

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 18944 - L2 Version 2  
Chandra X-Ray Center

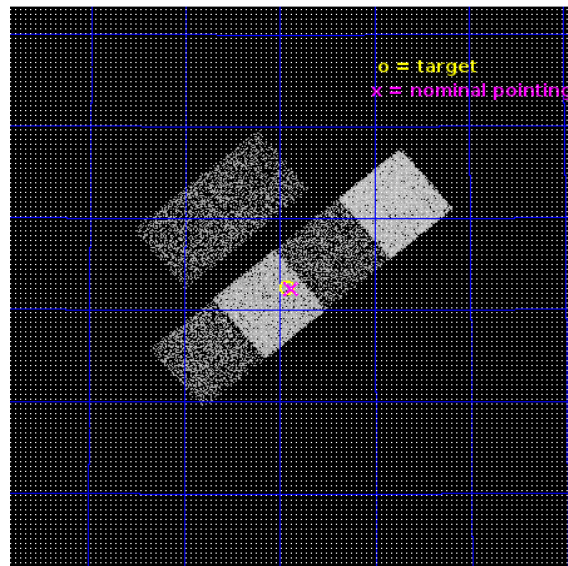
L2 Processing Date : Feb 21 2017

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# 1 Front

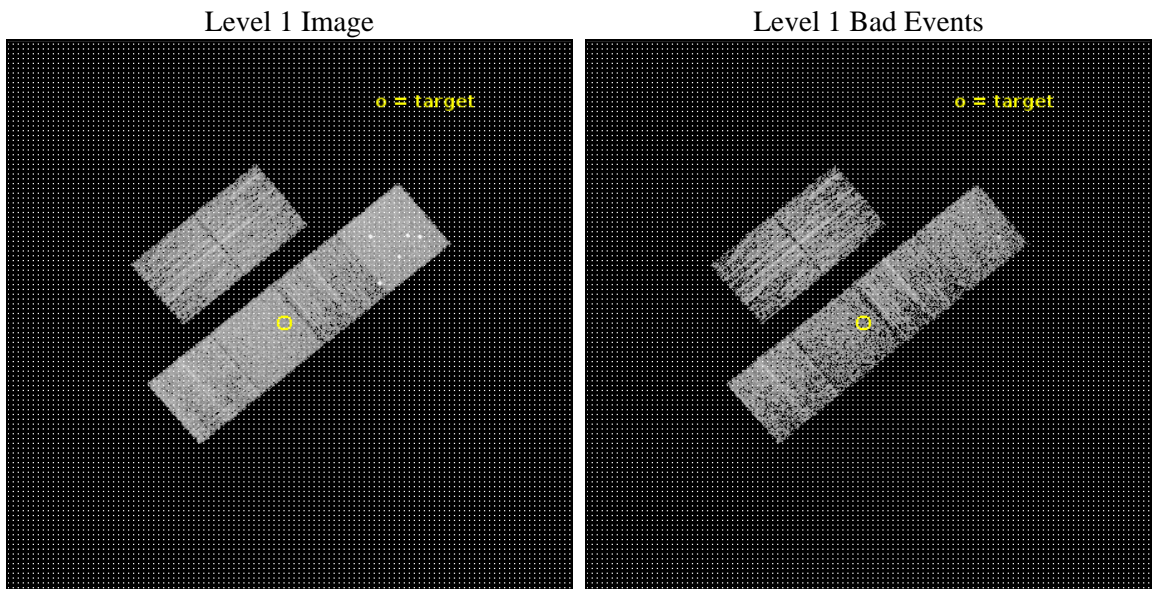
seq_num	201137	Sequence number
obs_id	18944	Observation id
title	Probing the Dynamo Mechanism in Fully Convective Stars	Proposal ti
observer	Nicholas Wright	Principal investigator
object	2MASS J11505787+4822395	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	177.729583	Observer's specified target RA [deg]
dec_targ	48.372917	Observer's specified target Dec [deg]
ra_nom	177.7197540223	Nominal RA [deg]
dec_nom	48.372250974751	Nominal Dec [deg]
roll_nom	140.27519939505	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2937.6000437737	Sum of GTIs [s]
liveltime	2900.402383209	Livetime [s]
ontime2	2937.6000437737	Sum of GTIs [s]
ontime3	2937.6000437737	Sum of GTIs [s]
ontime5	2937.6000437737	Sum of GTIs [s]
ontime6	2937.6000437737	Sum of GTIs [s]
ontime7	2937.6000437737	Sum of GTIs [s]
ontime8	2937.6000437737	Sum of GTIs [s]
l2events	34269	Number of level 2 events



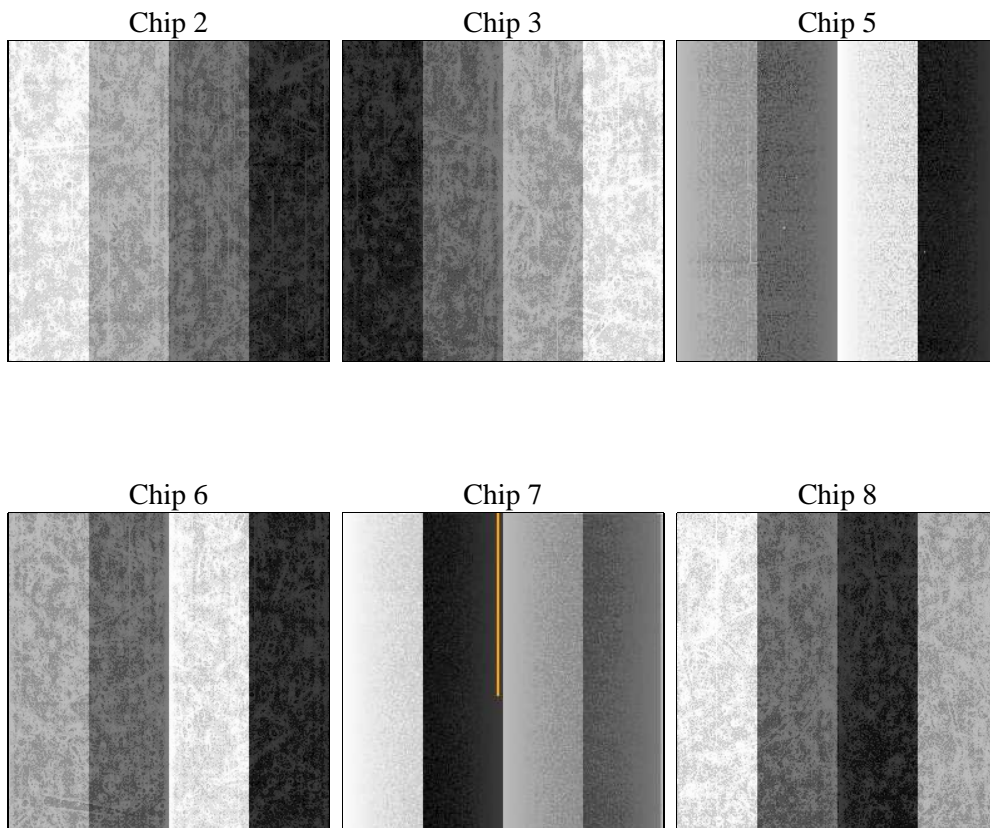
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	2937.6000437737	Sum of GTIs [s]
caldbver	4.7.3	&#160	ontime2	2937.6000437737	Sum of GTIs [s]
date	2017-02-21T20:26:47	Date and time of file creation	ontime3	2937.6000437737	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	2937.6000437737	Sum of GTIs [s]
			ontime6	2937.6000437737	Sum of GTIs [s]
			ontime7	2937.6000437737	Sum of GTIs [s]
			ontime8	2937.6000437737	Sum of GTIs [s]
			l1events	156146	Number of level 1 events

