

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21639 - L2 Version 1
Chandra X-Ray Center

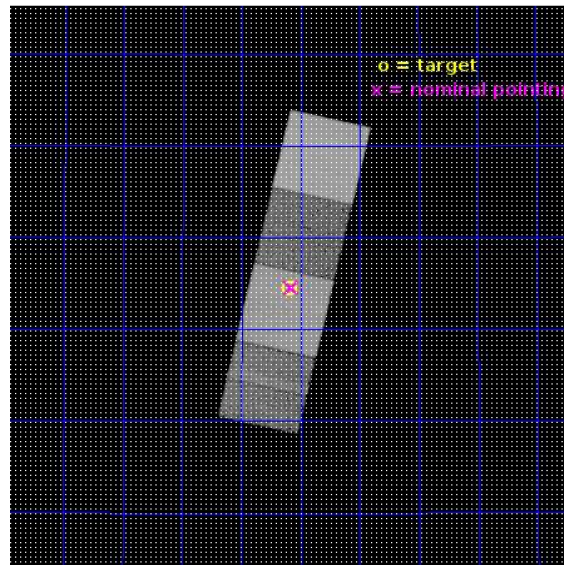
L2 Processing Date : May 24 2019

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1 Front

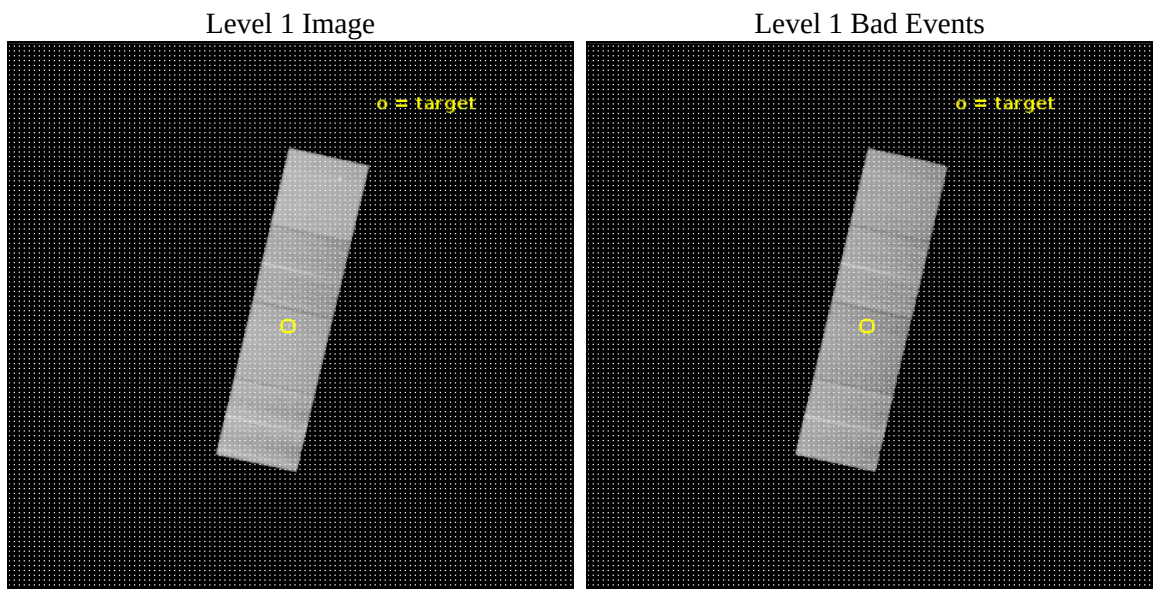
seq_num	503138	Sequence number
obs_id	21639	Observation id
title	Continued Chandra-NuSTAR monitoring of the unprecedented metamorphosis of SN2014C at t>1500 days since explosion	Proposal title
observer	RAFFAELLA MARGUTTI	Principal investigator
object	SN2014C	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	339.273333	Observer's specified target RA [deg]
dec_targ	34.408861	Observer's specified target Dec [deg]
ra_nom	339.26916974221	Nominal RA [deg]
dec_nom	34.409328290712	Nominal Dec [deg]
roll_nom	102.83135688514	Nominal Roll [deg]
revision	1	Processing version of data
ontime	29908.800230145	Sum of GTIs [s]
livetime	29518.0197366	Livetime [s]
ontime5	29908.800230145	Sum of GTIs [s]
ontime6	29905.659240007	Sum of GTIs [s]
ontime7	29908.800230145	Sum of GTIs [s]
ontime8	29896.236249328	Sum of GTIs [s]
l2events	346706	Number of level 2 events



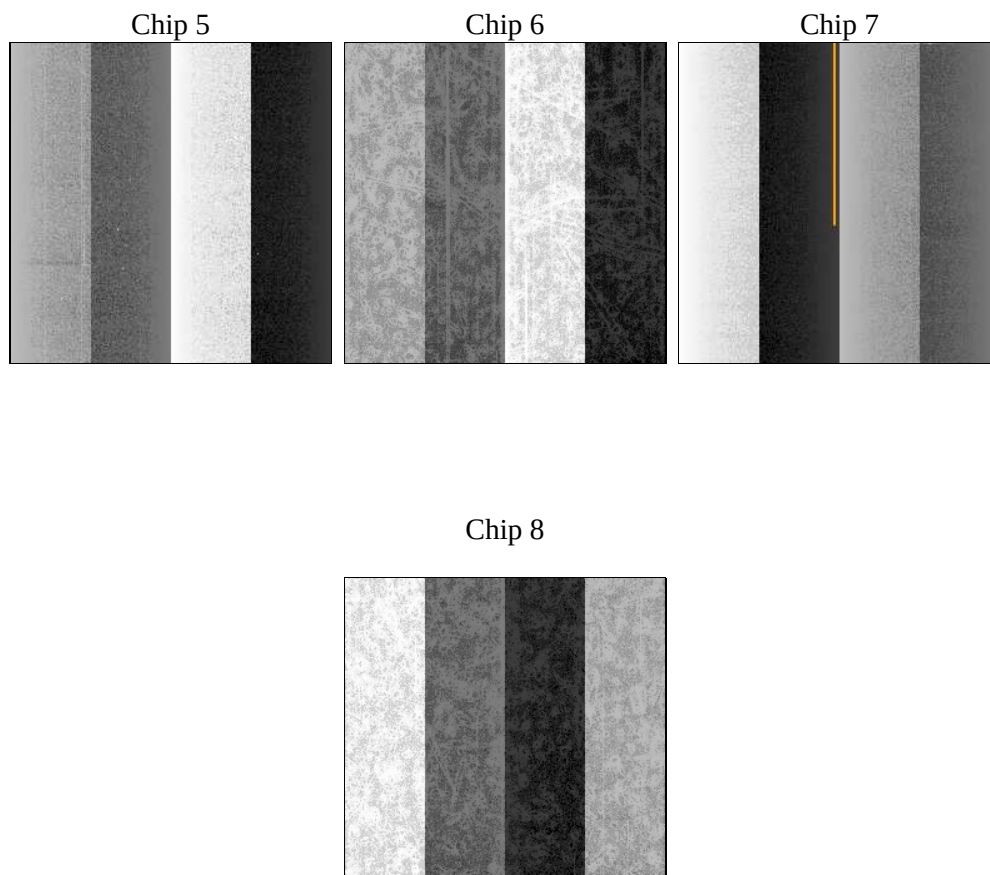
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	29908.800230145	Sum of GTIs [s]
caldbver	4.8.3	 	ontime5	29908.800230145	Sum of GTIs [s]
date	2019-05-24T21:22:14	Date and time of file creation	ontime6	29905.659240007	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	29908.800230145	Sum of GTIs [s]
			ontime8	29896.236249328	Sum of GTIs [s]
			l1events	1176920	Number of level 1 events

2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	353972	228110	291541	303297
rejected events	183245	201519	161778	215478
rejected %	51%	88%	55%	71%

