

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 14825 - L2 Version 3  
Chandra X-Ray Center

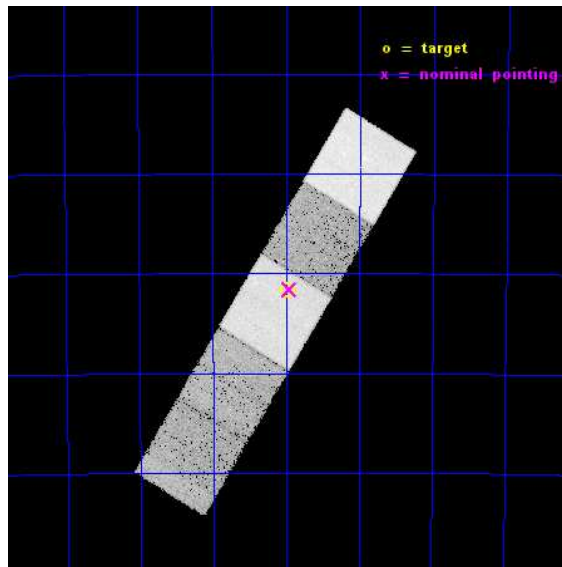
L2 Processing Date : Nov 30 2014

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# 1 Front

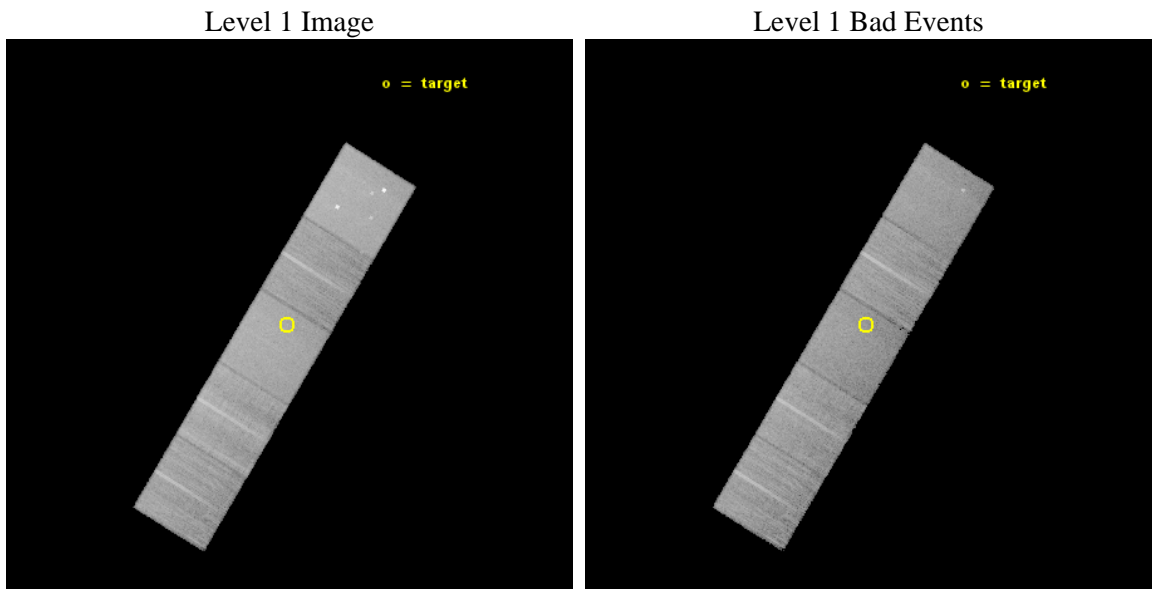
seq_num	501951	Sequence number
obs_id	14825	Observation id
title	Searching for X-ray counterparts of radio-quiet Fermi pulsars	Prop
observer	Dr. Martino Marelli	Principal investigator
object	PSR J1429-5911	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	217.494167	Observer's specified target RA [deg]
dec_targ	-59.1935	Observer's specified target Dec [deg]
ra_nom	217.48824809233	Nominal RA [deg]
dec_nom	-59.193424354967	Nominal Dec [deg]
roll_nom	121.18631856722	Nominal Roll [deg]
revision	3	Processing version of data
ontime	25063.041849673	Sum of GTIs [s]
livetime	24735.574756764	Livetime [s]
ontime5	25063.000809669	Sum of GTIs [s]
ontime6	25062.959769666	Sum of GTIs [s]
ontime7	25063.041849673	Sum of GTIs [s]
ontime8	25059.777759314	Sum of GTIs [s]
ontime9	25062.87768966	Sum of GTIs [s]
l2events	225316	Number of level 2 events



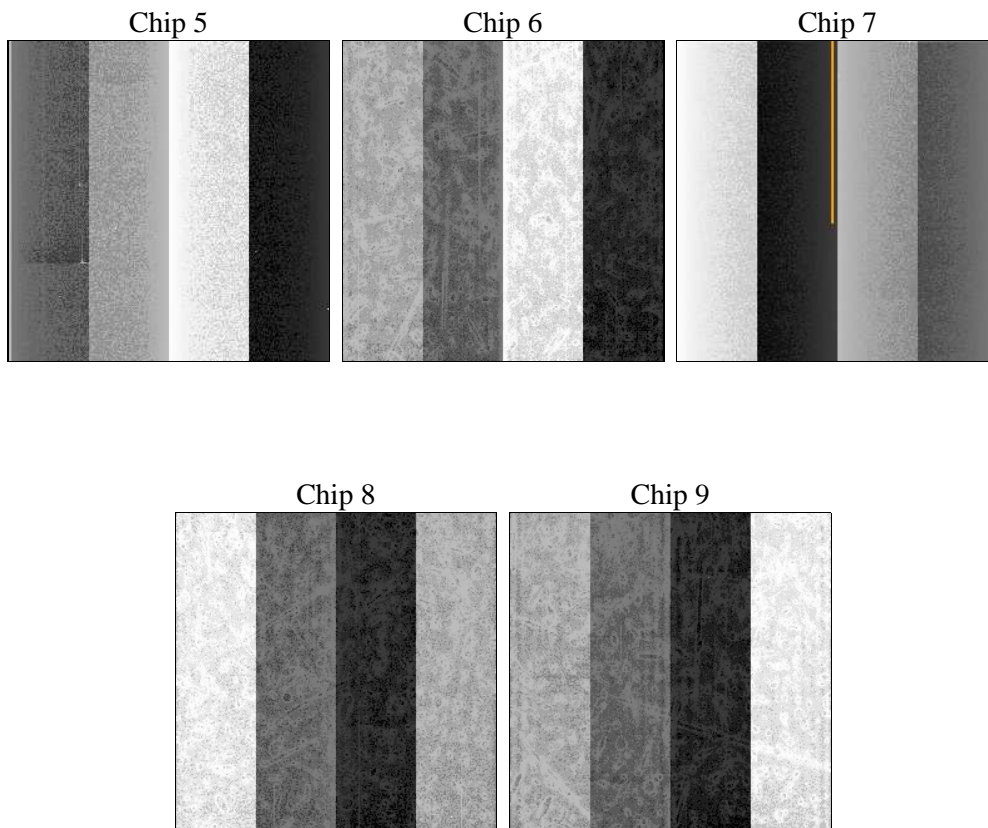
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	25063.041849673	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime5	25063.000809669	Sum of GTIs [s]
date	2014-11-30T23:50:58	Date and time of file creation	ontime6	25062.959769666	Sum of GTIs [s]
revision	3	Processing version of data	ontime7	25063.041849673	Sum of GTIs [s]
			ontime8	25059.777759314	Sum of GTIs [s]
			ontime9	25062.87768966	Sum of GTIs [s]
			l1events	848444	Number of level 1 events

