

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18416 - L2 Version 1
Chandra X-Ray Center

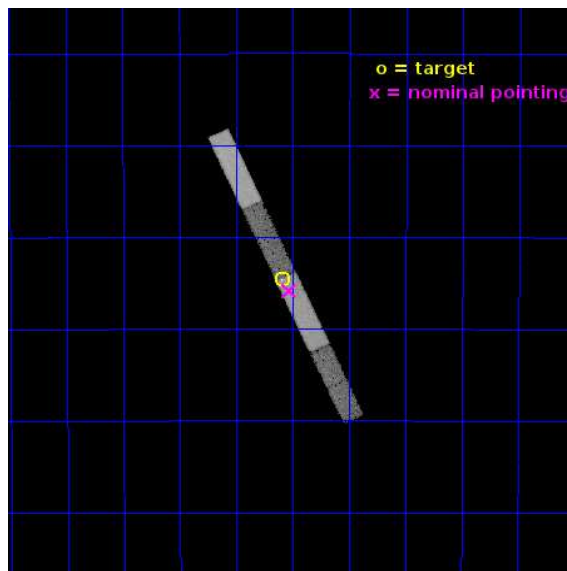
L2 Processing Date : Jun 8 2016

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1 Front

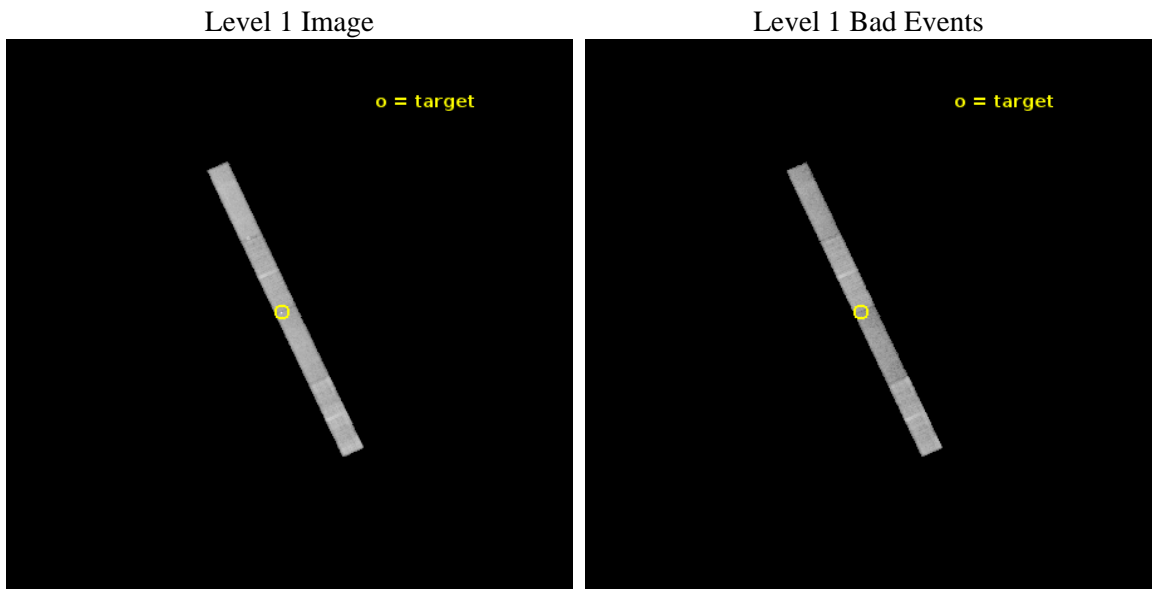
seq_num	590546	Sequence number
obs_id	18416	Observation id
title	AO-17 LETG/ACIS-S Calibration Observations of RXJ 1856	Proposal ti
observer	Dr. CXC Calibration	Principal investigator
object	RXJ 1856.5-3754	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	284.147083	Observer's specified target RA [deg]
dec_targ	-37.909611	Observer's specified target Dec [deg]
ra_nom	284.13240118765	Nominal RA [deg]
dec_nom	-37.930819281689	Nominal Dec [deg]
roll_nom	65.49747333235	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30079.799203038	Sum of GTIs [s]
livetime	28767.97934491	Livetime [s]
ontime5	30079.799203038	Sum of GTIs [s]
ontime6	30079.799203038	Sum of GTIs [s]
ontime7	30079.799203038	Sum of GTIs [s]
ontime8	30079.799203038	Sum of GTIs [s]
l2events	70082	Number of level 2 events



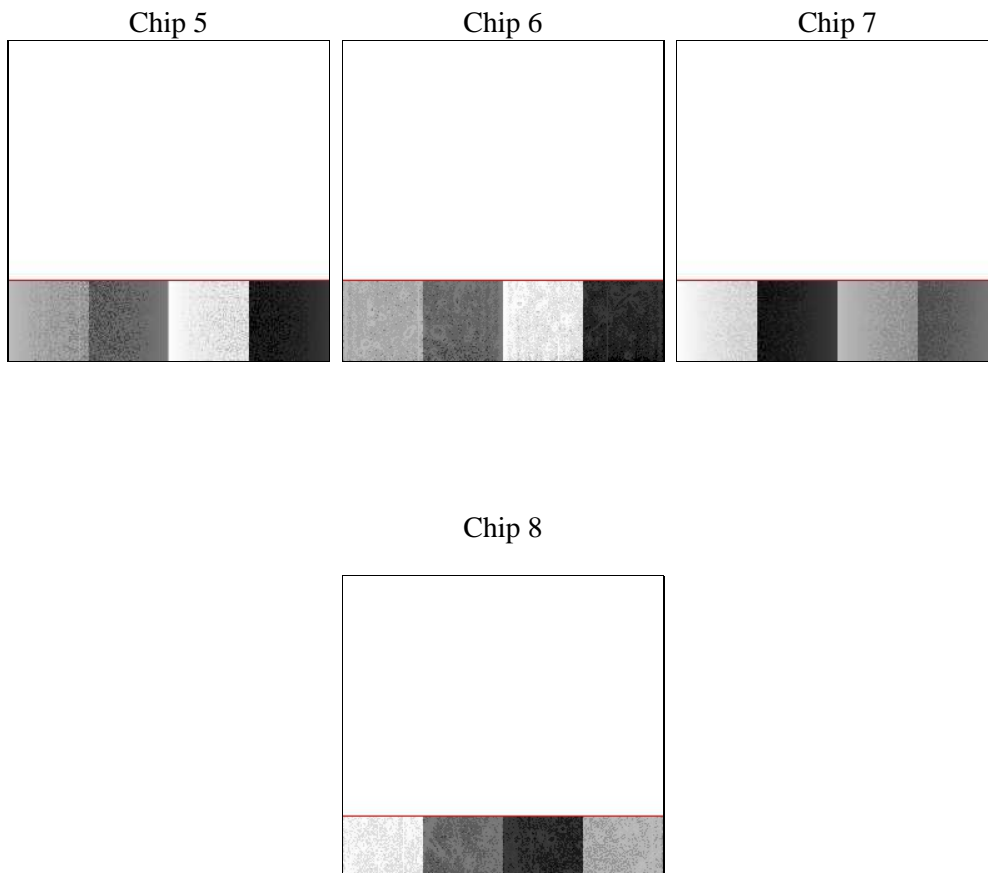
2 OBI

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	10.4.3.1	Processing system revision	ontime	30079.799203038	Sum of GTIs [s]
caldsver	4.7.2	 	ontime5	30079.799203038	Sum of GTIs [s]
date	2016-06-09T01:41:00	Date and time of file creation	ontime6	30079.799203038	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	30079.799203038	Sum of GTIs [s]
			ontime8	30079.799203038	Sum of GTIs [s]
			l1events	249081	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(3994.53, 4245.99)	src1a sky pixel position

2.1.4 Events

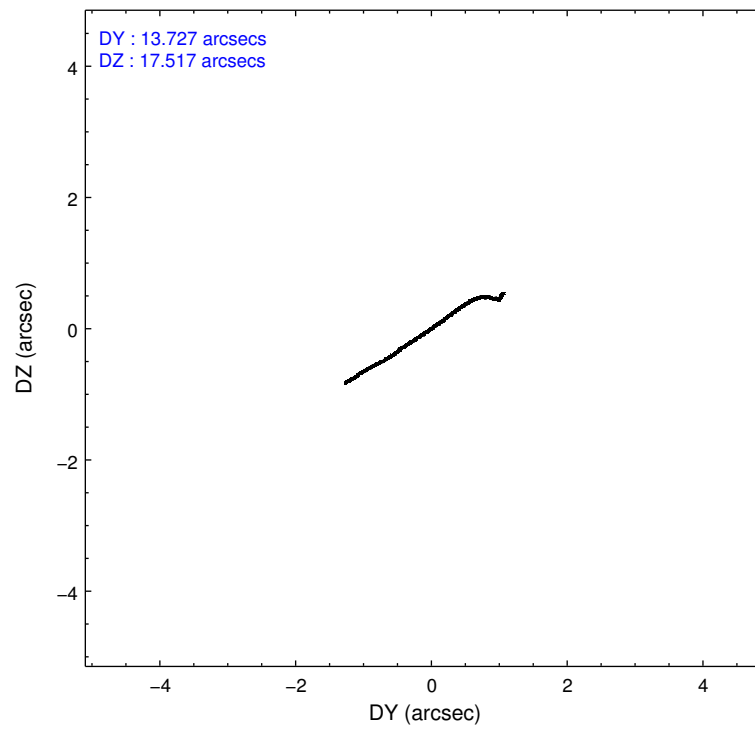
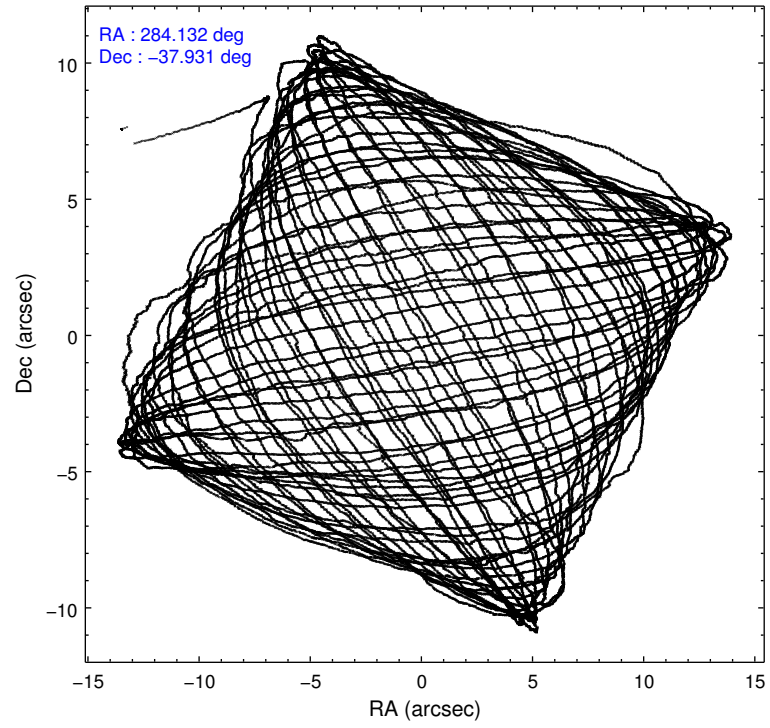
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	67915	56038	52772	72356
rejected events	32167	49885	26585	53442
rejected %	47%	89%	50%	73%

