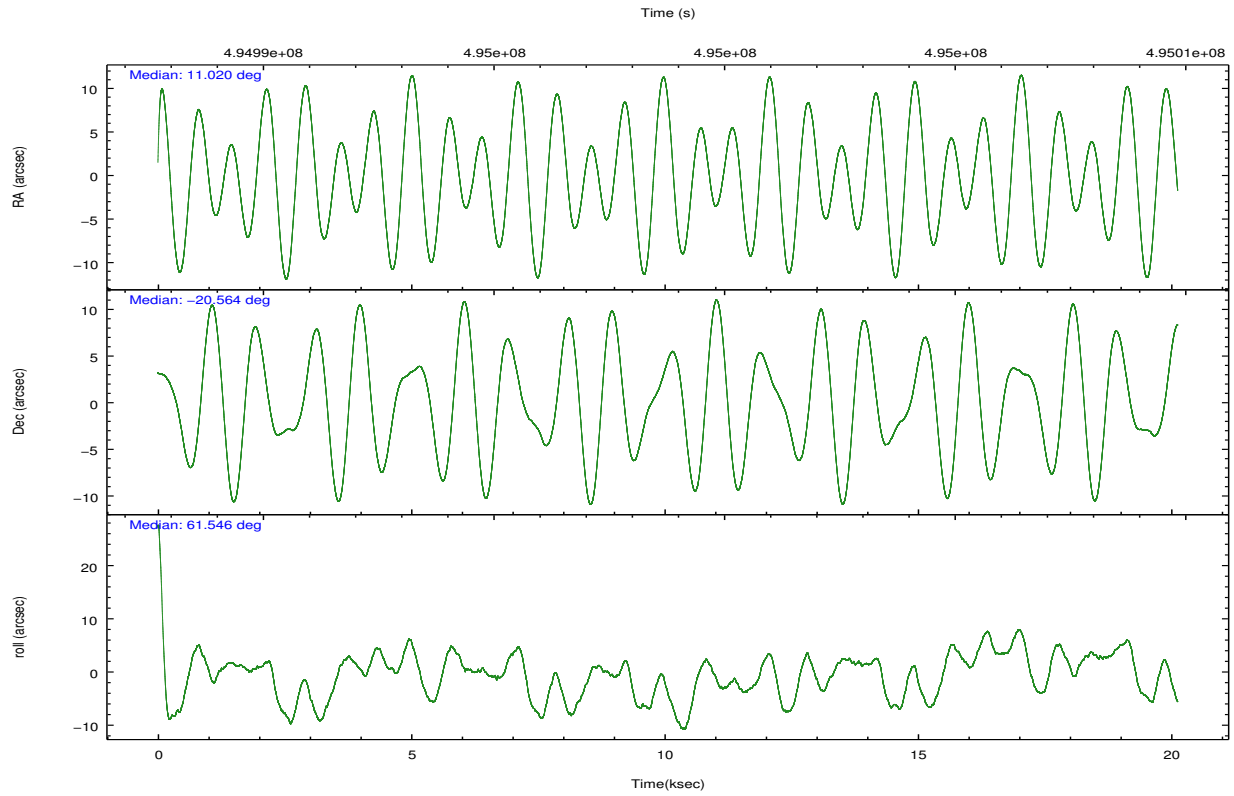
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	3842	6109	3856	5064	9527
	4%	6%	4%	3%	7%
grade 1 events	57	68	35	163	96
	0%	0%	0%	0%	0%
grade 2 events	2599	2369	2563	11523	7529
	2%	2%	2%	8%	6%
grade 3 events	1087	1119	1190	4888	3580
	1%	1%	1%	3%	2%
grade 4 events	1161	1157	1168	4757	3353
	1%	1%	1%	3%	2%
grade 5 events	4065	4984	4990	13477	7124
	4%	5%	5%	10%	5%
grade 6 events	2120	2282	2691	30170	8336
	2%	2%	2%	23%	6%
grade 7 events	76145	76656	77660	59575	83901
	83%	80%	82%	45%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	11.021297	11.02010847828243	Subarray requested	NONE	NONE
[deg] Pointing Dec	-20.591258	-20.56393193927891	Alternating exposures requested	N	N
[deg] Pointing Roll	61.402430	61.55866502258589	[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)	494988819.184000	494987520.73749			
Observation start date	2013-09-08T00:52:32	2013-09-08T00:32:00			
[s] Observation end time (MET)	495008819.184000	495010025.12622			
Observation end date	2013-09-08T06:25:52	2013-09-08T06:47:05			
Read mode	TIMED	TIMED			

