



15645 - The Identification of Failed Supernovae

Cycle: 26, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

| <i>Visit</i> | <i>Targets used in Visit</i> | <i>Configurations used in Visit</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 01 | (3) NGC1058 | ACS/WFC | 1 | 19-Jun-2019 14:13:15.0 | yes |
| 02 | (4) NGC1084 | ACS/WFC | 1 | 19-Jun-2019 14:13:16.0 | yes |
| 03 | (7) NGC1316 | ACS/WFC | 1 | 19-Jun-2019 14:13:17.0 | yes |
| 04 | (10) NGC1448 | ACS/WFC | 1 | 19-Jun-2019 14:13:18.0 | yes |
| 05 | (15) NGC2770 | ACS/WFC | 1 | 19-Jun-2019 14:13:18.0 | yes |
| 06 | (20) NGC3627 | ACS/WFC | 1 | 19-Jun-2019 14:13:19.0 | yes |
| 07 | (21) NGC3631 | ACS/WFC | 1 | 19-Jun-2019 14:13:19.0 | yes |
| 08 | (41) NGC7714 | ACS/WFC | 1 | 19-Jun-2019 14:13:20.0 | yes |
| 09 | (40) NGC7479 | ACS/WFC | 1 | 19-Jun-2019 14:13:20.0 | yes |
| 10 | (39) NGC7331 | ACS/WFC | 1 | 19-Jun-2019 14:13:21.0 | yes |

Proposal 15645 (STScI Edit Number: 3, Created: Wednesday, June 19, 2019 at 1:13:40 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> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 11 | (38) NGC6951 | ACS/WFC | 1 | 19-Jun-2019 14:13:22.0 | yes |
| 12 | (35) NGC5806 | ACS/WFC | 1 | 19-Jun-2019 14:13:22.0 | yes |
| 13 | (32) NGC4651 | ACS/WFC | 1 | 19-Jun-2019 14:13:23.0 | yes |
| 14 | (31) NGC4527 | ACS/WFC | 1 | 19-Jun-2019 14:13:23.0 | yes |
| 15 | (30) NGC4490 | ACS/WFC | 1 | 19-Jun-2019 14:13:24.0 | yes |
| 16 | (29) NGC4321 | ACS/WFC | 1 | 19-Jun-2019 14:13:25.0 | yes |
| 17 | (28) NGC4303 | ACS/WFC | 1 | 19-Jun-2019 14:13:25.0 | yes |
| 18 | (25) NGC4051 | ACS/WFC | 1 | 19-Jun-2019 14:13:26.0 | yes |
| 19 | (24) NGC4038 | ACS/WFC | 1 | 19-Jun-2019 14:13:26.0 | yes |
| 20 | (23) NGC3810 | ACS/WFC | 1 | 19-Jun-2019 14:13:27.0 | yes |
| 21 | (22) NGC3690 | ACS/WFC | 1 | 19-Jun-2019 14:13:27.0 | yes |
| 22 | (1) NGC628POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:28.0 | yes |
| 23 | (2) NGC628POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:29.0 | yes |
| 24 | (11) NGC2442POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:29.0 | yes |
| 25 | (12) NGC2442POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:30.0 | yes |
| 26 | (13) NGC2403POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:30.0 | yes |
| 27 | (14) NGC2403POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:31.0 | yes |
| 28 | (16) NGC3034POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:31.0 | yes |
| 29 | (17) NGC3034POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:32.0 | yes |
| 30 | (18) NGC3079POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:33.0 | yes |
| 31 | (19) NGC3079POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:33.0 | yes |
| 32 | (26) NGC4258POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:34.0 | yes |
| 33 | (27) NGC4258POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:34.0 | yes |
| 34 | (33) NGC5194POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:35.0 | yes |
| 35 | (34) NGC5194POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:35.0 | 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> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 36 | (36) NGC6946POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:36.0 | yes |
| 86 | (36) NGC6946POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:36.0 | yes |
| 37 | (37) NGC6946POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:37.0 | yes |
| 38 | (5) NGC1097POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:38.0 | yes |
| 39 | (6) NGC1097POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:38.0 | yes |
| 40 | (8) NGC1365POS1 | ACS/WFC | 1 | 19-Jun-2019 14:13:39.0 | yes |
| 41 | (9) NGC1365POS2 | ACS/WFC | 1 | 19-Jun-2019 14:13:39.0 | yes |

42 Total Orbits Used

ABSTRACT

We request 41 orbits of HST/ACS F814W imaging of a specially chosen sample of nearby galaxies to identify failed supernovae---the literal disappearance of a massive star after collapse into a black hole. Based on recent theoretical work on how massive stars end their lives, and the apparent lack of stars $>18 M_{\text{sun}}$ exploding as core collapse supernovae, we expect to detect $\sim 5\text{-}20$ failed SNe, a sample large enough to provide a conclusive test of this idea. These observations will address the long standing mystery of missing core collapse supernova progenitors and test models of black hole formation, with broad-reaching consequences for our understanding of stellar remnants, chemical enrichment, and predictions for gravitational wave event rates.

Any failed supernova candidates will be prime targets for the JWST era, both to search for associated cold transients, and to rule out alternative explanations for the massive star's disappearance.

OBSERVING DESCRIPTION

Our primary science goal is to identify failed supernovae, signaled by the disappearance of an individual massive star in our carefully chosen nearby galaxy fields. The program relies heavily on the HST archive (and the wide range of data available for each target) as well as new observations of fields that have been imaged by HST multiple times in previous cycles.

We have specially chosen our sample of target galaxies to maximize the number of expected failed supernovae by prioritizing galaxies which are

proven core collapse supernova producers (we assume the failed supernova rate will be ~10-30% of the core collapse supernova rate). As described in the phase I proposal, galaxies were chosen both because they have had two or more core collapse supernovae in the modern era, and they have been imaged in the F814W filter by HST at least two times previously. The newly requested F814W ACS observations will be searched for failed supernova; i.e. objects that were in the previous imaging epochs but have now disappeared. We have chosen the F814W filter because it is among the most sensitive to the supergiants that should be the progenitors of failed supernovae, and it has been commonly used throughout HST's lifetime with ACS, WFPC2 and WFC3. F814W is also less sensitive to extinction in regions of star formation than bluer bands.

Each of our ACS pointings will be roughly centered on previous HST imaging of a given field (several galaxies will get multiple ACS pointings). We do not request specific orientations in favor of schedulability. As long as the pointing center is coincident with previous epochs, we will only lose a small fraction of our search area with different image orientations. We will use a standard ACS-WFC-DITHER-BOX dither pattern, without a need to cover the chip gaps.

Proposal 15645 - NGC1058 visit (01) - The Identification of Failed Supernovae

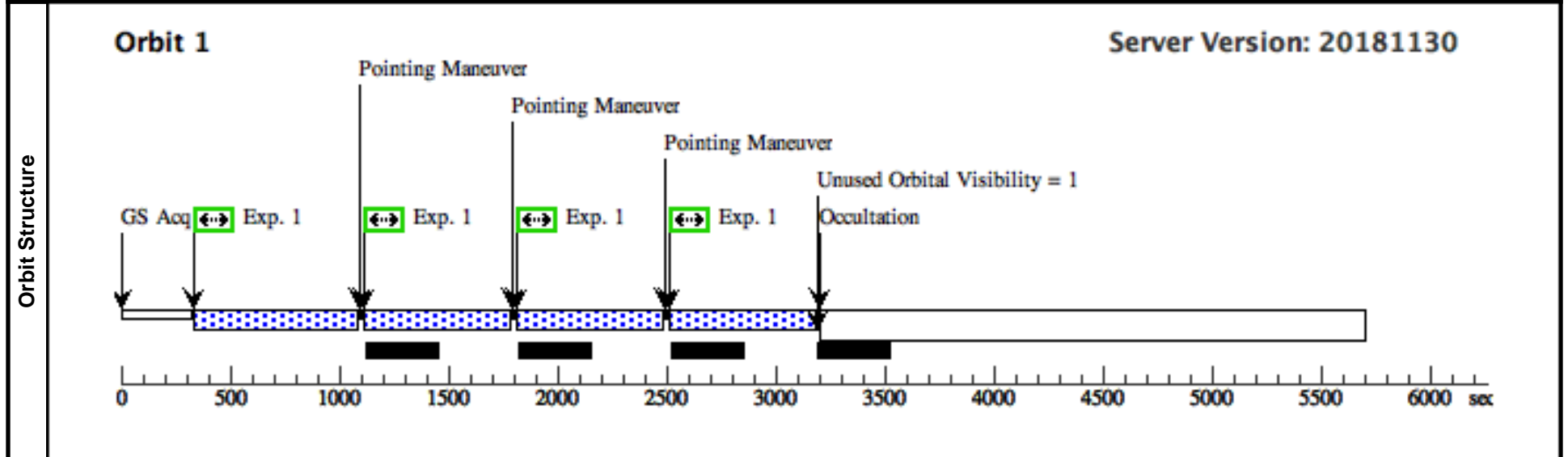
Wed Jun 19 18:13:40 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC1058_visit (01), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|--|--------------------------|--------|-----------------------|
| | (3) | NGC1058 | RA: 02 43 30.0000 (40.8750000d) Dec: +37 20 29.05 (37.34140d) Equinox: J2000 | | V=10.0 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|-------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (3) NGC1058 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC1058_visit (01) (1) | 520 Secs (2172 Secs) [=>543.0 Secs (Pattern 1)] [=>543.0 Secs (Pattern 2)] [=>543.0 Secs (Pattern 3)] [=>543.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC1084 visit (02) - The Identification of Failed Supernovae

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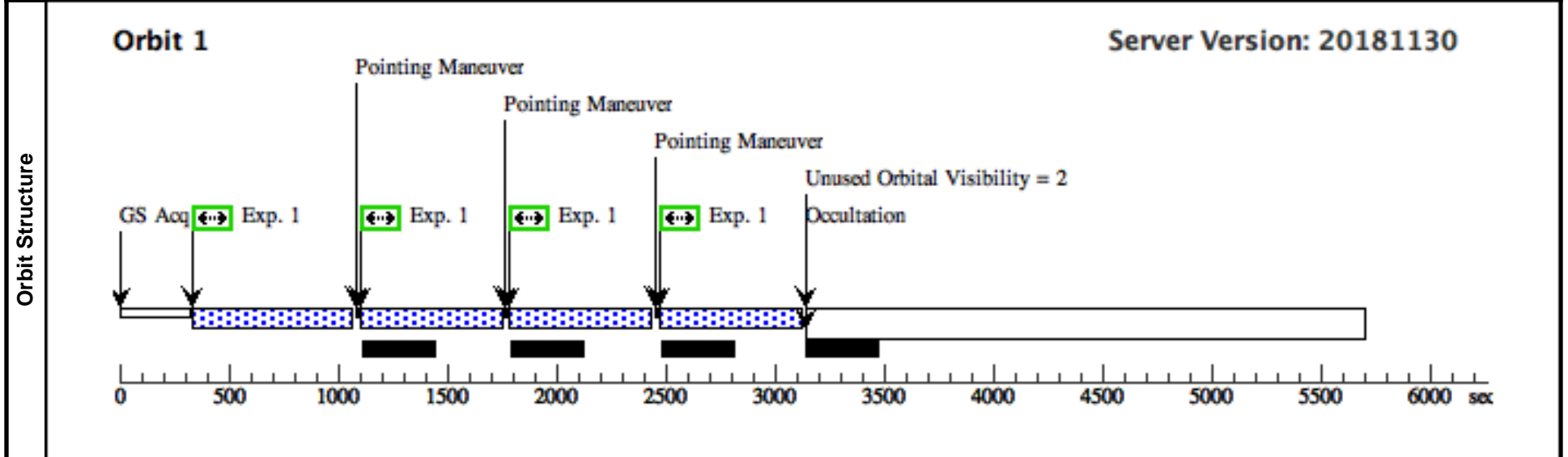
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC1084_visit (02), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
|--------------|--|--|--|

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|-----|---------|---|--------------------------|--------|-----------------------|
| | (4) | NGC1084 | RA: 02 45 59.2080 (41.4967000d) Dec: -07 35 5.00 (-7.58472d) Equinox: J2000 | | V=11.6 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---------------|---------|--------------------------|---------------|--------------|---------------|---|--|-------|
| 1 | ACS F814W (4) | NGC1084 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC1084_visit (02) (1) | 520 Secs (2116 Secs) [=>529.0 Secs (Pattern 1)] [=>529.0 Secs (Pattern 2)] [=>529.0 Secs (Pattern 3)] [=>529.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC1316 visit (03) - The Identification of Failed Supernovae

Wed Jun 19 18:13:40 GMT 2019

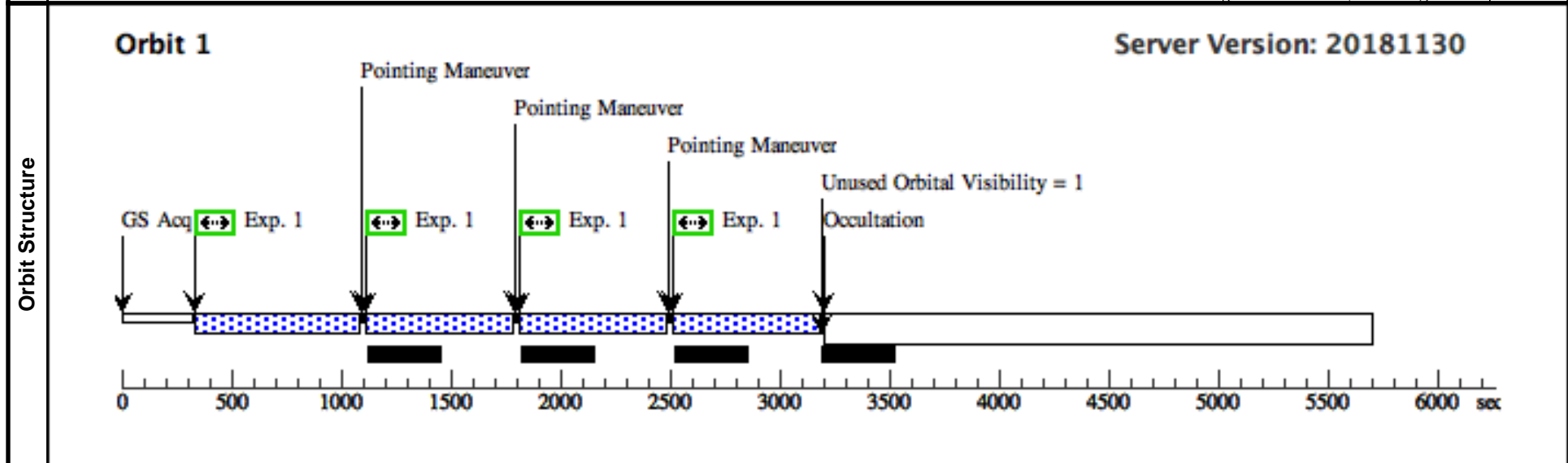
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC1316_visit (03), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|-----|---------|---|--------------------------|--------|-----------------------|
| | (7) | NGC1316 | RA: 03 22 40.5820 (50.6690917d) Dec: -37 12 27.00 (-37.20750d) Equinox: J2000 | | V=9.4 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[LENTICULAR]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|-------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (7) NGC1316 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC1316_visit (03) (1) | 520 Secs (2172 Secs) [=>543.0 Secs (Pattern 1)] [=>543.0 Secs (Pattern 2)] [=>543.0 Secs (Pattern 3)] [=>543.0 Secs (Pattern 4)] |



