

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16276 - L2 Version 3
Chandra X-Ray Center

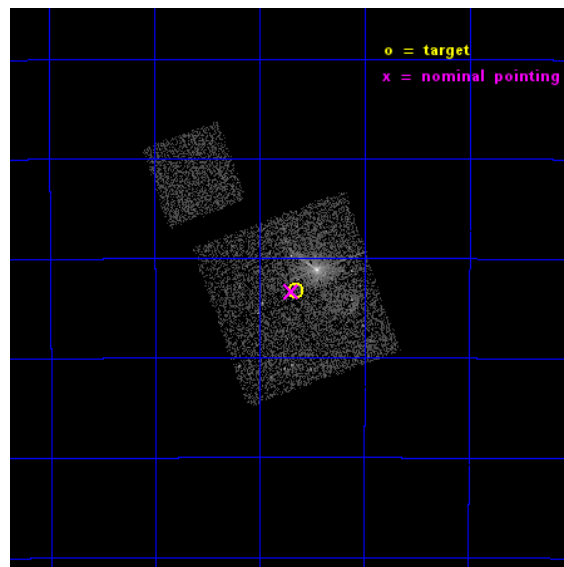
L2 Processing Date : Dec 11 2014

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 4	9
2.4.2	Slot 5	10
2.4.3	Slot 6	11
2.4.4	Slot 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

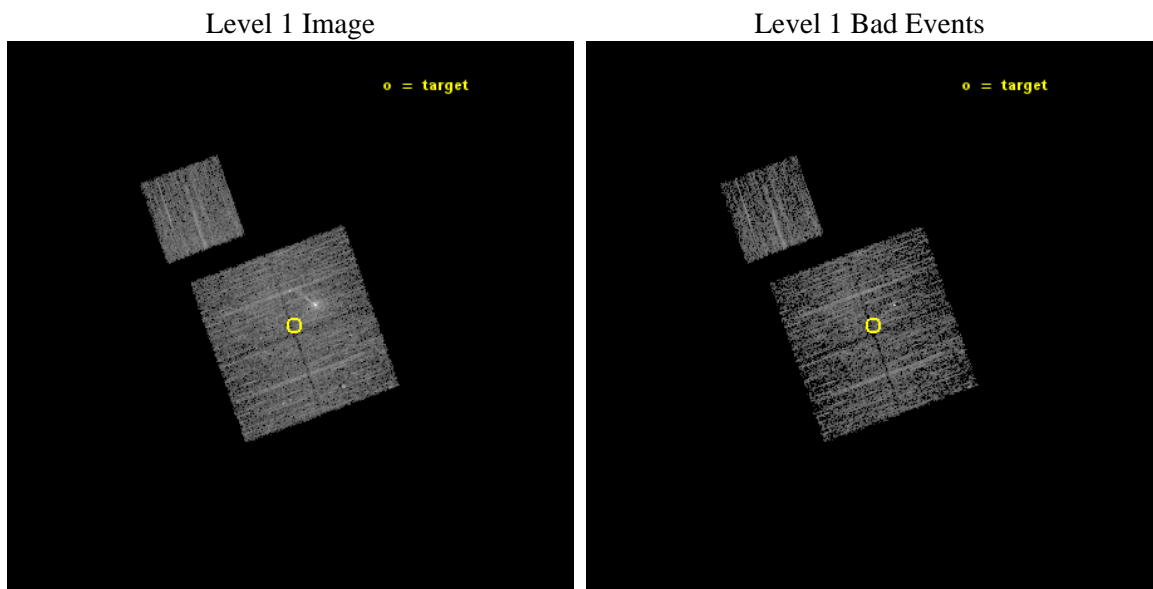
seq_num	703020	Sequence number
obs_id	16276	Observation id
title	Monitoring the long-term variability of the X-ray jet in Centaurus A	
observer	Dr. Stephen Murray	Principal investigator
object	Centaurus A	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	201.413208	Observer's specified target RA [deg]
dec_targ	-43.055556	Observer's specified target Dec [deg]
ra_nom	201.42427148608	Nominal RA [deg]
dec_nom	-43.05583980699	Nominal Dec [deg]
roll_nom	340.21640010802	Nominal Roll [deg]
revision	3	Processing version of data
ontime	5090.2000391483	Sum of GTIs [s]
livetime	5023.6928282861	Livetime [s]
ontime0	5090.2000391483	Sum of GTIs [s]
ontime1	5090.2000391483	Sum of GTIs [s]
ontime2	5090.2000391483	Sum of GTIs [s]
ontime3	5090.2000391483	Sum of GTIs [s]
ontime6	5090.2000391483	Sum of GTIs [s]
l2events	22166	Number of level 2 events



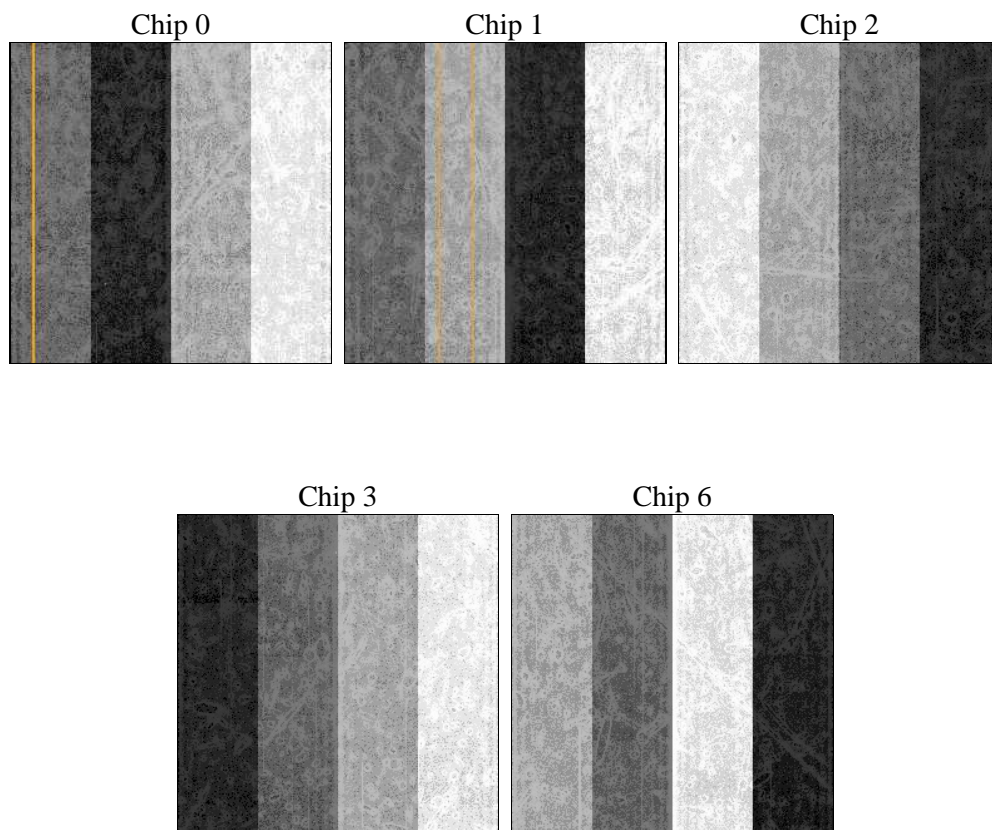
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.094000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	5090.2000391483	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	5090.2000391483	Sum of GTIs [s]
date	2014-12-11T11:17:58	Date and time of file creation	ontime1	5090.2000391483	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	5090.2000391483	Sum of GTIs [s]
			ontime3	5090.2000391483	Sum of GTIs [s]
			ontime6	5090.2000391483	Sum of GTIs [s]
			l1events	121462	Number of level 1 events

