



15664 - New insights from gravitational waves combined with electromagnetic light

Cycle: 26, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
Prof. Andrew James Levan (PI) (ESA Member) (Contact)	Radboud Universiteit Nijmegen	a.levan@astro.ru.nl
Dr. Stephen J. Smartt (CoI) (ESA Member)	The Queen's University of Belfast	s.smartt@qub.ac.uk
Dr. Daniele Bjorn Malesani (CoI) (ESA Member)	Technical University of Denmark-DTU Space	malesani@space.dtu.dk
Dr. Stefano Covino (CoI) (ESA Member)	Osservatorio Astronomico di Brera, Milano	stefano.covino@brera.inaf.it
Dr. Susanna Vergani (CoI) (ESA Member)	Observatoire de Paris - Section de Meudon	susanna.vergani@obspm.fr
Dr. Elena Pian (CoI) (ESA Member)	INAF, Osservatorio di Astrofisica e Scienza dello Spazio di B	elena.pian@inaf.it
Dr. Paolo D'Avanzo (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Brera, Merate	paolo.davanzo@brera.inaf.it
Prof. Nial Rahil Tanvir (CoI) (ESA Member)	University of Leicester	nrt3@star.le.ac.uk
Dr. Marica Branchesi (CoI) (ESA Member)	Gran Sasso Science Institute	marica.branchesi@gssi.it
Dr. Danny Steeghs (CoI) (ESA Member)	The University of Warwick	d.t.h.steeghs@warwick.ac.uk
Dr. Benjamin Paul Gompertz (CoI) (ESA Member)	The University of Warwick	b.gompertz@warwick.ac.uk
Dr. Patricia Schady (CoI) (ESA Member)	University of Bath	p.schady@bath.ac.uk
Dr. Mathew Smith (CoI) (ESA Member)	University of Southampton	mat.smith@soton.ac.uk
Dr. Lluís Galbany (CoI) (ESA Member)	Universidad de Granada	lluisgalbany@gmail.com
Dr. Claudia Patricia Gutierrez (CoI) (ESA Member)	University of Southampton	c.p.gutierrez-avendano@soton.ac.uk
Dr. Kate Maguire (CoI) (ESA Member)	University of Dublin, Trinity College	kate.maguire@tcd.ie
Mr. Kasper Elm Heintz (CoI)	University of Iceland	heintz@dark-cosmology.dk
Dr. Lorenzo Amati (CoI) (ESA Member)	INAF, Osservatorio di Astrofisica e Scienza dello Spazio di B	lorenzo.amati@inaf.it
Dr. Riccardo Ciolfi (CoI) (ESA Member)	Osservatorio Astronomico di Padova	riccardo.ciolfi@inaf.it
Mr. Andreas Floers (CoI) (ESA Member)	European Southern Observatory - Germany	afloers@eso.org

Name	Institution	E-Mail
Dr. Jonatan Selsing (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute	jselsing@nbi.ku.dk
Dr. Mauro Dadina (CoI) (ESA Member)	INAF, Osservatorio di Astrofisica e Scienza dello Spazio di B	mauro.dadina@inaf.it
Dr. Morgan Fraser (CoI) (ESA Member)	University College Dublin	morgan.fraser@ucd.ie
Dr. Valerio D'Elia (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Roma	valerio.delia@vistec.ac.th
Dr. Andrea Melandri (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Brera, Merate	andrea.melandri@brera.inaf.it
Prof. Paul J. Groot (CoI) (ESA Member)	Radboud Universiteit Nijmegen	pgroot@astro.ru.nl
Rhaana L.C. Starling (CoI) (ESA Member)	University of Leicester	rlcs1@le.ac.uk
Dr. Chris Ashall (CoI)	Florida State University	chris.ashall24@gmail.com
Dr. Anders Jerkstrand (CoI) (ESA Member)	Max-Planck-Institut für Astrophysik	anders@mpa-garching.mpg.de
Dr. Darach Watson (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute	darach@nbi.ku.dk
Dr. Maria Teresa Botticella (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Capodimonte	maria.botticella@inaf.it
Dr. Massimo Della Valle (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Capodimonte	massimo.dellavalle@inaf.it
Dr. Steve Schulze (CoI)	Weizmann Institute of Science	steve.schulze@weizmann.ac.il
Shane Moran (CoI) (ESA Member)	University of Turku	semoke@utu.fi
Dr. Leslie Hunt (CoI) (ESA Member)	Osservatorio Astrofisico di Arcetri	hunt@arcetri.astro.it
Dr. Massimo Dall'Ora (CoI) (ESA Member)	Osservatorio Astronomico di Capodimonte (OAC)	dallora@na.astro.it
Dr. Joseph Lyman (CoI) (ESA Member)	The University of Warwick	j.d.lyman@warwick.ac.uk
Dr. Lise Christensen (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute	lise@dark-cosmology.dk
Dr. Elisabetta Maiorano (CoI) (ESA Member)	INAF, Osservatorio di Astrofisica e Scienza dello Spazio di B	elisabetta.maiorano@inaf.it
Prof. Shiho Kobayashi (CoI) (ESA Member)	Liverpool John Moores University	s.kobayashi@ljmu.ac.uk
Prof. Mark Sullivan (CoI) (ESA Member)	University of Southampton	m.sullivan@soton.ac.uk
Dr. Michela Mapelli (CoI) (ESA Member)	Scuola Internazionale Superiore di Studi Avanzati	michela.mapelli@oapd.inaf.it
Dr. Silvia Piranomonte (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Roma	silvia.piranomonte@gmail.com
Dr. Giuliano Pignata (CoI)	Universidad Andres Bello	pignago@gmail.com
Prof. Jens Hjorth (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute	jens@dark-cosmology.dk
Dr. Enrico Cappellaro (CoI) (ESA Member)	Osservatorio Astronomico di Capodimonte (OAC)	enrico.cappellaro@oapd.inaf.it
Dr. Stefano Benetti (CoI) (ESA Member)	Osservatorio Astronomico di Padova	benetti@pd.astro.it
Prof. Andrea Cimatti (CoI) (ESA Member)	Universita di Bologna	a.cimatti@unibo.it
Dr. Margherita Talia (CoI) (ESA Member)	Universita di Bologna	margherita.talia2@unibo.it
Dr. Klaas Wiersema (CoI) (ESA Member)	The University of Warwick	k.wiersema@warwick.ac.uk
Dr. Mariusz Gromadzki (CoI) (ESA Member)	Warsaw University	marg@astrouw.edu.pl

Name	Institution	E-Mail
Prof. Phillip Podsiadlowski (CoI) (ESA Member)	University of Oxford	podsi@astro.ox.ac.uk
Dr. Ting-Wan Chen (CoI) (ESA Member)	Max-Planck-Institut fur extraterrestrische Physik	jchen@mpe.mpg.de
Dr. Seppo Mattila (CoI) (ESA Member)	University of Turku	seppo.mattila@utu.fi
Dr. Gijs Nelemans (CoI) (ESA Member)	Radboud Universiteit Nijmegen	nelemans@astro.ru.nl
Dr. Giancarlo Ghirlanda (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Brera, Merate	giancarlo.ghirlanda@brera.inaf.it
Dr. Sarah Antier (CoI) (ESA Member)	Laboratoire de l'Accelérateur Lineaire	antier@lal.in2p3.fr
Dr. Gianpiero Tagliaferri (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Brera, Merate	gianpiero.tagliaferri@brera.inaf.it
Dr. Massimiliano De Pasquale (CoI)	Istanbul University Science Faculty, Department of Astronomy	m.depasquale@ucl.ac.uk
Dr. Jesper Sollerman (CoI) (ESA Member)	Stockholm University	jesper@astro.su.se
Dr. Nicholas A. Walton (CoI) (ESA Member)	University of Cambridge	naw@ast.cam.ac.uk
Dr. Steven Bloemen (CoI) (ESA Member)	Radboud Universiteit Nijmegen	s.bloemen@astro.ru.nl
Dr. Hanindyo Kuncarayakti (CoI) (ESA Member)	University of Turku	kuncarayakti@gmail.com
Dr. Gavin Lamb (CoI) (ESA Member)	University of Leicester	gpl6@leicester.ac.uk
Dr. David Kann (CoI) (ESA Member)	Thüringer Landessternwarte Tautenburg (TLS)	kann@tls-tautenburg.de
Dr. Santiago Gonzalez-Gaitan (CoI) (ESA Member)	CENTRA-Multidisciplinary Centre for Astrophysics at IST	gongsale@gmail.com
Dr. Giorgos Leloudas (CoI) (ESA Member)	Technical University of Denmark-DTU Space	giorgos@space.dtu.dk
Dr. Maria Letizia Pumo (CoI) (ESA Member)	Universita di Catania	mlpumo@oact.inaf.it
Dr. Christa Gall (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute	christa@dark-cosmology.dk
Dr. Ruben Salvaterra (CoI) (ESA Member)	INAF, Istituto di Astrofisica Spaziale e Fisica, Milano	ruben@lambrate.inaf.it
Dr. Jakob Nordin (CoI) (ESA Member)	Humboldt Universität zu Berlin	jakob.nordin@physik.hu-berlin.de
Dr. Bo Milvang-Jensen (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute	milvang@astro.ku.dk
Dr. Rupak Roy (CoI)	Inter-University Centre for Astronomy and Astrophysics, Pune	rupakroy1980@gmail.com
Dr. Bruce Gendre (CoI)	University of Western Australia	bruce.gendre@gmail.com
Dr. Ilya Mandel (CoI) (ESA Member)	University of Birmingham	imandel@star.sr.bham.ac.uk
Dr. Maria Grazia Bernardini (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Brera, Merate	grazia.bernardini@brera.inaf.it
Cosimo Inserra (CoI) (ESA Member)	University of Wales, College of Cardiff (UWCC)	inserrac@cardiff.ac.uk
Dr. Cristina Barbarino (CoI) (ESA Member)	Stockholm University	cristina.barbarino@astro.su.se
Prof. Stephan Rosswog (CoI) (ESA Member)	Stockholm University	stephan.rosswog@astro.su.se
Dr. Rubina Kotak (CoI) (ESA Member)	University of Turku	rubina.kotak@utu.fi

Name	Institution	E-Mail
Dr. Michele Cantiello (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Teramo	cantiello@te.astro.it
Dr. Aleksandar Cikota (CoI)	Lawrence Berkeley National Laboratory	aleksandar.cikota@gmail.com
Dr. Albino Perego (CoI) (ESA Member)	Universita di Milano	albino.perego@mib.infn.it
Dr. Mattia Bulla (CoI) (ESA Member)	Stockholm University	mattia.bulla@fysik.su.se
Dr. Samantha Oates (CoI) (ESA Member)	The University of Warwick	s.oates@warwick.ac.uk
Dr. Eliana Palazzi (CoI) (ESA Member)	INAF, Osservatorio di Astrofisica e Scienza dello Spazio di B	eliana.palazzi@inaf.it
Dr. Andrea Rossi (CoI) (ESA Member)	INAF, Osservatorio di Astrofisica e Scienza dello Spazio di B	andrea.rossi@inaf.it
Dr. Lina Tomasella (CoI) (ESA Member)	Osservatorio Astronomico di Padova	lina.tomasella@inaf.it
Giacomo Cannizzaro (CoI) (ESA Member)	Space Research Organization Netherlands	g.cannizzaro@sron.nl
Prof. Sandra Savaglio (CoI) (ESA Member)	University of Calabria	sandra.savaglio@unical.it
Dr. Luca Izzo (CoI) (ESA Member)	Instituto de Astrofisica de Andalucia (IAA)	luca.izzo@gmail.com
Radek Wojtak (CoI) (ESA Member)	University of Copenhagen, Niels Bohr Institute	wojtak@dark-cosmology.dk
Dr. Aniello Grado (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Capodimonte	aniello.grado@inaf.it
Prof. Tom R. Marsh (CoI) (ESA Member)	The University of Warwick	t.r.marsh@warwick.ac.uk
Dr. Enzo Brocato (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Roma	enzo.brocato@oa-roma.inaf.it
Dr. Giulia Stratta (CoI) (ESA Member)	INAF, Osservatorio di Astrofisica e Scienza dello Spazio di B	giulia.stratta@inaf.it
Prof. Vik Dhillon (CoI) (ESA Member)	University of Sheffield	vik.dhillon@sheffield.ac.uk
Dr. Mark Magee (CoI) (ESA Member)	The Queen's University of Belfast	mmagee37@qub.ac.uk
Dr. Vincenzo Testa (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Roma	vincenzo.testa@inaf.it
Dr. Christina Thoene (CoI) (ESA Member)	Instituto de Astrofisica de Andalucia (IAA)	ctheoene@iaa.es
Dr. Antonio de Ugarte Postigo (CoI) (ESA Member)	Instituto de Astrofisica de Andalucia (IAA)	adeugartepostigo@gmail.com
Dr. Francesca Onori (CoI) (ESA Member)	Space Research Organization Netherlands	f.onori@sron.nl
Dr. Sheng Yang (CoI) (ESA Member)	Osservatorio Astronomico di Padova	sheng.yang@oapd.inaf.it
Dr. Andrea Possenti (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Cagliari	andrea.possenti@inaf.it
Dr. Christopher Copperwheat (CoI) (ESA Member)	Liverpool John Moores University	c.m.copperwheat@ljmu.ac.uk
Dr. Andrew S. Fruchter (CoI) (AdminUSPI)	Space Telescope Science Institute	fruchter@stsci.edu
Dr. Yizhong Fan (CoI)	Chinese Academy of Sciences	yzfan@pmo.ac.cn
Zhiping Jin (CoI)	Chinese Academy of Sciences	jin@pmo.ac.cn
Tuomas Kangas (CoI)	Space Telescope Science Institute	tkangas@stsci.edu

VISITS

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
U1	(1) GW1	WFC3/UVIS	2	04-Sep-2019 13:00:45.0	yes
U2	(1) GW1	WFC3/UVIS	6	04-Sep-2019 13:00:47.0	yes
U3	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:48.0	yes
U4	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:49.0	yes
U5	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:49.0	yes
U6	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:50.0	yes
O1	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:50.0	yes
O2	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:51.0	yes
O3	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:51.0	yes
O4	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:00:53.0	yes
I1	(1) GW1	WFC3/IR	1	04-Sep-2019 13:00:54.0	yes
I2	(1) GW1	WFC3/IR	1	04-Sep-2019 13:00:54.0	yes
I3	(1) GW1	WFC3/IR	1	04-Sep-2019 13:00:55.0	yes
I4	(1) GW1	WFC3/IR	1	04-Sep-2019 13:00:56.0	yes
I5	(1) GW1	WFC3/IR	1	04-Sep-2019 13:00:56.0	yes
I6	(1) GW1	WFC3/IR	3	04-Sep-2019 13:00:57.0	yes
I7	(1) GW1	WFC3/IR	3	04-Sep-2019 13:00:58.0	yes
V1	(2) GW2	WFC3/UVIS	2	04-Sep-2019 13:01:00.0	yes
V2	(2) GW2	WFC3/UVIS	6	04-Sep-2019 13:01:02.0	yes
V3	(2) GW2	WFC3/UVIS	1	04-Sep-2019 13:01:03.0	yes
V4	(2) GW2	WFC3/UVIS	1	04-Sep-2019 13:01:03.0	yes
V5	(2) GW2	WFC3/UVIS	1	04-Sep-2019 13:01:04.0	yes
V6	(2) GW2	WFC3/UVIS	1	04-Sep-2019 13:01:04.0	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>
P1	(3) GW3	WFC3/UVIS	1	04-Sep-2019 13:01:05.0	yes
P2	(3) GW3	WFC3/UVIS	1	04-Sep-2019 13:01:05.0	yes
P3	(3) GW3	WFC3/UVIS	1	04-Sep-2019 13:01:06.0	yes
P4	(3) GW3	WFC3/UVIS	1	04-Sep-2019 13:01:07.0	yes
R1	(4) GW4	WFC3/IR	1	04-Sep-2019 13:01:08.0	yes
R2	(4) GW4	WFC3/IR	1	04-Sep-2019 13:01:09.0	yes
R3	(4) GW4	WFC3/IR	1	04-Sep-2019 13:01:09.0	yes
R4	(4) GW4	WFC3/IR	1	04-Sep-2019 13:01:10.0	yes
R5	(4) GW4	WFC3/IR	1	04-Sep-2019 13:01:10.0	yes
R6	(4) GW4	WFC3/IR	3	04-Sep-2019 13:01:11.0	yes
R7	(4) GW4	WFC3/IR	3	04-Sep-2019 13:01:13.0	yes
UA	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:01:13.0	yes
UB	(1) GW1	WFC3/UVIS	1	04-Sep-2019 13:01:14.0	yes
Y1	(5) AT2019OSY	WFC3/IR	1	04-Sep-2019 13:01:15.0	yes

57 Total Orbits Used

ABSTRACT

Multimessenger astronomy -- the use of light combined with non-photonic messengers such as gravitational waves or neutrinos -- has come of age in the past year, thanks to the discovery of emission across the electromagnetic spectrum from a gravitational wave detected merging neutron star binary, and the identification of at least one source of very high energy neutrinos. Here we propose to exploit the unique UV to near-IR abilities of HST, in combination with a large ground-based campaign, to pair gravitational wave and EM information for a range of merger events with varying inclinations and mass ratios. We will map out the diversity of transient behaviour, addressing many central questions in contemporary astrophysics, including; i) what is the contribution of binary neutron stars to heavy element enrichment across the Universe? ii) what is the local Hubble constant measured from gravitational waves, and how can HST determined distances enhance its accuracy? iii) what are the properties of jets launched during the merger, do all mergers create short GRBs for some observers? iv) what are the environments of the mergers, and what does this tell us about the channels to create the binaries? v) how do EM properties depend on binary parameters, particularly if one component is a black hole? The

Proposal 15664 (STScI Edit Number: 1, Created: Wednesday, September 4, 2019 at 12:01:15 PM Eastern Standard Time) - Overview

multimessenger era offers the ability to answer these questions for the first time. The capabilities of Hubble to observe outside atmospheric windows, with the spatial resolution to resolve point sources from complex backgrounds, and to track them beyond the limits of ground-based instrumentation will enable us to make pivotal contributions to this new, emergent field.

OBSERVING DESCRIPTION

We intend to conduct comprehensive UV to IR observations of gravitational wave counterparts identified during Cycle 26 and 27. This will include early UV spectroscopy for brighter sources (G280L) and UV imaging for fainter candidates. We will additionally conduct IR spectroscopic observations with both G102 and G141, concentrating our efforts on examples which are challenging from the ground (complex background subtraction / faint sources etc). As the source becomes too faint for ground based optical observations we will include optical (F475W/F606W/F814W) observations which will map the late time behaviour of the associated kilonova and the emergence of any afterglow component.

Given the uncertainty in the field due to only a single detection to date the precise strategy is difficult to define at present, and we do not wish to be overly prescriptive. We have identified a number of likely observing strategies that utilize the observations defined below. These map the range of filters and exposure times that we anticipate will be necessary, but some changes to the visits may be necessary upon trigger.

We note that the UV observations may, in one case, utilize an ultra-rapid ToO, while other observations will take place as either disruptive (early time, 3-5 day) or non-disruptive (late time, several weeks) ToOs.

