

V&V Reference Report

L2 ASCDS Version : 8.1.2

Observation 1080 - L2 Version 4

Chandra X-Ray Center

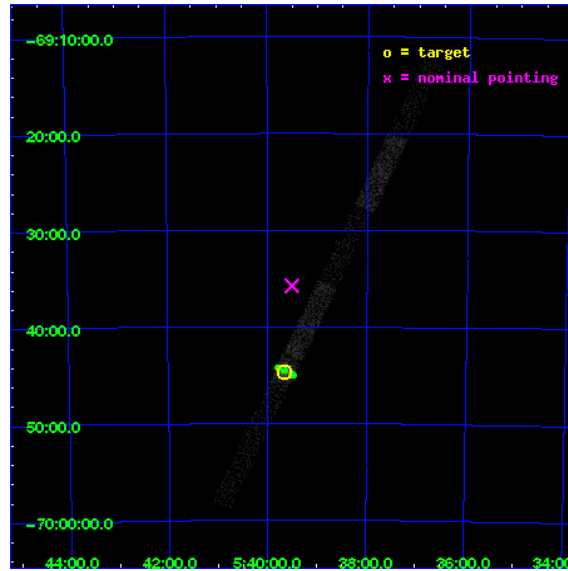
L2 Processing Date : Dec 16 2009

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 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
3	Point Sources	17
A	Summary	18
A.1	Status	18
A.2	Comments	18

1 Front

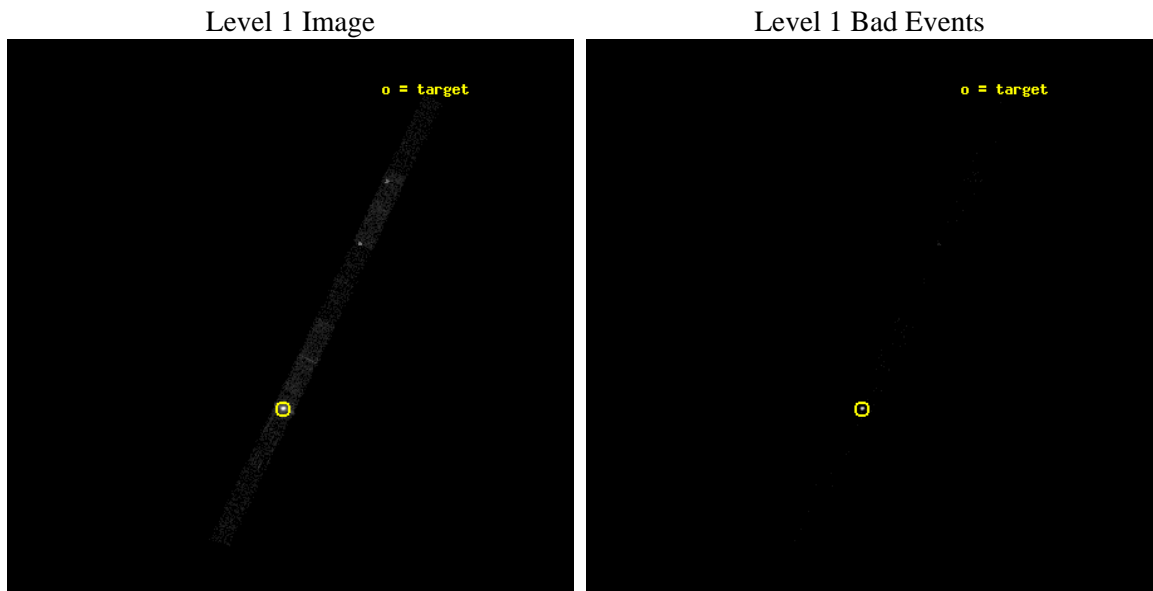
seq_num	480030	Sequence number
obs_id	1080	Observation id
title	 	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	LMC X-1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.914583	Observer's specified target RA
dec_targ	-69.743611	Observer's specified target Dec
ra_nom	84.876597613573	Nominal RA
dec_nom	-69.596019974095	Nominal Dec
roll_nom	115.97598781176	Nominal Roll
revision	4	Processing version of data
ontime	762.3000010252	Sum of GTIs [s]
livetime	734.88221370655	Livetime [s]
ontime4	762.3000010252	Sum of GTIs [s]
ontime5	762.3000010252	Sum of GTIs [s]
ontime6	762.3000010252	Sum of GTIs [s]
ontime7	762.3000010252	Sum of GTIs [s]
ontime8	762.3000010252	Sum of GTIs [s]
ontime9	762.3000010252	Sum of GTIs [s]
l2events	33270	Number of level 2 events



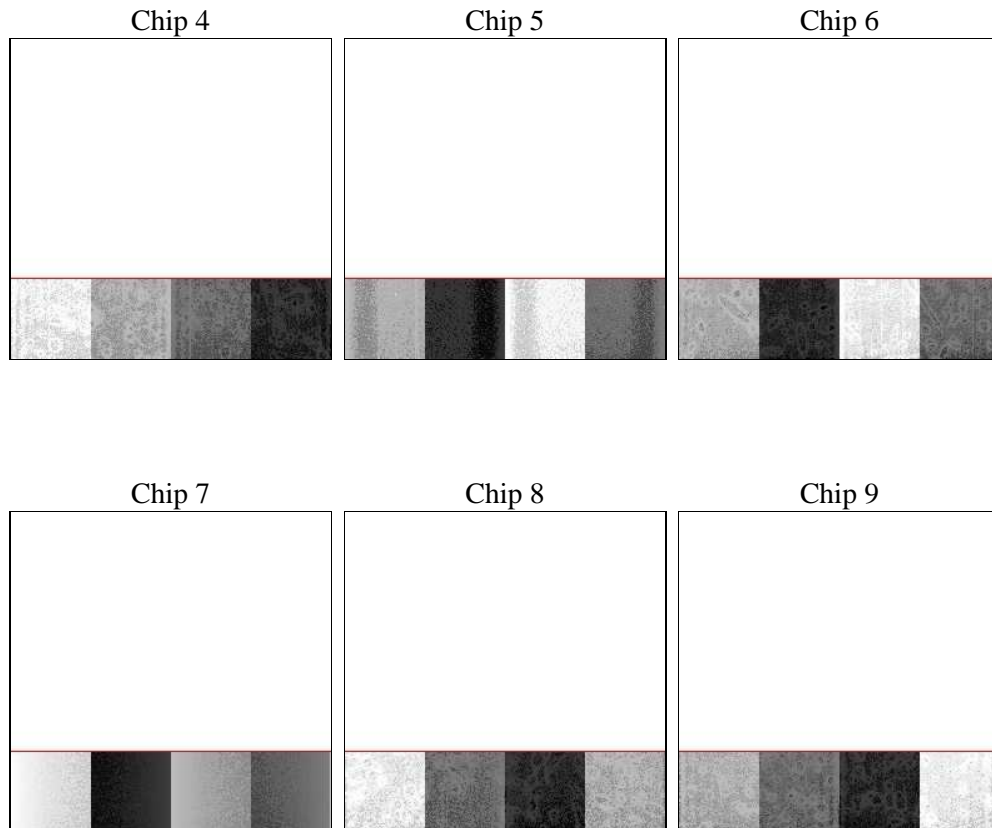
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	1000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	762.3000010252	Sum of GTIs [s]
caldsver	4.1.4	 	ontime4	762.3000010252	Sum of GTIs [s]
date	2009-12-16T07:53:52	Date and time of file creation	ontime5	762.3000010252	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	762.3000010252	Sum of GTIs [s]
			ontime7	762.3000010252	Sum of GTIs [s]
			ontime8	762.3000010252	Sum of GTIs [s]
			ontime9	762.3000010252	Sum of GTIs [s]
			l1events	40742	Number of level 1 events

2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	502	2749	565	1768	34630	528
rejected events	108	204	115	226	4953	141
rejected %	21%	7%	20%	12%	14%	26%

