

V&V Reference Report

L2 ASCDS Version : 10.4.1

Observation 18354 - L2 Version 2
Chandra X-Ray Center

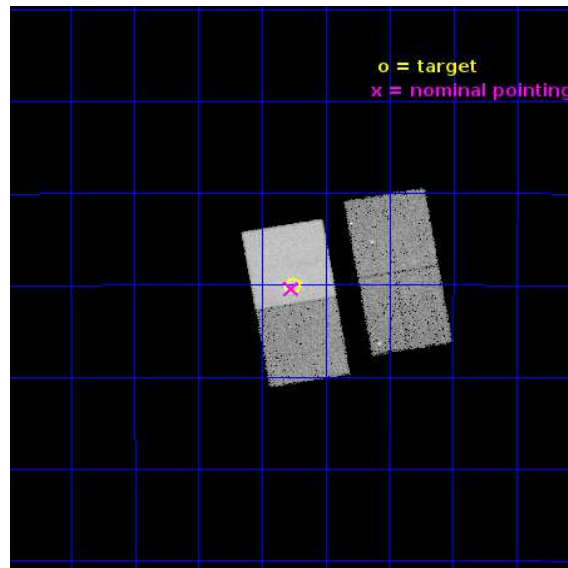
L2 Processing Date : Sep 4 2015

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1 Front

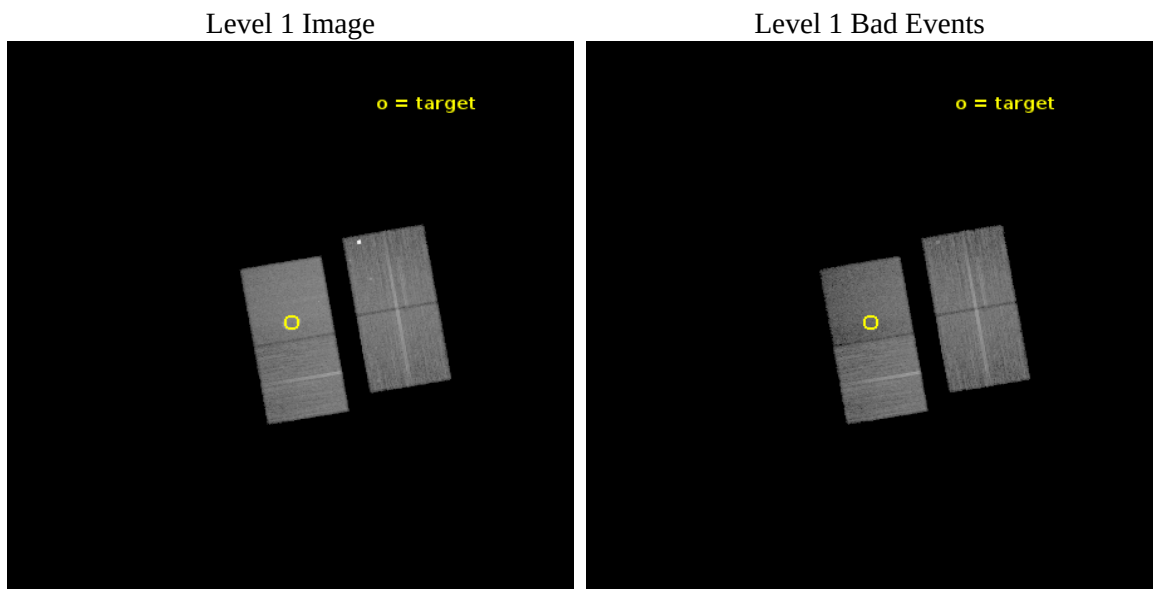
seq_num	502465	Sequence number
obs_id	18354	Observation id
title	Nonuniform expansion and brightening of the youngest Galactic SNR G1.9+0.3	Proposal title
observer	Dr. Kazimierz Borkowski	Principal investigator
object	G1.9+0.3	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	267.189167	Observer's specified target RA [deg]
dec_targ	-27.168889	Observer's specified target Dec [deg]
ra_nom	267.19213567064	Nominal RA [deg]
dec_nom	-27.173616108168	Nominal Dec [deg]
roll_nom	260.15798393104	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30069.996606946	Sum of GTIs [s]
livetime	29677.109964067	Livetime [s]
ontime2	30069.873486996	Sum of GTIs [s]
ontime3	30069.914526939	Sum of GTIs [s]
ontime6	30066.814526677	Sum of GTIs [s]
ontime7	30069.996606946	Sum of GTIs [s]
l2events	137670	Number of level 2 events



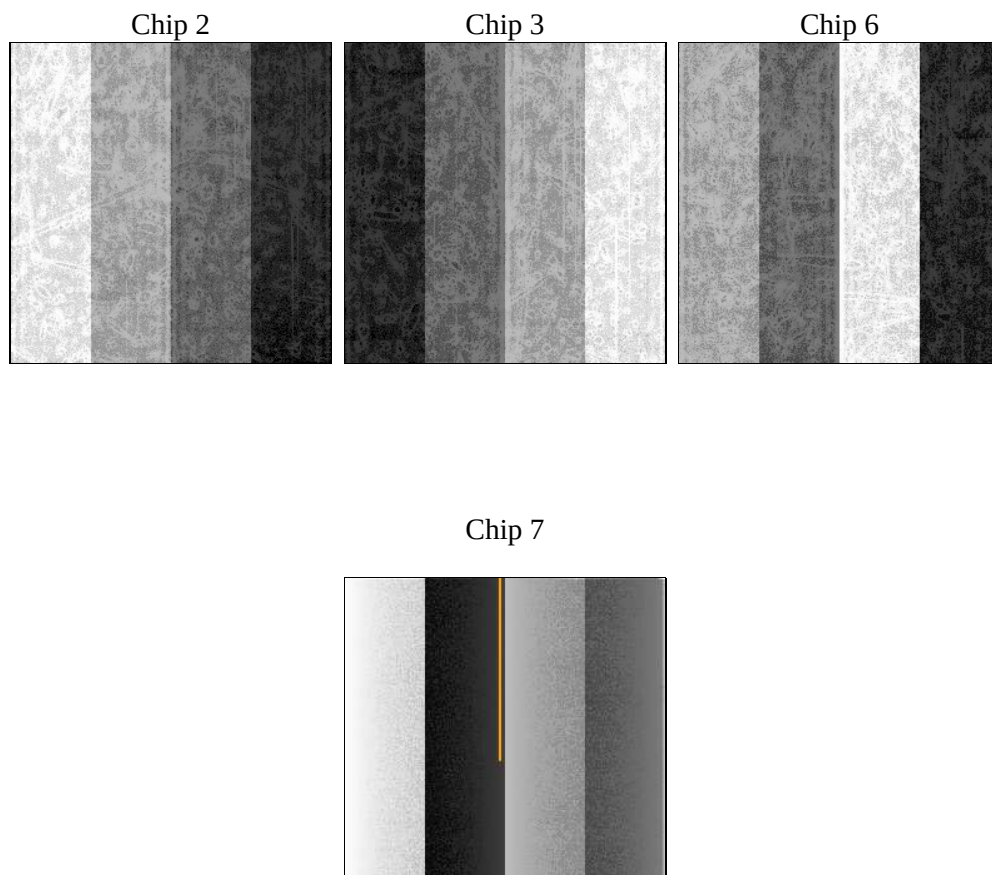
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	30069.996606946	Sum of GTIs [s]
caldsver	4.6.8	 	ontime2	30069.873486996	Sum of GTIs [s]
date	2015-09-04T17:28:50	Date and time of file creation	ontime3	30069.914526939	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30066.814526677	Sum of GTIs [s]
			ontime7	30069.996606946	Sum of GTIs [s]
			l1events	669174	Number of level 1 events

