

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 17722 - L2 Version 1  
Chandra X-Ray Center

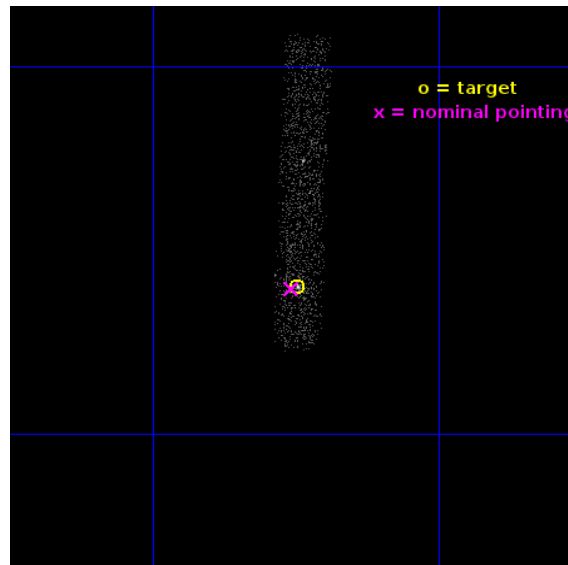
L2 Processing Date : Mar 16 2016

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# 1 Front

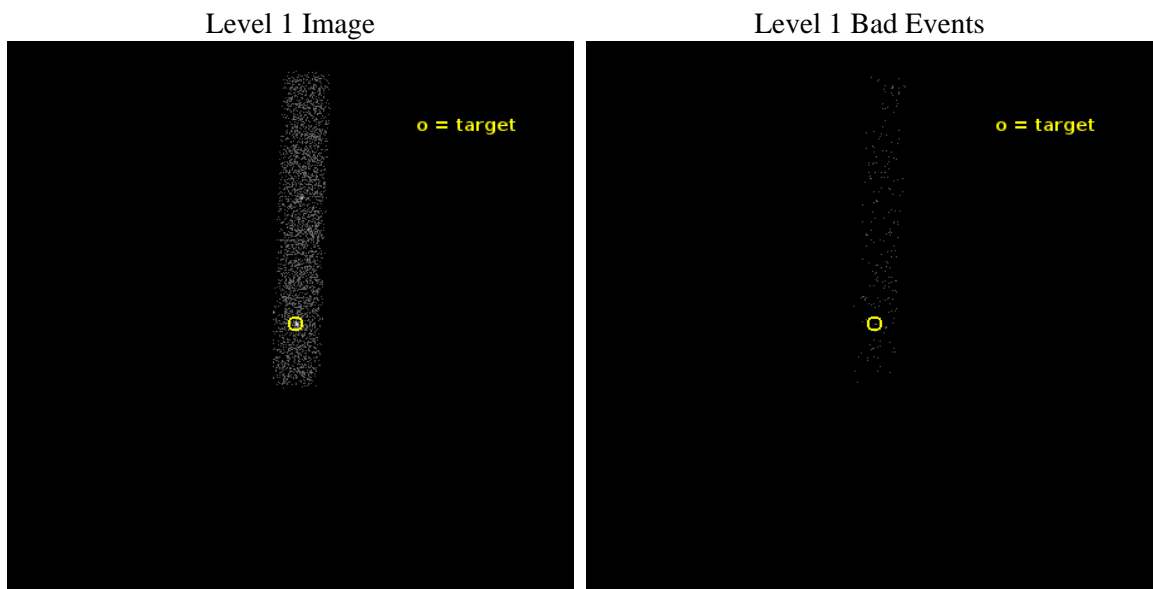
seq_num	201033	Sequence number
obs_id	17722	Observation id
title	Phase-variable X-ray Emission in the Eccentric O9.5V Binary Sigma Orionis	Proposal title
observer	Prof Frederick Walter	Principal investigator
object	sigma Orionis	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	84.686667	Observer's specified target RA [deg]
dec_targ	-2.600028	Observer's specified target Dec [deg]
ra_nom	84.689390778589	Nominal RA [deg]
dec_nom	-2.6009211890332	Nominal Dec [deg]
roll_nom	271.92120687216	Nominal Roll [deg]
revision	1	Processing version of data
ontime	3569.5573917627	Sum of GTIs [s]
livetime	3237.4001376408	Livetime [s]
ontime7	3569.5573917627	Sum of GTIs [s]
l2events	2773	Number of level 2 events



## 2 OBI

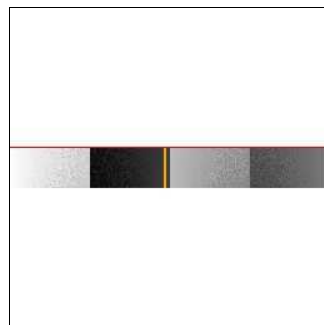
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	3500.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	3569.5573917627	Sum of GTIs [s]
caldsver	4.7.0	&#160	ontime7	3569.5573917627	Sum of GTIs [s]
date	2016-03-16T12:07:15	Date and time of file creation	l1events	4681	Number of level 1 events
revision	1	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	4681
rejected events	1828
rejected %	39%

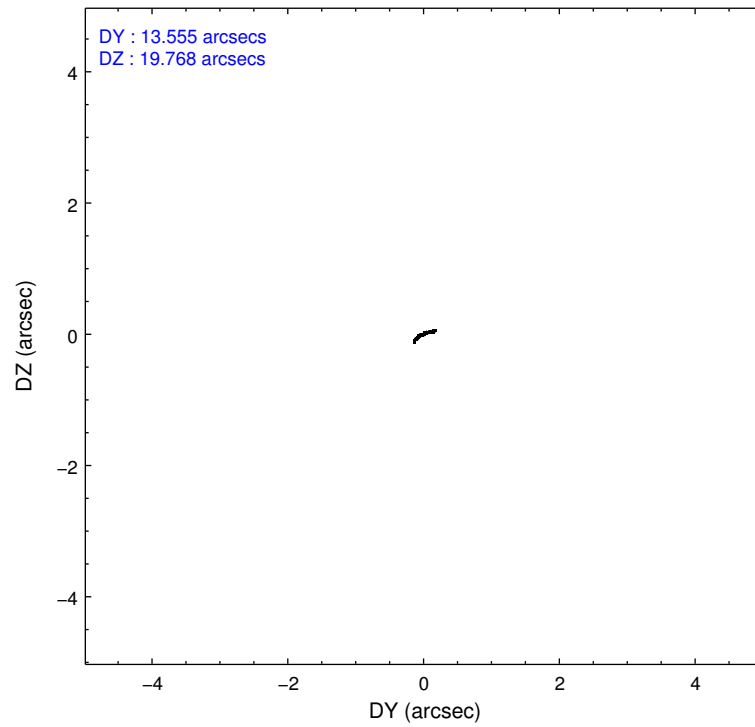
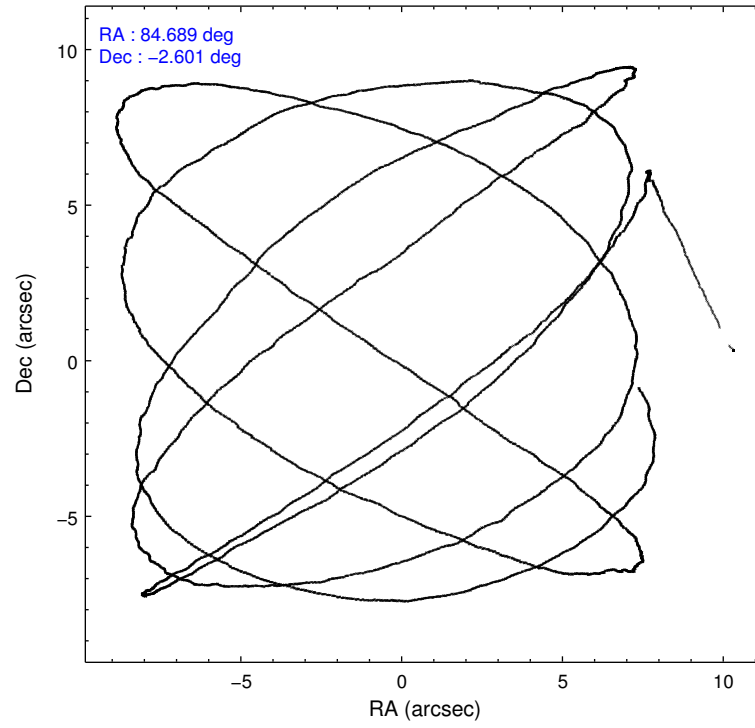
	<b>ccd 7</b>
grade 0 events	566
	12%
grade 1 events	7
	0%
grade 2 events	622
	13%
grade 3 events	340
	7%
grade 4 events	318
	6%
grade 5 events	400
	8%
grade 6 events	1007
	21%
grade 7 events	1421
	30%

