

V&V Reference Report

L2 ASCDS Version : 10.4

Observation 17394 - L2 Version 1
Chandra X-Ray Center

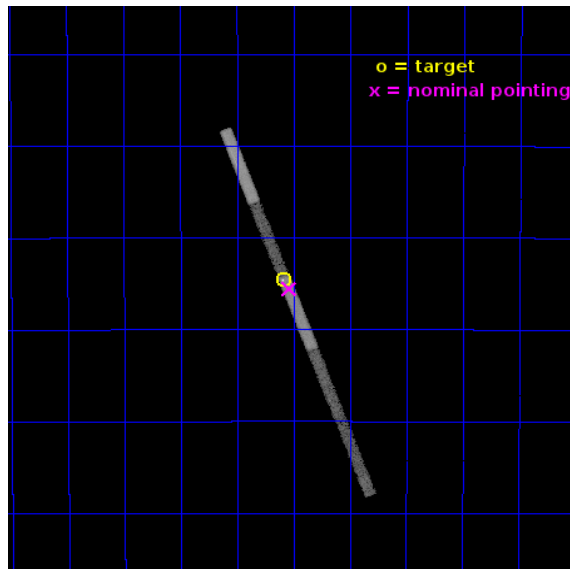
L2 Processing Date : Jun 6 2015

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	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
3	Gratings	17
3.1	LETG Arm	17
A	Summary	19
A.1	Status	19
A.2	Comments	19

1 Front

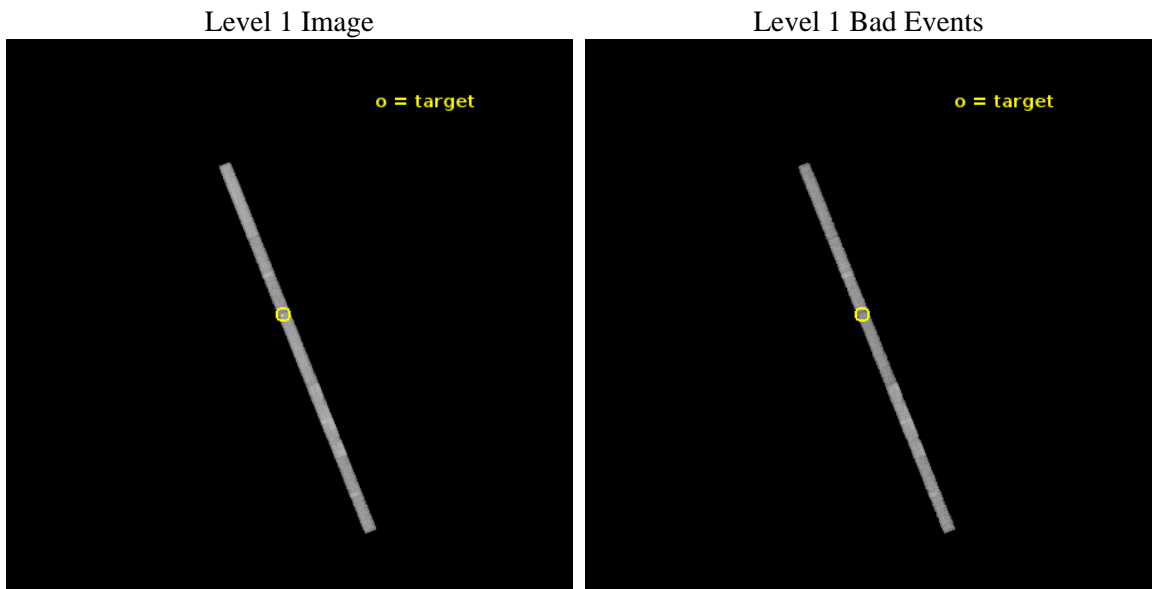
seq_num	790285	Sequence number
obs_id	17394	Observation id
title	AO-16 LETG/ACIS-S Calibration Observations of RXJ 1856	Proposal ti
observer	Dr. CXC Calibration	Principal investigator
object	RXJ 1856.5-3754	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	284.147083	Observer's specified target RA [deg]
dec_targ	-37.909611	Observer's specified target Dec [deg]
ra_nom	284.13429040786	Nominal RA [deg]
dec_nom	-37.926217957733	Nominal Dec [deg]
roll_nom	69.060328067734	Nominal Roll [deg]
revision	1	Processing version of data
ontime	31065.575201631	Sum of GTIs [s]
livetime	29076.72707004	Livetime [s]
ontime5	31065.534161687	Sum of GTIs [s]
ontime6	31065.493121624	Sum of GTIs [s]
ontime7	31065.575201631	Sum of GTIs [s]
ontime8	31065.45208168	Sum of GTIs [s]
ontime9	31065.411041617	Sum of GTIs [s]
l2events	39687	Number of level 2 events



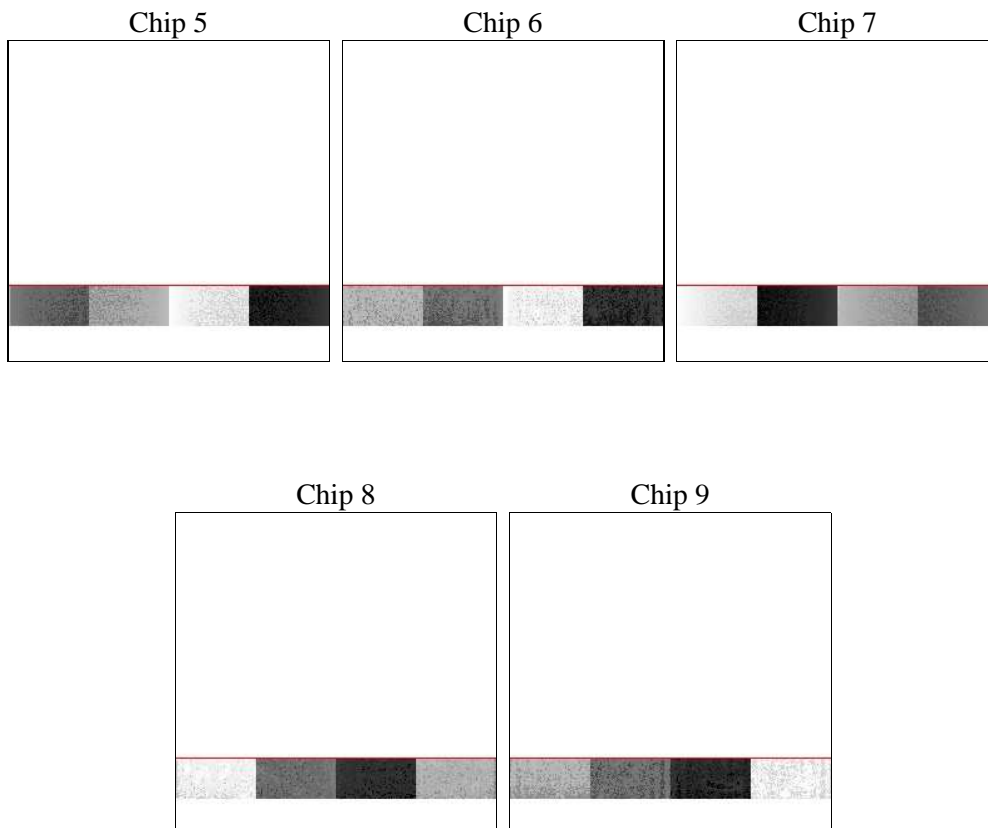
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	31000.000000	[s] Scheduled observation exposure time
ascdsver	10.4	Processing system revision	ontime	31065.575201631	Sum of GTIs [s]
caldbver	4.6.7	 	ontime5	31065.534161687	Sum of GTIs [s]
date	2015-06-06T15:38:14	Date and time of file creation	ontime6	31065.493121624	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	31065.575201631	Sum of GTIs [s]
			ontime8	31065.45208168	Sum of GTIs [s]
			ontime9	31065.411041617	Sum of GTIs [s]
			l1events	153521	Number of level 1 events
			tgmethod	TGDETECT	Method used to create src1a file
			zo_pos	(4005.27, 4212.56)	src1a sky pixel position

2.1.4 Events

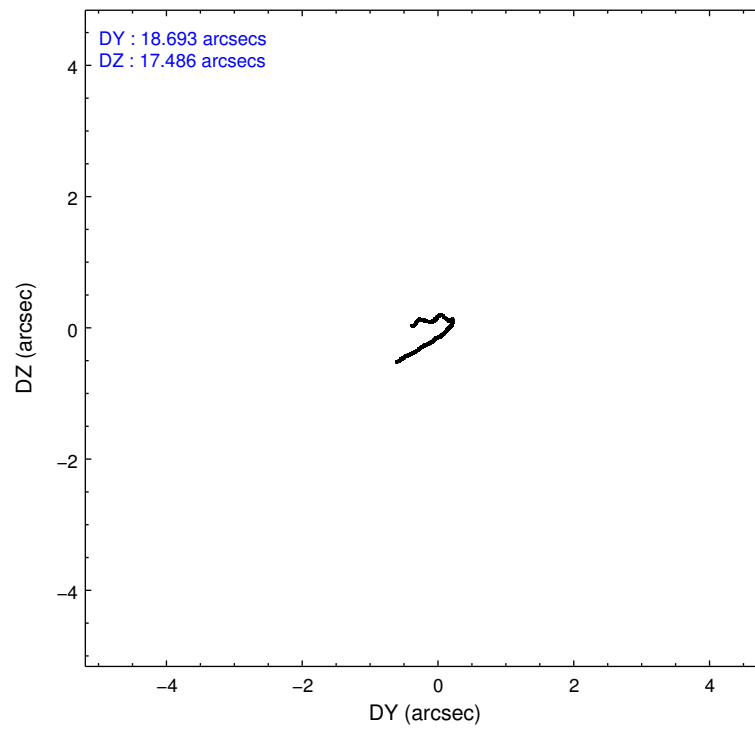
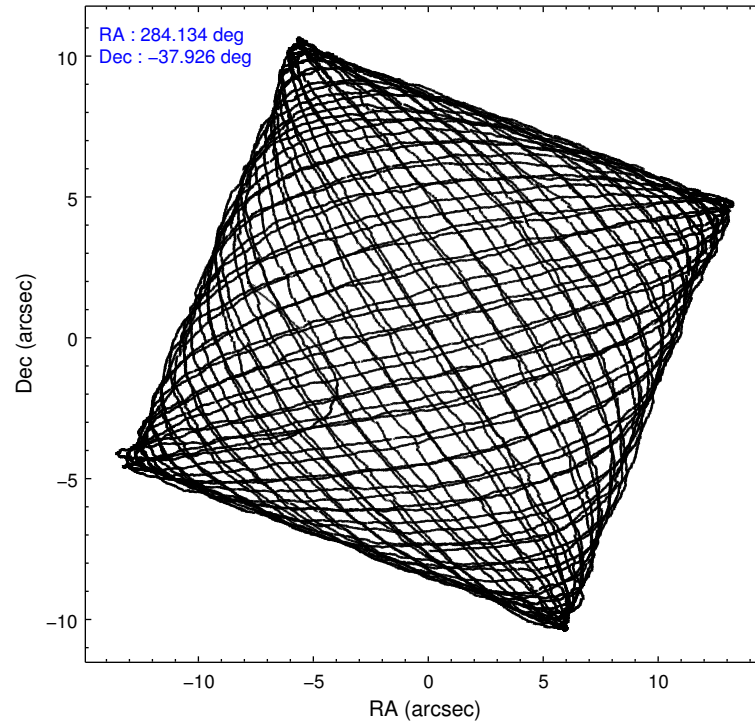
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	35522	25496	30488	39036	22979
rejected events	17545	22513	15666	29949	19990
rejected %	49%	88%	51%	76%	86%