Proposal 15645 - NGC1448 visit (04) - The Identification of Failed Supernovae

Wed Jun 19 18:13:40 GMT 2019

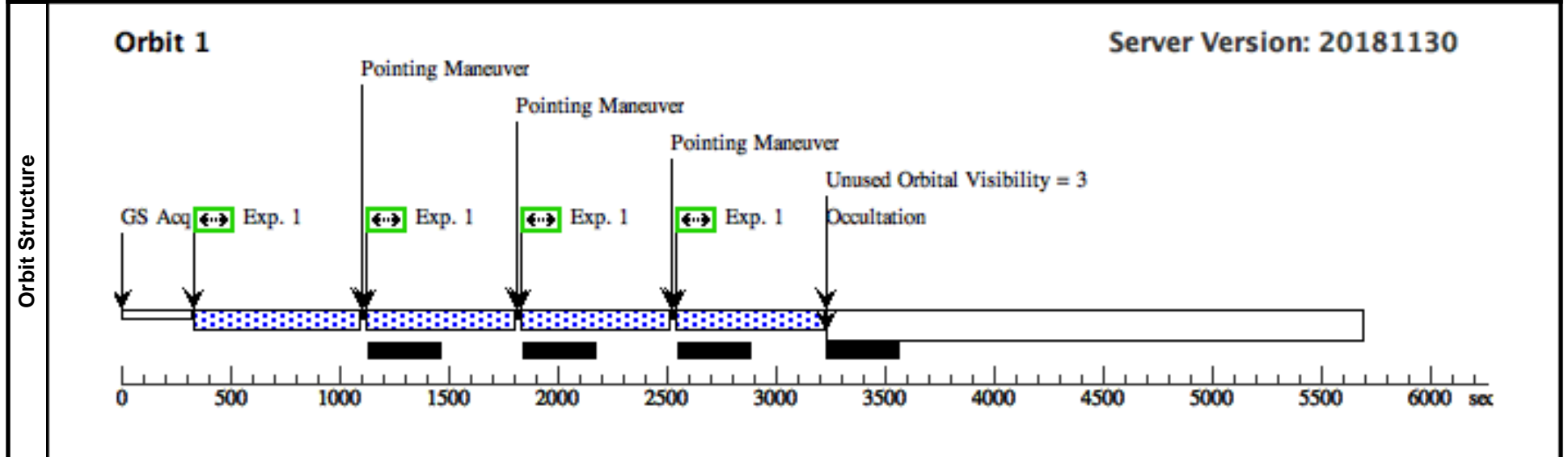
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC1448_visit (04), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|---------|---|--------------------------|--------|-----------------------|
| | (10) | NGC1448 | RA: 03 44 39.4460 (56.1643583d) Dec: -44 36 55.46 (-44.61541d) Equinox: J2000 | | V=11.4 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (10) NGC1448 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC1448_visit (04) (1) | 520 Secs (2208 Secs) [=>552.0 Secs (Pattern 1)] [=>552.0 Secs (Pattern 2)] [=>552.0 Secs (Pattern 3)] [=>552.0 Secs (Pattern 4)] |



Proposal 15645 - NGC2770 visit (05) - The Identification of Failed Supernovae

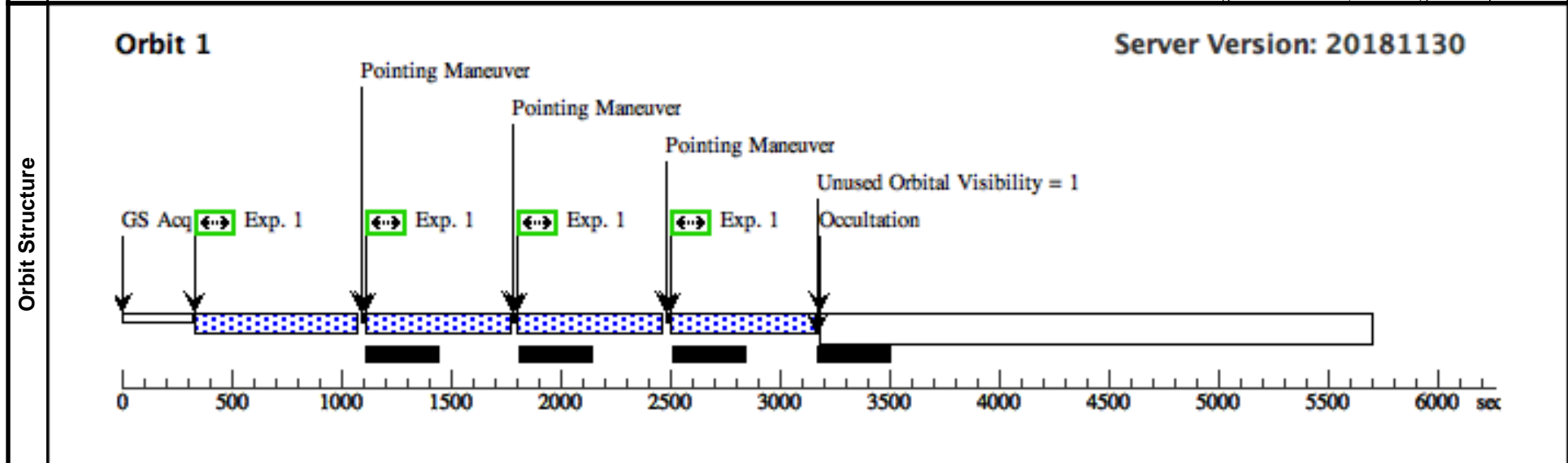
Wed Jun 19 18:13:40 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC2770_visit (05), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|--------|-----------------------|
| | (15) | NGC2770 | RA: 09 09 34.1700 (137.3923750d) Dec: +33 07 20.90 (33.12247d) Equinox: J2000 | | V=12.8 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (15) NGC2770 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC2770_visit (05) (1) | 520 Secs (2152 Secs) [==>538.0 Secs (Pattern 1)] [==>538.0 Secs (Pattern 2)] [==>538.0 Secs (Pattern 3)] [==>538.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3627 visit (06) - The Identification of Failed Supernovae

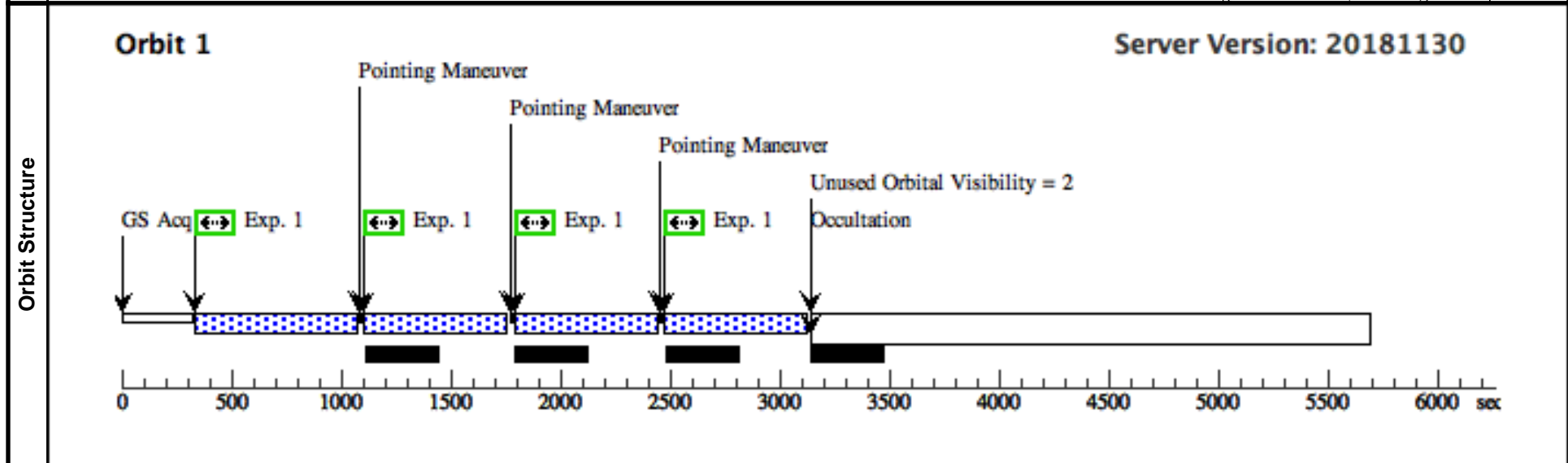
Wed Jun 19 18:13:40 GMT 2019

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|--------------|---|--|--|
| Visit | Proposal 15645, NGC3627_visit (06), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|--------|-----------------------|
| | (20) | NGC3627 | RA: 11 20 17.5420 (170.0730917d) Dec: +12 58 36.30 (12.97675d) Equinox: J2000 | | V=9.7 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (20) NGC3627 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC3627_visit (06) (1) | 520 Secs (2120 Secs) [=>530.0 Secs (Pattern 1)] [=>530.0 Secs (Pattern 2)] [=>530.0 Secs (Pattern 3)] [=>530.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3631 visit (07) - The Identification of Failed Supernovae

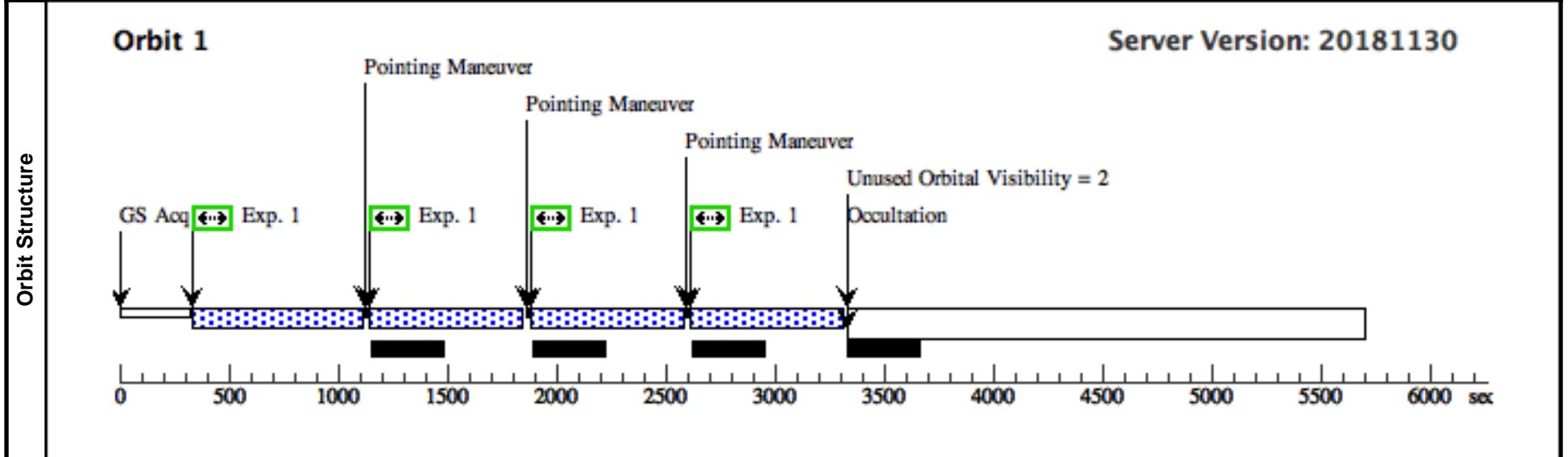
Wed Jun 19 18:13:40 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC3631_visit (07), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|------|---------|---|--------------------------|--------|-----------------------|
| | (21) | NGC3631 | RA: 11 20 59.1950 (170.2466458d) Dec: +53 10 36.04 (53.17668d) Equinox: J2000 | | V=11.0 | Reference Frame: ICRS |
| <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|--------|--|----------------------|
| | 1 | ACS F814W | (21) NGC3631 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC3631_visit (07) (1) | 520 Secs (2304 Secs) |
| | | | | | | | | | [=>576.0 Secs (Pattern 1)] [=>576.0 Secs (Pattern 2)] [=>576.0 Secs (Pattern 3)] [=>576.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC7714 visit (08) - The Identification of Failed Supernovae

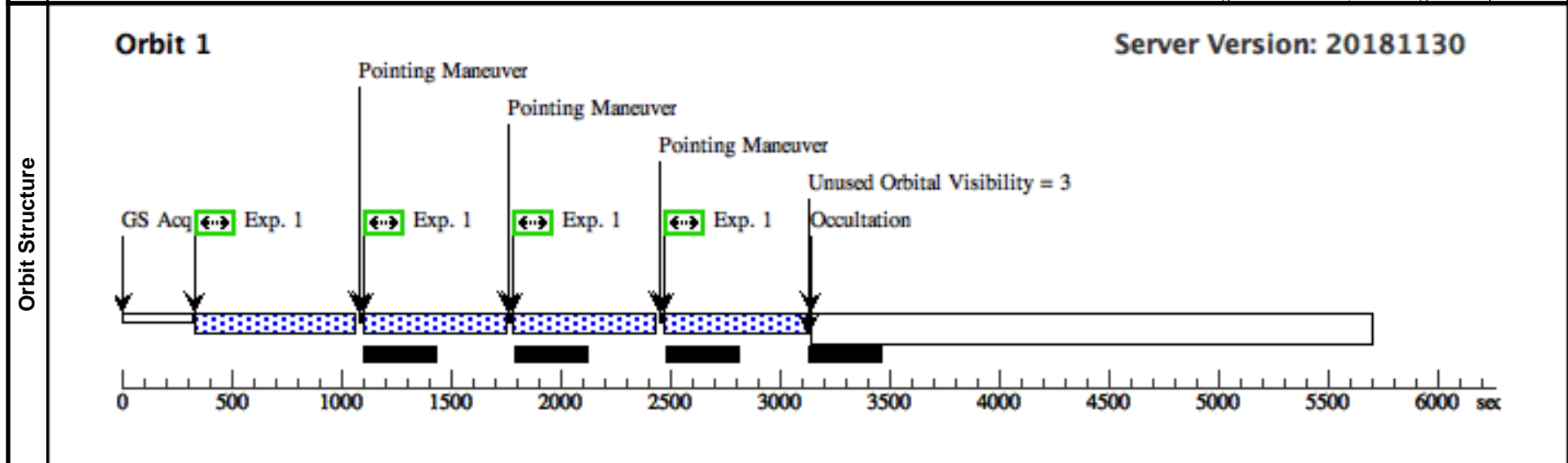
Wed Jun 19 18:13:40 GMT 2019

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|--------------|---|--|--|
| Visit | Proposal 15645, NGC7714_visit (08), scheduling | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|--|--------------------------|--------|-----------------------|
| | (41) | NGC7714 | RA: 23 36 10.7320 (354.0447167d) Dec: +02 09 13.35 (2.15371d) Equinox: J2000 | | V=12.5 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (41) NGC7714 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC7714_visit (08) (1) | 520 Secs (2112 Secs) [==>528.0 Secs (Pattern 1)] [==>528.0 Secs (Pattern 2)] [==>528.0 Secs (Pattern 3)] [==>528.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC7479 visit (09) - The Identification of Failed Supernovae

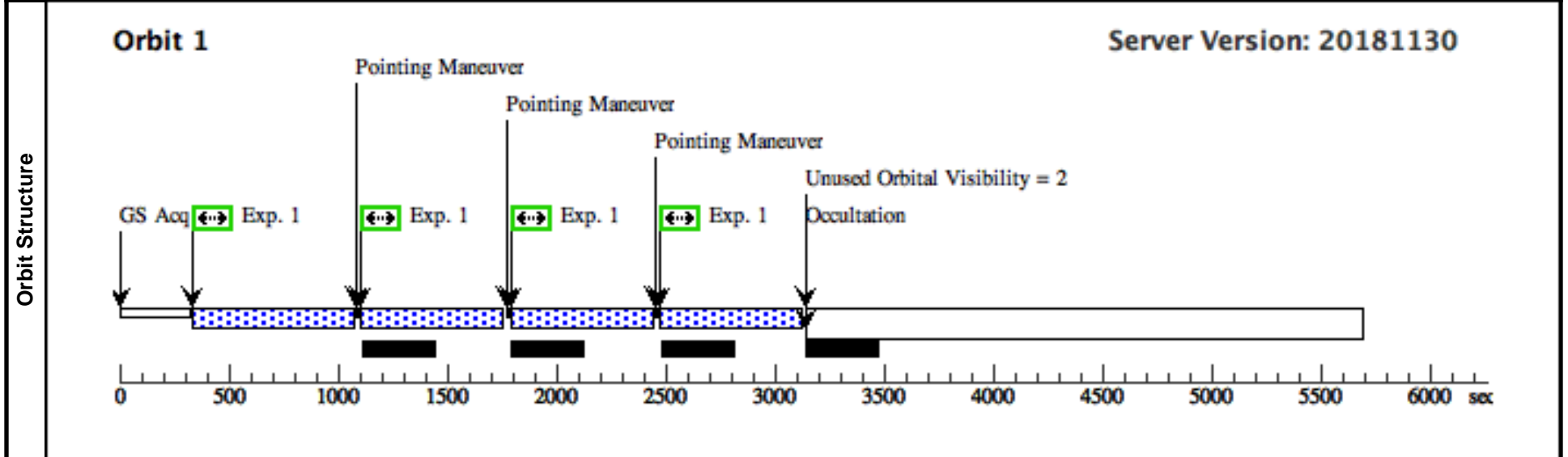
Wed Jun 19 18:13:40 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC7479_visit (09), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|---------|-----------------------|
| | (40) | NGC7479 | RA: 23 04 56.7110 (346.2362958d) Dec: +12 19 26.02 (12.32389d) Equinox: J2000 | | V=11.60 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (40) NGC7479 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC7479_visit (09) (1) | 520 Secs (2120 Secs) [=>530.0 Secs (Pattern 1)] [=>530.0 Secs (Pattern 2)] [=>530.0 Secs (Pattern 3)] [=>530.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC7331 visit (10) - The Identification of Failed Supernovae

