



15518 - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR Standard Star Network

Cycle: 26, Proposal Category: GO

(UV Initiative, JWST Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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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>
01	(1) SDSSJ124535.626+423824.58	WFC3/IR WFC3/UVIS	2	25-Apr-2019 16:00:21.0	yes
02	(2) SDSSJ134305.302+270623.97	WFC3/IR WFC3/UVIS	2	25-Apr-2019 16:00:24.0	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>
03	(3) SDSSJ014618.897-005150.50	WFC3/IR WFC3/UVIS	2	25-Apr-2019 16:00:26.0	yes
04	(4) SDSSJ230240.032-003021.59	WFC3/IR WFC3/UVIS	2	25-Apr-2019 16:00:29.0	yes
05	(5) SDSSJ125507.082+192459.01	WFC3/IR WFC3/UVIS	2	25-Apr-2019 16:00:31.0	yes
06	(6) SDSSJ114722.608+171325.23	WFC3/IR WFC3/UVIS	2	25-Apr-2019 16:00:35.0	yes
13	(7) SDSSJ083736.557+542758.65	WFC3/IR WFC3/UVIS	2	25-Apr-2019 16:00:37.0	yes

14 Total Orbits Used

ABSTRACT

We propose to observe 18-19th magnitude objects with nearly perfect blackbody spectra discovered by the Sloan Digital Sky Survey. Follow-up observation by Keck/LRIS and Subaru/FOCAS confirmed no signs of absorption lines, and SDSS multi-epoch observation shows no time variation. With WFC3 (UVES/IR), we will establish a new network of Opt-IR Standards at 0.1% precision in magnitude from 0.1 micron through 5 micron. The identify of these objects are yet to be known. We conduct precise parallax measurements and find distances to these objects that enables us to infer the radius of these stars, and we may have a potential discovery of new type of objects.

Only two parameters (Effective Temperature and Normlization) are needed to describe the blackbody spectra, and we can predict magnitudes in any band from UV through IR with high precision. We will advance the way we perform the photometry by introducing the covariance matrix between the filter bands. This covariance matrix would reduce the errors in color and propagate systematic errors in an appropriate way, and we can reduce the systematic errors in SNIa cosmology today. The perfect blackbody spectrum is the most elegant solution for JWST photometric standards and next generation UV-Opt-IR photometry.

OBSERVING DESCRIPTION

Proposal 15518 (STScI Edit Number: 0, Created: Thursday, April 25, 2019 at 3:00:38 PM Eastern Standard Time) - Overview

We will conduct precise photometry of 7 stars with the WFC3 camera.

During Cycle 25 we observe these stars in UVIS broad band filters (F225W, F275W, F336W, F438W, F555W, F606W, F814W and F850LP) in the C512C subarray in multiple dithers with each filter sufficient to achieve S/N of 200 at 18-19th magnitude. F606W is repeated in the second orbit for each star, 6 months apart so that we can measure parallax to infer distances to the stars.

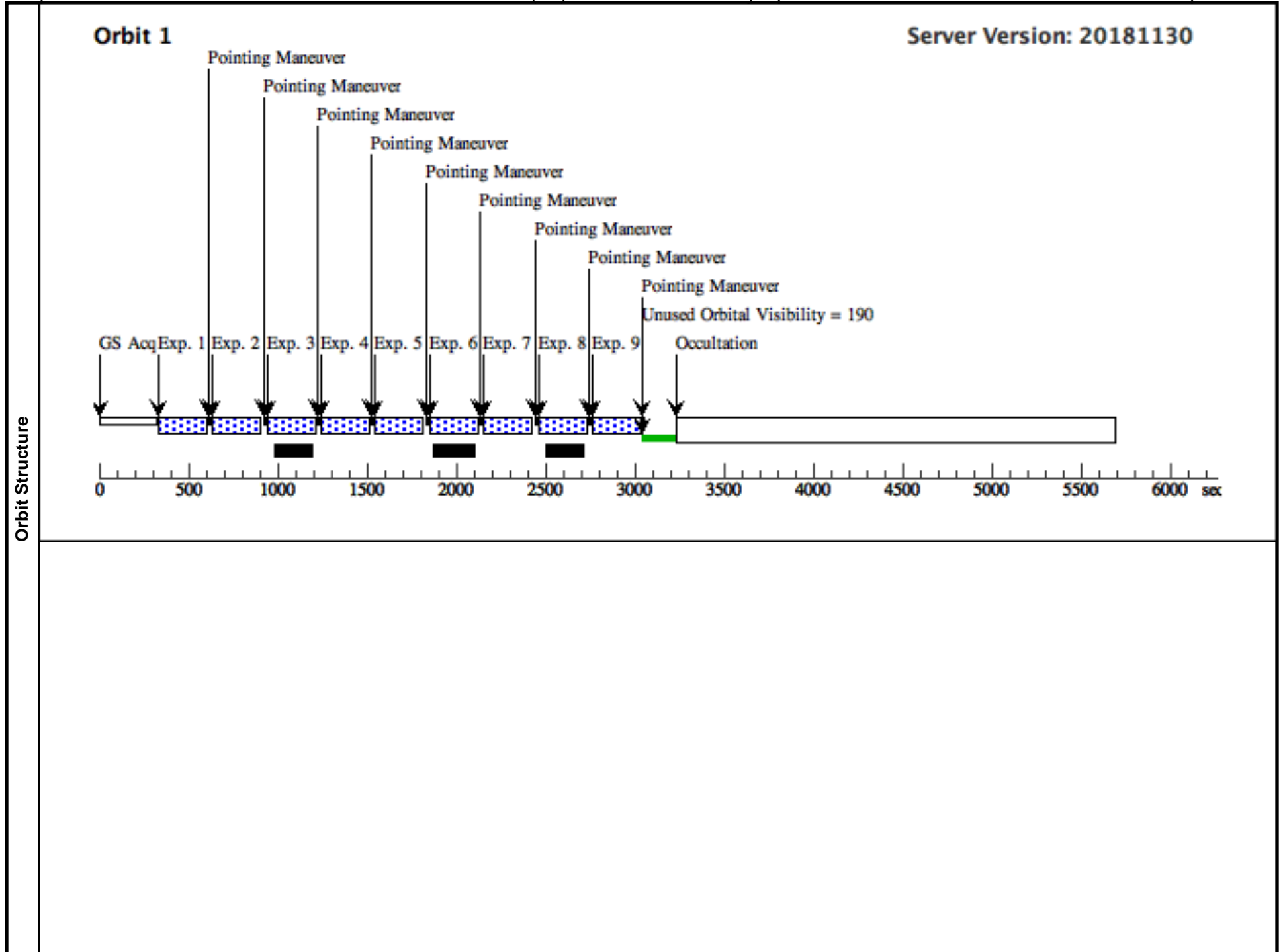
Proposal 15518 - Part1-SDSSJ124535.626+423824.58 (01) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

