

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12085 - L2 Version 2  
Chandra X-Ray Center

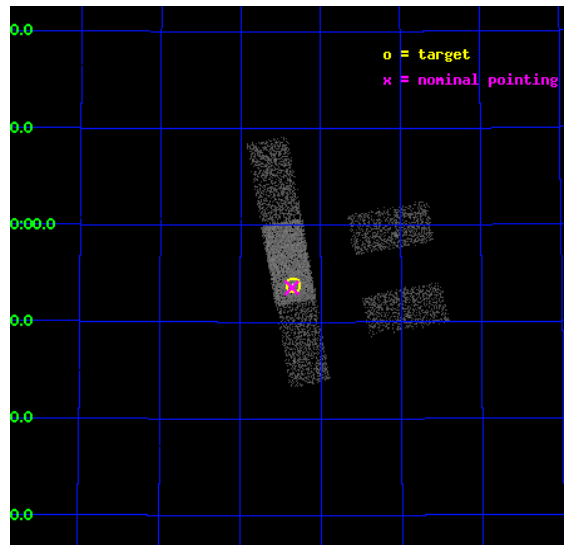
L2 Processing Date : Jun 26 2012

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# 1 Front

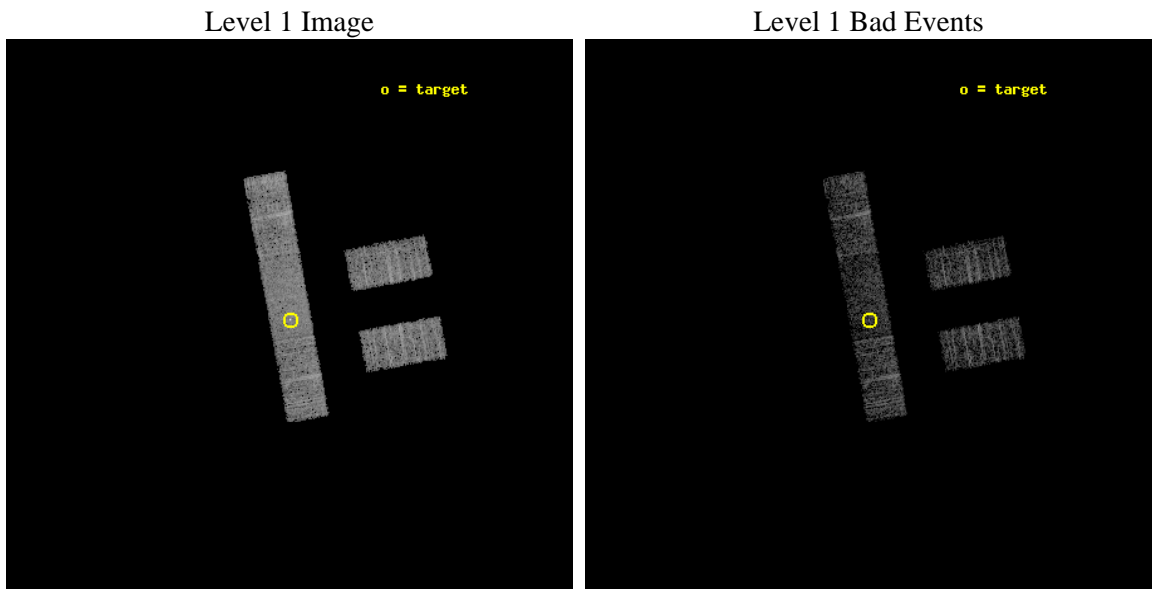
seq_num	702315	Sequence number
obs_id	12085	Observation id
title	Gravitationally lensed quasar Q0957+561AB in outburst	Proposal tit
observer	Dr Luis Goicoechea	Principal investigator
object	Q0957+561	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	150.336667	Observer's specified target RA [deg]
dec_targ	55.897056	Observer's specified target Dec [deg]
ra_nom	150.3398687172	Nominal RA [deg]
dec_nom	55.892389043039	Nominal Dec [deg]
roll_nom	259.70489596703	Nominal Roll [deg]
revision	2	Processing version of data
ontime	3061.69997859	Sum of GTIs [s]
livetime	2989.5292259816	Livetime [s]
ontime2	3061.69997859	Sum of GTIs [s]
ontime3	3061.69997859	Sum of GTIs [s]
ontime6	3061.69997859	Sum of GTIs [s]
ontime7	3061.69997859	Sum of GTIs [s]
ontime8	3061.69997859	Sum of GTIs [s]
l2events	12375	Number of level 2 events



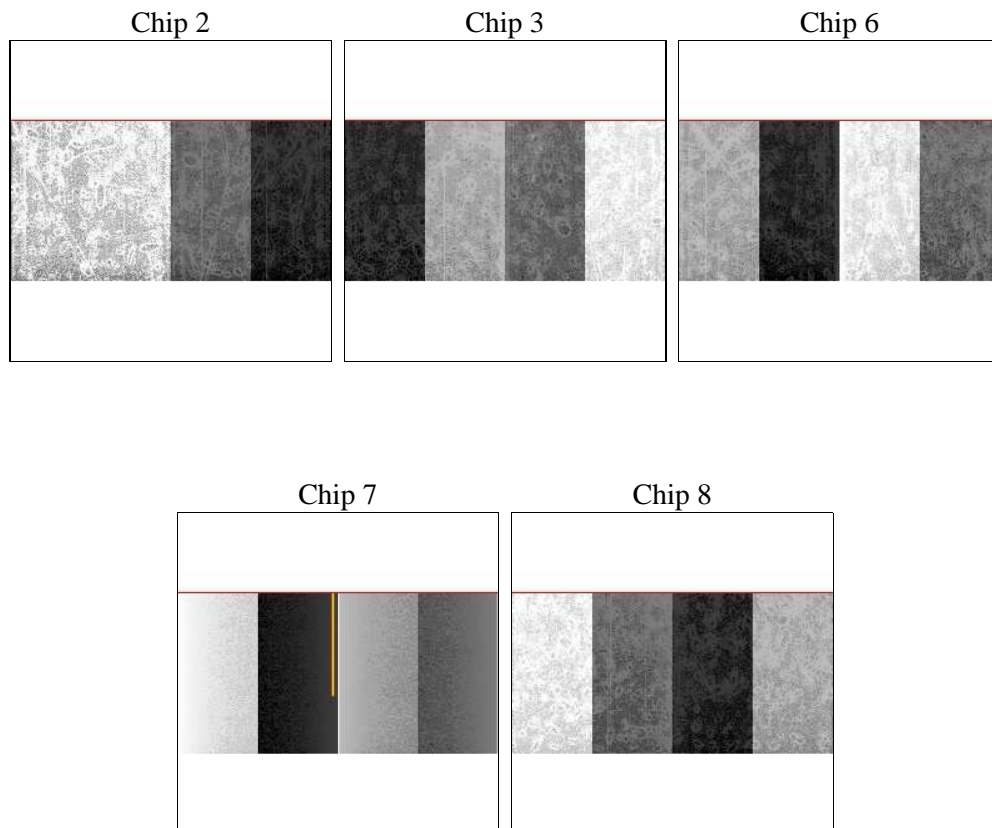
## 2 OBI

### 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	3061.69997859	Sum of GTIs [s]
caldsver	4.4.10	&#160	ontime2	3061.69997859	Sum of GTIs [s]
date	2012-06-26T13:30:59	Date and time of file creation	ontime3	3061.69997859	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	3061.69997859	Sum of GTIs [s]
			ontime7	3061.69997859	Sum of GTIs [s]
			ontime8	3061.69997859	Sum of GTIs [s]
			l1events	70598	Number of level 1 events

