

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 17420 - L2 Version 2  
Chandra X-Ray Center

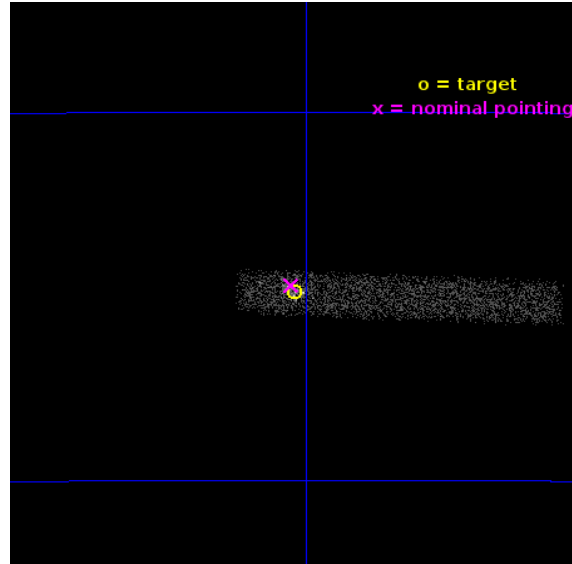
L2 Processing Date : Oct 2 2014

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# 1 Front

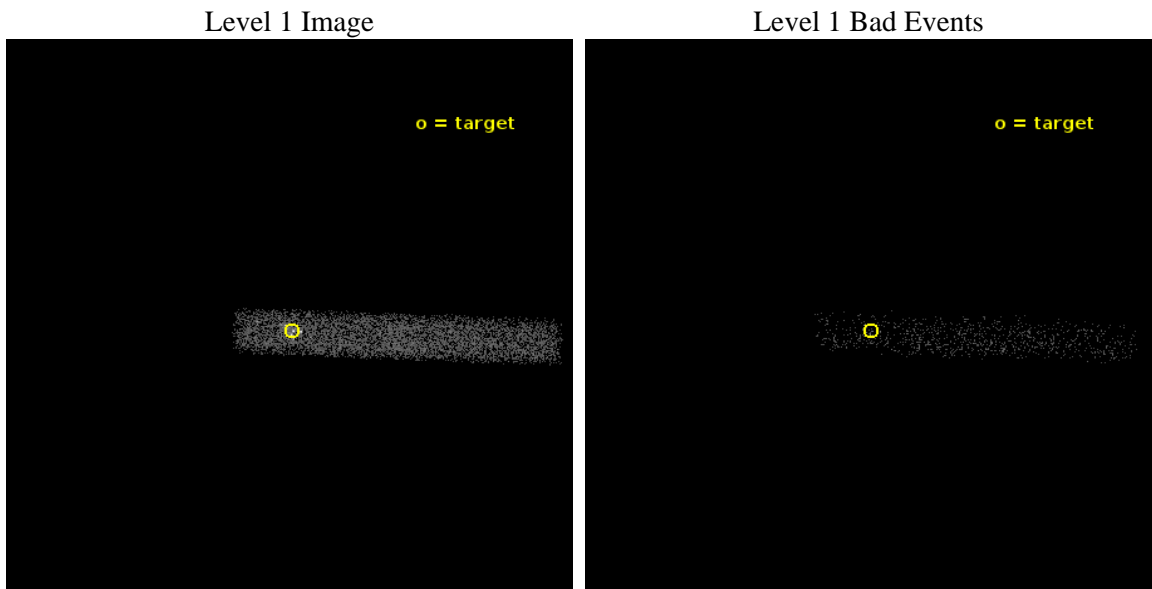
seq_num	401545	Sequence number
obs_id	17420	Observation id
title	A DEEP SUBARRAY EXPOSURE OF X7 IN 47 TUC: TOWARDS CONSTRAINING NEUTRON STAR STRUCTURE	Proposal title
observer	DR. SLAVKO BOGDANOV	Principal investigator
object	47 Tuc	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	6.014558	Observer's specified target RA [deg]
dec_targ	-72.081094	Observer's specified target Dec [deg]
ra_nom	6.0198926761152	Nominal RA [deg]
dec_nom	-72.078396943755	Nominal Dec [deg]
roll_nom	2.1617741959869	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10069.146440685	Sum of GTIs [s]
livetime	9132.1843285732	Livetime [s]
ontime7	10069.146440685	Sum of GTIs [s]
l2events	6789	Number of level 2 events



## 2 OBI

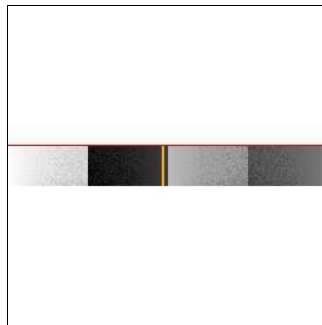
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	10069.146440685	Sum of GTIs [s]
caldsver	4.6.3	&#160	ontime7	10069.146440685	Sum of GTIs [s]
date	2014-10-02T17:07:25	Date and time of file creation	l1events	11662	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	11662
rejected events	4676
rejected %	40%