### 2.1.4 Events

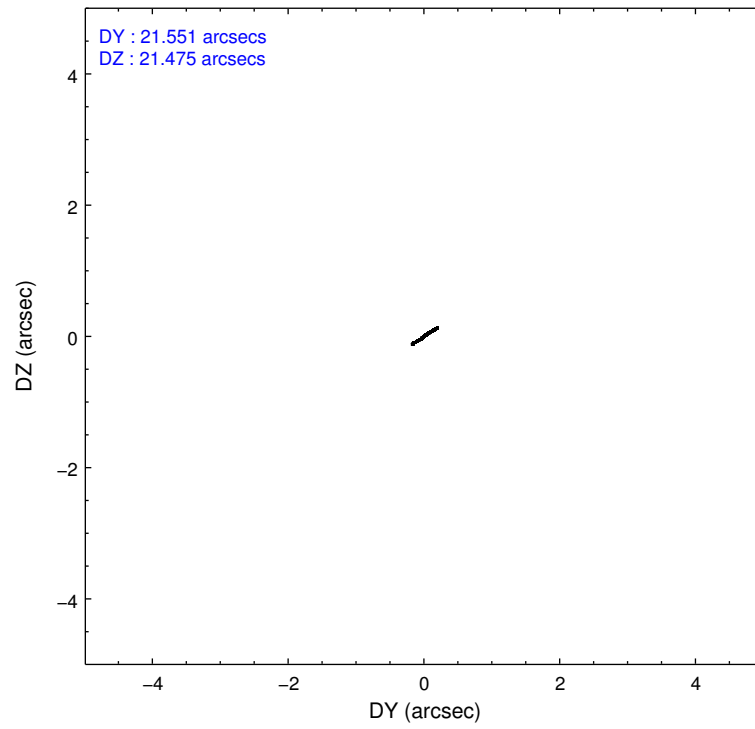
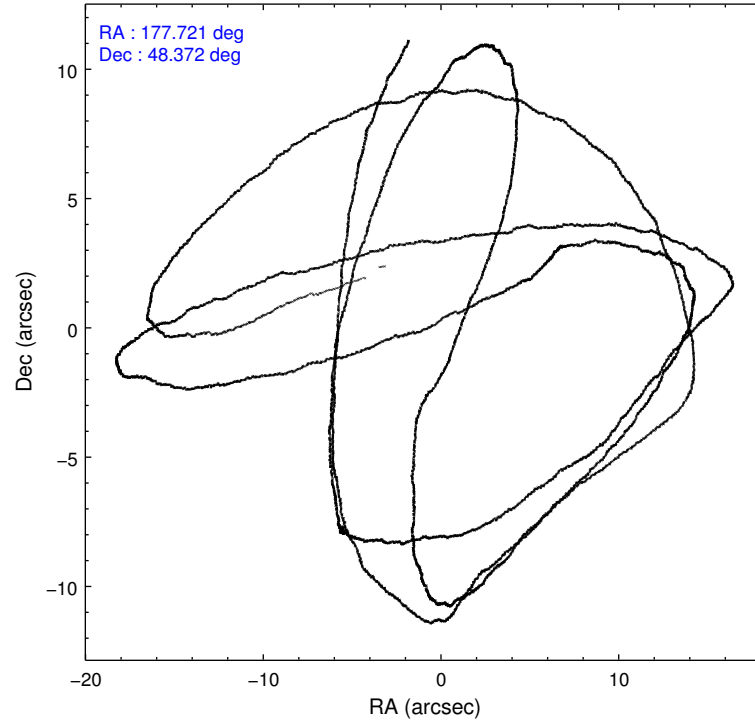
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	21690	21880	37252	21003	27000	27321	grade 0 events	800	705	3811	739	957	1966
rejected events	19518	19858	17626	18707	15452	20366		3%	3%	10%	3%	3%	7%
rejected %	89%	90%	47%	89%	57%	74%	grade 1 events	11	8	107	8	46	19
								0%	0%	0%	0%	0%	0%
							grade 2 events	490	458	5643	538	2535	1738
								2%	2%	15%	2%	9%	6%
							grade 3 events	217	221	539	248	893	744
								1%	1%	1%	1%	3%	2%
							grade 4 events	219	216	913	230	882	679
								1%	0%	2%	1%	3%	2%
							grade 5 events	822	943	2268	1004	2638	1427
								3%	4%	6%	4%	9%	5%
							grade 6 events	448	426	8735	545	6297	1860
								2%	1%	23%	2%	23%	6%
							grade 7 events	18683	18903	15236	17691	12752	18888
								86%	86%	40%	84%	47%	69%

