

V&V Reference Report

L2 ASCDS Version : 8.4.3.1

Observation 13626 - L2 Version 7
Chandra X-Ray Center

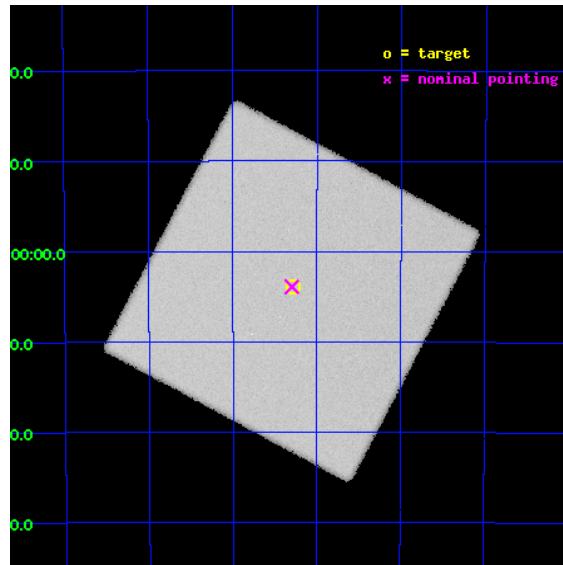
L2 Processing Date : Aug 13 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Parameters	4
2.1.3	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

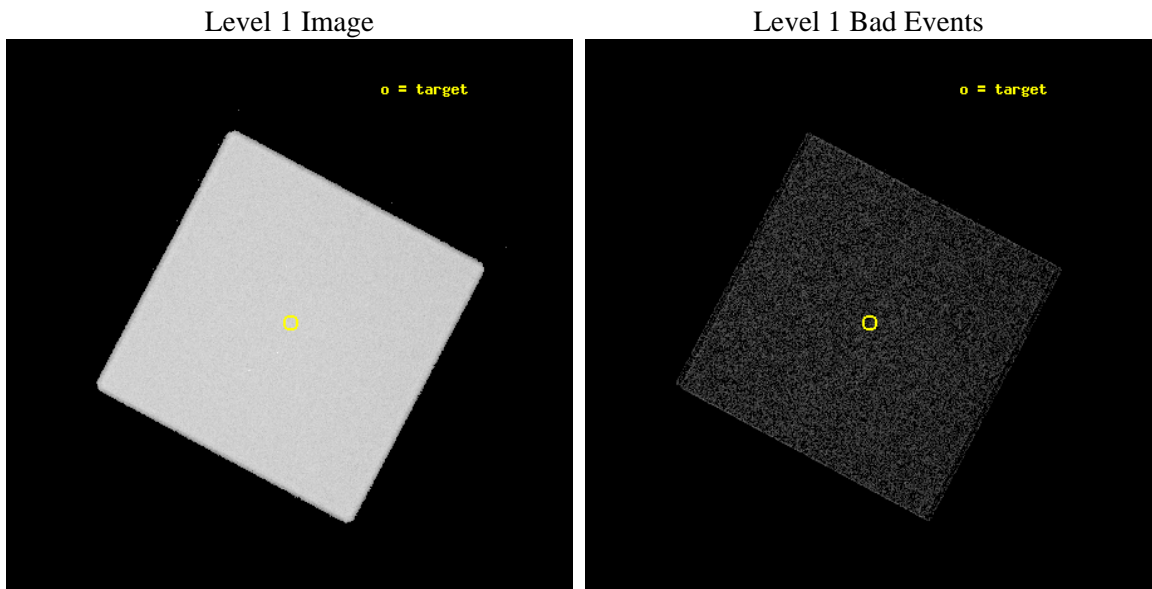
seq_num	200780	Sequence number
obs_id	13626	Observation id
title	X-ray emission from beta Pic	Proposal title
observer	Dr. Hans Guenther	Principal investigator
object	beta Pic	Source name
ra_targ	86.82125	Observer's specified target RA [deg]
dec_targ	-51.0665	Observer's specified target Dec [deg]
ra_nom	86.82423536136	Nominal RA [deg]
dec_nom	-51.065621812967	Nominal Dec [deg]
roll_nom	73.007170192349	Nominal Roll [deg]
revision	7	Processing version of data
ontime	18821.118702948	[s]
livetime	18650.622103994	Ontime multiplied by DTCOR
l2events	1211451	Number of level 2 events



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	18821.118702948	[s]
caldsver	4.5.1.1	 	l1events	1866346	Number of level 1 events
date	2012-08-09T22:46:02	Date and time of file creation			
revision	7	Processing version of data			

2.1.3 Events

Level 1 Events

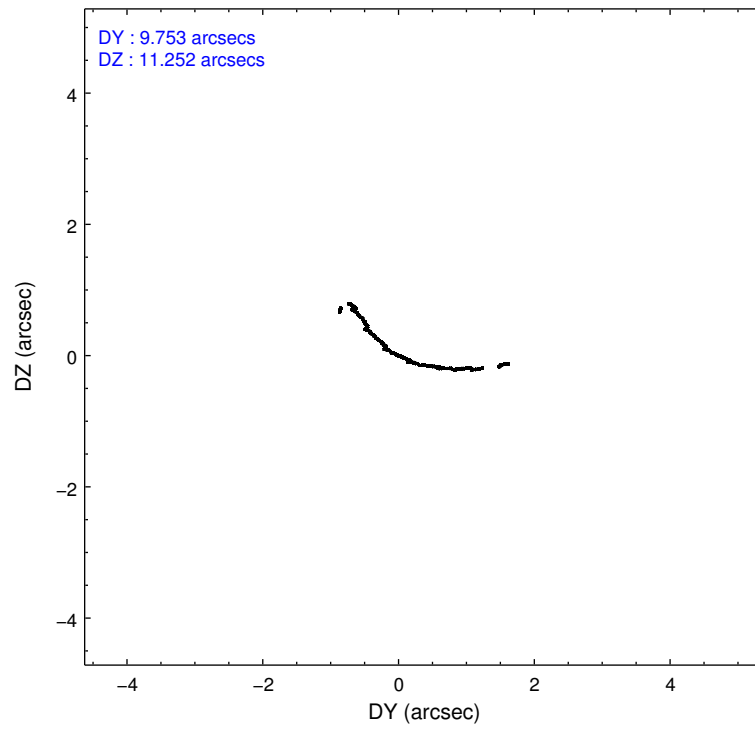
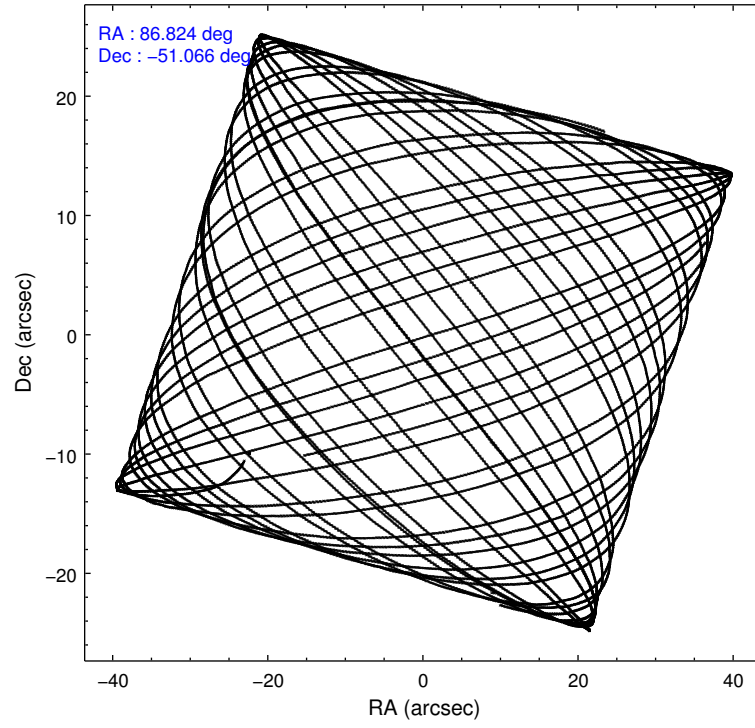
	segment 0
level 1 events	1866346
rejected events	183323
rejected %	9%

