

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12456 - L2 Version 2  
Chandra X-Ray Center

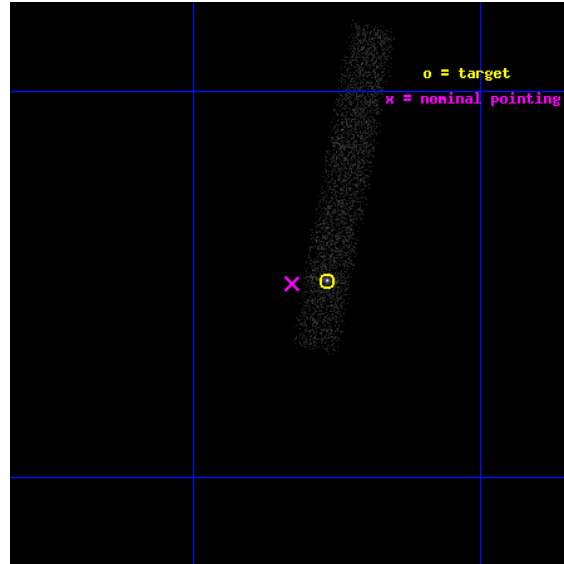
L2 Processing Date : Jul 5 2012

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# 1 Front

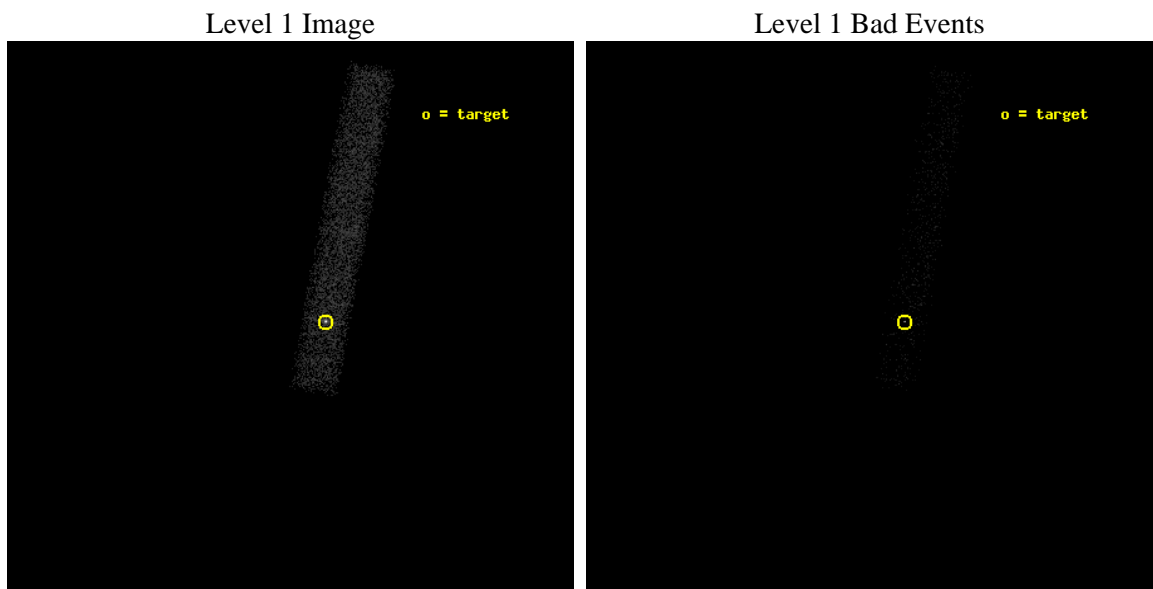
seq_num	401197	Sequence number
obs_id	12456	Observation id
title	Confirmation and Study of a Newly Discovered Nuclear Reaction, Identified in the Neutron Star Crust	Proposal title
observer	Prof. Robert Rutledge	Principal investigator
object	Aql X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	287.816667	Observer's specified target RA [deg]
dec_targ	0.584944	Observer's specified target Dec [deg]
ra_nom	287.83218914043	Nominal RA [deg]
dec_nom	0.58352950340587	Nominal Dec [deg]
roll_nom	280.4738542562	Nominal Roll [deg]
revision	2	Processing version of data
ontime	7011.0865308642	Sum of GTIs [s]
livetime	6358.6854080031	Livetime [s]
ontime7	7011.0865308642	Sum of GTIs [s]
l2events	8196	Number of level 2 events



## 2 OBI

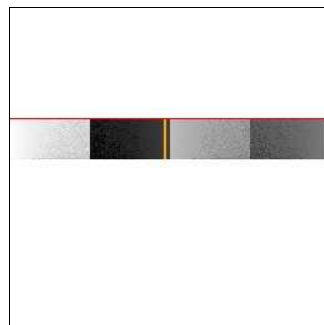
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	7000.862000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	7011.0865308642	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime7	7011.0865308642	Sum of GTIs [s]
date	2012-07-05T05:37:00	Date and time of file creation	l1events	12760	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

	<b>ccd 7</b>
level 1 events	12760
rejected events	4328
rejected %	33%

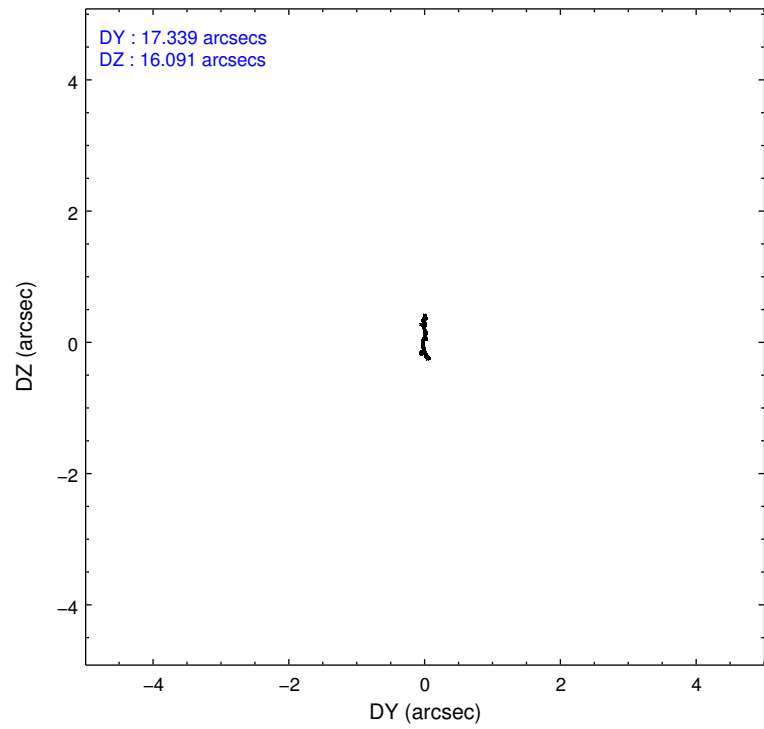
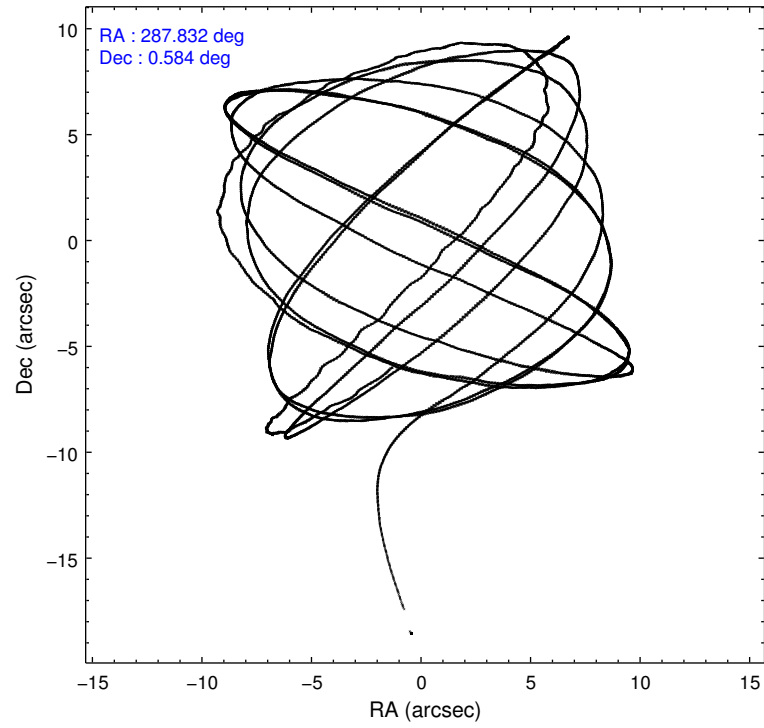
	<b>ccd 7</b>
grade 0 events	1497
	11%
grade 1 events	36
	0%
grade 2 events	1930
	15%
grade 3 events	1134
	8%
grade 4 events	1041
	8%
grade 5 events	960
	7%
grade 6 events	2833
	22%
grade 7 events	3329
	26%

