

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 16199 - L2 Version 1  
Chandra X-Ray Center

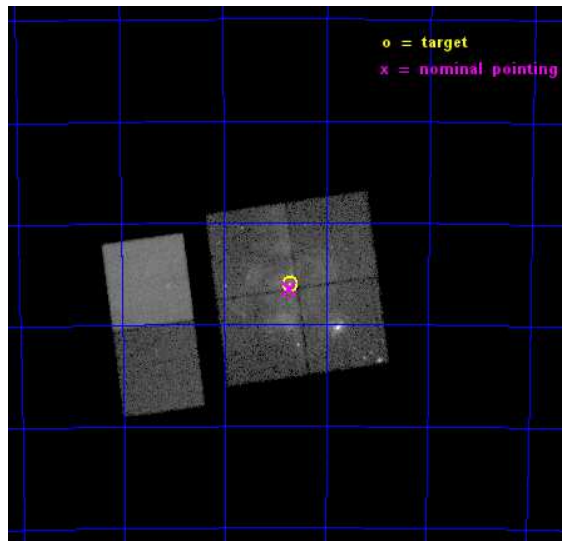
L2 Processing Date : Mar 29 2015

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# 1 Front

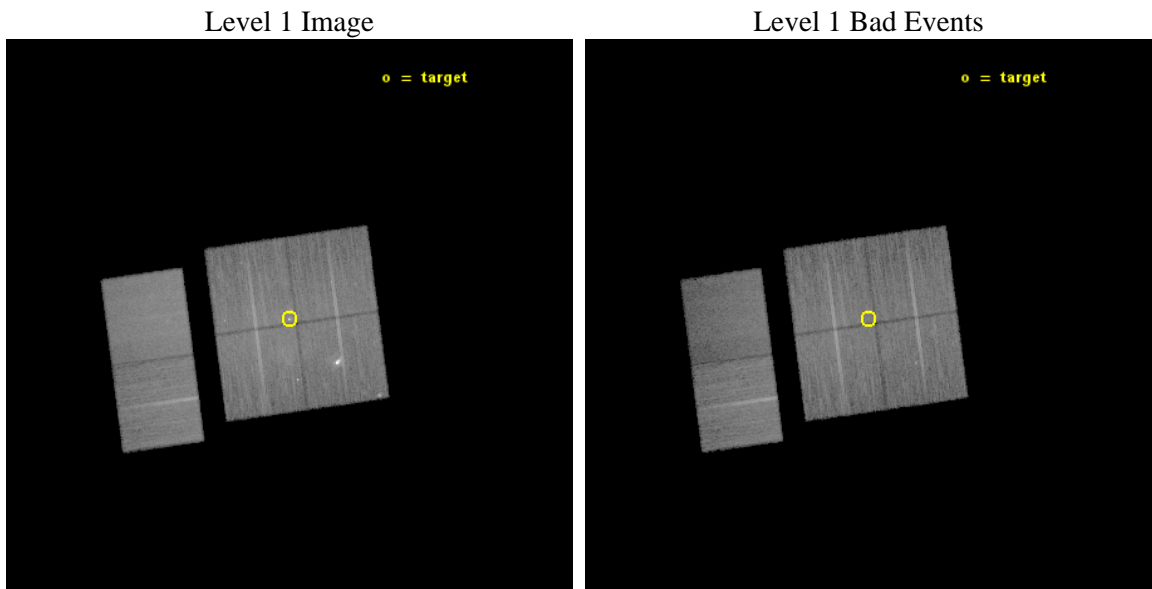
seq_num	901116	Sequence number
obs_id	16199	Observation id
title	The Tarantula -- Revealed by X-rays (T-ReX): A Definitive Chandra Investigation of 30 Doradus	Proposal title
observer	Dr. Leisa Townsley	Principal investigator
object	30 Doradus	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.676667	Observer's specified target RA [deg]
dec_targ	-69.100806	Observer's specified target Dec [deg]
ra_nom	84.680464592124	Nominal RA [deg]
dec_nom	-69.108881630986	Nominal Dec [deg]
roll_nom	262.21224871551	Nominal Roll [deg]
revision	1	Processing version of data
ontime	39967.295762897	Sum of GTIs [s]
livetime	39461.20579853	Livetime [s]
ontime0	39967.172632813	Sum of GTIs [s]
ontime1	39967.213683009	Sum of GTIs [s]
ontime2	39970.49570334	Sum of GTIs [s]
ontime3	39967.295762897	Sum of GTIs [s]
ontime6	39970.61882329	Sum of GTIs [s]
ontime7	39970.577783346	Sum of GTIs [s]
l2events	243647	Number of level 2 events



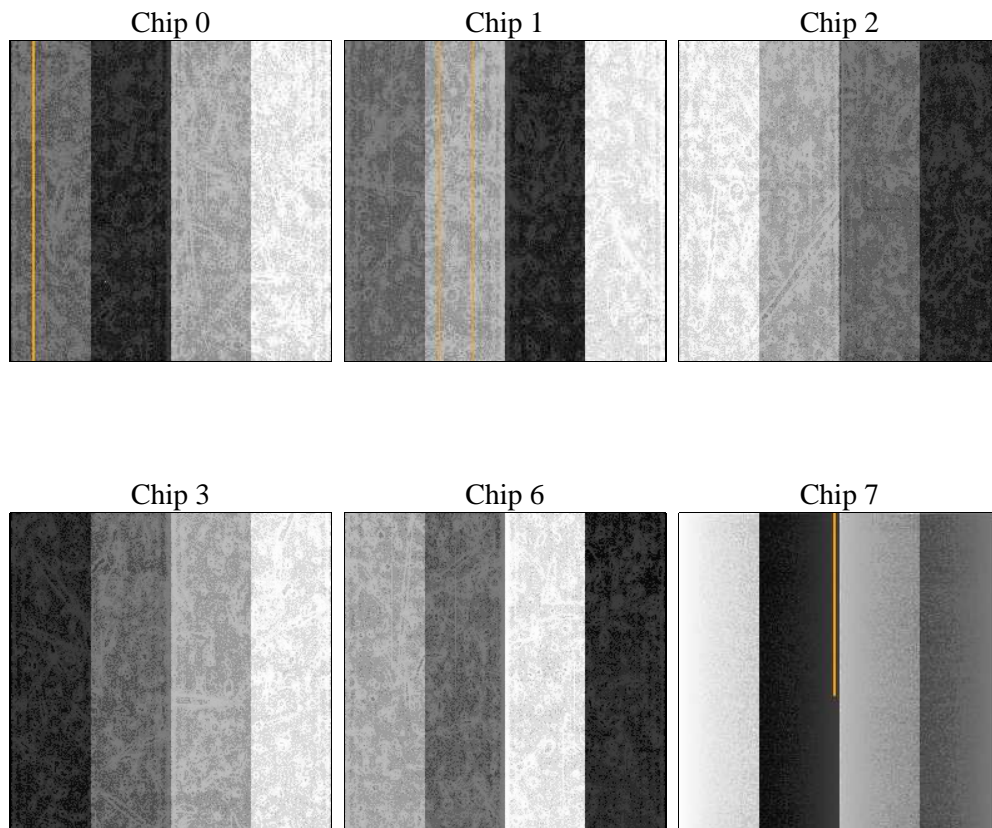
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	39967.295762897	Sum of GTIs [s]
caldbver	4.6.7	&#160	ontime0	39967.172632813	Sum of GTIs [s]
date	2015-03-29T10:42:30	Date and time of file creation	ontime1	39967.213683009	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	39970.49570334	Sum of GTIs [s]
			ontime3	39967.295762897	Sum of GTIs [s]
			ontime6	39970.61882329	Sum of GTIs [s]
			ontime7	39970.577783346	Sum of GTIs [s]
			l1events	1081851	Number of level 1 events