### 2.1.4 Events

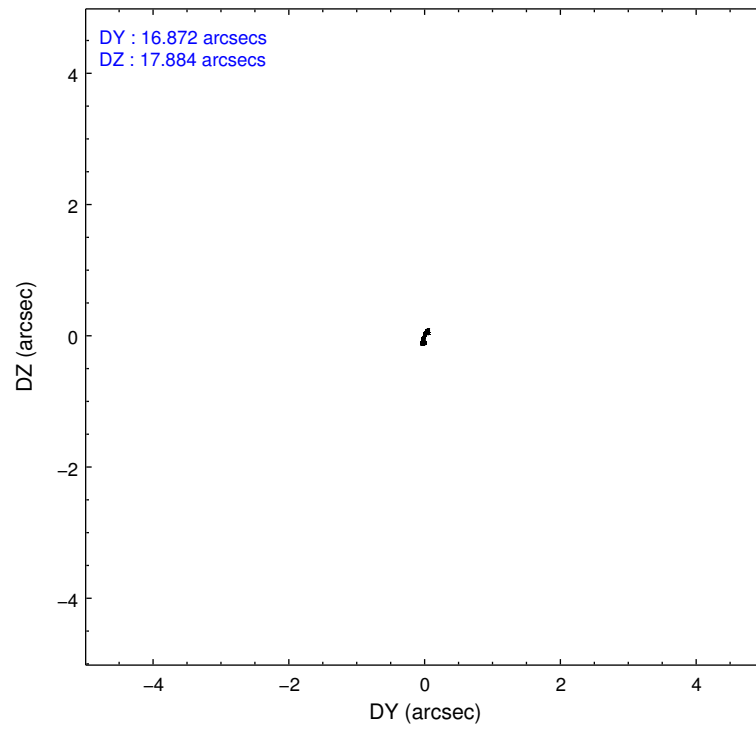
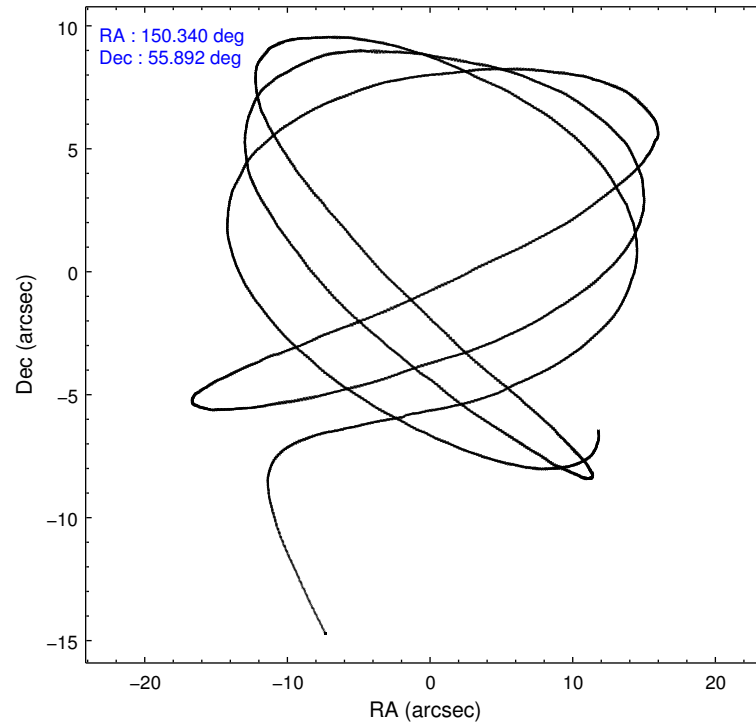
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	12977	12541	13289	15279	16512
rejected events	11582	11204	11790	7757	11818
rejected %	89%	89%	88%	50%	71%

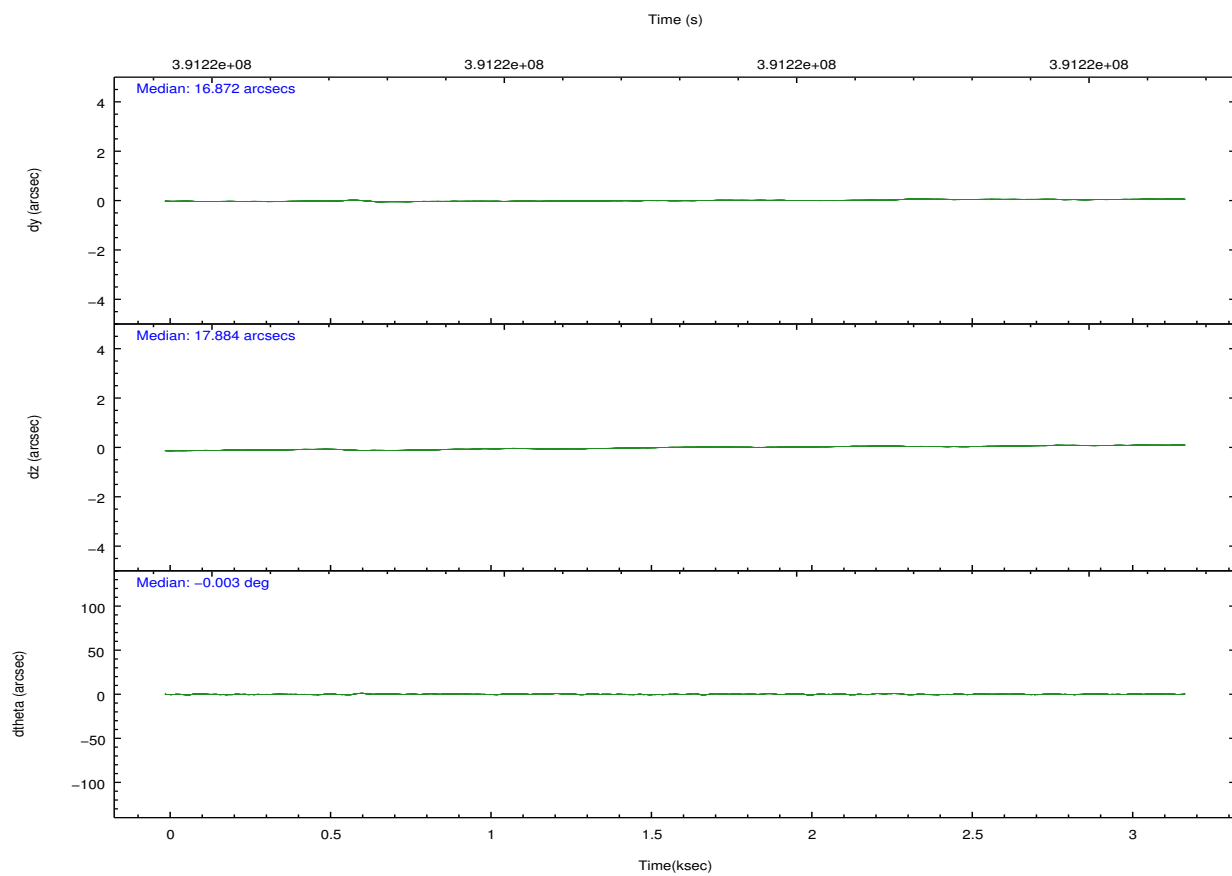
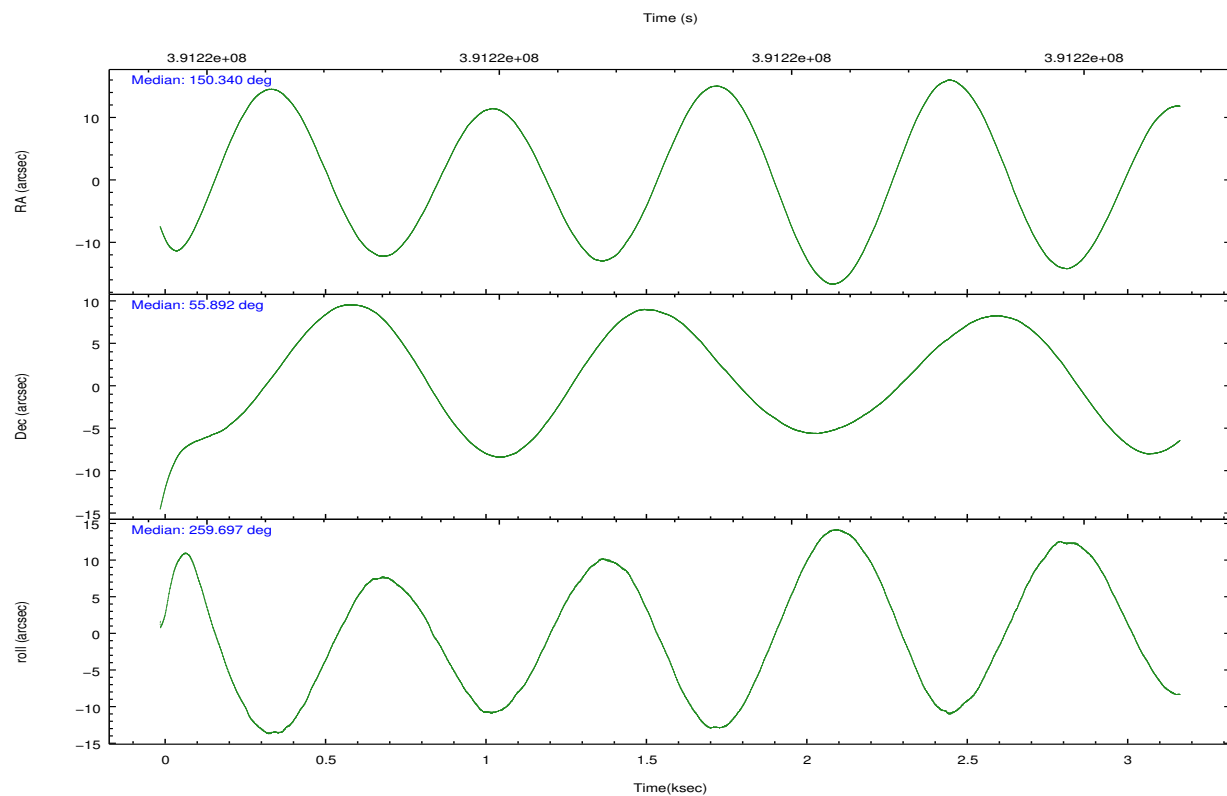
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	460	464	508	930	1343
	3%	3%	3%	6%	8%
grade 1 events	3	7	4	35	12
	0%	0%	0%	0%	0%
grade 2 events	342	290	336	1633	1172
	2%	2%	2%	10%	7%
grade 3 events	184	174	179	785	463
	1%	1%	1%	5%	2%
grade 4 events	183	164	167	737	467
	1%	1%	1%	4%	2%
grade 5 events	439	546	534	1498	772
	3%	4%	4%	9%	4%
grade 6 events	229	246	309	3445	1252
	1%	1%	2%	22%	7%
grade 7 events	11137	10650	11252	6216	11031
	85%	84%	84%	40%	66%

