

V&V Reference Report

L2 ASCDS Version : 8.1.2

Observation 220 - L2 Version 4

Chandra X-Ray Center

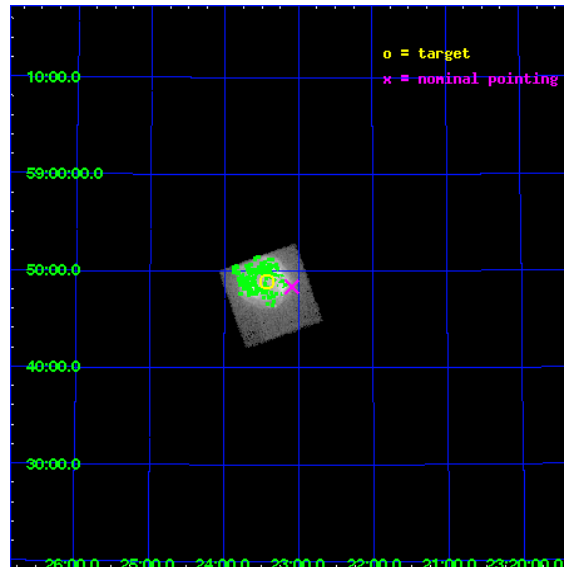
L2 Processing Date : Dec 16 2009

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1 Front

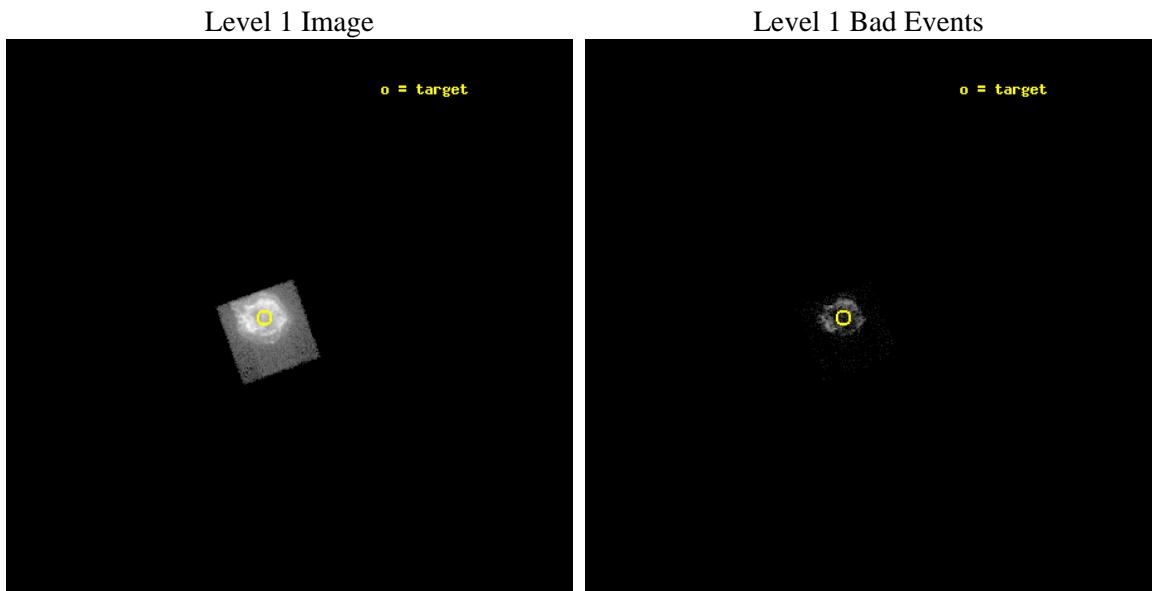
seq_num	590088	Sequence number
obs_id	220	Observation id
title	ACIS CHIP RESPONSE TO CAS A, JAN. 99	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	CAS A [Chip S3, T=100, Offsets=-2,-1,0 Std Candle]	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	350.8575	Observer's specified target RA
dec_targ	58.814833	Observer's specified target Dec
ra_nom	350.77296770436	Nominal RA
dec_nom	58.806528333456	Nominal Dec
roll_nom	160.29557831869	Nominal Roll
revision	4	Processing version of data
ontime	1210.8146270737	Sum of GTIs [s]
livetime	1195.4825632007	Livetime [s]
ontime4	1458.3912144005	Sum of GTIs [s]
ontime5	2028.8000018895	Sum of GTIs [s]
ontime6	1742.5364735052	Sum of GTIs [s]
ontime7	1210.8146270737	Sum of GTIs [s]
ontime8	1746.8368524536	Sum of GTIs [s]
ontime9	1750.0780922771	Sum of GTIs [s]
l2events	378348	Number of level 2 events



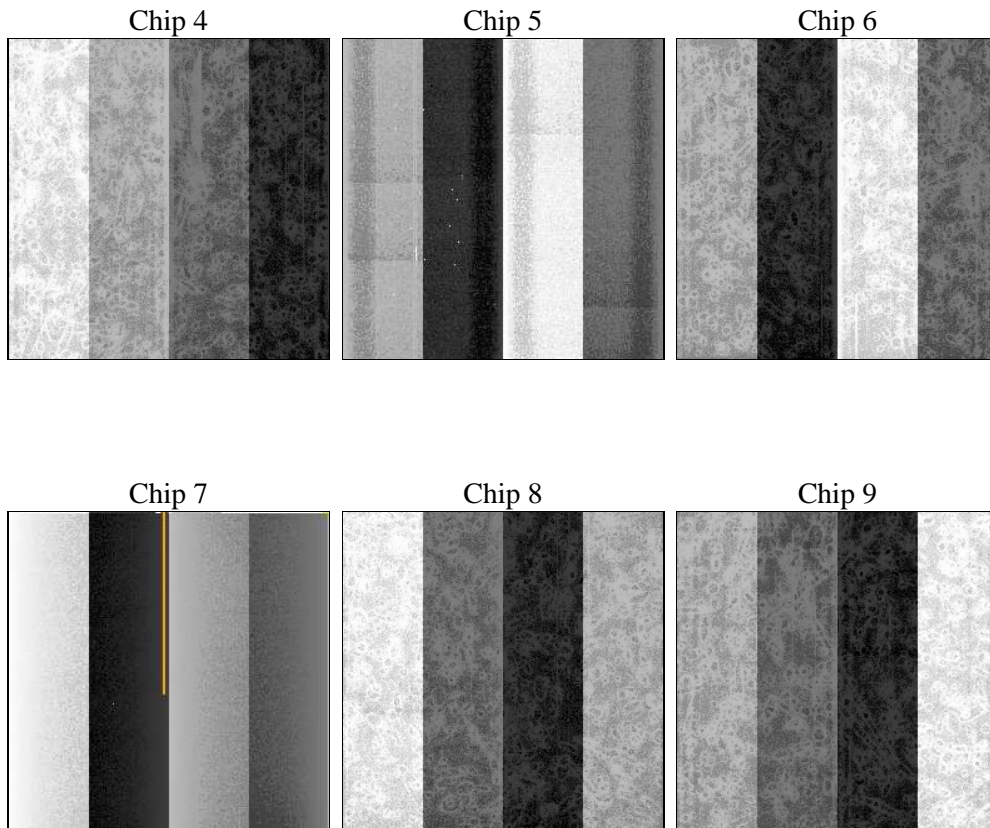
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	1210.8146270737	Sum of GTIs [s]
caldsver	4.1.4	 	ontime4	1458.3912144005	Sum of GTIs [s]
date	2009-12-16T19:49:45	Date and time of file creation	ontime5	2028.8000018895	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	1742.5364735052	Sum of GTIs [s]
			ontime7	1210.8146270737	Sum of GTIs [s]
			ontime8	1746.8368524536	Sum of GTIs [s]
			ontime9	1750.0780922771	Sum of GTIs [s]
			l1events	393167	Number of level 1 events

