

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 20887 - L2 Version 2
Chandra X-Ray Center

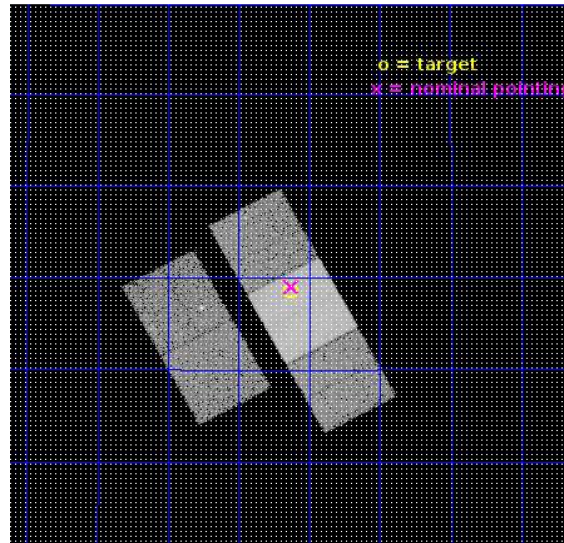
L2 Processing Date : Dec 19 2017

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

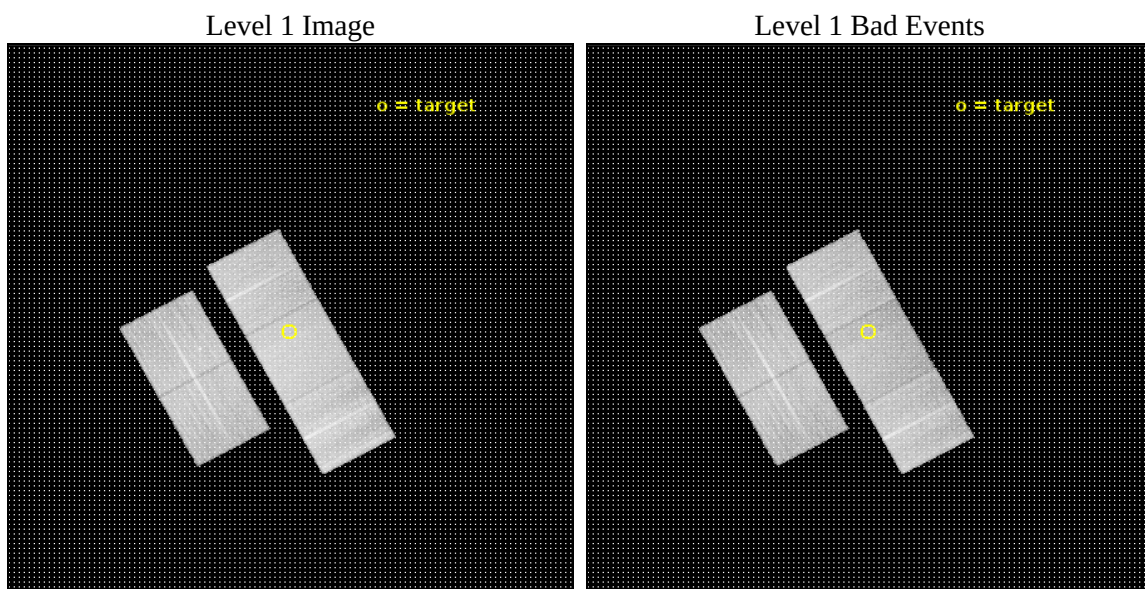
seq_num	703470	Sequence number
obs_id	20887	Observation id
title	The X-rays of a bright QSO well within the epoch of reionization at Z=7.54	Proposal title
observer	Eduardo Banados	Principal investigator
object	J1342+0928	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	205.53375	Observer's specified target RA [deg]
dec_targ	9.477389	Observer's specified target Dec [deg]
ra_nom	205.53178972887	Nominal RA [deg]
dec_nom	9.4842624149449	Nominal Dec [deg]
roll_nom	61.656950986215	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20654.315822124	Sum of GTIs [s]
livetime	20384.451980422	Livetime [s]
ontime2	20651.010641932	Sum of GTIs [s]
ontime3	20651.092781305	Sum of GTIs [s]
ontime6	20654.274782181	Sum of GTIs [s]
ontime7	20654.315822124	Sum of GTIs [s]
ontime8	20647.910741091	Sum of GTIs [s]
l2events	140363	Number of level 2 events



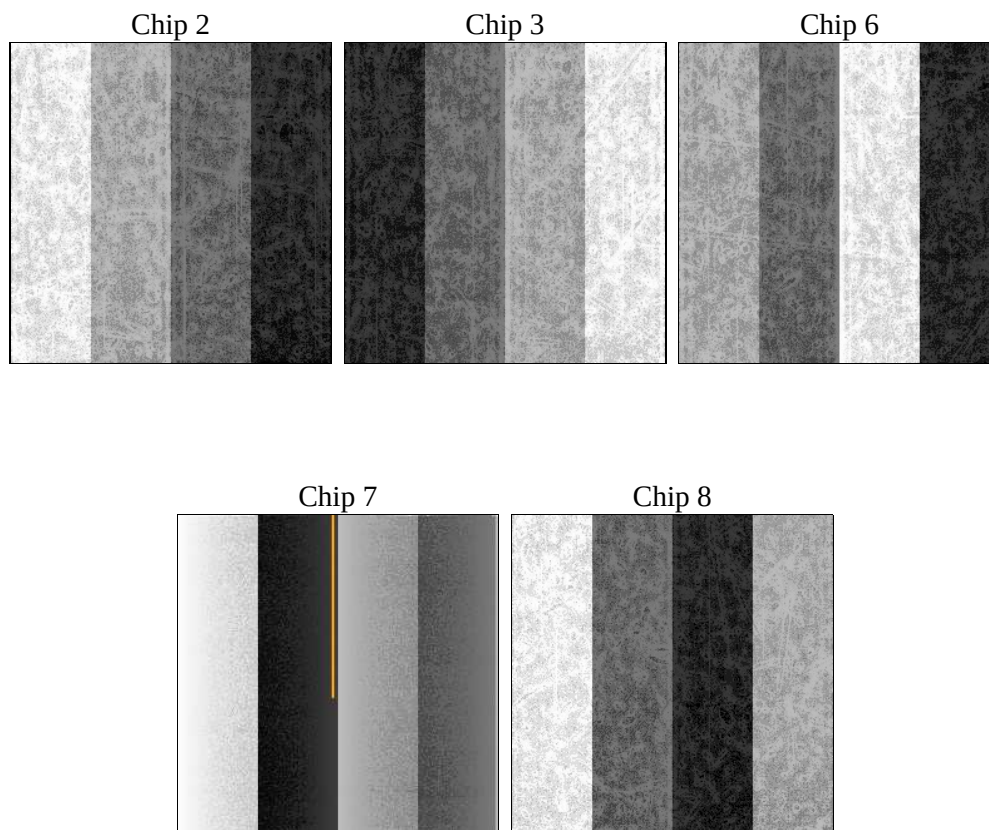
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20600.783000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	20654.315822124	Sum of GTIs [s]
caldsver	4.7.7	 	ontime2	20651.010641932	Sum of GTIs [s]
date	2017-12-19T23:03:51	Date and time of file creation	ontime3	20651.092781305	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	20654.274782181	Sum of GTIs [s]
			ontime7	20654.315822124	Sum of GTIs [s]
			ontime8	20647.910741091	Sum of GTIs [s]
			l1events	851921	Number of level 1 events

