

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13871 - L2 Version 3  
Chandra X-Ray Center

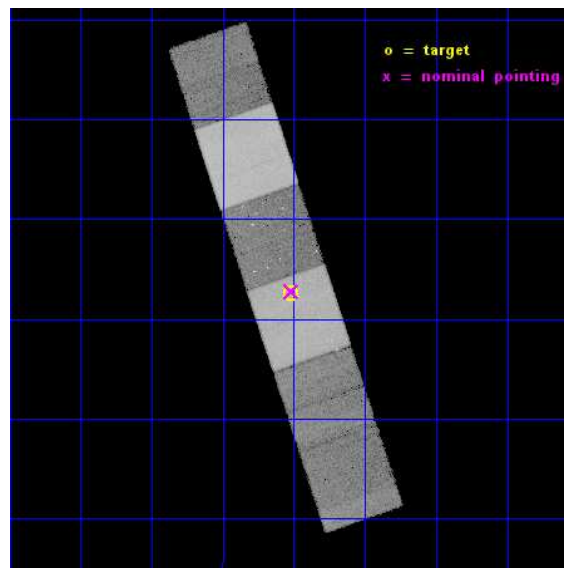
L2 Processing Date : Nov 30 2014

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# 1 Front

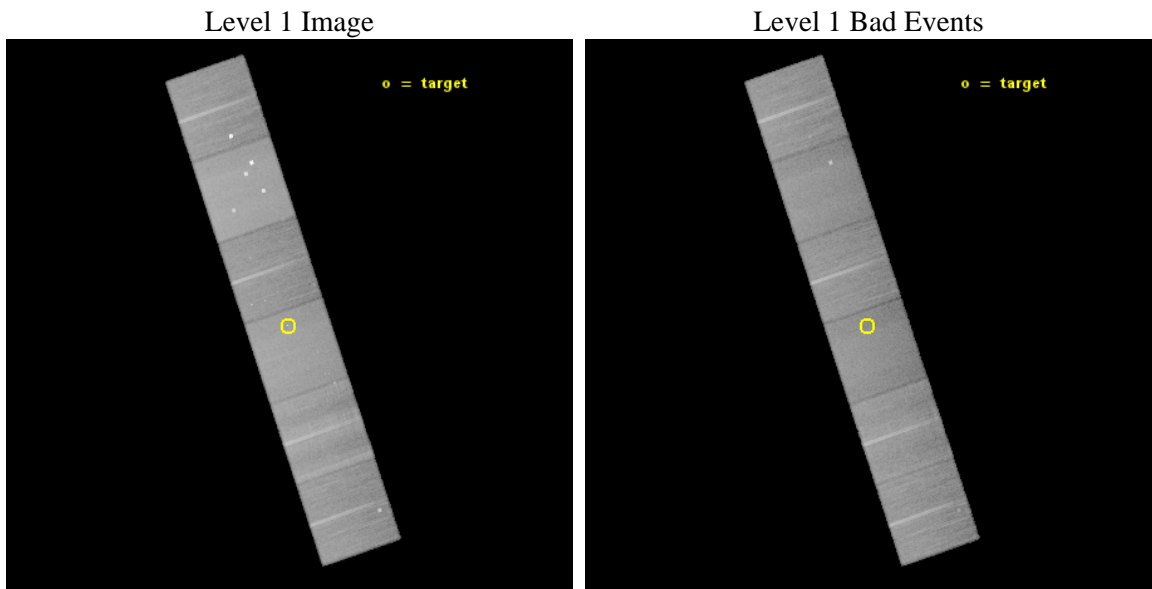
seq_num	702596	Sequence number
obs_id	13871	Observation id
title	AGN triggering caught in the act: a triplet of nuclei in the merging system NGC3341	Proposal title
observer	Dr Stefano Bianchi	Principal investigator
object	NGC3341	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	160.63125	Observer's specified target RA [deg]
dec_targ	5.043806	Observer's specified target Dec [deg]
ra_nom	160.62934610475	Nominal RA [deg]
dec_nom	5.046162638011	Nominal Dec [deg]
roll_nom	71.267073187823	Nominal Roll [deg]
revision	3	Processing version of data
ontime	49961.423912227	Sum of GTIs [s]
livetime	49328.782279493	Livetime [s]
ontime4	49961.46495223	Sum of GTIs [s]
ontime5	49961.382872224	Sum of GTIs [s]
ontime6	49958.100881815	Sum of GTIs [s]
ontime7	49961.423912227	Sum of GTIs [s]
ontime8	49961.300792217	Sum of GTIs [s]
ontime9	49954.777821362	Sum of GTIs [s]
l2events	475432	Number of level 2 events



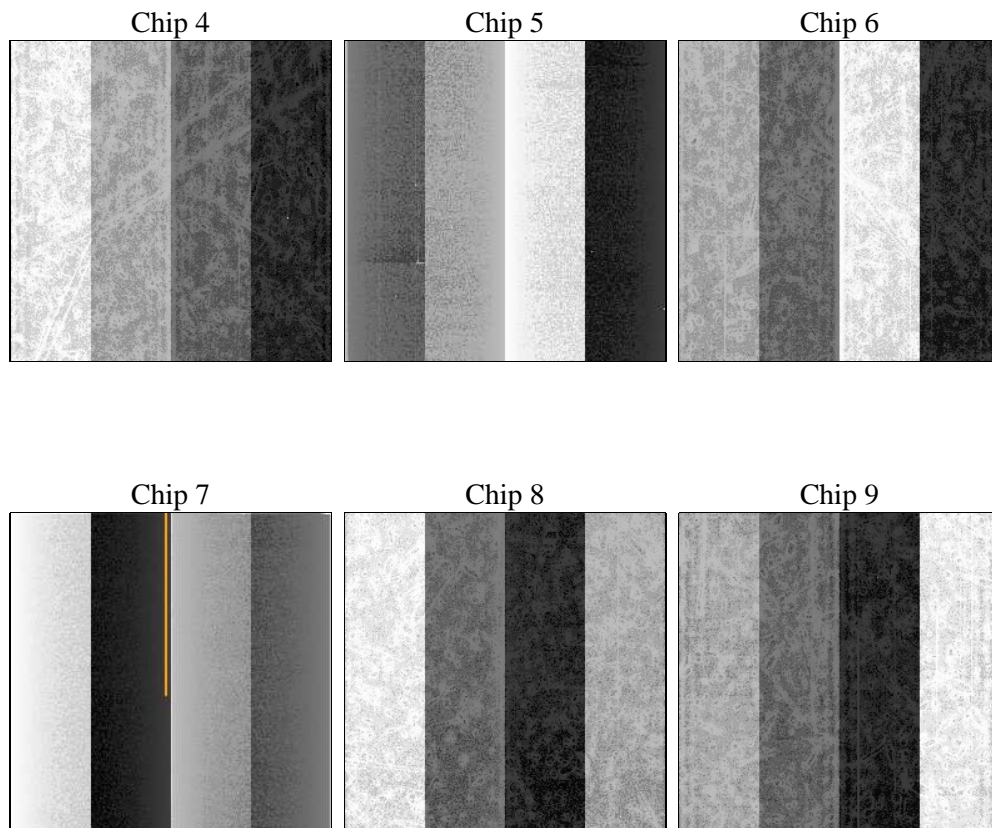
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	50000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	49961.423912227	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime4	49961.46495223	Sum of GTIs [s]
date	2014-12-01T05:04:56	Date and time of file creation	ontime5	49961.382872224	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	49958.100881815	Sum of GTIs [s]
			ontime7	49961.423912227	Sum of GTIs [s]
			ontime8	49961.300792217	Sum of GTIs [s]
			ontime9	49954.777821362	Sum of GTIs [s]
			l1events	2053514	Number of level 1 events

