

V&V Reference Report

L2 ASCDS Version : 10.2.2

Observation 16616 - L2 Version 2
Chandra X-Ray Center

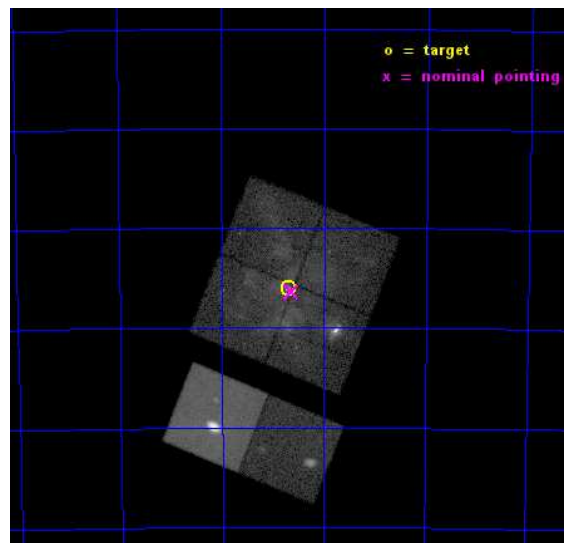
L2 Processing Date : Dec 11 2014

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 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

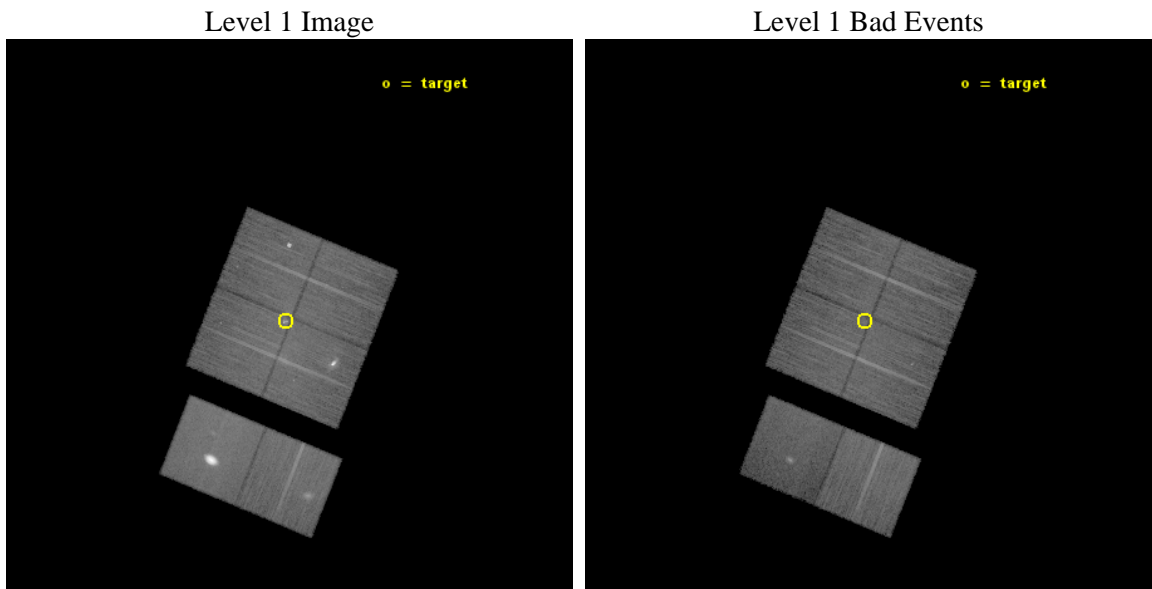
seq_num	901116	Sequence number
obs_id	16616	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.659157391675	Nominal RA [deg]
dec_nom	-69.105930147502	Nominal Dec [deg]
roll_nom	202.0123322629	Nominal Roll [deg]
revision	2	Processing version of data
ontime	34972.799869776	Sum of GTIs [s]
livetime	34529.953219733	Livetime [s]
ontime0	34972.799869776	Sum of GTIs [s]
ontime1	34972.799869776	Sum of GTIs [s]
ontime2	34972.799869776	Sum of GTIs [s]
ontime3	34972.799869776	Sum of GTIs [s]
ontime6	34963.076888621	Sum of GTIs [s]
ontime7	34972.799869776	Sum of GTIs [s]
l2events	346505	Number of level 2 events



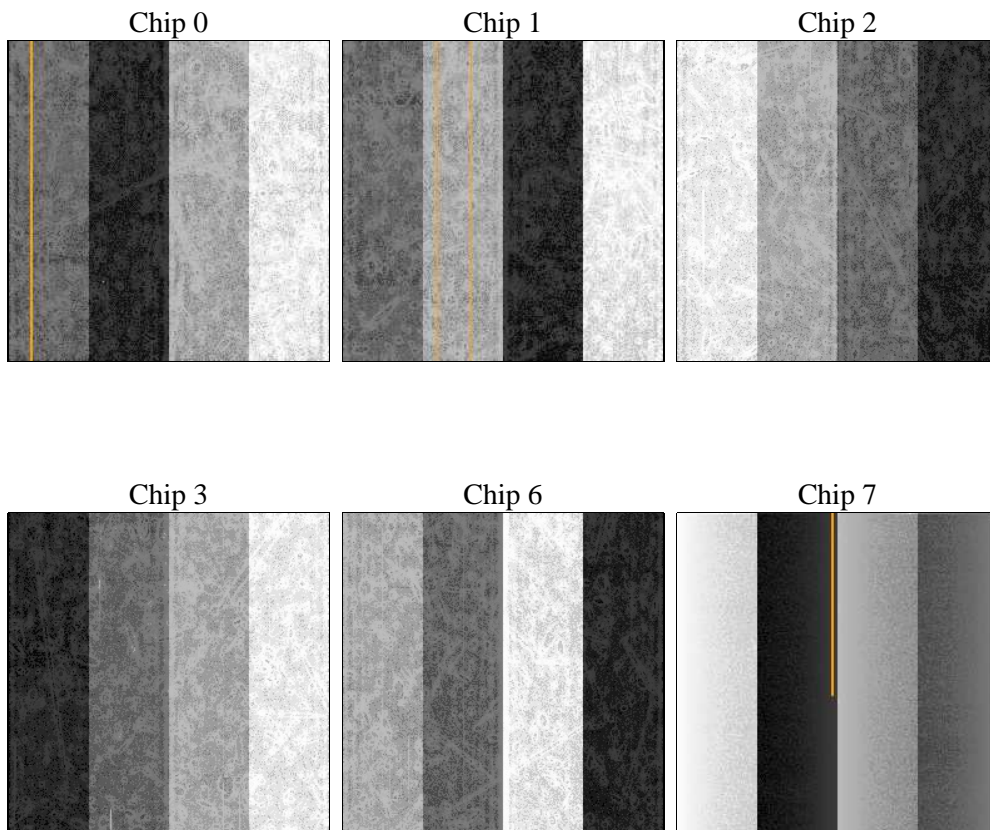
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	34972.799869776	Sum of GTIs [s]
caldsver	4.6.4	 	ontime0	34972.799869776	Sum of GTIs [s]
date	2014-12-12T01:38:39	Date and time of file creation	ontime1	34972.799869776	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	34972.799869776	Sum of GTIs [s]
			ontime3	34972.799869776	Sum of GTIs [s]
			ontime6	34963.076888621	Sum of GTIs [s]
			ontime7	34972.799869776	Sum of GTIs [s]
			l1events	1128675	Number of level 1 events

