

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 5562 - L2 Version 3  
Chandra X-Ray Center

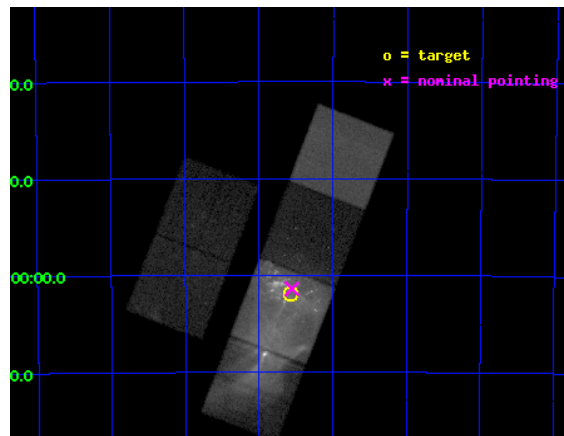
L2 Processing Date : Dec 15 2012

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# 1 Front

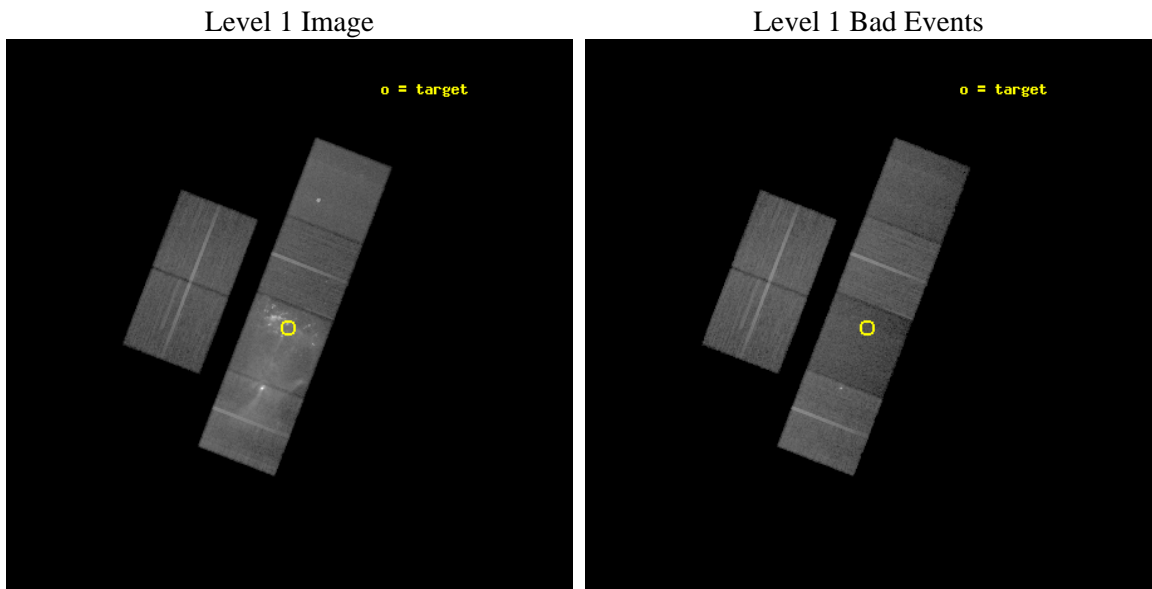
seq_num	500551	Sequence number
obs_id	5562	Observation id
title	A Chandra Study of the Interaction between the Plasma Nebula RCW89 and the pulsar jet of PSR B1509-58	Proposal title
observer	Dr Yoichi Yatsu	Principal investigator
object	RCW89	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	228.3925	Observer's specified target RA [deg]
dec_targ	-59.032778	Observer's specified target Dec [deg]
ra_nom	228.38891454721	Nominal RA [deg]
dec_nom	-59.023269512879	Nominal Dec [deg]
roll_nom	111.06841785973	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29954.416050702	Sum of GTIs [s]
livetime	29575.115198284	Livetime [s]
ontime2	29947.9751302	Sum of GTIs [s]
ontime3	29951.051960438	Sum of GTIs [s]
ontime5	29954.375010699	Sum of GTIs [s]
ontime6	29951.093000412	Sum of GTIs [s]
ontime7	29954.416050702	Sum of GTIs [s]
ontime8	29954.251890719	Sum of GTIs [s]
l2events	599332	Number of level 2 events



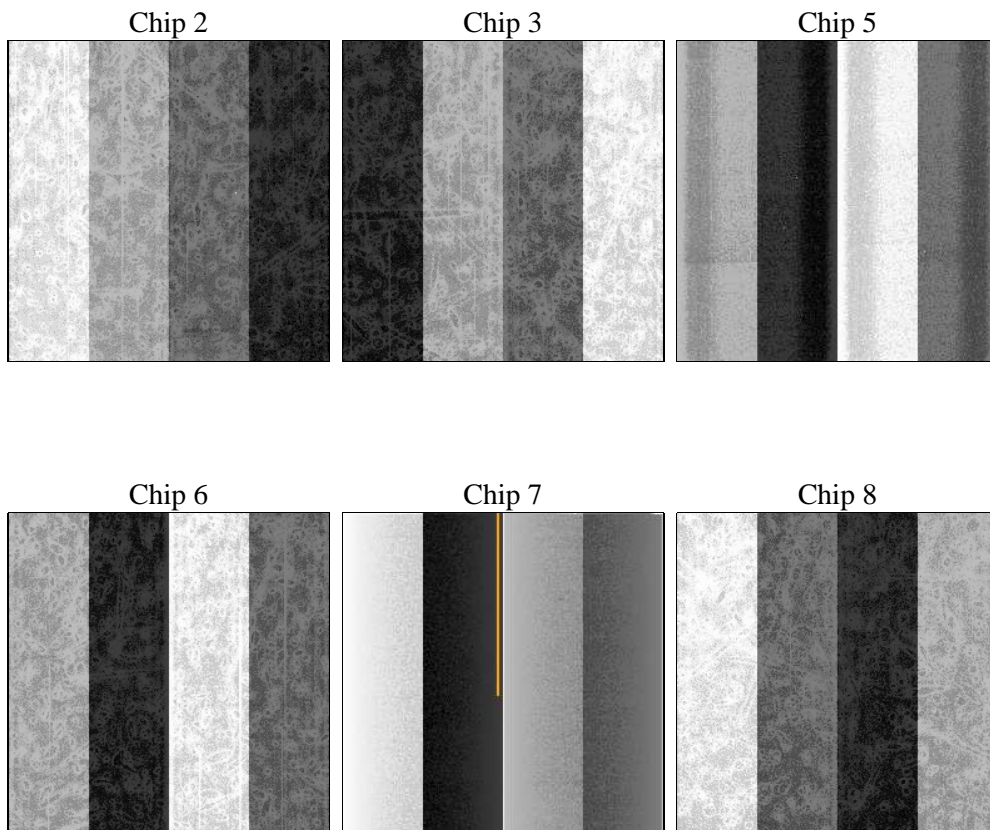
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1	Processing system revision	ontime	29954.416050702	Sum of GTIs [s]
caldbver	4.5.5	&#160	ontime2	29947.9751302	Sum of GTIs [s]
date	2012-12-15T07:53:21	Date and time of file creation	ontime3	29951.051960438	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	29954.375010699	Sum of GTIs [s]
			ontime6	29951.093000412	Sum of GTIs [s]
			ontime7	29954.416050702	Sum of GTIs [s]
			ontime8	29954.251890719	Sum of GTIs [s]
			l1events	1512689	Number of level 1 events