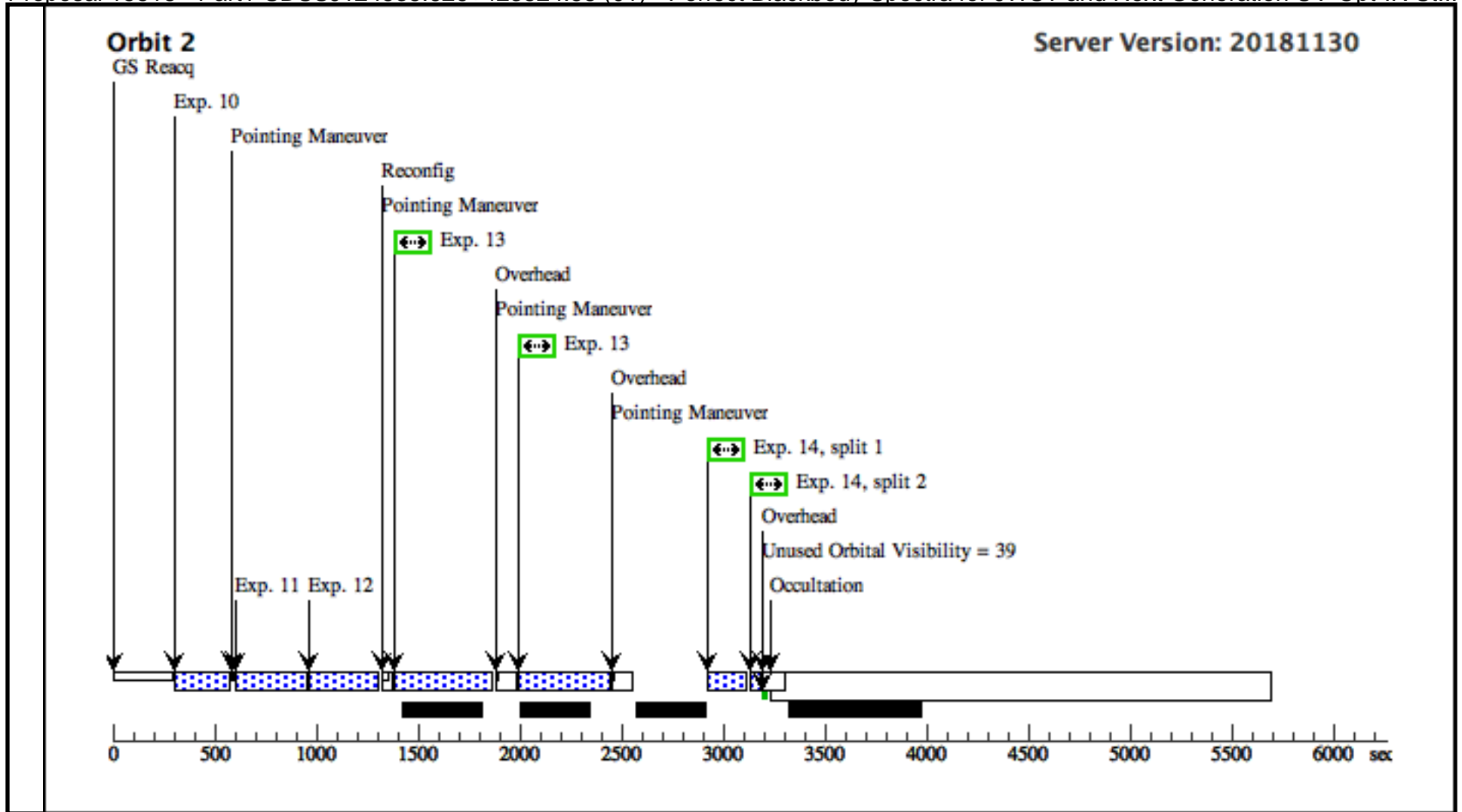
Thu Apr 25 20:00:38 GMT 2019

Visit	Proposal 15518, Part1-SDSSJ124535.626+423824.58 (01), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: BETWEEN 07-JUN-2019:00:00:00 AND 21-JUN-2019:00:00:00					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(4)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	SDSSJ124535.626+423824.58	RA: 12 45 35.6260 (191.3984417d) Dec: +42 38 24.58 (42.64016d) Equinox: J2000		V=17.139+/-0.017	Reference Frame: ICRS
	Comments: Category=STAR Description=[DC]					

Proposal 15518 - Part1-SDSSJ124535.626+423824.58 (01) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F098M (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F098M	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG 0,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	2	F098M (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F098M	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	3	F125W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	4	F125W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	5	F160W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	6	F160W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	7	F110W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	8	F110W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	9	F140W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	10	F140W (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,2.6		243.045901 Secs (243.046 Secs) [==>]	[2]
	11	G102 (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, GRISM512	G102	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[2]
	12	G141 (1) SDSSJ124535.62 6+423824.58	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[2]
	13	G280 (1) SDSSJ124535.62 6+423824.58	WFC3/UVIS, ACCUM, UVIS	G280		POS TARG null,-50	Pattern 4, Exps 13-1 3 in Part1-SDSSJ124 535.626+423824.58 (01) (4)	450 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	14	F606W (1) SDSSJ124535.62 6+423824.58	WFC3/UVIS, ACCUM, G280-REF	F606W	FLASH=10; CR-SPLIT=2	POS TARG null,-50		100 Secs (100 Secs) [==>(Split 1)] [==>(Split 2)]	[2]





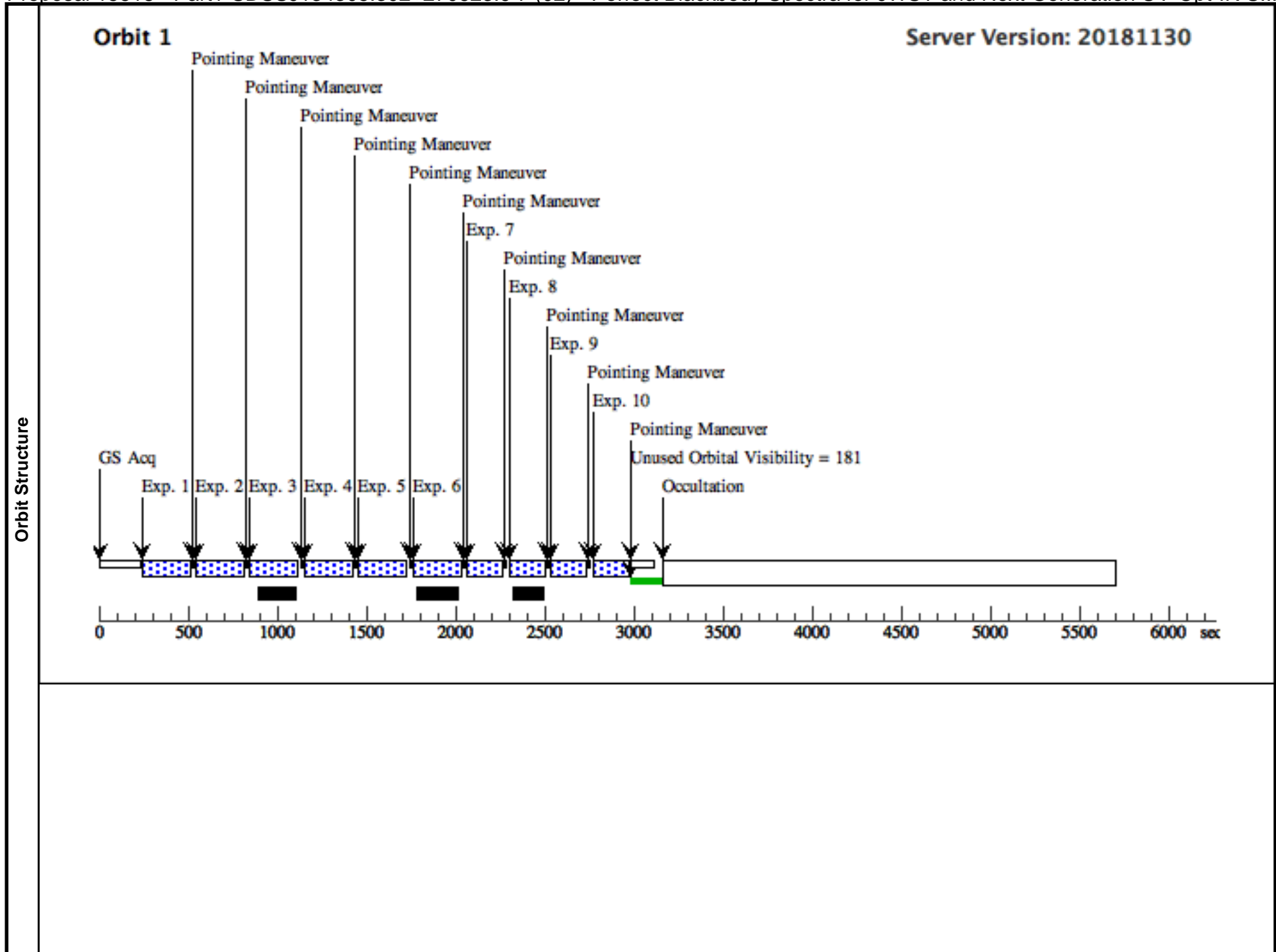
Proposal 15518 - Part1-SDSSJ134305.302+270623.9 7 (02) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR S...