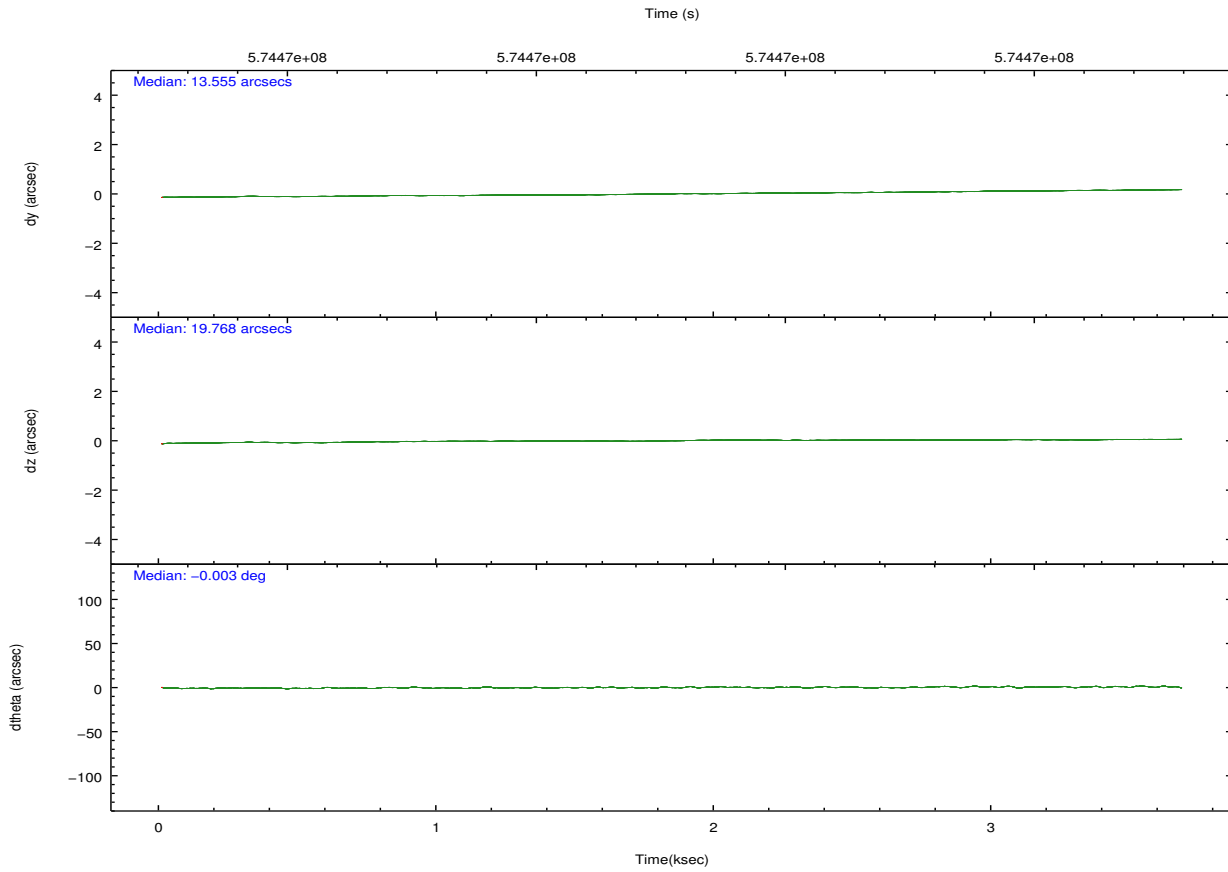
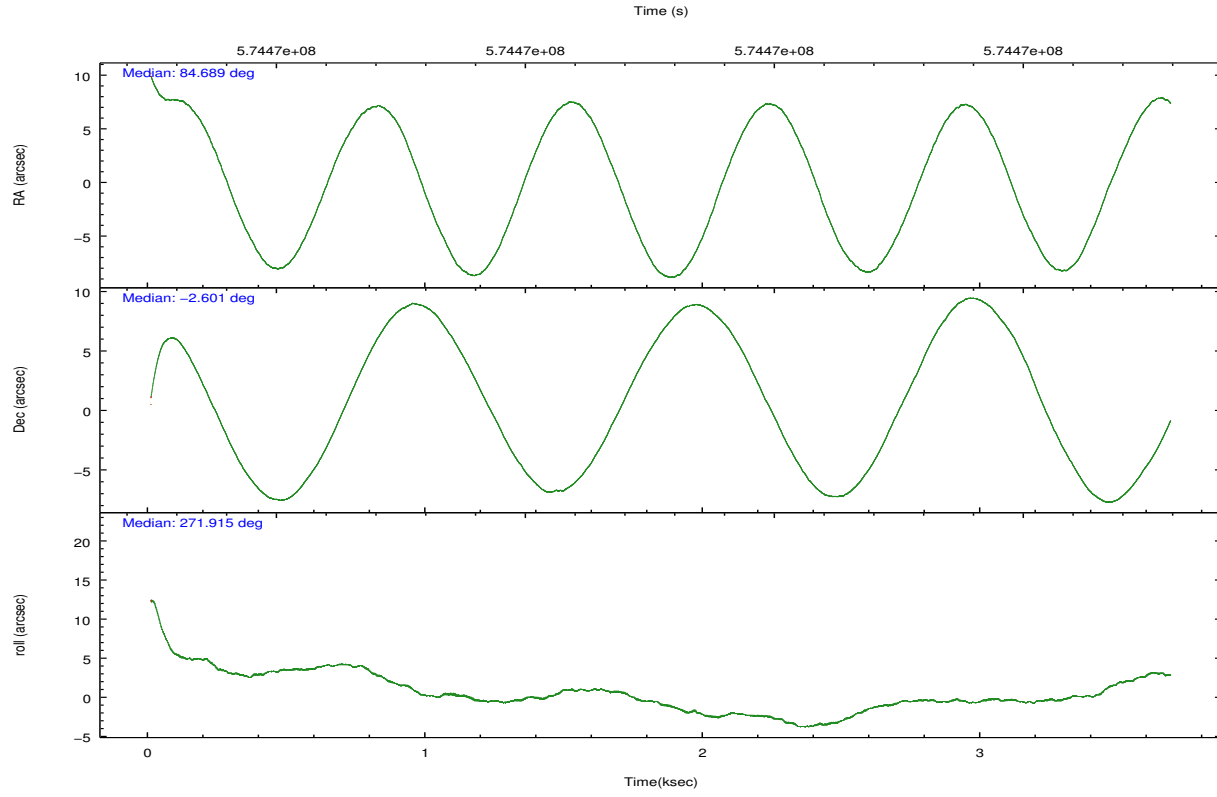