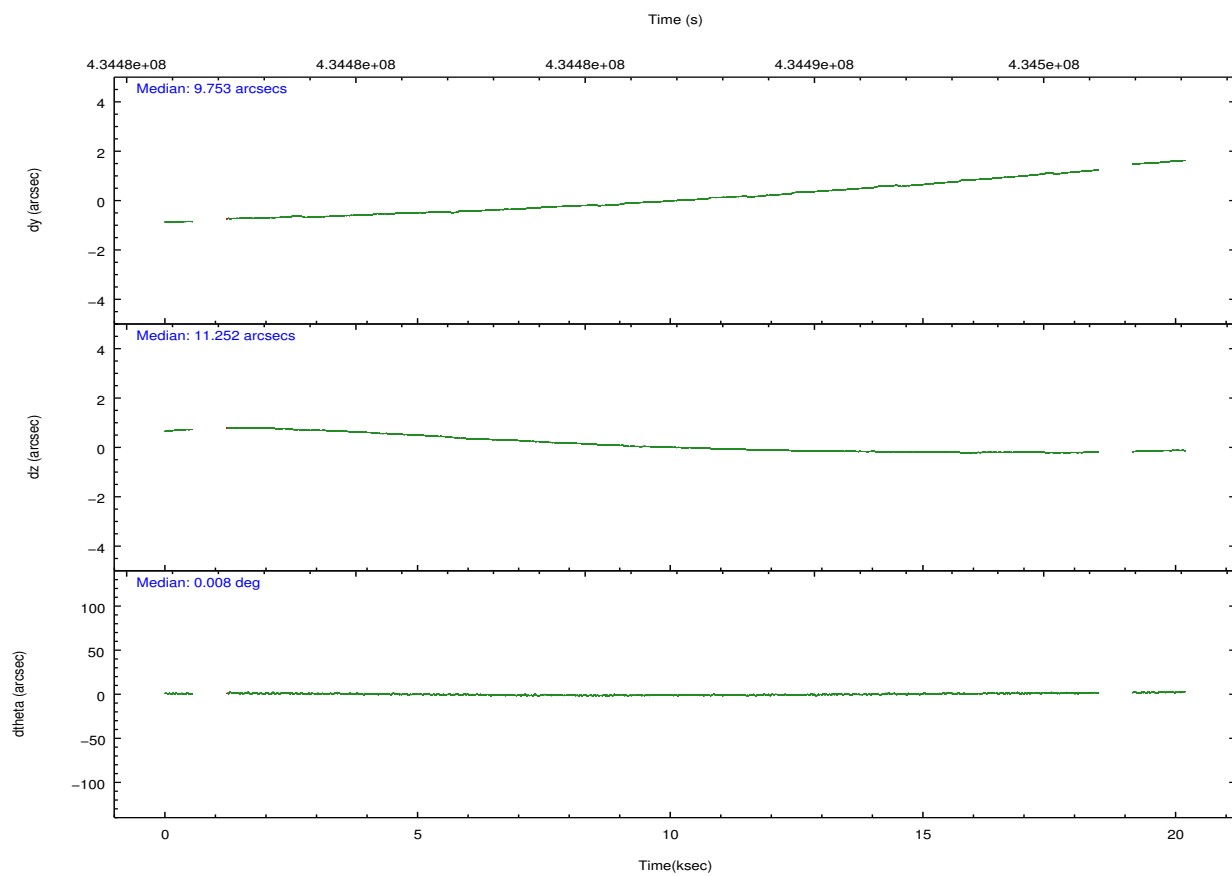
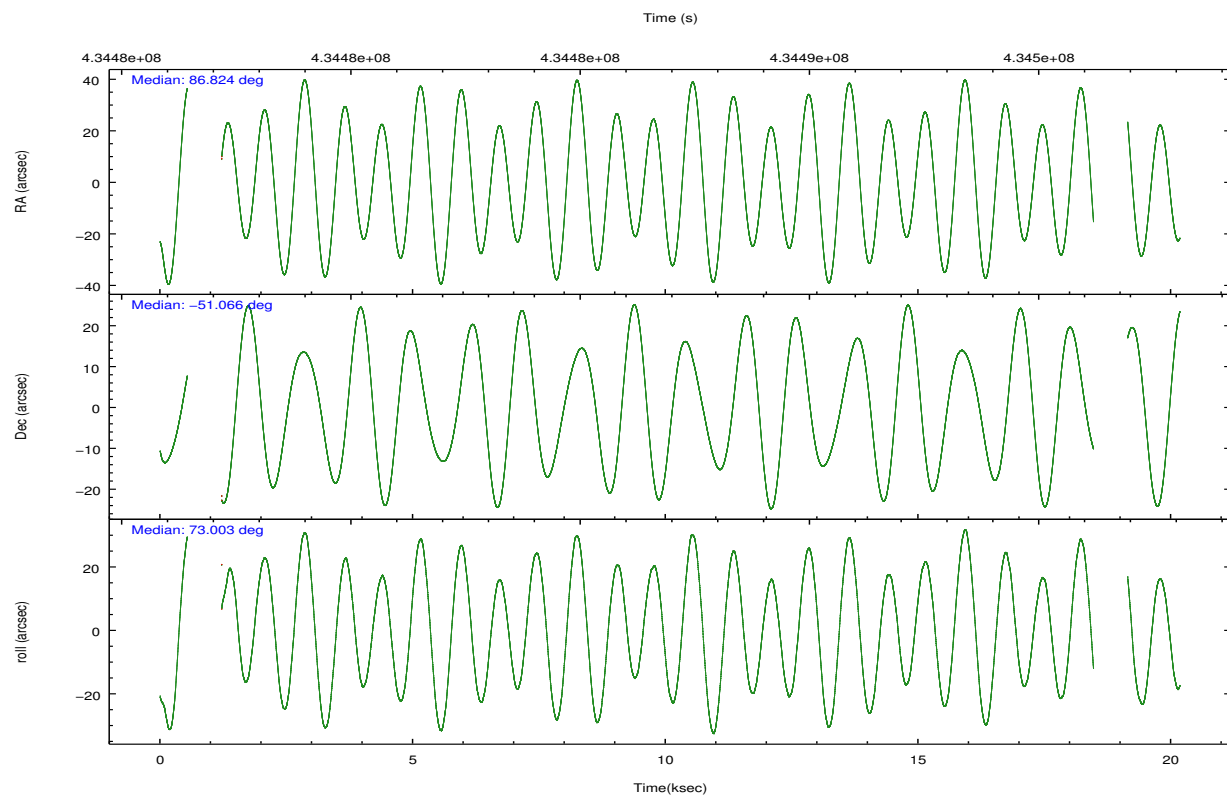
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	86.82060845001975	86.82423536136048
[deg] Pointing Dec	-51.06754032478704	-51.06562181296657
[deg] Pointing Roll	73.00433411439242	73.00717019234912
[mm] SIM focus pos	-1.038866356238299	-1.038866356238299
[mm] SIM defocus	0.00142623211714632	0.00142623211714632
[mm] SIM translation stage pos	126.9829799899862	126.9829799899862
[mm] SIM translation stage offset	0.002514315301596071	0.002514315301596071
[s] Observation start time (MET)	434476228.61218	434476228.61218
Observation start date	2011-10-08T16:03:04	2011-10-08T15:50:28
[s] Observation end time (MET)	434497549.63830	434497549.6383
Observation end date	2011-10-08T21:36:24	2011-10-08T21:45:49

