



## 14382 - WFC3/UVIS contamination and stability monitor

Cycle: 23, Proposal Category: CAL/WFC3

(Availability Mode: RESTRICTED)

### 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) GRW+70D5824              | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:17.0        | yes                           |
| 02           | (1) GRW+70D5824              | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:23.0        | yes                           |
| 03           | (1) GRW+70D5824              | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:28.0        | yes                           |
| 04           | (1) GRW+70D5824              | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:32.0        | yes                           |
| 26           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:37.0        | yes                           |
| 27           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:41.0        | yes                           |
| 28           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:45.0        | yes                           |
| 29           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:49.0        | yes                           |
| 30           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:53.0        | yes                           |
| 31           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:16:57.0        | yes                           |
| 32           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:17:01.0        | yes                           |
| 33           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:17:05.0        | yes                           |
| 34           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:17:08.0        | 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> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 35           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:17:12.0        | yes                           |
| 36           | (2) GD153                    | WFC3/UVIS                           | 1                  | 30-Oct-2015 21:17:16.0        | yes                           |

15 Total Orbits Used

## ABSTRACT

Data from this proposal are used for monitoring the photometric throughput stability of WFC3/UVIS. Imaging of a spectrophotometric standard star in a subset of filters on both chips allows for an assessment of throughput stability as a function of time and wavelength as well as a check for the presence of possible contaminants on the detector windows. Results from these data are also used in determining the WFC3/UVIS photometric zeropoints.

## OBSERVING DESCRIPTION

The monitor observing cadence is deliberately out of synchronization with the monthly anneals so that over the course of a Cycle, images are acquired at a variety of times after an anneal. Each iteration obtains dithered subarray observations of a standard star in a subsample of filters in the UVIS, including the UV grism, on both UVIS chips.

Past monitors for WFC3 and other HST instruments have used the spectrophotometric white dwarf standard GRW+70D5824. However recent analyses cast doubt on the stability of the star's flux. Bohlin & Landolt (2015, AJ 149, 122B) report a decrease in throughput of 5-6 mmag/yr in U and B (3 sigma significance) and a decrease in VRI of ~3 mmag/yr (2 sigma significance) in GRW+70 ground-based data. Analysis of WFC3 on-orbit data by Gosmeyer et al (ISR 2014-20) did not show a decrease in the UV throughput but instead a slight increase in the wide U filters F218W, F225W throughput (~1 mmag/yr), no change in F275W, F336W (UV wide, Stromgren u) throughput, and a decrease in F606W and F814W (wide V, wide I) throughput of 2-4 mmag/yr respectively. For these reasons, we begin the transition to another white dwarf spectrophotometric standard (GD153), interleaving it with a small number of contemporaneous GRW+70 visits to tie results from the new standard back to past monitor data.

15 visits (1 orbit each) total cover Cycle 23 and provide overlap of the two standard stars

11 visits GD153 (one orbit every 5 weeks)

4 visits GRW+70 (two early-, one mid-, and one late-cycle)

This program is a modification of 14018 from Cycle 22, whose last visit runs the week of Nov 2, 2015.

----- Additional Comments -----

Starting from the last Cycle 22 visit the week of Nov 2, the ideal 5-week cadence results in these Cycle 23 windows:

07-DEC-2015:00:00:00 13-DEC-2015:23:59:59

11-JAN-2016:00:00:00 17-JAN-2016:23:59:59 (plus GRW+70)

15-FEB-2016:00:00:00 21-FEB-2016:23:59:59 (plus GRW+70)

21-MAR-2016:00:00:00 27-MAR-2016:23:59:59

25-APR-2016:00:00:00 01-MAY-2016:23:59:59

30-MAY-2016:00:00:00 05-JUN-2016:23:59:59 (plus GRW+70)

04-JUL-2016:00:00:00 10-JUL-2016:23:59:59

08-AUG-2016:00:00:00 14-AUG-2016:23:59:59

12-SEP-2016:00:00:00 18-SEP-2016:23:59:59

17-OCT-2016:00:00:00 23-OCT-2016:23:59:59

21-NOV-2016:00:00:00 27-NOV-2016:23:59:59 (plus GRW+70)

However, some of these windows required adjustment due to lack of target visibility. In particular, GD153 is not visible for large blocks of Sep/Oct so the windows for both standards have been shifted around somewhat to achieve as uniform a coverage as possible.

Proposal 14382 - grw - iteration 1 early in cycle (01) - WFC3/UVIS contamination and stability monitor

Sat Oct 31 01:17:19 GMT 2015

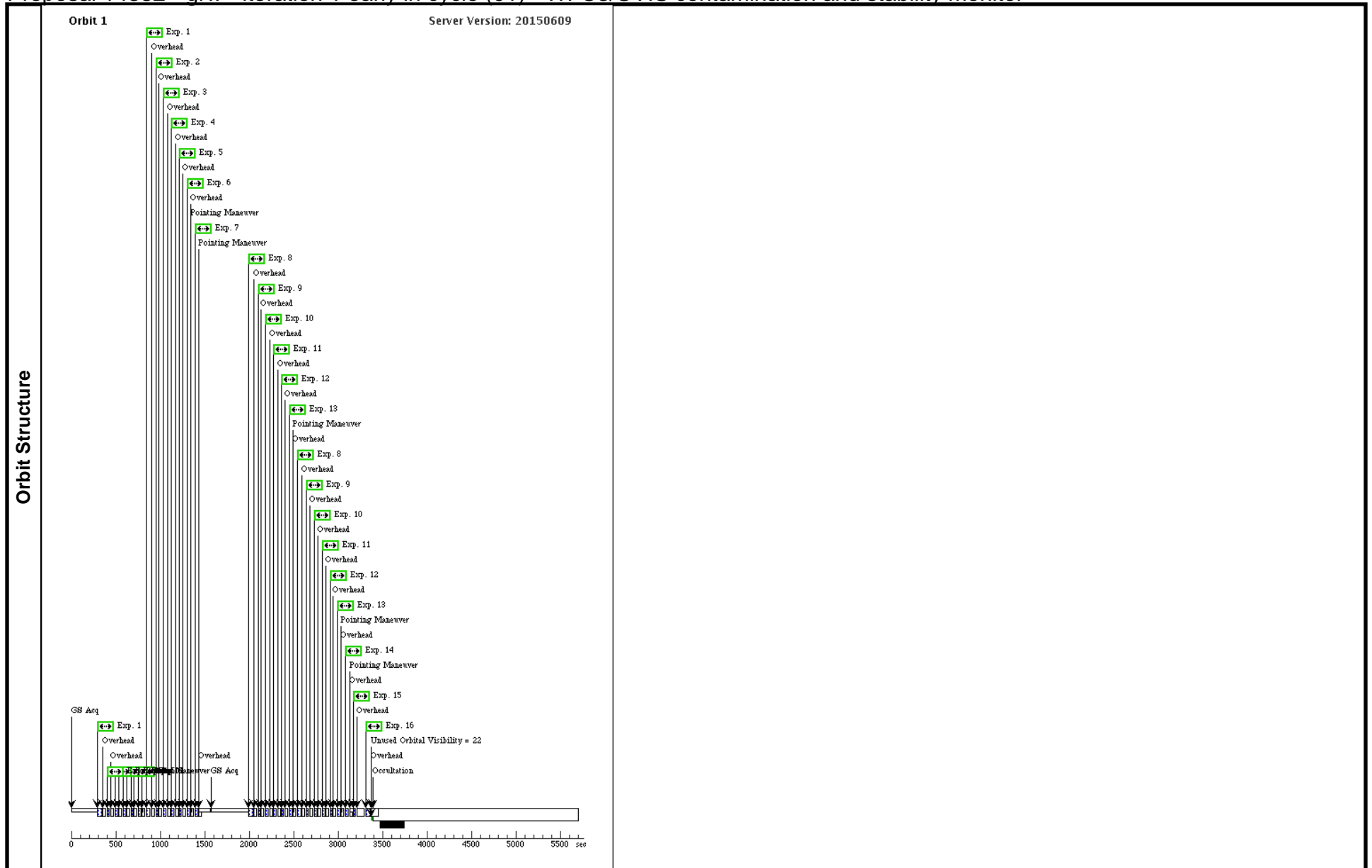
|                      |  |  |  |  |                          |  |
|----------------------|--|--|--|--|--------------------------|--|
| <b>Visit</b>         | <b>Proposal 14382, grw - iteration 1 early in cycle (01), scheduling</b><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 11-JAN-2016:00:00:00 AND 17-JAN-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels plus 2 short f225w after pattern</i> |  |  |  |                          |  |
|                      | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>   | <b>Exposures</b>         |  |
|                      | (2)  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6), (8-13)            |  |
| <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)  | GRW+70D5824<br>Alt Name1: PRIMARY  | RA: 13 38 51.1700 (204.7132083d)<br>Dec: +70 17 7.85 (70.28551d)<br>Equinox: J2000                     | Proper Motion RA: -0.0798 sec of time/yr<br>Proper Motion Dec: -0.0262 arcsec/yr<br>Epoch of Position: 1991.25 | V=12.77<br>B-V = -9.0e-2 | Reference Frame:<br>WFPC2 OBSERVATIONS |