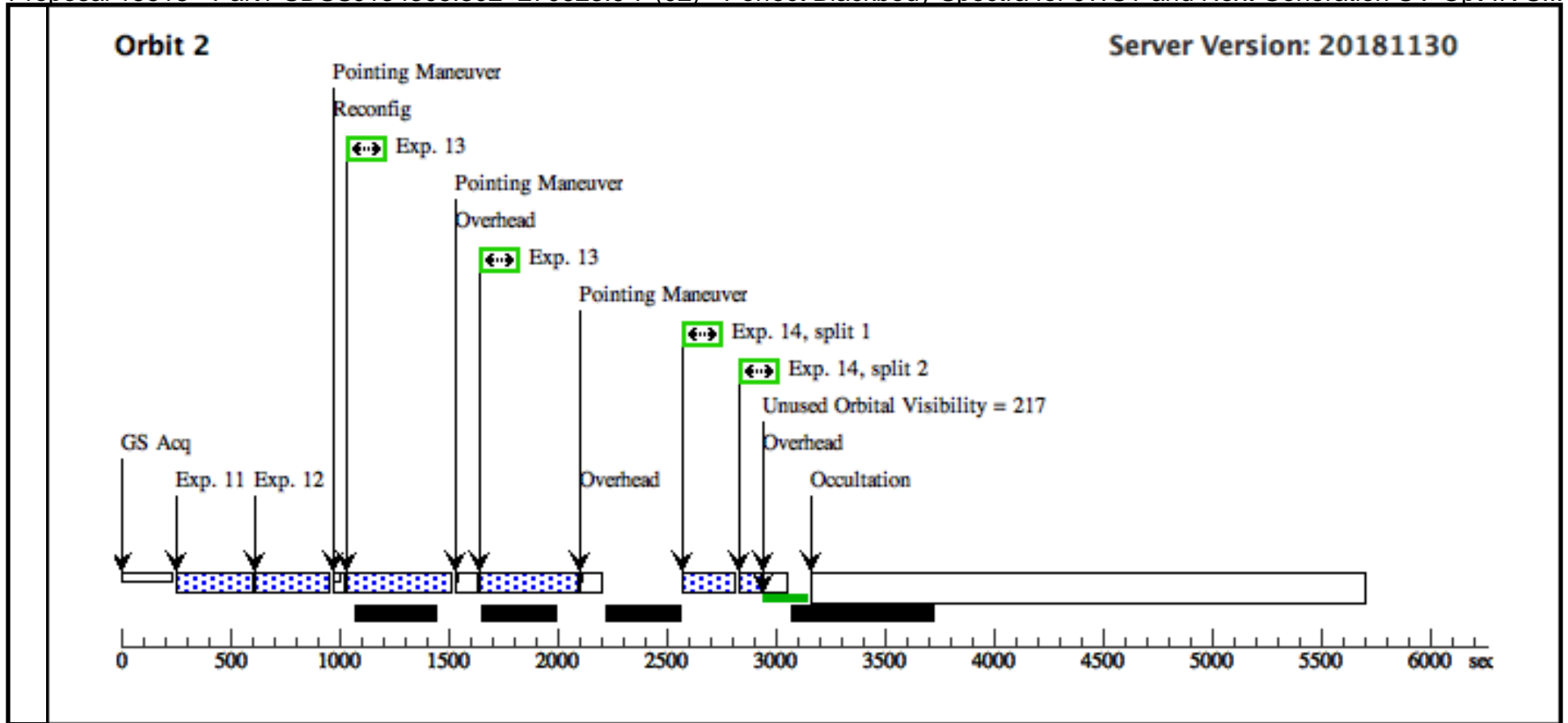
Thu Apr 25 20:00:38 GMT 2019

Visit	Proposal 15518, Part1-SDSSJ134305.302+270623.9 7 (02), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: BETWEEN 01-JUN-2019:00:00:00 AND 08-JUL-2019:00:00:00					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(4)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(2)	SDSSJ134305.302+270623.97	RA: 13 43 5.3020 (205.7720917d) Dec: +27 06 23.97 (27.10666d) Equinox: J2000		V=18.925+/-0.021	Reference Frame: ICRS
	Comments: Category=STAR Description=[DC]					

Proposal 15518 - Part1-SDSSJ134305.302+270623.9 7 (02) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR S...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F098M	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG 0,0; GS ACQ SCENARI O SINGLE		243.045901 Secs (243.046 Secs) [==>]	[1]
	2	F098M	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F098M	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,1,3		243.045901 Secs (243.046 Secs) [==>]	[1]
	3	F125W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	4	F125W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	5	F160W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	6	F160W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	7	F110W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,-1.3		174.282148 Secs (174.282 Secs) [==>]	[1]
	8	F110W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,0		174.282148 Secs (174.282 Secs) [==>]	[1]
	9	F140W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,1.3		174.282148 Secs (174.282 Secs) [==>]	[1]
	10	F140W	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,2.6		174.282148 Secs (174.282 Secs) [==>]	[1]
	11	G102	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, GRISM512	G102	NSAMP=15; SAMP-SEQ=SPAR S25	NEW OBSET FULL ACQ; GS ACQ SCENARI O SINGLE		321.750541 Secs (321.751 Secs) [==>]	[2]
	12	G141	(2) SDSSJ134305.30 2+270623.97	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[2]
	13	G280	(2) SDSSJ134305.30 2+270623.97	WFC3/UVIS, ACCUM, UVIS	G280		POS TARG null,-50	Pattern 4, Exps 13-1 3 in Part1-SDSSJ134 305.302+270623.9 7 (02) (4)	450 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
14	F606W	(2) SDSSJ134305.30 2+270623.97	WFC3/UVIS, ACCUM, G280-REF	F606W	FLASH=8; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [==>(Split 1)] [==>(Split 2)]	[2]	