### 2.1.4 Events

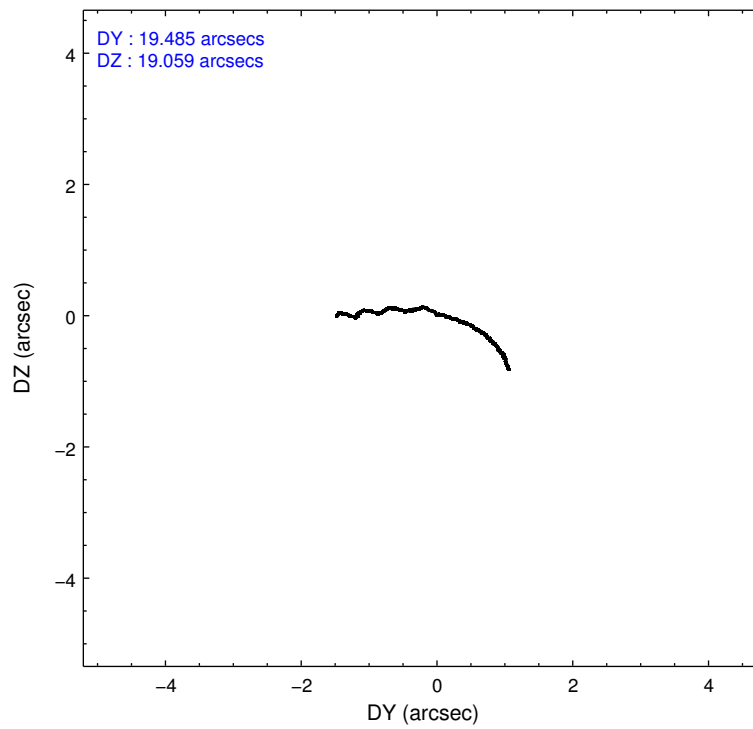
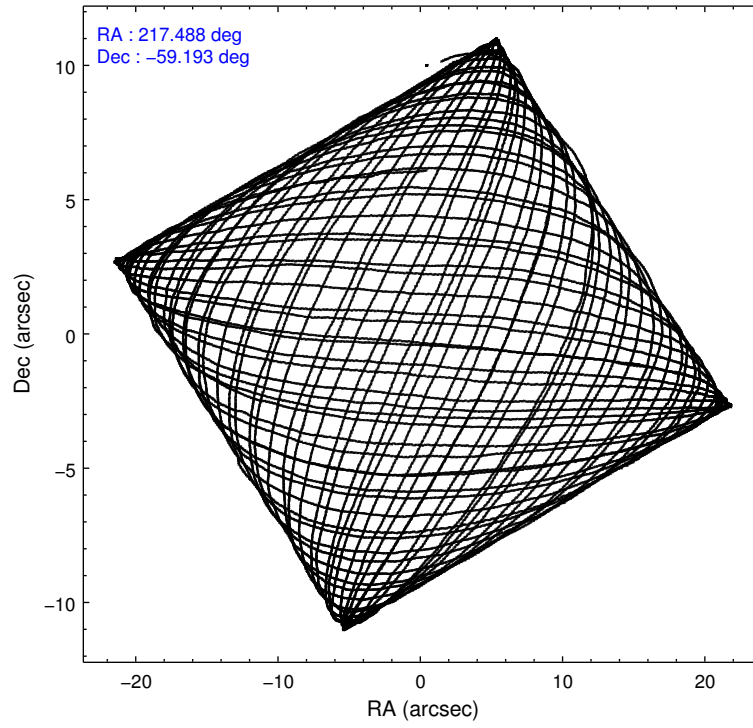
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	224322	137799	180411	172842	133070
rejected events	113350	120945	100916	126490	115489
rejected %	50%	87%	55%	73%	86%

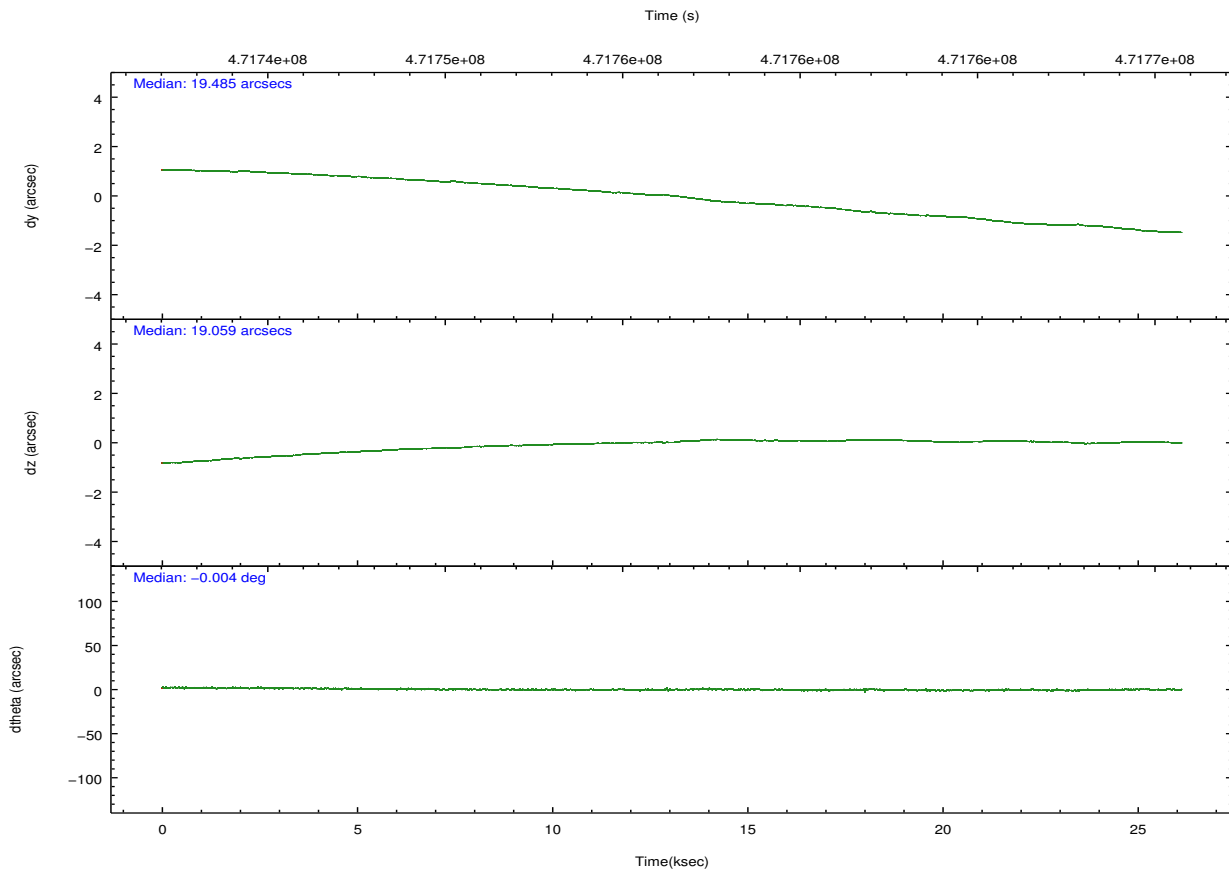
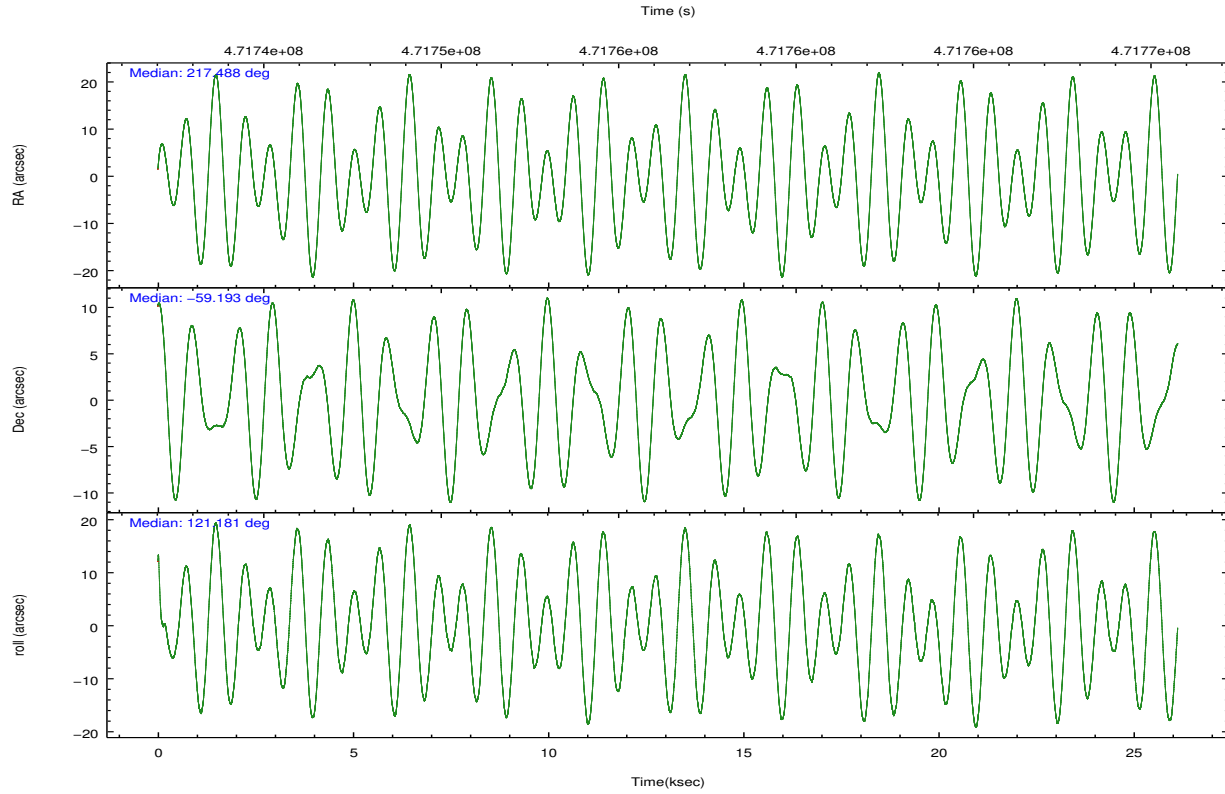
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	14336	6092	7349	14171	6314
	6%	4%	4%	8%	4%
grade 1 events	936	77	196	142	77
	0%	0%	0%	0%	0%
grade 2 events	32597	3701	16230	10731	3931
	14%	2%	8%	6%	2%
grade 3 events	3736	1647	6941	4761	1829
	1%	1%	3%	2%	1%
grade 4 events	3581	1689	6882	4502	1765
	1%	1%	3%	2%	1%
grade 5 events	16283	6866	18638	9952	7488
	7%	4%	10%	5%	5%
grade 6 events	56762	3731	42111	12214	3749
	25%	2%	23%	7%	2%
grade 7 events	96091	113996	82064	116369	107917
	42%	82%	45%	67%	81%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	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	217.535407	217.488248092332	CCD I2 on	N	N
[deg] Pointing Dec	-59.206273	-59.19342435496706	CCD I3 on	N	N
[deg] Pointing Roll	121.070191	121.1863185672203	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	Y	Y
[s] Observation start time (MET)	471744441.184000	471743032.7778	CCD S5 on	O2	Y
Observation start date	2012-12-13T00:06:14	2012-12-12T23:43:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	471769441.184000	471770422.31678	On-chip summing requested	N	N
Observation end date	2012-12-13T07:02:54	2012-12-13T07:20:22	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





