

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 20044 - L2 Version 1
Chandra X-Ray Center

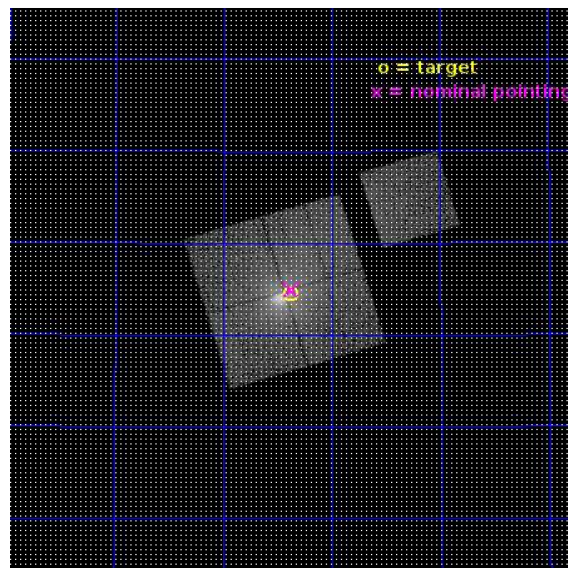
L2 Processing Date : Mar 27 2017

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
2.4.5	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

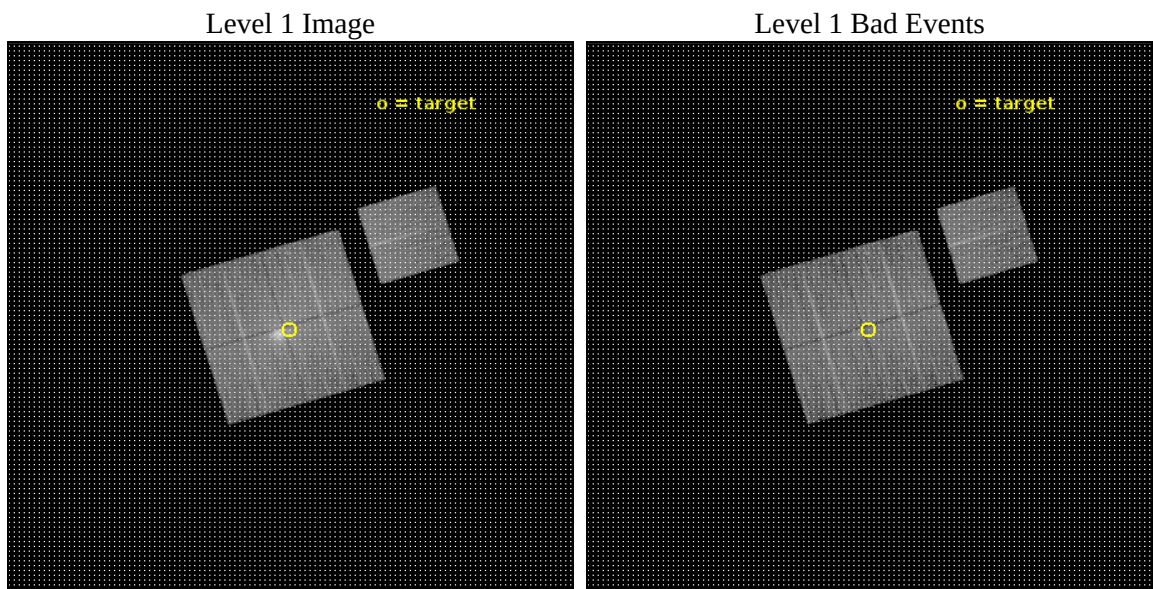
seq_num	703132	Sequence number
obs_id	20044	Observation id
title	The Rise to Power: Half a Billion Years of Intense AGN Activity in the Merging Cluster Cygnus A	Proposal title
observer	Dr. Michael Wise	Principal investigator
object	Cygnus A - W Hotspot	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	299.845	Observer's specified target RA [deg]
dec_targ	40.740361	Observer's specified target Dec [deg]
ra_nom	299.84351106652	Nominal RA [deg]
dec_nom	40.748624181239	Nominal Dec [deg]
roll_nom	73.209680341406	Nominal Roll [deg]
revision	1	Processing version of data
ontime	15062.859175563	Sum of GTIs [s]
livetime	14866.051831319	Livetime [s]
ontime0	15066.000115991	Sum of GTIs [s]
ontime1	15066.000115991	Sum of GTIs [s]
ontime2	15062.859145761	Sum of GTIs [s]
ontime3	15062.859175563	Sum of GTIs [s]
ontime6	15066.000115991	Sum of GTIs [s]
l2events	126125	Number of level 2 events



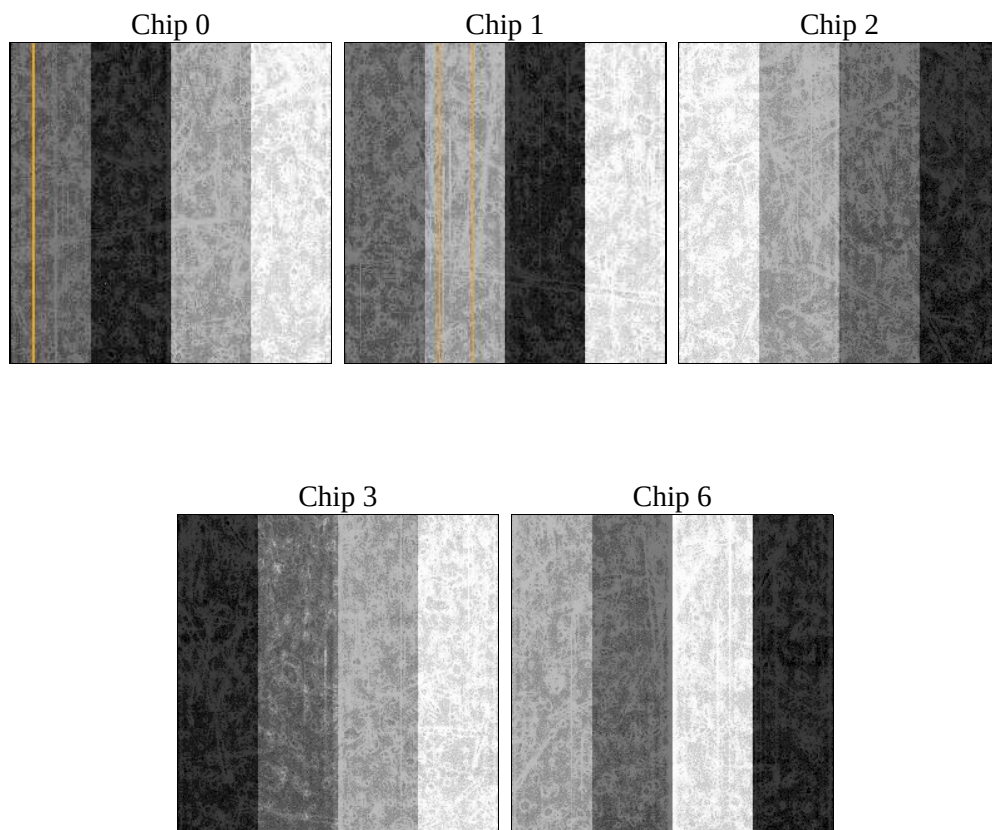
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	15062.859175563	Sum of GTIs [s]
caldsver	4.7.3	 	ontime0	15066.000115991	Sum of GTIs [s]
date	2017-03-27T05:18:03	Date and time of file creation	ontime1	15066.000115991	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	15062.859145761	Sum of GTIs [s]
			ontime3	15062.859175563	Sum of GTIs [s]
			ontime6	15066.000115991	Sum of GTIs [s]
			l1events	609291	Number of level 1 events

