

# V&V Reference Report

## L2 ASCDS Version : 10.2.1

Observation 15760 - L2 Version 2  
Chandra X-Ray Center

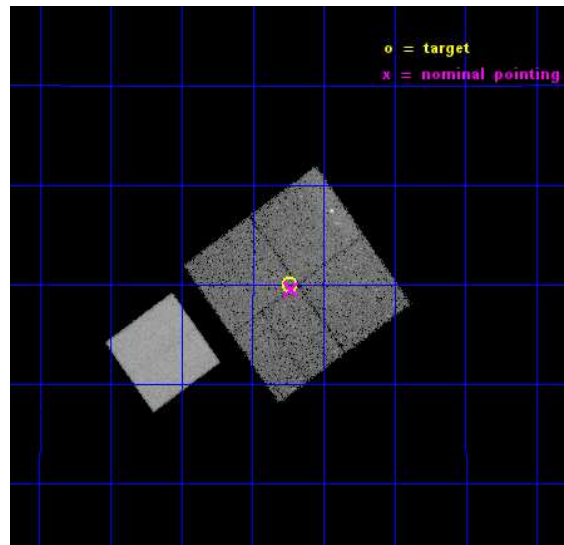
L2 Processing Date : Dec 11 2014

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# 1 Front

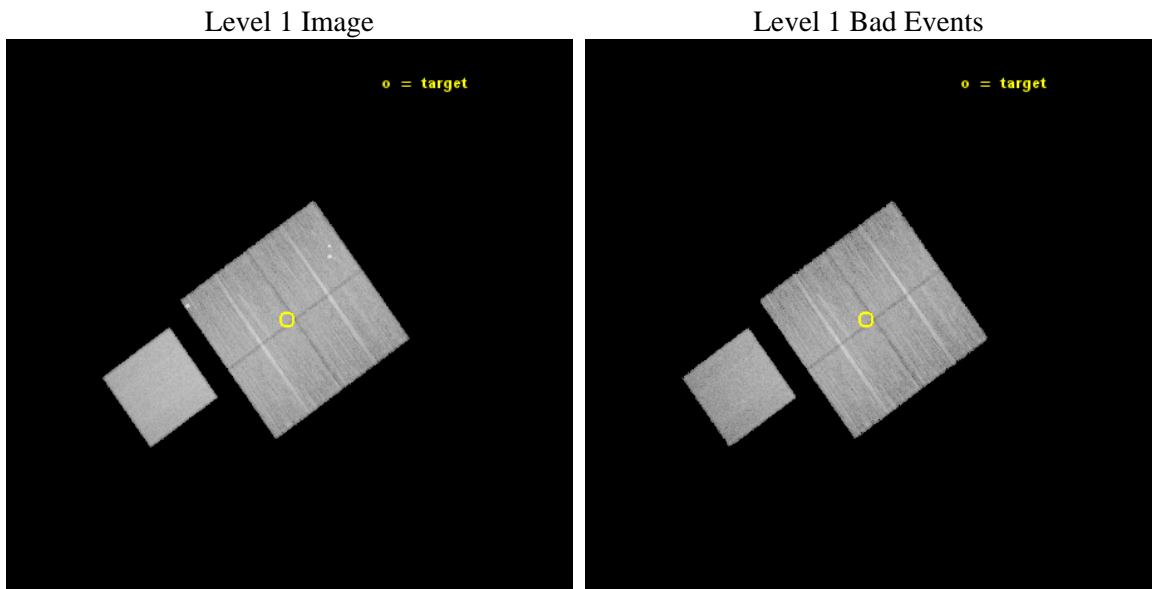
seq_num	401557	Sequence number
obs_id	15760	Observation id
title	Searching for a Metallicity Effect in Field X-ray Binaries	Proposa
observer	Prof. Thomas Maccarone	Principal investigator
object	NGC 4472 Halo-5	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.559167	Observer's specified target RA [deg]
dec_targ	7.833389	Observer's specified target Dec [deg]
ra_nom	187.55657868984	Nominal RA [deg]
dec_nom	7.8257209832135	Nominal Dec [deg]
roll_nom	234.20903218518	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29772.400228977	Sum of GTIs [s]
livetime	29383.401901863	Livetime [s]
ontime0	29772.400228977	Sum of GTIs [s]
ontime1	29772.400228977	Sum of GTIs [s]
ontime2	29772.400228977	Sum of GTIs [s]
ontime3	29772.400228977	Sum of GTIs [s]
ontime7	29772.400228977	Sum of GTIs [s]
l2events	142113	Number of level 2 events



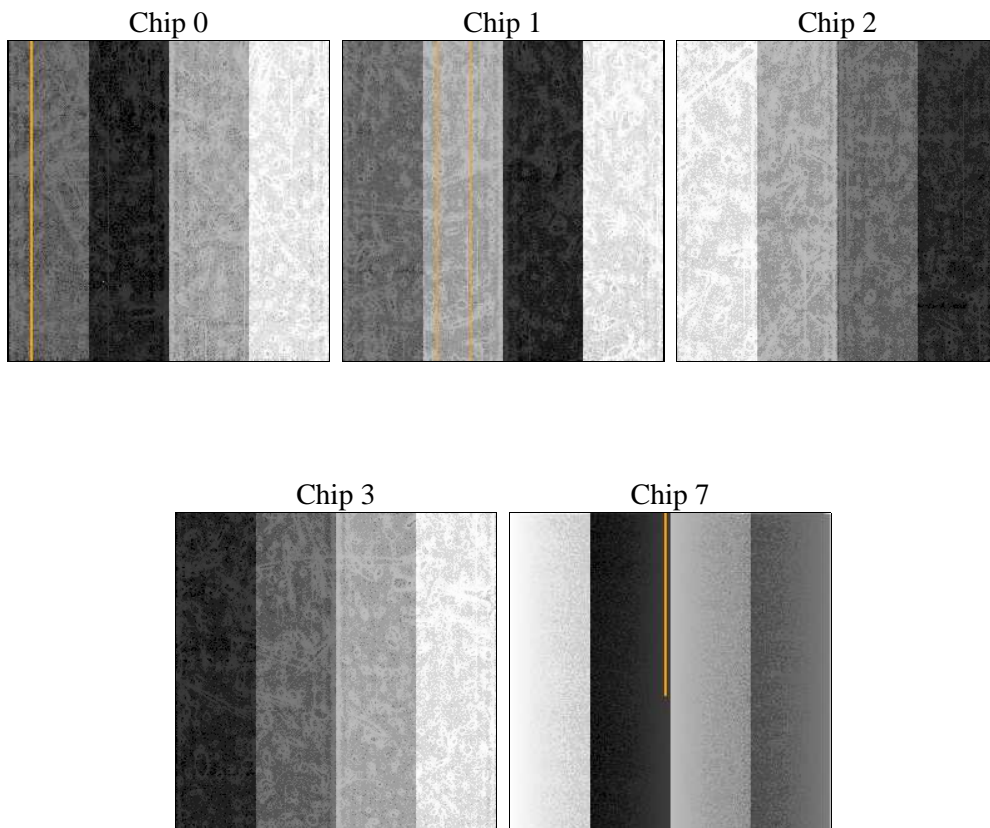
## 2 OBI

### 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	10.3.1	Processing system revision	ontime	29772.400228977	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime0	29772.400228977	Sum of GTIs [s]
date	2014-12-11T10:32:20	Date and time of file creation	ontime1	29772.400228977	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	29772.400228977	Sum of GTIs [s]
			ontime3	29772.400228977	Sum of GTIs [s]
			ontime7	29772.400228977	Sum of GTIs [s]
			l1events	729451	Number of level 1 events