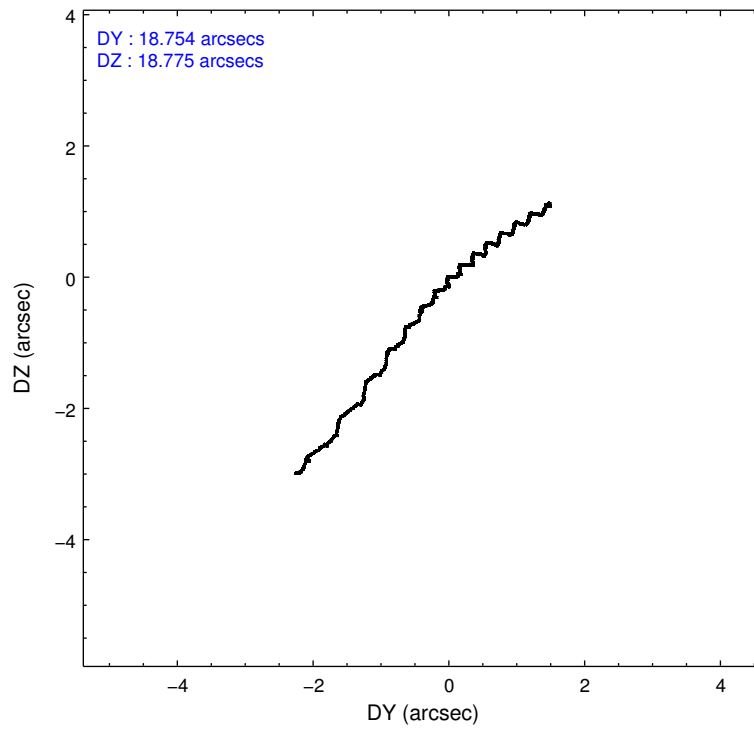
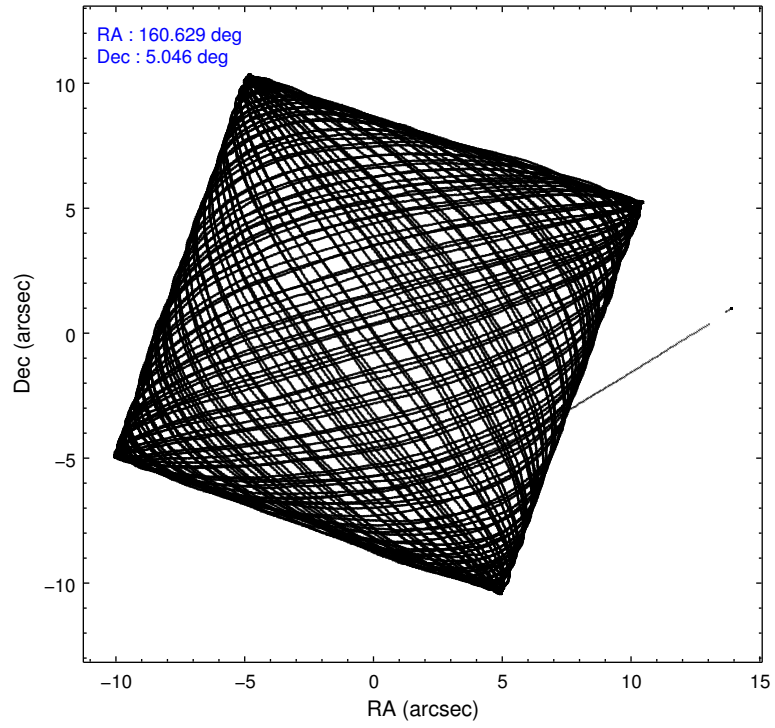
### 2.1.4 Events

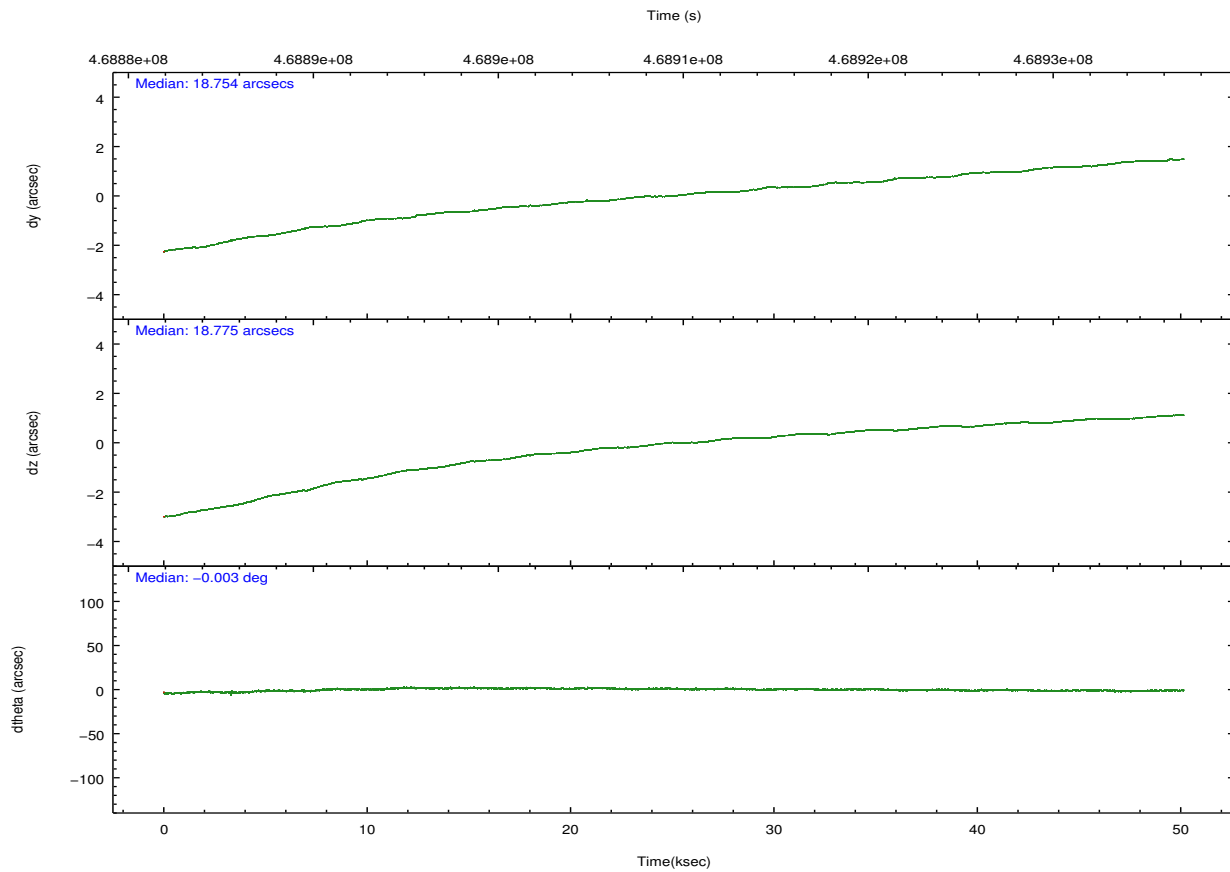
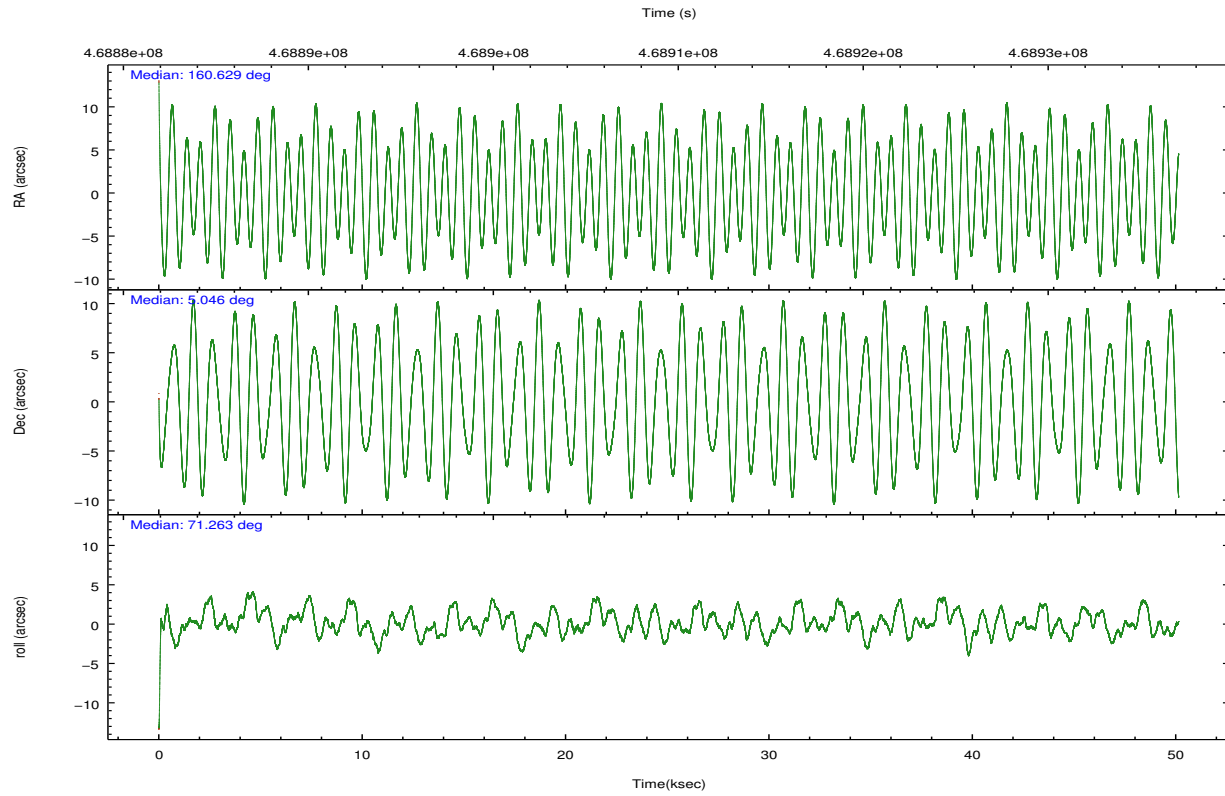
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	316035	459220	275891	358877	364785	278706	grade 0 events	26772	37275	12666	14265	30393	14243
rejected events	267829	227050	241604	200598	263329	242630		8%	8%	4%	3%	8%	5%
rejected %	84%	49%	87%	55%	72%	87%	grade 1 events	373	2841	155	453	263	236
								0%	0%	0%	0%	0%	0%
							grade 2 events	8304	65902	7450	32733	23299	7674
								2%	14%	2%	9%	6%	2%
							grade 3 events	3699	7786	3373	13631	10603	3580
								1%	1%	1%	3%	2%	1%
							grade 4 events	3422	7582	3441	13366	10156	3403
								1%	1%	1%	3%	2%	1%
							grade 5 events	13774	33116	13911	37071	20054	14982
								4%	7%	5%	10%	5%	5%
							grade 6 events	6014	113657	7360	84305	27006	7184
								1%	24%	2%	23%	7%	2%
							grade 7 events	253677	191061	227535	163053	243011	227404
								80%	41%	82%	45%	66%	81%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	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	160.635079	160.6293461047527	CCD I2 on	N	N
[deg] Pointing Dec	5.019428	5.046162638011009	CCD I3 on	N	N
[deg] Pointing Roll	71.109943	71.26707318782317	CCD S0 on	O1	Y
[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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	468884562.184000	468883423.04897	CCD S5 on	O2	Y
Observation start date	2012-11-09T21:41:35	2012-11-09T21:23:43	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	468934562.184000	468934959.53924	On-chip summing requested	N	N
Observation end date	2012-11-10T11:34:55	2012-11-10T11:42:39	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