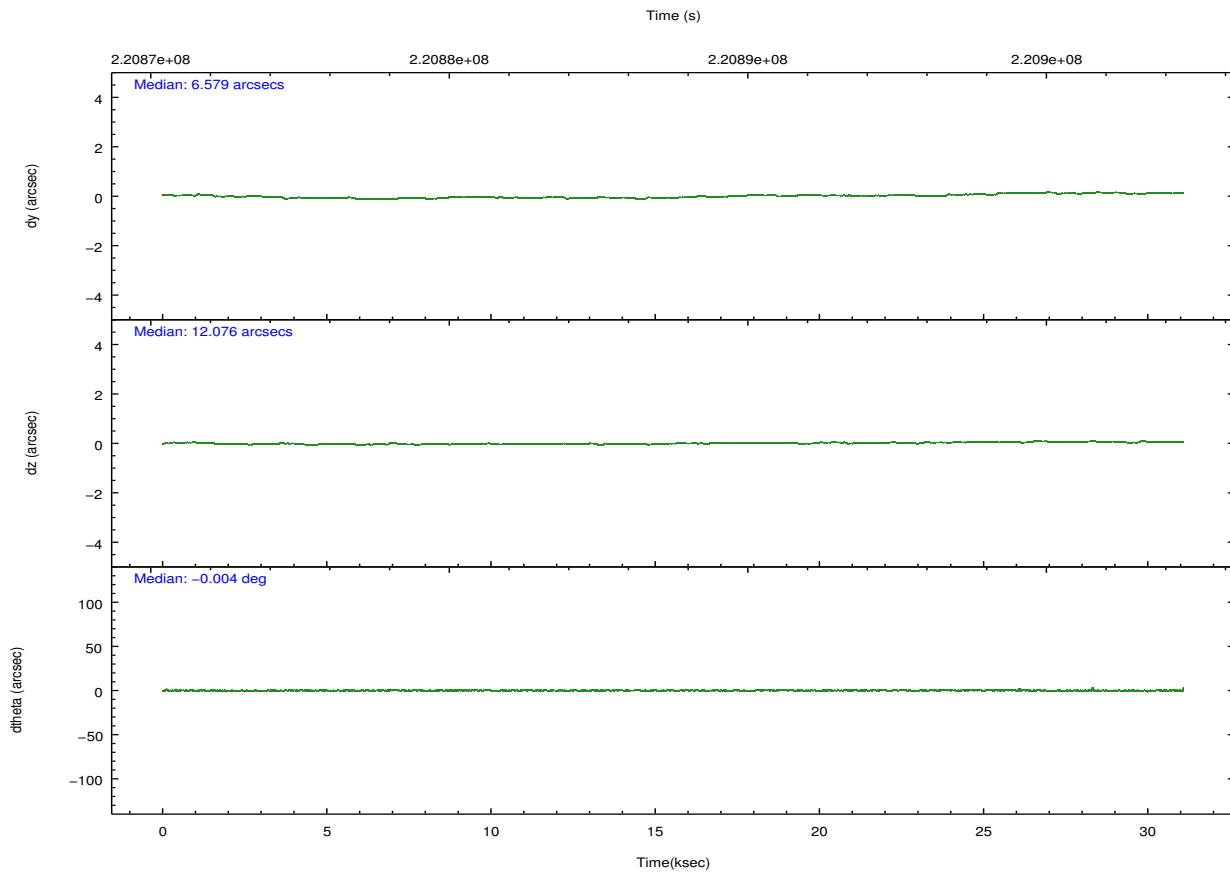
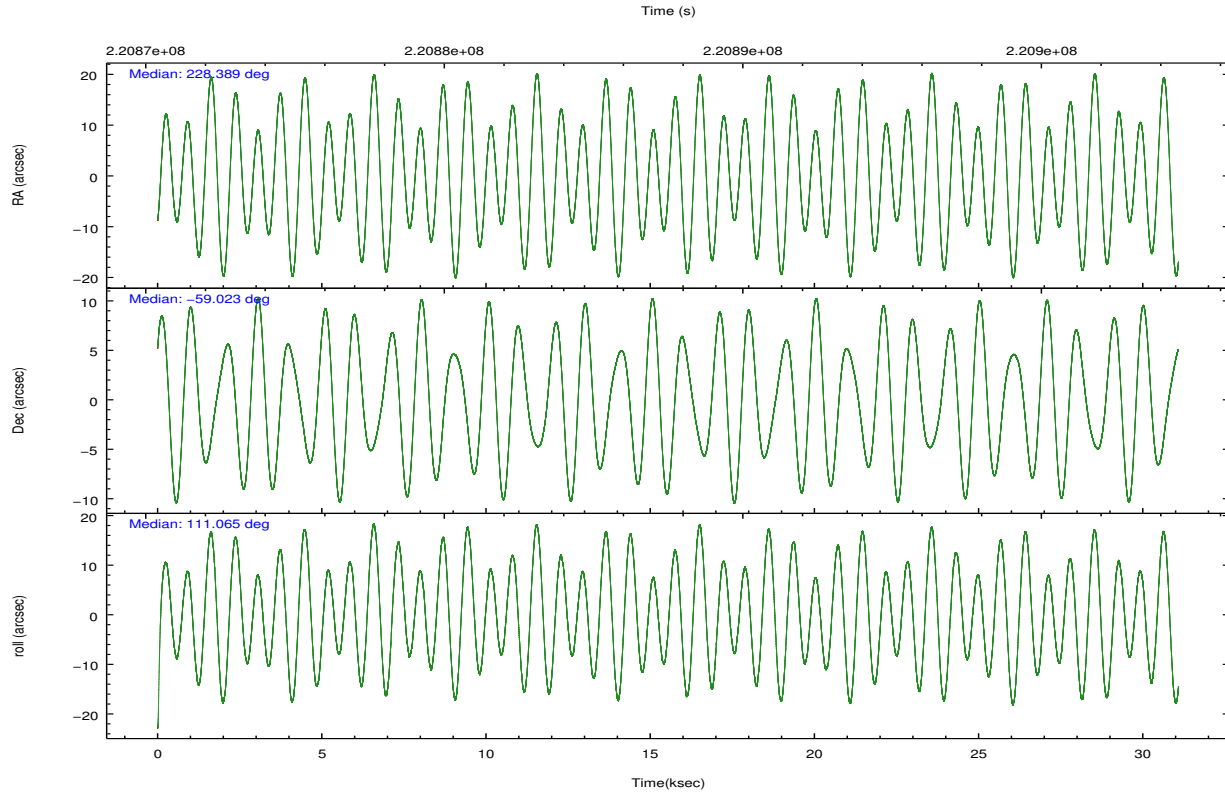
### 2.1.4 Events

	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	193737	180877	211101	186190	386575	354209	grade 0 events	9278	11734	11197	12823	66681	117264
rejected events	172855	157794	103205	160526	88039	168243		4%	6%	5%	6%	17%	33%
rejected %	89%	87%	48%	86%	22%	47%	grade 1 events	101	105	178	103	235	1151
								0%	0%	0%	0%	0%	0%
							grade 2 events	4453	4109	30466	4697	74282	28047
								2%	2%	14%	2%	19%	7%
							grade 3 events	2003	2071	4459	2275	33173	10936
								1%	1%	2%	1%	8%	3%
							grade 4 events	2044	2069	4258	2132	32888	10431
								1%	1%	2%	1%	8%	2%
							grade 5 events	4961	5941	18232	5982	19571	9823
								2%	3%	8%	3%	5%	2%
							grade 6 events	3108	3110	57534	3746	91577	19333
								1%	1%	27%	2%	23%	5%
							grade 7 events	167789	151738	84777	154432	68168	157224
								86%	83%	40%	82%	17%	44%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	228.430543	228.3889145472092	Subarray requested	NONE	NONE
[deg] Pointing Dec	-59.040110	-59.02326951287914	Alternating exposures requested	N	N
[deg] Pointing Roll	110.947496	111.0684178597315	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	300.000000	300.000000			
[deg] Roll tolerance	10.000000	10.000000			
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	220873039.184000	220871631.29711			
Observation start date	2004-12-31T09:36:15	2004-12-31T09:13:51			
[s] Observation end time (MET)	220903039.184000	220903311.48603			
Observation end date	2004-12-31T17:56:15	2004-12-31T18:01:51			
Read mode	TIMED	TIMED			