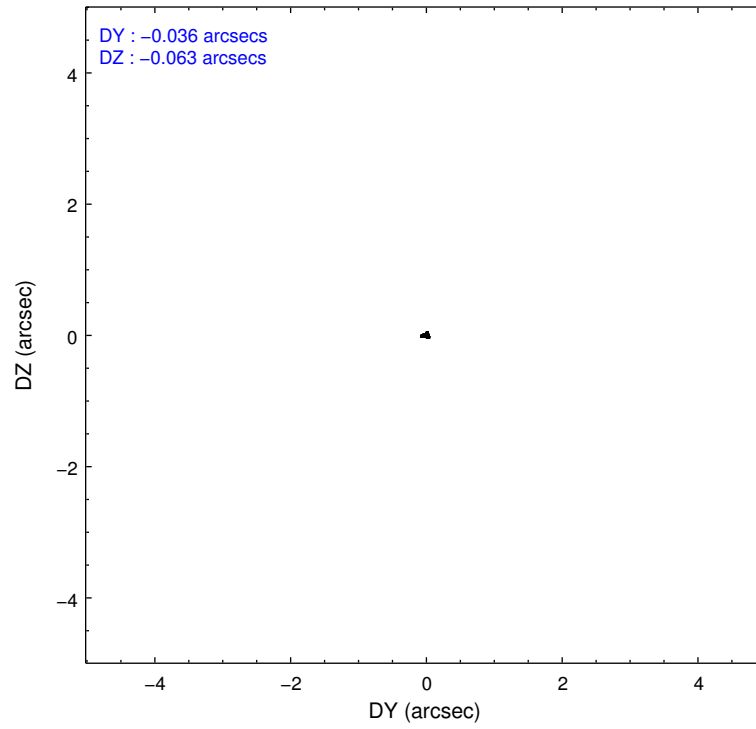
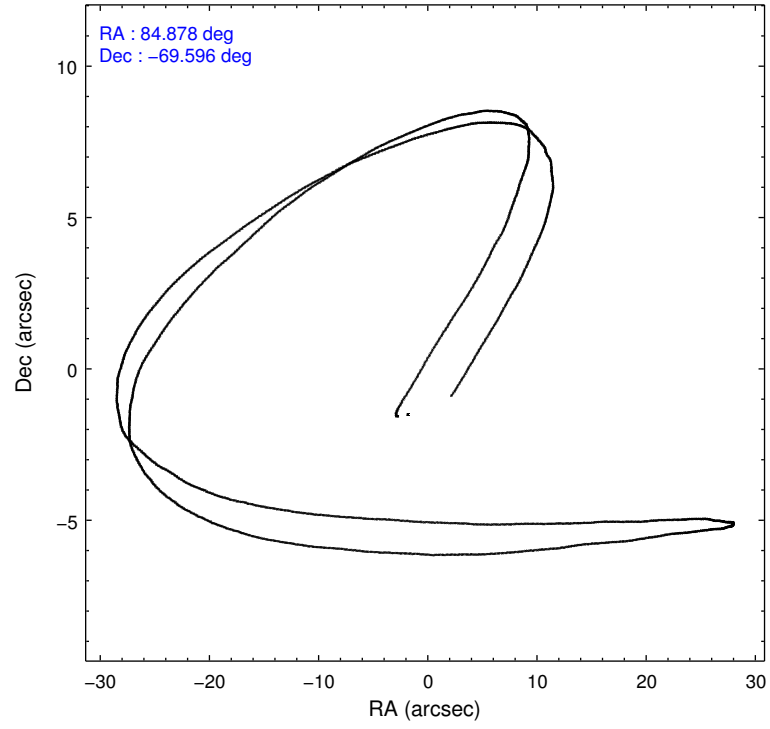
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	126	652	132	118	19920	106
	25%	23%	23%	6%	57%	20%
grade 1 events	0	5	0	0	3064	1
	0%	0%	0%	0%	8%	0%
grade 2 events	66	187	72	276	4678	57
	13%	6%	12%	15%	13%	10%
grade 3 events	45	346	52	113	1678	49
	8%	12%	9%	6%	4%	9%
grade 4 events	43	406	58	128	1744	43
	8%	14%	10%	7%	5%	8%
grade 5 events	107	190	114	223	1798	138
	21%	6%	20%	12%	5%	26%
grade 6 events	115	963	137	910	1748	134
	22%	35%	24%	51%	5%	25%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