### 2.1.4 Events

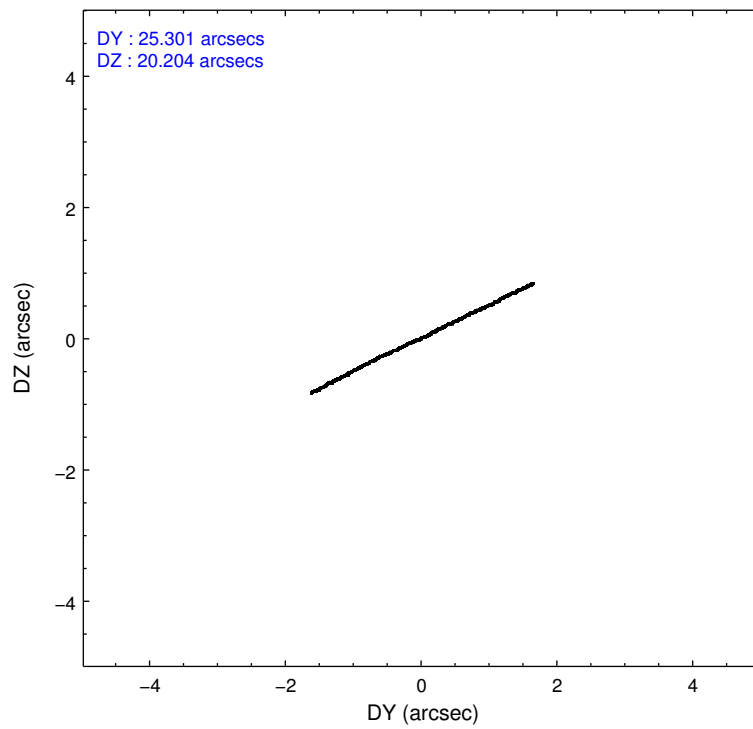
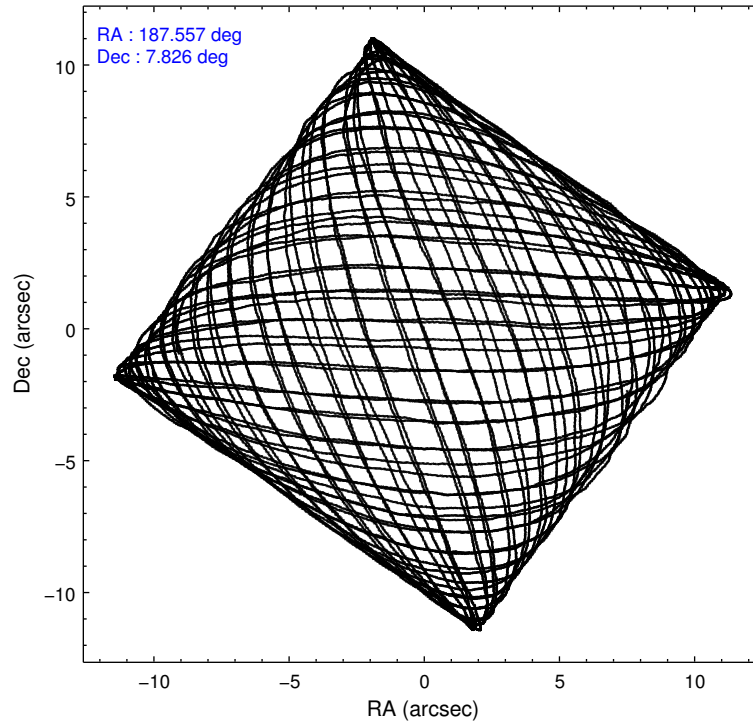
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	128283	135487	137170	137163	191348
rejected events	109686	111184	120891	119649	110514
rejected %	85%	82%	88%	87%	57%

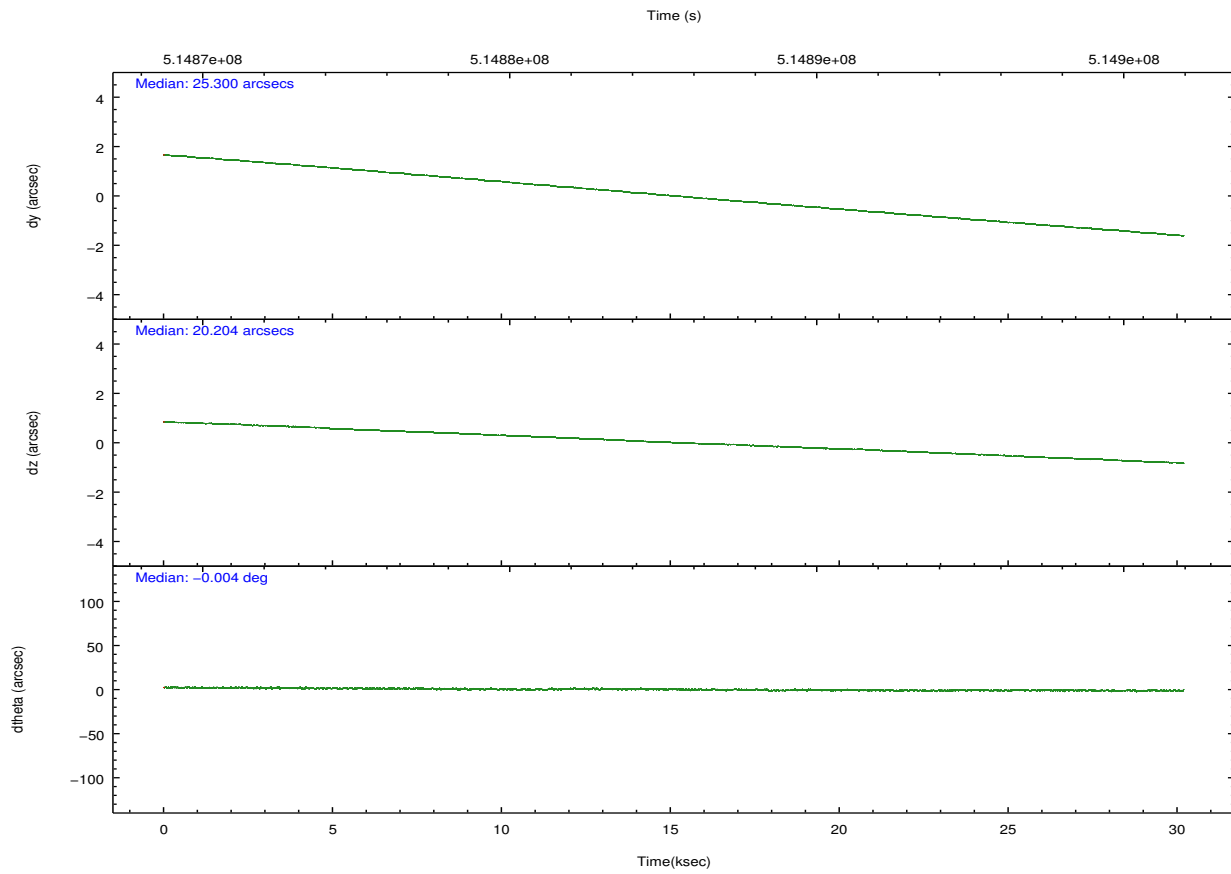
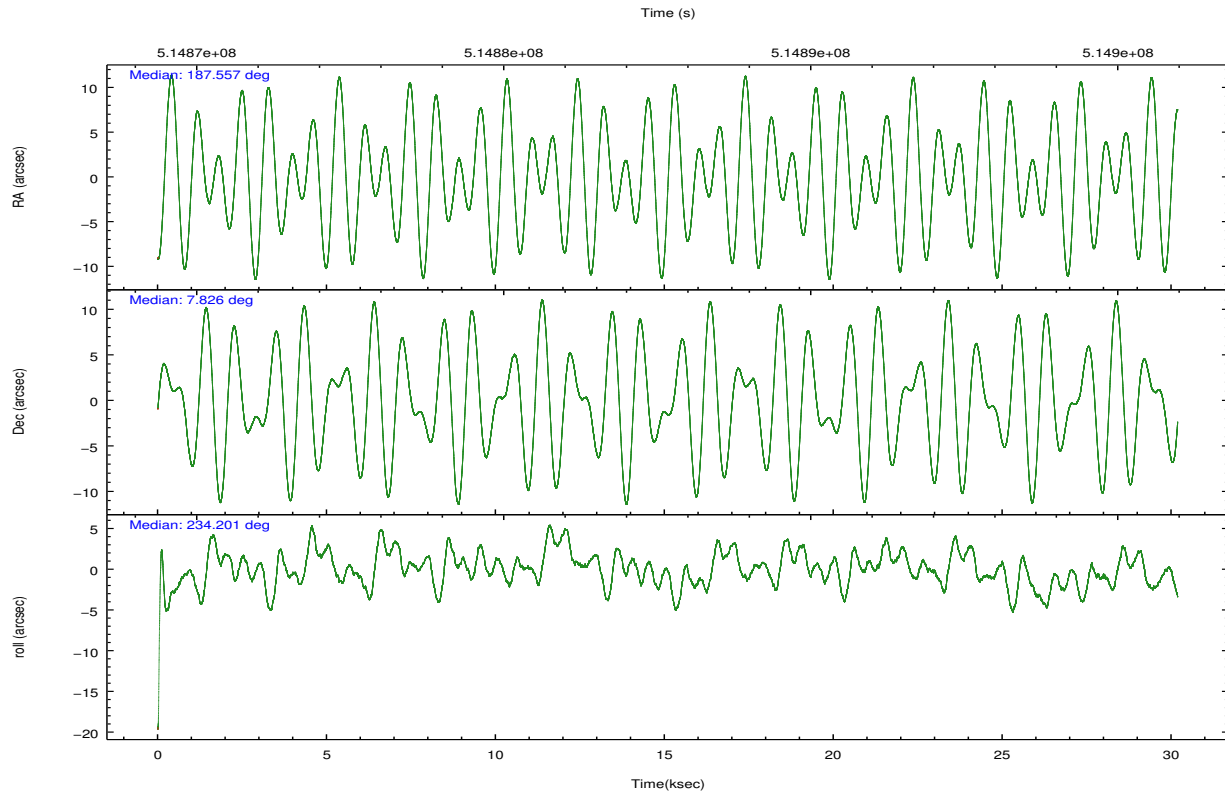
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	7622	11886	6227	7236	6877
	5%	8%	4%	5%	3%
grade 1 events	67	102	86	96	204
	0%	0%	0%	0%	0%
grade 2 events	4067	4564	3718	3509	16676
	3%	3%	2%	2%	8%
grade 3 events	1761	1900	1632	1656	6449
	1%	1%	1%	1%	3%
grade 4 events	1676	1832	1641	1706	6446
	1%	1%	1%	1%	3%
grade 5 events	6515	6991	6042	7559	18998
	5%	5%	4%	5%	9%
grade 6 events	3472	4123	3062	3409	44392
	2%	3%	2%	2%	23%
grade 7 events	103103	104089	114762	111992	91306
	80%	76%	83%	81%	47%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	187.559265	187.5565786898371	CCD I2 on	Y	Y
[deg] Pointing Dec	7.853094	7.825720983213489	CCD I3 on	Y	Y
[deg] Pointing Roll	233.999985	234.2090321851802	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	514870437.184000	514870060.8043	CCD S5 on	N	N
Observation start date	2014-04-26T03:32:50	2014-04-26T03:27:40	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	514900437.184000	514901066.03102	On-chip summing requested	N	N
Observation end date	2014-04-26T11:52:50	2014-04-26T12:04:26	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





