



## 15761 - ACS Internal CTE Monitor

Cycle: 27, Proposal Category: CAL/ACS

(Availability Mode: RESTRICTED)

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
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### VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
A1	DARK	ACS/WFC	1	10-Apr-2020 17:00:12.0	yes
A2	DARK	ACS/WFC	1	10-Apr-2020 17:00:13.0	yes
A3	DARK	ACS/WFC	1	10-Apr-2020 17:00:13.0	yes
A4	DARK	ACS/WFC	1	10-Apr-2020 17:00:14.0	yes
A5	DARK	ACS/WFC	1	10-Apr-2020 17:00:14.0	yes
A6	DARK	ACS/WFC	1	10-Apr-2020 17:00:15.0	yes
B1	DARK	ACS/WFC S/C	1	10-Apr-2020 17:00:15.0	yes
B2	DARK	ACS/WFC S/C	1	10-Apr-2020 17:00:16.0	yes
B3	DARK	ACS/WFC S/C	1	10-Apr-2020 17:00:17.0	yes
B4	DARK	ACS/WFC S/C	1	10-Apr-2020 17:00:17.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
B5	DARK	ACS/WFC S/C	1	10-Apr-2020 17:00:18.0	yes
B6	DARK	ACS/WFC S/C	1	10-Apr-2020 17:00:18.0	yes

12 Total Orbits Used

## **ABSTRACT**

This is a continuation and modification of Program 15523 and is to be executed this cycle for internal CTE. There are two epochs of observations, one set in November/December 2019 and the other in May/June 2020.

The charge transfer efficiency (CTE) of the ACS CCD detectors will decline as damage due to on-orbit radiation exposure accumulates. This degradation will be monitored twice a cycle to determine the useful lifetime of the CCDs (prior to 2015, cycles were only monitored once a year). All the data for this program is acquired using internal targets (LED) only, so all of the exposures should be taken during Earth occultation time (but not during SAA passages). This program emulates the majority of the ACS pre-flight ground calibration and post-launch SMOV testing (program 8948), so that results from each epoch can be directly compared.

Extended Pixel Edge Response (EPER) data will be obtained over a range of signal levels for the Wide Field Channel (WFC). For the first epoch, the signal levels are 42, 91, 182, 434, 1624, and 3402 electrons at gain 2. The 42 and 91 electron signal levels are new for this program and were added to probe pathological CTE losses at low signal level. The 5700 electron signal level mentioned in the Phase I was dropped as it was not present in previous programs and does not probe an interesting signal level region for CTE monitoring. For the second epoch, shutter problems during the first epoch required additional S/C exposures and containers to properly manage shutter behavior for EPER observations. We also reinstitute the standard signal levels of 182, 430, 1620, 3400, 7100, and 42,000 electrons at gain 2, using the high mode of the LED. We use both AD and BC EPER readout to explore differences in the CTE properties of the amplifiers.

## **OBSERVING DESCRIPTION**

This program obtains a set of EPER CTE data twice per cycle. All CTE data are acquired using the internal LED. Short darks (pseudo-bias) using the same timing pattern are obtained for calibration purposes. Pointed observatory time is not required for internal CTE measurements. All the exposures will be taken during Earth occultation time, but not during South Atlantic Anomaly (SAA) passages. Extended Pixel Edge Response (EPER) data

will be collected over a range of signal levels for WFC.

Extra-large overscans are read out for EPER exposures: 75 trailing serial overscan pixels and 75 virtual overscan rows (the leading overscans are unchanged). This facilitates the measurement of both parallel and serial CTE from a single image, and will accommodate the growing deferred charge tail over the lifetime of ACS. The timing pattern for the parallel/serial EPER test is selected by setting the optional parameter CTE=JCTWE (for WFC).

Key signal level is 1620 electrons, which is the signal level produced by the Fe55 ground-test source, and will allow for a better correlation of pre-launch and on-orbit CTE measurements. The last set of exposures were taken in June 2019 (Program 15523).

This program deviates from past programs in that only the LED is used to illuminate the detector. A recent study showed that the standard tungsten lamp-illuminated data suffer from light leaks that contaminate the frame after the exposure is complete, due to the lamp remaining on for several minutes post-readout (ACS ISR 2018-09). This causes difficulty in determining the true background level. This program will use the LED to illuminate the frames to avoid these light leaks.

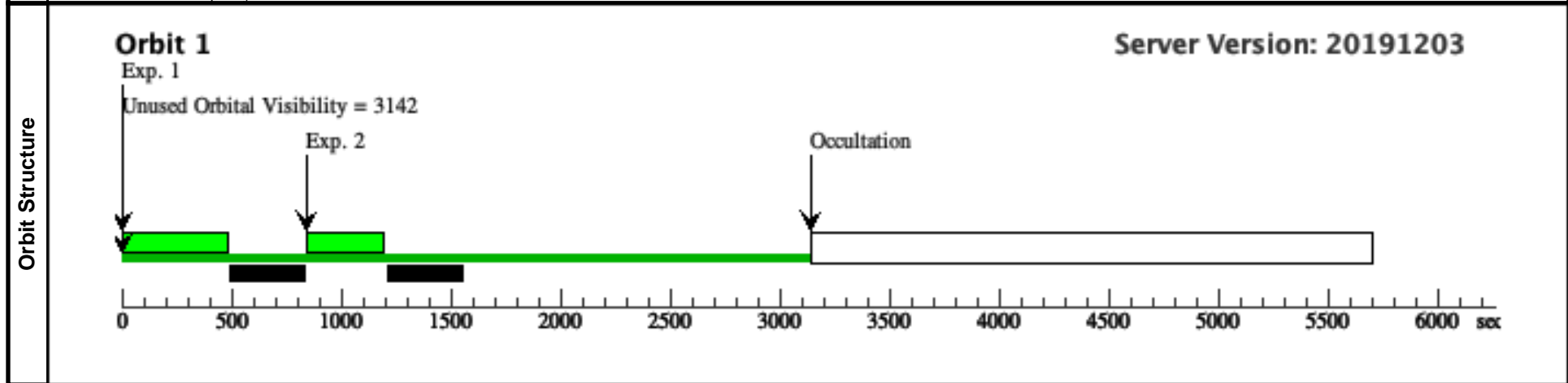
The maximum signal level reached in the first epoch of this program was ~2400 electrons, whereas in previous programs two higher levels are reached, 7100 and 40,000 electrons. On low current, the LED can post-flash an image to ~5700 electrons at most, which prevents us from reaching the two higher signal levels. In addition, probing the lower signal levels added by this program (91 and 42 electrons) is of greater interest because proportionally more charge trapping occurs at low levels.