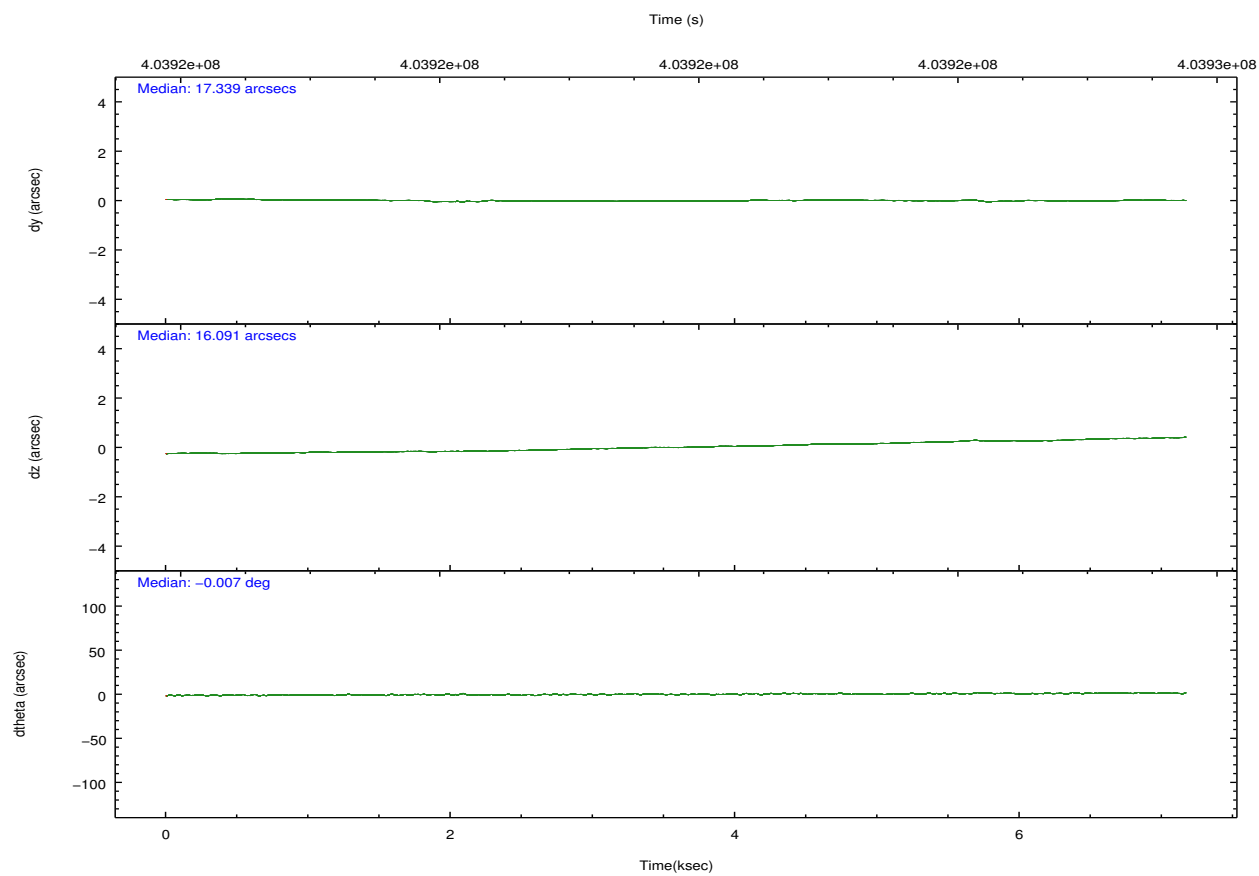
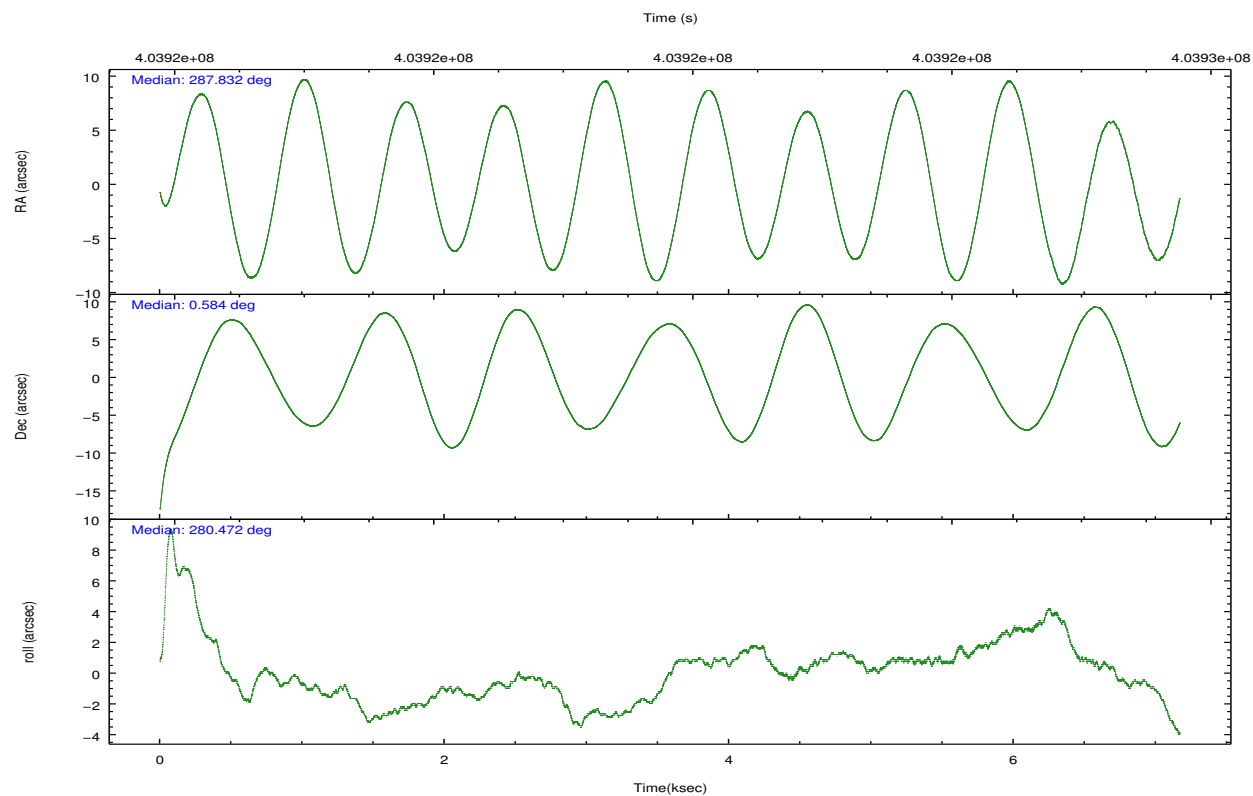


