

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21355 - L2 Version 1  
Chandra X-Ray Center

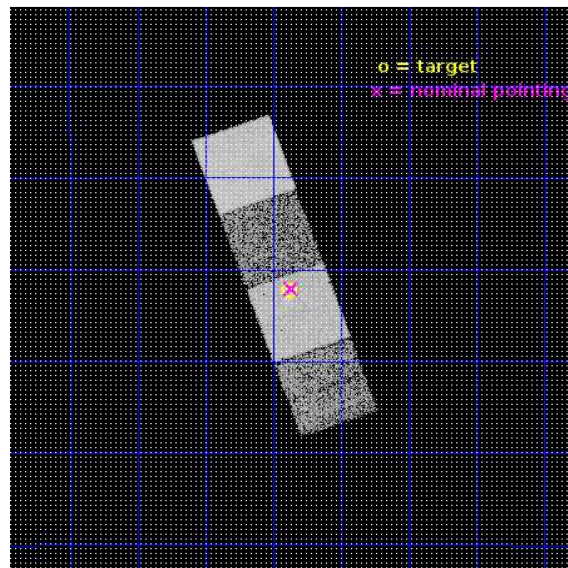
L2 Processing Date : Dec 14 2018

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# 1 Front

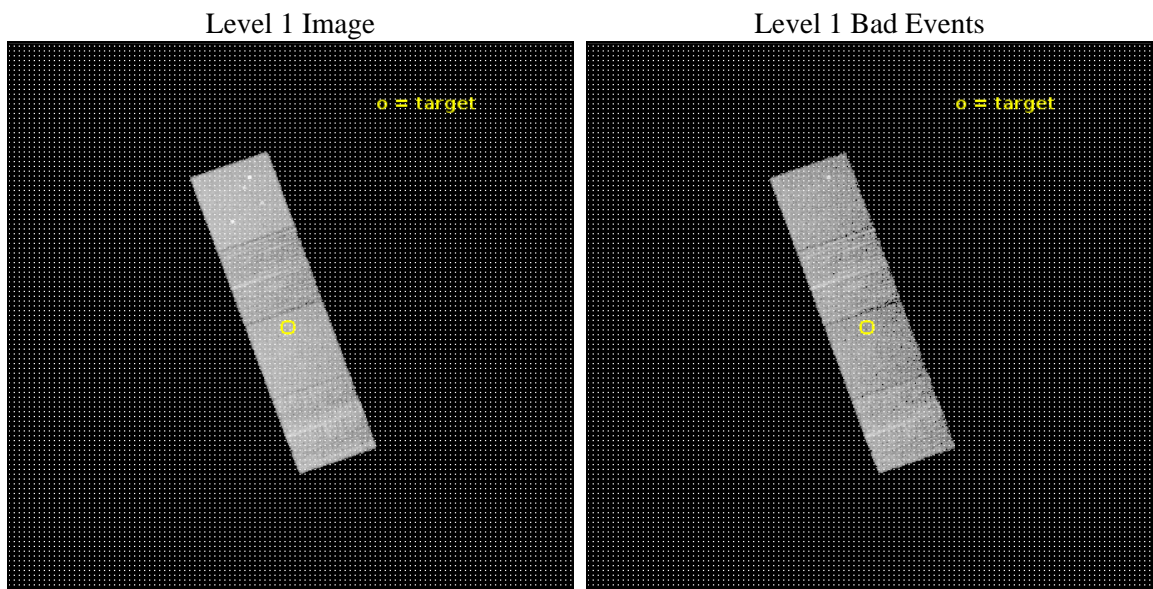
seq_num	503127	Sequence number
obs_id	21355	Observation id
title	Chandra Observations of H-alpha emitting Type I Supernovae	Proposa
observer	David Pooley	Principal investigator
object	SN 2013dk	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	180.469583	Observer's specified target RA [deg]
dec_targ	-18.87175	Observer's specified target Dec [deg]
ra_nom	180.46666957145	Nominal RA [deg]
dec_nom	-18.868138051026	Nominal Dec [deg]
roll_nom	70.398726297563	Nominal Roll [deg]
revision	1	Processing version of data
ontime	7562.6480773687	Sum of GTIs [s]
livetime	7463.8365126974	Livetime [s]
ontime5	7562.607037425	Sum of GTIs [s]
ontime6	7559.4250169992	Sum of GTIs [s]
ontime7	7562.6480773687	Sum of GTIs [s]
ontime8	7559.3839572668	Sum of GTIs [s]
l2events	85915	Number of level 2 events



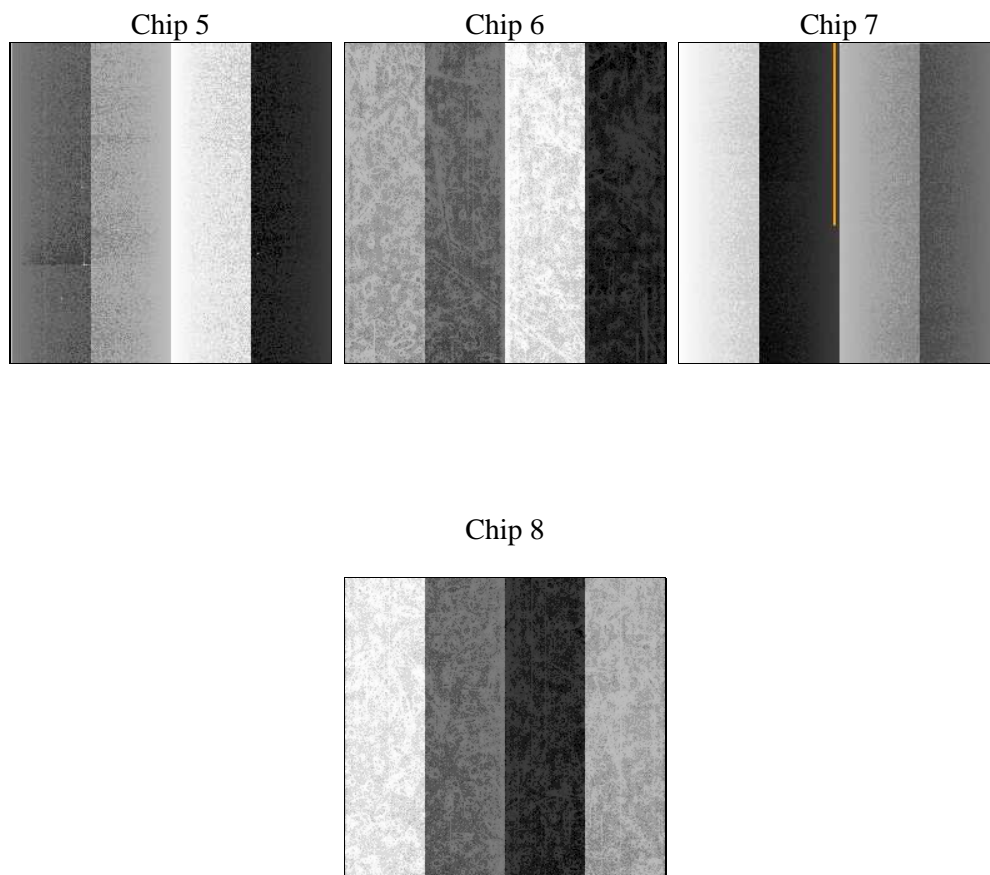
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7500.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	7562.6480773687	Sum of GTIs [s]
caldsver	4.8.2	&#160	ontime5	7562.607037425	Sum of GTIs [s]
date	2018-12-15T00:43:42	Date and time of file creation	ontime6	7559.4250169992	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	7562.6480773687	Sum of GTIs [s]
			ontime8	7559.3839572668	Sum of GTIs [s]
			l1events	296822	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	92160	56994	72902	74766
rejected events	46432	50495	40309	54002
rejected %	50%	88%	55%	72%

