

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10344 - L2 Version 3
Chandra X-Ray Center

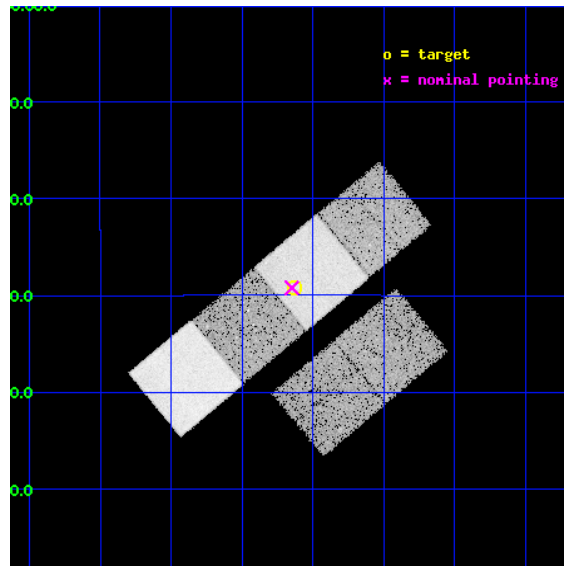
L2 Processing Date : May 25 2012

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

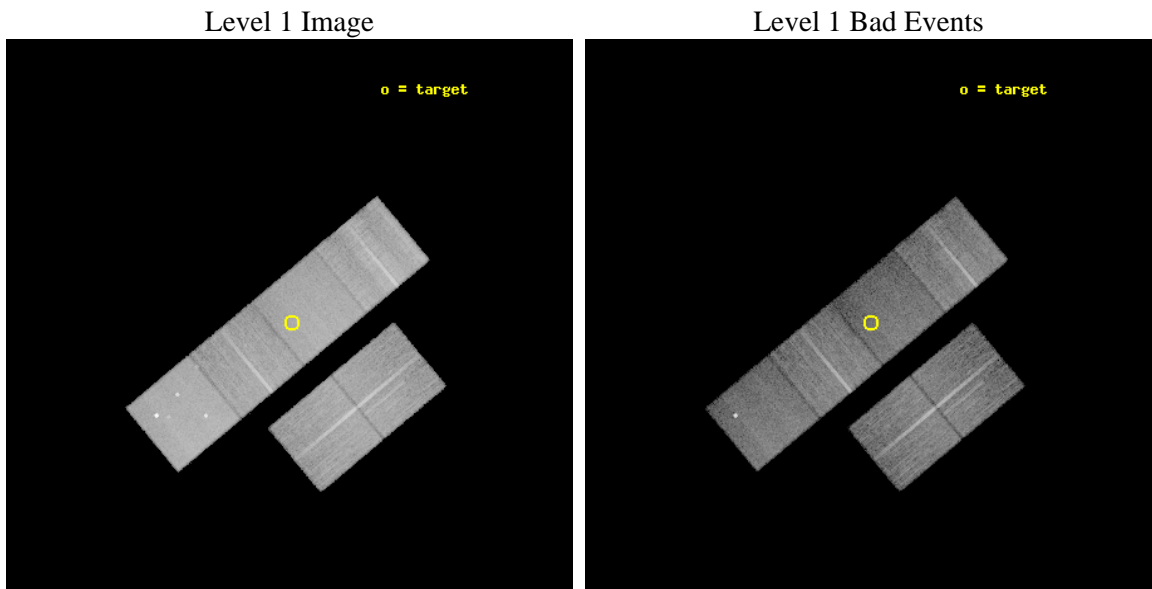
seq_num	701887	Sequence number
obs_id	10344	Observation id
title	Evolution of Activity in Massive Gas-rich Mergers: The X-ray Perspective	Proposal title
observer	Prof. Sylvain Veilleux	Principal investigator
object	F01166-0844	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	19.782083	Observer's specified target RA [deg]
dec_targ	-8.486306	Observer's specified target Dec [deg]
ra_nom	19.786939745498	Nominal RA [deg]
dec_nom	-8.4870054948166	Nominal Dec [deg]
roll_nom	320.15732665012	Nominal Roll [deg]
revision	3	Processing version of data
ontime	15638.399941802	Sum of GTIs [s]
livetime	15440.377105425	Livetime [s]
ontime2	15631.917981207	Sum of GTIs [s]
ontime3	15638.399941802	Sum of GTIs [s]
ontime5	15638.399941802	Sum of GTIs [s]
ontime6	15635.158951521	Sum of GTIs [s]
ontime7	15638.399941802	Sum of GTIs [s]
ontime8	15638.399941802	Sum of GTIs [s]
l2events	192317	Number of level 2 events



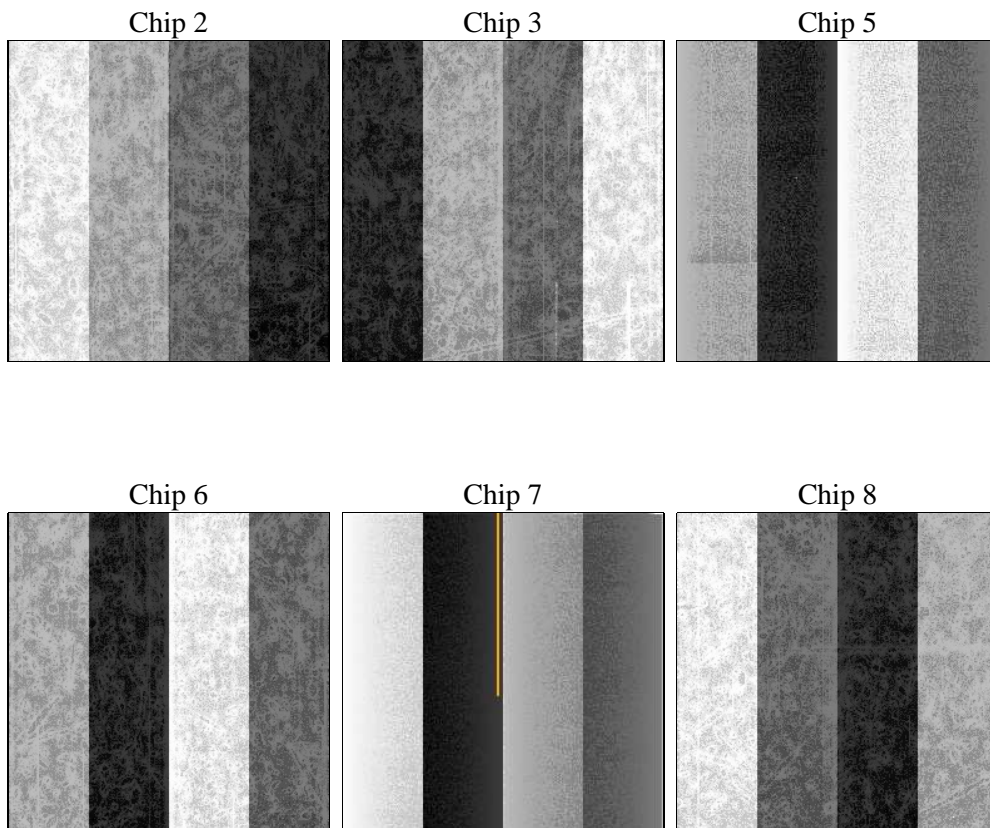
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	15638.399941802	Sum of GTIs [s]
caldsver	4.4.9	 	ontime2	15631.917981207	Sum of GTIs [s]
date	2012-05-25T21:06:05	Date and time of file creation	ontime3	15638.399941802	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	15638.399941802	Sum of GTIs [s]
			ontime6	15635.158951521	Sum of GTIs [s]
			ontime7	15638.399941802	Sum of GTIs [s]
			ontime8	15638.399941802	Sum of GTIs [s]
			l1events	888018	Number of level 1 events