There were shutter management errors with several of the exposures in the first epoch of this program, requiring updates to the second epoch visits. S/C exposures and same alignment containers were added to each visit to implement macros that properly manage the shutter during EPER exposures. We also reinstate the standard signal levels of 182, 430, 1620, 3400, 7100, and 42,000 electrons at gain 2, using the high mode of the LED. We use both AD and BC EPER readout to explore differences in the CTE properties of the amplifiers.

Proposal 15761 - Visit A1 - ACS Internal CTE Monitor

<b>Visit</b>	<b>Proposal 15761, Visit A1, completed</b> <span style="float: right;">Fri Apr 10 21:00:19 GMT 2020</span> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: ACS/WFC Special Requirements: BETWEEN 10-NOV-2019:00:00:00 AND 08-DEC-2019:00:00:00; SEQ A1,A2,A3,A4,A5,A6 WITHIN 7 D							

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
		1	WFC AD E PER Flash 1 82e	DARK	ACS/WFC, ACCUM, WFC	DEF	FLASH=182; CTE=JCTWE; AMP=AD			0.5 Secs (0.5 Secs) [==>]
<i>Comments: short dark post-flashed to 182e-</i>										
	2	WFC AD E PER Flash 1 82e	DARK	ACS/WFC, ACCUM, WFC	DEF	FLASH=182; CTE=JCTWE; AMP=AD			0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: short dark post-flashed to 182e-</i>										

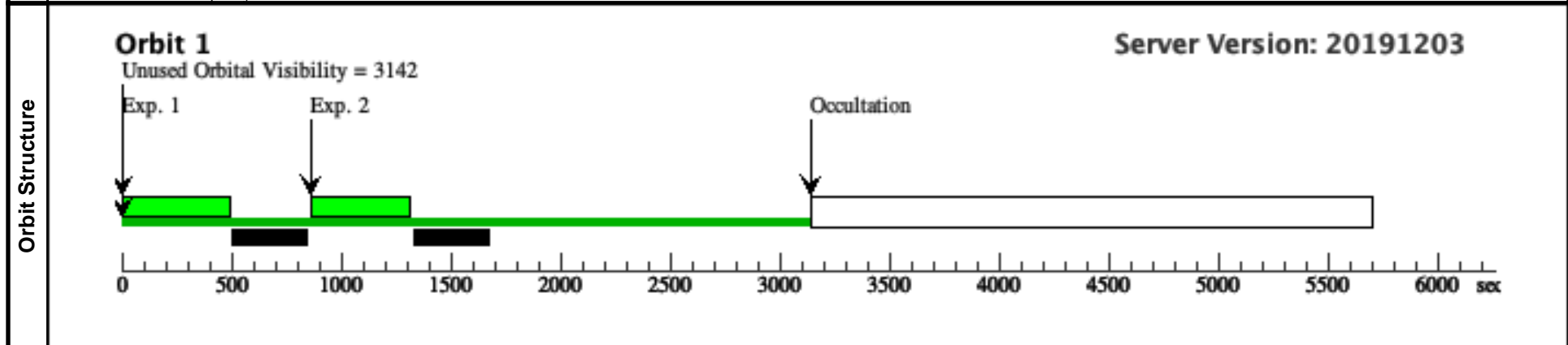


Proposal 15761 - Visit A2 - ACS Internal CTE Monitor

Fri Apr 10 21:00:19 GMT 2020

<b>Visit</b>	<b>Proposal 15761, Visit A2, completed</b>									
	<b>Diagnostic Status: No Diagnostics</b>									
	Scientific Instruments: ACS/WFC									
	Special Requirements: (none)									

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	WFC AD E PER Flash 4 34e	DARK	ACS/WFC, ACCUM, WFC	DEF	FLASH=434; CTE=JCTWE; AMP=AD				0.5 Secs (0.5 Secs) [==>]
<i>Comments: short dark post-flashed to 434e-</i>										
2	WFC AD E PER Flash 1 624e	DARK	ACS/WFC, ACCUM, WFC	DEF	FLASH=1624; CTE=JCTWE; AMP=AD				0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: short dark post-flashed to 1624e-</i>										