## 2.3 Aspect

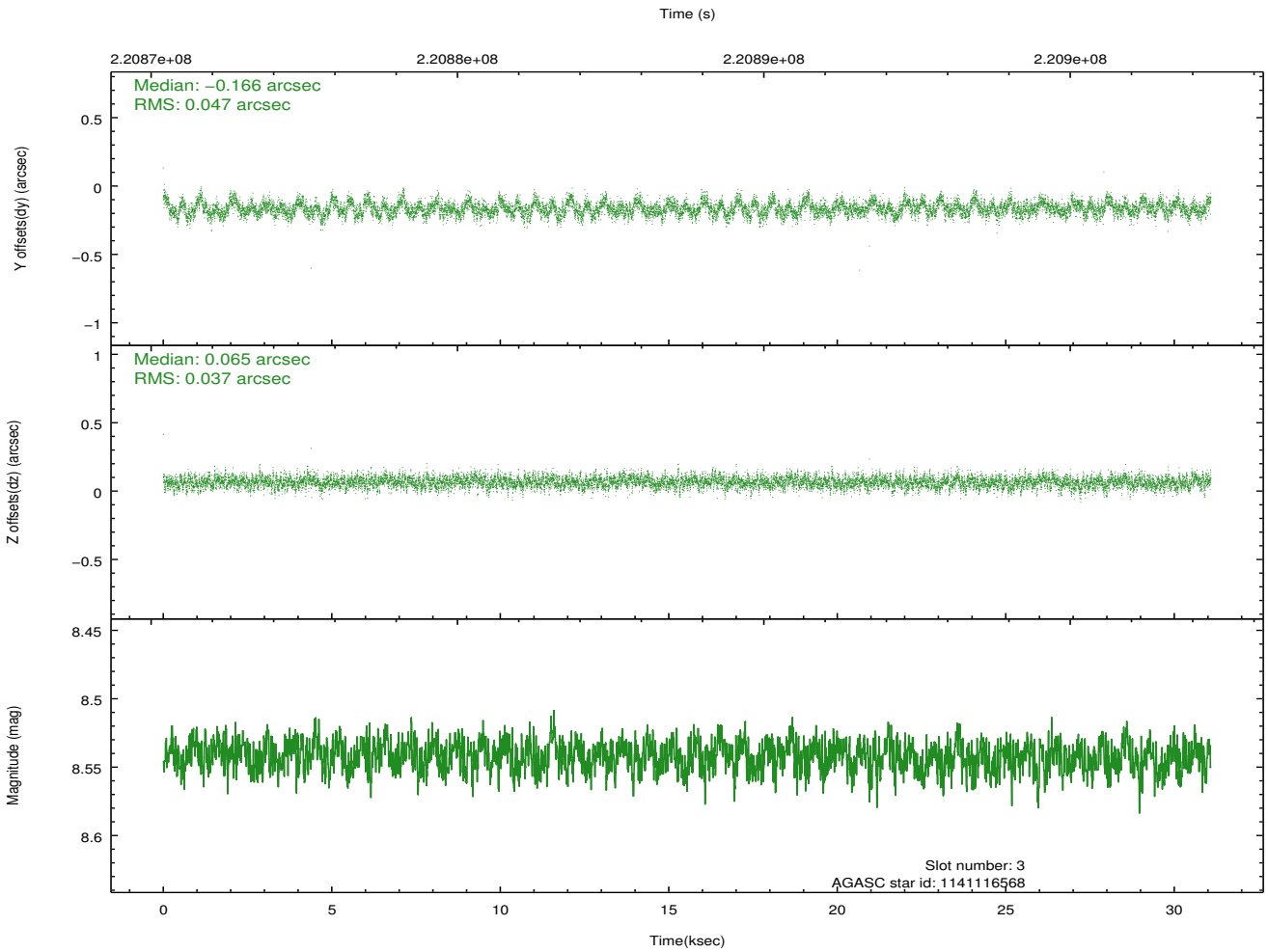
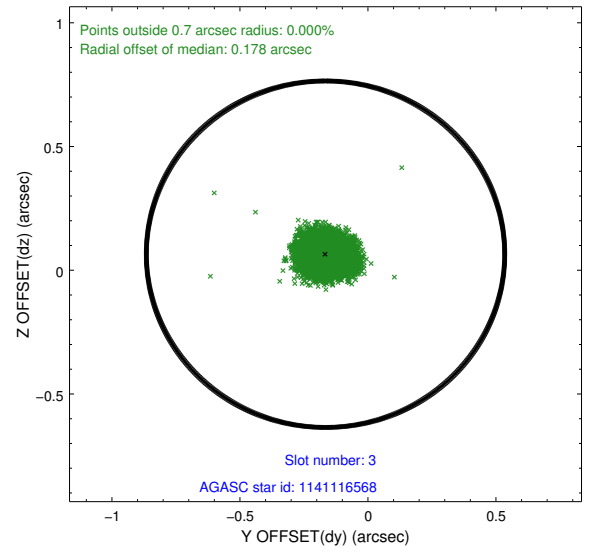
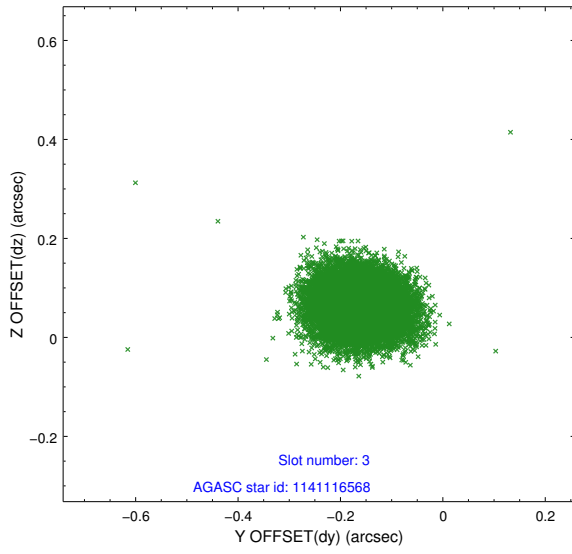


