

# V&V Reference Report

## L2 ASCDS Version : 10.1

Observation 15010 - L2 Version 2  
Chandra X-Ray Center

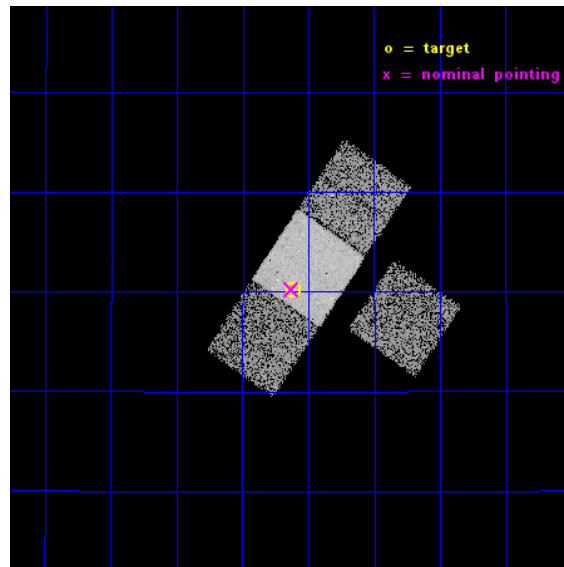
L2 Processing Date : Dec 9 2014

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# 1 Front

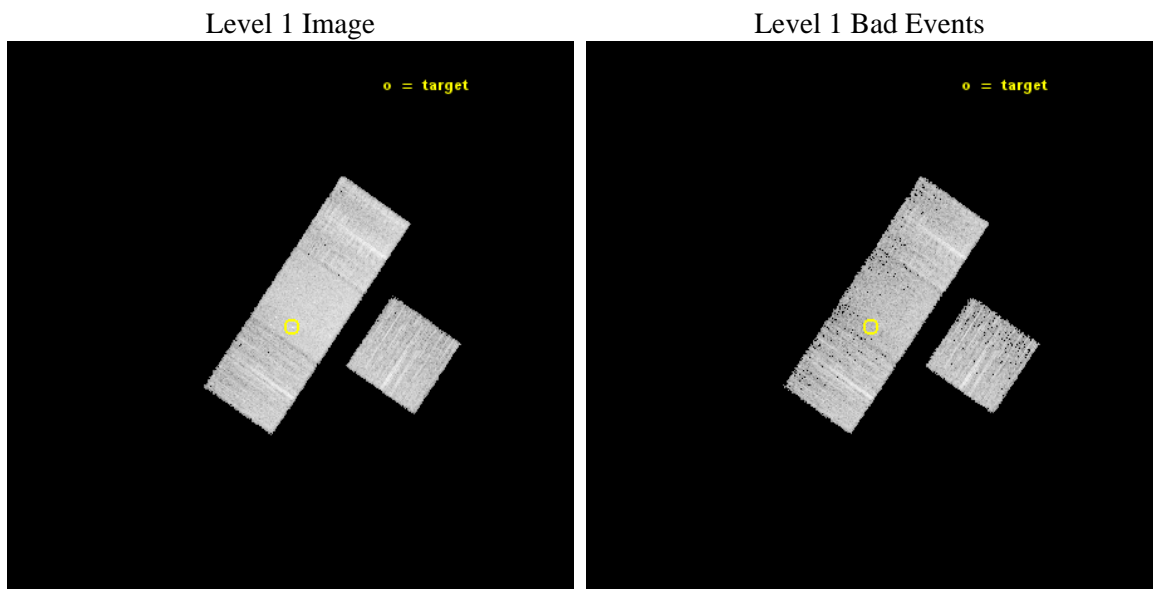
seq_num	702818	Sequence number
obs_id	15010	Observation id
title	The Herschel Legacy of powerful 3C radio galaxies and quasars II: observing Proposal.	Proposal title
observer	Dr Joanna Kuraszkiewicz	Principal investigator
object	3C340	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	247.40375	Observer's specified target RA [deg]
dec_targ	23.337333	Observer's specified target Dec [deg]
ra_nom	247.40709329031	Nominal RA [deg]
dec_nom	23.337421594844	Nominal Dec [deg]
roll_nom	304.33635209486	Nominal Roll [deg]
revision	2	Processing version of data
ontime	10077.872764289	Sum of GTIs [s]
livetime	9946.1979374019	Livetime [s]
ontime3	10077.790684283	Sum of GTIs [s]
ontime6	10077.831724286	Sum of GTIs [s]
ontime7	10077.872764289	Sum of GTIs [s]
ontime8	10077.749644279	Sum of GTIs [s]
l2events	45327	Number of level 2 events



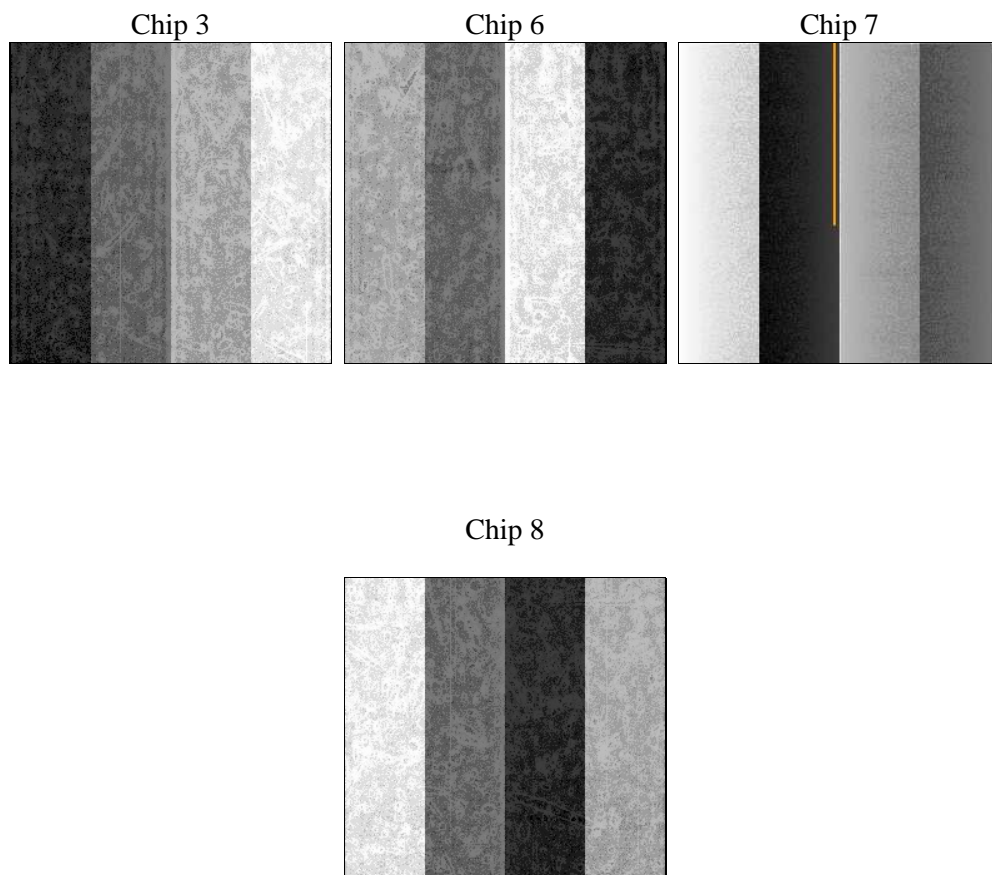
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	10077.872764289	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime3	10077.790684283	Sum of GTIs [s]
date	2014-12-09T05:35:59	Date and time of file creation	ontime6	10077.831724286	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	10077.872764289	Sum of GTIs [s]
			ontime8	10077.749644279	Sum of GTIs [s]
			l1events	227424	Number of level 1 events

### 2.1.4 Events

	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	47149	49484	66735	64056
rejected events	41577	43746	37059	47216
rejected %	88%	88%	55%	73%