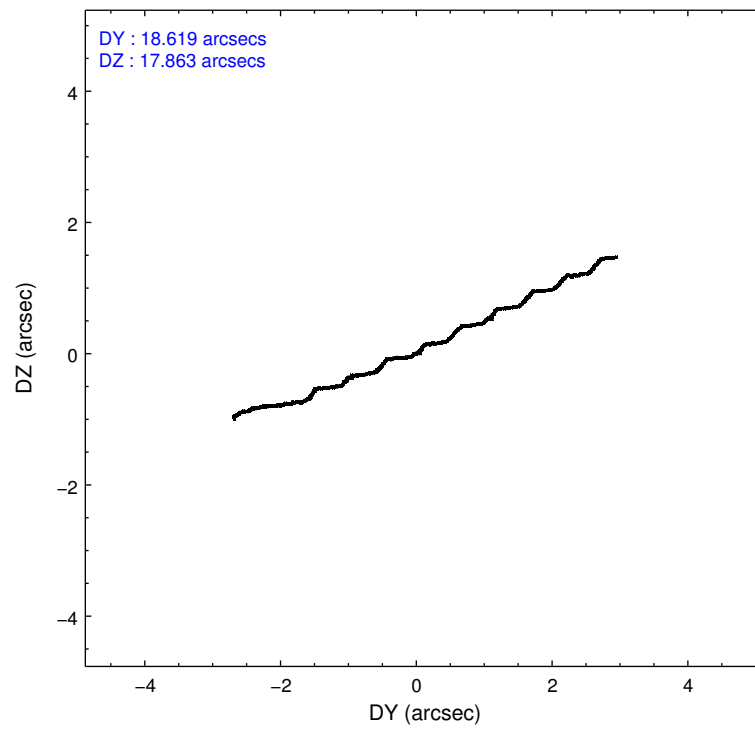
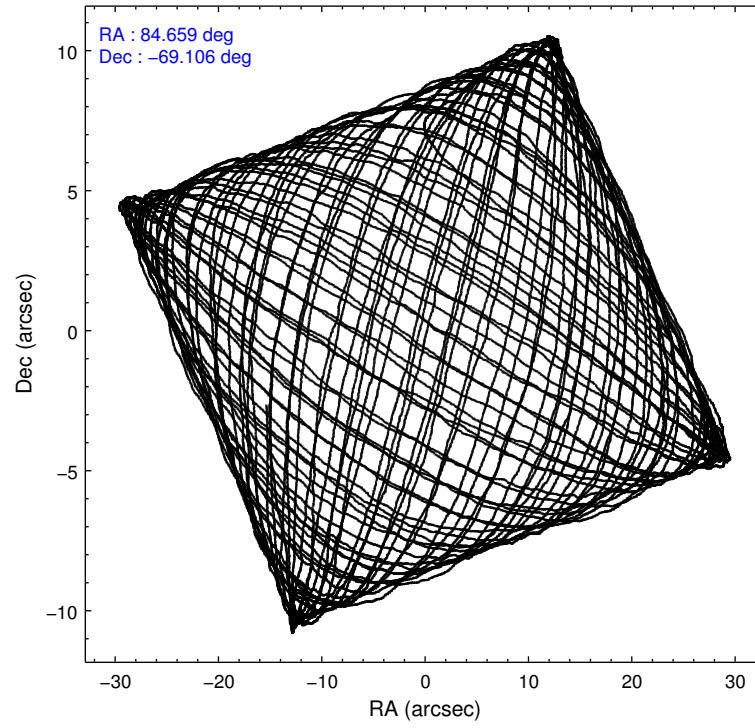
2.1.4 Events

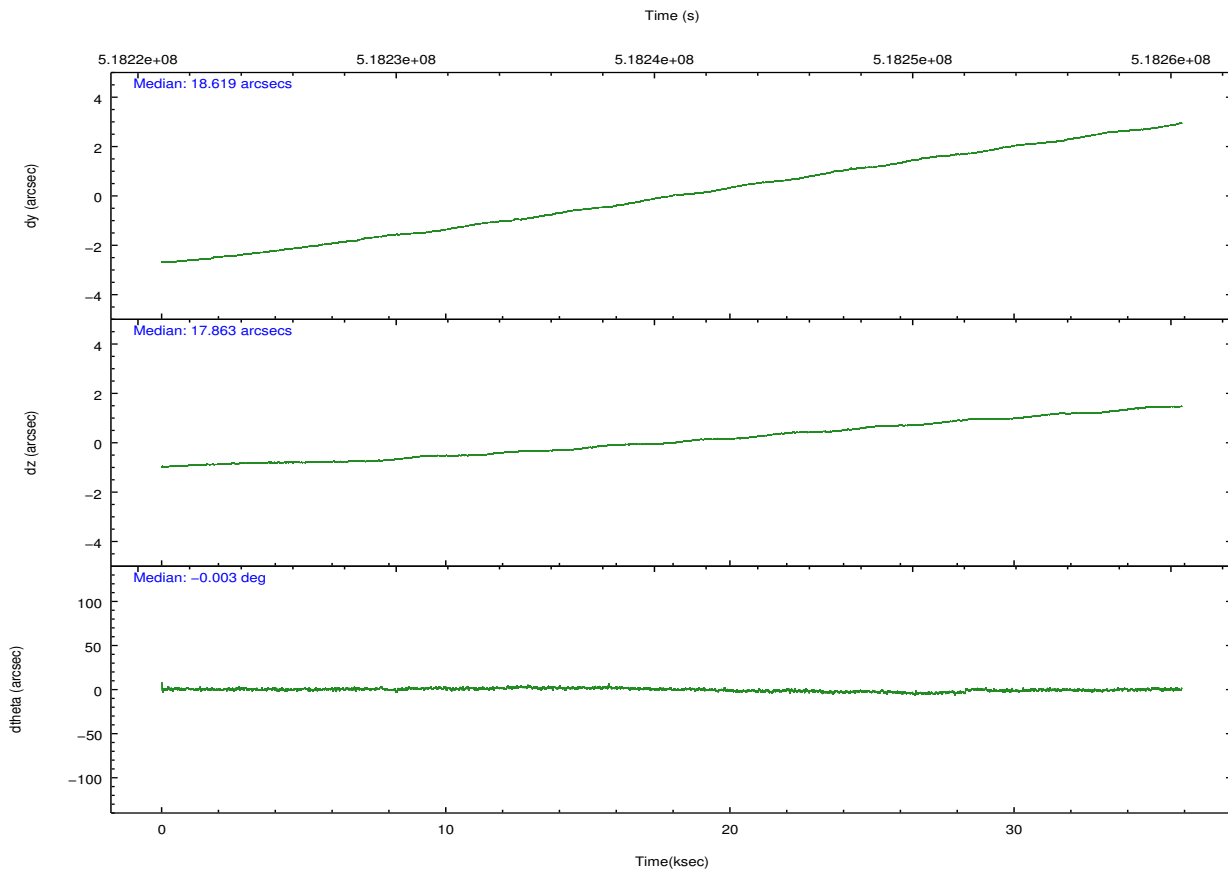
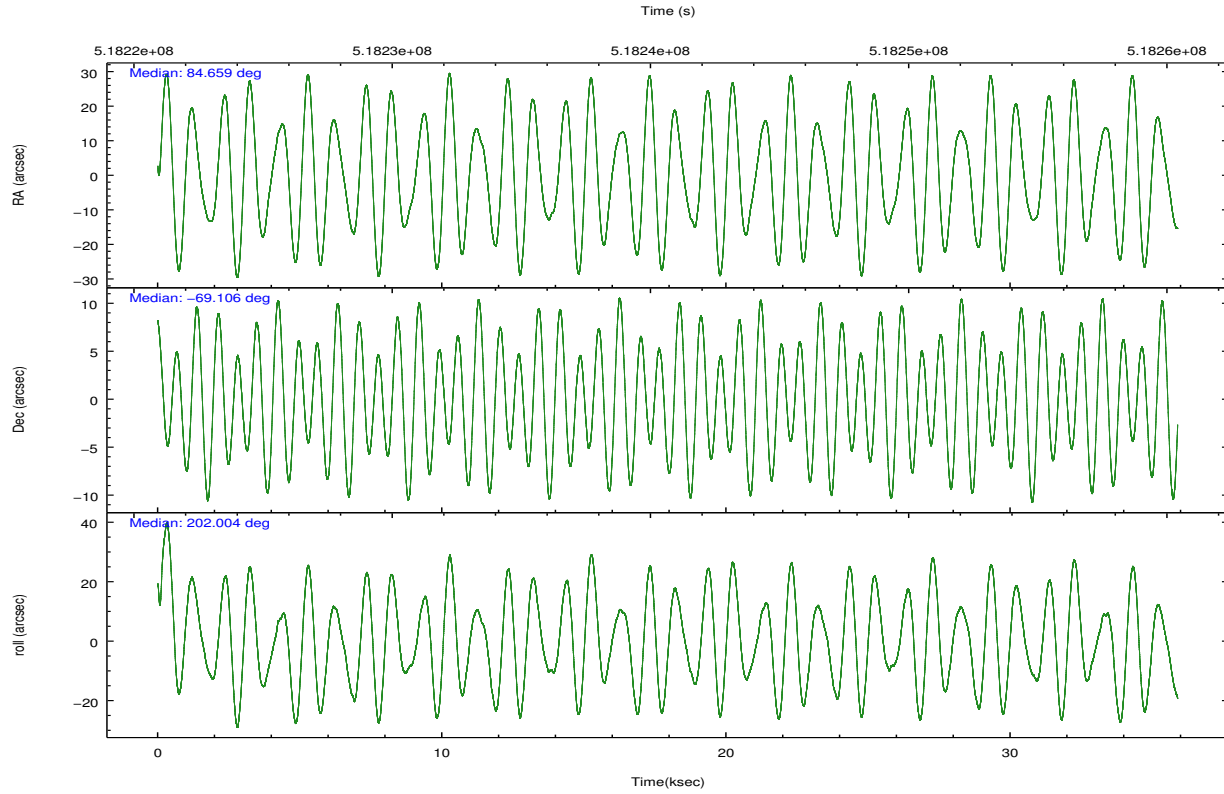
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	146696	156868	186542	161367	171947	305255	grade 0 events	13073	21169	33845	17471	13779	40714
rejected events	120916	122081	135915	130927	144788	98522		8%	13%	18%	10%	8%	13%
rejected %	82%	77%	72%	81%	84%	32%	grade 1 events	110	169	279	138	110	400
								0%	0%	0%	0%	0%	0%
							grade 2 events	5173	5173	7536	5097	5083	51622
								3%	3%	4%	3%	2%	16%
							grade 3 events	1982	2122	2732	2086	2145	20807
								1%	1%	1%	1%	1%	6%
							grade 4 events	1905	2200	2686	2083	1990	21076
								1%	1%	1%	1%	1%	6%
							grade 5 events	6204	6753	5763	7083	7338	20487
								4%	4%	3%	4%	4%	6%
							grade 6 events	3649	4132	3834	3704	4164	72535
								2%	2%	2%	2%	2%	23%
							grade 7 events	114600	115150	129867	123705	137338	77614
								78%	73%	69%	76%	79%	25%