## 2.2 Compared Parameters

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	287.814190	287.8321891404282	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	0.604141	0.5835295034058654	Subarray start row	544	544
[deg] Pointing Roll	280.317423	280.473854256198	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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	403918411.184000	403917448.32236			
Observation start date	2010-10-19T23:32:25	2010-10-19T23:17:28			
[s] Observation end time (MET)	403925412.184000	403925638.07279			
Observation end date	2010-10-20T01:29:06	2010-10-20T01:33:58			
Read mode	TIMED	TIMED			

## 2.3 Aspect



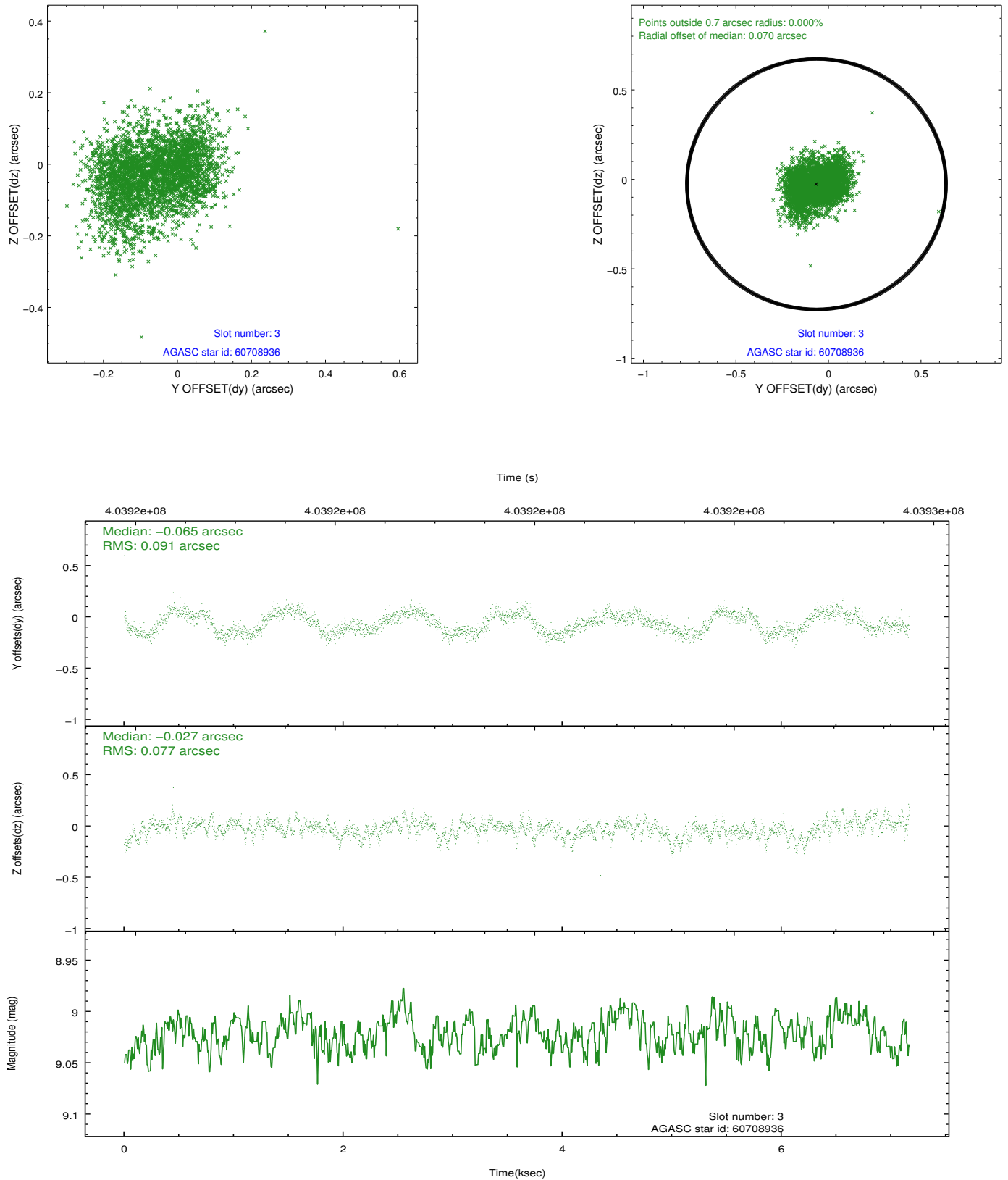


### Slot Statistics

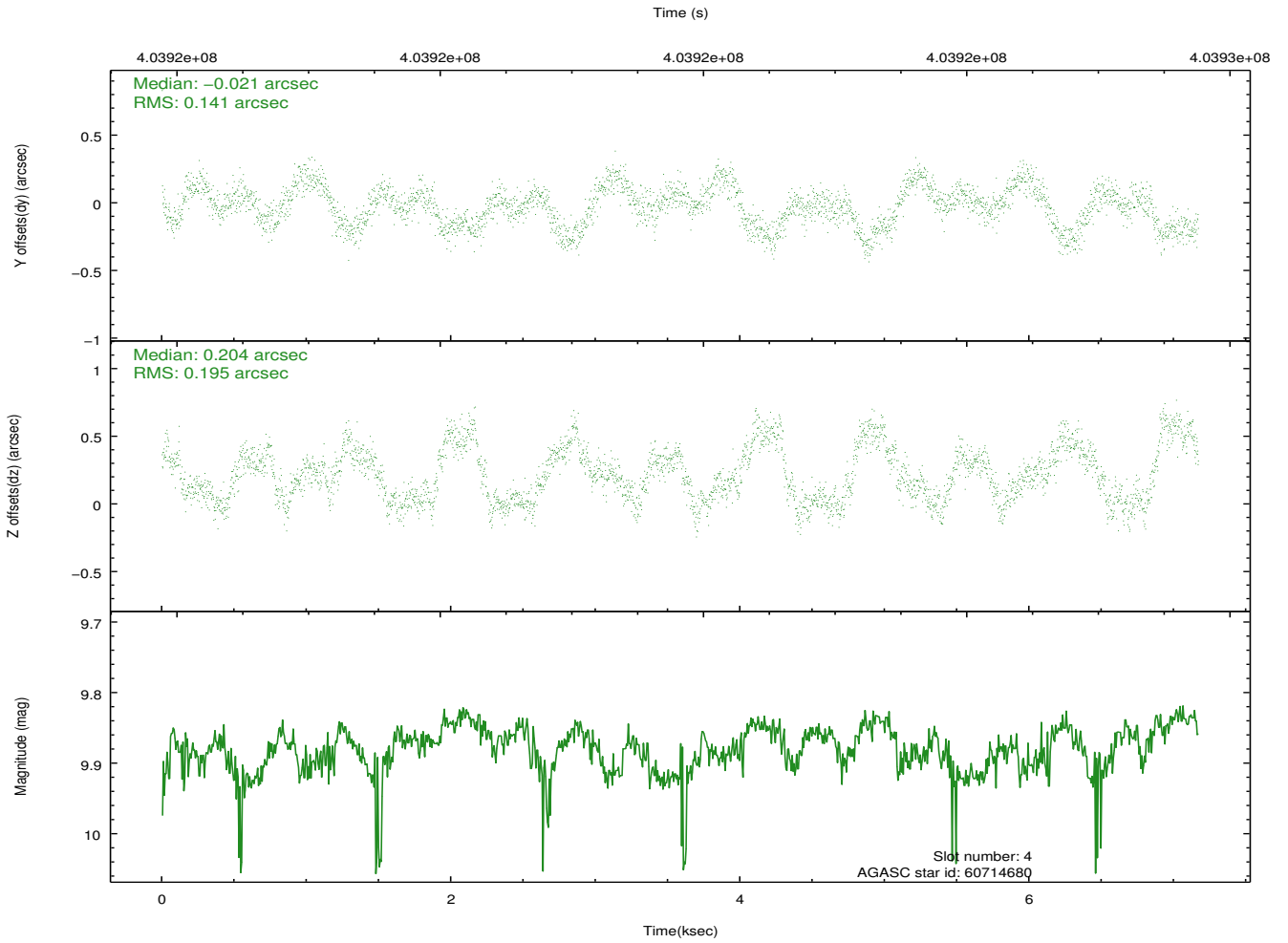
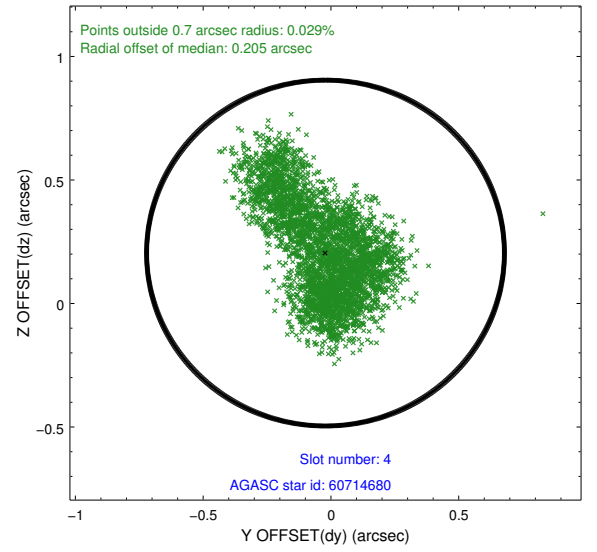
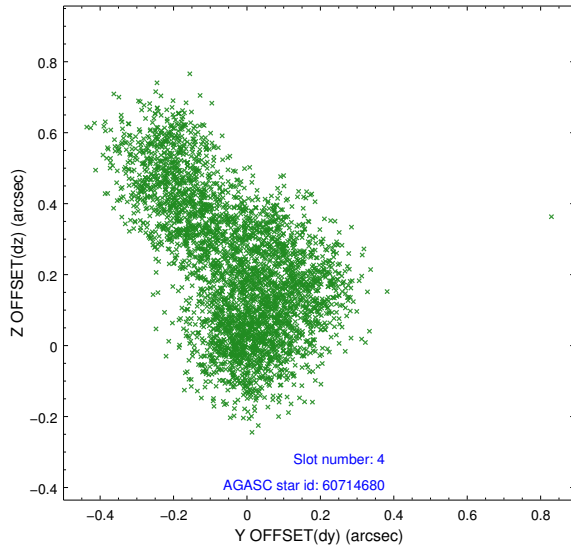
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.05	1749	0.120	-0.146	0.009	0.017	0.000000	0.000000	925.83	-1733.23
1	FID	ACIS-S-5	7.10	1747	-0.154	0.071	0.008	0.013	0.000000	0.000000	-1823.04	163.65
2	FID	ACIS-S-6	7.20	1749	0.012	0.086	0.008	0.013	0.000000	0.000000	390.34	808.58
3	GUIDE	60708936	9.02	3495	-0.065	-0.027	0.128	0.196	287.407925	0.924863	-1397.49	-1231.69
4	GUIDE	60714680	9.88	3489	-0.021	0.204	0.252	0.425	287.468055	0.176061	1293.05	-1501.74
5	GUIDE	60715360	9.18	3493	0.001	0.012	0.115	0.177	287.763141	0.163266	1529.43	-465.13
6	GUIDE	60718872	9.37	3494	-0.013	-0.058	0.151	0.230	287.679270	0.108754	1668.48	-797.13
7	GUIDE	672281216	9.30	3491	0.112	-0.135	0.112	0.193	287.454836	-0.067927	2149.75	-1706.15

