



12476 - Measuring the Hubble Flow Hubble Constant

Cycle: 19, 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>
11	(3) NGC-4921-ORIENT-290 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:01:38.0	yes
12	(3) NGC-4921-ORIENT-290 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:01:48.0	yes
13	(3) NGC-4921-ORIENT-290 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:01:56.0	yes
14	(3) NGC-4921-ORIENT-290 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:04.0	yes
21	(2) NGC-4921-ORIENT-252.5 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:11.0	yes

Proposal 12476 (STScI Edit Number: 3, Created: Tuesday, March 13, 2012 8:03:33 PM EST) - Overview

<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>
22	(2) NGC-4921-ORIENT-252.5 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:17.0	yes
23	(2) NGC-4921-ORIENT-252.5 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:24.0	yes
24	(2) NGC-4921-ORIENT-252.5 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:30.0	yes
31	(1) NGC-4921-ORIENT-222 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:36.0	yes
32	(1) NGC-4921-ORIENT-222 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:41.0	yes
33	(1) NGC-4921-ORIENT-222 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:47.0	yes
35	(1) NGC-4921-ORIENT-222 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:53.0	yes
34	(1) NGC-4921-ORIENT-222 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:02:58.0	yes
36	(1) NGC-4921-ORIENT-222 ANY	ACS/WFC WFC3/UVIS	2	13-Mar-2012 21:03:04.0	yes
V1	(3) NGC-4921-ORIENT-290 ANY	ACS/WFC WFC3/UVIS	5	13-Mar-2012 21:03:13.0	yes
V2	(2) NGC-4921-ORIENT-252.5 ANY	ACS/WFC WFC3/UVIS	5	13-Mar-2012 21:03:26.0	yes

38 Total Orbits Used

ABSTRACT

We propose to use the Wide Field Camera 3 to extend our Cycle 15 program to phase Cepheid variables in a spiral galaxy in the core of the Coma cluster. With an investment of just 34 orbits, we will obtain a Cepheid distance to Coma accurate to 5%.

A direct application of the canonical primary distance indicator at 100 Mpc will measure the far-field Hubble constant free of many of the systematic uncertainties which beset current determinations relying on secondary indicators. Establishing the far-field Hubble constant with Cepheids will provide one of the strongest links in the extragalactic distance scale and will robustly calibrate the fiducial fundamental plane of elliptical galaxies and type Ia supernovae.

From five epochs prior to ACS failure in Cycle 15, our WFC observations of NGC4921 in Coma produced at least 50 Cepheid candidates with S/N=5 to 10 or better and periods of 40d to 70d. Efficient phasing of these and discovery of additional Cepheids can be done with 12 epochs of observations with WFC3, optimally spaced for long-period Cepheids. The better spatial sampling of WFC3 will improve on our already robust detections and the F350LP filter allows a dramatic reduction in the required observing time. We will supplement these data with two additional F606W (wide-V) epochs to tie in with and leverage our Cycle 15 data to obtain accurate mean magnitudes in standard bandpasses.

OBSERVING DESCRIPTION

The primary science observations consist of a dozen two-orbit visits using F350LP, supplemented by two five-orbit visits using F606W, targeting the entire disk of NGC4921, a luminous spiral in the Coma cluster. The F606W imaging is to tie the WFC3 photometry into the Cycle 15 ACS imaging in the same band; it is desirable to execute each F606W visit as close in time as possible to one of the F350LP visits, and also to space the two F606W visits well apart in time, 45-65 days. These data provide near optimum imaging for detection and phasing of Cepheids with periods of 45 to 90 days. Each F350LP orbit will consist of a dithered pair of exposures. Each F606W orbit will be a

single CRsplit exposure. The dither steps use the same postarg moves from the dither-box sequence; for our science, it is preferable to minimize the footprint of the gap rather than dither it away. Each orbit has roughly 53 minutes of visibility or longer so each two-orbit visit will total 5000s of open shutter time.

All available windows from mid-December to March with visibility periods of 53 minutes or longer are acceptable (needed) for this program. We have found it necessary to use three orients (290, 252.5, and 222) to schedule the observations over the 90d window needed to phase the longest period Cepheids. We have optimized the sampling intervals for maximum detection and phasing efficiency for Cepheids with periods of 45-90d; the success of the program is contingent upon maintaining these spacings as closely as possible.

The 252.5 orient is the only one of the three orients which is critical; this orient aligns the WFC3 CCD gap with the ACS CCD gap from our Cycle 15 data, thereby maximizing our overlap between the two instruments.

The parallel ACS imaging observing strategy is dictated by the Cepheid observations. The time will be divided roughly equally among the F475W, F606W, F814W, and G800L. Only the F606W exposures will be CRsplit, in conjunction with the grism imaging, to obtain a clean zero-order image. For the orient=222 parallels, we will use only F475W and F814W to image the large elliptical galaxy in the field to maximum depth in those two filters for SBF and GCLF studies.

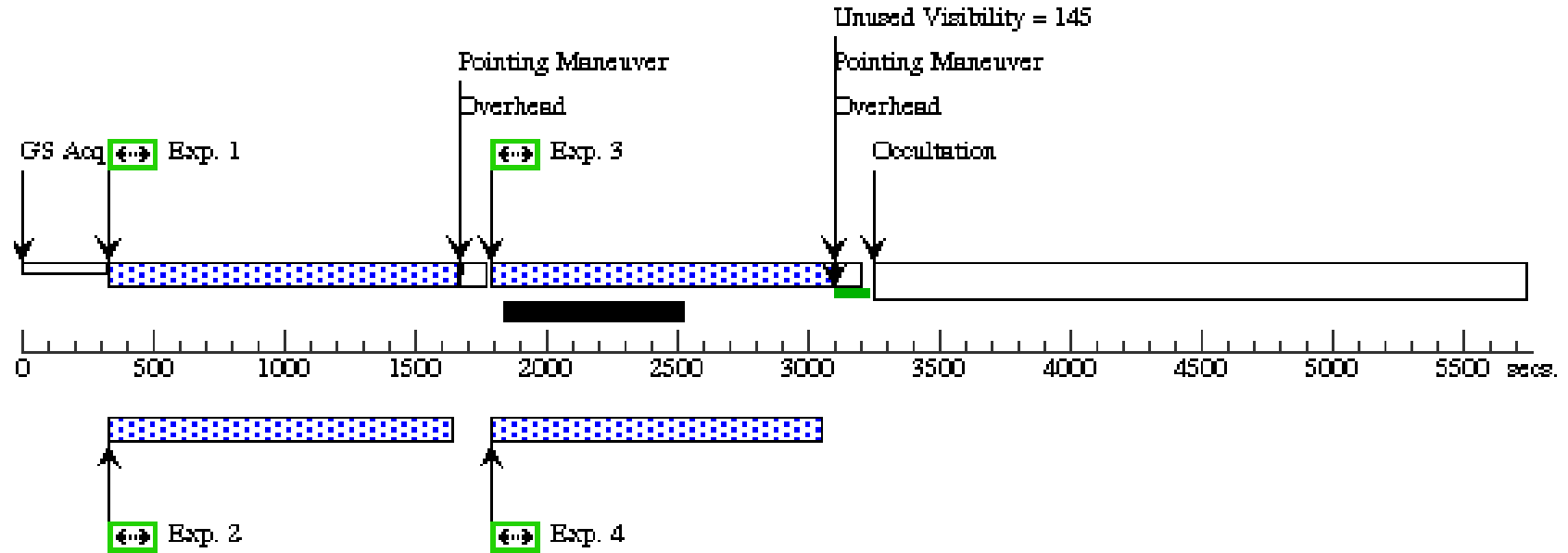
Proposal 12476 - Visit 11 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:34 GMT 2012

Visit	Proposal 12476, Visit 11, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; ORIENT 290D TO 290 D; BETWEEN 25-DEC-2011:00:00:00 AND 31-DEC-2011:00:00:00									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	NGC-4921-ORIENT-290	RA: 13 01 26.9500 (195.3622917d) Dec: +27 53 14.70 (27.88742d) Equinox: J2000			V=29.0+/-0.1	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 11	1300 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 11	1100 Secs [==>]	[1]
	3		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 11	1300 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 3-4 in Visit 11	1100 Secs [==>]	[1]
	5		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 11	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=2		Prime + Parallel Gro up 5-6 in Visit 11	1100 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 11	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO		Prime + Parallel Gro up 7-8 in Visit 11	1100 Secs [==>]	[2]

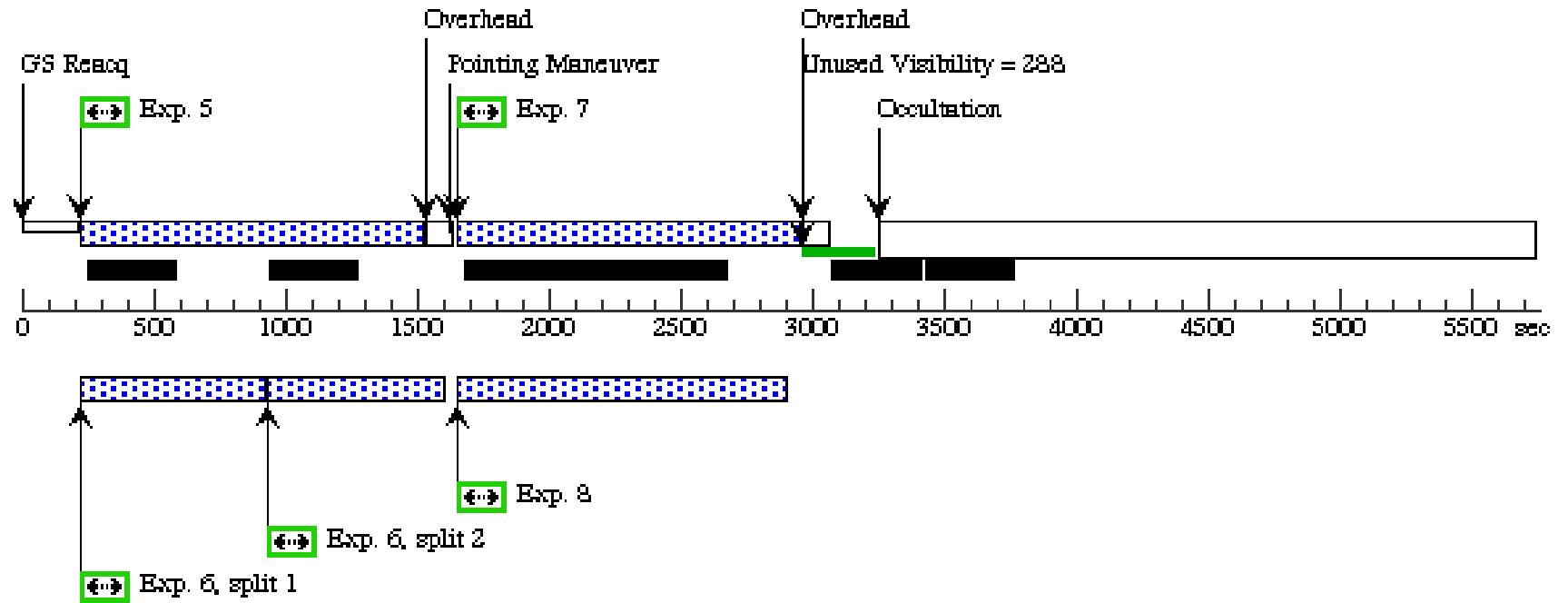
Orbit 1

Server Version: 20120125



Orbit Structure

Orbit 2



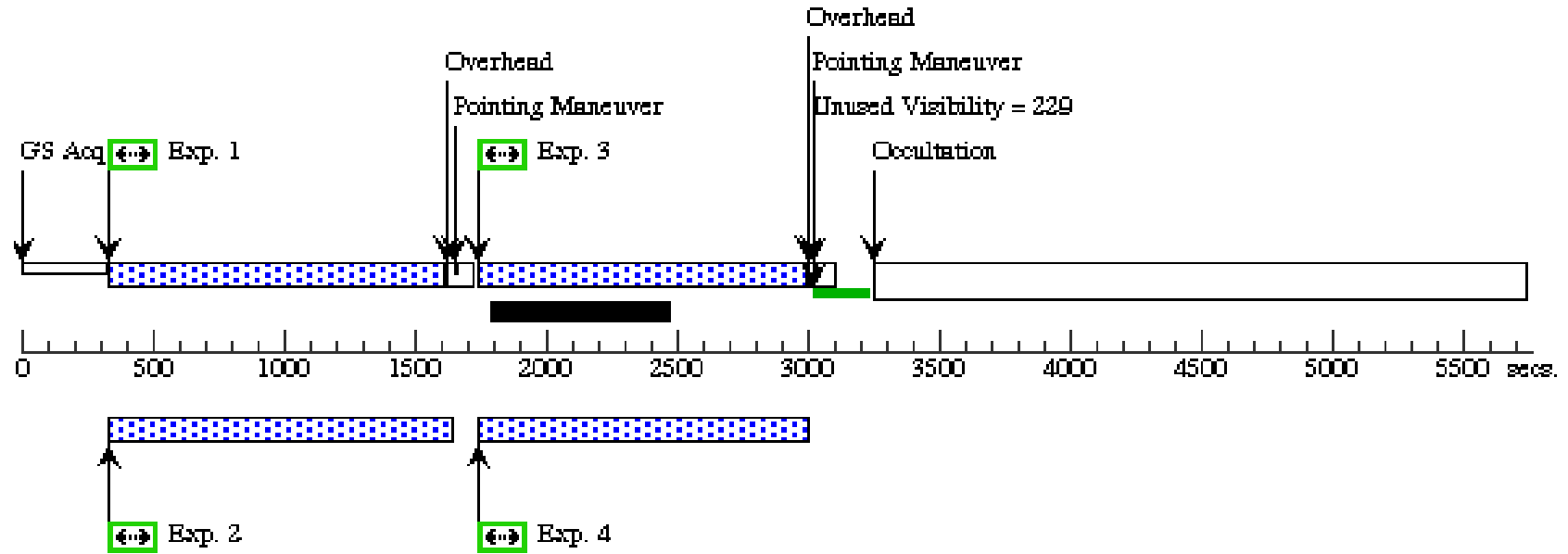
Proposal 12476 - Visit 12 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:35 GMT 2012