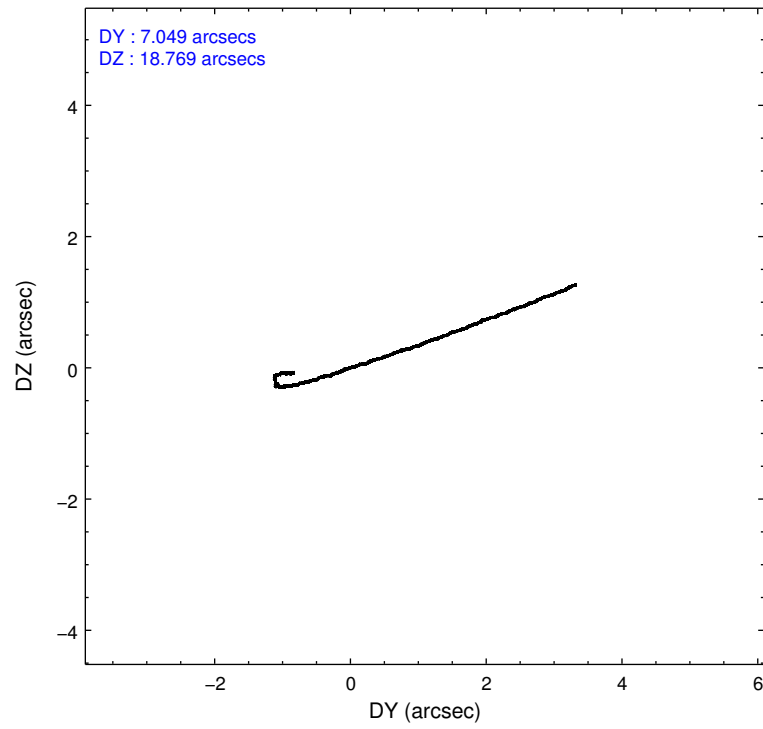
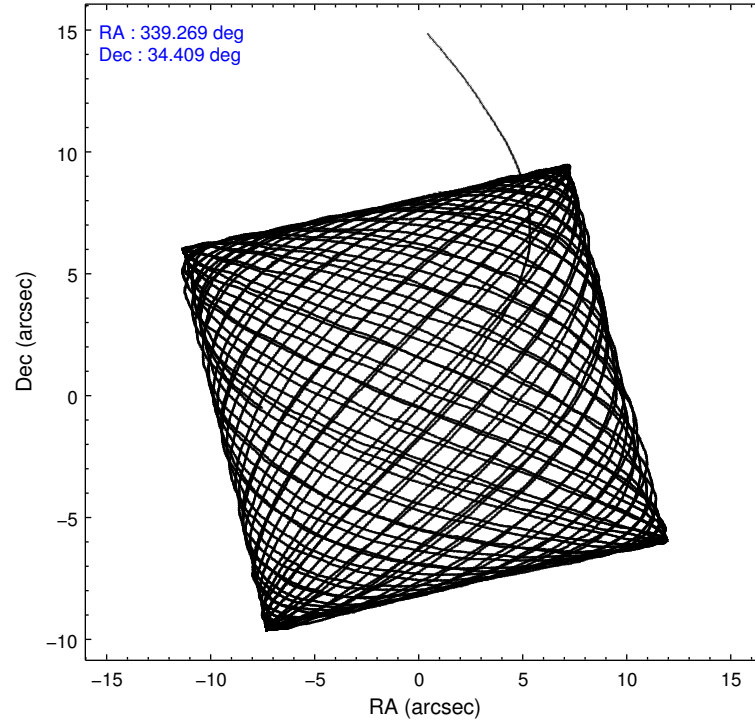
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	10272	9083	11383	25982
	2%	3%	3%	8%
grade 1 events	754	121	436	255
	0%	0%	0%	0%
grade 2 events	54522	6204	28386	21182
	15%	2%	9%	6%
grade 3 events	5924	2651	10234	9110
	1%	1%	3%	3%
grade 4 events	5861	2596	10266	8699
	1%	1%	3%	2%
grade 5 events	25738	10809	28648	16167
	7%	4%	9%	5%
grade 6 events	94184	6057	69527	22853
	26%	2%	23%	7%
grade 7 events	156717	190589	132661	199049
	44%	83%	45%	65%