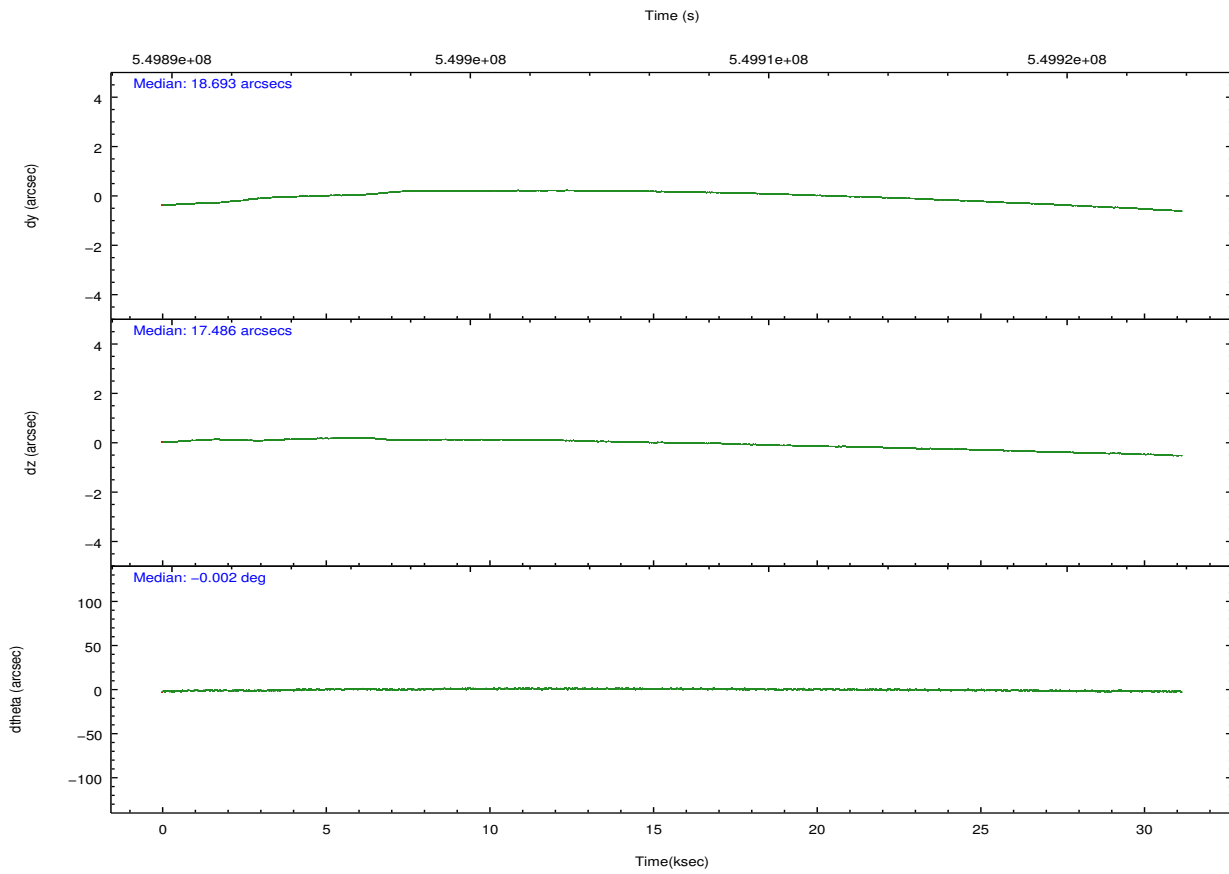
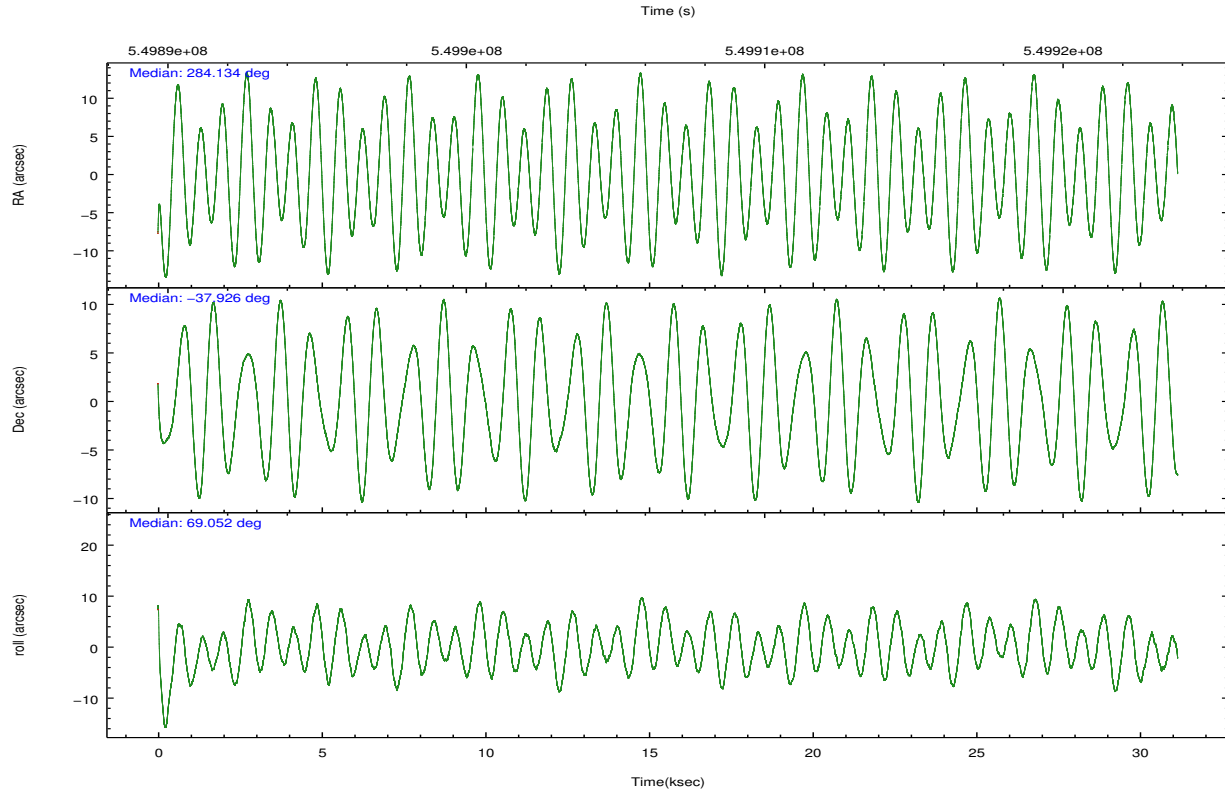
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	2022	776	2543	2084	888
	5%	3%	8%	5%	3%
grade 1 events	65	3	53	15	12
	0%	0%	0%	0%	0%
grade 2 events	4716	616	2918	1989	522
	13%	2%	9%	5%	2%
grade 3 events	1402	484	1569	1071	517
	3%	1%	5%	2%	2%
grade 4 events	1285	466	1593	1049	507
	3%	1%	5%	2%	2%
grade 5 events	3245	988	2958	1393	1067
	9%	3%	9%	3%	4%
grade 6 events	8553	641	6200	2895	555
	24%	2%	20%	7%	2%
grade 7 events	14234	21522	12654	28540	18911
	40%	84%	41%	73%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	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	284.140241	284.1342904078617	CCD I2 on	N	N
[deg] Pointing Dec	-37.953252	-37.92621795773334	CCD I3 on	N	N
[deg] Pointing Roll	68.907352	69.06032806773415	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	-182.1370004450064	CCD S3 on	Y	Y
[mm] SIM translation stage offset	-8	-7.995522138001405	CCD S4 on	Y	Y
[s] Observation start time (MET)	549891335.184000	549890358.30369	CCD S5 on	O1	Y
Observation start date	2015-06-05T11:34:28	2015-06-05T11:19:18	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	549922335.184000	549923256.19303	On-chip summing requested	N	N
Observation end date	2015-06-05T20:11:08	2015-06-05T20:27:36	Subarray requested	CUSTOM	1/8
Read mode	TIMED	TIMED	Subarray start row	113	113
			Subarray row count	128	128
			Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	0.6