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	84.706291	84.65915739167525	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.084166	-69.10593014750238	CCD I3 on	Y	Y
[deg] Pointing Roll	201.847676	202.0123322629042	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)	518223620.184000	518221577.80191	CCD S5 on	N	N
Observation start date	2014-06-03T22:59:13	2014-06-03T22:26:17	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	518258620.184000	518259344.954	On-chip summing requested	N	N
Observation end date	2014-06-04T08:42:33	2014-06-04T08:55:44	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



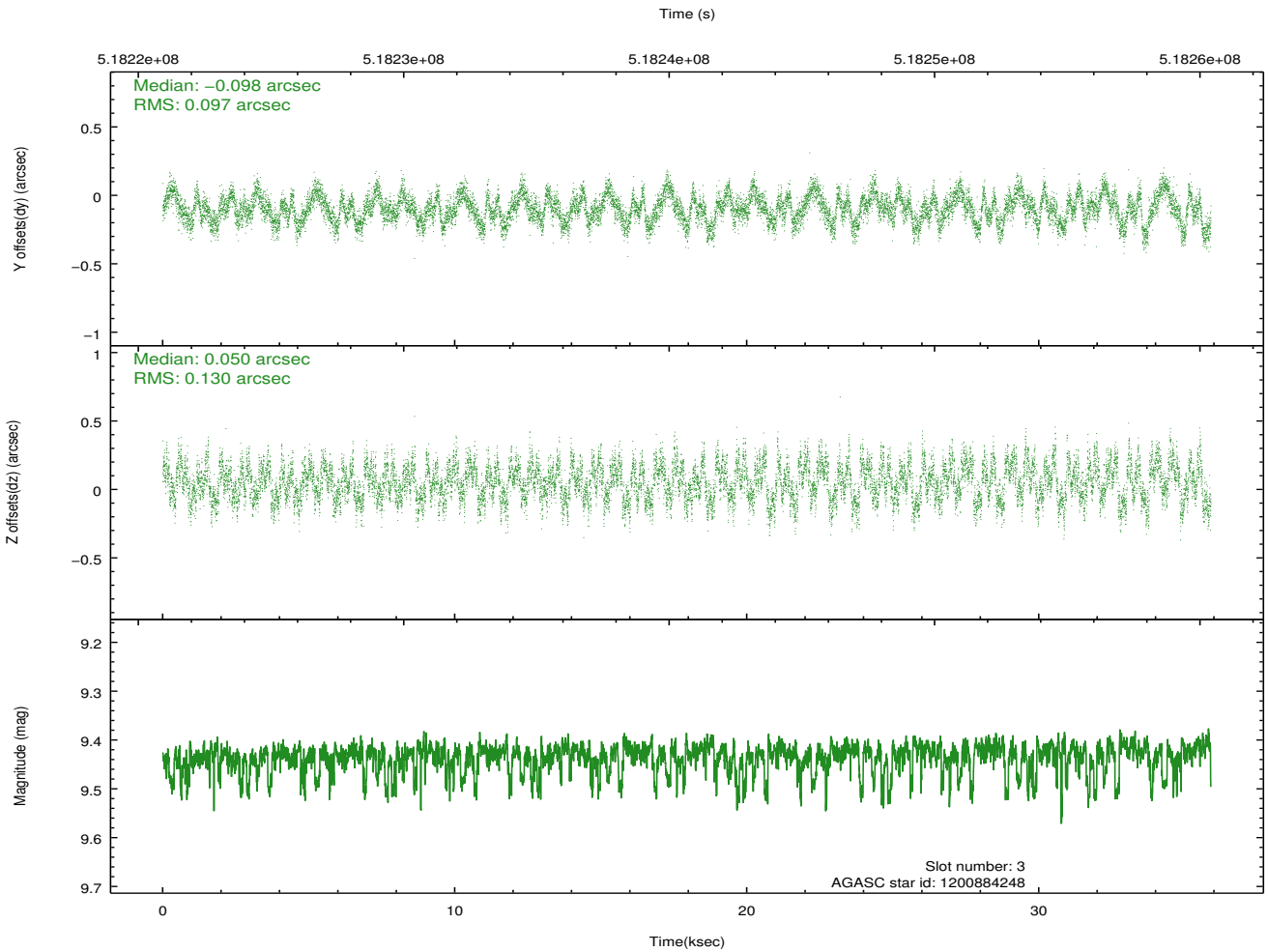
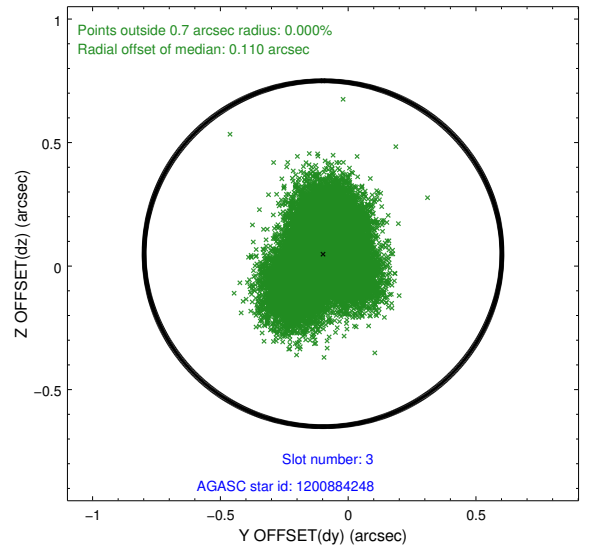
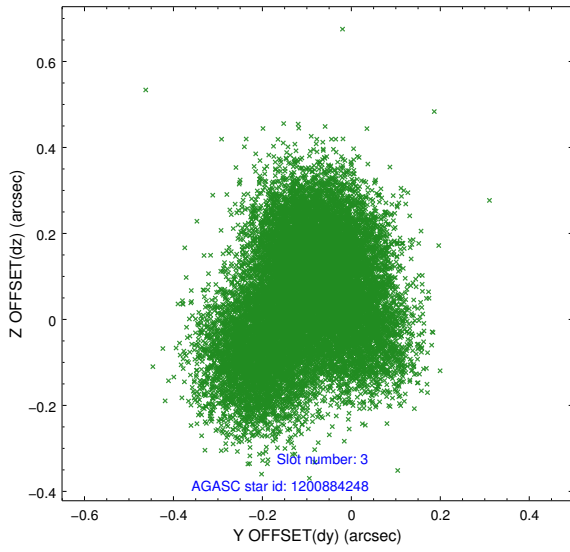


