

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 17848 - L2 Version 1
Chandra X-Ray Center

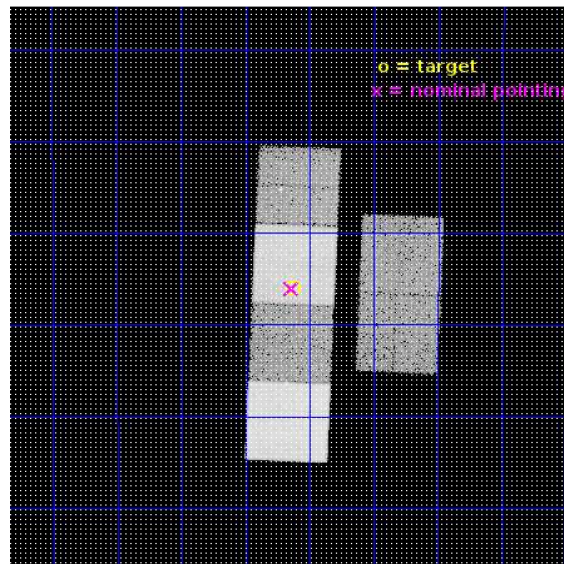
L2 Processing Date : Jul 3 2016

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

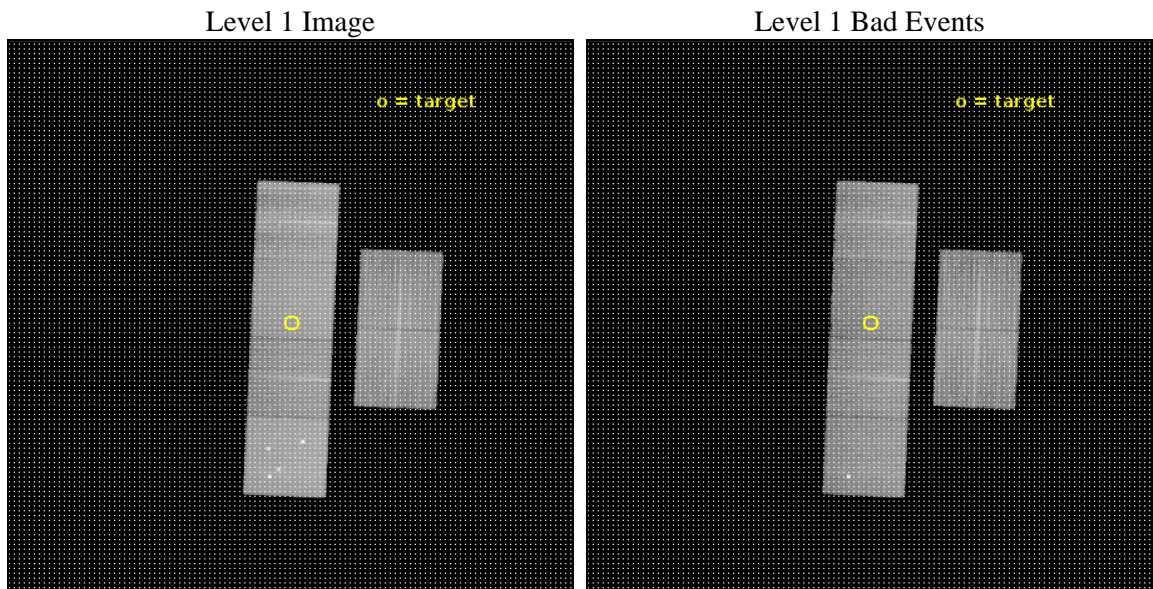
seq_num	401780	Sequence number
obs_id	17848	Observation id
title	The Black Hole Population in Galactic Globular Clusters	Proposal t
observer	Prof Laura Chomiuk	Principal investigator
object	M19	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	255.6575	Observer's specified target RA [deg]
dec_targ	-26.267972	Observer's specified target Dec [deg]
ra_nom	255.66027850704	Nominal RA [deg]
dec_nom	-26.26820984398	Nominal Dec [deg]
roll_nom	272.45839482867	Nominal Roll [deg]
revision	1	Processing version of data
ontime	22956.582000375	Sum of GTIs [s]
livetime	22665.891936292	Livetime [s]
ontime2	22956.623040318	Sum of GTIs [s]
ontime3	22956.458880305	Sum of GTIs [s]
ontime5	22956.540960312	Sum of GTIs [s]
ontime6	22956.499920368	Sum of GTIs [s]
ontime7	22956.582000375	Sum of GTIs [s]
ontime8	22956.417840362	Sum of GTIs [s]
l2events	250379	Number of level 2 events



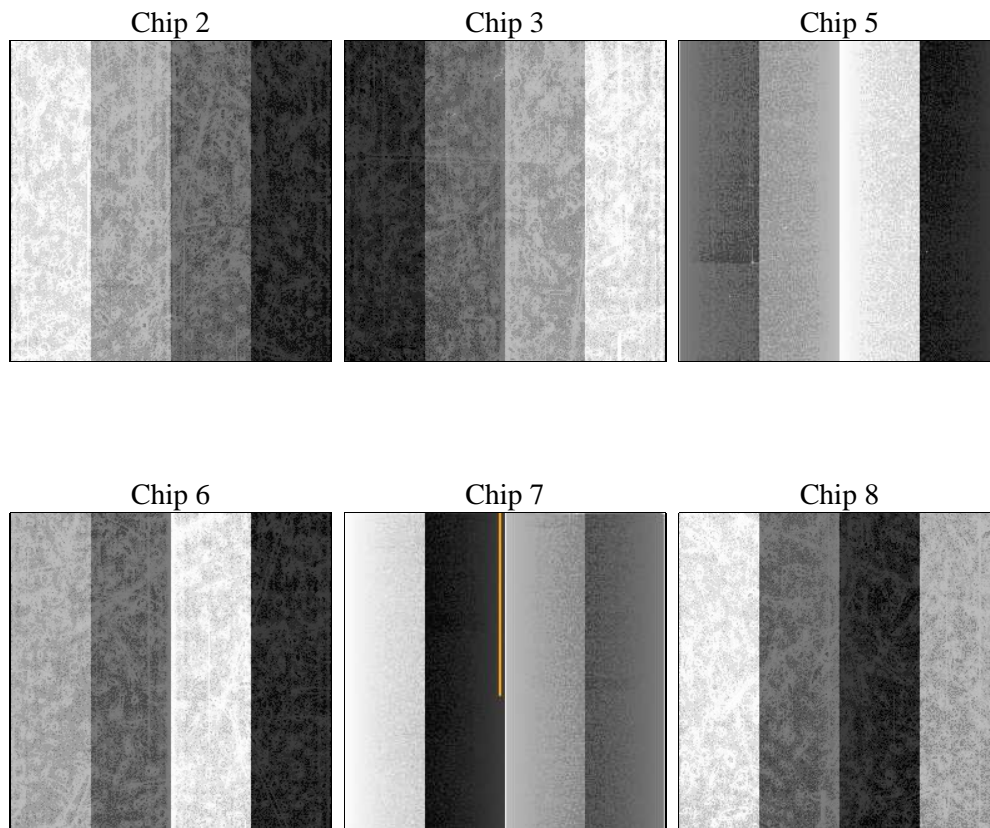
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	22956.582000375	Sum of GTIs [s]
caldbver	4.7.2	 	ontime2	22956.623040318	Sum of GTIs [s]
date	2016-07-03T06:09:29	Date and time of file creation	ontime3	22956.458880305	Sum of GTIs [s]
revision	1	Processing version of data	ontime5	22956.540960312	Sum of GTIs [s]
			ontime6	22956.499920368	Sum of GTIs [s]
			ontime7	22956.582000375	Sum of GTIs [s]
			ontime8	22956.417840362	Sum of GTIs [s]
			l1events	1076885	Number of level 1 events