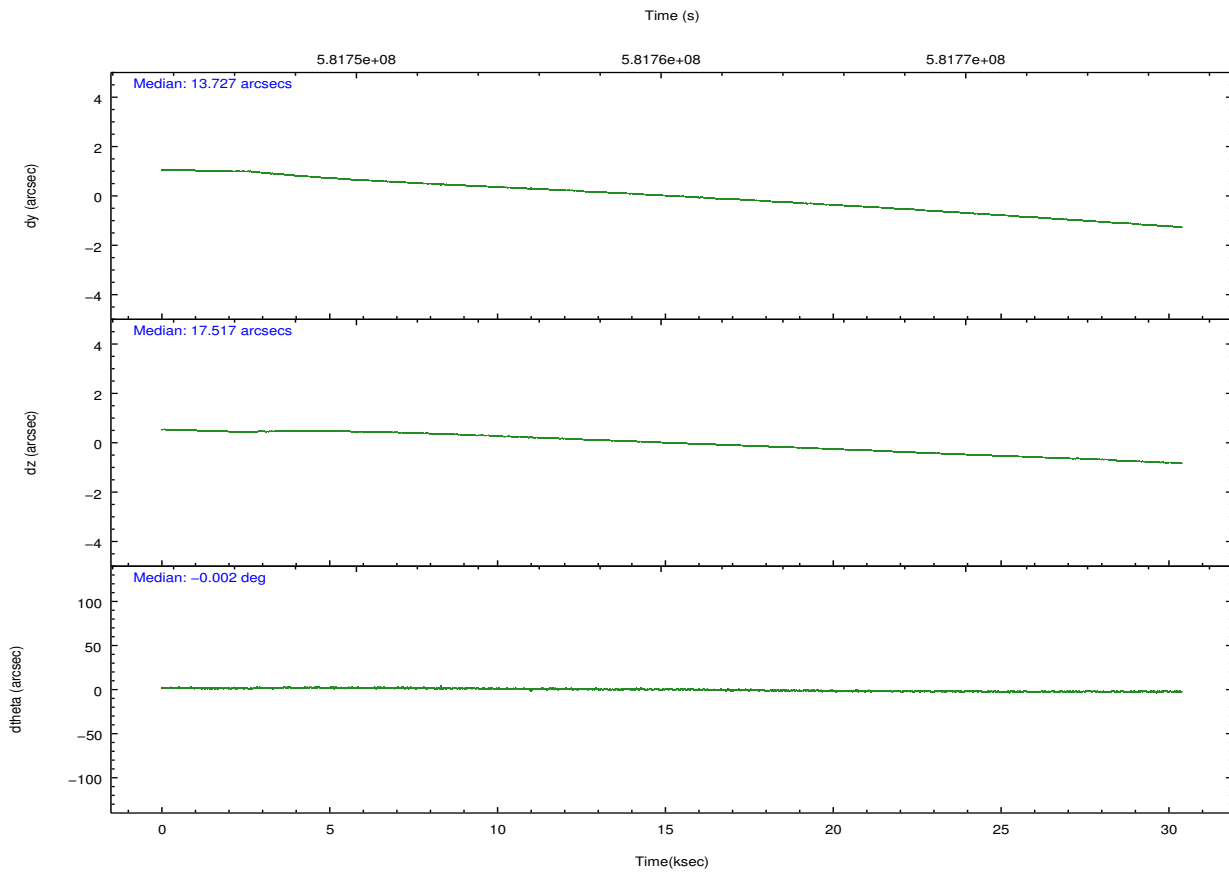
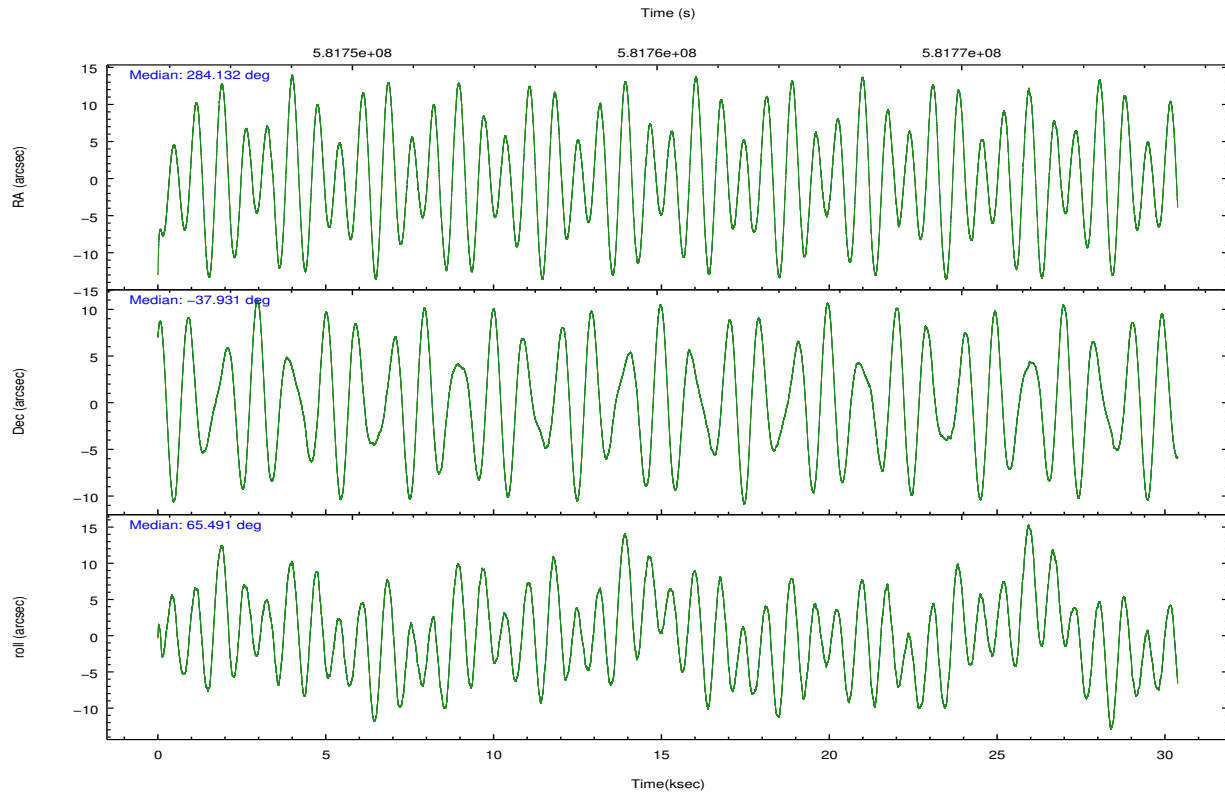
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	3770	1777	3192	4572
	5%	3%	6%	6%
grade 1 events	179	23	94	29
	0%	0%	0%	0%
grade 2 events	9891	1273	5464	4238
	14%	2%	10%	5%
grade 3 events	2315	983	2813	2339
	3%	1%	5%	3%
grade 4 events	2158	915	2624	2216
	3%	1%	4%	3%
grade 5 events	5680	1722	5347	2720
	8%	3%	10%	3%
grade 6 events	17615	1205	12094	5549
	25%	2%	22%	7%
grade 7 events	26307	48140	21144	50693
	38%	85%	40%	70%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	284.136194	284.1324011876512	CCD I2 on	N	N
[deg] Pointing Dec	-37.958097	-37.93081928168857	CCD I3 on	N	N
[deg] Pointing Roll	65.343179	65.49747333234984	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-182.132523	-182.1344861297048	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-8	-7.998036453302973	CCD S4 on	Y	Y
[s] Observation start time (MET)	581745532.184000	581744347.33462	CCD S5 on	O1	N
Observation start date	2016-06-08T03:57:44	2016-06-08T03:39:07	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	581775532.184000	581776382.17396	On-chip summing requested	N	N
Observation end date	2016-06-08T12:17:44	2016-06-08T12:33:02	Subarray requested	CUSTOM	1/4
Read mode	TIMED	TIMED	Subarray start row	1	1
			Subarray row count	256	256
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0.9