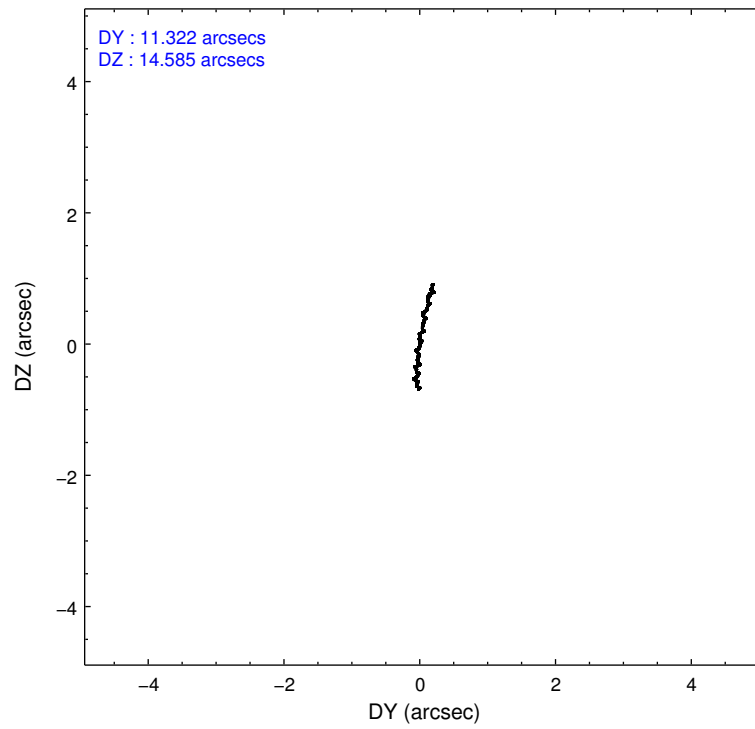
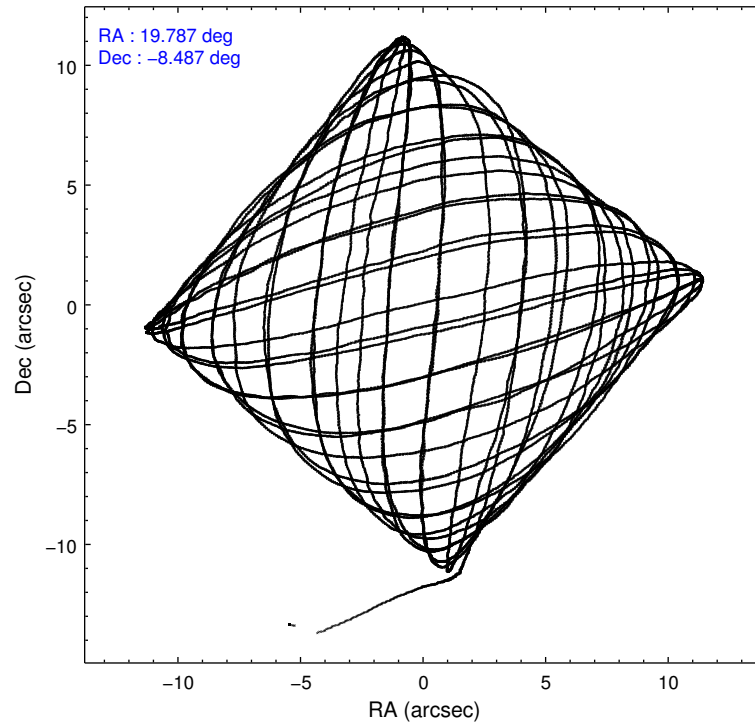
2.1.4 Events

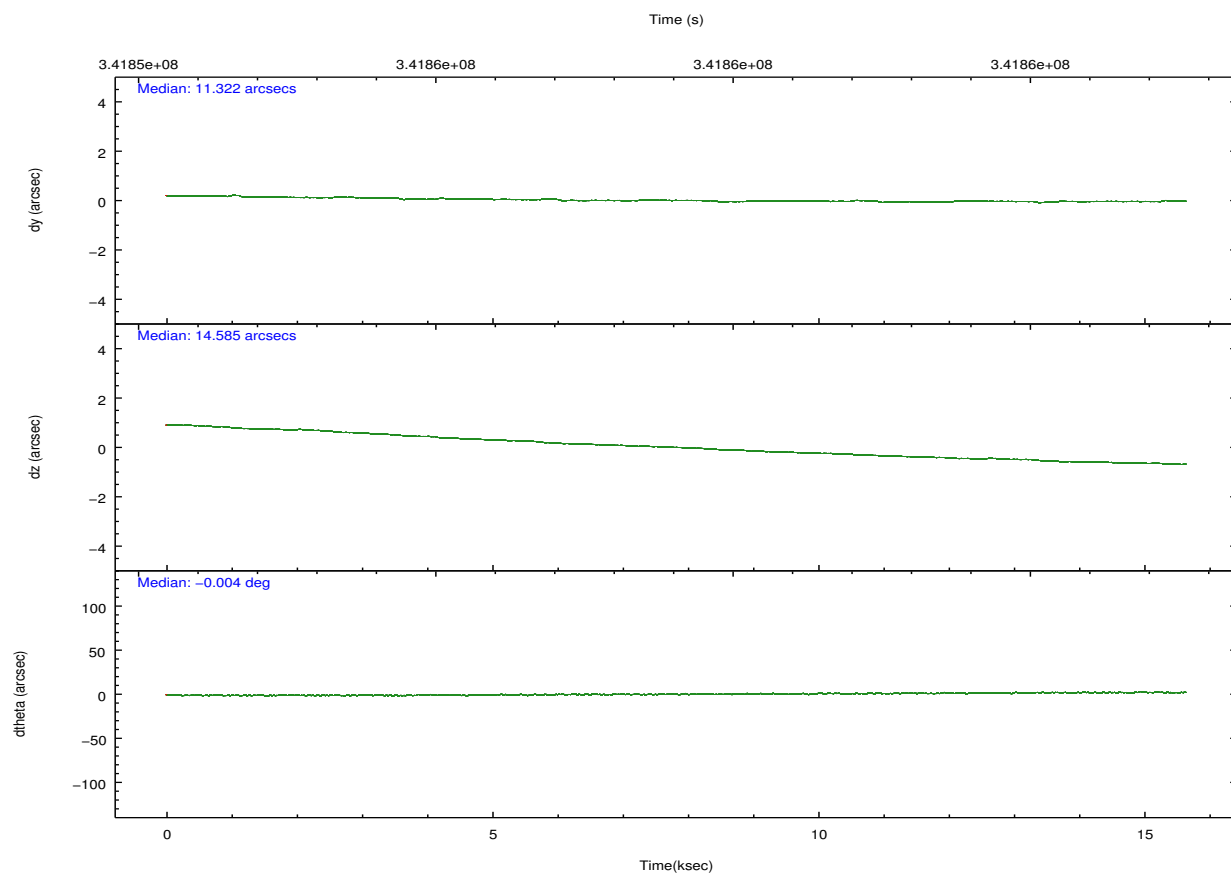
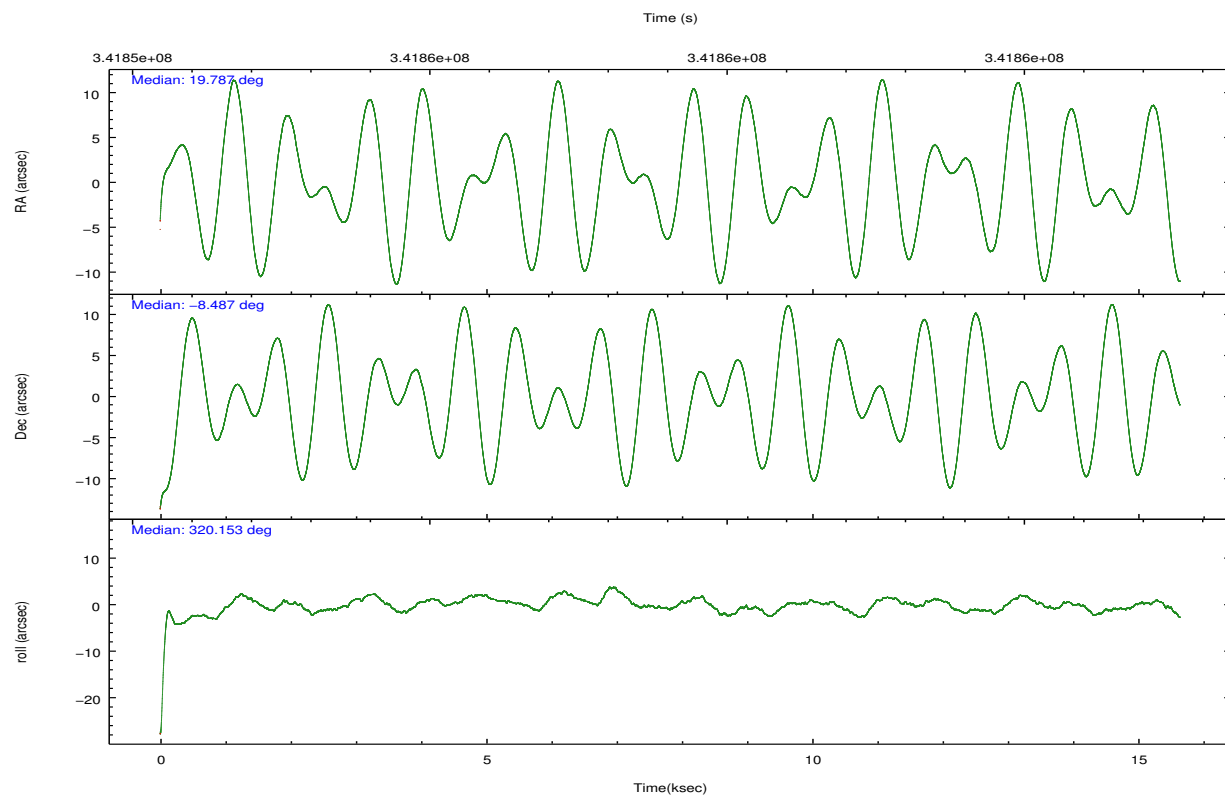
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	132550	122061	187269	133152	148470	164516	grade 0 events	4660	4376	10143	4742	6049	11944
rejected events	119963	109986	96744	119755	83482	125206		3%	3%	5%	3%	4%	7%
rejected %	90%	90%	51%	89%	56%	76%	grade 1 events	78	67	449	69	200	129
								0%	0%	0%	0%	0%	0%
							grade 2 events	3139	2652	28532	3170	13783	9584
								2%	2%	15%	2%	9%	5%
							grade 3 events	1367	1398	3960	1585	6007	4268
								1%	1%	2%	1%	4%	2%
							grade 4 events	1422	1511	3650	1389	6019	4053
								1%	1%	1%	1%	4%	2%
							grade 5 events	4531	5381	15236	5483	15754	7869
								3%	4%	8%	4%	10%	4%
							grade 6 events	2381	2539	47256	2905	35245	10757
								1%	2%	25%	2%	23%	6%
							grade 7 events	114972	104137	78043	113809	65413	115912
								86%	85%	41%	85%	44%	70%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	19.759637	19.78693974549805	CCD I2 on	O1	Y
[deg] Pointing Dec	-8.482689	-8.487005494816625	CCD I3 on	O2	Y
[deg] Pointing Roll	319.996695	320.1573266501236	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O4	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	O5	Y
[s] Observation start time (MET)	341851361.184000	341850052.34816	CCD S5 on	N	N
Observation start date	2008-10-31T14:41:36	2008-10-31T14:20:52	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	341866861.184000	341867862.23654	On-chip summing requested	N	N
Observation end date	2008-10-31T18:59:56	2008-10-31T19:17:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