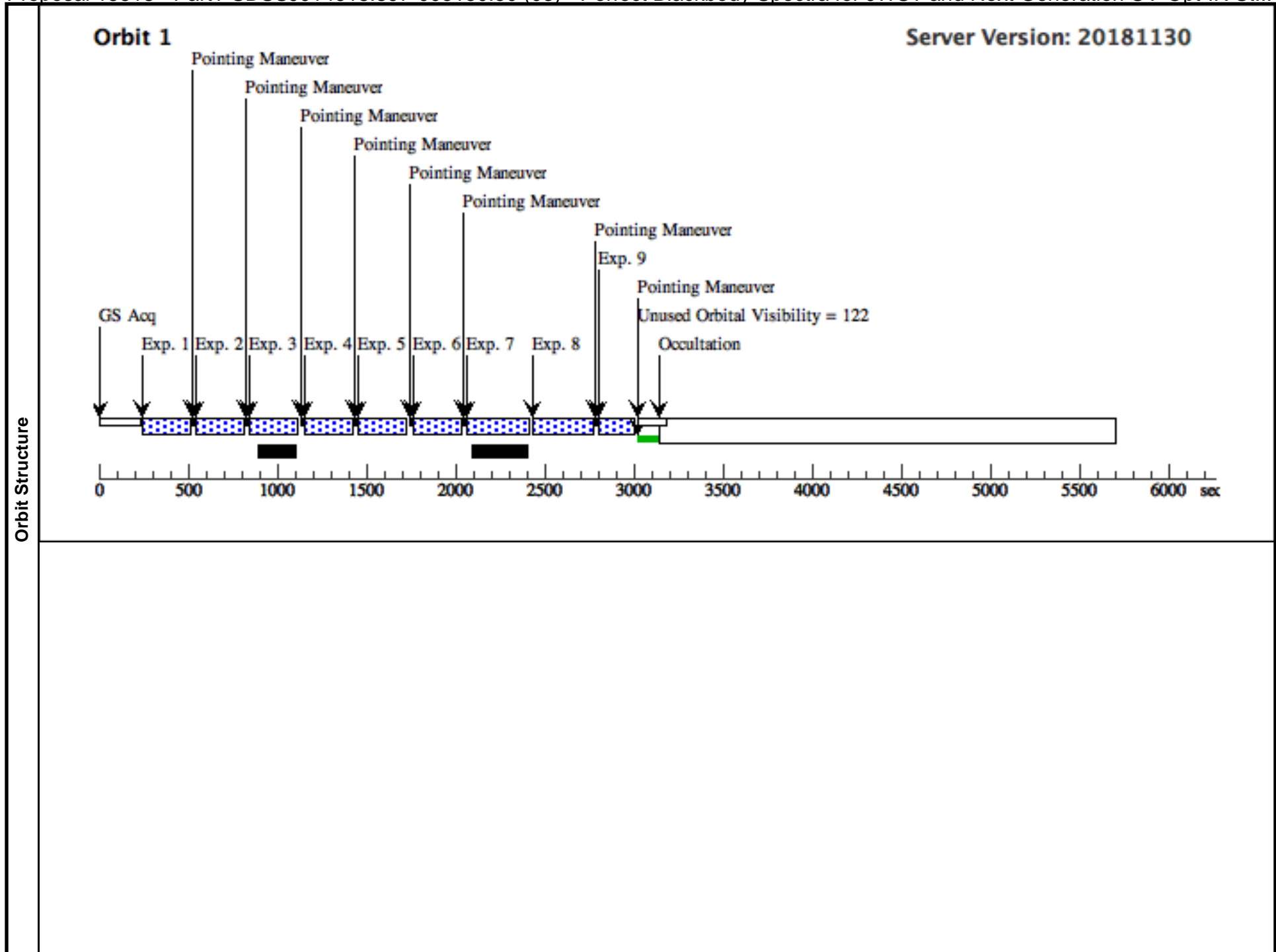


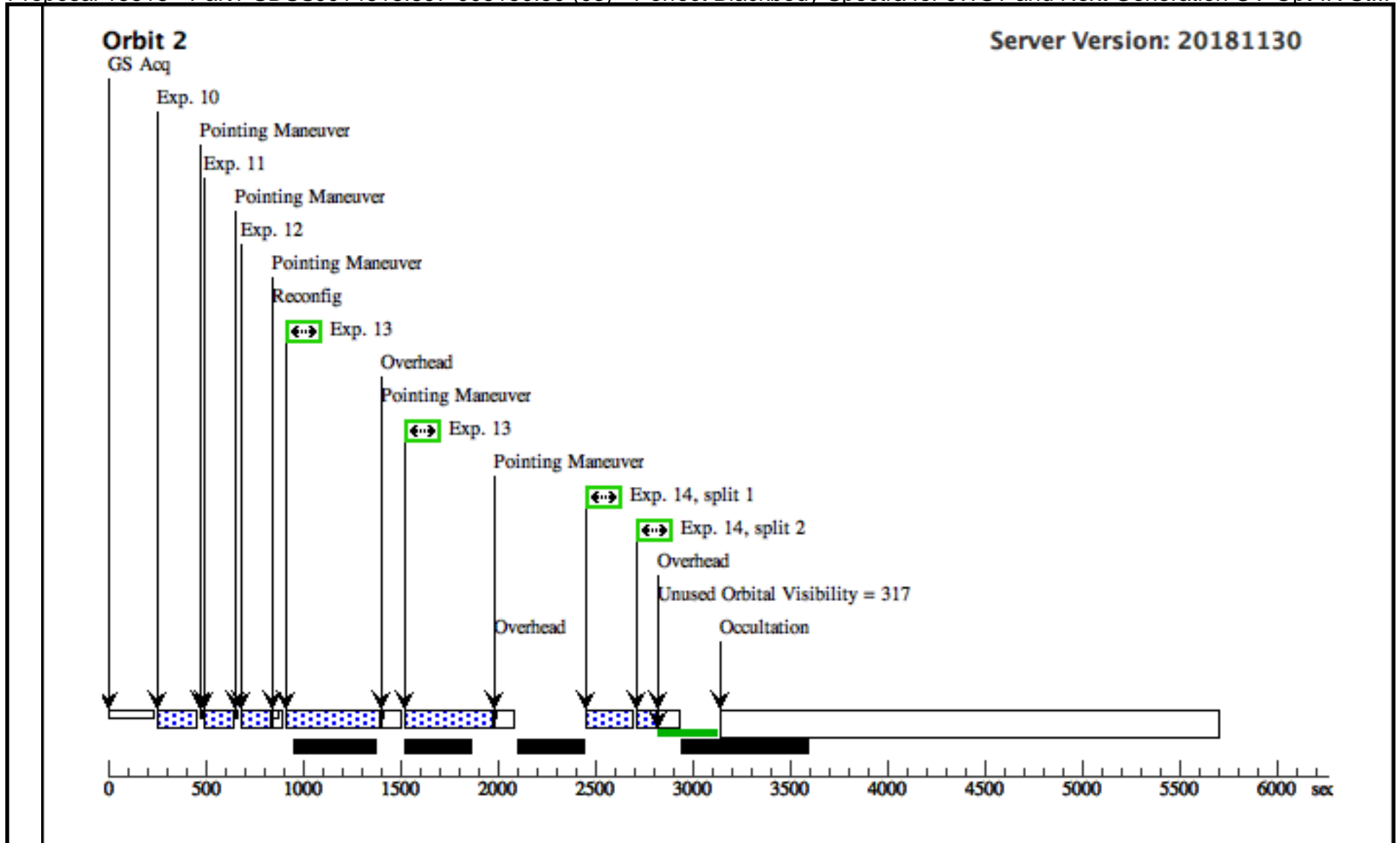


Visit	Proposal 15518, Part1-SDSSJ014618.897-005150.50 (03), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: BETWEEN 10-JUN-2019 AND 01-JUL-2019					
Patterns	#	Primary Pattern	Secondary Pattern	Exposures		
	(4)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	SDSSJ014618.897-005150.50	RA: 01 46 18.8970 (26.5787375d) Dec: -00 51 50.50 (-.86403d) Equinox: J2000		V=18.167+/-0.019	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[DC]						

Proposal 15518 - Part1-SDSSJ014618.897-005150.50 (03) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F098M	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG 0,0; GS ACQ SCENARI O SINGLE		243.045901 Secs (243.046 Secs) [==>]	[1]
	2	F098M	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F098M	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	3	F125W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	4	F125W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	5	F160W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	6	F160W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	7	G102	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, GRISM512	G102	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	8	G141	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	9	F110W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,-1.3		174.282148 Secs (174.282 Secs) [==>]	[1]
	10	F110W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,0; NEW OBSET FULL ACQ; GS ACQ SCENARI O SINGLE		174.282148 Secs (174.282 Secs) [==>]	[2]
	11	F140W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=10; SAMP-SEQ=STEP2 5	POS TARG -1.3,1.3		128.439646 Secs (128.44 Secs) [==>]	[2]
	12	F140W	(3) SDSSJ014618.89 7-005150.50	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=10; SAMP-SEQ=STEP2 5	POS TARG -1.3,2.6		128.439646 Secs (128.44 Secs) [==>]	[2]
	13	G280	(3) SDSSJ014618.89 7-005150.50	WFC3/UVIS, ACCUM, UVIS	G280		POS TARG null,-50	Pattern 4, Exps 13-1 3 in Part1-SDSSJ014 618.897-005150.50 (03) (4)	450 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
14	F606W	(3) SDSSJ014618.89 7-005150.50	WFC3/UVIS, ACCUM, G280-REF	F606W	FLASH=8; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [==>(Split 1)] [==>(Split 2)]	[2]	

