



## 12513 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

Cycle: 19, Proposal Category: GO

(Availability Mode: SUPPORTED)

### INVESTIGATORS

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

| <i>Visit</i> | <i>Targets used in Visit</i> | <i>Configurations used in Visit</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 01           | (1) M83-F3<br>ANY            | ACS/WFC<br>WFC3/UVIS                | 3                  | 03-Aug-2012 21:02:04.0        | yes                           |
| 02           | (1) M83-F3<br>ANY            | ACS/WFC<br>WFC3/IR<br>WFC3/UVIS     | 4                  | 03-Aug-2012 21:02:32.0        | yes                           |
| 03           | (2) M83-F4<br>ANY            | ACS/WFC<br>WFC3/UVIS                | 3                  | 03-Aug-2012 21:02:55.0        | 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> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 04           | (2) M83-F4<br>ANY            | ACS/WFC<br>WFC3/IR<br>WFC3/UVIS     | 4                  | 03-Aug-2012 21:03:22.0        | yes                           |
| 05           | (3) M83-F5<br>ANY            | ACS/WFC<br>WFC3/UVIS                | 3                  | 03-Aug-2012 21:03:43.0        | yes                           |
| 06           | (3) M83-F5<br>ANY            | ACS/WFC<br>WFC3/IR<br>WFC3/UVIS     | 4                  | 03-Aug-2012 21:04:07.0        | yes                           |
| 07           | (4) M83-F6<br>ANY            | ACS/WFC<br>WFC3/UVIS                | 3                  | 03-Aug-2012 21:04:28.0        | yes                           |
| 08           | (4) M83-F6<br>ANY            | ACS/WFC<br>WFC3/IR<br>WFC3/UVIS     | 4                  | 03-Aug-2012 21:04:54.0        | yes                           |
| 09           | (5) M83-F7<br>ANY            | ACS/WFC<br>WFC3/UVIS                | 3                  | 03-Aug-2012 21:05:15.0        | yes                           |
| 10           | (5) M83-F7<br>ANY            | ACS/WFC<br>WFC3/IR<br>WFC3/UVIS     | 4                  | 03-Aug-2012 21:05:37.0        | yes                           |

35 Total Orbits Used

## **ABSTRACT**

The grand-design spiral starburst galaxy M83 is nearby (4.5 Mpc), face-on, and the host to six SNe since 1923--making it an exceptional laboratory for studying the life cycle of massive stars. Starting with their birth in star clusters, continuing with dissolution of most clusters and transfer of the stars to the field, and ending with their demise as SNe to produce a population of SNRs and X-ray binaries, massive stars provide most of the "action" in galaxies. Data from two Early Release Science fields demonstrate WFC3's value for exploring the environments of massive stars and finding supernova remnants in M83. We propose broad- and narrow-band WFC3 imaging of an additional five fields to complete coverage of M83's bright optical disk. When combined with a deep (750 ks) Chandra observation now underway and a recently approved deep radio survey from ATCA, our program will provide the most detailed

## Proposal 12513 (STScI Edit Number: 1, Created: Friday, August 3, 2012 8:05:49 PM EST) - Overview

multiwavelength study of any spiral galaxy. Our primary goals are to: 1) dissect how clusters form and then dissolve into the field, using precision age dating techniques WFC3 enables; 2) investigate the X-ray binary population by identifying optical counterparts and exploring their local star-formation history; 3) characterize an unprecedented sample of over 300 SNRs and use them as probes of galactic structure; and 4) relate clusters and SNRs to the extensive diffuse X-ray emission in M83. Besides these specific goals, this data set will have great archival value for other many future studies, including identification of the progenitors of new SNe--expected every decade or so in this supernova factory.

### **OBSERVING DESCRIPTION**

WFC3 UVIS and IR data are requested for five new, overlapping fields in M83. A range of broadband and narrow band filters are used for each field, and all fields should be exact duplicates of each other in terms of exposures. The five fields need to merge with two existing WFC3 fields in M83 (obtained as part of WFC3 SOC ERS program 11360, Robert O'Connell PI) to form the desired grid of fields covering the majority of the bright optical disk of galaxy M83. ACS/WFC coordinated parallels in broadband filters are requested for each field.

Each field/filter is dithered by three positions, designed to cover the chip gap and provide sub-pixel dithering (WFC3-UVIS), A standard pattern is used but with non-default step sizes. For WFC3-IR, three exposures with each filter are also obtained. Again, a standard pattern is used but with customized step sizes. Larger steps are used to partially cover the region of WFC3-UVIS FOV that would otherwise be missed, but again sub-pixel dithering is taken into consideration. The ACS parallel data of these fields will also be dithered, but by the amounts driven by the primary (WFC3) exposures.

Two visits are used for each field, totaling 10 visits. A single orbit visit (visit 11) uses the final orbit of our allocation and goes deeper with the WFC3-IR setup on field 5.

### **ADDITIONAL COMMENTS**

Individual fields can, in principle, be scheduled at roll angles which are modulo 180 degrees from the existing fields, which would place the ACS parallel fields at different positions around the bright disk of M83. This is not a requirement and is not even necessarily a desired outcome, but would be acceptable for the parallel science. However, once a given field is started, all data for that field should be obtained at the same orientation.

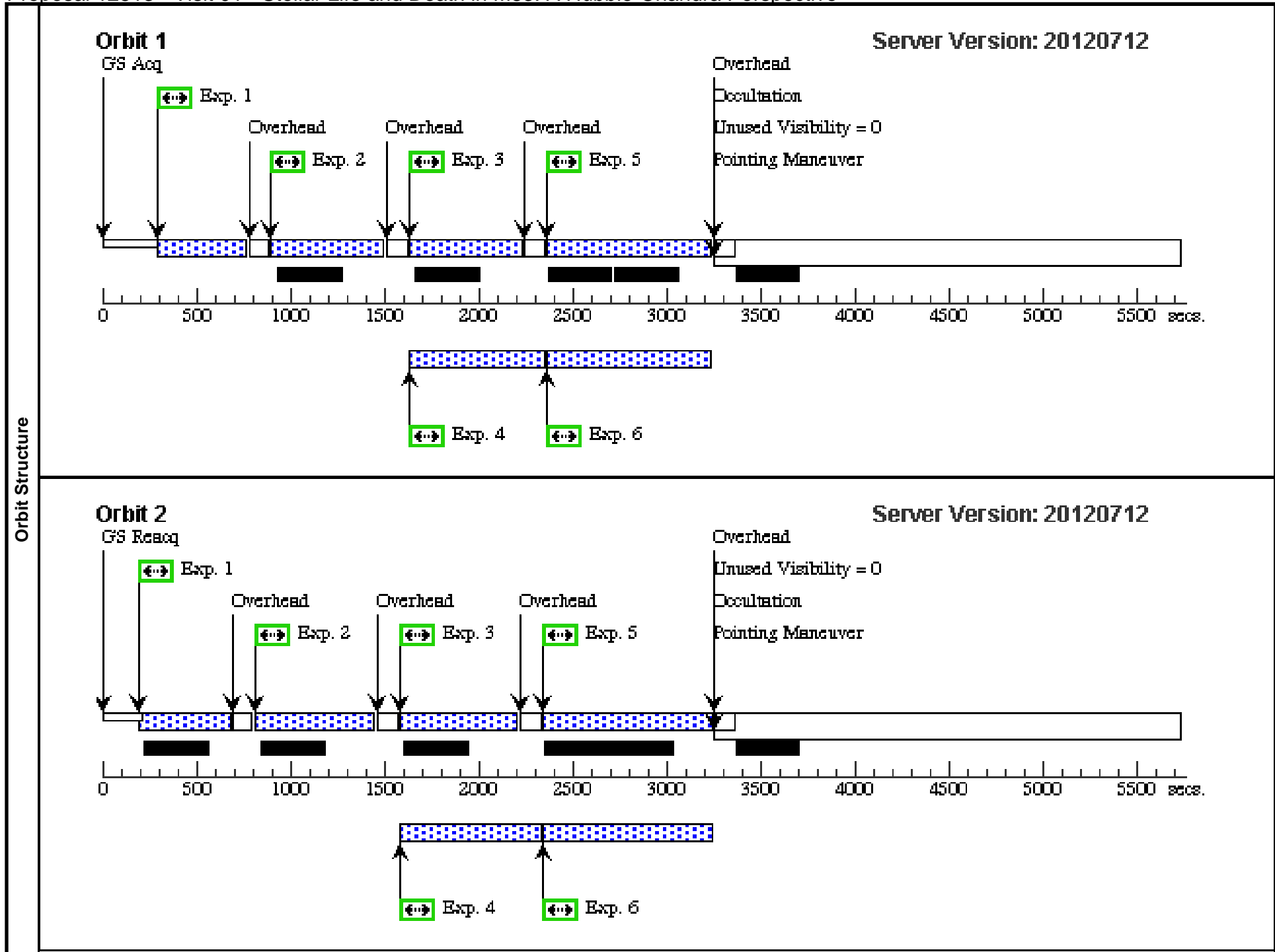
Proposal 12513 - Visit 01 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

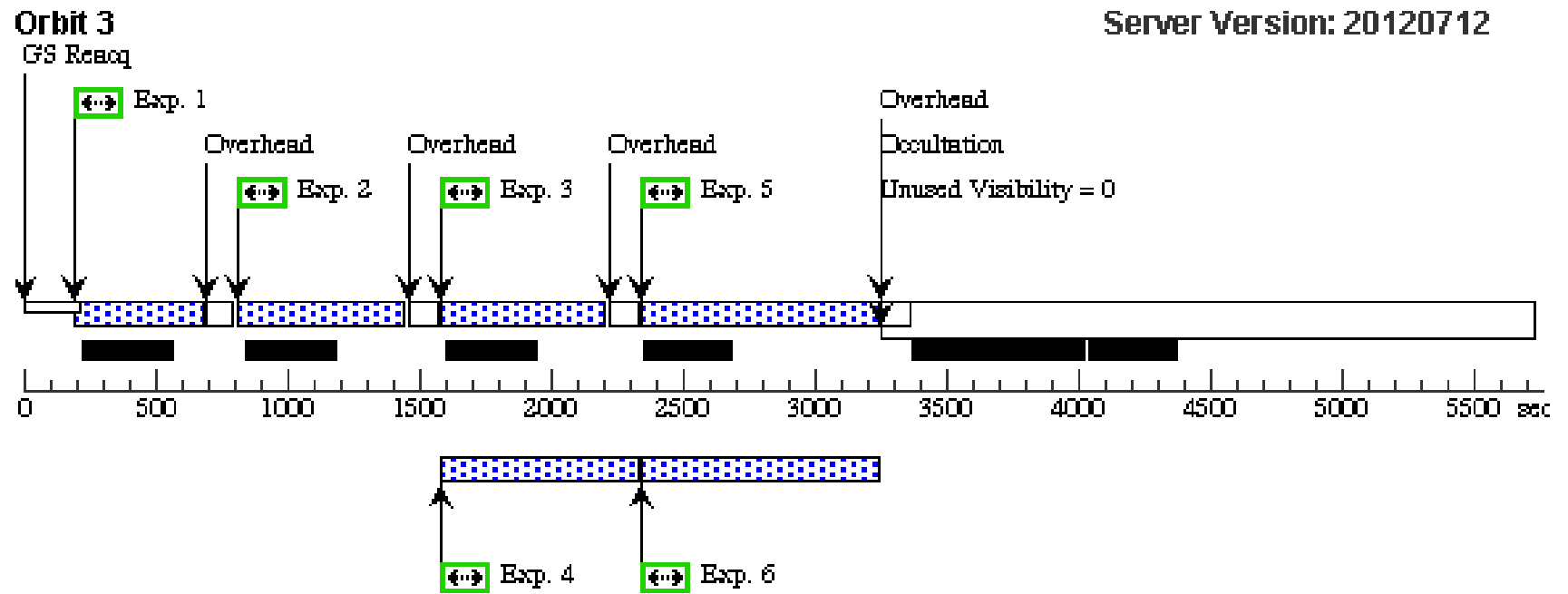
Sat Aug 04 01:05:50 GMT 2012

|                      |   |   |   |                                 |               |                       |
|----------------------|---|---|---|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 01, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC<br>Special Requirements: ORIENT 305.0D TO 310.0 D; ORIENT 125.0D TO 130.0 D<br><i>Comments: Field 3 Visit 1</i>  |   |   |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 01) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 01) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 657-1 (01.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 336-1 (01.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |   |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>  | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |   | (1-6)                           |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>   | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (1)   | M83-F3  | RA: 13 37 6.8000 (204.2783333d)<br>Dec: -29 53 55.90 (-29.89886d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

Proposal 12513 - Visit 01 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

| Exposures | #        | Label      | Target                     | Config,Mode,Aperture       | Spectral Els. | Opt. Params. | Special Reqs.   | Groups                              | Exp. Time/[Actual Dur.]     | Orbit |
|-----------|----------|------------|----------------------------|----------------------------|---------------|--------------|---|-------------------------------------|-----------------------------|-------|
|           | 1        | 814-1      | (1) M83-F3                 | WFC3/UVIS, ACCUM, UVIS-FIX | F814W         |              |   | Pattern 1, Exps 1-6 in Visit 01 (1) | 400 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>441.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>469.0 Secs (Pattern 2)] | [2]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>469.0 Secs (Pattern 3)] | [3]   |
|           | 2        | 438-1      | (1) M83-F3                 | WFC3/UVIS, ACCUM, UVIS-FIX | F438W         | FLASH=3      |   | Pattern 1, Exps 1-6 in Visit 01 (1) | 540 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>581.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 3)]         | [3]                         |       |
| 3         | 657-1    | (1) M83-F3 | WFC3/UVIS, ACCUM, UVIS-FIX | F657N                      | FLASH=8       |              | Pattern 1, Exps 1-6 in Visit 01 (1)                           | 540 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>581.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 01 | [==>609.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 3)]         | [3]                         |       |
| 4         | acs658-1 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 01 (1)                           | 500 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>510.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 01 | [==>622.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>622.0 Secs (Pattern 3)]         | [3]                         |       |
| 5         | 336-1    | (1) M83-F3 | WFC3/UVIS, ACCUM, UVIS-FIX | F336W                      | FLASH=10      |              | Pattern 1, Exps 1-6 in Visit 01 (1)                           | 800 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>841.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 01 | [==>869.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>869.0 Secs (Pattern 3)]         | [3]                         |       |
| 6         | acs658-2 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 01 (1)                           | 600 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>746.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 01 | [==>773.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>773.0 Secs (Pattern 3)]         | [3]                         |       |





