

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 9393 - L2 Version 2  
Chandra X-Ray Center

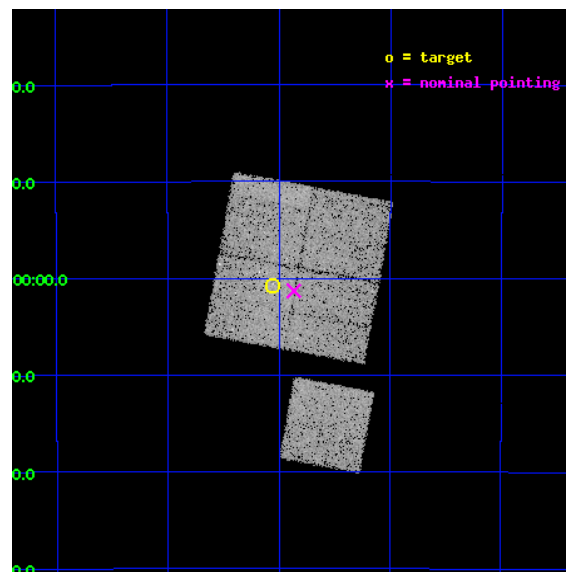
L2 Processing Date : Jun 6 2012

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# 1 Front

seq_num	800730	Sequence number
obs_id	9393	Observation id
title	SCALING RELATIONS FOR LOW-MASS GALAXY CLUSTERS AND GROUPS	Proposal
observer	Dr. Alexey Vikhlinin	Principal investigator
object	cl0334-3900	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	53.51375	Observer's specified target RA [deg]
dec_targ	-39.012778	Observer's specified target Dec [deg]
ra_nom	53.466576125553	Nominal RA [deg]
dec_nom	-39.021858467659	Nominal Dec [deg]
roll_nom	190.438789987	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15765.758679032	Sum of GTIs [s]
livetime	15559.767435308	Livetime [s]
ontime0	15765.635568917	Sum of GTIs [s]
ontime1	15771.958529592	Sum of GTIs [s]
ontime2	15765.717718601	Sum of GTIs [s]
ontime3	15765.758679032	Sum of GTIs [s]
ontime6	15768.735459208	Sum of GTIs [s]
l2events	61654	Number of level 2 events

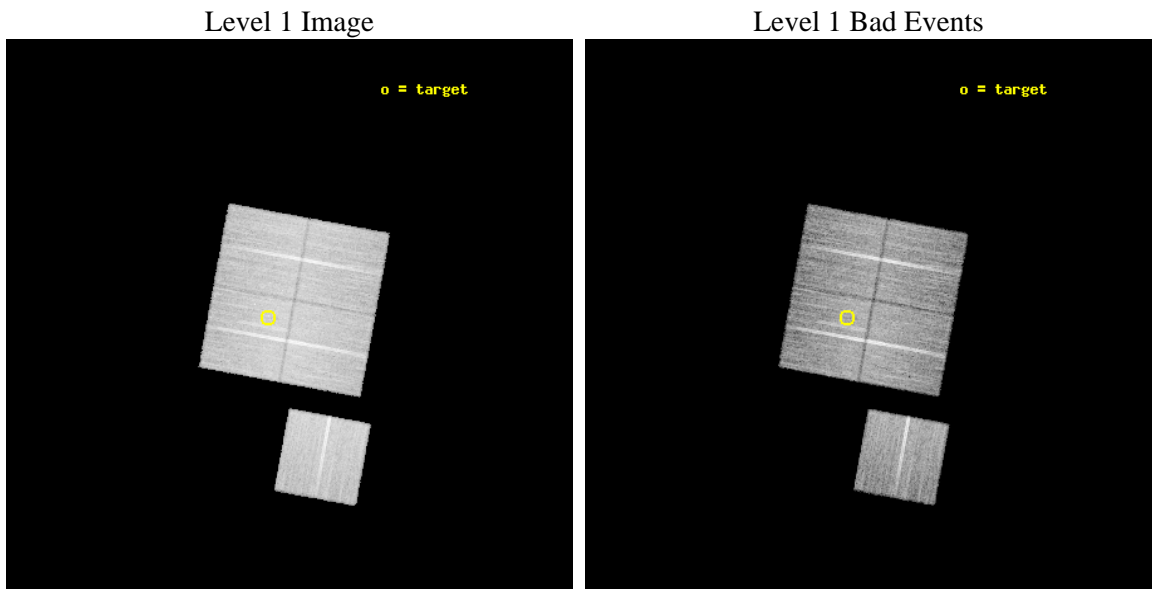




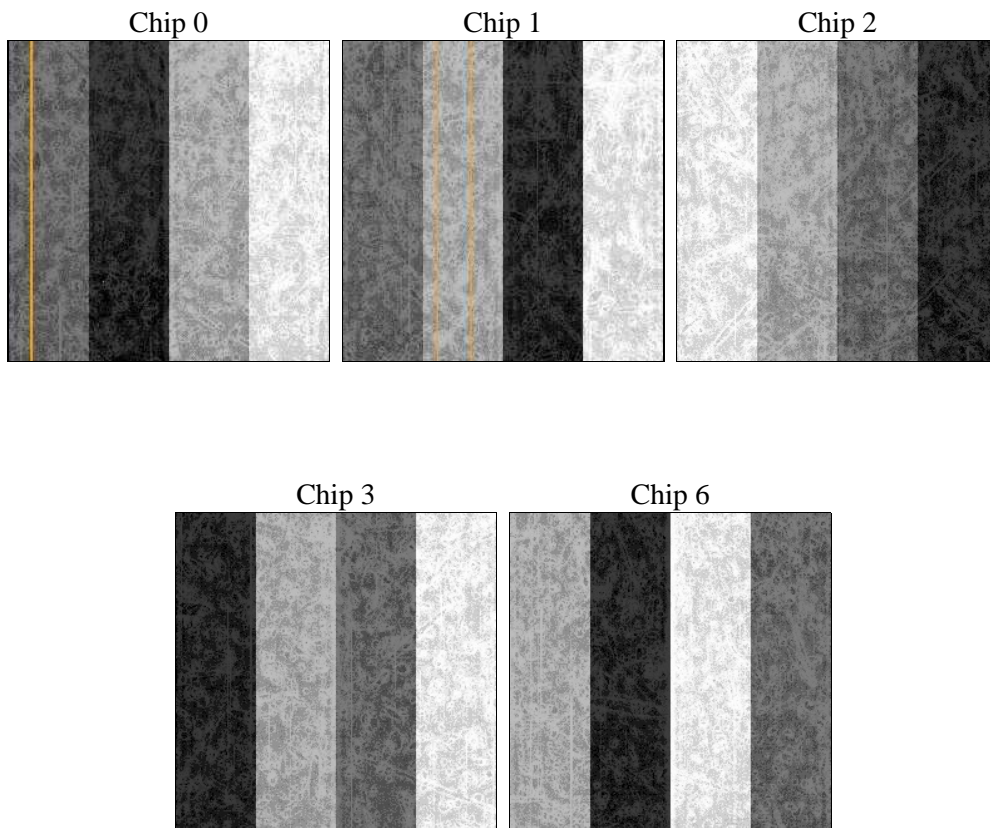
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	16000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	15765.758679032	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime0	15765.635568917	Sum of GTIs [s]
date	2012-06-06T23:57:43	Date and time of file creation	ontime1	15771.958529592	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	15765.717718601	Sum of GTIs [s]
			ontime3	15765.758679032	Sum of GTIs [s]
			ontime6	15768.735459208	Sum of GTIs [s]
			l1events	675818	Number of level 1 events

