

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 21072 - L2 Version 2
Chandra X-Ray Center

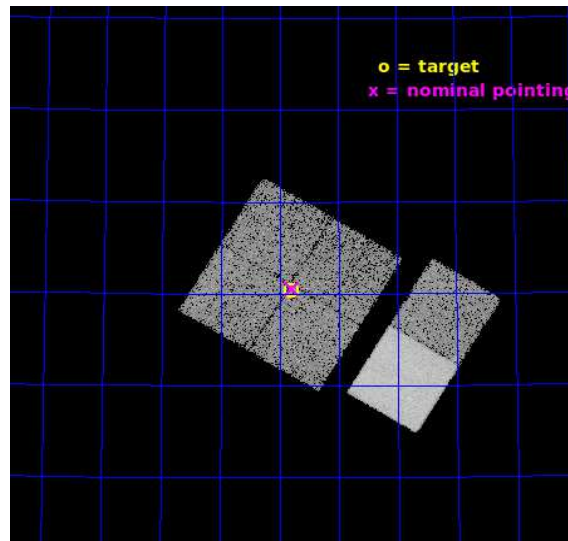
L2 Processing Date : Oct 25 2020

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
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

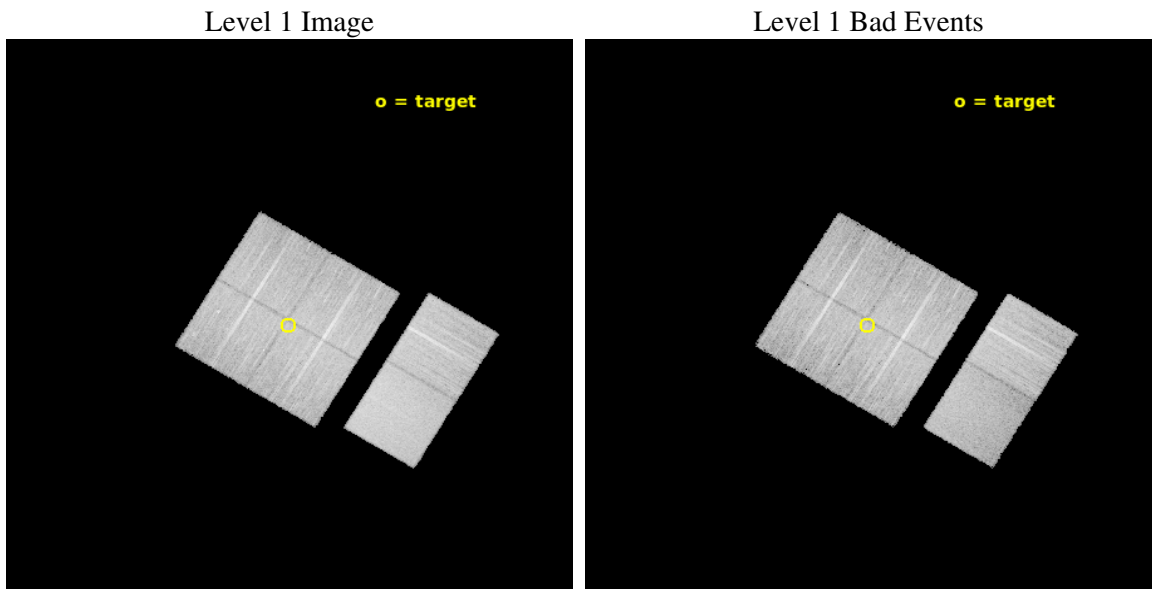
seq_num	901406	Sequence number
obs_id	21072	Observation id
title	Deep Pilot X-ray Observations of the JWST-NEP Time Domain Field	Pr
observer	Walter Maksym	Principal investigator
object	JWST-DTDF-6	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.699525	Observer's specified target RA [deg]
dec_targ	65.839328	Observer's specified target Dec [deg]
ra_nom	260.69879136778	Nominal RA [deg]
dec_nom	65.842924662774	Nominal Dec [deg]
roll_nom	121.21843000209	Nominal Roll [deg]
revision	2	Processing version of data
ontime	13948.800207853	Sum of GTIs [s]
livetime	13772.172100662	Livetime [s]
ontime0	13948.800207853	Sum of GTIs [s]
ontime1	13945.559147477	Sum of GTIs [s]
ontime2	13942.318117261	Sum of GTIs [s]
ontime3	13948.800207853	Sum of GTIs [s]
ontime6	13948.800207853	Sum of GTIs [s]
ontime7	13948.800207853	Sum of GTIs [s]
l2events	102237	Number of level 2 events



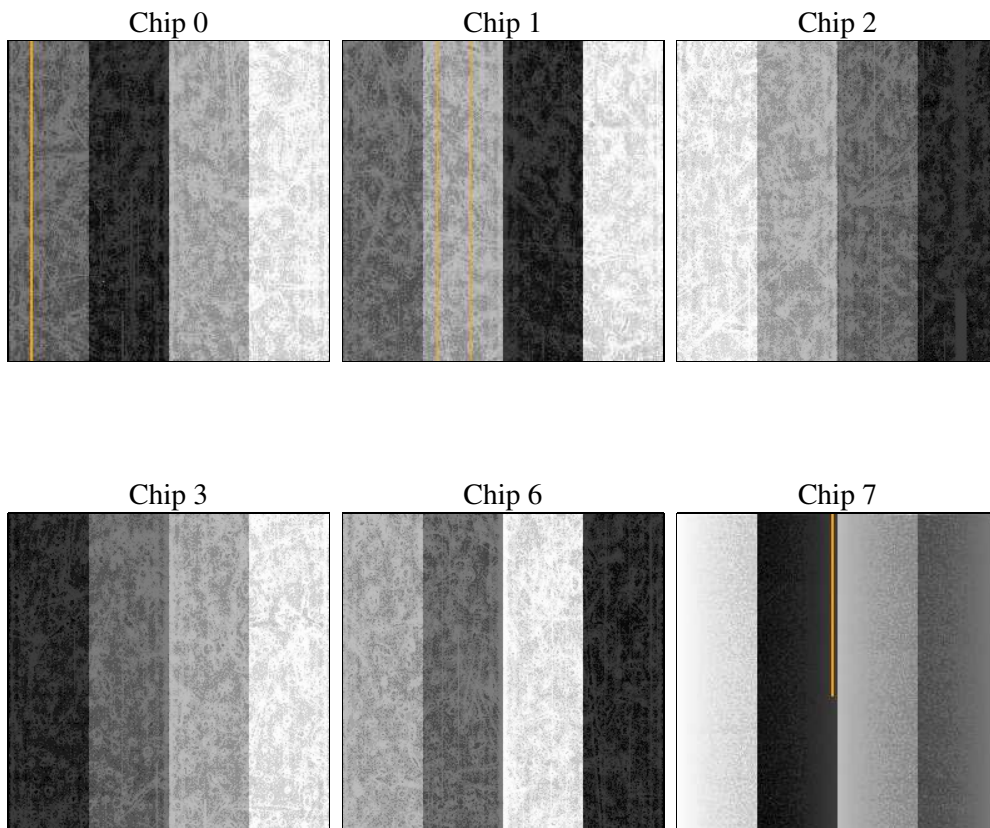
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	13948.800207853	Sum of GTIs [s]
caldsver	4.9.3	 	ontime0	13948.800207853	Sum of GTIs [s]
date	2020-10-25T11:53:09	Date and time of file creation	ontime1	13945.559147477	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	13942.318117261	Sum of GTIs [s]
			ontime3	13948.800207853	Sum of GTIs [s]
			ontime6	13948.800207853	Sum of GTIs [s]
			ontime7	13948.800207853	Sum of GTIs [s]
			l1events	646102	Number of level 1 events