Slot Statistics

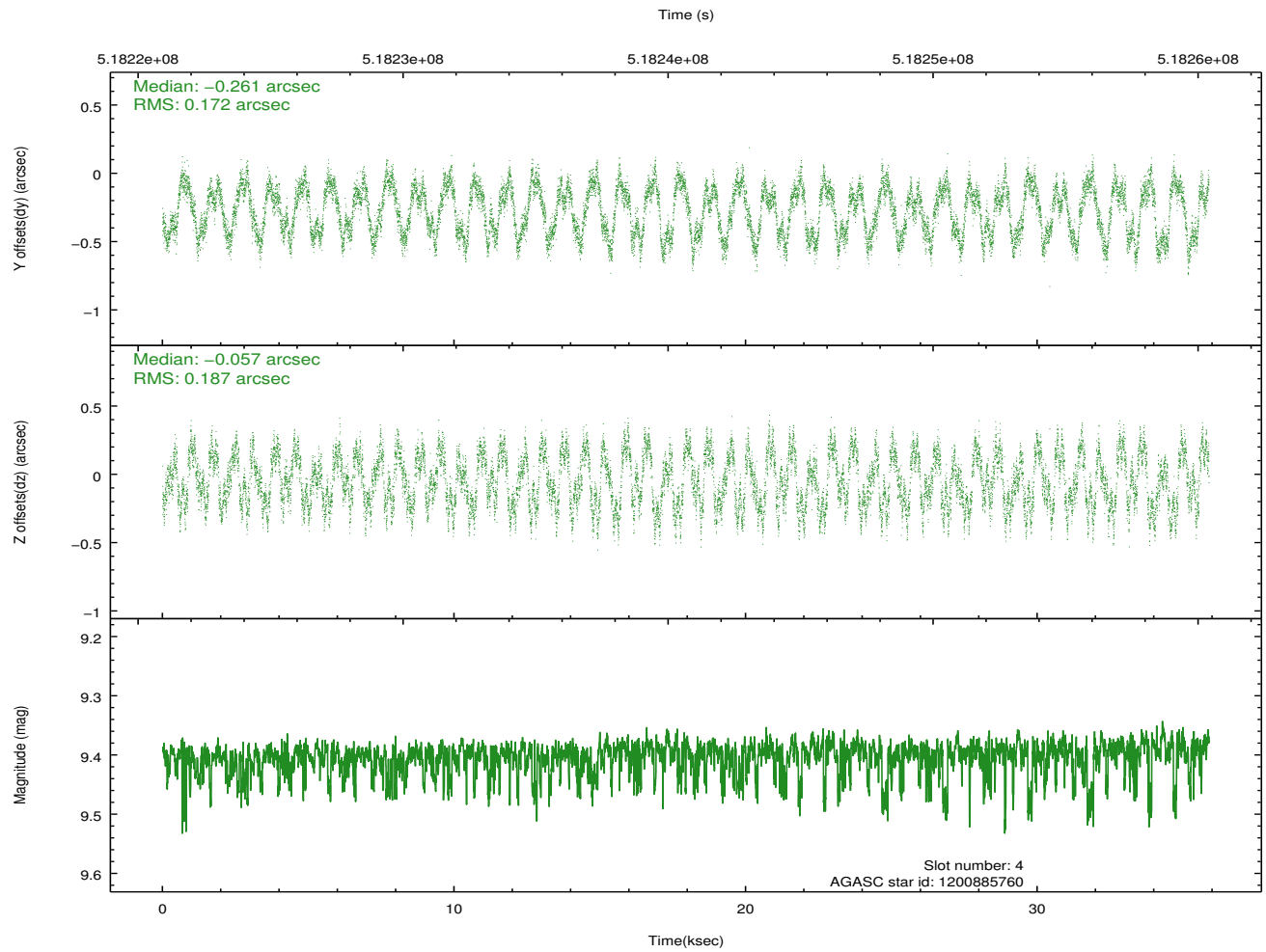
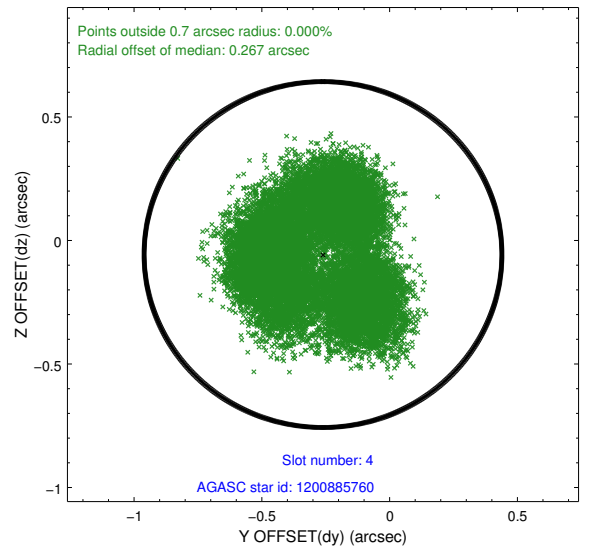
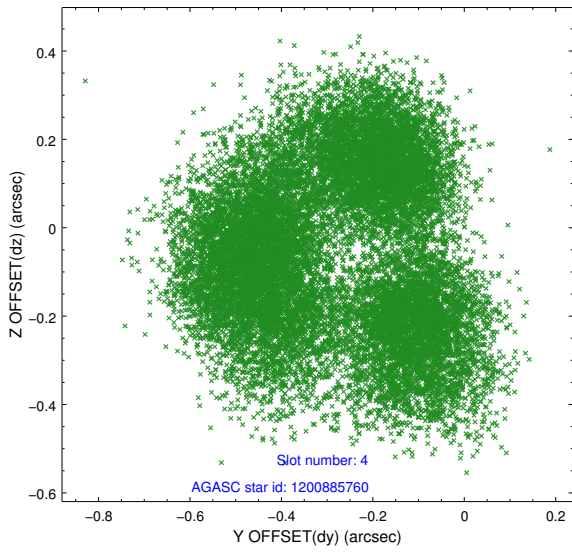
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.03	8754	-0.072	0.003	0.038	0.059	0.000000	0.000000	920.67	-841.62
1	FID		ACIS-I-2	6.94	8753	-0.186	-0.099	0.028	0.042	0.000000	0.000000	-773.50	-848.21
2	FID		ACIS-I-4	6.96	8753	0.147	0.162	0.034	0.053	0.000000	0.000000	2140.73	1058.33
3	GUIDE	used	1200884248	9.43	17489	-0.098	0.050	0.177	0.276	83.880915	-68.565170	315.51	-2131.31
4	GUIDE	used	1200885760	9.40	17490	-0.261	-0.057	0.278	0.380	83.723637	-68.777667	782.15	-1490.76
5	GUIDE	used	1201020040	8.58	17500	-0.076	-0.021	0.092	0.151	85.379163	-68.879396	-1082.17	-355.00
6	GUIDE	used	1201016584	9.43	17493	0.327	0.046	0.137	0.222	85.677603	-68.415933	-2084.39	-1744.84
7	GUIDE	used	1201018384	9.05	17489	0.137	-0.024	0.113	0.173	85.801362	-68.593260	-1988.35	-1093.09