2.1.4 Events

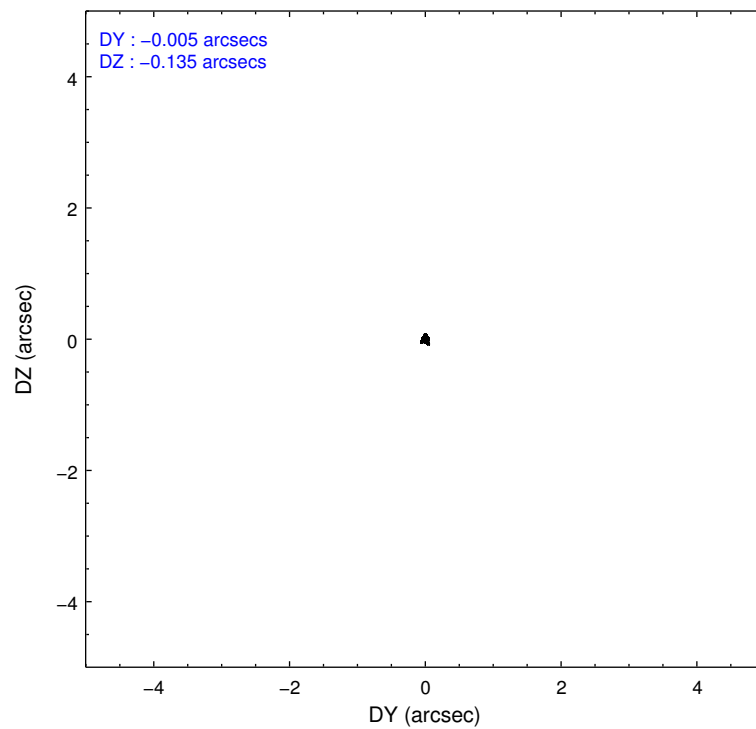
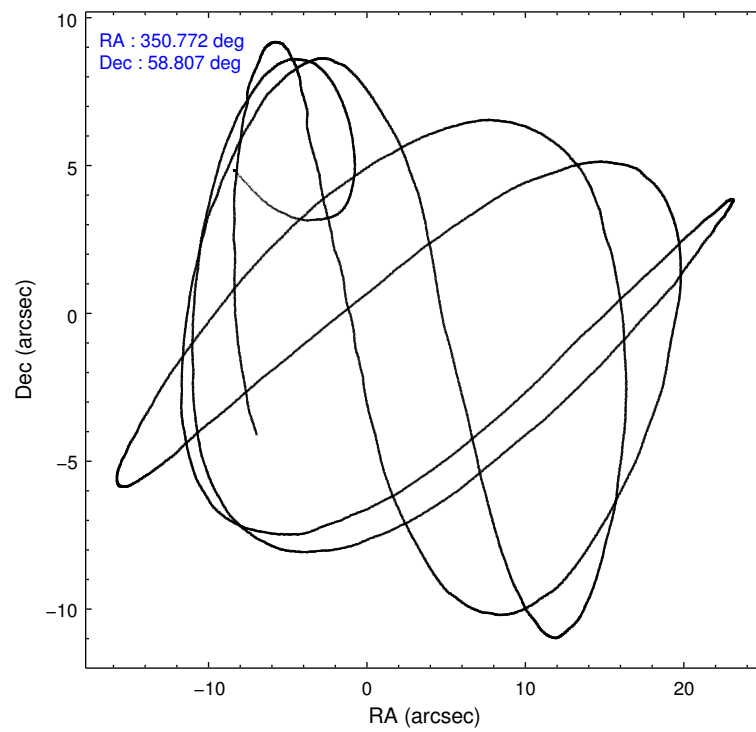
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	0	0	0	393167	0	0
rejected events	0	0	0	10418	0	0
rejected %	0%	0%	0%	2%	0%	0%