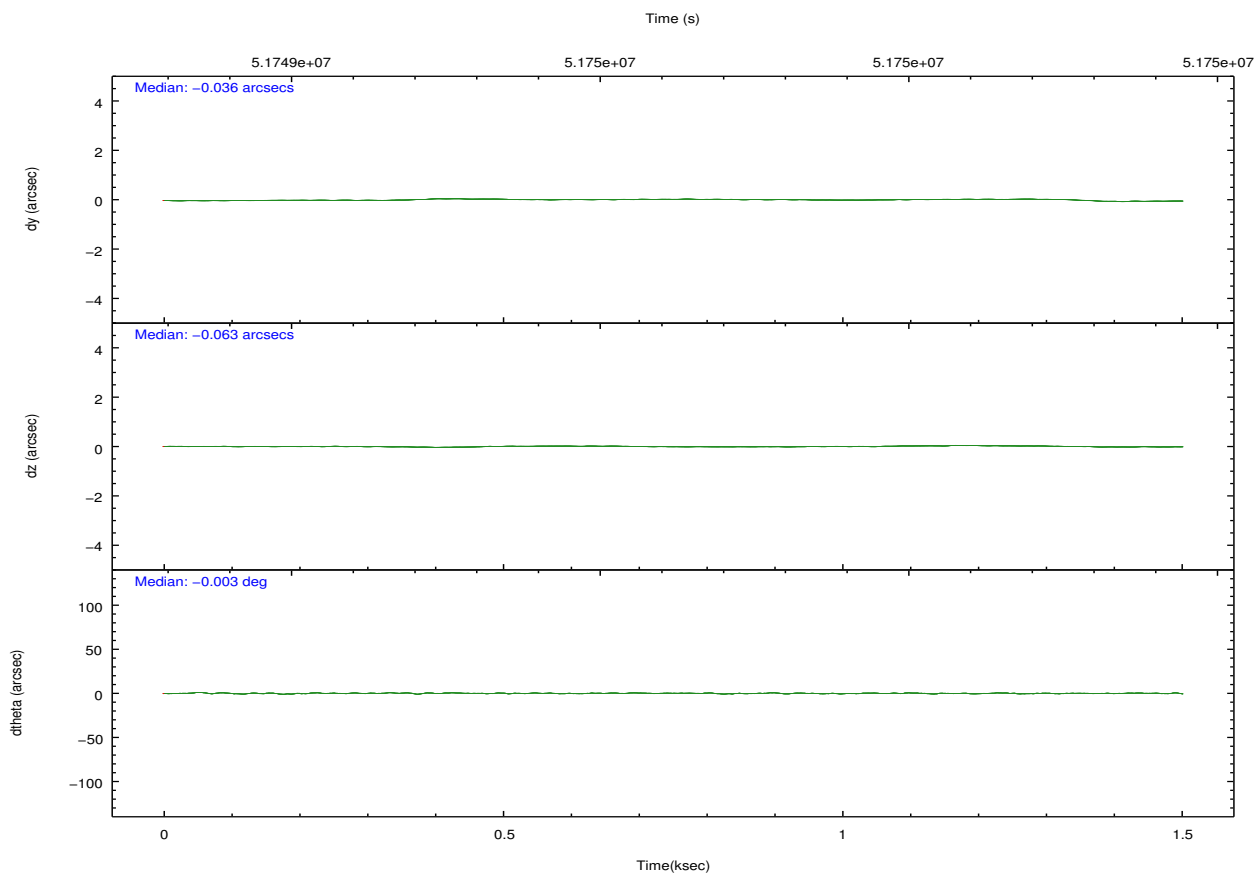
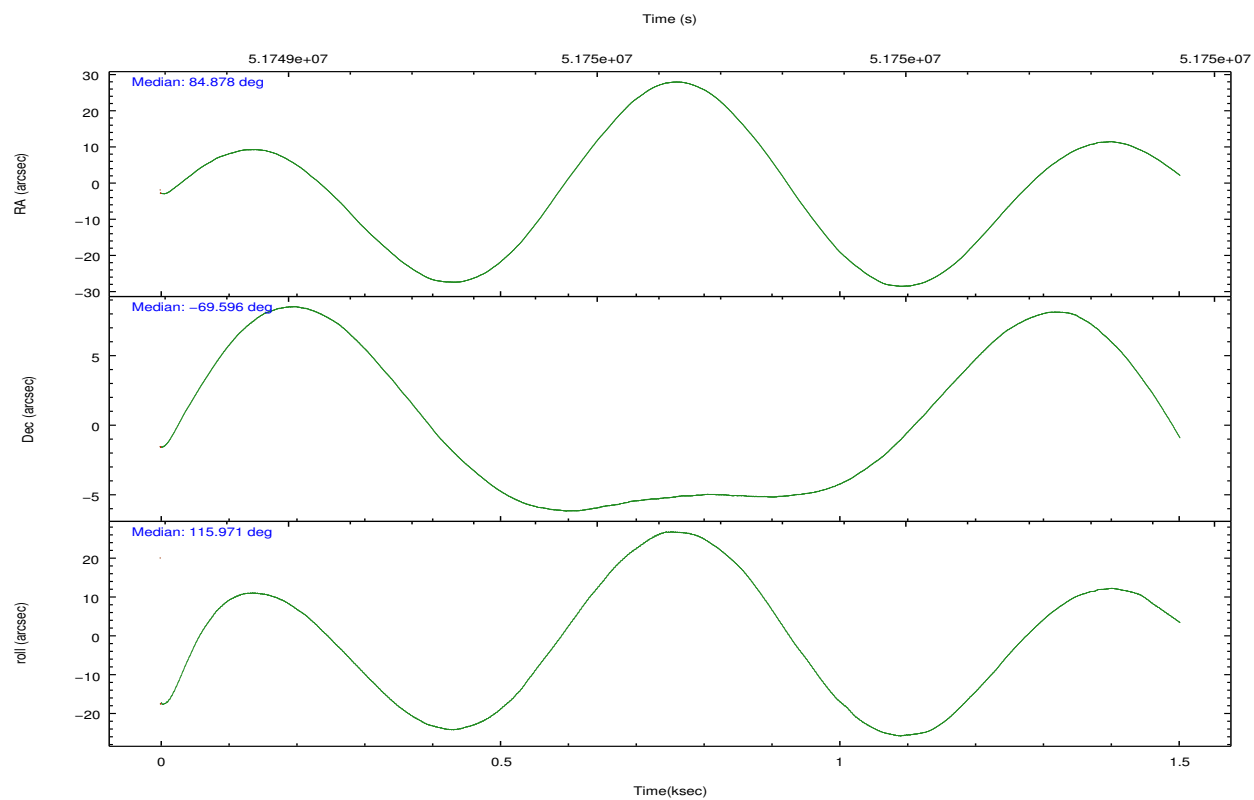
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
Pointing RA	84.941499	84.8765976135733
Pointing Dec	-69.612385	-69.59601997409528
Pointing Roll	115.880299	115.9759878117614
SIM focus pos (mm)	-0.684267	-0.865731118321573
SIM defocus (mm)	0	-0.1814636570216768
SIM translation stage pos (mm)	-190.132523	-190.1199515274594
SIM translation stage offset (mm)	0	-0.012571055548392
Observation start time	51749369.184000	51748695.909192
Observation start date	1999-08-22T22:48:25	1999-08-22T22:38:15
Observation end time	51750369.184000	51751714.021801
Observation end date	1999-08-22T23:05:05	1999-08-22T23:28:34
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	6	6
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	1/4
Subarray start row	0	1
Subarray row count	1024	256
Alternating exposures requested	N	N
Primary exposure time	0.000000	1.1

2.3 Aspect



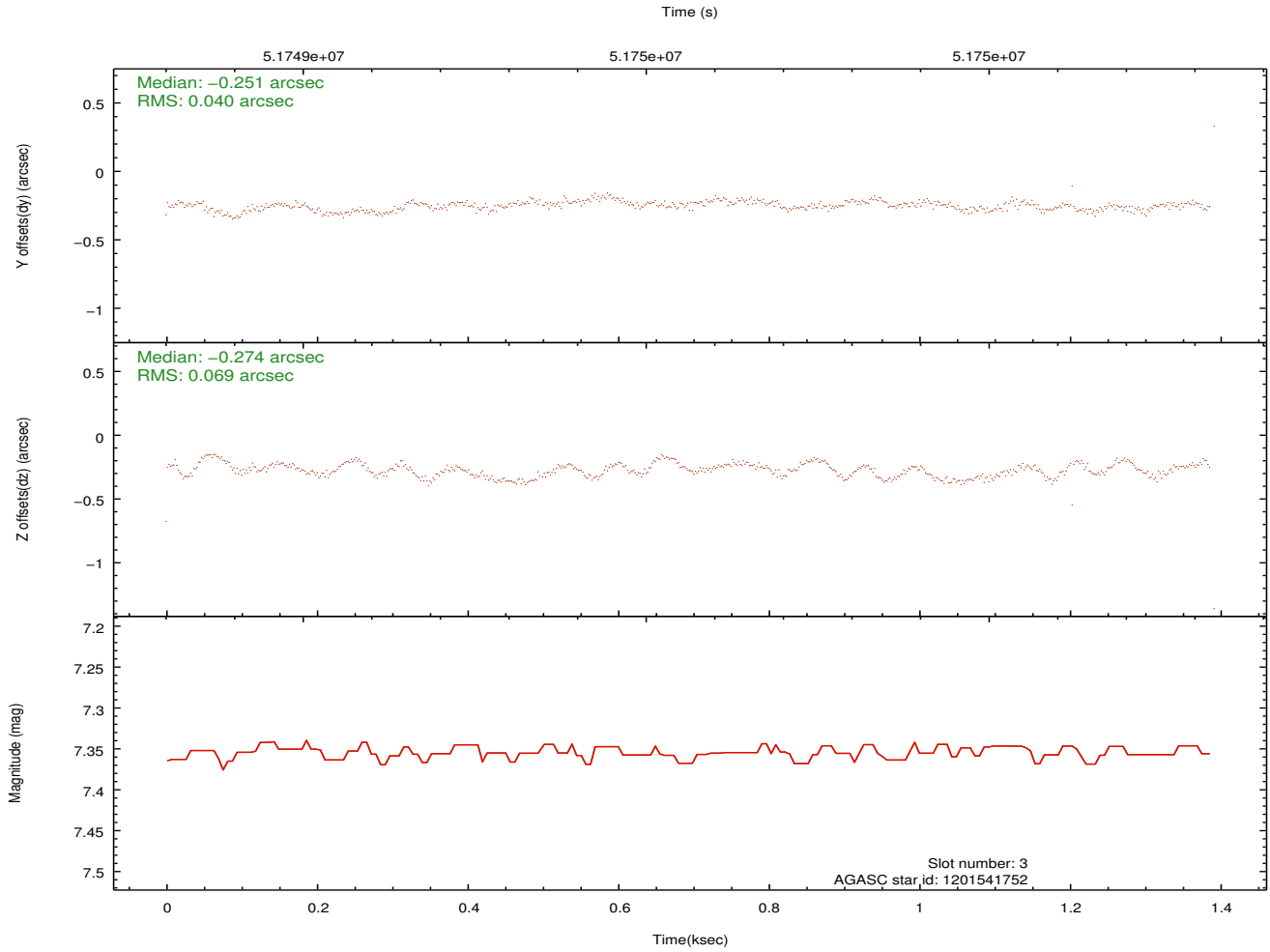
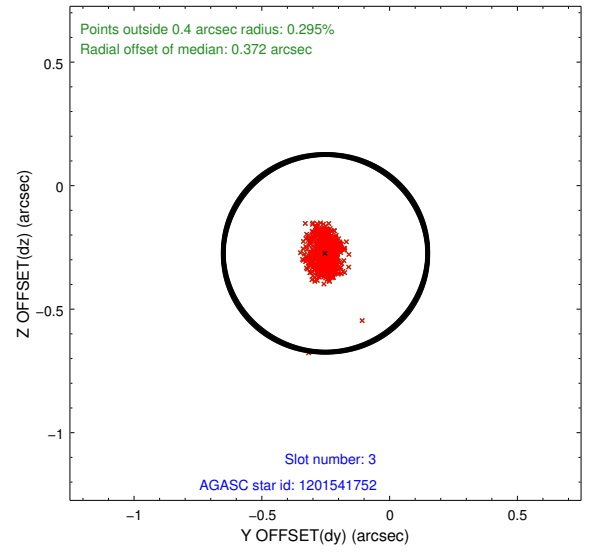
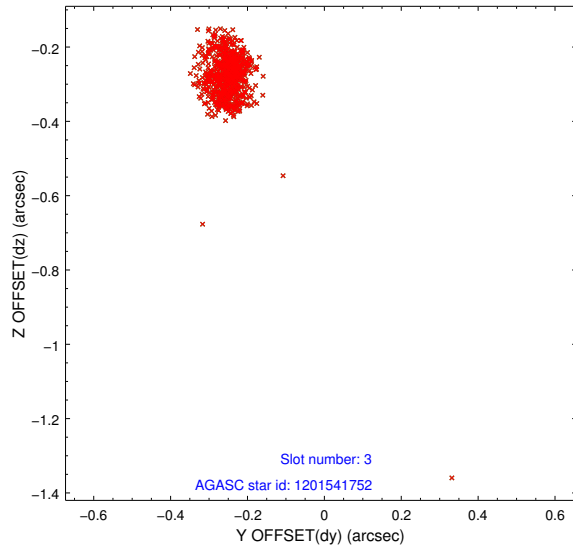