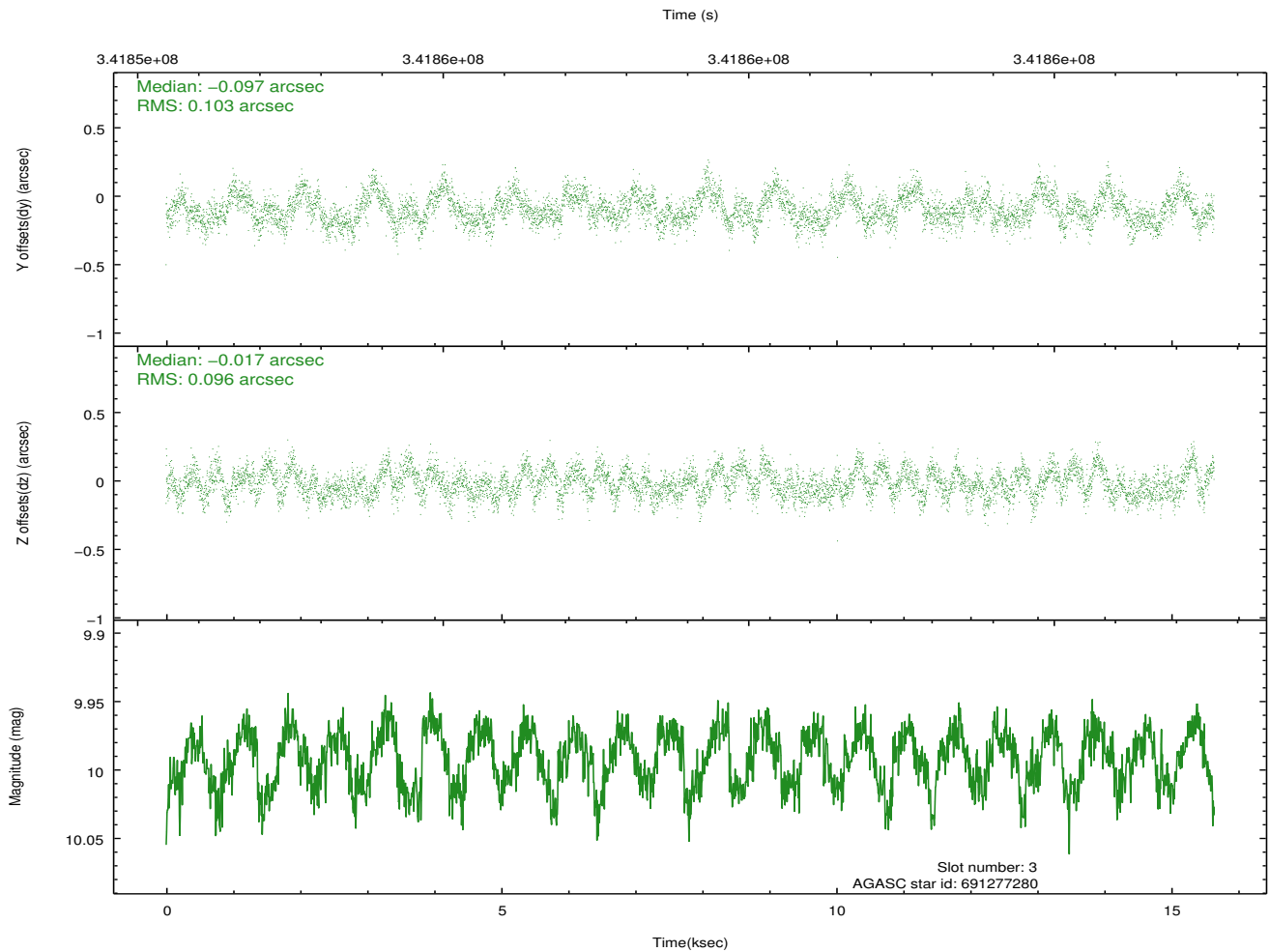
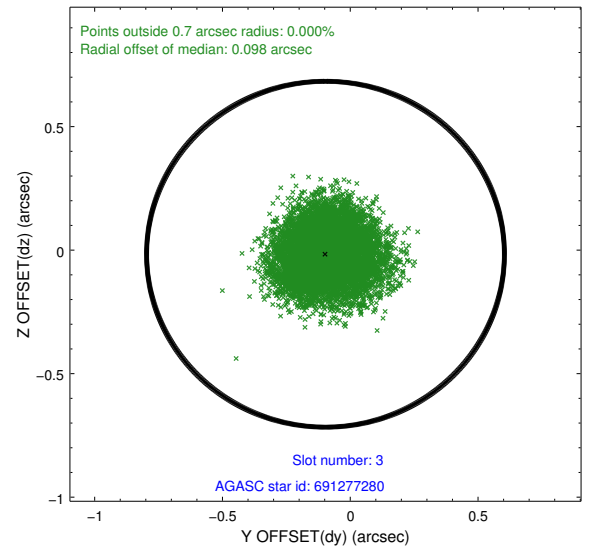
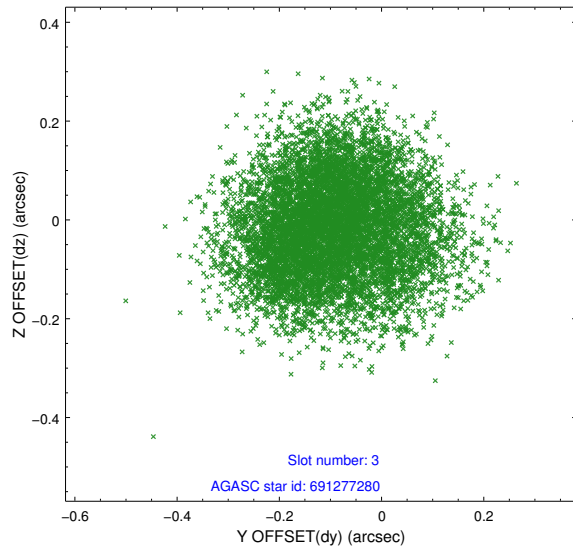