## 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	150.322735	150.3398687171988	CCD I2 on	O4	Y
[deg] Pointing Dec	55.918157	55.89238904303895	CCD I3 on	O3	Y
[deg] Pointing Roll	259.562509	259.7048959670348	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)	391216164.184000	391214733.88473	CCD S5 on	N	N
Observation start date	2010-05-25T23:08:18	2010-05-25T22:45:33	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	391219164.184000	391219998.7975	On-chip summing requested	N	N
Observation end date	2010-05-25T23:58:18	2010-05-26T00:13:18	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





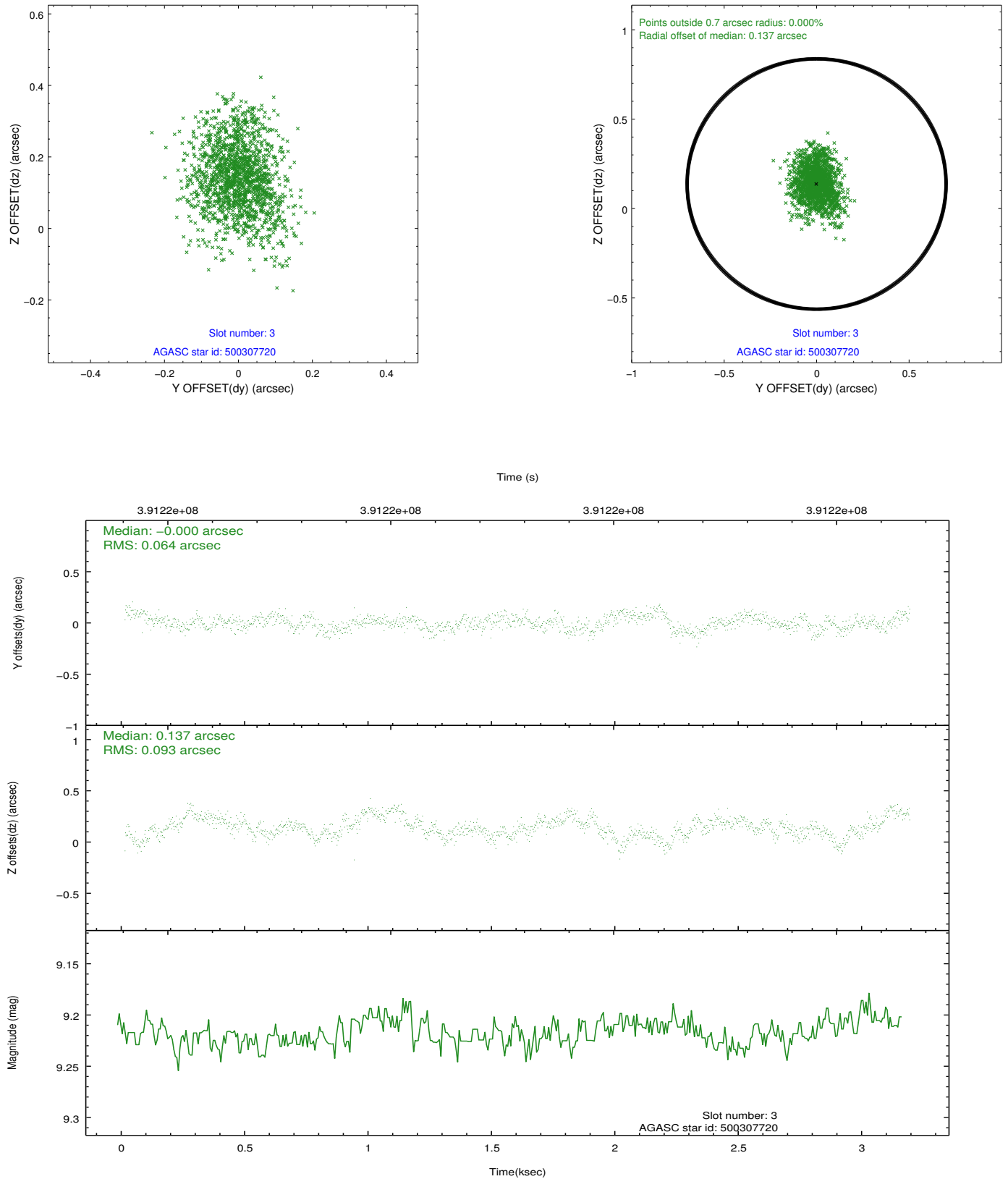
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.88	776	-0.058	-0.035	0.007	0.011	0.000000	0.000000	-770.00	-1739.34
1	FID	ACIS-S-4	6.97	776	0.150	0.038	0.005	0.010	0.000000	0.000000	2142.61	167.07
2	FID	ACIS-S-5	7.00	776	-0.123	0.006	0.006	0.011	0.000000	0.000000	-1820.30	163.08
3	GUIDE	500307720	9.22	1552	-0.000	0.137	0.122	0.202	149.835368	56.109010	-501.81	-1087.09
4	GUIDE	500309776	7.95	1552	-0.156	-0.112	0.081	0.136	150.409238	55.585087	1151.48	388.82
5	GUIDE	500437816	8.68	1549	-0.105	0.160	0.081	0.138	151.181905	56.134575	-1088.54	1552.17
6	GUIDE	500312016	9.08	1551	0.228	-0.225	0.125	0.224	148.952939	55.394120	2335.32	-2416.26
7	GUIDE	500310384	9.61	1550	0.032	0.040	0.123	0.206	149.663942	55.314138	2378.28	-935.67

