

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 14911 - L2 Version 2  
Chandra X-Ray Center

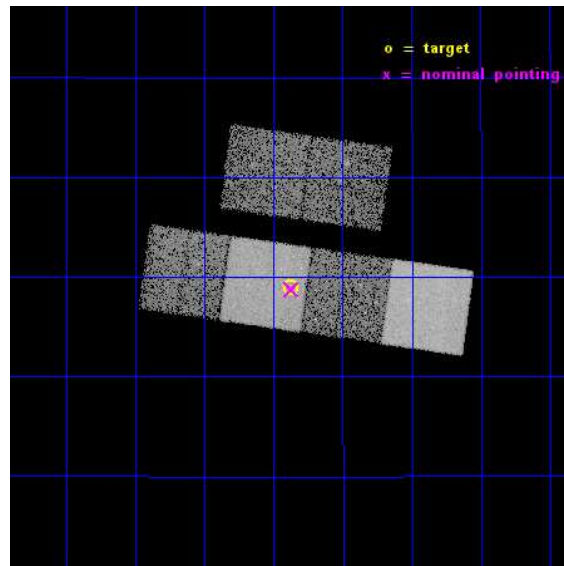
L2 Processing Date : Dec 3 2014

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# 1 Front

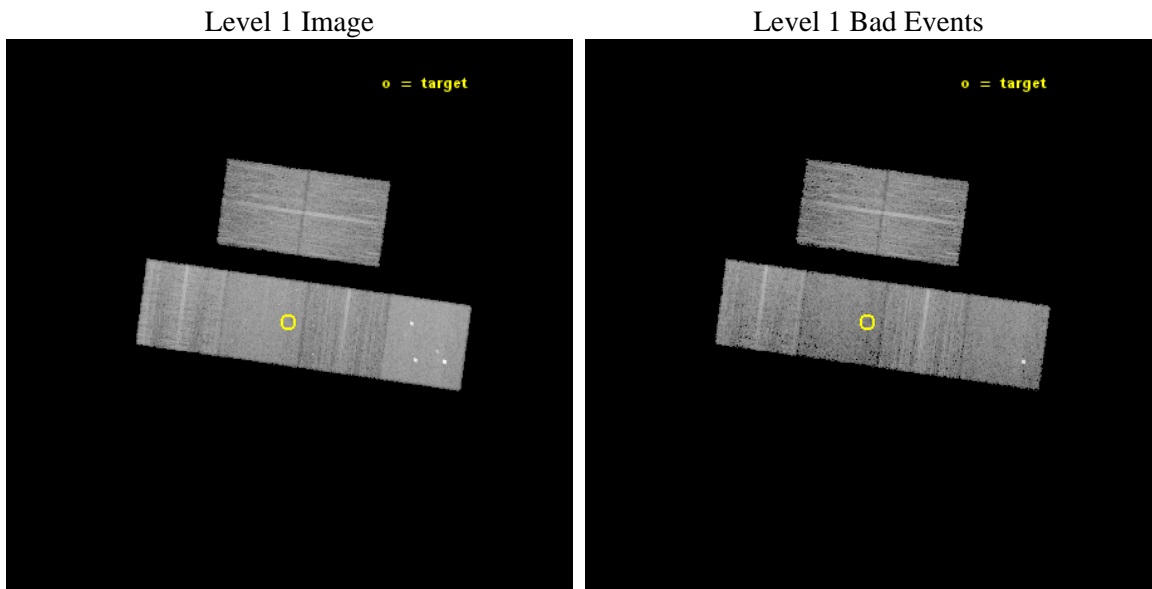
seq_num	601041	Sequence number
obs_id	14911	Observation id
title	The Origin of Elevated X-ray Emission in Strong Halpha Emitting Galaxies	Proposal title
observer	Dr. Ranga Ram Chary	Principal investigator
object	HAE 281	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	245.469167	Observer's specified target RA [deg]
dec_targ	15.315556	Observer's specified target Dec [deg]
ra_nom	245.46786602686	Nominal RA [deg]
dec_nom	15.31280444893	Nominal Dec [deg]
roll_nom	187.86305753507	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15964.799940586	Sum of GTIs [s]
livetime	15762.64403089	Livetime [s]
ontime2	15964.799940586	Sum of GTIs [s]
ontime3	15964.799940586	Sum of GTIs [s]
ontime5	15964.799940586	Sum of GTIs [s]
ontime6	15964.799940586	Sum of GTIs [s]
ontime7	15964.799940586	Sum of GTIs [s]
ontime8	15964.799940586	Sum of GTIs [s]
l2events	121863	Number of level 2 events



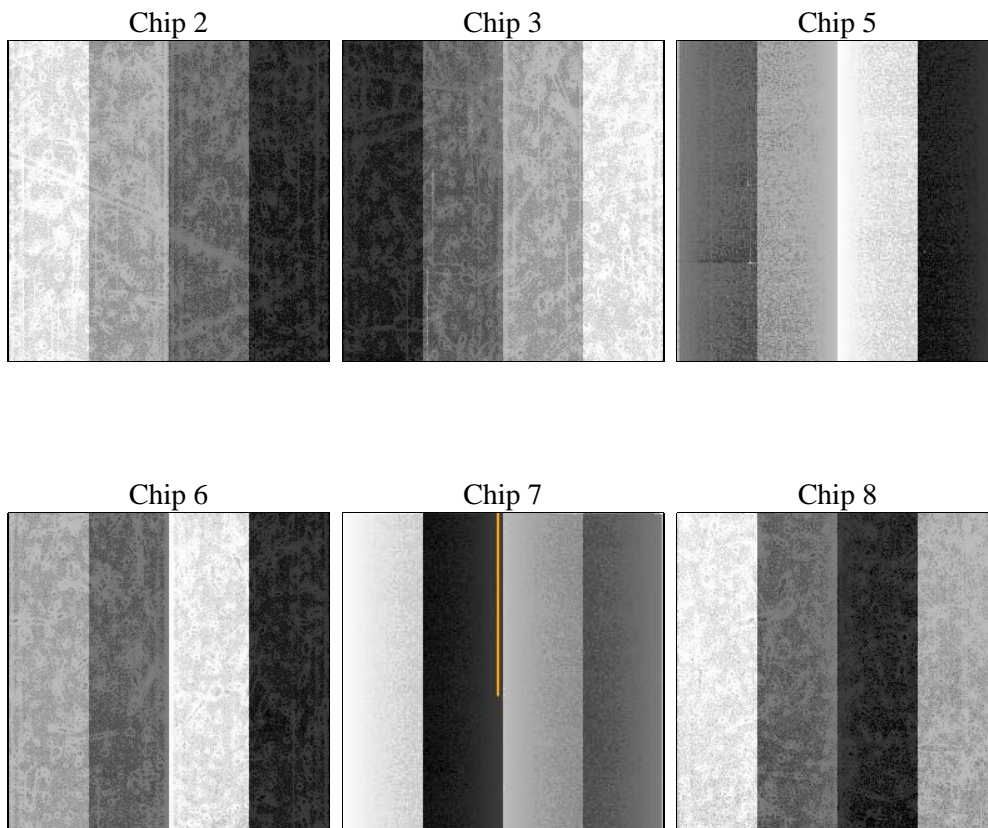
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	16000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	15964.799940586	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime2	15964.799940586	Sum of GTIs [s]
date	2014-12-03T11:50:24	Date and time of file creation	ontime3	15964.799940586	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	15964.799940586	Sum of GTIs [s]
			ontime6	15964.799940586	Sum of GTIs [s]
			ontime7	15964.799940586	Sum of GTIs [s]
			ontime8	15964.799940586	Sum of GTIs [s]
			l1events	492651	Number of level 1 events

