

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 22851 - L2 Version 2
Chandra X-Ray Center

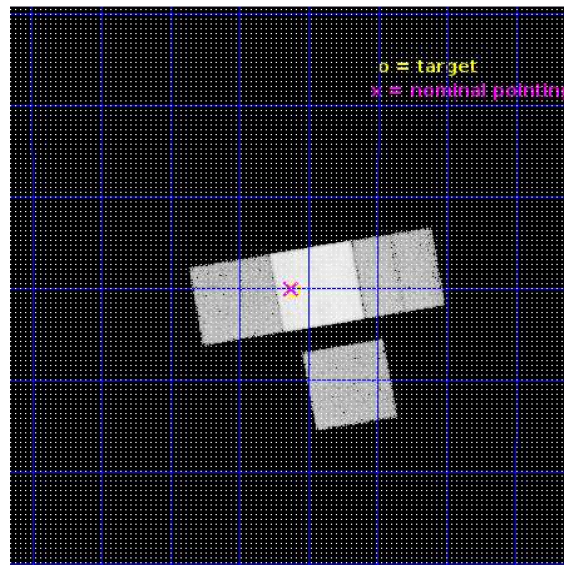
L2 Processing Date : Sep 25 2019

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 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	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

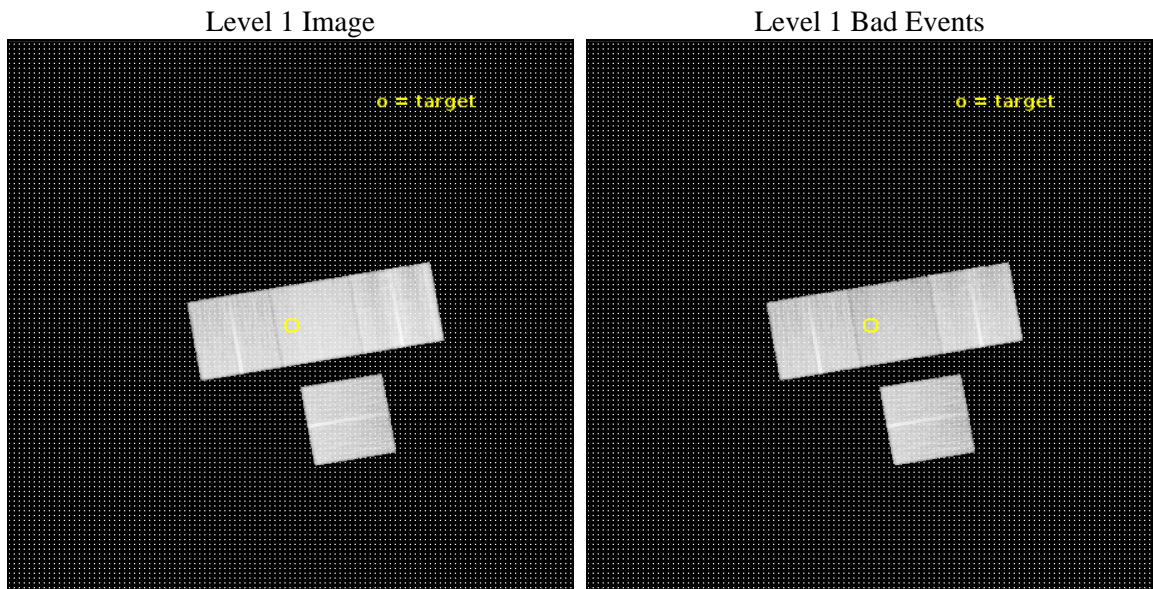
seq_num	703713	Sequence number
obs_id	22851	Observation id
title	X-rays from the brightest radio source at z~6	Proposal title
observer	Eduardo Banados	Principal investigator
object	P352-15	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	352.403333	Observer's specified target RA [deg]
dec_targ	-15.337333	Observer's specified target Dec [deg]
ra_nom	352.40628793699	Nominal RA [deg]
dec_nom	-15.334011275582	Nominal Dec [deg]
roll_nom	350.15736919514	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30277.700232983	Sum of GTIs [s]
livetime	29882.09978932	Livetime [s]
ontime3	30265.135992408	Sum of GTIs [s]
ontime6	30274.55917263	Sum of GTIs [s]
ontime7	30277.700232983	Sum of GTIs [s]
ontime8	30277.700232983	Sum of GTIs [s]
l2events	196297	Number of level 2 events



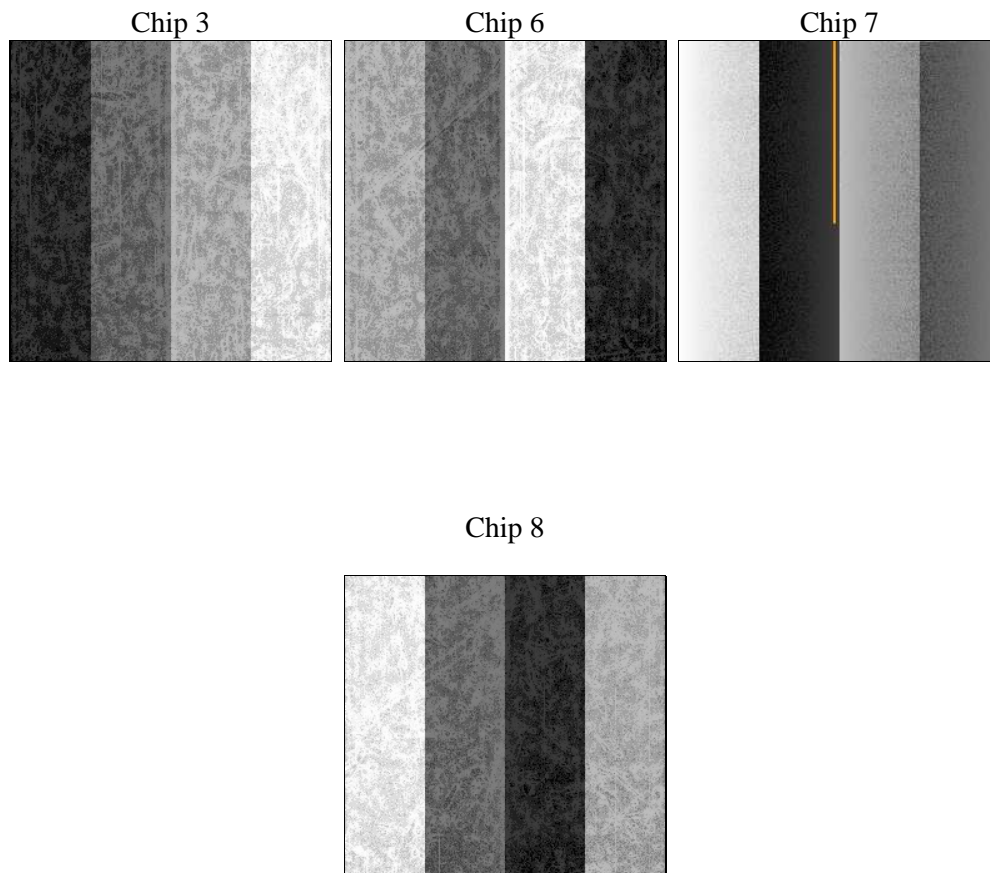
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30213.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	30277.700232983	Sum of GTIs [s]
caldbver	4.8.4.1	 	ontime3	30265.135992408	Sum of GTIs [s]
date	2019-09-25T17:28:46	Date and time of file creation	ontime6	30274.55917263	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	30277.700232983	Sum of GTIs [s]
			ontime8	30277.700232983	Sum of GTIs [s]
			l1events	1083043	Number of level 1 events

