

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 15542 - L2 Version 2
Chandra X-Ray Center

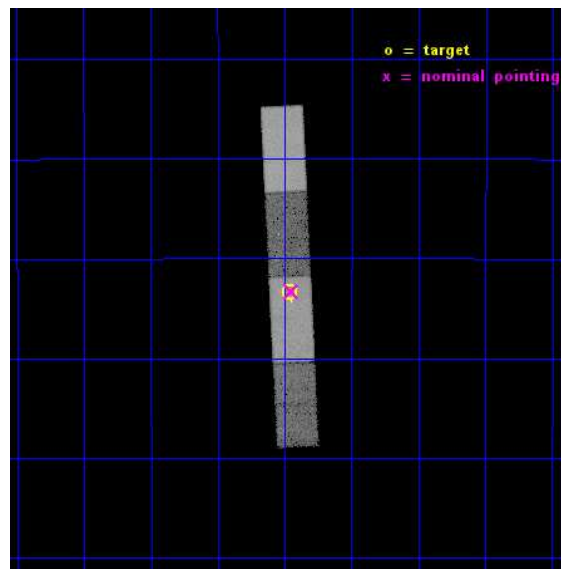
L2 Processing Date : Dec 2 2014

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

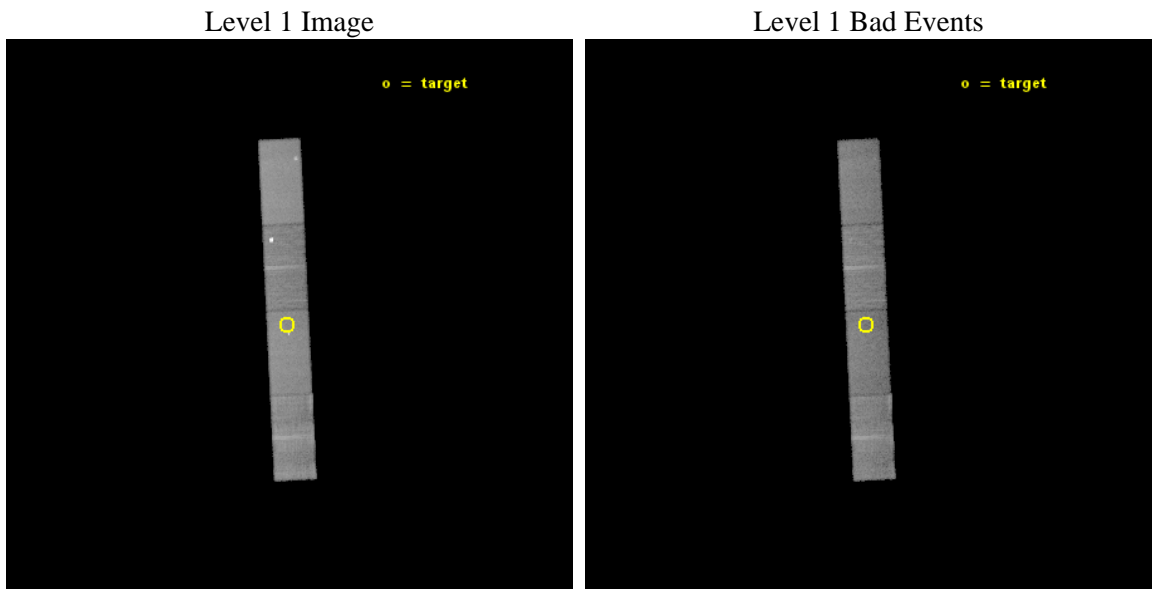
seq_num	501824	Sequence number
obs_id	15542	Observation id
title	A Legacy Study of the Relativistic Shocks of PWNe	Proposal title
observer	Prof. Roger Romani	Principal investigator
object	PSR J1741-2054	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	265.49	Observer's specified target RA [deg]
dec_targ	-20.89	Observer's specified target Dec [deg]
ra_nom	265.48736313848	Nominal RA [deg]
dec_nom	-20.888249011845	Nominal Dec [deg]
roll_nom	87.155692605998	Nominal Roll [deg]
revision	2	Processing version of data
ontime	28969.699796915	Sum of GTIs [s]
livetime	28286.822620247	Livetime [s]
ontime5	28969.697458684	Sum of GTIs [s]
ontime6	28969.656418681	Sum of GTIs [s]
ontime7	28969.699796915	Sum of GTIs [s]
ontime8	28969.615378678	Sum of GTIs [s]
l2events	129863	Number of level 2 events



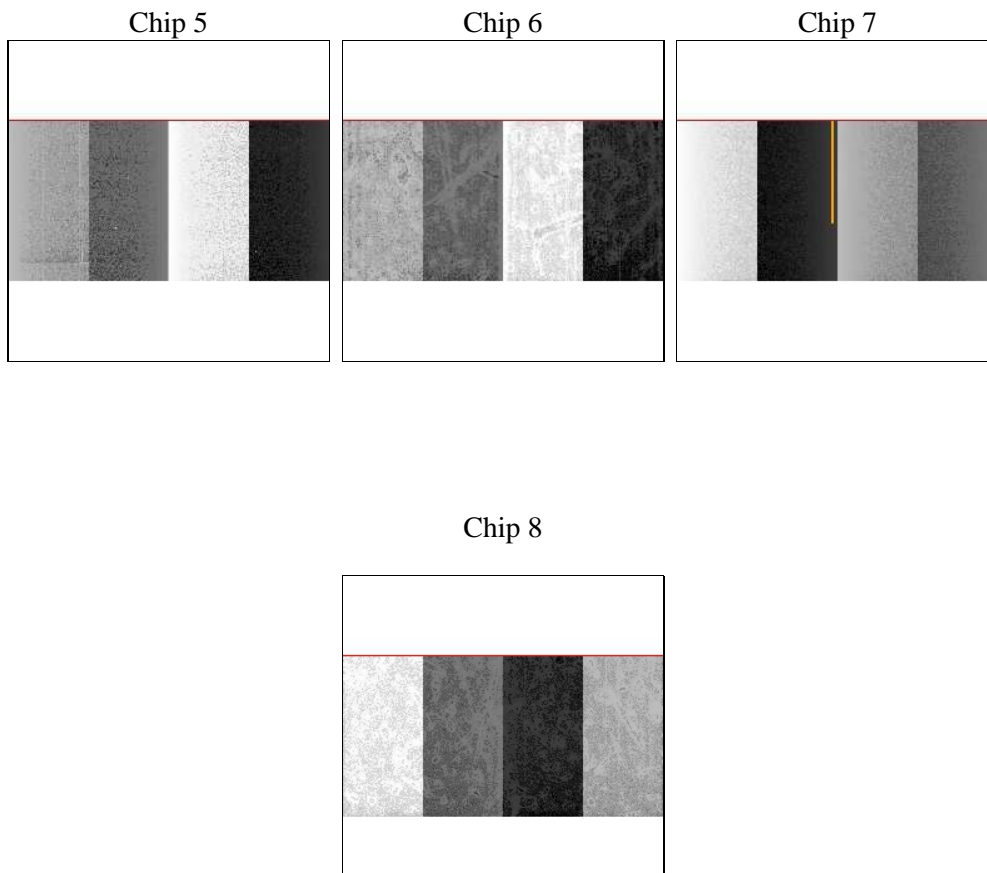
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	28694.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	28969.699796915	Sum of GTIs [s]
caldbver	4.6.4	 	ontime5	28969.697458684	Sum of GTIs [s]
date	2014-12-02T12:54:58	Date and time of file creation	ontime6	28969.656418681	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	28969.699796915	Sum of GTIs [s]
			ontime8	28969.615378678	Sum of GTIs [s]
			l1events	449450	Number of level 1 events