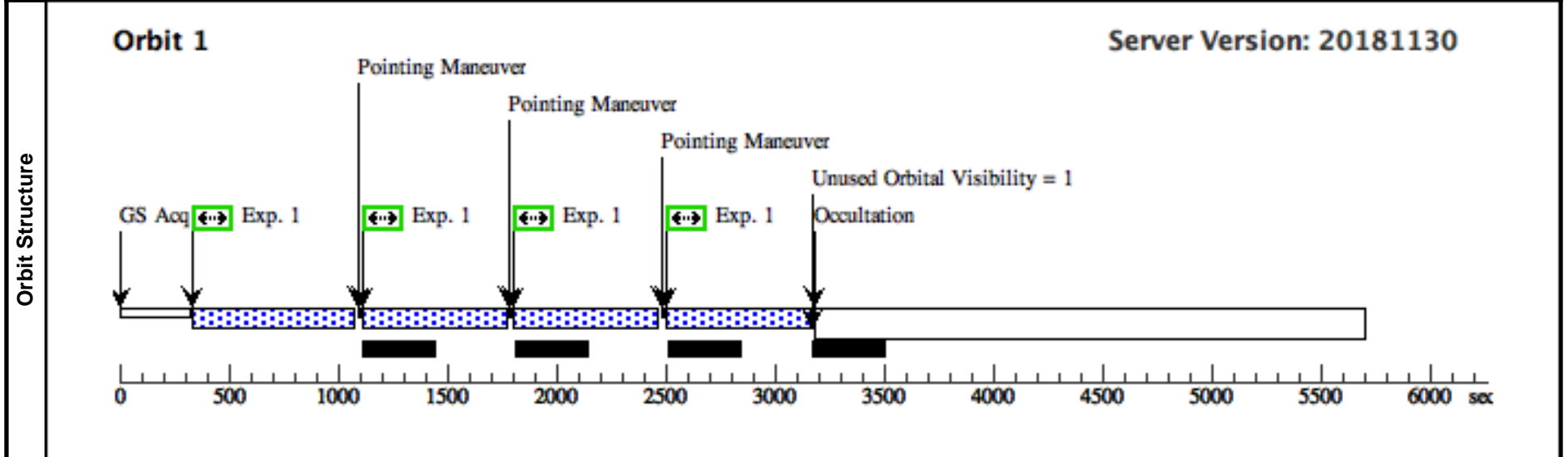
Wed Jun 19 18:13:40 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC7331_visit (10), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|--|--------------------------|--------|-----------------------|
| | (39) | NGC7331 | RA: 22 37 4.0900 (339.2670417d) Dec: +34 24 56.00 (34.41556d) Equinox: J2000 | | V=10.4 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|----------------|---------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W (39) | NGC7331 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC7331_visit (10) (1) | 520 Secs (2152 Secs) [=>538.0 Secs (Pattern 1)] [=>538.0 Secs (Pattern 2)] [=>538.0 Secs (Pattern 3)] [=>538.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC6951 visit (11) - The Identification of Failed Supernovae

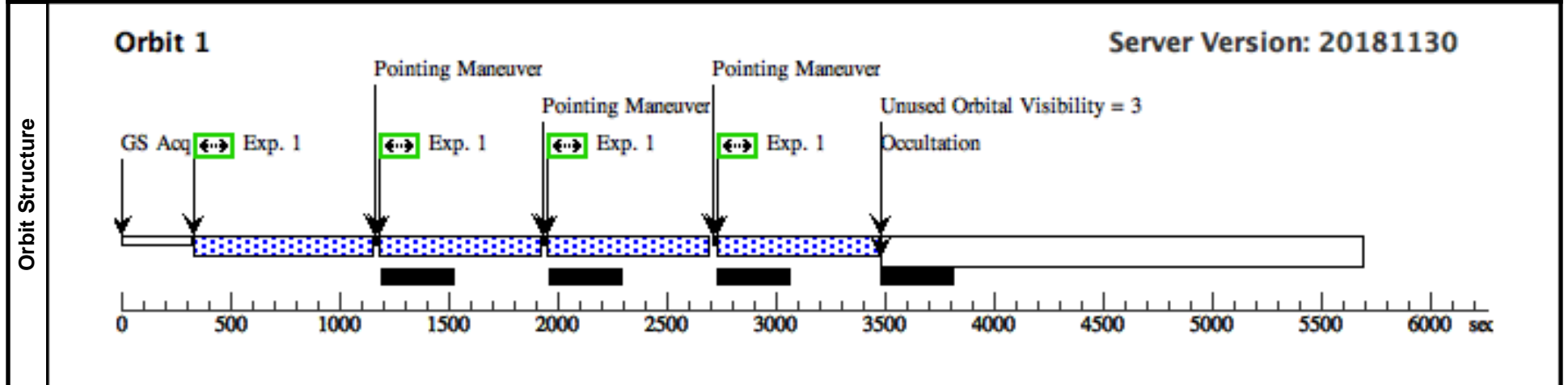
Wed Jun 19 18:13:40 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC6951_visit (11), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|--------|-----------------------|
| | (38) | NGC6951 | RA: 20 37 14.8750 (309.3119792d) Dec: +66 06 11.00 (66.10306d) Equinox: J2000 | | V=10.0 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL ARM] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|--|--|-------|
| | 1 | ACS F814W | (38) NGC6951 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC6951_visit (1) (1) | 520 Secs (2456 Secs) [=>614.0 Secs (Pattern 1)] [=>614.0 Secs (Pattern 2)] [=>614.0 Secs (Pattern 3)] [=>614.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC5806 visit (12) - The Identification of Failed Supernovae

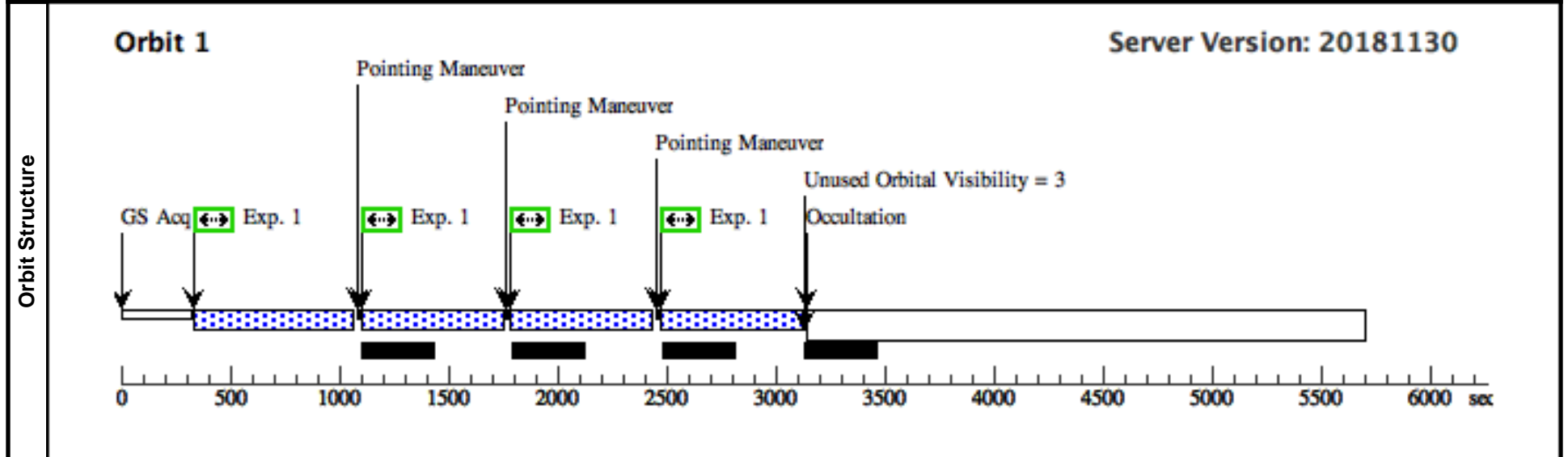
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC5806_visit (12), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|--|--------------------------|--------|-----------------------|
| | (35) | NGC5806 | RA: 14 59 59.7450 (224.9989375d) Dec: +01 53 33.40 (1.89261d) Equinox: J2000 | | V=12.5 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (35) NGC5806 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC5806_visit (12) (1) | 520 Secs (2112 Secs) [==>528.0 Secs (Pattern 1)] [==>528.0 Secs (Pattern 2)] [==>528.0 Secs (Pattern 3)] [==>528.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC4651 visit (13) - The Identification of Failed Supernovae

Wed Jun 19 18:13:41 GMT 2019

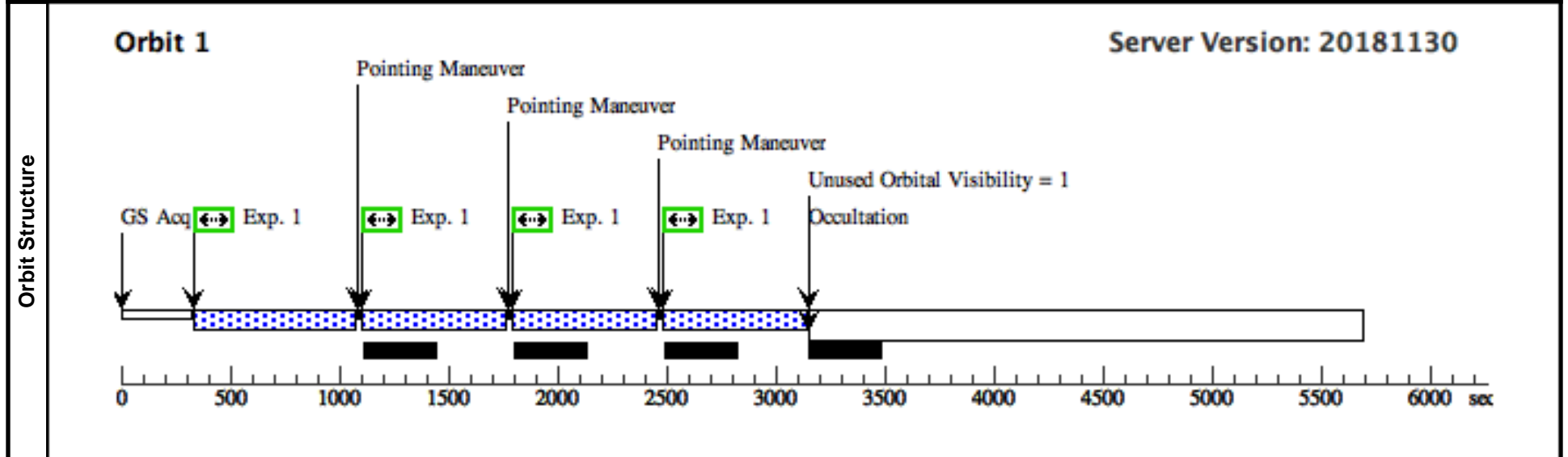
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC4651_visit (13), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|---------|---|--------------------------|--------|-----------------------|
| | (32) | NGC4651 | RA: 12 43 42.6640 (190.9277667d) Dec: +16 23 36.10 (16.39336d) Equinox: J2000 | | V=11.4 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|-----------------------------|---|--|
| | 1 | ACS F814W | (32) NGC4651 | ACS/WFC, ACCUM, WFCENTER | F814W | | | GS ACQ SCENARI O BASE1B3 | Pattern 1, Exps 1-1 i n NGC4651_visit (1 3) (1) | 520 Secs (2128 Secs) [=>532.0 Secs (Pattern 1)] [=>532.0 Secs (Pattern 2)] [=>532.0 Secs (Pattern 3)] [=>532.0 Secs (Pattern 4)] |



Proposal 15645 - NGC4527 visit (14) - The Identification of Failed Supernovae

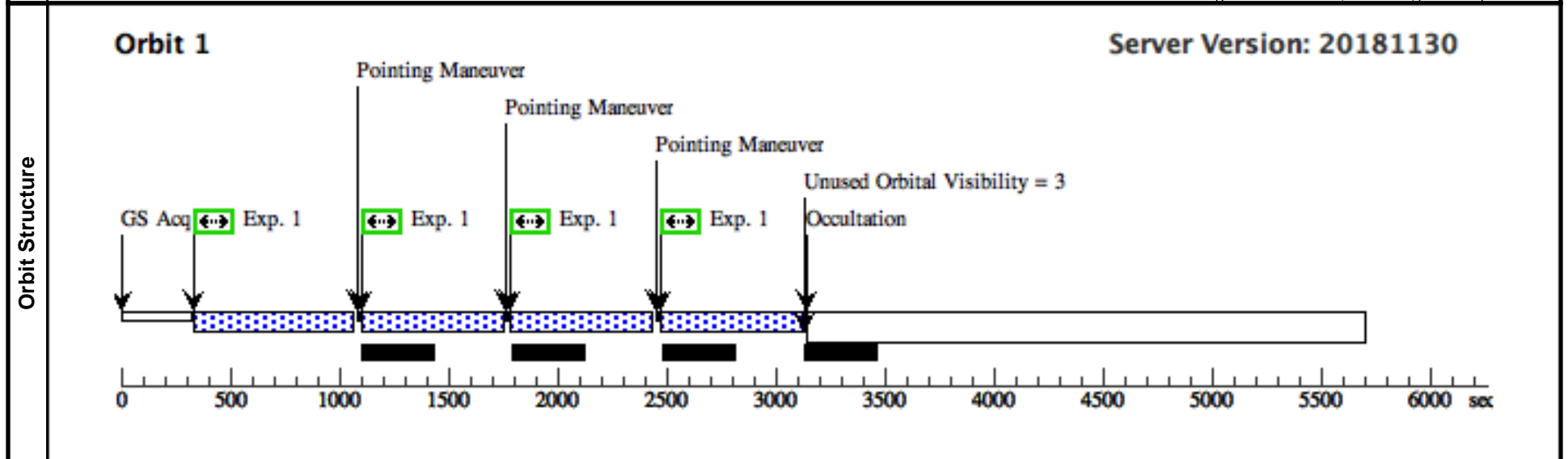
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC4527_visit (14), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|--------|-----------------------|
| | (31) | NGC4527 | RA: 12 34 3.0530 (188.5127208d) Dec: +02 38 27.13 (2.64087d) Equinox: J2000 | | V=11.4 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (31) NGC4527 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC4527_visit (14) (1) | 520 Secs (2112 Secs) [=>528.0 Secs (Pattern 1)] [=>528.0 Secs (Pattern 2)] [=>528.0 Secs (Pattern 3)] [=>528.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC4490 visit (15) - The Identification of Failed Supernovae