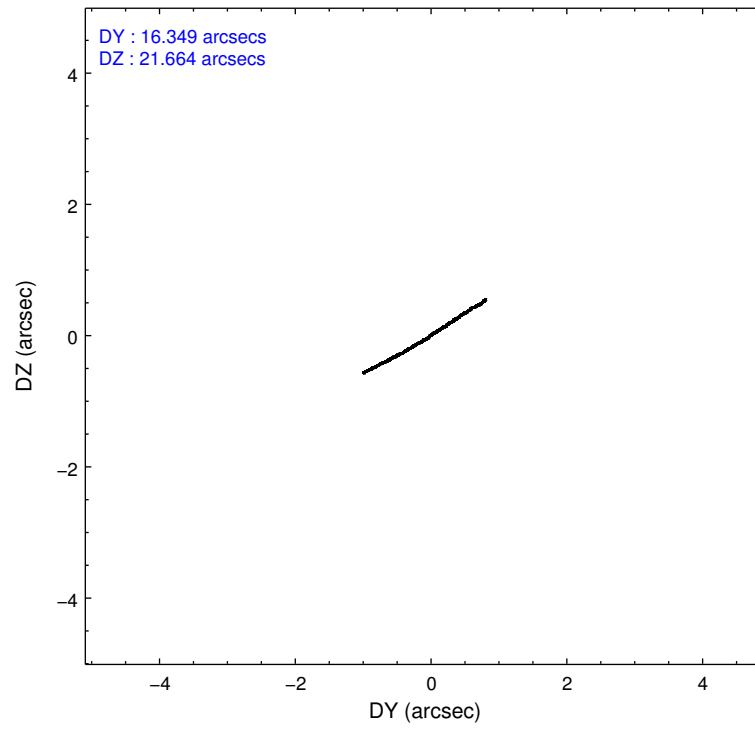
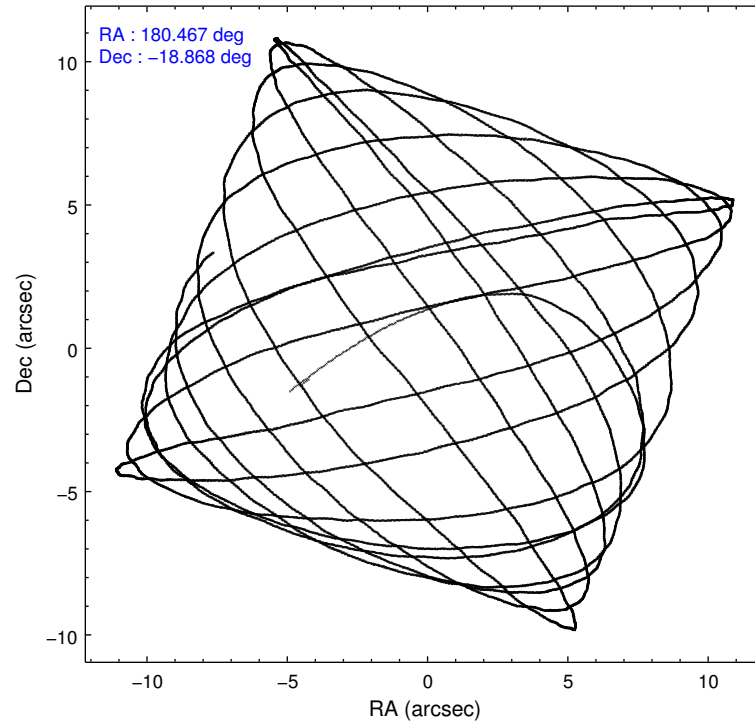
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	4749	2230	3081	6213
	5%	3%	4%	8%
grade 1 events	227	29	104	64
	0%	0%	0%	0%
grade 2 events	14292	1548	6976	4933
	15%	2%	9%	6%
grade 3 events	1477	636	2616	2149
	1%	1%	3%	2%
grade 4 events	1442	602	2584	1984
	1%	1%	3%	2%
grade 5 events	6448	2640	7139	4010
	6%	4%	9%	5%
grade 6 events	23787	1486	17344	5491
	25%	2%	23%	7%
grade 7 events	39738	47823	33058	49922
	43%	83%	45%	66%