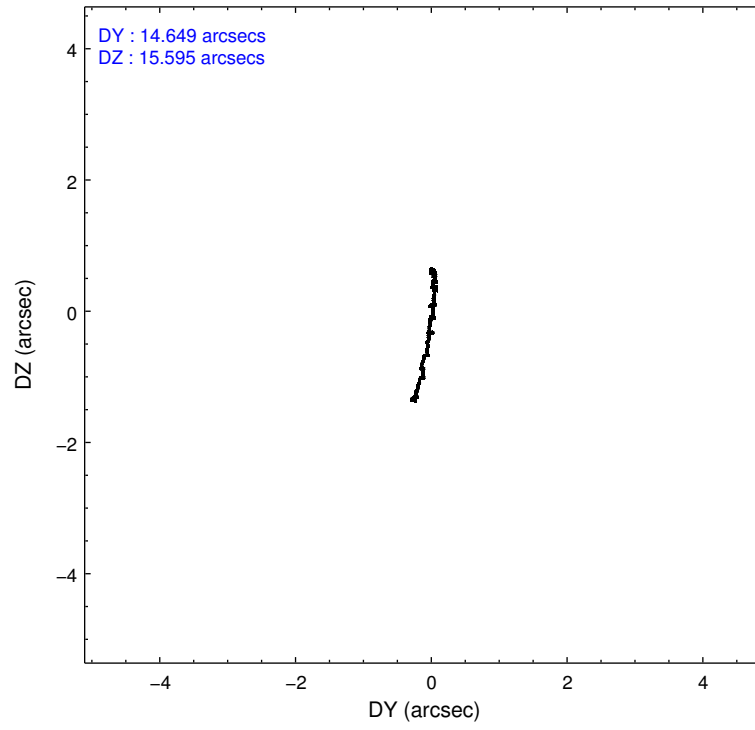
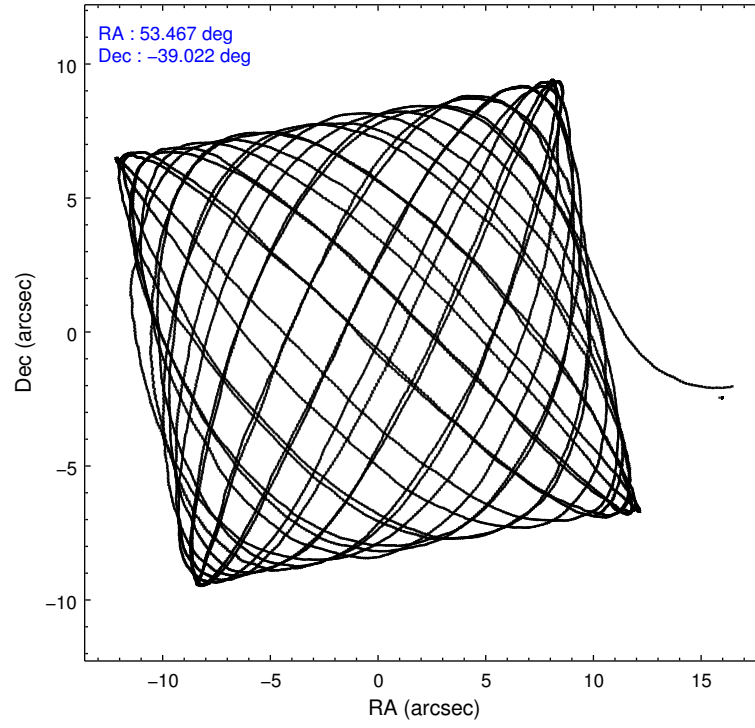
### 2.1.4 Events