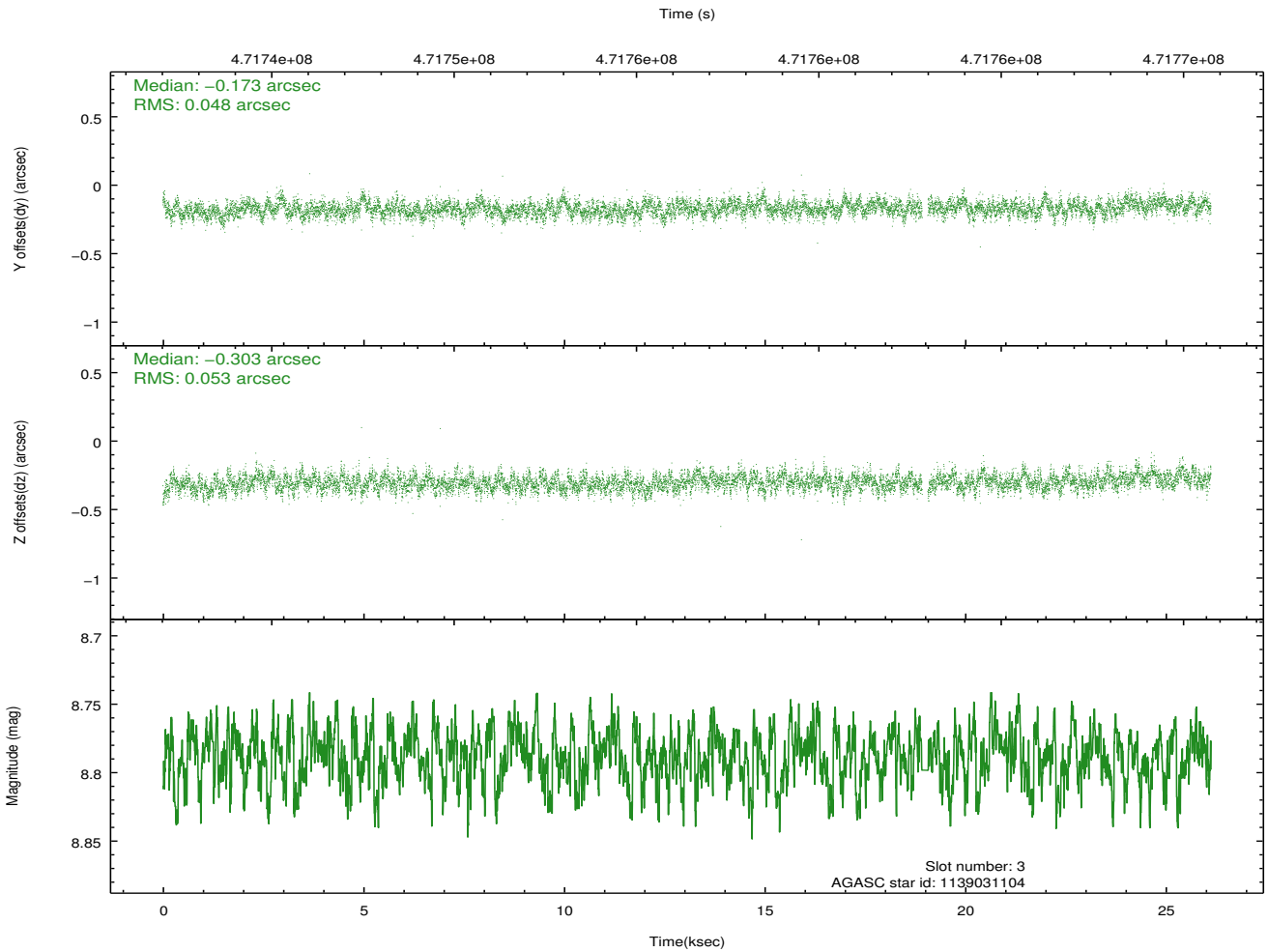
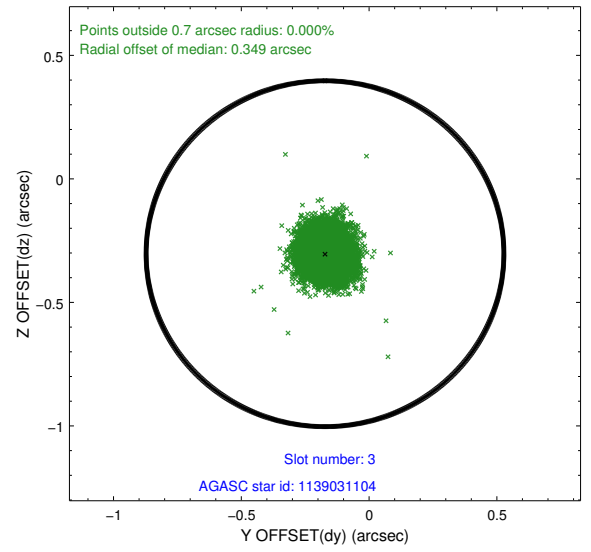
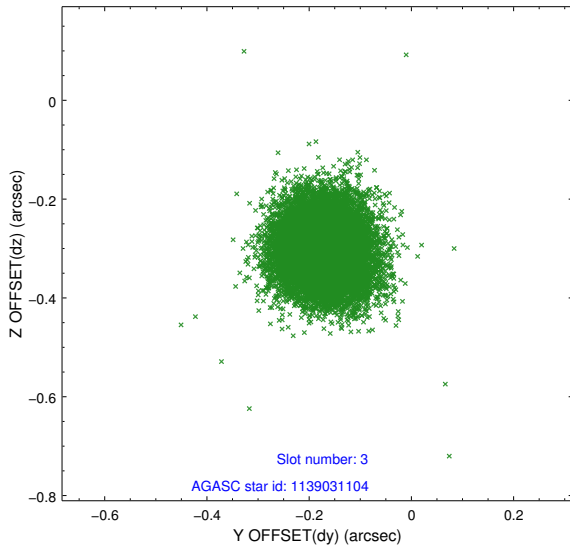
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	6373	-0.118	-0.046	0.013	0.022	0.000000	0.000000	-772.62	-1740.46
1	FID		ACIS-S-4	7.01	6373	0.256	0.070	0.013	0.022	0.000000	0.000000	2141.00	168.00
2	FID		ACIS-S-5	7.04	6373	-0.170	-0.015	0.013	0.020	0.000000	0.000000	-1825.36	161.74
3	GUIDE	used	1139031104	8.79	12669	-0.173	-0.303	0.076	0.122	216.112946	-59.031956	1873.26	1947.56
4	GUIDE	used	1139148408	8.06	12745	0.286	0.146	0.069	0.112	218.989020	-59.468333	-2203.96	-1774.81
5	GUIDE	used	1139167664	9.20	12736	-0.064	0.449	0.109	0.177	218.424541	-58.731243	598.16	-2299.34
6	GUIDE	used	1139171168	6.82	12742	-0.052	-0.292	0.089	0.138	217.181237	-59.197549	362.56	543.82
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

