

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7439 - L2 Version 2  
Chandra X-Ray Center

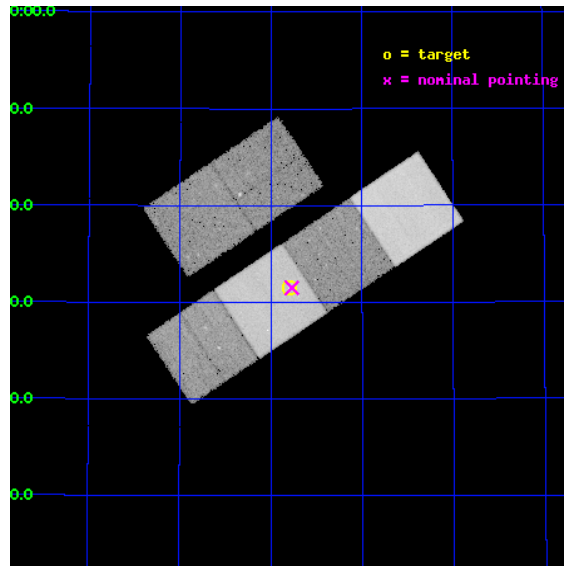
L2 Processing Date : Apr 26 2012

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# 1 Front

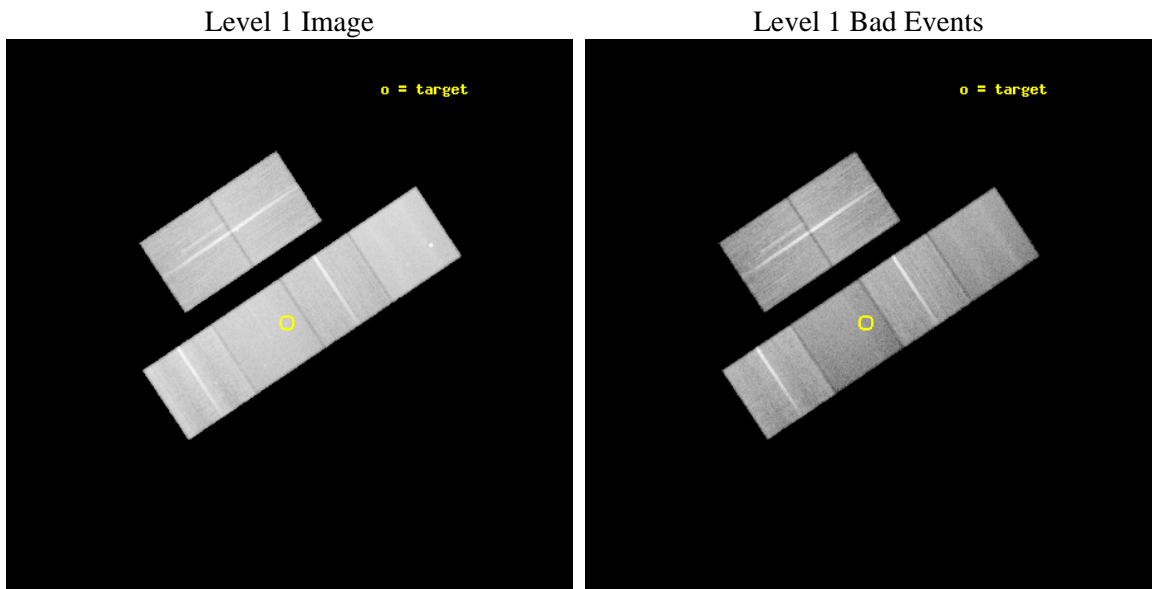
seq_num	200449	Sequence number
obs_id	7439	Observation id
title	Hot Gas and Thermal Conduction in Planetary Nebulae	Proposal title
observer	Dr. Robert Gruendl	Principal investigator
object	NGC 6826	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	296.2	Observer's specified target RA [deg]
dec_targ	50.525	Observer's specified target Dec [deg]
ra_nom	296.19237045703	Nominal RA [deg]
dec_nom	50.525186590864	Nominal Dec [deg]
roll_nom	146.26251254197	Nominal Roll [deg]
revision	2	Processing version of data
ontime	34518.399871469	Sum of GTIs [s]
livetime	34081.307107811	Livetime [s]
ontime2	34515.158901215	Sum of GTIs [s]
ontime3	34518.399871469	Sum of GTIs [s]
ontime5	34518.399871469	Sum of GTIs [s]
ontime6	34518.399871469	Sum of GTIs [s]
ontime7	34518.399871469	Sum of GTIs [s]
ontime8	34511.917881072	Sum of GTIs [s]
l2events	415500	Number of level 2 events



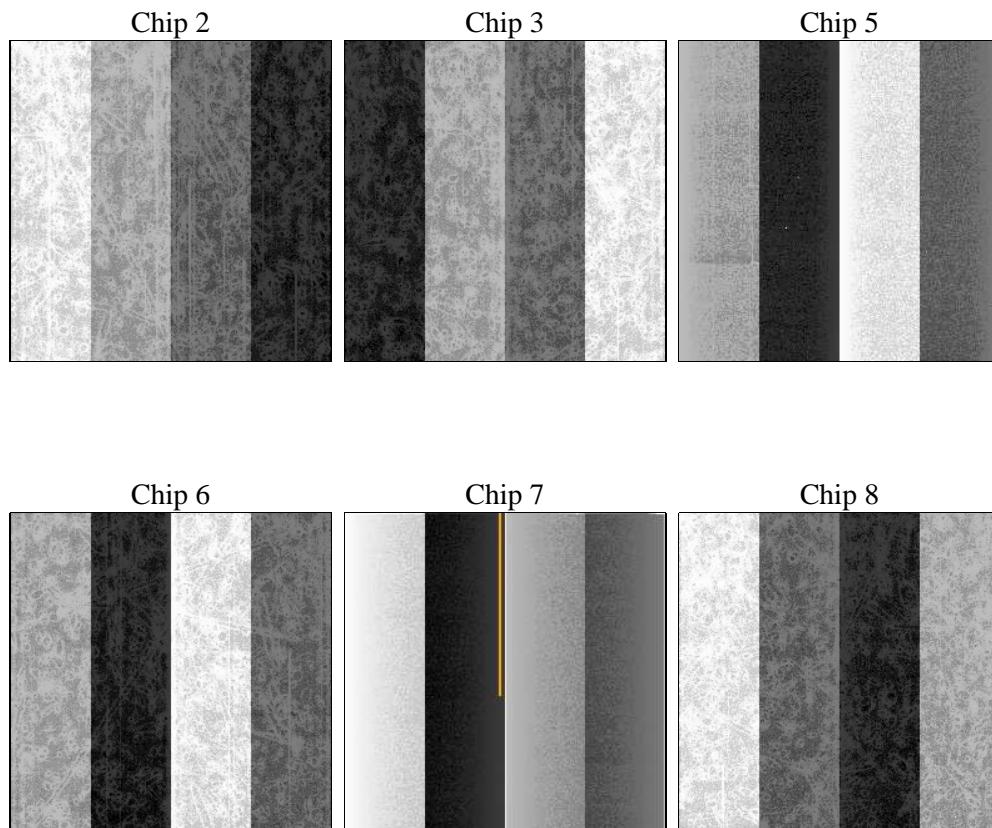
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34340.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	34518.399871469	Sum of GTIs [s]
caldbver	4.4.9	&#160	ontime2	34515.158901215	Sum of GTIs [s]
date	2012-04-26T12:47:06	Date and time of file creation	ontime3	34518.399871469	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	34518.399871469	Sum of GTIs [s]
			ontime6	34518.399871469	Sum of GTIs [s]
			ontime7	34518.399871469	Sum of GTIs [s]
			ontime8	34511.917881072	Sum of GTIs [s]
			l1events	1939553	Number of level 1 events