U1/V1 - 2 orbit F300X/G280L

U2/V2 - 4 orbit F300X/G280L

U3/V3 - 1 orbit F225W

U4/V4 - 1 orbit F275W

U5/V5 - 1 orbit F336W

U6/V6 - 1 orbit F390W

O1/P1 - 1 orbit F475W

O2/P2 - 1 orbit F606W

O3/P3 - 1 orbit F814W

O4/P4 - 3 orbit F475W/F606W/F814W

I1/R1 - 2 orbit F110W/G102

I2/R2 - 1 orbit F160W/G141

I3/R3 - 1 orbit F110W

I4/R4 - 1 orbit F140W

I5/R5 - 1 orbit F160W

I6/R6 - 3 orbit F110W/G102

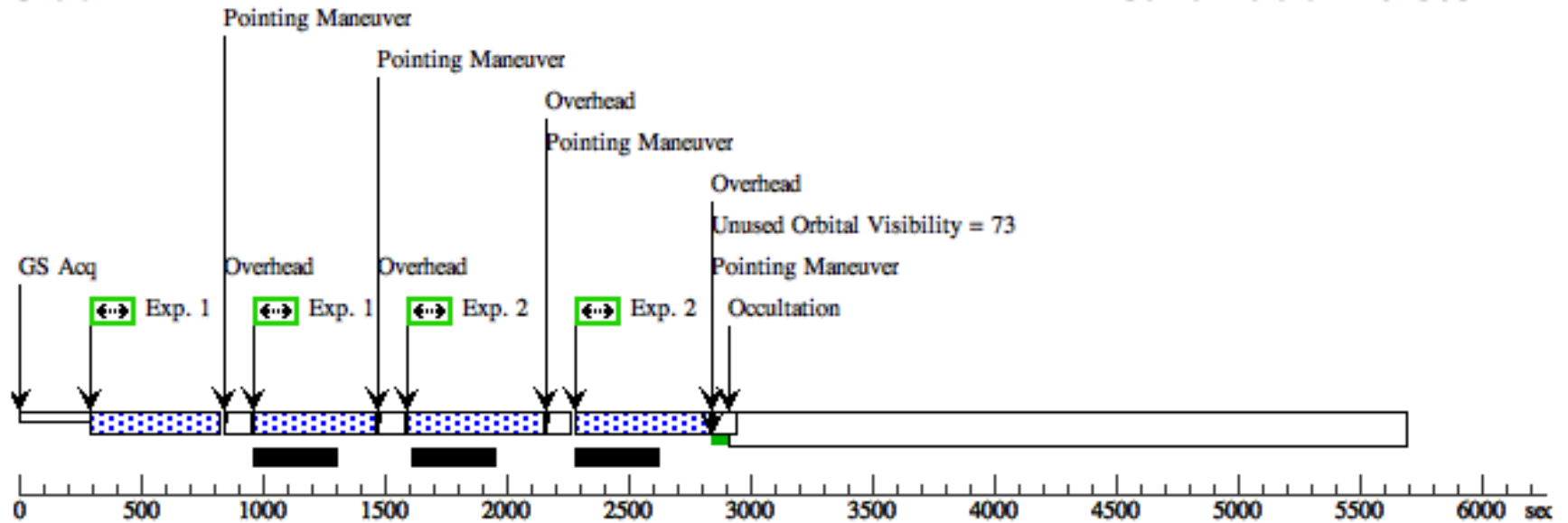
I7/R7 - 3 orbit F160W/G141

Proposal 15664 - Visit U1 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit U1, implementation					Wed Sep 04 17:01:15 GMT 2019						
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 24.0H											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern				Secondary Pattern				Exposures		
	(4)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.099 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=3.9 Angle Between Sides= Center Pattern=false		Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)		
	(6)	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						(1)		
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F300X	FLASH=10	POS TARG 0,-50	Pattern 6, Exps 1-1 i n Visit U1 (6)	500 Secs (1000 Secs)		
										[==>(Pattern 1)]		[1]
										[==>(Pattern 2)]		
	2		(1) GW1	WFC3/UVIS, ACCUM, UVIS		G280	CR-SPLIT=NO	POS TARG 0,-50	Pattern 4, Exps 2-2 i n Visit U1 (4)	550 Secs (3300 Secs)		
										[==>(Pattern 1,1)]		[1]
										[==>(Pattern 1,2)]		
									[==>(Pattern 1,3)]		[2]	
									[==>(Pattern 2,1)]			
									[==>(Pattern 2,2)]			
									[==>(Pattern 2,3)]			

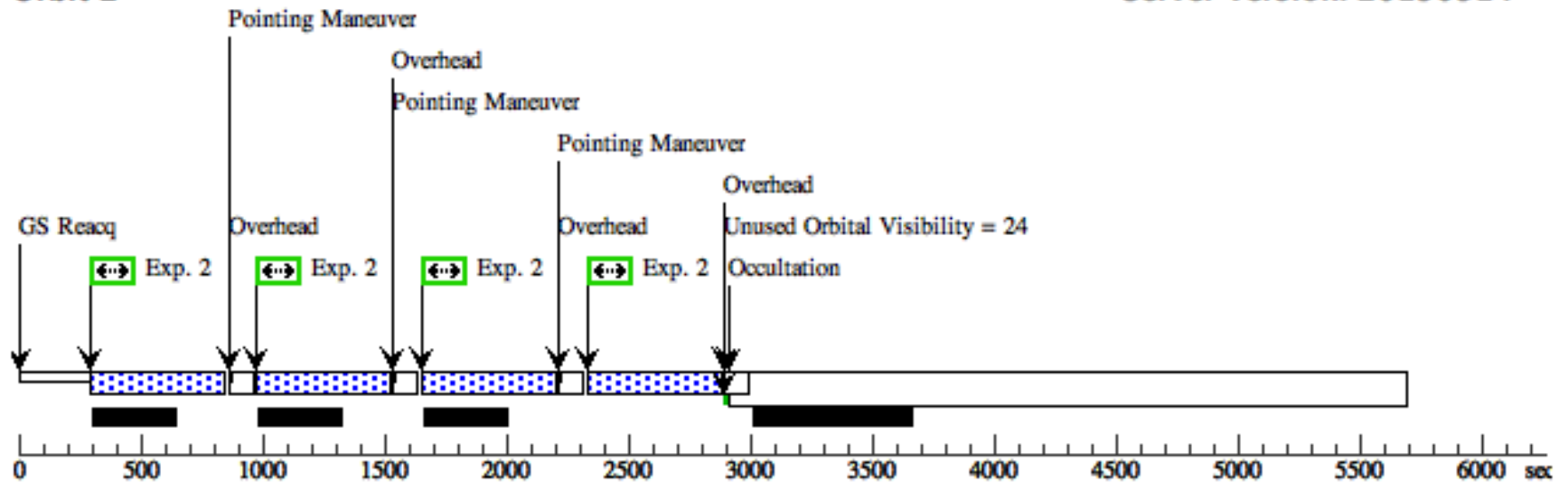
Orbit 1

Server Version: 20190514



Orbit 2

Server Version: 20190514

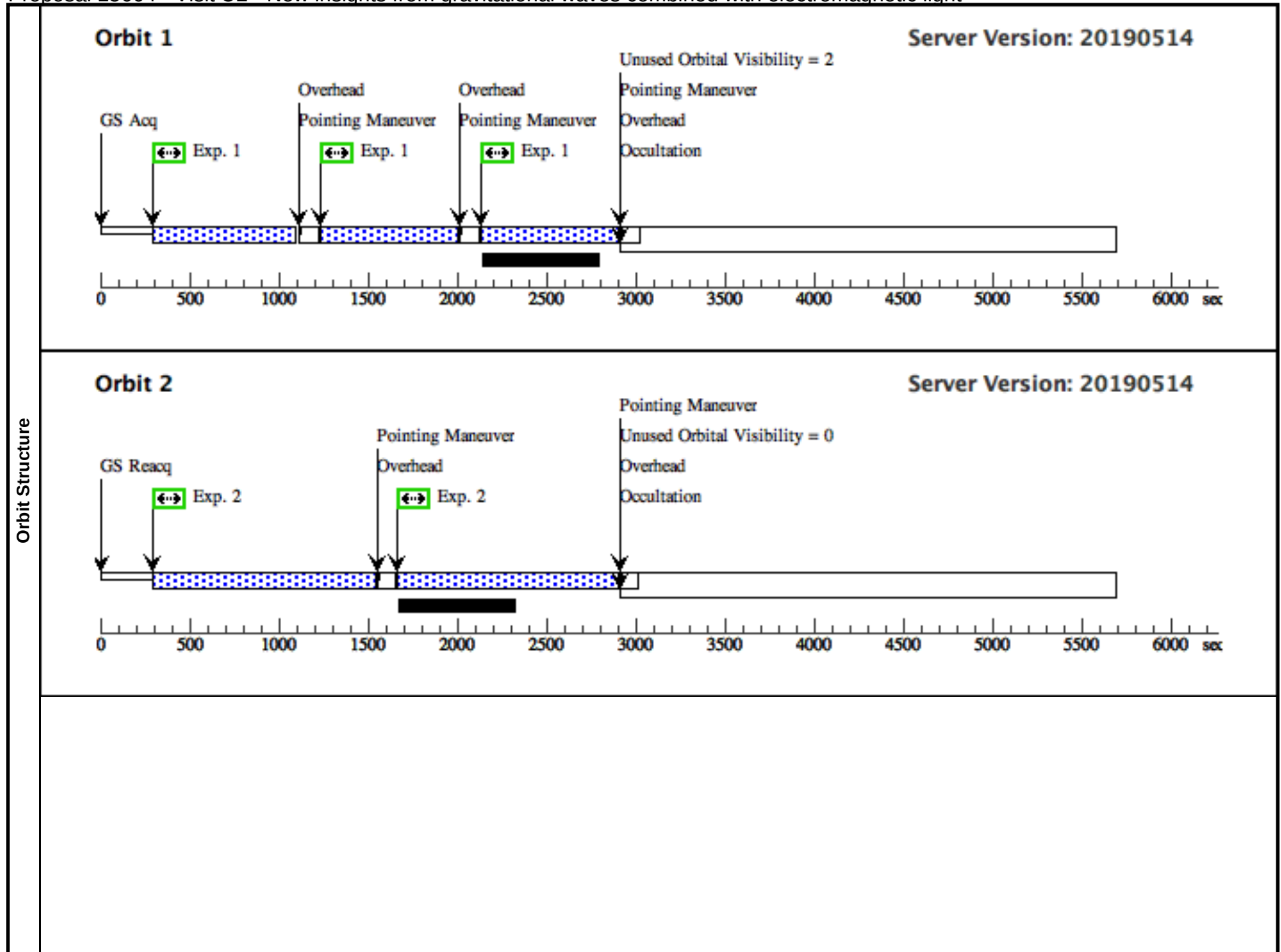


Proposal 15664 - Visit U2 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit U2, implementation					Wed Sep 04 17:01:15 GMT 2019	
	Diagnostic Status: No Diagnostics						
	Scientific Instruments: WFC3/UVIS						
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 24.0H						
	On Hold Comments: Awaiting GW trigger						
Patterns	#	Primary Pattern			Secondary Pattern		Exposures
	(3)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false			(1)	
	(5)	Pattern Type=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	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	(2)	
	(6)	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			(3)	
Generic Targets	#	Name	Criteria	Description			
	(1)	GW1	GW transinet	NEUTRON STAR			

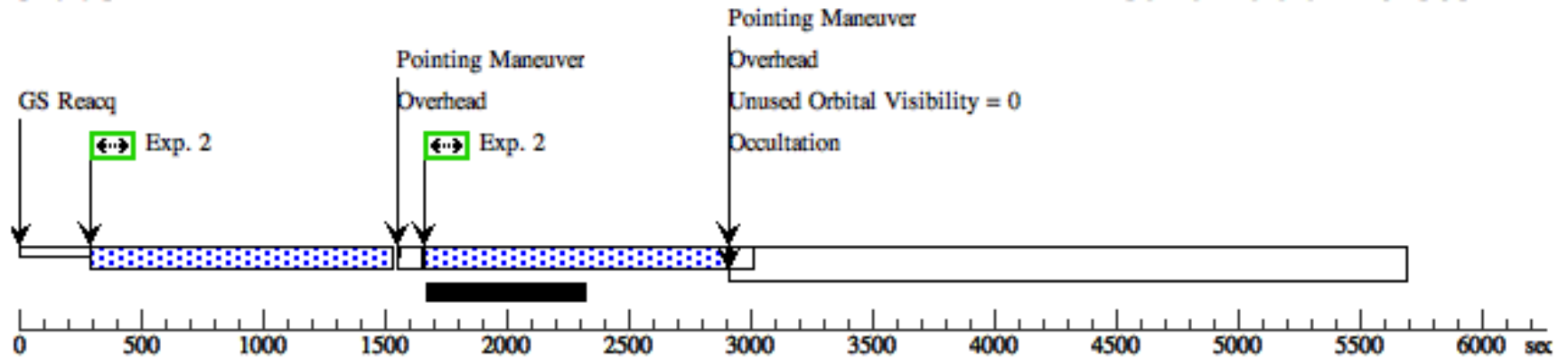
Proposal 15664 - Visit U2 - New insights from gravitational waves combined with electromagnetic light

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS	F300X	FLASH=10	POS TARG 0,-50	Pattern 3, Exps 1-1 i n Visit U2 (3)	500 Secs (2307 Secs)	
									[==>769.0 Secs (Pattern 1)]	[1]
									[==>769.0 Secs (Pattern 2)]	
									[==>769.0 Secs (Pattern 3)]	
	2		(1) GW1	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=NO	POS TARG 0,-50	Pattern 5, Exps 2-2 i n Visit U2 (5)	850 Secs (9920 Secs)	
									[==>1240.0 Secs (Pattern 1,1)]	[2]
									[==>1240.0 Secs (Pattern 1,2)]	
									[==>1240.0 Secs (Pattern 1,3)]	[3]
									[==>1240.0 Secs (Pattern 1,4)]	
									[==>1240.0 Secs (Pattern 2,1)]	[4]
									[==>1240.0 Secs (Pattern 2,2)]	
									[==>1240.0 Secs (Pattern 2,3)]	[5]
									[==>1240.0 Secs (Pattern 2,4)]	
	3		(1) GW1	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=NO	POS TARG 0,-50	Pattern 6, Exps 3-3 i n Visit U2 (6)	850 Secs (2480 Secs)	
									[==>1240.0 Secs (Pattern 1)]	[6]
									[==>1240.0 Secs (Pattern 2)]	