2.3 Aspect





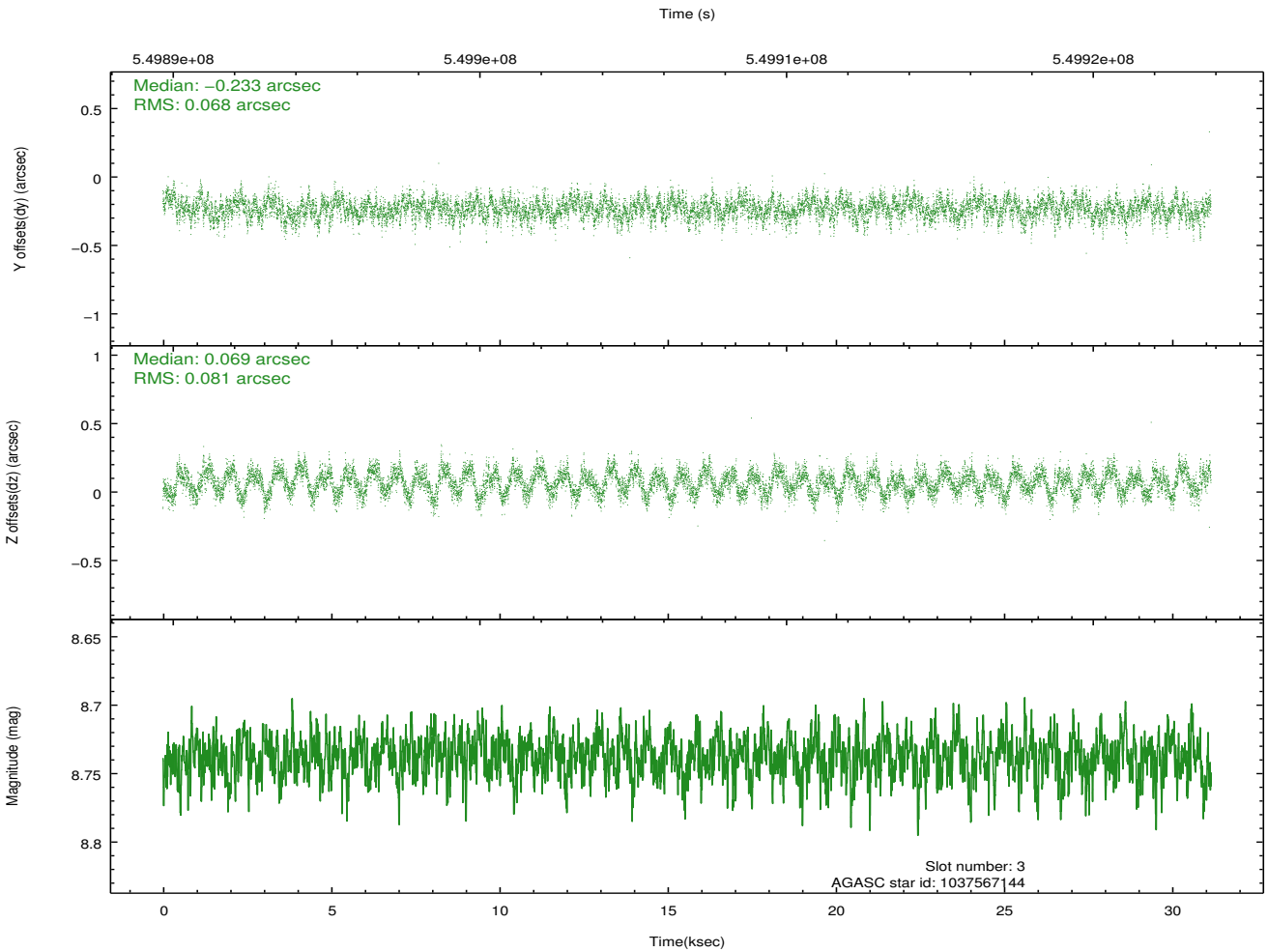
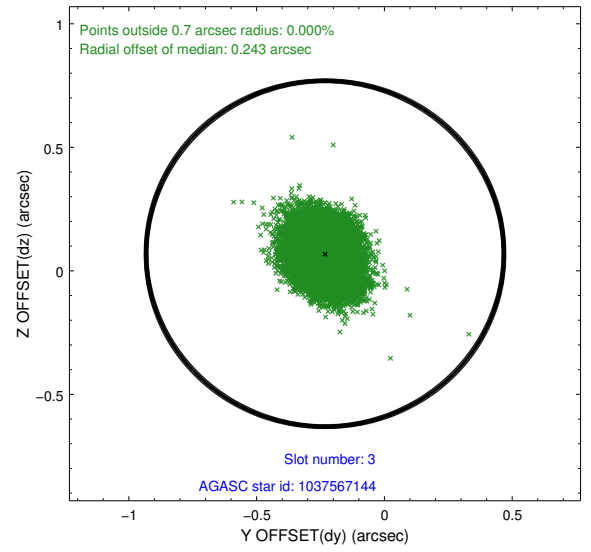
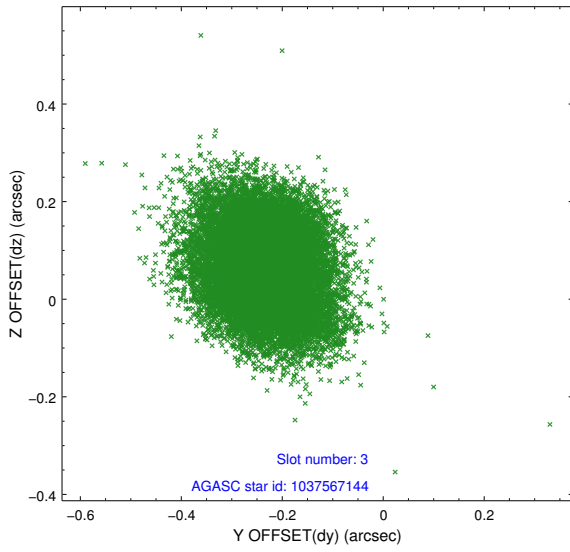
Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.98	7599	-0.240	-0.175	0.009	0.017	0.000000	0.000000	-771.45	-1903.72
1	FID		ACIS-S-4	7.06	7599	0.232	0.138	0.009	0.016	0.000000	0.000000	2142.34	4.86
2	FID		ACIS-S-6	7.28	7600	-0.020	0.044	0.011	0.017	0.000000	0.000000	390.93	642.31
3	GUIDE	used	1037567144	8.74	15194	-0.233	0.069	0.113	0.179	284.940440	-37.605390	1981.05	-1681.63
4	GUIDE	used	1037567312	8.45	15198	-0.005	-0.216	0.092	0.144	283.456056	-37.976515	-783.23	1778.51
5	GUIDE	used	1037567328	8.80	15192	-0.250	-0.214	0.090	0.143	284.052016	-37.647288	937.09	631.22
6	GUIDE	used	1037576824	8.68	15191	0.221	0.236	0.246	0.345	284.177029	-38.323536	-1205.60	-576.34
7	GUIDE	used	1037578168	8.11	15198	0.296	0.104	0.168	0.234	284.493659	-38.169059	-368.83	-1214.02

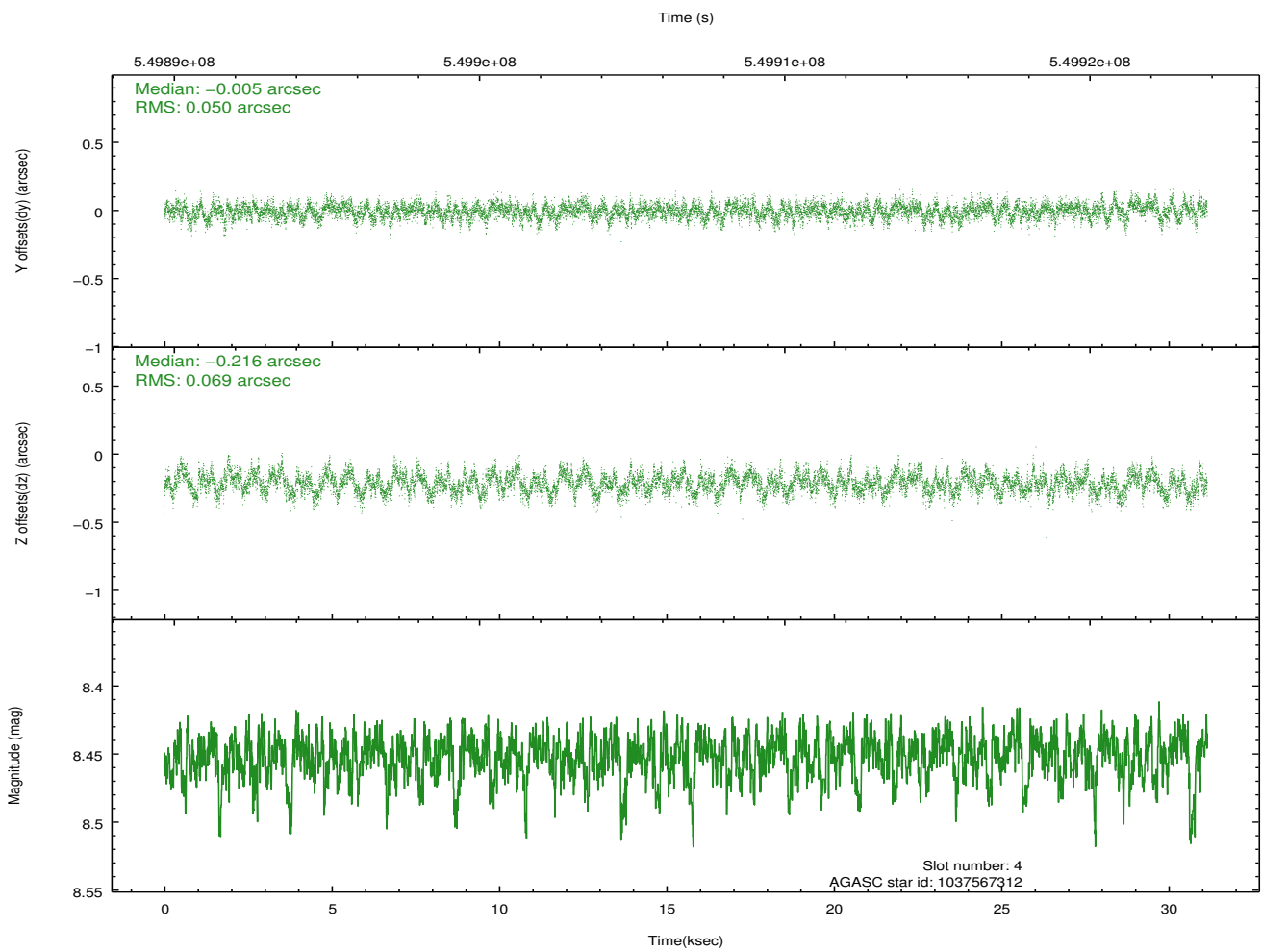
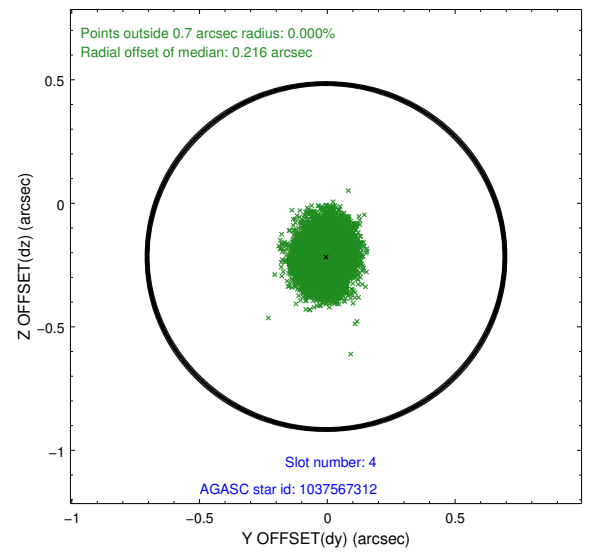
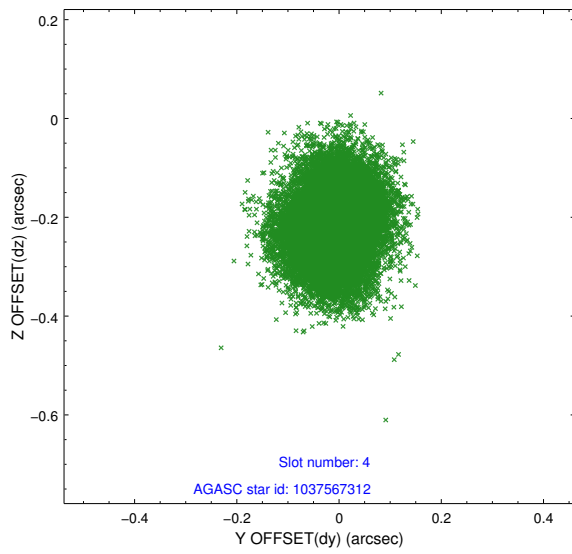
∞

