

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12084 - L2 Version 2  
Chandra X-Ray Center

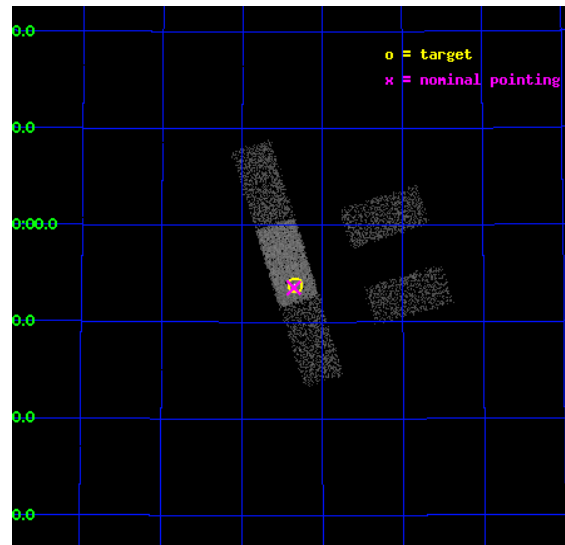
L2 Processing Date : Jun 25 2012

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# 1 Front

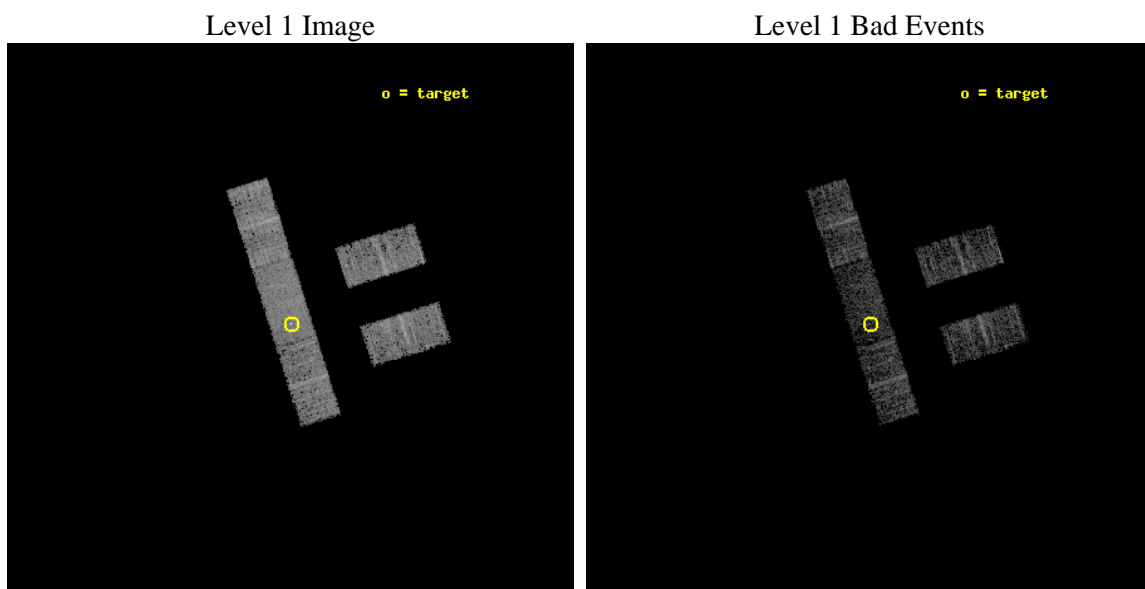
seq_num	702314	Sequence number
obs_id	12084	Observation id
title	Gravitationally lensed quasar Q0957+561AB in outburst	Proposal tit
observer	Dr Luis Goicoechea	Principal investigator
object	Q0957+561	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	150.336667	Observer's specified target RA [deg]
dec_targ	55.897056	Observer's specified target Dec [deg]
ra_nom	150.33915585727	Nominal RA [deg]
dec_nom	55.892400961111	Nominal Dec [deg]
roll_nom	252.4981039052	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3182.3999777436	Sum of GTIs [s]
livetime	3107.3840705349	Livetime [s]
ontime2	3182.3999777436	Sum of GTIs [s]
ontime3	3182.3999777436	Sum of GTIs [s]
ontime6	3182.3999777436	Sum of GTIs [s]
ontime7	3182.3999777436	Sum of GTIs [s]
ontime8	3182.3999777436	Sum of GTIs [s]
l2events	12685	Number of level 2 events



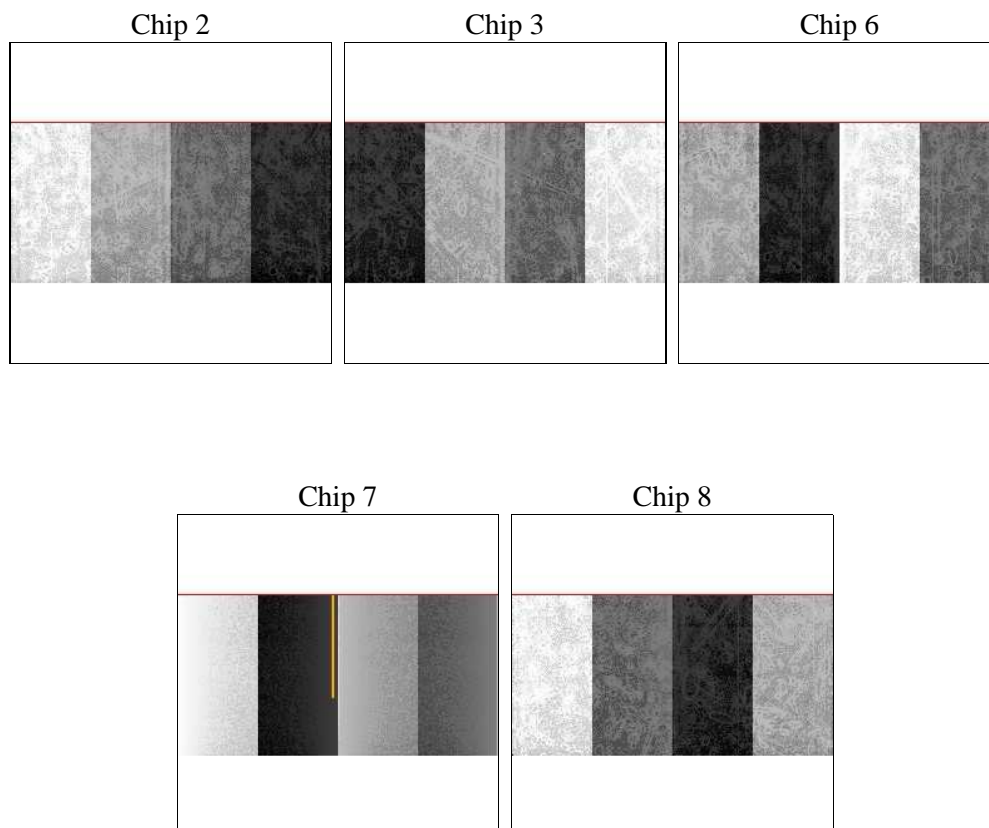
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	3182.3999777436	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime2	3182.3999777436	Sum of GTIs [s]
date	2012-06-25T23:40:25	Date and time of file creation	ontime3	3182.3999777436	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	3182.3999777436	Sum of GTIs [s]
			ontime7	3182.3999777436	Sum of GTIs [s]
			ontime8	3182.3999777436	Sum of GTIs [s]
			l1events	107084	Number of level 1 events