Wed Jun 19 18:13:41 GMT 2019

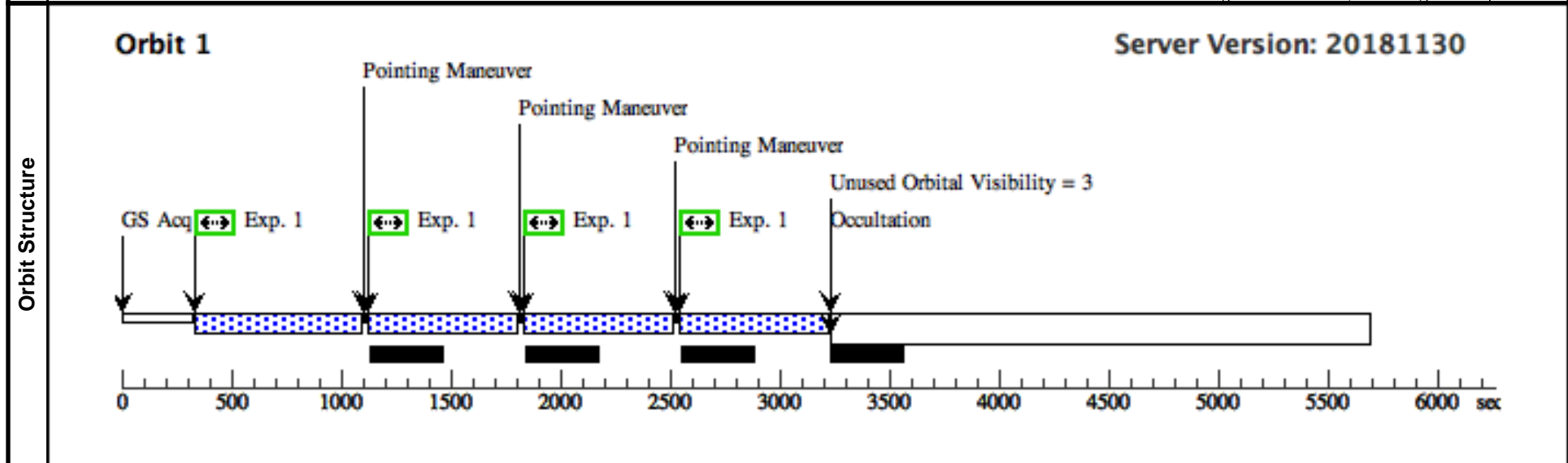
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC4490_visit (15), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|---------|---|--------------------------|--------|-----------------------|
| | (30) | NGC4490 | RA: 12 30 35.9600 (187.6498333d) Dec: +41 38 30.17 (41.64171d) Equinox: J2000 | | V=10.2 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (30) NGC4490 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC4490_visit (15) (1) | 520 Secs (2208 Secs) [=>552.0 Secs (Pattern 1)] [=>552.0 Secs (Pattern 2)] [=>552.0 Secs (Pattern 3)] [=>552.0 Secs (Pattern 4)] |



Proposal 15645 - NGC4321 visit (16) - The Identification of Failed Supernovae

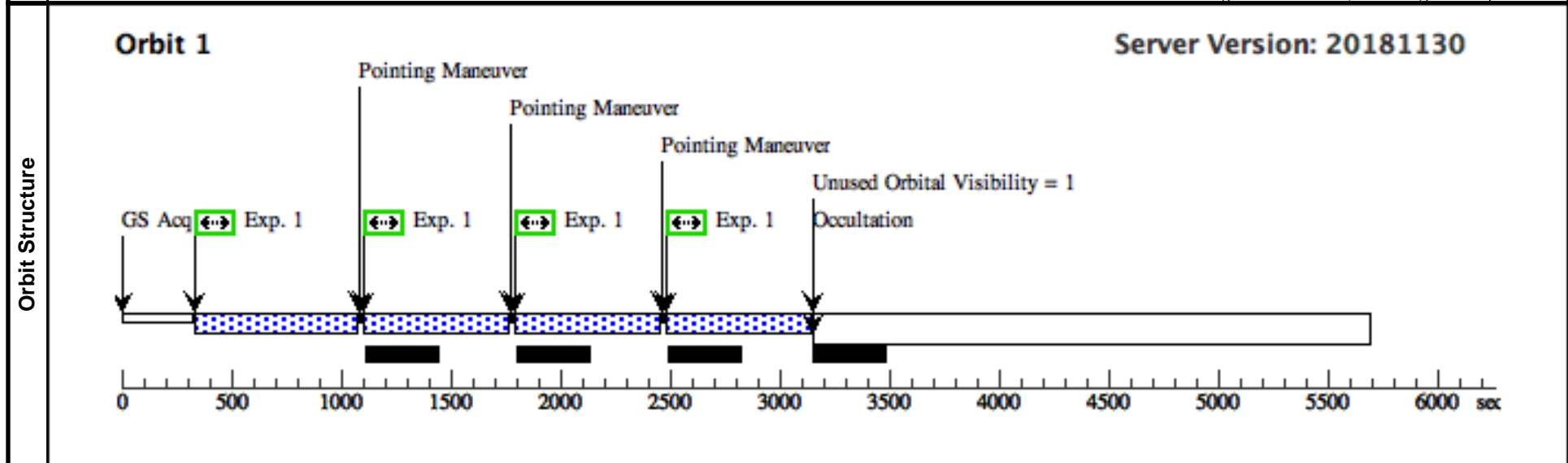
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC4321_visit (16), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|--------|-----------------------|
| | (29) | NGC4321 | RA: 12 23 0.9310 (185.7538792d) Dec: +15 49 5.16 (15.81810d) Equinox: J2000 | | V=9.8 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL ARM] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (29) NGC4321 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC4321_visit (16) (1) | 520 Secs (2128 Secs) [=>532.0 Secs (Pattern 1)] [=>532.0 Secs (Pattern 2)] [=>532.0 Secs (Pattern 3)] [=>532.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC4303 visit (17) - The Identification of Failed Supernovae

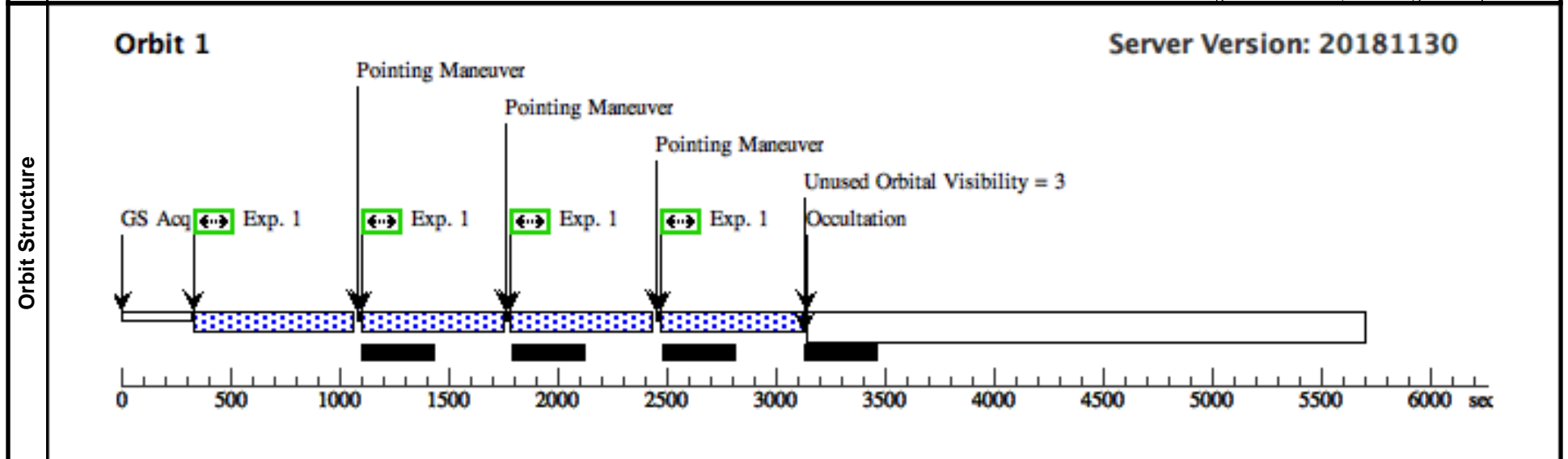
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC4303_visit (17), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|--|--------------------------|--------|-----------------------|
| | (28) | NGC4303 | RA: 12 21 48.0720 (185.4503000d) Dec: +04 28 42.48 (4.47847d) Equinox: J2000 | | V=10.2 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (28) NGC4303 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC4303_visit (17) (1) | 520 Secs (2112 Secs) | |
| | | | | | | | | | [==>528.0 Secs (Pattern 1)] [==>528.0 Secs (Pattern 2)] [==>528.0 Secs (Pattern 3)] [==>528.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC4051 visit (18) - The Identification of Failed Supernovae

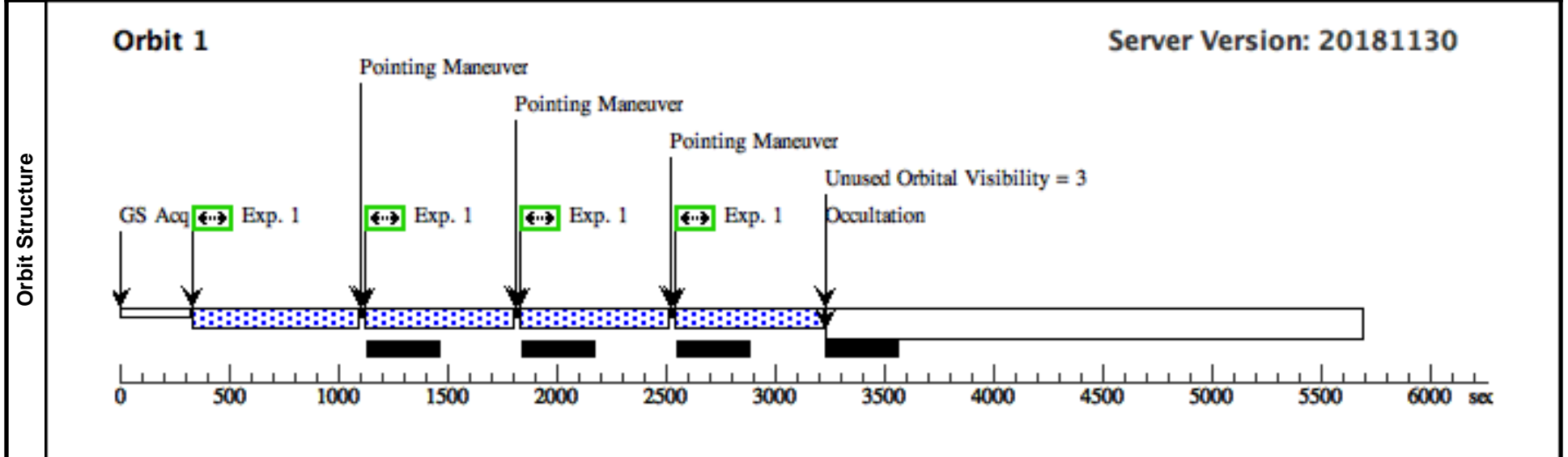
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC4051_visit (18), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|--------|-----------------------|
| | (25) | NGC4051 | RA: 12 03 12.5560 (180.8023167d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000 | | V=10.8 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (25) NGC4051 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC4051_visit (18) (1) | 520 Secs (2208 Secs) [==>552.0 Secs (Pattern 1)] [==>552.0 Secs (Pattern 2)] [==>552.0 Secs (Pattern 3)] [==>552.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC4038 visit (19) - The Identification of Failed Supernovae

Wed Jun 19 18:13:41 GMT 2019

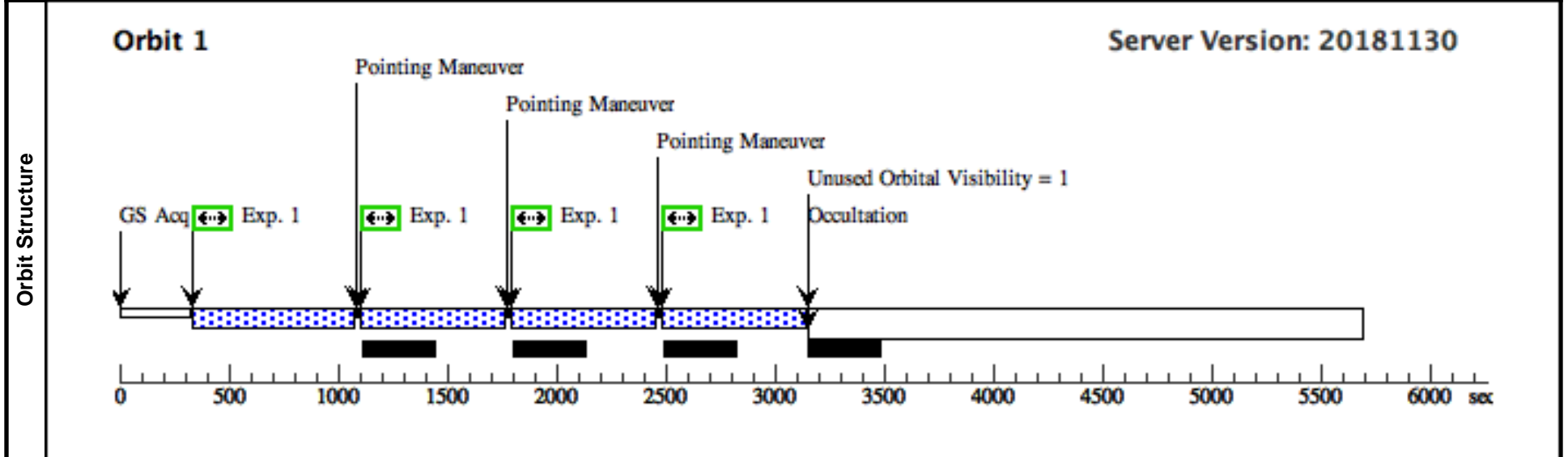
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC4038_visit (19), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|---------|--|--------------------------|---------|-----------------------|
| | (24) | NGC4038 | RA: 12 01 53.1150 (180.4713125d) Dec: -18 52 55.50 (-18.88208d) Equinox: J2000 | | V=11.20 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL, STARBURST]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|--------|--|----------------------|
| | 1 | ACS F814W | (24) NGC4038 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC4038_visit (19) (1) | 520 Secs (2128 Secs) |
| | | | | | | | | | [==>532.0 Secs (Pattern 1)] [==>532.0 Secs (Pattern 2)] [==>532.0 Secs (Pattern 3)] [==>532.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3810 visit (20) - The Identification of Failed Supernovae

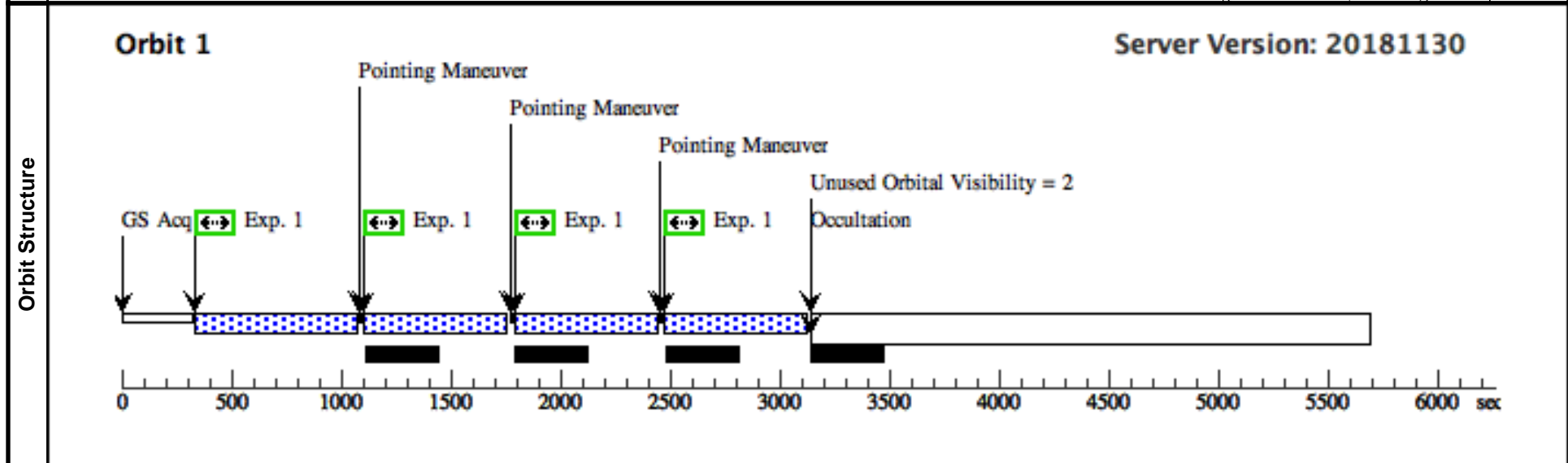
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC3810_visit (20), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|---------|---|--------------------------|--------|-----------------------|
| | (23) | NGC3810 | RA: 11 40 58.5390 (175.2439125d) Dec: +11 27 57.38 (11.46594d) Equinox: J2000 | | V=12.0 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (23) NGC3810 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC3810_visit (20) (1) | 520 Secs (2120 Secs) [=>530.0 Secs (Pattern 1)] [=>530.0 Secs (Pattern 2)] [=>530.0 Secs (Pattern 3)] [=>530.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3690 visit (21) - The Identification of Failed Supernovae

