

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 16257 - L2 Version 2
Chandra X-Ray Center

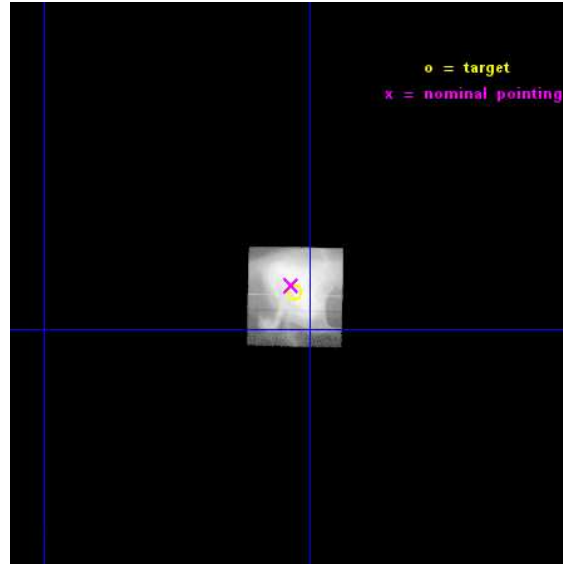
L2 Processing Date : Dec 7 2014

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1 Front

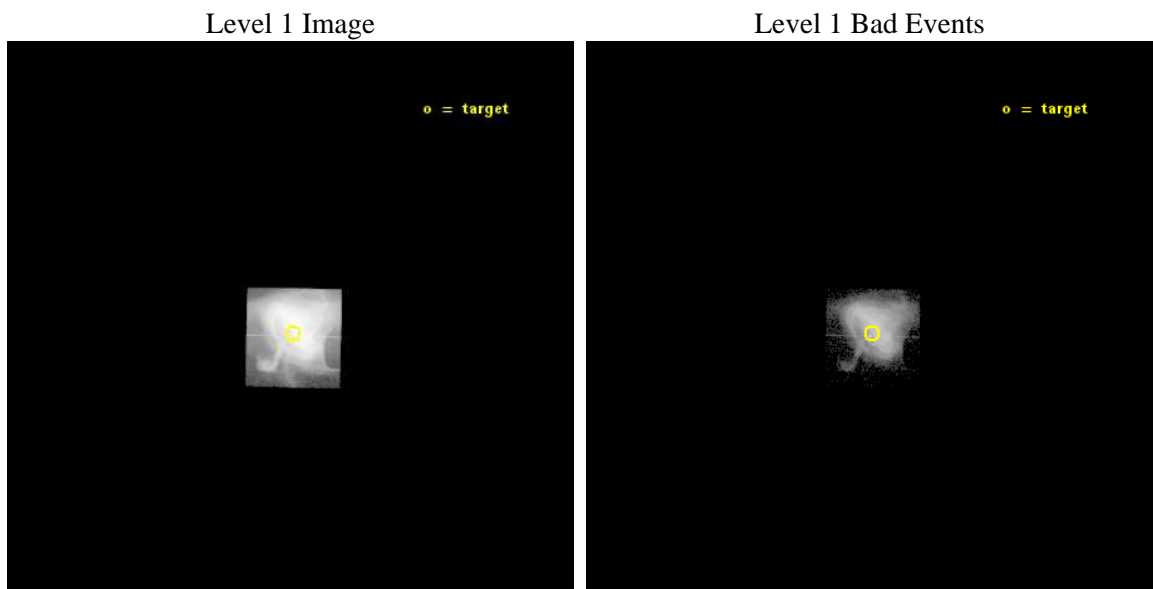
seq_num	502251	Sequence number
obs_id	16257	Observation id
title	Joint Chandra and HST Monitoring and Studies of the Crab Nebula	Pr
observer	Dr. Martin Weisskopf	Principal investigator
object	Crab	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.631667	Observer's specified target RA [deg]
dec_targ	22.015667	Observer's specified target Dec [deg]
ra_nom	83.633340959721	Nominal RA [deg]
dec_nom	22.018479777228	Nominal Dec [deg]
roll_nom	91.1527483317	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7461.7470107675	Sum of GTIs [s]
livetime	1286.8187167191	Livetime [s]
ontime7	7461.7470107675	Sum of GTIs [s]
l2events	3513484	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	7461.7470107675	Sum of GTIs [s]
caldsver	4.6.4	 	ontime7	7461.7470107675	Sum of GTIs [s]
date	2014-12-07T19:25:45	Date and time of file creation	l1events	3886276	Number of level 1 events
revision	2	Processing version of data			

2.1.3 Events

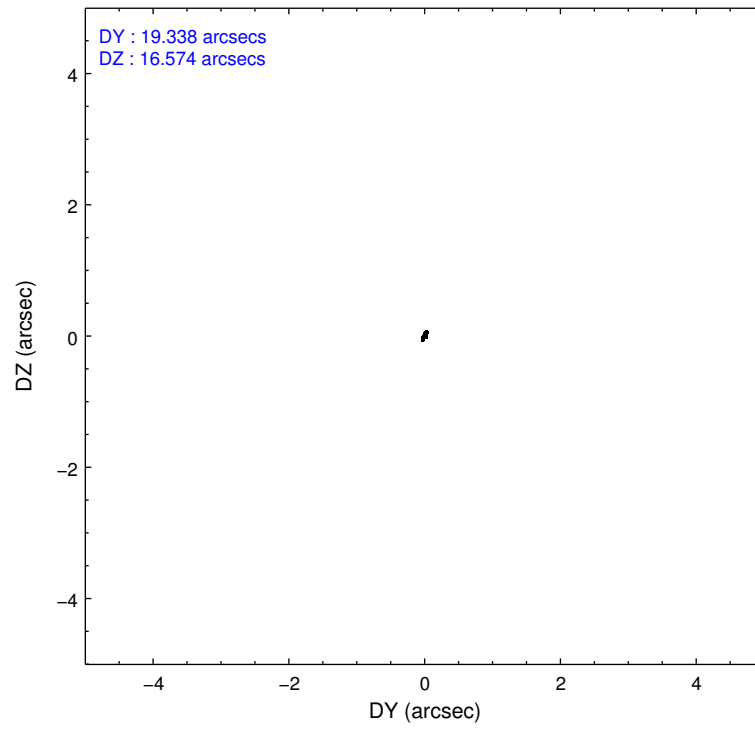
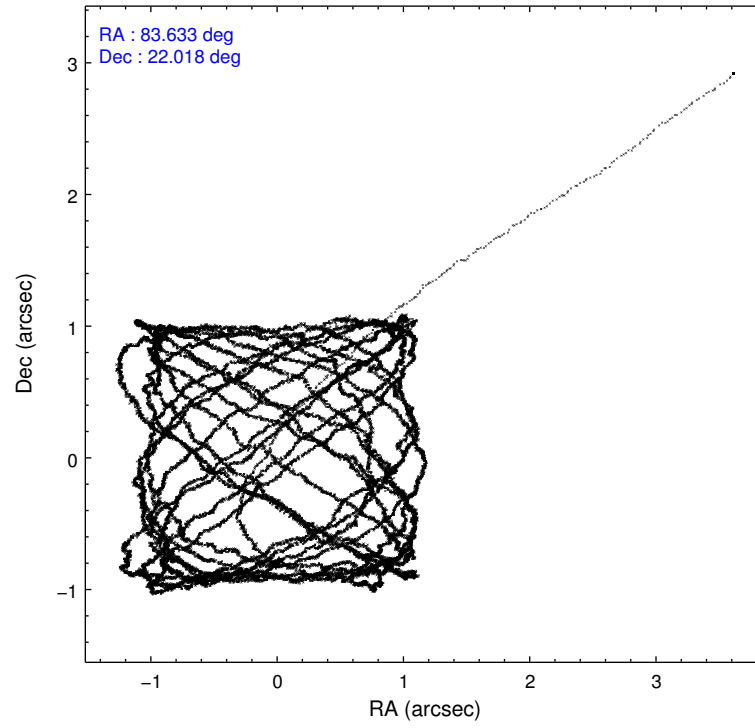
	ccd 7
level 1 events	3886276
rejected events	350111
rejected %	9%