Slot Statistics

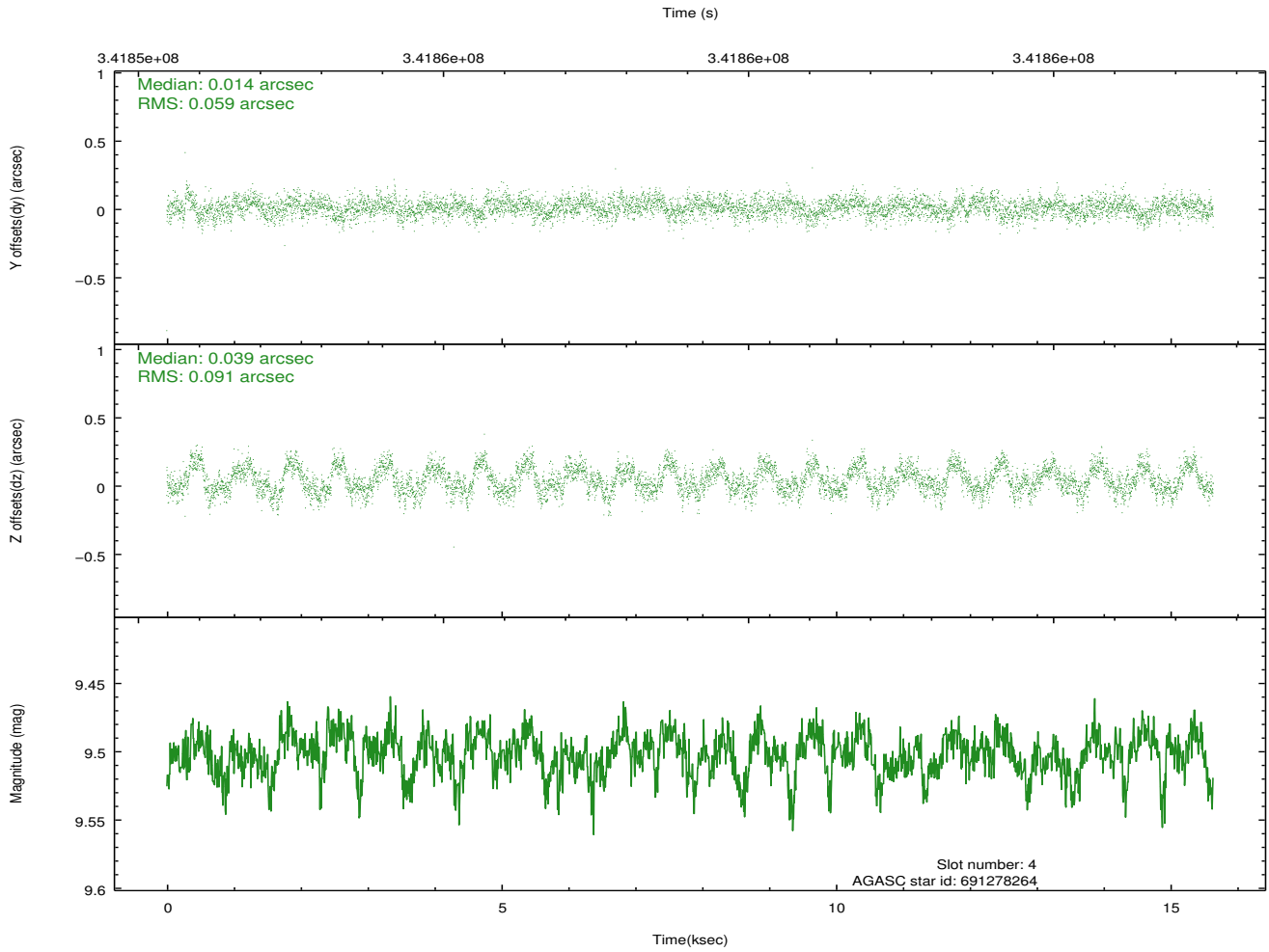
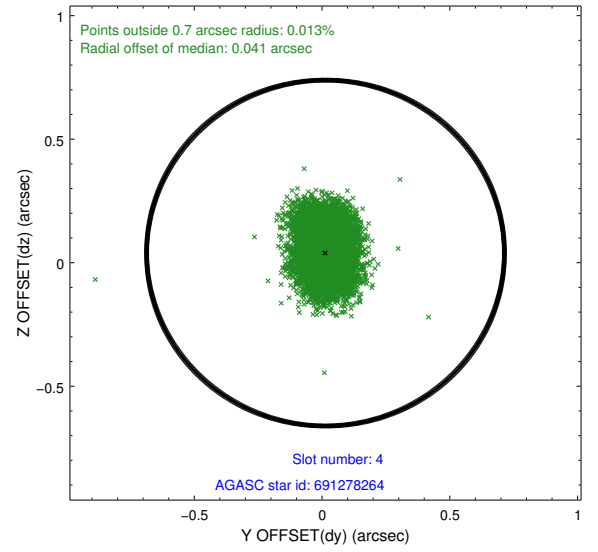
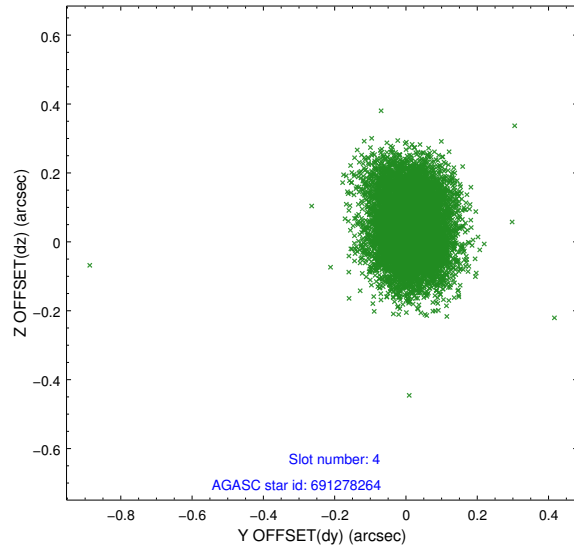
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	3816	-0.050	-0.027	0.011	0.017	0.000000	0.000000	-764.26	-1736.02
1	FID	ACIS-S-4	6.97	3816	0.139	0.031	0.010	0.018	0.000000	0.000000	2149.07	172.24
2	FID	ACIS-S-5	7.00	3816	-0.122	0.004	0.011	0.016	0.000000	0.000000	-1816.82	166.18
3	GUIDE	691277280	9.99	7611	-0.097	-0.017	0.153	0.236	19.228500	-8.439731	-1547.11	-1098.38
4	GUIDE	691278264	9.50	7624	0.014	0.039	0.116	0.186	19.862138	-8.098407	-609.22	1294.66
5	GUIDE	691281256	9.42	7622	0.112	0.111	0.117	0.187	20.412461	-8.624336	2109.16	1102.40
6	GUIDE	691287592	8.53	7562	0.133	-0.216	0.116	0.176	19.788534	-9.378960	2153.67	-2405.27
7	GUIDE	691279960	10.05	7620	-0.158	0.080	0.193	0.309	19.634006	-7.633588	-2308.22	2053.27