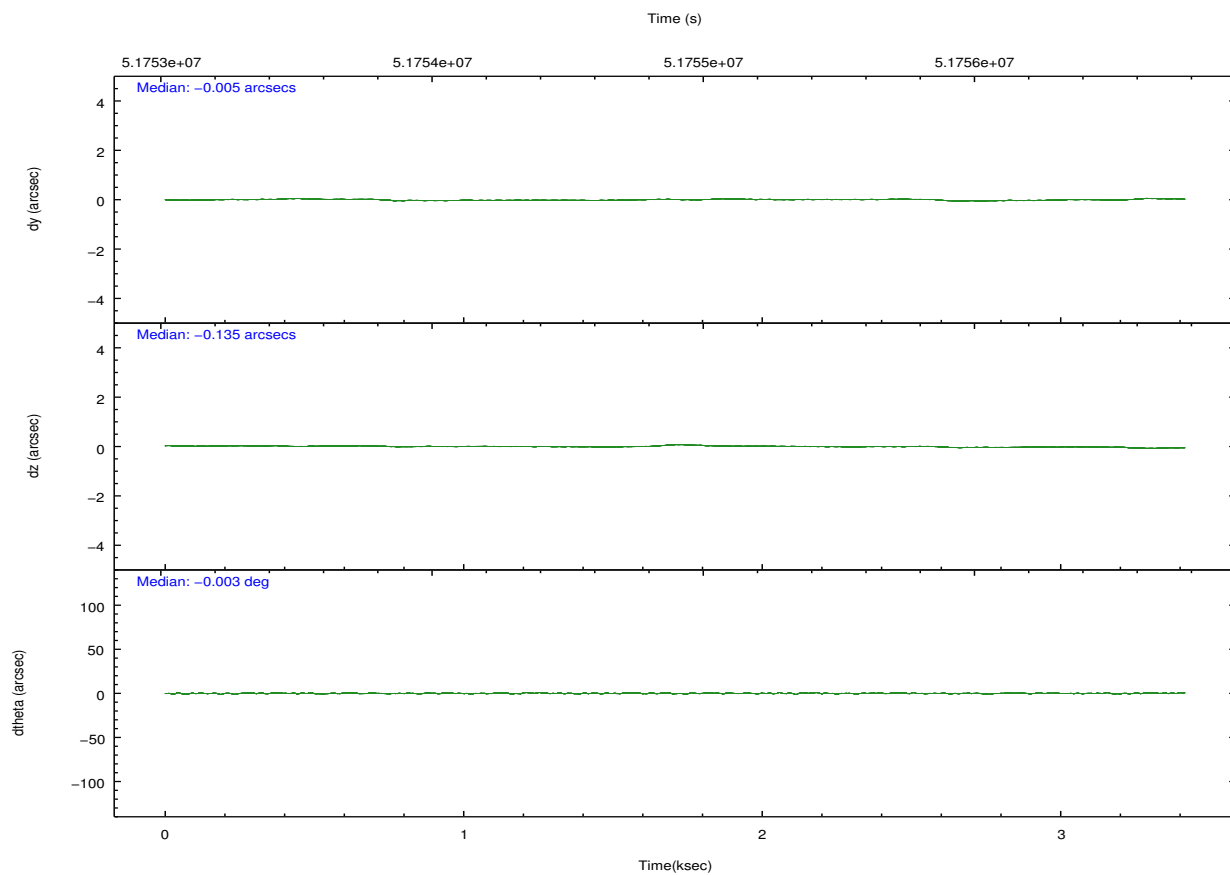
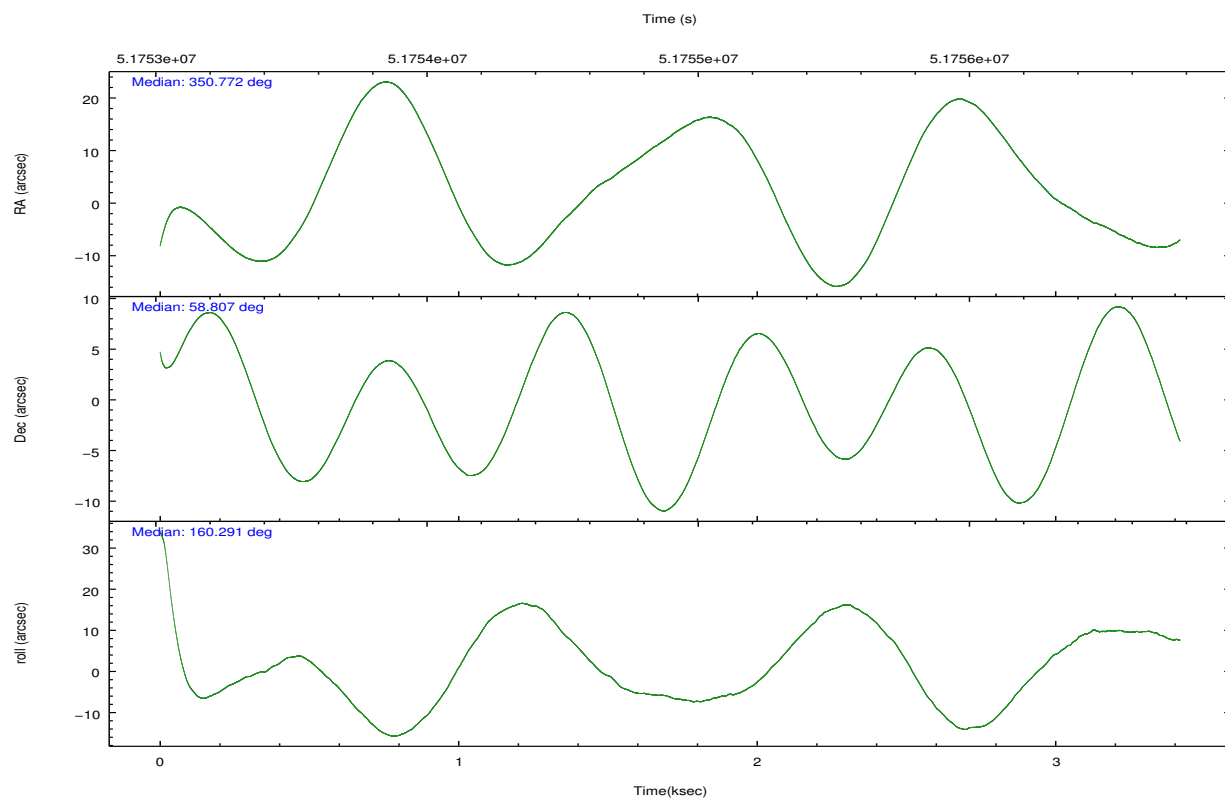
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	0	0	0	81738	0	0
	0%	0%	0%	20%	0%	0%
grade 1 events	0	0	0	1587	0	0
	0%	0%	0%	0%	0%	0%
grade 2 events	0	0	0	92281	0	0
	0%	0%	0%	23%	0%	0%
grade 3 events	0	0	0	50993	0	0
	0%	0%	0%	12%	0%	0%
grade 4 events	0	0	0	47533	0	0
	0%	0%	0%	12%	0%	0%
grade 5 events	0	0	0	7800	0	0
	0%	0%	0%	1%	0%	0%
grade 6 events	0	0	0	111235	0	0
	0%	0%	0%	28%	0%	0%
grade 7 events	0	0	0	0	0	0
	0%	0%	0%	0%	0%	0%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-7	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
Pointing RA	350.825941	350.7729677043575	CCD I2 on	N	N
Pointing Dec	58.810817	58.80652833345624	CCD I3 on	N	N
Pointing Roll	160.093491	160.2955783186896	CCD S0 on	N	Y
Window start time	49852864.184000	49852864.184000	CCD S1 on	N	Y
Window stop time	55036864.184000	55036864.184000	CCD S2 on	N	Y
SIM focus pos (mm)	-0.684267	-0.865731118321573	CCD S3 on	Y	Y
SIM defocus (mm)	0	-0.1814636570216768	CCD S4 on	N	Y
SIM translation stage pos (mm)	-190.132523	-190.1199515274594	CCD S5 on	N	Y
SIM translation stage offset (mm)	0	-0.012571055548392	Number of optional ACIS chips dropped	0	0
Observation start time	51753605.184000	51751714.021801	On-chip summing requested	N	N
Observation start date	1999-08-22T23:59:01	1999-08-22T23:28:34	Subarray requested	NONE	NONE
Observation end time	51756605.184000	51756731.909482	Alternating exposures requested	N	N
Observation end date	1999-08-23T00:49:01	1999-08-23T00:52:11	Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