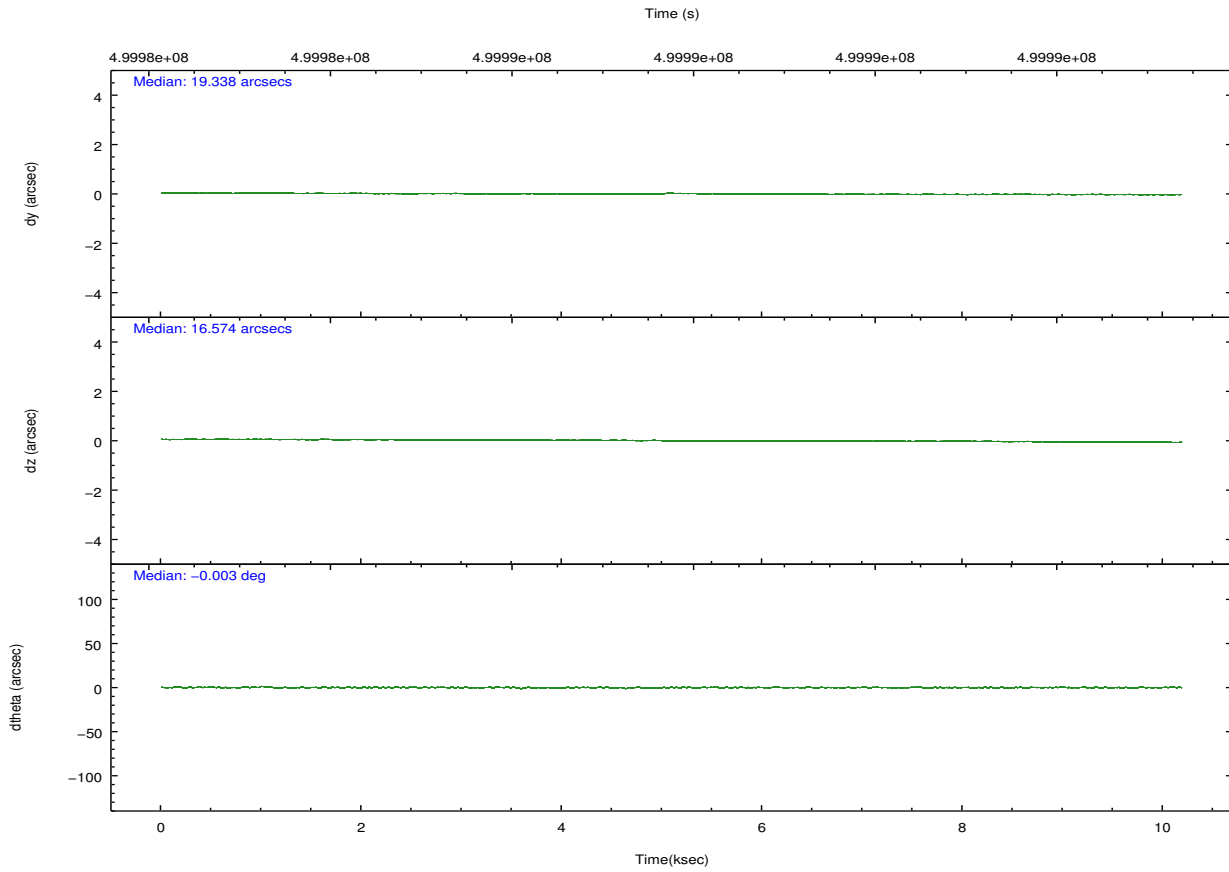
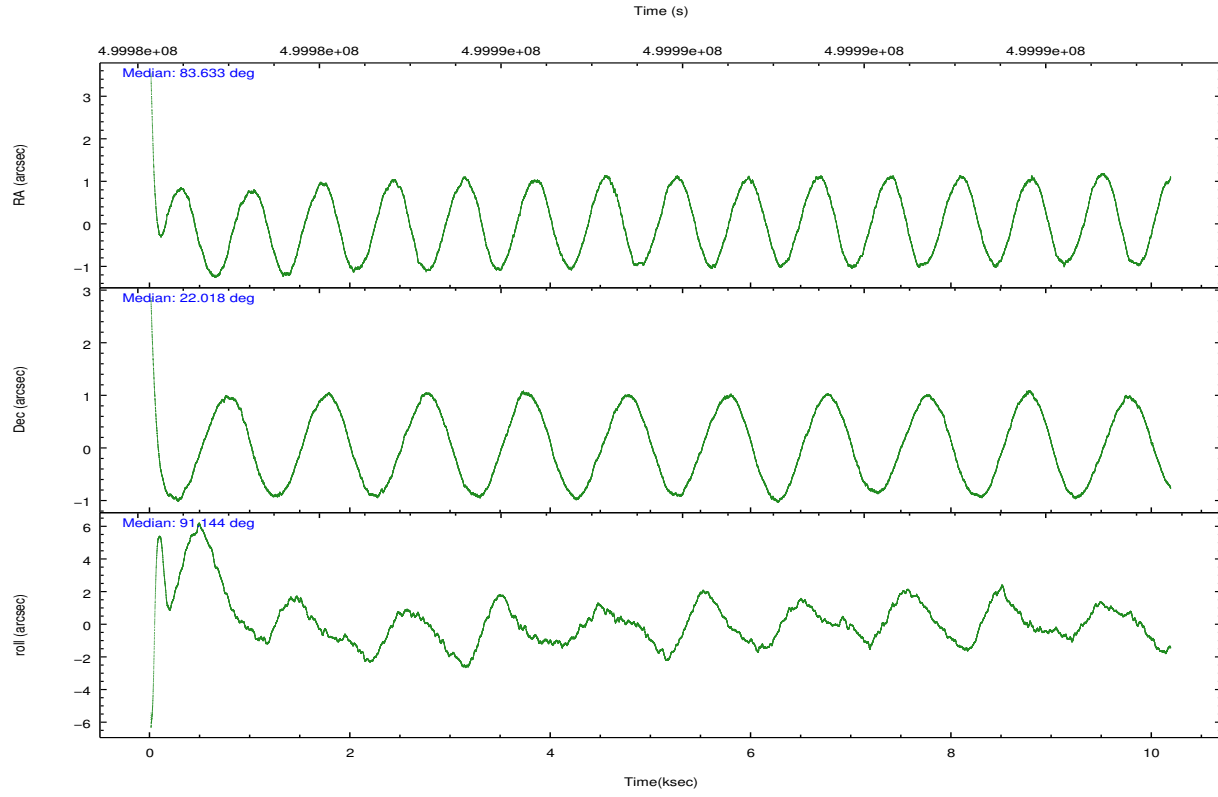
	ccd 7
grade 0 events	771826
	19%
grade 1 events	41305
	1%
grade 2 events	1010575
	26%
grade 3 events	376271
	9%
grade 4 events	373417
	9%
grade 5 events	124465
	3%
grade 6 events	1004640
	25%
grade 7 events	183777
	4%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	GRADED	GRADED	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	83.648952	83.63334095972125	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	21.995275	22.018479777228	Subarray start row	435	435
[deg] Pointing Roll	90.990273	91.1527483317	Subarray row count	300	300
[s] Window start time (MET)	499132867.184000	499132867.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	500860867.184000	500860867.184000	[s] Primary exposure time	0.000000	0.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-192.476523	-192.4758649650211			
[mm] SIM translation stage offset	2.344	2.343342382013304			
[s] Observation start time (MET)	499982849.184000	499982127.17312			
Observation start date	2013-11-04T20:06:22	2013-11-04T19:55:27			
[s] Observation end time (MET)	499992849.184000	499993911.59876			
Observation end date	2013-11-04T22:53:02	2013-11-04T23:11:51			
Read mode	TIMED	TIMED			