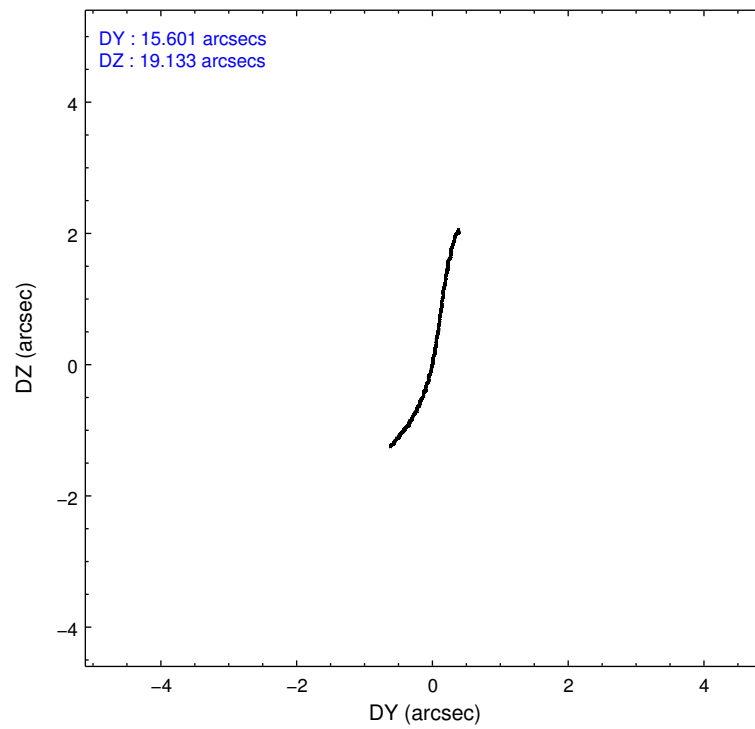
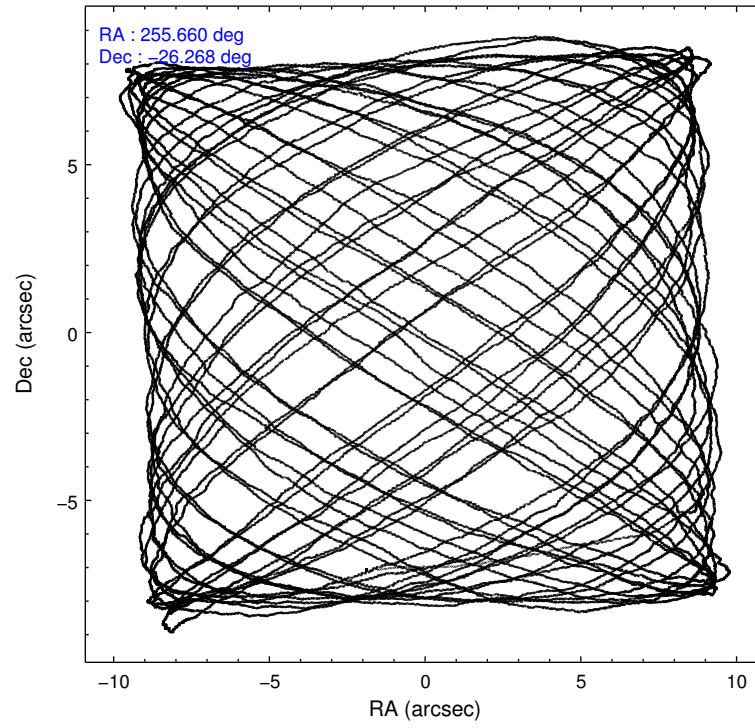
2.1.4 Events

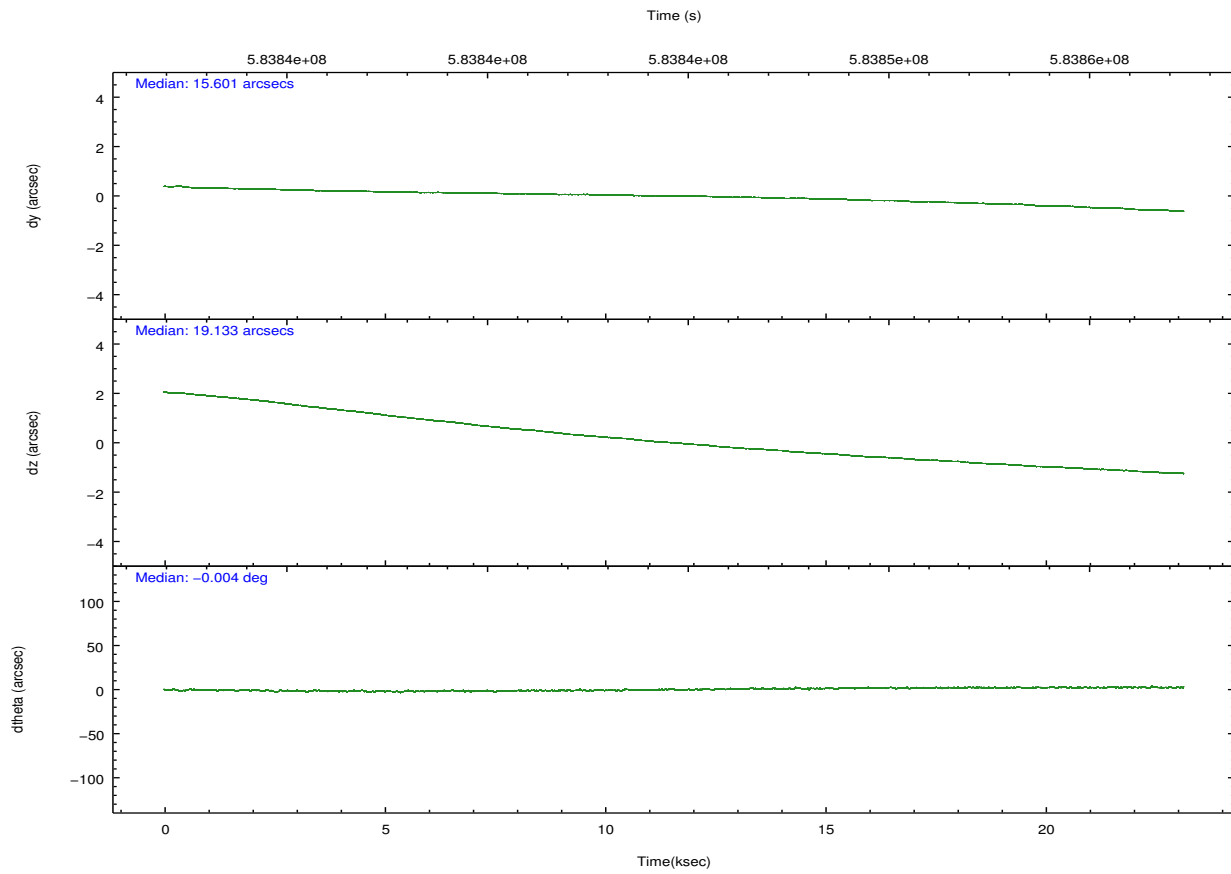
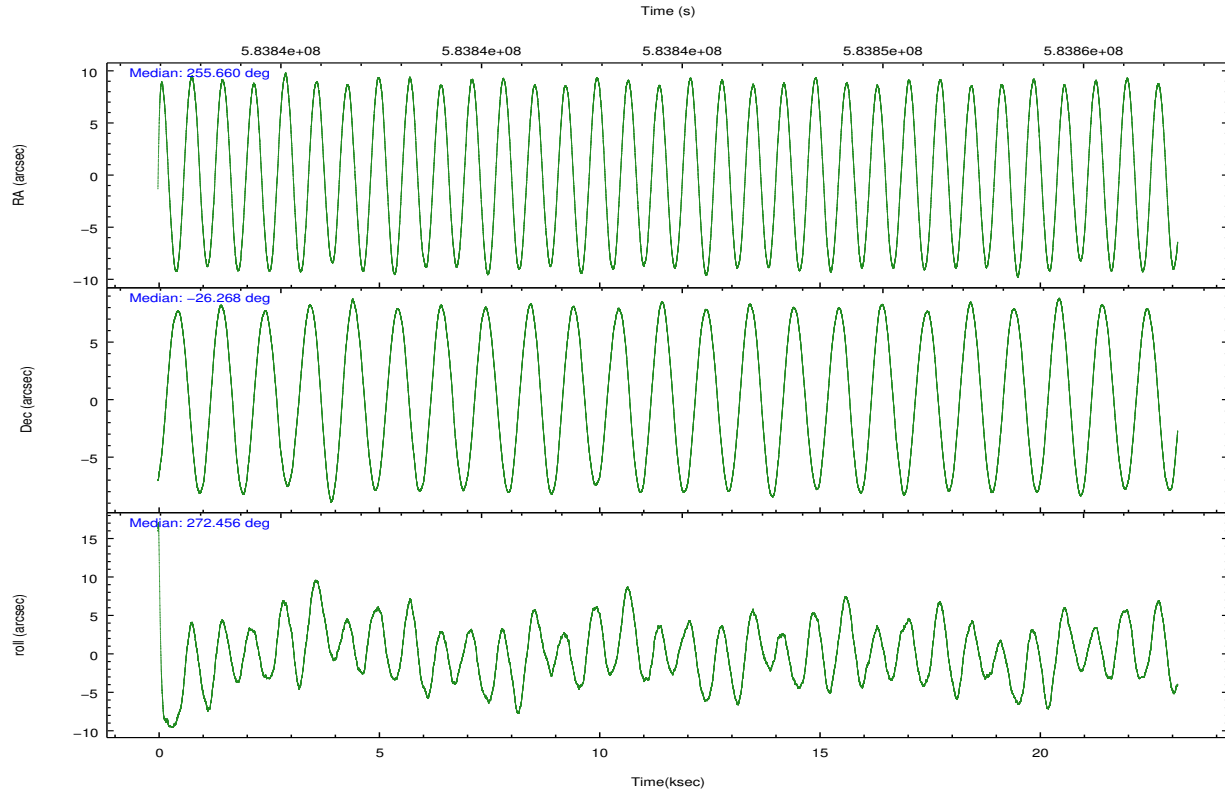
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	150802	139561	253951	147990	193588	190993	grade 0 events	6097	5745	19567	6120	7419	15162
rejected events	134158	123848	128110	130648	109248	138818		4%	4%	7%	4%	3%	7%
rejected %	88%	88%	50%	88%	56%	72%	grade 1 events	71	73	486	74	227	127
								0%	0%	0%	0%	0%	0%
							grade 2 events	4078	3374	37161	3877	17798	12769
								2%	2%	14%	2%	9%	6%
							grade 3 events	1588	1592	3693	1652	6754	5458
								1%	1%	1%	1%	3%	2%
							grade 4 events	1629	1639	3492	1686	6693	4855
								1%	1%	1%	1%	3%	2%
							grade 5 events	6167	6923	16769	7012	19271	10728
								4%	4%	6%	4%	9%	5%
							grade 6 events	3258	3368	61981	4019	45704	13942
								2%	2%	24%	2%	23%	7%
							grade 7 events	127914	116847	110802	123550	89722	127952
								84%	83%	43%	83%	46%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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
[deg] Pointing RA	255.643519	255.6602785070433	CCD I2 on	O1	Y
[deg] Pointing Dec	-26.245241	-26.26820984398037	CCD I3 on	O2	Y
[deg] Pointing Roll	272.294342	272.4583948286695	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	O4	Y
[s] Observation start time (MET)	583833204.184000	583831967.51674	CCD S5 on	N	N
Observation start date	2016-07-02T07:52:16	2016-07-02T07:32:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	583856204.184000	583856808.90566	On-chip summing requested	N	N
Observation end date	2016-07-02T14:15:36	2016-07-02T14:26:48	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect





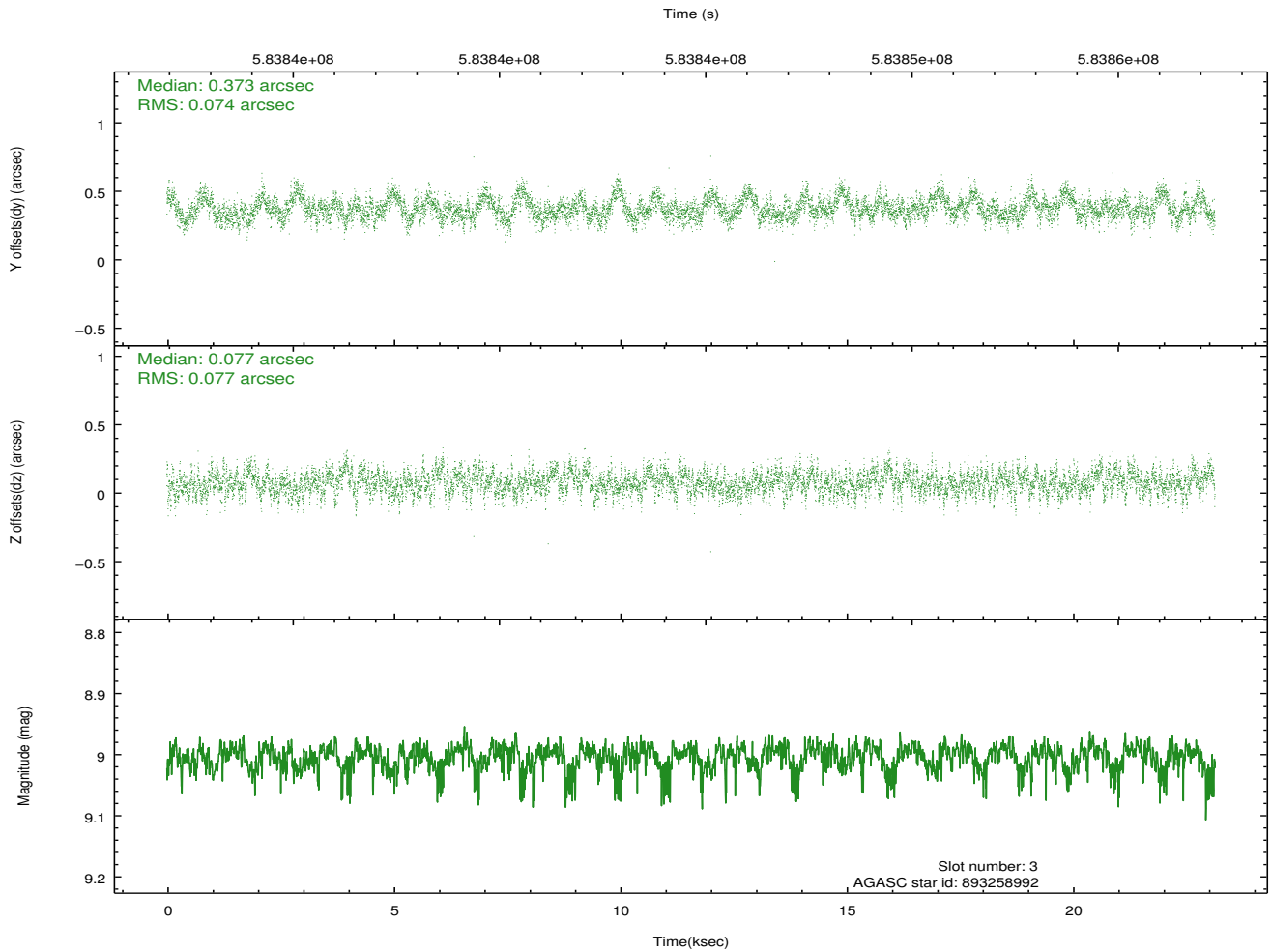
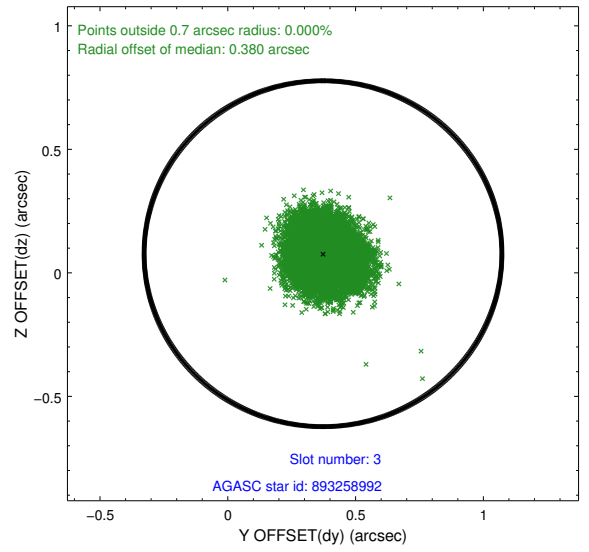
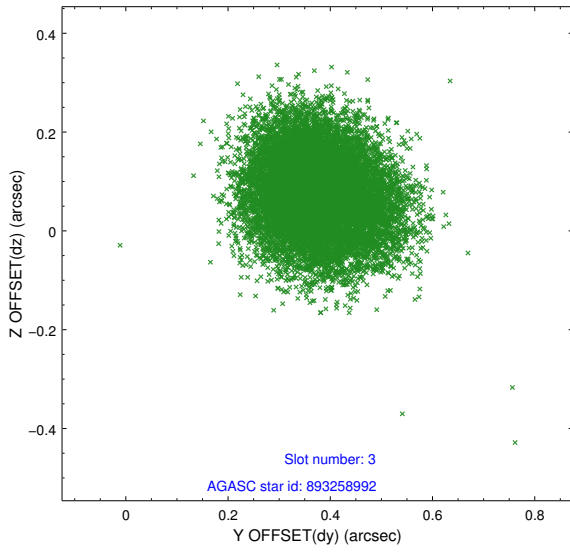
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.11	5645	-0.190	-0.109	0.029	0.039	0.000000	0.000000	-768.72	-1740.84
1	FID		ACIS-S-4	7.22	5645	0.427	0.120	0.012	0.031	0.000000	0.000000	2145.10	167.72
2	FID		ACIS-S-5	7.23	5645	-0.269	-0.004	0.033	0.046	0.000000	0.000000	-1821.46	161.42
3	GUIDE	used	893258992	9.00	11282	0.373	0.077	0.115	0.180	255.471108	-25.893956	-1285.04	-507.08
4	GUIDE	used	893269840	7.15	11288	-0.196	-0.042	0.106	0.187	256.003391	-25.697999	-1919.98	1245.25
5	GUIDE	used	893281216	6.93	11290	-0.364	-0.043	0.086	0.141	256.181330	-25.645357	-2083.42	1830.28
6	GUIDE	used	893785040	9.07	11281	0.108	-0.341	0.123	0.204	255.364986	-26.819702	2031.68	-976.91
7	GUIDE	used	893264248	8.95	11218	0.072	0.353	0.117	0.184	255.349152	-25.740001	-1853.93	-880.54