2.3 Aspect





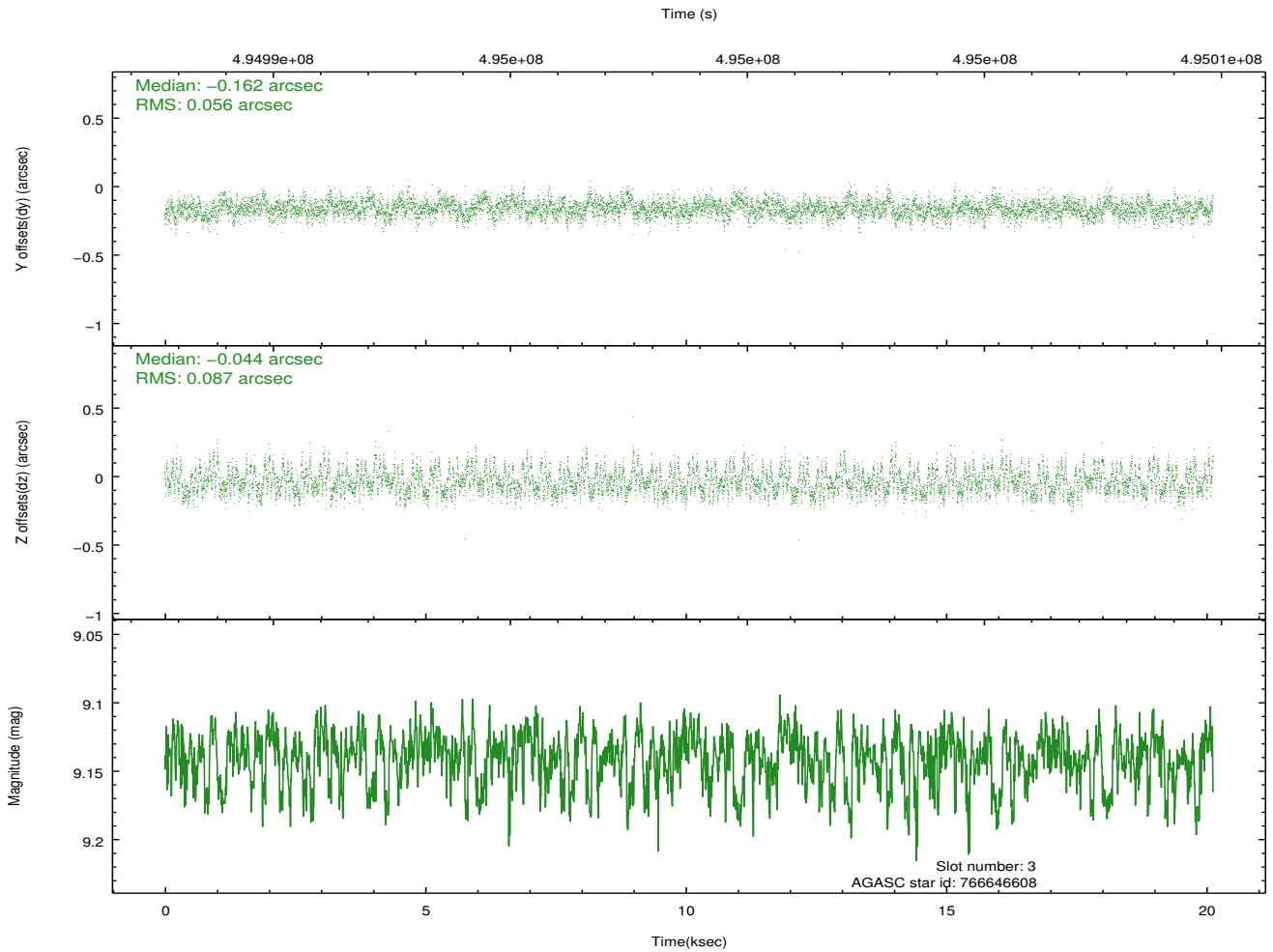
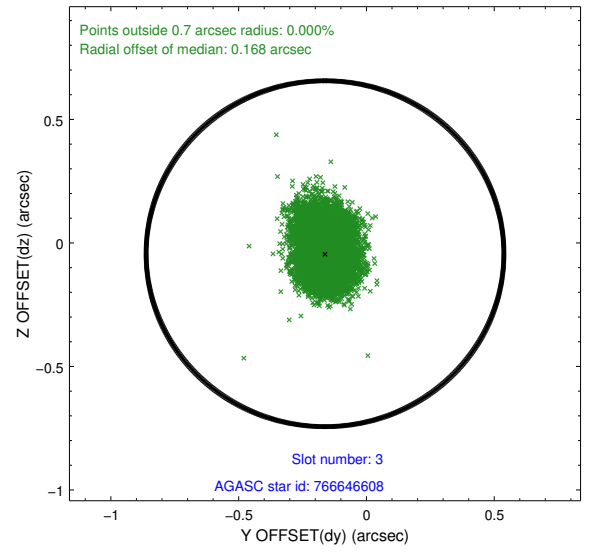
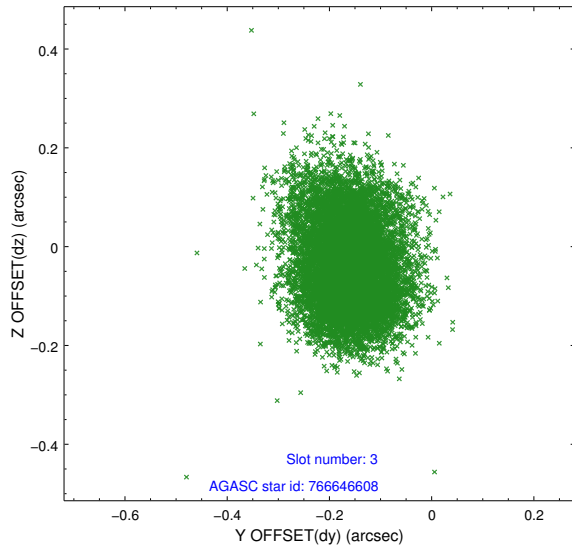
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.91	4909	-0.108	-0.043	0.016	0.039	0.000000	0.000000	-775.54	-1740.38
1	FID		ACIS-S-4	7.00	4909	0.263	0.064	0.030	0.042	0.000000	0.000000	2138.03	168.00
2	FID		ACIS-S-5	7.02	4910	-0.187	-0.011	0.022	0.039	0.000000	0.000000	-1828.22	161.82
3	GUIDE	used	766646608	9.14	9813	-0.162	-0.044	0.110	0.178	11.216160	-20.336771	1118.63	-139.21
4	GUIDE	used	766654496	9.39	9809	-0.258	0.061	0.161	0.265	11.545095	-20.663870	611.75	-1674.17
5	GUIDE	used	766649880	9.74	9743	-0.213	-0.145	0.192	0.295	10.691593	-20.360135	196.69	1374.19
6	GUIDE	used	766653208	9.46	9811	0.447	-0.233	0.123	0.197	10.947629	-21.070490	-1632.39	-608.89
7	GUIDE	used	766653384	9.61	9751	0.173	0.370	0.188	0.298	10.985393	-21.081265	-1606.92	-738.23