2.4 Star Slots

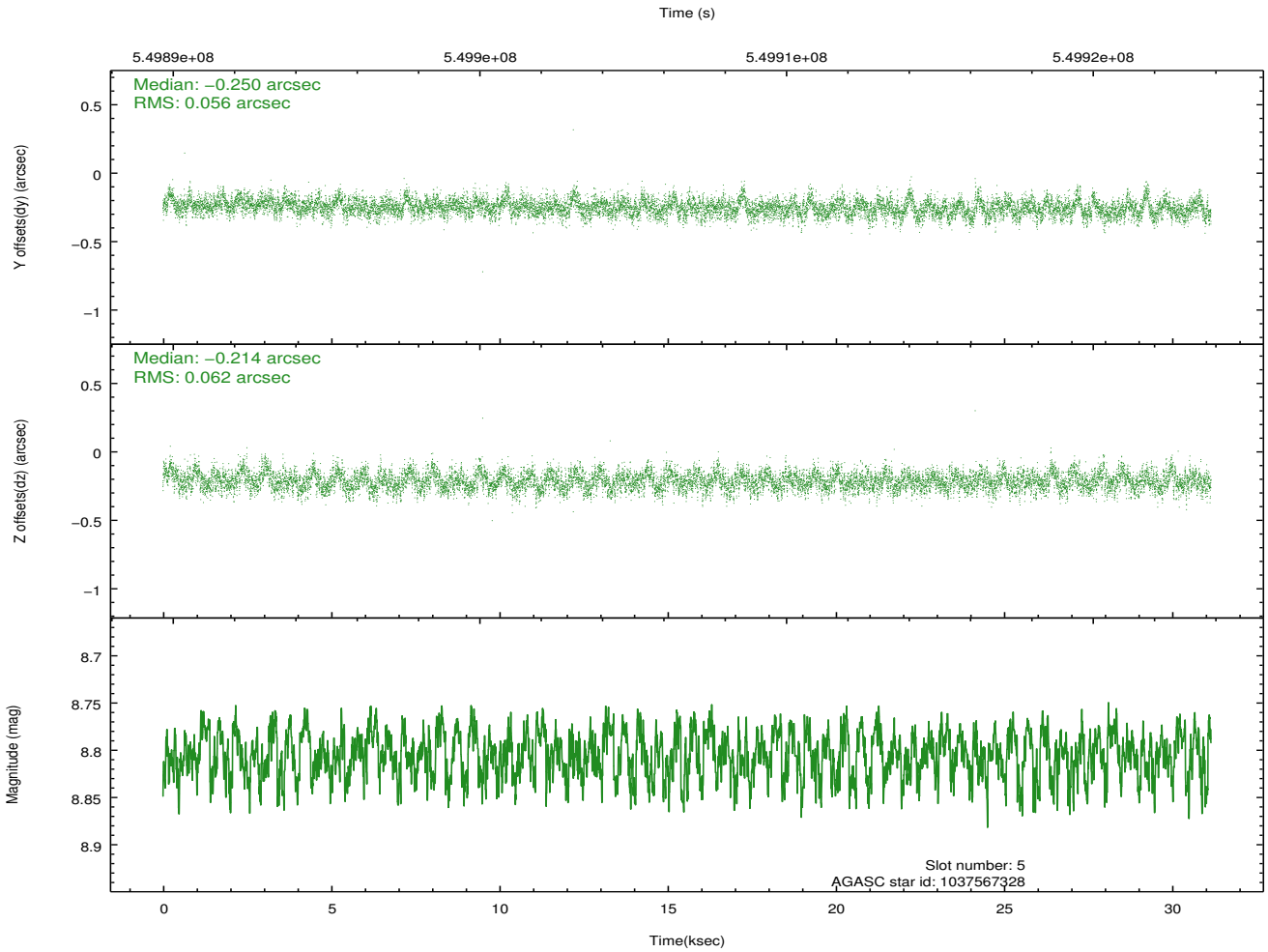
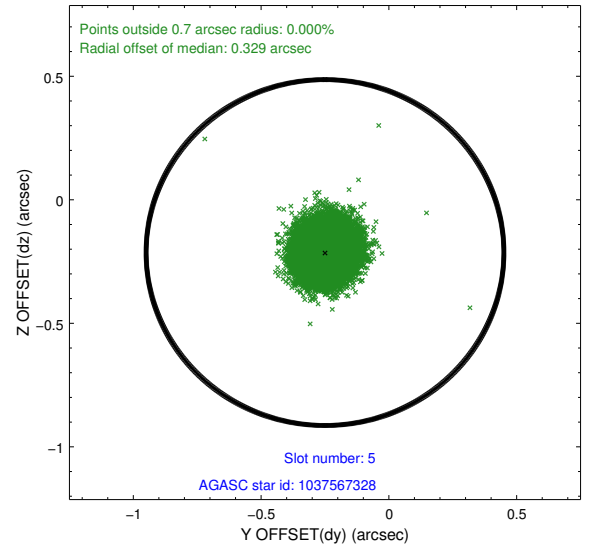
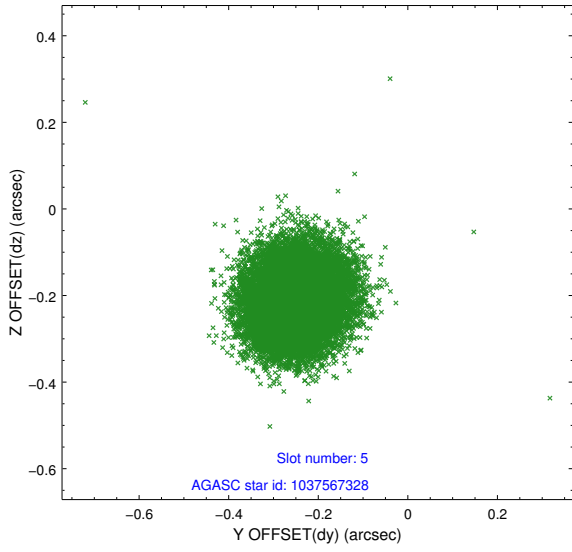
2.4.1 Slot 3