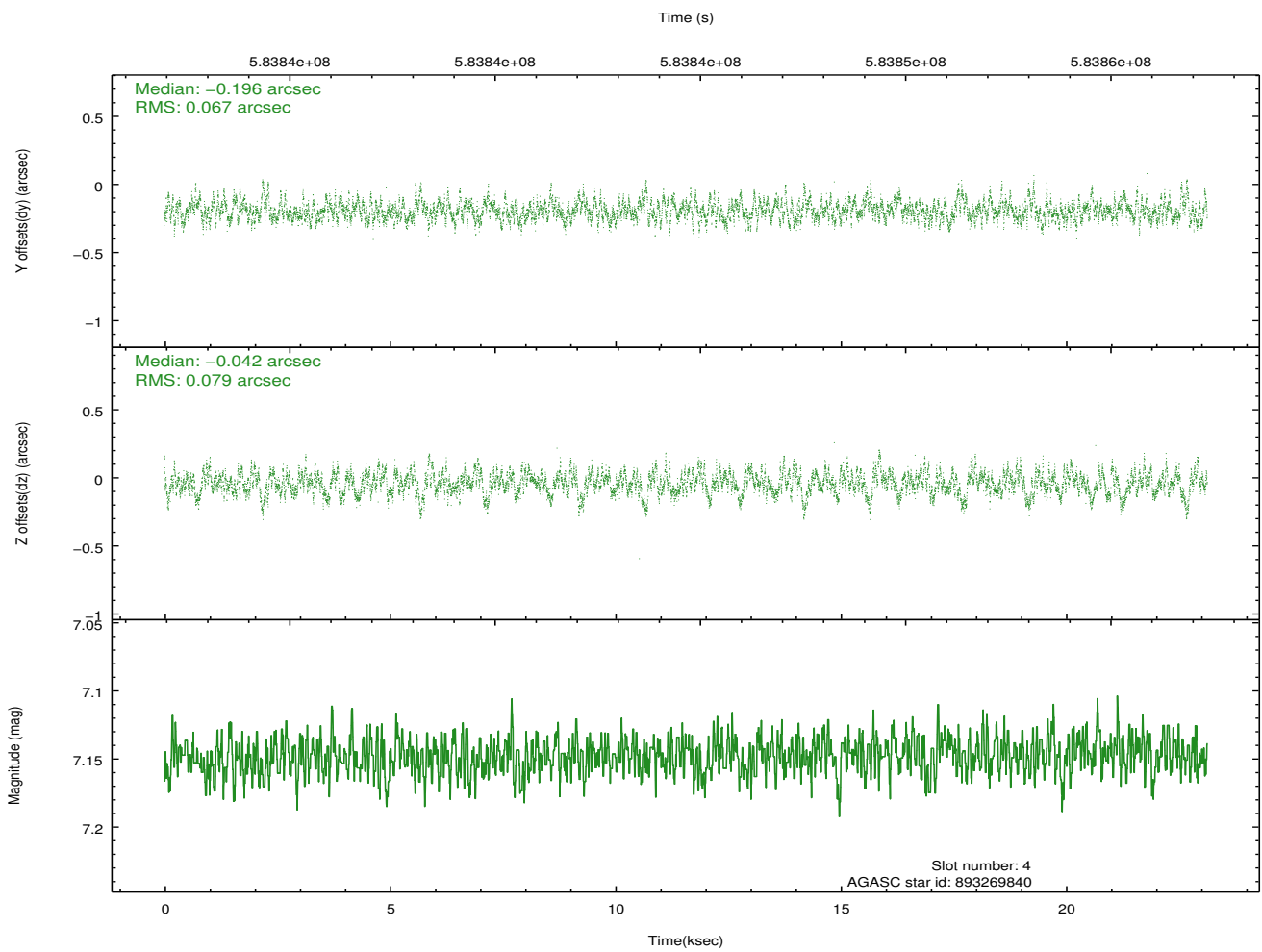
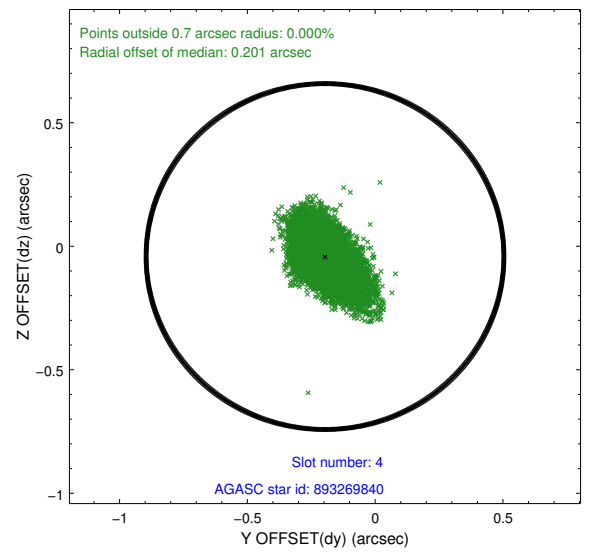
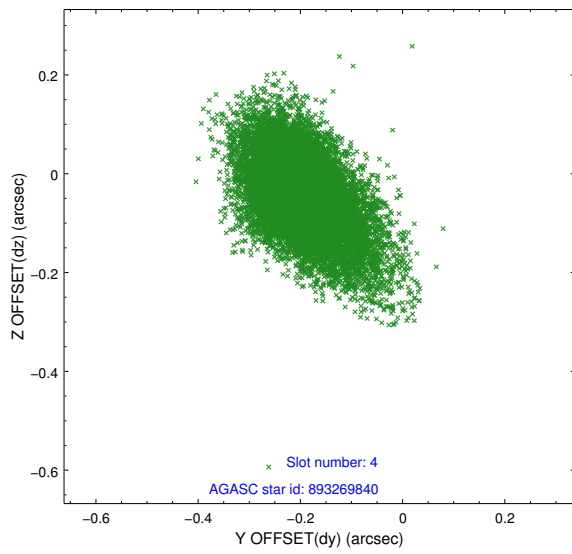
∞