2.1.4 Events

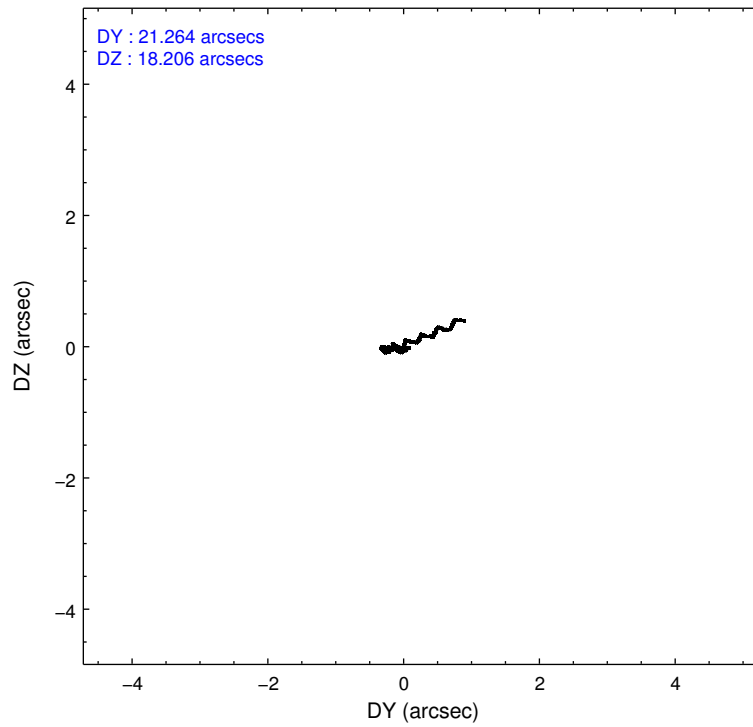
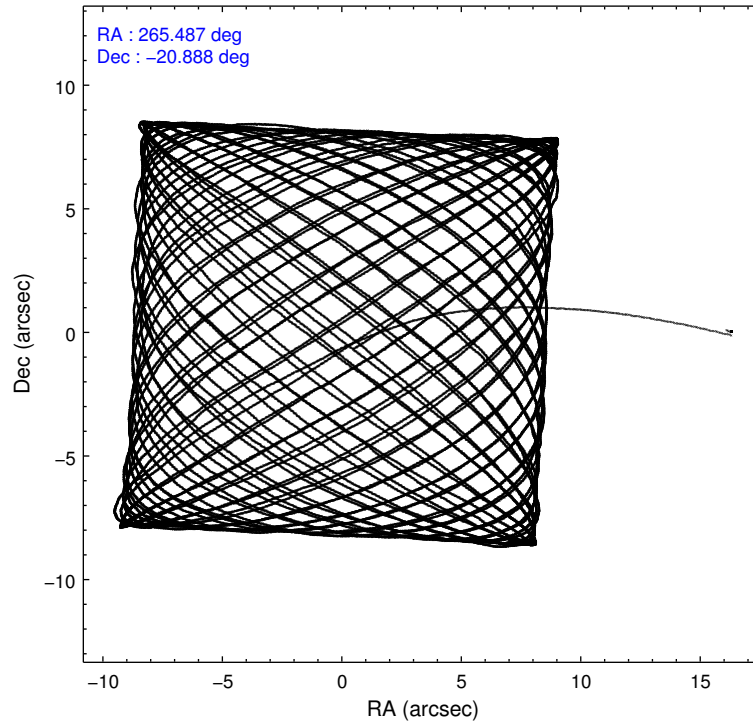
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	128989	100795	110902	108764
rejected events	66487	73810	59154	80715
rejected %	51%	73%	53%	74%

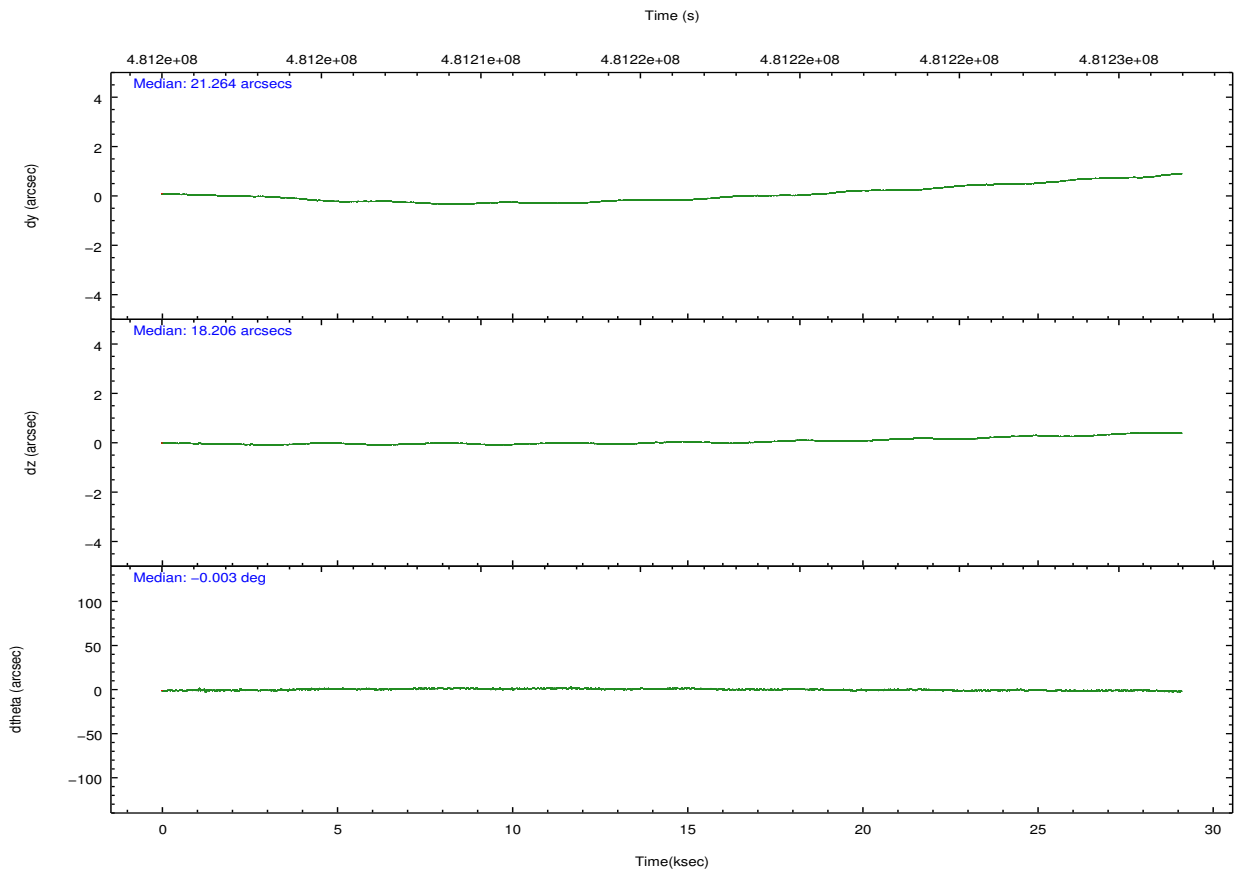
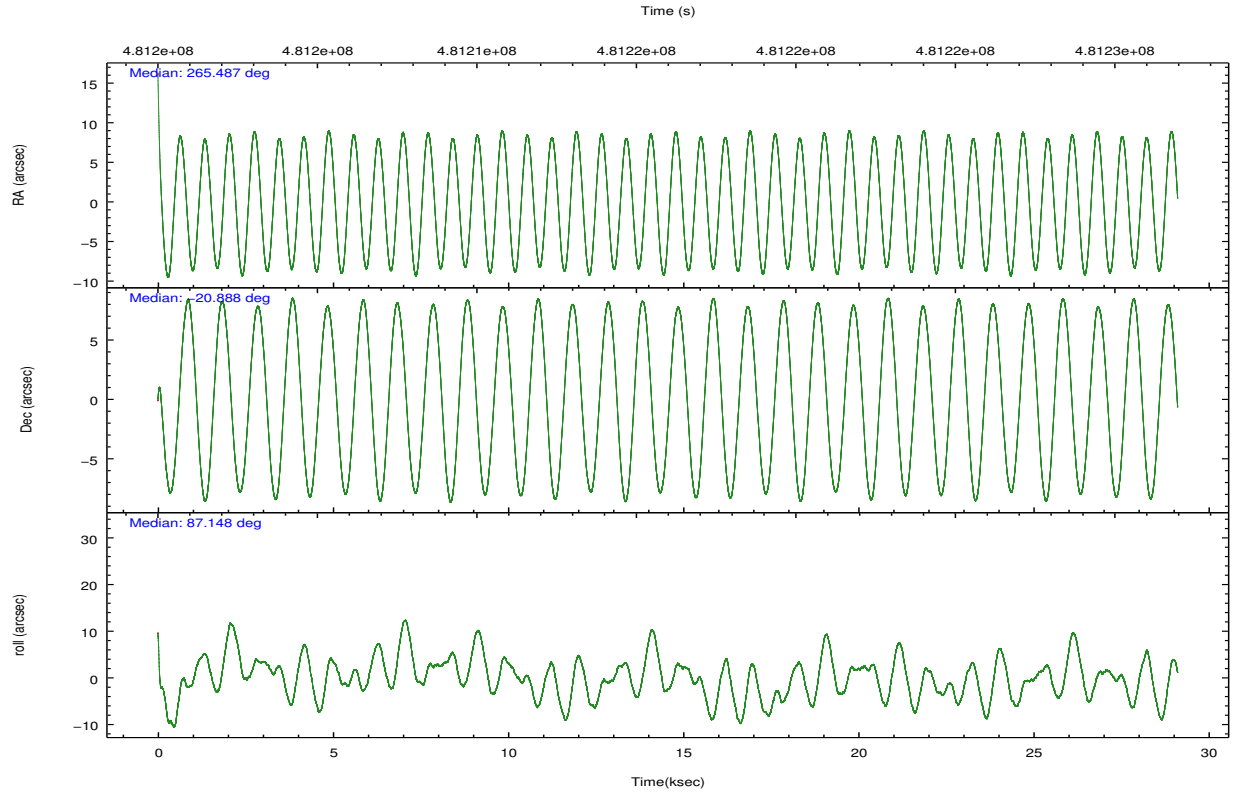
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	5305	20187	5814	8434
	4%	20%	5%	7%
grade 1 events	292	48	138	64
	0%	0%	0%	0%
grade 2 events	18770	2155	10840	6395
	14%	2%	9%	5%
grade 3 events	2931	1213	5080	2937
	2%	1%	4%	2%
grade 4 events	2785	1235	4939	2874
	2%	1%	4%	2%
grade 5 events	10167	4077	11337	5740
	7%	4%	10%	5%
grade 6 events	32720	2200	25078	7409
	25%	2%	22%	6%
grade 7 events	56019	69680	47676	74911
	43%	69%	42%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	265.501071	265.4873631384766	CCD I2 on	N	N
[deg] Pointing Dec	-20.912405	-20.88824901184523	CCD I3 on	N	N
[deg] Pointing Roll	87.003945	87.15569260599796	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O1	Y
[s] Observation start time (MET)	481201847.184000	481200534.0384	CCD S5 on	N	N
Observation start date	2013-04-01T11:09:40	2013-04-01T10:48:54	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	481230541.184000	481231250.72756	On-chip summing requested	N	N
Observation end date	2013-04-01T19:07:54	2013-04-01T19:20:50	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