### 2.1.4 Events

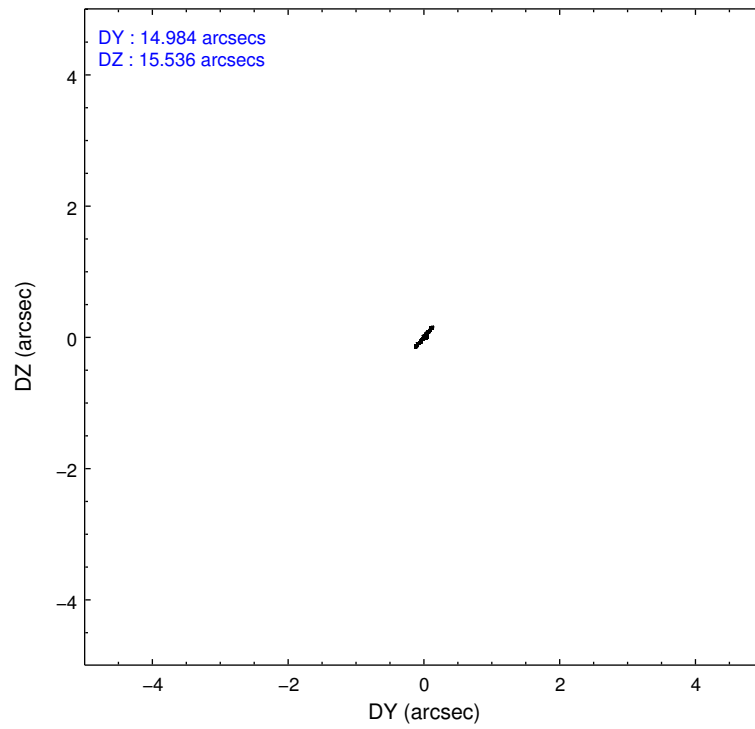
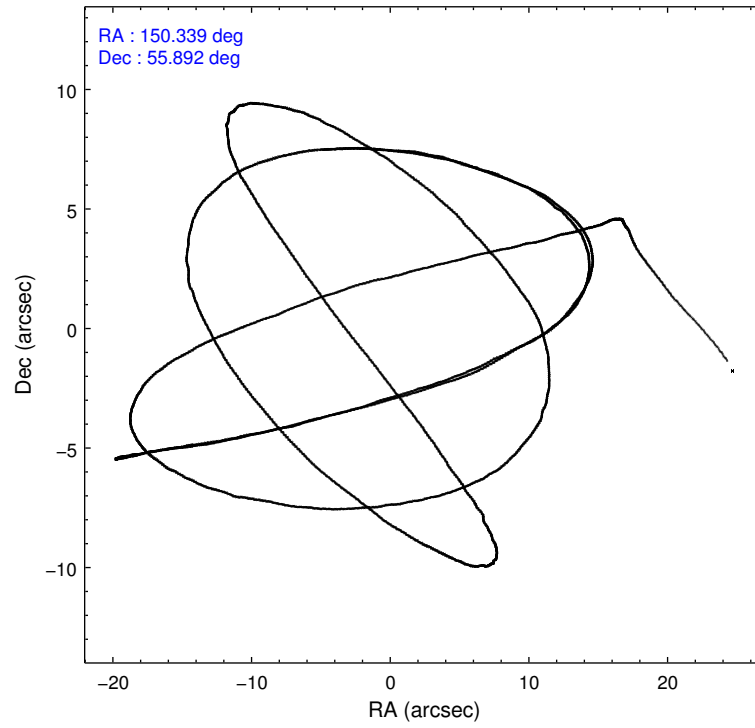
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	19107	19698	19121	23261	25897
rejected events	17754	18327	17624	15374	21418
rejected %	92%	93%	92%	66%	82%

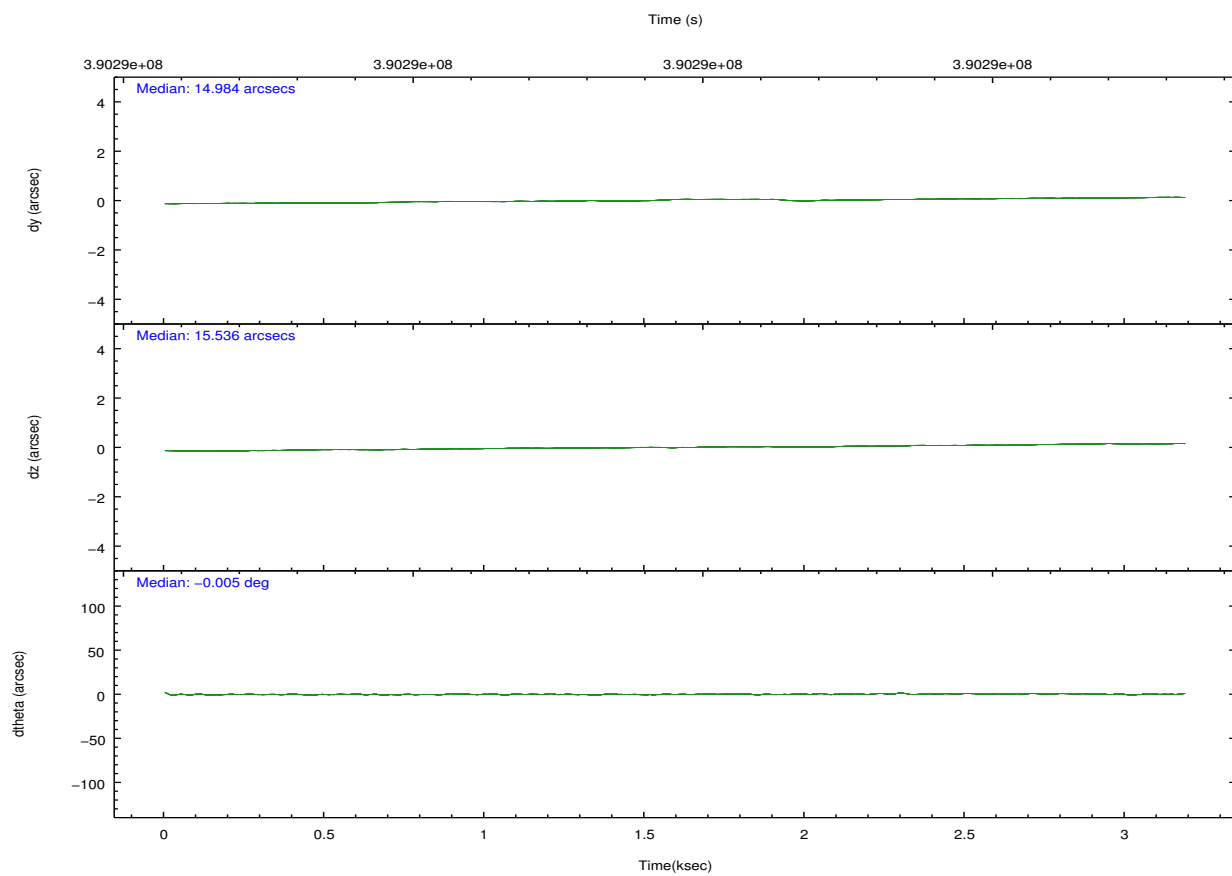
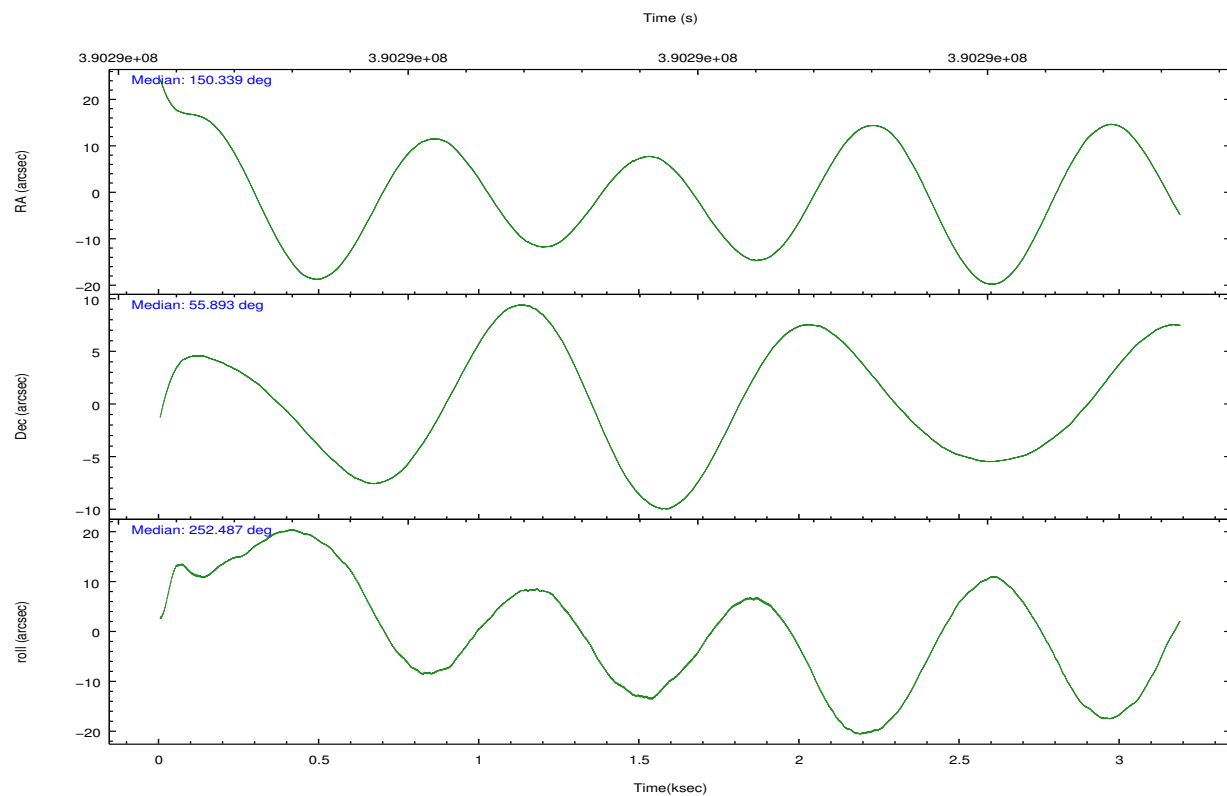
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	657	669	702	1288	1928
	3%	3%	3%	5%	7%
grade 1 events	5	10	9	37	20
	0%	0%	0%	0%	0%
grade 2 events	468	467	475	2385	1525
	2%	2%	2%	10%	5%
grade 3 events	266	276	261	1133	779
	1%	1%	1%	4%	3%
grade 4 events	246	246	261	1100	699
	1%	1%	1%	4%	2%
grade 5 events	613	759	792	2384	1137
	3%	3%	4%	10%	4%
grade 6 events	353	382	441	5313	1763
	1%	1%	2%	22%	6%
grade 7 events	16499	16889	16180	9621	18046
	86%	85%	84%	41%	69%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	150.327571	150.3391558572723	CCD I2 on	O4	Y
[deg] Pointing Dec	55.918961	55.892400961111	CCD I3 on	O3	Y
[deg] Pointing Roll	252.351124	252.4981039052034	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O1	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	O2	Y
[s] Observation start time (MET)	390286494.184000	390284866.64989	CCD S5 on	N	N
Observation start date	2010-05-15T04:53:48	2010-05-15T04:27:46	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	390289494.184000	390290276.08766	On-chip summing requested	N	N
Observation end date	2010-05-15T05:43:48	2010-05-15T05:57:56	Subarray requested	CUSTOM	1/2
Read mode	TIMED	TIMED	Subarray start row	257	257
			Subarray row count	512	512
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.7