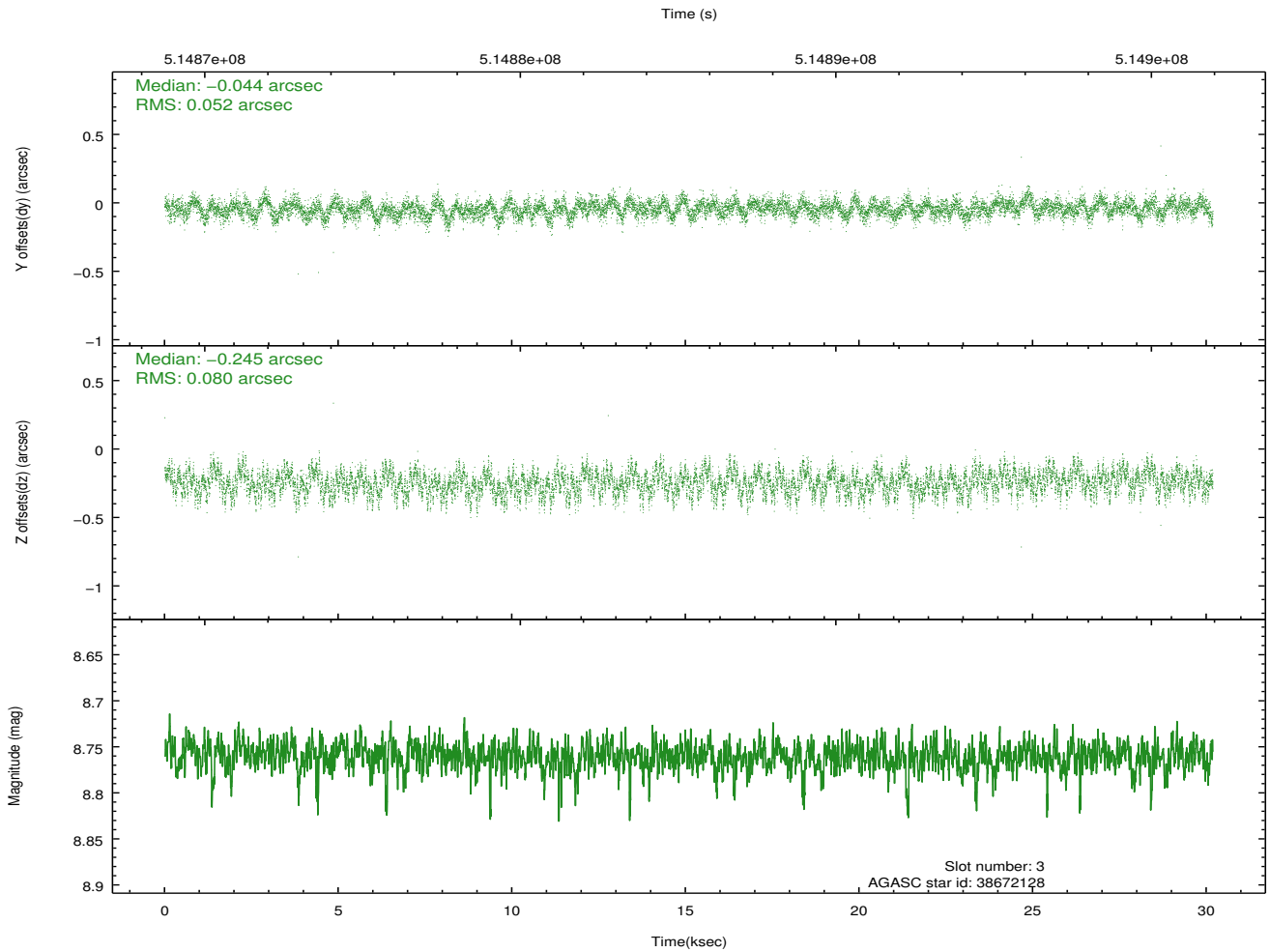
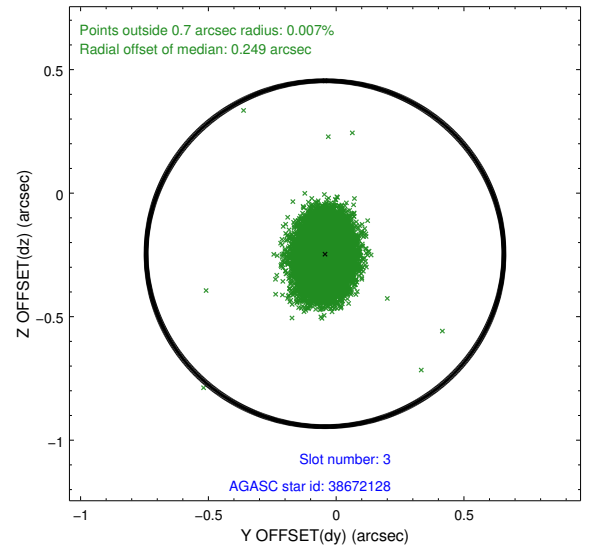
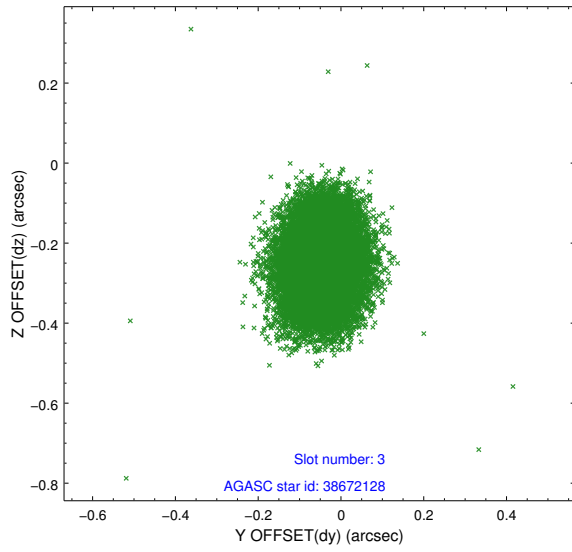
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.20	7362	0.044	-0.013	0.023	0.035	0.000000	0.000000	913.94	-843.93
1	FID		ACIS-I-5	7.19	7362	-0.298	0.025	0.009	0.017	0.000000	0.000000	-1834.55	1053.45
2	FID		ACIS-I-6	7.20	7361	0.161	0.060	0.017	0.031	0.000000	0.000000	379.42	1698.16
3	GUIDE	used	38672128	8.76	14710	-0.044	-0.245	0.102	0.164	187.663685	7.121505	1911.46	1849.80
4	GUIDE	used	114563056	9.86	14715	0.070	-0.099	0.197	0.376	188.043188	7.639178	-391.80	1849.09
5	GUIDE	used	114563576	7.88	14725	-0.062	0.198	0.099	0.159	186.867039	8.012388	986.18	-2334.64
6	GUIDE	used	114563648	9.75	14561	0.123	0.113	0.214	0.356	187.009208	7.938475	903.61	-1768.02
7	GUIDE	used	114564248	7.44	14724	-0.102	0.034	0.076	0.123	188.352467	7.946007	-1934.18	2089.69