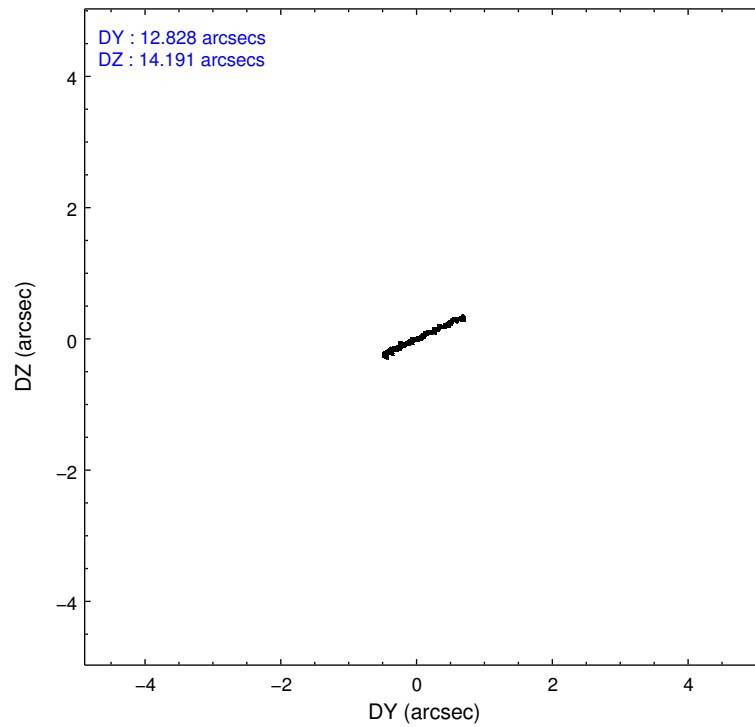
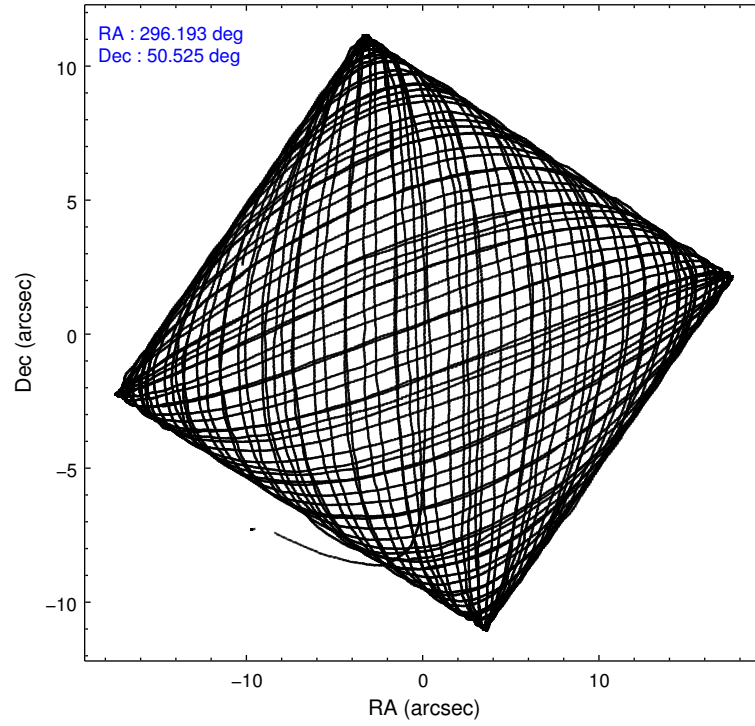
### 2.1.4 Events

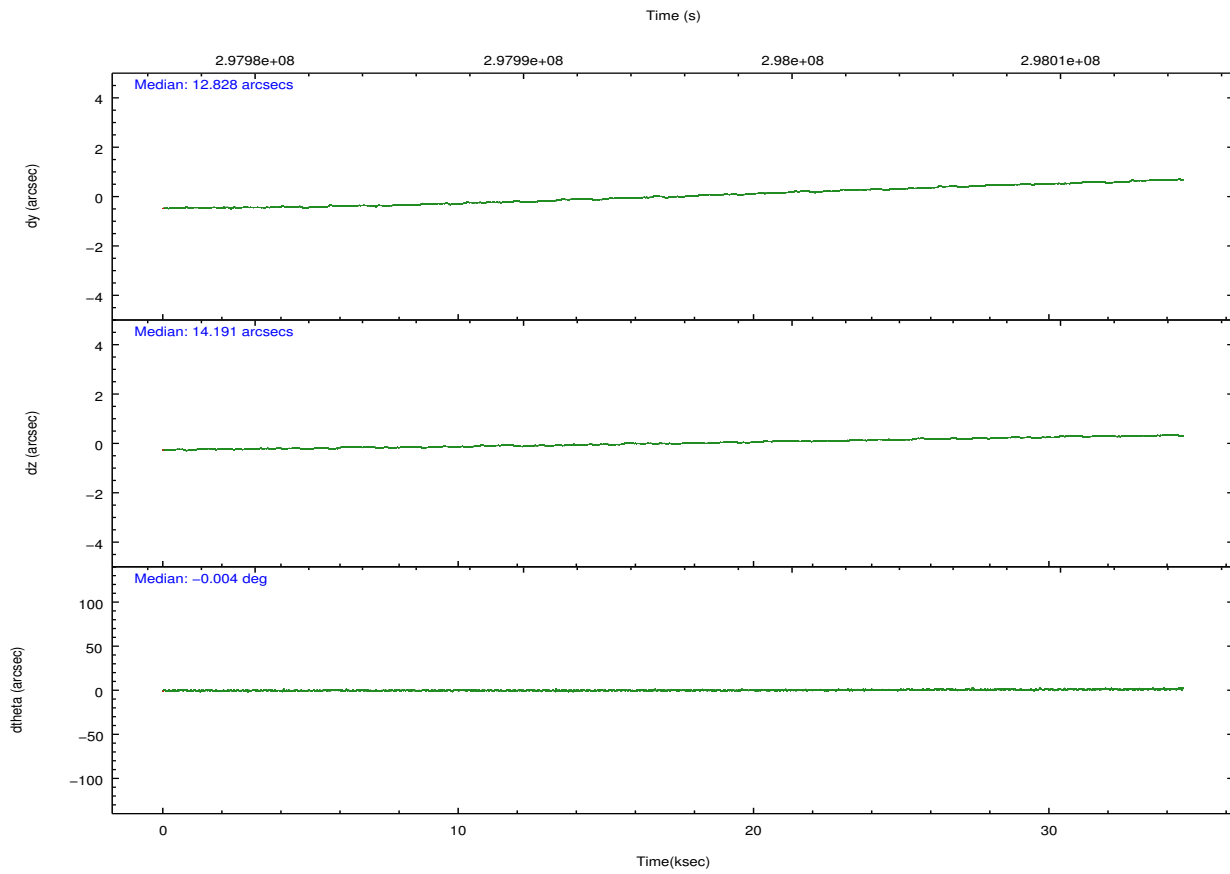
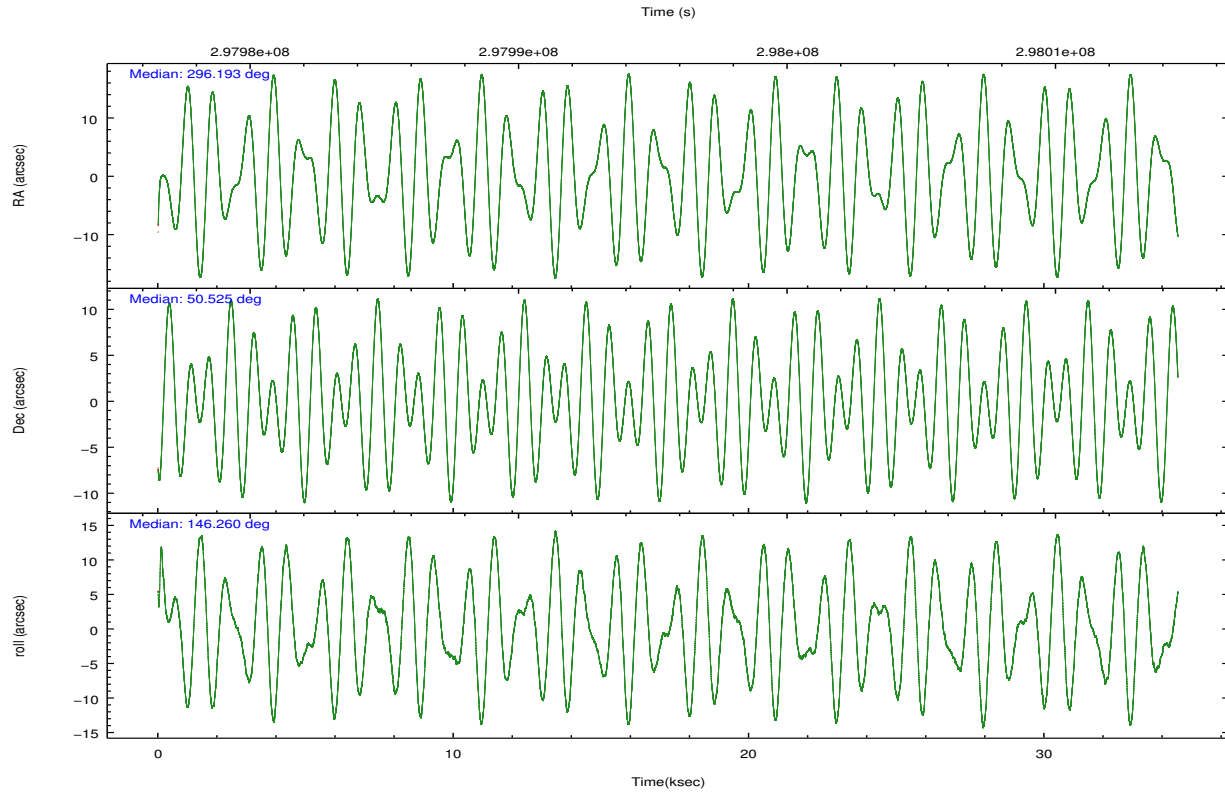
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	308591	278675	383407	293973	315860	359047	grade 0 events	10081	9542	13770	10199	13648	26460
rejected events	281583	252785	199671	265552	174215	273842		3%	3%	3%	3%	4%	7%
rejected %	91%	90%	52%	90%	55%	76%	grade 1 events	189	147	668	119	392	298
								0%	0%	0%	0%	0%	0%
							grade 2 events	6402	5796	56465	6209	29025	19491
								2%	2%	14%	2%	9%	5%
							grade 3 events	2991	2986	7833	3133	13252	9309
								0%	1%	2%	1%	4%	2%
							grade 4 events	2932	2916	7283	3116	13060	8678
								0%	1%	1%	1%	4%	2%
							grade 5 events	9385	10972	29431	11114	33663	16237
								3%	3%	7%	3%	10%	4%
							grade 6 events	5111	5145	102231	6295	75468	22733
								1%	1%	26%	2%	23%	6%
							grade 7 events	271500	241171	165726	253788	137352	255841
								87%	86%	43%	86%	43%	71%