## 2.4 Star Slots

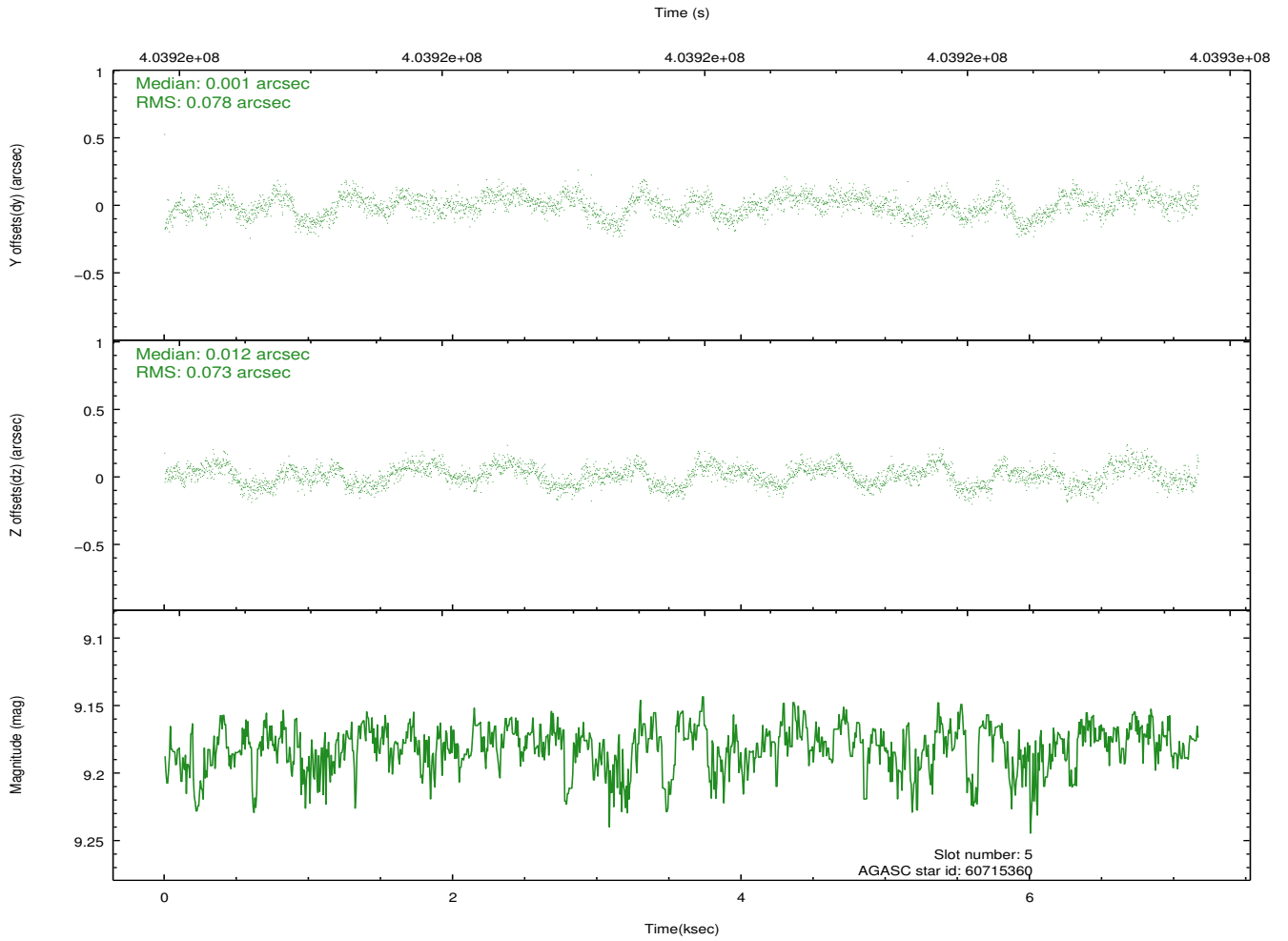
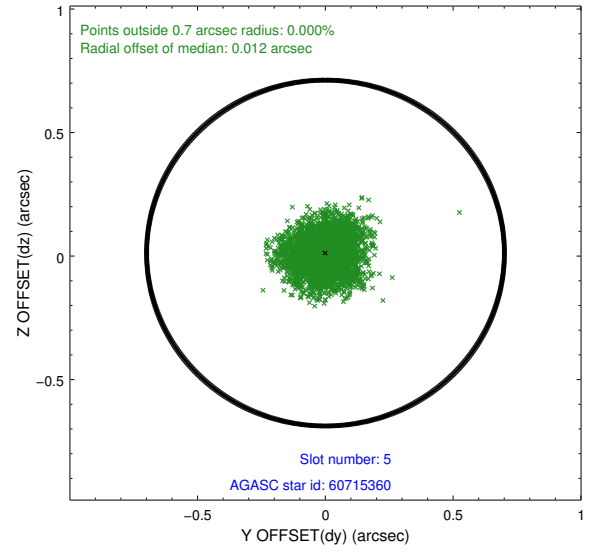
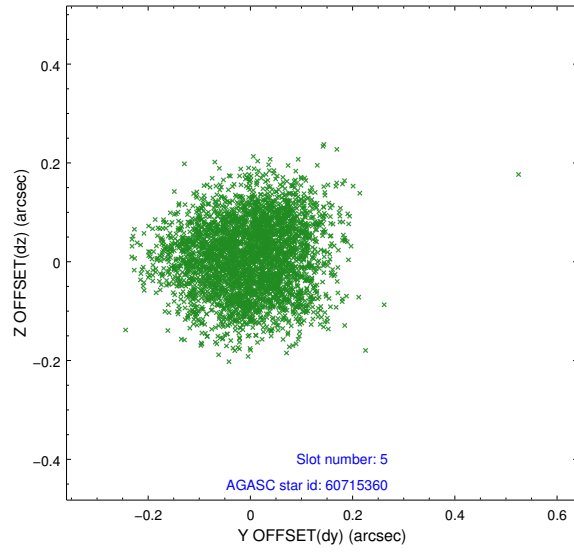
### 2.4.1 Slot 3