### Slot Statistics

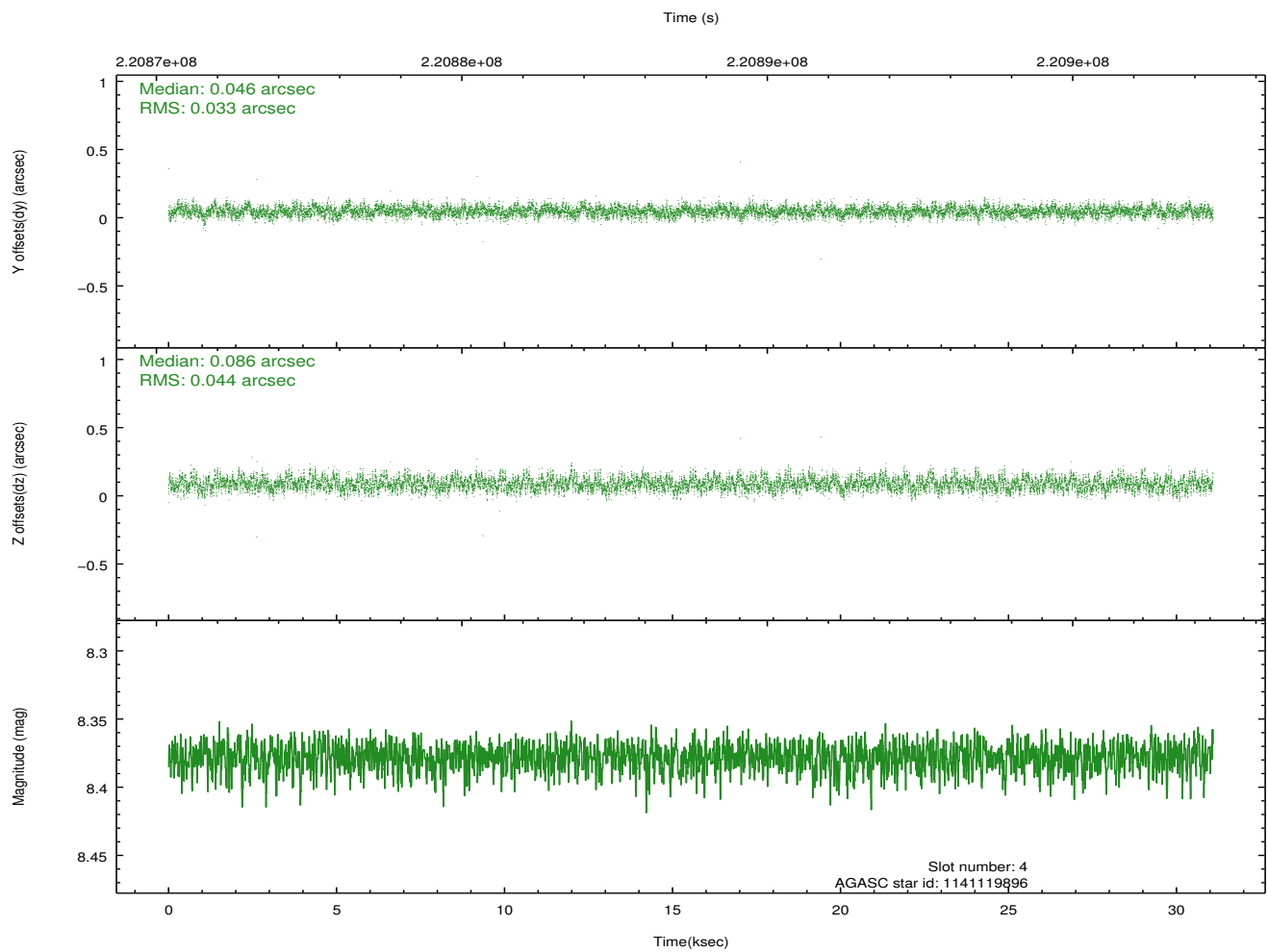
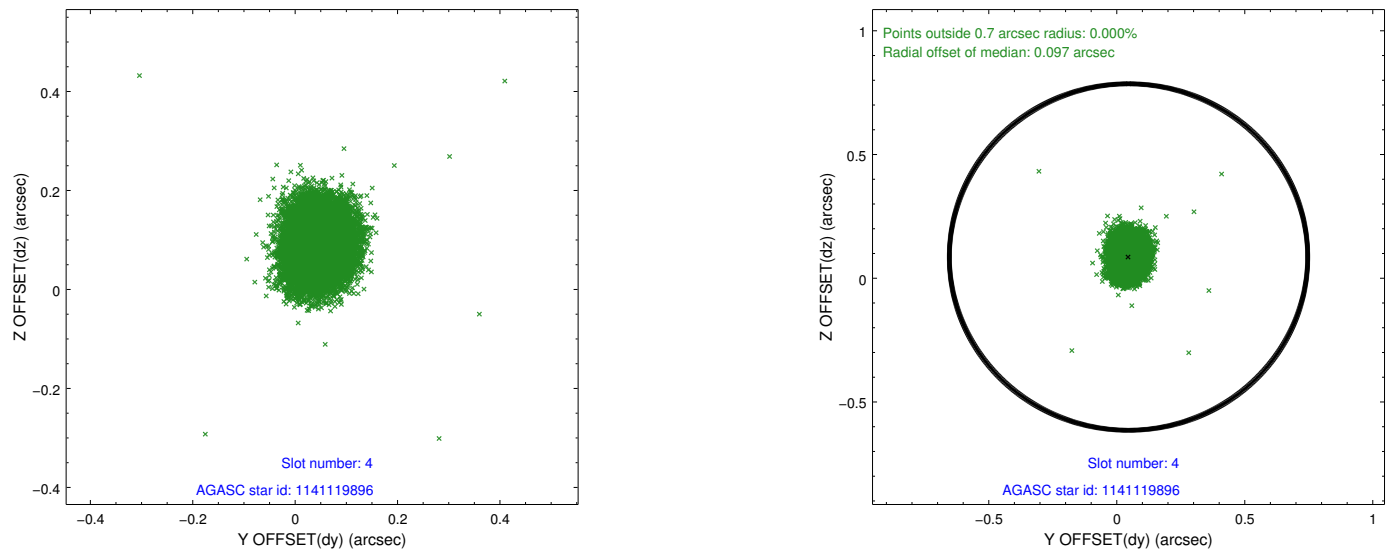
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	7582	-0.037	-0.041	0.007	0.012	0.000000	0.000000	-759.36	-1733.42
1	FID	ACIS-S-4	7.20	7582	0.075	0.029	0.006	0.011	0.000000	0.000000	2154.00	175.06
2	FID	ACIS-S-5	7.23	7581	-0.069	0.021	0.007	0.012	0.000000	0.000000	-1812.15	168.80
3	GUIDE	1141116568	8.54	15162	-0.166	0.065	0.063	0.103	228.578452	-58.520066	1648.75	-928.40
4	GUIDE	1141119896	8.38	15164	0.046	0.086	0.058	0.094	229.637327	-59.405643	-2037.82	-1587.13
5	GUIDE	1141120488	8.76	15155	-0.010	-0.021	0.066	0.110	228.236450	-59.504731	-1435.91	929.45
6	GUIDE	1141114296	9.20	15153	0.018	0.044	0.076	0.123	227.097332	-58.697525	2020.00	1897.30
7	GUIDE	1141118720	9.46	15147	0.103	-0.176	0.102	0.163	227.772709	-59.614232	-1507.31	1859.96