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	OVERRIDE	OVERRIDE

2.3 Aspect



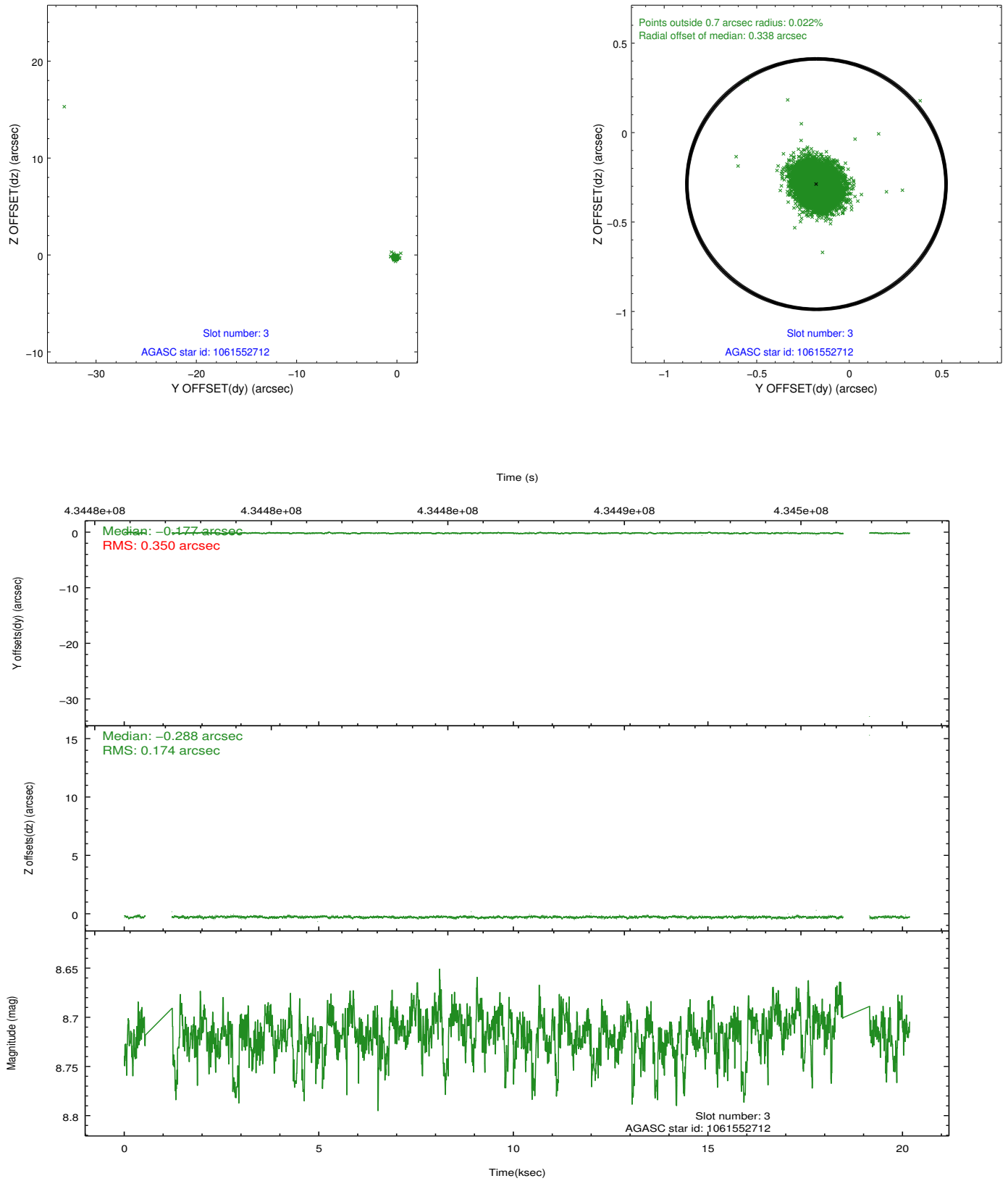


Slot Statistics

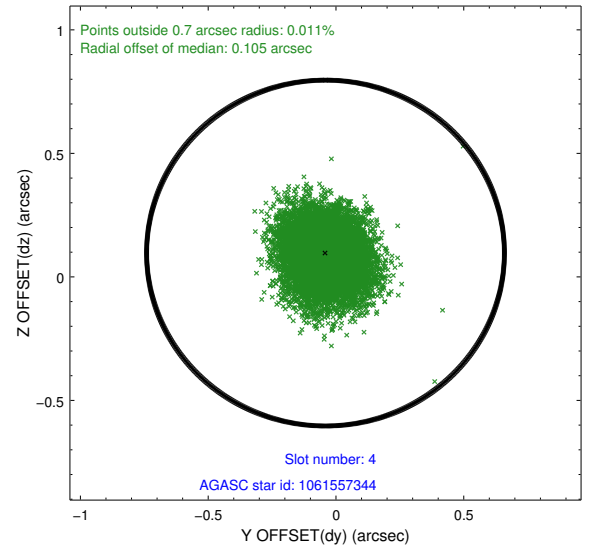
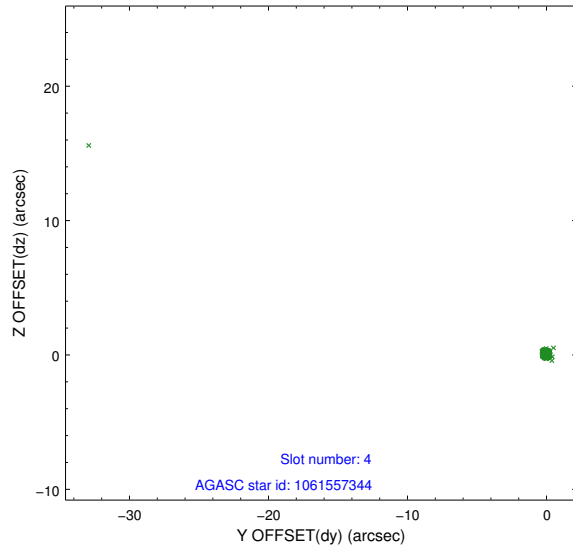
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	6.95	4591	-0.041	-0.002	0.018	0.027	0.000000	0.000000	-765.57	-1299.37
1	FID	HRC-I-2	6.99	4591	0.195	-0.120	0.032	0.056	0.000000	0.000000	847.13	-1301.34
2	FID	HRC-I-3	7.04	4591	-0.035	0.035	0.034	0.048	0.000000	0.000000	-1193.88	1004.95
3	GUIDE	1061552712	8.72	9174	-0.177	-0.288	0.090	0.147	86.693864	-50.854729	724.30	554.91
