

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 22856 - L2 Version 2
Chandra X-Ray Center

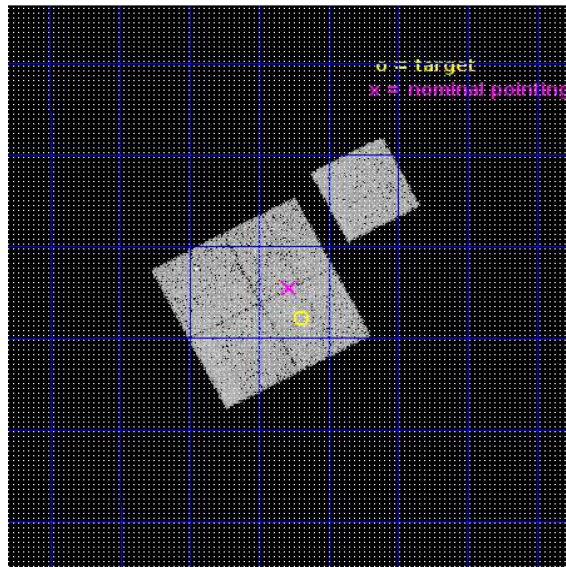
L2 Processing Date : Sep 30 2019

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1 Front

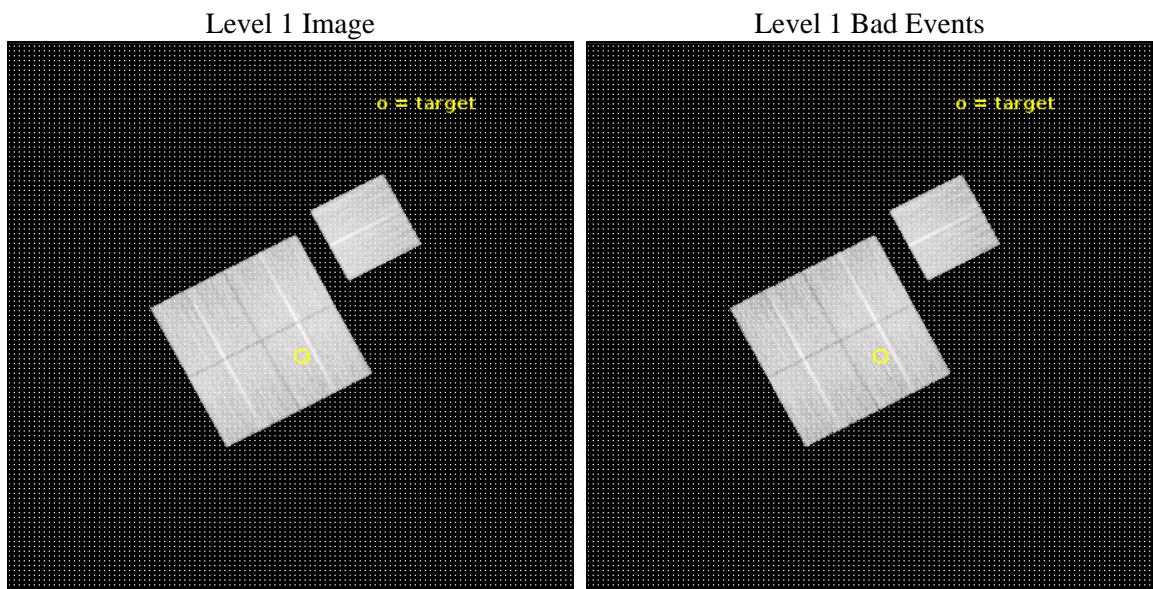
seq_num	703831	Sequence number
obs_id	22856	Observation id
title	X-ray Emission from z=6 galaxies	Proposal title
observer	Ralph Kraft	Principal investigator
object	CL0152-13	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	28.175	Observer's specified target RA [deg]
dec_targ	-13.963306	Observer's specified target Dec [deg]
ra_nom	28.195386210903	Nominal RA [deg]
dec_nom	-13.908523198765	Nominal Dec [deg]
roll_nom	62.213590401032	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19533.059129953	Sum of GTIs [s]
livetime	19277.845332392	Livetime [s]
ontime0	19533.059129953	Sum of GTIs [s]
ontime1	19536.200150371	Sum of GTIs [s]
ontime2	19533.05910027	Sum of GTIs [s]
ontime3	19533.059129953	Sum of GTIs [s]
ontime6	19533.059080124	Sum of GTIs [s]
l2events	71797	Number of level 2 events



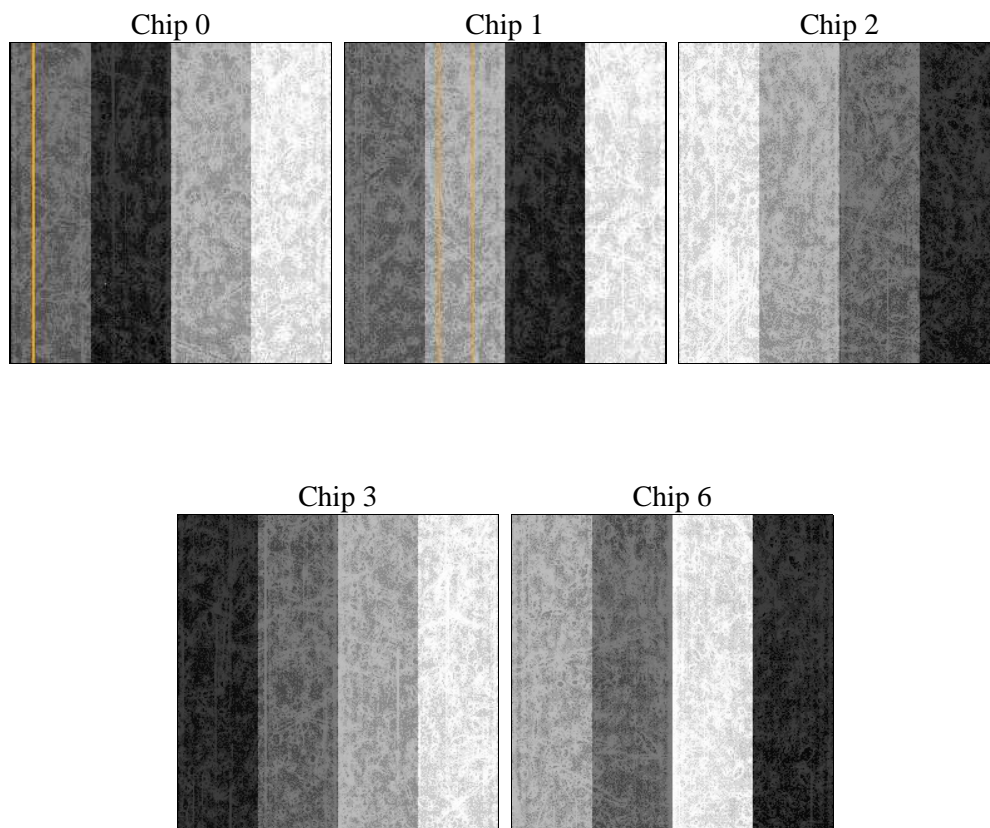
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19471.260000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	19533.059129953	Sum of GTIs [s]
caldbver	4.8.4.1	 	ontime0	19533.059129953	Sum of GTIs [s]
date	2019-09-30T19:10:05	Date and time of file creation	ontime1	19536.200150371	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	19533.05910027	Sum of GTIs [s]
			ontime3	19533.059129953	Sum of GTIs [s]
			ontime6	19533.059080124	Sum of GTIs [s]
			l1events	750882	Number of level 1 events

