



14068 - Resolving the Nuclear Regions of Confirmed Offset AGN

Cycle: 23, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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|--|--|------------------------------------|
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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) 081330.15+541844.44 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:35.0 | yes |
| 02 | (2) 090729.02+163842.50 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:37.0 | yes |
| 03 | (3) 094032.25+311328.59 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:39.0 | yes |
| 04 | (4) 102141.89+130550.40 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:41.0 | yes |
| 05 | (9) 145210.52+292409.0 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:42.0 | yes |
| 06 | (6) 114904.04+592557.67 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:44.0 | 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> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 07 | (5) 111458.01+403611.4 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:46.0 | yes |
| 08 | (7) 123420.12+475155.7 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:47.0 | yes |
| 09 | (10) 212512.48-071329.90 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:49.0 | yes |
| 10 | (8) 131739.19+411545.5 | WFC3/IR WFC3/UVIS | 1 | 05-Dec-2015 21:00:52.0 | yes |

10 Total Orbits Used

ABSTRACT

We propose HST observations of 10 SDSS galaxies that host X-ray detected active galactic nuclei (AGN) that are significantly spatially offset from the SDSS galaxy nucleus. Since the off-nuclear nature of an AGN can only result from a galaxy merger, these systems are confirmed mergers hosting AGN and give us the unique opportunity to study the connection between galaxy mergers and supermassive black hole (SMBH) growth. However, the resolution of the SDSS is insufficient to resolve the nuclear regions of these mergers, and the combined resolution, sensitivity and multi-band capabilities of HST are now necessary to utilize this sample for studies of galaxy and SMBH co-evolution. By also developing a carefully defined control sample from archival data, our proposed multi-band HST/WFC3 observations will permit us to measure the star-formation rates in the nuclear regions, facilitating a comparison between the triggering of AGN and star-formation in galaxy mergers and an investigation into the role mergers play in the co-evolution of galaxies and SMBHs. By resolving the stellar cores associated with the merging galaxies, we can determine the preference of major versus minor mergers in the triggering of AGN. This study can only be accomplished with HST because 1) the resolution of HST is necessary to resolve the nuclear regions of these merging systems; 2) the sensitivity of HST is necessary to detect the stellar cores if the merger is of a minor classification; and 3) the multi-band imaging is necessary to estimate star-formation rates.

OBSERVING DESCRIPTION

Our proposed HST observations will reveal the nature of the nuclear regions of galaxy mergers hosting an AGN. The resolution of HST/WFC3 will easily permit the isolation of both stellar nuclei, and the requested exposures will be deep enough to detect the minor nucleus down to a conservatively low depth. Furthermore, the requested multi-band imaging will allow for a detection of any recent star formation associated with the

merger.

Camera and Filter Choice:

The WFC3 camera in IR and UVIS modes is our instrument of choice as it will enable us to cover the entire wavelength range needed with the highest sensitivity and finest pixel scale. To estimate star-formation rates, we will need multiple filters in order to disentangle, both spectrally and spatially, variations in stellar populations. These requirements will ensure that we can achieve our science goals. In the blue we choose F438W (B) to avoid contamination from H β emission, while in the red we choose F814W (broad I) because of its high throughput and to avoid contamination from emission lines such as [OIII]5007. In the near-infrared, we request F160W (broad H), which will also be optimal for detecting stellar cores.

Observational Plan:

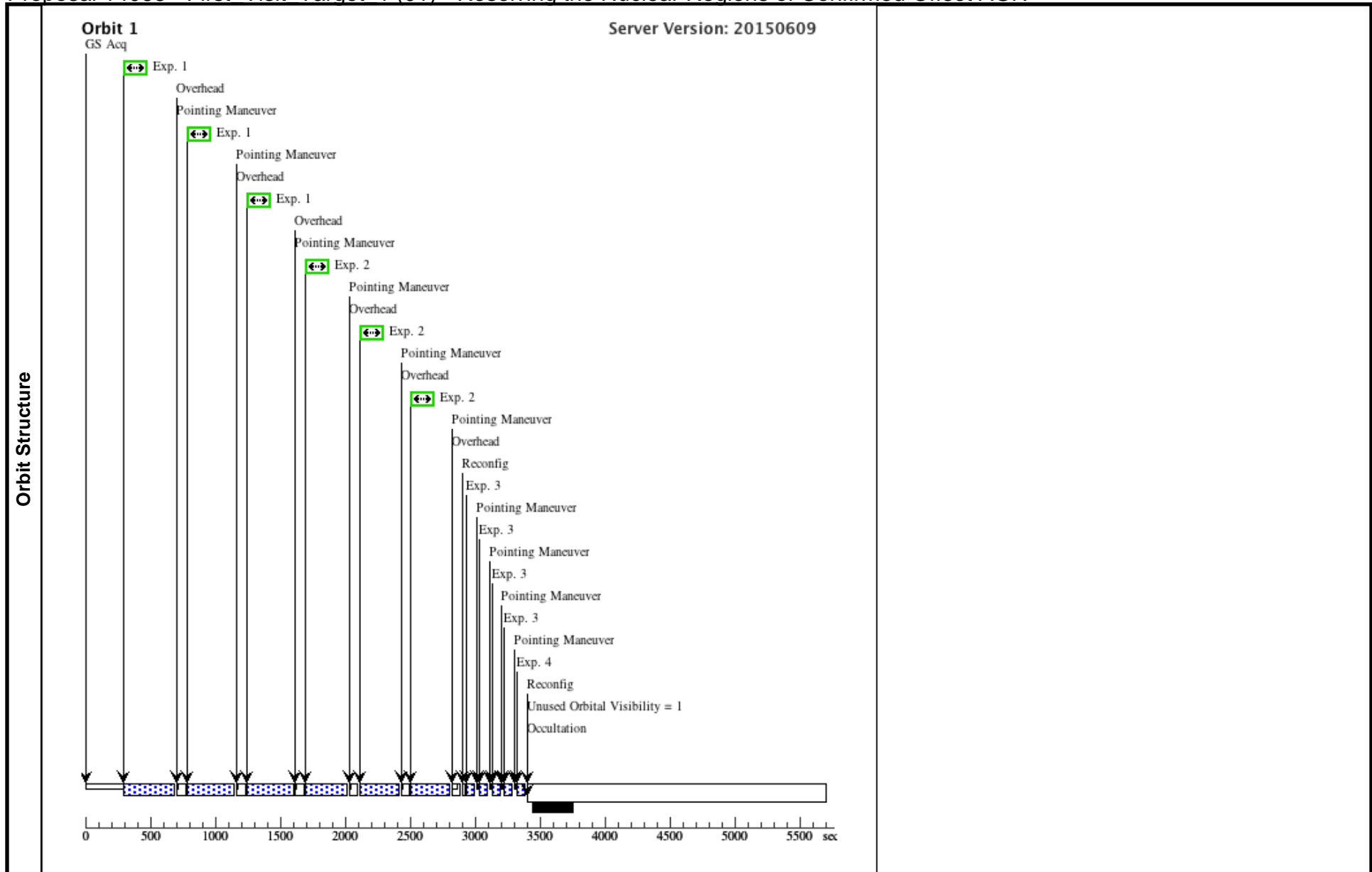
Using the WFC3 IR and UVIS Exposure Time Calculators, we estimated our science exposure times with the goals of detecting stellar nuclei at IR wavelengths and measuring reliable stellar population magnitudes in all three bands. We request one orbit (54 min) per target, which will provide the exposure times needed to reveal faint secondary nuclei and get the multi-band imaging for stellar population modeling. Consequently, we request 10 orbits of HST observations for our 10 targets. For the IR band (F160W): the exposure time is based on (1) the assumption that the brighter stellar nucleus is two magnitudes fainter than the total host galaxy; (2) the assumption that the mass ratio, which is unknown, could be as small as 500:1 for the 7 brightest targets (see Figure 3) and as small as 100:1 for the 3 faintest target; and (3) the requirement that each stellar nucleus be detected at a signal-to-noise ratio ~ 20 . For the UVIS bands (F438W and F814W): the exposure times are based on the requirement that features 10 times fainter than the integrated galaxy magnitude be detected at $S/N \sim 20$. The exposure times will be 3x350 sec for F438W, 3x300 sec for F814W, and 4x30 sec for F160W. For each target, there will be 16.5 min of overhead (6 min for guide-star acquisition, 7 min for readout, 2.5 min for dithering, and 1 min to change from IR to UVIS) and the total time spent on science exposures and overhead is 54 min.