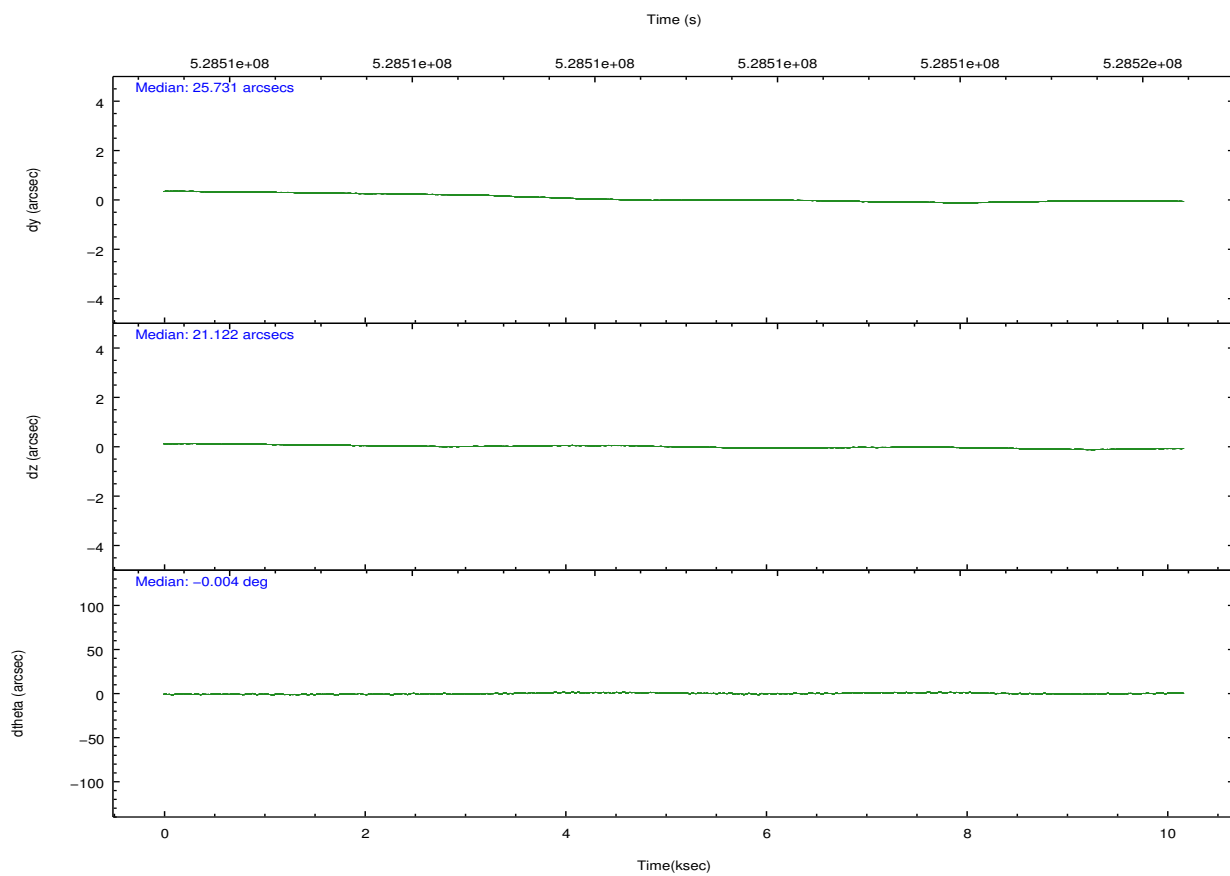
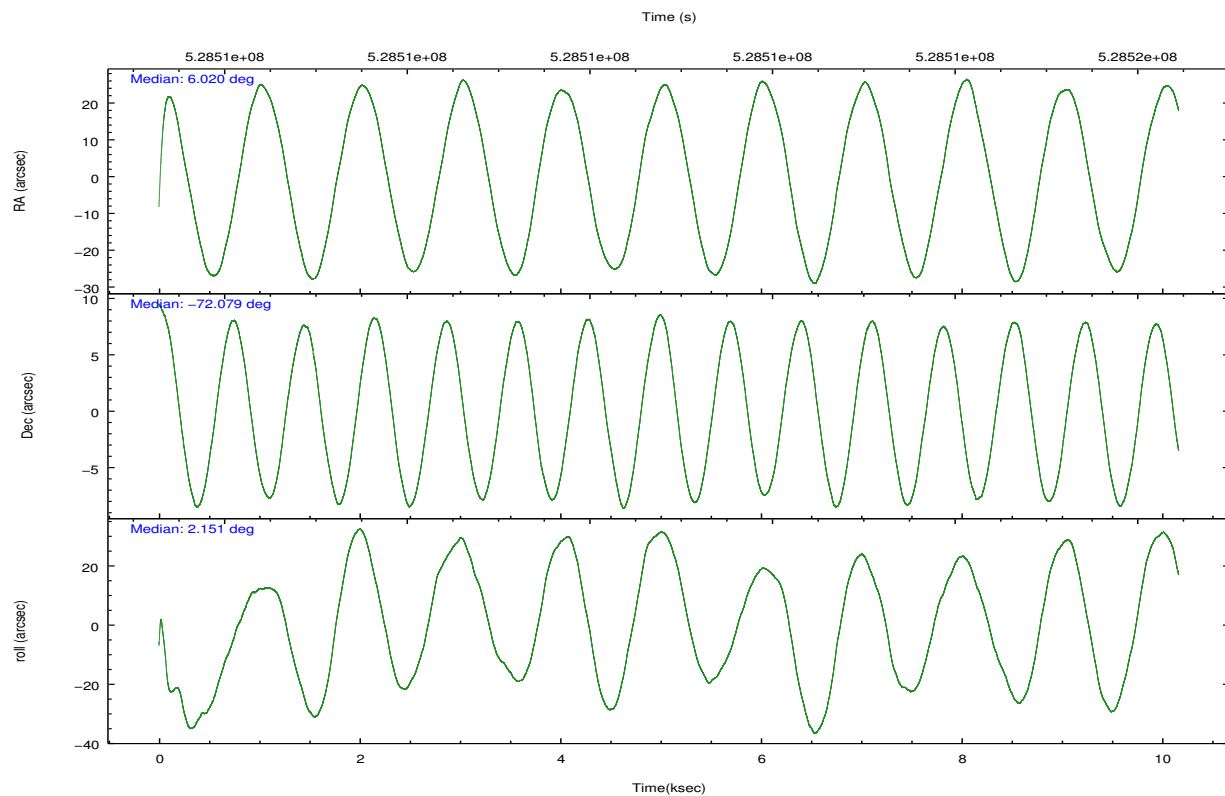
	<b>ccd 7</b>
grade 0 events	1254
	10%
grade 1 events	12
	0%
grade 2 events	1536
	13%
grade 3 events	893
	7%
grade 4 events	867
	7%
grade 5 events	973
	8%
grade 6 events	2436
	20%
grade 7 events	3691
	31%



## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	5.944899	6.01989267611519	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-72.093331	-72.07839694375485	Subarray start row	449	449
[deg] Pointing Roll	1.933717	2.161774195986884	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	528505952.184000	528505030.27183			
Observation start date	2014-09-30T23:11:25	2014-09-30T22:57:10			
[s] Observation end time (MET)	528515952.184000	528516667.60998			
Observation end date	2014-10-01T01:58:05	2014-10-01T02:11:07			
Read mode	TIMED	TIMED			

## 2.3 Aspect

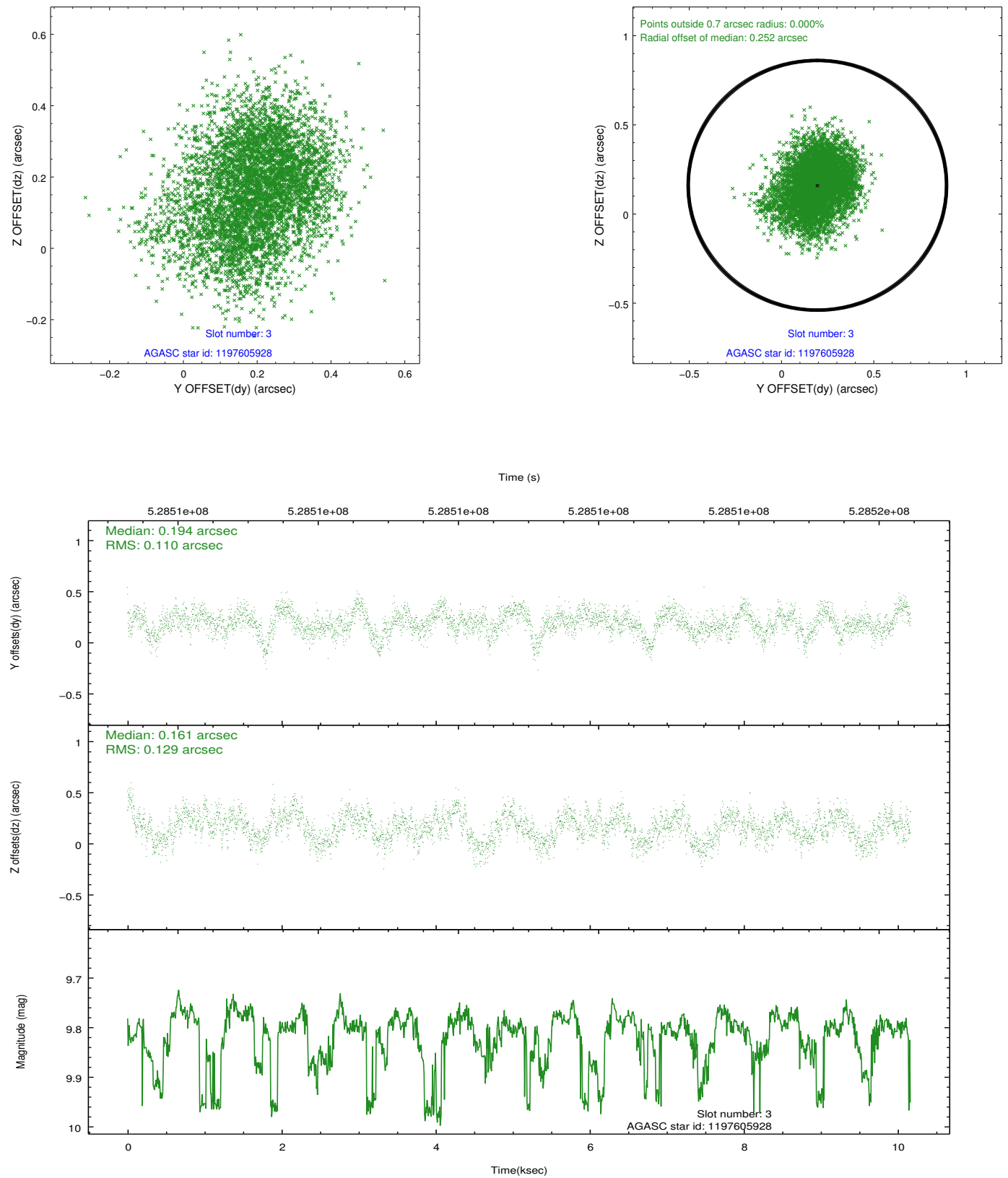


Slot Statistics

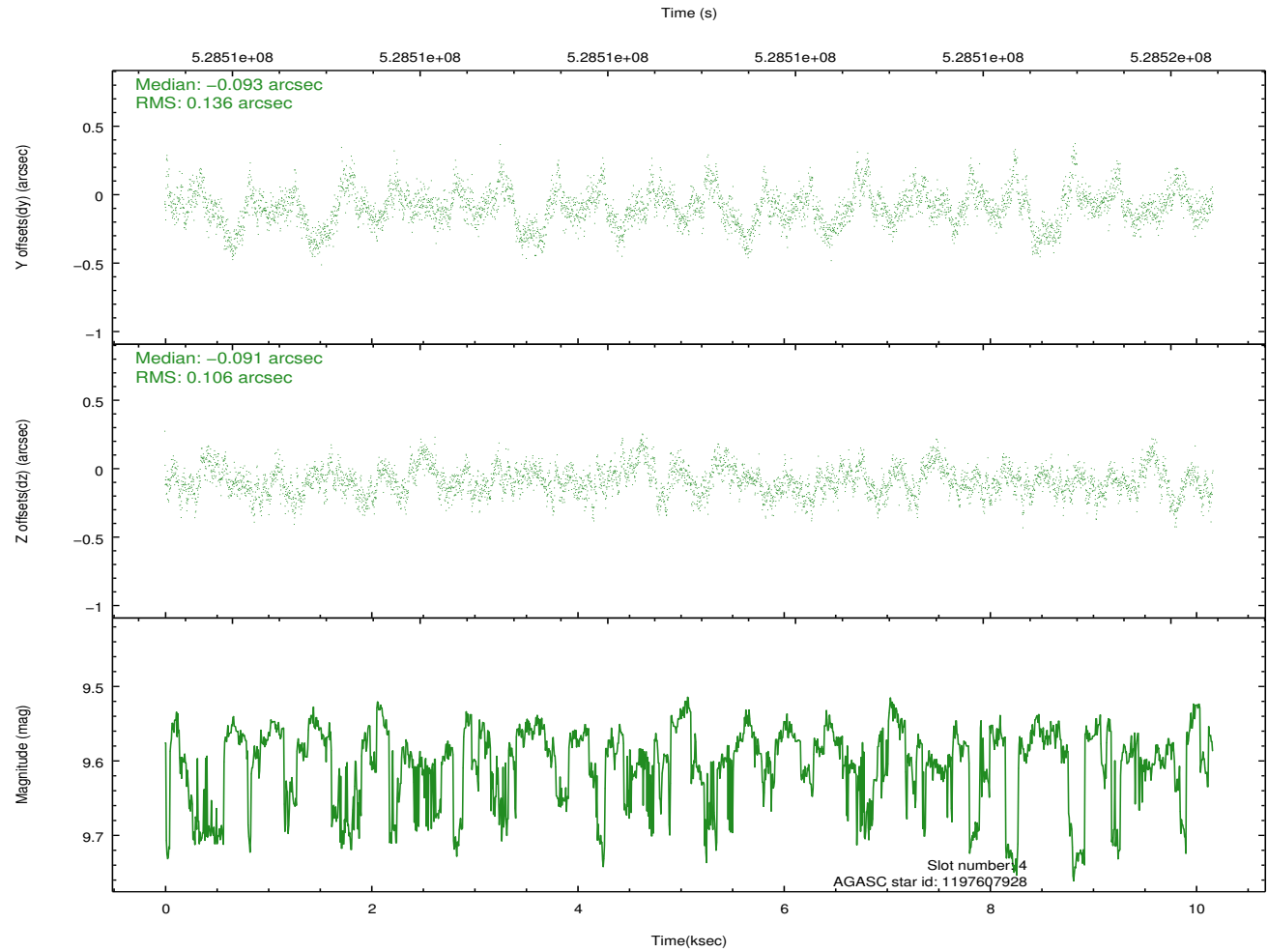
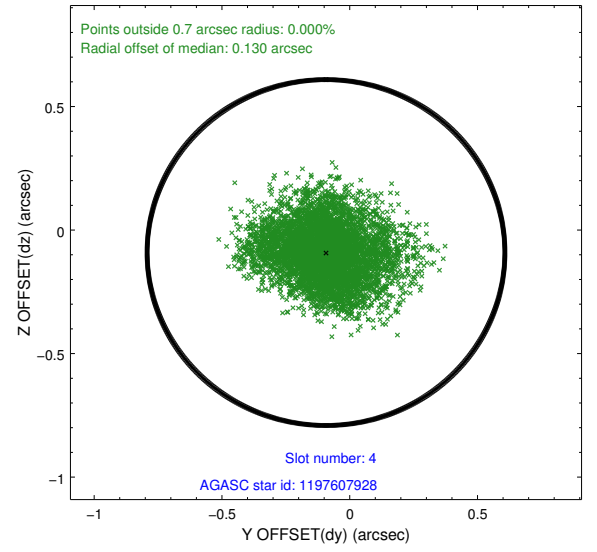
