

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 14976 - L2 Version 2  
Chandra X-Ray Center

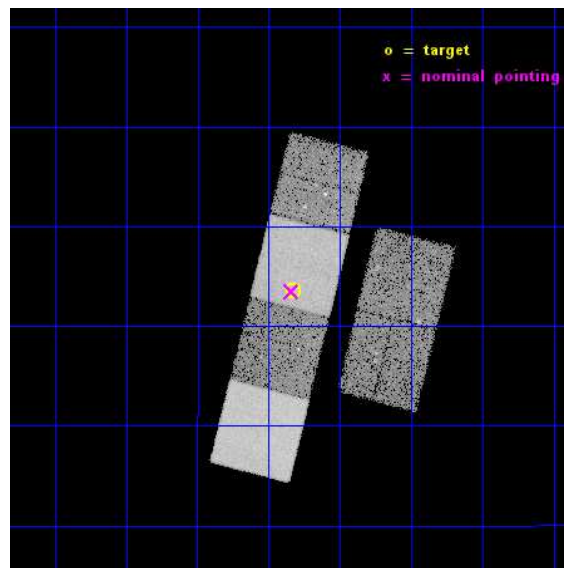
L2 Processing Date : Dec 7 2014

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# 1 Front

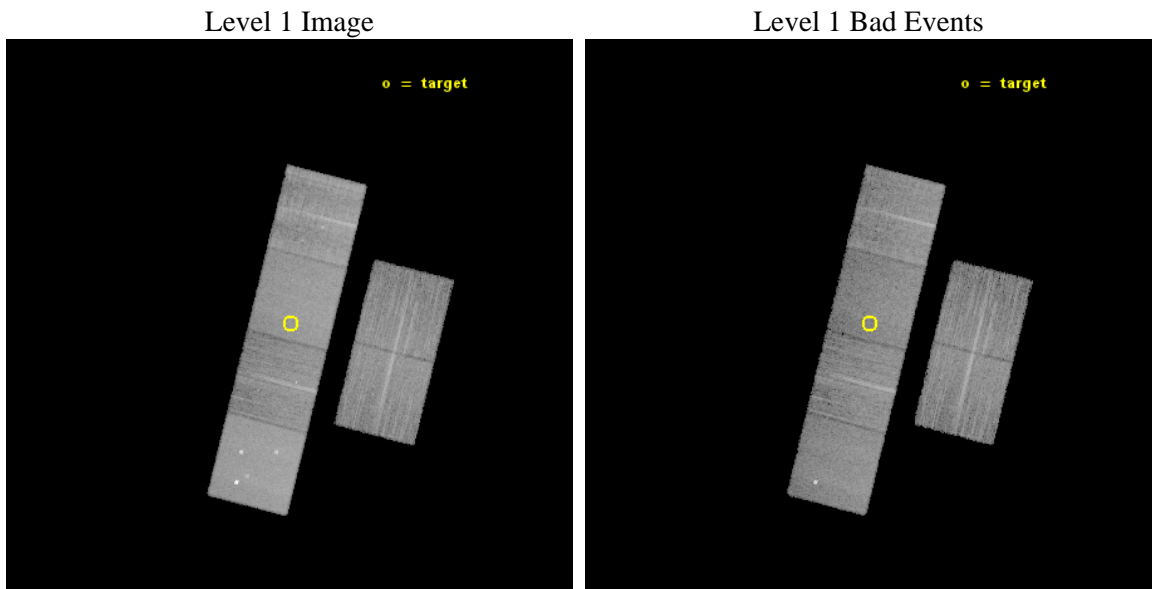
seq_num	702785	Sequence number
obs_id	14976	Observation id
title	A late time look at the candidate relativistic tidal disruption event Swift 2058+0516	Proposal title
observer	Dr Andrew Levan	Principal investigator
object	Swift2058+0516	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	314.5825	Observer's specified target RA [deg]
dec_targ	5.225833	Observer's specified target Dec [deg]
ra_nom	314.58537133134	Nominal RA [deg]
dec_nom	5.2248850799428	Nominal Dec [deg]
roll_nom	284.15637265357	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19966.919356048	Sum of GTIs [s]
livetime	19714.086200526	Livetime [s]
ontime2	19966.960396051	Sum of GTIs [s]
ontime3	19966.796236038	Sum of GTIs [s]
ontime5	19966.878316045	Sum of GTIs [s]
ontime6	19966.837276042	Sum of GTIs [s]
ontime7	19966.919356048	Sum of GTIs [s]
ontime8	19966.755196035	Sum of GTIs [s]
l2events	171597	Number of level 2 events



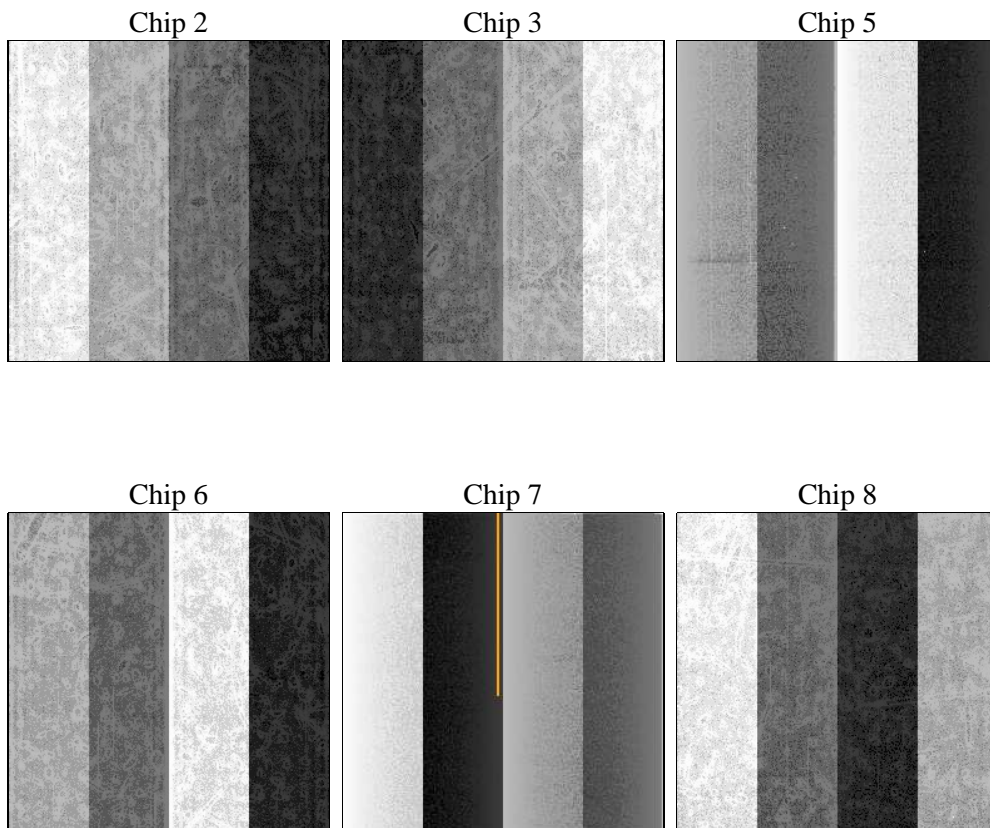
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	19966.919356048	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	19966.960396051	Sum of GTIs [s]
date	2014-12-07T19:05:53	Date and time of file creation	ontime3	19966.796236038	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	19966.878316045	Sum of GTIs [s]
			ontime6	19966.837276042	Sum of GTIs [s]
			ontime7	19966.919356048	Sum of GTIs [s]
			ontime8	19966.755196035	Sum of GTIs [s]
			l1events	713116	Number of level 1 events