## 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	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	296.235335	296.1923704570337	CCD I2 on	O1	Y
[deg] Pointing Dec	50.523759	50.52518659086402	CCD I3 on	O2	Y
[deg] Pointing Roll	146.072726	146.2625125419739	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	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)	297978502.184000	297977096.39549	CCD S5 on	N	N
Observation start date	2007-06-11T19:47:17	2007-06-11T19:24:56	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	298012842.184000	298013770.38474	On-chip summing requested	N	N
Observation end date	2007-06-12T05:19:37	2007-06-12T05:36:10	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



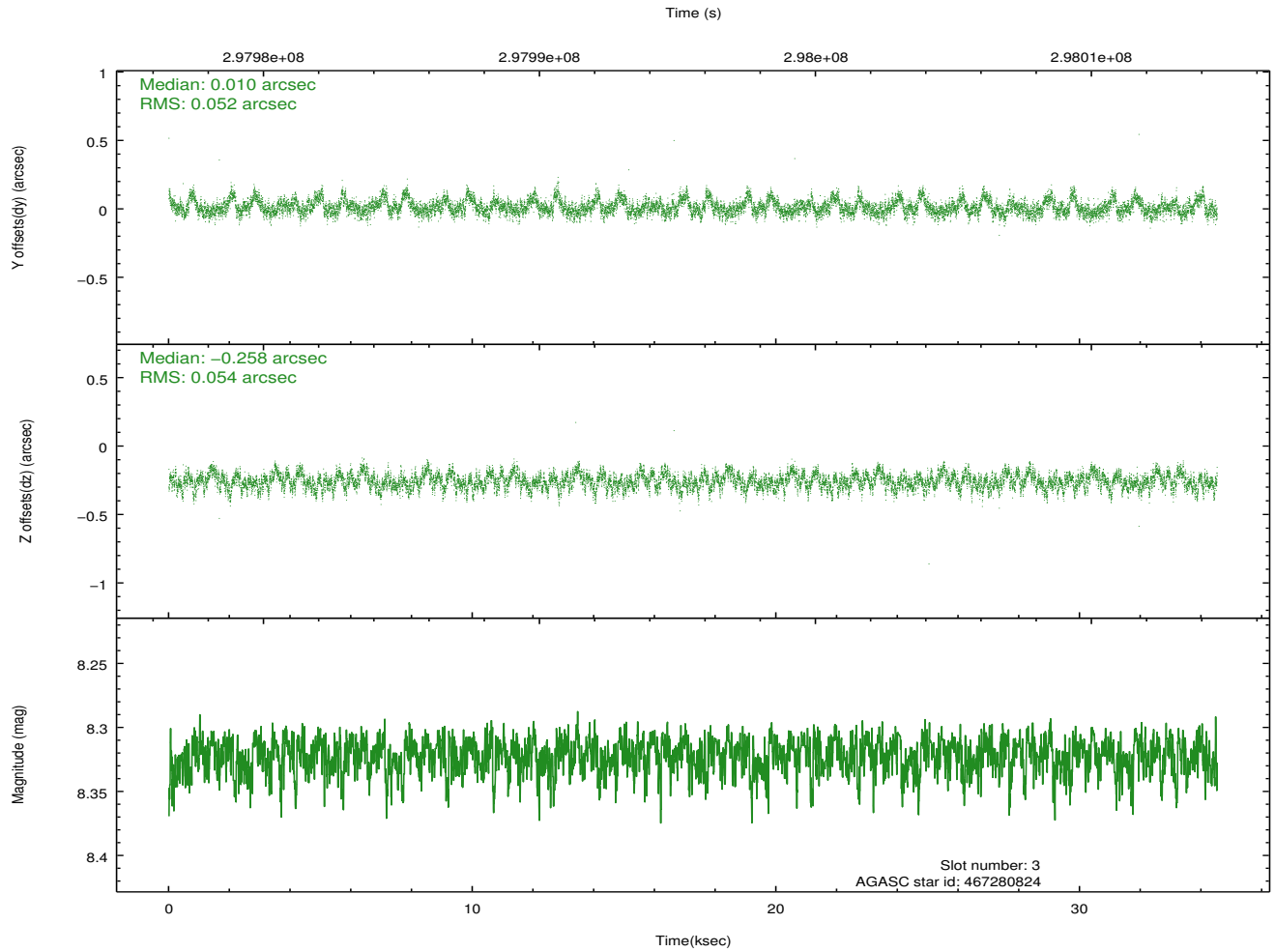
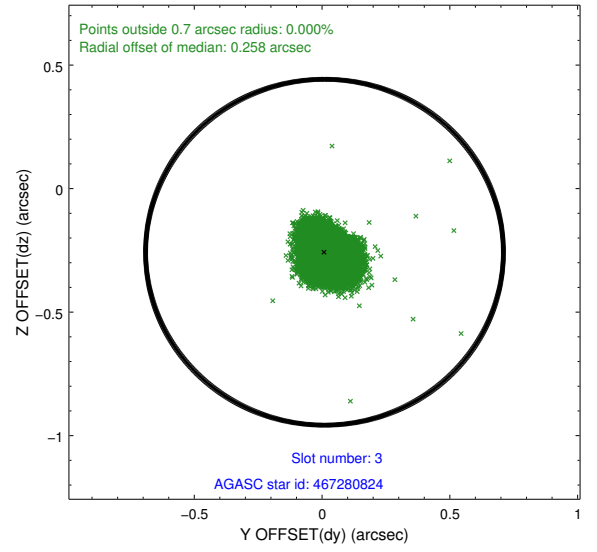
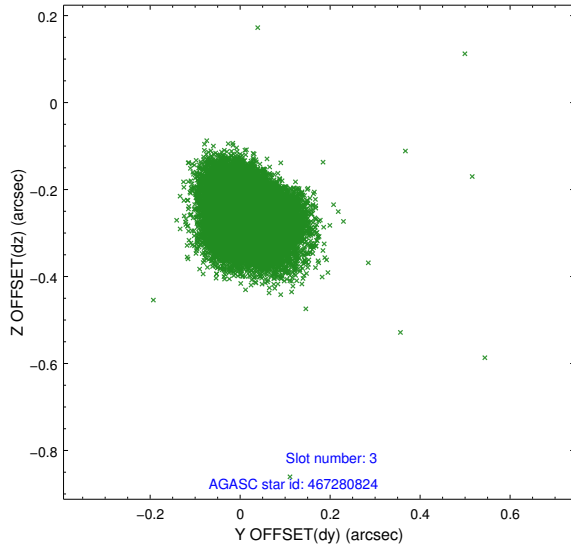


