

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20385 - L2 Version 3
Chandra X-Ray Center

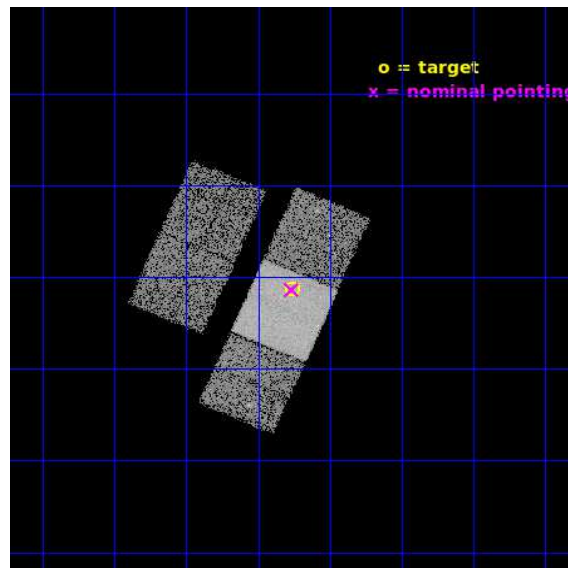
L2 Processing Date : Oct 25 2020

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 5	10
2.4.3	Slot 6	11
2.4.4	Slot 7	12
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

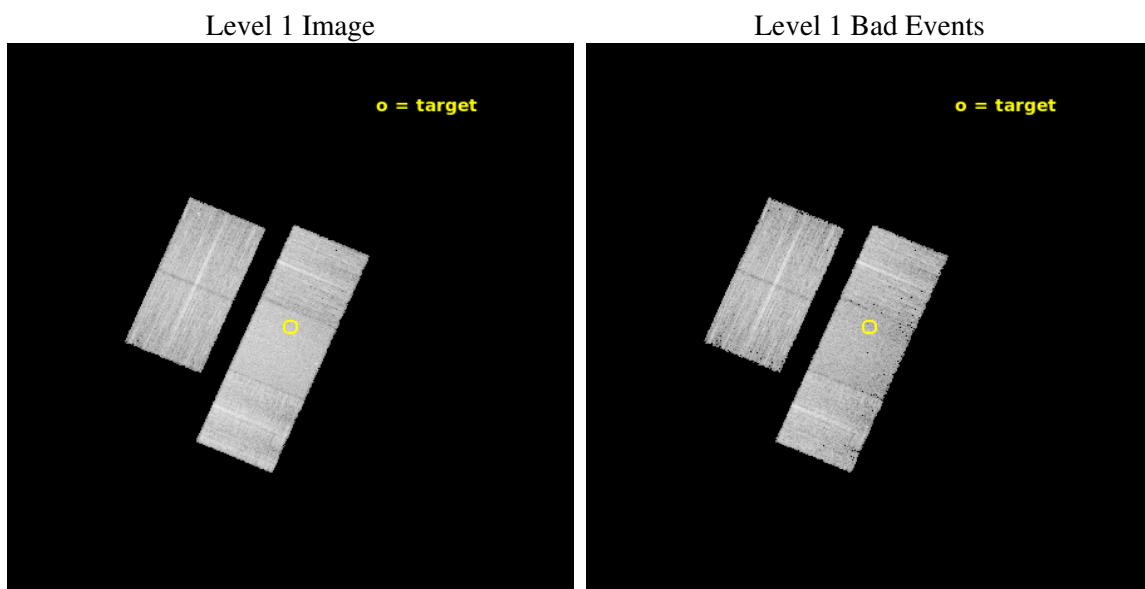
seq_num	703490	Sequence number
obs_id	20385	Observation id
title	HEAVILY REDDENED, LUMINOUS TYPE 1 QSOs: A TRANSITION POPULATION EMERGING FROM THE DUST	Proposal title
observer	Enrico Piconcelli	Principal investigator
object	VHSJ2355-0011	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	358.939583	Observer's specified target RA [deg]
dec_targ	-0.189306	Observer's specified target Dec [deg]
ra_nom	358.9411269695	Nominal RA [deg]
dec_nom	-0.18964399235043	Nominal Dec [deg]
roll_nom	113.40165628338	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9054.0681490898	Sum of GTIs [s]
livetime	8935.770083214	Livetime [s]
ontime2	9053.9039890766	Sum of GTIs [s]
ontime3	9053.9860690832	Sum of GTIs [s]
ontime6	9054.0271091461	Sum of GTIs [s]
ontime7	9054.0681490898	Sum of GTIs [s]
ontime8	9053.9450291395	Sum of GTIs [s]
l2events	62744	Number of level 2 events



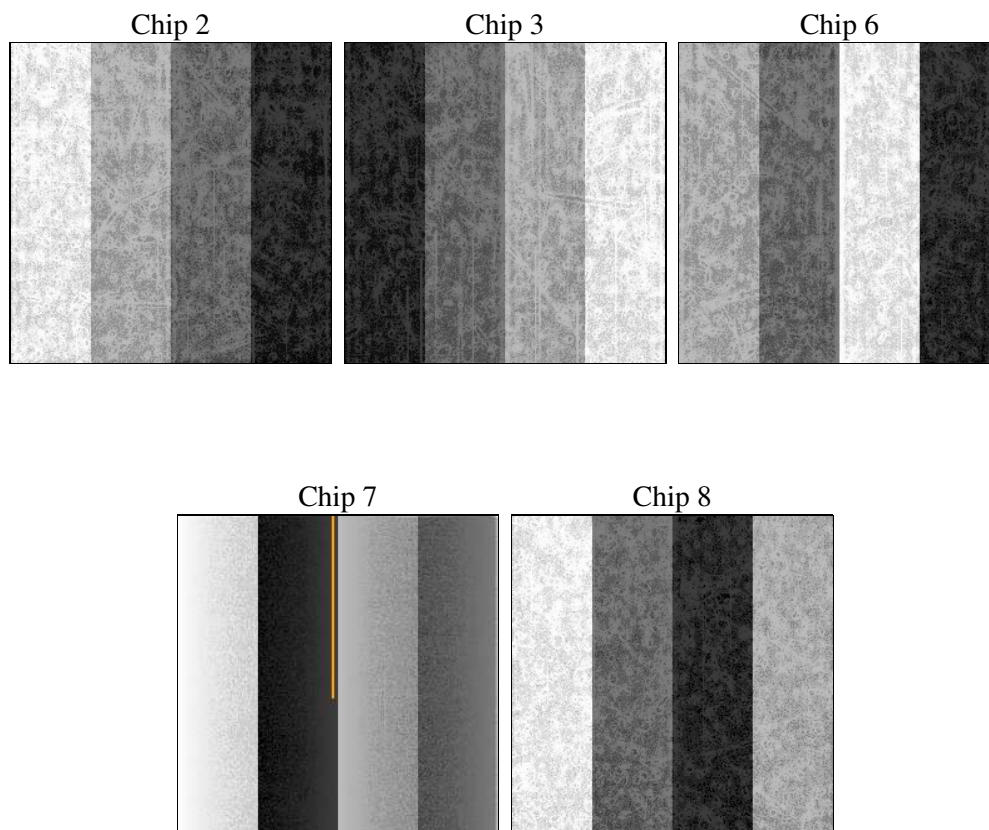
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.2	Processing system revision	ontime	9054.0681490898	Sum of GTIs [s]
caldsver	4.9.3	 	ontime2	9053.9039890766	Sum of GTIs [s]
date	2020-10-25T23:55:18	Date and time of file creation	ontime3	9053.9860690832	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	9054.0271091461	Sum of GTIs [s]
			ontime7	9054.0681490898	Sum of GTIs [s]
			ontime8	9053.9450291395	Sum of GTIs [s]
			l1events	383924	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	67491	68058	70989	87596	89790
rejected events	60310	61231	63320	49628	66459
rejected %	89%	89%	89%	56%	74%