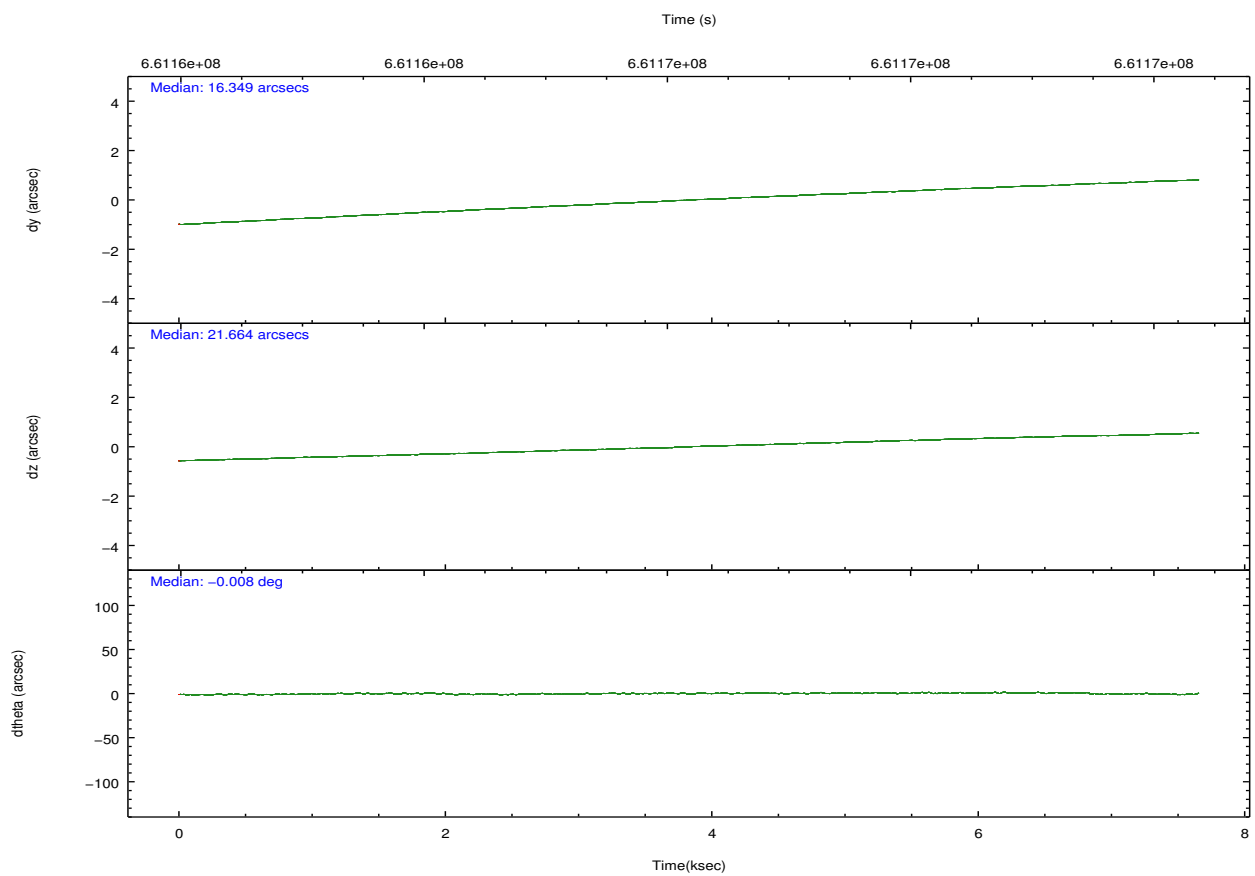
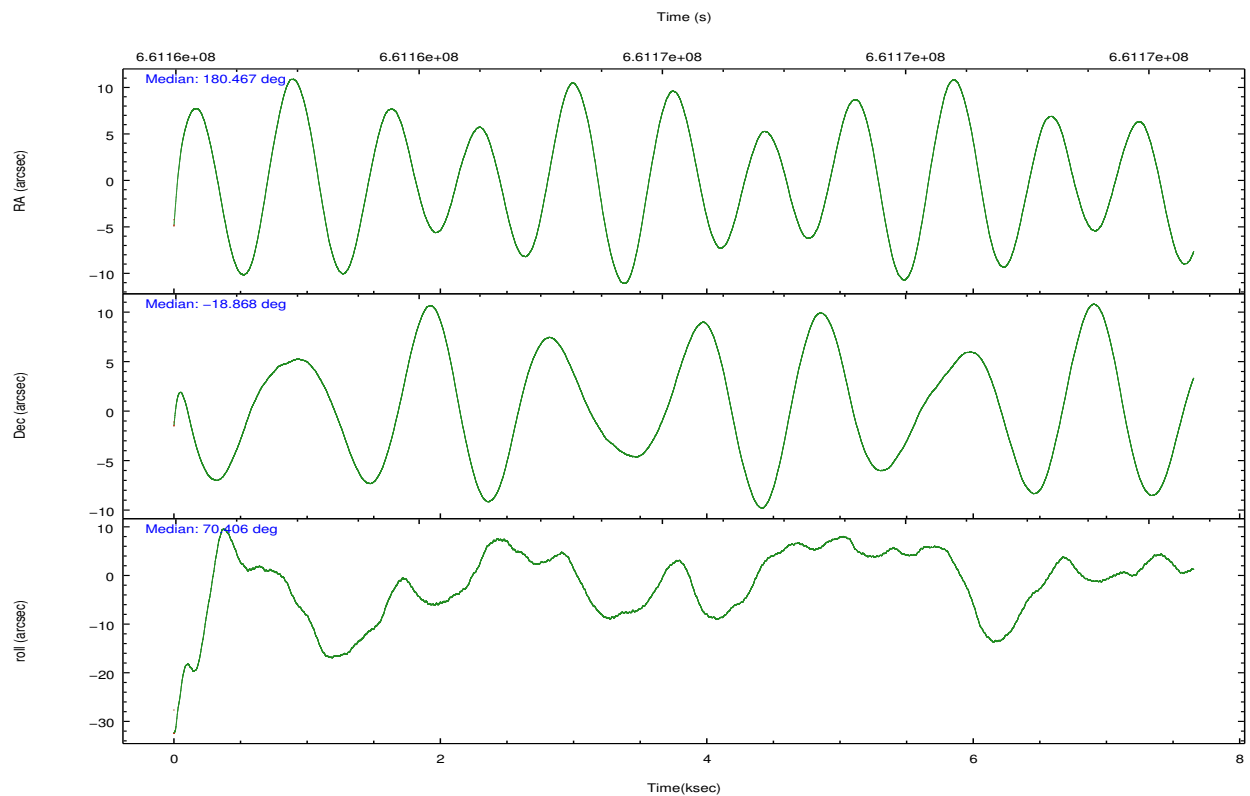
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-5678	ACIS-5678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	180.472296	180.4666695714474
[deg] Pointing Dec	-18.894972	-18.86813805102647
[deg] Pointing Roll	70.243951	70.39872629756255
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	661162494.184000	661161216.2460901
Observation start date	2018-12-14T08:13:45	2018-12-14T07:53:36
[s] Observation end time (MET)	661169994.184000	661170963.48417
Observation end date	2018-12-14T10:18:45	2018-12-14T10:36:03
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	N	N
CCD I3 on	N	N
CCD S0 on	N	N
CCD S1 on	O1	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	O2	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