2.1.4 Events

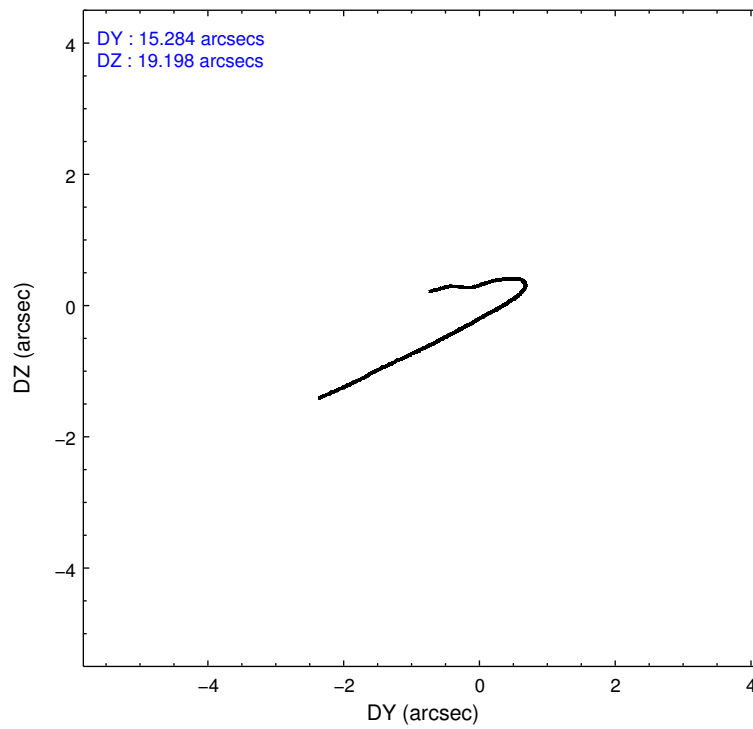
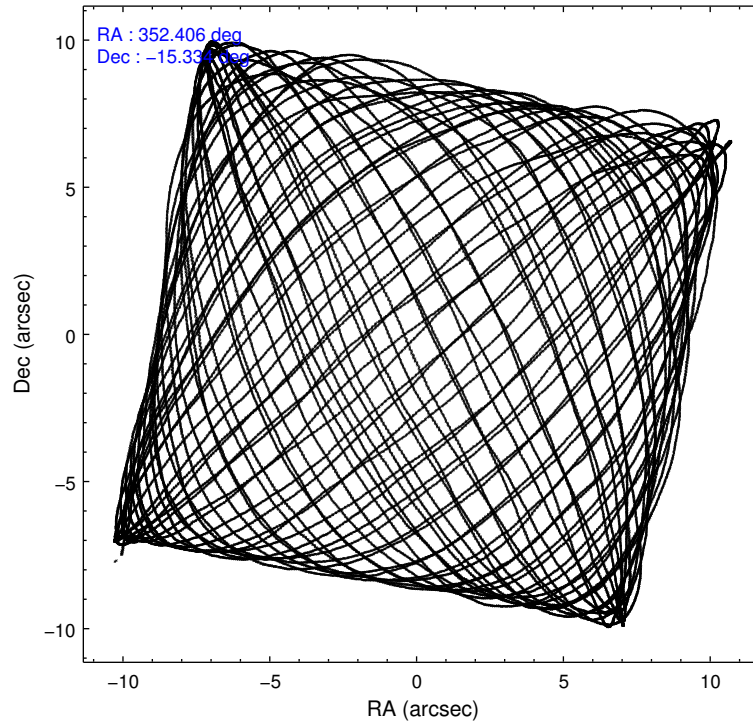
	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	228033	242860	303507	308643
rejected events	204179	216599	174011	229171
rejected %	89%	89%	57%	74%

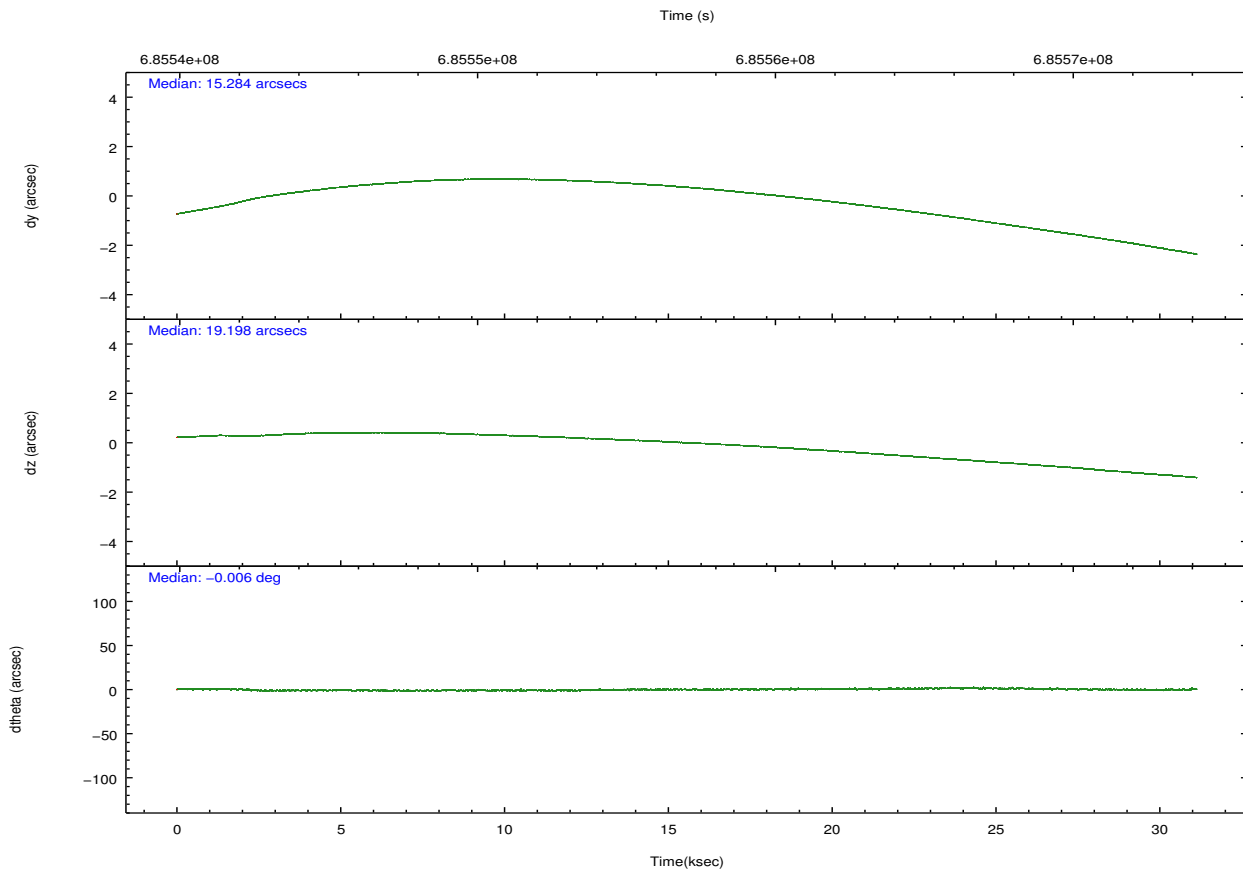
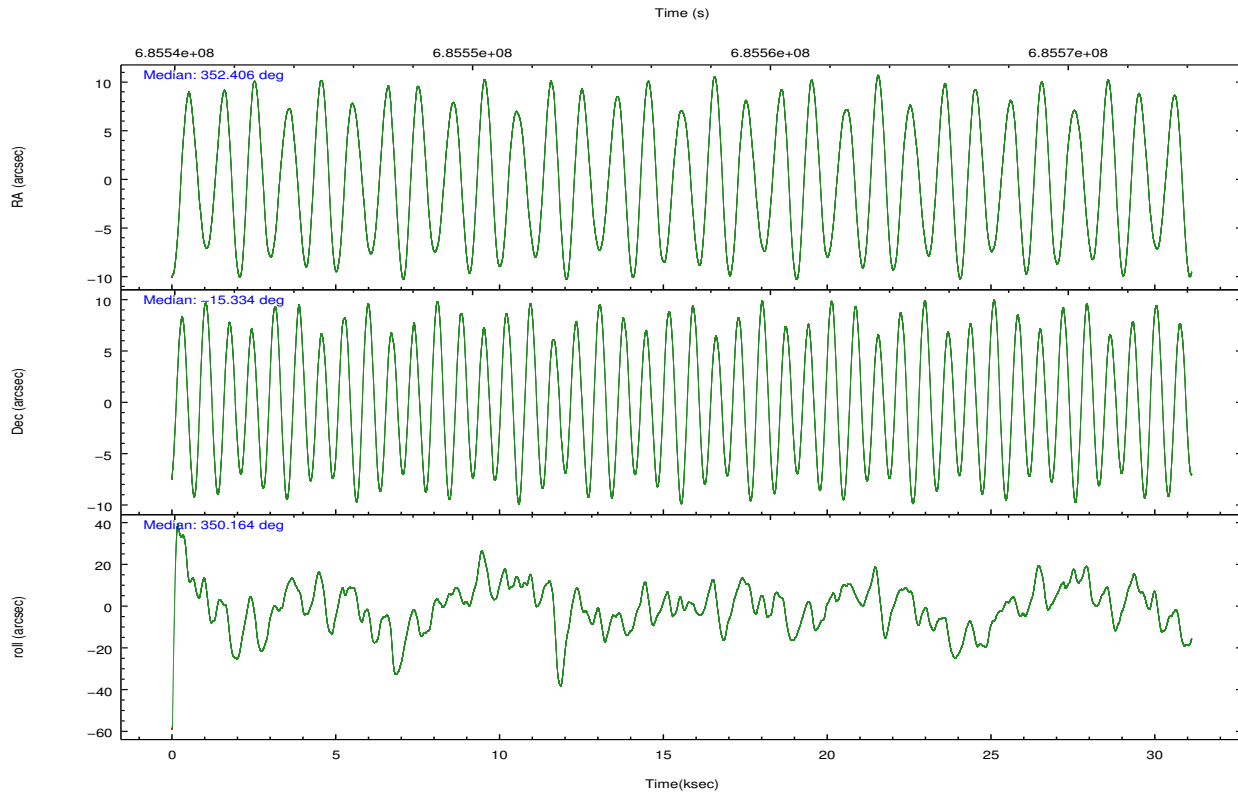
	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	8260	7886	10513	21923
	3%	3%	3%	7%
grade 1 events	124	94	501	244
	0%	0%	0%	0%
grade 2 events	5269	6854	27701	19740
	2%	2%	9%	6%
grade 3 events	2552	2338	9712	7819
	1%	0%	3%	2%
grade 4 events	2451	2349	9557	7659
	1%	0%	3%	2%
grade 5 events	10477	10351	29011	16307
	4%	4%	9%	5%
grade 6 events	5325	6840	72026	22335
	2%	2%	23%	7%
grade 7 events	193575	206148	144486	212616
	84%	84%	47%	68%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-3678	ACIS-3678	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	352.379712	352.4062879369928	CCD I2 on	O1	N
[deg] Pointing Dec	-15.343806	-15.33401127558185	CCD I3 on	Y	Y
[deg] Pointing Roll	349.993755	350.1573691951448	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	685542386.184000	685541238.3567899	CCD S5 on	N	N
Observation start date	2019-09-22T12:25:17	2019-09-22T12:07:18	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	685572599.184000	685572788.37119	On-chip summing requested	N	N
Observation end date	2019-09-22T20:48:50	2019-09-22T20:53:08	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect





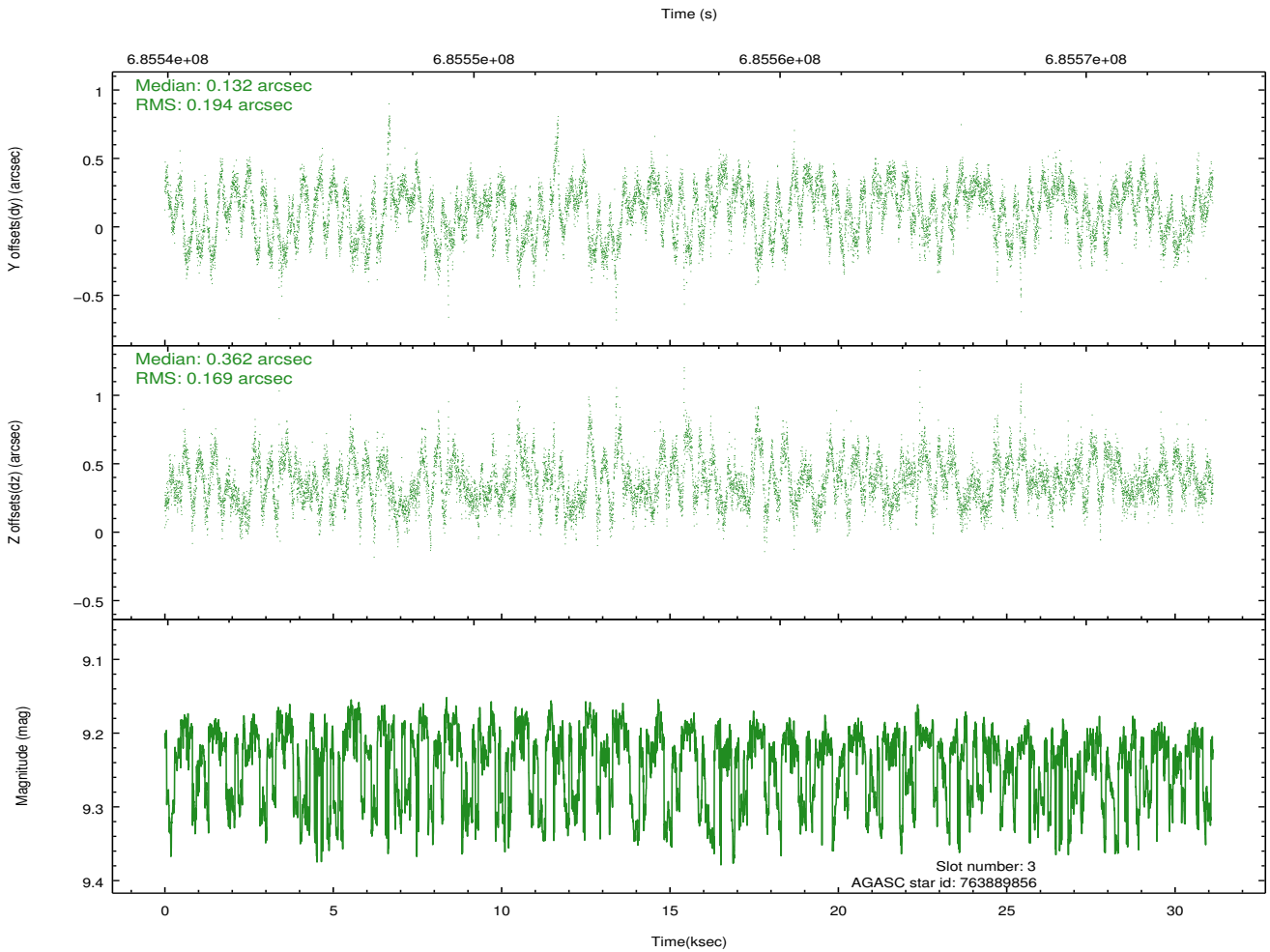
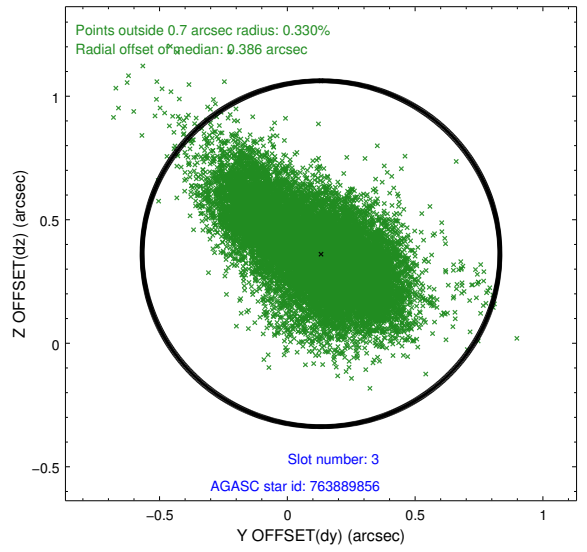
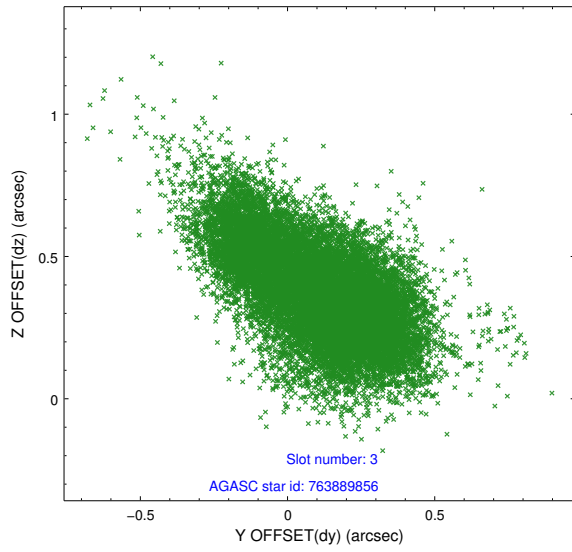
Slot Statistics