Wed Jun 19 18:13:41 GMT 2019

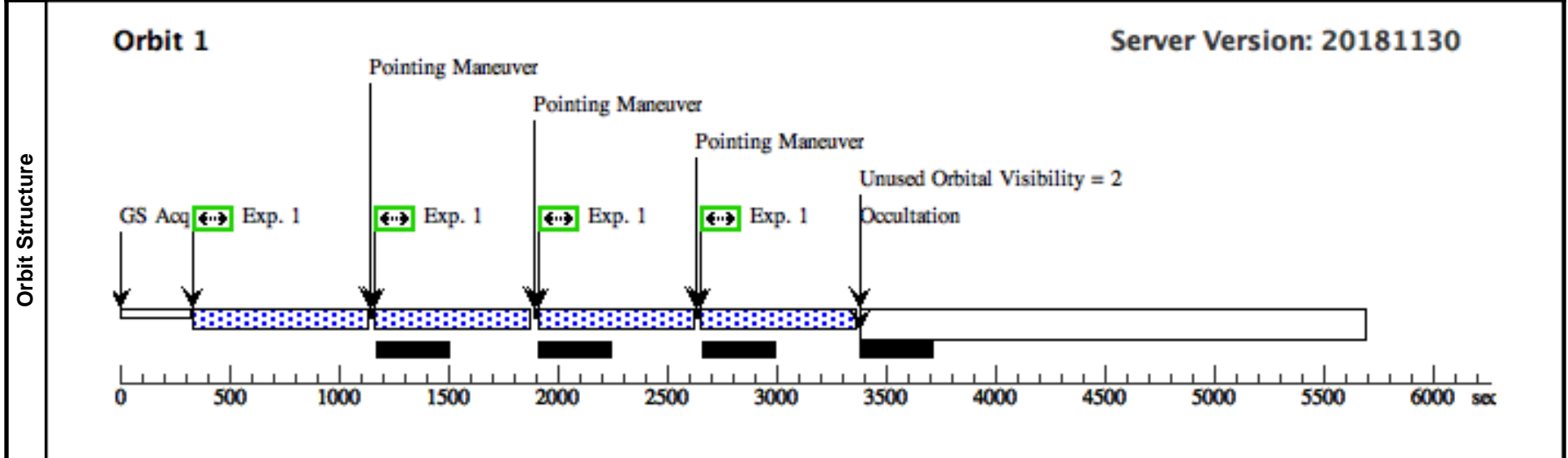
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC3690_visit (21), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|---------|---|--------------------------|--------|-----------------------|
| | (22) | NGC3690 | RA: 11 28 31.6900 (172.1320417d) Dec: +58 33 57.37 (58.56594d) Equinox: J2000 | | V=11.0 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[AMORPHOUS IRREGULAR, SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|--------------|--------------------------|---------------|--------------|---------------|-----------------------------|---|--|
| | 1 | ACS F814W | (22) NGC3690 | ACS/WFC, ACCUM, WFCENTER | F814W | | | GS ACQ SCENARI O BASE1B3 | Pattern 1, Exps 1-1 i n NGC3690_visit (2 1) (1) | 520 Secs (2360 Secs) [=>590.0 Secs (Pattern 1)] [=>590.0 Secs (Pattern 2)] [=>590.0 Secs (Pattern 3)] [=>590.0 Secs (Pattern 4)] |



Proposal 15645 - NGC628pos1 visit (22) - The Identification of Failed Supernovae

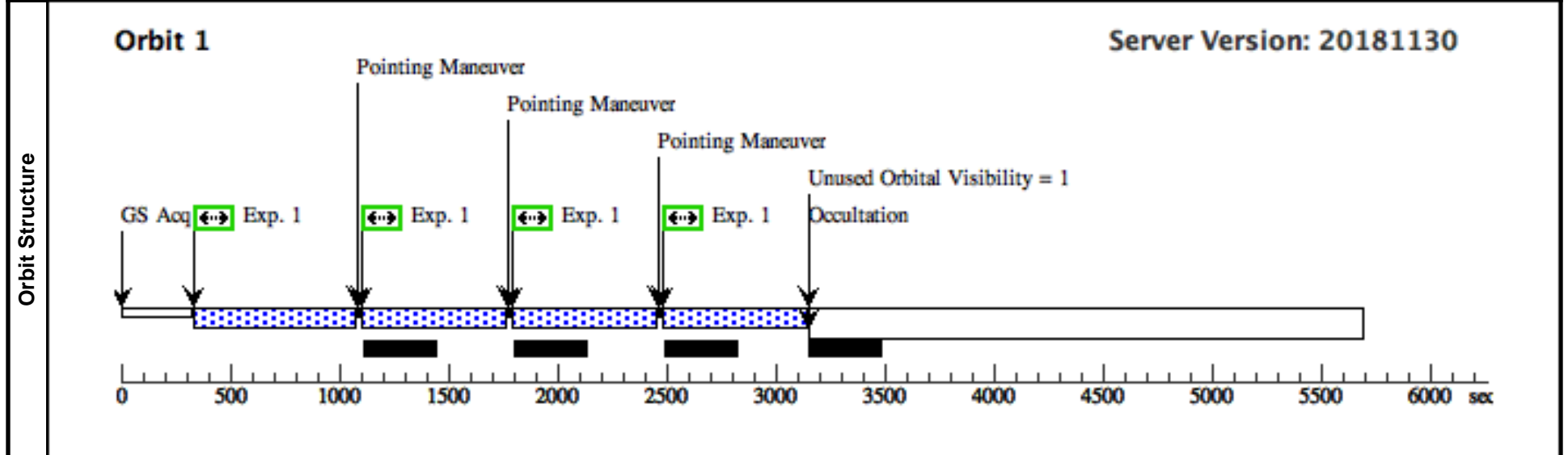
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC628pos1_visit (22), scheduled Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|------------|--|--------------------------|--------|-----------------------|
| | (1) | NGC628POS1 | RA: 01 36 51.6920 (24.2153833d) Dec: +15 45 50.74 (15.76409d) Equinox: J2000 | | V=9.0 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|----------------|--------------------------|---------------|--------------|---------------|--|--|-------|
| | 1 | ACS F814W | (1) NGC628POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC628pos1_visit (22) (1) | 520 Secs (2128 Secs) [==>532.0 Secs (Pattern 1)] [==>532.0 Secs (Pattern 2)] [==>532.0 Secs (Pattern 3)] [==>532.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC628pos2_visit (23) - The Identification of Failed Supernovae

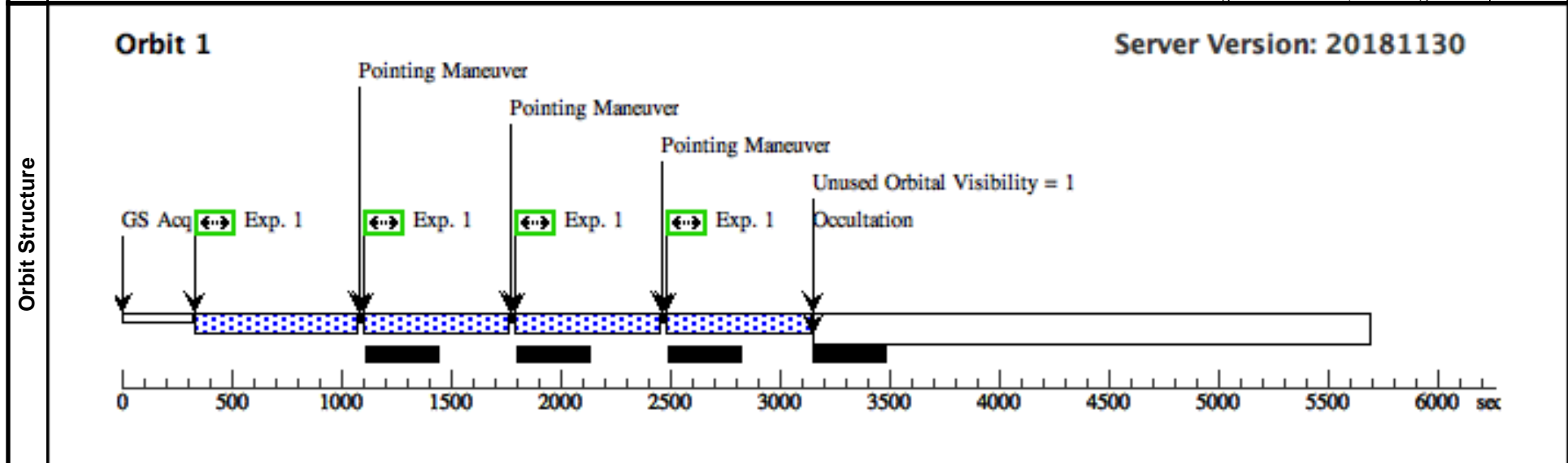
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC628pos2_visit (23), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|------------|--|--------------------------|--------|-----------------------|
| | (2) | NGC628POS2 | RA: 01 36 39.8810 (24.1661708d) Dec: +15 46 35.36 (15.77649d) Equinox: J2000 | | V=9.0 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|----------------|--------------------------|---------------|--------------|---------------|--|--|-------|
| | 1 | ACS F814W | (2) NGC628POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC628pos2_visit (23) (1) | 520 Secs (2128 Secs) [=>532.0 Secs (Pattern 1)] [=>532.0 Secs (Pattern 2)] [=>532.0 Secs (Pattern 3)] [=>532.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC2442pos1 visit (24) - The Identification of Failed Supernovae

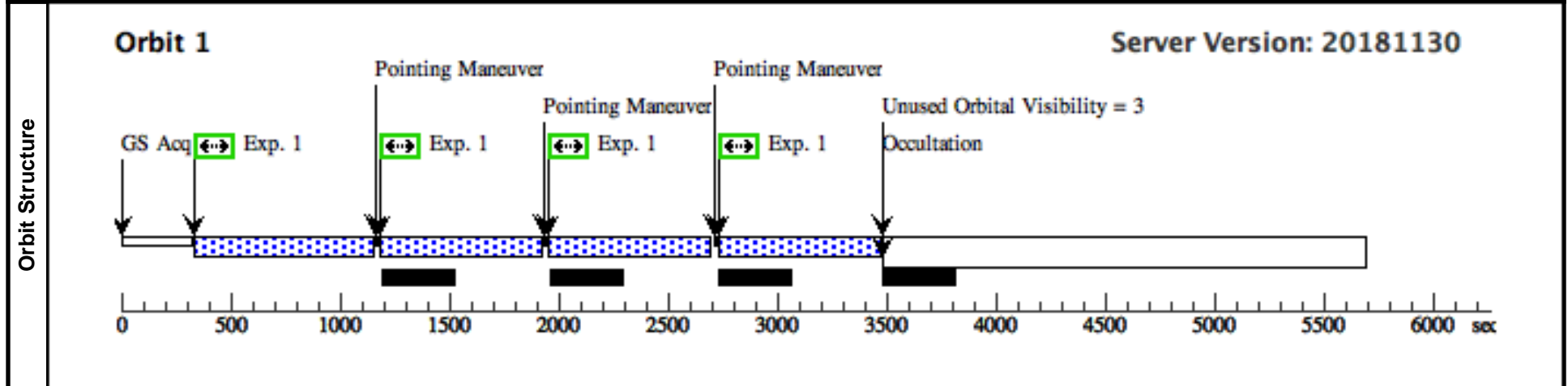
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC2442pos1_visit (24), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|---|--------------------------|--------|-----------------------|
| | (11) | NGC2442POS1 | RA: 07 36 8.0490 (114.0335375d) Dec: -69 30 30.58 (-69.50849d) Equinox: J2000 | | V=11.2 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (11) NGC2442POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC2442pos1_visit (24) (1) | 520 Secs (2456 Secs) [==>614.0 Secs (Pattern 1)] [==>614.0 Secs (Pattern 2)] [==>614.0 Secs (Pattern 3)] [==>614.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC2442pos2 visit (25) - The Identification of Failed Supernovae

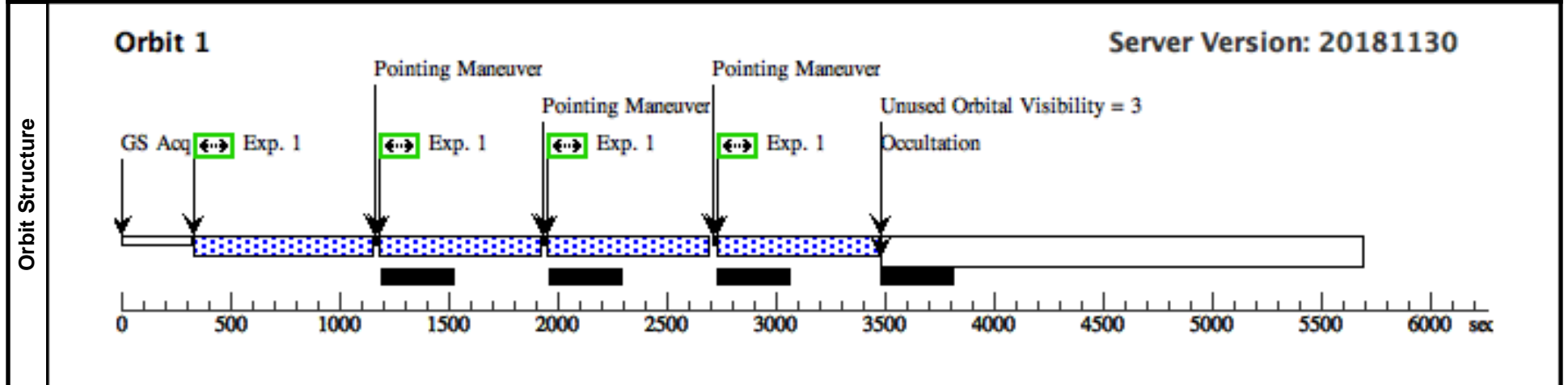
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC2442pos2_visit (25), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|--|--------------------------|--------|-----------------------|
| | (12) | NGC2442POS2 | RA: 07 36 17.7350 (114.0738958d) Dec: -69 33 19.63 (-69.55545d) Equinox: J2000 | | V=11.2 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (12) NGC2442POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC2442pos2_visit (25) (1) | 520 Secs (2456 Secs) [==>614.0 Secs (Pattern 1)] [==>614.0 Secs (Pattern 2)] [==>614.0 Secs (Pattern 3)] [==>614.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC2403pos1 visit (26) - The Identification of Failed Supernovae