### Slot Statistics

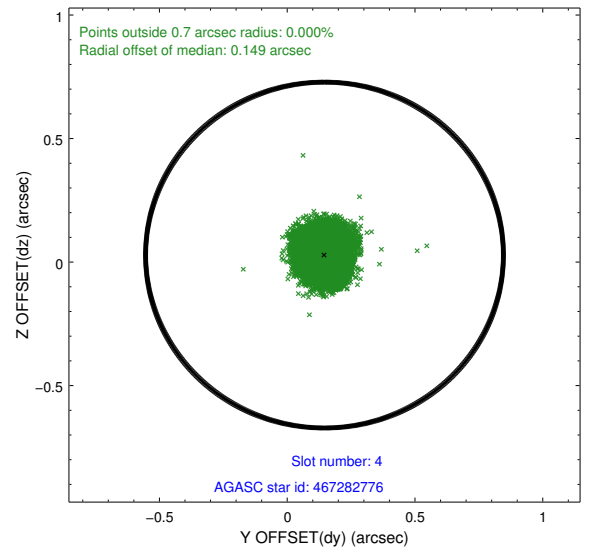
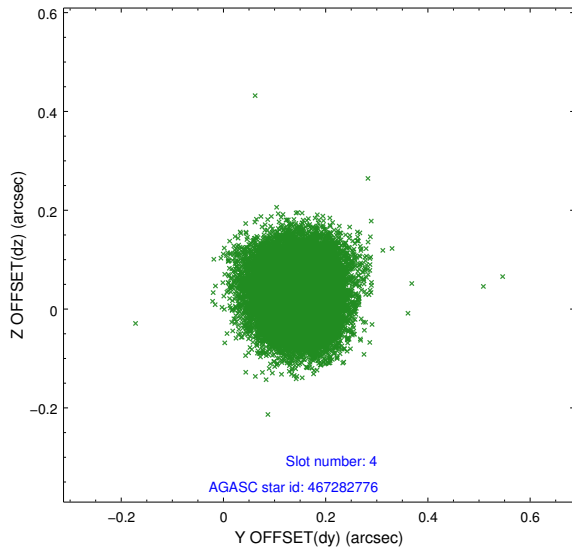
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	8420	-0.088	-0.058	0.019	0.036	0.000000	0.000000	-765.86	-1735.63
1	FID	ACIS-S-4	7.19	8420	0.114	0.037	0.013	0.024	0.000000	0.000000	2147.60	172.92
2	FID	ACIS-S-6	7.33	8419	-0.053	0.028	0.009	0.015	0.000000	0.000000	396.21	810.35
3	GUIDE	467280824	8.32	16839	0.010	-0.258	0.079	0.127	296.736039	50.203107	-1599.07	310.53
4	GUIDE	467282776	8.68	16829	0.146	0.028	0.078	0.122	296.776128	50.380593	-1315.01	-268.55
5	GUIDE	467798976	9.35	16829	0.005	-0.083	0.116	0.199	295.503469	50.656705	1657.79	528.49
6	GUIDE	467799008	8.80	16833	-0.048	-0.123	0.078	0.122	295.692448	50.675769	1335.98	233.80
7	GUIDE	467799608	8.92	16830	-0.104	0.438	0.088	0.144	296.657261	51.020428	207.06	-2018.28