	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	m
	FID		ACIS-S-2	7.09	7590	1.000	-0.298	-0.228	0.019	0.071	0.000000	0.000000	-768.22	-17
	FID		ACIS-S-4	7.21	7590	1.000	0.802	0.204	0.016	0.064	0.000000	0.000000	2146.04	1
	FID		ACIS-S-5	7.16	7592	1.000	-0.538	0.032	0.019	0.041	0.000000	0.000000	-1821.30	1
	GUIDE	used	763889856	9.23	15161	1.000	0.132	0.362	0.268	0.451	351.806840	-14.828602	-2284.94	14
	BAD	used	764811080	10.05	13175	0.998	-0.320	0.508	0.405	0.633	353.064762	-14.785292	2000.43	23
	GUIDE	used	839255272	9.55	15112	1.000	-0.133	-0.574	0.316	0.471	352.744944	-15.268463	1201.99	4
	GUIDE	used	839262008	9.81	15105	1.000	0.321	-0.242	0.325	0.505	352.188892	-15.237406	-718.54	2
	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	

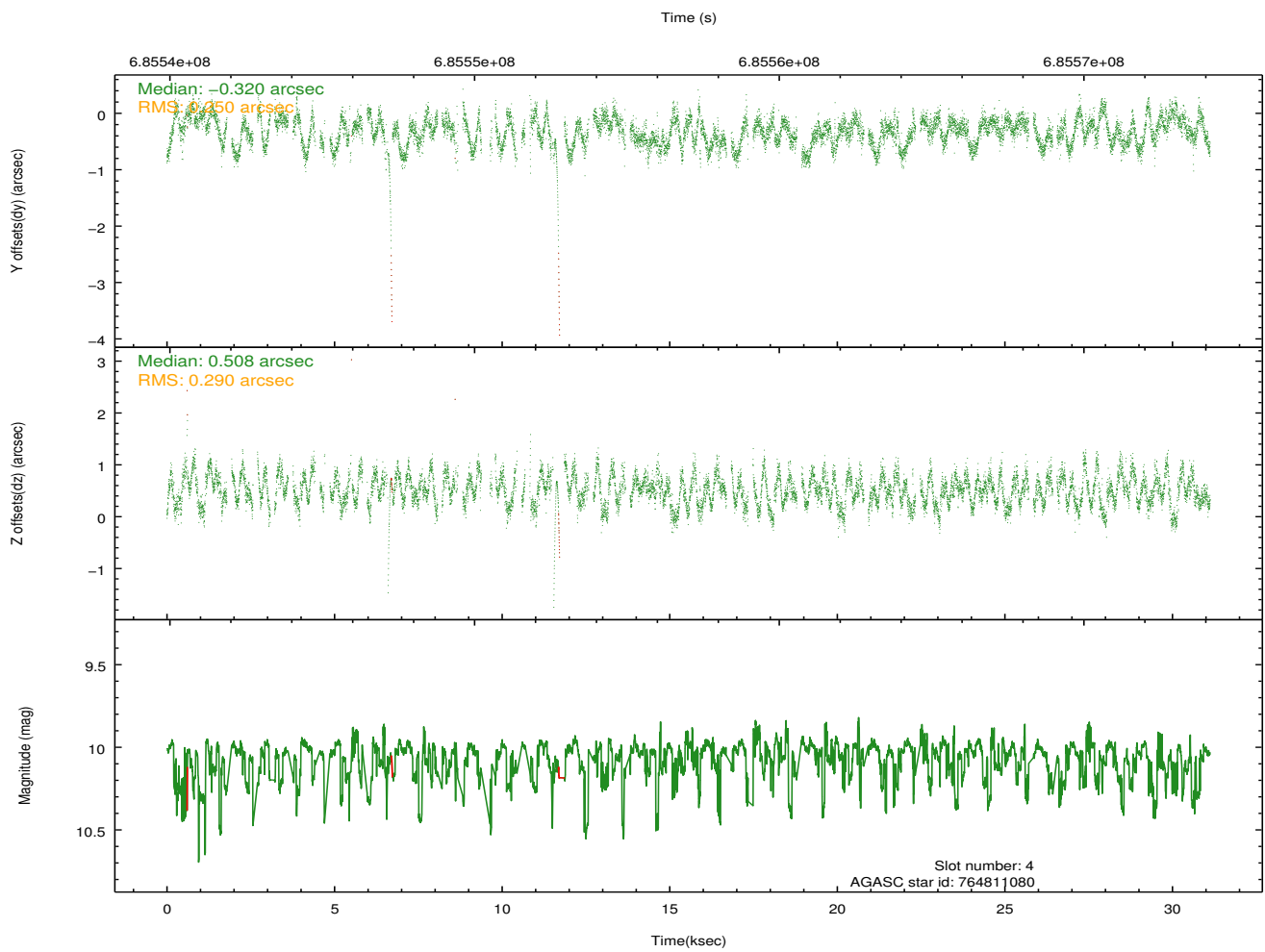
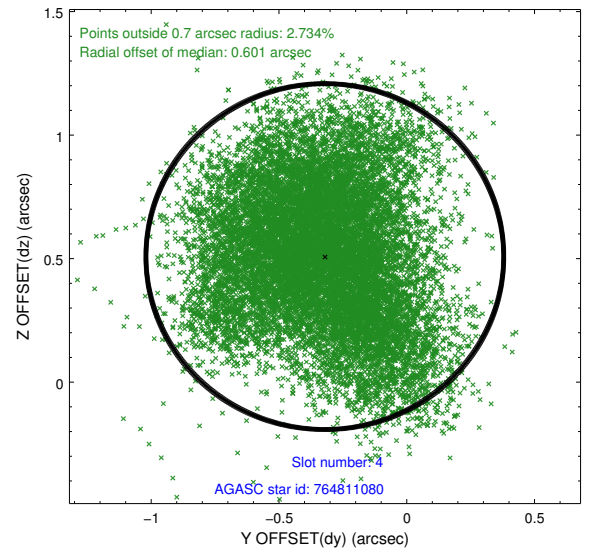
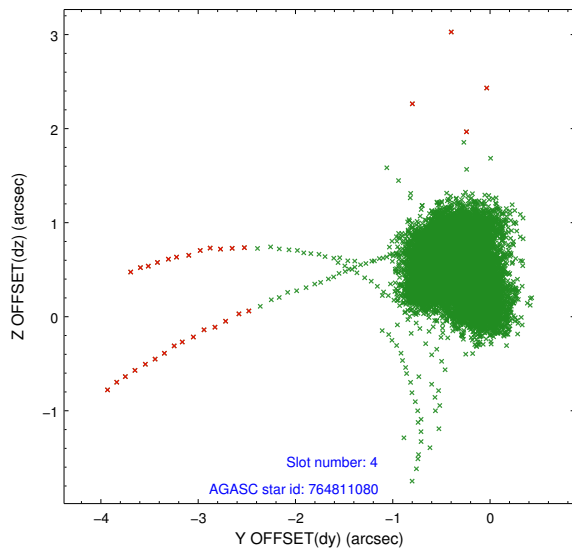
∞