2.3 Aspect





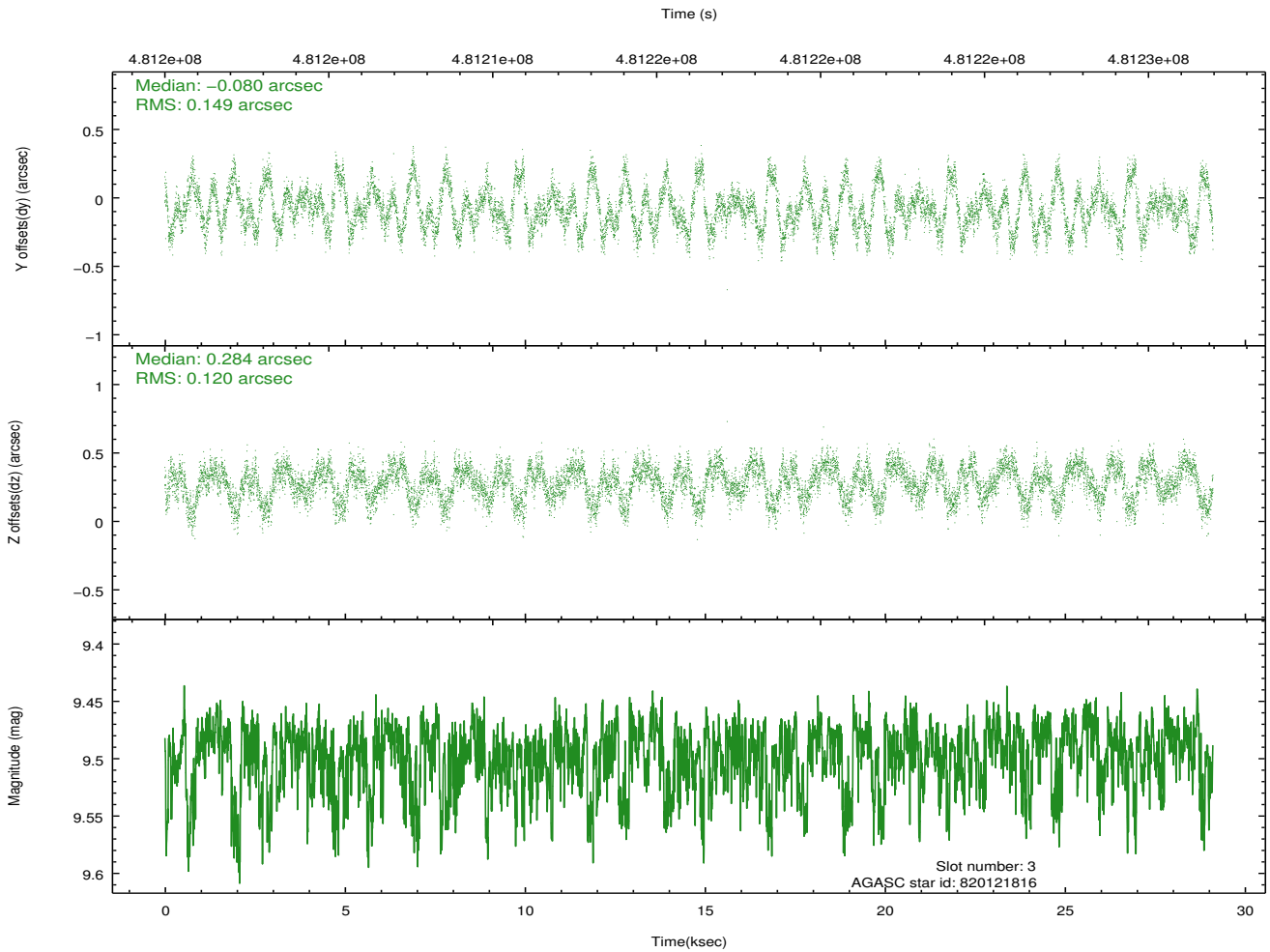
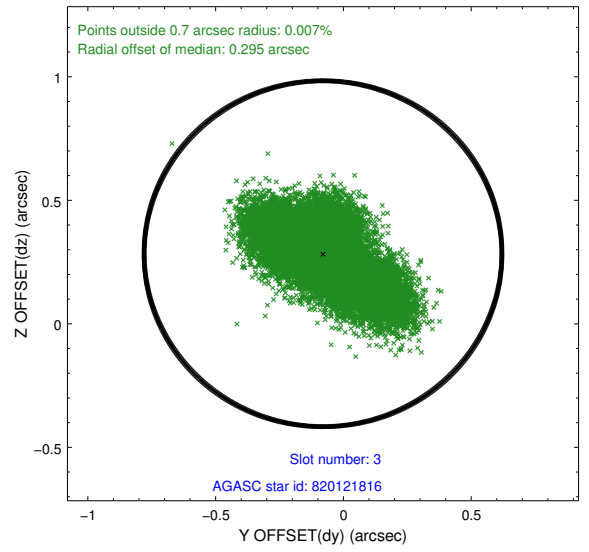
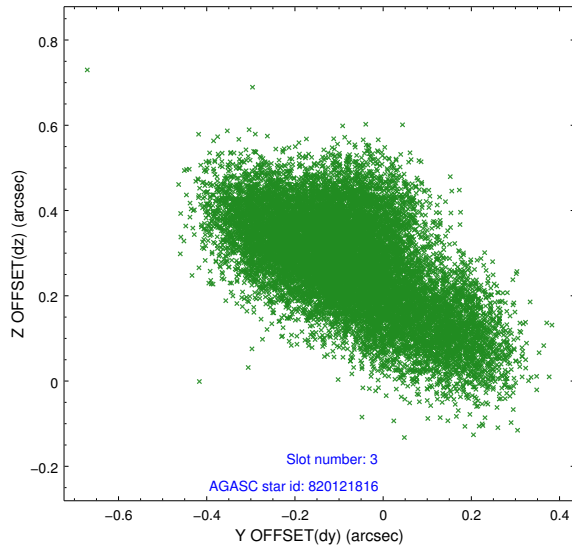
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.97	7102	-0.109	-0.070	0.008	0.013	0.000000	0.000000	-774.61	-1739.79
1	FID		ACIS-S-4	7.06	7100	0.260	0.071	0.008	0.017	0.000000	0.000000	2139.02	168.70
2	FID		ACIS-S-5	7.09	7101	-0.181	0.007	0.009	0.021	0.000000	0.000000	-1827.40	162.46
3	GUIDE	used	820121816	9.50	14131	-0.080	0.284	0.203	0.342	266.214905	-20.520358	1530.19	-2329.02
4	GUIDE	used	820512256	9.81	14119	-0.075	-0.016	0.226	0.384	265.674779	-20.869391	184.98	-575.12
5	GUIDE	used	820519896	9.40	14153	0.394	0.492	0.124	0.201	265.946936	-21.404468	-1692.13	-1584.62
6	GUIDE	used	820522872	8.96	14118	-0.155	-0.168	0.125	0.203	265.213313	-20.864339	121.24	975.67
7	GUIDE	used	820524416	9.55	14169	-0.095	-0.617	0.175	0.281	264.824498	-20.709003	607.28	2313.00