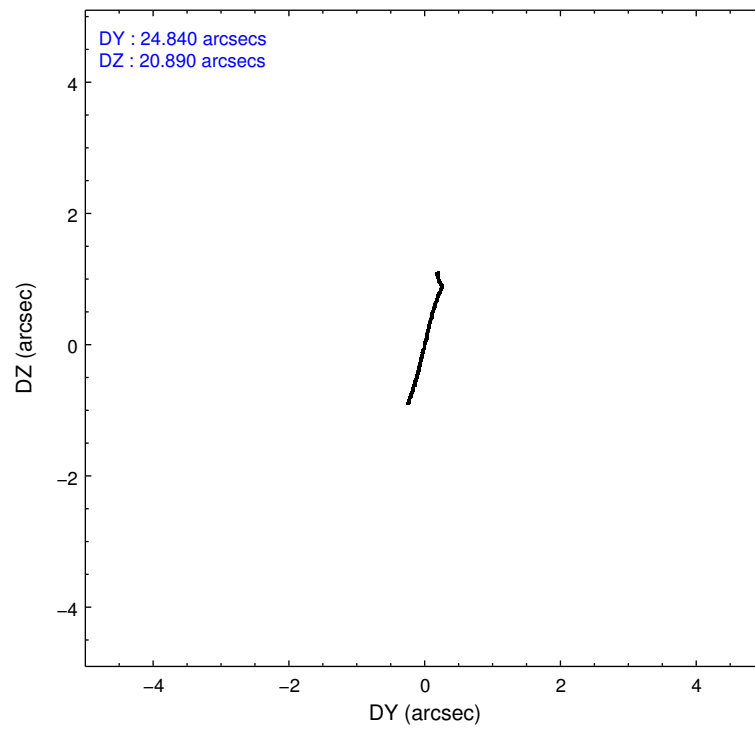
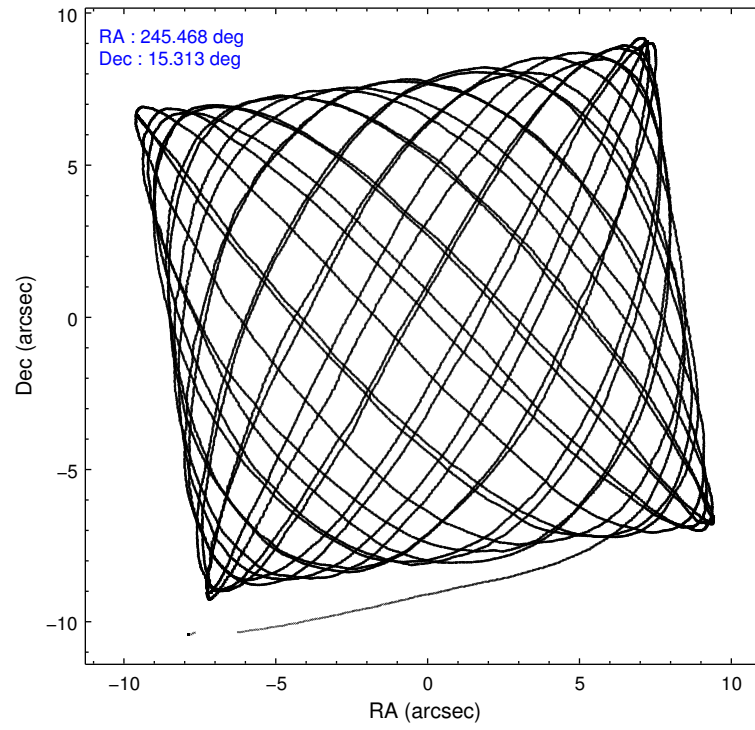
### 2.1.4 Events

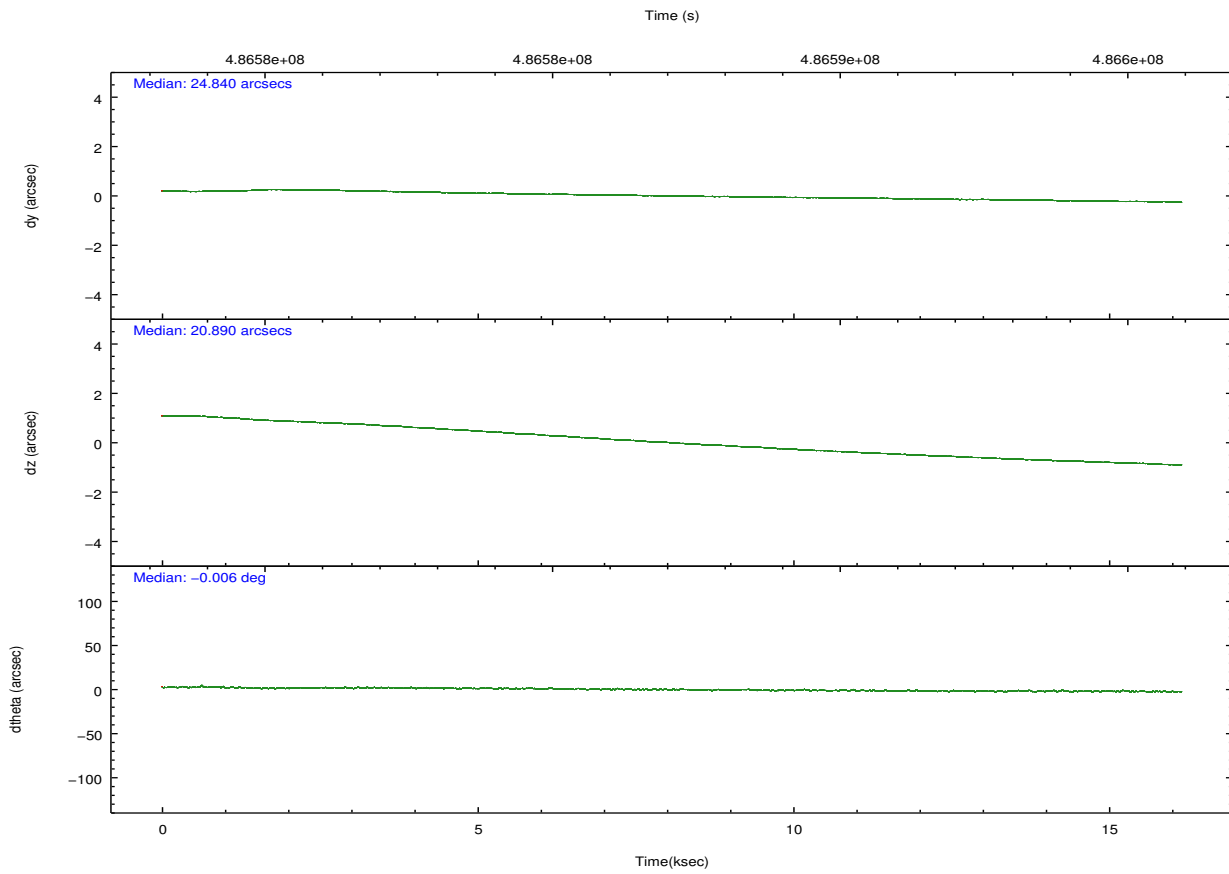
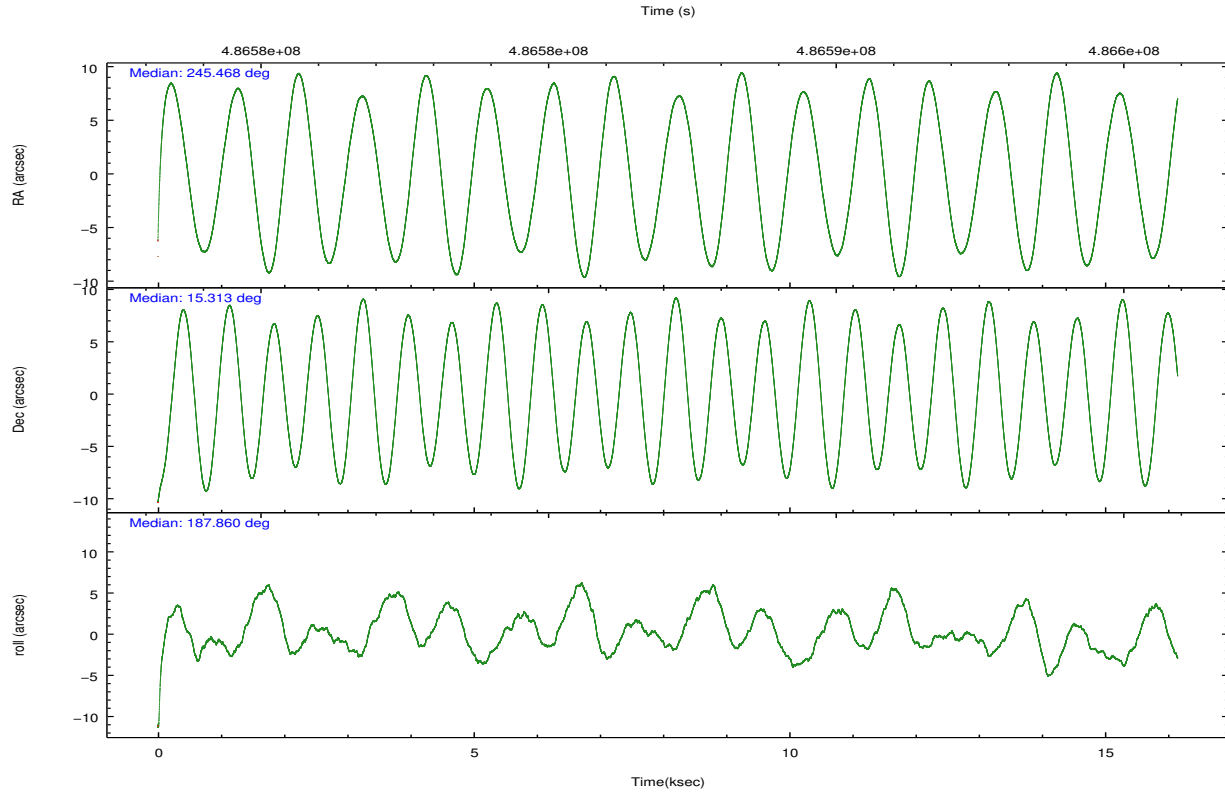
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	71211	64761	115333	68396	83658	89292	grade 0 events	3118	2995	9439	3666	4216	7540
rejected events	63012	56841	53864	59370	43069	63922		4%	4%	8%	5%	5%	8%
rejected %	88%	87%	46%	86%	51%	71%	grade 1 events	42	32	179	36	136	87
								0%	0%	0%	0%	0%	0%
							grade 2 events	2047	1747	19384	1929	8732	5853
								2%	2%	16%	2%	10%	6%
							grade 3 events	758	819	2137	861	3617	2773
								1%	1%	1%	1%	4%	3%
							grade 4 events	816	819	1945	836	3602	2623
								1%	1%	1%	1%	4%	2%
							grade 5 events	2626	3191	8732	3215	8885	4790
								3%	4%	7%	4%	10%	5%
							grade 6 events	1462	1541	28587	1735	20439	6587
								2%	2%	24%	2%	24%	7%
							grade 7 events	60342	53617	44930	56118	34031	59039
								84%	82%	38%	82%	40%	66%