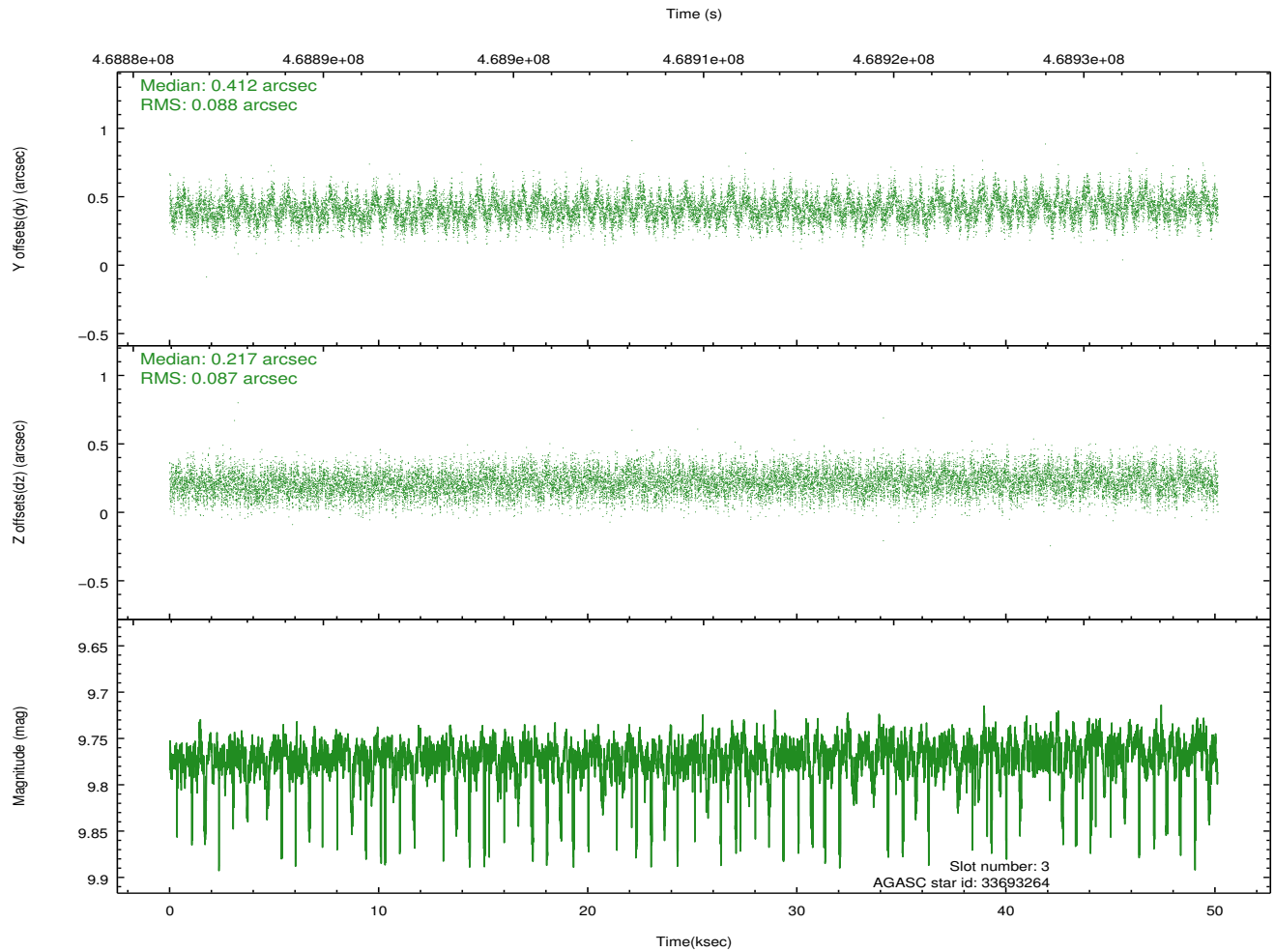
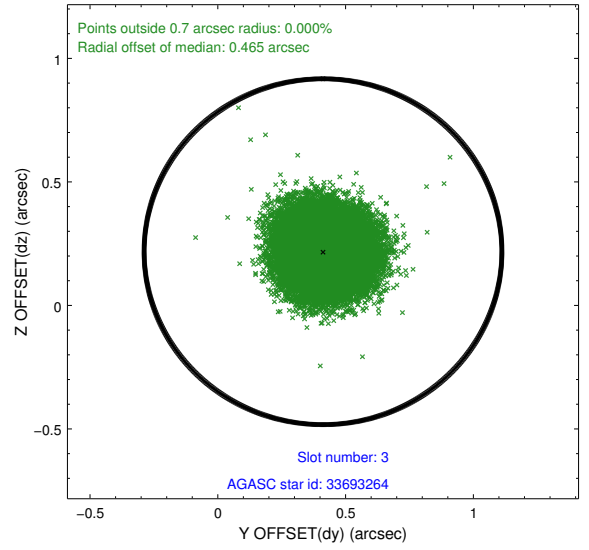
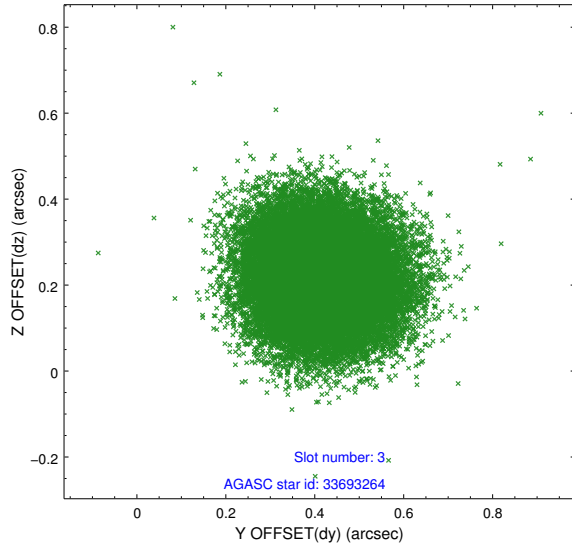
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	12230	-0.104	-0.038	0.030	0.044	0.000000	0.000000	-771.86	-1739.88
1	FID		ACIS-S-4	7.01	12230	0.249	0.061	0.025	0.049	0.000000	0.000000	2141.78	168.68
2	FID		ACIS-S-5	7.04	12230	-0.177	-0.012	0.025	0.058	0.000000	0.000000	-1824.78	162.29
3	GUIDE	used	33693264	9.77	24367	0.412	0.217	0.133	0.211	160.683077	4.702890	-1022.23	-531.35
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	GUIDE	used	34079968	8.10	24454	-0.207	0.149	0.105	0.180	161.430267	5.383393	2164.26	-2271.42
6	GUIDE	used	34086264	9.42	24325	-0.294	-0.364	0.125	0.198	160.159897	5.466164	970.49	2132.31
7	GUIDE	used	33694440	8.82	24376	0.090	-0.001	0.076	0.127	160.085962	4.540107	-2269.68	1306.27

