



# 16198 - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of New SNe Ia

Cycle: 28, Proposal Category: GO  
(Availability Mode: SUPPORTED)

## INVESTIGATORS

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

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:17.0	yes
02	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:18.0	yes
03	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:19.0	yes

Proposal 16198 (STScI Edit Number: 11, Created: Monday, February 8, 2021 at 2:00:37 PM Eastern Standard Time) - 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>
04	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:20.0	yes
05	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:21.0	yes
06	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:22.0	yes
07	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:22.0	yes
08	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:23.0	yes
09	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:24.0	yes
10	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:25.0	yes
11	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:26.0	yes
12	(1) N4258 (7) N4258-CPAR	ACS/WFC WFC3/UVIS	1	08-Feb-2021 14:00:27.0	yes
13	(2) N4258-IR1 (8) N4258-IR1-CPAR	ACS/WFC WFC3/IR	1	08-Feb-2021 14:00:28.0	yes
14	(3) N4258-IR2 (9) N4258-IR2-CPAR	ACS/WFC WFC3/IR	1	08-Feb-2021 14:00:29.0	yes
15	(4) N4258-IR3 (10) N4258-IR3-CPAR	ACS/WFC WFC3/IR	1	08-Feb-2021 14:00:30.0	yes
16	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:31.0	yes
17	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:31.0	yes
18	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:32.0	yes
19	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:32.0	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>
20	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:32.0	yes
21	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:33.0	yes
22	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:33.0	yes
23	(5) N4921-1	WFC3/IR	1	08-Feb-2021 14:00:33.0	yes
24	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:34.0	yes
25	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:34.0	yes
26	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:34.0	yes
27	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:35.0	yes
28	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:35.0	yes
29	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:35.0	yes
30	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:36.0	yes
31	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:36.0	yes
32	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:36.0	yes
33	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:37.0	yes
34	(6) N4921-2	WFC3/IR	1	08-Feb-2021 14:00:37.0	yes

34 Total Orbits Used

## **ABSTRACT**

We propose to scrutinize the puzzling tension in measurements of the Hubble constant by constructing a two-rung ladder, using only Cepheids, that extends to the Coma Cluster (~100 Mpc), and improving the ladder's calibration by tripling the sample of long-period ( $P > 33$  day) Cepheids in the megamaser host, NGC 4258. Unlike previous Cepheid- and TRGB-based ladders, the proposed method is independent of Type Ia SNe, and thus is free of any biases that might accrue from changes in their properties between the local Universe and in the Hubble flow. Two ambitious programs with ACS and WFC3 used over 100 orbits to discover 28 long-period Cepheids in the Coma cluster that define a convincing optical-only, period-luminosity relation. However, pervasive dust lanes are also readily apparent near these Cepheids making the reddening uncertainty the largest remaining contributor to this Cepheid distance in the Hubble flow. We propose to follow-up these Cepheids with deep WFC3-NIR imaging to overcome contamination by dust and to measure these Cepheids consistently with all other Cepheid-SN Ia hosts. We propose to improve the

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calibration of these Cepheids in Coma (and in other hosts) by capitalizing on the improved geometric maser distance to NGC 4258 with multi-epoch, coordinated parallel imaging to find triple the number of known long-period Cepheids in the maser host. By building on past efforts to reach Coma we will also economically tap a new reservoir of SNe, a two-for-one approach to continue improving the precision of the leading method to measure the Hubble constant to help find the underlying source of the tension.

### **OBSERVING DESCRIPTION**

Visits 01-12: Time-series imaging of two adjoining WFC3-UVIS fields (within same orbit, using POS-TARG) with ACS parallels in disk of NGC 4258.

Visits 13-15: WFC3-IR imaging of selected areas in disk of NGC 4258, with ACS parallels.

Visits 16-32: Time-series imaging of one WFC3-IR field covering the disk of NGC 4921.

We wish to maintain a fixed orientation for visits 01-08 and allow the smallest possible rolls that enable visits 09-12 within the required temporal spacings.

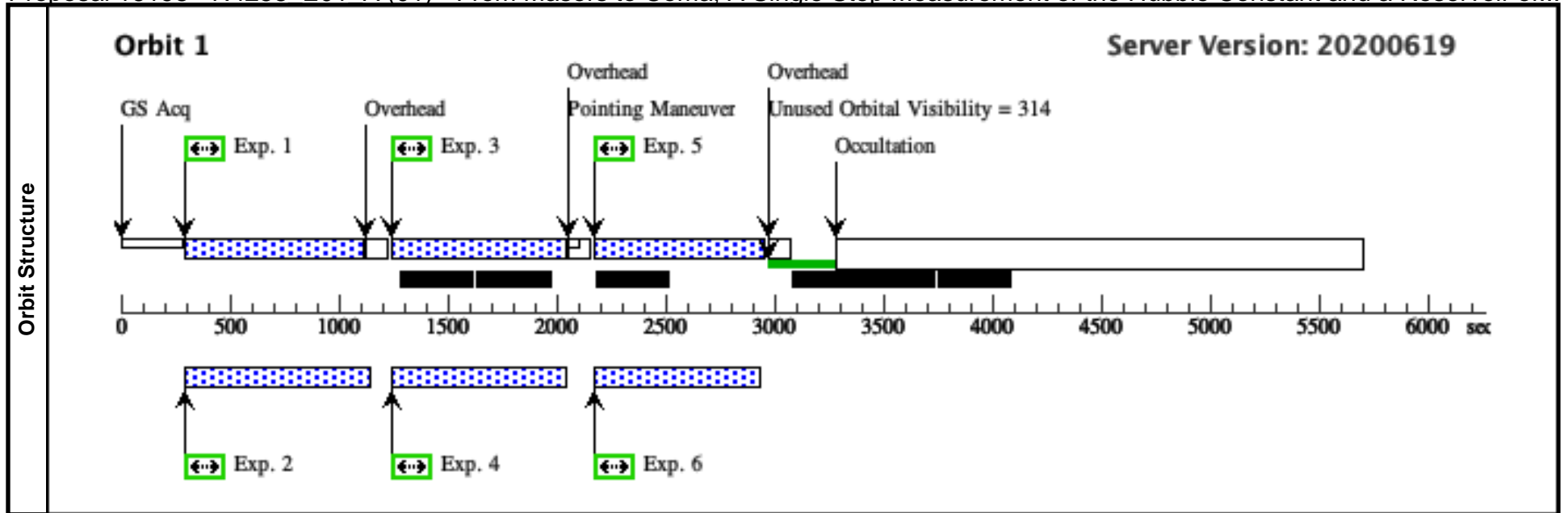
We wish to maintain the same orientation for all of visits 16-32, if possible. Otherwise, visits 24-32 should all be scheduled at a common orientation that is as close as possible to the one used for visits 16-23.

The relative timing of visits 01-12 (while maintaining as close a fixed orientation as possible) is critical to enable unaliased sampling of Cepheid light curves. Thus, it would be significantly impacted by potential reduced-gyro operations.

Proposal 16198 - N4258 E01 A (01) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

Mon Feb 08 19:00:37 GMT 2021

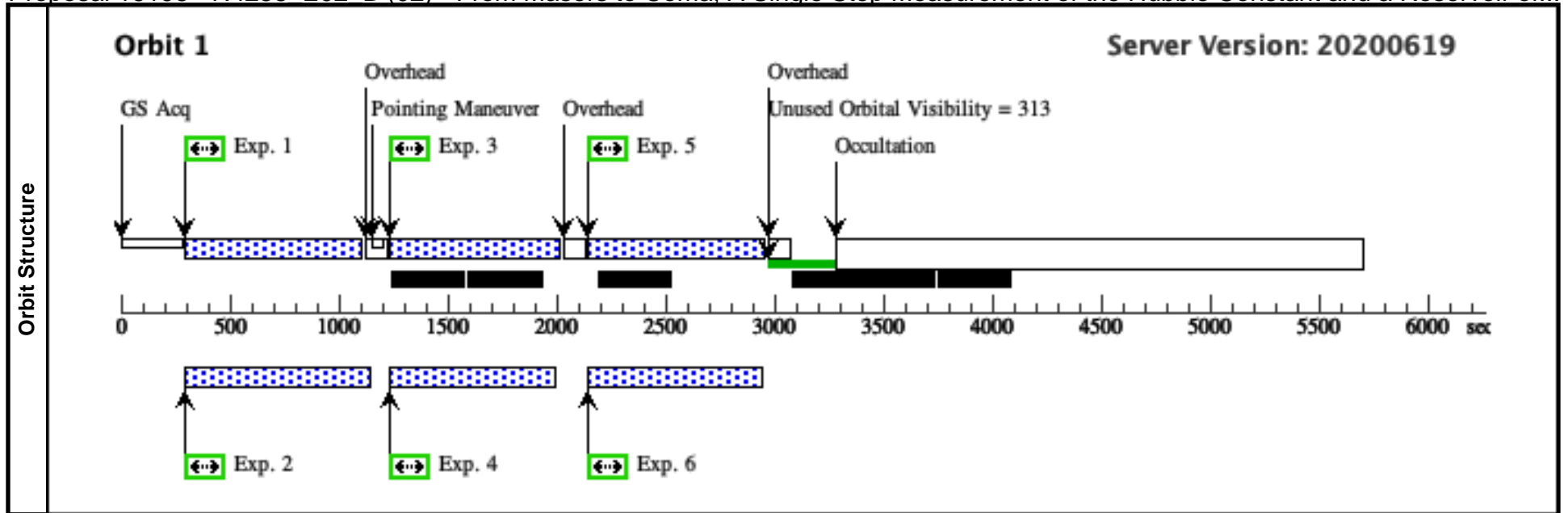
Visit	<b>Proposal 16198, N4258_E01_A (01), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT 277D TO 287 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W		POS TARG 64,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E01_A (01)	790 Secs (790 Secs) [==>]	[1]
	2	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in N4258_E01_A (01)	640 Secs (640 Secs) [==>]	[1]
	3	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64,0	Prime + Parallel Group 3-4 in N4258_E01_A (01)	785 Secs (785 Secs) [==>]	[1]
	4	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E01_A (01)	640 Secs (640 Secs) [==>]	[1]
	5	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64,0	Prime + Parallel Group 5-6 in N4258_E01_A (01)	785 Secs (785 Secs) [==>]	[1]
	6	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 5-6 in N4258_E01_A (01)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E02 B (02) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

Mon Feb 08 19:00:37 GMT 2021

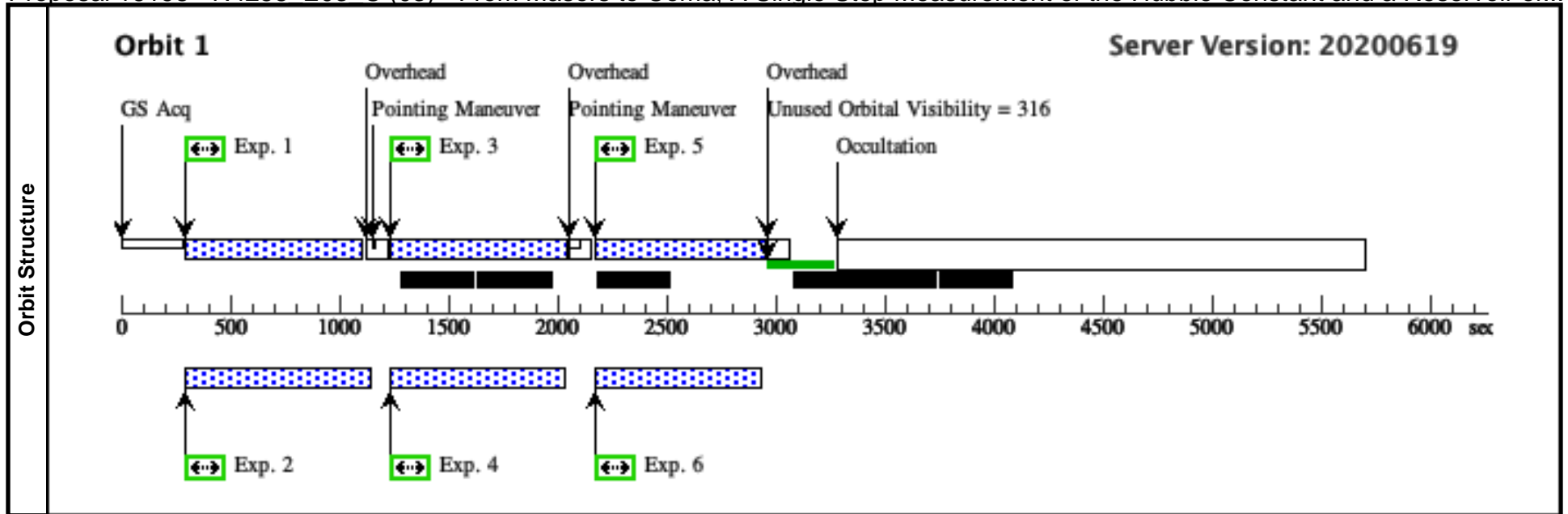
Visit	<b>Proposal 16198, N4258_E02_B (02), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; SAME ORIENT AS 01; AFTER 01 BY 6.9 D TO 7.9 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E02_B (02)	785 Secs (785 Secs) [==>]	[1]
	2	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 1-2 in N4258_E02_B (02)	640 Secs (640 Secs) [==>]	[1]
	3	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64,0	Prime + Parallel Group 3-4 in N4258_E02_B (02)	785 Secs (785 Secs) [==>]	[1]
	4	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E02_B (02)	640 Secs (640 Secs) [==>]	[1]
	5	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W		POS TARG -64,0	Prime + Parallel Group 5-6 in N4258_E02_B (02)	785 Secs (785 Secs) [==>]	[1]
	6	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in N4258_E02_B (02)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E03 C (03) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

