

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21252 - L2 Version 1
Chandra X-Ray Center

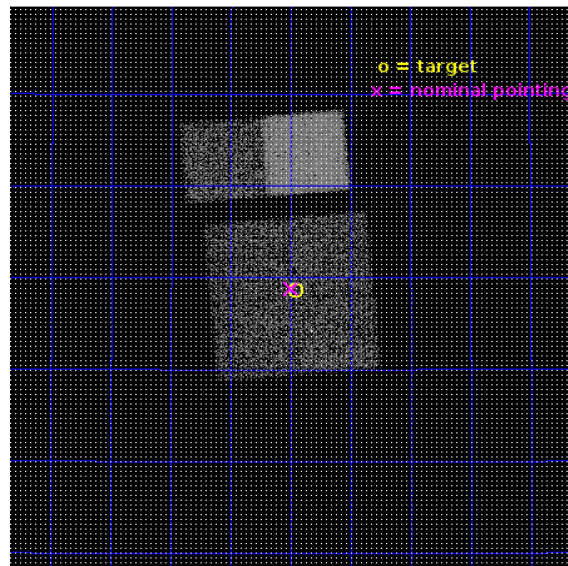
L2 Processing Date : Jan 12 2019

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 4	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

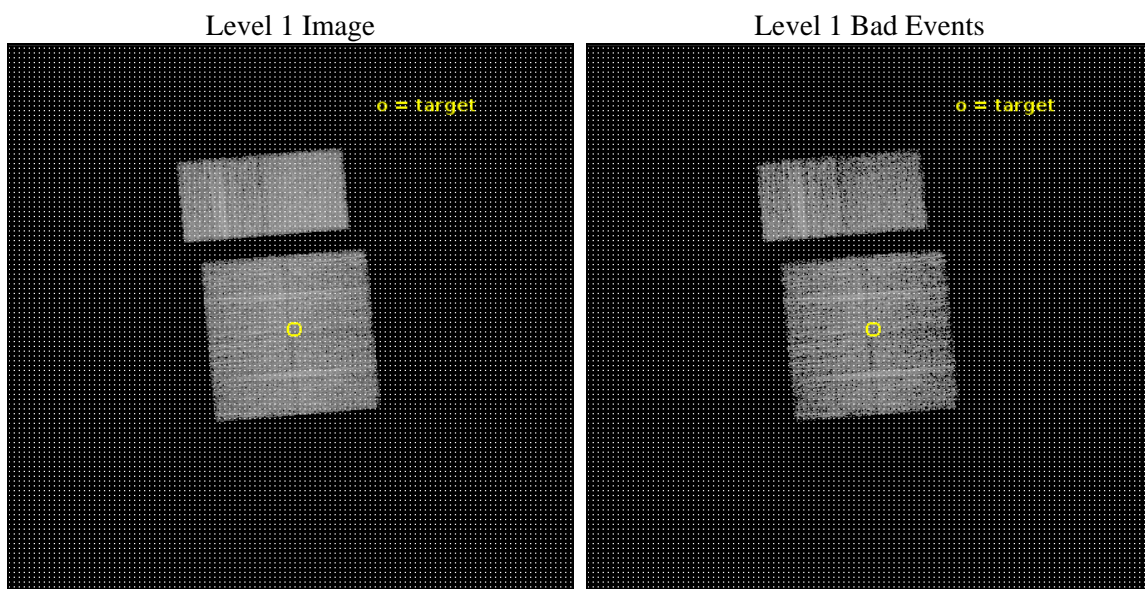
seq_num	402084	Sequence number
obs_id	21252	Observation id
title	The Nature of INTEGRAL Sources in the Galactic Plane	Proposal titl
observer	John Tomsick	Principal investigator
object	IGR J19504+3318	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	297.615	Observer's specified target RA [deg]
dec_targ	33.311	Observer's specified target Dec [deg]
ra_nom	297.62368537157	Nominal RA [deg]
dec_nom	33.313547641879	Nominal Dec [deg]
roll_nom	354.99244413781	Nominal Roll [deg]
revision	1	Processing version of data
ontime	4953.6000738144	Sum of GTIs [s]
livetime	4890.8746069799	Livetime [s]
ontime0	4953.6000738144	Sum of GTIs [s]
ontime1	4953.6000738144	Sum of GTIs [s]
ontime2	4953.6000738144	Sum of GTIs [s]
ontime3	4953.6000738144	Sum of GTIs [s]
ontime6	4953.6000738144	Sum of GTIs [s]
ontime7	4953.6000738144	Sum of GTIs [s]
l2events	37868	Number of level 2 events



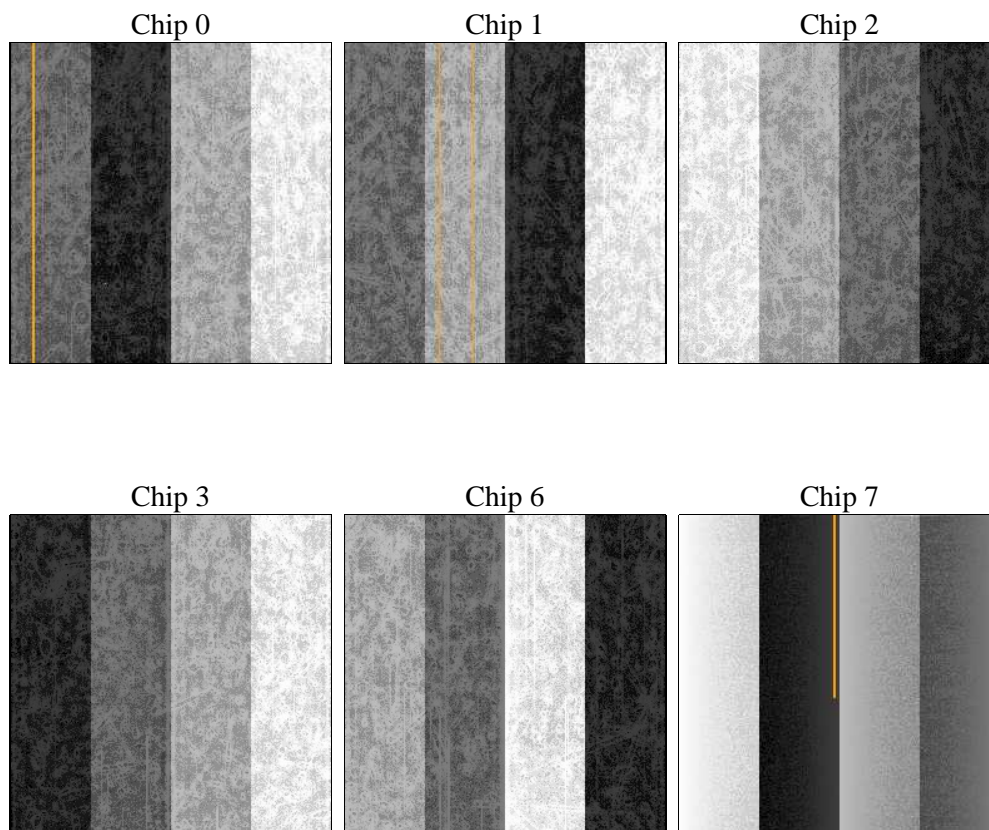
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	4953.6000738144	Sum of GTIs [s]
caldsver	4.8.2	 	ontime0	4953.6000738144	Sum of GTIs [s]
date	2019-01-12T14:48:05	Date and time of file creation	ontime1	4953.6000738144	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	4953.6000738144	Sum of GTIs [s]
			ontime3	4953.6000738144	Sum of GTIs [s]
			ontime6	4953.6000738144	Sum of GTIs [s]
			ontime7	4953.6000738144	Sum of GTIs [s]
			l1events	225096	Number of level 1 events