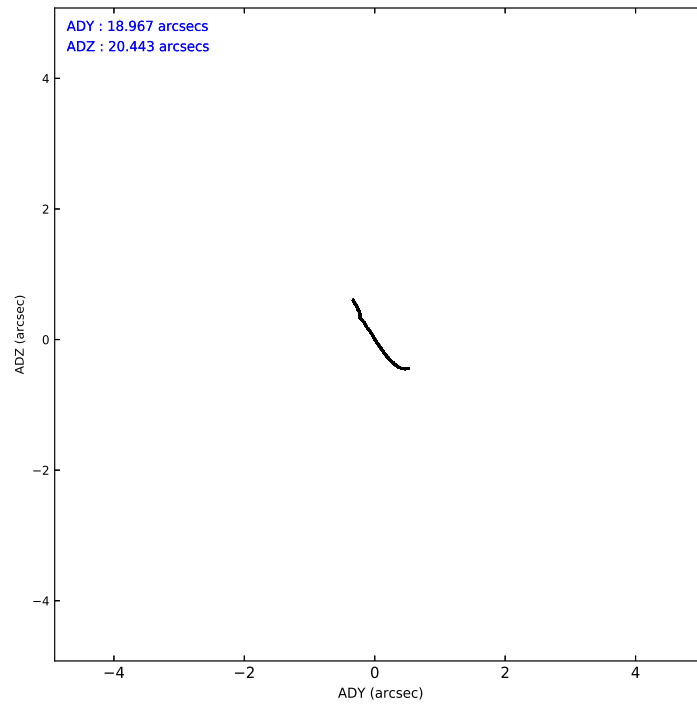
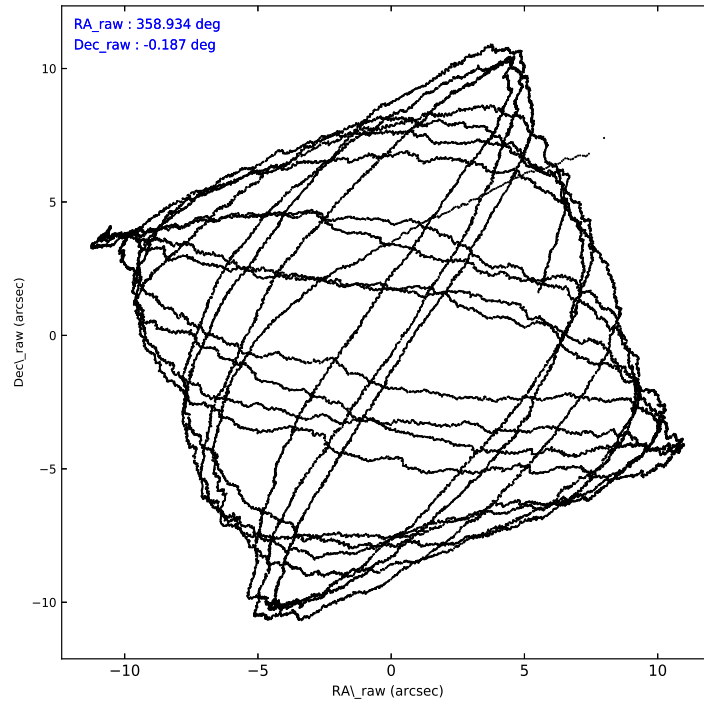
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	2643	2330	2561	3200	6345
	3%	3%	3%	3%	7%
grade 1 events	31	38	25	127	84
	0%	0%	0%	0%	0%
grade 2 events	1680	1542	1829	8023	5720
	2%	2%	2%	9%	6%
grade 3 events	709	737	701	2871	2394
	1%	1%	0%	3%	2%
grade 4 events	738	696	694	2942	2239
	1%	1%	0%	3%	2%
grade 5 events	2509	3046	3055	8439	4671
	3%	4%	4%	9%	5%
grade 6 events	1414	1526	1891	20944	6640
	2%	2%	2%	23%	7%
grade 7 events	57767	58143	60233	41050	61697
	85%	85%	84%	46%	68%

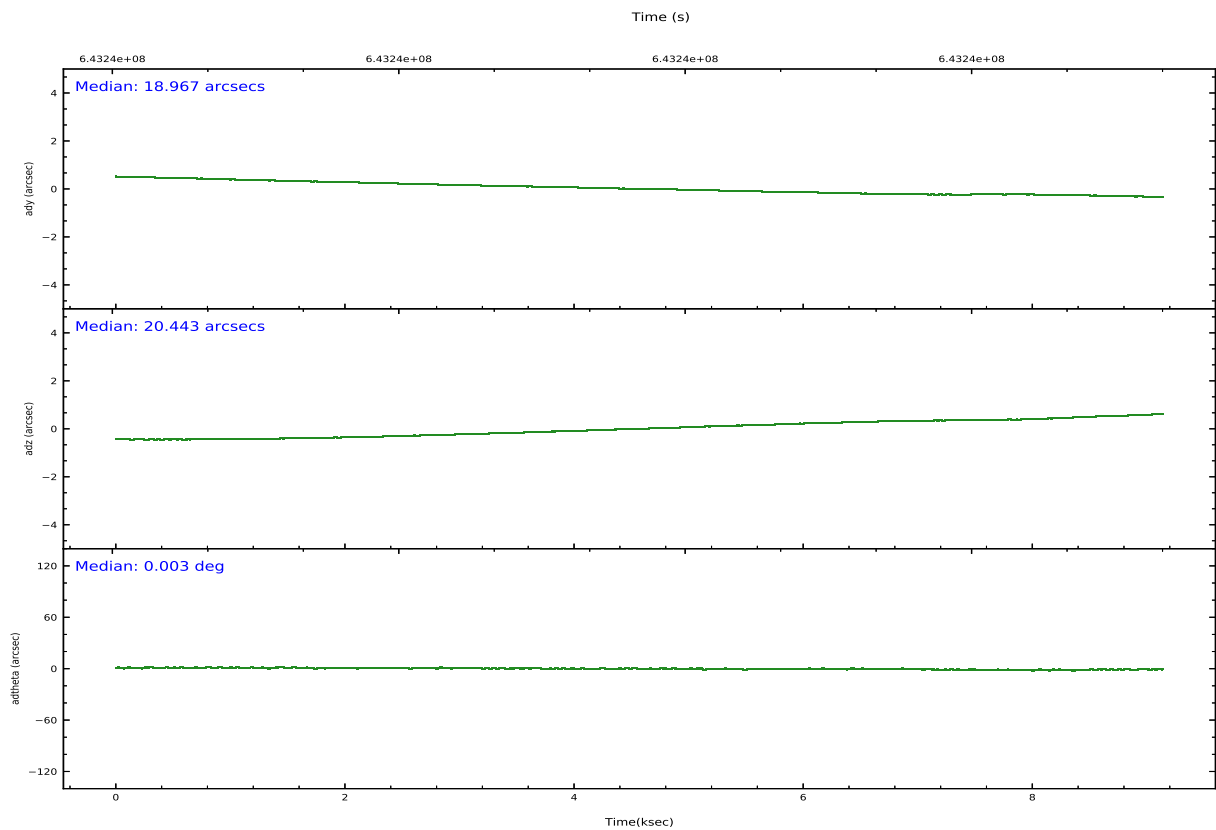
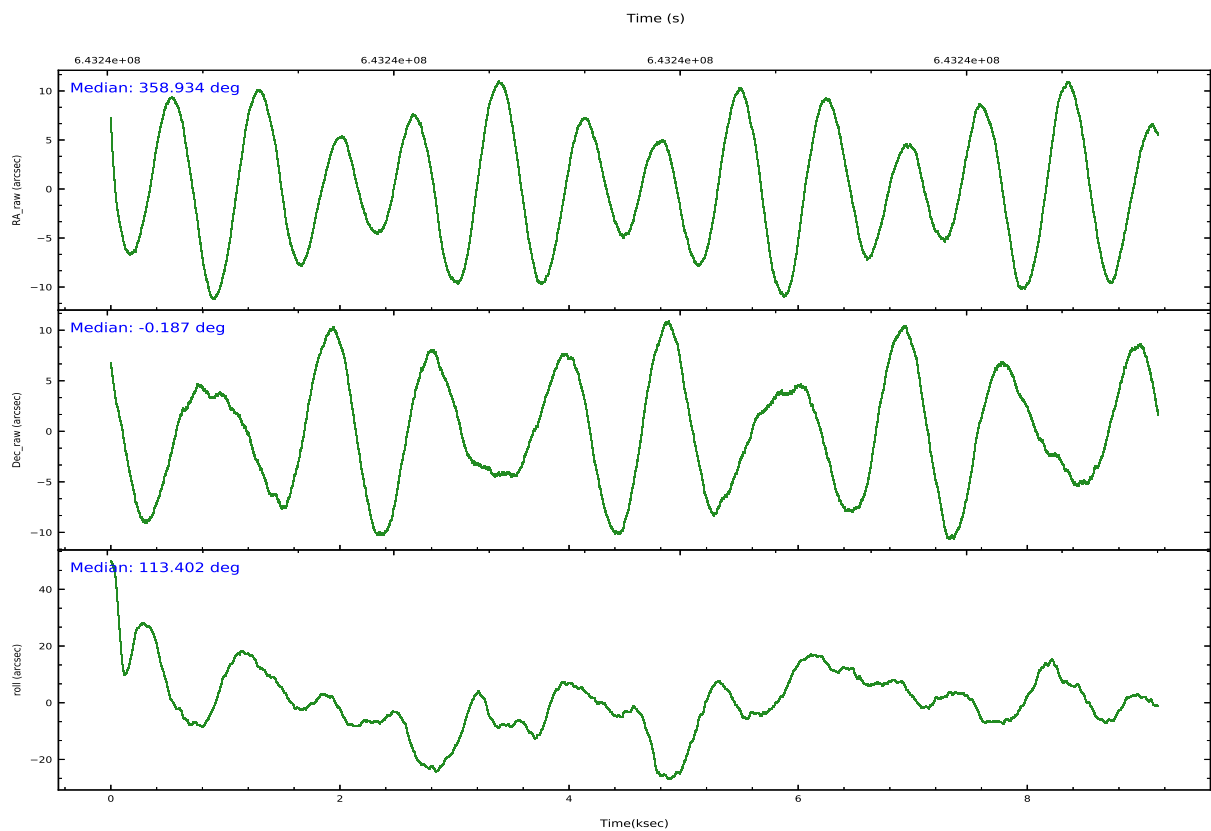
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-23678	ACIS-23678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	358.955768	358.9411269695
[deg] Pointing Dec	-0.203133	-0.18964399235043
[deg] Pointing Roll	113.263969	113.40165628338
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	643237672.184000	643236418.95206
Observation start date	2018-05-20T21:06:43	2018-05-20T20:46:58
[s] Observation end time (MET)	643246672.184000	643247791.3277299
Observation end date	2018-05-20T23:36:43	2018-05-20T23:56:31
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	N	N
CCD I1 on	N	N
CCD I2 on	O1	Y
CCD I3 on	O2	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	O3	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