2.4 Star Slots

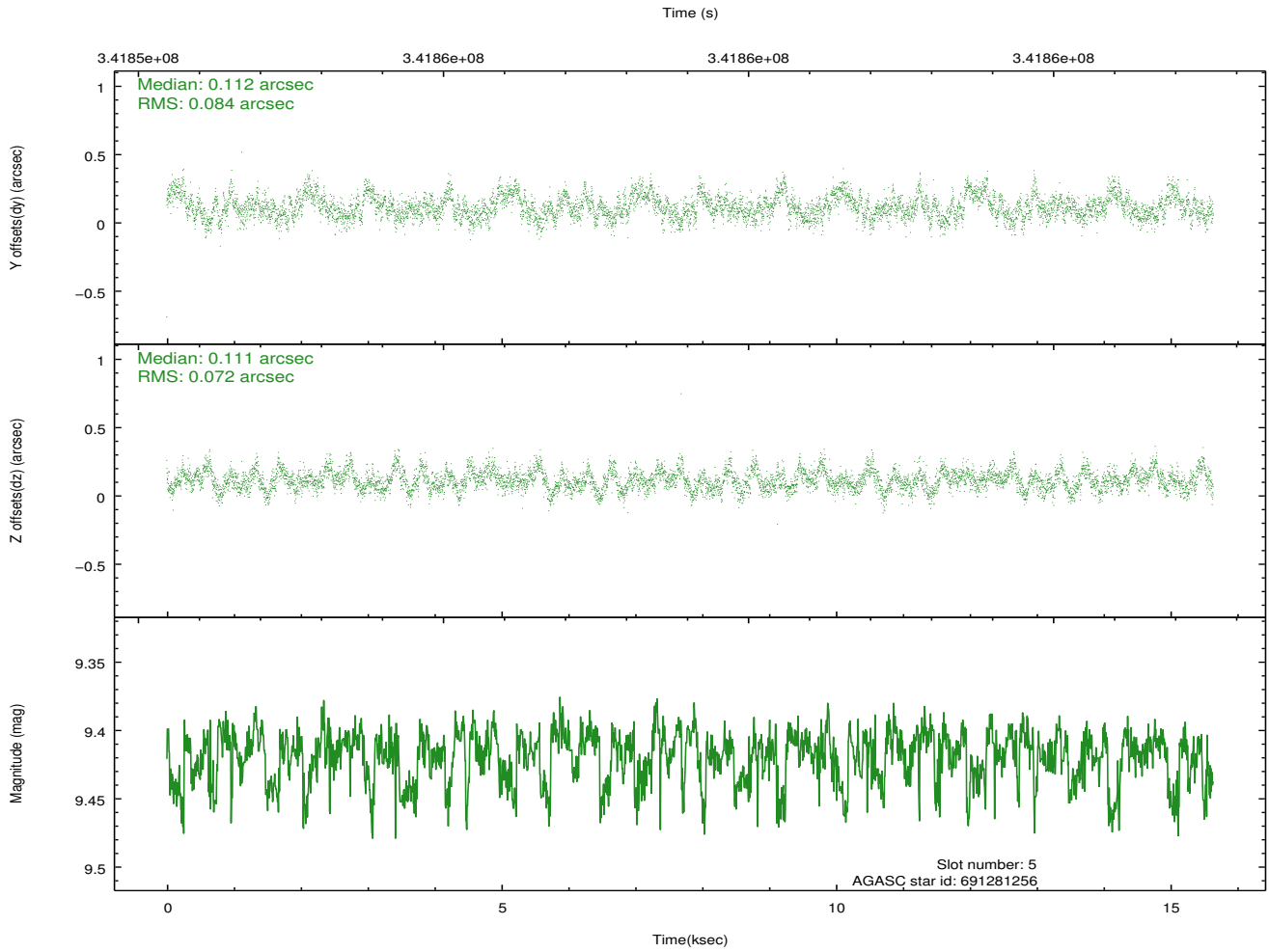
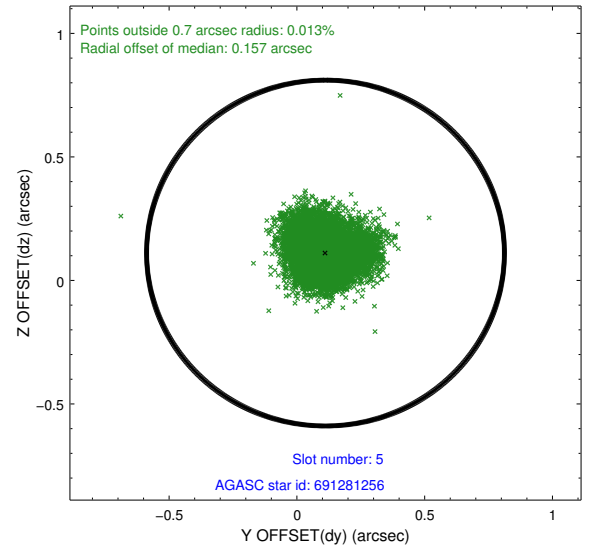
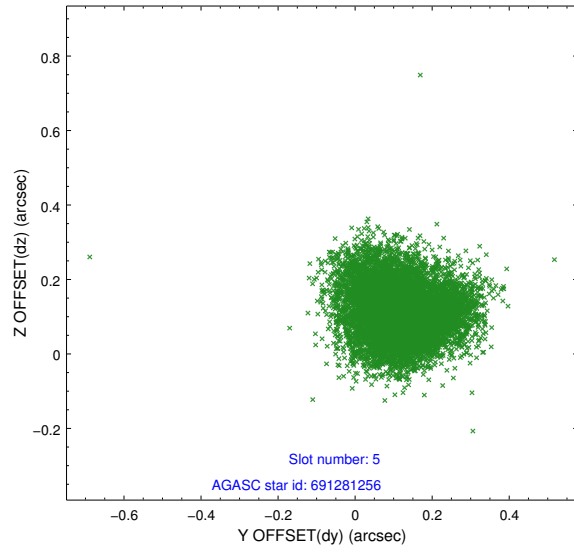
2.4.1 Slot 3