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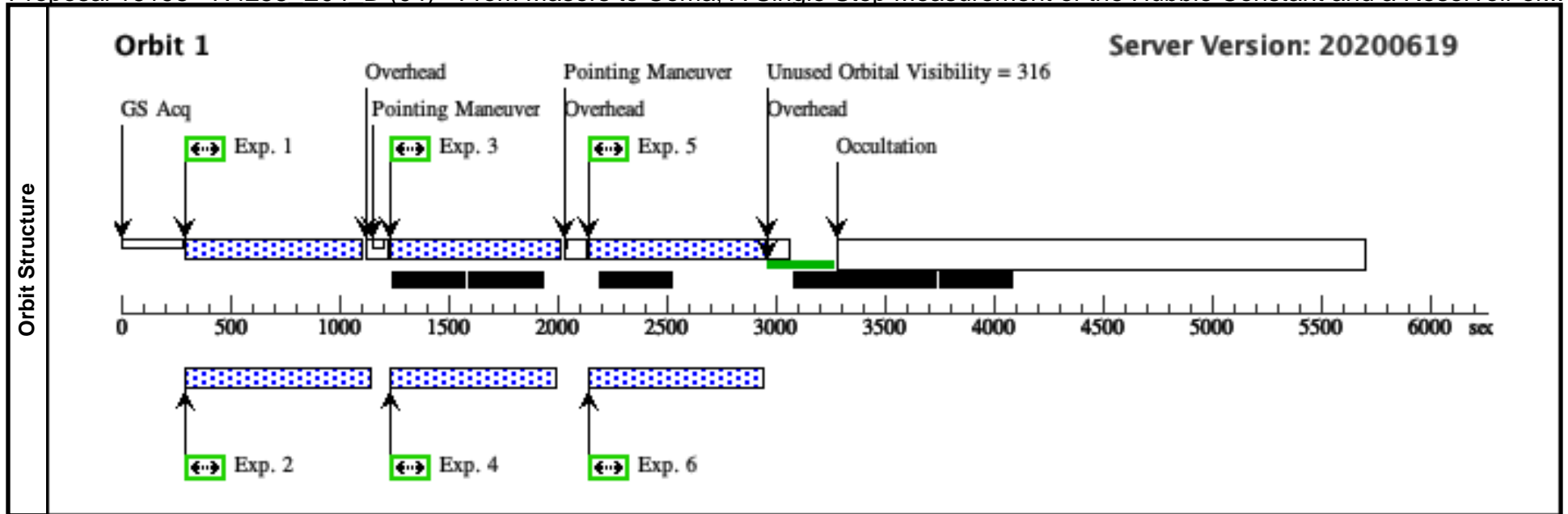
Visit	<b>Proposal 16198, N4258_E03_C (03), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; SAME ORIENT AS 01; AFTER 01 BY 14.2 D TO 15.2 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000 <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> <i>Category=GALAXY</i> <i>Description=[SPIRAL]</i> <i>Extended=NO</i>	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000 <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> <i>Category=GALAXY</i> <i>Description=[SPIRAL]</i> <i>Extended=NO</i>	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		POS TARG 64,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E03_C (03)	785 Secs (785 Secs) [==>]	[1]
	2	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in N4258_E03_C (03)	640 Secs (640 Secs) [==>]	[1]
	3	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64.158,0 .07	Prime + Parallel Group 3-4 in N4258_E03_C (03)	785 Secs (785 Secs) [==>]	[1]
	4	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E03_C (03)	640 Secs (640 Secs) [==>]	[1]
	5	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -63.842, .07	Prime + Parallel Group 5-6 in N4258_E03_C (03)	785 Secs (785 Secs) [==>]	[1]
6	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 5-6 in N4258_E03_C (03)	640 Secs (640 Secs) [==>]	[1]	



Proposal 16198 - N4258 E04 D (04) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

Mon Feb 08 19:00:38 GMT 2021

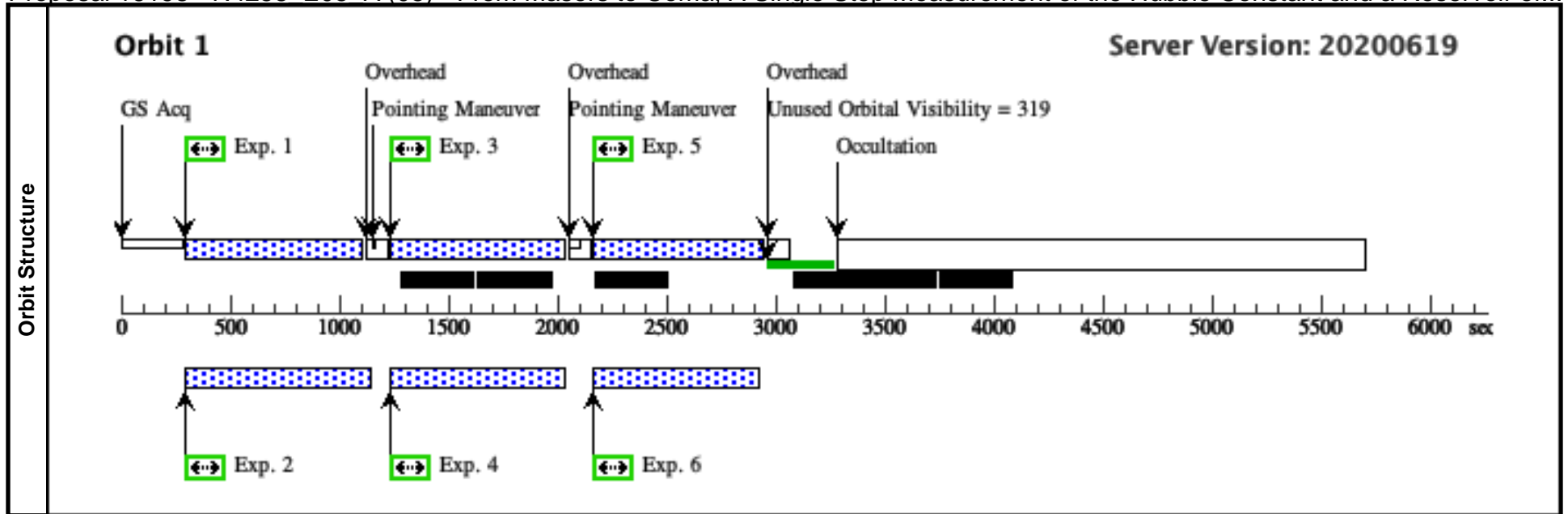
Visit	<b>Proposal 16198, N4258_E04_D (04), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; SAME ORIENT AS 01; AFTER 01 BY 21.1 D TO 22.1 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64.158, 07; GS ACQ SCENARIO SINGLE	Prime + Parallel Group 1-2 in N4258_E04_D (04)	785 Secs (785 Secs) [==>]	[1]
	2		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 1-2 in N4258_E04_D (04)	640 Secs (640 Secs) [==>]	[1]
	3		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -63.842, .07	Prime + Parallel Group 3-4 in N4258_E04_D (04)	785 Secs (785 Secs) [==>]	[1]
	4		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E04_D (04)	640 Secs (640 Secs) [==>]	[1]
	5		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		POS TARG -64,0	Prime + Parallel Group 5-6 in N4258_E04_D (04)	785 Secs (785 Secs) [==>]	[1]
	6		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in N4258_E04_D (04)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E05 A (05) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

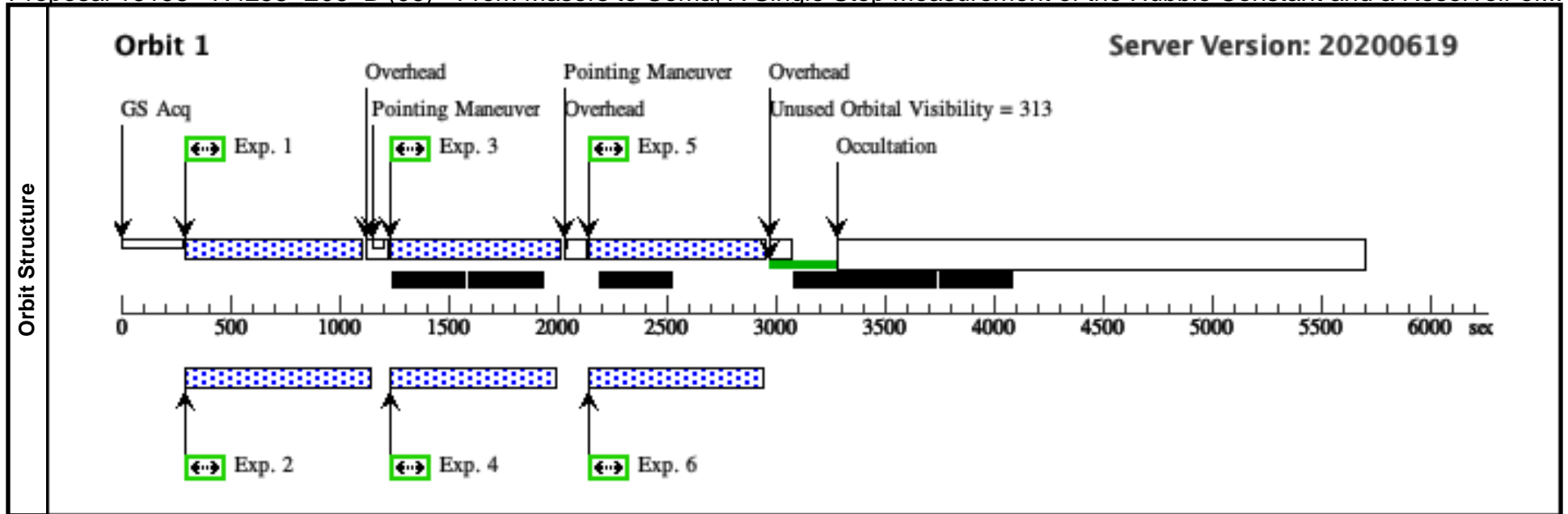
Mon Feb 08 19:00:38 GMT 2021

Visit	<b>Proposal 16198, N4258_E05_A (05), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT 0D TO 0D FROM 01; AFTER_01 BY 27.7 D TO 28.7 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W		POS TARG 64.474,0 .424; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E05_A (05)	785 Secs (785 Secs) [==>]	[1]
	2		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in N4258_E05_A (05)	640 Secs (640 Secs) [==>]	[1]
	3		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64.099,.165	Prime + Parallel Group 3-4 in N4258_E05_A (05)	785 Secs (785 Secs) [==>]	[1]
	4		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E05_A (05)	640 Secs (640 Secs) [==>]	[1]
	5		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -63.901,.165	Prime + Parallel Group 5-6 in N4258_E05_A (05)	785 Secs (785 Secs) [==>]	[1]
	6		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 5-6 in N4258_E05_A (05)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E06 B (06) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