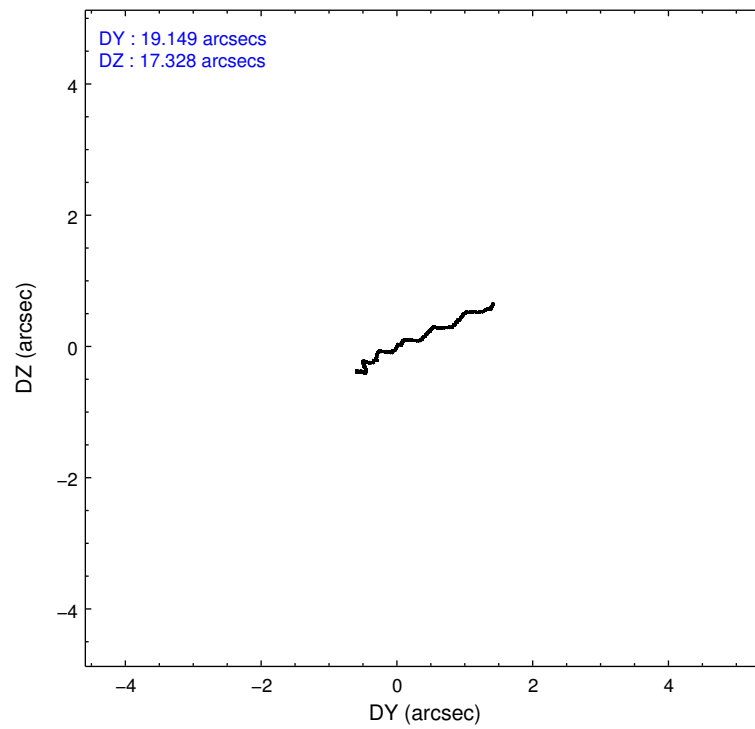
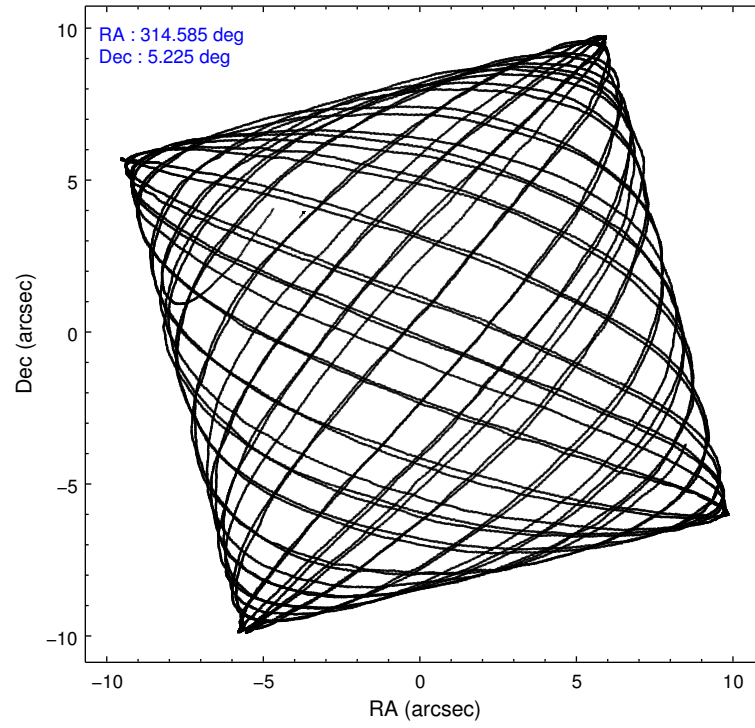
### 2.1.4 Events

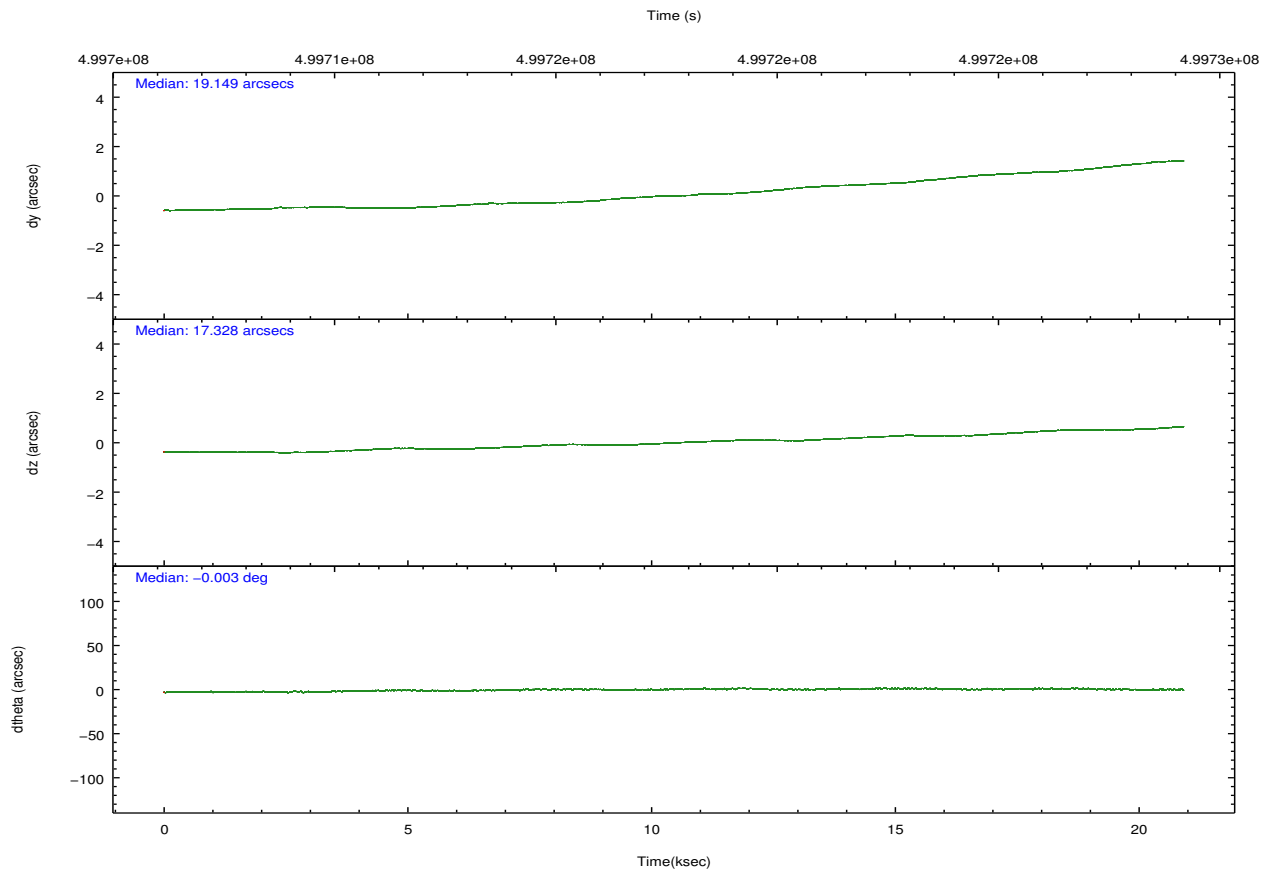
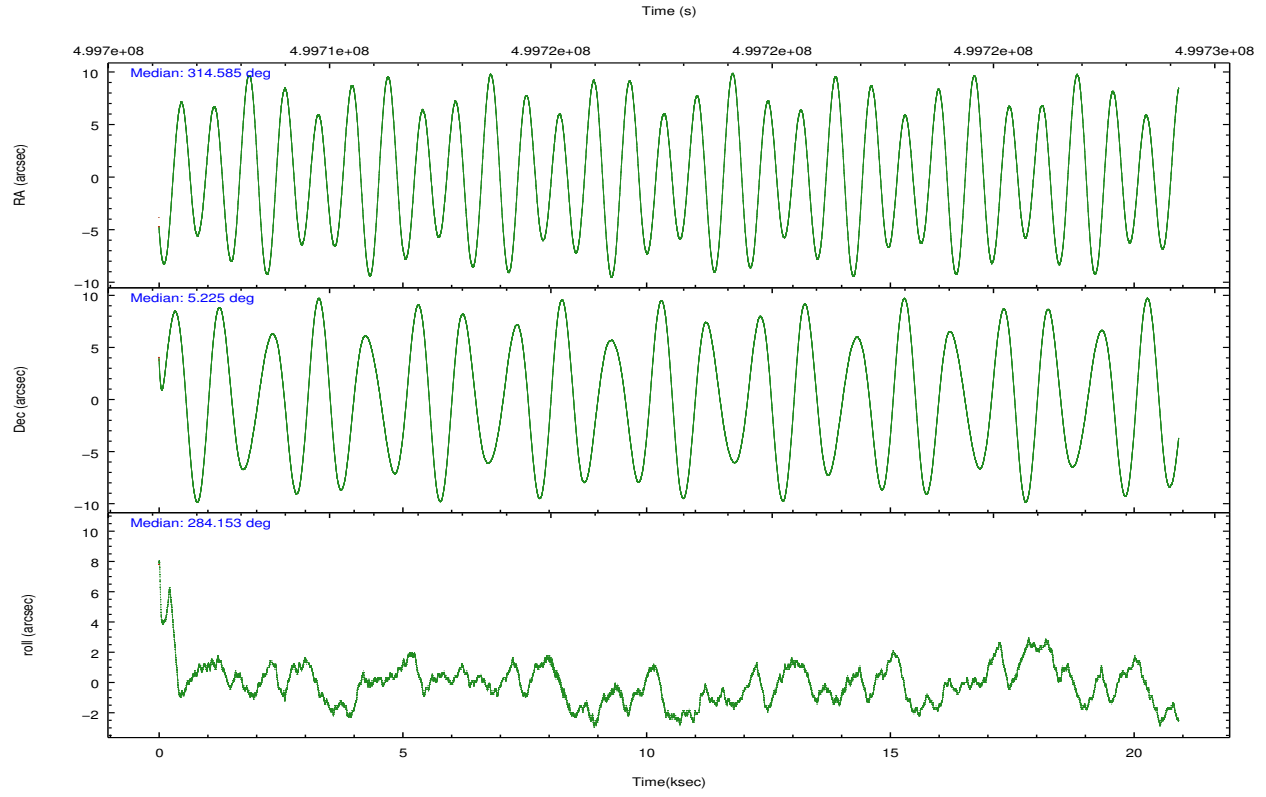
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	98974	90582	165956	96335	130967	130302	grade 0 events	4121	3944	9702	4378	5000	11270
rejected events	87598	79643	84084	84052	73827	93156		4%	4%	5%	4%	3%	8%
rejected %	88%	87%	50%	87%	56%	71%	grade 1 events	62	53	2116	47	155	102
								0%	0%	1%	0%	0%	0%
							grade 2 events	2841	2353	25308	2651	11727	8310
								2%	2%	15%	2%	8%	6%
							grade 3 events	1100	1155	2922	1220	4998	4078
								1%	1%	1%	1%	3%	3%
							grade 4 events	1120	1139	2762	1192	4806	3831
								1%	1%	1%	1%	3%	2%
							grade 5 events	4280	4943	12005	5096	13551	7309
								4%	5%	7%	5%	10%	5%
							grade 6 events	2200	2349	41191	2846	30616	9663
								2%	2%	24%	2%	23%	7%
							grade 7 events	83250	74646	69950	78905	60114	85739
								84%	82%	42%	81%	45%	65%