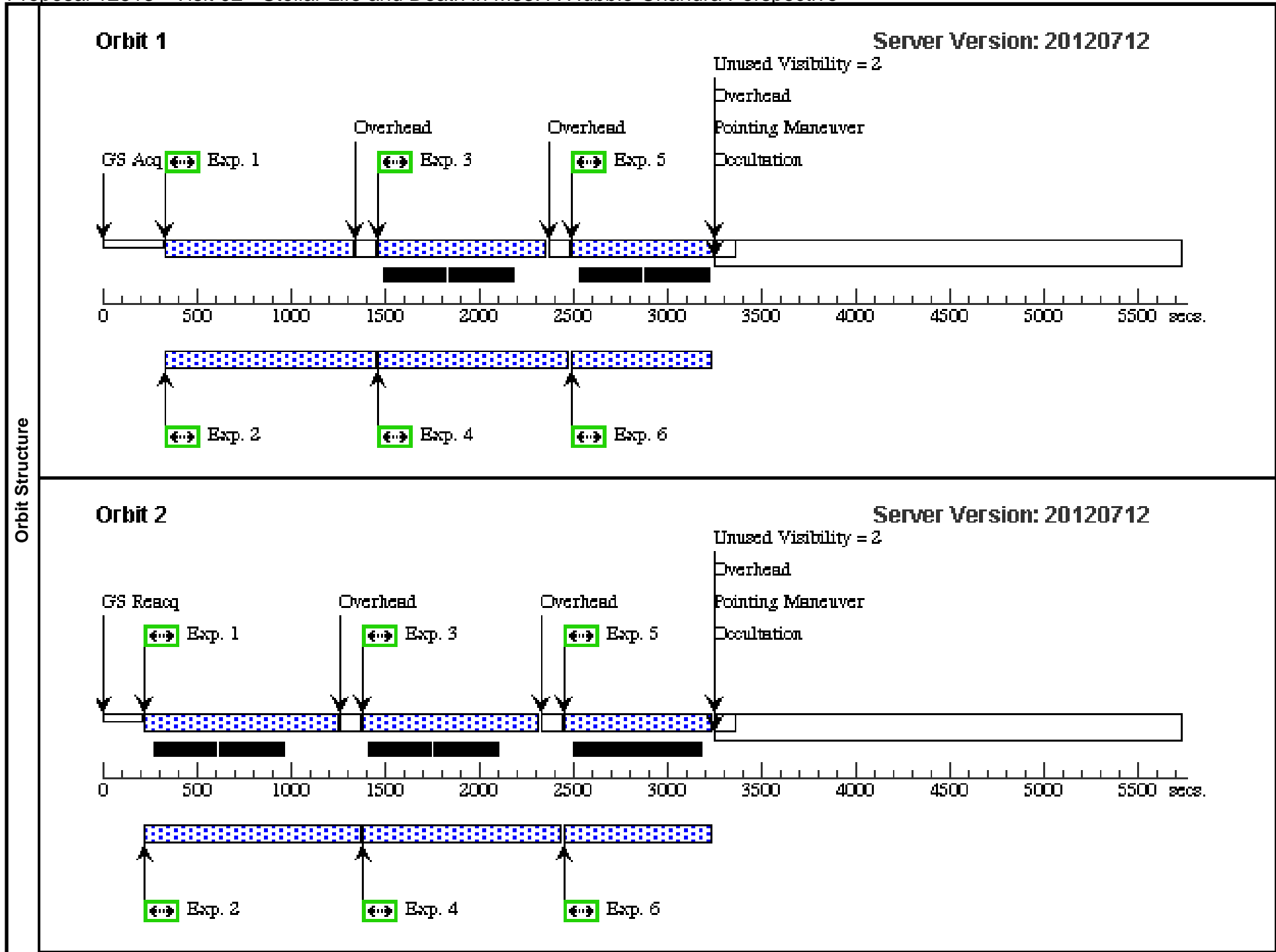
Proposal 12513 - Visit 02 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

Sat Aug 04 01:05:54 GMT 2012

|                      |   |   |   |                                 |               |                       |
|----------------------|---|---|---|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 02, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/IR, WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 3, Visit 2</i>   |   |   |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 02) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 02) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 02) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 502-1 (02.001)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 547-1 (02.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 673-1 (02.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |   |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>  | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |   | (1-6)                           |               |                       |
| (2)                  | Pattern Type=WFC3-IR-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=12.987<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=65.136<br>Angle Between Sides=<br>Center Pattern=false  |   | (7-8)   |                                 |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>   | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (1)   | M83-F3  | RA: 13 37 6.8000 (204.2783333d)<br>Dec: -29 53 55.90 (-29.89886d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

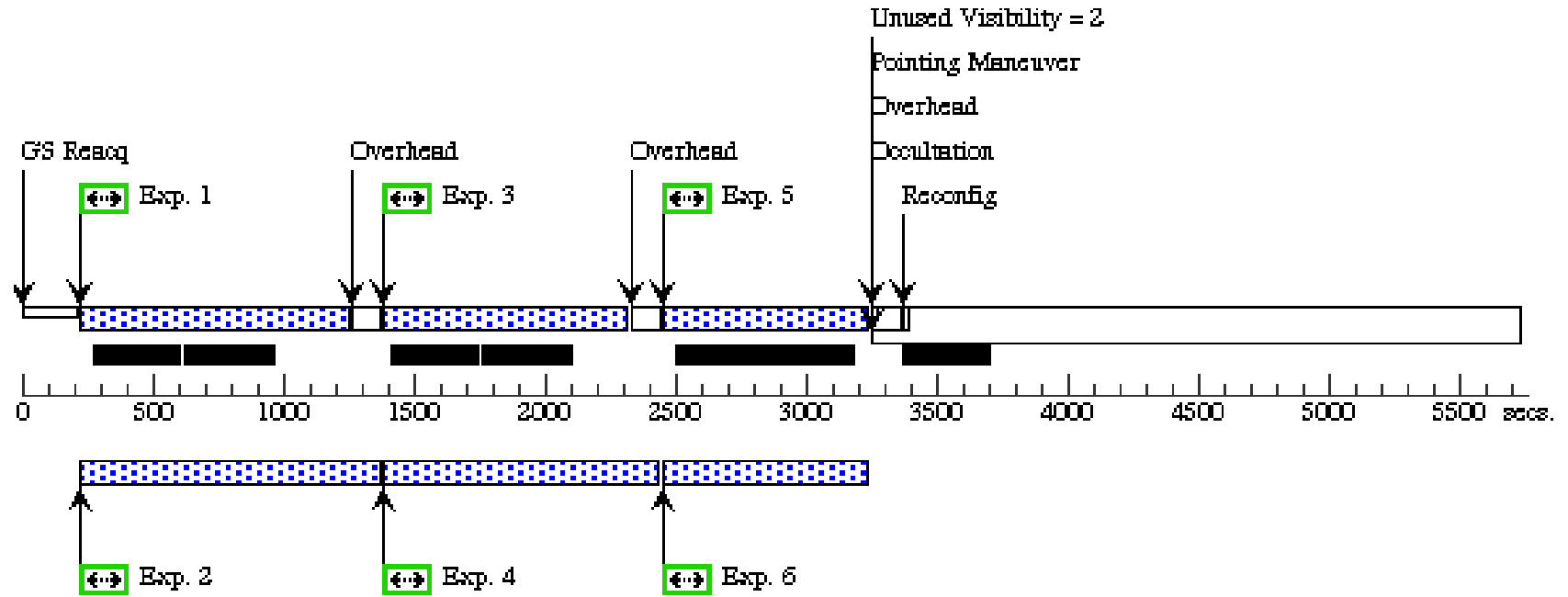
Proposal 12513 - Visit 02 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

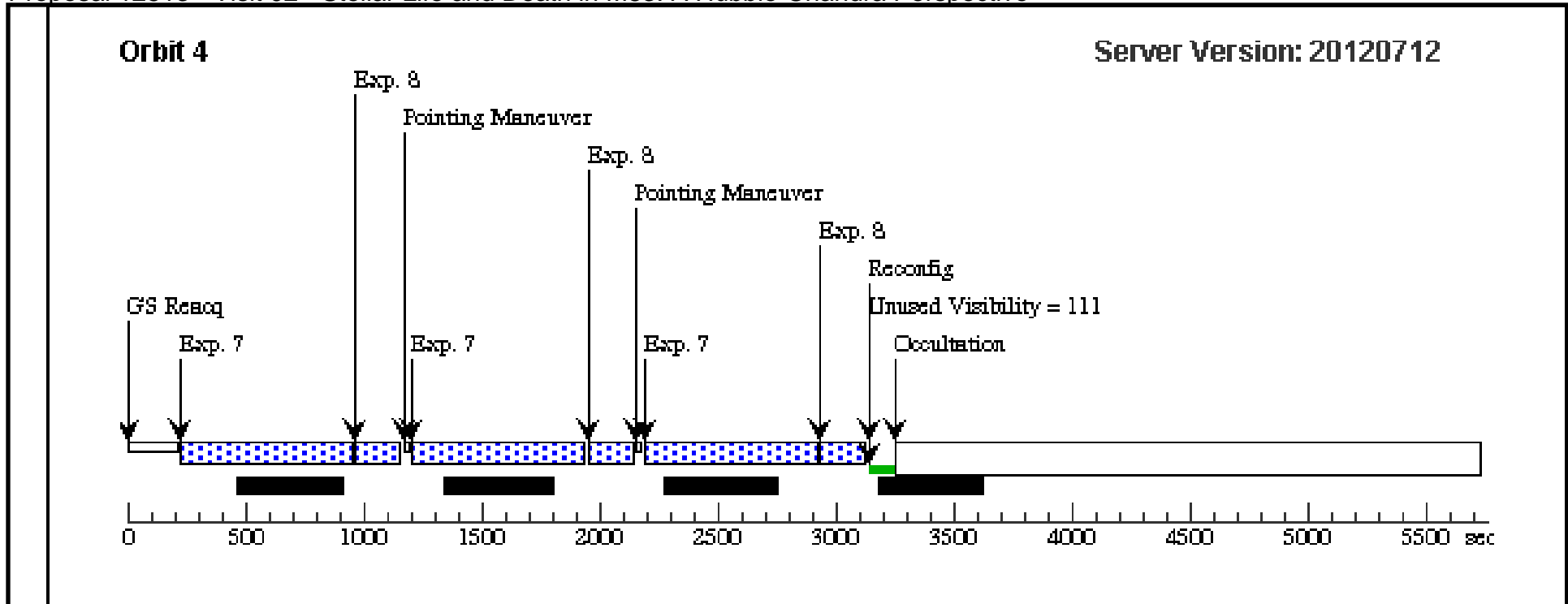
| Exposures | #      | Label      | Target                      | Config,Mode,Aperture       | Spectral Els. | Opt. Params.                      | Special Reqs.   | Groups  | Exp. Time/[Actual Dur.]      | Orbit |
|-----------|--------|------------|-----------------------------|----------------------------|---------------|-----------------------------------|---|---|------------------------------|-------|
|           | 1      | 502-1      | (1) M83-F3                  | WFC3/UVIS, ACCUM, UVIS-FIX | F502N         | FLASH=8                           |   | Pattern 1, Exps 1-6 in Visit 02 (1)                           | 900 Secs                     |       |
|           |        |            |                             |                            |               |                                   |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 02 | [==>968.0 Secs (Pattern 1)]  | [1]   |
|           |        |            |                             |                            |               |                                   |   |   | [==>1007.0 Secs (Pattern 2)] | [2]   |
|           |        |            |                             |                            |               |                                   |   |   | [==>1007.0 Secs (Pattern 3)] | [3]   |
|           | 2      | acs435     | ANY                         | ACS/WFC, ACCUM, WFC-FIX    | F435W         |                                   |   | Pattern 1, Exps 1-6 in Visit 02 (1)                           | 500 Secs                     |       |
|           |        |            |                             |                            |               |                                   |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 02 | [==>913.0 Secs (Pattern 1)]  | [1]   |
|           |        |            |                             |                            |               |                                   |   |   | [==>981.0 Secs (Pattern 2)]  | [2]   |
|           |        |            |                             |                            |               |                                   |   |   | [==>981.0 Secs (Pattern 3)]  | [3]   |
|           | 3      | 547-1      | (1) M83-F3                  | WFC3/UVIS, ACCUM, UVIS-FIX | F547M         | FLASH=5                           |   | Pattern 1, Exps 1-6 in Visit 02 (1)                           | 800 Secs                     |       |
|           |        |            |                             |                            |               |                                   | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 02 | [==>868.0 Secs (Pattern 1)]                                   | [1]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>907.0 Secs (Pattern 2)]                                   | [2]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>907.0 Secs (Pattern 3)]                                   | [3]                          |       |
| 4         | acs814 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F814W                      |               |                                   | Pattern 1, Exps 1-6 in Visit 02 (1)                           | 600 Secs  |                              |       |
|           |        |            |                             |                            |               |                                   | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 02 | [==>864.0 Secs (Pattern 1)]                                   | [1]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>903.0 Secs (Pattern 2)]                                   | [2]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>903.0 Secs (Pattern 3)]                                   | [3]                          |       |
| 5         | 673-1  | (1) M83-F3 | WFC3/UVIS, ACCUM, UVIS-FIX  | F673N                      | FLASH=8       |                                   | Pattern 1, Exps 1-6 in Visit 02 (1)                           | 660 Secs  |                              |       |
|           |        |            |                             |                            |               |                                   | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 02 | [==>728.0 Secs (Pattern 1)]                                   | [1]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>767.0 Secs (Pattern 2)]                                   | [2]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>767.0 Secs (Pattern 3)]                                   | [3]                          |       |
| 6         | acs555 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F555W                      |               |                                   | Pattern 1, Exps 1-6 in Visit 02 (1)                           | 500 Secs  |                              |       |
|           |        |            |                             |                            |               |                                   | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 02 | [==>575.0 Secs (Pattern 1)]                                   | [1]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>614.0 Secs (Pattern 2)]                                   | [2]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>614.0 Secs (Pattern 3)]                                   | [3]                          |       |
| 7         | 164-1  | (1) M83-F3 | WFC3/IR, MULTIACCUM, IR-FIX | F164N                      |               | NSAMP=15;<br>SAMP-SEQ=SPAR<br>S50 | Pattern 2, Exps 7-8 in Visit 02 (2)                           | [==>(Pattern 1)]  |                              |       |
|           |        |            |                             |                            |               |                                   |   | [==>(Pattern 2)]  | [4]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>(Pattern 3)]  |                              |       |
| 8         | 160-1  | (1) M83-F3 | WFC3/IR, MULTIACCUM, IR-FIX | F160W                      |               | NSAMP=8;<br>SAMP-SEQ=SPAR<br>S25  | Pattern 2, Exps 7-8 in Visit 02 (2)                           | [==>(Pattern 1)]  |                              |       |
|           |        |            |                             |                            |               |                                   |   | [==>(Pattern 2)]  | [4]                          |       |
|           |        |            |                             |                            |               |                                   |   | [==>(Pattern 3)]  |                              |       |