Proposal 14382 - grw - iteration 1 early in cycle (01) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target       | Config,Mode,Aperture | Spectral Els.                     | Opt. Params. | Special Reqs.           | Groups  | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|--------------|----------------------|-----------------------------------|--------------|-------------------------|---|---|-------|
| Exposures | 1     | F218W-UVI S1 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 1-6 in grw - iteration 1 early in cycle (01) (2)  | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI S1 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 1-6 in grw - iteration 1 early in cycle (01) (2)  | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 3     | F275W-UVI S1 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 1-6 in grw - iteration 1 early in cycle (01) (2)  | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F438W-UVI S1 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 1-6 in grw - iteration 1 early in cycle (01) (2)  | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 5     | F606W-UVI S1 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 1-6 in grw - iteration 1 early in cycle (01) (2)  | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F814W-UVI S1 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 1-6 in grw - iteration 1 early in cycle (01) (2)  | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 7     | F336W-UVI S1 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W        | CR-SPLIT=NO; FLASH=12.0 |   | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |
|           | 8     | F218W-UVI S2 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 8-13 in grw - iteration 1 early in cycle (01) (2) | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI S2 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W        | CR-SPLIT=NO; FLASH=12.0 | Pattern 2, Exps 8-13 in grw - iteration 1 early in cycle (01) (2) | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 10    | F275W-UVI S2 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W        | CR-SPLIT=NO; FLASH=12.0 | Pattern 2, Exps 8-13 in grw - iteration 1 early in cycle (01) (2) | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F438W-UVI S2 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W        | CR-SPLIT=NO; FLASH=12.0 | Pattern 2, Exps 8-13 in grw - iteration 1 early in cycle (01) (2) | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 12    | F606W-UVI S2 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 8-13 in grw - iteration 1 early in cycle (01) (2) | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 13    | F814W-UVI S2 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W        | CR-SPLIT=NO; FLASH=12.  | Pattern 2, Exps 8-13 in grw - iteration 1 early in cycle (01) (2) | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 14    | F336W-UVI S2 | (1) GRW+70D5824      | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W        | CR-SPLIT=NO; FLASH=12.0 |   | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |

Proposal 14382 - grw - iteration 1 early in cycle (01) - WFC3/UVIS contamination and stability monitor

|  |   |                 |                        |       |   |                   |                    |       |     |
|--|---|-----------------|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                 |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip2                               | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                 |                        |       |   |                   |                    |       |     |



Proposal 14382 - grw - iteration 2 early in cycle (02) - WFC3/UVIS contamination and stability monitor

Sat Oct 31 01:17:20 GMT 2015

|                      |  |  |  |  |                          |  |
|----------------------|--|--|--|--|--------------------------|--|
| <b>Visit</b>         | <b>Proposal 14382, grw - iteration 2 early in cycle (02), scheduling</b><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 15-FEB-2016:00:00:00 AND 21-FEB-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels plus 2 short f225w after pattern</i> |  |  |  |                          |  |
|                      | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>   | <b>Exposures</b>         |  |
|                      | (2)  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6), (8-13)            |  |
| <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)  | GRW+70D5824<br>Alt Name1: PRIMARY  | RA: 13 38 51.1700 (204.7132083d)<br>Dec: +70 17 7.85 (70.28551d)<br>Equinox: J2000                     | Proper Motion RA: -0.0798 sec of time/yr<br>Proper Motion Dec: -0.0262 arcsec/yr<br>Epoch of Position: 1991.25 | V=12.77<br>B-V = -9.0e-2 | Reference Frame:<br>WFPC2 OBSERVATIONS |

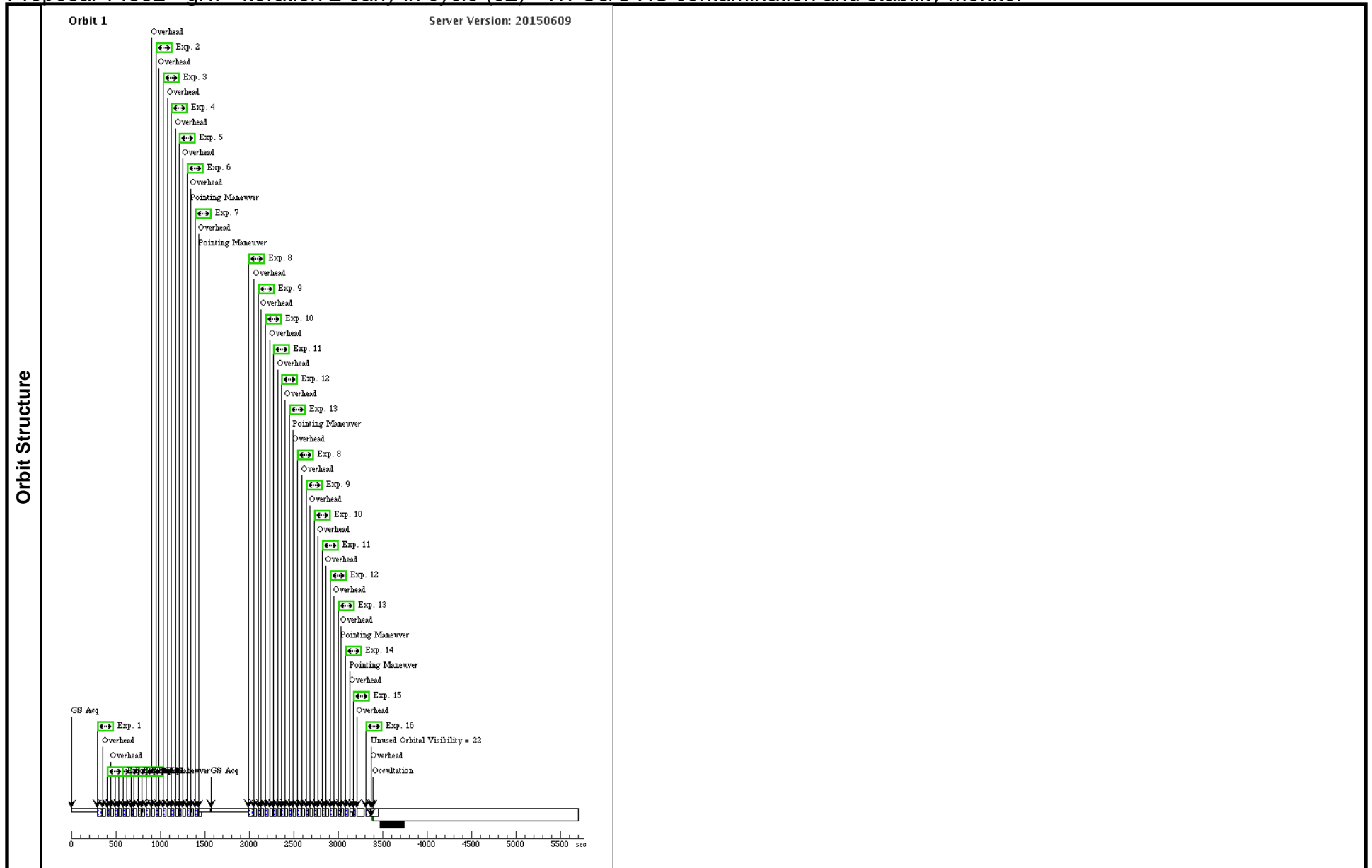


Proposal 14382 - grw - iteration 2 early in cycle (02) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target       | Config,Mode,Aperture                              | Spectral Els. | Opt. Params.            | Special Reqs. | Groups  | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|--------------|---|---------------|-------------------------|---------------|---|---|-------|
| Exposures | 1     | F218W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 2 early in cycle (02) (2)  | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 2 early in cycle (02) (2)  | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 3     | F275W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 2 early in cycle (02) (2)  | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F438W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 2 early in cycle (02) (2)  | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 5     | F606W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 2 early in cycle (02) (2)  | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F814W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 2 early in cycle (02) (2)  | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 7     | F336W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |   | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |
|           | 8     | F218W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 2 early in cycle (02) (2) | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 2 early in cycle (02) (2) | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 10    | F275W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 2 early in cycle (02) (2) | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F438W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 2 early in cycle (02) (2) | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 12    | F814W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 2 early in cycle (02) (2) | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 13    | F606W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 2 early in cycle (02) (2) | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 14    | F336W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |   | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |