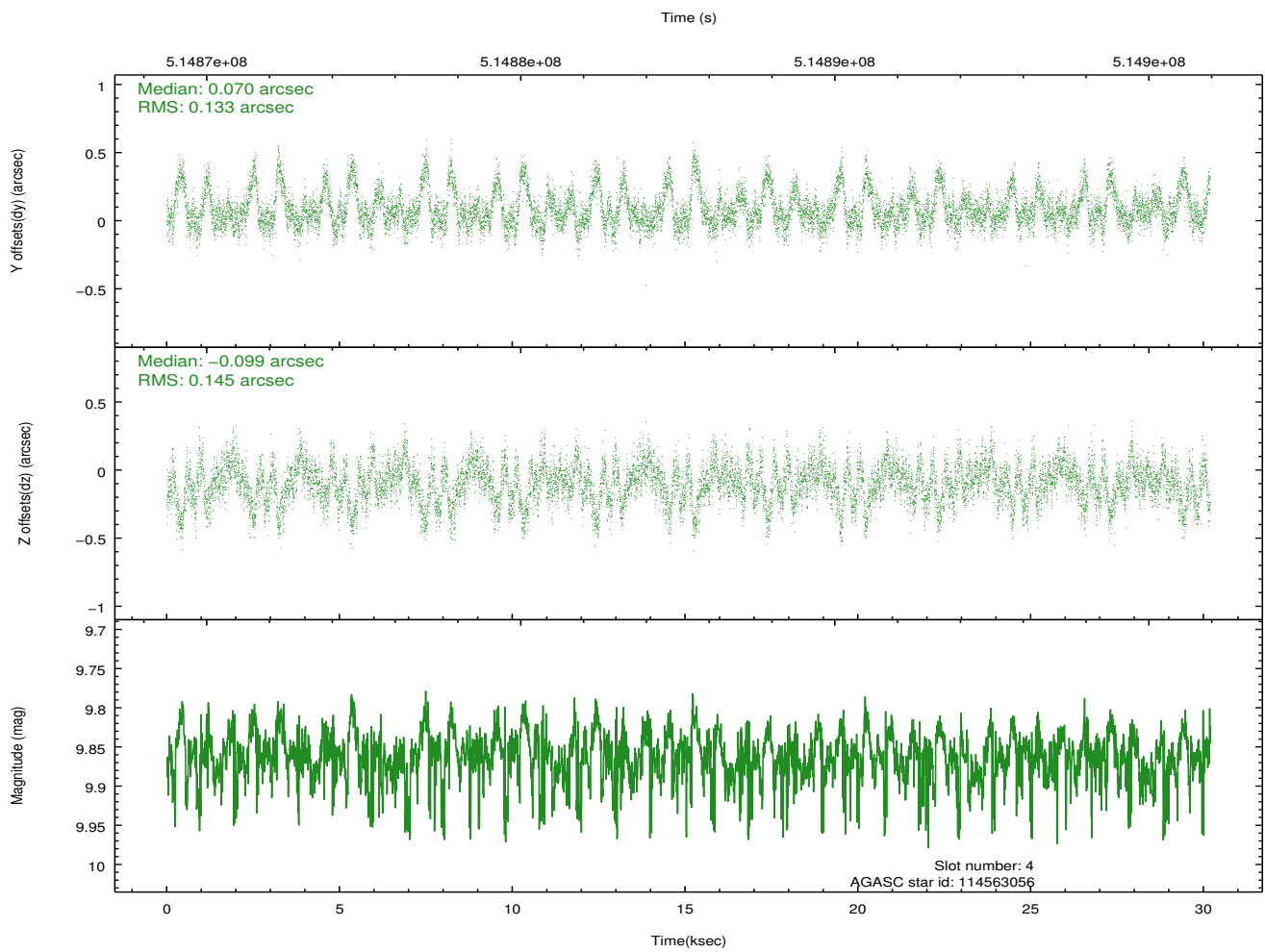
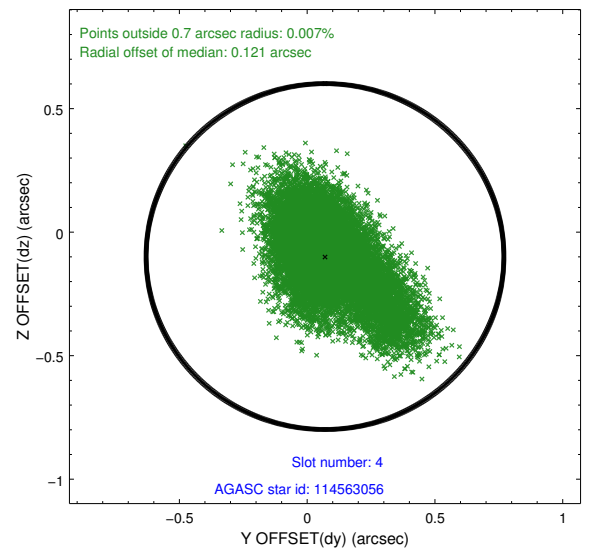
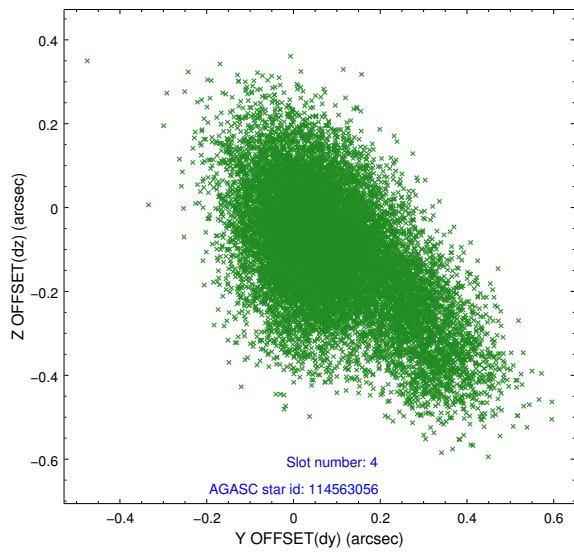
∞