2.3 Aspect





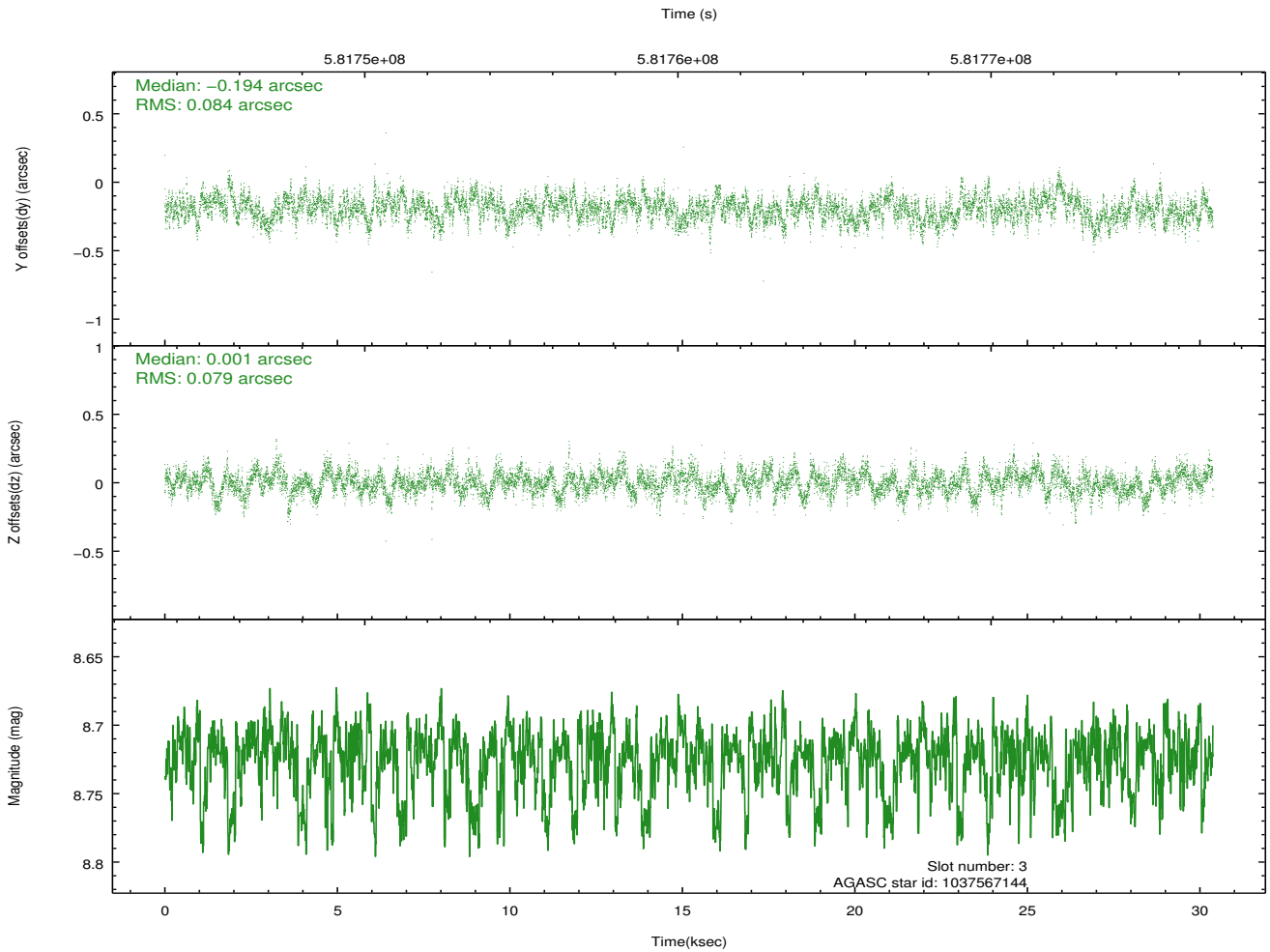
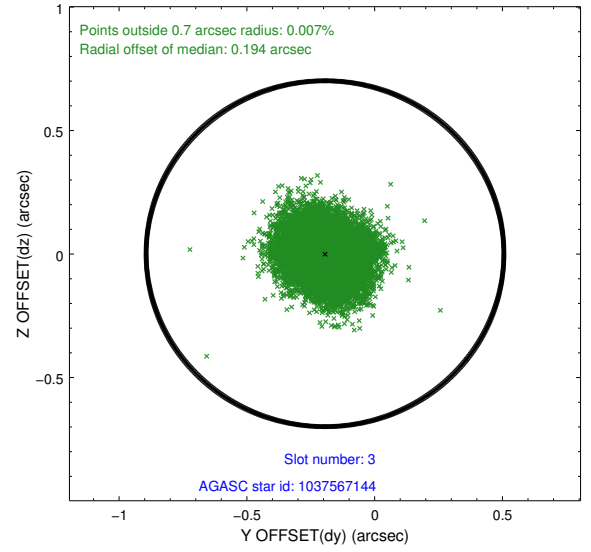
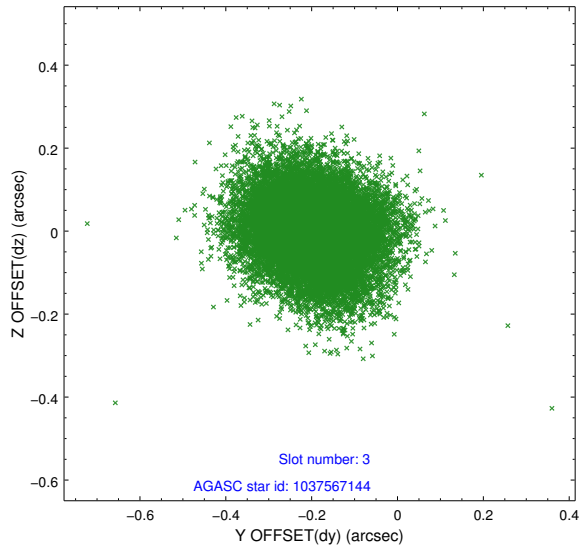
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.10	7410	-0.266	-0.195	0.015	0.024	0.000000	0.000000	-766.41	-1903.85
1	FID		ACIS-S-4	7.18	7409	0.280	0.145	0.023	0.035	0.000000	0.000000	2147.47	4.74
2	FID		ACIS-S-6	7.41	7410	-0.039	0.056	0.026	0.036	0.000000	0.000000	396.00	642.20
3	GUIDE	used	1037567144	8.72	14806	-0.194	0.001	0.123	0.199	284.940440	-37.605390	2102.23	-1558.67
4	GUIDE	used	1037567312	8.45	14810	-0.005	-0.175	0.107	0.172	283.456056	-37.976515	-871.61	1723.23
5	GUIDE	used	1037567328	8.81	14813	-0.268	-0.196	0.101	0.167	284.052016	-37.647288	916.60	684.98
6	GUIDE	used	1037576824	8.70	14816	0.138	0.308	0.094	0.153	284.177029	-38.323536	-1146.96	-653.30
7	GUIDE	used	1037578168	8.08	14814	0.335	0.067	0.106	0.178	284.493659	-38.169059	-272.33	-1237.93

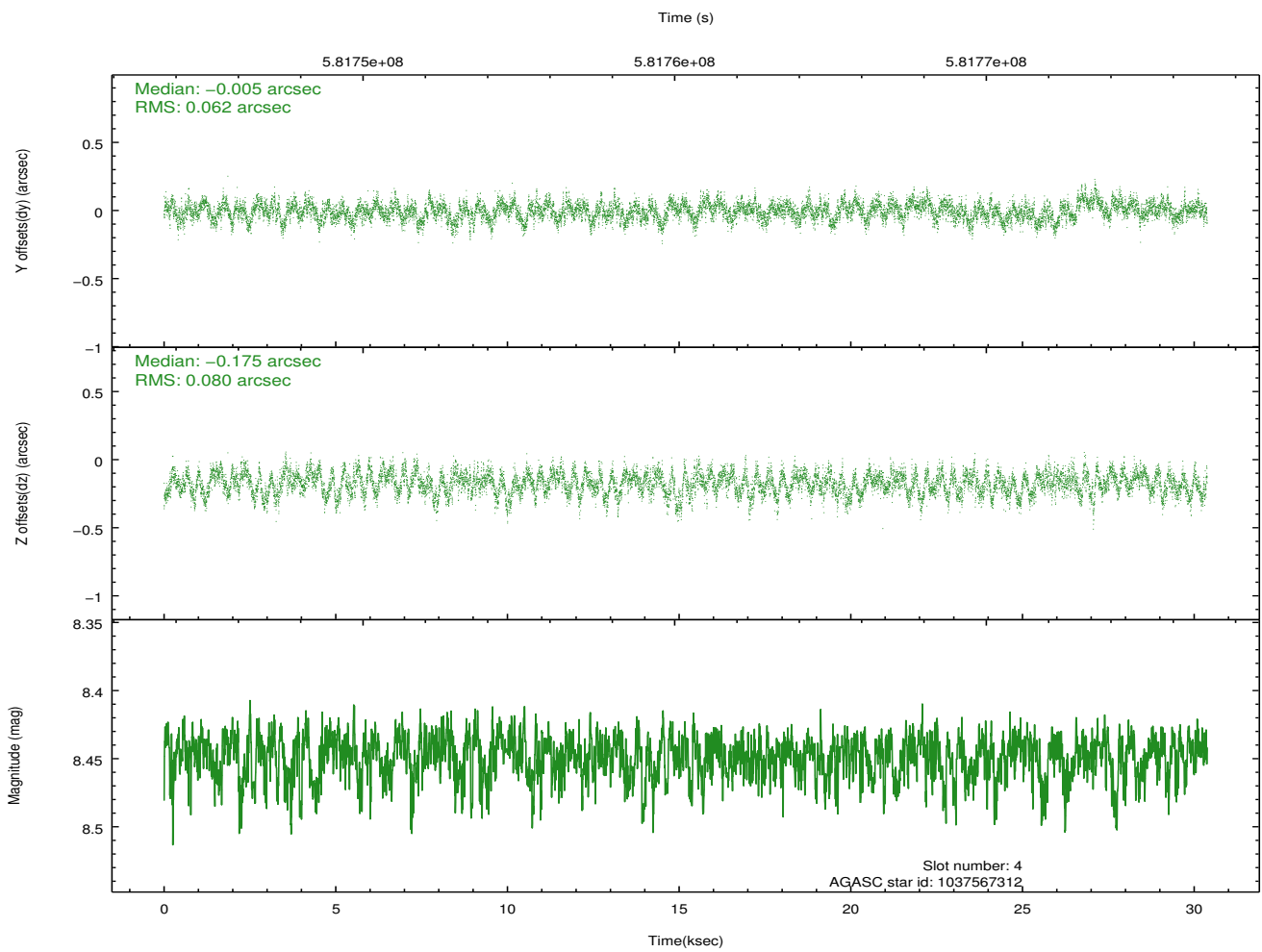
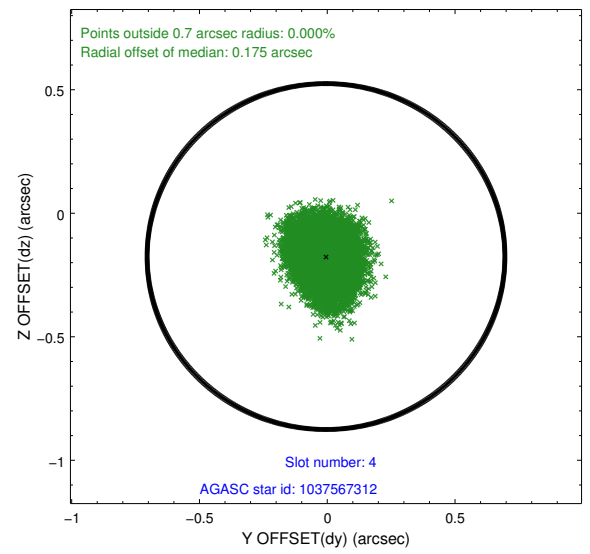
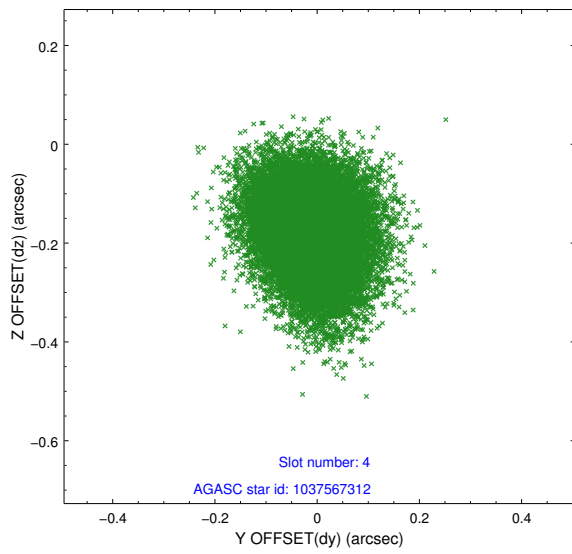
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2.4 Star Slots