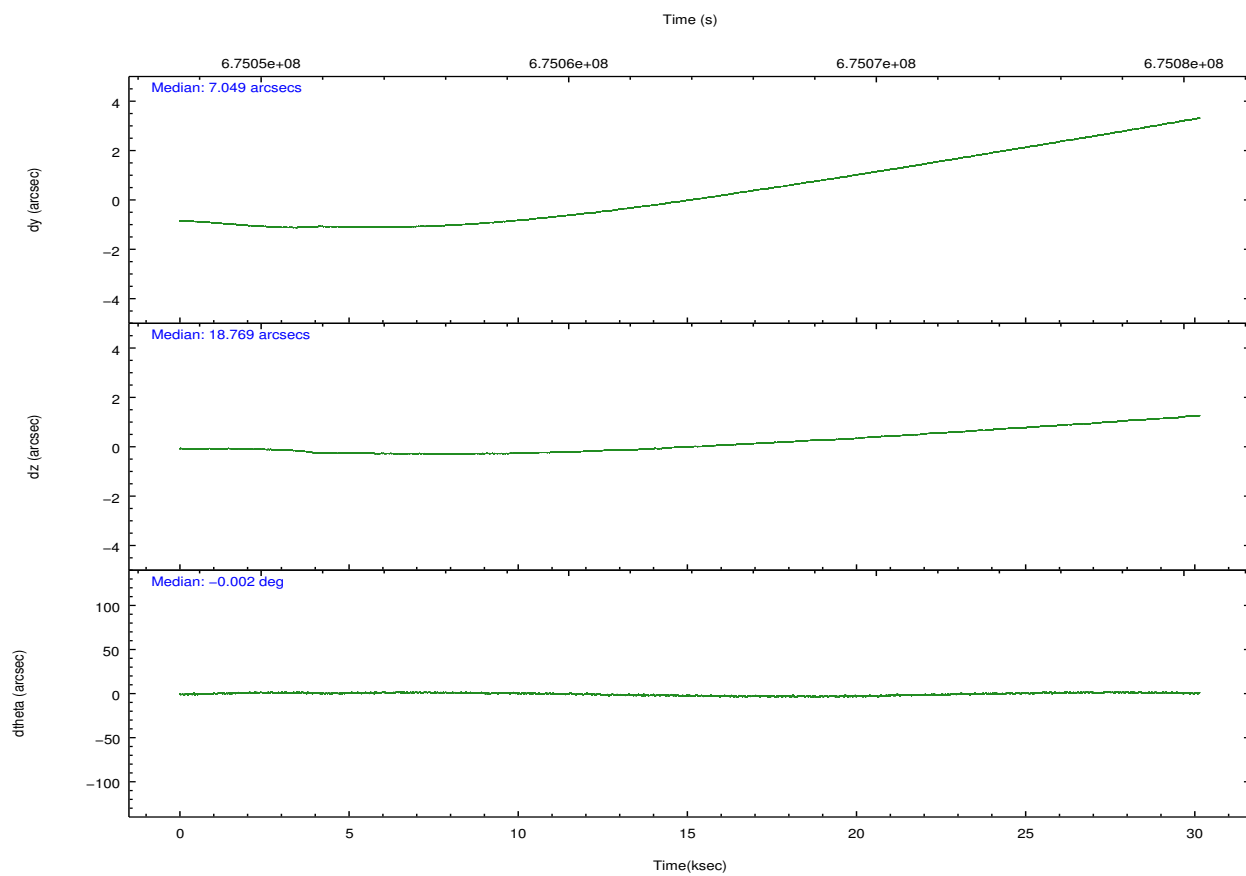
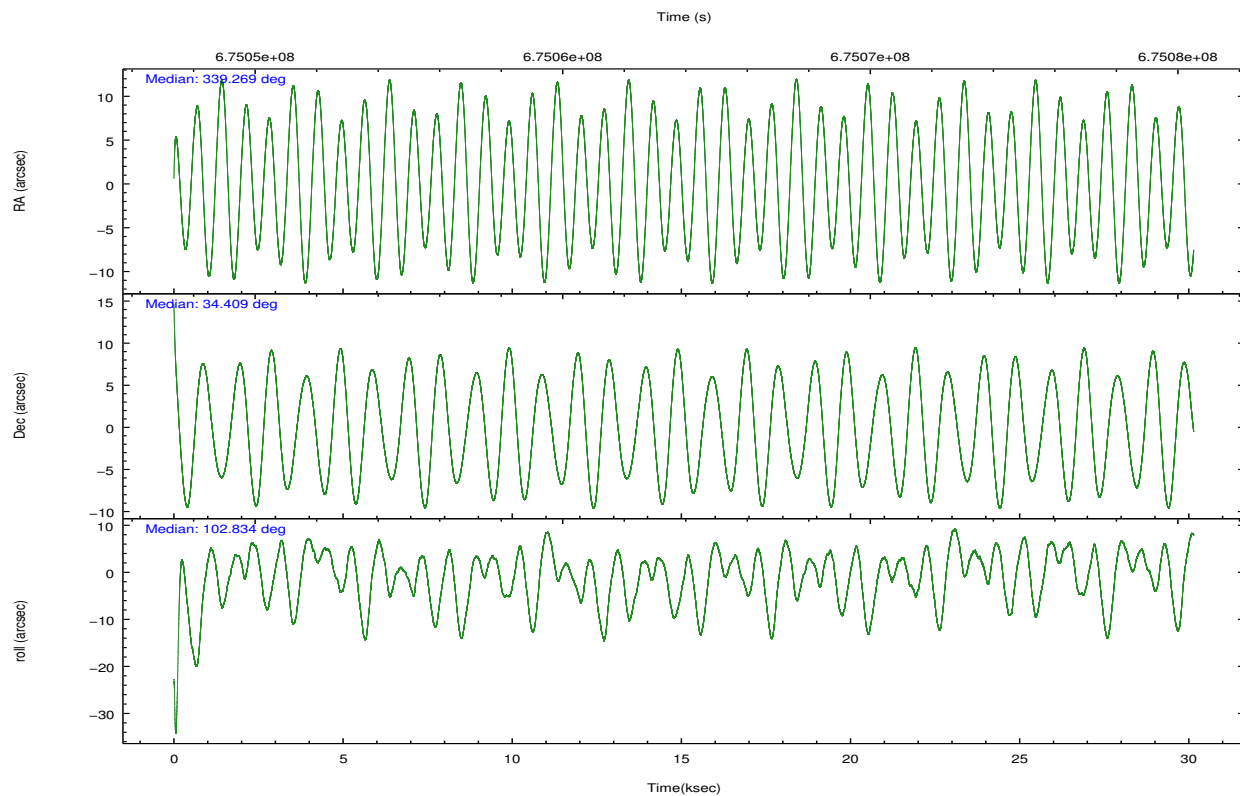
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-5678	ACIS-5678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	339.292114	339.2691697422118
[deg] Pointing Dec	34.389439	34.40932829071214
[deg] Pointing Roll	102.661764	102.8313568851374
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1400660498719
[mm] SIM translation stage offset	0	0.00754346686406393
[s] Observation start time (MET)	675049033.184000	675047676.71385
Observation start date	2019-05-24T01:36:04	2019-05-24T01:14:36
[s] Observation end time (MET)	675079033.184000	675079808.4157799
Observation end date	2019-05-24T09:56:04	2019-05-24T10:10:08
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	N	N
CCD I3 on	N	N
CCD S0 on	N	N
CCD S1 on	Y	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	O1	Y
CCD S5 on	N	N
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