2.1.4 Events

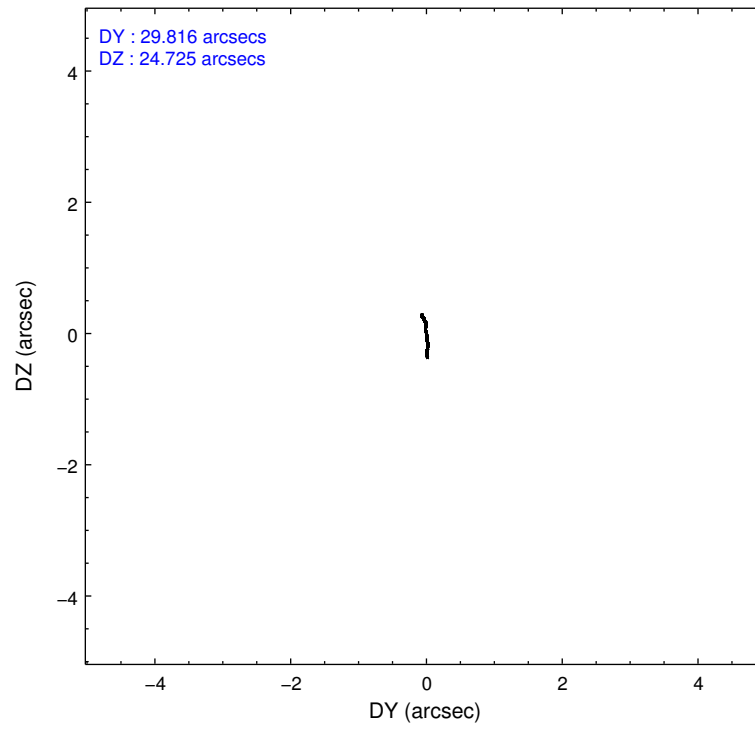
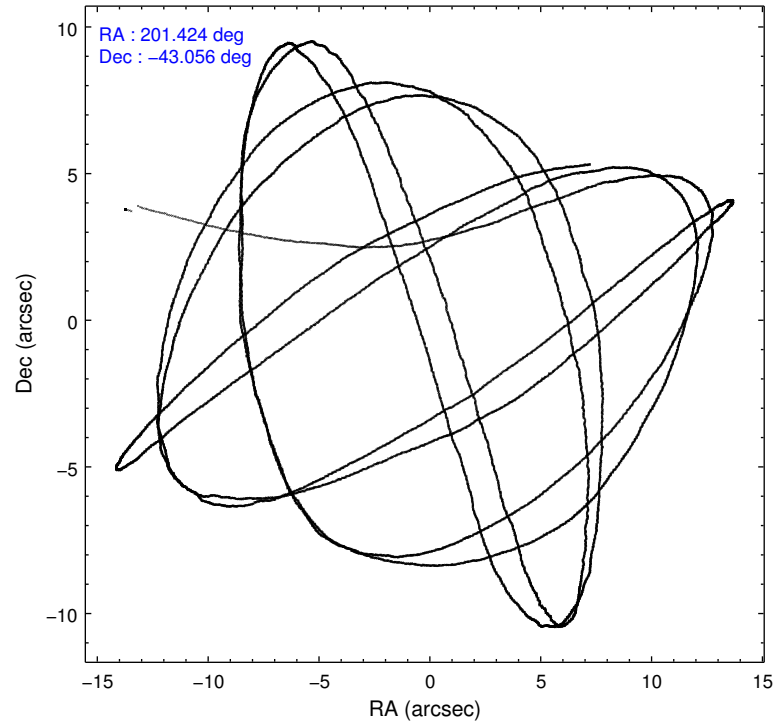
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	21031	23194	23617	30882	22738
rejected events	17614	18874	20312	20009	19670
rejected %	83%	81%	86%	64%	86%