## 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	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	314.565989	314.5853713313397	CCD I2 on	O3	Y
[deg] Pointing Dec	5.244238	5.224885079942767	CCD I3 on	O4	Y
[deg] Pointing Roll	284.001511	284.1563726535678	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	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	O2	Y
[s] Observation start time (MET)	499708114.184000	499706440.08301	CCD S5 on	N	N
Observation start date	2013-11-01T15:47:27	2013-11-01T15:20:40	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	499728114.184000	499728912.69674	On-chip summing requested	N	N
Observation end date	2013-11-01T21:20:47	2013-11-01T21:35:12	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





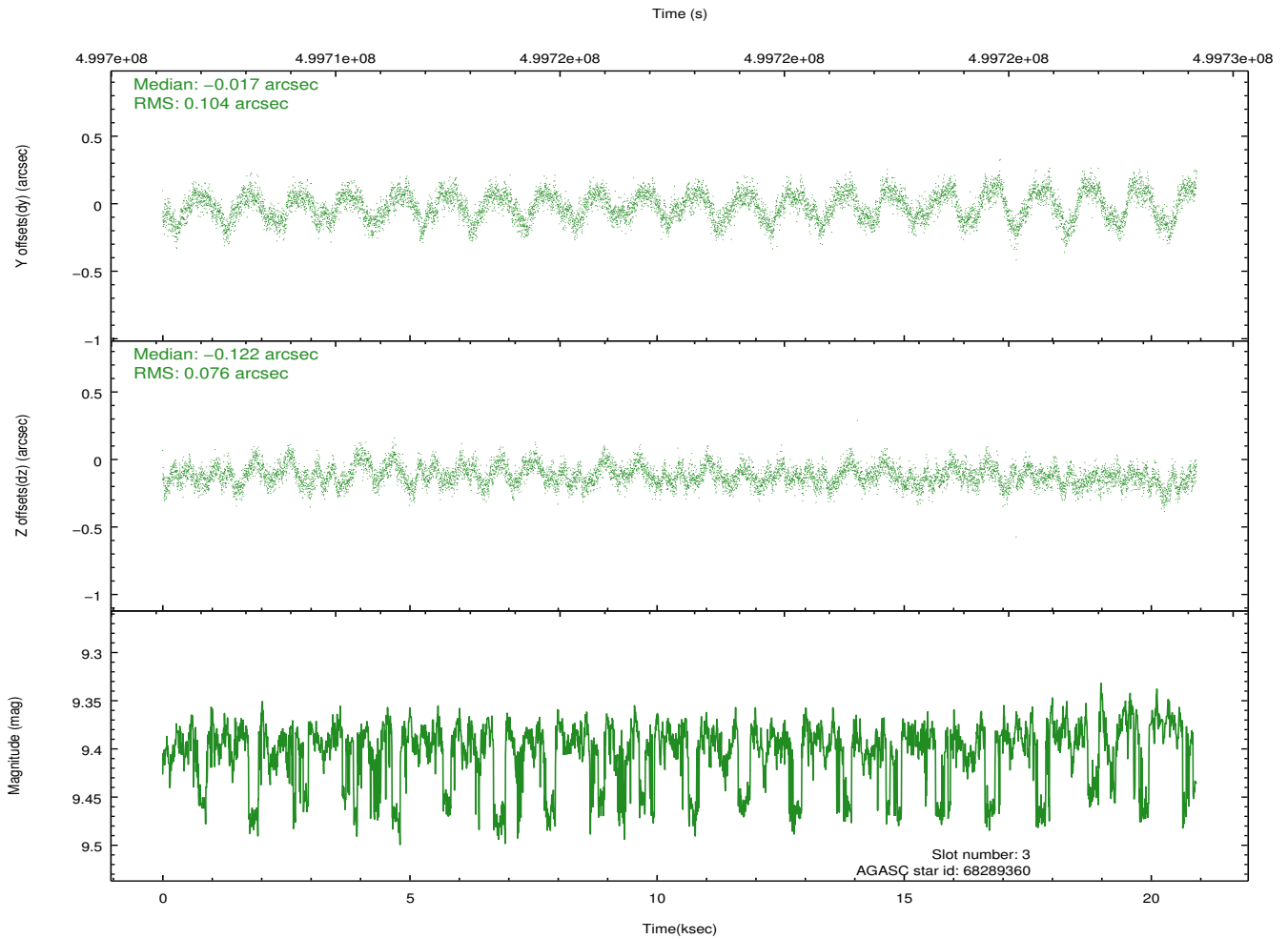
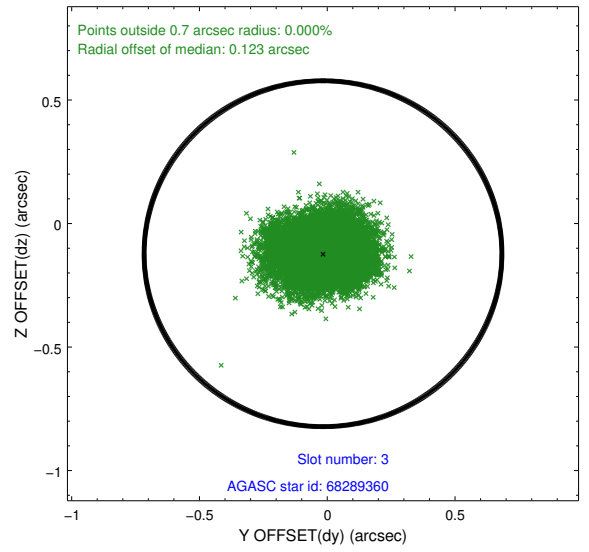
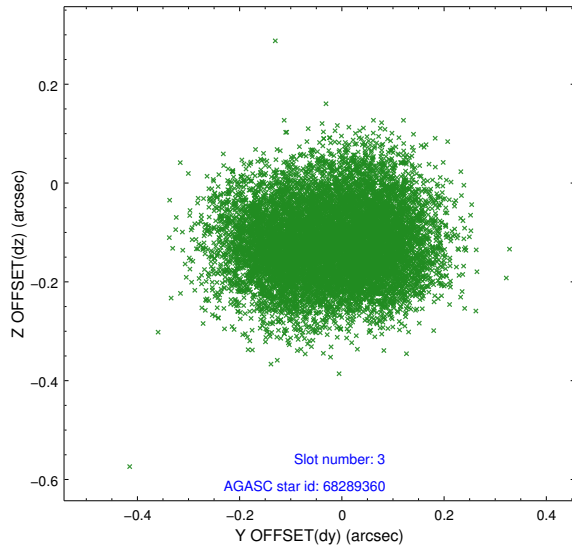
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.92	5103	-0.103	-0.033	0.016	0.025	0.000000	0.000000	-772.51	-1738.81
1	FID		ACIS-S-4	7.00	5103	0.257	0.059	0.010	0.015	0.000000	0.000000	2141.08	169.53
2	FID		ACIS-S-5	7.03	5103	-0.187	-0.017	0.013	0.023	0.000000	0.000000	-1825.18	163.39
3	GUIDE	used	68289360	9.40	10196	-0.017	-0.122	0.140	0.215	314.851818	4.732502	2035.77	550.15
4	GUIDE	used	68294728	8.03	10204	0.011	-0.058	0.068	0.110	314.337495	5.362003	-609.39	-691.43
5	GUIDE	used	68297496	9.46	10197	0.341	-0.081	0.164	0.297	314.202757	4.562790	2065.44	-1857.95
6	GUIDE	used	68818264	8.30	10200	-0.269	0.460	0.078	0.129	314.871687	5.856158	-1872.62	1595.93
7	GUIDE	used	69995496	9.62	10198	-0.060	-0.206	0.213	0.329	315.072470	5.376727	-24.22	1877.28