2.1.4 Events

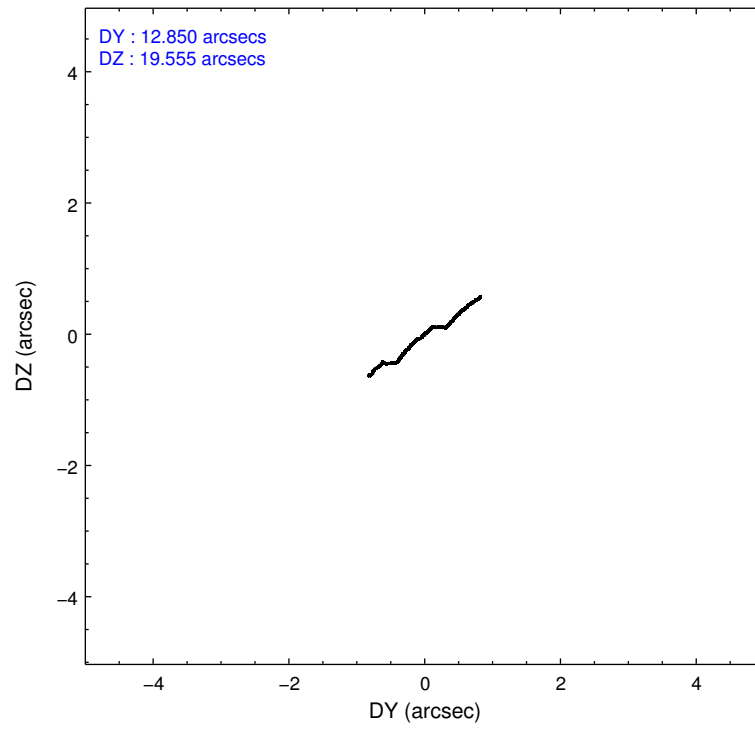
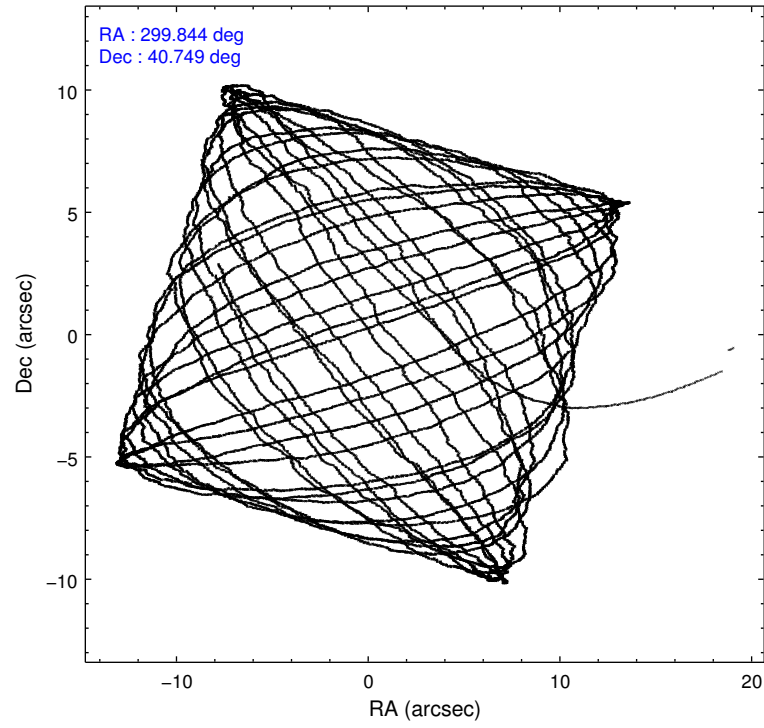
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	110584	141903	125921	117391	113492
rejected events	87337	91150	97926	92949	97966
rejected %	78%	64%	77%	79%	86%

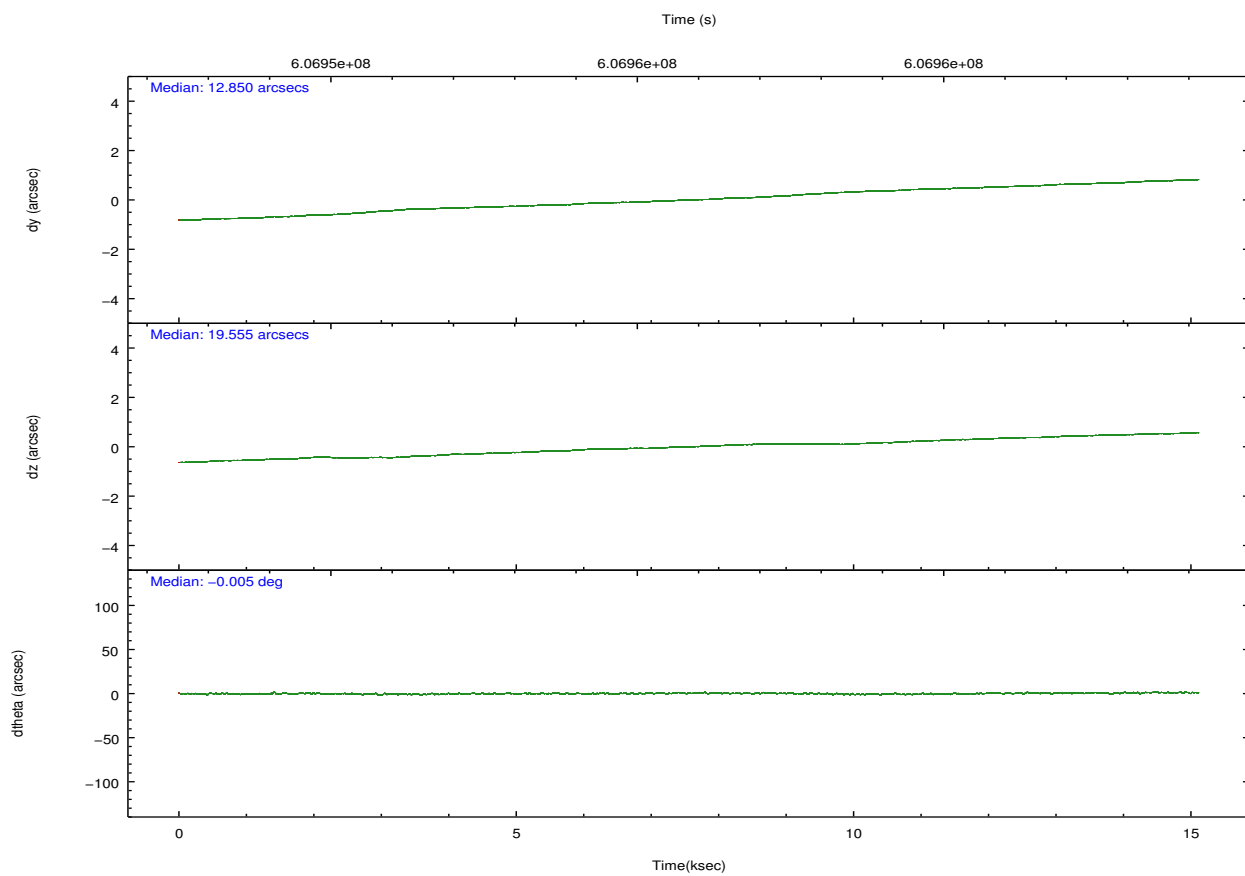
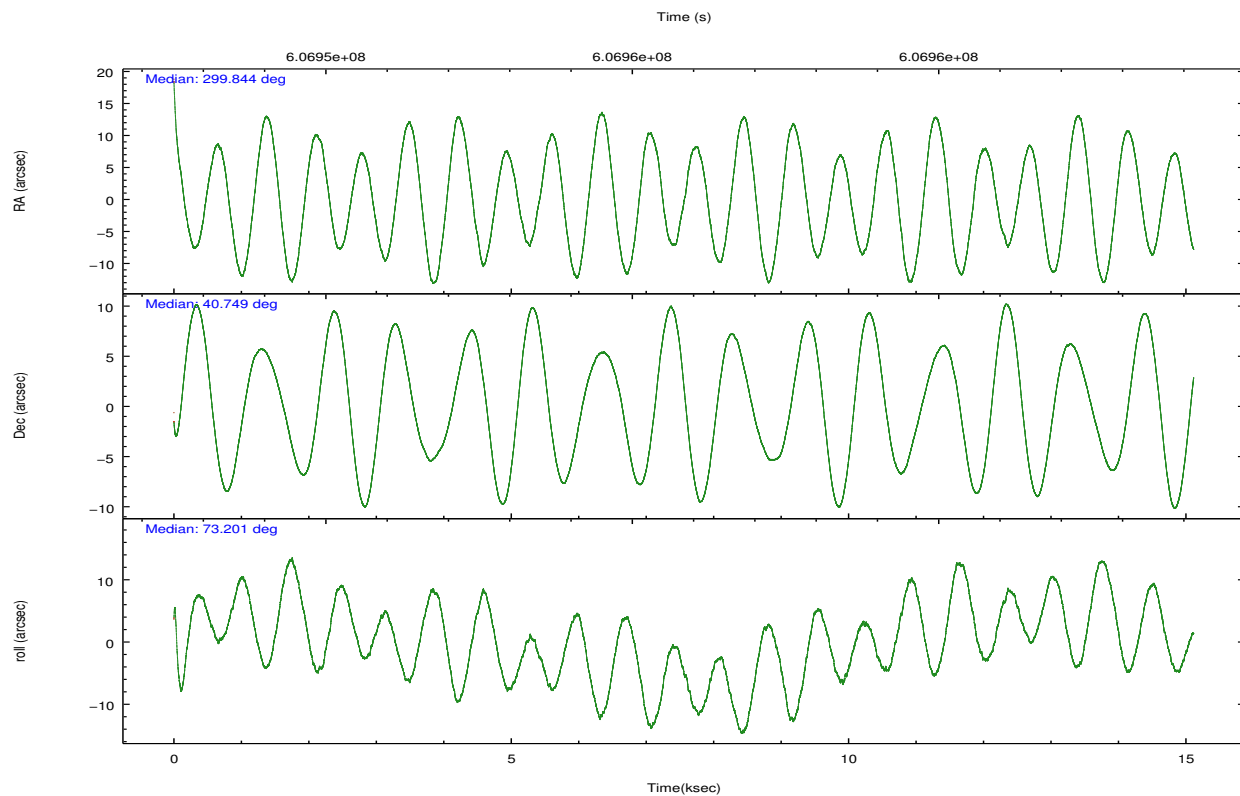
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	12713	32037	16632	14300	6531
	11%	22%	13%	12%	5%
grade 1 events	113	322	152	111	45
	0%	0%	0%	0%	0%
grade 2 events	4436	8483	4858	3934	3167
	4%	5%	3%	3%	2%
grade 3 events	1638	2687	1778	1623	1389
	1%	1%	1%	1%	1%
grade 4 events	1540	2594	1832	1641	1371
	1%	1%	1%	1%	1%
grade 5 events	4632	5192	4360	5299	5043
	4%	3%	3%	4%	4%
grade 6 events	2923	4961	2900	2949	3068
	2%	3%	2%	2%	2%
grade 7 events	82589	85627	93409	87534	92878
	74%	60%	74%	74%	81%