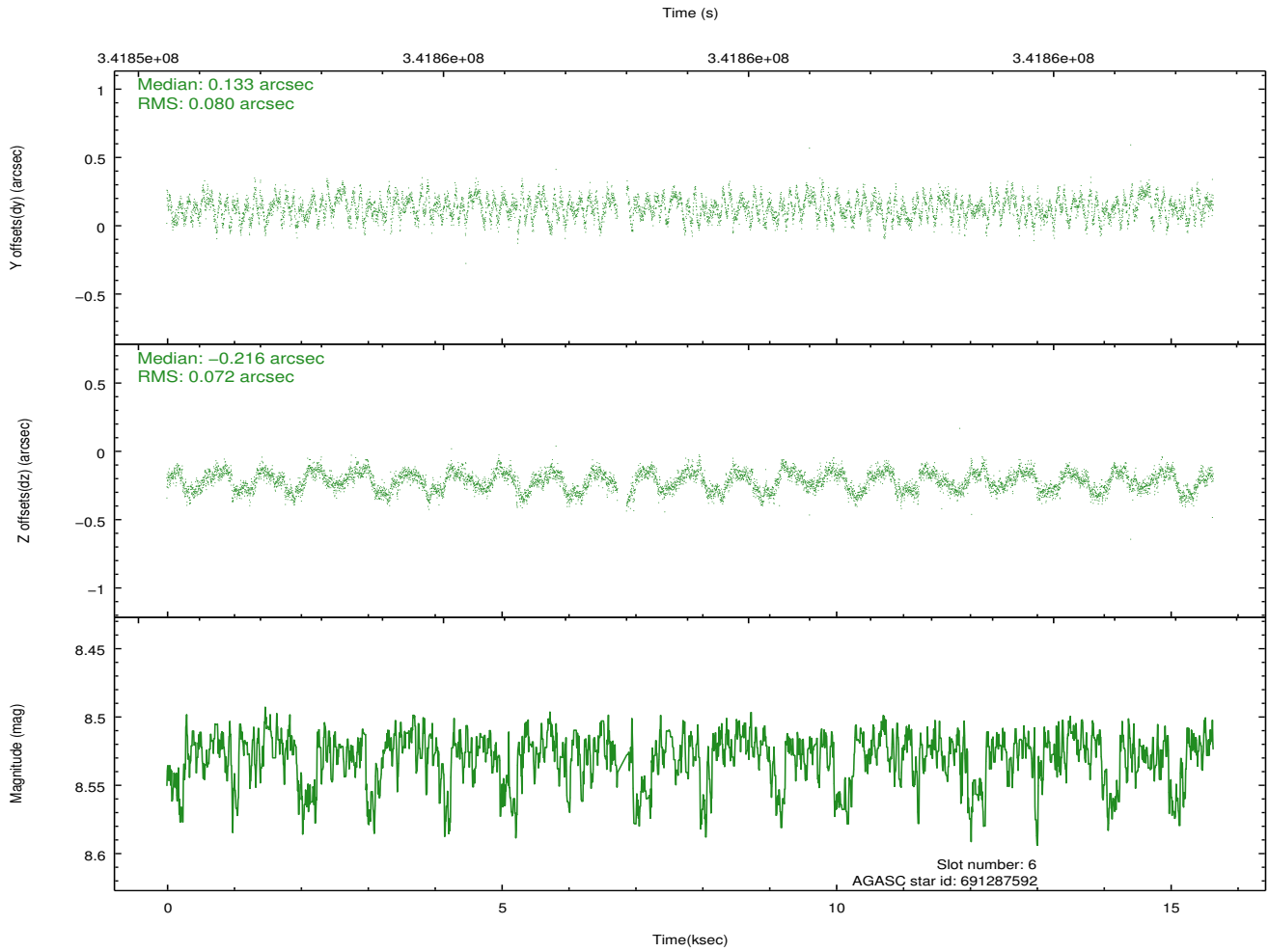
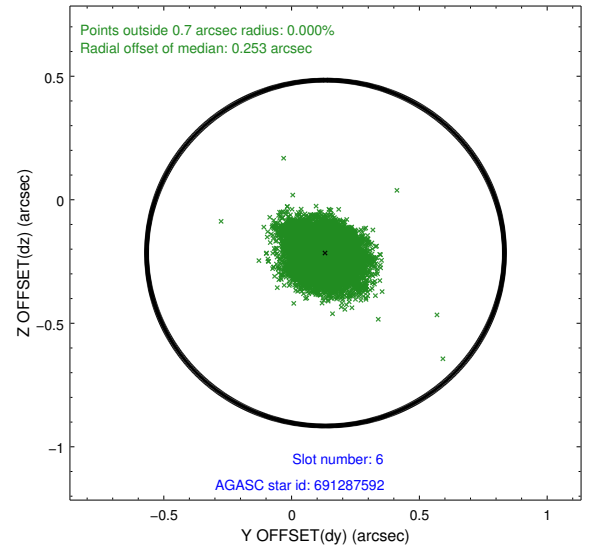
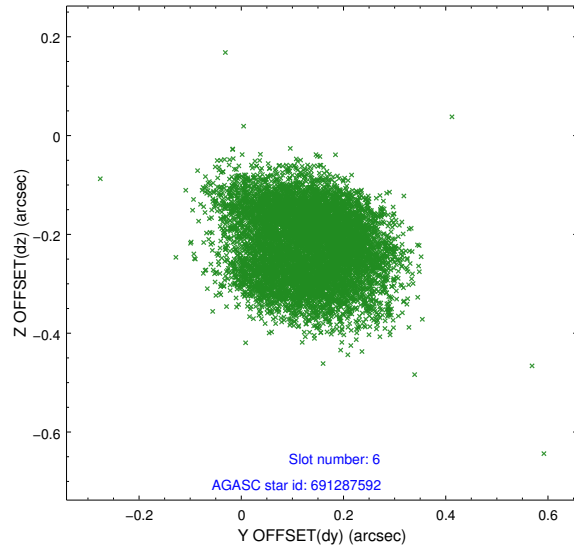
2.4.2 Slot 4