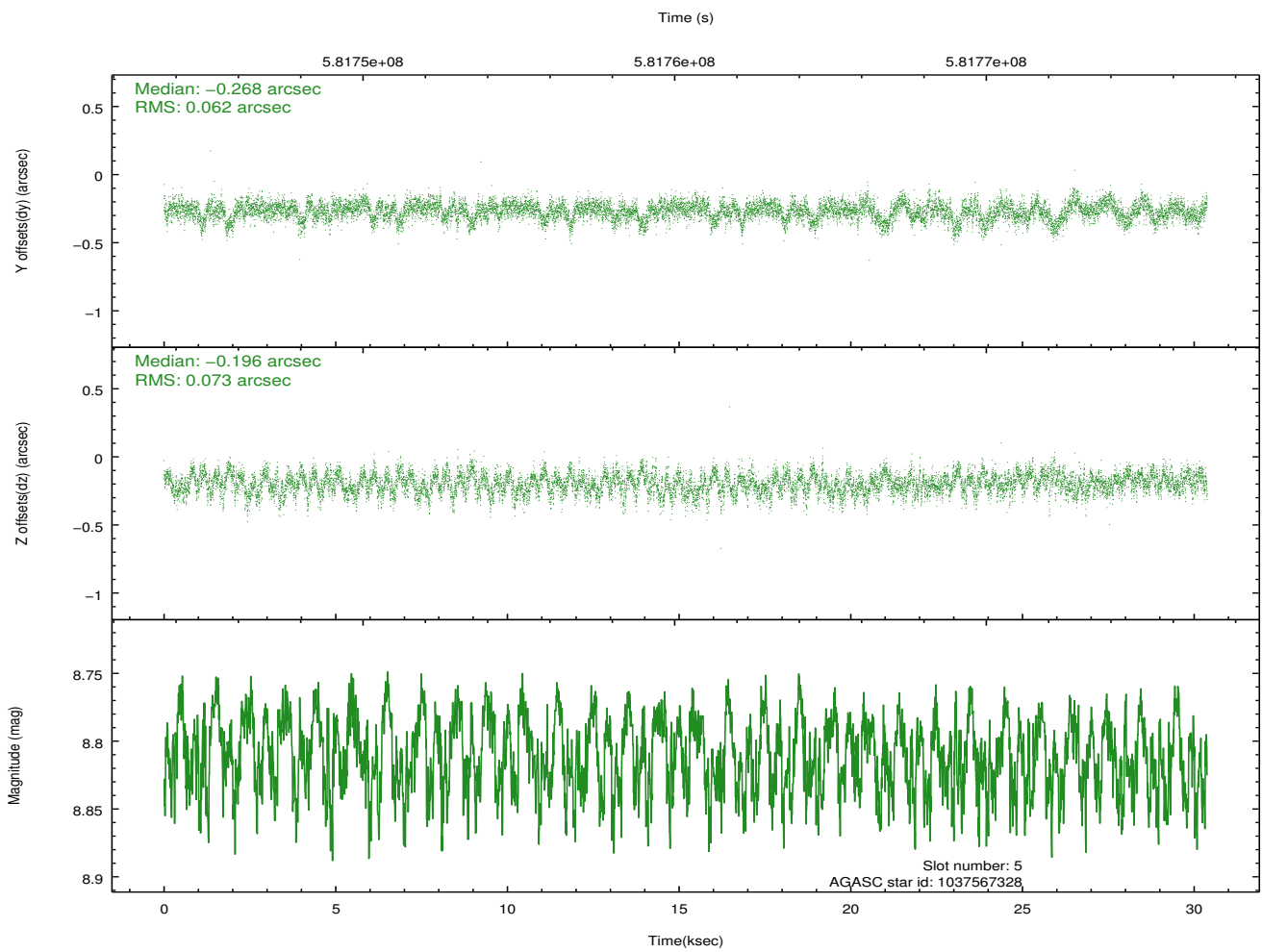
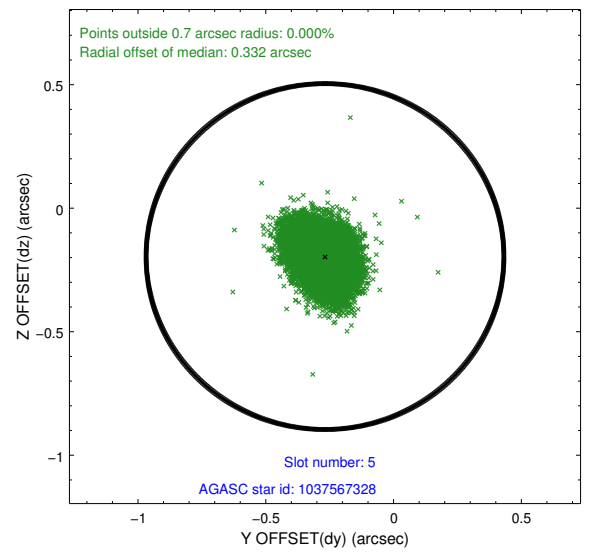
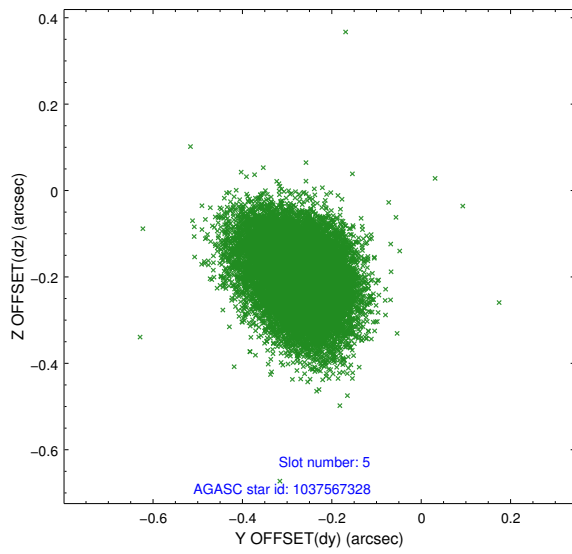
2.4.1 Slot 3