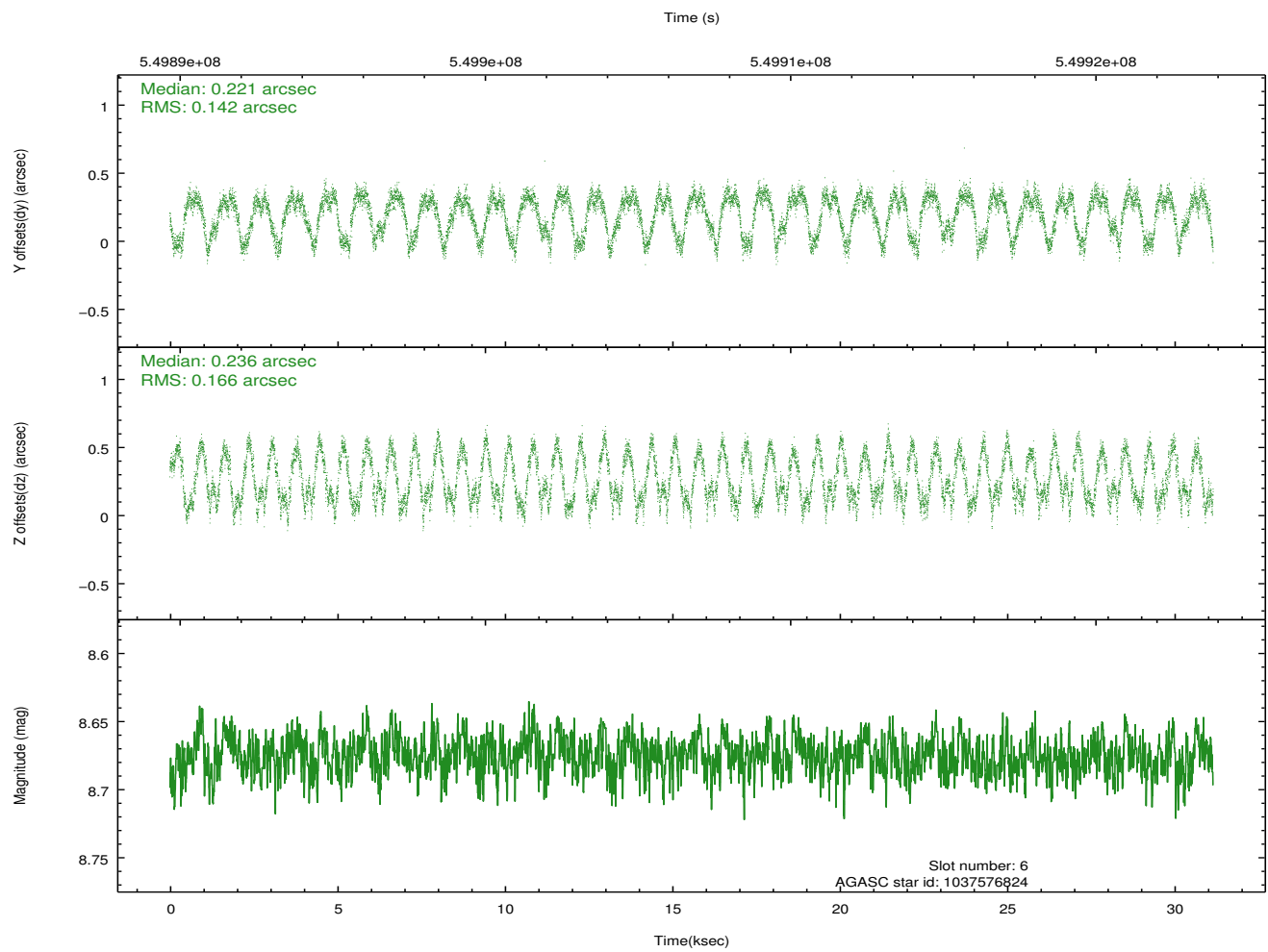
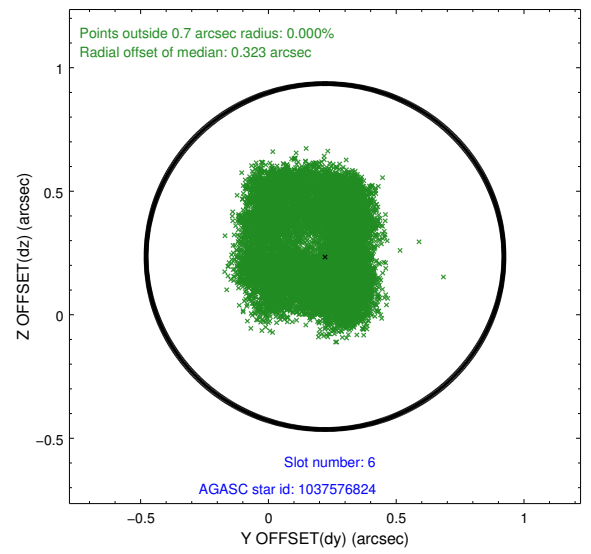
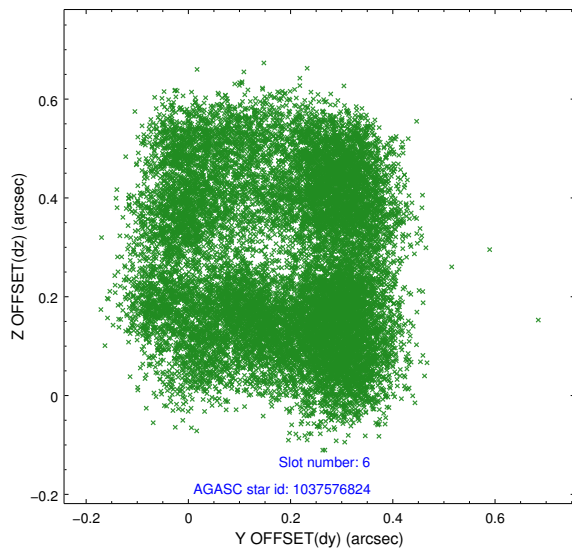
2.4.2 Slot 4



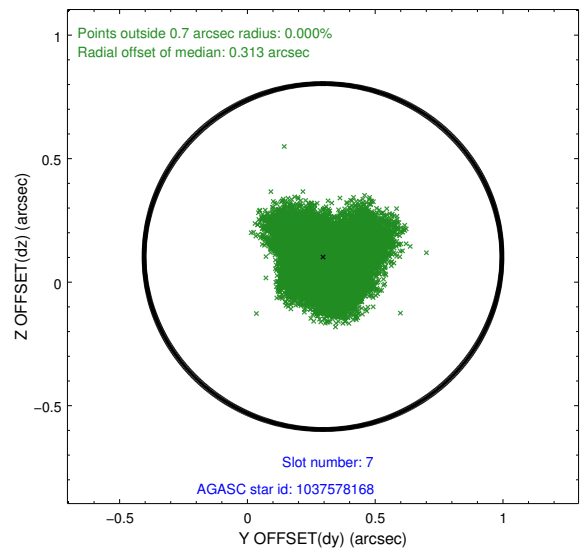
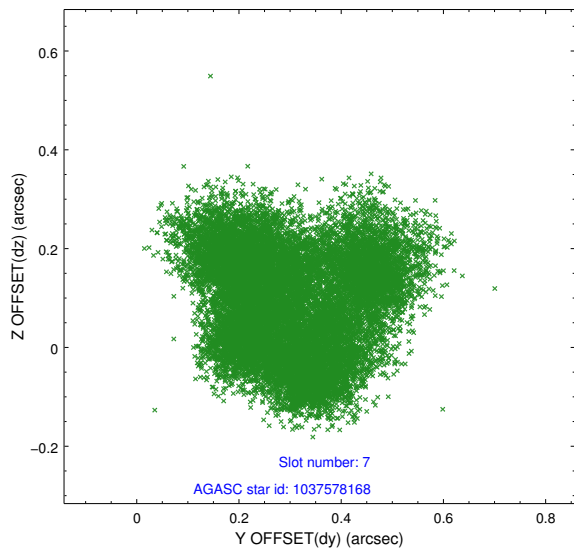
2.4.3 Slot 5