## 2.4 Star Slots

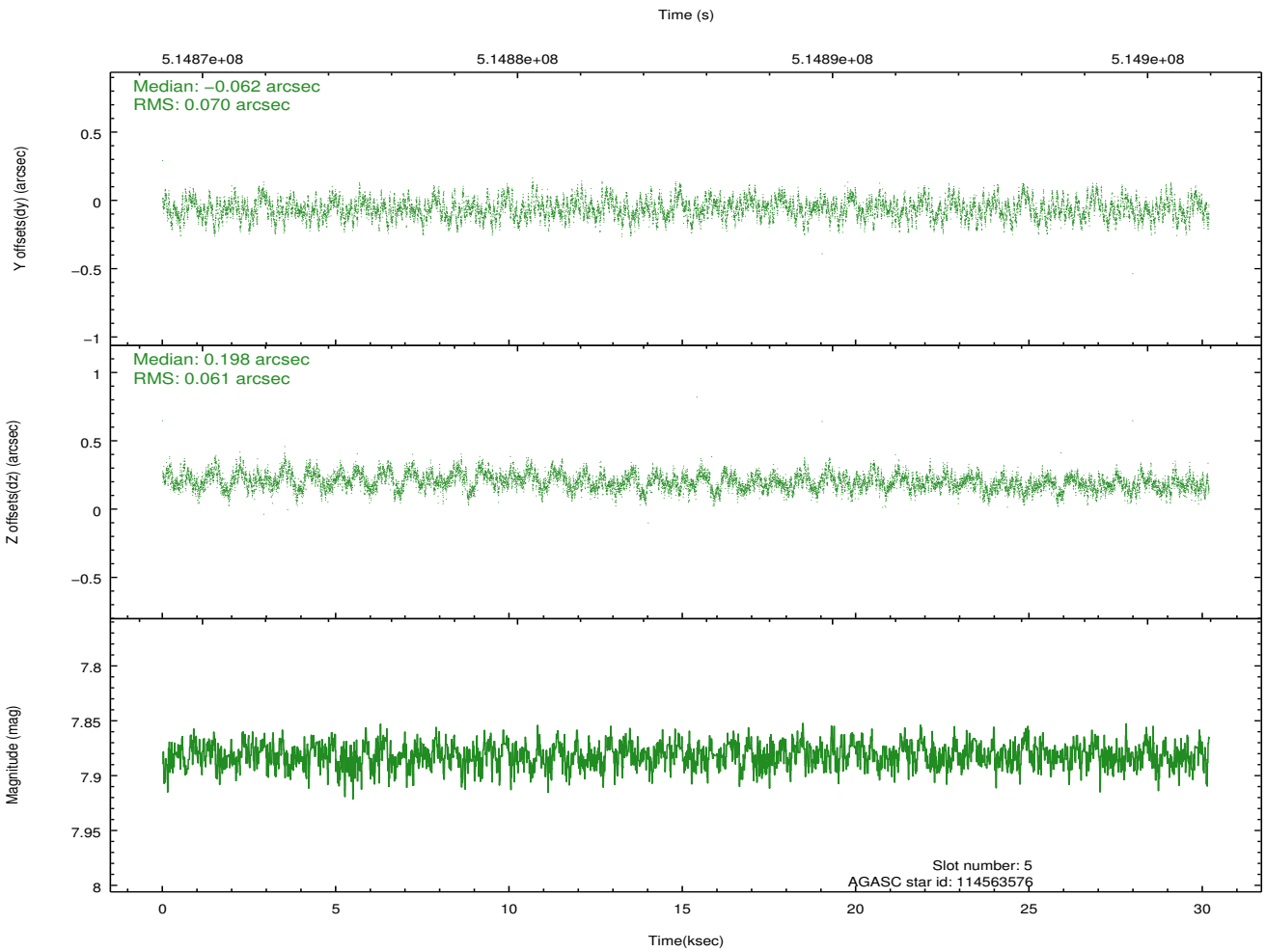
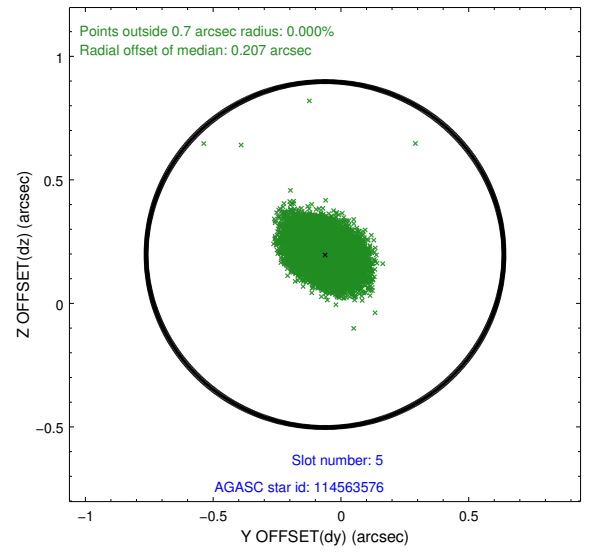
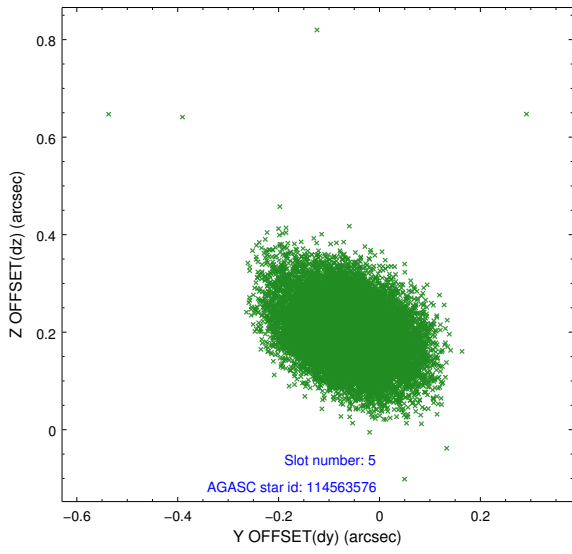
### 2.4.1 Slot 3



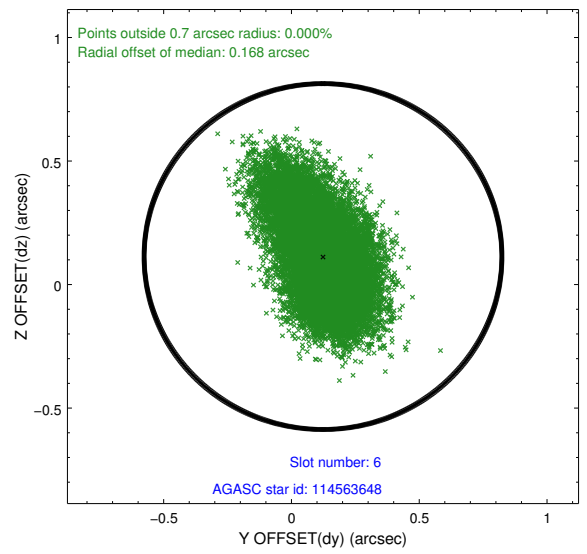
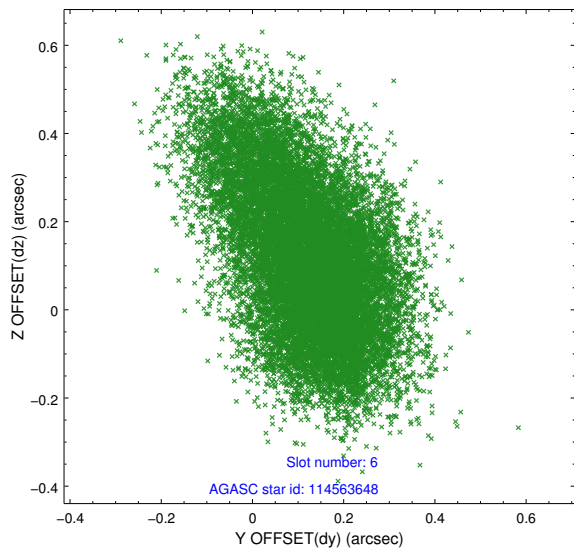
## 2.4.2 Slot 4