Proposal 14382 - grw - iteration 2 early in cycle (02) - WFC3/UVIS contamination and stability monitor

|  |   |                 |                        |       |   |                   |                    |       |     |
|--|---|-----------------|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                 |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip2                               | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                 |                        |       |   |                   |                    |       |     |



Proposal 14382 - grw - iteration 3 mid-cycle (03) - WFC3/UVIS contamination and stability monitor

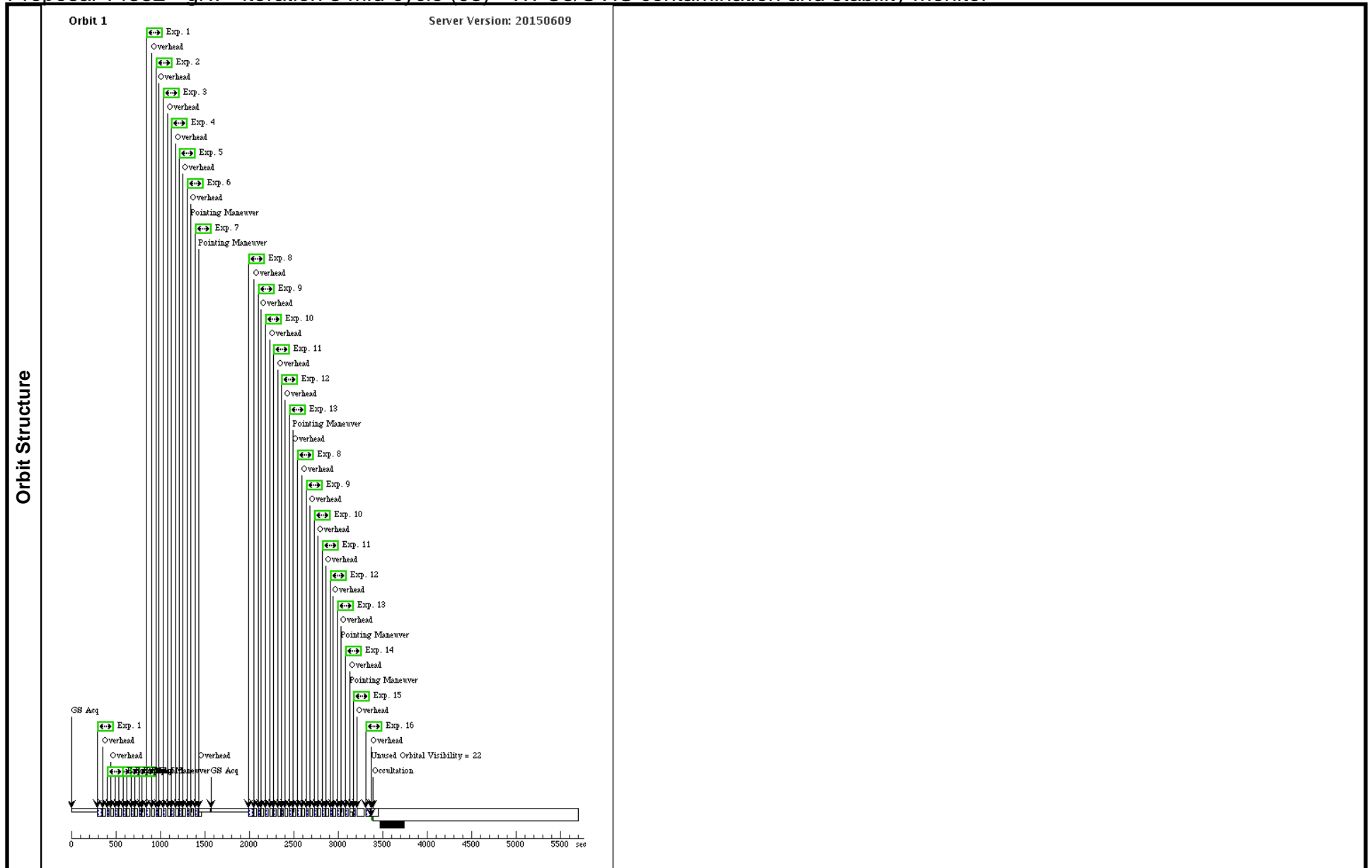
|                      |  |  |  |  |                          |  |
|----------------------|--|--|--|--|--------------------------|--|
| <b>Visit</b>         | Proposal 14382, grw - iteration 3 mid-cycle (03), scheduling <span style="float: right;">Sat Oct 31 01:17:20 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 30-MAY-2016:00:00:00 AND 05-JUN-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels plus 2 short f225w after pattern</i> |  |  |  |                          |  |
|                      | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>   | <b>Exposures</b>         |  |
| (2)                  |  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6), (8-13)  |                          |  |
| <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)  | GRW+70D5824<br>Alt Name1: PRIMARY  | RA: 13 38 51.1700 (204.7132083d)<br>Dec: +70 17 7.85 (70.28551d)<br>Equinox: J2000 | Proper Motion RA: -0.0798 sec of time/yr<br>Proper Motion Dec: -0.0262 arcsec/yr<br>Epoch of Position: 1991.25 | V=12.77<br>B-V = -9.0e-2 | Reference Frame:<br>WFPC2 OBSERVATIONS |

Proposal 14382 - grw - iteration 3 mid-cycle (03) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target       | Config,Mode,Aperture                              | Spectral Els. | Opt. Params.            | Special Reqs. | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|--------------|---|---------------|-------------------------|---------------|--|---|-------|
| Exposures | 1     | F218W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 3 mid-cycle (03) (2)  | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 3 mid-cycle (03) (2)  | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 3     | F275W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 3 mid-cycle (03) (2)  | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F438W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 3 mid-cycle (03) (2)  | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 5     | F814W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 3 mid-cycle (03) (2)  | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 6     | F606W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 3 mid-cycle (03) (2)  | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 7     | F336W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |
|           | 8     | F218W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 3 mid-cycle (03) (2) | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 3 mid-cycle (03) (2) | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 10    | F275W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 3 mid-cycle (03) (2) | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F438W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 3 mid-cycle (03) (2) | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 12    | F606W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 3 mid-cycle (03) (2) | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 13    | F814W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 3 mid-cycle (03) (2) | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 14    | F336W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |

Proposal 14382 - grw - iteration 3 mid-cycle (03) - WFC3/UVIS contamination and stability monitor

|  |   |                 |                        |       |   |                   |                    |       |     |
|--|---|-----------------|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                 |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip2                               | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                 |                        |       |   |                   |                    |       |     |



Proposal 14382 - grw - iteration 4 late cycle (04) - WFC3/UVIS contamination and stability monitor

|                      |   |  |  |  |                          |  |
|----------------------|---|--|--|--|--------------------------|--|
| <b>Visit</b>         | Proposal 14382, grw - iteration 4 late cycle (04), scheduling <span style="float: right;">Sat Oct 31 01:17:20 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 25-SEP-2016:00:00:00 AND 01-OCT-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels plus 2 short f225w after pattern</i> |  |  |  |                          |  |
|                      | <b>Patterns</b>   | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>   | <b>Exposures</b>         |  |
| (2)                  |   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-6), (8-13)  |                          |  |
| <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)   | GRW+70D5824<br>Alt Name1: PRIMARY  | RA: 13 38 51.1700 (204.7132083d)<br>Dec: +70 17 7.85 (70.28551d)<br>Equinox: J2000 | Proper Motion RA: -0.0798 sec of time/yr<br>Proper Motion Dec: -0.0262 arcsec/yr<br>Epoch of Position: 1991.25 | V=12.77<br>B-V = -9.0e-2 | Reference Frame:<br>WFPC2 OBSERVATIONS |

