

V&V Reference Report

L2 ASCDS Version : 10.1.1

Observation 15716 - L2 Version 3
Chandra X-Ray Center

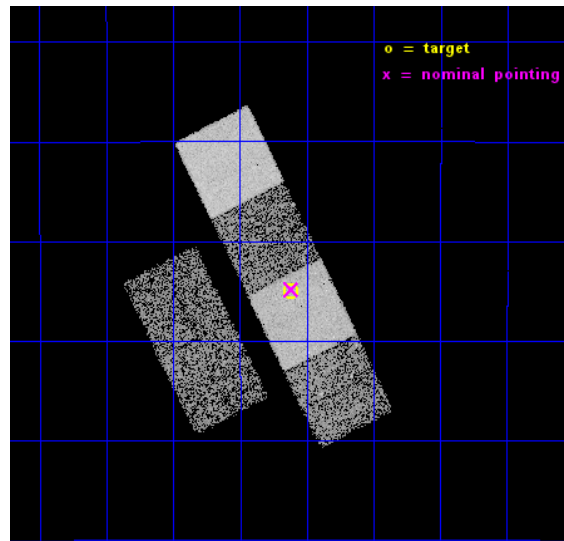
L2 Processing Date : Dec 8 2014

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1 Front

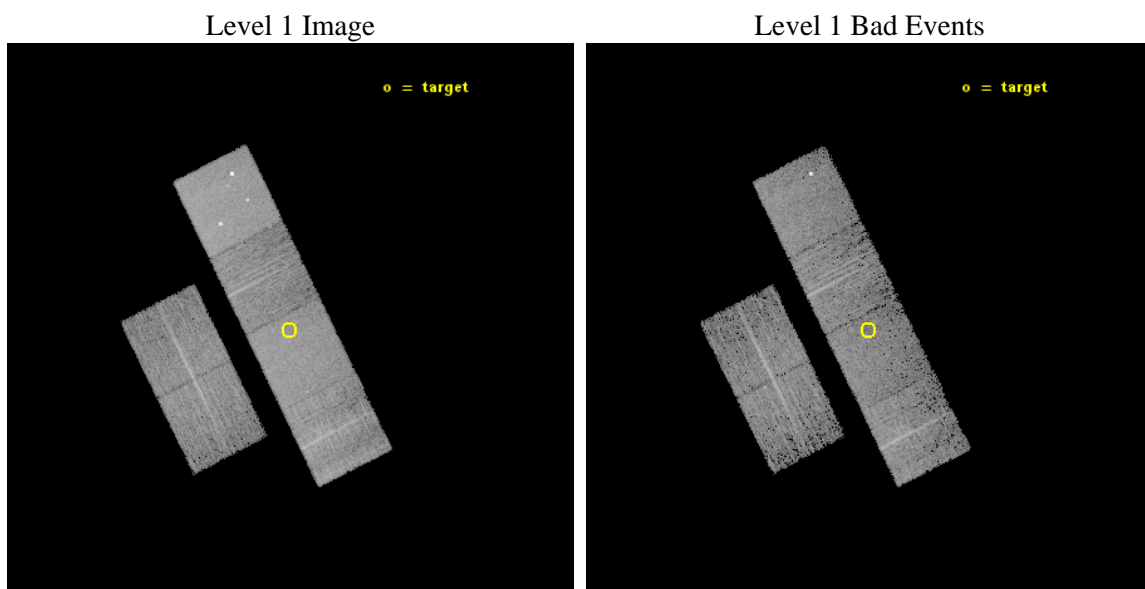
seq_num	200929	Sequence number
obs_id	15716	Observation id
title	INVESTIGATING BINARITY AND ACTIVE ACCRETION IN A NEW CLASS OF AGB STARS WITH FUV EXCESSES	Proposal title
observer	Dr Raghvendra Sahai	Principal investigator
object	V Hya	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	162.905417	Observer's specified target RA [deg]
dec_targ	-21.250083	Observer's specified target Dec [deg]
ra_nom	162.90372505009	Nominal RA [deg]
dec_nom	-21.247428494574	Nominal Dec [deg]
roll_nom	63.493903544356	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9782.3590031266	Sum of GTIs [s]
livetime	9658.4888831996	Livetime [s]
ontime2	9785.5999636054	Sum of GTIs [s]
ontime3	9785.5999636054	Sum of GTIs [s]
ontime5	9782.3589832187	Sum of GTIs [s]
ontime6	9782.3589932919	Sum of GTIs [s]
ontime7	9782.3590031266	Sum of GTIs [s]
ontime8	9785.5999636054	Sum of GTIs [s]
l2events	81412	Number of level 2 events



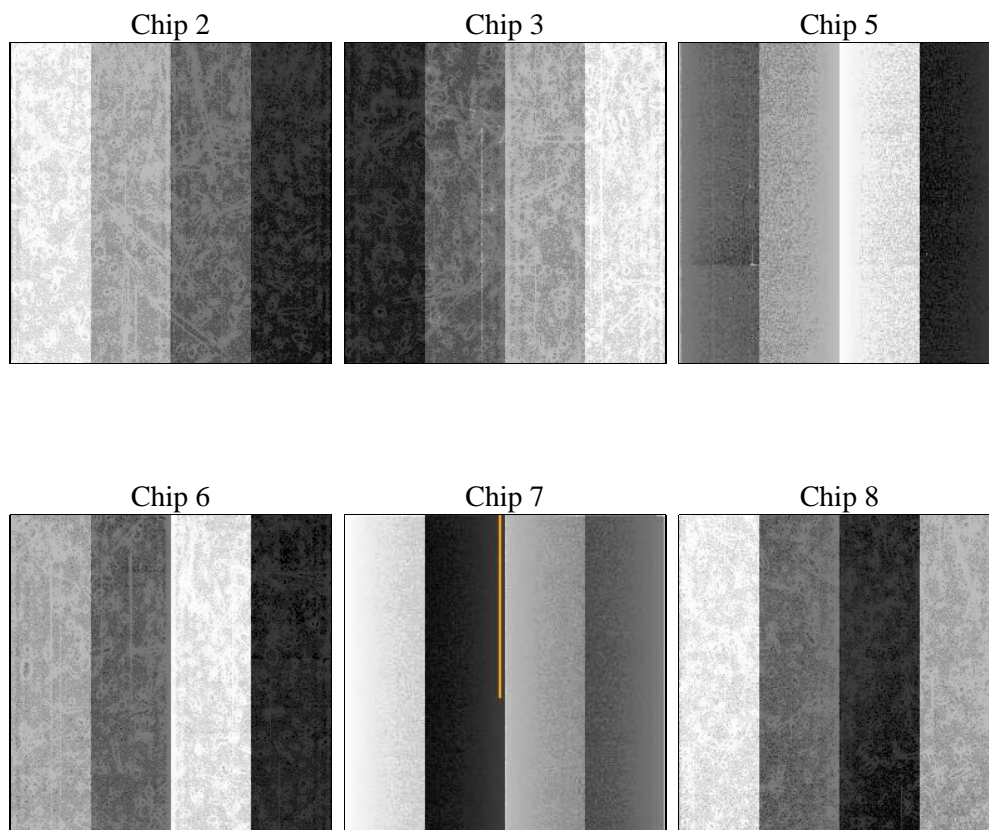
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9818.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	9782.3590031266	Sum of GTIs [s]
caldsver	4.6.4	 	ontime2	9785.5999636054	Sum of GTIs [s]
date	2014-12-08T10:11:31	Date and time of file creation	ontime3	9785.5999636054	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9782.3589832187	Sum of GTIs [s]
			ontime6	9782.3589932919	Sum of GTIs [s]
			ontime7	9782.3590031266	Sum of GTIs [s]
			ontime8	9785.5999636054	Sum of GTIs [s]
			l1events	333971	Number of level 1 events