## 2.4 Star Slots

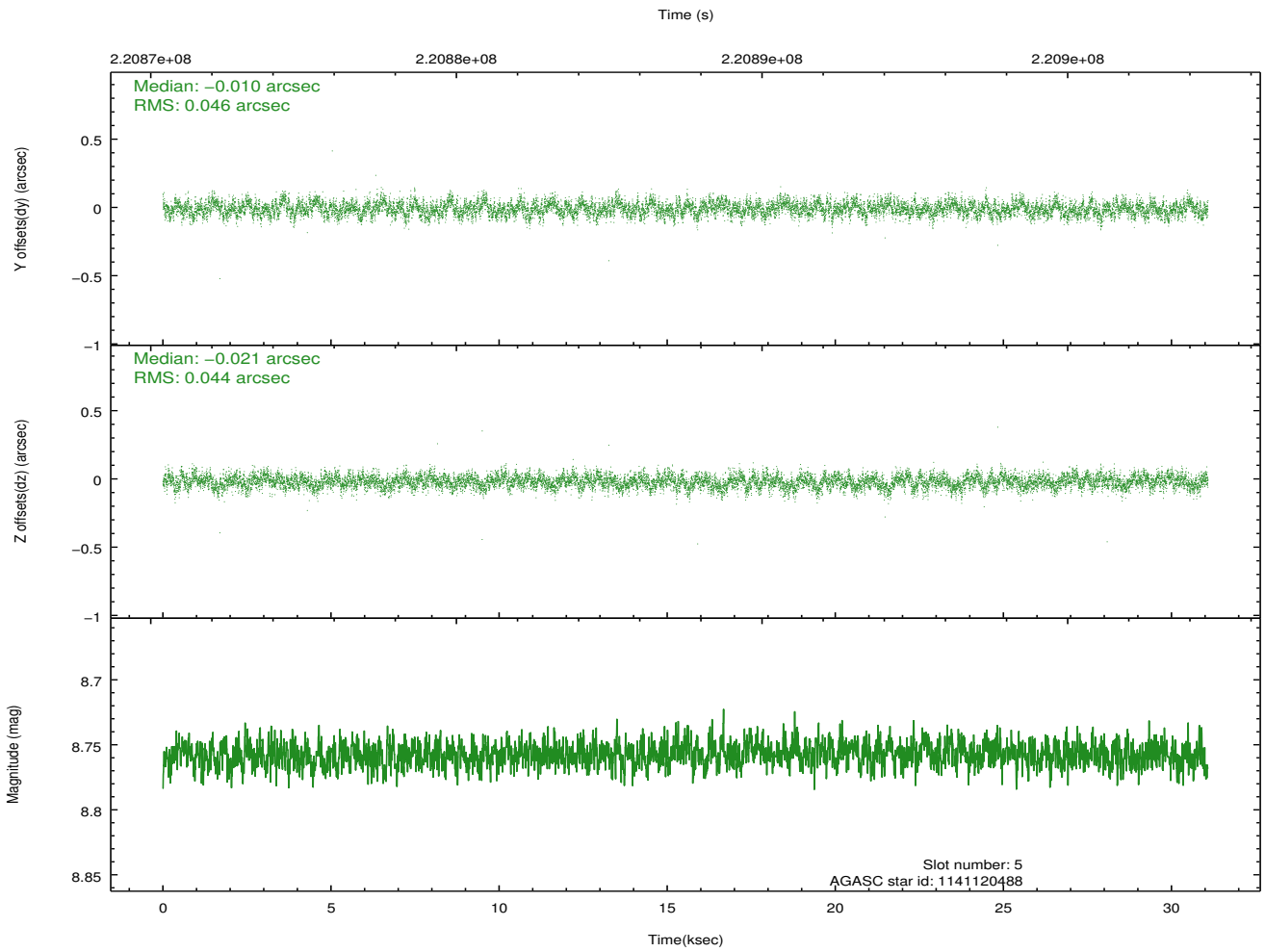
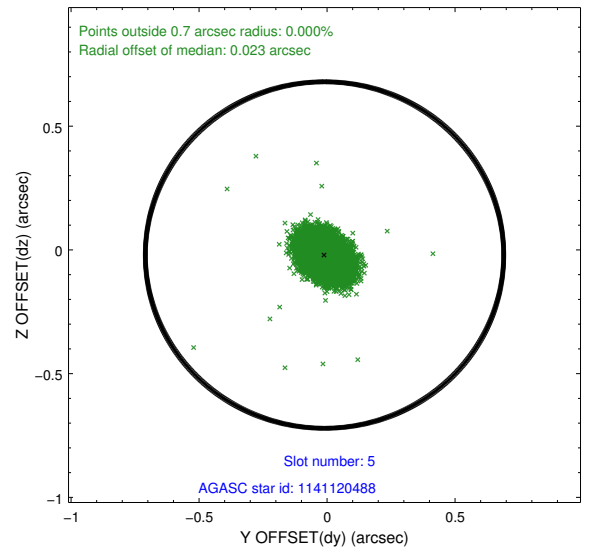
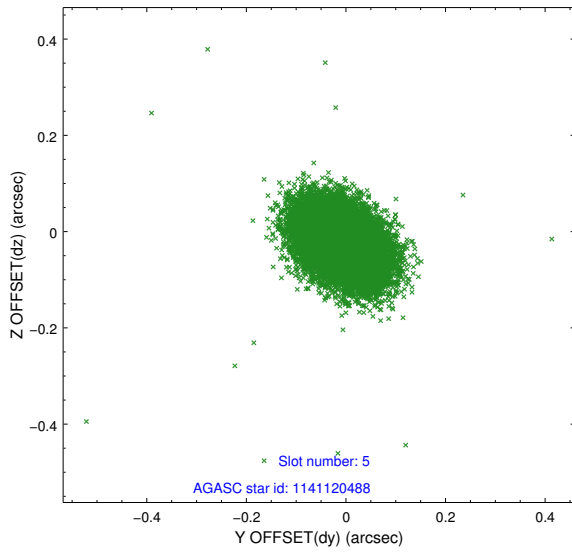
### 2.4.1 Slot 3



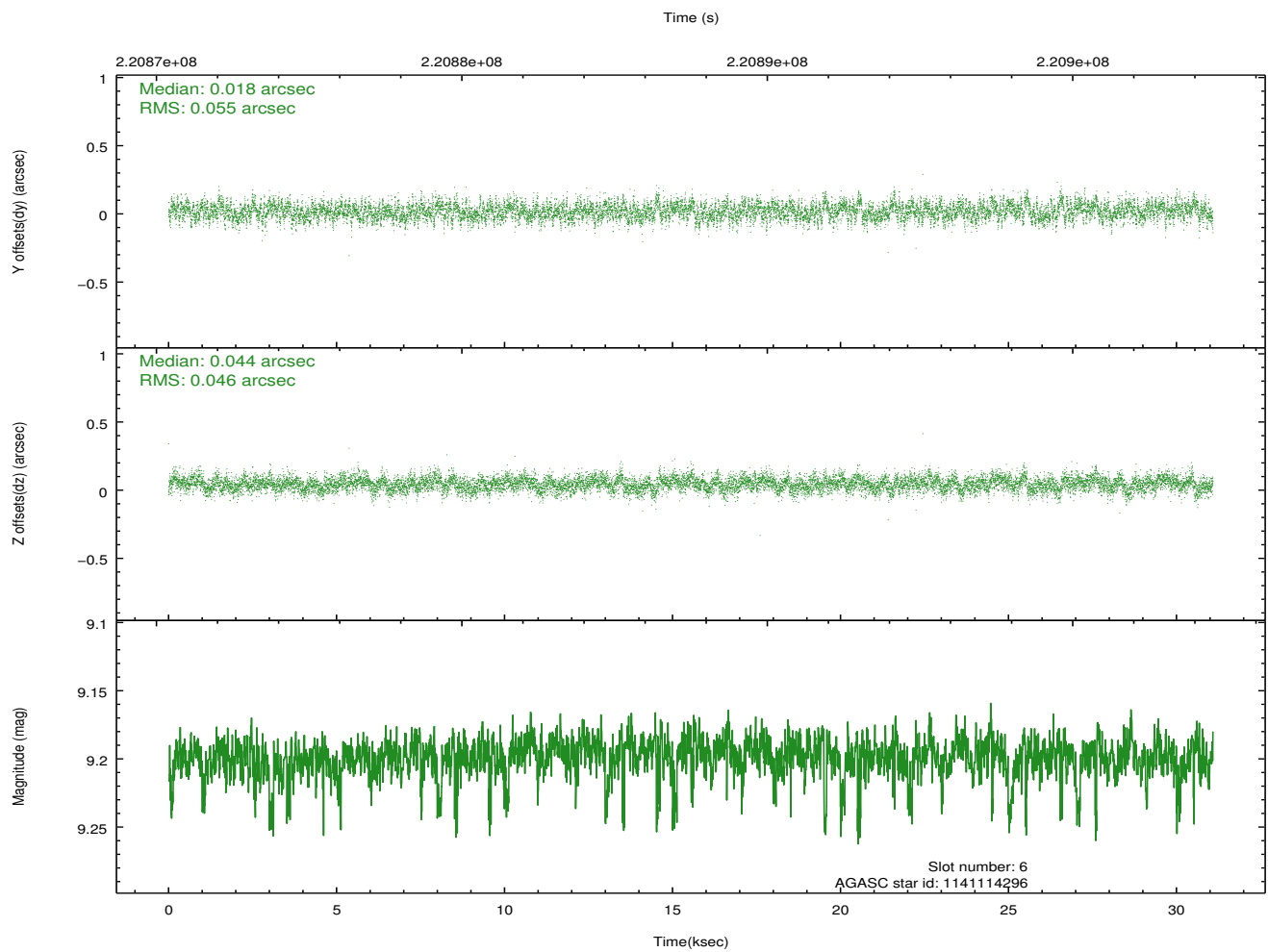
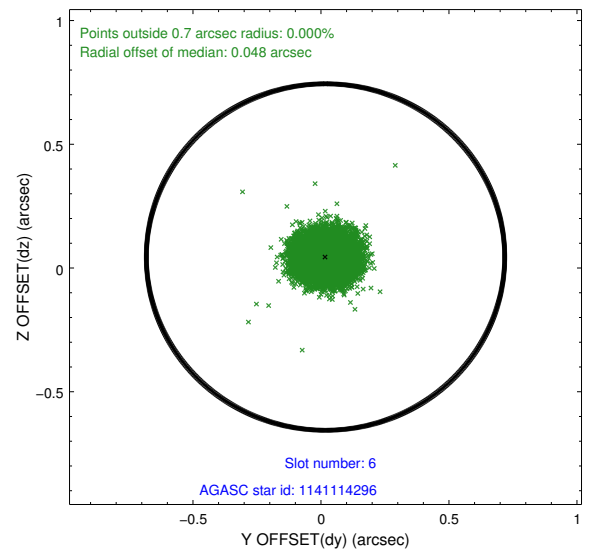
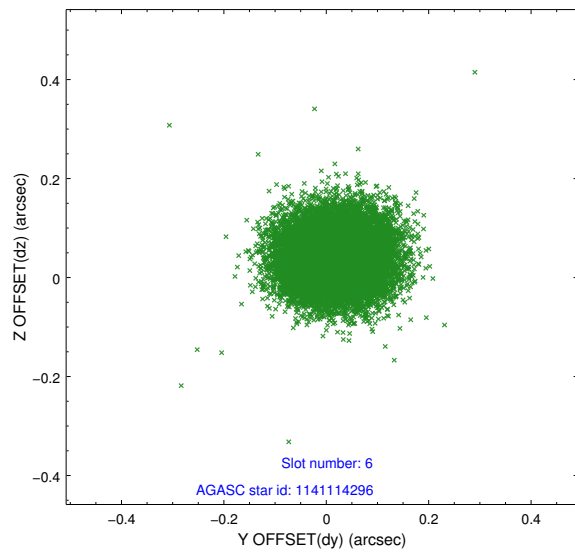
## 2.4.2 Slot 4