## 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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	245.490003	245.4678660268614	CCD I2 on	Y	Y
[deg] Pointing Dec	15.329876	15.31280444893014	CCD I3 on	Y	Y
[deg] Pointing Roll	187.700590	187.8630575350733	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	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	486579149.184000	486577865.7548	CCD S5 on	N	N
Observation start date	2013-06-02T16:51:22	2013-06-02T16:31:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	486595149.184000	486595785.31827	On-chip summing requested	N	N
Observation end date	2013-06-02T21:18:02	2013-06-02T21:29:45	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



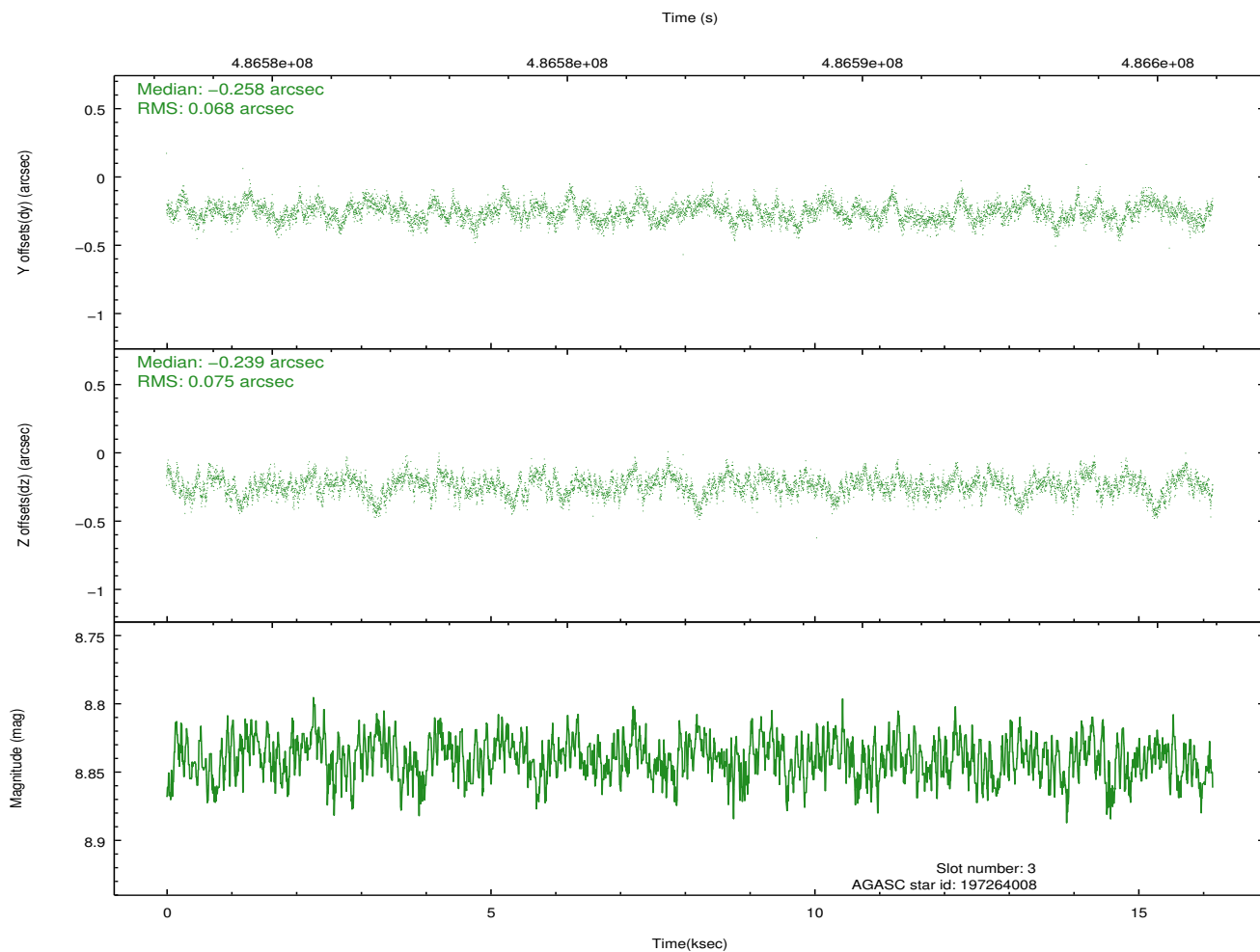
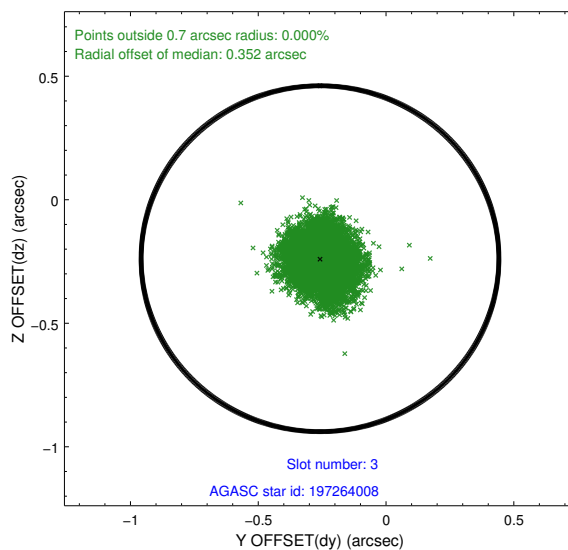
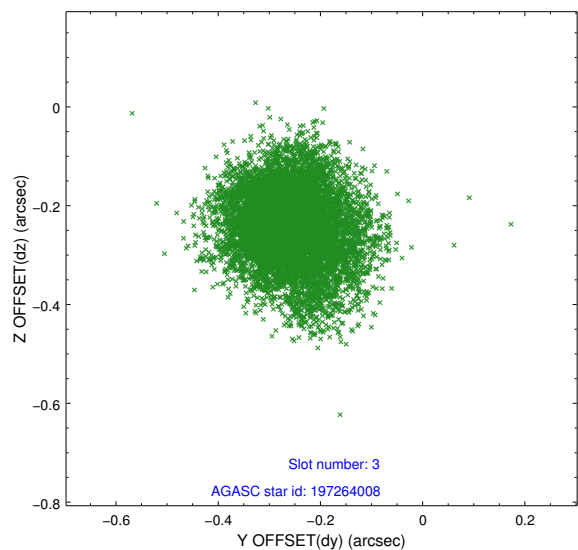