2.4 Star Slots

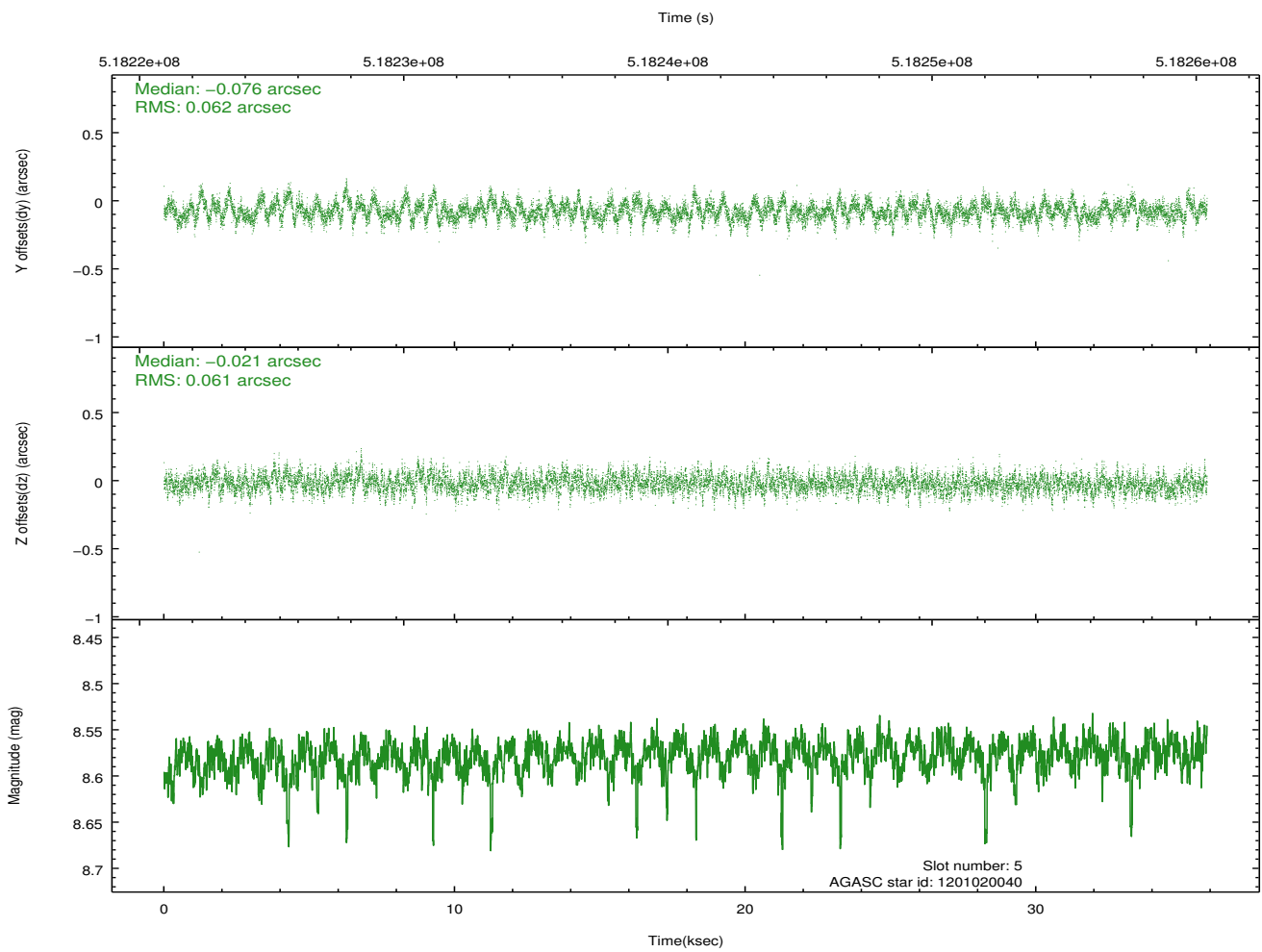
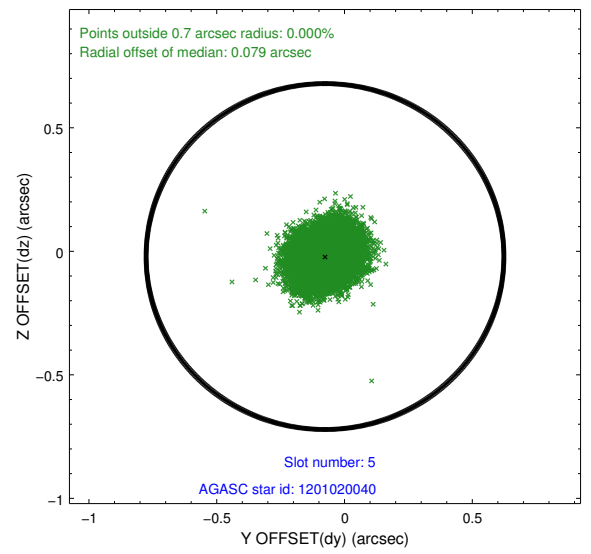
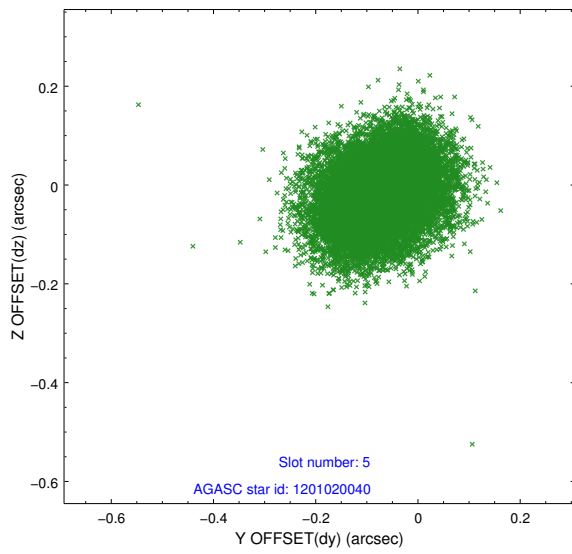
2.4.1 Slot 3



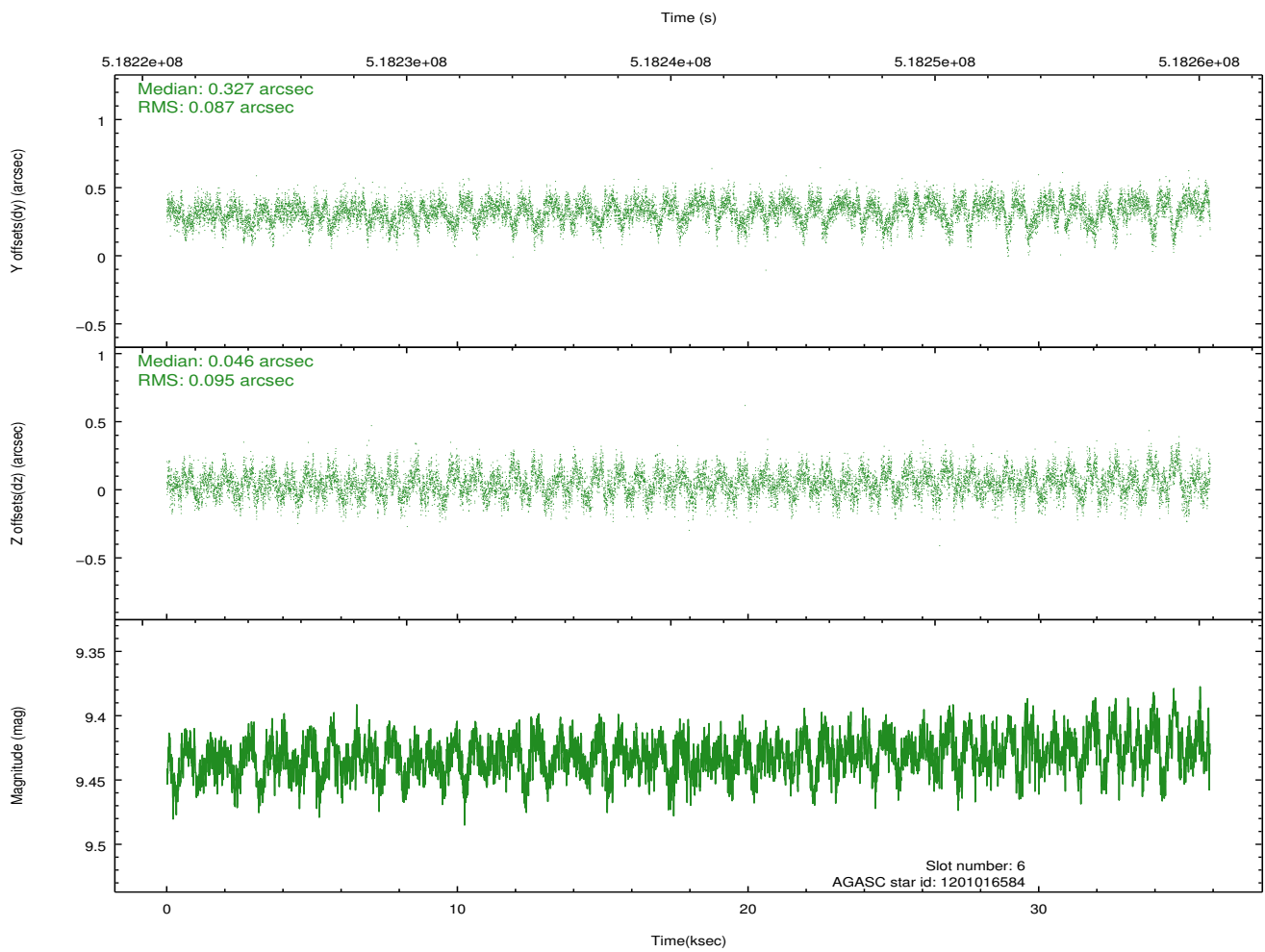
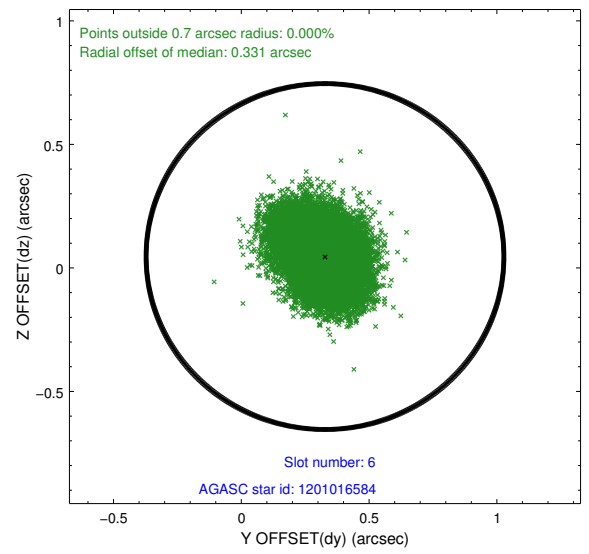
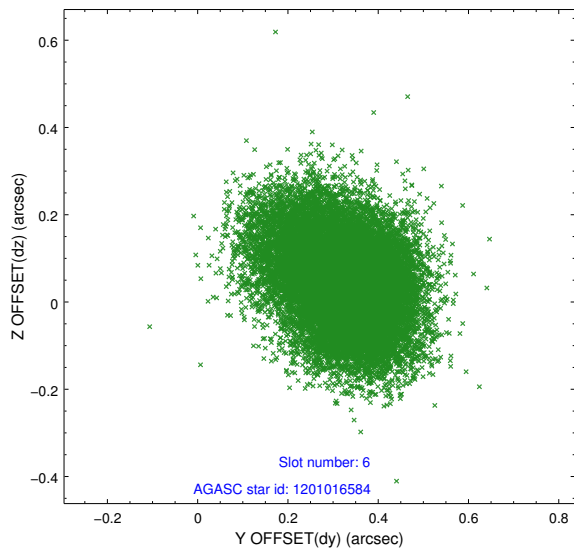
2.4.2 Slot 4