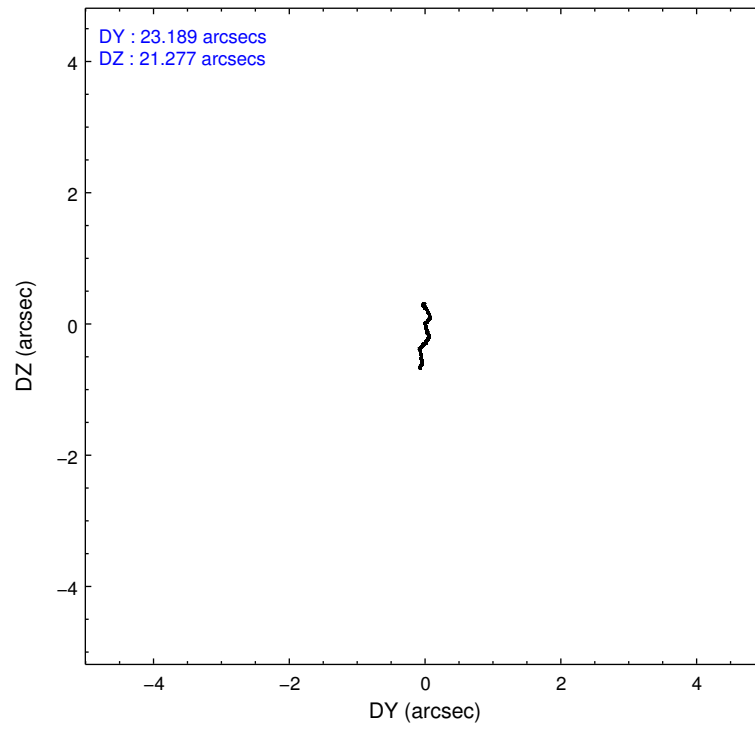
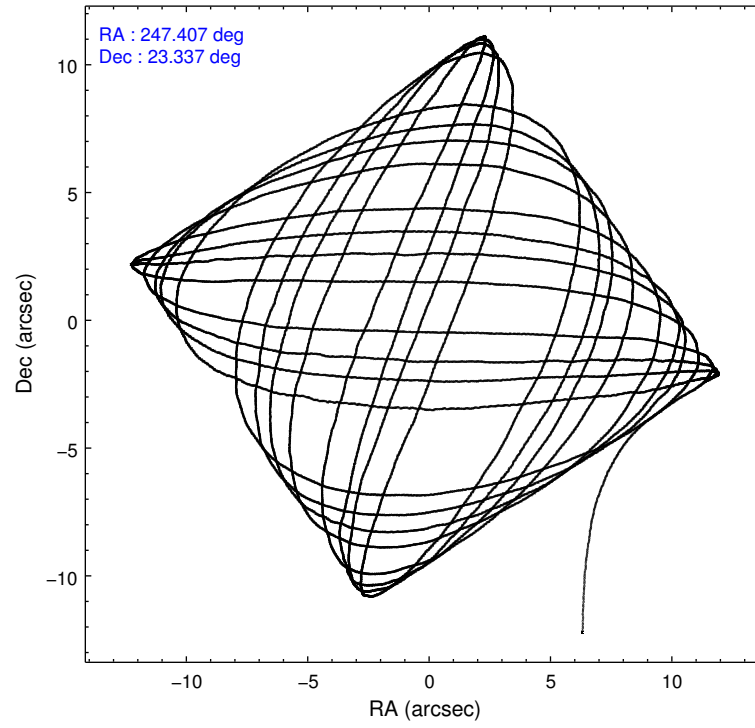
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	1938	1899	2720	5198
	4%	3%	4%	8%
grade 1 events	31	26	82	48
	0%	0%	0%	0%
grade 2 events	1205	1323	6067	3981
	2%	2%	9%	6%
grade 3 events	636	566	2564	1757
	1%	1%	3%	2%
grade 4 events	623	587	2615	1697
	1%	1%	3%	2%
grade 5 events	2629	2516	6745	3795
	5%	5%	10%	5%
grade 6 events	1173	1369	15724	4216
	2%	2%	23%	6%
grade 7 events	38914	41198	30218	43364
	82%	83%	45%	67%

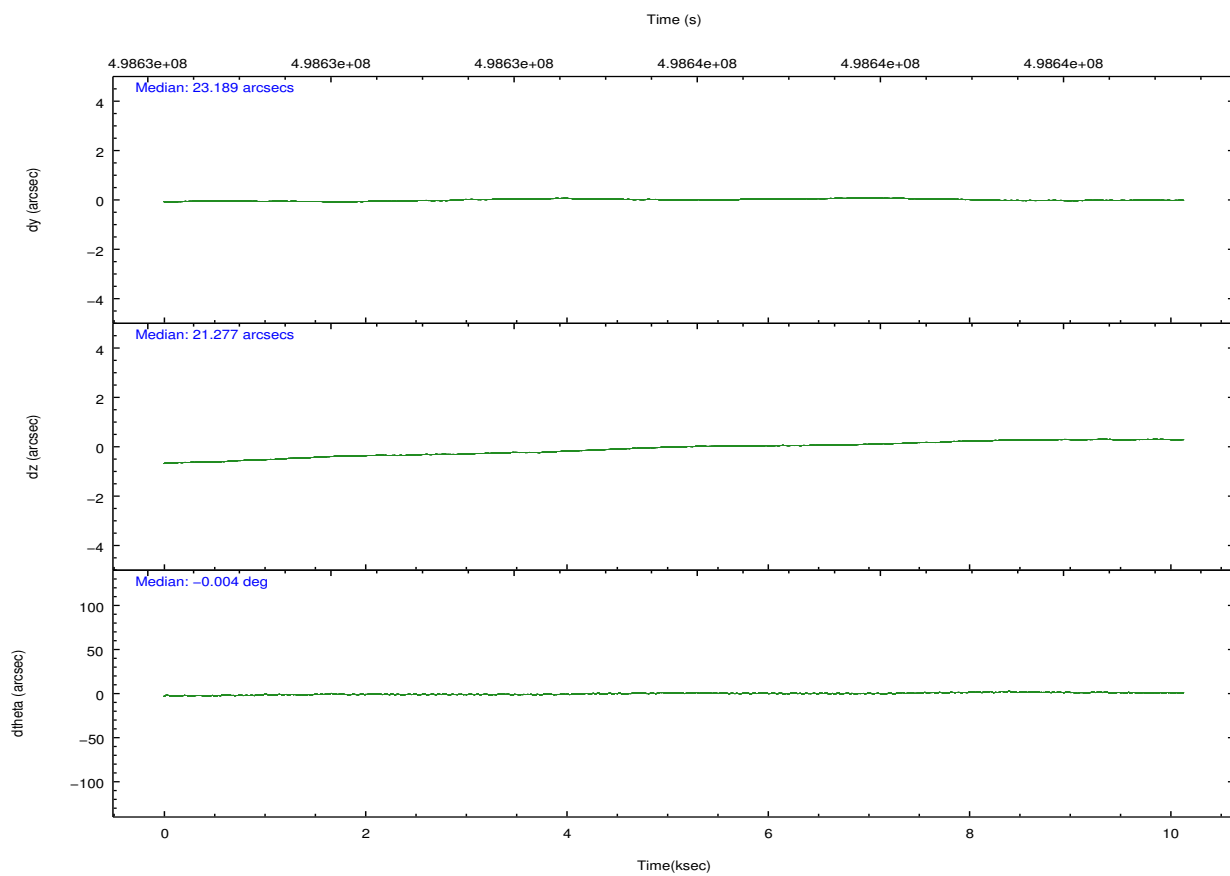
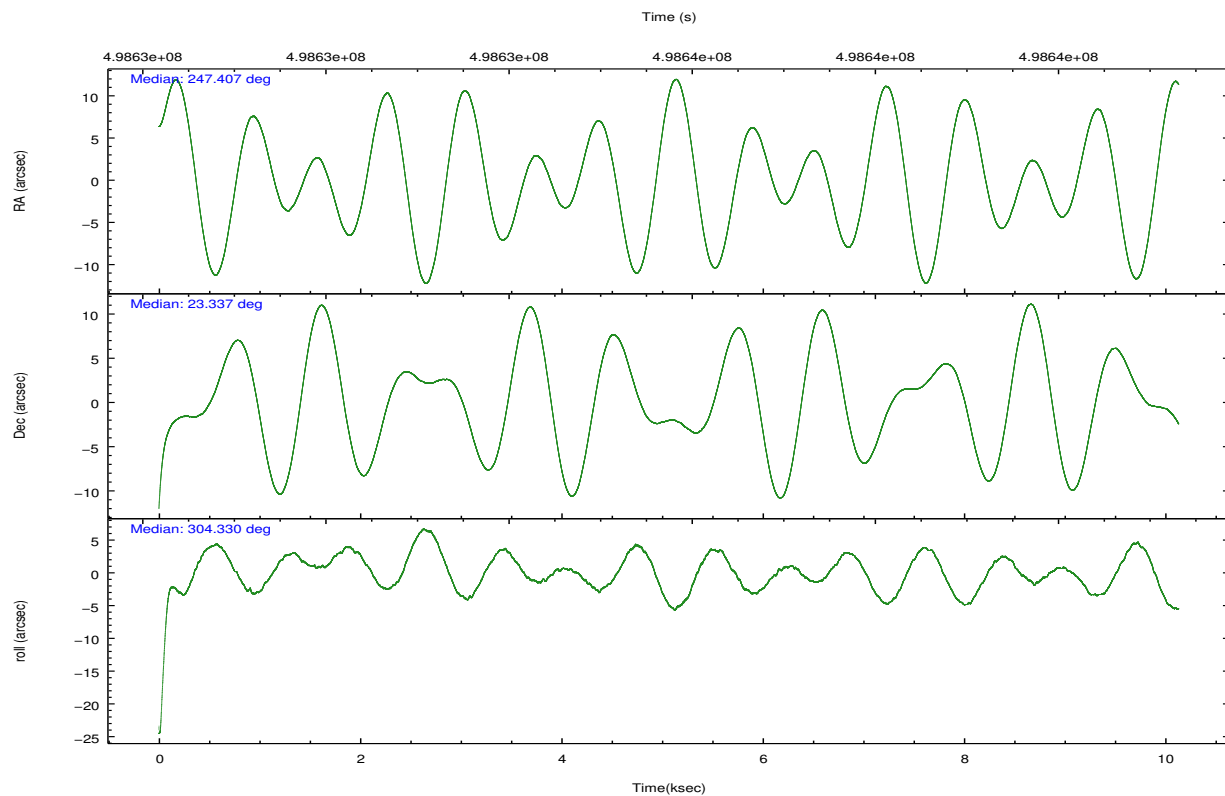