### Slot Statistics

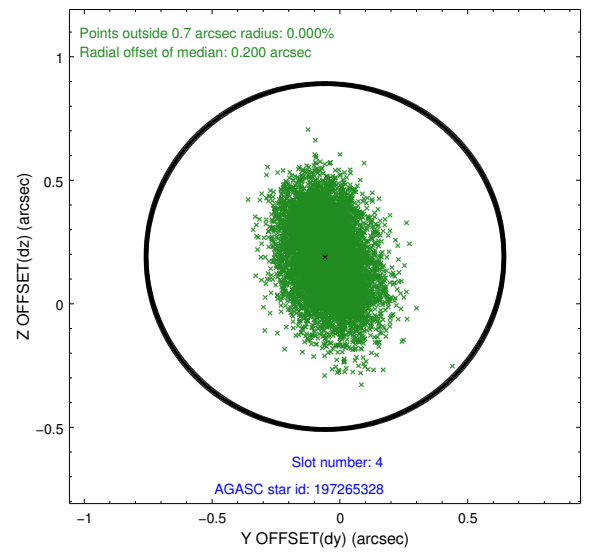
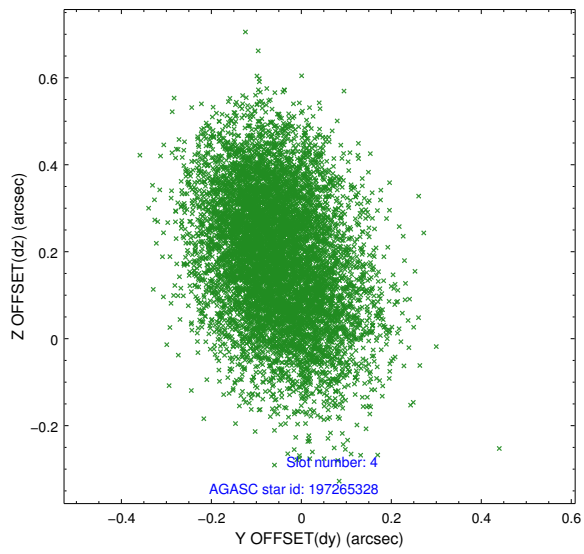
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.02	3940	0.053	-0.056	0.019	0.040	0.000000	0.000000	918.01	-1738.10
1	FID		ACIS-S-5	7.06	3939	-0.185	0.006	0.012	0.018	0.000000	0.000000	-1831.08	159.22
2	FID		ACIS-S-6	7.16	3940	0.112	0.057	0.019	0.030	0.000000	0.000000	383.32	803.54
3	GUIDE	used	197264008	8.84	7871	-0.258	-0.239	0.108	0.173	245.343242	15.190266	572.92	429.40
4	GUIDE	used	197265328	9.90	7836	-0.058	0.191	0.186	0.306	245.455203	15.370427	100.61	-160.41
5	GUIDE	used	197266824	9.61	7842	0.210	-0.021	0.149	0.241	245.995823	15.520034	-1830.22	-444.99
6	GUIDE	used	197267216	9.21	7876	0.044	-0.008	0.120	0.188	244.944817	15.493813	1795.39	-840.90
7	GUIDE	used	197400872	9.72	7865	0.054	0.078	0.180	0.287	246.052345	15.527476	-2027.60	-446.48

## 2.4 Star Slots

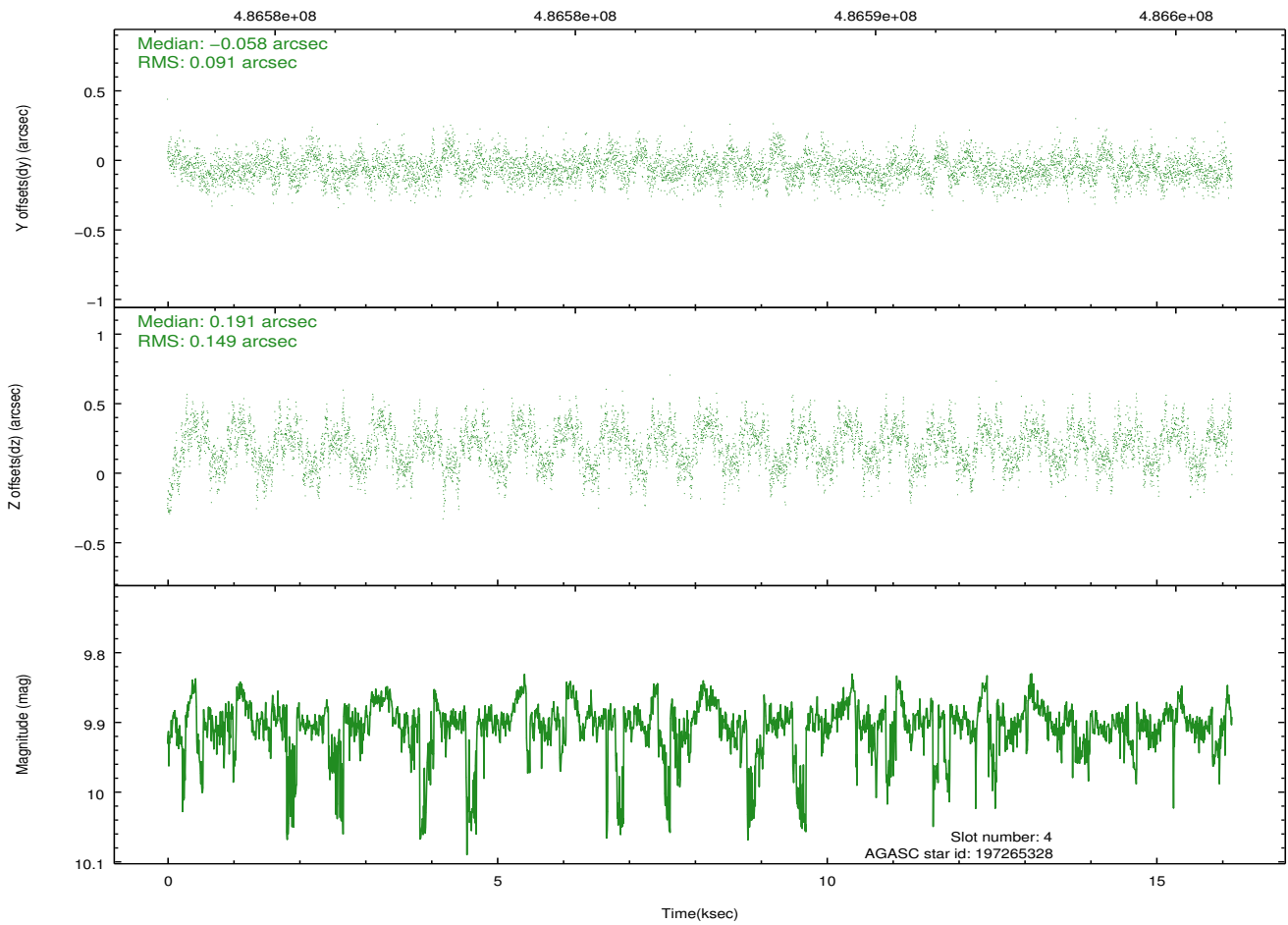
### 2.4.1 Slot 3



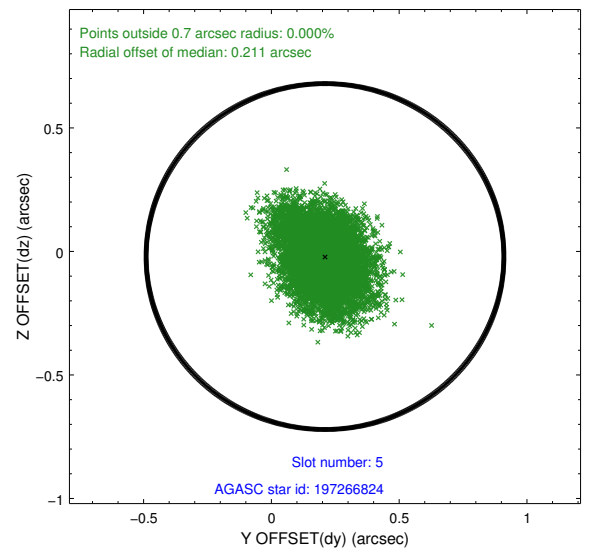
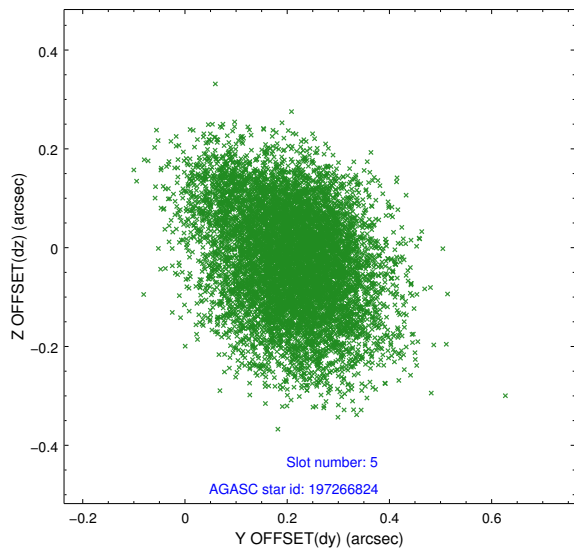
## 2.4.2 Slot 4