2.1.4 Events

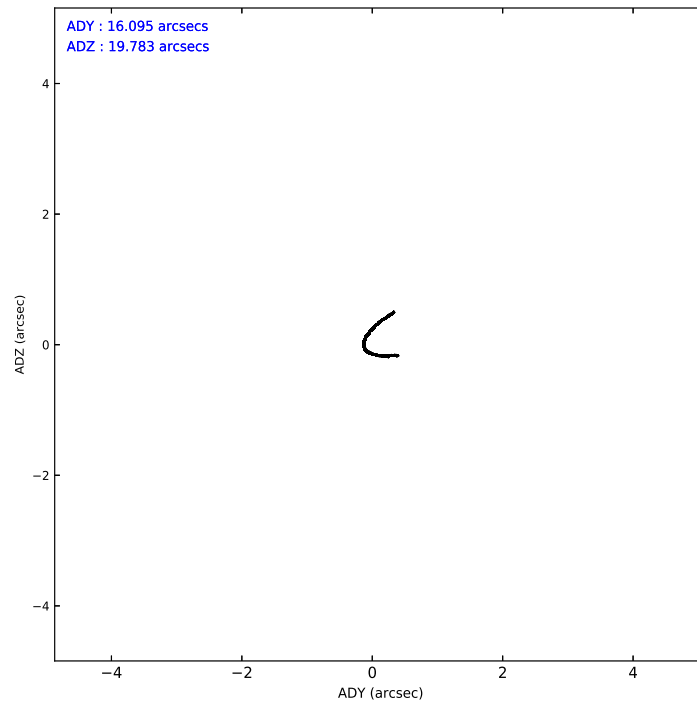
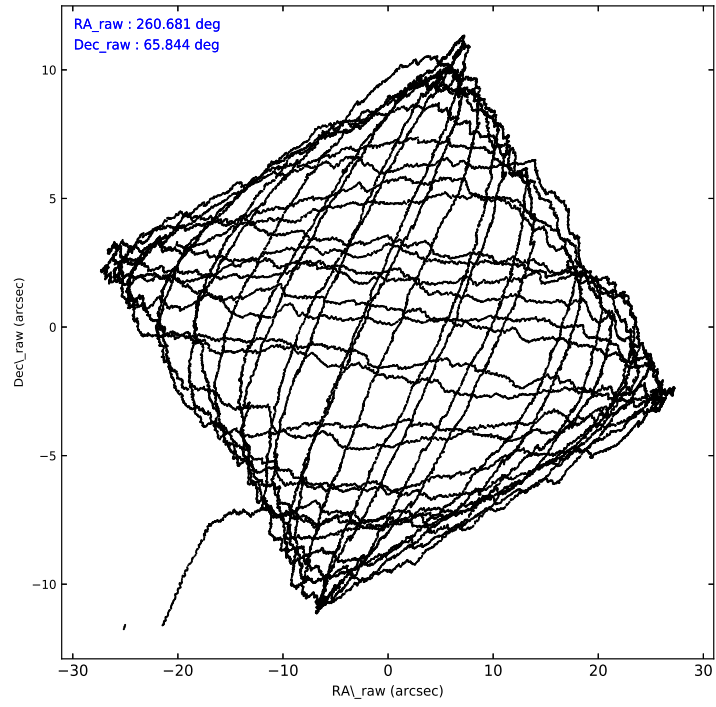
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	93733	97754	106827	102321	113016	132451	grade 0 events	3775	4062	3608	3680	3515	4699
rejected events	82584	85247	96538	91896	101362	75375		4%	4%	3%	3%	3%	3%
rejected %	88%	87%	90%	89%	89%	56%	grade 1 events	62	48	54	42	44	192
								0%	0%	0%	0%	0%	0%
							grade 2 events	2877	3320	2494	2288	2988	11974
								3%	3%	2%	2%	2%	9%
							grade 3 events	1130	996	1050	1076	1015	4514
								1%	1%	0%	1%	0%	3%
							grade 4 events	959	1118	1020	1098	1011	4338
								1%	1%	0%	1%	0%	3%
							grade 5 events	4084	4149	3764	4664	4462	12901
								4%	4%	3%	4%	3%	9%
							grade 6 events	2410	3027	2121	2291	3129	31575
								2%	3%	1%	2%	2%	23%
							grade 7 events	78436	81034	92716	87182	96852	62258
								83%	82%	86%	85%	85%	47%

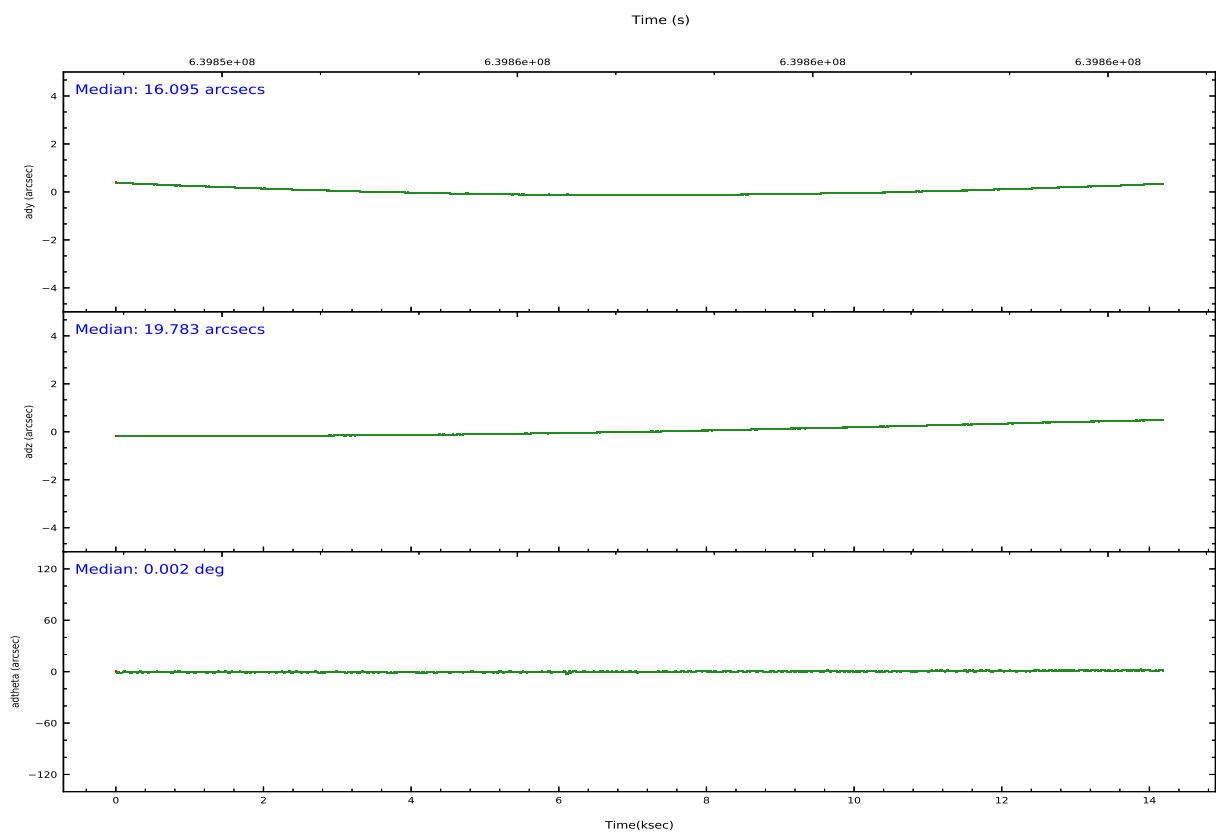
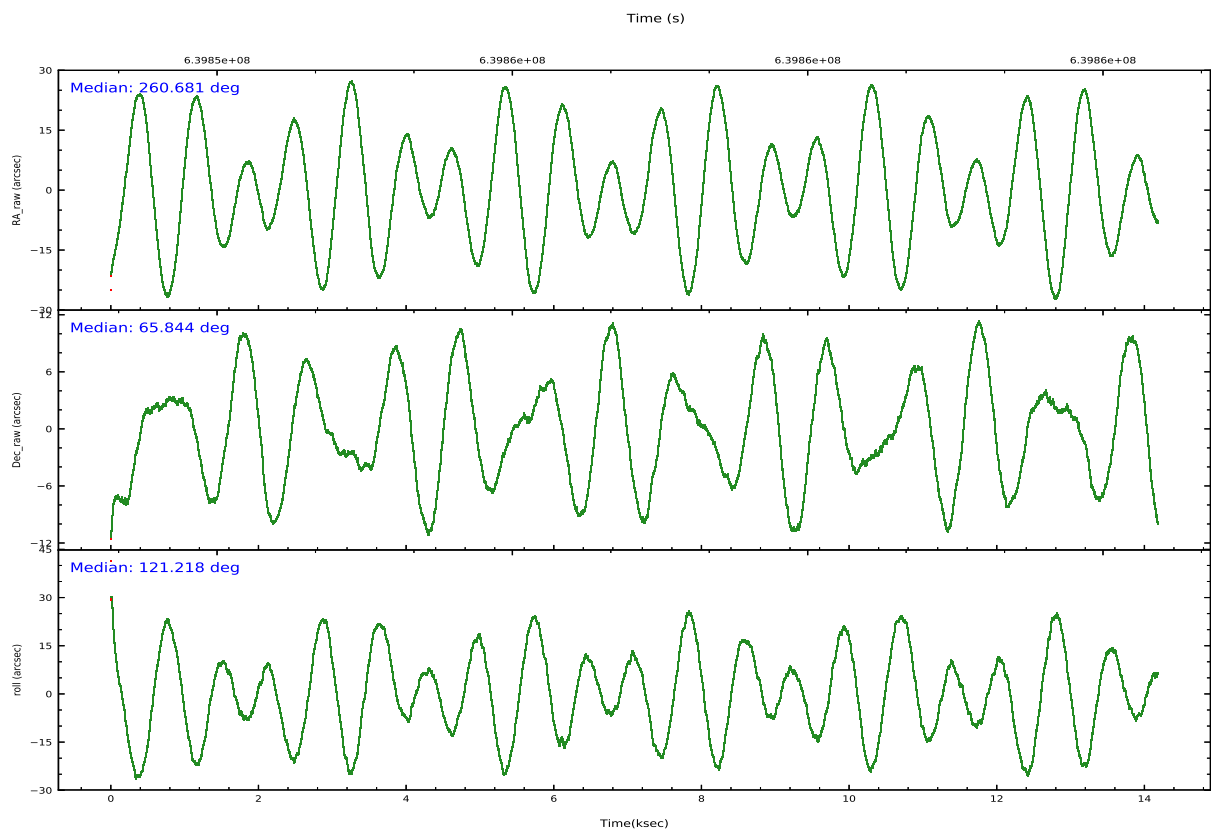
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	260.740172	260.69879136778
[deg] Pointing Dec	65.830799	65.842924662774
[deg] Pointing Roll	120.962911	121.21843000209
[mm] SIM focus pos	-0.782348	-0.7809083437167272
[mm] SIM defocus	0	0.001439871863259334
[mm] SIM translation stage pos	-233.592463	-233.5874344608287
[mm] SIM translation stage offset	0	-0.005018542100998502
[s] Observation start time (MET)	639850747.184000	639849666.53951
Observation start date	2018-04-11T16:17:58	2018-04-11T16:01:06
[s] Observation end time (MET)	639864747.184000	639865434.6279401
Observation end date	2018-04-11T20:11:18	2018-04-11T20:23:54
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	Y	Y
CCD I1 on	Y	Y
CCD I2 on	Y	Y
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	O1	Y
CCD S3 on	O2	Y
CCD S4 on	N	N
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	3.2