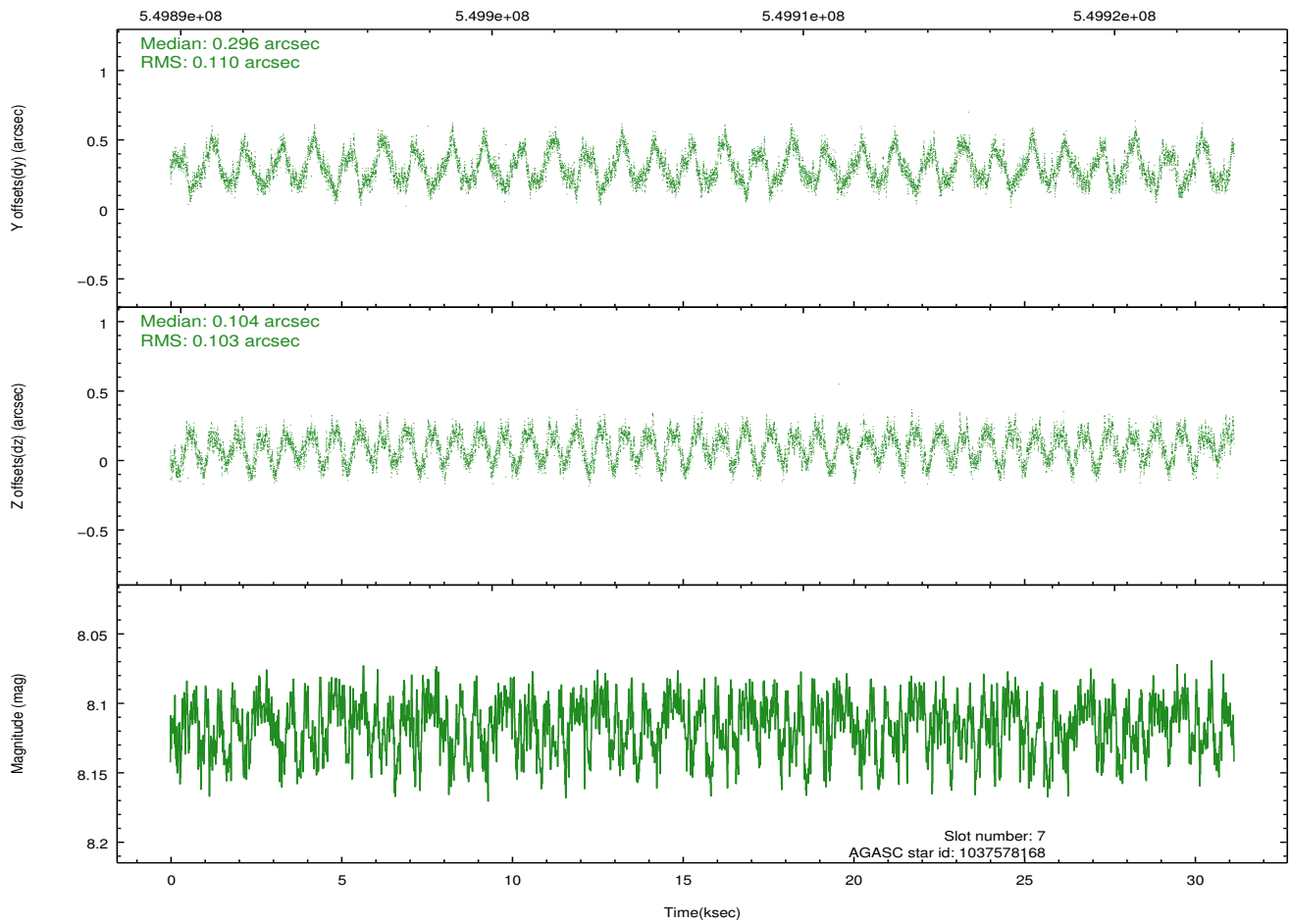
2.4.4 Slot 6



2.4.5 Slot 7

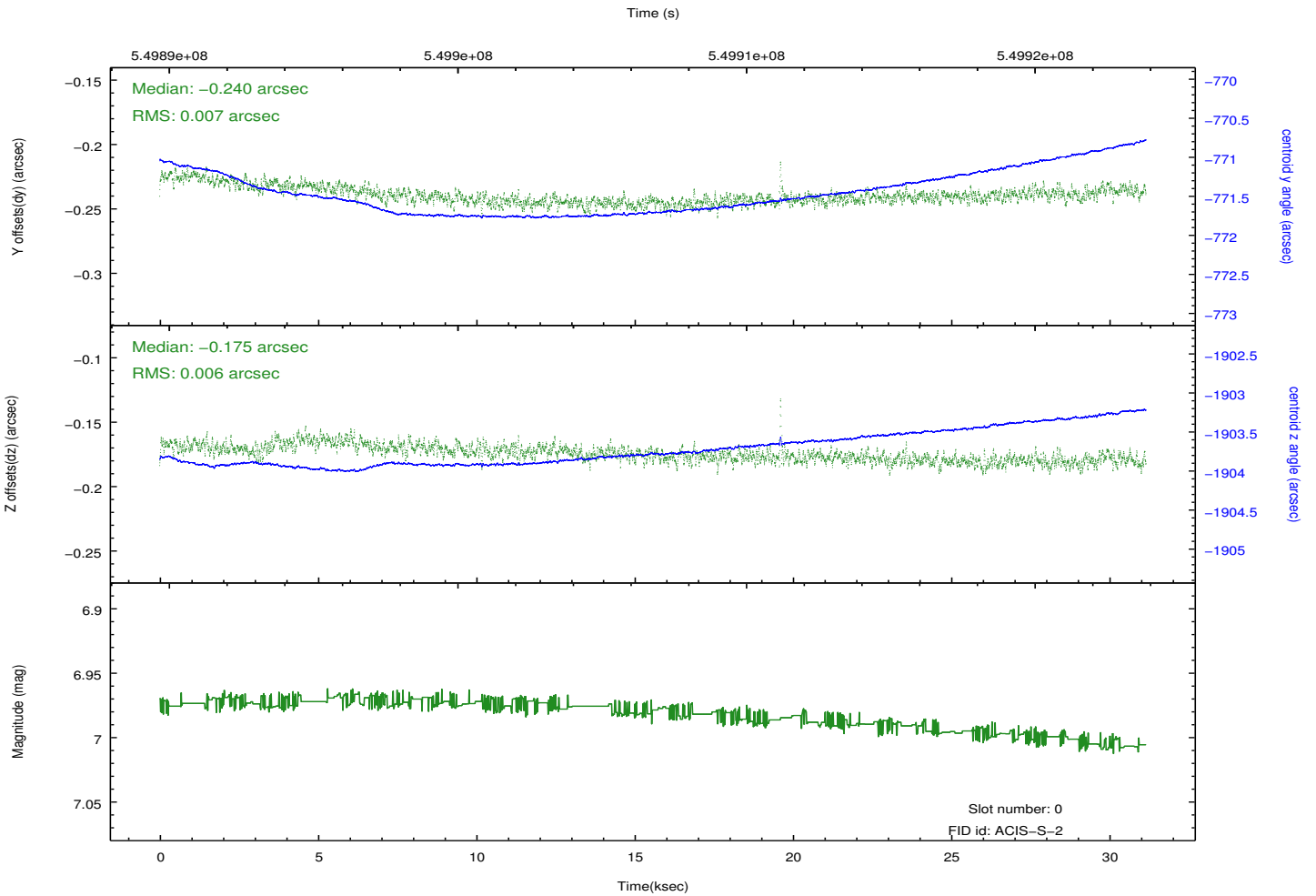
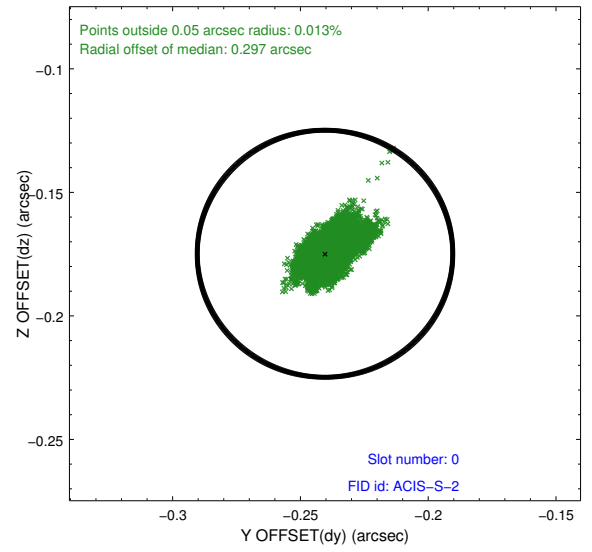
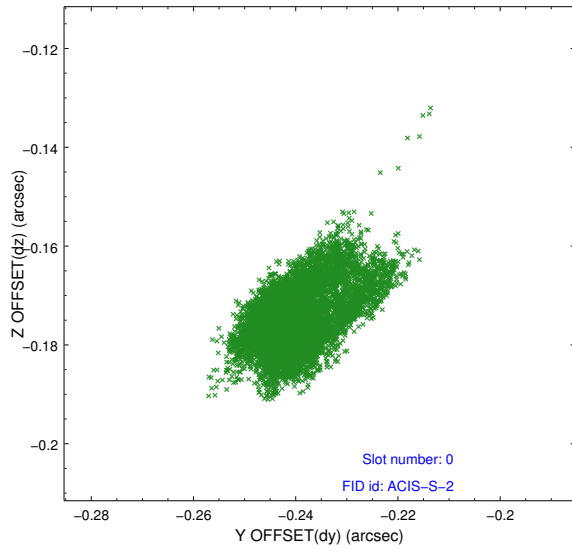


Time (s)

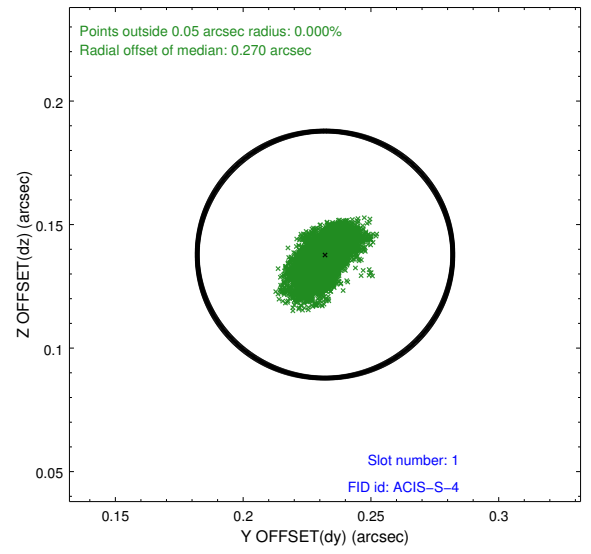
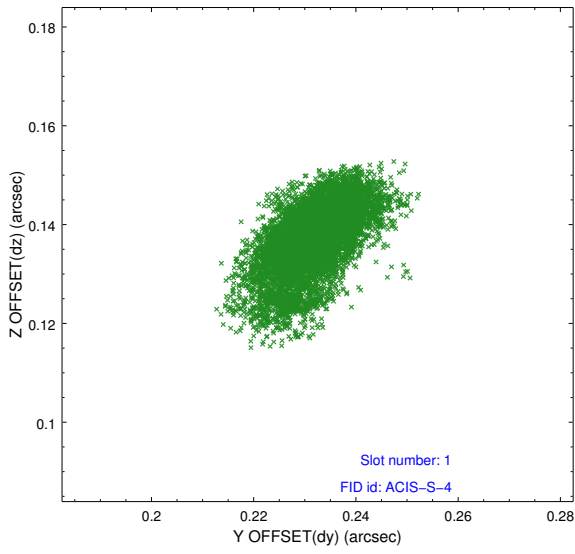