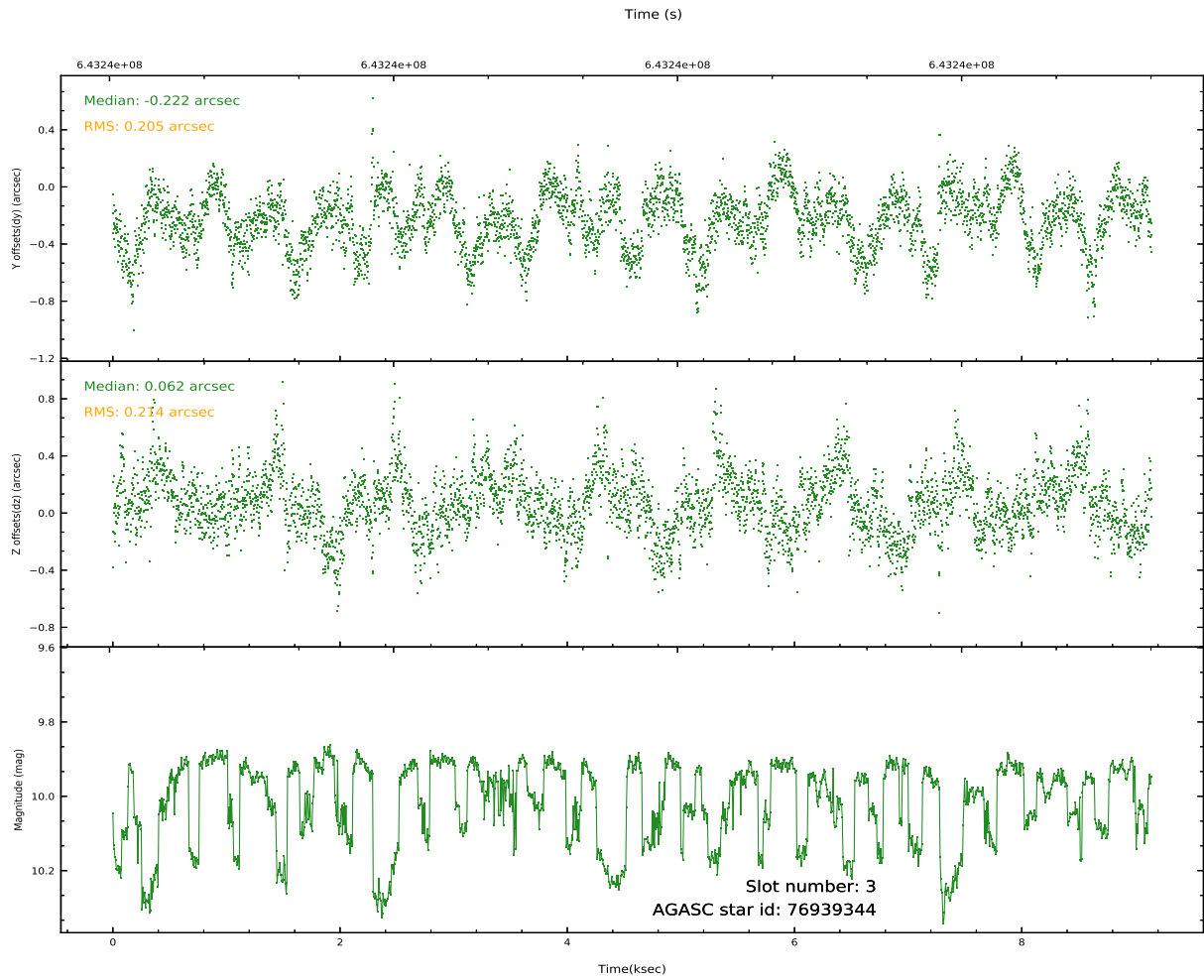
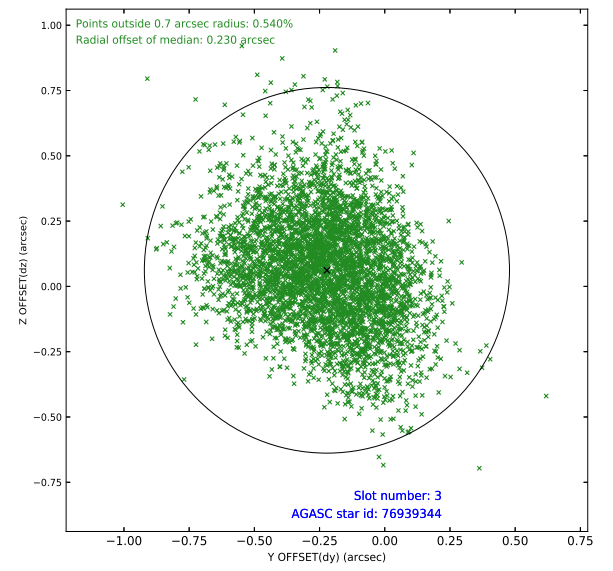
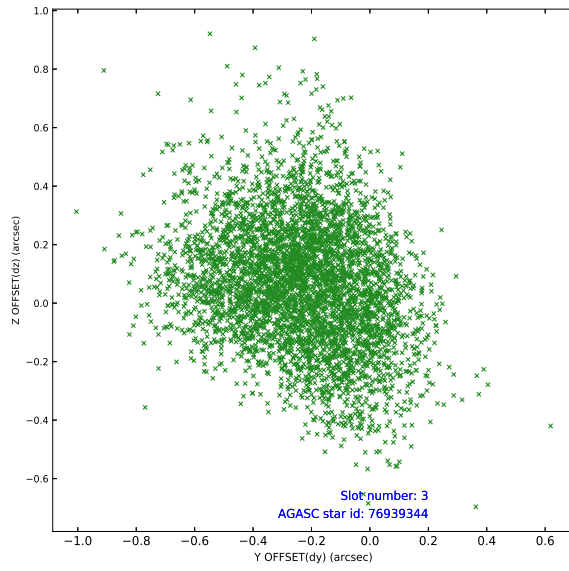