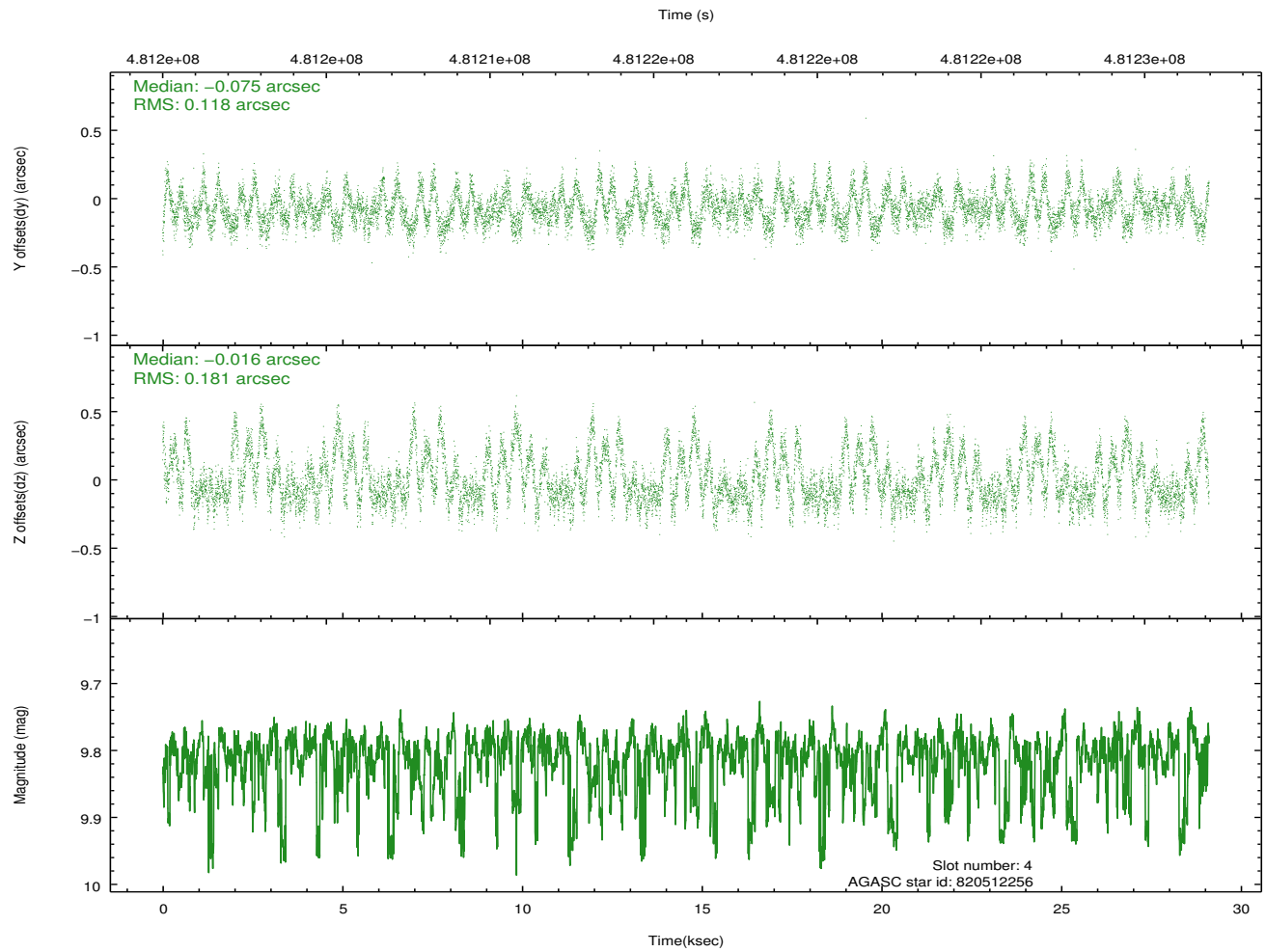
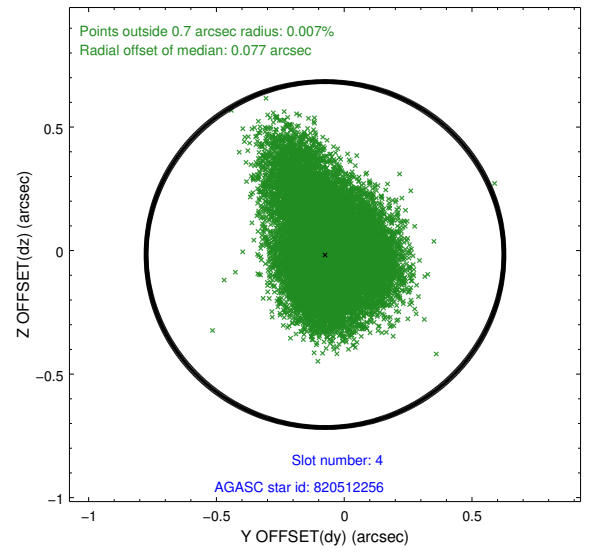
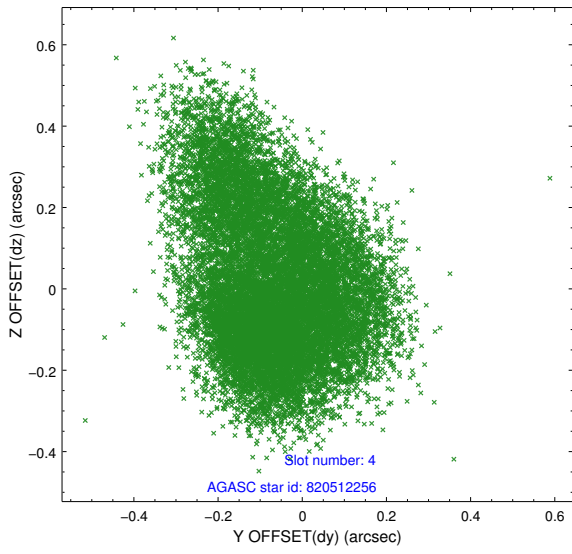
∞