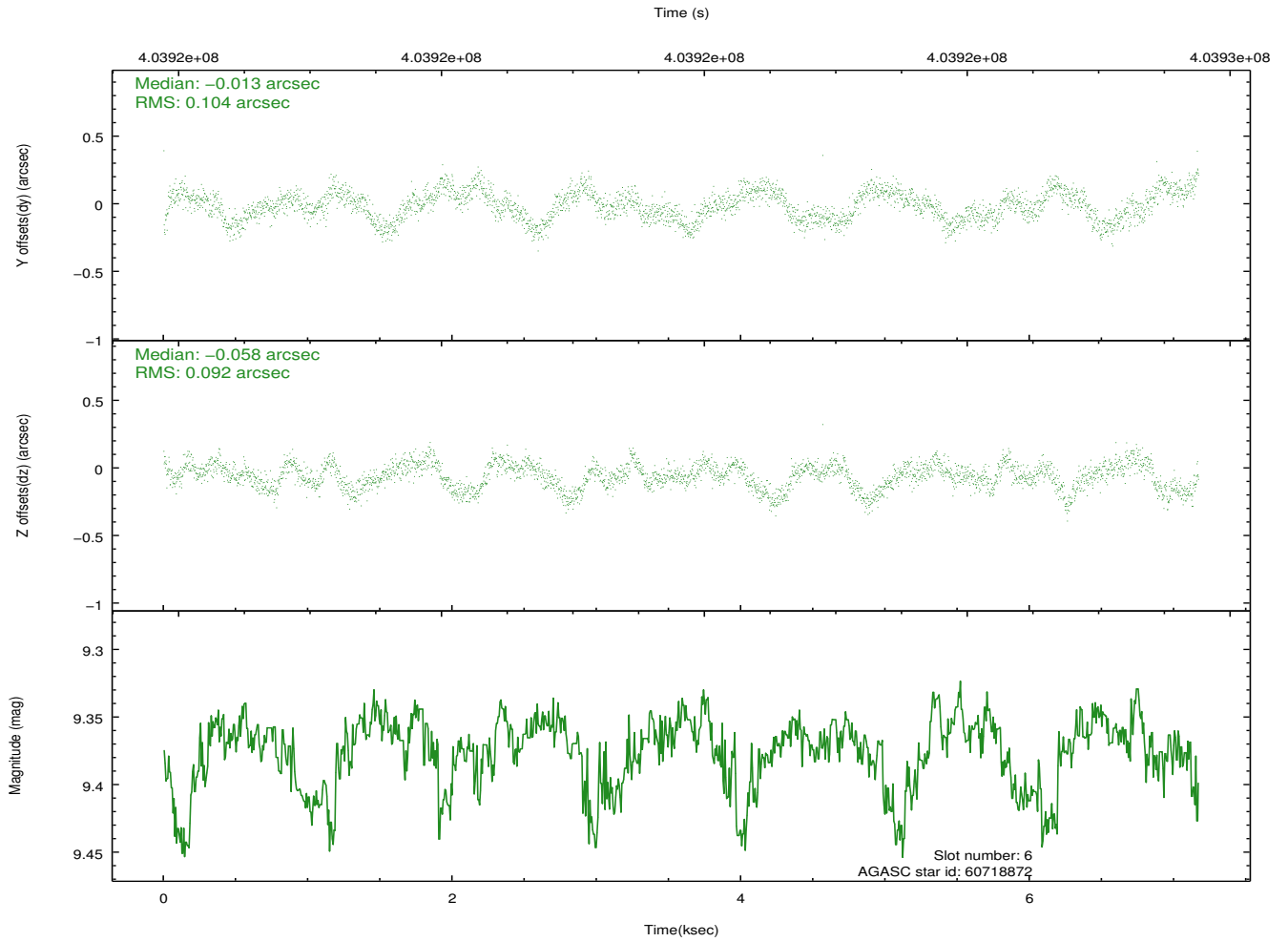
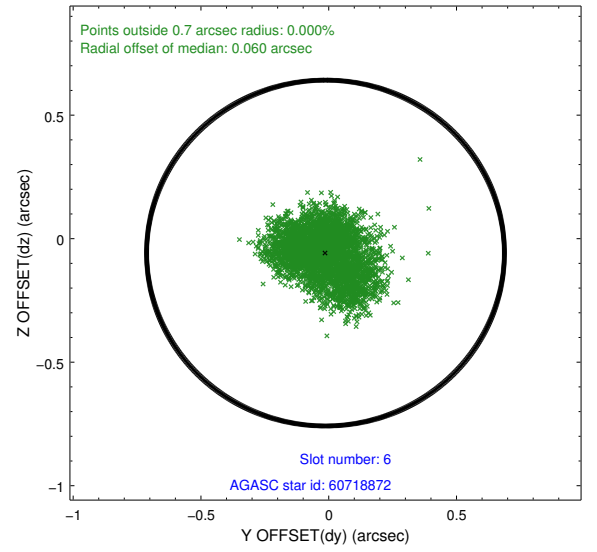
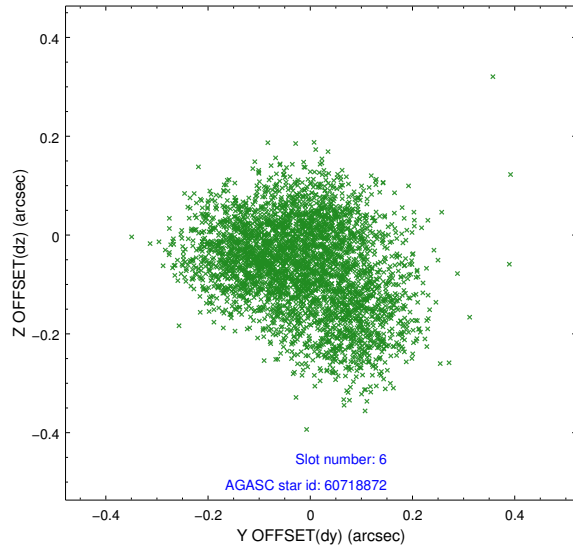