2.3 Aspect



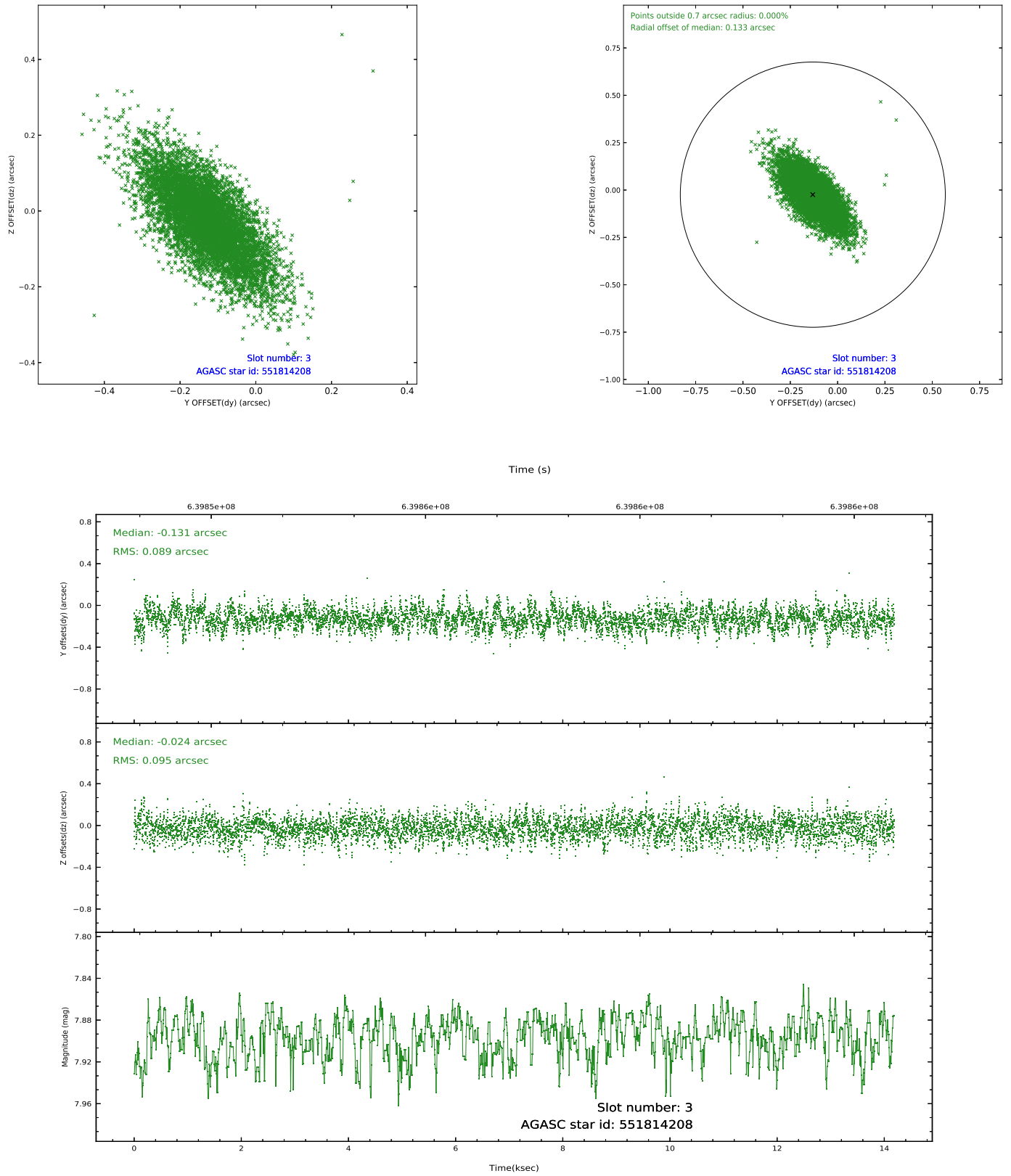


Slot Statistics

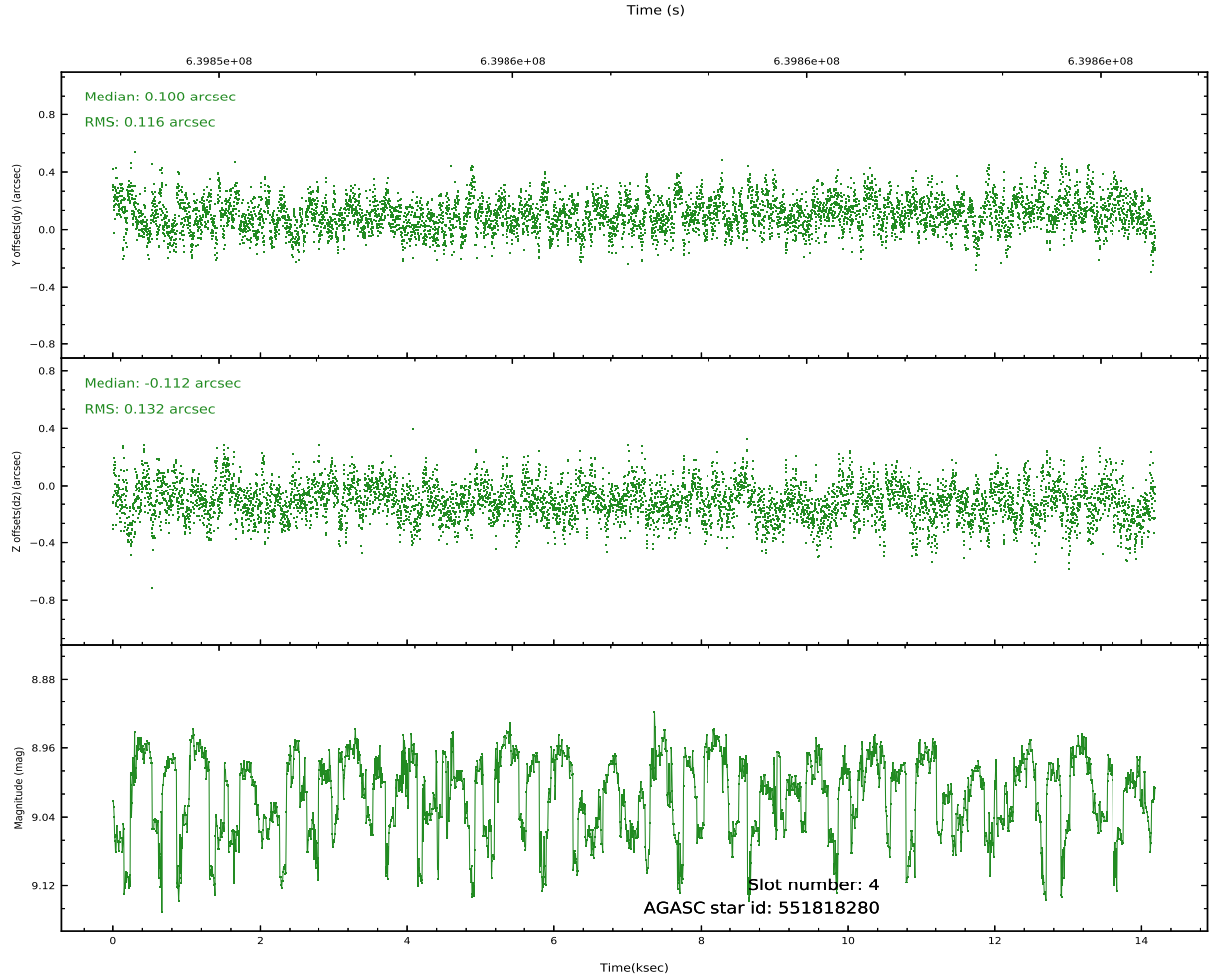
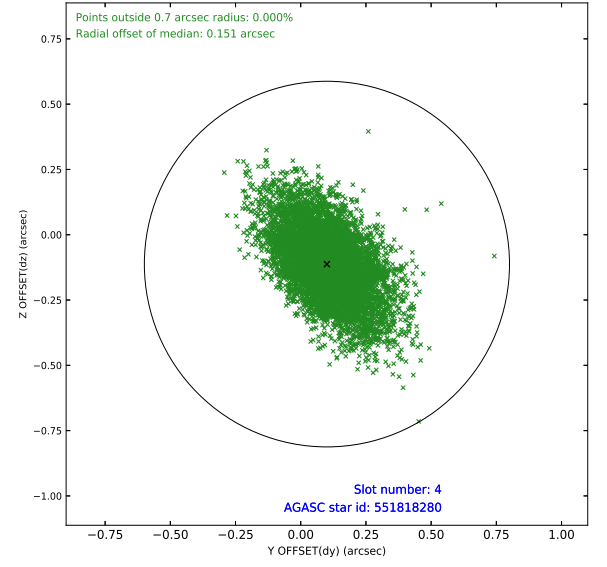
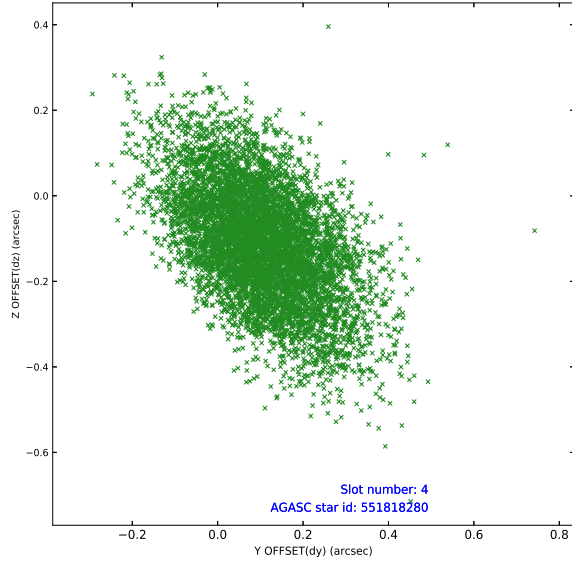
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.28	3461	1.000	0.180	-0.110	0.013	0.028	0.000000	0.000000	923.41	-843
1	FID		ACIS-I-5	7.27	3460	1.000	-0.309	0.152	0.008	0.013	0.000000	0.000000	-1824.88	1054
2	FID		ACIS-I-6	7.28	3460	1.000	0.038	0.030	0.012	0.021	0.000000	0.000000	388.62	1698
3	GUIDE	used	551814208	7.90	6918	1.000	-0.131	-0.024	0.131	0.239	260.175311	65.639944	-154.14	1070