2.3 Aspect



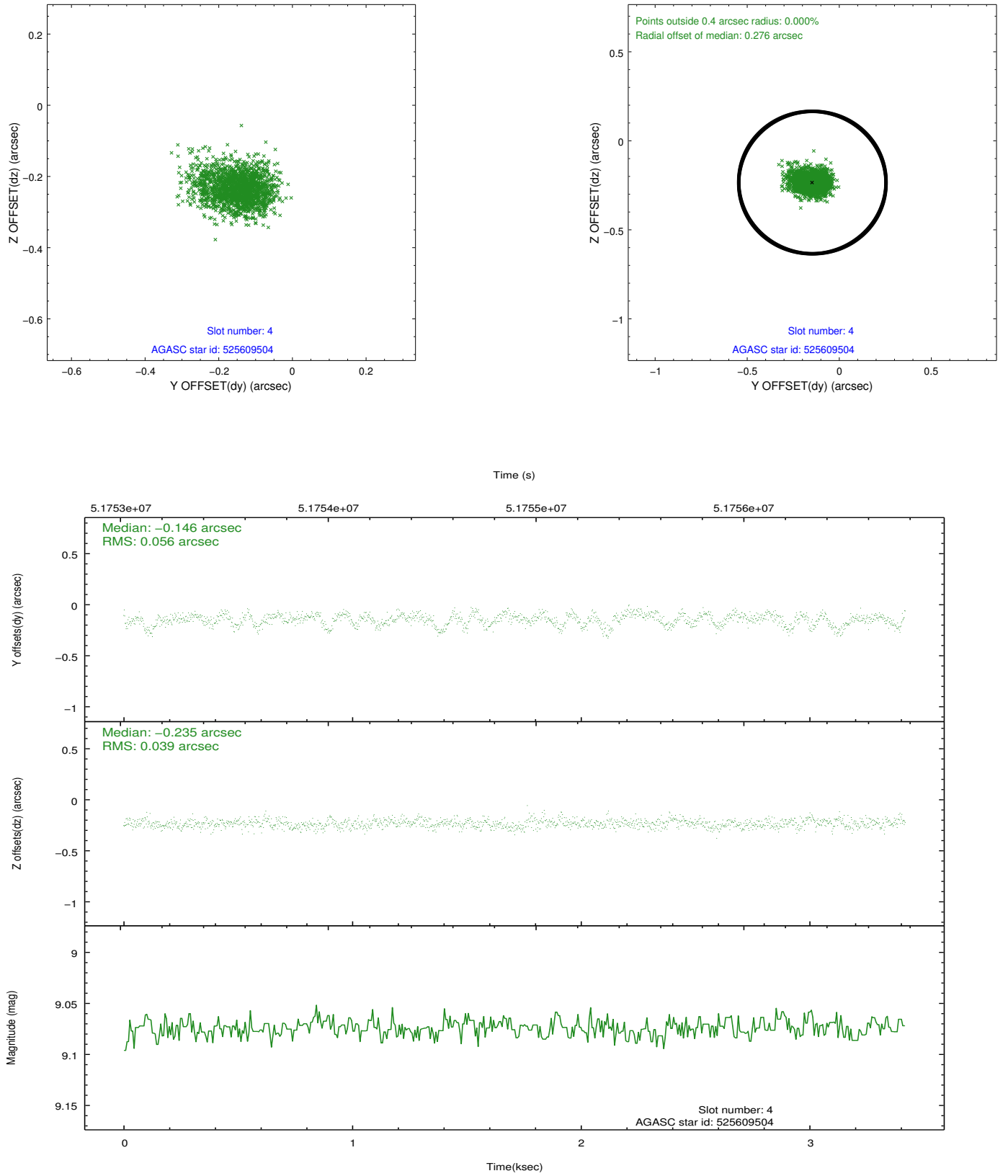


Slot Statistics

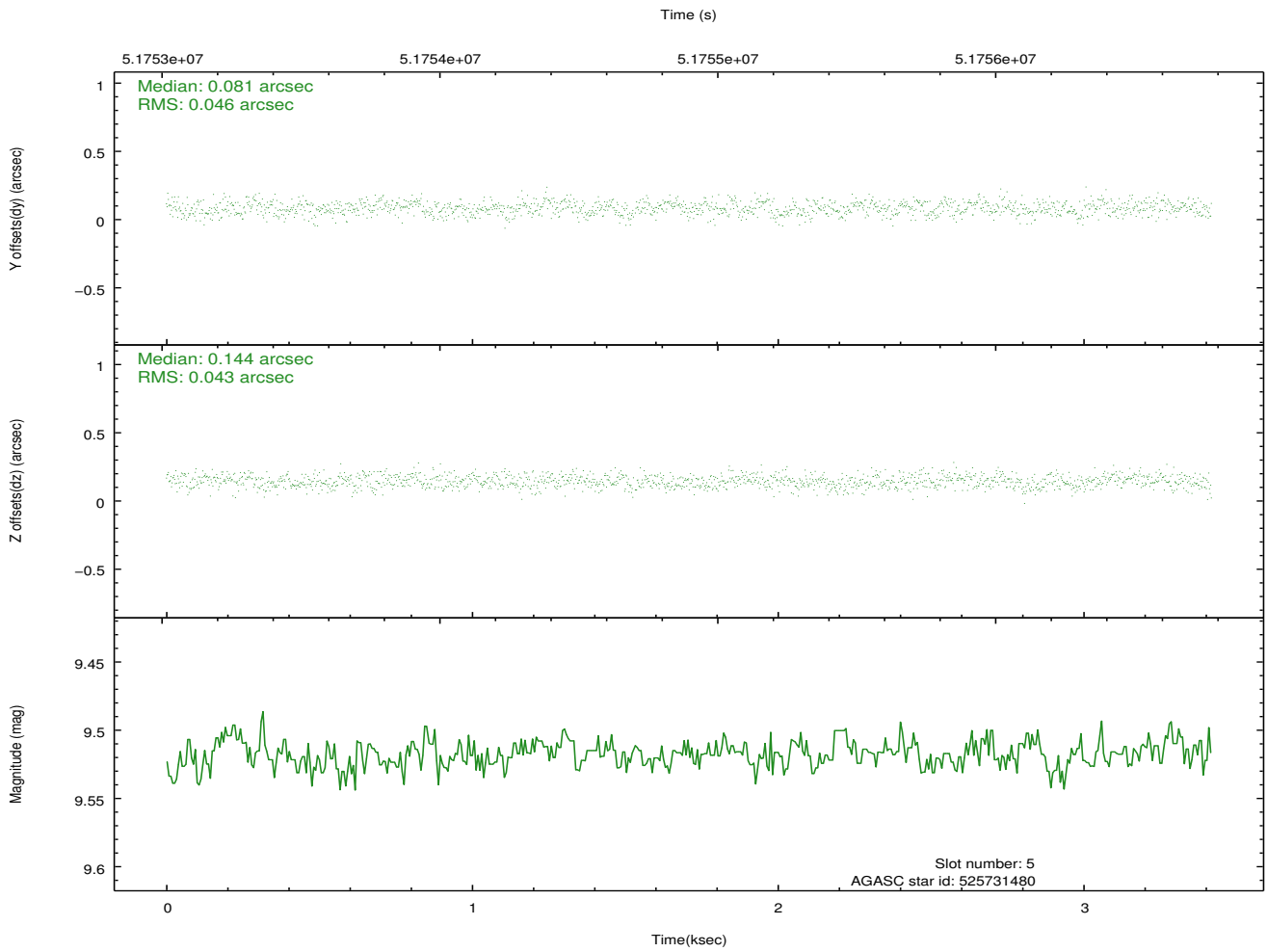
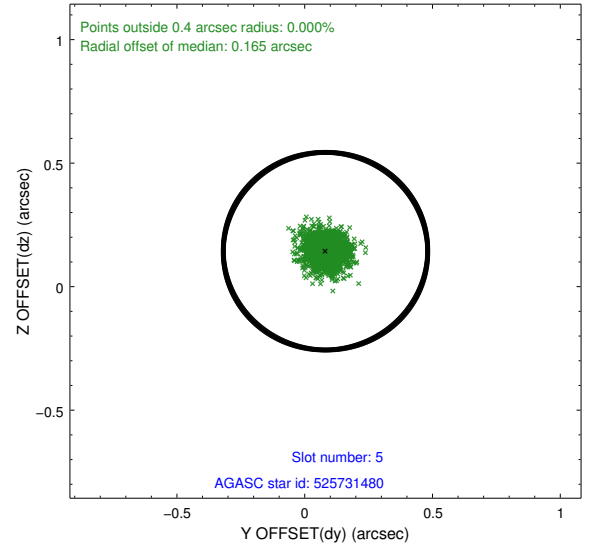
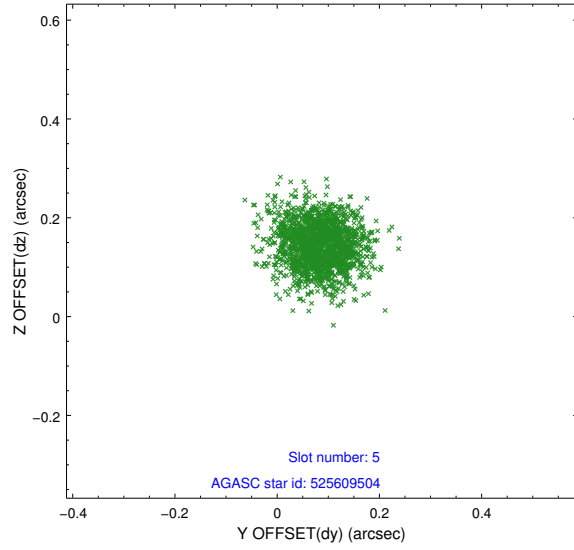
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.12	1668	-0.030	-0.025	0.006	0.010	0.000000	0.000000	-752.60	-1721.23
1	FID	ACIS-S-4	7.22	1668	0.136	0.021	0.006	0.011	0.000000	0.000000	2160.45	186.34
2	FID	ACIS-S-5	7.25	1668	-0.137	0.013	0.006	0.011	0.000000	0.000000	-1804.40	181.04
3	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	GUIDE	525609504	9.07	1666	-0.146	-0.235	0.071	0.121	349.896632	58.356658	1096.74	2124.12
5	GUIDE	525731480	9.52	1665	0.081	0.144	0.067	0.110	351.647209	58.687294	-1592.86	-111.79
6	GUIDE	525732528	9.37	1657	0.033	0.003	0.106	0.168	351.607241	59.298932	-750.52	-2148.38
7	GUIDE	525737208	9.36	1667	0.027	0.087	0.088	0.143	351.154109	59.407897	166.09	-2227.55

