



## 15246 - Cloudy Solutions to the Anomalous Emission of HD 80606b

Cycle: 25, Proposal Category: GO

(Availability Mode: AVAILABLE)

### 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>
03	(1) HD-80606 BIAS	WFC3/UVIS	15	03-Jan-2020 11:01:37.0	yes
53	(1) HD-80606 BIAS	WFC3/UVIS	15	03-Jan-2020 11:03:06.0	yes

30 Total Orbits Used

### ABSTRACT

Two decades after the discovery of 51 Peg b, the formation processes of short-period gas giants remain poorly understood. Hot Jupiters are predicted to have migrated inwards by means of several possible mechanisms, including the tidal dissipation of their orbital energy. The study of highly eccentric planets allows the quantification of the tidal dissipation efficiency of hot Jupiters, shedding light into the relevant timescales to understand the formation of close-in planets.

The atmospheres of hot Jupiters also keep a part of mystery. Clouds seem ubiquitous, challenging our ability to retrieve molecular abundances from the observations. Phase curve observations allow us to map the cloud distribution on a planet, decipher their chemical composition and inform us about the conditions in the deep, usually unobservable layers of the planet.

HD80606b is a hot Jupiter in a remarkable orbit. With an eccentricity of more than 0.9, it's atmosphere heats up by a thousand degrees in a few days during periastron passage. The planet is an extremely useful laboratory to understand both tidal dissipation and the response of the atmosphere to a time-dependent forcing. From current thermal phase curve observations we think that the planet is either poorly efficient at dissipating it's energy, or is covered by a thick cloud layer.

Here we propose to break the degeneracies between the two scenarii by detecting the light reflected by the clouds during the periastron passage of the planet with WFC3/UVIS. This small HST program will also provide critical insights into the cloud formation and vertical mixing timescales that will be relevant for the study of hot Jupiters in general.

## **OBSERVING DESCRIPTION**

This visit acquires time-series observations of HD 80606 for 15 consecutive orbits. Interruptions for SAA crossing will need to be scheduled at a later date.

Each orbit uses WFC3/UVIS in scanning mode to spread the light across the detector. We scan at a rate of 1.412 arcsec/sec in both forward and reverse directions along AXIS1 (~X\_POSTARG). The total length of the scan is 1695 pixels.

To improve observation efficiency and avoid mid-orbit buffer dumps, we make use of a custom subarray (2500 x 350 pixels) centered at coordinates (1253, 176) relative to the origin, which is located in AMP C's corner (See Figure 6.1 of the WFC3 IHB). This subarray size also contains HD 80606's nearby companion when observing with an orient of 303 degrees (November 2018 visit).

We select POSTARG values of  $(-75.92, -34.96)$  to start the scan near pixel  $(150, 150)$ , relative to the origin. The scan will end near pixel  $(1845, 150)$ .

Because we are using a custom subarray, we must acquire bias frames at the end of the observation. The bias frames have the same dimension as the science frames.

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Fri Jan 03 16:03:17 GMT 2020

<b>Visit</b>	<p><b>Proposal 15246, Visit 03, failed</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: WFC3/UVIS</p> <p>Special Requirements: SCHED 80%; Period 111.4367 D AND ZERO-PHASE HJD2454876.316</p> <p><i>Comments: This visit acquires time-series observations of HD 80606 for 15 consecutive orbits. Interruptions for SAA crossing will need to be scheduled at a later date.</i></p> <p><i>Each orbit uses WFC3/UVIS in scanning mode to spread the light across the detector. We scan at a rate of 1.412 arcsec/sec in both forward and reverse directions along AXIS1 (~X_POSTARG). The total length of the scan is 1695 pixels.</i></p> <p><i>To improve observation efficiency and avoid mid-orbit buffer dumps, we make use of a custom subarray (2100 x 400 pixels) centered at coordinates (1053, 201) relative to the origin, which is located in AMP C's corner (See Figure 6.1 of the WFC3 IHB).</i></p> <p><i>We select POSTARG values of (-73.92, -32.96) to start the scan near pixel (200,200), relative to the origin. The scan will end near pixel (1895,200).</i></p> <p><i>Because we are using a custom subarray, we must acquire bias frames at the end of the observation. The bias frames have the same dimension as the science frames.</i></p>																	
	<p><b>Diagnosics</b></p> <p>(Visit 03) Warning (Orbit Planner): EXPOSURE WITH SAA CONTOUR 11 WILL EXECUTE ON GYRO</p> <p>(Visit 03) Warning (Orbit Planner): EXPOSURE WITH SAA CONTOUR 11 WILL EXECUTE ON GYRO</p> <p>(Visit 03) Warning (Orbit Planner): EXPOSURE WITH SAA CONTOUR 11 WILL EXECUTE ON GYRO</p> <p>(Visit 03) Warning (Orbit Planner): LONG SU LIKELY TO INTERSECT THE SAA</p>																	
<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>HD-80606</td> <td>RA: 09 22 37.5680 (140.6565333d) Dec: +50 36 13.48 (50.60374d) Equinox: J2000</td> <td>Proper Motion RA: 58.8 mas/yr Proper Motion Dec: 13.2 mas/yr Epoch of Position: 2000</td> <td>V=9.0 K=7.316</td> <td>Reference Frame: SIMBAD</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[EXTRA-SOLAR PLANETARY SYSTEM, G V-IV]</i></p> <p><i>Extended=NO</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	HD-80606	RA: 09 22 37.5680 (140.6565333d) Dec: +50 36 13.48 (50.60374d) Equinox: J2000	Proper Motion RA: 58.8 mas/yr Proper Motion Dec: 13.2 mas/yr Epoch of Position: 2000	V=9.0 K=7.316	Reference Frame: SIMBAD
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous												
(1)	HD-80606	RA: 09 22 37.5680 (140.6565333d) Dec: +50 36 13.48 (50.60374d) Equinox: J2000	Proper Motion RA: 58.8 mas/yr Proper Motion Dec: 13.2 mas/yr Epoch of Position: 2000	V=9.0 K=7.316	Reference Frame: SIMBAD													

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#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; PHASE 0.94241 TO 0.94301	Sequence 1-2 Non-In t in Visit 03	0.5 Secs (0.5 Secs) [==>]	[1]
2		(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 1-2 Non-In t in Visit 03	48 Secs X 8 (768 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[1]

Exposures

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3	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 3-3 Non-In t in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[2]
4	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 4-4 Non-In t in Visit 03	48 Secs X 9 (864 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)]	[3]

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5	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 5-5 Non-Int in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[4]
6	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 6-6 Non-Int in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[5]

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7	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 7-7 Non-In- t in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[6]
8	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 8-8 Non-In- t in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[7]

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9	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET	Sequence 9-9 Non-Int in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[8]
10	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 10-10 Non-Int in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[9]

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11	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 11-11 Non -Int in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[10]
12	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 12-12 Non -Int in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[11]

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13	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 13-13 Non -Int in Visit 03	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[12]
14	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 14-14 Non -Int in Visit 03	48 Secs X 9 (864 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)]	[13]

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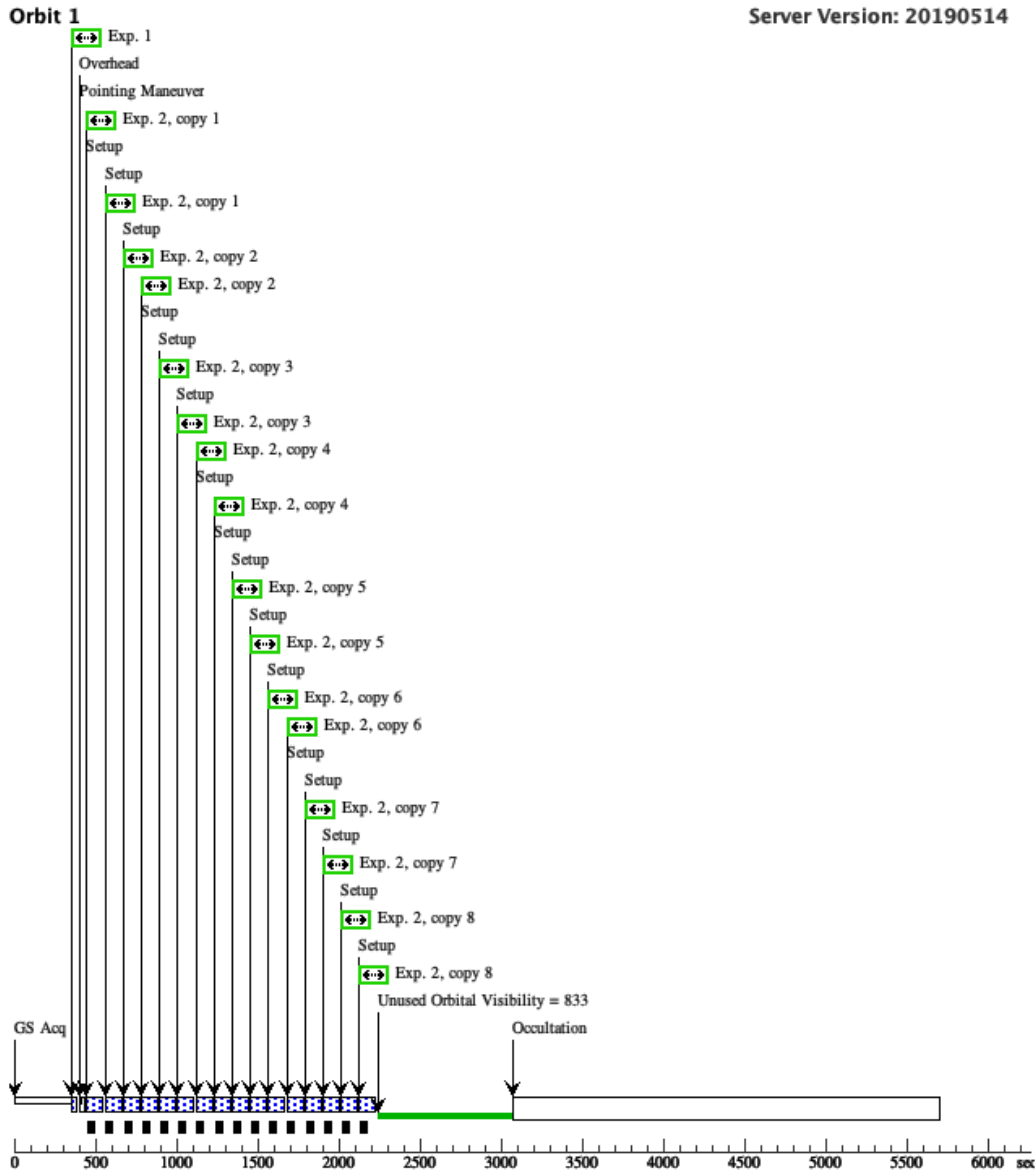
15	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; SAA CONTOUR 11; EXP PCS MODE G YRO	Sequence 15-16 Non -Int in Visit 03	48 Secs X 4 (384 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)]	[14]
16	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 15-16 Non -Int in Visit 03	48 Secs X 5 (480 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)]	[14]
17	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; SAA CONTOUR 11; EXP PCS MODE G YRO	Sequence 17-19 Non -Int in Visit 03	48 Secs X 5 (480 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)]	[15]
18	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 17-19 Non -Int in Visit 03	48 Secs X 4 (384 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)]	[15]

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19	BIAS	WFC3/UVIS, ACCUM, UVIS2	DEF	SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS1=12 53; CENTERAXIS2=17 6; BIN=NONE; CR-SPLIT=NO	SAA CONTOUR 11; Sequence 17-19 Non -Int in Visit 03 EXP PCS MODE G YRO	0 Secs X 5 (0 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)]	[15]
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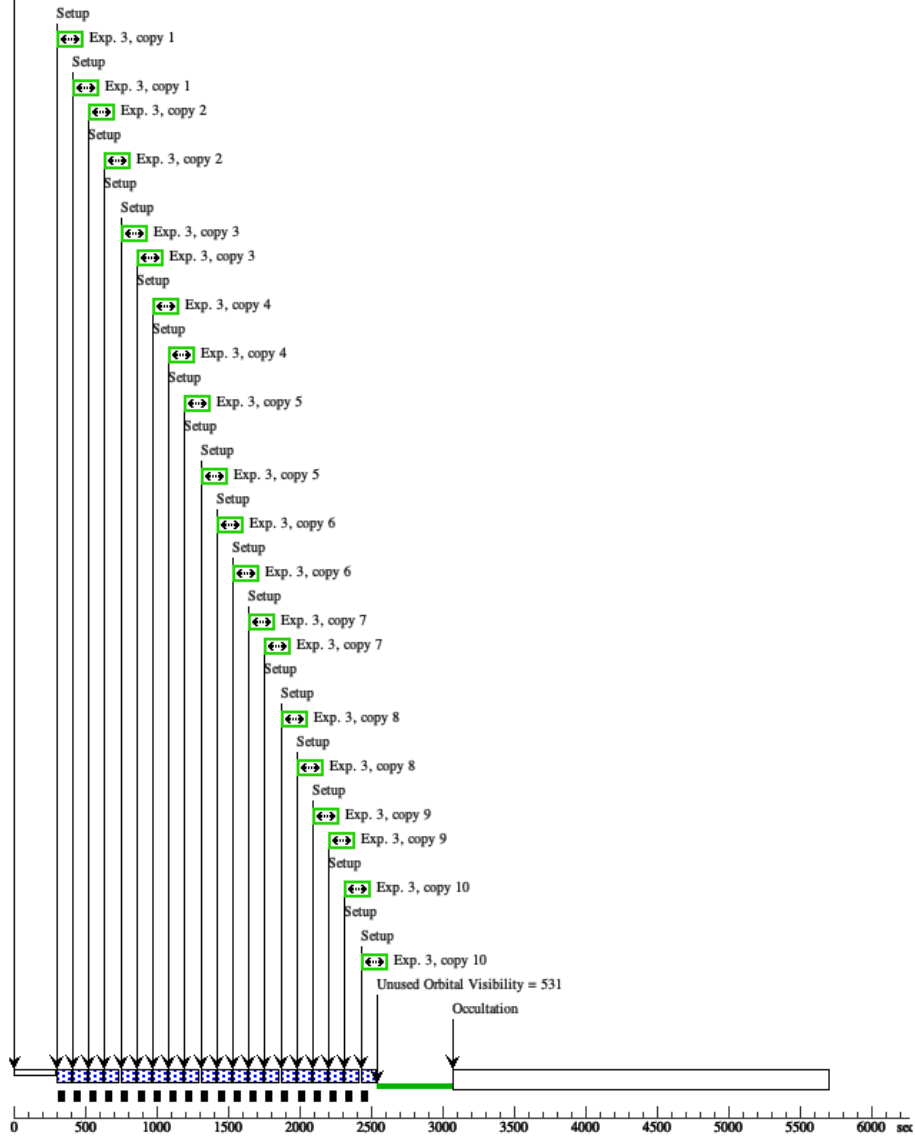
Server Version: 20190514

