

# V&V Reference Report

## L2 ASCDS Version : 10.5.2

Observation 19762 - L2 Version 2  
Chandra X-Ray Center

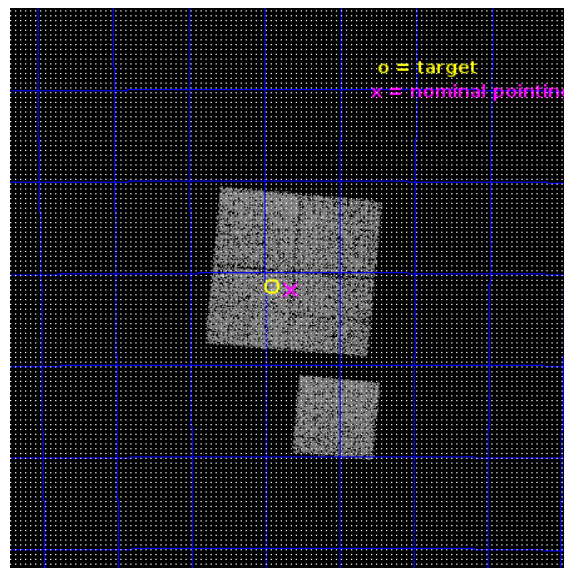
L2 Processing Date : Mar 7 2017

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# 1 Front

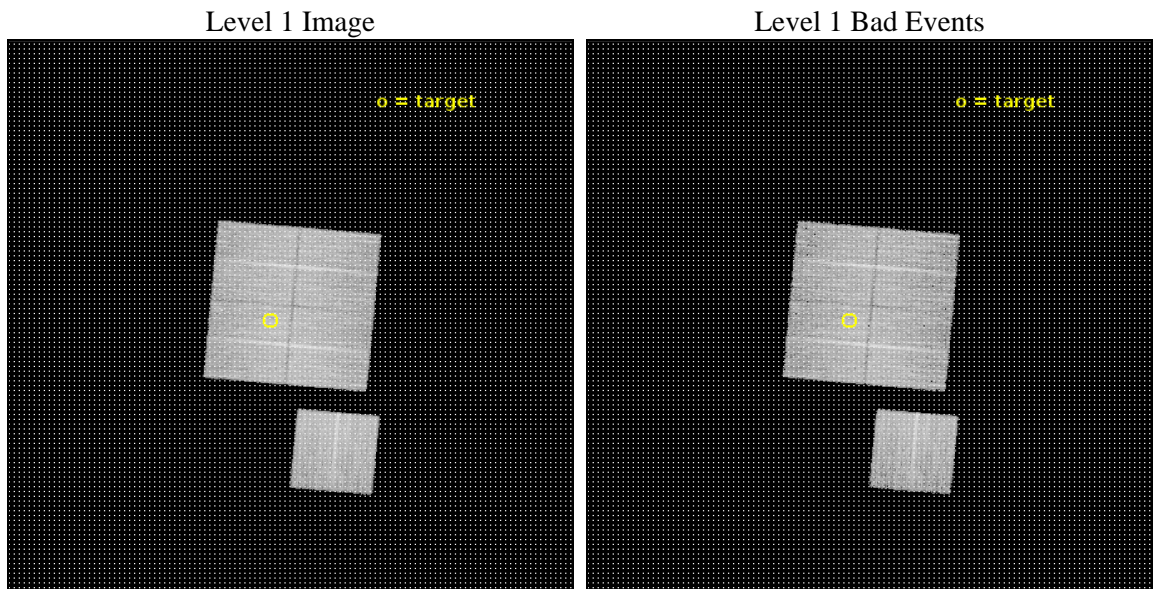
seq_num	801699	Sequence number
obs_id	19762	Observation id
title	A Chandra Survey of high-redshift ( $0.7 < z < 0.8$ ) clusters selected in the 100 deg <sup>2</sup> SPT-Pol Deep Field	Proposal title
observer	Gordon Garmire	Principal investigator
object	SPT-CLJ2329-5831	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	352.477083	Observer's specified target RA [deg]
dec_targ	-58.525	Observer's specified target Dec [deg]
ra_nom	352.41198504187	Nominal RA [deg]
dec_nom	-58.531064653773	Nominal Dec [deg]
roll_nom	185.15314282993	Nominal Roll [deg]
revision	2	Processing version of data
ontime	12061.935212374	Sum of GTIs [s]
livetime	11904.337148957	Livetime [s]
ontime0	12061.812092423	Sum of GTIs [s]
ontime1	12061.853132367	Sum of GTIs [s]
ontime2	12058.753121972	Sum of GTIs [s]
ontime3	12061.935212374	Sum of GTIs [s]
ontime6	12061.771052361	Sum of GTIs [s]
l2events	39842	Number of level 2 events



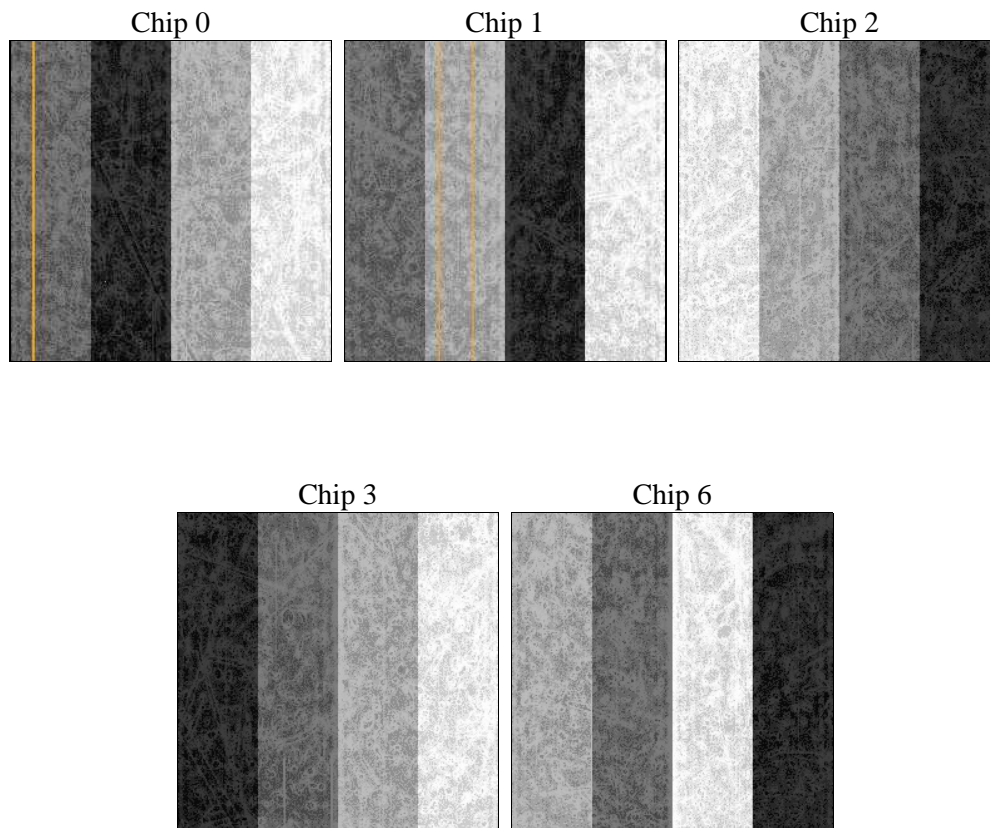
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	12000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	12061.935212374	Sum of GTIs [s]
caldbver	4.7.3	&#160	ontime0	12061.812092423	Sum of GTIs [s]
date	2017-03-07T15:14:44	Date and time of file creation	ontime1	12061.853132367	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	12058.753121972	Sum of GTIs [s]
			ontime3	12061.935212374	Sum of GTIs [s]
			ontime6	12061.771052361	Sum of GTIs [s]
			l1events	413480	Number of level 1 events