Visit	Proposal 12476, Visit 12, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 11; AFTER 11 BY 6.2 D TO 7.2 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	NGC-4921-ORIENT-290	RA: 13 01 26.9500 (195.3622917d) Dec: +27 53 14.70 (27.88742d) Equinox: J2000			V=29.0+/-0.1	Reference Frame: ICRS	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 12	1250 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 12	1100 Secs [==>]	[1]
	3		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 12	1250 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 3-4 in Visit 12	1100 Secs [==>]	[1]
	5		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 12	1250 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=2		Prime + Parallel Gro up 5-6 in Visit 12	1100 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 12	1250 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO		Prime + Parallel Gro up 7-8 in Visit 12	1100 Secs [==>]	[2]

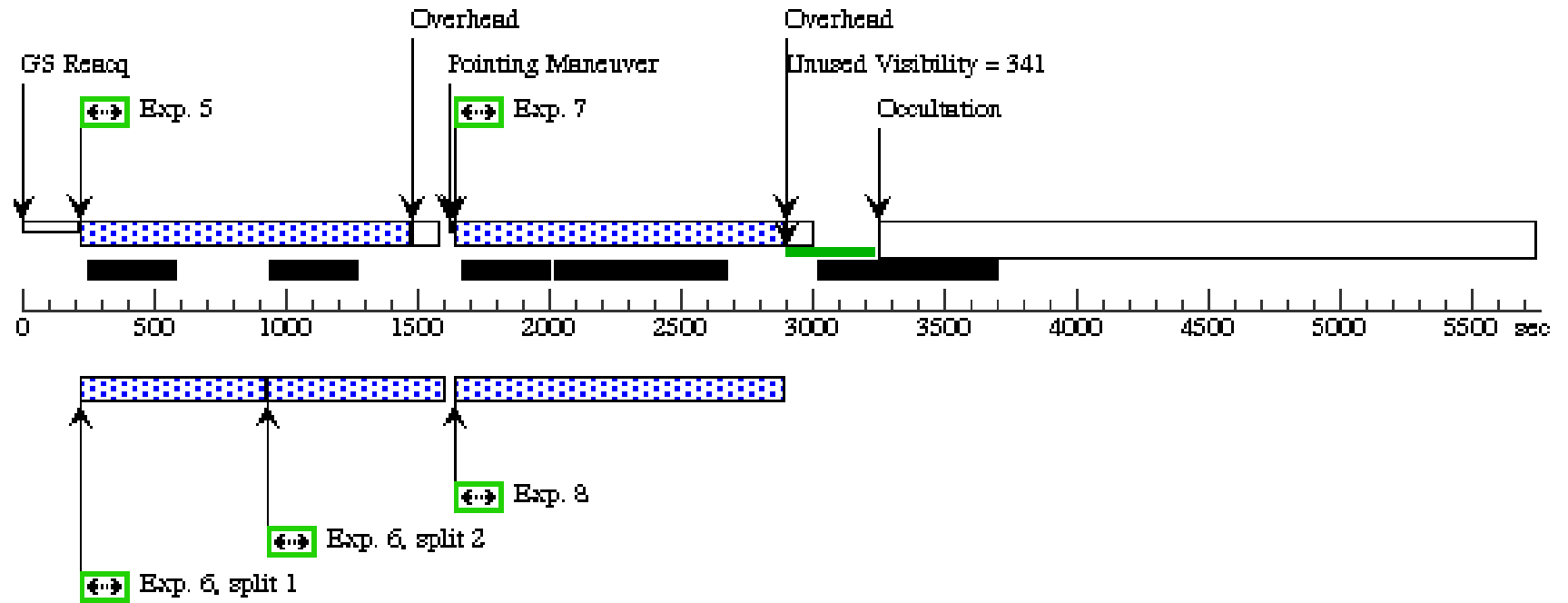
Orbit 1

Server Version: 20120125



Orbit Structure

Orbit 2

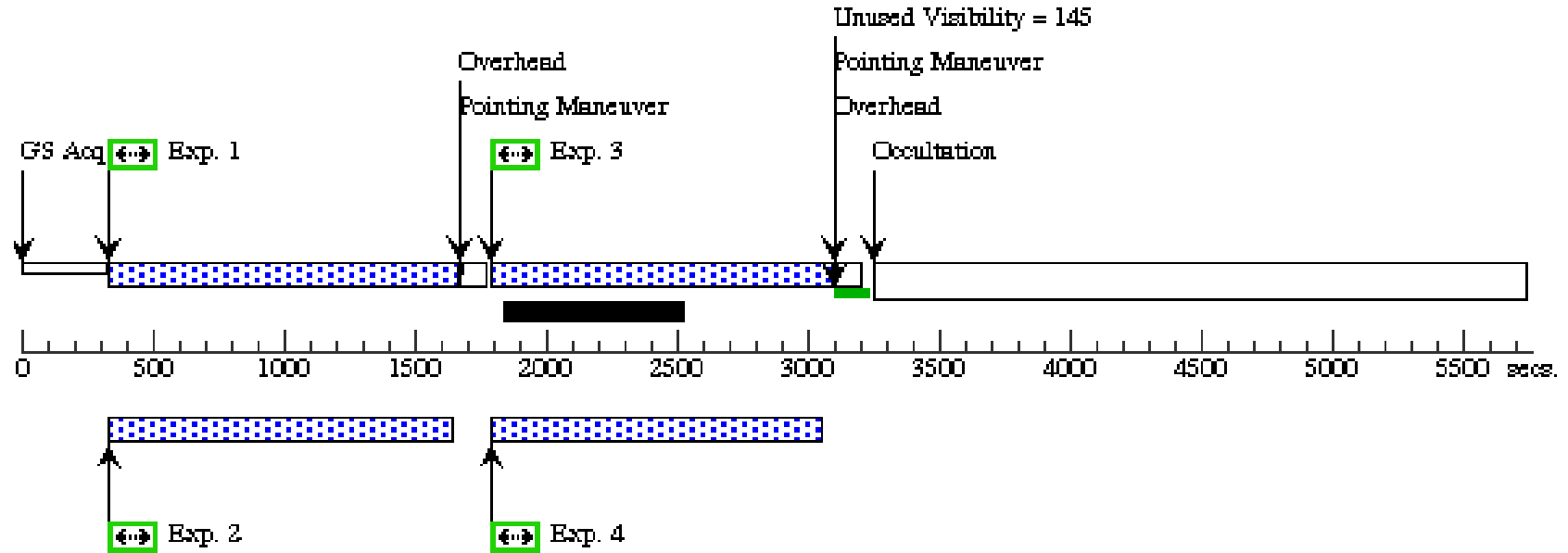


Proposal 12476 - Visit 13 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:36 GMT 2012

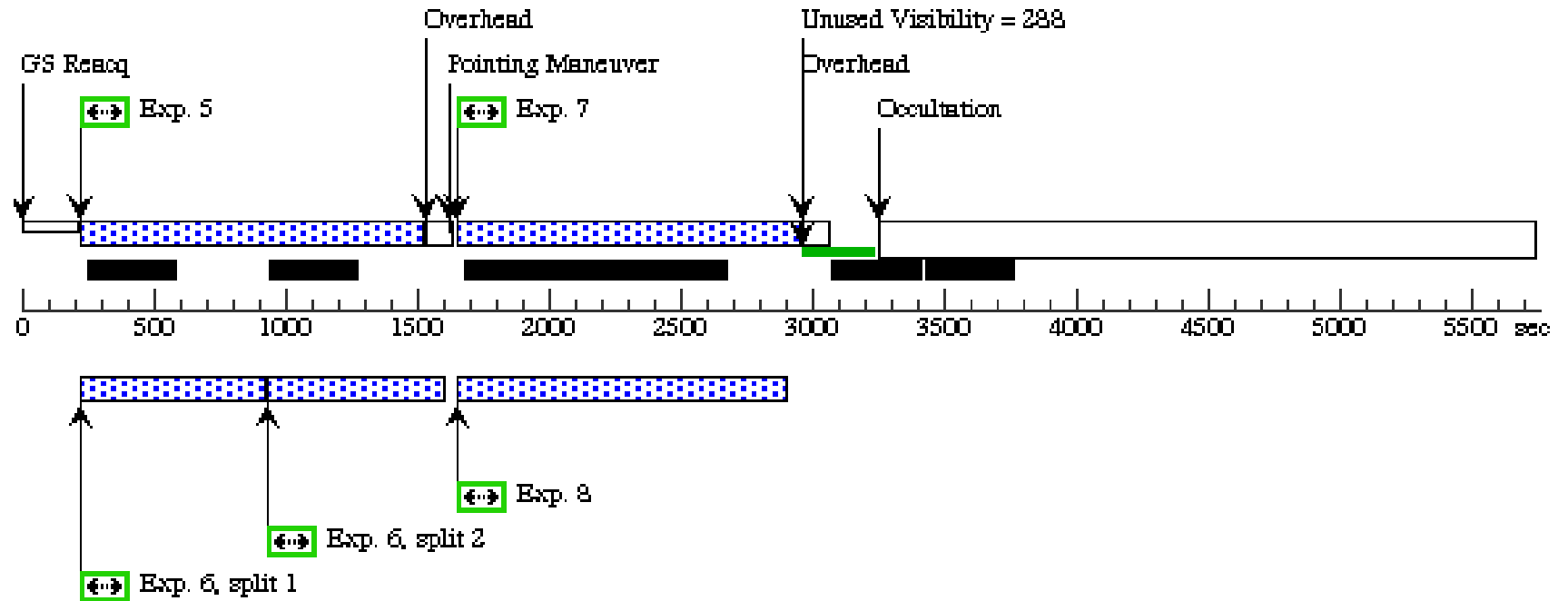
Visit	Proposal 12476, Visit 13, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 11; AFTER 11 BY 17.7 D TO 19.7 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	NGC-4921-ORIENT-290	RA: 13 01 26.9500 (195.3622917d) Dec: +27 53 14.70 (27.88742d) Equinox: J2000			V=29.0+/-0.1	Reference Frame: ICRS			
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 13	1300 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 13	1100 Secs [==>]	[1]
	3		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 13	1300 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 3-4 in Visit 13	1100 Secs [==>]	[1]
	5		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 13	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=2		Prime + Parallel Gro up 5-6 in Visit 13	1100 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 13	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO		Prime + Parallel Gro up 7-8 in Visit 13	1100 Secs [==>]	[2]