4	GUIDE	used	551818280	9.01	6909	1.000	0.100	-0.112	0.180	0.319	261.229817	66.633852	2122.11	-2087
5	GUIDE	used	551819264	8.46	6917	1.000	-0.141	-0.158	0.131	0.234	258.796618	66.086633	2287.64	1935
6	GUIDE	used	551951232	7.93	6918	1.000	-0.041	0.163	0.127	0.231	262.419848	65.894071	-1044.99	-2251
7	GUIDE	used	551952296	8.73	6915	1.000	0.213	0.129	0.141	0.241	261.999680	65.847021	-887.80	-1630

2.4 Star Slots

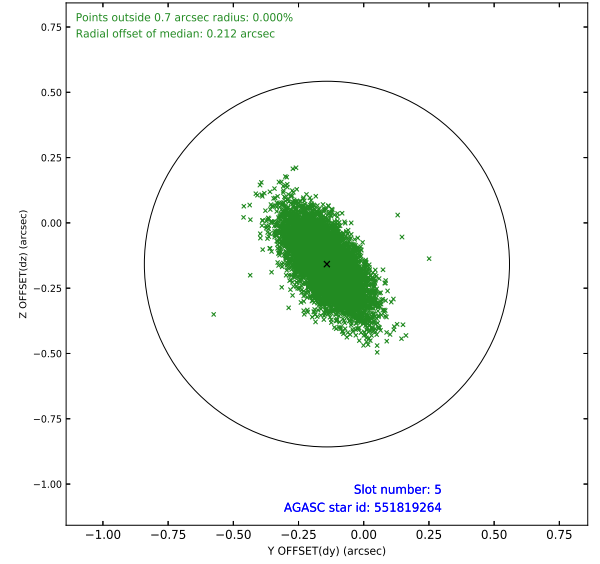
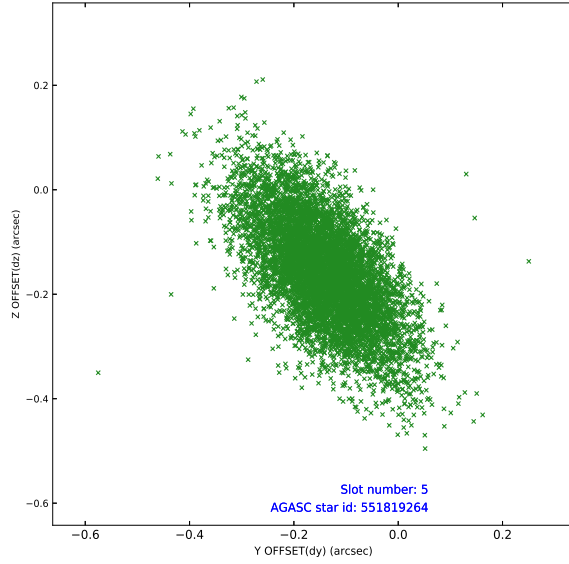
2.4.1 Slot 3



