

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16200 - L2 Version 2
Chandra X-Ray Center

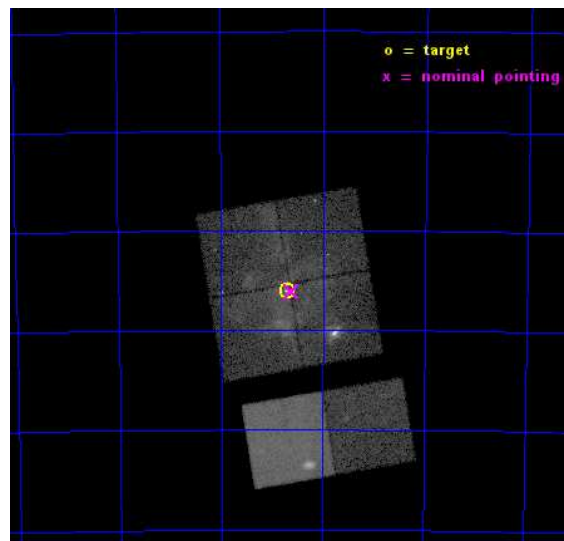
L2 Processing Date : Dec 12 2014

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 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
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

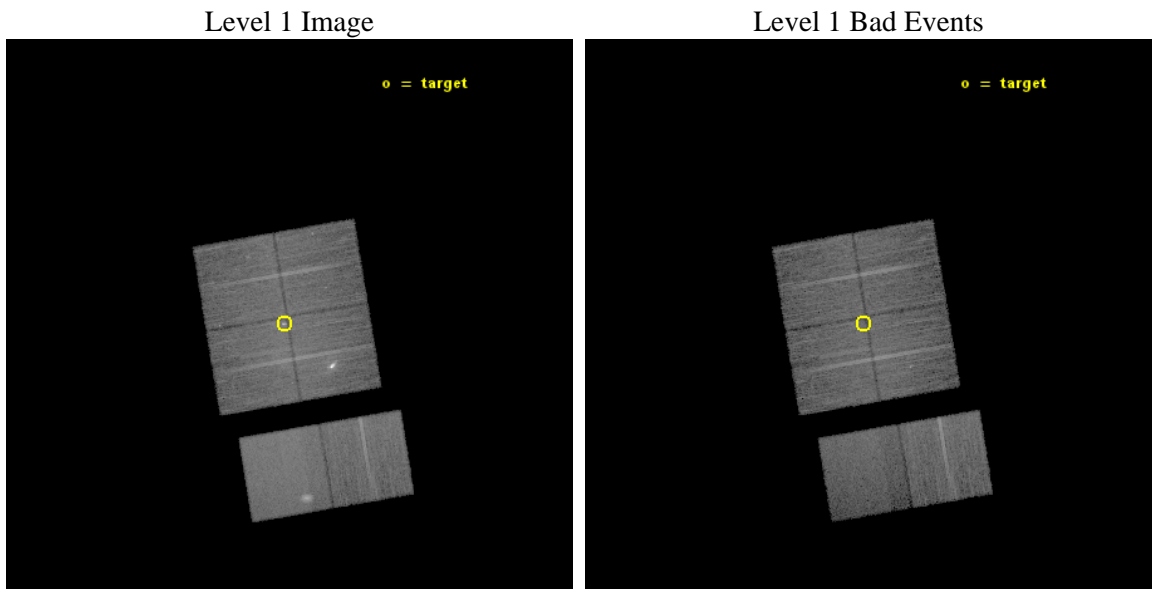
seq_num	901116	Sequence number
obs_id	16200	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.654209593632	Nominal RA [deg]
dec_nom	-69.101900926745	Nominal Dec [deg]
roll_nom	170.37582790217	Nominal Roll [deg]
revision	2	Processing version of data
ontime	27711.354069114	Sum of GTIs [s]
livetime	27360.456218116	Livetime [s]
ontime0	27698.26703763	Sum of GTIs [s]
ontime1	27711.271989107	Sum of GTIs [s]
ontime2	27711.31302911	Sum of GTIs [s]
ontime3	27711.354069114	Sum of GTIs [s]
ontime6	27711.43614912	Sum of GTIs [s]
ontime7	27711.395109117	Sum of GTIs [s]
l2events	179457	Number of level 2 events



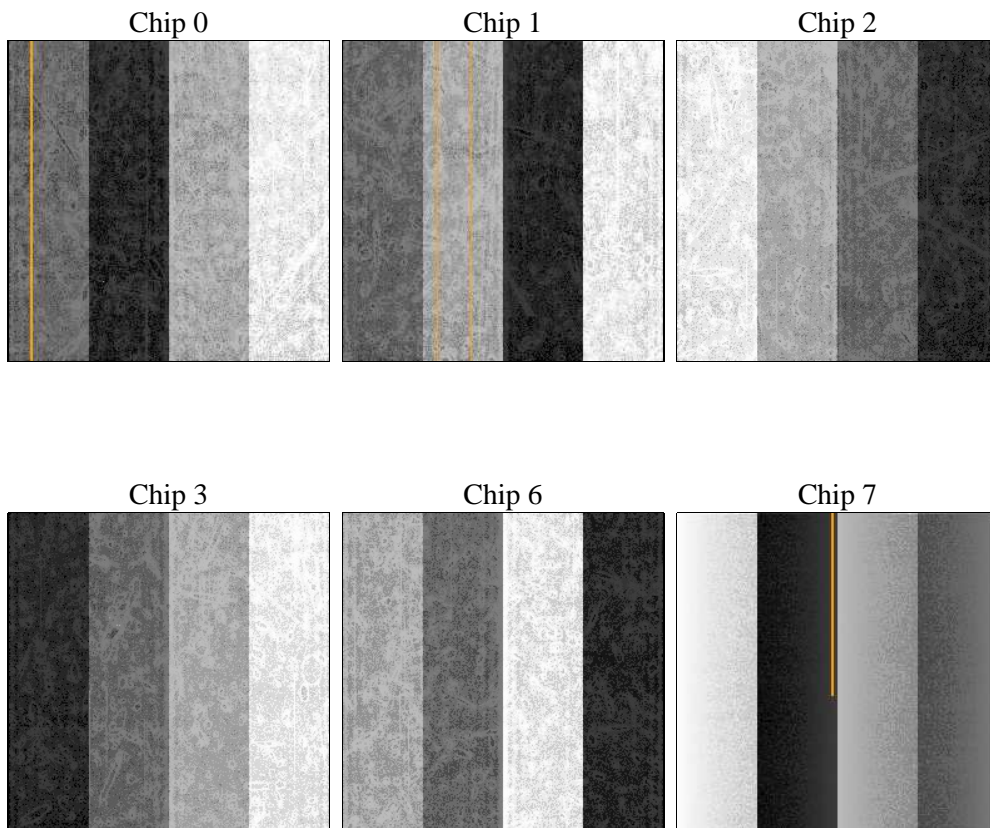
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27738.155000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	27711.354069114	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	27698.26703763	Sum of GTIs [s]
date	2014-12-12T06:44:11	Date and time of file creation	ontime1	27711.271989107	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	27711.31302911	Sum of GTIs [s]
			ontime3	27711.354069114	Sum of GTIs [s]
			ontime6	27711.43614912	Sum of GTIs [s]
			ontime7	27711.395109117	Sum of GTIs [s]
			l1events	745600	Number of level 1 events