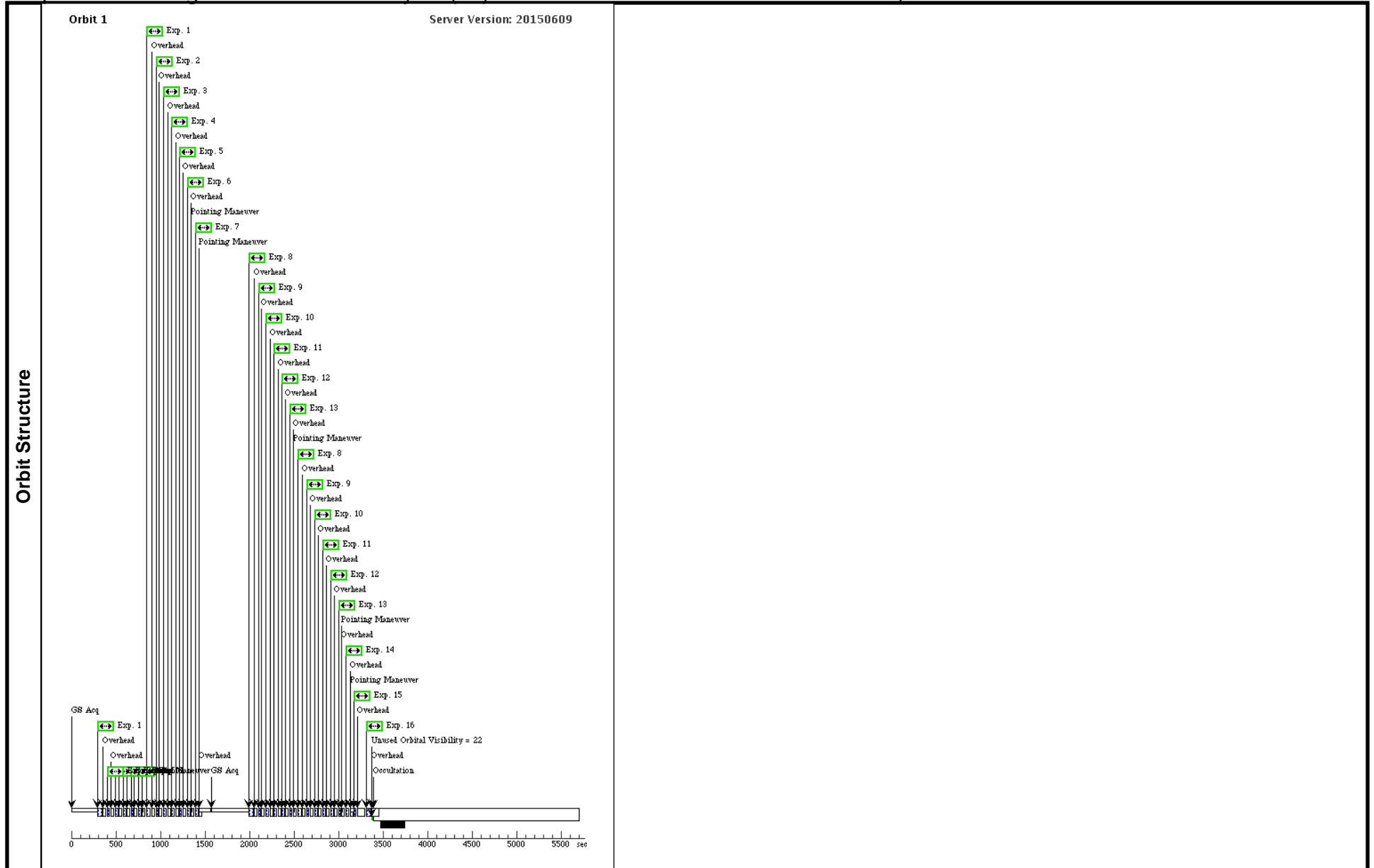


Proposal 14382 - grw - iteration 4 late cycle (04) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target       | Config,Mode,Aperture                              | Spectral Els. | Opt. Params.            | Special Reqs. | Groups  | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|--------------|---|---------------|-------------------------|---------------|---|---|-------|
| Exposures | 1     | F218W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 4 late cycle (04) (2)  | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 4 late cycle (04) (2)  | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 3     | F275W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 4 late cycle (04) (2)  | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F438W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 4 late cycle (04) (2)  | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 5     | F606W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 4 late cycle (04) (2)  | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F814W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-6 in grw - iteration 4 late cycle (04) (2)  | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 7     | F336W-UVI S1 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |   | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |
|           | 8     | F218W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 4 late cycle (04) (2) | 17.6 Secs (35.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 4 late cycle (04) (2) | 6.3 Secs (12.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 10    | F275W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 4 late cycle (04) (2) | 6.0 Secs (12 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F438W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-13 in grw - iteration 4 late cycle (04) (2) | 3.1 Secs (6.2 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 12    | F814W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 4 late cycle (04) (2) | 6.2 Secs (12.4 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]  | [1]   |
|           | 13    | F606W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-13 in grw - iteration 4 late cycle (04) (2) | 1.3 Secs (2.6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 14    | F336W-UVI S2 | (1) GRW+70D5824 WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |   | 4.0 Secs (4 Secs)<br>[==>]                                    | [1]   |

Proposal 14382 - grw - iteration 4 late cycle (04) - WFC3/UVIS contamination and stability monitor

|  |   |                 |                        |       |   |                   |                    |       |     |
|--|---|-----------------|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                 |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip2                               | (1) GRW+70D5824 | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                 |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 1 (26) - WFC3/UVIS contamination and stability monitor

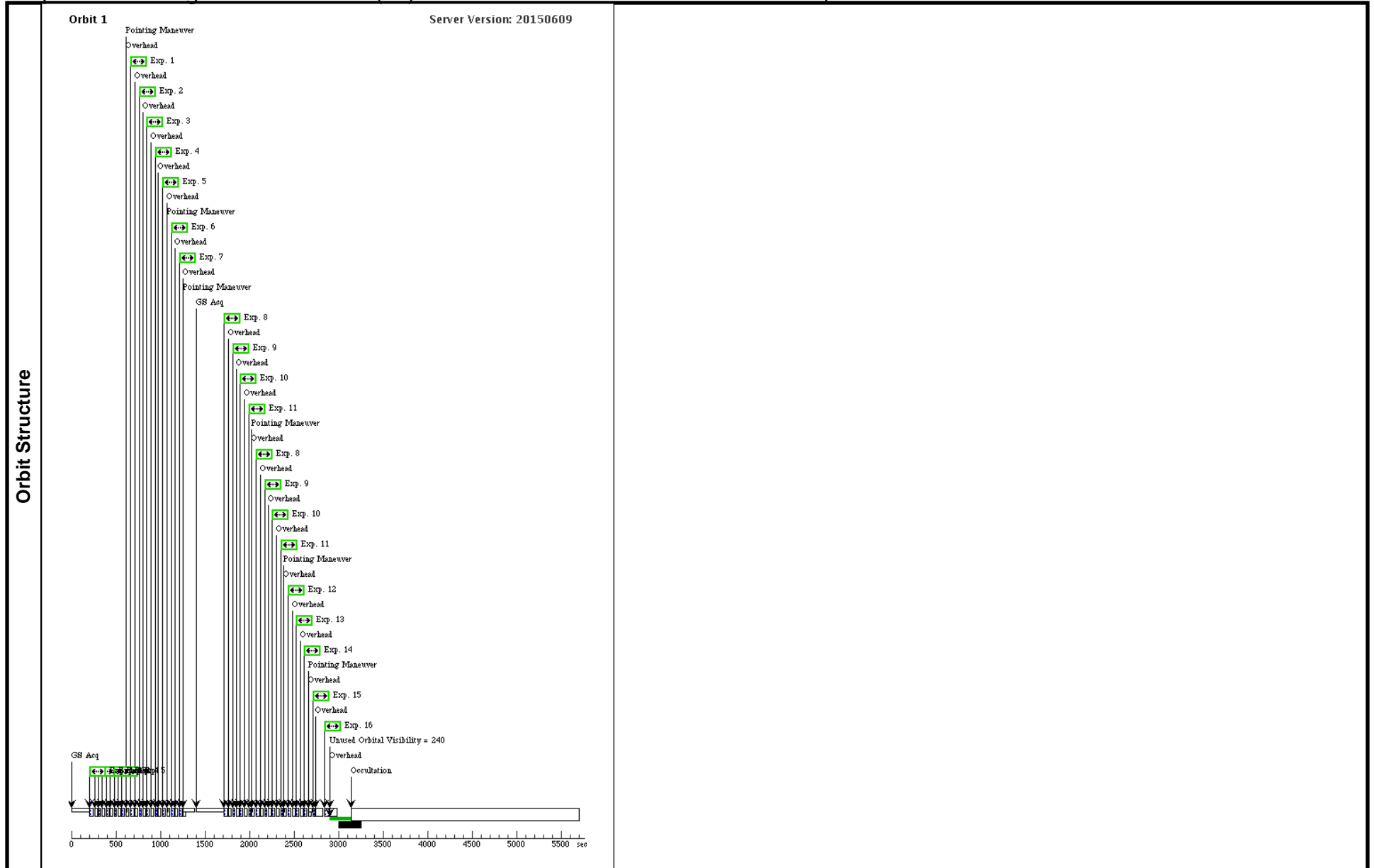
|  |  |  |  |   |                  |                       |
|--|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>   | <b>Proposal 14382, gd153 - iteration 1 (26), scheduling</b> <span style="float: right;">Sat Oct 31 01:17:21 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 11-NOV-2015:00:00:00 AND 17-NOV-2015:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|  | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
| (2)  |  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-5), (8-11)   |                  |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
| <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> |  |  |  |   |                  |                       |