Slot Statistics

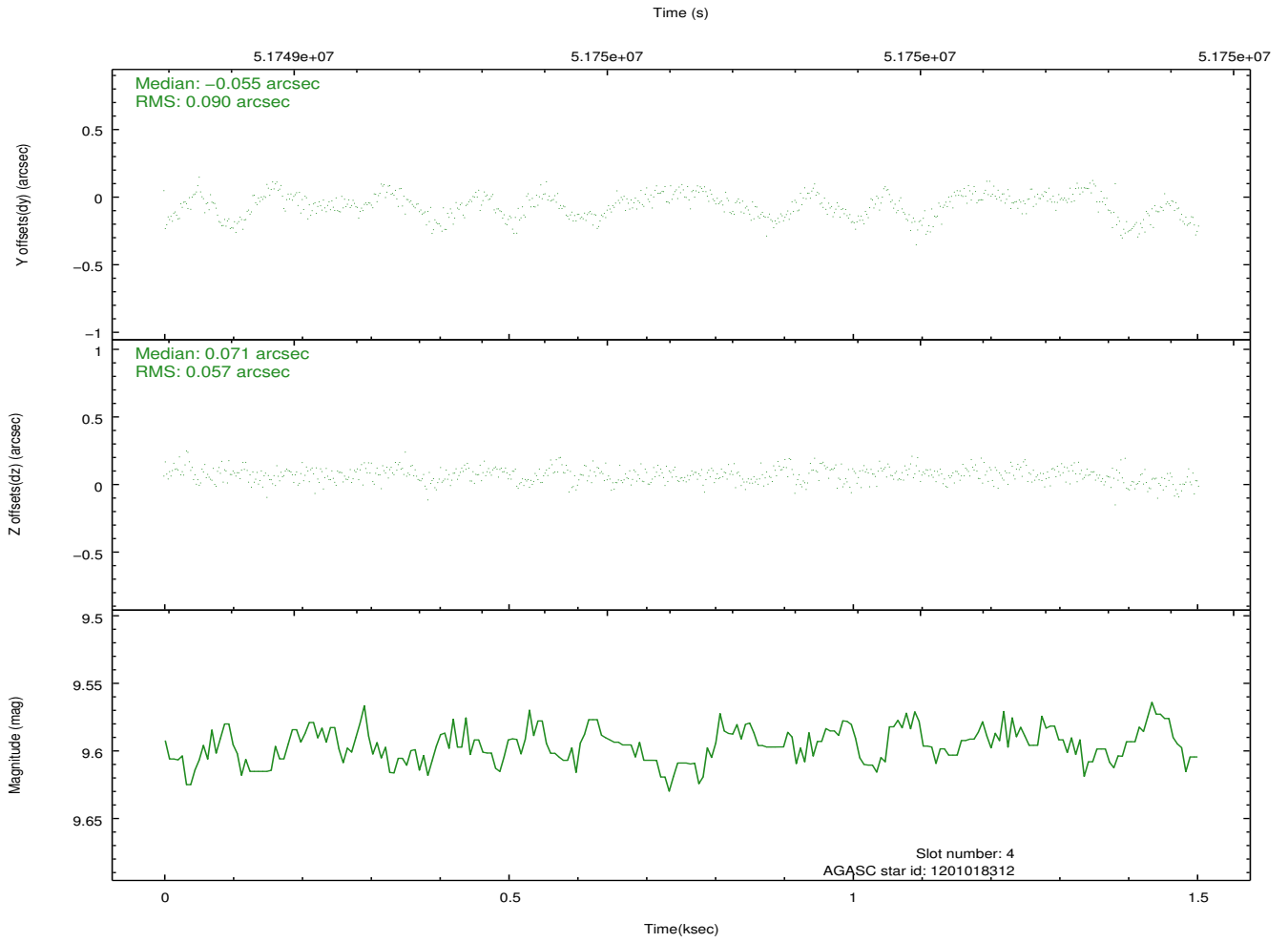
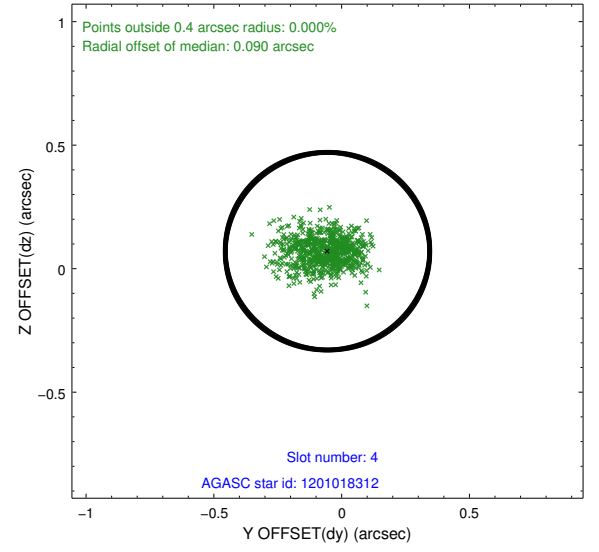
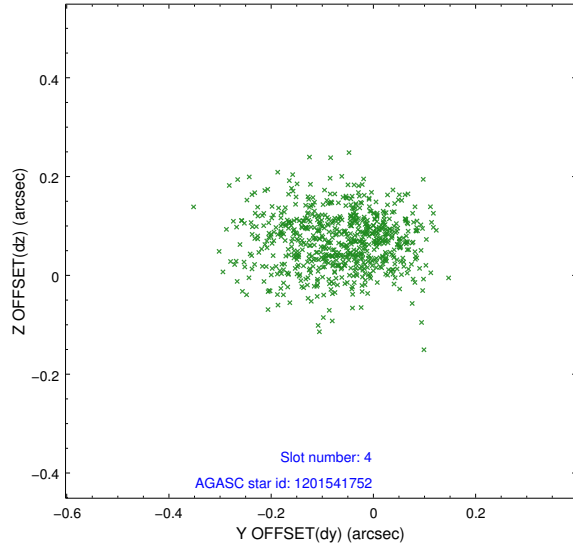
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	734	-0.031	-0.024	0.006	0.010	0.000000	0.000000	-752.56	-1721.30
1	FID	ACIS-S-4	7.22	733	0.136	0.021	0.006	0.010	0.000000	0.000000	2159.91	184.95
2	FID	ACIS-S-5	7.25	733	-0.136	0.011	0.006	0.011	0.000000	0.000000	-1802.71	181.11
3	BAD	1201541752	7.36	677	-0.251	-0.274	0.069	0.103	85.373891	-70.033762	-1600.07	185.45
4	GUIDE	1201018312	9.60	734	-0.055	0.071	0.110	0.185	86.298231	-69.115627	828.24	-2336.84
5	GUIDE	1200883536	9.90	734	0.101	0.076	0.132	0.216	83.119228	-69.218429	2260.32	1488.46
6	GUIDE	1201406992	9.26	732	0.170	0.035	0.078	0.136	83.682859	-69.471866	1135.60	1219.32
7	GUIDE	1201540568	9.95	732	0.019	0.090	0.109	0.179	85.901764	-70.070643	-2006.78	-333.11