2.4 Star Slots

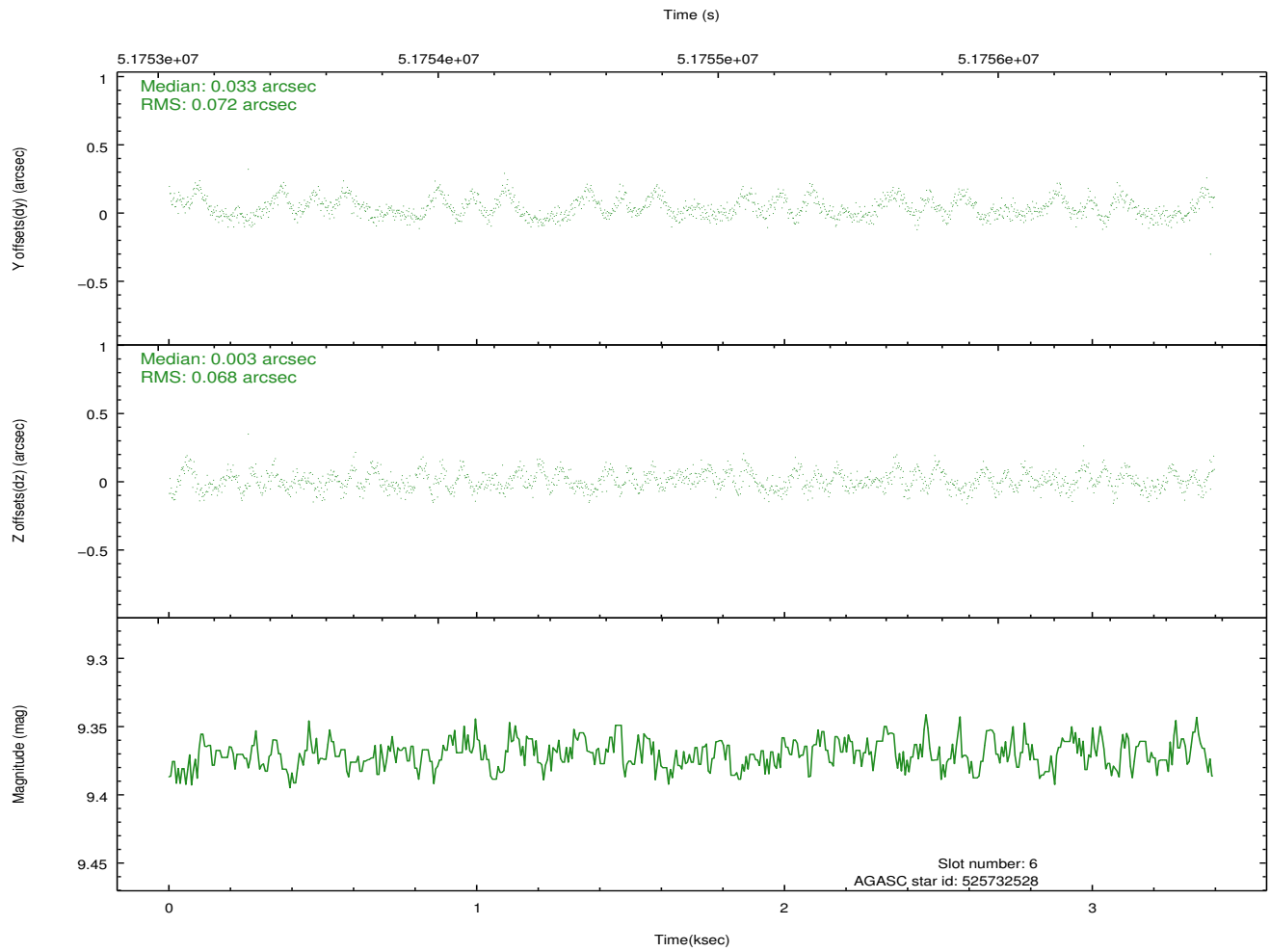
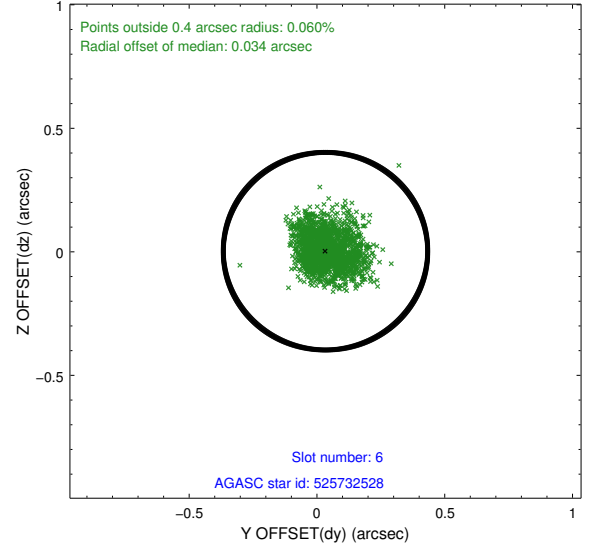
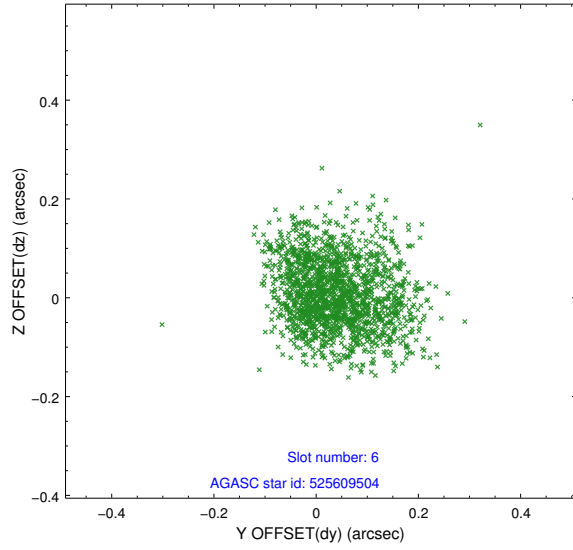
2.4.1 Slot 4