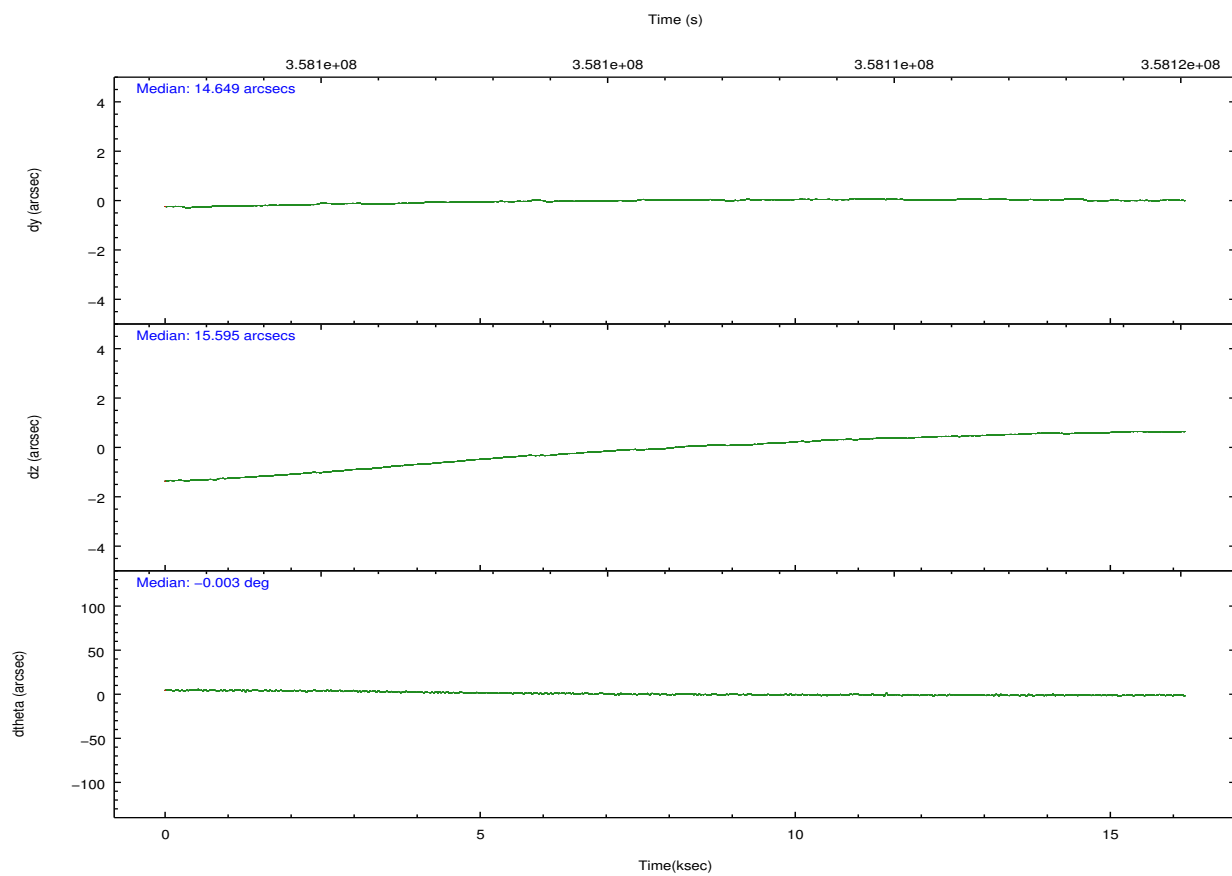
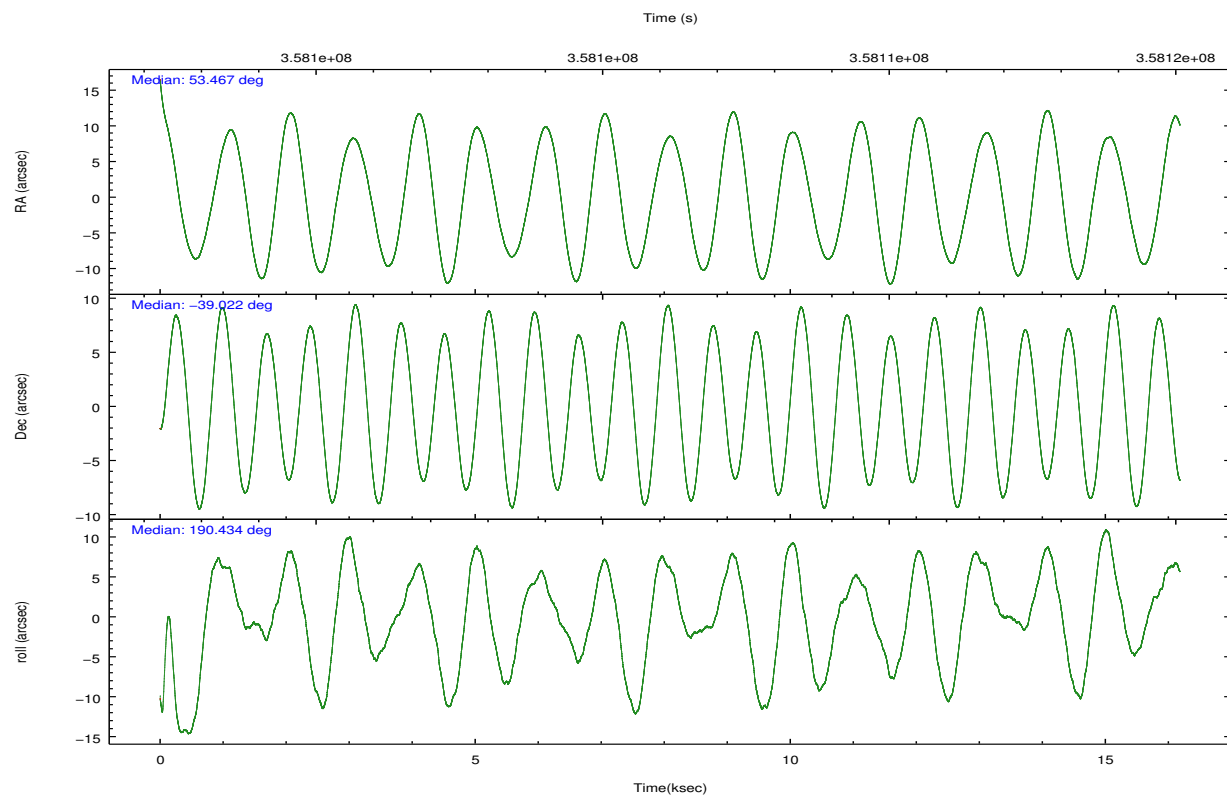
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	126261	129687	142661	138785	138424	grade 0 events	4833	6105	5390	6042	5100
rejected events	112268	113365	128270	124040	124101		3%	4%	3%	4%	3%
rejected %	88%	87%	89%	89%	89%	grade 1 events	86	63	89	89	66
							0%	0%	0%	0%	0%
						grade 2 events	3385	3641	3403	3044	3152
							2%	2%	2%	2%	2%
						grade 3 events	1556	1691	1440	1549	1555
							1%	1%	1%	1%	1%
						grade 4 events	1493	1685	1488	1463	1515
							1%	1%	1%	1%	1%
						grade 5 events	4908	5438	4809	5680	5419
							3%	4%	3%	4%	3%
						grade 6 events	2730	3207	2676	2652	3004
							2%	2%	1%	1%	2%
						grade 7 events	107270	107857	123366	118266	118613
							84%	83%	86%	85%	85%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	53.493391	53.46657612555297	CCD I2 on	Y	Y
[deg] Pointing Dec	-39.003957	-39.02185846765929	CCD I3 on	Y	Y
[deg] Pointing Roll	190.246997	190.4387899869963	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	-228.592463	-228.6015472178352	CCD S3 on	N	N
[mm] SIM translation stage offset	-5	-4.990905785094469	CCD S4 on	N	N
[s] Observation start time (MET)	358098264.184000	358097104.70342	CCD S5 on	N	N
Observation start date	2009-05-07T15:43:18	2009-05-07T15:25:04	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	358114264.184000	358115682.82935	On-chip summing requested	N	N
Observation end date	2009-05-07T20:09:58	2009-05-07T20:34:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