Slot Statistics

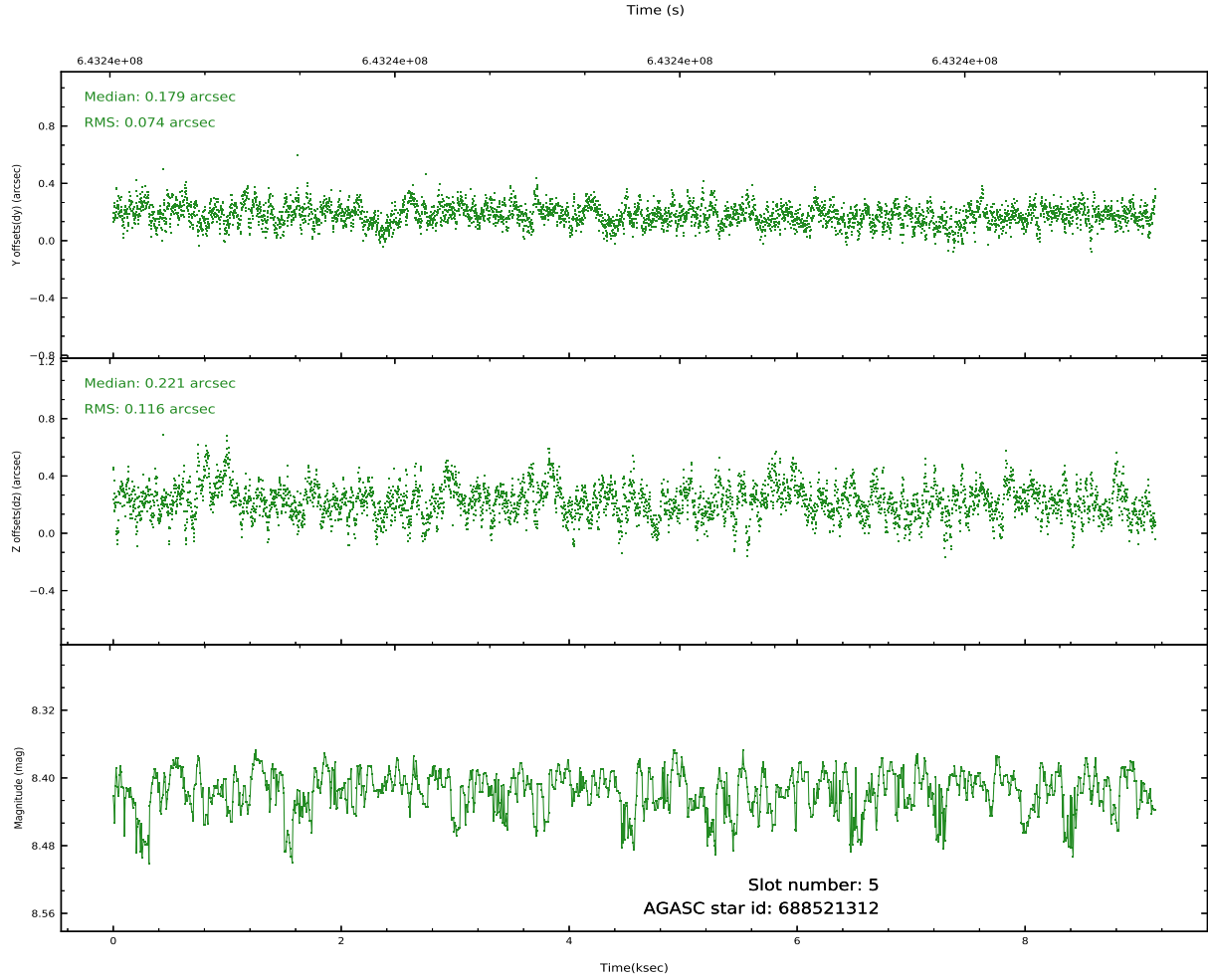
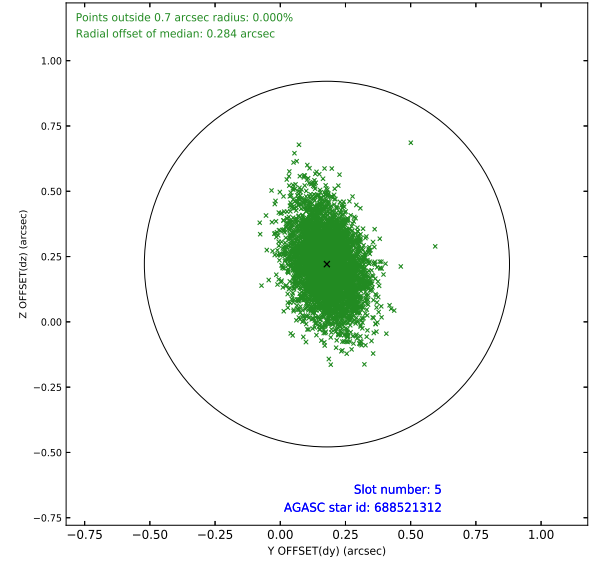
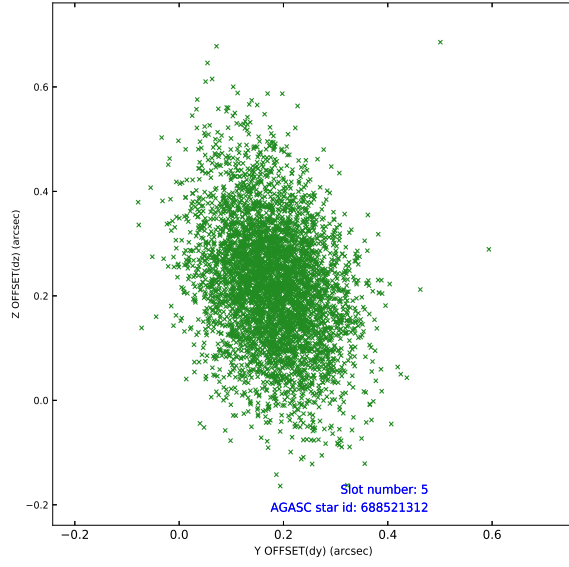
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.05	2230	1.000	0.093	-0.088	0.008	0.015	0.000000	0.000000	-772.21	-1741
1	FID		ACIS-S-4	7.16	2230	1.000	0.156	-0.021	0.007	0.015	0.000000	0.000000	2141.09	165
2	FID		ACIS-S-5	7.15	2228	1.000	-0.280	0.118	0.008	0.013	0.000000	0.000000	-1824.43	160
3	GUIDE	used	76939344	9.98	4444	1.000	-0.222	0.062	0.312	0.509	359.239870	0.159162	793.42	-1454
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
5	GUIDE	used	688521312	8.41	4460	1.000	0.179	0.221	0.143	0.251	359.794684	-0.499831	-2173.54	-2352
6	GUIDE	used	688522200	9.85	4452	1.000	-0.007	-0.366	0.257	0.403	358.964663	-0.559880	-1193.05	476
7	GUIDE	used	688522368	9.57	4448	1.000	0.058	0.071	0.253	0.425	359.208550	-0.509657	-1373.27	-400