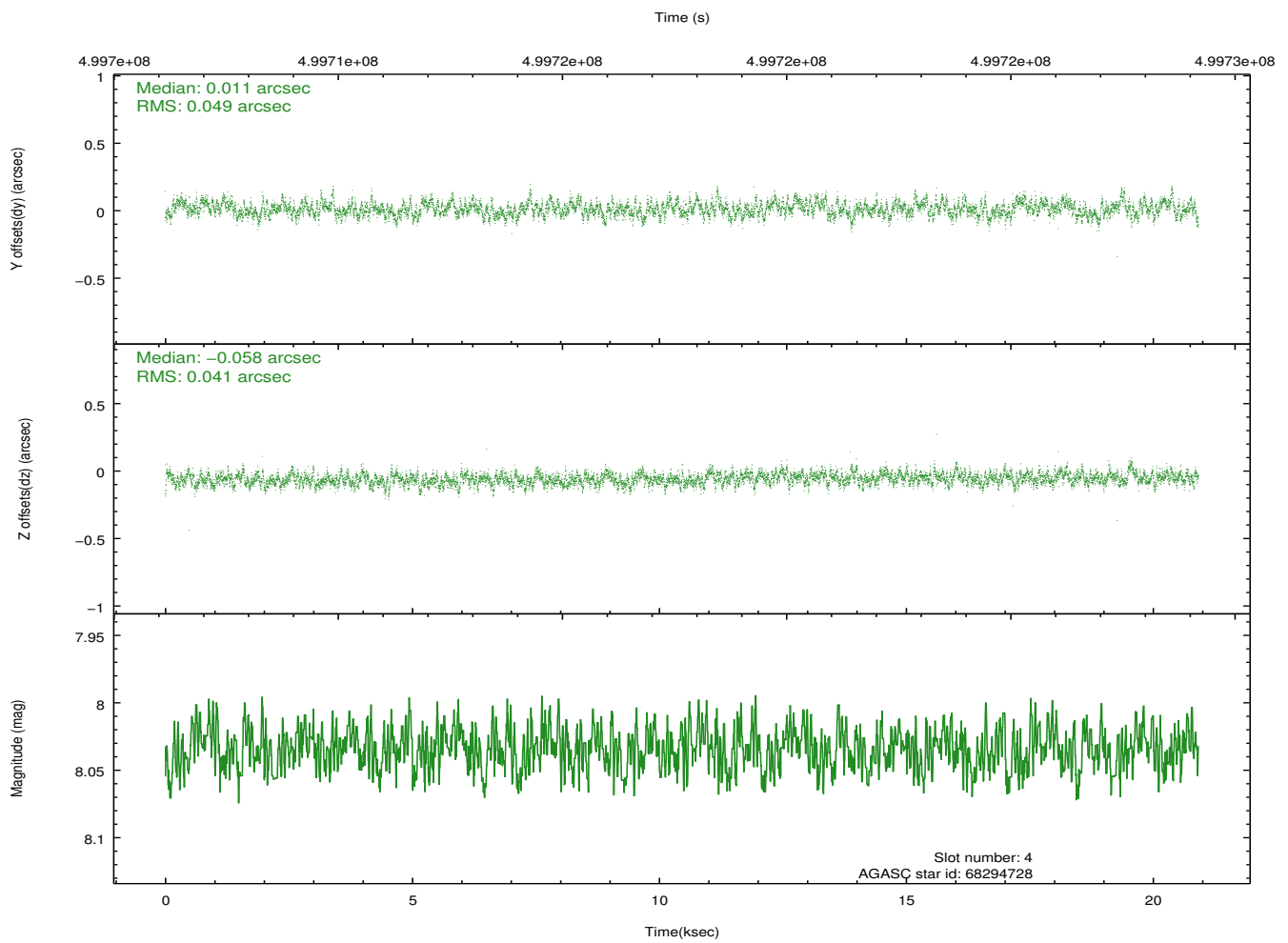
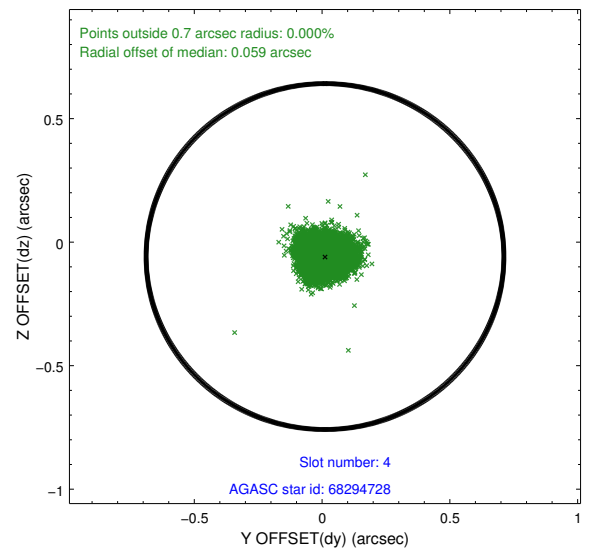
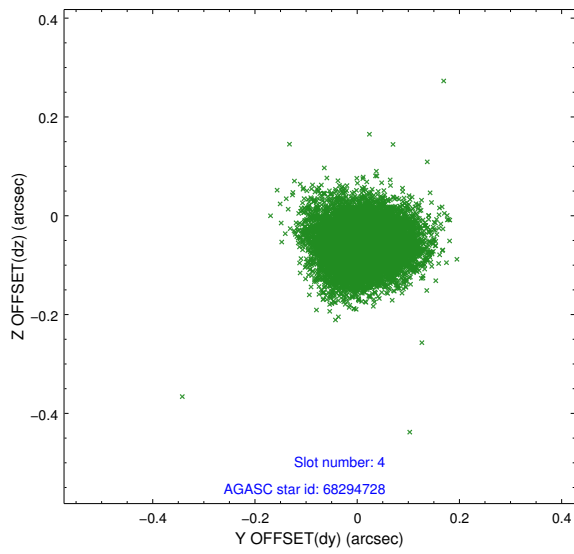
∞