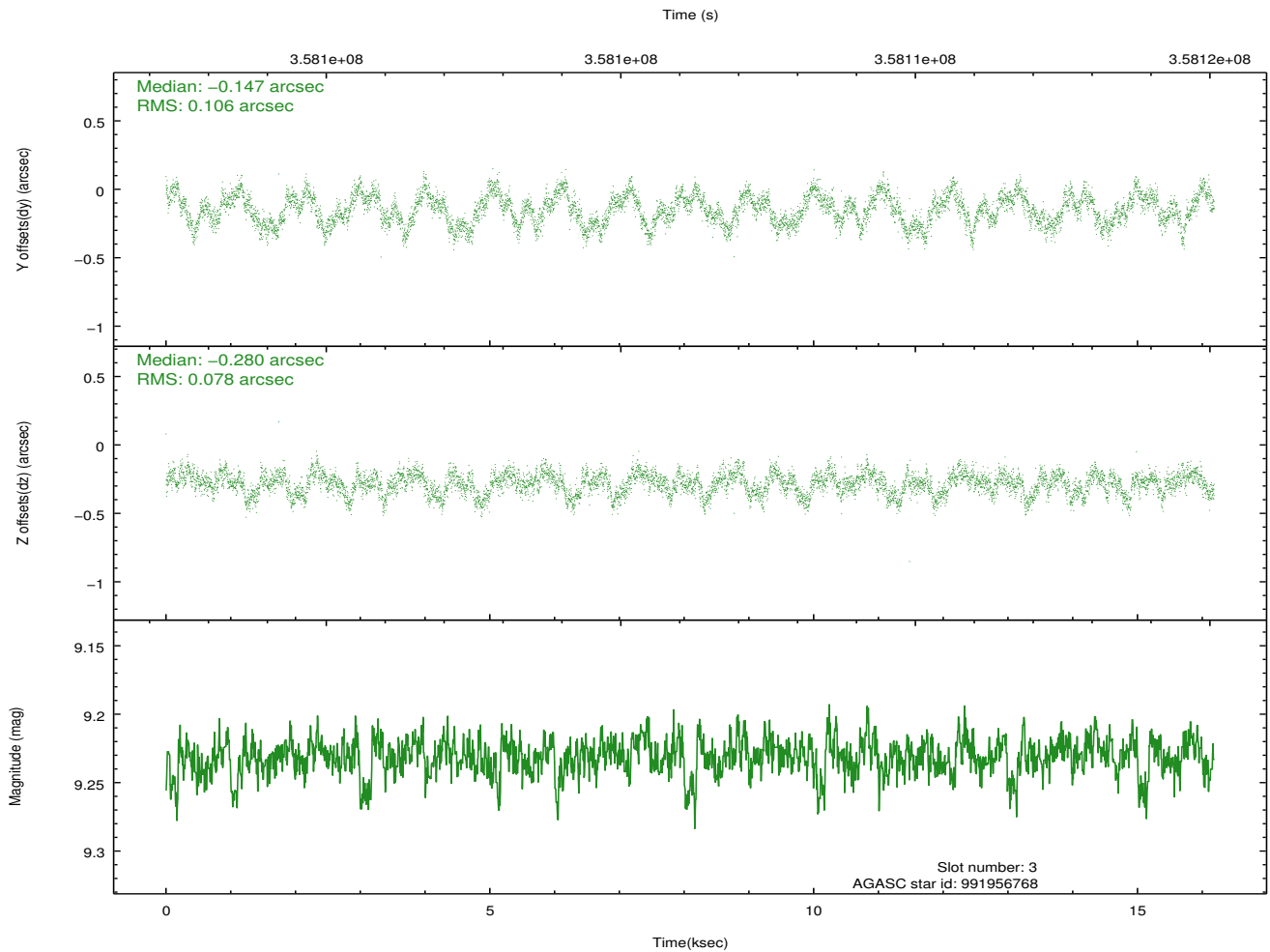
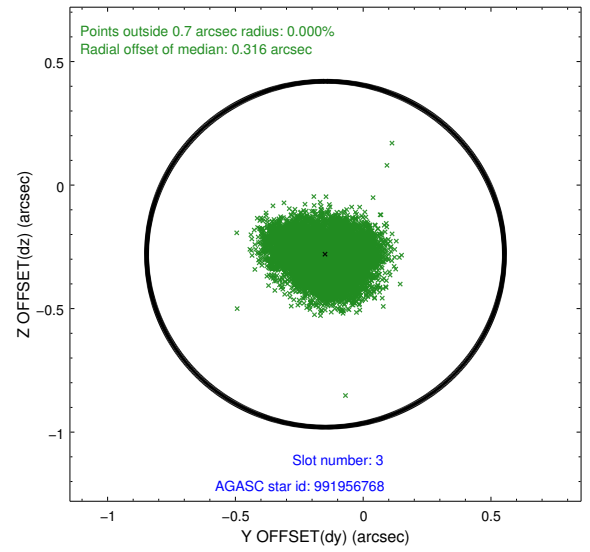
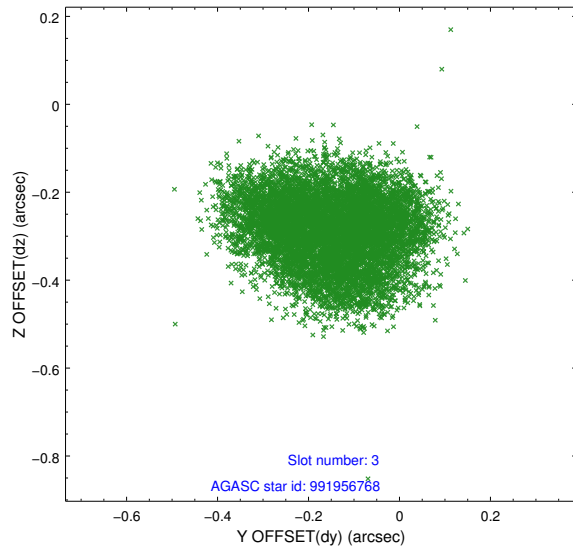


### Slot Statistics

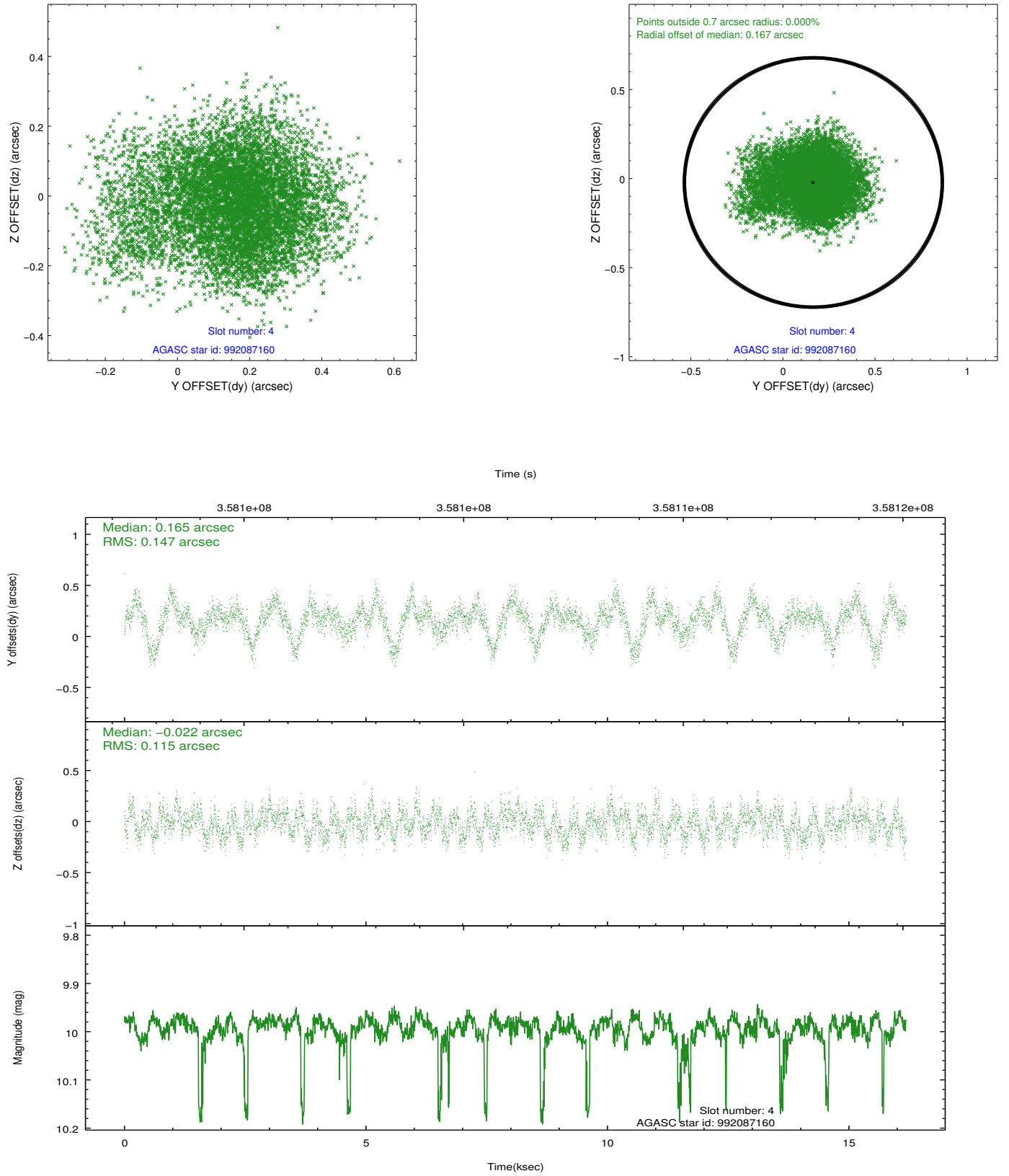
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.04	3948	0.087	-0.016	0.016	0.046	0.000000	0.000000	924.87	-941.48
1	FID	ACIS-I-5	7.02	3948	-0.255	0.085	0.014	0.027	0.000000	0.000000	-1823.47	955.91
2	FID	ACIS-I-6	7.04	3947	0.076	0.003	0.014	0.028	0.000000	0.000000	390.06	1600.67
3	GUIDE	991956768	9.23	7892	-0.147	-0.280	0.144	0.216	53.106366	-39.484489	1366.37	1513.64
4	GUIDE	992087160	9.99	7854	0.165	-0.022	0.198	0.331	53.826934	-38.680367	-1129.35	-977.28
5	GUIDE	992090056	9.49	7880	-0.188	-0.011	0.112	0.182	54.176375	-39.383675	-1625.86	1690.55
6	GUIDE	991957720	10.29	7810	0.068	0.068	0.316	0.486	52.638416	-38.996925	2351.58	-438.38
7	GUIDE	992091208	10.16	7882	0.087	0.250	0.198	0.292	54.266786	-38.835381	-2239.16	-201.45