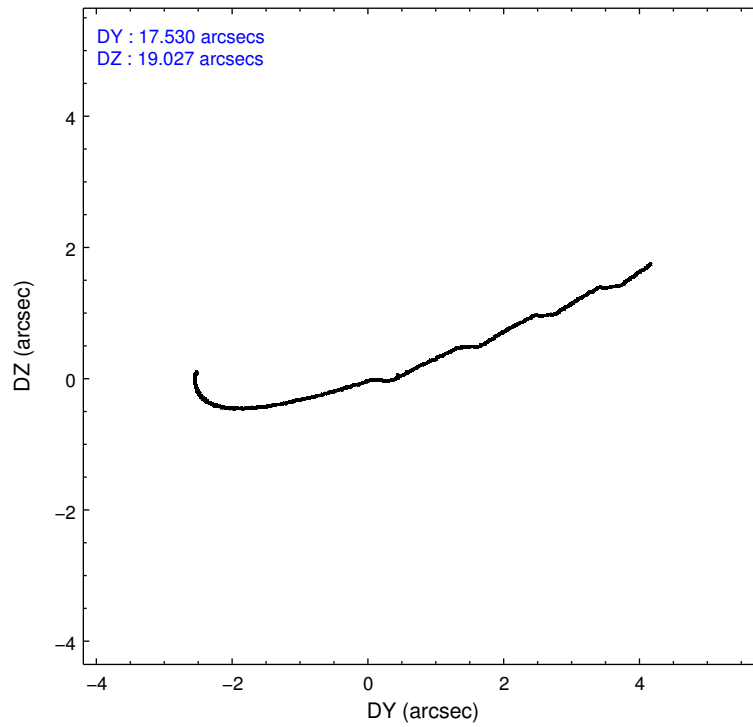
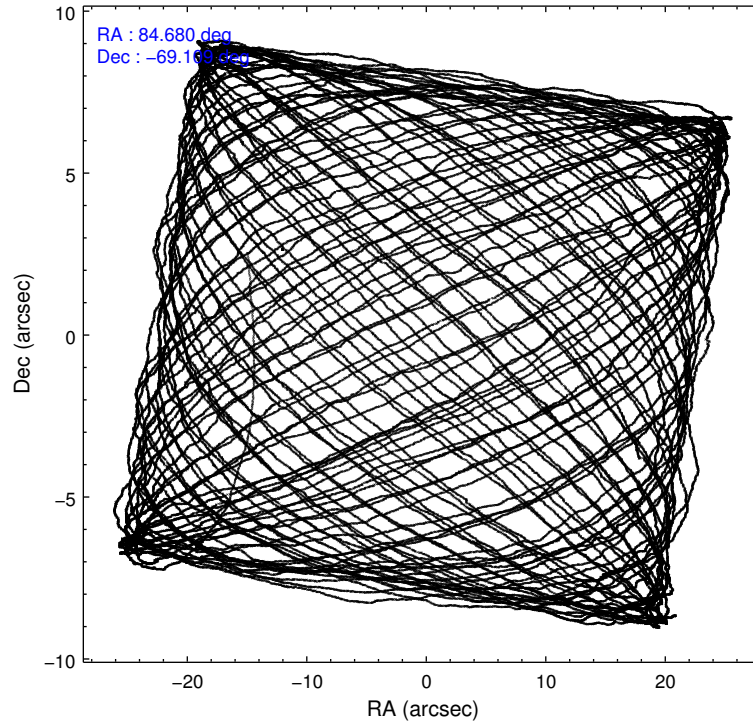
### 2.1.4 Events

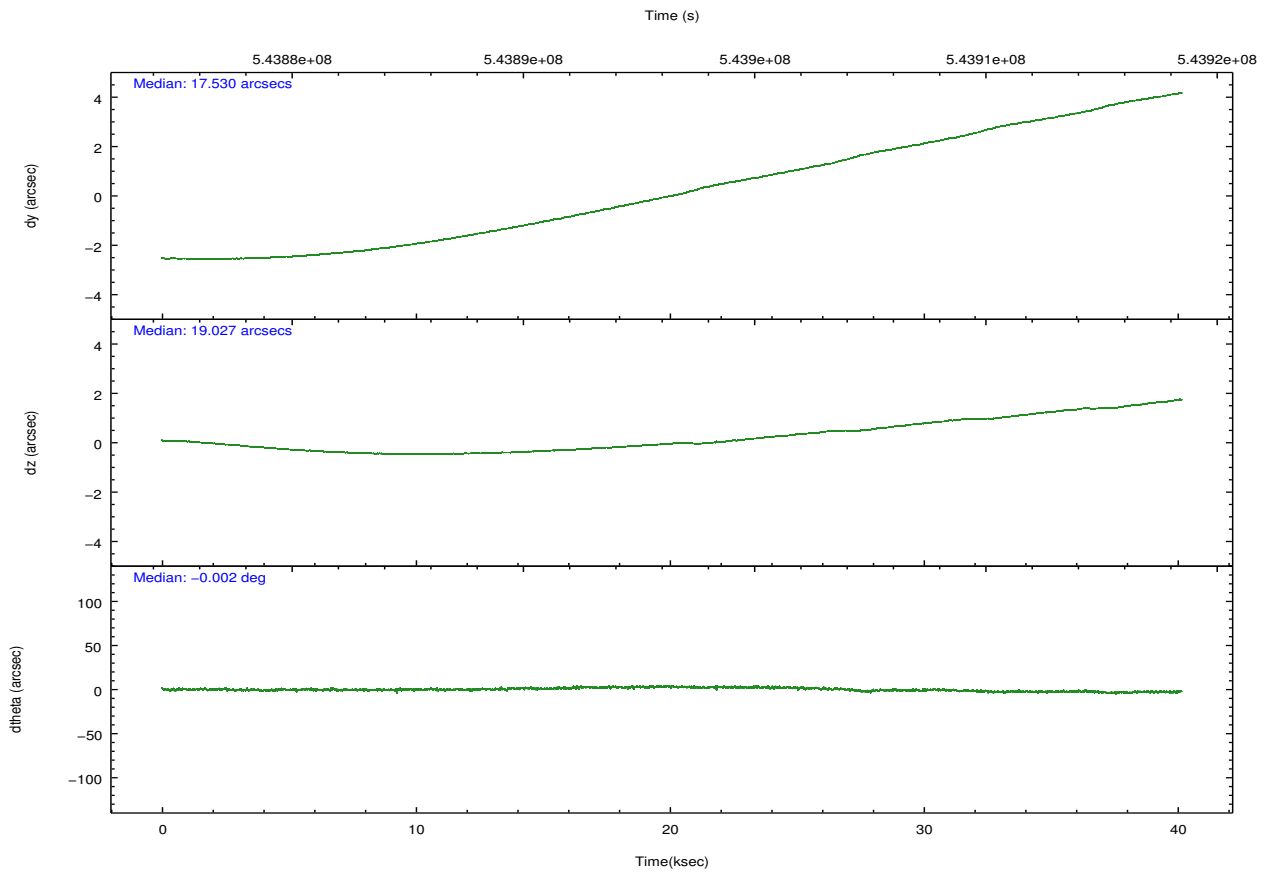
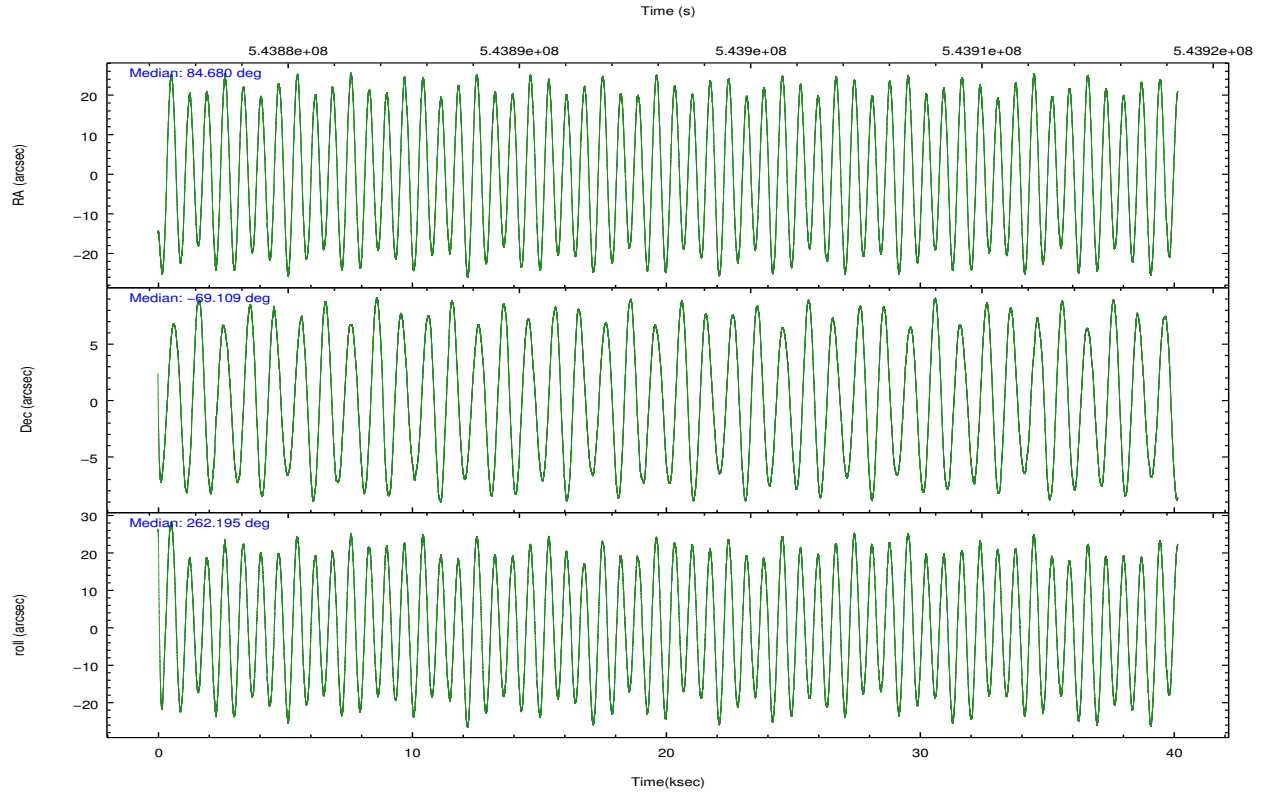
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	186533	159222	179519	177210	176678	202689	grade 0 events	33416	13823	18157	19580	9360	11214
rejected events	134554	131138	147471	143786	153623	103491		17%	8%	10%	11%	5%	5%
rejected %	72%	82%	82%	81%	86%	51%	grade 1 events	229	81	129	166	95	268
								0%	0%	0%	0%	0%	0%
							grade 2 events	8198	5513	5846	5485	4968	21880
								4%	3%	3%	3%	2%	10%
							grade 3 events	2986	2238	2223	2281	2088	8703
								1%	1%	1%	1%	1%	4%
							grade 4 events	2887	2155	2179	2247	2084	8827
								1%	1%	1%	1%	1%	4%
							grade 5 events	6663	7089	6091	7684	7685	20723
								3%	4%	3%	4%	4%	10%
							grade 6 events	4496	4358	3648	3834	4557	48579
								2%	2%	2%	2%	2%	23%
							grade 7 events	127658	123965	141246	135933	145841	82495
								68%	77%	78%	76%	82%	40%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	84.651004	84.68046459212417	CCD I2 on	Y	Y
[deg] Pointing Dec	-69.083353	-69.10888163098623	CCD I3 on	Y	Y
[deg] Pointing Roll	261.976029	262.2122487155106	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	Y
[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)	543876486.184000	543875225.41653	CCD S5 on	N	N
Observation start date	2015-03-27T20:46:59	2015-03-27T20:27:05	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	543916486.184000	543917092.56888	On-chip summing requested	N	N
Observation end date	2015-03-28T07:53:39	2015-03-28T08:04:52	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