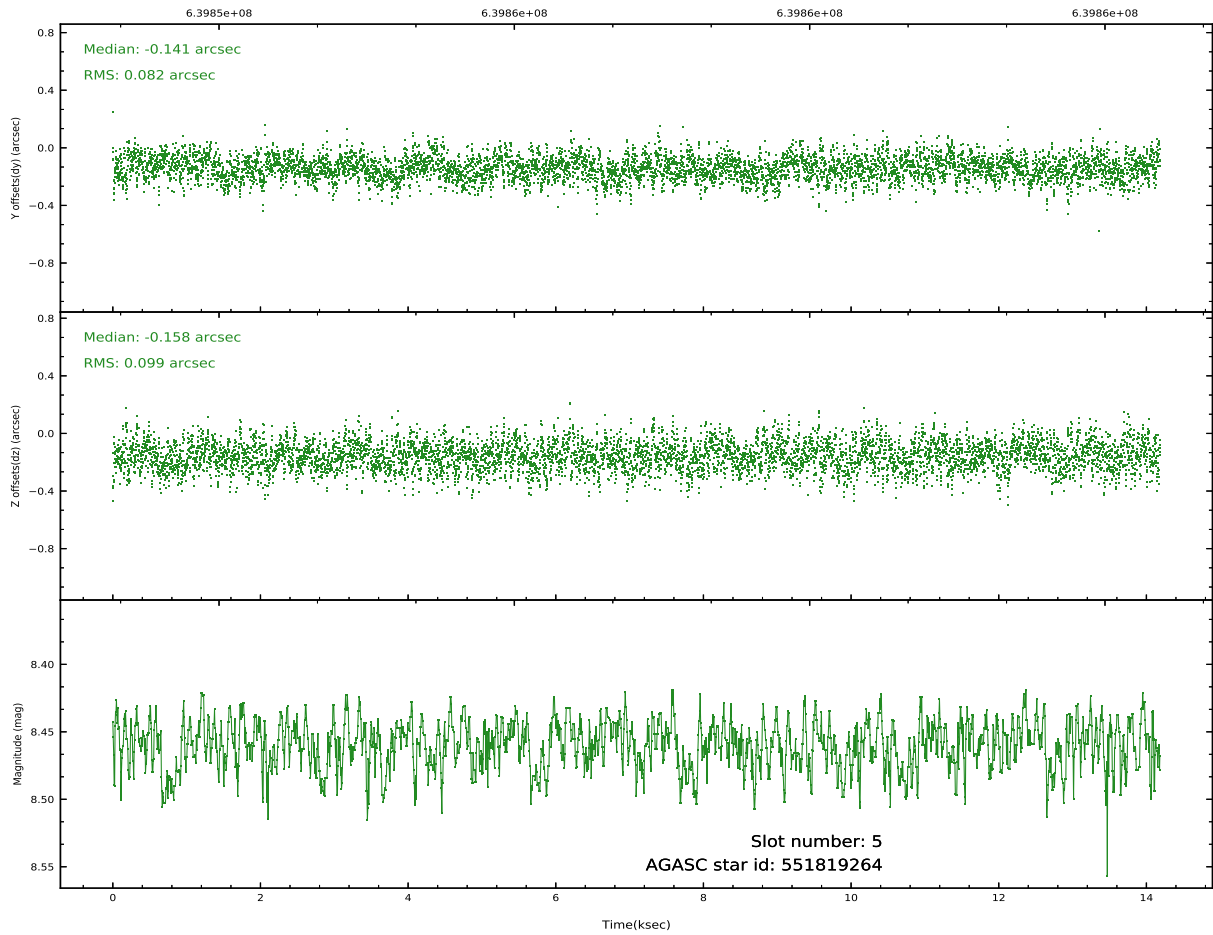
2.4.2 Slot 4



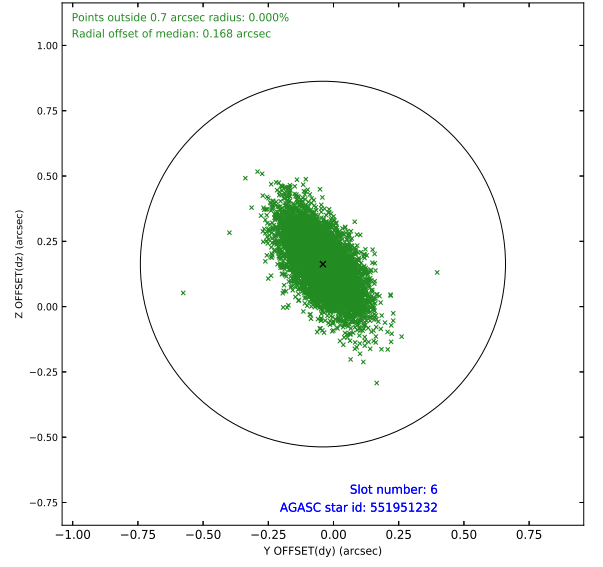
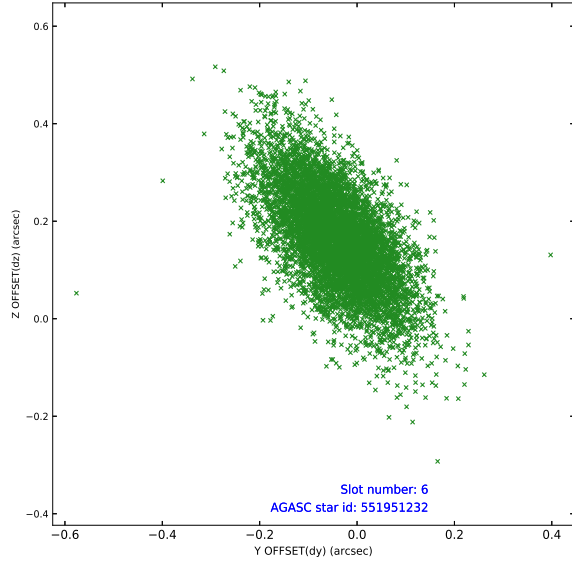
2.4.3 Slot 5



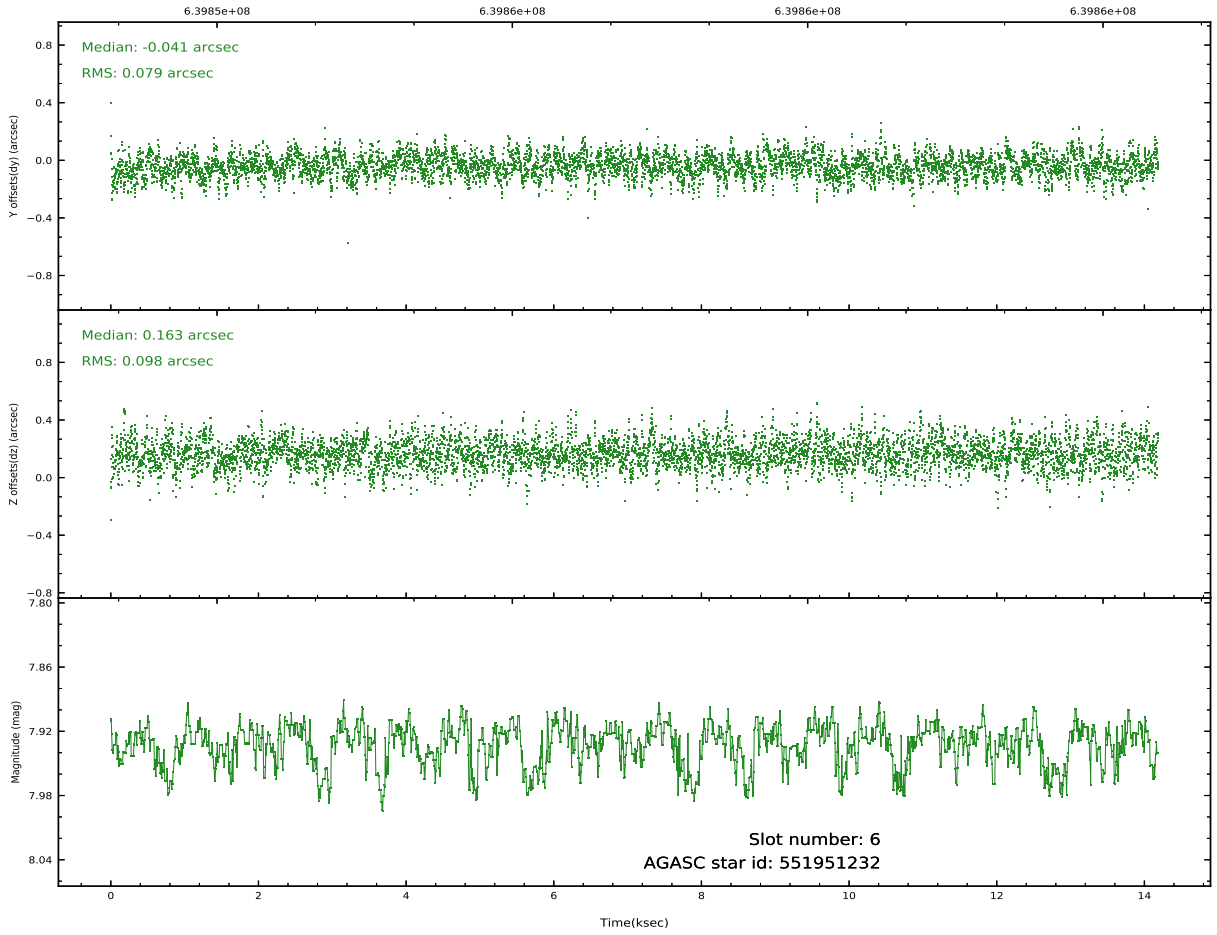
Time (s)