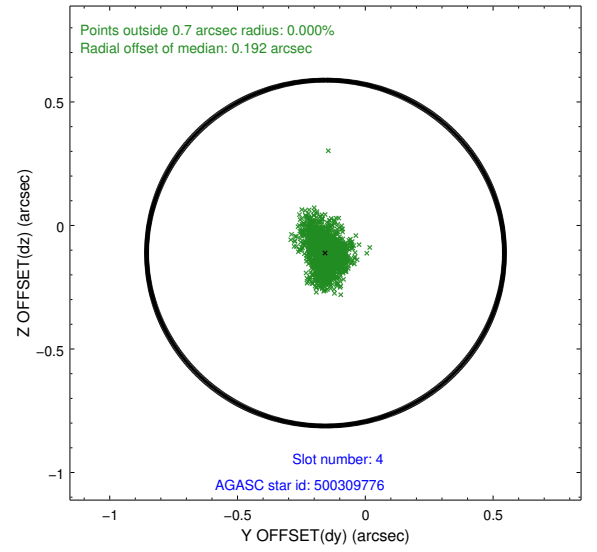
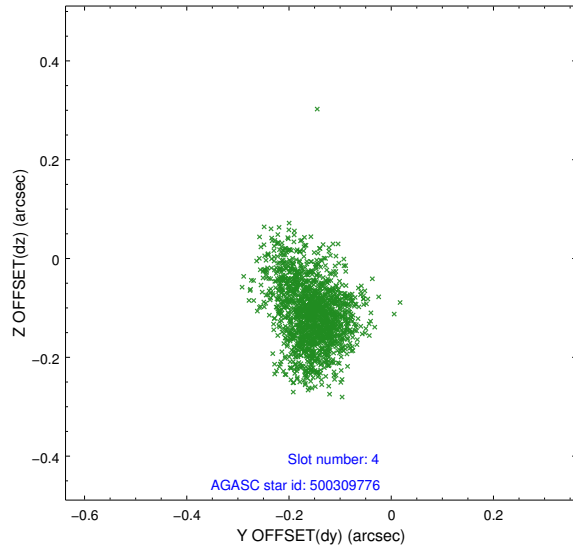