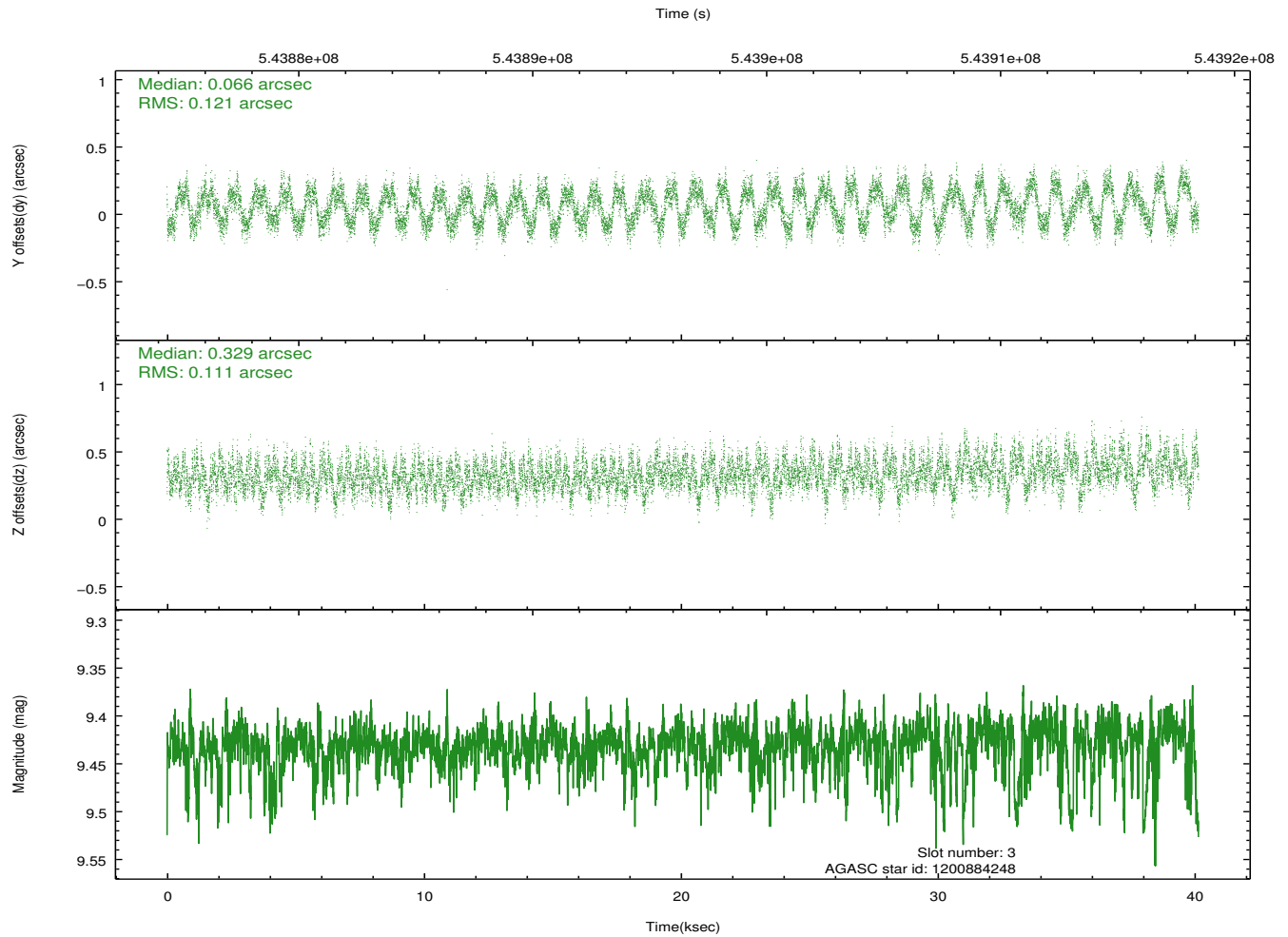
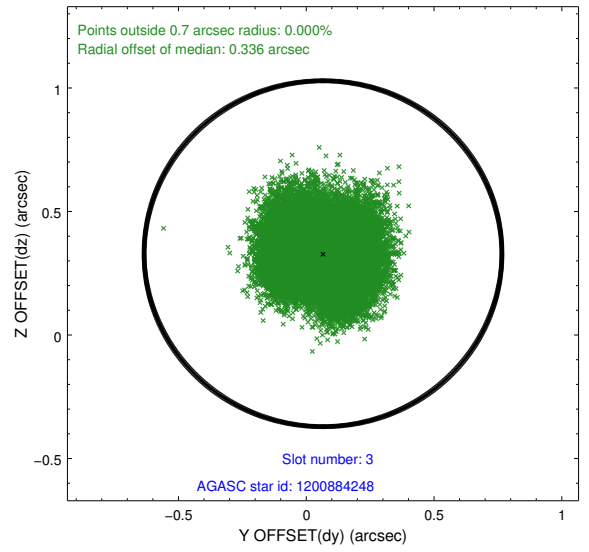
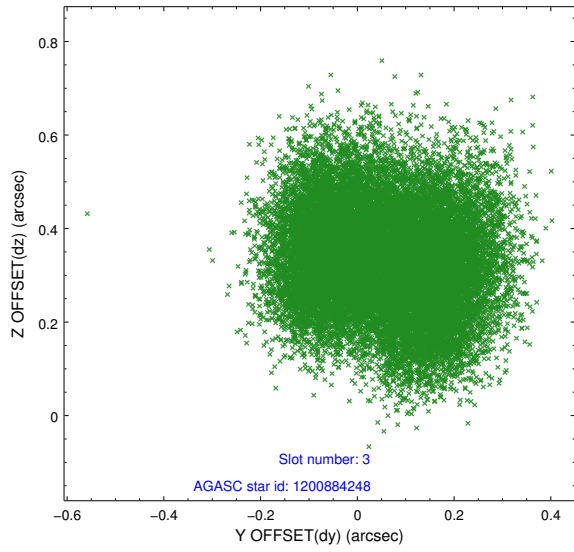
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.07	9795	-0.113	0.028	0.041	0.101	0.000000	0.000000	921.52	-842.99
1	FID		ACIS-I-4	7.01	9795	0.089	0.093	0.034	0.055	0.000000	0.000000	2141.77	1056.90
2	FID		ACIS-I-6	7.07	9794	-0.078	-0.051	0.033	0.058	0.000000	0.000000	387.47	1698.96
3	GUIDE	used	1200884248	9.43	19580	0.066	0.329	0.179	0.264	83.880915	-68.565170	-1699.19	-1262.11
4	GUIDE	used	1200885760	9.45	19573	0.090	0.303	0.132	0.216	83.723637	-68.777667	-911.14	-1348.43
5	GUIDE	used	1201018384	9.04	19583	0.117	-0.021	0.115	0.190	85.801362	-68.593260	-1944.33	1252.77
6	GUIDE	used	1201020040	8.58	19586	0.010	-0.116	0.102	0.162	85.379163	-68.879396	-853.44	833.71
7	GUIDE	used	1201018312	9.59	19561	-0.273	-0.496	0.138	0.228	86.298231	-69.115627	-152.59	2113.11