2.4 Star Slots

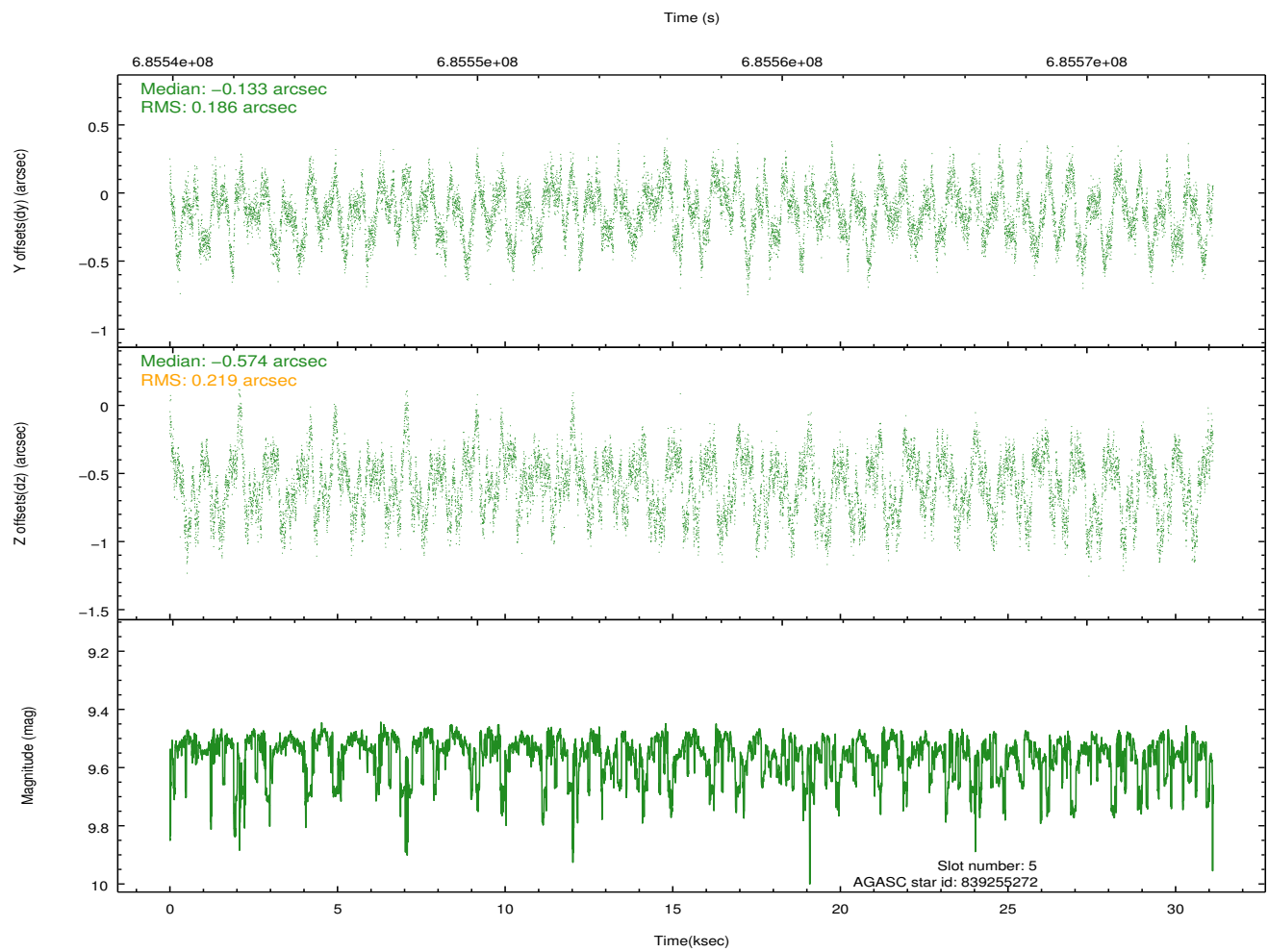
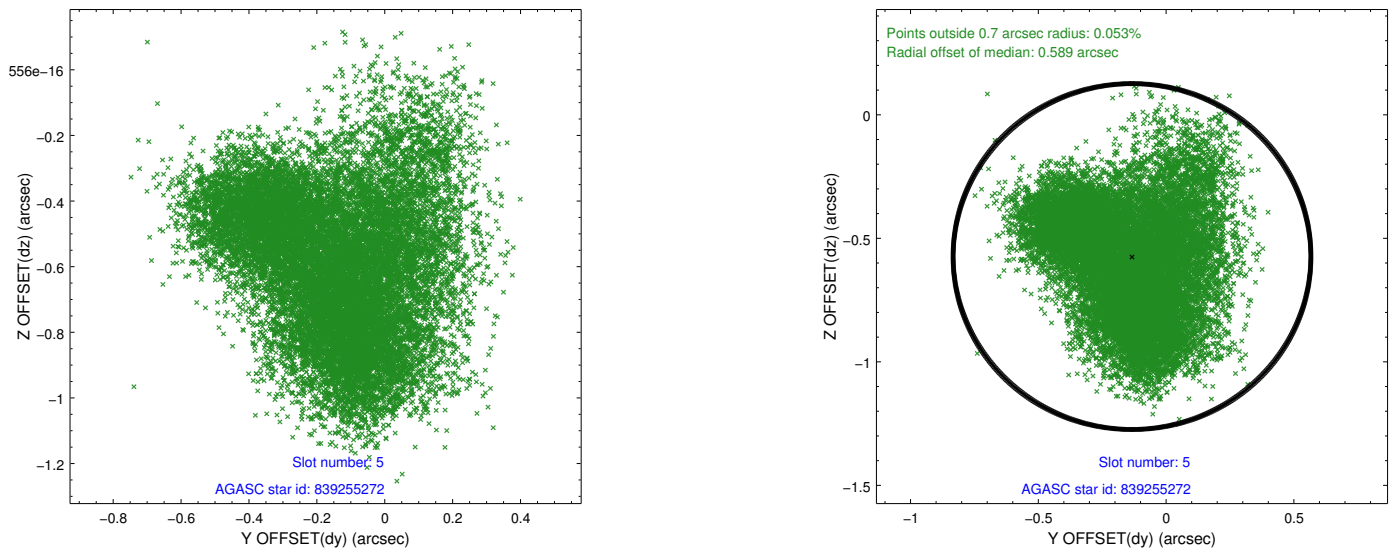
2.4.1 Slot 3