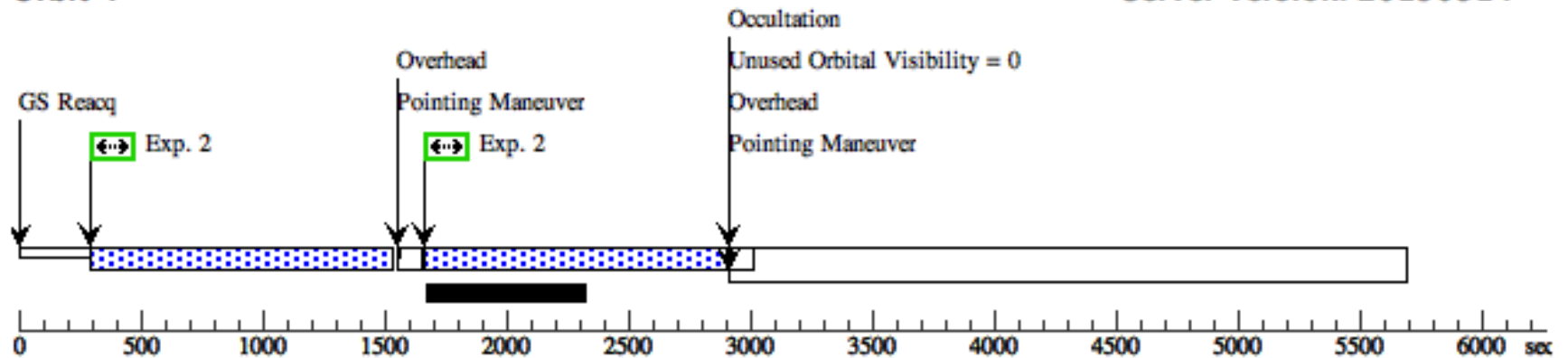
Orbit 3

Server Version: 20190514



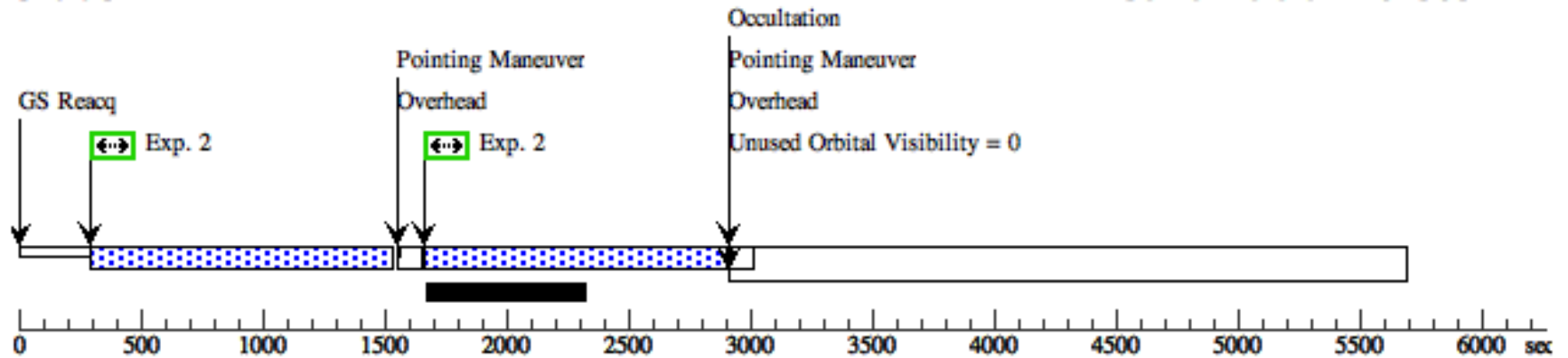
Orbit 4

Server Version: 20190514



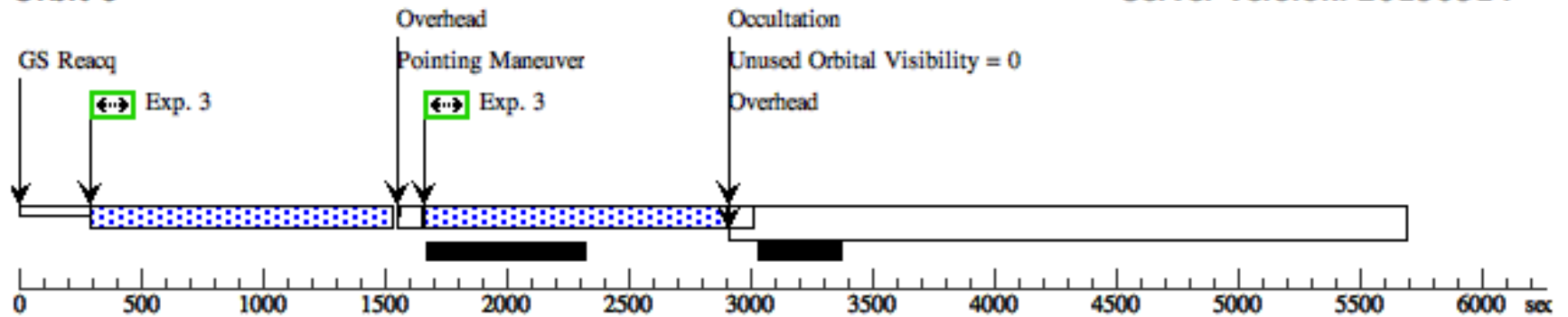
Orbit 5

Server Version: 20190514



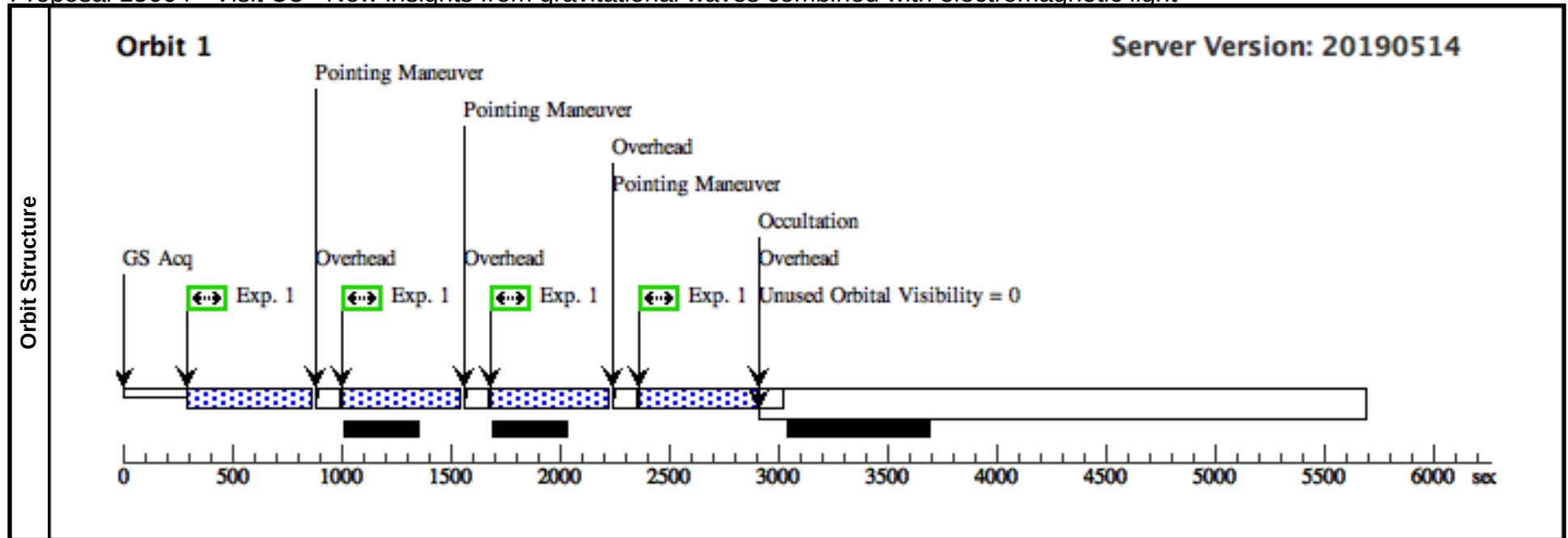
Orbit 6

Server Version: 20190514



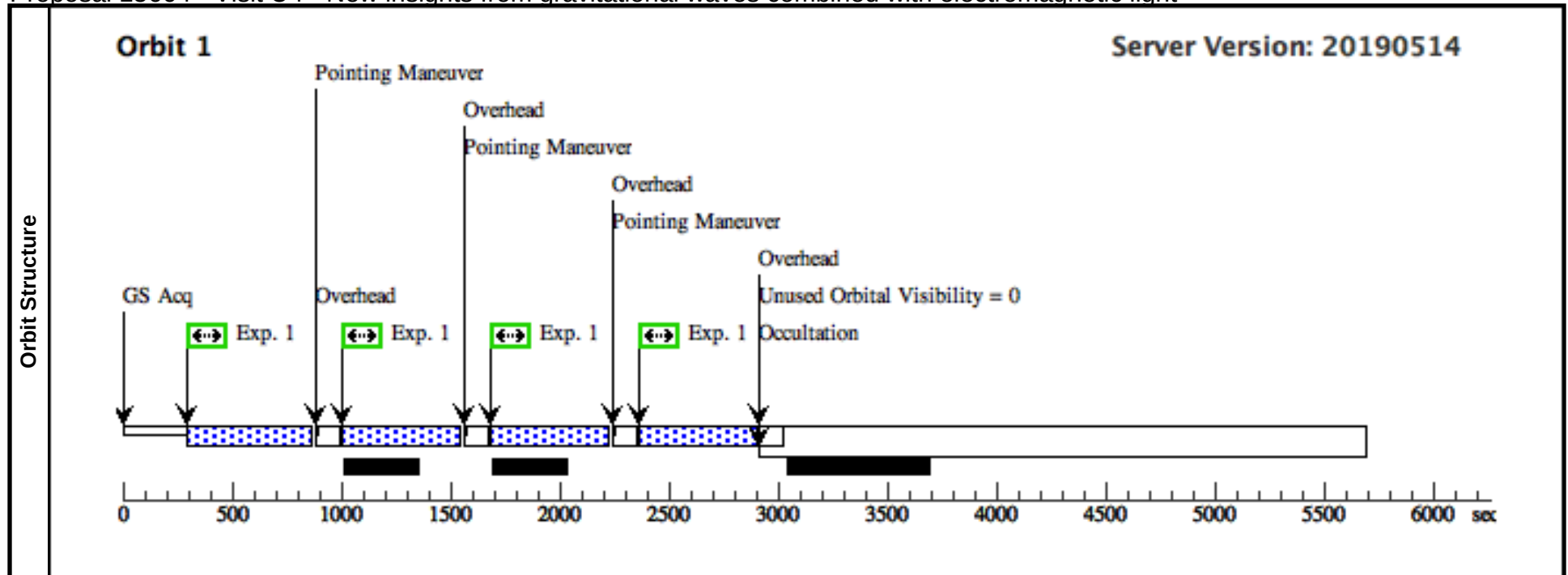
Proposal 15664 - Visit U3 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit U3, implementation											Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/UVIS												
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 24.0H												
	On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern						Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112										(1)	
Generic Targets	#	Name		Criteria		Description							
	(1)	GW1		GW transinet		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F225W	CR-SPLIT=NO;		Pattern 2, Exps 1-1 i	370 Secs (2172 Secs)			
							FLASH=11		n Visit U3 (2)	[==>543.0 Secs (Pattern 1)]		[1]	
										[==>543.0 Secs (Pattern 2)]			
										[==>543.0 Secs (Pattern 3)]			
									[==>543.0 Secs (Pattern 4)]				



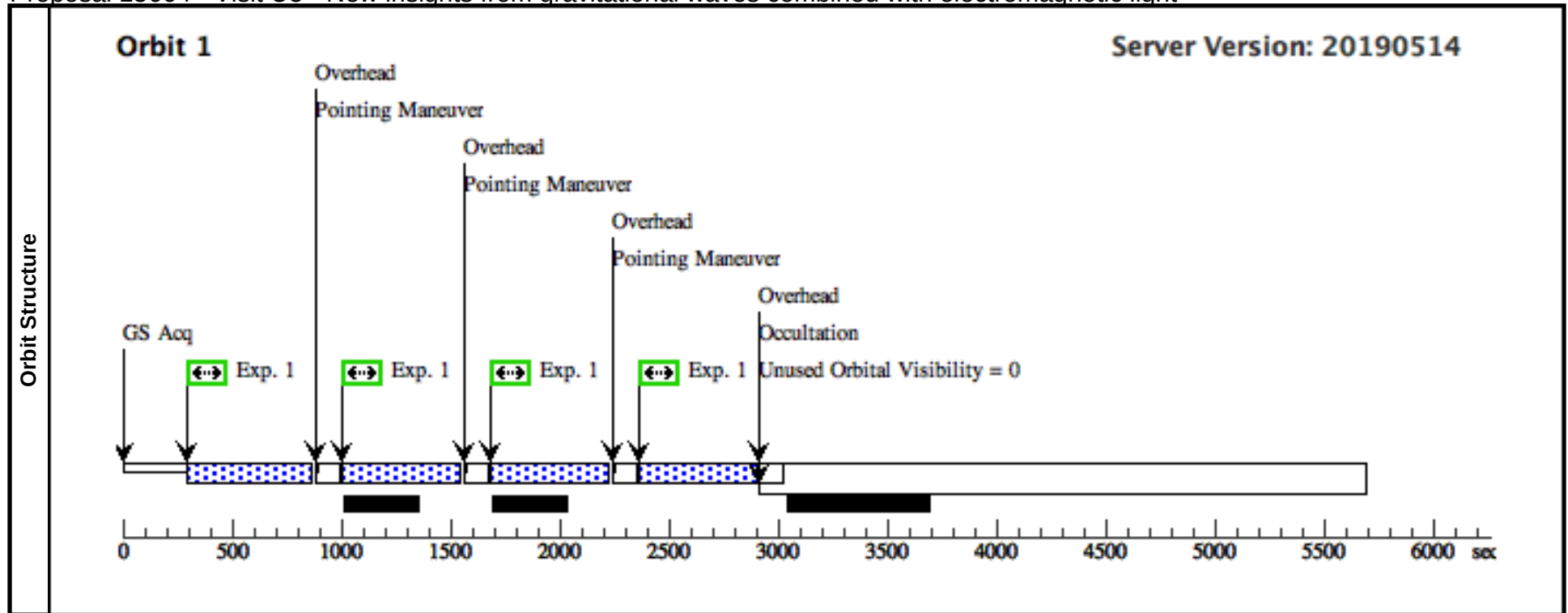
Proposal 15664 - Visit U4 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit U4, implementation										Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 24.0H											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F275W	CR-SPLIT=NO; FLASH=11		Pattern 2, Exps 1-1 i n Visit U4 (2)	370 Secs (2172 Secs)		
										[==>543.0 Secs (Pattern 1)] [==>543.0 Secs (Pattern 2)] [==>543.0 Secs (Pattern 3)] [==>543.0 Secs (Pattern 4)]		[1]



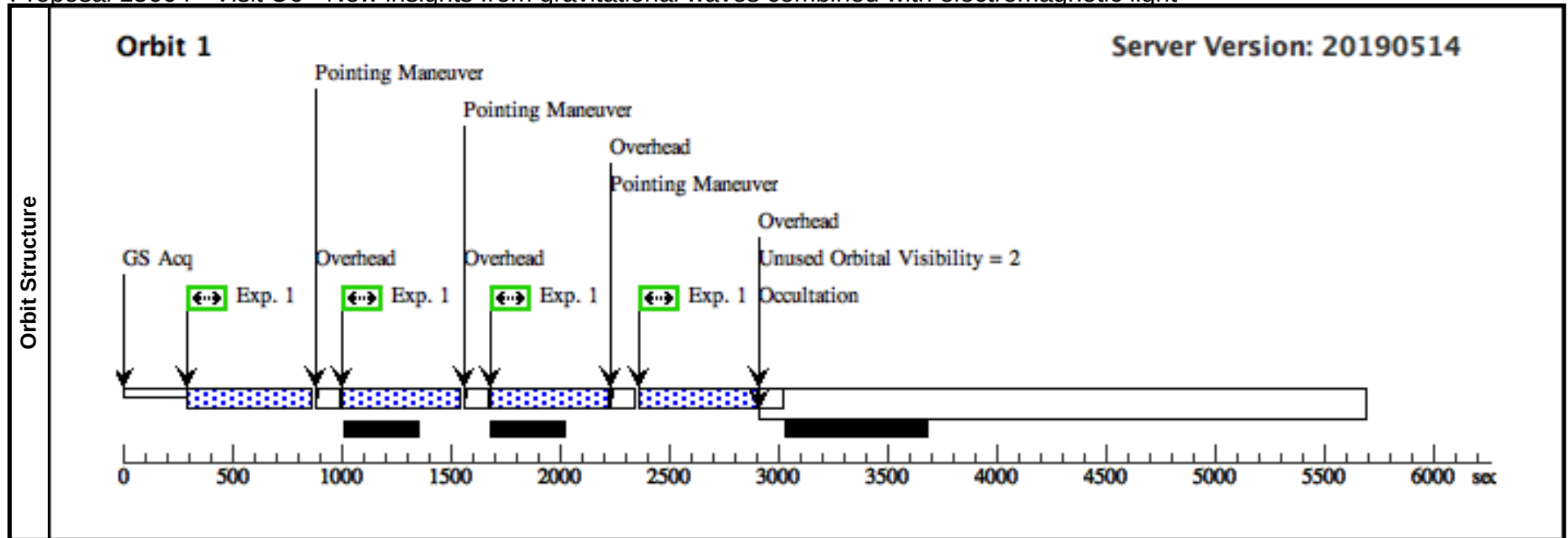
Proposal 15664 - Visit U5 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit U5, implementation										Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 24.0H											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112			Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false						(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F336W	CR-SPLIT=NO;		Pattern 2, Exps 1-1 i	370 Secs (2172 Secs)		
							FLASH=11		n Visit U5 (2)	[==>543.0 Secs (Pattern 1)]		[1]
										[==>543.0 Secs (Pattern 2)]		
										[==>543.0 Secs (Pattern 3)]		
									[==>543.0 Secs (Pattern 4)]			



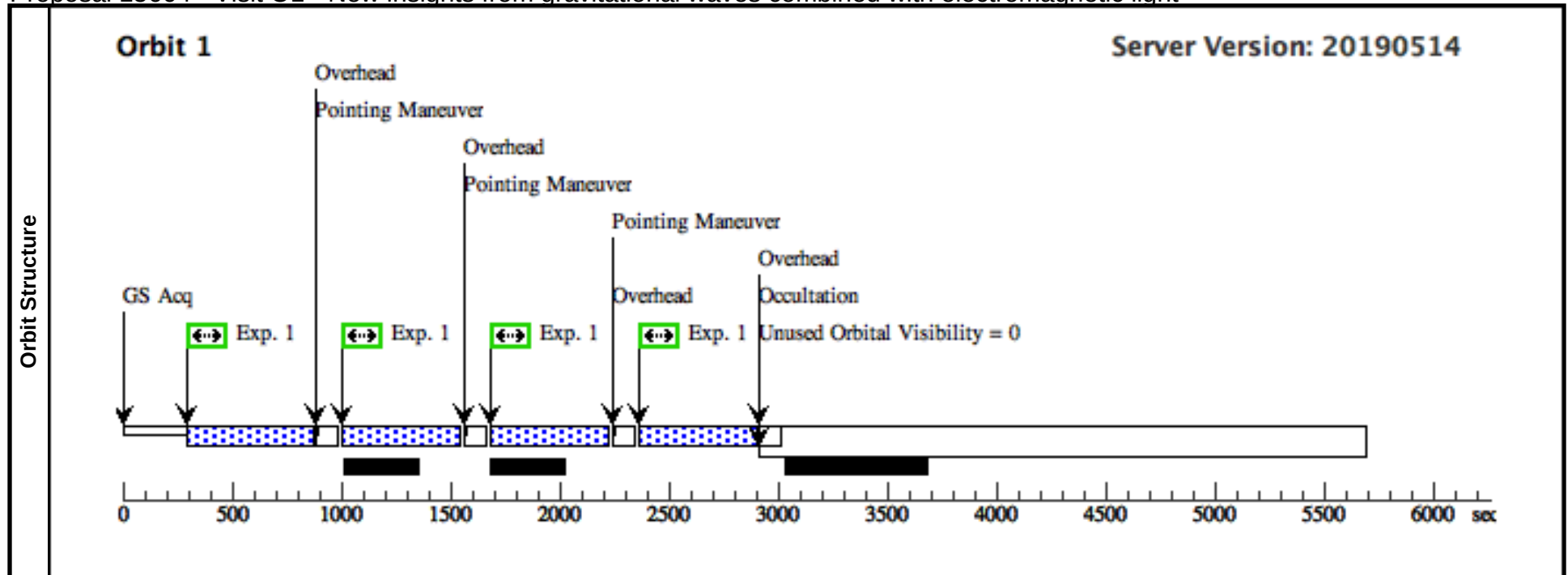
Proposal 15664 - Visit U6 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit U6, implementation										Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 24.0H											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F390W	CR-SPLIT=NO;		Pattern 2, Exps 1-1 i n Visit U6 (2)	370 Secs (2176 Secs)		
							FLASH=7			[==>544.0 Secs (Pattern 1)]		[1]
										[==>544.0 Secs (Pattern 2)]		
									[==>544.0 Secs (Pattern 3)]			
										[==>544.0 Secs (Pattern 4)]		



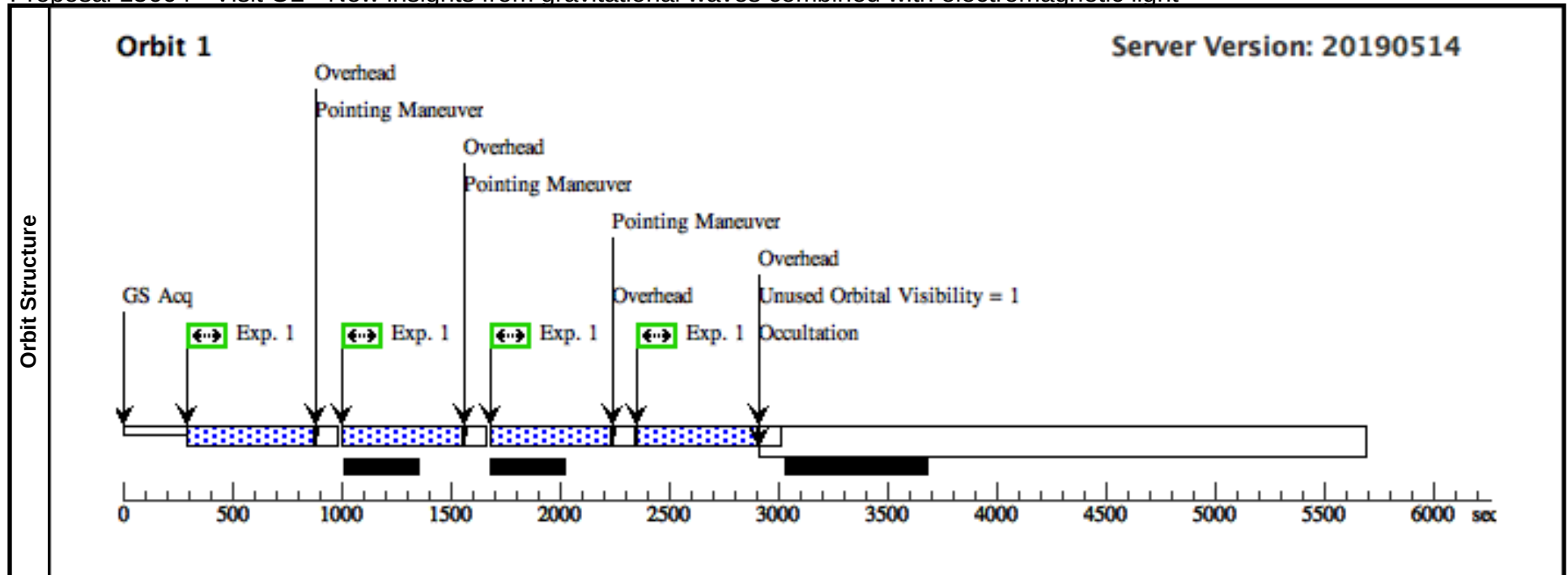
Proposal 15664 - Visit O1 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit O1, implementation										Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F475W	CR-SPLIT=NO;		Pattern 2, Exps 1-1 i	370 Secs (2184 Secs)		
							FLASH=2		n Visit O1 (2)	[==>546.0 Secs (Pattern 1)]		[1]
										[==>546.0 Secs (Pattern 2)]		
										[==>546.0 Secs (Pattern 3)]		
									[==>546.0 Secs (Pattern 4)]			



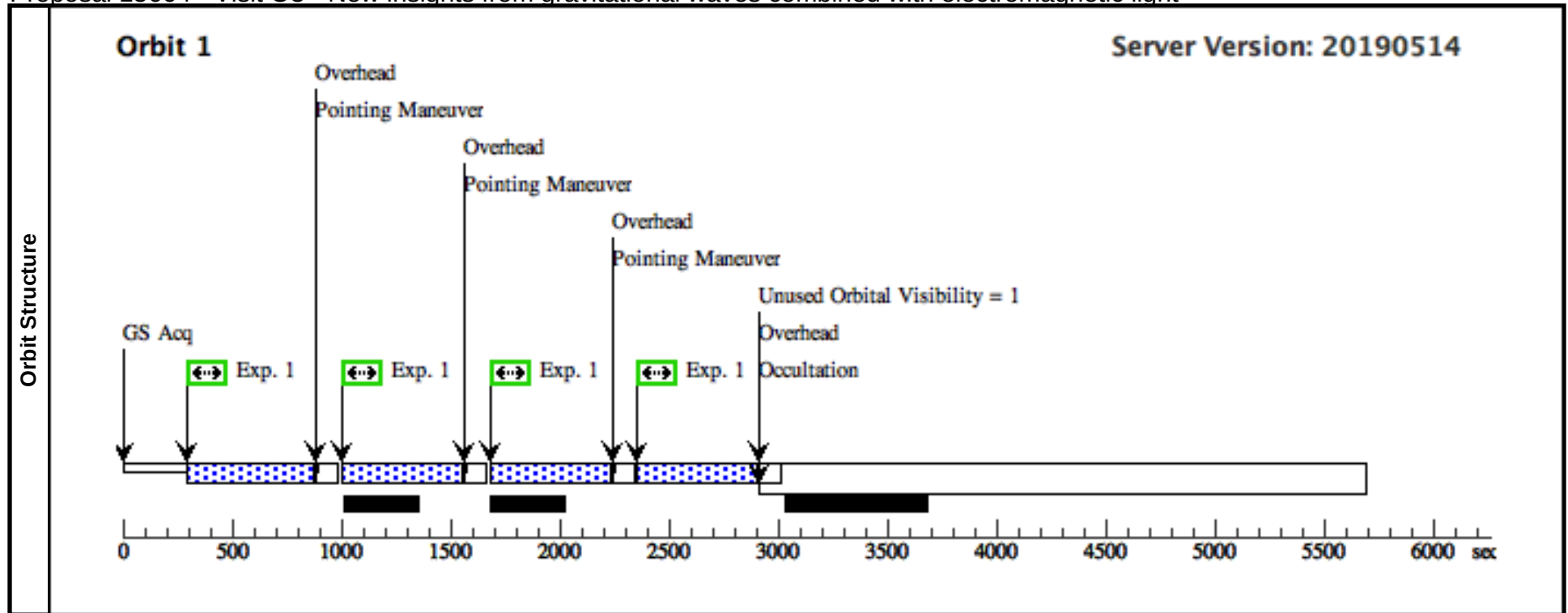
Proposal 15664 - Visit O2 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit O2, implementation										Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F606W	CR-SPLIT=NO		Pattern 2, Exps 1-1 i n Visit O2 (2)	370 Secs (2192 Secs)		
										[==>548.0 Secs (Pattern 1)]		[1]
										[==>548.0 Secs (Pattern 2)]		
										[==>548.0 Secs (Pattern 3)]		
									[==>548.0 Secs (Pattern 4)]			