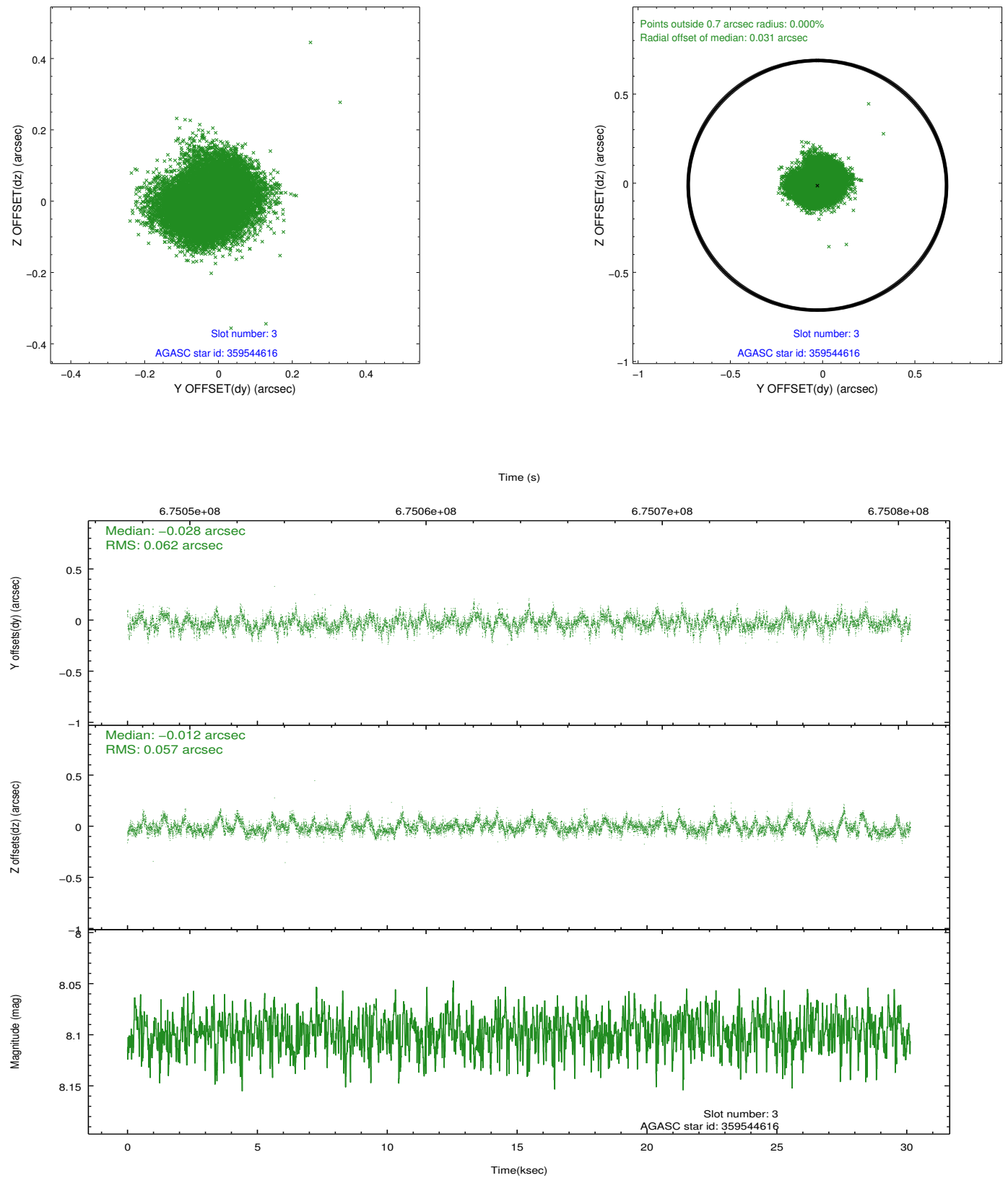


Slot Statistics

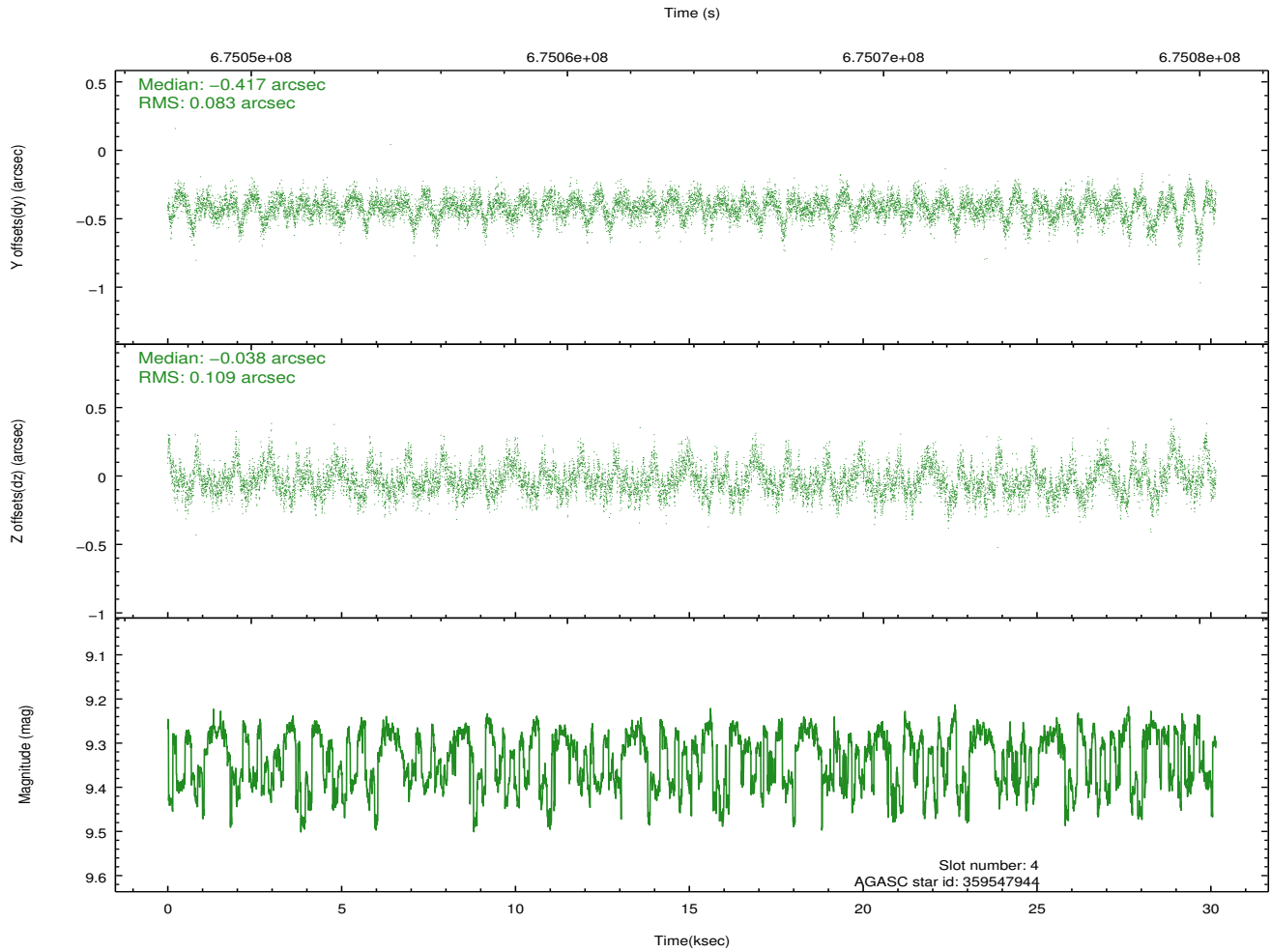
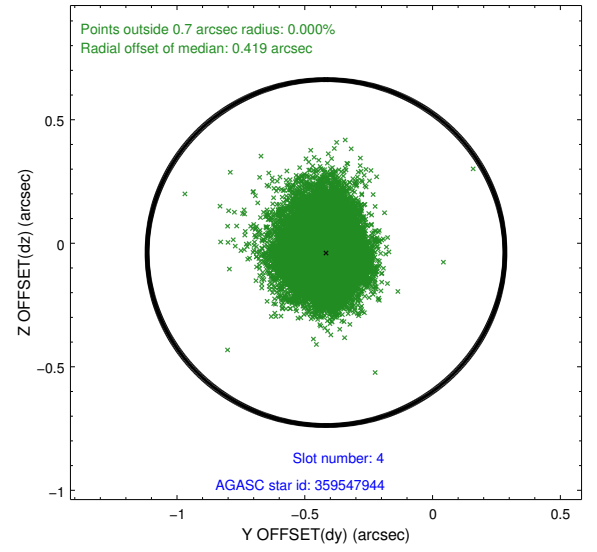
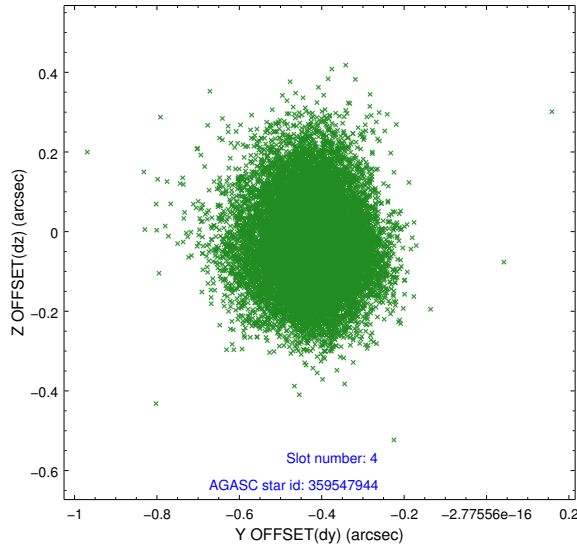
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	6.97	7353	1.000	-0.322	-0.187	0.020	0.060	0.000000	0.000000	-760.59	-1740
1	FID		ACIS-S-4	7.09	7353	1.000	0.351	0.205	0.019	0.050	0.000000	0.000000	2153.40	168
2	FID		ACIS-S-6	7.24	7352	1.000	-0.056	-0.008	0.013	0.018	0.000000	0.000000	401.84	805
3	GUIDE	used	359544616	8.10	14704	1.000	-0.028	-0.012	0.090	0.146	339.312307	34.927880	1878.02	-482
4	GUIDE	used	359547944	9.33	14676	1.000	-0.417	-0.038	0.143	0.239	338.858049	34.436167	449.41	1220
5	GUIDE	used	359672344	9.33	14684	1.000	0.487	0.826	0.149	0.244	340.166876	34.251669	-1042.93	-2432
6	GUIDE	used	359541464	8.64	14693	1.000	-0.027	-0.420	0.159	0.239	339.073218	34.654496	1073.98	422
7	GUIDE	used	359540136	8.77	14688	1.000	-0.014	-0.368	0.113	0.180	339.014971	34.618247	984.87	620