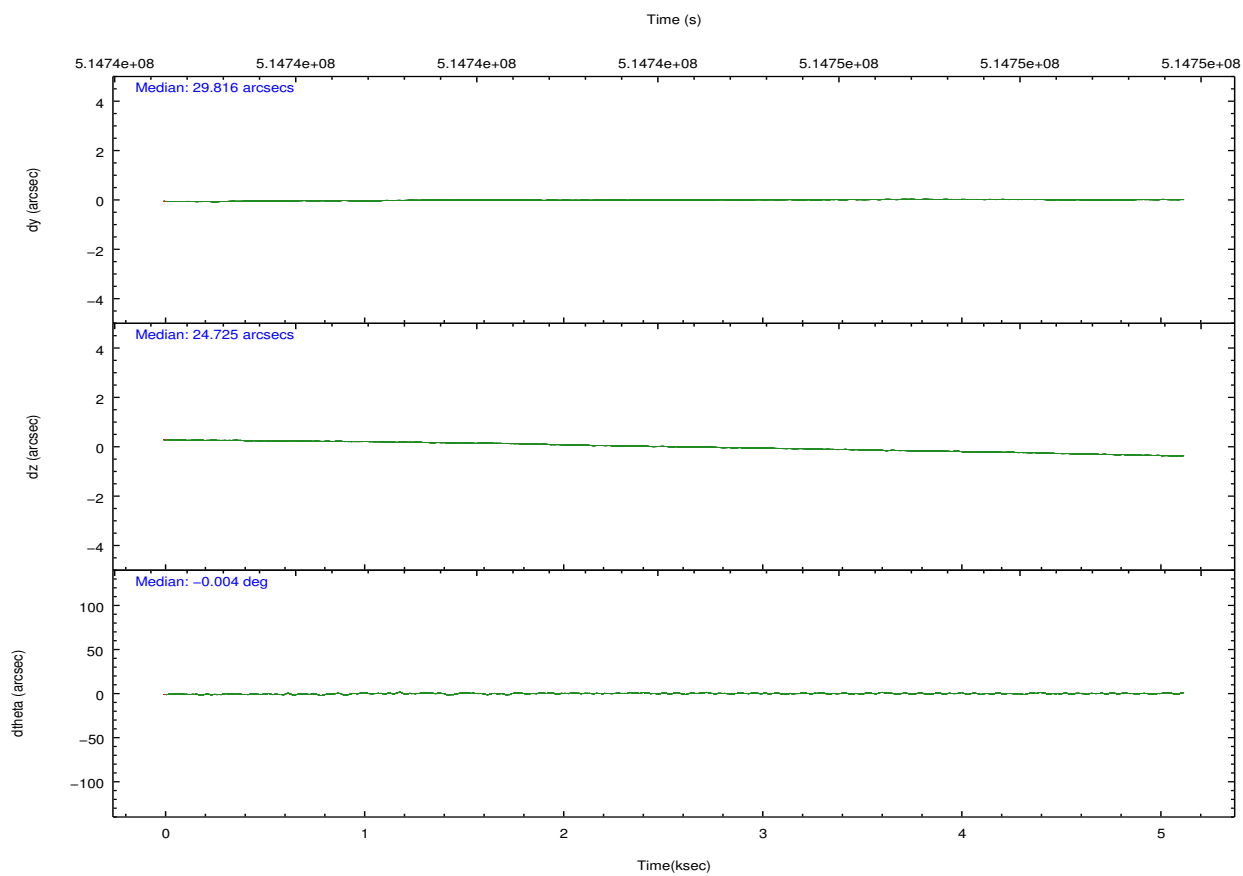
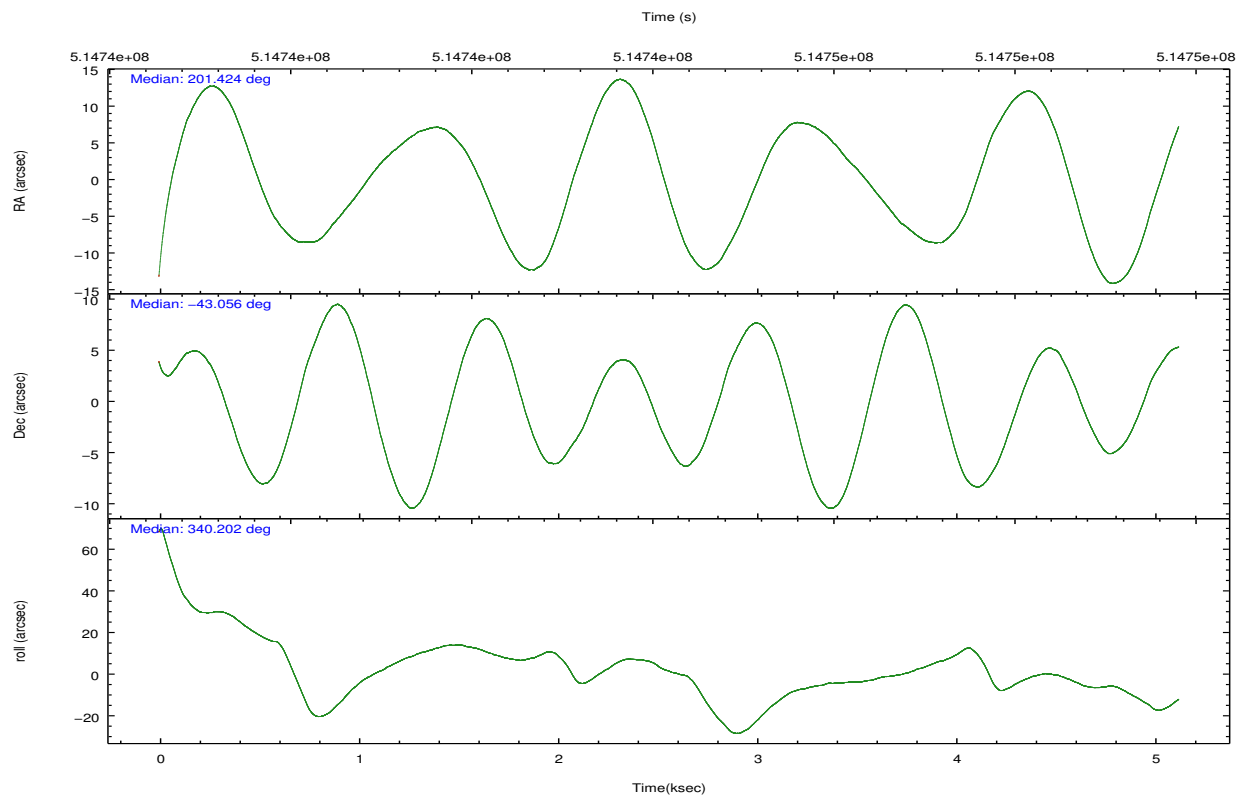
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	1397	2063	1491	6541	1173
	6%	8%	6%	21%	5%
grade 1 events	9	14	16	310	6
	0%	0%	0%	1%	0%
grade 2 events	826	851	705	1760	663
	3%	3%	2%	5%	2%
grade 3 events	305	329	274	644	307
	1%	1%	1%	2%	1%
grade 4 events	291	353	303	696	307
	1%	1%	1%	2%	1%
grade 5 events	1140	1187	1056	1553	1263
	5%	5%	4%	5%	5%
grade 6 events	599	727	533	1234	621
	2%	3%	2%	3%	2%
grade 7 events	16464	17670	19239	18144	18398
	78%	76%	81%	58%	80%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	201.387244	201.4242714860763	Subarray requested	NONE	NONE
[deg] Pointing Dec	-43.060884	-43.05583980699038	Alternating exposures requested	N	N
[deg] Pointing Roll	339.982267	340.2164001080183	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	514742643.184000	514741443.79721			
Observation start date	2014-04-24T16:02:56	2014-04-24T15:44:03			
[s] Observation end time (MET)	514747643.184000	514747880.28506			
Observation end date	2014-04-24T17:26:16	2014-04-24T17:31:20			
Read mode	TIMED	TIMED			