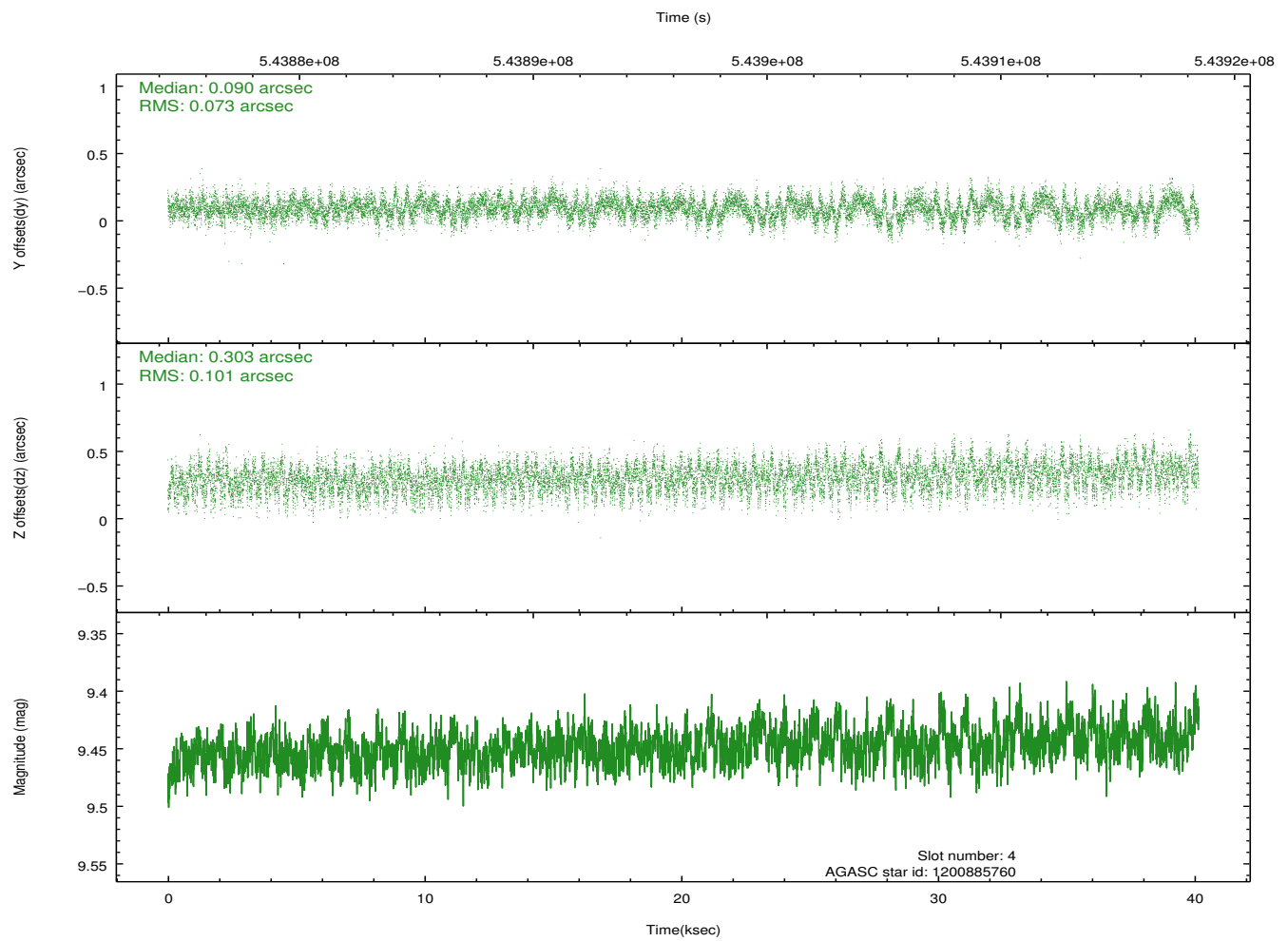
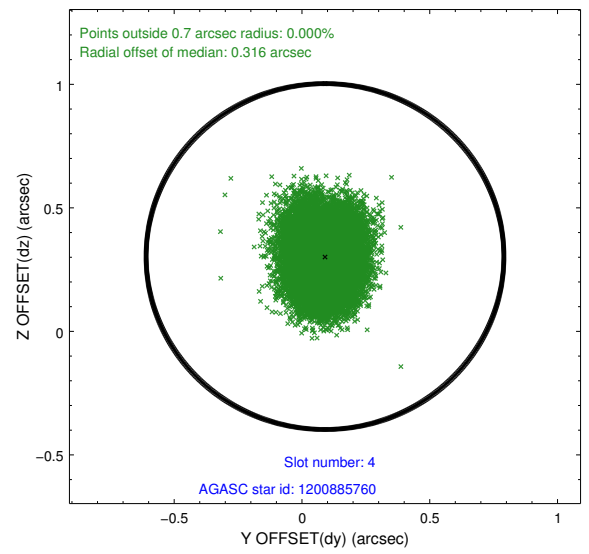
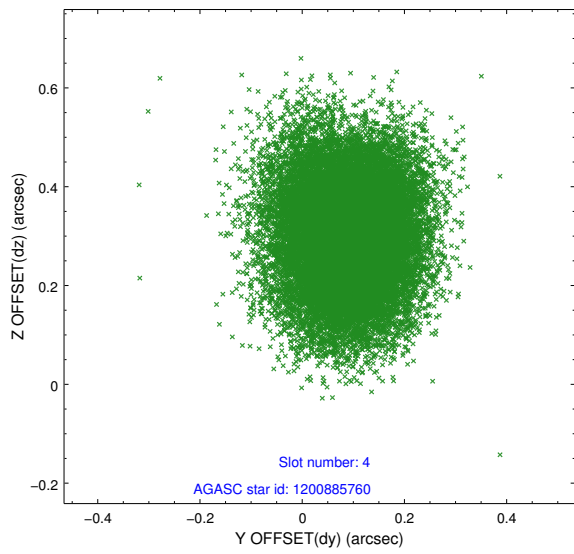
∞

## 2.4 Star Slots

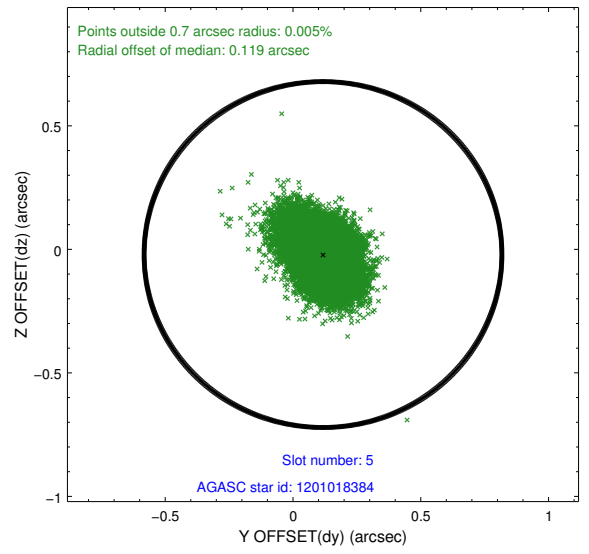
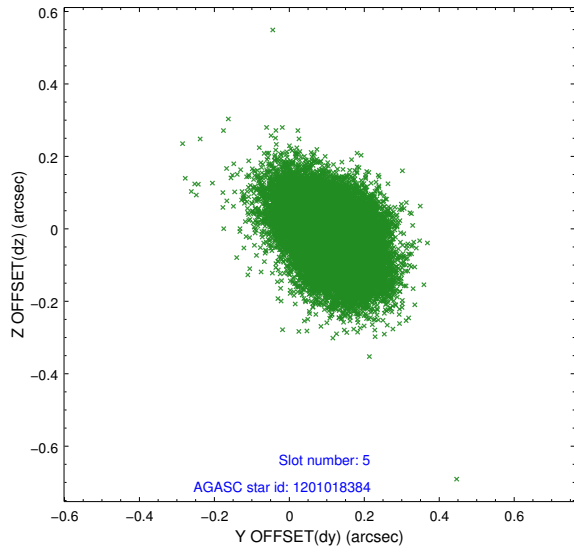
### 2.4.1 Slot 3