**Orbit 3**

Server Version: 20120712





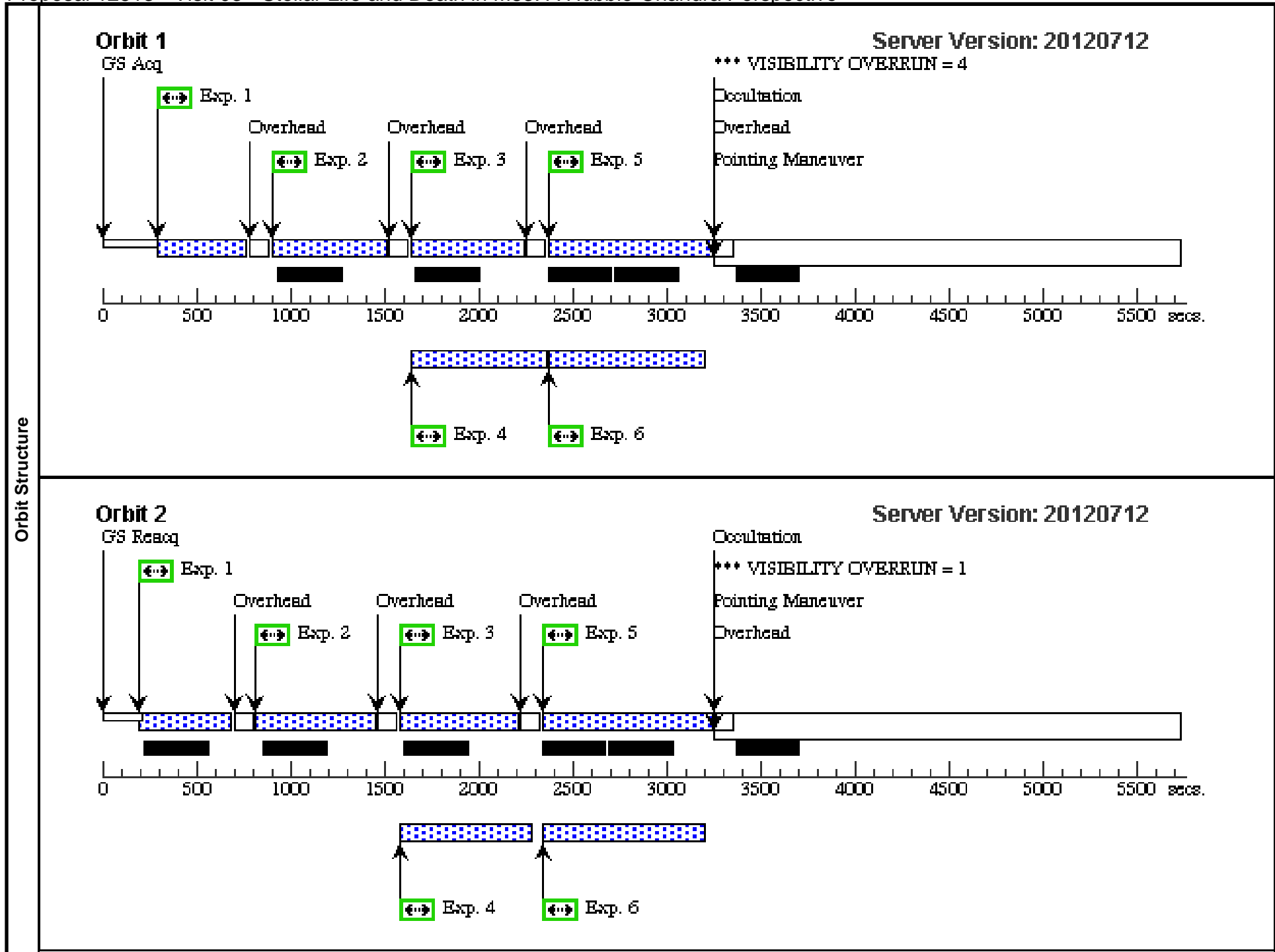
Proposal 12513 - Visit 03 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

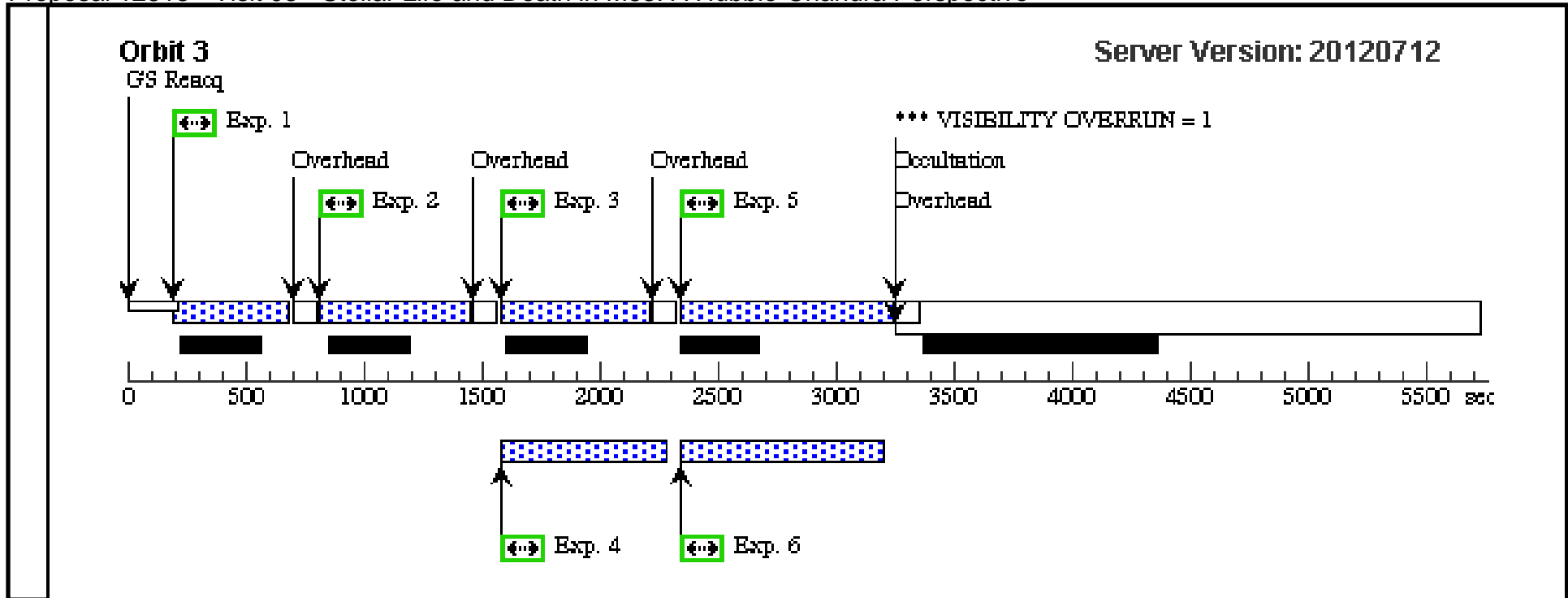
Sat Aug 04 01:05:58 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 03, completed</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 4 Visit 1</i>  |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 03) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 03) Warning (Orbit Planner): VISIBILITY OVERRUN<br>(Visit 03) Warning (Orbit Planner): VISIBILITY OVERRUN<br>(Visit 03) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 03) Warning (Orbit Planner): VISIBILITY OVERRUN |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (2)   | M83-F4  | RA: 13 36 53.9000 (204.2245833d)<br>Dec: -29 49 17.31 (-29.82148d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

Proposal 12513 - Visit 03 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

| Exposures | #        | Label      | Target                     | Config,Mode,Aperture       | Spectral Els. | Opt. Params. | Special Reqs.   | Groups                              | Exp. Time/[Actual Dur.]     | Orbit |
|-----------|----------|------------|----------------------------|----------------------------|---------------|--------------|---|-------------------------------------|-----------------------------|-------|
|           | 1        | 814-1      | (2) M83-F4                 | WFC3/UVIS, ACCUM, UVIS-FIX | F814W         |              |   | Pattern 1, Exps 1-6 in Visit 03 (1) | 400 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>445.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>472.0 Secs (Pattern 2)] | [2]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>472.0 Secs (Pattern 3)] | [3]   |
|           | 2        | 438-1      | (2) M83-F4                 | WFC3/UVIS, ACCUM, UVIS-FIX | F438W         |              |   | Pattern 1, Exps 1-6 in Visit 03 (1) | 540 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>585.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   | [==>612.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>612.0 Secs (Pattern 3)]         | [3]                         |       |
| 3         | 657-1    | (2) M83-F4 | WFC3/UVIS, ACCUM, UVIS-FIX | F657N                      |               |              | Pattern 1, Exps 1-6 in Visit 03 (1)                           | 540 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>585.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 03 | [==>612.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>612.0 Secs (Pattern 3)]         | [3]                         |       |
| 4         | acs658-1 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 03 (1)                           | 500 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>510.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 03 | [==>580.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>580.0 Secs (Pattern 3)]         | [3]                         |       |
| 5         | 336-1    | (2) M83-F4 | WFC3/UVIS, ACCUM, UVIS-FIX | F336W                      |               |              | Pattern 1, Exps 1-6 in Visit 03 (1)                           | 800 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>845.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 03 | [==>872.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>872.0 Secs (Pattern 3)]         | [3]                         |       |
| 6         | acs658-2 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 03 (1)                           | 600 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>708.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 03 | [==>738.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>738.0 Secs (Pattern 3)]         | [3]                         |       |





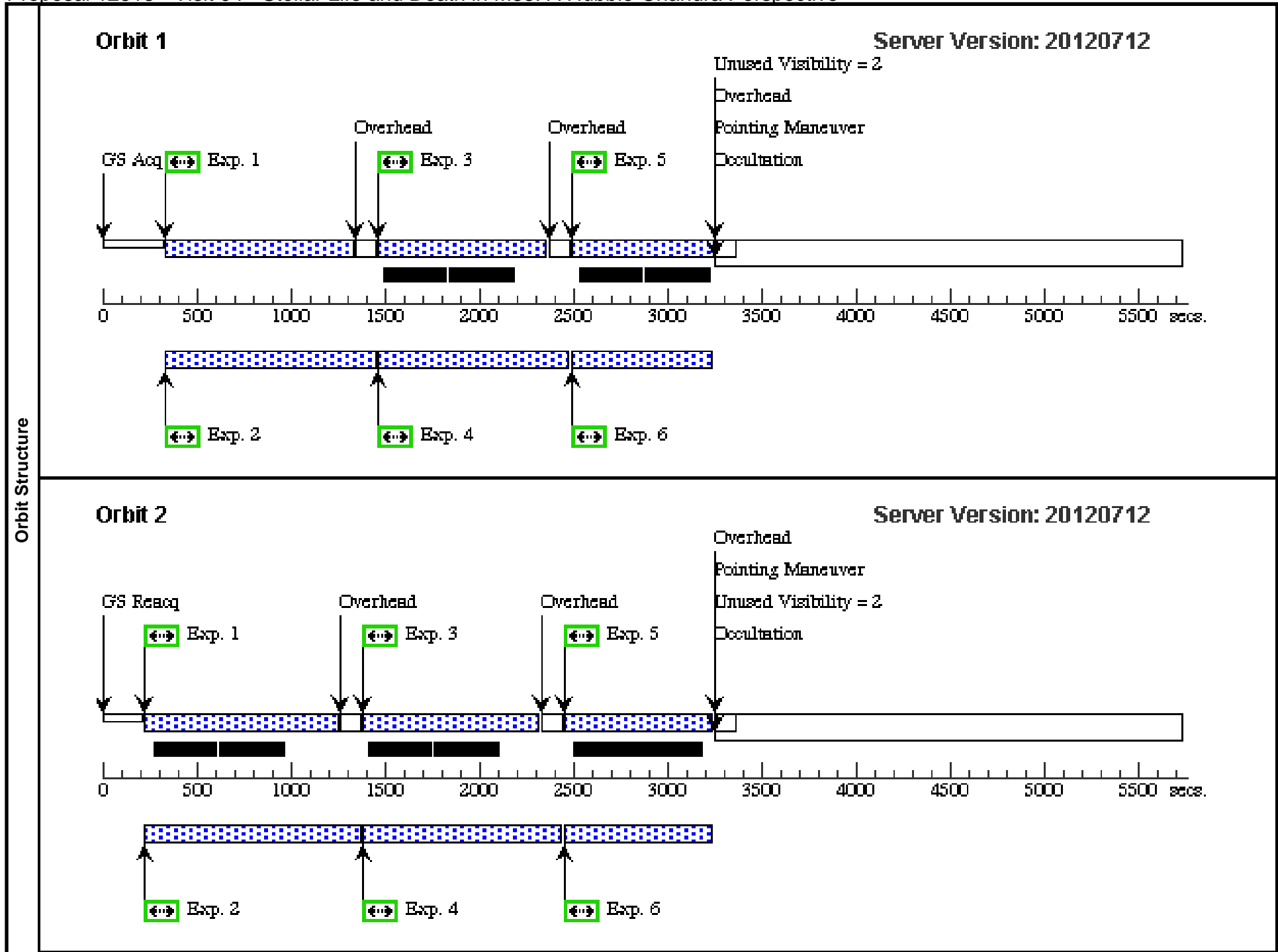
Proposal 12513 - Visit 04 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

Sat Aug 04 01:06:01 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 04, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/IR, WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 4, Visit 2</i>   |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 04) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 04) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 04) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 502-1 (04.001)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 547-1 (04.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 673-1 (04.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| (2)                  | Pattern Type=WFC3-IR-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=12.987<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=65.136<br>Angle Between Sides=<br>Center Pattern=false  |   | (7-8)  |                                 |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (2)   | M83-F4  | RA: 13 36 53.9000 (204.2245833d)<br>Dec: -29 49 17.31 (-29.82148d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