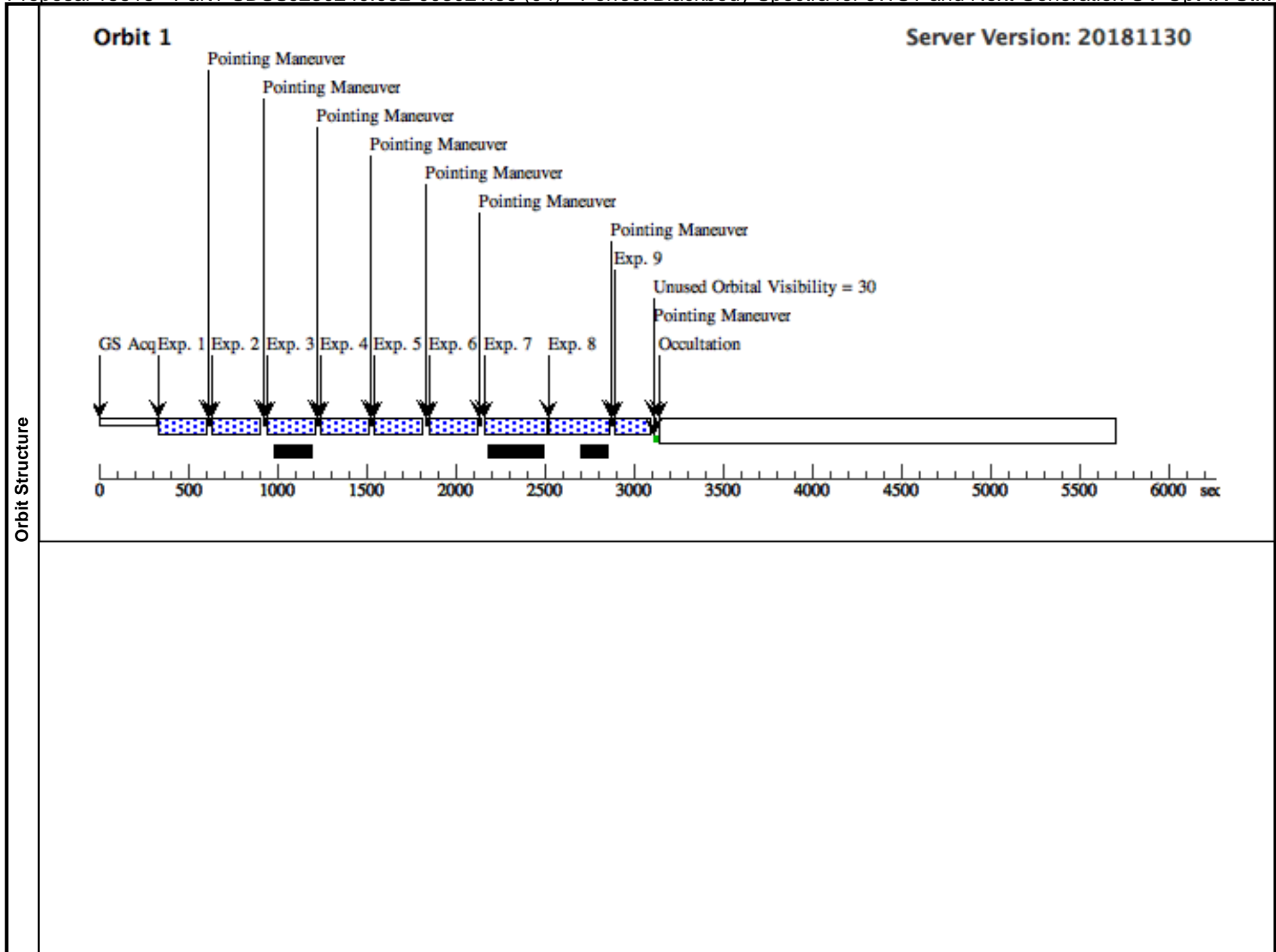


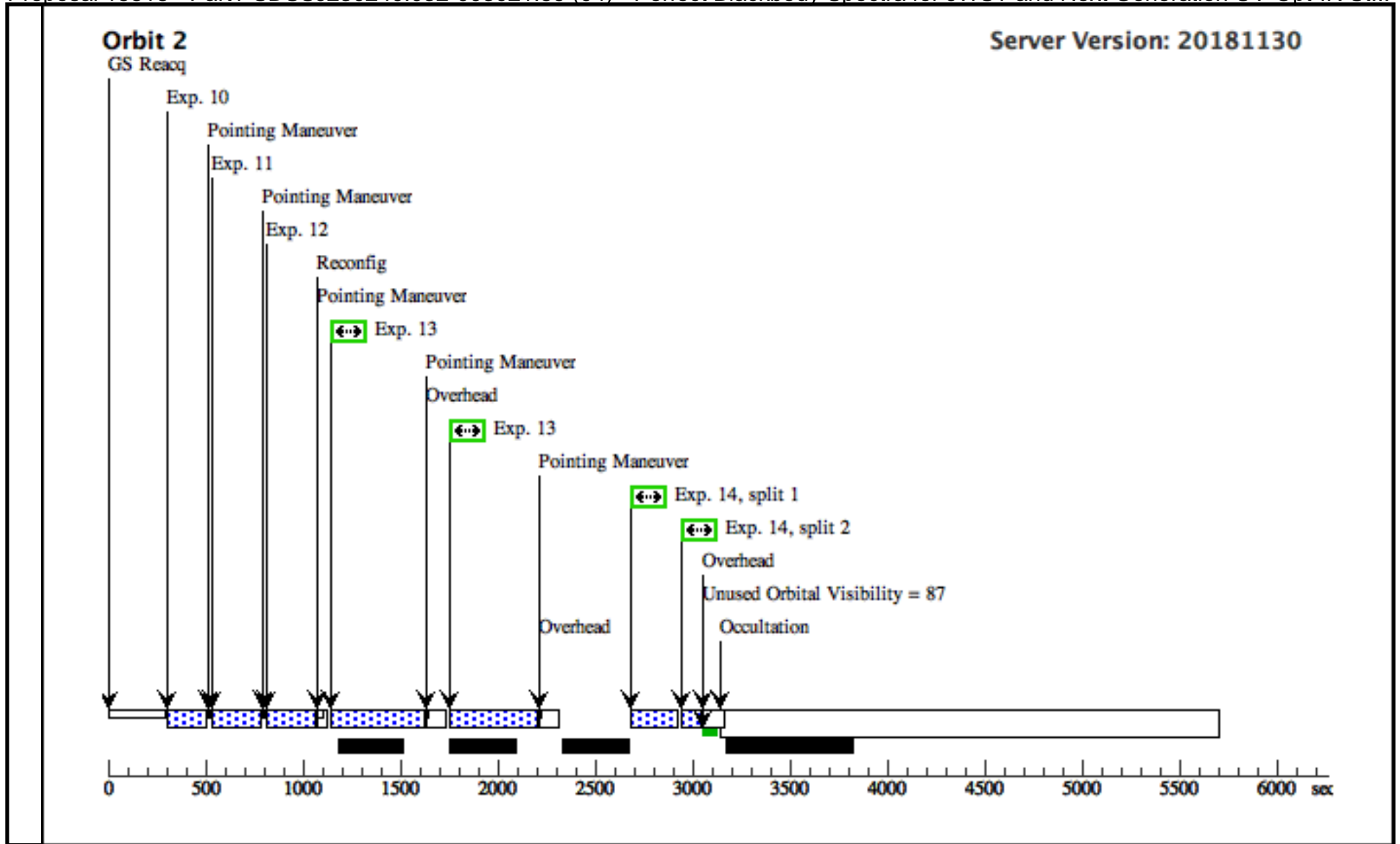


Visit	Proposal 15518, Part1-SDSSJ230240.032-003021.59 (04), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: BETWEEN 15-APR-2019:00:00:00 AND 01-JUN-2019:00:00:00					
Patterns	#	Primary Pattern	Secondary Pattern	Exposures		
	(4)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(4)	SDSSJ230240.032-003021.59	RA: 23 02 40.0320 (345.6668000d) Dec: -00 30 21.59 (-.50600d) Equinox: J2000		V=17.804+/-0.017	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[DC]						