Orbit Structure



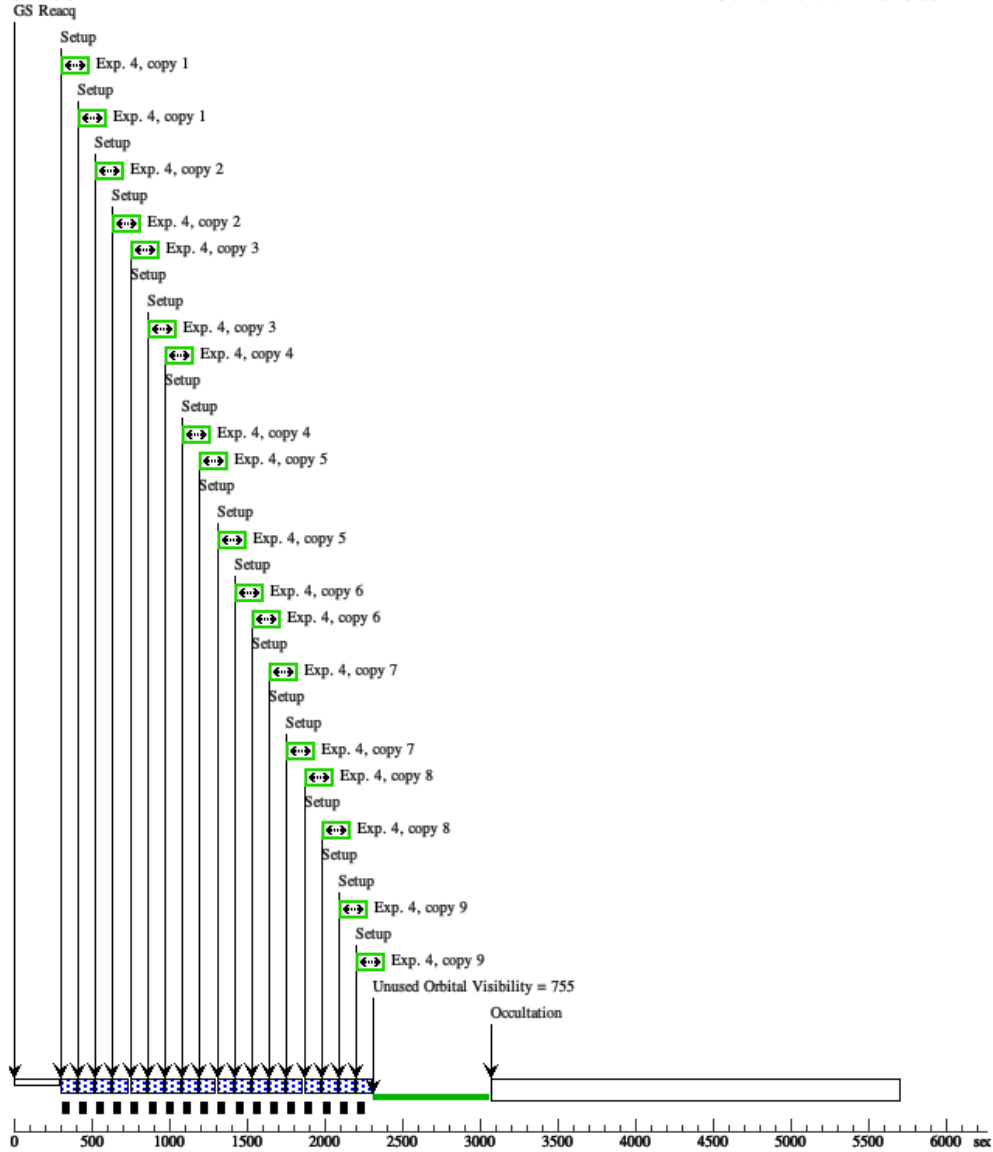
Orbit 2  
GIS Reacq

Server Version: 20190514



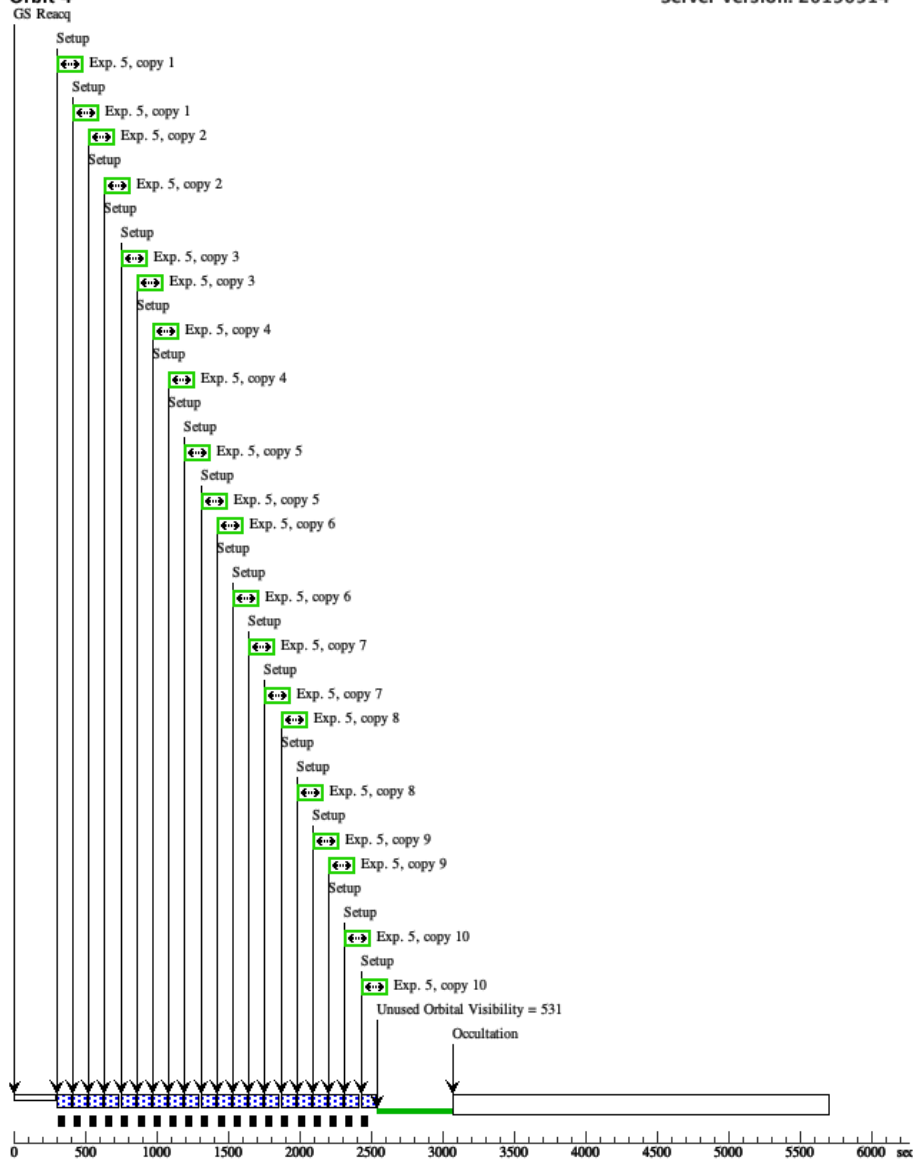
Orbit 3

Server Version: 20190514



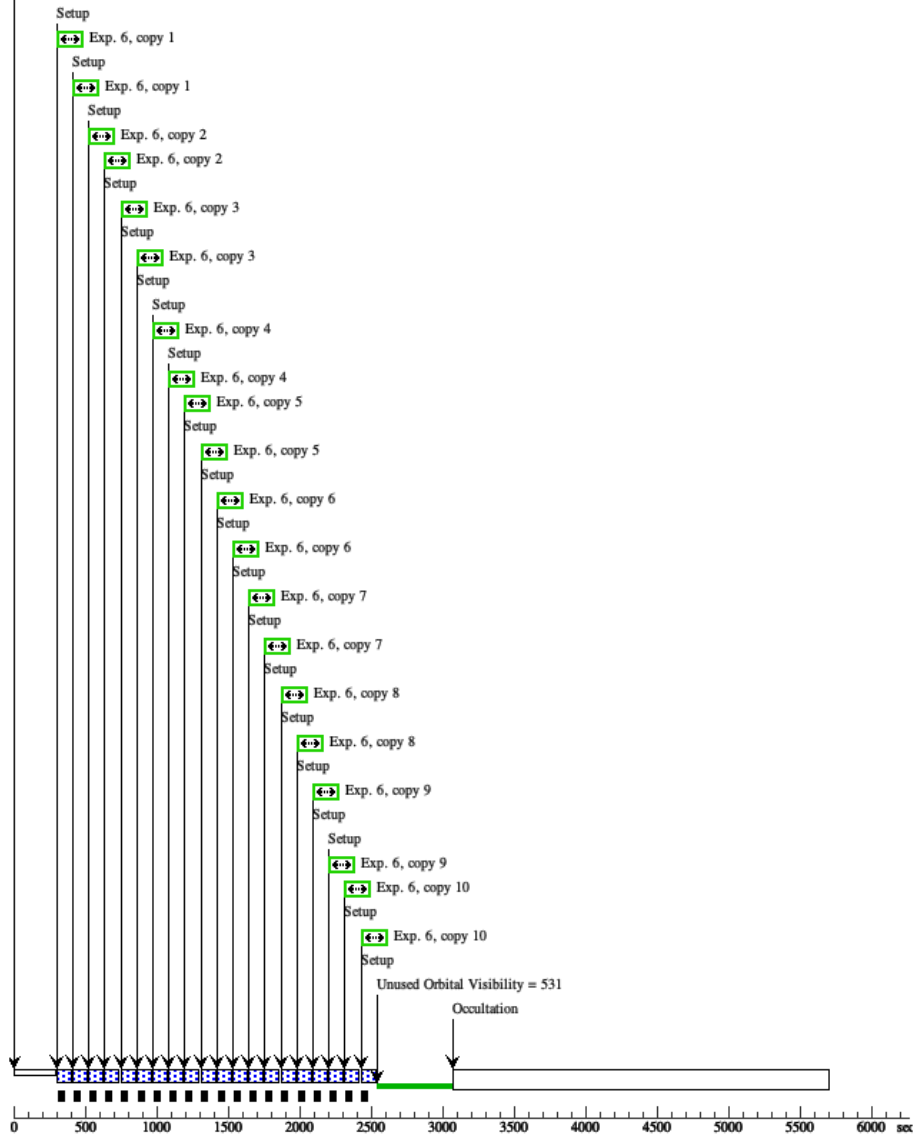
Orbit 4

Server Version: 20190514



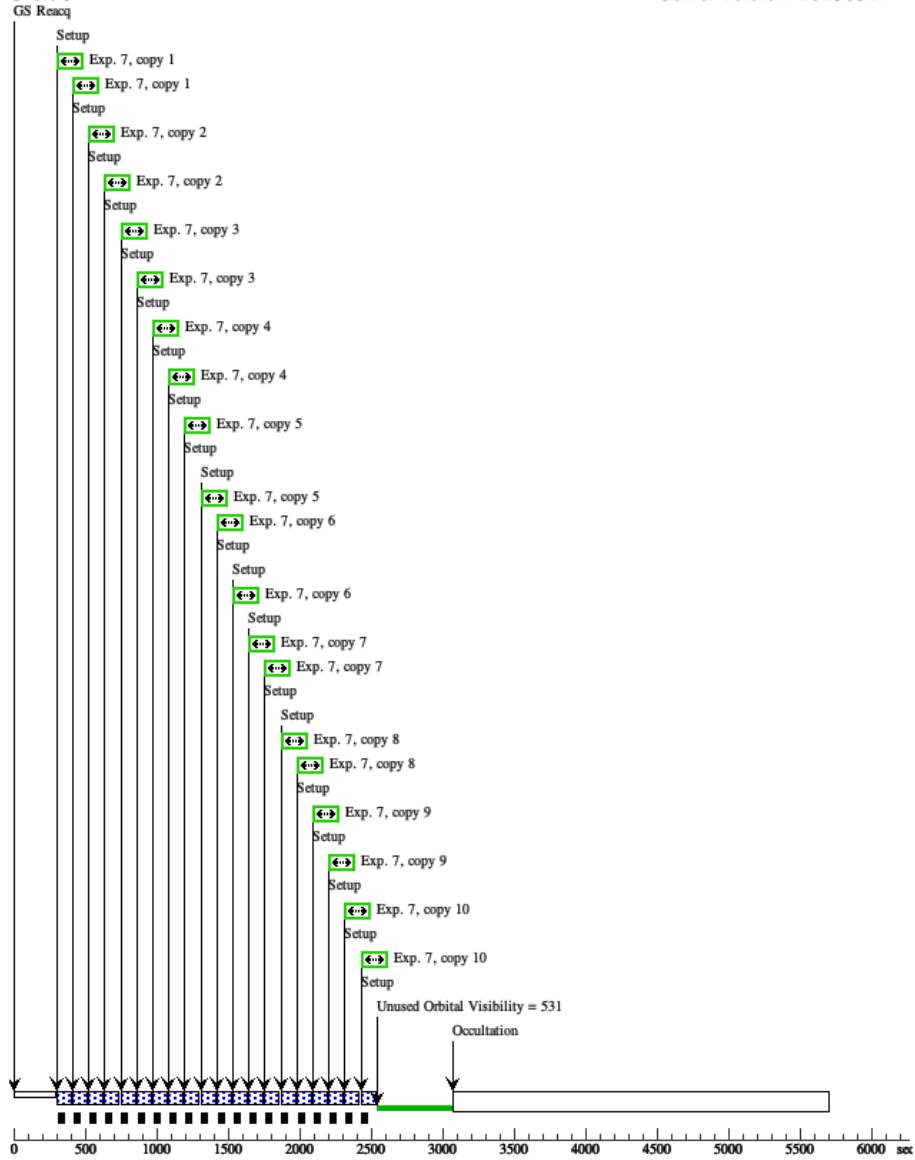
Orbit 5  
GIS Reacq

Server Version: 20190514



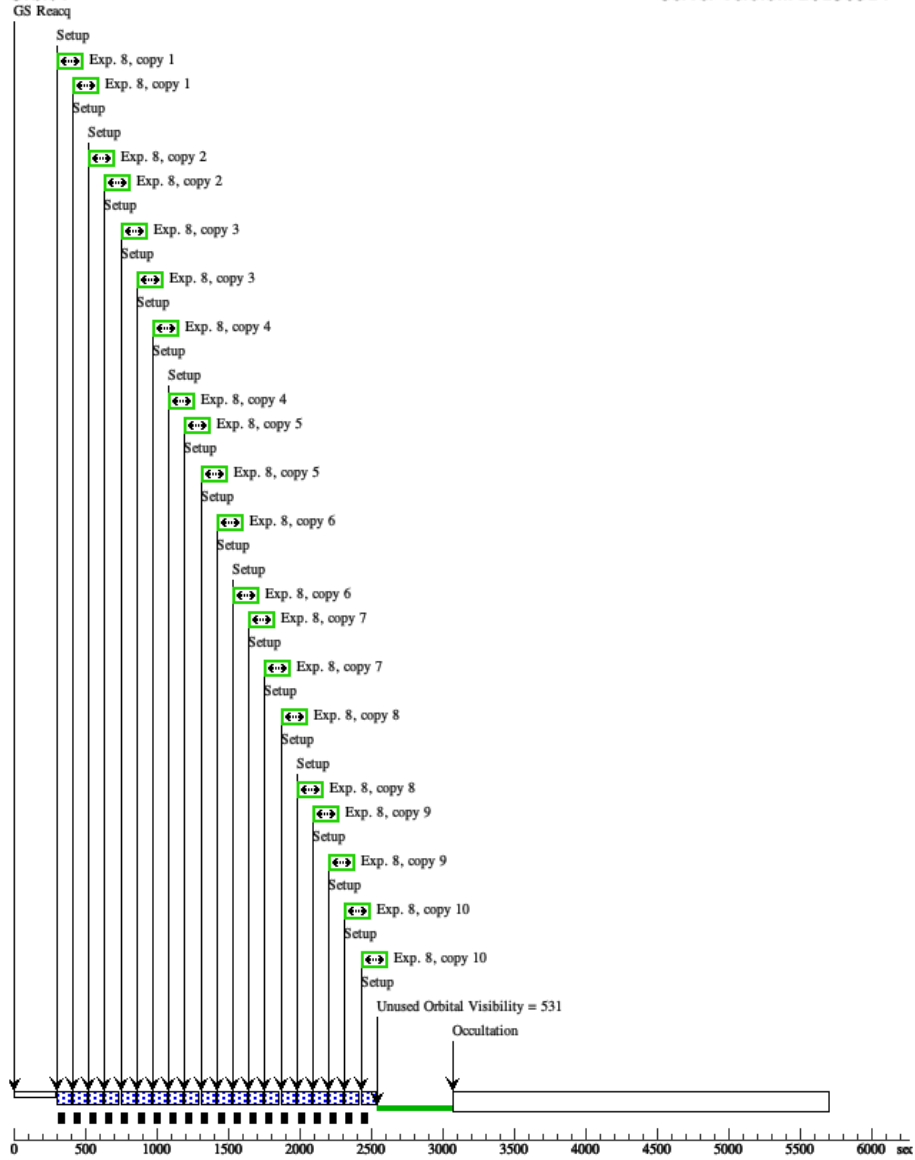
Orbit 6

Server Version: 20190514



Orbit 7

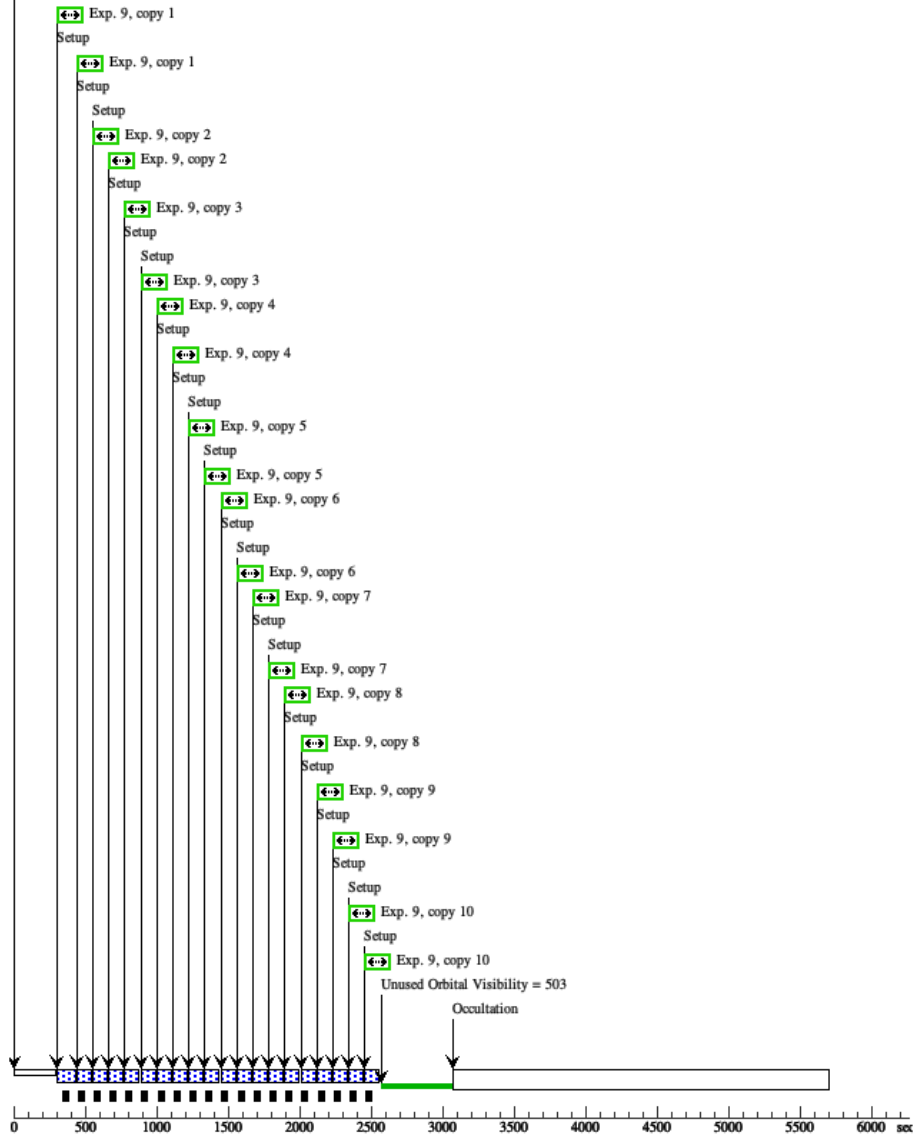
Server Version: 20190514



Orbit 8

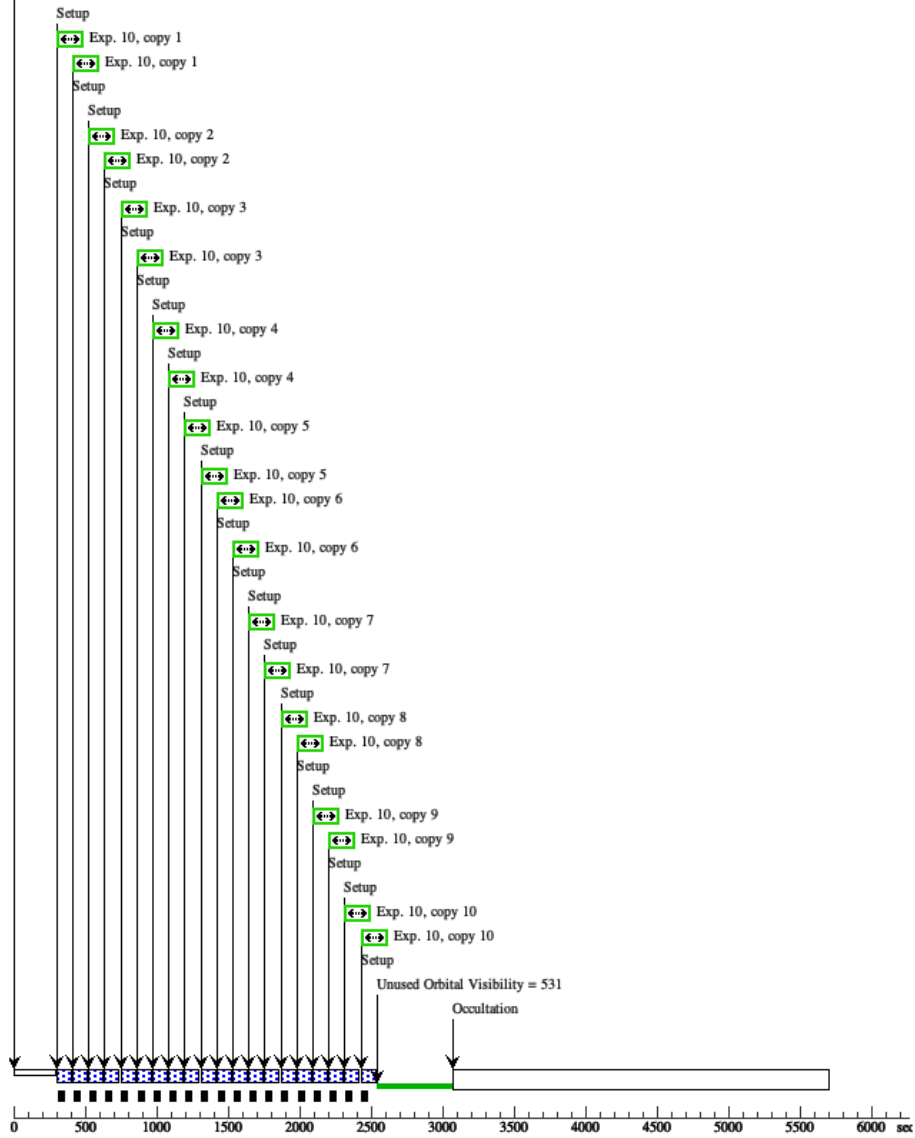
Server Version: 20190514

GS Reacq



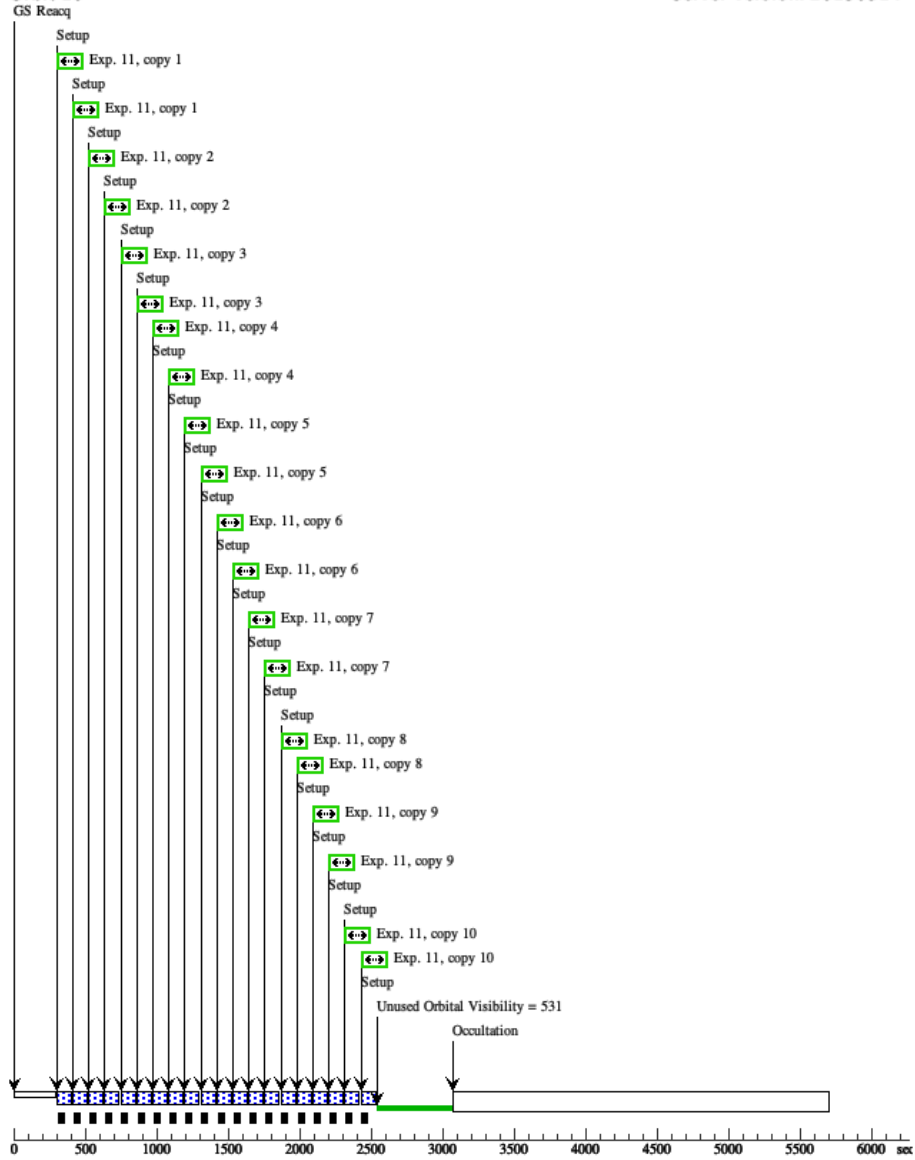
Orbit 9  
GS Reacq

Server Version: 20190514



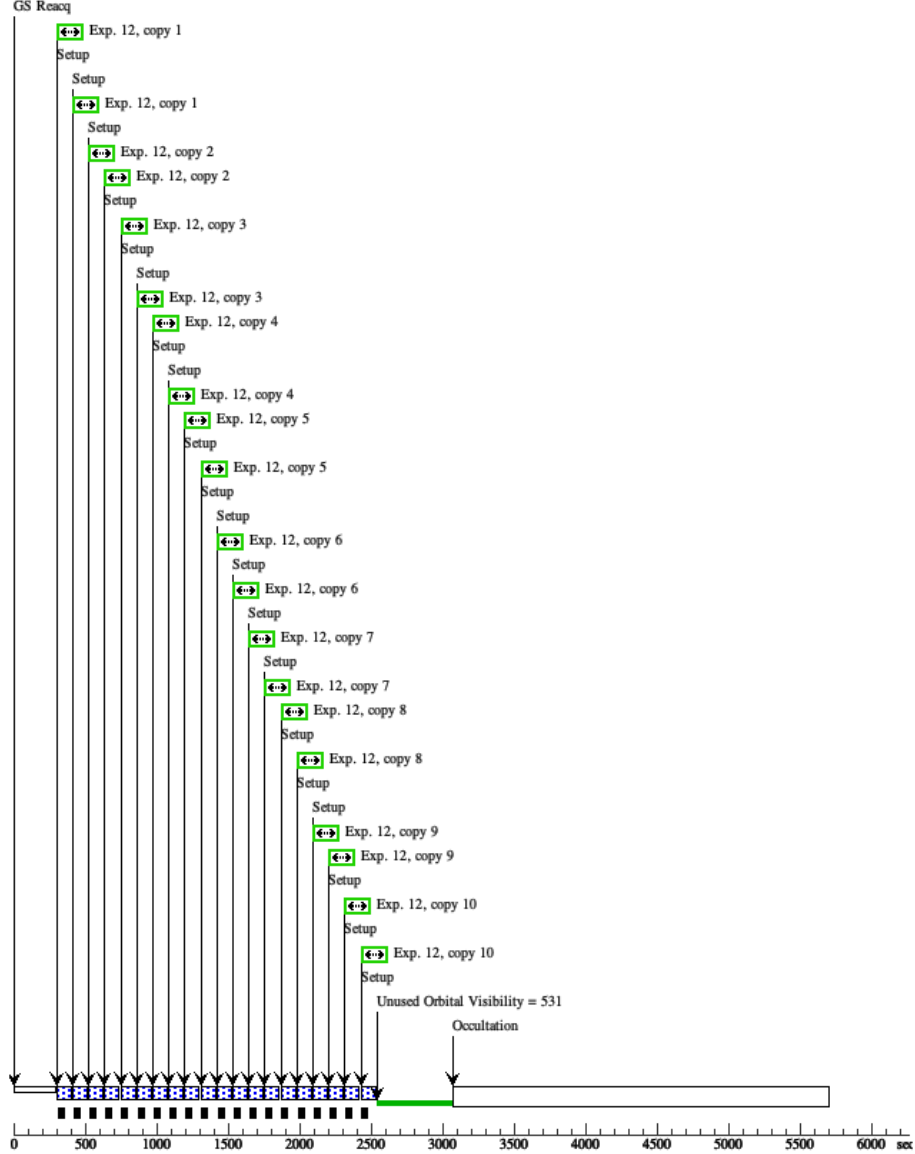
**Orbit 10**

Server Version: 20190514



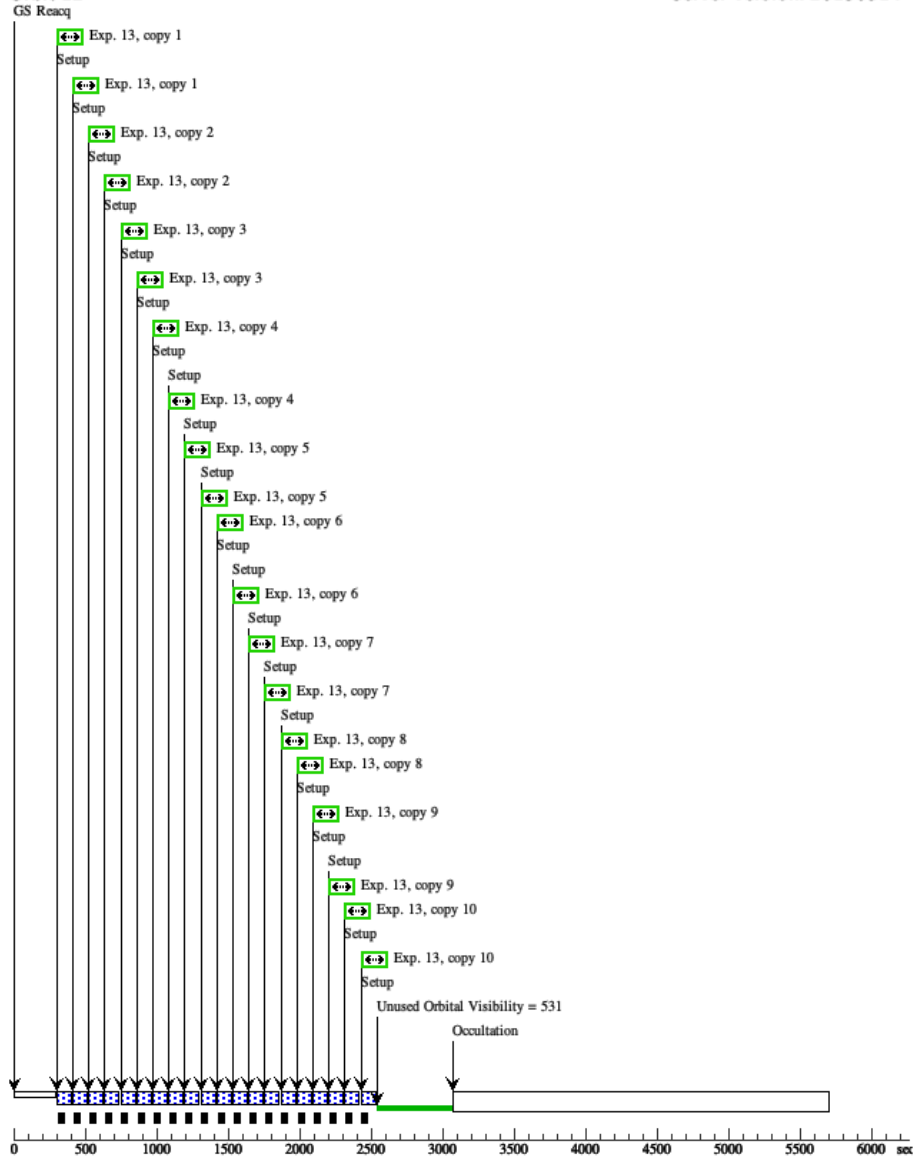
Orbit 11

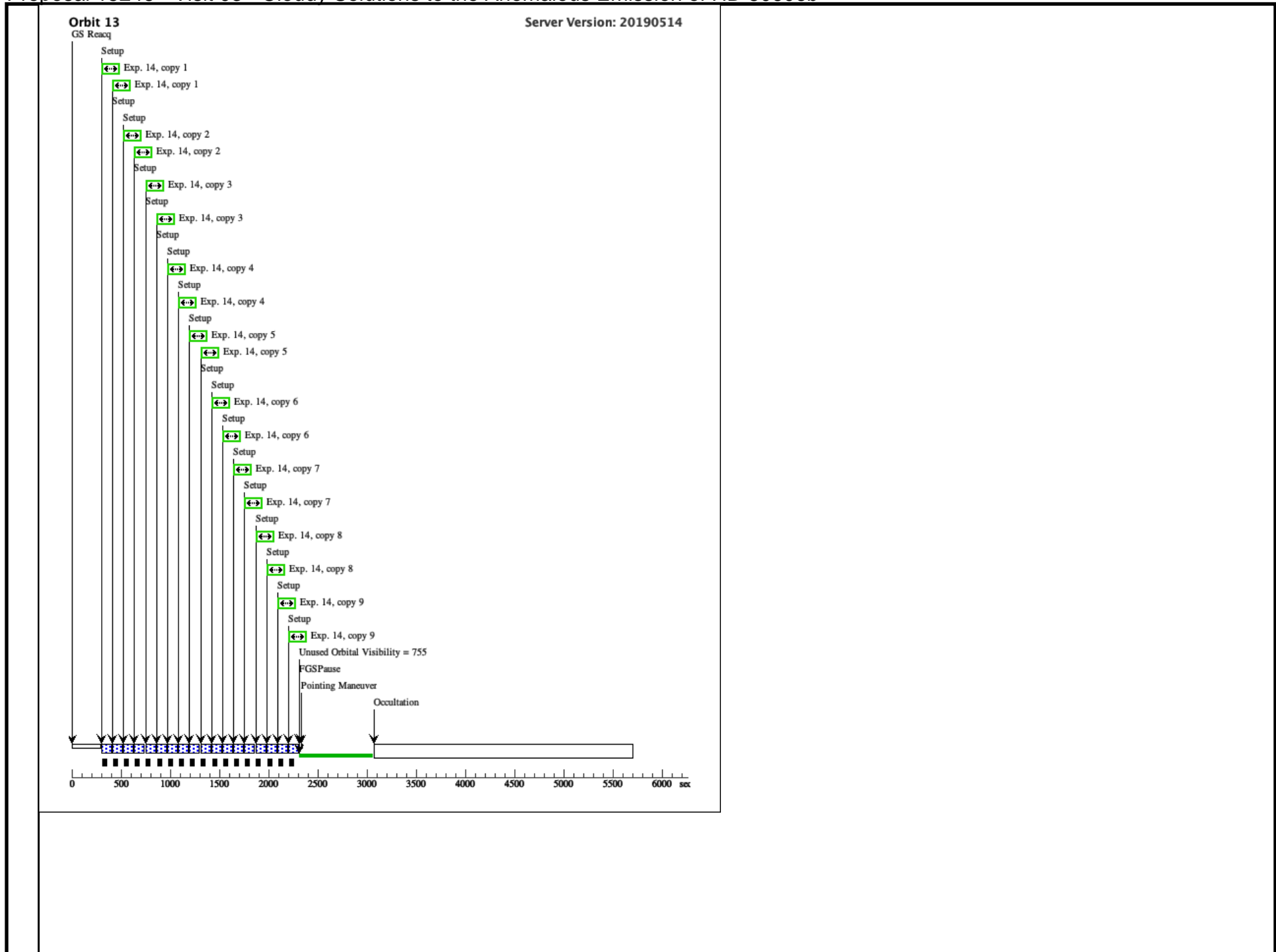
Server Version: 20190514



Orbit 12

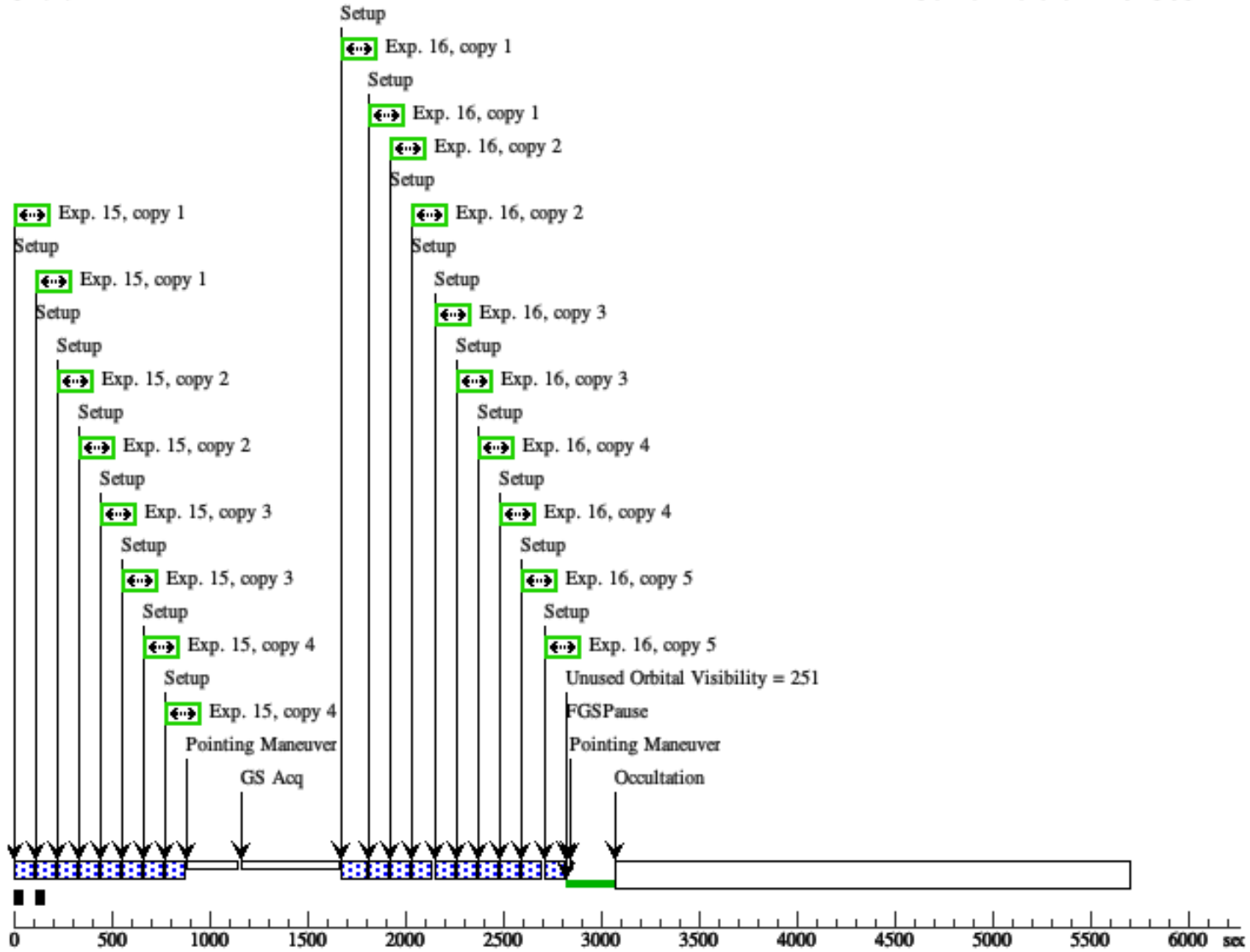
Server Version: 20190514

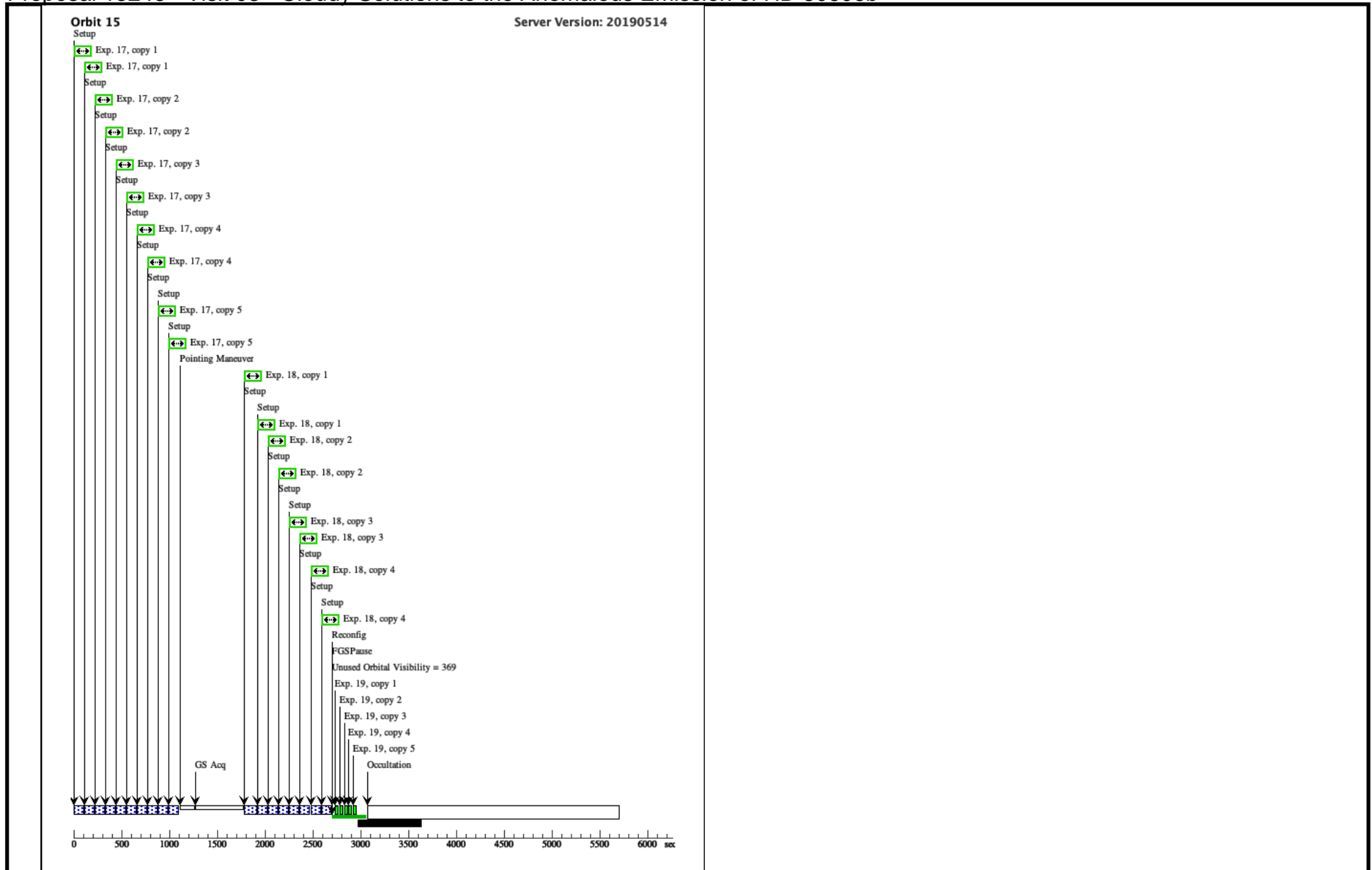




Orbit 14

Server Version: 20190514





Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

Fri Jan 03 16:03:19 GMT 2020

<b>Visit</b>	<p><b>Proposal 15246, Visit 53, implementation</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: WFC3/UVIS</p> <p>Special Requirements: SCHED 80%; Period 111.4367 D AND ZERO-PHASE HJD2454876.316</p> <p><i>Comments: This visit acquires time-series observations of HD 80606 for 15 consecutive orbits. Interruptions for SAA crossing will need to be scheduled at a later date.