2.4 Star Slots

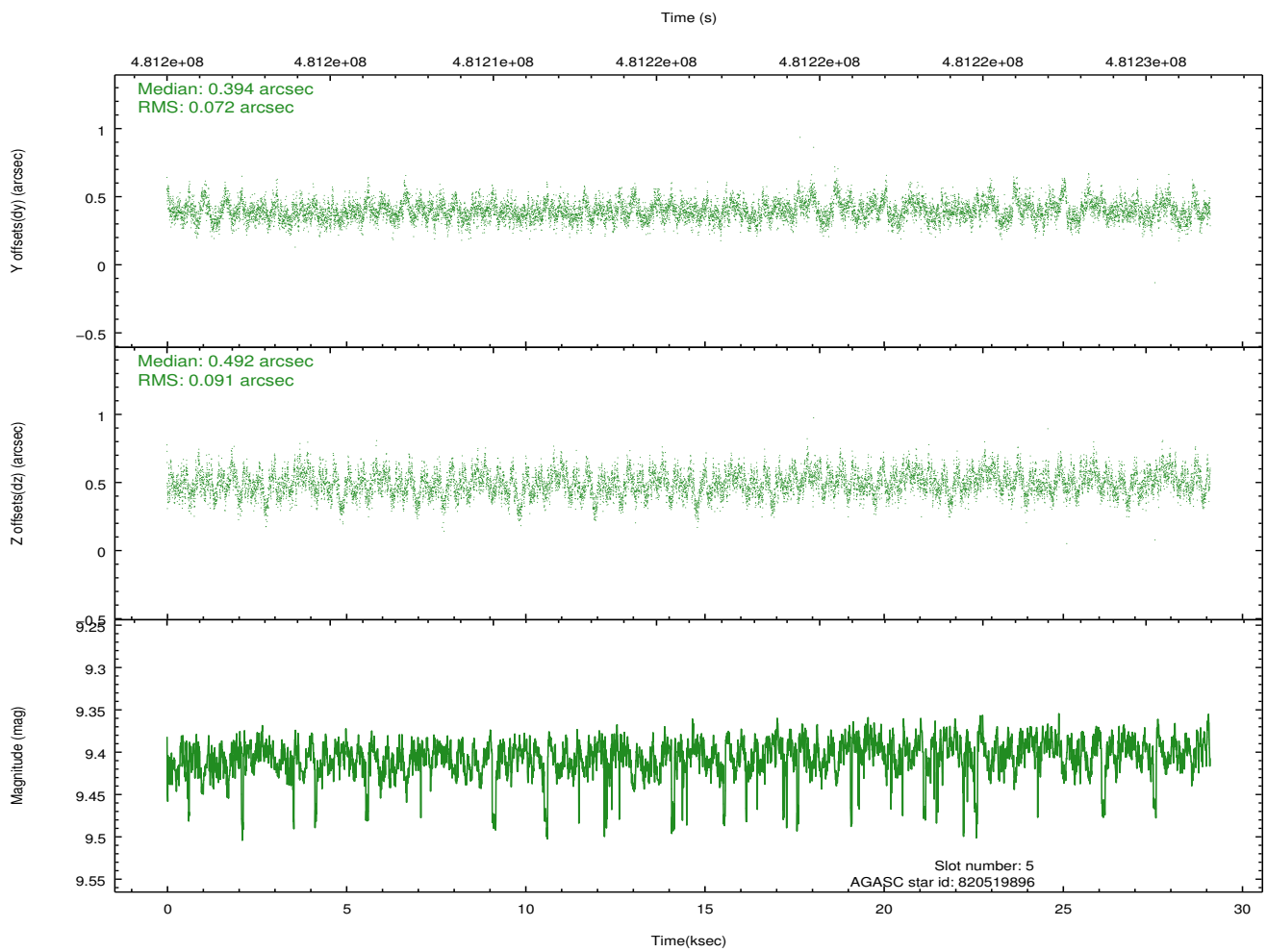
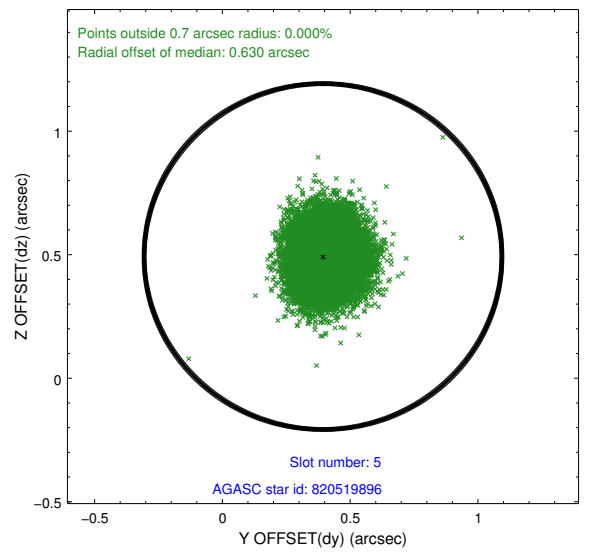
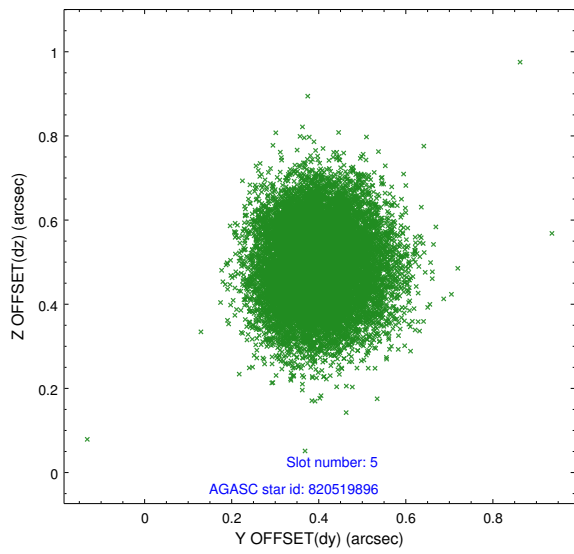
2.4.1 Slot 3



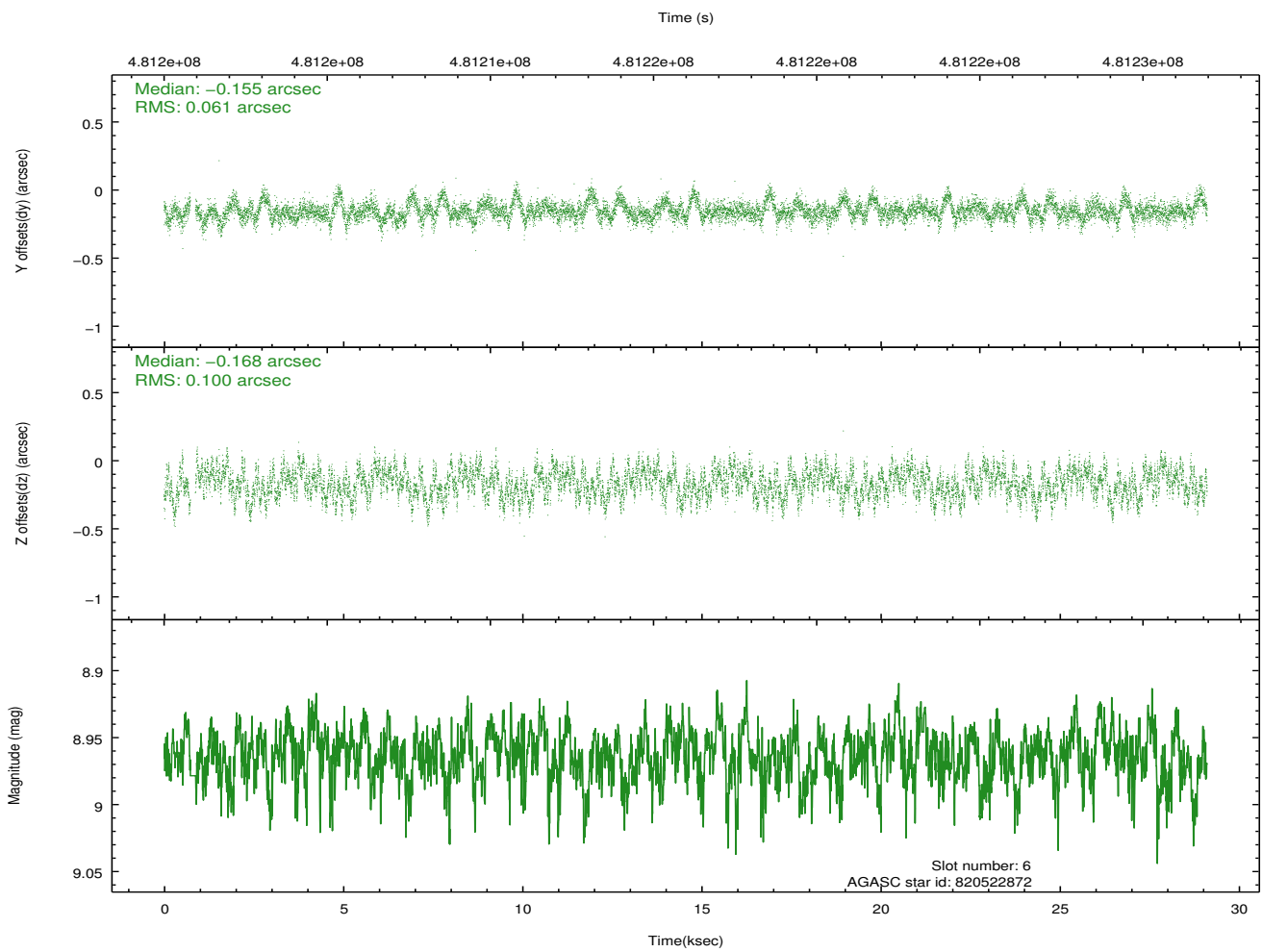
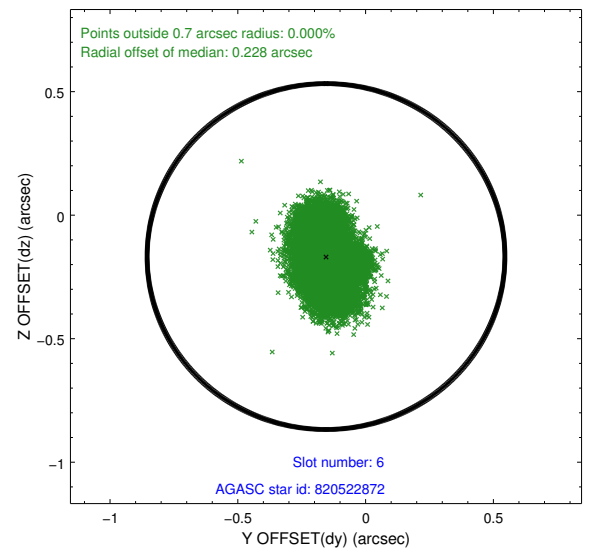
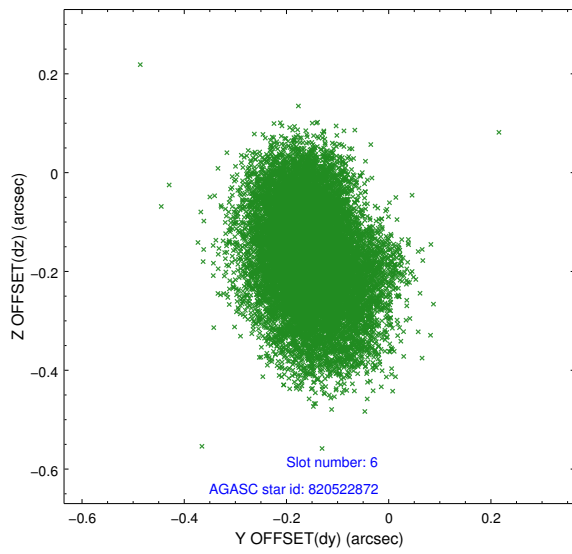
2.4.2 Slot 4