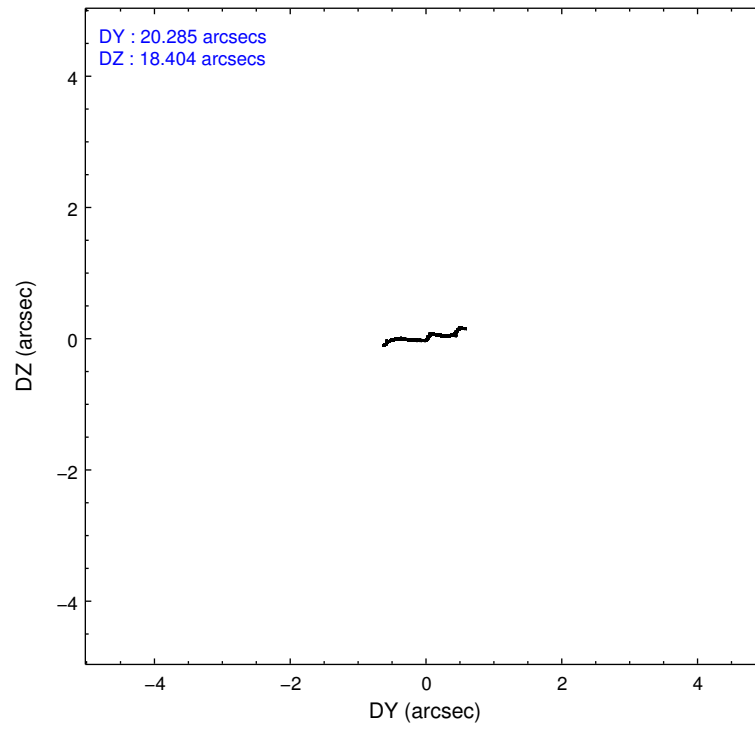
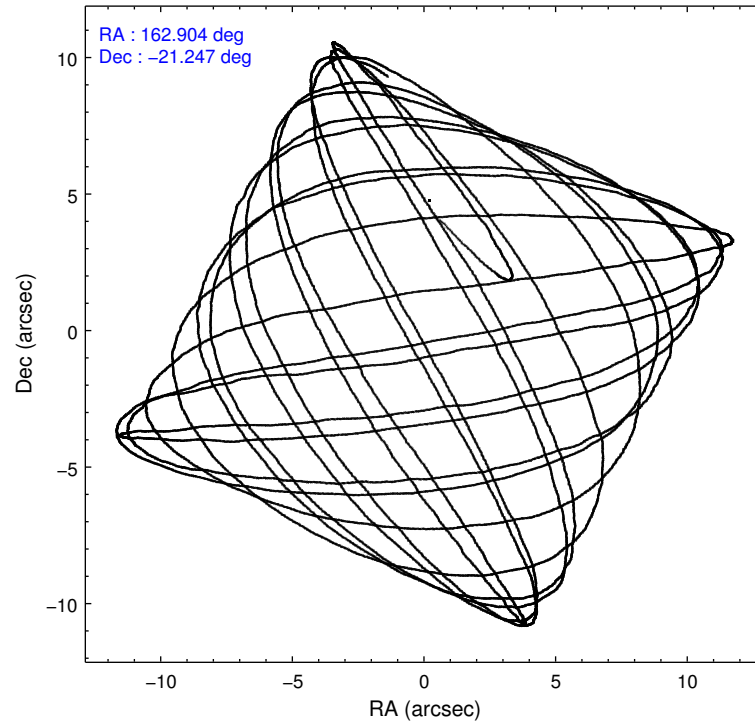
2.1.4 Events

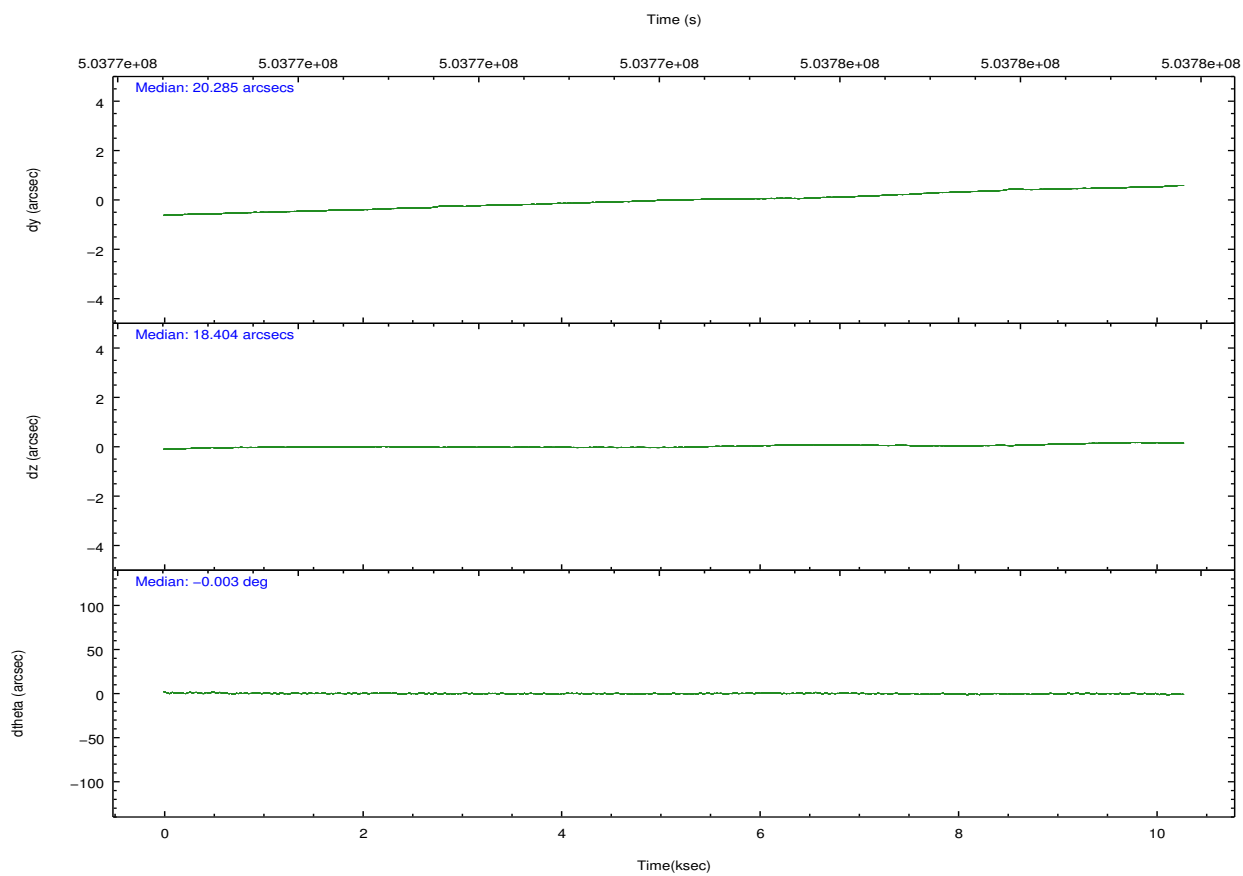
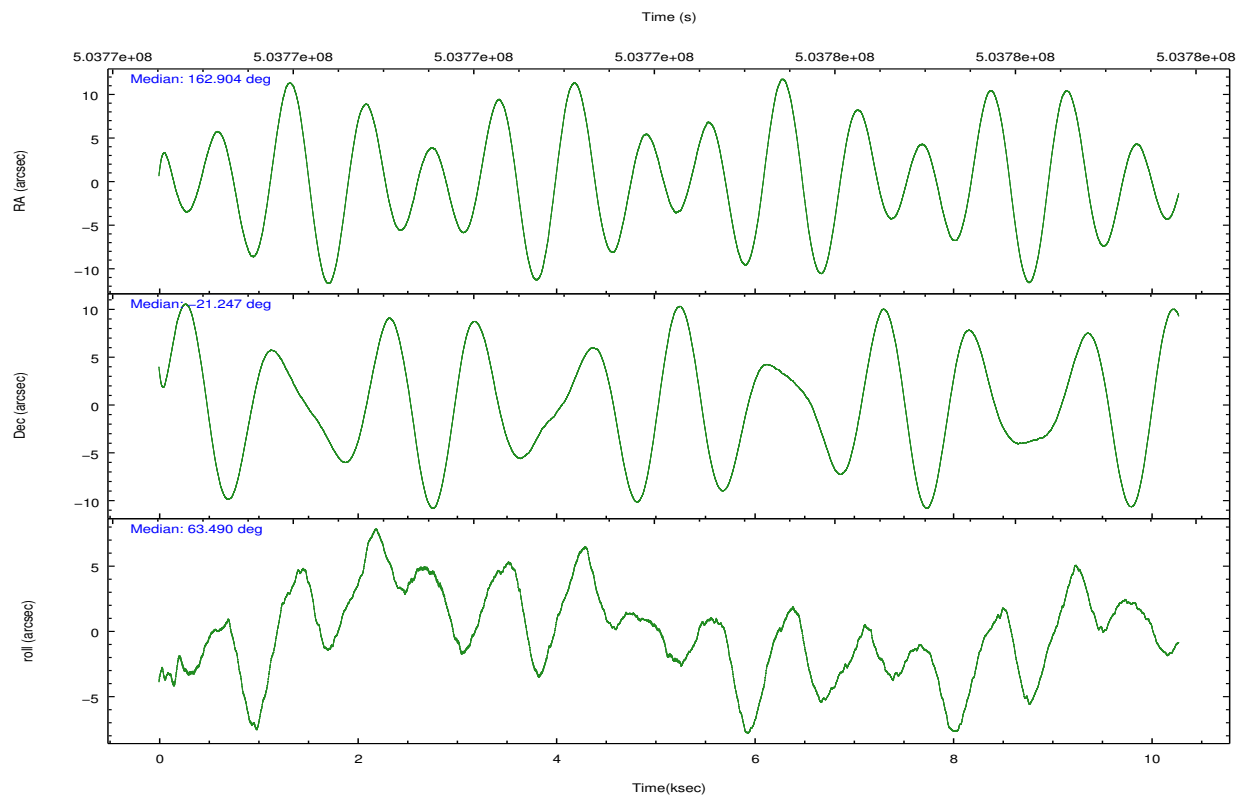
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	42935	42856	80652	45461	63210	58857	grade 0 events	1803	1650	4627	1909	2535	4886
rejected events	37697	37897	41528	39850	35563	42999		4%	3%	5%	4%	4%	8%
rejected %	87%	88%	51%	87%	56%	73%	grade 1 events	37	26	151	26	86	48
								0%	0%	0%	0%	0%	0%
							grade 2 events	1347	1196	11994	1267	5609	3687
								3%	2%	14%	2%	8%	6%
							grade 3 events	510	514	1288	543	2394	1642
								1%	1%	1%	1%	3%	2%
							grade 4 events	536	512	1233	584	2319	1521
								1%	1%	1%	1%	3%	2%
							grade 5 events	2060	2467	6067	2356	6641	3527
								4%	5%	7%	5%	10%	5%
							grade 6 events	1042	1091	19993	1311	14801	4124
								2%	2%	24%	2%	23%	7%
							grade 7 events	35600	35400	35299	37465	28825	39422
								82%	82%	43%	82%	45%	66%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	162.905935	162.9037250500941	CCD I2 on	O1	Y
[deg] Pointing Dec	-21.274755	-21.24742849457439	CCD I3 on	O2	Y
[deg] Pointing Roll	63.338072	63.49390354435612	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[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	Y	Y
[s] Observation start time (MET)	503769474.184000	503768367.19317	CCD S5 on	N	N
Observation start date	2013-12-18T15:56:47	2013-12-18T15:39:27	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	503779292.184000	503779517.65628	On-chip summing requested	N	N
Observation end date	2013-12-18T18:40:25	2013-12-18T18:45:17	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