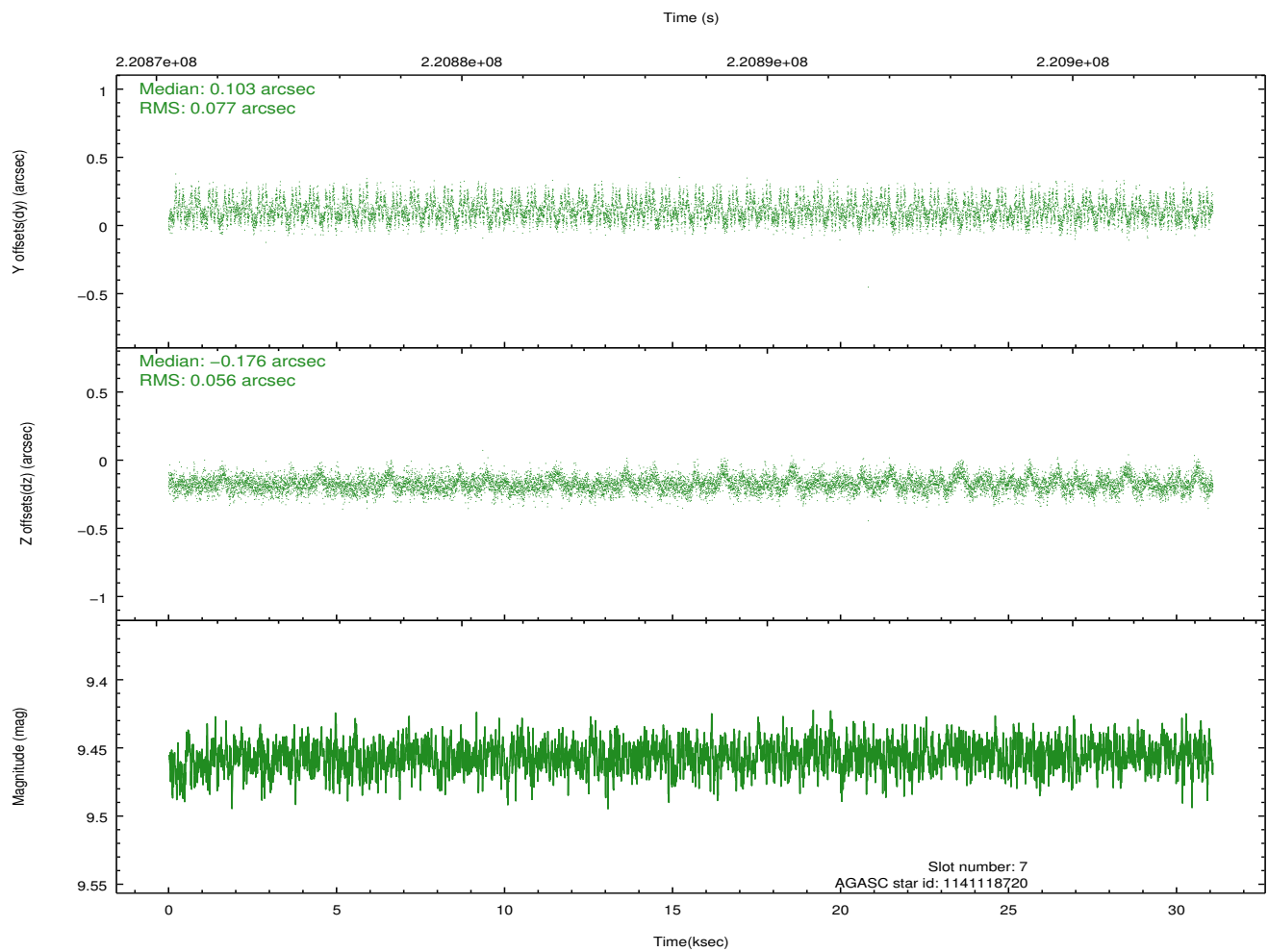
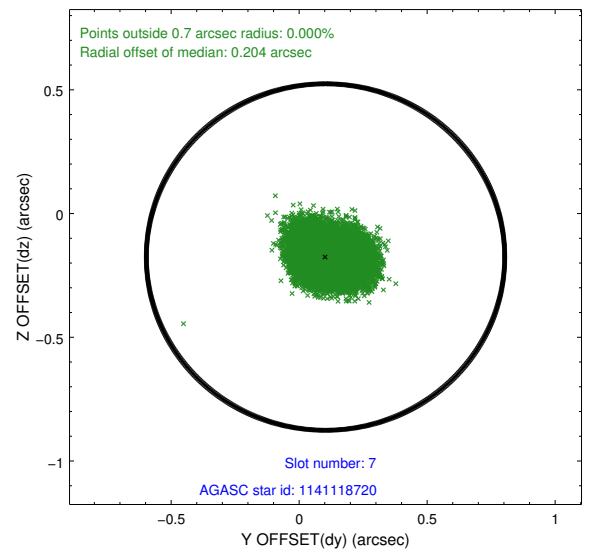
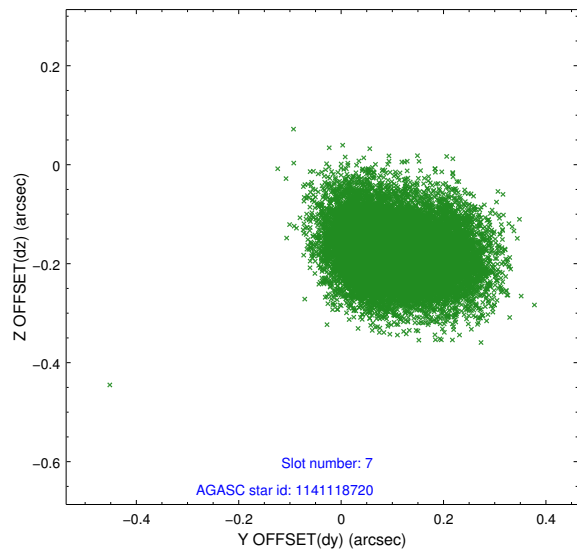
### 2.4.3 Slot 5