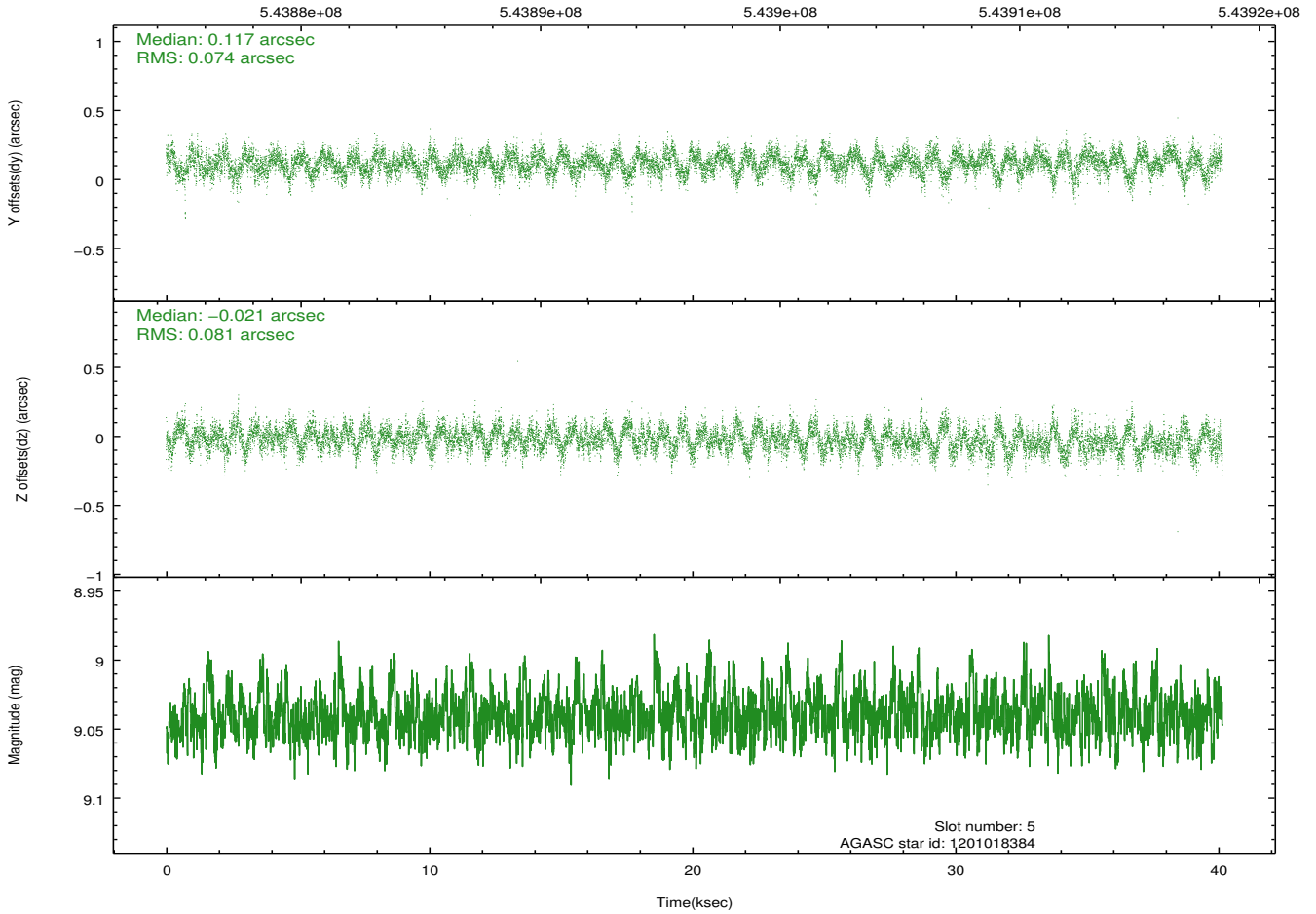
## 2.4.2 Slot 4



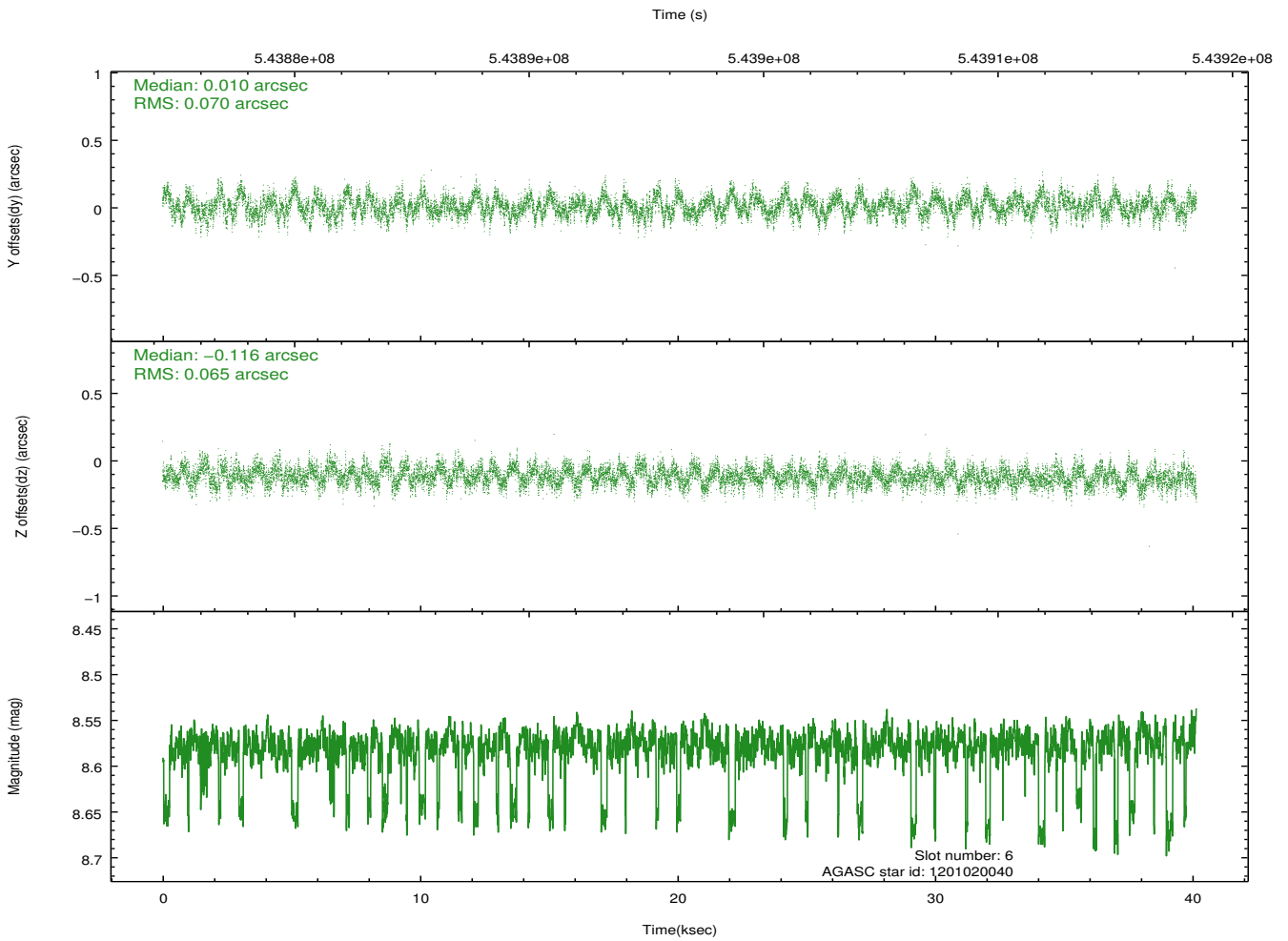
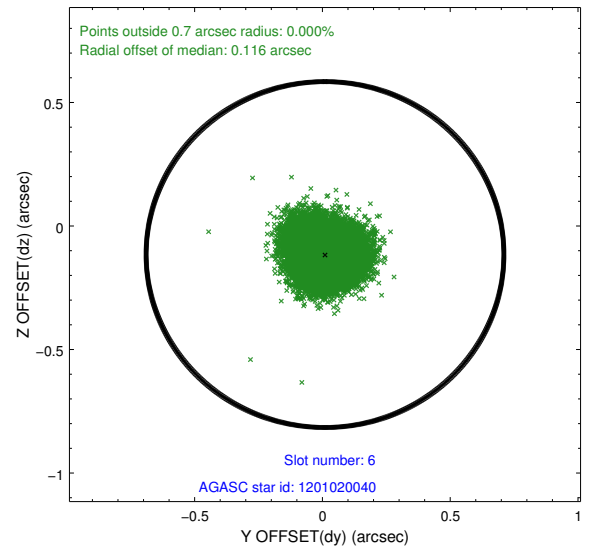
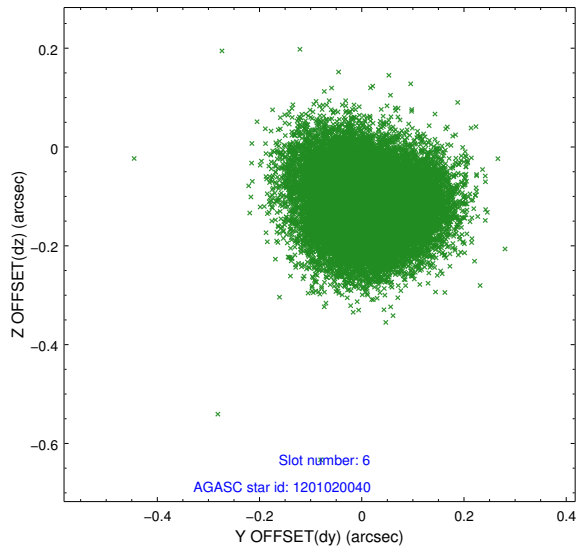
### 2.4.3 Slot 5