2.3 Aspect



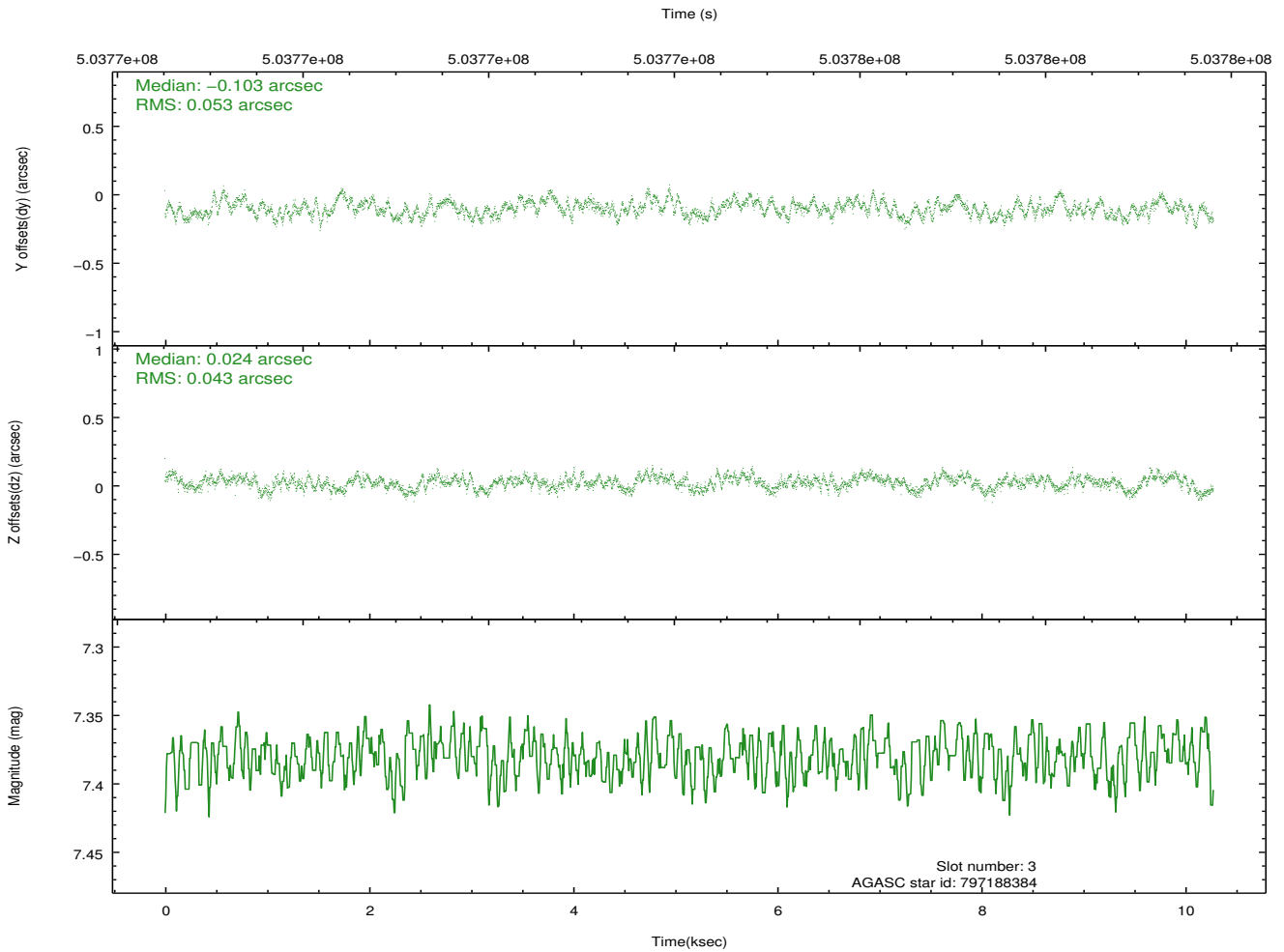
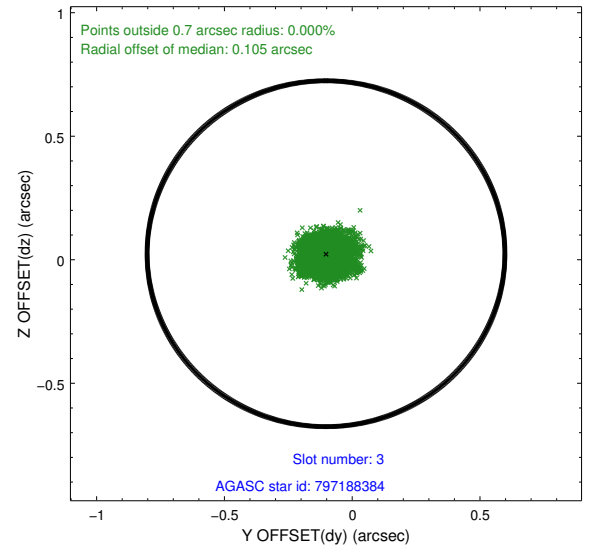
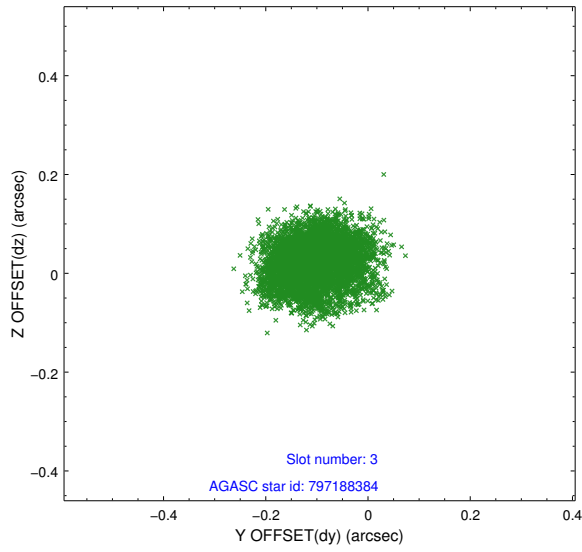