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	299.851960	299.8435110665192	CCD I2 on	Y	Y
[deg] Pointing Dec	40.721775	40.74862418123879	CCD I3 on	Y	Y
[deg] Pointing Roll	72.995464	73.20968034140573	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	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	606948379.184000	606946880.68821	CCD S5 on	N	N
Observation start date	2017-03-26T20:45:10	2017-03-26T20:21:20	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	606963379.184000	606963947.4517	On-chip summing requested	N	N
Observation end date	2017-03-27T00:55:10	2017-03-27T01:05:47	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



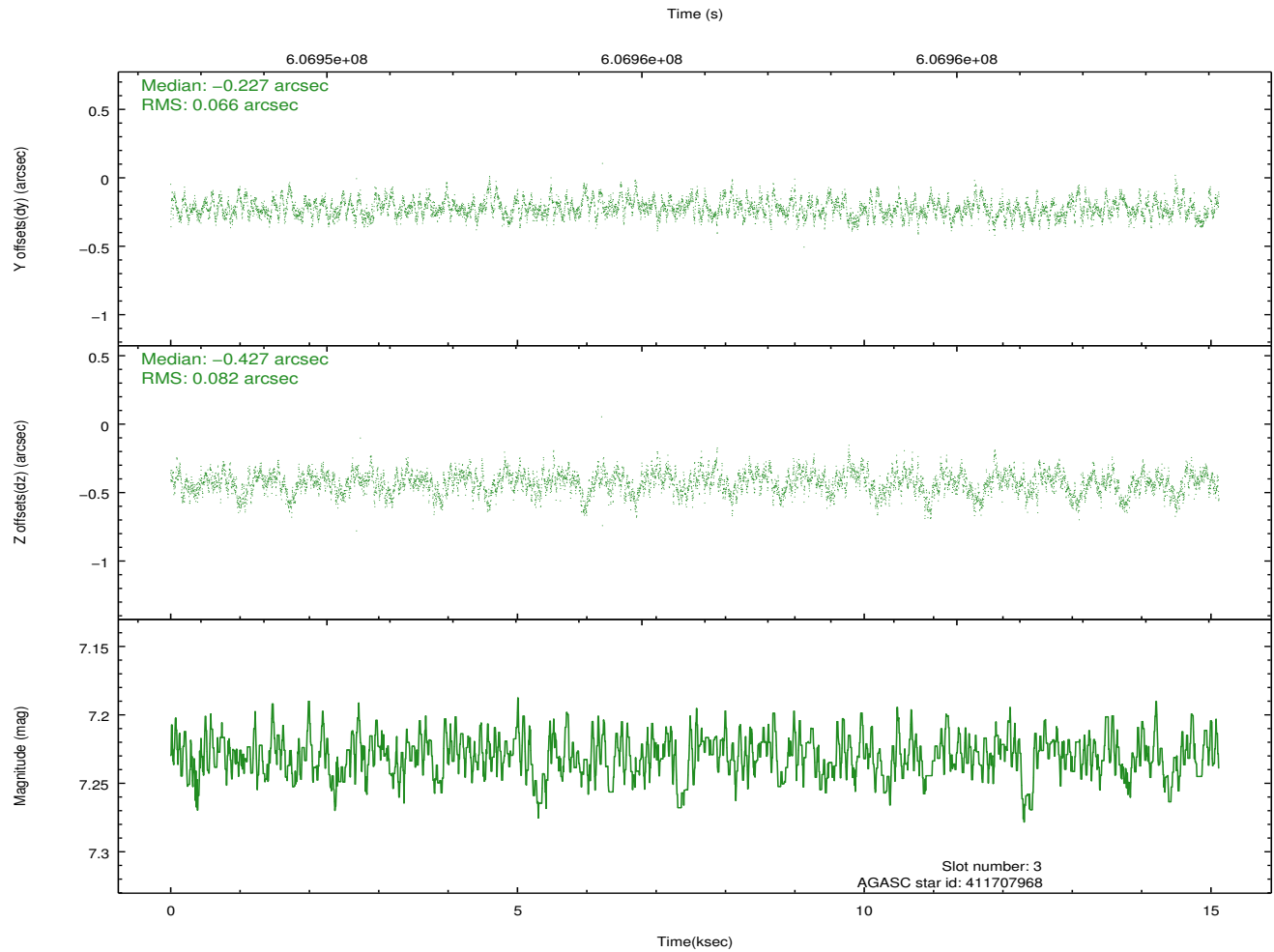
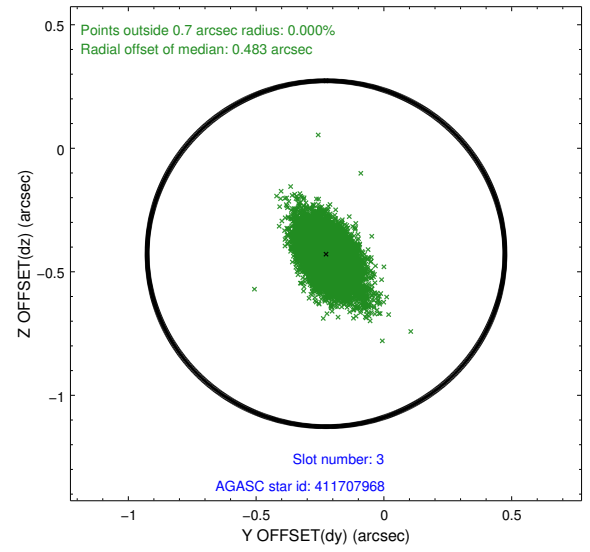
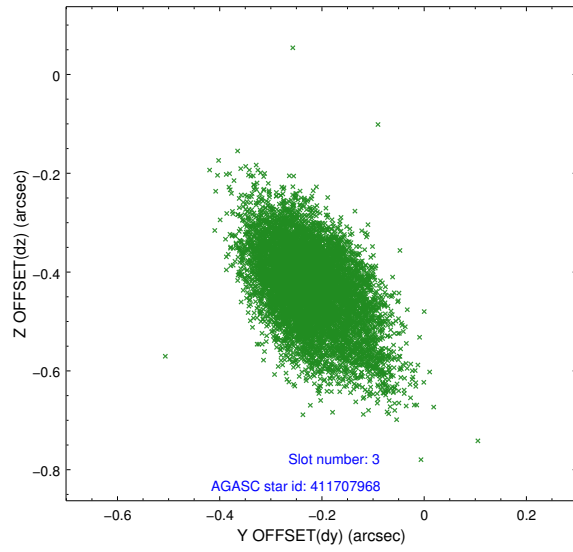