In the UVIS, we will use a three-point dither pattern to facilitate cosmic-ray and hot-pixel removal. In the IR, we will use the WFC3-IR-DITHER-BOX in order to properly sample the PSF. We will use subarrays (1kx1k for UVIS and IRSUB512 for IR) to avoid buffer dumps, and our readout mode (STEP25 with NSAMP=6) will prevent saturation.

Proposal 14068 - First Visit Target 1 (01) - Resolving the Nuclear Regions of Confirmed Offset AGN

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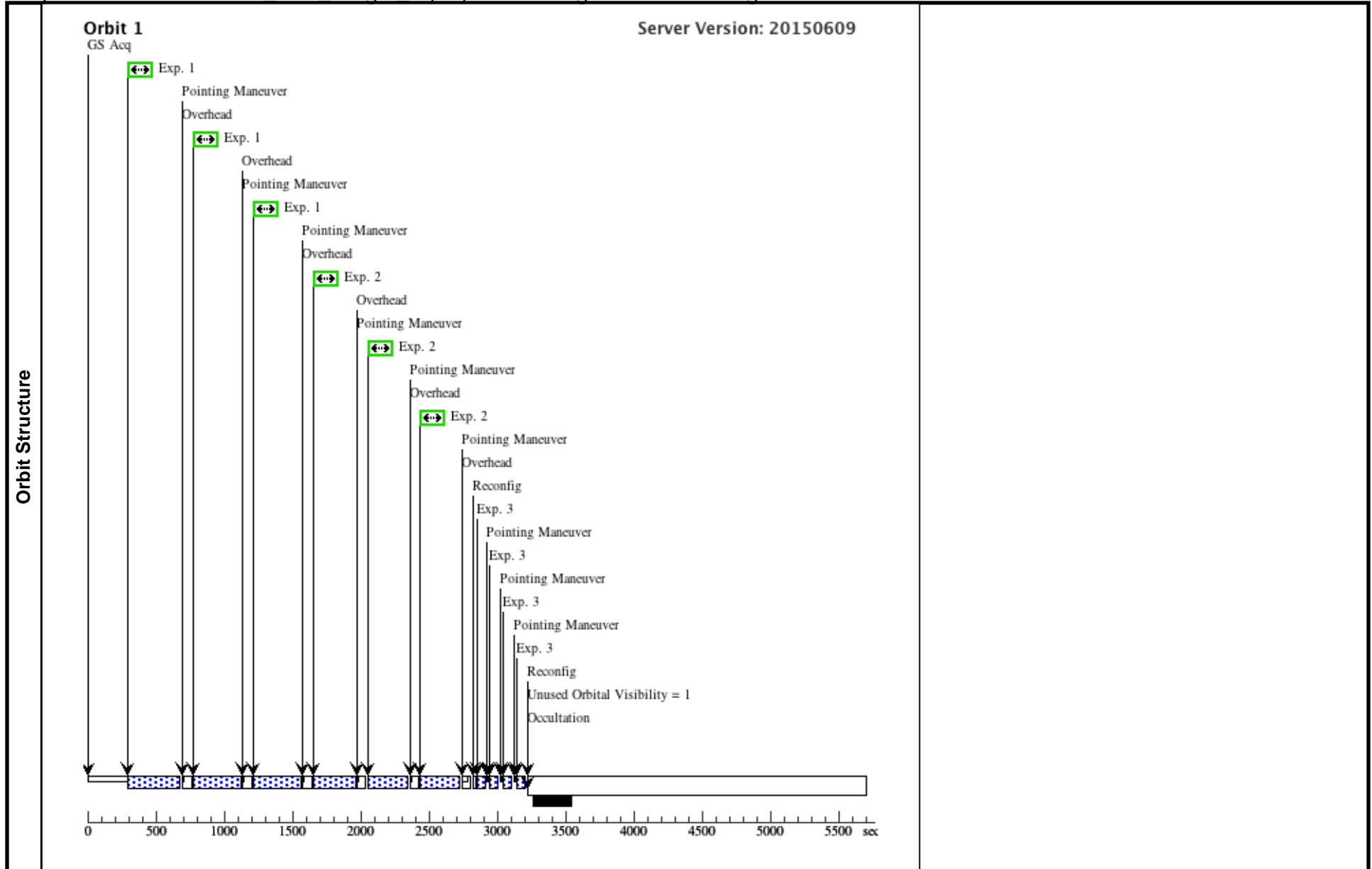
| Visit | Proposal 14068, First_Visit_Target_1 (01), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|-------------------------------|--|--|---|-----------------------------------|---------------------------------|---------------------------------|---------------|--|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | 081330.15+541844.44 | RA: 08 13 30.1400 (123.3755833d) Dec: +54 18 44.30 (54.31231d) Equinox: J2000 | Redshift: 0.041 | V=14.749 | Reference Frame: ICRS | | | | |
| <i>Comments: Extended=YES</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (1) 081330.15+541844.44 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=9 | | Pattern 1, Exps 1-1 in First_Visit_Target_1 (01) (1) | 364.0 Secs (1092 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (1) 081330.15+541844.44 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=5 | | Pattern 1, Exps 2-2 in First_Visit_Target_1 (01) (1) | 306.0 Secs (918 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (1) 081330.15+541844.44 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 in First_Visit_Target_1 (01) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |
| 4 | | (1) 081330.15+541844.44 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | POS TARG 0.948,0.848 | | 36.754642 Secs (36.755 Secs) [=>] | [1] | |