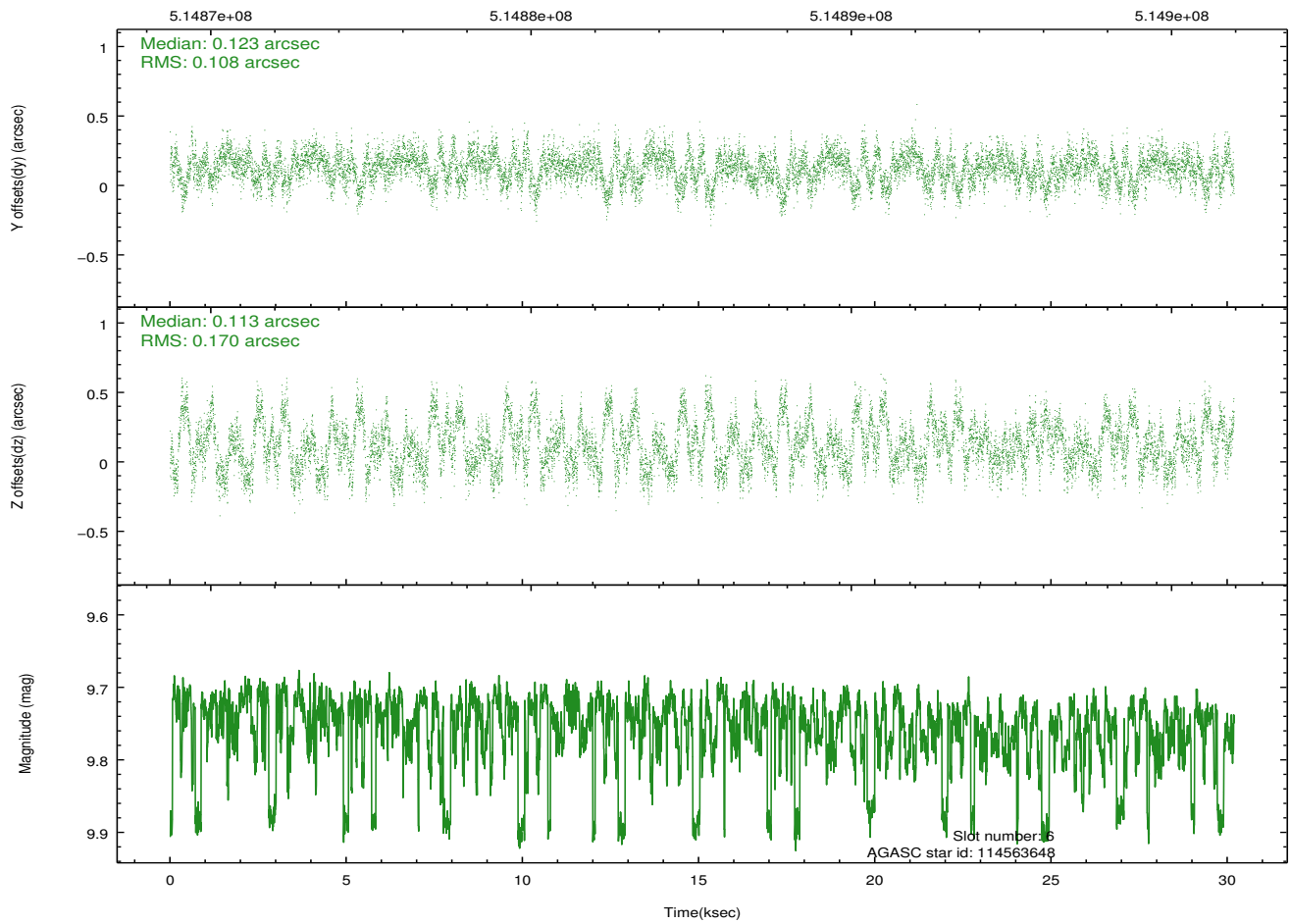
### 2.4.3 Slot 5



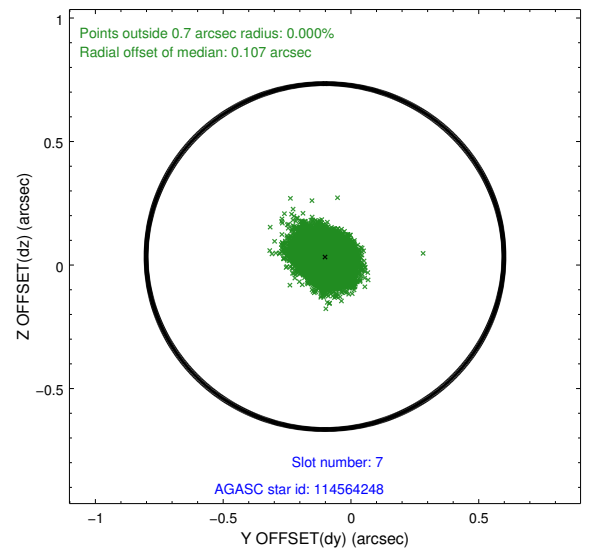
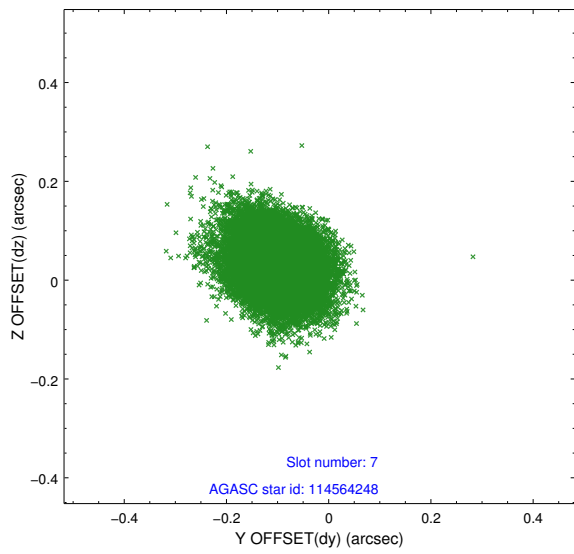
## 2.4.4 Slot 6



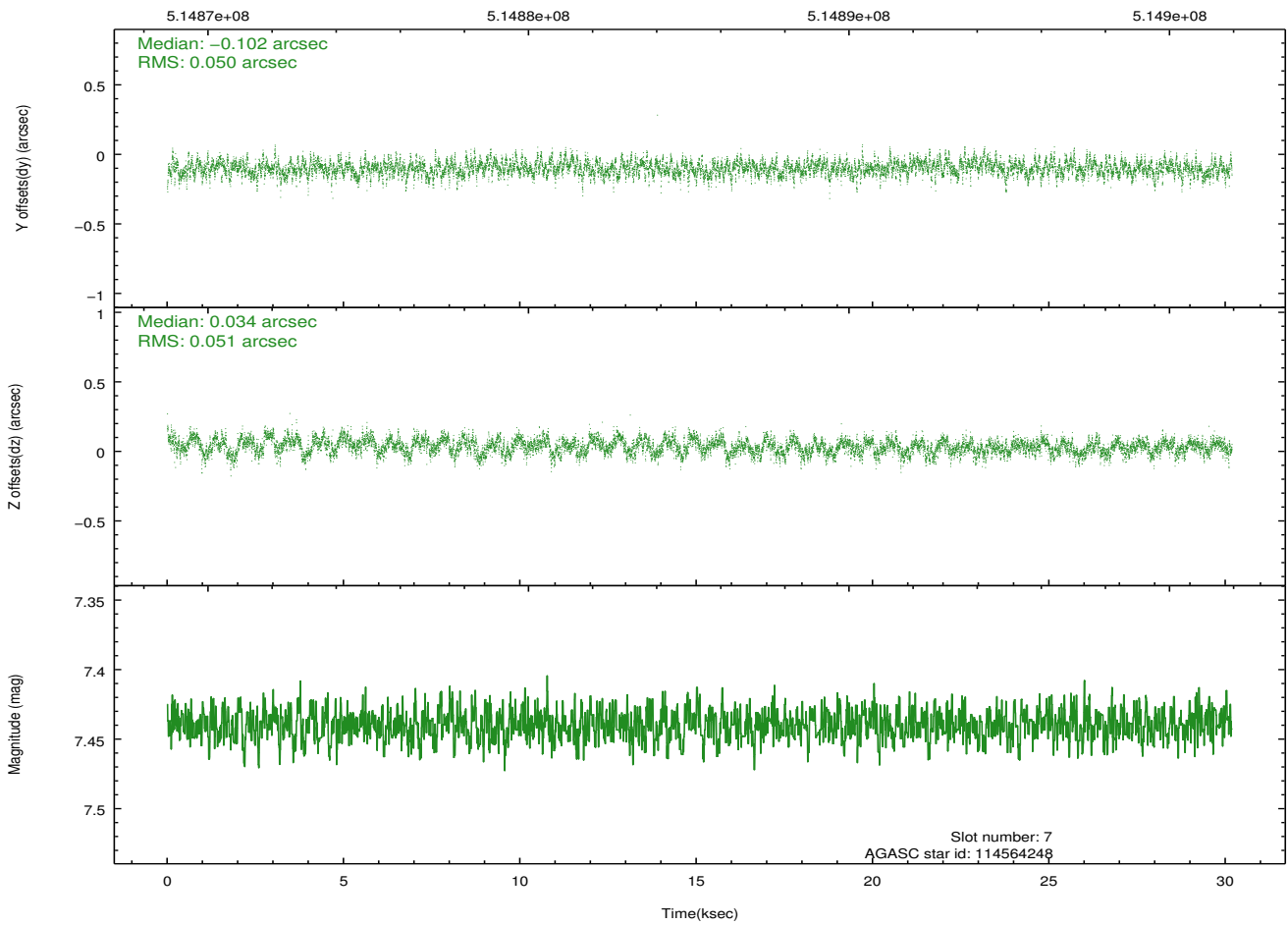
Time (s)