2.1.4 Events

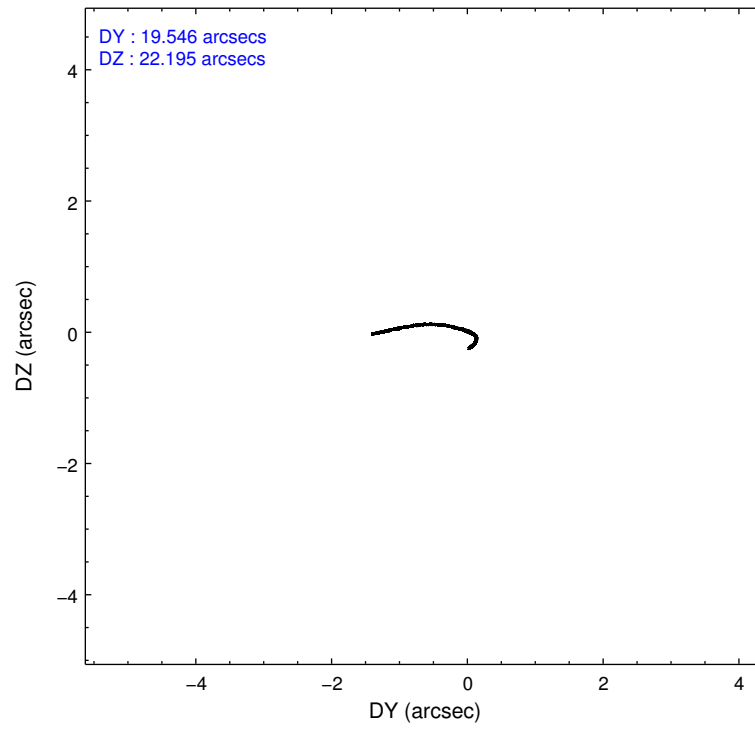
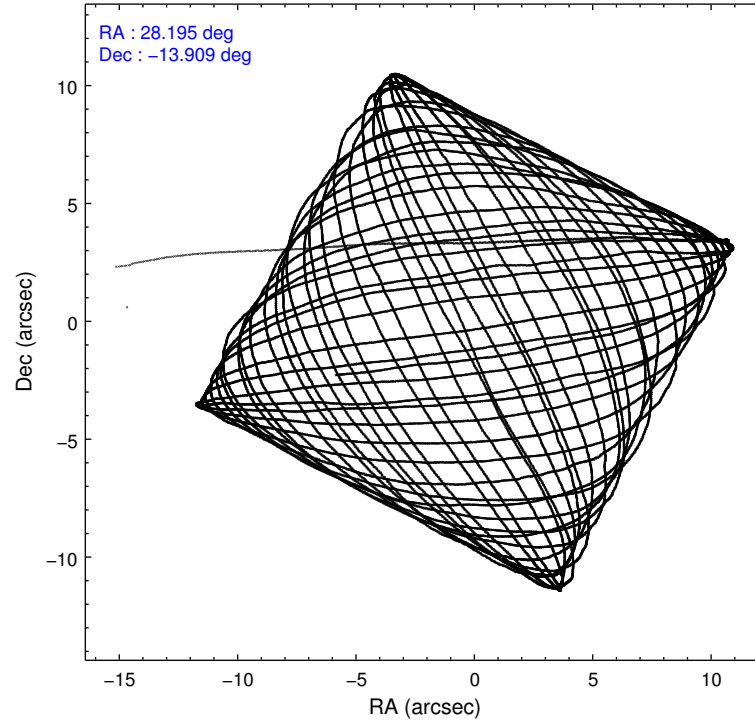
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	140117	142164	158074	152075	158452
rejected events	123132	123890	141842	135855	141613
rejected %	87%	87%	89%	89%	89%