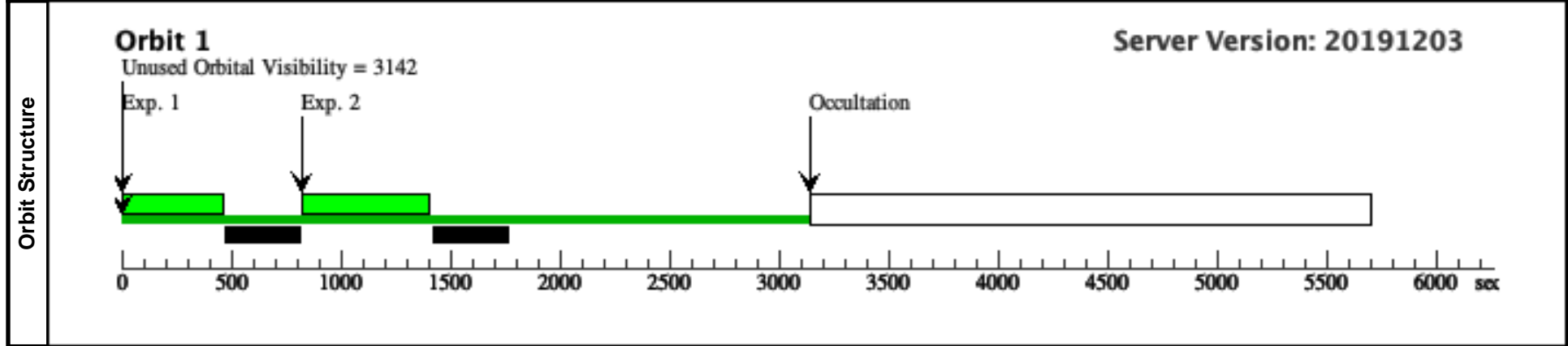


Proposal 15761 - Visit A3 - ACS Internal CTE Monitor

Fri Apr 10 21:00:19 GMT 2020

**Visit**  
**Proposal 15761, Visit A3, completed**  
**Diagnostic Status: No Diagnostics**  
 Scientific Instruments: ACS/WFC  
 Special Requirements: (none)

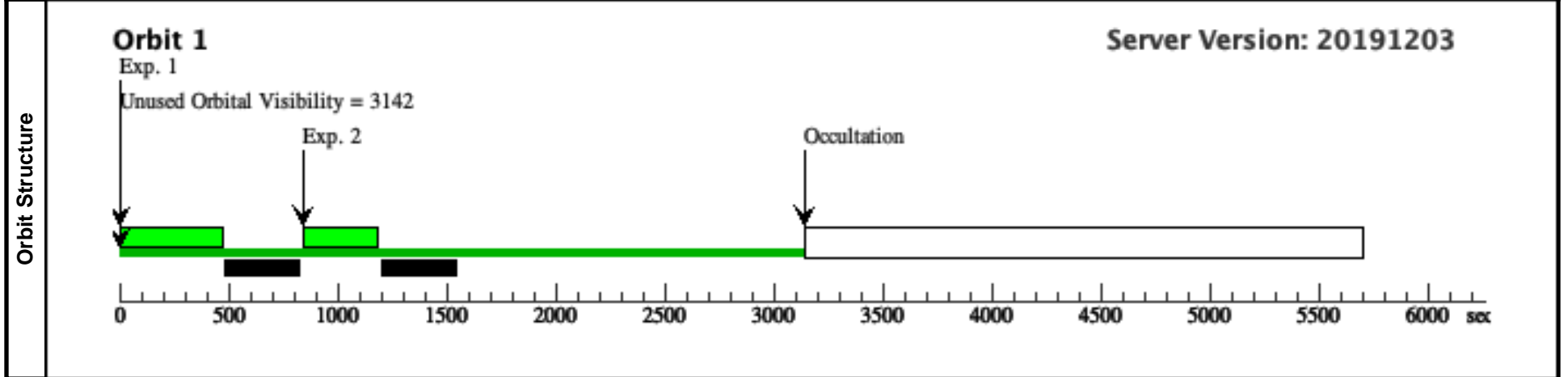
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	WFC AD E PER short d ark	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD				0.5 Secs (0.5 Secs) [==>]
<i>Comments: short dark with no post-flash</i>										
2	WFC AD E PER Flash 3 402e	DARK	ACS/WFC, ACCUM, WFC	DEF	FLASH=3402; CTE=JCTWE; AMP=AD				0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: short dark post-flashed to 3402e-</i>										



Proposal 15761 - Visit A4 - ACS Internal CTE Monitor

<b>Visit</b>	<b>Proposal 15761, Visit A4, completed</b> <span style="float: right;">Fri Apr 10 21:00:19 GMT 2020</span>							
	<b>Diagnostic Status: No Diagnostics</b>							
	Scientific Instruments: ACS/WFC							
	Special Requirements: (none)							

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
		1	WFC AD E PER Flash 9 1e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASH=91			0.5 Secs (0.5 Secs) [==>]
<i>Comments: short dark post-flashed to 91e-</i>										
	2	WFC AD E PER Flash 9 1e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASH=91			0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: short dark post-flashed to 91e-</i>										