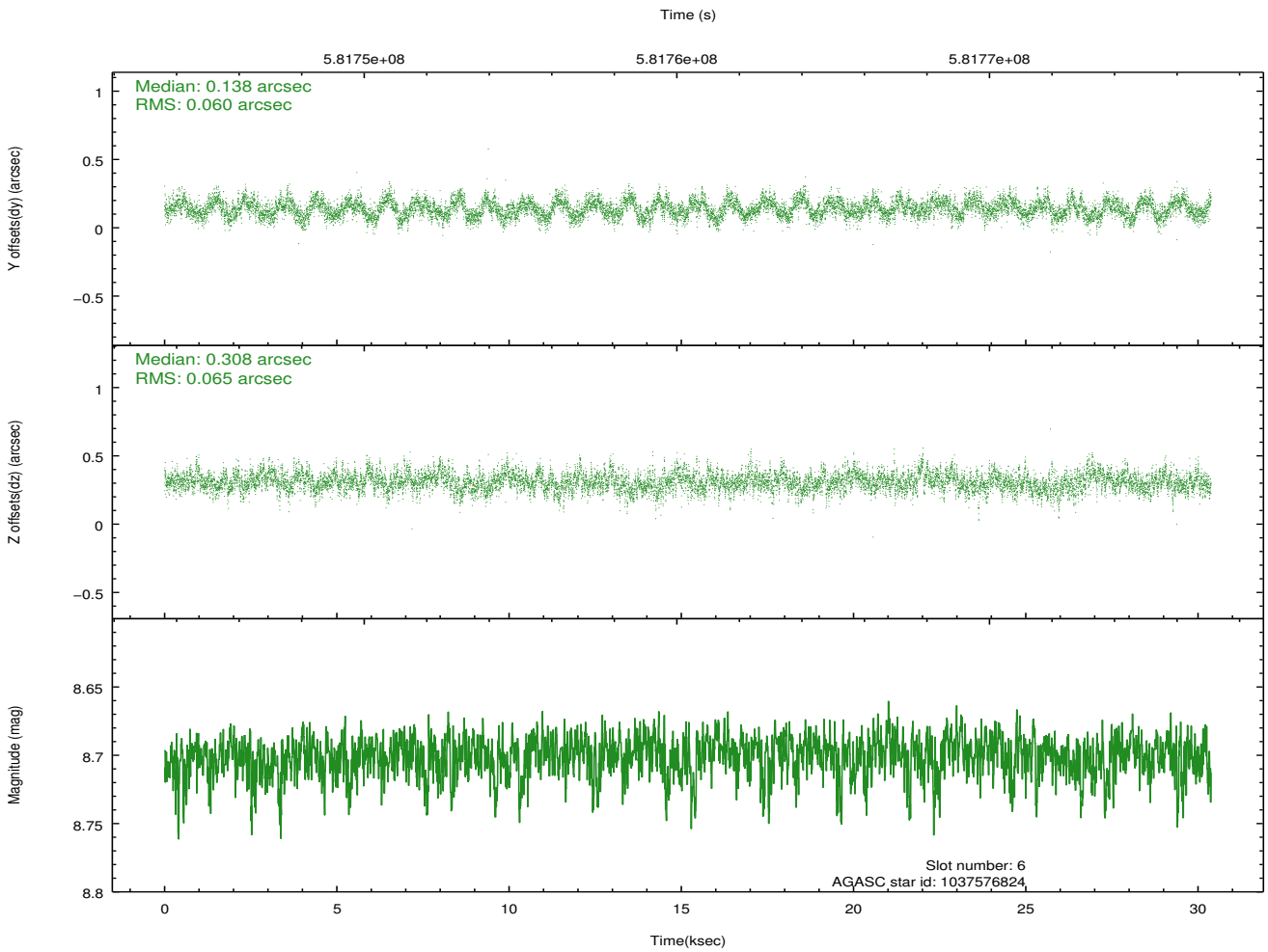
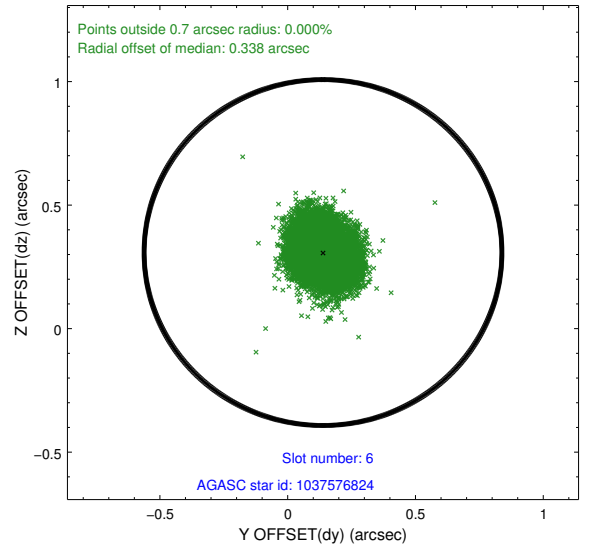
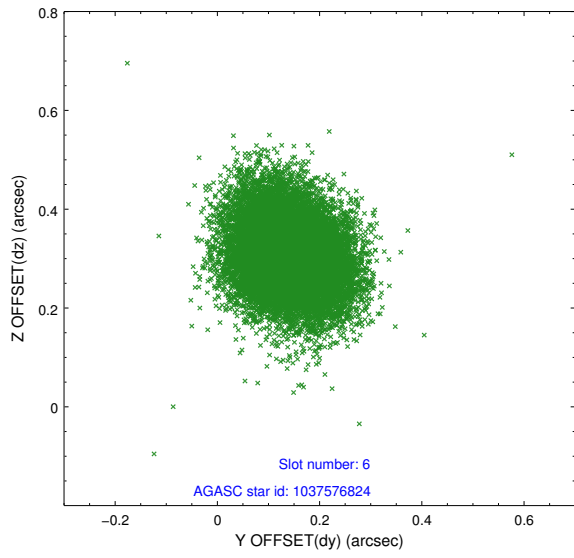
2.4.2 Slot 4



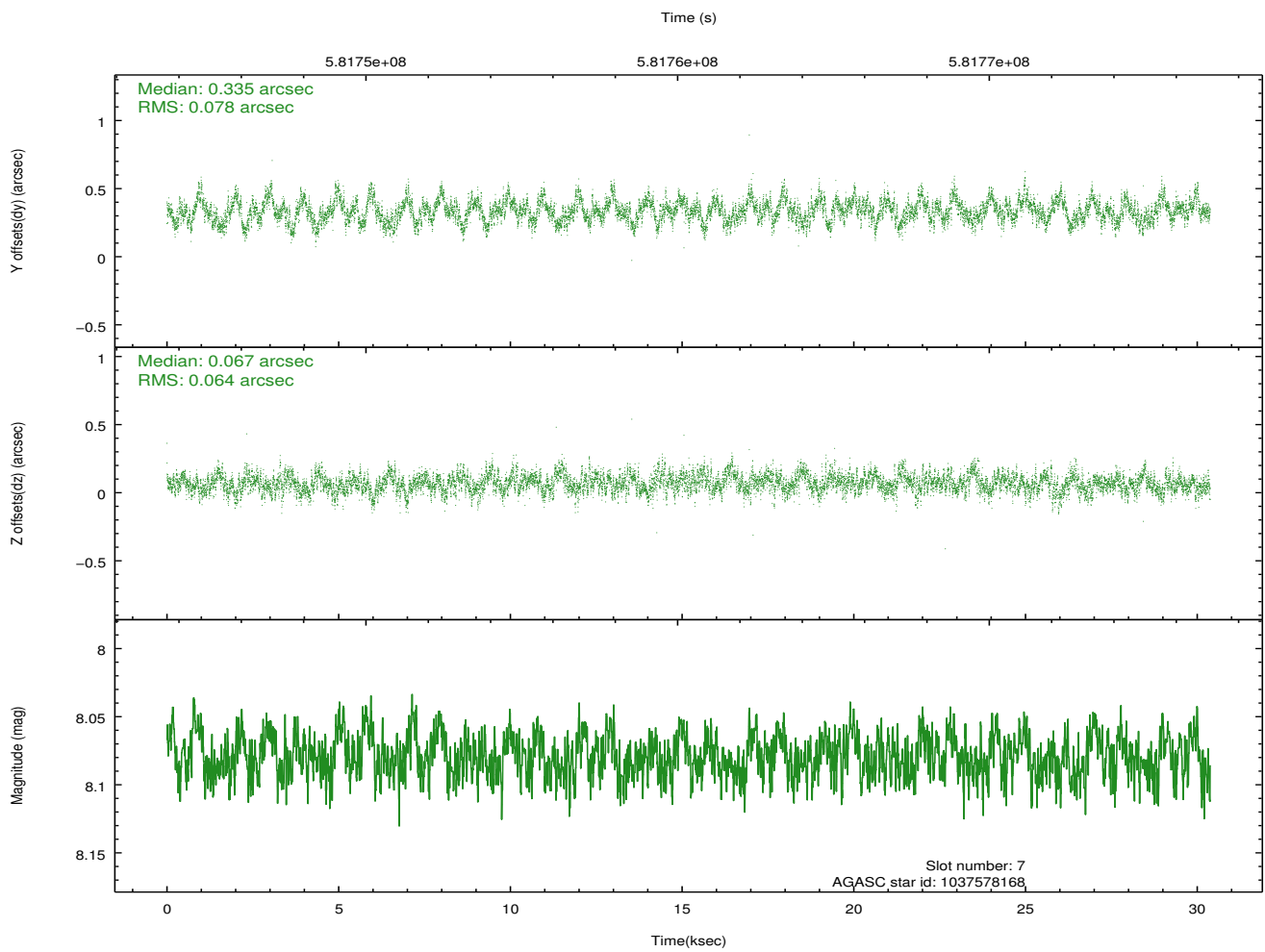
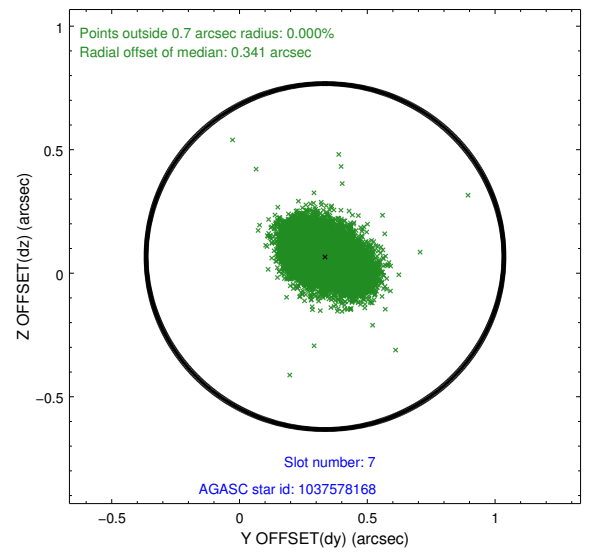
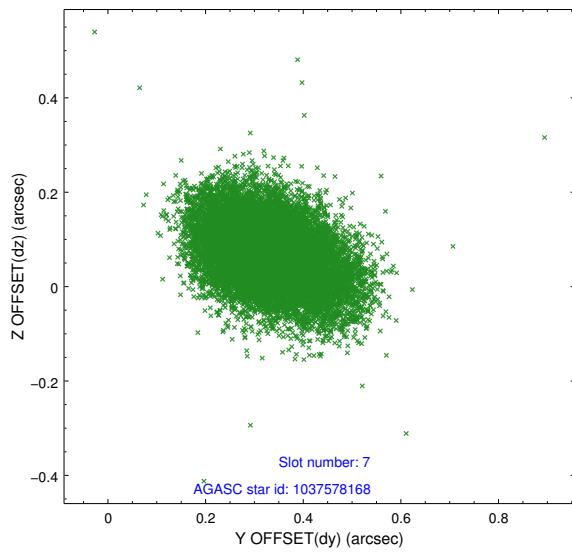
2.4.3 Slot 5