## 2.3 Aspect



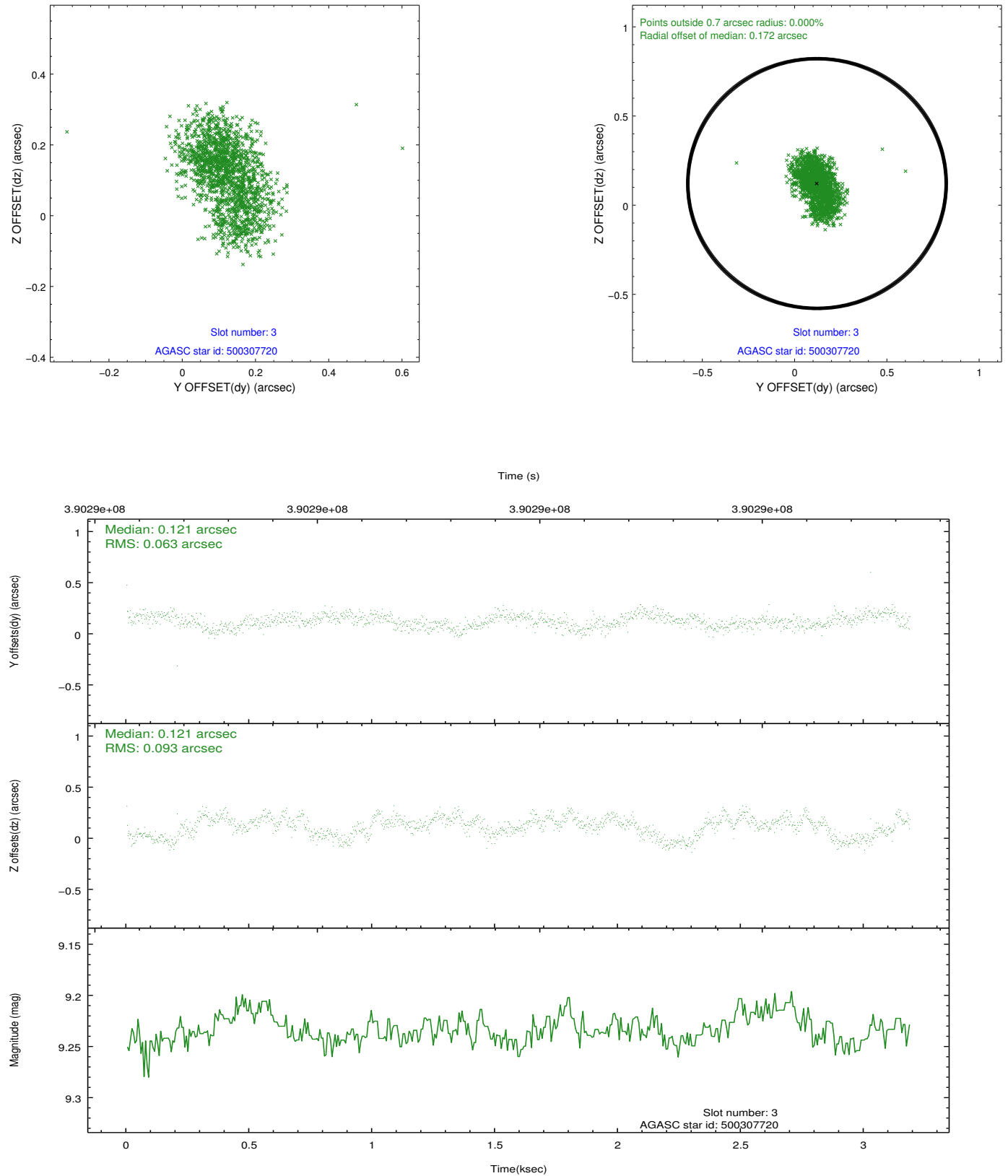


### Slot Statistics

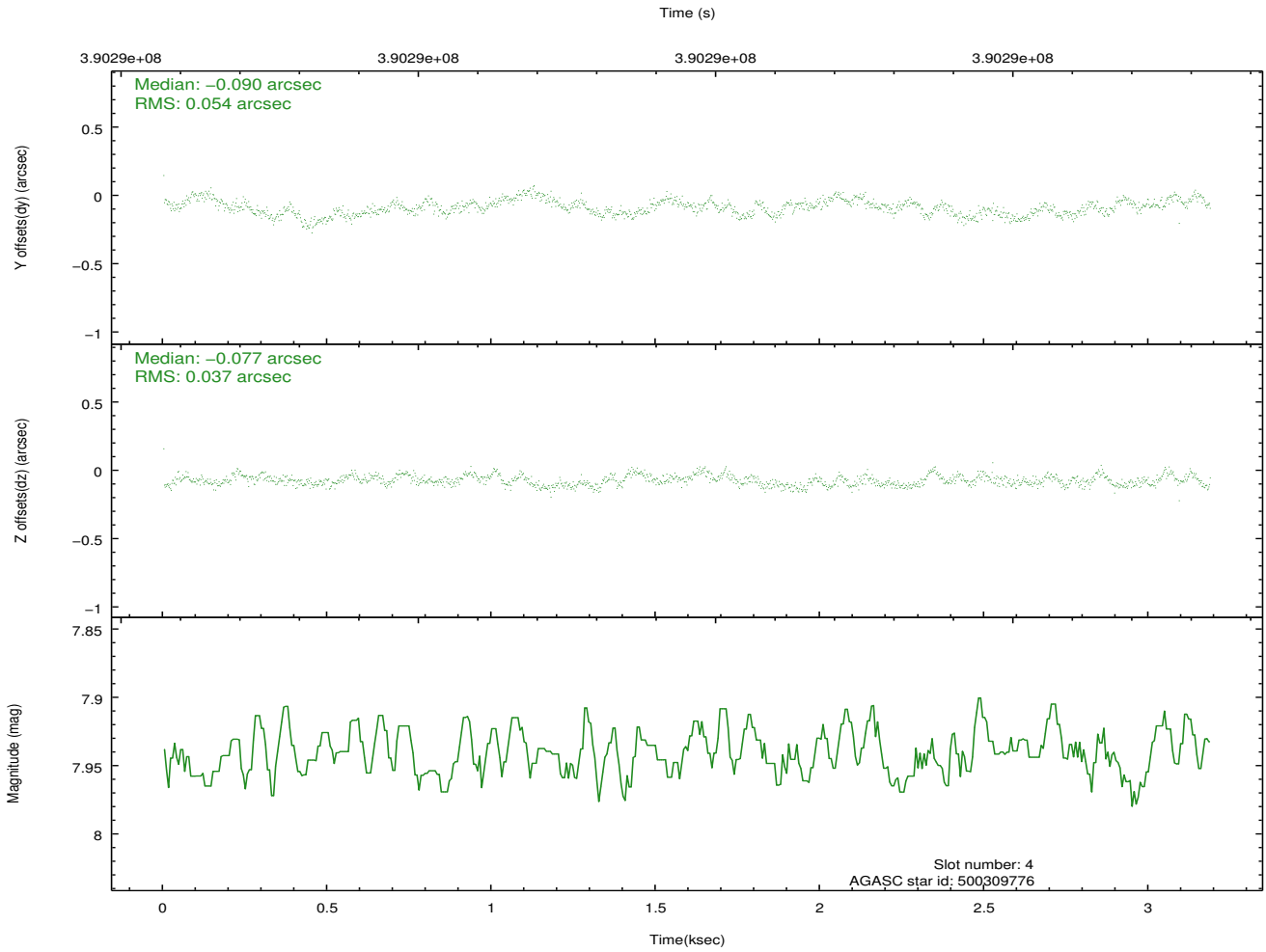
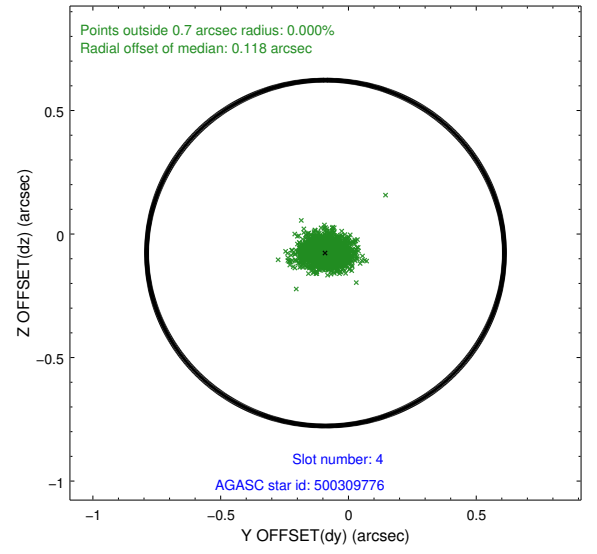
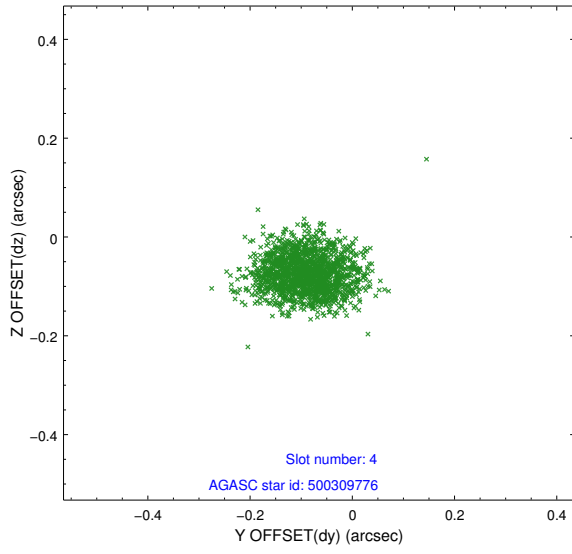
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	777	-0.095	-0.025	0.007	0.012	0.000000	0.000000	-768.03	-1736.96
1	FID	ACIS-S-4	6.97	777	0.207	0.053	0.006	0.010	0.000000	0.000000	2144.61	169.55
2	FID	ACIS-S-5	7.00	777	-0.143	-0.019	0.007	0.013	0.000000	0.000000	-1818.38	165.39
3	GUIDE	500307720	9.23	1554	0.121	0.121	0.120	0.188	149.835368	56.109010	-354.76	-1150.32
4	GUIDE	500309776	7.94	1555	-0.090	-0.077	0.070	0.109	150.409238	55.585087	1100.10	521.51
5	GUIDE	500311568	9.49	1553	0.022	-0.002	0.159	0.243	150.559512	55.637917	821.93	755.67
6	GUIDE	500437816	8.67	1555	-0.135	0.110	0.080	0.130	151.181905	56.134575	-1268.46	1394.56
7	GUIDE	500441280	9.47	1553	0.084	-0.149	0.145	0.216	151.172137	55.831559	-228.22	1719.80