</i></p> <p><i>Each orbit uses WFC3/UVIS in scanning mode to spread the light across the detector. We scan at a rate of 1.412 arcsec/sec in both forward and reverse directions along AXIS1 (~X_POSTARG). The total length of the scan is 1695 pixels.</i></p> <p><i>To improve observation efficiency and avoid mid-orbit buffer dumps, we make use of a custom subarray (2100 x 400 pixels) centered at coordinates (1053, 201) relative to the origin, which is located in AMP C's corner (See Figure 6.1 of the WFC3 IHB).</i></p> <p><i>We select POSTARG values of (-73.92, -32.96) to start the scan near pixel (200,200), relative to the origin. The scan will end near pixel (1895,200).</i></p> <p><i>Because we are using a custom subarray, we must acquire bias frames at the end of the observation. The bias frames have the same dimension as the science frames.</i></p>																	
	<p>(Visit 53) Warning (Orbit Planner): EXPOSURE WITH SAA CONTOUR 11 WILL EXECUTE ON GYRO</p> <p>(Visit 53) Warning (Orbit Planner): LONG SU LIKELY TO INTERSECT THE SAA</p>																	
<b>Diagnosics</b>																		
<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>HD-80606</td> <td>RA: 09 22 37.5680 (140.6565333d) Dec: +50 36 13.48 (50.60374d) Equinox: J2000</td> <td>Proper Motion RA: 58.8 mas/yr Proper Motion Dec: 13.2 mas/yr Epoch of Position: 2000</td> <td>V=9.0 K=7.316</td> <td>Reference Frame: SIMBAD</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	HD-80606	RA: 09 22 37.5680 (140.6565333d) Dec: +50 36 13.48 (50.60374d) Equinox: J2000	Proper Motion RA: 58.8 mas/yr Proper Motion Dec: 13.2 mas/yr Epoch of Position: 2000	V=9.0 K=7.316	Reference Frame: SIMBAD	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[EXTRA-SOLAR PLANETARY SYSTEM, G V-IV]</i></p> <p><i>Extended=NO</i></p>				