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3678	ACIS-3678	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	247.380026	247.4070932903071	CCD I2 on	N	N
[deg] Pointing Dec	23.348932	23.33742159484387	CCD I3 on	O1	Y
[deg] Pointing Roll	304.190480	304.336352094861	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O3	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)	498630816.184000	498629402.31155	CCD S5 on	N	N
Observation start date	2013-10-20T04:32:29	2013-10-20T04:10:02	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	498640816.184000	498641800.19973	On-chip summing requested	N	N
Observation end date	2013-10-20T07:19:09	2013-10-20T07:36:40	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



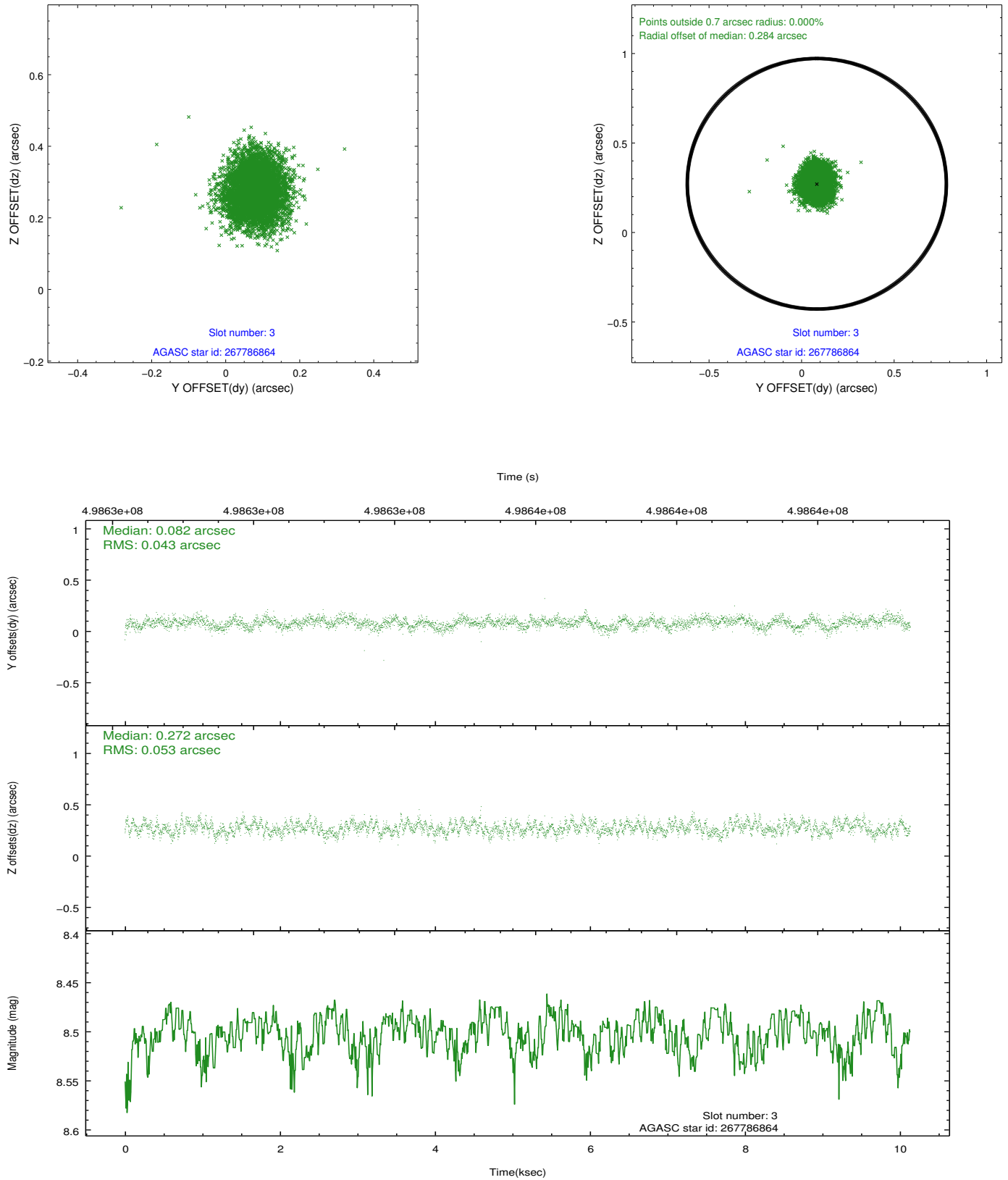


### Slot Statistics

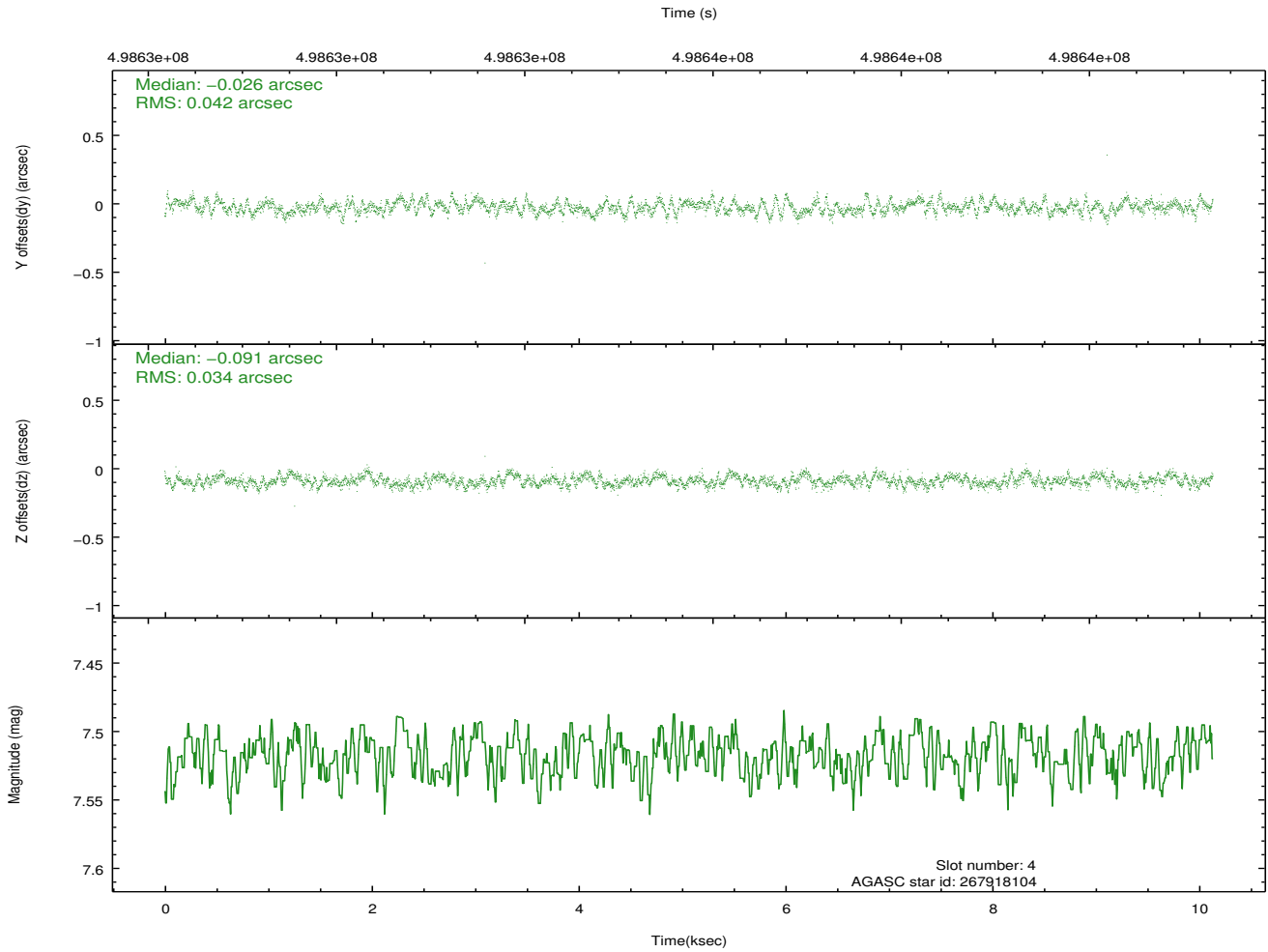
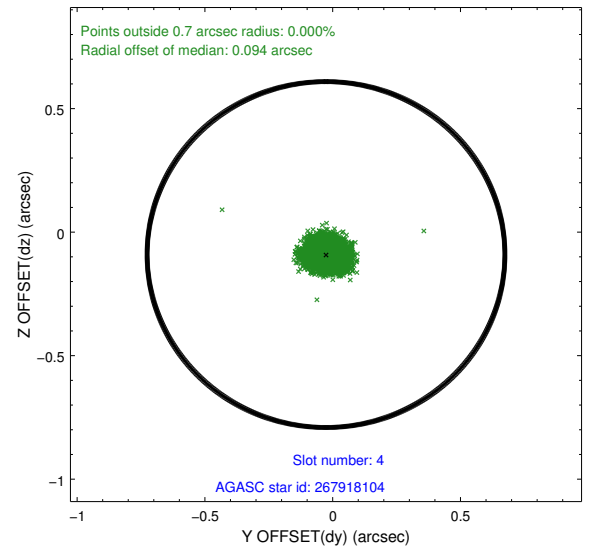
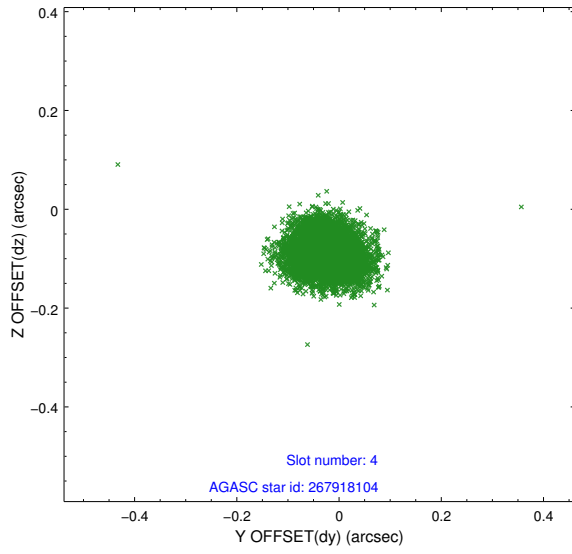
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.96	2472	-0.119	-0.021	0.011	0.017	0.000000	0.000000	-776.49	-1742.76
1	FID		ACIS-S-4	7.04	2472	0.304	0.063	0.007	0.012	0.000000	0.000000	2136.96	165.27
2	FID		ACIS-S-5	7.07	2472	-0.216	-0.033	0.010	0.016	0.000000	0.000000	-1828.77	159.43
3	GUIDE	used	267786864	8.50	4942	0.082	0.272	0.073	0.117	246.648047	23.411141	-1548.56	-1870.73
4	GUIDE	used	267918104	7.52	4944	-0.026	-0.091	0.058	0.089	247.355225	23.631151	-886.52	502.86
5	GUIDE	used	267920224	7.40	4943	-0.005	-0.061	0.067	0.102	247.243807	22.894940	1098.08	-1291.71
6	GUIDE	used	267921576	7.42	4942	-0.027	-0.000	0.075	0.122	248.194898	23.160444	2070.94	1854.08
7	GUIDE	used	267912544	8.79	4935	-0.022	-0.129	0.072	0.117	247.549678	23.859768	-1206.96	1495.48