## 2.4 Star Slots

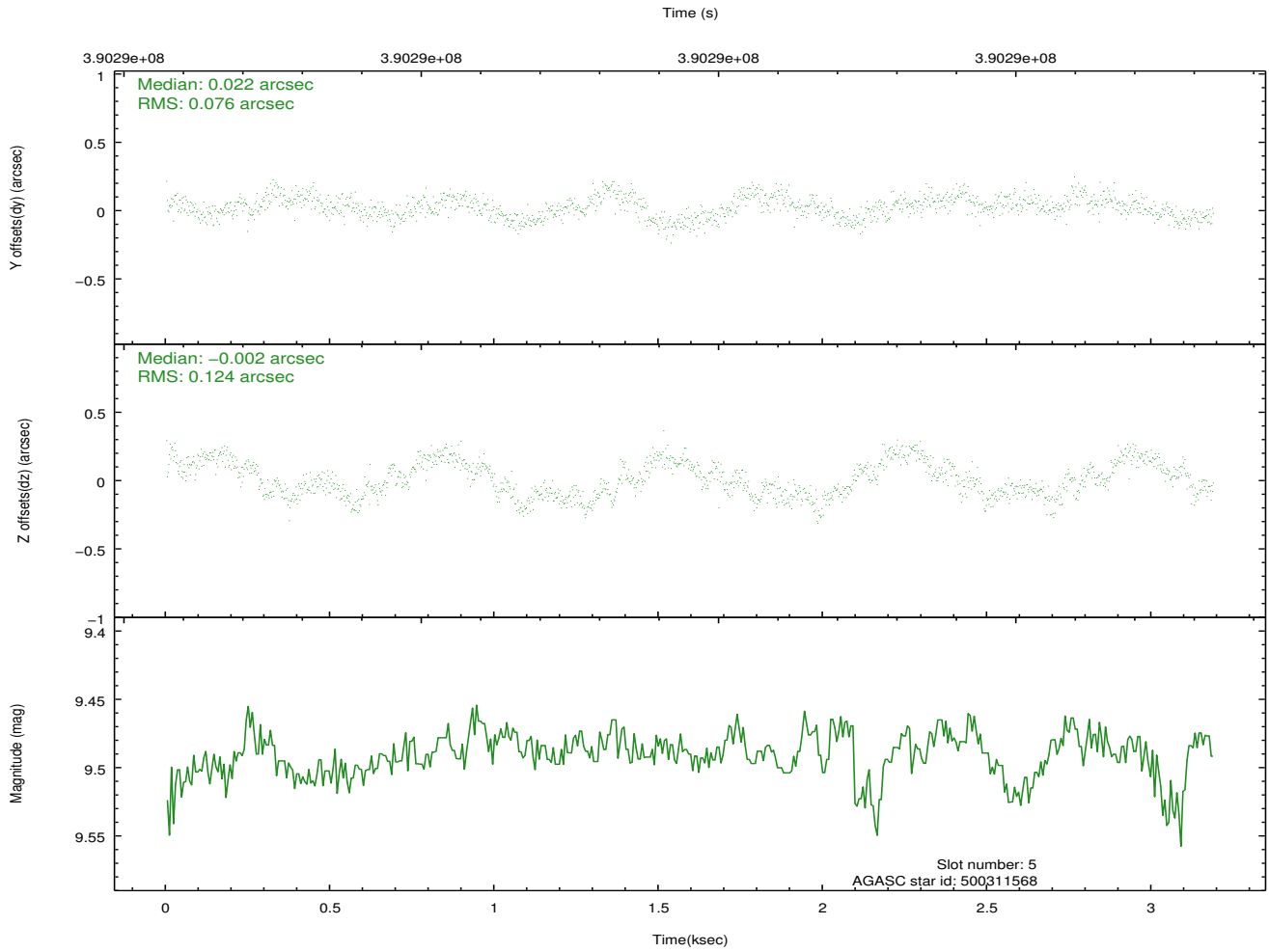
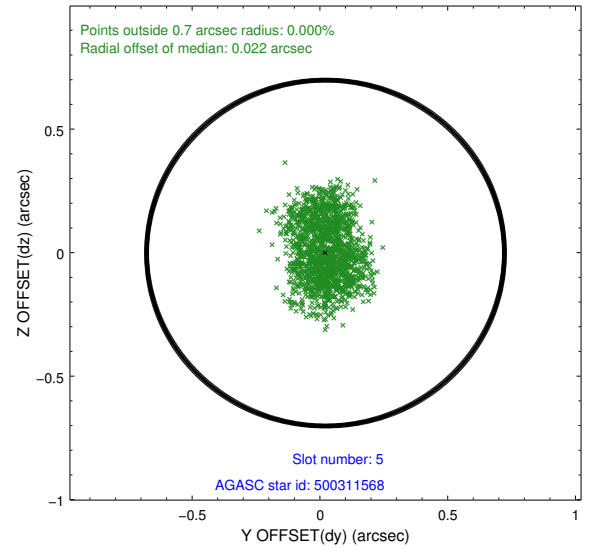
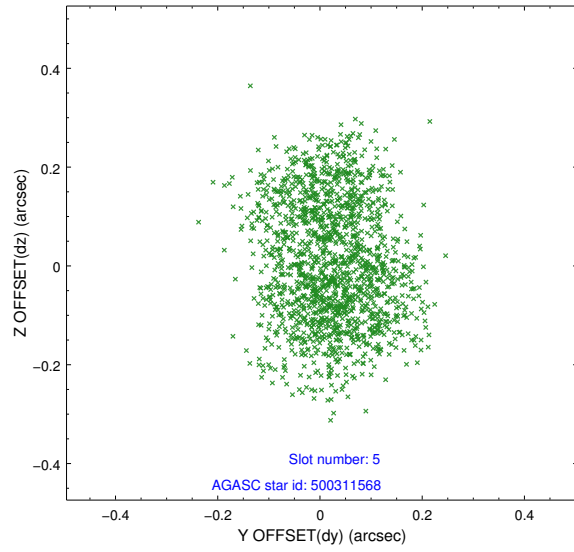
### 2.4.1 Slot 3