2.4 Star Slots

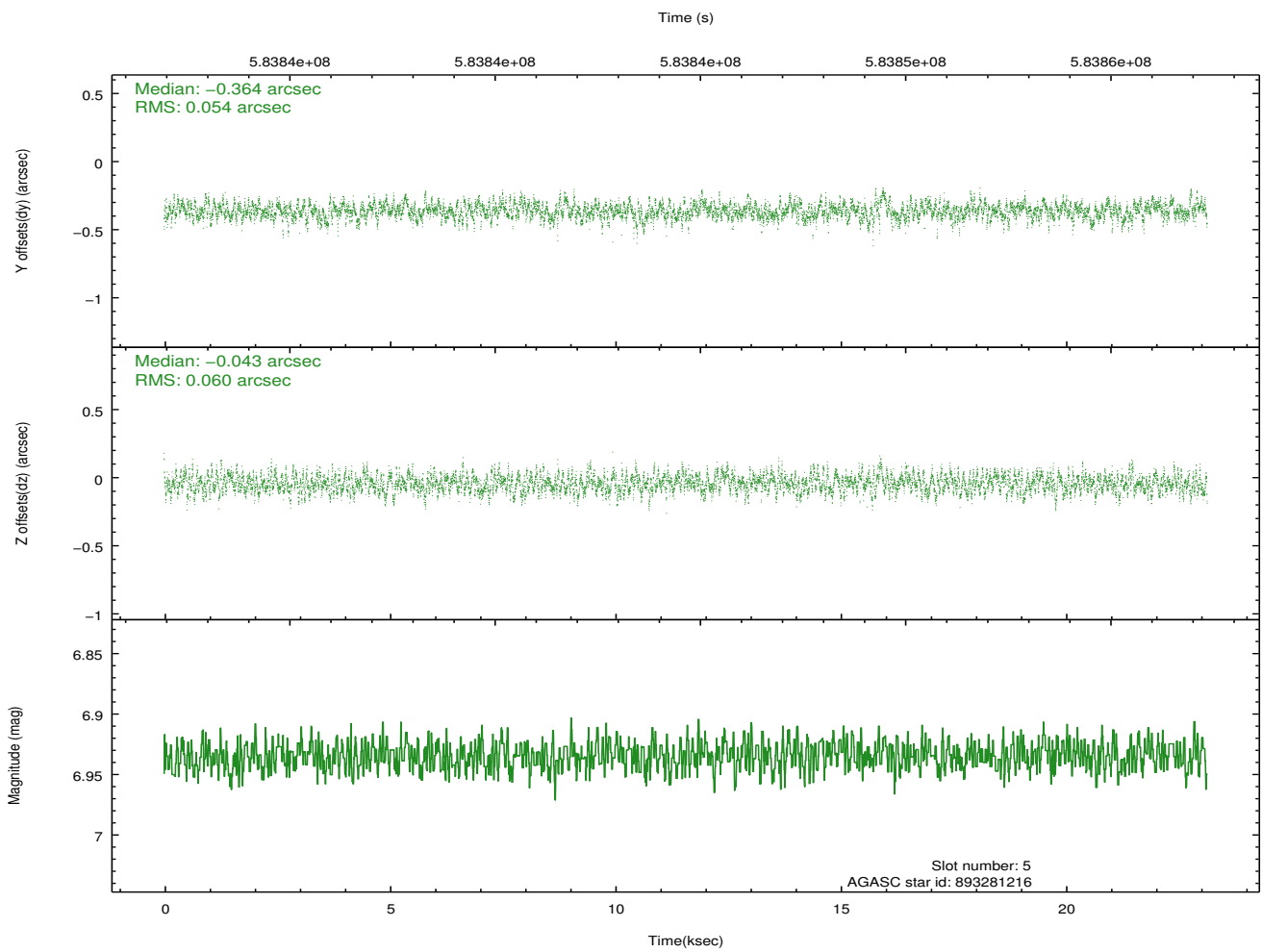
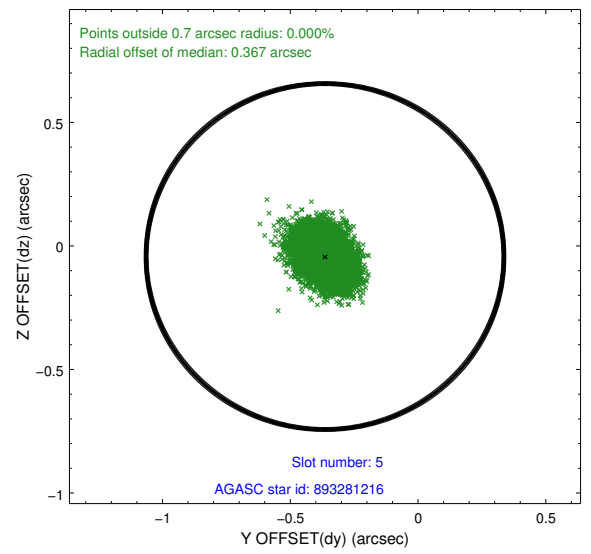
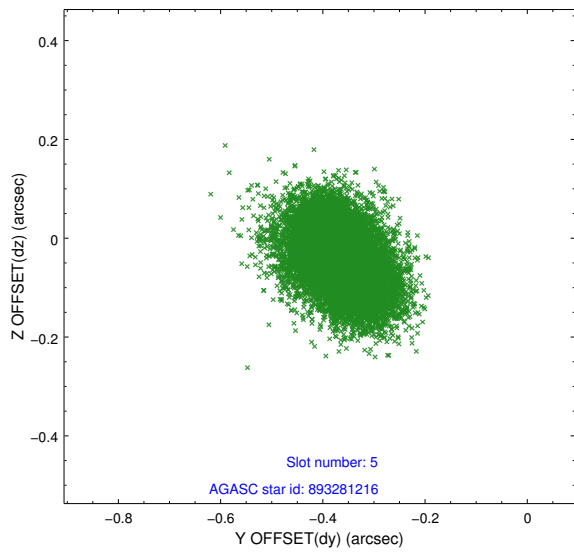
2.4.1 Slot 3



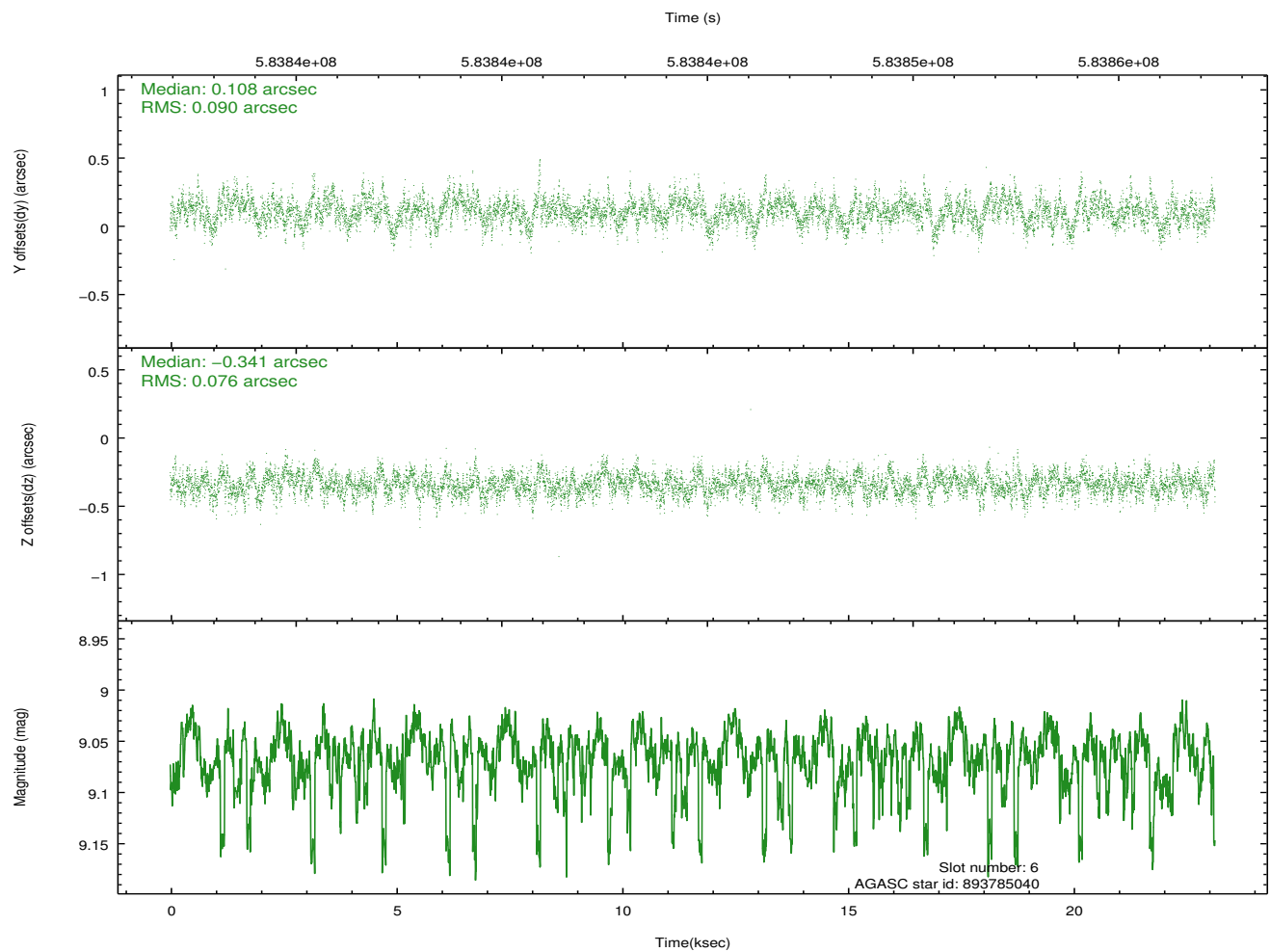
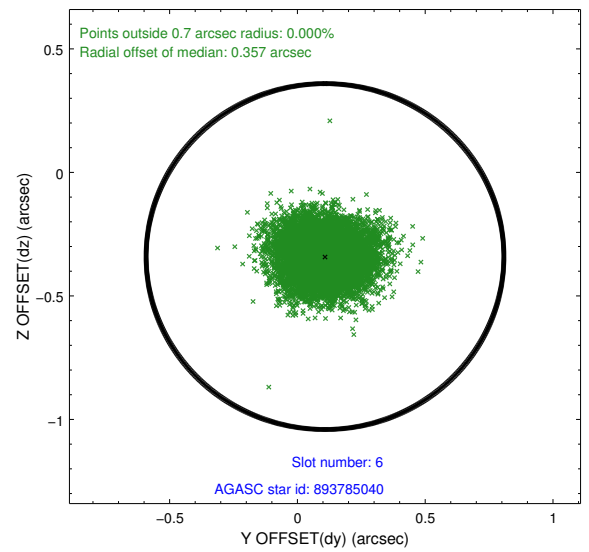
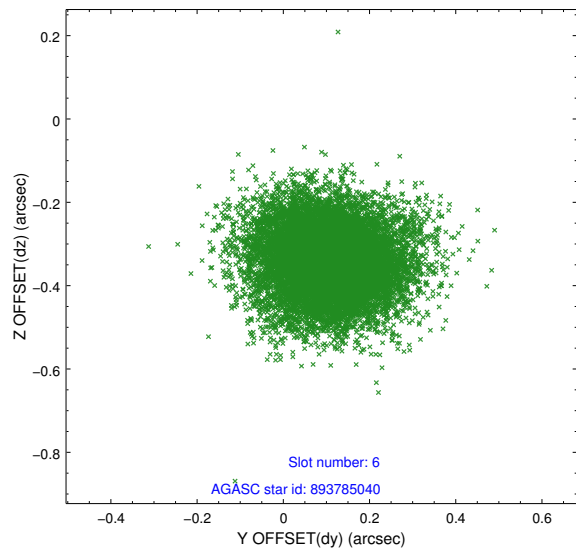
2.4.2 Slot 4