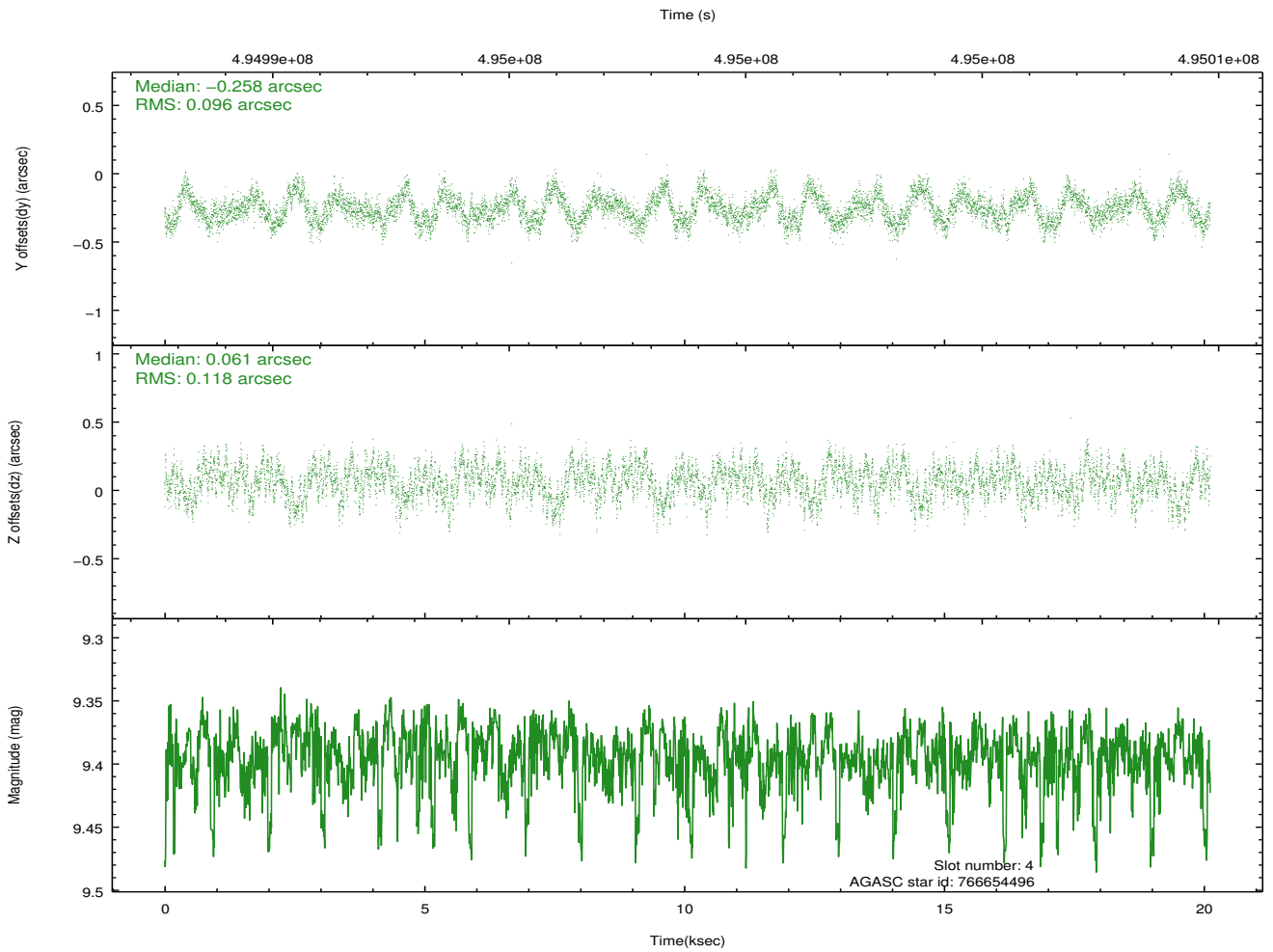
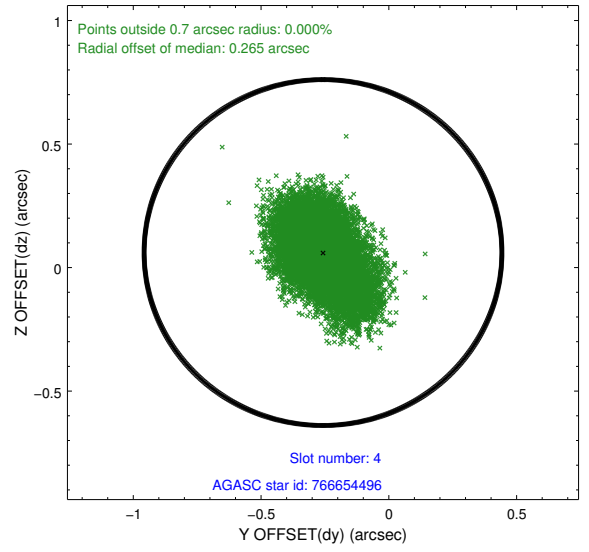
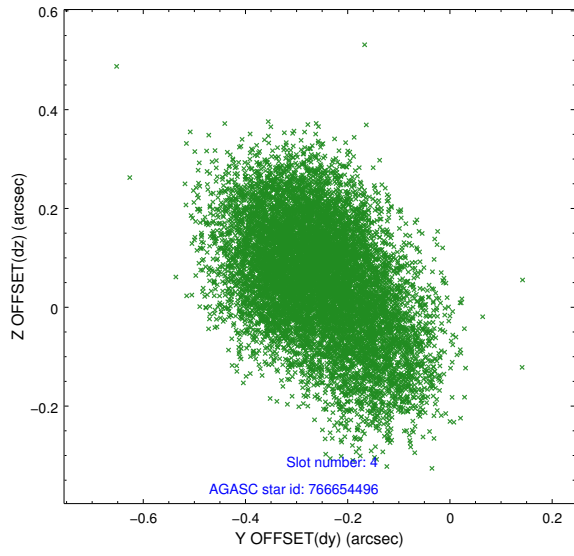
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2.4 Star Slots

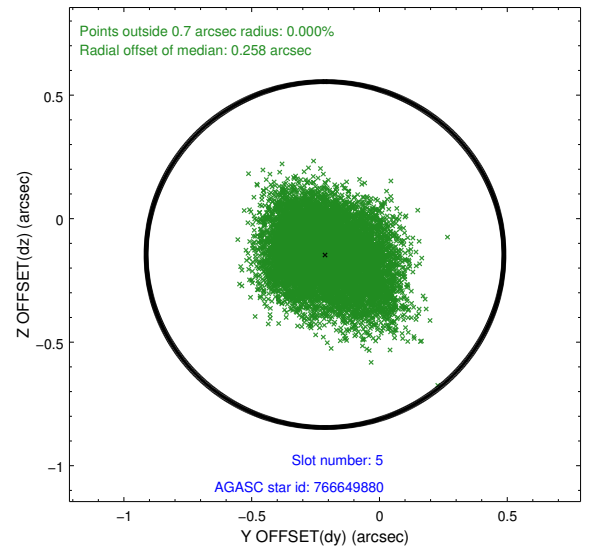
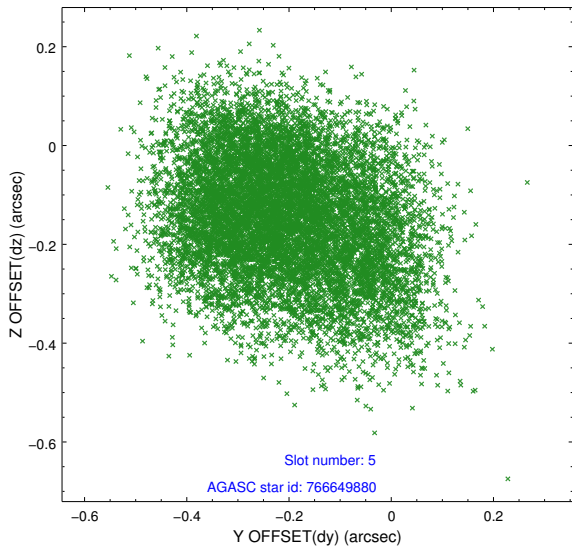
2.4.1 Slot 3