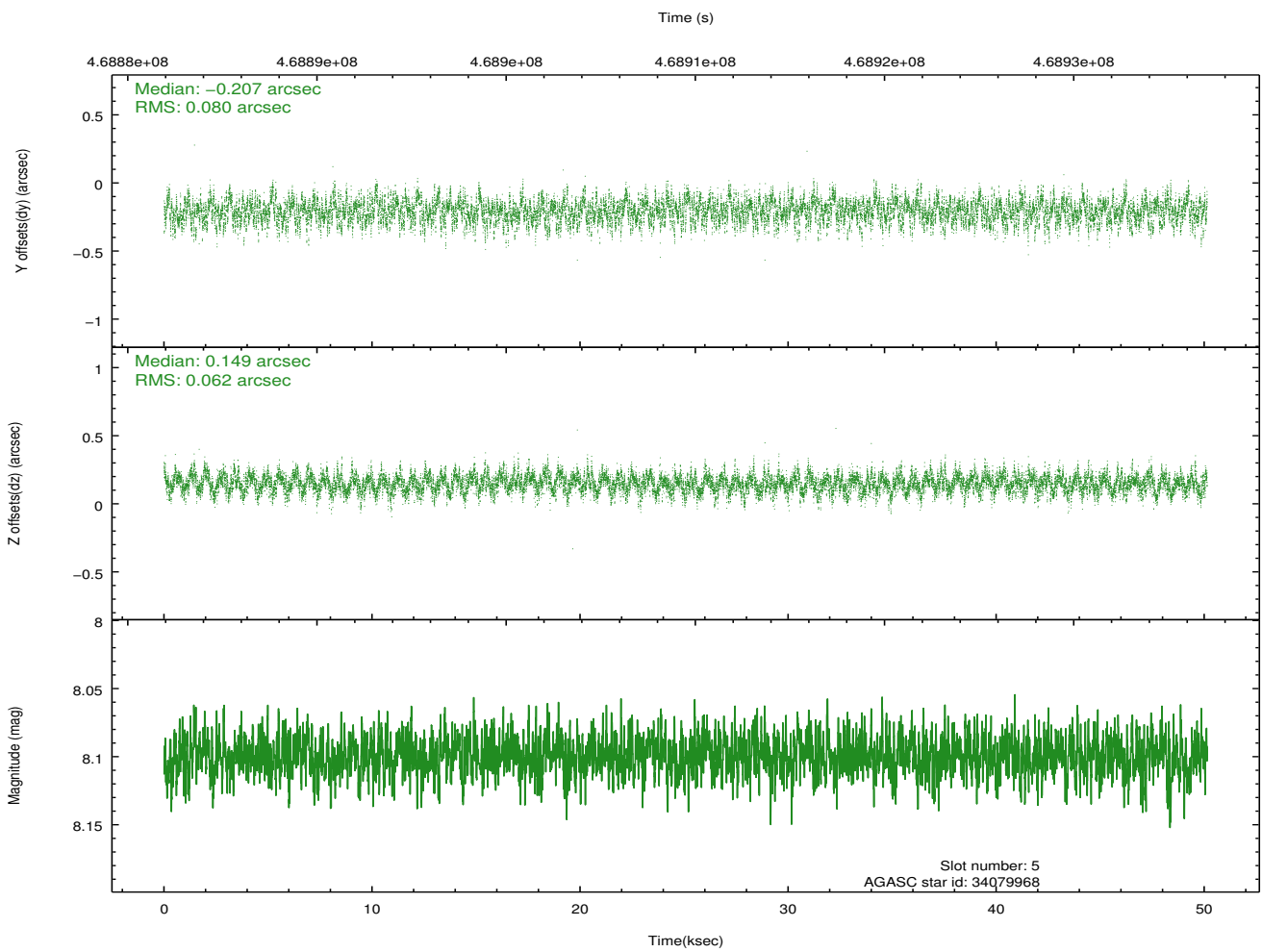
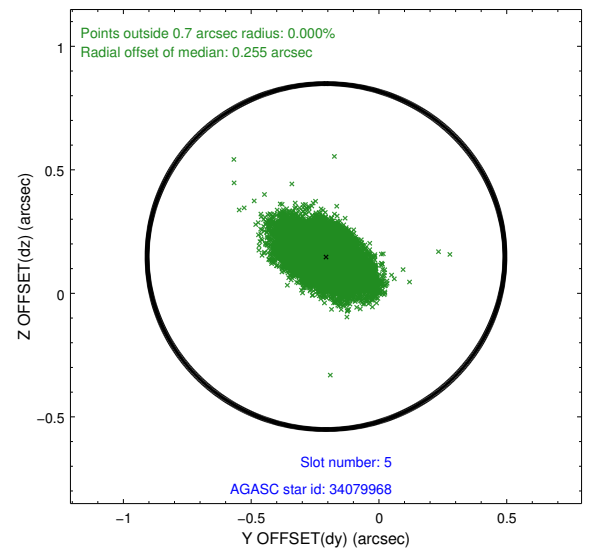
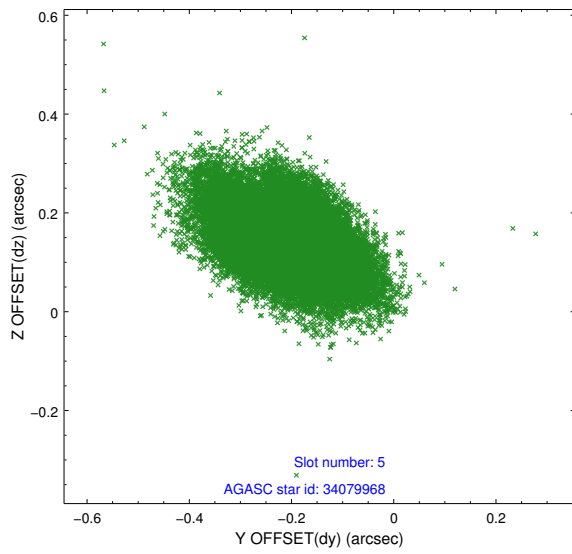
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## 2.4 Star Slots