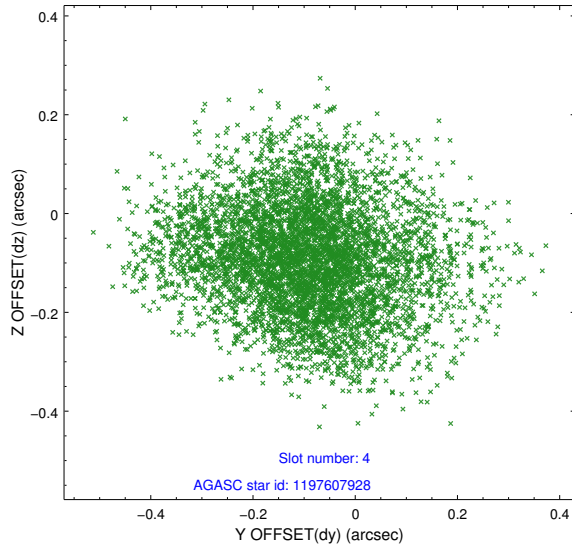
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	2480	-0.178	0.004	0.007	0.011	0.000000	0.000000	-779.24	-1742.66
1	FID	ACIS-S-4	7.04	2480	0.336	0.085	0.006	0.010	0.000000	0.000000	2134.30	165.37
2	FID	ACIS-S-5	7.06	2480	-0.189	-0.080	0.007	0.012	0.000000	0.000000	-1831.44	159.45
3	GUIDE	1197605928	9.81	4948	0.194	0.161	0.182	0.289	4.361277	-72.423732	-1761.15	-1153.52
4	GUIDE	1197607928	9.59	4960	-0.093	-0.091	0.186	0.300	7.837743	-72.165759	2075.17	-363.22
5	GUIDE	1197620848	9.97	4772	-0.104	-0.062	0.192	0.316	3.913465	-71.739620	-2248.66	1311.35
6	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
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