### 2.1.4 Events

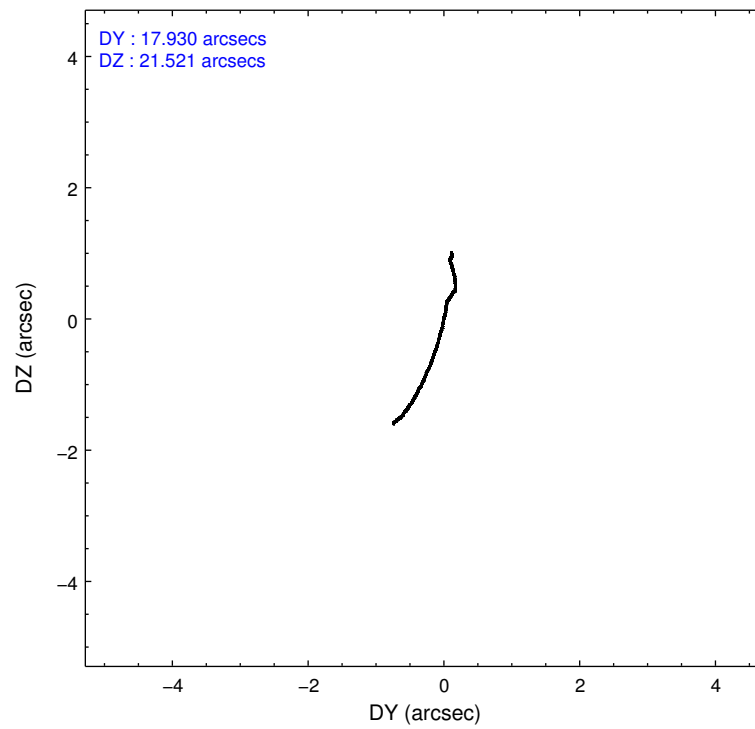
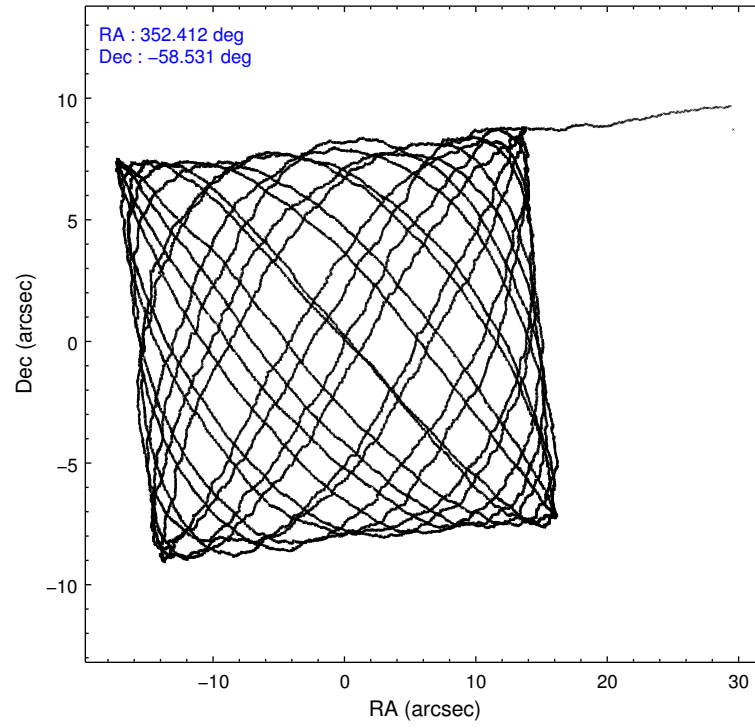
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	78573	81003	87053	82772	84079
rejected events	69378	70752	78103	73507	74718
rejected %	88%	87%	89%	88%	88%