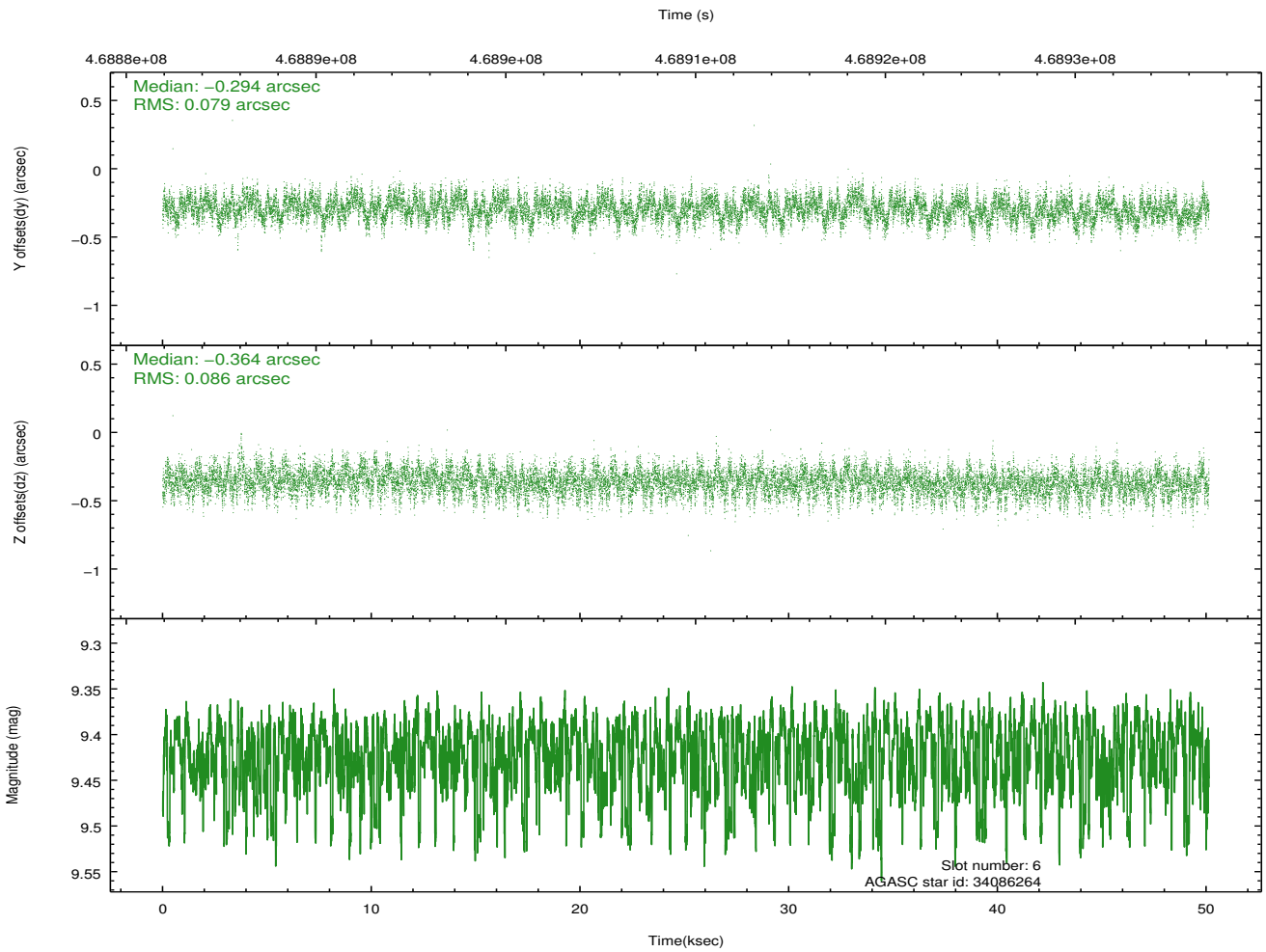
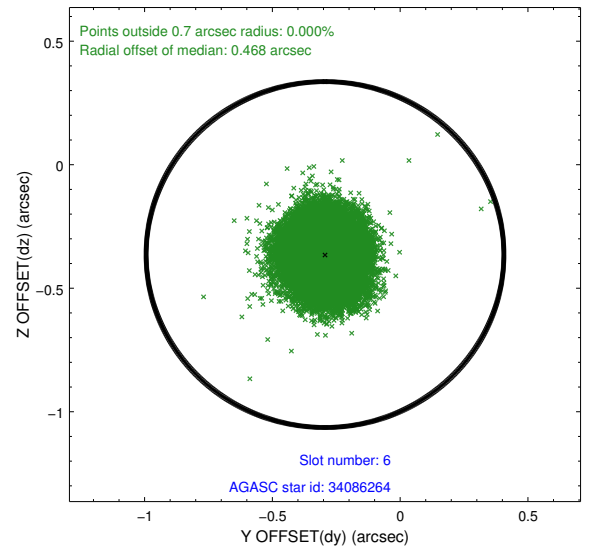
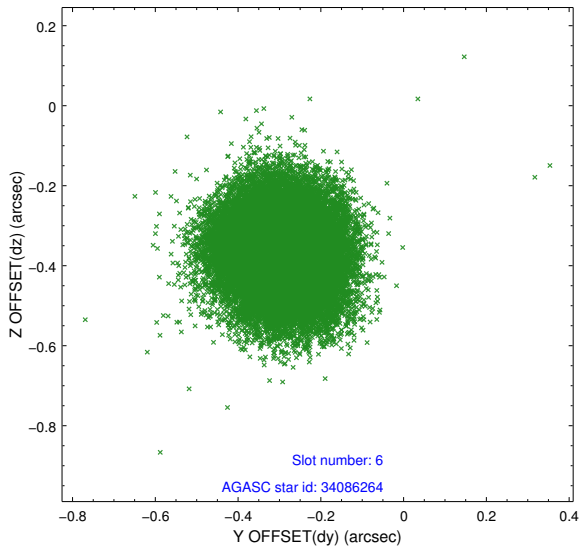
### 2.4.1 Slot 3