2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	151272	149767	160661	191468	198753
rejected events	135183	134592	143405	108259	148663
rejected %	89%	89%	89%	56%	74%

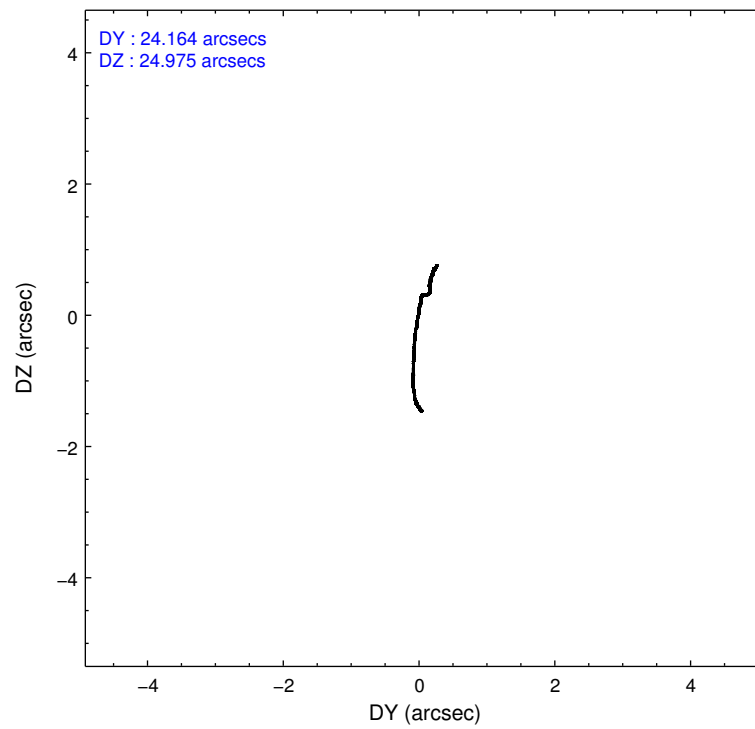
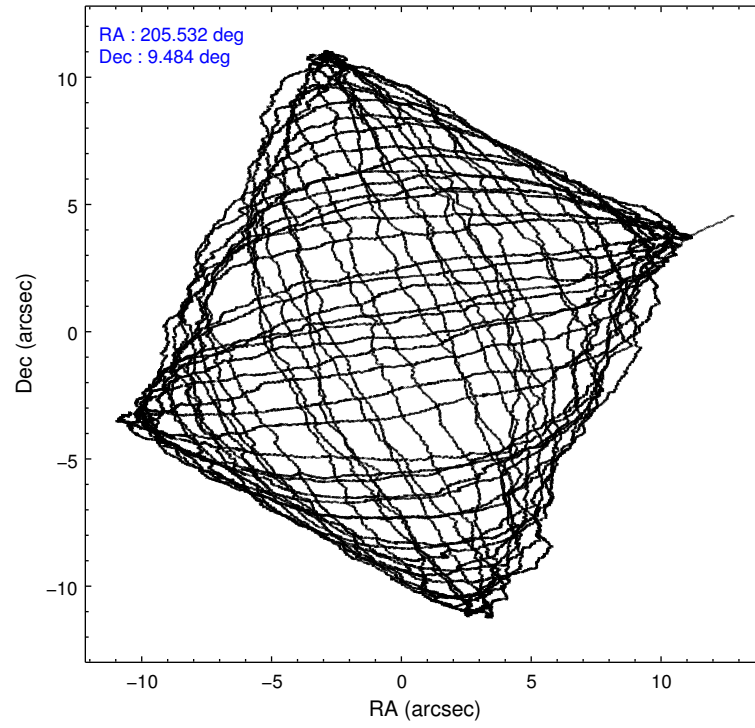
	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	6131	5353	5580	7134	14297
	4%	3%	3%	3%	7%
grade 1 events	85	76	68	255	165
	0%	0%	0%	0%	0%
grade 2 events	3802	3260	4262	17422	12127
	2%	2%	2%	9%	6%
grade 3 events	1534	1656	1643	6707	5218
	1%	1%	1%	3%	2%
grade 4 events	1582	1642	1517	6486	4735
	1%	1%	0%	3%	2%
grade 5 events	5494	6962	6736	18914	10334
	3%	4%	4%	9%	5%
grade 6 events	3042	3265	4258	45478	13718
	2%	2%	2%	23%	6%
grade 7 events	129602	127553	136597	89072	138159
	85%	85%	85%	46%	69%