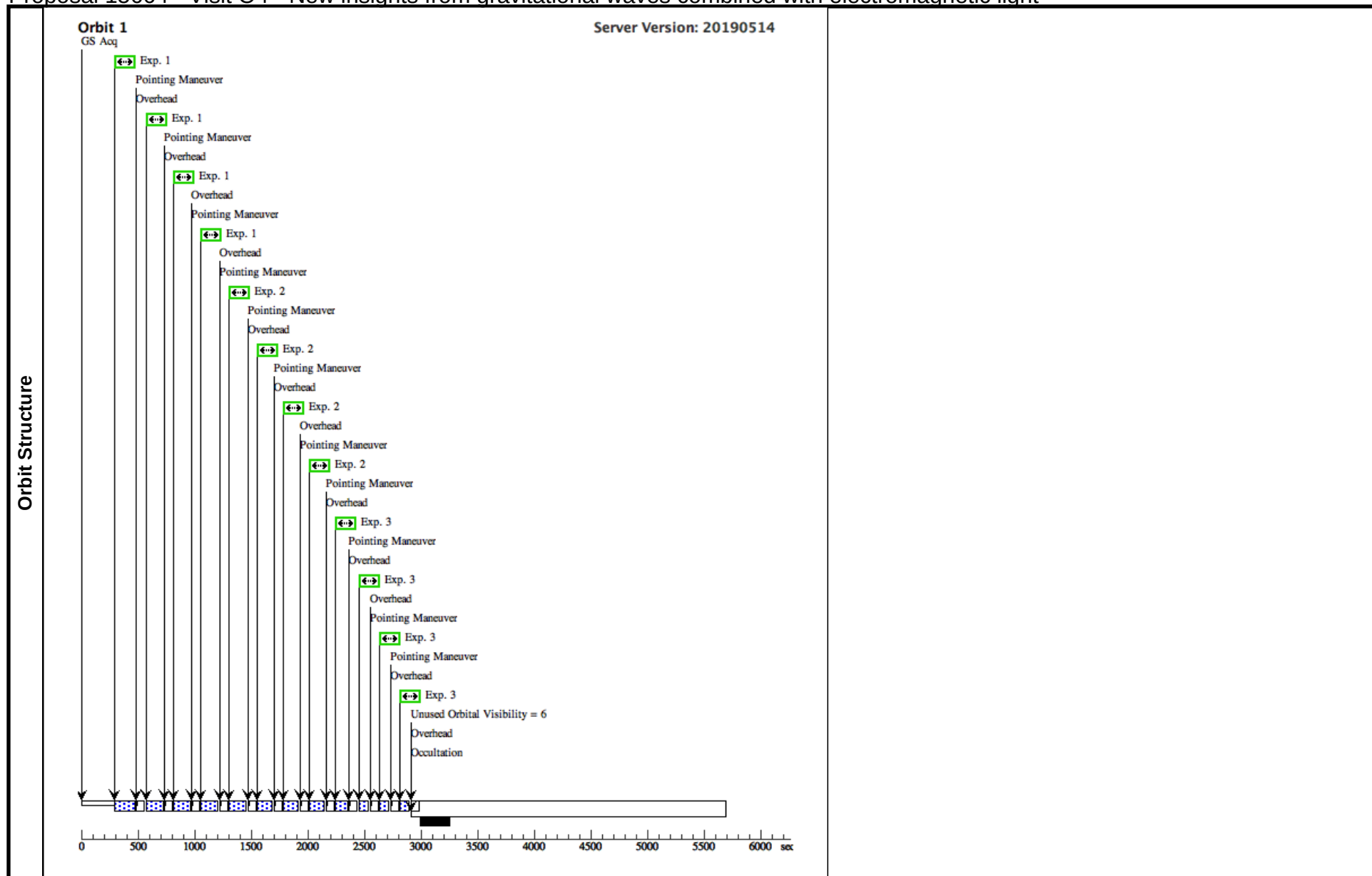
Proposal 15664 - Visit O3 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit O3, implementation										Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112			Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false						(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F814W	CR-SPLIT=NO		Pattern 2, Exps 1-1 i n Visit O3 (2)	370 Secs (2192 Secs)		
										[==>548.0 Secs (Pattern 1)]		[1]
										[==>548.0 Secs (Pattern 2)]		
										[==>548.0 Secs (Pattern 3)]		
									[==>548.0 Secs (Pattern 4)]			



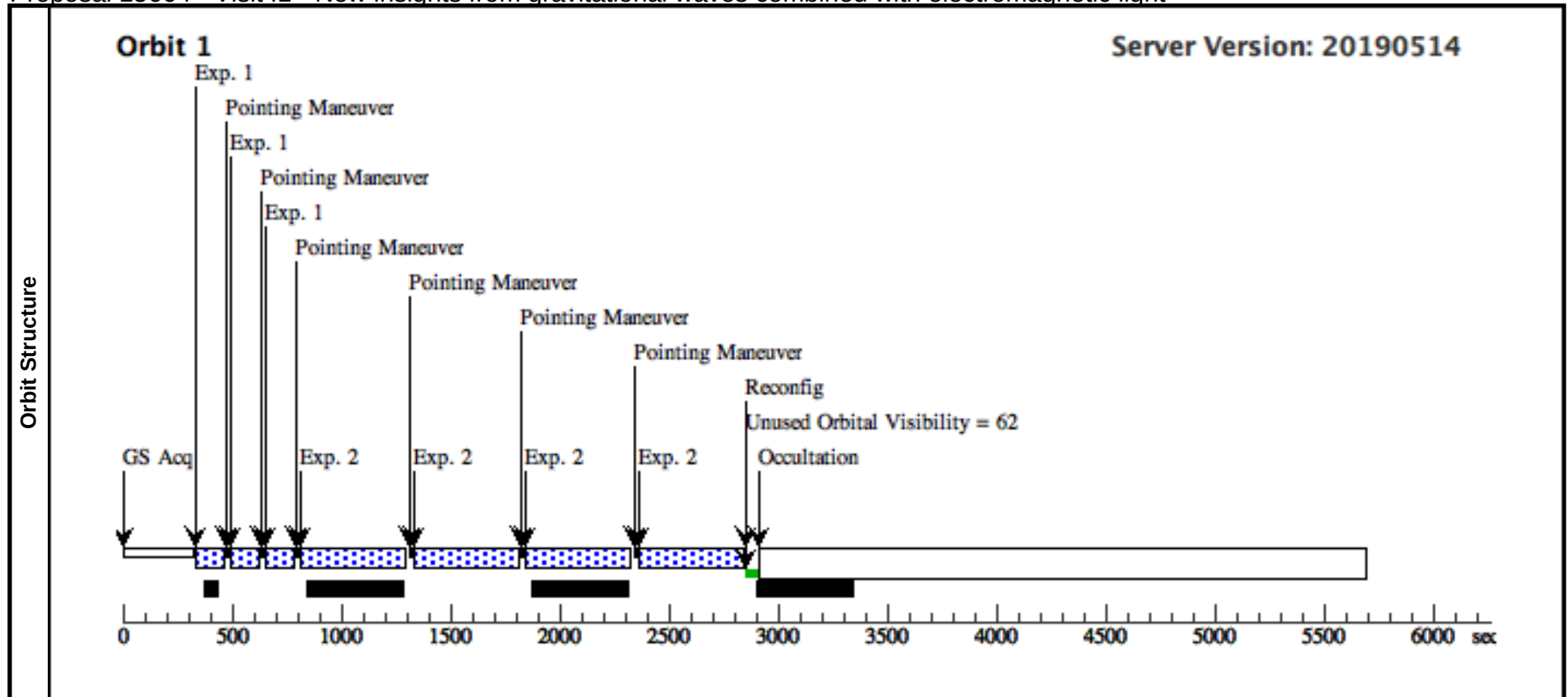
Proposal 15664 - Visit O4 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit O4, implementation										Wed Sep 04 17:01:16 GMT 2019
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: WFC3/UVIS										
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D										
	On Hold Comments: Awaiting GW trigger										
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112								(1), (2), (3)	
Generic Targets	#	Name	Criteria		Description						
	(1)	GW1	GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F475W	CR-SPLIT=NO; FLASH=9	POS TARG 0,0	Pattern 2, Exps 1-1 i n Visit O4 (2)	148 Secs (592 Secs)		
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	
	2		(1) GW1	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F814W	CR-SPLIT=NO; FLASH=9		Pattern 2, Exps 2-2 i n Visit O4 (2)	135 Secs (540 Secs)		
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	
	3		(1) GW1	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F606W	FLASH=9		Pattern 2, Exps 3-3 i n Visit O4 (2)	85 Secs (340 Secs)		
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	



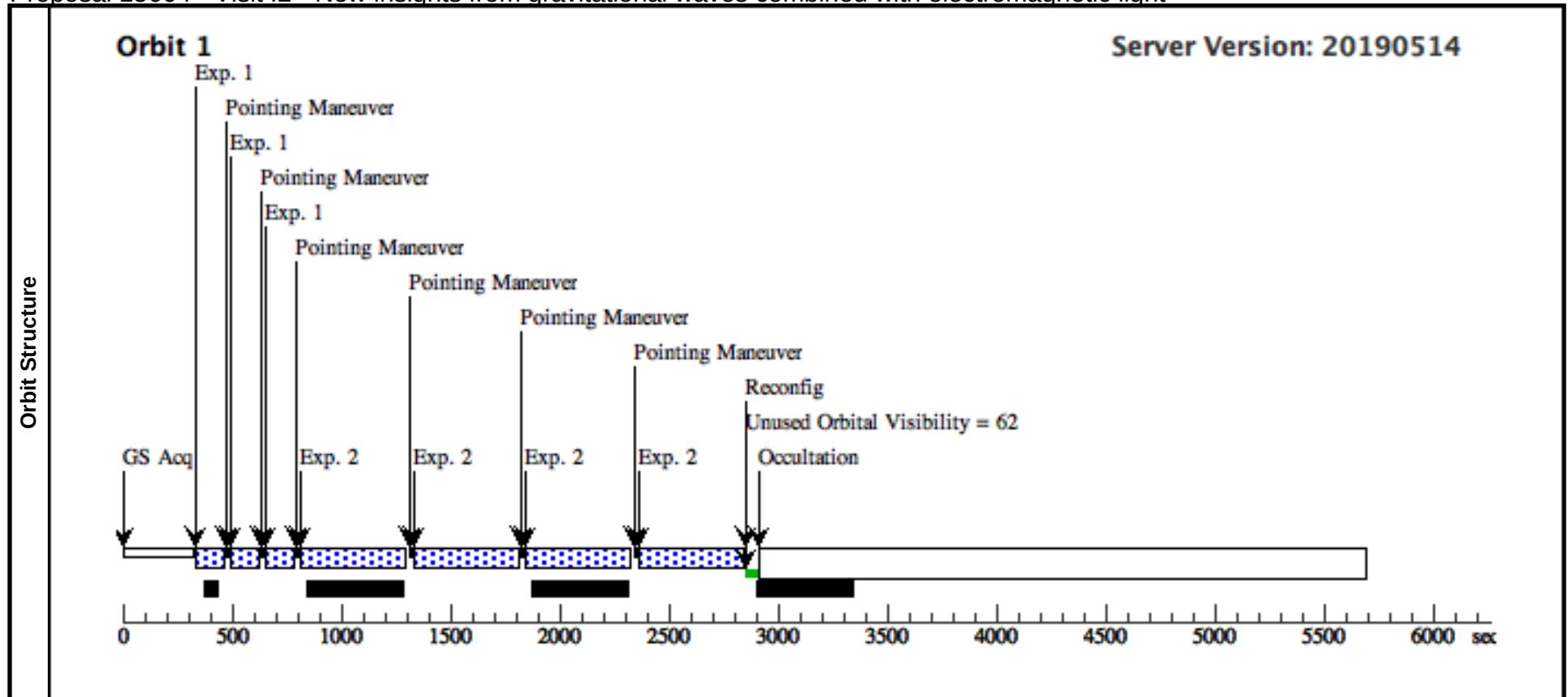
Proposal 15664 - Visit I1 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit I1, implementation										Wed Sep 04 17:01:16 GMT 2019		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/IR												
	Special Requirements: SCHED 100%; ORIENT 125D TO 135 D; ON HOLD ; TOO RESPONSE TIME 3.0D												
	On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365			Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false							(2)	
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false							(1)	
Generic Targets	#	Name		Criteria		Description							
	(1)	GW1		GW transinet		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		F110W	NSAMP=7; SAMP-SEQ=STEP50		Pattern 7, Exps 1-1 in Visit I1 (7)	99.230677 Secs (297.692 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]	
	2		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		G102	NSAMP=10; SAMP-SEQ=SPAR S50		Pattern 1, Exps 2-2 in Visit I1 (1)	452.93635 Secs (1811.745 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]	



Proposal 15664 - Visit I2 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit I2, implementation										Wed Sep 04 17:01:16 GMT 2019		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/IR												
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D												
	On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365			Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false							(2)	
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false							(1)	
Generic Targets	#	Name		Criteria		Description							
	(1)	GW1		GW transinet		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		F160W	NSAMP=7; SAMP-SEQ=STEP50		Pattern 7, Exps 1-1 in Visit I2 (7)	99.230677 Secs (297.692 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]	
	2		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		G141	NSAMP=10; SAMP-SEQ=SPAR S50		Pattern 1, Exps 2-2 in Visit I2 (1)	452.93635 Secs (1811.745 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]	



Proposal 15664 - Visit I3 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit I3, implementation Wed Sep 04 17:01:16 GMT 2019									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D <i>On Hold Comments: Awaiting GW trigger</i>									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)
Generic Targets	#	Name	Criteria				Description			
	(1)	GW1	GW transinet				NEUTRON STAR			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) GW1	WFC3/IR, MULTIACCUM, IR	F110W	SAMP-SEQ=SPARS 50; NSAMP=12		Pattern 1, Exps 1-1 i n Visit I3 (1)	552.937252 Secs (2211.749 Secs) [= > (Pattern 1)] [= > (Pattern 2)] [= > (Pattern 3)] [= > (Pattern 4)]	[1]
Orbit Structure	Orbit 1 Server Version: 20190514									

Proposal 15664 - Visit I4 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit I4, implementation Wed Sep 04 17:01:16 GMT 2019									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D <i>On Hold Comments: Awaiting GW trigger</i>									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)
Generic Targets	#	Name	Criteria				Description			
	(1)	GW1	GW transinet				NEUTRON STAR			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) GW1	WFC3/IR, MULTIACCUM, IR	F140W	SAMP-SEQ=SPARS 50; NSAMP=12		Pattern 1, Exps 1-1 i n Visit I4 (1)	552.937252 Secs (2211.749 Secs) [= > (Pattern 1)] [= > (Pattern 2)] [= > (Pattern 3)] [= > (Pattern 4)]	[1]
Orbit Structure	Orbit 1 Server Version: 20190514									

Proposal 15664 - Visit I5 - New insights from gravitational waves combined with electromagnetic light

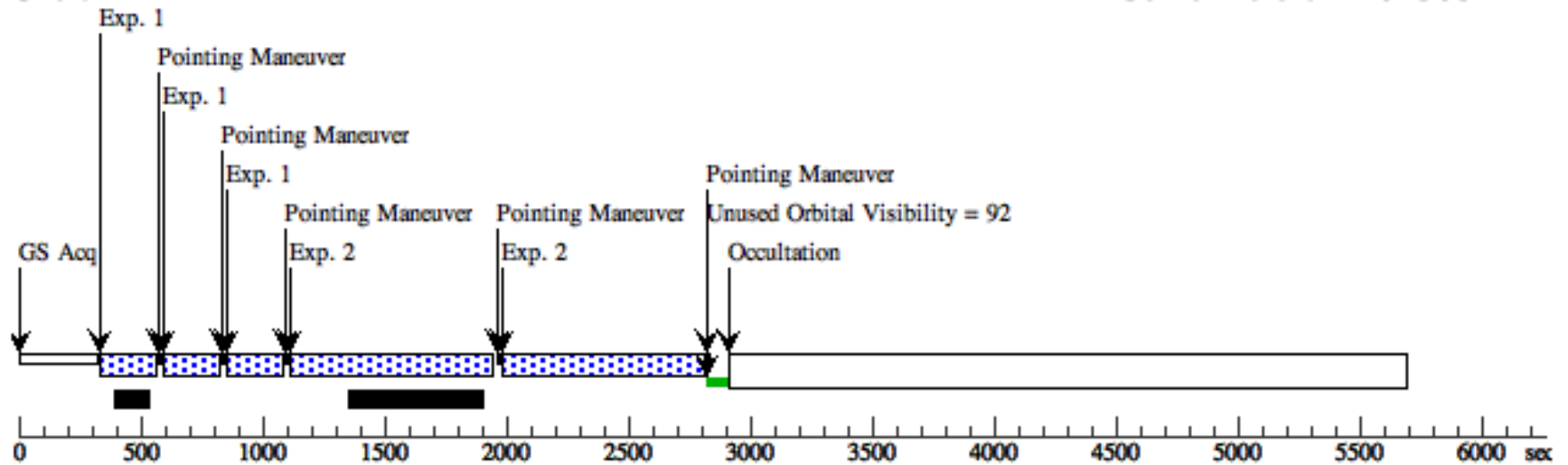
Visit	Proposal 15664, Visit I5, implementation Wed Sep 04 17:01:16 GMT 2019									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D <i>On Hold Comments: Awaiting GW trigger</i>									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)
Generic Targets	#	Name	Criteria				Description			
	(1)	GW1	GW transinet				NEUTRON STAR			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) GW1	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=SPARS 50; NSAMP=12		Pattern 1, Exps 1-1 i n Visit I5 (1)	552.937252 Secs (2211.749 Secs) [= > (Pattern 1)] [= > (Pattern 2)] [= > (Pattern 3)] [= > (Pattern 4)]	[1]
Orbit Structure	Orbit 1 Server Version: 20190514									

Proposal 15664 - Visit I6 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit I6, implementation										Wed Sep 04 17:01:16 GMT 2019		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/IR												
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D												
On Hold Comments: Awaiting GW trigger													
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false							(1)	
	(8)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false			(2)	
Generic Targets	#	Name		Criteria		Description							
	(1)	GW1		GW transinet		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		F110W	NSAMP=9; SAMP-SEQ=STEP5 0		Pattern 7, Exps 1-1 in Visit I6 (7)	199.231579 Secs (597.695 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]	
	2		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		G102	NSAMP=9; SAMP-SEQ=SPAR S100		Pattern 8, Exps 2-2 in Visit I6 (8)	802.934875 Secs (6423.479 Secs)			
										[==>(Pattern 1,1)] [==>(Pattern 1,2)]		[1]	
										[==>(Pattern 1,3)] [==>(Pattern 1,4)] [==>(Pattern 2,1)]		[2]	
										[==>(Pattern 2,2)] [==>(Pattern 2,3)] [==>(Pattern 2,4)]		[3]	