## 2.4 Star Slots

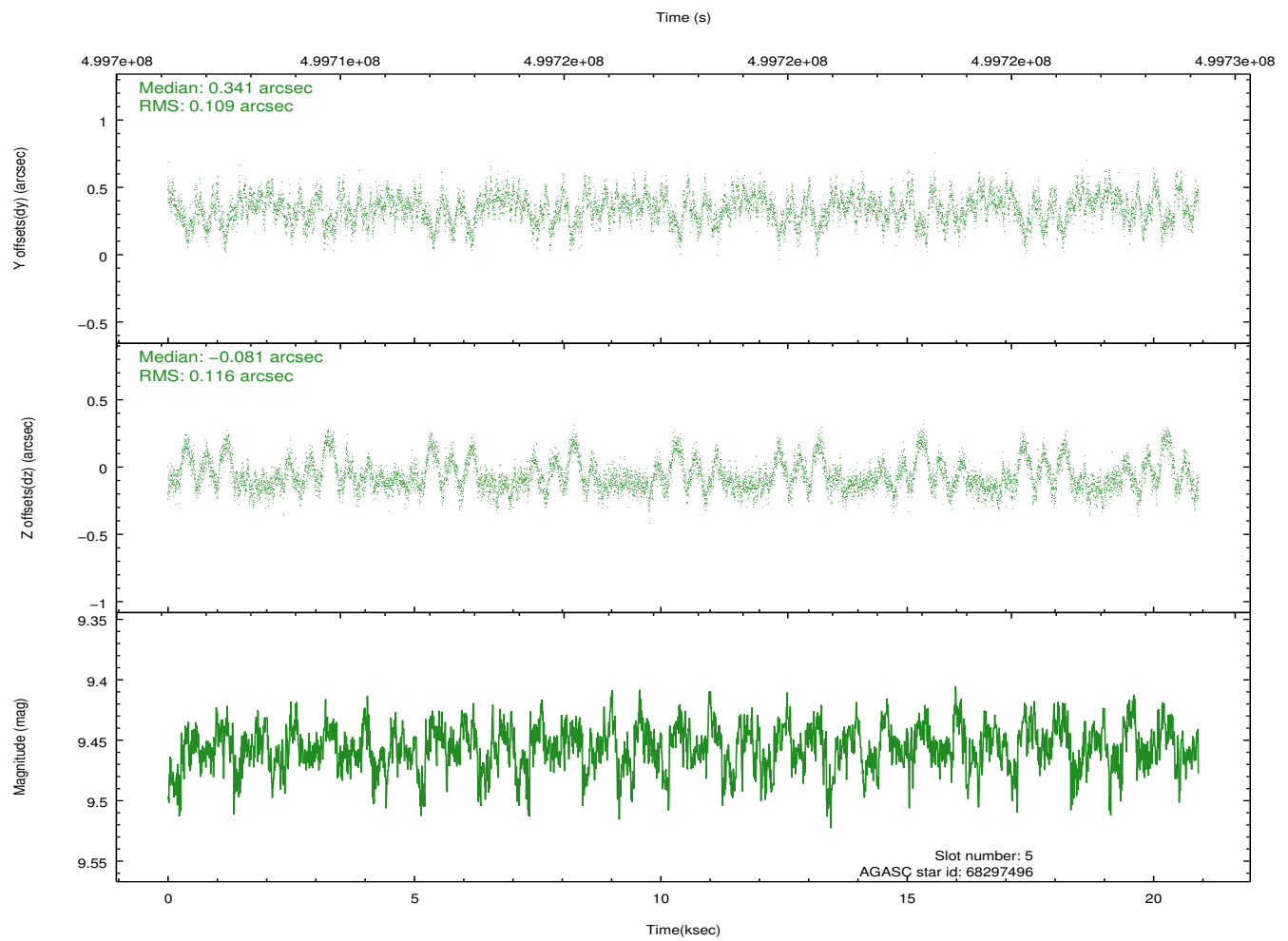
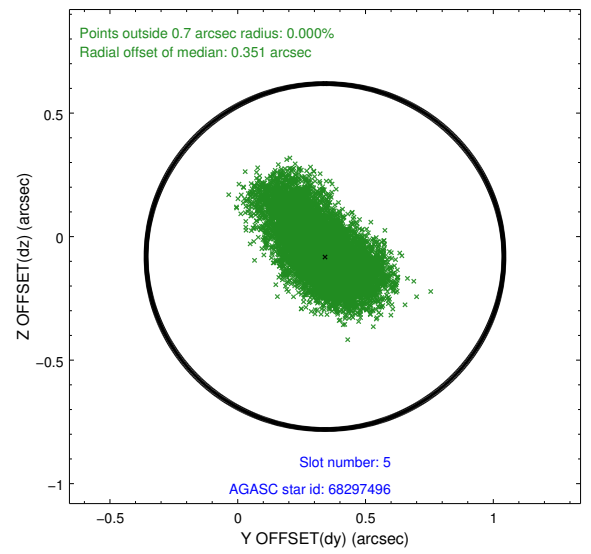
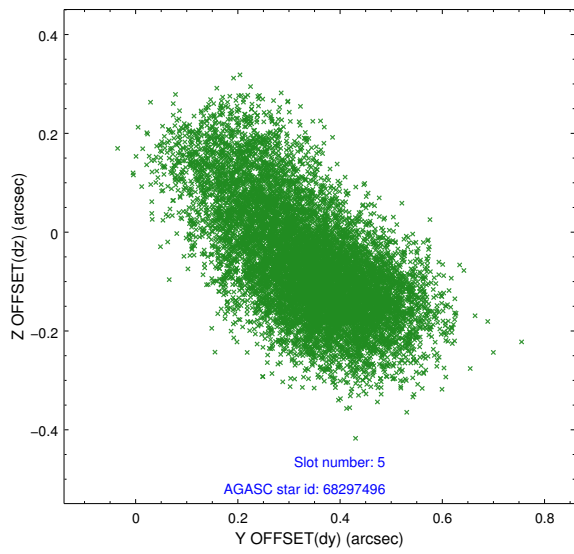
### 2.4.1 Slot 3



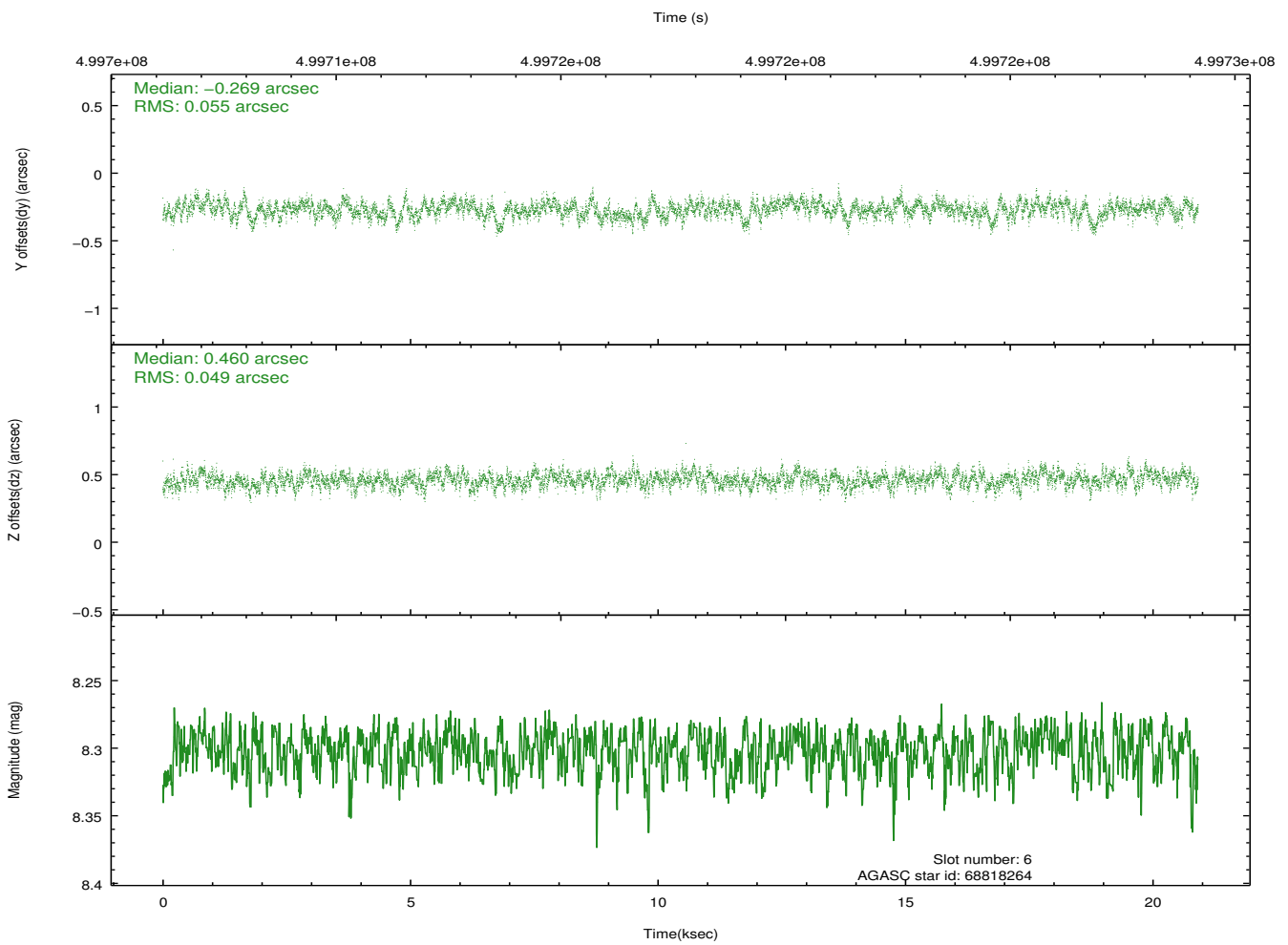
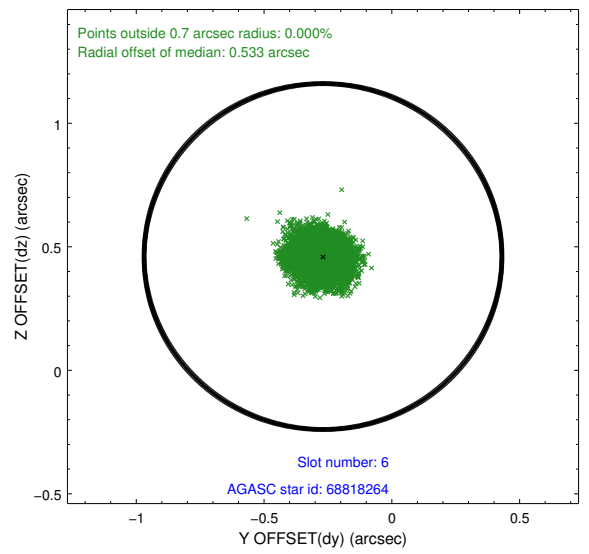
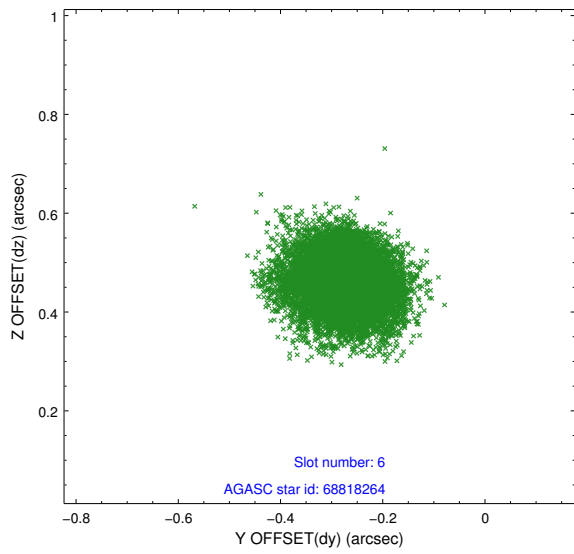
## 2.4.2 Slot 4