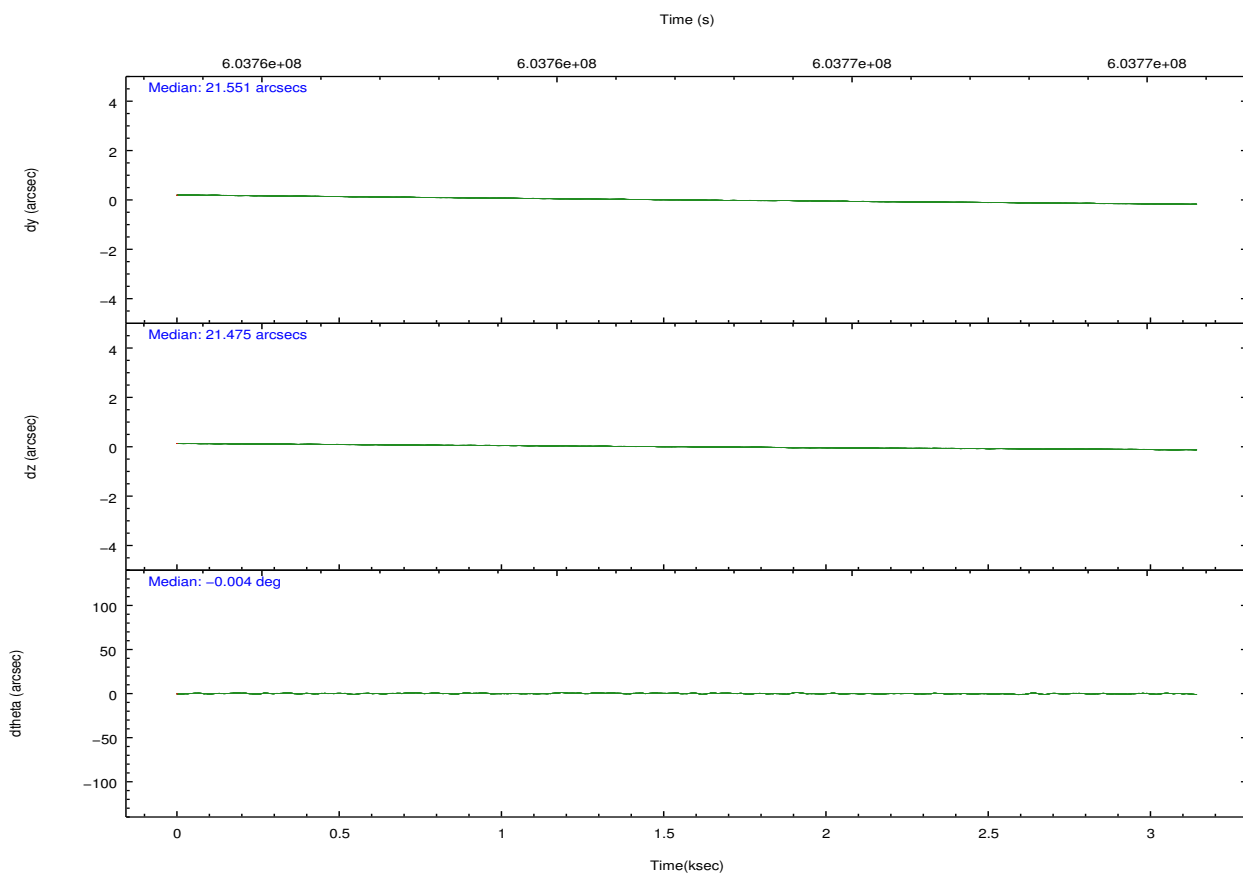
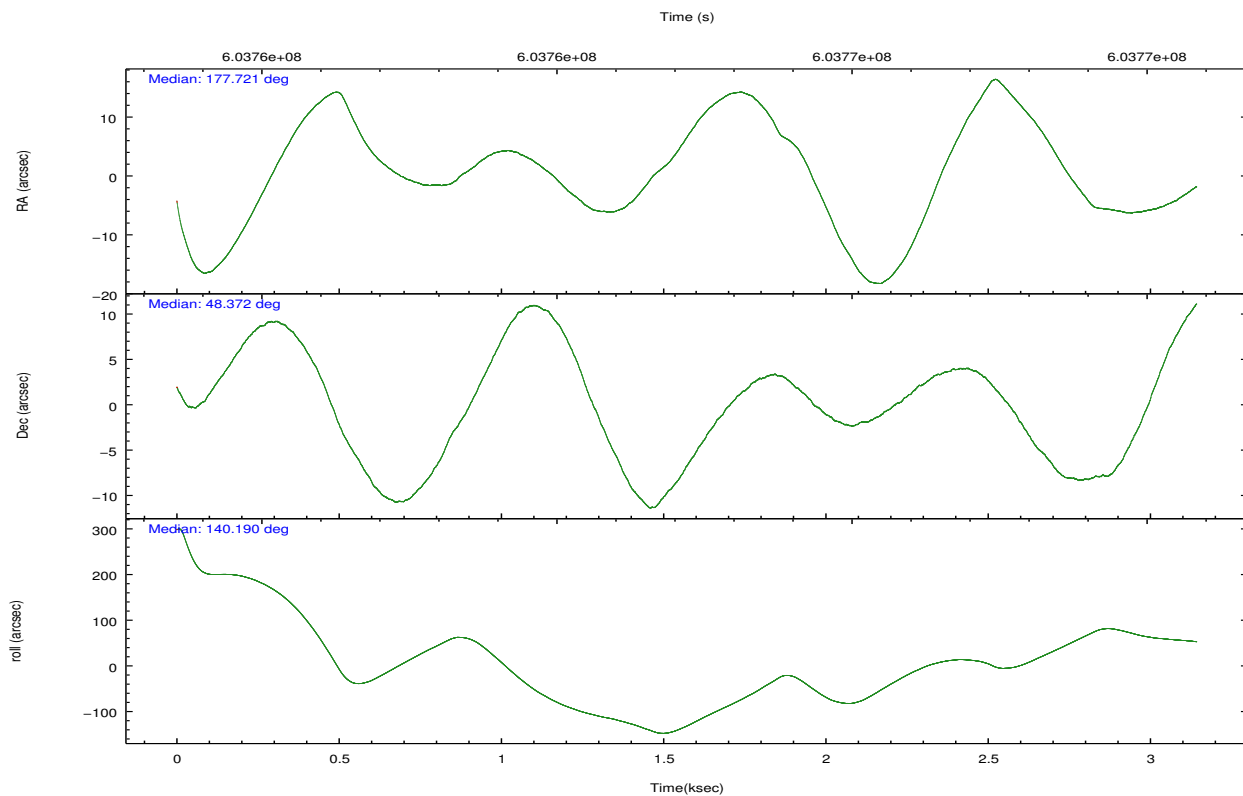


## 2.2 Compared Parameters

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	177.760707	177.7197540222963	CCD I2 on	O1	Y
[deg] Pointing Dec	48.367969	48.3722509747514	CCD I3 on	O2	Y
[deg] Pointing Roll	140.087593	140.27519939505	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	Y	Y
[s] Observation start time (MET)	603763990.184000	603762835.36604	CCD S5 on	N	N
Observation start date	2017-02-18T00:12:01	2017-02-17T23:53:55	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	603766990.184000	603767569.32881	On-chip summing requested	N	N
Observation end date	2017-02-18T01:02:01	2017-02-18T01:12:49	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