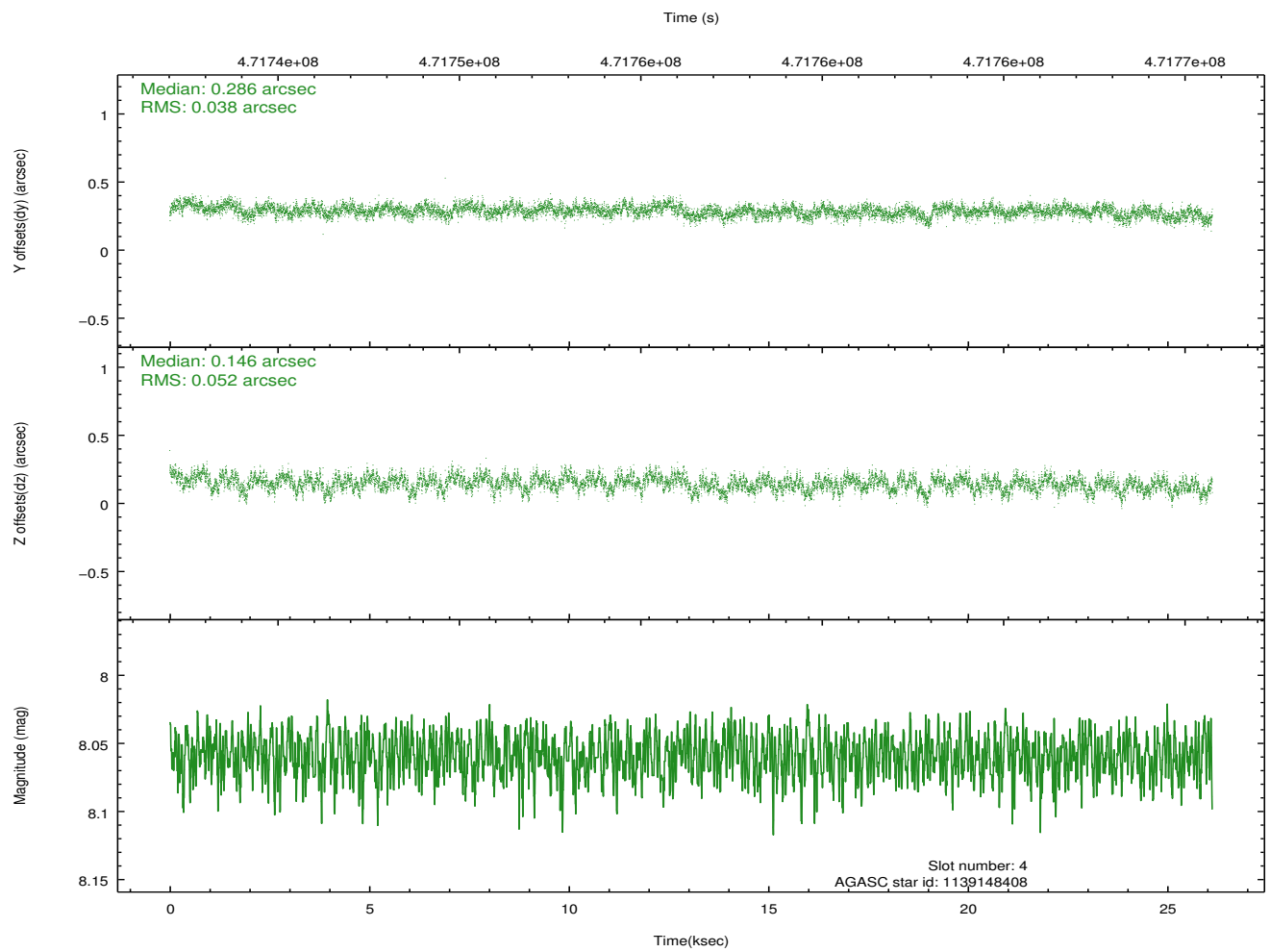
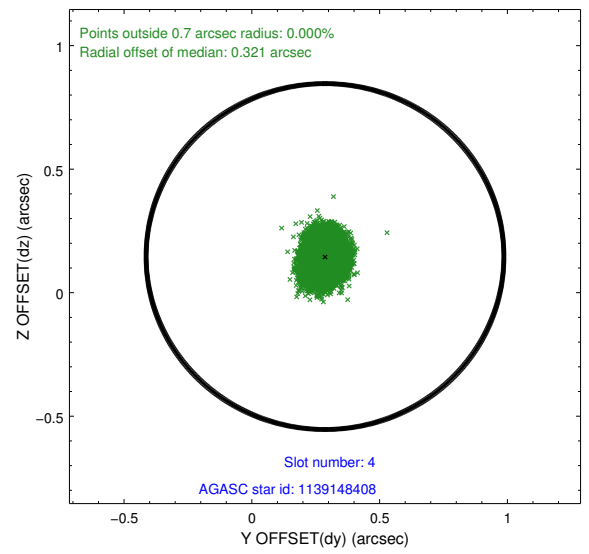
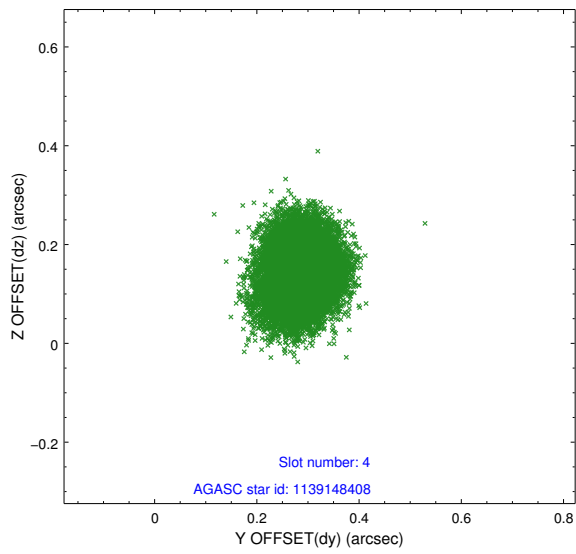
∞