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	84.674450	84.68939077858927	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-2.577669	-2.600921189033186	Subarray start row	449	449
[deg] Pointing Roll	271.763902	271.9212068721557	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
Phase constraints	Y	Y			
[d] Phase period	143.200000	143.200000			
[d] Phase epoch (MJD)	57456.000000	57456.000000			
Phase start	0.045000	0.045000			
Phase end	0.055000	0.055000			
Phase start error	0.010000	0.010000			
Phase end error	0.010000	0.010000			
[s] Observation start time (MET)	574466876.184000	574465740.43091			
Observation start date	2016-03-15T22:06:48	2016-03-15T21:49:00			
[s] Observation end time (MET)	574470376.184000	574471655.70625			
Observation end date	2016-03-15T23:05:08	2016-03-15T23:27:35			
Read mode	TIMED	TIMED			

## 2.3 Aspect



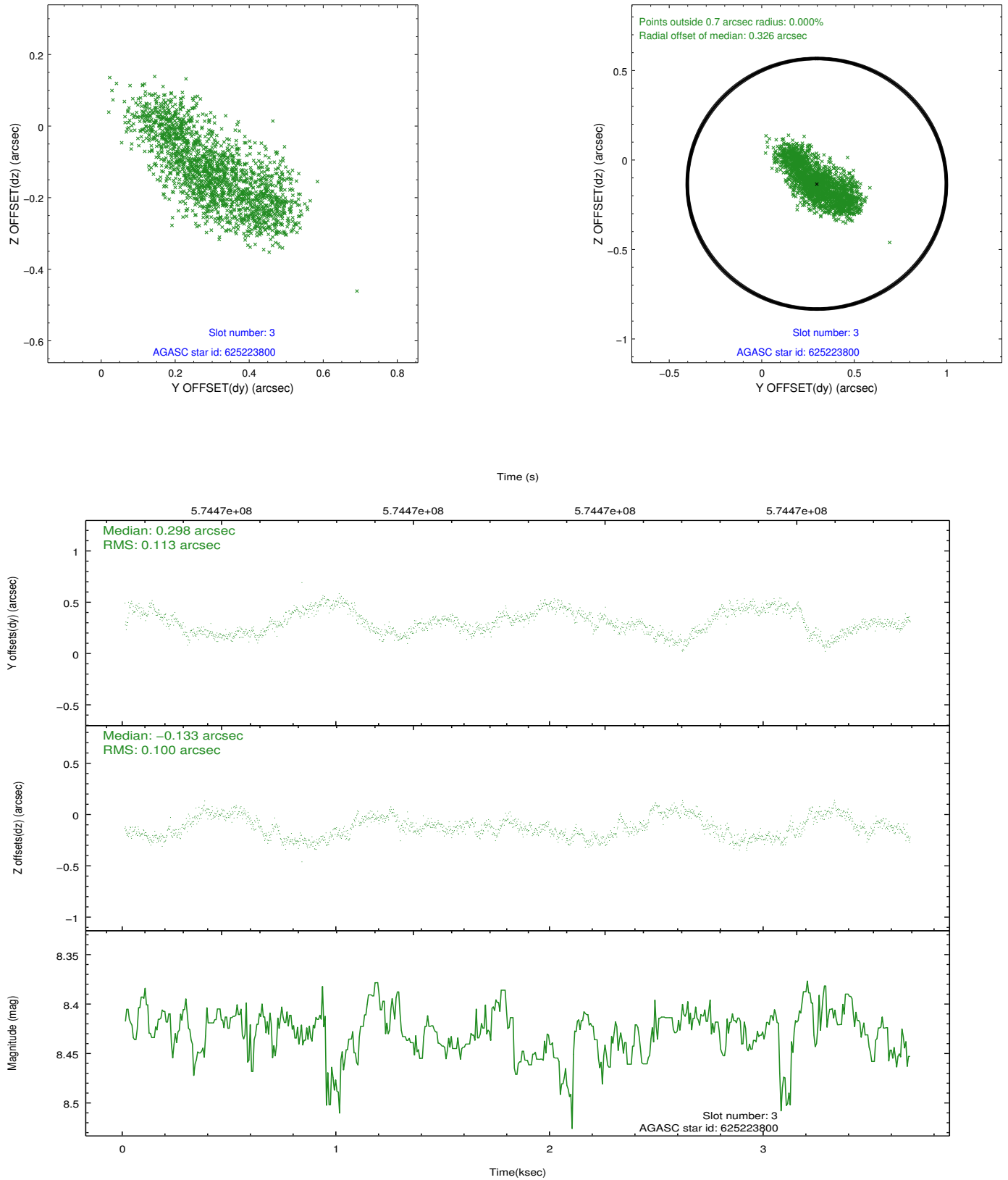


### Slot Statistics

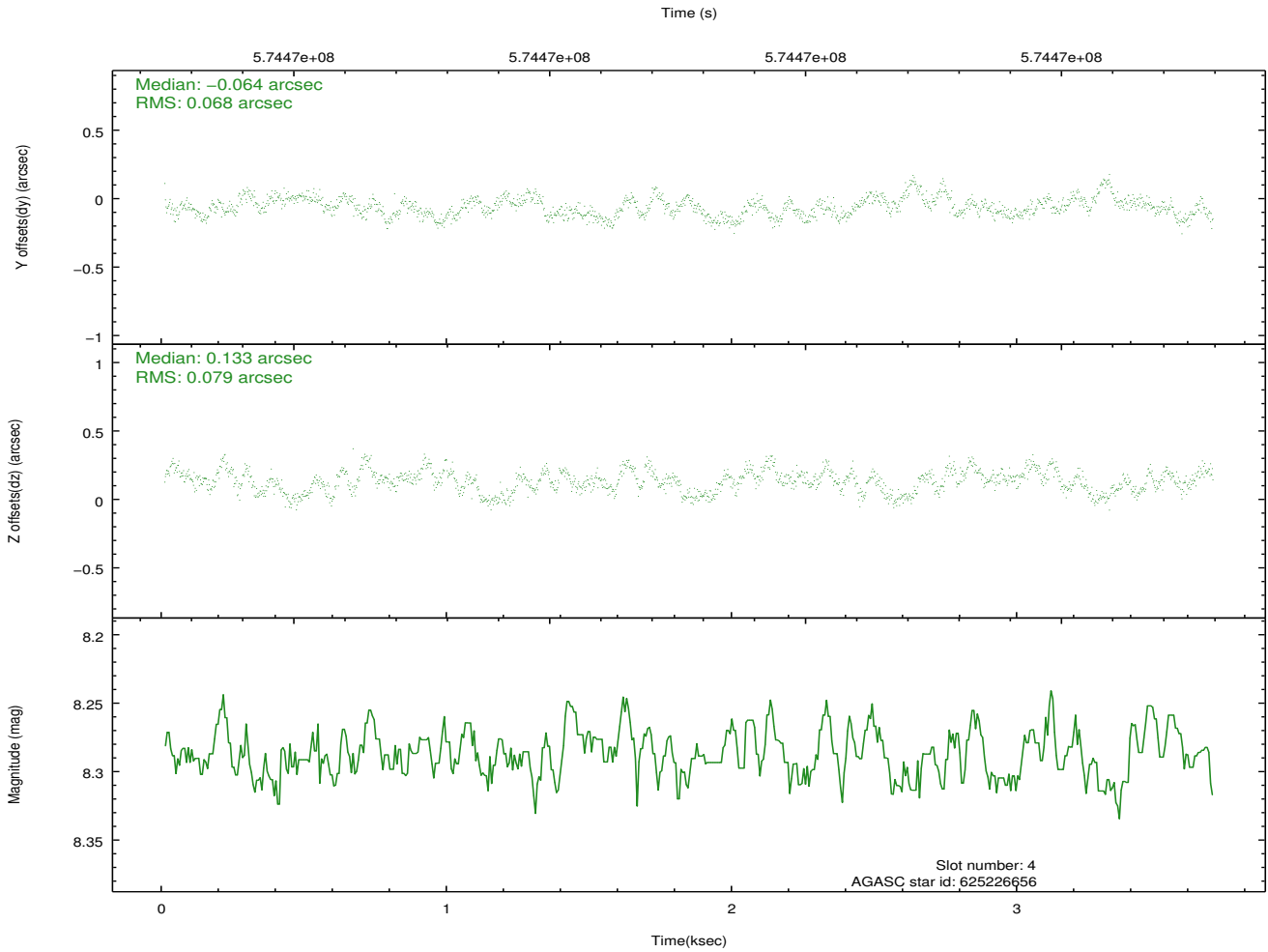
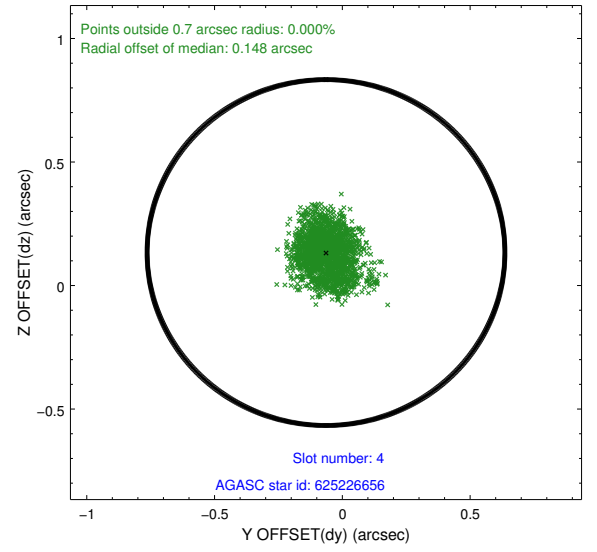
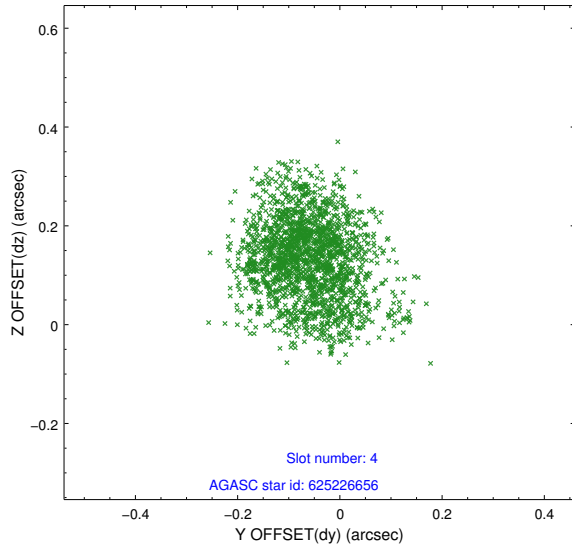
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.09	897	-0.260	-0.176	0.009	0.016	0.000000	0.000000	-766.80	-1741.43
1	FID		ACIS-S-4	7.20	897	0.297	0.142	0.008	0.014	0.000000	0.000000	2146.30	165.52
2	FID		ACIS-S-6	7.34	897	-0.065	0.042	0.007	0.011	0.000000	0.000000	397.64	804.81
3	GUIDE	used	625223800	8.43	1794	0.298	-0.133	0.168	0.253	84.220234	-2.967062	1351.44	-1675.55
4	GUIDE	used	625226656	8.29	1794	-0.064	0.133	0.113	0.177	84.127450	-1.983827	-2196.44	-1902.59
5	GUIDE	used	625352888	9.00	1789	-0.131	-0.121	0.095	0.150	85.235702	-2.833055	979.84	1987.69
6	GUIDE	used	625354096	6.76	1794	-0.143	-0.046	0.095	0.156	85.155401	-2.825234	944.37	1702.07
7	GUIDE	used	625220768	8.36	1793	0.030	0.168	0.084	0.133	84.347465	-2.083660	-1812.93	-1120.16