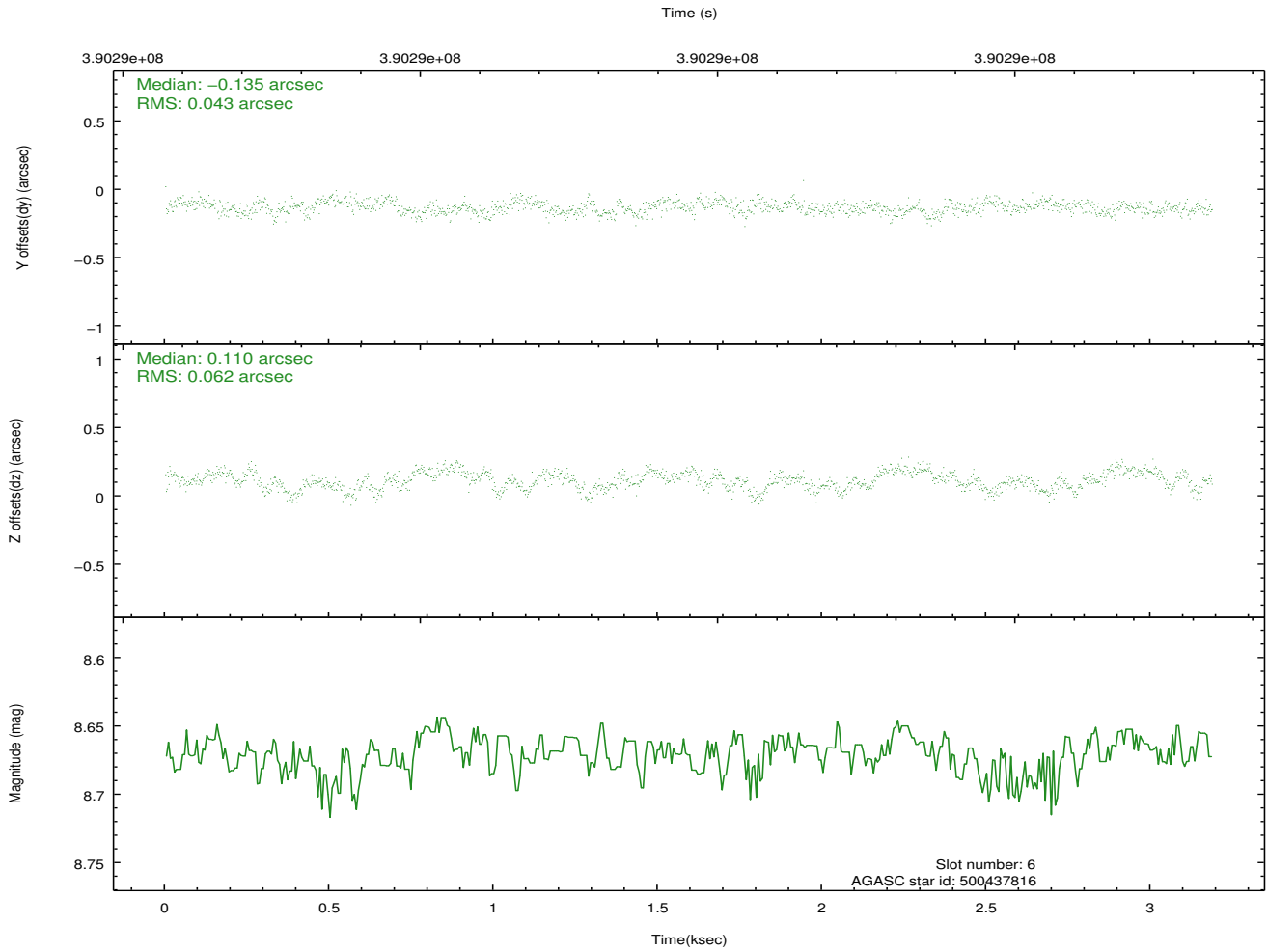
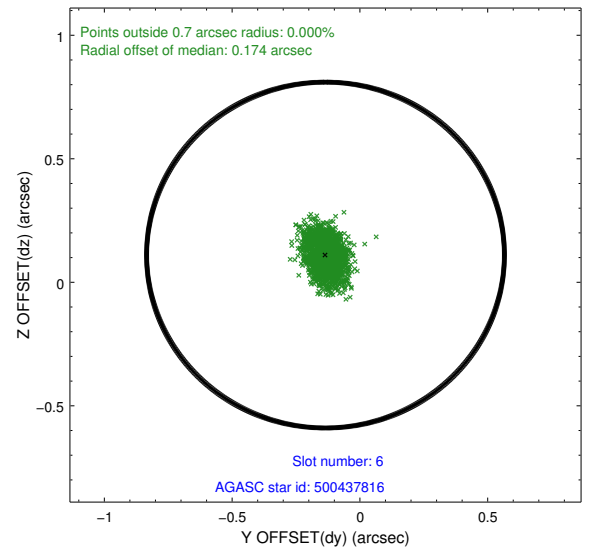
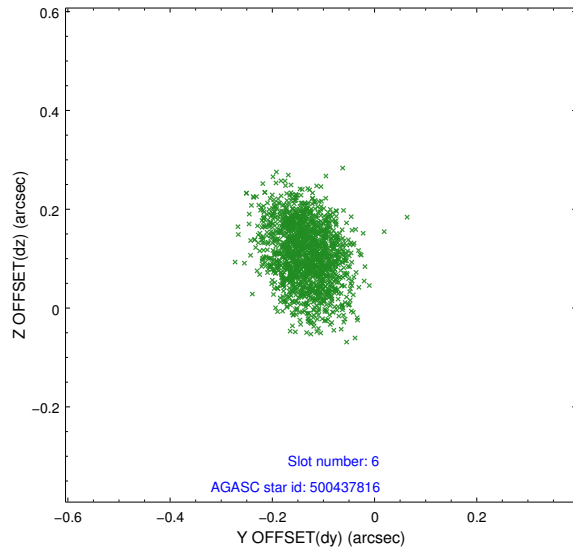