## 2.4 Star Slots

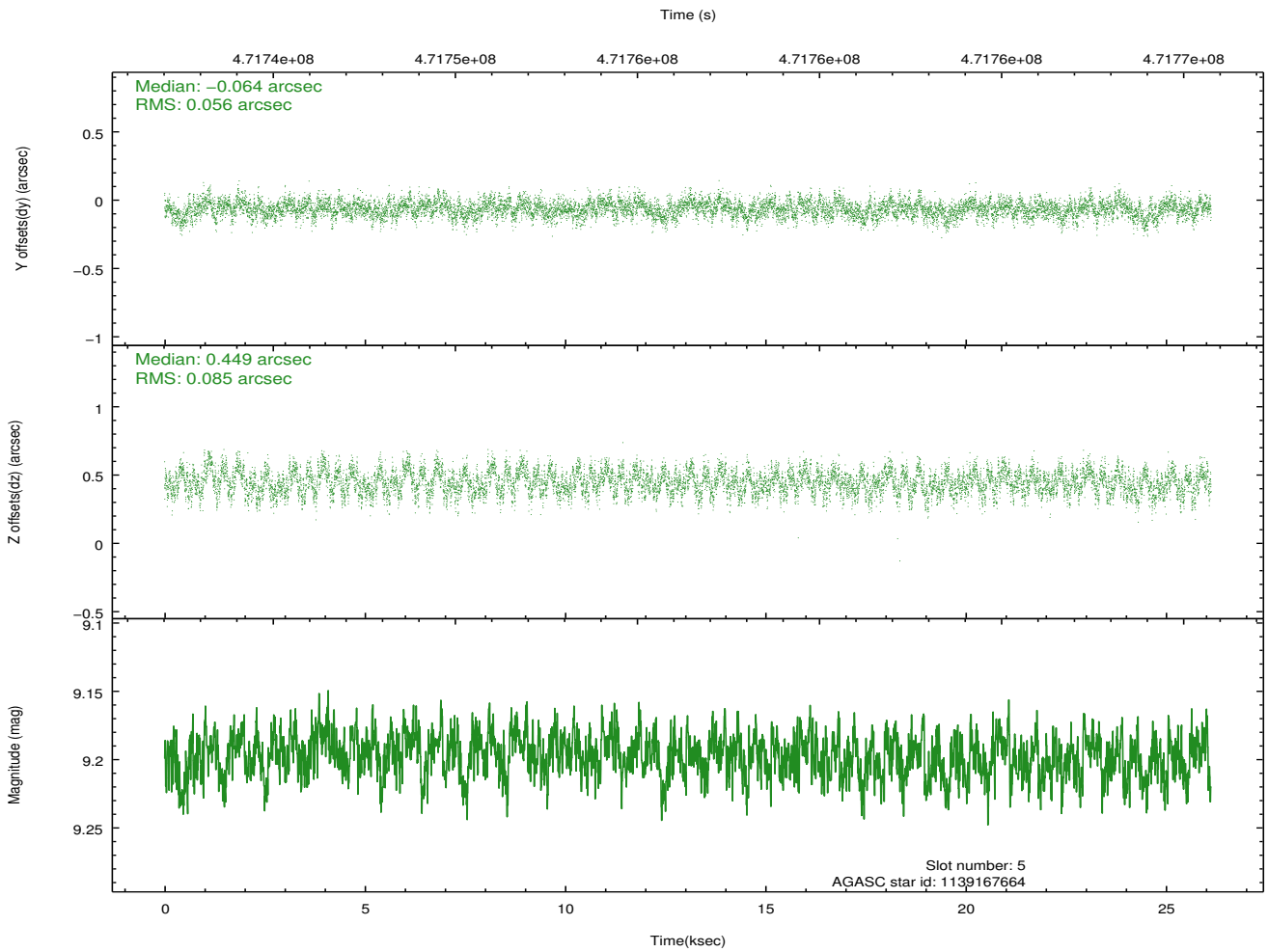
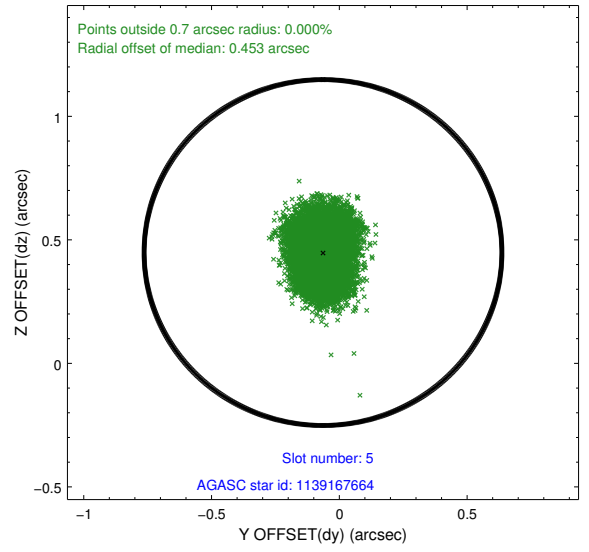
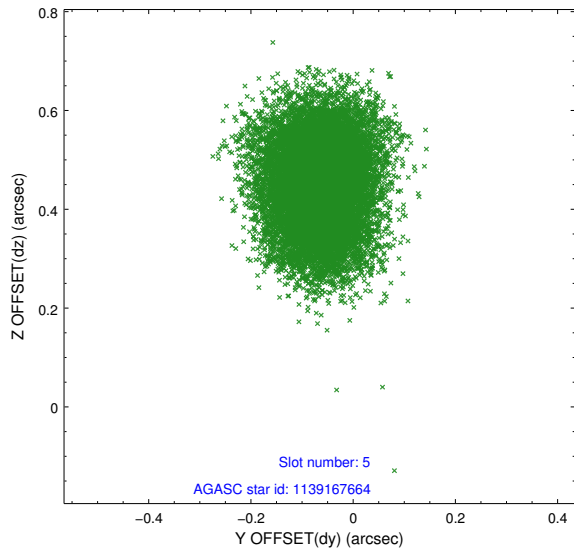
### 2.4.1 Slot 3