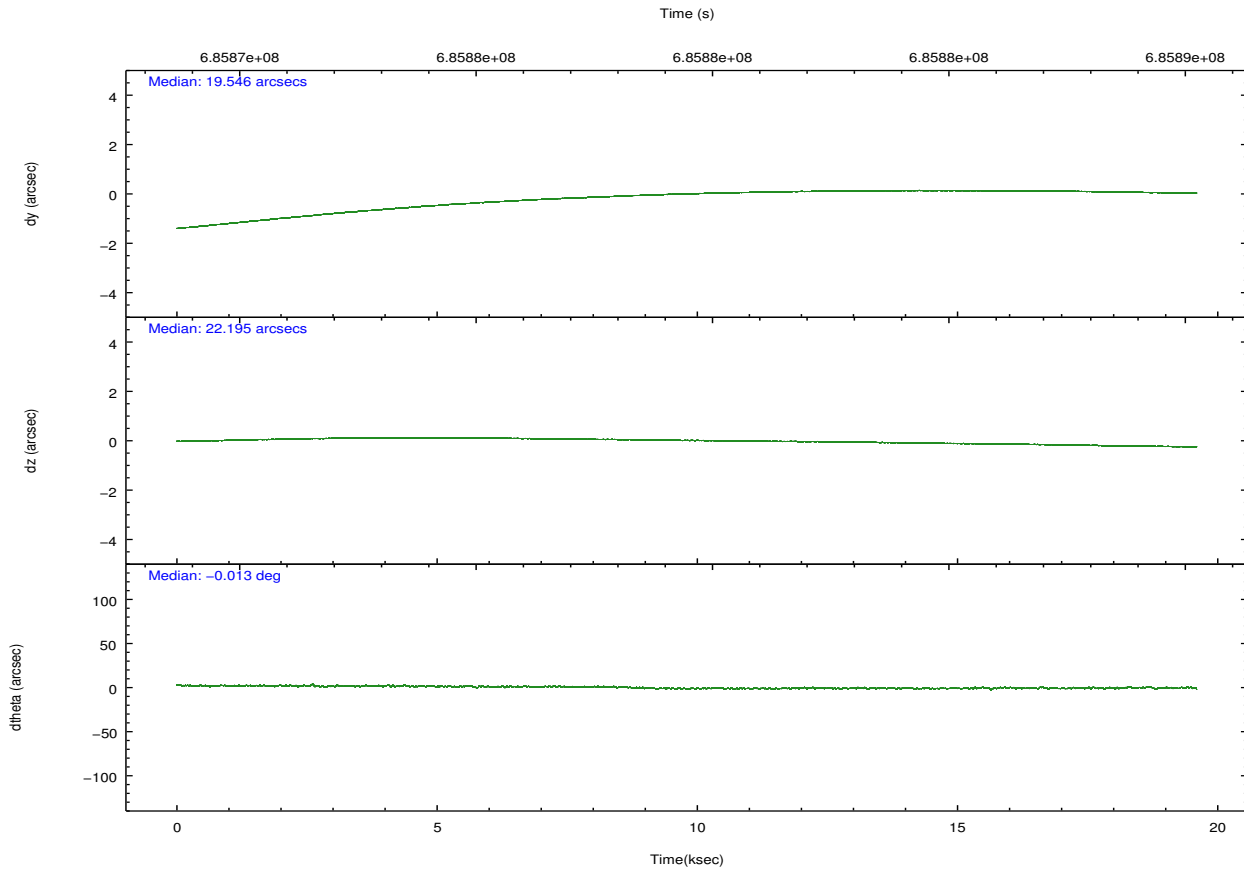
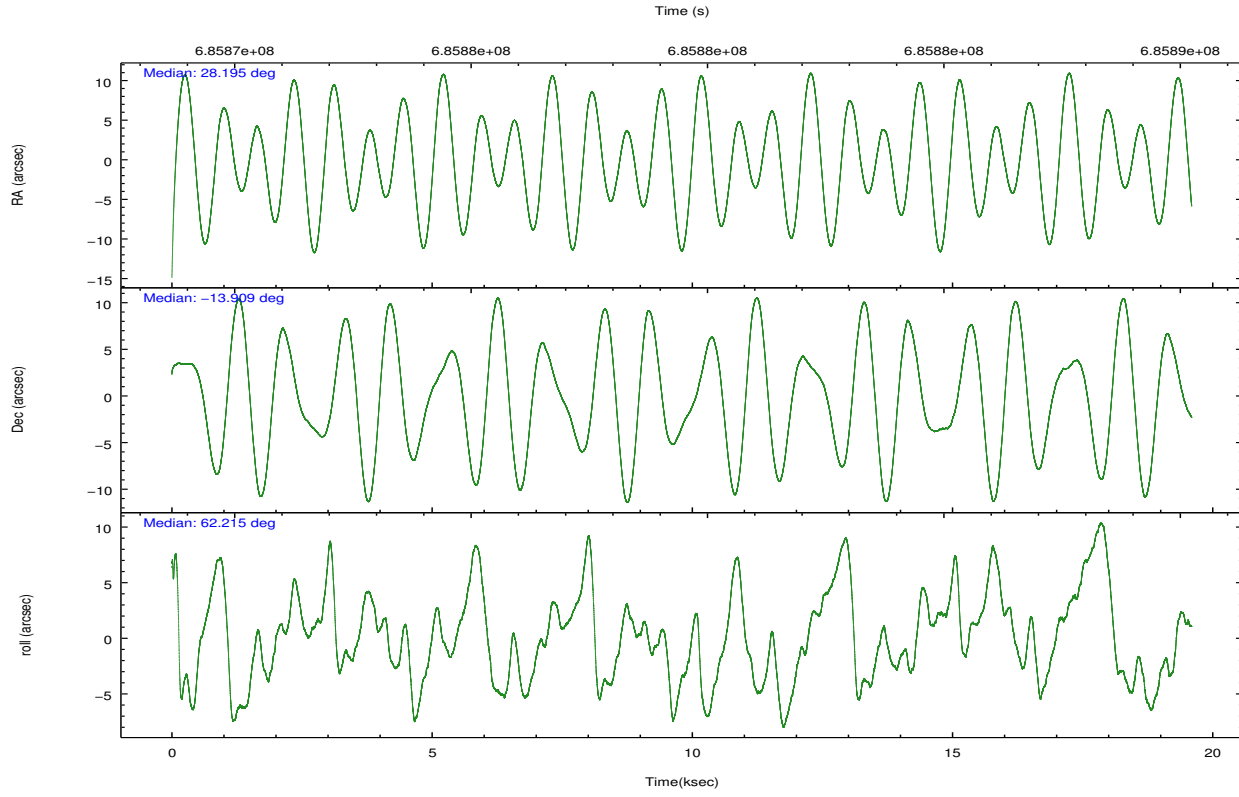
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5655	5671	5690	5946	5179
	4%	3%	3%	3%	3%
grade 1 events	70	75	86	86	60
	0%	0%	0%	0%	0%
grade 2 events	4282	4908	4008	3603	4283
	3%	3%	2%	2%	2%
grade 3 events	1701	1753	1667	1701	1590
	1%	1%	1%	1%	1%
grade 4 events	1643	1631	1639	1624	1610
	1%	1%	1%	1%	1%
grade 5 events	6436	6562	5809	7173	6689
	4%	4%	3%	4%	4%
grade 6 events	3707	4315	3229	3348	4179
	2%	3%	2%	2%	2%
grade 7 events	116623	117249	135946	128594	134862
	83%	82%	86%	84%	85%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	28.196558	28.19538621090285	CCD I2 on	Y	Y
[deg] Pointing Dec	-13.936126	-13.90852319876484	CCD I3 on	Y	Y
[deg] Pointing Roll	62.005191	62.21359040103162	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	-225.842463	-225.8433433320239	CCD S3 on	N	N
[mm] SIM translation stage offset	-7.75	-7.749109670905796	CCD S4 on	N	N
[s] Observation start time (MET)	685869773.184000	685868727.9265	CCD S5 on	N	N
Observation start date	2019-09-26T07:21:44	2019-09-26T07:05:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	685889244.184000	685889986.94028	On-chip summing requested	N	N
Observation end date	2019-09-26T12:46:15	2019-09-26T12:59:46	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