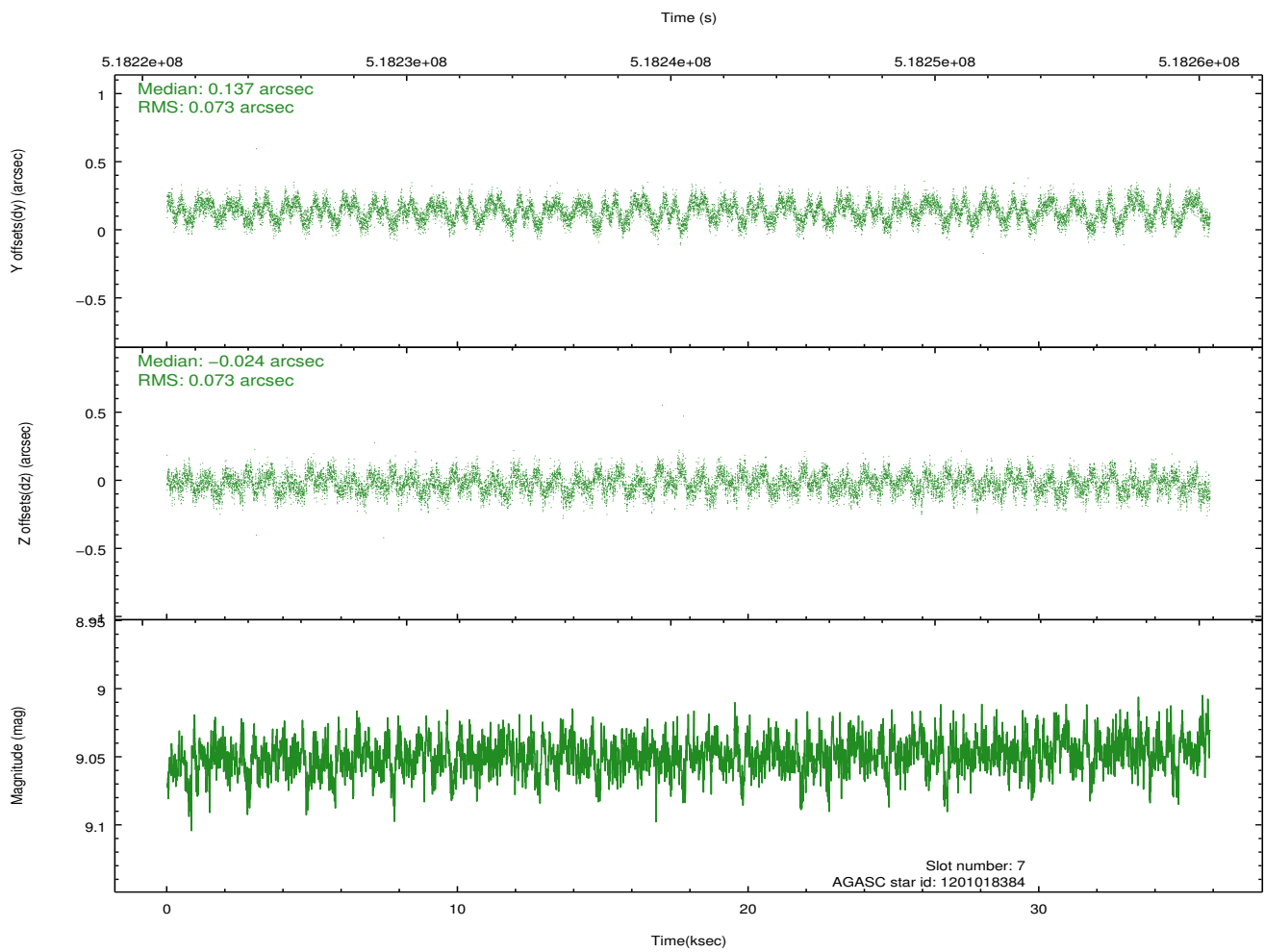
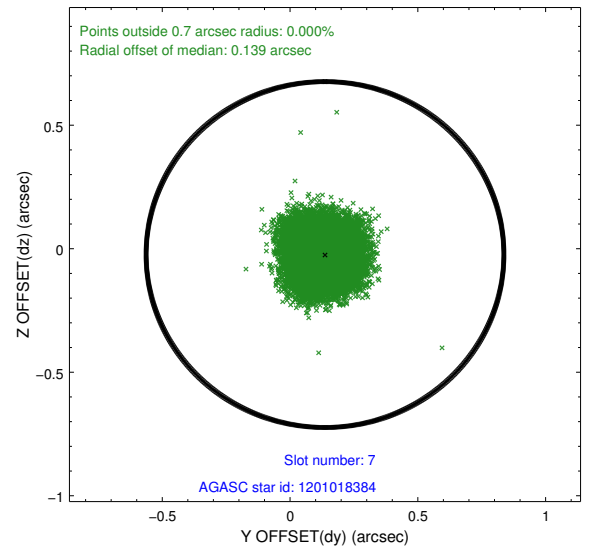
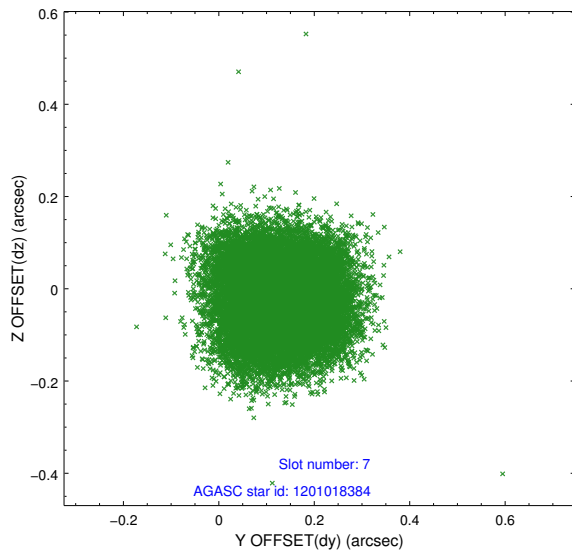
2.4.3 Slot 5