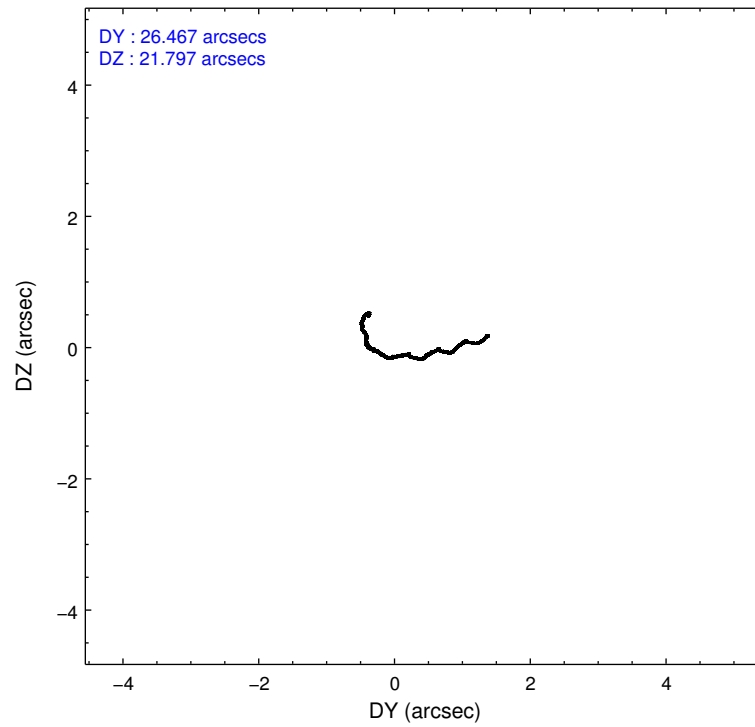
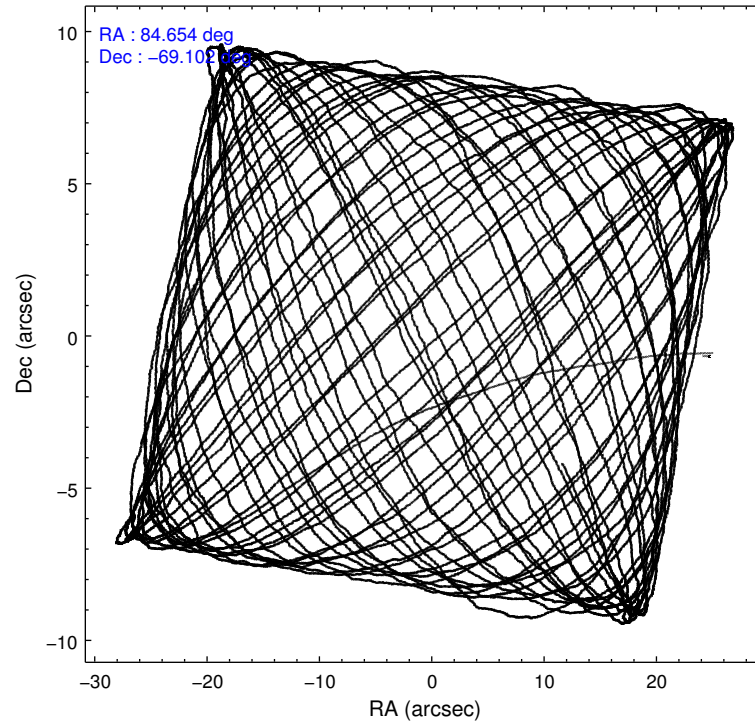
2.1.4 Events

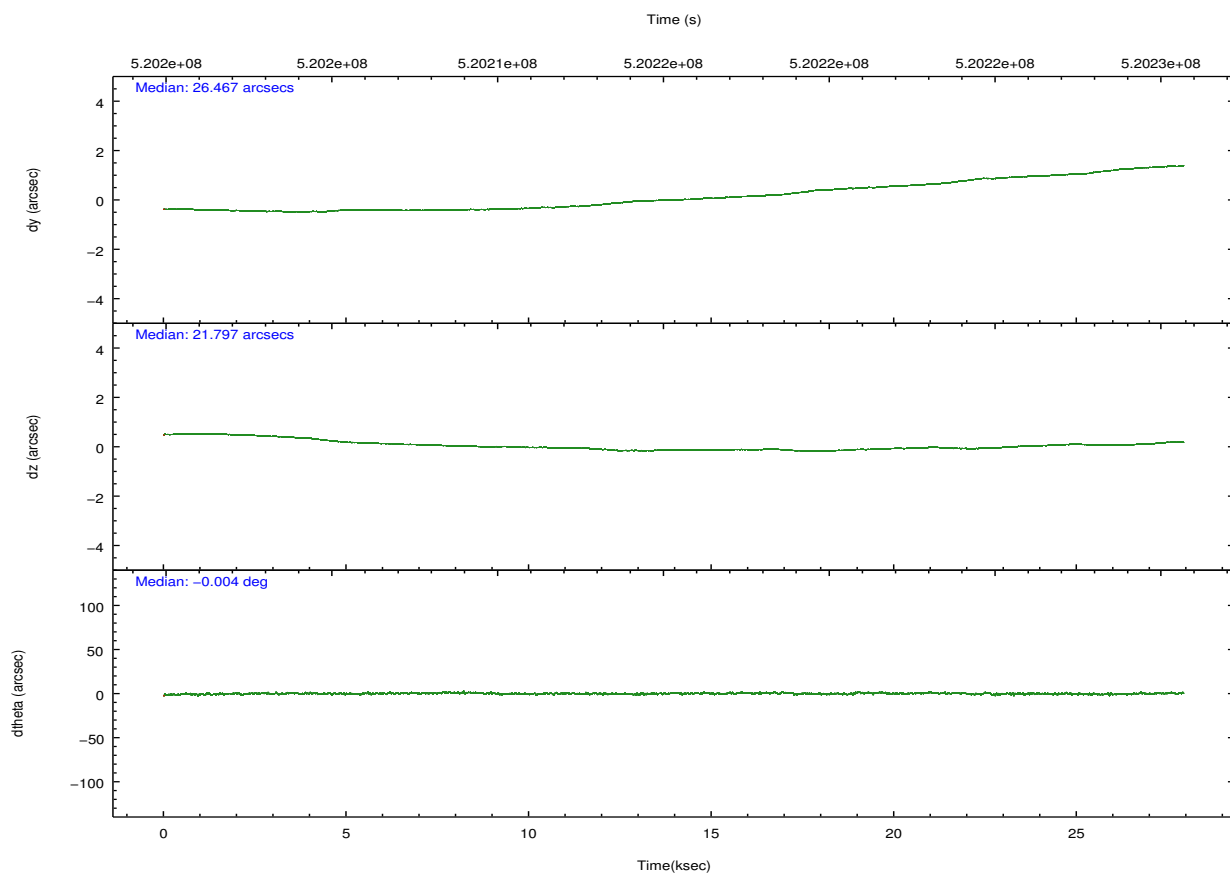
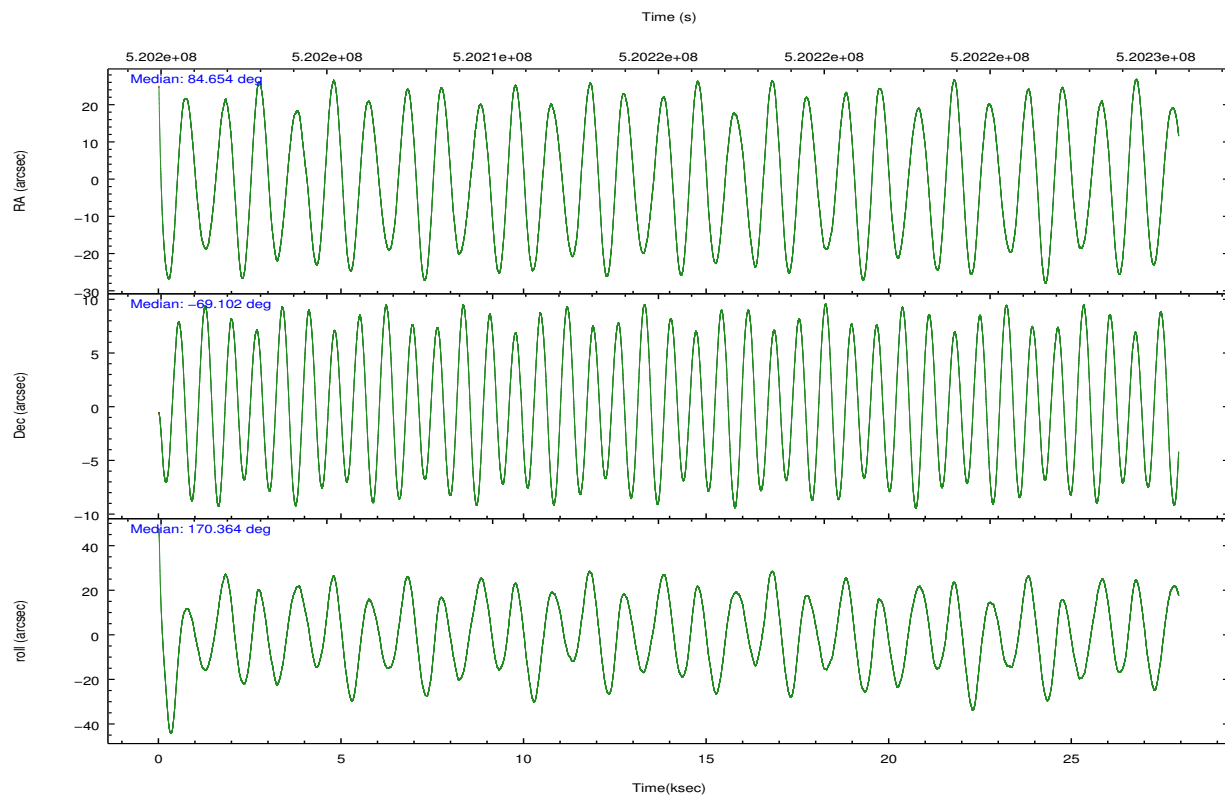
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	107394	111205	136337	122335	120697	147632	grade 0 events	9701	10521	25337	15067	8914	9649
rejected events	88237	90329	98276	97426	101926	72734		9%	9%	18%	12%	7%	6%
rejected %	82%	81%	72%	79%	84%	49%	grade 1 events	78	91	198	113	91	198
								0%	0%	0%	0%	0%	0%
							grade 2 events	3802	3950	5675	3866	3694	16704
								3%	3%	4%	3%	3%	11%
							grade 3 events	1512	1674	2101	1610	1574	6864
								1%	1%	1%	1%	1%	4%
							grade 4 events	1427	1613	2035	1580	1420	6757
								1%	1%	1%	1%	1%	4%
							grade 5 events	4831	5102	4409	5455	5629	14610
								4%	4%	3%	4%	4%	9%
							grade 6 events	2716	3121	2920	2788	3173	34938
								2%	2%	2%	2%	2%	23%
							grade 7 events	83327	85133	93662	91856	96202	57912
								77%	76%	68%	75%	79%	39%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	84.726340	84.65420959363236	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.092191	-69.10190092674456	CCD I3 on	Y	Y
[deg] Pointing Roll	170.234520	170.3758279021727	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	520201547.184000	520200107.22383	CCD S5 on	N	N
Observation start date	2014-06-26T20:24:40	2014-06-26T20:01:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	520229285.184000	520229522.16296	On-chip summing requested	N	N
Observation end date	2014-06-27T04:06:58	2014-06-27T04:12:02	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