2.4 Star Slots

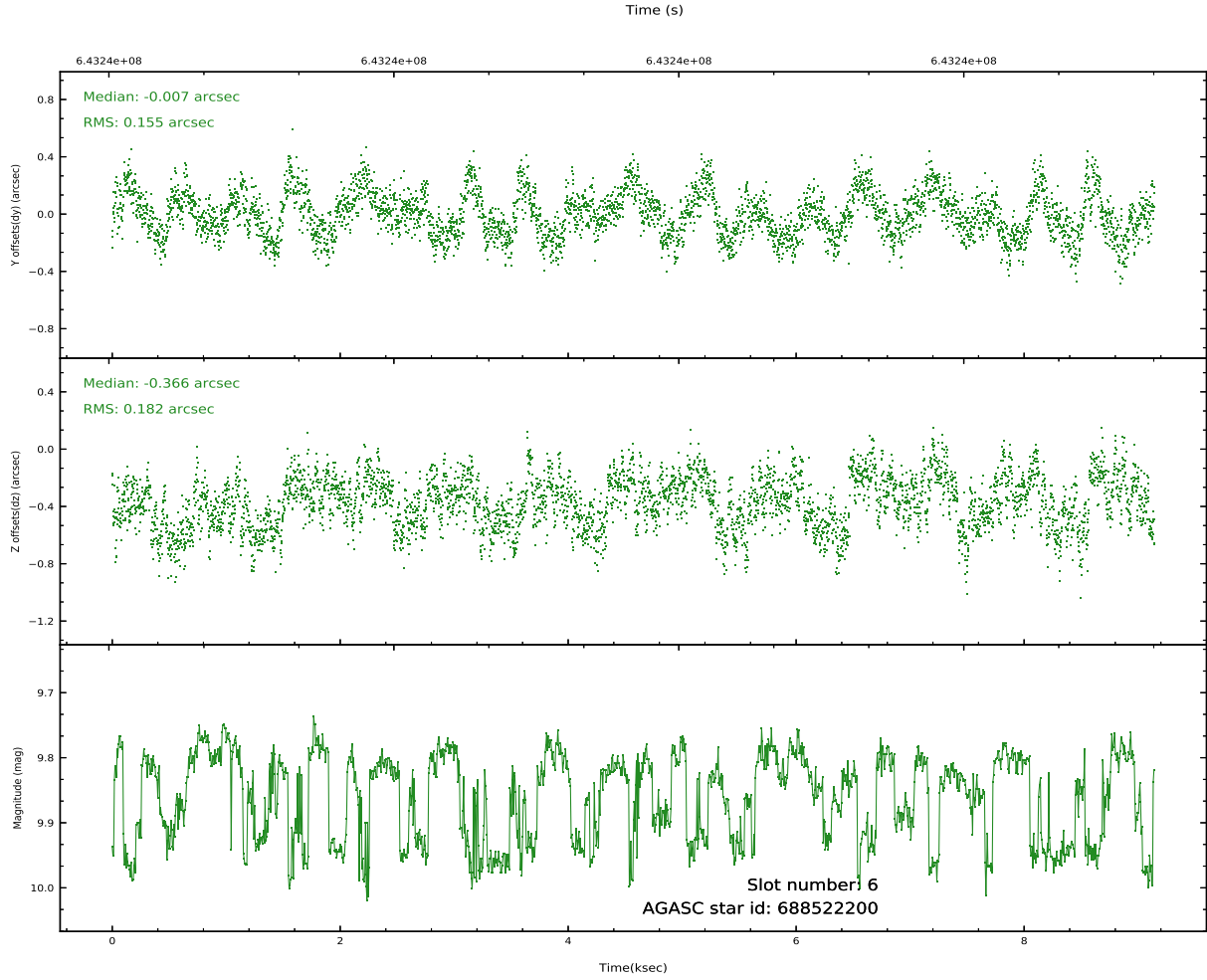
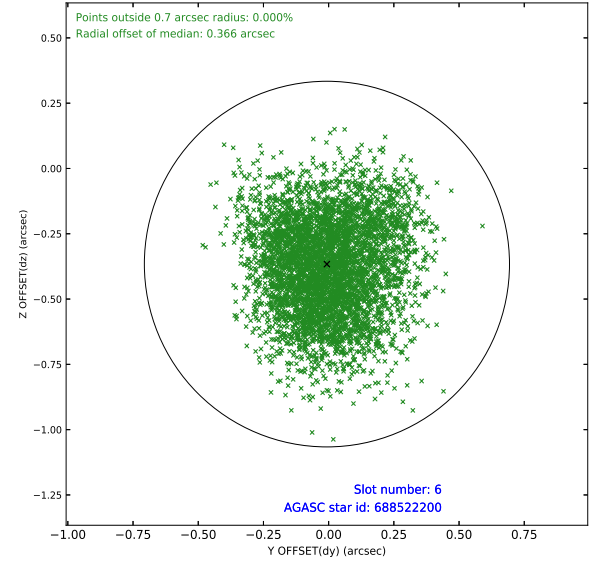
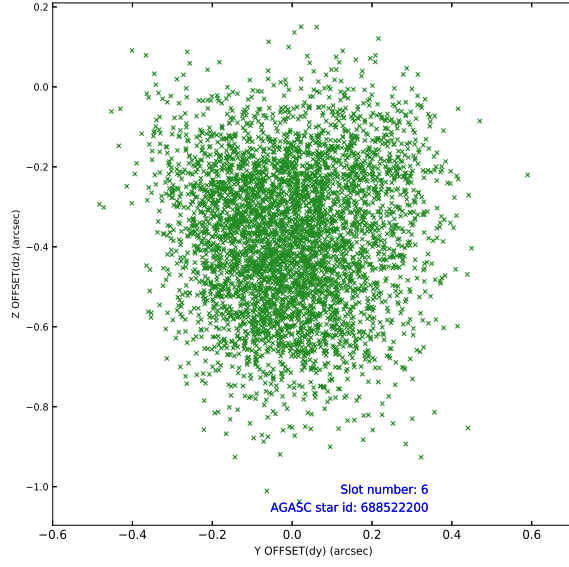
2.4.1 Slot 3