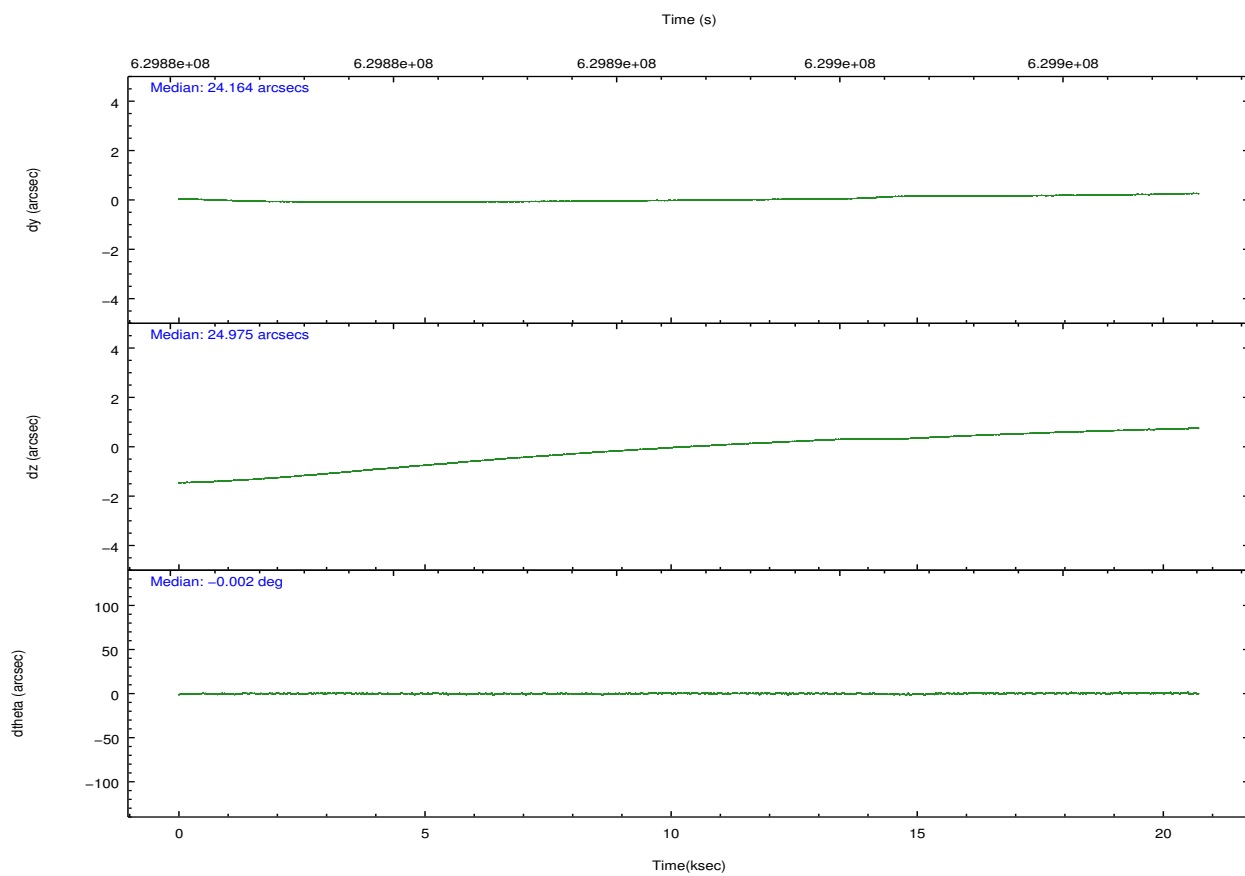
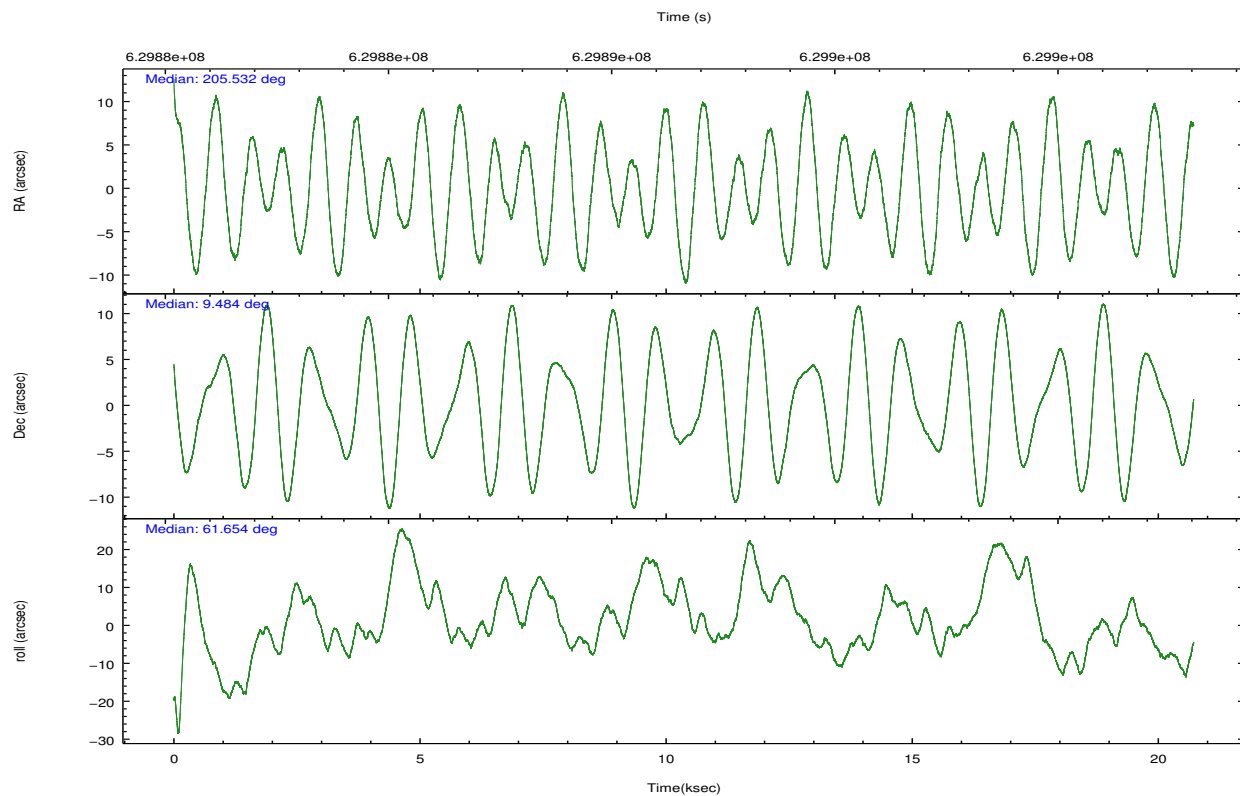
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-23678	ACIS-23678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	205.532955	205.5317897288683
[deg] Pointing Dec	9.456871	9.484262414944901
[deg] Pointing Roll	61.500132	61.65695098621494
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1400660498719
[mm] SIM translation stage offset	0	0.00754346686406393
[s] Observation start time (MET)	629881373.184000	629879969.1147701
Observation start date	2017-12-17T07:01:44	2017-12-17T06:39:29
[s] Observation end time (MET)	629901974.184000	629903118.74113
Observation end date	2017-12-17T12:45:05	2017-12-17T13:05:18
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
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	Y	Y
CCD S0 on	N	N
CCD S1 on	N	N
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	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