2.3 Aspect



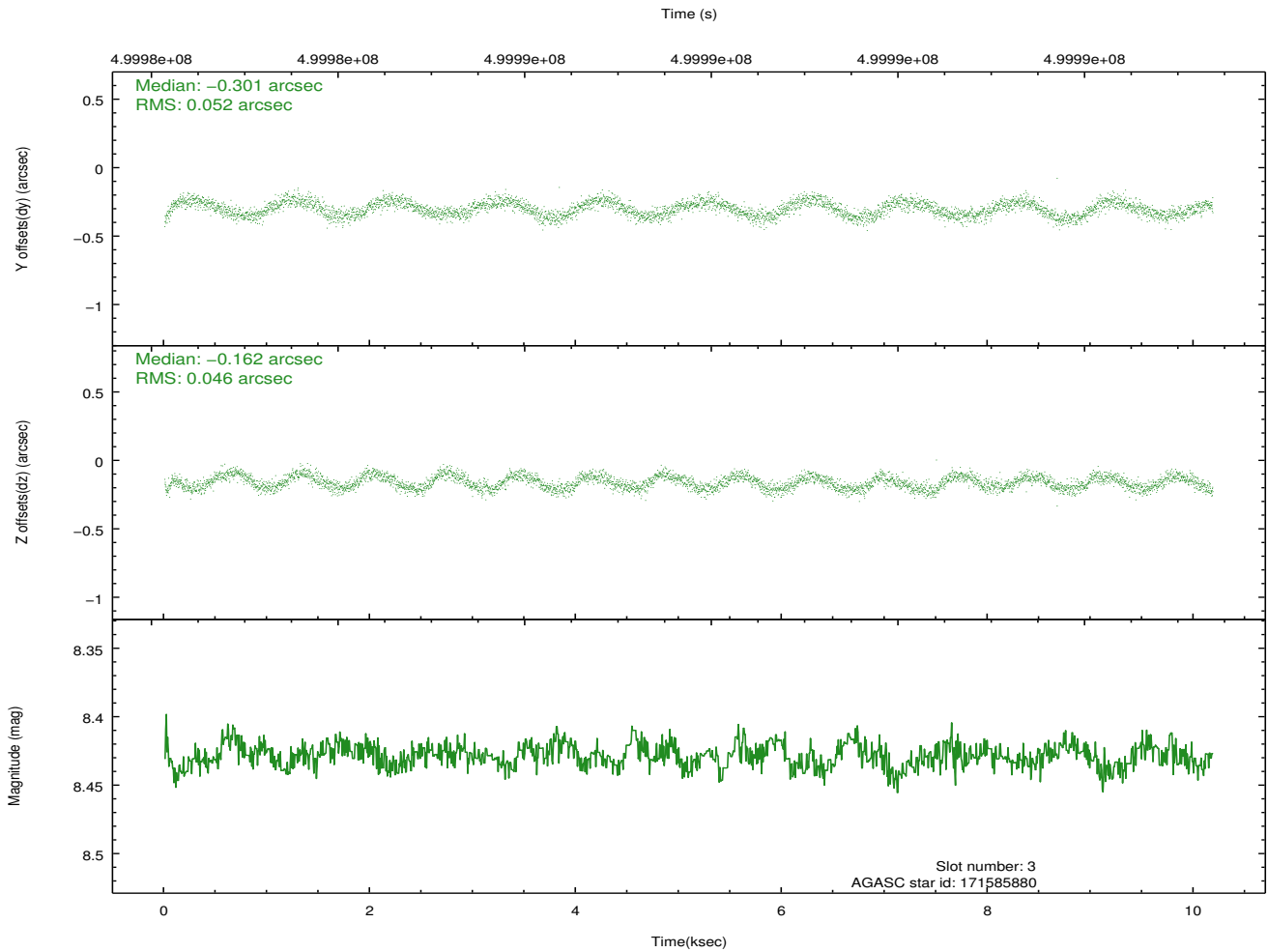
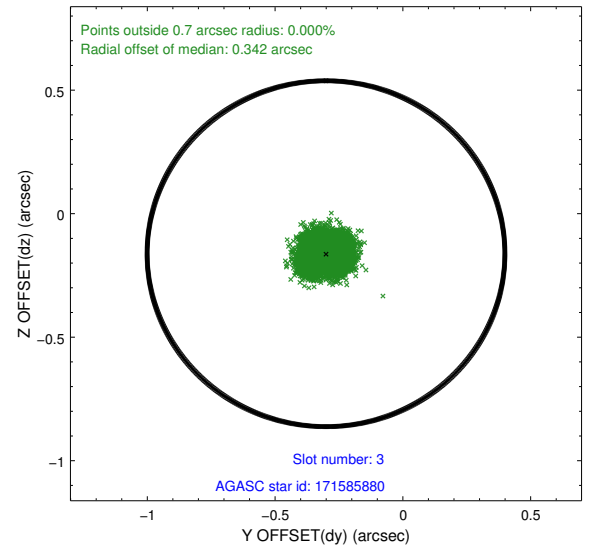
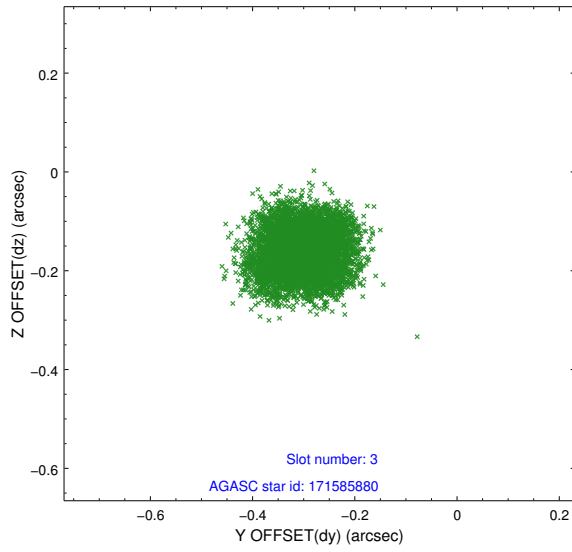