Proposal 14068 - Second Visit Target 2 (02) - Resolving the Nuclear Regions of Confirmed Offset AGN

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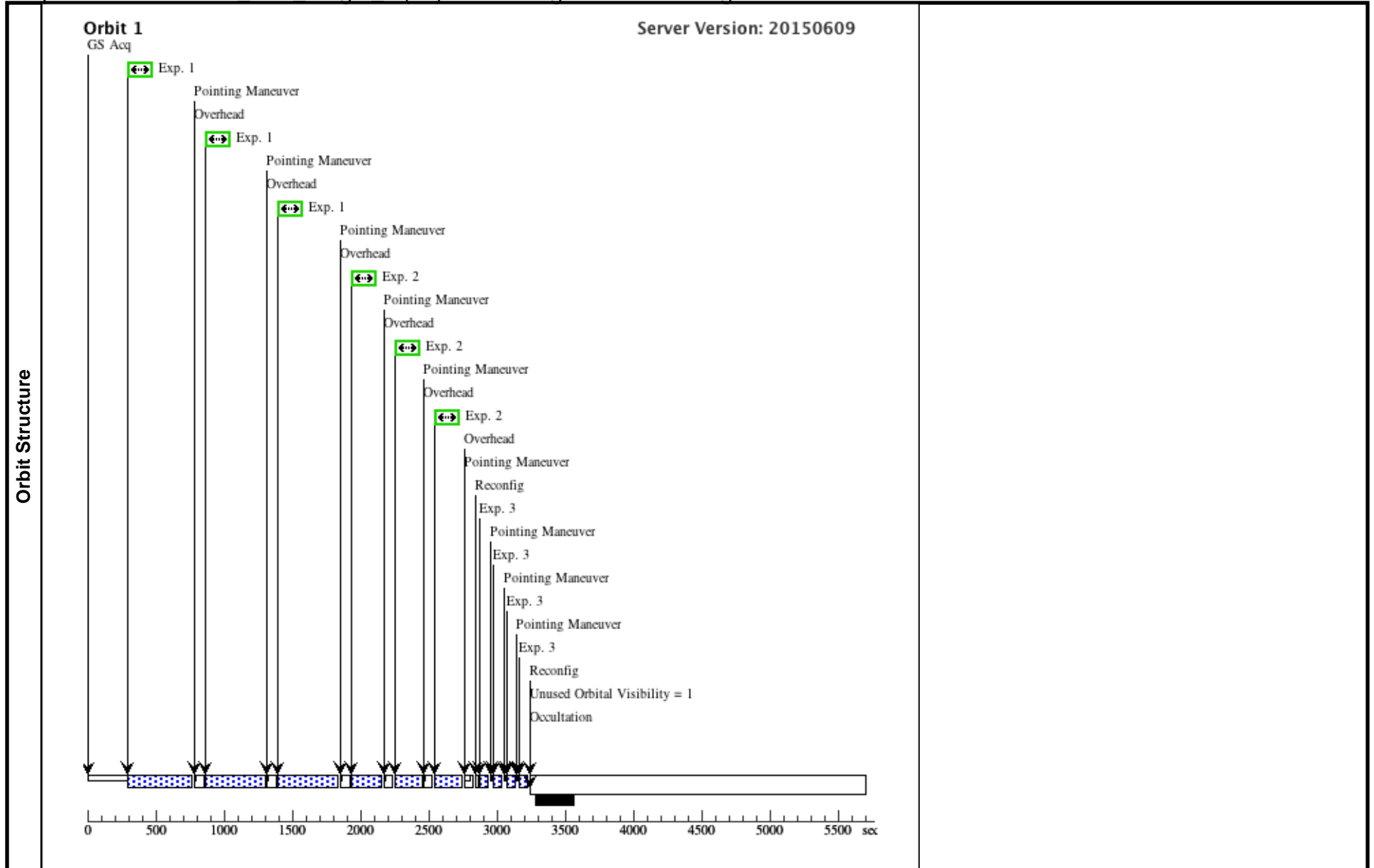
| Visit | Proposal 14068, Second_Visit_Target_2 (02), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: ORIENT 45D TO 20 D | | | | | | | | | |
|---------------|---|--|---|-----------------------------------|---------------|---------------------------------|---------------|---|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (2) | 090729.02+163842.50 | RA: 09 07 29.0100 (136.8708750d) Dec: +16 38 42.40 (16.64511d) Equinox: J2000 | Redshift: 0.079 | V=15.660 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (2) 090729.02+163842.50 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=9 | | Pattern 1, Exps 1-1 in Second_Visit_Target_2 (02) (1) | 350.0 Secs (1050 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (2) 090729.02+163842.50 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=5 | | Pattern 1, Exps 2-2 in Second_Visit_Target_2 (02) (1) | 292.0 Secs (876 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (2) 090729.02+163842.50 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 in Second_Visit_Target_2 (02) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |



Proposal 14068 - Third_Visit_Target_3 (03) - Resolving the Nuclear Regions of Confirmed Offset AGN

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| Visit | Proposal 14068, Third_Visit_Target_3 (03), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|---------------|--|--|--|-----------------------------------|---------------|---------------------------------|---------------|--|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (3) | 094032.25+311328.59 | RA: 09 40 32.2500 (145.1343750d) Dec: +31 13 28.50 (31.22458d) Equinox: J2000 | Redshift: 0.170 | V=18.046 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (3) 094032.25+311328.59 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=8 | | Pattern 1, Exps 1-1 in Third_Visit_Target_3 (03) (1) | 443.0 Secs (1329 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (3) 094032.25+311328.59 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=7 | | Pattern 1, Exps 2-2 in Third_Visit_Target_3 (03) (1) | 206.0 Secs (618 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (3) 094032.25+311328.59 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 in Third_Visit_Target_3 (03) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |



Proposal 14068 - Fourth Visit Target 4 (04) - Resolving the Nuclear Regions of Confirmed Offset AGN

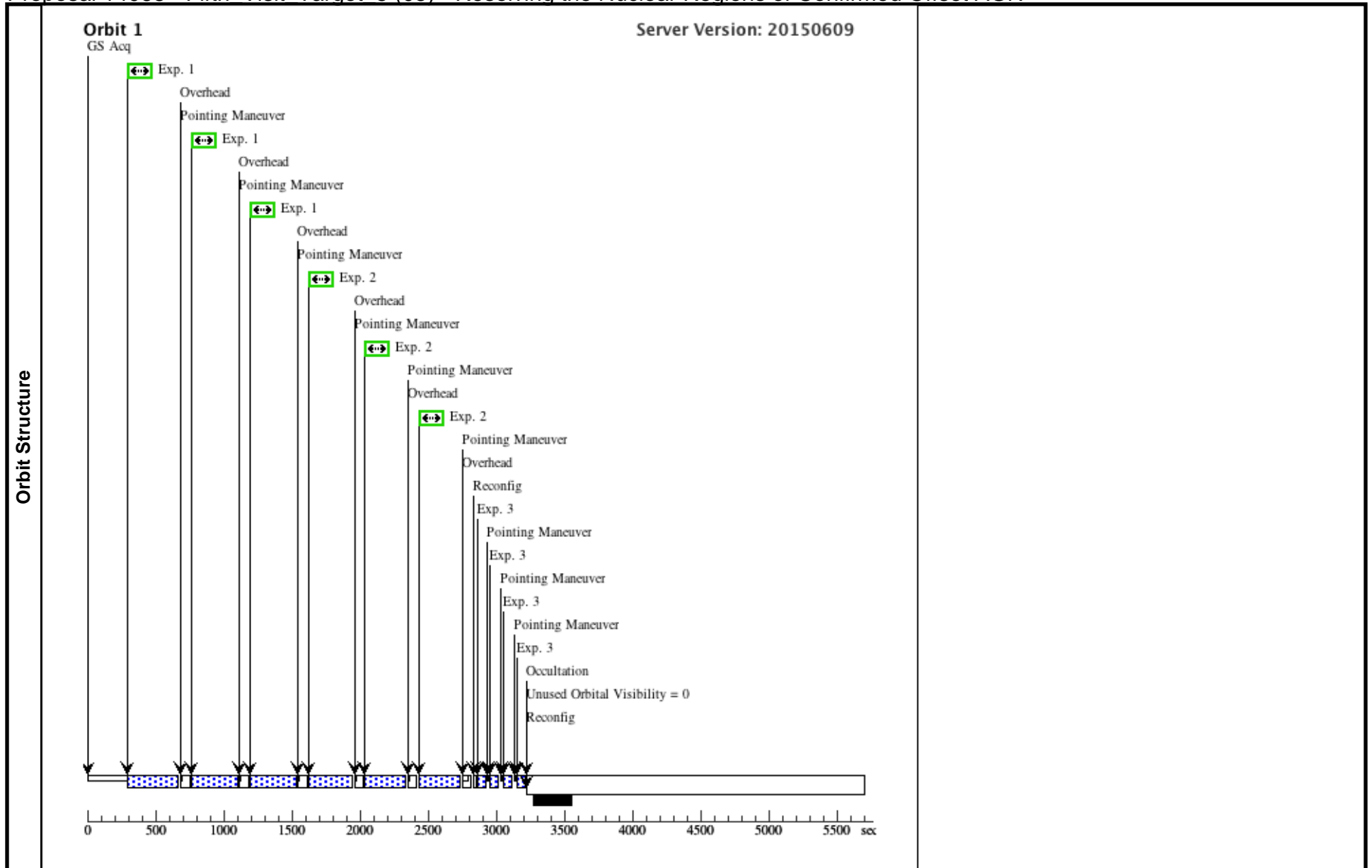
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| Visit | Proposal 14068, Fourth_Visit_Target_4 (04), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|---------------|---|--|--|-----------------------------------|---------------|-----------------------------|---------------|---|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (4) | 102141.89+130550.40 | RA: 10 21 41.8900 (155.4245417d) Dec: +13 05 50.30 (13.09731d) Equinox: J2000 | Redshift: 0.077 | V=17.794 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (4) 102141.89+130550.40 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=8 | | Pattern 1, Exps 1-1 in Fourth_Visit_Target_4 (04) (1) | 434.0 Secs (1302 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (4) 102141.89+130550.40 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=7 | | Pattern 1, Exps 2-2 in Fourth_Visit_Target_4 (04) (1) | 206.0 Secs (618 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (4) 102141.89+130550.40 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP25 | | Pattern 3, Exps 3-3 in Fourth_Visit_Target_4 (04) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |

Proposal 14068 - Fifth_Visit_Target_5 (05) - Resolving the Nuclear Regions of Confirmed Offset AGN

Sun Dec 06 02:00:54 GMT 2015

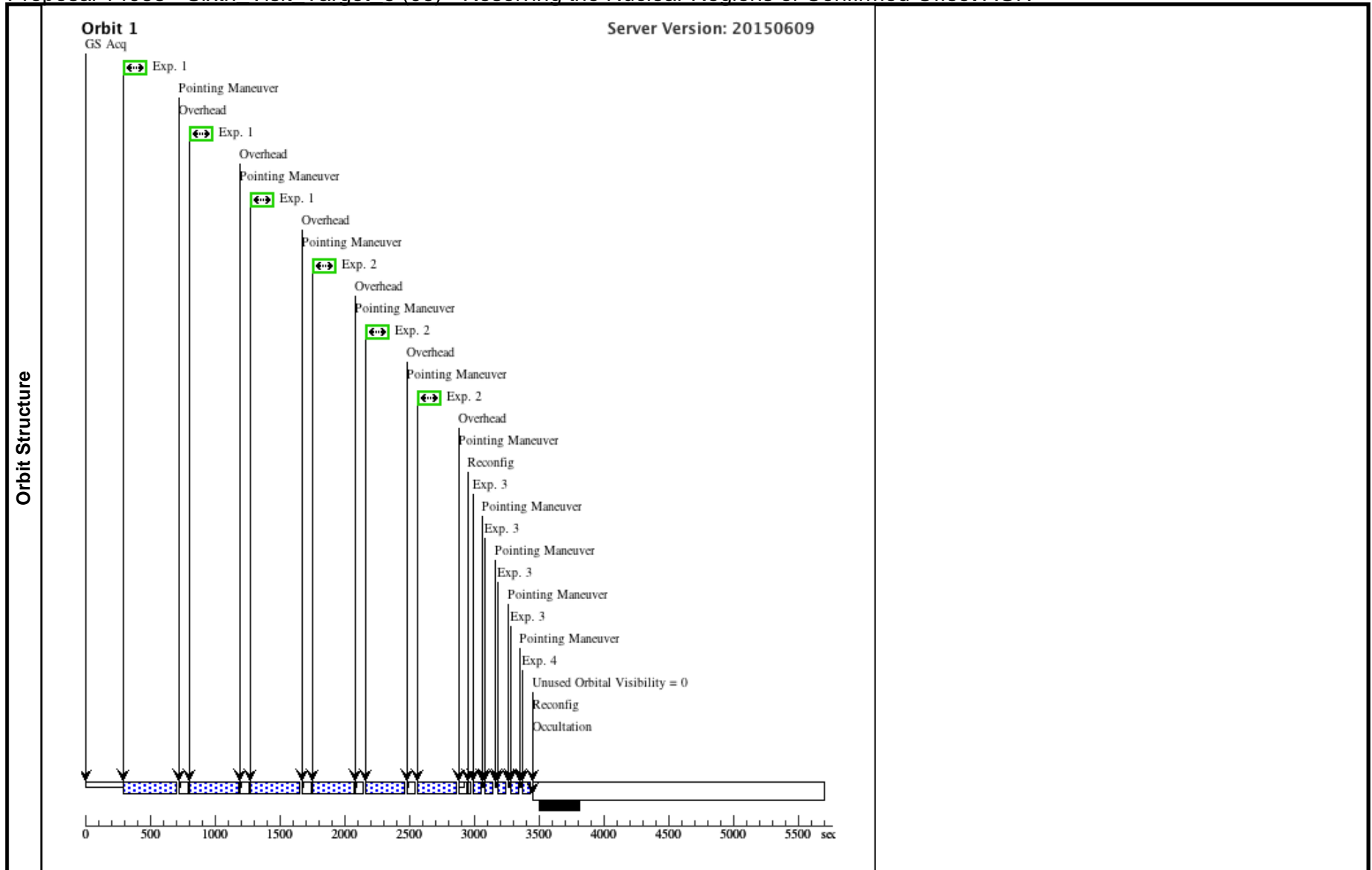
| Visit | Proposal 14068, Fifth_Visit_Target_5 (05), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|---------------|--|--|--|-----------------------------------|---------------|---------------------------------|---------------|--|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (9) | 145210.52+292409.0 | RA: 14 52 10.5200 (223.0438333d) Dec: +29 24 9.00 (29.40250d) Equinox: J2000 | Redshift: 0.059 | V=15.751 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (9) 145210.52+292409.0 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=9 | | Pattern 1, Exps 1-1 in Fifth_Visit_Target_5 (05) (1) | 339.0 Secs (1017 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (9) 145210.52+292409.0 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=5 | | Pattern 1, Exps 2-2 in Fifth_Visit_Target_5 (05) (1) | 306.0 Secs (918 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (9) 145210.52+292409.0 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 in Fifth_Visit_Target_5 (05) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |



Proposal 14068 - Sixth_Visit_Target_6 (06) - Resolving the Nuclear Regions of Confirmed Offset AGN