## 2.4 Star Slots

### 2.4.1 Slot 3

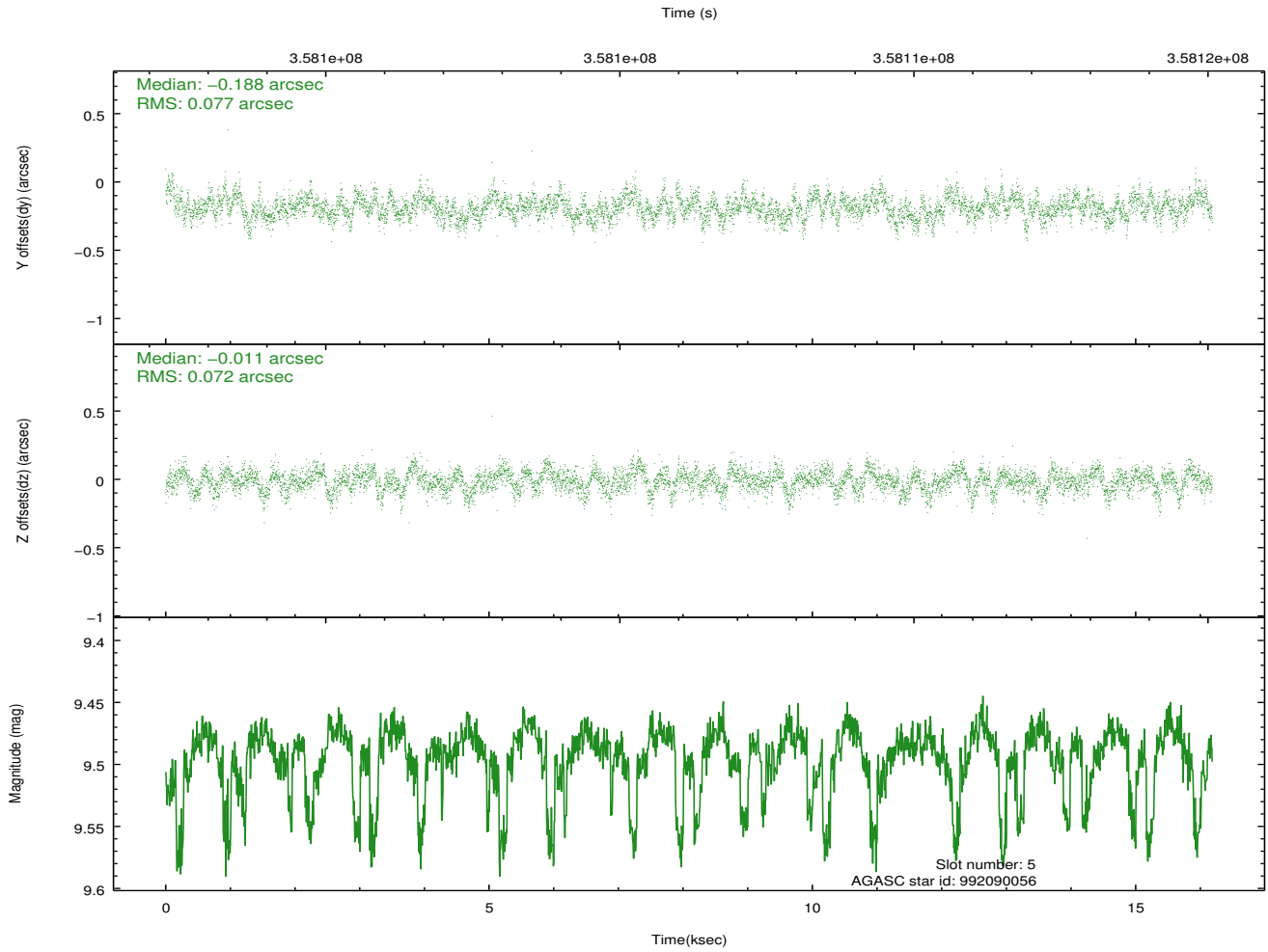
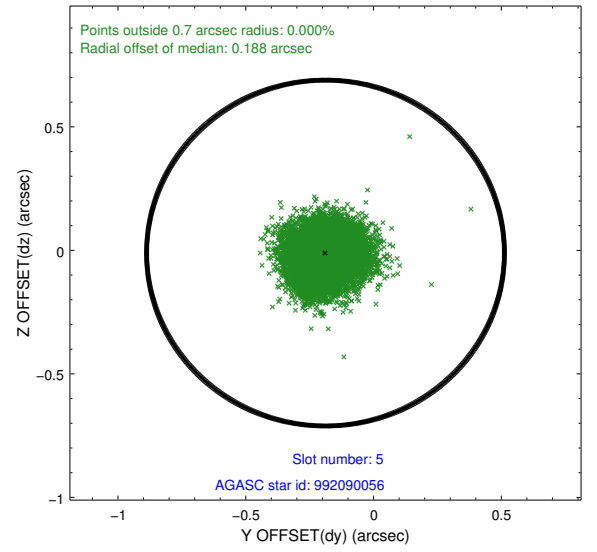
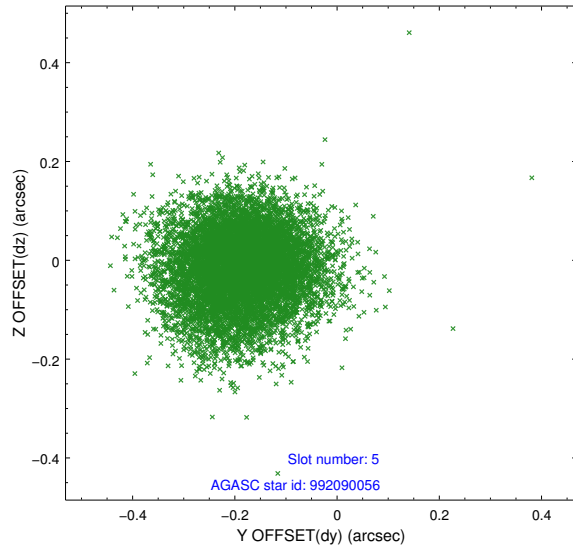