Slot Statistics

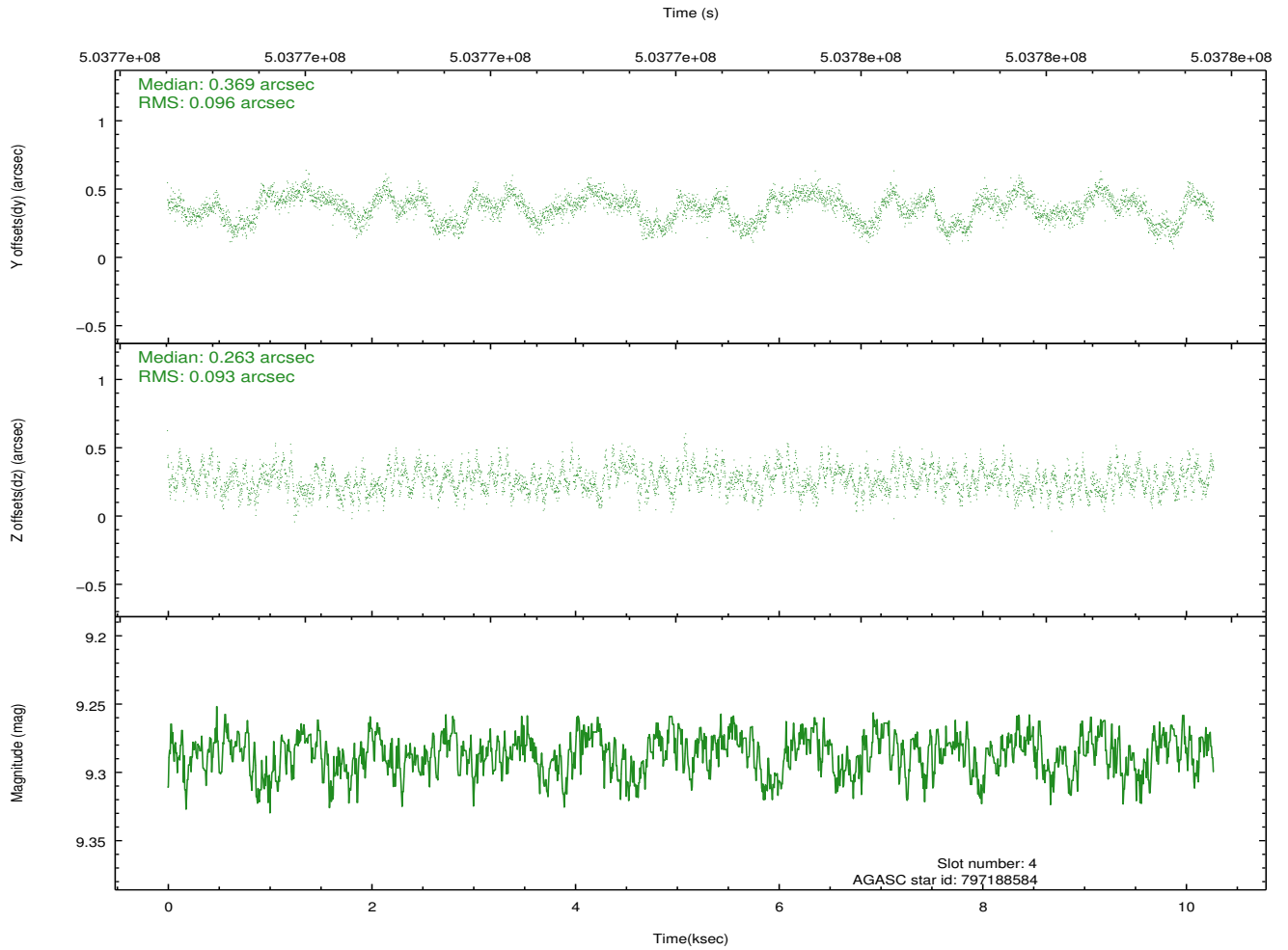
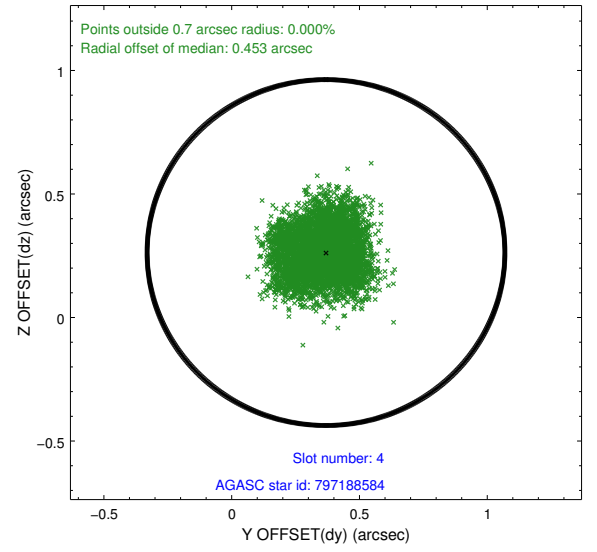
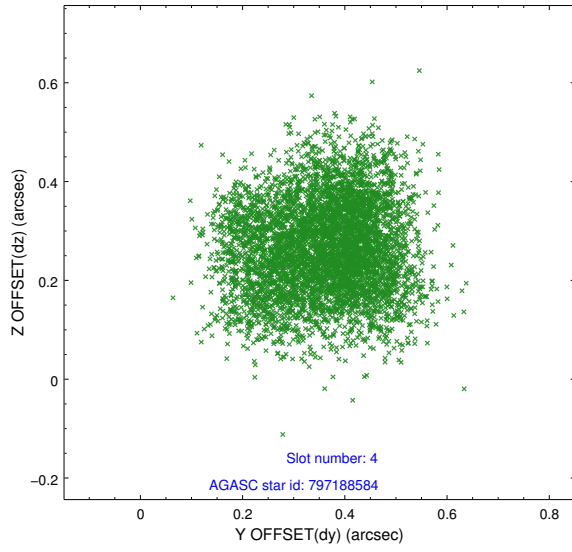
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.85	2507	-0.110	-0.029	0.007	0.012	0.000000	0.000000	-773.51	-1739.92
1	FID		ACIS-S-4	6.94	2506	0.238	0.061	0.010	0.019	0.000000	0.000000	2139.91	168.08
2	FID		ACIS-S-5	6.96	2506	-0.158	-0.023	0.010	0.024	0.000000	0.000000	-1825.72	162.31
3	GUIDE	used	797188384	7.38	5013	-0.103	0.024	0.075	0.115	162.810698	-21.524314	-945.96	-118.05
4	GUIDE	used	797188584	9.29	5011	0.369	0.263	0.146	0.224	163.278116	-22.023447	-1851.95	-2319.40
5	GUIDE	used	797189336	9.44	5009	-0.104	-0.112	0.128	0.204	163.454720	-21.095253	1401.38	-1358.98
6	GUIDE	used	797187840	9.26	5012	-0.032	0.100	0.115	0.186	163.631829	-21.411404	647.83	-2397.20
7	GUIDE	used	797189024	6.29	2506	-0.254	-0.557	0.068	0.106	162.905235	-21.250101	78.49	40.57