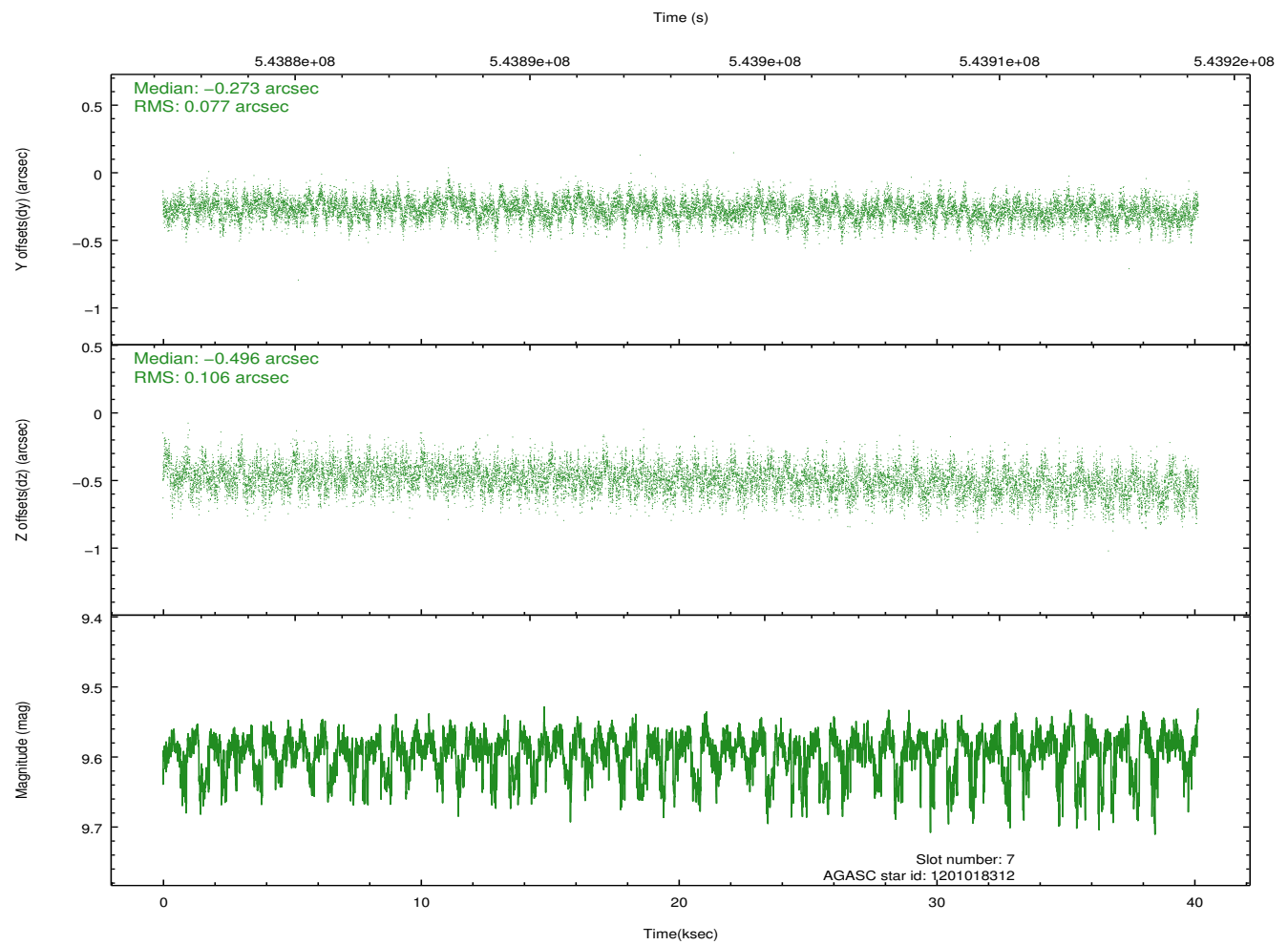
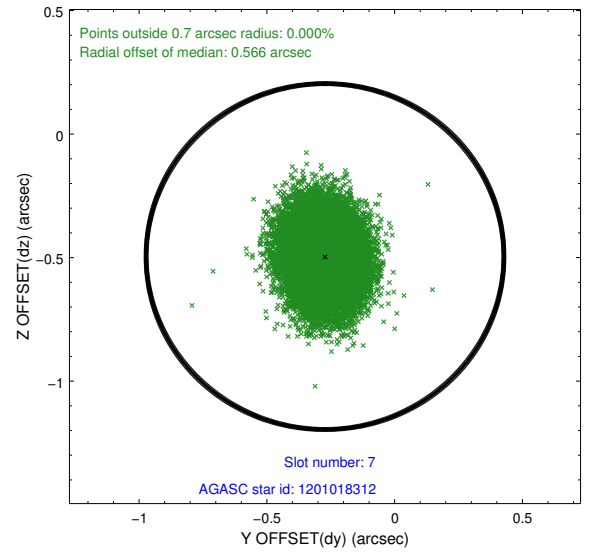
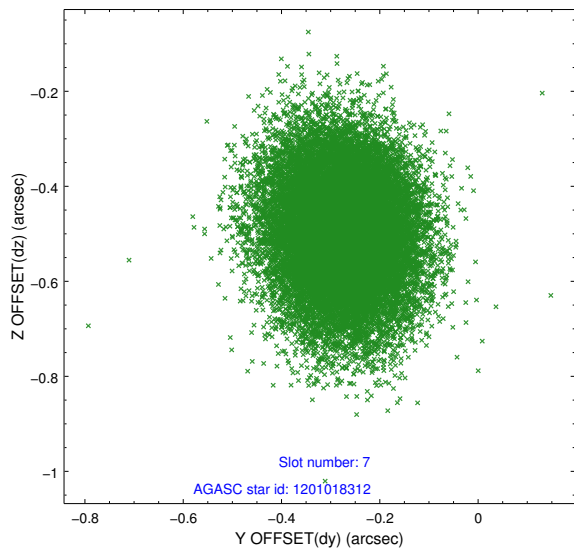
Time (s)