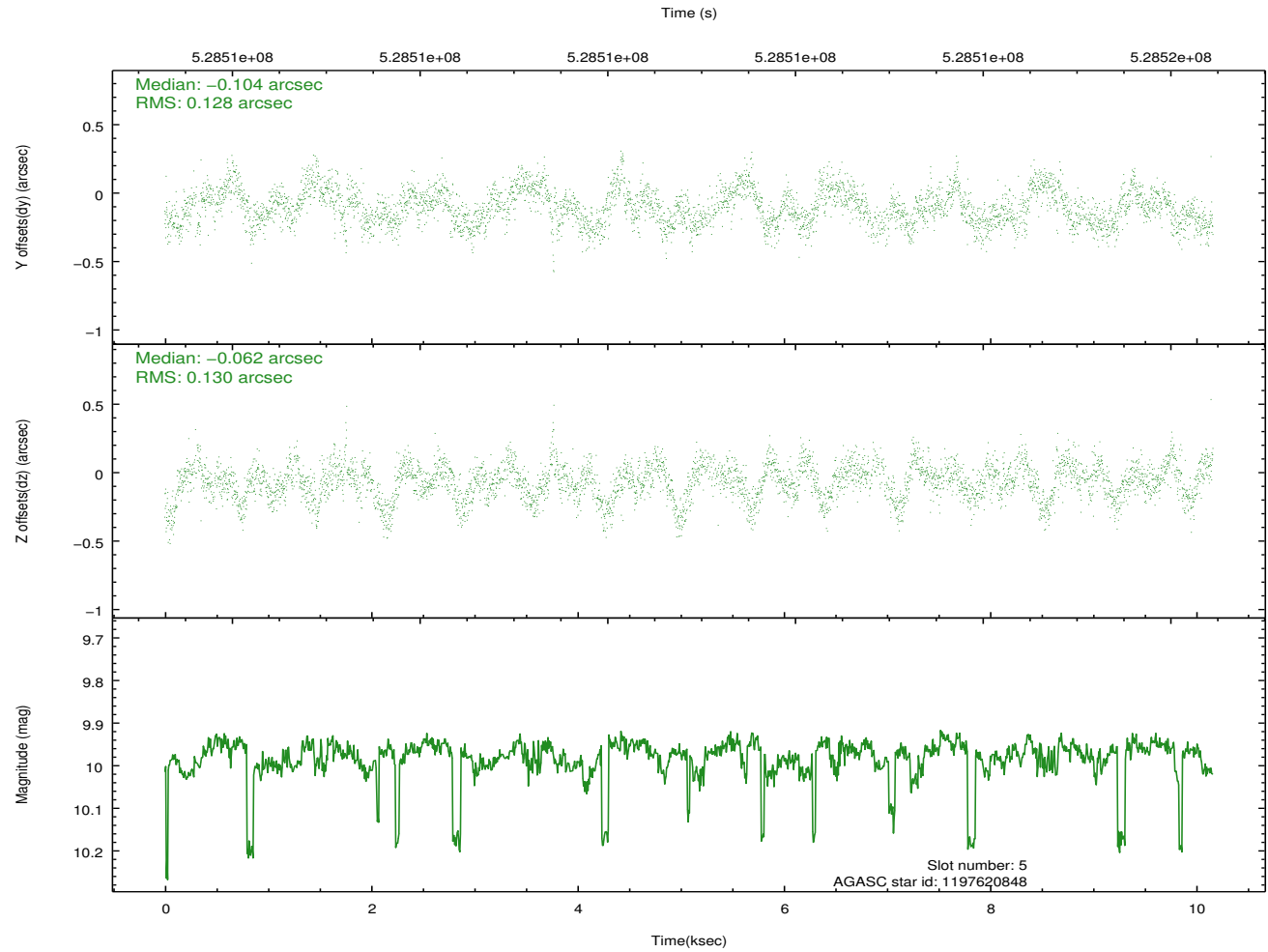
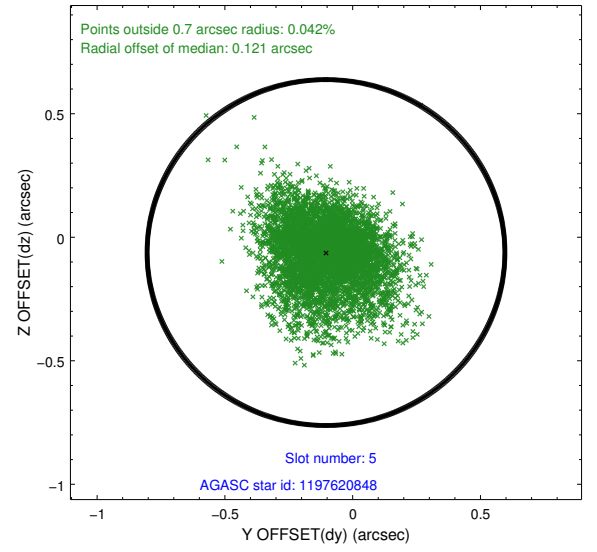
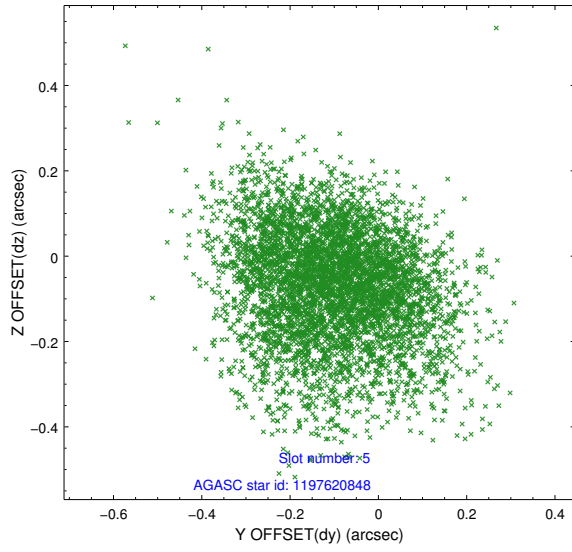
### 2.4.1 Slot 3