2.4 Star Slots

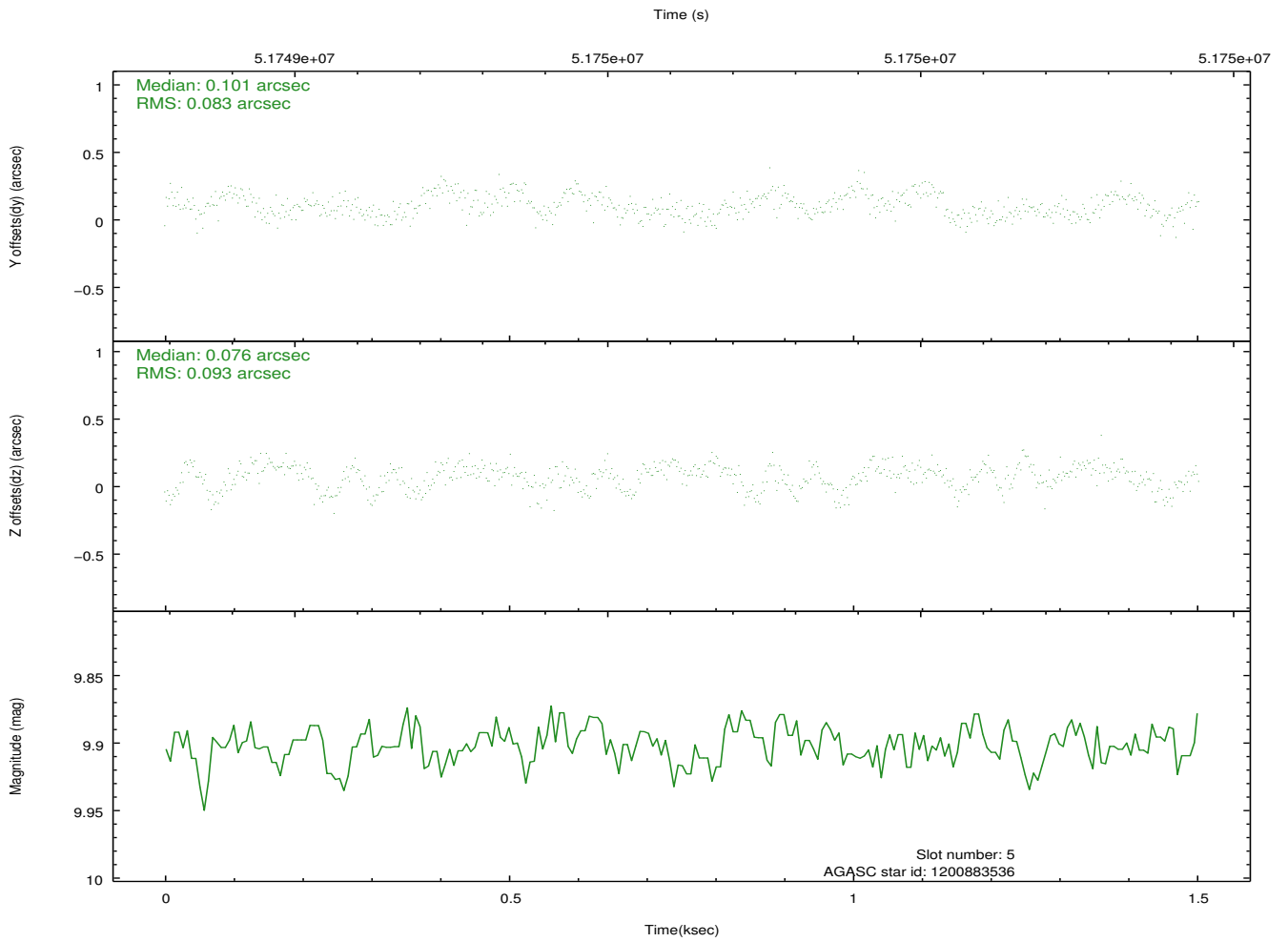
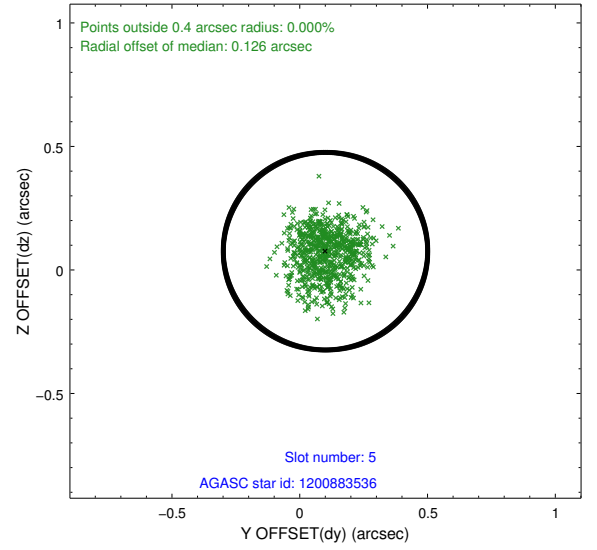
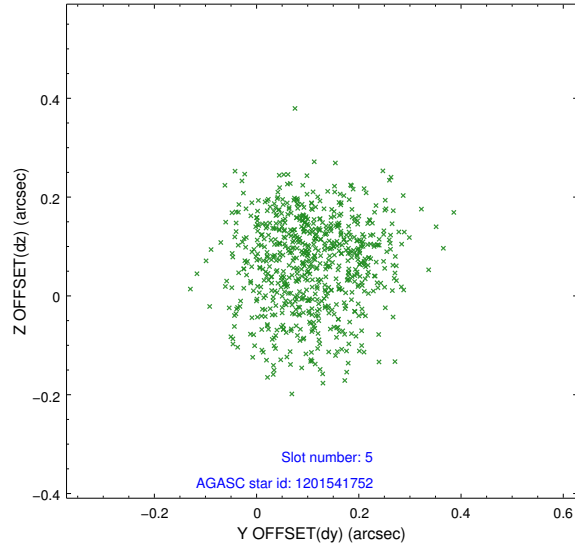
2.4.1 Slot 3