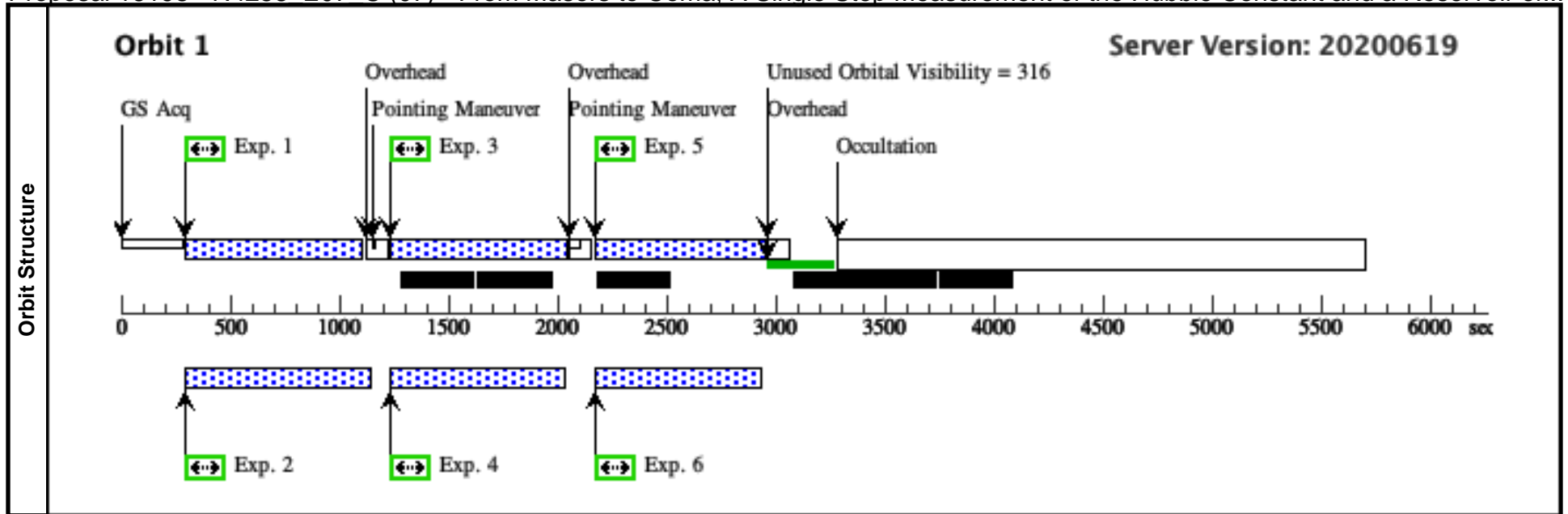
Visit	<b>Proposal 16198, N4258_E06_B (06), completed</b> <span style="float: right;">Mon Feb 08 19:00:38 GMT 2021</span> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT 0D TO 0D FROM 01; AFTER_01 BY 33.5 D TO 34.5 D									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000  <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64.099, .165;	GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E06_B (06)	785 Secs (785 Secs) [==>]	[1]
	2	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W				Prime + Parallel Group 1-2 in N4258_E06_B (06)	640 Secs (640 Secs) [==>]	[1]
	3	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -63.901, .165		Prime + Parallel Group 3-4 in N4258_E06_B (06)	785 Secs (785 Secs) [==>]	[1]
	4	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W				Prime + Parallel Group 3-4 in N4258_E06_B (06)	640 Secs (640 Secs) [==>]	[1]
	5	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W		POS TARG -63.526, .424		Prime + Parallel Group 5-6 in N4258_E06_B (06)	785 Secs (785 Secs) [==>]	[1]
6	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W				Prime + Parallel Group 5-6 in N4258_E06_B (06)	640 Secs (640 Secs) [==>]	[1]	



Proposal 16198 - N4258 E07 C (07) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

Mon Feb 08 19:00:38 GMT 2021

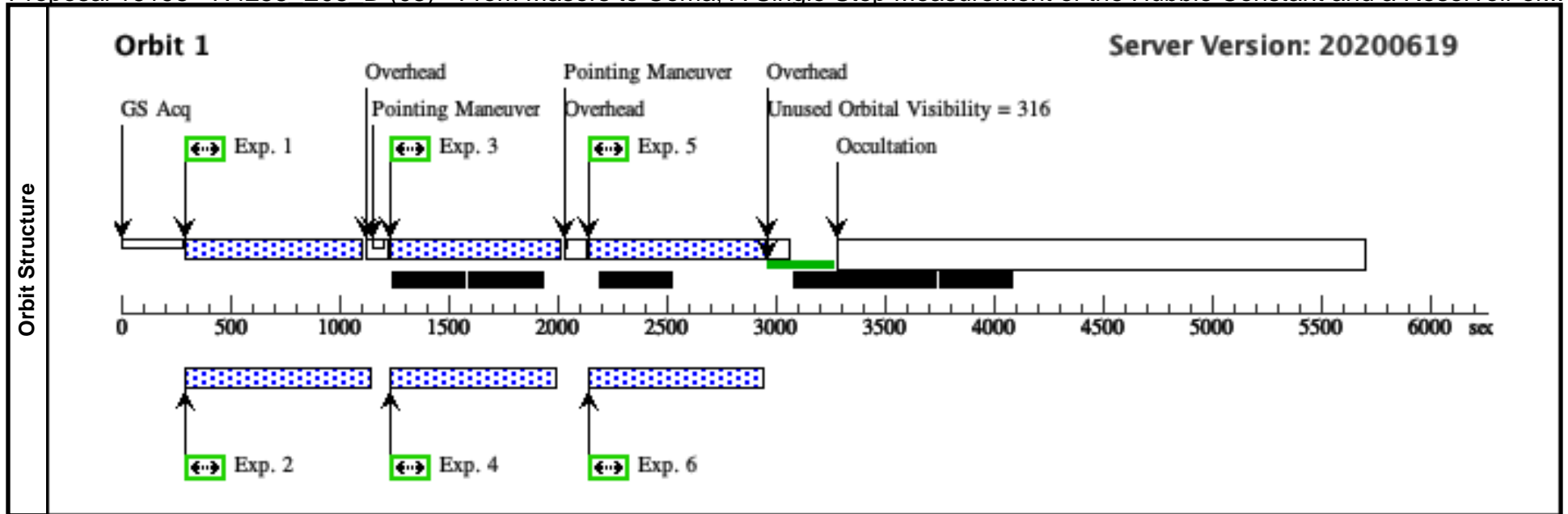
Visit	<b>Proposal 16198, N4258_E07_C (07), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT 0D TO 0D FROM 01; AFTER_01 BY 37.8 D TO 38.8 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		POS TARG 64.474,0 .424; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E07_C (07)	785 Secs (785 Secs) [==>]	[1]
	2		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in N4258_E07_C (07)	640 Secs (640 Secs) [==>]	[1]
	3		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 63.94,0 095	Prime + Parallel Group 3-4 in N4258_E07_C (07)	785 Secs (785 Secs) [==>]	[1]
	4		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E07_C (07)	640 Secs (640 Secs) [==>]	[1]
	5		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64.06, 095	Prime + Parallel Group 5-6 in N4258_E07_C (07)	785 Secs (785 Secs) [==>]	[1]
	6		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 5-6 in N4258_E07_C (07)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E08 D (08) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

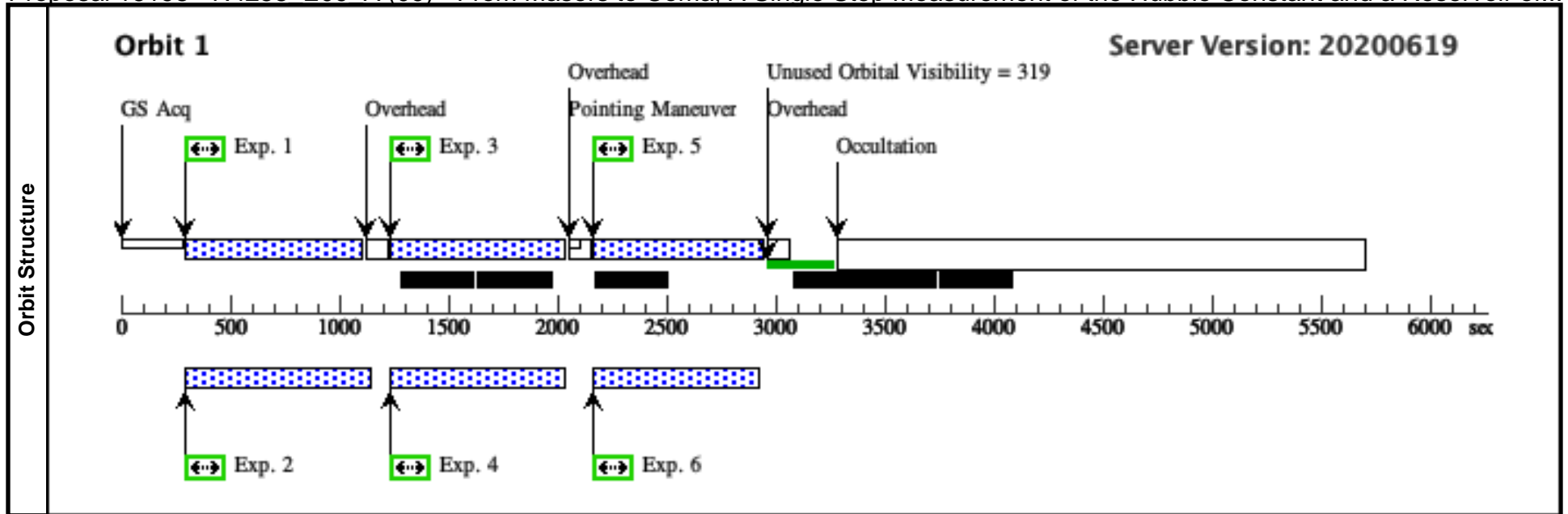
Mon Feb 08 19:00:38 GMT 2021

Visit	<b>Proposal 16198, N4258_E08_D (08), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT 0D TO 0D FROM 01; AFTER_01 BY 45 D TO 46 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 63.94,0.095; GS ACQ SCENARIO SINGLE	Prime + Parallel Group 1-2 in N4258_E08_D (08)	785 Secs (785 Secs) [==>]	[1]
	2		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 1-2 in N4258_E08_D (08)	640 Secs (640 Secs) [==>]	[1]
	3		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64.06,0.095	Prime + Parallel Group 3-4 in N4258_E08_D (08)	785 Secs (785 Secs) [==>]	[1]
	4		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E08_D (08)	640 Secs (640 Secs) [==>]	[1]
	5		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		POS TARG -63.526,0.424	Prime + Parallel Group 5-6 in N4258_E08_D (08)	785 Secs (785 Secs) [==>]	[1]
	6		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in N4258_E08_D (08)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E09 A (09) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

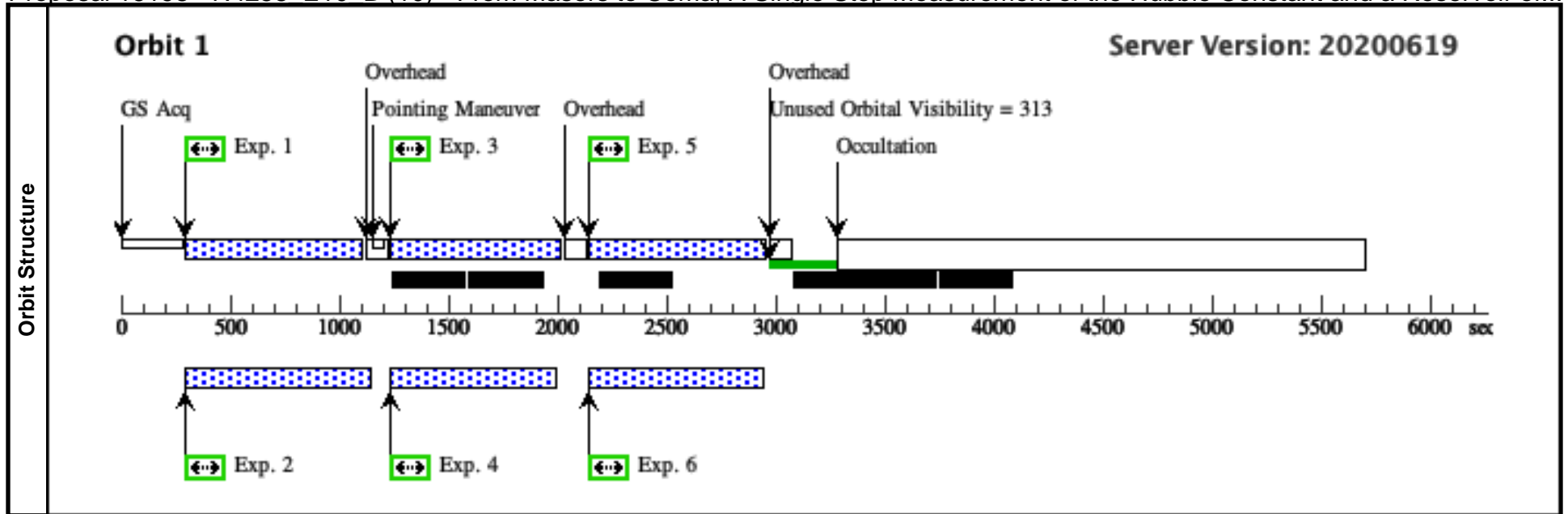
Visit		Proposal 16198, N4258_E09_A (09), completed								Mon Feb 08 19:00:38 GMT 2021
		<b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT -5D TO 0D FROM 01; AFTER 01 BY 51 D TO 52 D								
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W		POS TARG 64,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E09_A (09)	785 Secs (785 Secs) [==>]	[1]
	2		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in N4258_E09_A (09)	640 Secs (640 Secs) [==>]	[1]
	3		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64,0	Prime + Parallel Group 3-4 in N4258_E09_A (09)	785 Secs (785 Secs) [==>]	[1]
	4		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E09_A (09)	640 Secs (640 Secs) [==>]	[1]
	5		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64,0	Prime + Parallel Group 5-6 in N4258_E09_A (09)	785 Secs (785 Secs) [==>]	[1]
	6		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 5-6 in N4258_E09_A (09)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E10 B (10) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