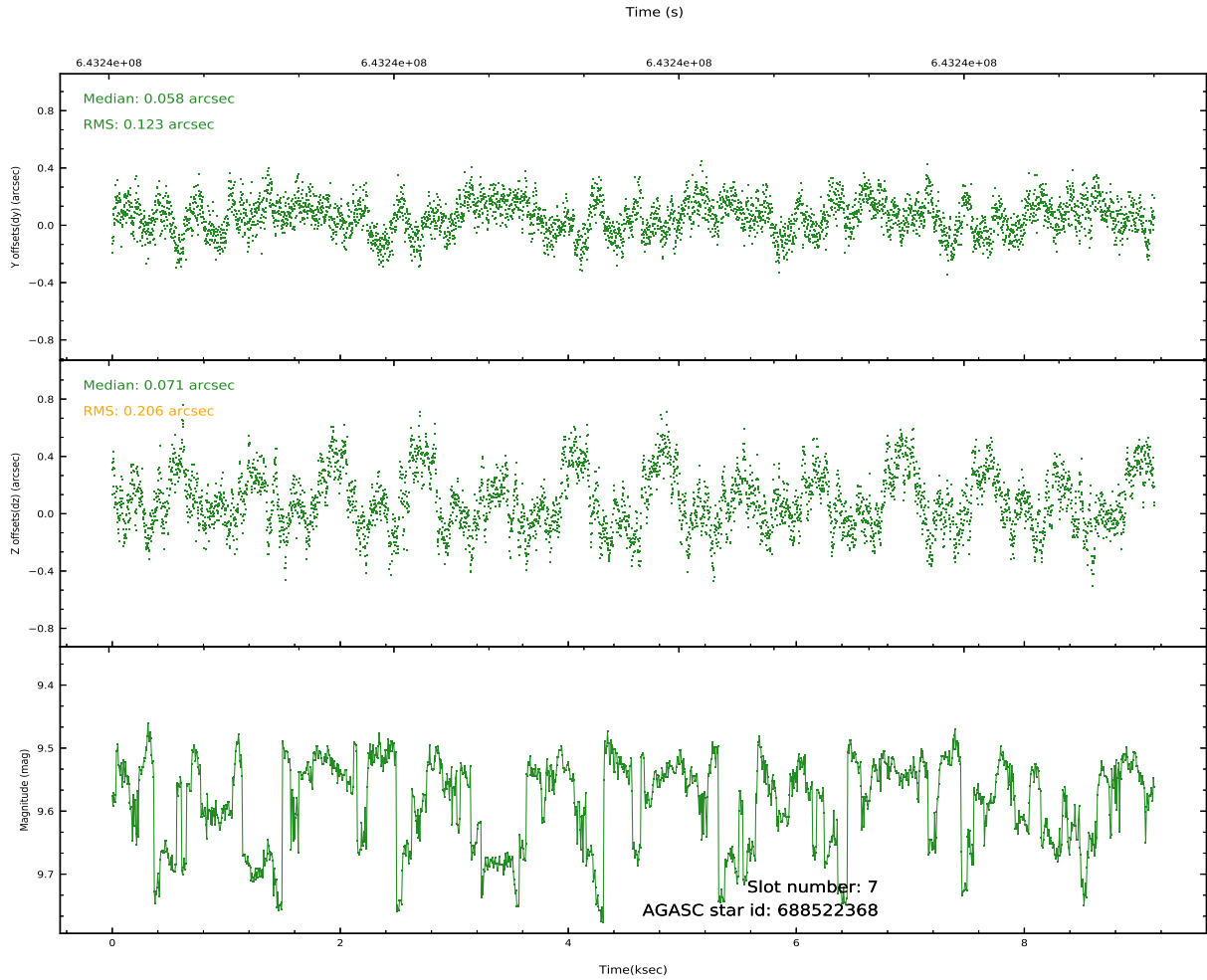
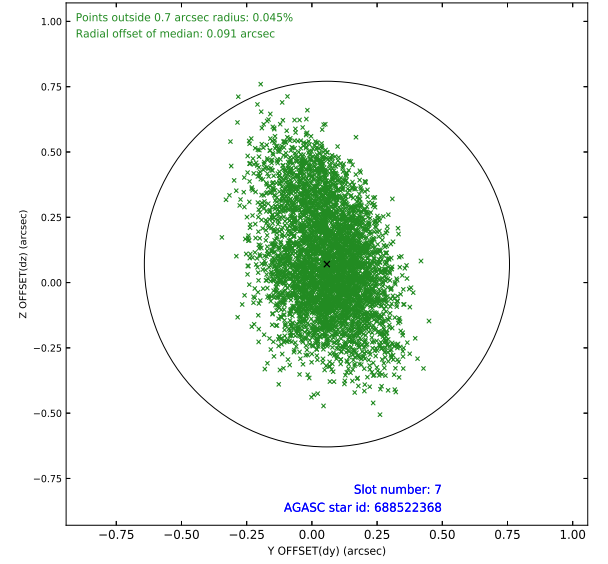
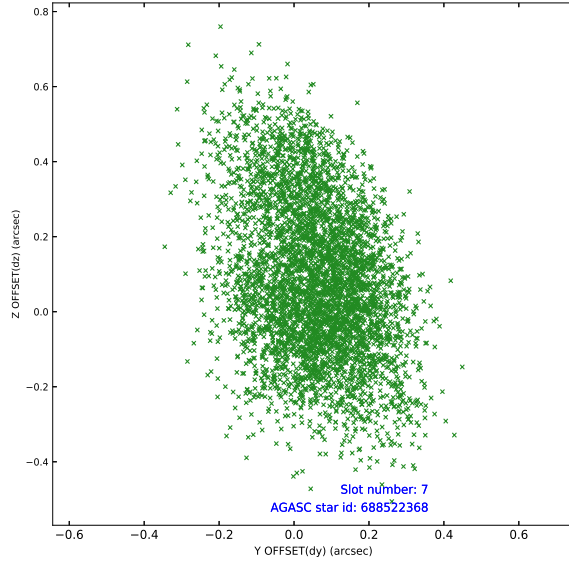
2.4.2 Slot 5