## 2.4.2 Slot 4

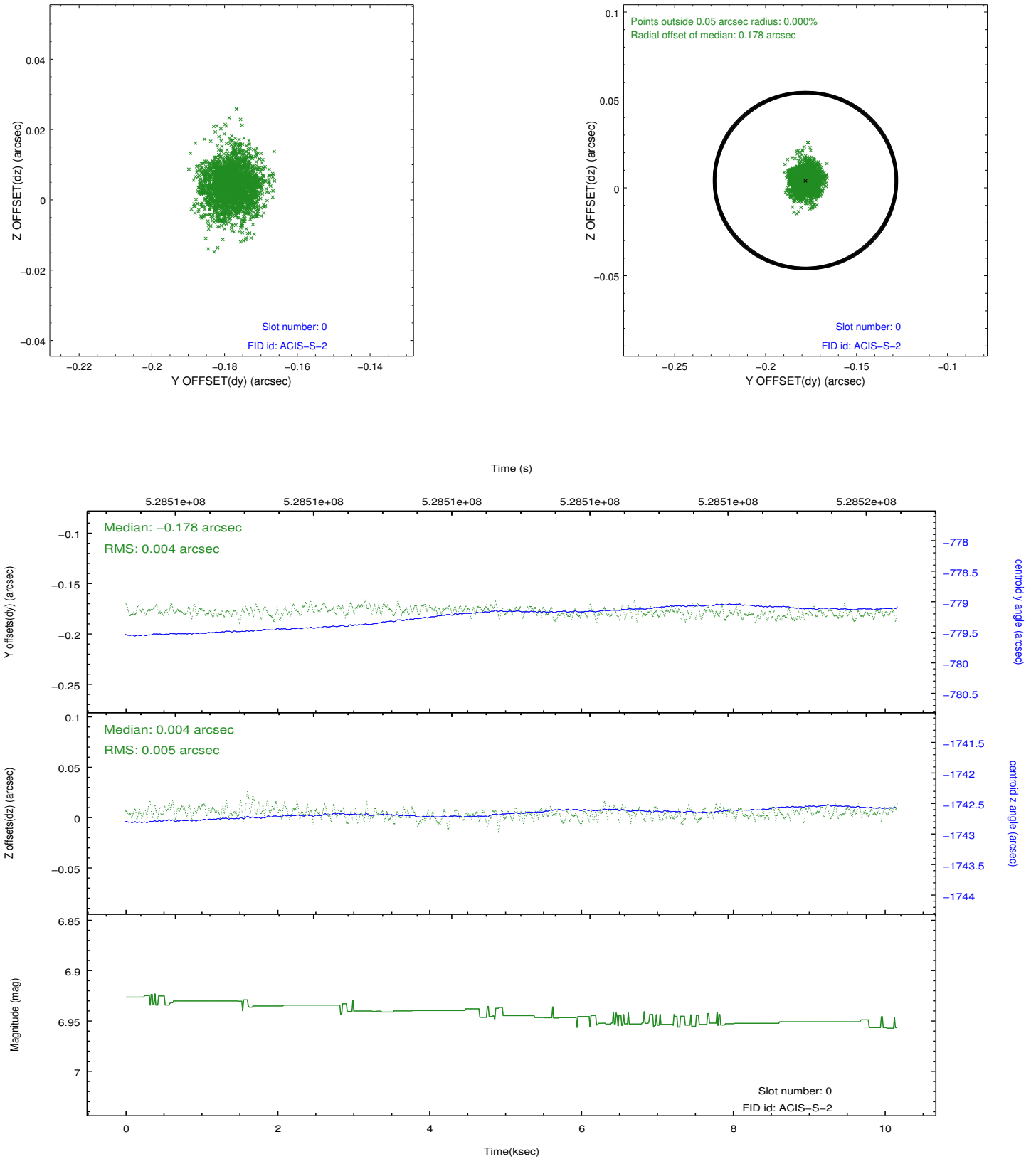


### 2.4.3 Slot 5



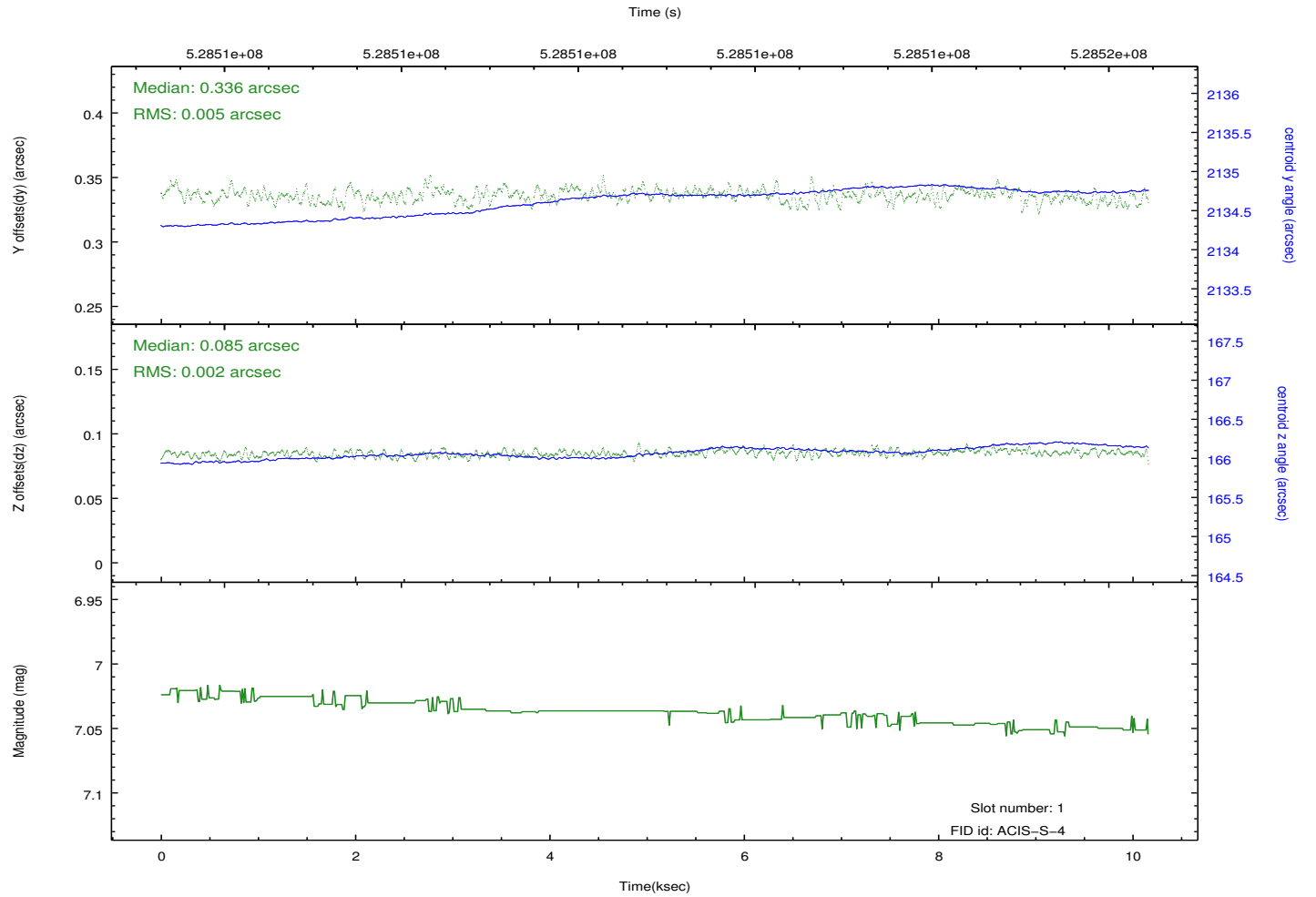