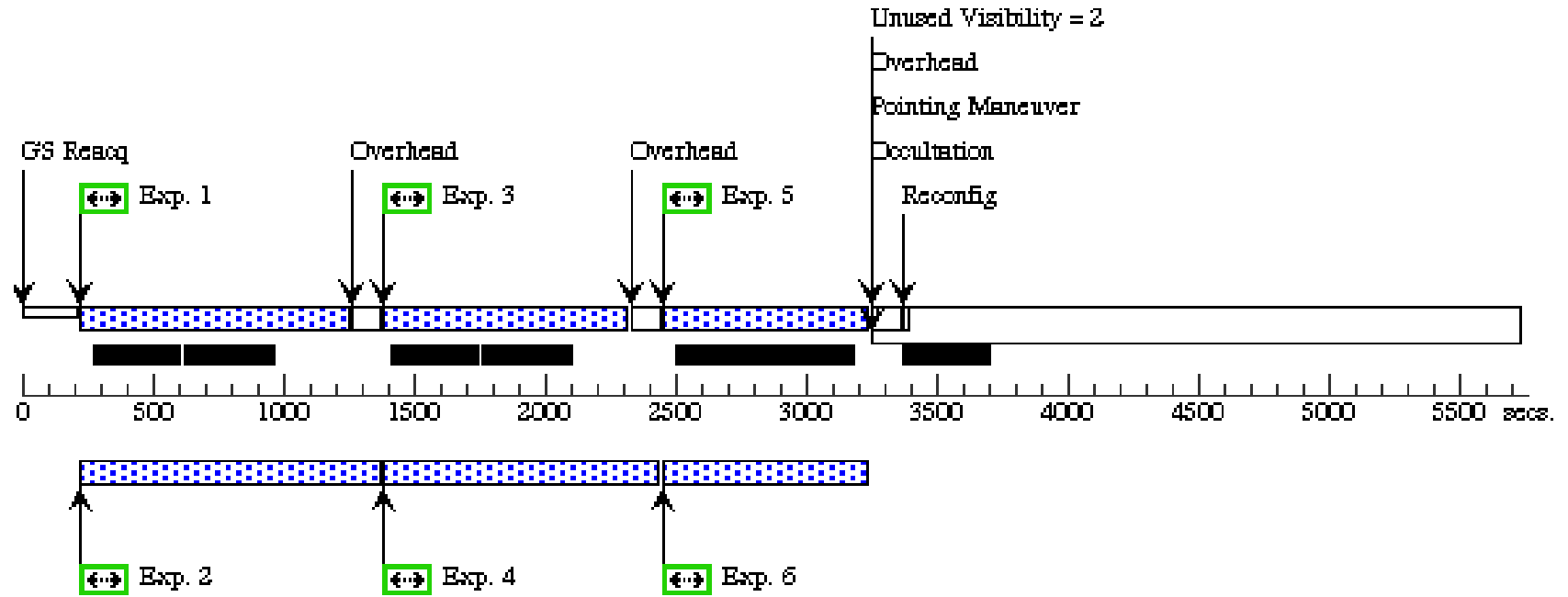
Proposal 12513 - Visit 04 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

| Exposures | #      | Label      | Target                      | Config,Mode,Aperture       | Spectral Els.                     | Opt. Params. | Special Reqs.                       | Groups  | Exp. Time/[Actual Dur.]                                       | Orbit                        |
|-----------|--------|------------|-----------------------------|----------------------------|-----------------------------------|--------------|-------------------------------------|---|---|------------------------------|
|           | 1      | 502-1      | (2) M83-F4                  | WFC3/UVIS, ACCUM, UVIS-FIX | F502N                             | FLASH=8      |                                     | Pattern 1, Exps 1-6 in Visit 04 (1)                           | 900 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>968.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 04 | [==>1007.0 Secs (Pattern 2)] |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>1007.0 Secs (Pattern 3)]                                  | [3]                          |
|           | 2      | acs435     | ANY                         | ACS/WFC, ACCUM, WFC-FIX    | F435W                             |              |                                     | Pattern 1, Exps 1-6 in Visit 04 (1)                           | 500 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>913.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 04 | [==>981.0 Secs (Pattern 2)]  |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>981.0 Secs (Pattern 3)]                                   | [3]                          |
| 3         | 547-1  | (2) M83-F4 | WFC3/UVIS, ACCUM, UVIS-FIX  | F547M                      | FLASH=5                           |              | Pattern 1, Exps 1-6 in Visit 04 (1) | 800 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>868.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 04 | [==>907.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>907.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 4         | acs814 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F814W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 04 (1) | 600 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>864.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 04 | [==>903.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>903.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 5         | 673-1  | (2) M83-F4 | WFC3/UVIS, ACCUM, UVIS-FIX  | F673N                      | FLASH=8                           |              | Pattern 1, Exps 1-6 in Visit 04 (1) | 660 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>728.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 04 | [==>767.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>767.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 6         | acs555 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F555W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 04 (1) | 500 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>575.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 04 | [==>614.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>614.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 7         | 164-1  | (2) M83-F4 | WFC3/IR, MULTIACCUM, IR-FIX | F164N                      | NSAMP=15;<br>SAMP-SEQ=SPAR<br>S50 |              | Pattern 2, Exps 7-8 in Visit 04 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |
| 8         | 160-1  | (2) M83-F4 | WFC3/IR, MULTIACCUM, IR-FIX | F160W                      | NSAMP=8;<br>SAMP-SEQ=SPAR<br>S25  |              | Pattern 2, Exps 7-8 in Visit 04 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |

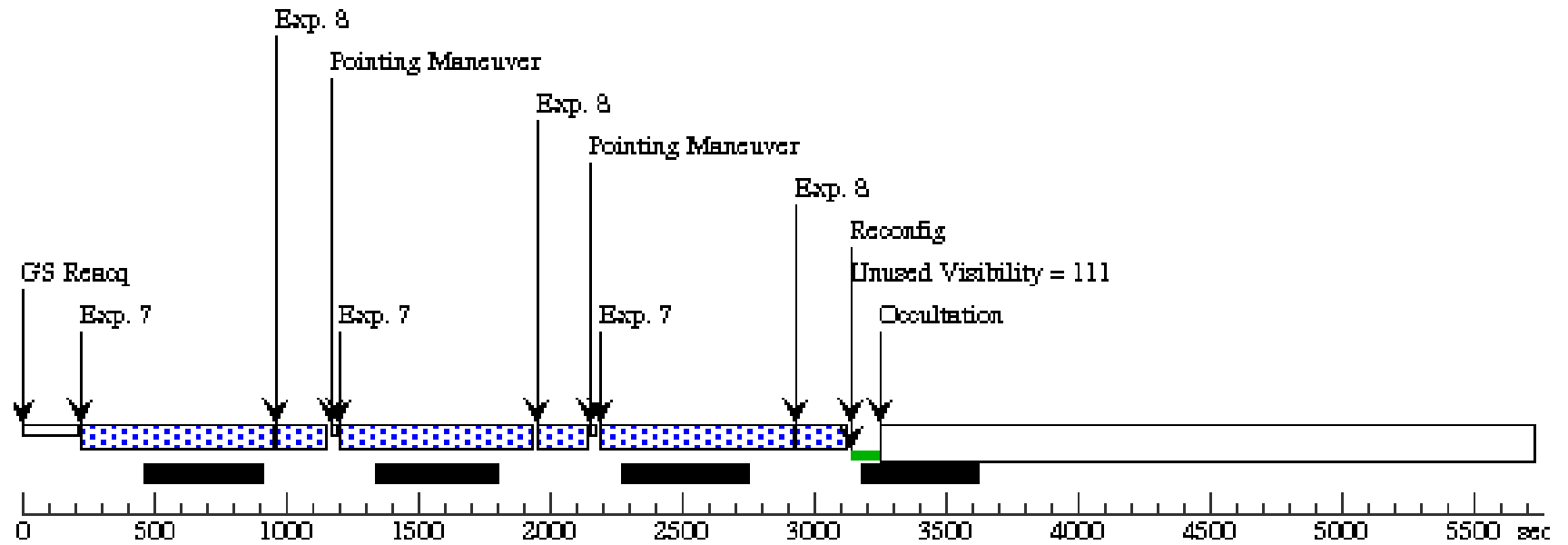


Orbit 3

Server Version: 20120712



Orbit 4



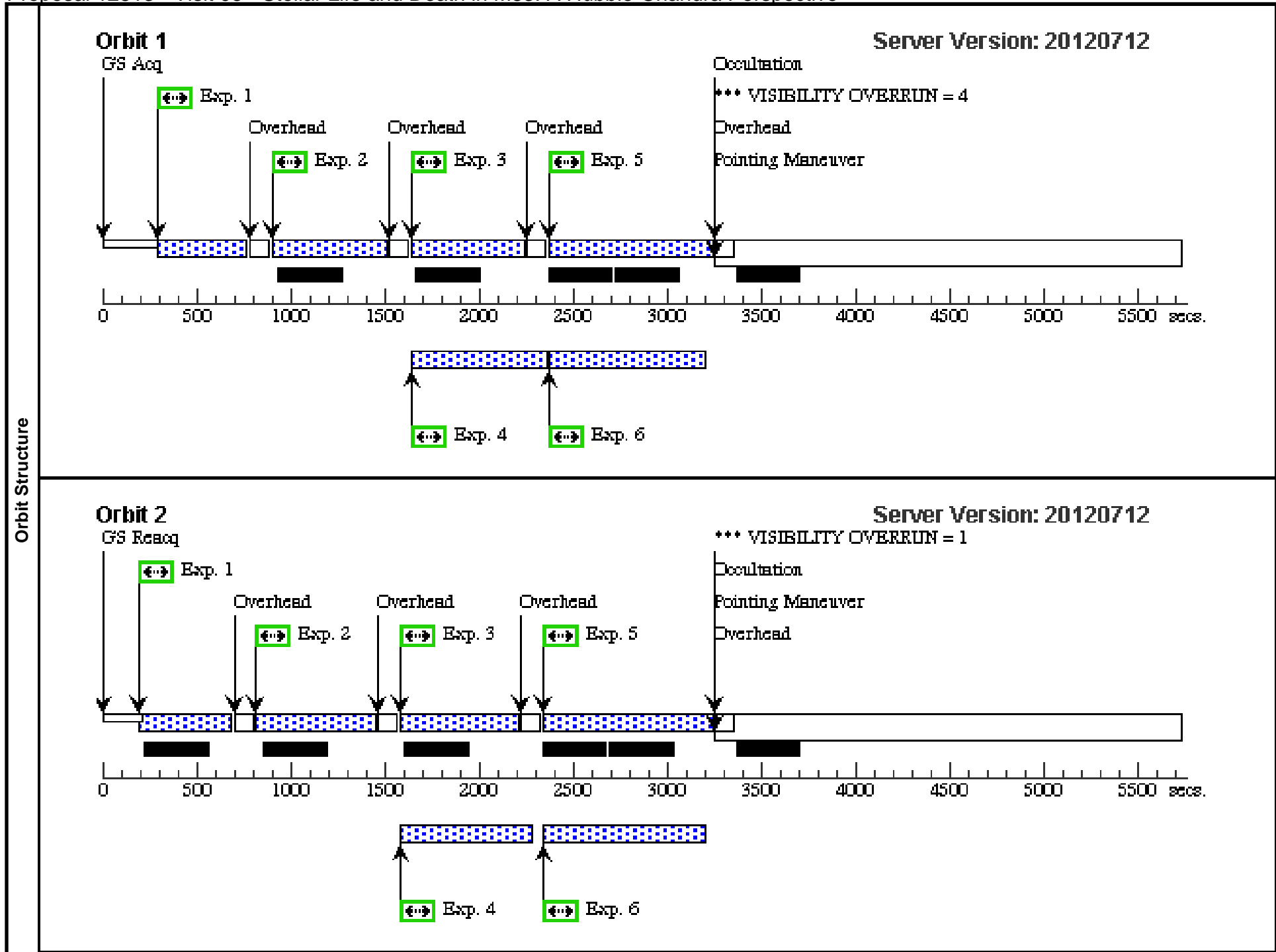
Proposal 12513 - Visit 05 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

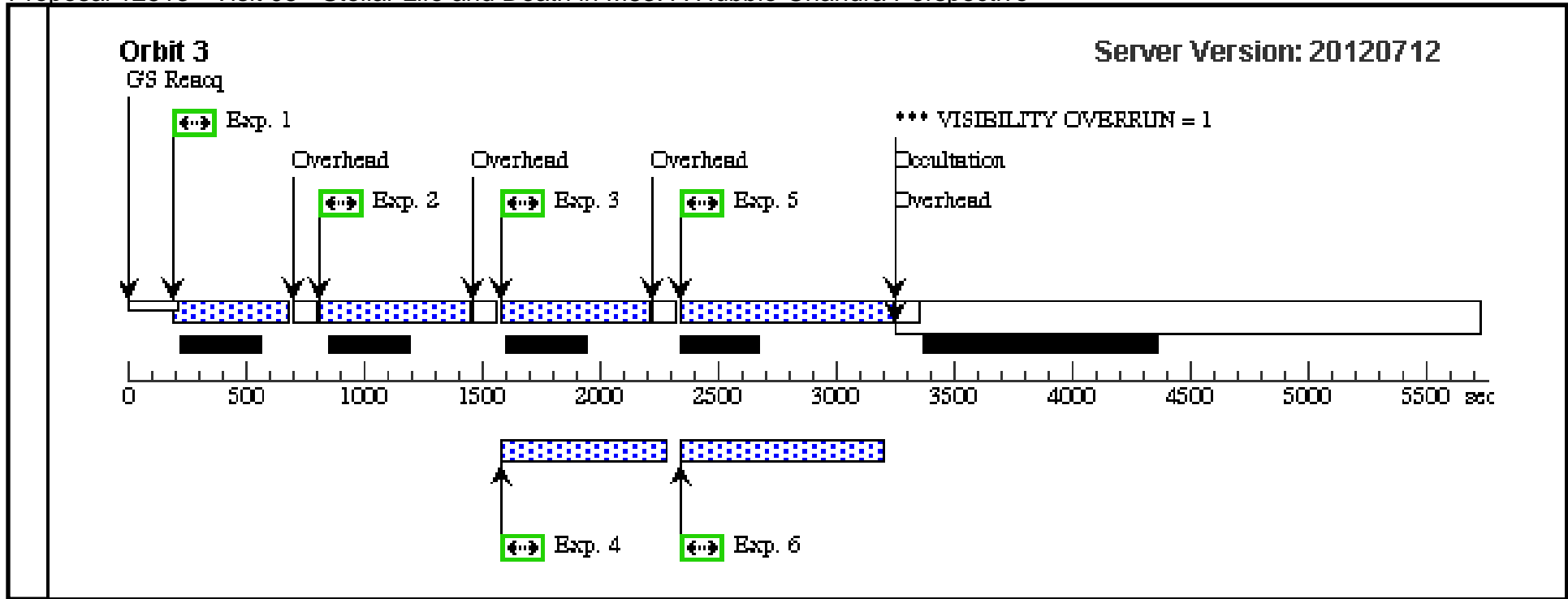
Sat Aug 04 01:06:05 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 05, completed</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 5 Visit 1</i>  |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 05) Warning (Orbit Planner): VISIBILITY OVERRUN<br>(Visit 05) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 05) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 05) Warning (Orbit Planner): VISIBILITY OVERRUN<br>(Visit 05) Warning (Orbit Planner): VISIBILITY OVERRUN |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (3)   | M83-F5  | RA: 13 36 53.1000 (204.2212500d)<br>Dec: -29 51 38.43 (-29.86068d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