## 2.4 Star Slots

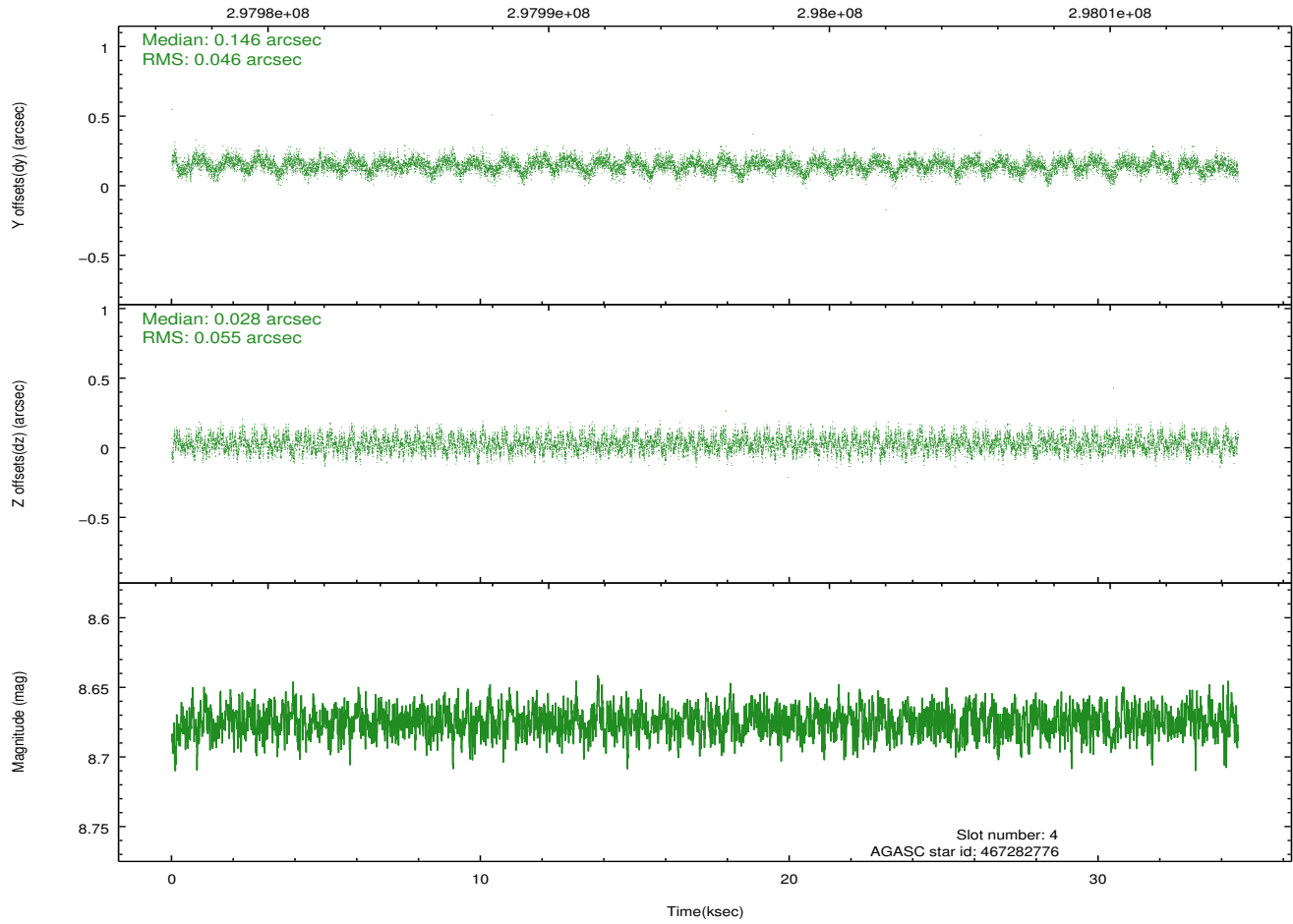
### 2.4.1 Slot 3



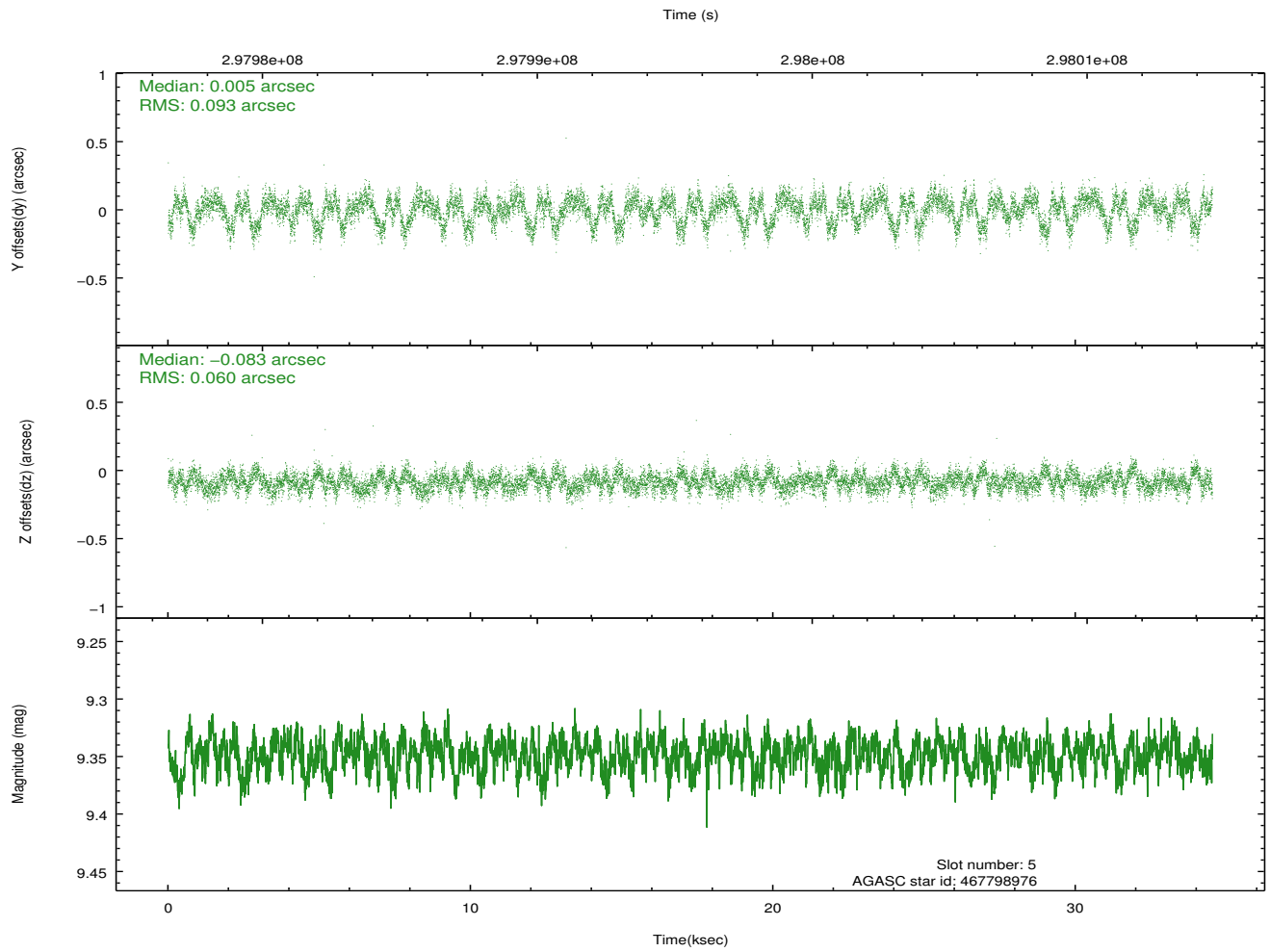
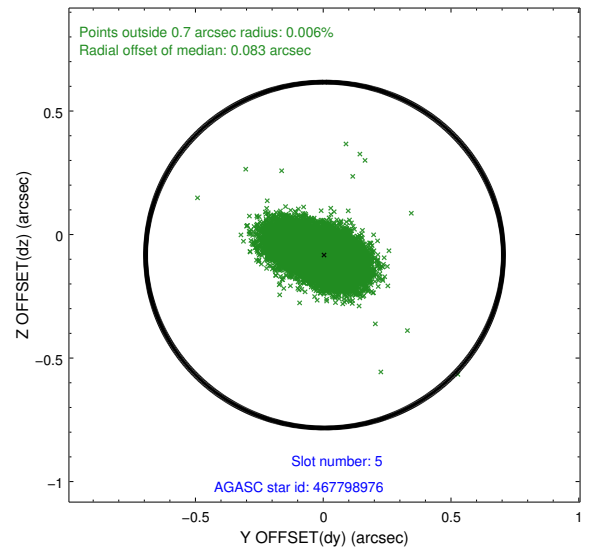
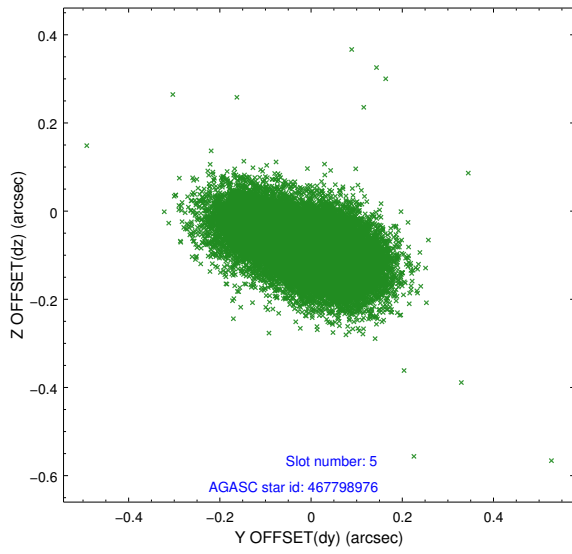
### 2.4.2 Slot 4



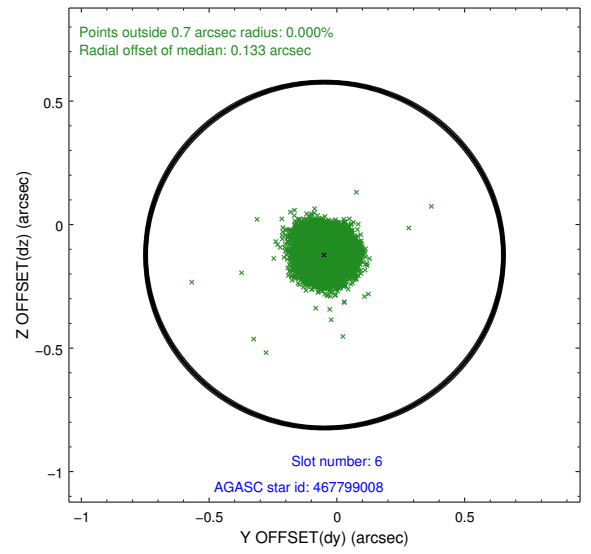
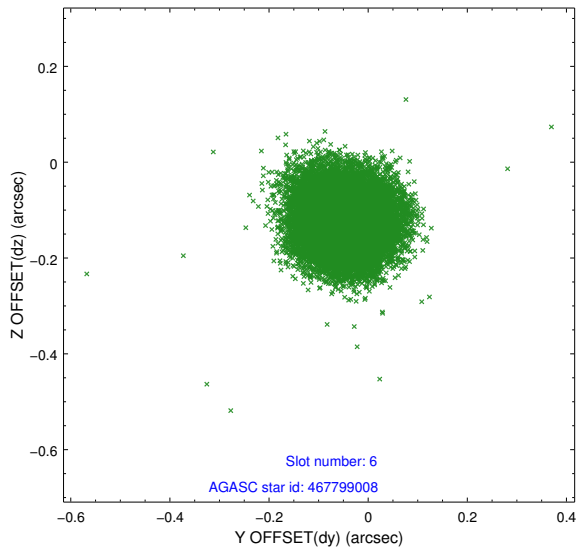
Time (s)