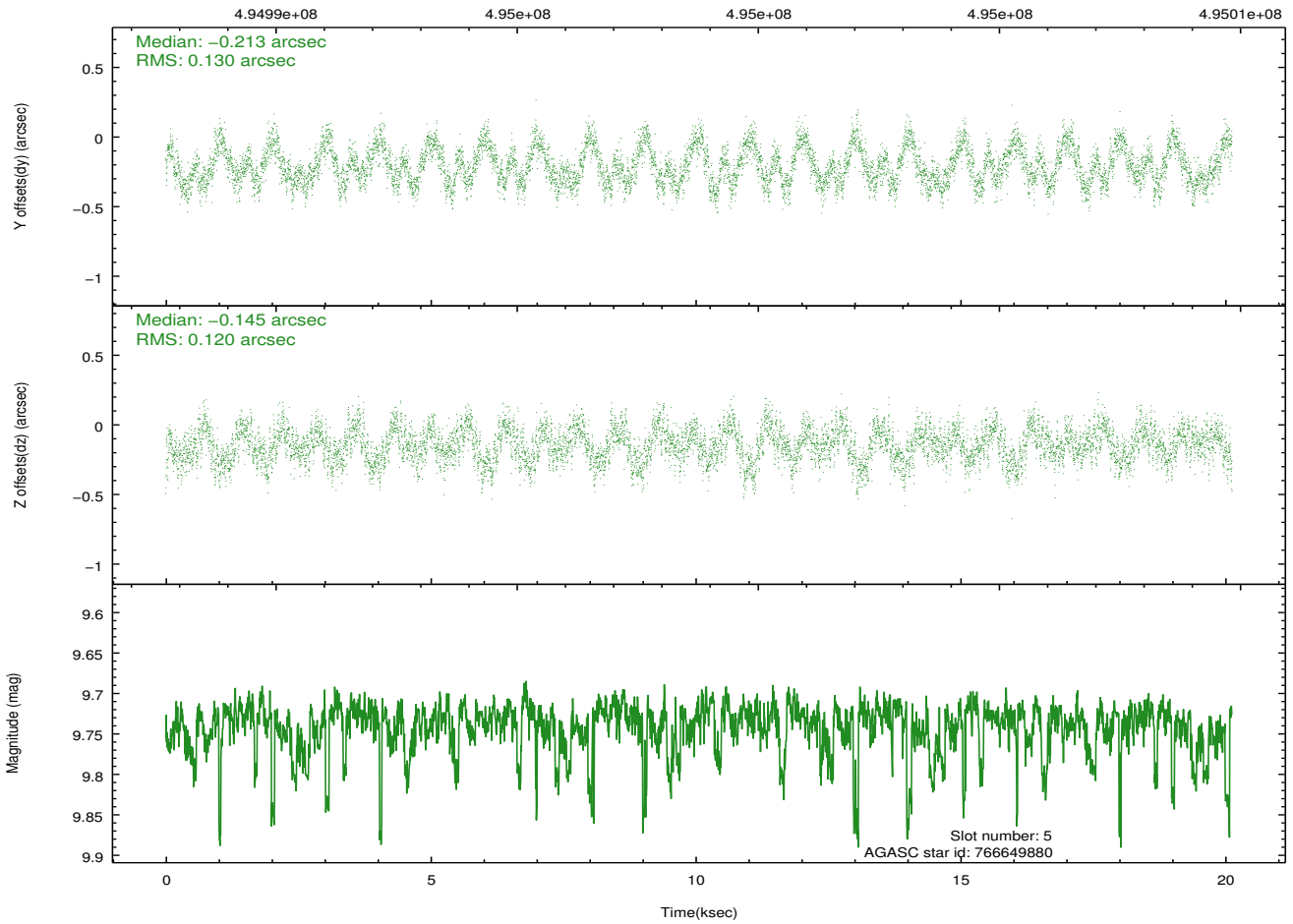
2.4.2 Slot 4



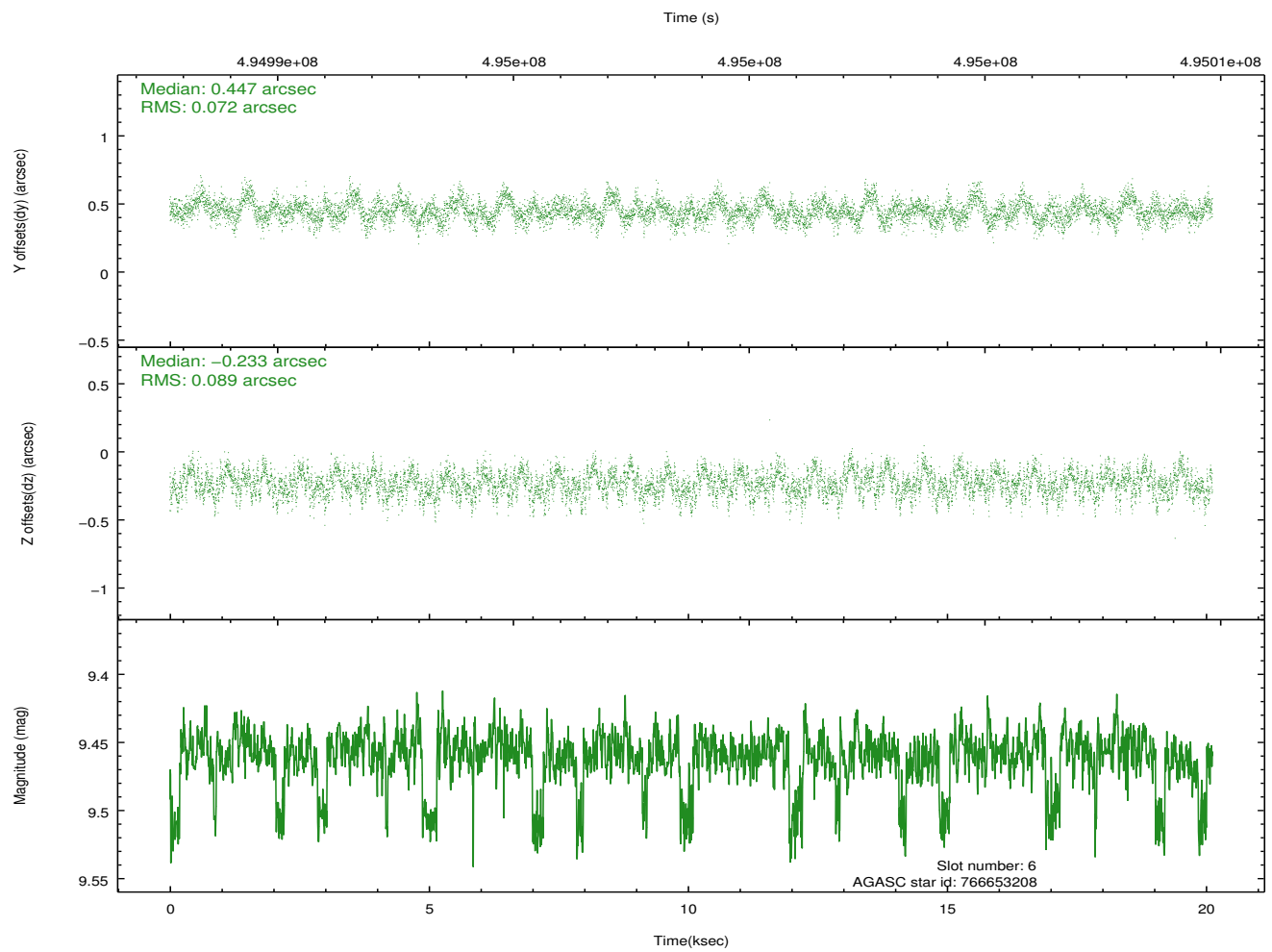
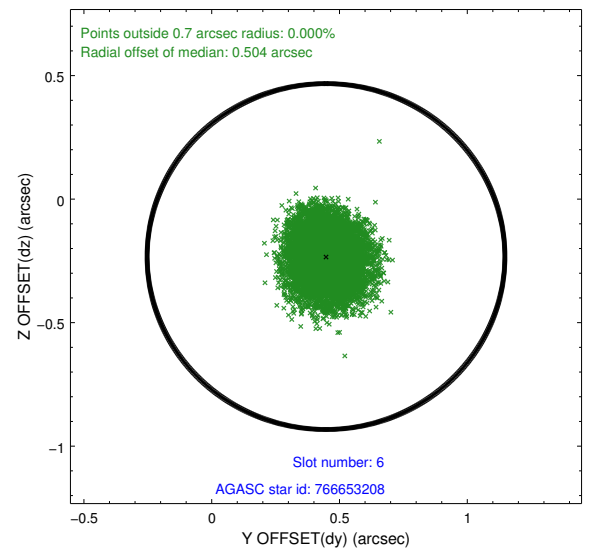
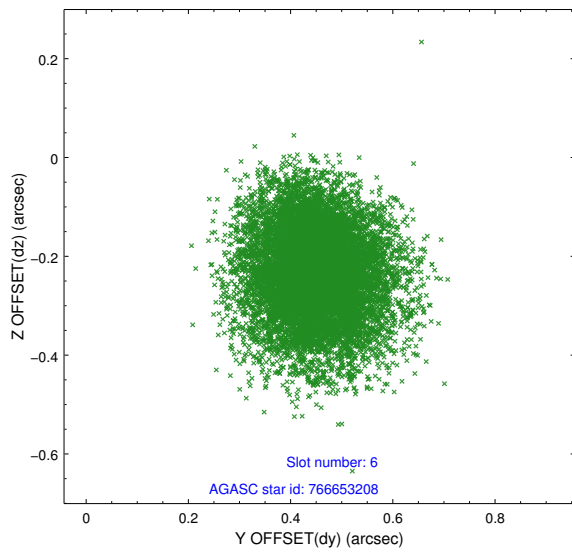
2.4.3 Slot 5