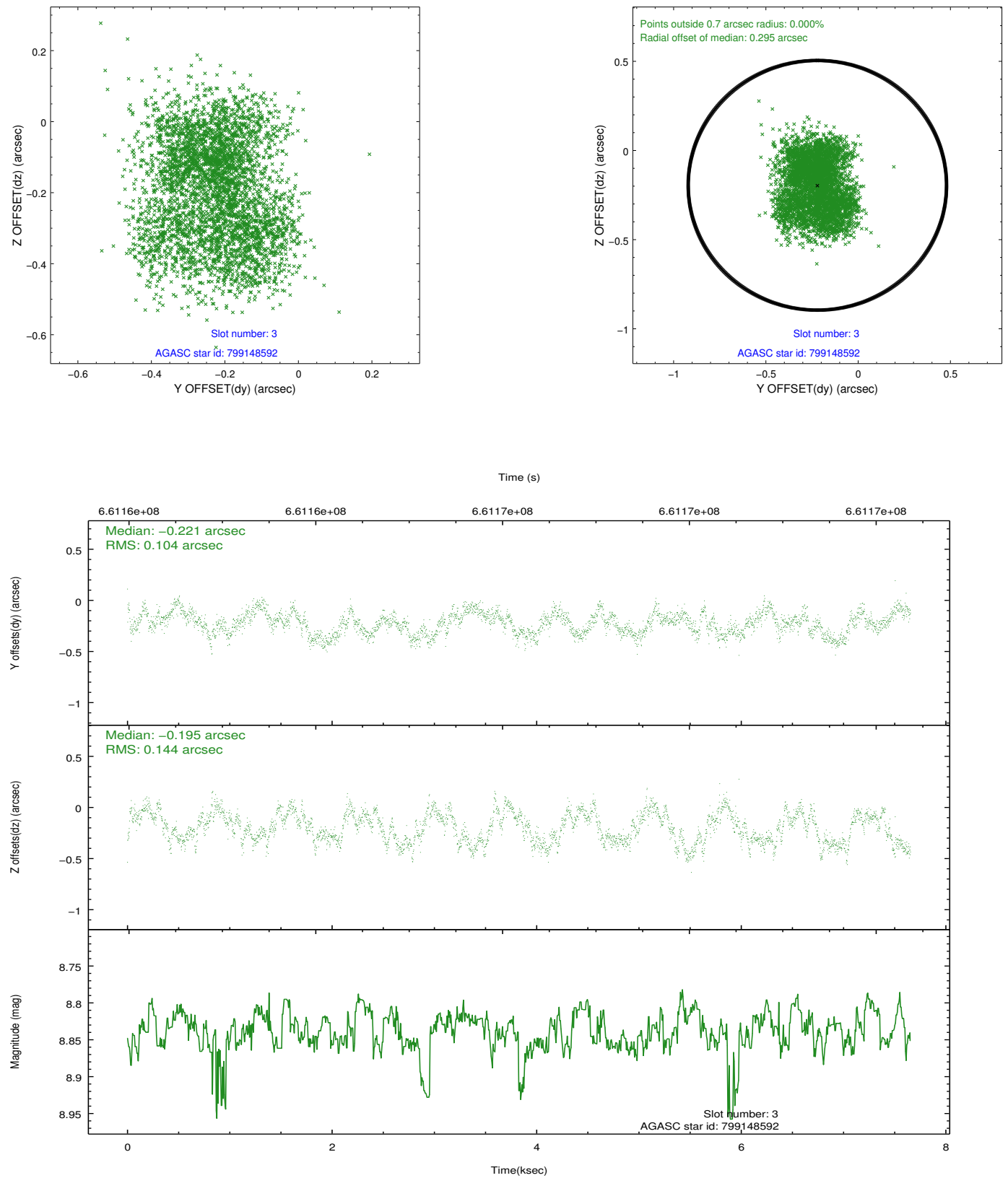


### Slot Statistics

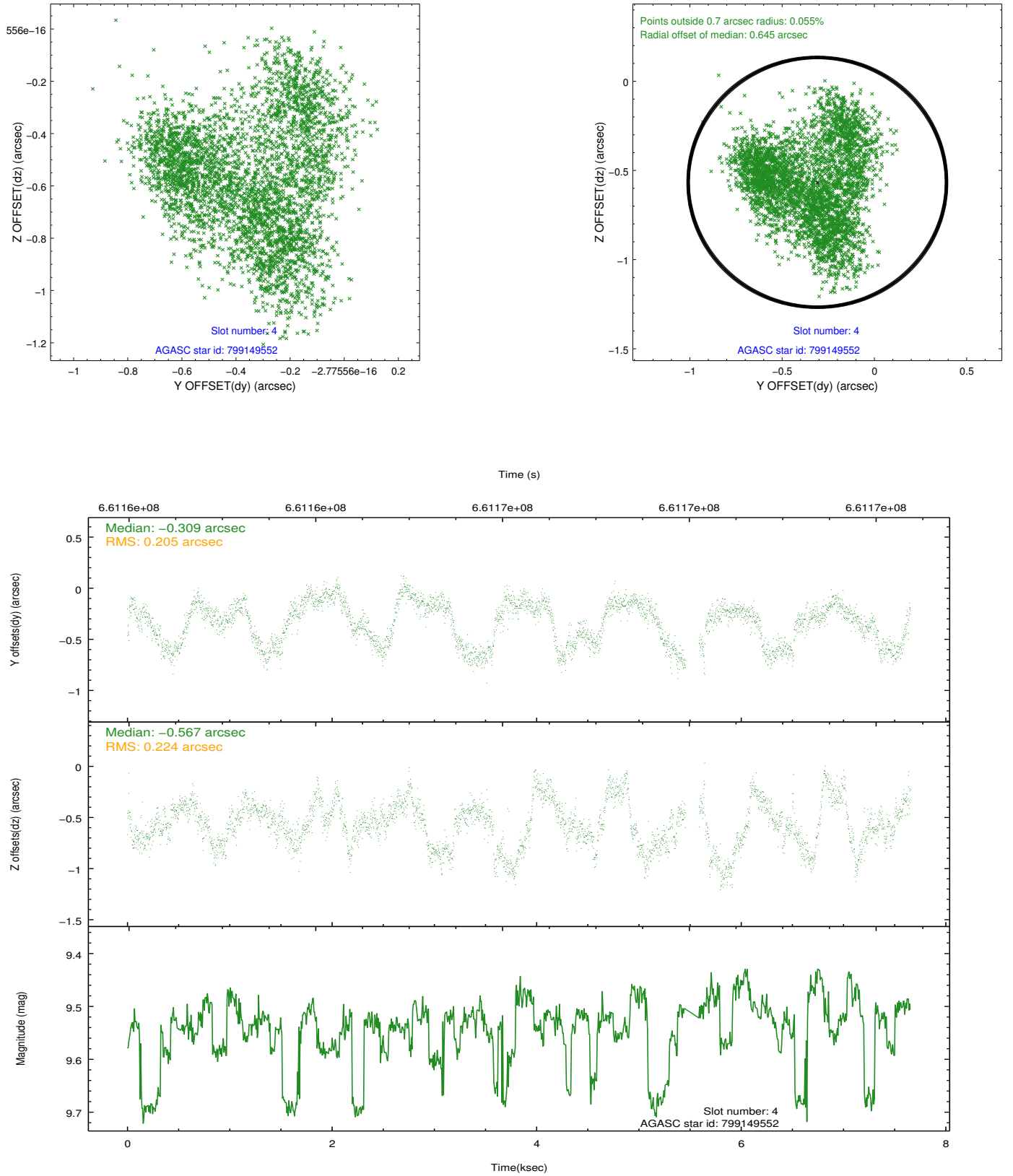
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.10	1868	1.000	0.026	-0.126	0.022	0.033	0.000000	0.000000	926.84	-1738
1	FID		ACIS-S-4	7.12	1868	1.000	0.572	0.081	0.018	0.029	0.000000	0.000000	2145.09	164
2	FID		ACIS-S-5	7.10	1868	1.000	-0.625	0.059	0.015	0.025	0.000000	0.000000	-1821.85	158
3	GUIDE	used	799148592	8.84	3733	1.000	-0.221	-0.195	0.197	0.286	180.422651	-18.791183	295.64	286
4	GUIDE	used	799149552	9.54	3662	1.000	-0.309	-0.567	0.336	0.476	179.918855	-18.889841	-621.61	1779
5	GUIDE	used	799152736	9.05	3732	1.000	-0.436	-0.365	0.143	0.236	180.259335	-18.516494	1036.71	1144
6	GUIDE	used	799158408	8.32	3734	1.000	0.245	0.375	0.112	0.184	180.413548	-19.338934	-1570.36	-351
7	GUIDE	used	799156912	9.42	3726	1.000	0.739	0.770	0.307	0.485	180.669836	-19.643386	-2309.18	-1540