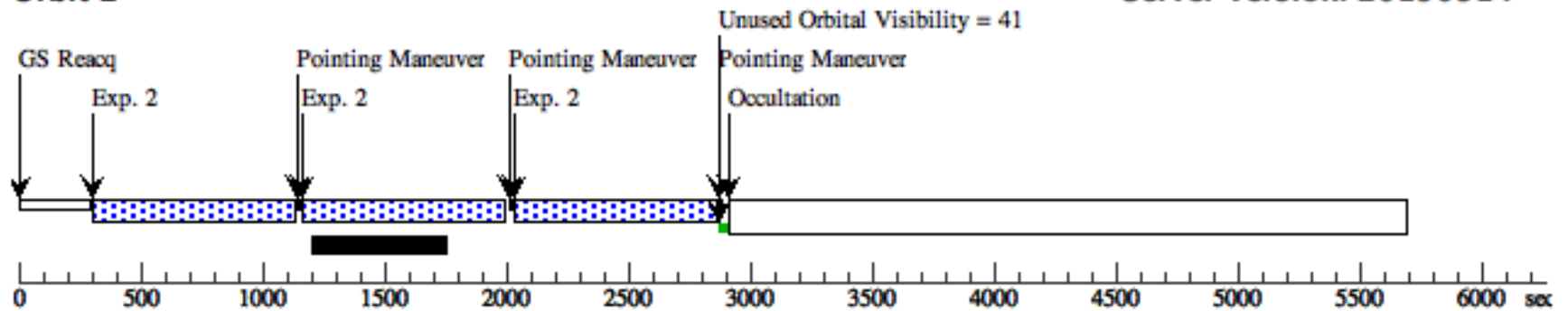
Orbit 1

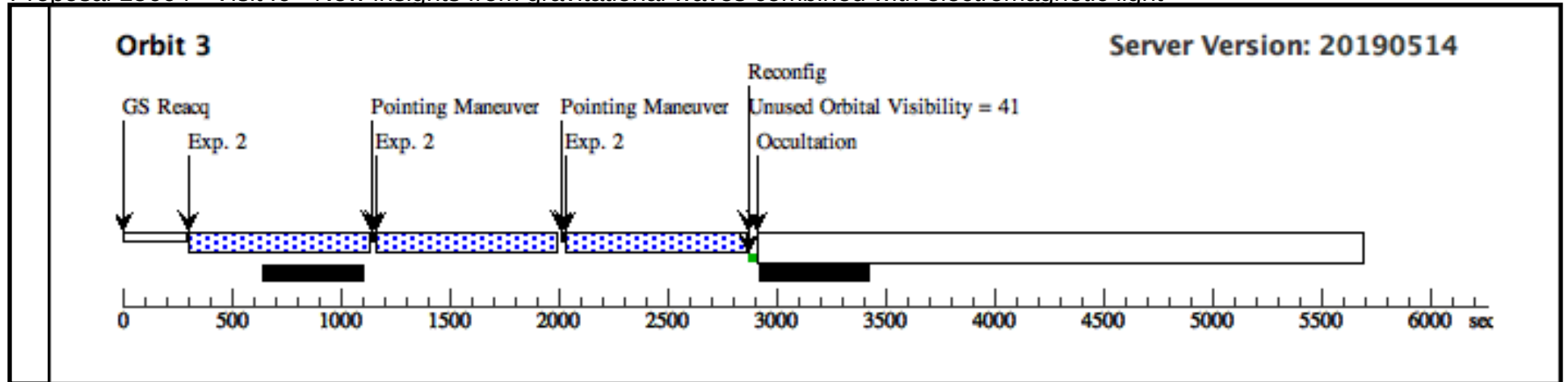
Server Version: 20190514



Orbit 2

Server Version: 20190514



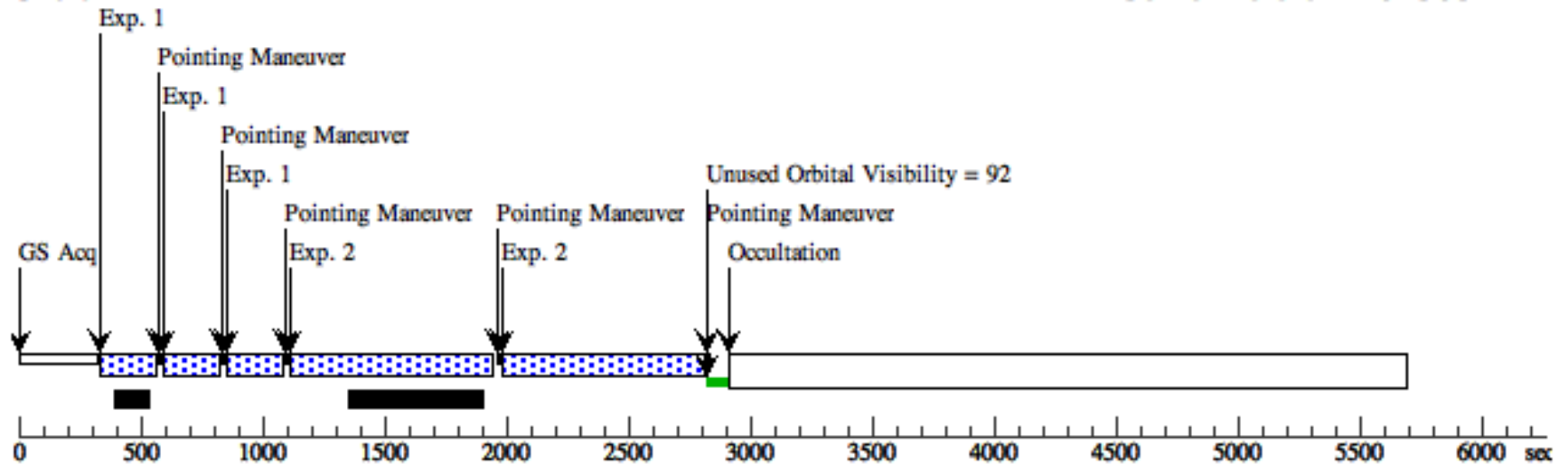


Proposal 15664 - Visit I7 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit I7, implementation										Wed Sep 04 17:01:16 GMT 2019		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/IR												
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D												
	On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false							(1)	
	(8)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false			(2)	
Generic Targets	#	Name		Criteria		Description							
	(1)	GW1		GW transinet		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		F160W	NSAMP=9; SAMP-SEQ=STEP5 0		Pattern 7, Exps 1-1 in Visit I7 (7)	199.231579 Secs (597.695 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]	
	2		(1) GW1	WFC3/IR, MULTIACCUM, GRISM1024		G141	NSAMP=9; SAMP-SEQ=SPAR S100		Pattern 8, Exps 2-2 in Visit I7 (8)	802.934875 Secs (6423.479 Secs)			
										[==>(Pattern 1,1)] [==>(Pattern 1,2)]		[1]	
										[==>(Pattern 1,3)] [==>(Pattern 1,4)] [==>(Pattern 2,1)]		[2]	
										[==>(Pattern 2,2)] [==>(Pattern 2,3)] [==>(Pattern 2,4)]		[3]	

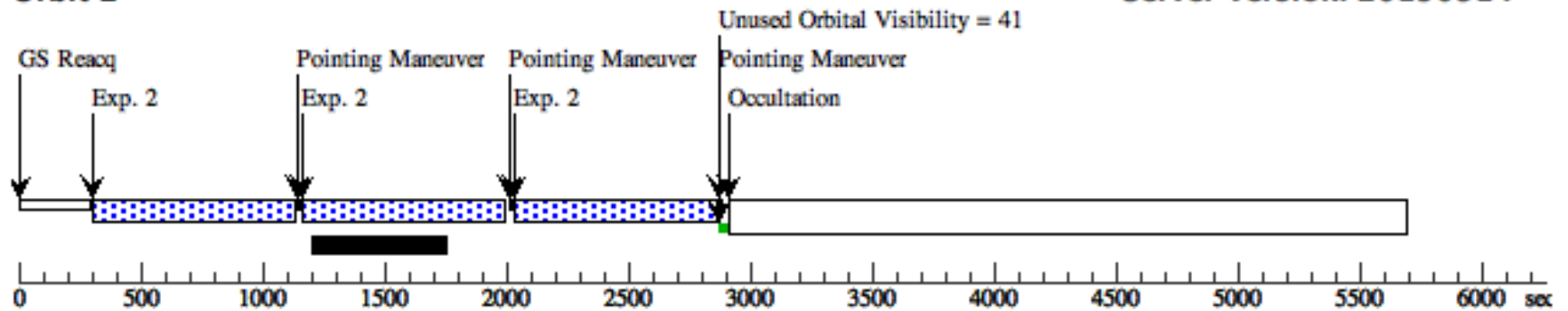
Orbit 1

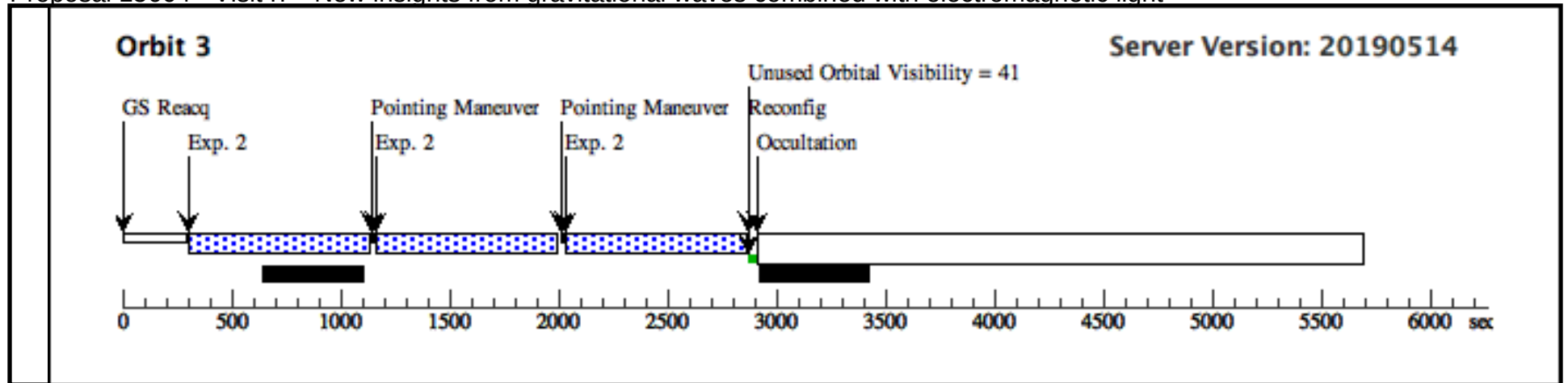
Server Version: 20190514



Orbit 2

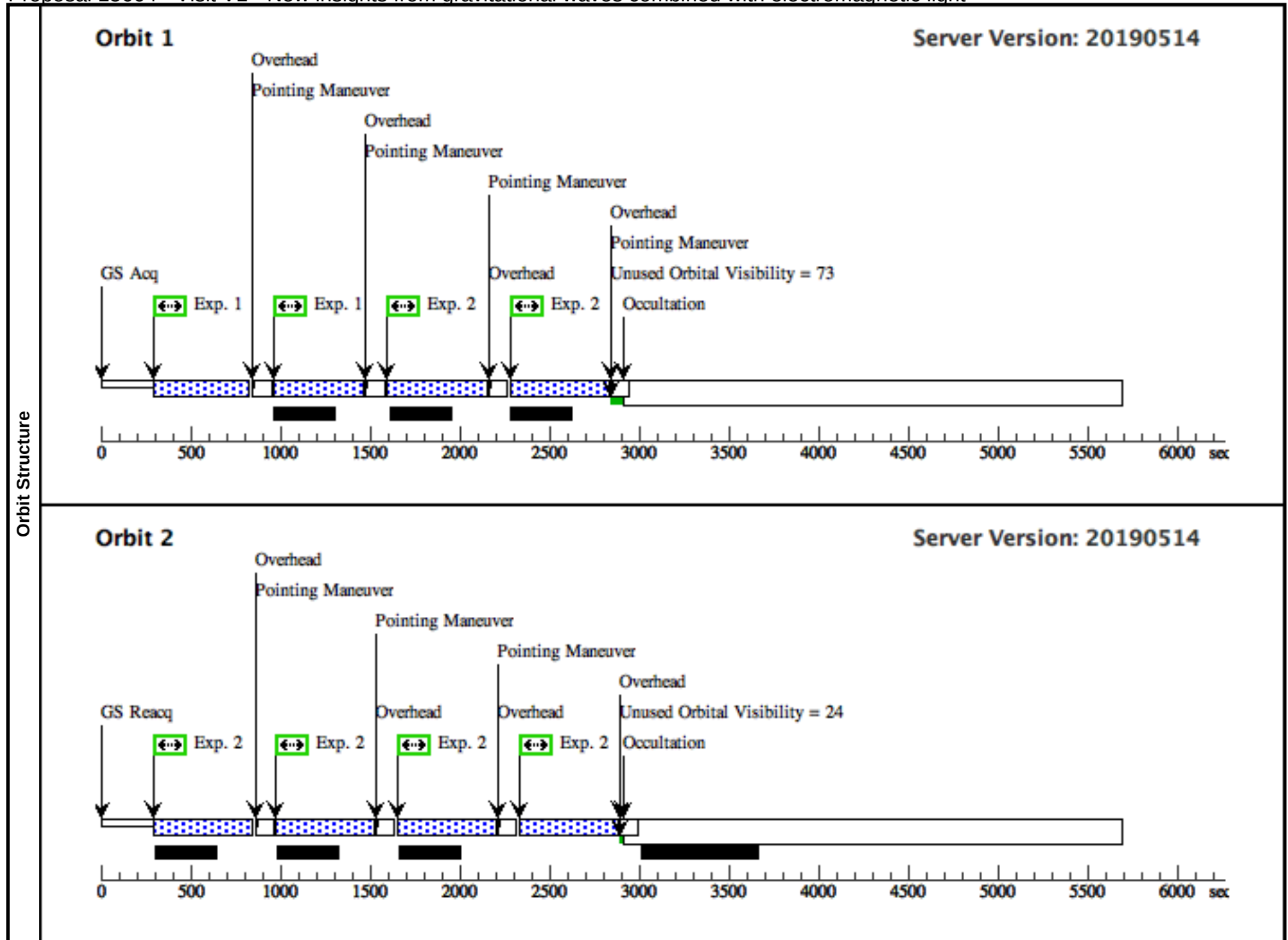
Server Version: 20190514





Proposal 15664 - Visit V1 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit V1, implementation					Wed Sep 04 17:01:16 GMT 2019				
	Diagnostic Status: No Diagnostics									
	Scientific Instruments: WFC3/UVIS									
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D									
	On Hold Comments: Awaiting GW trigger									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(4)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.099 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=3.9 Angle Between Sides= Center Pattern=false	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false	(2)				
	(6)	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				(1)			
Generic Targets	#	Name	Criteria	Description						
	(2)	GW2	GW trigger	NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) GW2	WFC3/UVIS, ACCUM, UVIS	F300X	FLASH=10	POS TARG 0,-50	Pattern 6, Exps 1-1 in Visit V1 (6)	500 Secs (1000 Secs)		
								[==>(Pattern 1)]	[1]	
								[==>(Pattern 2)]		
	2	(2) GW2	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=NO	POS TARG 0,-50	Pattern 4, Exps 2-2 in Visit V1 (4)	550 Secs (3300 Secs)		
								[==>(Pattern 1,1)]	[1]	
[==>(Pattern 1,2)]										
[==>(Pattern 1,3)]								[2]		
[==>(Pattern 2,1)]										
[==>(Pattern 2,2)]										
							[==>(Pattern 2,3)]			

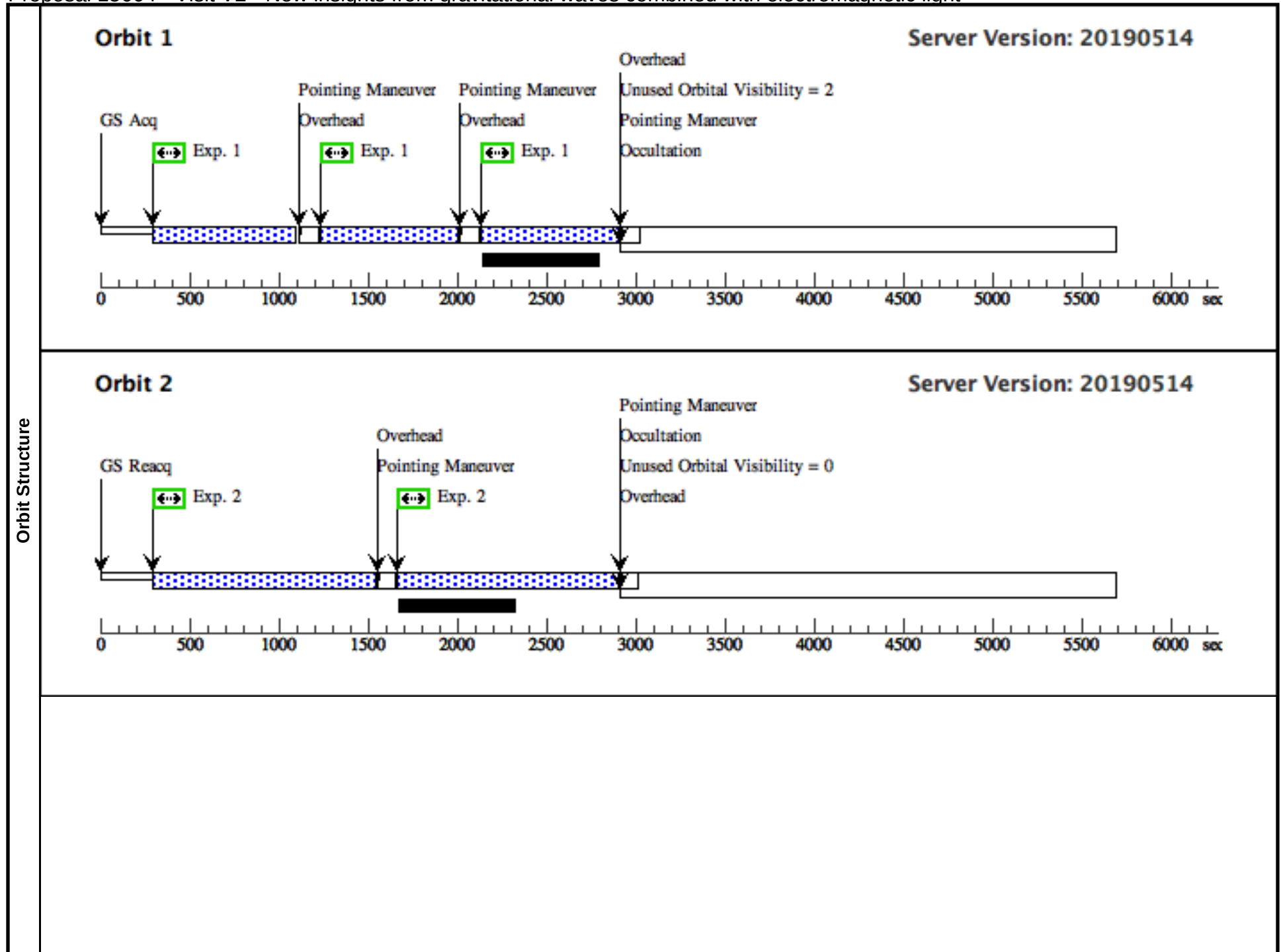


Proposal 15664 - Visit V2 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit V2, implementation					Wed Sep 04 17:01:16 GMT 2019	
	Diagnostic Status: No Diagnostics						
	Scientific Instruments: WFC3/UVIS						
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D						
	On Hold Comments: Awaiting GW trigger						
Patterns	#	Primary Pattern			Secondary Pattern		Exposures
	(3)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false			(1)	
	(5)	Pattern Type=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	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112	Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false	(2)	
	(6)	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			(3)	
Generic Targets	#	Name	Criteria	Description			
	(2)	GW2	GW trigger	NEUTRON STAR			

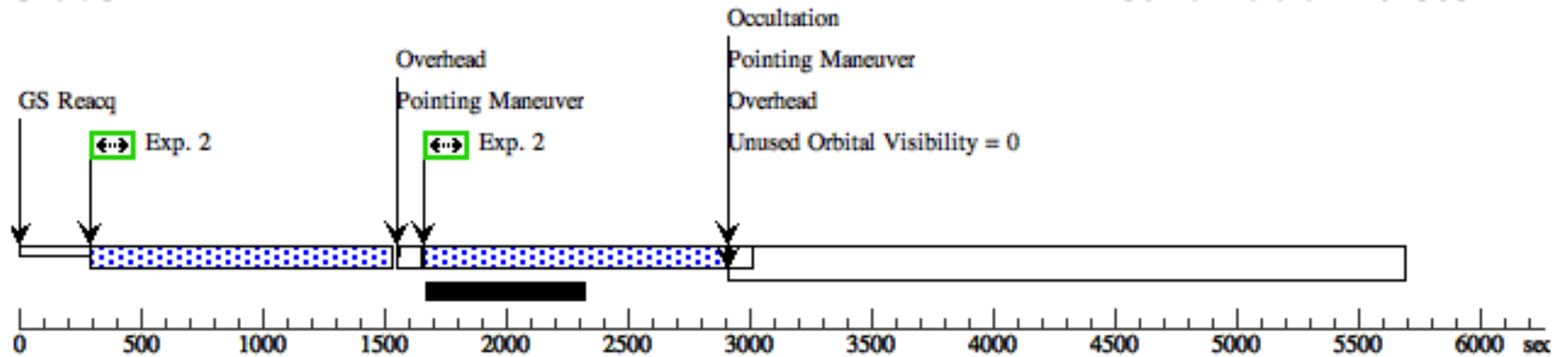
Proposal 15664 - Visit V2 - New insights from gravitational waves combined with electromagnetic light

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) GW2	WFC3/UVIS, ACCUM, UVIS	F300X	FLASH=10	POS TARG 0,-50	Pattern 3, Exps 1-1 i n Visit V2 (3)	500 Secs (2307 Secs)	
									[==>769.0 Secs (Pattern 1)]	[1]
									[==>769.0 Secs (Pattern 2)]	
									[==>769.0 Secs (Pattern 3)]	
	2		(2) GW2	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=NO	POS TARG 0,-50	Pattern 5, Exps 2-2 i n Visit V2 (5)	850 Secs (9920 Secs)	
									[==>1240.0 Secs (Pattern 1,1)]	[2]
									[==>1240.0 Secs (Pattern 1,2)]	
									[==>1240.0 Secs (Pattern 1,3)]	[3]
									[==>1240.0 Secs (Pattern 1,4)]	
									[==>1240.0 Secs (Pattern 2,1)]	[4]
									[==>1240.0 Secs (Pattern 2,2)]	
									[==>1240.0 Secs (Pattern 2,3)]	[5]
									[==>1240.0 Secs (Pattern 2,4)]	
	3		(2) GW2	WFC3/UVIS, ACCUM, UVIS	G280	CR-SPLIT=NO	POS TARG 0,-50	Pattern 6, Exps 3-3 i n Visit V2 (6)	850 Secs (2480 Secs)	
									[==>1240.0 Secs (Pattern 1)]	[6]
									[==>1240.0 Secs (Pattern 2)]	