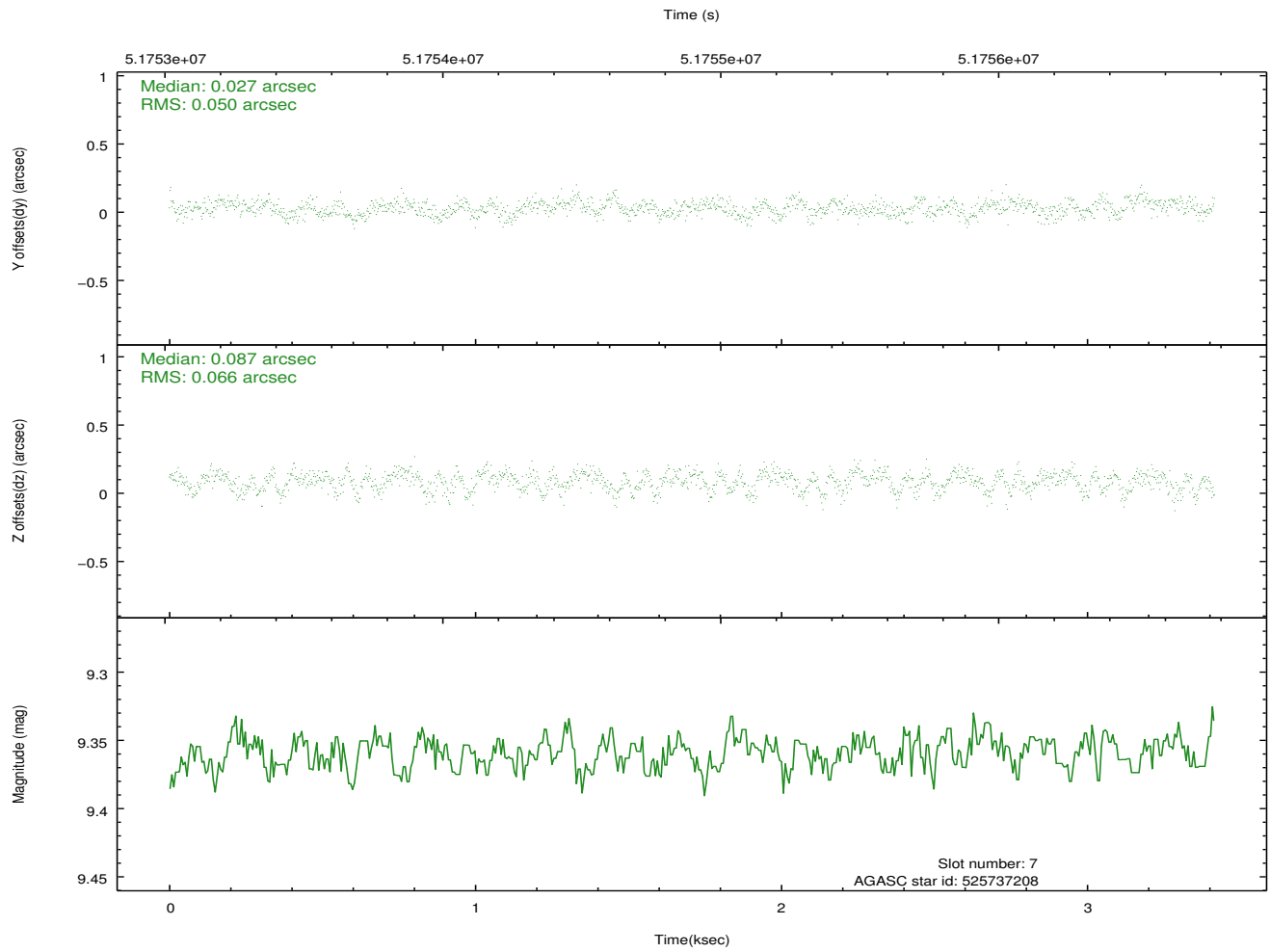
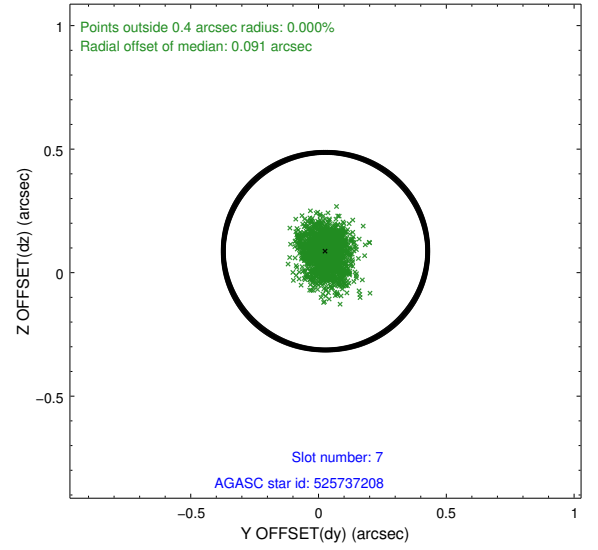
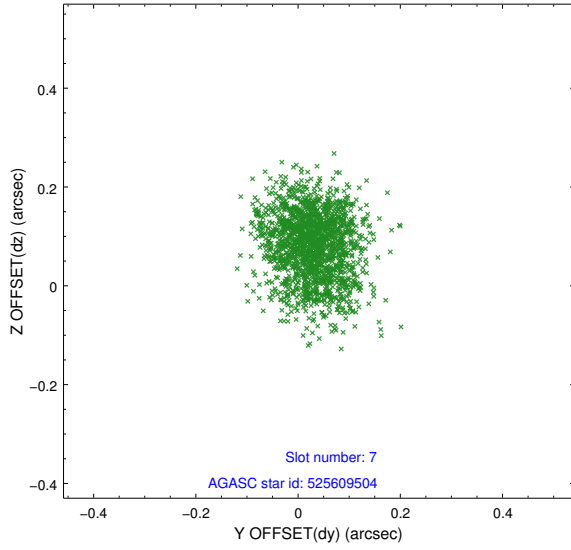
2.4.2 Slot 5