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous												
(1)	HD-80606	RA: 09 22 37.5680 (140.6565333d) Dec: +50 36 13.48 (50.60374d) Equinox: J2000	Proper Motion RA: 58.8 mas/yr Proper Motion Dec: 13.2 mas/yr Epoch of Position: 2000	V=9.0 K=7.316	Reference Frame: SIMBAD													

Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=176; CENTERAXIS1=1253	POS TARG -75.92,-34.96; PHASE 0.94241 TO 0.94301	Sequence 1-2 Non-Int in Visit 53	0.5 Secs (0.5 Secs) [==>]	[1]
	2	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=176; CENTERAXIS1=1253	POS TARG -75.92,-34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees, Round trip	Sequence 1-2 Non-Int in Visit 53	48 Secs X 6 (576 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)]	[1]
	3	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=176; CENTERAXIS1=1253	POS TARG -75.92,-34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees, Round trip; NEW OBSET FULL ACQ	Sequence 3-3 Non-Int in Visit 53	48 Secs X 8 (768 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[2]

Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

4	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 4-4 Non-In t in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[3]
5	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 5-5 Non-In t in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[4]

Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

6	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 6-6 Non-Int in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[5]
7	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 7-7 Non-Int in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[6]

Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

8	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 8-8 Non-In t in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[7]
9	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 9-9 Non-In t in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[8]

Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

10	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 10-10 Non -Int in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[9]
11	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 11-11 Non -Int in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[10]

Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

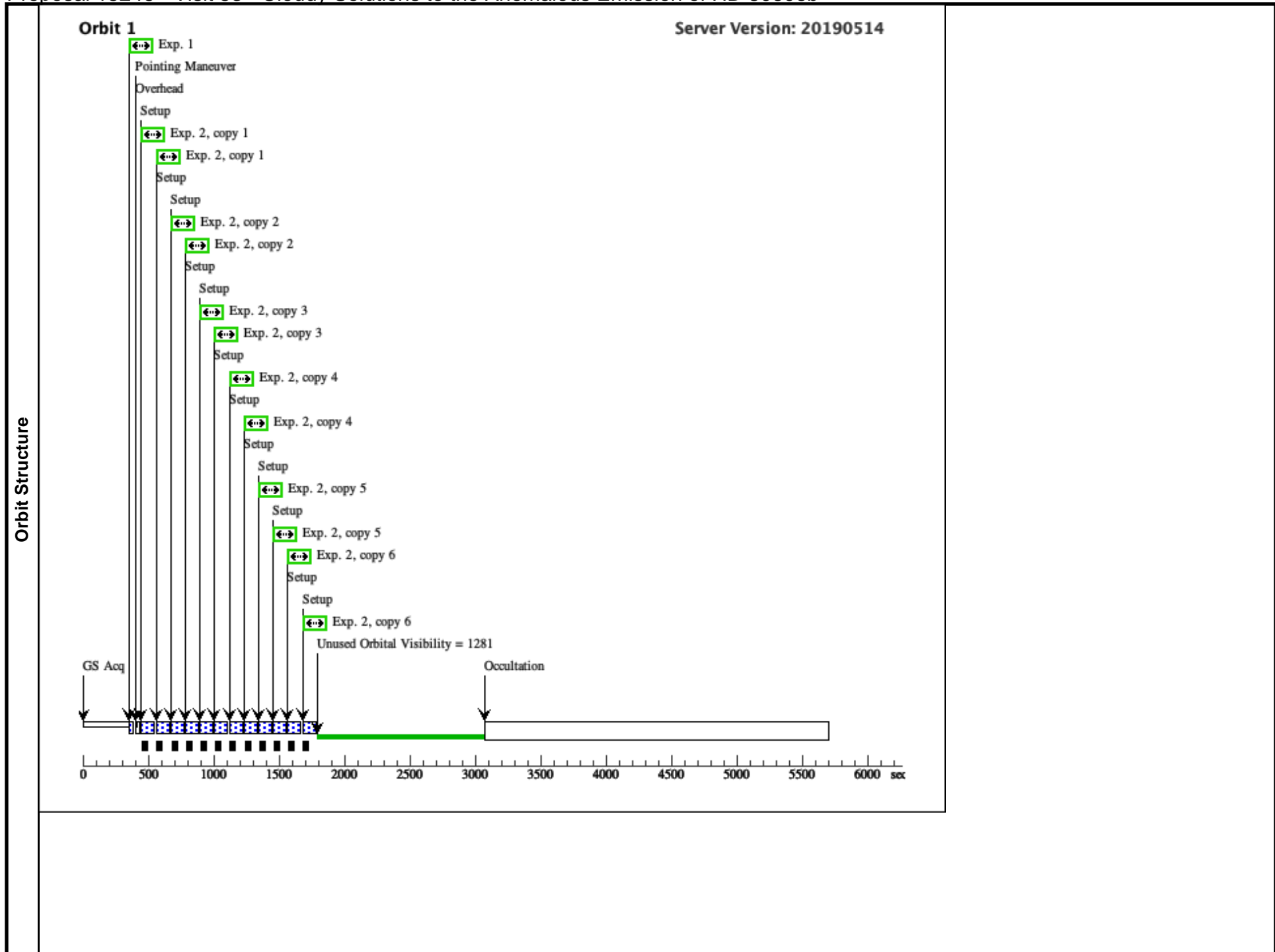
12	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip; NEW OBSET FULL ACQ	Sequence 12-12 Non -Int in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[11]
13	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=17 6; CENTERAXIS1=12 53	POS TARG -75.92,- 34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees,R ound trip	Sequence 13-13 Non -Int in Visit 53	48 Secs X 10 (960 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)] [==>(Copy 10, Forward)] [==>(Copy 10, Reverse)]	[12]

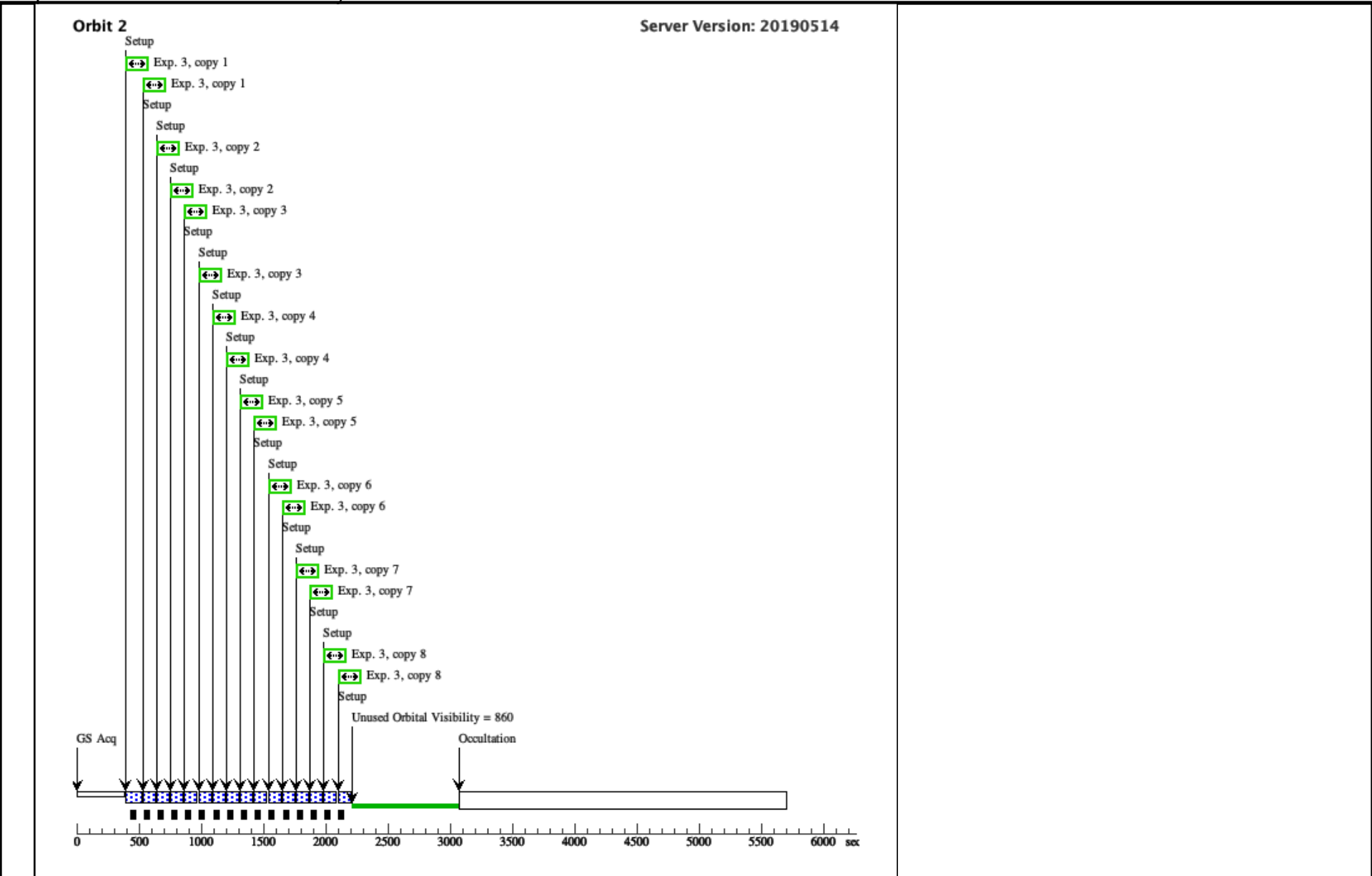
Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