Proposal 12513 - Visit 05 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

| Exposures | #        | Label      | Target                     | Config,Mode,Aperture       | Spectral Els. | Opt. Params. | Special Reqs.   | Groups                              | Exp. Time/[Actual Dur.]     | Orbit |
|-----------|----------|------------|----------------------------|----------------------------|---------------|--------------|---|-------------------------------------|-----------------------------|-------|
|           | 1        | 814-1      | (3) M83-F5                 | WFC3/UVIS, ACCUM, UVIS-FIX | F814W         |              |   | Pattern 1, Exps 1-6 in Visit 05 (1) | 400 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>445.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>472.0 Secs (Pattern 2)] | [2]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>472.0 Secs (Pattern 3)] | [3]   |
|           | 2        | 438-1      | (3) M83-F5                 | WFC3/UVIS, ACCUM, UVIS-FIX | F438W         |              |   | Pattern 1, Exps 1-6 in Visit 05 (1) | 540 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>585.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   | [==>612.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>612.0 Secs (Pattern 3)]         | [3]                         |       |
| 3         | 657-1    | (3) M83-F5 | WFC3/UVIS, ACCUM, UVIS-FIX | F657N                      |               |              | Pattern 1, Exps 1-6 in Visit 05 (1)                           | 540 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>585.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 05 | [==>612.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>612.0 Secs (Pattern 3)]         | [3]                         |       |
| 4         | acs658-1 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 05 (1)                           | 500 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>510.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 05 | [==>580.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>580.0 Secs (Pattern 3)]         | [3]                         |       |
| 5         | 336-1    | (3) M83-F5 | WFC3/UVIS, ACCUM, UVIS-FIX | F336W                      |               |              | Pattern 1, Exps 1-6 in Visit 05 (1)                           | 800 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>845.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 05 | [==>872.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>872.0 Secs (Pattern 3)]         | [3]                         |       |
| 6         | acs658-2 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 05 (1)                           | 600 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>708.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 05 | [==>738.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>738.0 Secs (Pattern 3)]         | [3]                         |       |





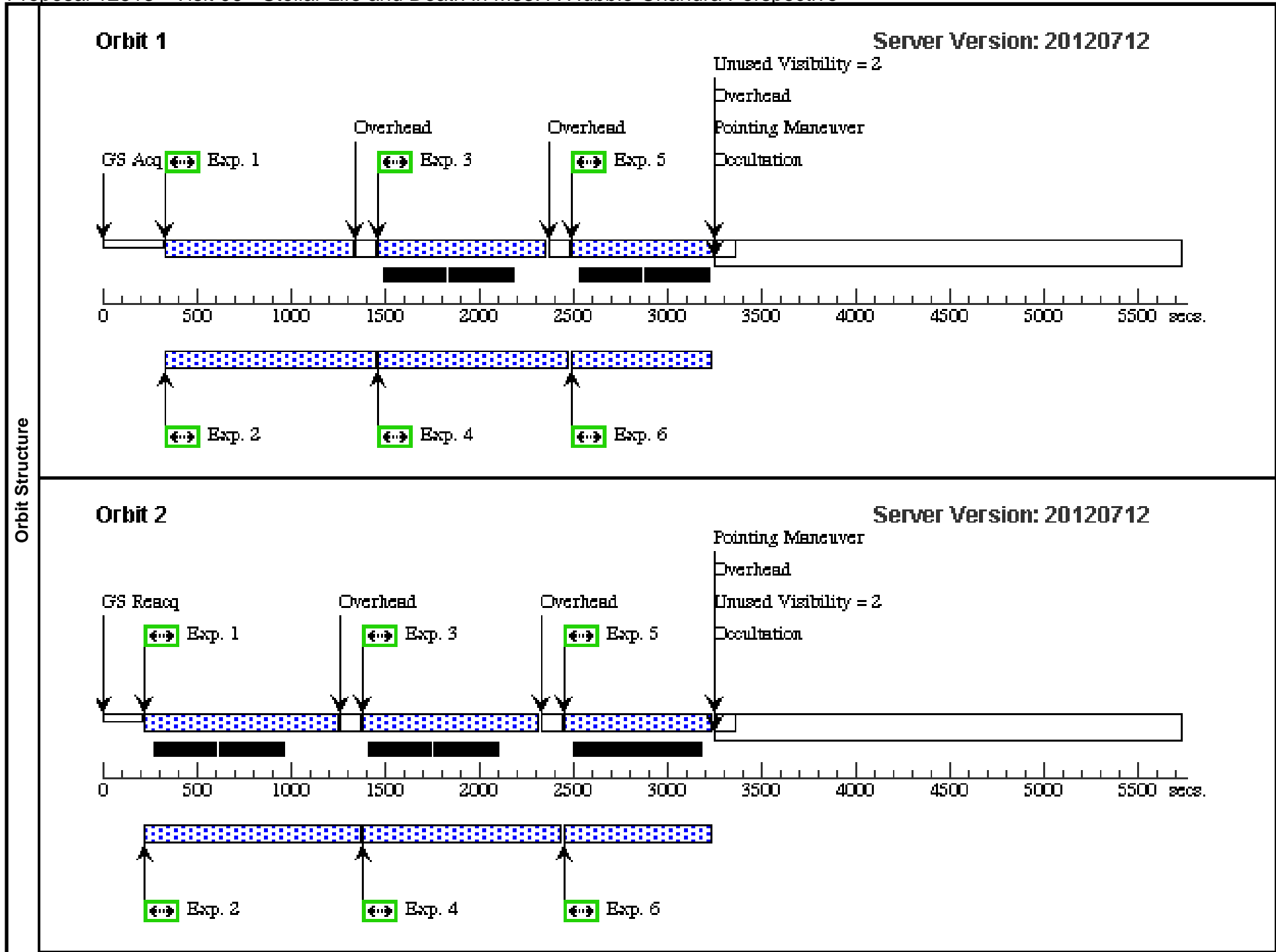
Proposal 12513 - Visit 06 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

Sat Aug 04 01:06:08 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 06, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/IR, WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 5, Visit 2</i>   |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 06) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 06) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 06) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 502-1 (06.001)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 547-1 (06.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 673-1 (06.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| (2)                  | Pattern Type=WFC3-IR-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=12.987<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=65.136<br>Angle Between Sides=<br>Center Pattern=false  |   | (7-8)  |                                 |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (3)   | M83-F5  | RA: 13 36 53.1000 (204.2212500d)<br>Dec: -29 51 38.43 (-29.86068d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

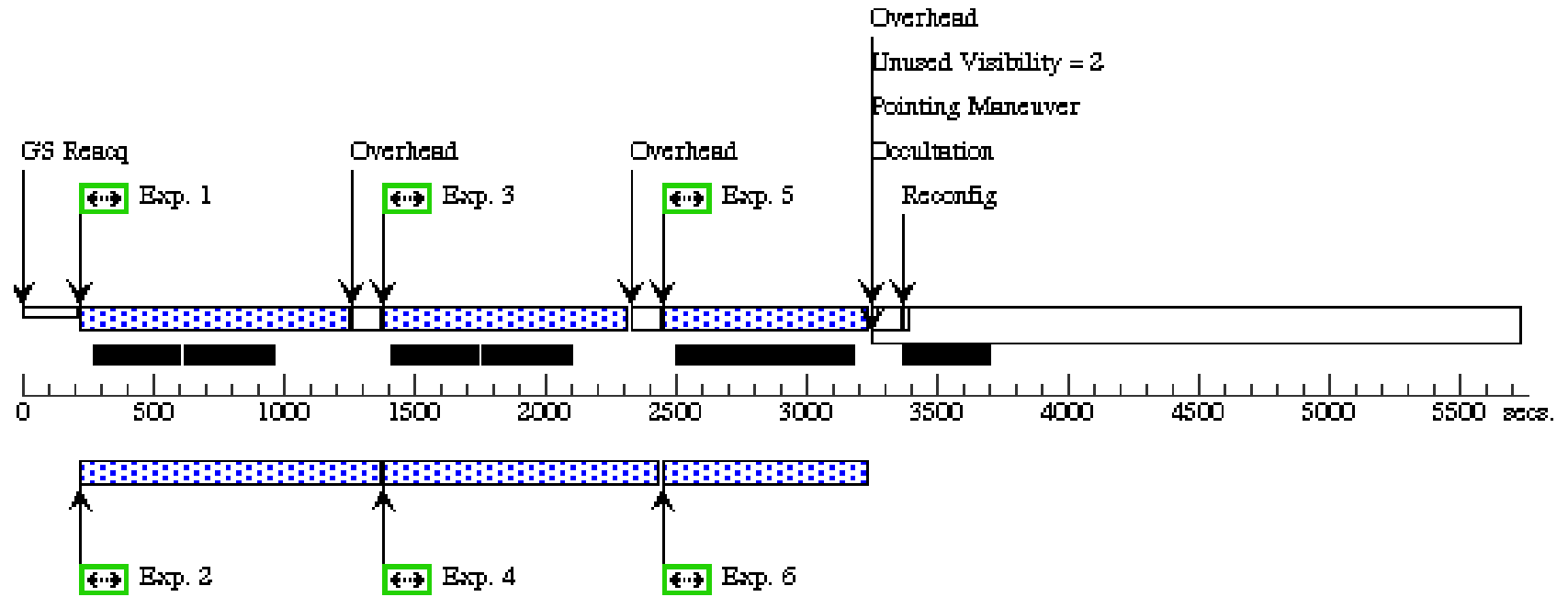
Proposal 12513 - Visit 06 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

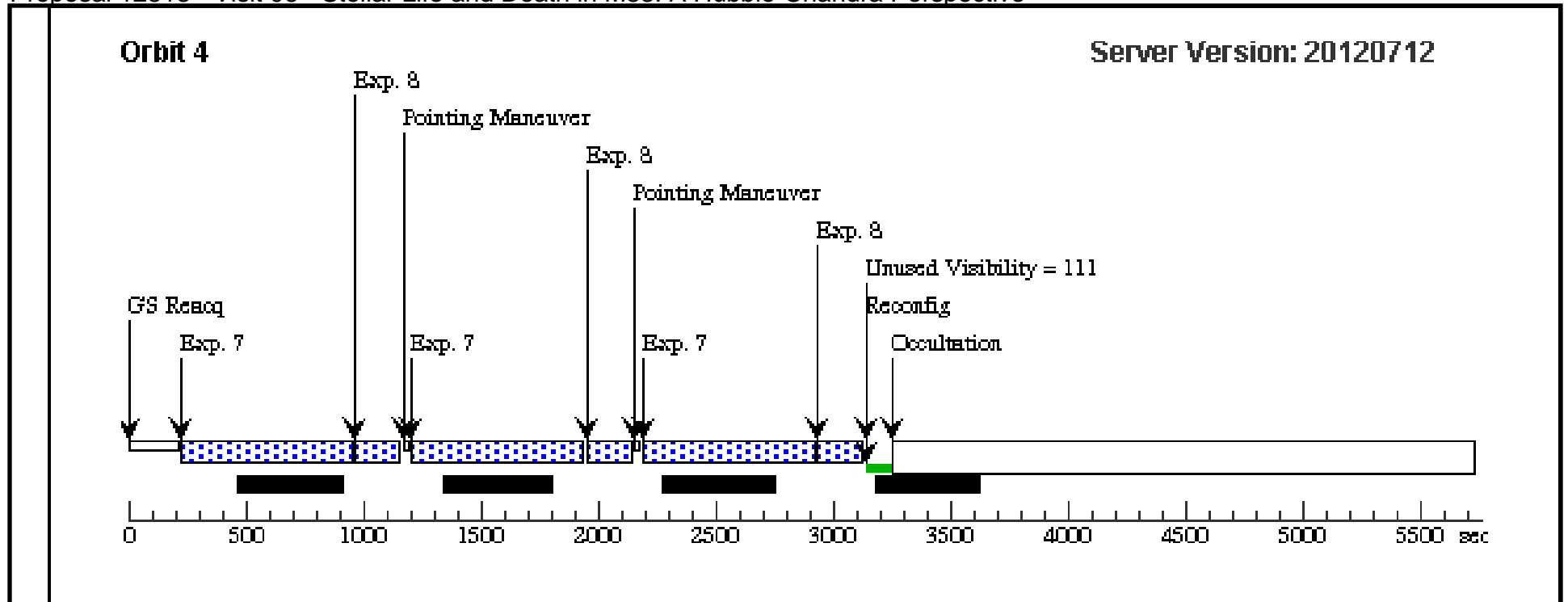
| Exposures | #      | Label      | Target                      | Config,Mode,Aperture       | Spectral Els.                     | Opt. Params. | Special Reqs.                       | Groups  | Exp. Time/[Actual Dur.]                                       | Orbit                        |
|-----------|--------|------------|-----------------------------|----------------------------|-----------------------------------|--------------|-------------------------------------|---|---|------------------------------|
|           | 1      | 502-1      | (3) M83-F5                  | WFC3/UVIS, ACCUM, UVIS-FIX | F502N                             | FLASH=8      |                                     | Pattern 1, Exps 1-6 in Visit 06 (1)                           | 900 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>968.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 06 | [==>1007.0 Secs (Pattern 2)] |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>1007.0 Secs (Pattern 3)]                                  | [3]                          |
|           | 2      | acs435     | ANY                         | ACS/WFC, ACCUM, WFC-FIX    | F435W                             |              |                                     | Pattern 1, Exps 1-6 in Visit 06 (1)                           | 500 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>913.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 06 | [==>981.0 Secs (Pattern 2)]  |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>981.0 Secs (Pattern 3)]                                   | [3]                          |
| 3         | 547-1  | (3) M83-F5 | WFC3/UVIS, ACCUM, UVIS-FIX  | F547M                      | FLASH=5                           |              | Pattern 1, Exps 1-6 in Visit 06 (1) | 800 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>868.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 06 | [==>907.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>907.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 4         | acs814 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F814W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 06 (1) | 600 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>864.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 06 | [==>903.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>903.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 5         | 673-1  | (3) M83-F5 | WFC3/UVIS, ACCUM, UVIS-FIX  | F673N                      | FLASH=8                           |              | Pattern 1, Exps 1-6 in Visit 06 (1) | 660 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>728.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 06 | [==>767.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>767.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 6         | acs555 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F555W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 06 (1) | 500 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>575.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 06 | [==>614.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>614.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 7         | 164-1  | (3) M83-F5 | WFC3/IR, MULTIACCUM, IR-FIX | F164N                      | NSAMP=15;<br>SAMP-SEQ=SPAR<br>S50 |              | Pattern 2, Exps 7-8 in Visit 06 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |
| 8         | 160-1  | (3) M83-F5 | WFC3/IR, MULTIACCUM, IR-FIX | F160W                      | NSAMP=8;<br>SAMP-SEQ=SPAR<br>S25  |              | Pattern 2, Exps 7-8 in Visit 06 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |



Orbit 3

Server Version: 20120712





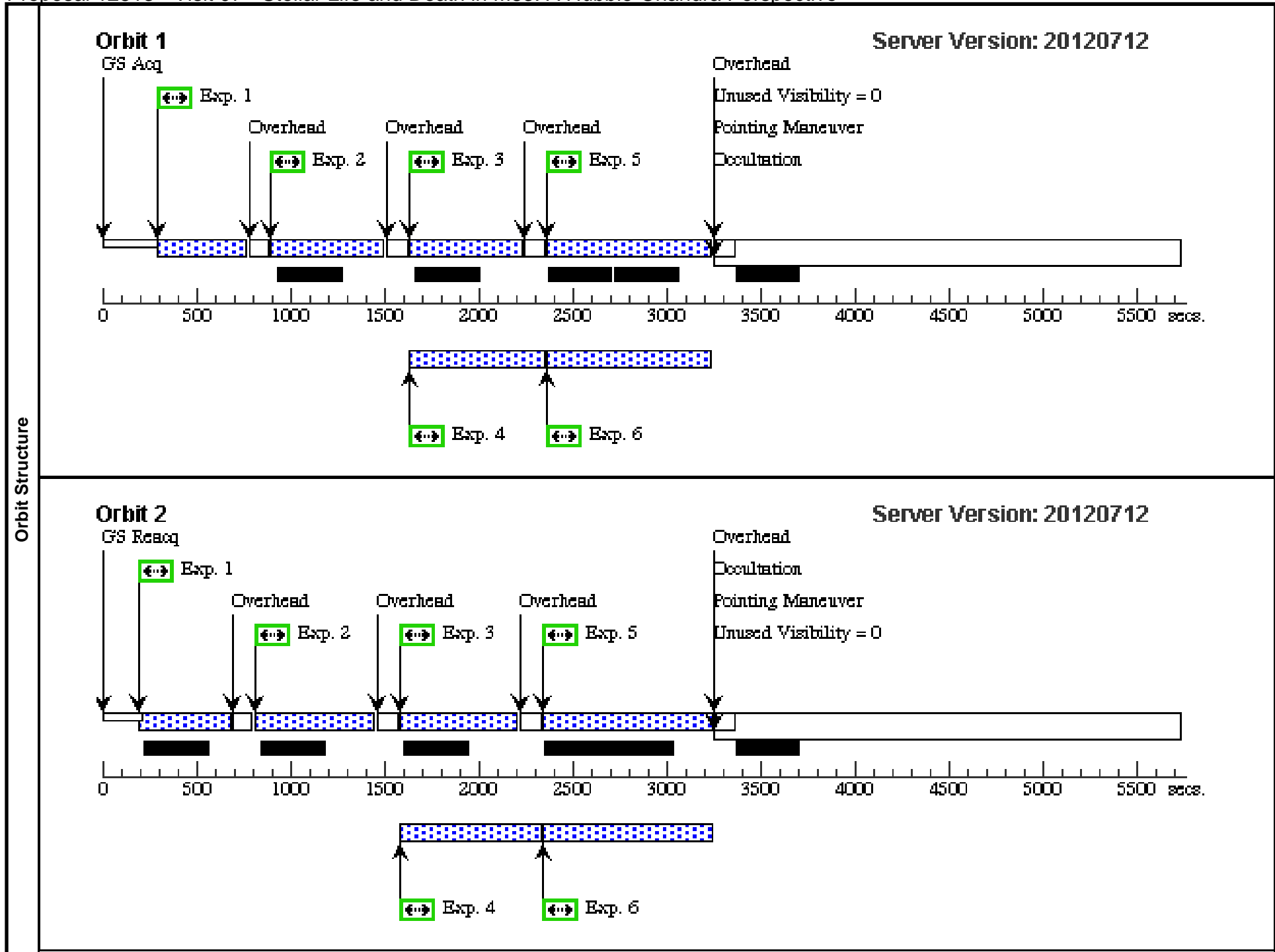
Proposal 12513 - Visit 07 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

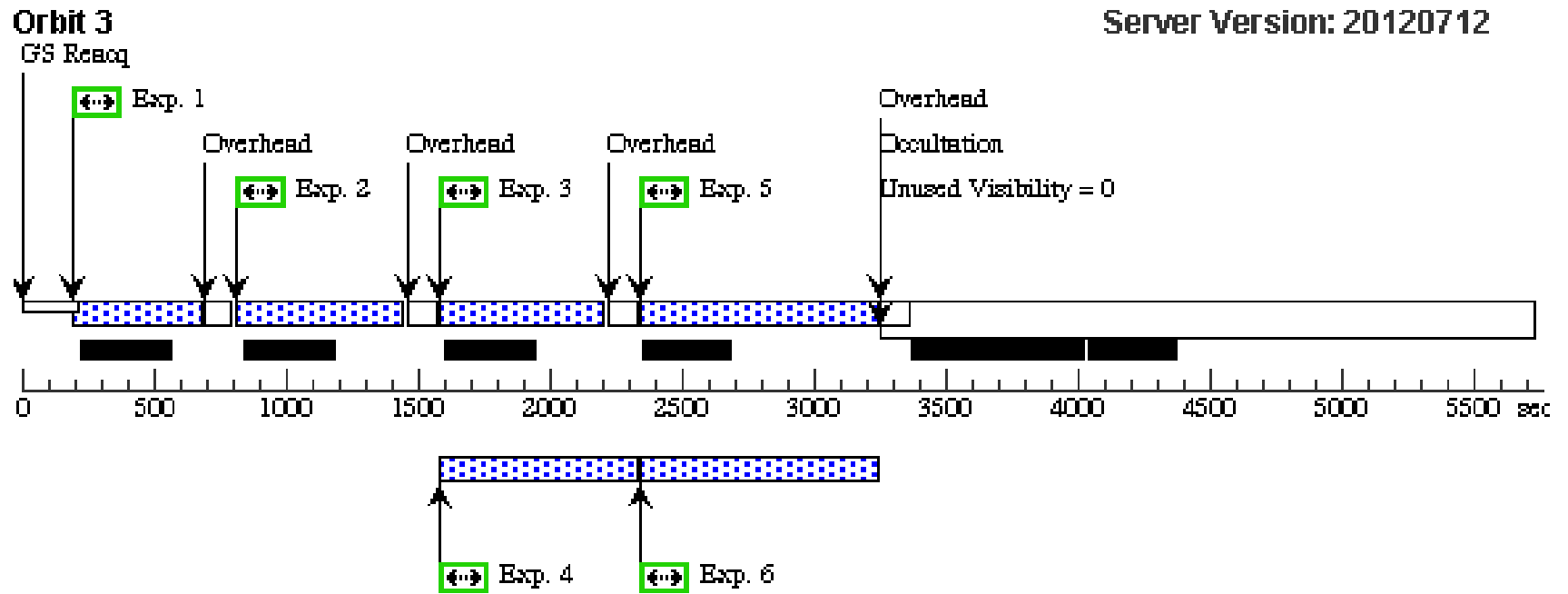
Sat Aug 04 01:06:11 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 07, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 6 Visit 1</i>   |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 07) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 07) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 657-1 (07.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 336-1 (07.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (4)   | M83-F6  | RA: 13 36 55.2000 (204.2300000d)<br>Dec: -29 54 10.28 (-29.90286d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

Proposal 12513 - Visit 07 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

| Exposures | #        | Label      | Target                     | Config,Mode,Aperture       | Spectral Els. | Opt. Params. | Special Reqs.   | Groups                              | Exp. Time/[Actual Dur.]     | Orbit |
|-----------|----------|------------|----------------------------|----------------------------|---------------|--------------|---|-------------------------------------|-----------------------------|-------|
|           | 1        | 814-1      | (4) M83-F6                 | WFC3/UVIS, ACCUM, UVIS-FIX | F814W         |              |   | Pattern 1, Exps 1-6 in Visit 07 (1) | 400 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>441.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>469.0 Secs (Pattern 2)] | [2]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>469.0 Secs (Pattern 3)] | [3]   |
|           | 2        | 438-1      | (4) M83-F6                 | WFC3/UVIS, ACCUM, UVIS-FIX | F438W         | FLASH=3      |   | Pattern 1, Exps 1-6 in Visit 07 (1) | 540 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>581.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 3)]         | [3]                         |       |
| 3         | 657-1    | (4) M83-F6 | WFC3/UVIS, ACCUM, UVIS-FIX | F657N                      | FLASH=8       |              | Pattern 1, Exps 1-6 in Visit 07 (1)                           | 540 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>581.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 07 | [==>609.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 3)]         | [3]                         |       |
| 4         | acs658-1 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 07 (1)                           | 500 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>510.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 07 | [==>622.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>622.0 Secs (Pattern 3)]         | [3]                         |       |
| 5         | 336-1    | (4) M83-F6 | WFC3/UVIS, ACCUM, UVIS-FIX | F336W                      | FLASH=10      |              | Pattern 1, Exps 1-6 in Visit 07 (1)                           | 800 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>841.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 07 | [==>869.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>869.0 Secs (Pattern 3)]         | [3]                         |       |
| 6         | acs658-2 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 07 (1)                           | 600 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>746.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 07 | [==>773.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>773.0 Secs (Pattern 3)]         | [3]                         |       |





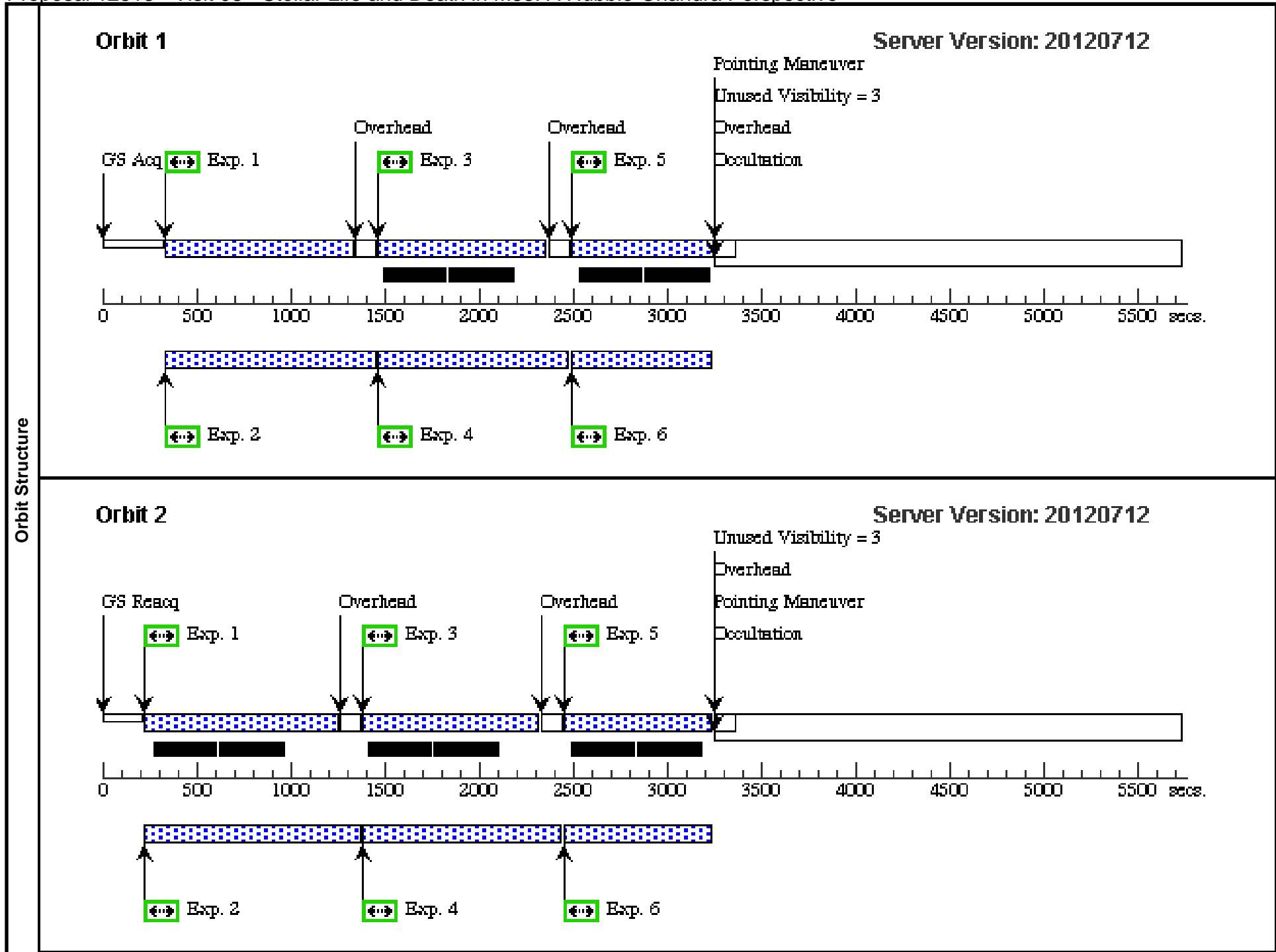
Proposal 12513 - Visit 08 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

Sat Aug 04 01:06:14 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 08, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/IR, WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 6, Visit 2</i>   |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 08) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 08) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 08) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 502-1 (08.001)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 547-1 (08.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 673-1 (08.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| (2)                  | Pattern Type=WFC3-IR-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=12.987<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=65.136<br>Angle Between Sides=<br>Center Pattern=false  |   | (7-8)  |                                 |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (4)   | M83-F6  | RA: 13 36 55.2000 (204.2300000d)<br>Dec: -29 54 10.28 (-29.90286d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