Mon Feb 08 19:00:38 GMT 2021

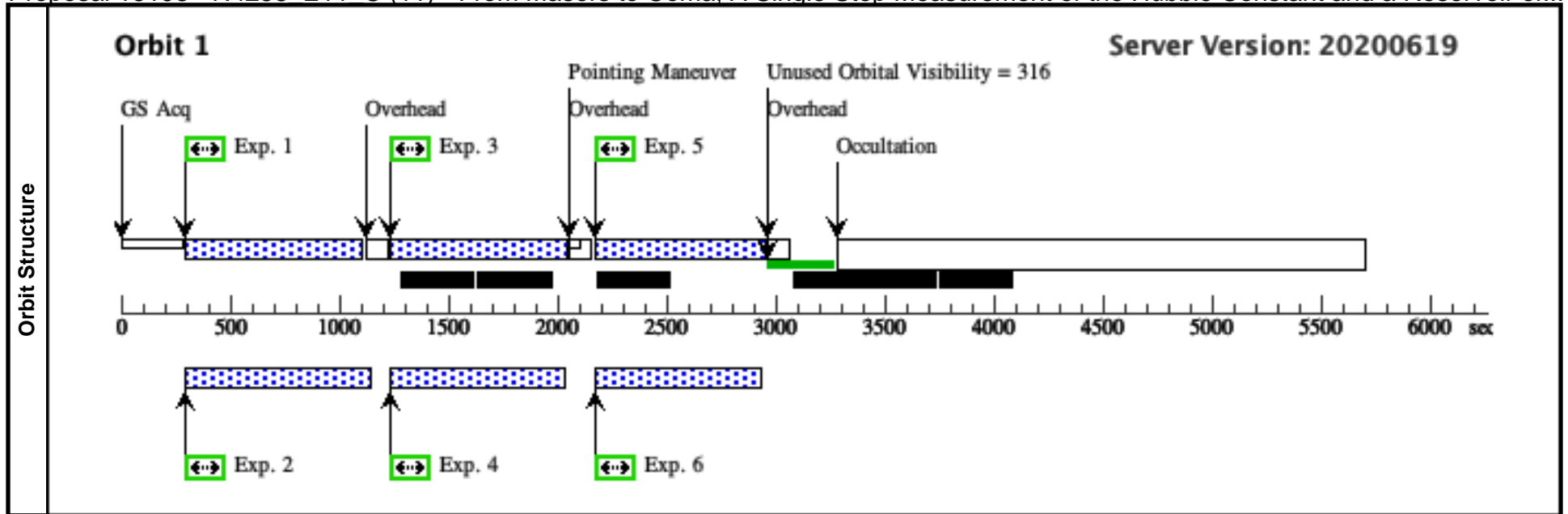
Visit	<b>Proposal 16198, N4258_E10_B (10), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT -10D TO 0D FROM 01: AFTER 01 BY 56.7 D TO 57.7 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E10_B (10)	785 Secs (785 Secs) [==>]	[1]
	2	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 1-2 in N4258_E10_B (10)	640 Secs (640 Secs) [==>]	[1]
	3	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64,0	Prime + Parallel Group 3-4 in N4258_E10_B (10)	785 Secs (785 Secs) [==>]	[1]
	4	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E10_B (10)	640 Secs (640 Secs) [==>]	[1]
	5	(1) N4258	(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W		POS TARG -64,0	Prime + Parallel Group 5-6 in N4258_E10_B (10)	785 Secs (785 Secs) [==>]	[1]
	6	(7) N4258-CPAR	(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in N4258_E10_B (10)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E11 C (11) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

Mon Feb 08 19:00:38 GMT 2021

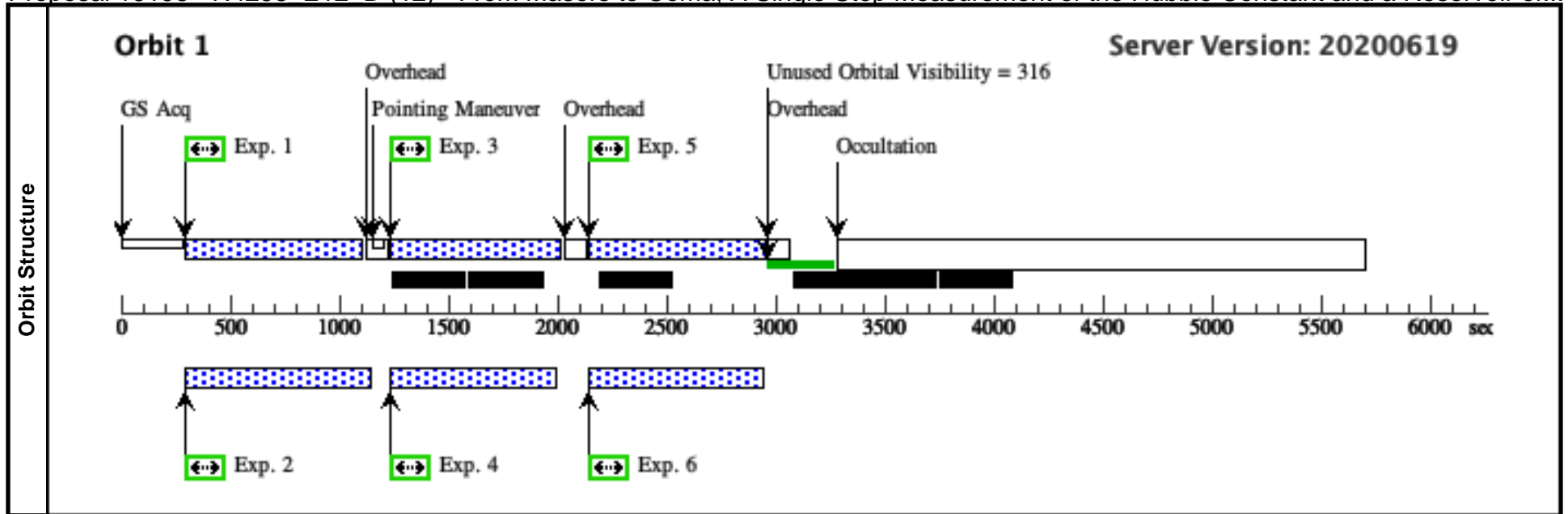
Visit	<b>Proposal 16198, N4258_E11_C (11), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT -16D TO 0D FROM 01: AFTER 01 BY 63.5 D TO 64.5 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		POS TARG 64,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E11_C (11)	785 Secs (785 Secs) [==>]	[1]
	2		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 1-2 in N4258_E11_C (11)	640 Secs (640 Secs) [==>]	[1]
	3		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64,0	Prime + Parallel Group 3-4 in N4258_E11_C (11)	785 Secs (785 Secs) [==>]	[1]
	4		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E11_C (11)	640 Secs (640 Secs) [==>]	[1]
	5		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64,0	Prime + Parallel Group 5-6 in N4258_E11_C (11)	785 Secs (785 Secs) [==>]	[1]
	6		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 5-6 in N4258_E11_C (11)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 E12 D (12) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of...

Mon Feb 08 19:00:38 GMT 2021

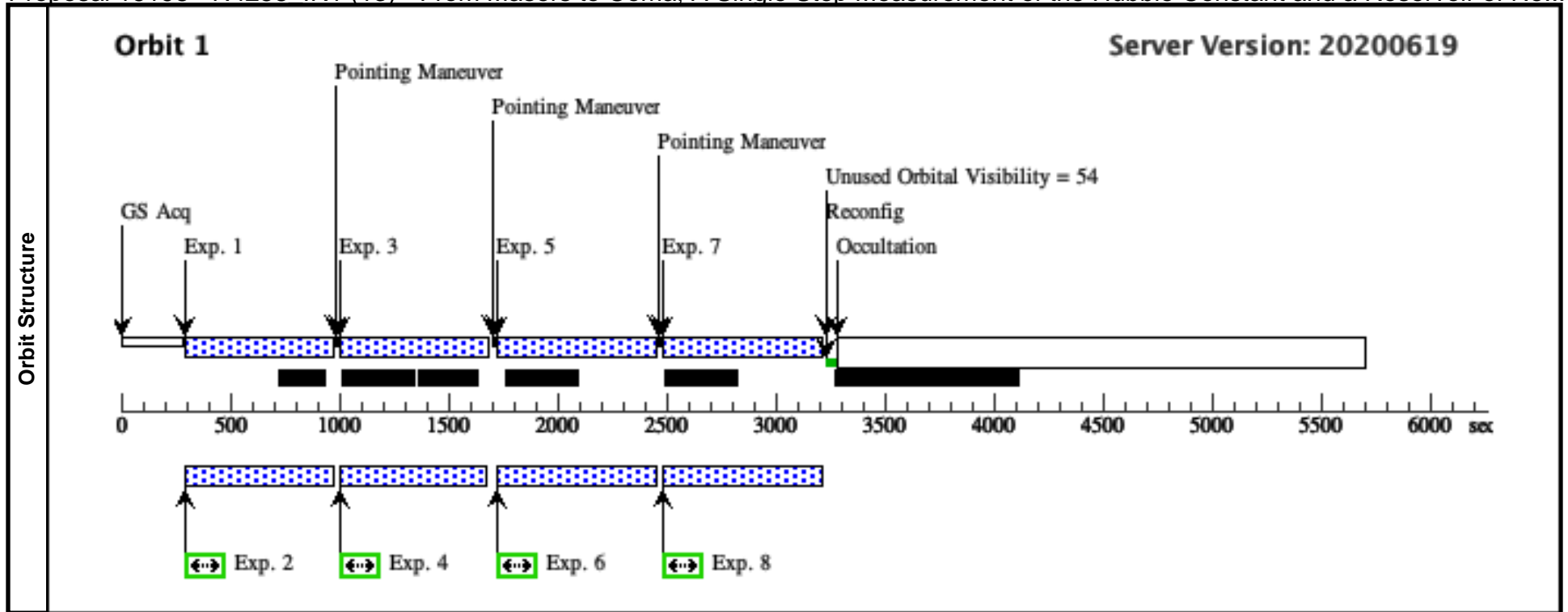
Visit	<b>Proposal 16198, N4258_E12_D (12), scheduled</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT -22D TO 0D FROM 01: AFTER 01 BY 68 D TO 70 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(1)	N4258	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(7)	N4258-CPAR	RA: 12 18 41.9000 (184.6745833d) Dec: +47 21 24.00 (47.35667d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG 64,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_E12_D (12)	785 Secs (785 Secs) [==>]	[1]
	2		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 1-2 in N4258_E12_D (12)	640 Secs (640 Secs) [==>]	[1]
	3		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		POS TARG -64,0	Prime + Parallel Group 3-4 in N4258_E12_D (12)	785 Secs (785 Secs) [==>]	[1]
	4		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F555W			Prime + Parallel Group 3-4 in N4258_E12_D (12)	640 Secs (640 Secs) [==>]	[1]
	5		(1) N4258	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W		POS TARG -64,0	Prime + Parallel Group 5-6 in N4258_E12_D (12)	785 Secs (785 Secs) [==>]	[1]
	6		(7) N4258-CPAR	ACS/WFC, ACCUM, WFC	F814W			Prime + Parallel Group 5-6 in N4258_E12_D (12)	640 Secs (640 Secs) [==>]	[1]



Proposal 16198 - N4258 IR1 (13) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of Ne...