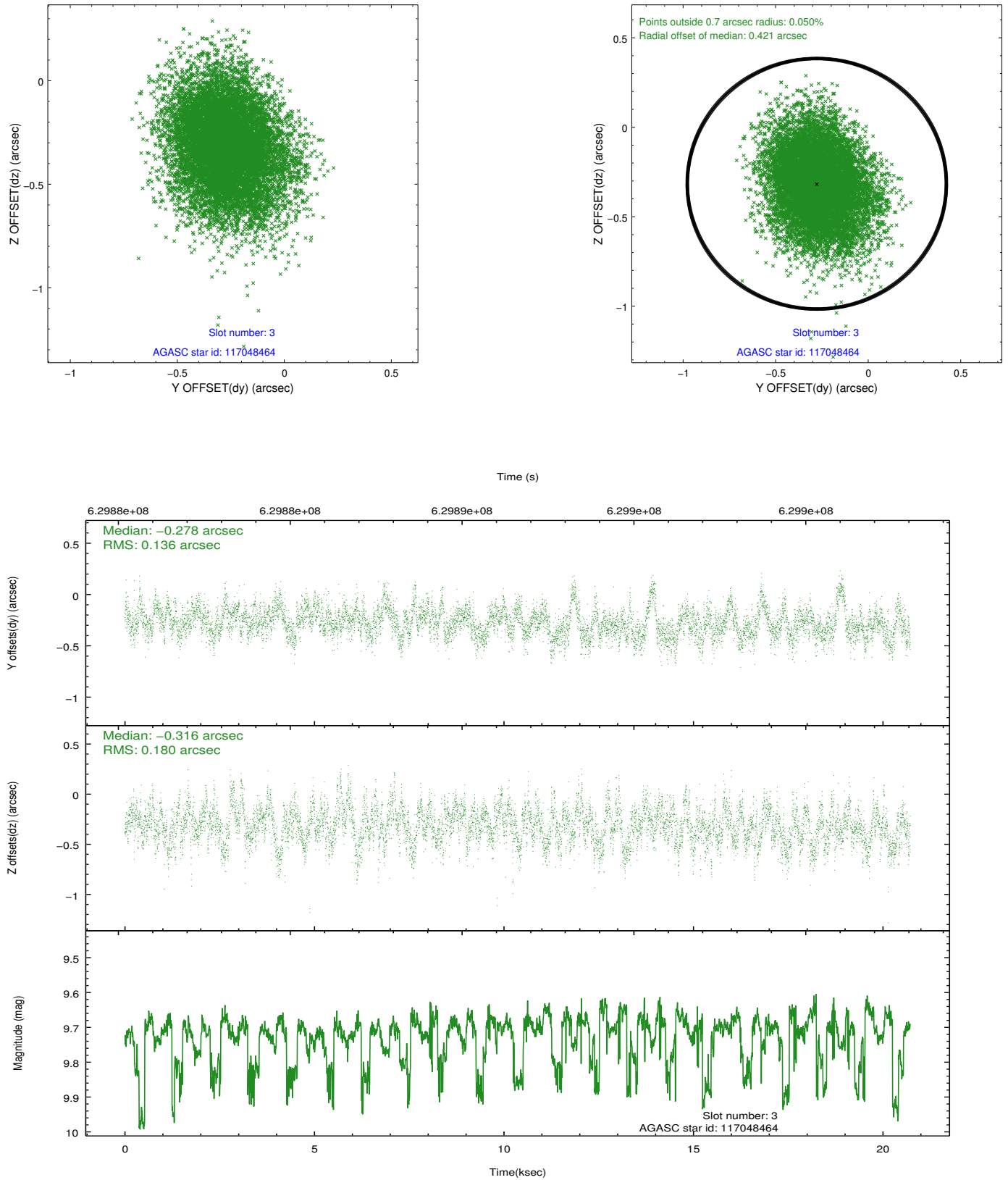


Slot Statistics

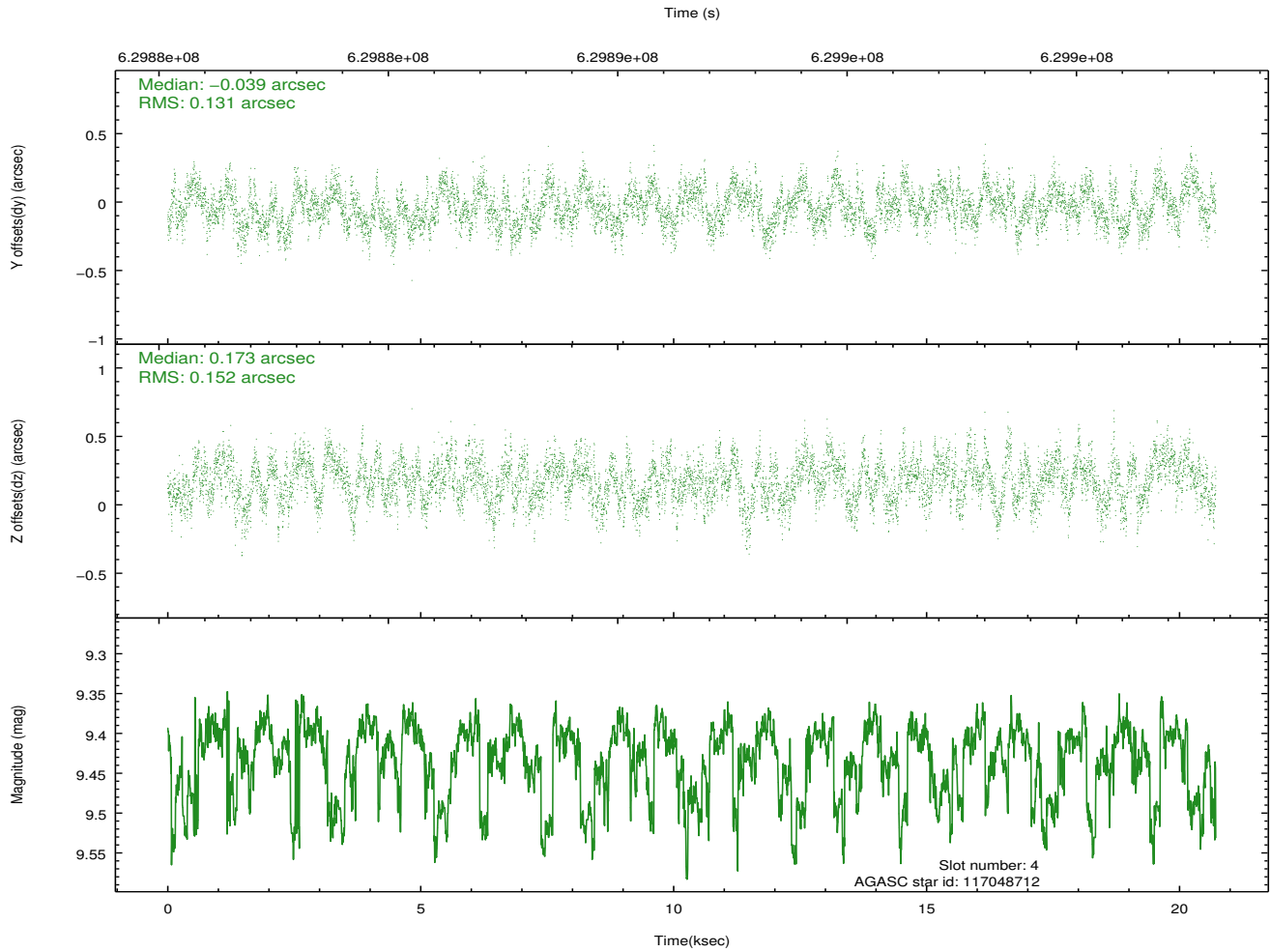
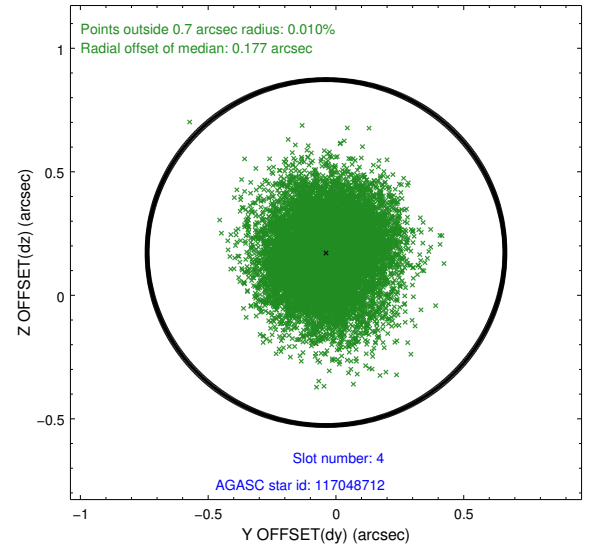
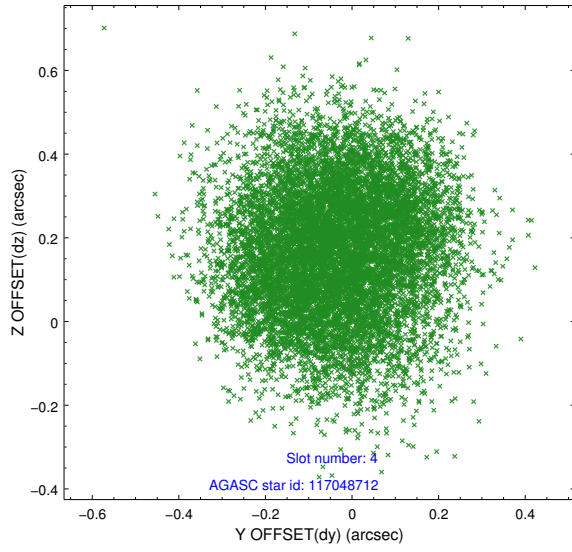
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.09	5054	-0.403	-0.266	0.007	0.013	0.000000	0.000000	-777.89	-1746.69
1	FID		ACIS-S-4	7.19	5054	0.423	0.243	0.009	0.014	0.000000	0.000000	2136.20	162.00
2	FID		ACIS-S-6	7.36	5054	-0.048	0.030	0.009	0.015	0.000000	0.000000	384.77	799.45
3	GUIDE	used	117048464	9.72	10086	-0.278	-0.316	0.237	0.394	205.478783	9.934412	1418.46	989.72
4	GUIDE	used	117048712	9.43	10095	-0.039	0.173	0.216	0.335	205.961075	9.890571	2097.34	-587.48
5	GUIDE	used	117050400	10.01	10009	-0.070	-0.190	0.298	0.510	204.720424	9.270352	-1964.45	2217.99
6	GUIDE	used	117051568	8.71	10104	0.375	0.353	0.156	0.268	205.238336	9.081952	-1685.27	277.75
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