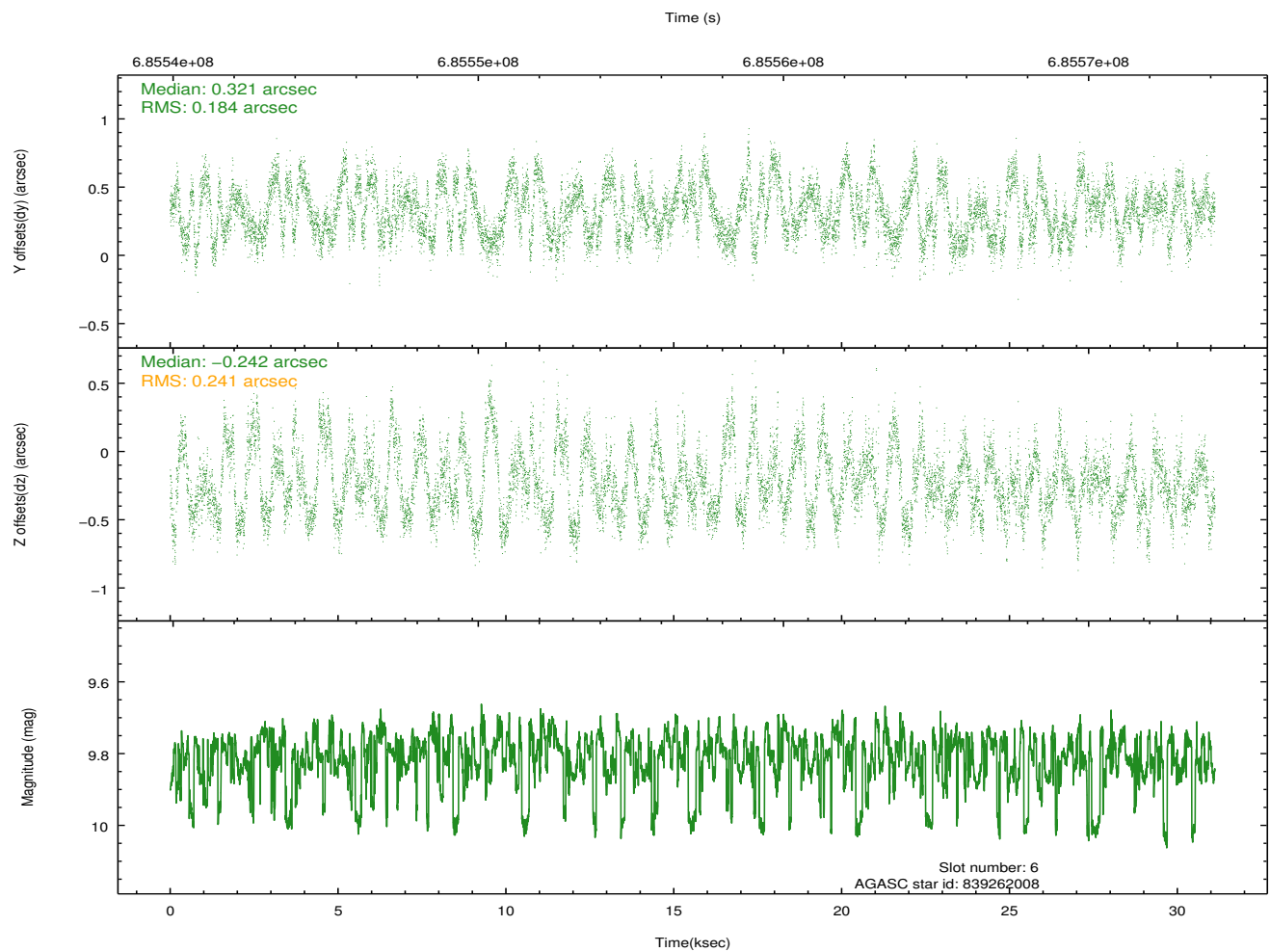
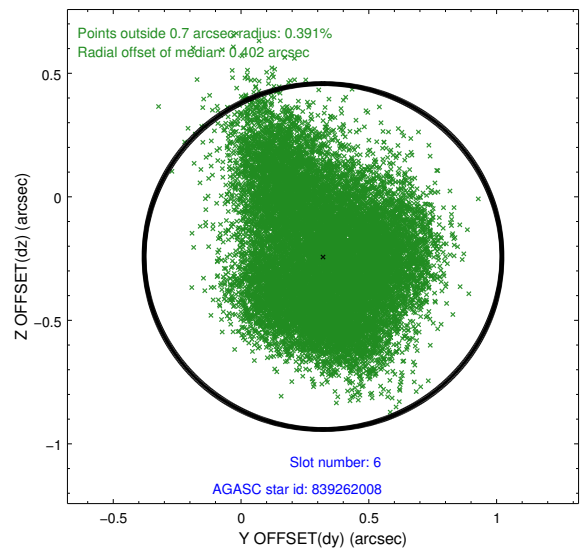
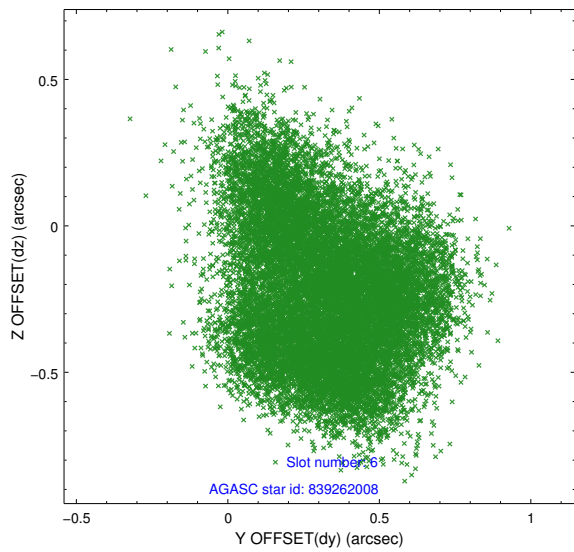
2.4.2 Slot 4