## 2.4.4 Slot 6

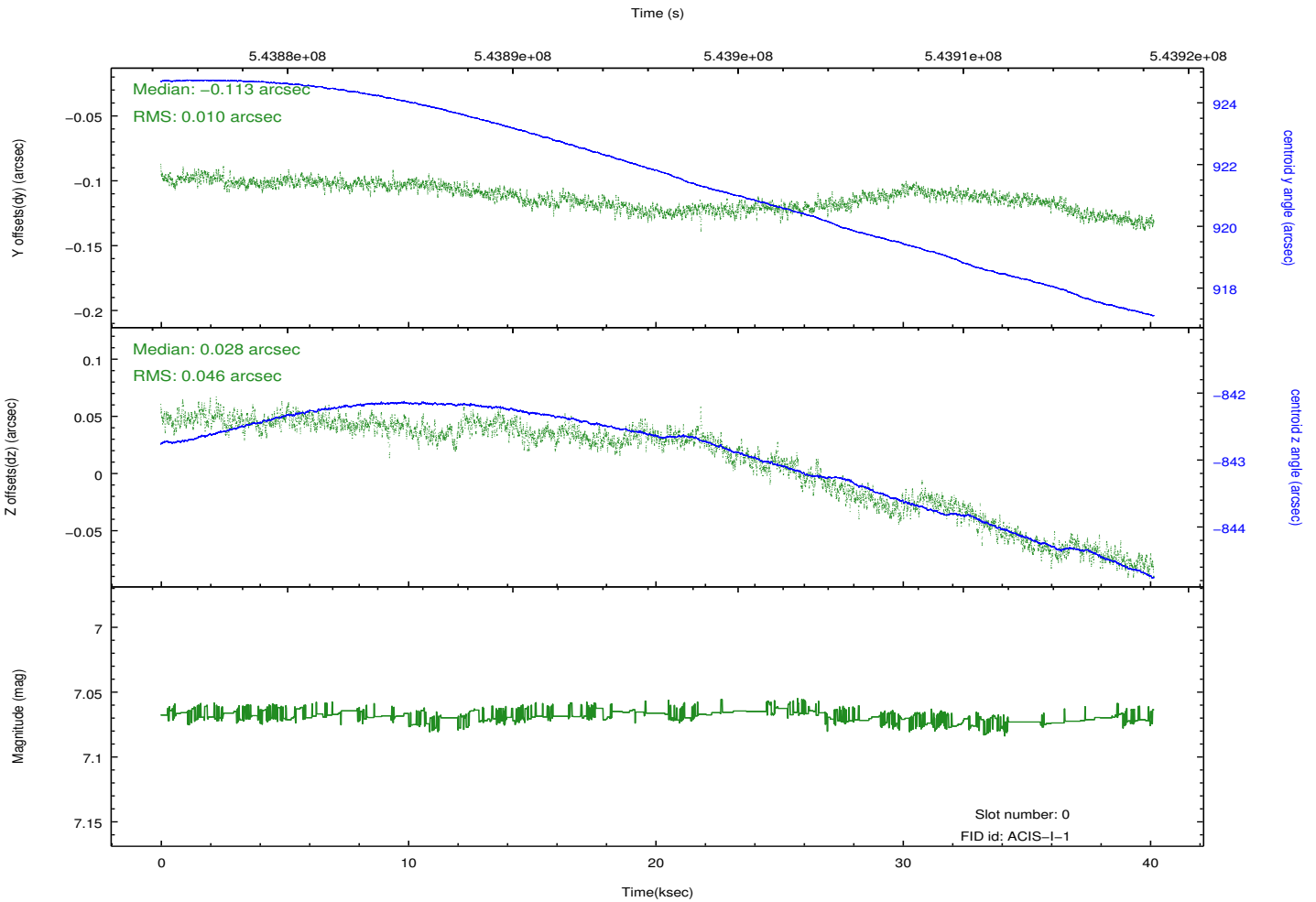
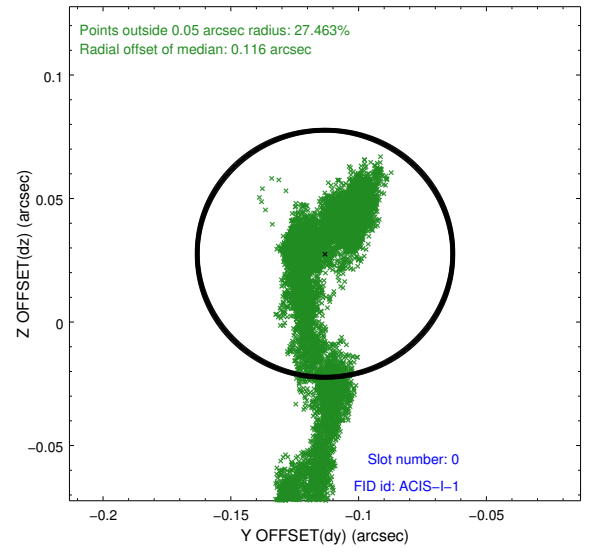
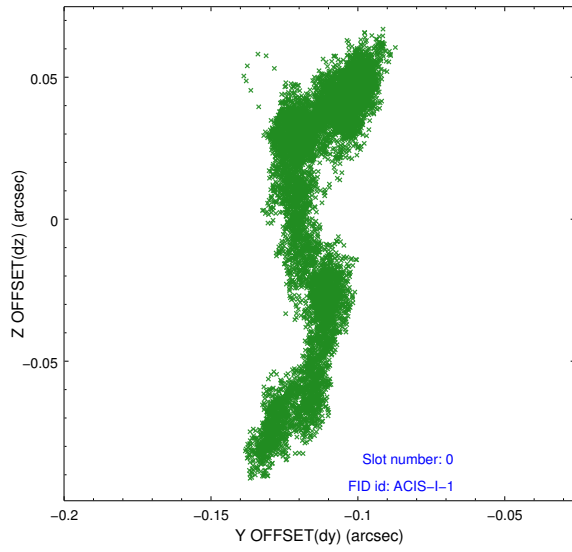


## 2.4.5 Slot 7

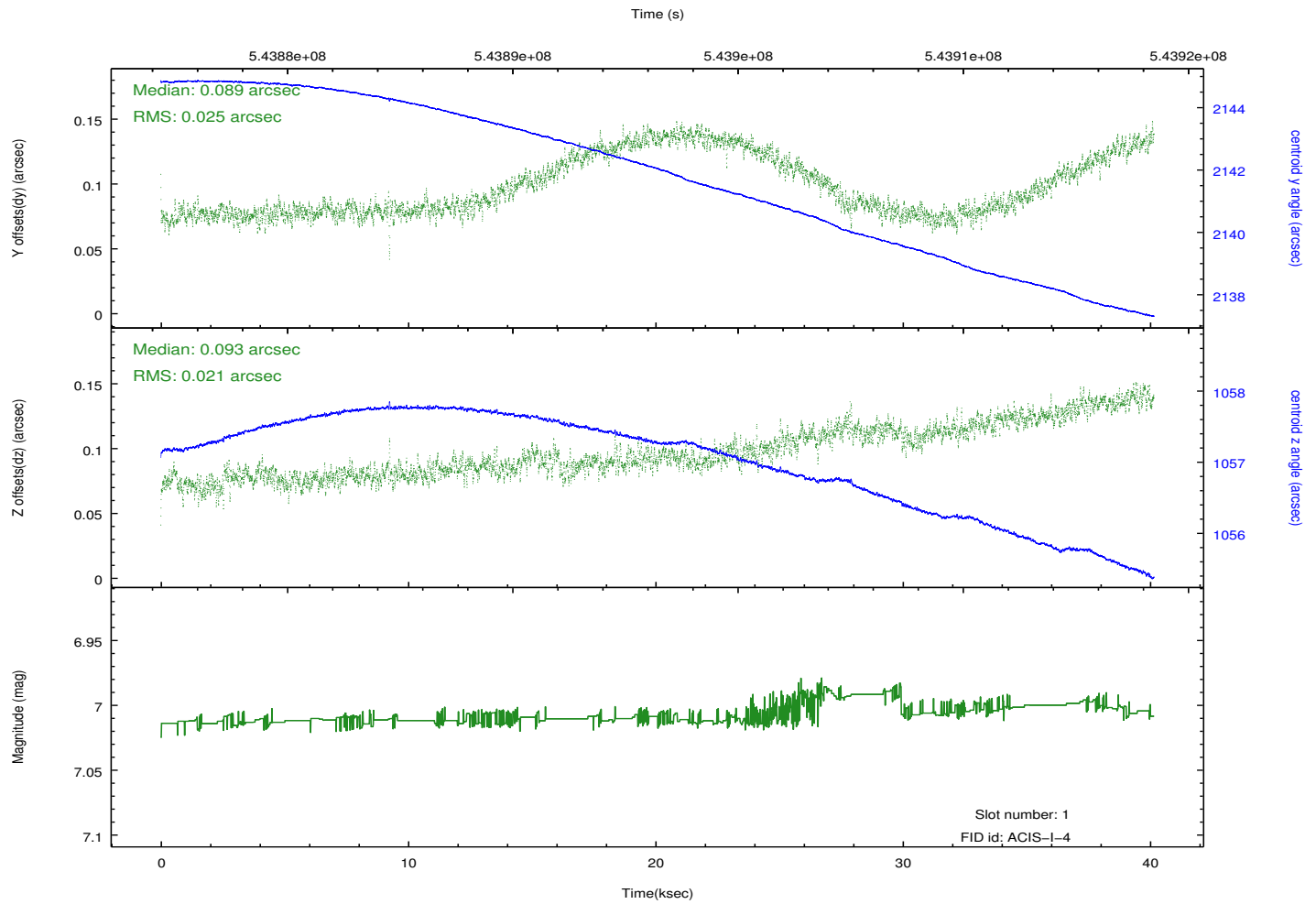
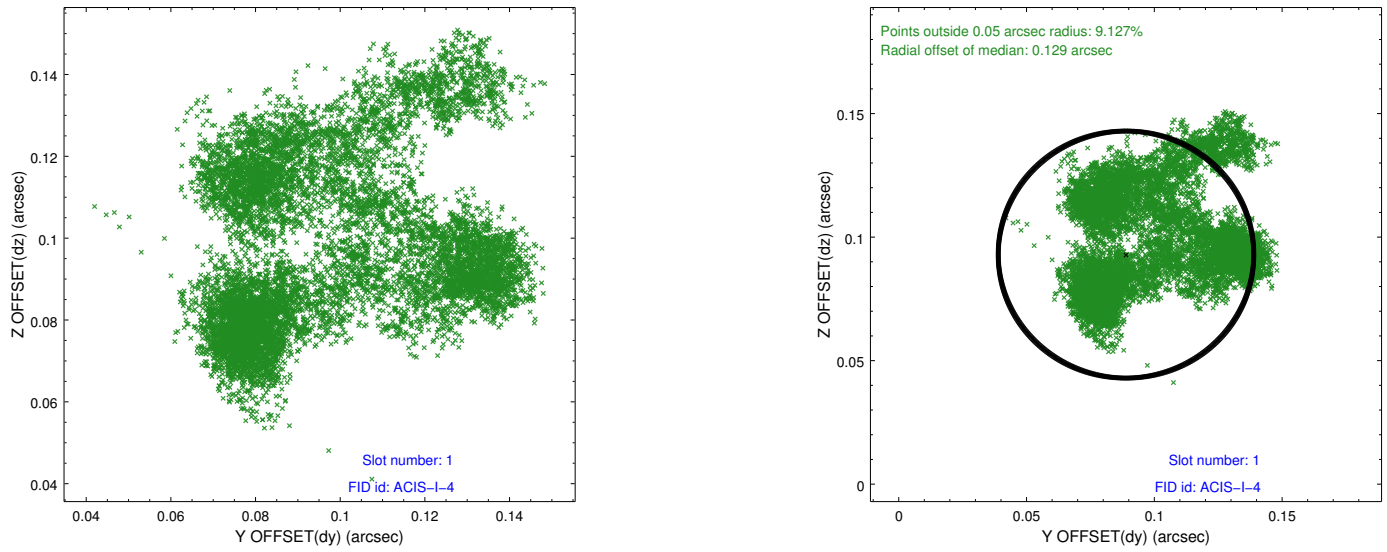