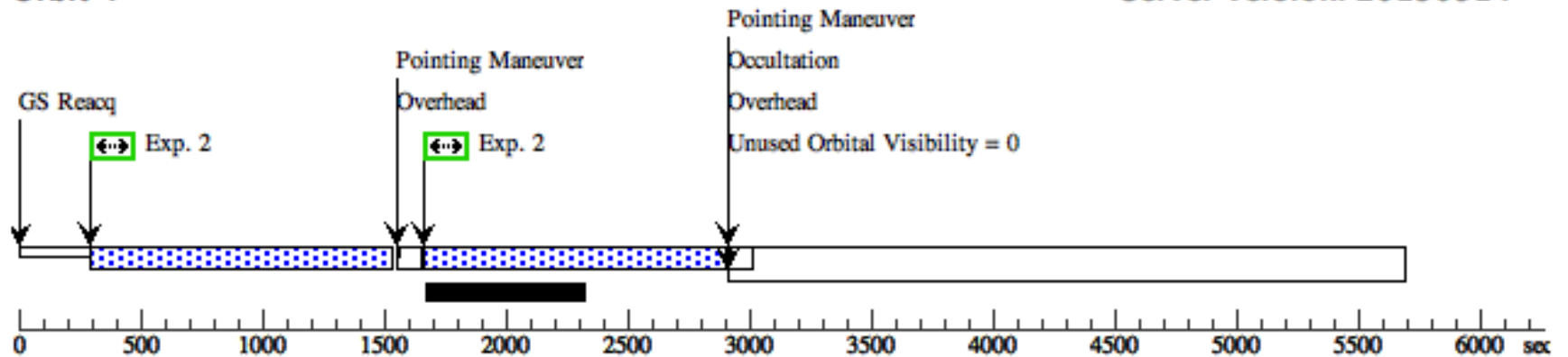
Orbit 3

Server Version: 20190514



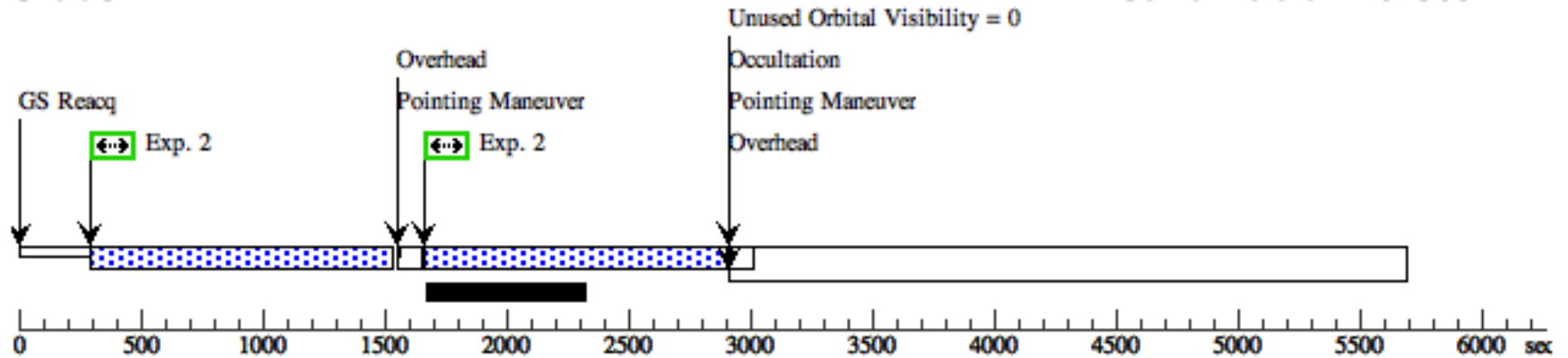
Orbit 4

Server Version: 20190514



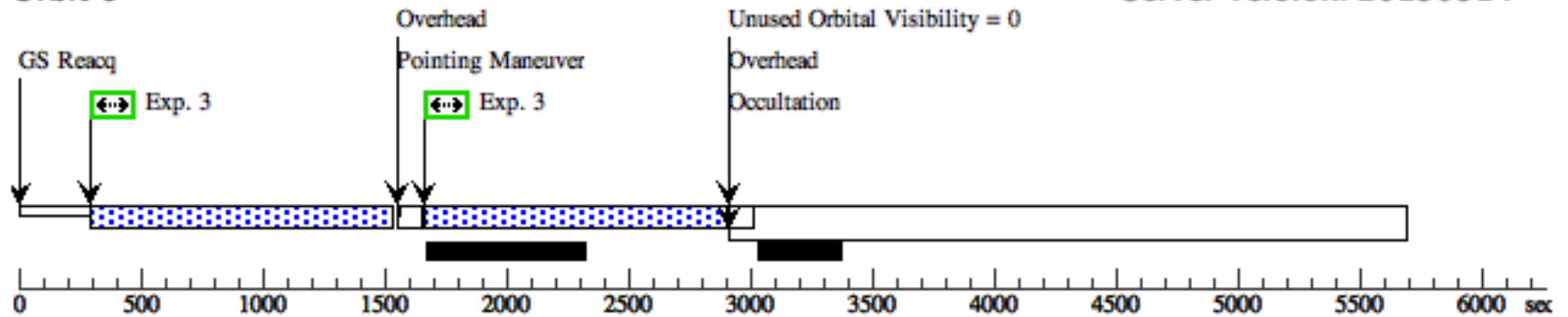
Orbit 5

Server Version: 20190514



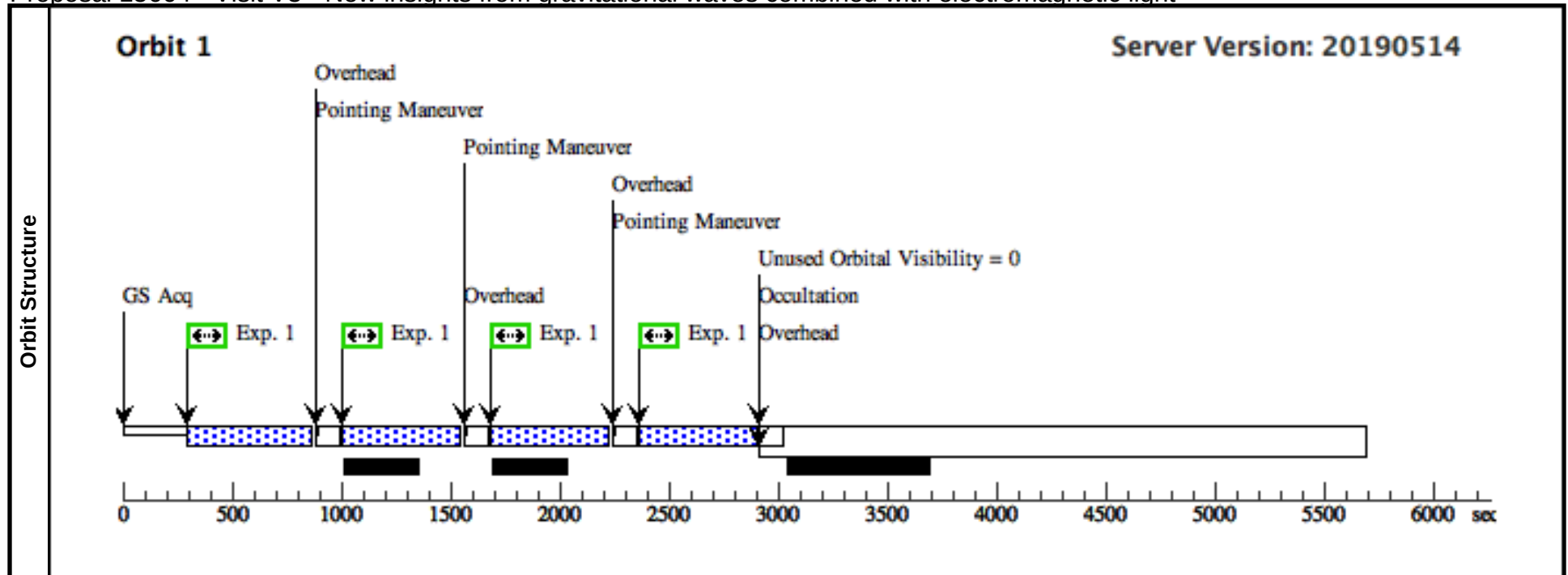
Orbit 6

Server Version: 20190514



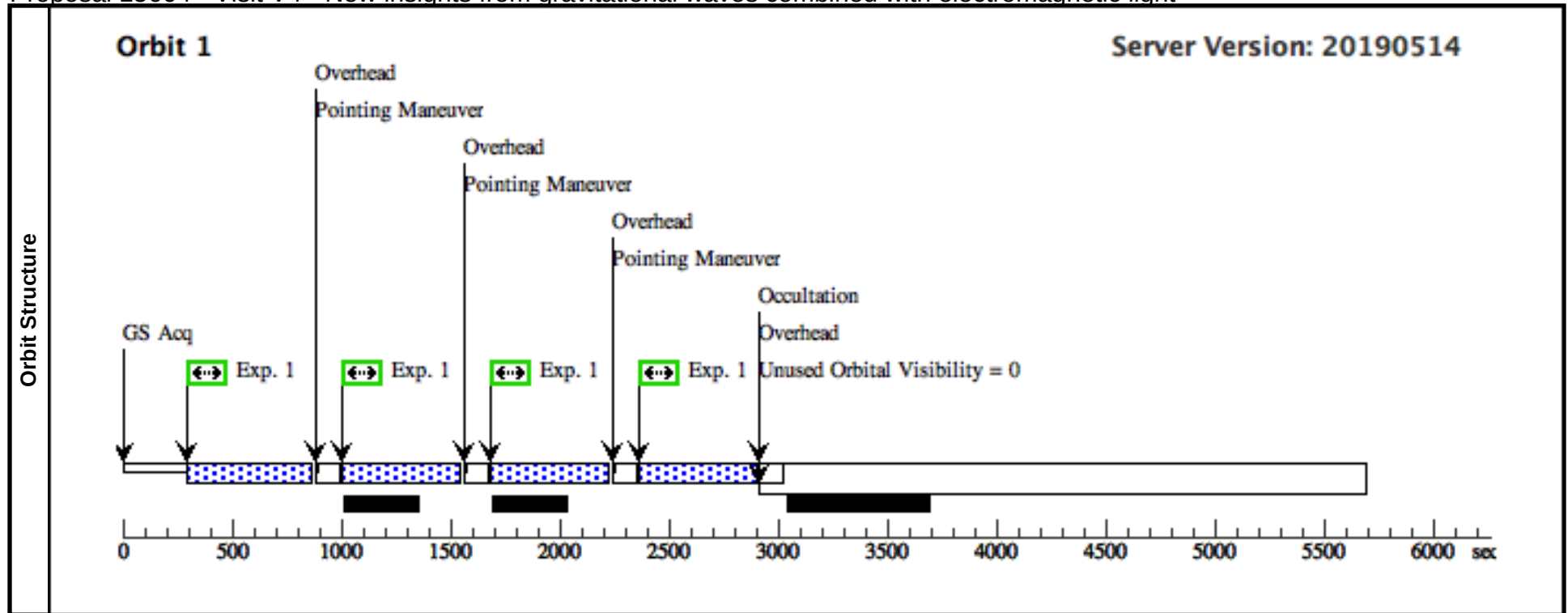
Proposal 15664 - Visit V3 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit V3, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(2)	GW2		GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(2) GW2	WFC3/UVIS, ACCUM, UVIS		F225W	CR-SPLIT=NO;		Pattern 2, Exps 1-1 in Visit V3 (2)	370 Secs (2172 Secs)		
							FLASH=11			[==>543.0 Secs (Pattern 1)]		[1]
										[==>543.0 Secs (Pattern 2)]		
									[==>543.0 Secs (Pattern 3)]			
										[==>543.0 Secs (Pattern 4)]		



Proposal 15664 - Visit V4 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit V4, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(2)	GW2		GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(2) GW2	WFC3/UVIS, ACCUM, UVIS		F275W	CR-SPLIT=NO; FLASH=11		Pattern 2, Exps 1-1 i n Visit V4 (2)	370 Secs (2172 Secs)		
										[==>543.0 Secs (Pattern 1)] [==>543.0 Secs (Pattern 2)] [==>543.0 Secs (Pattern 3)] [==>543.0 Secs (Pattern 4)]		[1]

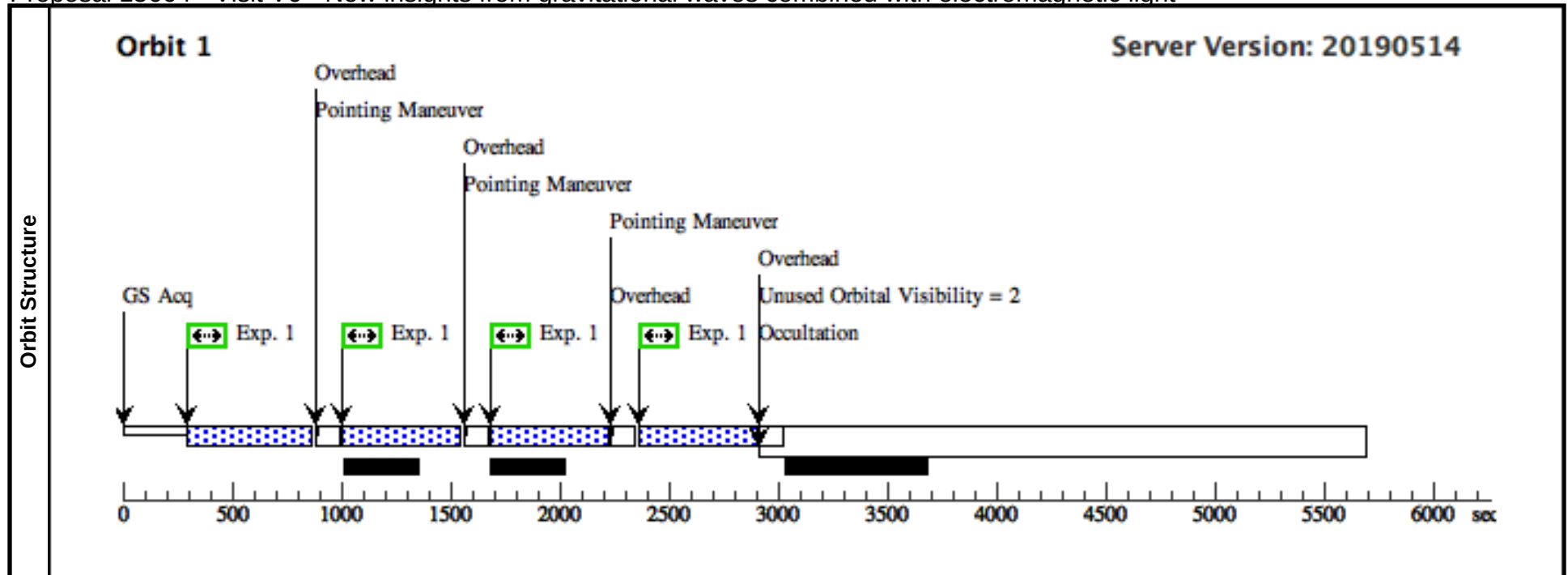


Proposal 15664 - Visit V5 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit V5, implementation Wed Sep 04 17:01:17 GMT 2019									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D <i>On Hold Comments: Awaiting GW trigger</i>									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112 Center Pattern=false								(1)
Generic Targets	#	Name	Criteria				Description			
	(2)	GW2	GW trigger				NEUTRON STAR			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) GW2	WFC3/UVIS, ACCUM, UVIS	F336W	CR-SPLIT=NO; FLASH=11			Pattern 2, Exps 1-1 i n Visit V5 (2)	370 Secs (2172 Secs) [= > 543.0 Secs (Pattern 1)] [= > 543.0 Secs (Pattern 2)] [= > 543.0 Secs (Pattern 3)] [= > 543.0 Secs (Pattern 4)]	[1]
Orbit Structure	Orbit 1 Server Version: 20190514									

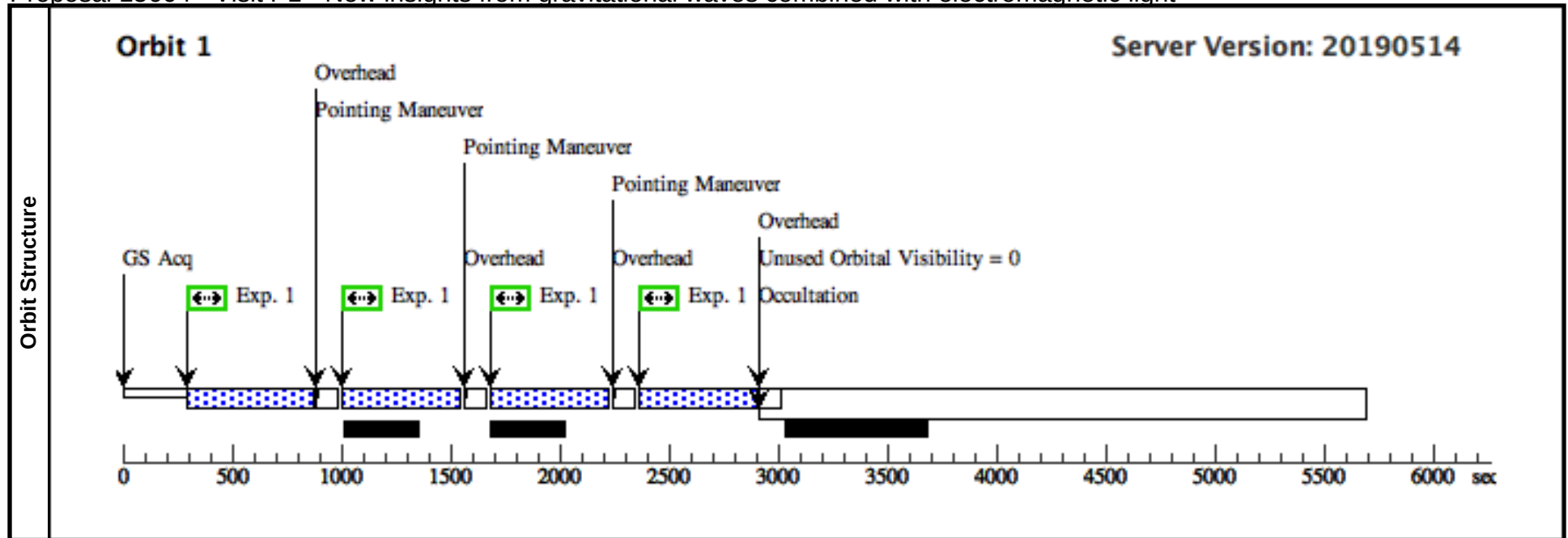
Proposal 15664 - Visit V6 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit V6, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(2)	GW2		GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(2) GW2	WFC3/UVIS, ACCUM, UVIS		F390W	CR-SPLIT=NO; FLASH=7		Pattern 2, Exps 1-1 i n Visit V6 (2)	370 Secs (2176 Secs)		
										[==>544.0 Secs (Pattern 1)] [==>544.0 Secs (Pattern 2)] [==>544.0 Secs (Pattern 3)] [==>544.0 Secs (Pattern 4)]		[1]



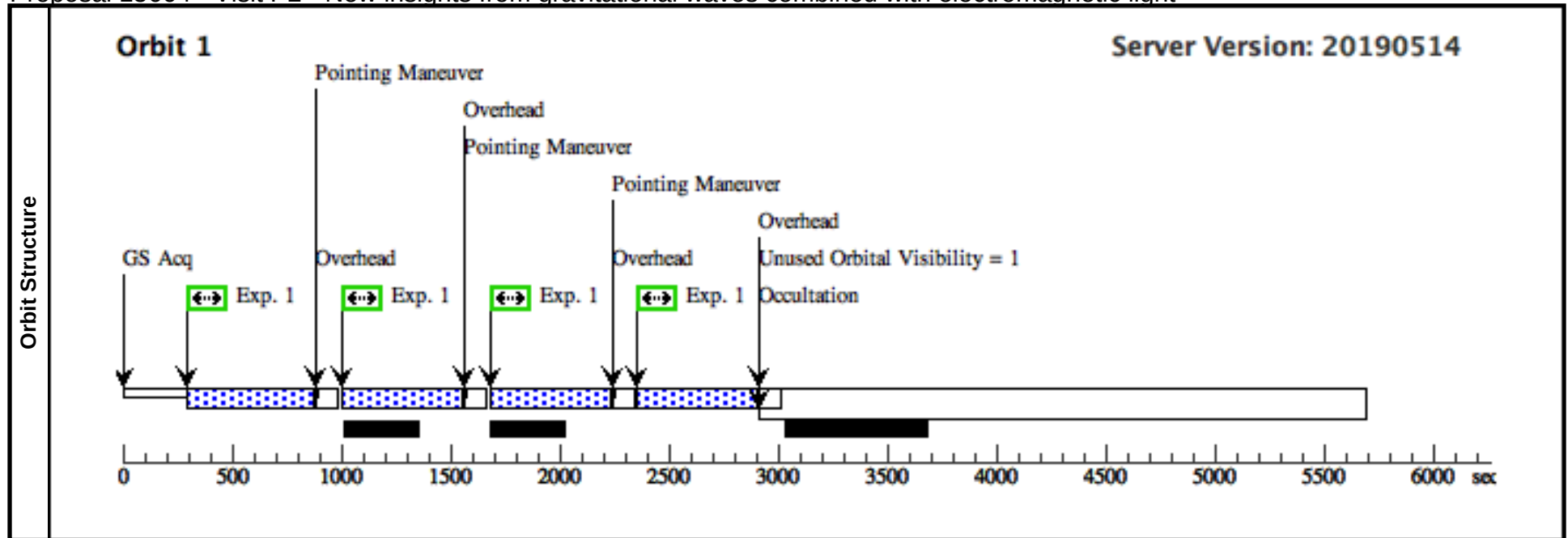
Proposal 15664 - Visit P1 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit P1, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name	Criteria			Description						
	(3)	GW3	GW trigger			NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(3) GW3	WFC3/UVIS, ACCUM, UVIS	F475W	CR-SPLIT=NO;		Pattern 2, Exps 1-1 in Visit P1 (2)	370 Secs (2184 Secs)			
						FLASH=2			[==>546.0 Secs (Pattern 1)]		[1]	
									[==>546.0 Secs (Pattern 2)]			
									[==>546.0 Secs (Pattern 3)]			
								[==>546.0 Secs (Pattern 4)]				