## 2.4 Star Slots

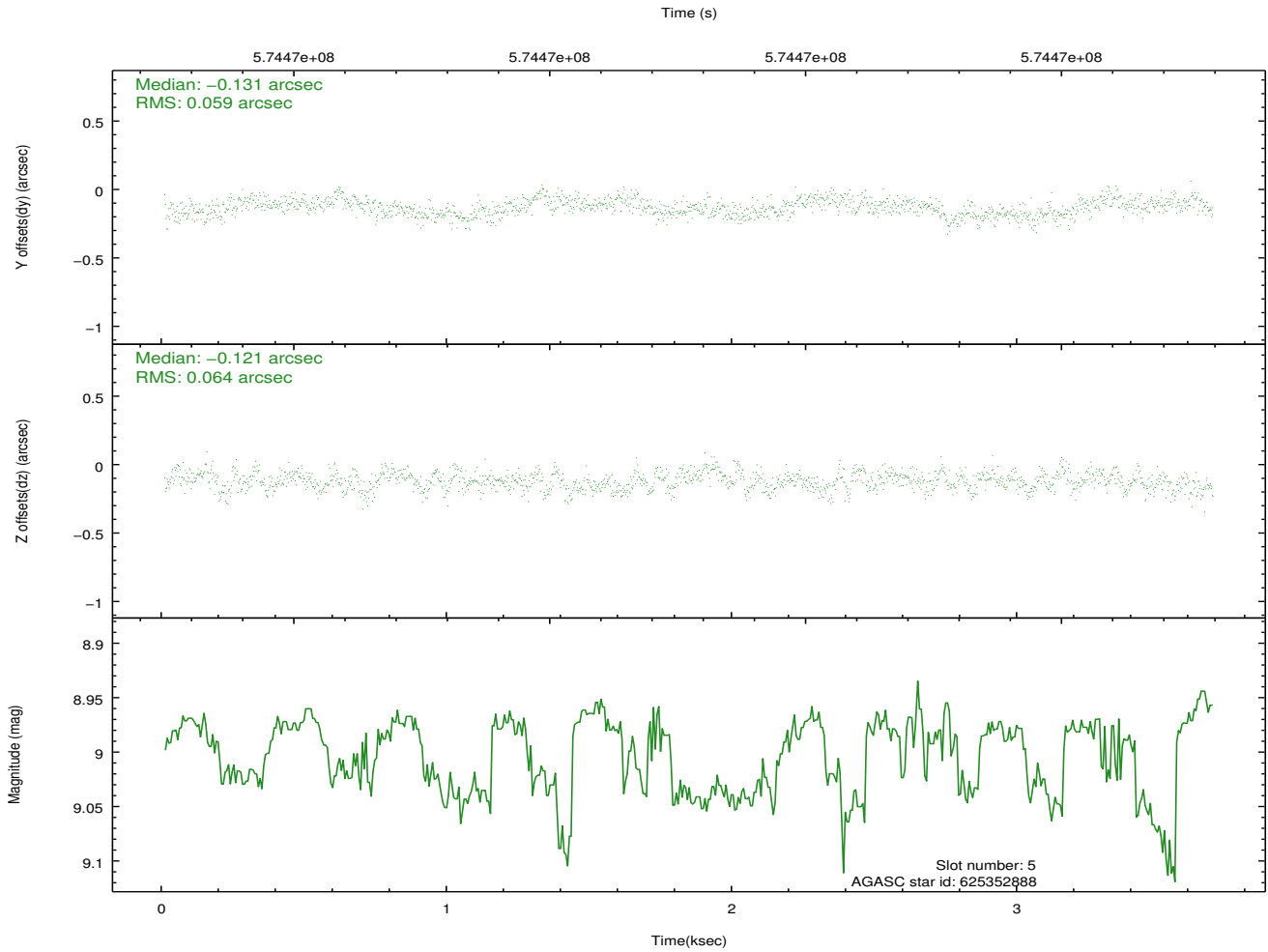
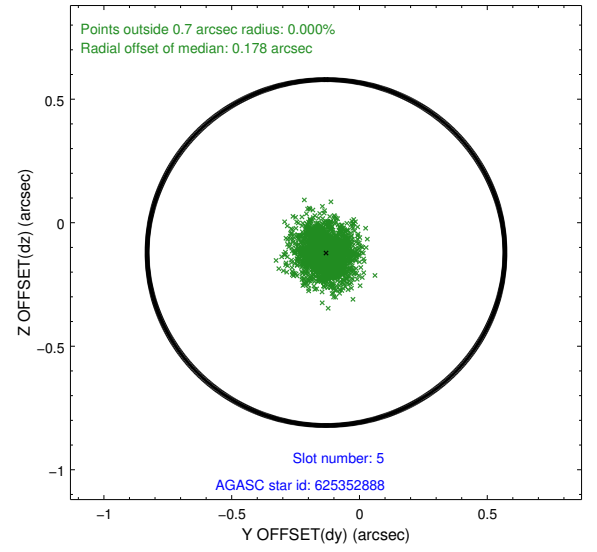
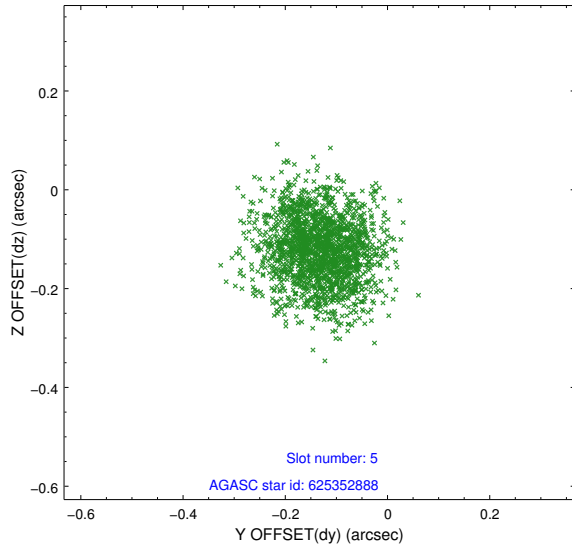