Orbit 1



Orbit Structure

Orbit 2

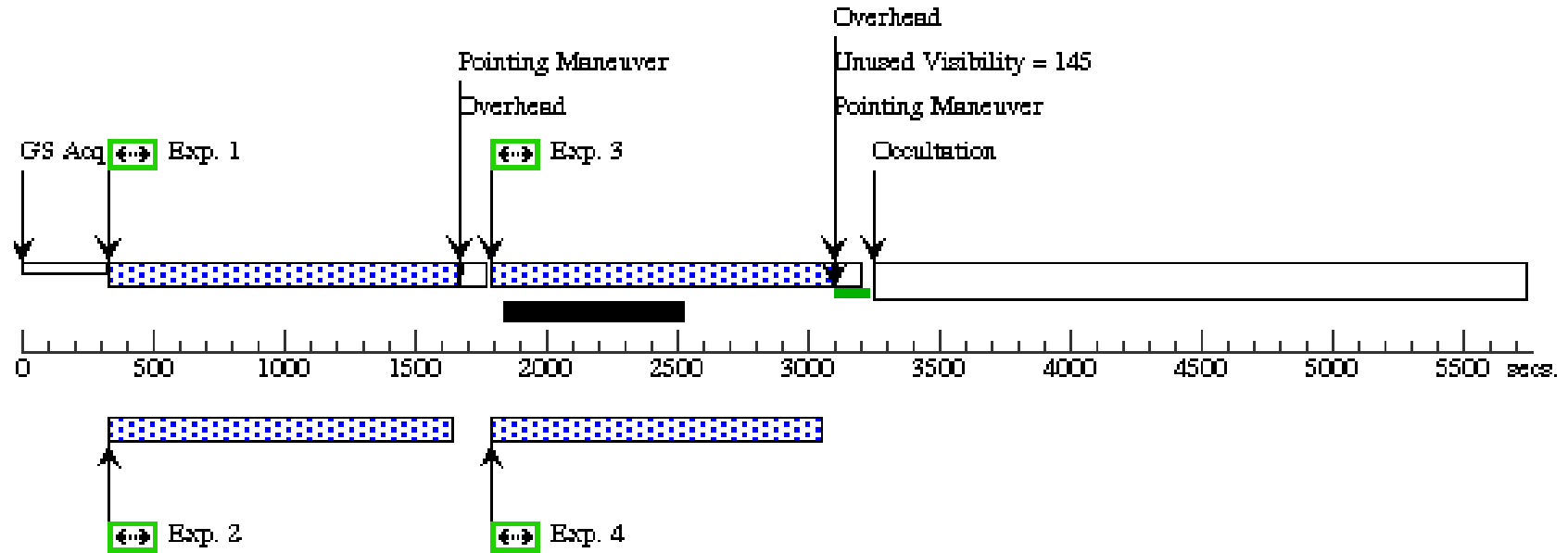


Proposal 12476 - Visit 14 - Measuring the Hubble Flow Hubble Constant

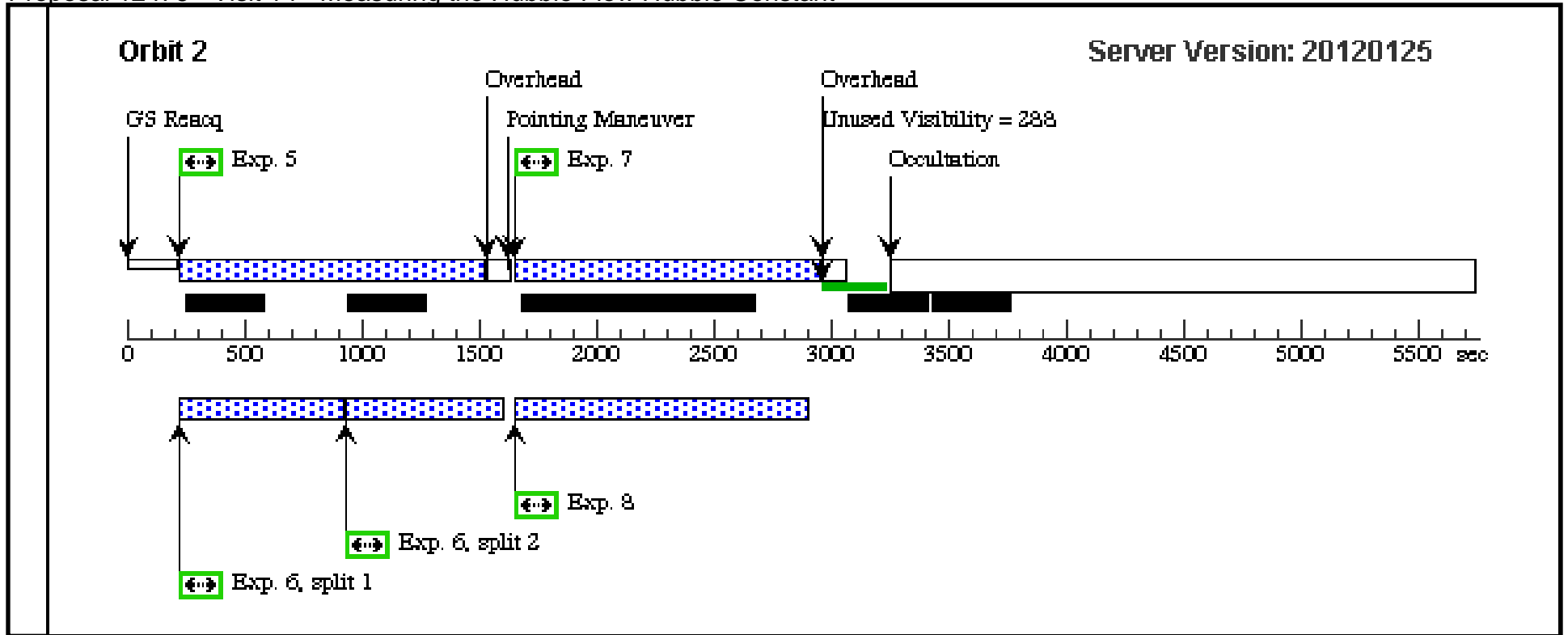
Wed Mar 14 01:03:37 GMT 2012

Visit	Proposal 12476, Visit 14, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 11; AFTER 11 BY 29.7 D TO 31.7 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	NGC-4921-ORIENT-290	RA: 13 01 26.9500 (195.3622917d) Dec: +27 53 14.70 (27.88742d) Equinox: J2000			V=29.0+/-0.1	Reference Frame: ICRS	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 14	1300 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 14	1100 Secs [==>]	[1]
	3		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP	CR-SPLIT=NO	POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 14	1300 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 3-4 in Visit 14	1100 Secs [==>]	[1]
	5		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 14	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=2		Prime + Parallel Gro up 5-6 in Visit 14	1100 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 14	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO		Prime + Parallel Gro up 7-8 in Visit 14	1100 Secs [==>]	[2]

Orbit 1



Orbit Structure

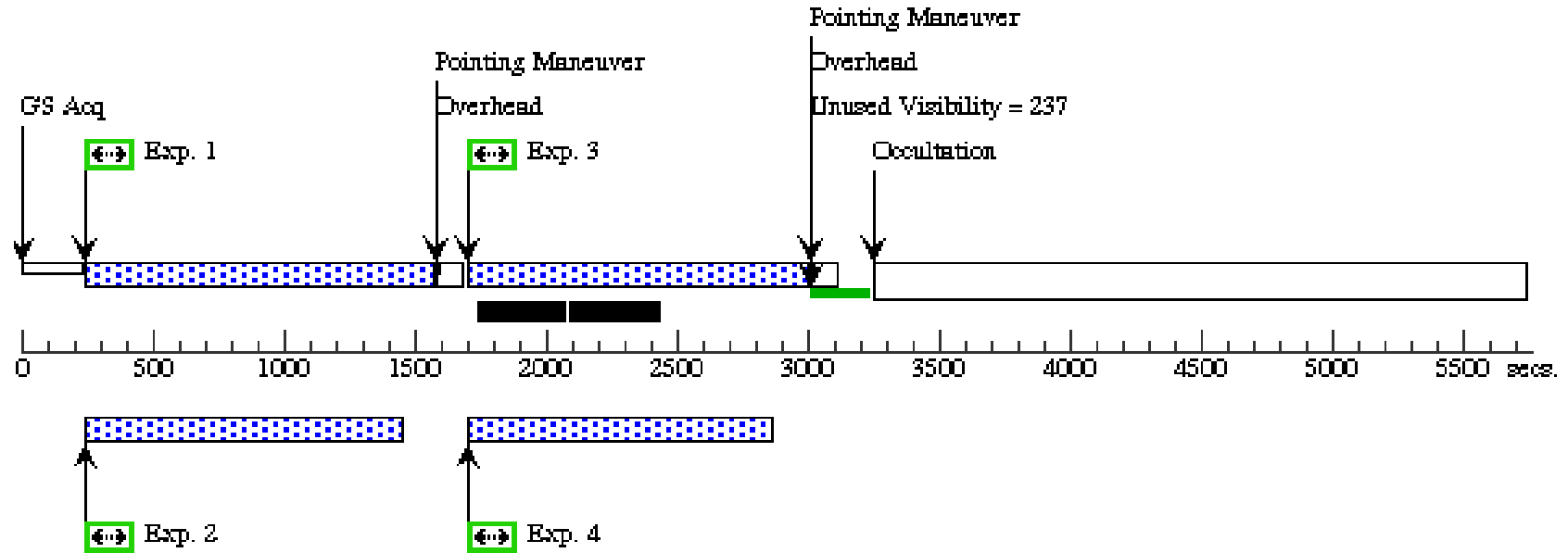


Proposal 12476 - Visit 21 - Measuring the Hubble Flow Hubble Constant

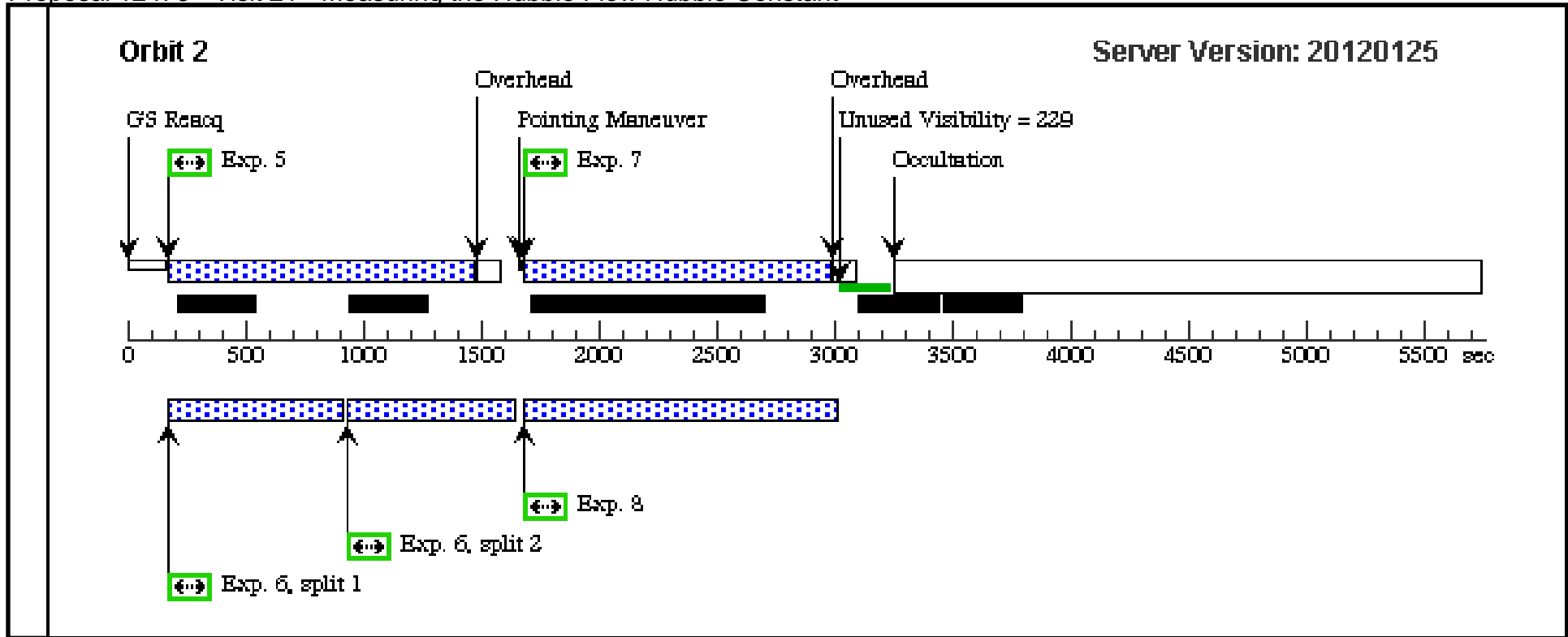
Wed Mar 14 01:03:37 GMT 2012

Visit	Proposal 12476, Visit 21, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; ORIENT 252.5D TO 252.5 D; AFTER 11 BY 37.8 D TO 38.4 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	NGC-4921-ORIENT-252.5	RA: 13 01 26.7600 (195.3615000d) Dec: +27 53 6.00 (27.88500d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in Visit 21	1300 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Visit 21	1000 Secs [==>]	[1]
	3		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Group 3-4 in Visit 21	1300 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 3-4 in Visit 21	1000 Secs [==>]	[1]
	5		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Group 5-6 in Visit 21	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W		CR-SPLIT=2	Prime + Parallel Group 5-6 in Visit 21	1180 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Group 7-8 in Visit 21	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L		AUTOIMAGE=NO	Prime + Parallel Group 7-8 in Visit 21	1180 Secs [==>]	[2]