## 2.4 Star Slots

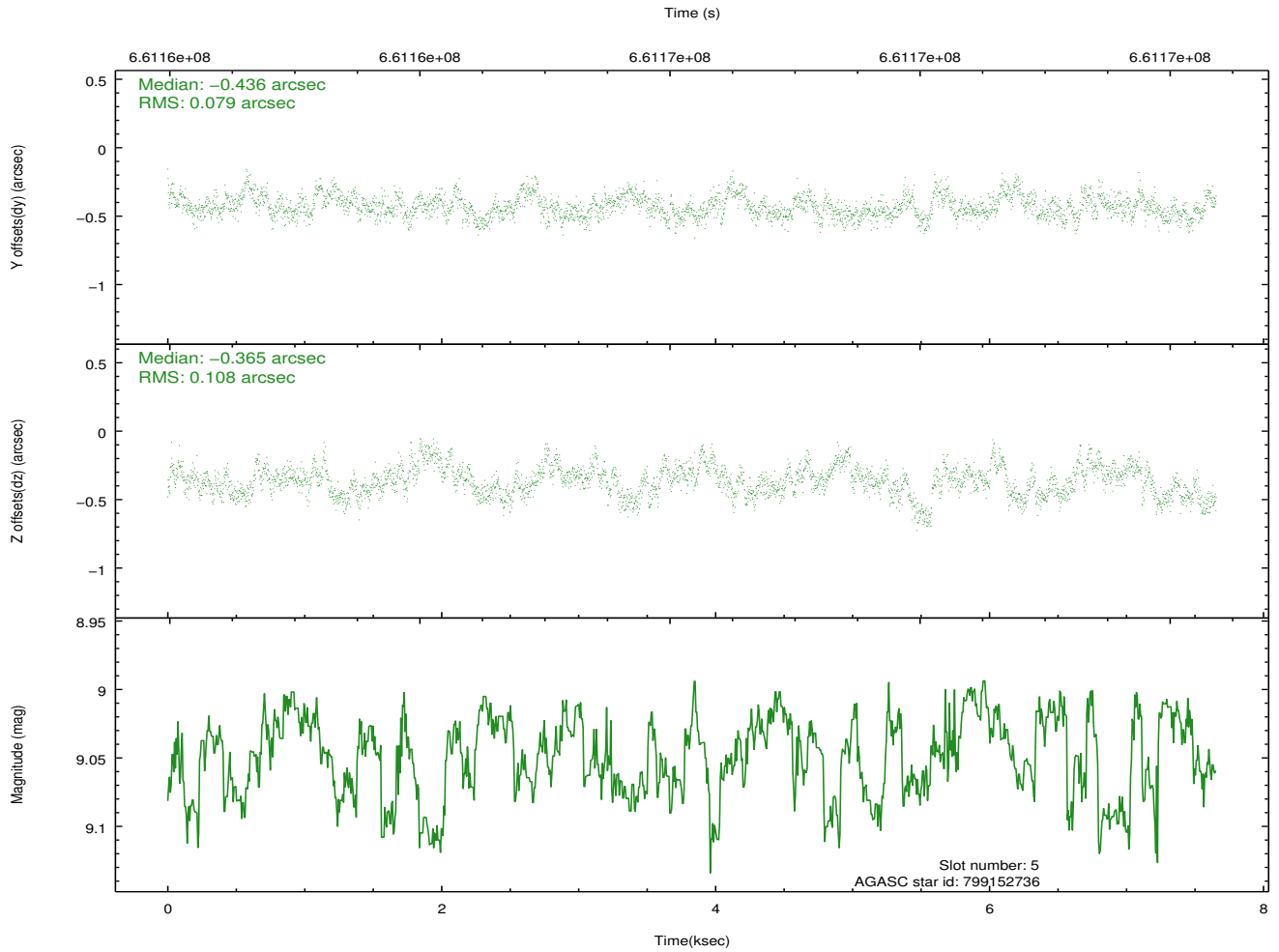
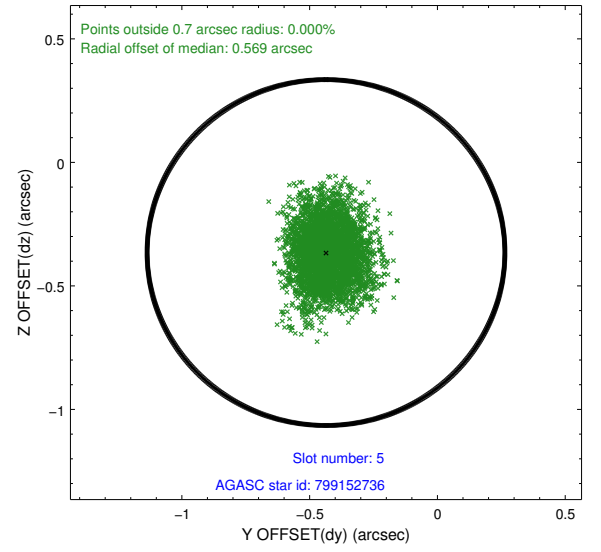
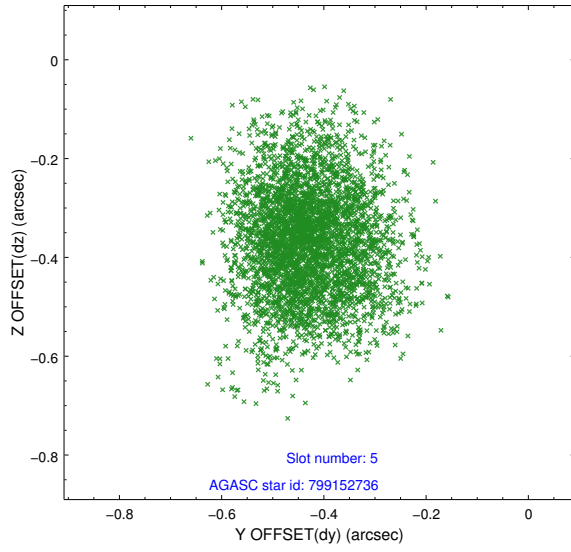
### 2.4.1 Slot 3



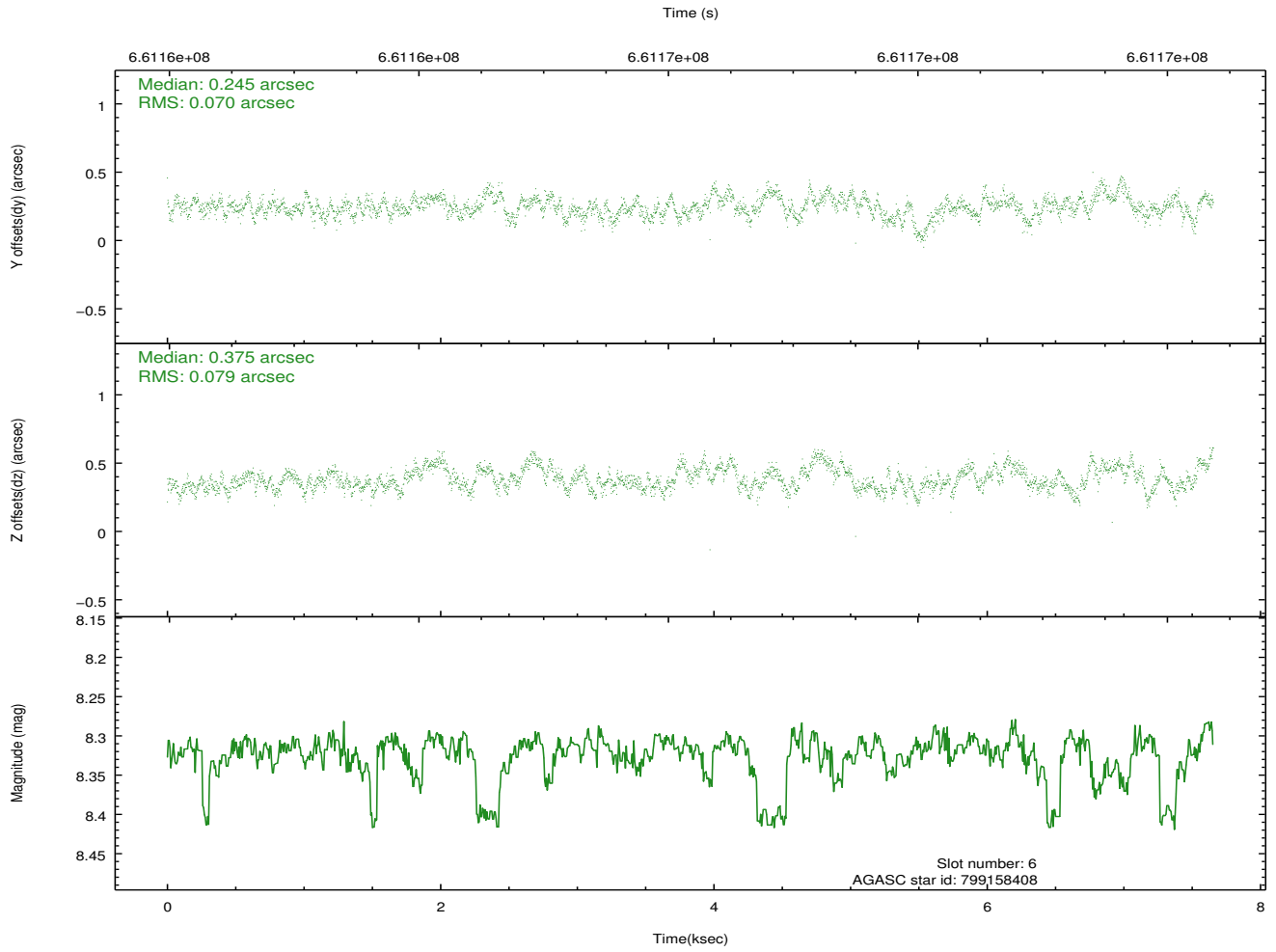
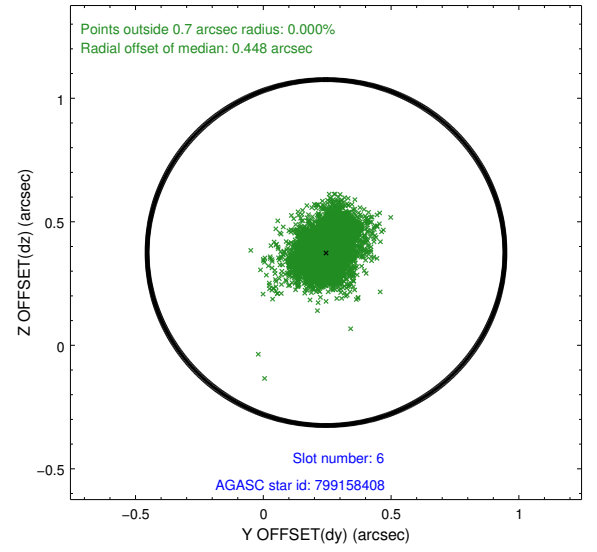
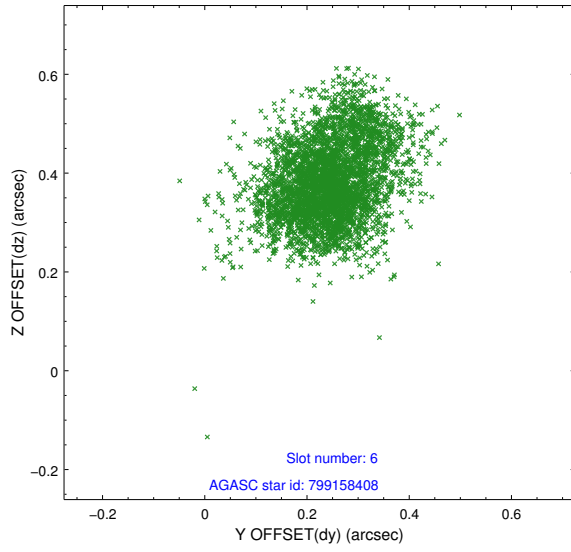
## 2.4.2 Slot 4