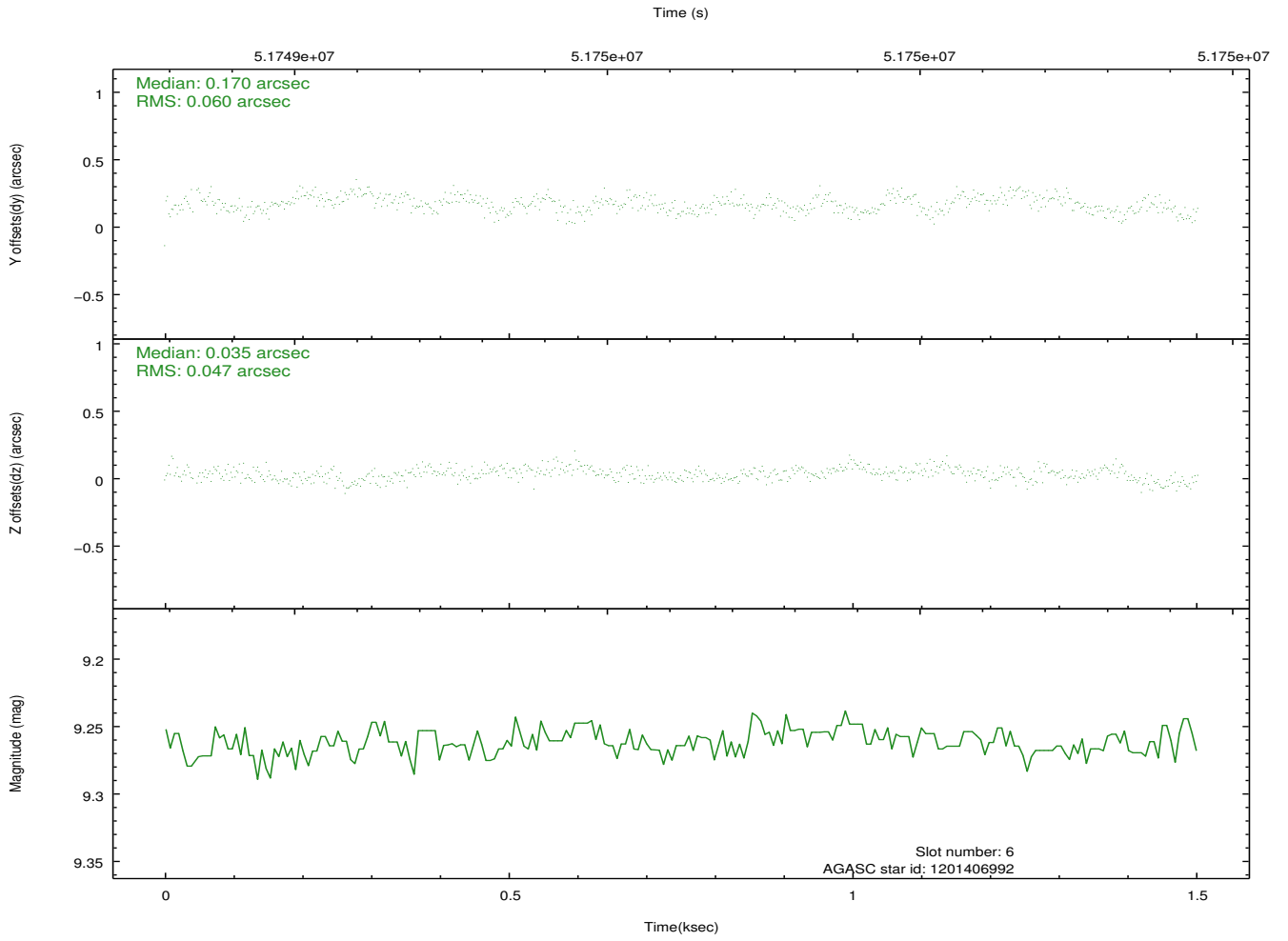
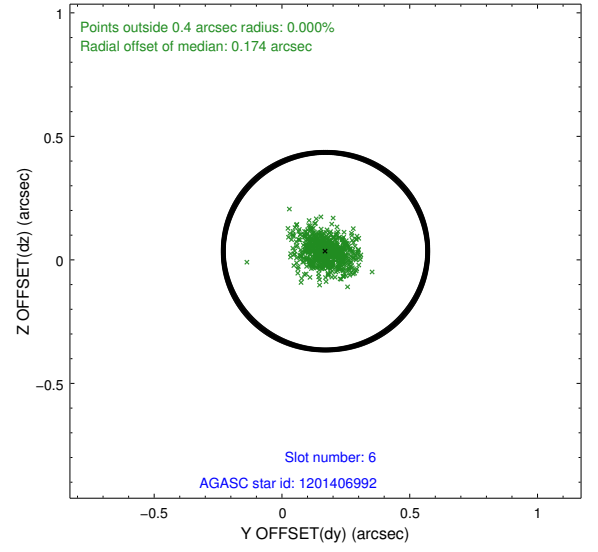
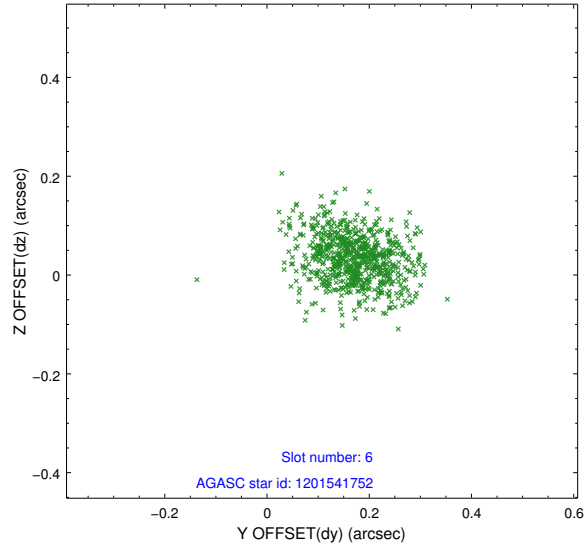
2.4.2 Slot 4