4	GUIDE	1061557344	9.46	9140	-0.041	0.096	0.139	0.224	86.834993	-51.719625	-2161.32	-656.48
5	GUIDE	1061687656	9.03	9176	-0.117	0.088	0.095	0.154	87.359157	-51.690185	-1724.28	-1746.22
6	GUIDE	1061694080	8.60	9175	0.426	0.165	0.099	0.164	87.723050	-50.708573	1898.14	-1539.57
7	GUIDE	1061694200	9.04	9172	-0.086	-0.061	0.106	0.179	87.744756	-50.641601	2144.03	-1519.63

2.4 Star Slots

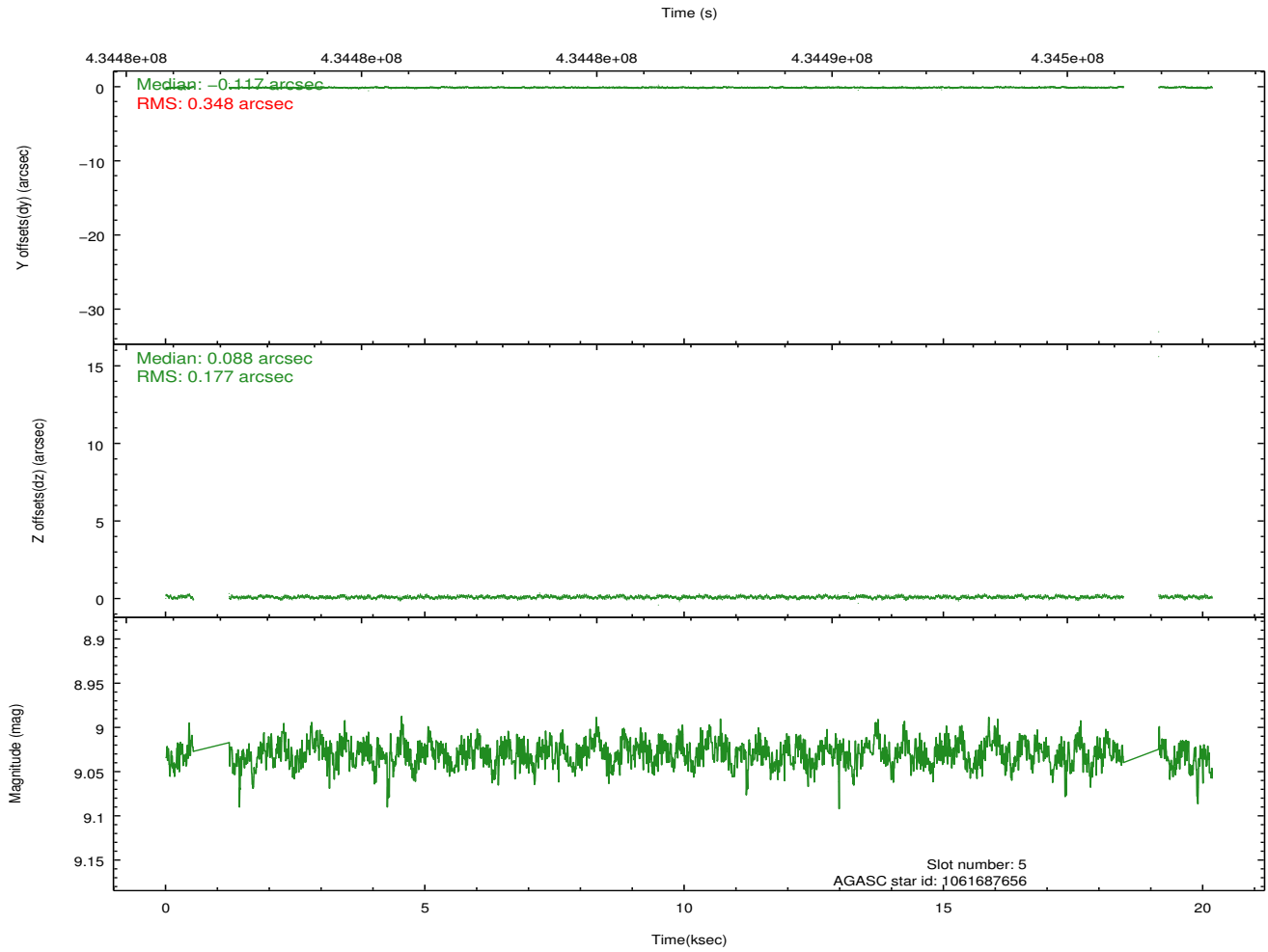
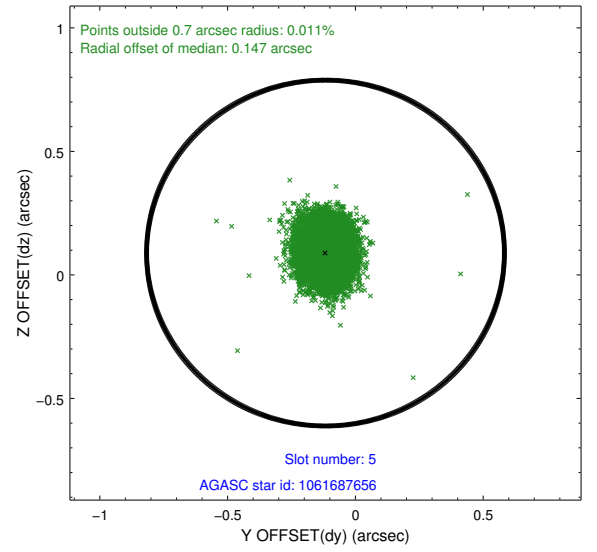
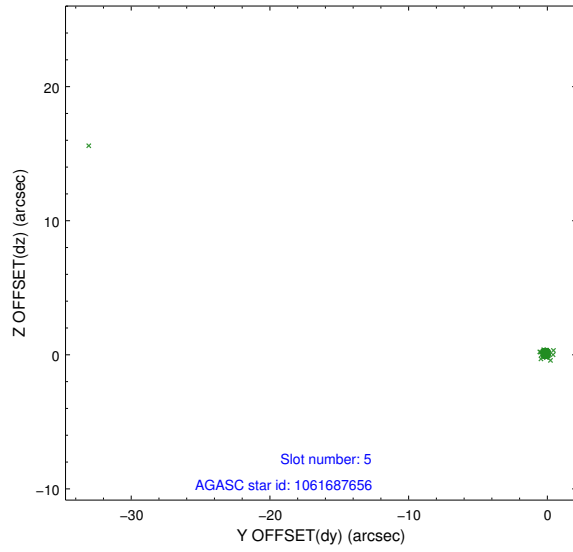
2.4.1 Slot 3