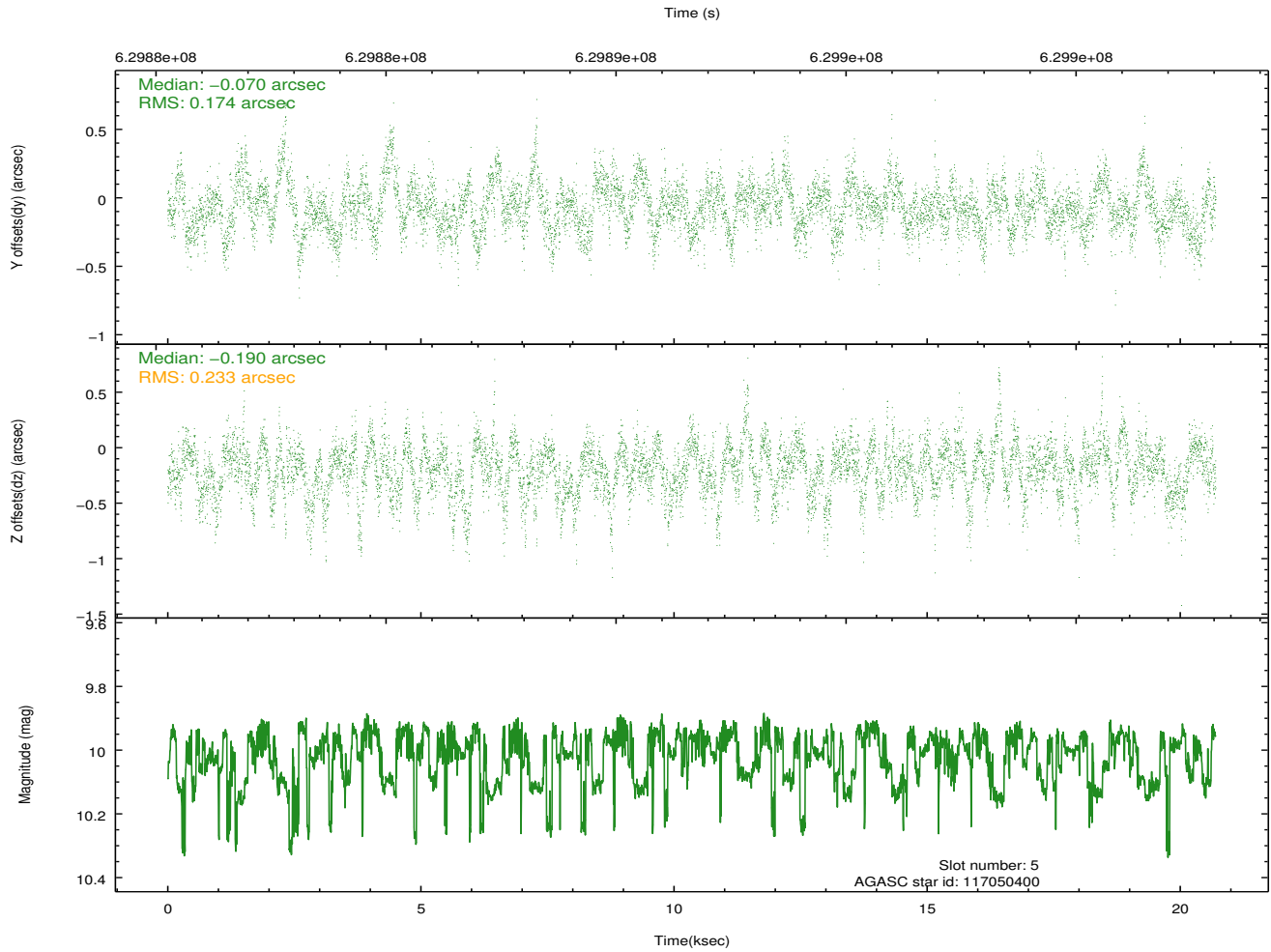
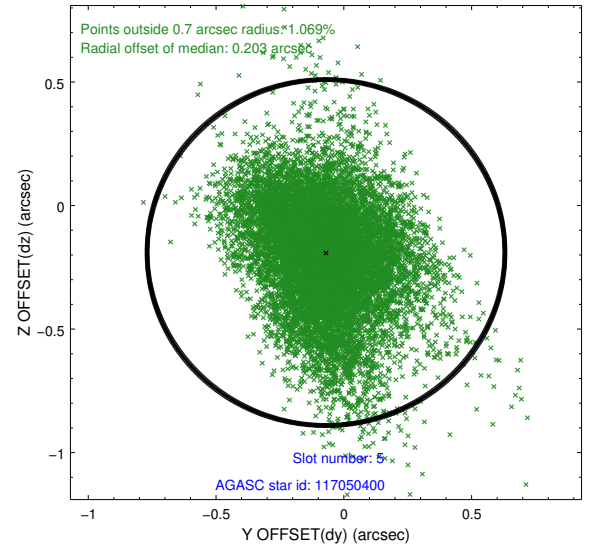
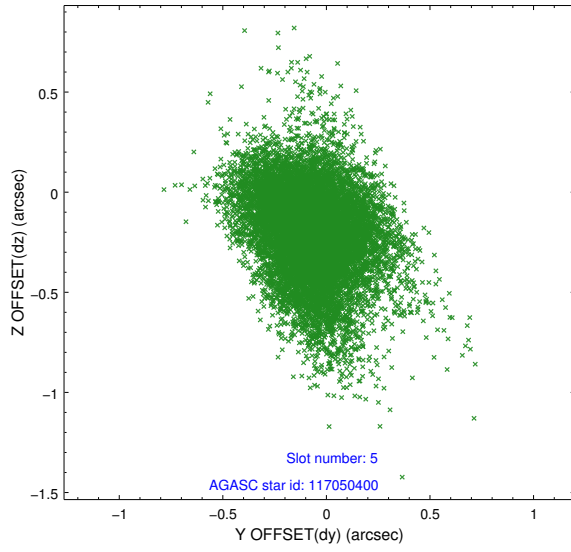
2.4.1 Slot 3