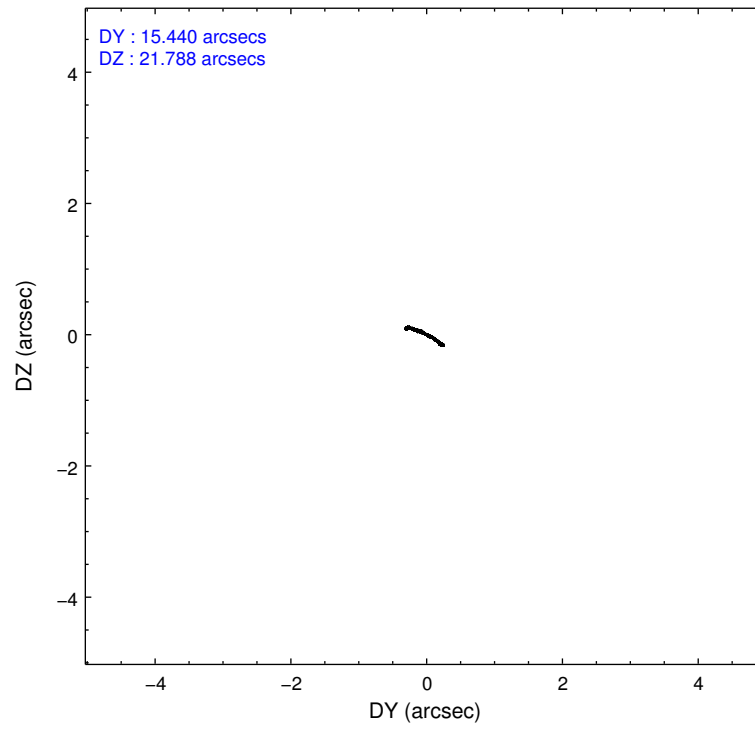
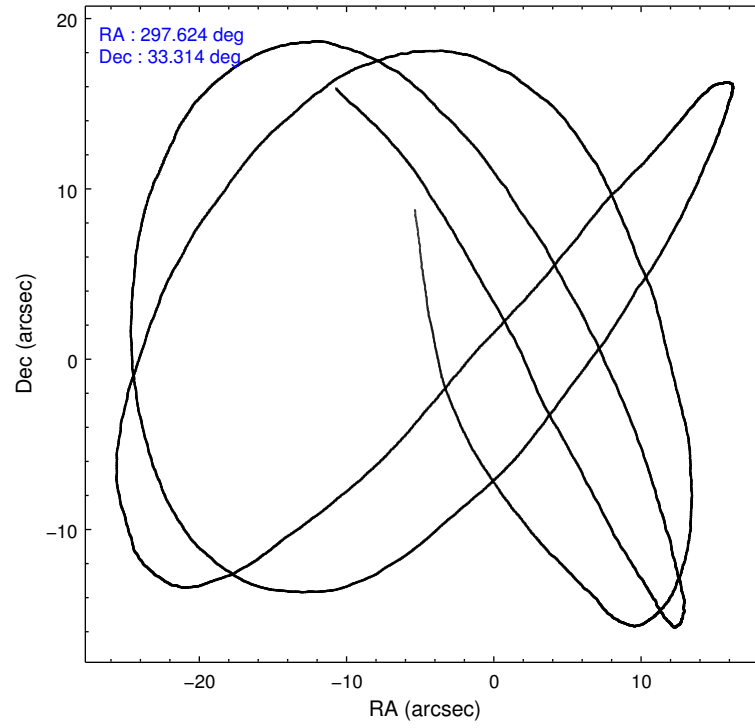
2.1.4 Events