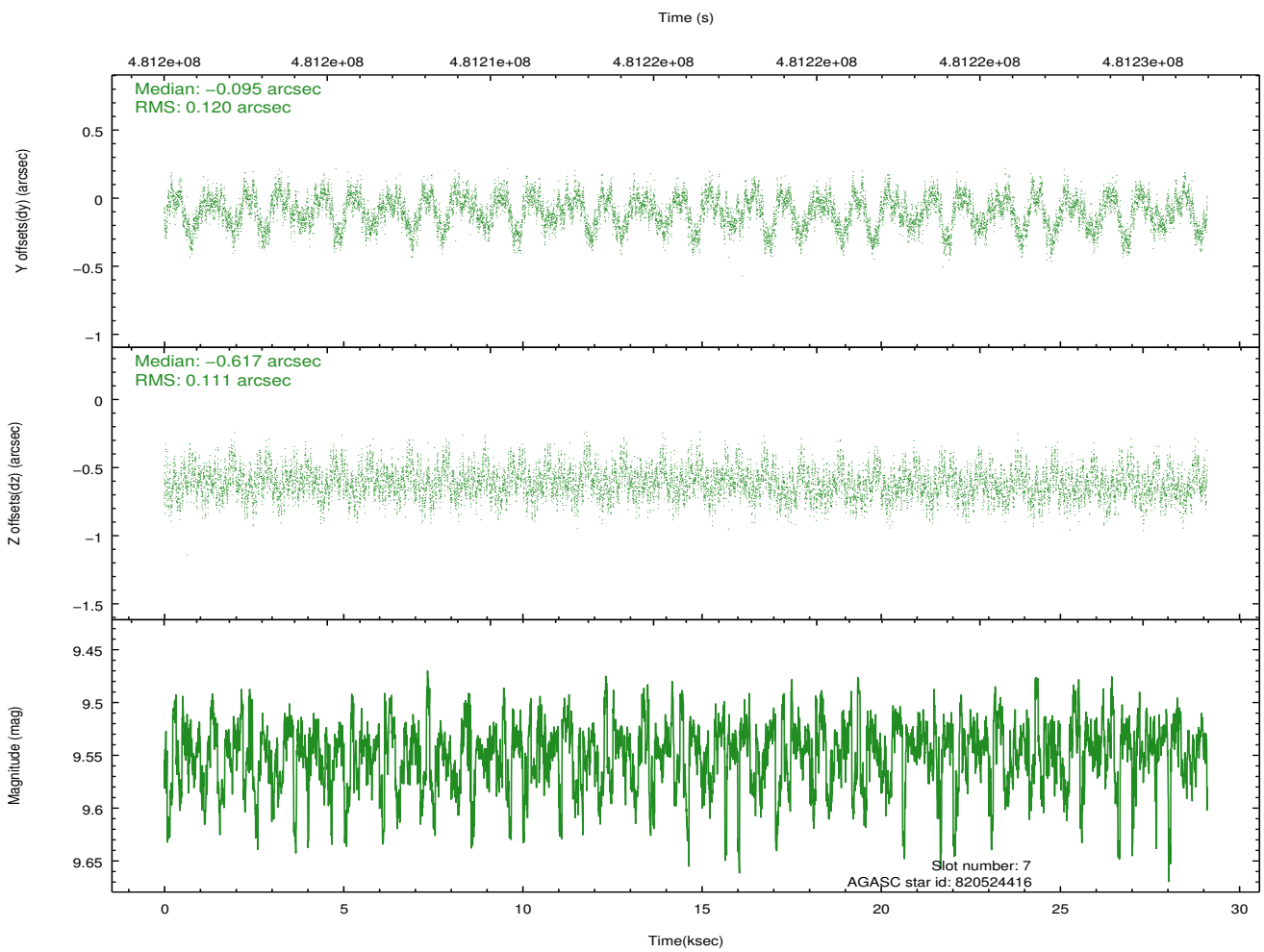
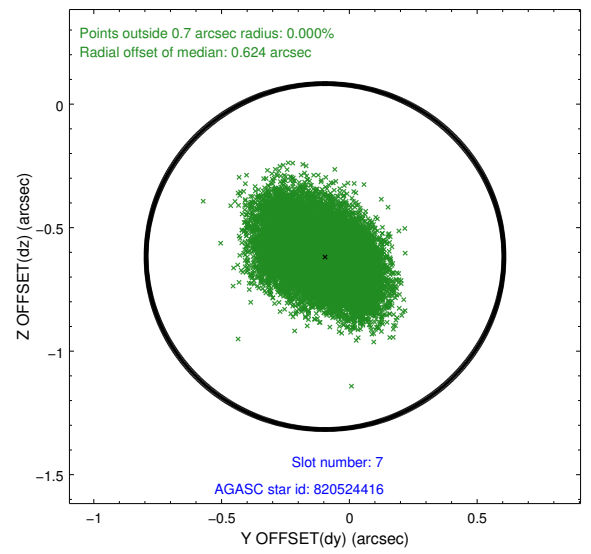
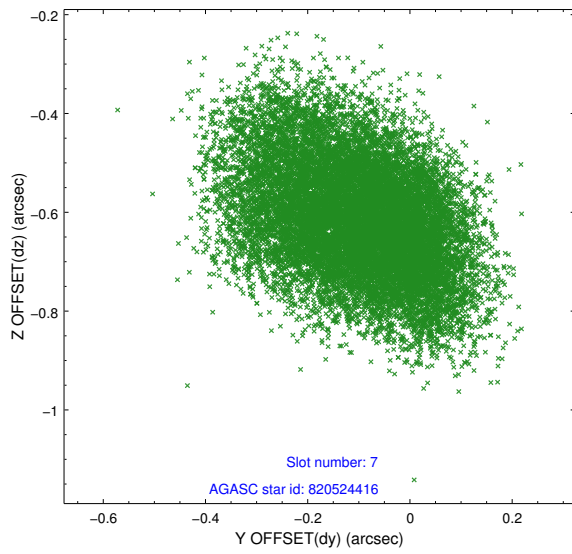
2.4.3 Slot 5