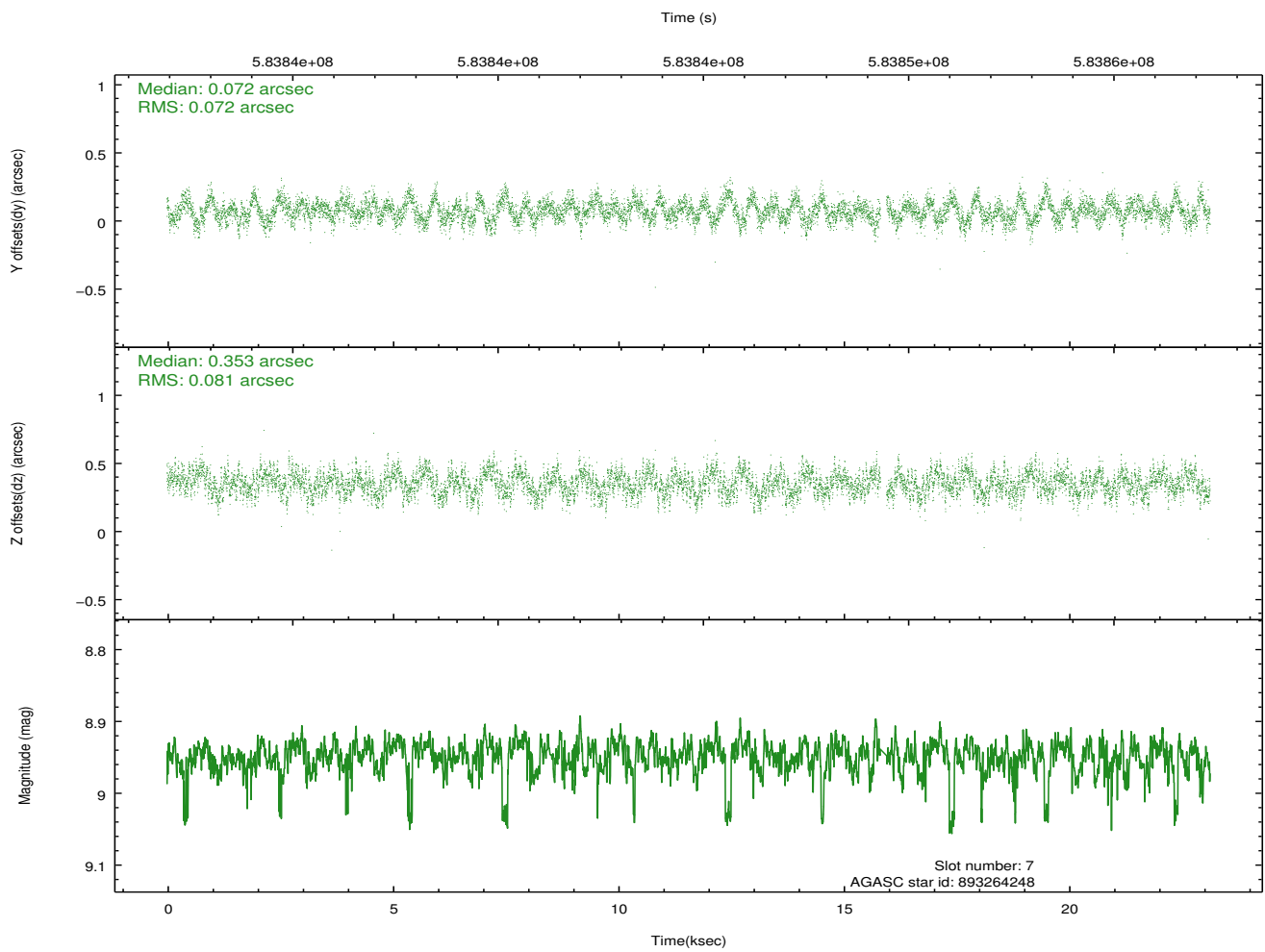
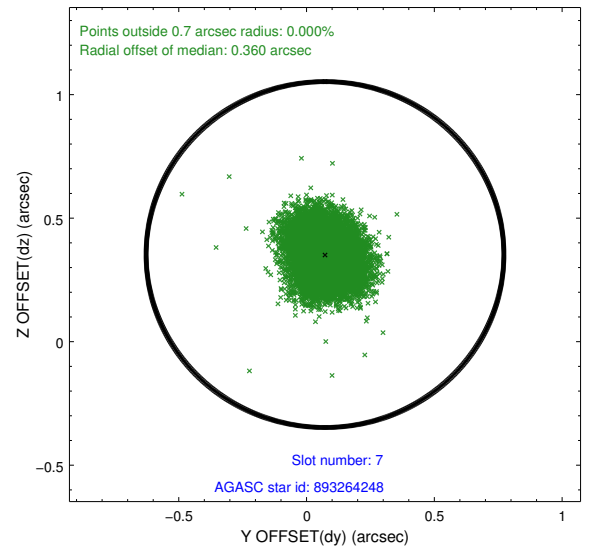
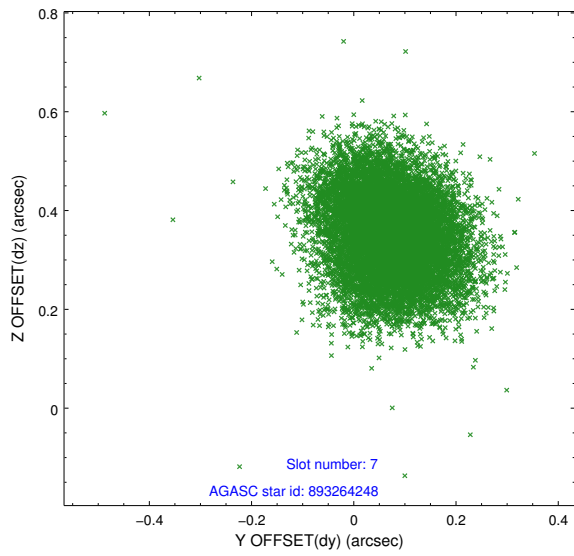
2.4.3 Slot 5