## 2.4.2 Slot 4



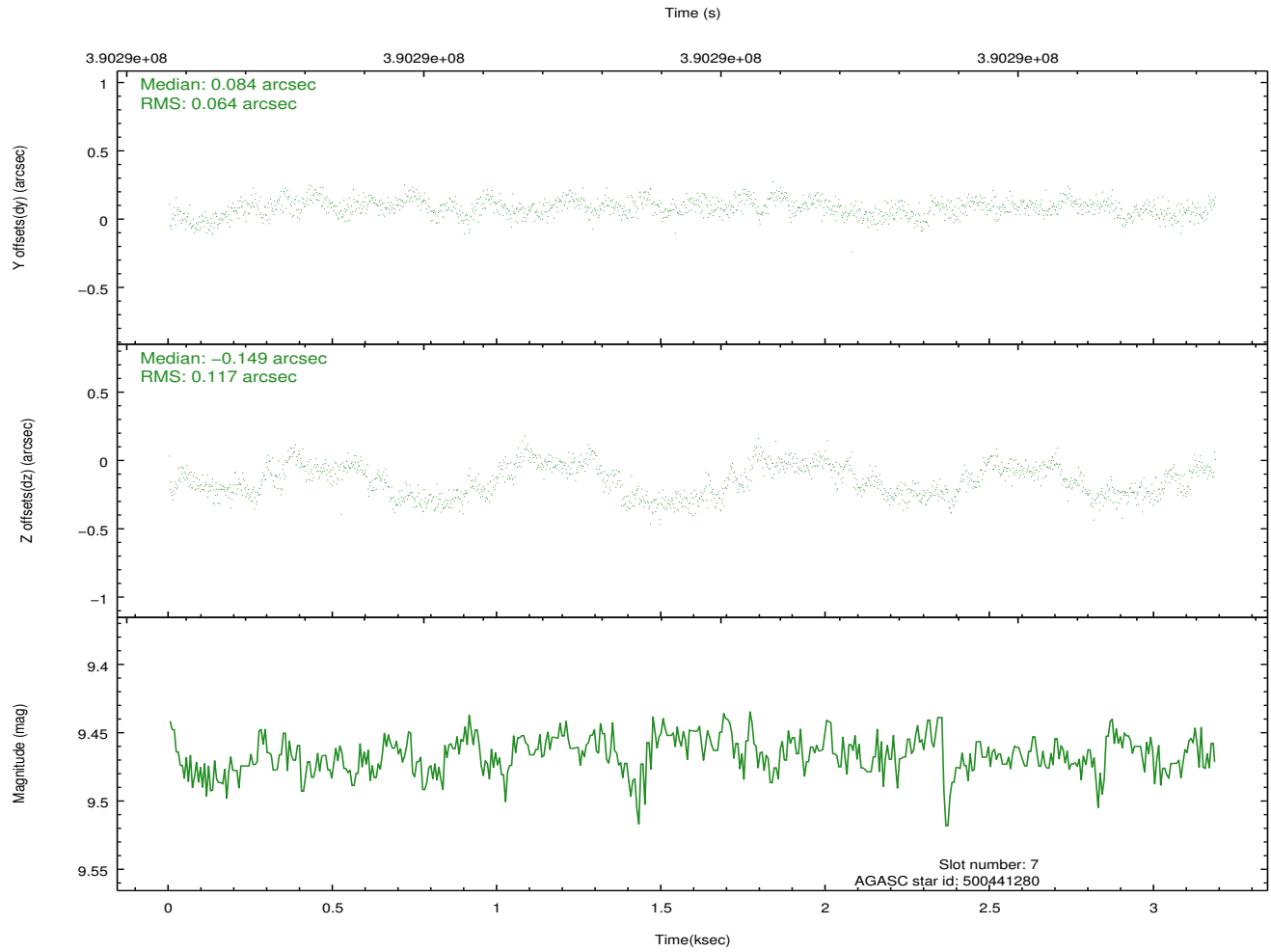
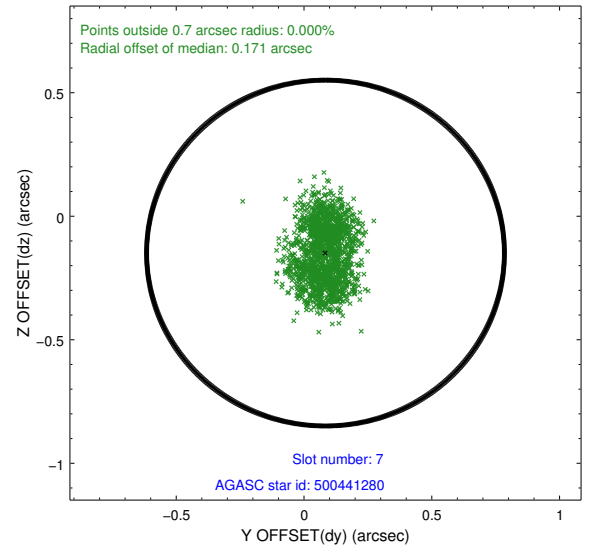
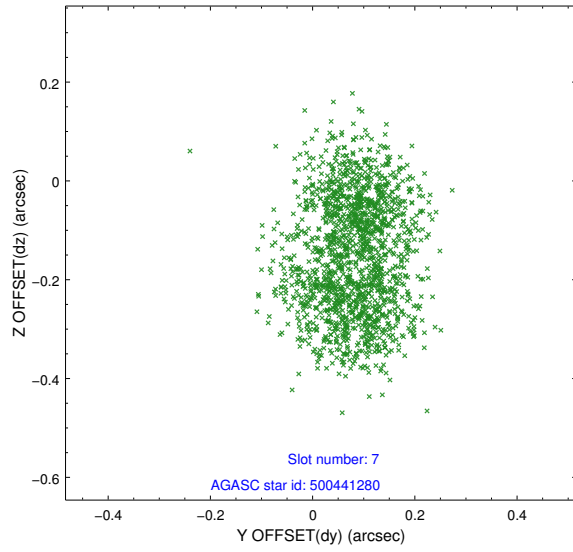
### 2.4.3 Slot 5