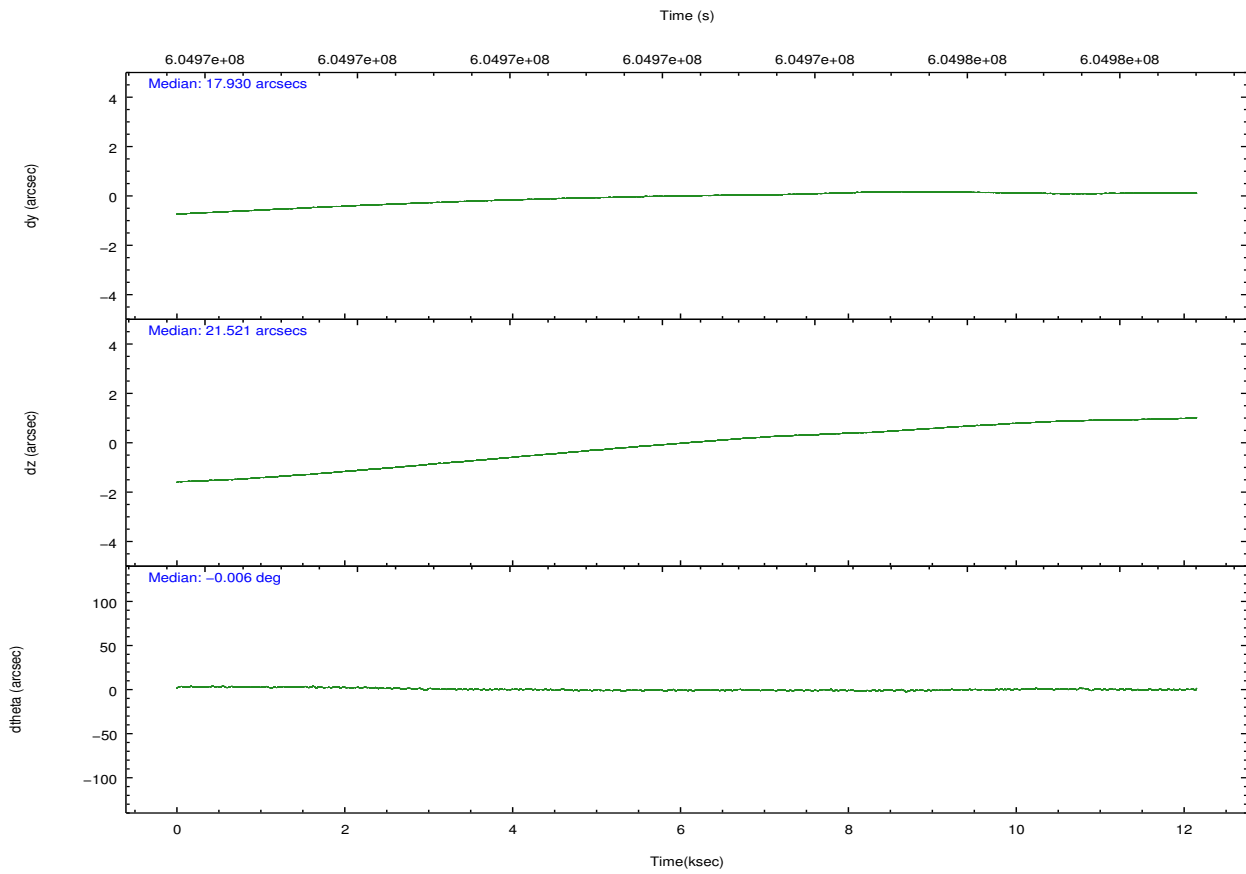
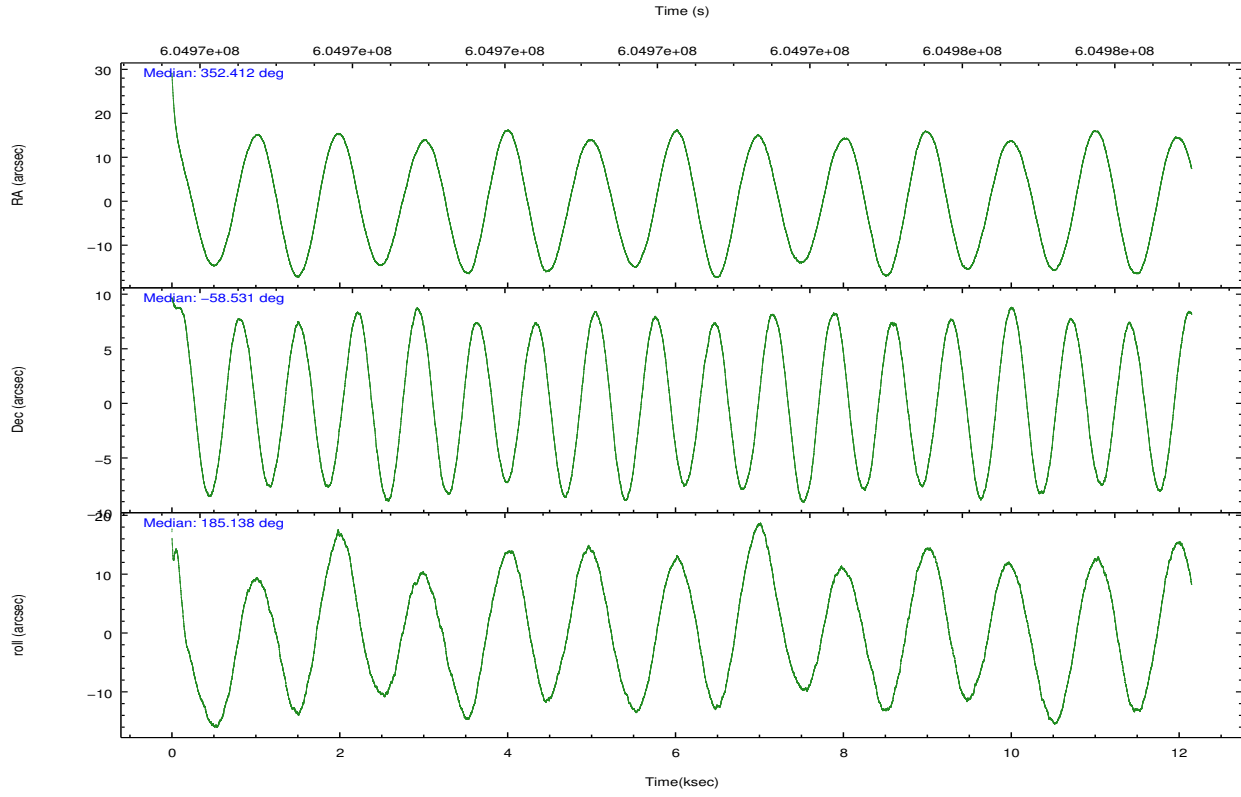
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	3176	3346	3210	3522	3063
	4%	4%	3%	4%	3%
grade 1 events	43	37	55	50	32
	0%	0%	0%	0%	0%
grade 2 events	2231	2651	2192	2033	2145
	2%	3%	2%	2%	2%
grade 3 events	979	1002	903	943	913
	1%	1%	1%	1%	1%
grade 4 events	904	938	885	910	924
	1%	1%	1%	1%	1%
grade 5 events	3606	3756	3382	4217	3868
	4%	4%	3%	5%	4%
grade 6 events	1914	2314	1761	1869	2319
	2%	2%	2%	2%	2%
grade 7 events	65720	66959	74665	69228	70815
	83%	82%	85%	83%	84%

## 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	352.455026	352.4119850418716	CCD I2 on	Y	Y
[deg] Pointing Dec	-58.515113	-58.53106465377253	CCD I3 on	Y	Y
[deg] Pointing Roll	184.981187	185.1531428299259	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	-230.082463	-230.0900218763587	CCD S3 on	N	N
[mm] SIM translation stage offset	-3.51	-3.502431126570968	CCD S4 on	N	N
[s] Observation start time (MET)	604966400.184000	604965348.52325	CCD S5 on	N	N
Observation start date	2017-03-03T22:12:11	2017-03-03T21:55:48	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	604978400.184000	604979925.0491	On-chip summing requested	N	N
Observation end date	2017-03-04T01:32:11	2017-03-04T01:58:45	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