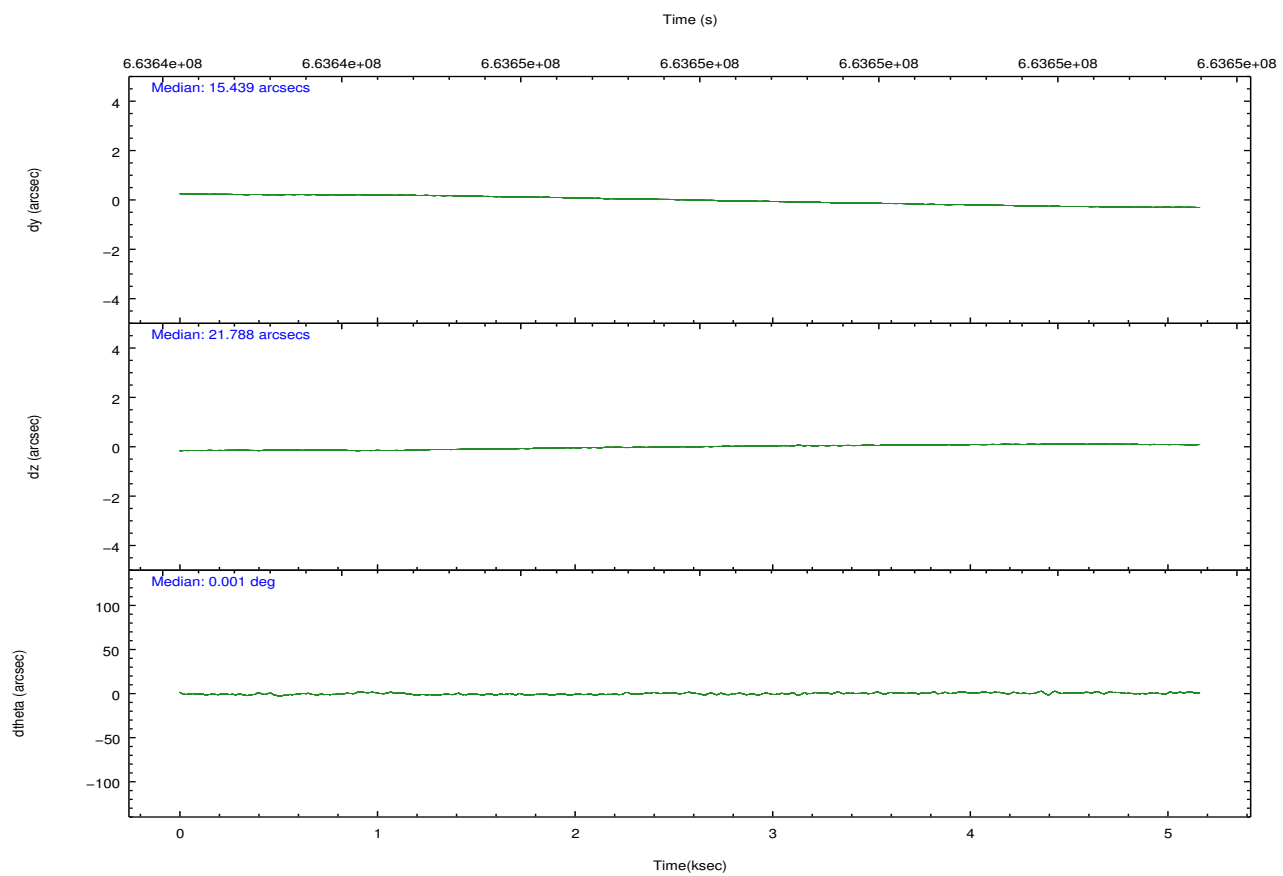
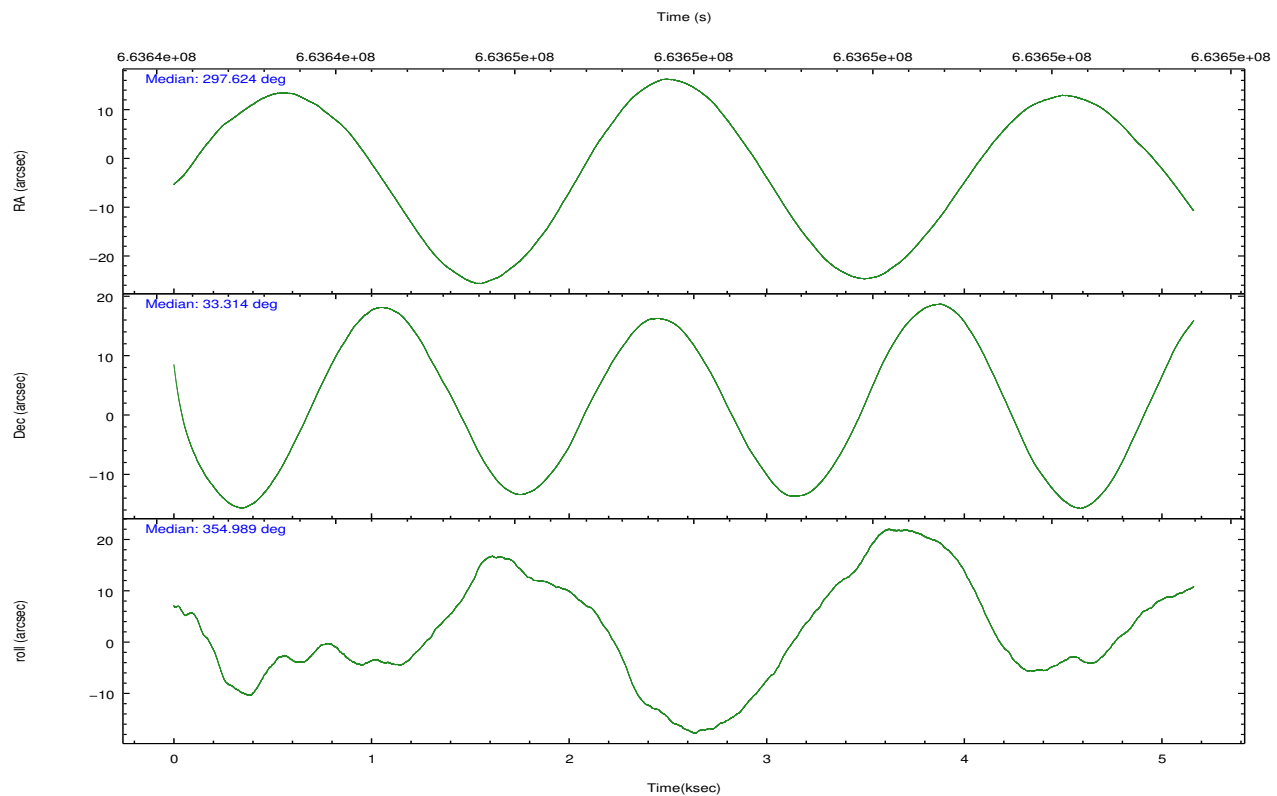
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	33031	33664	37741	35789	38156	46715	grade 0 events	1345	1867	1362	1445	1340	1736
rejected events	29043	28494	33895	31914	33888	26336		4%	5%	3%	4%	3%	3%
rejected %	87%	84%	89%	89%	88%	56%	grade 1 events	15	24	16	17	18	65
								0%	0%	0%	0%	0%	0%
							grade 2 events	994	1399	935	787	1064	4348
								3%	4%	2%	2%	2%	9%
							grade 3 events	408	446	355	358	408	1548
								1%	1%	0%	1%	1%	3%
							grade 4 events	350	396	371	450	378	1538
								1%	1%	0%	1%	0%	3%
							grade 5 events	1434	1525	1420	1722	1642	4497
								4%	4%	3%	4%	4%	9%
							grade 6 events	892	1063	824	836	1086	11227
								2%	3%	2%	2%	2%	24%
							grade 7 events	27593	26944	32458	30174	32220	21756
								83%	80%	86%	84%	84%	46%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	297.593209	297.6236853715664	CCD I2 on	Y	Y
[deg] Pointing Dec	33.302125	33.31354764187905	CCD I3 on	Y	Y
[deg] Pointing Roll	354.800501	354.9924441378137	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O2	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	663644508.184000	663643397.3941801	CCD S5 on	N	N
Observation start date	2019-01-12T01:40:39	2019-01-12T01:23:17	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	663649508.184000	663650471.4321001	On-chip summing requested	N	N
Observation end date	2019-01-12T03:03:59	2019-01-12T03:21:11	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