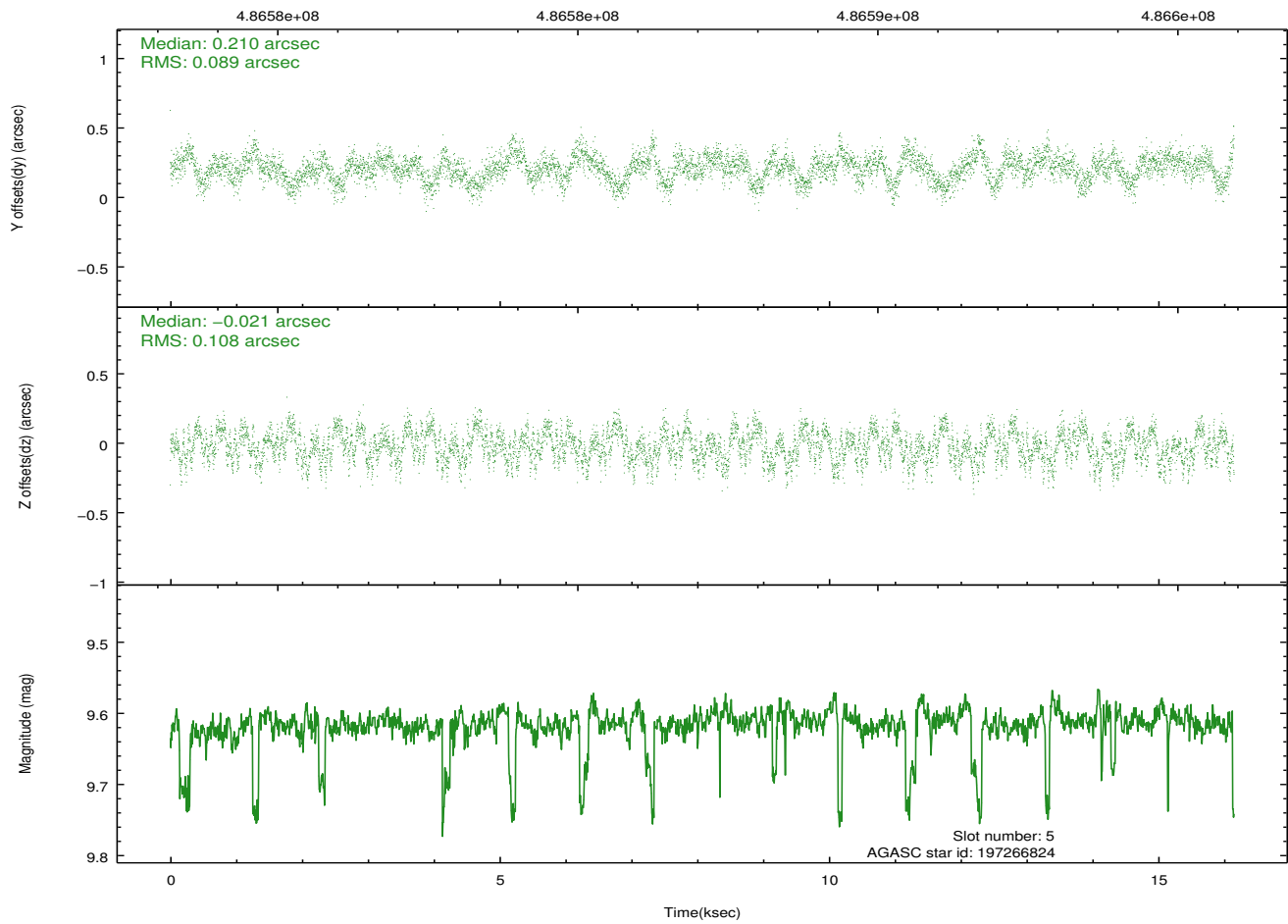
Time (s)



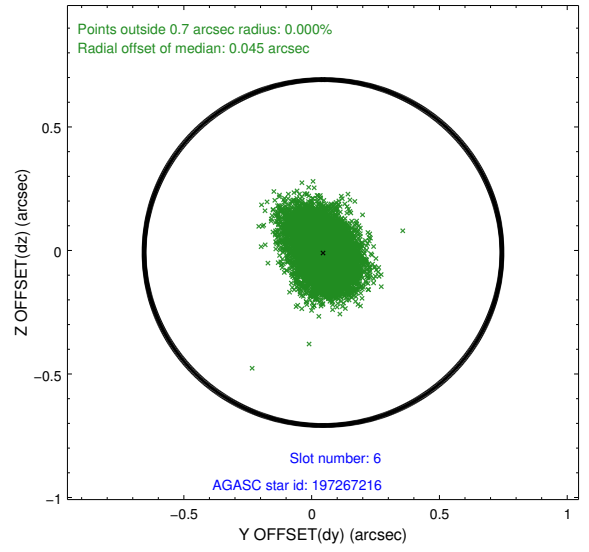
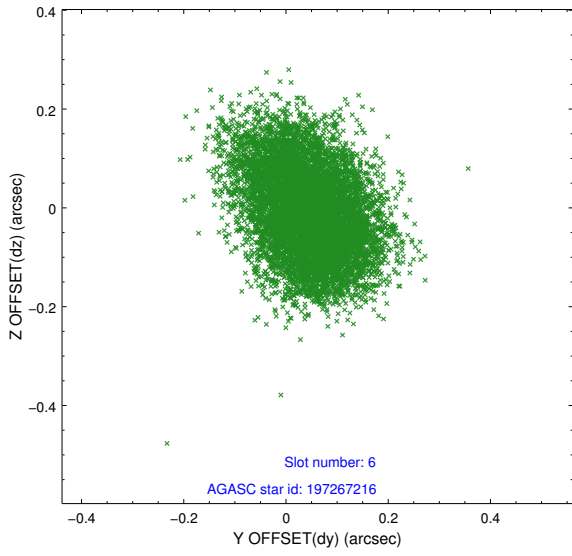
### 2.4.3 Slot 5



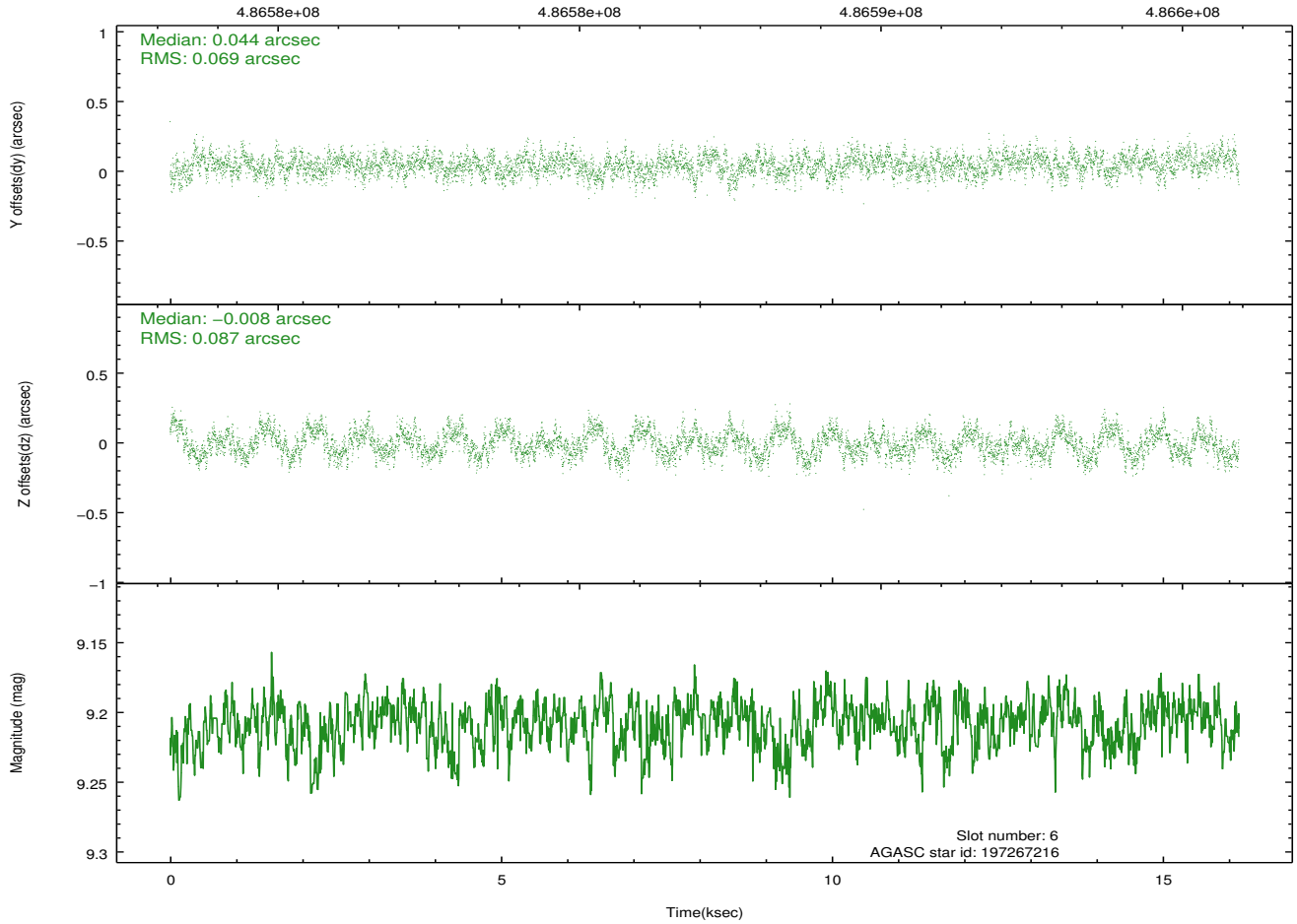
Time (s)