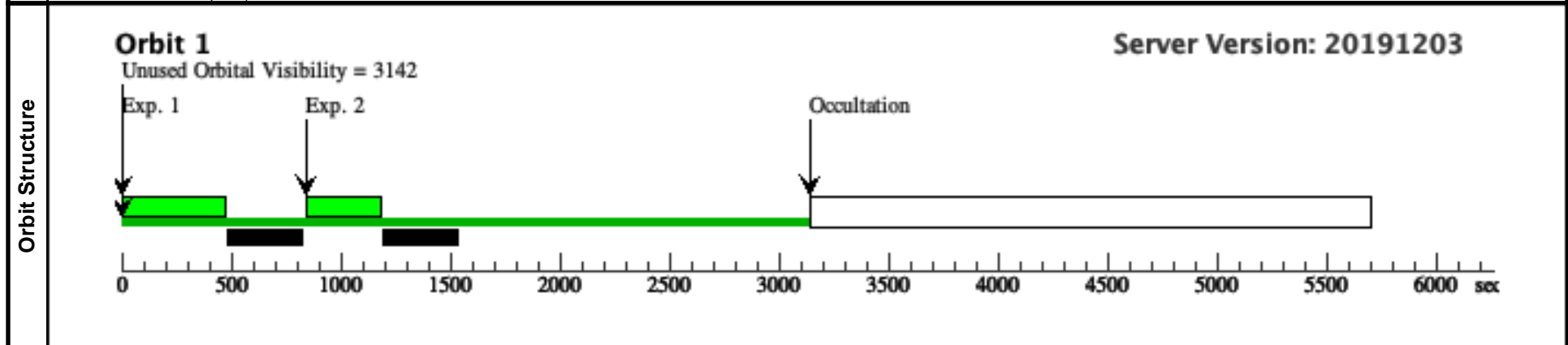


Proposal 15761 - Visit A5 - ACS Internal CTE Monitor

Fri Apr 10 21:00:19 GMT 2020

<b>Visit</b>	<b>Proposal 15761, Visit A5, completed</b>									
	<b>Diagnostic Status: No Diagnostics</b>									
	Scientific Instruments: ACS/WFC									
	Special Requirements: (none)									

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
		1	WFC AD E PER Flash 9 1e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASH=91			0.5 Secs (0.5 Secs) [==>]
<i>Comments: short dark post-flashed to 91e-</i>										
	2	WFC AD E PER Flash 4 2e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASH=42			0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: short dark post-flashed to 42e-</i>										

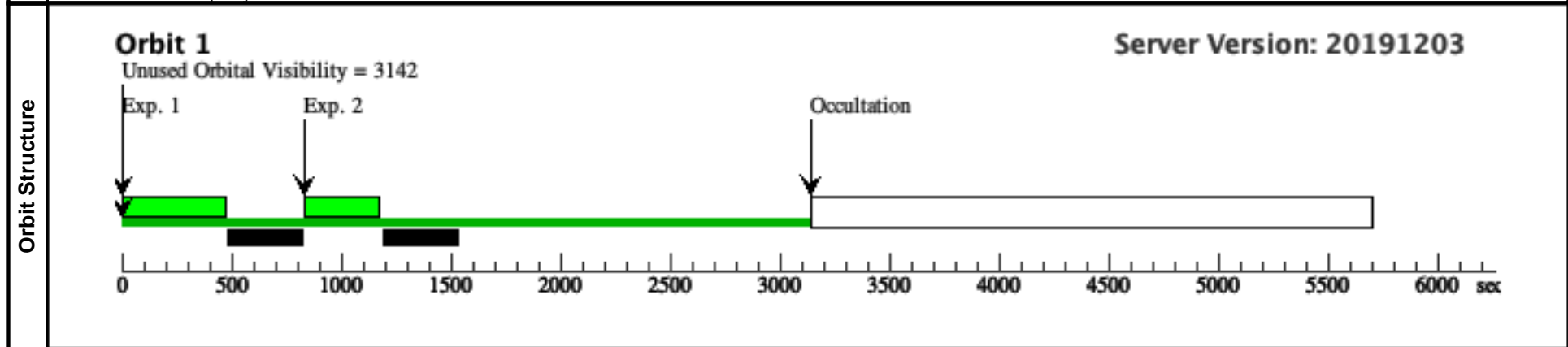




Proposal 15761 - Visit A6 - ACS Internal CTE Monitor

<b>Visit</b>	<b>Proposal 15761, Visit A6, completed</b> <span style="float: right;">Fri Apr 10 21:00:19 GMT 2020</span>							
	<b>Diagnostic Status: No Diagnostics</b>							
	Scientific Instruments: ACS/WFC							
	Special Requirements: (none)							

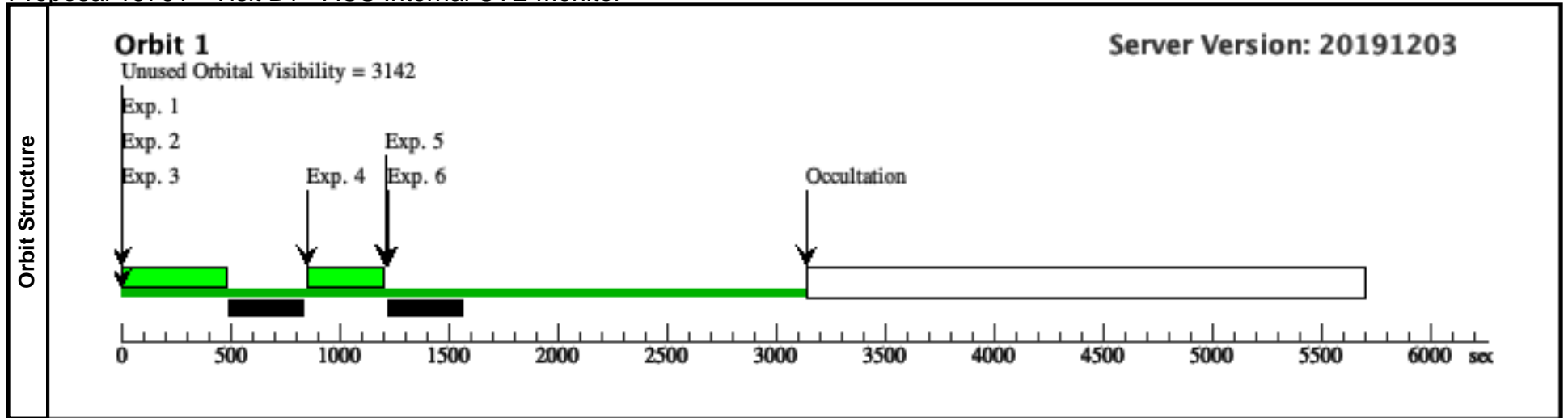
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
		1	WFC AD E PER Flash 4 2e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASH=42			0.5 Secs (0.5 Secs) [==>]
<i>Comments: short dark post-flashed to 42e-</i>										
	2	WFC AD E PER Flash 4 2e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASH=42			0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: short dark post-flashed to 42e-</i>										