## 2.4 Star Slots

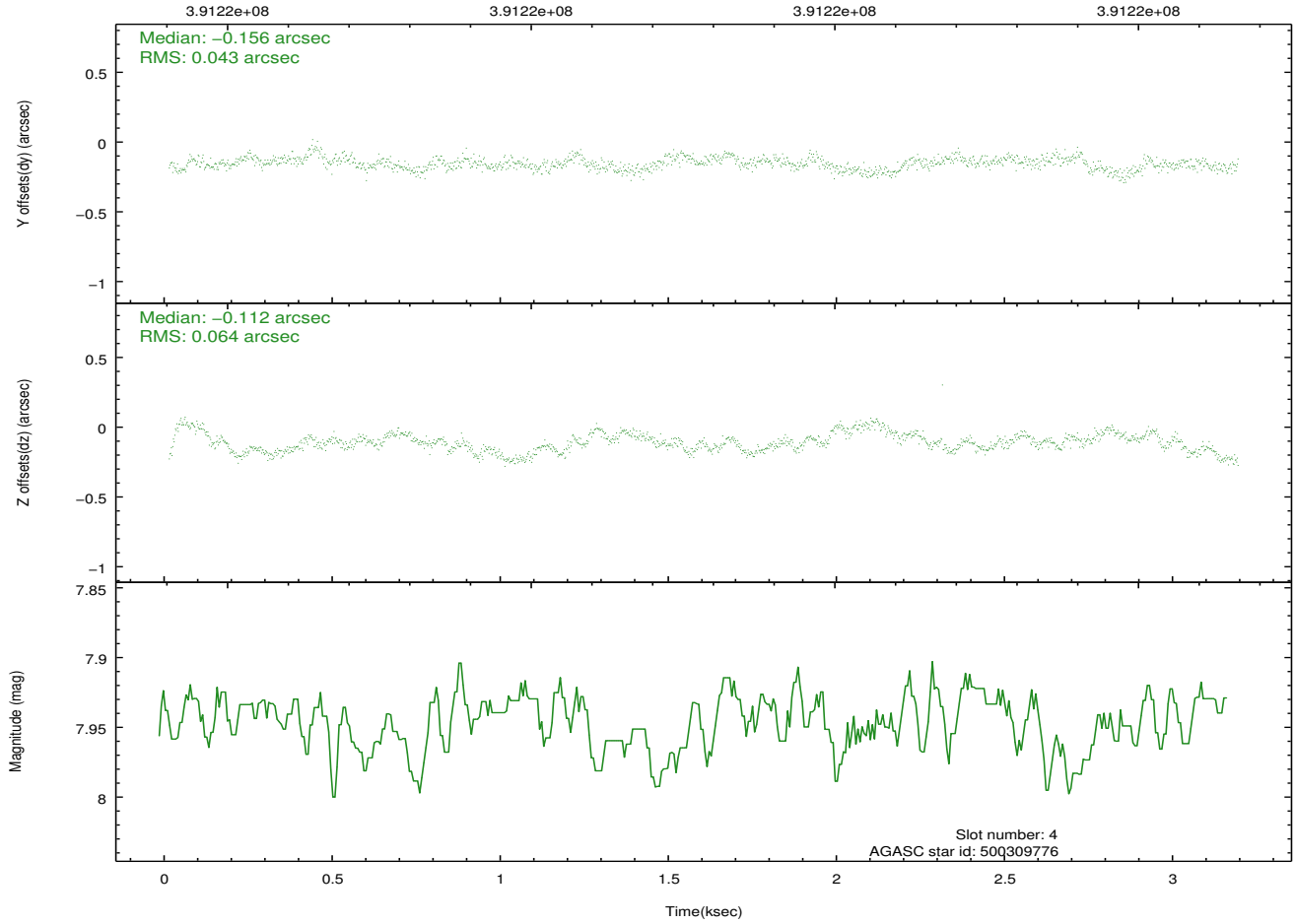
### 2.4.1 Slot 3



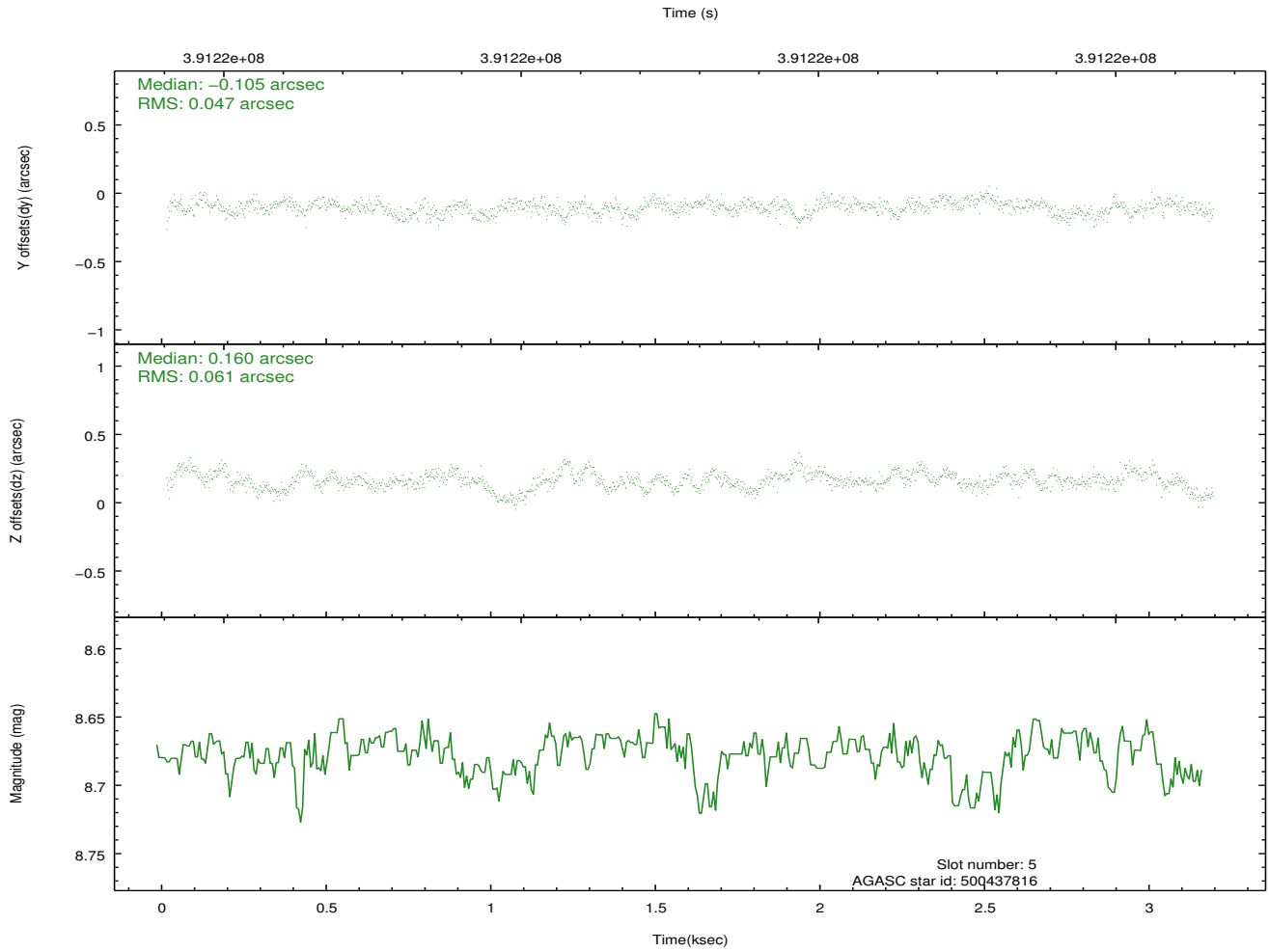
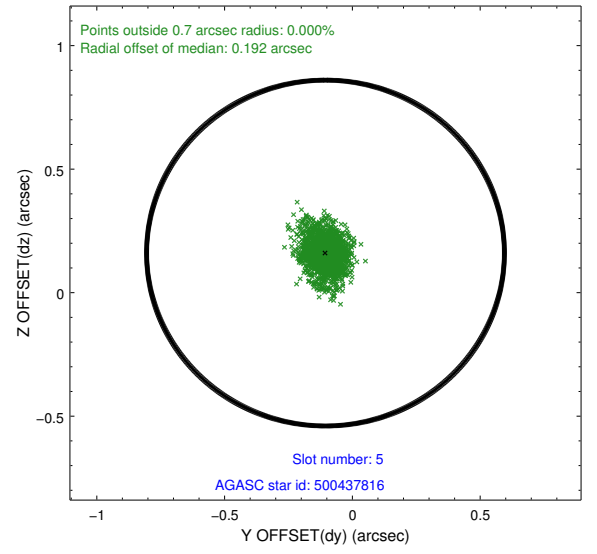
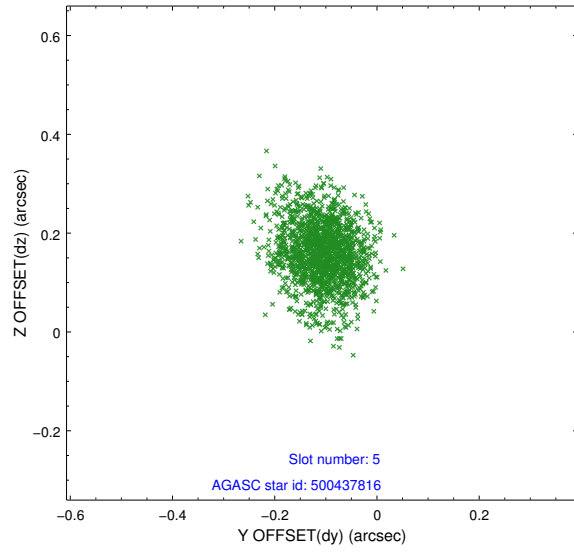
## 2.4.2 Slot 4