## 2.4.4 Slot 6

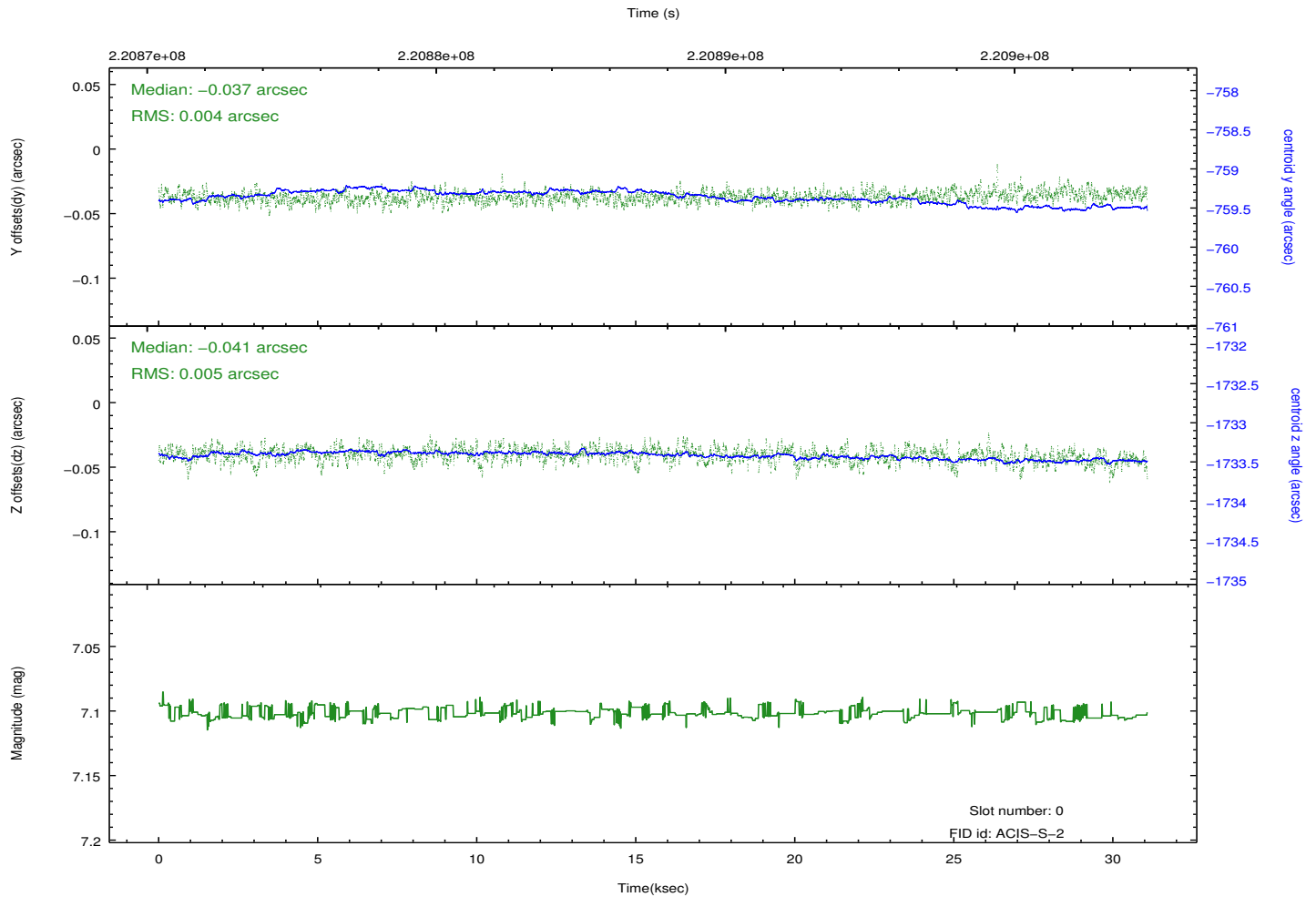
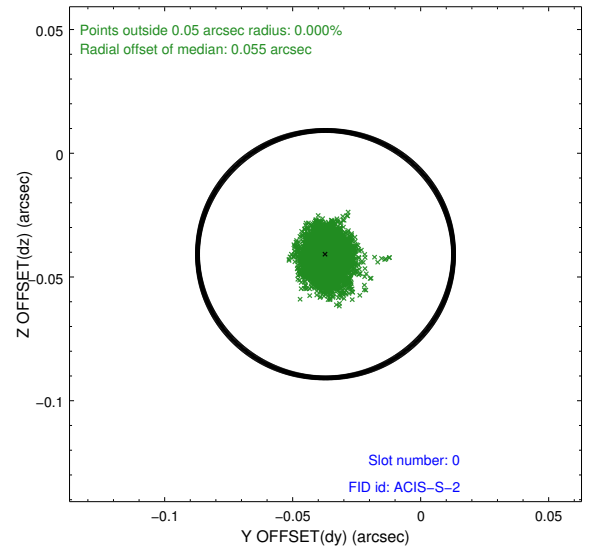
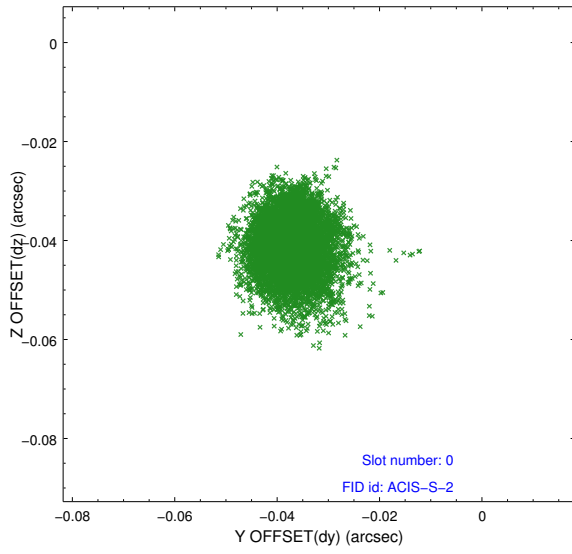