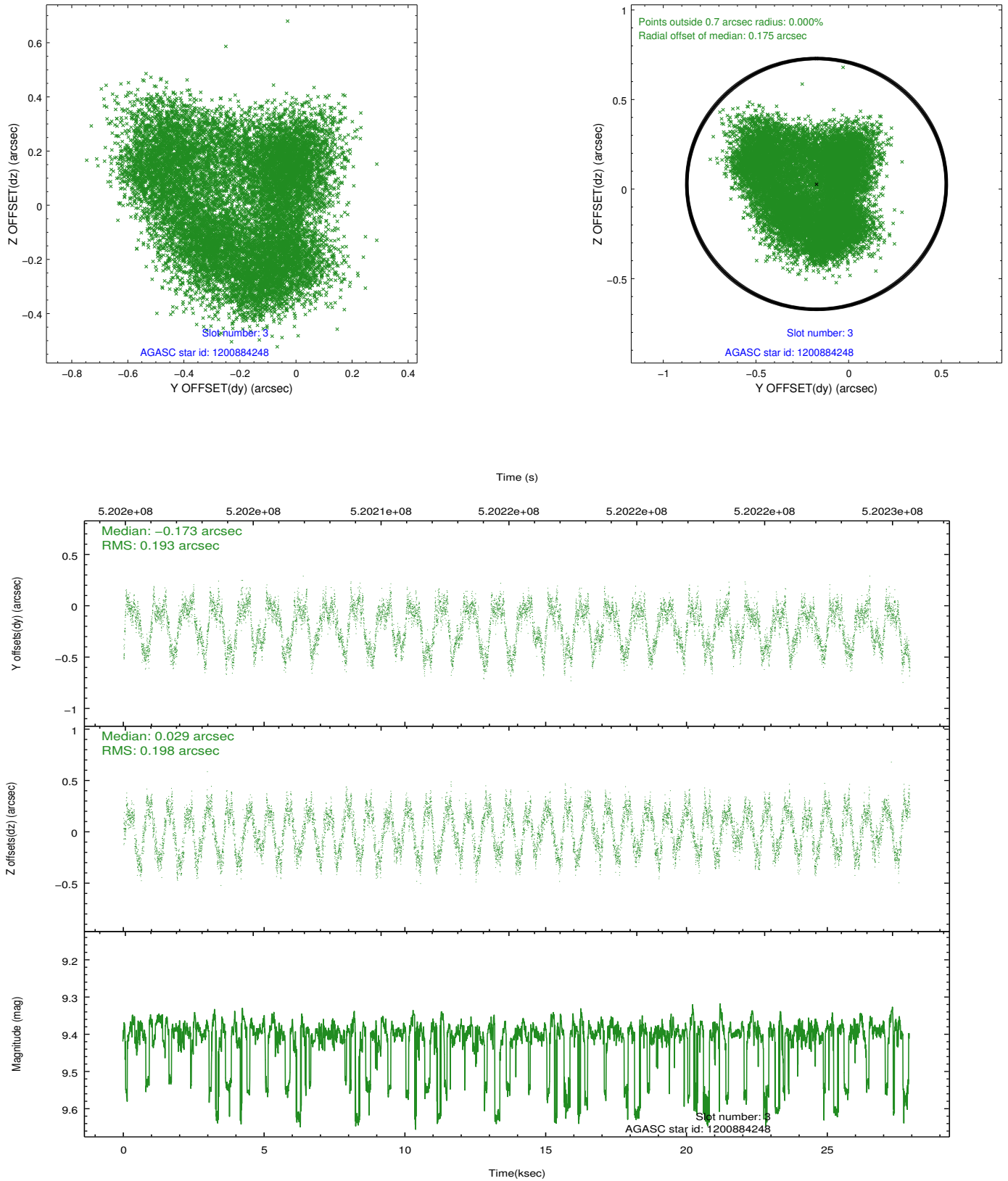


Slot Statistics

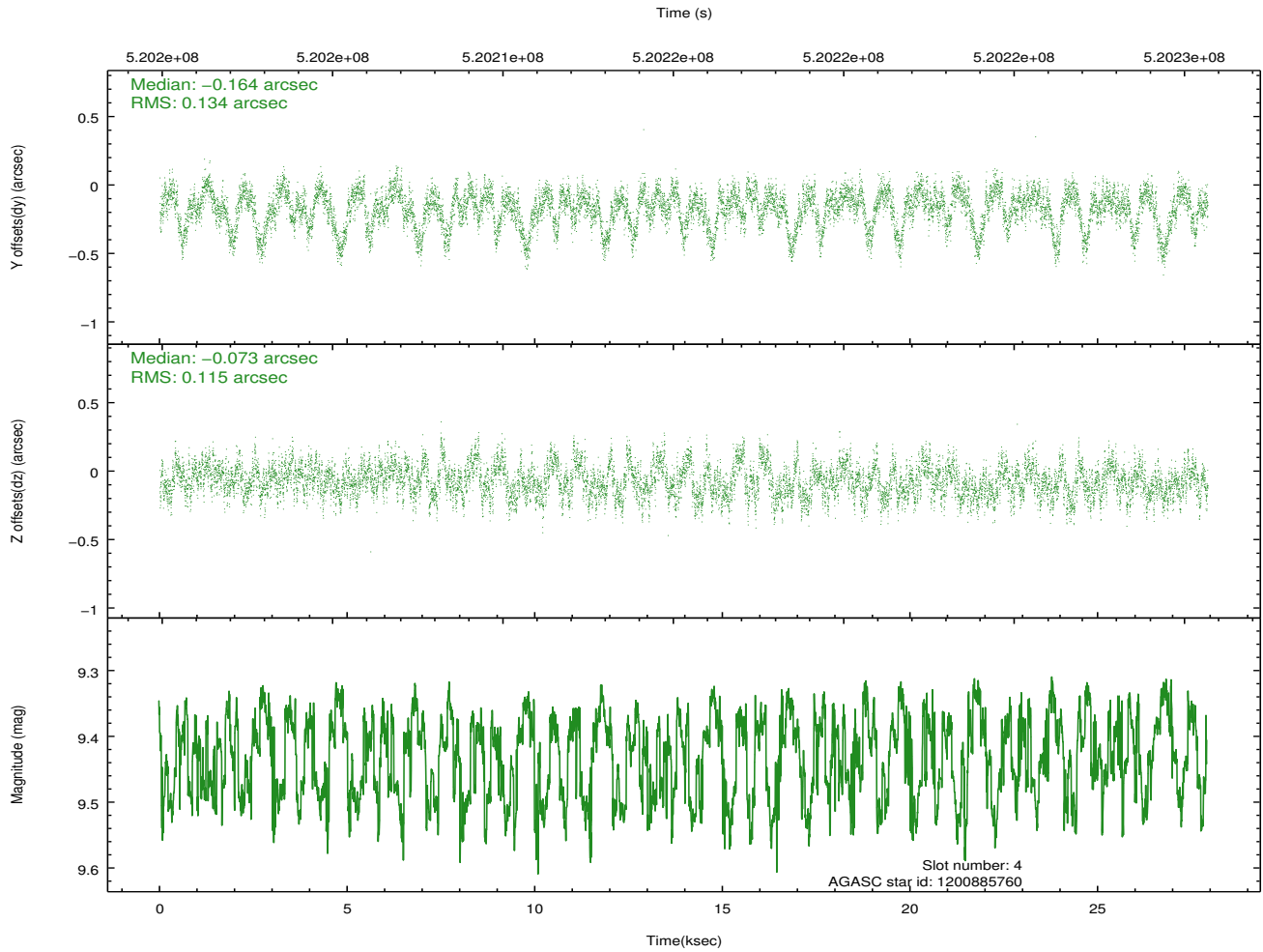
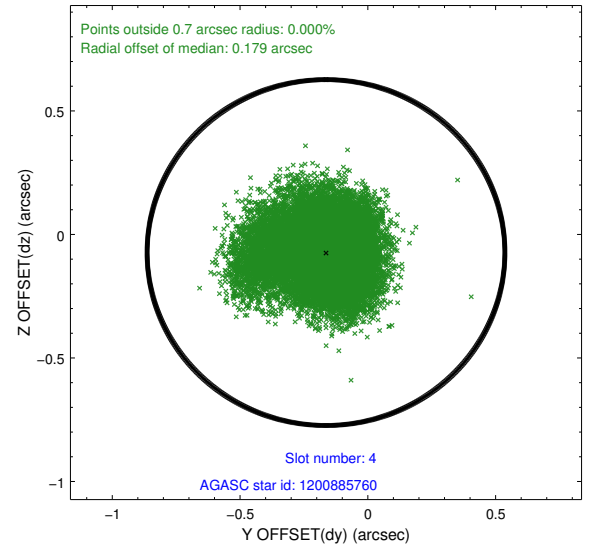
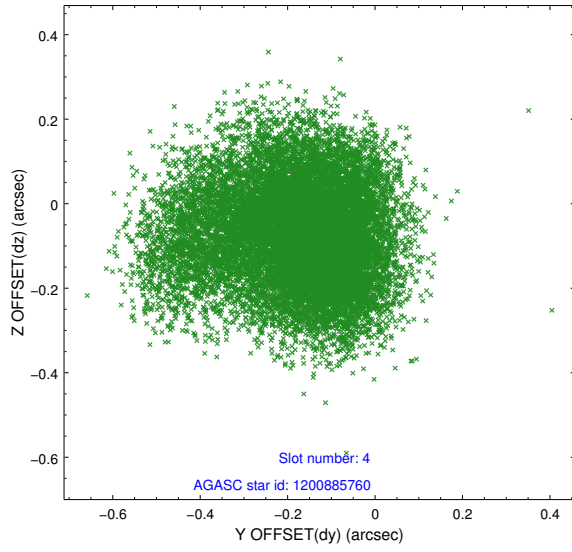
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-4	7.02	6812	0.272	0.051	0.034	0.045	0.000000	0.000000	2132.71	1054.39
1	FID		ACIS-I-5	7.04	6812	-0.394	0.036	0.018	0.025	0.000000	0.000000	-1835.80	1052.06
2	FID		ACIS-I-6	7.04	6812	0.022	-0.019	0.022	0.031	0.000000	0.000000	377.91	1696.42
3	GUIDE	used	1200884248	9.40	13598	-0.173	0.029	0.305	0.425	83.880915	-68.565170	1416.94	-1673.40
4	GUIDE	used	1200885760	9.43	13614	-0.164	-0.073	0.191	0.305	83.723637	-68.777667	1478.37	-883.19
5	GUIDE	used	1201018312	9.57	13609	0.048	-0.090	0.176	0.275	86.298231	-69.115627	-2005.81	-233.77
6	GUIDE	used	1201018384	9.05	13618	0.258	0.156	0.131	0.206	85.801362	-68.593260	-1089.08	-1997.56
7	GUIDE	used	1201020040	8.61	13614	0.058	-0.027	0.195	0.325	85.379163	-68.879396	-704.72	-894.16