2.4 Star Slots

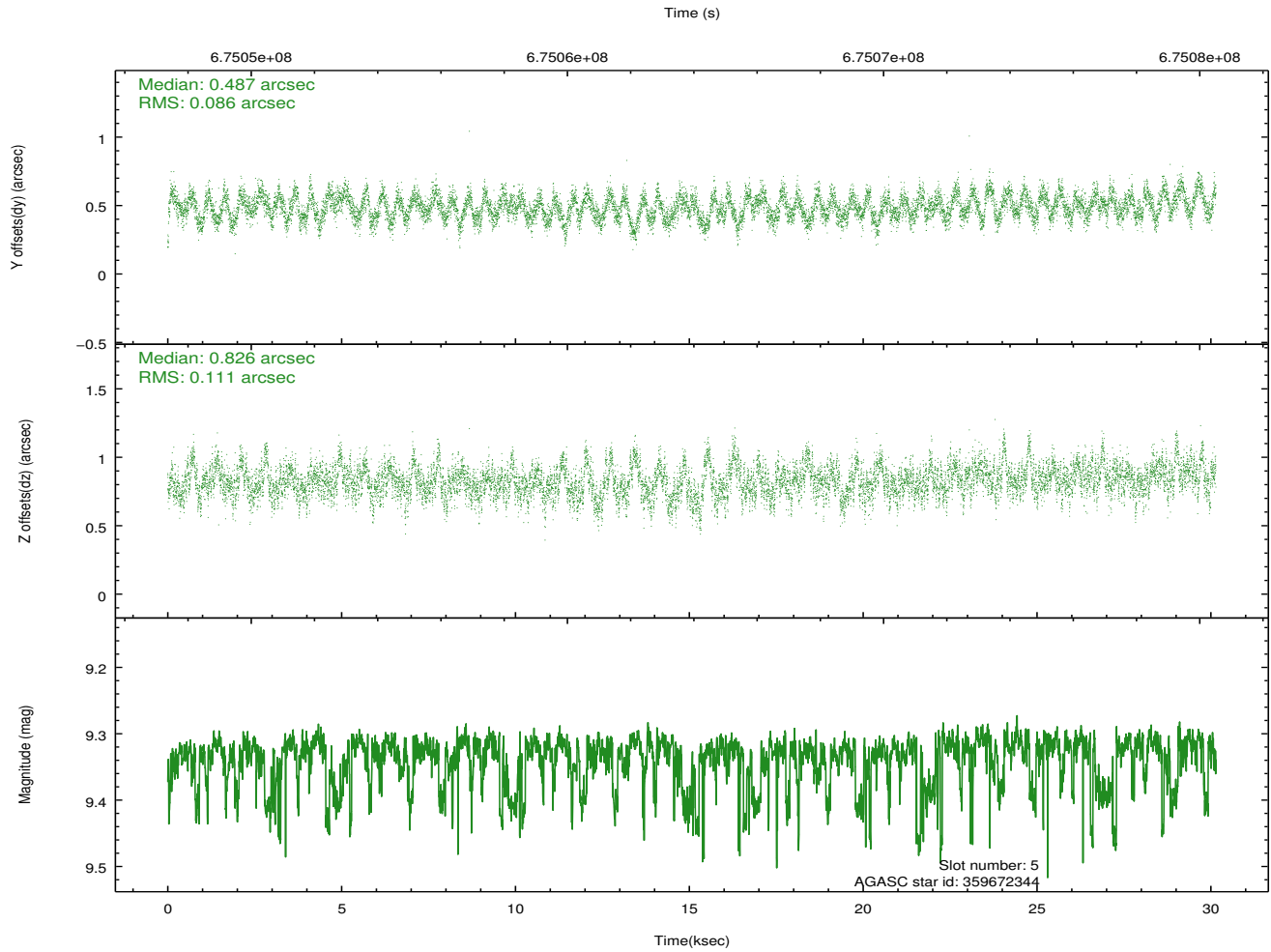
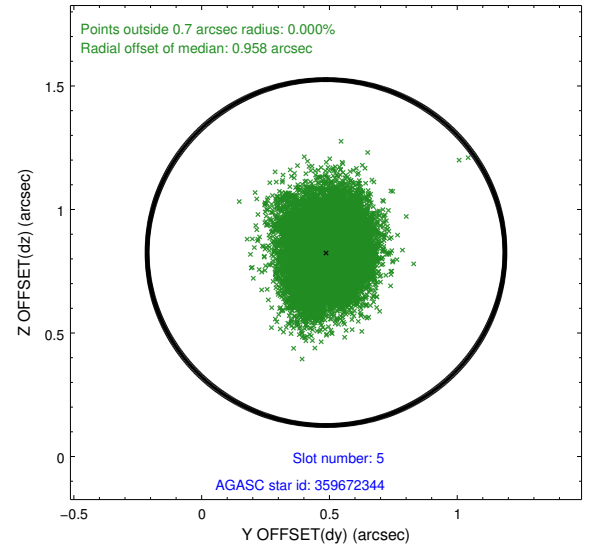
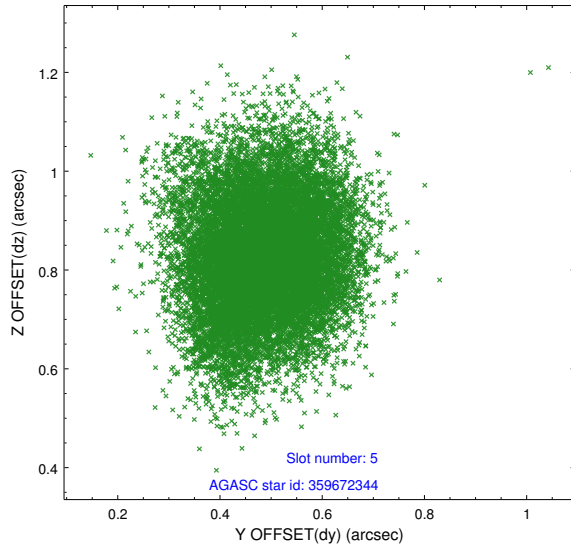
2.4.1 Slot 3