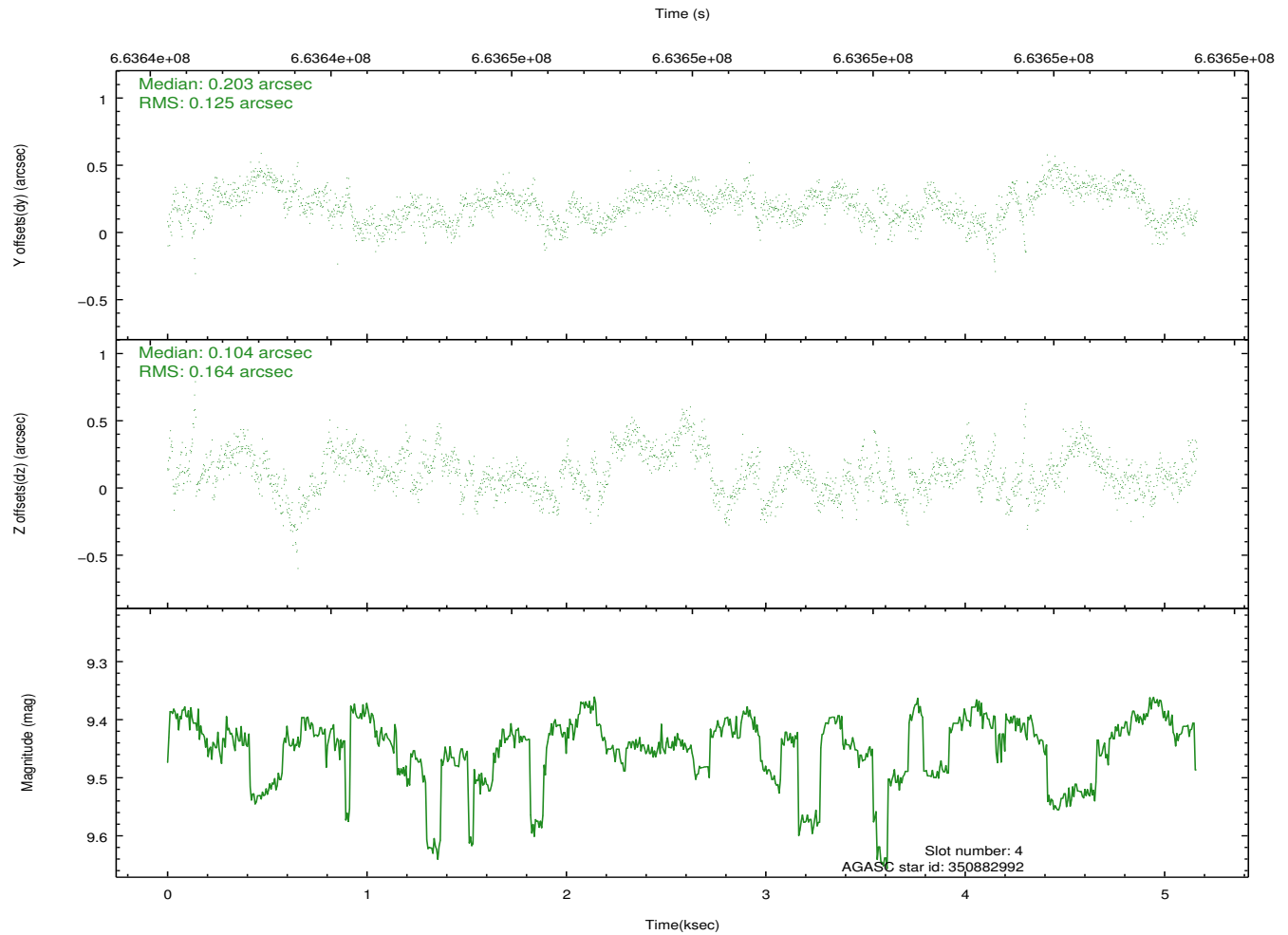
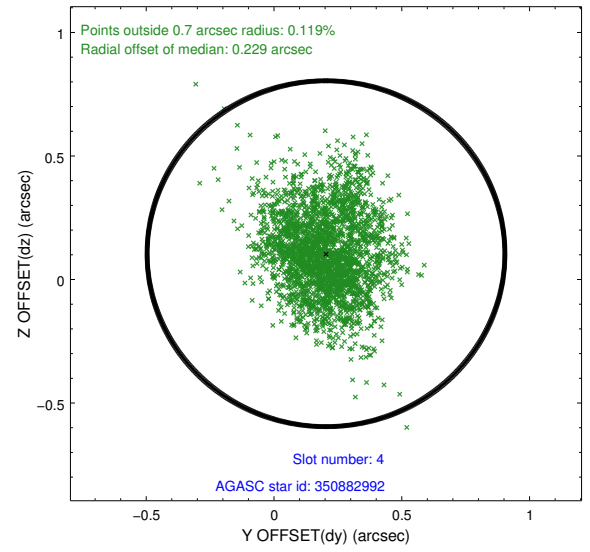
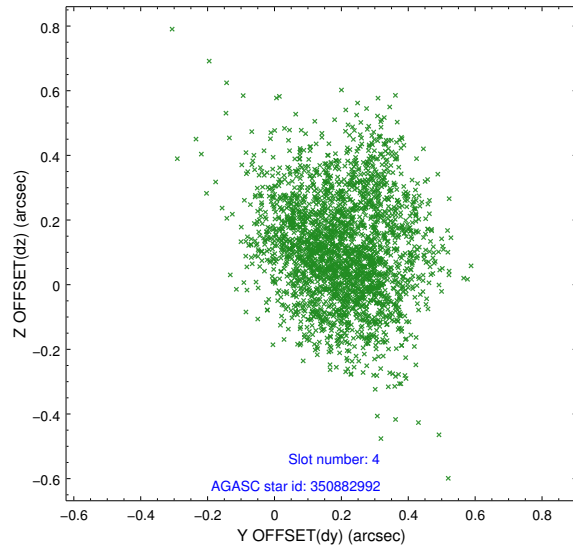


Slot Statistics

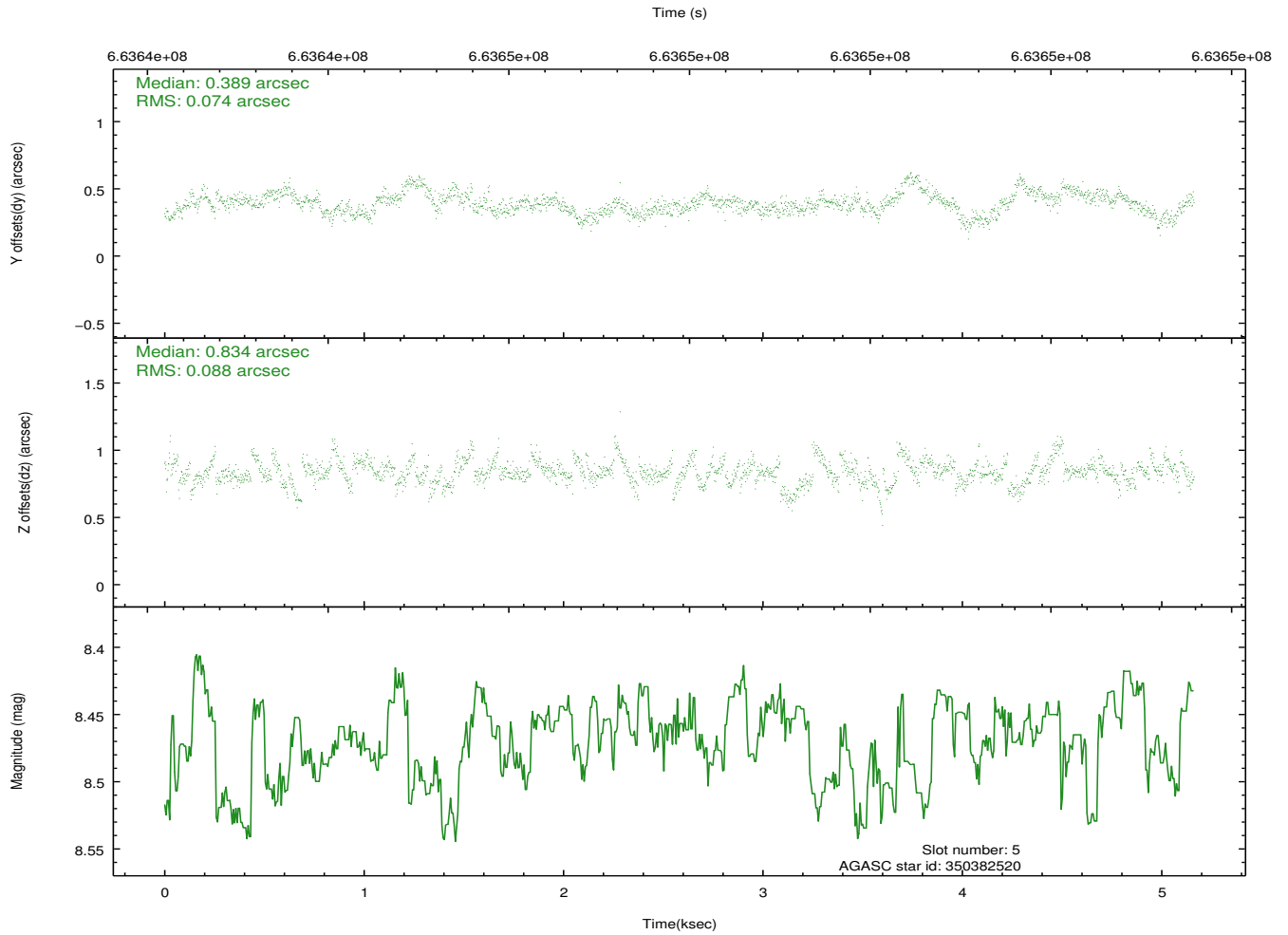
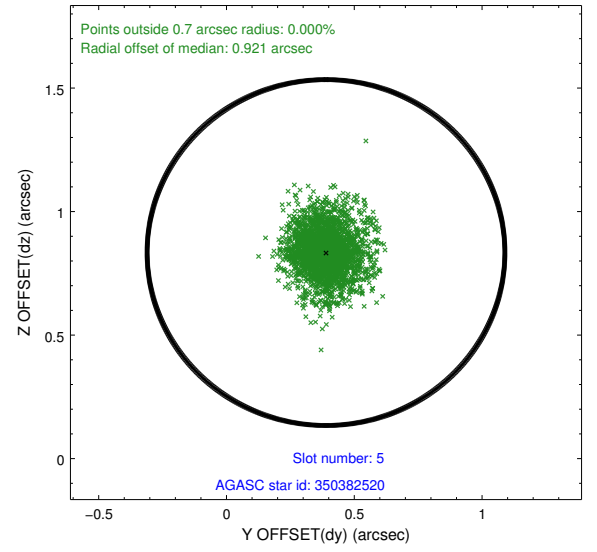
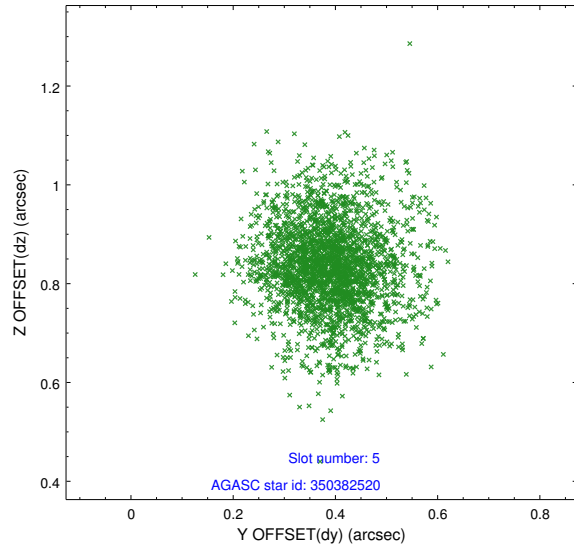
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.25	1259	1.000	0.178	0.012	0.010	0.018	0.000000	0.000000	924.15	-845
1	FID		ACIS-I-2	7.15	1260	1.000	-0.309	-0.139	0.011	0.021	0.000000	0.000000	-769.78	-852
2	FID		ACIS-I-6	7.27	1259	1.000	0.040	0.194	0.014	0.027	0.000000	0.000000	389.24	1695
3	UNUSED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
4	GUIDE	used	350882992	9.44	2513	1.000	0.203	0.104	0.219	0.349	297.388223	33.762141	-762.74	1594
5	GUIDE	used	350382520	8.47	2519	1.000	0.389	0.834	0.121	0.207	297.212570	32.672229	-944.88	-2359
6	GUIDE	used	350884960	8.99	2513	1.000	-0.459	-0.358	0.199	0.324	297.741058	33.901812	241.76	2189
7	GUIDE	used	350882840	9.30	2508	1.000	-0.142	-0.596	0.210	0.343	298.174885	33.825304	1559.57	2038