2.4 Star Slots

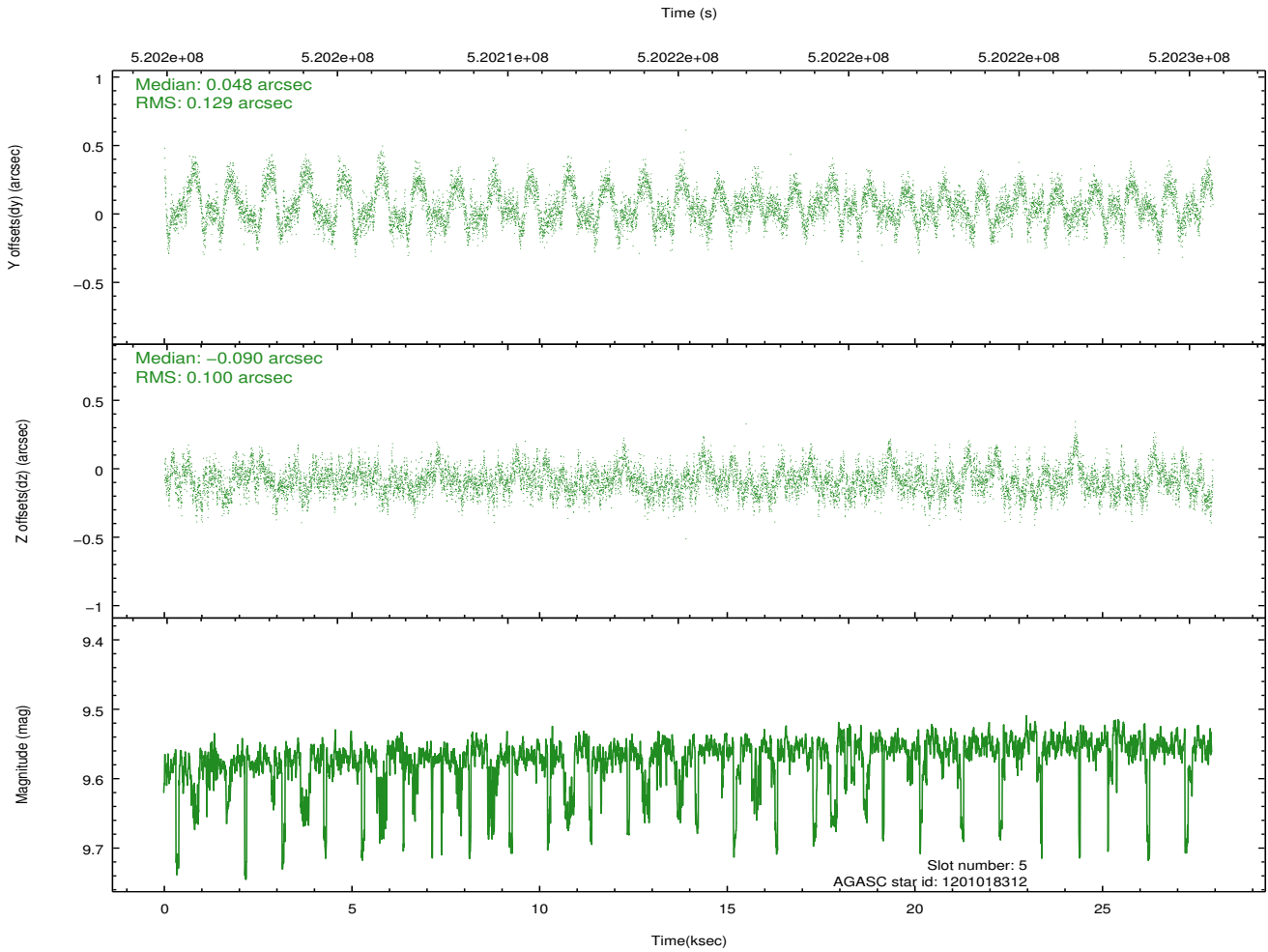
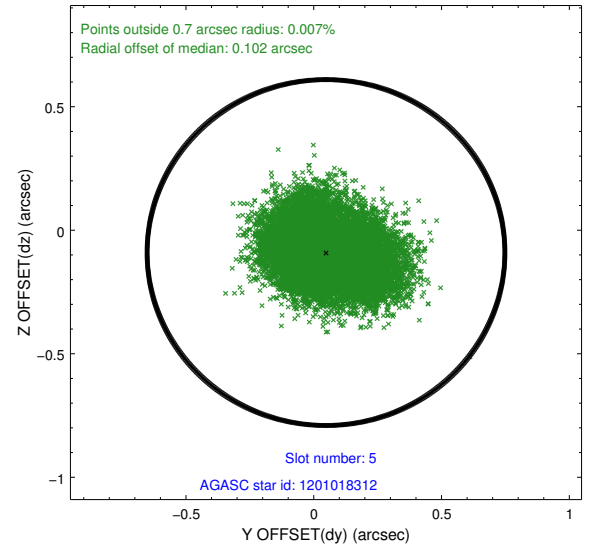
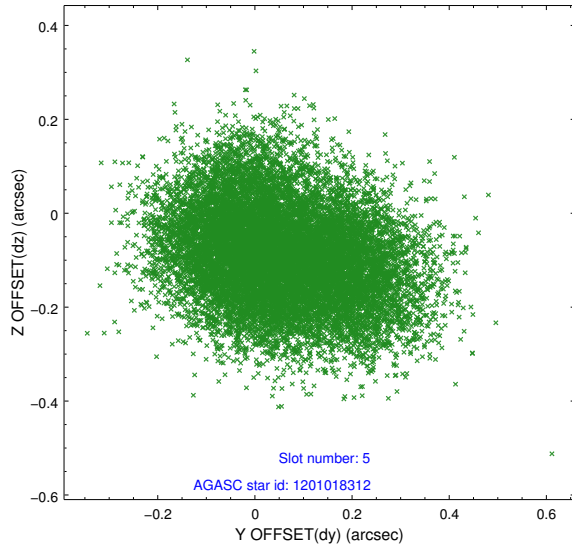
2.4.1 Slot 3