2.4.4 Slot 6

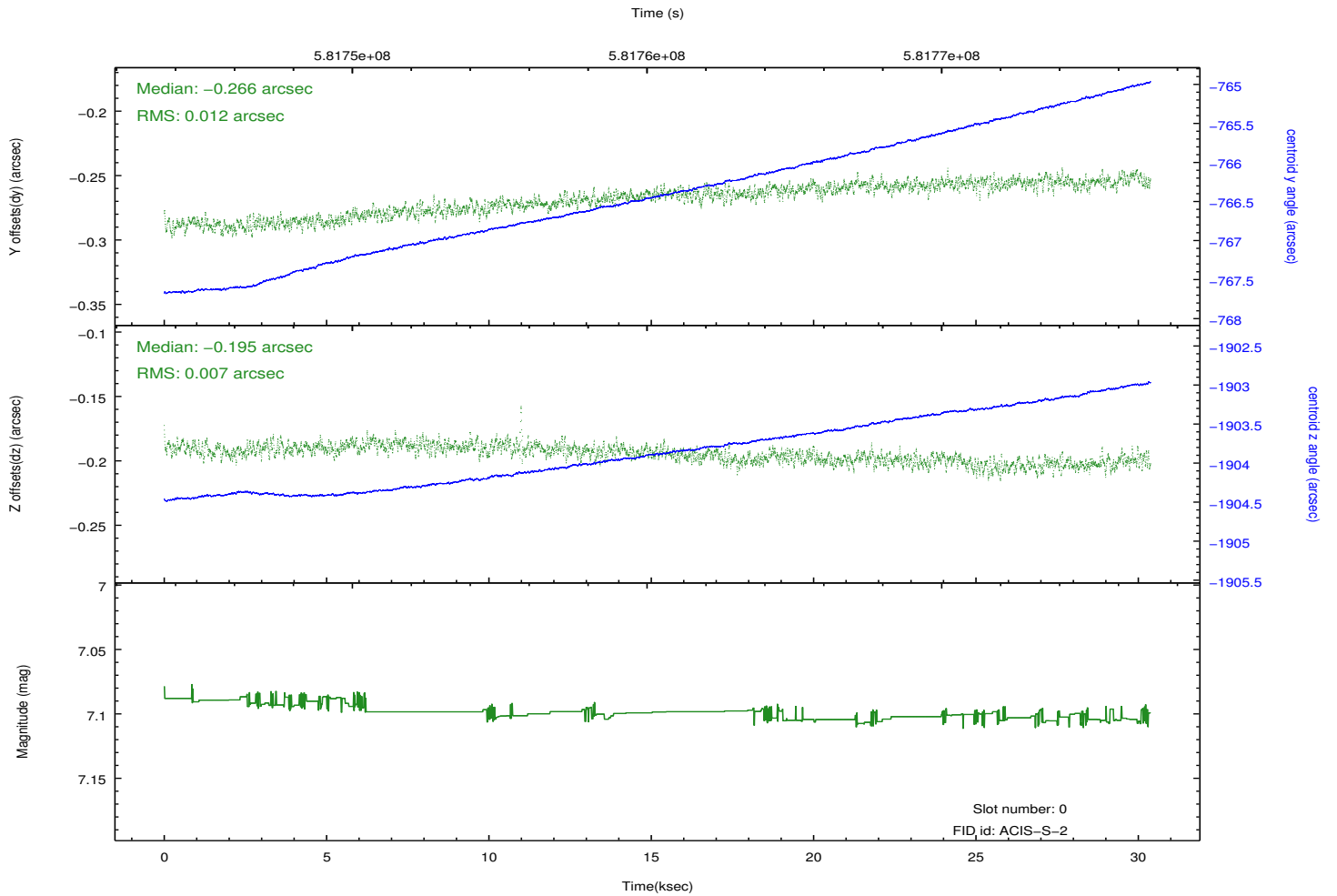
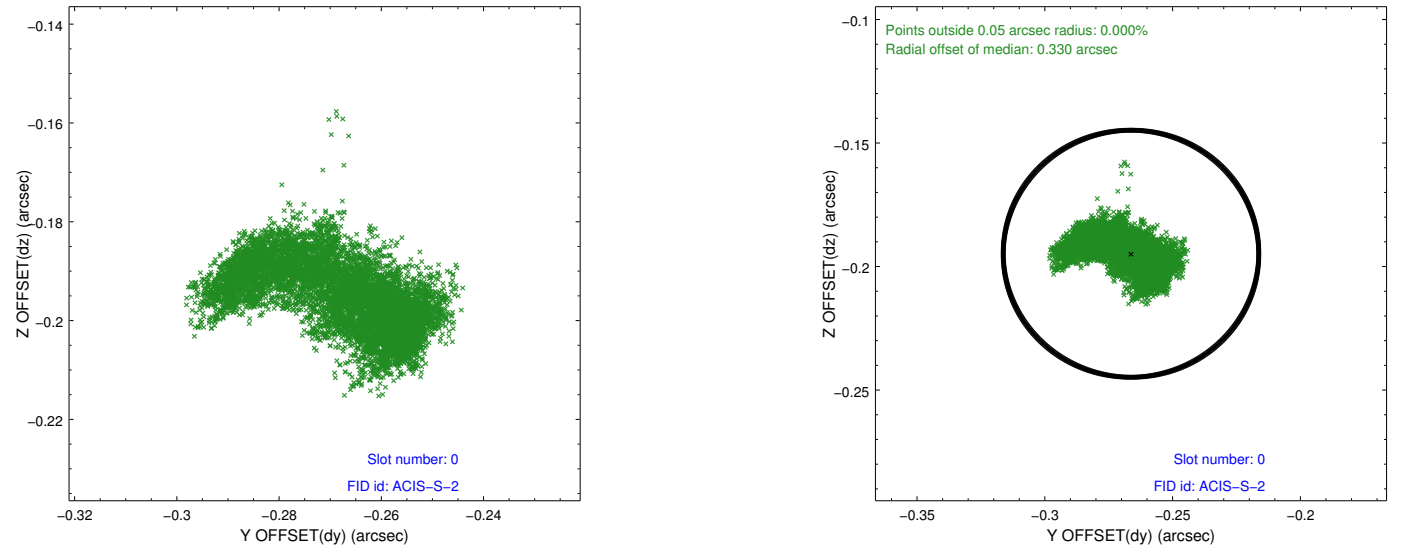


2.4.5 Slot 7

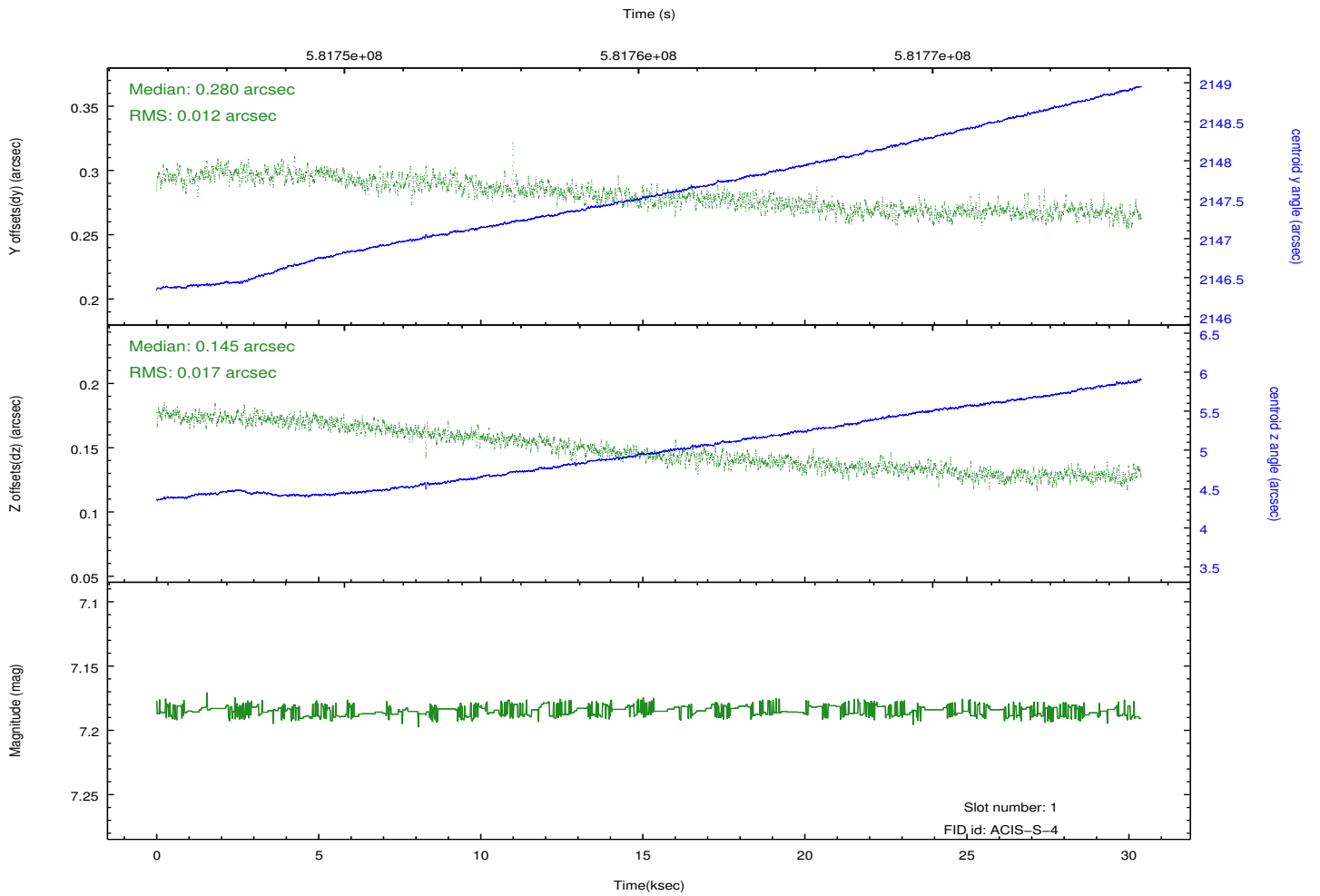
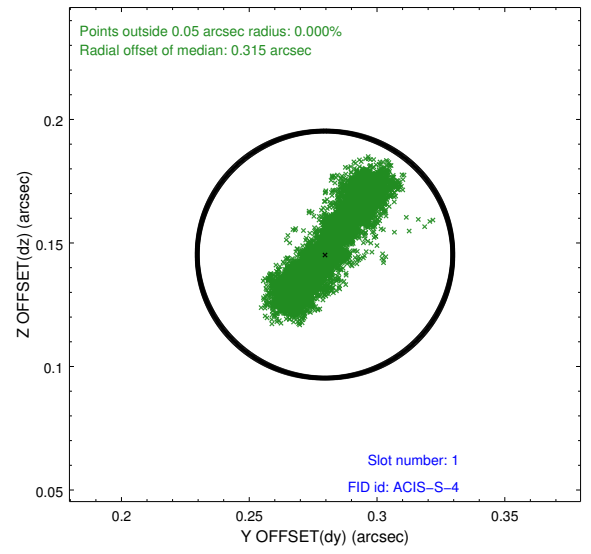
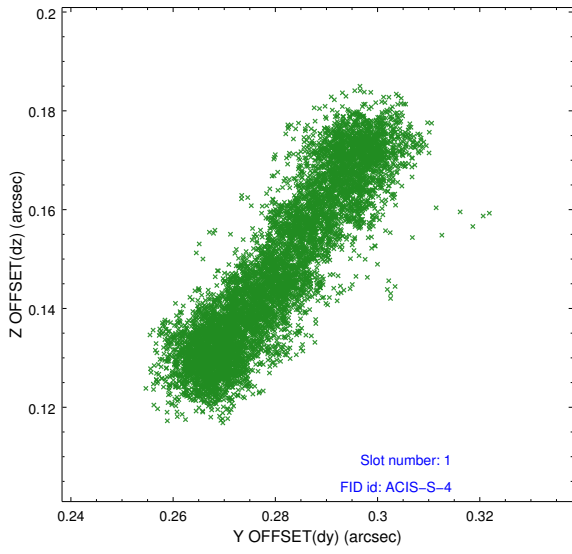