Proposal 14382 - gd153 - iteration 1 (26) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.           | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|-------------------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 1-5 in gd153 - iteration 1 (26) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 1 (26) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 1 (26) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 1 (26) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 1 (26) (2)  | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 8-11 in gd153 - iteration 1 (26) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-11 in gd153 - iteration 1 (26) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-11 in gd153 - iteration 1 (26) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-11 in gd153 - iteration 1 (26) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 13    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |

Proposal 14382 - gd153 - iteration 1 (26) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (2) GD153 (F300X) subarray on chip 2 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, (2) GD153 chip2                               | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 2 (27) - WFC3/UVIS contamination and stability monitor

|  |   |  |  |   |                  |                       |
|--|---|--|--|---|------------------|-----------------------|
| <b>Visit</b>   | Proposal 14382, gd153 - iteration 2 (27), scheduling <span style="float: right;">Sat Oct 31 01:17:21 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 07-DEC-2015:00:00:00 AND 13-DEC-2015:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|  | <b>Patterns</b>   | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
| (2)  |   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-4), (8-12)   |                  |                       |
| <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)   | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
| <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> |   |  |  |   |                  |                       |

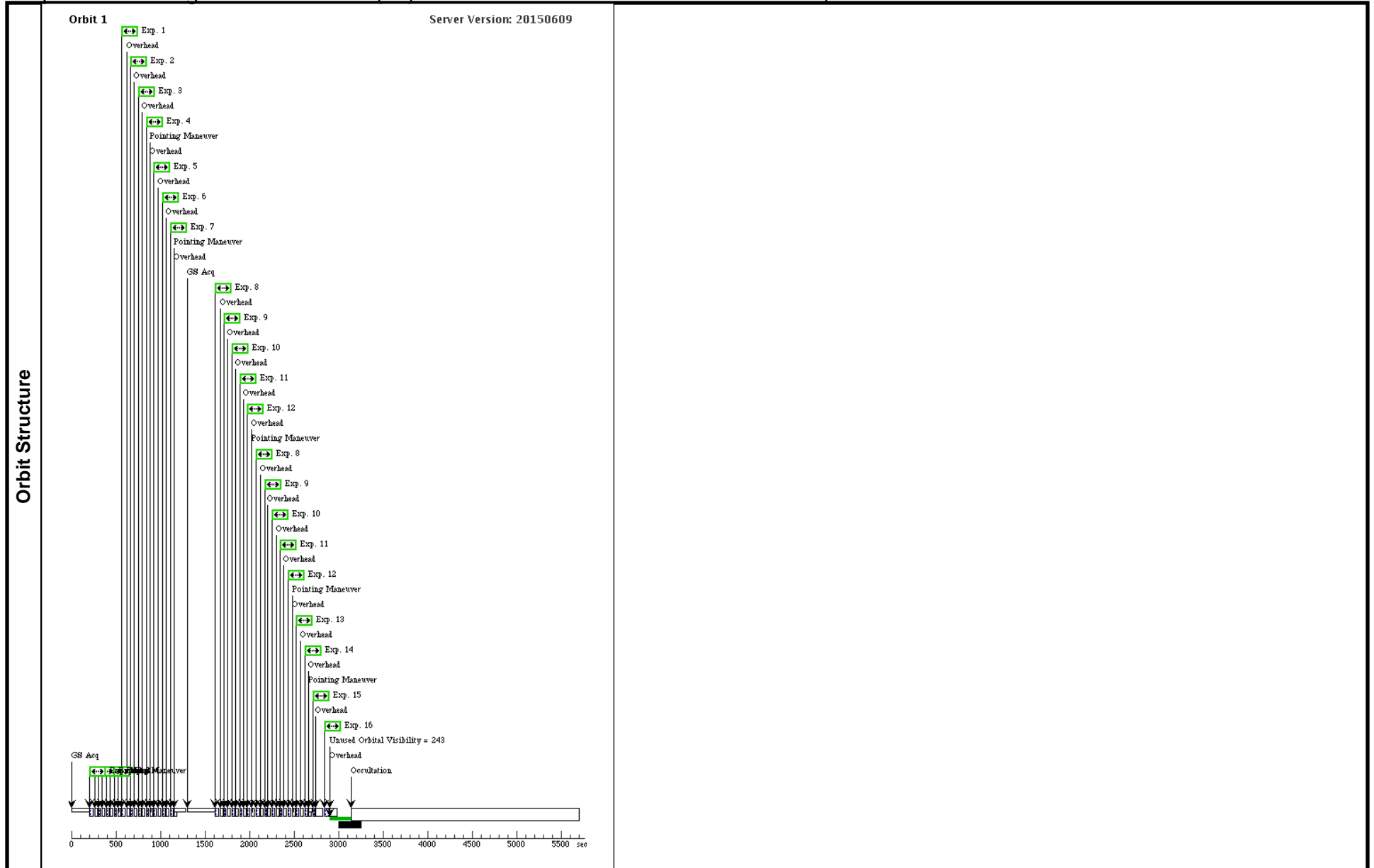


Proposal 14382 - gd153 - iteration 2 (27) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.           | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|-------------------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 1-4 in gd153 - iteration 2 (27) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 2 (27) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 2 (27) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 2 (27) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 6     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 8-12 in gd153 - iteration 2 (27) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-12 in gd153 - iteration 2 (27) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-12 in gd153 - iteration 2 (27) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-12 in gd153 - iteration 2 (27) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-12 in gd153 - iteration 2 (27) (2) | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 13    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |

Proposal 14382 - gd153 - iteration 2 (27) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (2) GD153 (F300X) subarray on chip 2 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, (2) GD153 chip2                               | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 3 (28) - WFC3/UVIS contamination and stability monitor