2.4.4 Slot 6

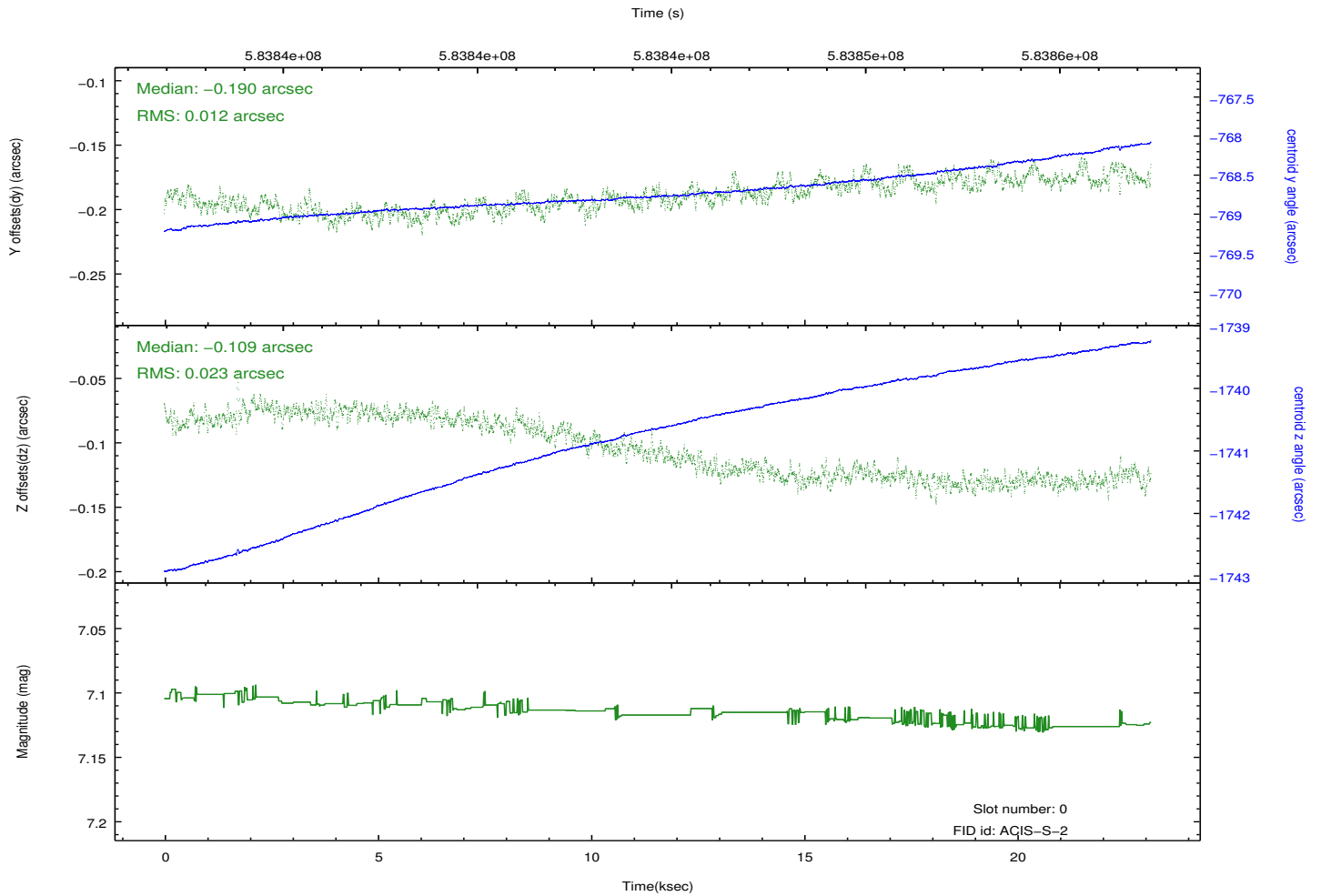
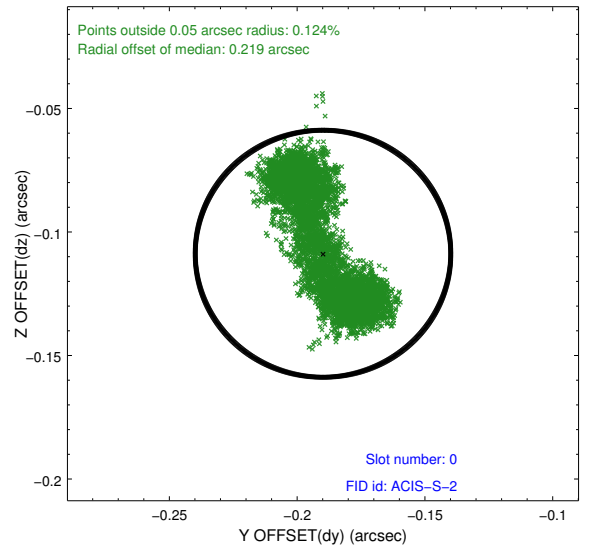
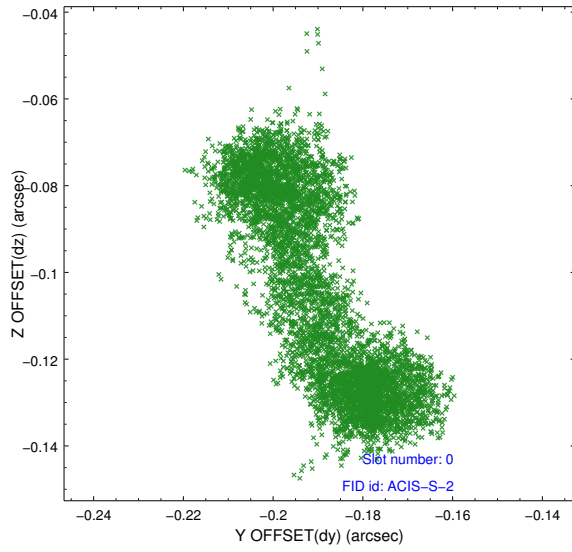


2.4.5 Slot 7

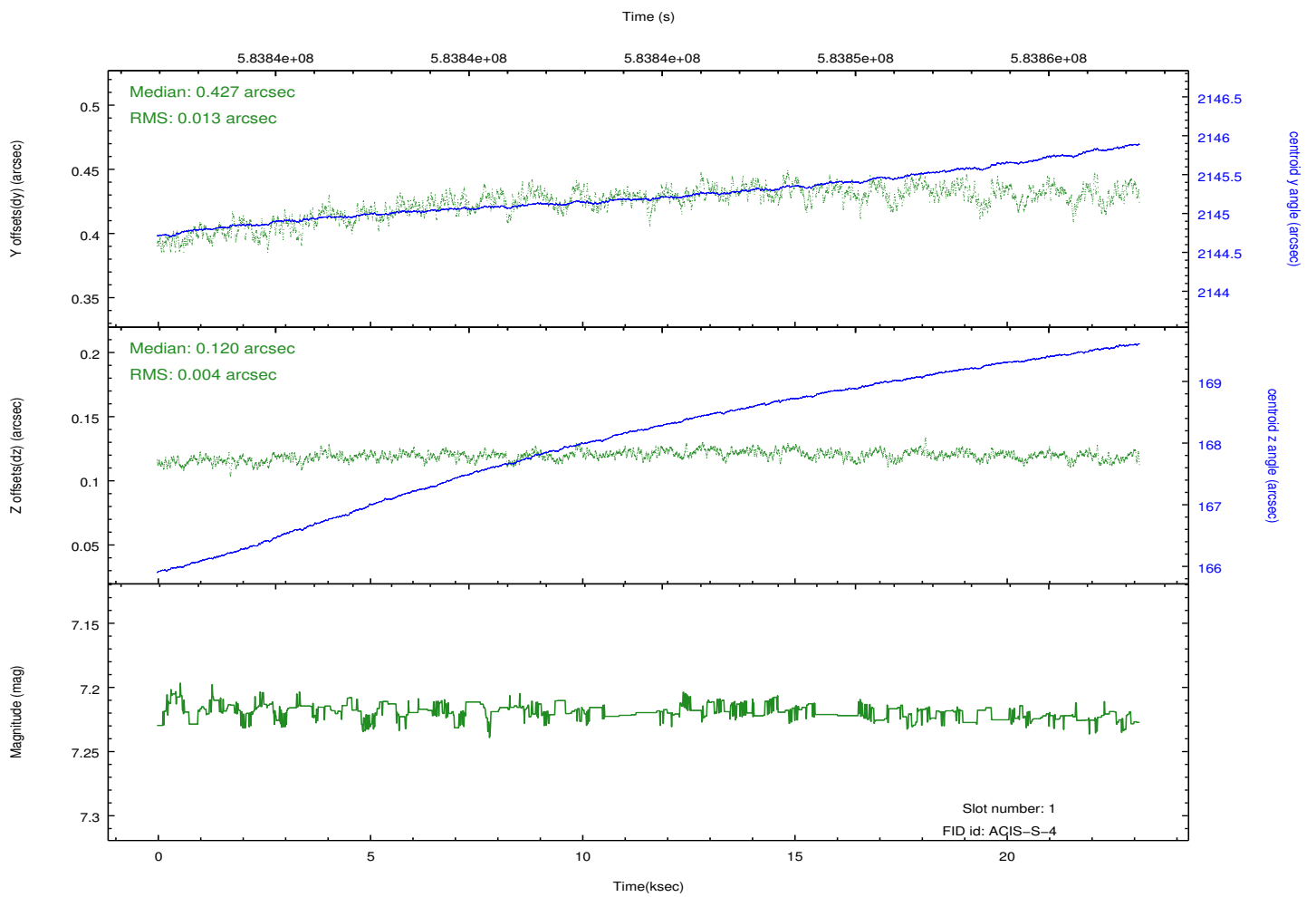
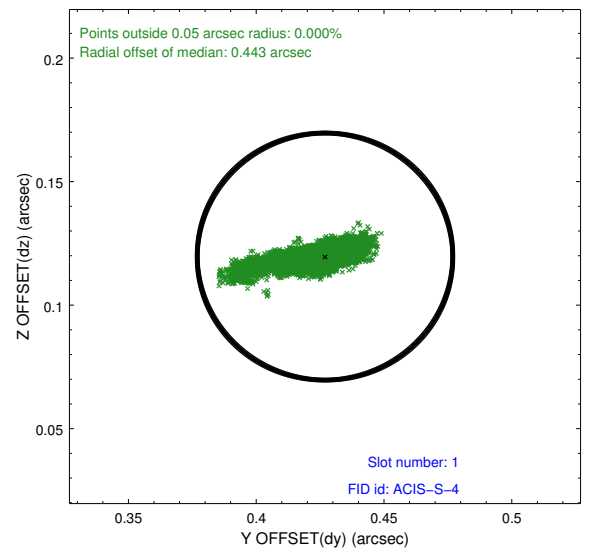
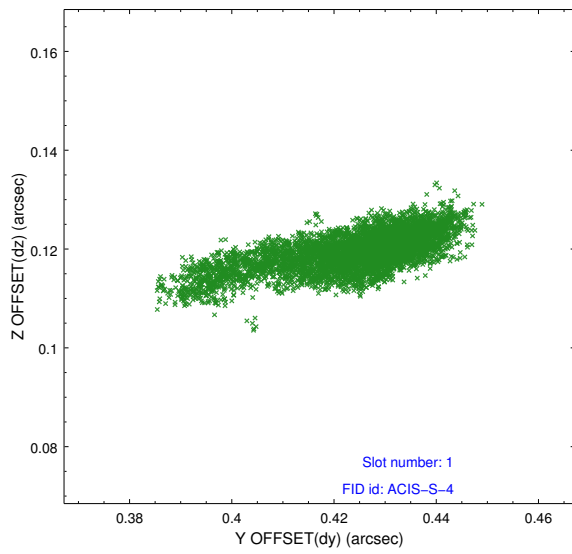