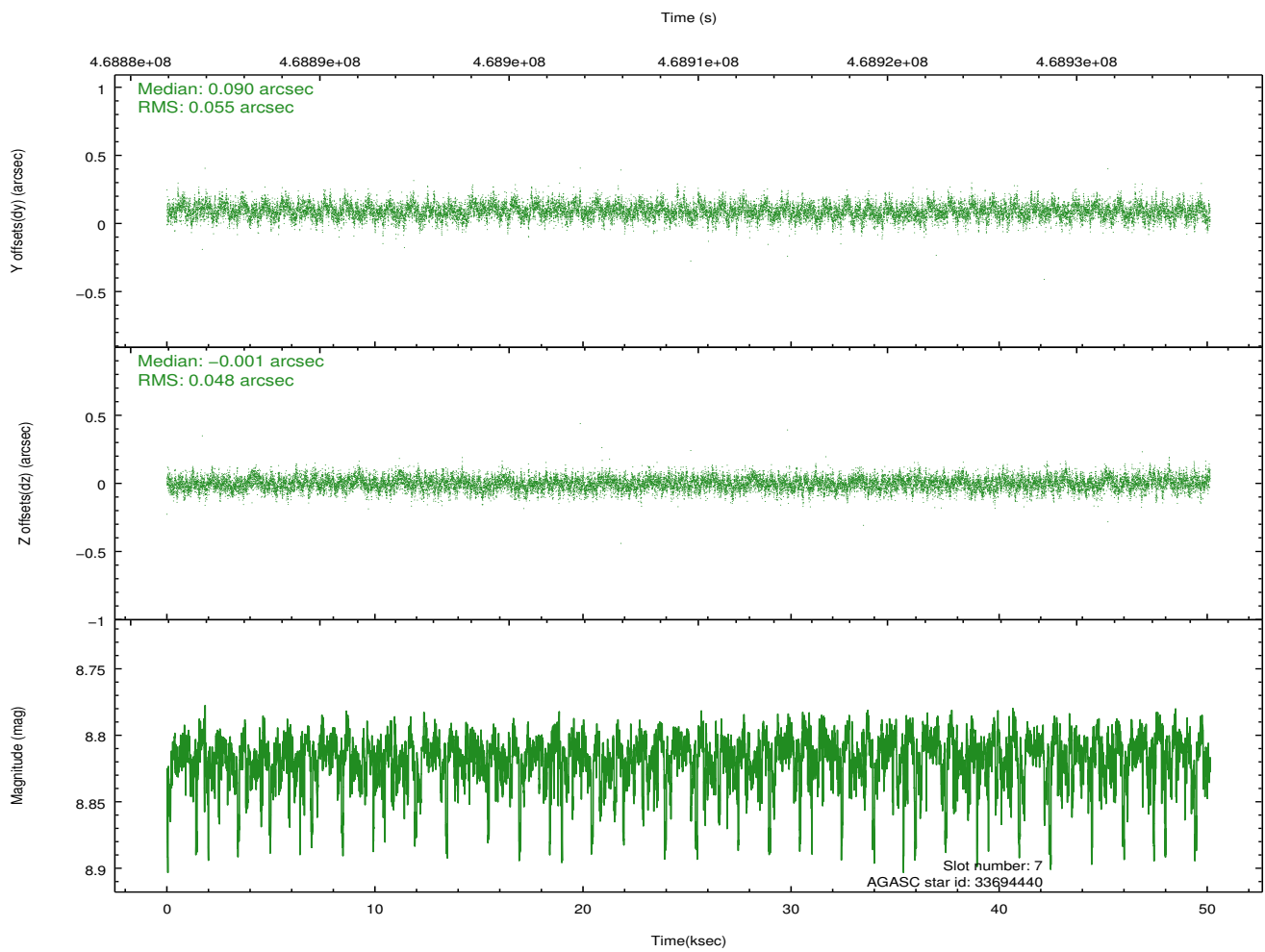
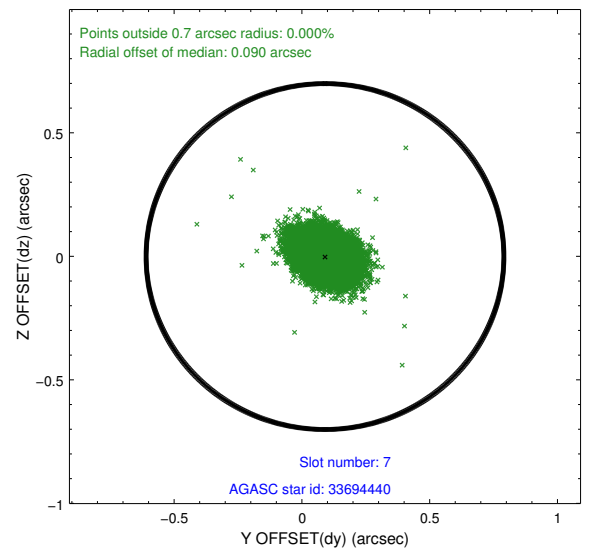
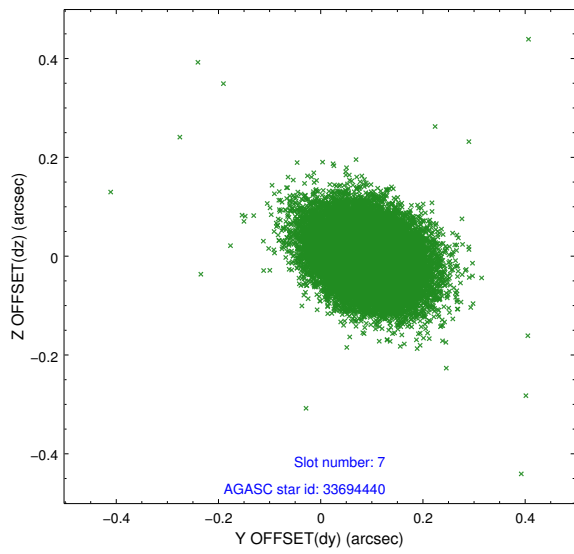
## 2.4.2 Slot 5