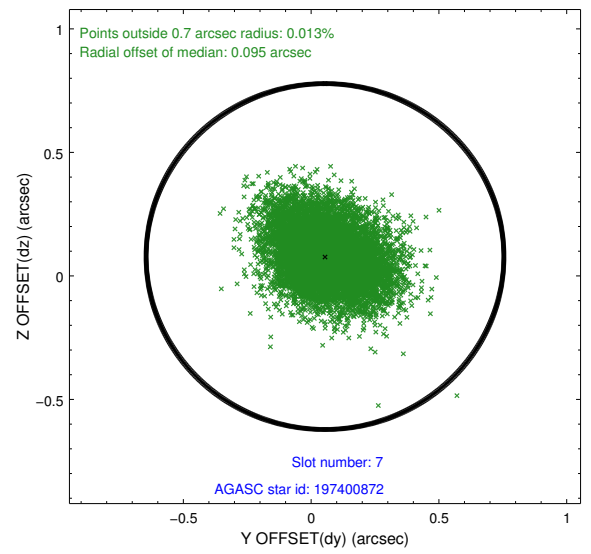
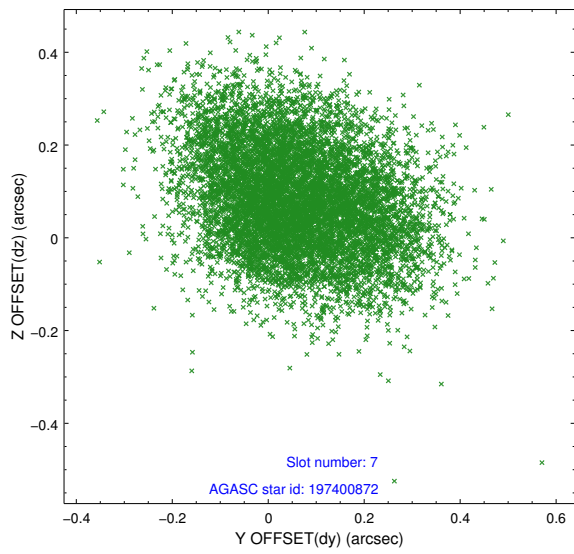
### 2.4.4 Slot 6



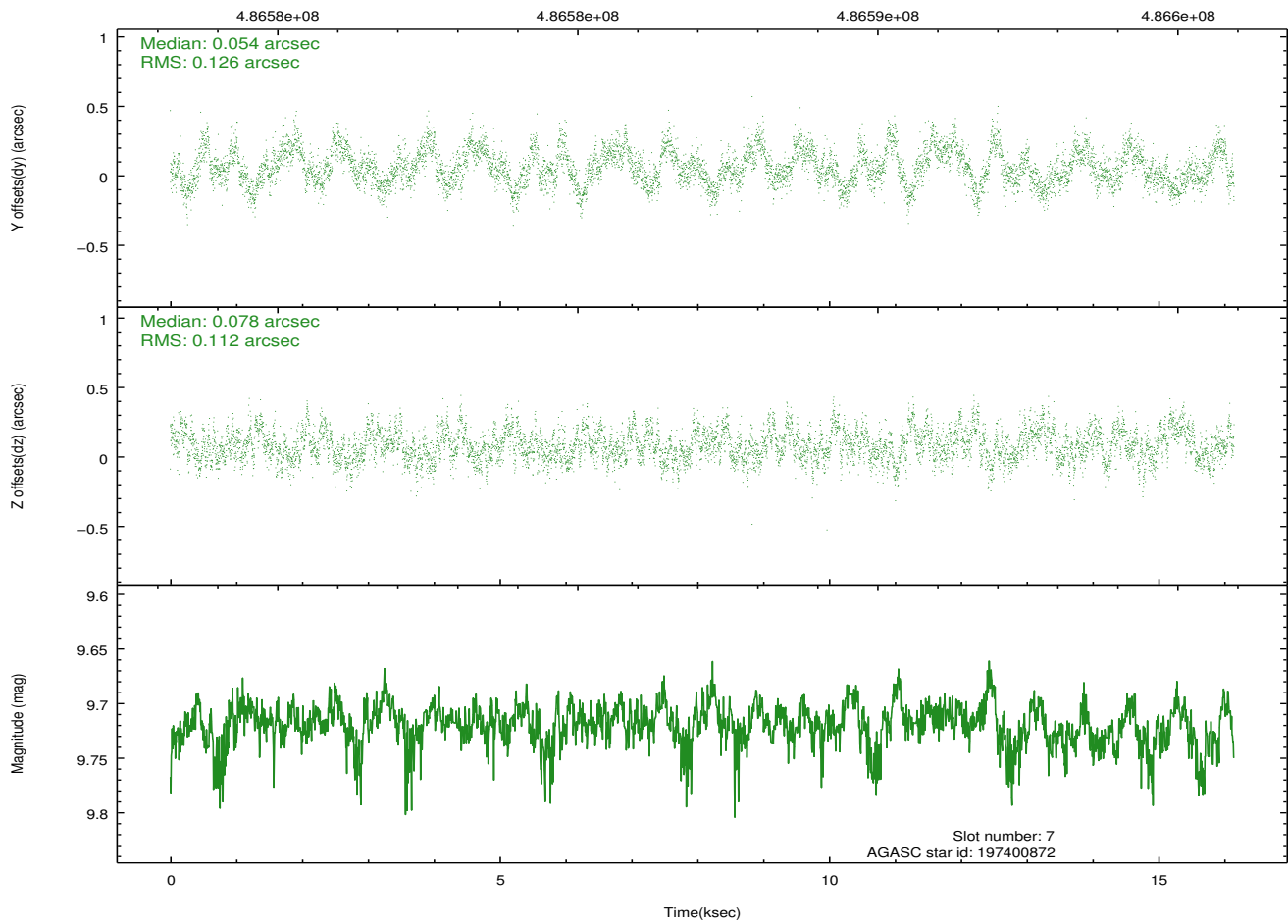
Time (s)