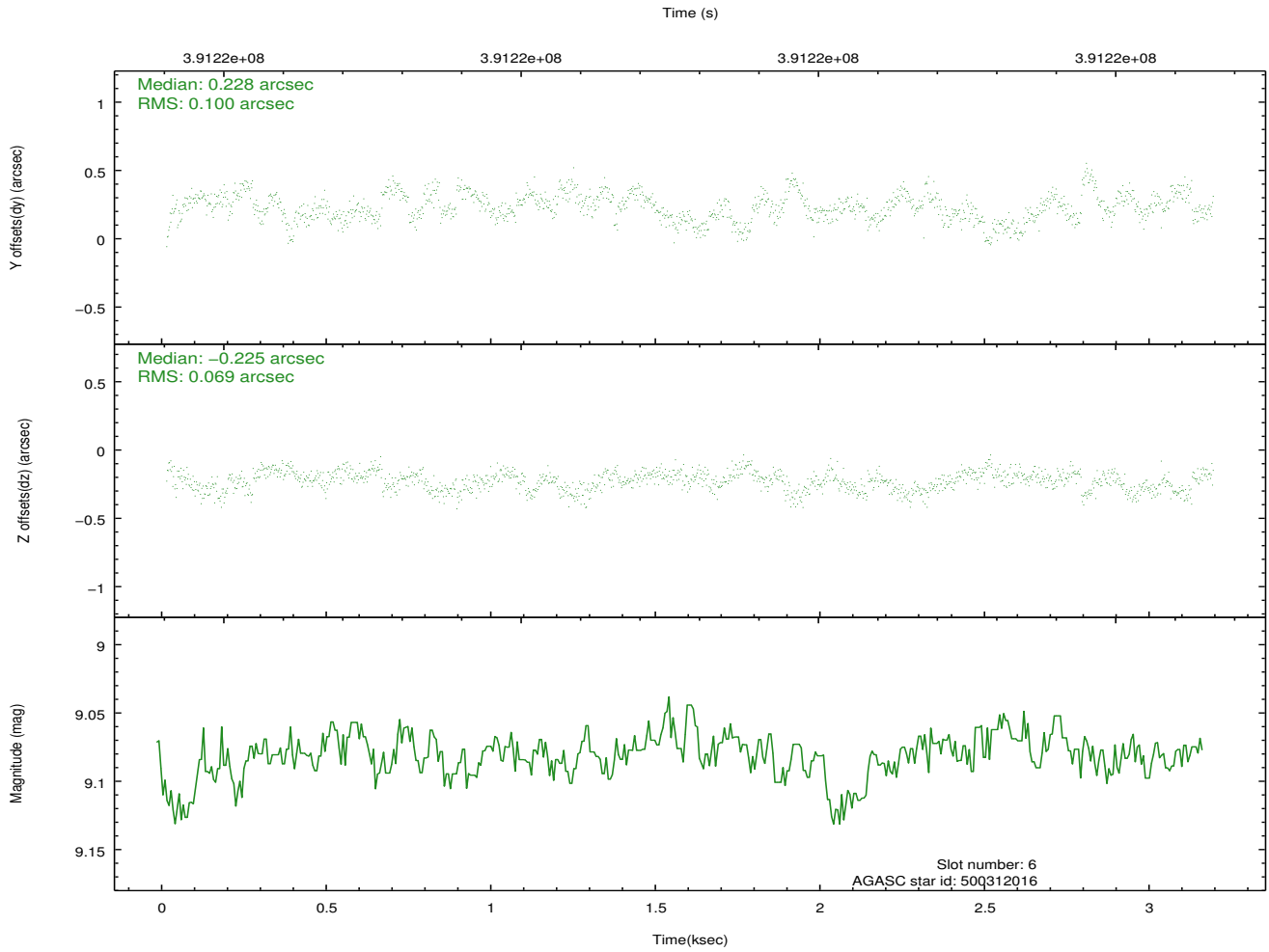
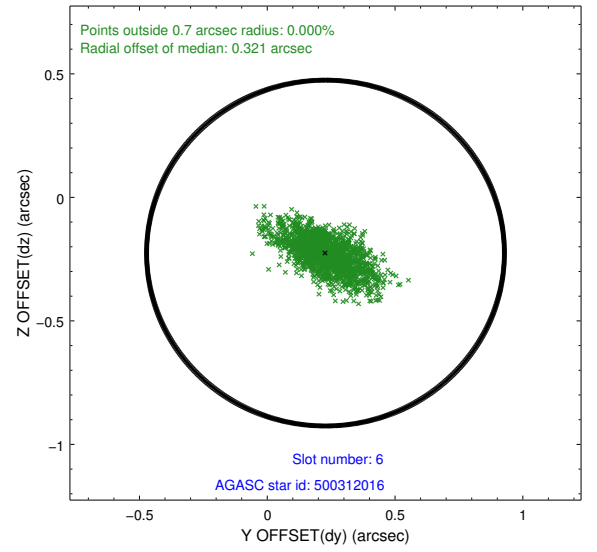
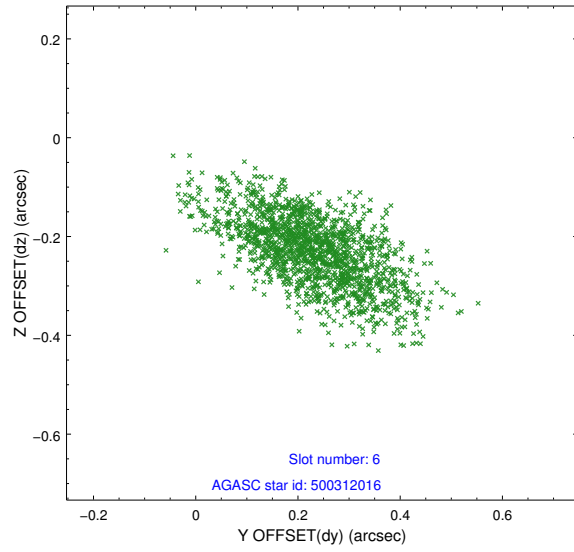
Time (s)