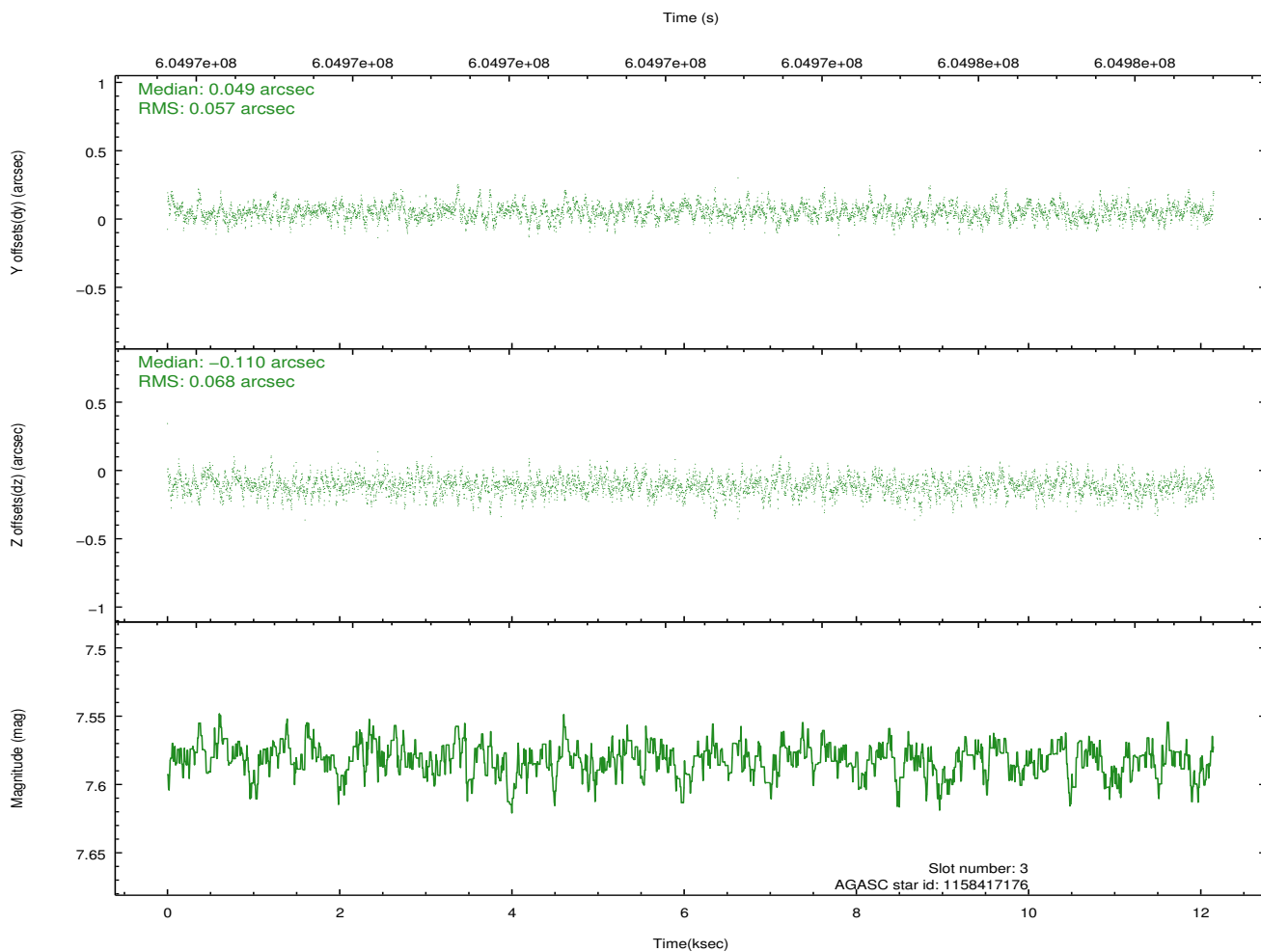
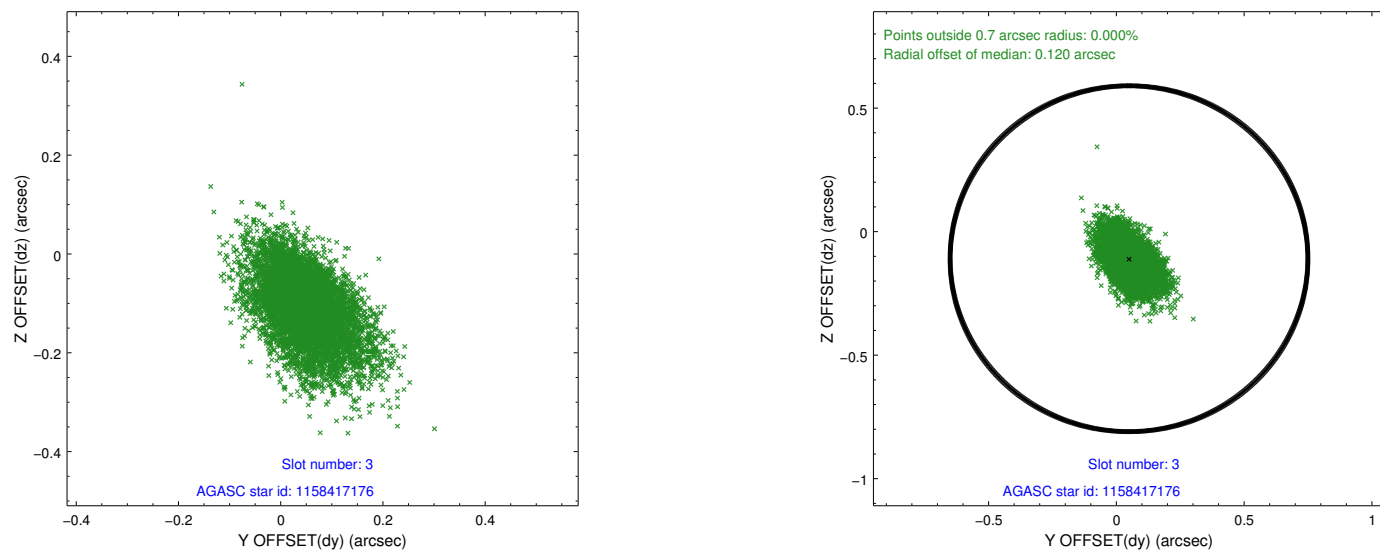
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.21	2964	0.122	-0.047	0.017	0.055	0.000000	0.000000	921.67	-917.00
1	FID		ACIS-I-5	7.21	2964	-0.397	0.075	0.012	0.021	0.000000	0.000000	-1826.86	980.22
2	FID		ACIS-I-6	7.20	2964	0.186	0.042	0.017	0.045	0.000000	0.000000	386.66	1625.29
3	GUIDE	used	1158417176	7.58	5925	0.049	-0.110	0.090	0.159	353.020589	-59.003766	-890.97	1848.22
4	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	GUIDE	used	1158418768	8.95	5918	0.008	0.035	0.114	0.202	353.576731	-59.080548	-1888.79	2225.57
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	GUIDE	used	1158419576	6.89	5927	-0.058	0.079	0.102	0.179	351.745175	-58.423810	1304.22	-434.39