Orbit 1



Orbit Structure

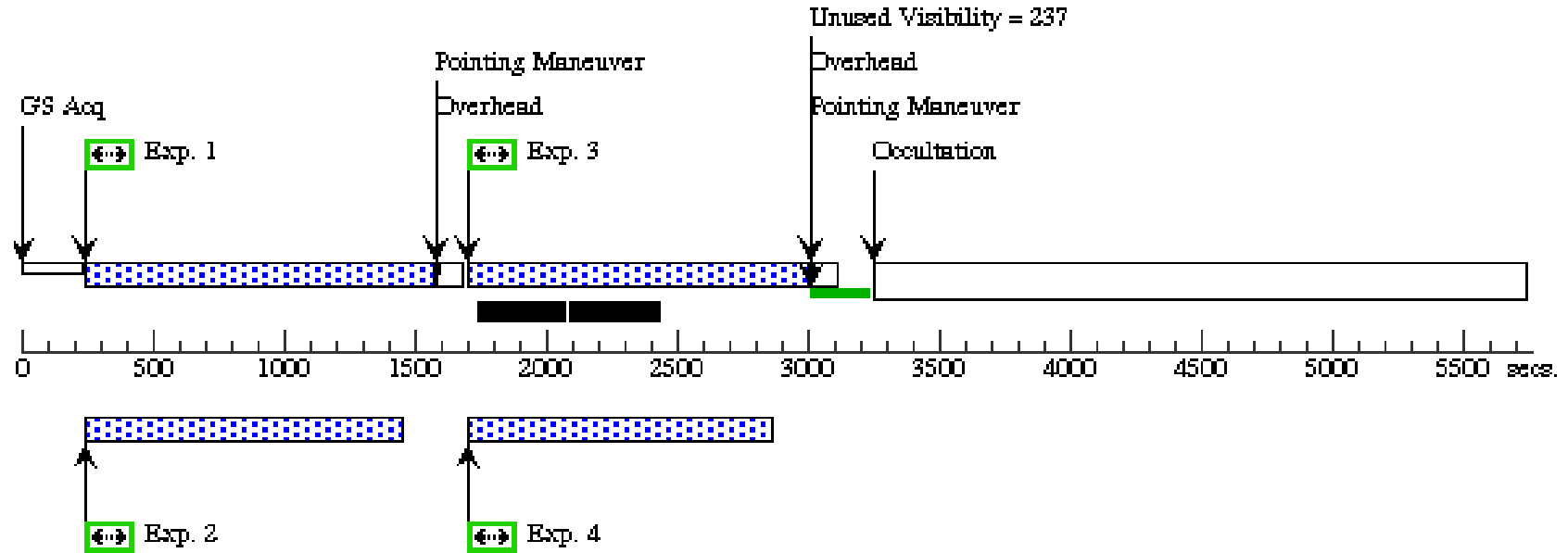


Proposal 12476 - Visit 22 - Measuring the Hubble Flow Hubble Constant

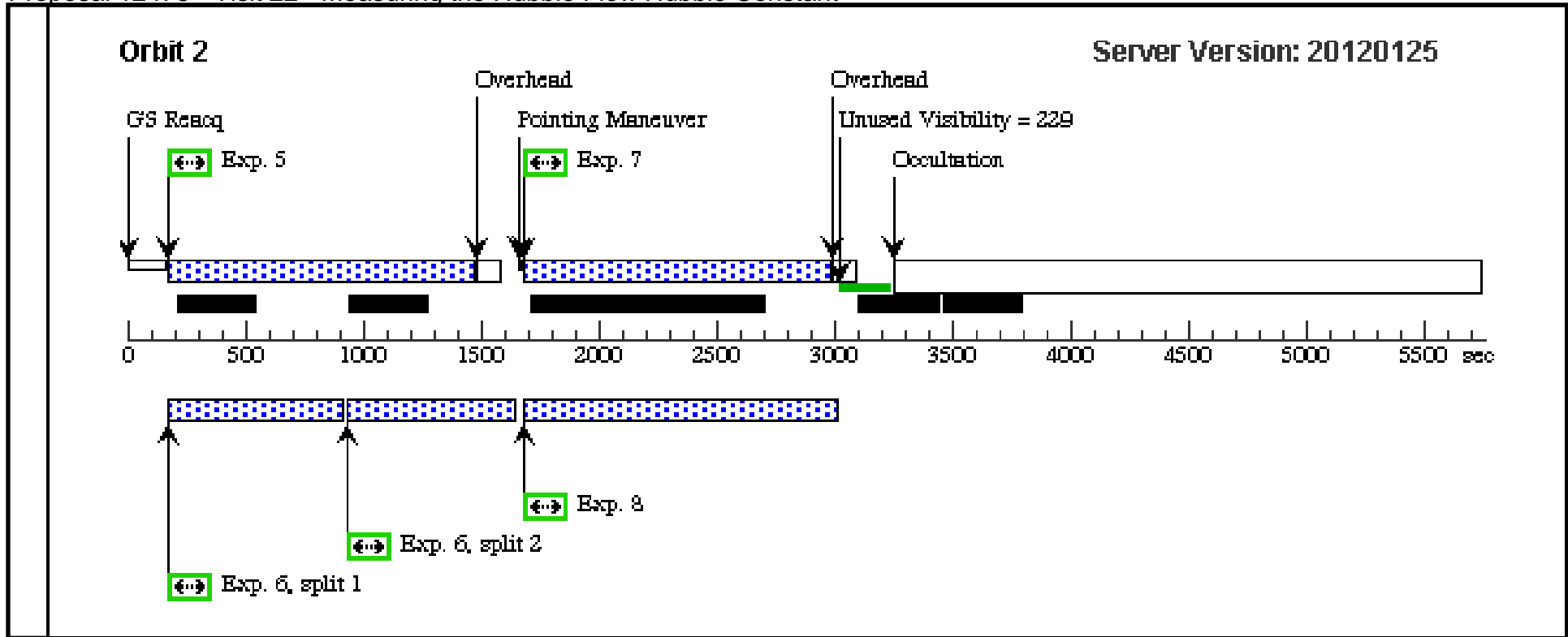
Wed Mar 14 01:03:38 GMT 2012

Visit	Proposal 12476, Visit 22, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 21; AFTER 11 BY 46.5 D TO 47.5 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	NGC-4921-ORIENT-252.5	RA: 13 01 26.7600 (195.3615000d) Dec: +27 53 6.00 (27.88500d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in Visit 22	1300 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Visit 22	1000 Secs [==>]	[1]
	3		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Group 3-4 in Visit 22	1300 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 3-4 in Visit 22	1000 Secs [==>]	[1]
	5		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Group 5-6 in Visit 22	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W		CR-SPLIT=2	Prime + Parallel Group 5-6 in Visit 22	1180 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Group 7-8 in Visit 22	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L		AUTOIMAGE=NO	Prime + Parallel Group 7-8 in Visit 22	1180 Secs [==>]	[2]

Orbit 1



Orbit Structure

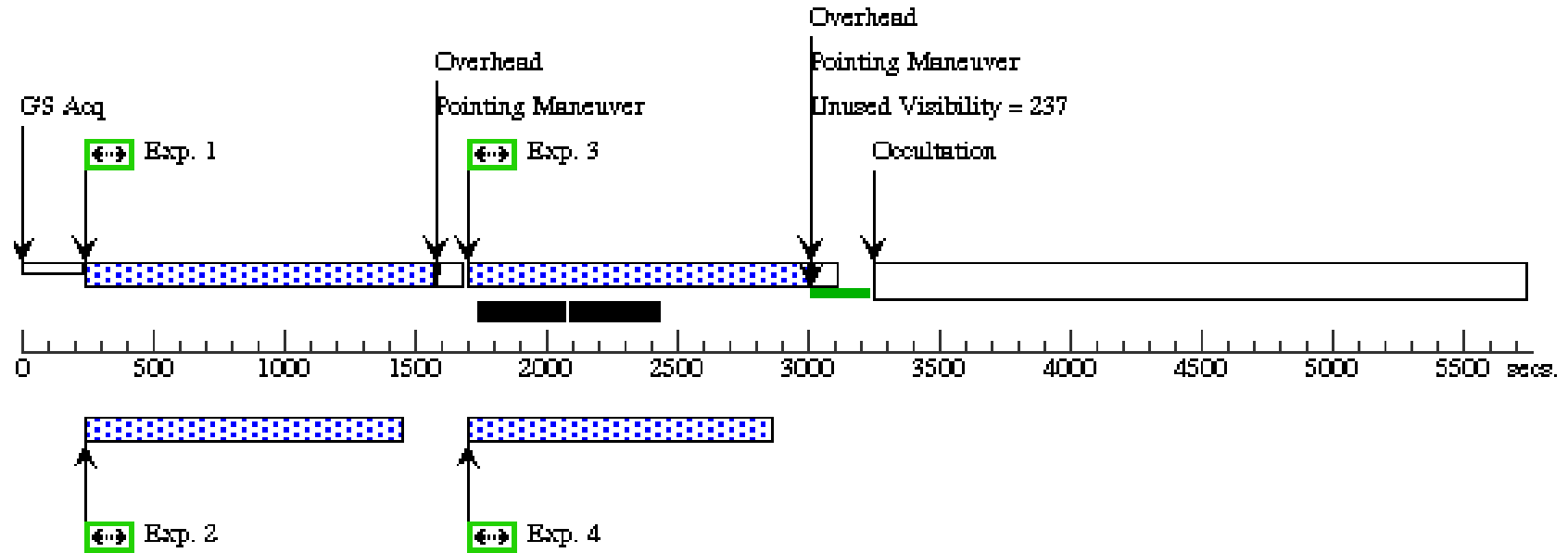


Proposal 12476 - Visit 23 - Measuring the Hubble Flow Hubble Constant

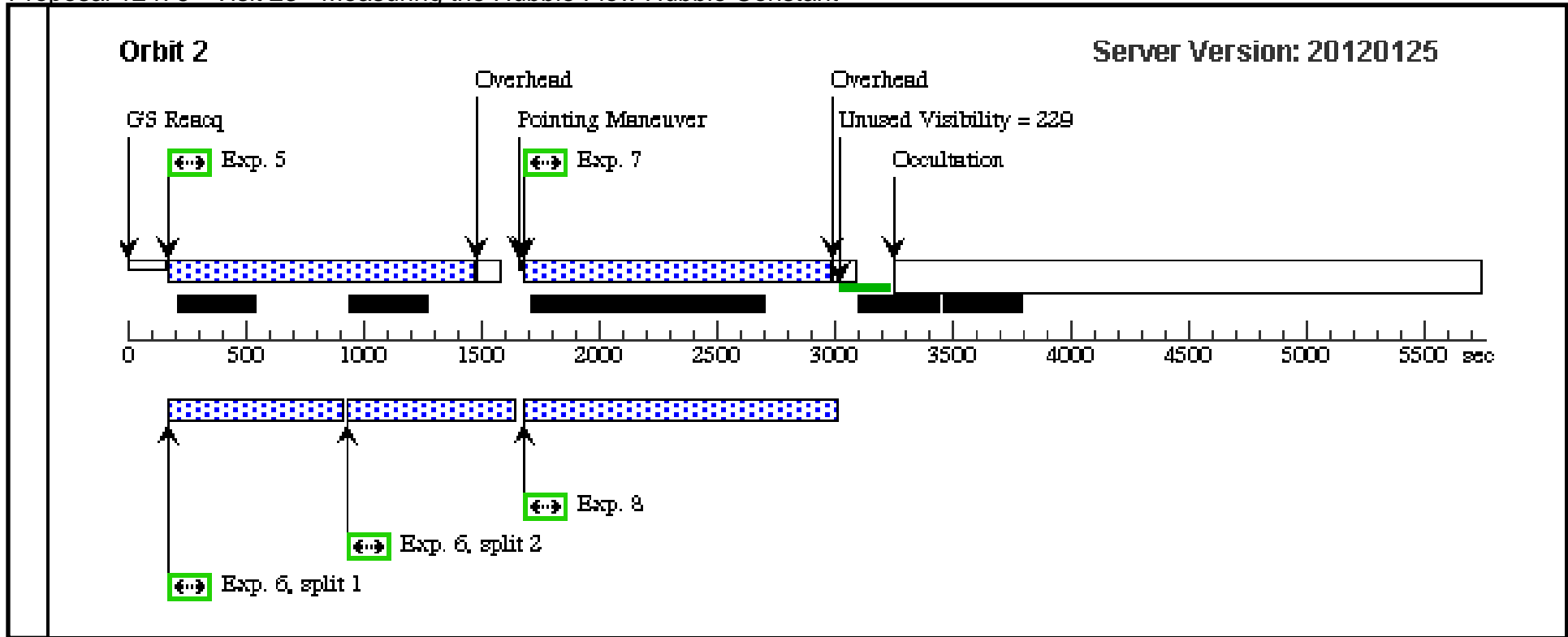
Wed Mar 14 01:03:39 GMT 2012

Visit	Proposal 12476, Visit 23, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 21; AFTER 11 BY 60 D TO 61.5 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	NGC-4921-ORIENT-252.5	RA: 13 01 26.7600 (195.3615000d) Dec: +27 53 6.00 (27.88500d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in Visit 23	1300 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Visit 23	1000 Secs [==>]	[1]
	3		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Group 3-4 in Visit 23	1300 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 3-4 in Visit 23	1000 Secs [==>]	[1]
	5		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Group 5-6 in Visit 23	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W		CR-SPLIT=2	Prime + Parallel Group 5-6 in Visit 23	1180 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Group 7-8 in Visit 23	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L		AUTOIMAGE=NO	Prime + Parallel Group 7-8 in Visit 23	1180 Secs [==>]	[2]

Orbit 1



Orbit Structure

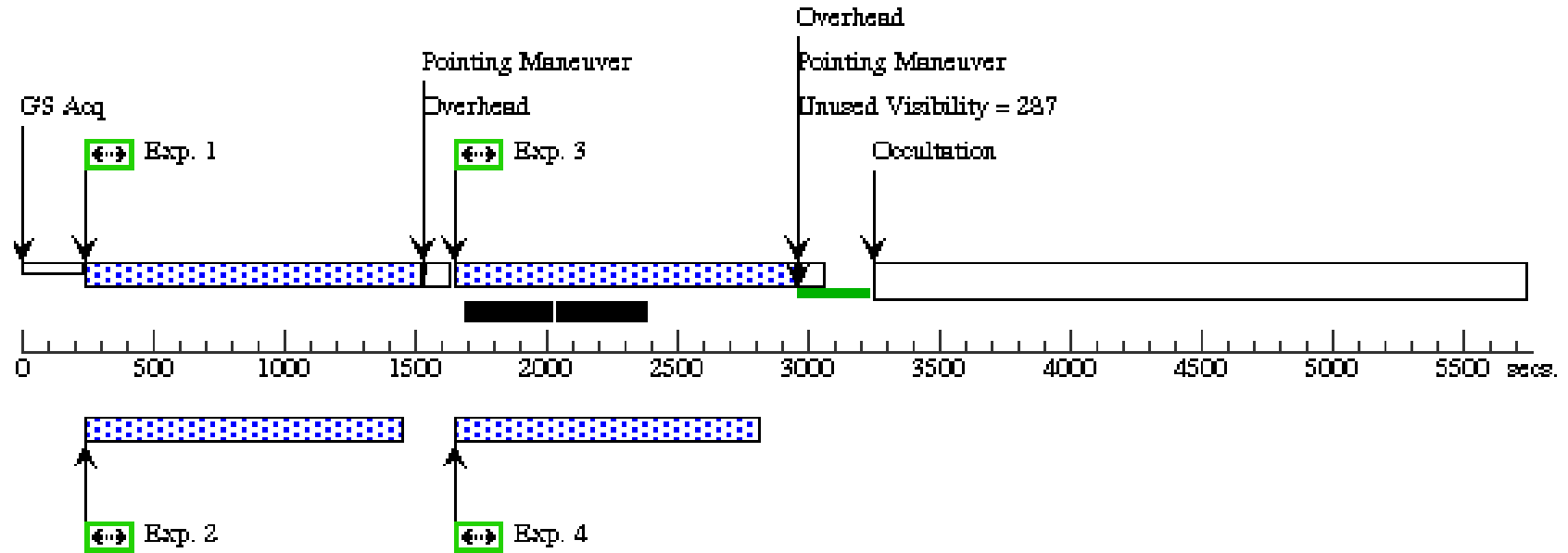


Proposal 12476 - Visit 24 - Measuring the Hubble Flow Hubble Constant

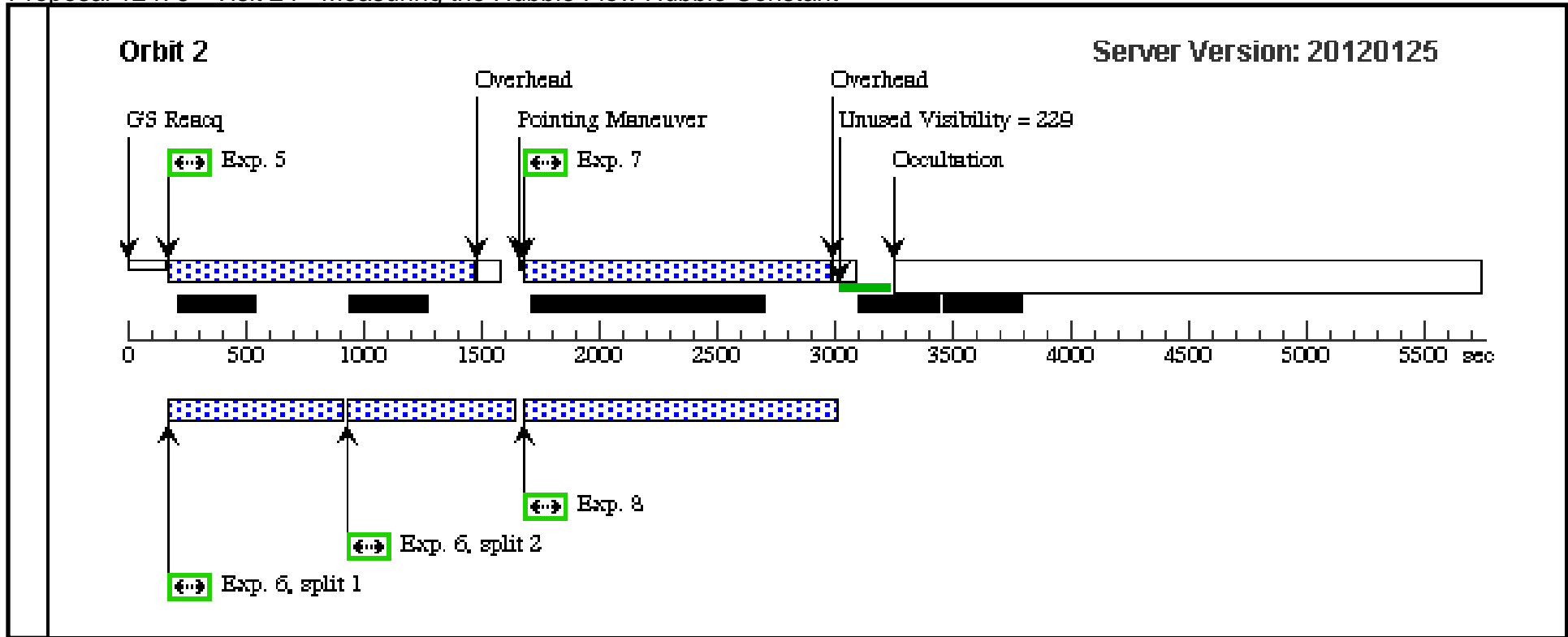
Wed Mar 14 01:03:39 GMT 2012

Visit	Proposal 12476, Visit 24, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 21; AFTER 11 BY 68.0 D TO 69.0 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	NGC-4921-ORIENT-252.5	RA: 13 01 26.7600 (195.3615000d) Dec: +27 53 6.00 (27.88500d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in Visit 24	1250 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in Visit 24	1000 Secs [==>]	[1]
	3		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Group 3-4 in Visit 24	1300 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 3-4 in Visit 24	1000 Secs [==>]	[1]
	5		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Group 5-6 in Visit 24	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=2		Prime + Parallel Group 5-6 in Visit 24	1180 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	7		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Group 7-8 in Visit 24	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO		Prime + Parallel Group 7-8 in Visit 24	1180 Secs [==>]	[2]