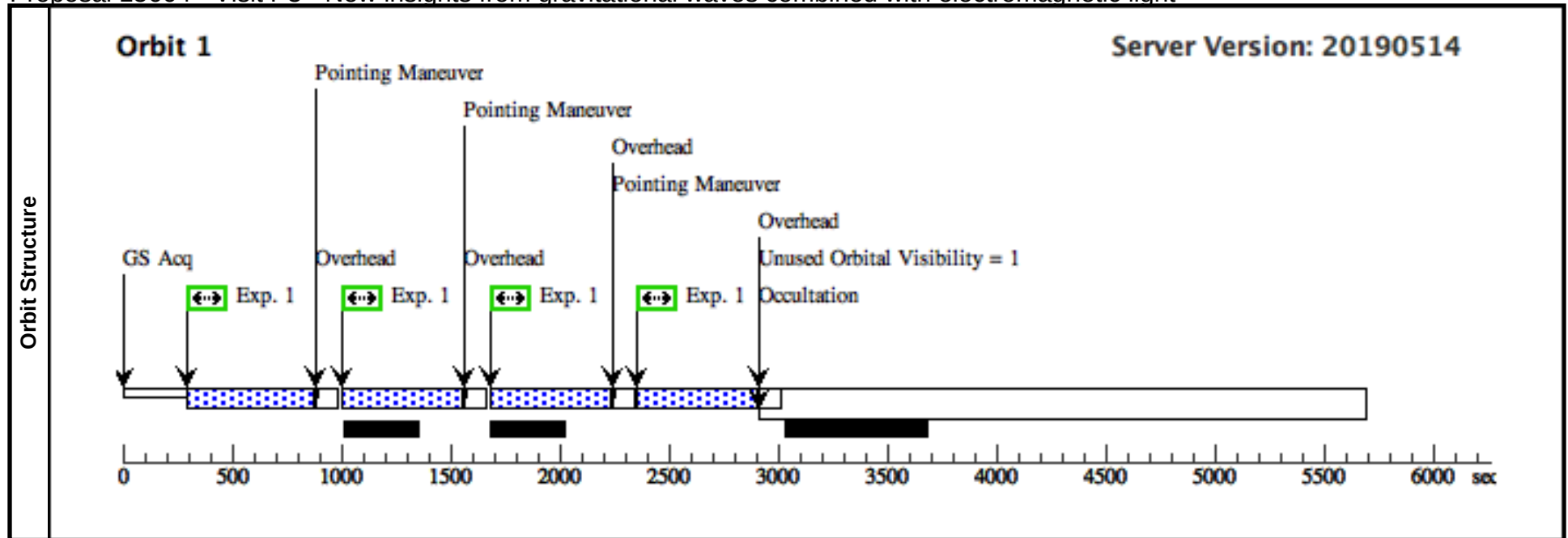
Proposal 15664 - Visit P2 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit P2, implementation											Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/UVIS												
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D												
	On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern						Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112										(1)	
Generic Targets	#	Name		Criteria		Description							
	(3)	GW3		GW trigger		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(3) GW3	WFC3/UVIS, ACCUM, UVIS		F606W	CR-SPLIT=NO		Pattern 2, Exps 1-1 in Visit P2 (2)	370 Secs (2192 Secs)			
										[==>548.0 Secs (Pattern 1)]		[1]	
										[==>548.0 Secs (Pattern 2)]			
										[==>548.0 Secs (Pattern 3)]			
									[==>548.0 Secs (Pattern 4)]				



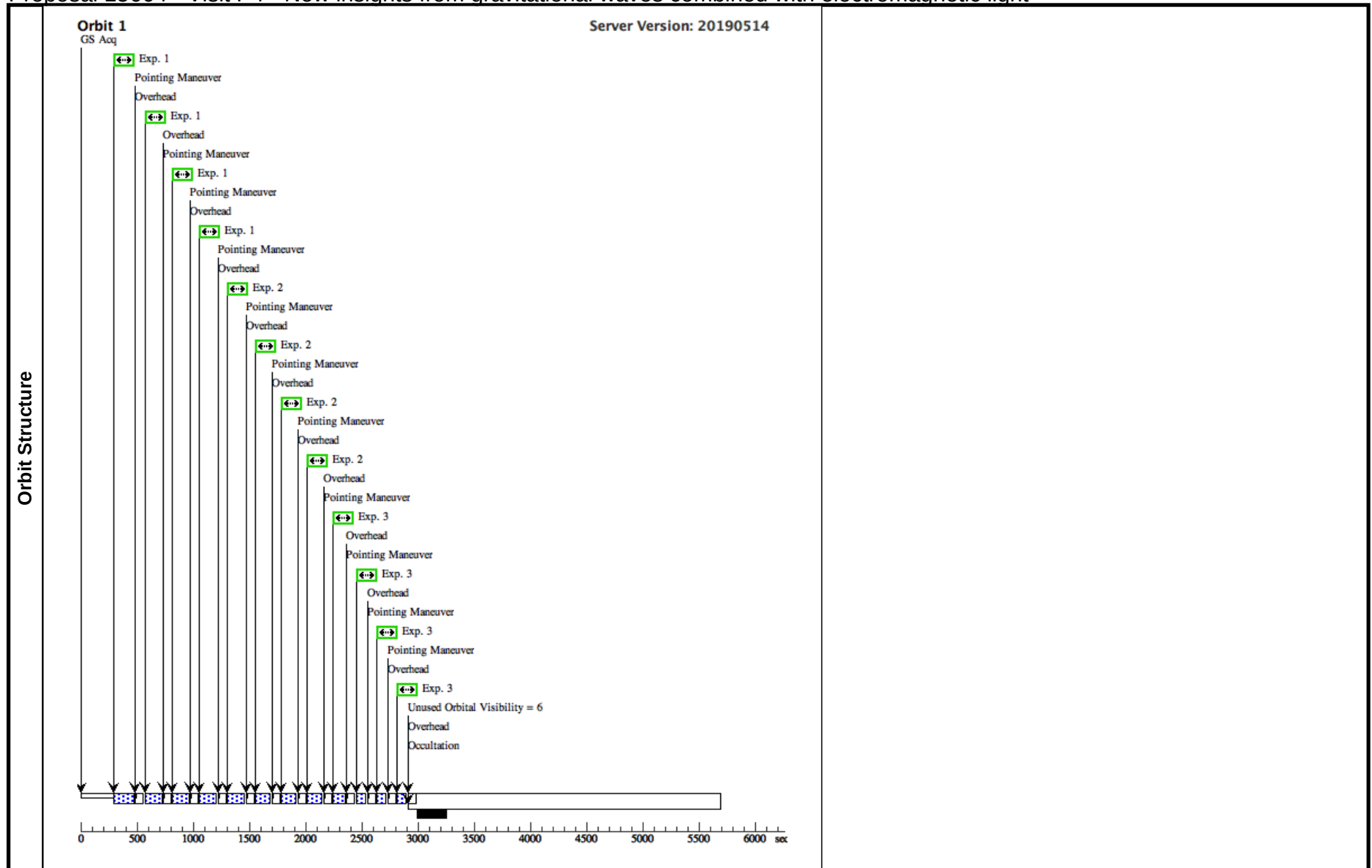
Proposal 15664 - Visit P3 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit P3, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112			Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false						(1)	
Generic Targets	#	Name		Criteria		Description						
	(3)	GW3		GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(3) GW3	WFC3/UVIS, ACCUM, UVIS		F814W	CR-SPLIT=NO		Pattern 2, Exps 1-1 in Visit P3 (2)	370 Secs (2192 Secs)		
										[==>548.0 Secs (Pattern 1)]		[1]
										[==>548.0 Secs (Pattern 2)]		
										[==>548.0 Secs (Pattern 3)]		
									[==>548.0 Secs (Pattern 4)]			



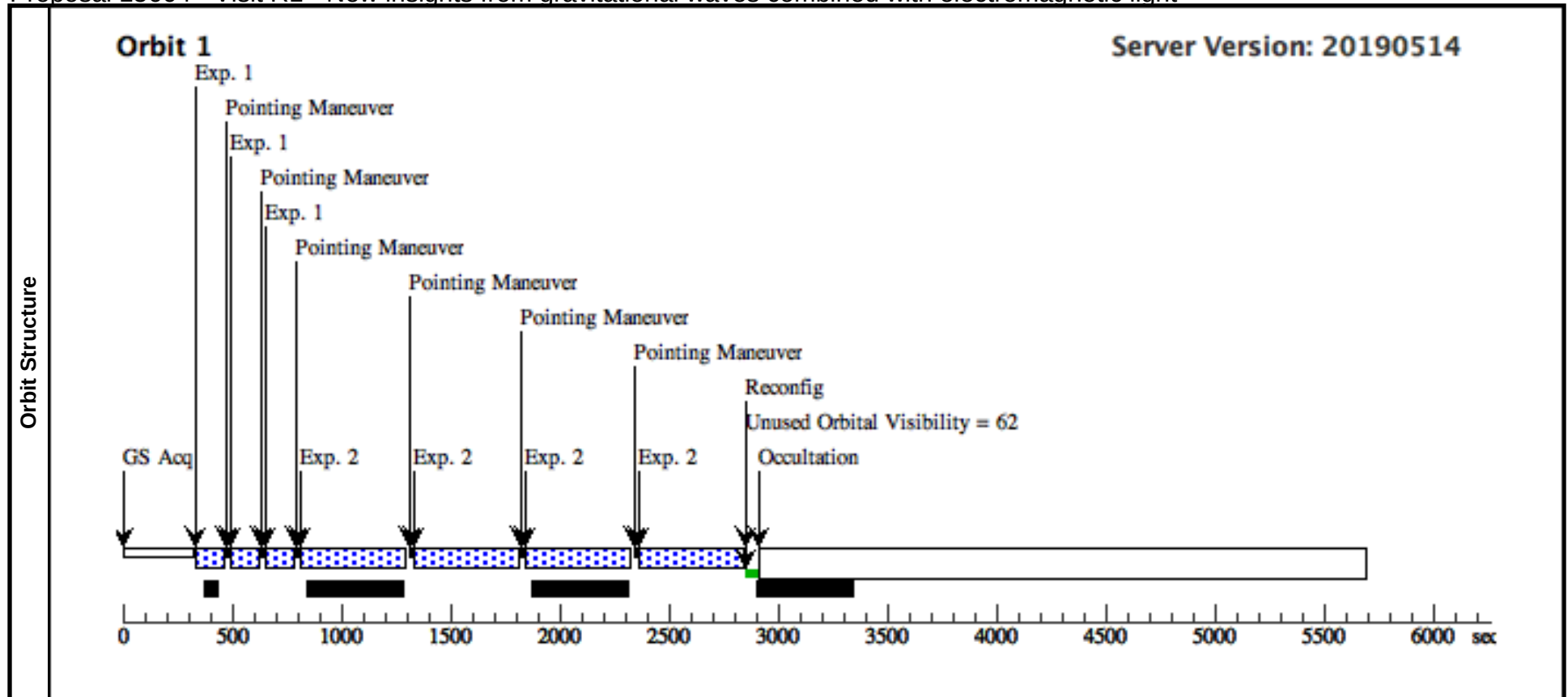
Proposal 15664 - Visit P4 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit P4, implementation										Wed Sep 04 17:01:17 GMT 2019
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: WFC3/UVIS										
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D										
	On Hold Comments: Awaiting GW trigger										
Patterns	#	Primary Pattern				Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112								(1), (2), (3)	
Generic Targets	#	Name	Criteria		Description						
	(3)	GW3	GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1		(3) GW3	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F475W	CR-SPLIT=NO; FLASH=9	POS TARG 0,0	Pattern 2, Exps 1-1 i n Visit P4 (2)	148 Secs (592 Secs)		
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	
	2		(3) GW3	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F814W	CR-SPLIT=NO; FLASH=9		Pattern 2, Exps 2-2 i n Visit P4 (2)	135 Secs (540 Secs)		
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	
	3		(3) GW3	WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB	F606W	FLASH=9		Pattern 2, Exps 3-3 i n Visit P4 (2)	85 Secs (340 Secs)		
									[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	



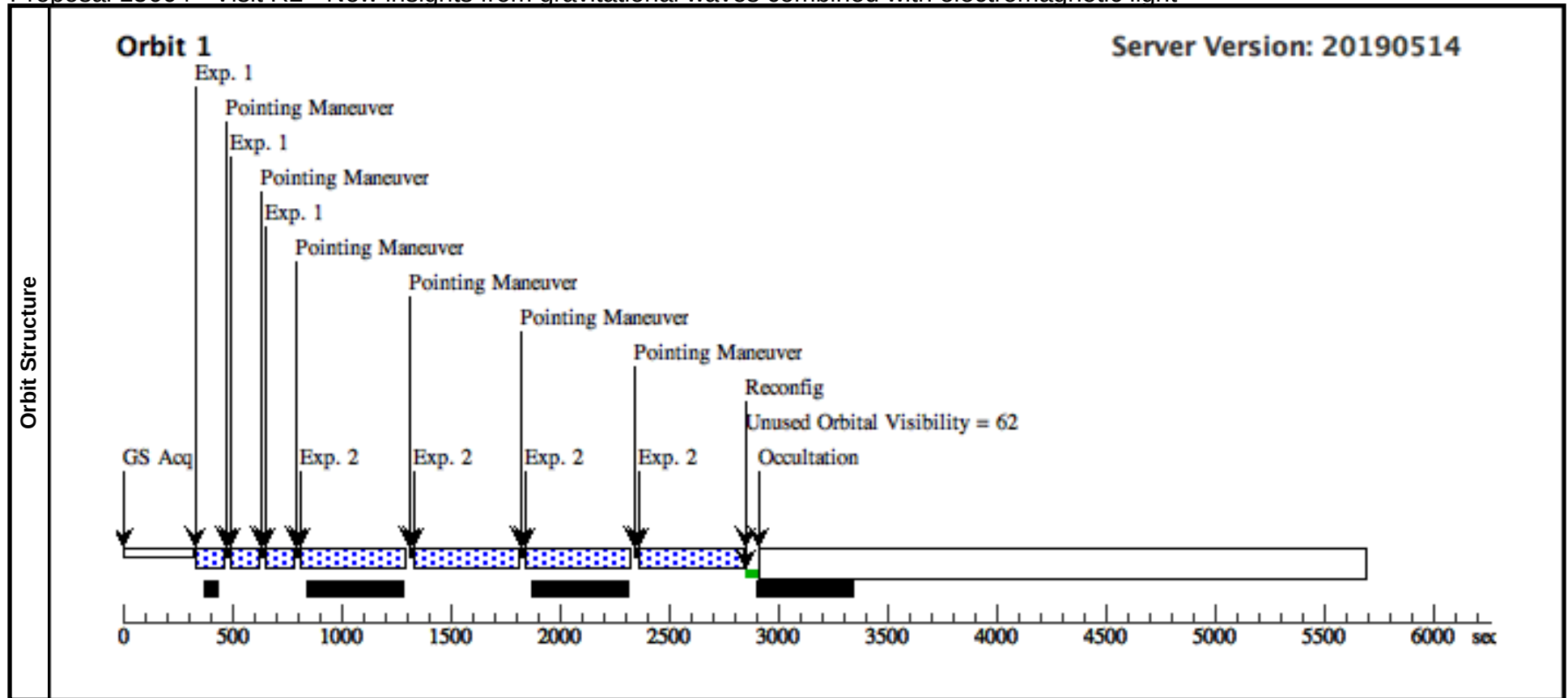
Proposal 15664 - Visit R1 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit R1, implementation										Wed Sep 04 17:01:17 GMT 2019		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/IR												
	Special Requirements: SCHED 100%; ORIENT 125D TO 135 D; ON HOLD ; TOO RESPONSE TIME 3.0D												
	On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365			Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false							(2)	
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false							(1)	
Generic Targets	#	Name		Criteria		Description							
	(4)	GW4		GW trigger		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		F110W	NSAMP=7; SAMP-SEQ=STEP50		Pattern 7, Exps 1-1 in Visit R1 (7)	99.230677 Secs (297.692 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]	
	2		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		G102	NSAMP=10; SAMP-SEQ=SPARS50		Pattern 1, Exps 2-2 in Visit R1 (1)	452.93635 Secs (1811.745 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]	



Proposal 15664 - Visit R2 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit R2, implementation										Wed Sep 04 17:01:17 GMT 2019		
	Diagnostic Status: No Diagnostics												
	Scientific Instruments: WFC3/IR												
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D												
	On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern					Secondary Pattern					Exposures	
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365			Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false							(2)	
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=			Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false							(1)	
Generic Targets	#	Name		Criteria		Description							
	(4)	GW4		GW trigger		NEUTRON STAR							
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		F160W	NSAMP=7; SAMP-SEQ=STEP50		Pattern 7, Exps 1-1 in Visit R2 (7)	99.230677 Secs (297.692 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]	
	2		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		G141	NSAMP=10; SAMP-SEQ=SPARS50		Pattern 1, Exps 2-2 in Visit R2 (1)	452.93635 Secs (1811.745 Secs)			
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]	



Proposal 15664 - Visit R3 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit R3, implementation Wed Sep 04 17:01:17 GMT 2019									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D <i>On Hold Comments: Awaiting GW trigger</i>									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)
Generic Targets	#	Name	Criteria				Description			
	(4)	GW4	GW trigger				NEUTRON STAR			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) GW4	WFC3/IR, MULTIACCUM, IR	F110W	SAMP-SEQ=SPARS NSAMP=12		Pattern 1, Exps 1-1 in Visit R3 (1)	552.937252 Secs (2211.749 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]	[1]
Orbit Structure	Orbit 1 Server Version: 20190514									

Proposal 15664 - Visit R4 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit R4, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/IR											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365					Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)	
Generic Targets	#	Name		Criteria		Description						
	(4)	GW4		GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(4) GW4	WFC3/IR, MULTIACCUM, IR		F140W	SAMP-SEQ=SPARS 50; NSAMP=12		Pattern 1, Exps 1-1 in Visit R4 (1)	552.937252 Secs (2211.749 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]		[1]
Orbit Structure	Orbit 1											
	Server Version: 20190514											

Proposal 15664 - Visit R5 - New insights from gravitational waves combined with electromagnetic light

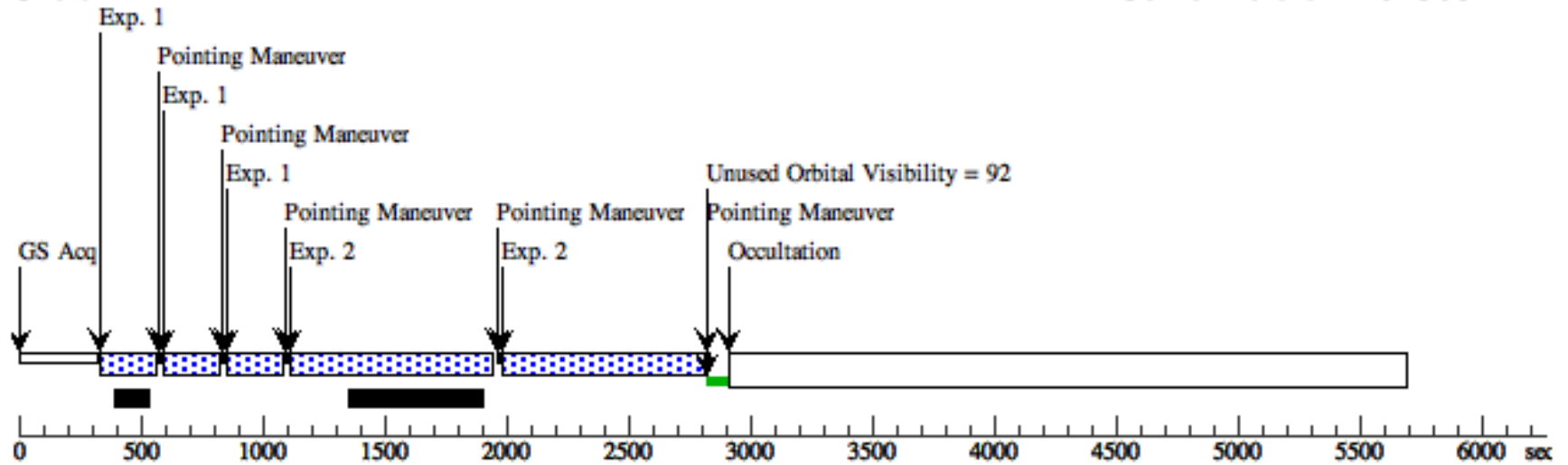
Visit	Proposal 15664, Visit R5, implementation Wed Sep 04 17:01:17 GMT 2019									
	Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D <i>On Hold Comments: Awaiting GW trigger</i>									
Patterns	#	Primary Pattern				Secondary Pattern				Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)
Generic Targets	#	Name	Criteria				Description			
	(4)	GW4	GW trigger				NEUTRON STAR			
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) GW4	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=SPARS NSAMP=12		Pattern 1, Exps 1-1 in Visit R5 (1)	552.937252 Secs (2211.749 Secs) [= > (Pattern 1)] [= > (Pattern 2)] [= > (Pattern 3)] [= > (Pattern 4)]	[1]
Orbit Structure	Orbit 1 Server Version: 20190514									