2.4.4 Slot 6

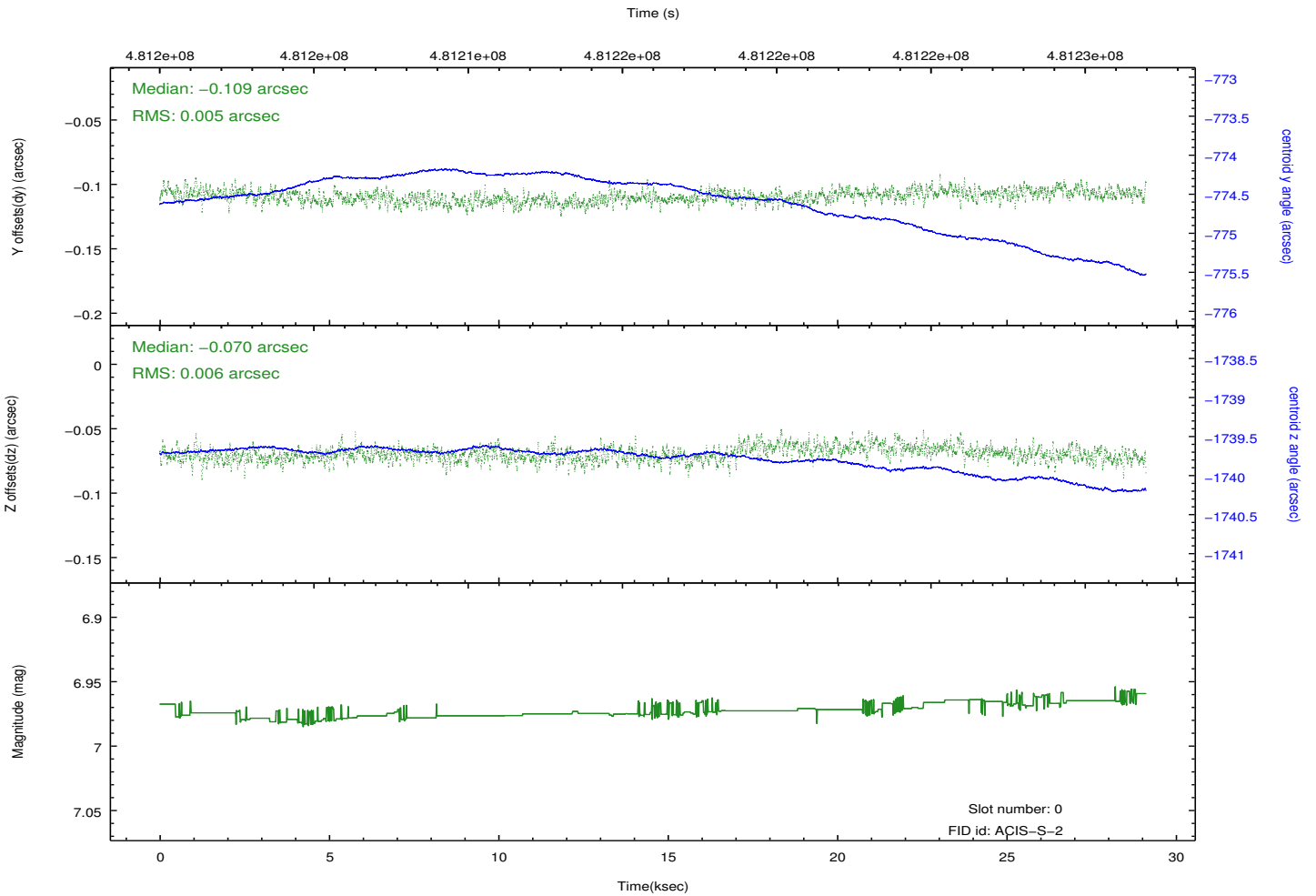
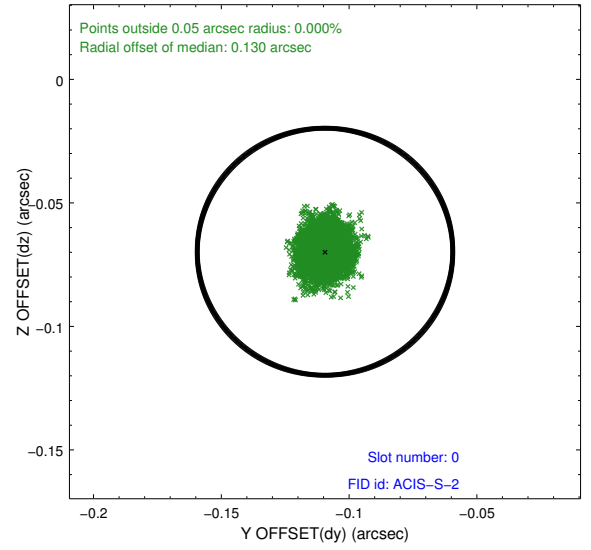
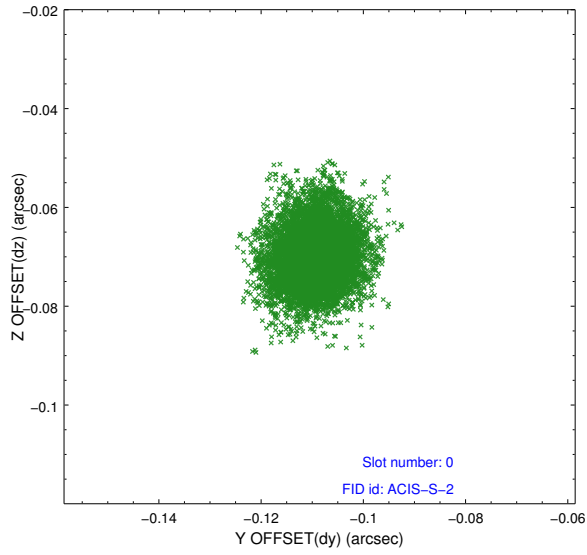


2.4.5 Slot 7

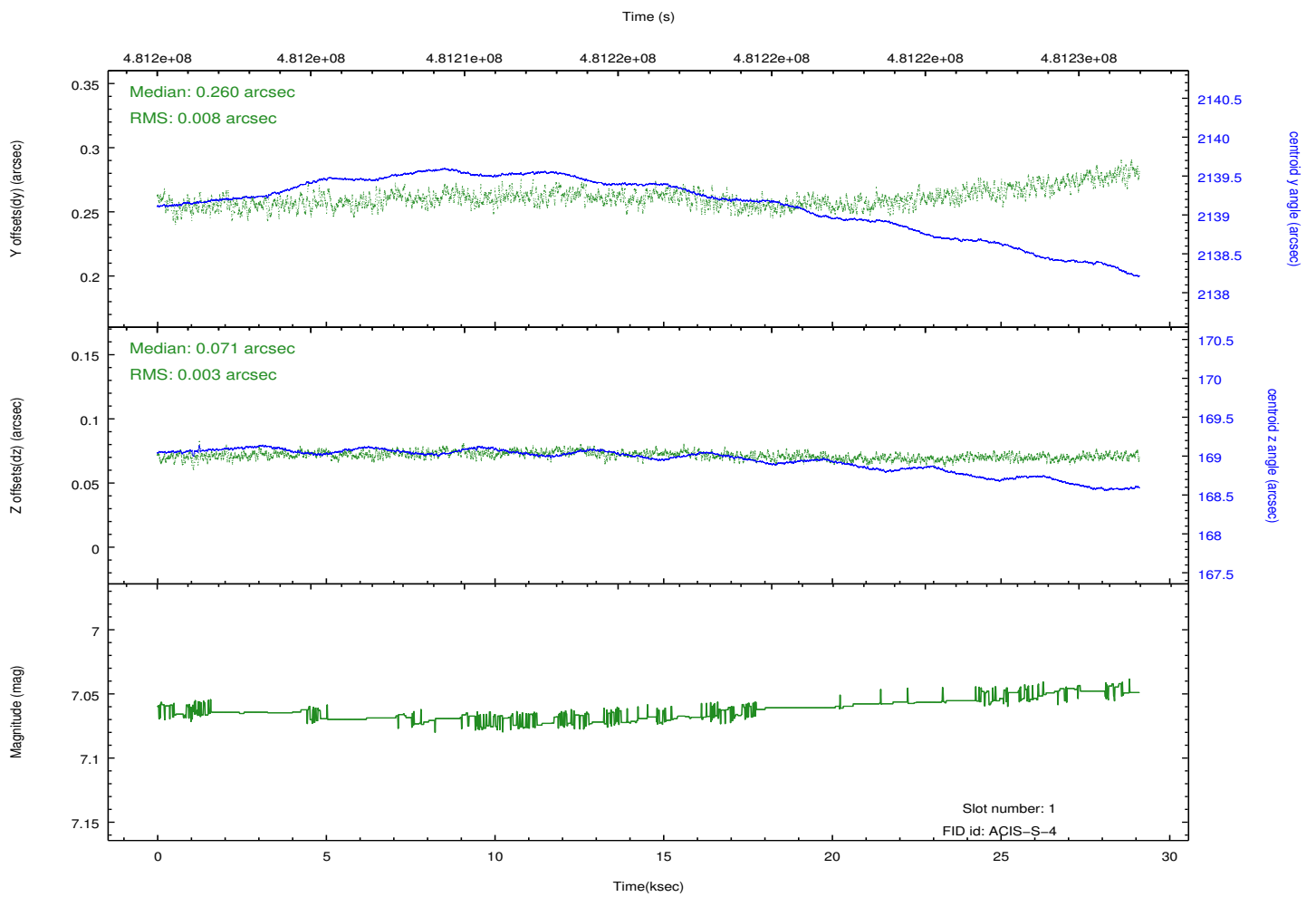
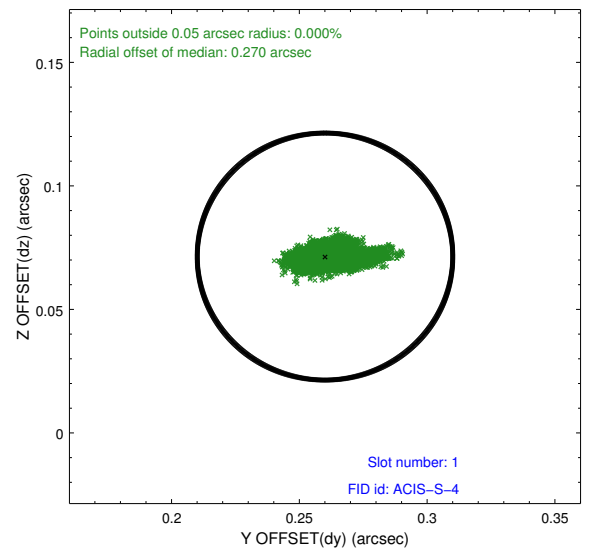
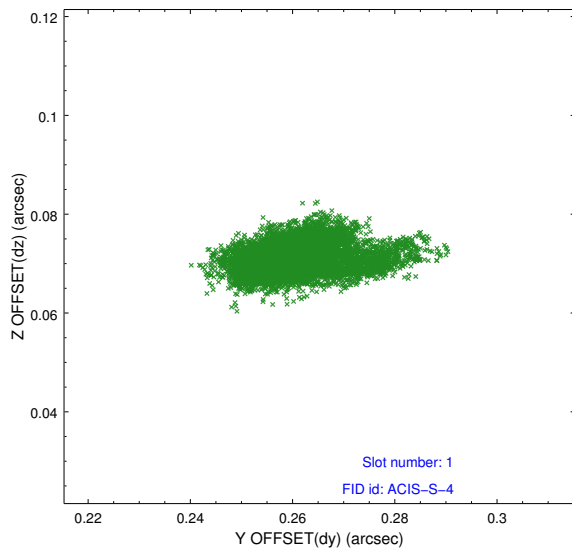