2.4 Star Slots

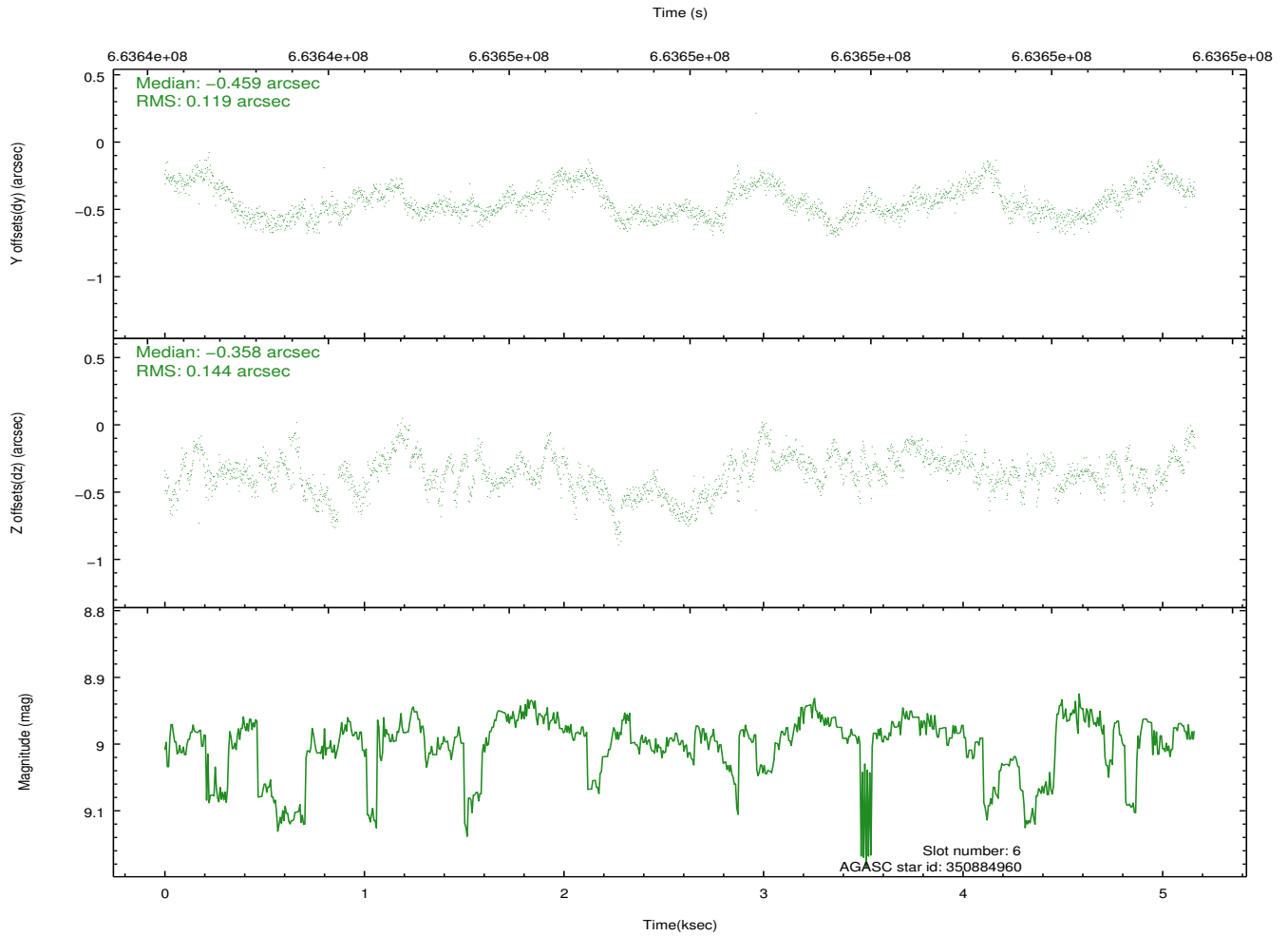
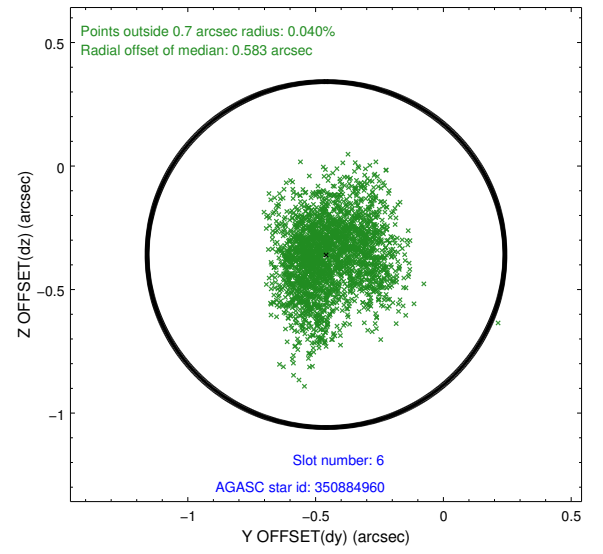
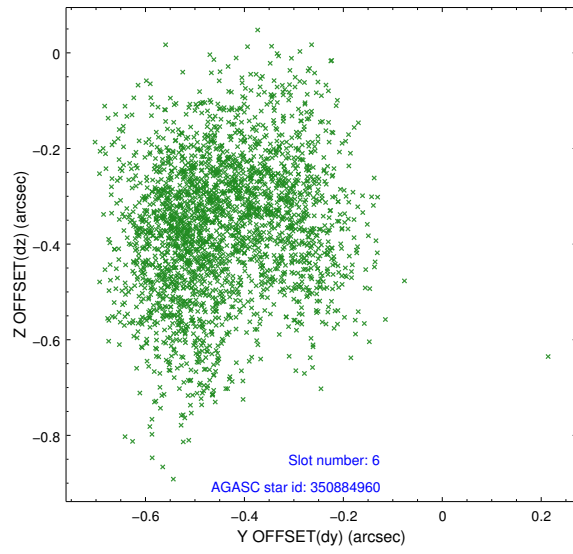
2.4.1 Slot 4