Slot Statistics

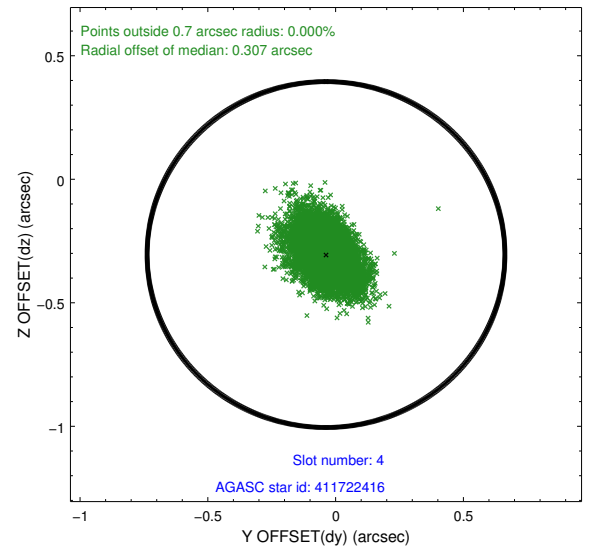
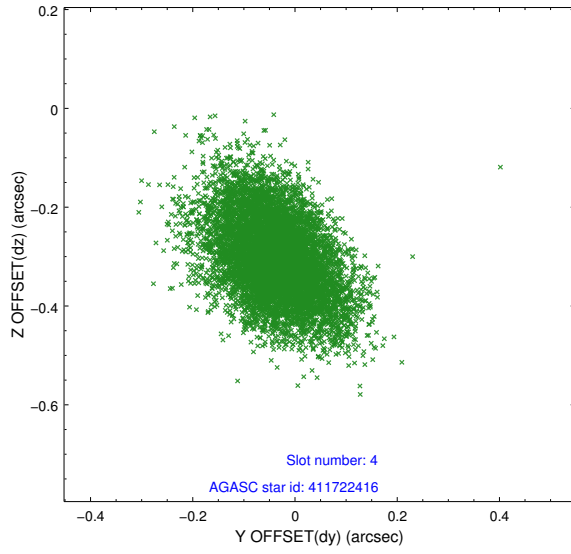
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.12	3687	0.046	-0.001	0.018	0.032	0.000000	0.000000	926.74	-843.21
1	FID		ACIS-I-5	7.12	3687	-0.302	0.028	0.012	0.020	0.000000	0.000000	-1821.65	1054.02
2	FID		ACIS-I-6	7.12	3687	0.164	0.044	0.019	0.031	0.000000	0.000000	391.95	1698.99
3	GUIDE	used	411707968	7.23	7374	-0.227	-0.427	0.107	0.190	299.509933	40.926839	435.74	1105.89
4	GUIDE	used	411722416	7.80	7372	-0.038	-0.305	0.112	0.188	298.936507	40.391736	-1857.92	2056.55
5	GUIDE	used	413405352	8.33	7370	-0.113	-0.120	0.101	0.167	300.290830	41.091941	1625.27	-747.55
6	GUIDE	used	413425232	8.67	7373	0.190	0.610	0.103	0.171	300.417382	40.029012	-1923.48	-2217.97
7	GUIDE	used	413421016	8.66	7365	0.183	0.241	0.138	0.223	300.612426	40.446254	-330.42	-2279.51