2.3 Aspect



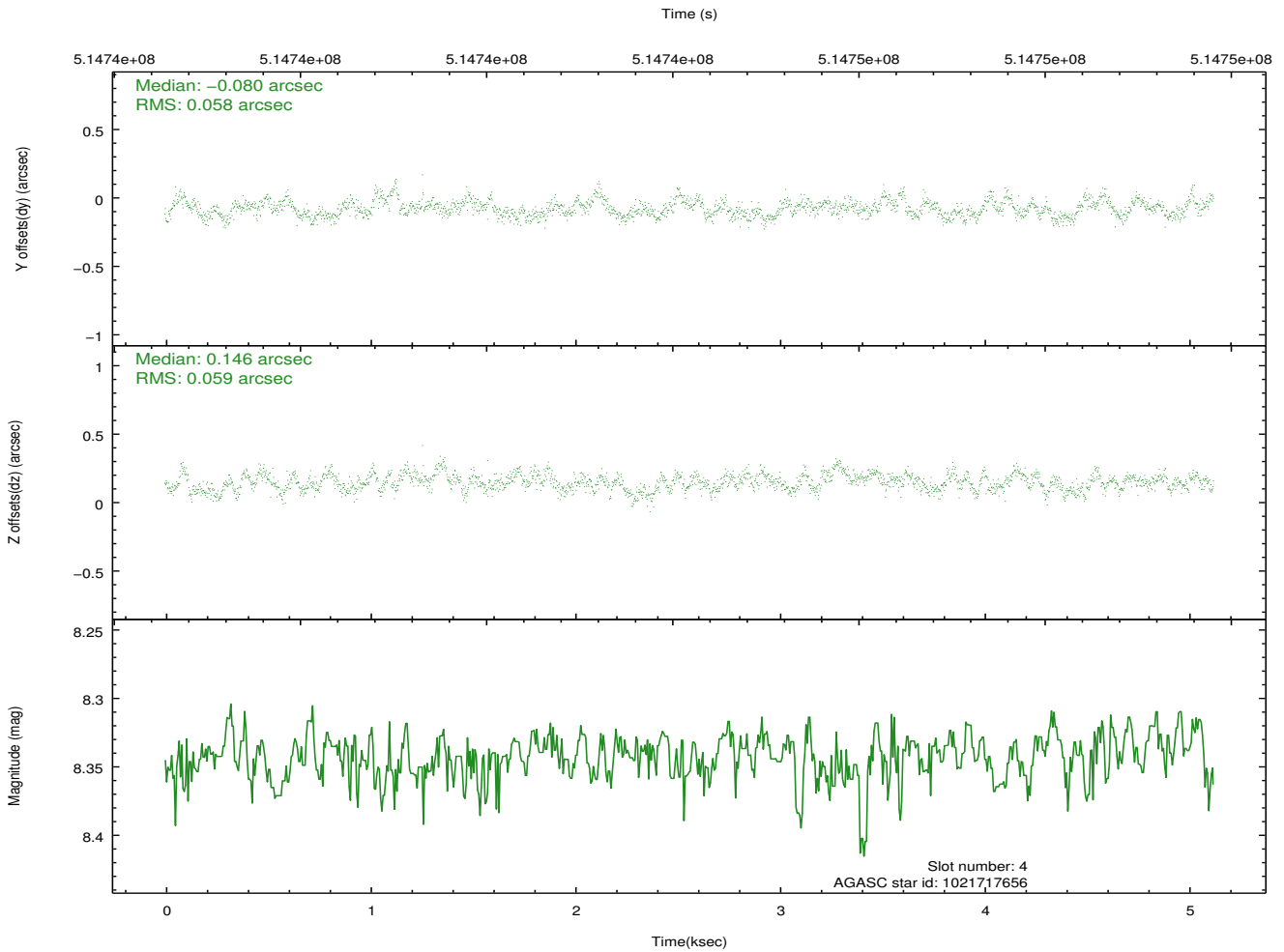
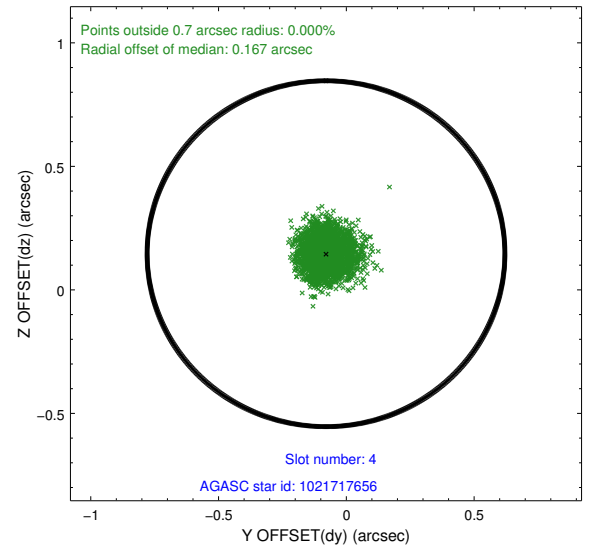
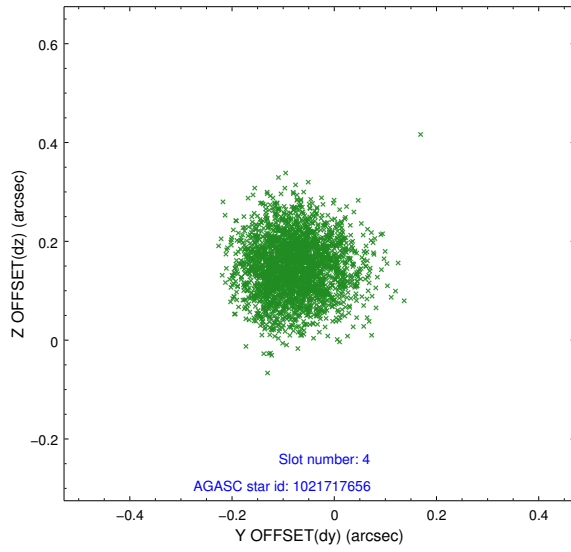