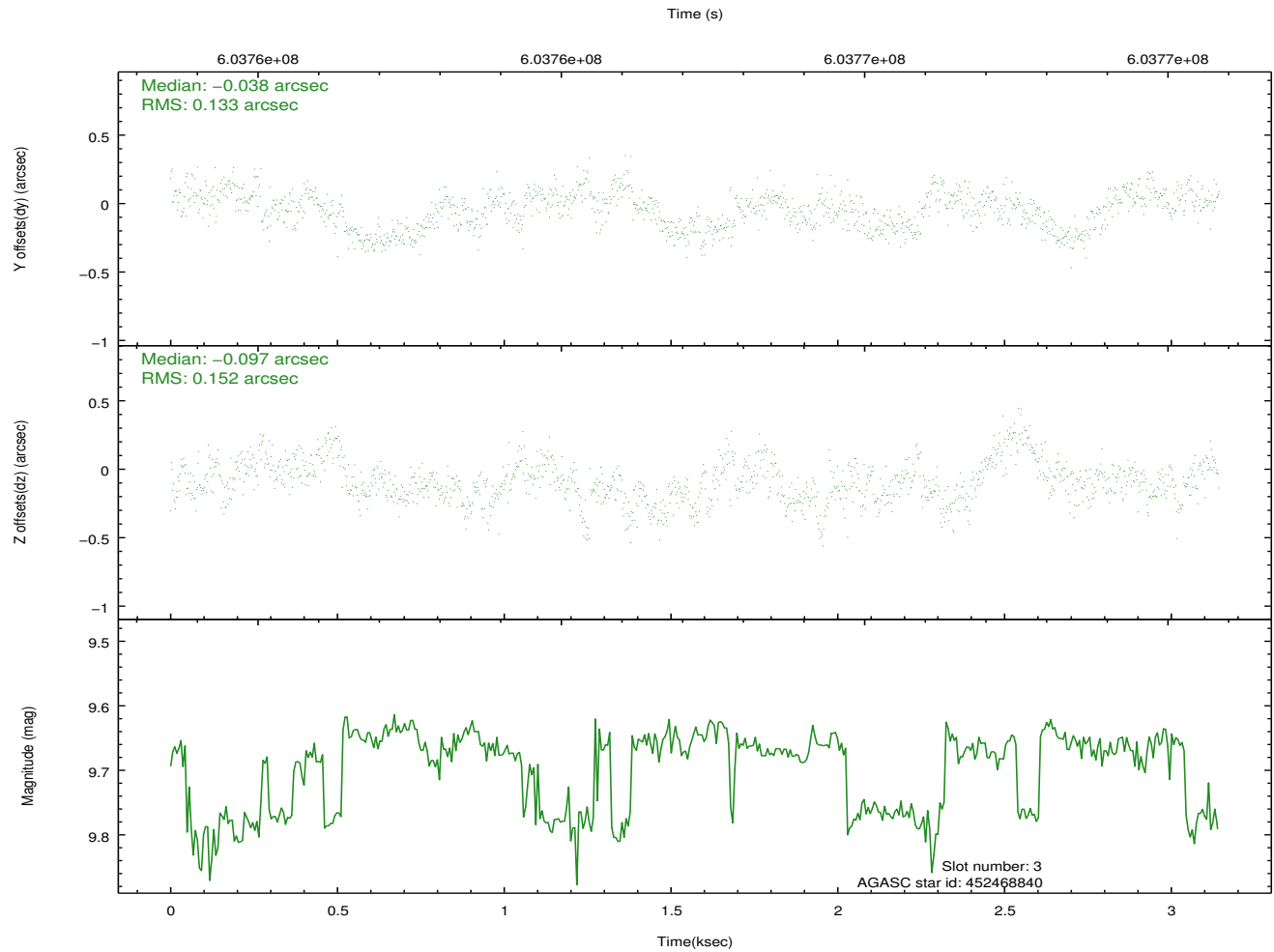
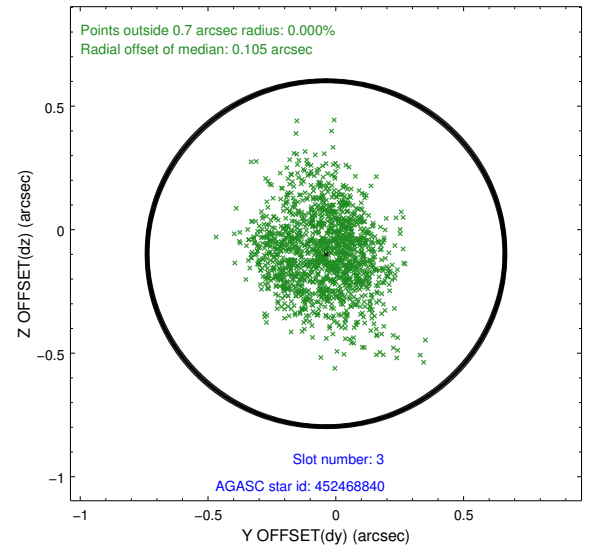
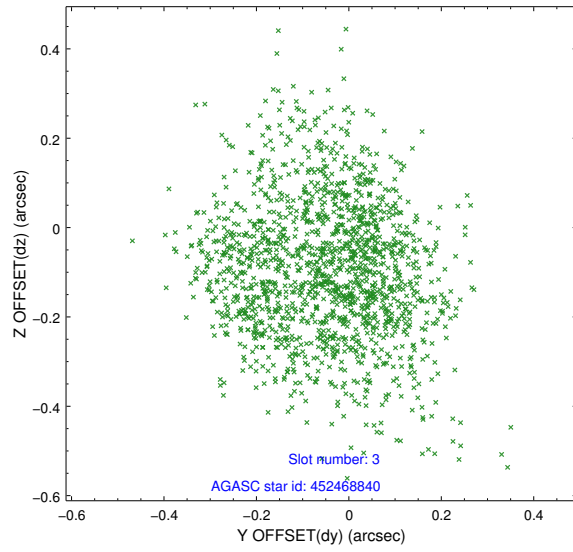


### Slot Statistics

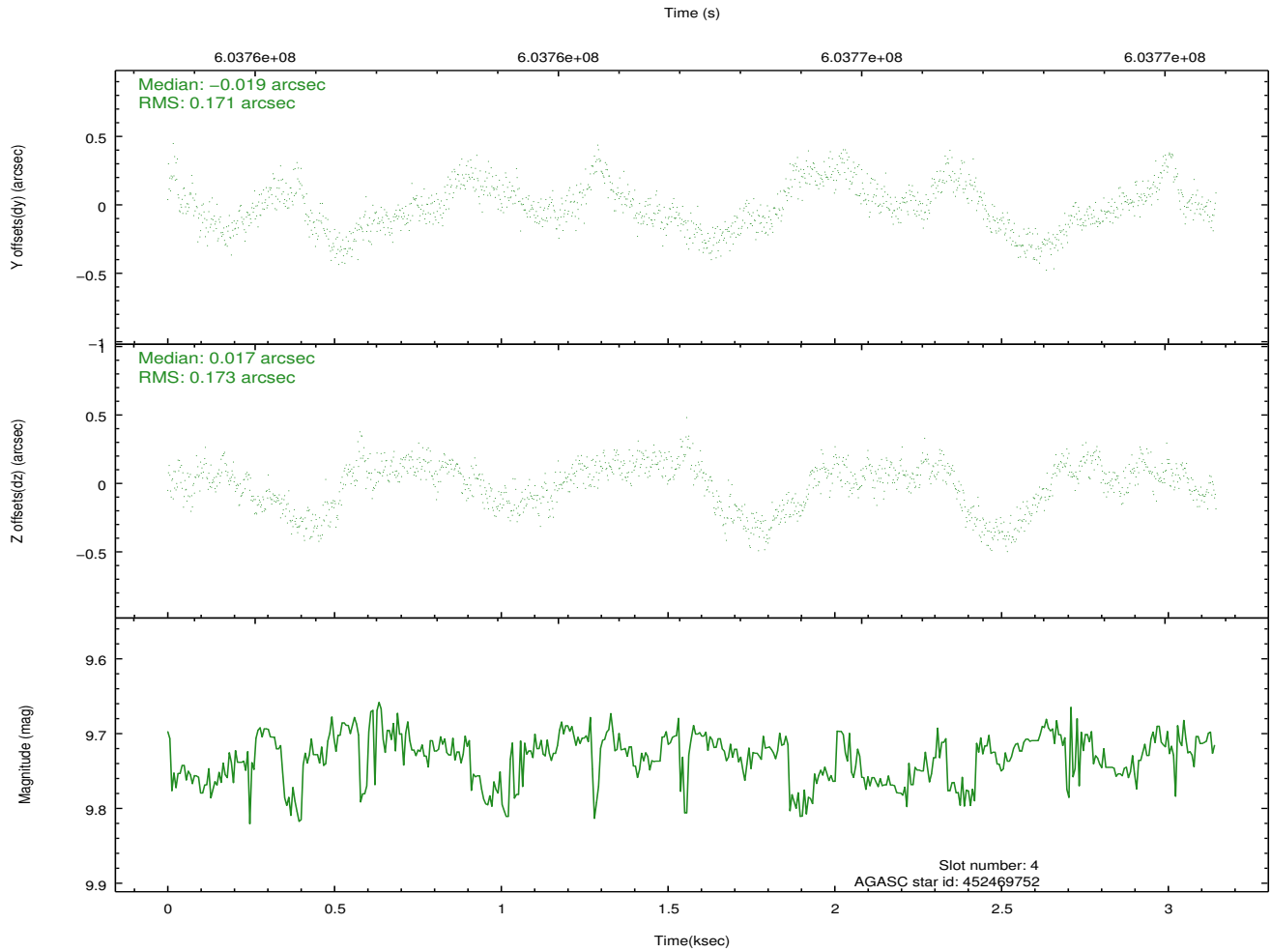
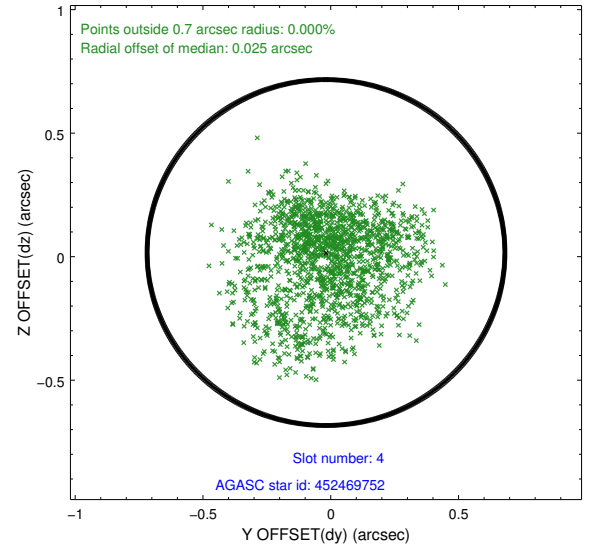
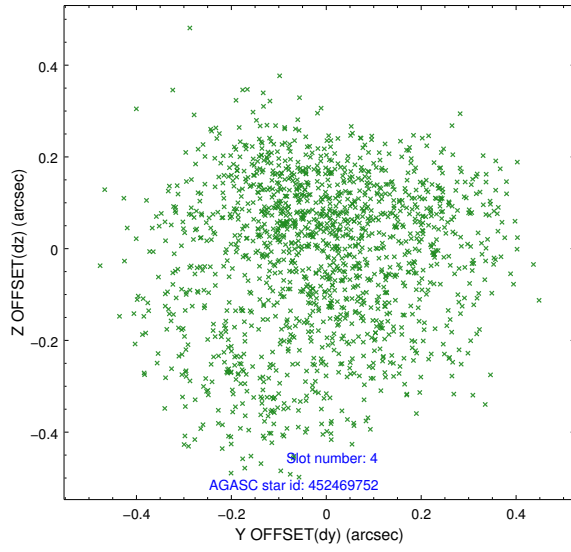
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.07	765	-0.224	-0.150	0.008	0.012	0.000000	0.000000	-774.92	-1743.18
1	FID		ACIS-S-4	7.18	767	0.500	0.148	0.005	0.009	0.000000	0.000000	2138.13	163.50
2	FID		ACIS-S-5	7.18	767	-0.308	0.011	0.009	0.014	0.000000	0.000000	-1825.27	159.32
3	GUIDE	used	452468840	9.68	1534	-0.038	-0.097	0.215	0.343	177.880285	47.497730	-2233.34	2213.48
4	GUIDE	used	452469752	9.73	1533	-0.019	0.017	0.267	0.413	176.817055	48.563795	2185.21	895.75
5	GUIDE	used	452470072	7.25	1534	-0.072	-0.062	0.122	0.199	177.061194	48.523768	1647.18	636.93
6	GUIDE	used	452471120	9.44	1530	0.118	0.171	0.225	0.343	177.758695	48.063121	-697.37	844.63
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