2.4 Star Slots

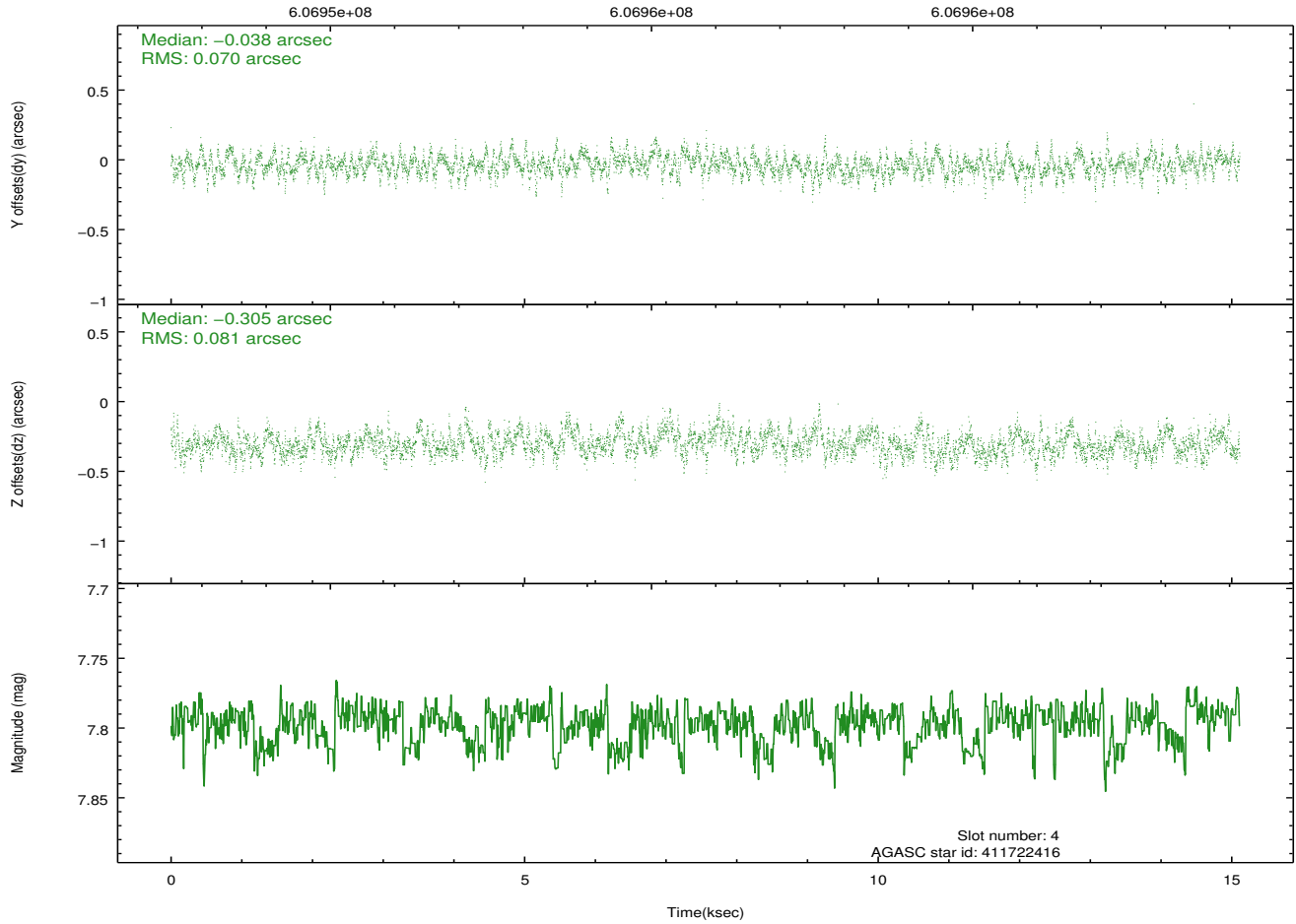
2.4.1 Slot 3



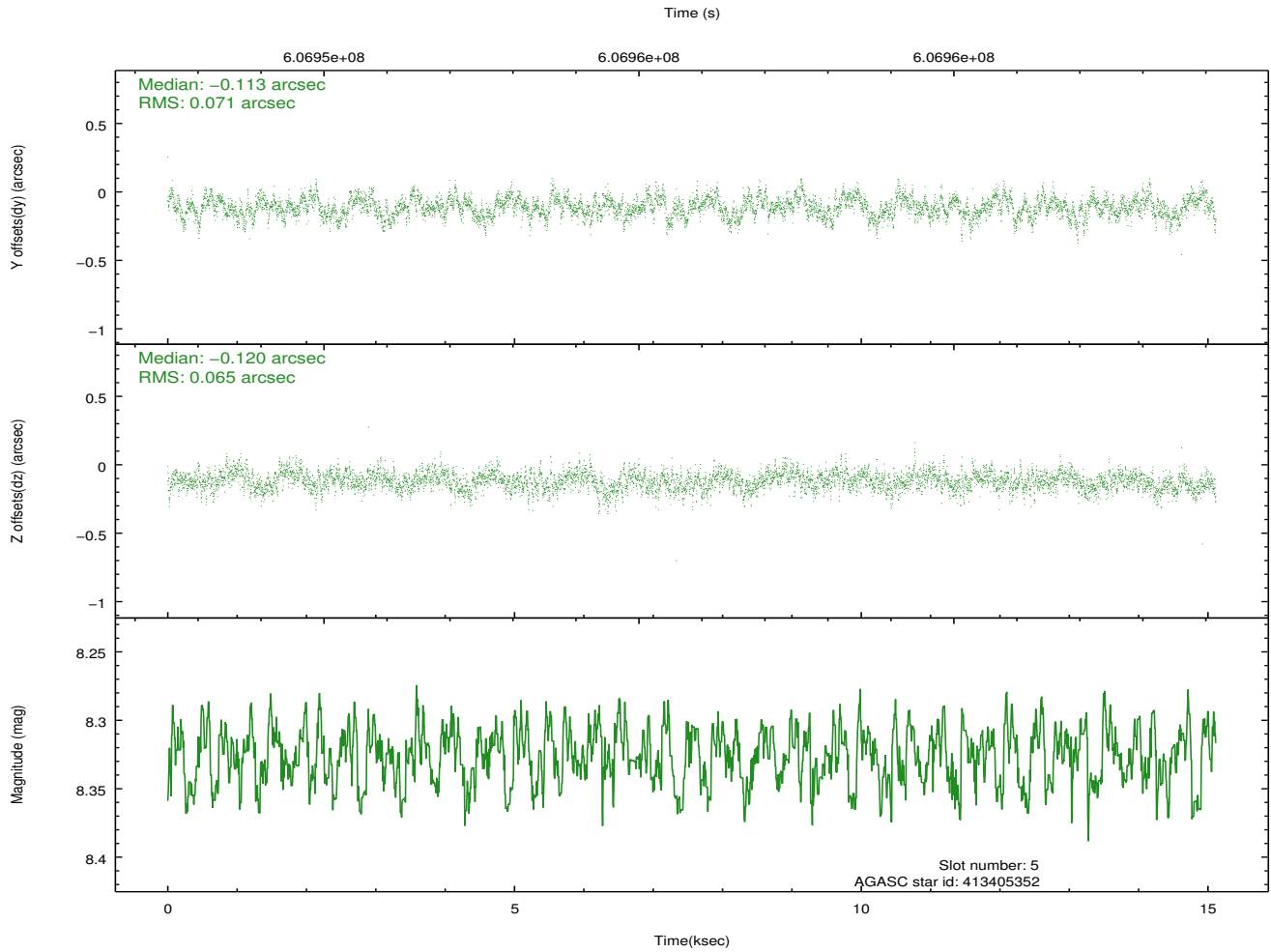
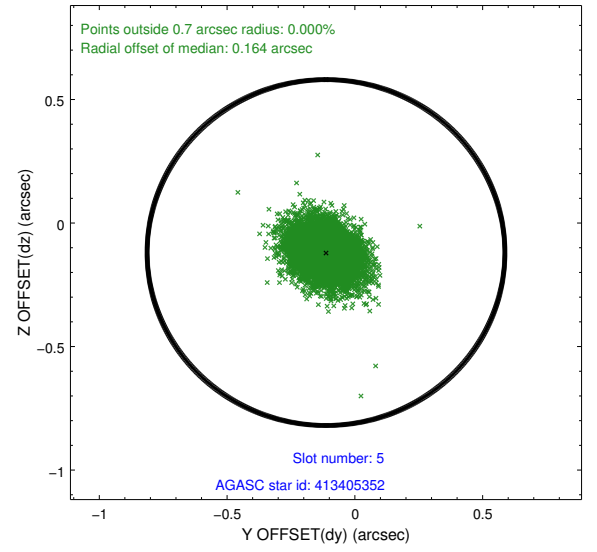
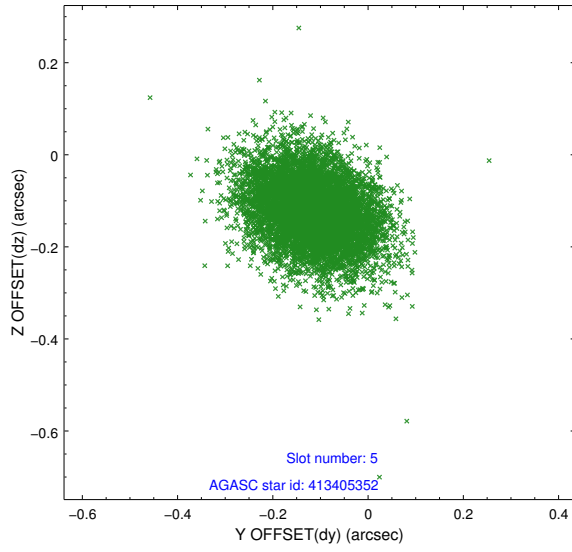
2.4.2 Slot 4