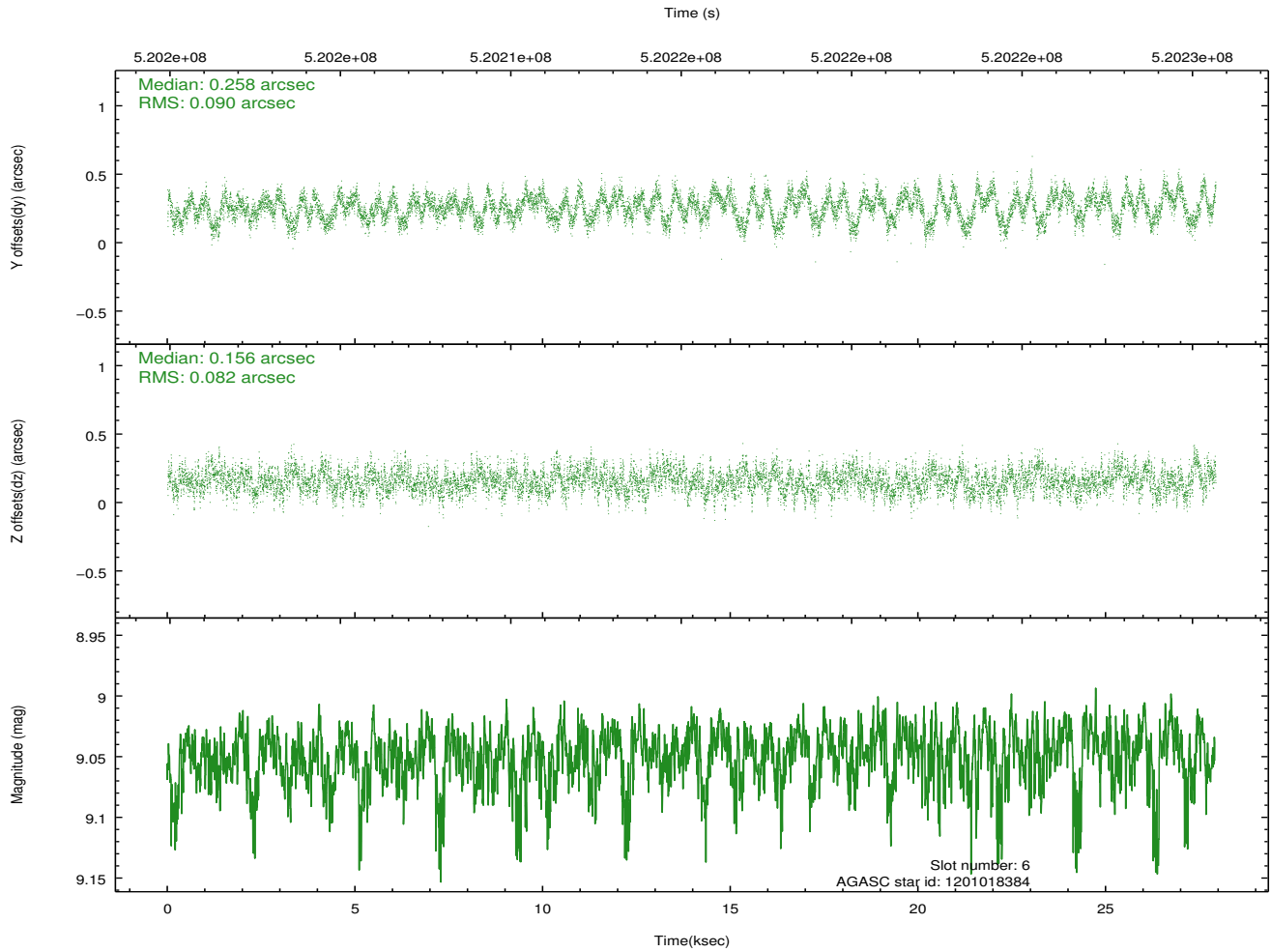
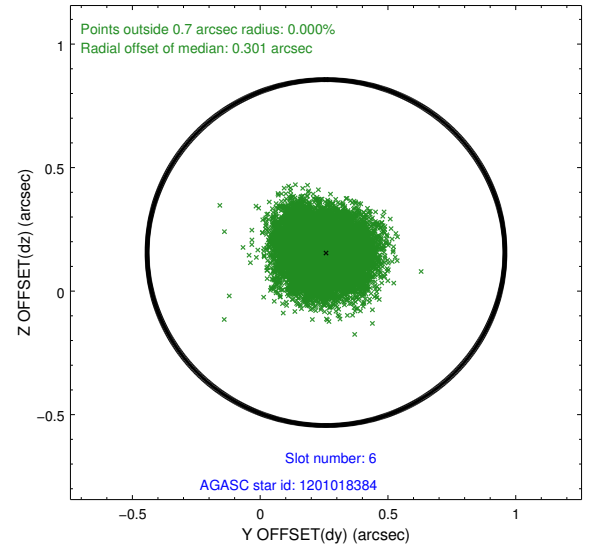
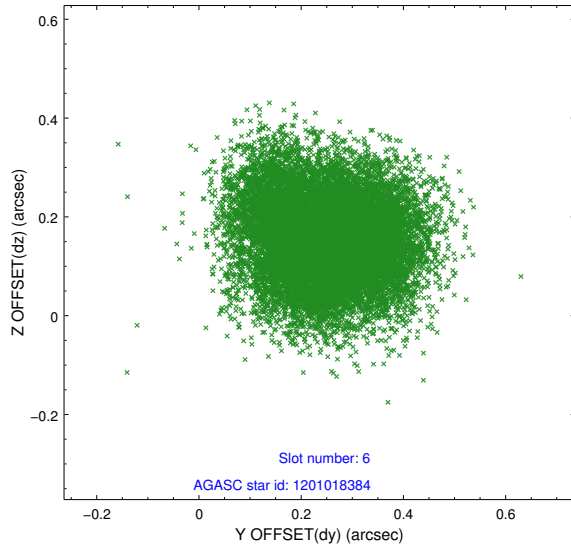
2.4.2 Slot 4