2.5 FID Slots

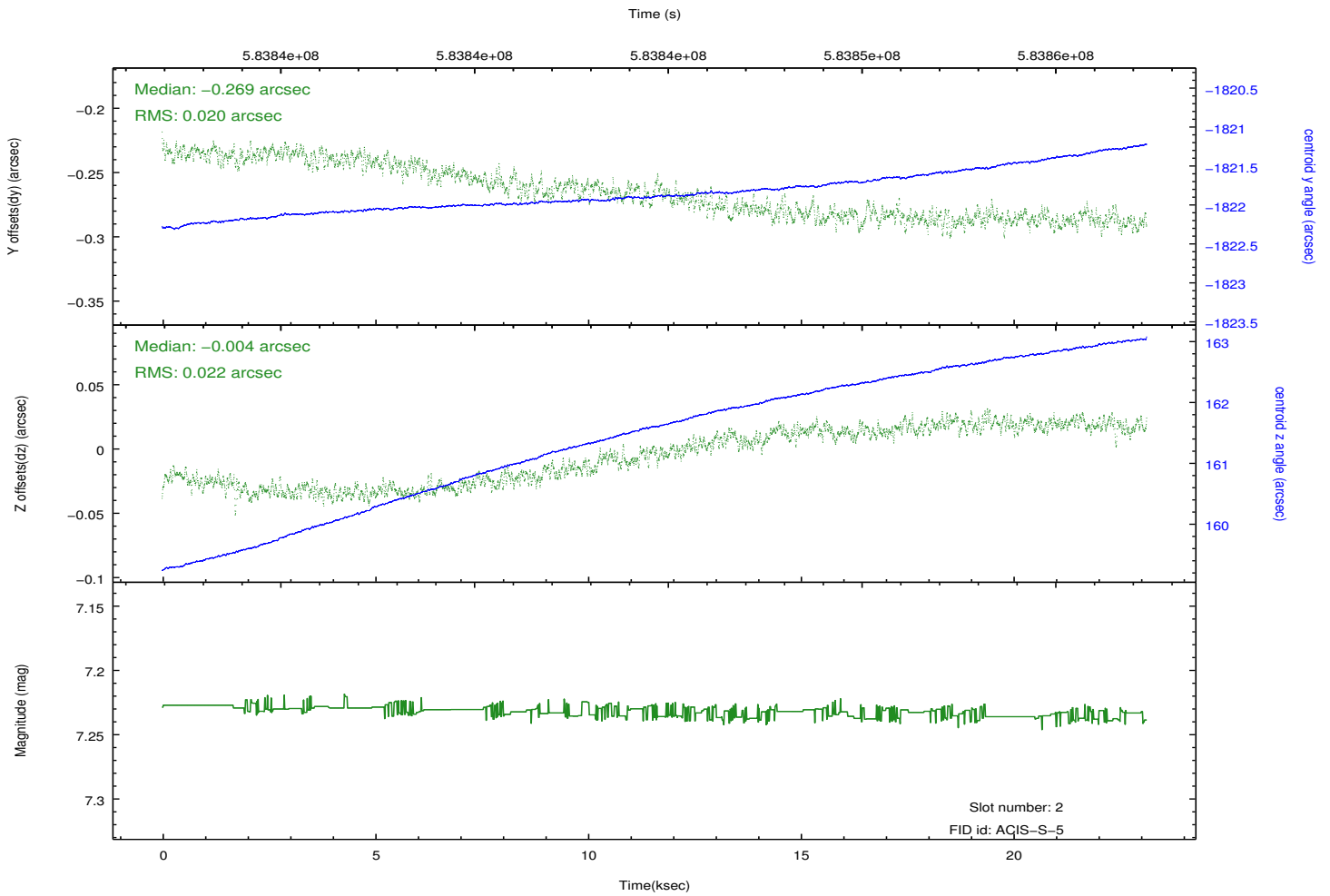
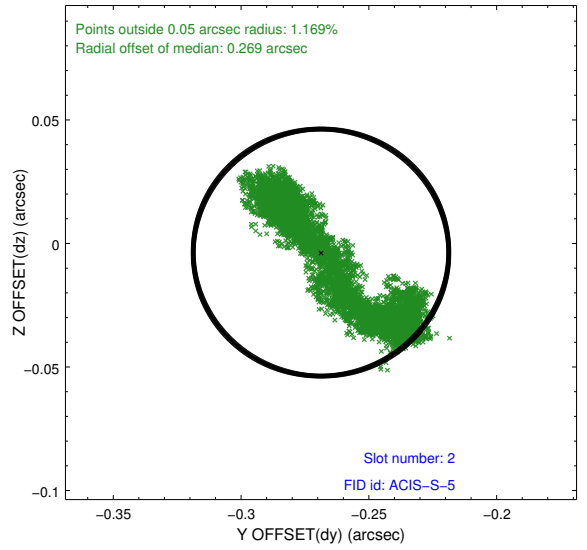
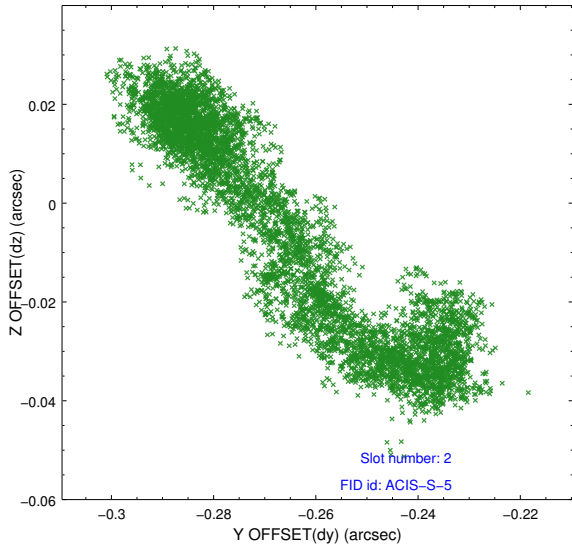
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2016.07.05
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	22.956582000375

A.2 Comments