Proposal 15761 - Visit B1 - ACS Internal CTE Monitor

Fri Apr 10 21:00:19 GMT 2020

Visit	Proposal 15761, Visit B1, implementation										
	Diagnostic Status: No Diagnostics										
Scientific Instruments: ACS/WFC, S/C											
Special Requirements: BETWEEN 10-MAY-2020:00:00:00 AND 08-JUN-2020:00:00:00; SEQ B1,B2,B3,B4,B5,B6 WITHIN 7 D; PARALLEL											
<i>Comments: Patch the EPER setup macros in ACS FSW to facilitate desired WFC shutter management for post-flashed EPER DARK exposures.</i>											
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
Exposures	1	patch AD	DARK	S/C, DATA, NONE		SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS AD	Same Alignment in Visit B1	2.0 Secs (2 Secs)	[==>]	[1]	
	<i>Comments: Patch the EPER setup to DARK for amps AD.</i>										
	2	patch BC	DARK	S/C, DATA, NONE		SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS BC	Same Alignment in Visit B1	2.0 Secs (2 Secs)	[==>]	[1]	
	<i>Comments: Patch the EPER setup to DARK for amps BC.</i>										
	3	WFC AD E PER Flash L OW 182e	DARK	ACS/WFC, ACCUM, WFC	DEF	FLASH=182; CTE=JCTWE; AMP=AD		Same Alignment in Visit B1	0.5 Secs (0.5 Secs)	[==>]	[1]
	<i>Comments: short dark post-flashed to 182e-</i>										
4	WFC BC EP ER Flash L OW 182e	DARK	ACS/WFC, ACCUM, WFC	DEF	FLASH=182; CTE=JCTWE; AMP=BC		Same Alignment in Visit B1	0.5 Secs (0.5 Secs)	[==>]	[1]	
<i>Comments: short dark post-flashed to 182e-</i>											
5	restore AD	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS AD	Same Alignment in Visit B1	2.0 Secs (2 Secs)	[==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps AD.</i>											
6	restore BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS BC	Same Alignment in Visit B1	2.0 Secs (2 Secs)	[==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps BC.</i>											

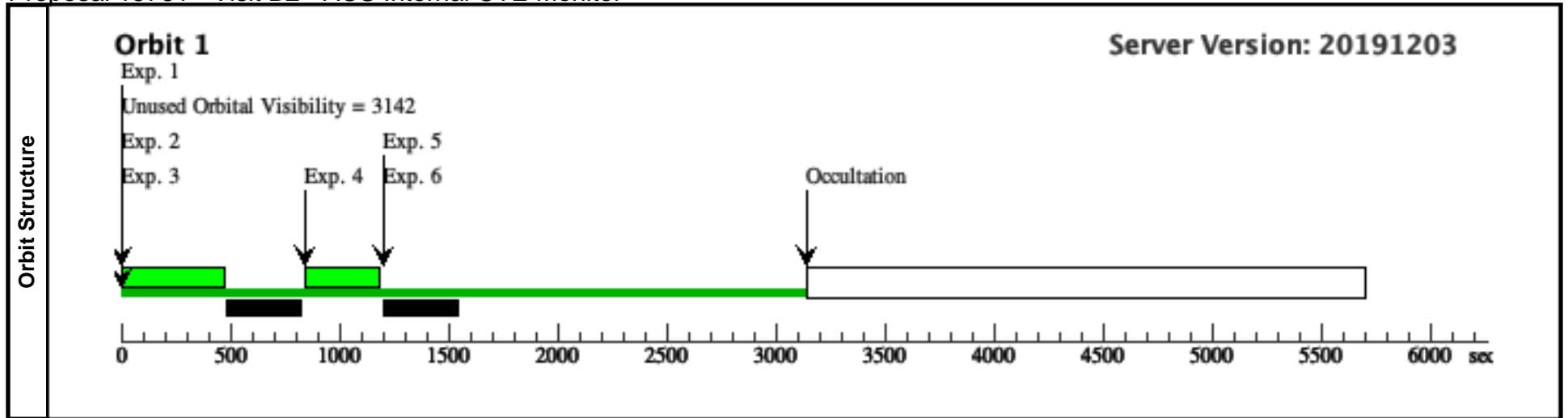


Proposal 15761 - Visit B2 - ACS Internal CTE Monitor

<b>Visit</b>	<p><b>Proposal 15761, Visit B2, implementation</b></p> <p><b>Diagnostic Status: Error</b></p> <p>Scientific Instruments: ACS/WFC, S/C</p> <p>Special Requirements: PARALLEL</p> <p><i>Comments: Patch the EPER setup macros in ACS FSW to facilitate desired WFC shutter management for post-flashed EPER DARK exposures.</i></p>	Fri Apr 10 21:00:19 GMT 2020
<b>Diagnostics</b>	<p>(WFC AD EPER Flash HIGH 430e (B2.003)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE</p> <p>(WFC BC EPER Flash HIGH 430e (B2.004)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE</p>	