2.1.4 Events

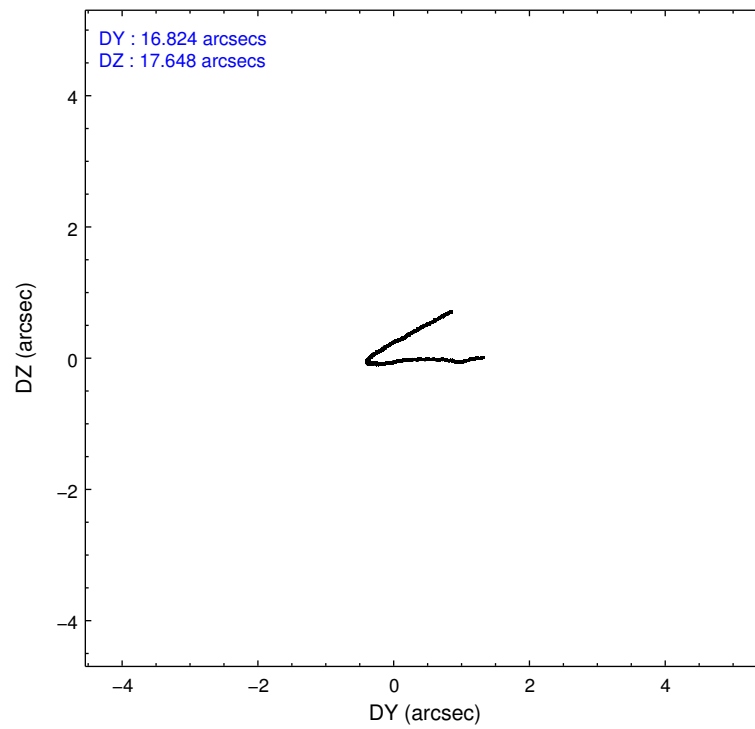
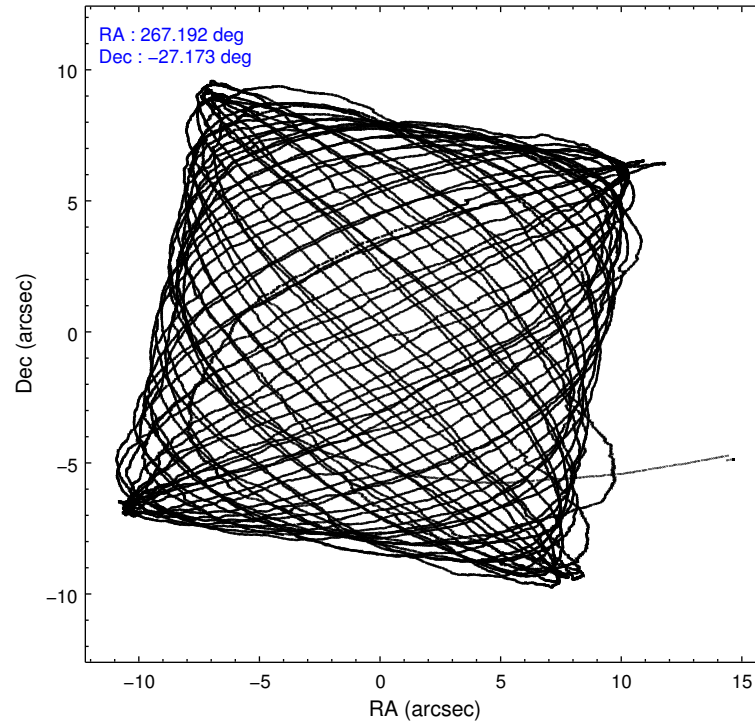
	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	150171	178996	157494	182513
rejected events	132056	131883	137362	92752
rejected %	87%	73%	87%	50%

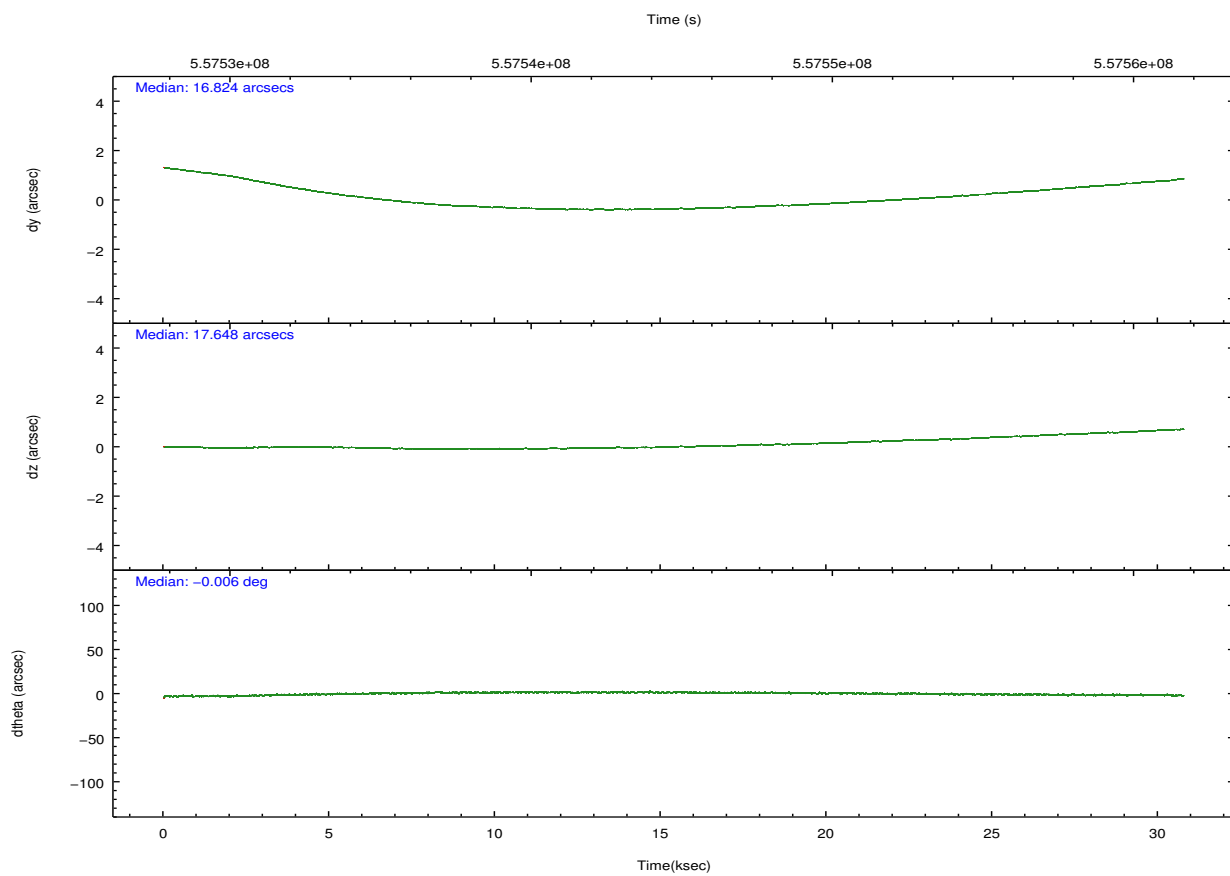
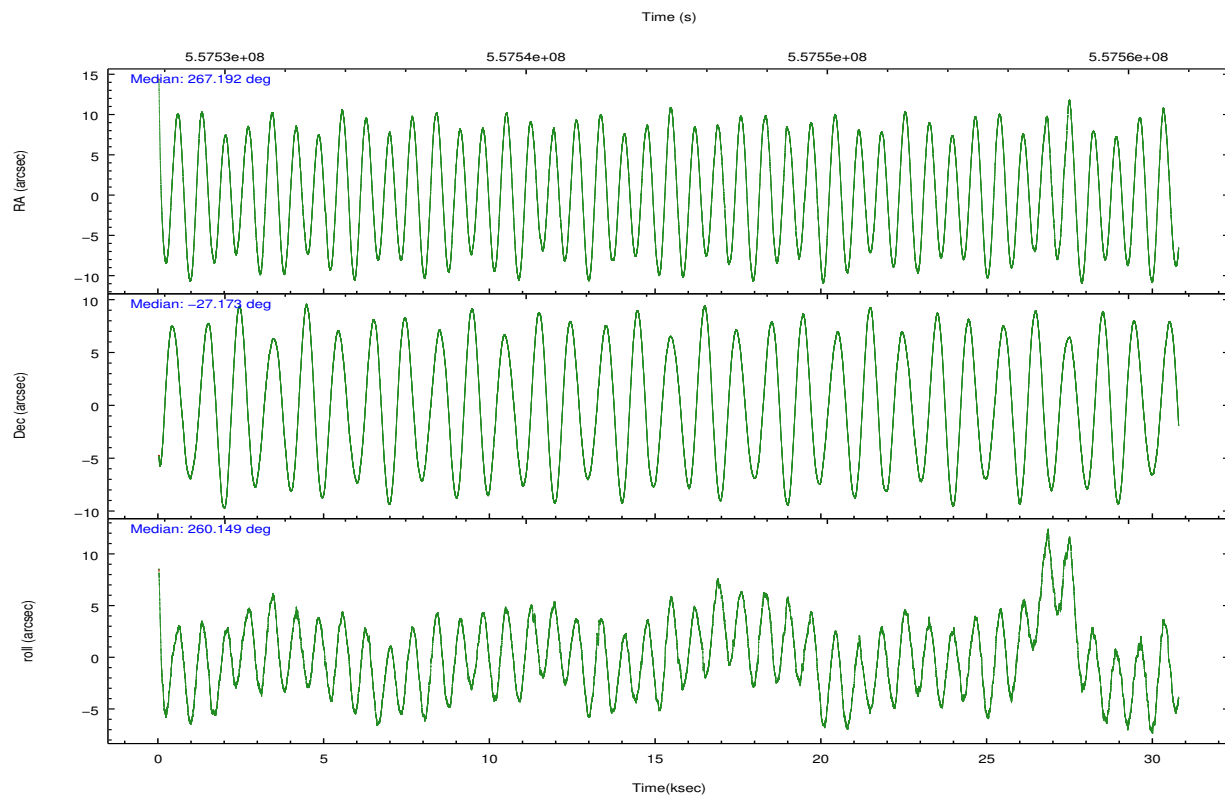
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	7559	35252	7767	9047
	5%	19%	4%	4%
grade 1 events	85	150	85	264
	0%	0%	0%	0%
grade 2 events	4010	4810	4470	19709
	2%	2%	2%	10%
grade 3 events	1703	1756	1790	7724
	1%	0%	1%	4%
grade 4 events	1691	1857	1909	7604
	1%	1%	1%	4%
grade 5 events	5385	6504	6562	18207
	3%	3%	4%	9%
grade 6 events	3154	3450	4198	45696
	2%	1%	2%	25%
grade 7 events	126584	125217	130713	74262
	84%	69%	82%	40%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	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	267.181131	267.1921356706411	CCD I2 on	O1	Y
[deg] Pointing Dec	-27.147999	-27.17361610816778	CCD I3 on	O2	Y
[deg] Pointing Roll	259.996329	260.1579839310363	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	N	N
[s] Observation start time (MET)	557530138.184000	557528657.7086	CCD S5 on	N	N
Observation start date	2015-09-01T21:27:50	2015-09-01T21:04:17	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	557560138.184000	557561263.98544	On-chip summing requested	N	N
Observation end date	2015-09-02T05:47:50	2015-09-02T06:07:43	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