Mon Feb 08 19:00:38 GMT 2021

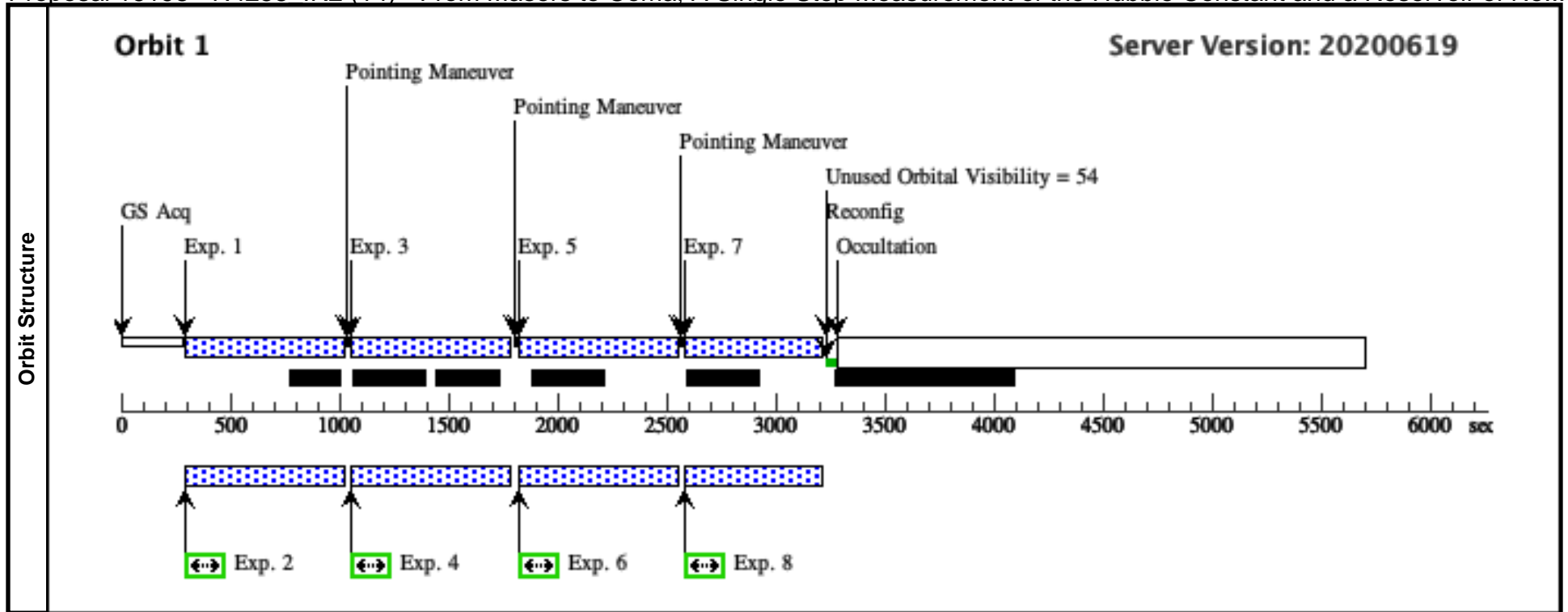
Visit	<b>Proposal 16198, N4258_IR1 (13), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT 10D TO 20D FROM 01; AFTER 14									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(2)	N4258-IR1	RA: 12 18 45.2571 (184.6885713d) Dec: +47 22 49.13 (47.38031d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(8)	N4258-IR1-CPAR	RA: 12 18 45.2571 (184.6885713d) Dec: +47 22 49.13 (47.38031d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) N4258-IR1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S50	POS TARG 0,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_IR1 (13)	652.938154 Secs (652.938 Secs) [==>]	[1]
	2		(8) N4258-IR1-CPAR	ACS/WFC, ACCUM, WFCENTER	F814W			Prime + Parallel Group 1-2 in N4258_IR1 (13)	475 Secs (475 Secs) [==>]	[1]
	3		(2) N4258-IR1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S50	POS TARG 0.542,.1 82	Prime + Parallel Group 3-4 in N4258_IR1 (13)	652.938154 Secs (652.938 Secs) [==>]	[1]
	4		(8) N4258-IR1-CPAR	ACS/WFC, ACCUM, WFCENTER	F814W			Prime + Parallel Group 3-4 in N4258_IR1 (13)	550 Secs (550 Secs) [==>]	[1]
	5		(2) N4258-IR1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=8; SAMP-SEQ=SPAR S100	POS TARG 0.339,.4 85	Prime + Parallel Group 5-6 in N4258_IR1 (13)	702.934552 Secs (702.935 Secs) [==>]	[1]
	6		(8) N4258-IR1-CPAR	ACS/WFC, ACCUM, WFCENTER	F555W			Prime + Parallel Group 5-6 in N4258_IR1 (13)	550 Secs (567 Secs) [==>567.0 Secs ]	[1]
	7		(2) N4258-IR1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=8; SAMP-SEQ=SPAR S100	POS TARG -0.203,. 303	Prime + Parallel Group 7-8 in N4258_IR1 (13)	702.934552 Secs (702.935 Secs) [==>]	[1]
	8		(8) N4258-IR1-CPAR	ACS/WFC, ACCUM, WFCENTER	F555W			Prime + Parallel Group 7-8 in N4258_IR1 (13)	500 Secs (607 Secs) [==>607.0 Secs ]	[1]



Proposal 16198 - N4258 IR2 (14) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of Ne...

Mon Feb 08 19:00:38 GMT 2021

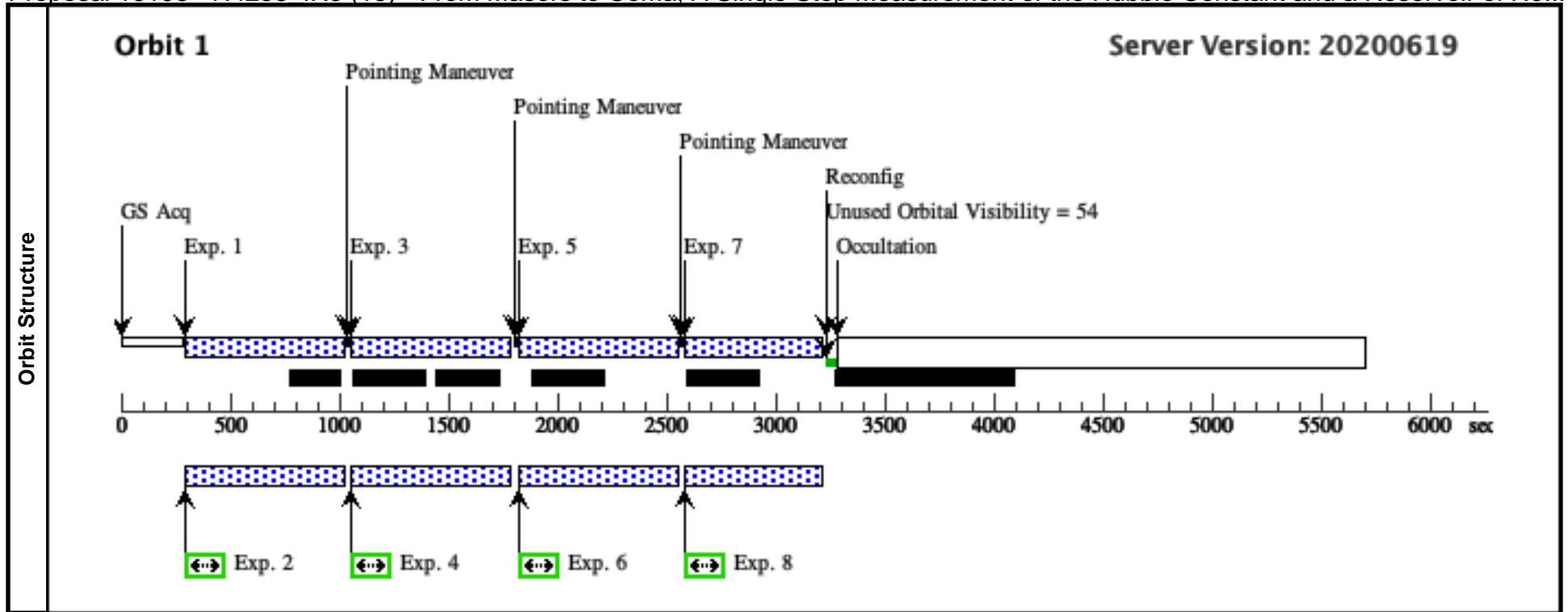
Visit	<b>Proposal 16198, N4258_IR2 (14), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT 30D TO 30D FROM 01									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(3)	N4258-IR2	RA: 12 18 32.1781 (184.6340754d) Dec: +47 20 51.42 (47.34762d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(9)	N4258-IR2-CPAR	RA: 12 18 32.1781 (184.6340754d) Dec: +47 20 51.42 (47.34762d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) N4258-IR2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 0,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_IR2 (14)	702.938605 Secs (702.939 Secs) [==>]	[1]
	2		(9) N4258-IR2-CPAR	ACS/WFC, ACCUM, WFCENTER	F814W			Prime + Parallel Group 1-2 in N4258_IR2 (14)	600 Secs (525 Secs) [==>525.0 Secs ]	[1]
	3		(3) N4258-IR2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 0.542,.1 82	Prime + Parallel Group 3-4 in N4258_IR2 (14)	702.938605 Secs (702.939 Secs) [==>]	[1]
	4		(9) N4258-IR2-CPAR	ACS/WFC, ACCUM, WFCENTER	F814W			Prime + Parallel Group 3-4 in N4258_IR2 (14)	650 Secs (607 Secs) [==>607.0 Secs ]	[1]
	5		(3) N4258-IR2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=8; SAMP-SEQ=SPAR S100	POS TARG 0.339,0. 485	Prime + Parallel Group 5-6 in N4258_IR2 (14)	702.934552 Secs (702.935 Secs) [==>]	[1]
	6		(9) N4258-IR2-CPAR	ACS/WFC, ACCUM, WFCENTER	F606W			Prime + Parallel Group 5-6 in N4258_IR2 (14)	450 Secs (552 Secs) [==>552.0 Secs ]	[1]
	7		(3) N4258-IR2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=7; SAMP-SEQ=SPAR S100	POS TARG -0.203,. 303	Prime + Parallel Group 7-8 in N4258_IR2 (14)	602.934229 Secs (602.934 Secs) [==>]	[1]
	8		(9) N4258-IR2-CPAR	ACS/WFC, ACCUM, WFCENTER	F606W			Prime + Parallel Group 7-8 in N4258_IR2 (14)	450 Secs (507 Secs) [==>507.0 Secs ]	[1]



Proposal 16198 - N4258 IR3 (15) - From Masers to Coma, A Single Step Measurement of the Hubble Constant and a Reservoir of Ne...

Mon Feb 08 19:00:38 GMT 2021

Visit	<b>Proposal 16198, N4258_IR3 (15), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR, ACS/WFC Special Requirements: GYRO MODE 3GOBAD; ORIENT -45D TO -45D FROM 01; AFTER 14 BY 0 D TO 200 D									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
Fixed Targets	(4)	N4258-IR3	RA: 12 19 2.0478 (184.7585325d) Dec: +47 15 53.03 (47.26473d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Fixed Targets	(10)	N4258-IR3-CPAR	RA: 12 19 2.0478 (184.7585325d) Dec: +47 15 53.03 (47.26473d) Equinox: J2000	Epoch of Position: 2015.5	V=8.41	Reference Frame: SIMBAD				
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) N4258-IR3	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 0,0; GS ACQ SCENARI O SINGLE	Prime + Parallel Group 1-2 in N4258_IR3 (15)	702.938605 Secs (702.939 Secs) [==>]	[1]
	2		(10) N4258-IR3-CPAR	ACS/WFC, ACCUM, WFCENTER	F814W			Prime + Parallel Group 1-2 in N4258_IR3 (15)	600 Secs (525 Secs) [==>525.0 Secs ]	[1]
	3		(4) N4258-IR3	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=15; SAMP-SEQ=SPAR S50	POS TARG 0.542,.1 82	Prime + Parallel Group 3-4 in N4258_IR3 (15)	702.938605 Secs (702.939 Secs) [==>]	[1]
	4		(10) N4258-IR3-CPAR	ACS/WFC, ACCUM, WFCENTER	F814W			Prime + Parallel Group 3-4 in N4258_IR3 (15)	650 Secs (607 Secs) [==>607.0 Secs ]	[1]
	5		(4) N4258-IR3	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=8; SAMP-SEQ=SPAR S100	POS TARG 0.339,.4 85	Prime + Parallel Group 5-6 in N4258_IR3 (15)	702.934552 Secs (702.935 Secs) [==>]	[1]
	6		(10) N4258-IR3-CPAR	ACS/WFC, ACCUM, WFCENTER	F606W			Prime + Parallel Group 5-6 in N4258_IR3 (15)	450 Secs (552 Secs) [==>552.0 Secs ]	[1]
	7		(4) N4258-IR3	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=7; SAMP-SEQ=SPAR S100	POS TARG -.203,.3 03	Prime + Parallel Group 7-8 in N4258_IR3 (15)	602.934229 Secs (602.934 Secs) [==>]	[1]
	8		(10) N4258-IR3-CPAR	ACS/WFC, ACCUM, WFCENTER	F606W			Prime + Parallel Group 7-8 in N4258_IR3 (15)	450 Secs (507 Secs) [==>507.0 Secs ]	[1]