## 2.4.5 Slot 7

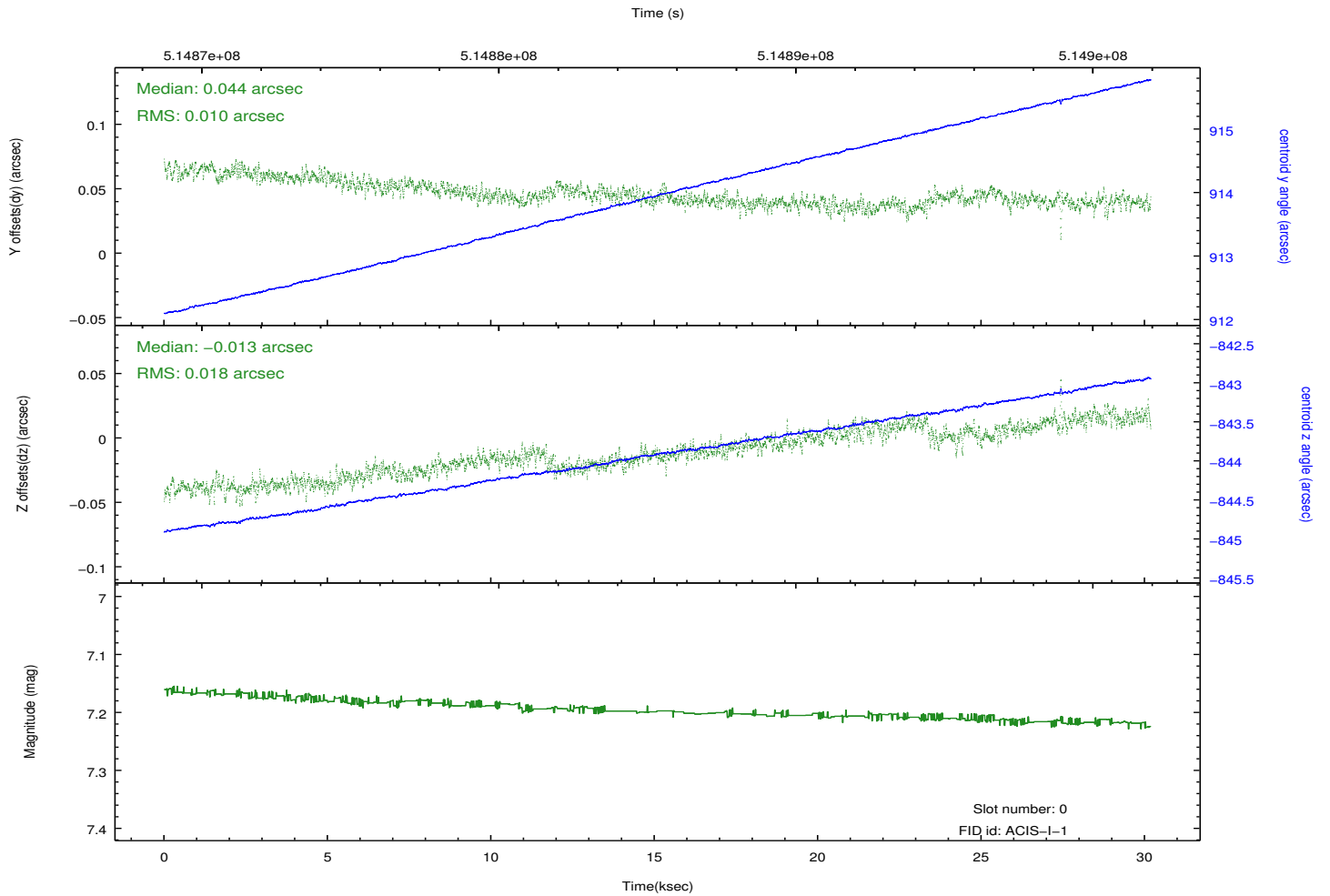
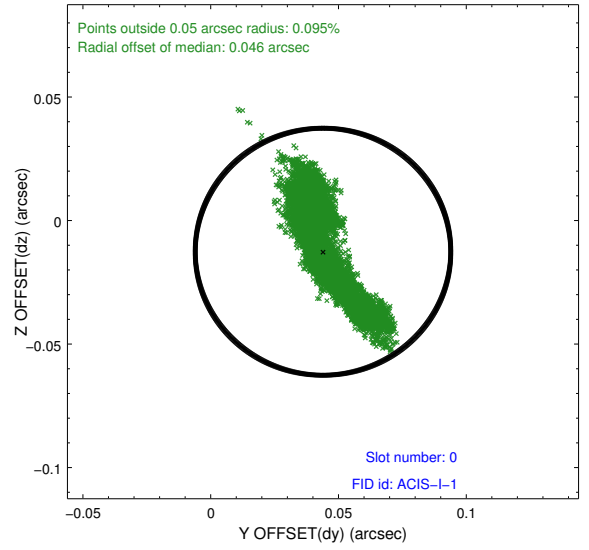
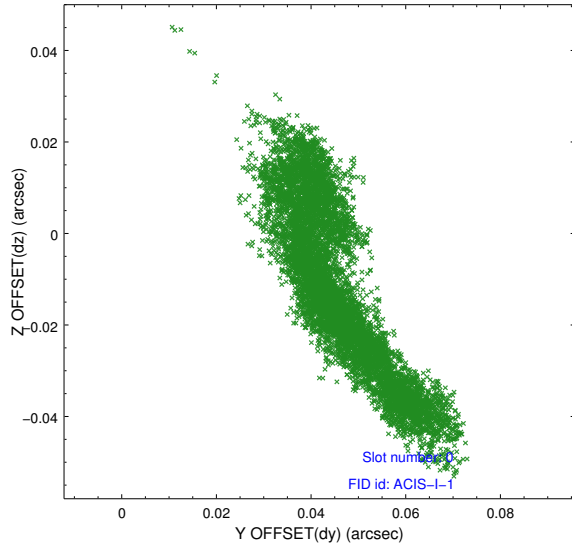


Time (s)

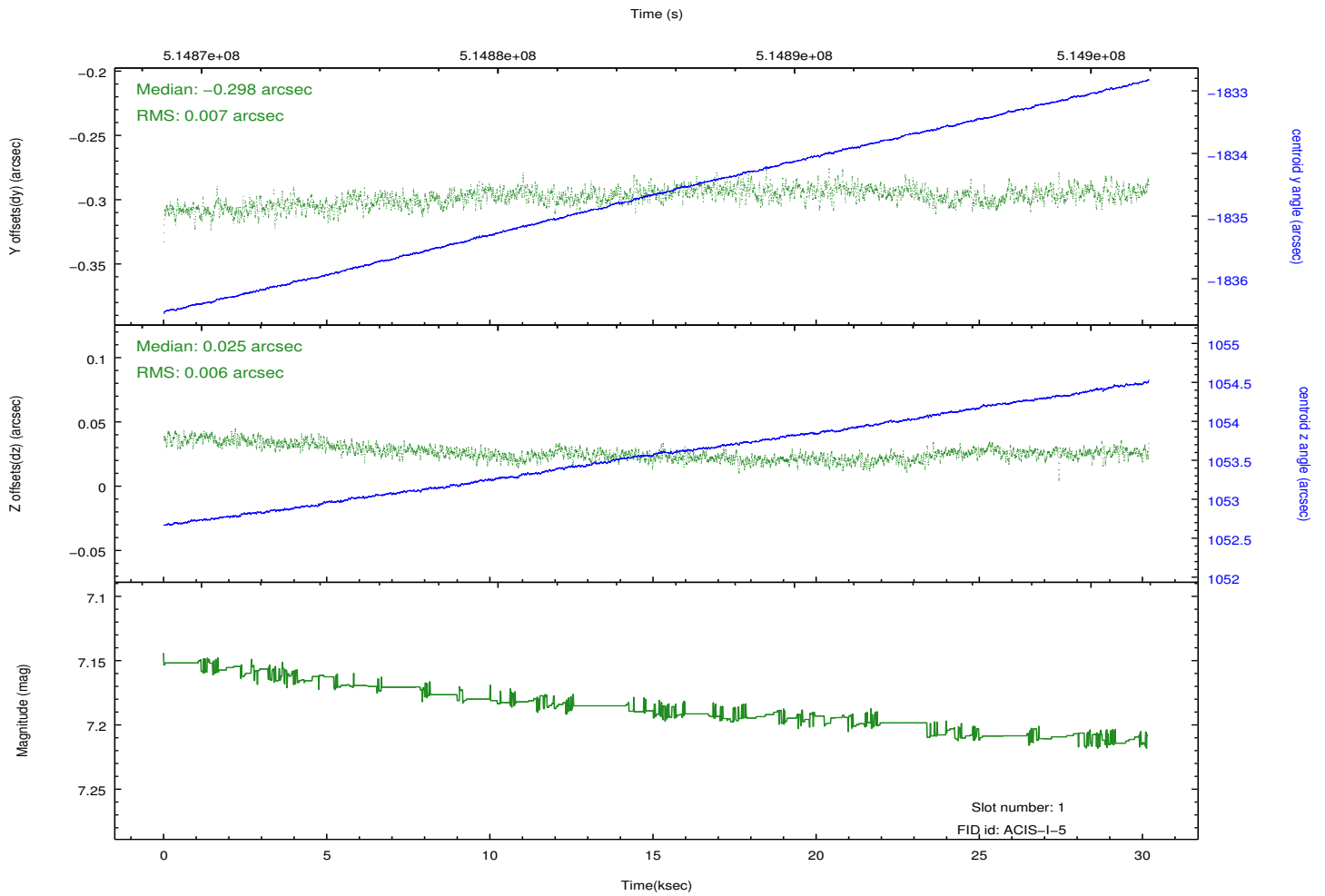
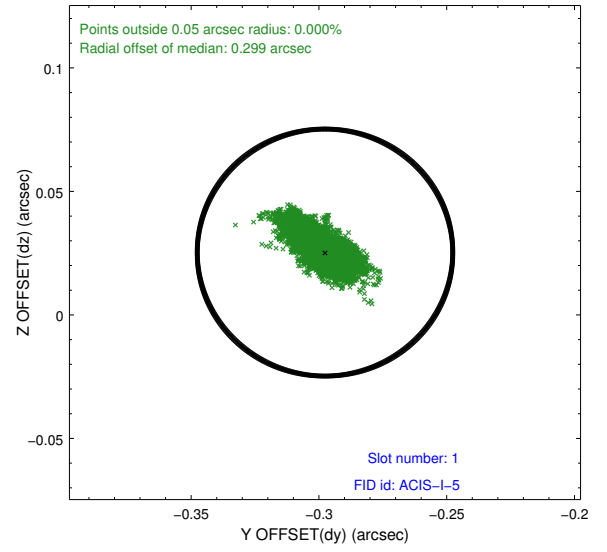
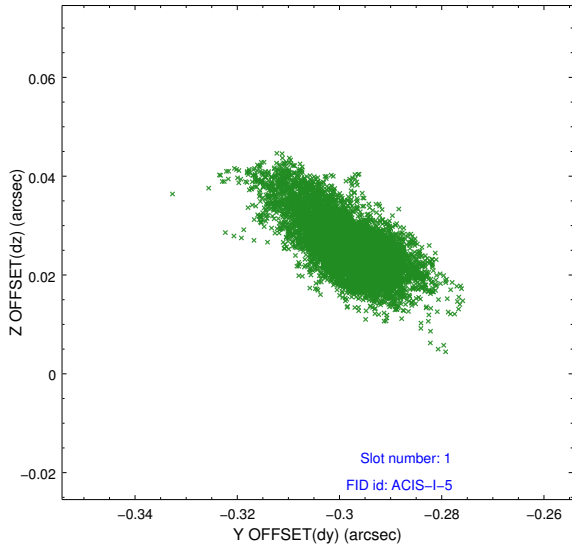