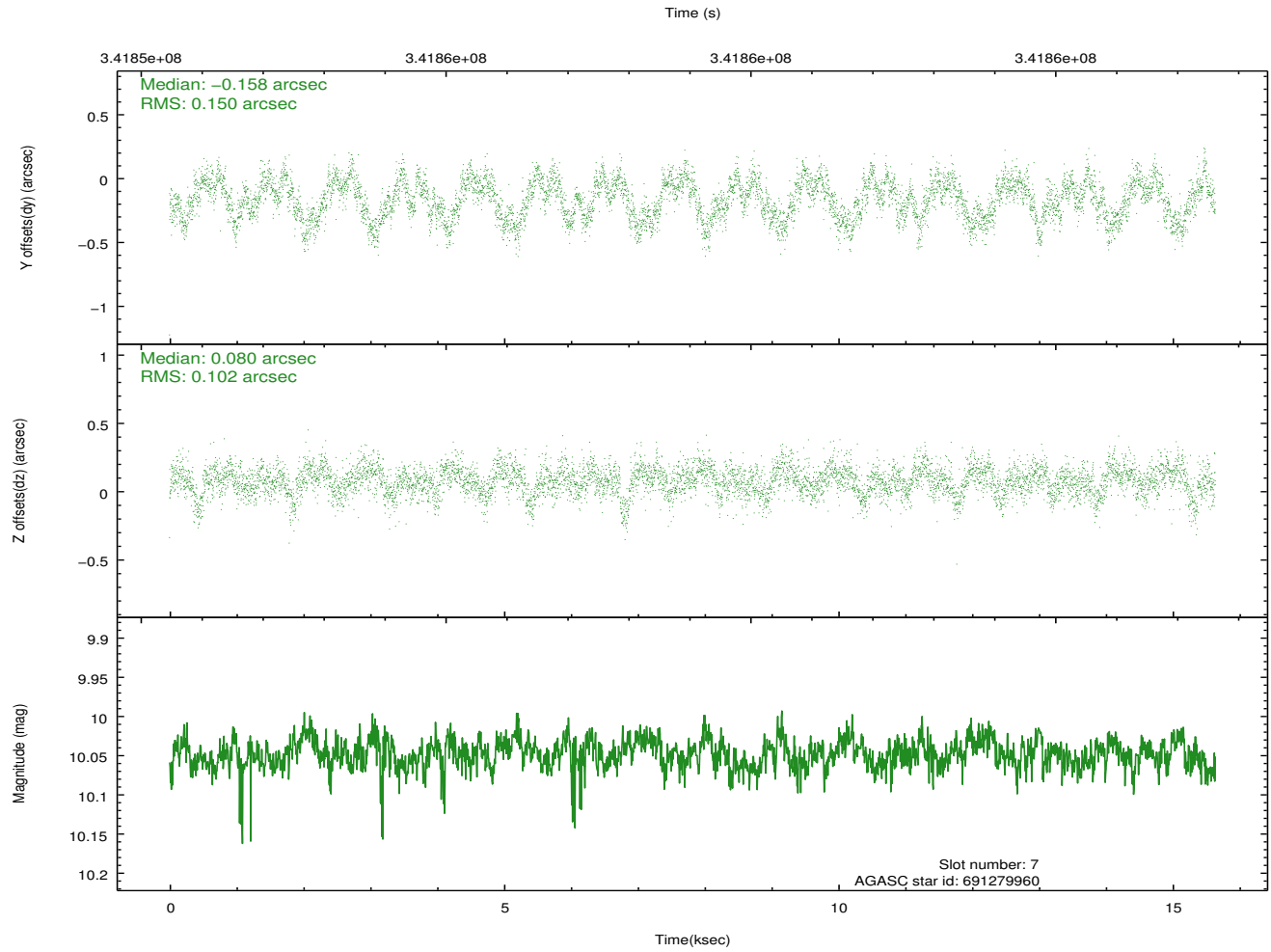
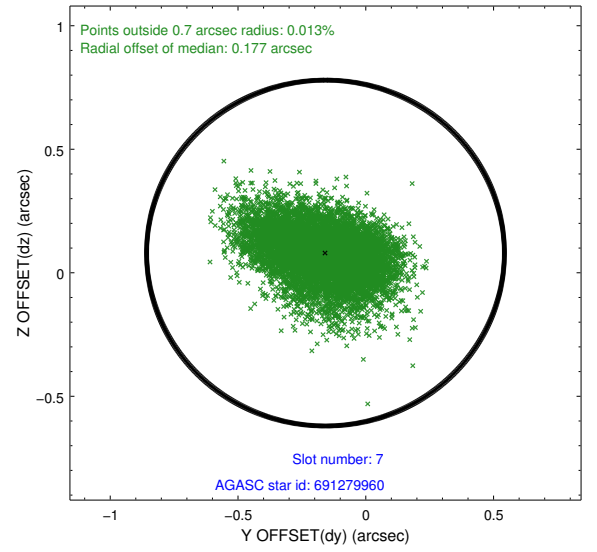
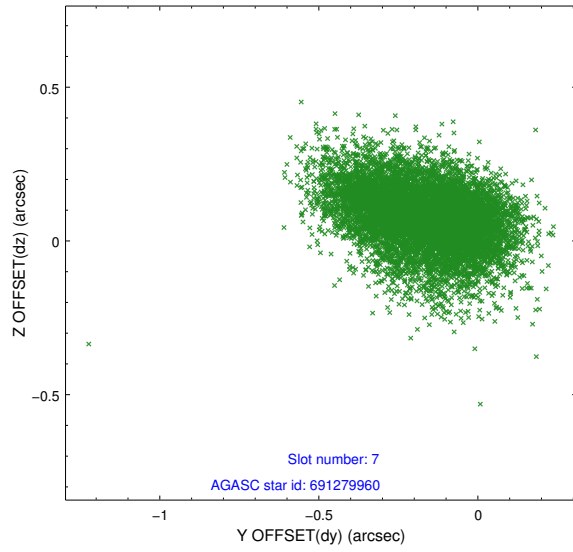
2.4.3 Slot 5