Orbit 1



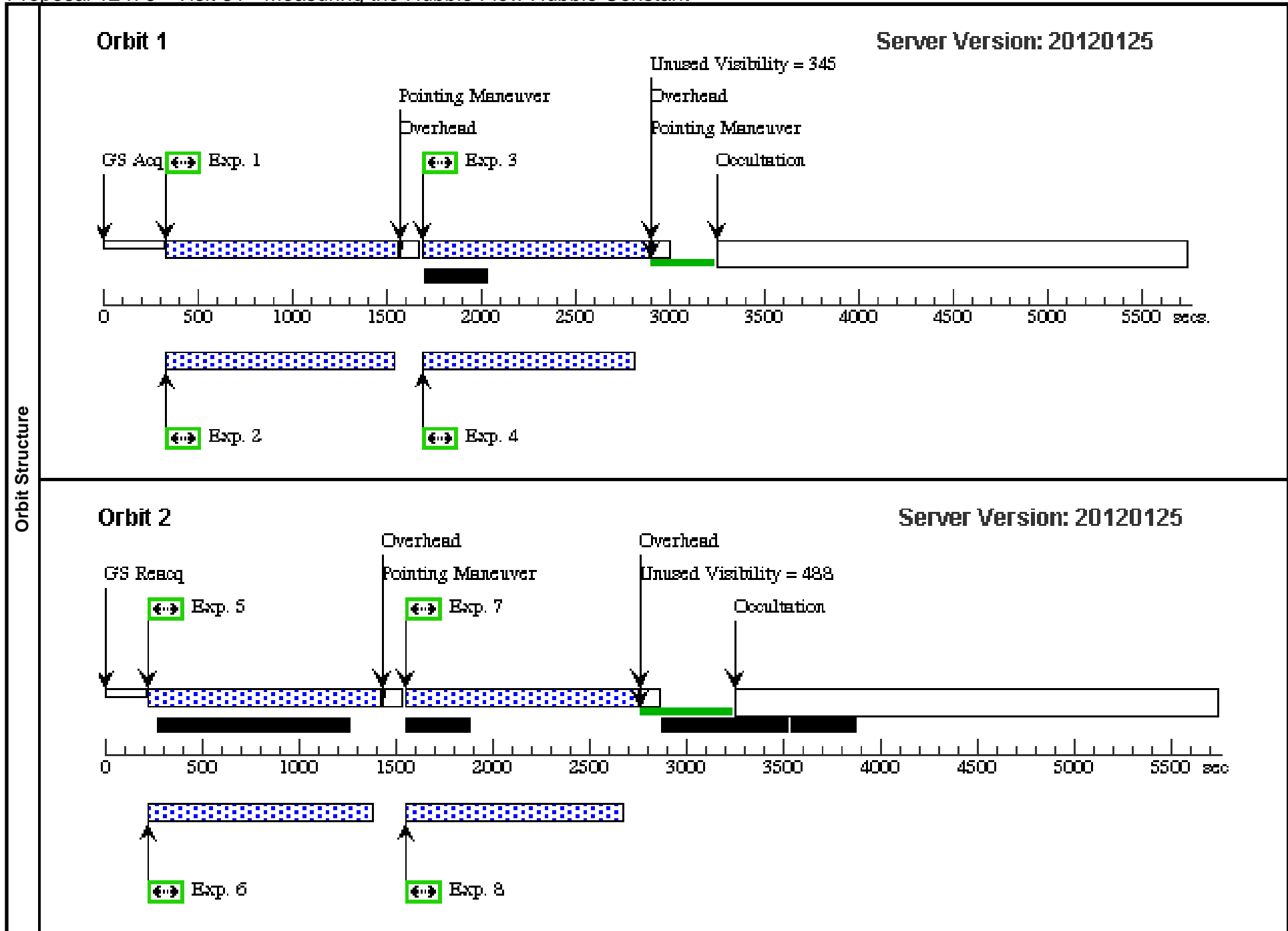
Orbit Structure



Proposal 12476 - Visit 31 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:40 GMT 2012

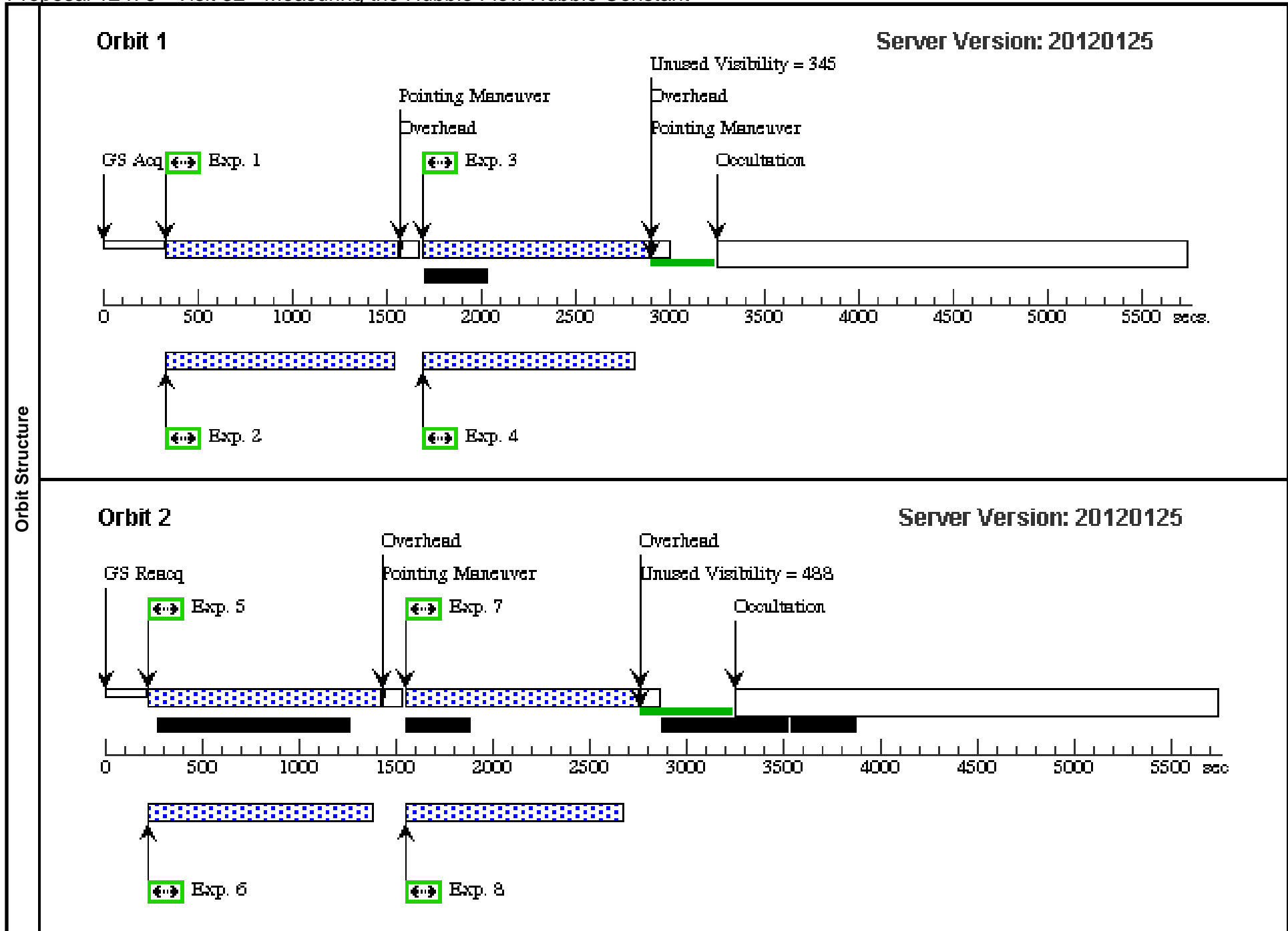
Visit	Proposal 12476, Visit 31, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; ORIENT 222D TO 222 D; AFTER 11 BY 73.0 D TO 74.0 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	NGC-4921-ORIENT-222	RA: 13 01 26.8600 (195.3619167d) Dec: +27 53 16.00 (27.88778d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 31	1200 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 31	1000 Secs [==>]	[1]
	3		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 31	1200 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 3-4 in Visit 31	1000 Secs [==>]	[1]
	5		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 31	1200 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 5-6 in Visit 31	1000 Secs [==>]	[2]
	7		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 31	1200 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 7-8 in Visit 31	1000 Secs [==>]	[2]



Proposal 12476 - Visit 32 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:40 GMT 2012

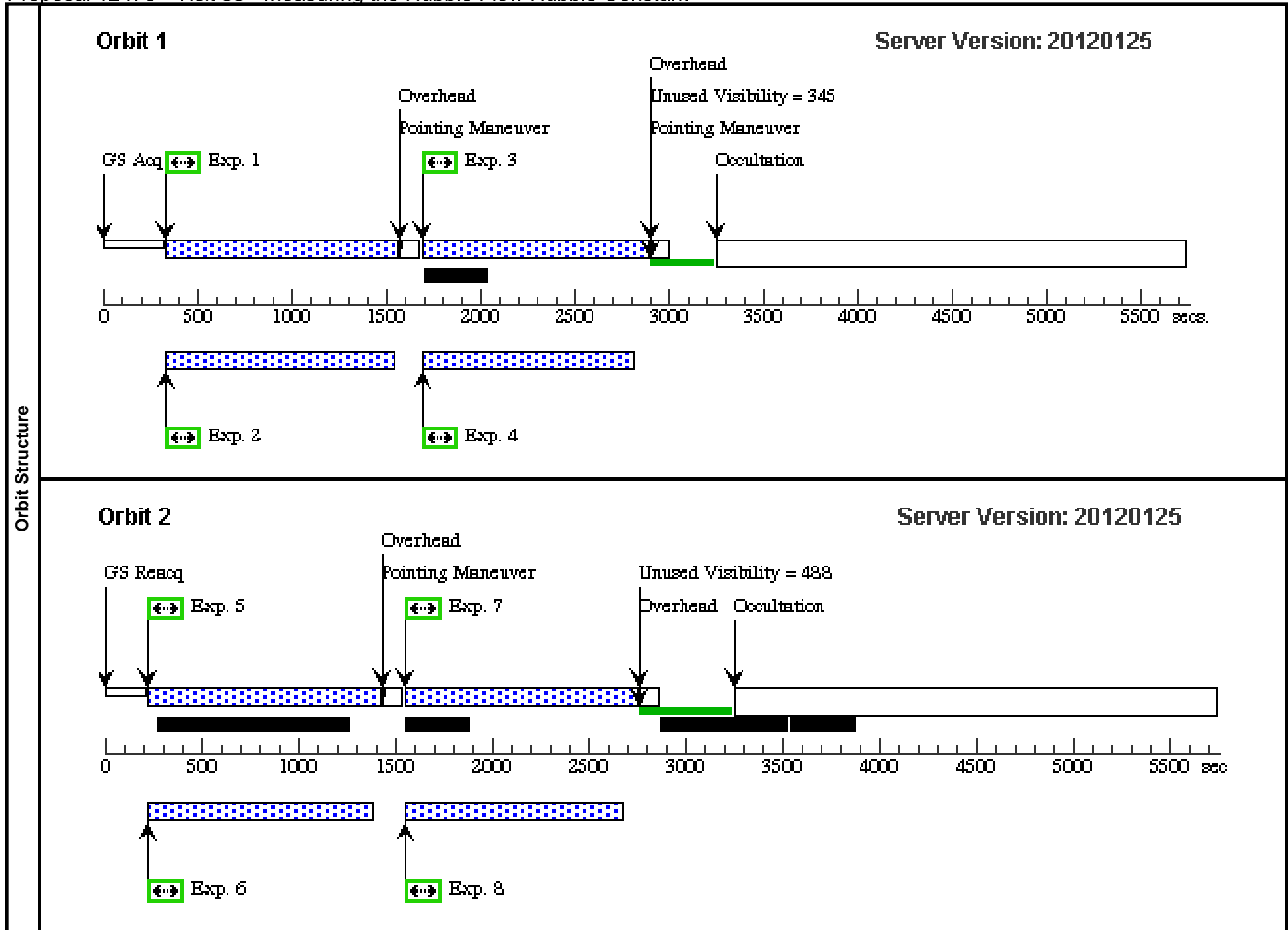
Visit	Proposal 12476, Visit 32, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 31; AFTER 11 BY 81.0 D TO 82.0 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	NGC-4921-ORIENT-222	RA: 13 01 26.8600 (195.3619167d) Dec: +27 53 16.00 (27.88778d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 32	1200 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 32	1000 Secs [==>]	[1]
	3		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 32	1200 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 3-4 in Visit 32	1000 Secs [==>]	[1]
	5		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 32	1200 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 5-6 in Visit 32	1000 Secs [==>]	[2]
	7		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 32	1200 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 7-8 in Visit 32	1000 Secs [==>]	[2]