## 2.4.2 Slot 4



### 2.4.3 Slot 5

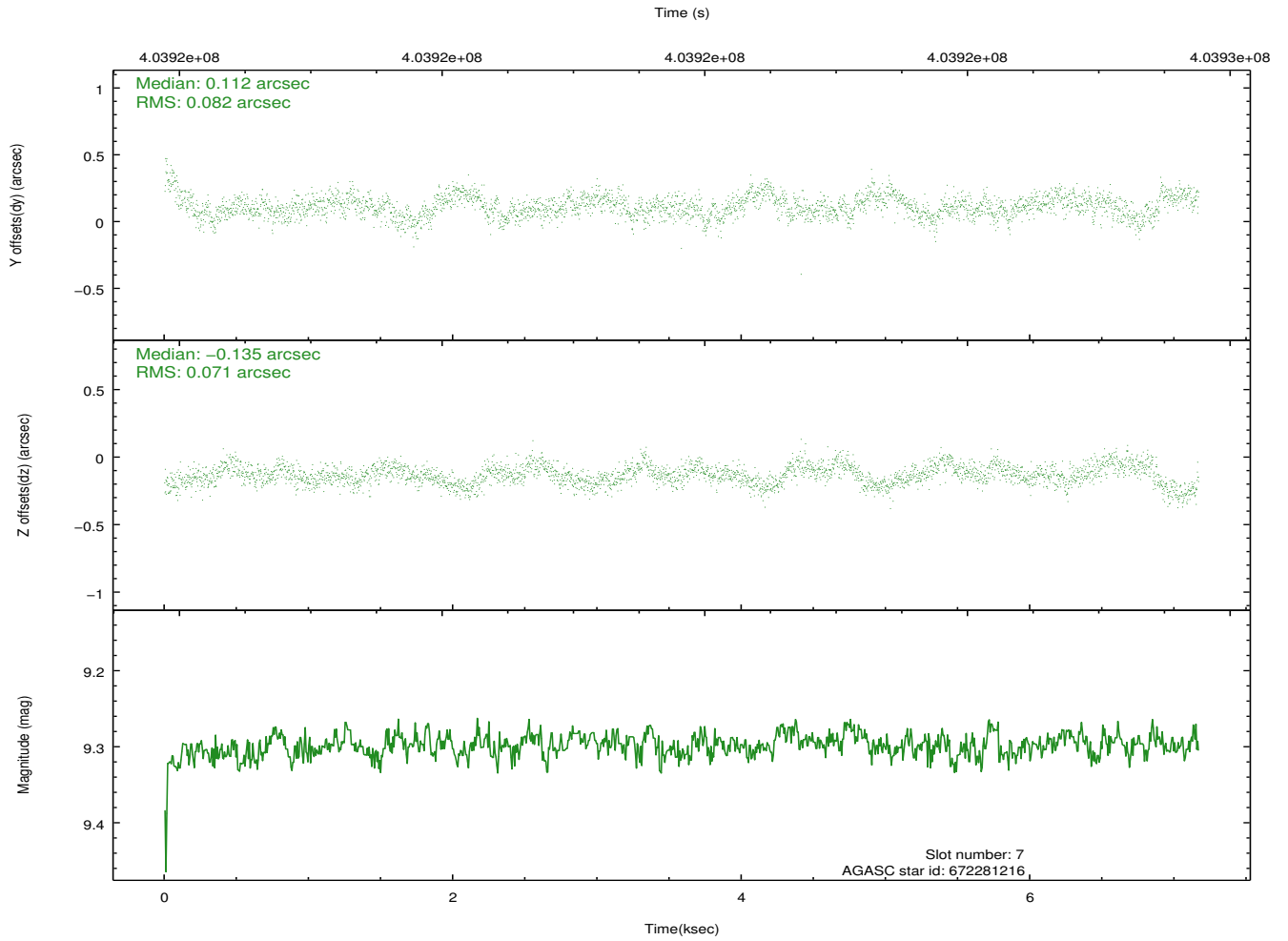
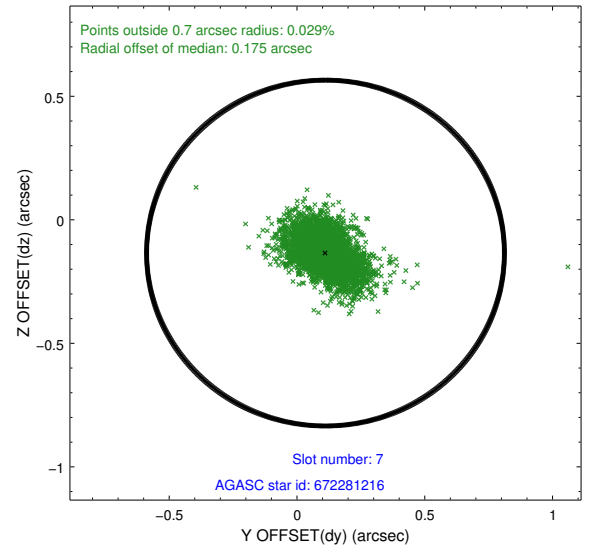
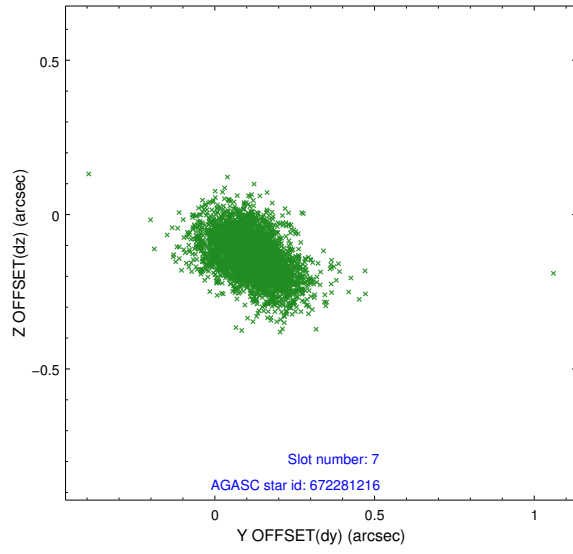