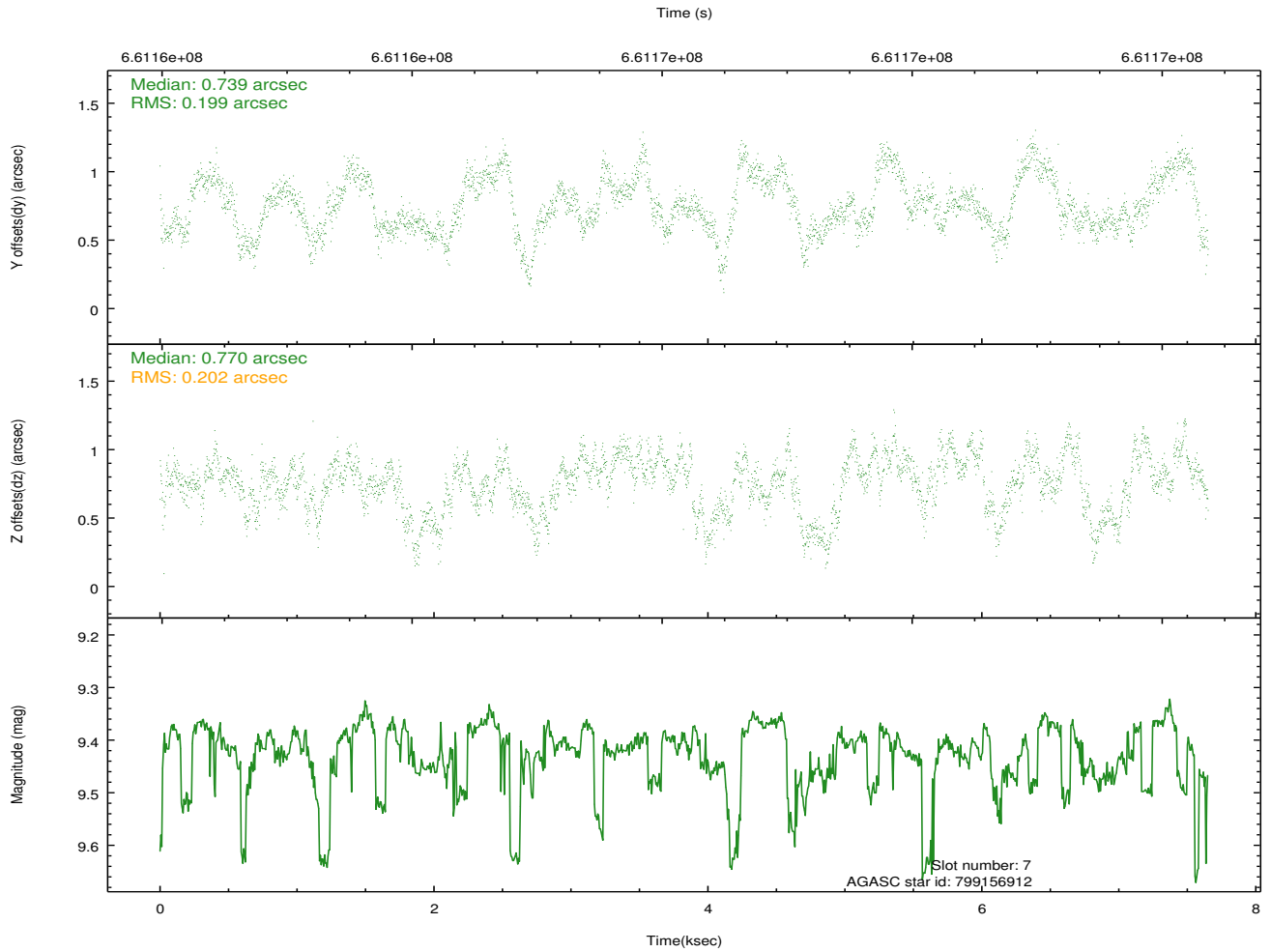
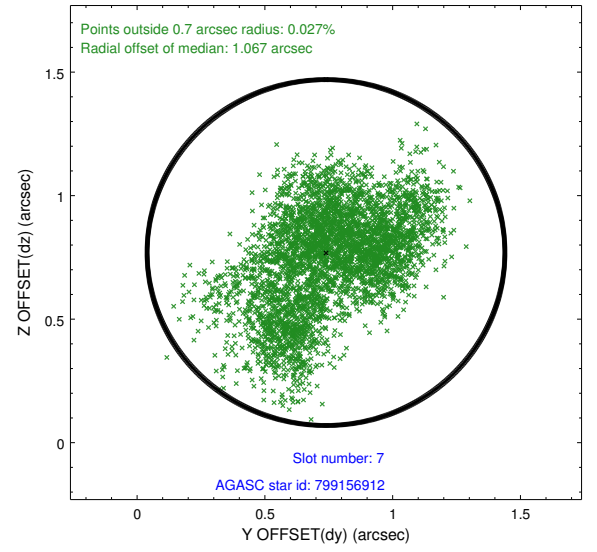
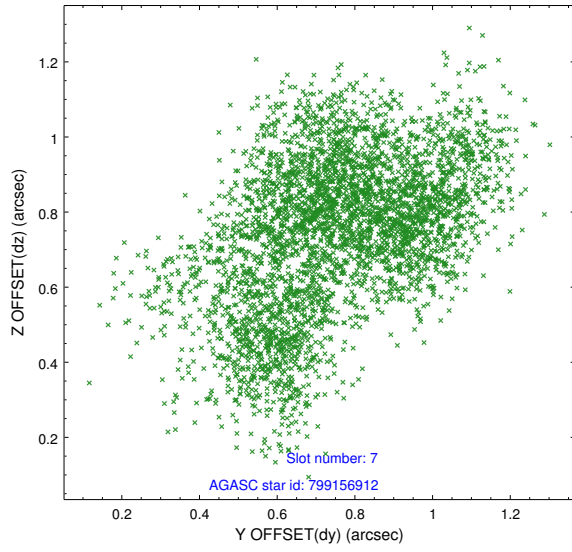
### 2.4.3 Slot 5