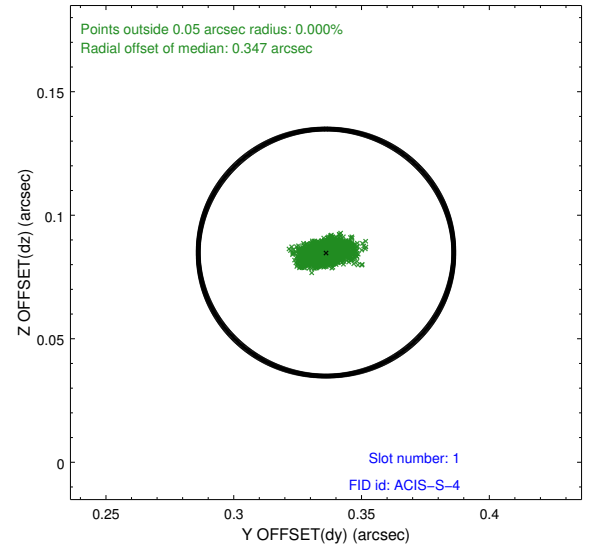
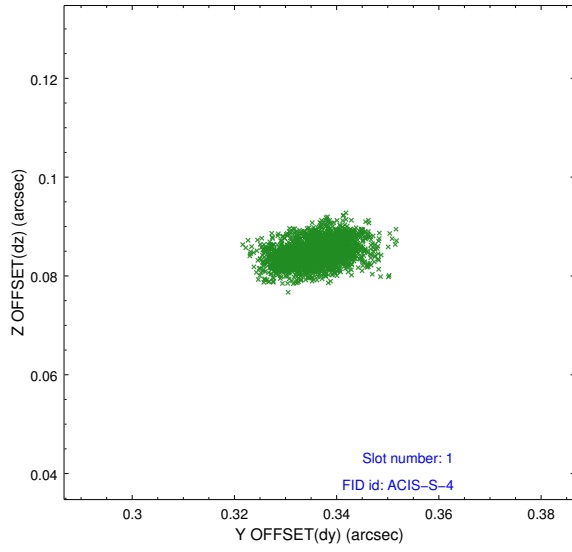
## 2.5 FID Slots