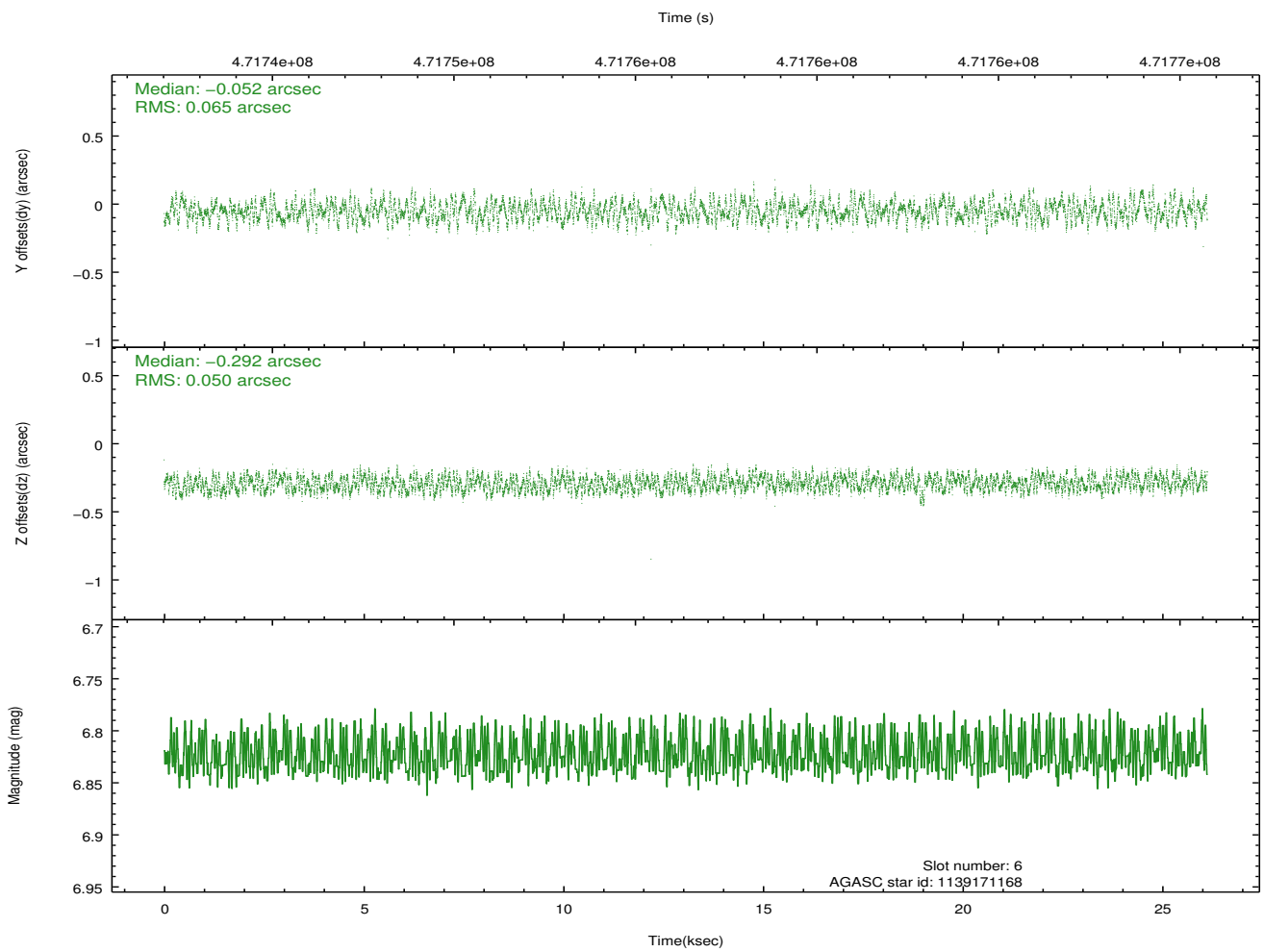
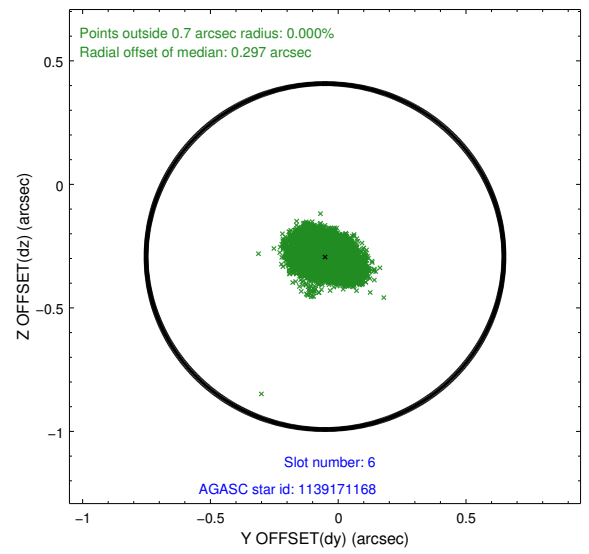
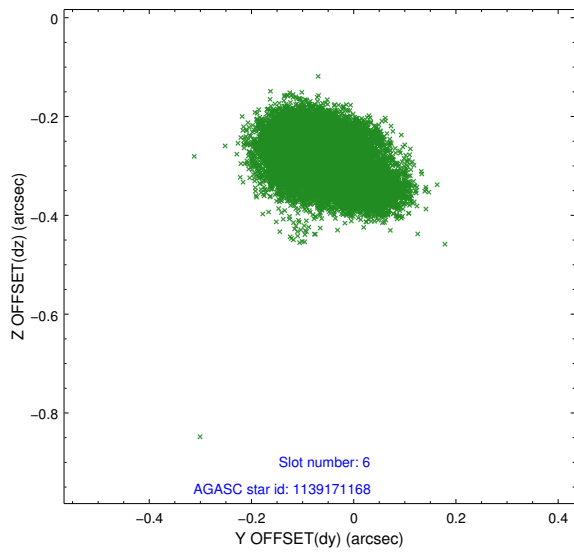
## 2.4.2 Slot 4