Proposal 15664 - Visit R6 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit R6, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/IR											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern				Secondary Pattern				Exposures		
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false						(1)		
	(8)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(2)		
Generic Targets	#	Name		Criteria		Description						
	(4)	GW4		GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		F110W	NSAMP=9; SAMP-SEQ=STEP5 0		Pattern 7, Exps 1-1 i n Visit R6 (7)	199.231579 Secs (597.695 Secs)		
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]
	2		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		G102	NSAMP=9; SAMP-SEQ=SPAR S100		Pattern 8, Exps 2-2 i n Visit R6 (8)	802.934875 Secs (6423.479 Secs)		
										[==>(Pattern 1,1)] [==>(Pattern 1,2)]		[1]
										[==>(Pattern 1,3)] [==>(Pattern 1,4)] [==>(Pattern 2,1)]		[2]
										[==>(Pattern 2,2)] [==>(Pattern 2,3)] [==>(Pattern 2,4)]		[3]

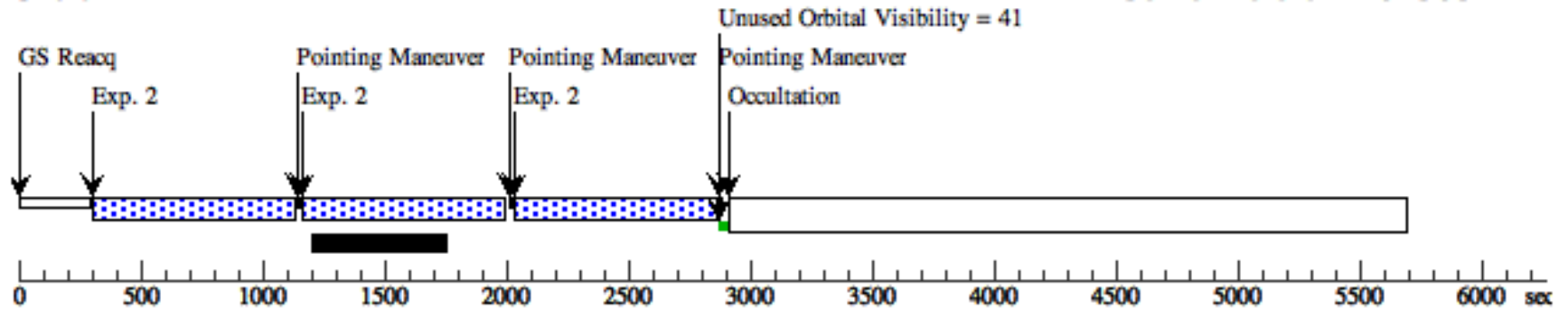
Orbit 1

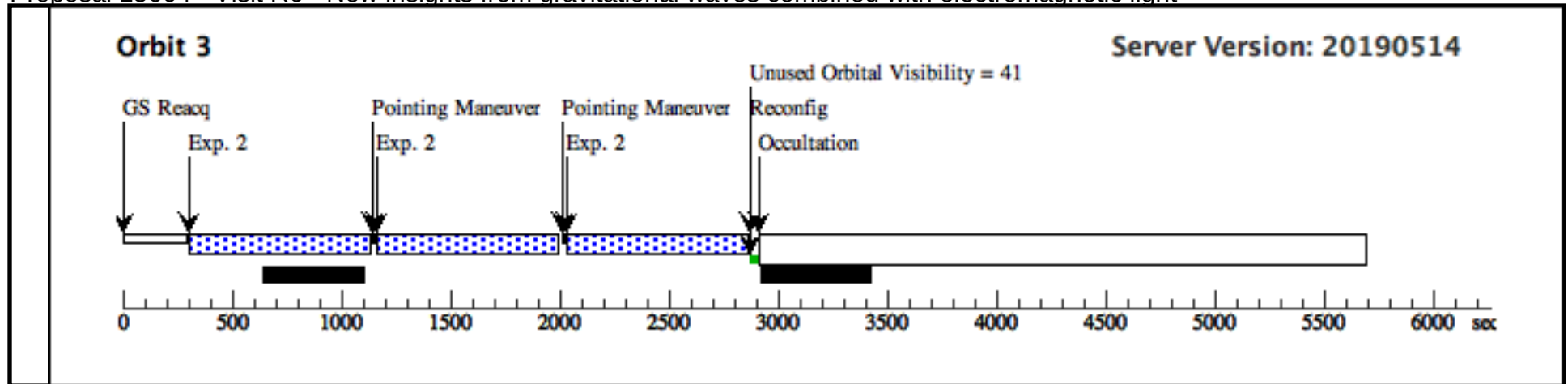
Server Version: 20190514



Orbit 2

Server Version: 20190514



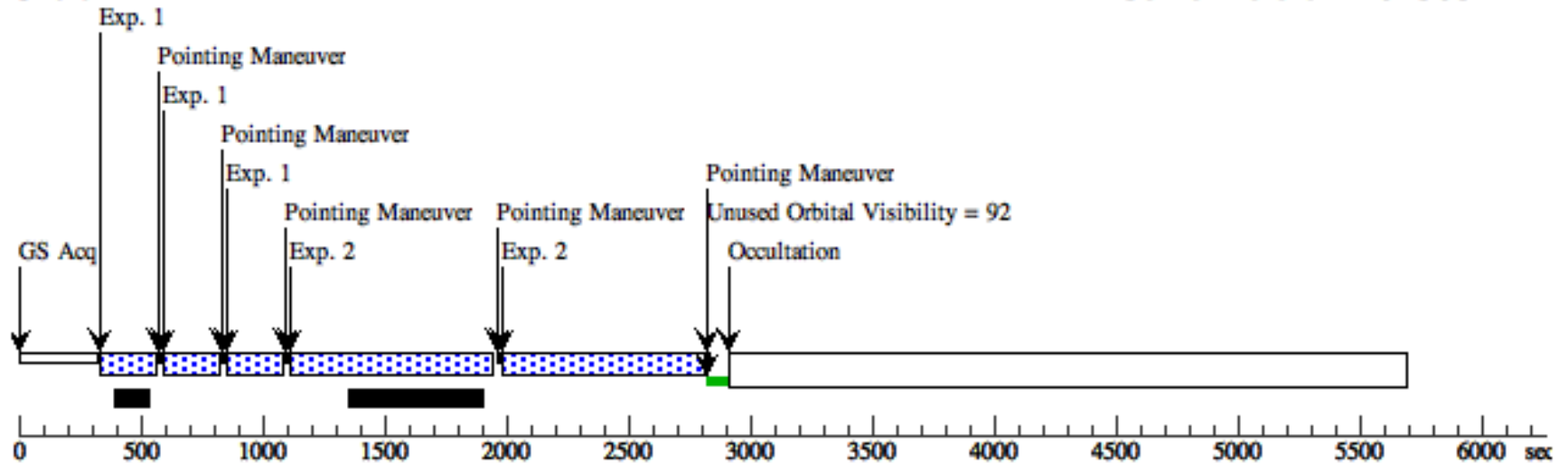


Proposal 15664 - Visit R7 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit R7, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/IR											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern				Secondary Pattern				Exposures		
	(7)	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.605 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false						(1)		
	(8)	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365		Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(2)		
Generic Targets	#	Name		Criteria		Description						
	(4)	GW4		GW trigger		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		F160W	NSAMP=9; SAMP-SEQ=STEP5 0		Pattern 7, Exps 1-1 i n Visit R7 (7)	199.231579 Secs (597.695 Secs)		
										[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]		[1]
	2		(4) GW4	WFC3/IR, MULTIACCUM, GRISM1024		G141	NSAMP=9; SAMP-SEQ=SPAR S100		Pattern 8, Exps 2-2 i n Visit R7 (8)	802.934875 Secs (6423.479 Secs)		
										[==>(Pattern 1,1)] [==>(Pattern 1,2)]		[1]
										[==>(Pattern 1,3)] [==>(Pattern 1,4)] [==>(Pattern 2,1)]		[2]
										[==>(Pattern 2,2)] [==>(Pattern 2,3)] [==>(Pattern 2,4)]		[3]

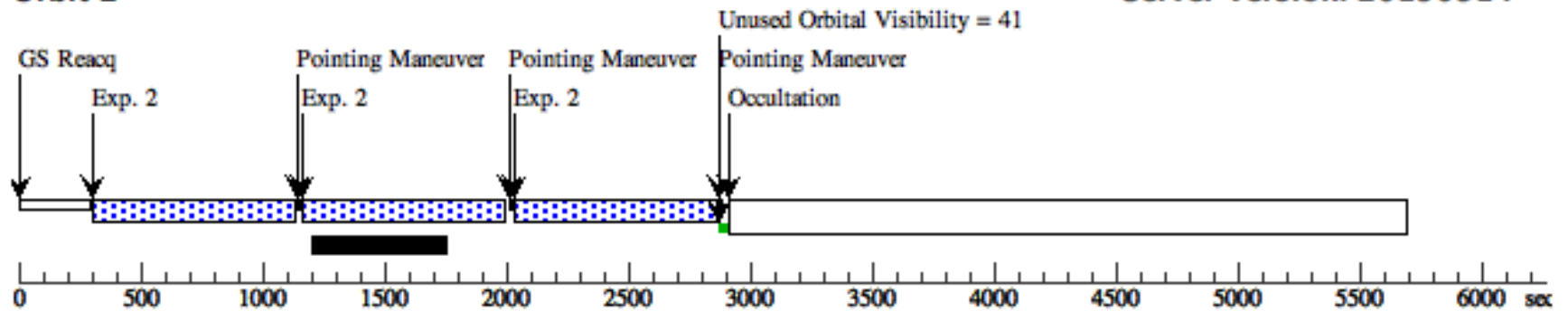
Orbit 1

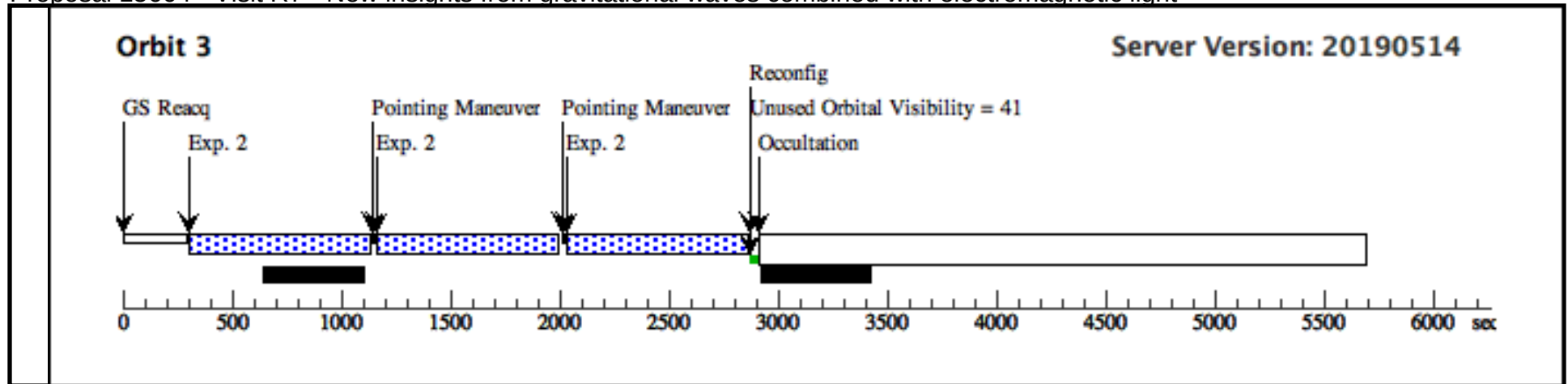
Server Version: 20190514



Orbit 2

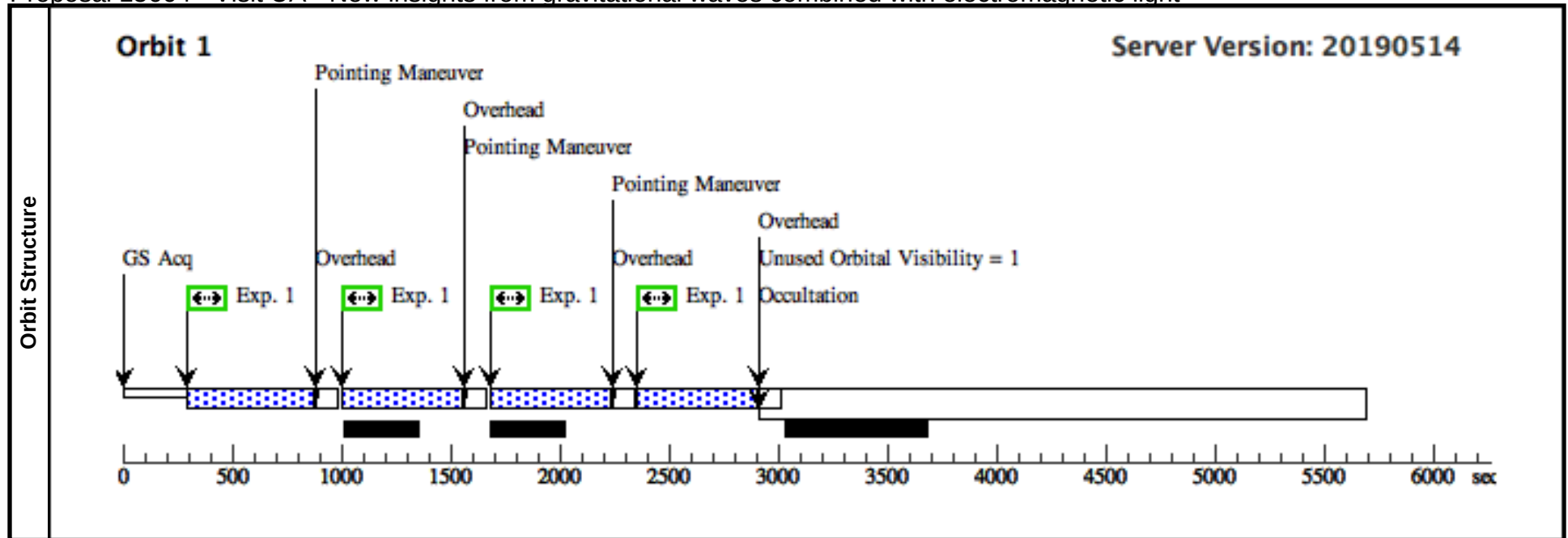
Server Version: 20190514





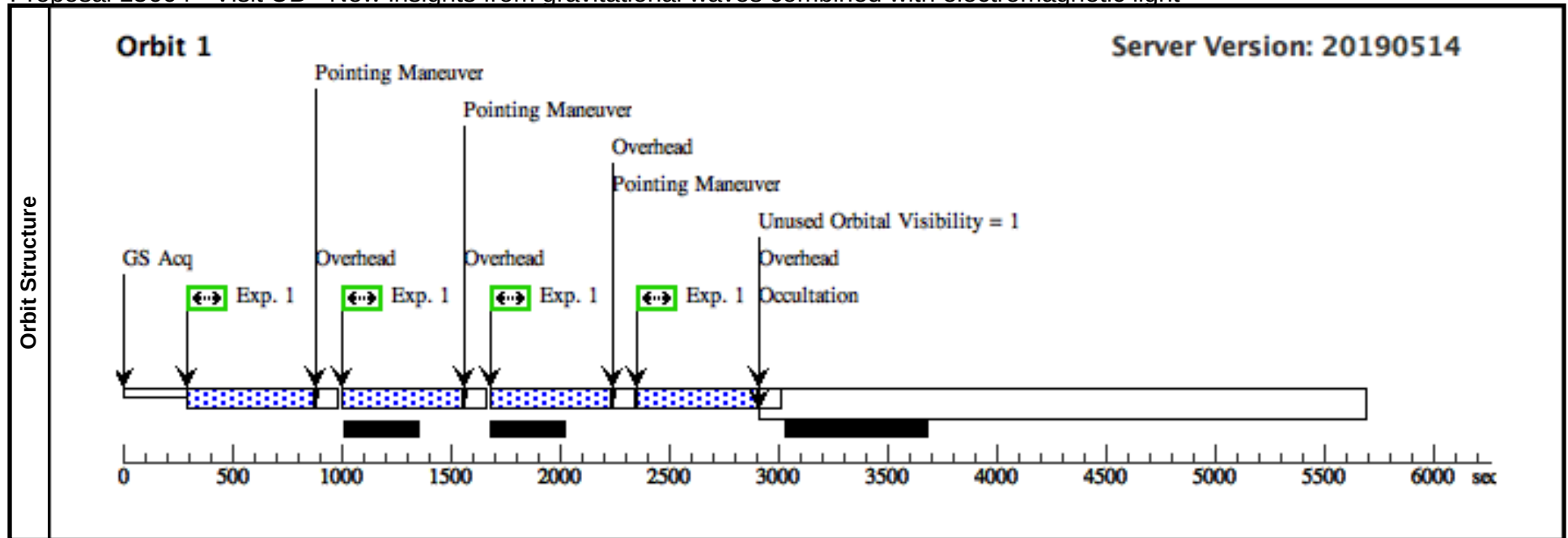
Proposal 15664 - Visit UA - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit UA, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; AFTER U1; GROUP UA,U1 WITHIN 0.4D; ON HOLD ; TOO RESPONSE TIME 24.0H											
On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Coordinate Frame=POS-TARG Pattern Orientation=23.884 Purpose=DITHER Angle Between Sides=81.785 Number Of Points=4 Center Pattern=false Point Spacing=0.173 Line Spacing=0.112									(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F350LP	CR-SPLIT=NO		Pattern 2, Exps 1-1 in Visit UA (2)	370 Secs (2192 Secs)		
										[==>548.0 Secs (Pattern 1)]		[1]
										[==>548.0 Secs (Pattern 2)]		
									[==>548.0 Secs (Pattern 3)]			
										[==>548.0 Secs (Pattern 4)]		



Proposal 15664 - Visit UB - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit UB, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/UVIS											
	Special Requirements: SCHED 100%; GROUP UB,U2 WITHIN 0.5D; ON HOLD ; TOO RESPONSE TIME 24.0H											
	On Hold Comments: Awaiting GW trigger											
Patterns	#	Primary Pattern					Secondary Pattern				Exposures	
	(2)	Pattern Type=WFC3-UVIS-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.173 Line Spacing=0.112			Coordinate Frame=POS-TARG Pattern Orientation=23.884 Angle Between Sides=81.785 Center Pattern=false						(1)	
Generic Targets	#	Name		Criteria		Description						
	(1)	GW1		GW transinet		NEUTRON STAR						
Exposures	#	Label	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(1) GW1	WFC3/UVIS, ACCUM, UVIS		F350LP	CR-SPLIT=NO		Pattern 2, Exps 1-1 in Visit UB (2)	370 Secs (2192 Secs)		
										[==>548.0 Secs (Pattern 1)]		[1]
										[==>548.0 Secs (Pattern 2)]		
										[==>548.0 Secs (Pattern 3)]		
									[==>548.0 Secs (Pattern 4)]			



Proposal 15664 - Visit Y1 - New insights from gravitational waves combined with electromagnetic light

Visit	Proposal 15664, Visit Y1, implementation										Wed Sep 04 17:01:17 GMT 2019	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: WFC3/IR											
	Special Requirements: SCHED 100%; ON HOLD ; TOO RESPONSE TIME 3.0D											
On Hold Comments: Awaiting GW trigger												
Patterns	#	Primary Pattern				Secondary Pattern				Exposures		
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365				Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false				(1)		
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(5)	AT2019OSY	RA: 00 55 47.4000 (13.9475000d) Dec: -27 05 3.00 (-27.08417d) Equinox: J2000				V=24.		Reference Frame: ICRS			
Comments: Category=EXT-STAR Description=[NEUTRON STAR]												
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1		(5) AT2019OSY	WFC3/IR, MULTIACCUM, IR	F140W	SAMP-SEQ=SPARS 50; NSAMP=12	GS ACQ SCENARIO BASE1B3	Pattern 1, Exps 1-1 in Visit Y1 (1)	552.937252 Secs (2211.749 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)]		[1]	
Orbit Structure	Orbit 1											Server Version: 20190514