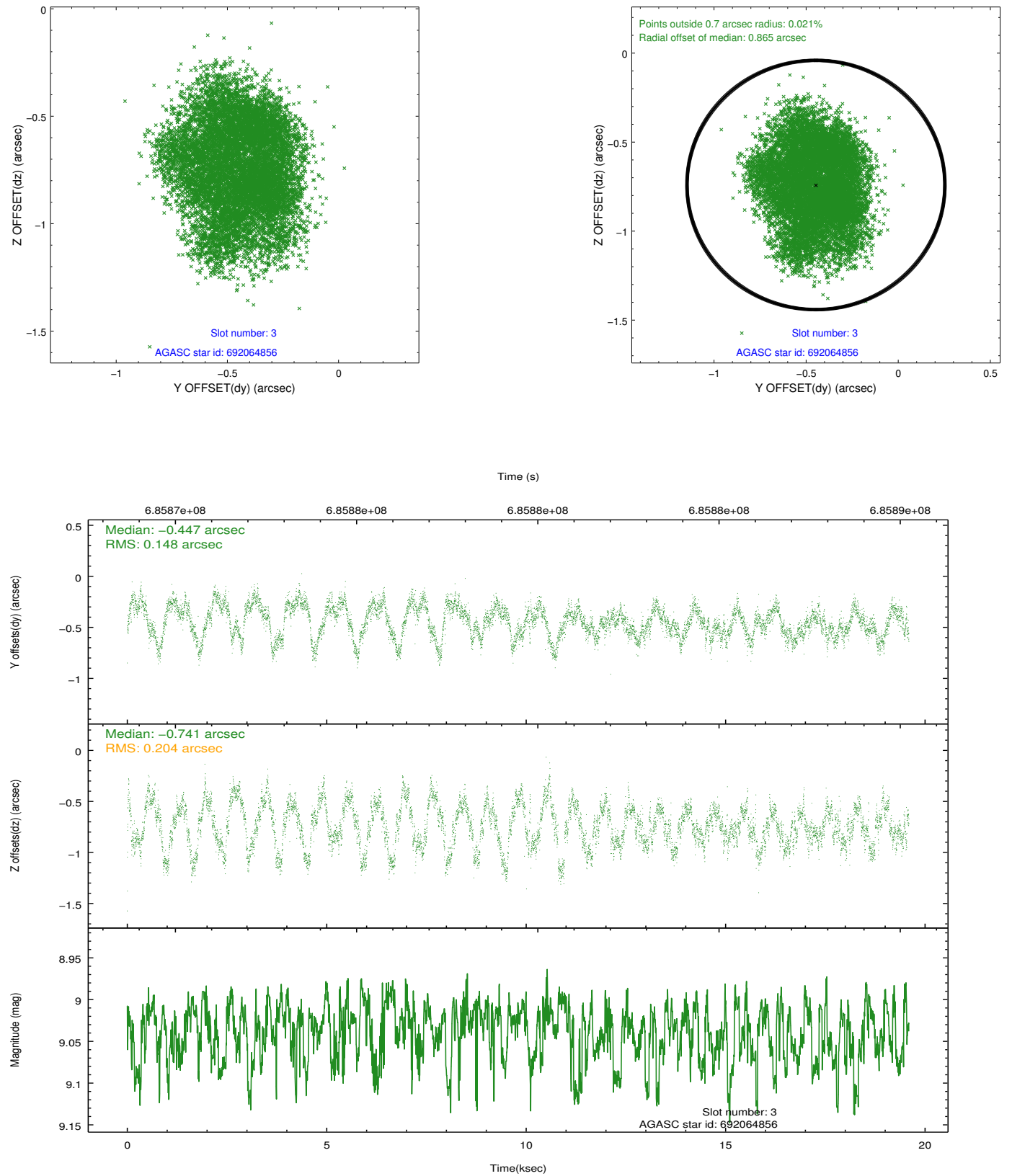


Slot Statistics

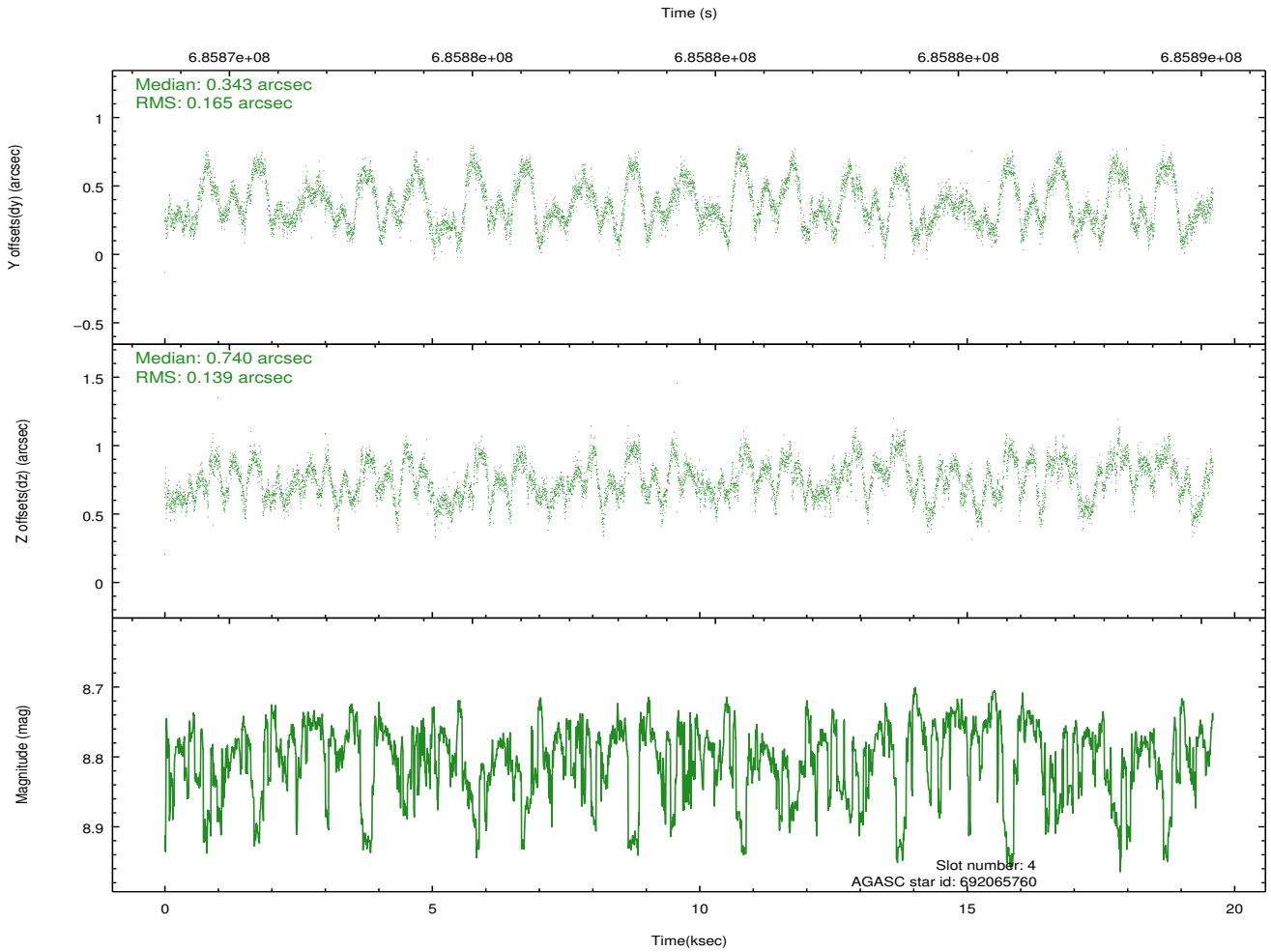
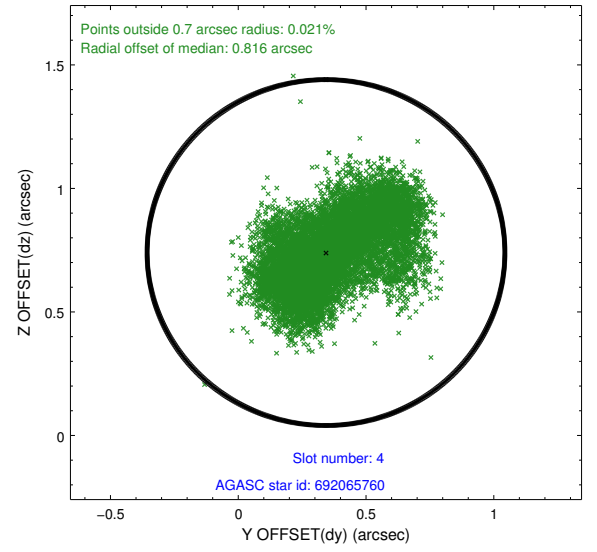
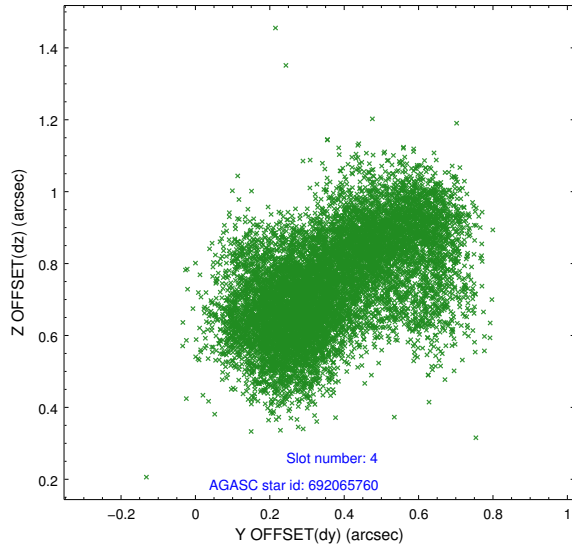
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.26	4780	1.000	0.342	-0.208	0.007	0.012	0.000000	0.000000	920.41	-1005
1	FID		ACIS-I-3	7.50	4780	1.000	-0.095	0.055	0.009	0.018	0.000000	0.000000	37.61	-1138
2	FID		ACIS-I-5	7.23	4780	1.000	-0.339	0.224	0.008	0.016	0.000000	0.000000	-1828.80	892
3	GUIDE	used	692064856	9.04	9544	1.000	-0.447	-0.741	0.274	0.410	27.844359	-13.441810	991.41	1923
4	GUIDE	used	692065760	8.80	9554	1.000	0.343	0.740	0.236	0.366	28.134676	-14.541960	-2027.29	-832
5	GUIDE	used	692066224	9.27	9534	1.000	-0.363	-0.312	0.294	0.429	27.921928	-13.549905	776.28	1500
6	GUIDE	used	692067256	8.85	9549	1.000	0.225	0.411	0.241	0.381	28.829272	-14.105112	498.99	-2237
7	GUIDE	used	692068240	8.89	9553	1.000	0.207	-0.129	0.166	0.270	28.031376	-14.077680	-720.00	268