Wed Jun 19 18:13:41 GMT 2019

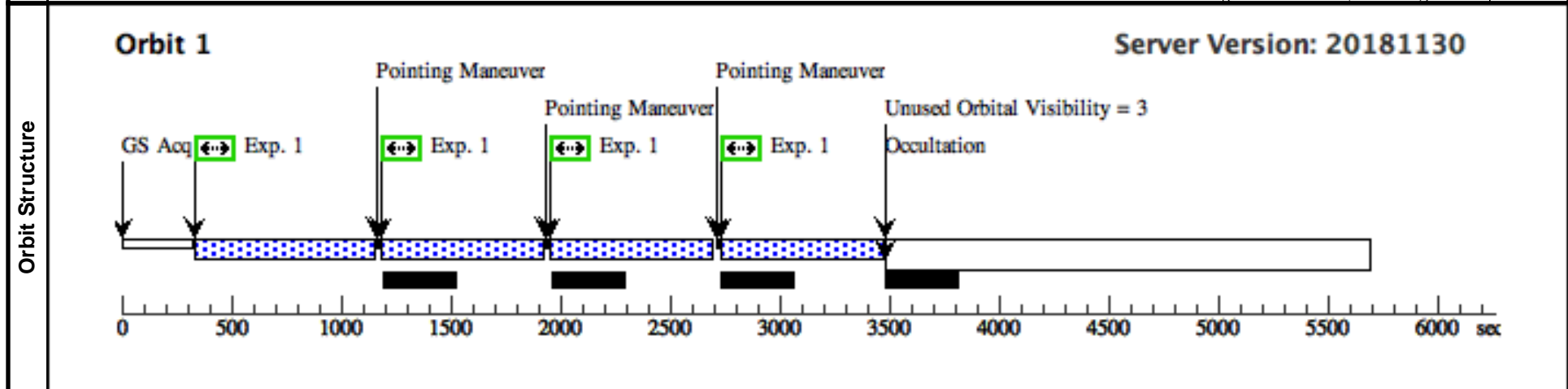
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC2403pos1_visit (26), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
|--------------|--|--|--|

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|-------------|---|--------------------------|--------|-----------------------|
| | (13) | NGC2403POS1 | RA: 07 36 33.5090 (114.1396208d) Dec: +65 37 29.22 (65.62478d) Equinox: J2000 | | V=8.5 | Reference Frame: ICRS |

Comments:
Category=GALAXY
Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (13) NGC2403POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC2403pos1_visit (26) (1) | 520 Secs (2456 Secs) [==>614.0 Secs (Pattern 1)] [==>614.0 Secs (Pattern 2)] [==>614.0 Secs (Pattern 3)] [==>614.0 Secs (Pattern 4)] |



Proposal 15645 - NGC2403pos2 visit (27) - The Identification of Failed Supernovae

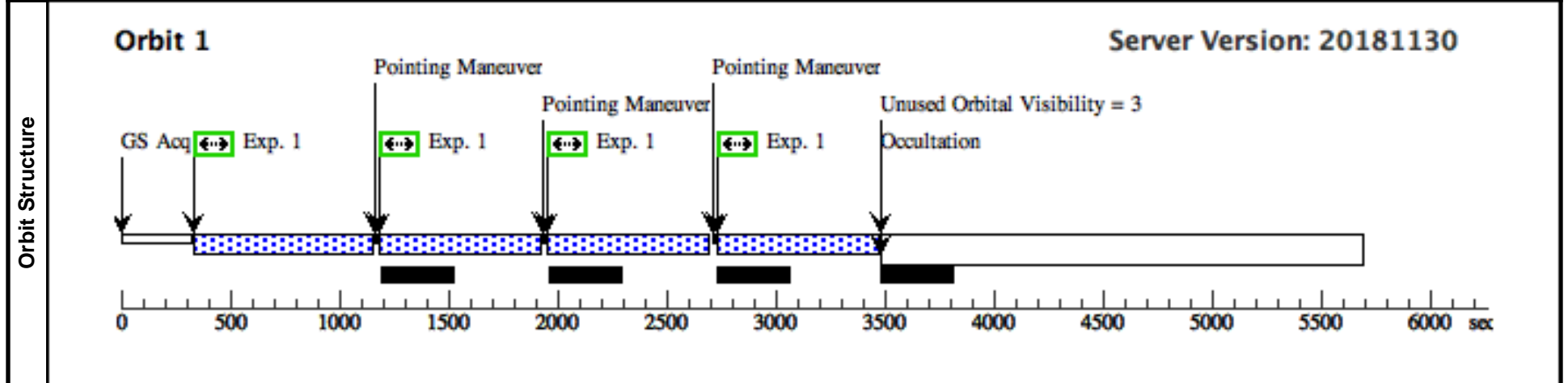
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC2403pos2_visit (27), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|---|--------------------------|--------|-----------------------|
| | (14) | NGC2403POS2 | RA: 07 37 4.8030 (114.2700125d) Dec: +65 37 0.35 (65.61676d) Equinox: J2000 | | V=8.5 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (14) NGC2403POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC2403pos2_visit (27) (1) | 520 Secs (2456 Secs) [==>614.0 Secs (Pattern 1)] [==>614.0 Secs (Pattern 2)] [==>614.0 Secs (Pattern 3)] [==>614.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3034pos1 visit (28) - The Identification of Failed Supernovae

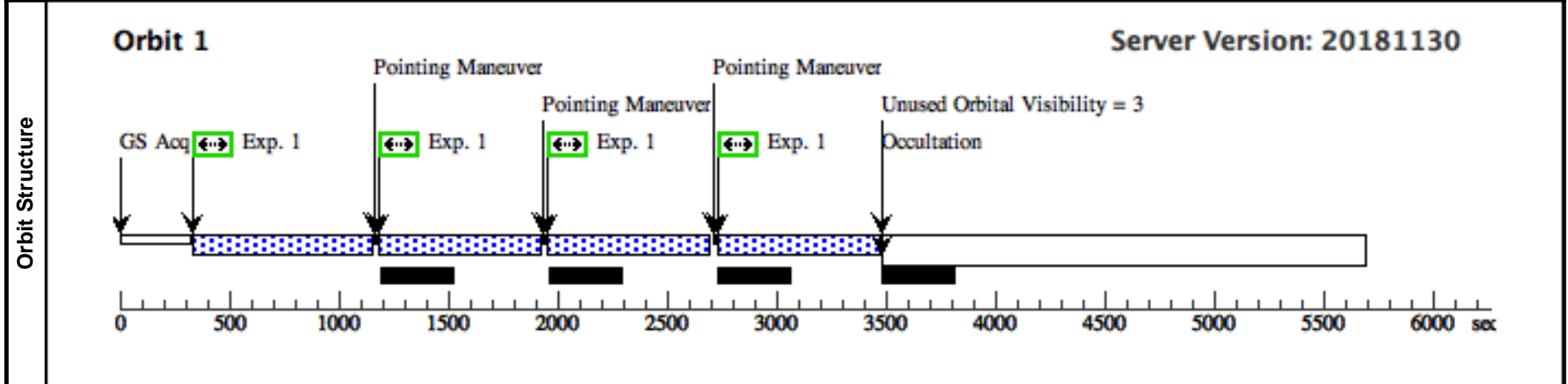
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC3034pos1_visit (28), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|--|--------------------------|--------|-----------------------|
| | (16) | NGC3034POS1 | RA: 09 56 8.8980 (149.0370750d) Dec: +69 41 27.82 (69.69106d) Equinox: J2000 | | V=9.5 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (16) NGC3034POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC3034pos1_visit (28) (1) | 520 Secs (2456 Secs) [==>614.0 Secs (Pattern 1)] [==>614.0 Secs (Pattern 2)] [==>614.0 Secs (Pattern 3)] [==>614.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3034pos2 visit (29) - The Identification of Failed Supernovae

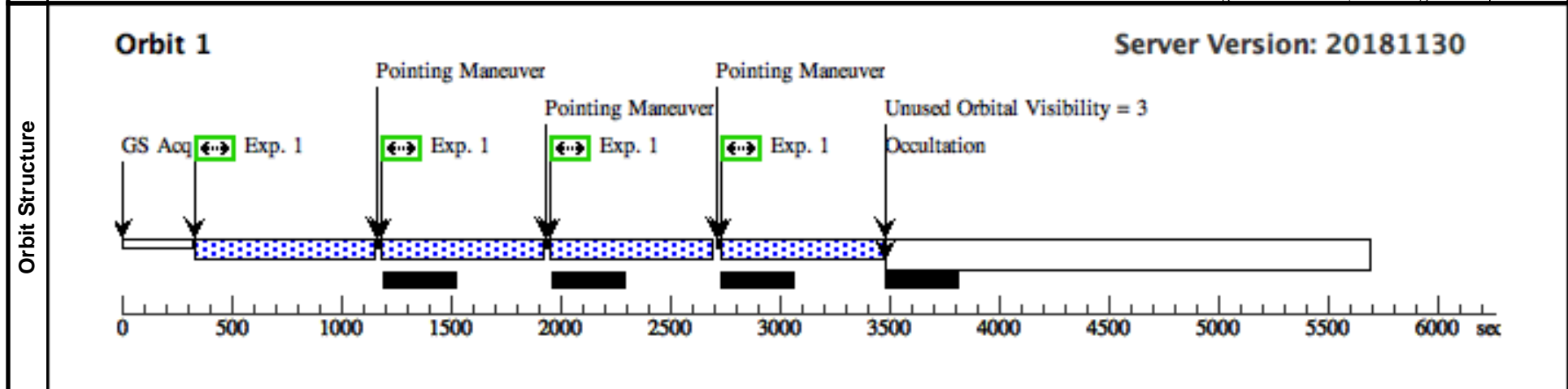
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC3034pos2_visit (29), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|---|--------------------------|--------|-----------------------|
| | (17) | NGC3034POS2 | RA: 09 55 40.0280 (148.9167833d) Dec: +69 40 31.71 (69.67548d) Equinox: J2000 | | V=9.5 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (17) NGC3034POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC3034pos2_visit (29) (1) | 520 Secs (2456 Secs) [==>614.0 Secs (Pattern 1)] [==>614.0 Secs (Pattern 2)] [==>614.0 Secs (Pattern 3)] [==>614.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3079pos1 visit (30) - The Identification of Failed Supernovae

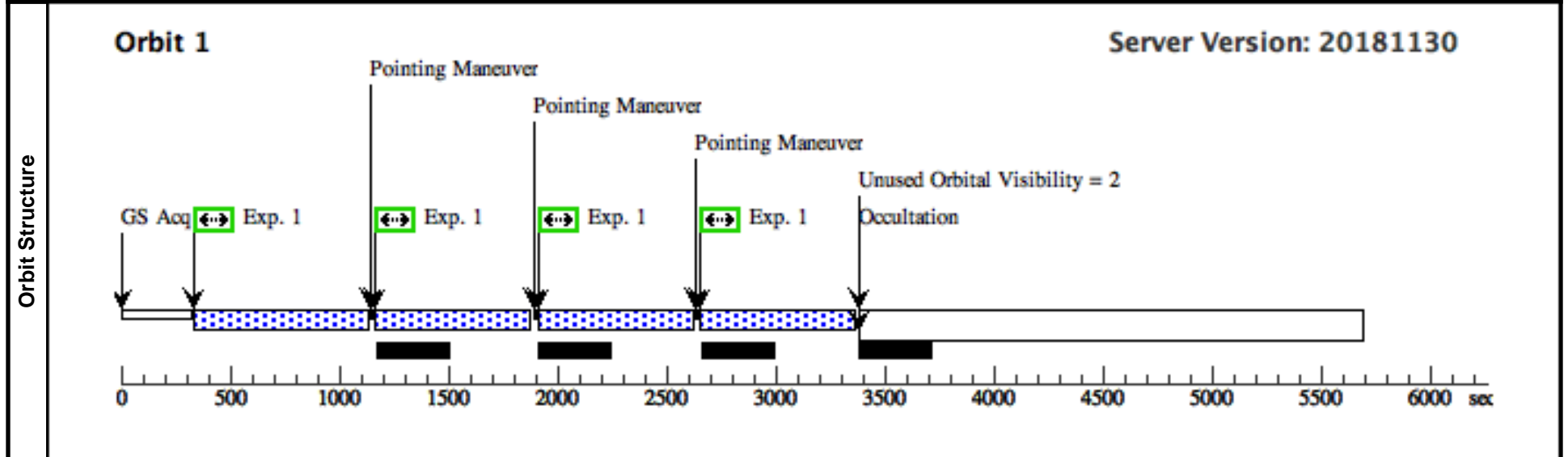
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC3079pos1_visit (30), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|--|-------------|---|--------------------------|--------|-----------------------|
| | (18) | NGC3079POS1 | RA: 10 01 56.1150 (150.4838125d) Dec: +55 41 50.09 (55.69725d) Equinox: J2000 | | V=10.2 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL, STARBURST] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (18) NGC3079POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC3079pos1_visit (30) (1) | 520 Secs (2360 Secs) | |
| | | | | | | | | | [==>590.0 Secs (Pattern 1)] [==>590.0 Secs (Pattern 2)] [==>590.0 Secs (Pattern 3)] [==>590.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC3079pos2 visit (31) - The Identification of Failed Supernovae

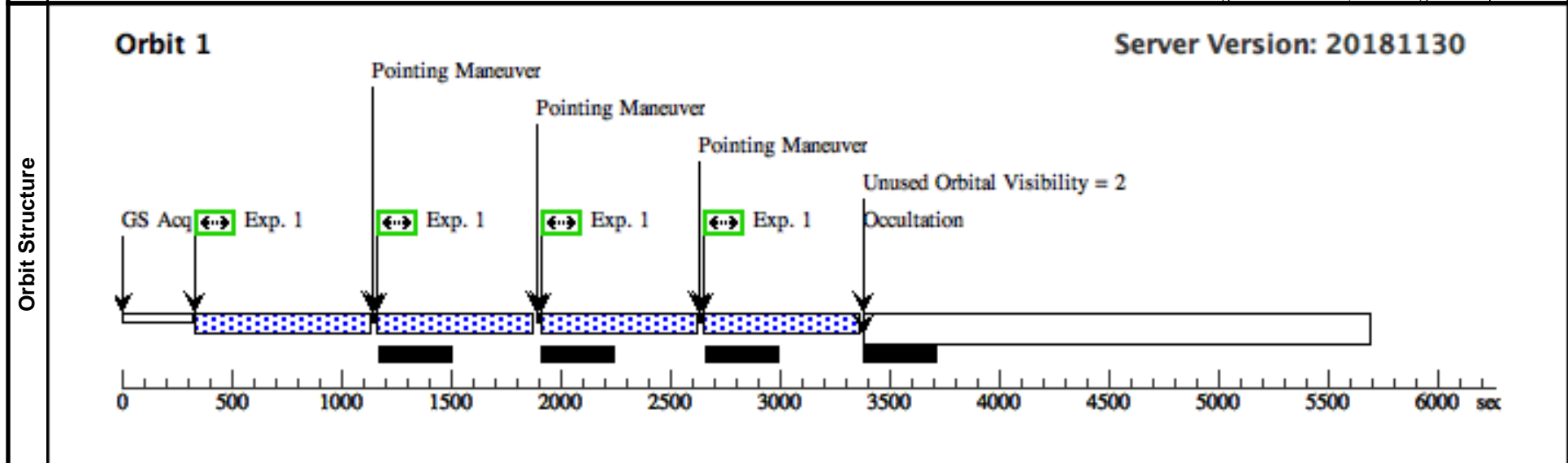
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC3079pos2_visit (31), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|--|-------------|---|--------------------------|--------|-----------------------|
| | (19) | NGC3079POS2 | RA: 10 01 59.4920 (150.4978833d) Dec: +55 39 21.55 (55.65599d) Equinox: J2000 | | V=10.2 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL, STARBURST] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (19) NGC3079POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC3079pos2_visit (31) (1) | 520 Secs (2360 Secs) [==>590.0 Secs (Pattern 1)] [==>590.0 Secs (Pattern 2)] [==>590.0 Secs (Pattern 3)] [==>590.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC4258pos1 visit (32) - The Identification of Failed Supernovae