## 2.4.2 Slot 4

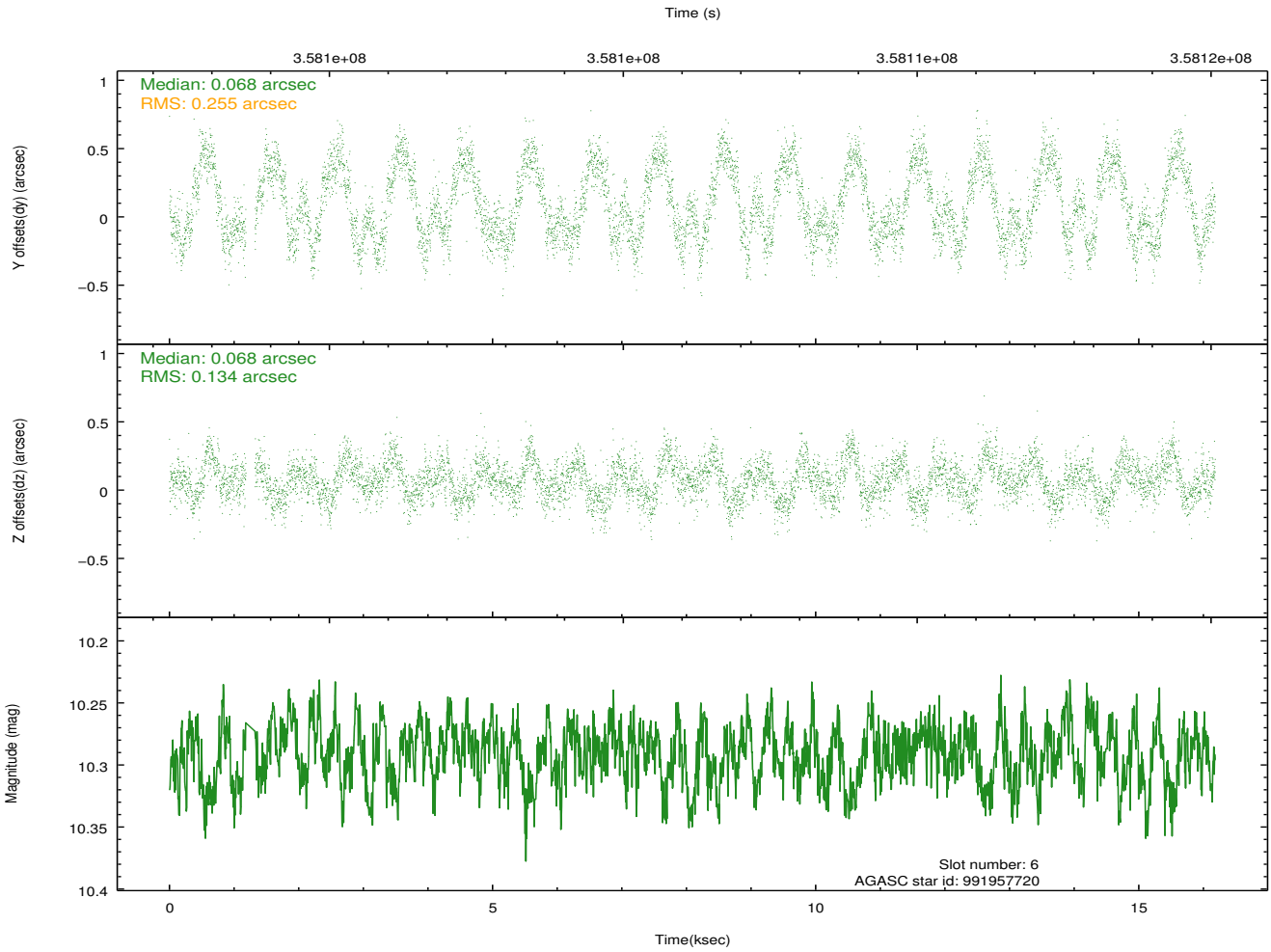
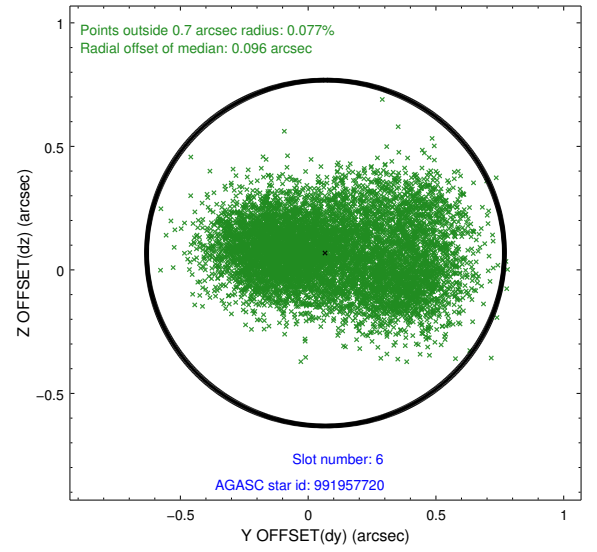
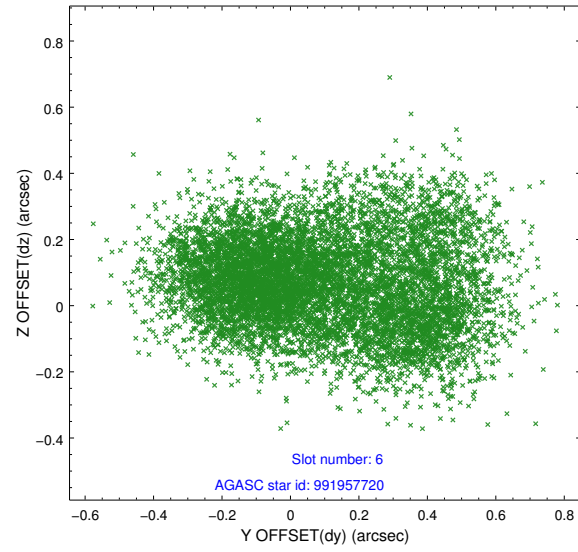