## 2.4 Star Slots

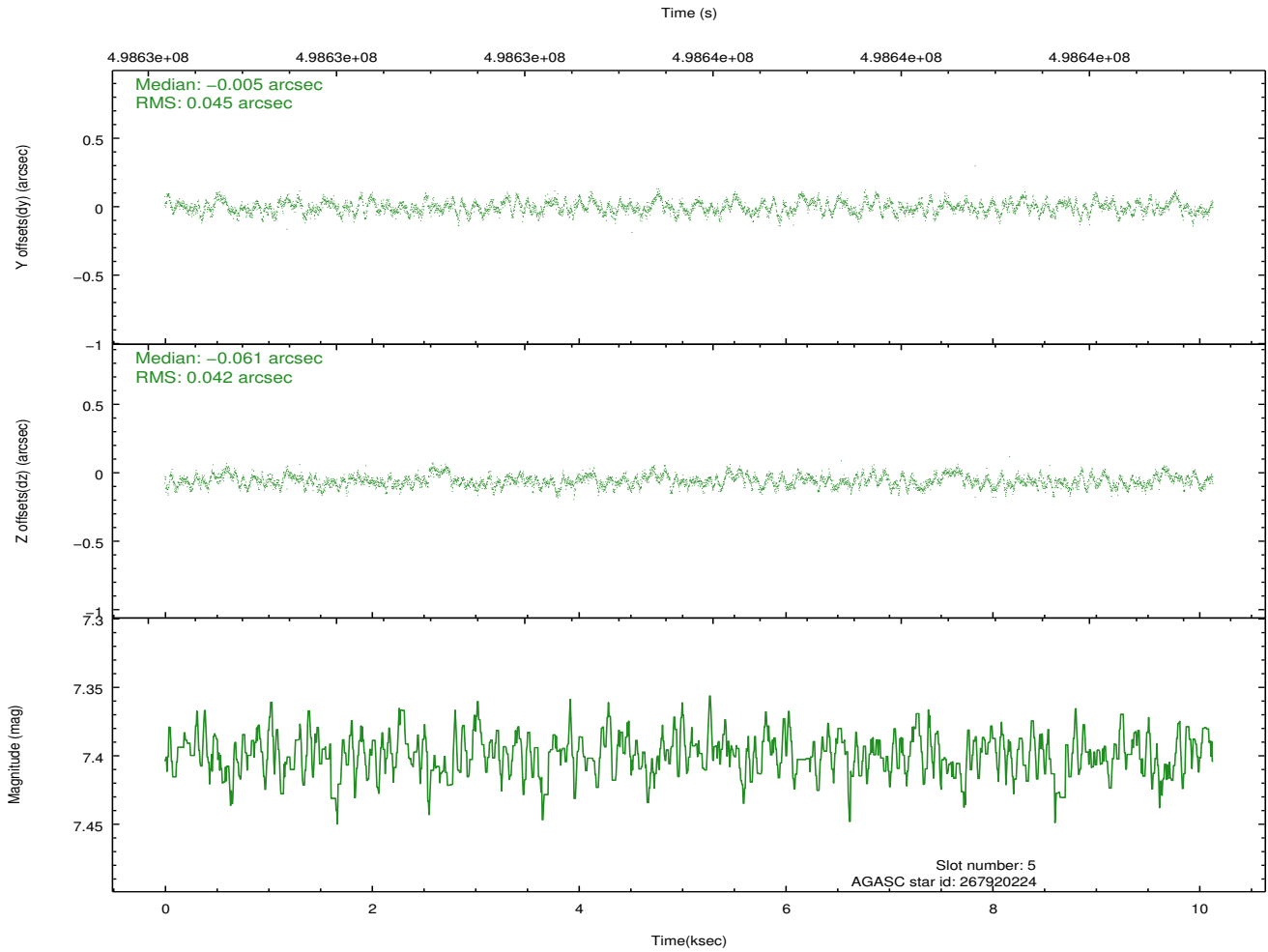
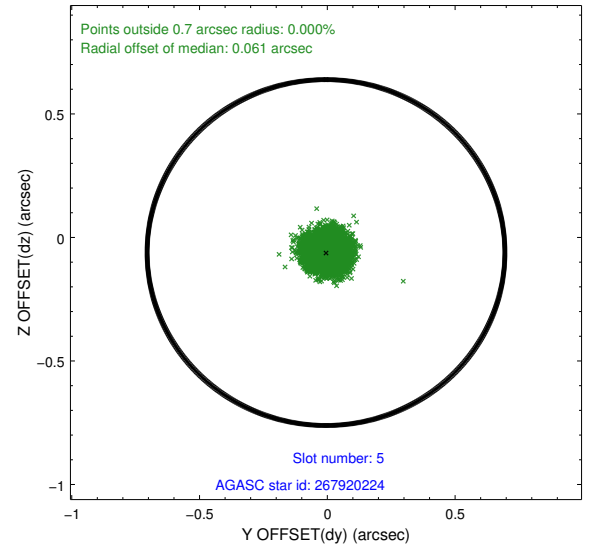
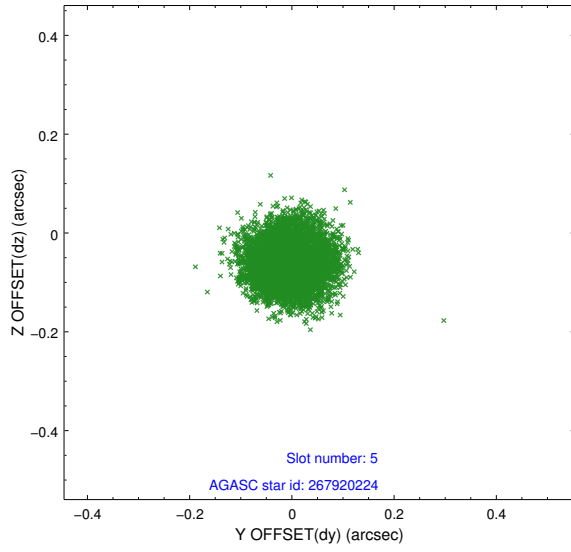