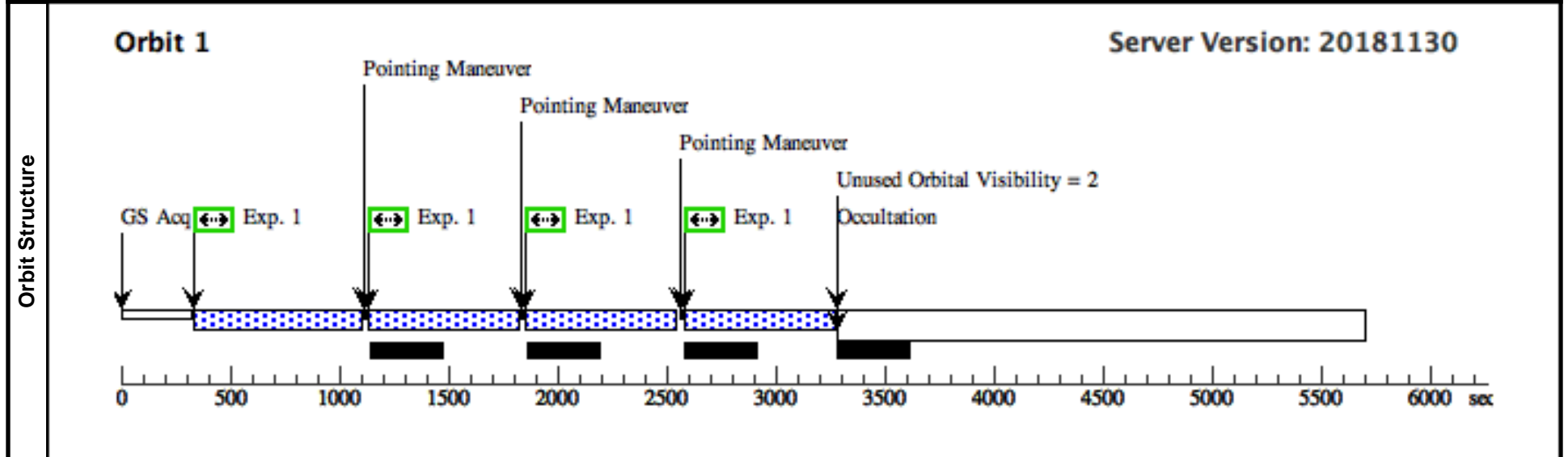
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC4258pos1_visit (32), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|---|--------------------------|--------|-----------------------|
| | (26) | NGC4258POS1 | RA: 12 19 1.4340 (184.7559750d) Dec: +47 17 2.87 (47.28413d) Equinox: J2000 | | V=9.0 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|-----------------------------|---|--|-------|
| | 1 | ACS F814W | (26) NGC4258POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | GS ACQ SCENARI O BASE1B3 | Pattern 1, Exps 1-1 i n NGC4258pos1_vis it (32) (1) | 520 Secs (2256 Secs) [==>564.0 Secs (Pattern 1)] [==>564.0 Secs (Pattern 2)] [==>564.0 Secs (Pattern 3)] [==>564.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC4258pos2 visit (33) - The Identification of Failed Supernovae

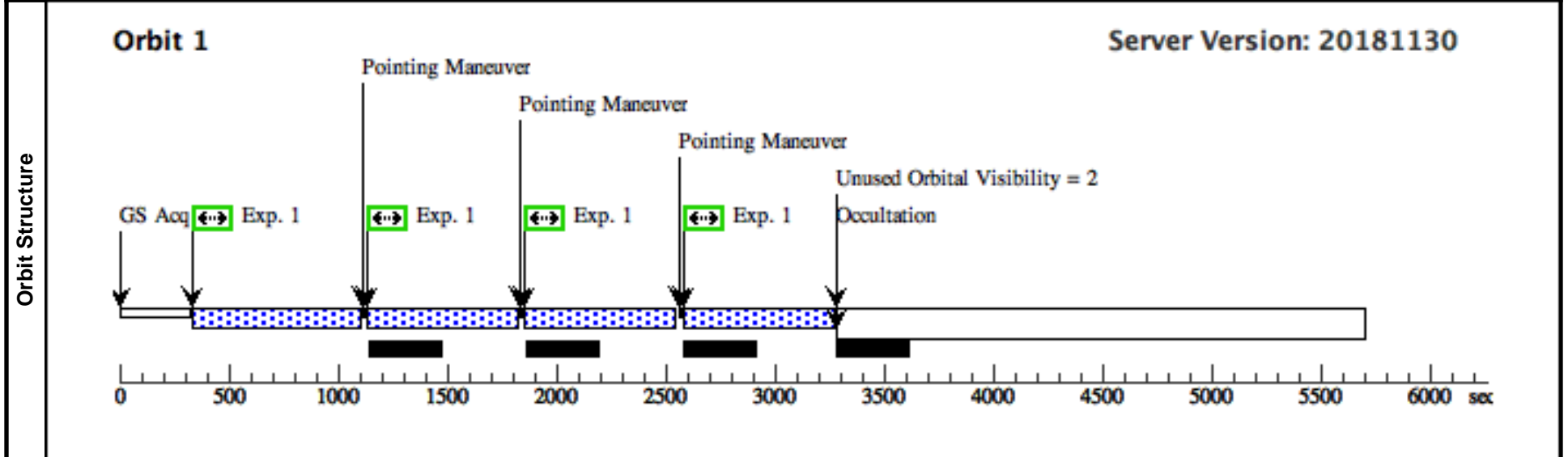
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC4258pos2_visit (33), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|------|-------------|---|--------------------------|--------|-----------------------|
| | (27) | NGC4258POS2 | RA: 12 18 55.3970 (184.7308208d) Dec: +47 19 22.85 (47.32301d) Equinox: J2000 | | V=9.0 | Reference Frame: ICRS |
| <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (27) NGC4258POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC4258pos2_visit (33) (1) | 520 Secs (2256 Secs) [=>564.0 Secs (Pattern 1)] [=>564.0 Secs (Pattern 2)] [=>564.0 Secs (Pattern 3)] [=>564.0 Secs (Pattern 4)] |



Proposal 15645 - NGC5194pos1 visit (34) - The Identification of Failed Supernovae

Wed Jun 19 18:13:41 GMT 2019

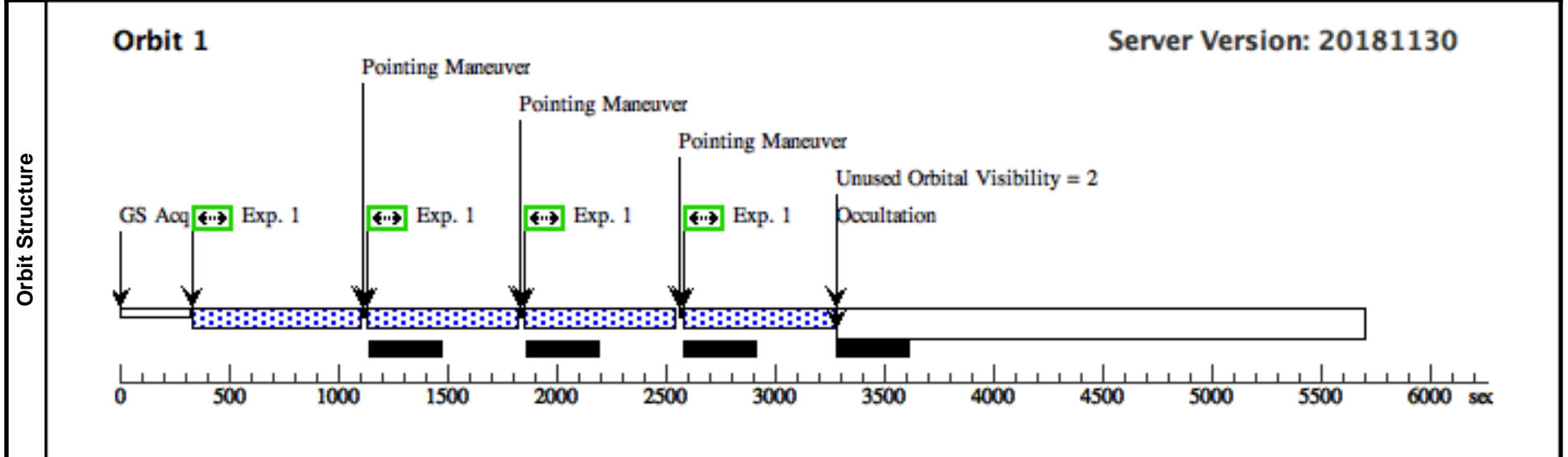
| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC5194pos1_visit (34), completed | | |
| | Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|-------------|--|--------------------------|--------|-----------------------|
| | (33) | NGC5194POS1 | RA: 13 30 1.2990 (202.5054125d) Dec: +47 09 39.50 (47.16097d) Equinox: J2000 | | V=9.5 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|----------------|-------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W (33) | NGC5194POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC5194pos1_visit (34) (1) | 520 Secs (2256 Secs) [==>564.0 Secs (Pattern 1)] [==>564.0 Secs (Pattern 2)] [==>564.0 Secs (Pattern 3)] [==>564.0 Secs (Pattern 4)] |



Proposal 15645 - NGC5194pos2 visit (35) - The Identification of Failed Supernovae

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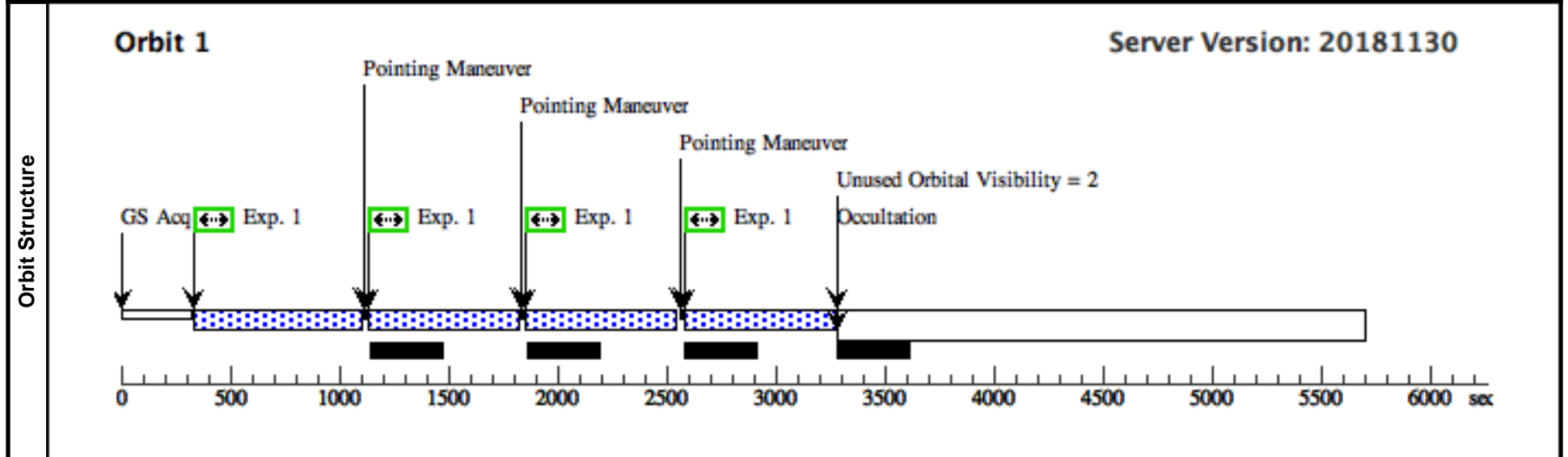
| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC5194pos2_visit (35), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|-------------|--|--------------------------|--------|-----------------------|
| | (34) | NGC5194POS2 | RA: 13 30 1.6400 (202.5068333d) Dec: +47 12 54.14 (47.21504d) Equinox: J2000 | | V=9.5 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (34) NGC5194POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC5194pos2_visit (35) (1) | 520 Secs (2256 Secs) [=>564.0 Secs (Pattern 1)] [=>564.0 Secs (Pattern 2)] [=>564.0 Secs (Pattern 3)] [=>564.0 Secs (Pattern 4)] |



Proposal 15645 - NGC6946pos1 visit (36) - The Identification of Failed Supernovae

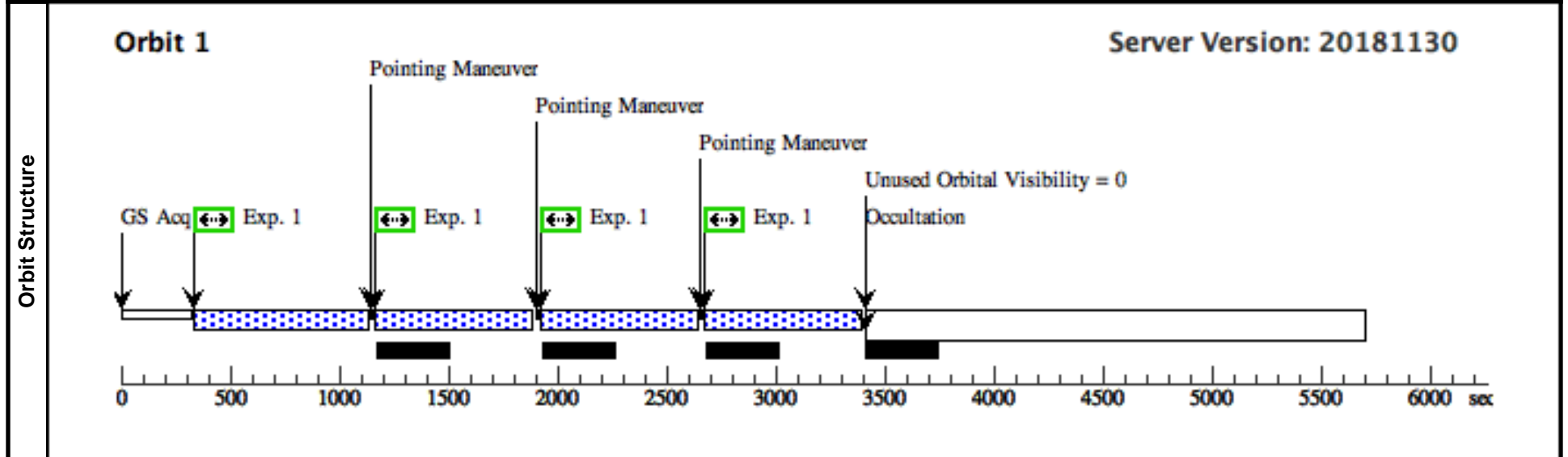
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC6946pos1_visit (36), failed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|---|--------------------------|--------|-----------------------|
| | (36) | NGC6946POS1 | RA: 20 34 52.5500 (308.7189583d) Dec: +60 09 16.11 (60.15447d) Equinox: J2000 | | V=8.7 | Reference Frame: ICRS |
| | <i>Comments:</i> Category=GALAXY Description=[SPIRAL] | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|---|--|-------|
| | 1 | ACS F814W | (36) NGC6946POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC6946pos1_visit (36) (1) | 520 Secs (2384 Secs) | |
| | | | | | | | | | [==>596.0 Secs (Pattern 1)] [==>596.0 Secs (Pattern 2)] [==>596.0 Secs (Pattern 3)] [==>596.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC6946pos1 visit (86) - The Identification of Failed Supernovae