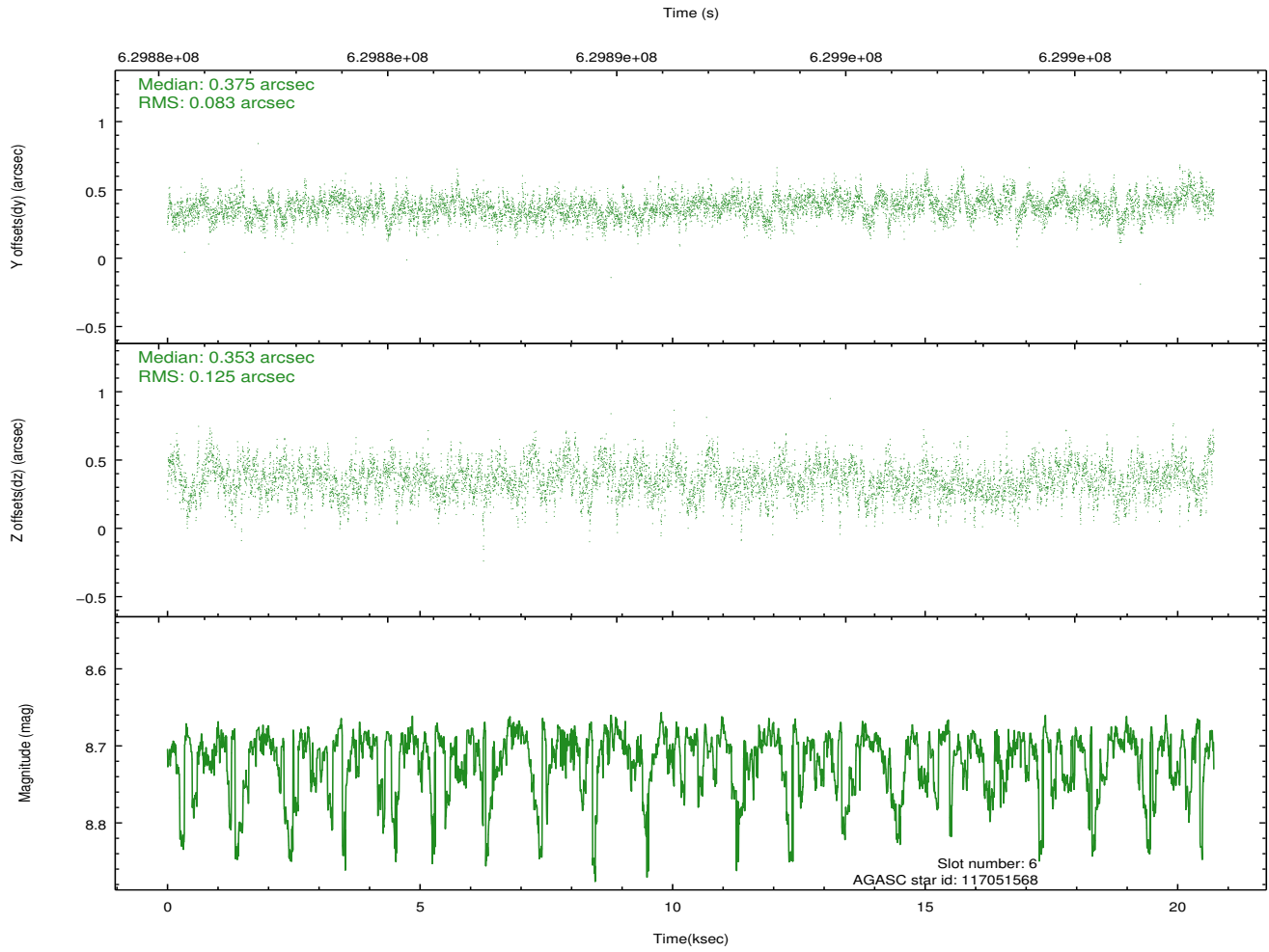
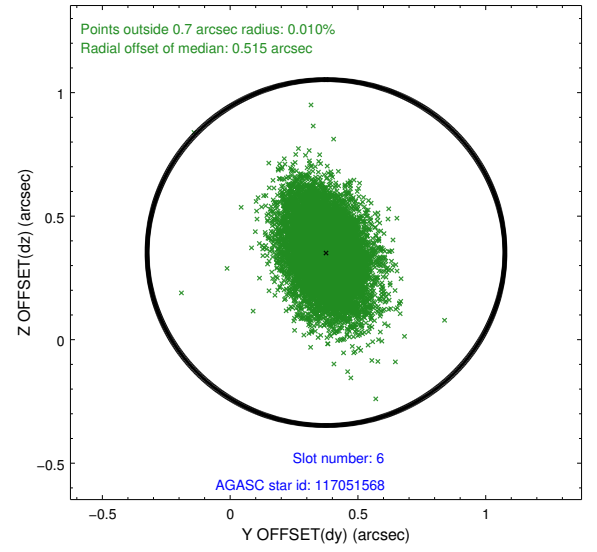
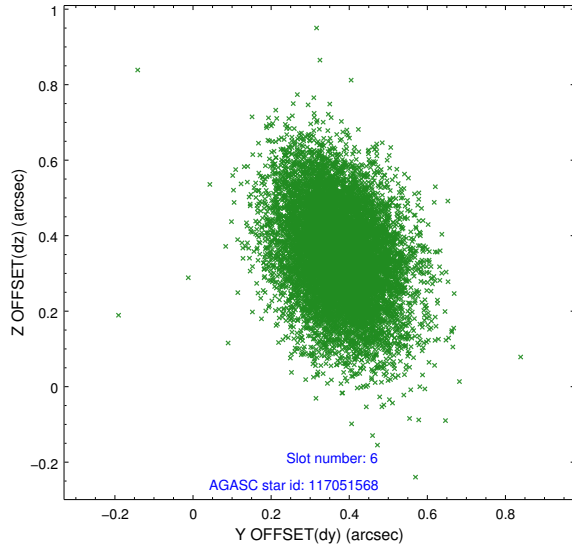
2.4.2 Slot 4