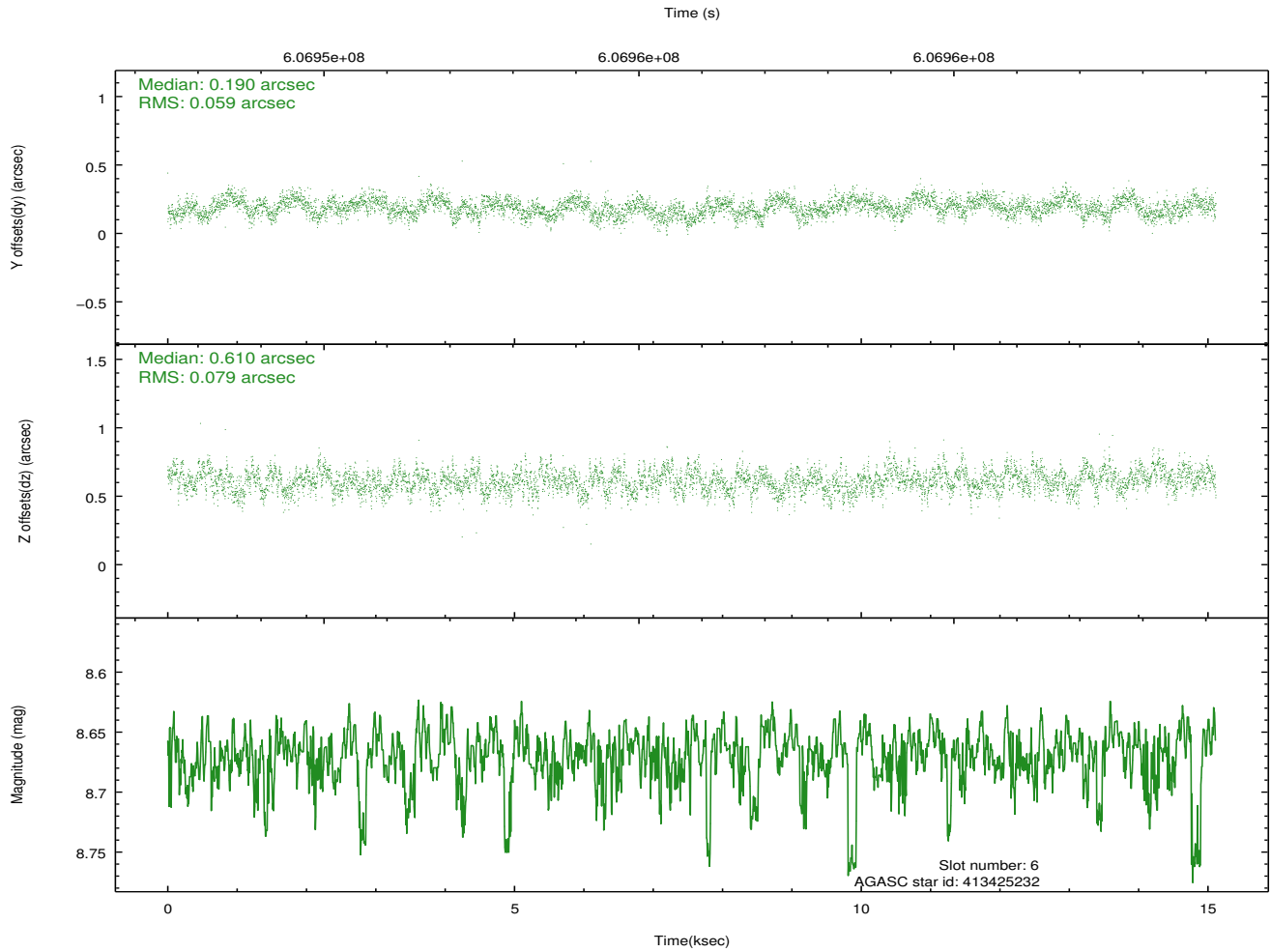
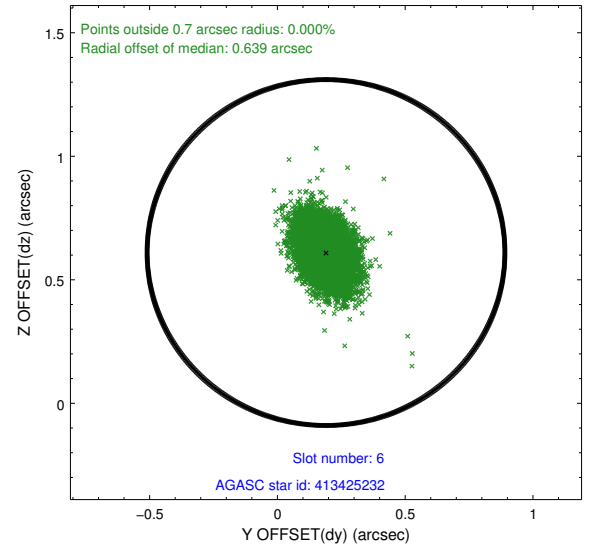
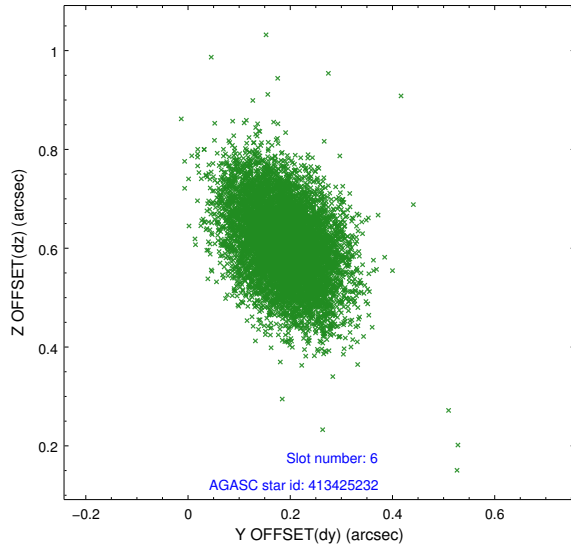
Time (s)



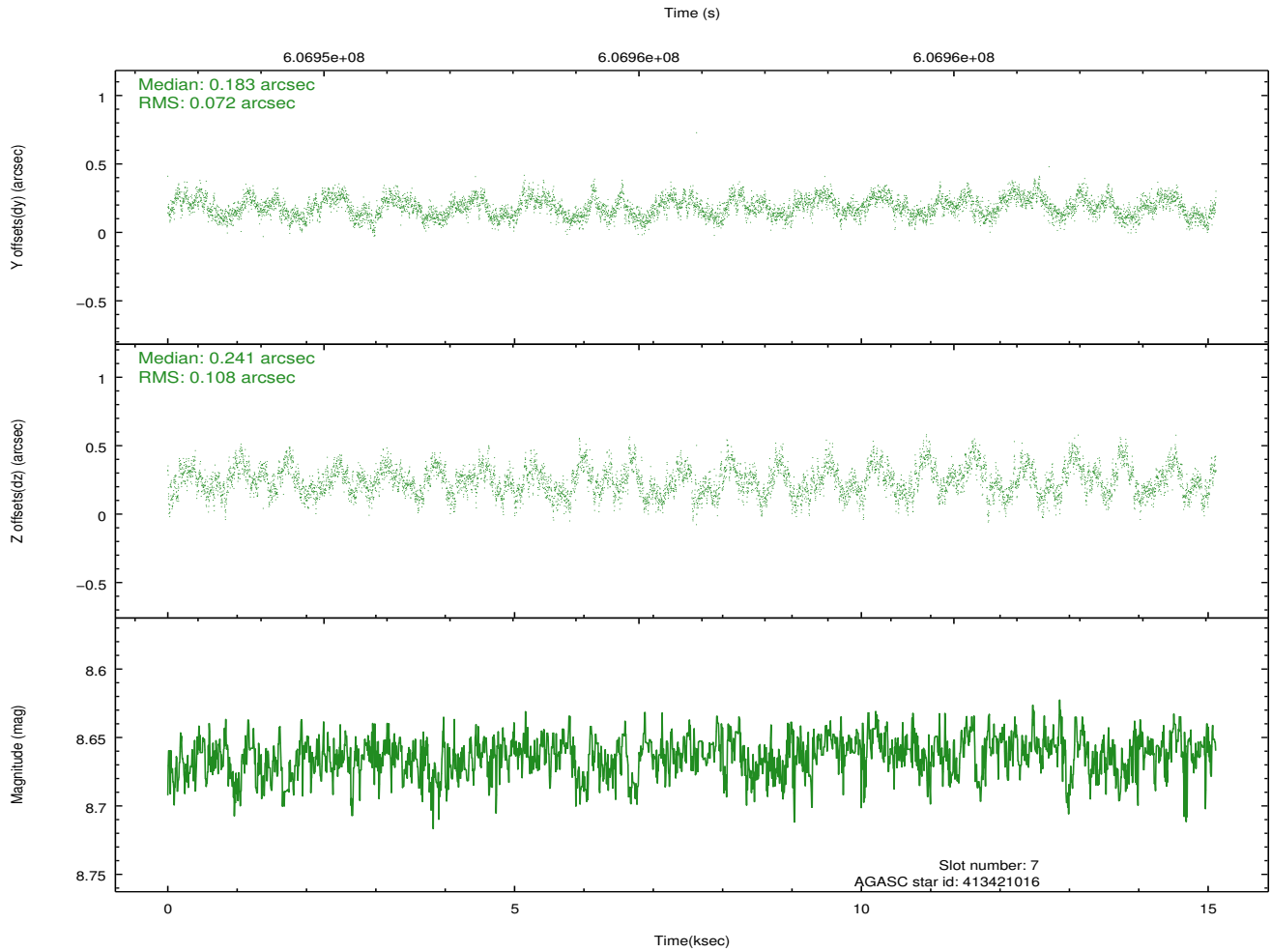
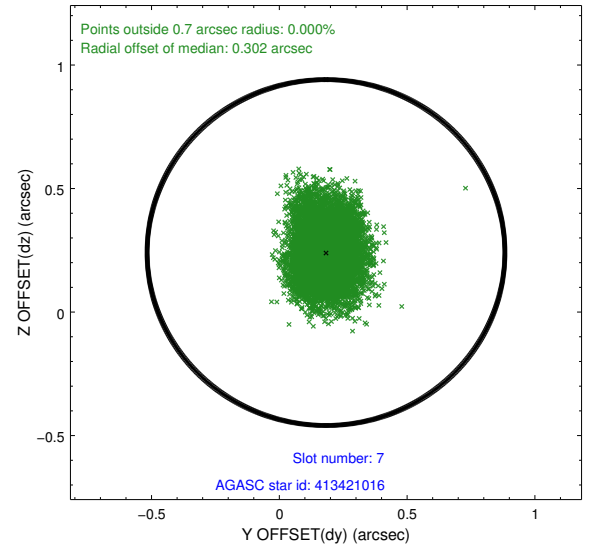
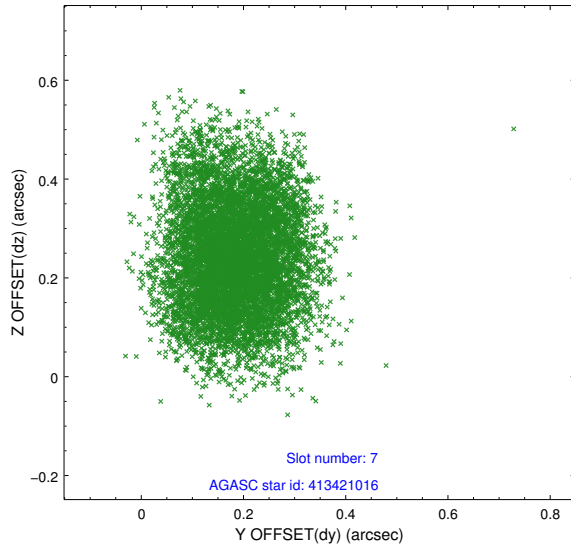
2.4.3 Slot 5