14	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=176; CENTERAXIS1=1253	POS TARG -75.92,-34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees, Round trip	Sequence 14-14 Non-Int in Visit 53	48 Secs X 9 (864 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)] [==>(Copy 9, Forward)] [==>(Copy 9, Reverse)]	[13]
15	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=176; CENTERAXIS1=1253	POS TARG -75.92,-34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees, Round trip	Sequence 15-15 Non-Int in Visit 53	48 Secs X 8 (768 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)] [==>(Copy 8, Forward)] [==>(Copy 8, Reverse)]	[14]

Proposal 15246 - Visit 53 - Cloudy Solutions to the Anomalous Emission of HD 80606b

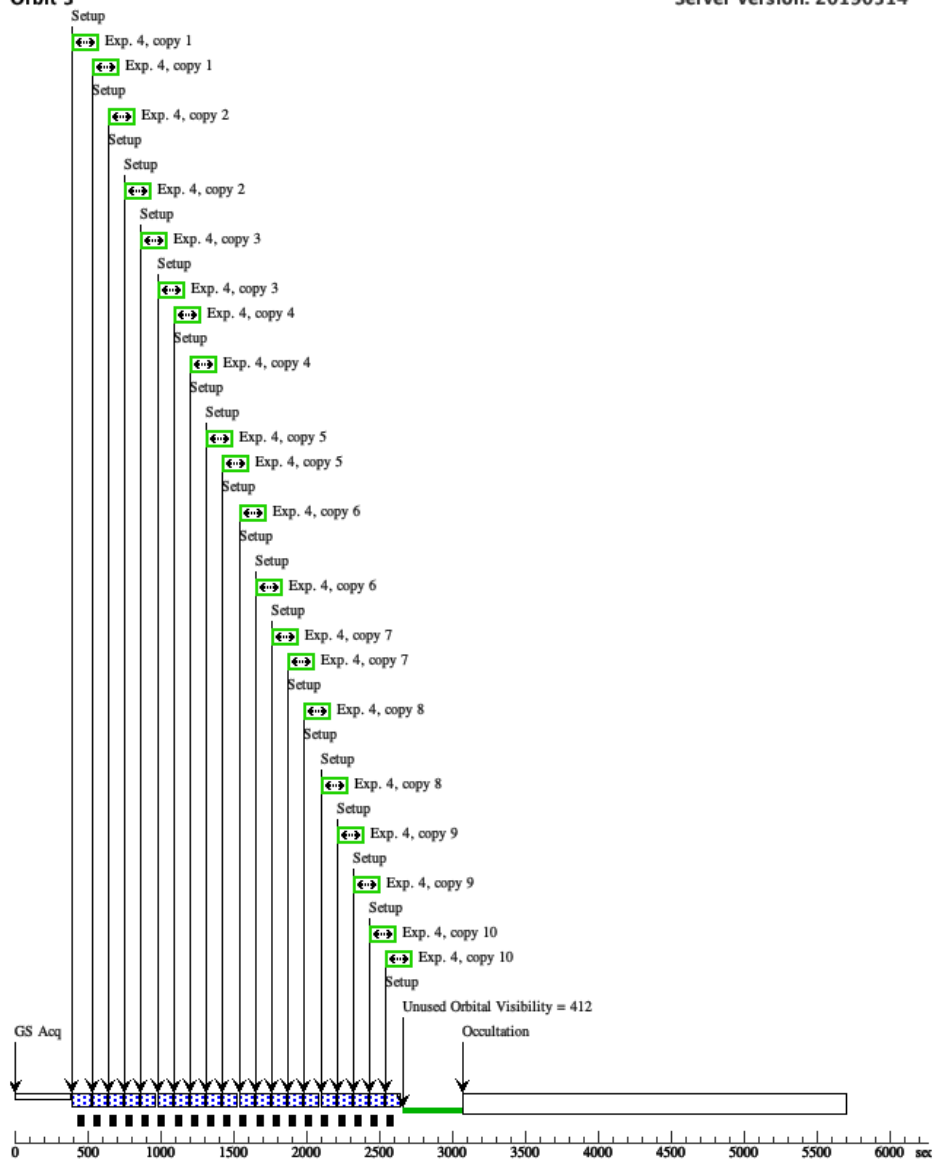
16	(1) HD-80606	WFC3/UVIS, ACCUM, UVIS2	F555W	BIN=NONE; CR-SPLIT=NO; FLASH=12; SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS2=176; CENTERAXIS1=1253	POS TARG -75.92,-34.96; SPATIAL SCAN 1.4 12,3.7702 Degrees, Round trip	Sequence 16-17 Non-Int in Visit 53	48 Secs X 7 (672 Secs) [==>(Copy 1, Forward)] [==>(Copy 1, Reverse)] [==>(Copy 2, Forward)] [==>(Copy 2, Reverse)] [==>(Copy 3, Forward)] [==>(Copy 3, Reverse)] [==>(Copy 4, Forward)] [==>(Copy 4, Reverse)] [==>(Copy 5, Forward)] [==>(Copy 5, Reverse)] [==>(Copy 6, Forward)] [==>(Copy 6, Reverse)] [==>(Copy 7, Forward)] [==>(Copy 7, Reverse)]	[15]
17	BIAS	WFC3/UVIS, ACCUM, UVIS2	DEF	SIZEAXIS1=2500; SIZEAXIS2=350; CENTERAXIS1=1253; CENTERAXIS2=176; BIN=NONE; CR-SPLIT=NO	SAA CONTOUR 11; EXP PCS MODE G YRO	Sequence 16-17 Non-Int in Visit 53	0 Secs X 5 (0 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)]	[15]