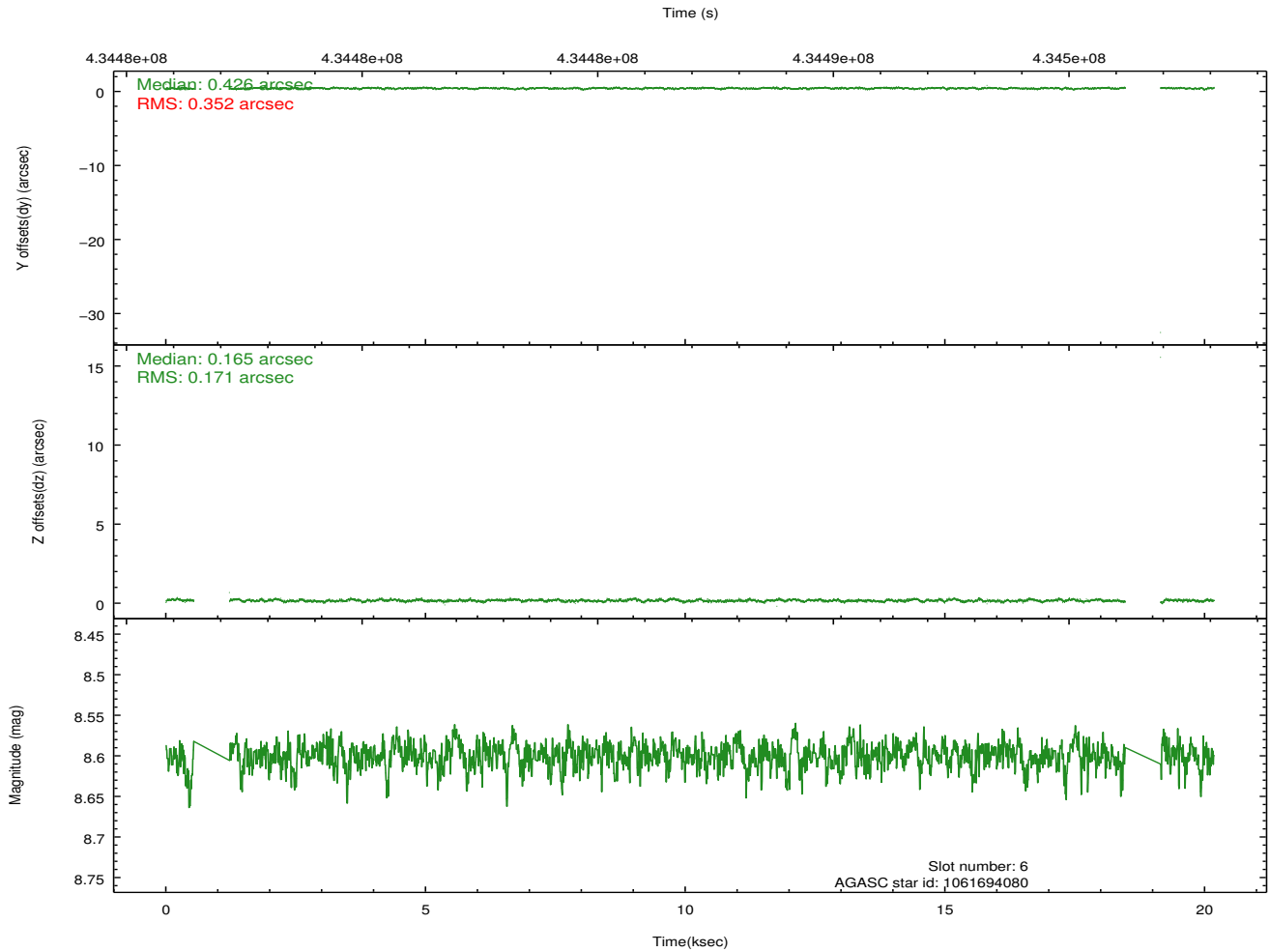
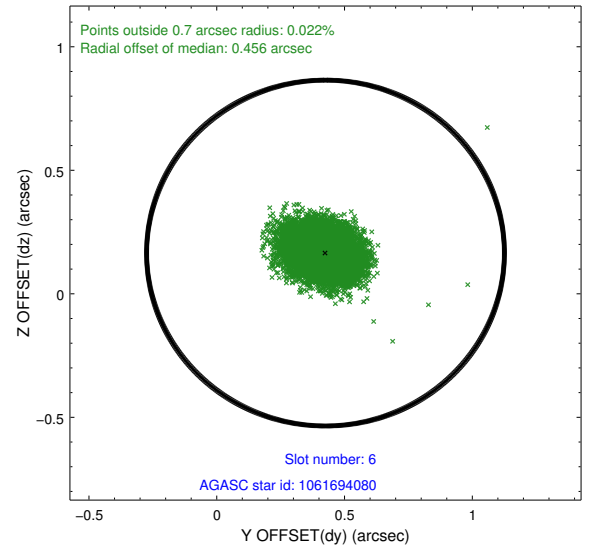
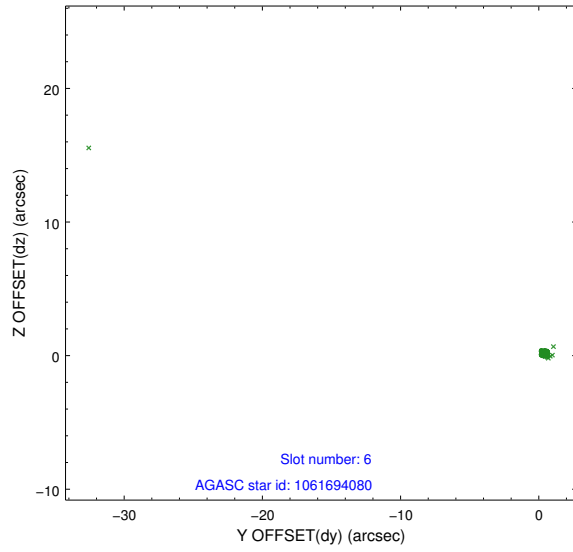
2.4.2 Slot 4