2.4 Star Slots

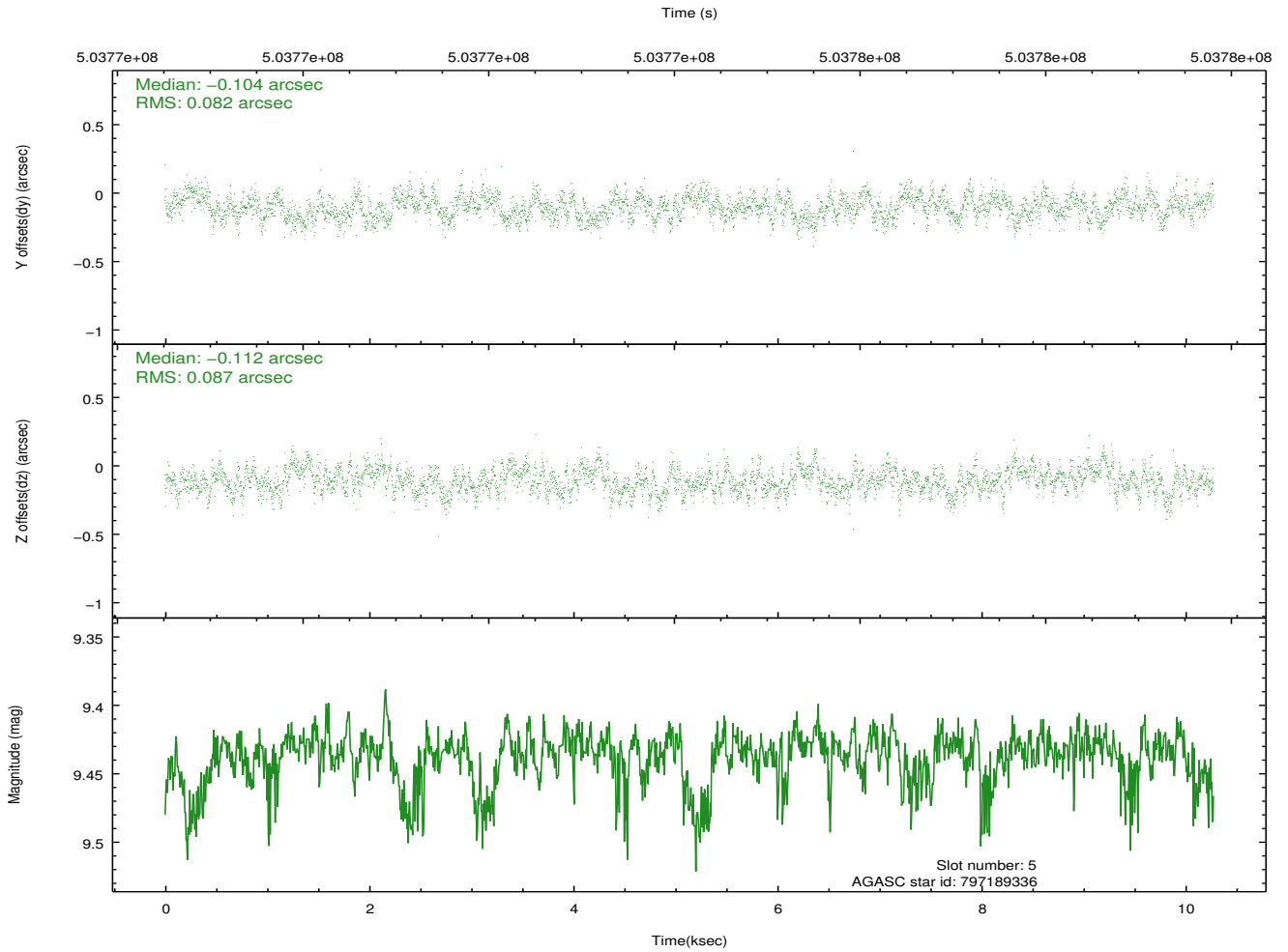
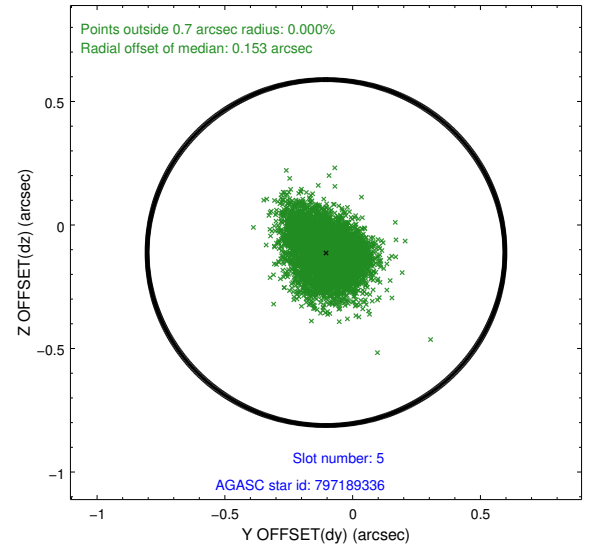
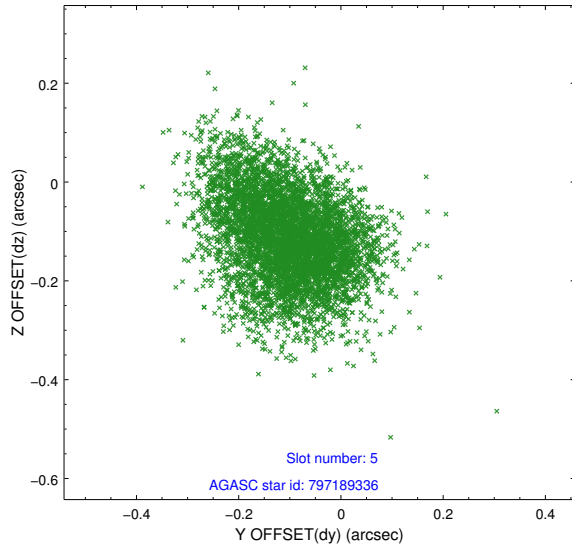
2.4.1 Slot 3