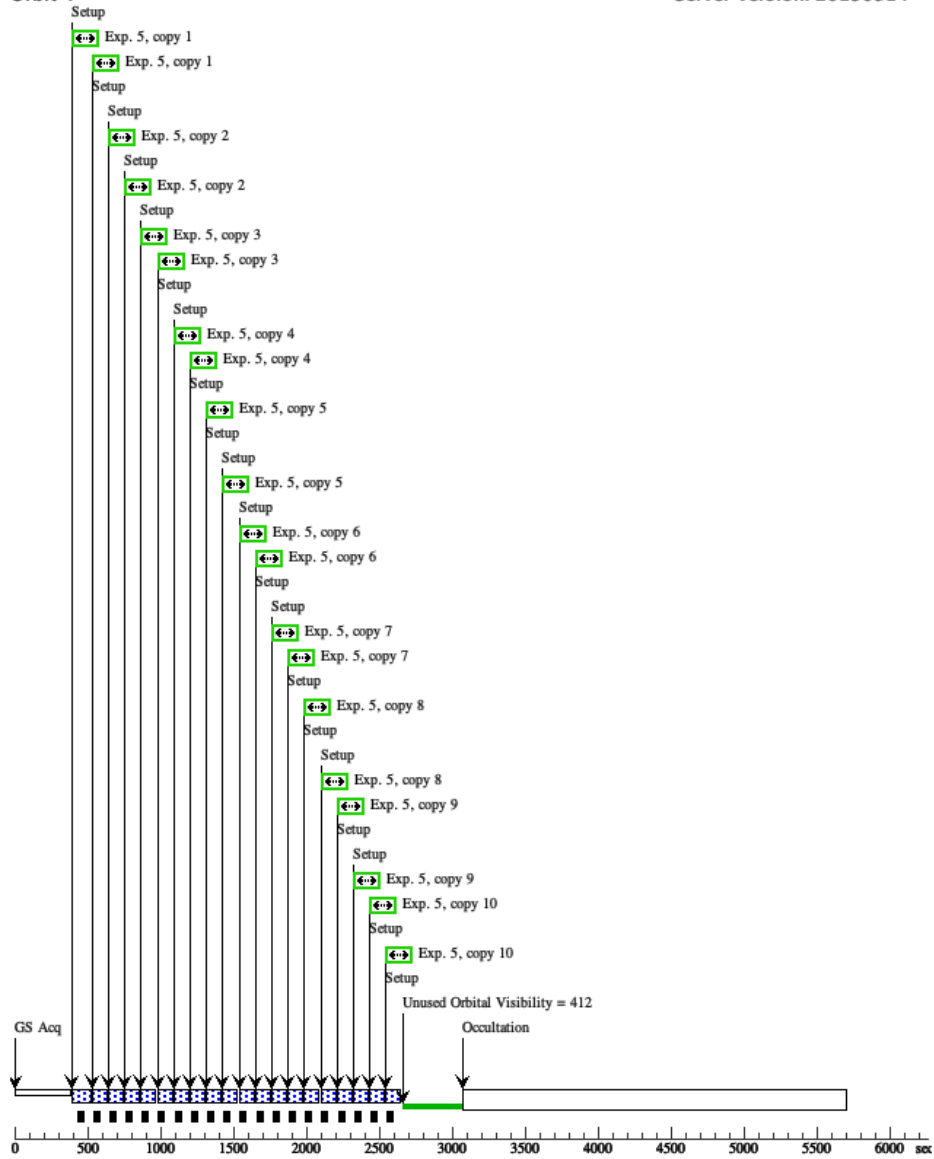
Orbit 3

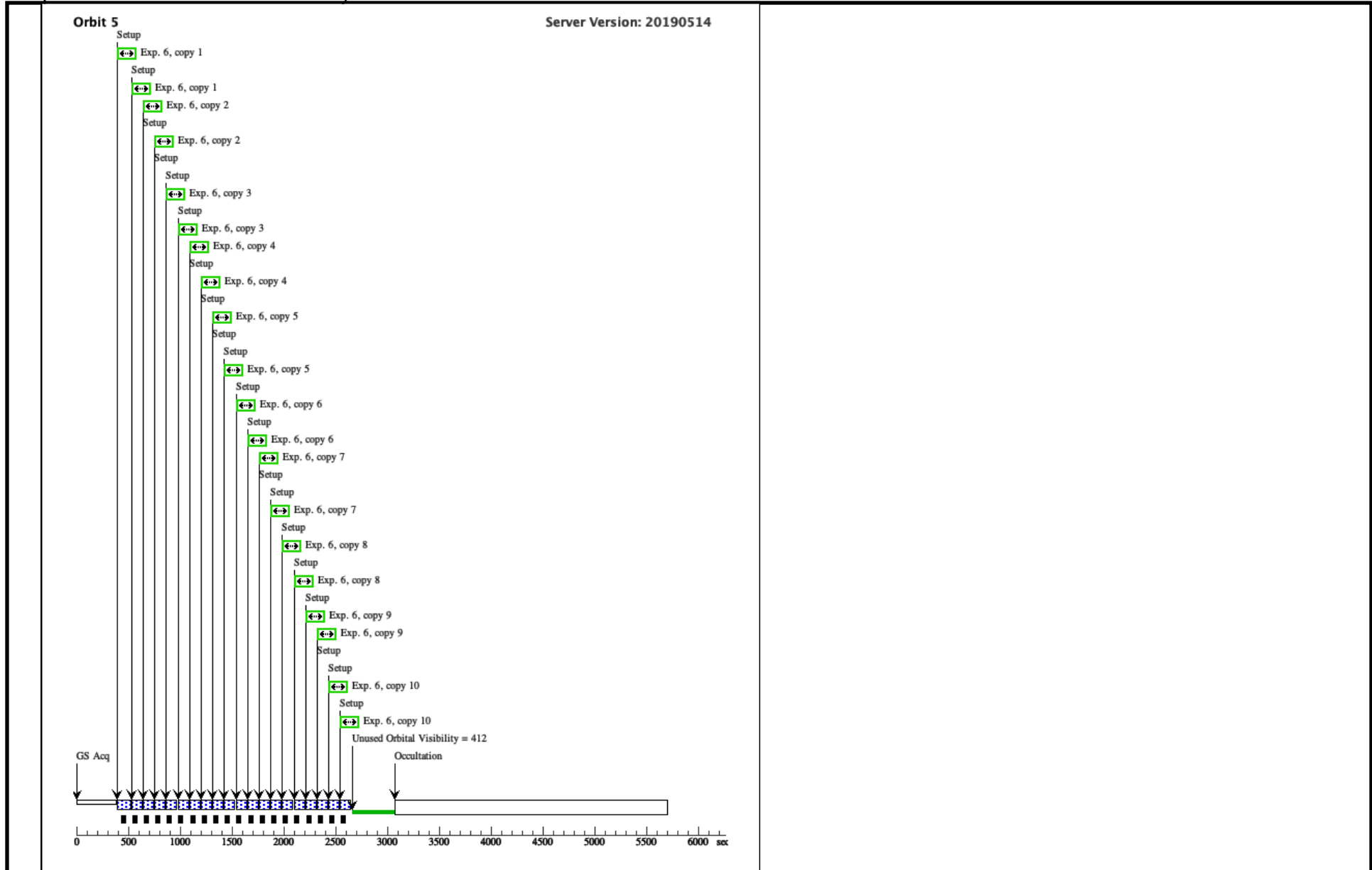
Server Version: 20190514

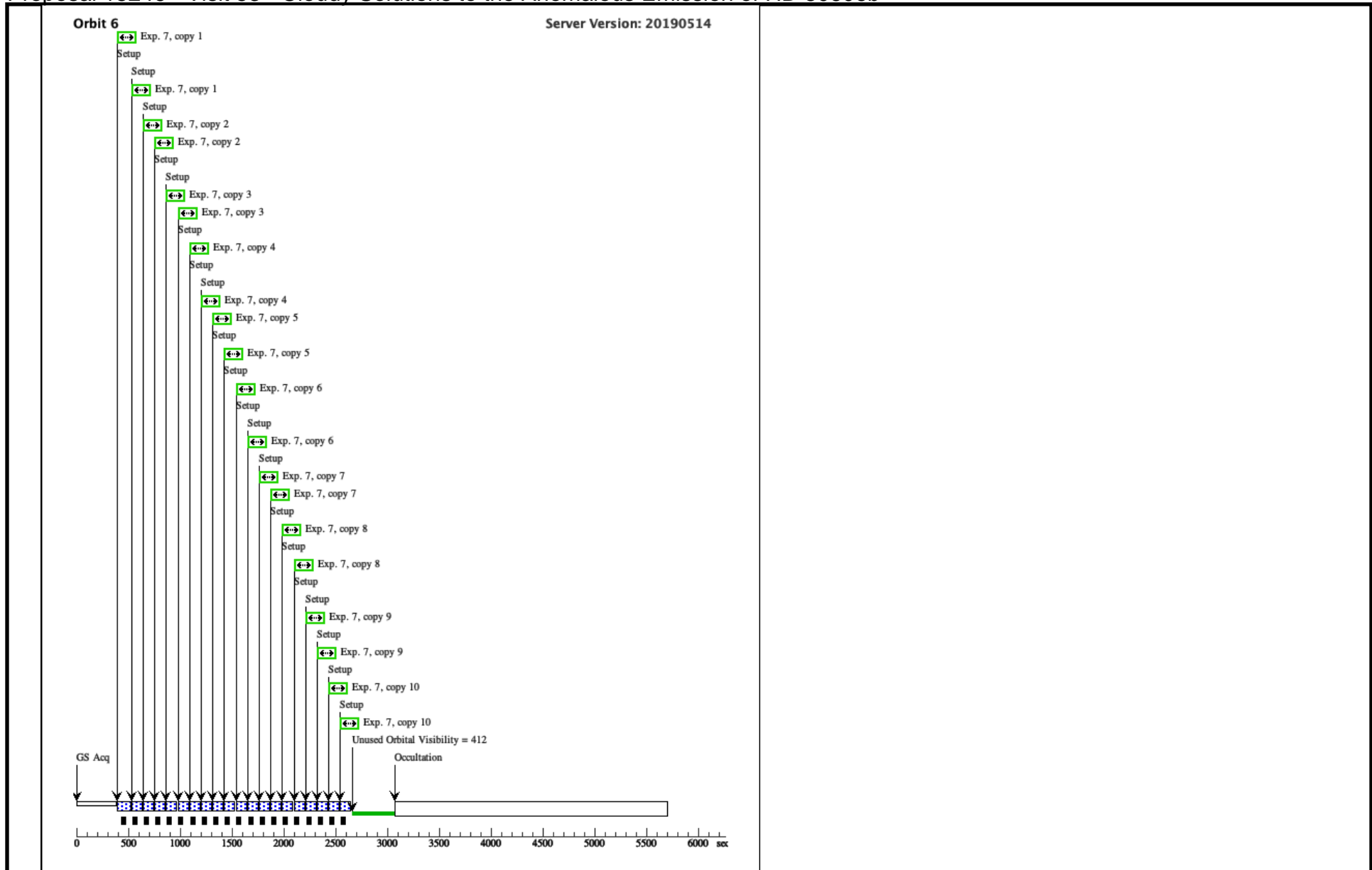


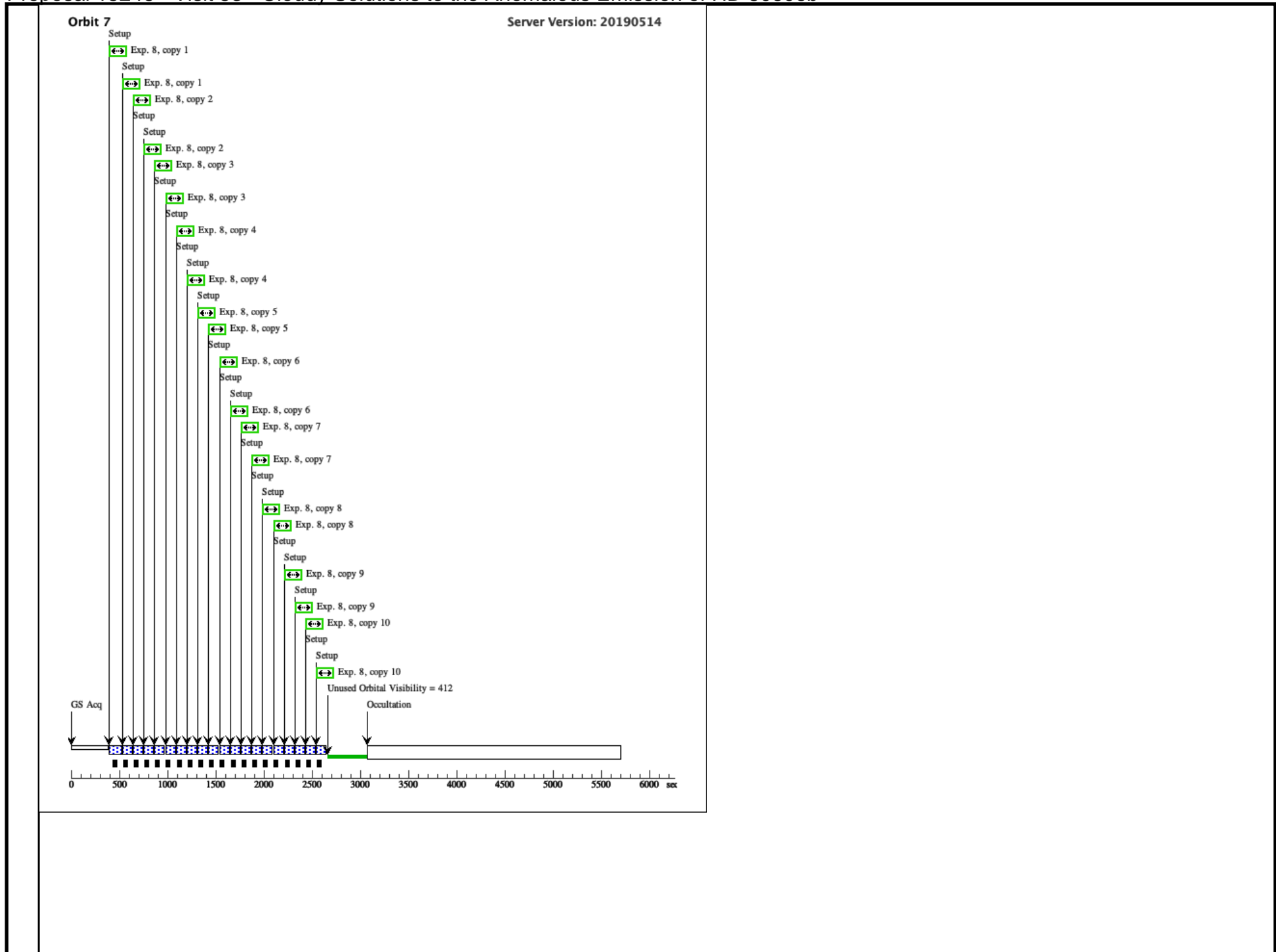
Orbit 4

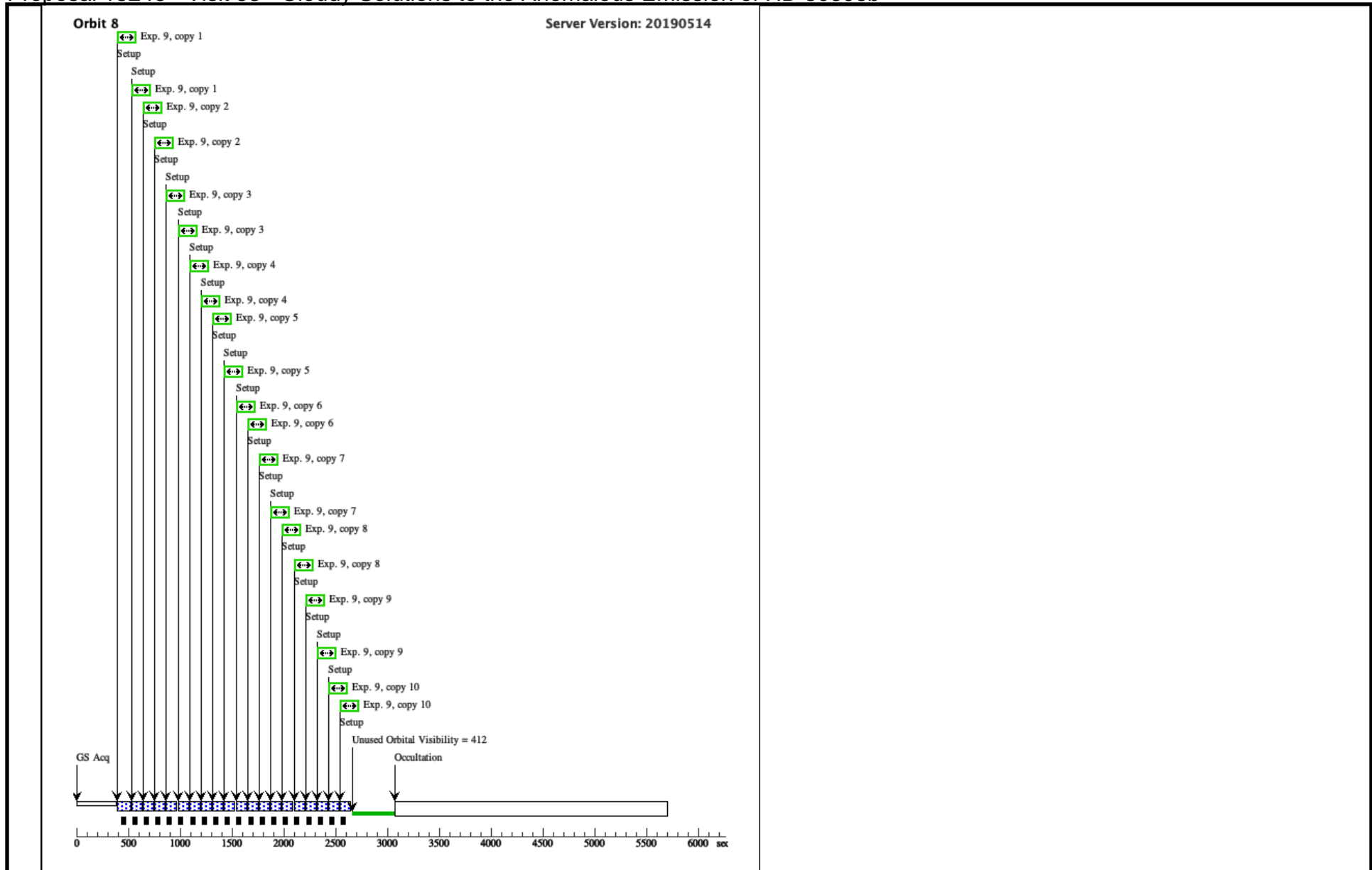
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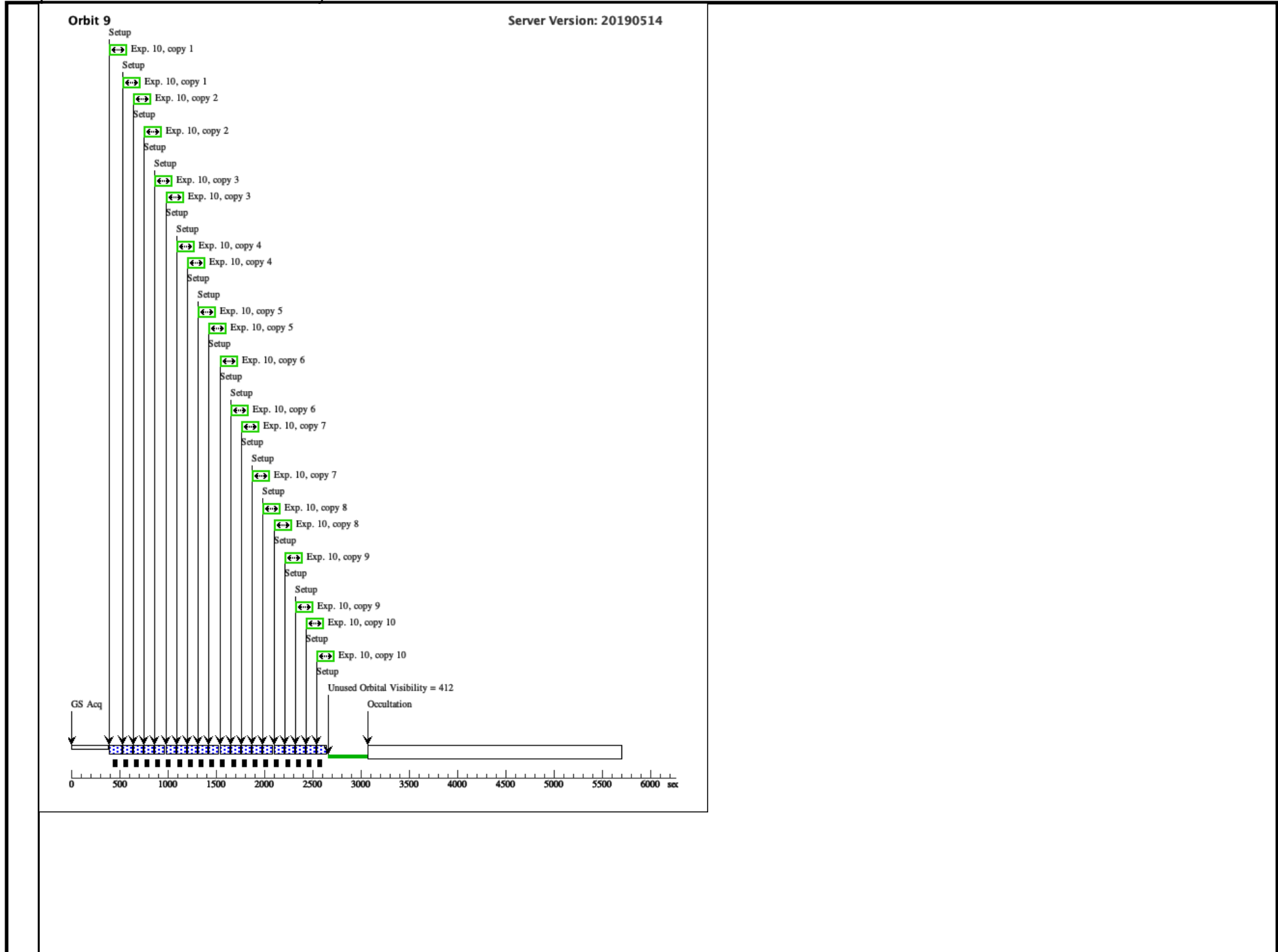