2.4.4 Slot 6

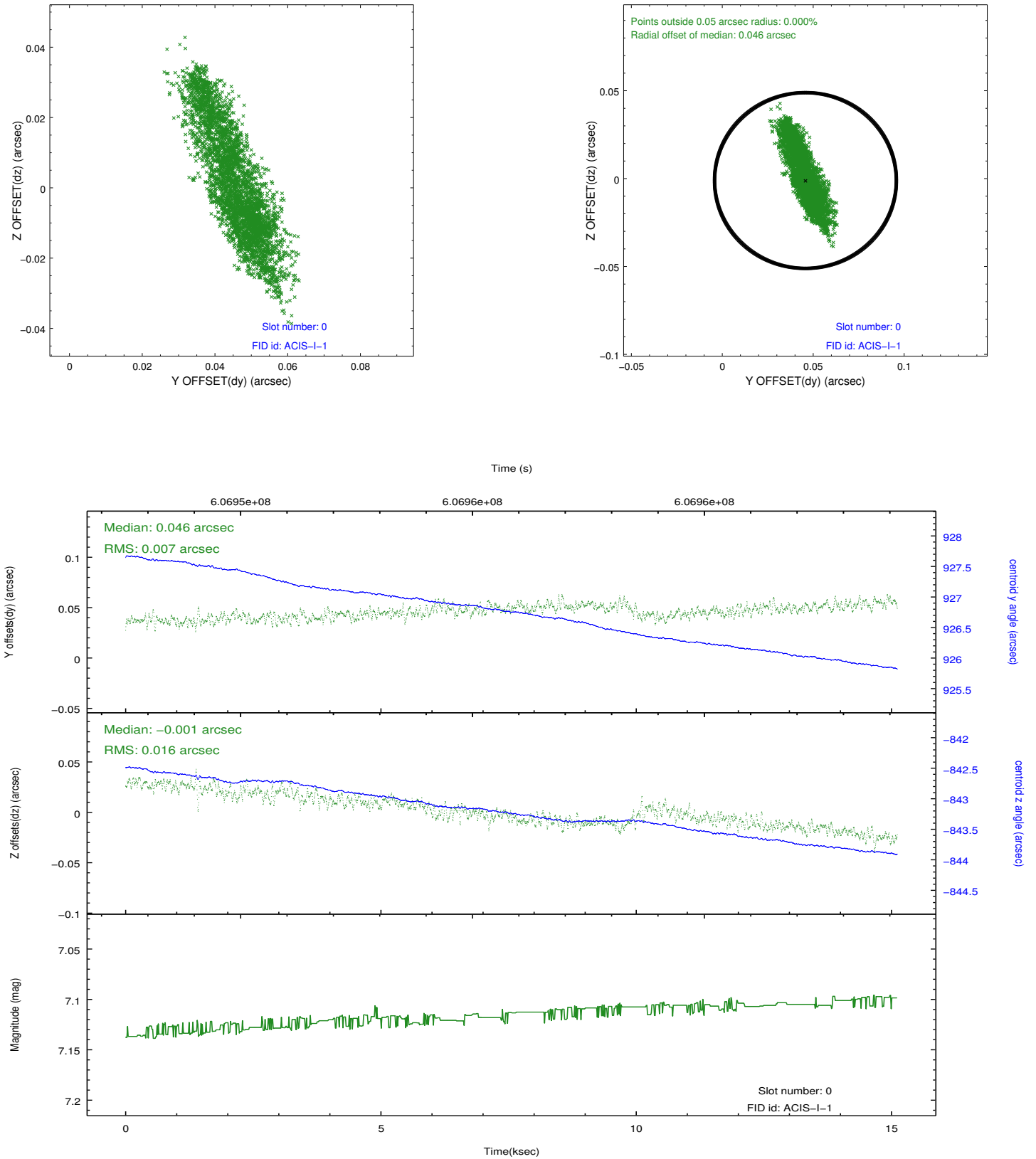


2.4.5 Slot 7

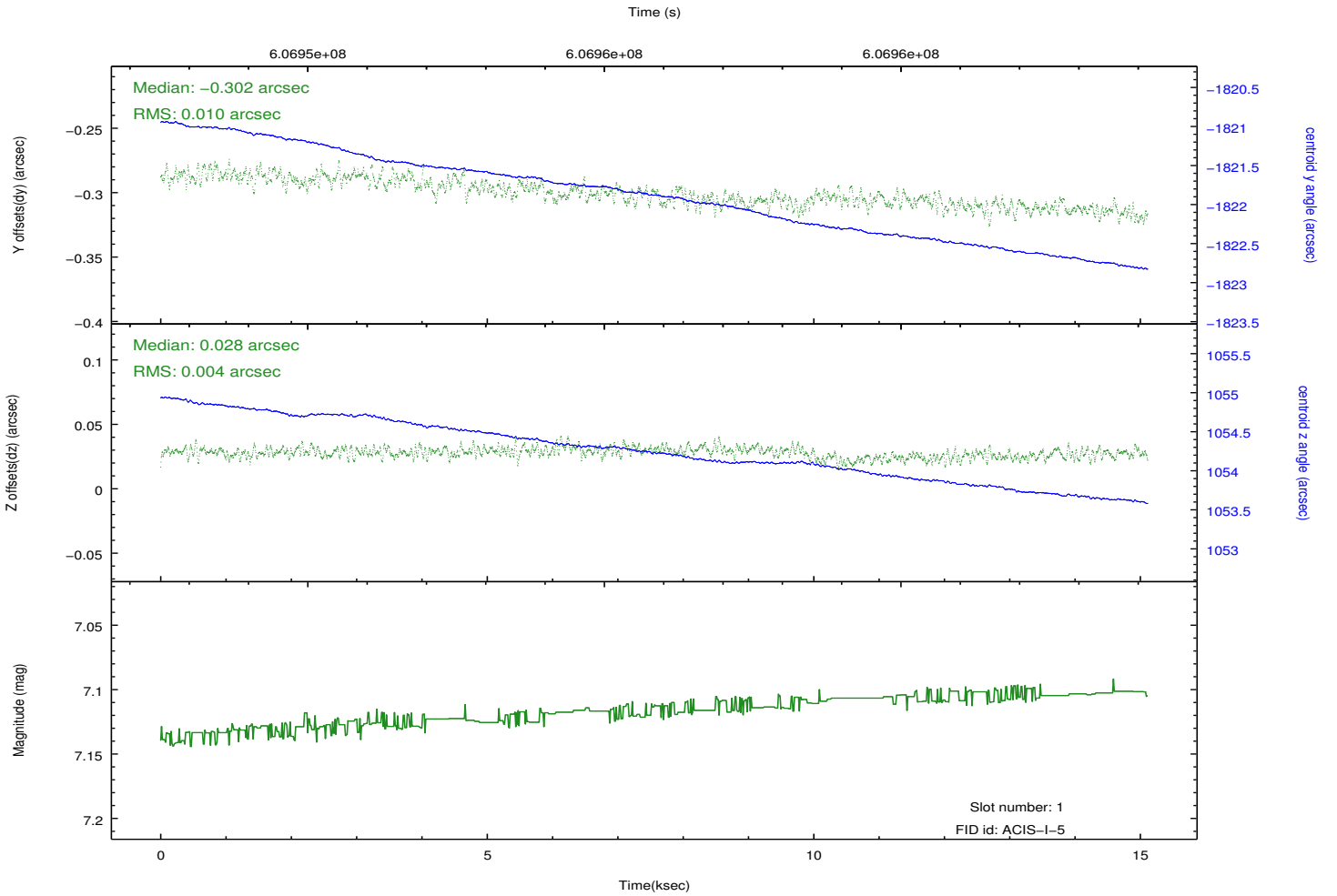
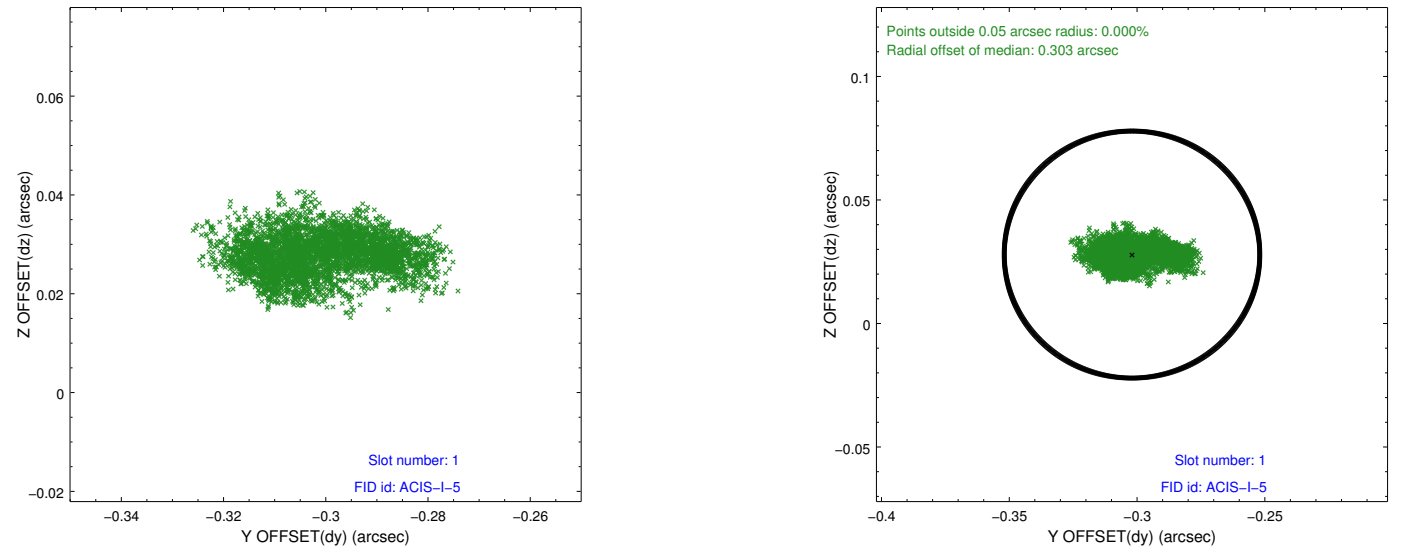


2.5 FID Slots