2.4 Star Slots

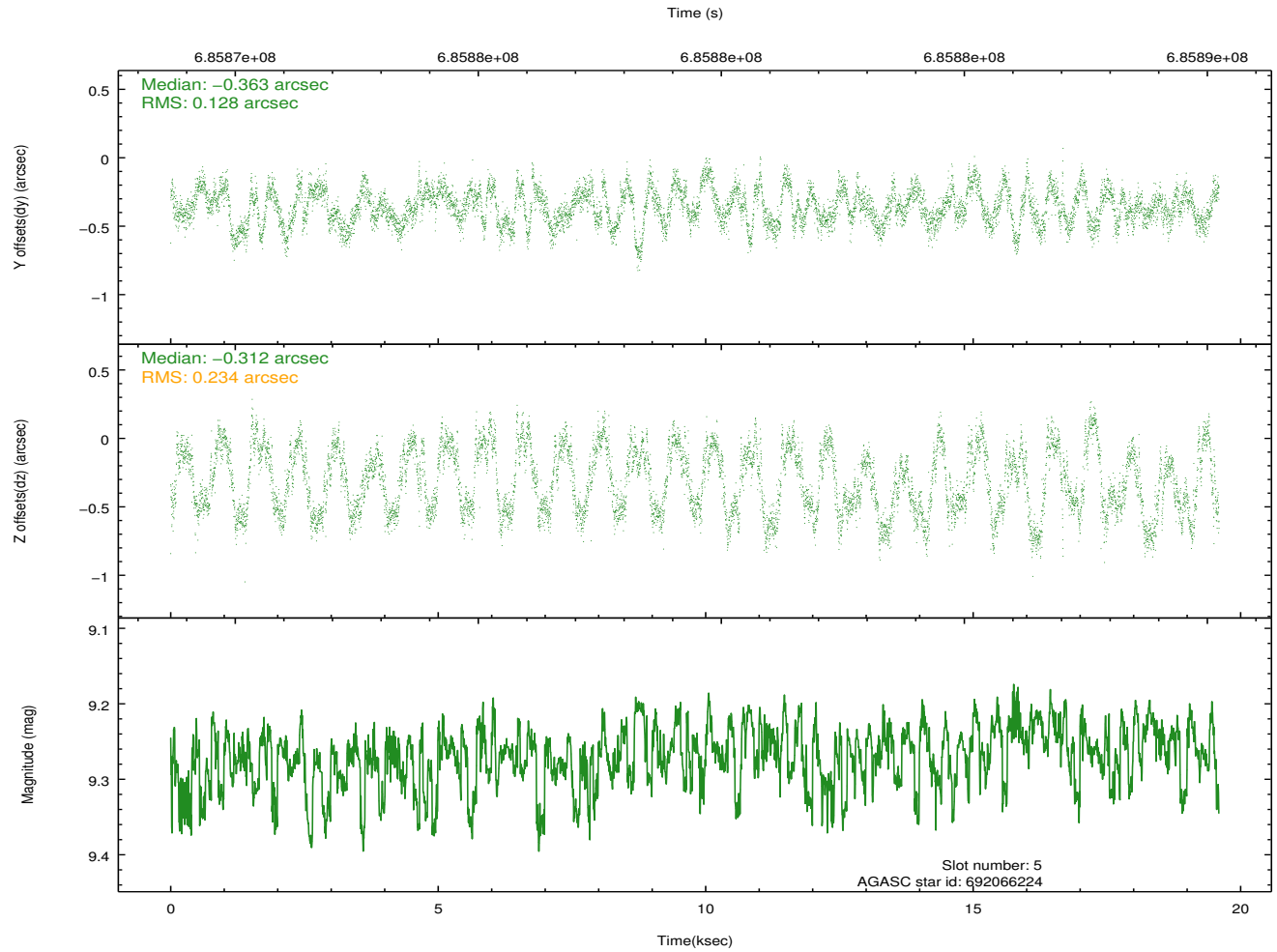
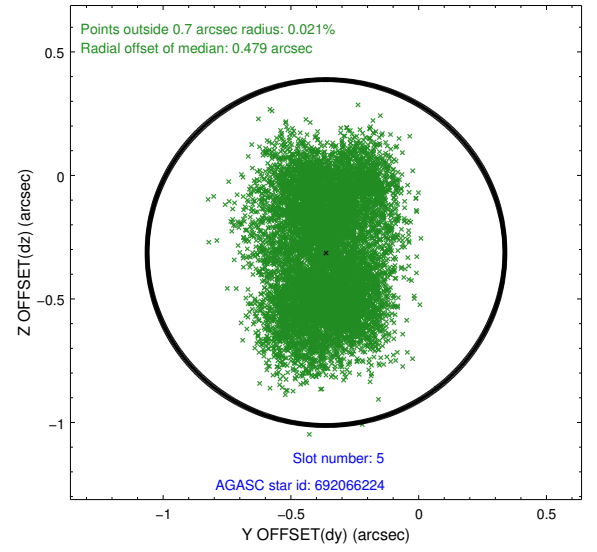
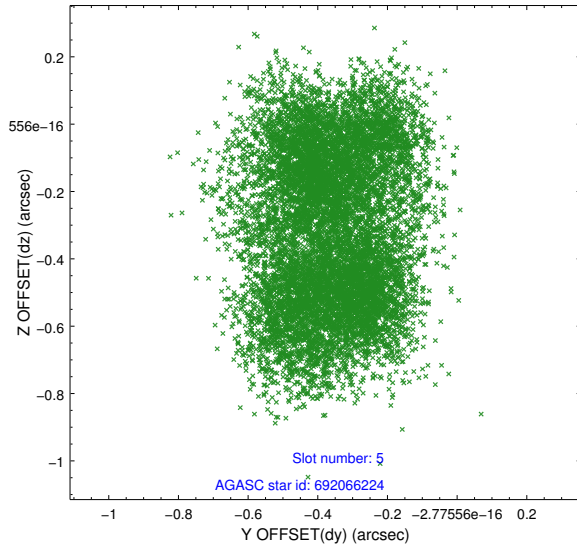
2.4.1 Slot 3