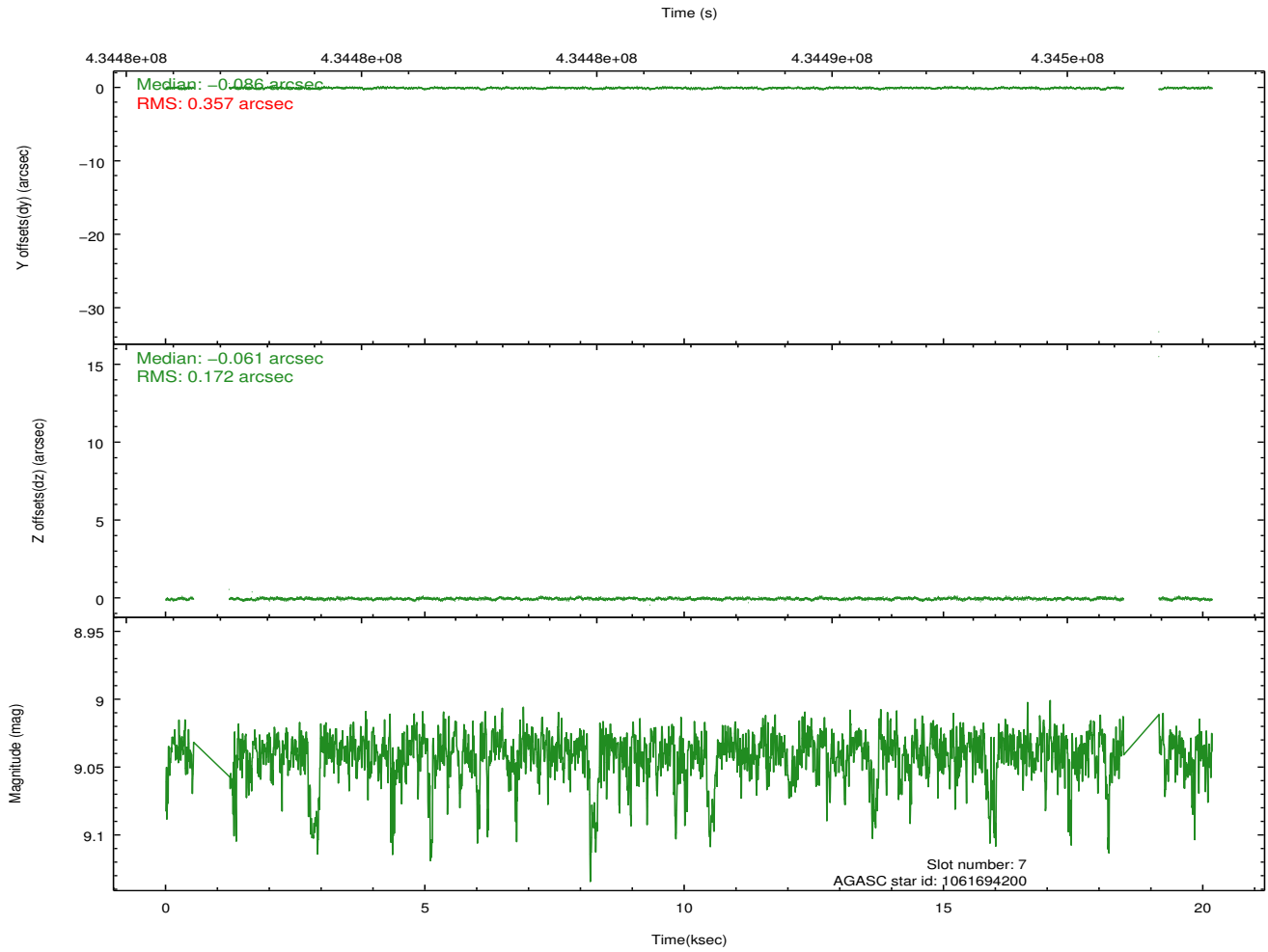
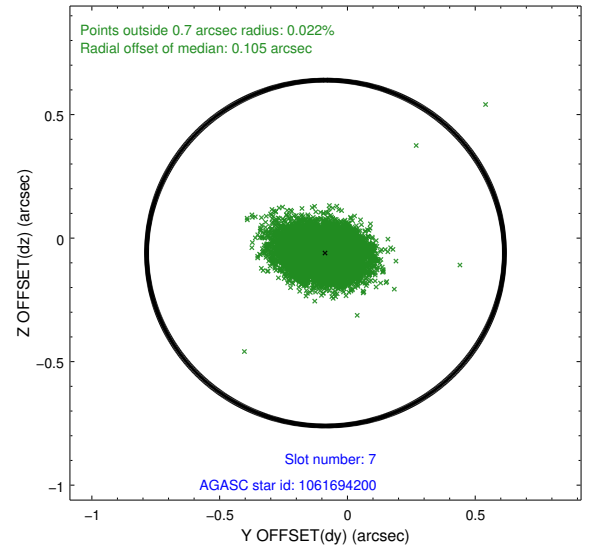
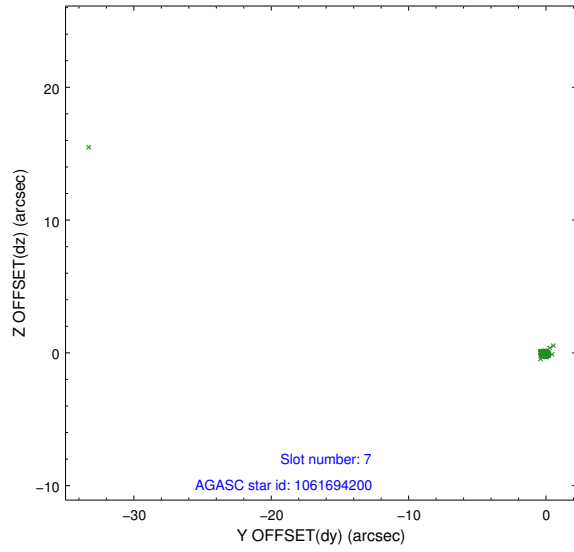
2.4.3 Slot 5