Slot Statistics

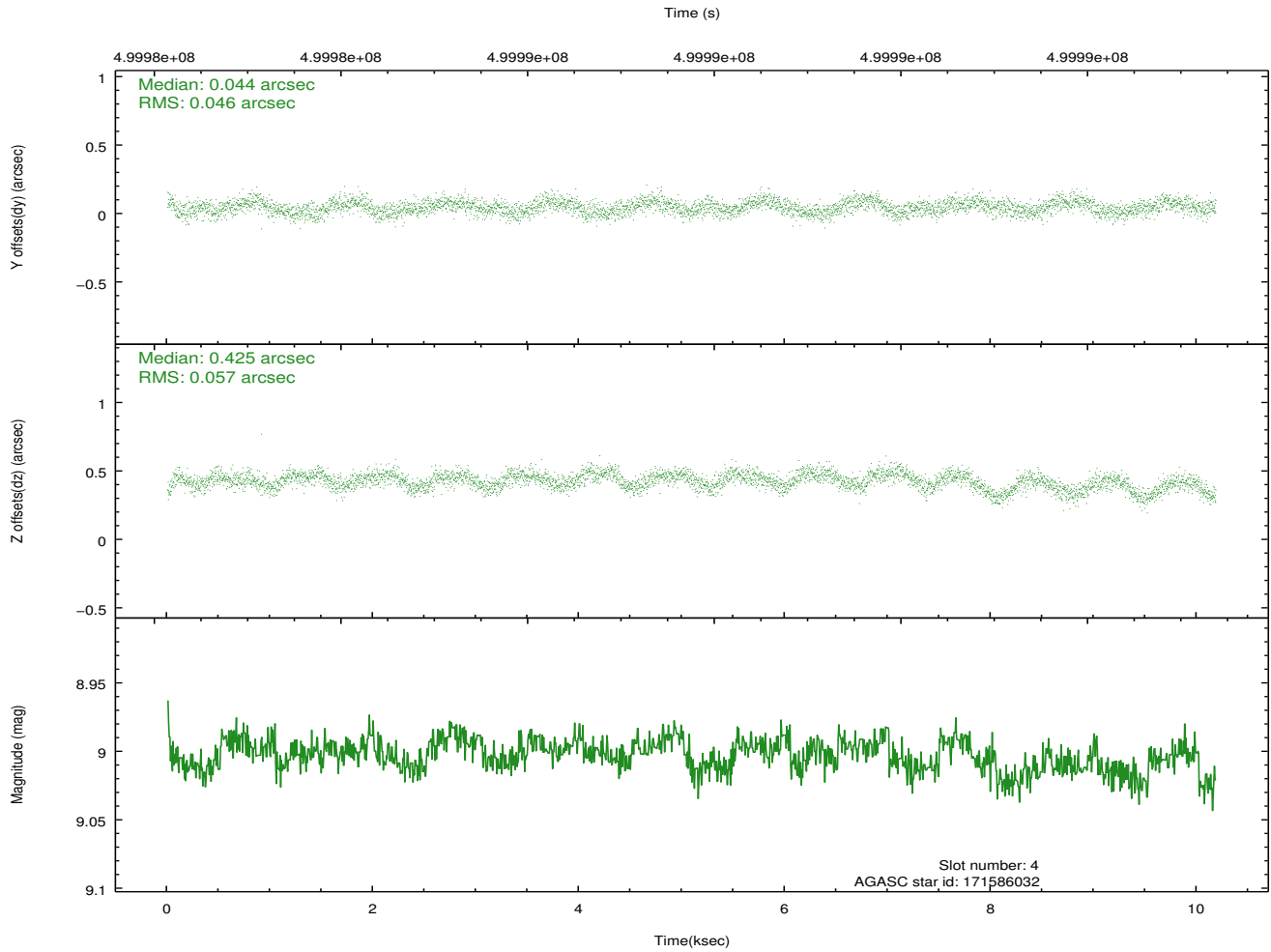
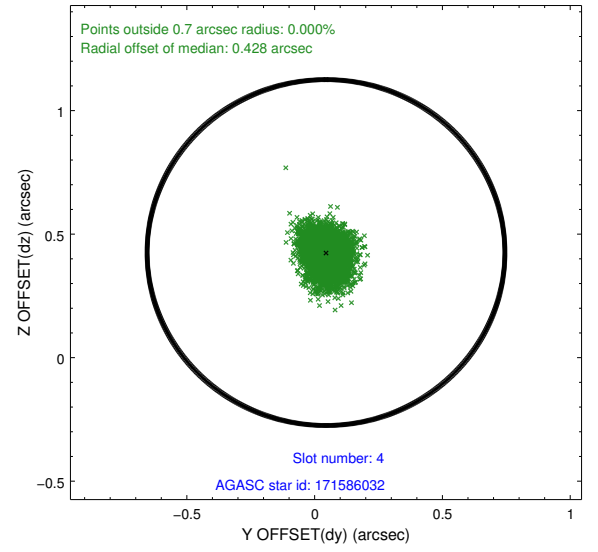
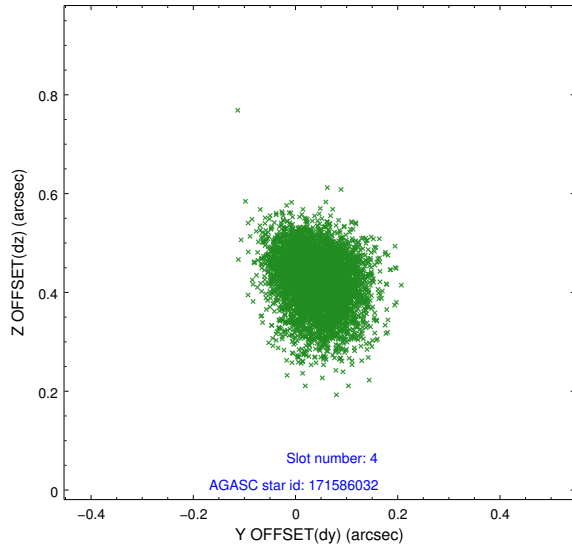
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.04	2483	-0.117	-0.023	0.007	0.010	0.000000	0.000000	-772.72	-1689.87
1	FID		ACIS-S-4	7.14	2483	0.260	0.063	0.006	0.010	0.000000	0.000000	2140.72	218.13
2	FID		ACIS-S-5	7.15	2483	-0.174	-0.031	0.006	0.010	0.000000	0.000000	-1824.93	212.37
3	GUIDE	used	171585880	8.43	4966	-0.301	-0.162	0.076	0.113	83.676260	22.176319	650.14	-102.34
4	GUIDE	used	171586032	9.00	4965	0.044	0.425	0.078	0.129	83.950197	22.083225	300.85	-1009.80
5	GUIDE	used	171597832	9.13	4962	0.253	-0.223	0.069	0.116	83.183230	21.366702	-2232.83	1599.55
6	GUIDE	used	171721904	9.18	4960	0.091	0.129	0.088	0.139	84.272676	22.116922	406.45	-2086.99
7	GUIDE	used	243941560	8.29	4966	-0.084	-0.167	0.048	0.079	83.733264	22.568598	2059.03	-316.01