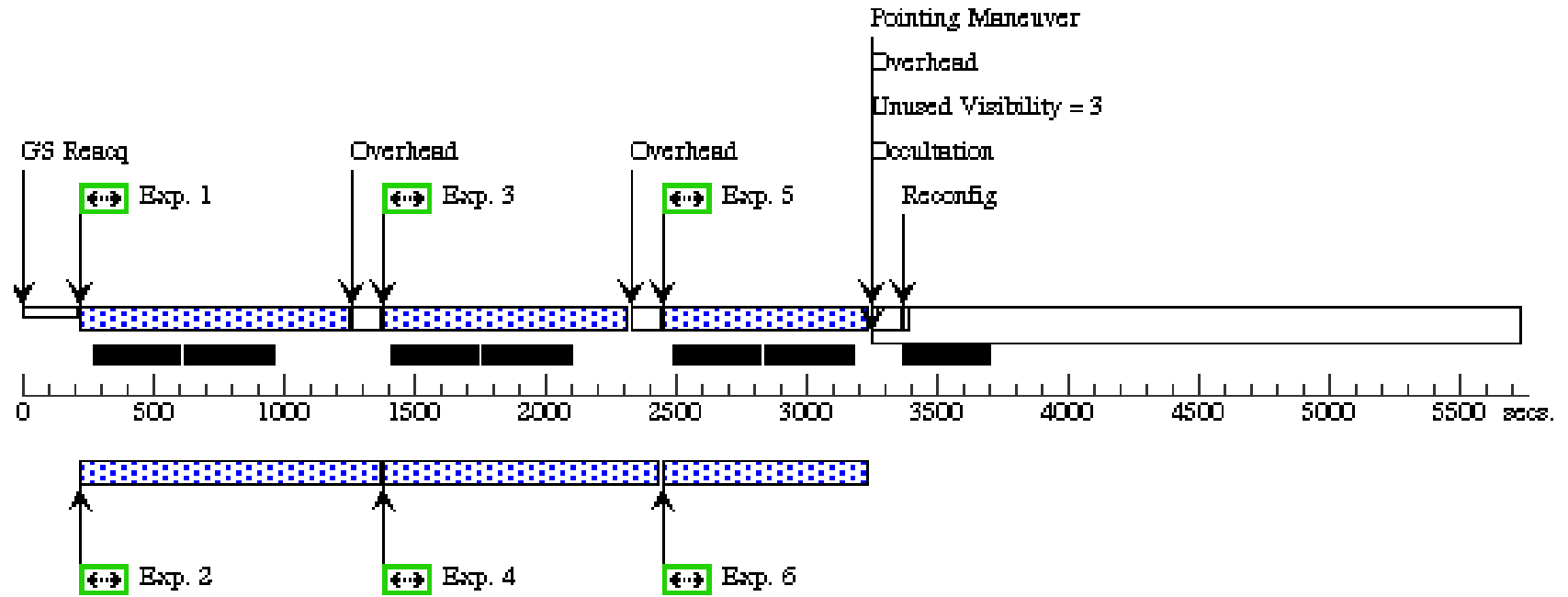
Proposal 12513 - Visit 08 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

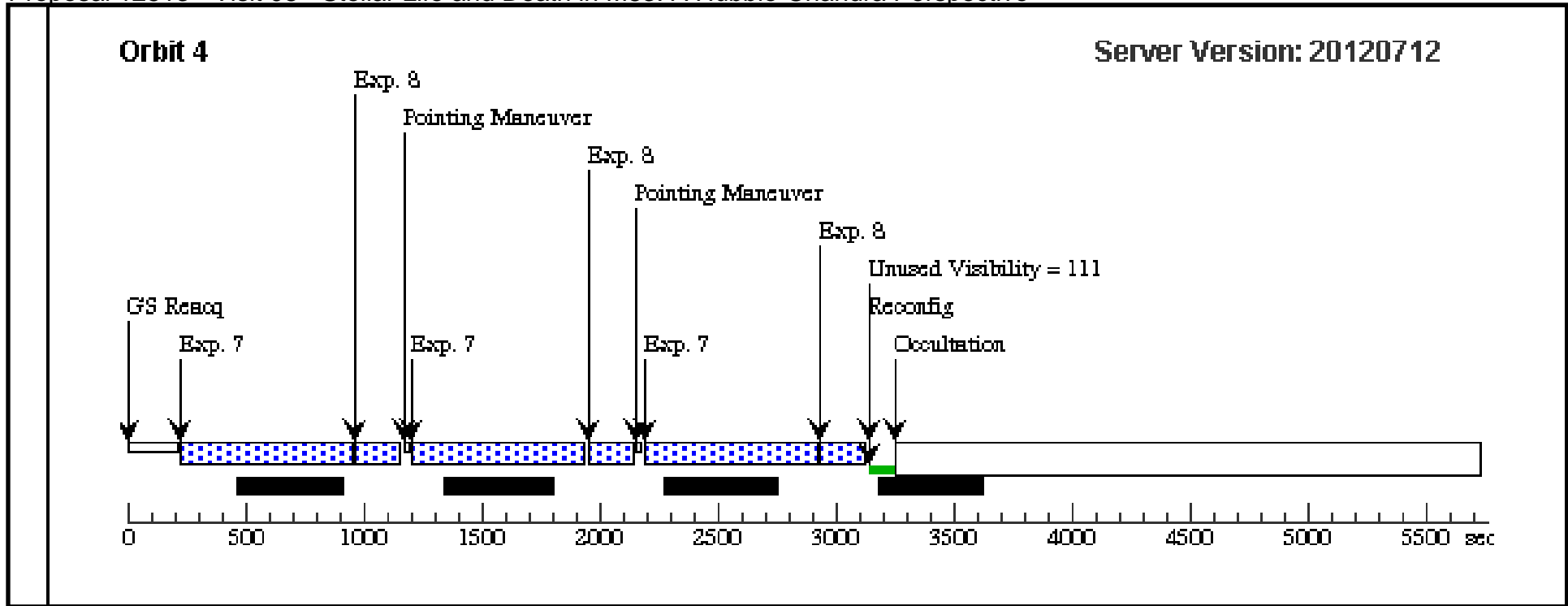
| Exposures | #      | Label      | Target                      | Config,Mode,Aperture       | Spectral Els.                     | Opt. Params. | Special Reqs.                       | Groups  | Exp. Time/[Actual Dur.]                                       | Orbit                        |
|-----------|--------|------------|-----------------------------|----------------------------|-----------------------------------|--------------|-------------------------------------|---|---|------------------------------|
|           | 1      | 502-1      | (4) M83-F6                  | WFC3/UVIS, ACCUM, UVIS-FIX | F502N                             | FLASH=8      |                                     | Pattern 1, Exps 1-6 in Visit 08 (1)                           | 900 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>968.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 08 | [==>1007.0 Secs (Pattern 2)] |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>1007.0 Secs (Pattern 3)]                                  | [3]                          |
|           | 2      | acs435     | ANY                         | ACS/WFC, ACCUM, WFC-FIX    | F435W                             |              |                                     | Pattern 1, Exps 1-6 in Visit 08 (1)                           | 500 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>913.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 08 | [==>981.0 Secs (Pattern 2)]  |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>981.0 Secs (Pattern 3)]                                   | [3]                          |
| 3         | 547-1  | (4) M83-F6 | WFC3/UVIS, ACCUM, UVIS-FIX  | F547M                      | FLASH=5                           |              | Pattern 1, Exps 1-6 in Visit 08 (1) | 800 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>868.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 08 | [==>907.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>907.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 4         | acs814 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F814W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 08 (1) | 600 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>863.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 08 | [==>902.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>902.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 5         | 673-1  | (4) M83-F6 | WFC3/UVIS, ACCUM, UVIS-FIX  | F673N                      | FLASH=8                           |              | Pattern 1, Exps 1-6 in Visit 08 (1) | 660 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>728.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 08 | [==>767.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>767.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 6         | acs555 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F555W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 08 (1) | 500 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>575.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 08 | [==>614.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>614.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 7         | 164-1  | (4) M83-F6 | WFC3/IR, MULTIACCUM, IR-FIX | F164N                      | NSAMP=15;<br>SAMP-SEQ=SPAR<br>S50 |              | Pattern 2, Exps 7-8 in Visit 08 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |
| 8         | 160-1  | (4) M83-F6 | WFC3/IR, MULTIACCUM, IR-FIX | F160W                      | NSAMP=8;<br>SAMP-SEQ=SPAR<br>S25  |              | Pattern 2, Exps 7-8 in Visit 08 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |



Orbit 3

Server Version: 20120712





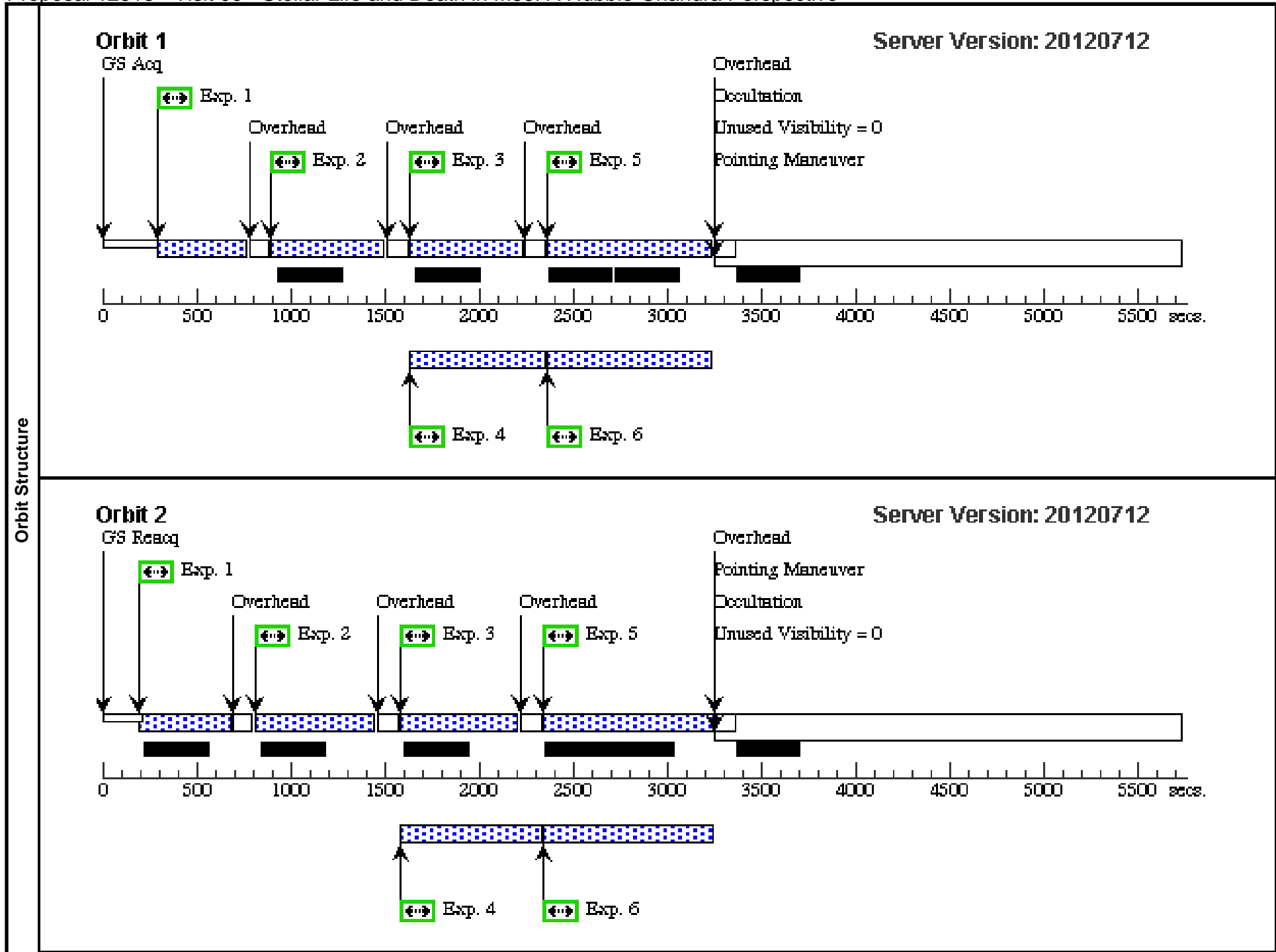
Proposal 12513 - Visit 09 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

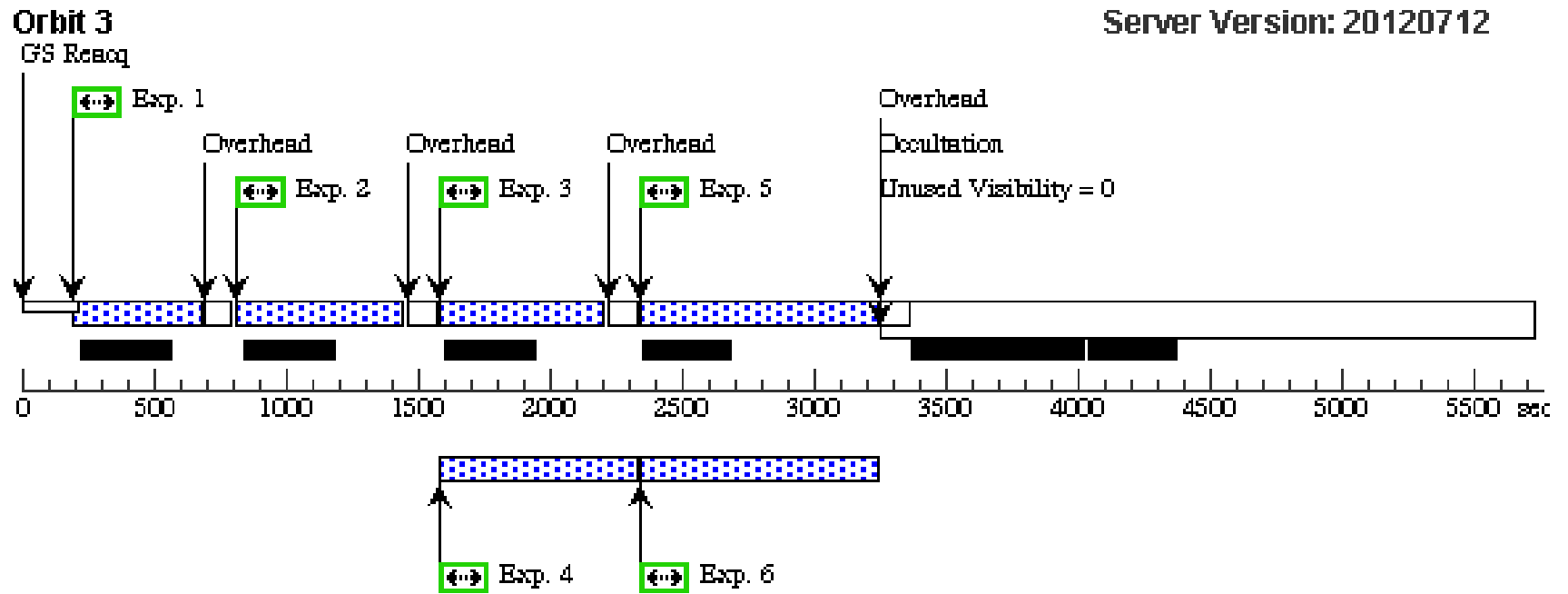
Sat Aug 04 01:06:18 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 09, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 7 Visit 1</i>   |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 09) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 09) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 657-1 (09.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 336-1 (09.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (5)   | M83-F7  | RA: 13 37 15.7400 (204.3155833d)<br>Dec: -29 51 28.00 (-29.85778d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