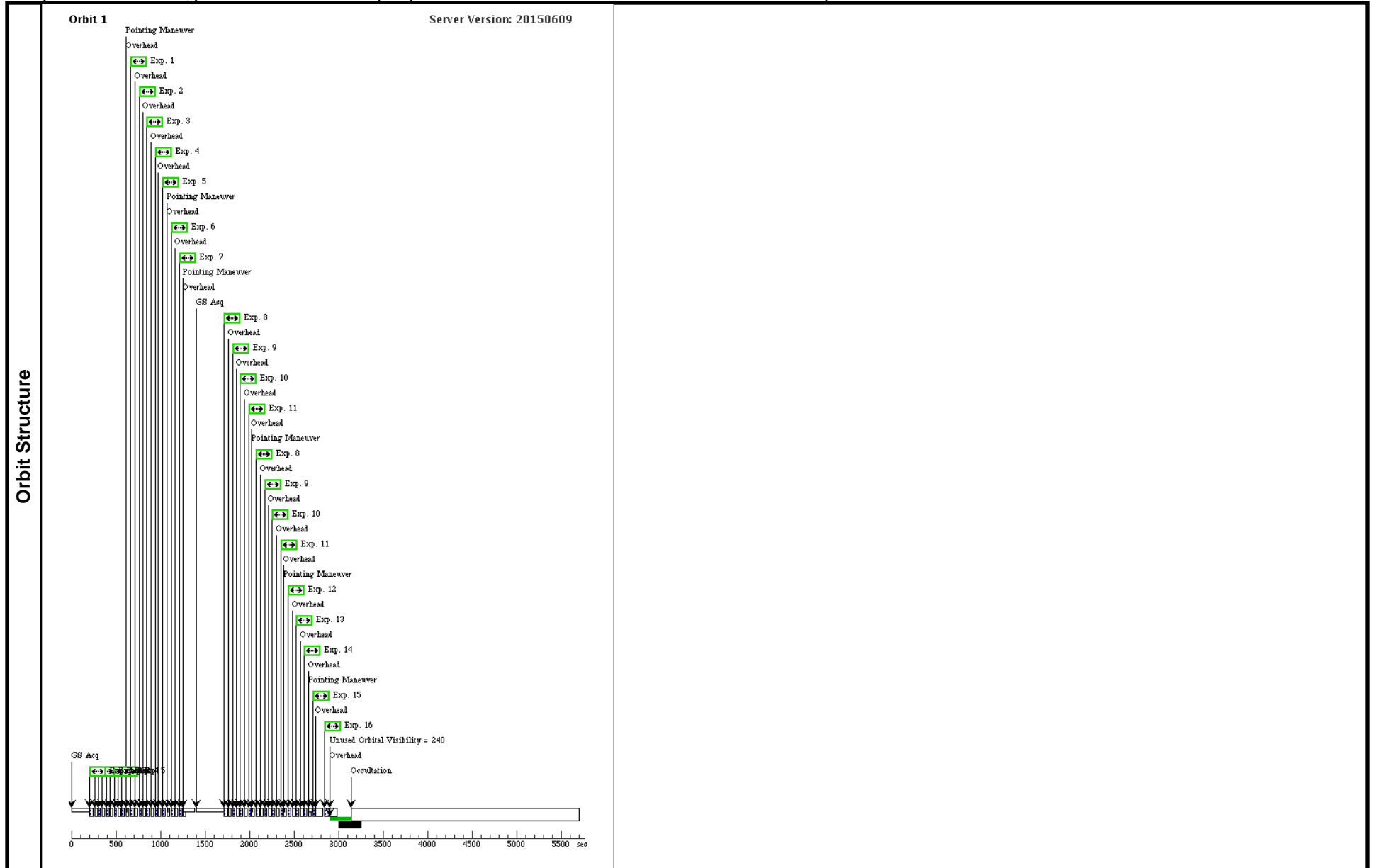
|                      |  |  |  |   |                  |                       |
|----------------------|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 14382, gd153 - iteration 3 (28), scheduling</b> <span style="float: right;">Sat Oct 31 01:17:21 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 11-JAN-2016:00:00:00 AND 17-JAN-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|                      | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
|                      | (2)  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |   | (1-5), (8-11)    |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000                     | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
|                      | <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>   |  |  |   |                  |                       |

Proposal 14382 - gd153 - iteration 3 (28) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.           | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|-------------------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 1-5 in gd153 - iteration 3 (28) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 3 (28) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 3 (28) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 3 (28) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-5 in gd153 - iteration 3 (28) (2)  | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 8-11 in gd153 - iteration 3 (28) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-11 in gd153 - iteration 3 (28) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-11 in gd153 - iteration 3 (28) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-11 in gd153 - iteration 3 (28) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 13    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |

Proposal 14382 - gd153 - iteration 3 (28) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (2) GD153 (F300X) subarray on chip 2 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, (2) GD153 chip2                               | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 4 (29) - WFC3/UVIS contamination and stability monitor

Sat Oct 31 01:17:21 GMT 2015

|                      |  |  |  |   |                  |                       |
|----------------------|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 14382, gd153 - iteration 4 (29), scheduling</b><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 15-FEB-2016:00:00:00 AND 21-FEB-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|                      | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
|                      | (2)  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |   | (1-4), (8-12)    |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000                     | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
|                      | <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>   |  |  |   |                  |                       |

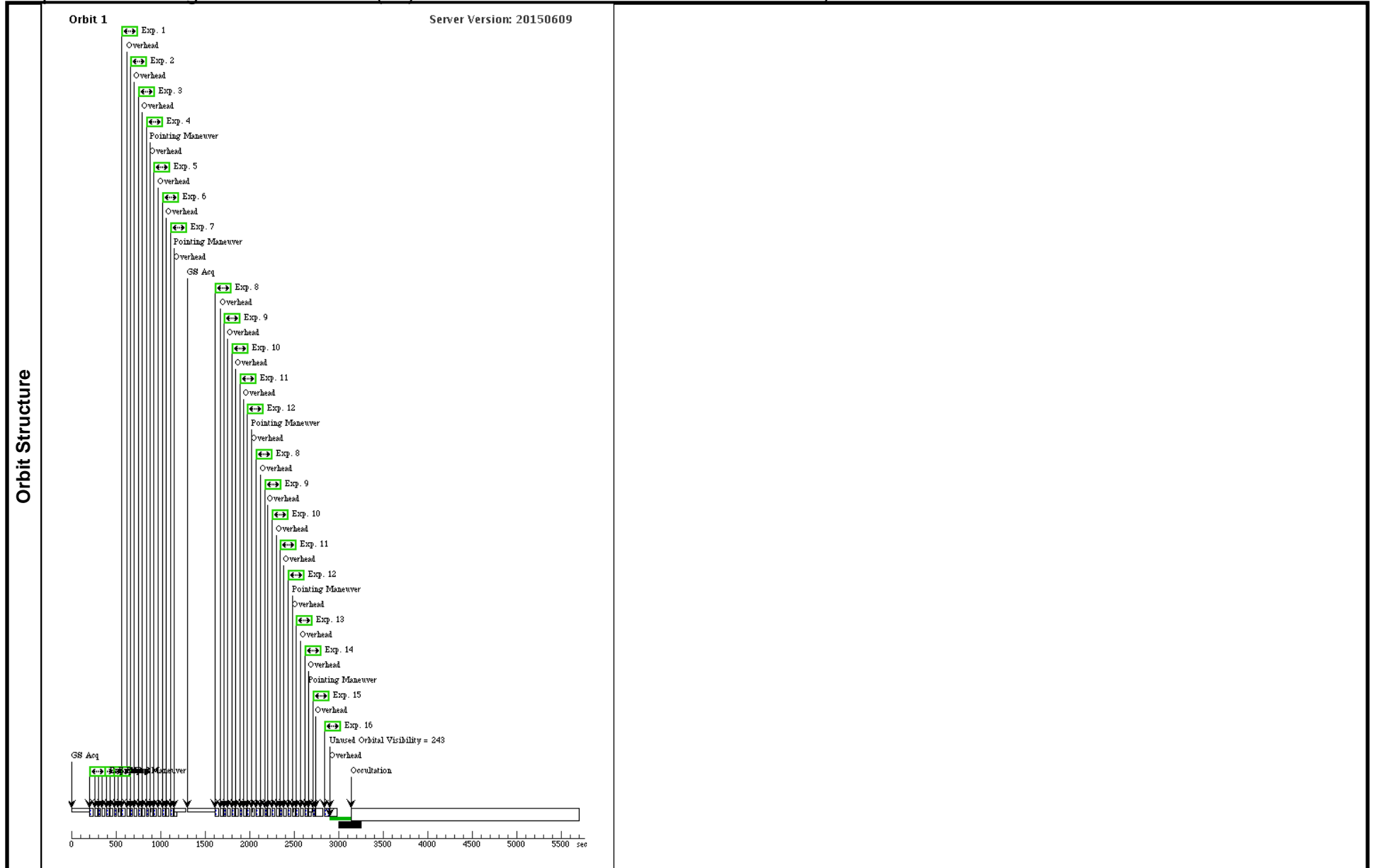


Proposal 14382 - gd153 - iteration 4 (29) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.           | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|-------------------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 1-4 in gd153 - iteration 4 (29) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 4 (29) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 4 (29) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 4 (29) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 6     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 8-12 in gd153 - iteration 4 (29) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-12 in gd153 - iteration 4 (29) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-12 in gd153 - iteration 4 (29) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-12 in gd153 - iteration 4 (29) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-12 in gd153 - iteration 4 (29) (2) | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 13    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |

Proposal 14382 - gd153 - iteration 4 (29) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 (2) GD153 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip 2 (2) GD153                              | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 5 (30) - WFC3/UVIS contamination and stability monitor

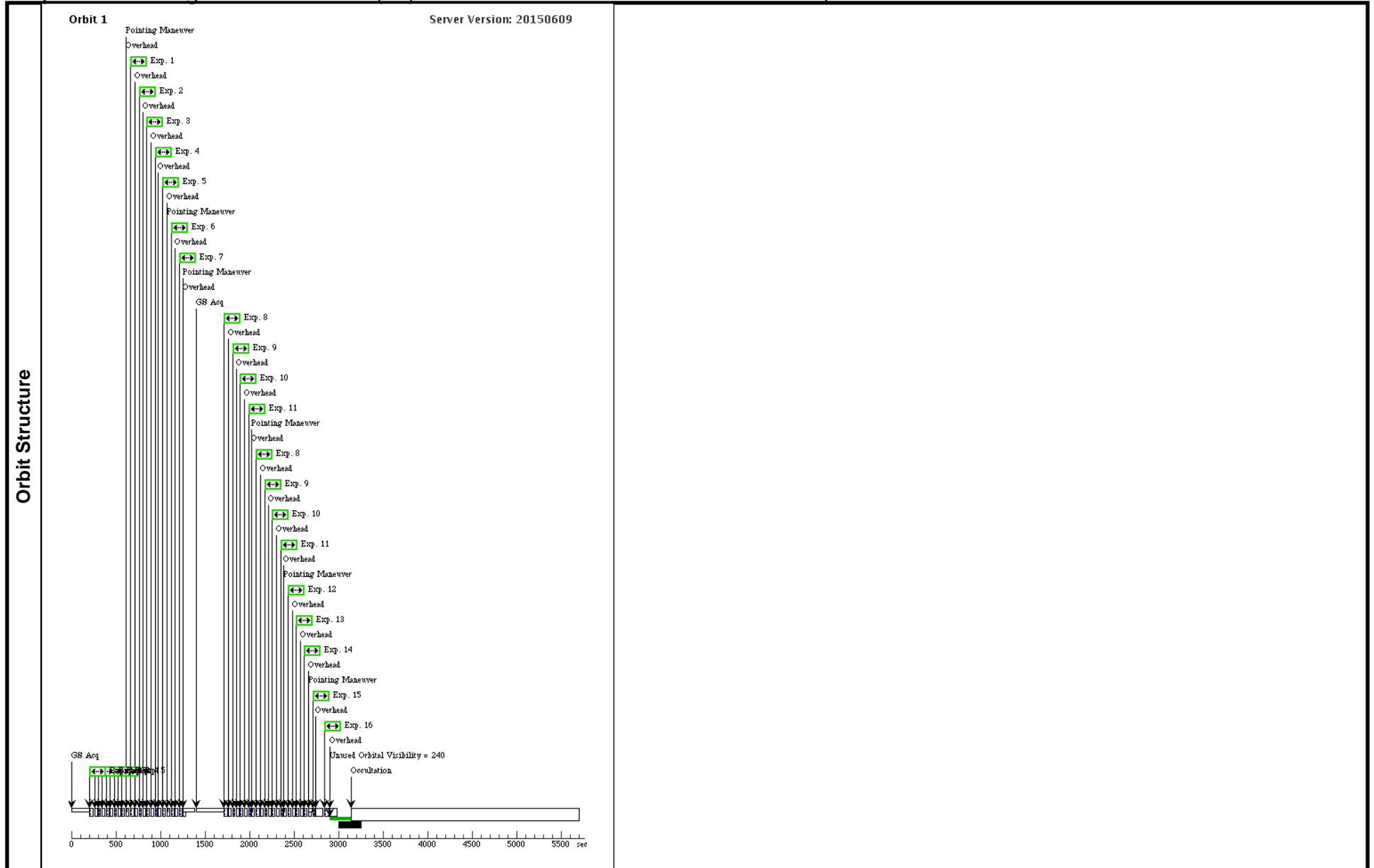
|                      |  |  |  |   |                  |                       |
|----------------------|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 14382, gd153 - iteration 5 (30), scheduling</b> <span style="float: right;">Sat Oct 31 01:17:21 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 14-MAR-2016:00:00:00 AND 20-MAR-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|                      | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
|                      | (2)  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-5), (8-11)   |                  |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
|                      | <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>   |  |  |   |                  |                       |

Proposal 14382 - gd153 - iteration 5 (30) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.            | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|--------------------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O ONEB1B3 | Pattern 2, Exps 1-5 in gd153 - iteration 5 (30) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 5 (30) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 5 (30) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 5 (30) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 5 (30) (2)  | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                          |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                          |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O ONEB1B3 | Pattern 2, Exps 8-11 in gd153 - iteration 5 (30) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                          | Pattern 2, Exps 8-11 in gd153 - iteration 5 (30) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                          | Pattern 2, Exps 8-11 in gd153 - iteration 5 (30) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 8-11 in gd153 - iteration 5 (30) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                          |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 13    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                          |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                          |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |

Proposal 14382 - gd153 - iteration 5 (30) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (2) GD153 (F300X) subarray on chip 2 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, (2) GD153 chip2                               | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 6 (31) - WFC3/UVIS contamination and stability monitor

|  |  |  |  |   |                  |                       |
|--|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>   | <b>Proposal 14382, gd153 - iteration 6 (31), implementation</b> <span style="float: right;">Sat Oct 31 01:17:21 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 25-APR-2016:00:00:00 AND 01-MAY-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|  | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
| (2)  |  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-4), (8-12)   |                  |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
| <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> |  |  |  |   |                  |                       |