### 2.4.3 Slot 5

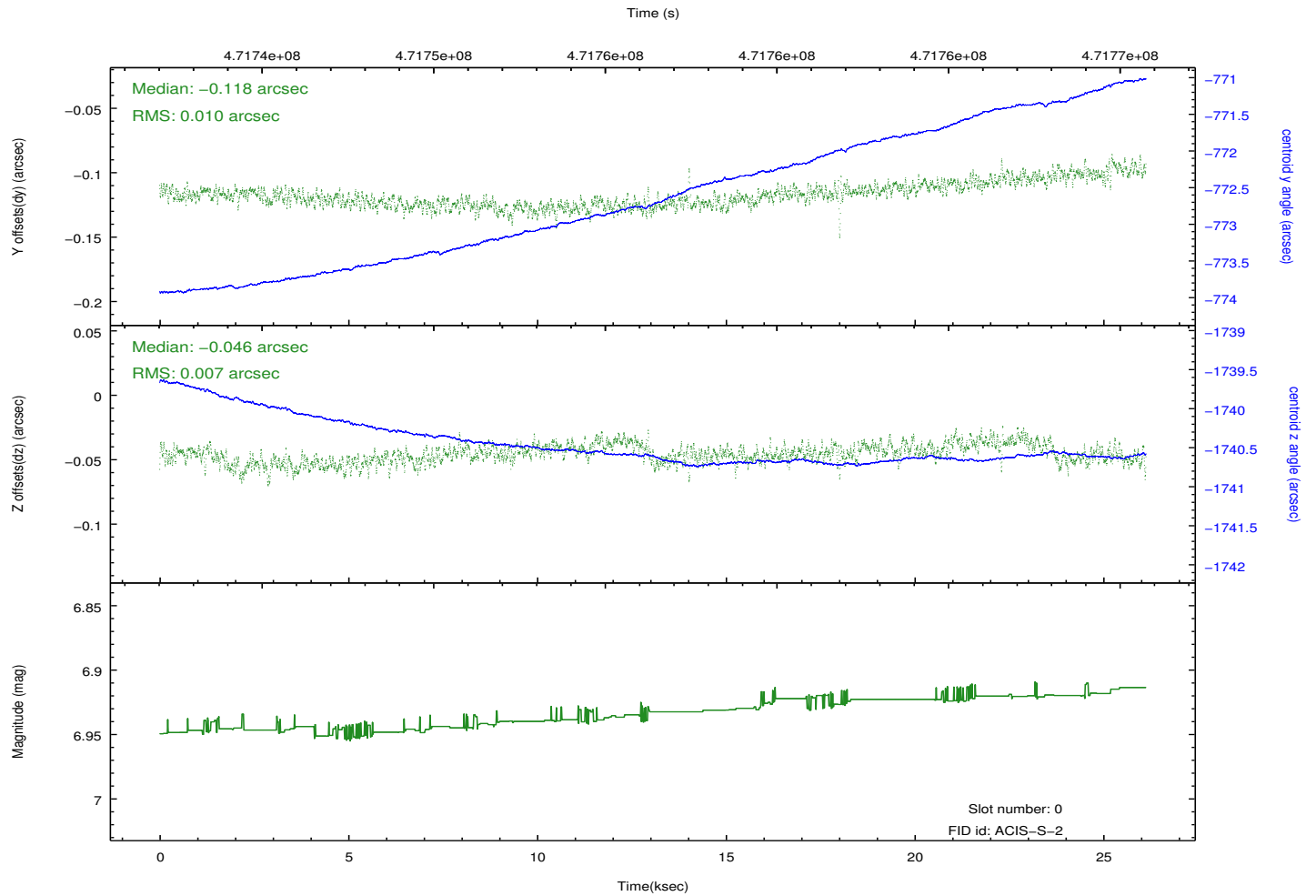
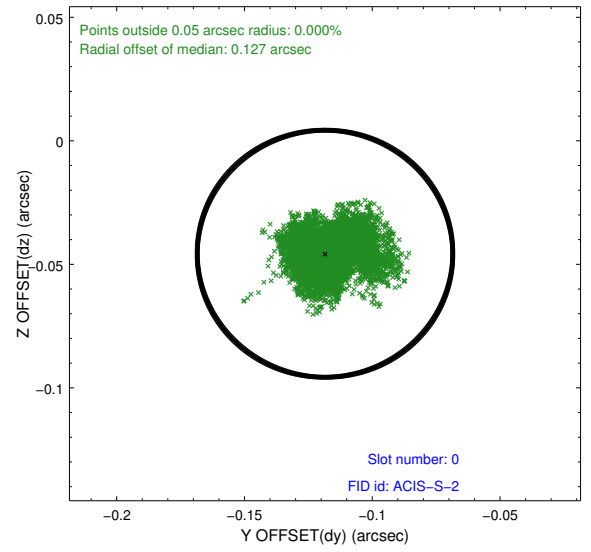
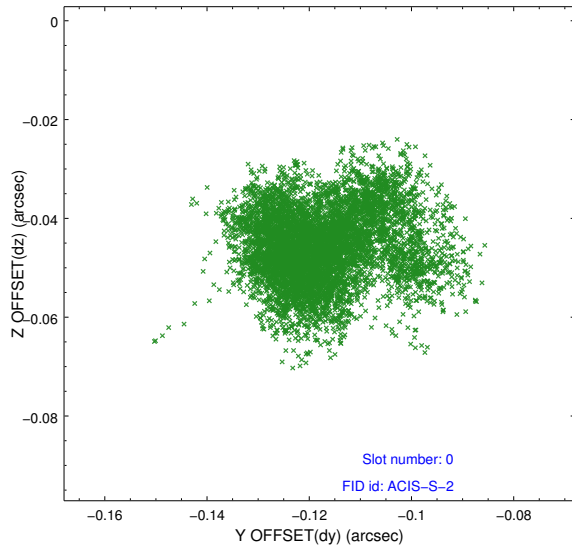


## 2.4.4 Slot 6

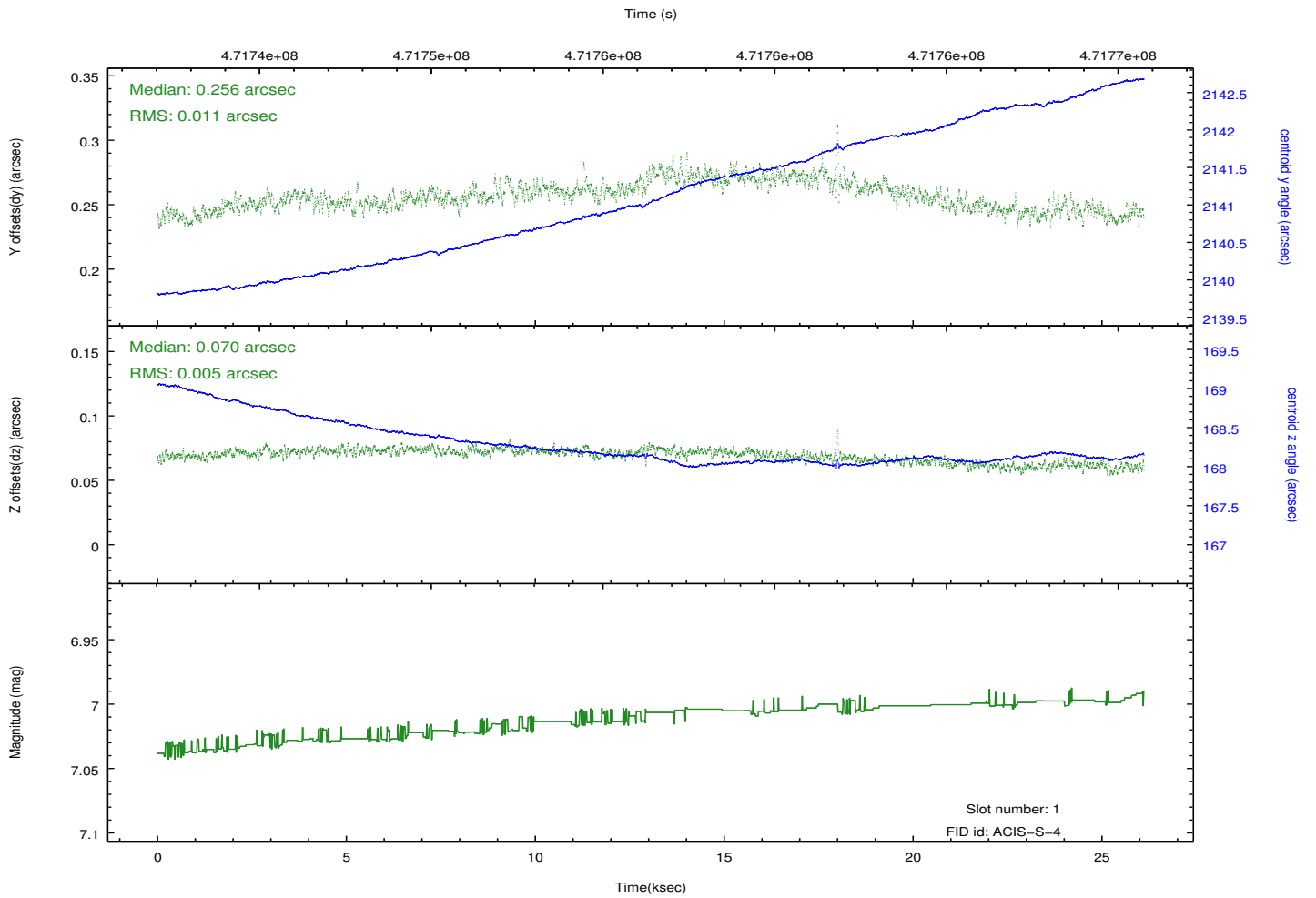
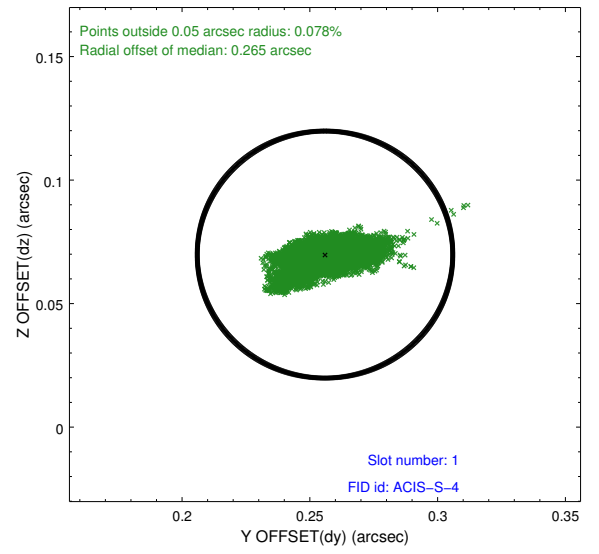
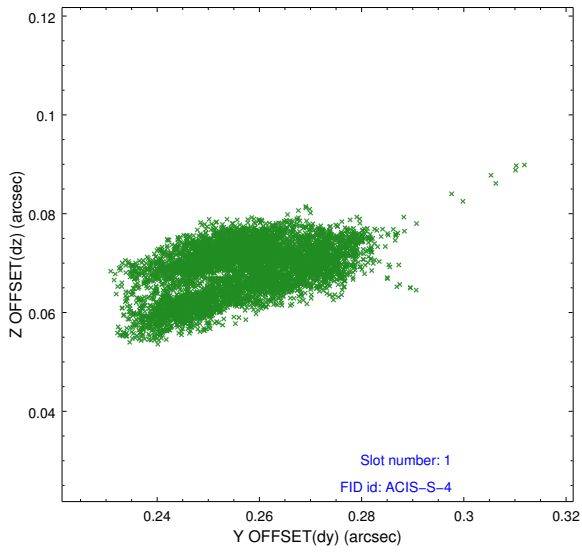