2.4.3 Slot 5

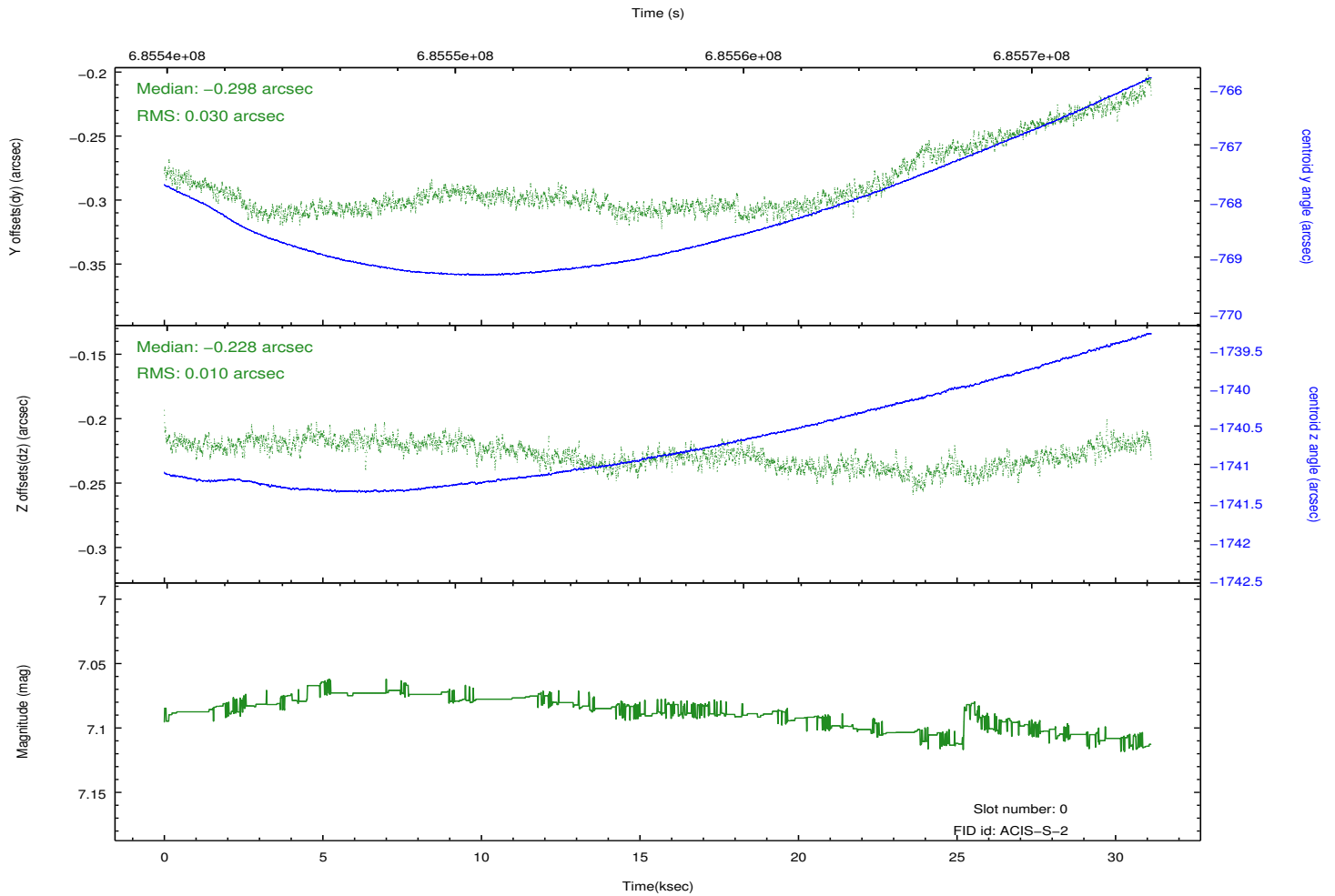
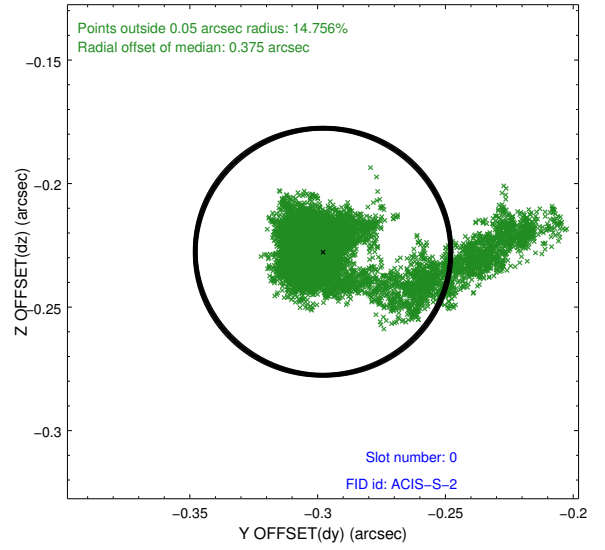
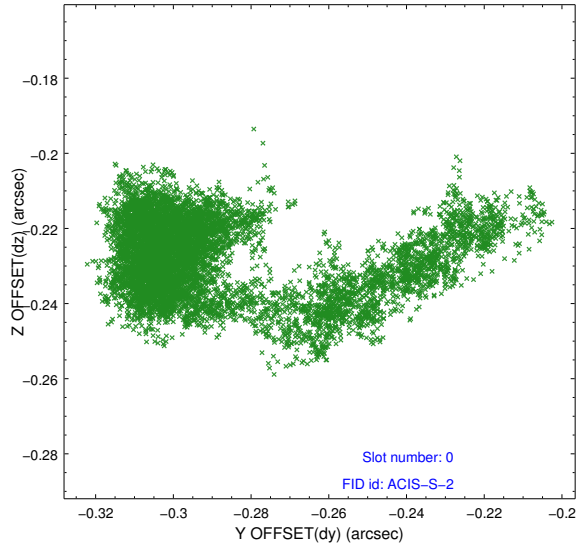


2.4.4 Slot 6

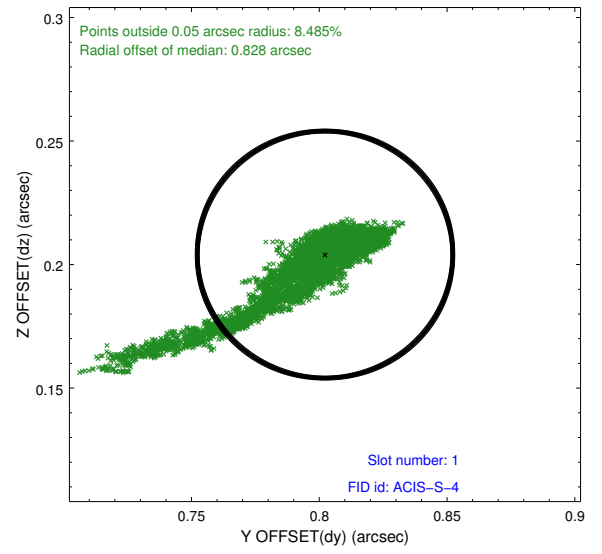
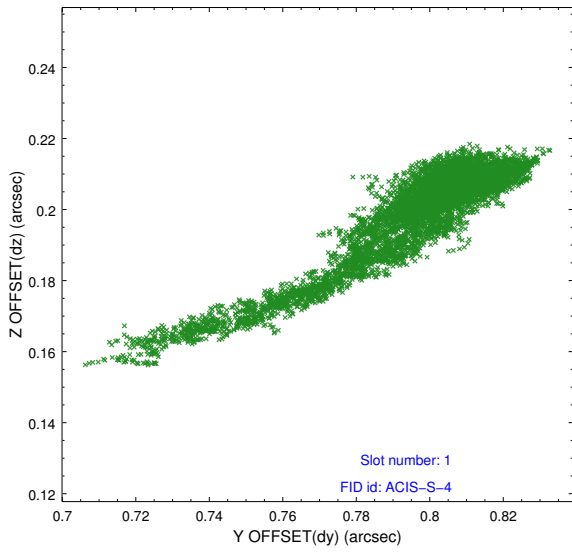