2.4.4 Slot 6

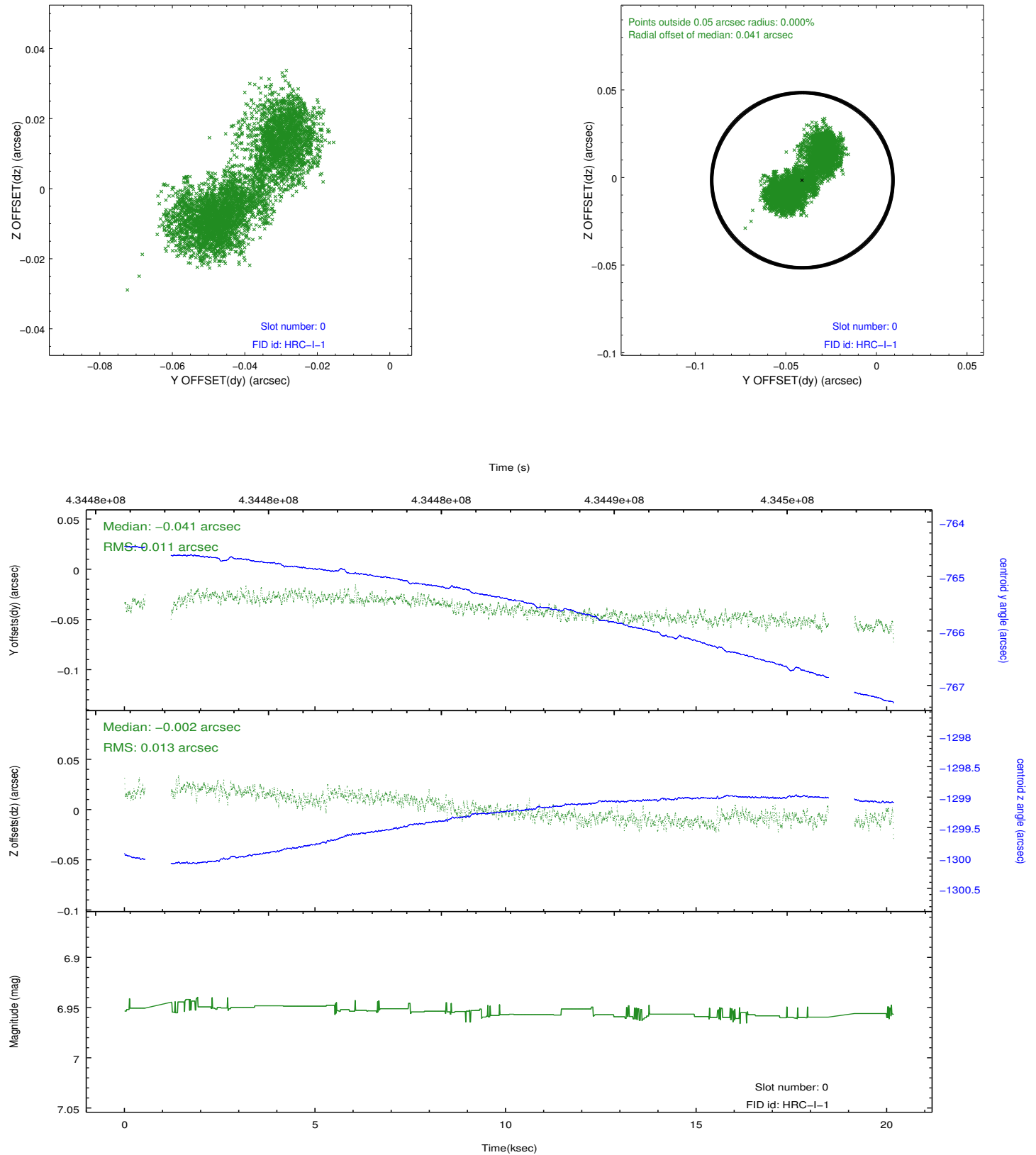


2.4.5 Slot 7

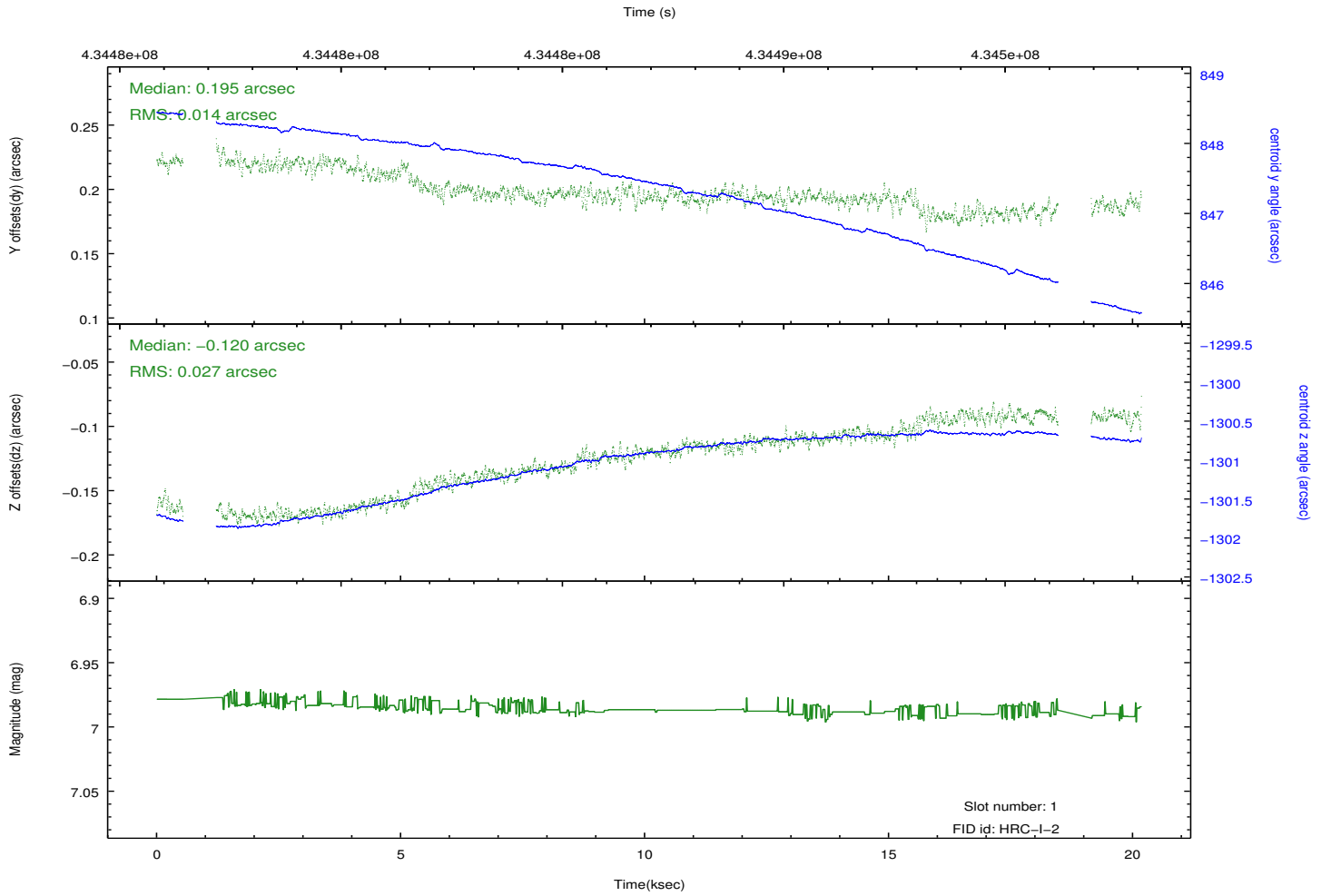
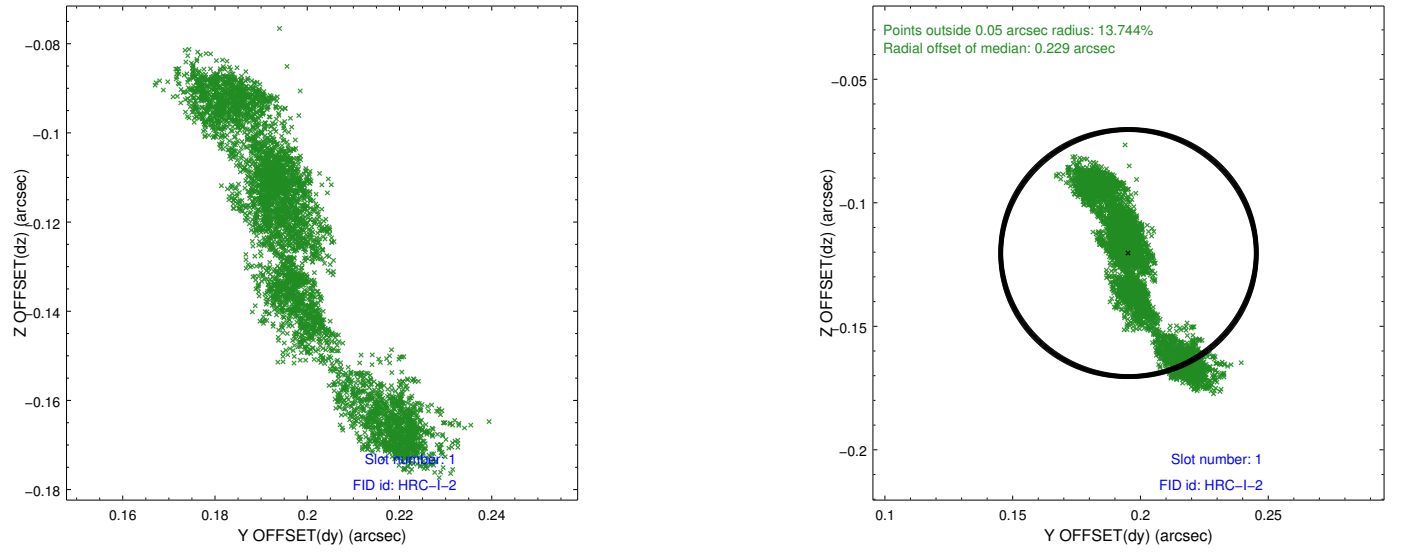