2.4.3 Slot 6

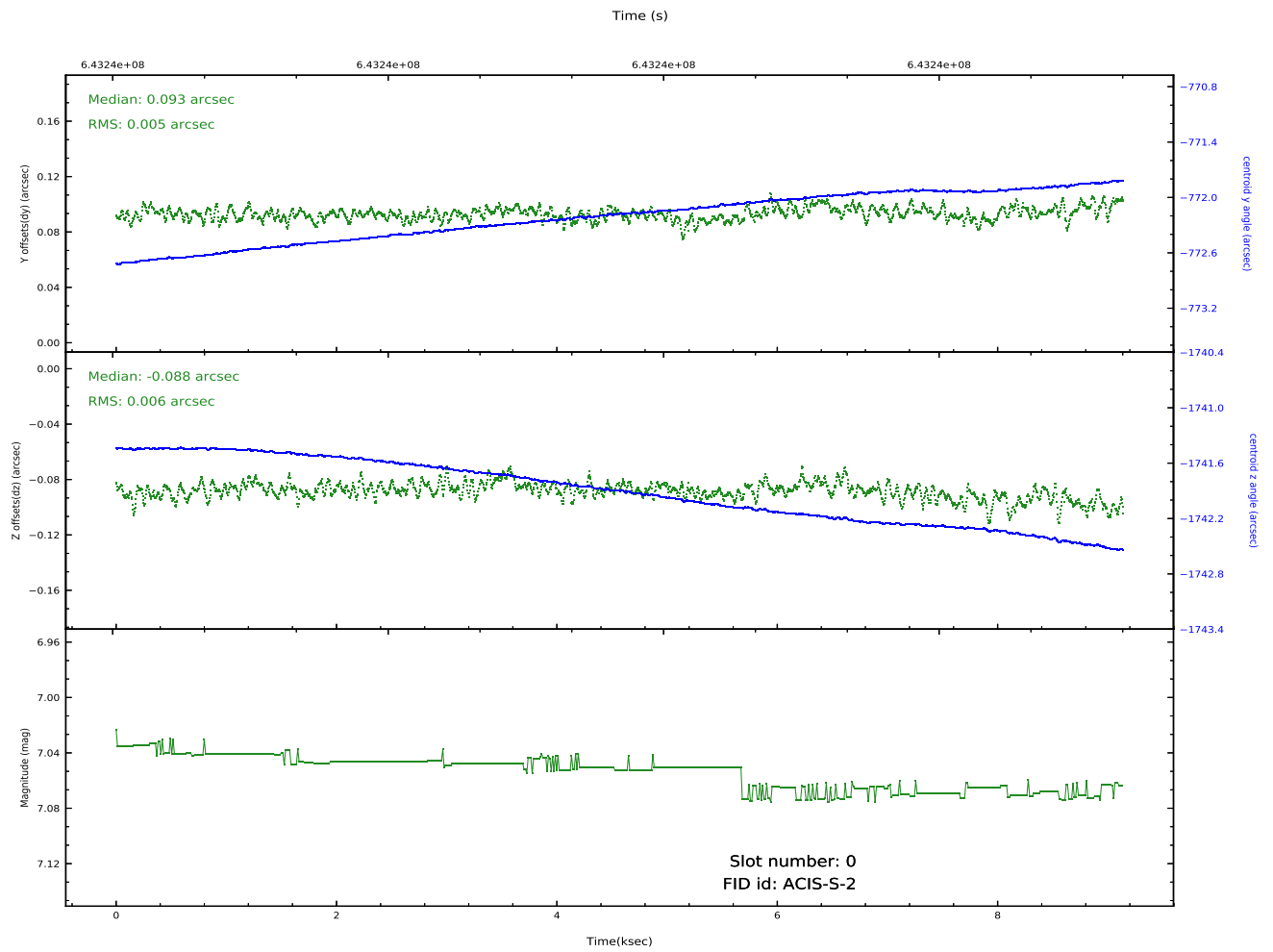
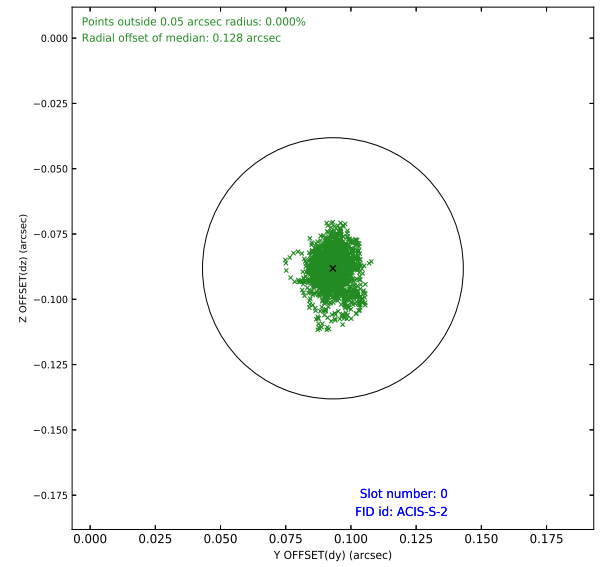
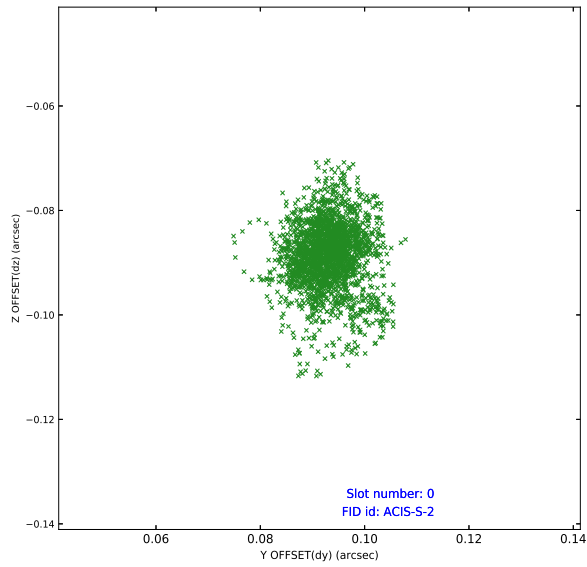


2.4.4 Slot 7

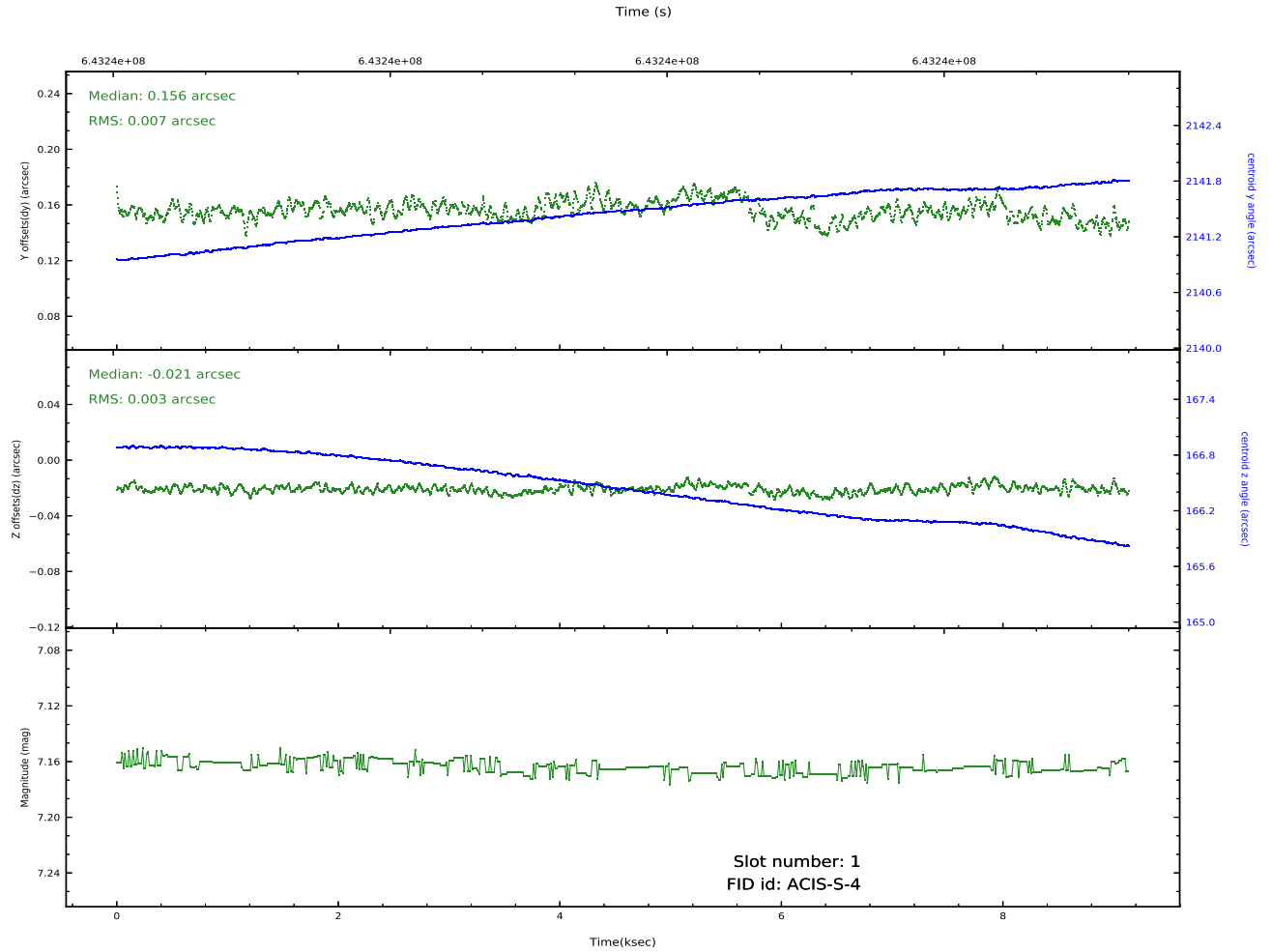
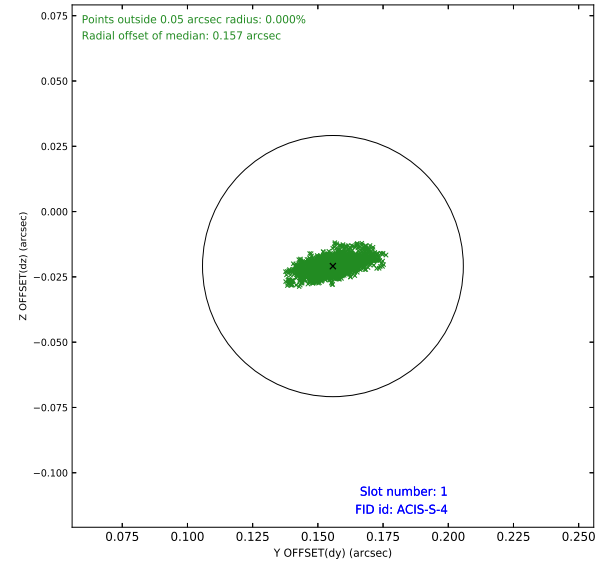
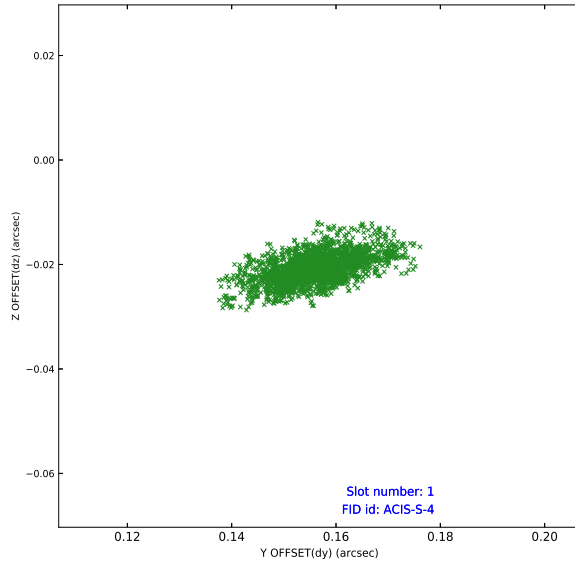