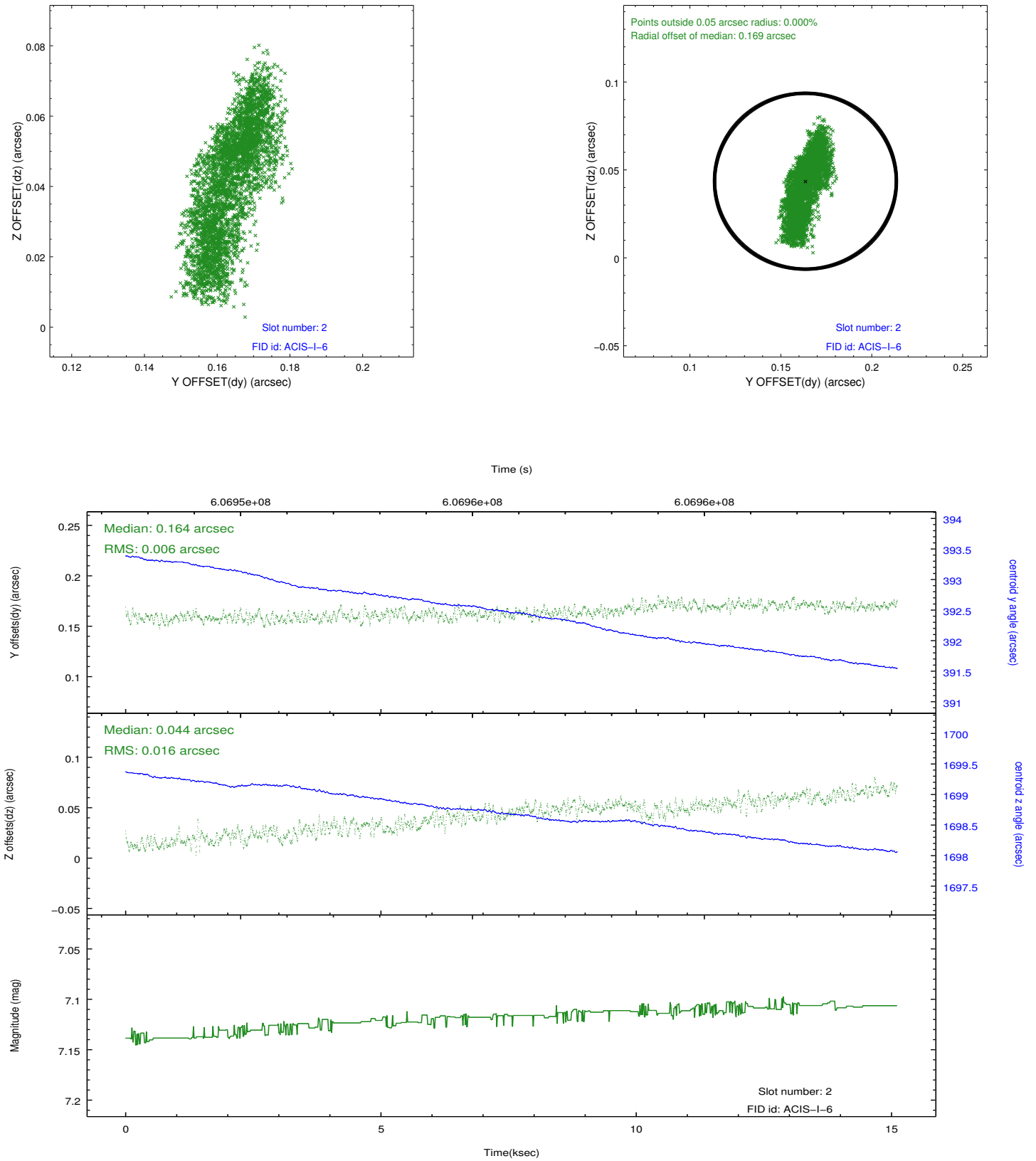
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2017.03.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.062859175563

A.2 Comments