Proposal 15761 - Visit B2 - ACS Internal CTE Monitor

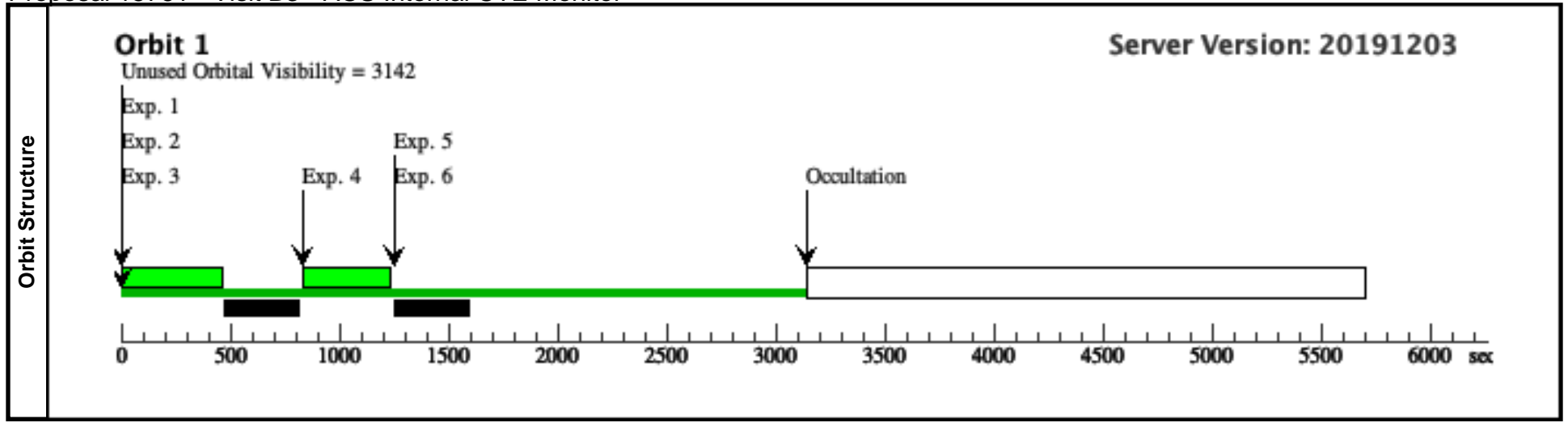
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	patch AD	DARK	S/C, DATA, NONE		SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS AD	Same Alignment in Visit B2	2.0 Secs (2 Secs) [==>]	[1]	
	<i>Comments: Patch the EPER setup to DARK for amps AD.</i>									
	2	patch BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS BC	Same Alignment in Visit B2	2.0 Secs (2 Secs) [==>]	[1]
	<i>Comments: Patch the EPER setup to DARK for amps BC.</i>									
	3	WFC AD E PER Flash HIGH 430e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASHCUR=HIGH ; FLASHEXP=3.9		Same Alignment in Visit B2	0.5 Secs (0.5 Secs) [==>]	[1]
	<i>Comments: short dark post-flashed to 434e-</i>									
4	WFC BC EP ER Flash HI GH 430e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=BC; FLASHCUR=HIGH ; FLASHEXP=3.9		Same Alignment in Visit B2	0.5 Secs (0.5 Secs) [==>]	[1]	
<i>Comments: short dark post-flashed to 1624e-</i>										
5	restore AD	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS AD	Same Alignment in Visit B2	2.0 Secs (2 Secs) [==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps AD.</i>										
6	restore BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS BC	Same Alignment in Visit B2	2.0 Secs (2 Secs) [==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps BC.</i>										



Proposal 15761 - Visit B3 - ACS Internal CTE Monitor

Fri Apr 10 21:00:19 GMT 2020

Visit	Proposal 15761, Visit B3, implementation										
	Diagnostic Status: Error Scientific Instruments: ACS/WFC, S/C Special Requirements: PARALLEL Comments: Patch the EPER setup macros in ACS FSW to facilitate desired WFC shutter management for post-flashed EPER DARK exposures.										
Diagnostics	(WFC BC EPER Flash HIGH 7100e (B3.004)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE										
	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	patch AD	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPEPATCH; QESIPARM EXPTY PE DARK; QESIPARM AMPS AD	Same Alignment in Visit B3	2.0 Secs (2 Secs) [==>]	[1]	
	<i>Comments: Patch the EPER setup to DARK for amps AD.</i>										
	2	patch BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPEPATCH; QESIPARM EXPTY PE DARK; QESIPARM AMPS BC	Same Alignment in Visit B3	2.0 Secs (2 Secs) [==>]	[1]	
	<i>Comments: Patch the EPER setup to DARK for amps BC.</i>										
	3	WFC AD E PER short dark	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD		Same Alignment in Visit B3	0.5 Secs (0.5 Secs) [==>]	[1]	
	<i>Comments: short dark</i>										
4	WFC BC EP ER Flash HI GH 7100e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=BC; FLASHCUR=HIGH; FLASHEXP=64.5		Same Alignment in Visit B3	0.5 Secs (0.5 Secs) [==>]	[1]		
<i>Comments: short dark post-flashed to 3402e-</i>											
5	restore AD	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPEPATCH; QESIPARM EXPTY PE NORMAL; QESIPARM AMPS AD	Same Alignment in Visit B3	2.0 Secs (2 Secs) [==>]	[1]		
<i>Comments: Restore the EPER setup to NORMAL for amps AD.</i>											
6	restore BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPEPATCH; QESIPARM EXPTY PE NORMAL; QESIPARM AMPS BC	Same Alignment in Visit B3	2.0 Secs (2 Secs) [==>]	[1]		
<i>Comments: Restore the EPER setup to NORMAL for amps BC.</i>											