2.5 FID Slots

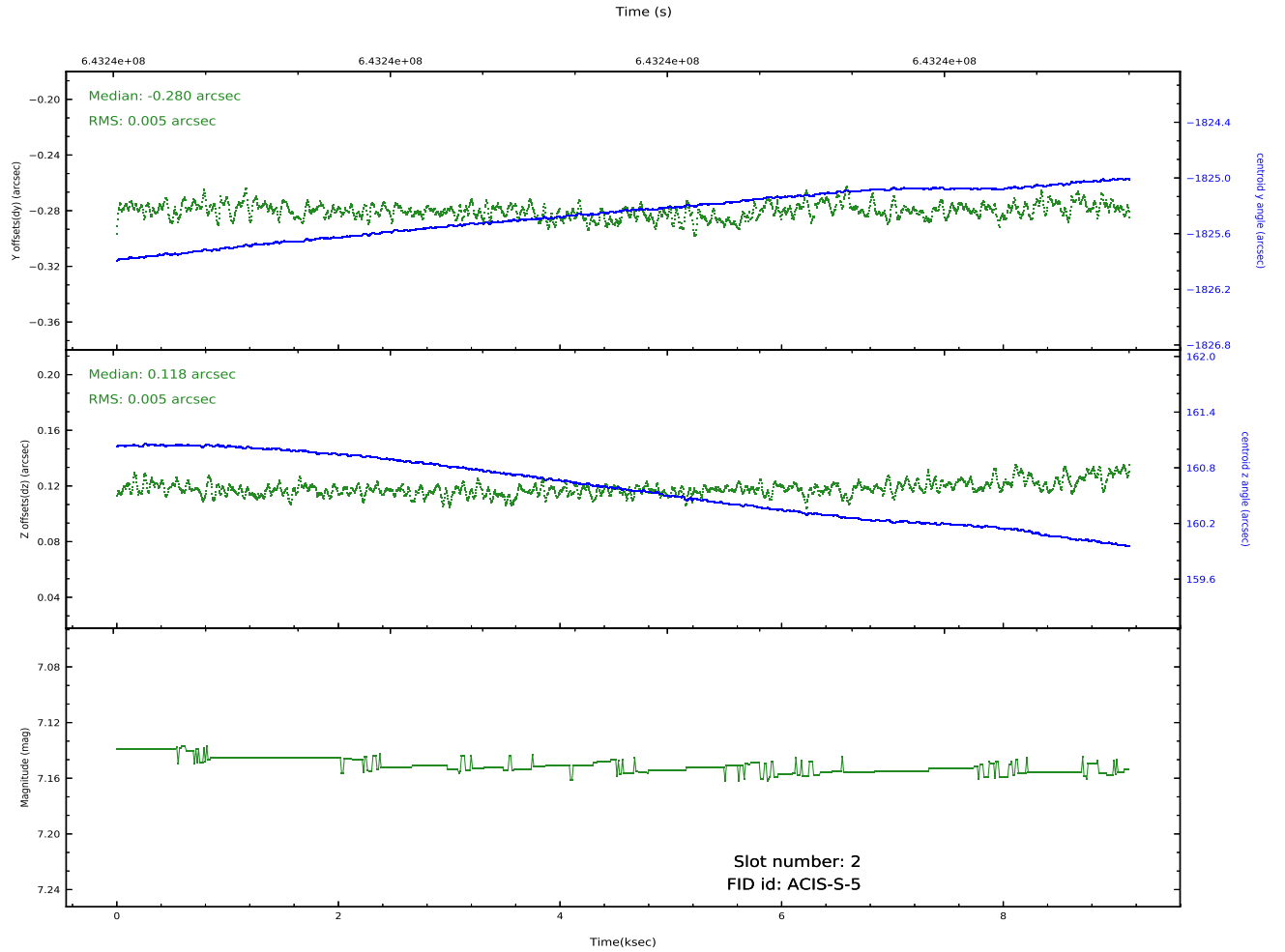
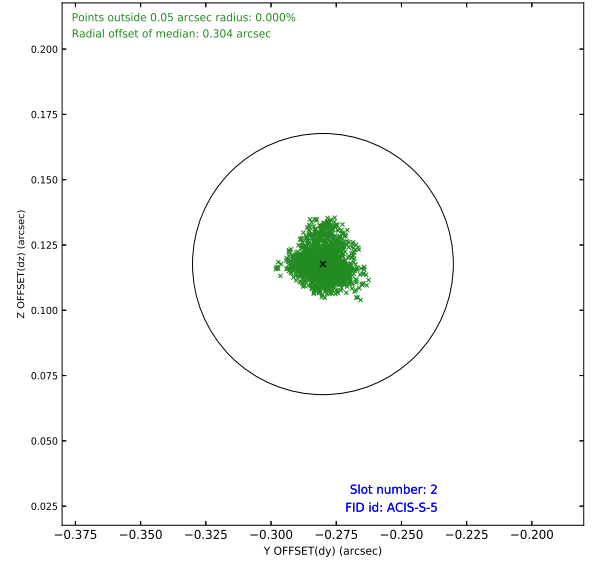
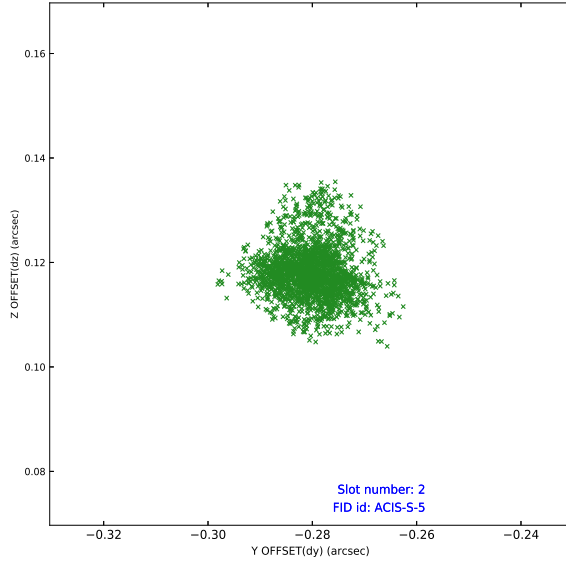
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2020.10.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.0540681458712

A.2 Comments

The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.