Slot Statistics

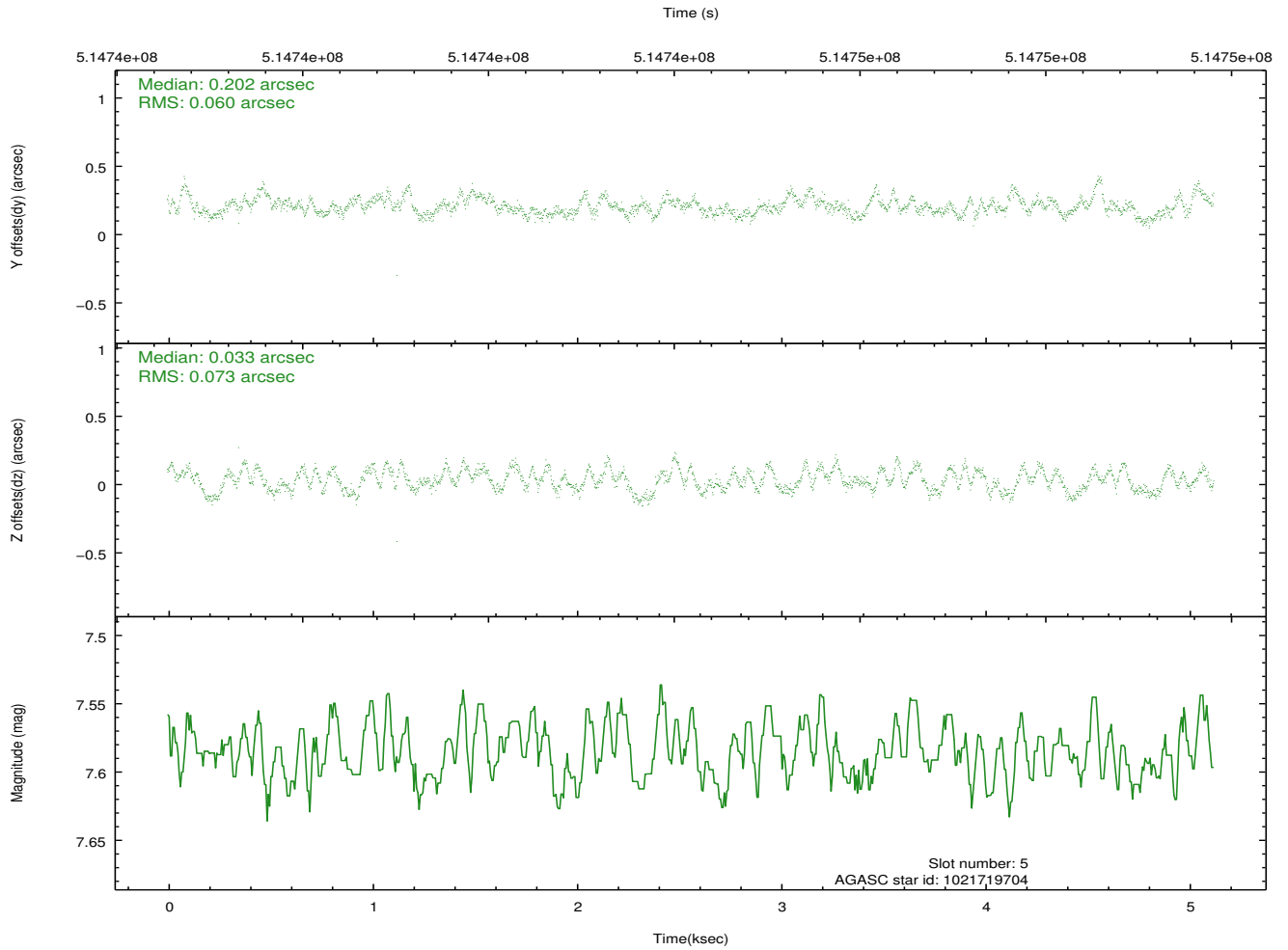
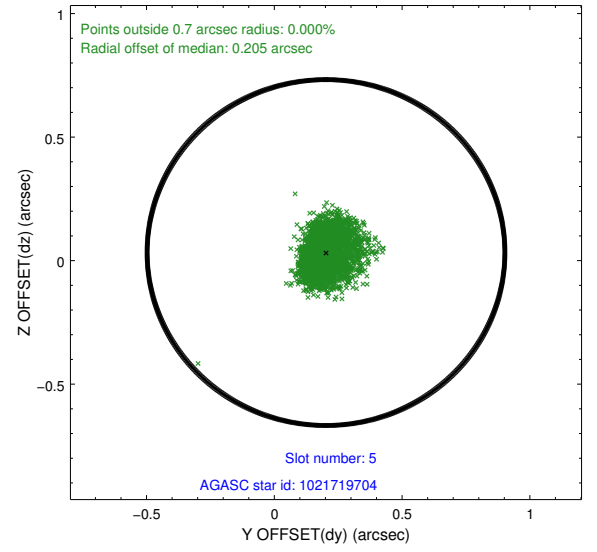
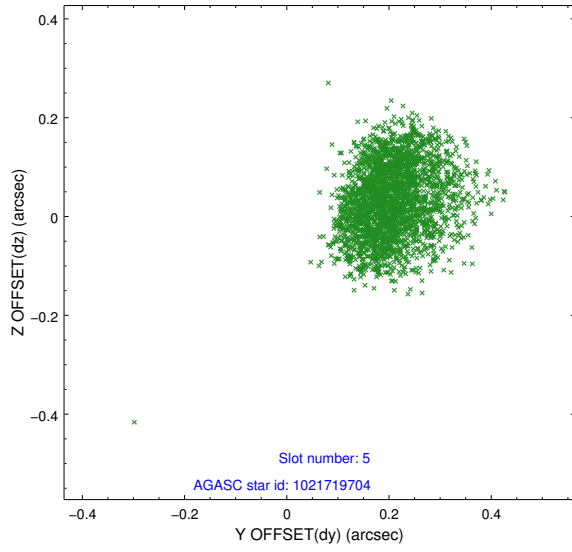
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.00	1250	-0.206	-0.056	0.010	0.017	0.000000	0.000000	-785.11	-855.01
1	FID		ACIS-I-4	7.02	1250	0.362	0.125	0.006	0.012	0.000000	0.000000	2128.90	1050.83
2	FID		ACIS-I-5	7.07	1250	-0.258	-0.001	0.009	0.016	0.000000	0.000000	-1837.54	1049.77
3	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	used	1021717656	8.34	2500	-0.080	0.146	0.088	0.137	201.139642	-43.082878	-583.95	-298.07
5	GUIDE	used	1021719704	7.59	2500	0.202	0.033	0.101	0.154	200.511976	-43.050426	-2171.50	-764.73
6	GUIDE	used	1021721672	9.51	2496	-0.254	-0.064	0.165	0.260	201.740358	-43.079729	895.35	252.05
7	GUIDE	used	1022235840	9.40	2495	0.130	-0.122	0.197	0.314	201.679306	-43.544276	1313.39	-1375.08