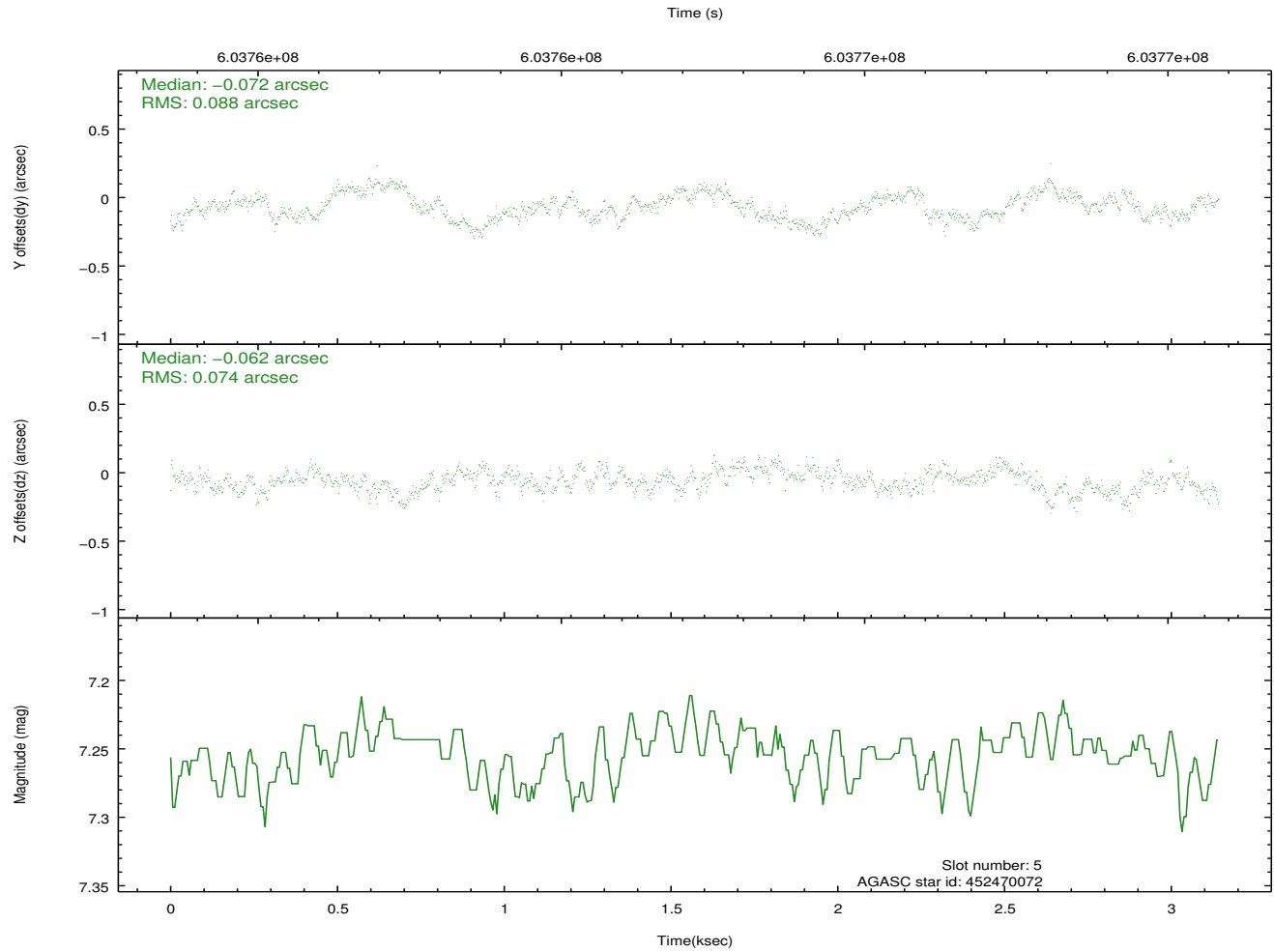
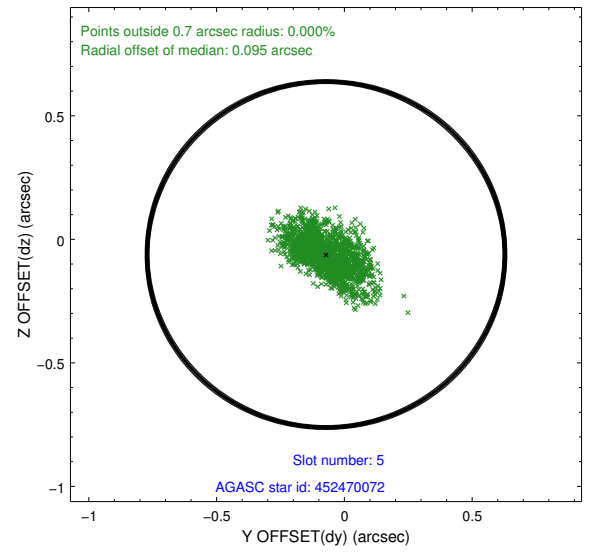
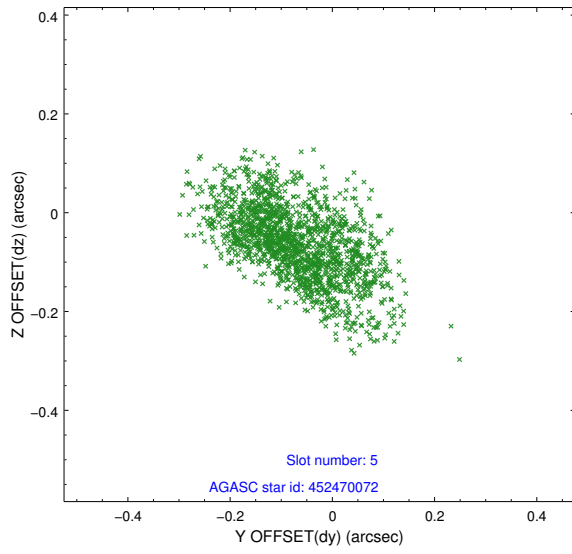
### 2.4.1 Slot 3