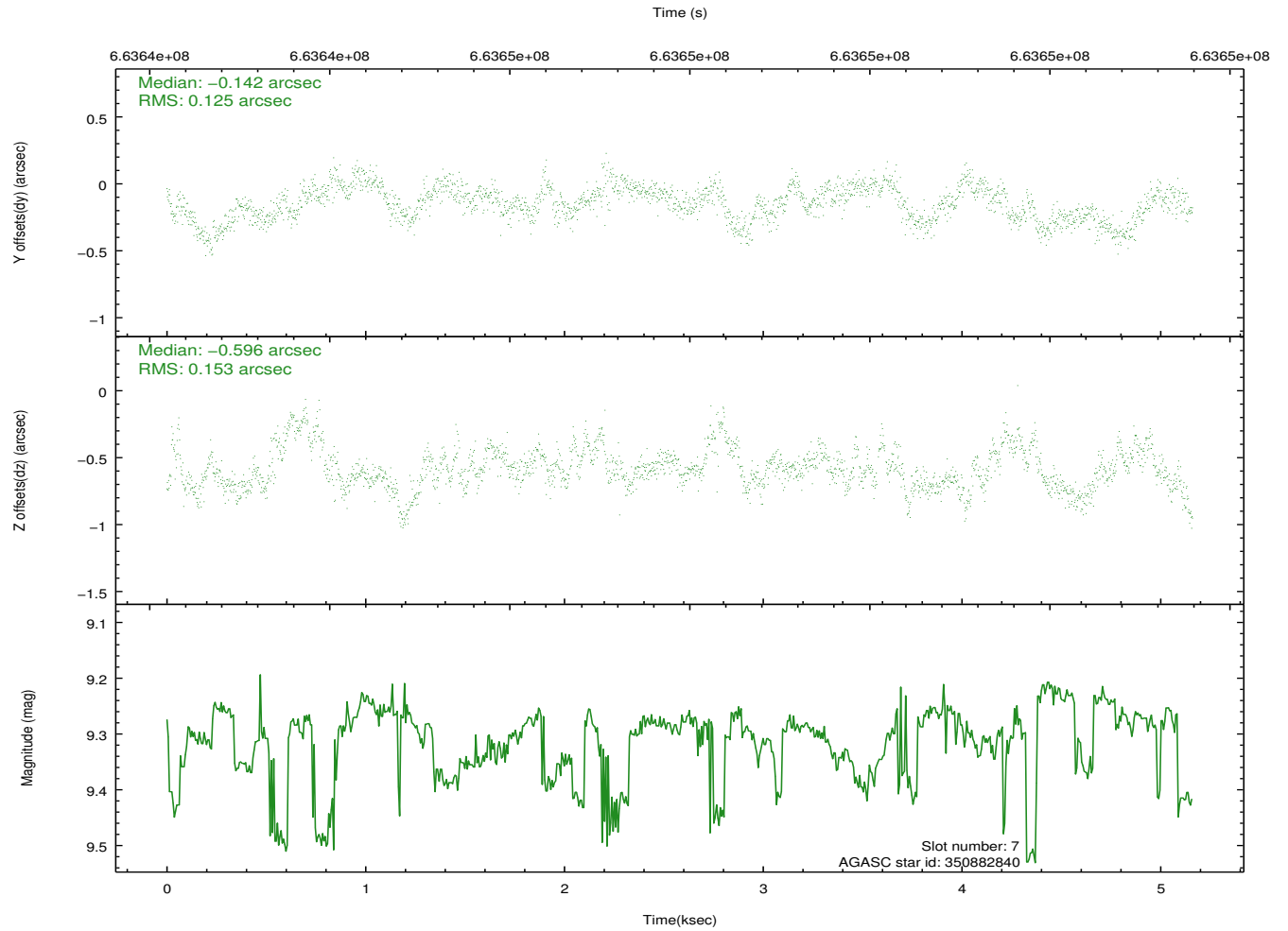
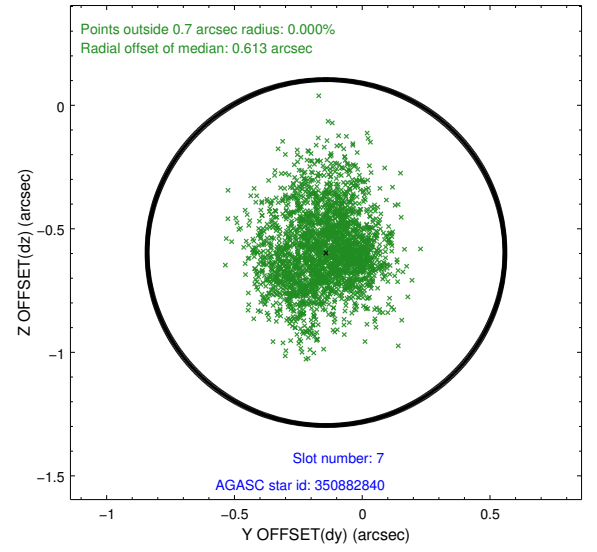
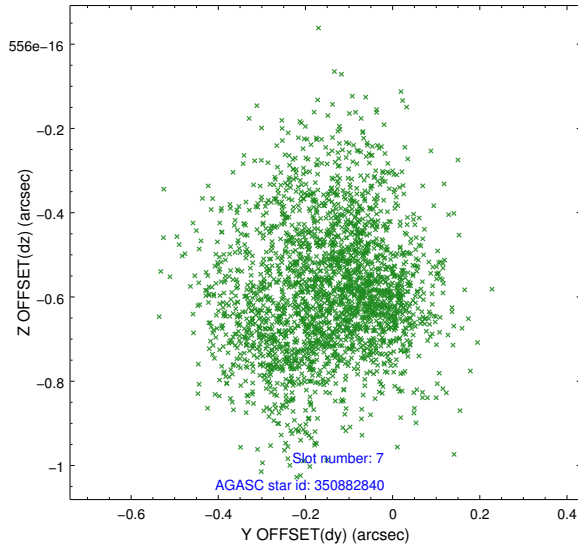
2.4.2 Slot 5