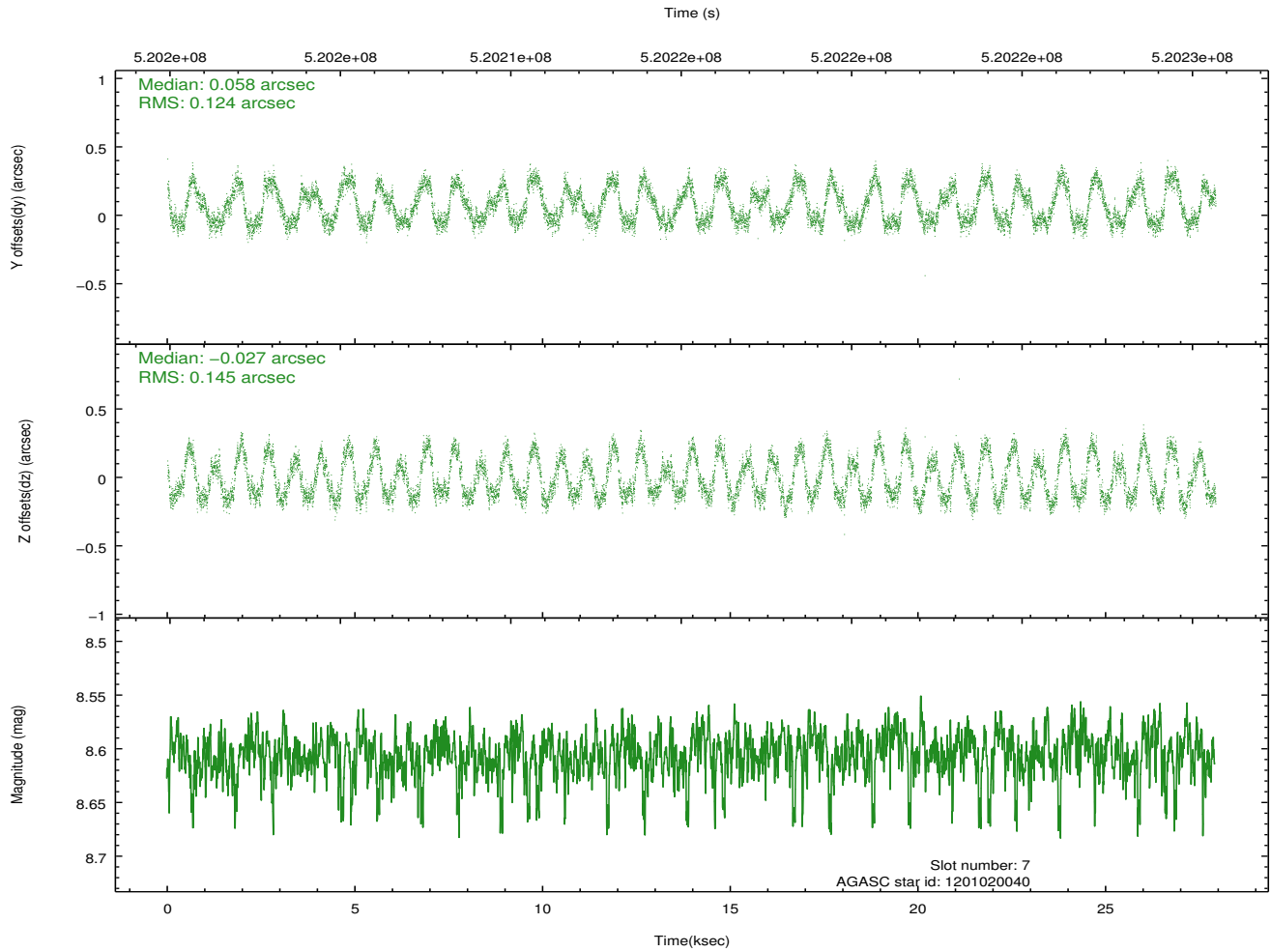
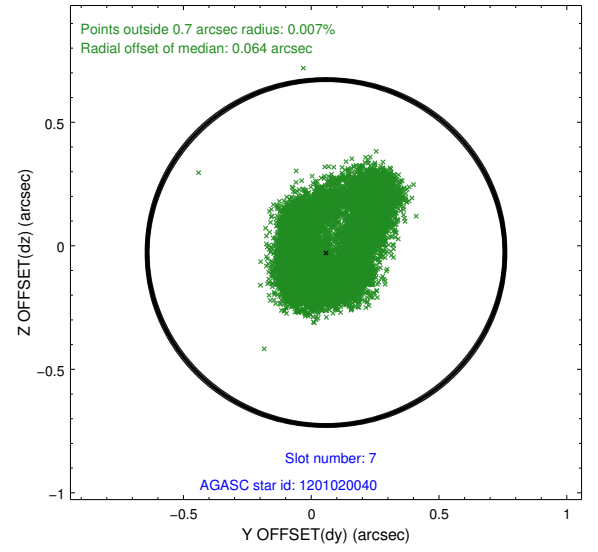
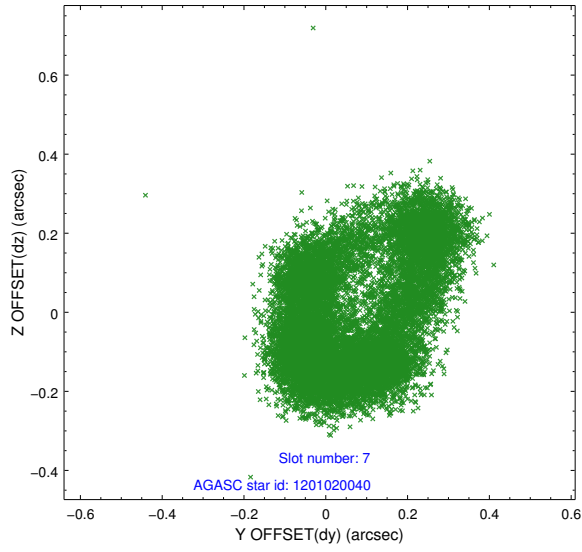
2.4.3 Slot 5