Sun Dec 06 02:00:54 GMT 2015

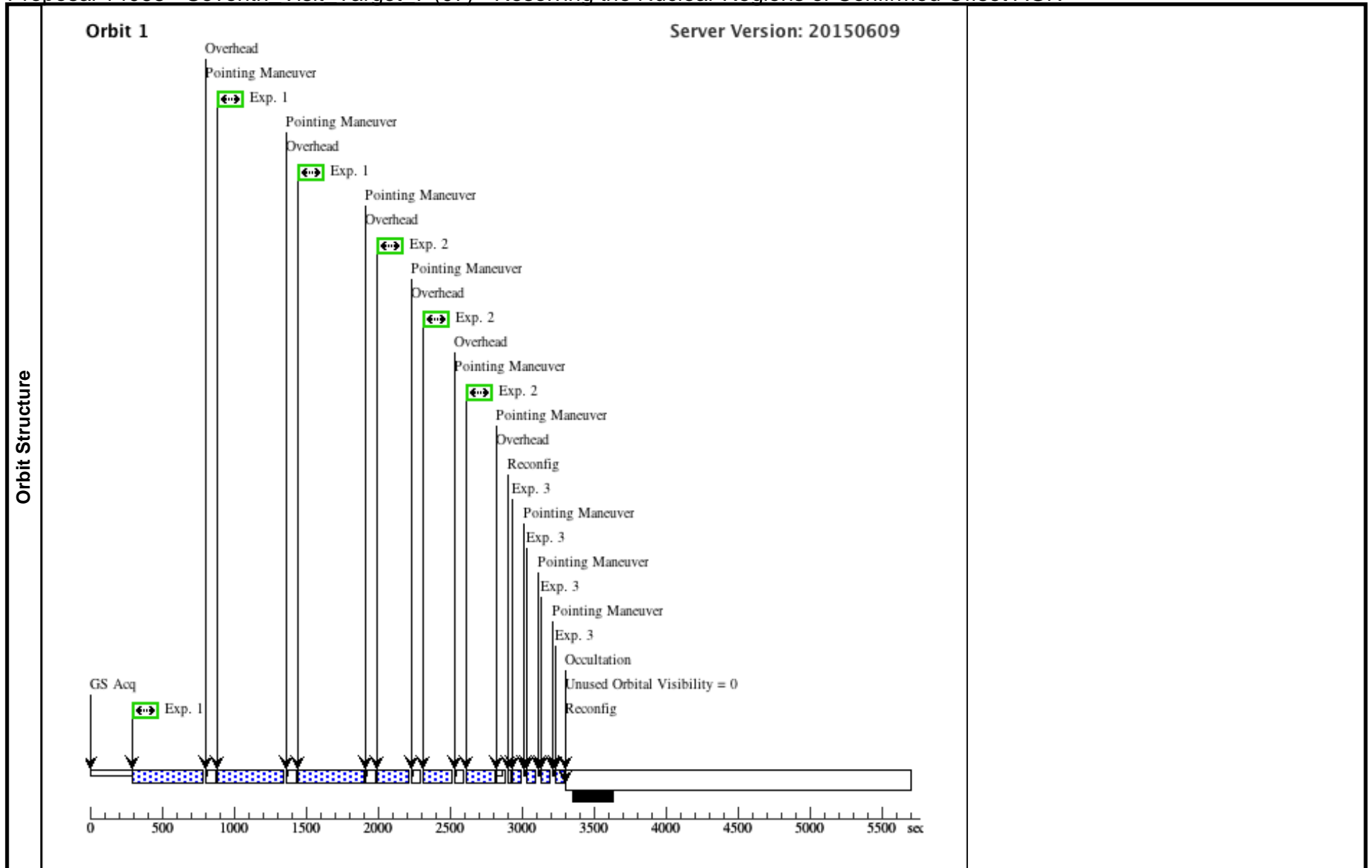
| Visit | Proposal 14068, Sixth_Visit_Target_6 (06), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: ORIENT 120D TO 85 D | | | | | | | | | |
|---------------|---|--|--|--------------------------------------|---------------------------------|---------------------------------|---------------|--|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (6) | 114904.04+592557.67 | RA: 11 49 4.0300 (177.2667917d) Dec: +59 25 57.60 (59.43267d) Equinox: J2000 | Redshift: 0.011 | V=13.021 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (6) 114904.04+5925 57.67 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=8 | | Pattern 1, Exps 1-1 i n Sixth_Visit_Target _6 (06) (1) | 382.0 Secs (1146 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (6) 114904.04+5925 57.67 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=5 | | Pattern 1, Exps 2-2 i n Sixth_Visit_Target _6 (06) (1) | 306.0 Secs (918 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (6) 114904.04+5925 57.67 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 i n Sixth_Visit_Target _6 (06) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |
| 4 | | (6) 114904.04+5925 57.67 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | POS TARG 0.948,0. 848 | | 36.754642 Secs (36.755 Secs) [=>] | [1] | |



Proposal 14068 - Seventh Visit Target 7 (07) - Resolving the Nuclear Regions of Confirmed Offset AGN