2.4 Star Slots

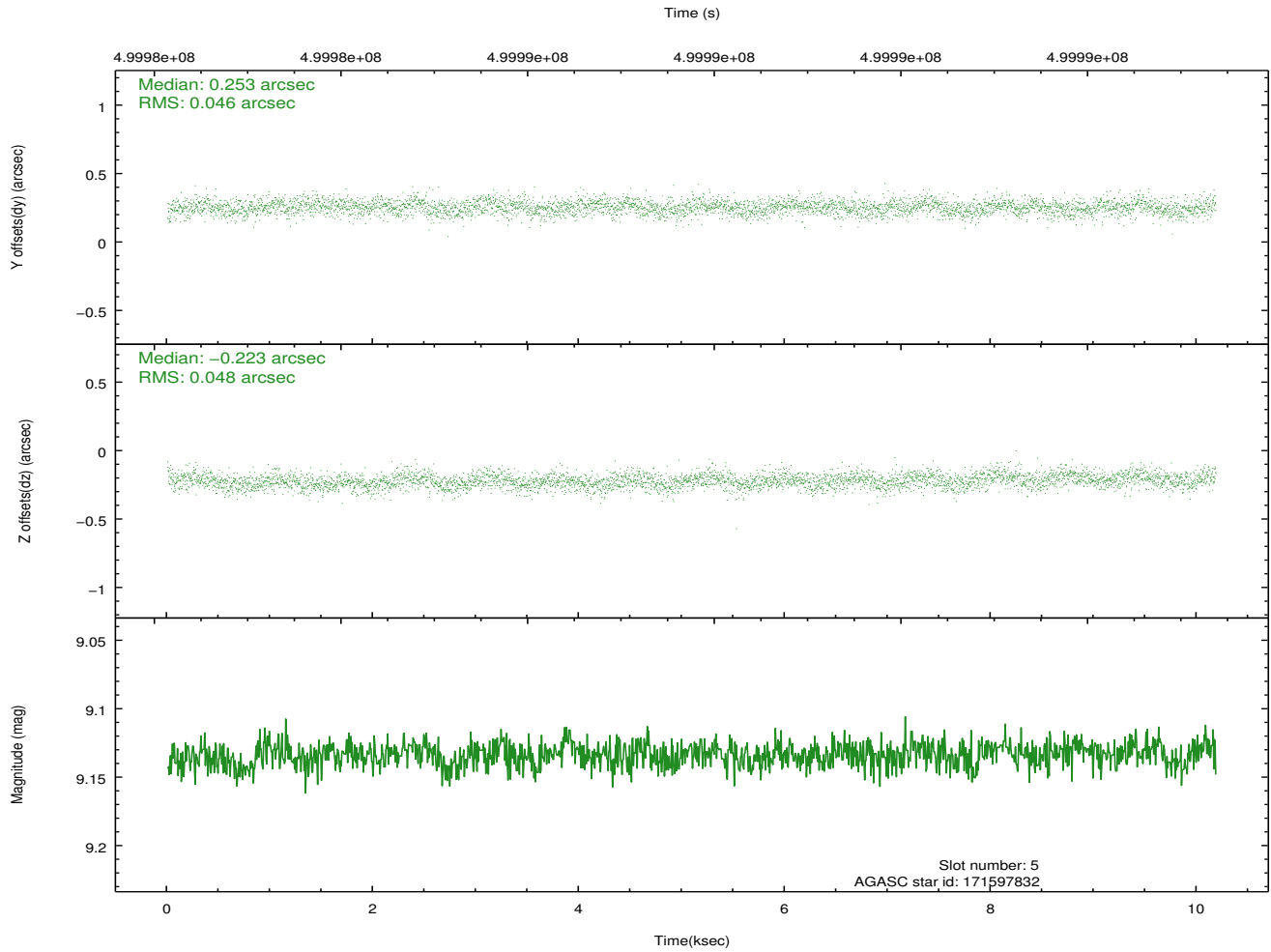
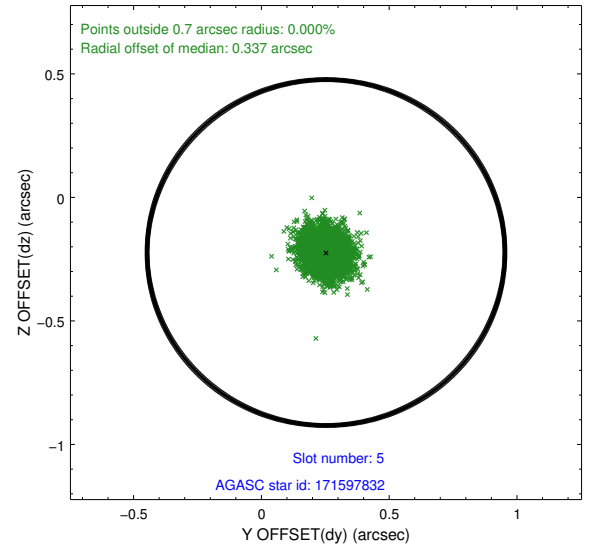
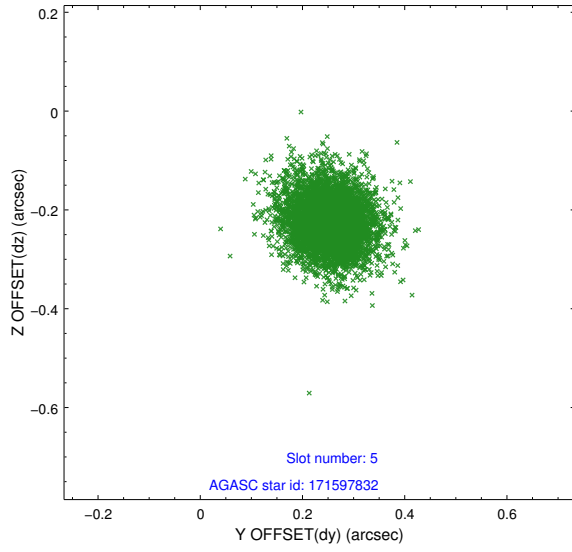
2.4.1 Slot 3



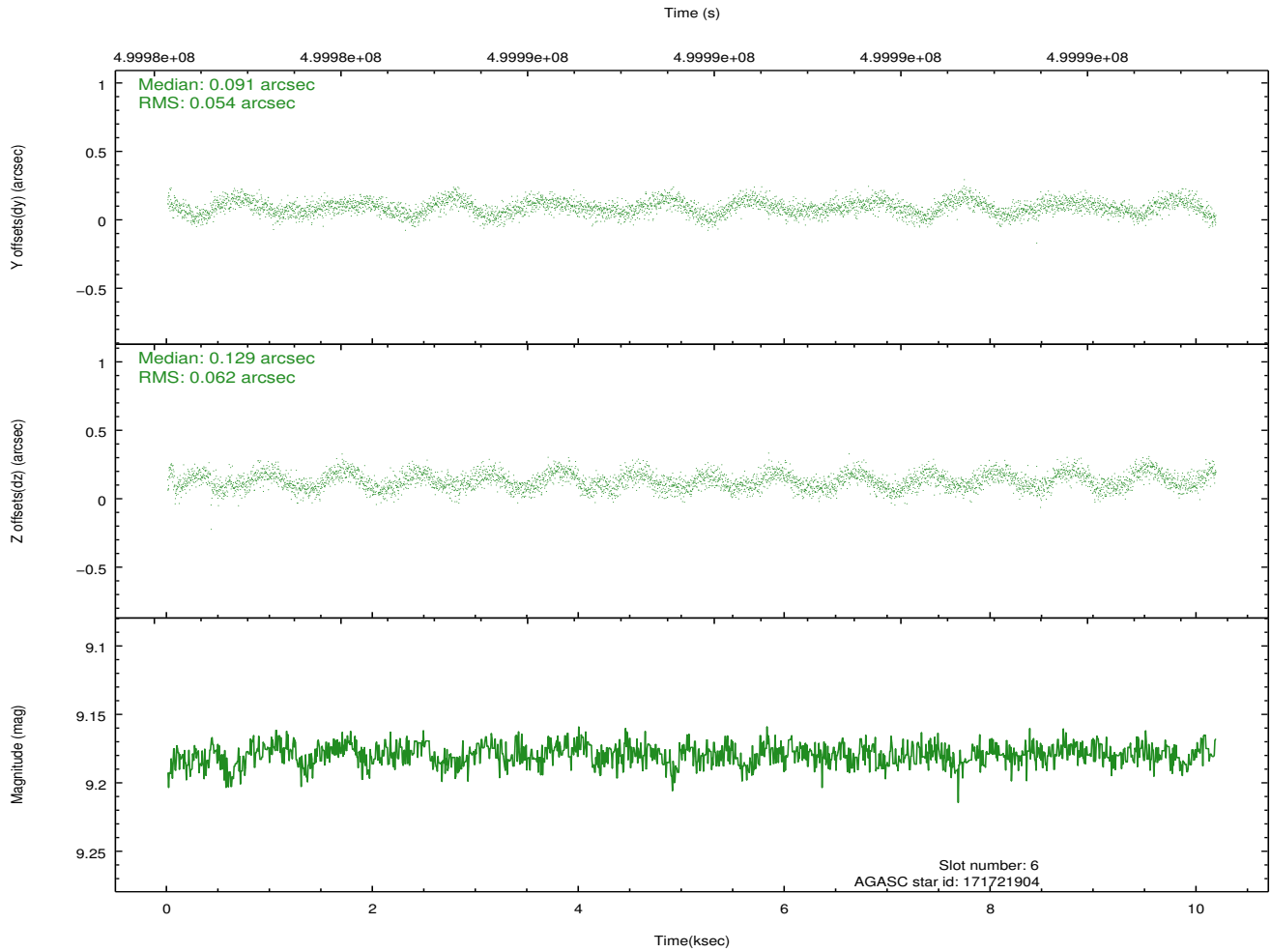
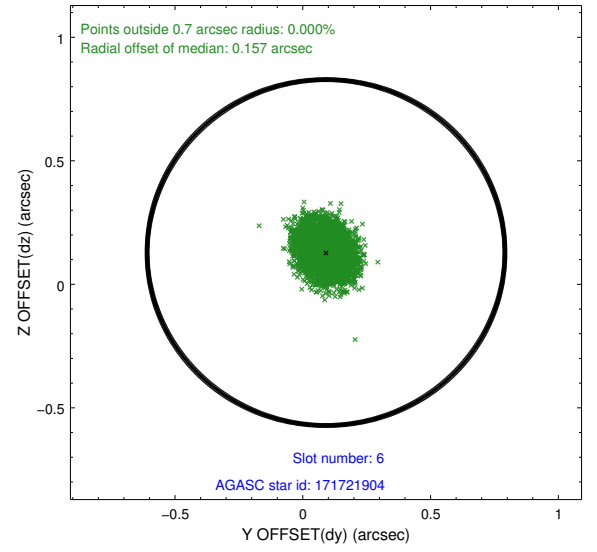
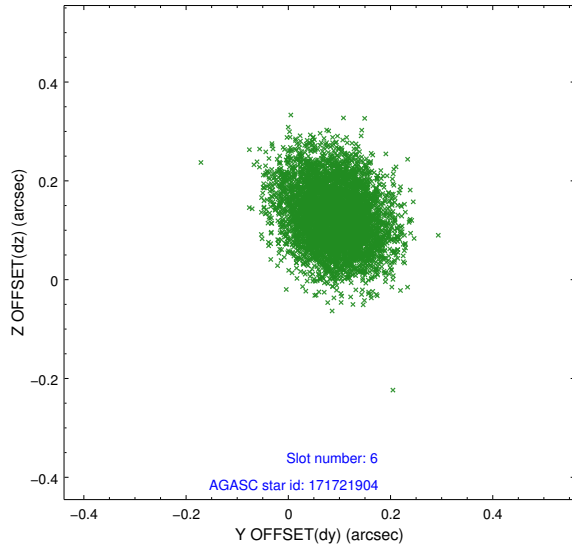
2.4.2 Slot 4