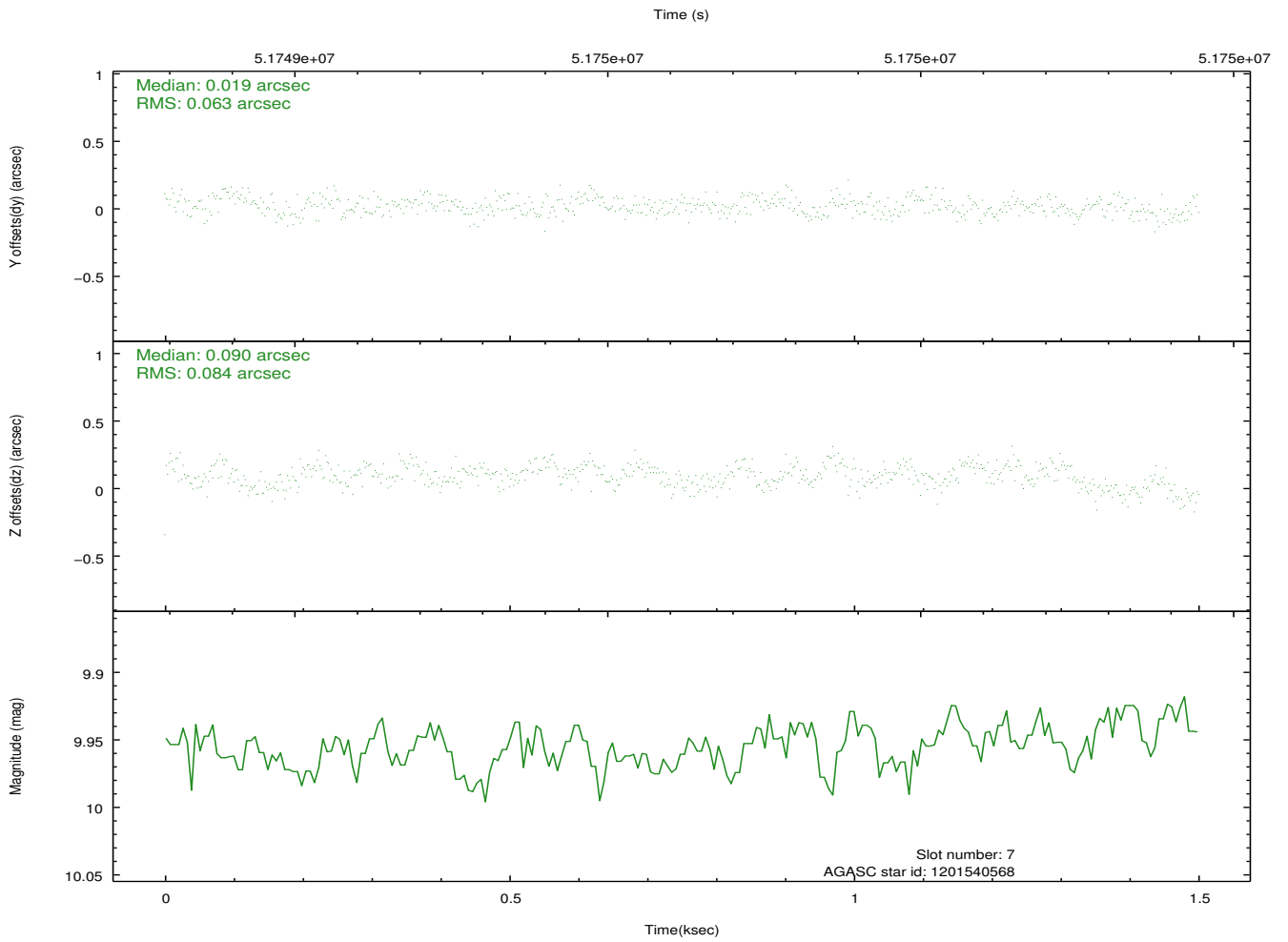
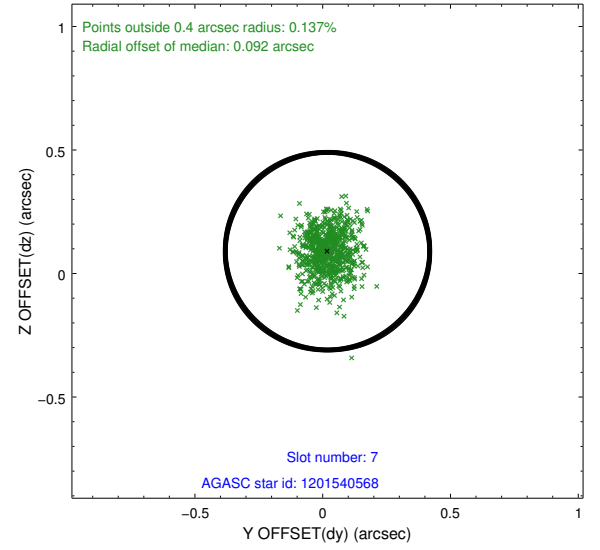
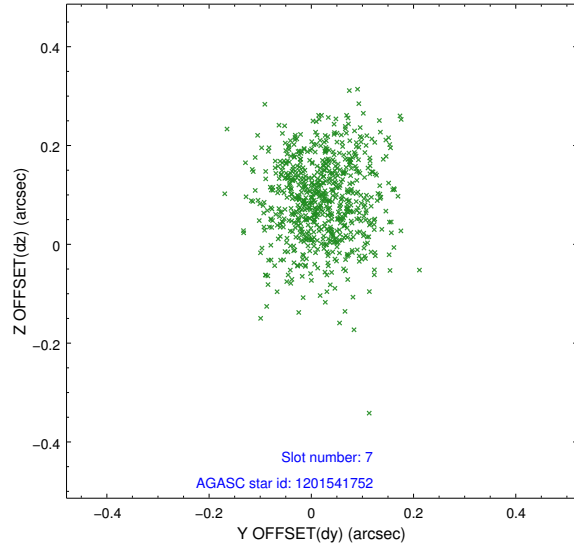
2.4.3 Slot 5