2.5 FID Slots

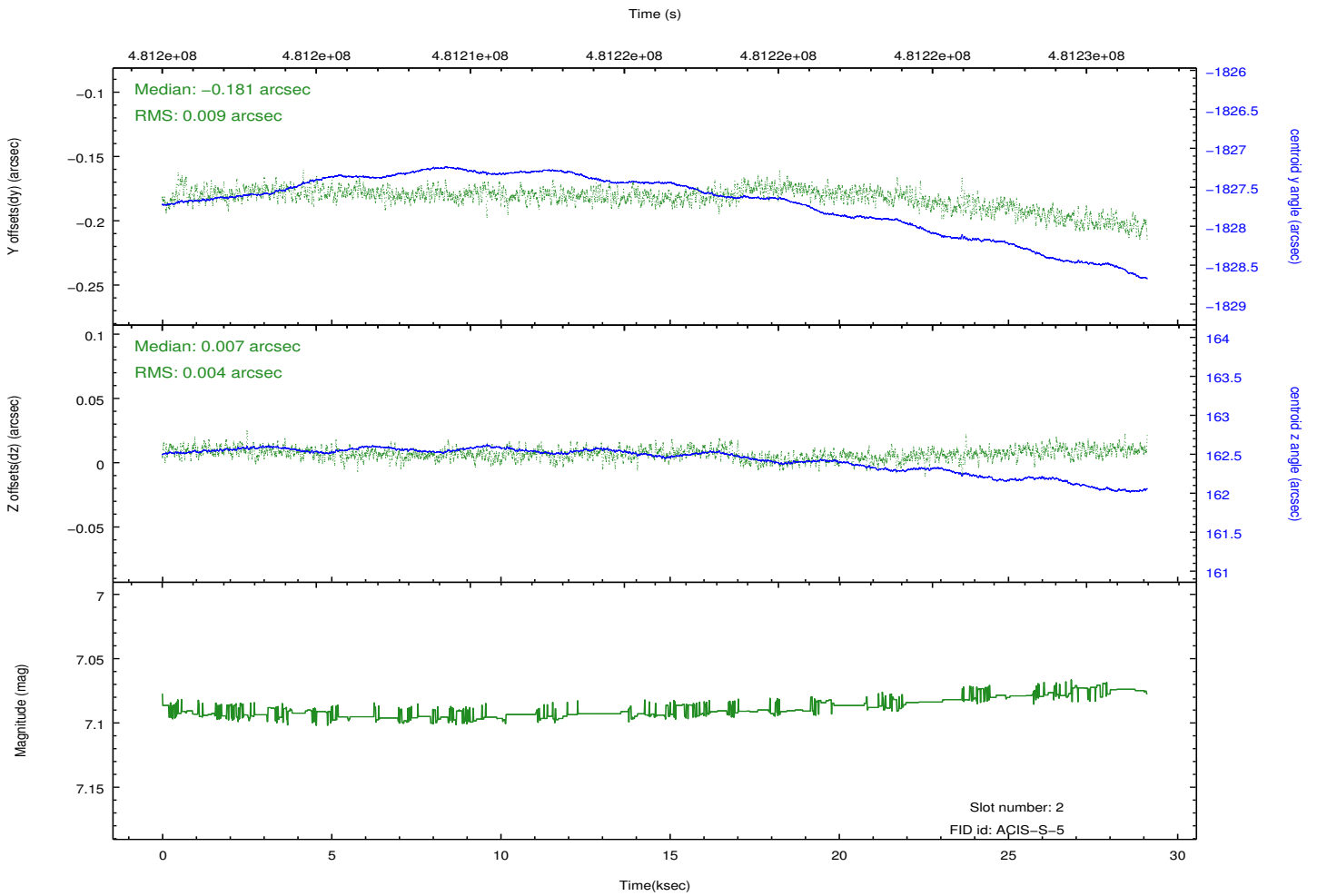
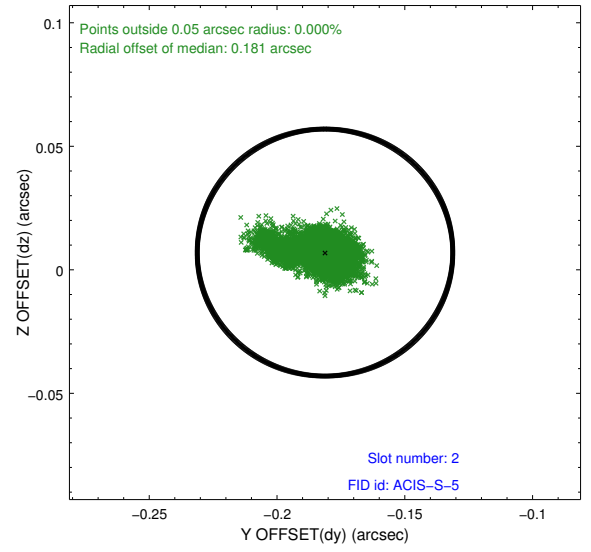
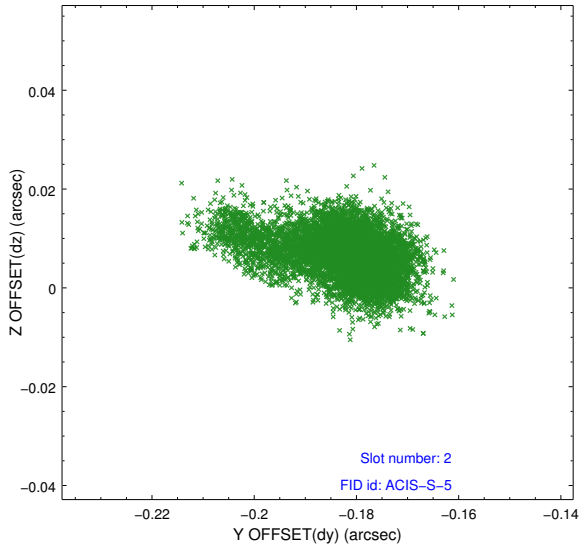
2.5.1 Slot 0



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)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.969699796915

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.