2.5 FID Slots

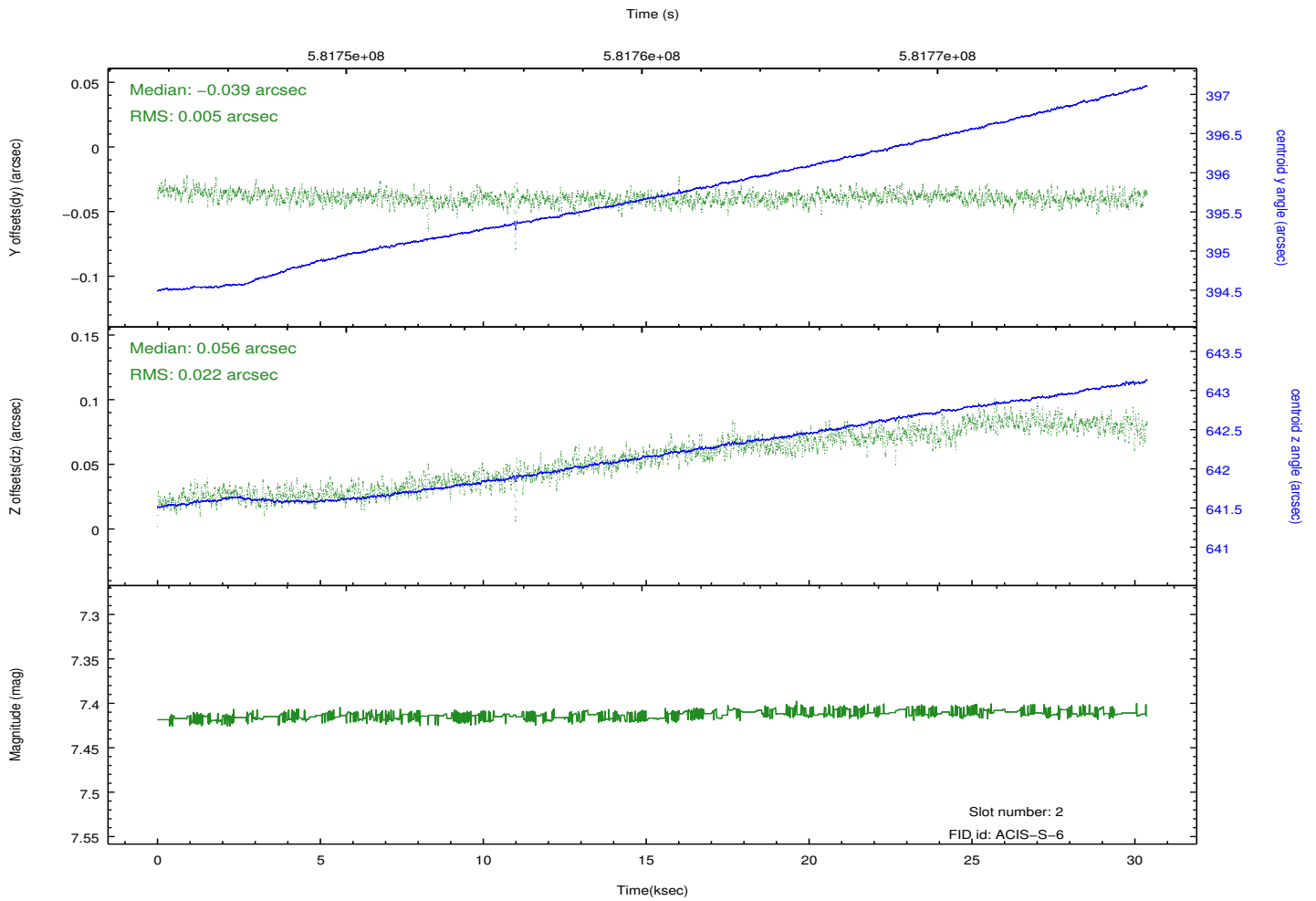
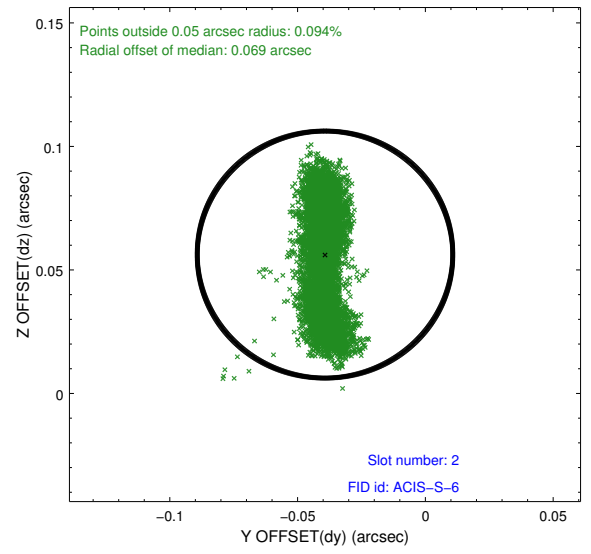
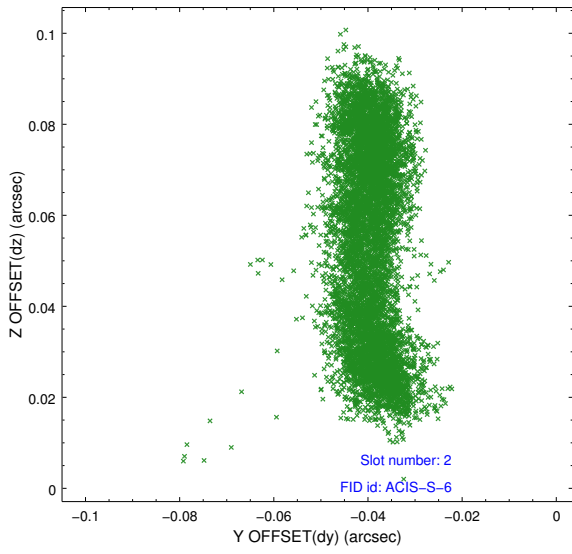
2.5.1 Slot 0