Proposal 15518 - Part1-SDSSJ230240.032-003021.59 (04) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F098M	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG 0,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	2	F098M	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F098M	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	3	F125W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	4	F125W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	5	F160W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	6	F160W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	7	G102	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, GRISM512	G102	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	8	G141	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	9	F110W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,-1.3		174.282148 Secs (174.282 Secs) [==>]	[1]
	10	F110W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,0		174.282148 Secs (174.282 Secs) [==>]	[2]
	11	F140W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=14; SAMP-SEQ=STEP2 5	POS TARG -1.3,1.3		220.12465 Secs (220.125 Secs) [==>]	[2]
	12	F140W	(4) SDSSJ230240.03 2-003021.59	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=14; SAMP-SEQ=STEP2 5	POS TARG -1.3,2.6		220.12465 Secs (220.125 Secs) [==>]	[2]
	13	G280	(4) SDSSJ230240.03 2-003021.59	WFC3/UVIS, ACCUM, UVIS	G280		POS TARG null,-50	Pattern 4, Exps 13-1 3 in Part1-SDSSJ230 240.032-003021.59 (04) (4)	450 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
14	F606W	(4) SDSSJ230240.03 2-003021.59	WFC3/UVIS, ACCUM, G280-REF	F606W	FLASH=8; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [==>(Split 1)] [==>(Split 2)]	[2]	





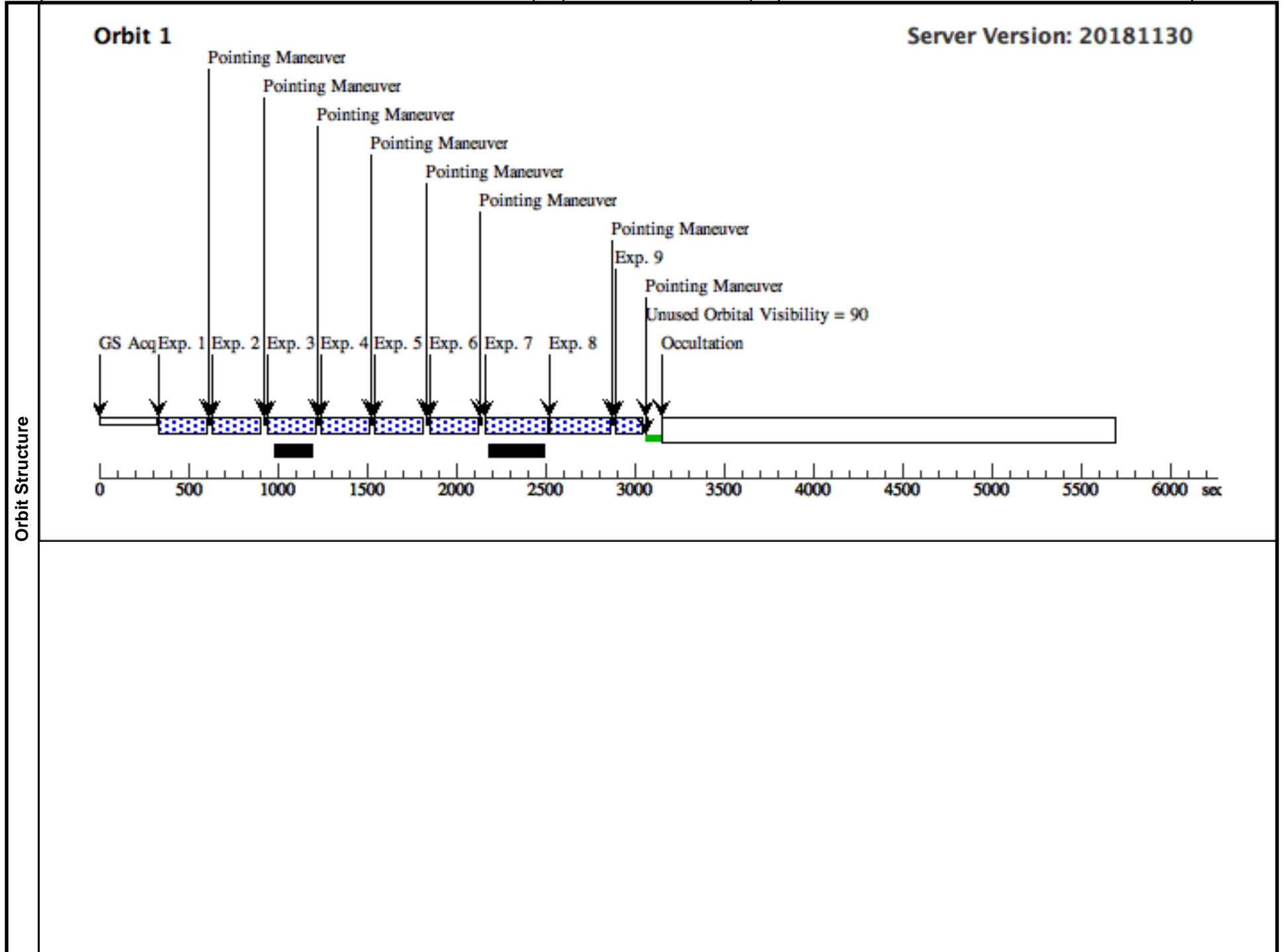
Proposal 15518 - Part1-SDSSJ125507.082+192459.01 (05) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