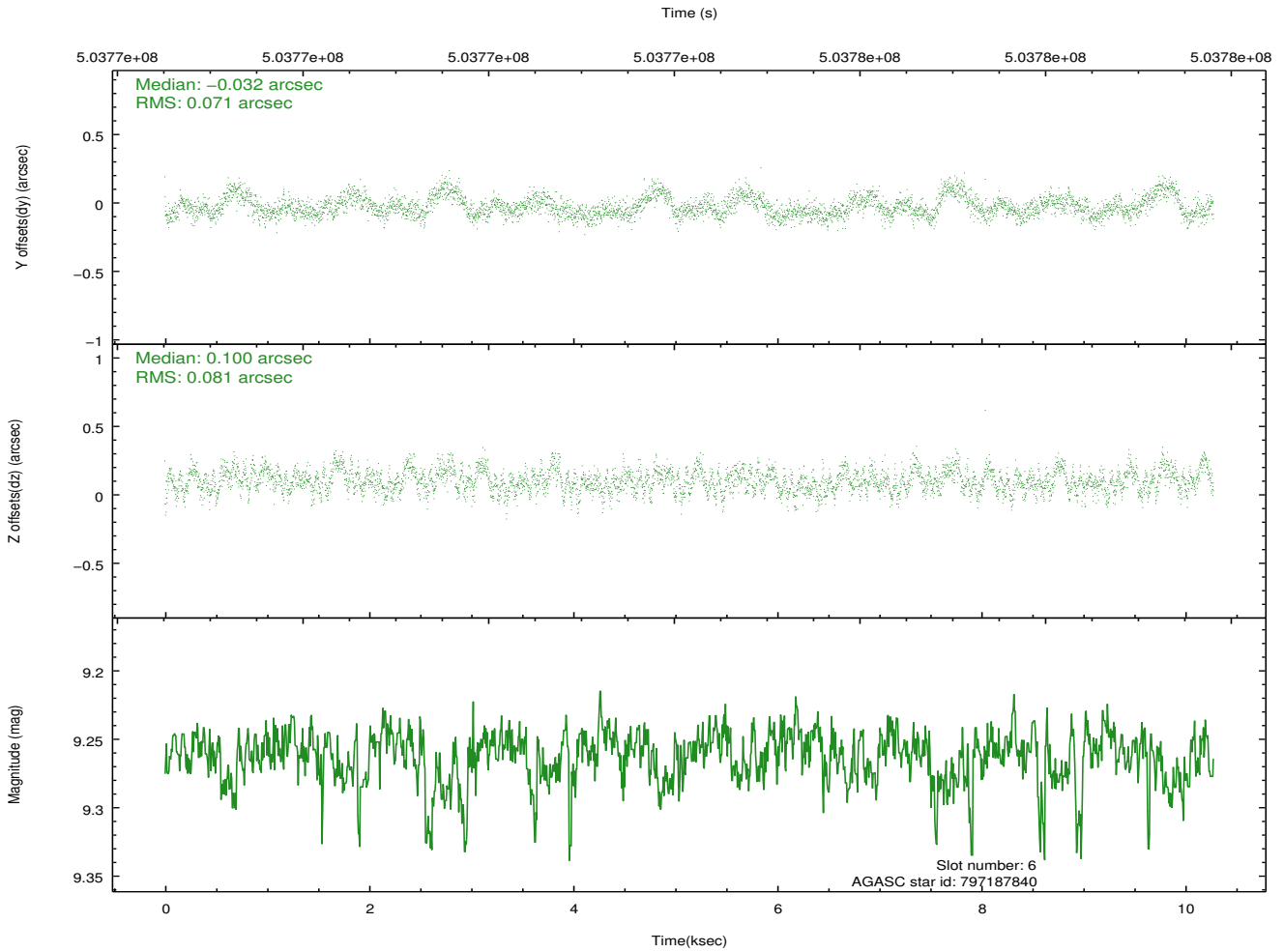
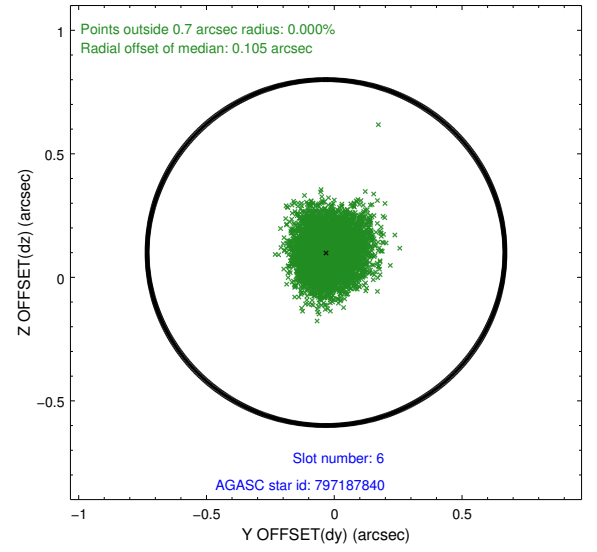
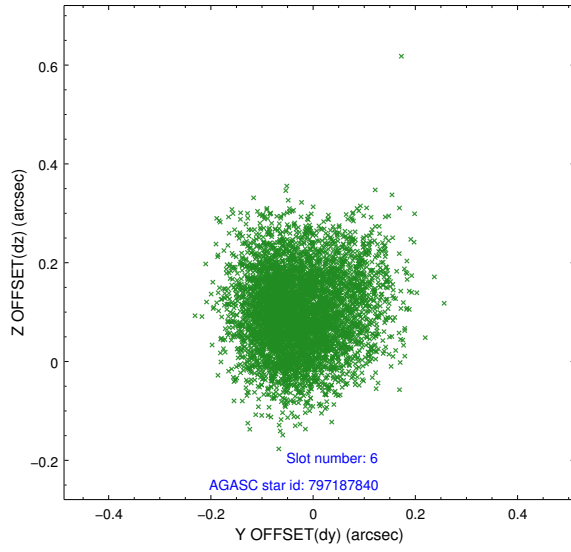
2.4.2 Slot 4



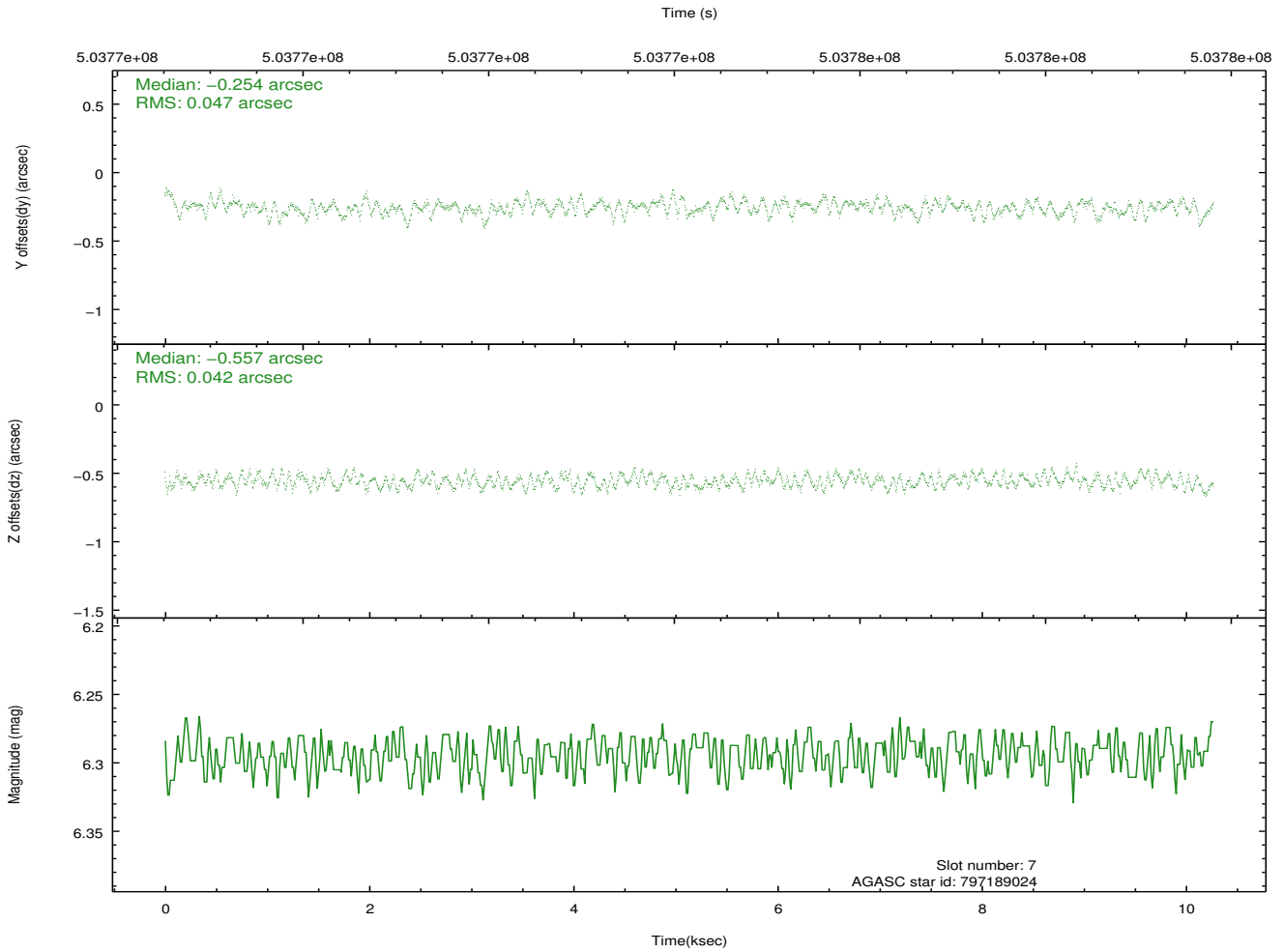
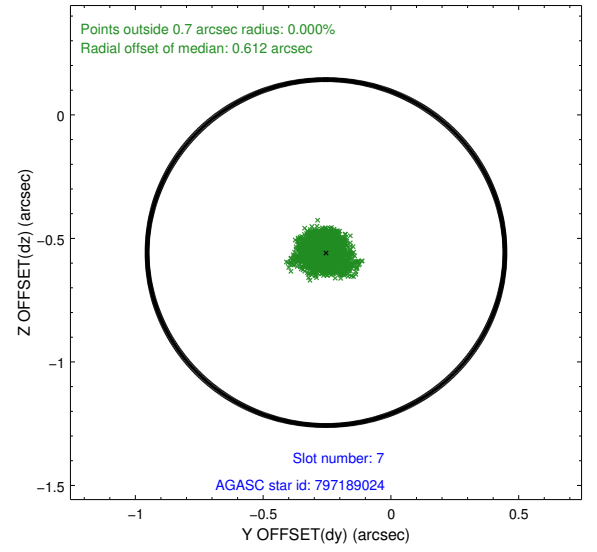
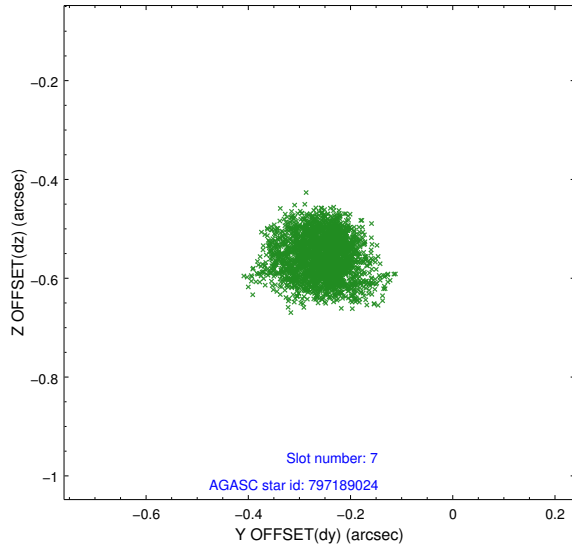
2.4.3 Slot 5