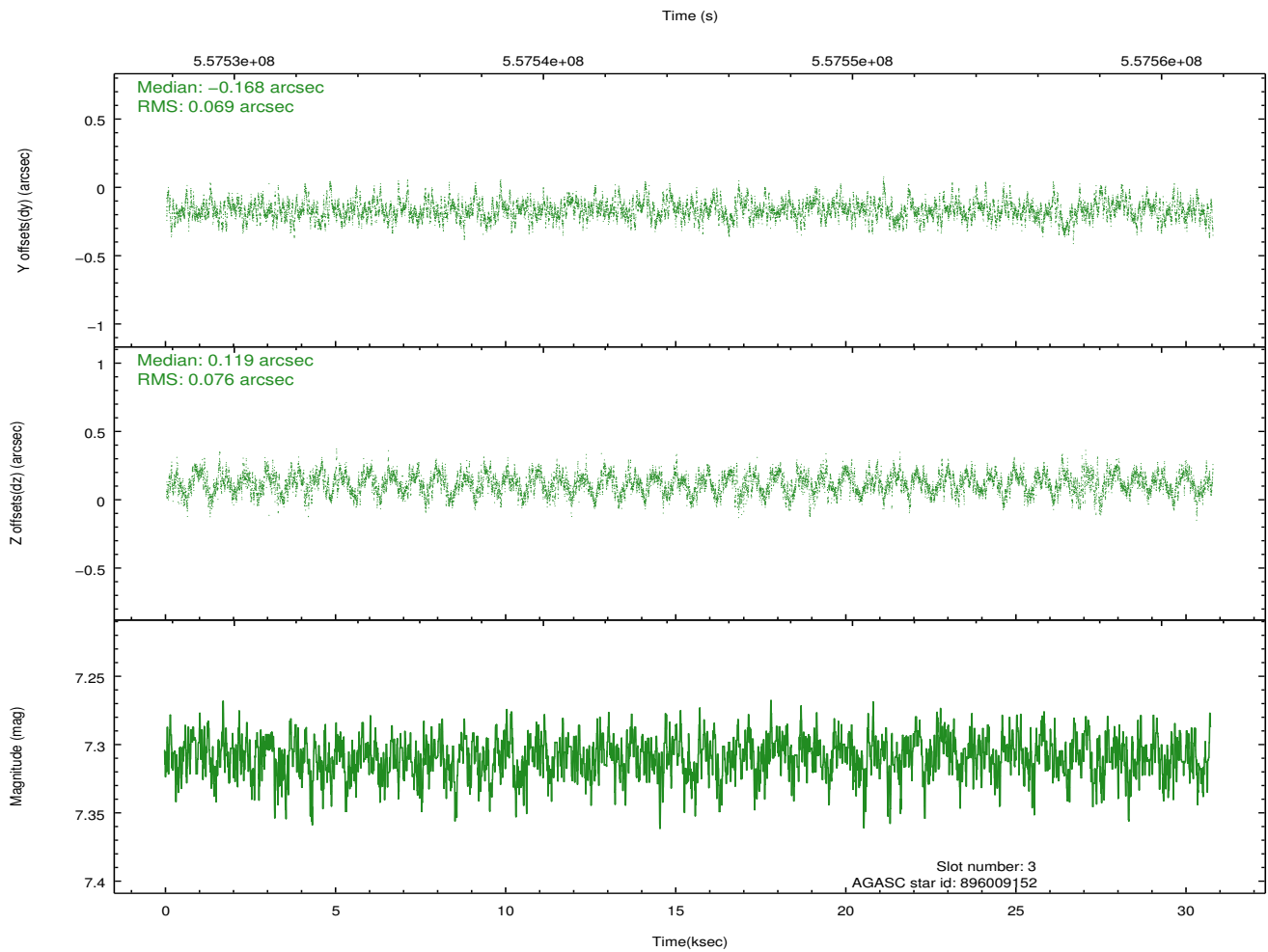
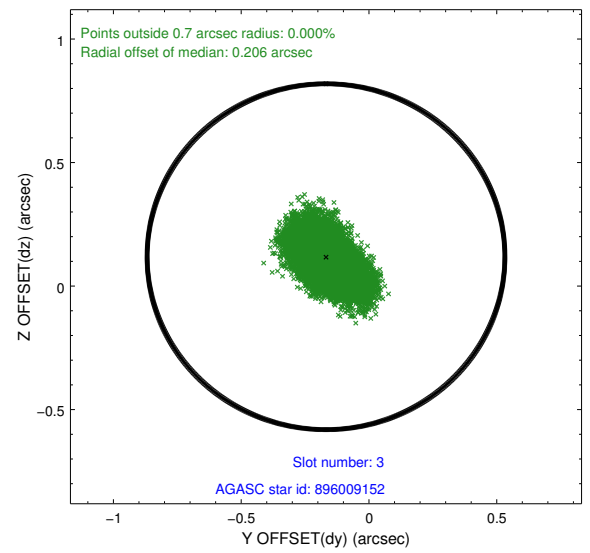
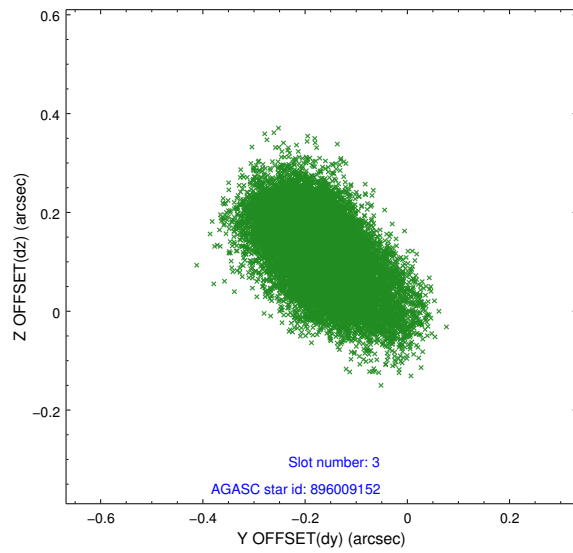