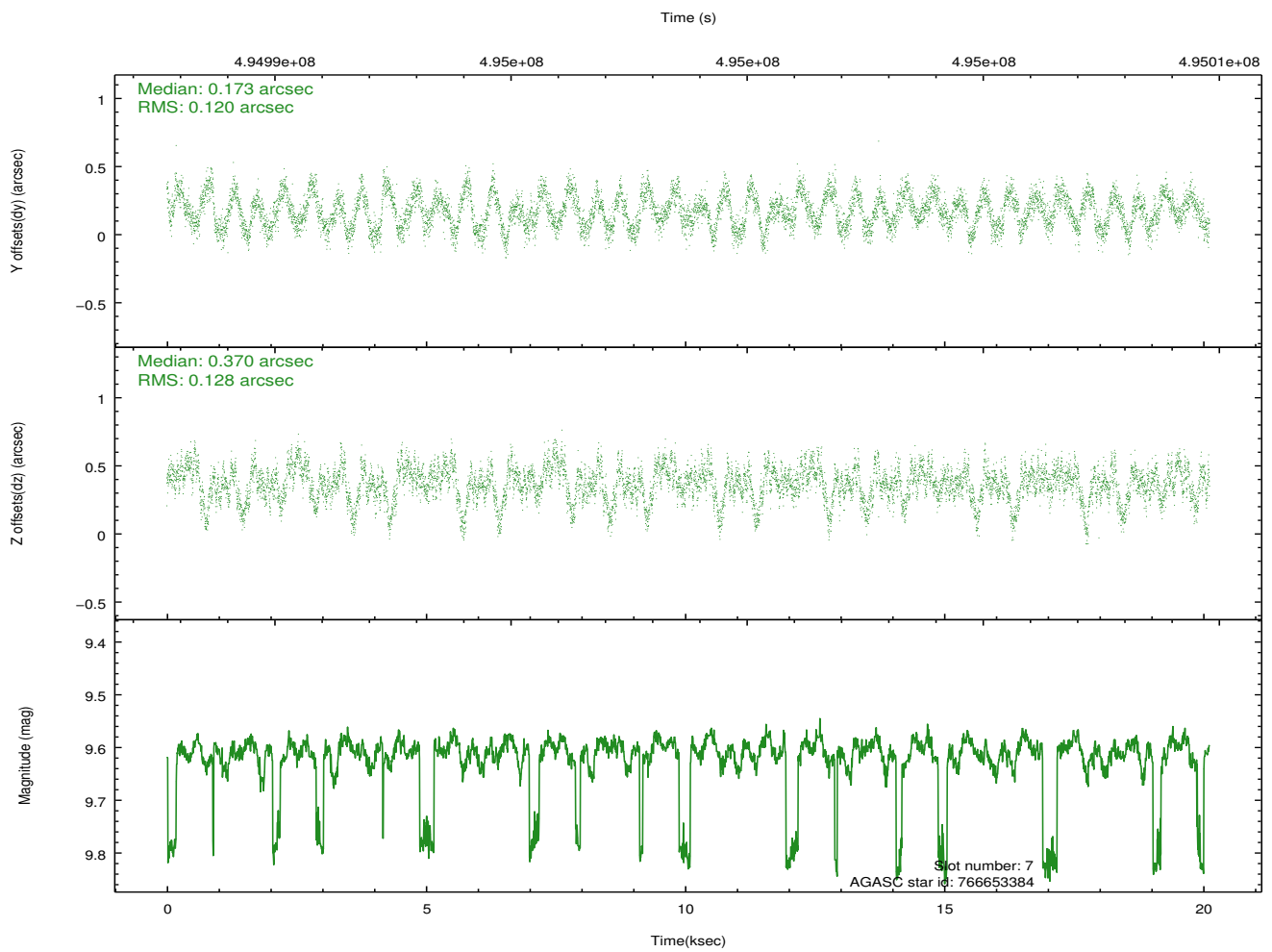
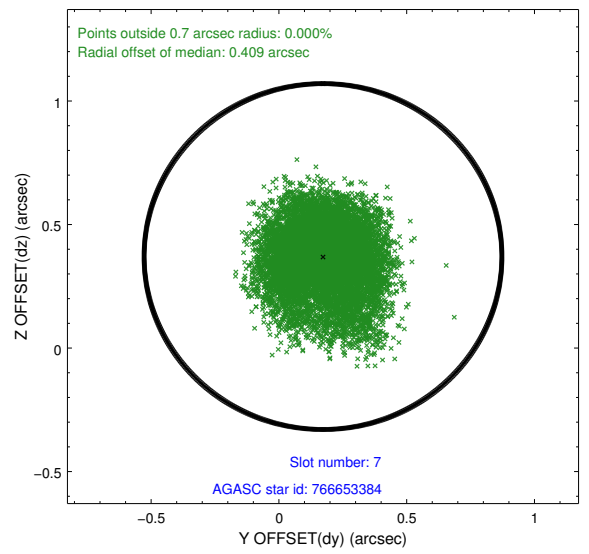
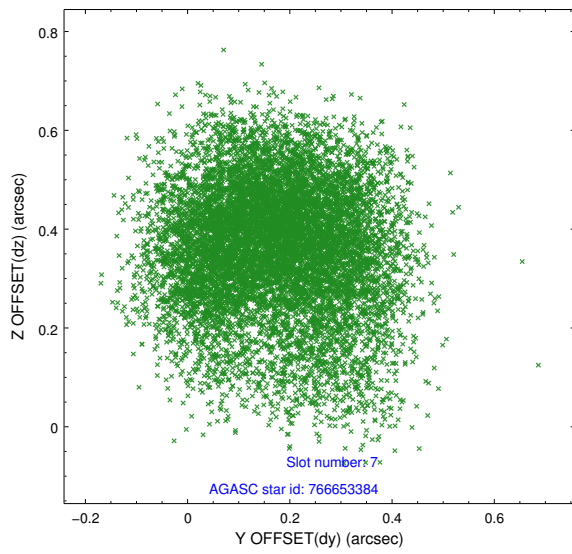
Time (s)