2.4.4 Slot 6

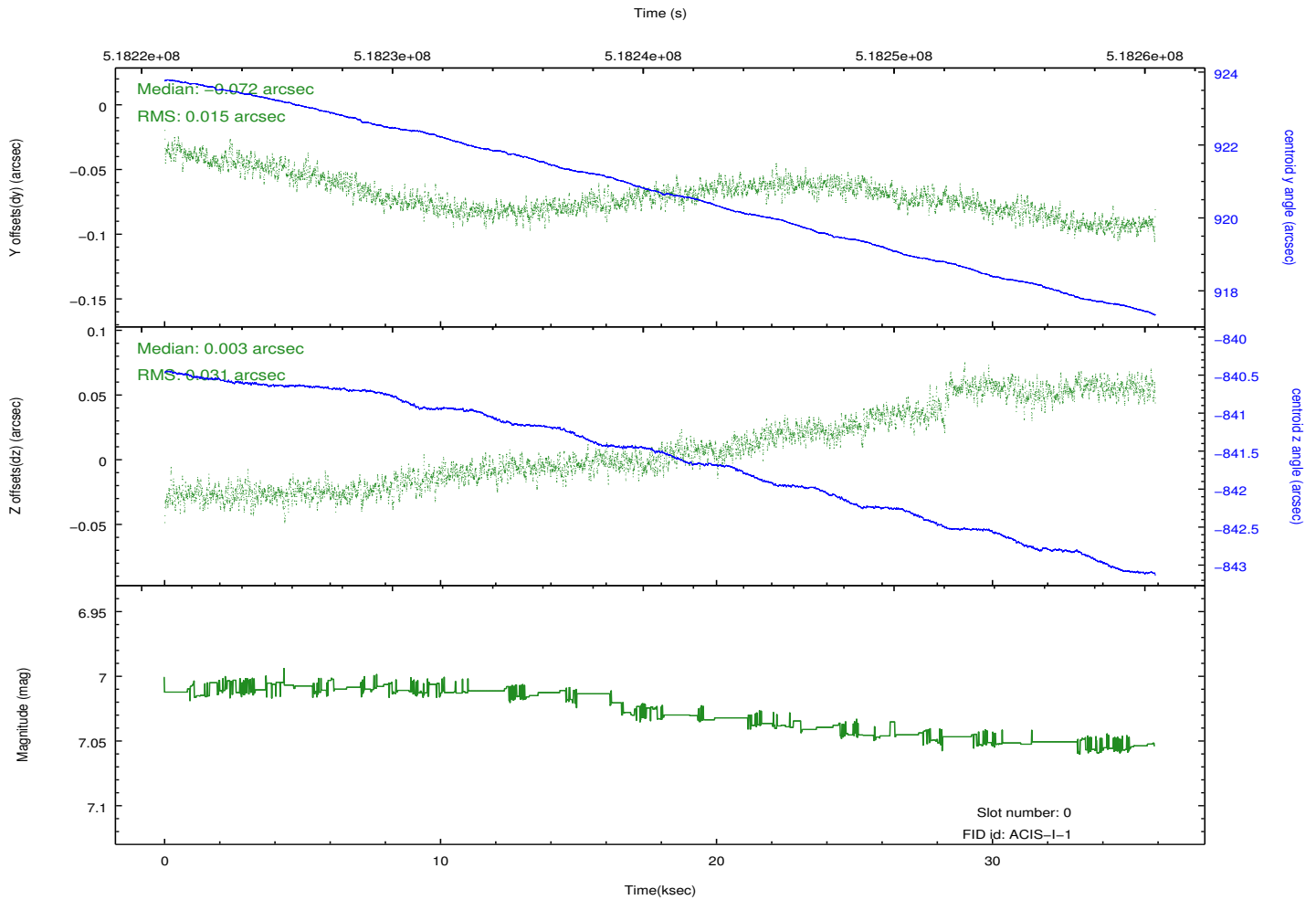
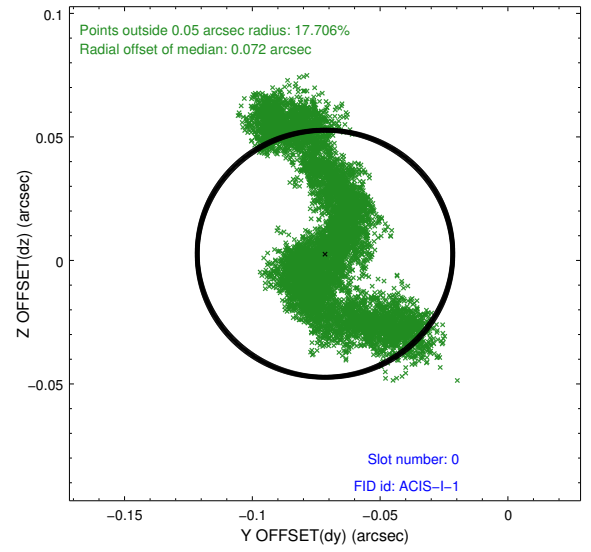
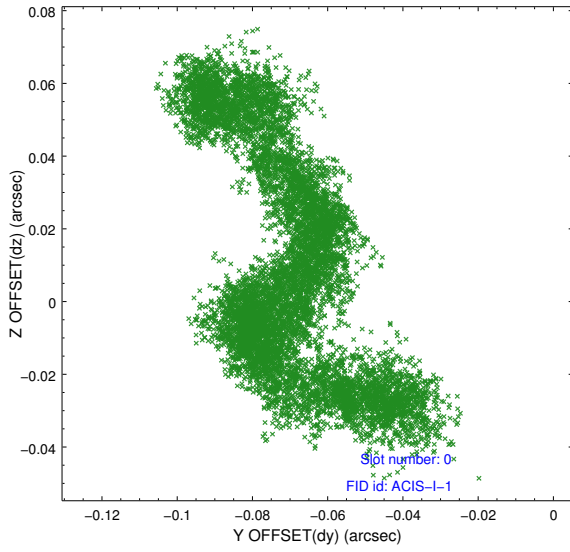


2.4.5 Slot 7

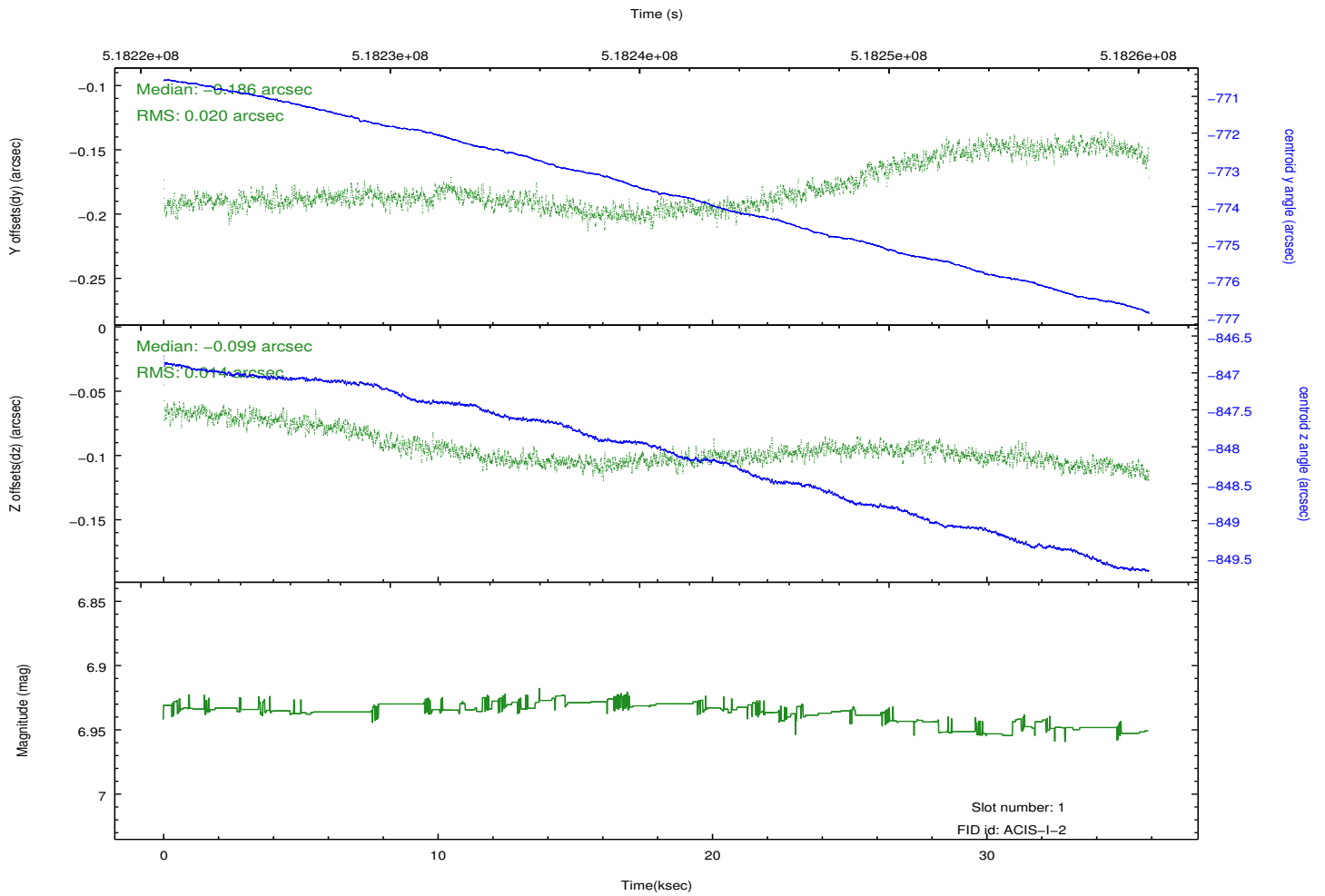
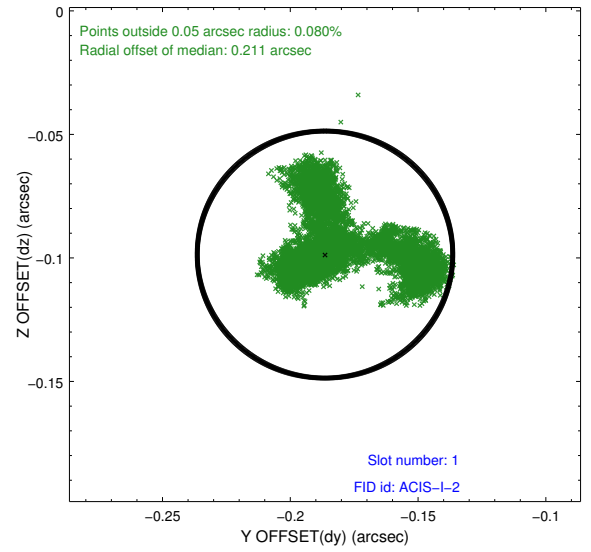
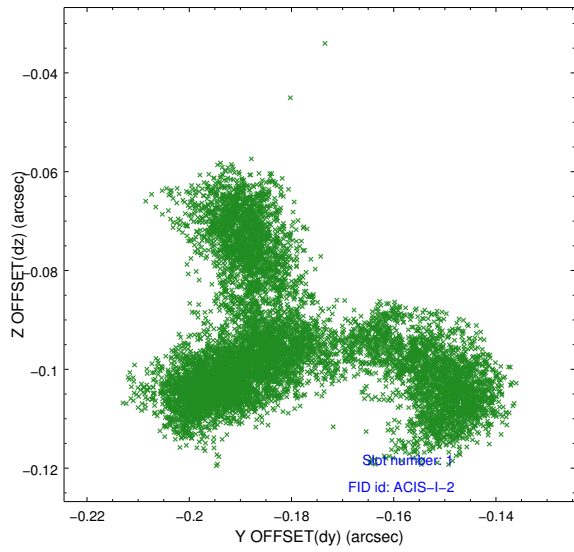