Slot Statistics

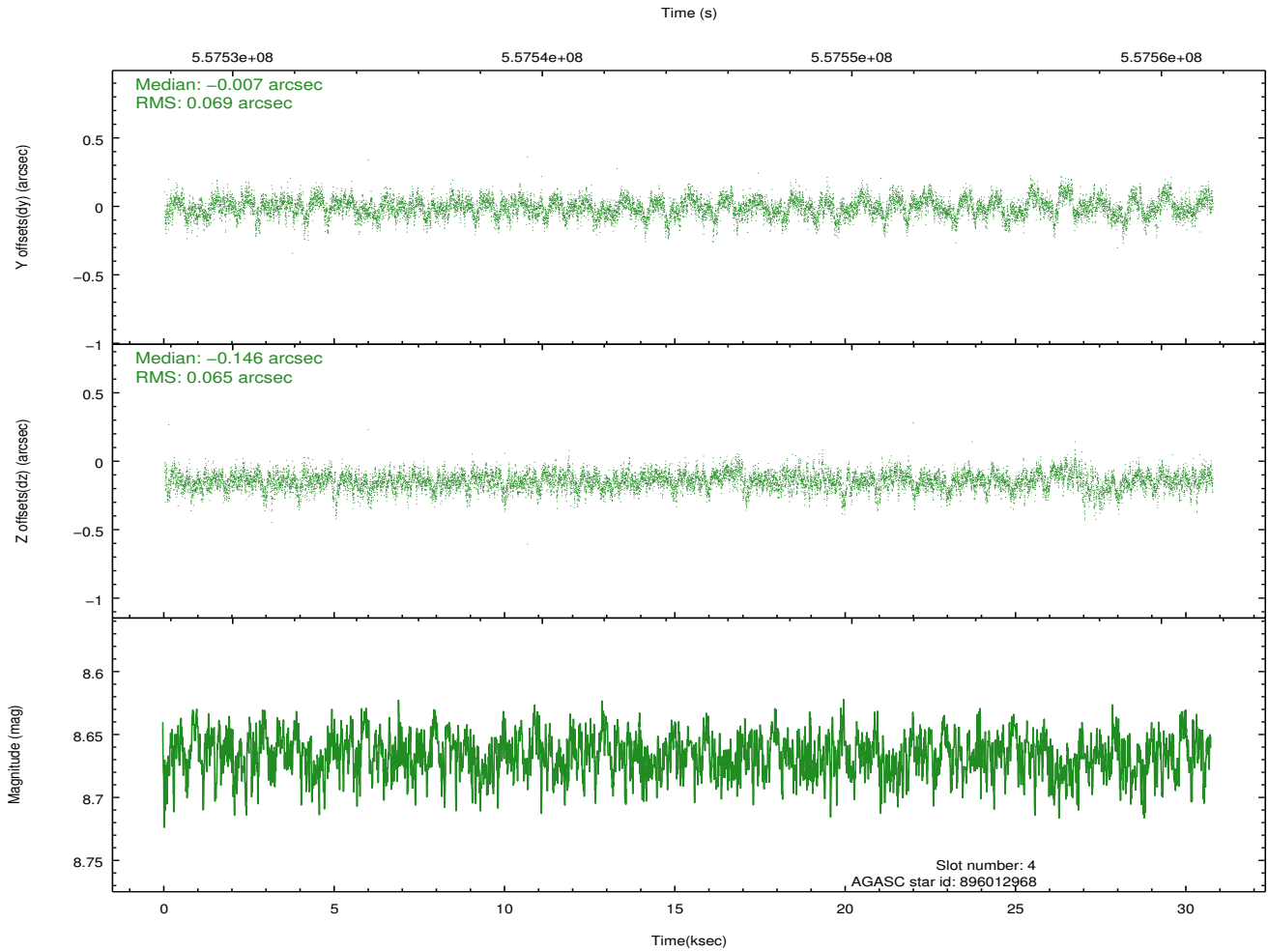
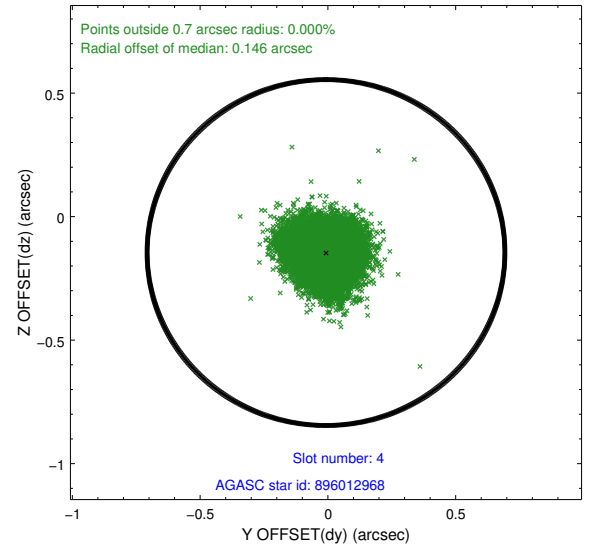
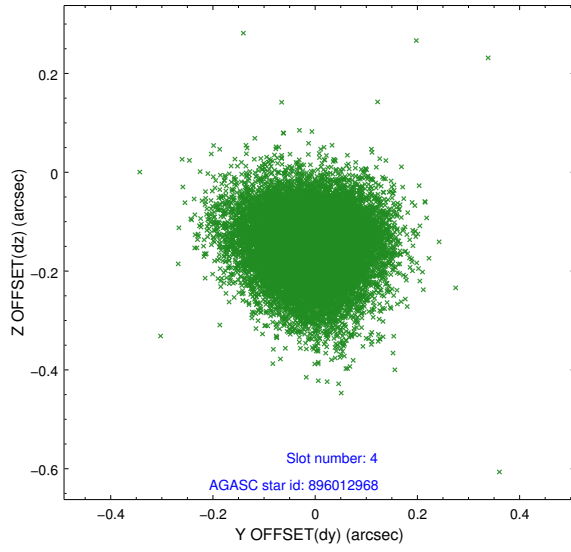
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.21	7504	0.149	-0.058	0.013	0.036	0.000000	0.000000	926.24	-1734.91
1	FID		ACIS-S-5	7.25	7504	-0.236	0.101	0.015	0.036	0.000000	0.000000	-1823.13	162.70
2	FID		ACIS-S-6	7.36	7504	0.068	-0.028	0.012	0.022	0.000000	0.000000	391.61	806.64
3	GUIDE	used	896009152	7.31	15005	-0.168	0.119	0.107	0.182	267.588100	-27.061669	-529.83	1231.35
4	GUIDE	used	896012968	8.67	14996	-0.007	-0.146	0.100	0.165	266.634547	-27.600471	1911.45	-1433.23
5	GUIDE	used	896013040	7.34	15004	0.094	0.002	0.068	0.115	266.506589	-26.972299	-240.24	-2240.07
6	GUIDE	used	896014528	7.67	15006	0.020	0.034	0.076	0.124	266.628858	-27.438607	1341.34	-1554.98
7	GUIDE	used	897717296	8.23	15000	0.059	-0.001	0.096	0.159	267.921819	-26.875322	-1372.81	2172.94