2.4.4 Slot 6

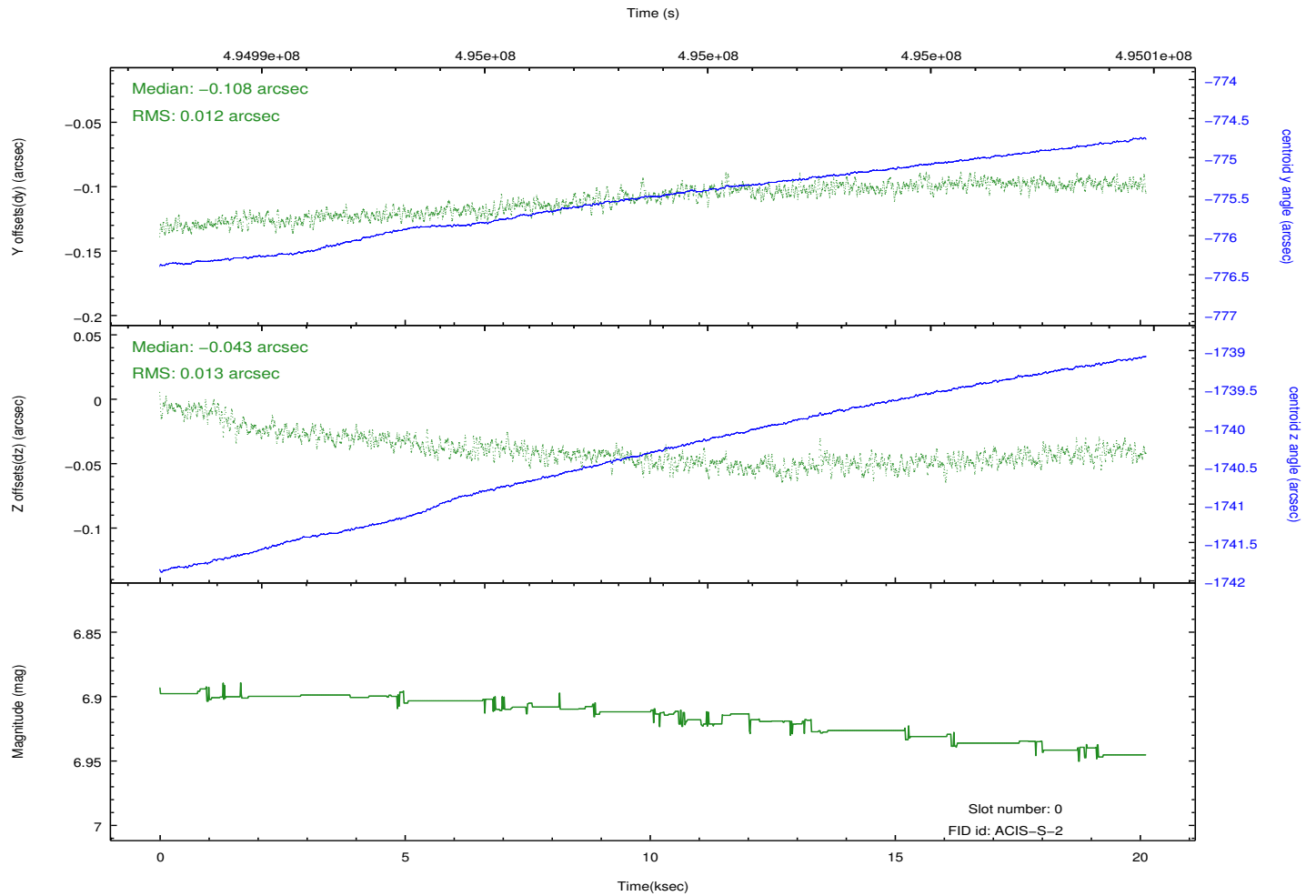
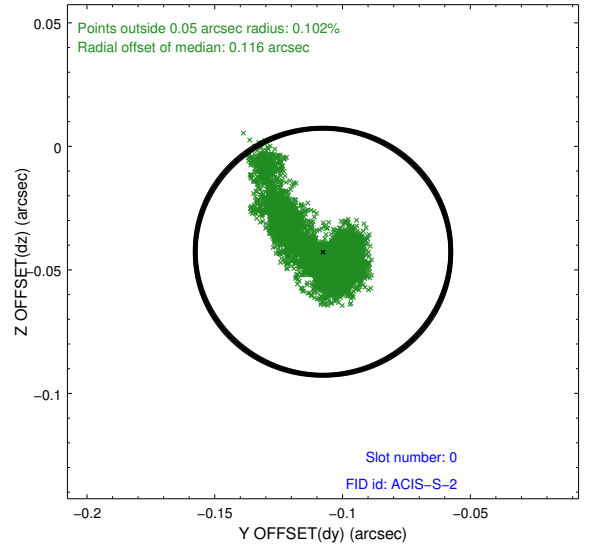
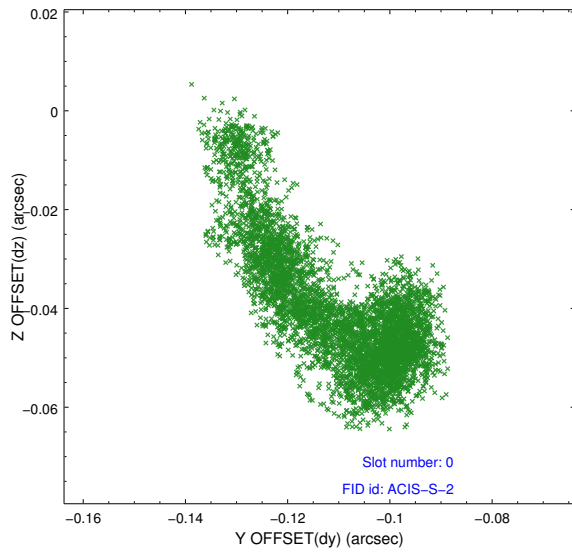