2.5 FID Slots

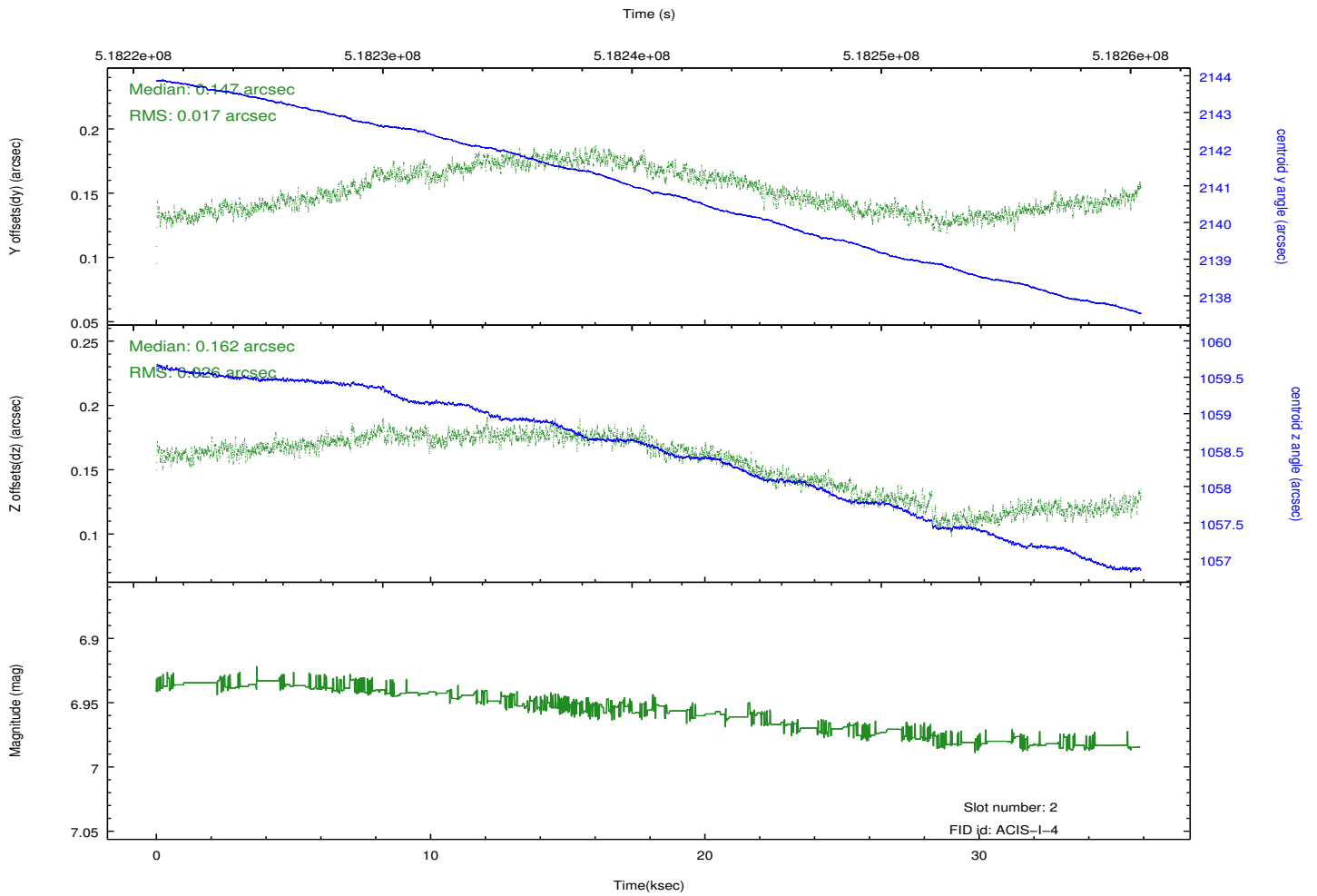
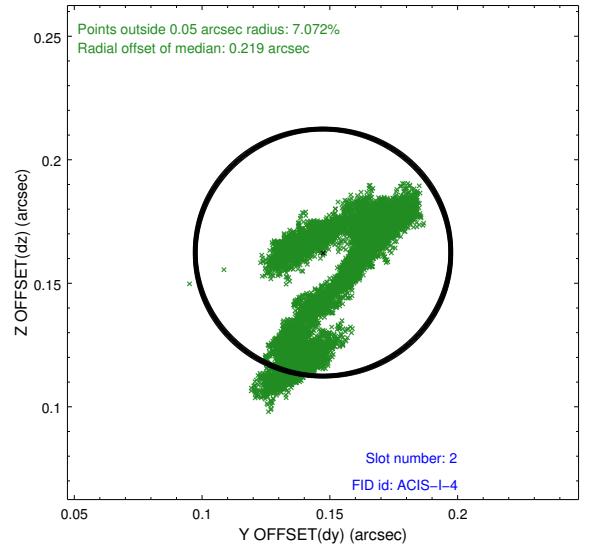
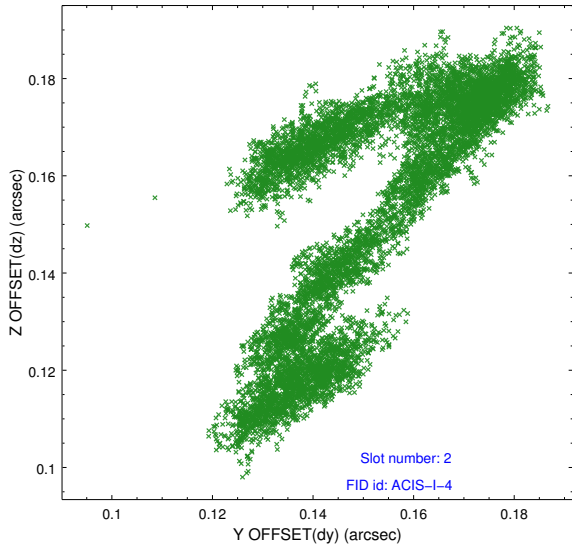
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.972799869776

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.