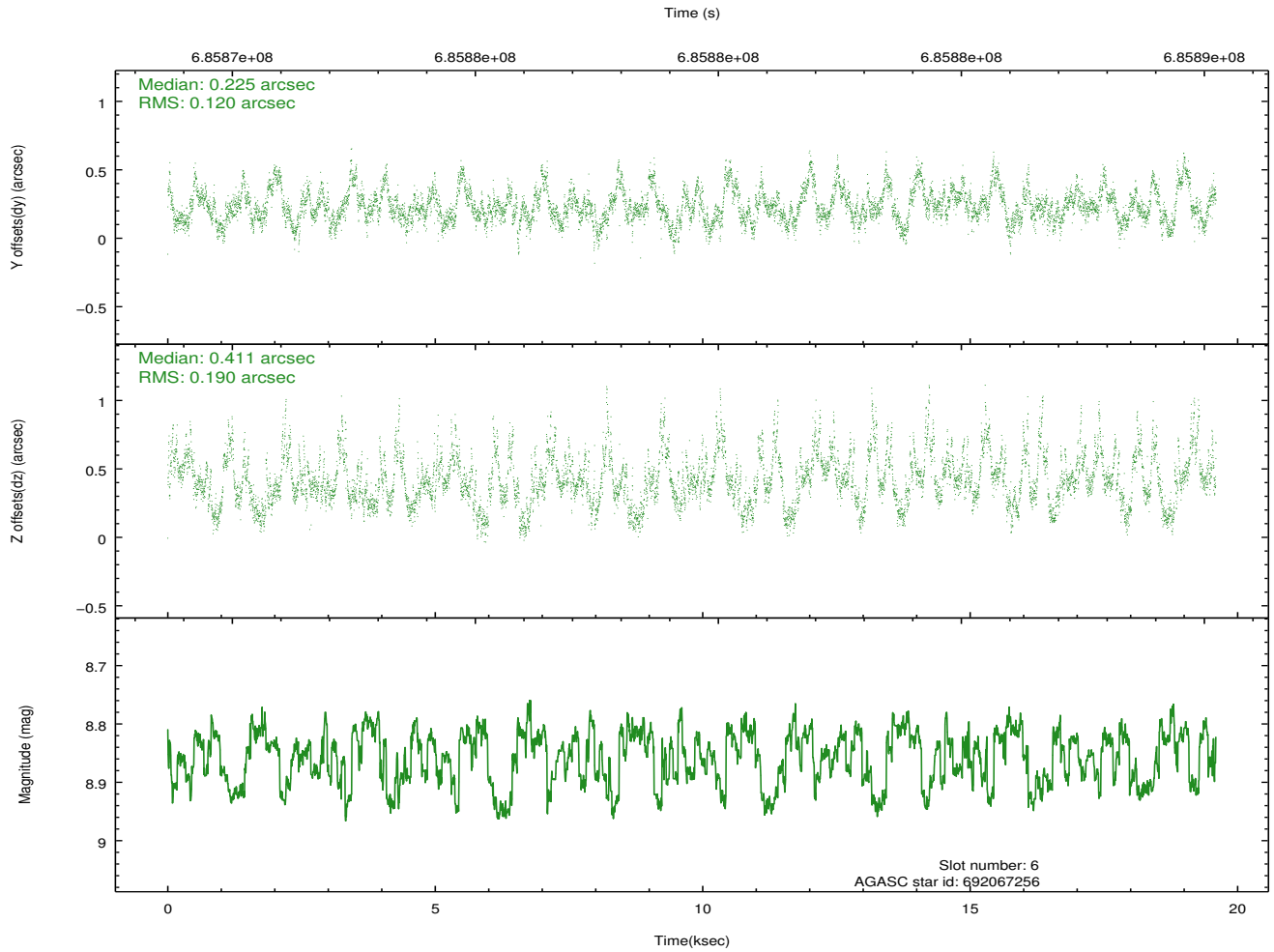
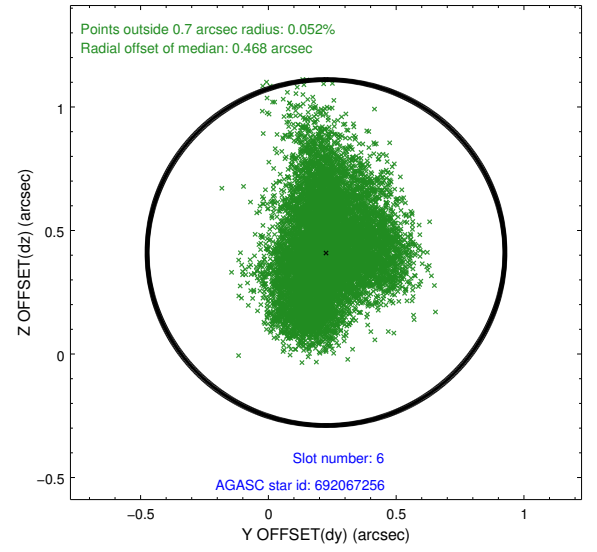
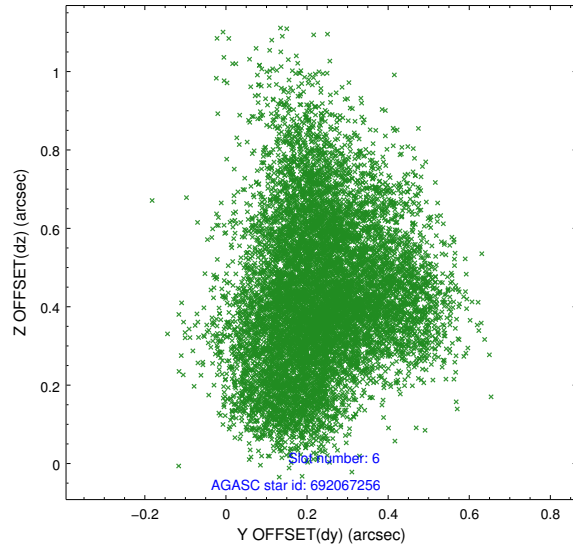
2.4.2 Slot 4