2.5 FID Slots

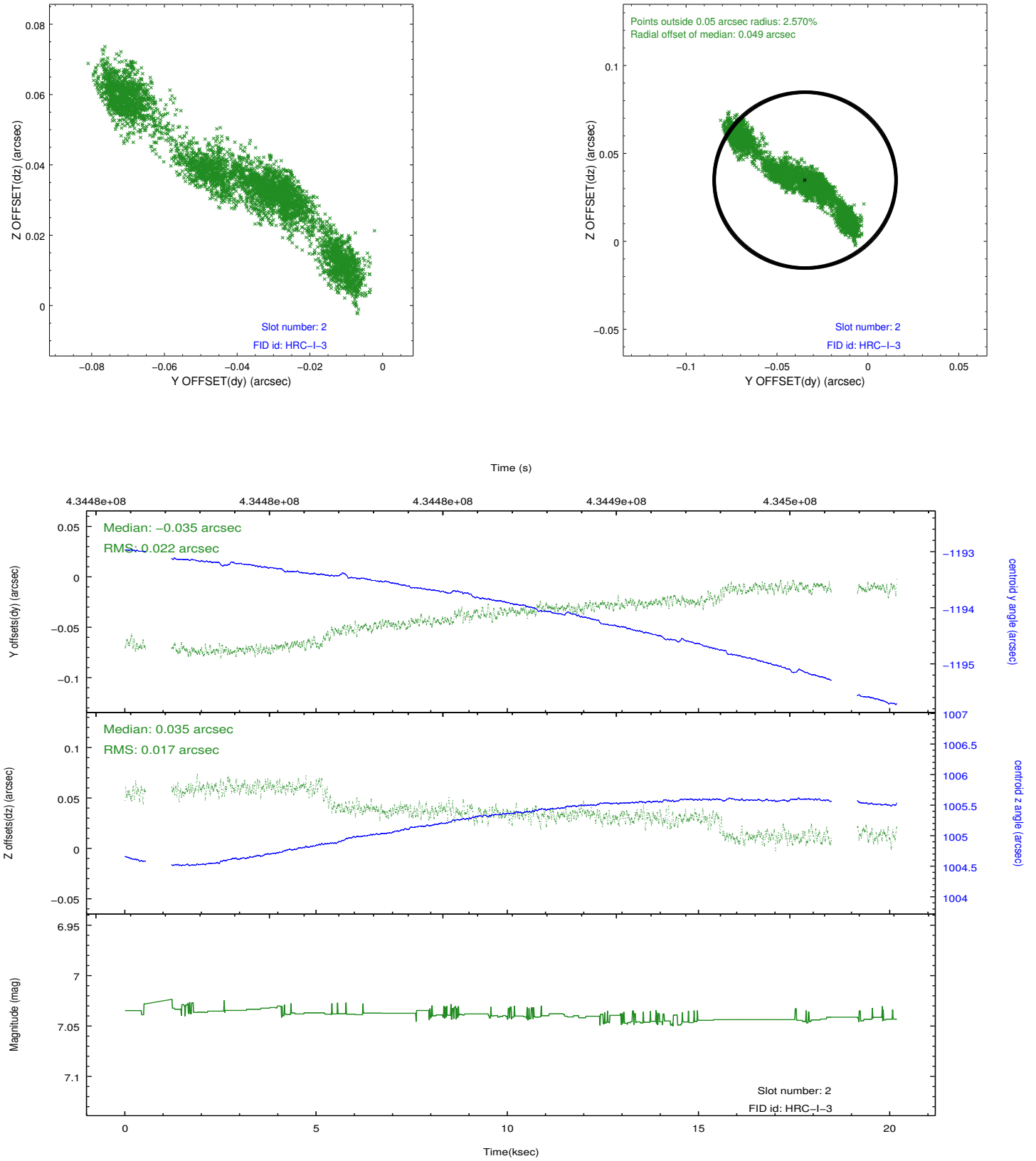
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.08.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.82

A.2 Comments

This observation was taken while the spacecraft traversed the Draconid meteor shower. During that time the spacecraft was oriented in the anti-radiant direction of the meteor shower to minimize the potential of damage to the spacecraft. beta Pic was a good target in this direction. On 2 occasions during this observation the spacecraft went into maneuver mode (but did not change its overall pointing direction) to reorient the solar panels for a safe passage through the peak of the meteor shower. Therefore there are 3 separate aspect intervals for this observation. The time periods of these 2 brief maneuver mode events are not included in the GTI. The 3 separate aspect intervals have been used to create an acceptable aspect solution that has been reviewed and approved by the Aspect Team. There are no problems with this obsid that would affect the analysis. There is a large RMS values across all guide star slots due to a bad point at the beginning of the third aspect interval. When plotting the third interval, instead of discarding a centroid with a time before the aspect solution begins, the V&V plotting algorithm seems to be interpolating quaternions across the aspect interval gap. This is a bug and has been reported for investigation to ascds_help. ==== The aspect is acceptable and the plots show large RMS values due to a software problem.