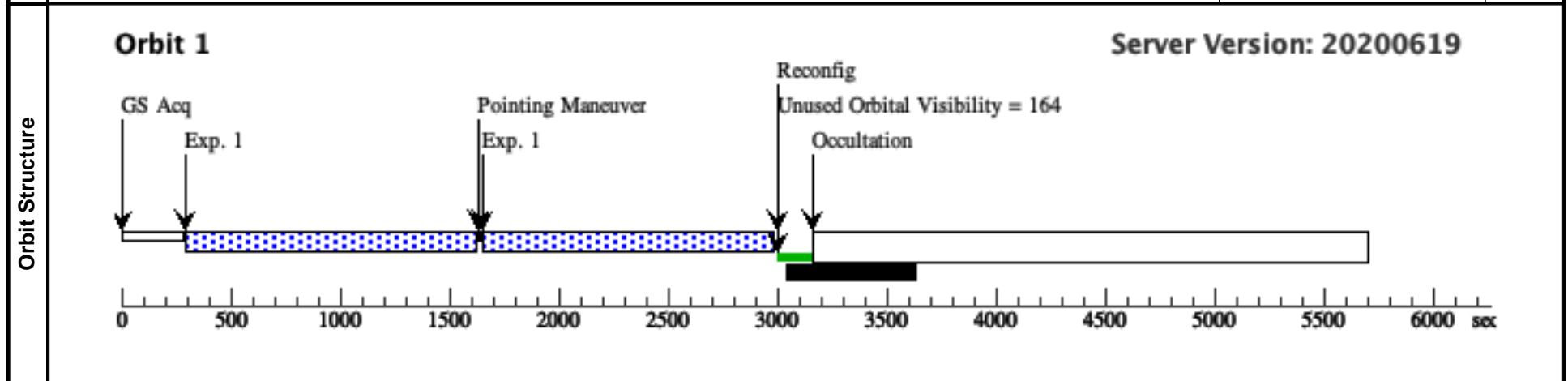


<b>Visit</b>	<b>Proposal 16198, N4921_E01 (16), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: ORIENT 290D TO 290 D <i>Comments: orient selected to use same guide stars used for prior Coma programs, see program 12476</i>		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-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	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000 <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E01 (16) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

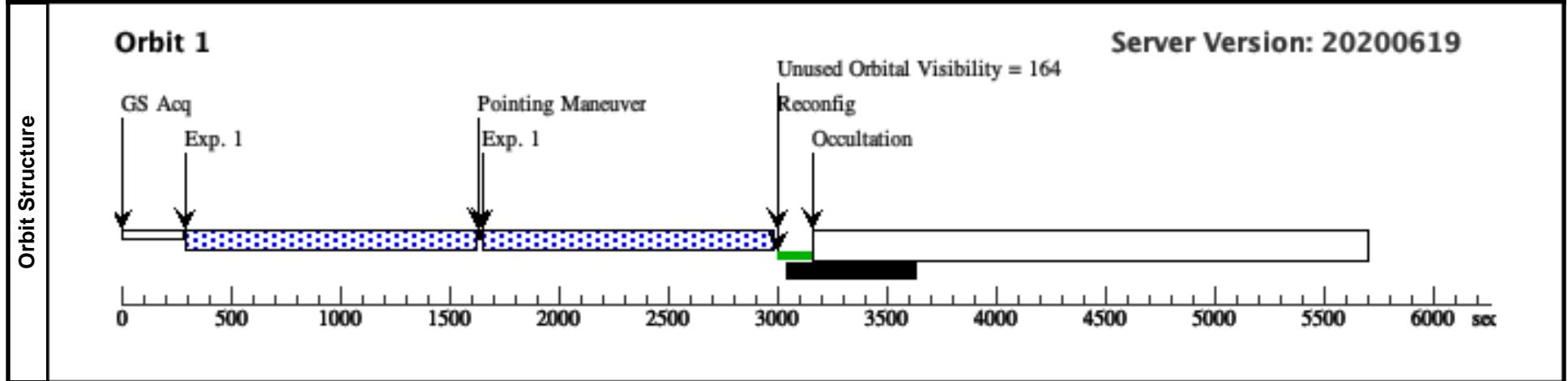


<b>Visit</b>	<b>Proposal 16198, N4921_E02 (17), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16; AFTER 16 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false	(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.5 5; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 in N4921_E02 (17) (2)	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

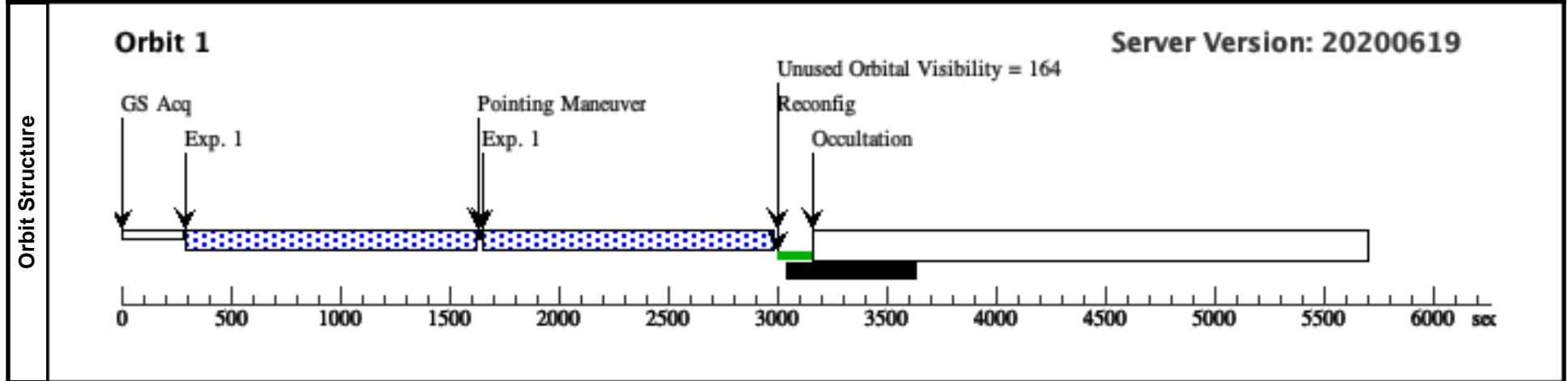


<b>Visit</b>	Proposal 16198, N4921_E03 (18), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16; AFTER 17 BY 3.5 D TO 4 D		
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<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER- 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	(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E03 (18) (1 )	1302.93649 Secs (2605.873 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]

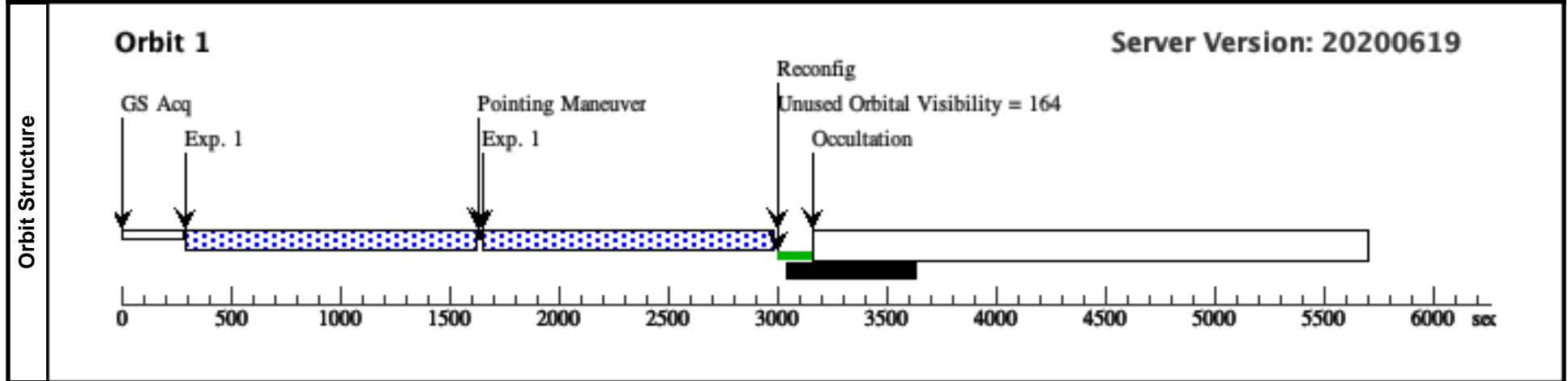


<b>Visit</b>	<b>Proposal 16198, N4921_E04 (19), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16; AFTER 18 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false	(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.5 5; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 i n N4921_E04 (19) (2	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

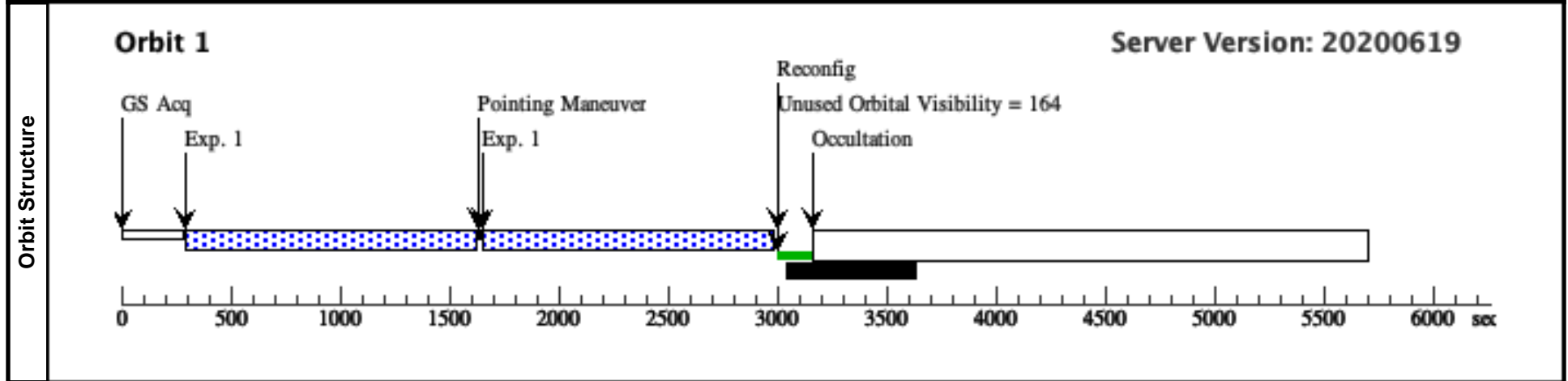


<b>Visit</b>	Proposal 16198, N4921_E05 (20), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16; AFTER 19 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-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		(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E05 (20) (1 )	1302.93649 Secs (2605.873 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



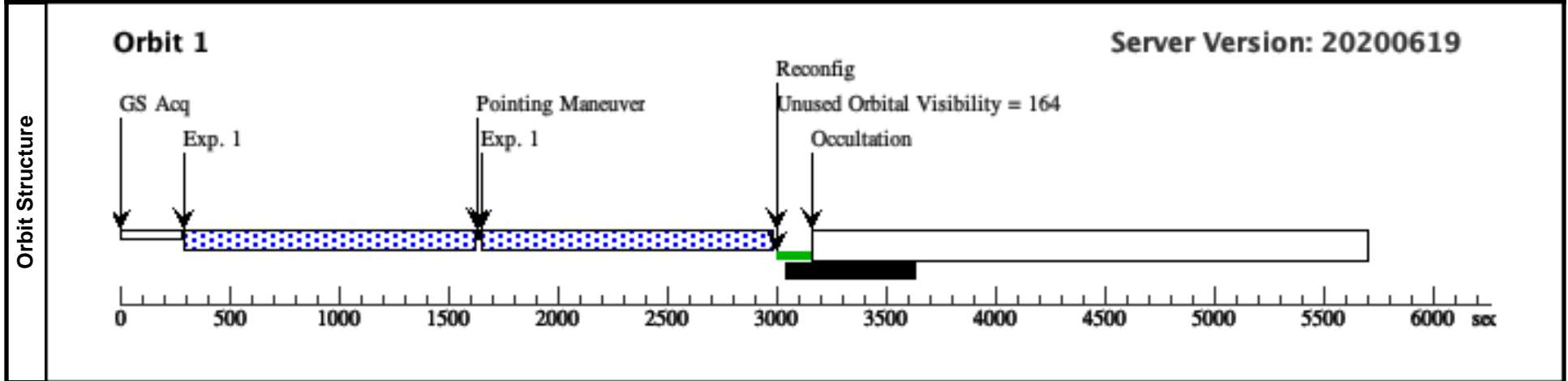
<b>Visit</b>	Proposal 16198, N4921_E06 (21), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16; AFTER 20 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*  
 Category=GALAXY  
 Description=[SPIRAL]  
 Extended=NO

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.5 5; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 i n N4921_E06 (21) (2	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