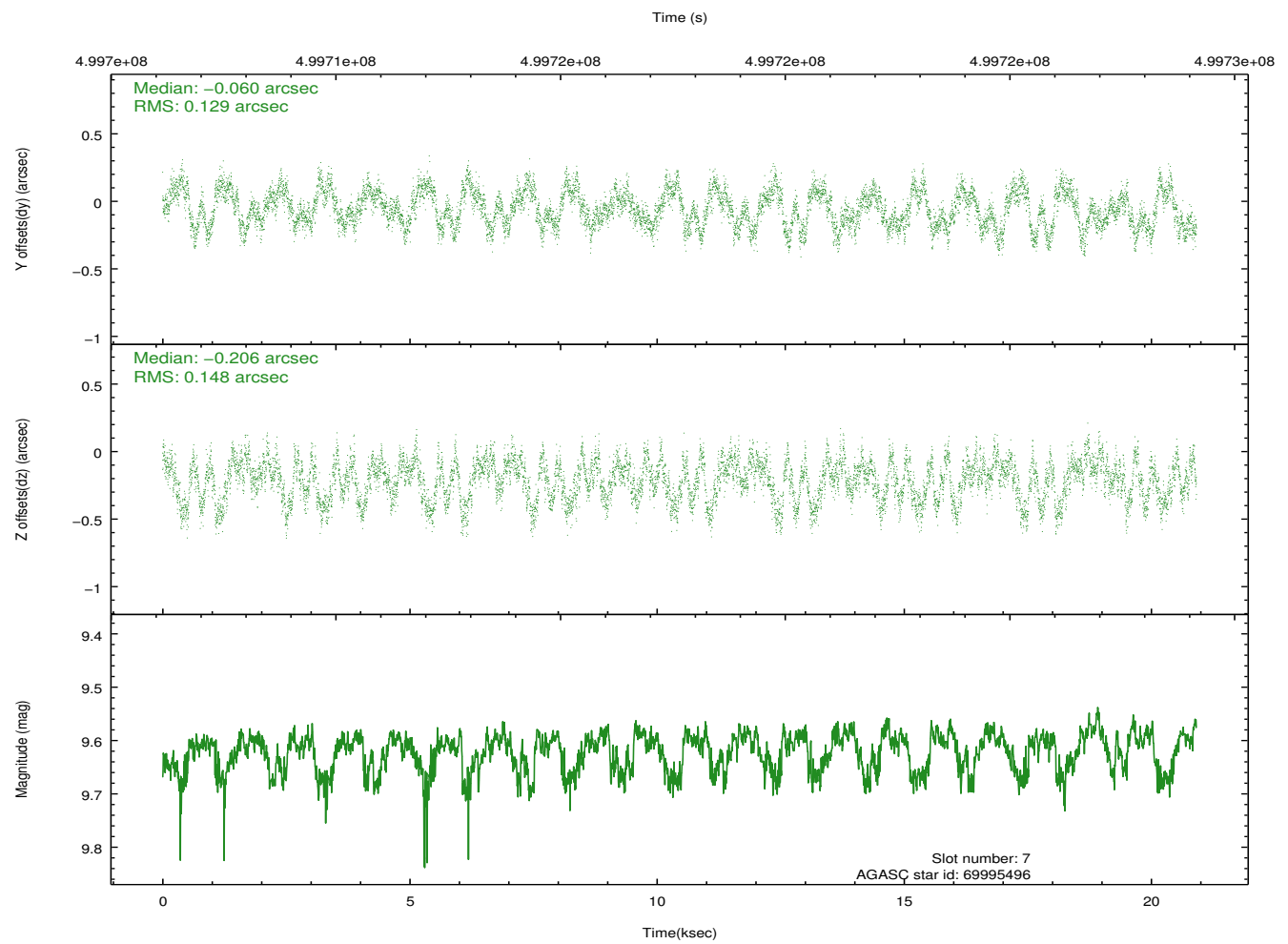
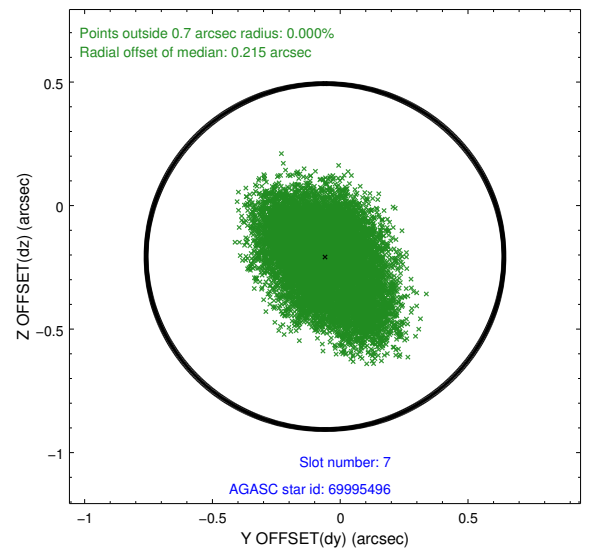
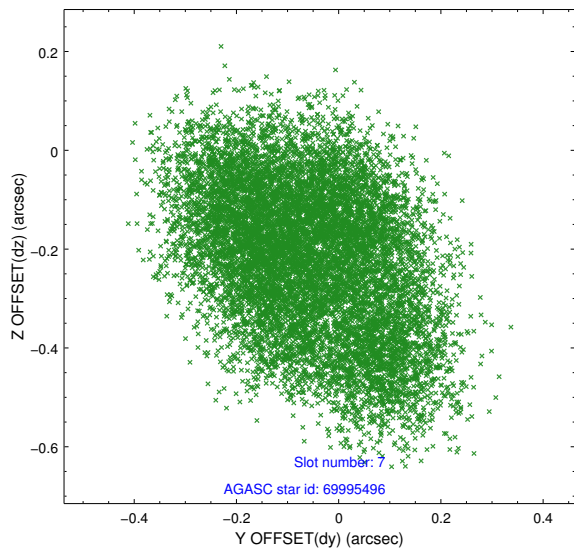
### 2.4.3 Slot 5