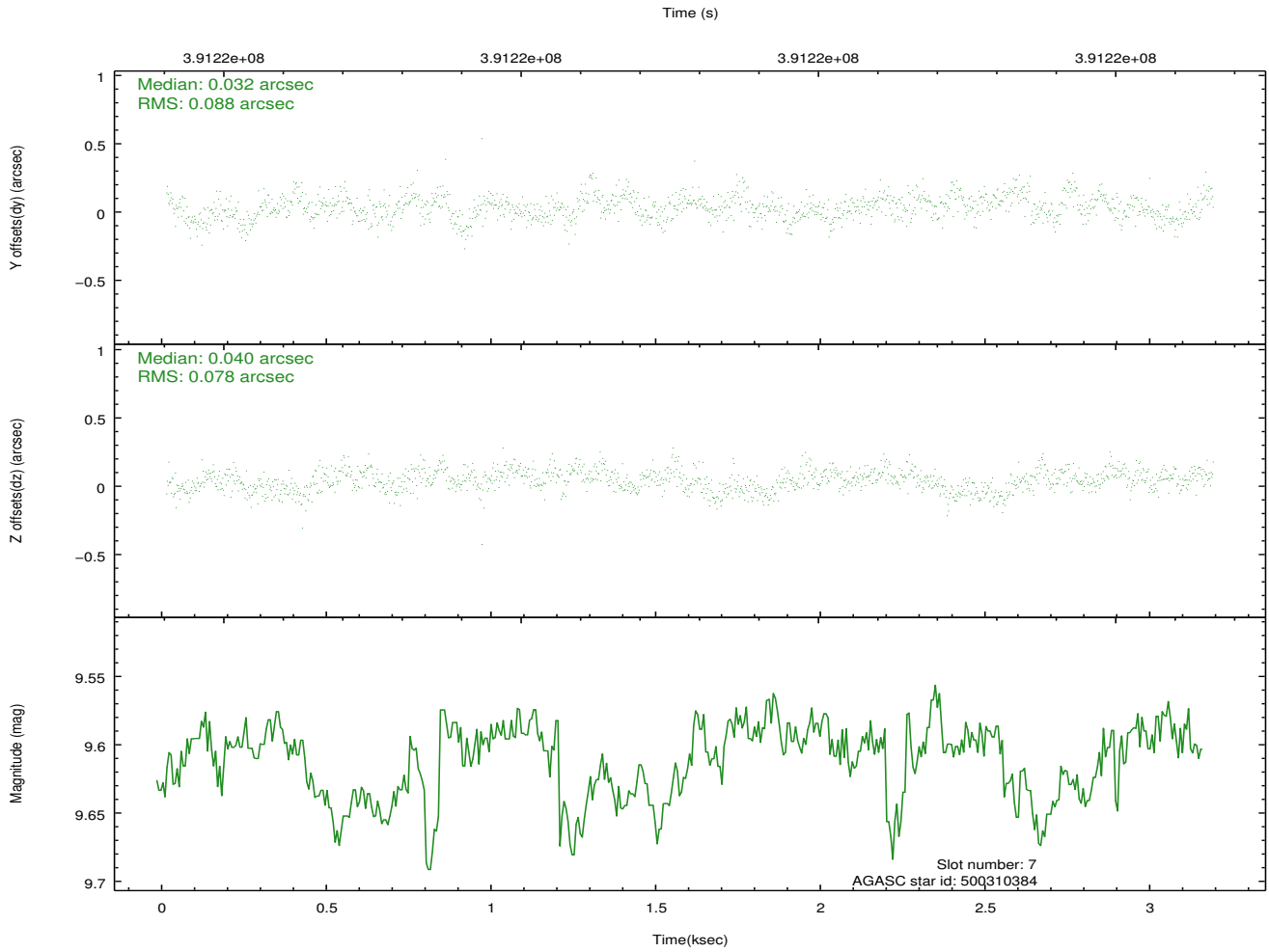
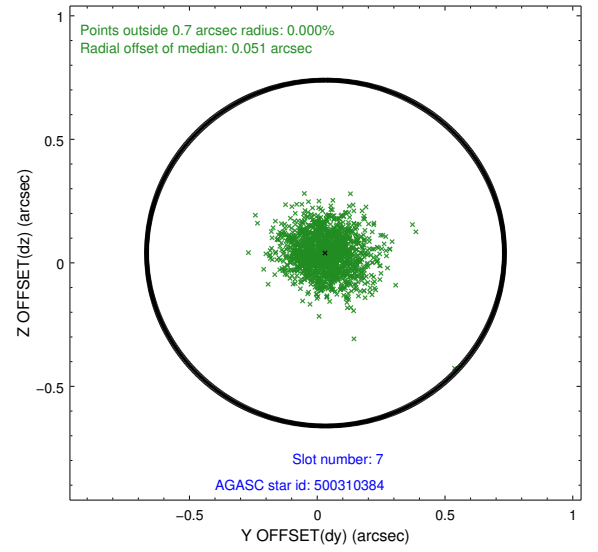
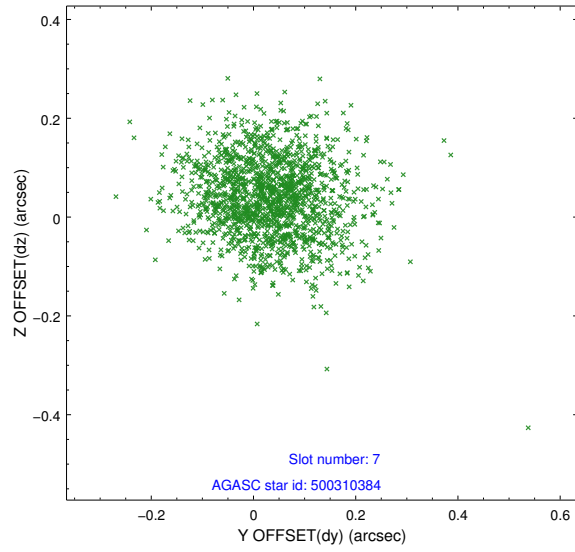
### 2.4.3 Slot 5