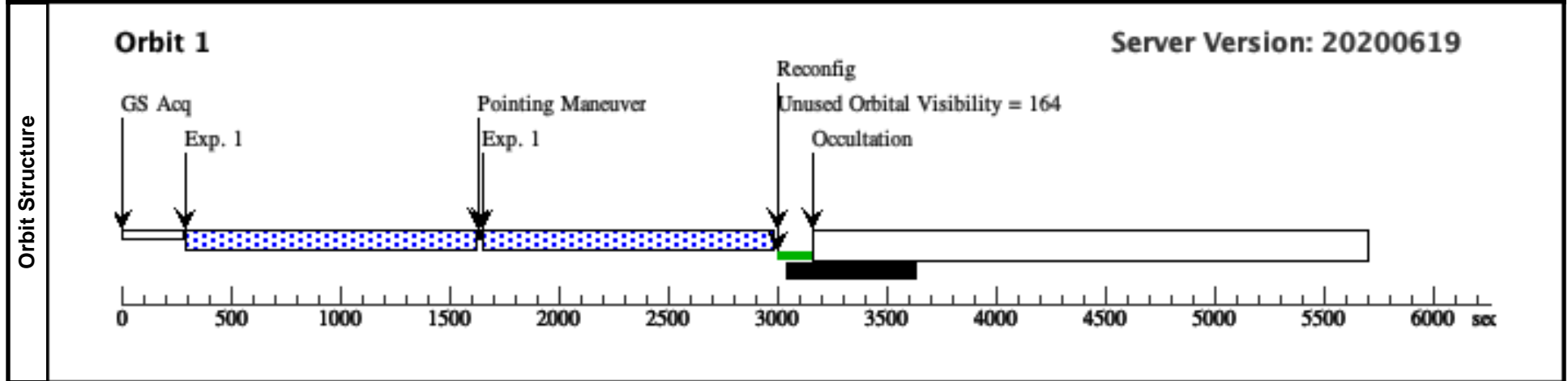
<b>Visit</b>	Proposal 16198, N4921_E07 (22), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16; AFTER 21 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-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	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*  
 Category=GALAXY  
 Description=[SPIRAL]  
 Extended=NO

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E07 (22) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



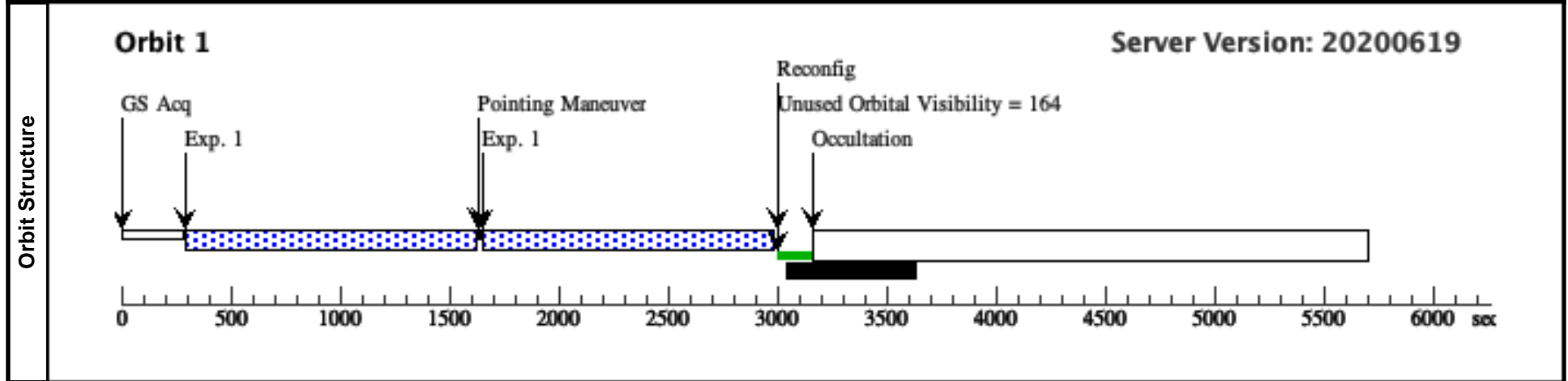
<b>Visit</b>	Proposal 16198, N4921_E08 (23), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16; AFTER 22 BY 3.0 D TO 4 D		
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<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false		(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	N4921-1	RA: 13 01 26.6720 (195.3611333d) Dec: +27 53 9.25 (27.88590d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*  
 Category=GALAXY  
 Description=[SPIRAL]  
 Extended=NO

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) N4921-1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.5 5; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 i n N4921_E08 (23) (2	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

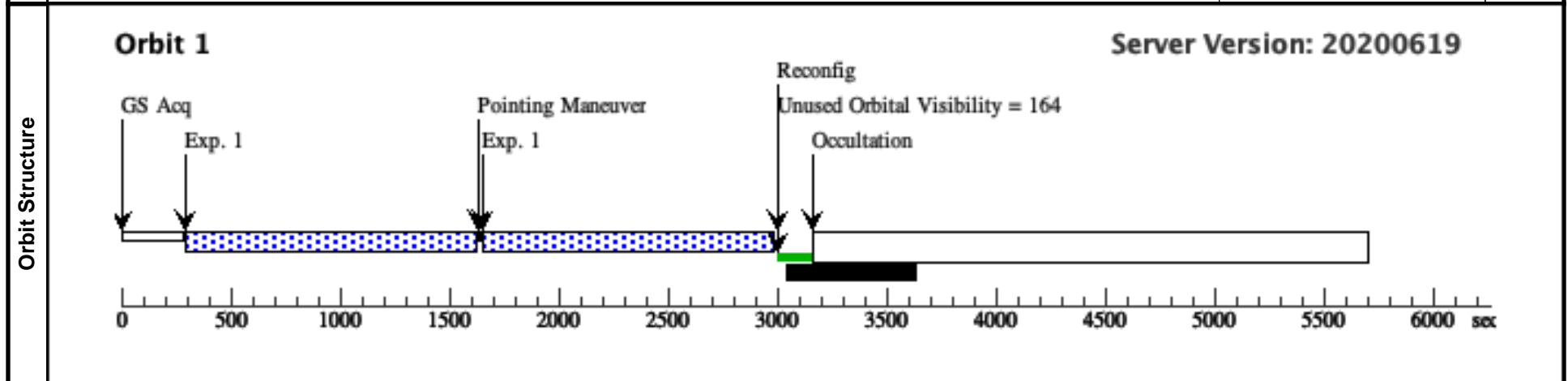


<b>Visit</b>	<b>Proposal 16198, N4921_E09 (24), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: ORIENT -42.5D TO -32.5D FROM 16; AFTER 23 BY 3.5 D TO 4 D <i>Comments: orient selected to use same guide stars used for prior Coma programs, see program 12476</i>		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-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	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000 <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E09 (24) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



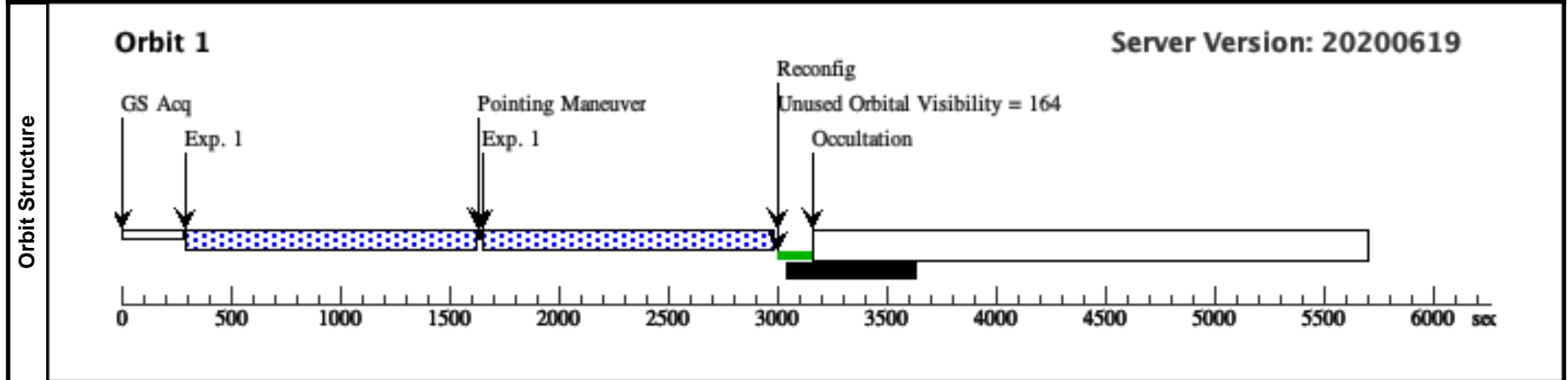
<b>Visit</b>	Proposal 16198, N4921_E10 (25), failed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 24 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*  
 Category=GALAXY  
 Description=[SPIRAL]  
 Extended=NO

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.5 5; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 i n N4921_E10 (25) (2	1302.93649 Secs (2605.873 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



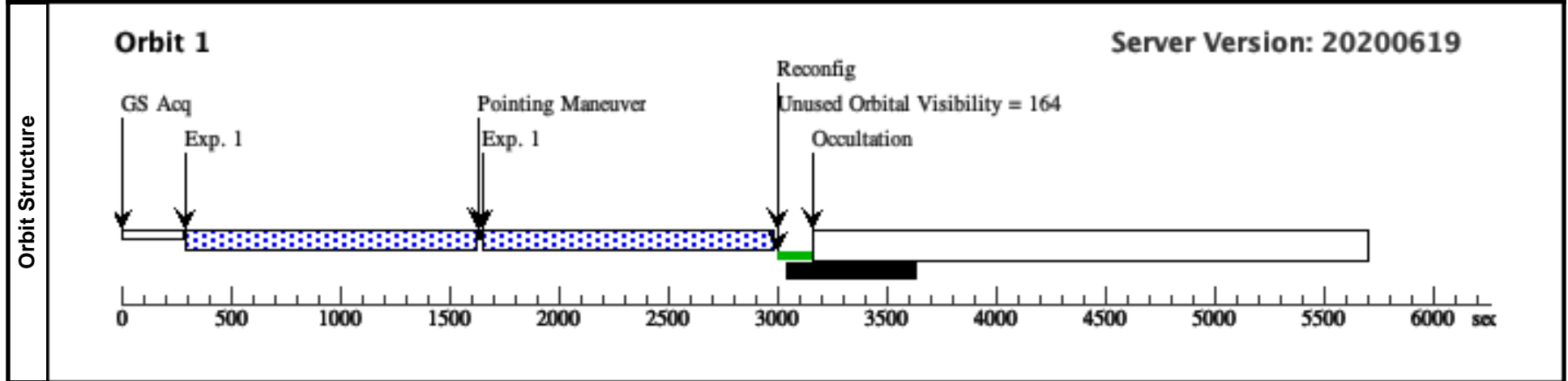
<b>Visit</b>	Proposal 16198, N4921_E11 (26), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 25 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER-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	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*  
 Category=GALAXY  
 Description=[SPIRAL]  
 Extended=NO

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E11 (26) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

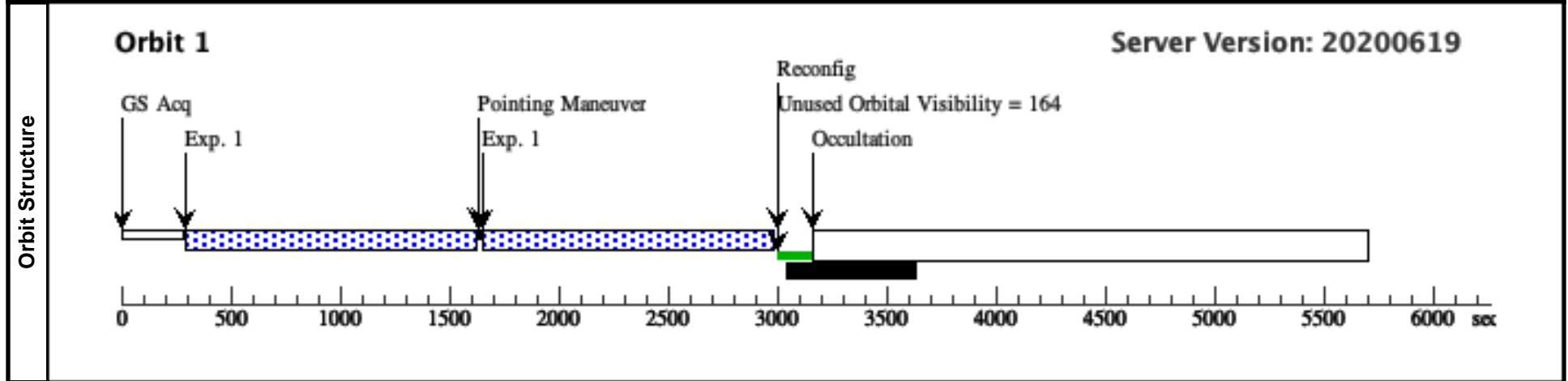


<b>Visit</b>	Proposal 16198, N4921_E12 (27), completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 26 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
		(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
		(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
		1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.5 5; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 i n N4921_E12 (27) (2	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]