### 2.4.1 Slot 3



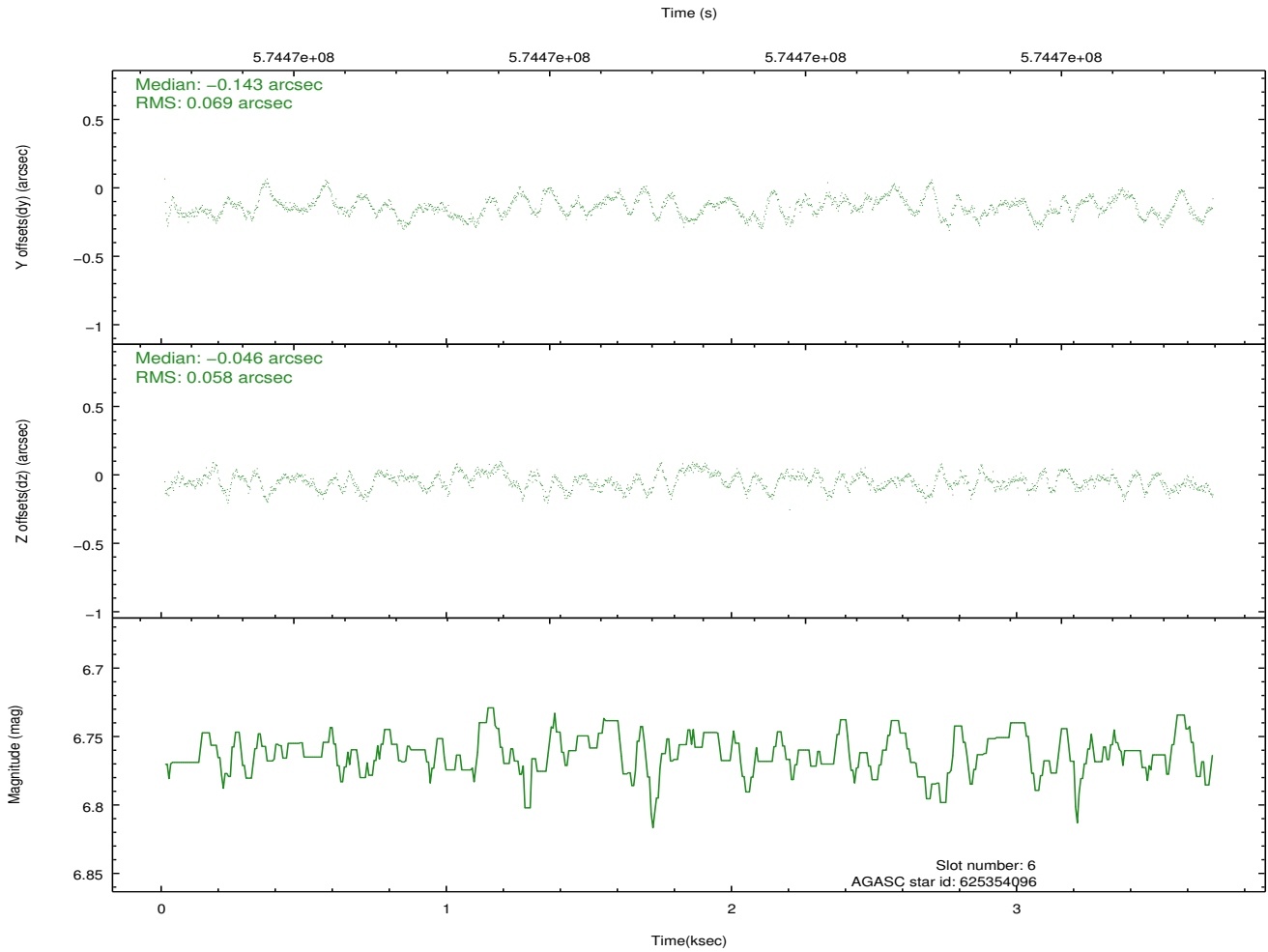
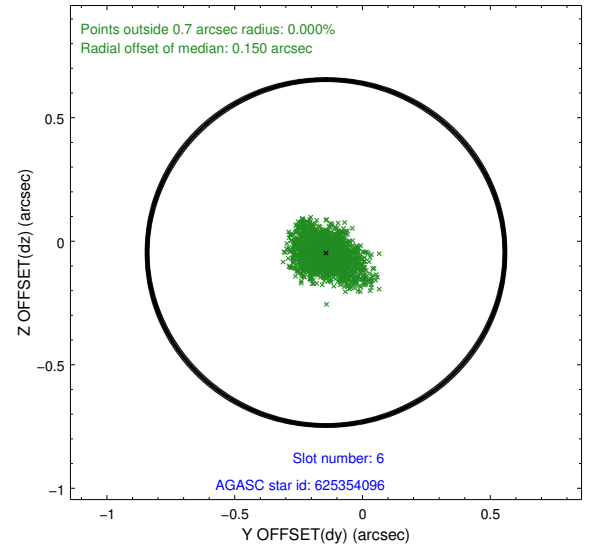
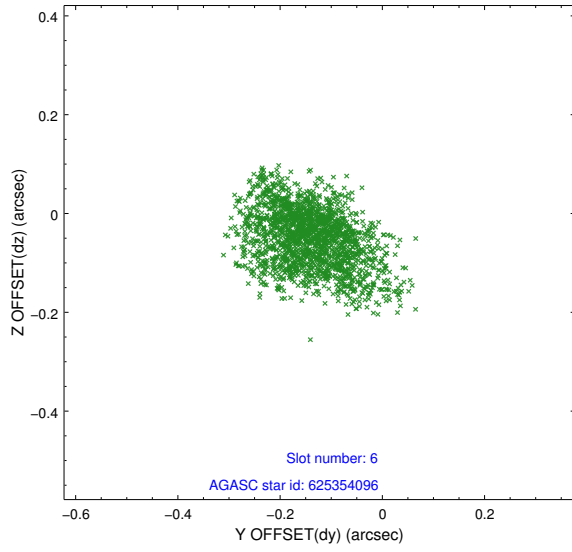
## 2.4.2 Slot 4