2.5 FID Slots

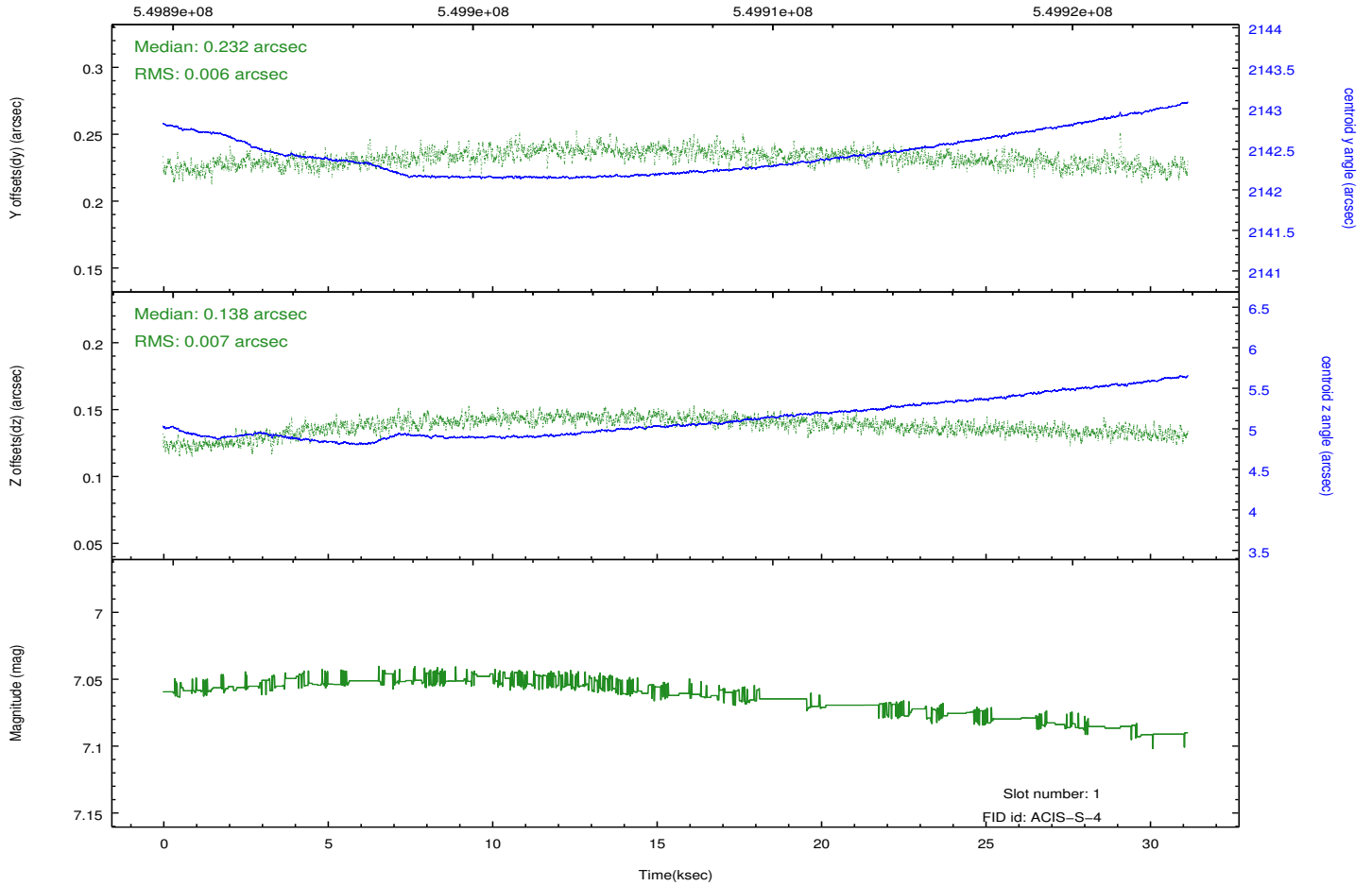
2.5.1 Slot 0



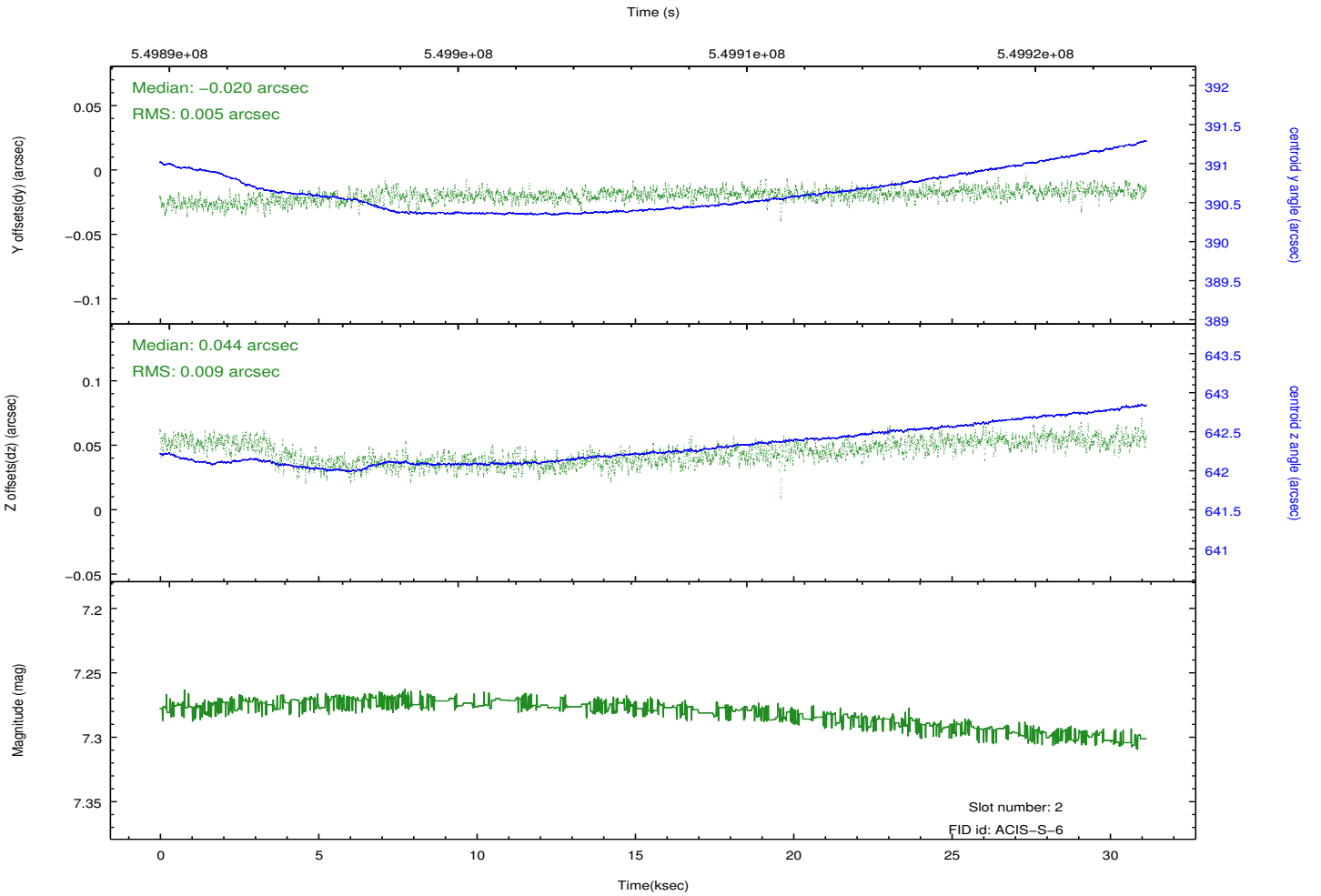
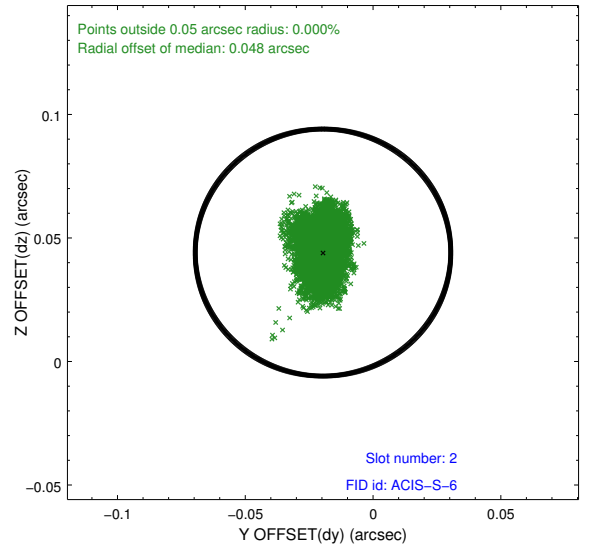
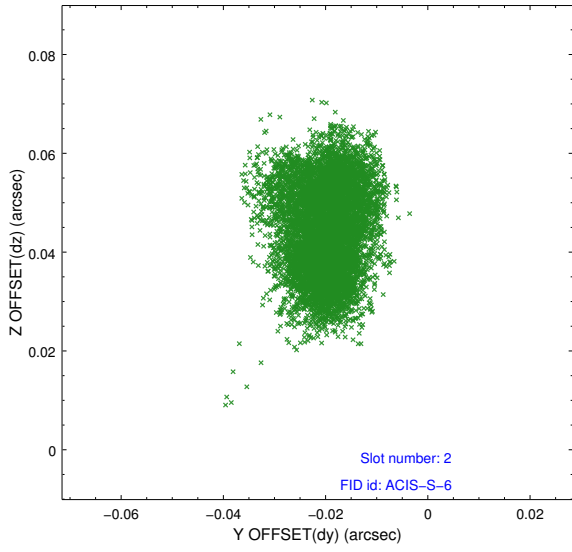
2.5.2 Slot 1



Time (s)