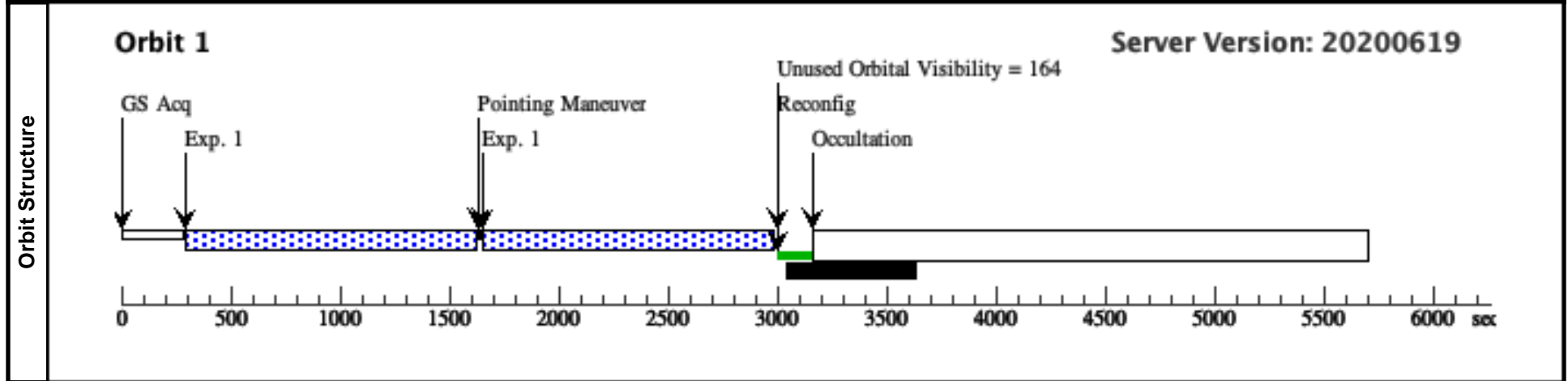


<b>Visit</b>	Proposal 16198, N4921_E13 (28), scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 27 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER- 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		(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E13 (28) (1 )	1302.93649 Secs (2605.873 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]

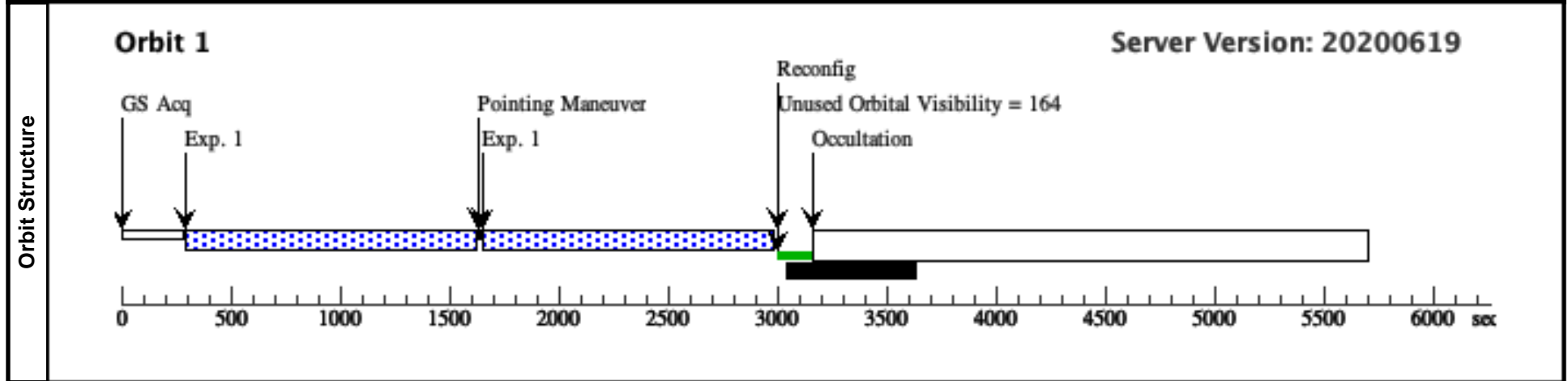


<b>Visit</b>	Proposal 16198, N4921_E14 (29), scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 28 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false		(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.55; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 in N4921_E14 (29) (2)	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



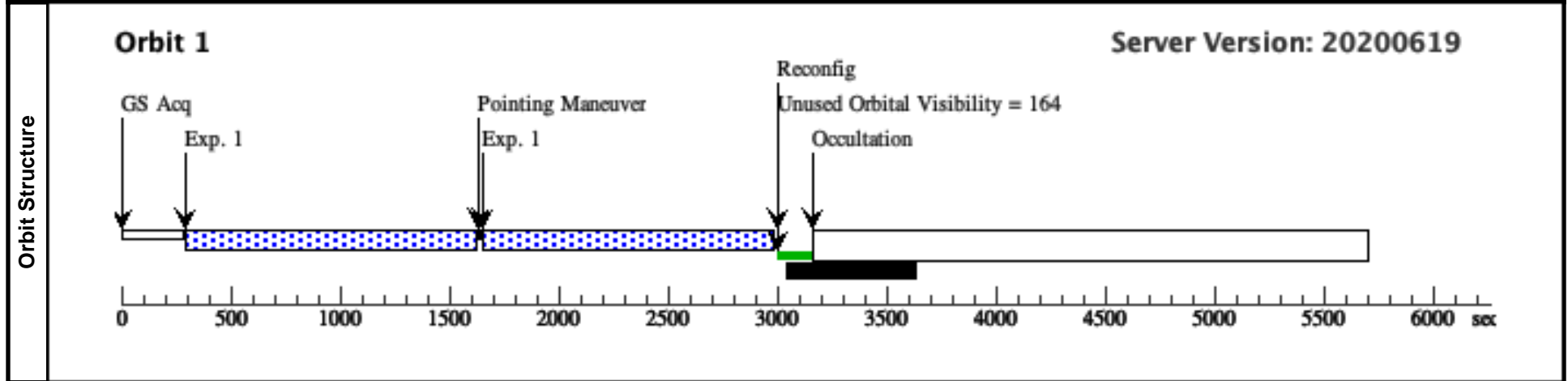
<b>Visit</b>	Proposal 16198, N4921_E15 (30), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 29 BY 3.5 D TO 4 D									
<b>Patterns</b>	#	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>						
	(1)	Pattern Type=WFC3-IR-DITHER-LINE 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		(1)					
<b>Fixed Targets</b>	#	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=GALAXY Description=[SPIRAL] Extended=NO										
<b>Exposures</b>	#	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(6) N4921-2		WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E15 (30) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
<b>Orbit Structure</b>	<b>Server Version: 20200619</b>									
	<p>The diagram illustrates the orbit structure over a 6000-second period. Key events are marked with arrows: GS Acq at ~100s, Exp. 1 at ~300s, Pointing Maneuver at ~1600s, Exp. 1 at ~1700s, Reconfig at ~3000s, and Occultation at ~3100s. A blue dotted bar indicates the primary exposure period from ~300s to ~3000s. A black bar indicates the occultation period from ~3100s to ~3600s. The text 'Unused Orbital Visibility = 164' is shown above the Reconfig event. The x-axis is labeled 'sec' and ranges from 0 to 6000.</p>									

<b>Visit</b>	Proposal 16198, N4921_E16 (31), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 30 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=221.788 Angle Between Sides= Center Pattern=false	(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	POS TARG 0.25,0.55; GS ACQ SCENARI O SINGLE	Pattern 2, Exps 1-1 in N4921_E16 (31) (2)	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

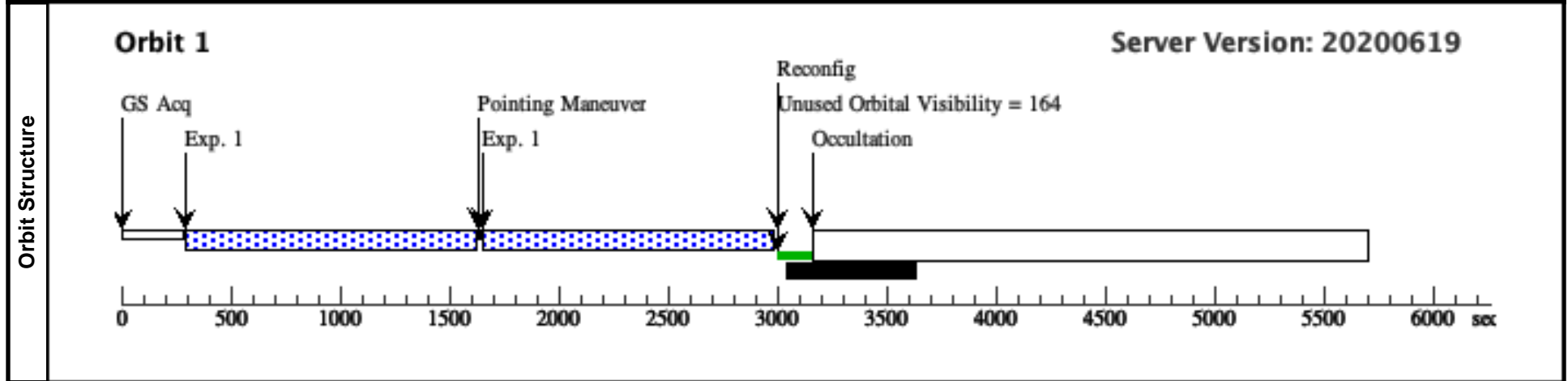


<b>Visit</b>	Proposal 16198, N4921_E17 (32), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 24; AFTER 31 BY 3.5 D TO 4 D		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER- 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	(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E17 (32) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



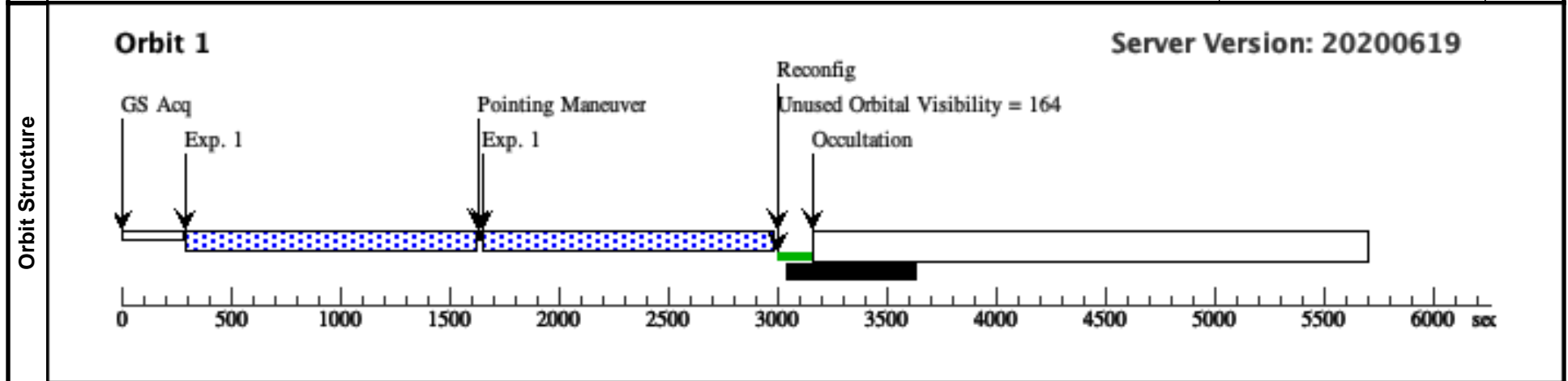
<b>Visit</b>	<b>Proposal 16198, N4921_E17 (33), implementation</b>		
	<b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: ORIENT 183D TO 194 D; BETWEEN 27-MAR-2021 AND 04-APR-2021		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER- 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	

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*  
 Category=GALAXY  
 Description=[SPIRAL]  
 Extended=NO

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E17 (33) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



<b>Visit</b>	<b>Proposal 16198, N4921_E17 (34)</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: ORIENT 183D TO 194 D; BETWEEN 27-MAR-2021 AND 04-APR-2021		

<b>Patterns</b>	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=WFC3-IR-DITHER- 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	(1)

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	N4921-2	RA: 13 01 25.6078 (195.3566992d) Dec: +27 53 16.88 (27.88802d) Equinox: J2000	Epoch of Position: 2015.5	V=11+/-1	Reference Frame: SIMBAD
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=GALAXY Description=[SPIRAL] Extended=NO					

<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) N4921-2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=14; SAMP-SEQ=SPAR S100	GS ACQ SCENARI O SINGLE	Pattern 1, Exps 1-1 i n N4921_E17 (34) (1 )	1302.93649 Secs (2605.873 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