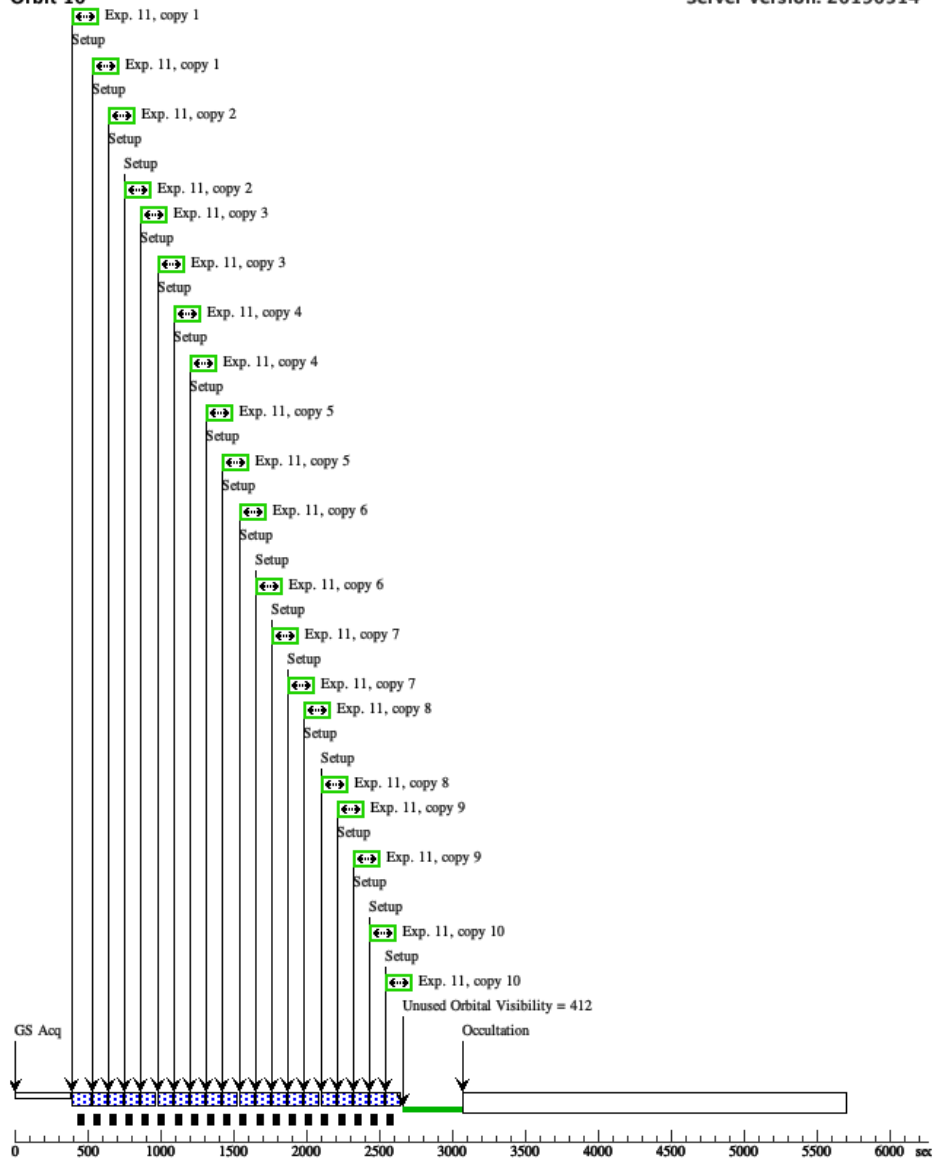


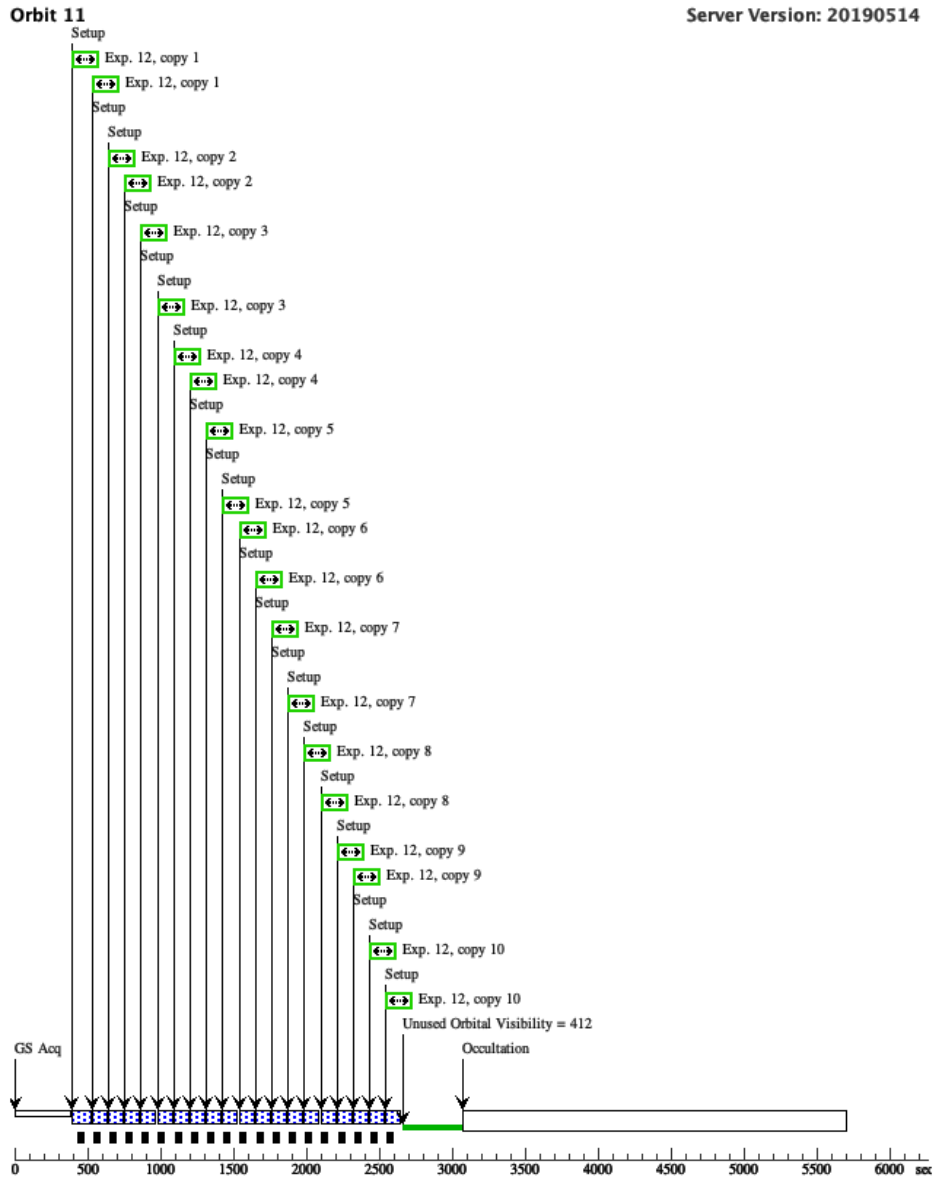




Orbit 10

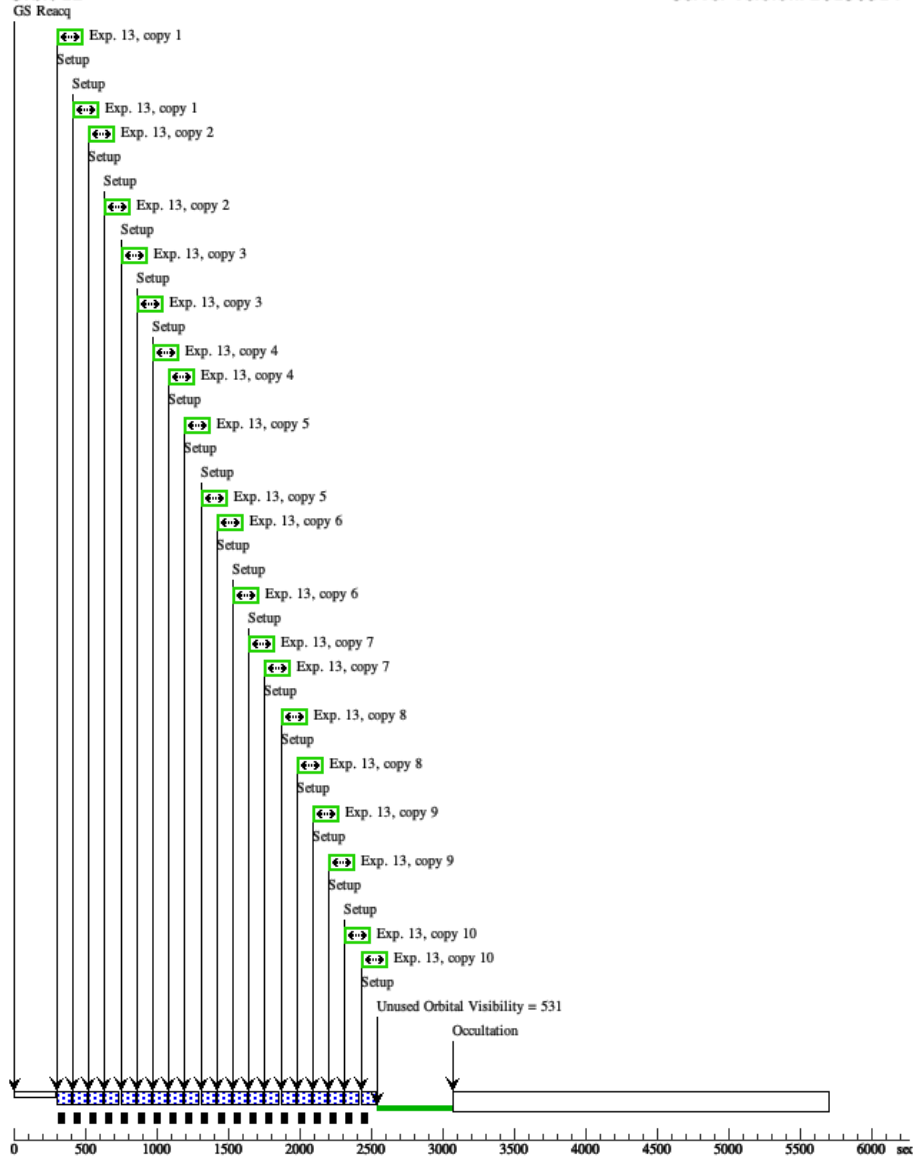
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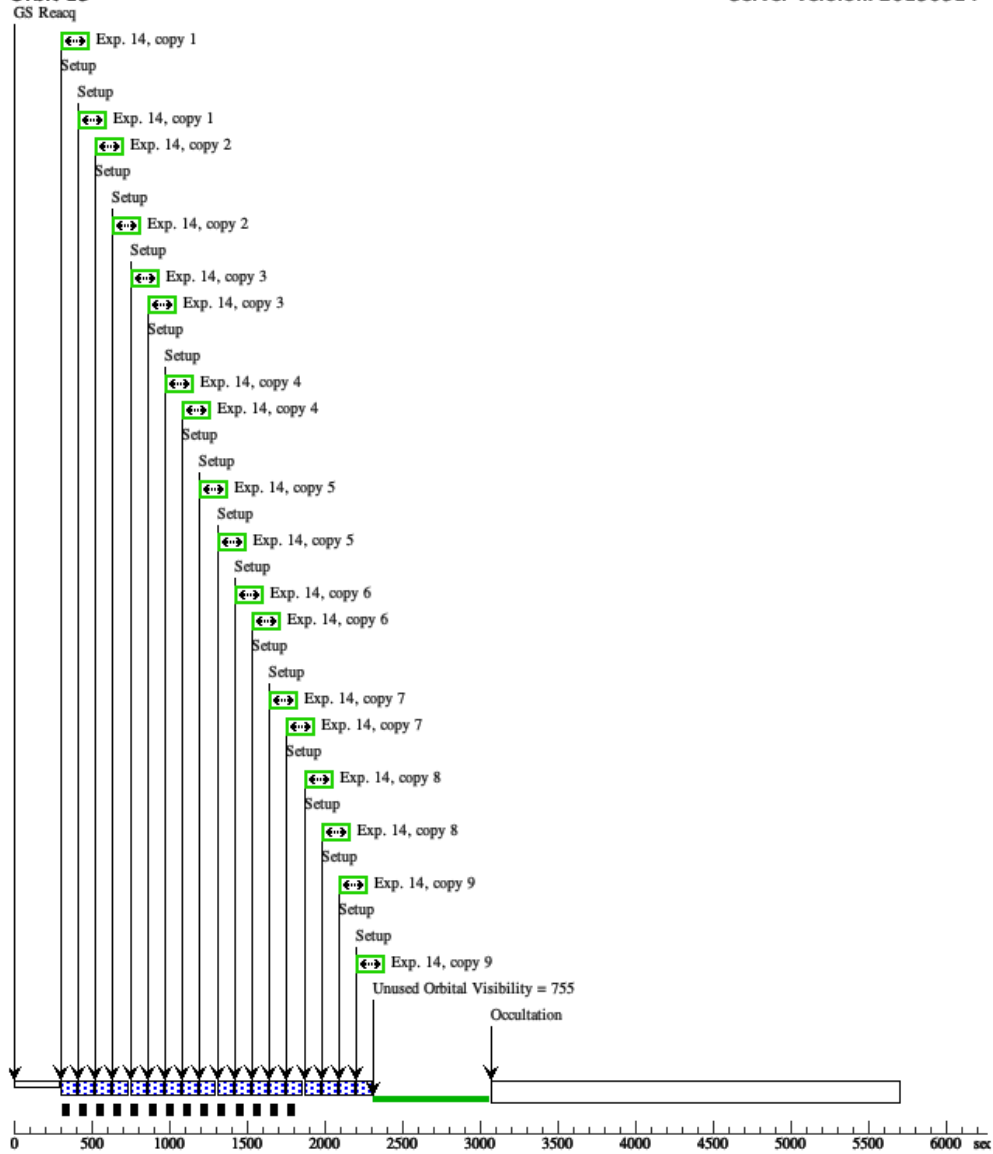
Orbit 12

Server Version: 20190514



Orbit 13

Server Version: 20190514



Server Version: 20190514

Orbit 14

GS Reacq