2.4.4 Slot 6

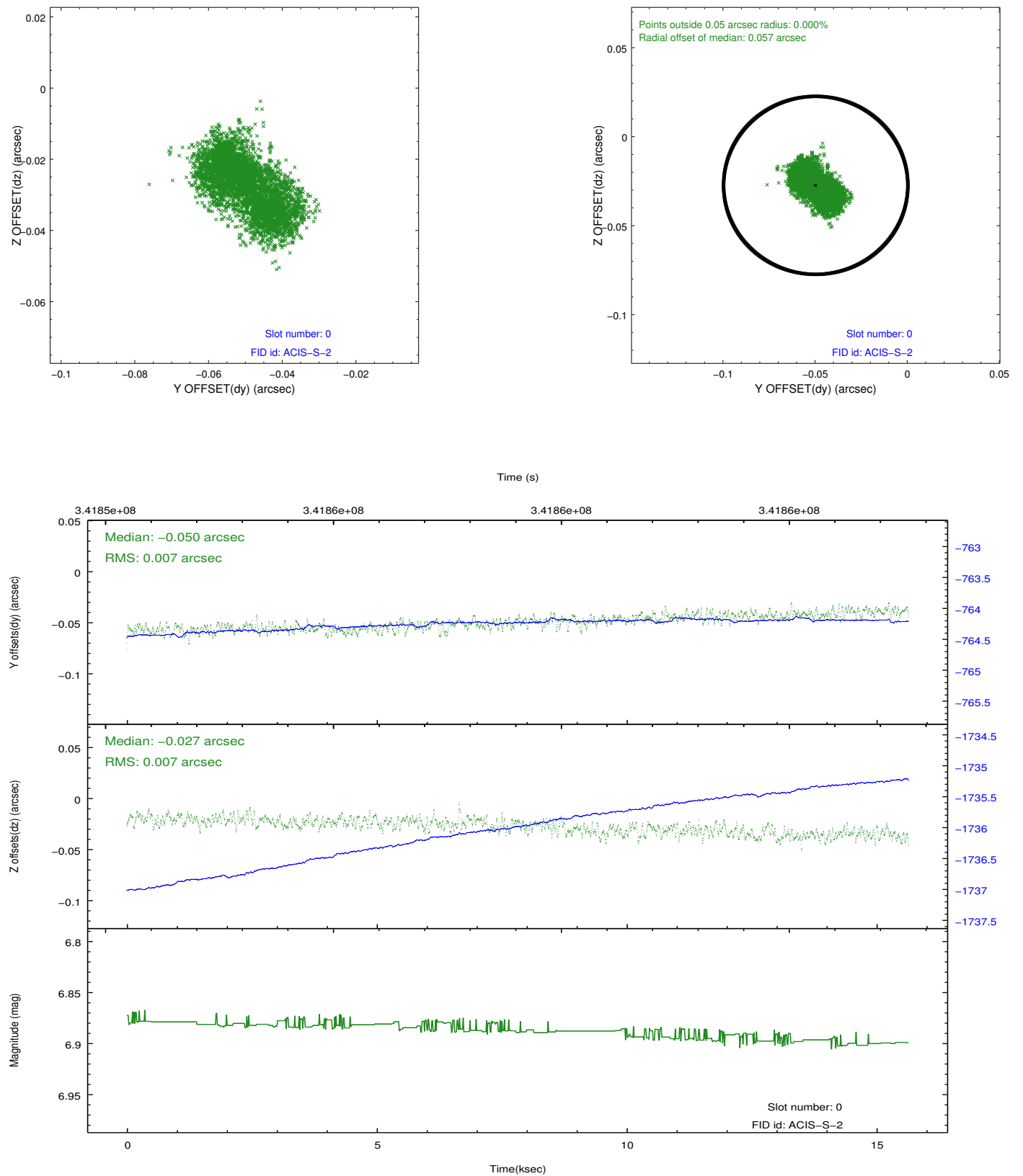


2.4.5 Slot 7

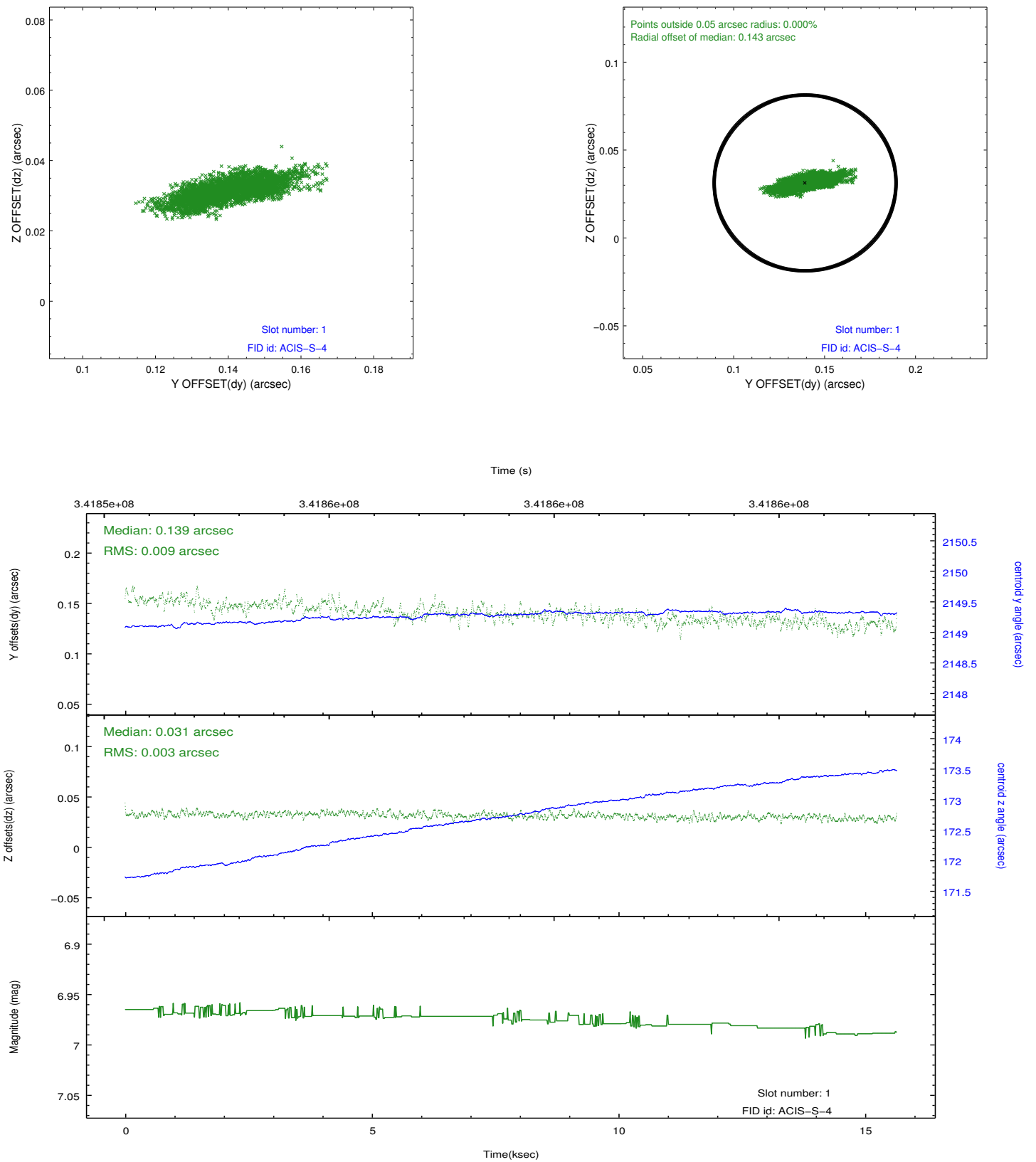


2.5 FID Slots

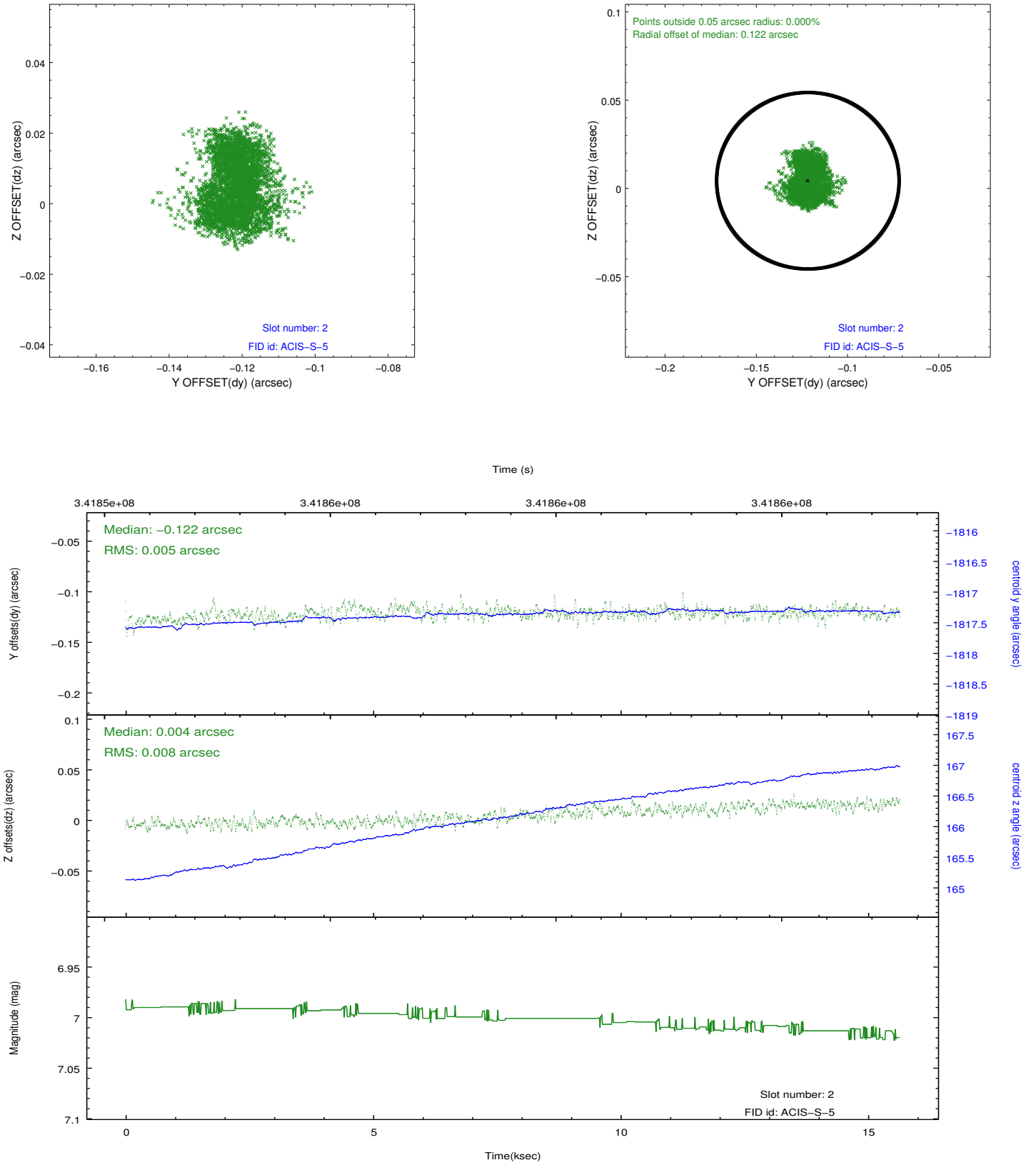
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.06.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.6383999

A.2 Comments

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. The bias map for CCD = 6 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(19.88845,-8.48172),(19.88516,-8.47902),(19.87077,-8.49611),(19.87406,-8.49882)