2.5 FID Slots

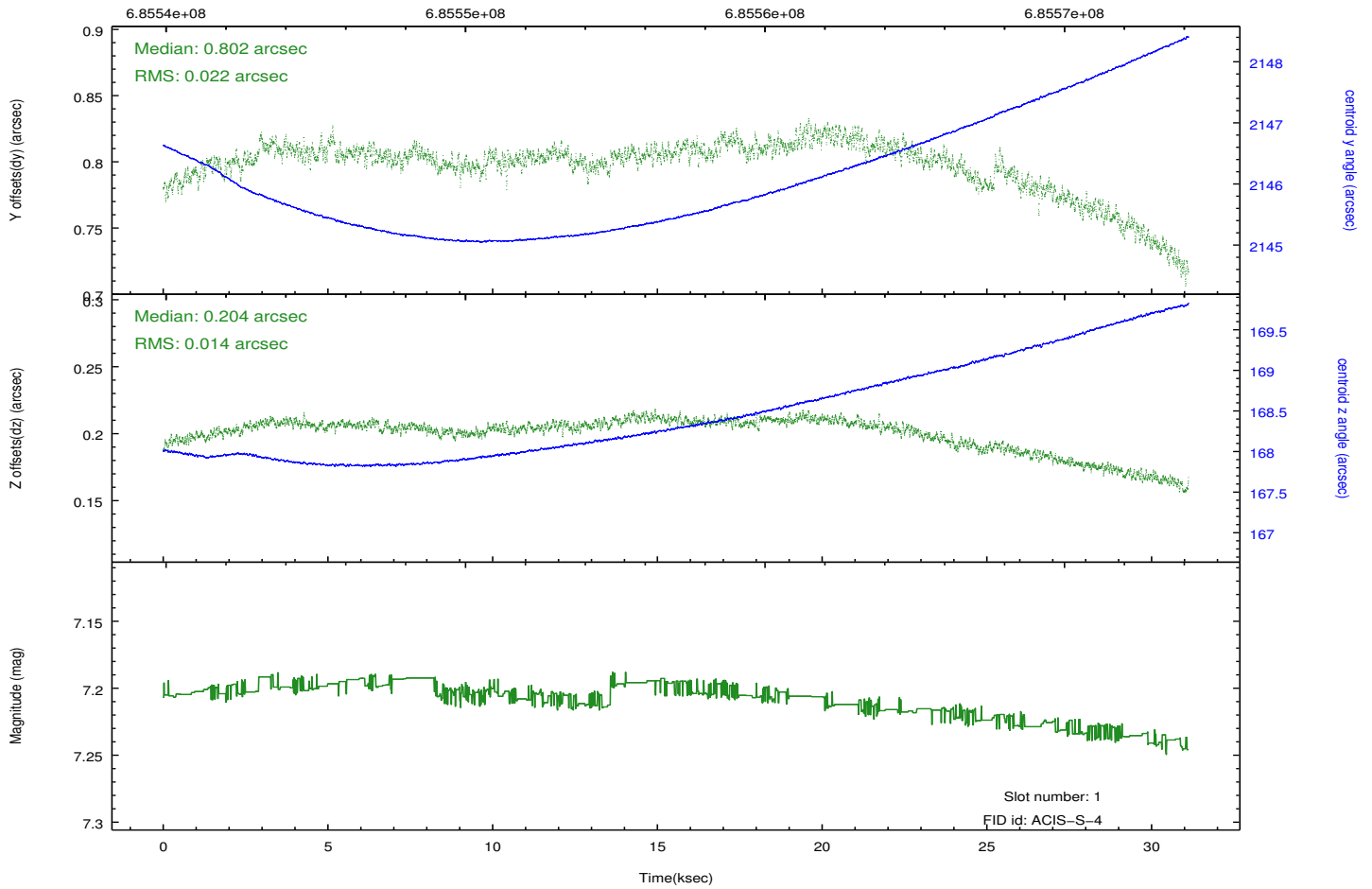
2.5.1 Slot 0



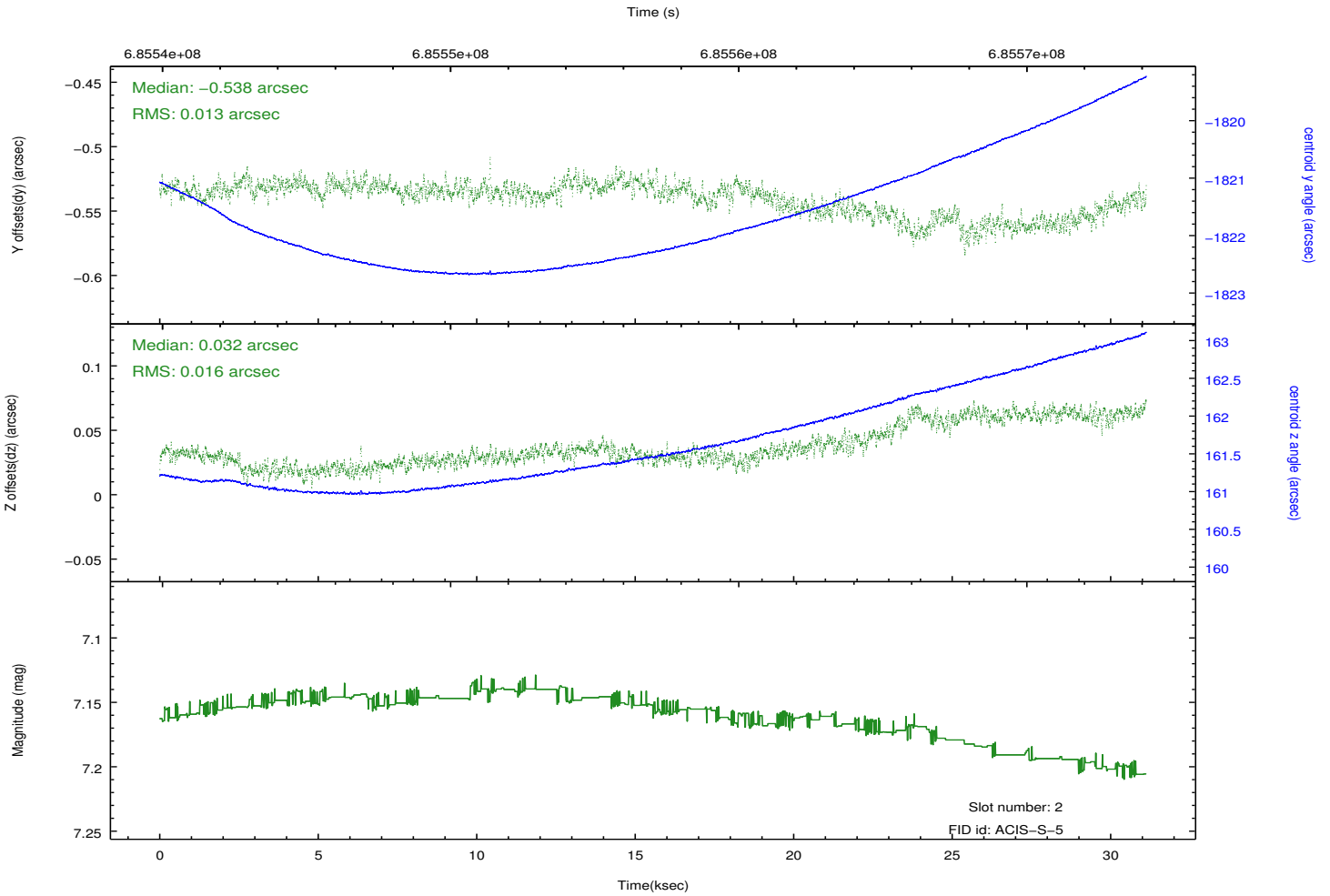
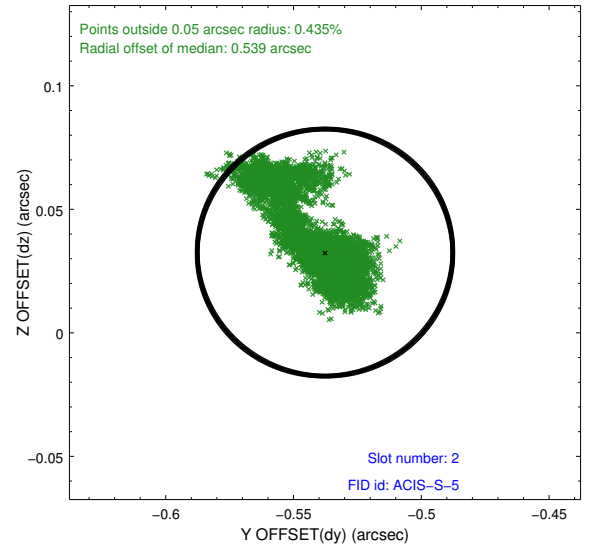
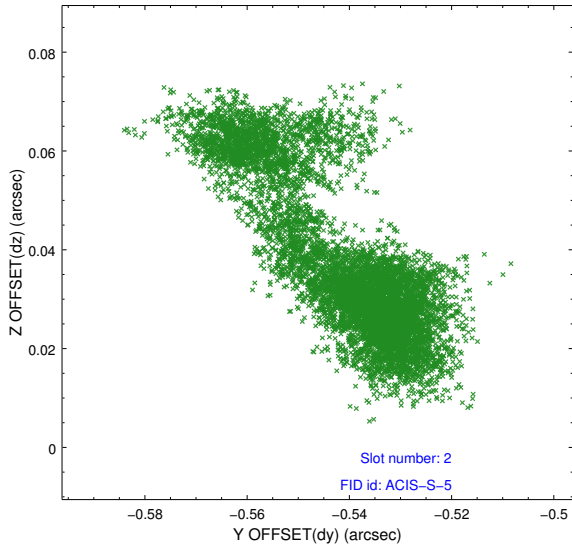
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2019.09.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.277700232983

A.2 Comments

One optional chip was dropped.

The guide star in slot 7 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.