## 2.4.4 Slot 6

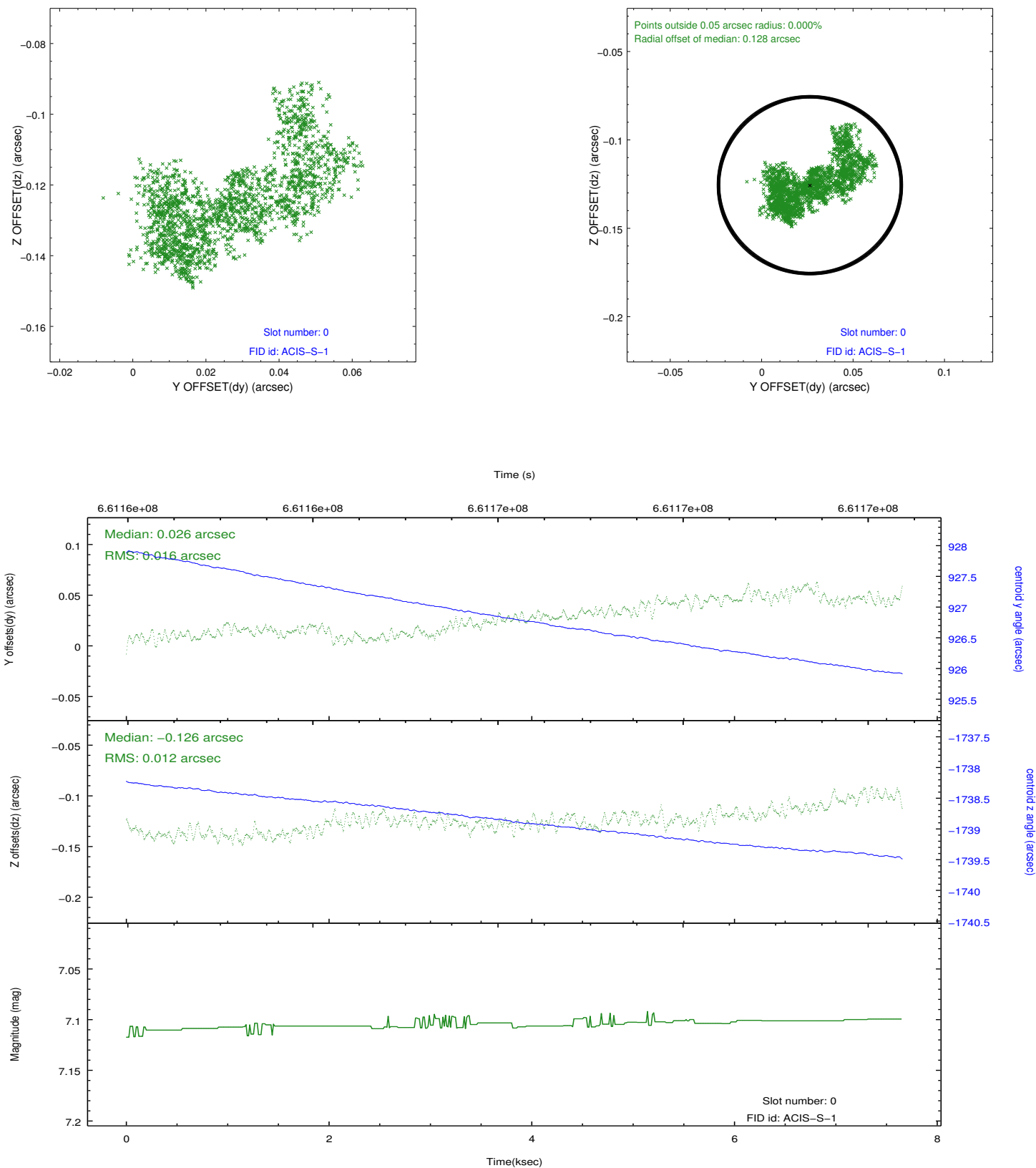


## 2.4.5 Slot 7

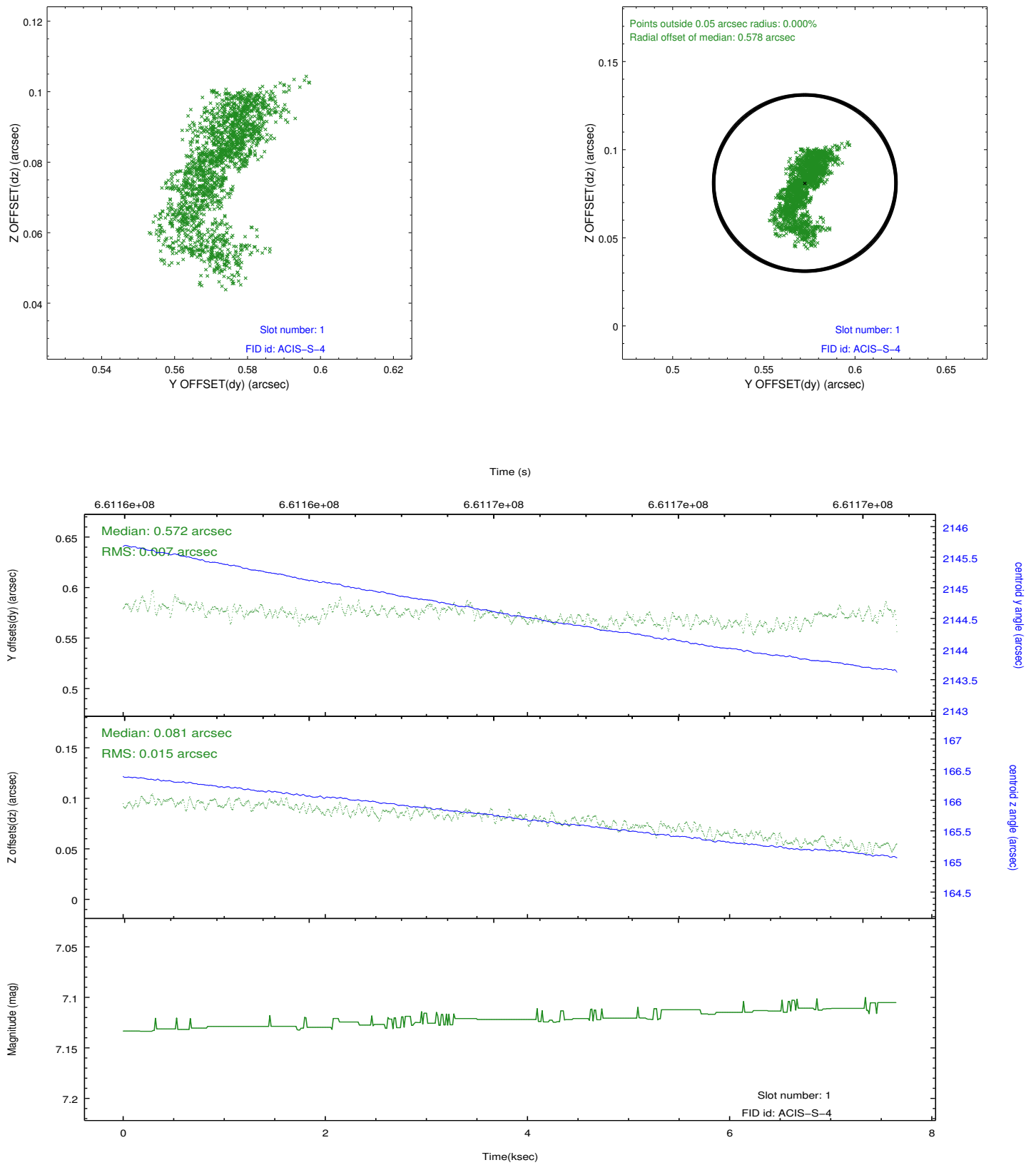


## 2.5 FID Slots

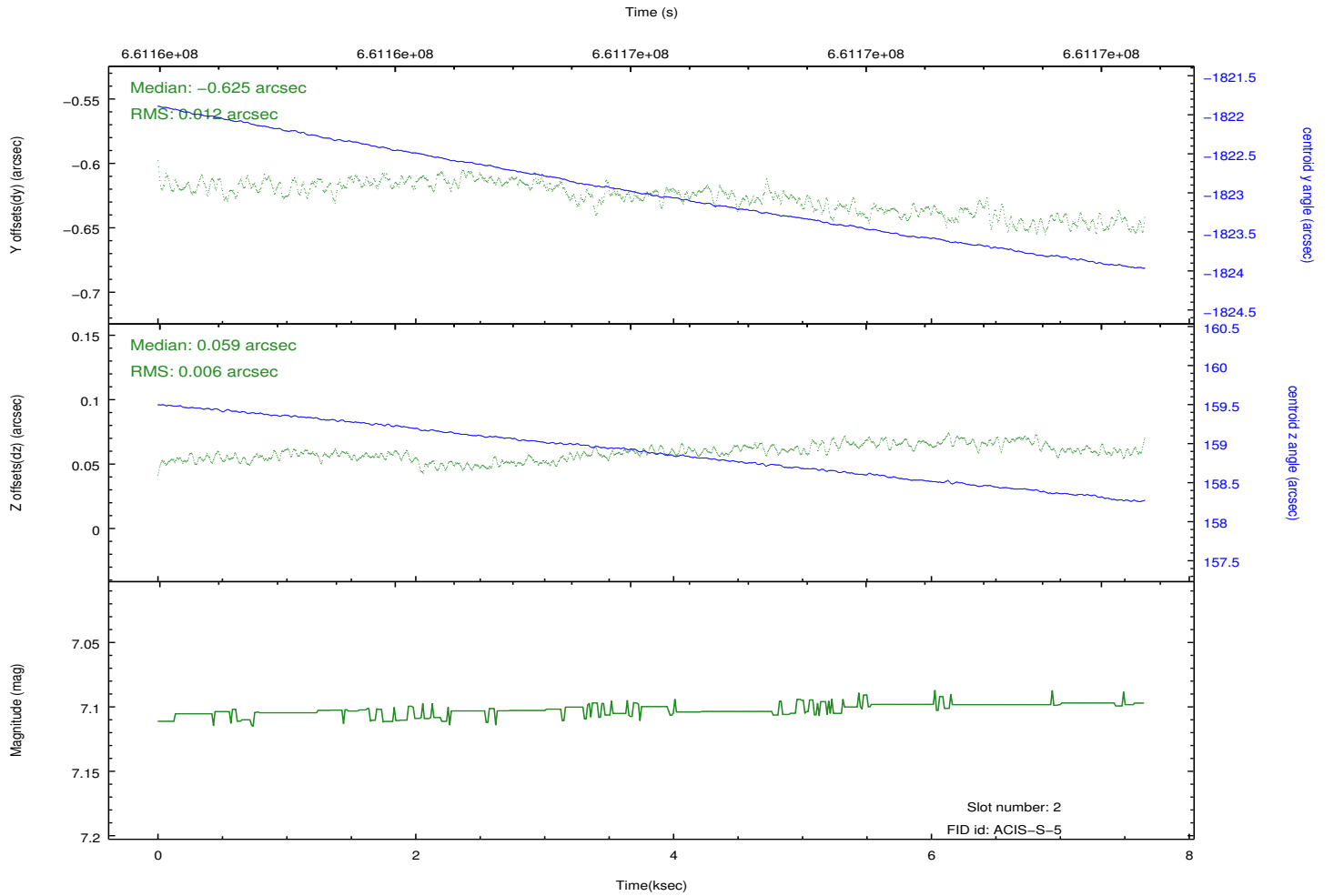
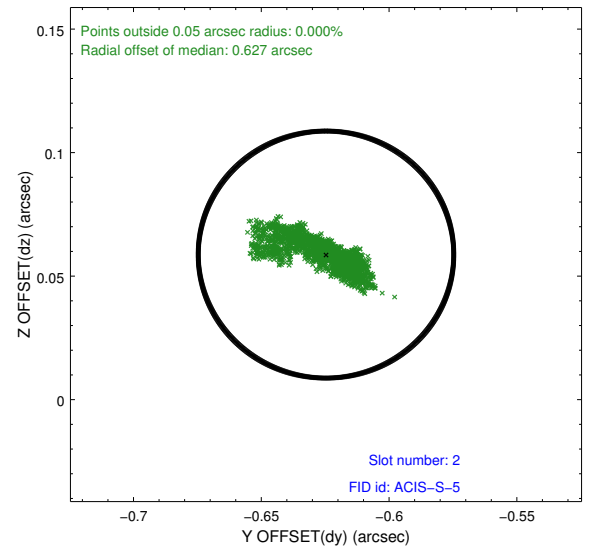
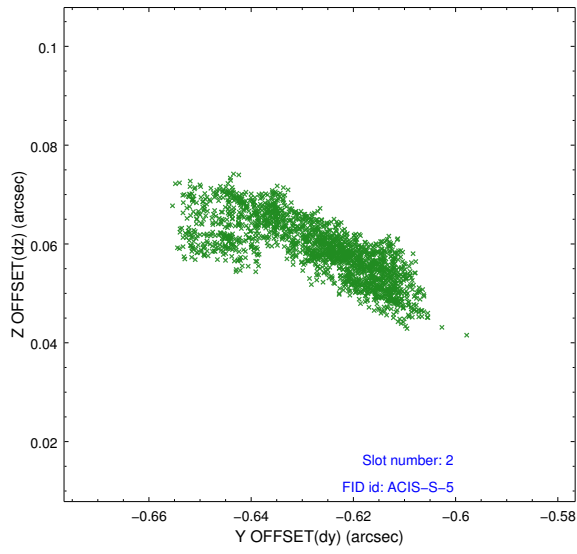
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2018.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.5626480773687

### A.2 Comments

Joint proposal with NRAO.