2.4.4 Slot 6

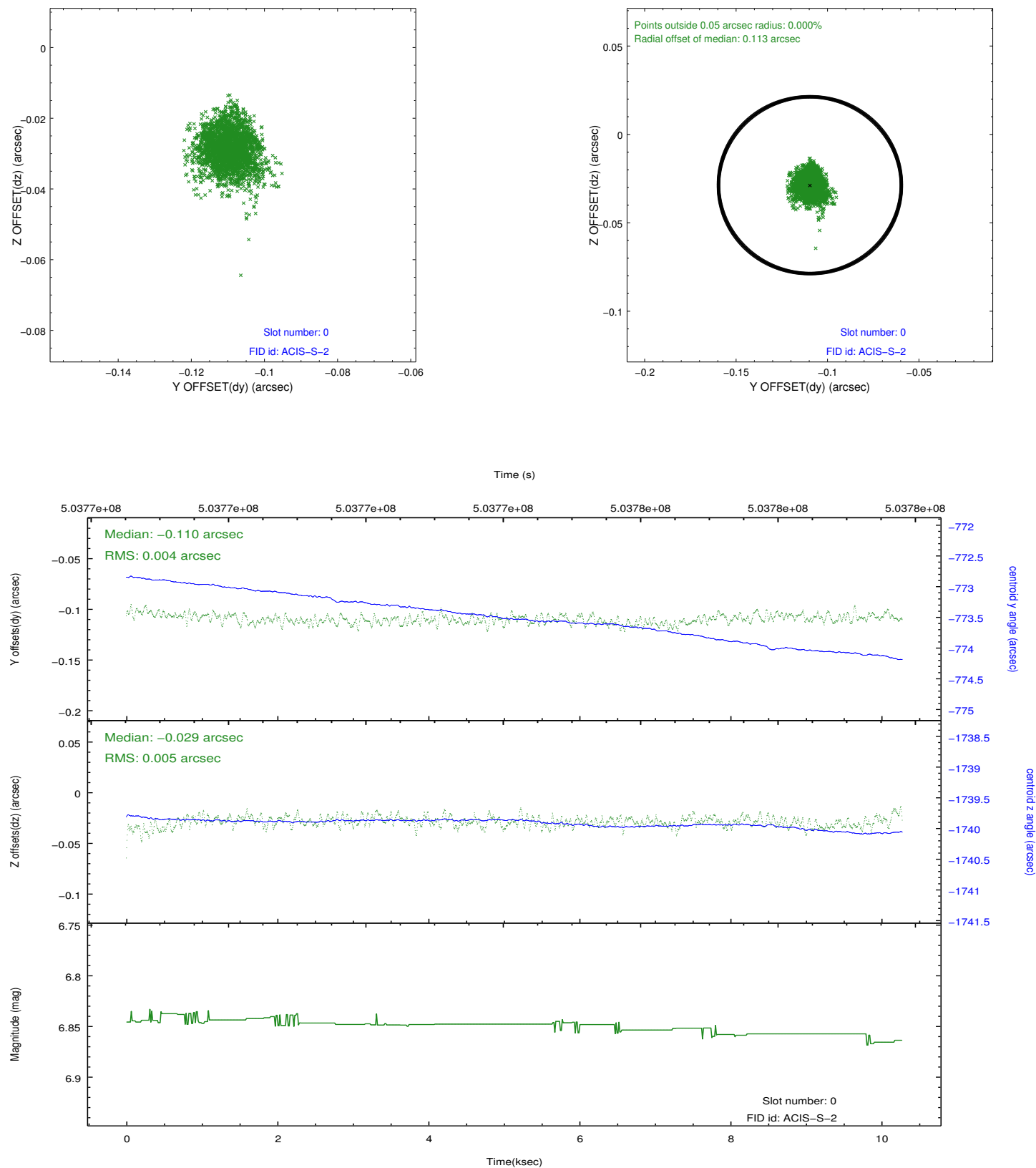


2.4.5 Slot 7

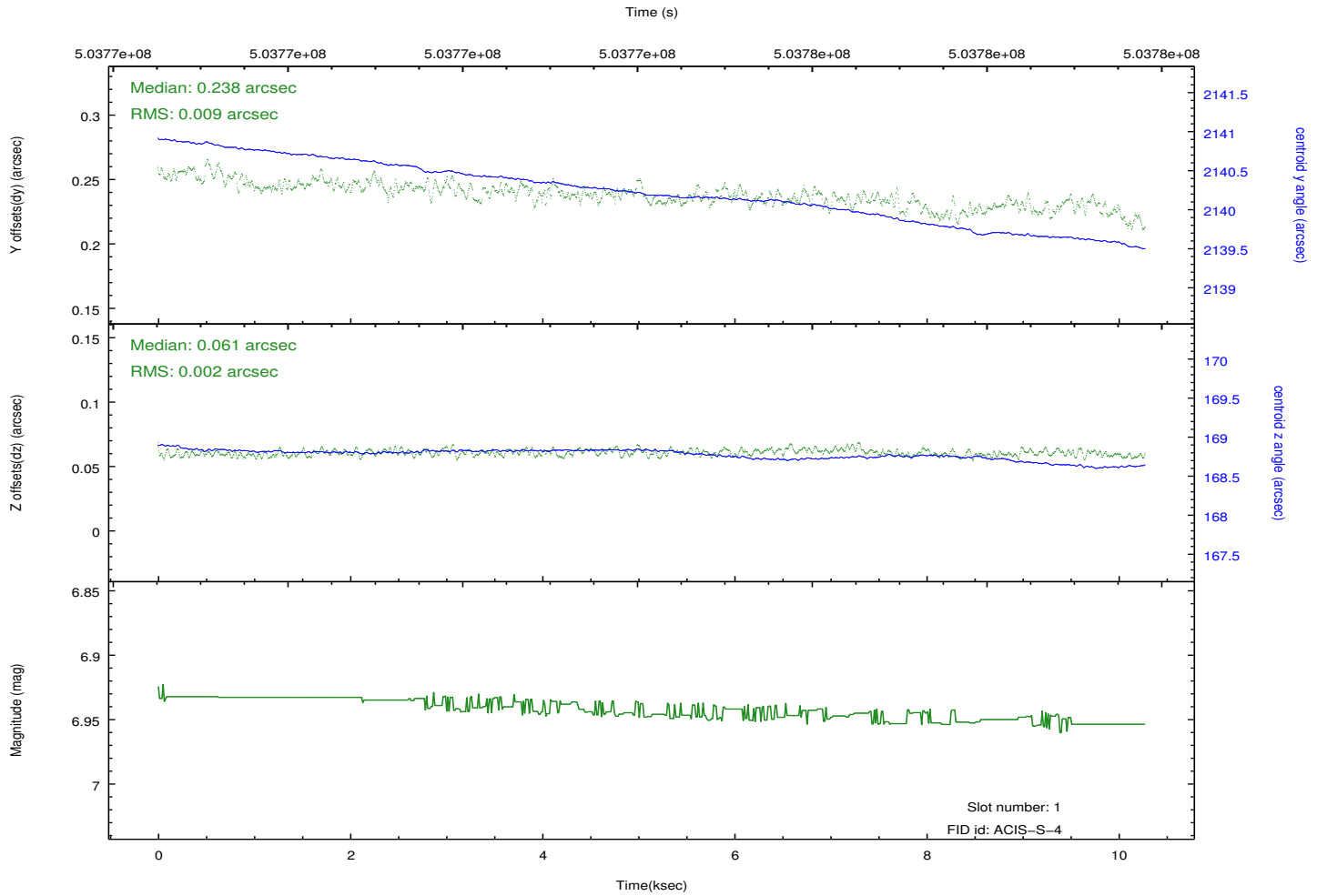
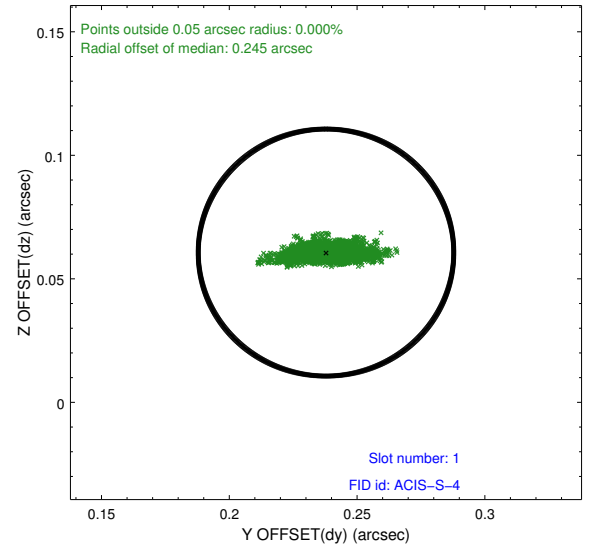
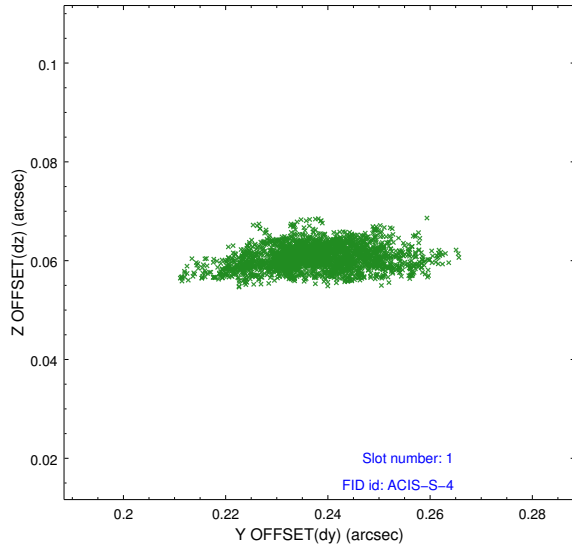


2.5 FID Slots

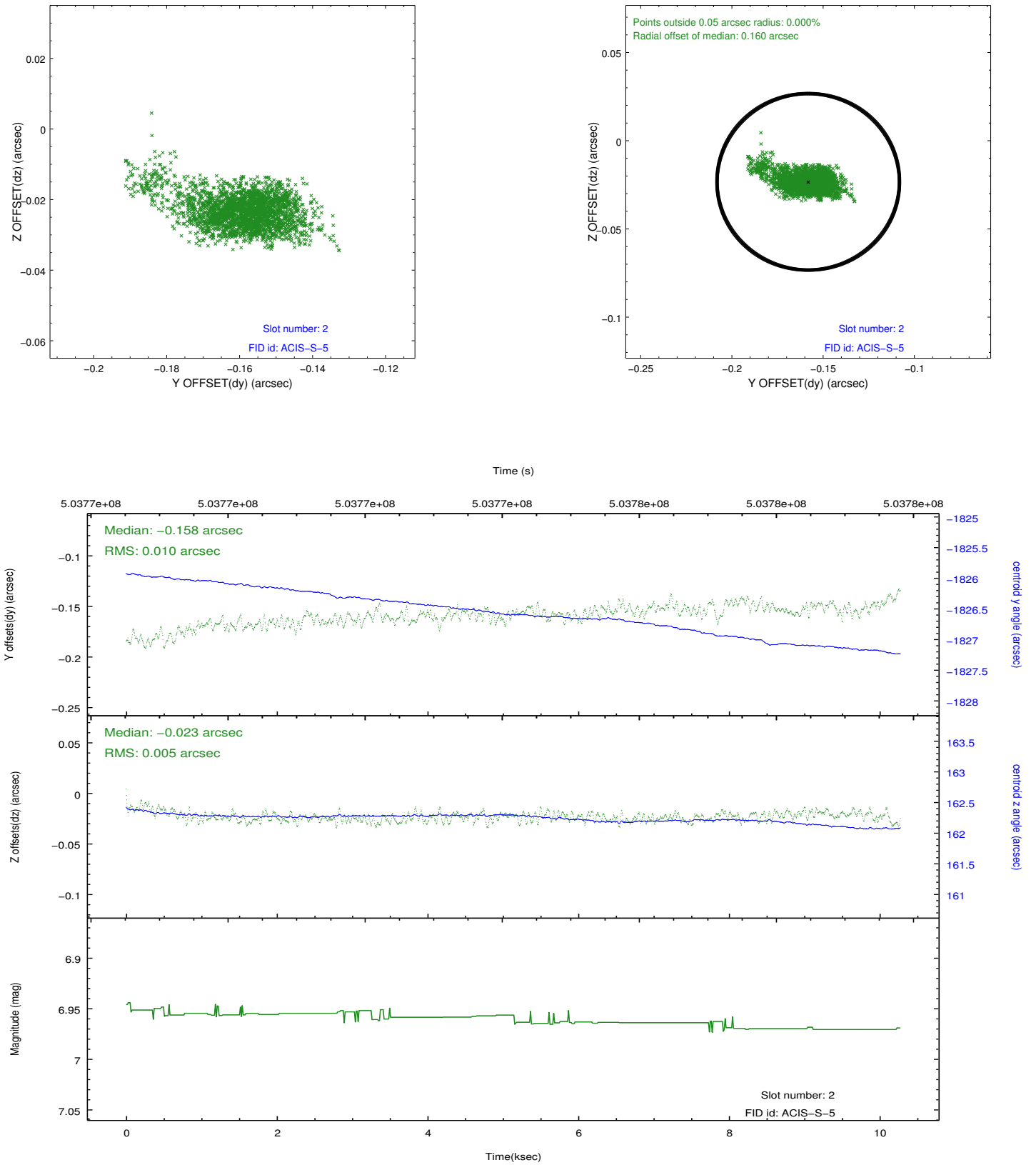
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.19
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.7823590031266

A.2 Comments

A spatial region of the original bias map for CCD = 8 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 = 8 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:

(162.79478,-21.39391), (162.79374,-21.39587), (162.82076,-21.40842),
(162.82181,-21.40646).

=====

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.