2.4 Star Slots

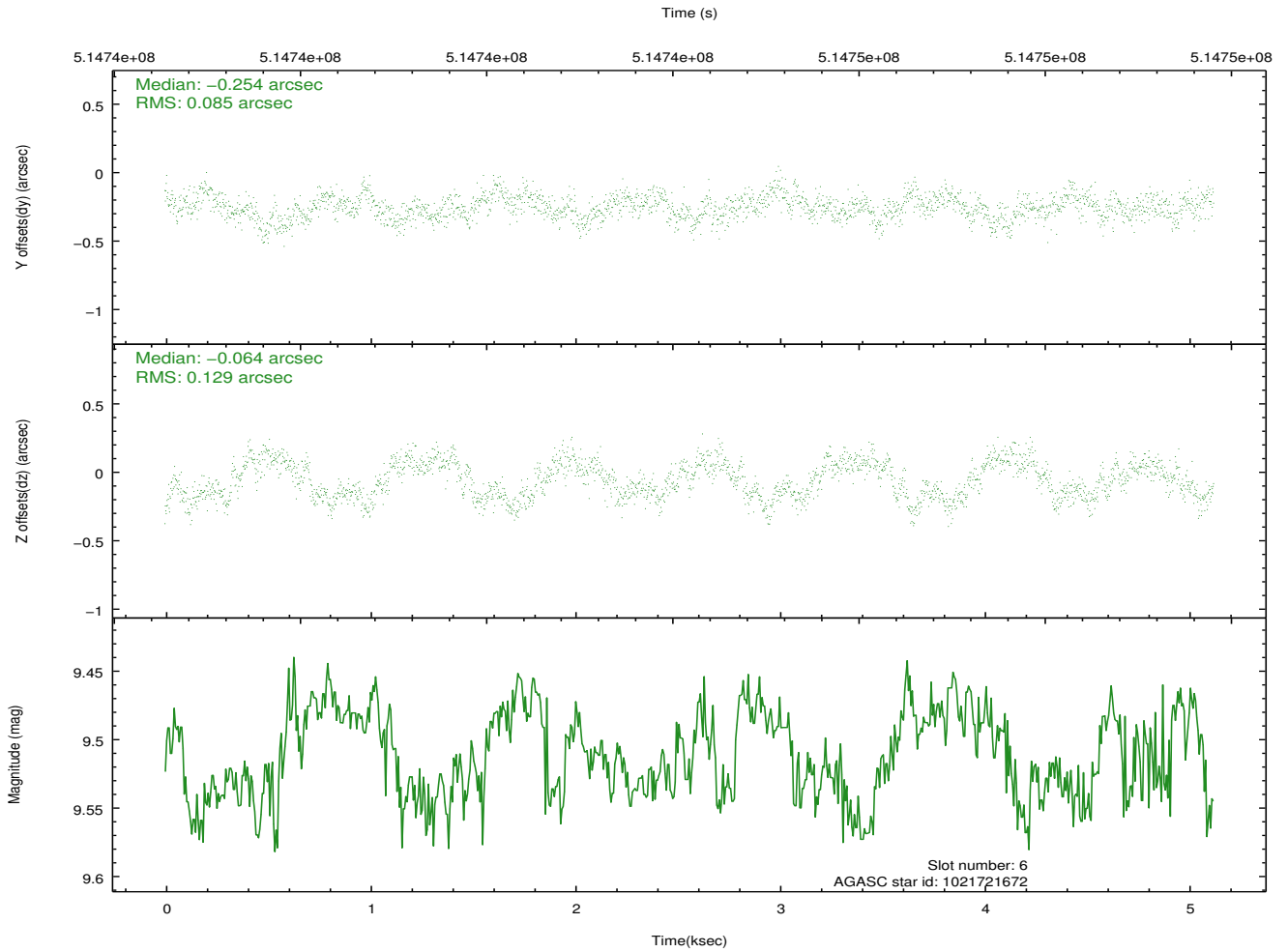
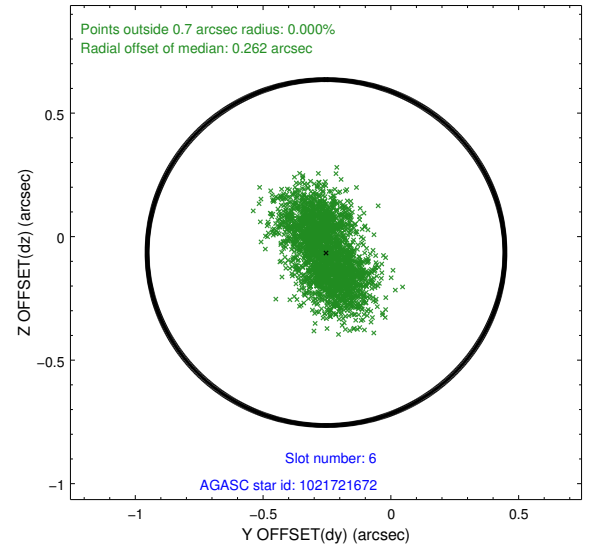
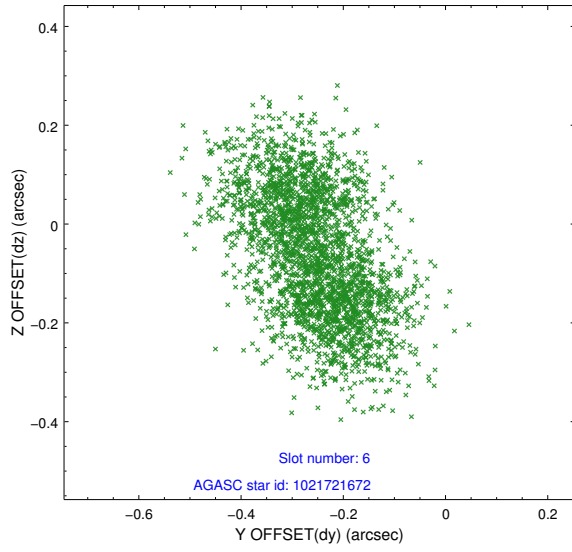