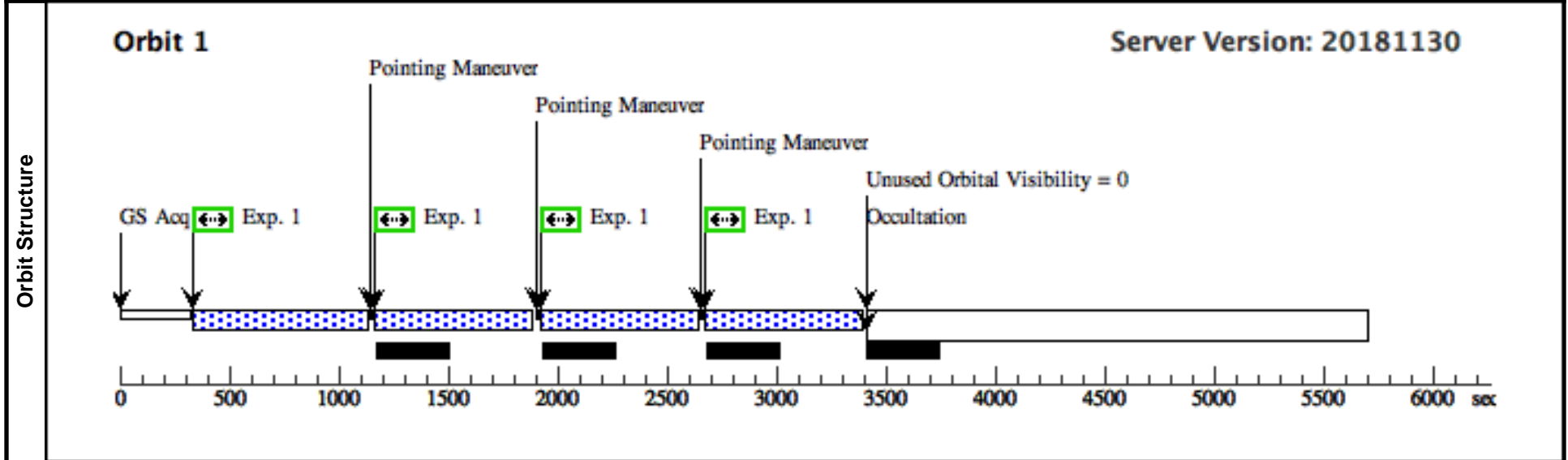
Wed Jun 19 18:13:41 GMT 2019

| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC6946pos1_visit (86) Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) <i>Comments: Repeat of Viist 36</i> | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | (1) |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|---|-------------|---|--------------------------|--------|-----------------------|
| | (36) | NGC6946POS1 | RA: 20 34 52.5500 (308.7189583d) Dec: +60 09 16.11 (60.15447d) Equinox: J2000 | | V=8.7 | Reference Frame: ICRS |
| | <i>Comments: Category=GALAXY Description=[SPIRAL]</i> | | | | | |

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|--|--|-------|
| | 1 | ACS F814W | (36) NGC6946POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | Pattern 1, Exps 1-1 in NGC6946pos1_visit (86) (1) | 520 Secs (2384 Secs) [==>596.0 Secs (Pattern 1)] [==>596.0 Secs (Pattern 2)] [==>596.0 Secs (Pattern 3)] [==>596.0 Secs (Pattern 4)] | [1] |



Proposal 15645 - NGC6946pos2 visit (37) - The Identification of Failed Supernovae

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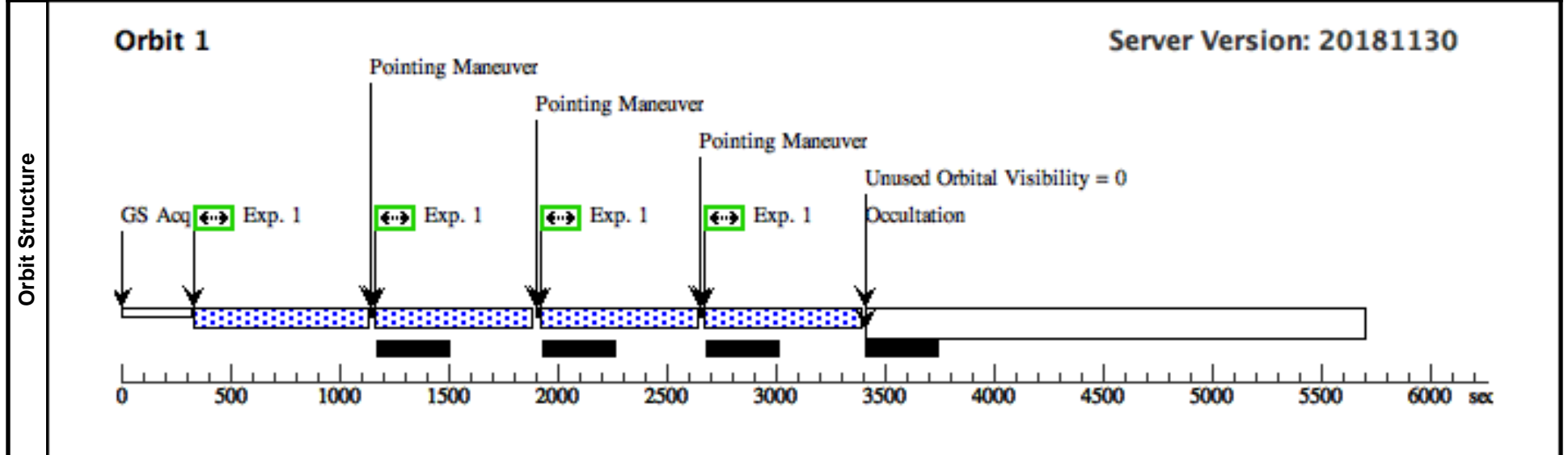
| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC6946pos2_visit (37), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|------|-------------|---|--------------------------|--------|-----------------------|
| | (37) | NGC6946POS2 | RA: 20 35 12.7930 (308.8033042d) Dec: +60 11 42.43 (60.19512d) Equinox: J2000 | | V=8.7 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|------------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (37) NGC6946POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC6946pos2_visit (37) (1) | 520 Secs (2384 Secs) [=>596.0 Secs (Pattern 1)] [=>596.0 Secs (Pattern 2)] [=>596.0 Secs (Pattern 3)] [=>596.0 Secs (Pattern 4)] |



Proposal 15645 - NGC1097pos1 visit (38) - The Identification of Failed Supernovae

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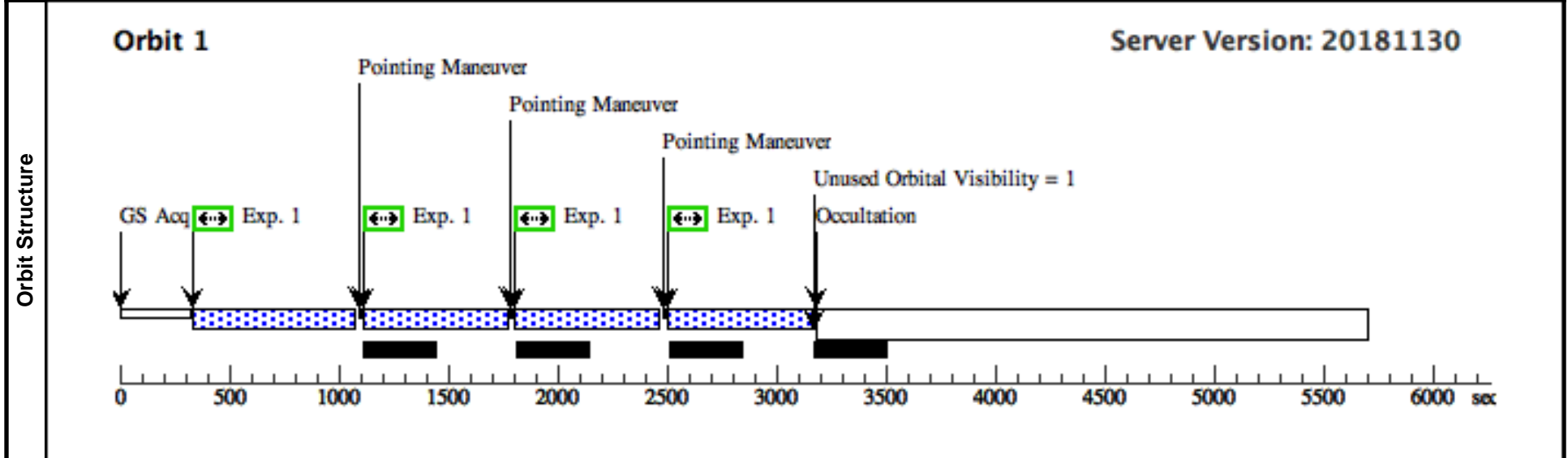
| | | | |
|--------------|---|--|--|
| Visit | Proposal 15645, NGC1097pos1_visit (38), completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: (none) | | |
| | | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|-----|-------------|---|--------------------------|--------|-----------------------|
| | (5) | NGC1097POS1 | RA: 02 46 16.7680 (41.5698667d) Dec: -30 15 38.42 (-30.26067d) Equinox: J2000 | | V=10.5 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|---------------|-------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W (5) | NGC1097POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC1097pos1_visit (38) (1) | 520 Secs (2152 Secs) [=>538.0 Secs (Pattern 1)] [=>538.0 Secs (Pattern 2)] [=>538.0 Secs (Pattern 3)] [=>538.0 Secs (Pattern 4)] |



Proposal 15645 - NGC1097pos2 visit (39) - The Identification of Failed Supernovae

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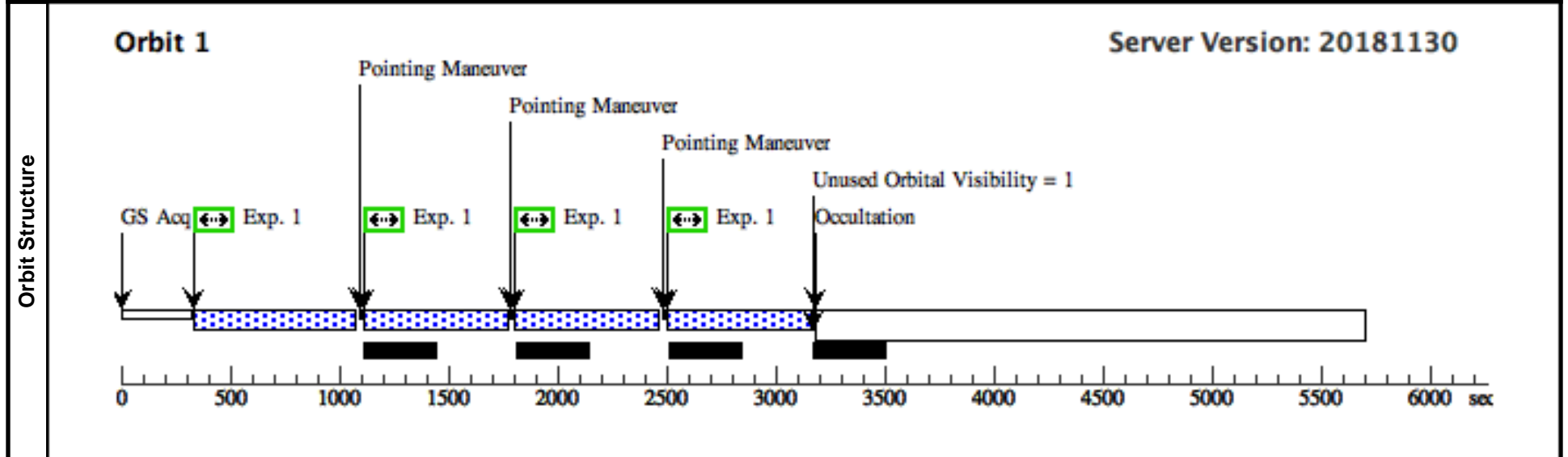
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC1097pos2_visit (39), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|-----|-------------|---|--------------------------|--------|-----------------------|
| | (6) | NGC1097POS2 | RA: 02 46 25.4400 (41.6060000d) Dec: -30 17 38.81 (-30.29411d) Equinox: J2000 | | V=10.5 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|-----------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (6) NGC1097POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC1097pos2_visit (39) (1) | 520 Secs (2152 Secs) [=>538.0 Secs (Pattern 1)] [=>538.0 Secs (Pattern 2)] [=>538.0 Secs (Pattern 3)] [=>538.0 Secs (Pattern 4)] |



Proposal 15645 - NGC1365pos1 visit (40) - The Identification of Failed Supernovae

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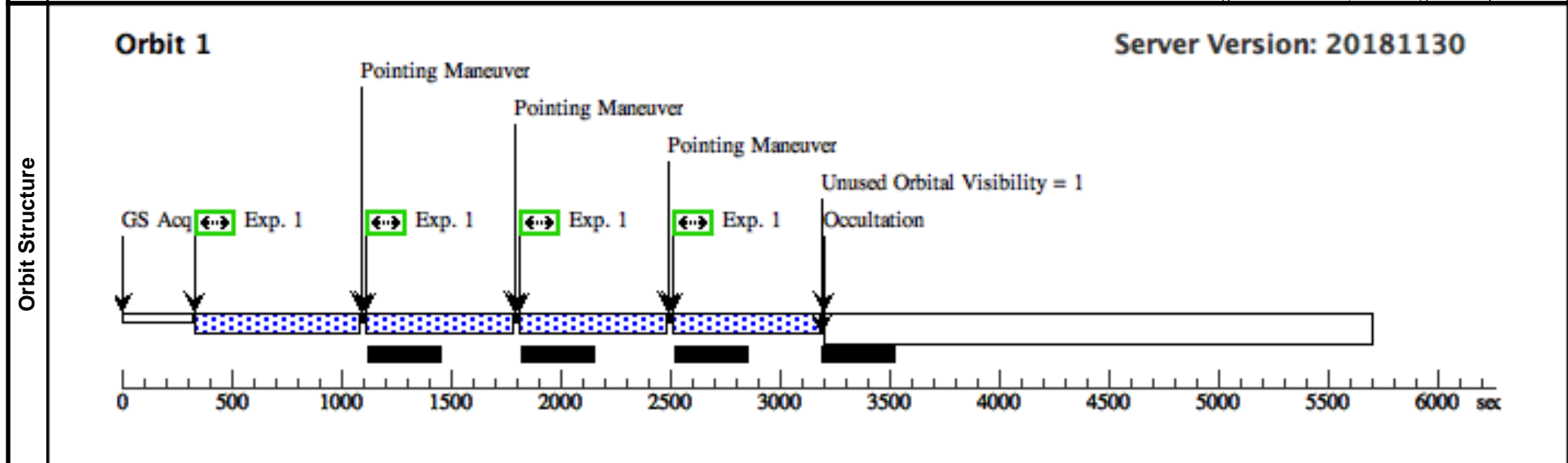
| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC1365pos1_visit (40), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|-----|-------------|---|--------------------------|--------|-----------------------|
| | (8) | NGC1365POS1 | RA: 03 33 45.4920 (53.4395500d) Dec: -36 09 14.90 (-36.15414d) Equinox: J2000 | | V=10.5 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|-----------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (8) NGC1365POS1 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC1365pos1_visit (40) (1) | 520 Secs (2172 Secs) [==>543.0 Secs (Pattern 1)] [==>543.0 Secs (Pattern 2)] [==>543.0 Secs (Pattern 3)] [==>543.0 Secs (Pattern 4)] |



Proposal 15645 - NGC1365pos2 visit (41) - The Identification of Failed Supernovae

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| | | | |
|--------------|--|--|--|
| Visit | Proposal 15645, NGC1365pos2_visit (41), completed | | |
| | Diagnostic Status: No Diagnostics | | |
| | Scientific Instruments: ACS/WFC | | |
| | Special Requirements: (none) | | |

| Patterns | # | Primary Pattern | Secondary Pattern | Exposures |
|-----------------|-----|--|---|-----------|
| | (1) | Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192 | Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false | |

| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|----------------------|-----|-------------|---|--------------------------|--------|-----------------------|
| | (9) | NGC1365POS2 | RA: 03 33 34.0820 (53.3920083d) Dec: -36 08 39.27 (-36.14424d) Equinox: J2000 | | V=10.5 | Reference Frame: ICRS |

Comments:
 Category=GALAXY
 Description=[SPIRAL]

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|------------------|---|-----------|-----------------|--------------------------|---------------|--------------|---------------|--------|---|--|
| | 1 | ACS F814W | (9) NGC1365POS2 | ACS/WFC, ACCUM, WFCENTER | F814W | | | | Pattern 1, Exps 1-1 in NGC1365pos2_visit (41) (1) | 520 Secs (2172 Secs) [==>543.0 Secs (Pattern 1)] [==>543.0 Secs (Pattern 2)] [==>543.0 Secs (Pattern 3)] [==>543.0 Secs (Pattern 4)] |