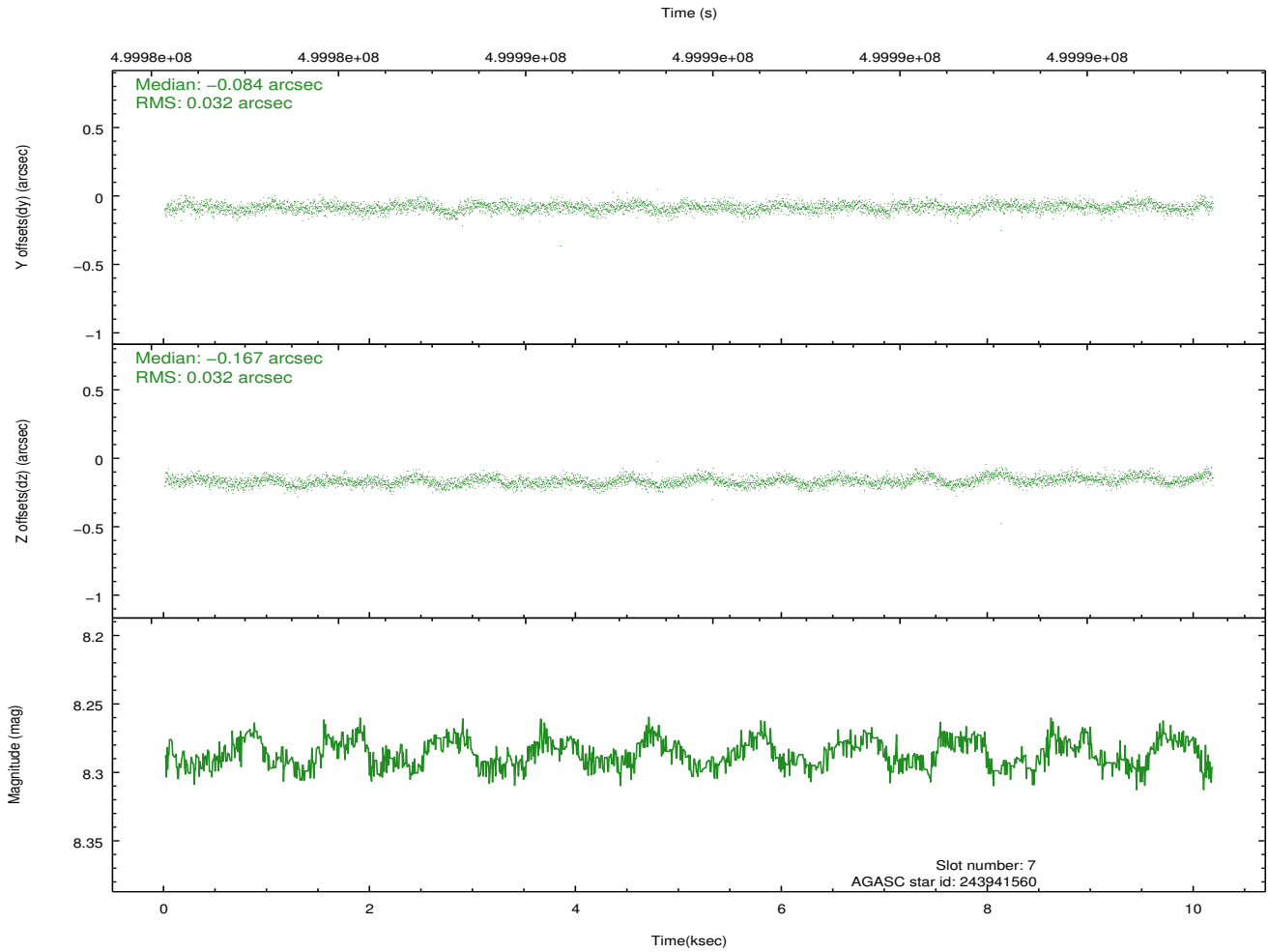
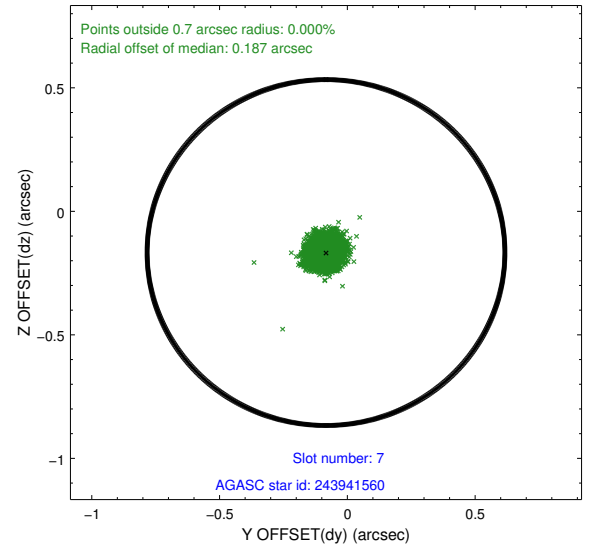
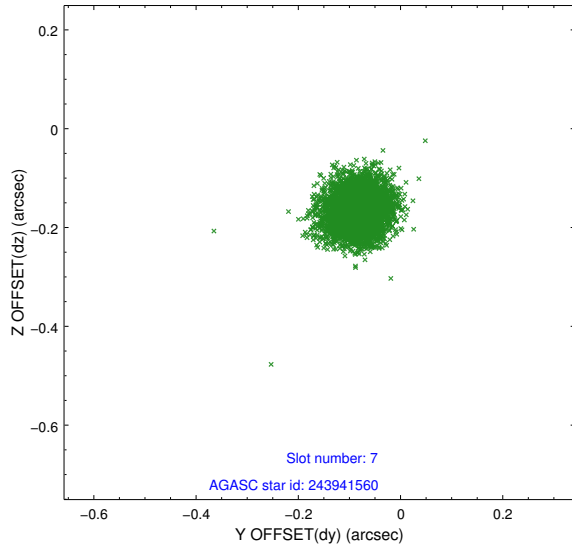
2.4.3 Slot 5