2.4.3 Slot 6

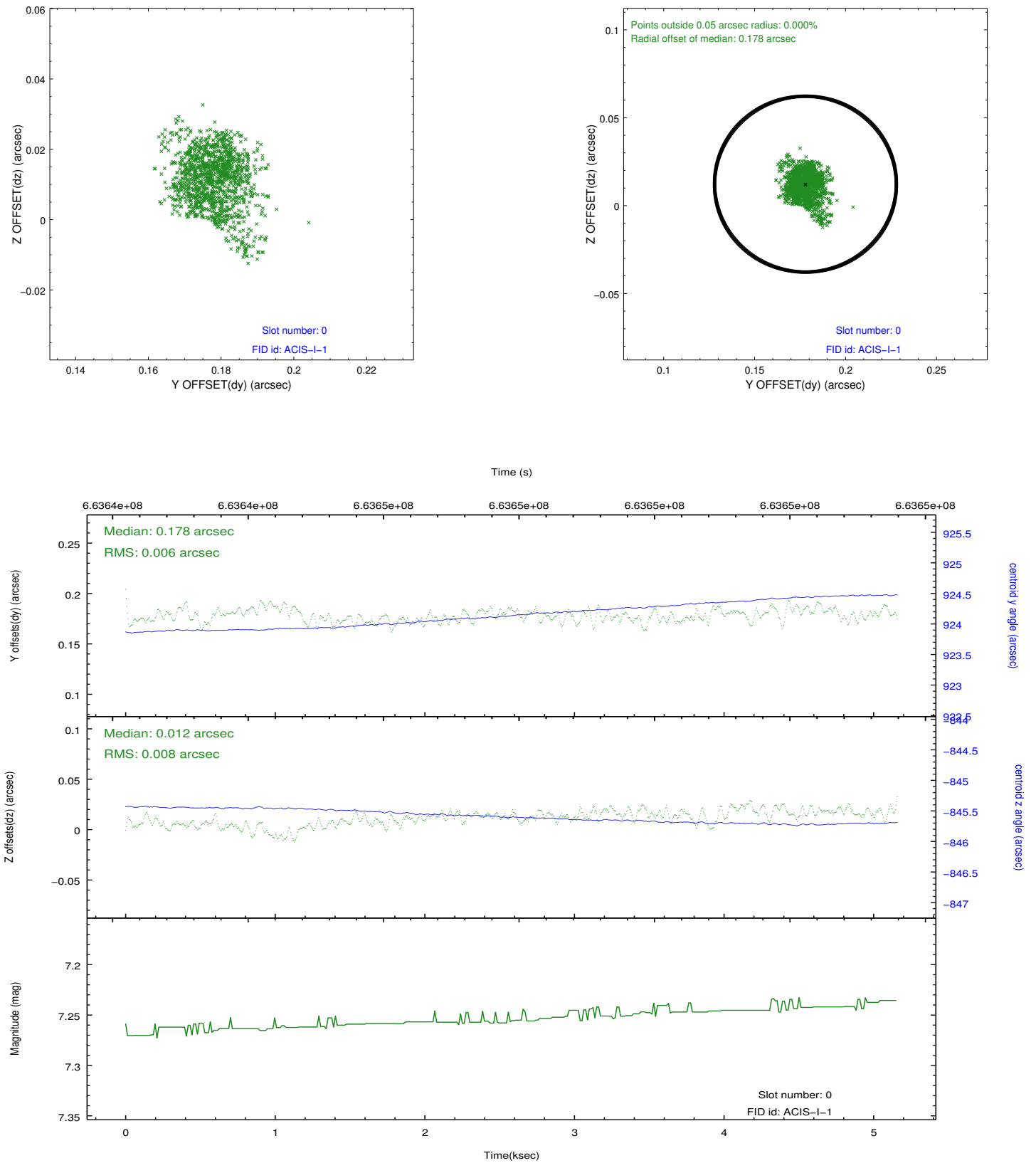


2.4.4 Slot 7

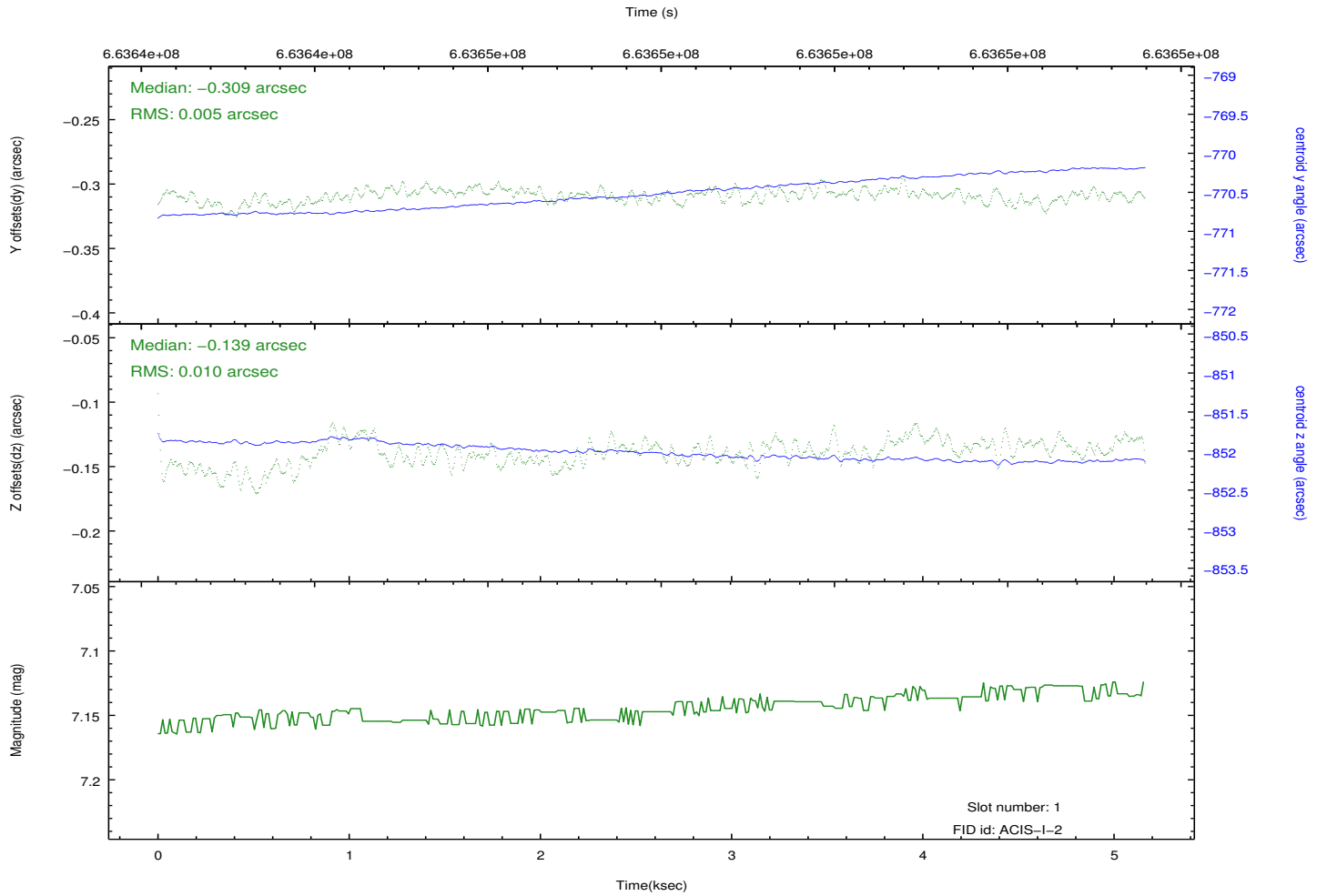
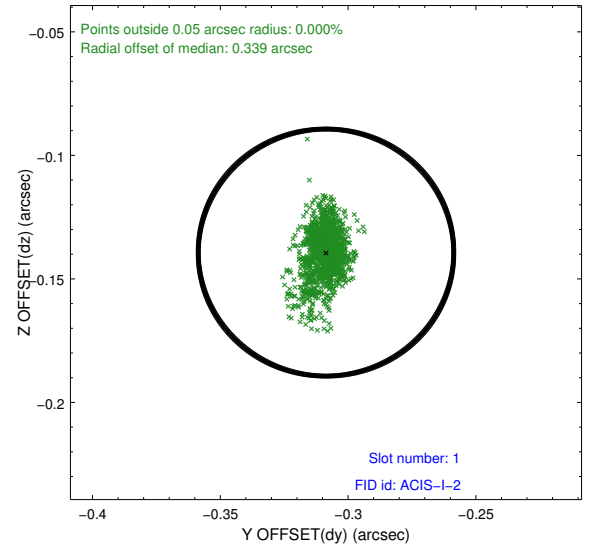
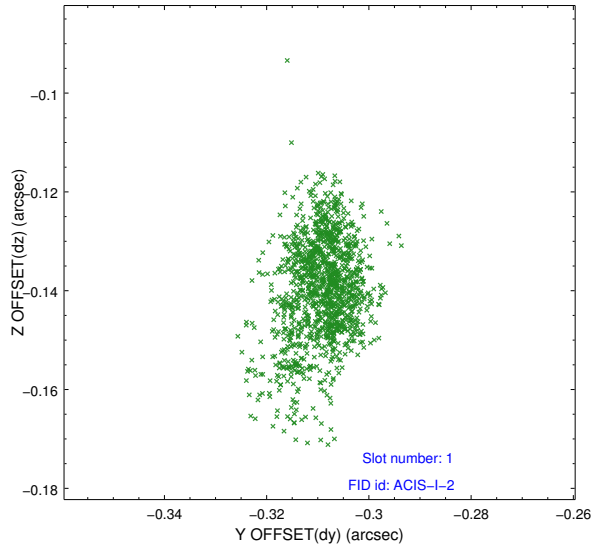


2.5 FID Slots

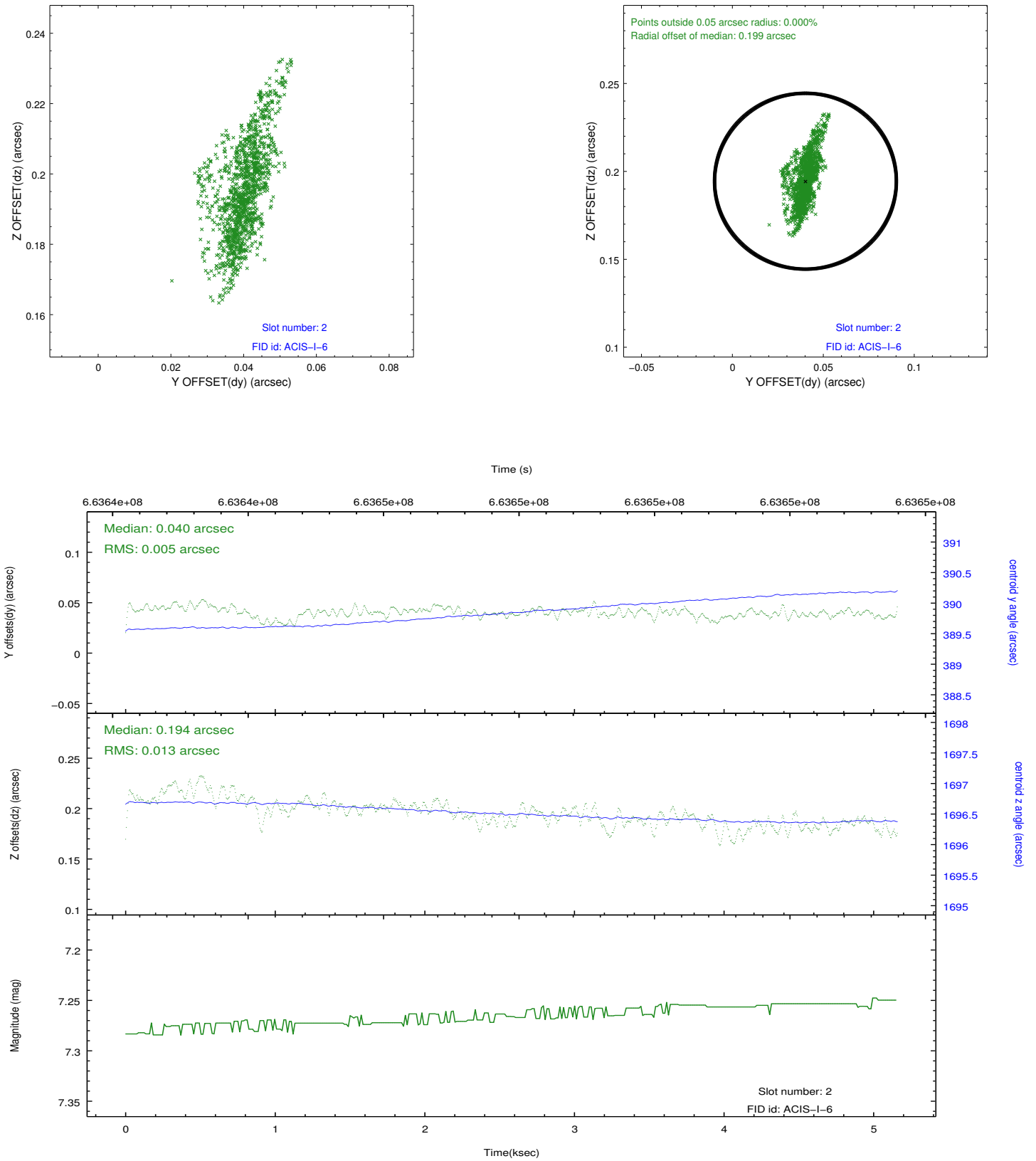
2.5.1 Slot 0



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)	2019.01.24
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	4.9536000738144

A.2 Comments

Slot 3 was not utilized in this observation.

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A spatial region of the original bias map for CCD = 6 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 = 6 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.