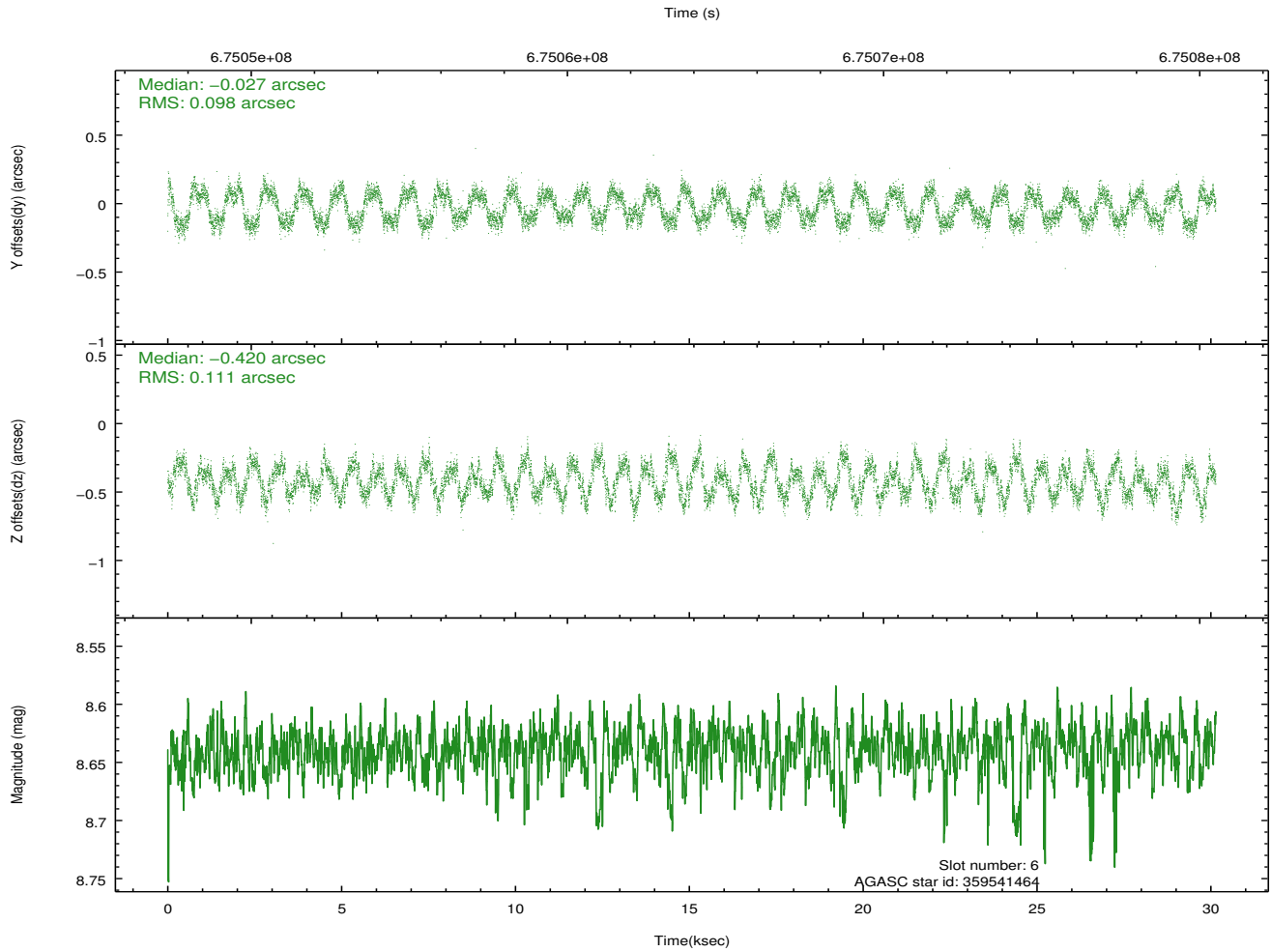
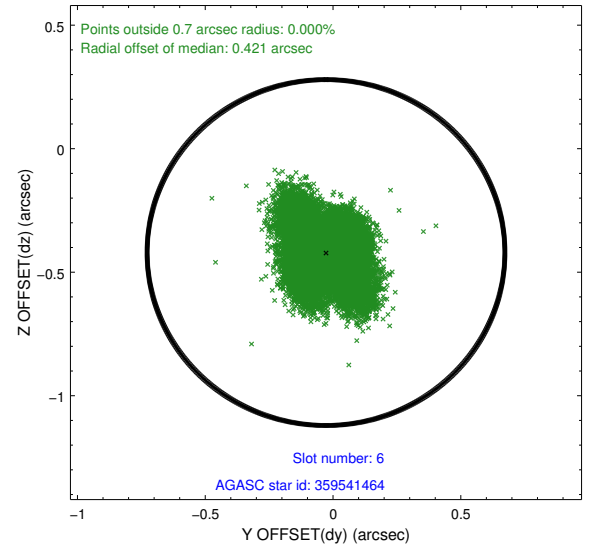
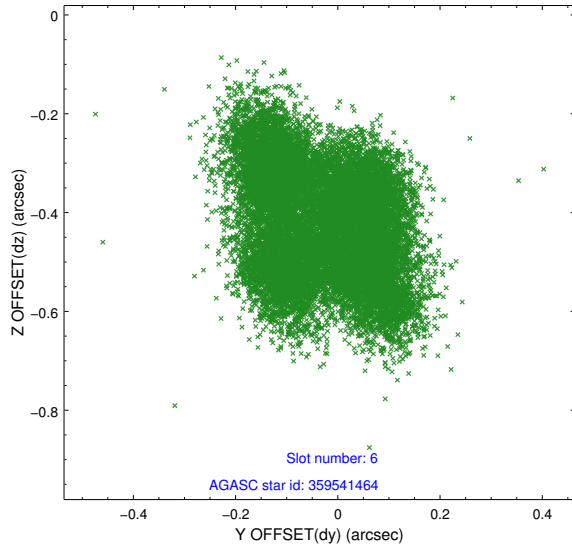
2.4.2 Slot 4



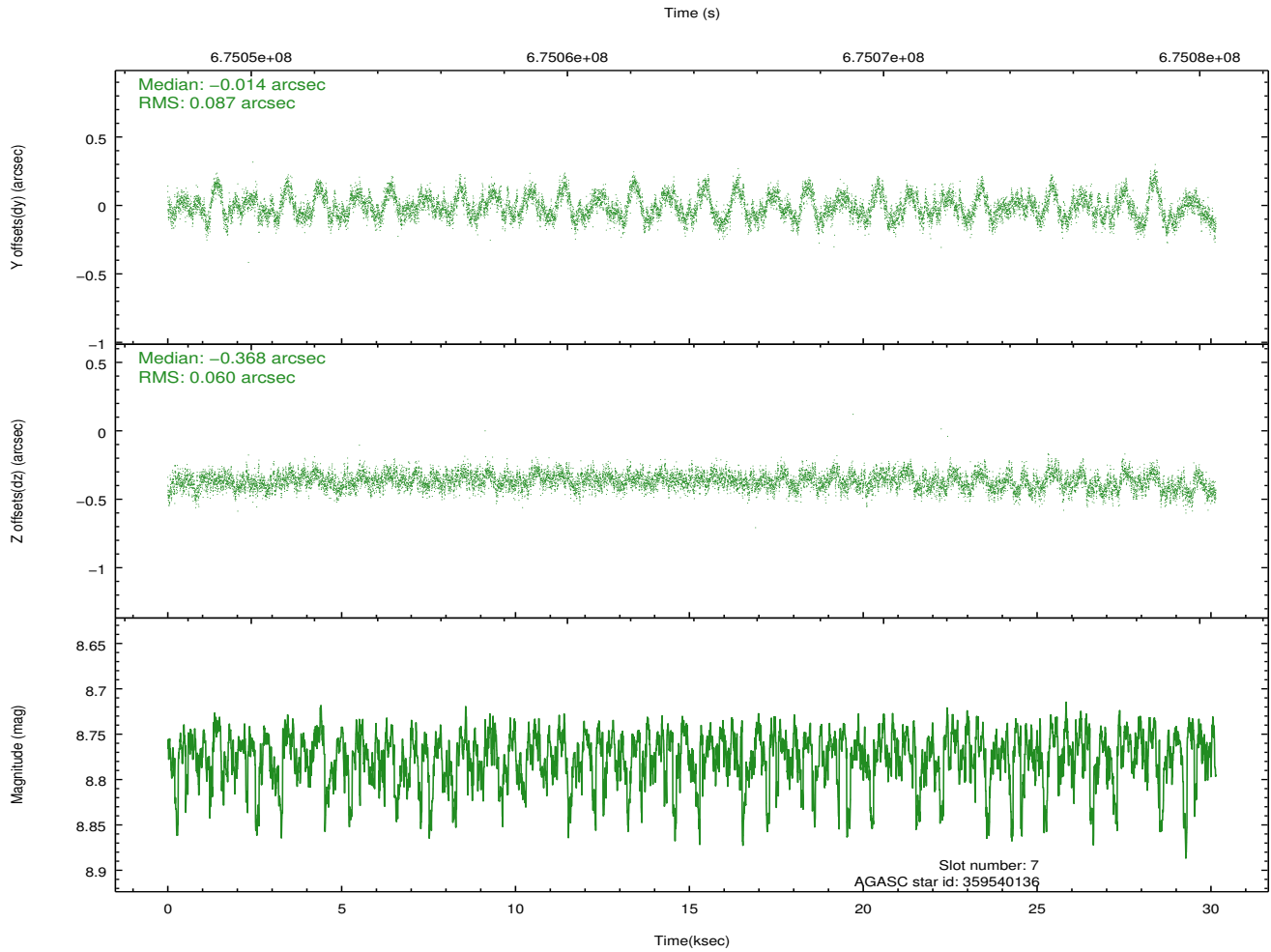
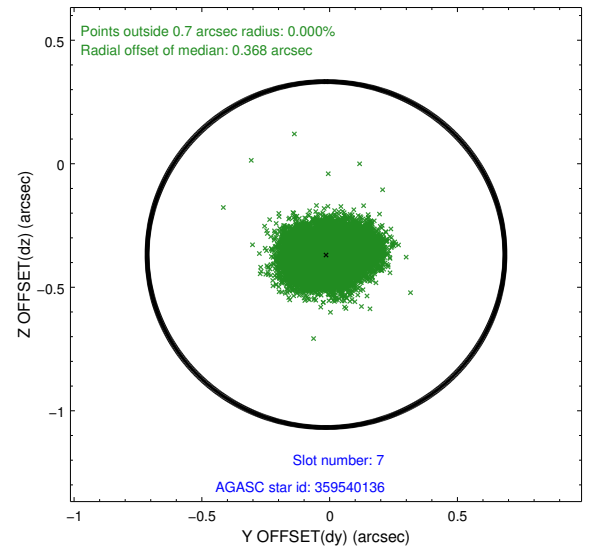
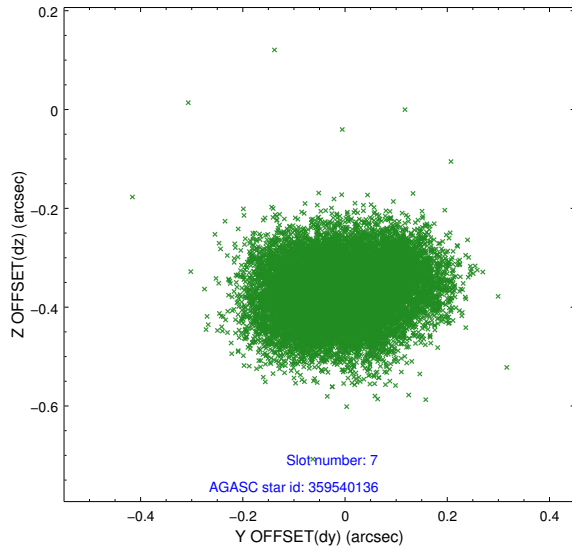
2.4.3 Slot 5