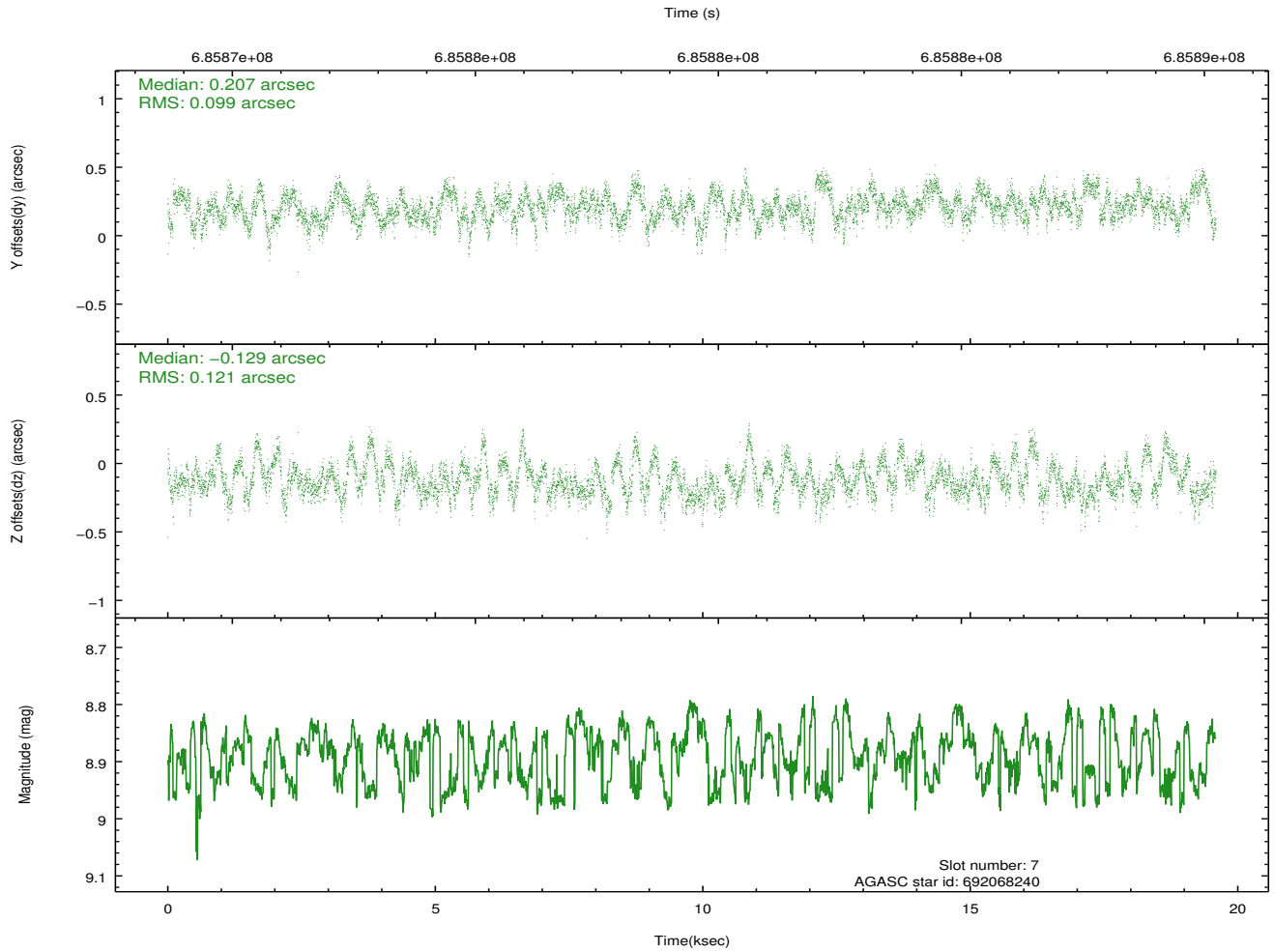
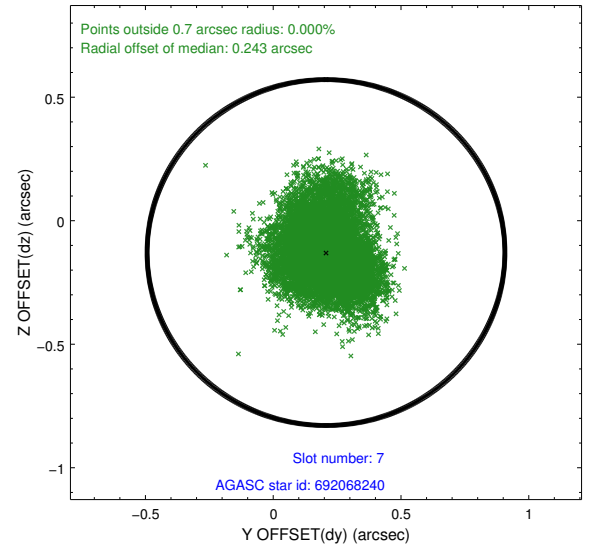
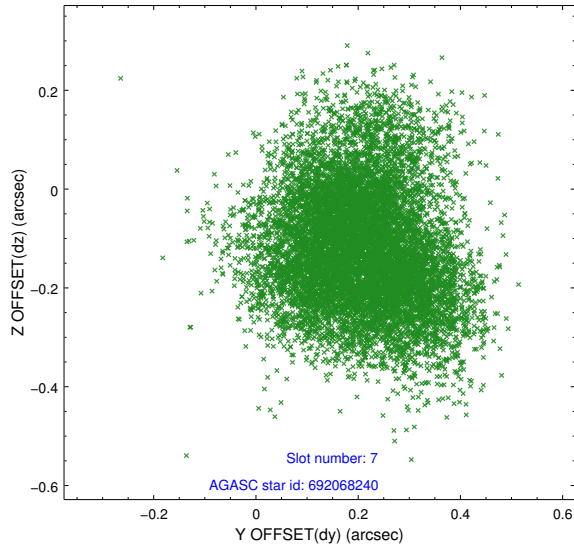
2.4.3 Slot 5