2.4.4 Slot 6

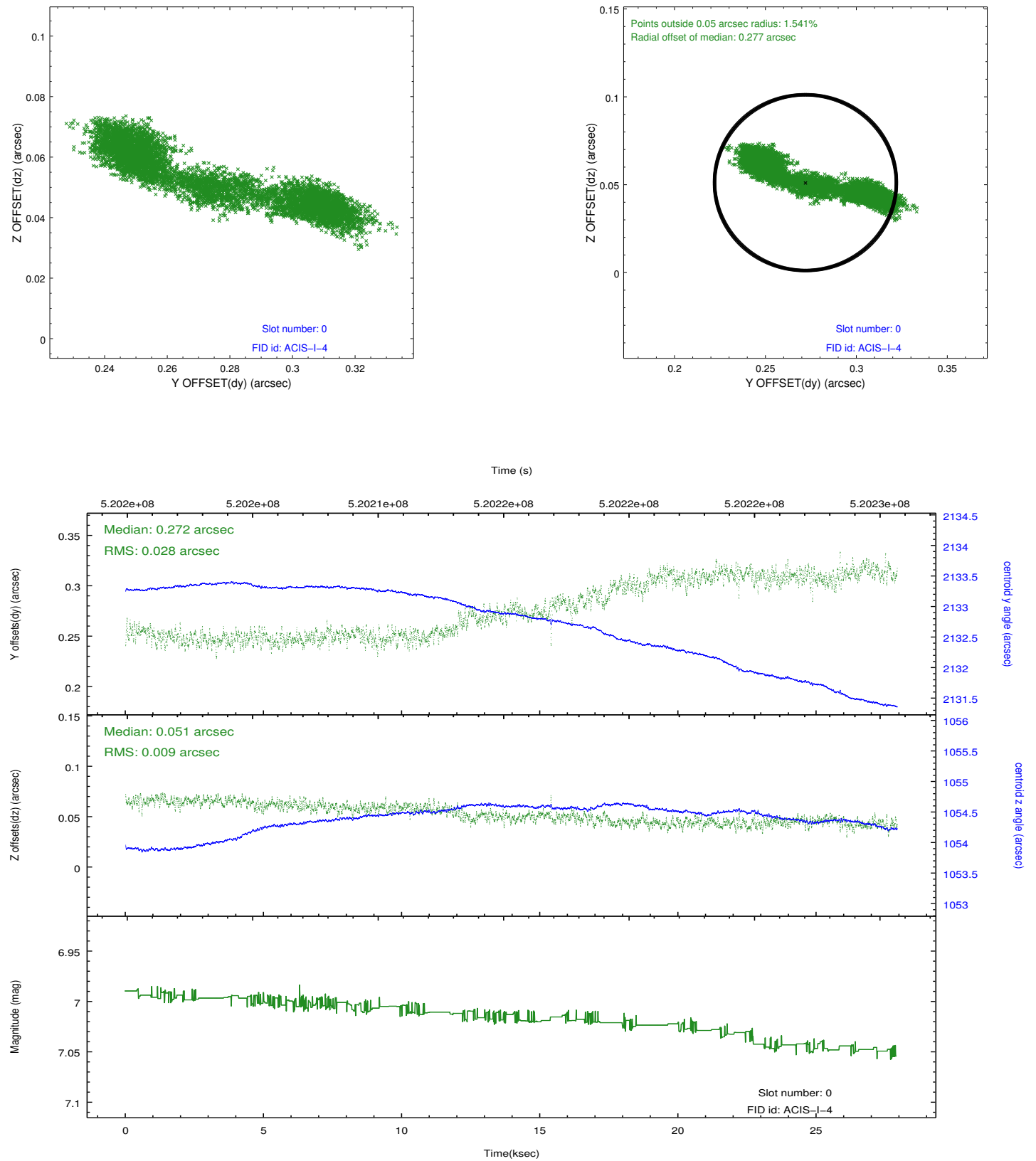


2.4.5 Slot 7

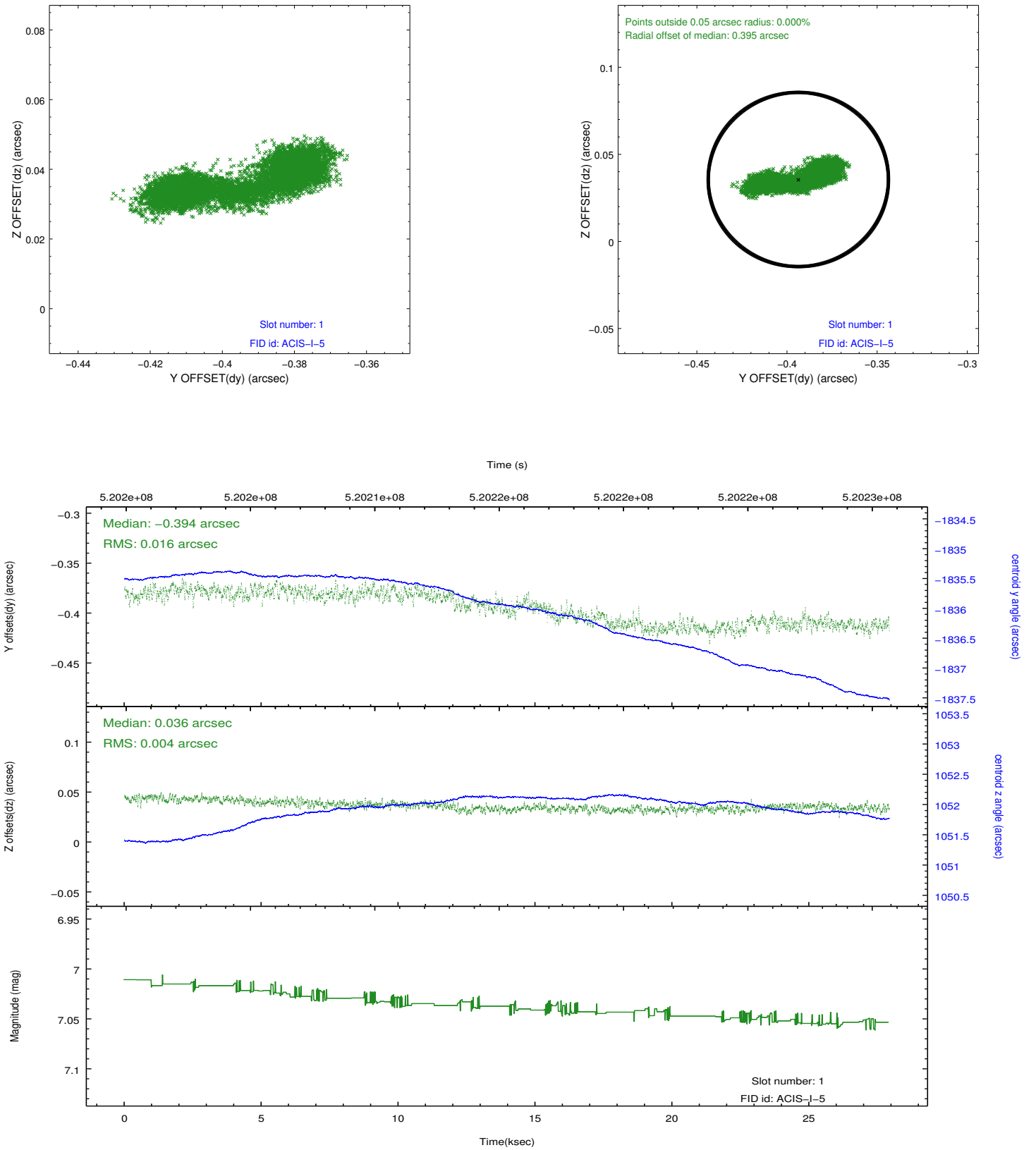


2.5 FID Slots

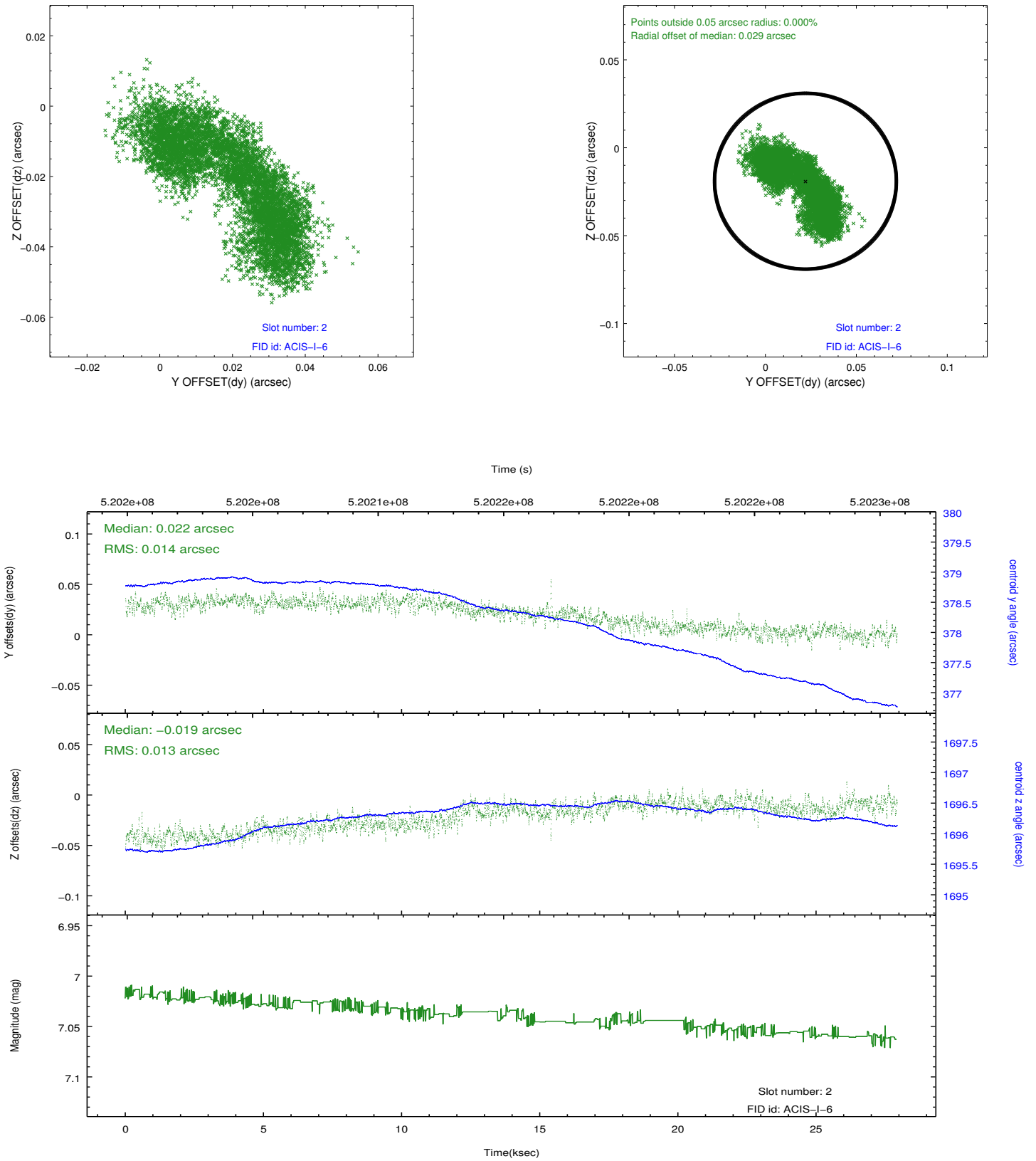
2.5.1 Slot 0



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)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.711354069114

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.