2.4 Star Slots

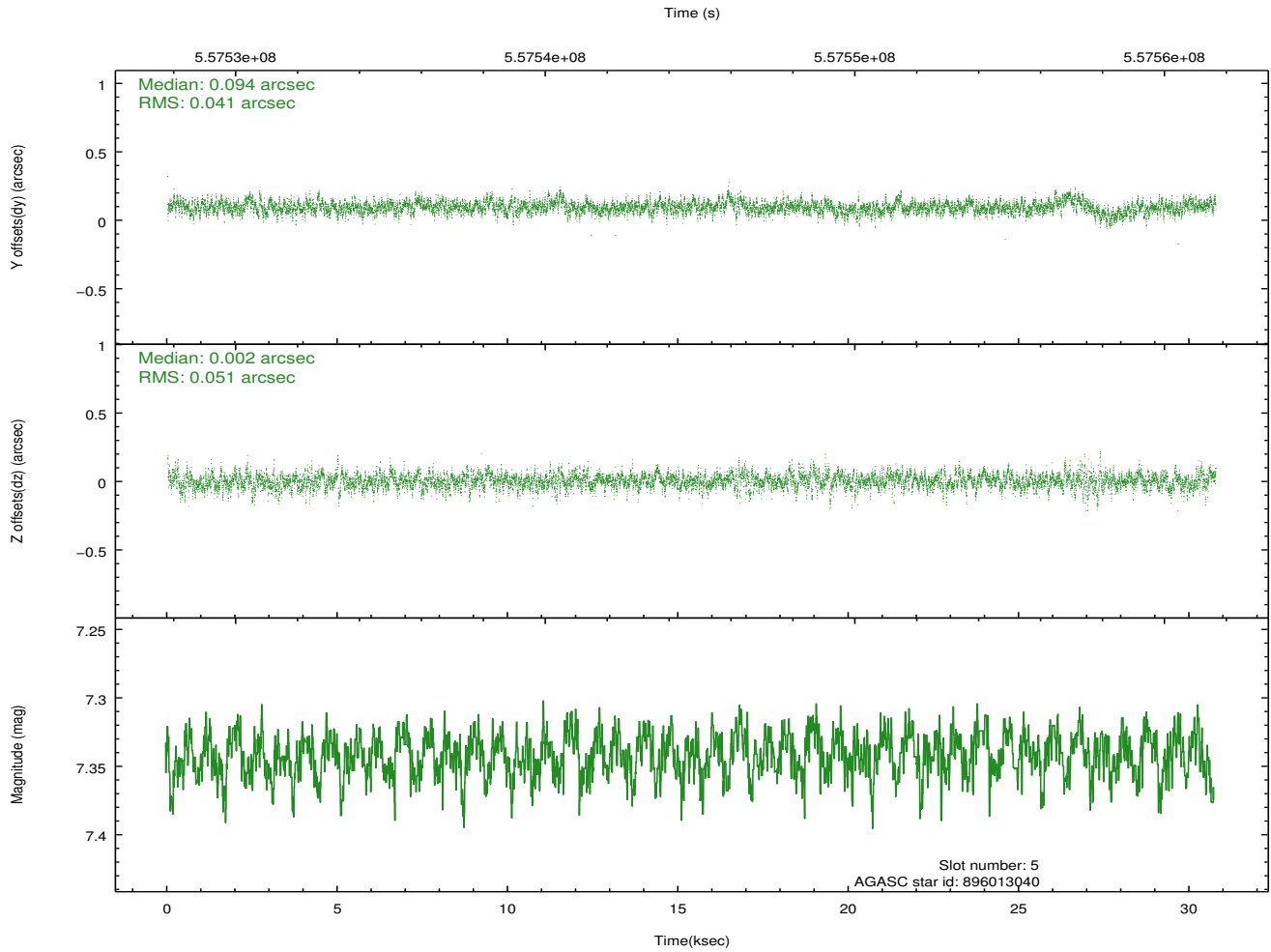
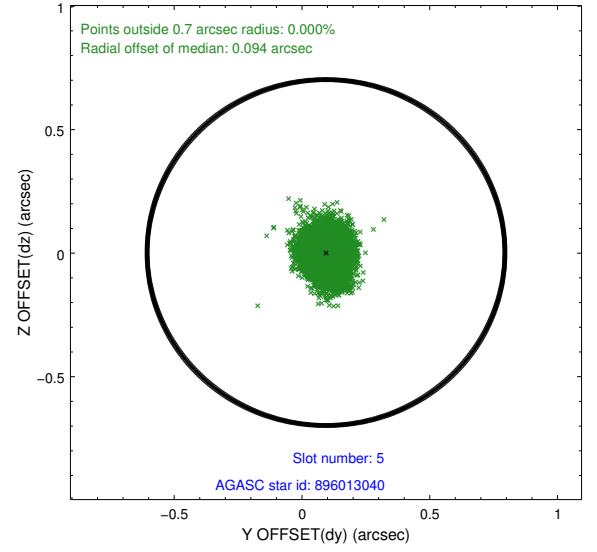
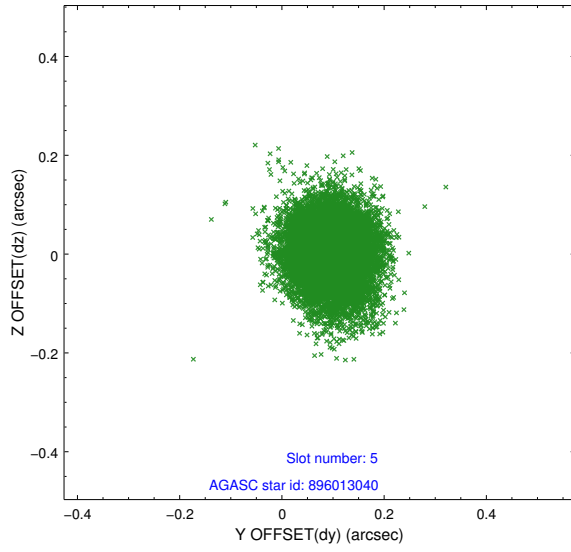
2.4.1 Slot 3



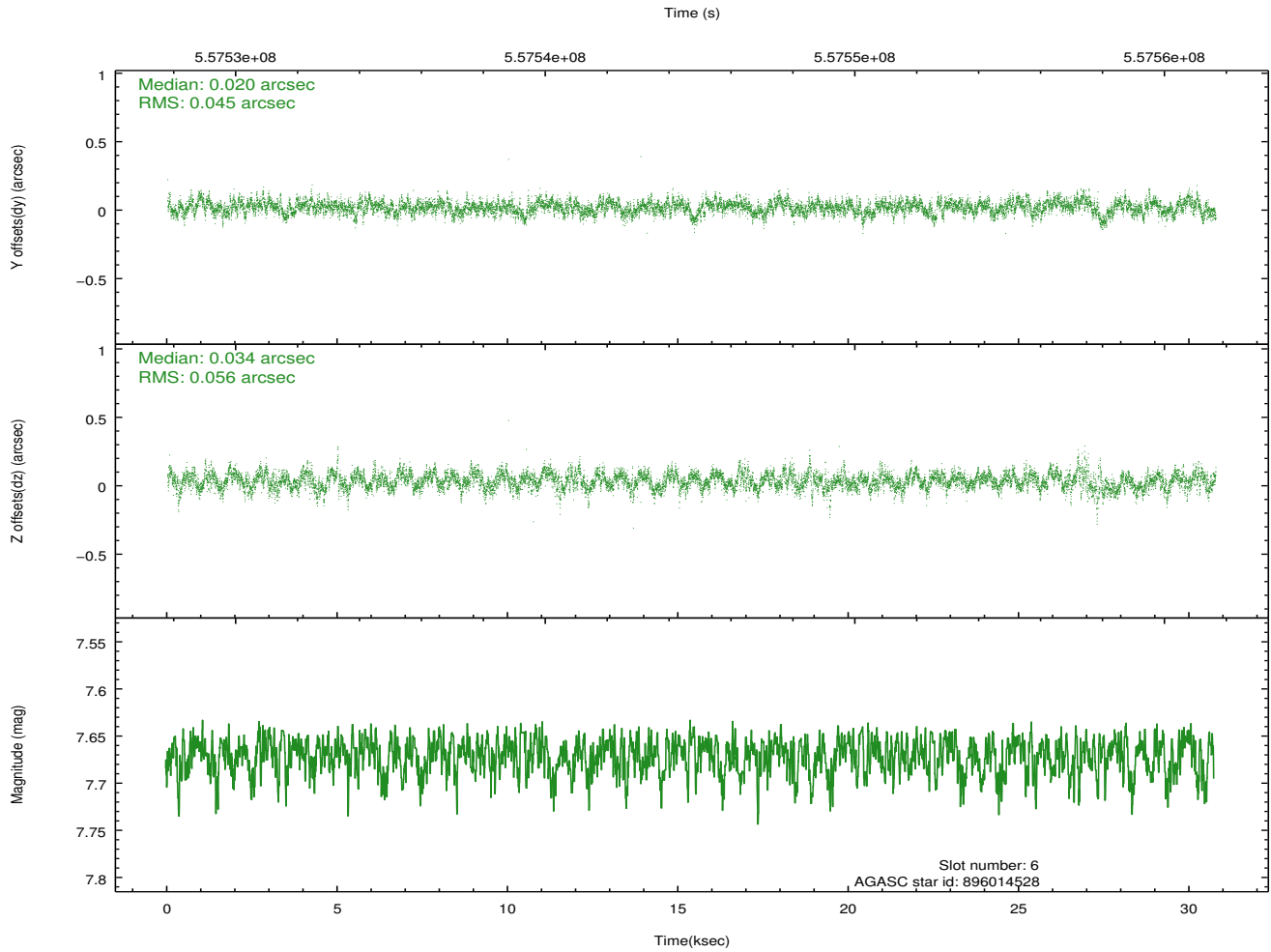
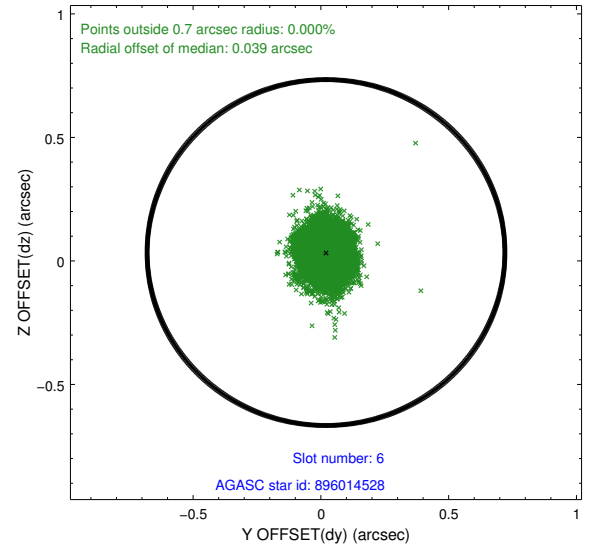
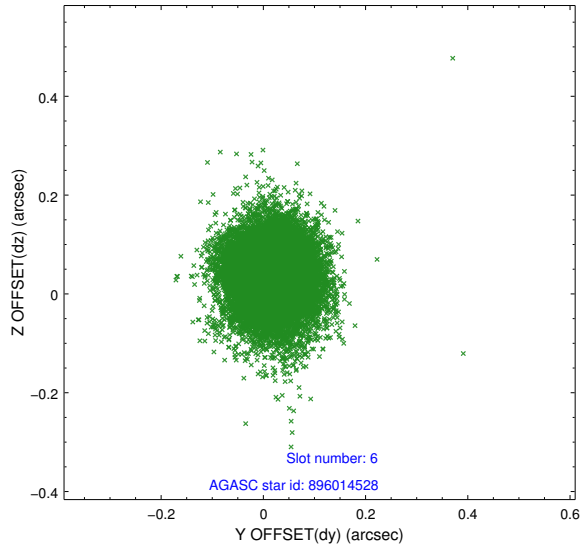
2.4.2 Slot 4