2.4.3 Slot 5

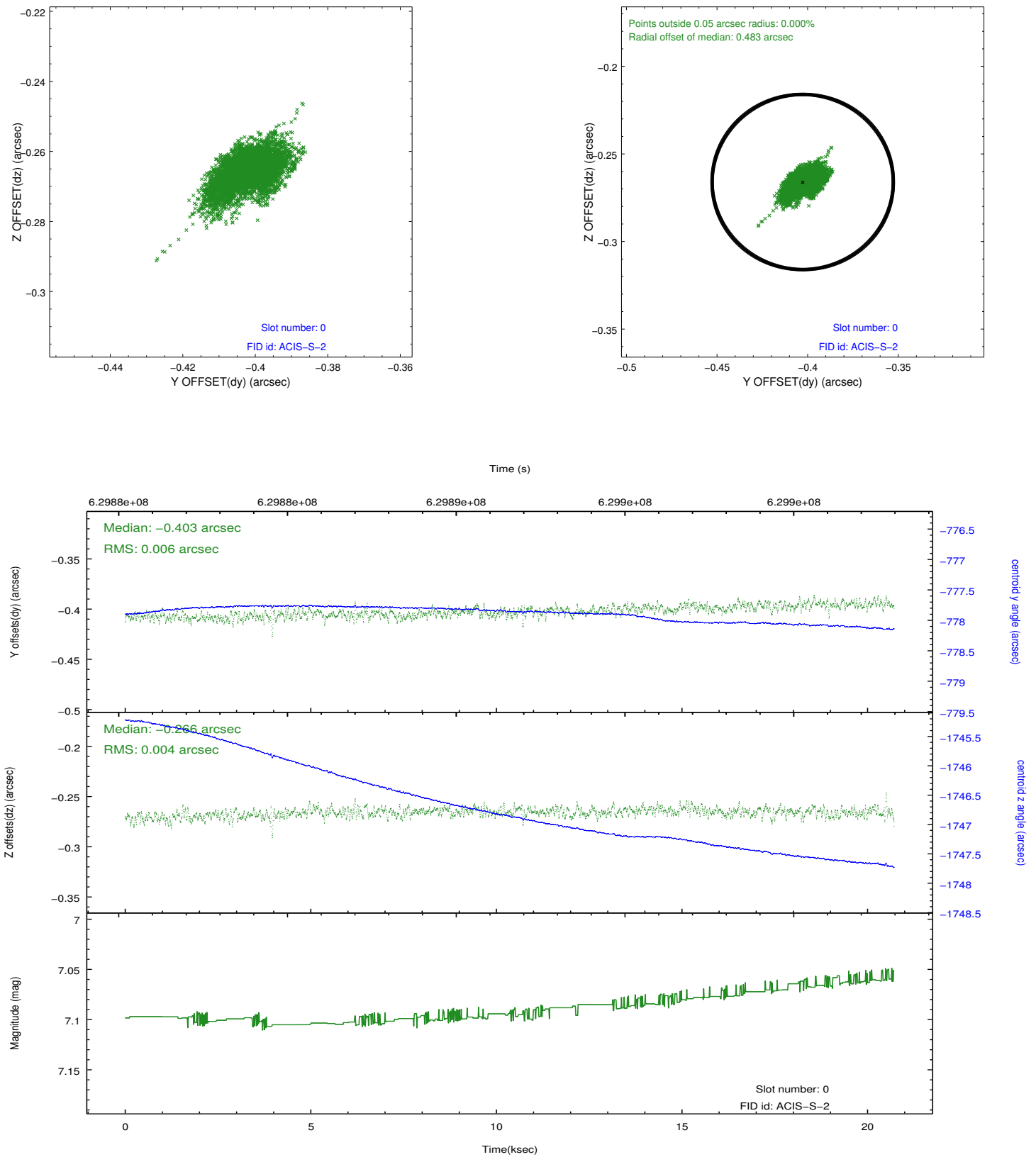


2.4.4 Slot 6

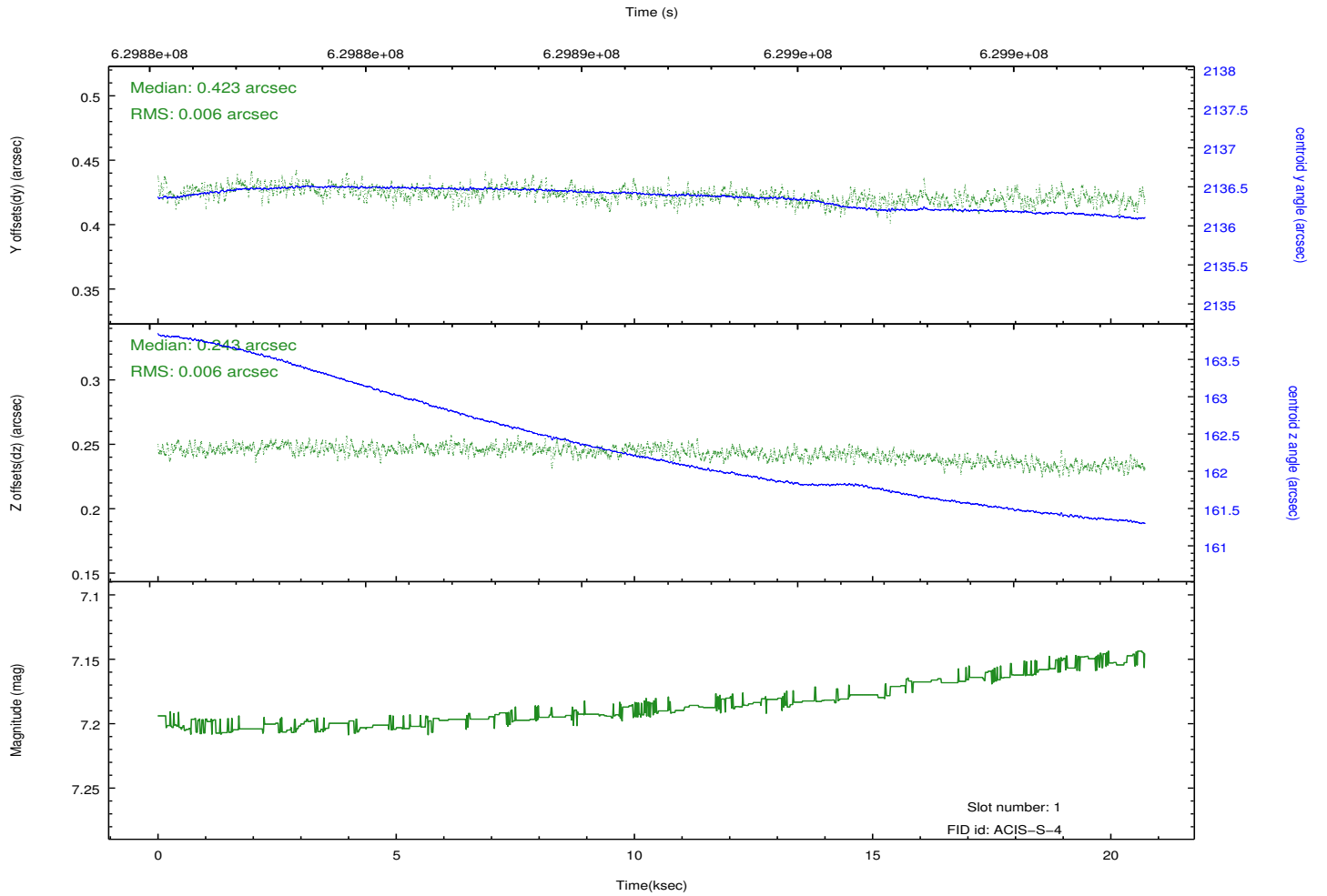
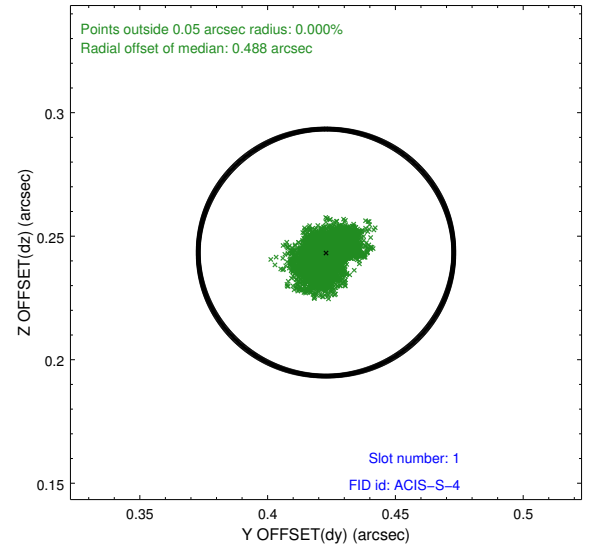
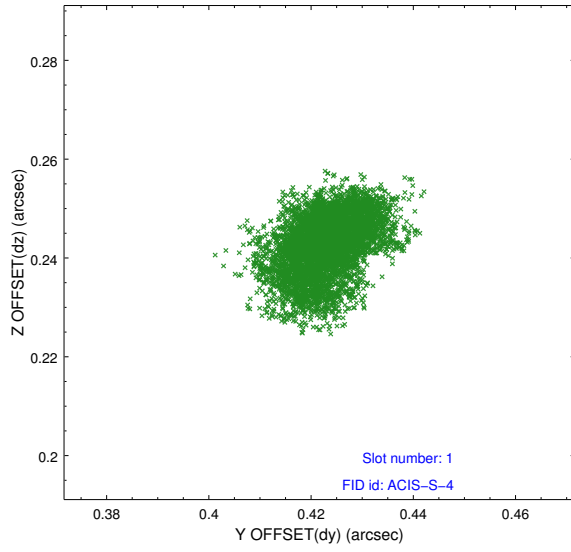


2.5 FID Slots