## 2.4.4 Slot 6

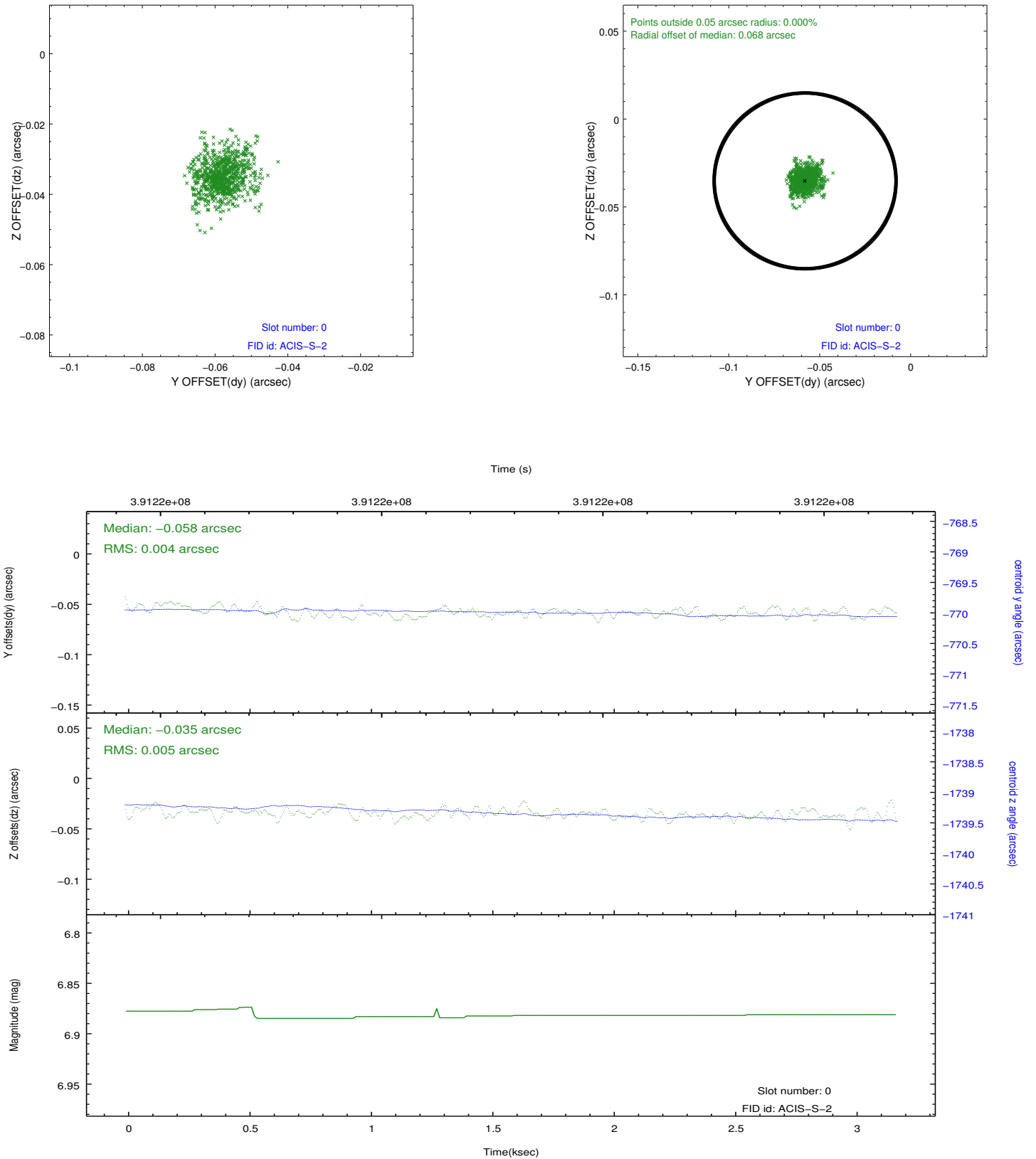


## 2.4.5 Slot 7

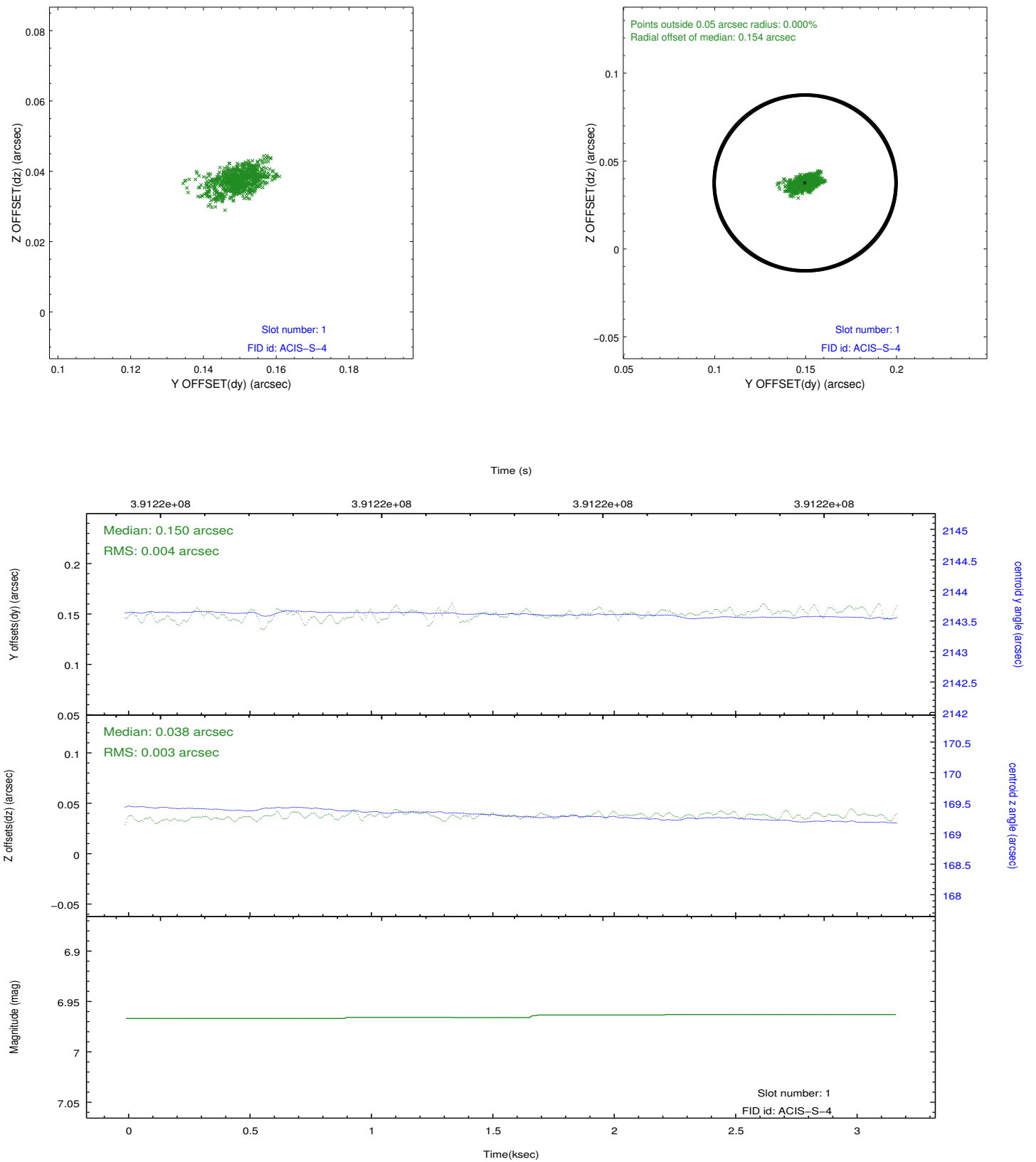


## 2.5 FID Slots

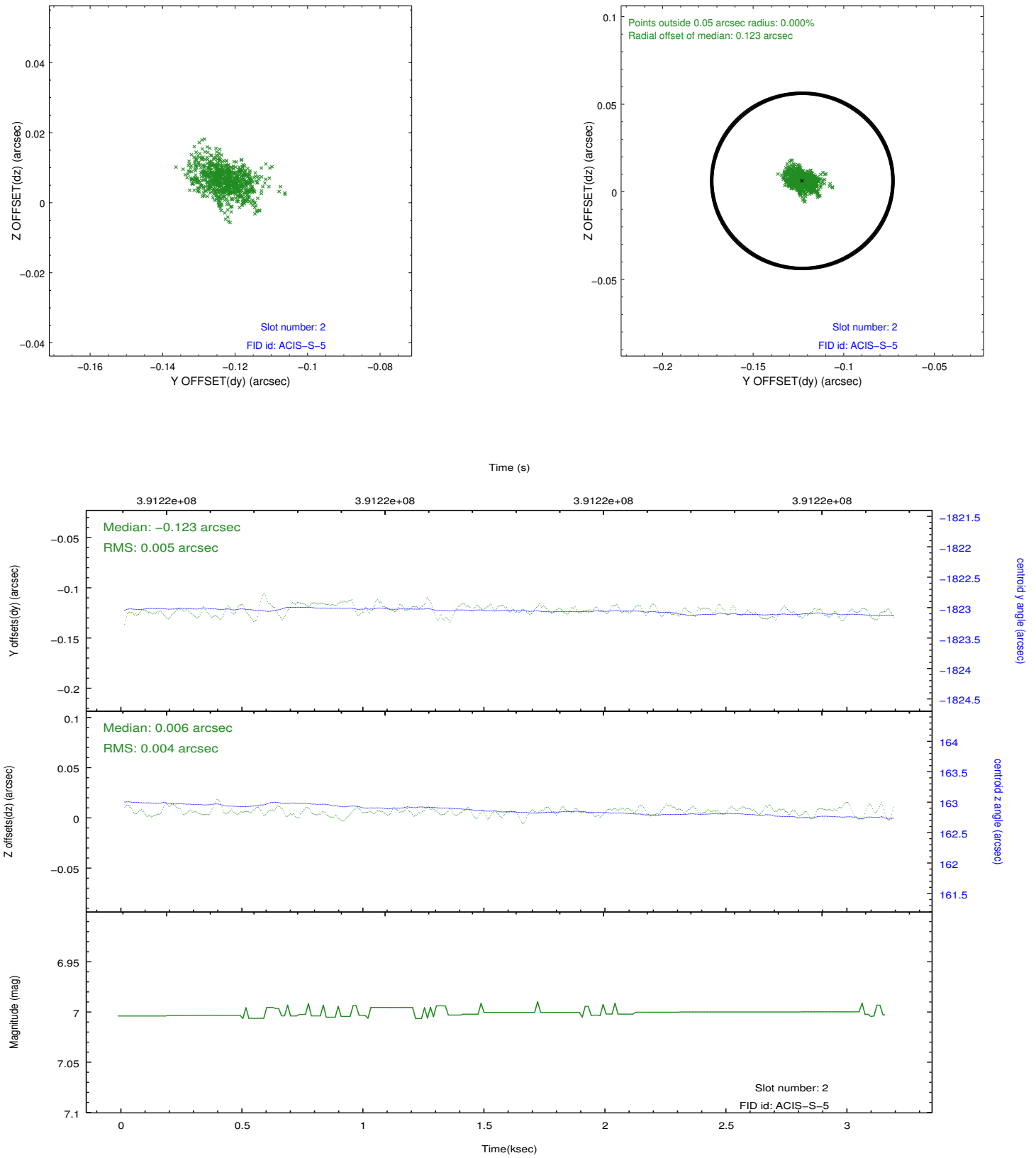
### 2.5.1 Slot 0



## 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)	2012.07.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.06169997859

### **A.2 Comments**