Proposal 12476 - Visit 33 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:41 GMT 2012

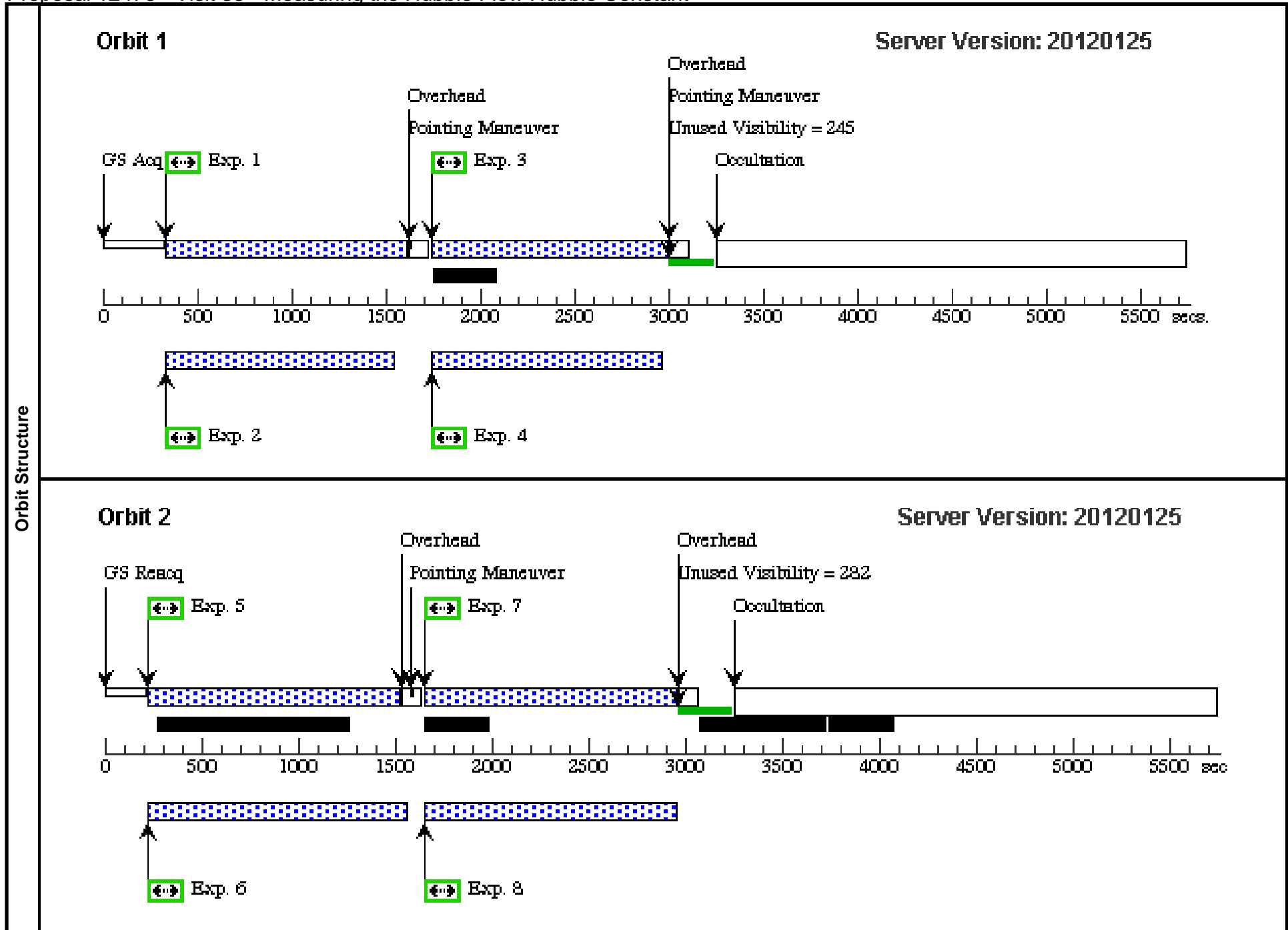
Visit	Proposal 12476, Visit 33, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 31; AFTER 11 BY 85 D TO 86 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	NGC-4921-ORIENT-222	RA: 13 01 26.8600 (195.3619167d) Dec: +27 53 16.00 (27.88778d) Equinox: J2000			V=29.0+/-0.1	Reference Frame: ICRS	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 33	1200 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 33	1000 Secs [==>]	[1]
	3		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 33	1200 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 3-4 in Visit 33	1000 Secs [==>]	[1]
	5		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 33	1200 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 5-6 in Visit 33	1000 Secs [==>]	[2]
	7		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 33	1200 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 7-8 in Visit 33	1000 Secs [==>]	[2]



Proposal 12476 - Visit 35 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:41 GMT 2012

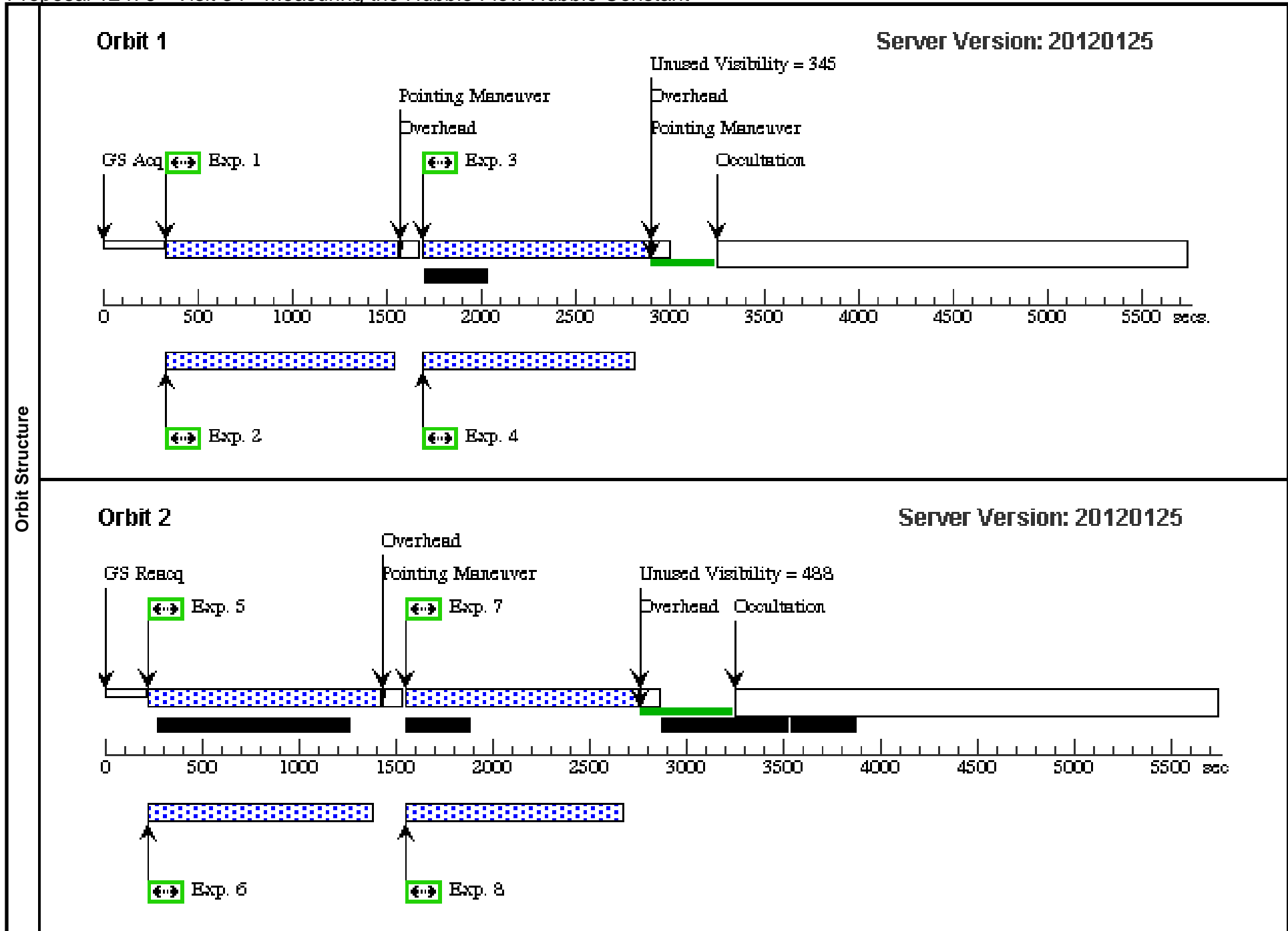
Visit	Proposal 12476, Visit 35 Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; ORIENT 222D TO 222 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	NGC-4921-ORIENT-222	RA: 13 01 26.8600 (195.3619167d) Dec: +27 53 16.00 (27.88778d) Equinox: J2000			V=29.0+/-0.1	Reference Frame: ICRS	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 35	1250 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 35	1000 Secs [==>]	[1]
	3		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 35	1250 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 3-4 in Visit 35	1100 Secs [==>]	[1]
	5		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 35	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 5-6 in Visit 35	1180 Secs [==>]	[2]
	7		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 35	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 7-8 in Visit 35	1180 Secs [==>]	[2]



Proposal 12476 - Visit 34 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:42 GMT 2012

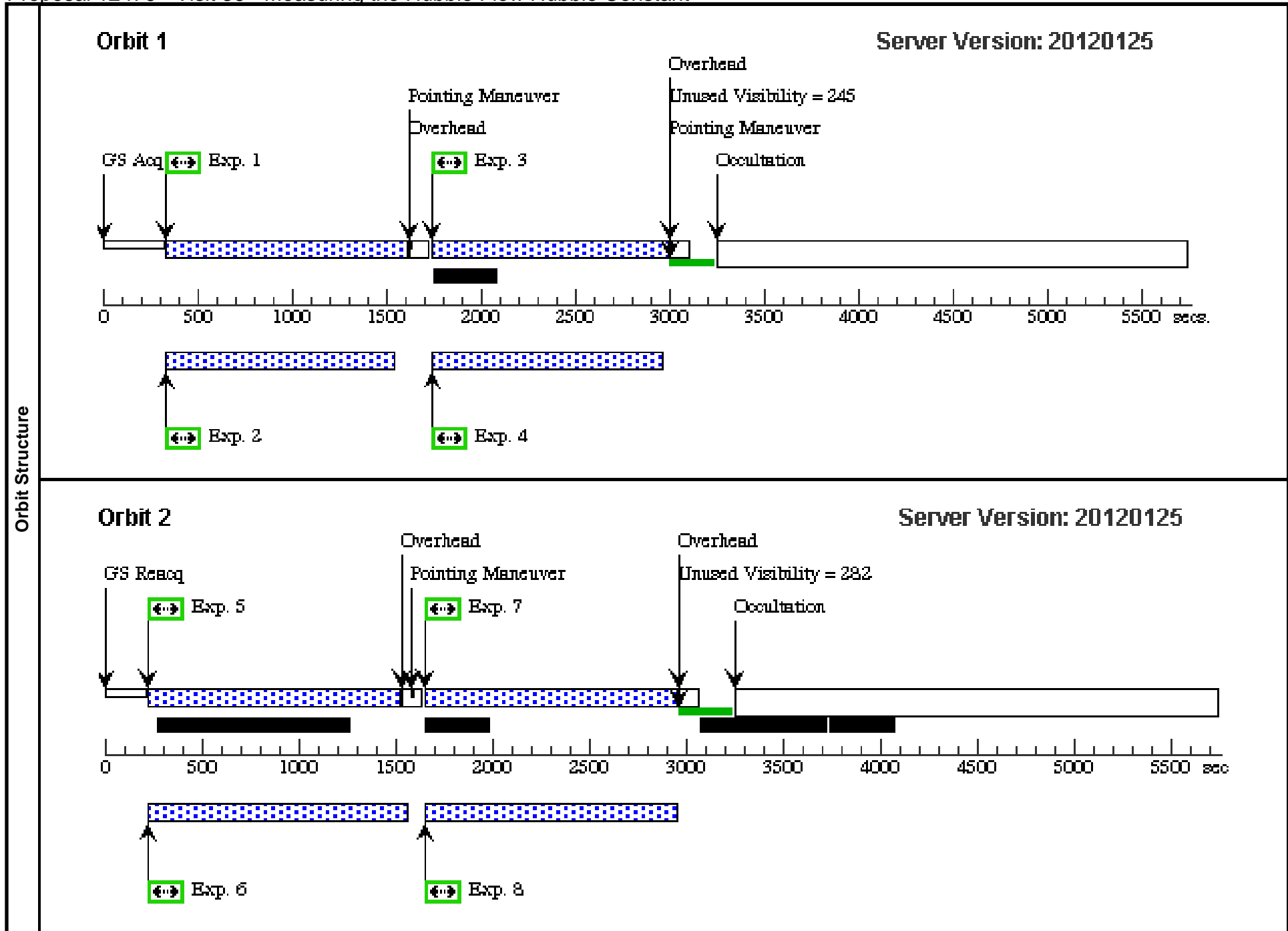
Visit	Proposal 12476, Visit 34, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 31; AFTER 11 BY 89.0 D TO 90.5 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	NGC-4921-ORIENT-222	RA: 13 01 26.8600 (195.3619167d) Dec: +27 53 16.00 (27.88778d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 34	1200 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 34	1000 Secs [==>]	[1]
	3		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 34	1200 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 3-4 in Visit 34	1000 Secs [==>]	[1]
	5		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 34	1200 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 5-6 in Visit 34	1000 Secs [==>]	[2]
	7		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 34	1200 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 7-8 in Visit 34	1000 Secs [==>]	[2]



Proposal 12476 - Visit 36 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:42 GMT 2012

Visit	Proposal 12476, Visit 36 Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; ORIENT 222D TO 222 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(1)	NGC-4921-ORIENT-222	RA: 13 01 26.8600 (195.3619167d) Dec: +27 53 16.00 (27.88778d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.0000,0 .0000; GS ACQ SCENARI O BASE1B3	Prime + Parallel Gro up 1-2 in Visit 36	1250 Secs [==>]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-2 in Visit 36	1000 Secs [==>]	[1]
	3		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.158,0 070	Prime + Parallel Gro up 3-4 in Visit 36	1250 Secs [==>]	[1]
	4		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 3-4 in Visit 36	1100 Secs [==>]	[1]
	5		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 0.099,0 165	Prime + Parallel Gro up 5-6 in Visit 36	1300 Secs [==>]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 5-6 in Visit 36	1180 Secs [==>]	[2]
	7		(1) NGC-4921-ORIE NT-222	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -0.060,0 .095	Prime + Parallel Gro up 7-8 in Visit 36	1300 Secs [==>]	[2]
	8		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 7-8 in Visit 36	1180 Secs [==>]	[2]