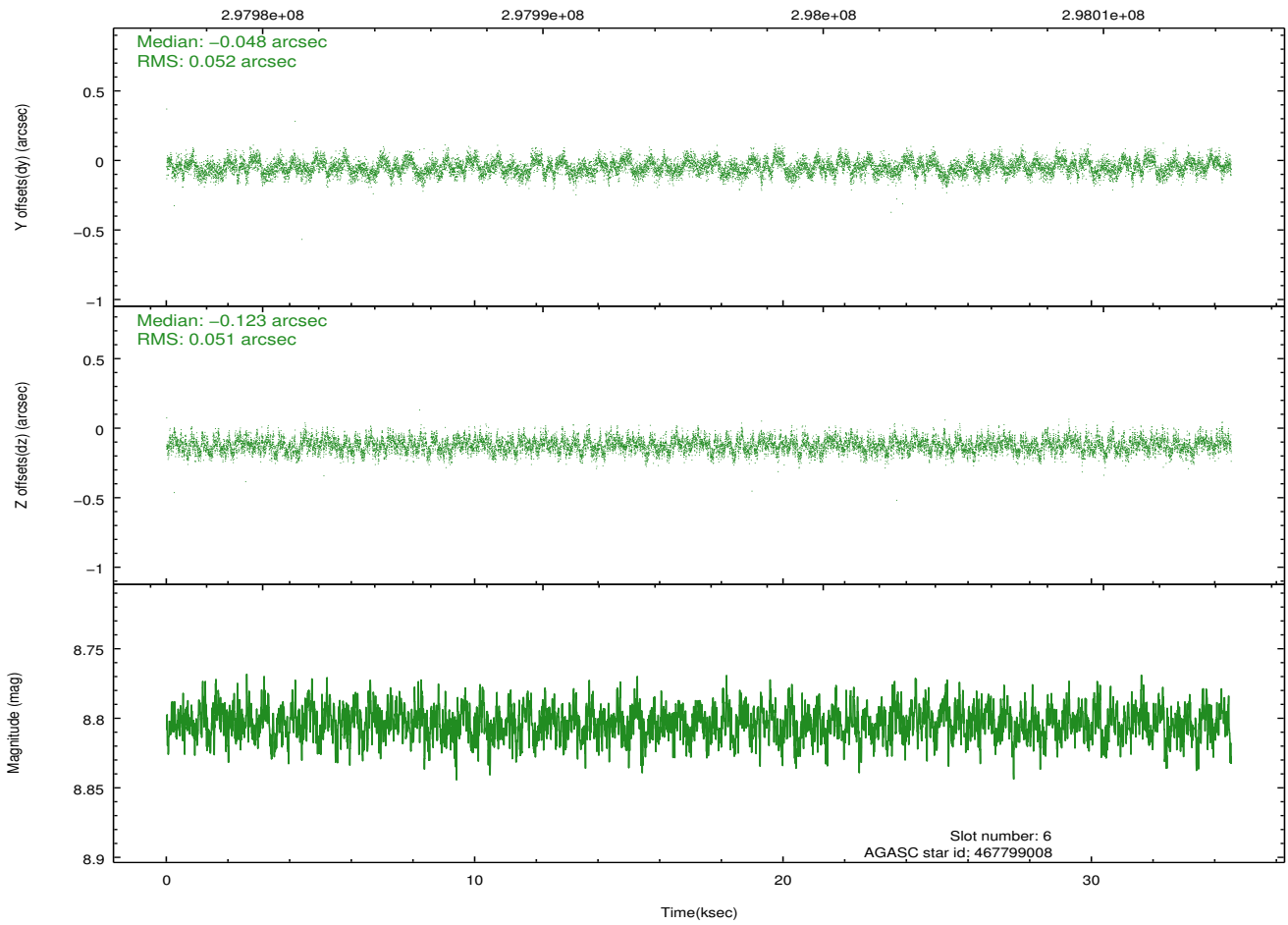
### 2.4.3 Slot 5



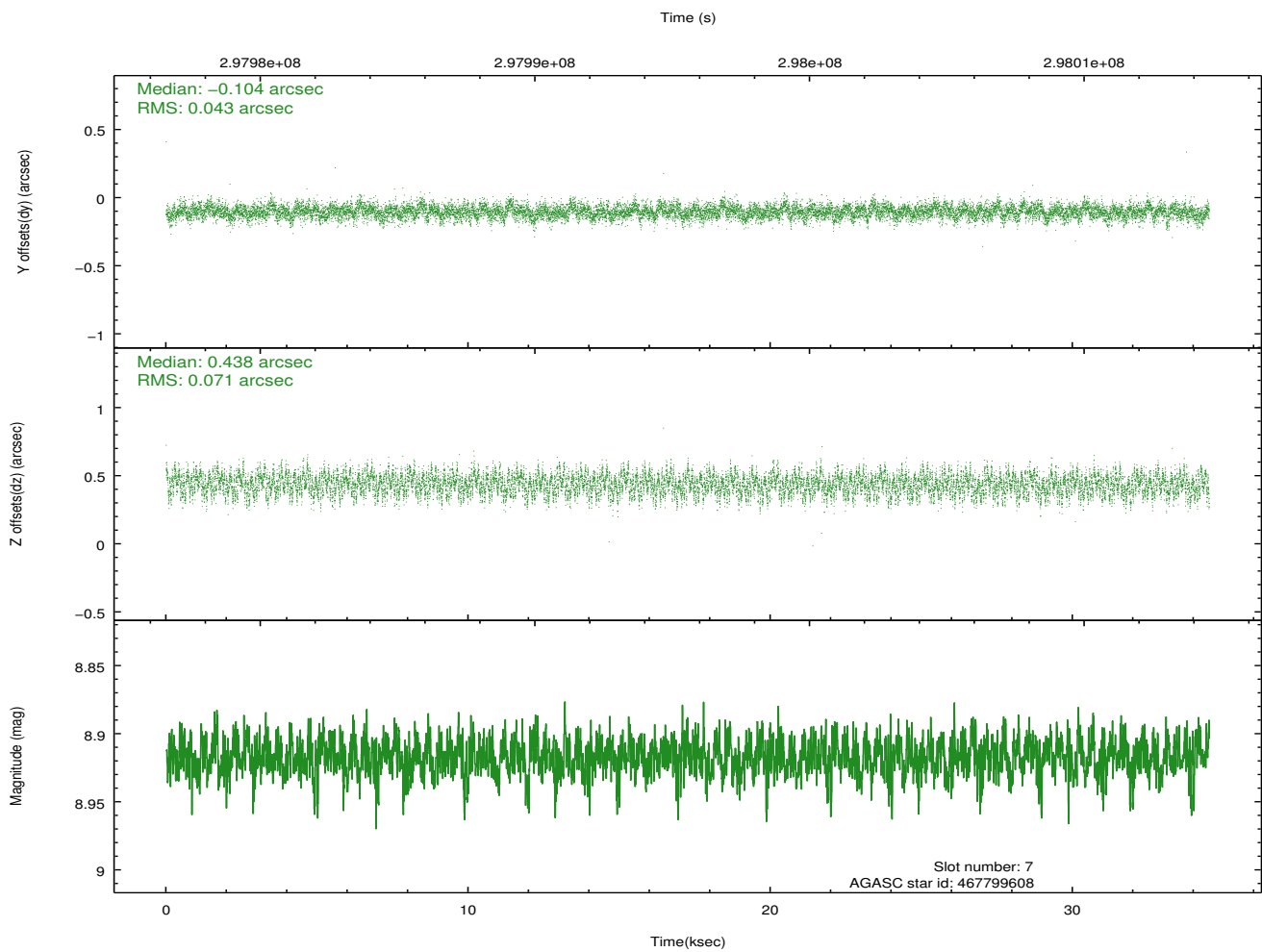
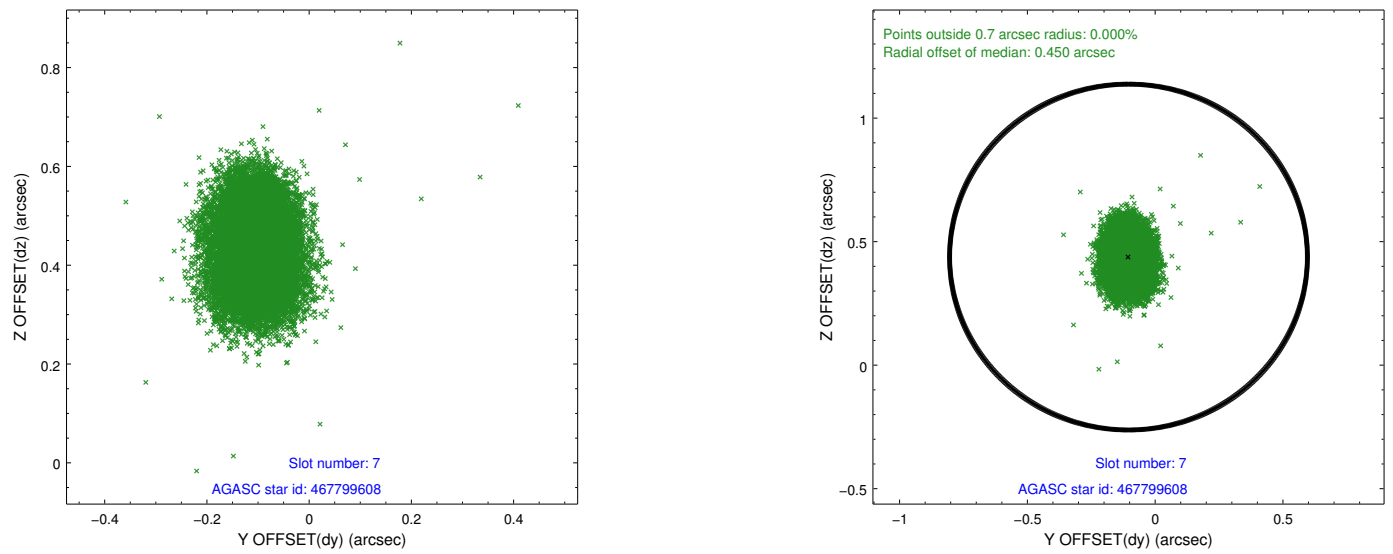
## 2.4.4 Slot 6