2.4.5 Slot 7

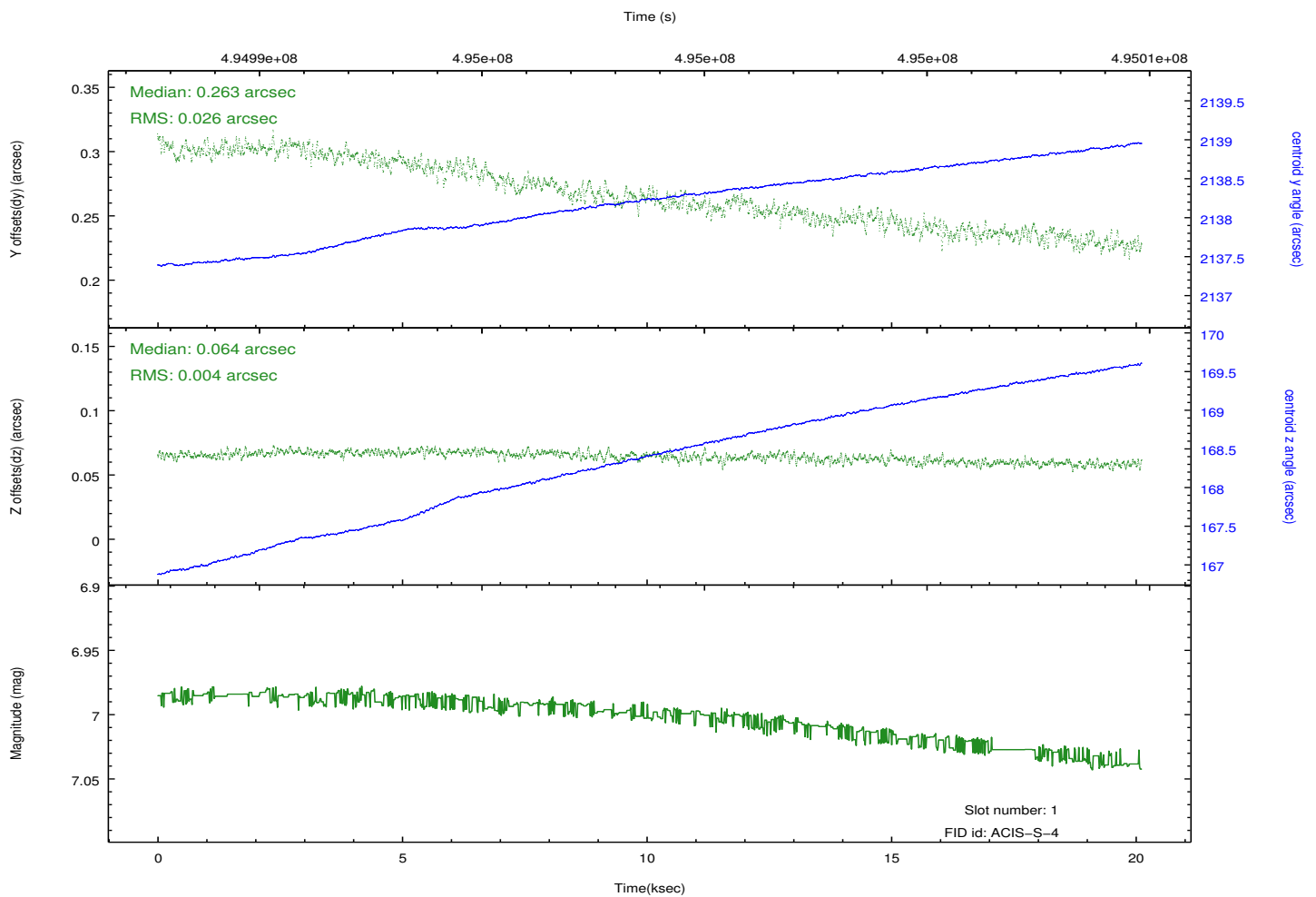
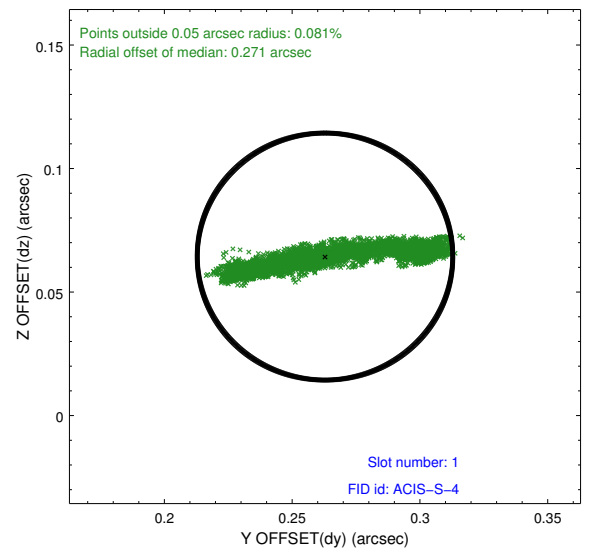
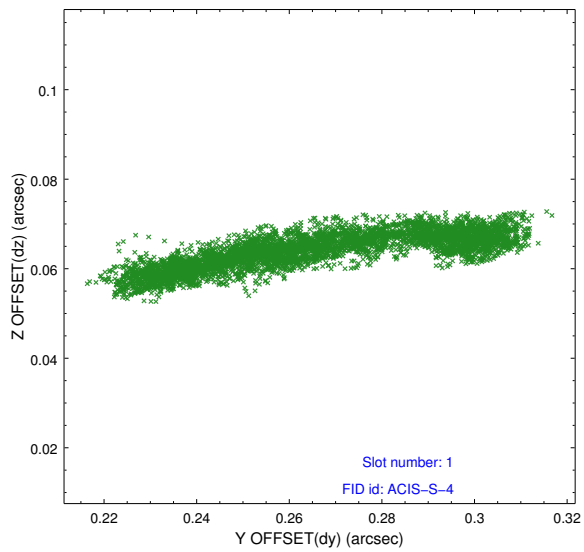