## 2.4.5 Slot 7

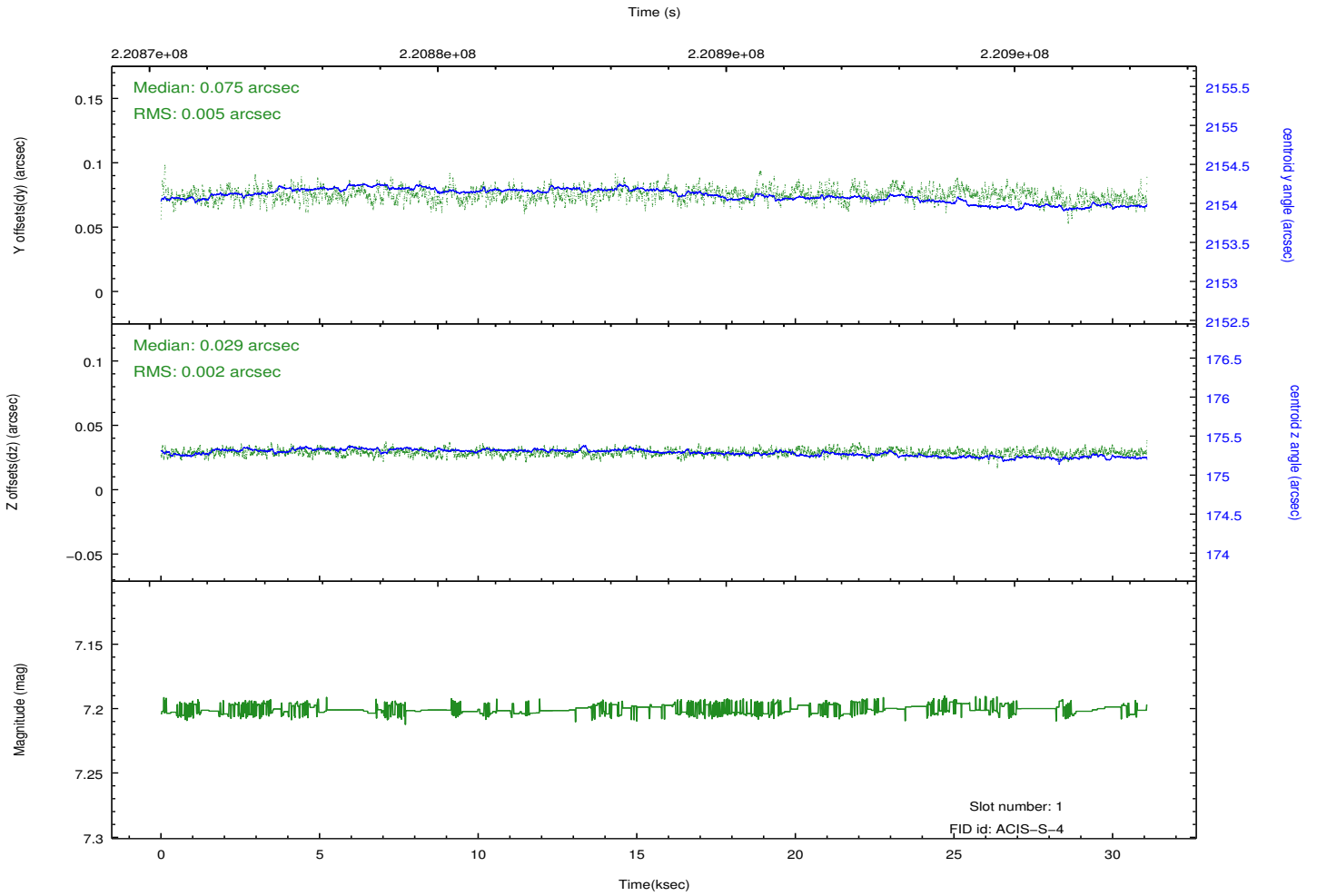
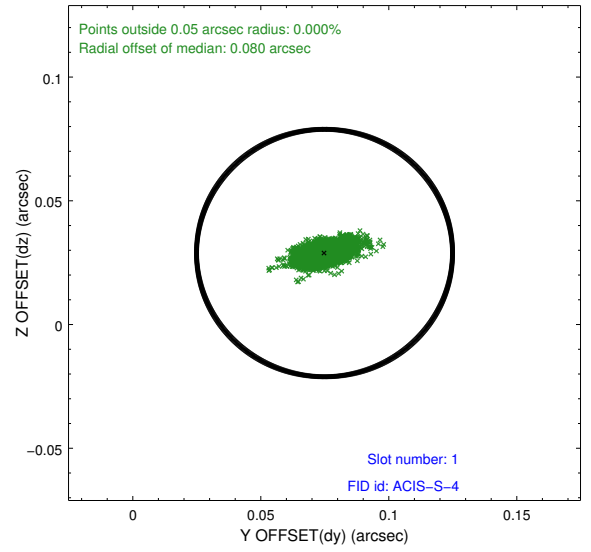
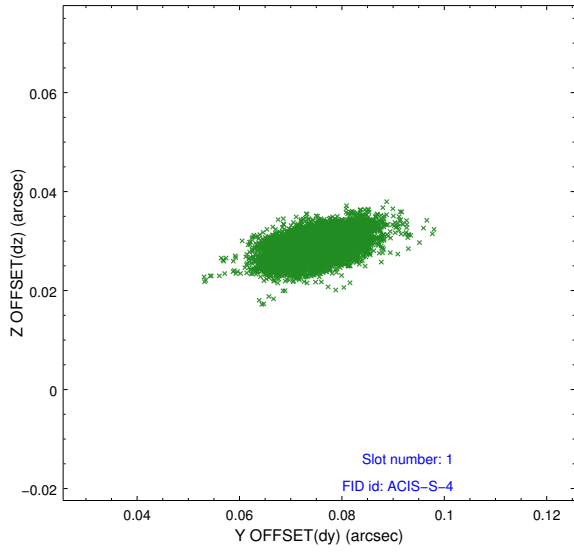


## 2.5 FID Slots

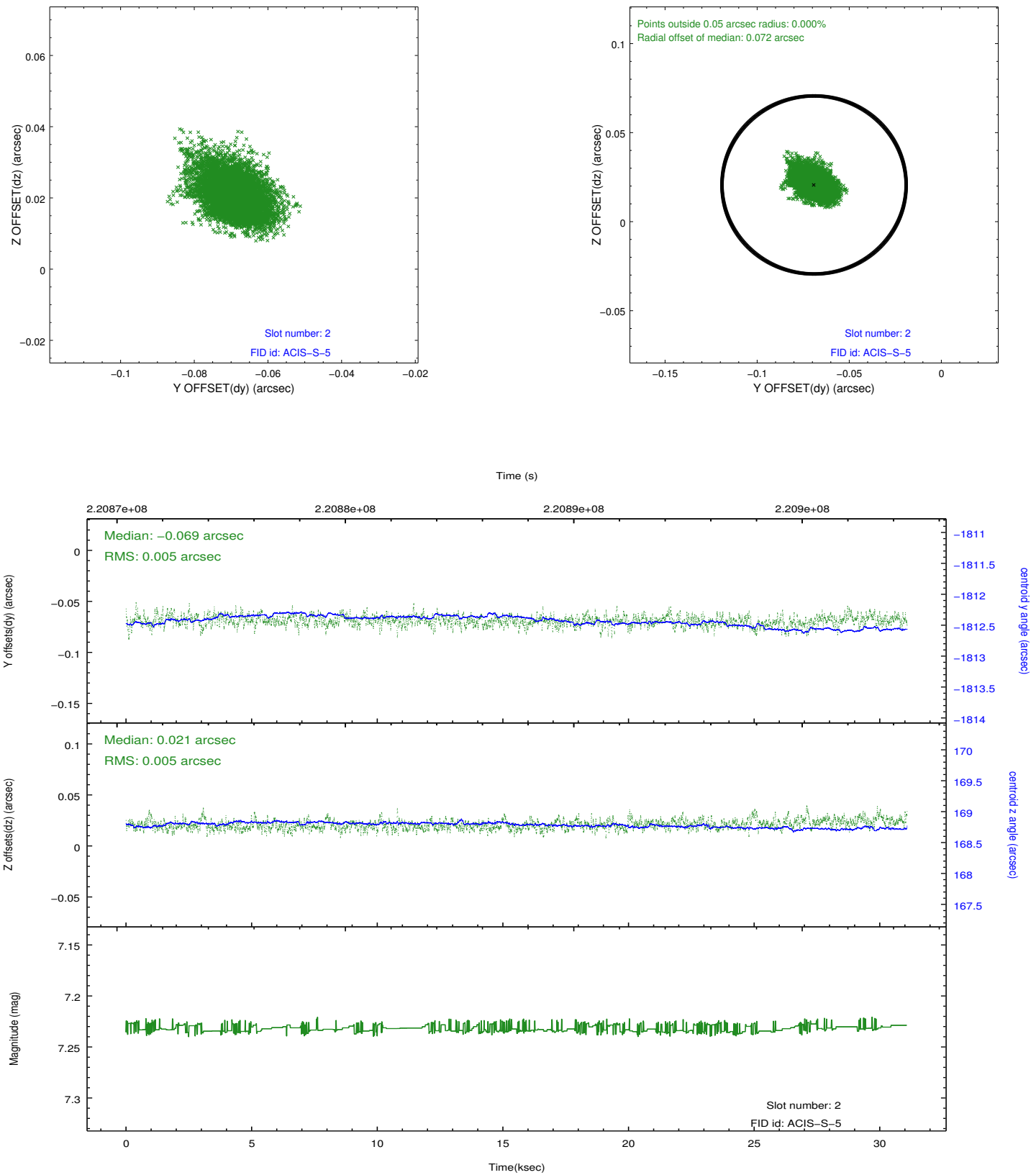
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2013.01.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.95519

## A.2 Comments

Roll constraint satisfied.