Time (s)

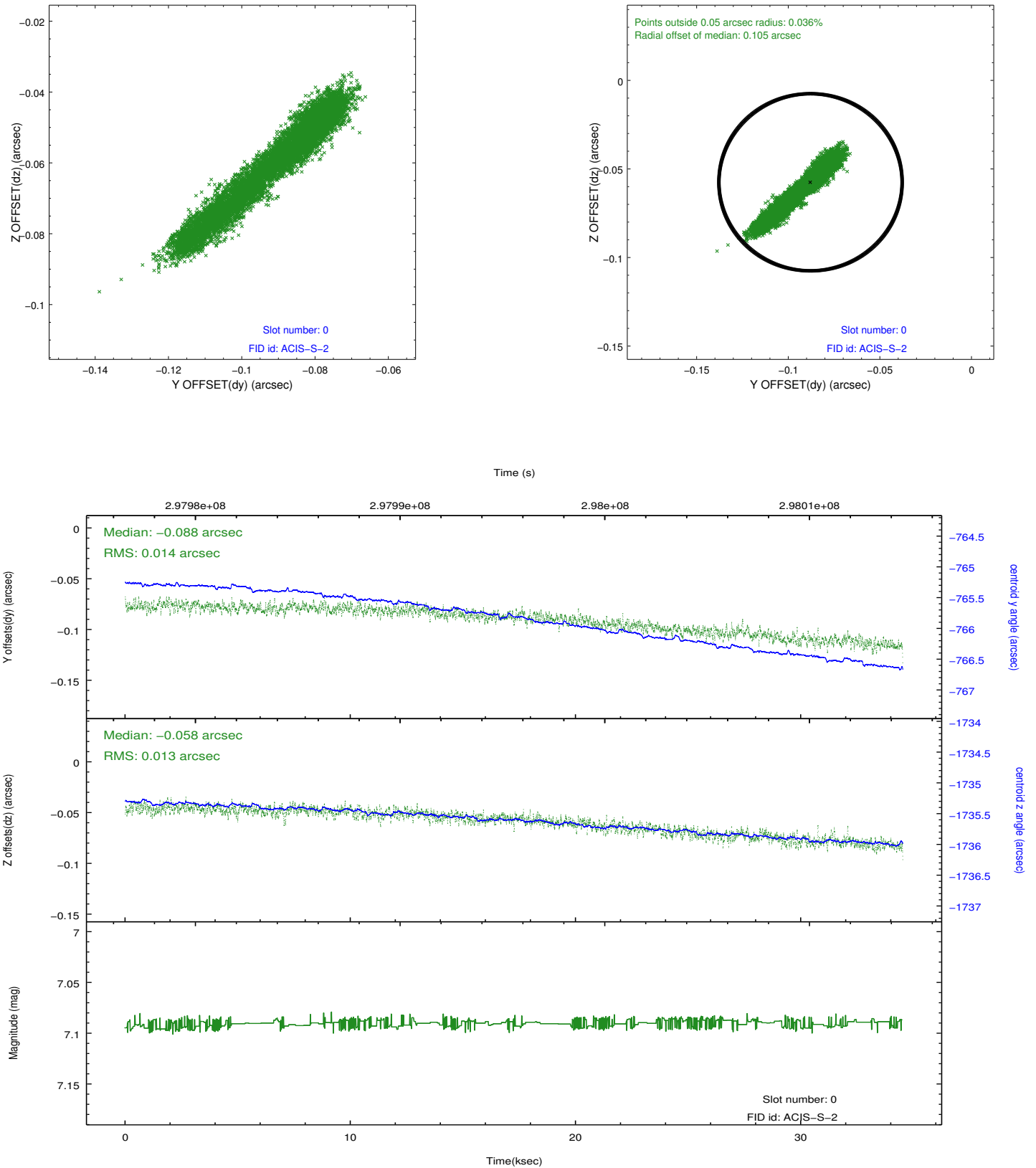


## 2.4.5 Slot 7

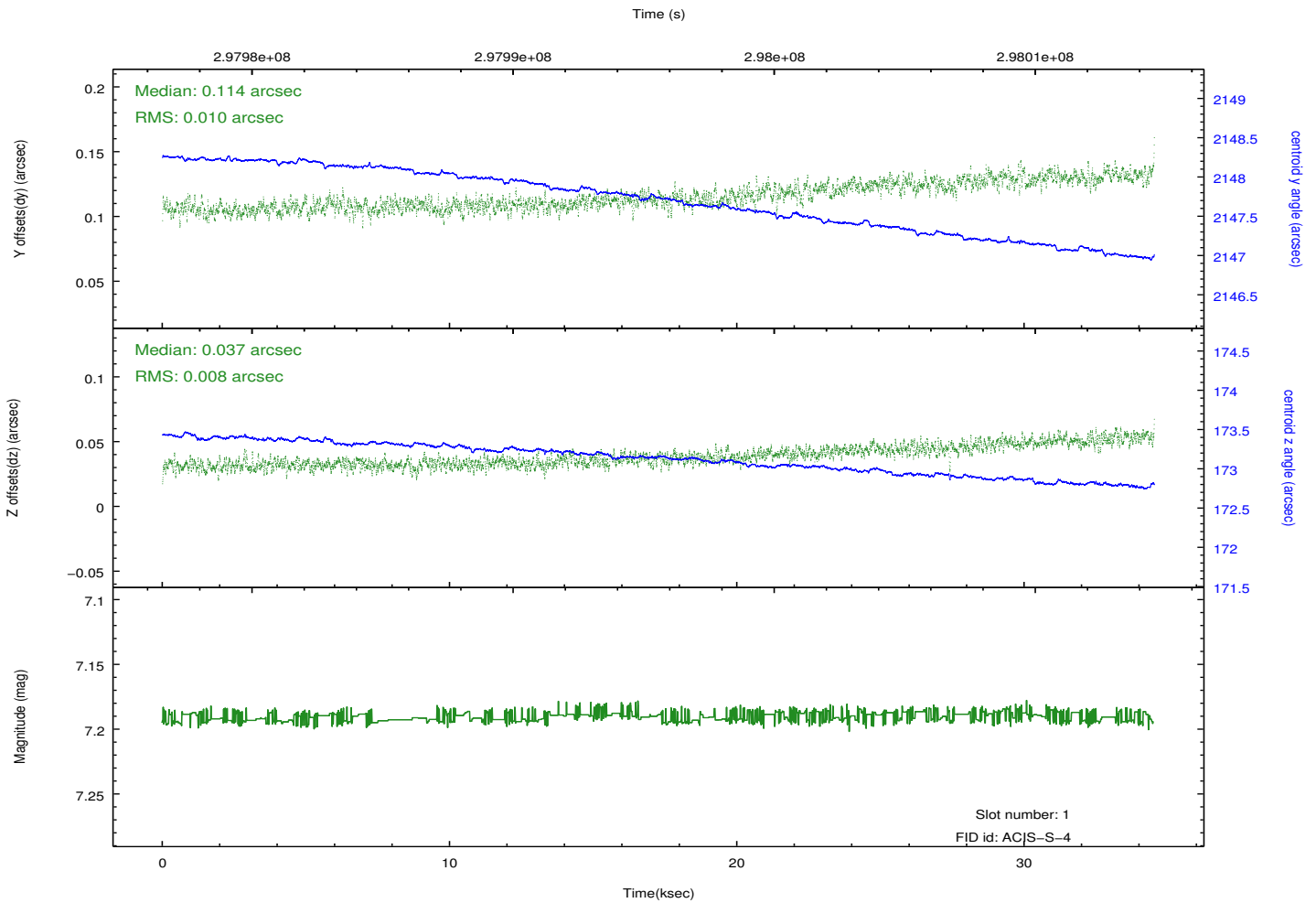
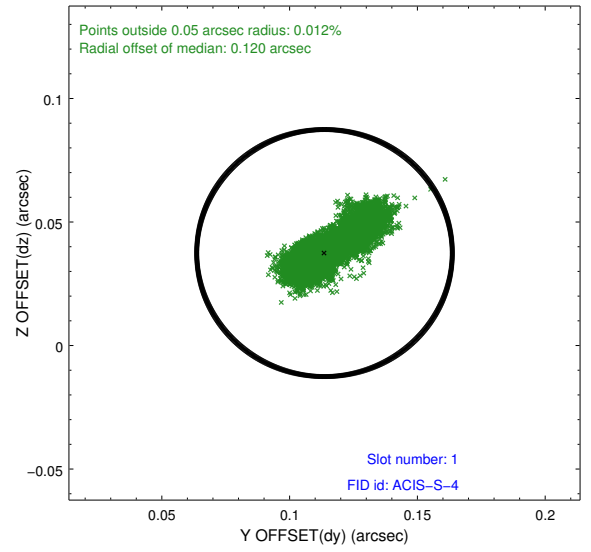
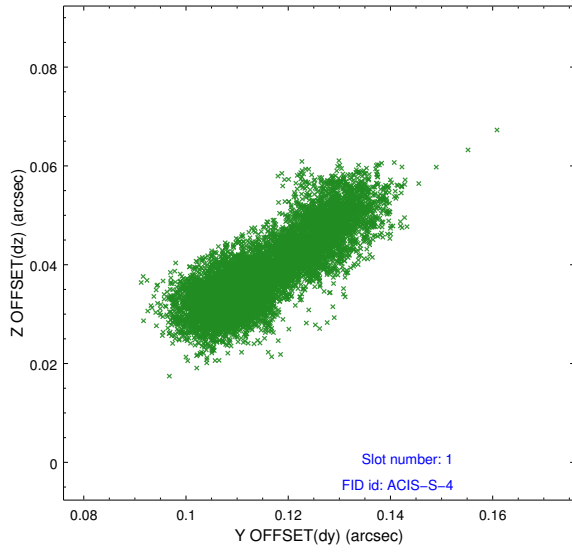