### 2.4.3 Slot 6

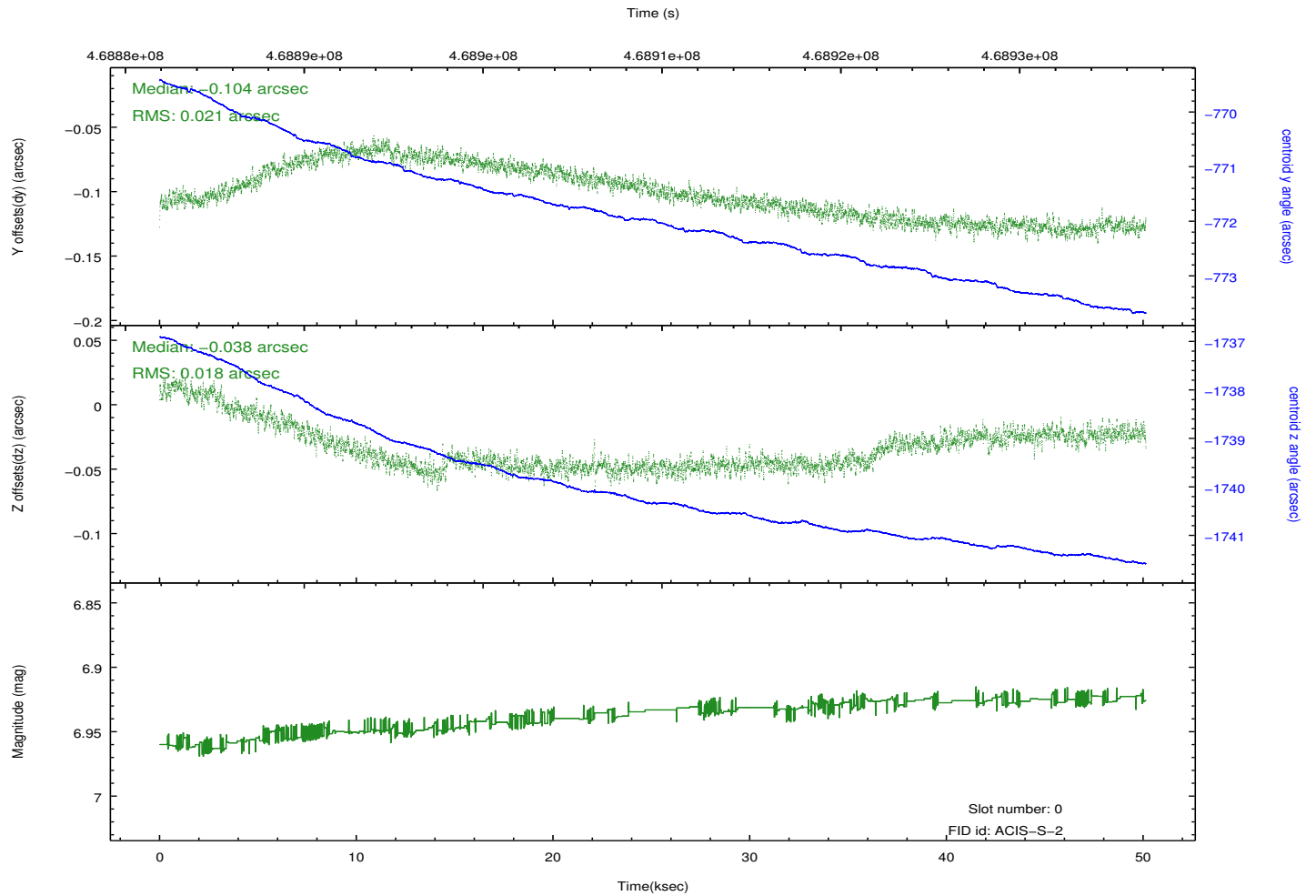
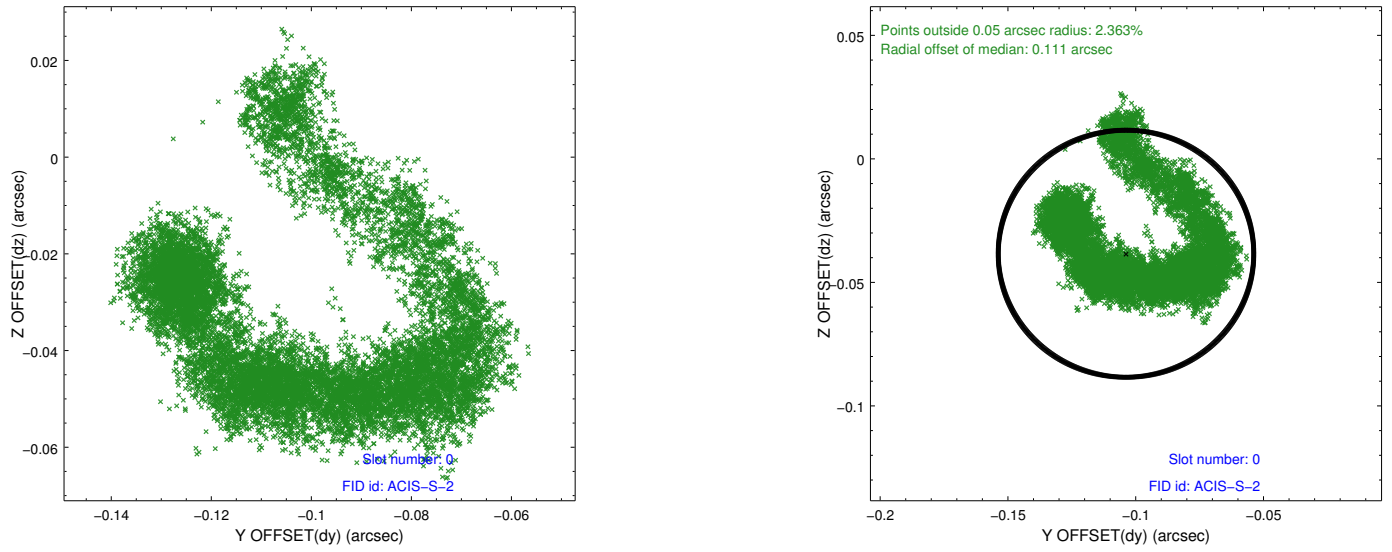


## 2.4.4 Slot 7

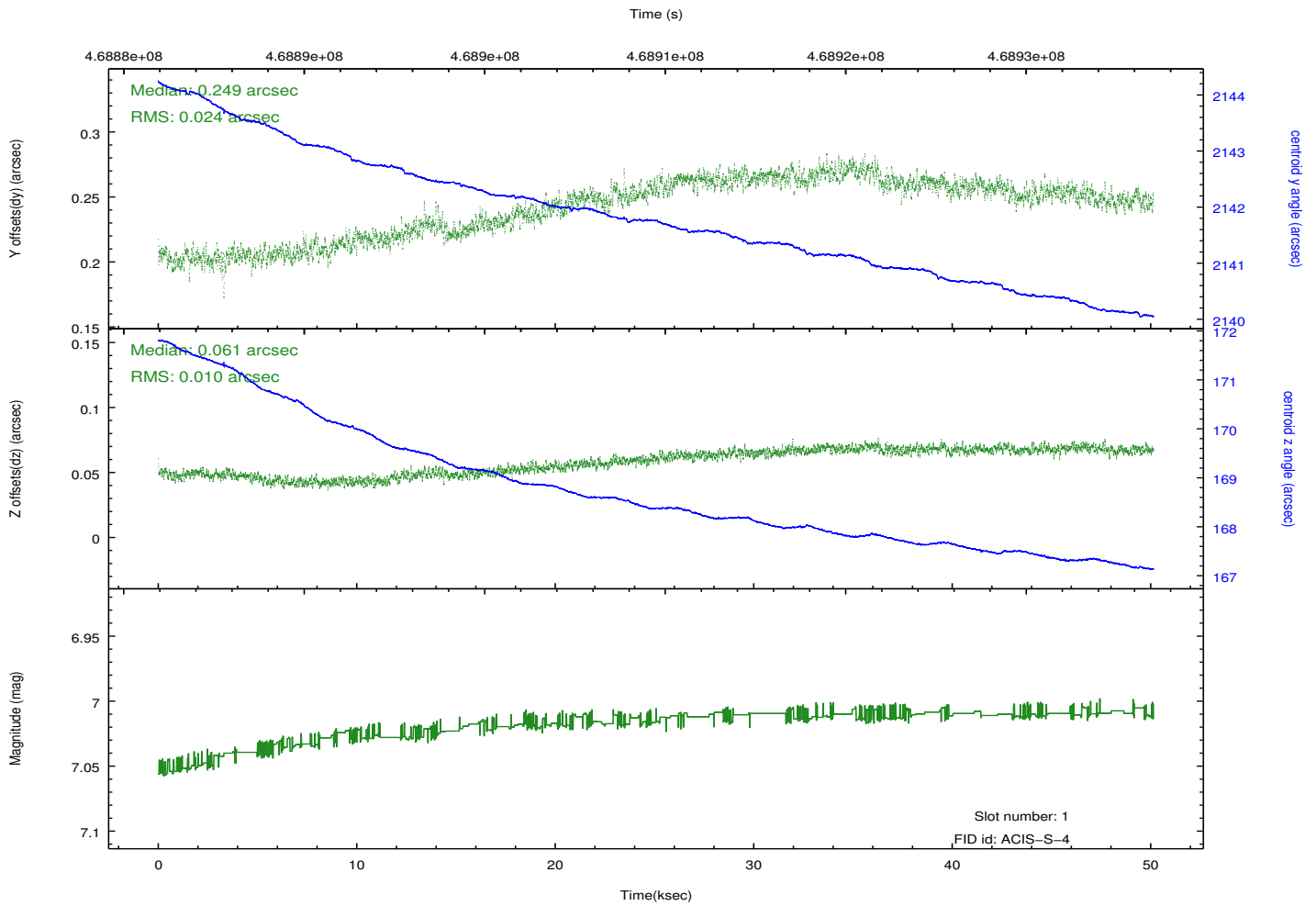
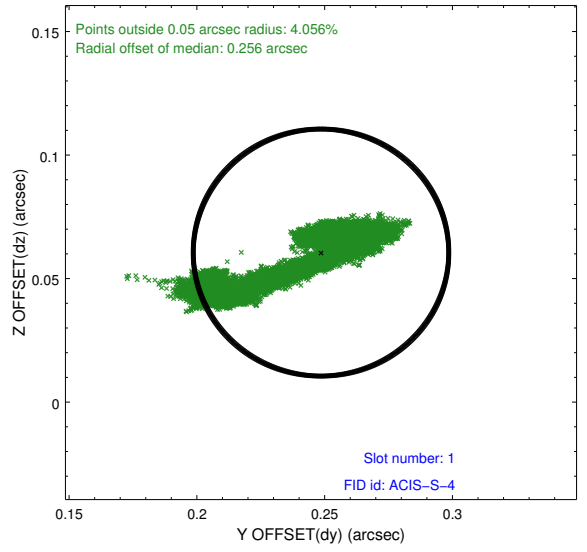
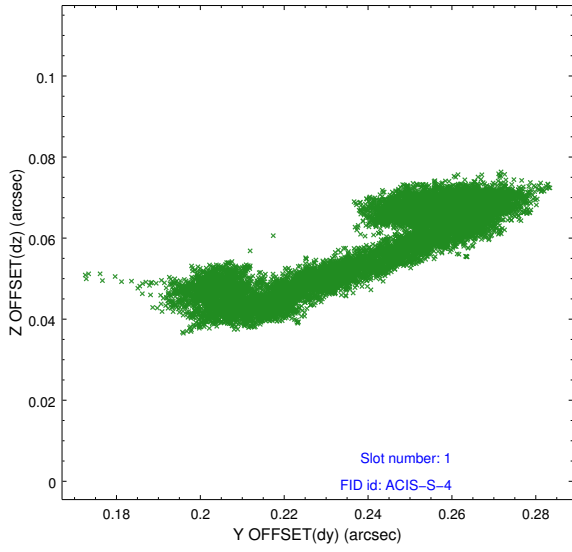