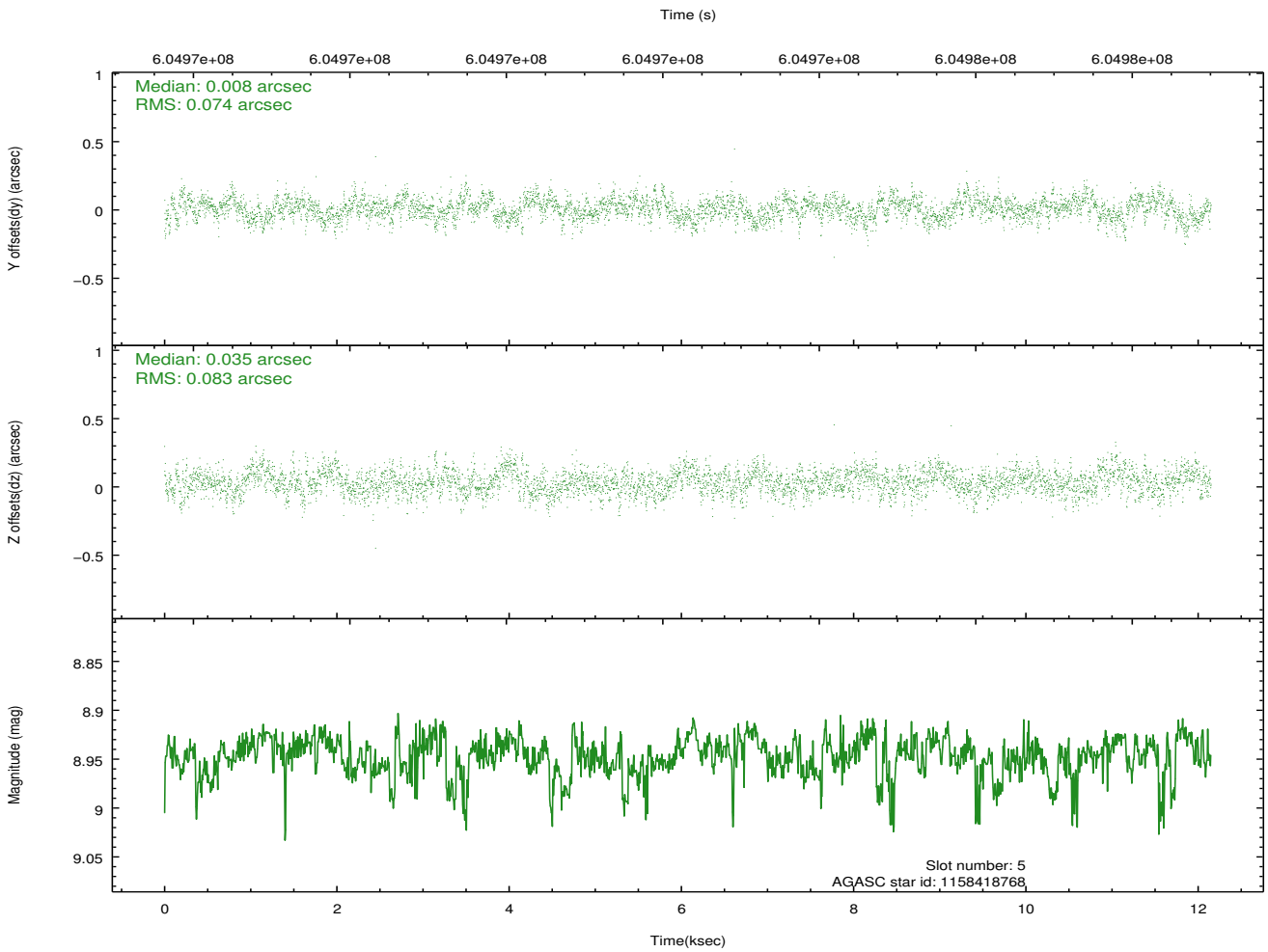
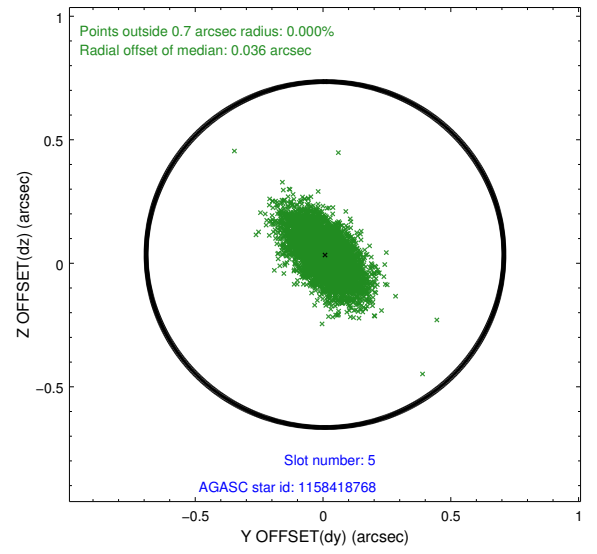
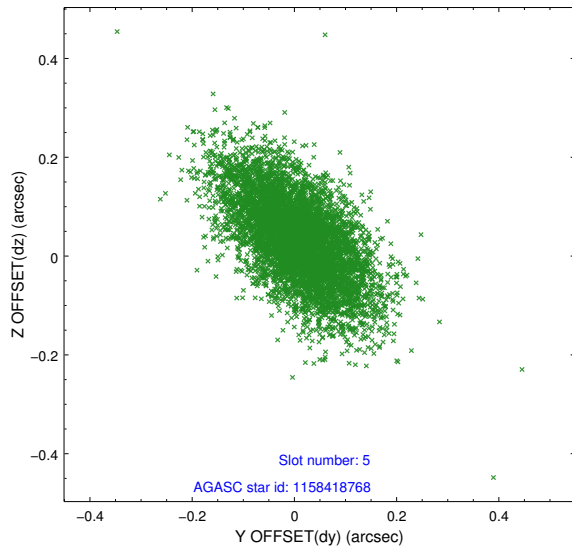
∞