2.4.1 Slot 4



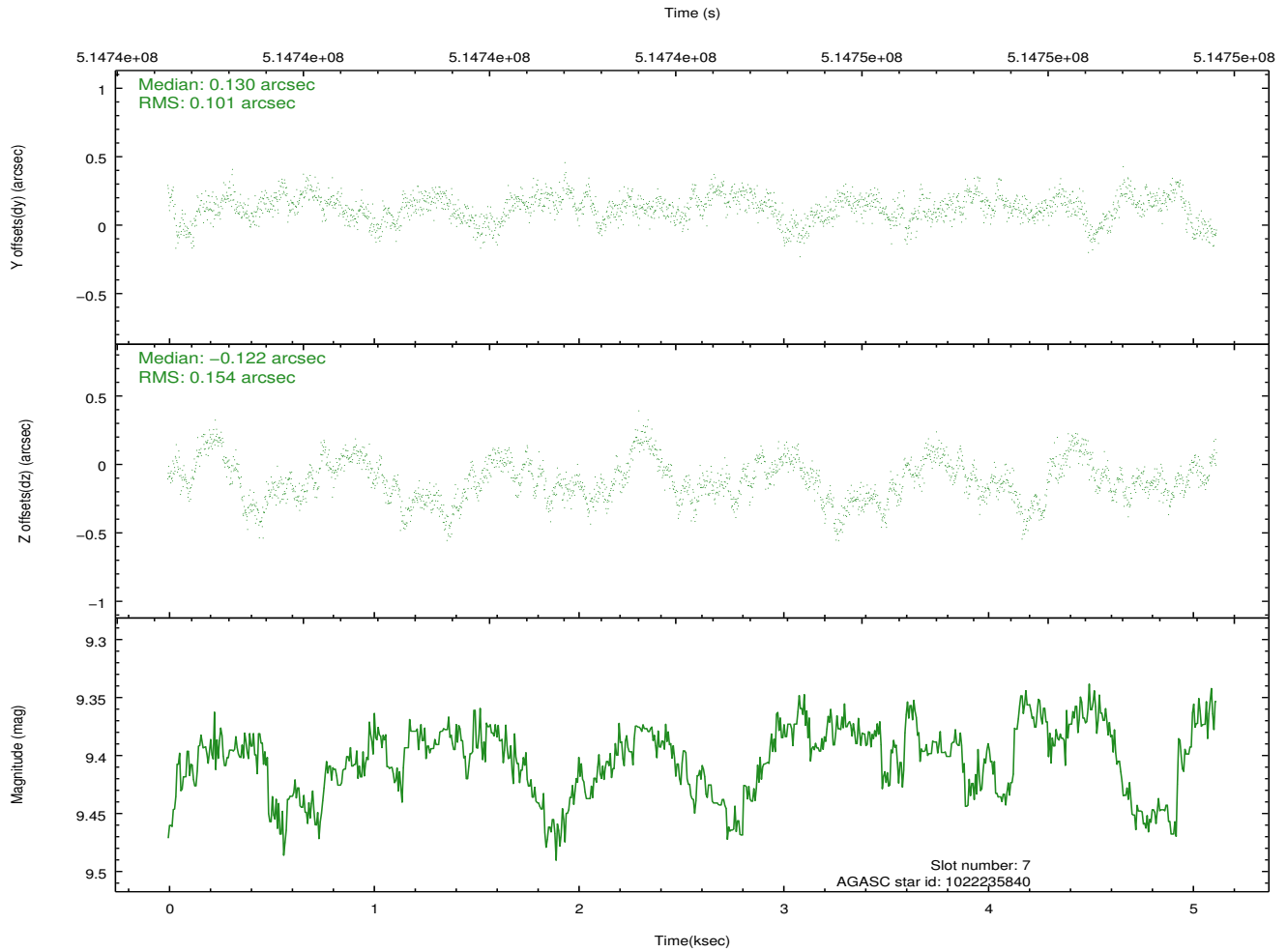
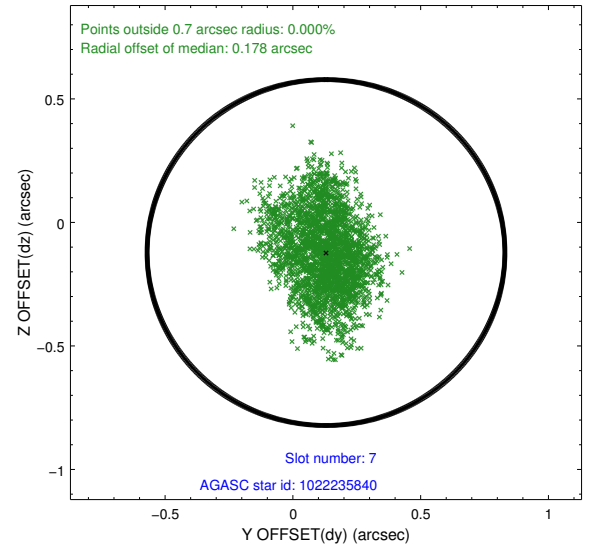
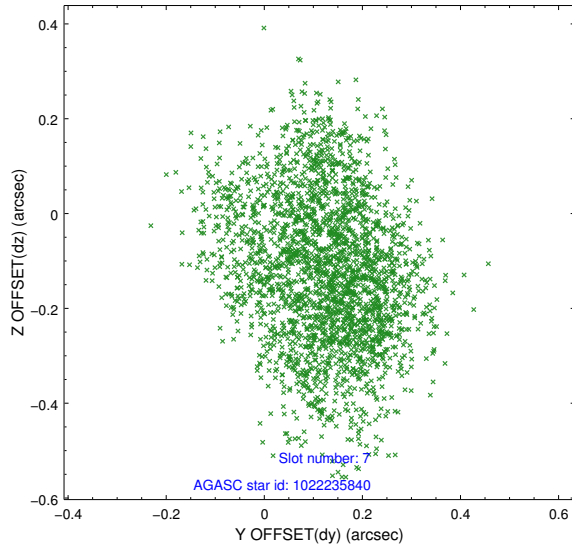
2.4.2 Slot 5