## 2.4.2 Slot 4

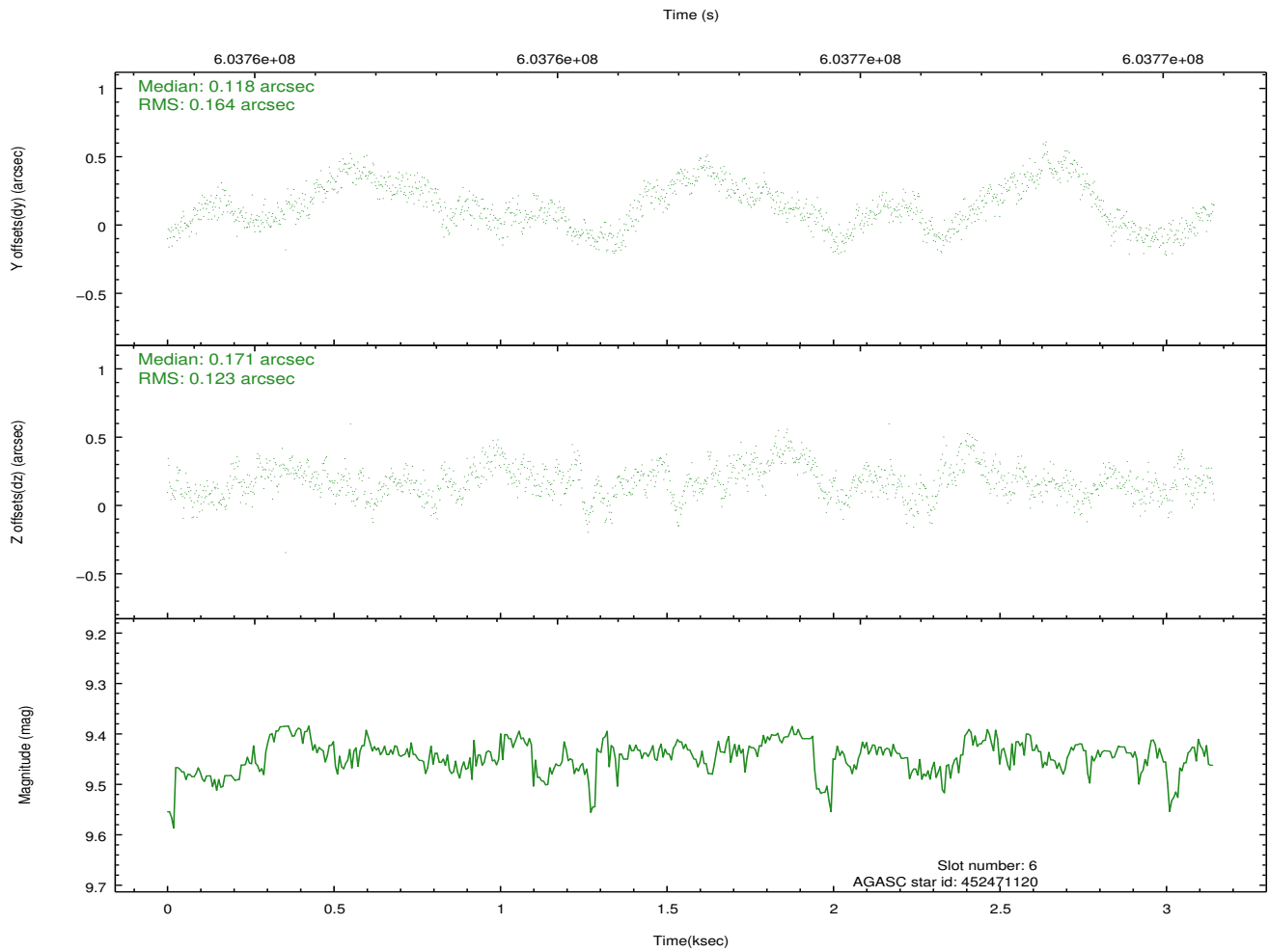
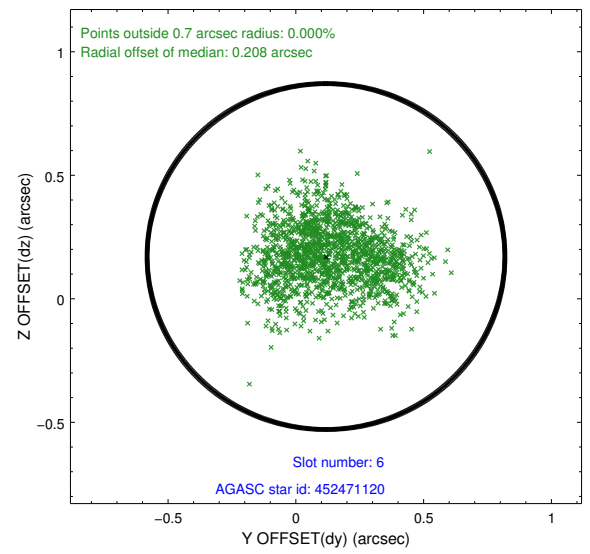
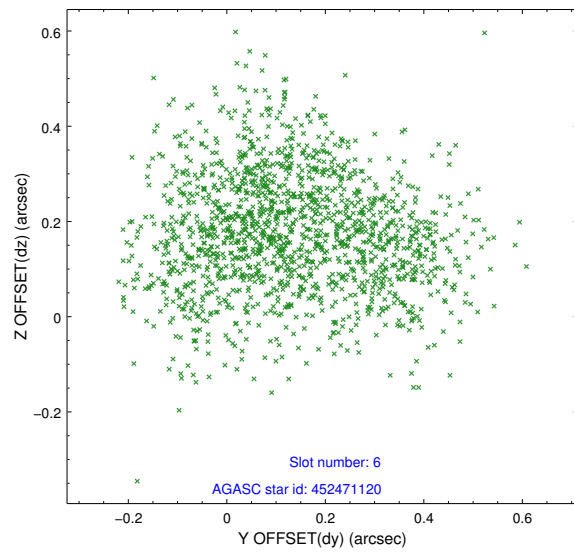