## 2.4.4 Slot 6

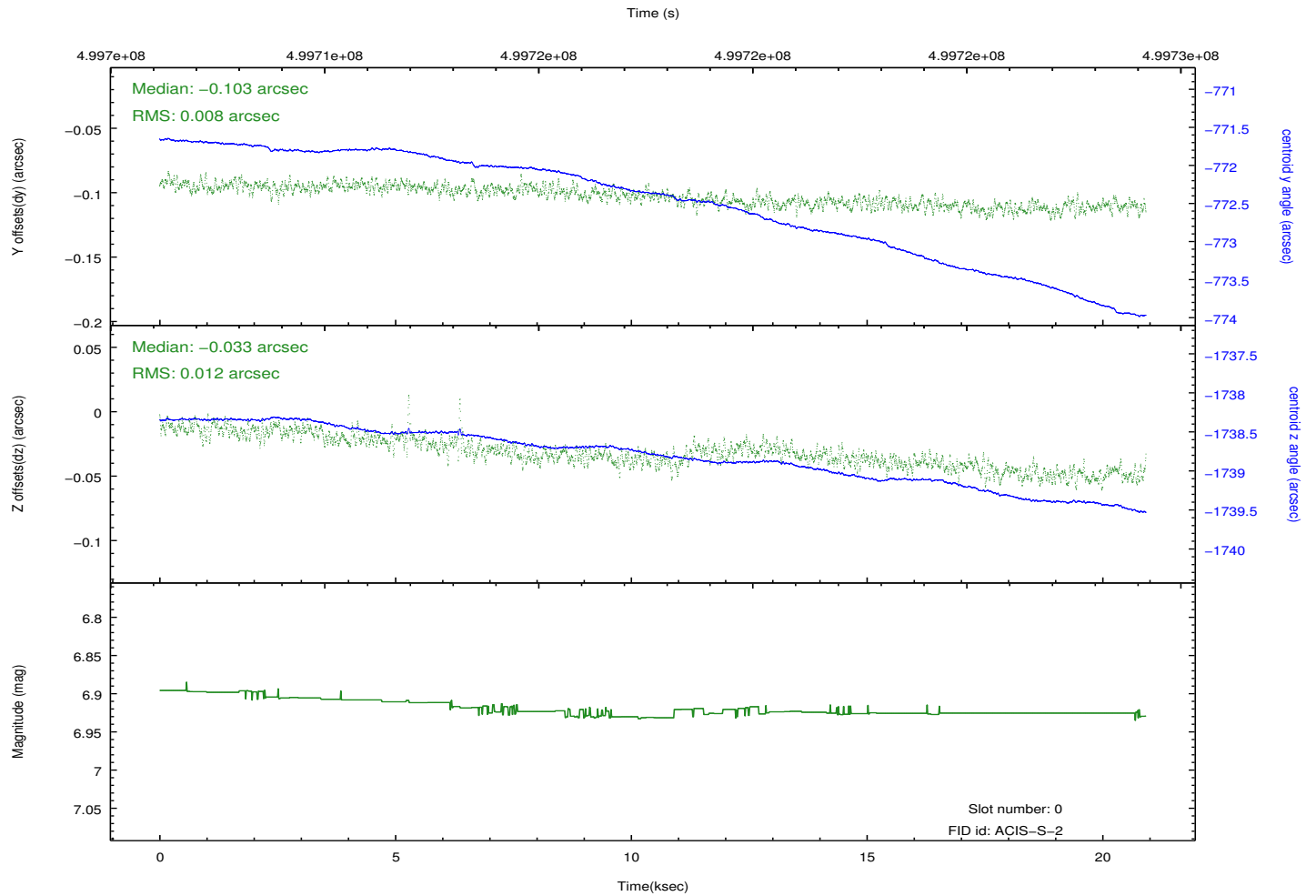
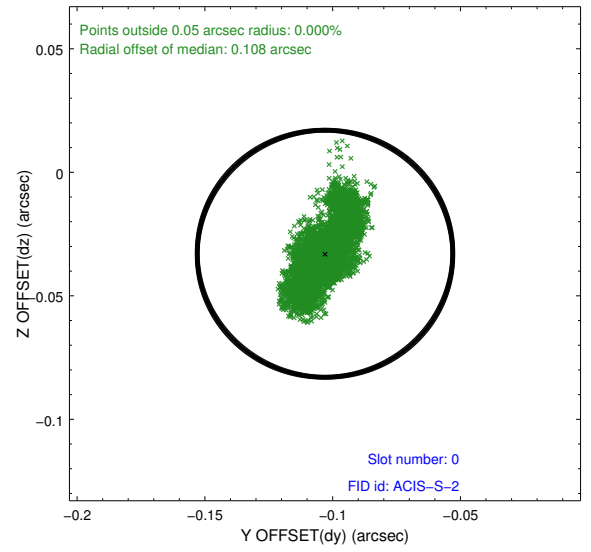
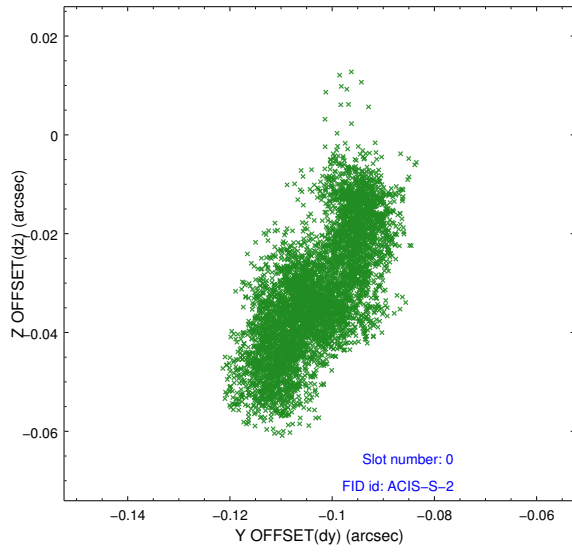


## 2.4.5 Slot 7

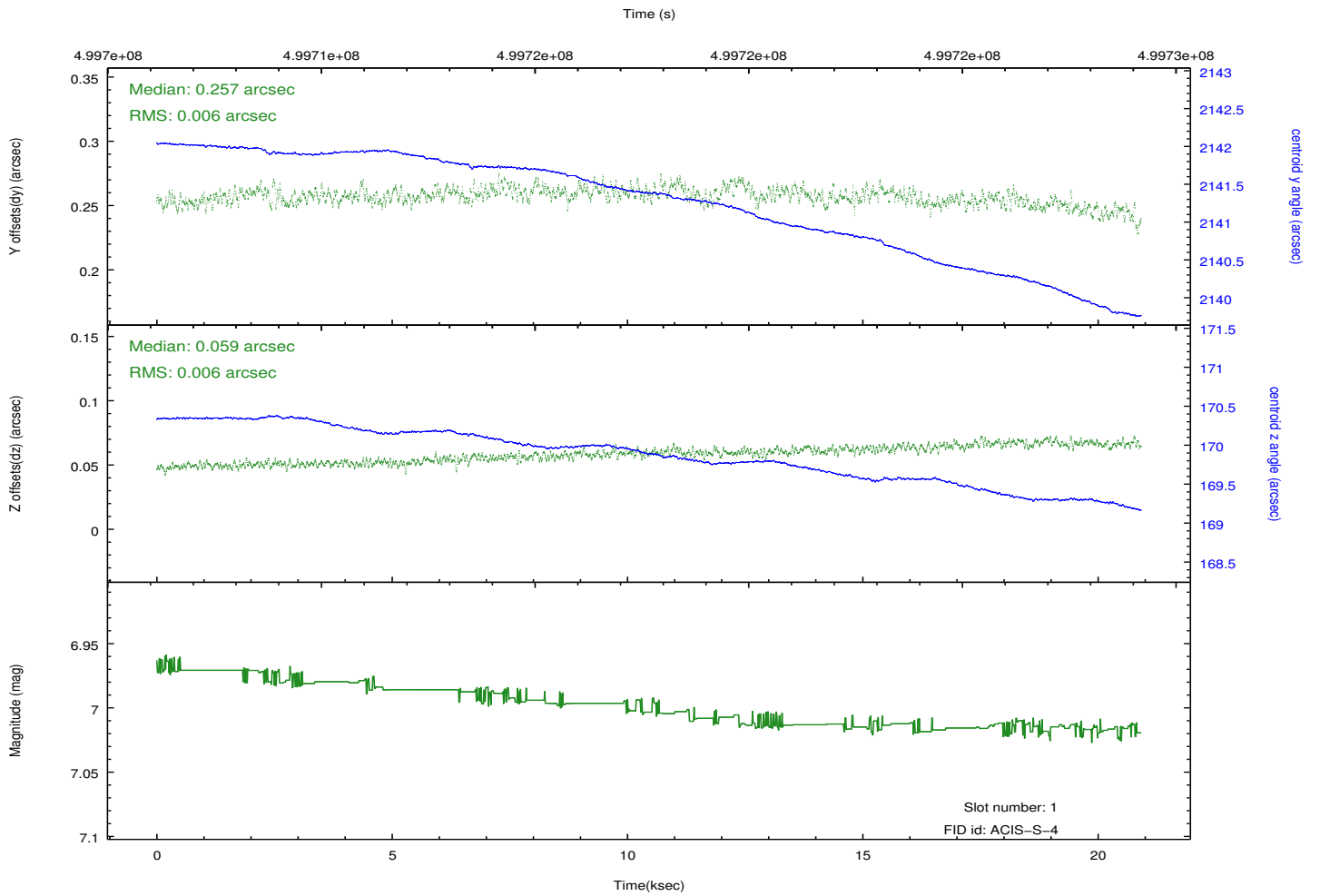
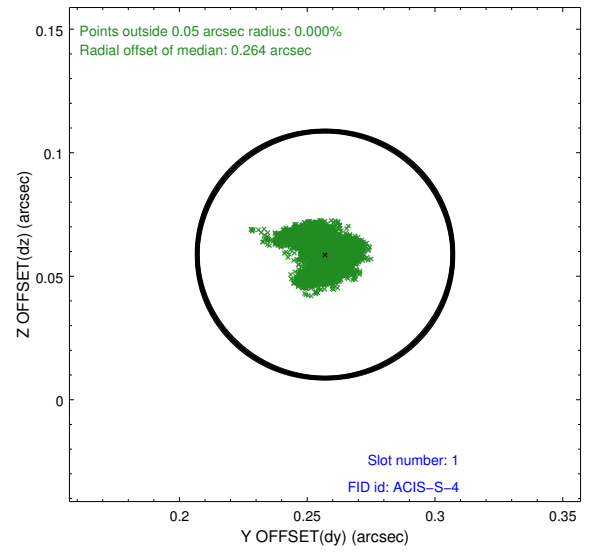
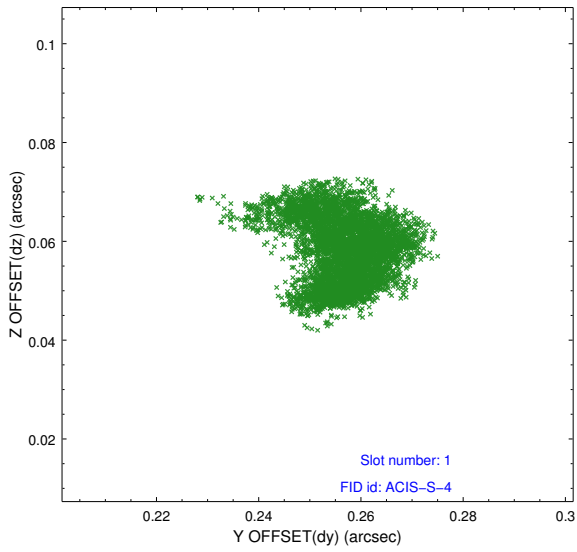