Proposal 12513 - Visit 09 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

| Exposures | #        | Label      | Target                     | Config,Mode,Aperture       | Spectral Els. | Opt. Params. | Special Reqs.   | Groups                              | Exp. Time/[Actual Dur.]     | Orbit |
|-----------|----------|------------|----------------------------|----------------------------|---------------|--------------|---|-------------------------------------|-----------------------------|-------|
|           | 1        | 814-1      | (5) M83-F7                 | WFC3/UVIS, ACCUM, UVIS-FIX | F814W         |              |   | Pattern 1, Exps 1-6 in Visit 09 (1) | 400 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>441.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>469.0 Secs (Pattern 2)] | [2]   |
|           |          |            |                            |                            |               |              |   |                                     | [==>469.0 Secs (Pattern 3)] | [3]   |
|           | 2        | 438-1      | (5) M83-F7                 | WFC3/UVIS, ACCUM, UVIS-FIX | F438W         | FLASH=3      |   | Pattern 1, Exps 1-6 in Visit 09 (1) | 540 Secs                    |       |
|           |          |            |                            |                            |               |              |   |                                     | [==>581.0 Secs (Pattern 1)] | [1]   |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 3)]         | [3]                         |       |
| 3         | 657-1    | (5) M83-F7 | WFC3/UVIS, ACCUM, UVIS-FIX | F657N                      | FLASH=8       |              | Pattern 1, Exps 1-6 in Visit 09 (1)                           | 540 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>581.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 09 | [==>609.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>609.0 Secs (Pattern 3)]         | [3]                         |       |
| 4         | acs658-1 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 09 (1)                           | 500 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>510.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 09 | [==>622.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>622.0 Secs (Pattern 3)]         | [3]                         |       |
| 5         | 336-1    | (5) M83-F7 | WFC3/UVIS, ACCUM, UVIS-FIX | F336W                      | FLASH=10      |              | Pattern 1, Exps 1-6 in Visit 09 (1)                           | 800 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>841.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 09 | [==>869.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>869.0 Secs (Pattern 3)]         | [3]                         |       |
| 6         | acs658-2 | ANY        | ACS/WFC, ACCUM, WFC-FIX    | F658N                      |               |              | Pattern 1, Exps 1-6 in Visit 09 (1)                           | 600 Secs                            |                             |       |
|           |          |            |                            |                            |               |              |   | [==>746.0 Secs (Pattern 1)]         | [1]                         |       |
|           |          |            |                            |                            |               |              | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 09 | [==>773.0 Secs (Pattern 2)]         | [2]                         |       |
|           |          |            |                            |                            |               |              |   | [==>773.0 Secs (Pattern 3)]         | [3]                         |       |





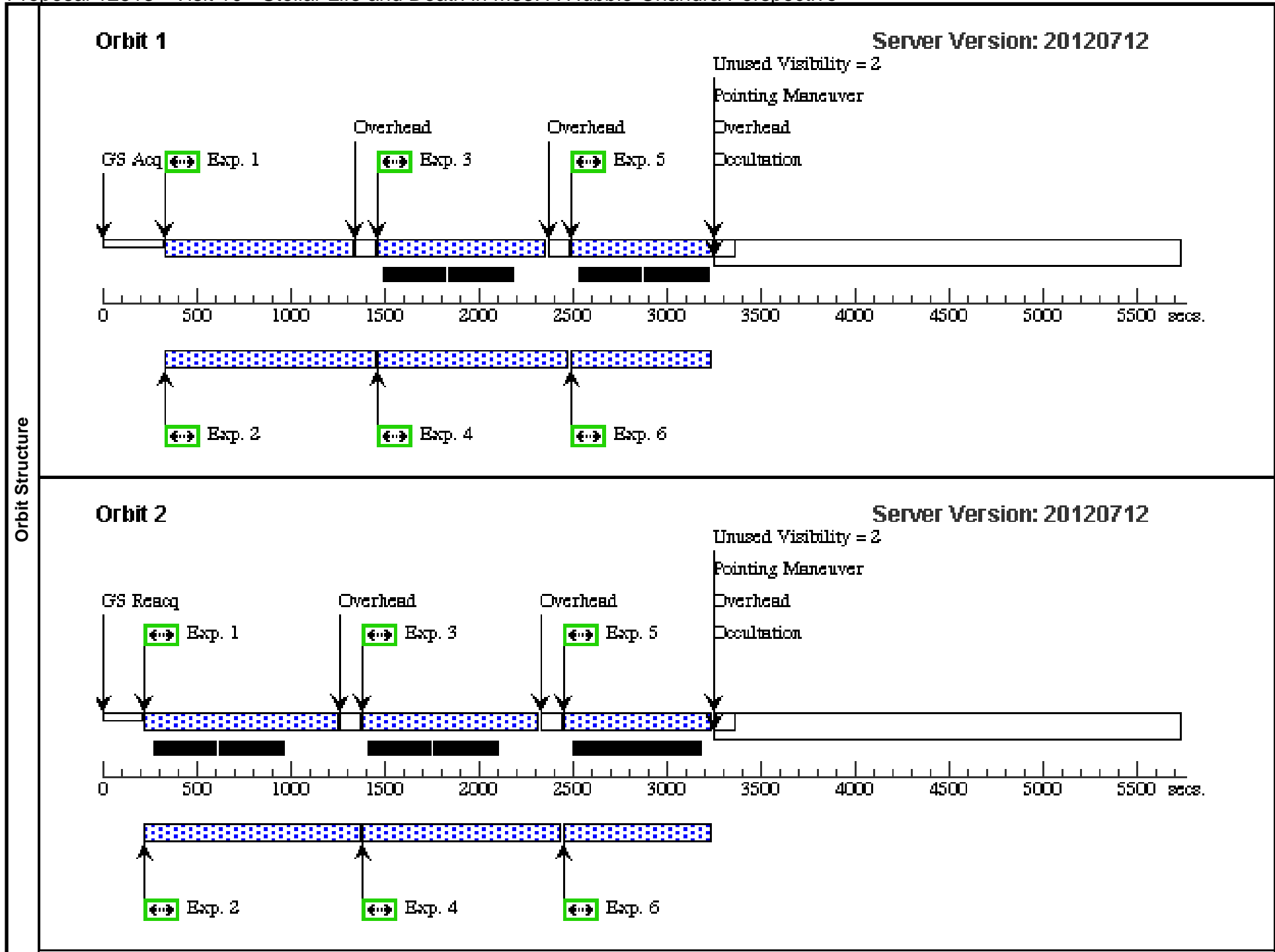
Proposal 12513 - Visit 10 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

Sat Aug 04 01:06:21 GMT 2012

|                      |   |   |  |                                 |               |                       |
|----------------------|---|---|--|---------------------------------|---------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 12513, Visit 10, implementation</b><br><b>Diagnostic Status: Warning</b><br>Scientific Instruments: WFC3/IR, WFC3/UVIS, ACS/WFC<br>Special Requirements: SAME ORIENT AS 01<br><i>Comments: Field 7, Visit 2</i>   |   |  |                                 |               |                       |
|                      | <b>Diagnosics</b><br>(Visit 10) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 10) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Visit 10) Warning (Orbit Planner): PATTERN AND COORDINATED PARALLEL MISMATCH<br>(Primary 502-1 (10.001)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 547-1 (10.003)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs.<br>(Primary 673-1 (10.005)) Warning (Form): Light from the flash may escape from WFC3 and possibly contaminate exposures in other SIs. |   |  |                                 |               |                       |
| <b>Patterns</b>      | <b>#</b>  | <b>Primary Pattern</b>  | <b>Secondary Pattern</b>   | <b>Exposures</b>                |               |                       |
|                      | (1)   | Pattern Type=WFC3-UVIS-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=1.605<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=86.700<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6)                           |               |                       |
| (2)                  | Pattern Type=WFC3-IR-DITHER-LINE-3PT<br>Purpose=DITHER<br>Number Of Points=3<br>Point Spacing=12.987<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=65.136<br>Angle Between Sides=<br>Center Pattern=false  |   | (7-8)  |                                 |               |                       |
| <b>Fixed Targets</b> | <b>#</b>  | <b>Name</b>   | <b>Target Coordinates</b>  | <b>Targ. Coord. Corrections</b> | <b>Fluxes</b> | <b>Miscellaneous</b>  |
|                      | (5)   | M83-F7  | RA: 13 37 15.7400 (204.3155833d)<br>Dec: -29 51 28.00 (-29.85778d)<br>Equinox: J2000 |                                 | V=7.54        | Reference Frame: ICRS |

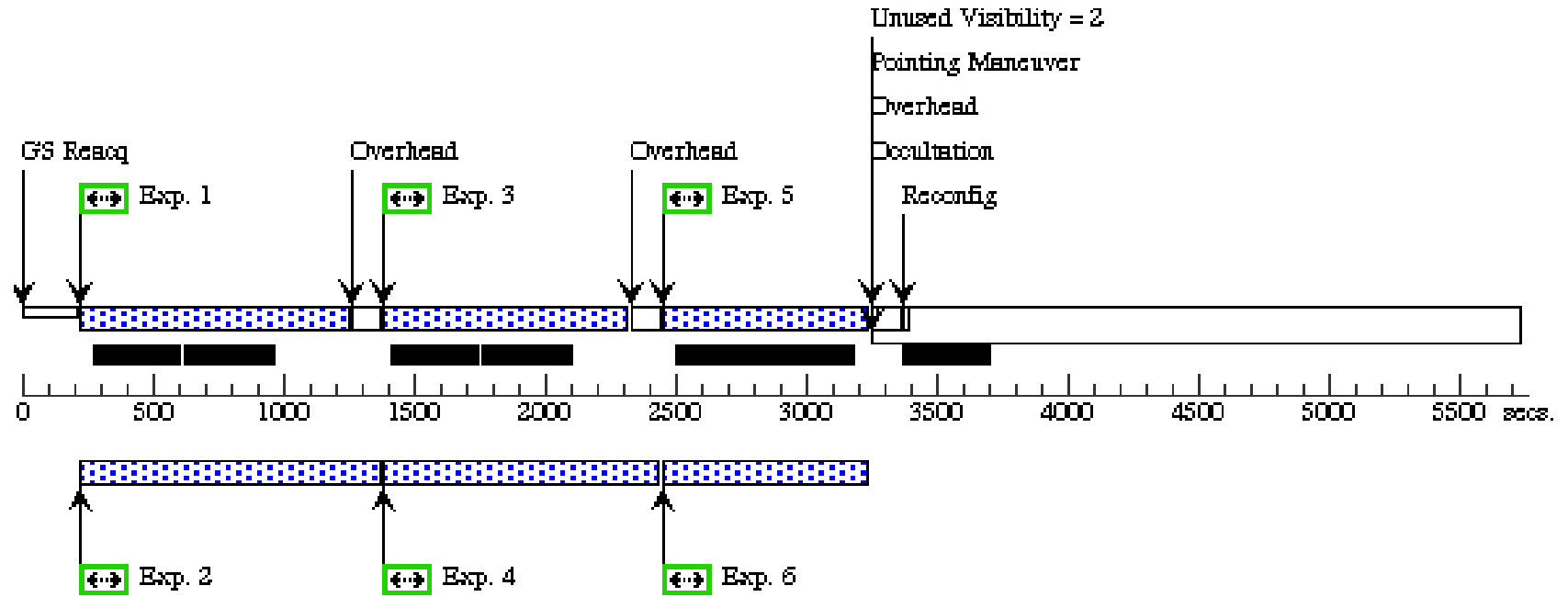
Proposal 12513 - Visit 10 - Stellar Life and Death in M83: A Hubble-Chandra Perspective

| Exposures | #      | Label      | Target                      | Config,Mode,Aperture       | Spectral Els.                     | Opt. Params. | Special Reqs.                       | Groups  | Exp. Time/[Actual Dur.]                                       | Orbit                        |
|-----------|--------|------------|-----------------------------|----------------------------|-----------------------------------|--------------|-------------------------------------|---|---|------------------------------|
|           | 1      | 502-1      | (5) M83-F7                  | WFC3/UVIS, ACCUM, UVIS-FIX | F502N                             | FLASH=8      |                                     | Pattern 1, Exps 1-6 in Visit 10 (1)                           | 900 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>968.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 10 | [==>1007.0 Secs (Pattern 2)] |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>1007.0 Secs (Pattern 3)]                                  | [3]                          |
|           | 2      | acs435     | ANY                         | ACS/WFC, ACCUM, WFC-FIX    | F435W                             |              |                                     | Pattern 1, Exps 1-6 in Visit 10 (1)                           | 500 Secs  |                              |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>913.0 Secs (Pattern 1)]                                   | [1]                          |
|           |        |            |                             |                            |                                   |              |                                     |   | Prime + Parallel Group 1-2 in Pattern 1, Exps 1-6 in Visit 10 | [==>981.0 Secs (Pattern 2)]  |
|           |        |            |                             |                            |                                   |              |                                     |   | [==>981.0 Secs (Pattern 3)]                                   | [3]                          |
| 3         | 547-1  | (5) M83-F7 | WFC3/UVIS, ACCUM, UVIS-FIX  | F547M                      | FLASH=5                           |              | Pattern 1, Exps 1-6 in Visit 10 (1) | 800 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>868.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 10 | [==>907.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>907.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 4         | acs814 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F814W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 10 (1) | 600 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>864.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 3-4 in Pattern 1, Exps 1-6 in Visit 10 | [==>903.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>903.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 5         | 673-1  | (5) M83-F7 | WFC3/UVIS, ACCUM, UVIS-FIX  | F673N                      | FLASH=8                           |              | Pattern 1, Exps 1-6 in Visit 10 (1) | 660 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>728.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 10 | [==>767.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>767.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 6         | acs555 | ANY        | ACS/WFC, ACCUM, WFC-FIX     | F555W                      |                                   |              | Pattern 1, Exps 1-6 in Visit 10 (1) | 500 Secs  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>575.0 Secs (Pattern 1)]                                   | [1]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | Prime + Parallel Group 5-6 in Pattern 1, Exps 1-6 in Visit 10 | [==>614.0 Secs (Pattern 2)]                                   | [2]                          |
|           |        |            |                             |                            |                                   |              |                                     | [==>614.0 Secs (Pattern 3)]                                   | [3]   |                              |
| 7         | 164-1  | (5) M83-F7 | WFC3/IR, MULTIACCUM, IR-FIX | F164N                      | NSAMP=15;<br>SAMP-SEQ=SPAR<br>S50 |              | Pattern 2, Exps 7-8 in Visit 10 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |
| 8         | 160-1  | (5) M83-F7 | WFC3/IR, MULTIACCUM, IR-FIX | F160W                      | NSAMP=8;<br>SAMP-SEQ=SPAR<br>S25  |              | Pattern 2, Exps 7-8 in Visit 10 (2) | [==>(Pattern 1)]  |   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 2)]  | [4]   |                              |
|           |        |            |                             |                            |                                   |              |                                     | [==>(Pattern 3)]  |   |                              |



**Orbit 3**

**Server Version: 20120712**



Orbit 4