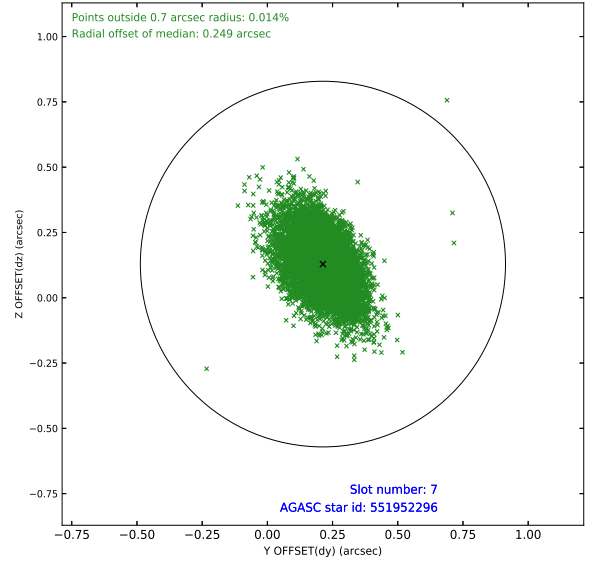
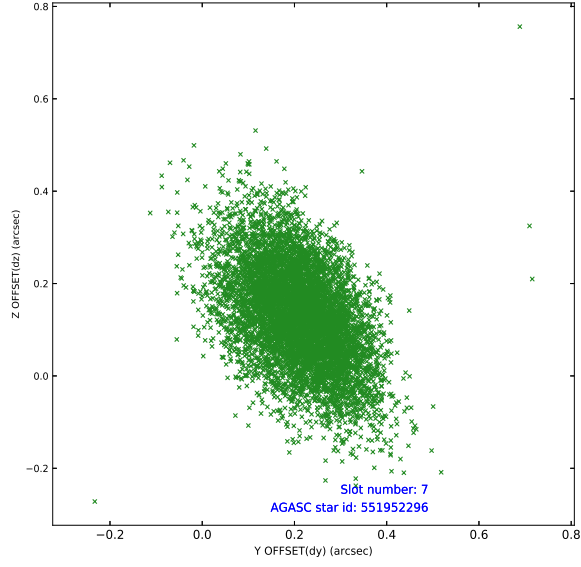
2.4.4 Slot 6



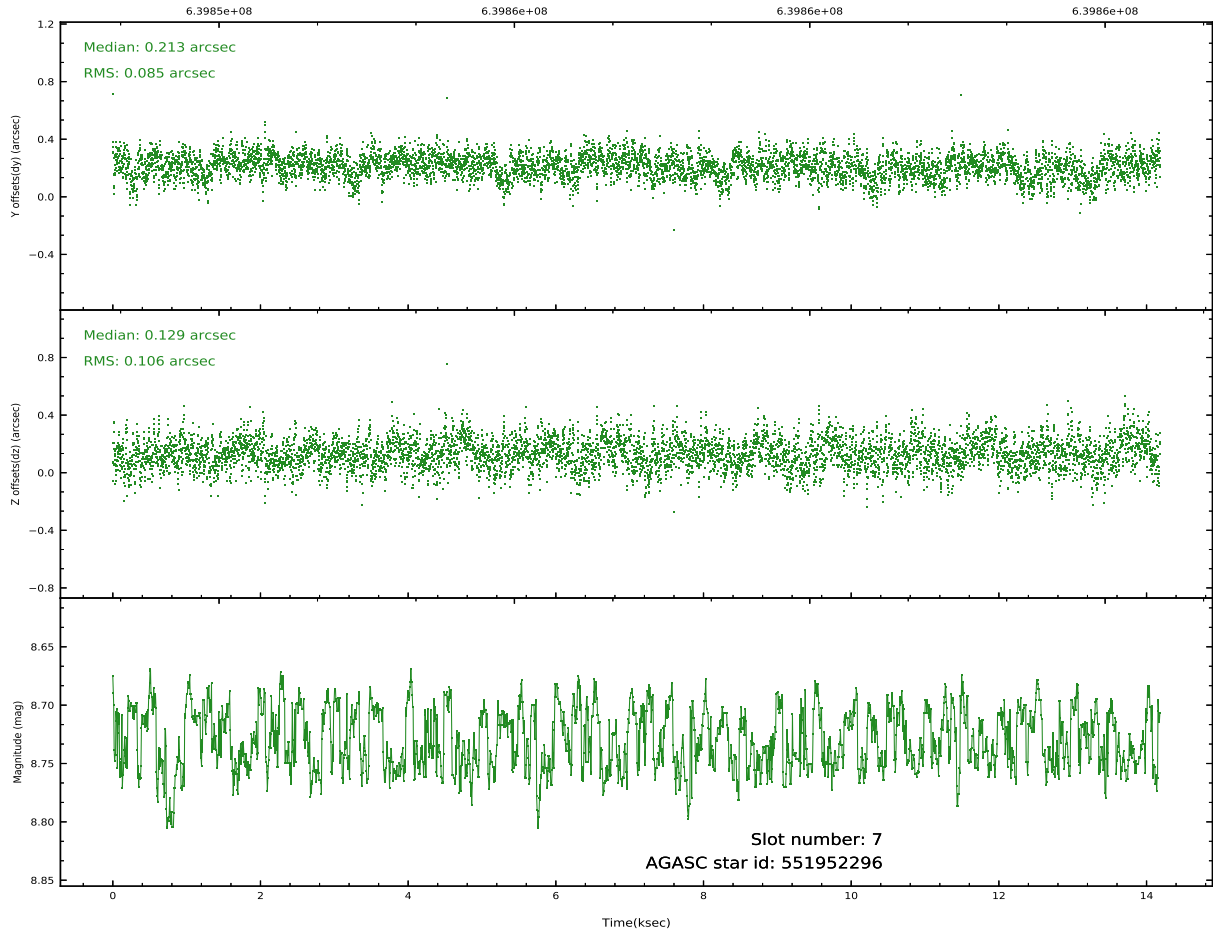
Time (s)