## 2.5 FID Slots

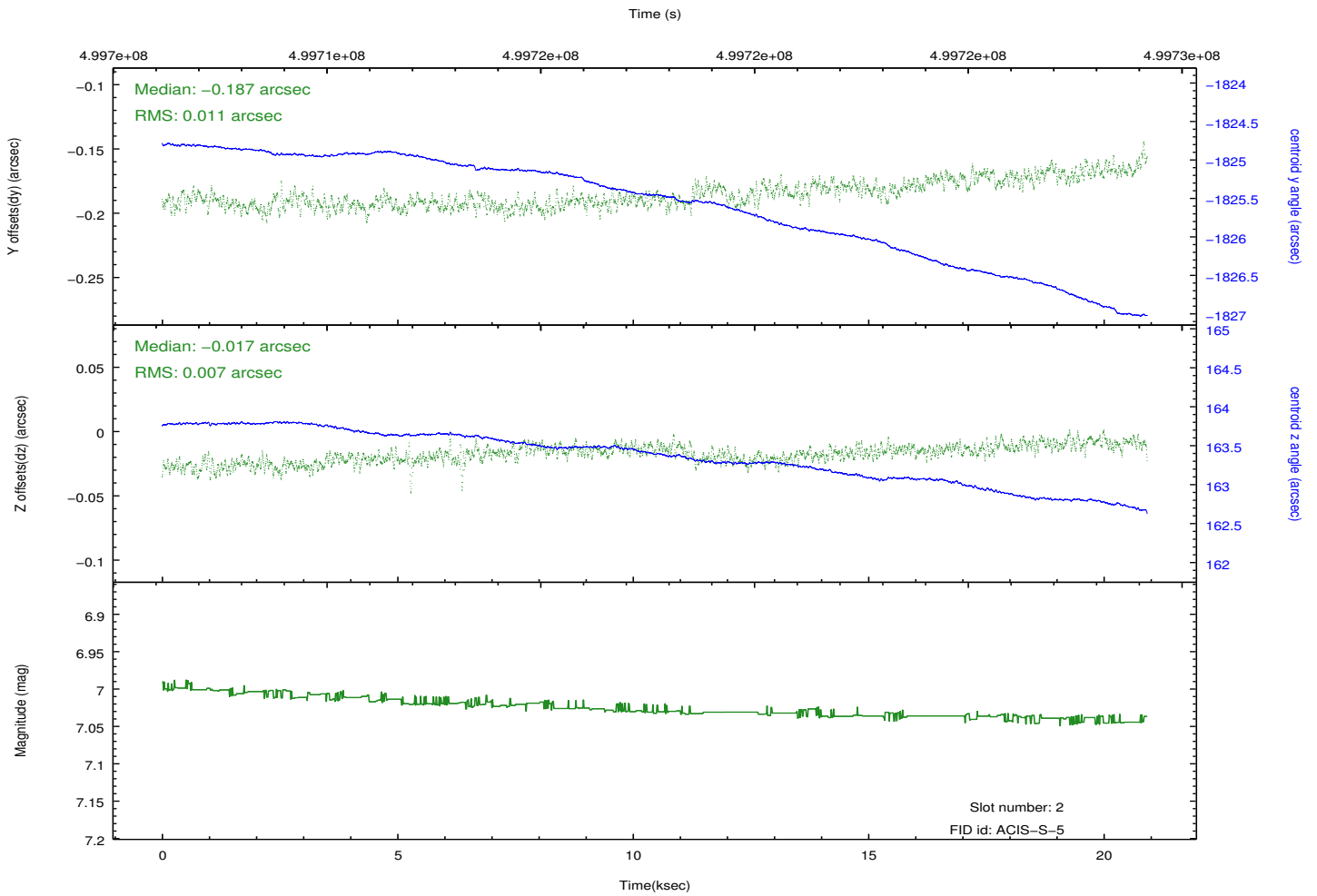
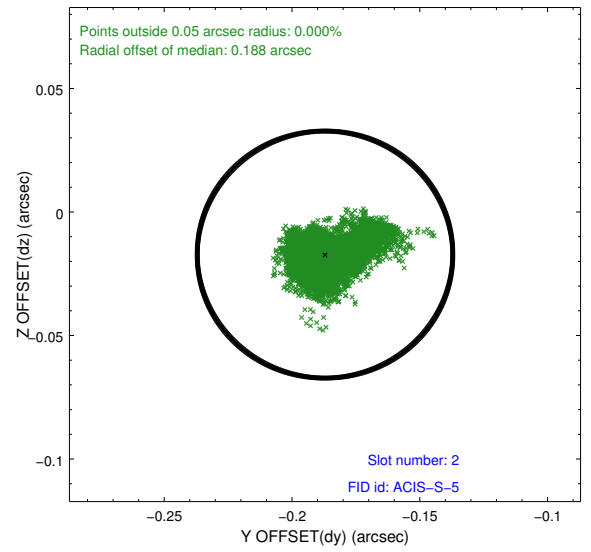
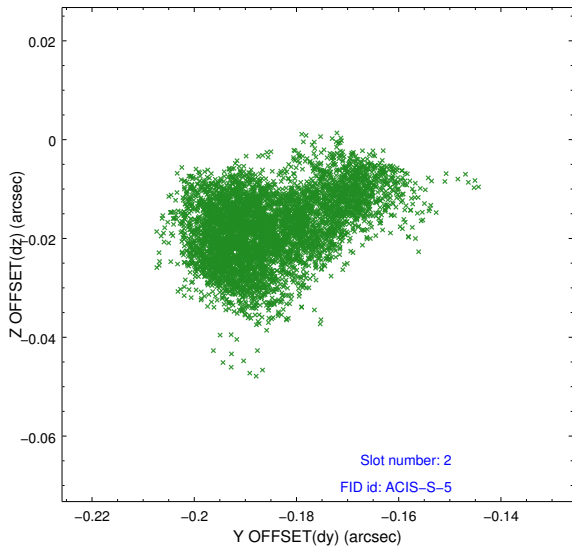
### 2.5.1 Slot 0



## 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)	2014.12.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.966919356048

## 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.