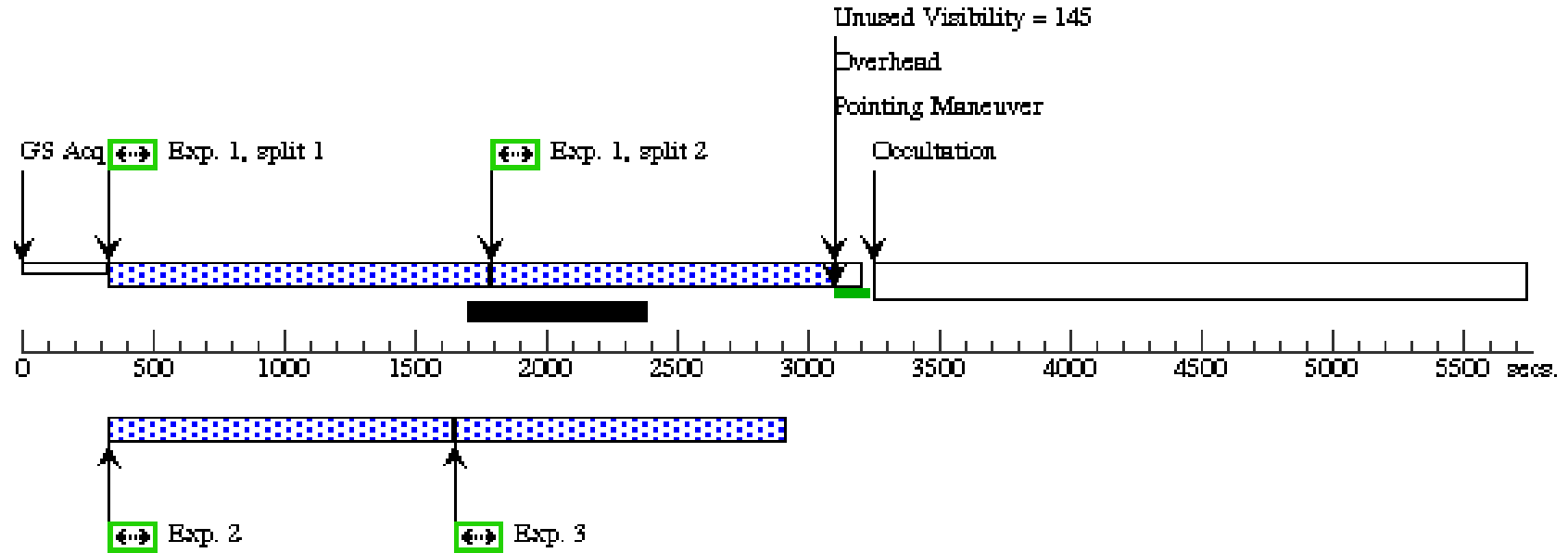


Proposal 12476 - Visit V1 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:43 GMT 2012

Visit	Proposal 12476, Visit V1, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 11; AFTER 11 BY 0 D TO 1 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	NGC-4921-ORIENT-290	RA: 13 01 26.9500 (195.3622917d) Dec: +27 53 14.70 (27.88742d) Equinox: J2000			V=29.0+/-0.1	Reference Frame: ICRS	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>		
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG 0.0000,0 .0000	Prime + Parallel Gro up 1-3 in Visit V1	2600 Secs [==>(Split 1)] [==>(Split 2)]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Gro up 1-3 in Visit V1	1100 Secs [==>]	[1]
	3		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Gro up 1-3 in Visit V1	1100 Secs [==>]	[1]
	4		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG 0.107,-0 .053	Prime + Parallel Gro up 4-6 in Visit V1	2600 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	5		ANY	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=2		Prime + Parallel Gro up 4-6 in Visit V1	1100 Secs [==>(Split 1)] [==>(Split 2)]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO		Prime + Parallel Gro up 4-6 in Visit V1	1100 Secs [==>]	[2]
	7		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG -0.053,- 0.107	Prime + Parallel Gro up 7-8 in Visit V1	2600 Secs [==>(Split 1)] [==>(Split 2)]	[3]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L	CR-SPLIT=2; AUTOIMAGE=NO		Prime + Parallel Gro up 7-8 in Visit V1	2400 Secs [==>(Split 1)] [==>(Split 2)]	[3]
	9		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG -0.107,0 .053	Prime + Parallel Gro up 9-10 in Visit V1	2600 Secs [==>(Split 1)] [==>(Split 2)]	[4]
	10		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO; CR-SPLIT=2		Prime + Parallel Gro up 9-10 in Visit V1	2400 Secs [==>(Split 1)] [==>(Split 2)]	[4]
	11		(3) NGC-4921-ORIE NT-290	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG 0.053,0 107	Prime + Parallel Gro up 11-12 in Visit V1	2600 Secs [==>(Split 1)] [==>(Split 2)]	[5]
12		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO; CR-SPLIT=2		Prime + Parallel Gro up 11-12 in Visit V1	2400 Secs [==>(Split 1)] [==>(Split 2)]	[5]	