2.4.5 Slot 7

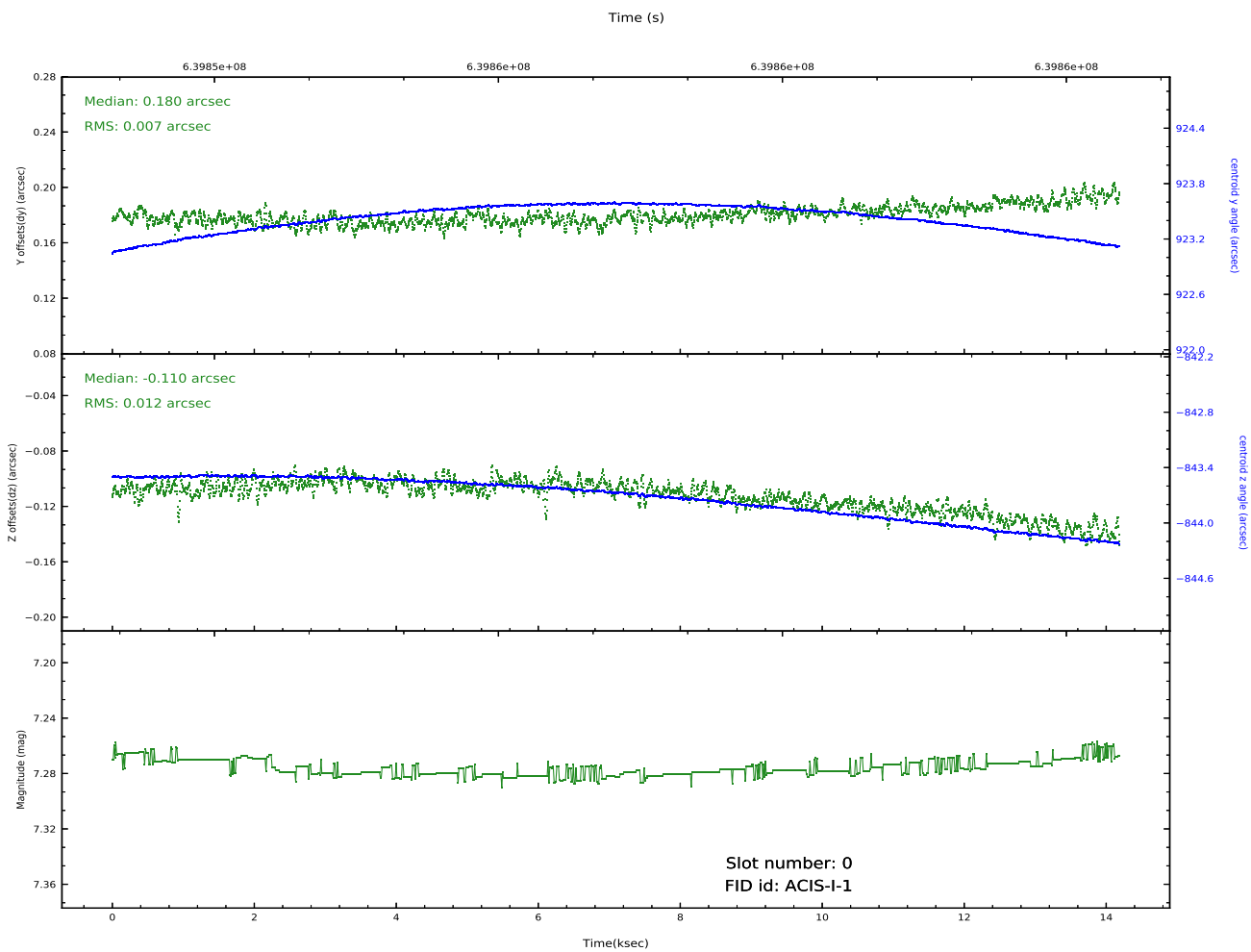
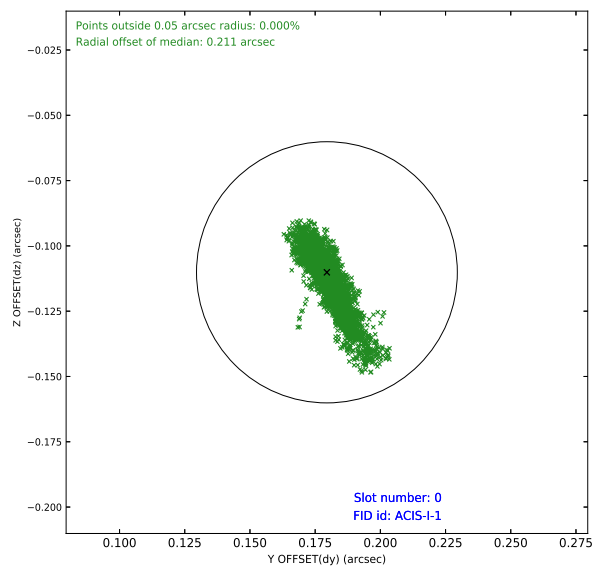
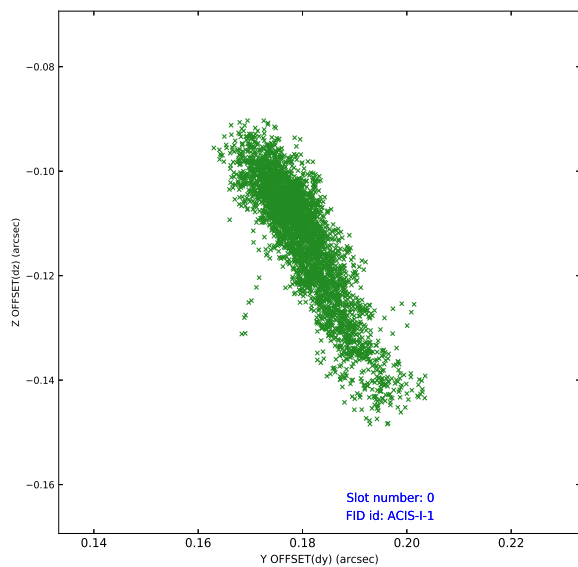


Time (s)

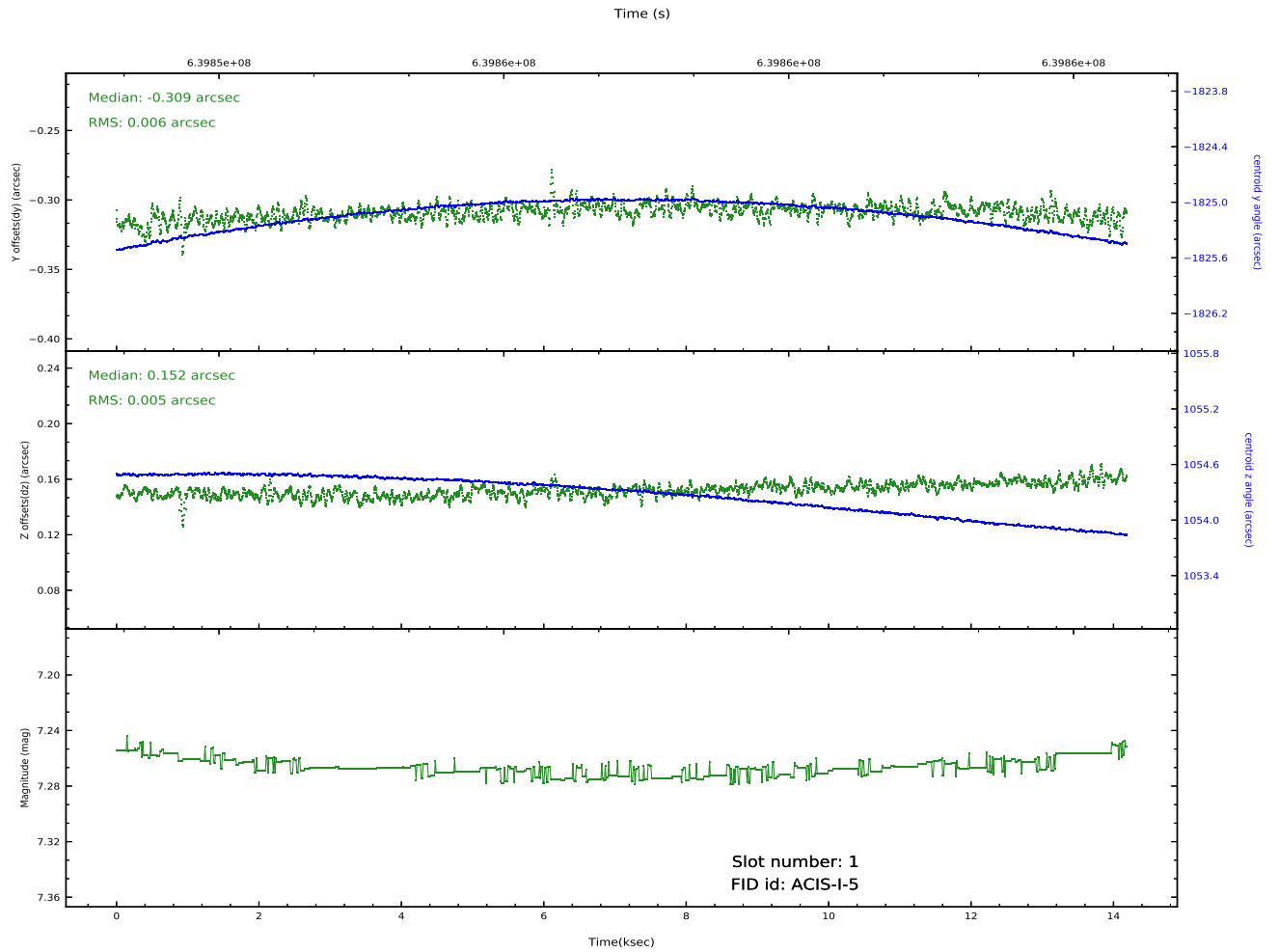
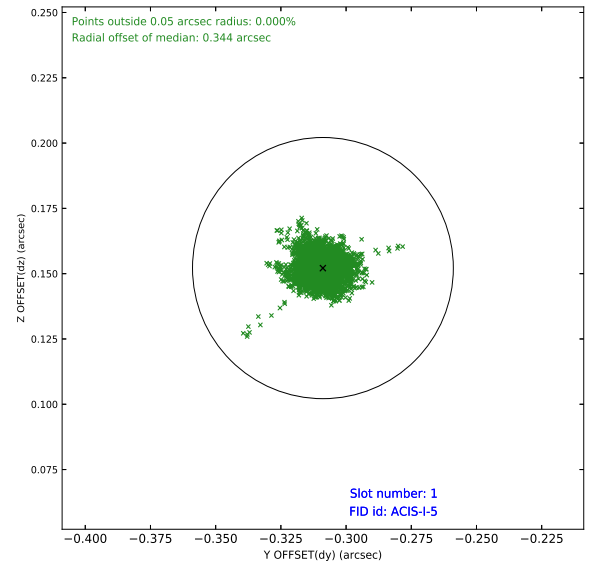
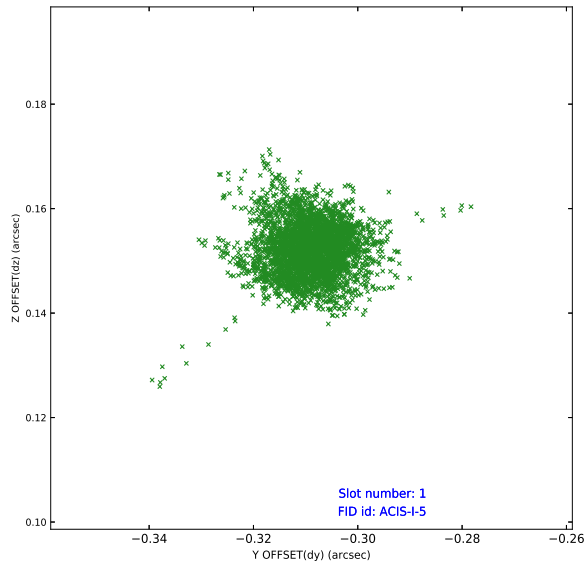