2.4.3 Slot 6

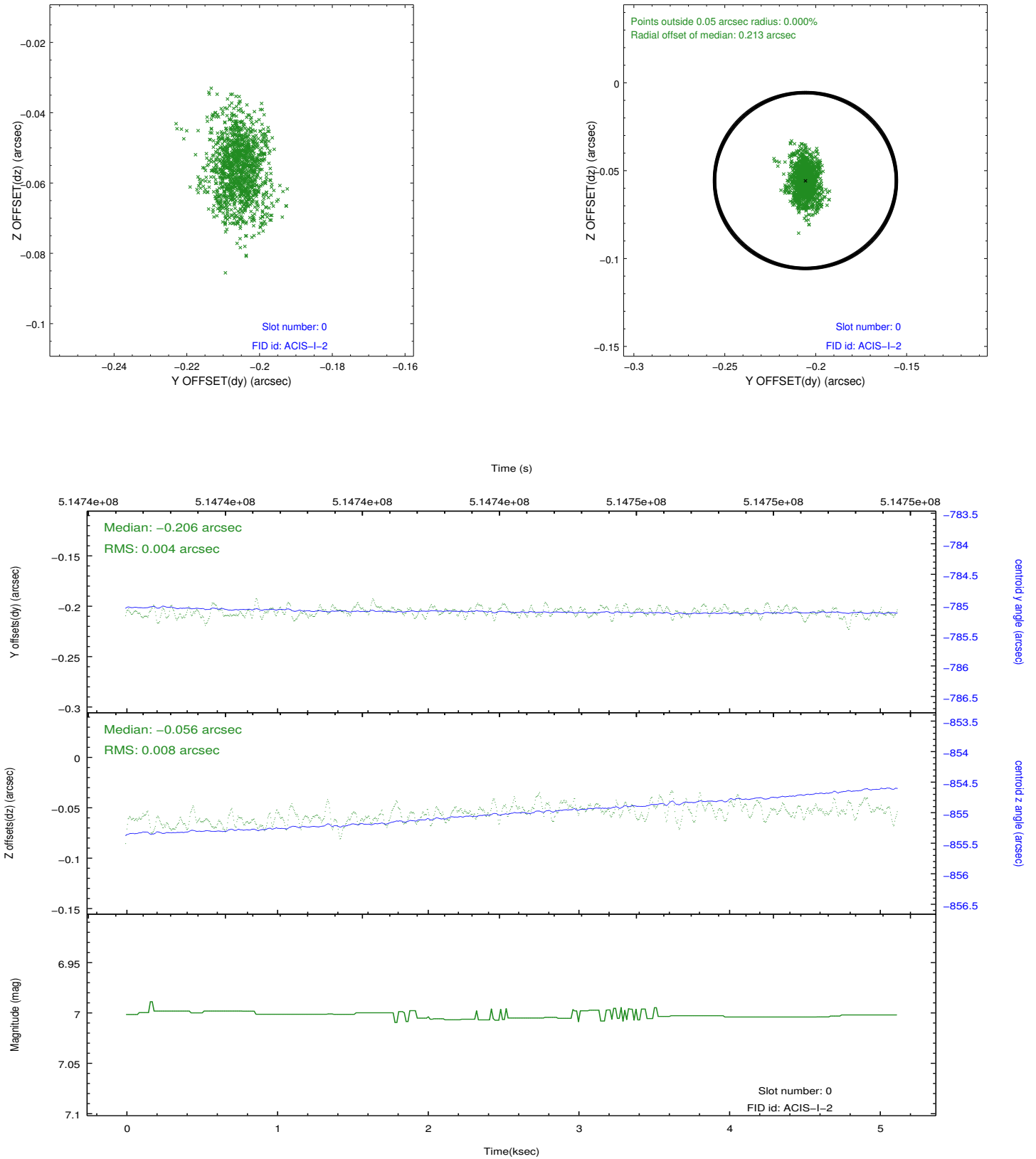


2.4.4 Slot 7

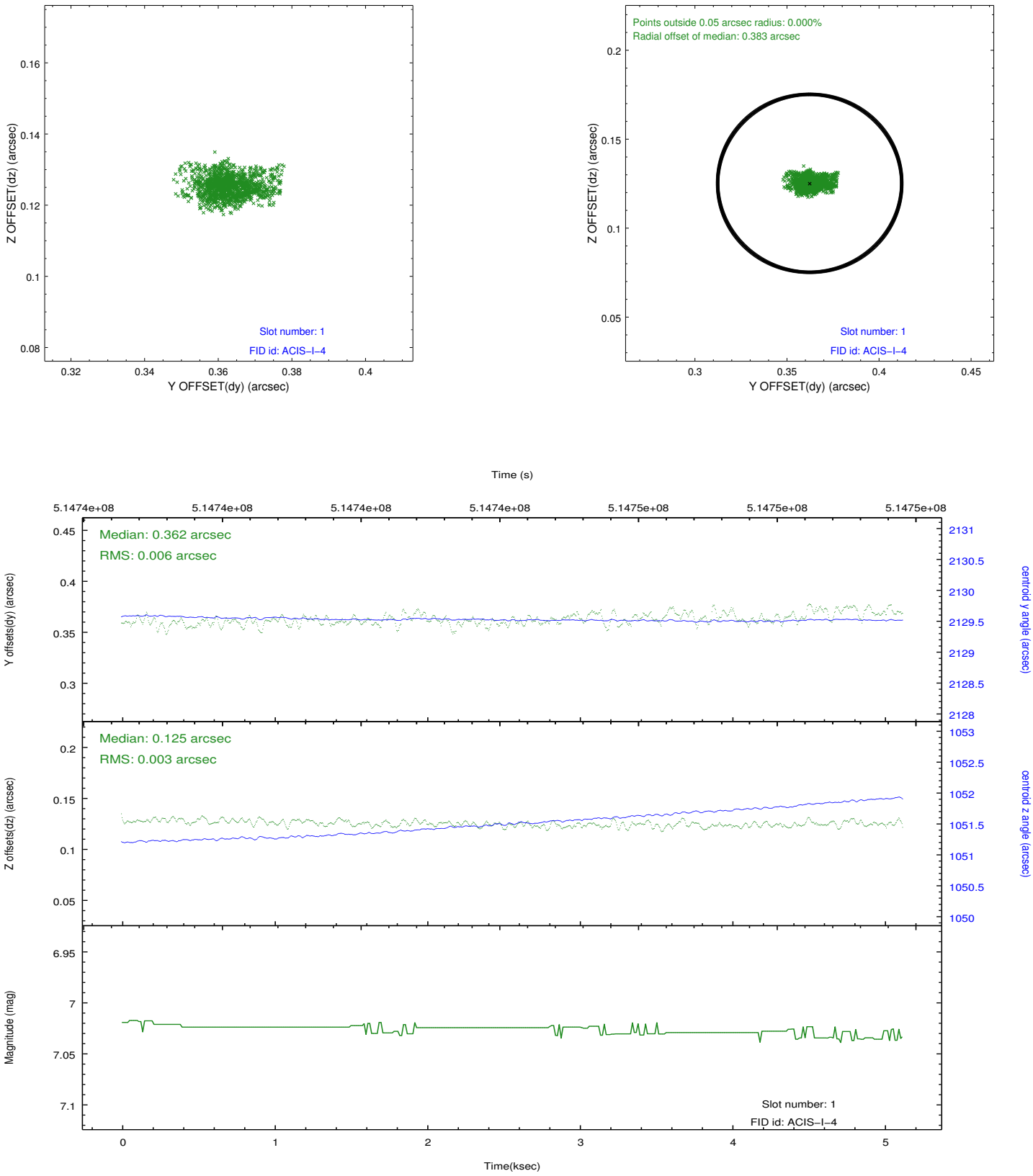


2.5 FID Slots

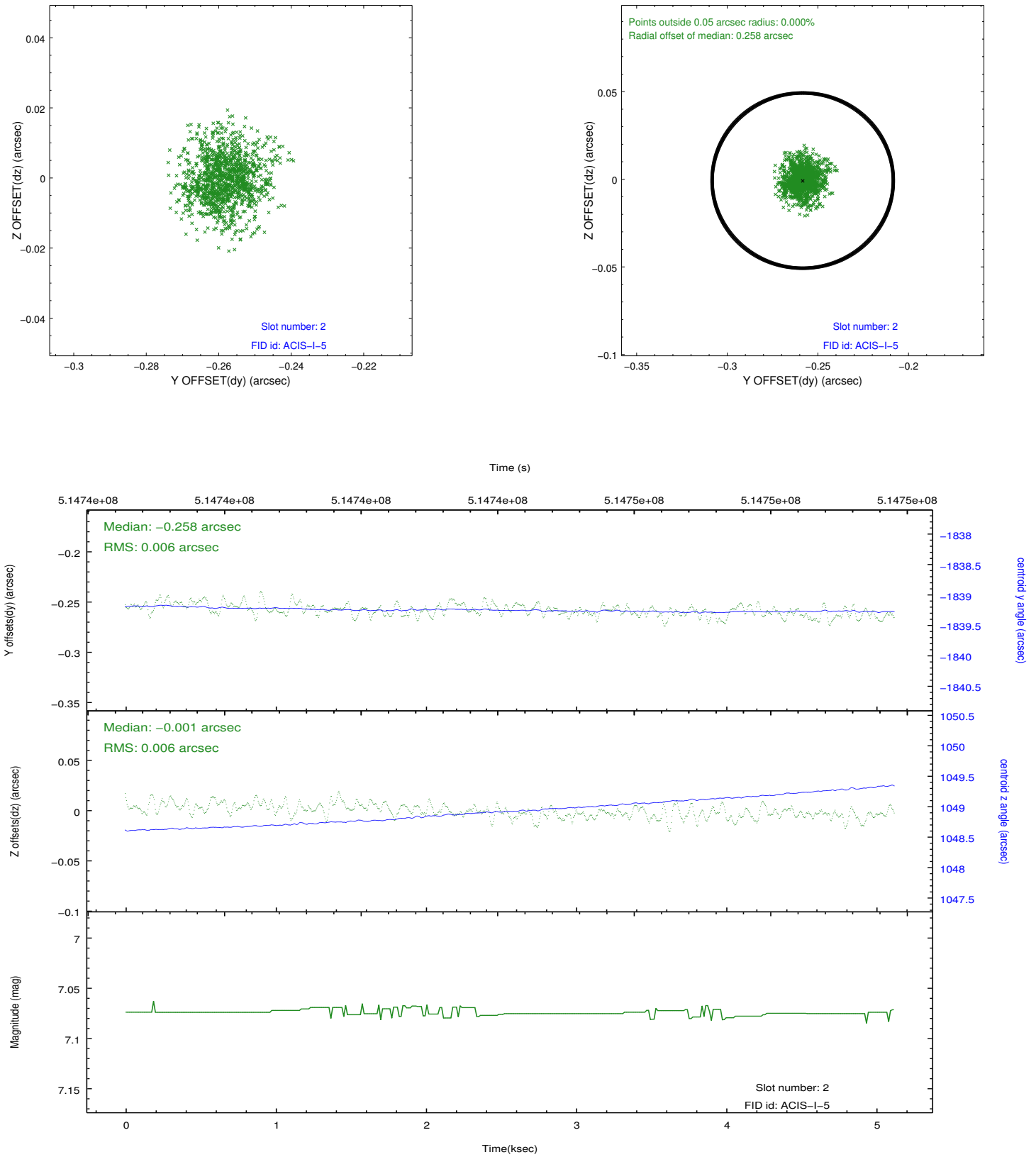
2.5.1 Slot 0



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)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0902000391483

A.2 Comments

The guide star in slot 3 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

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.