2.5 FID Slots

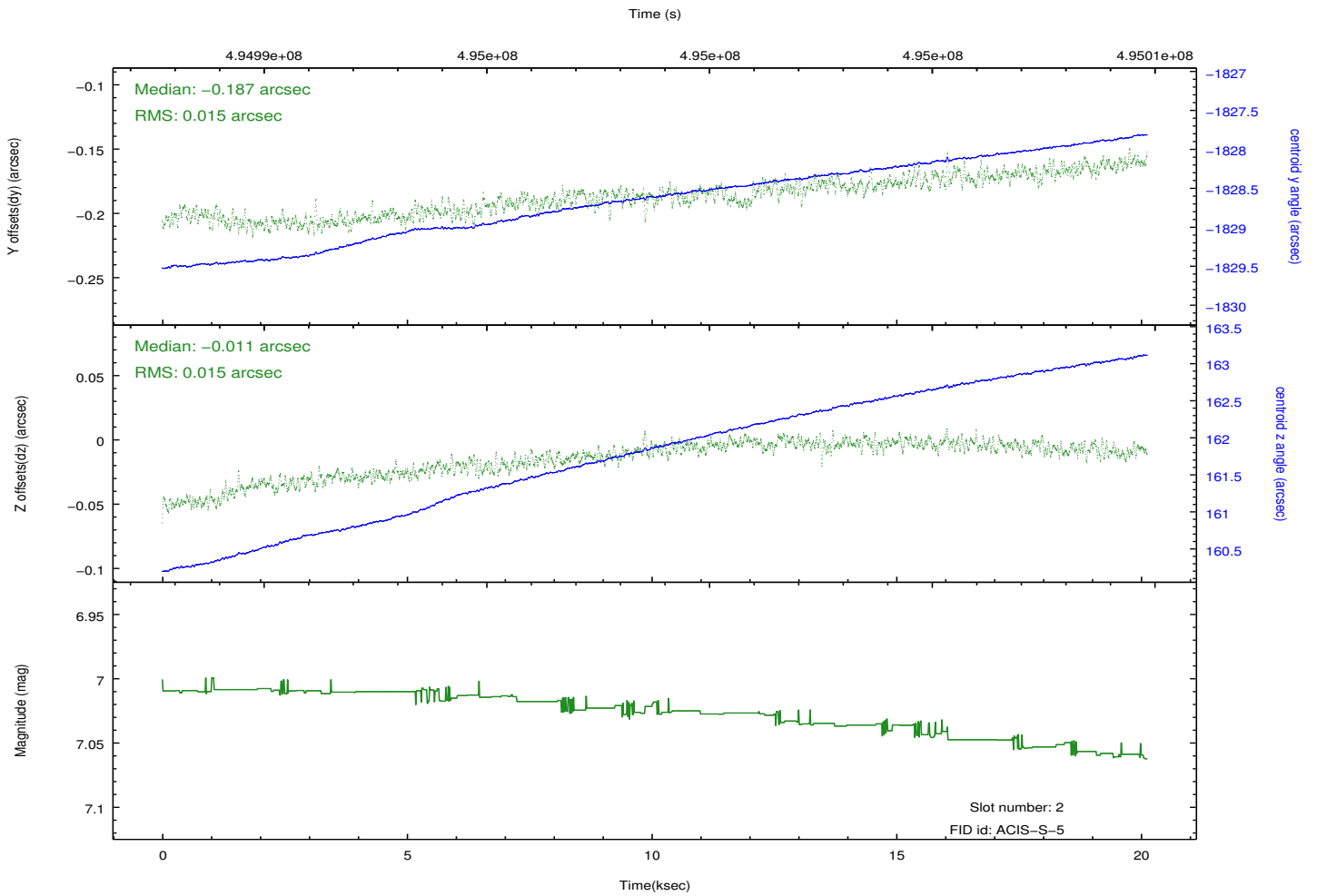
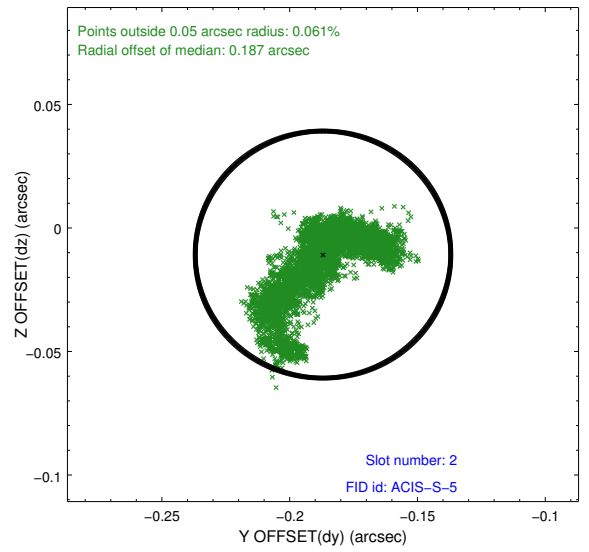
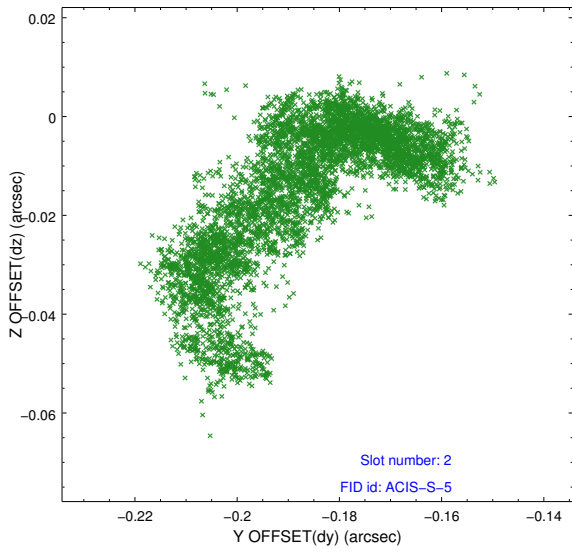
2.5.1 Slot 0



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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.069130733132

A.2 Comments

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.