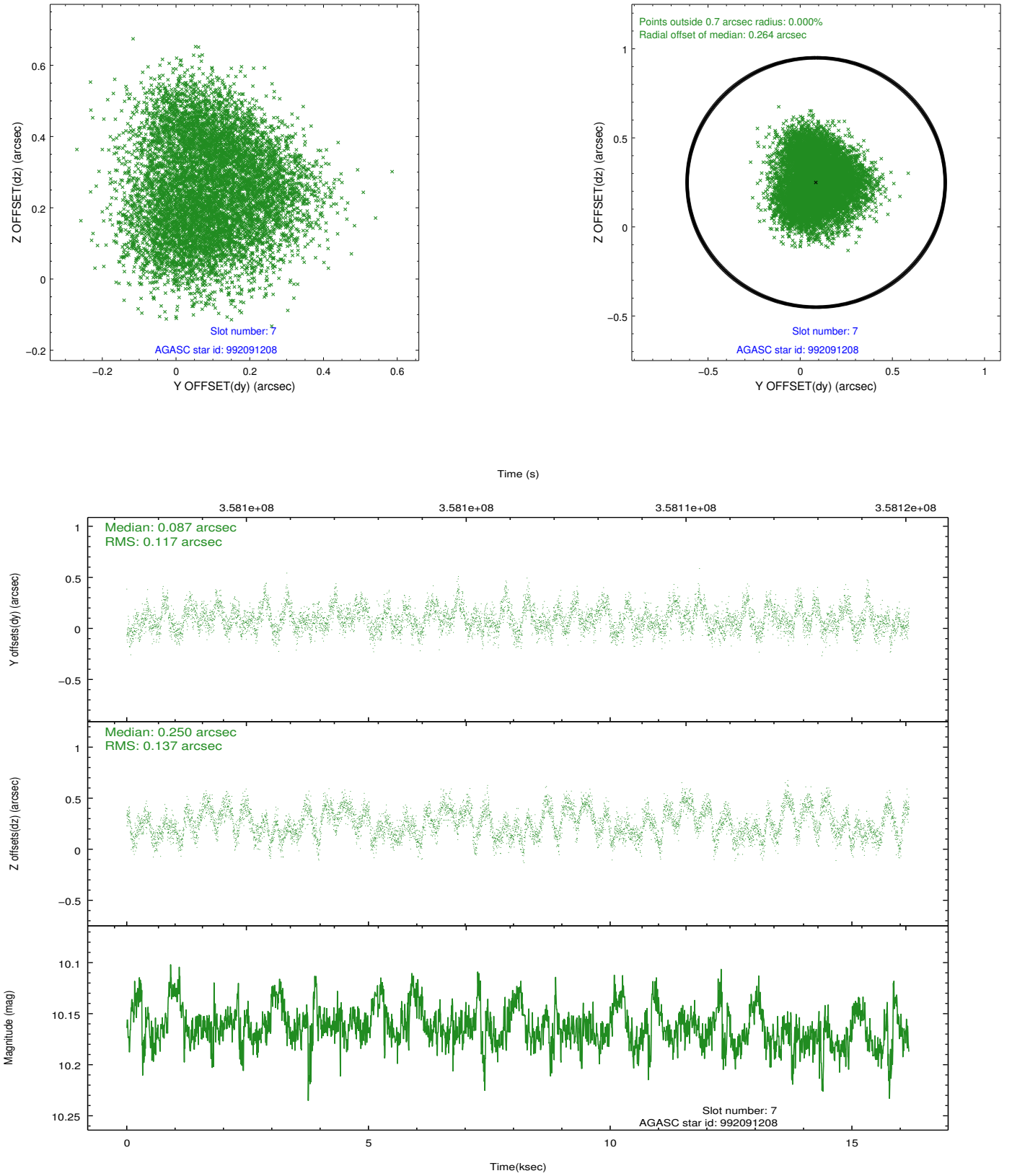
### 2.4.3 Slot 5



## 2.4.4 Slot 6

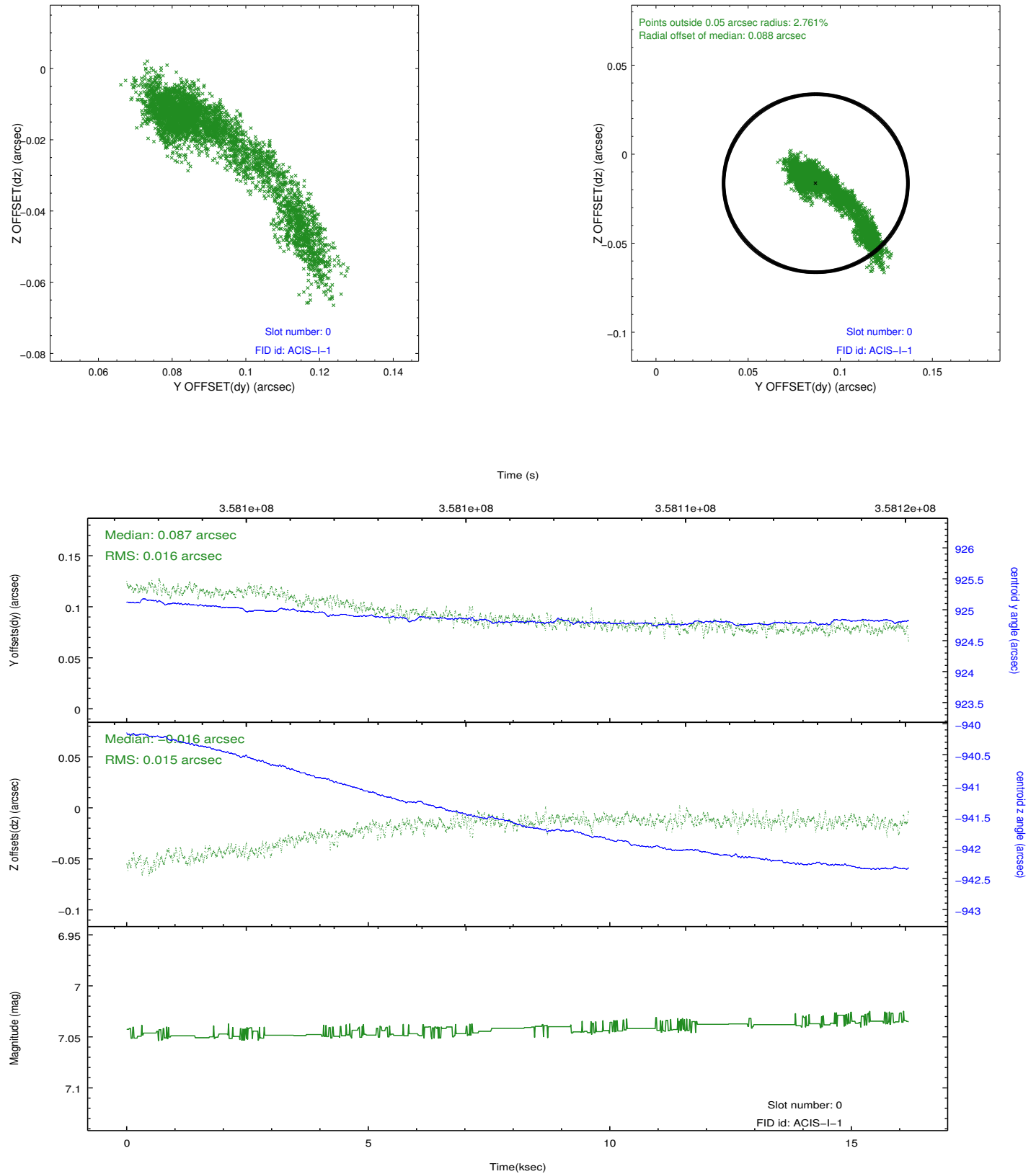


## 2.4.5 Slot 7

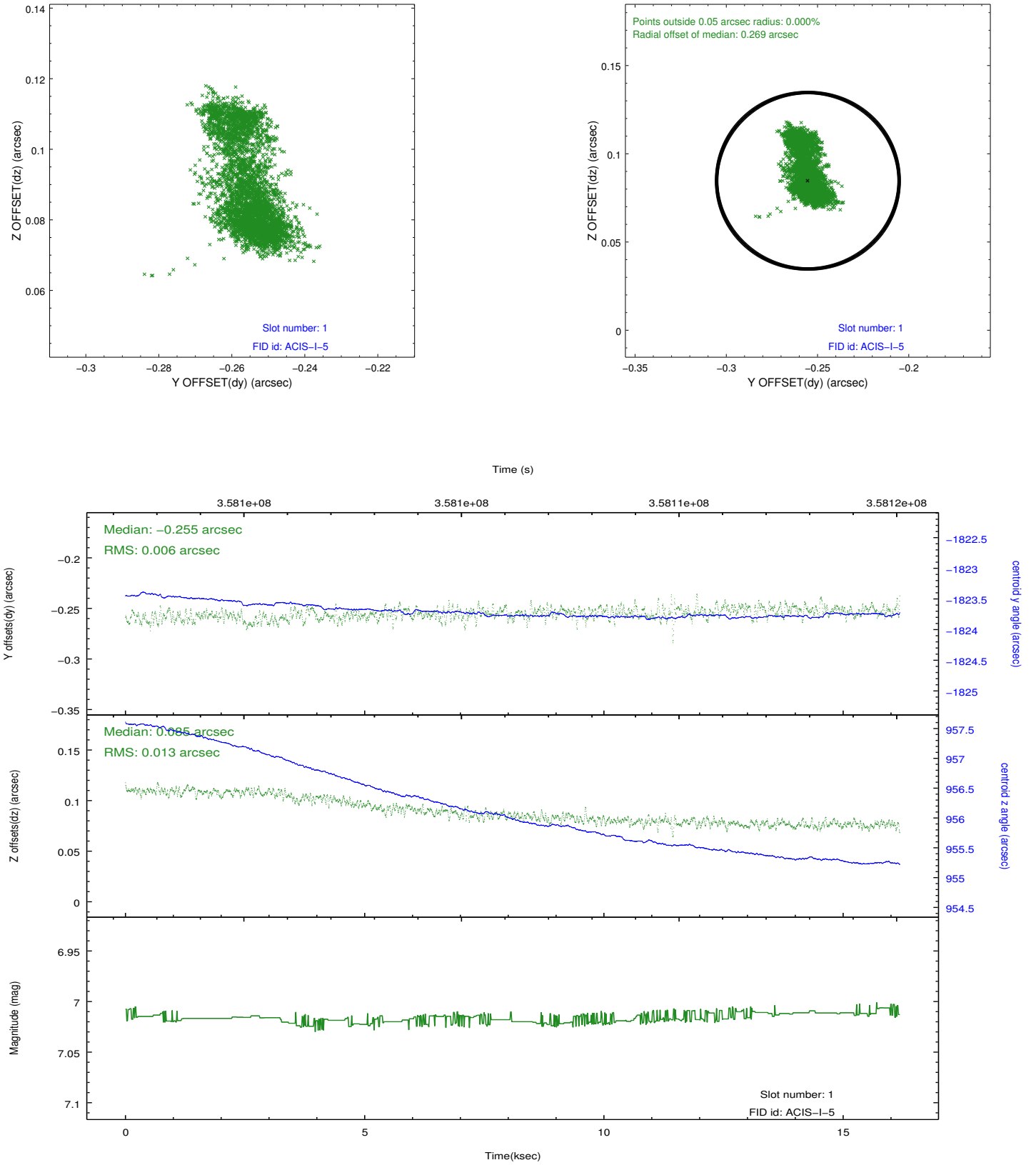