## 2.5 FID Slots

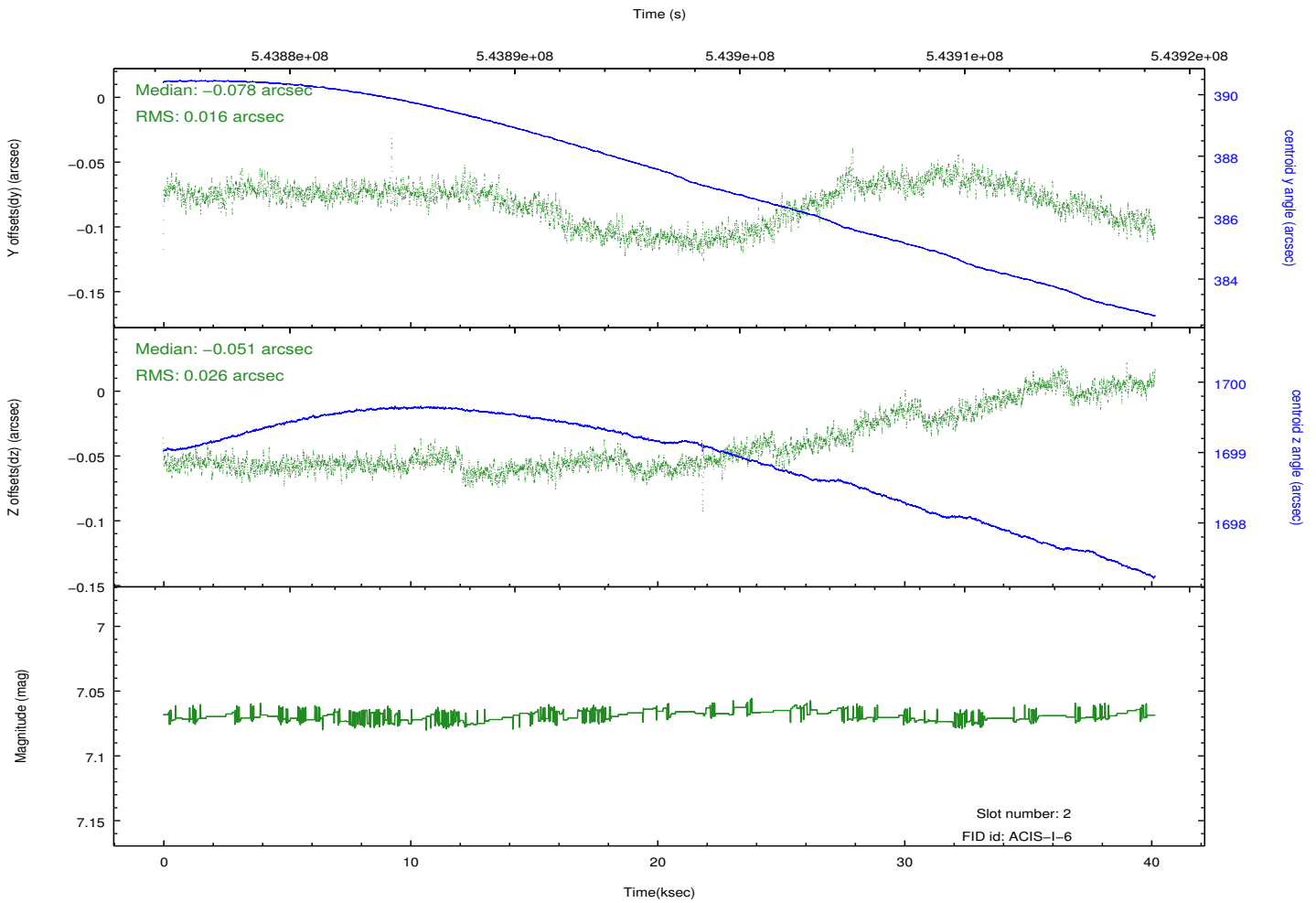
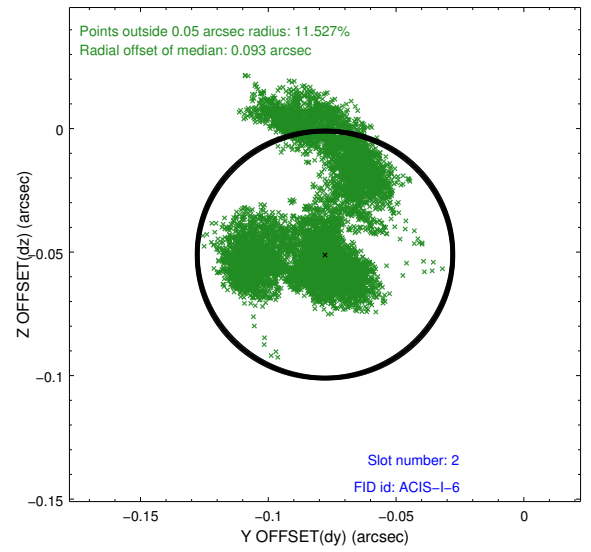
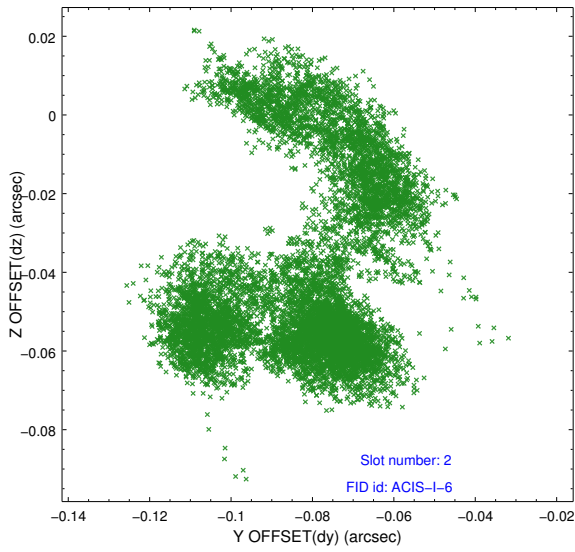
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.03.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.967295762897

### A.2 Comments