Sun Dec 06 02:00:54 GMT 2015

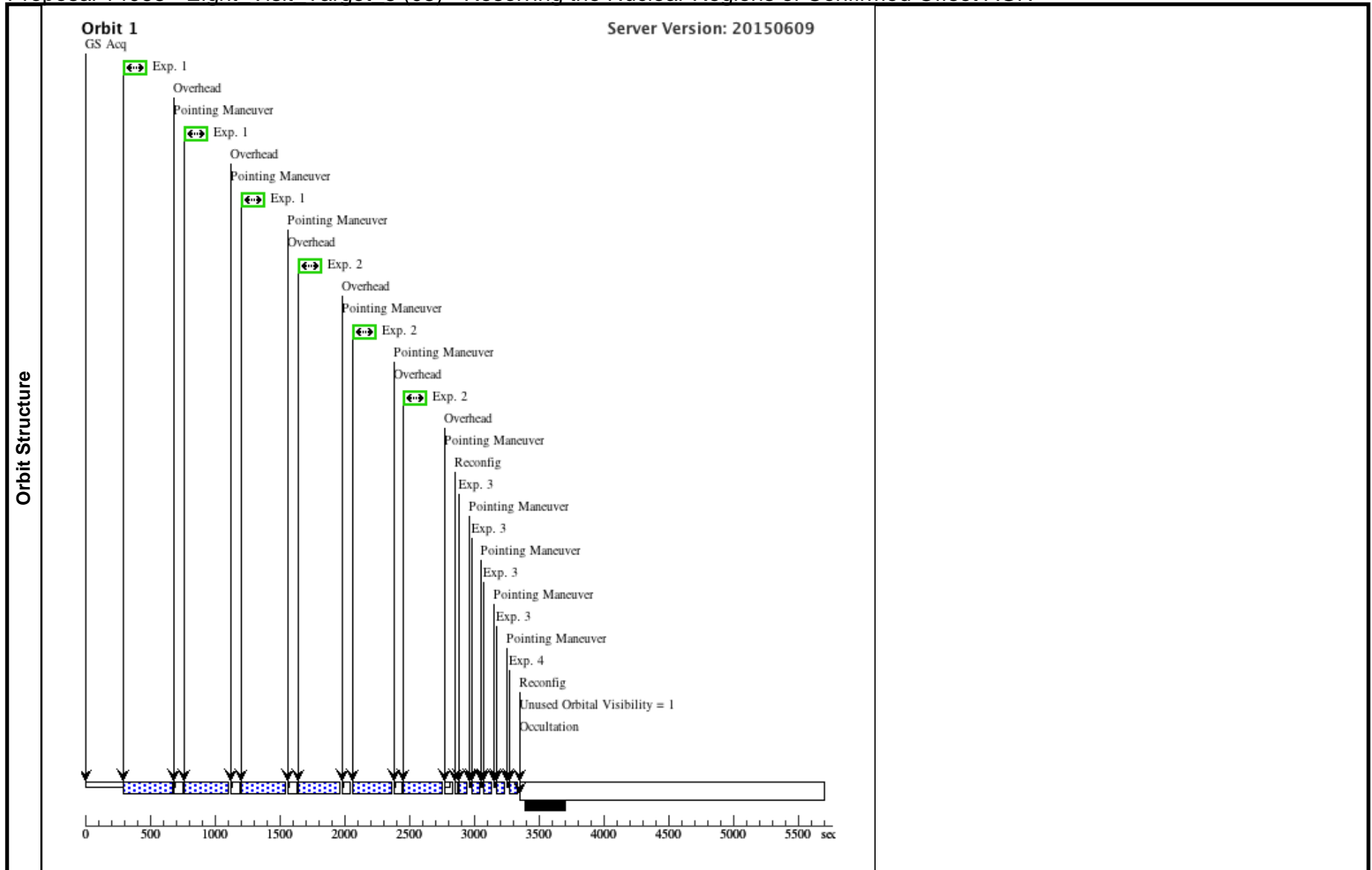
| Visit | Proposal 14068, Seventh_Visit_Target_7 (07), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|---------------|--|--|---|-----------------------------------|---------------|---------------------------------|-------------------------|--|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (5) | 111458.01+403611.4 | RA: 11 14 58.0100 (168.7417083d) Dec: +40 36 11.40 (40.60317d) Equinox: J2000 | Redshift: 0.076 | V=16.745 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (5) 111458.01+403611.4 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=8 | GS ACQ SCENARIO BASE1B3 | Pattern 1, Exps 1-1 in Seventh_Visit_Target_7 (07) (1) | 464.0 Secs (1392 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (5) 111458.01+403611.4 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=7 | | Pattern 1, Exps 2-2 in Seventh_Visit_Target_7 (07) (1) | 206.0 Secs (618 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (5) 111458.01+403611.4 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 in Seventh_Visit_Target_7 (07) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |



Proposal 14068 - Eight_Visit_Target_8 (08) - Resolving the Nuclear Regions of Confirmed Offset AGN