2.5.2 Slot 1

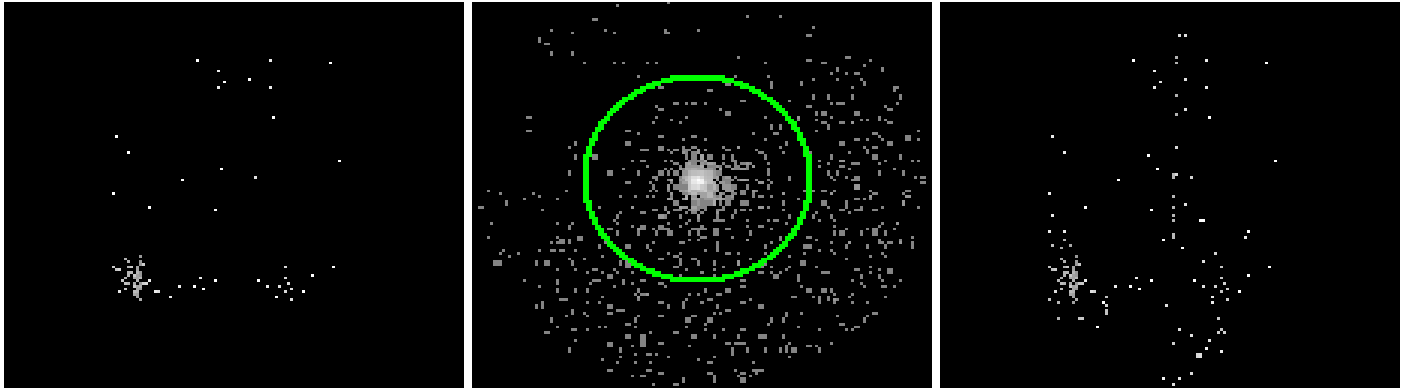


2.5.3 Slot 2



3 Gratings

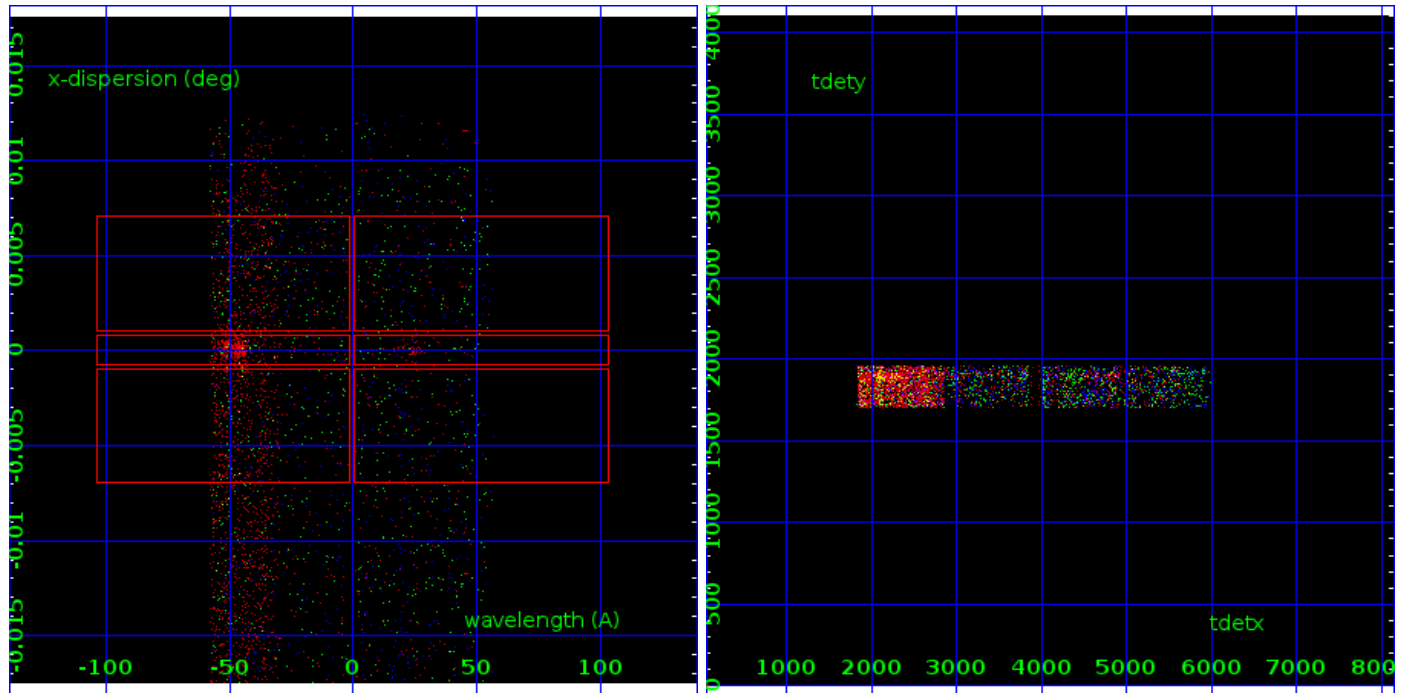
3.1 LETG Arm



LETG Order Sort 123

LETG Zero Order

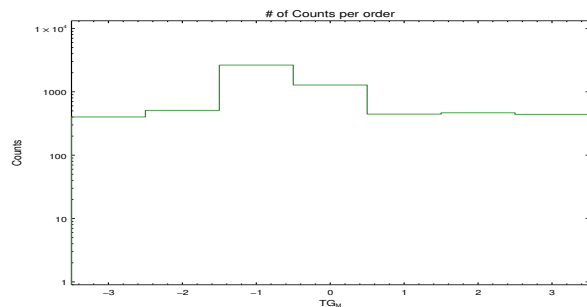
LETG Order Sort ALL

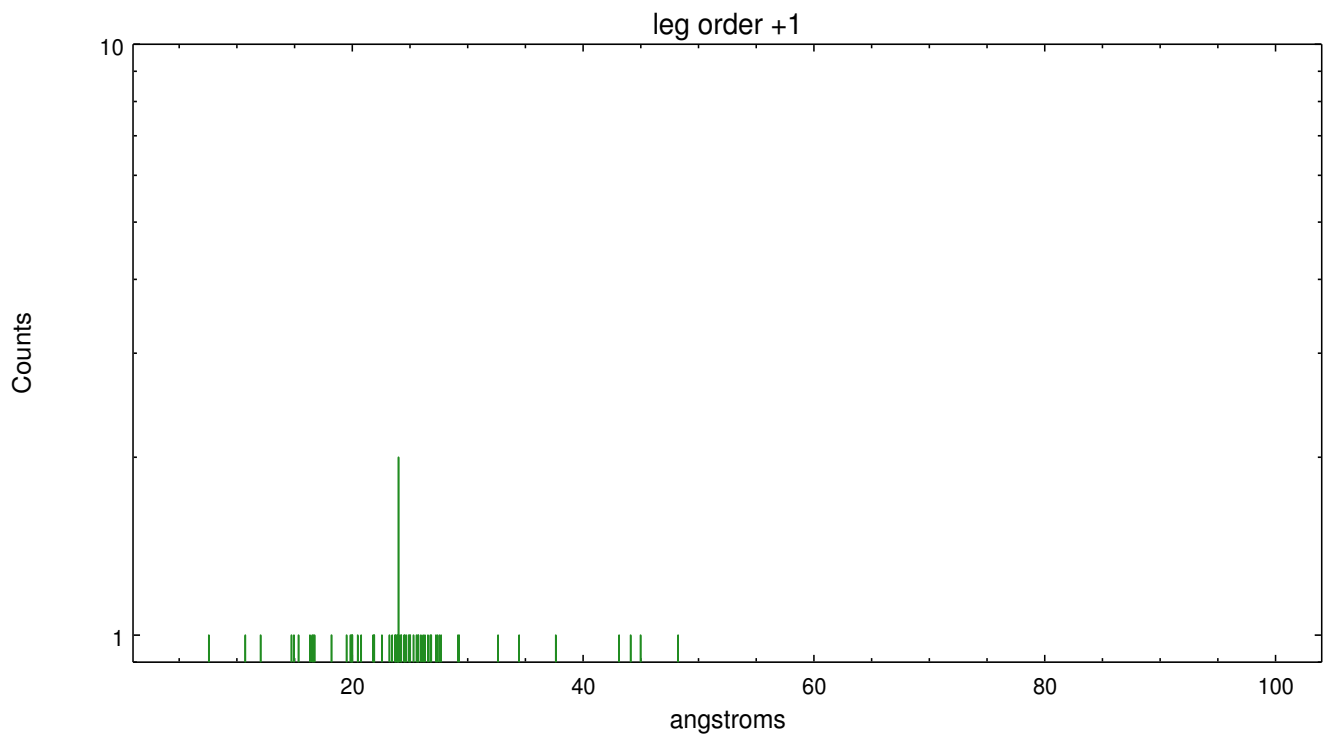
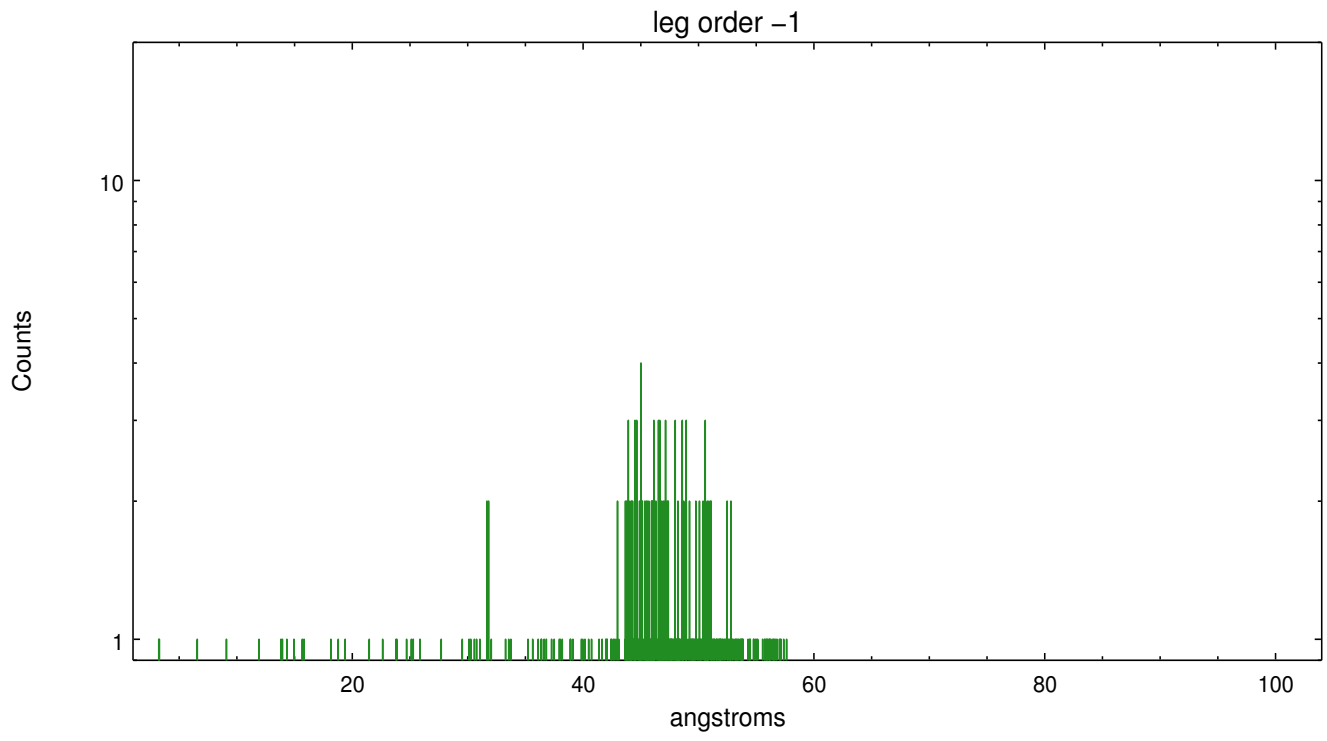


Spot Image LETG

Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	401	510	2642	1280	445	466	441





A Summary

A.1 Status

V&V Scientist	Mike Nowak
V&V Date (YYYY-MM-DD)	2016.06.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.079799203038

A.2 Comments

Source deliberately placed near plate gap for calibration purposes. A small portion of the target is dithered into this gap during the observation. This represents a loss of flux that should be considered in analysis.