## 2.4 Star Slots

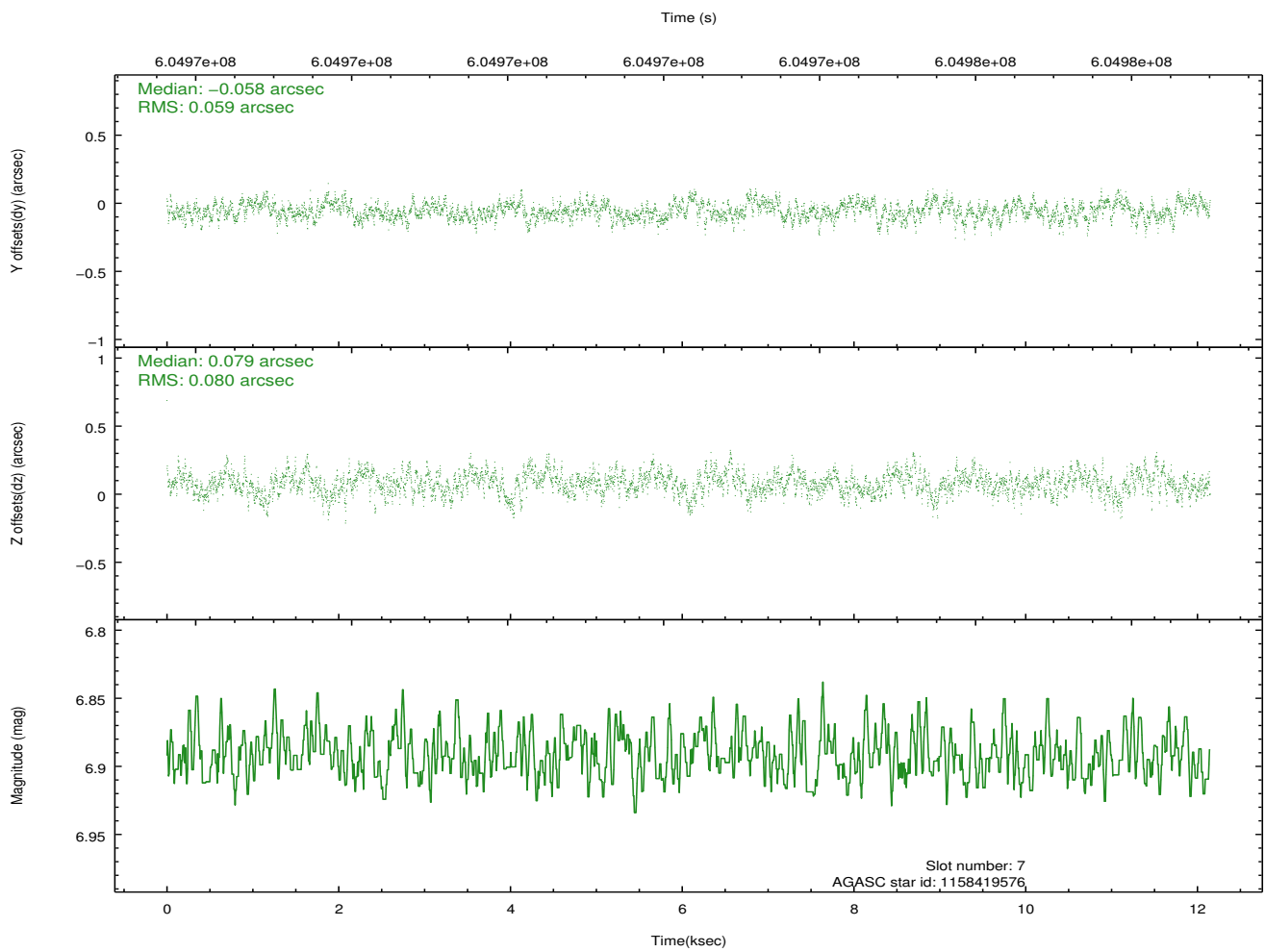
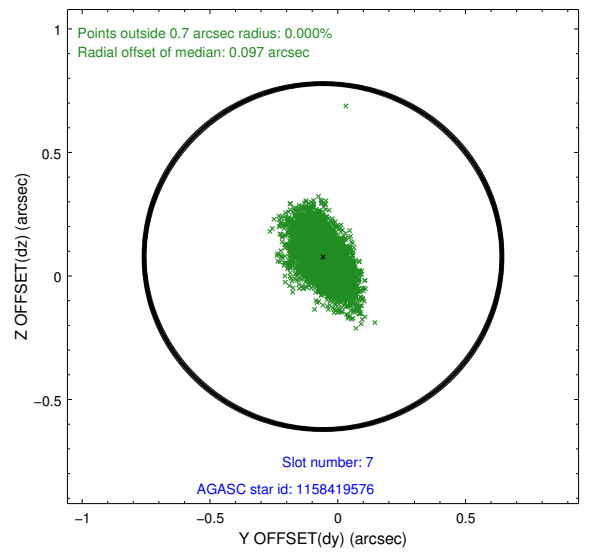
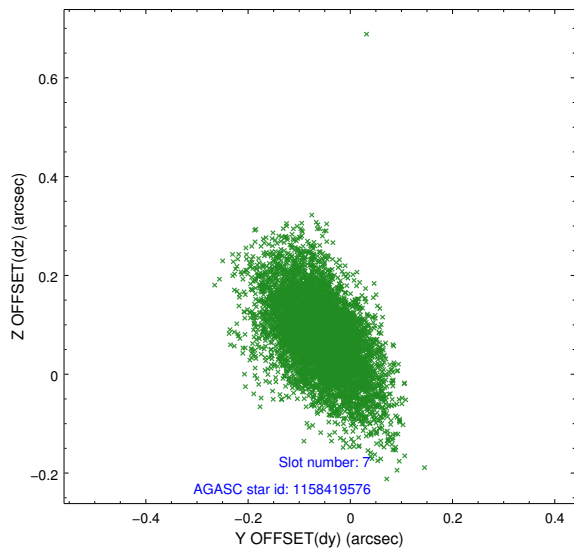
### 2.4.1 Slot 3



## 2.4.2 Slot 5

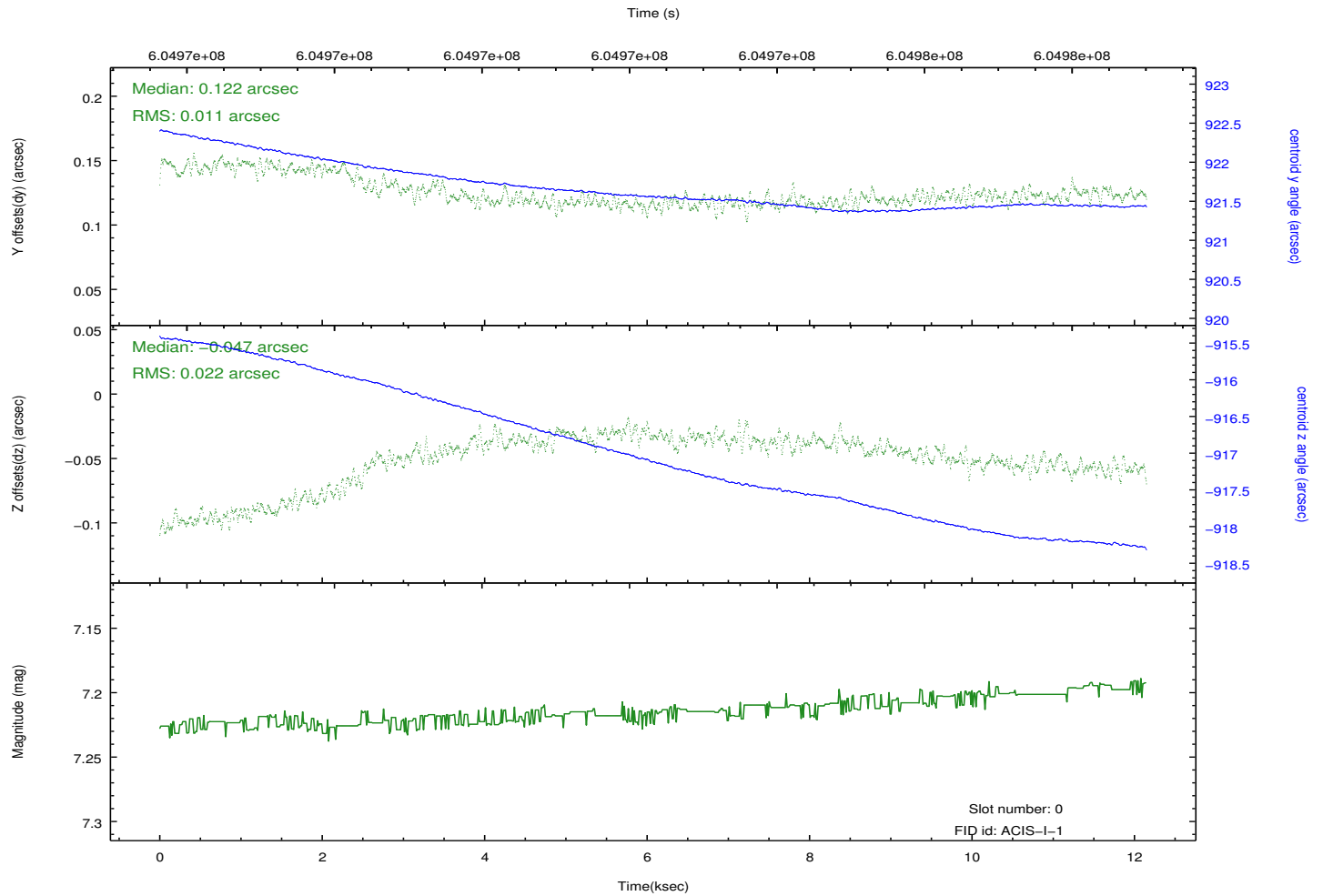
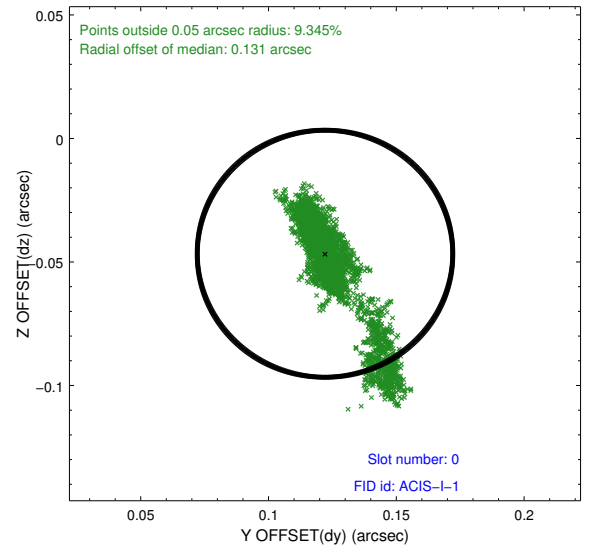
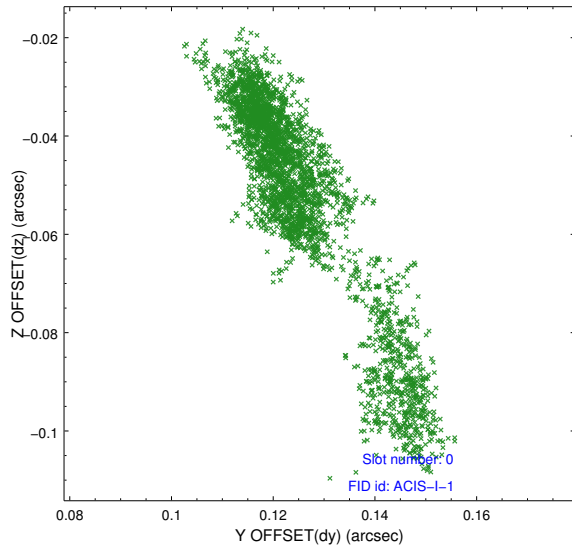