2.4.4 Slot 6

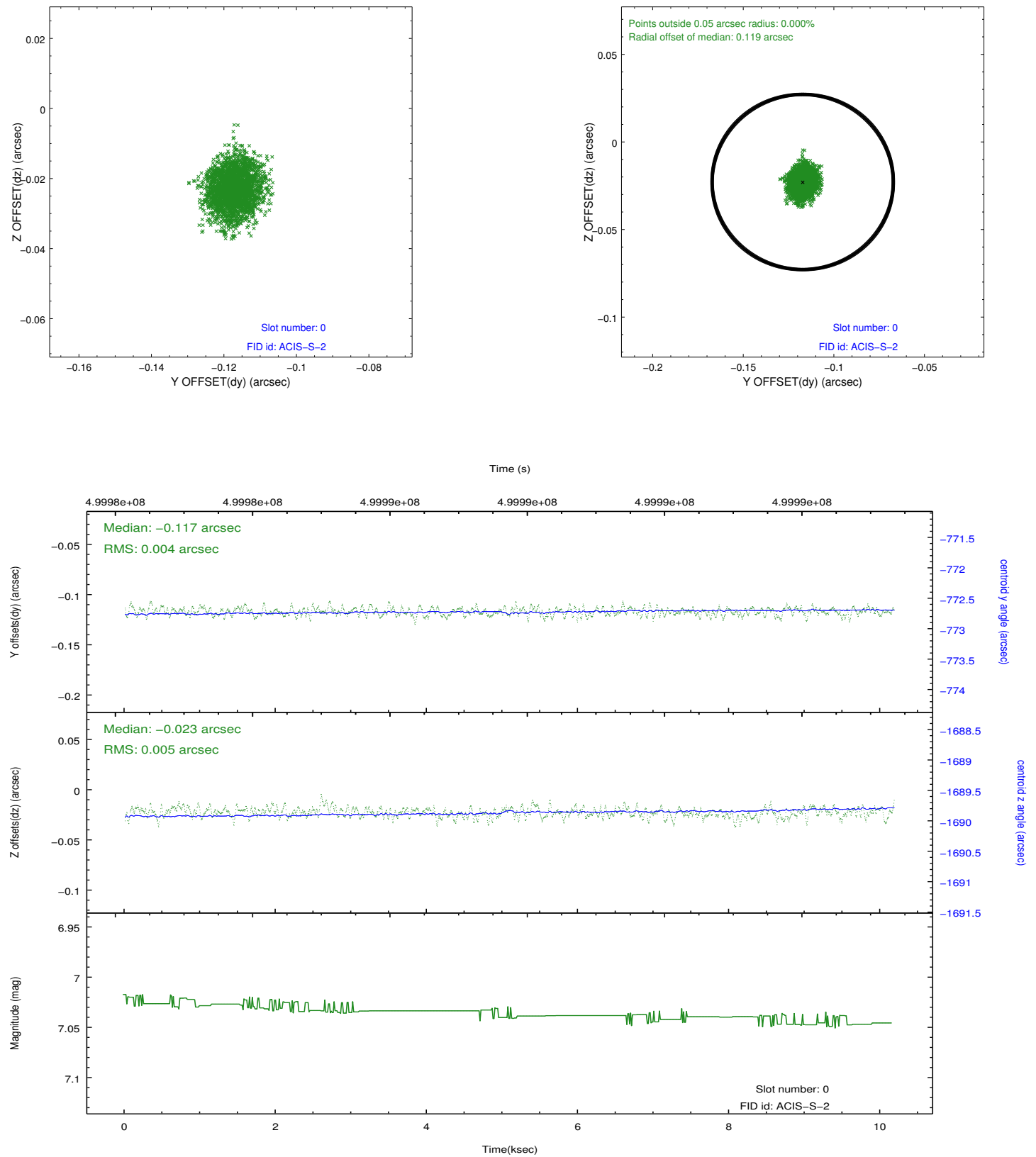


2.4.5 Slot 7

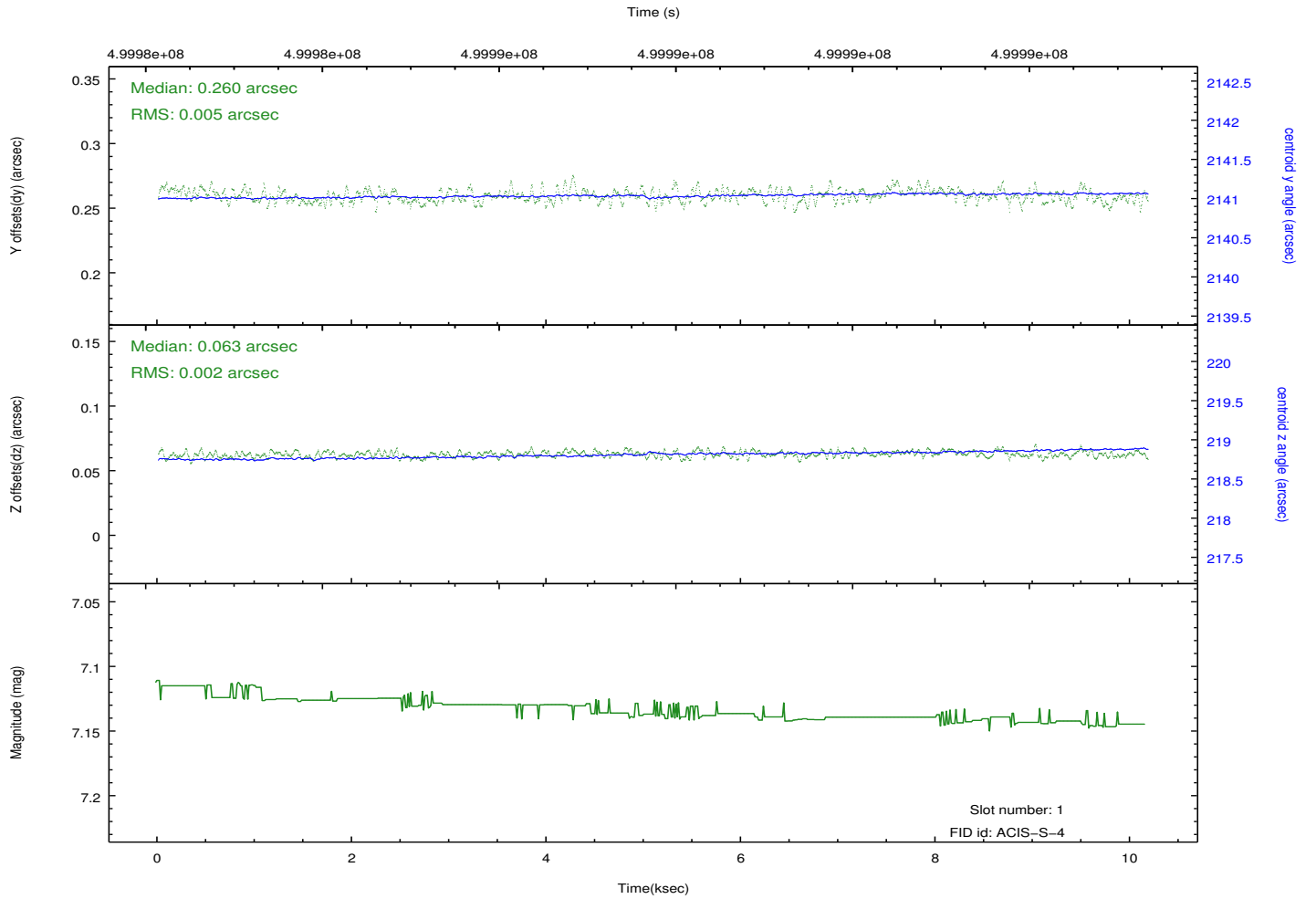
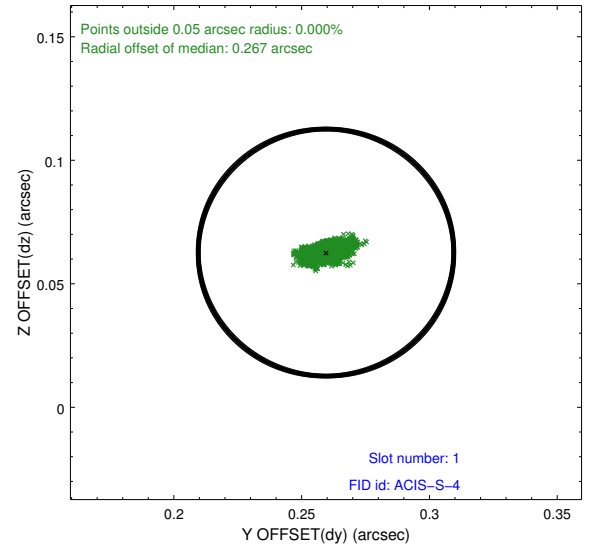
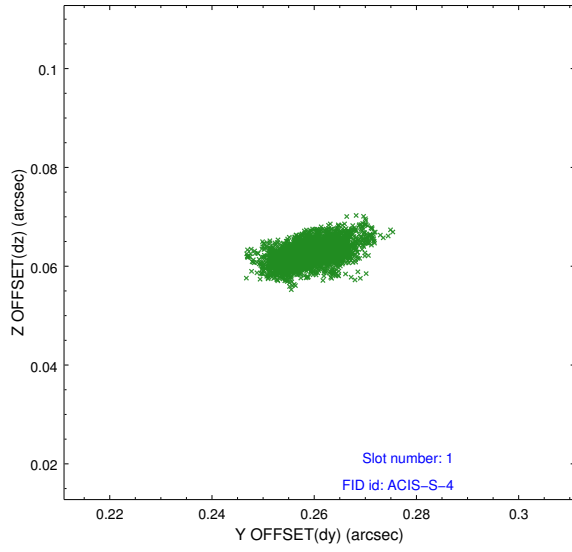


2.5 FID Slots

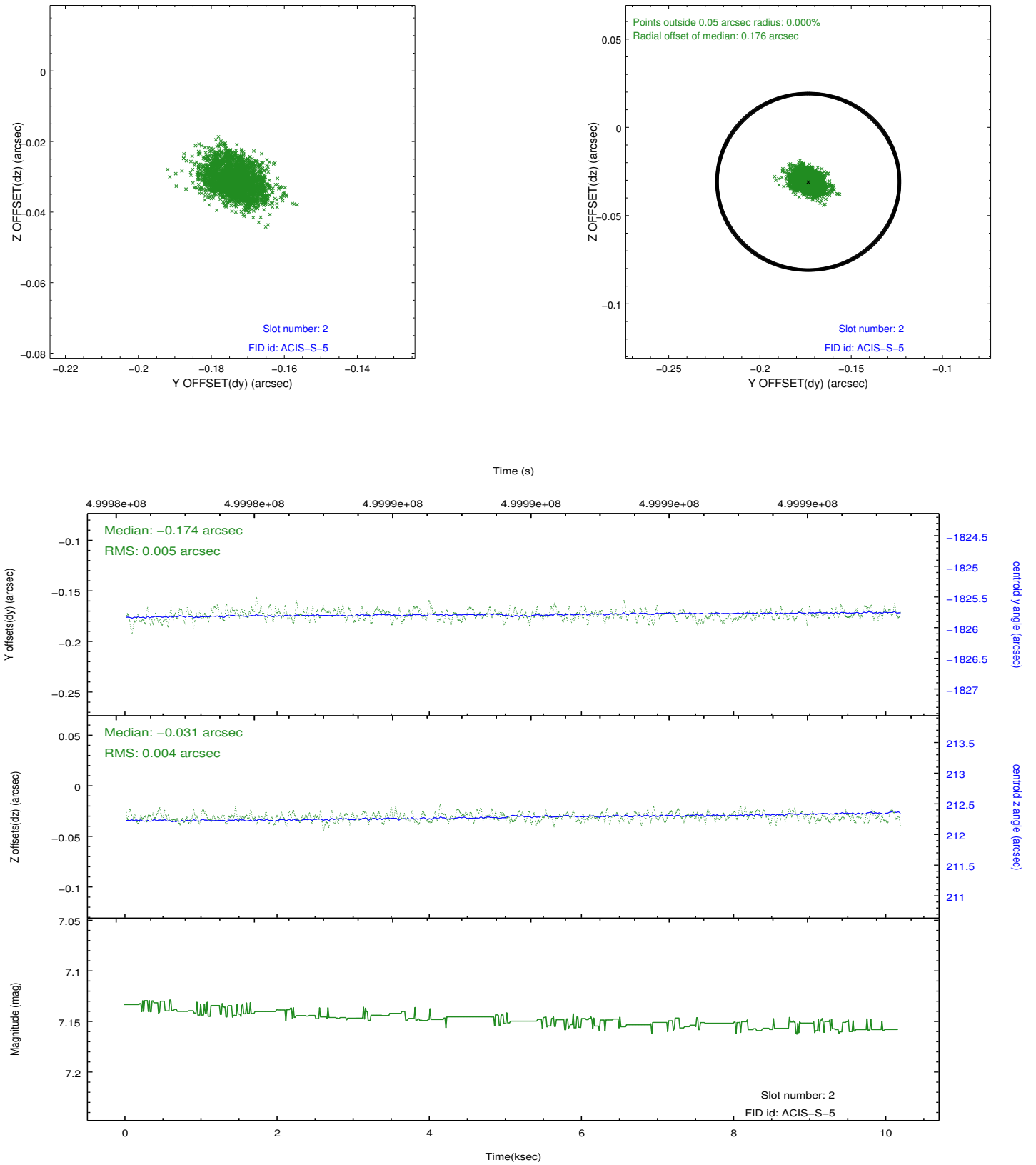
2.5.1 Slot 0



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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10

A.2 Comments

Joint proposal with HST.

Observation coordinated with HST.

Window preference met.

A non-standard dither was used for this observation.

Charge time is set to the scheduled time for this observation, although the ontime

is significantly less due to telemetry saturation. In addition, the livetime of the

detector is about 1287 s, significantly shorter than the ONTIME of 7462 s. This is

because the frame time of 0.2 s is shorter than the minimum time that it takes to

read out the detector (about 0.9 s) in the specified configuration.

Therefore, there

is a flush of 0.9 s preceding each frame. This flush time is dead time.

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.