### 2.4.3 Slot 5

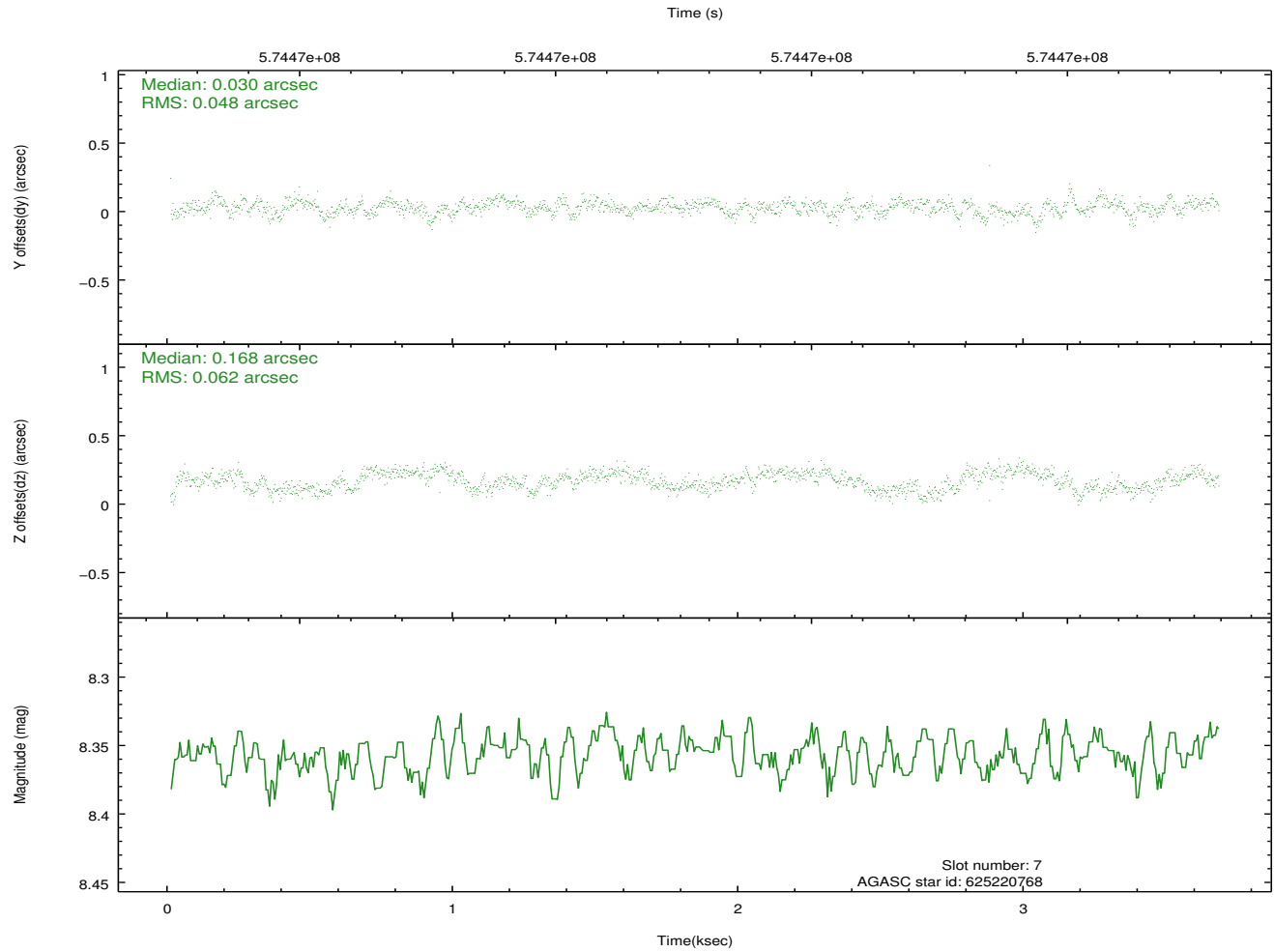
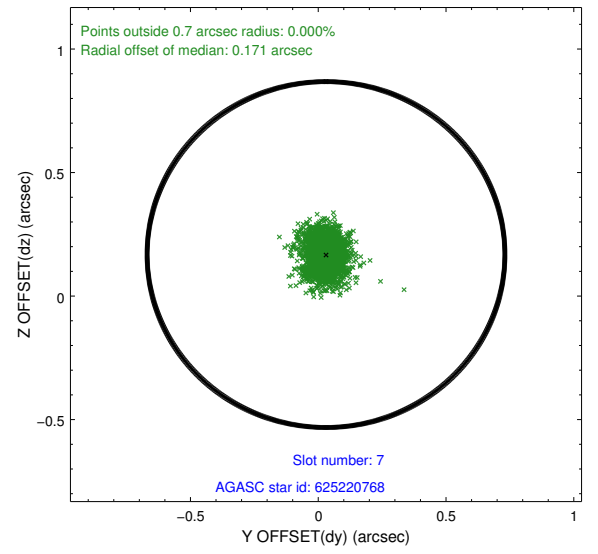
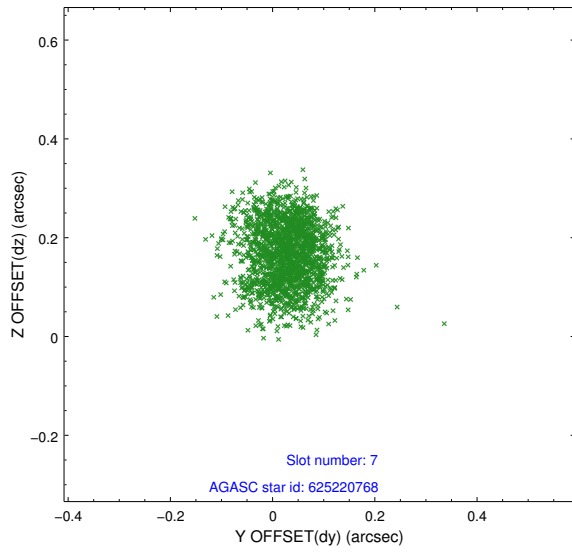