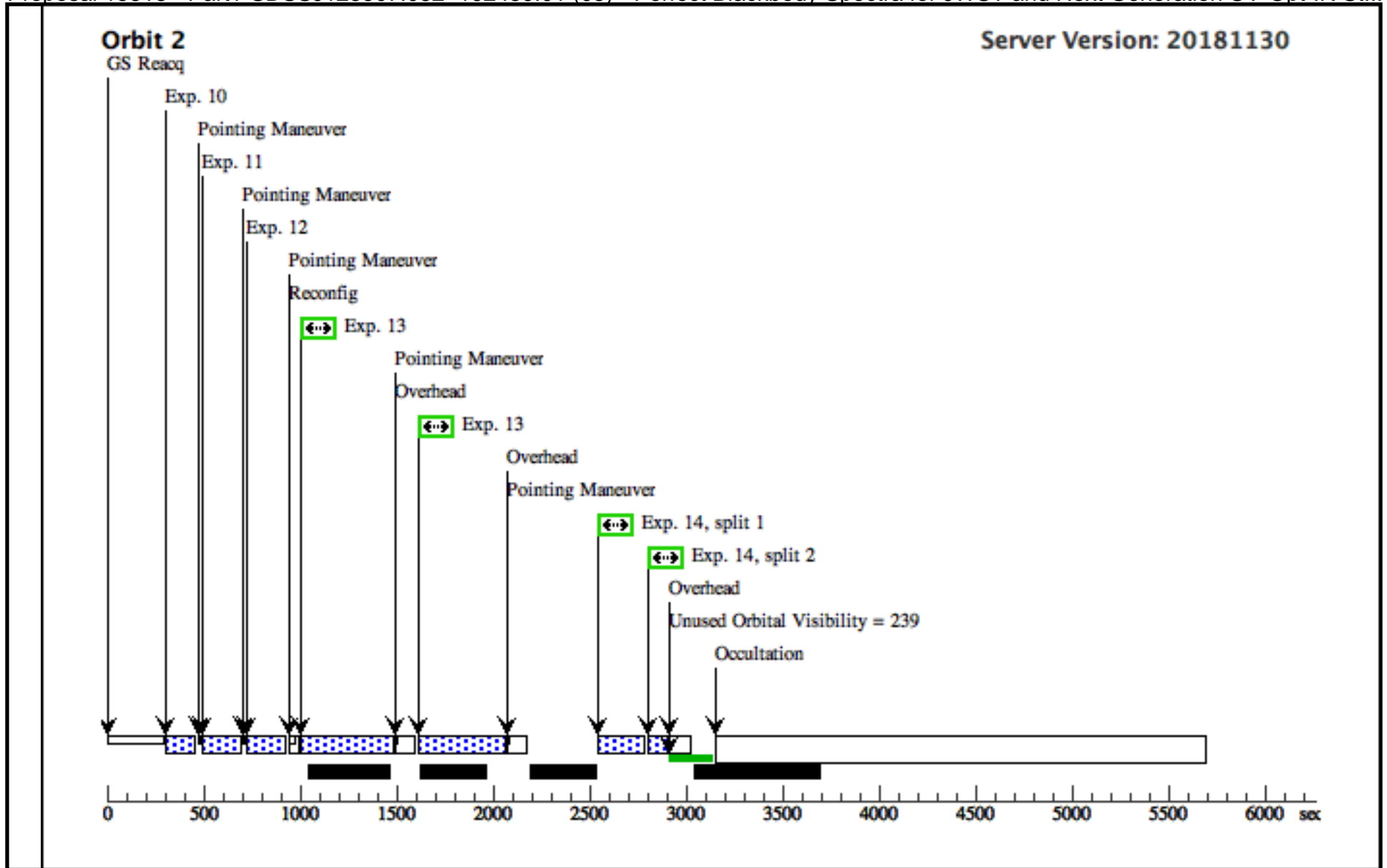
Thu Apr 25 20:00:39 GMT 2019

Visit	Proposal 15518, Part1-SDSSJ125507.082+192459.01 (05), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: BETWEEN 15-JUN-2019:00:00:00 AND 15-JUL-2019:00:00:00					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(4)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	SDSSJ125507.082+192459.01	RA: 12 55 7.0820 (193.7795083d) Dec: +19 24 59.01 (19.41639d) Equinox: J2000		V=18.527+/-0.019	Reference Frame: ICRS
	Comments: Category=STAR Description=[DC]					

Proposal 15518 - Part1-SDSSJ125507.082+192459.01 (05) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F098M	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG 0,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	2	F098M	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F098M	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	3	F125W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	4	F125W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	5	F160W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	6	F160W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	7	G102	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, GRISM512	G102	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	8	G141	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	9	F110W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=10; SAMP-SEQ=STEP2 5	POS TARG -1.3,-1.3		128.439646 Secs (128.44 Secs) [==>]	[1]
	10	F110W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=10; SAMP-SEQ=STEP2 5	POS TARG -1.3,0		128.439646 Secs (128.44 Secs) [==>]	[2]
	11	F140W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,1.3		174.282148 Secs (174.282 Secs) [==>]	[2]
	12	F140W	(5) SDSSJ125507.08 2+192459.01	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,2.6		174.282148 Secs (174.282 Secs) [==>]	[2]
	13	G280	(5) SDSSJ125507.08 2+192459.01	WFC3/UVIS, ACCUM, UVIS	G280		POS TARG null,-50	Pattern 4, Exps 13-1 3 in Part1-SDSSJ125 507.082+192459.01 (05) (4)	450 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
14	F606W	(5) SDSSJ125507.08 2+192459.01	WFC3/UVIS, ACCUM, G280-REF	F606W	FLASH=8; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [==>(Split 1)] [==>(Split 2)]	[2]	





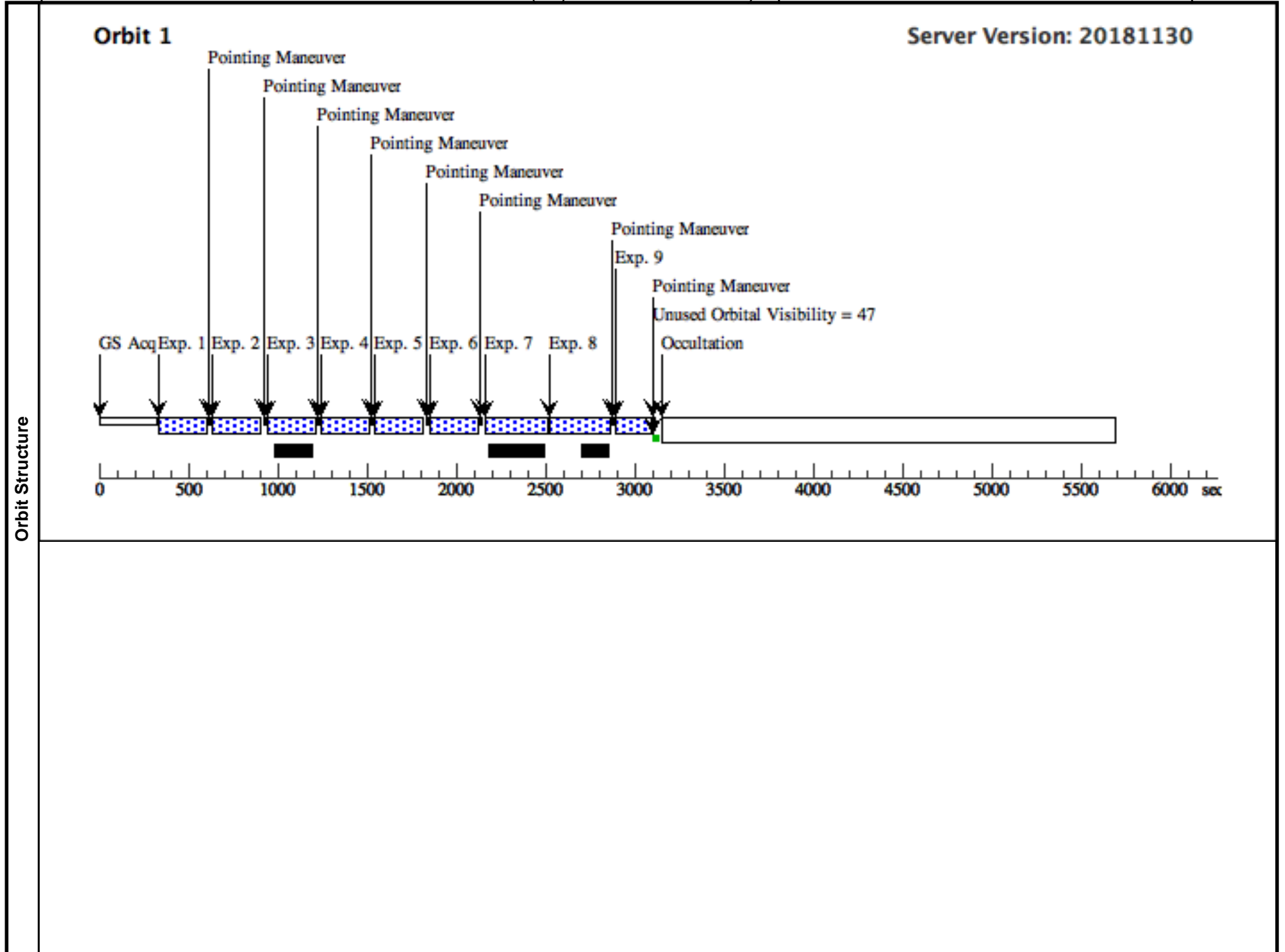
Proposal 15518 - Part1-SDSSJ114722.608+171325.23 (06) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