2.4.4 Slot 6

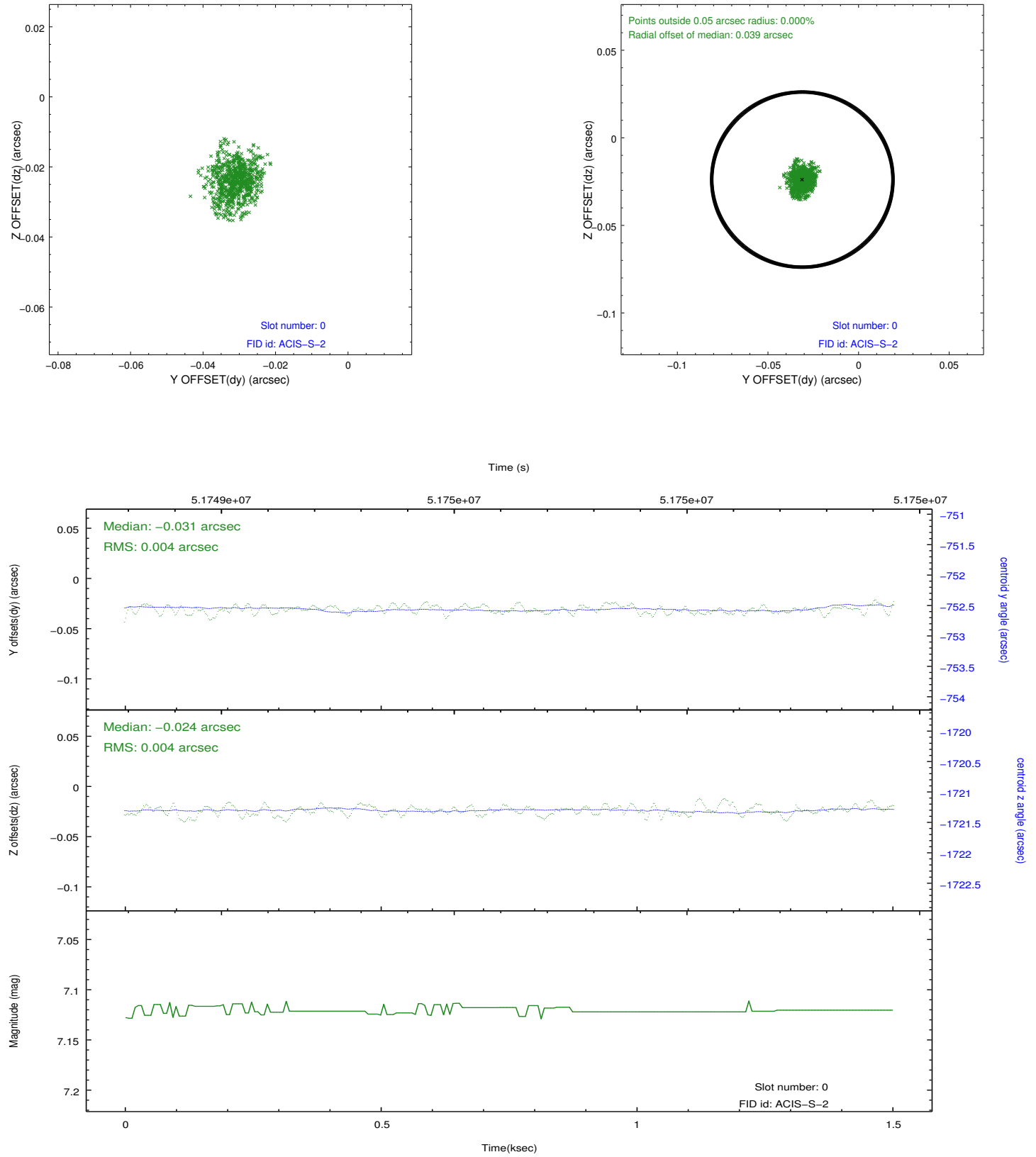


2.4.5 Slot 7

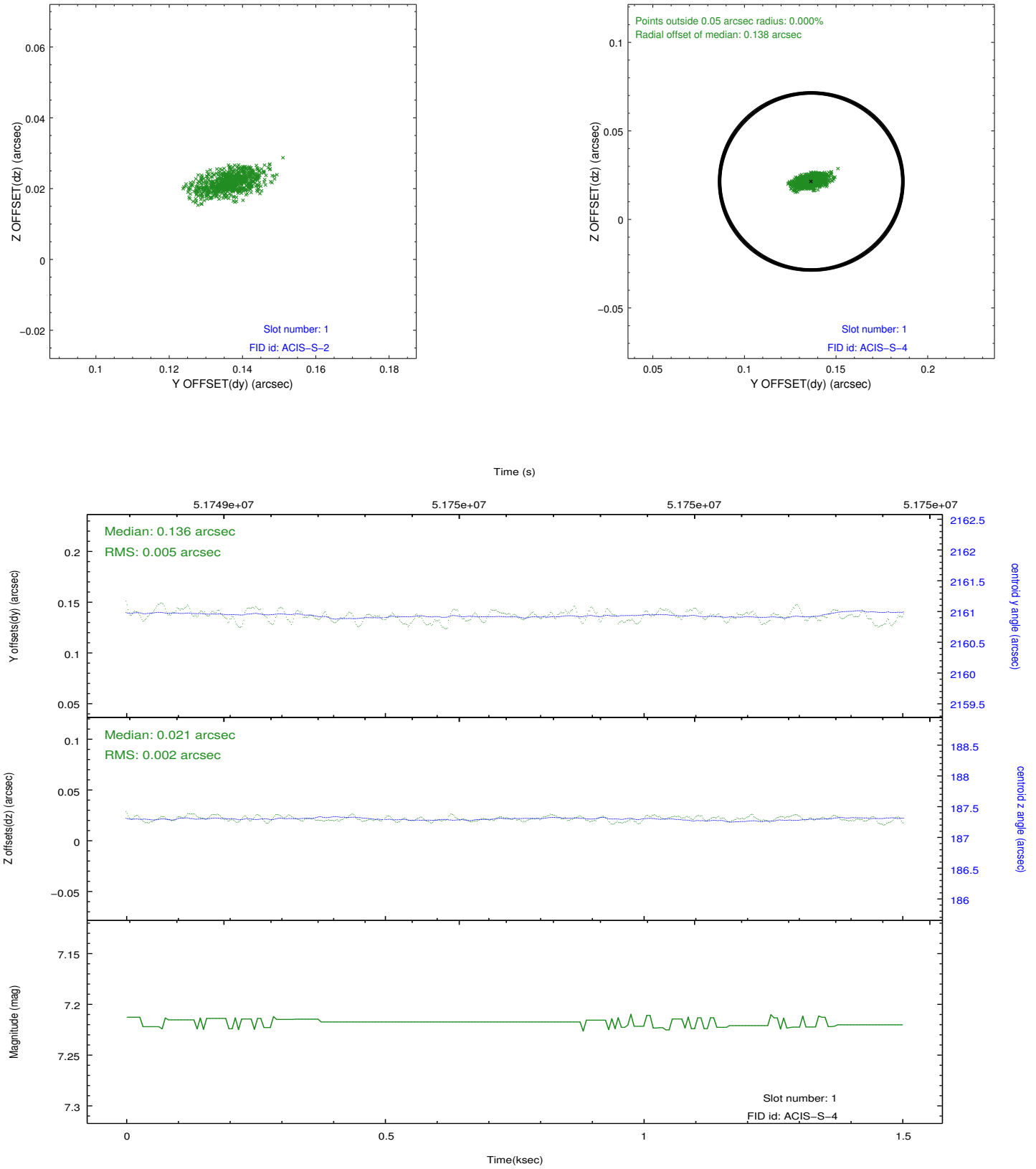


2.5 FID Slots

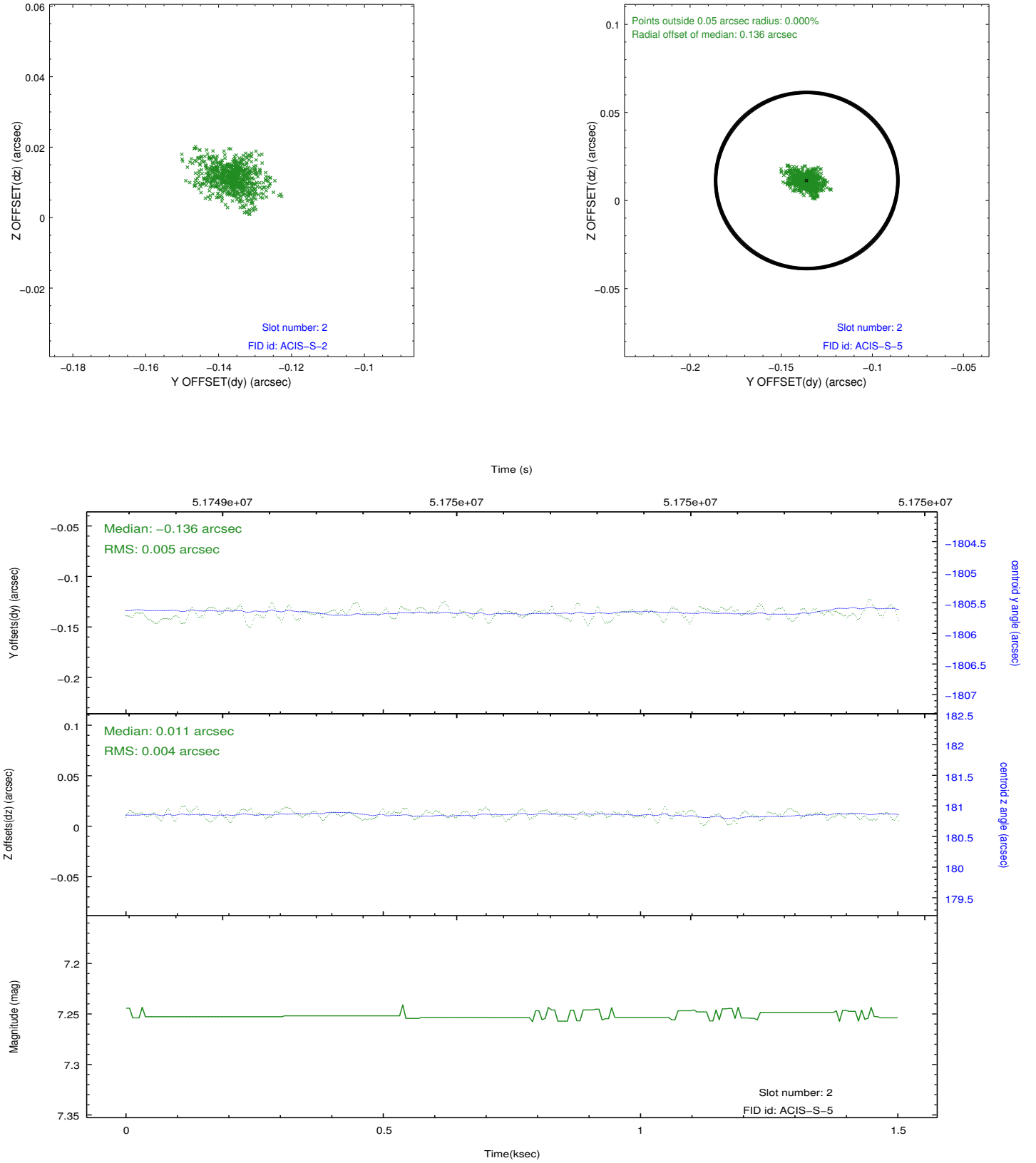
2.5.1 Slot 0



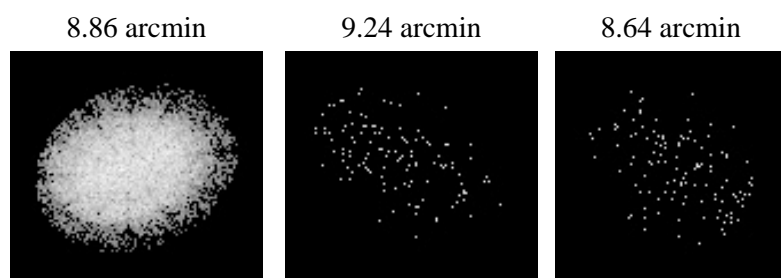
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.07.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	0.763

A.2 Comments

Target is very off-axis on S4. Subarray is used, although not documented

in OCAT. Aim point is off the 1/4 subarray, but the target is on.

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The guide star in slot 3 was excluded from the aspect solution due to poor data quality. The aspect solution is not expected to be degraded by removing one guide star from the solution.

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The focal plane temperature is approximately -100 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.