## 2.5 FID Slots

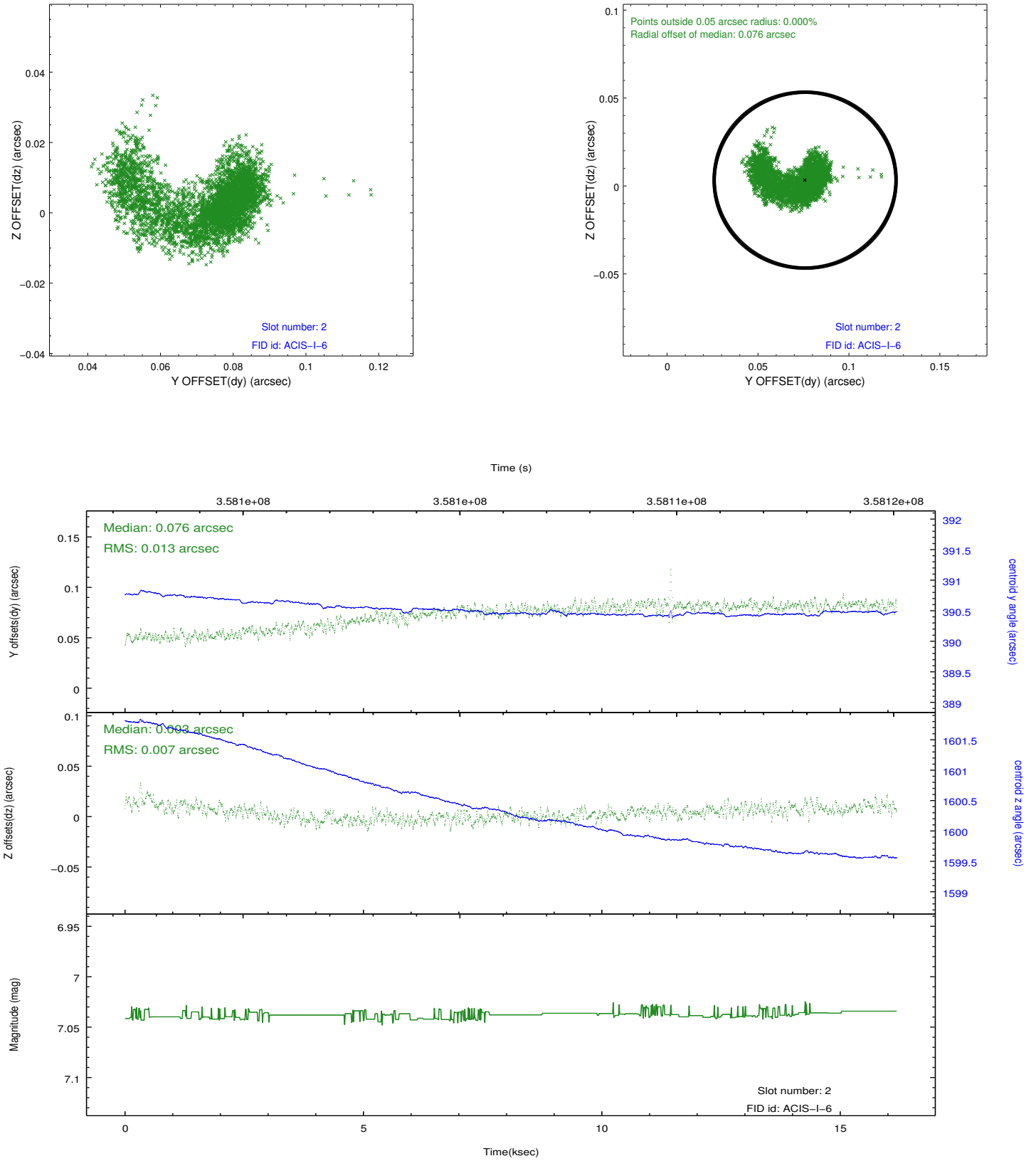
### 2.5.1 Slot 0



## 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)	2012.06.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.7665181

### A.2 Comments