## 2.4.5 Slot 7

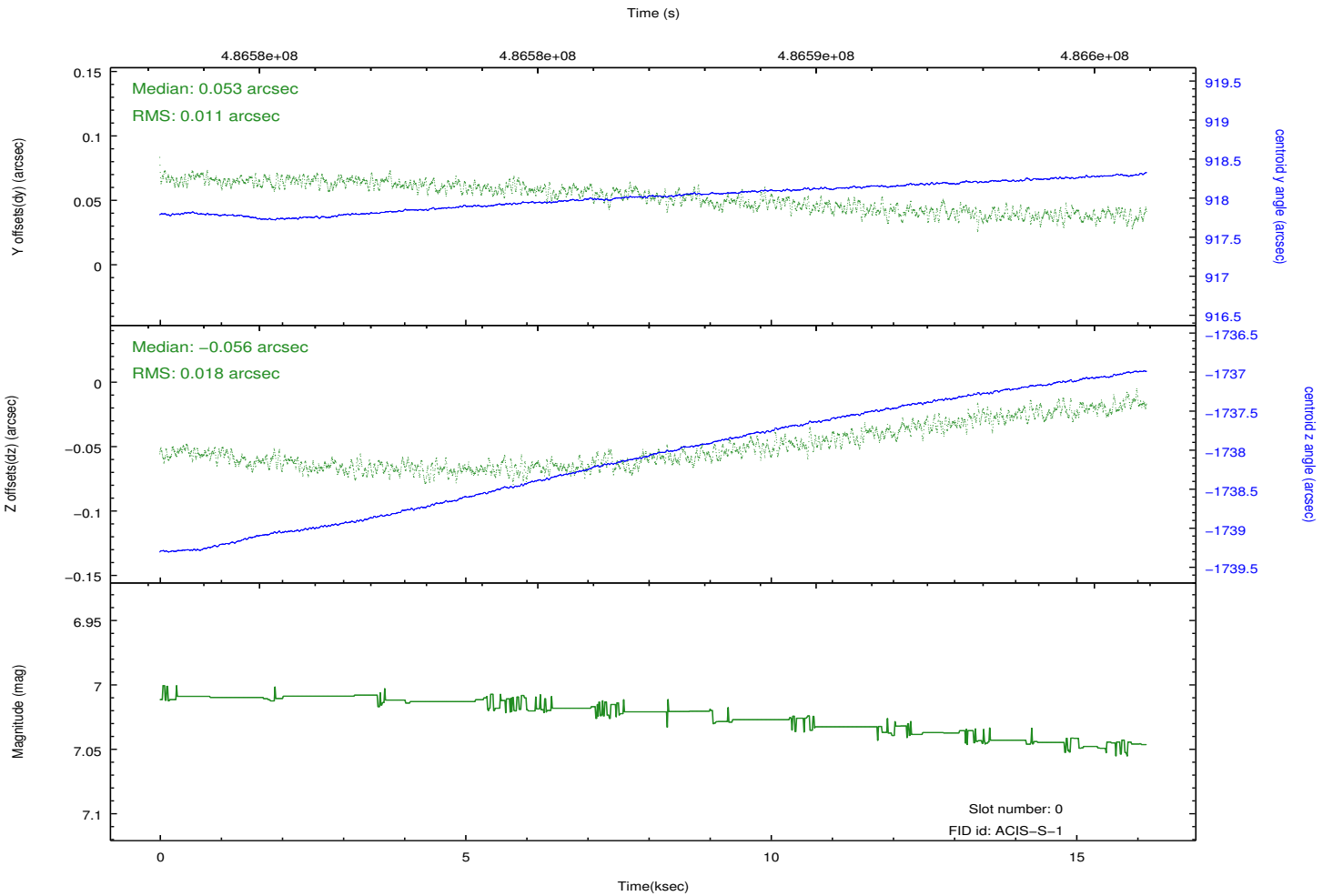
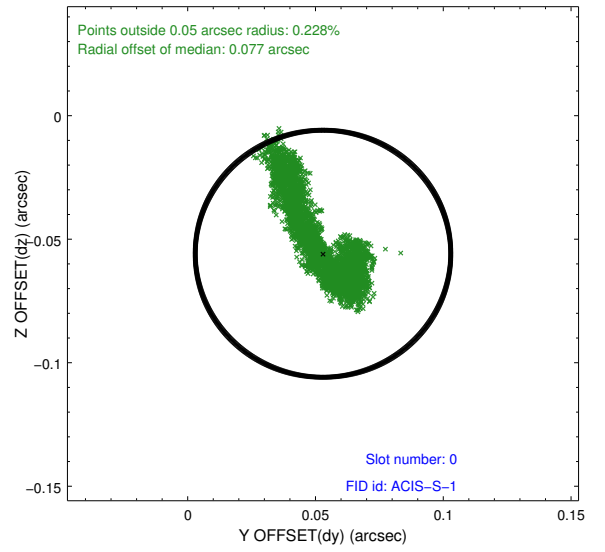
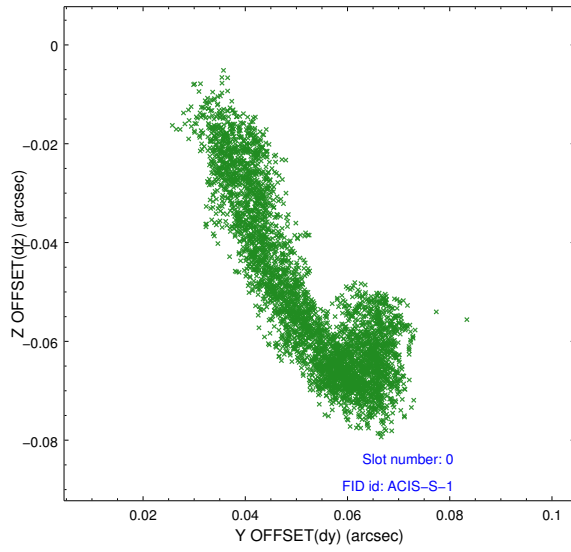


Time (s)

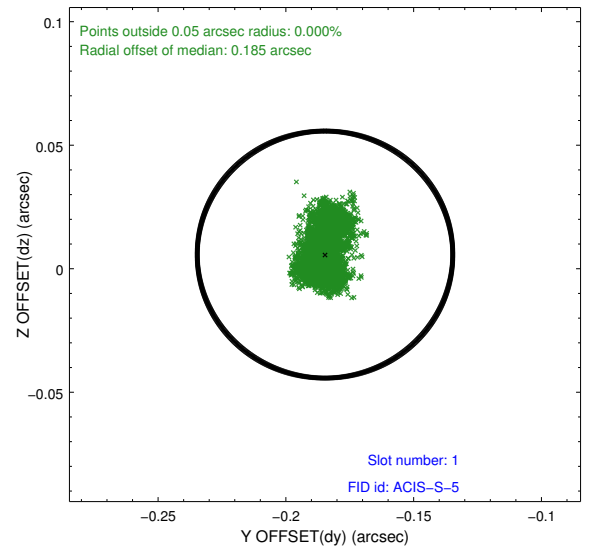
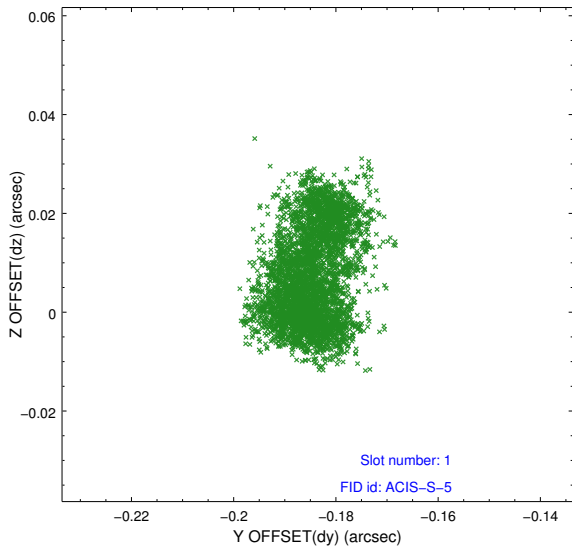