2.5 FID Slots

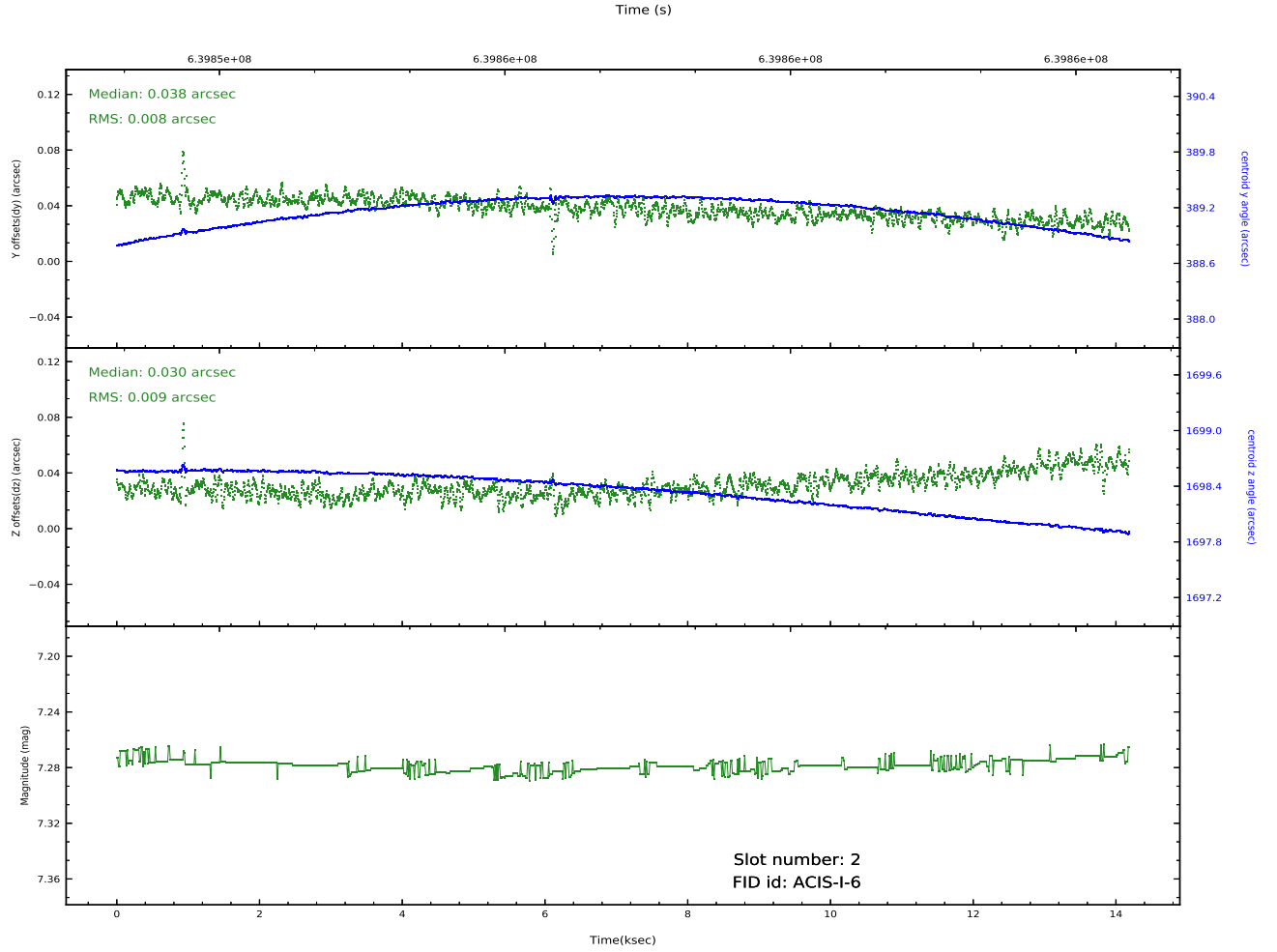
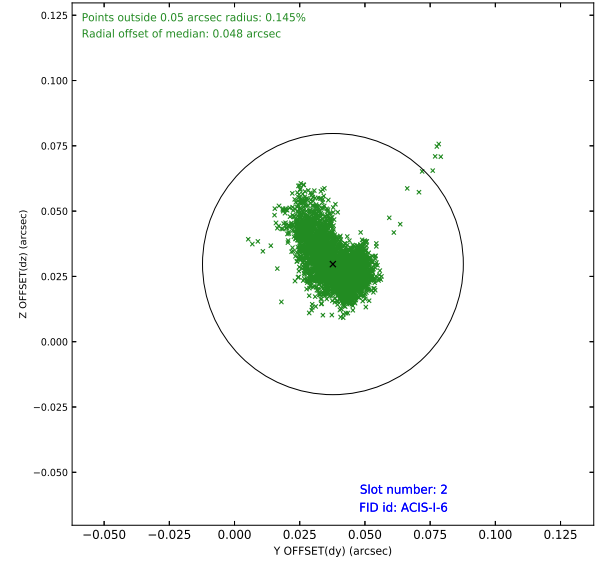
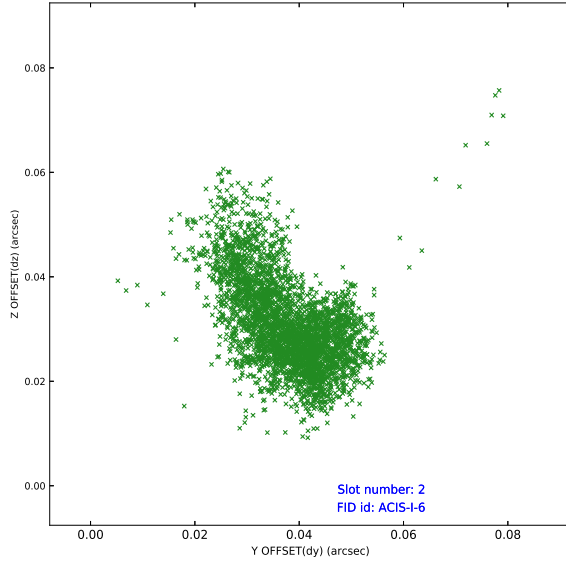
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.948800207853

A.2 Comments

A spatial region of the original bias map for CCD = 2 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. In this case, the bias map for CCD = 2 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias map used in this processing is the original bias map telemetered with the observation.