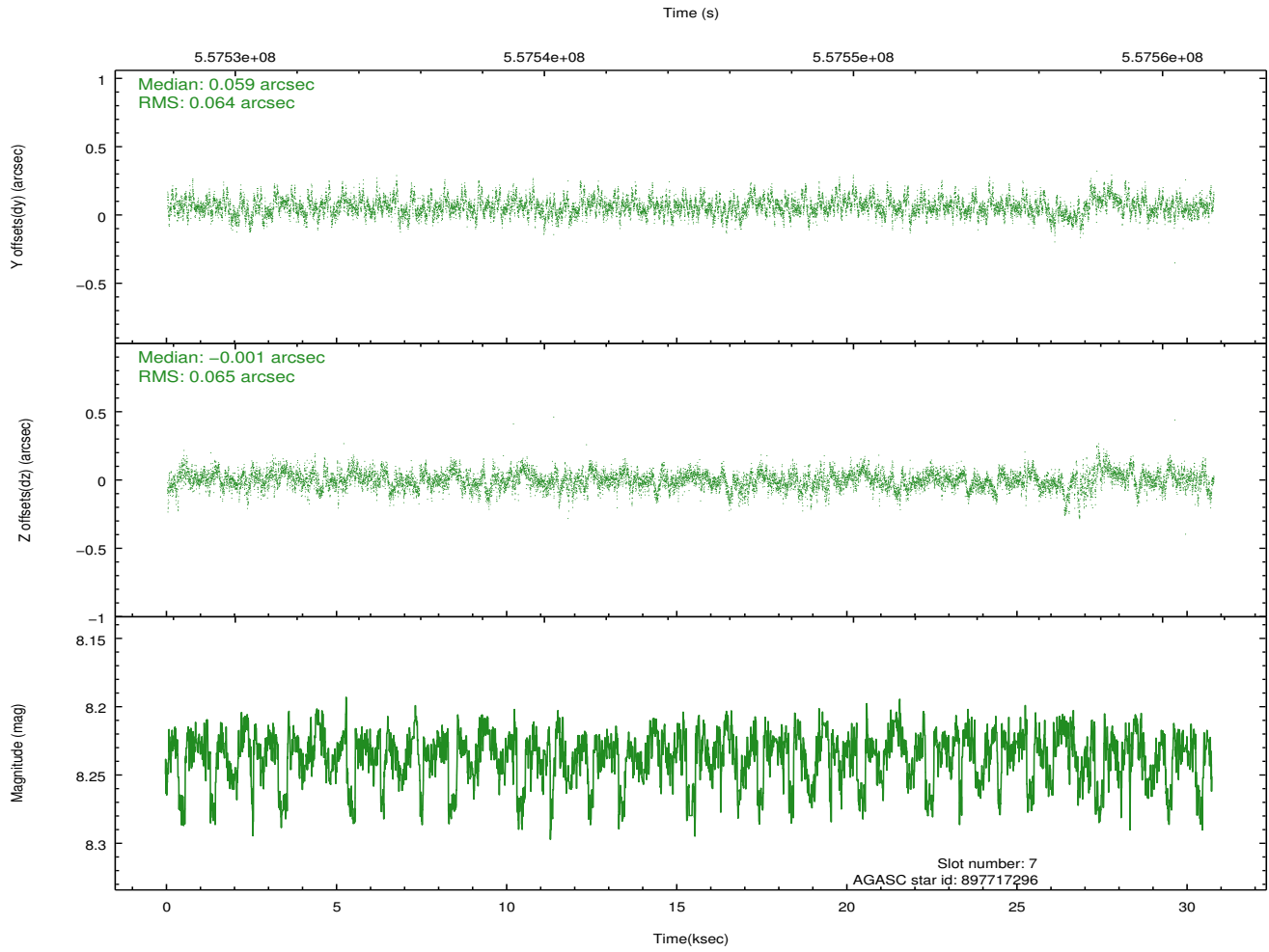
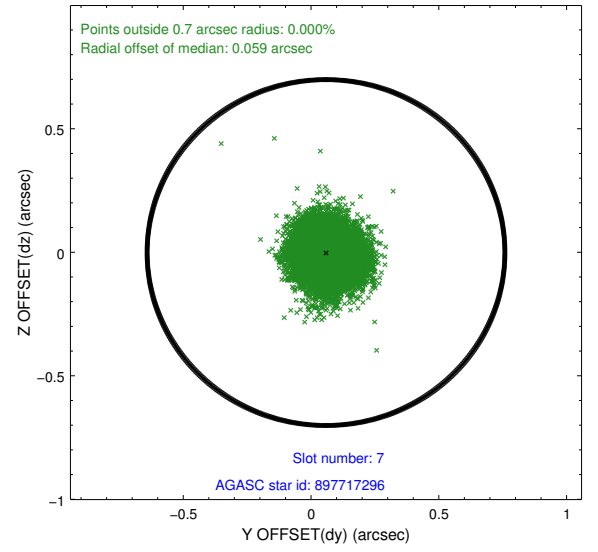
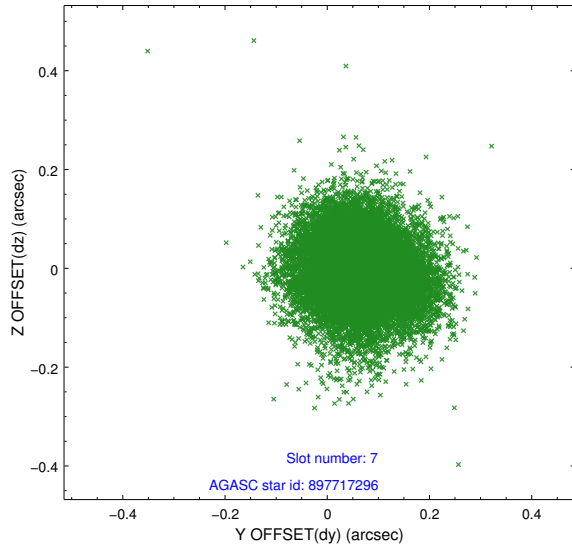
2.4.3 Slot 5