2.4.4 Slot 6

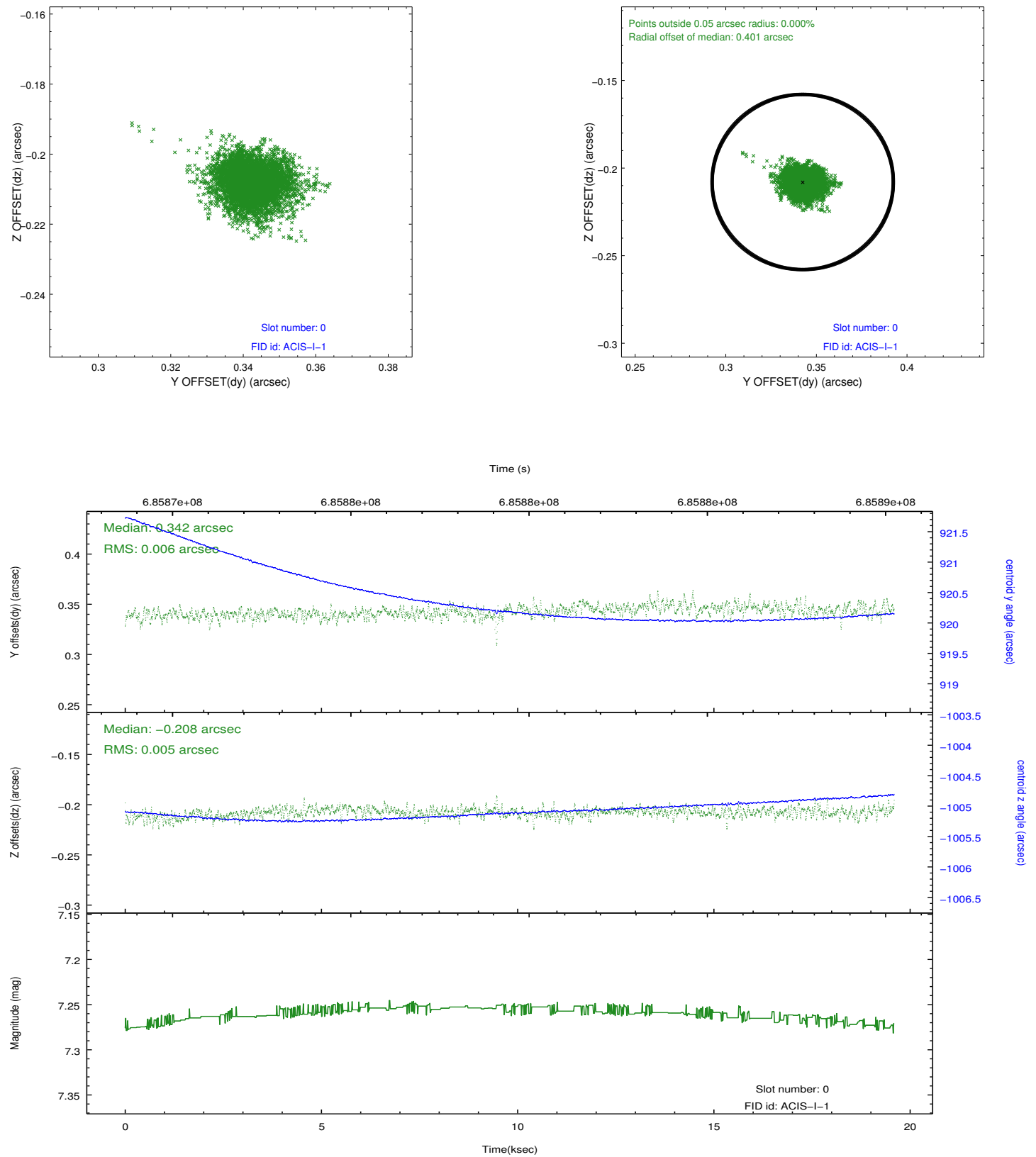


2.4.5 Slot 7

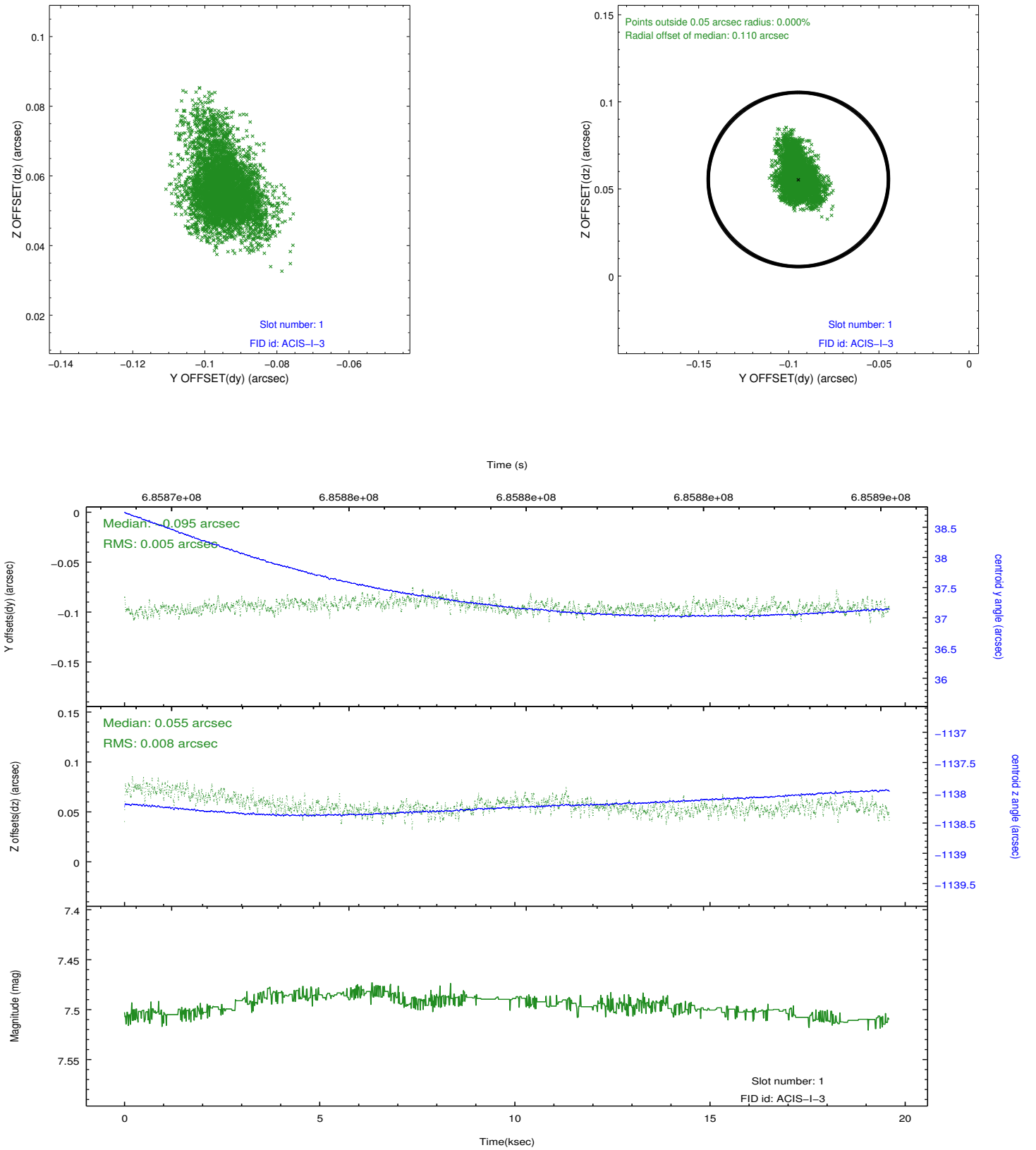


2.5 FID Slots

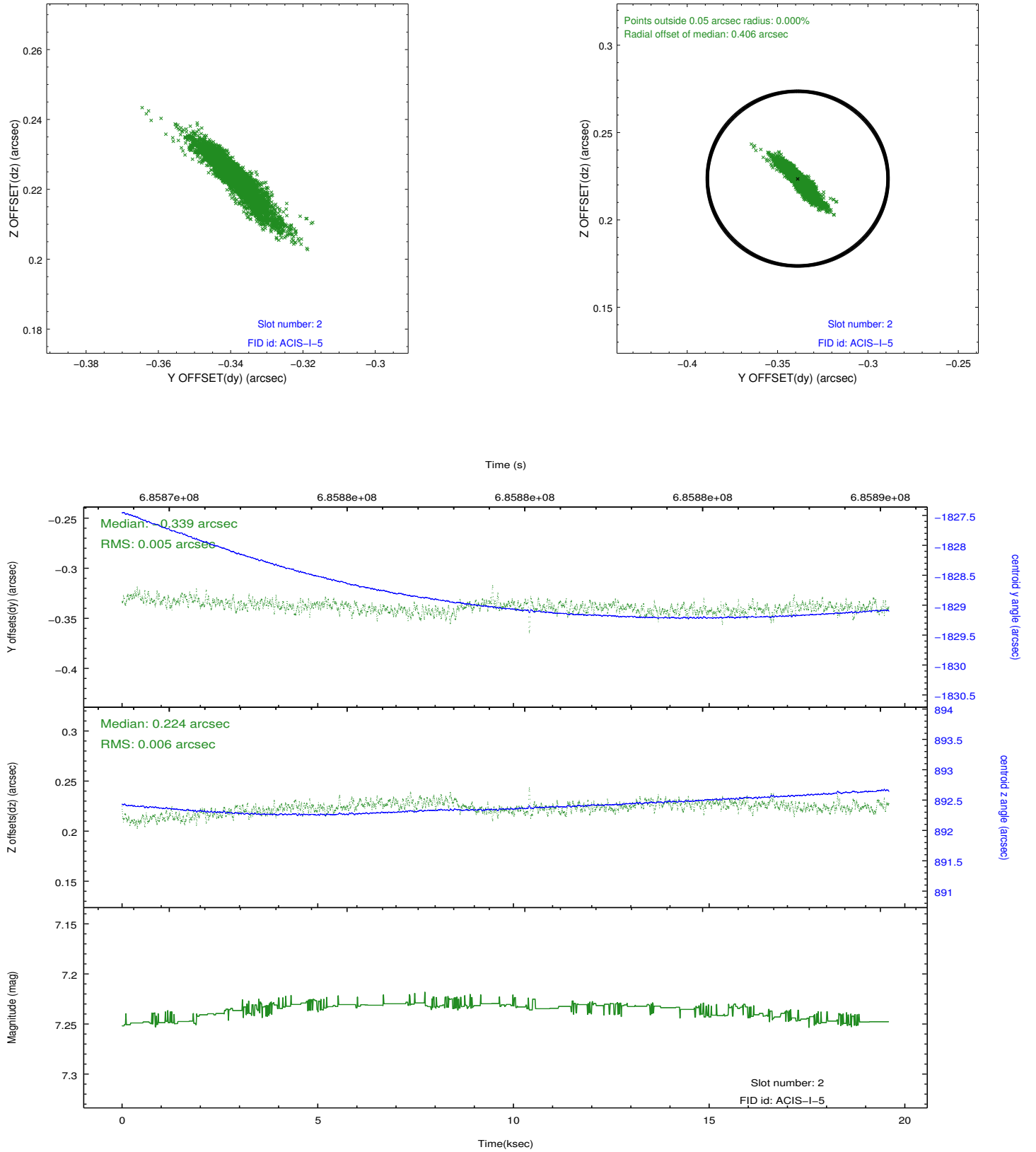
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2019.10.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.533059129953

A.2 Comments

A spatial region of the original bias map for CCD = 3 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 = 3 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: (28.14688,-14.01583), (28.14936,-14.01711), (28.18728,-13.94727), (28.18407,-13.94732).