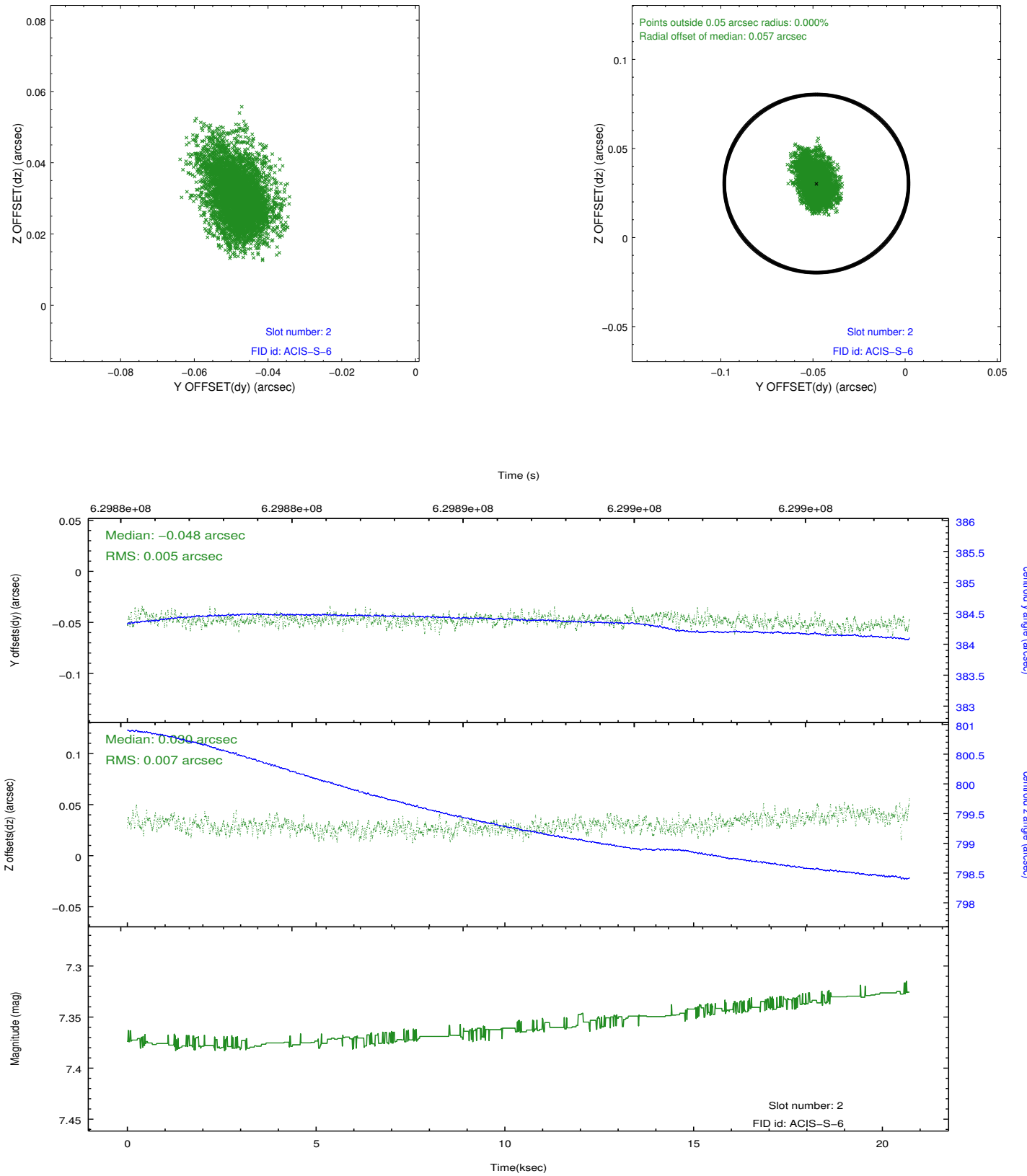
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2017.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.654315822124

A.2 Comments

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.