### 2.4.1 Slot 3



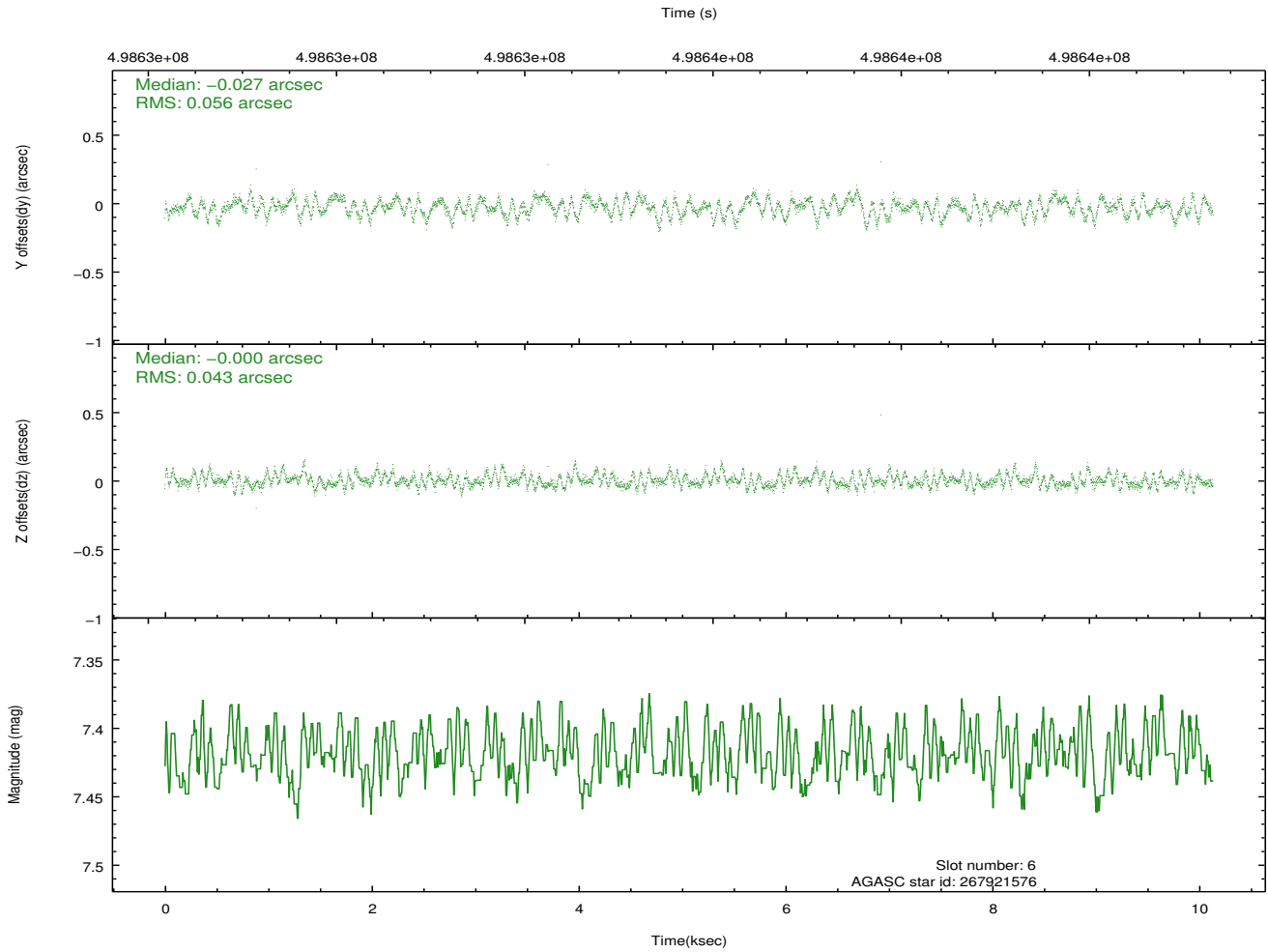
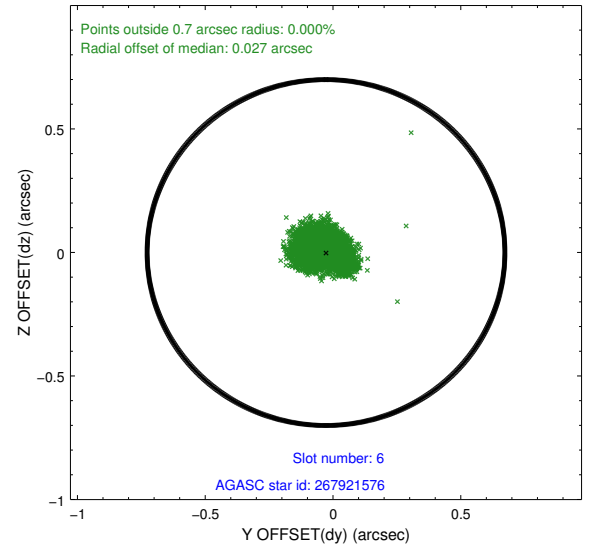
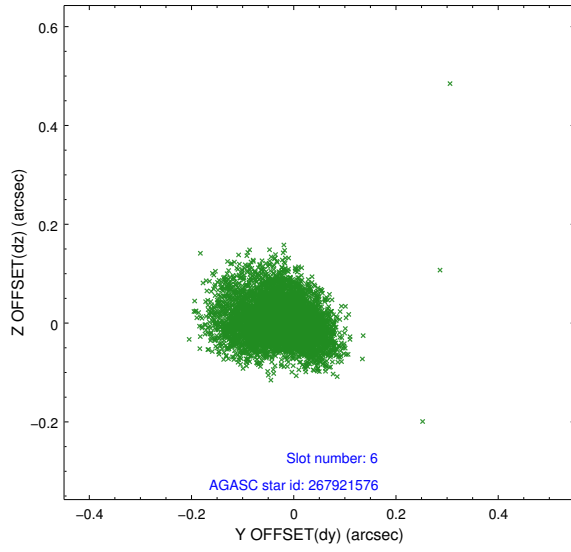
## 2.4.2 Slot 4