2.4.3 Slot 6

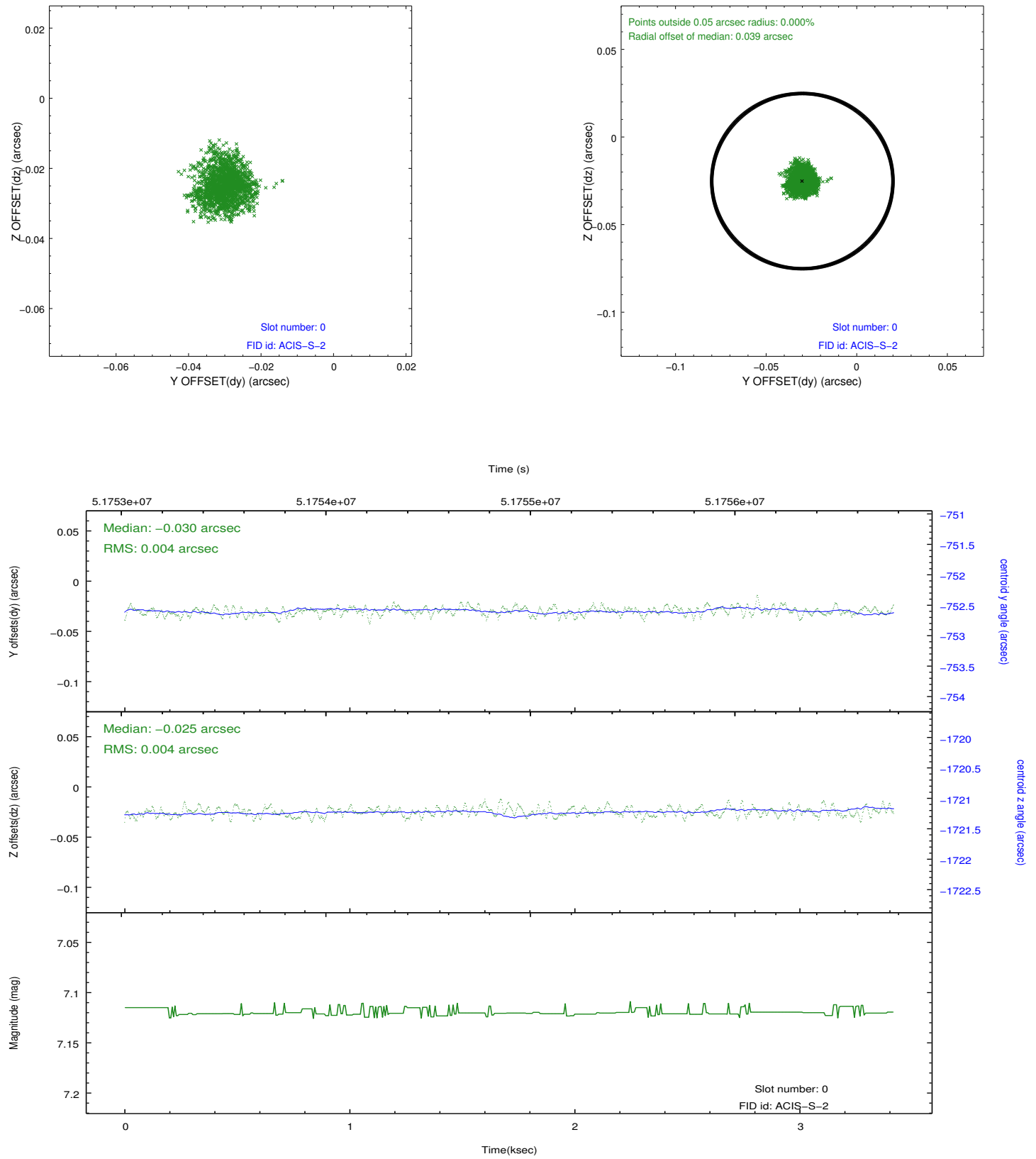


2.4.4 Slot 7

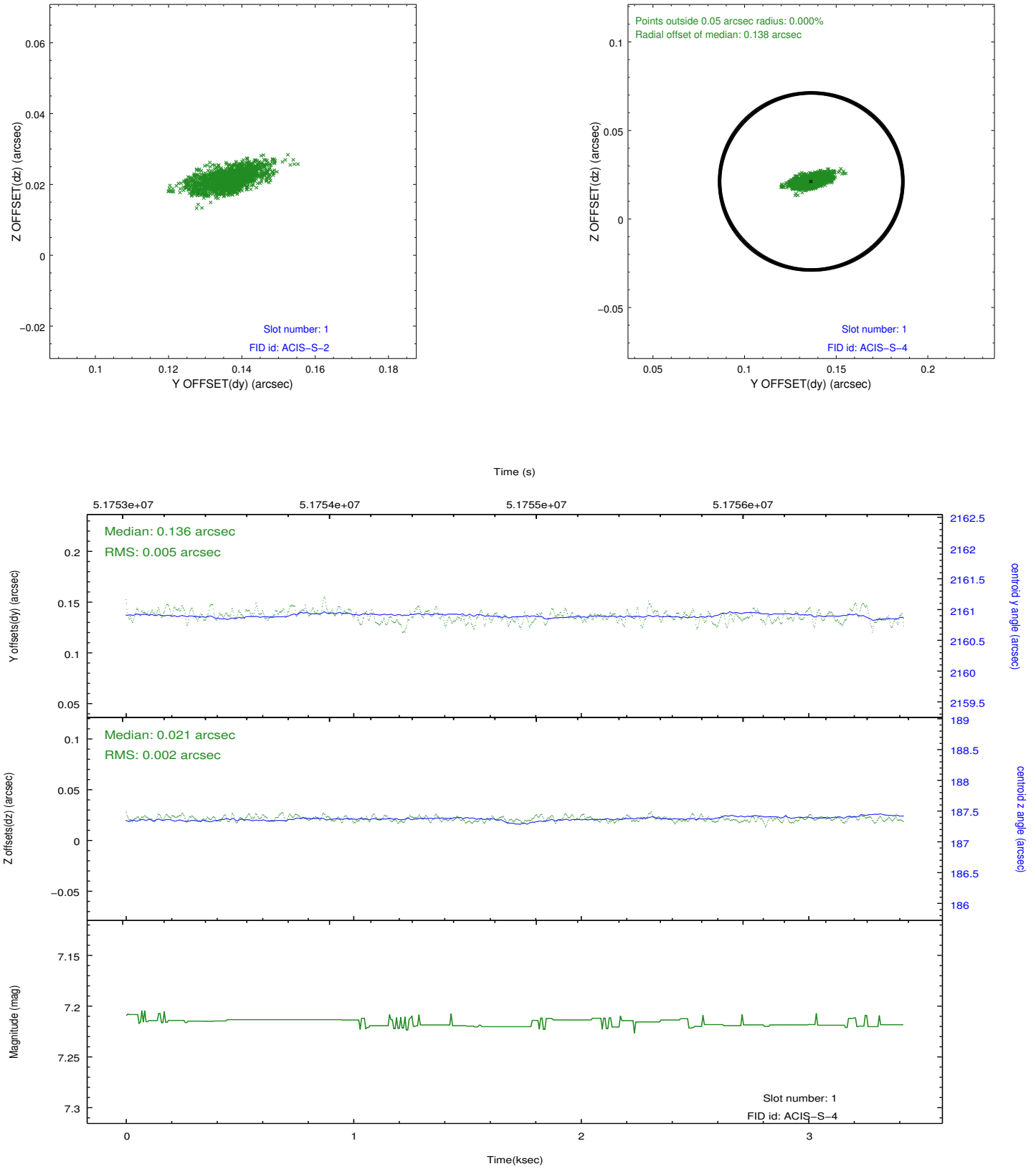


2.5 FID Slots

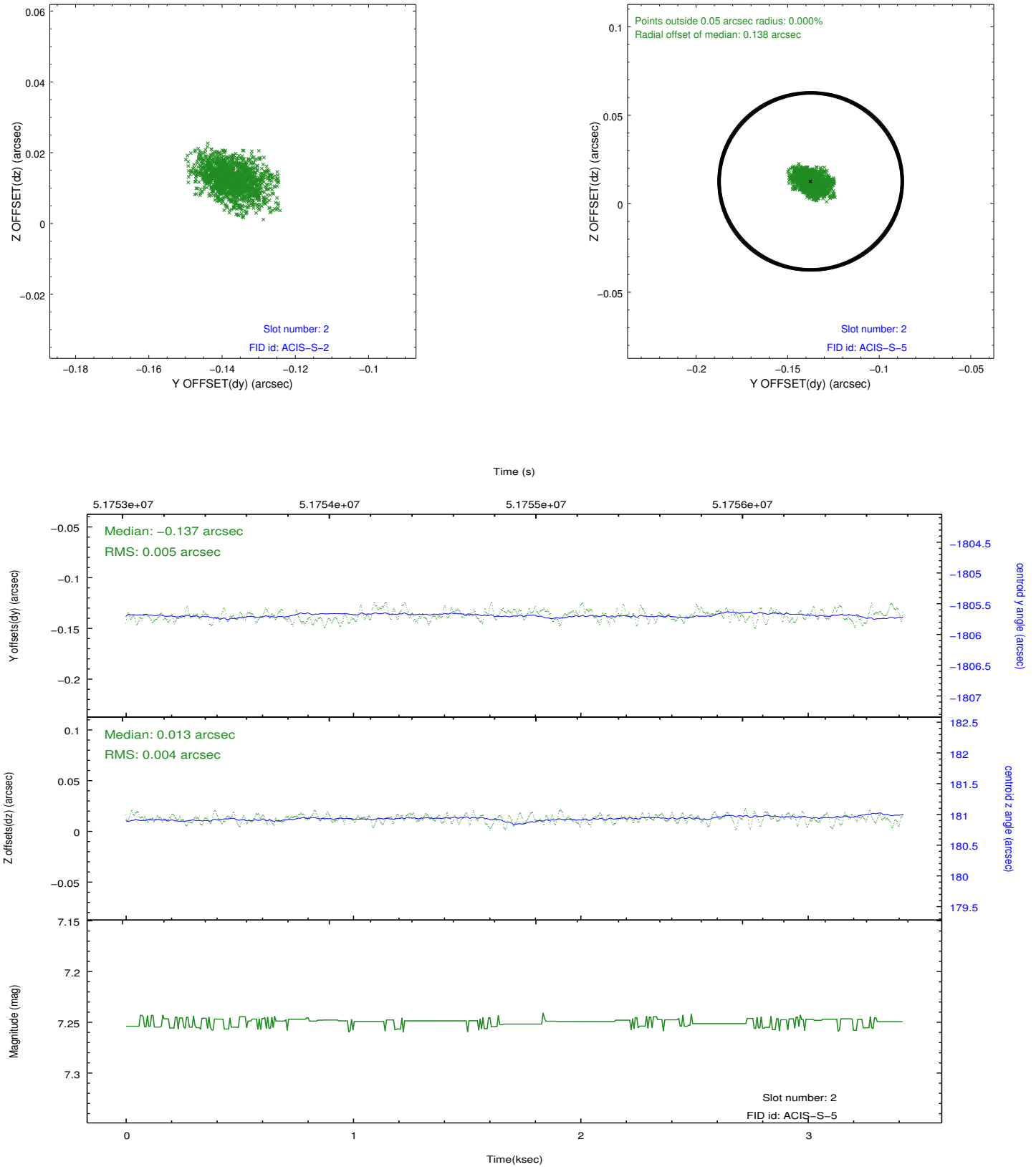
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources

5.56 arcmin



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2010.10.01
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	1.212

A.2 Comments

Off-axis ACIS effective area measurement using Cas A on chip S3. Only events from chip S3 were telemetered.

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The guide star in slot 3 was manually excluded from the processing due to poor data quality.

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Pileup throughout most of observation.

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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.