## 2.4.4 Slot 6

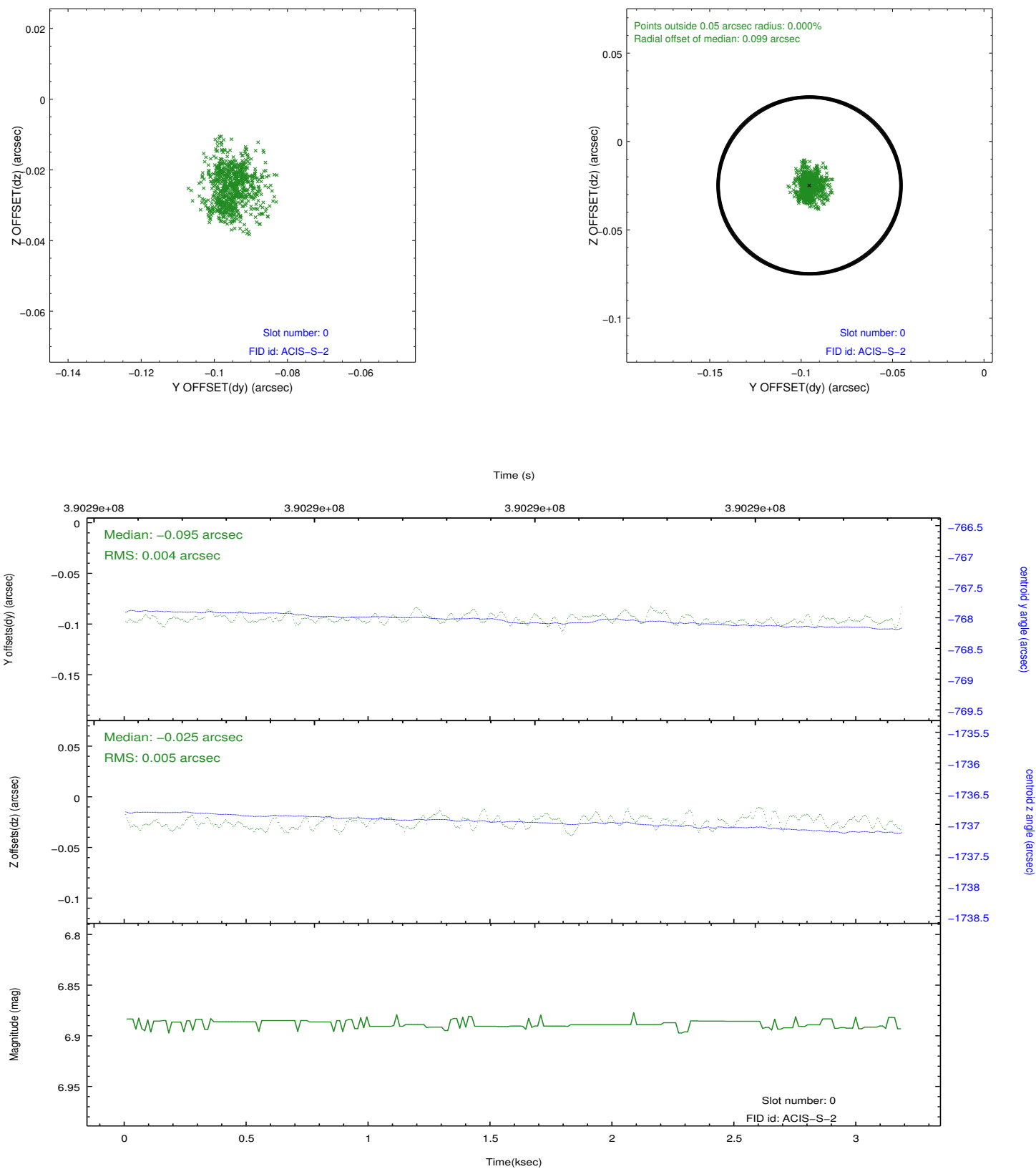


## 2.4.5 Slot 7

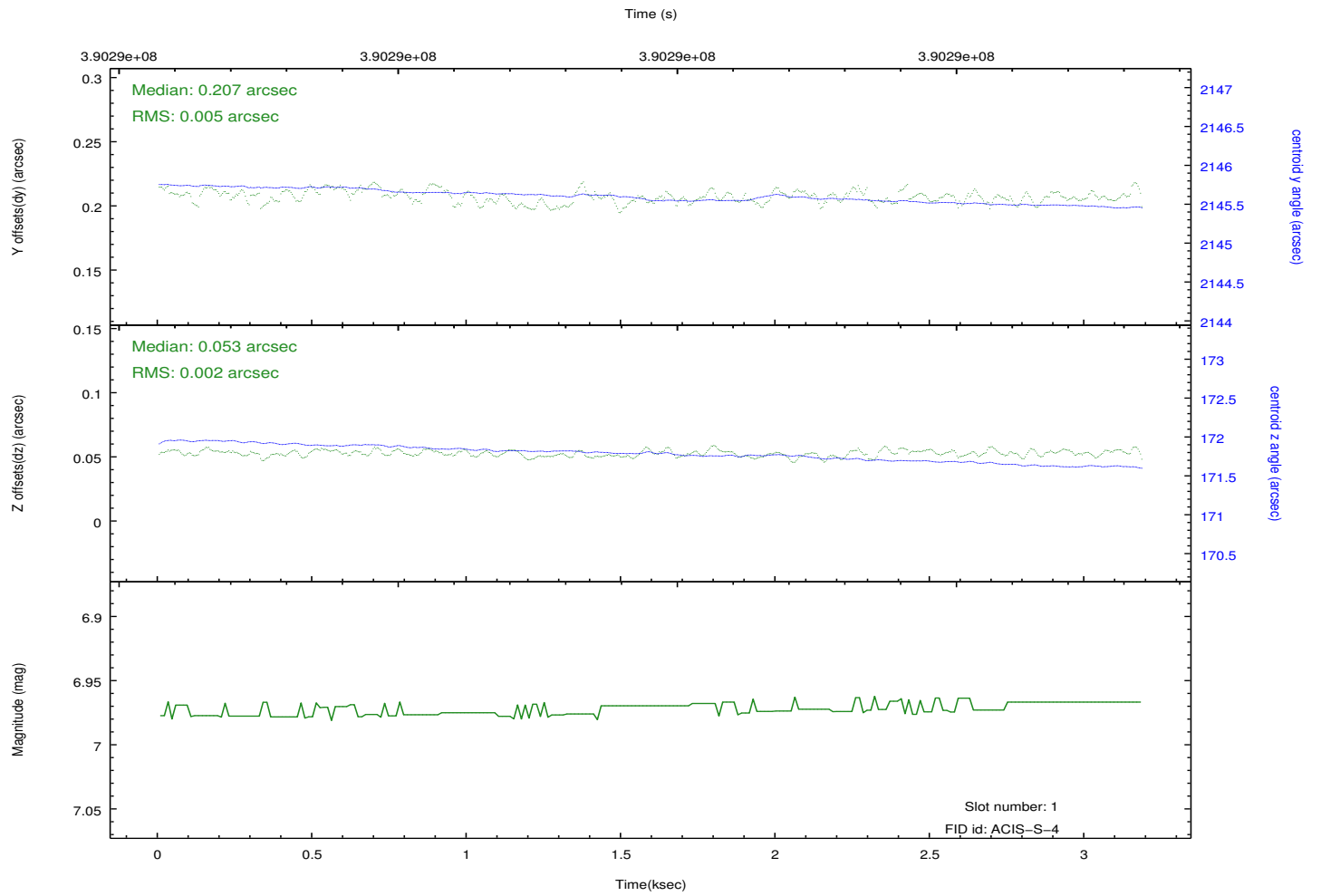
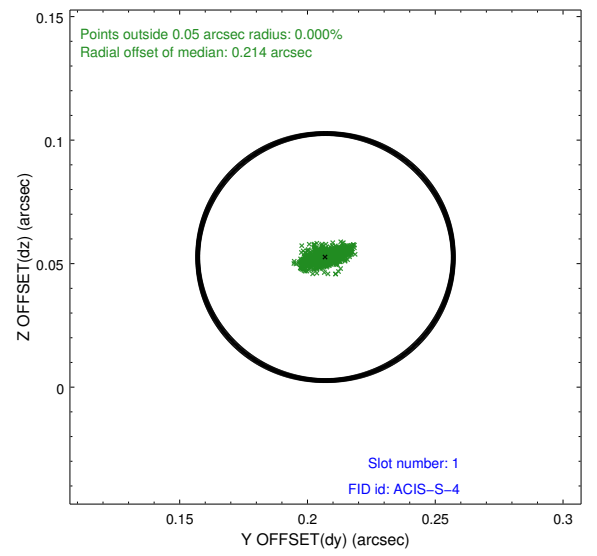
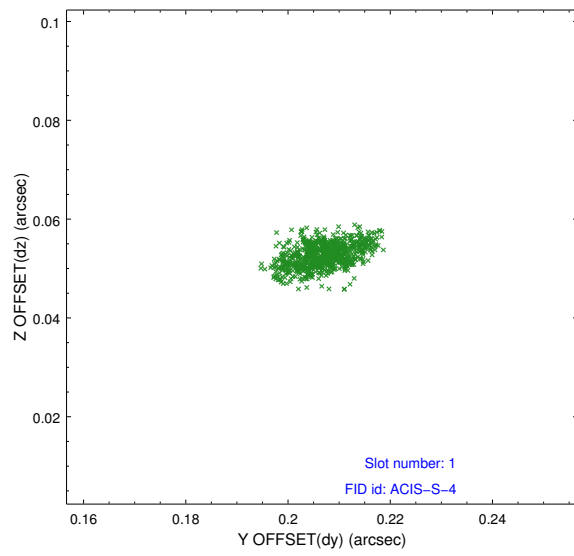