### 2.5.1 Slot 0

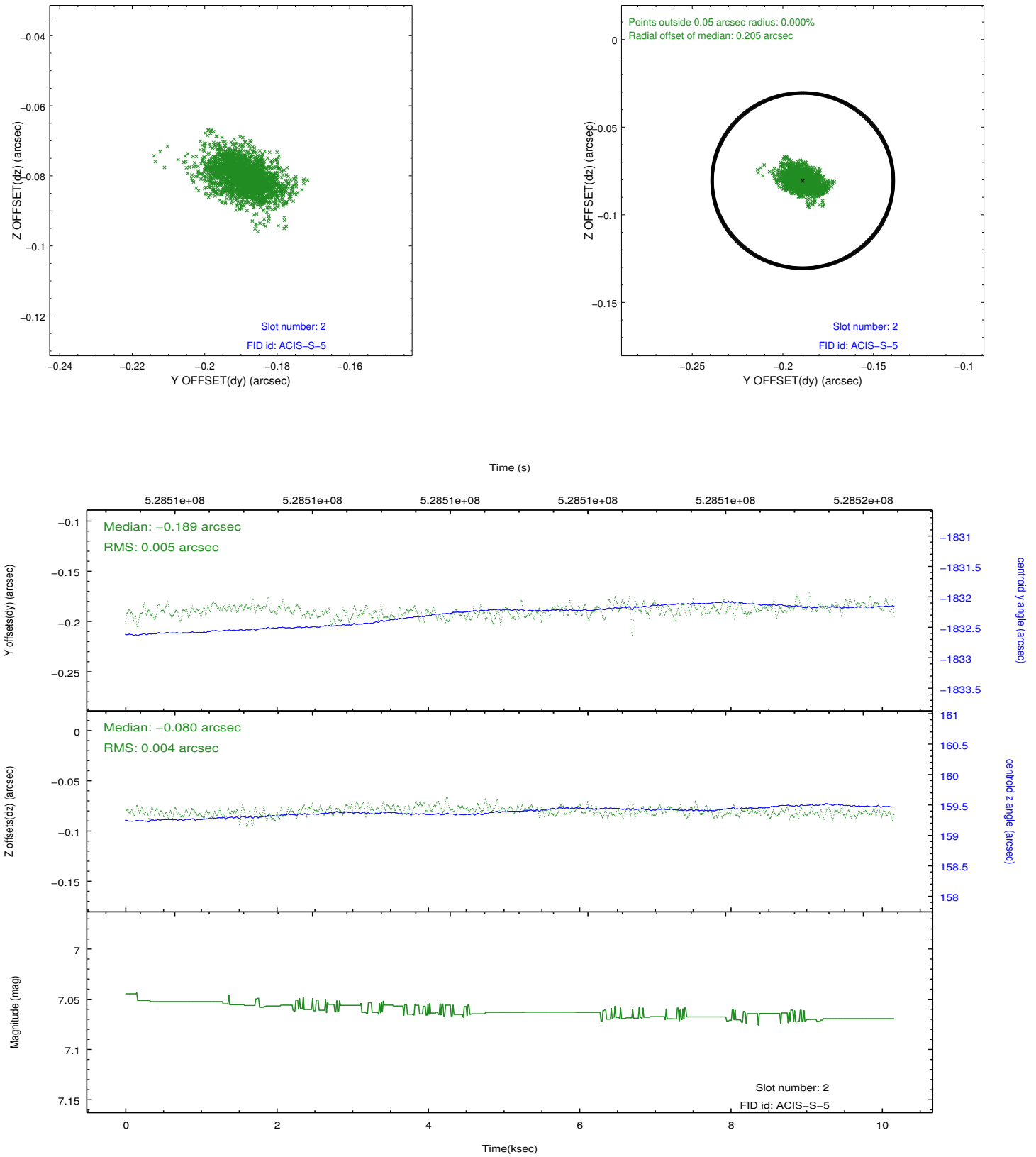




## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.10.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.069146440685

## A.2 Comments

The guide stars in slots 6 and 7 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of these stars from the solution.