## 2.5 FID Slots

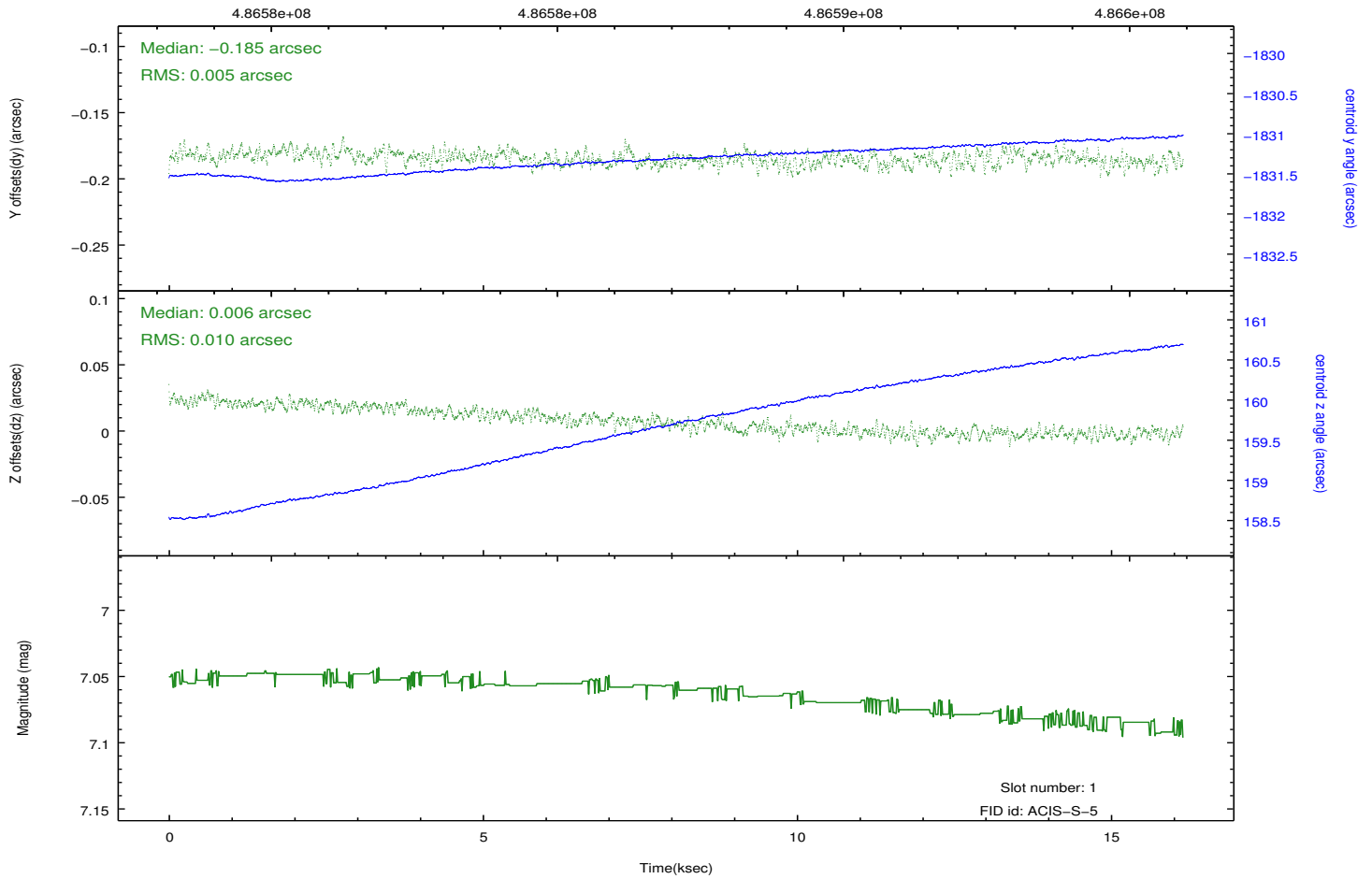
### 2.5.1 Slot 0



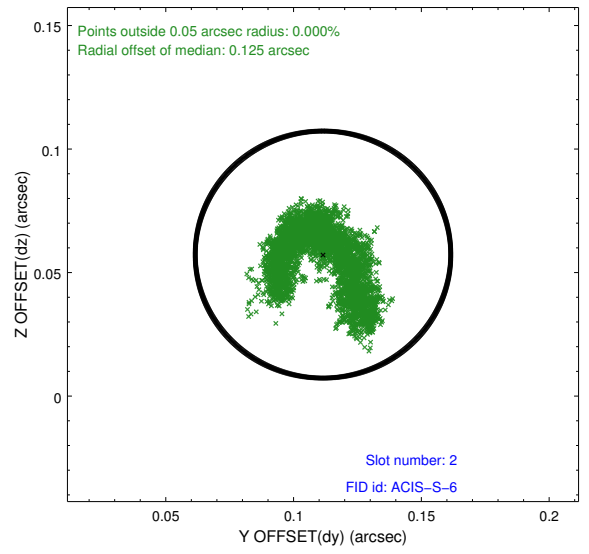
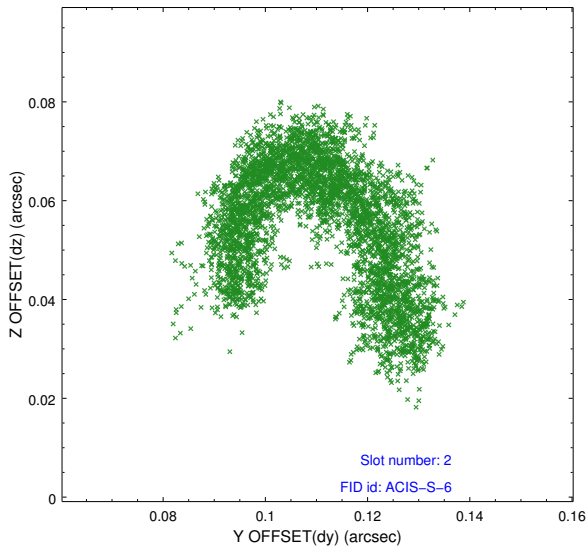
## 2.5.2 Slot 1



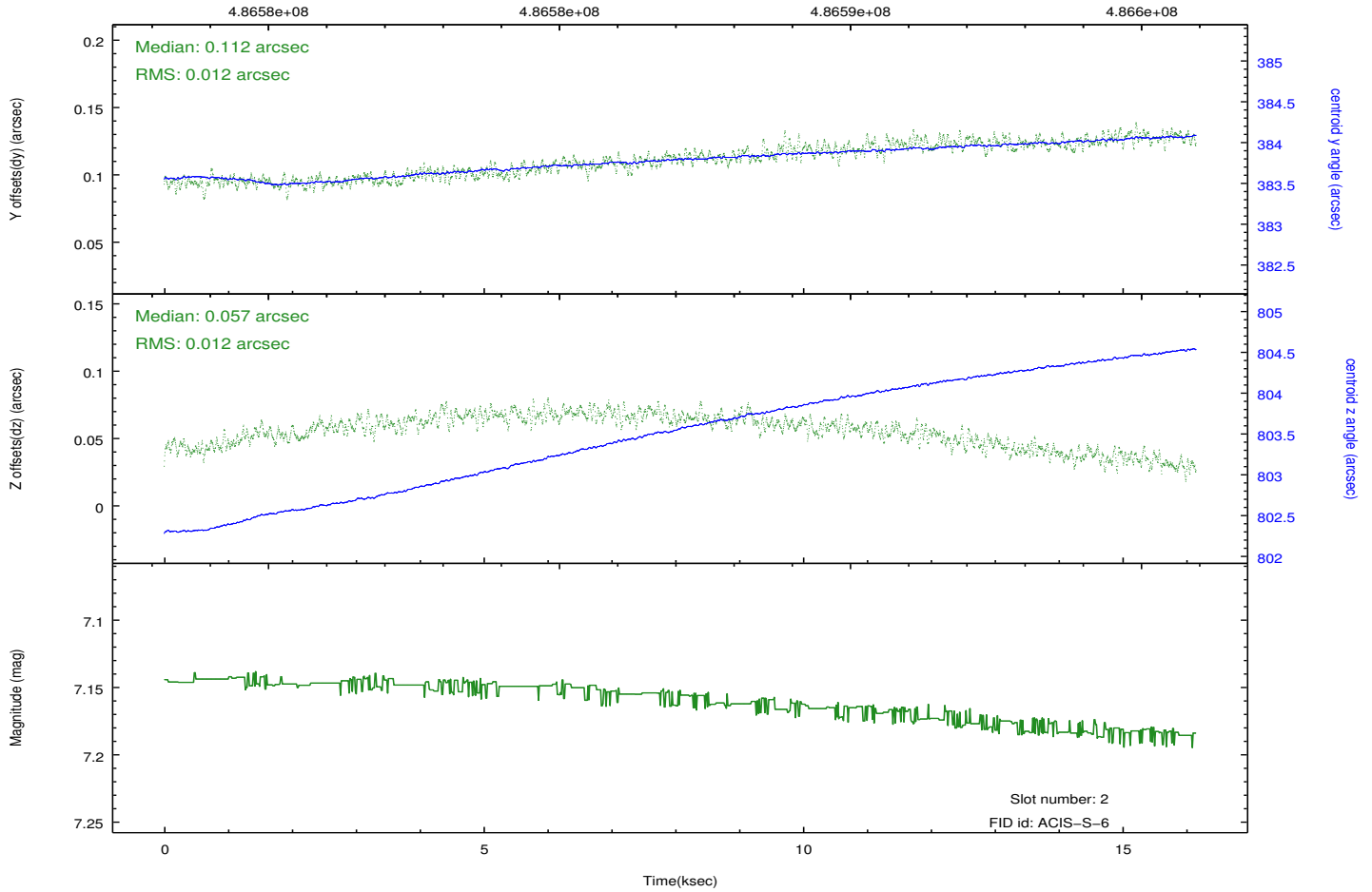
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.964799940586

## 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.