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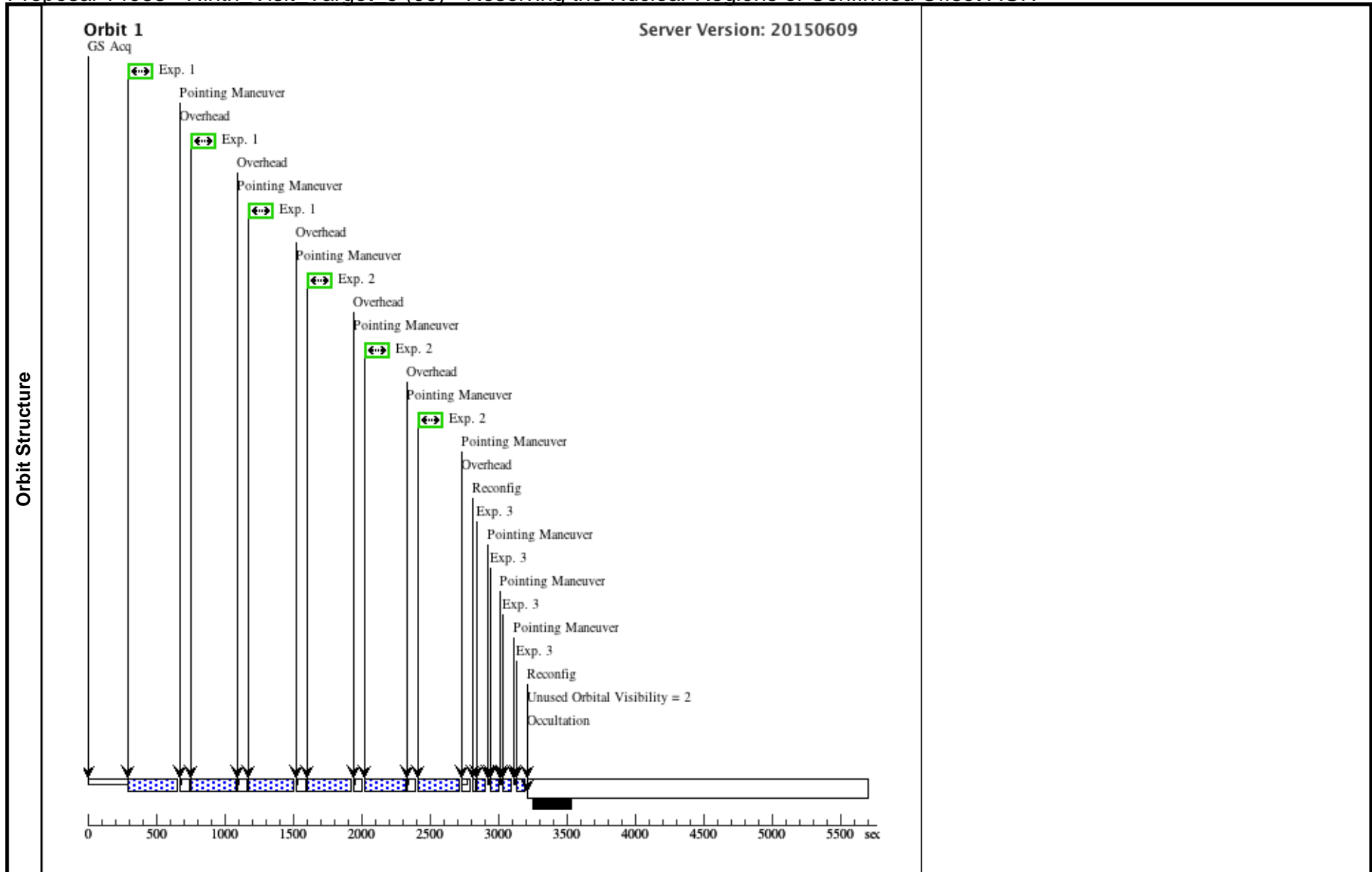
| Visit | Proposal 14068, Eight_Visit_Target_8 (08), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|---------------|--|--|---|-----------------------------------|---------------------------------|---------------------------------|---------------|--|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (7) | 123420.12+475155.7 | RA: 12 34 20.1200 (188.5838333d) Dec: +47 51 55.70 (47.86547d) Equinox: J2000 | Redshift: 0.183 | V=17.461 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (7) 123420.12+475155.7 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=9 | | Pattern 1, Exps 1-1 in Eight_Visit_Target_8 (08) (1) | 347.0 Secs (1041 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] | [1] |
| | 2 | F814W | (7) 123420.12+475155.7 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=5 | | Pattern 1, Exps 2-2 in Eight_Visit_Target_8 (08) (1) | 306.0 Secs (918 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] | [1] |
| | 3 | F160W | (7) 123420.12+475155.7 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 in Eight_Visit_Target_8 (08) (3) | 36.754642 Secs (147.019 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| 4 | | (7) 123420.12+475155.7 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | POS TARG 0.948,0.848 | | 36.754642 Secs (36.755 Secs) [==>] | [1] | |



Proposal 14068 - Ninth_Visit_Target_9 (09) - Resolving the Nuclear Regions of Confirmed Offset AGN

Sun Dec 06 02:00:54 GMT 2015

| Visit | Proposal 14068, Ninth_Visit_Target_9 (09), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|---------------|--|--|---|-----------------------------------|---------------|---------------------------|---------------|---|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (10) | 212512.48-071329.90 | RA: 21 25 12.4700 (321.3019583d) Dec: -07 13 29.90 (-7.22497d) Equinox: J2000 | Redshift: 0.064 | V=15.655 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (10) 212512.48-0713 29.90 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=9 | | Pattern 1, Exps 1-1 i n Ninth_Visit_Target_9 (09) (1) | 333.0 Secs (999 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (10) 212512.48-0713 29.90 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=5 | | Pattern 1, Exps 2-2 i n Ninth_Visit_Target_9 (09) (1) | 306.0 Secs (918 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (10) 212512.48-0713 29.90 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP2 5 | | Pattern 3, Exps 3-3 i n Ninth_Visit_Target_9 (09) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |



Proposal 14068 - Tenth_Visit_Target_10 (10) - Resolving the Nuclear Regions of Confirmed Offset AGN

Sun Dec 06 02:00:54 GMT 2015

| Visit | Proposal 14068, Tenth_Visit_Target_10 (10), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: (none) | | | | | | | | | |
|---------------|---|--|---|-----------------------------------|-----------------------------|-----------------------------|---------------|---|---|-------|
| | # | Primary Pattern | Secondary Pattern | Exposures | | | | | | |
| Patterns | (1) | 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), (2) | | | | | | |
| | (3) | 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=true | | (3) | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (8) | 131739.19+411545.5 | RA: 13 17 39.1900 (199.4132917d) Dec: +41 15 45.50 (41.26264d) Equinox: J2000 | Redshift: 0.066 | V=14.864 | Reference Frame: ICRS | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
| | 1 | F438W | (8) 131739.19+411545.5 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F438W | FLASH=9 | | Pattern 1, Exps 1-1 in Tenth_Visit_Target_10 (10) (1) | 332.0 Secs (996 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 2 | F814W | (8) 131739.19+411545.5 | WFC3/UVIS, ACCUM, UVIS2-C1K1C-SUB | F814W | FLASH=5 | | Pattern 1, Exps 2-2 in Tenth_Visit_Target_10 (10) (1) | 306.0 Secs (918 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] | [1] |
| | 3 | F160W | (8) 131739.19+411545.5 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP25 | | Pattern 3, Exps 3-3 in Tenth_Visit_Target_10 (10) (3) | 36.754642 Secs (147.019 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |
| 4 | | (8) 131739.19+411545.5 | WFC3/IR, MULTIACCUM, IRSUB512 | F160W | NSAMP=6; SAMP-SEQ=STEP25 | POS TARG 0.948,0.848 | | 36.754642 Secs (36.755 Secs) [=>] | [1] | |