## 2.5 FID Slots

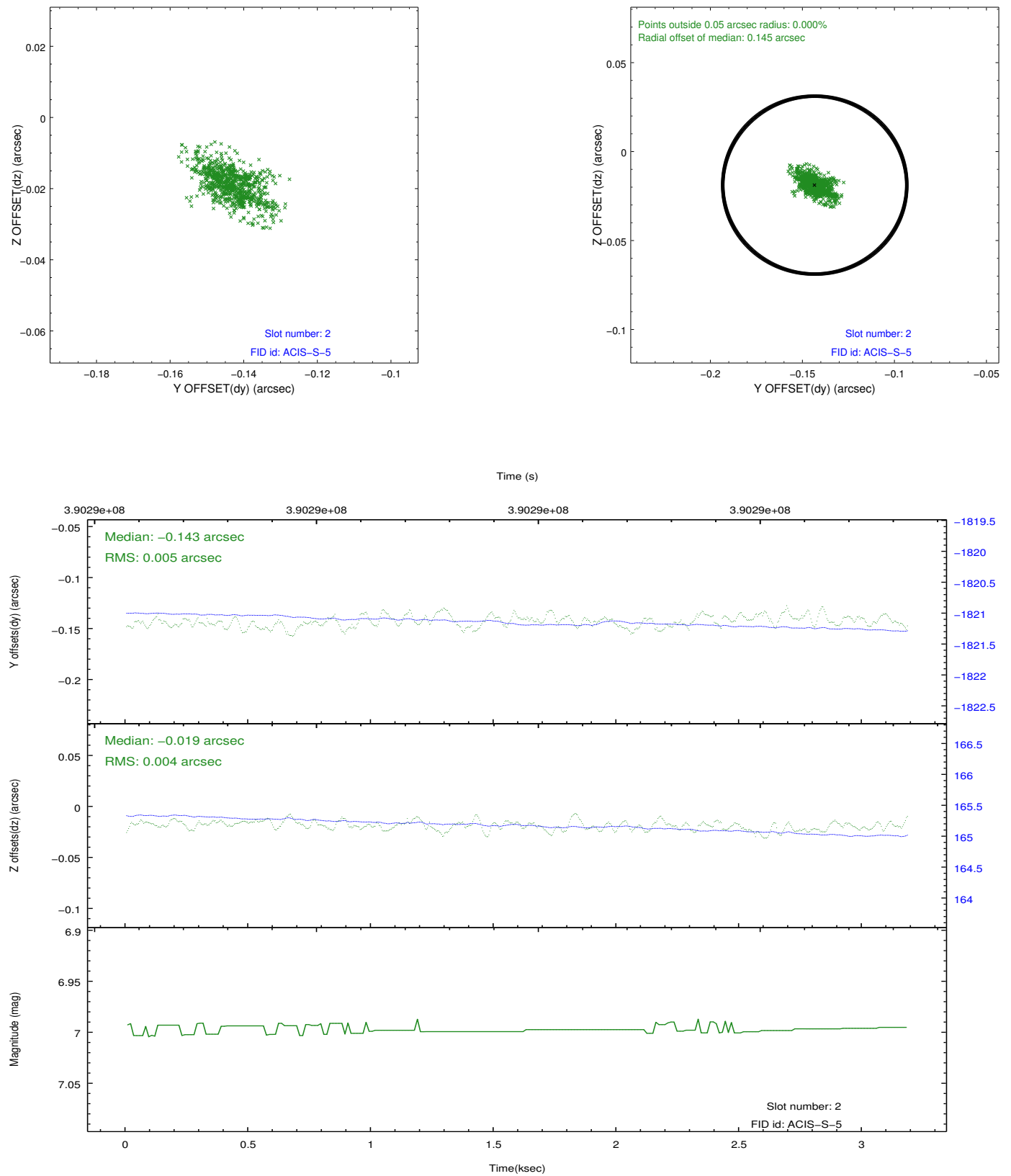
### 2.5.1 Slot 0



## 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)	2012.07.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.1823999777436

### A.2 Comments