## 2.5 FID Slots

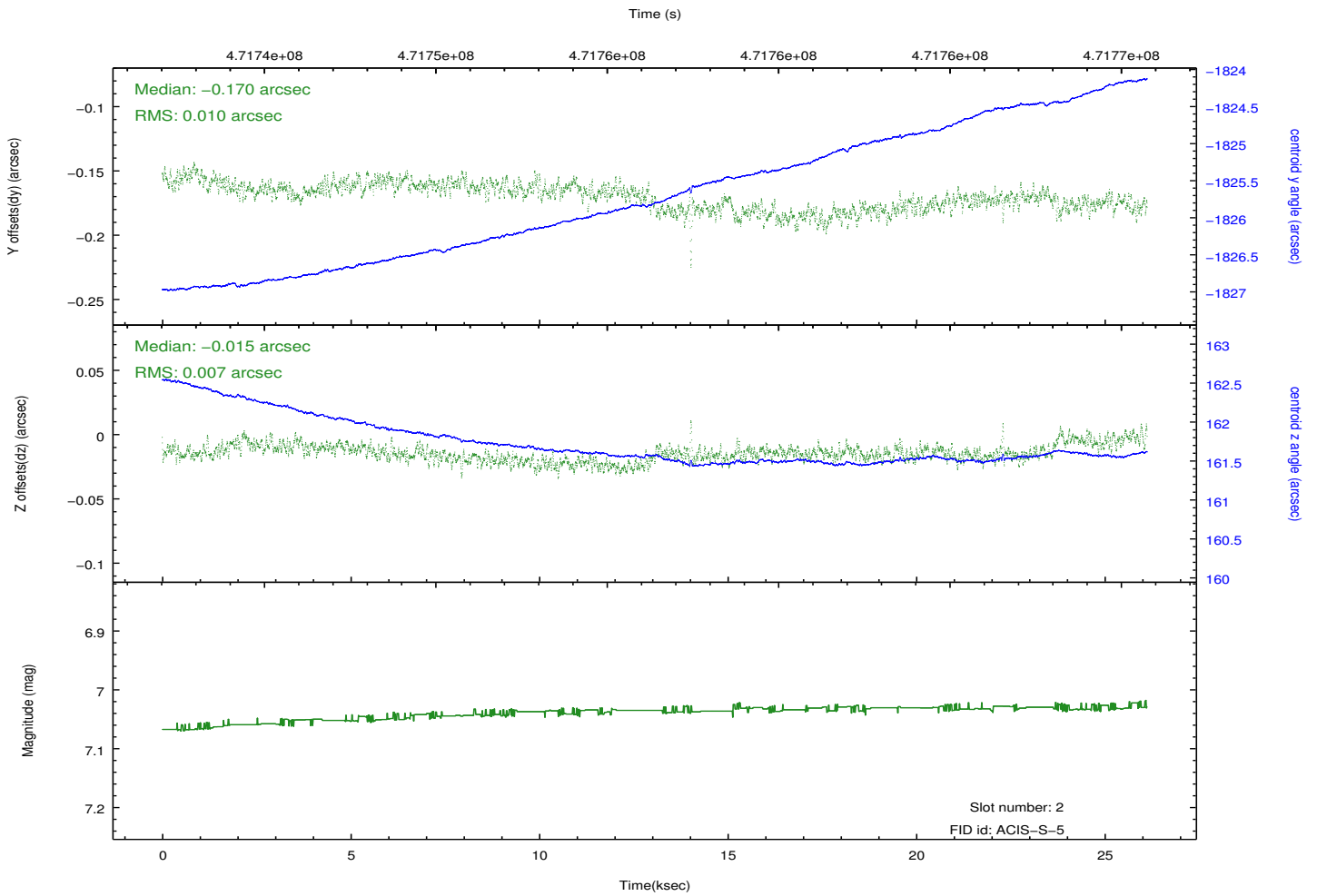
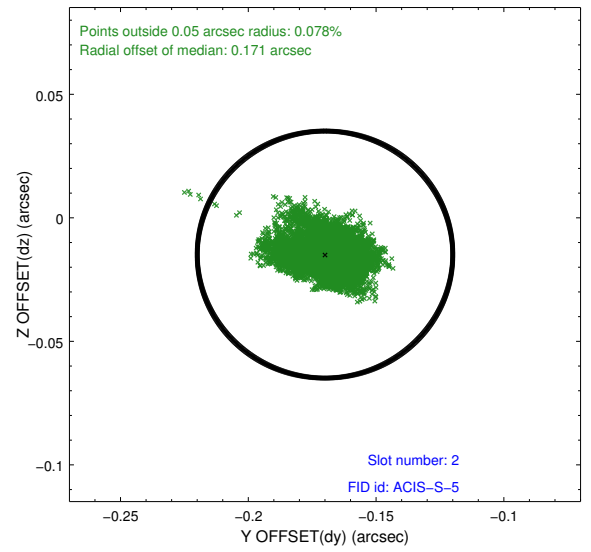
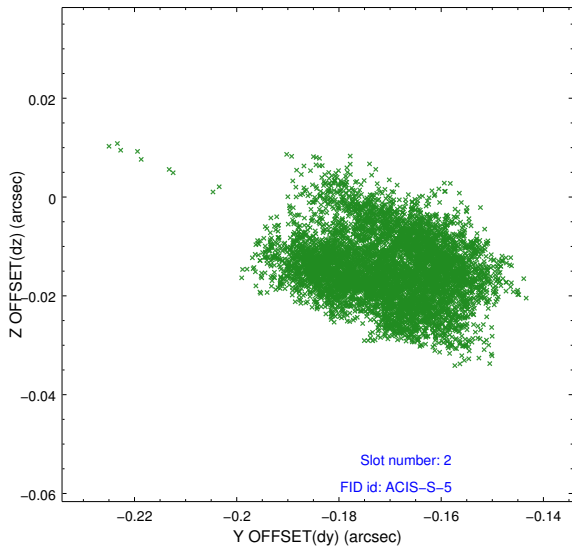
### 2.5.1 Slot 0



## 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)	2014.12.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.063041849673

## 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 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.