### 2.4.3 Slot 5

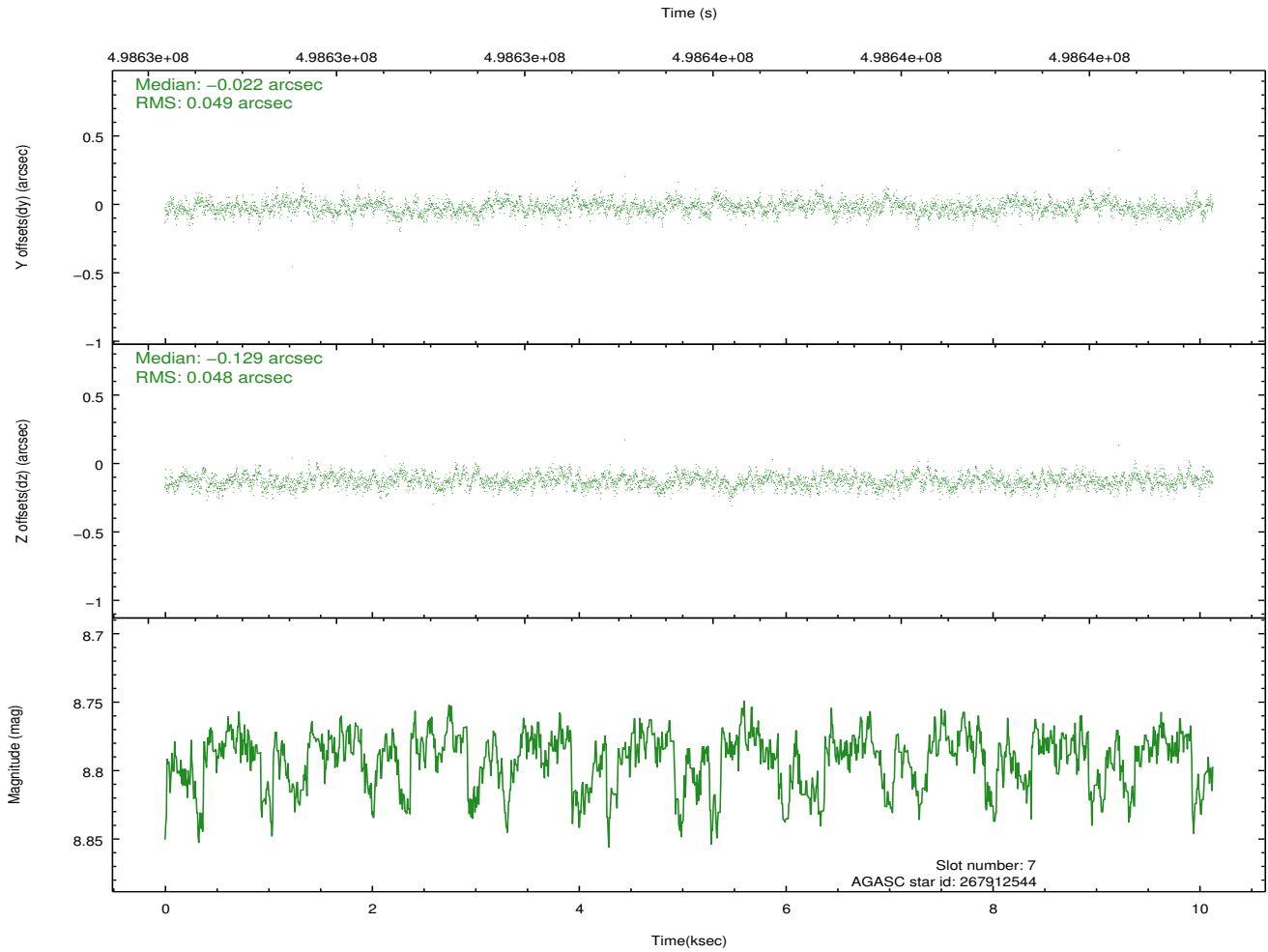
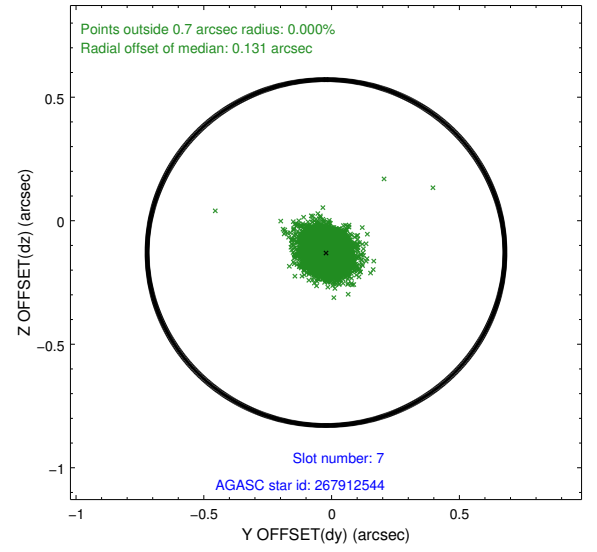
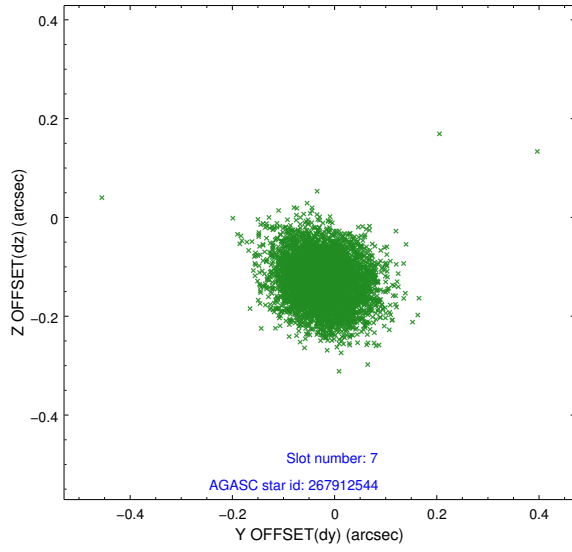