### 2.4.3 Slot 7

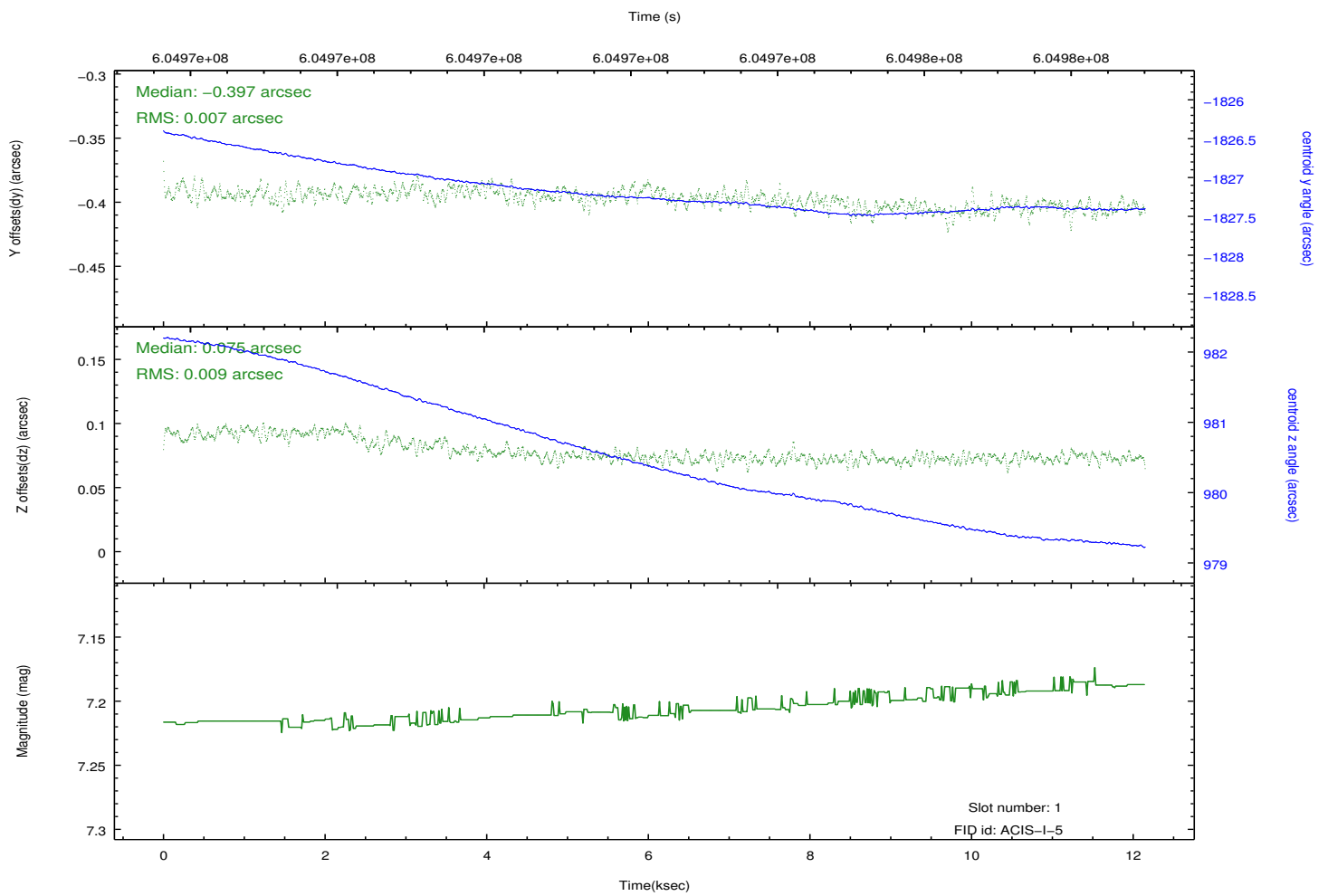
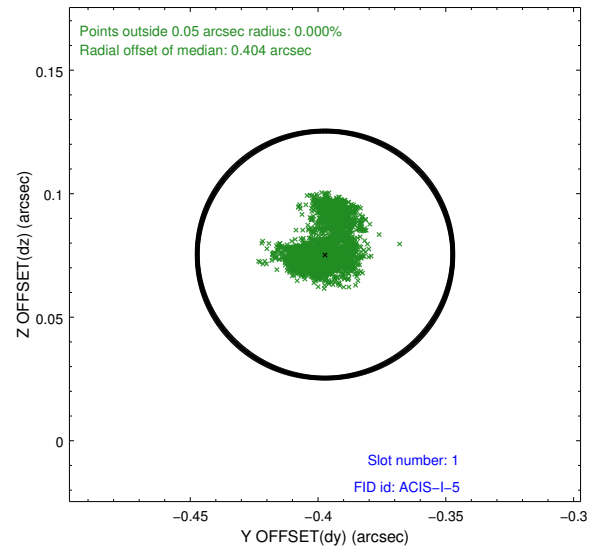
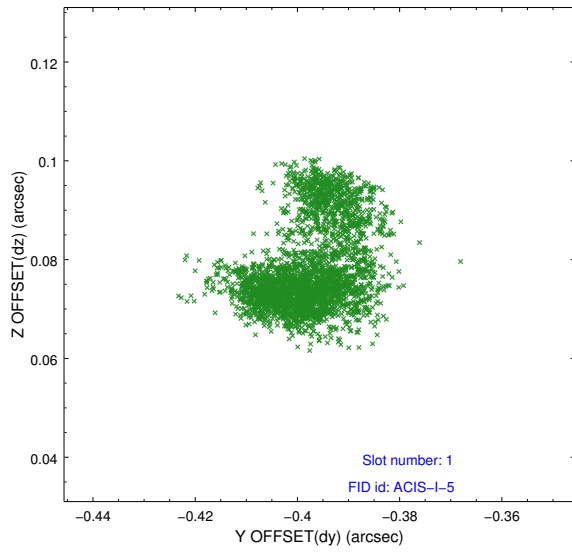