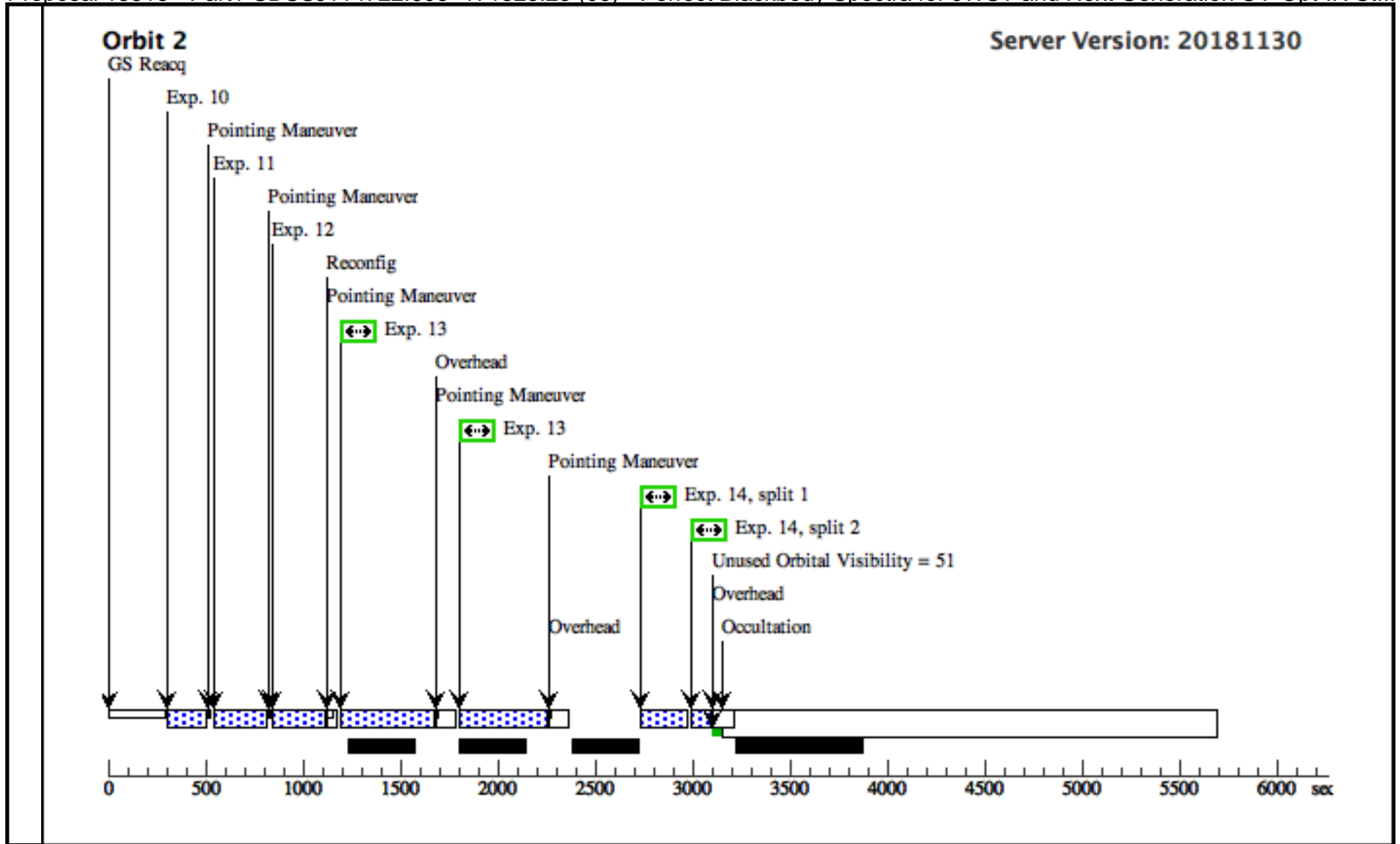
Thu Apr 25 20:00:39 GMT 2019

Visit	Proposal 15518, Part1-SDSSJ114722.608+171325.23 (06), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: BETWEEN 01-JUN-2019:00:00:00 AND 01-JUL-2019:00:00:00					
Patterns	#	Primary Pattern	Secondary Pattern	Exposures		
	(4)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)		
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	SDSSJ114722.608+171325.23	RA: 11 47 22.6080 (176.8442000d) Dec: +17 13 25.23 (17.22368d) Equinox: J2000	Parallax: 0.06"	V=18.849+/-0.025	Reference Frame: ICRS
Comments: Category=STAR Description=[DC]						

Proposal 15518 - Part1-SDSSJ114722.608+171325.23 (06) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F098M	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG 0,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	2	F098M	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F098M	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	3	F125W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	4	F125W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	5	F160W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	6	F160W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	7	G102	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, GRISM512	G102	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	8	G141	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[1]
	9	F140W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,1.3		174.282148 Secs (174.282 Secs) [==>]	[1]
	10	F140W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=12; SAMP-SEQ=STEP2 5	POS TARG -1.3,2.6		174.282148 Secs (174.282 Secs) [==>]	[2]
	11	F110W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[2]
	12	F110W	(6) SDSSJ114722.60 8+171325.23	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,0		243.045901 Secs (243.046 Secs) [==>]	[2]
	13	G280	(6) SDSSJ114722.60 8+171325.23	WFC3/UVIS, ACCUM, UVIS	G280		POS TARG null,-50	Pattern 4, Exps 13-1 3 in Part1-SDSSJ114 722.608+171325.23 (06) (4)	450 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
14	F606W	(6) SDSSJ114722.60 8+171325.23	WFC3/UVIS, ACCUM, G280-REF	F606W	FLASH=8; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [==>(Split 1)] [==>(Split 2)]	[2]	





Proposal 15518 - Part1-SDSSJ083736.557+542758.65 (13) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

Visit	Proposal 15518, Part1-SDSSJ083736.557+542758.65 (13), completed Thu Apr 25 20:00:39 GMT 2019 Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: BETWEEN 01-APR-2019:00:00:00 AND 30-APR-2019:00:00:00					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(4)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(13)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(7)	SDSSJ083736.557+542758.65	RA: 08 37 36.5570 (129.4023208d) Dec: +54 27 58.65 (54.46629d) Equinox: J2000		V=18.734+/-0.027	Reference Frame: ICRS
	Comments: Category=STAR Description=[DC]					

Proposal 15518 - Part1-SDSSJ083736.557+542758.65 (13) - Perfect Blackbody Spectra for JWST and Next Generation UV-Opt-IR St...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F098M	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG 0,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	2	F098M	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F098M	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	3	F125W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	4	F125W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F125W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	5	F160W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	6	F160W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F160W	SAMP-SEQ=STEP2 5; NSAMP=15	POS TARG 0,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	7	F110W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,-1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	8	F110W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,0		243.045901 Secs (243.046 Secs) [==>]	[1]
	9	F140W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,1.3		243.045901 Secs (243.046 Secs) [==>]	[1]
	10	F140W	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, IRSUB512	F110W	NSAMP=15; SAMP-SEQ=STEP2 5	POS TARG -1.3,2.6		243.045901 Secs (243.046 Secs) [==>]	[2]
	11	G102	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, GRISM512	G102	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[2]
	12	G141	(7) SDSSJ083736.55 7+542758.65	WFC3/IR, MULTIACCUM, GRISM512	G141	NSAMP=15; SAMP-SEQ=SPAR S25			321.750541 Secs (321.751 Secs) [==>]	[2]
	13	G280	(7) SDSSJ083736.55 7+542758.65	WFC3/UVIS, ACCUM, UVIS	G280		POS TARG null,-50	Pattern 4, Exps 13-1 3 in Part1-SDSSJ083 736.557+542758.65 (13) (4)	450 Secs (900 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[2]
14	F606W	(7) SDSSJ083736.55 7+542758.65	WFC3/UVIS, ACCUM, G280-REF	F606W	FLASH=8; CR-SPLIT=2	POS TARG null,-50		200 Secs (200 Secs) [==>(Split 1)] [==>(Split 2)]	[2]	