2.4.4 Slot 6

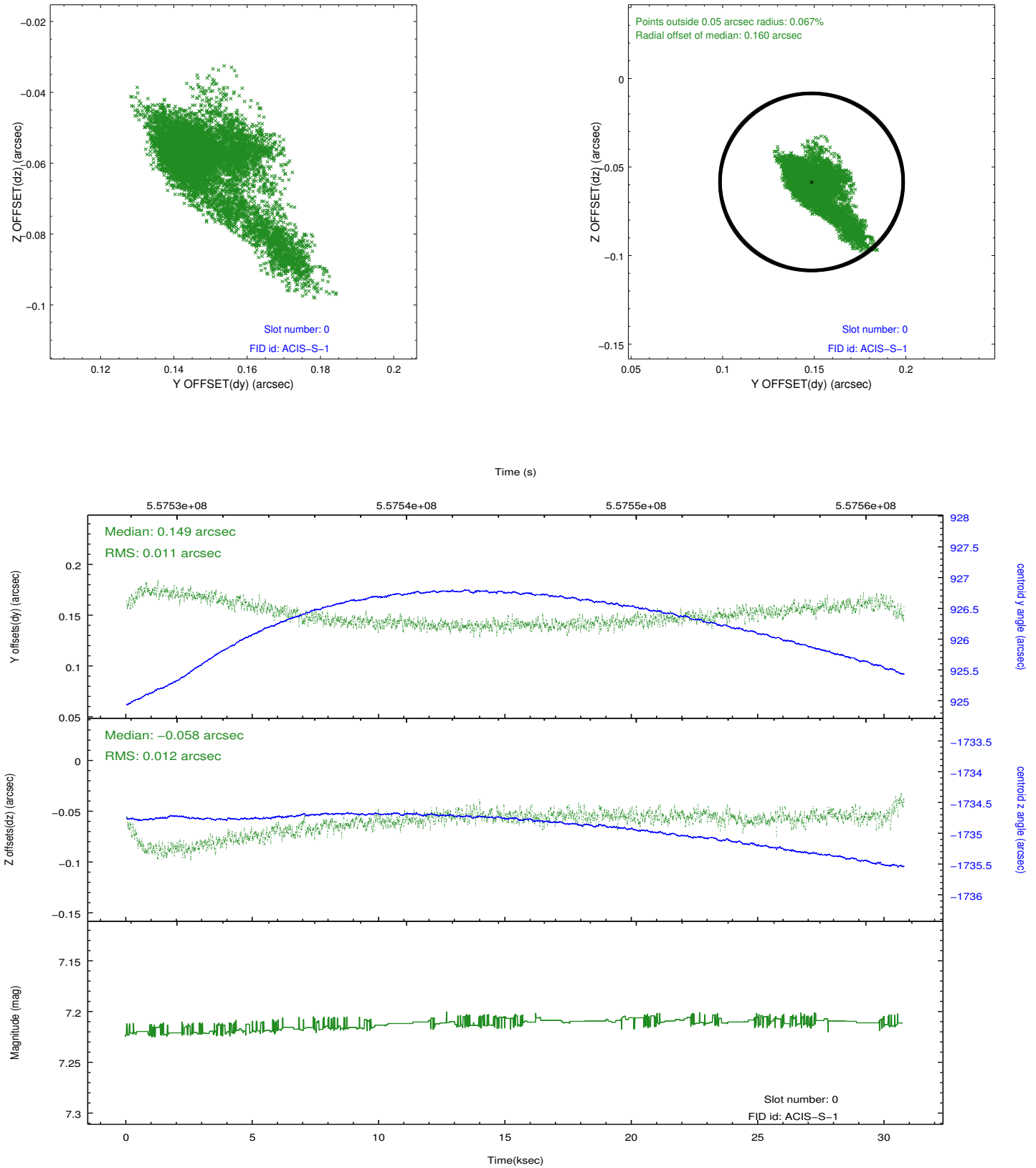


2.4.5 Slot 7

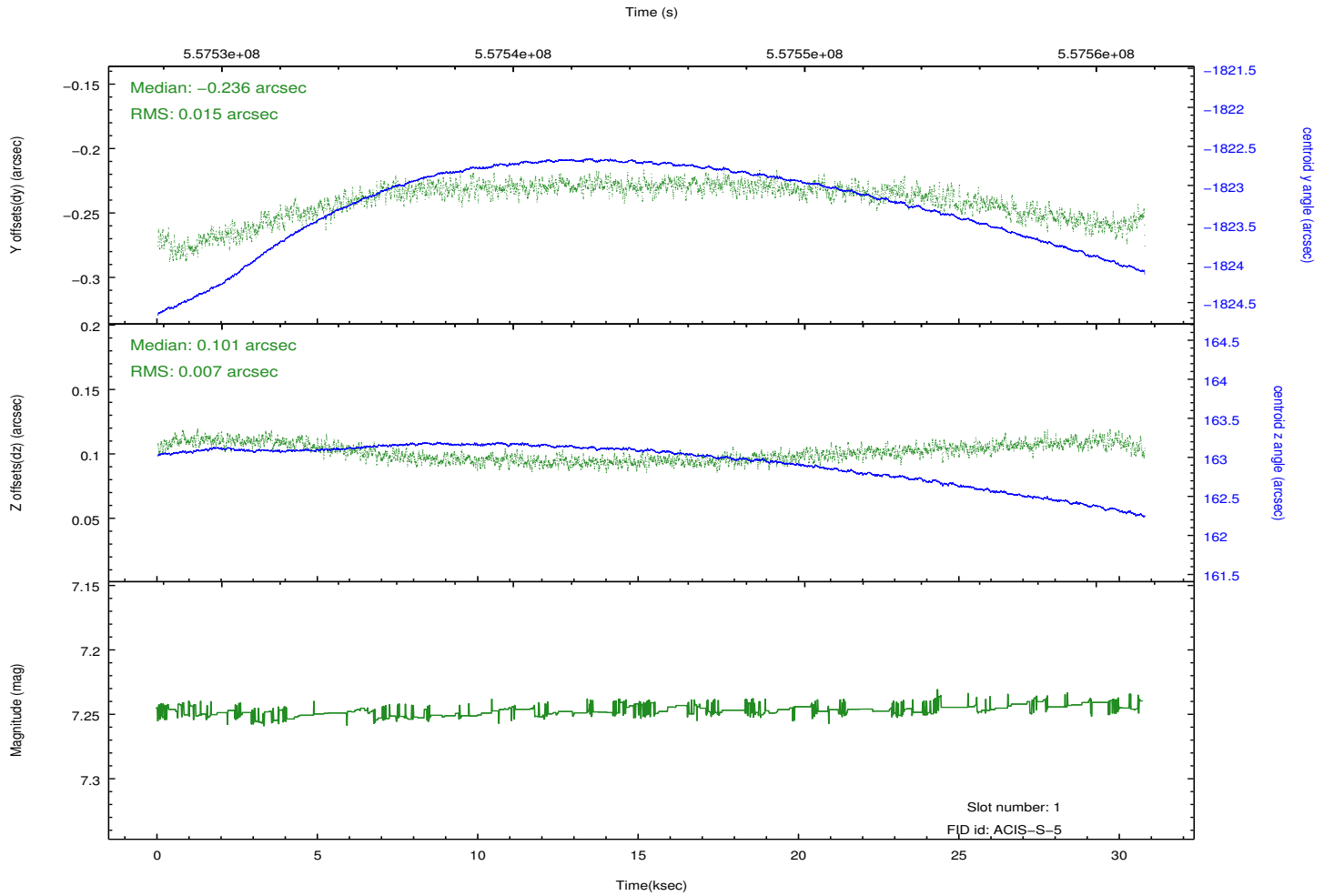
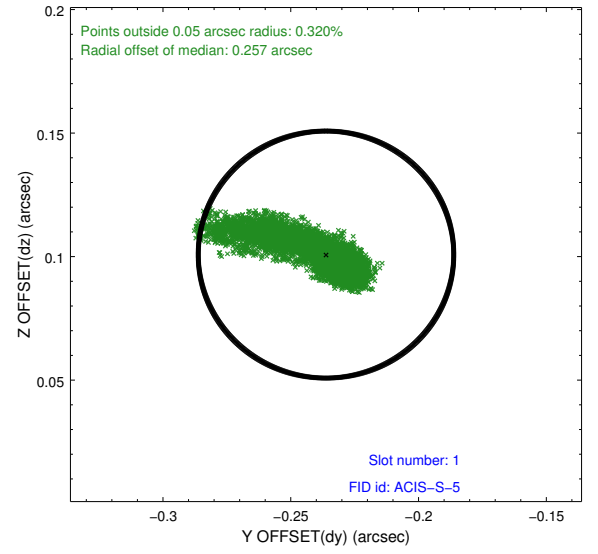
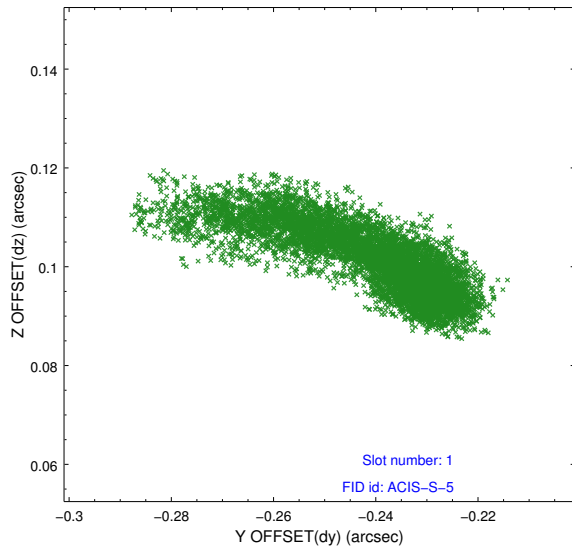