## 2.5 FID Slots

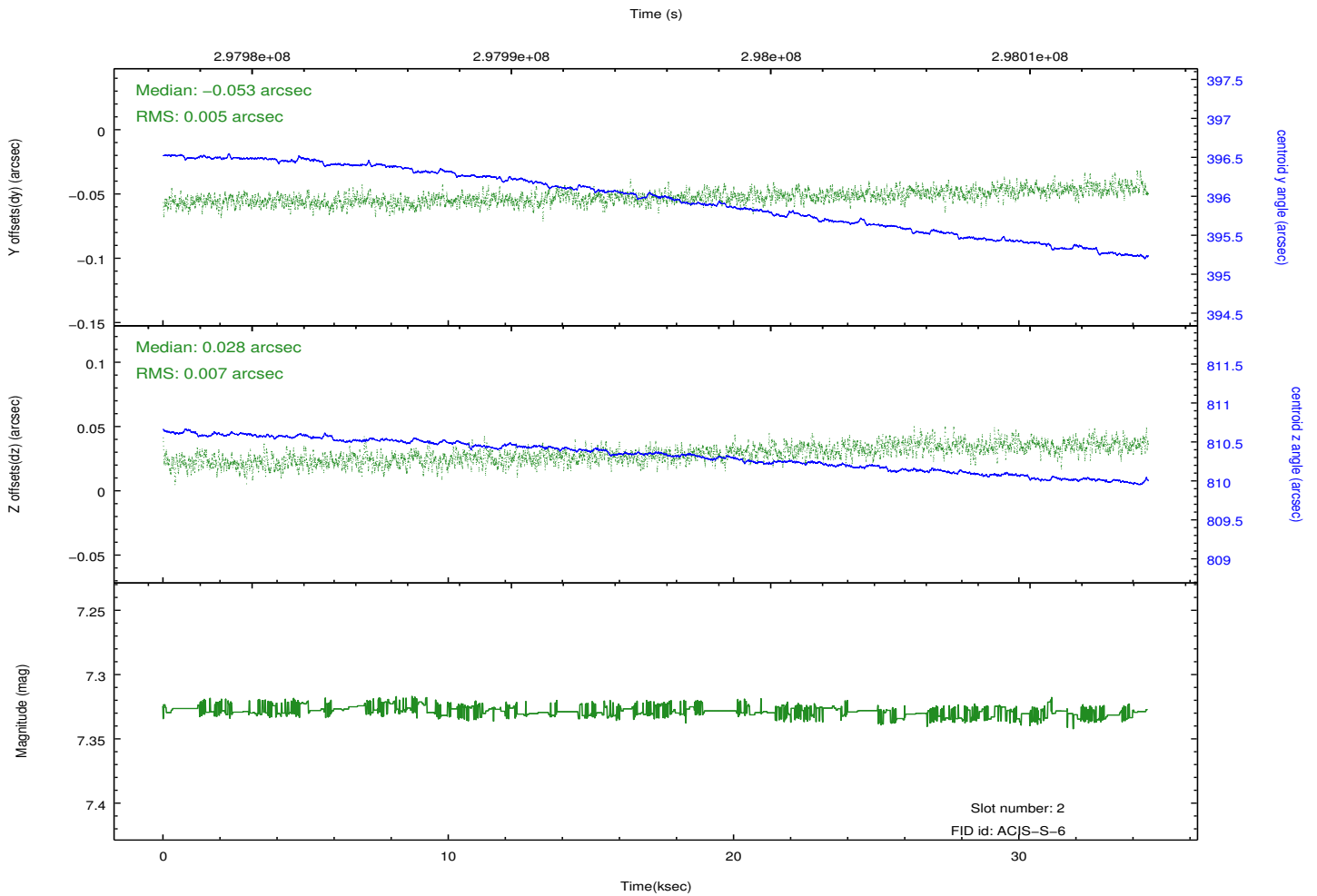
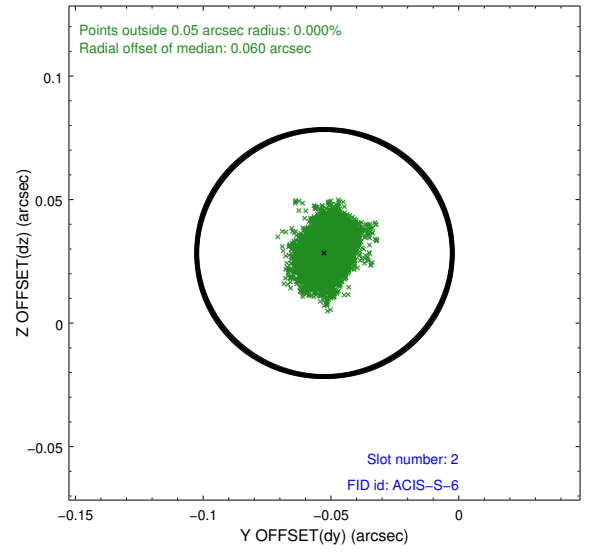
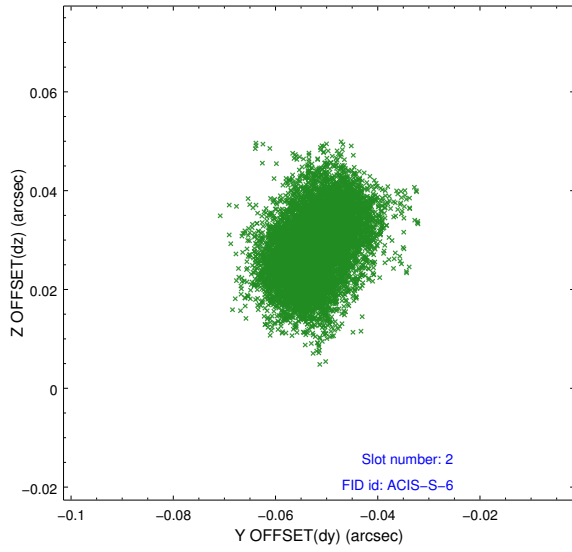
### 2.5.1 Slot 0



## 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)	2012.04.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.5183998

## A.2 Comments