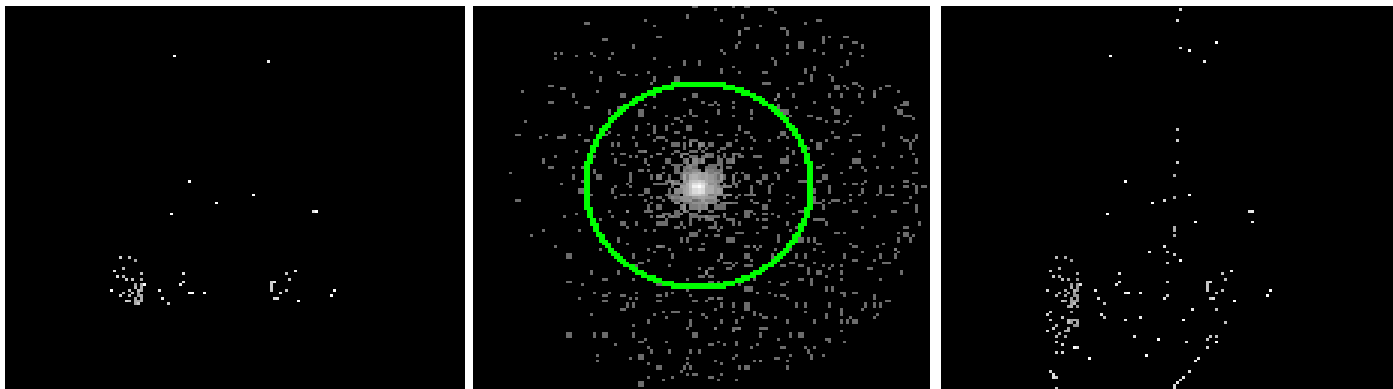


2.5.3 Slot 2



3 Gratings

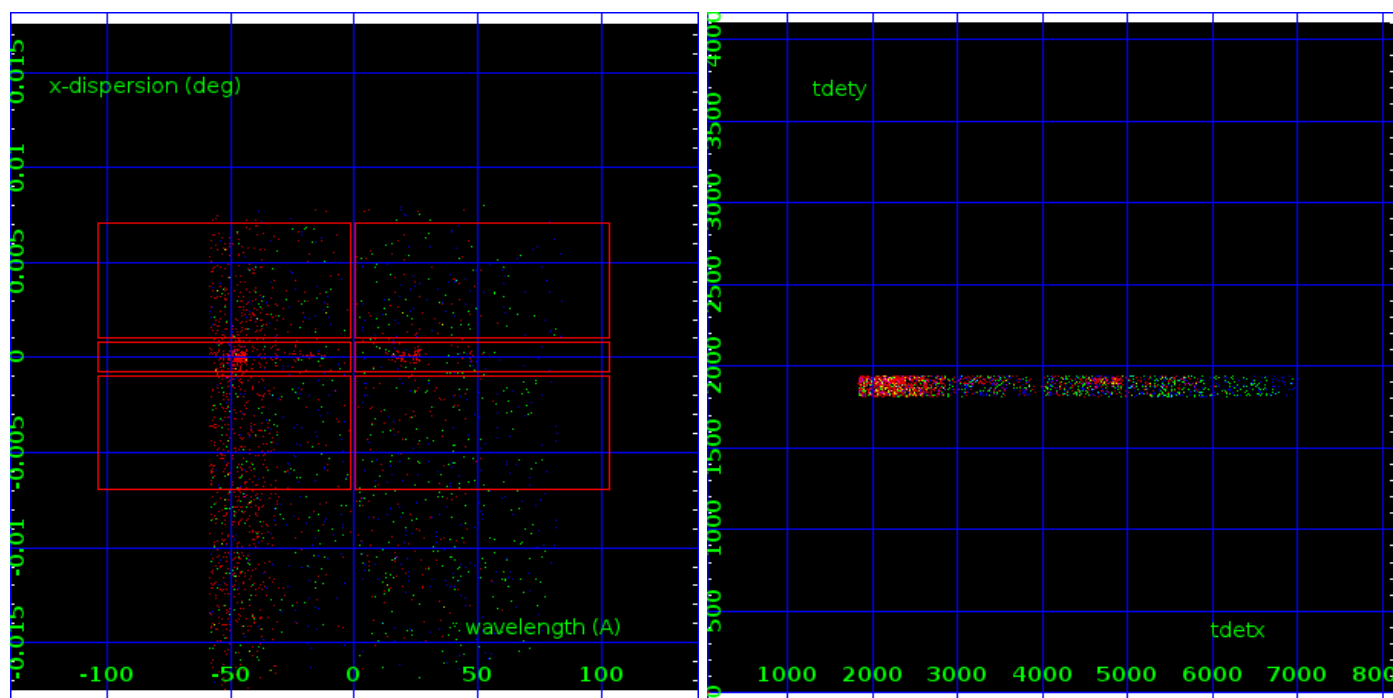
3.1 LETG Arm



LETG Order Sort 123

LETG Zero Order

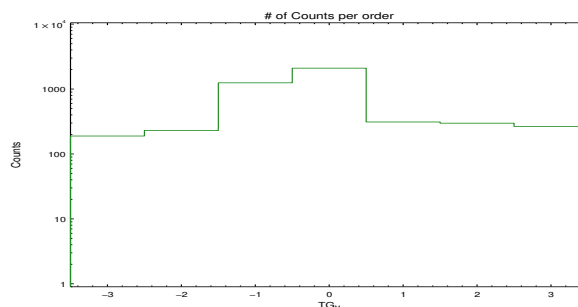
LETG Order Sort ALL

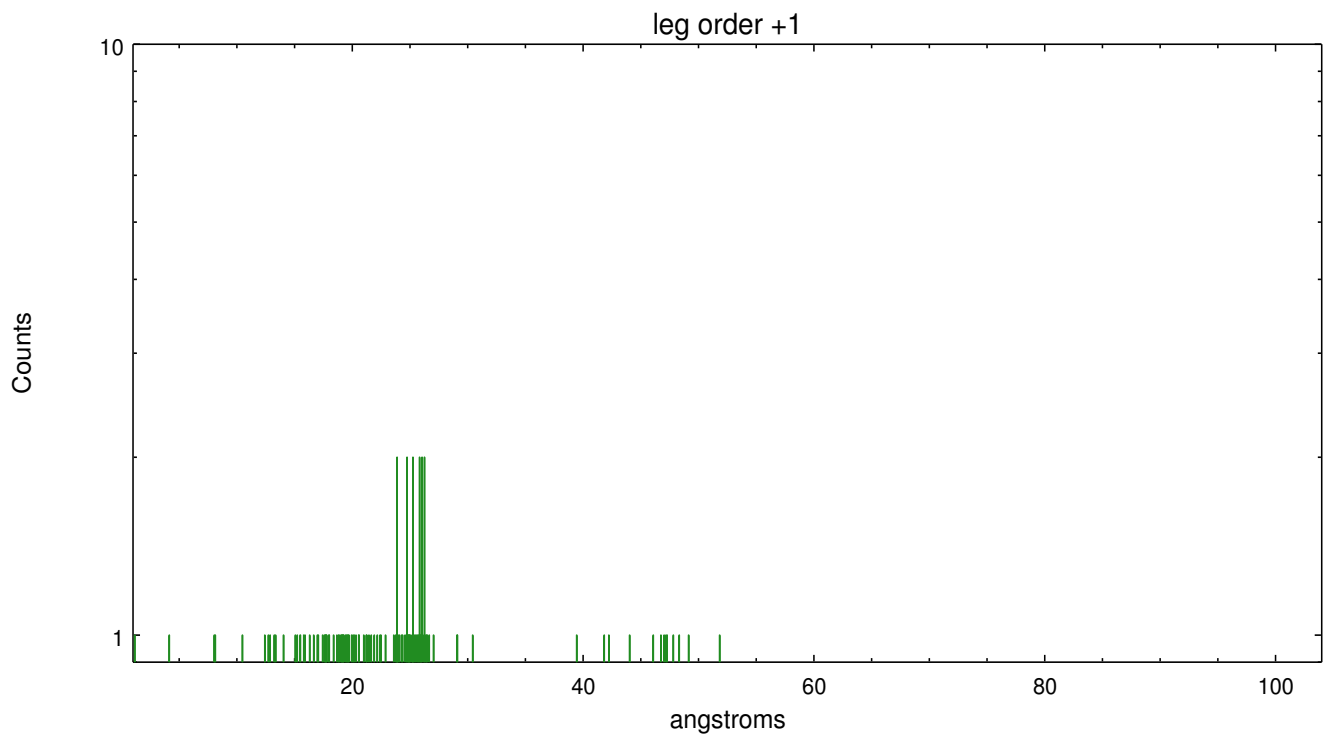
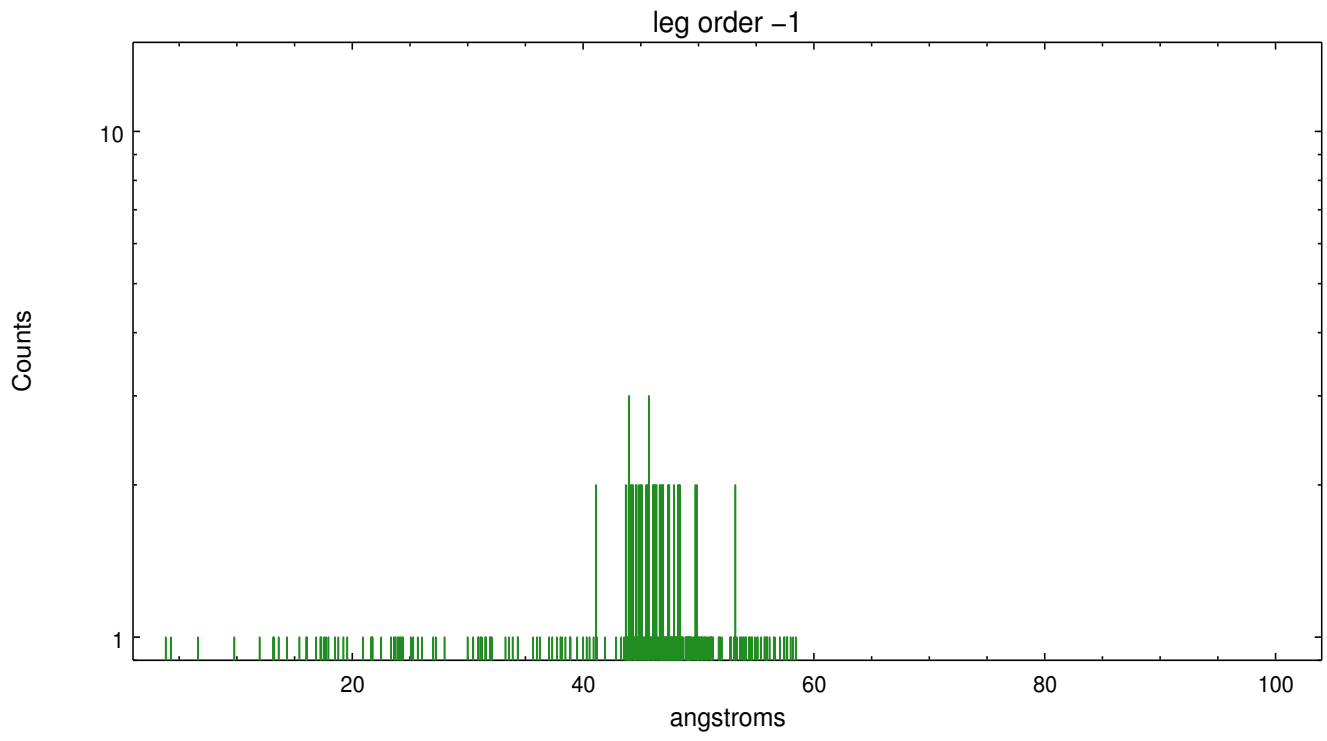


Spot Image LETG

Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	189	230	1248	2098	311	298	266





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.06.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	31.065575201631

A.2 Comments

Observation taken to study contamination issues. Time variation to search for significant depth variations on small scales comparable to the sizes of Hinode beads at the filter surface. (Current sampling is 1.4mm across the converging beam.