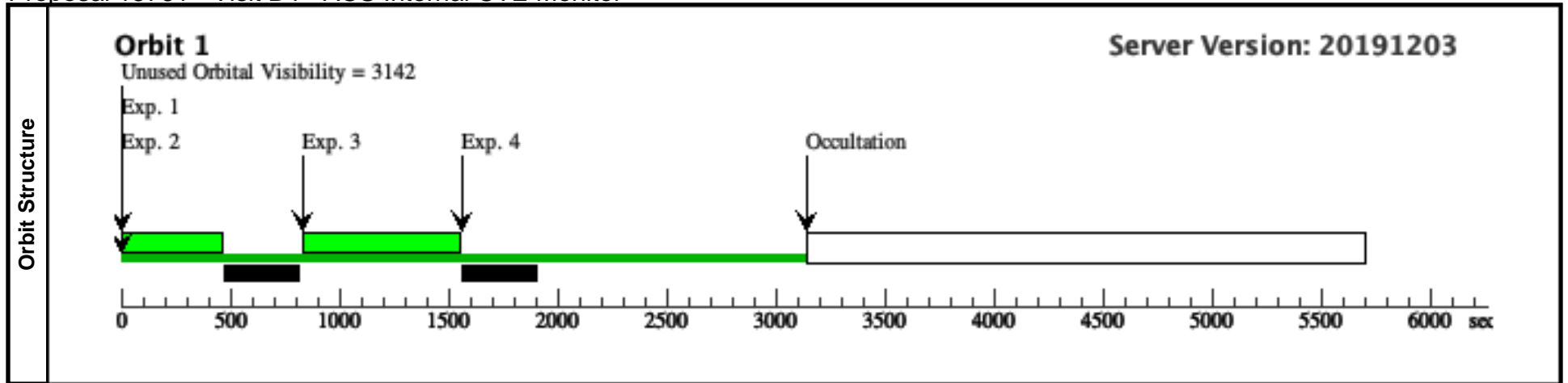




Proposal 15761 - Visit B4 - ACS Internal CTE Monitor

Fri Apr 10 21:00:19 GMT 2020

Visit	Proposal 15761, Visit B4, implementation									
	Diagnostic Status: Error									
Diagnostics	Scientific Instruments: ACS/WFC, S/C									
	Special Requirements: PARALLEL									
Diagnostics	<i>Comments: Patch the EPER setup macros in ACS FSW to facilitate desired WFC shutter management for post-flashed EPER DARK exposures.</i>									
	(WFC BC EPER Flash HIGH 42000e (B4.003)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE (Visit B4) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	patch BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH; QESIPARM EXPTY PE DARK; QESIPARM AMPS BC	Same Alignment in Visit B4	2.0 Secs (2 Secs) [==>]	[1]
Exposures	<i>Comments: Patch the EPER setup to DARK for amps BC.</i>									
	2	WFC BC EP ER short dar k	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=BC		Same Alignment in Visit B4	0.5 Secs (0.5 Secs) [==>]	[1]
	<i>Comments: short dark post-flashed to 91e-</i>									
	3	WFC BC EP ER Flash HI GH 42000e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=BC; FLASHCUR=HIGH ; FLASHEXP=381.8		Same Alignment in Visit B4	0.5 Secs (0.5 Secs) [==>]	[1]
<i>Comments: short dark post-flashed to 91e-</i>										
4	restore BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH; QESIPARM EXPTY PE NORMAL; QESIPARM AMPS BC	Same Alignment in Visit B4	2.0 Secs (2 Secs) [==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps BC.</i>										