2.4.4 Slot 6

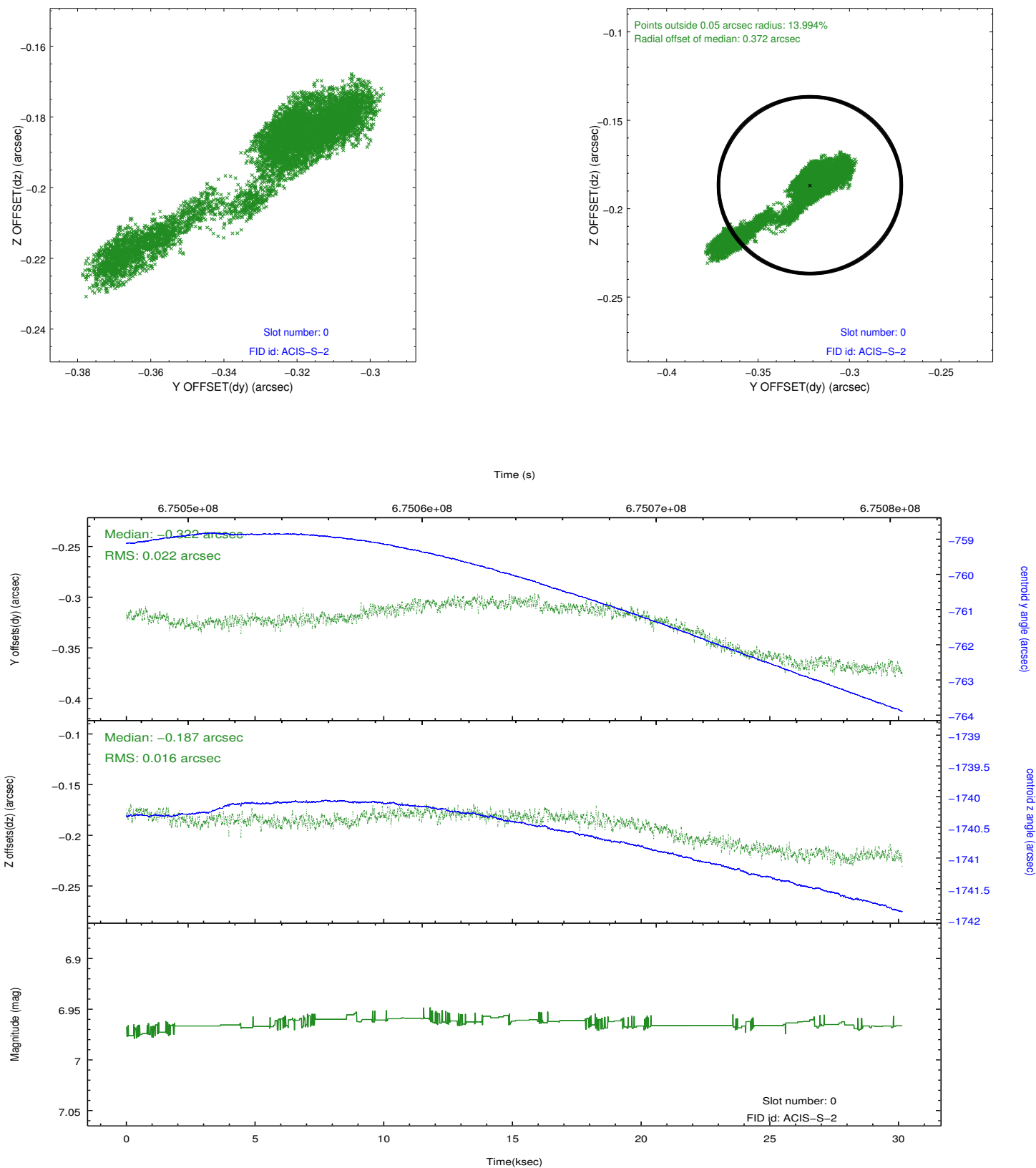


2.4.5 Slot 7

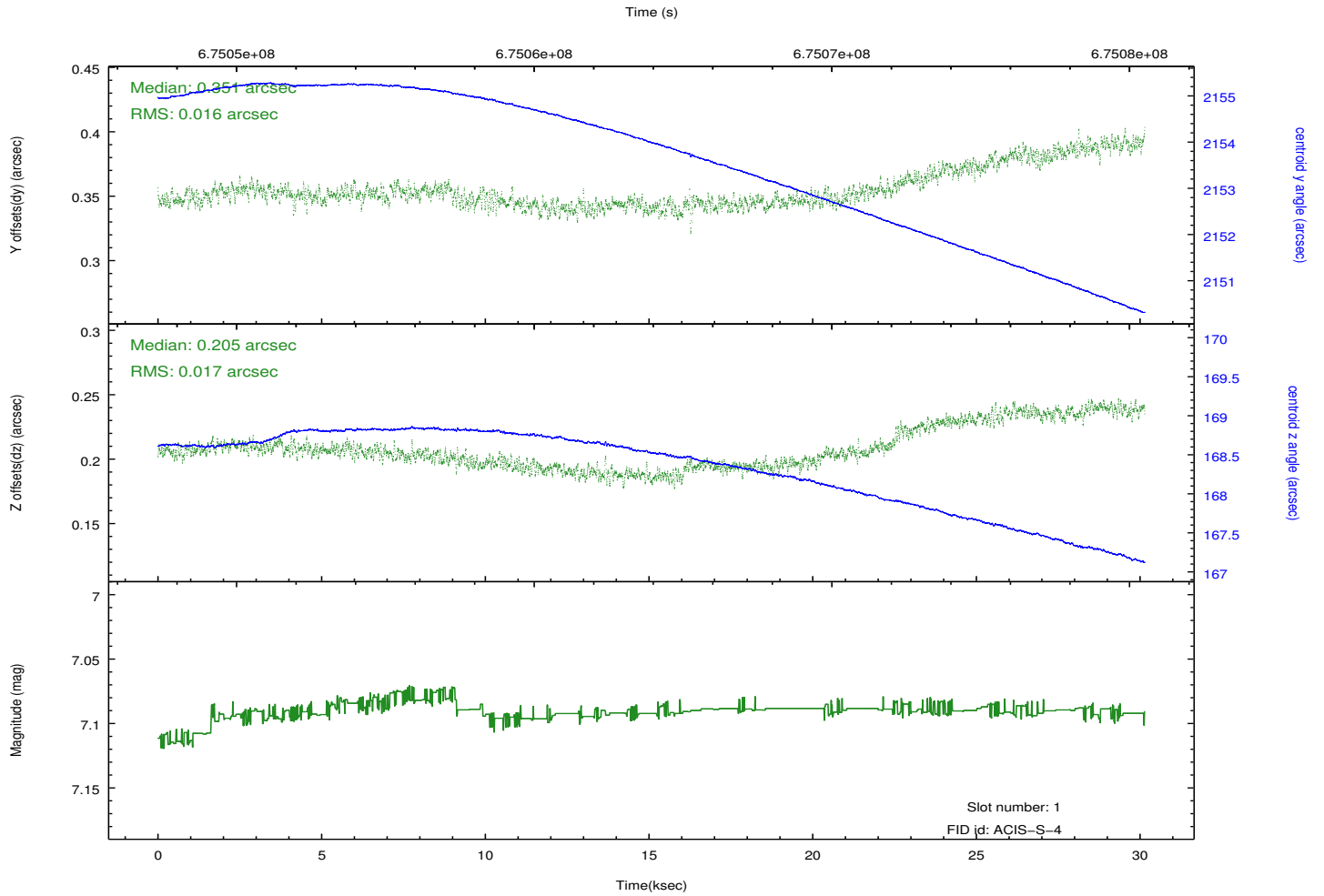
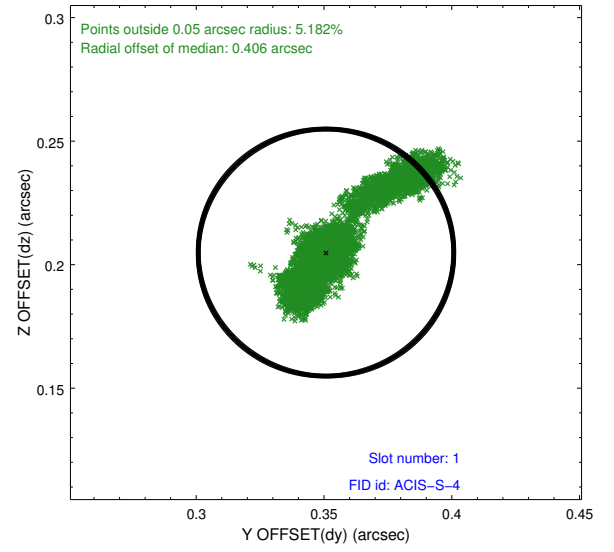
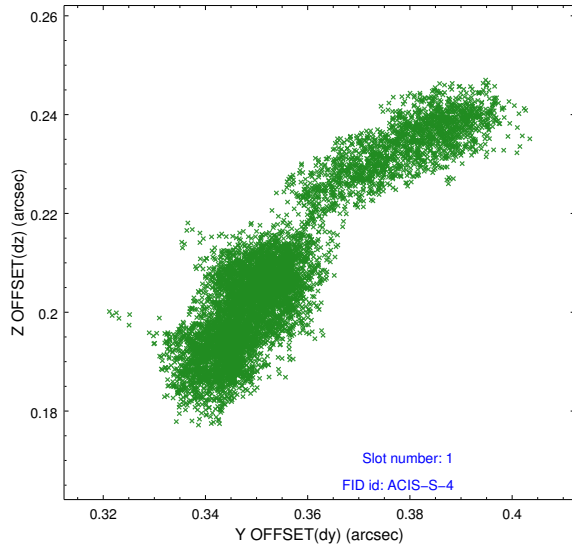


2.5 FID Slots

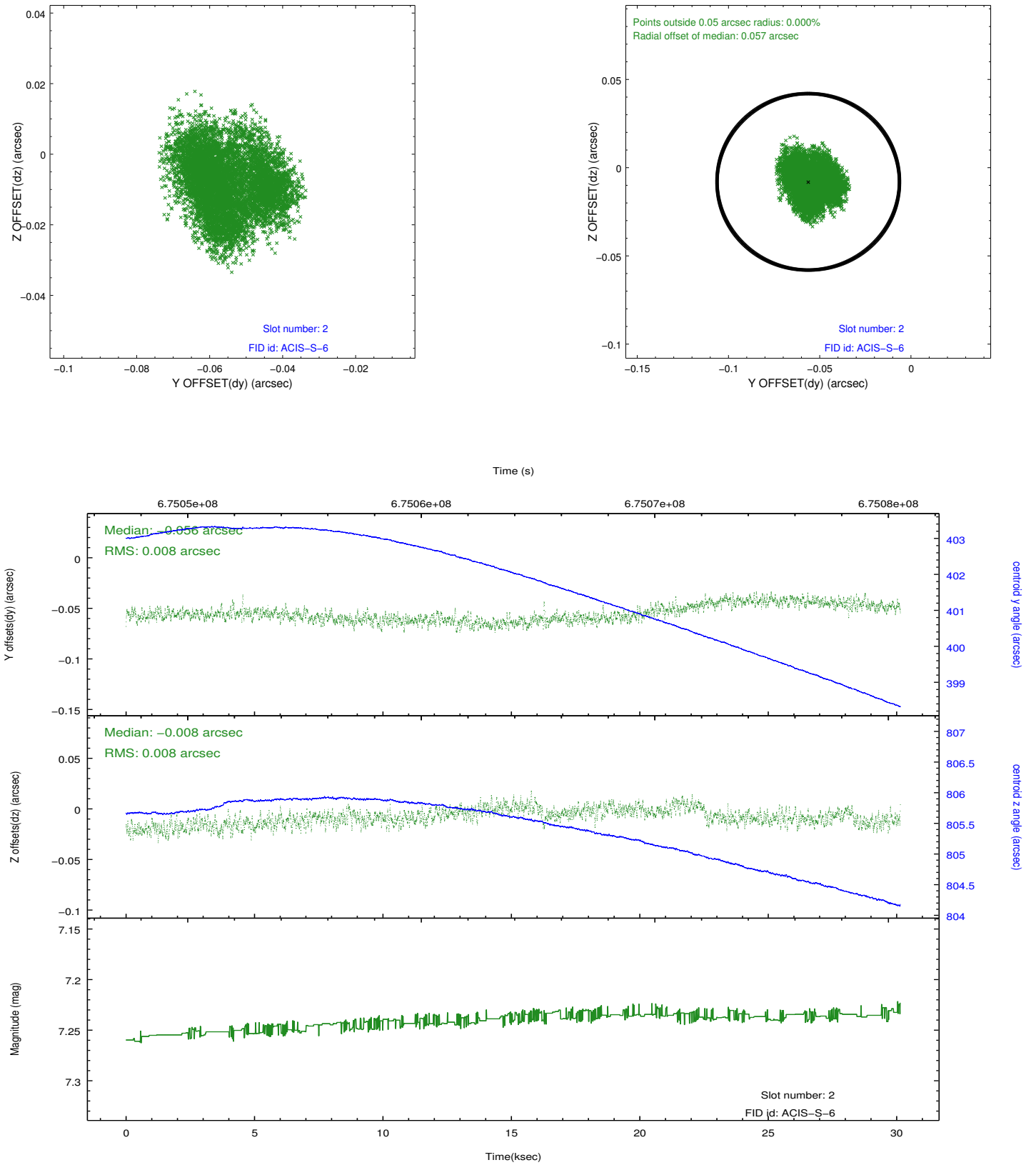
2.5.1 Slot 0



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)	2019.05.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.908800230145

A.2 Comments

Joint Proposal: NuSTAR

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Chip ACIS-S4 suffers from an unusually large amplitude of streaks of instrumental origin. The user may want to run the CIAO tool 'destreak' on the Level 2 event data. When using destreak, note that setting 'max' to 1, especially for gratings data, may remove a large fraction of the data. Users should check the output 'timefile' to see what percent of the data was removed. See the CIAO help file for more details.