## 2.5 FID Slots

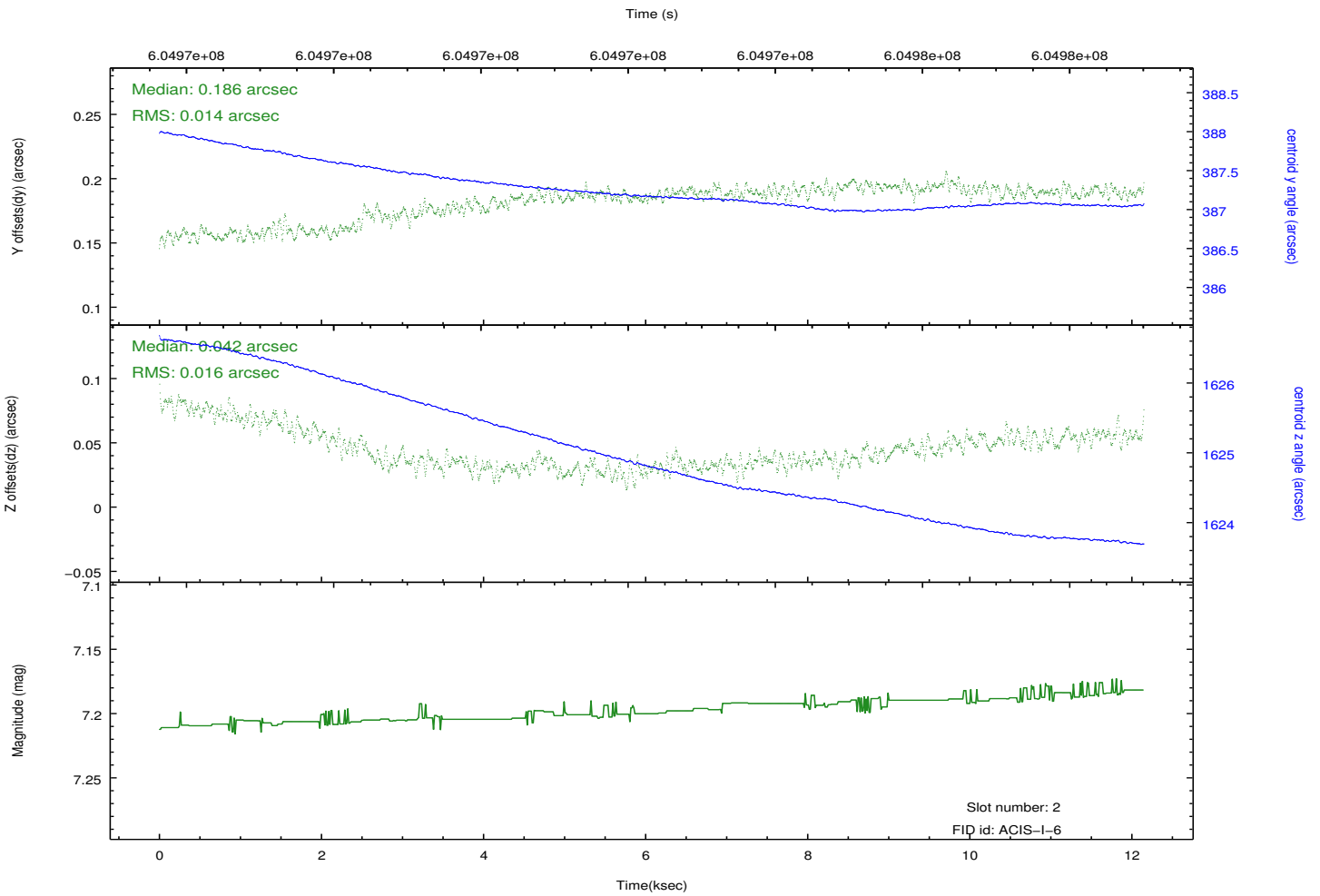
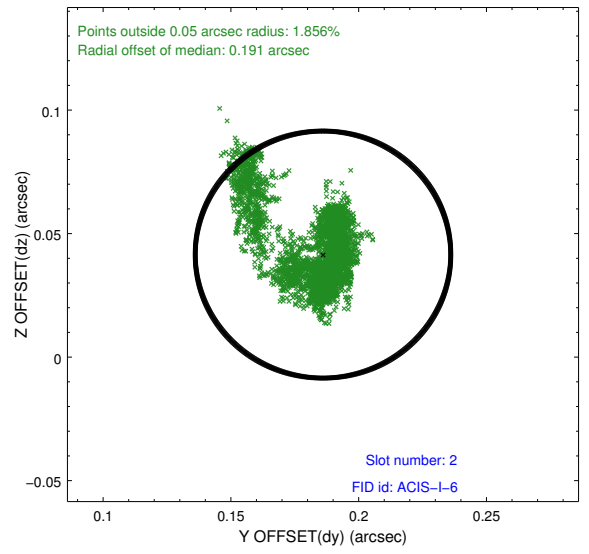
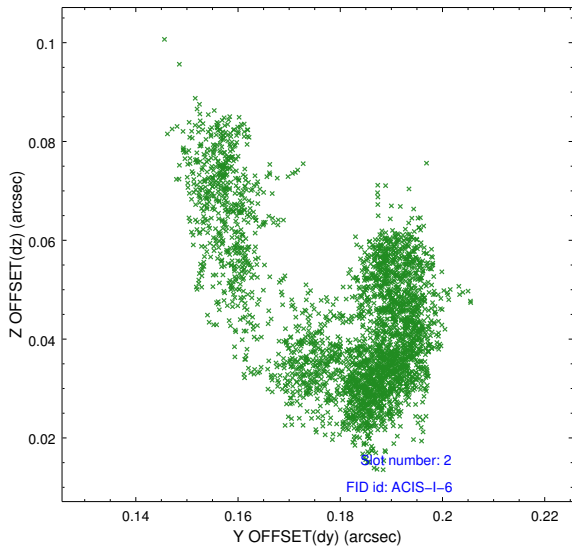
### 2.5.1 Slot 0



## 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)	2017.03.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	12.061935212374

## A.2 Comments

The guide stars in slots 4 and 6 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of these slots from the solution.