## 2.4.4 Slot 6



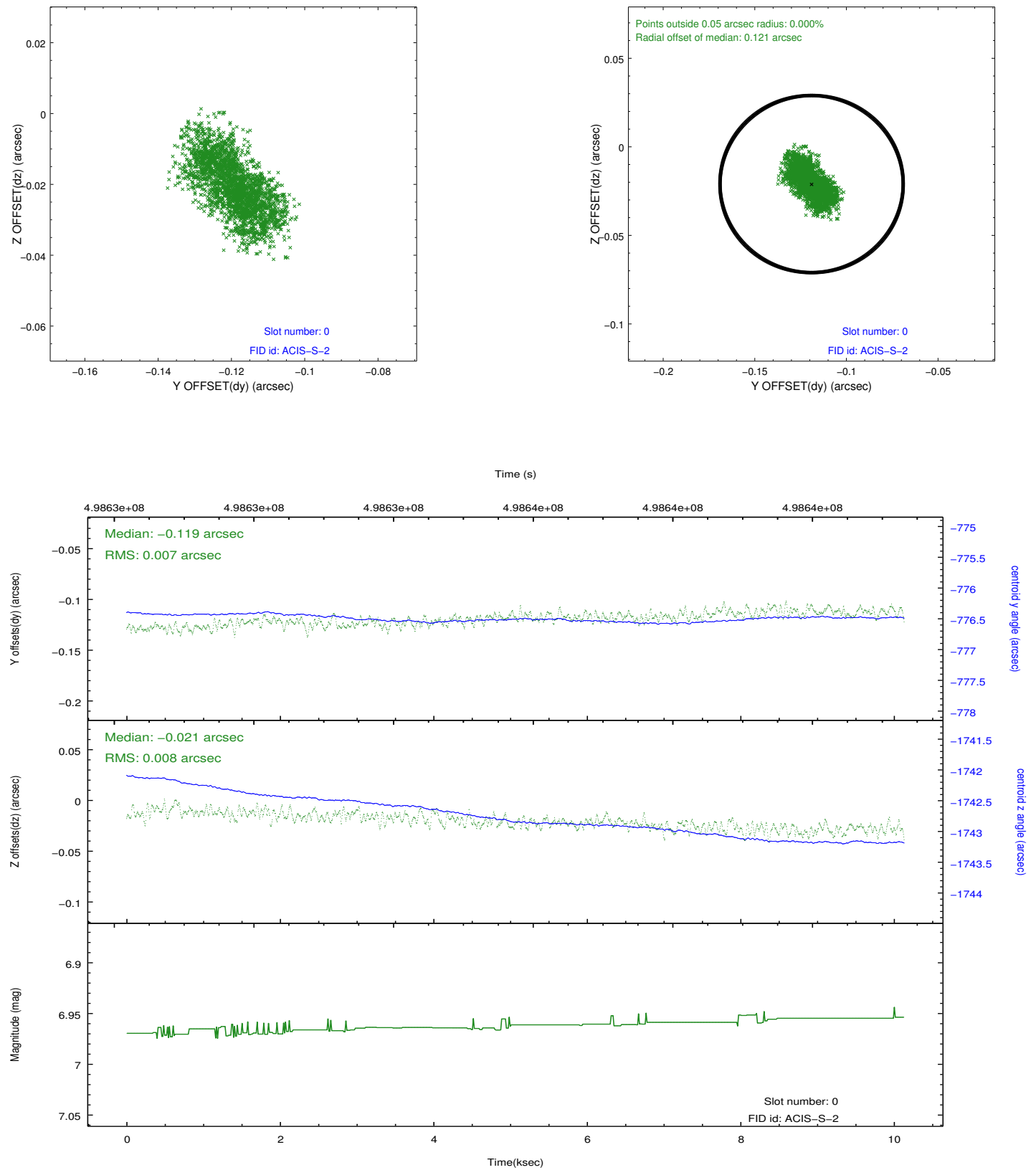


## 2.4.5 Slot 7

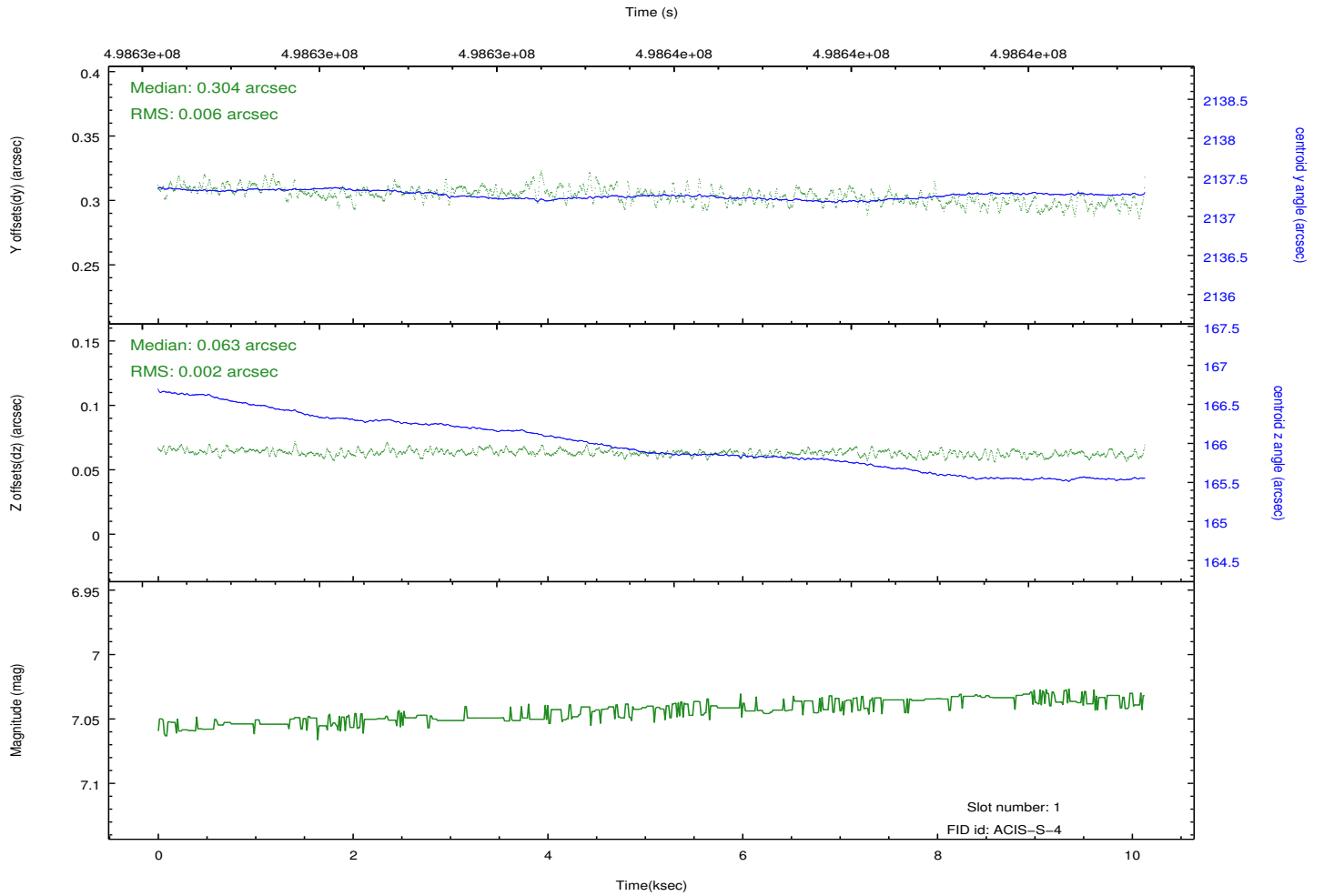
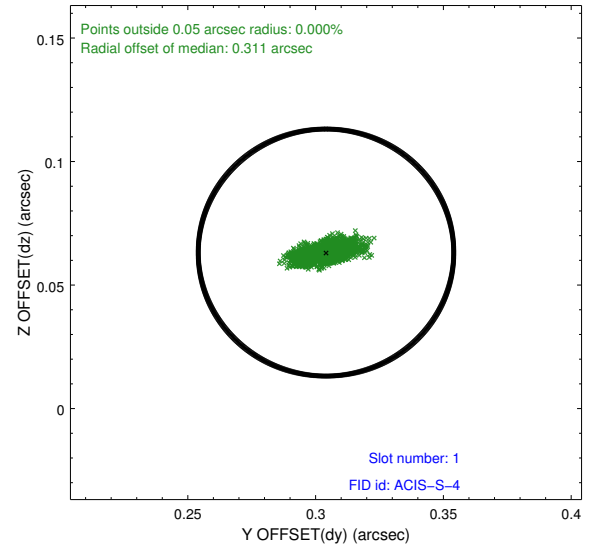
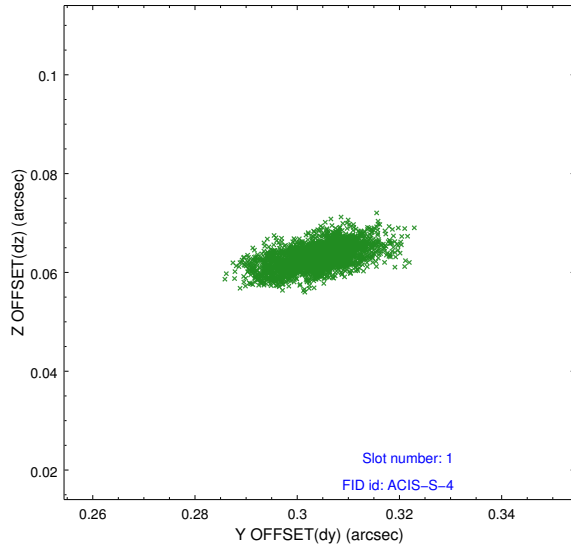