## 2.4.4 Slot 6



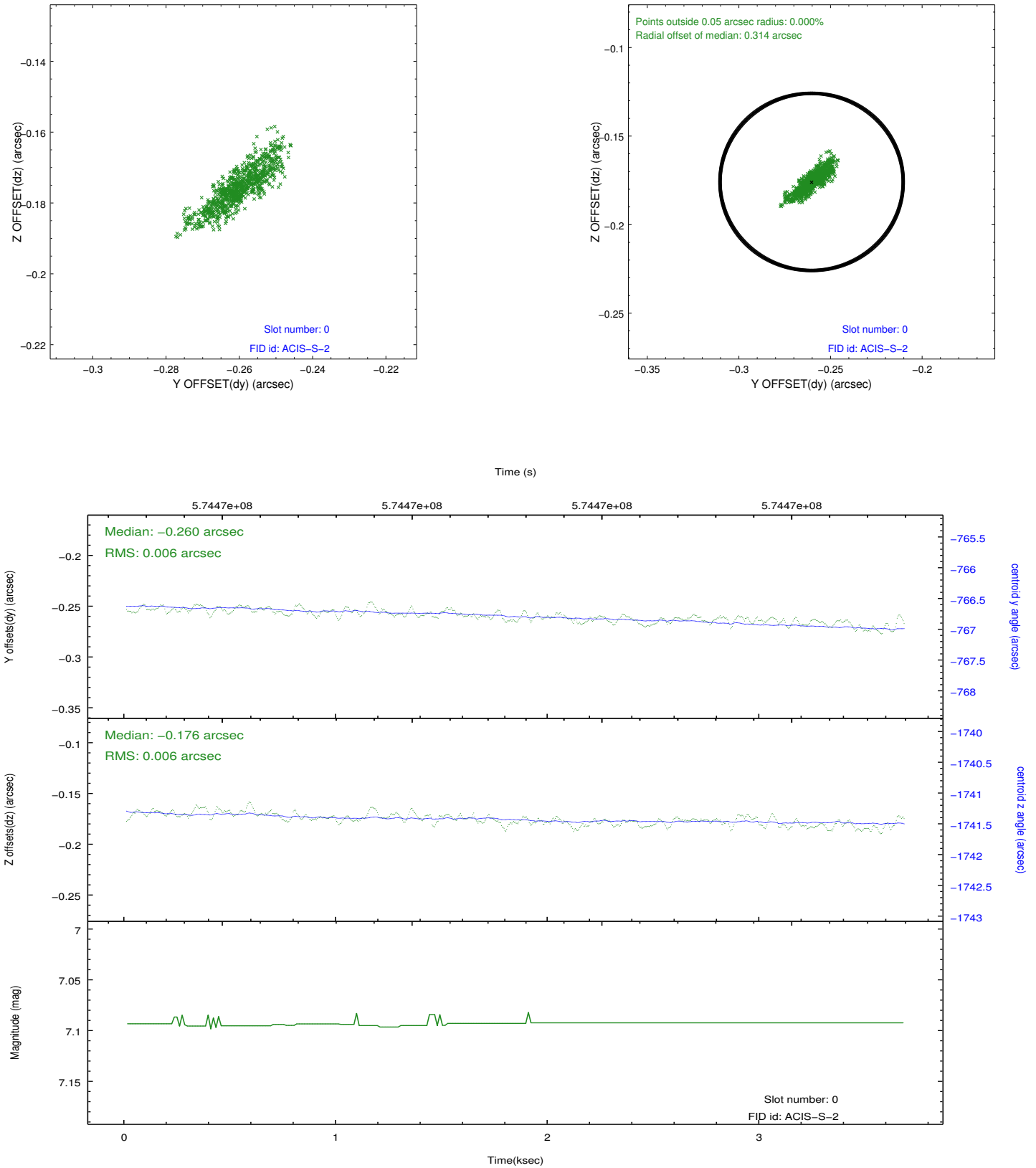


## 2.4.5 Slot 7

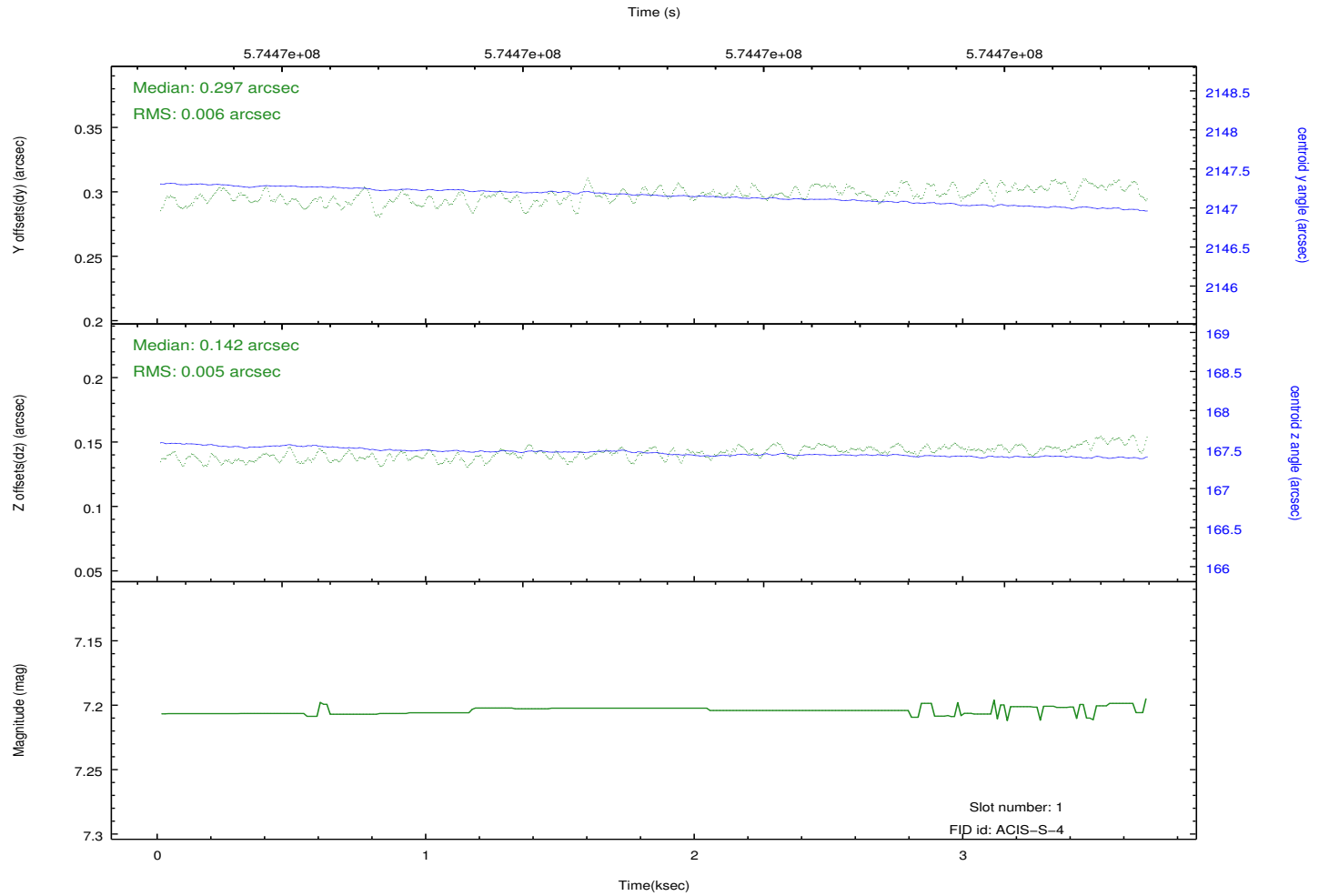
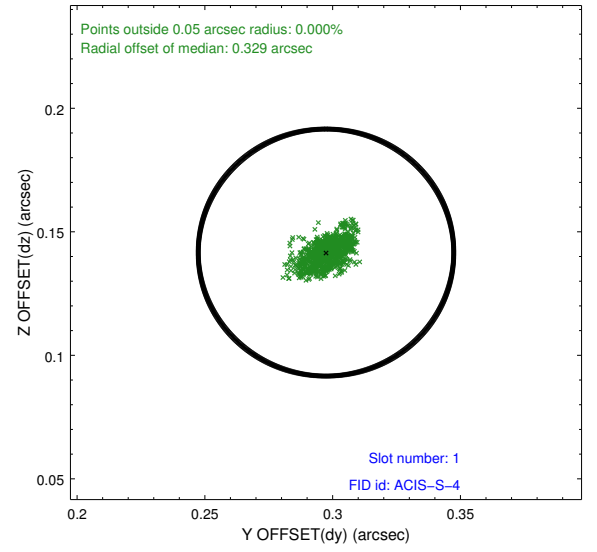
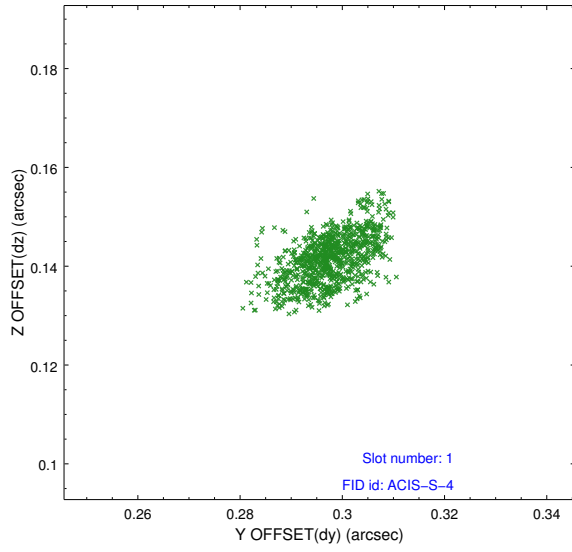