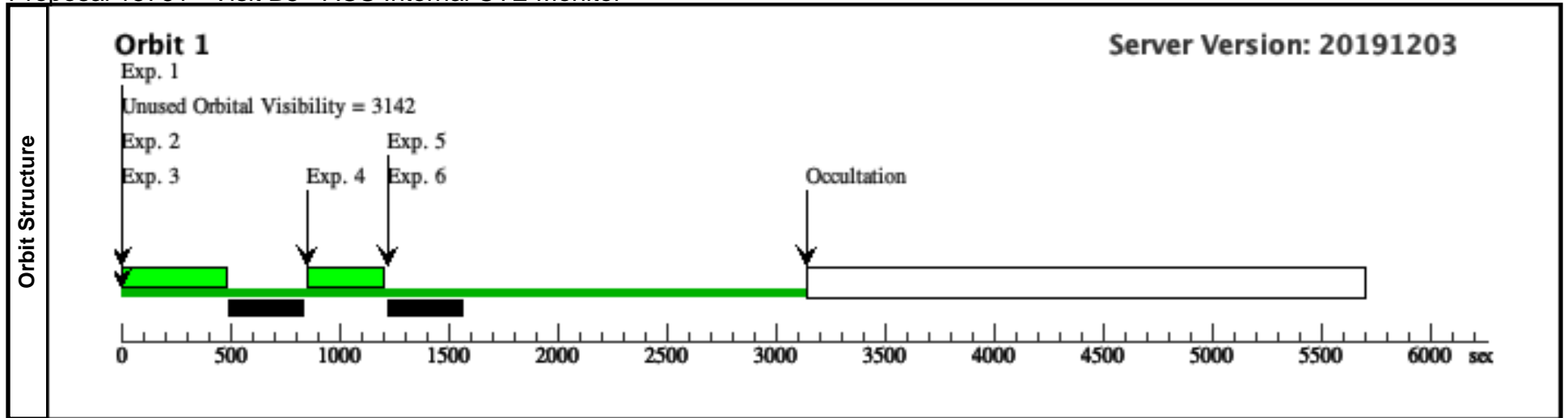


Proposal 15761 - Visit B5 - ACS Internal CTE Monitor

<b>Visit</b>	<p><b>Proposal 15761, Visit B5, implementation</b> <span style="float: right;">Fri Apr 10 21:00:19 GMT 2020</span></p> <p><b>Diagnostic Status: Error</b></p> <p>Scientific Instruments: ACS/WFC, S/C</p> <p>Special Requirements: PARALLEL</p> <p><i>Comments: Patch the EPER setup macros in ACS FSW to facilitate desired WFC shutter management for post-flashed EPER DARK exposures.</i></p>
<b>Diagnostics</b>	<p>(WFC AD EPER Flash HIGH 1620e (B5.003)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE</p> <p>(WFC BC EPER Flash HIGH 1620e (B5.004)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE</p>

Proposal 15761 - Visit B5 - ACS Internal CTE Monitor

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	patch AD	DARK	S/C, DATA, NONE		SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS AD	Same Alignment in Visit B5	2.0 Secs (2 Secs) [==>]	[1]	
	<i>Comments: Patch the EPER setup to DARK for amps AD.</i>									
	2	patch BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS BC	Same Alignment in Visit B5	2.0 Secs (2 Secs) [==>]	[1]
	<i>Comments: Patch the EPER setup to DARK for amps BC.</i>									
	3	WFC AD E PER Flash HIGH 1620e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASHCUR=HIGH ; FLASHEXP=14.7		Same Alignment in Visit B5	0.5 Secs (0.5 Secs) [==>]	[1]
	<i>Comments: short dark post-flashed to 91e-</i>									
4	WFC BC EP ER Flash HI GH 1620e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=BC; FLASHCUR=HIGH ; FLASHEXP=14.7		Same Alignment in Visit B5	0.5 Secs (0.5 Secs) [==>]	[1]	
<i>Comments: short dark post-flashed to 42e-</i>										
5	restore AD	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS AD	Same Alignment in Visit B5	2.0 Secs (2 Secs) [==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps AD.</i>										
6	restore BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS BC	Same Alignment in Visit B5	2.0 Secs (2 Secs) [==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps BC.</i>										



Proposal 15761 - Visit B6 - ACS Internal CTE Monitor

<b>Visit</b>	<p><b>Proposal 15761, Visit B6, implementation</b> <span style="float: right;">Fri Apr 10 21:00:19 GMT 2020</span></p> <p><b>Diagnostic Status: Error</b></p> <p>Scientific Instruments: ACS/WFC, S/C</p> <p>Special Requirements: PARALLEL</p> <p><i>Comments: Patch the EPER setup macros in ACS FSW to facilitate desired WFC shutter management for post-flashed EPER DARK exposures.</i></p>
<b>Diagnostics</b>	<p>(WFC AD EPER Flash HIGH 3400e (B6.003)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE</p> <p>(WFC BC EPER Flash HIGH 3400e (B6.004)) Error (Form): FLASHCUR and FLASHEXP may not be specified when CTE does not equal NONE</p>

Proposal 15761 - Visit B6 - ACS Internal CTE Monitor

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
Exposures	1	patch AD	DARK	S/C, DATA, NONE		SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS AD	Same Alignment in Visit B6	2.0 Secs (2 Secs) [==>]	[1]	
	<i>Comments: Patch the EPER setup to DARK for amps AD.</i>									
	2	patch BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE DARK;  QESIPARM AMPS BC	Same Alignment in Visit B6	2.0 Secs (2 Secs) [==>]	[1]
	<i>Comments: Patch the EPER setup to DARK for amps BC.</i>									
	3	WFC AD E PER Flash HIGH 3400e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=AD; FLASHCUR=HIGH ; FLASHEXP=30.9		Same Alignment in Visit B6	0.5 Secs (0.5 Secs) [==>]	[1]
	<i>Comments: short dark post-flashed to 42e-</i>									
4	WFC BC EP ER Flash HI GH 3400e	DARK	ACS/WFC, ACCUM, WFC	DEF	CTE=JCTWE; AMP=BC; FLASHCUR=HIGH ; FLASHEXP=30.9		Same Alignment in Visit B6	0.5 Secs (0.5 Secs) [==>]	[1]	
<i>Comments: short dark post-flashed to 42e-</i>										
5	restore AD	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS AD	Same Alignment in Visit B6	2.0 Secs (2 Secs) [==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps AD.</i>										
6	restore BC	DARK	S/C, DATA, NONE			SPEC COM INSTR EJEPERPATCH;  QESIPARM EXPTY PE NORMAL;  QESIPARM AMPS BC	Same Alignment in Visit B6	2.0 Secs (2 Secs) [==>]	[1]	
<i>Comments: Restore the EPER setup to NORMAL for amps BC.</i>										