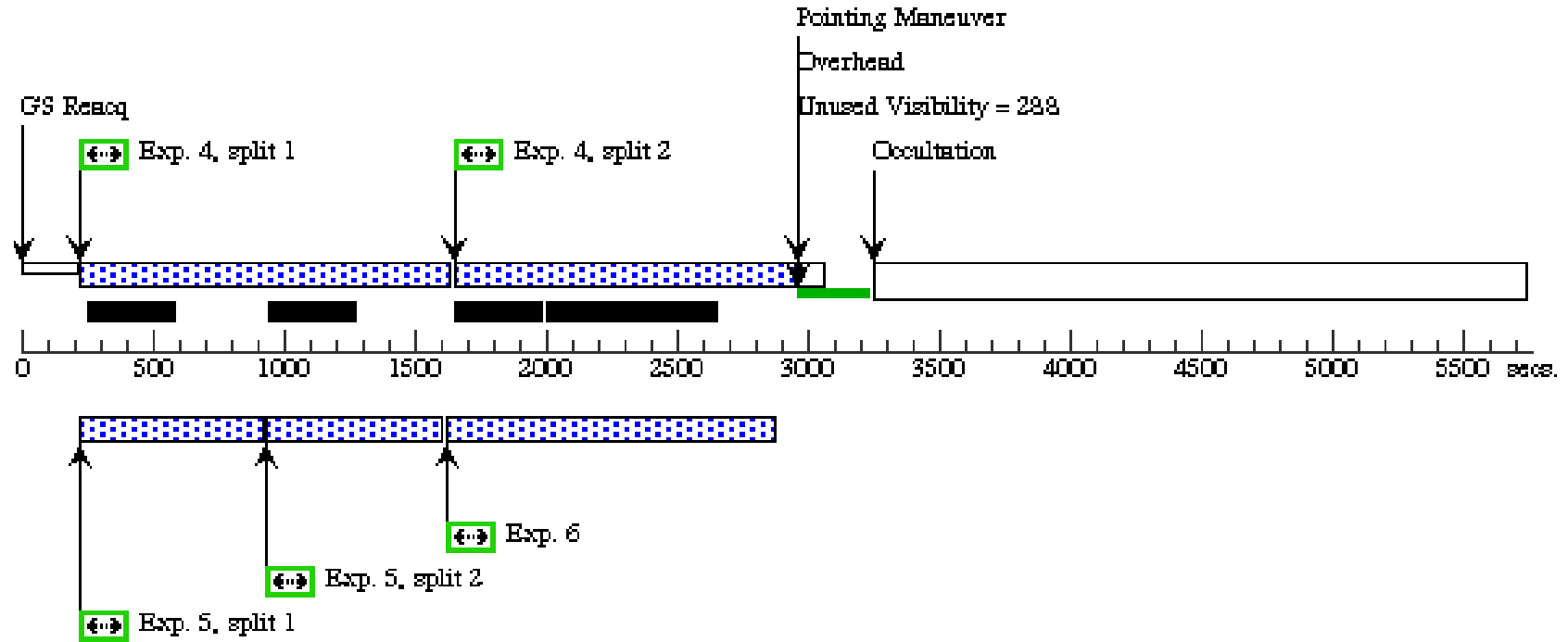
Orbit 1



Orbit Structure

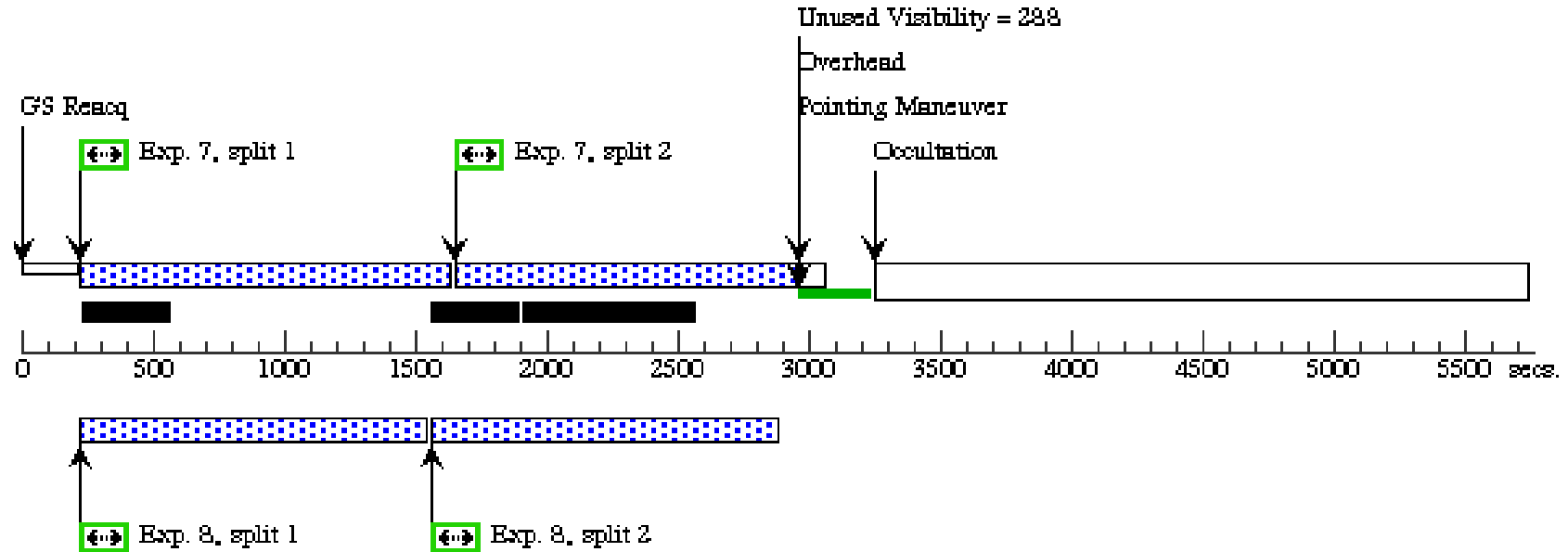
Orbit 2

Server Version: 20120125



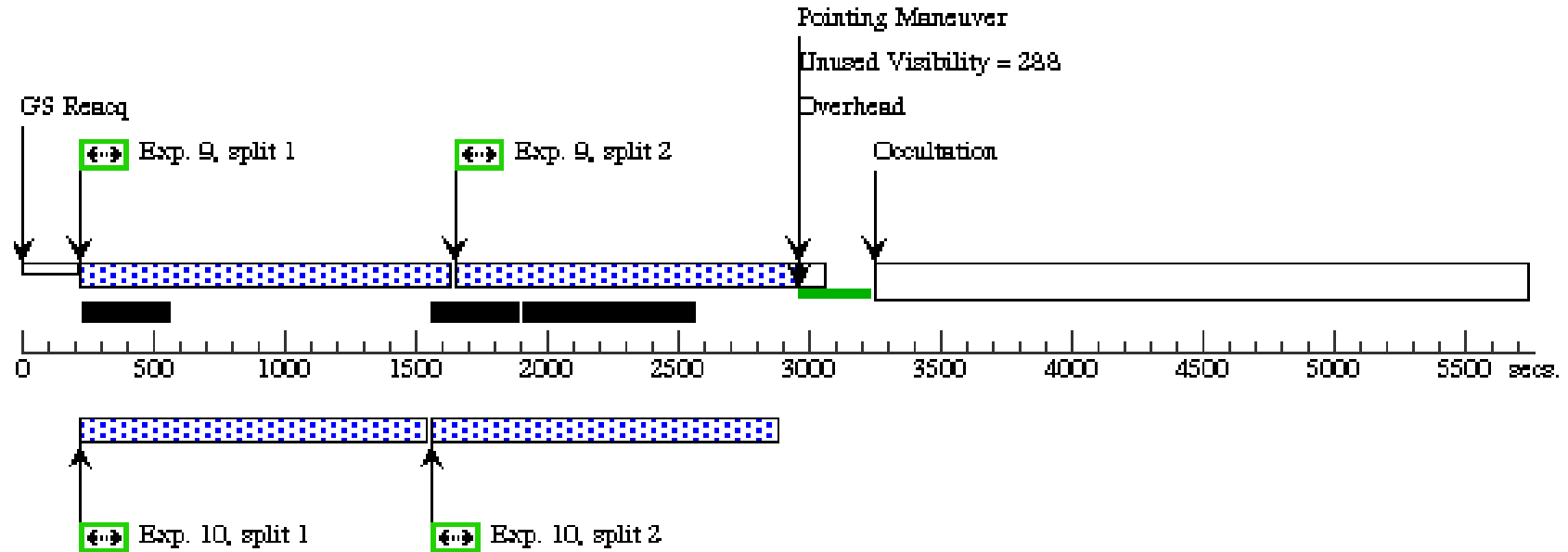
Orbit 3

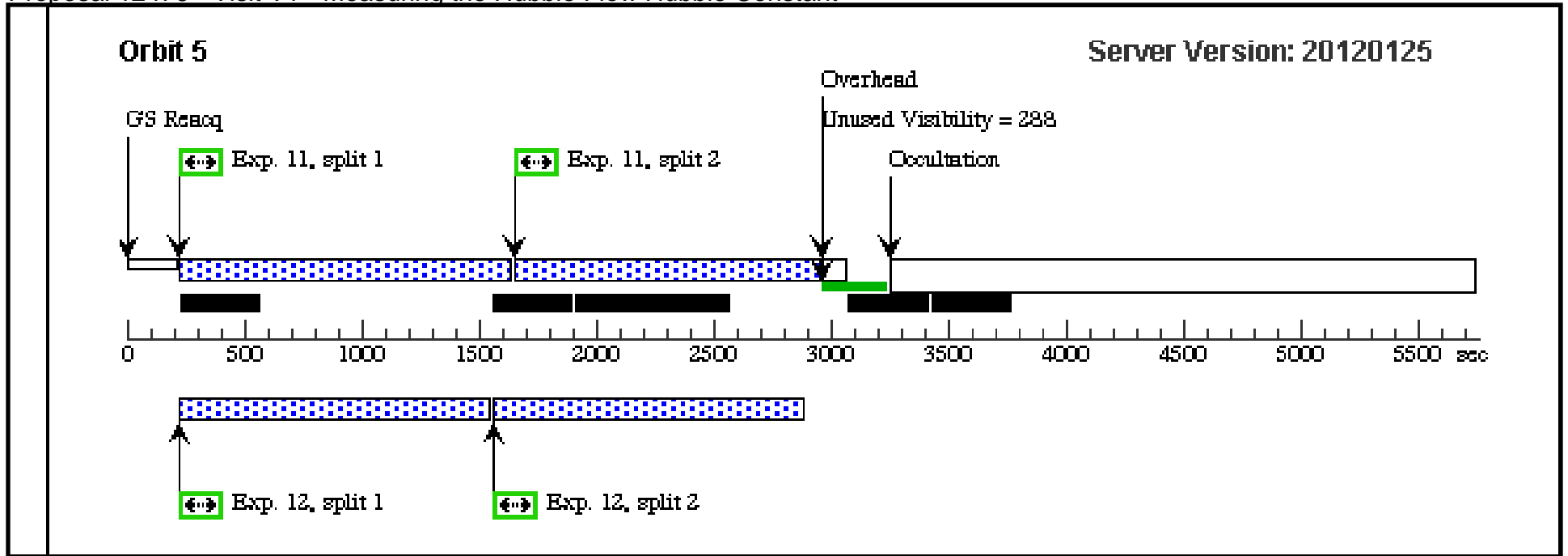
Server Version: 20120125



Orbit 4

Server Version: 20120125



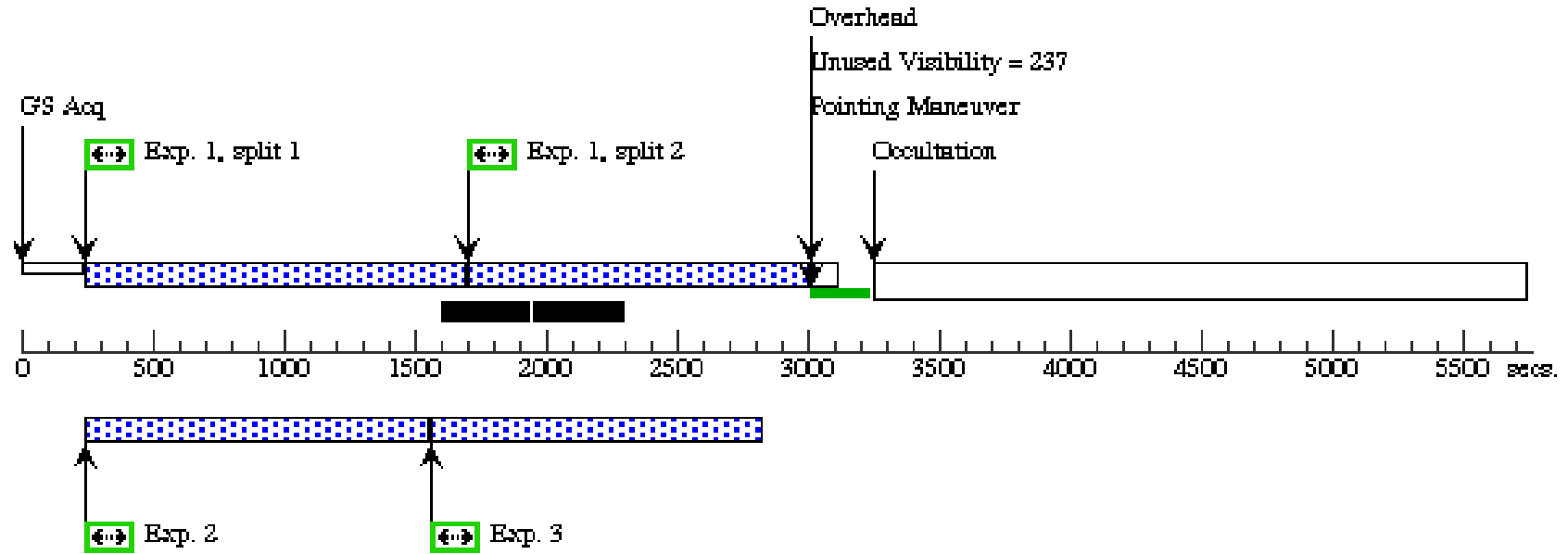


Proposal 12476 - Visit V2 - Measuring the Hubble Flow Hubble Constant

Wed Mar 14 01:03:44 GMT 2012

Visit	Proposal 12476, Visit V2, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: BRIGHT EARTH AVOID 25.0D; SAME ORIENT AS 21; AFTER 23 BY 0 D TO 1 D									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	NGC-4921-ORIENT-252.5	RA: 13 01 26.7600 (195.3615000d) Dec: +27 53 6.00 (27.88500d) Equinox: J2000		V=29.0+/-0.1	Reference Frame: ICRS				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG 0.0000,0 .0000; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-3 in Visit V2	2600 Secs [=>(Split 1)] [=>(Split 2)]	[1]
	2		ANY	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-3 in Visit V2	1100 Secs [=>]	[1]
	3		ANY	ACS/WFC, ACCUM, WFC	F475W			Prime + Parallel Group 1-3 in Visit V2	1100 Secs [=>]	[1]
	4		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG 0.107,-0 .053	Prime + Parallel Group 4-6 in Visit V2	2600 Secs [=>(Split 1)] [=>(Split 2)]	[2]
	5		ANY	ACS/WFC, ACCUM, WFC	F606W	CR-SPLIT=2		Prime + Parallel Group 4-6 in Visit V2	1100 Secs [=>(Split 1)] [=>(Split 2)]	[2]
	6		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO		Prime + Parallel Group 4-6 in Visit V2	1100 Secs [=>]	[2]
	7		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG -0.053,-0.107	Prime + Parallel Group 7-8 in Visit V2	2600 Secs [=>(Split 1)] [=>(Split 2)]	[3]
	8		ANY	ACS/WFC, ACCUM, WFC	G800L	CR-SPLIT=2; AUTOIMAGE=NO		Prime + Parallel Group 7-8 in Visit V2	2400 Secs [=>(Split 1)] [=>(Split 2)]	[3]
	9		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG -0.107,0 .053	Prime + Parallel Group 9-10 in Visit V2	2600 Secs [=>(Split 1)] [=>(Split 2)]	[4]
	10		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO; CR-SPLIT=2		Prime + Parallel Group 9-10 in Visit V2	2400 Secs [=>(Split 1)] [=>(Split 2)]	[4]
	11		(2) NGC-4921-ORIE NT-252.5	WFC3/UVIS, ACCUM, UVIS-CENTER	F606W	CR-SPLIT=2	POS TARG 0.053,0.107	Prime + Parallel Group 11-12 in Visit V2	2600 Secs [=>(Split 1)] [=>(Split 2)]	[5]
12		ANY	ACS/WFC, ACCUM, WFC	G800L	AUTOIMAGE=NO; CR-SPLIT=2		Prime + Parallel Group 11-12 in Visit V2	2400 Secs [=>(Split 1)] [=>(Split 2)]	[5]	

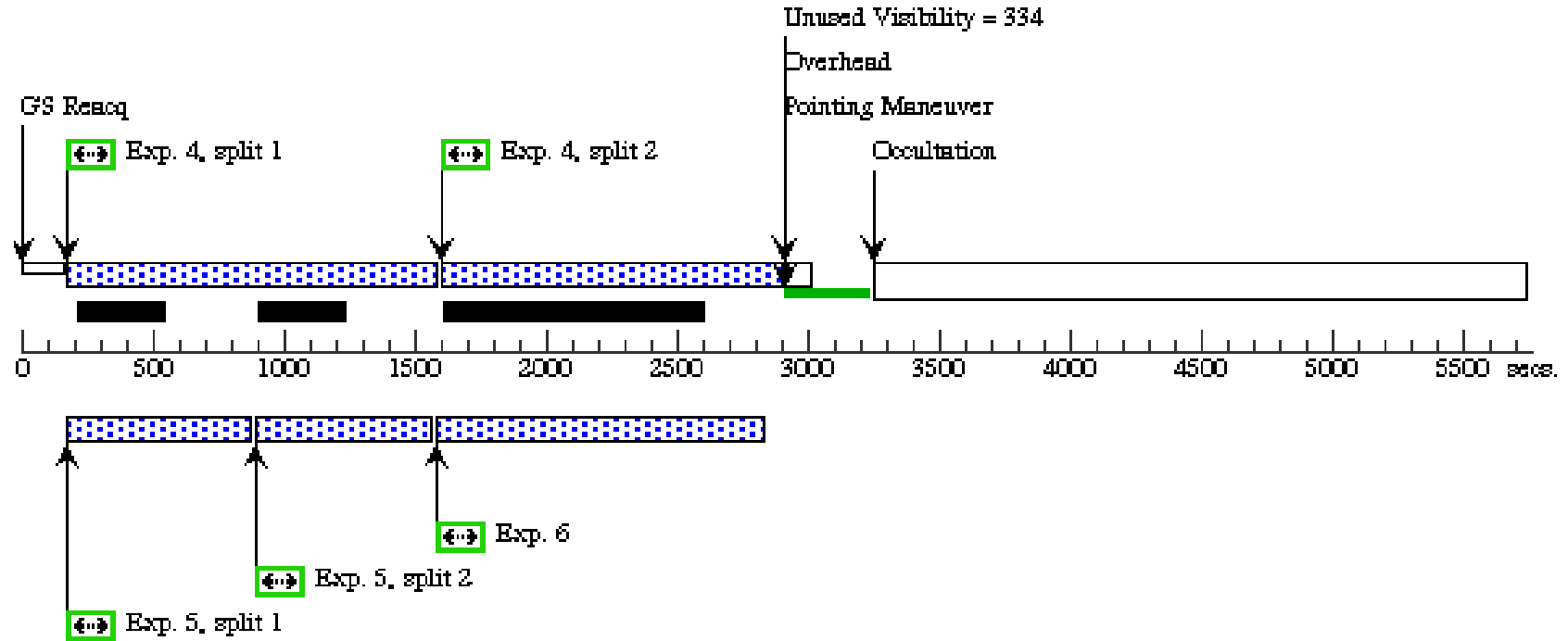
Orbit 1



Orbit Structure

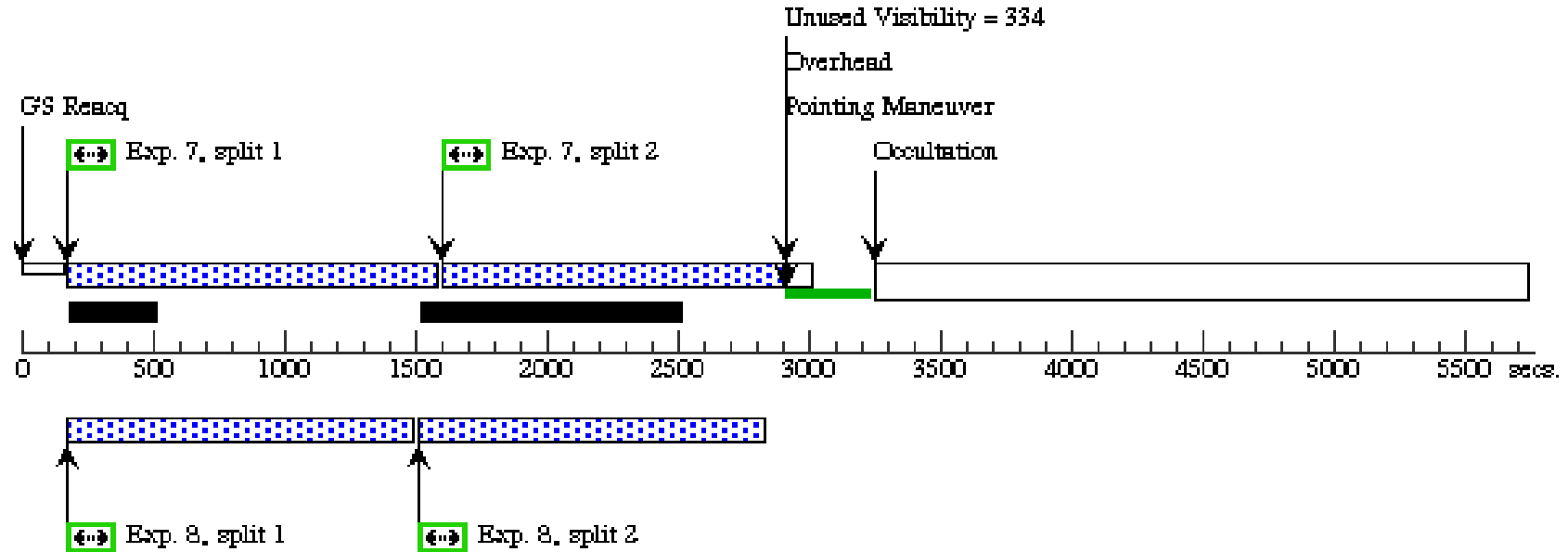
Orbit 2

Server Version: 20120125



Orbit 3

Server Version: 20120125



Orbit 4

Server Version: 20120125