## 2.5 FID Slots

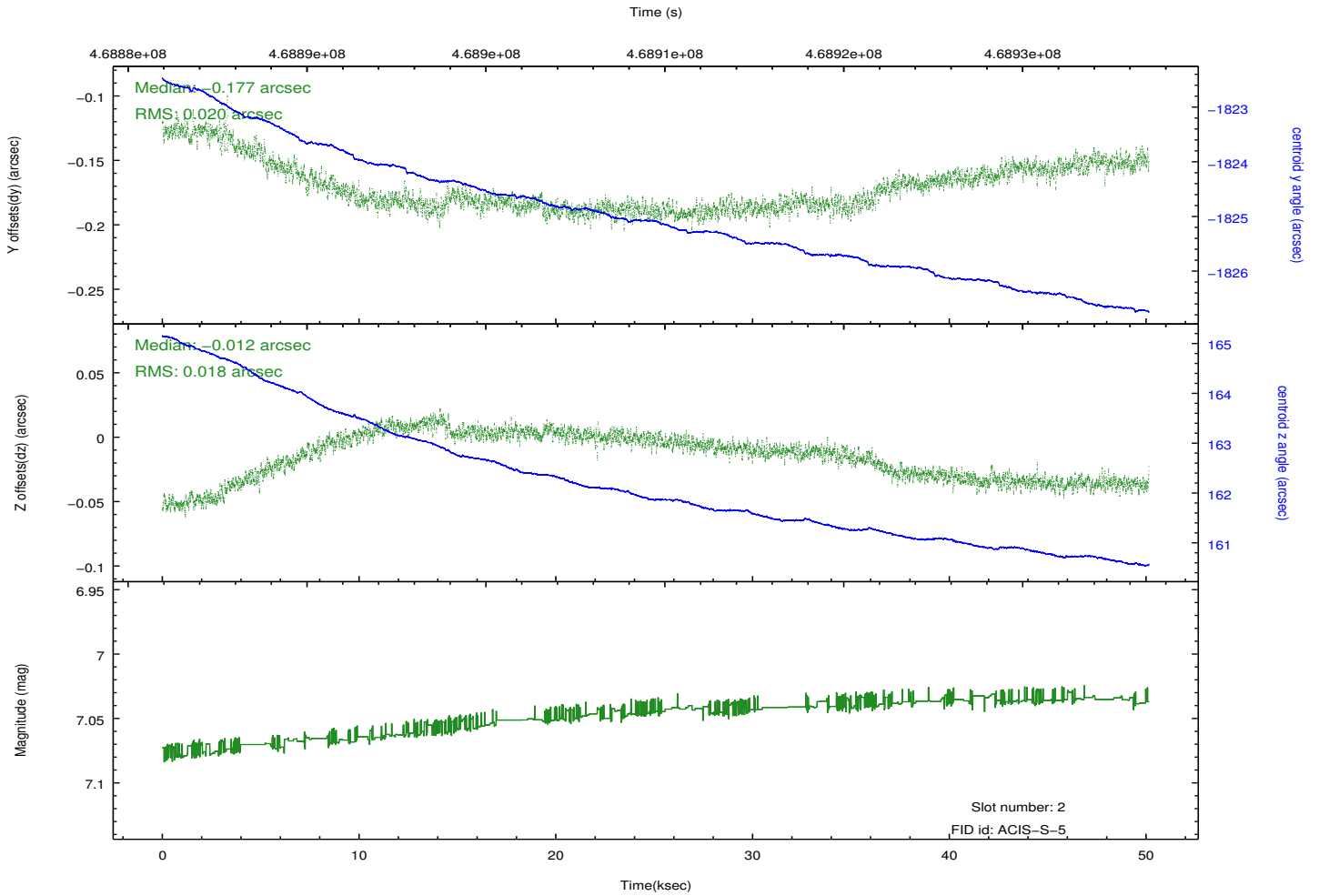
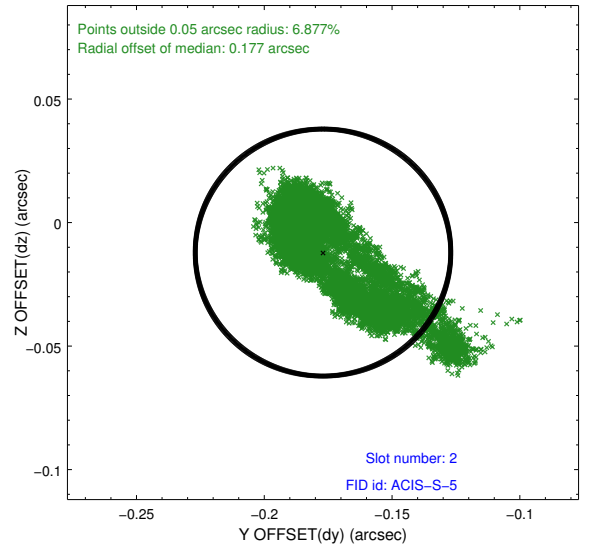
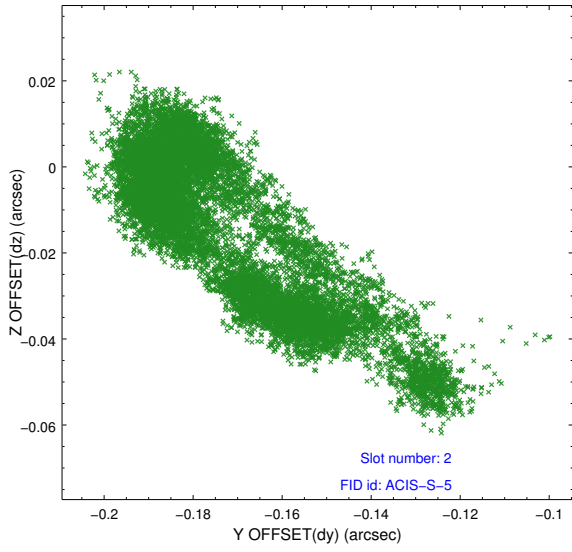
### 2.5.1 Slot 0



## 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)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	49.961423912227

## A.2 Comments

The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

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.