## 2.5 FID Slots

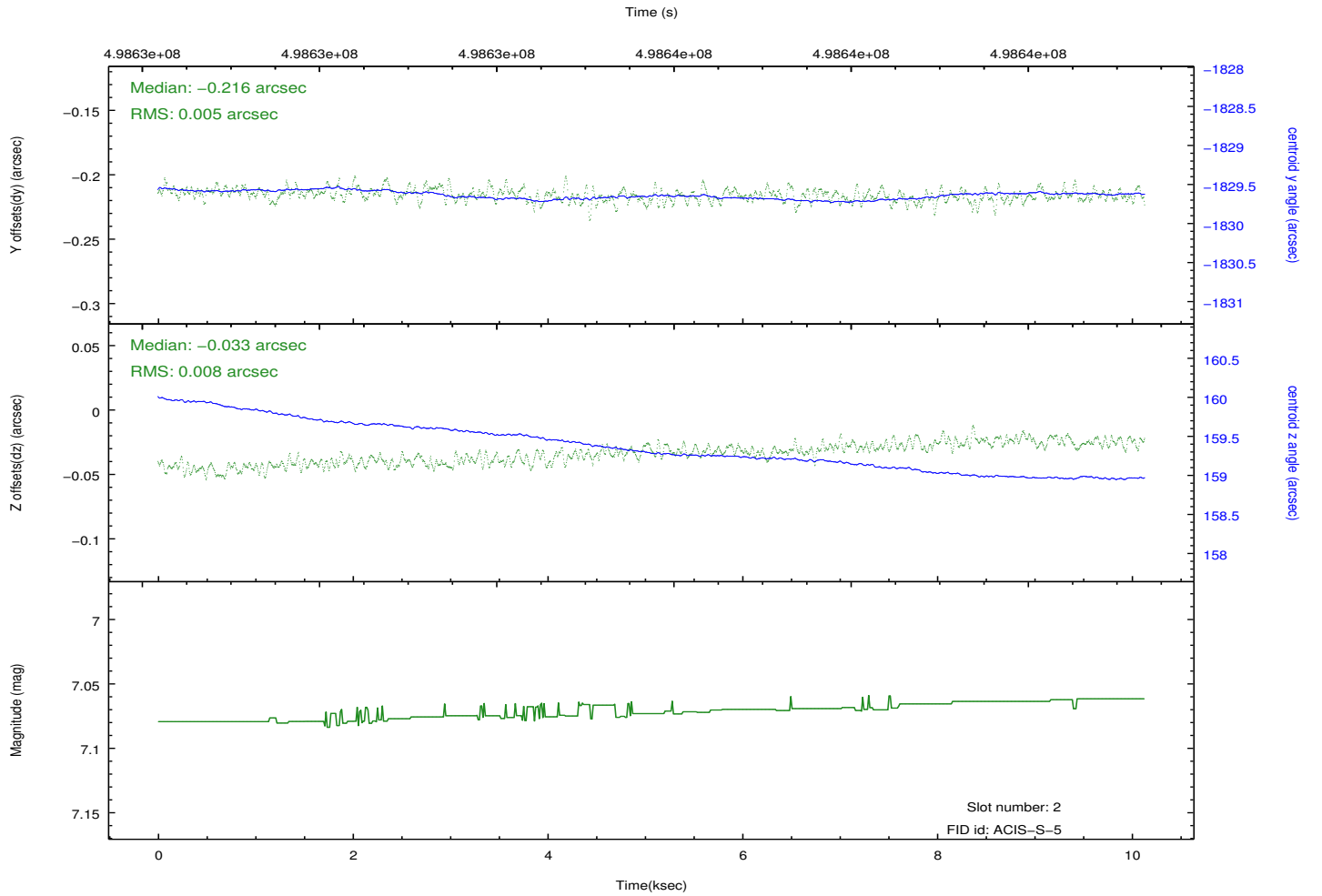
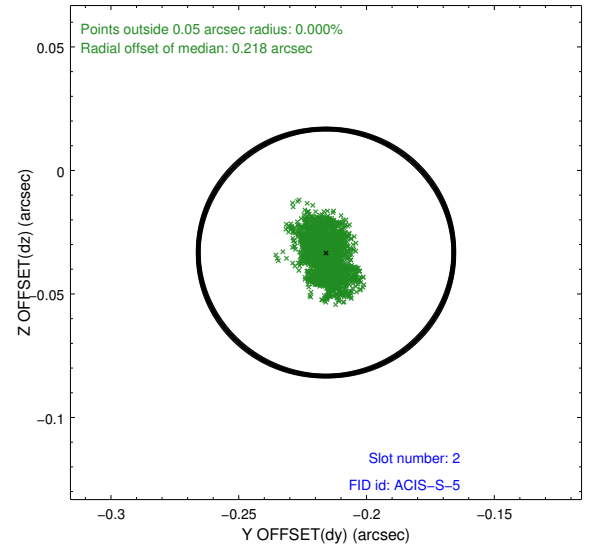
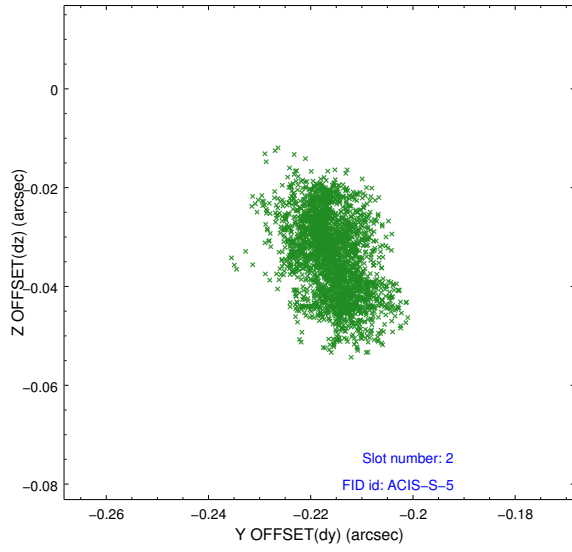
### 2.5.1 Slot 0



## 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)	2014.12.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.077872764289

## 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.