2.5 FID Slots

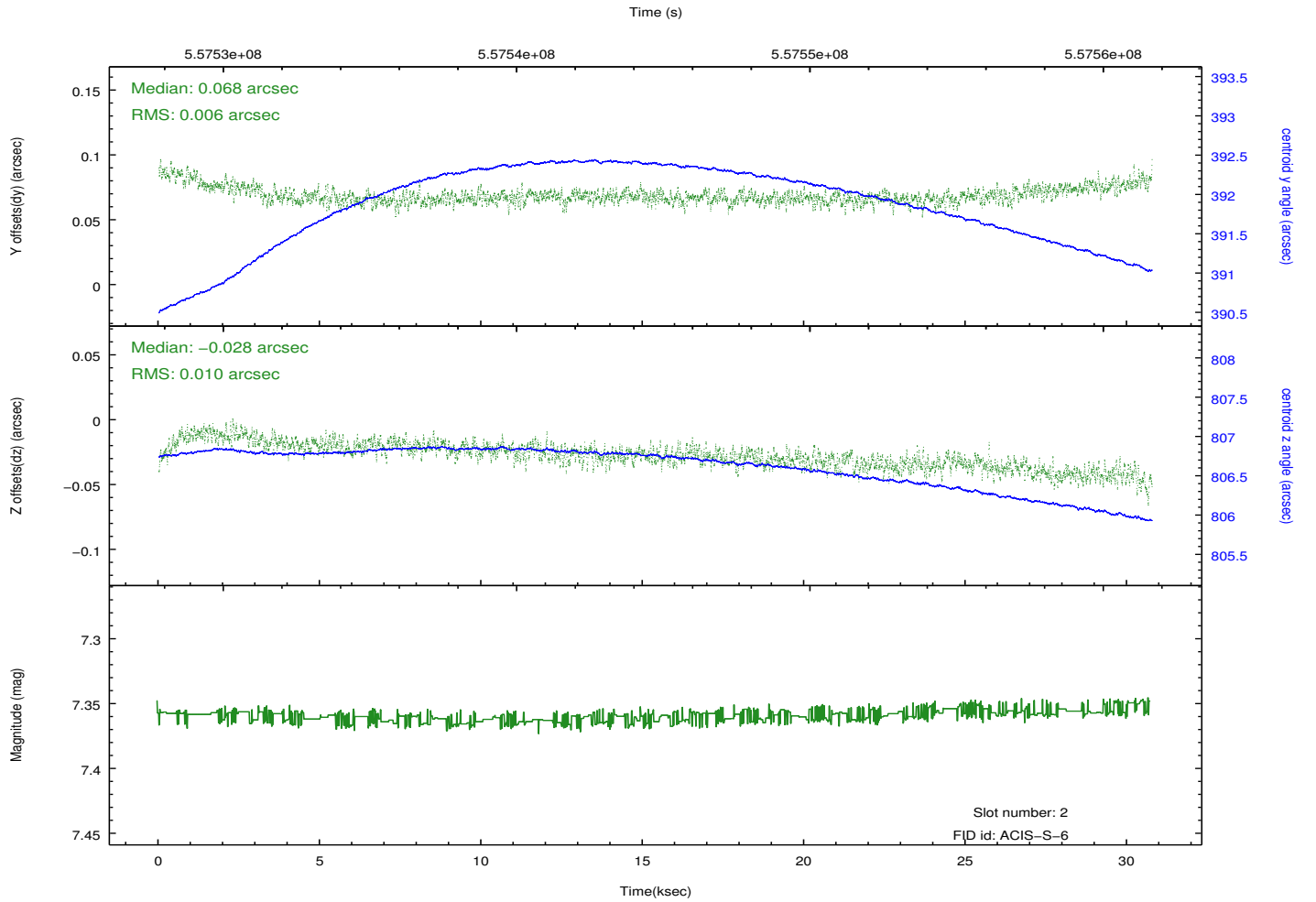
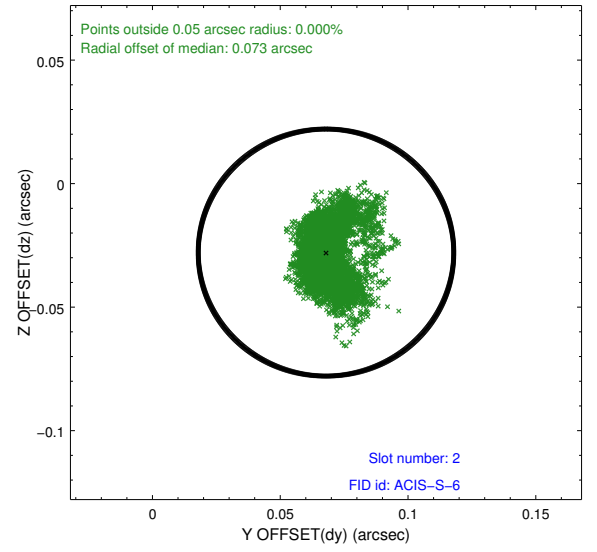
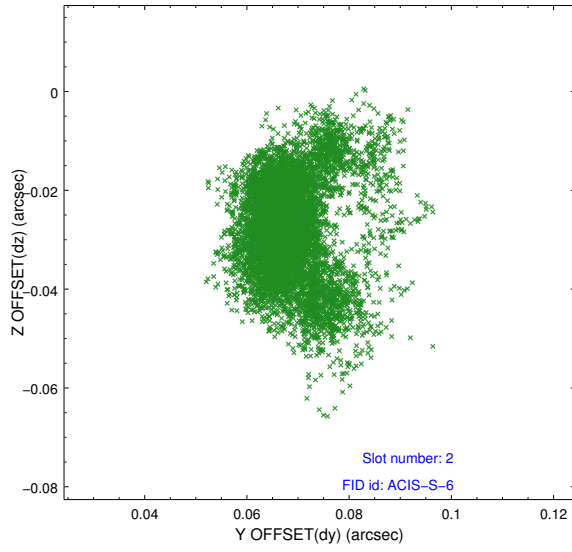
2.5.1 Slot 0



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)	2015.09.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.069996606946

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: (267.25734, -27.23400), (267.25792, -27.23104), (267.18153, -27.21934), (267.17703, -27.22170).