### 2.4.3 Slot 5



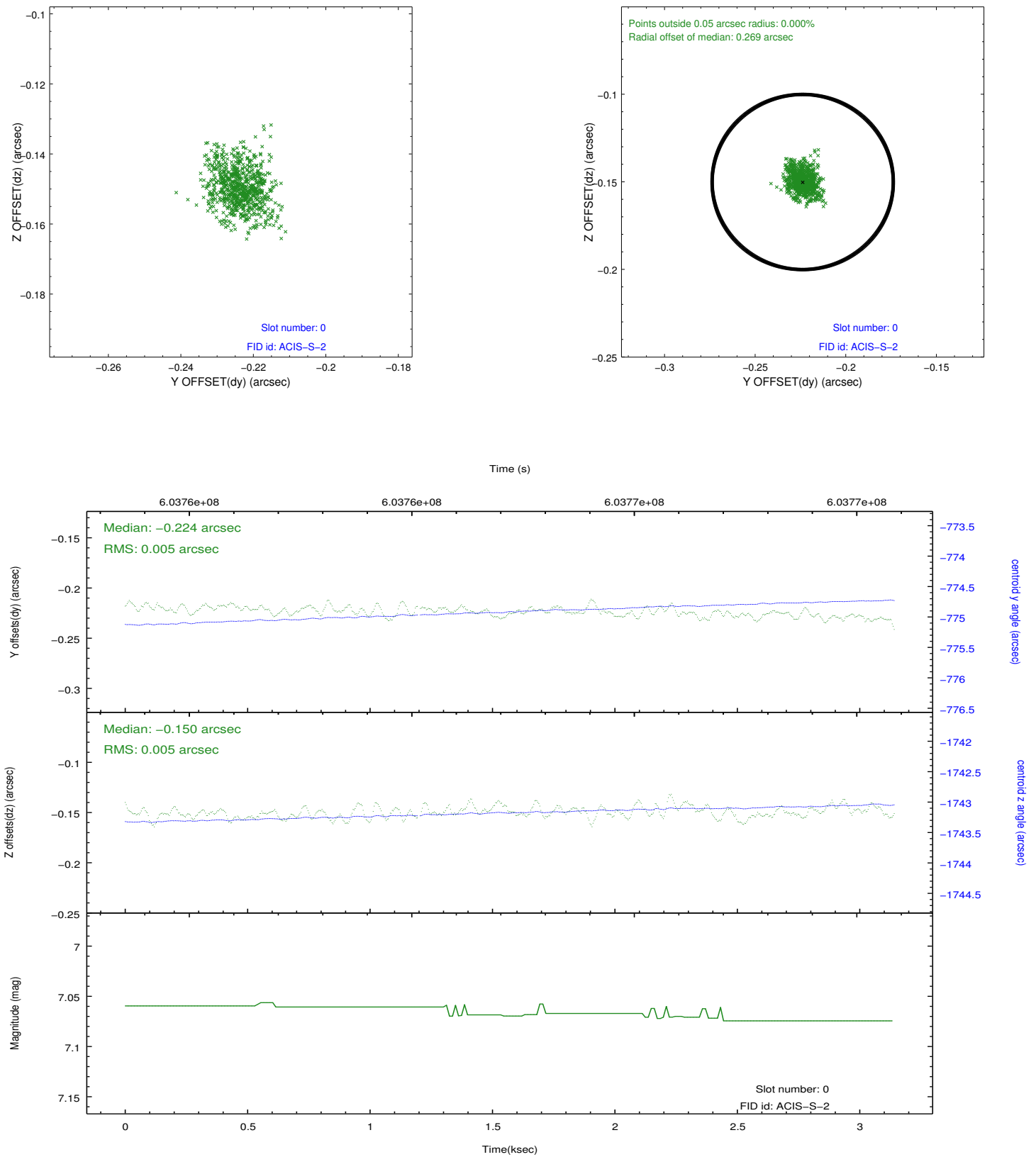


## 2.4.4 Slot 6

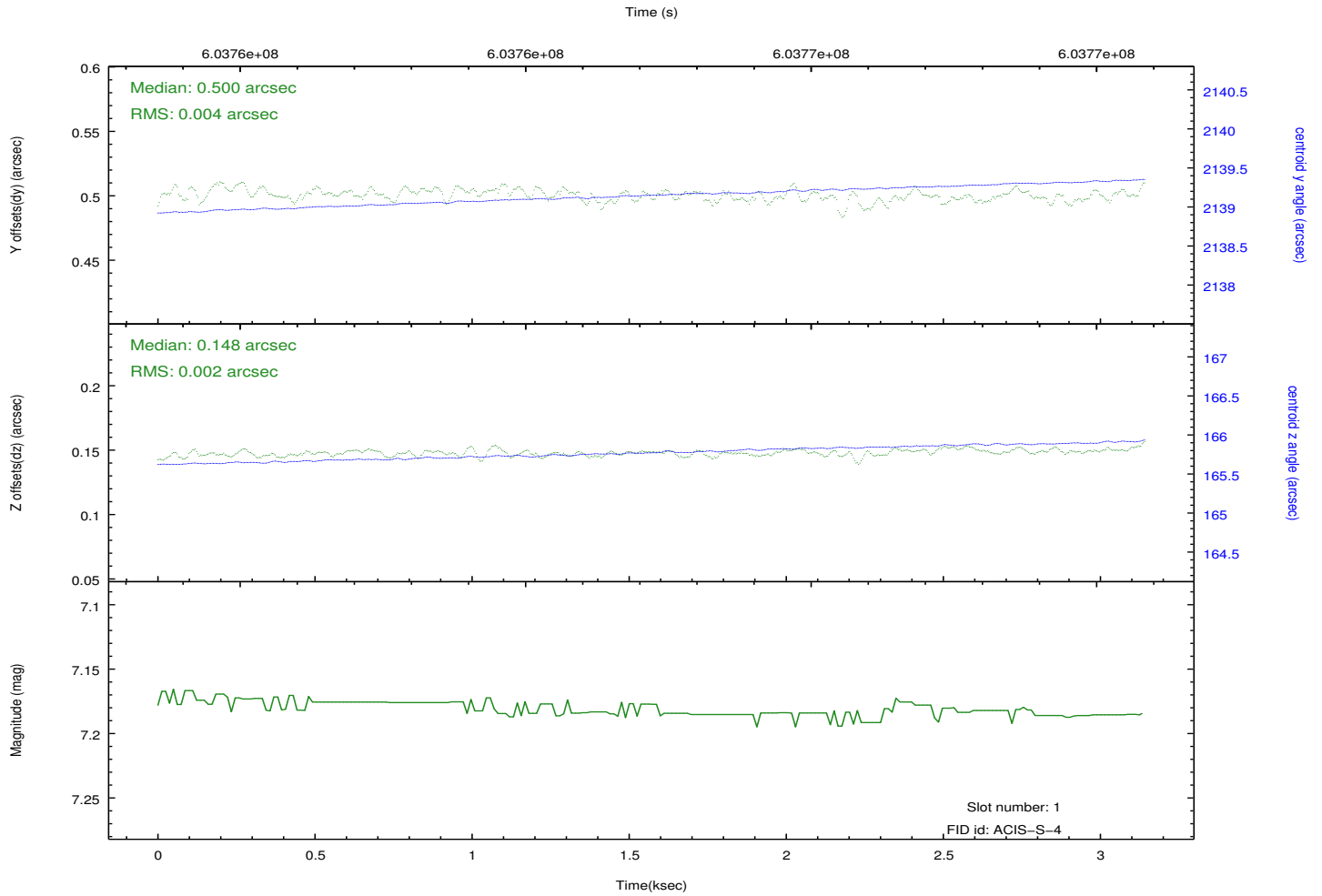
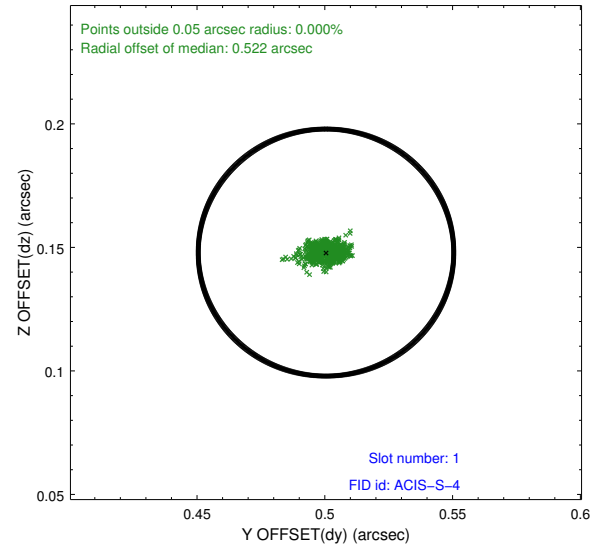
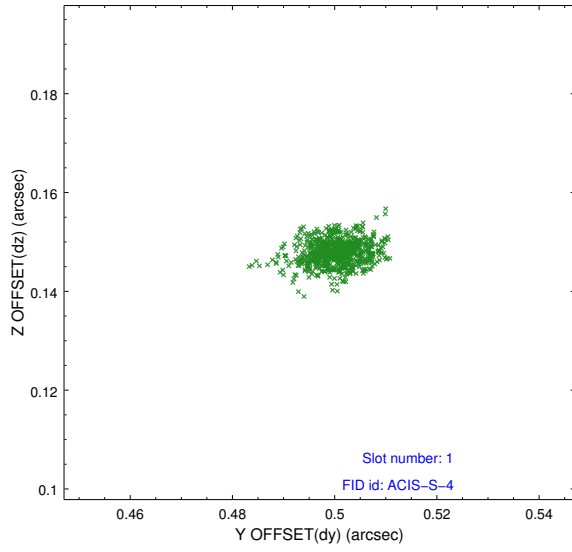


## 2.5 FID Slots

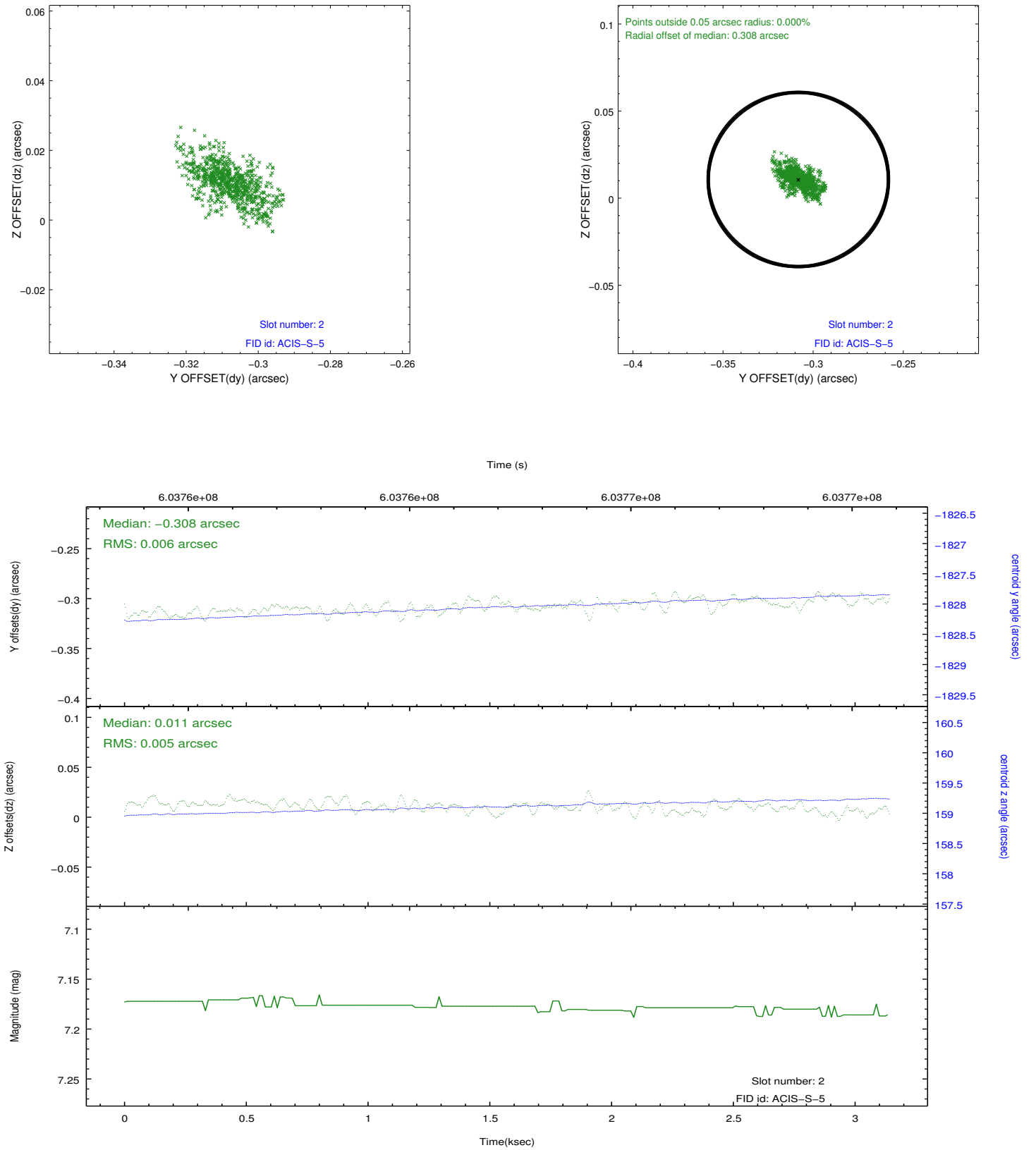
### 2.5.1 Slot 0



## 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)	2017.02.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.9376000437737

### A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.