## 2.4.4 Slot 6



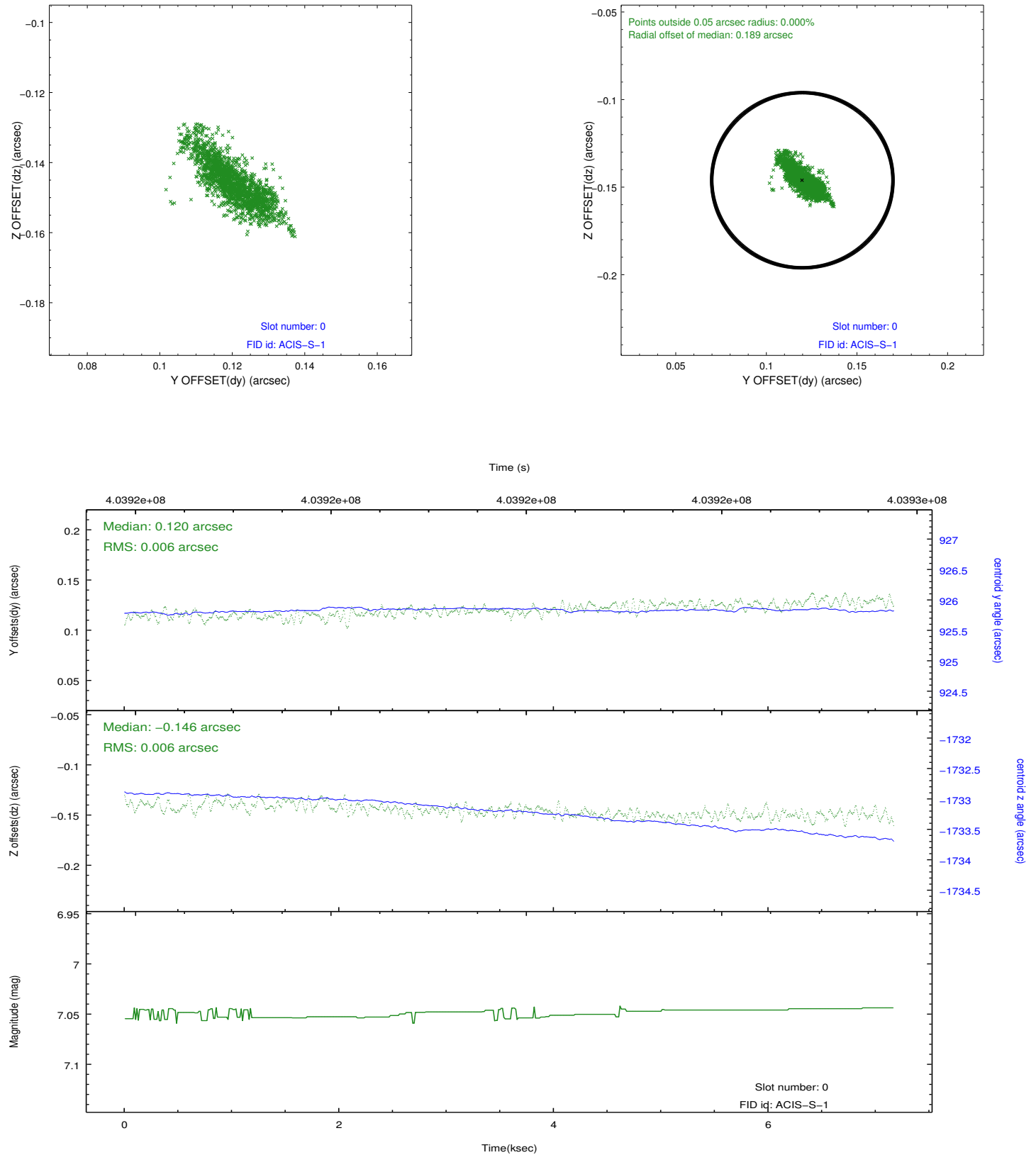


## 2.4.5 Slot 7

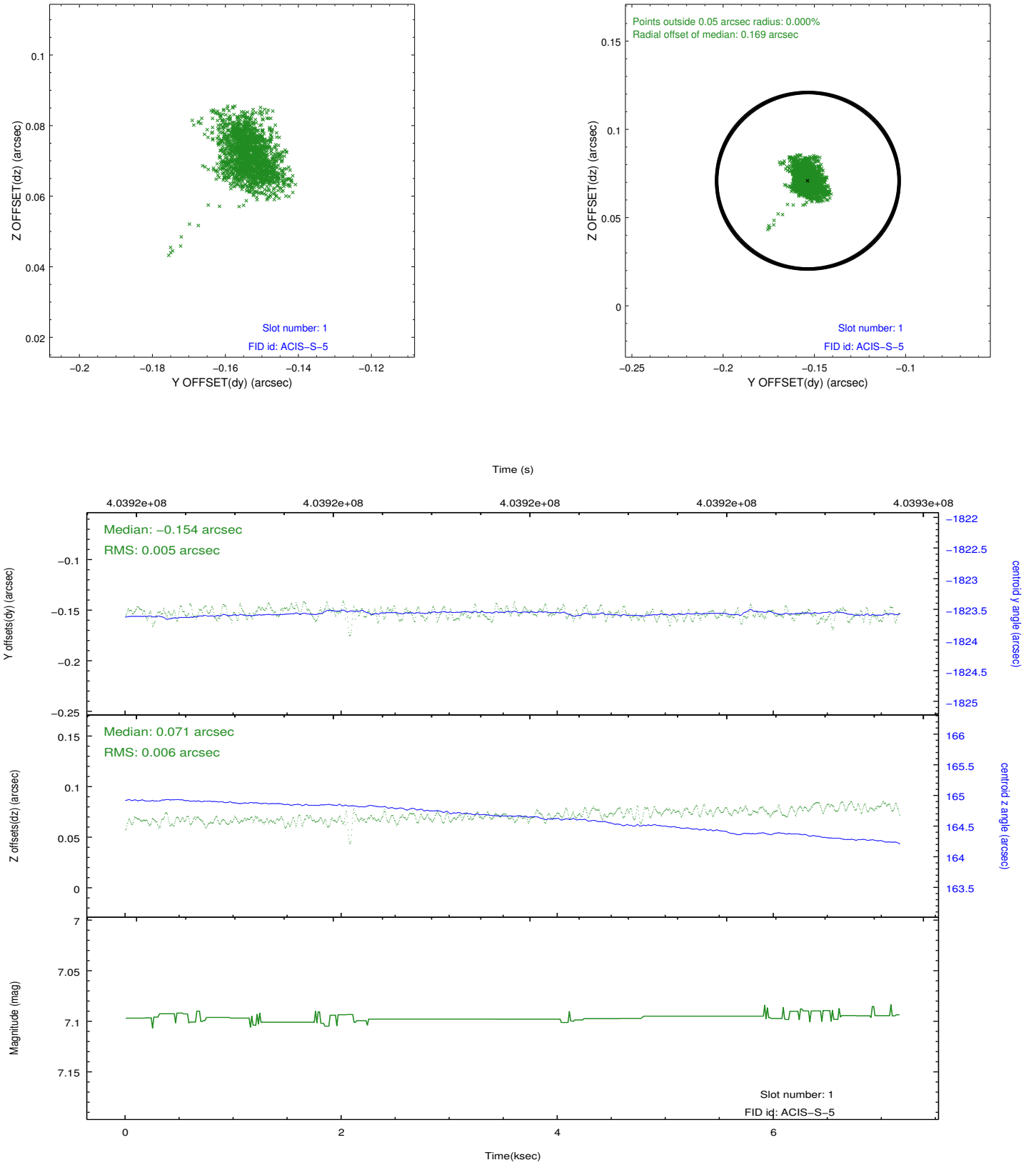


## 2.5 FID Slots

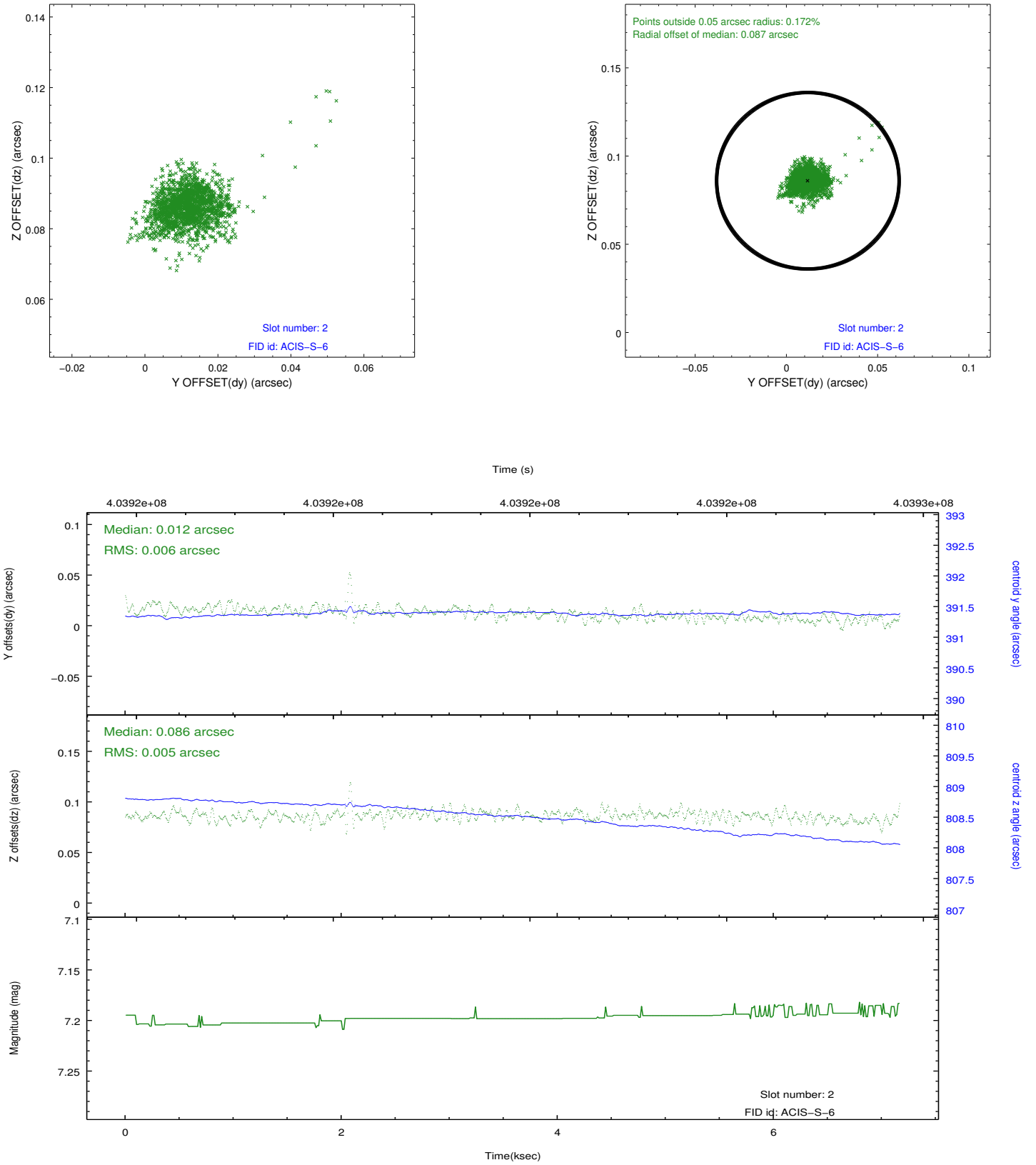
### 2.5.1 Slot 0



## 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)	2012.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.0110865325332

### A.2 Comments