## 2.5 FID Slots

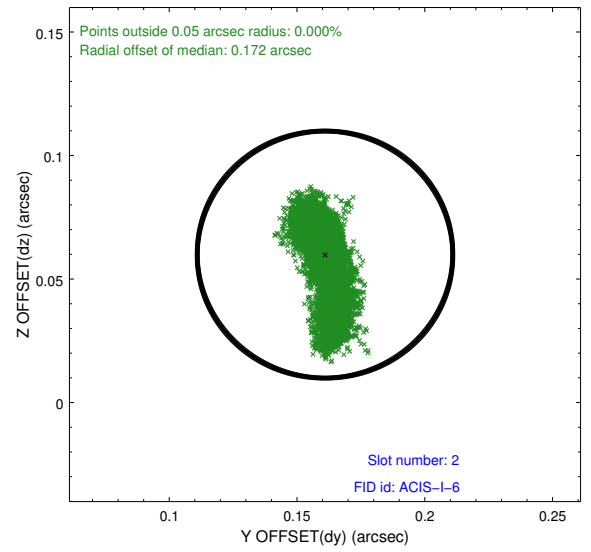
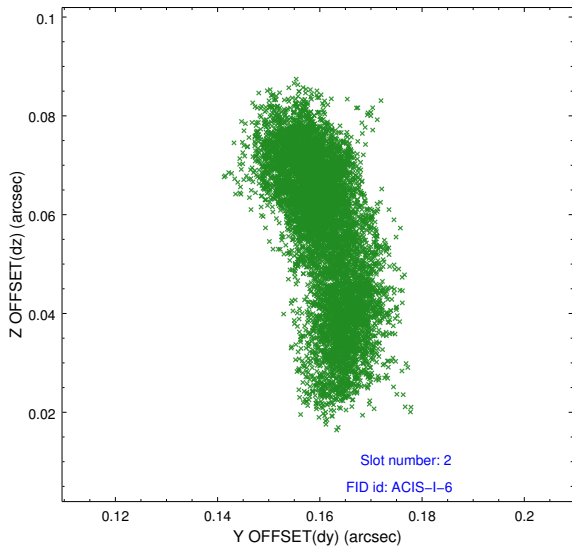
### 2.5.1 Slot 0



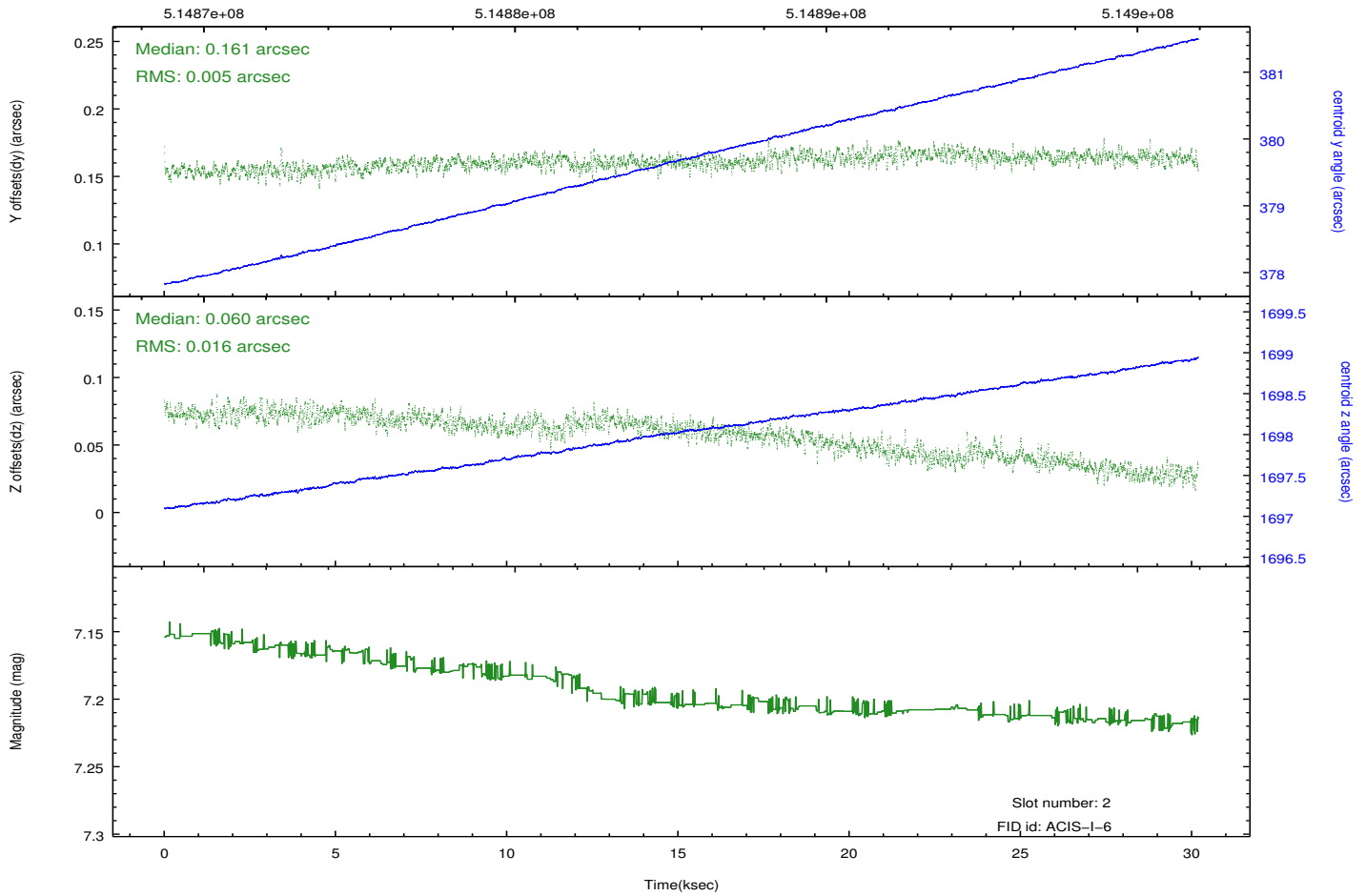
## 2.5.2 Slot 1



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.18
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.772400228977

## 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.