## 2.5 FID Slots

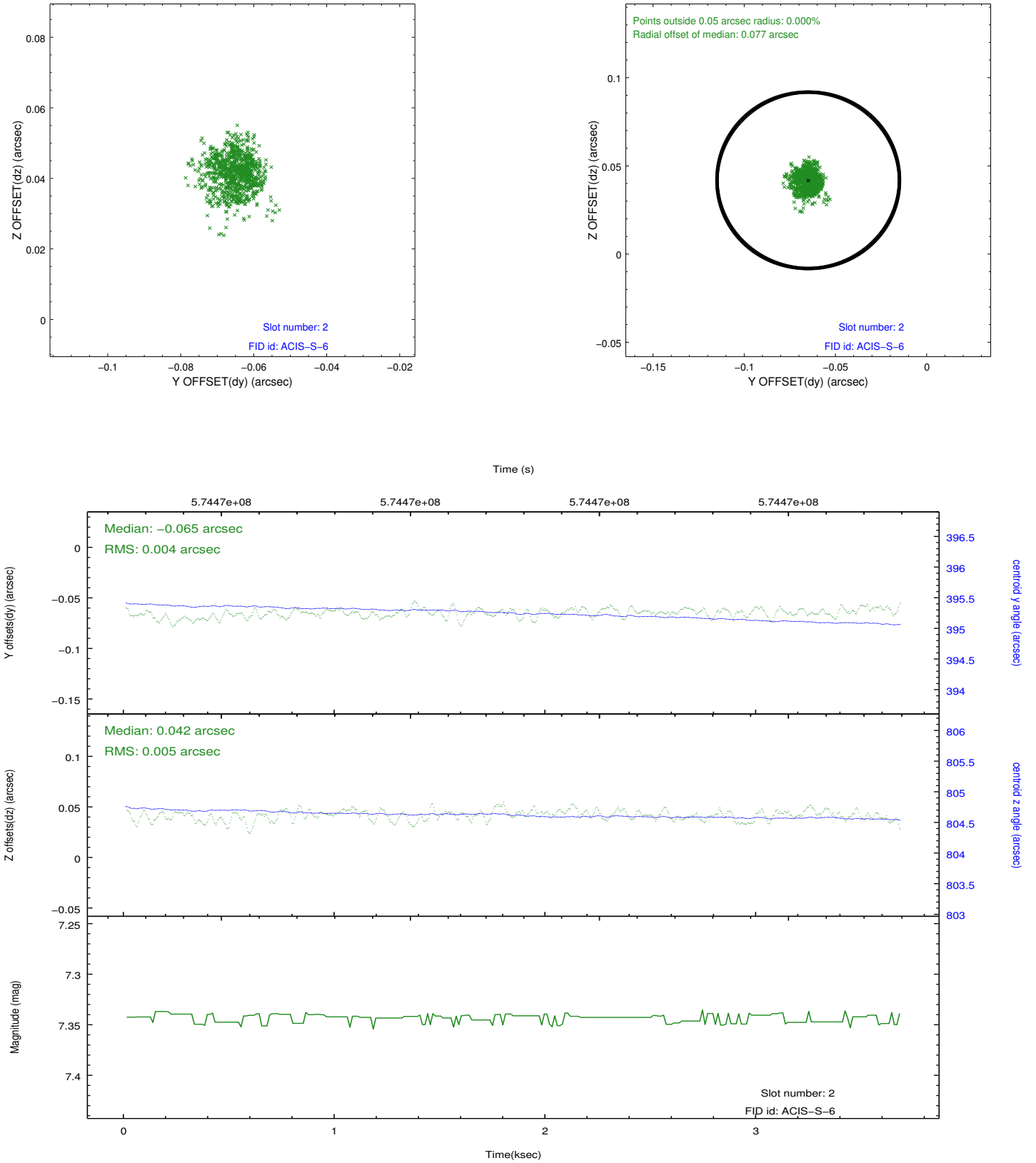
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2016.03.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.5695573917627

### A.2 Comments

Phase constraint met.