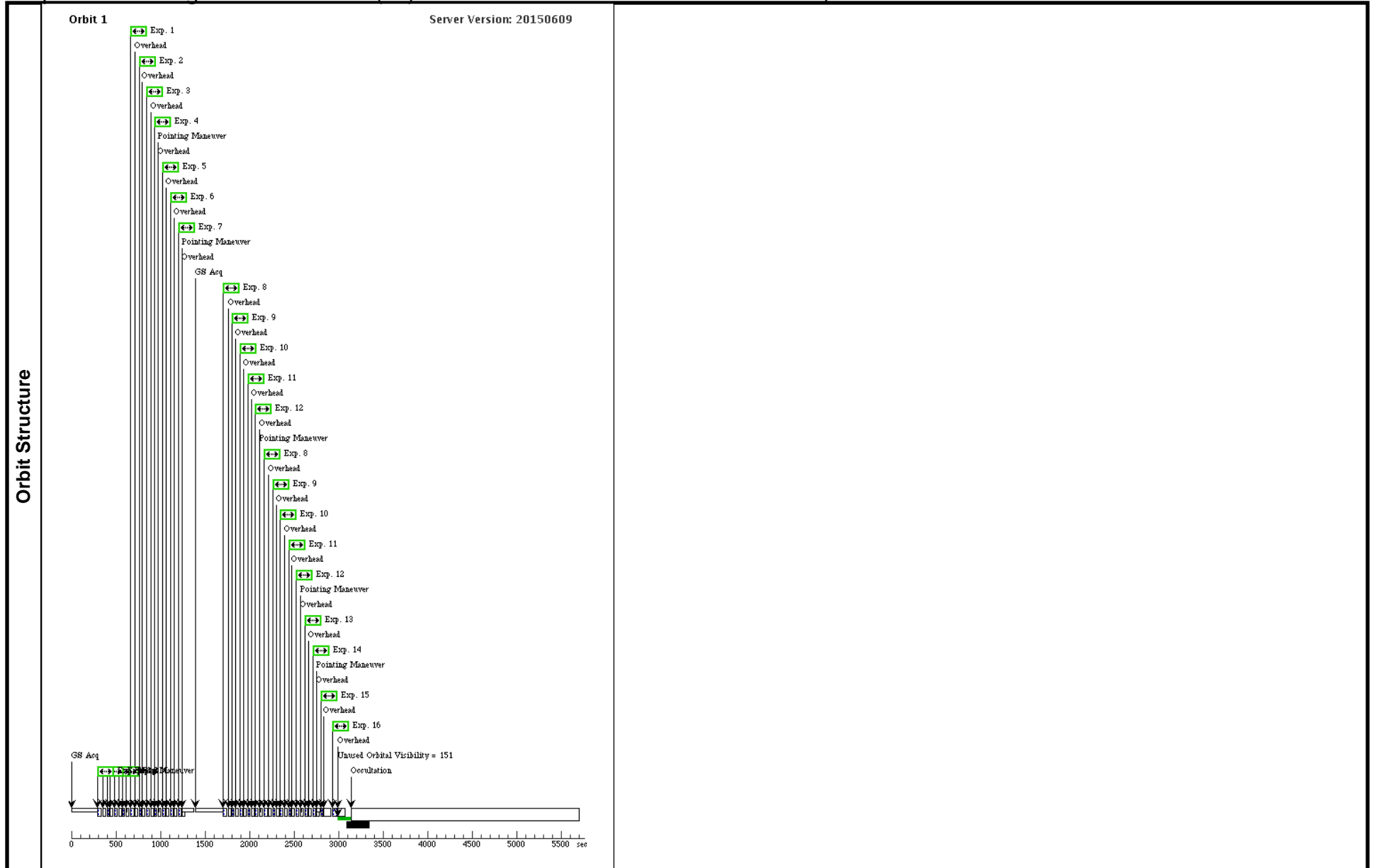


Proposal 14382 - gd153 - iteration 6 (31) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.           | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|-------------------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 6 (31) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 6 (31) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 6 (31) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 1-4 in gd153 - iteration 6 (31) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 6     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O SINGLE | Pattern 2, Exps 8-12 in gd153 - iteration 6 (31) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-12 in gd153 - iteration 6 (31) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                         | Pattern 2, Exps 8-12 in gd153 - iteration 6 (31) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-12 in gd153 - iteration 6 (31) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                         | Pattern 2, Exps 8-12 in gd153 - iteration 6 (31) (2) | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 13    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                         |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |

Proposal 14382 - gd153 - iteration 6 (31) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (2) GD153 (F300X) subarray on chip 2 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, (2) GD153 chip2                               | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - bd153 - iteration 7 (32) - WFC3/UVIS contamination and stability monitor

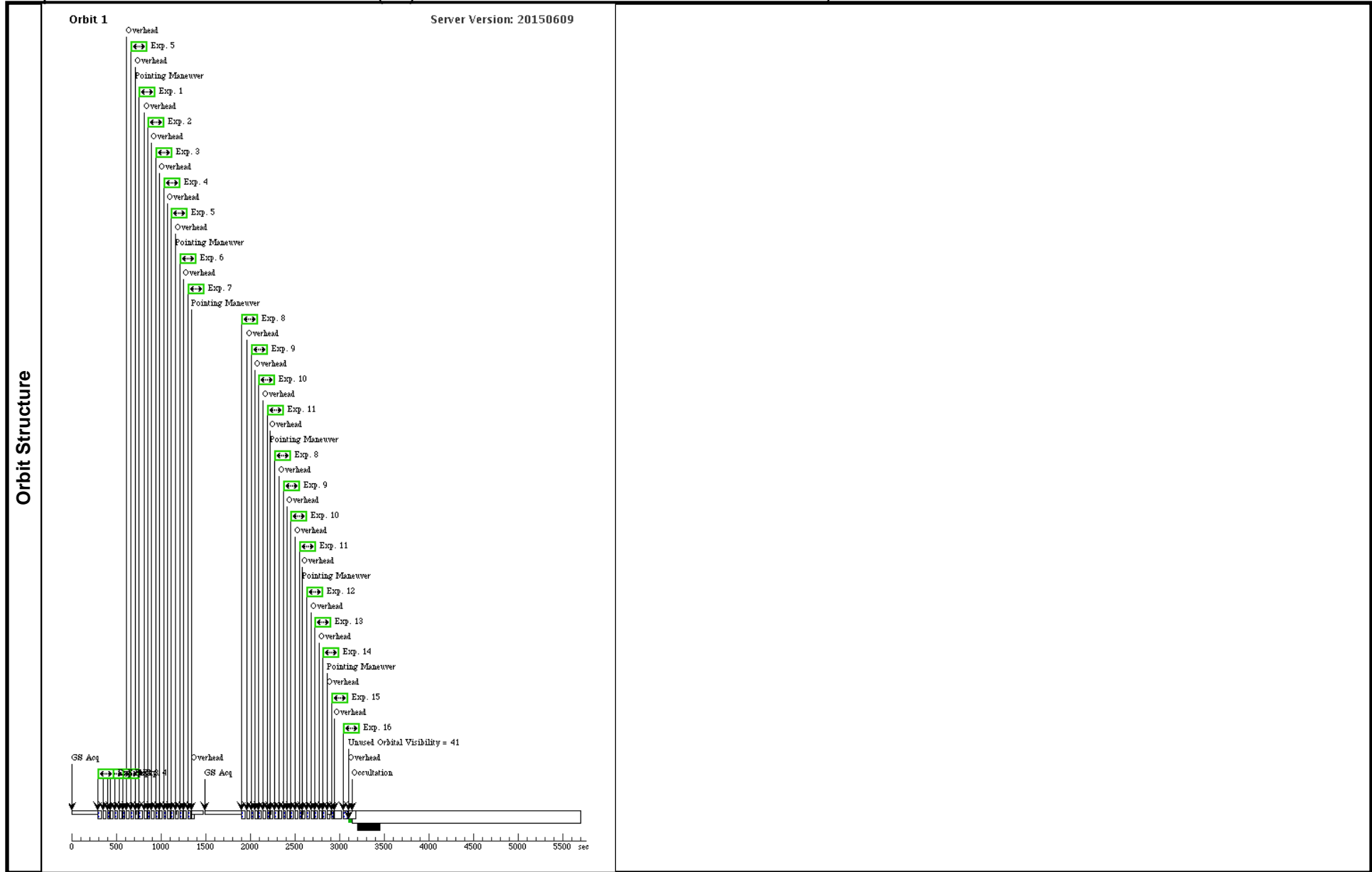
|  |  |  |  |   |                  |                       |
|--|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>   | <b>Proposal 14382, bd153 - iteration 7 (32), scheduling</b> <span style="float: right;">Sat Oct 31 01:17:22 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 30-MAY-2016:00:00:00 AND 05-JUN-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|  | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
| (2)  |  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-5), (8-11)   |                  |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
| <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> |  |  |  |   |                  |                       |

Proposal 14382 - bd153 - iteration 7 (32) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs. | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|---------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in bd153 - iteration 7 (32) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in bd153 - iteration 7 (32) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in bd153 - iteration 7 (32) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in bd153 - iteration 7 (32) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in bd153 - iteration 7 (32) (2)  | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |               |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |               |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-11 in bd153 - iteration 7 (32) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-11 in bd153 - iteration 7 (32) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-11 in bd153 - iteration 7 (32) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-11 in bd153 - iteration 7 (32) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 13    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |

Proposal 14382 - bd153 - iteration 7 (32) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (2) GD153 (F300X) subarray on chip 2 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, (2) GD153 chip2                               | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 8 (33) - WFC3/UVIS contamination and stability monitor

|                      |  |  |  |   |                  |                       |
|----------------------|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>         | <b>Proposal 14382, gd153 - iteration 8 (33), scheduling</b> <span style="float: right;">Sat Oct 31 01:17:22 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 04-JUL-2016:00:00:00 AND 10-JUL-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|                      | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
|                      | (2)  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |   | (1-4), (8-12)    |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000                     | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
|                      | <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>   |  |  |   |                  |                       |

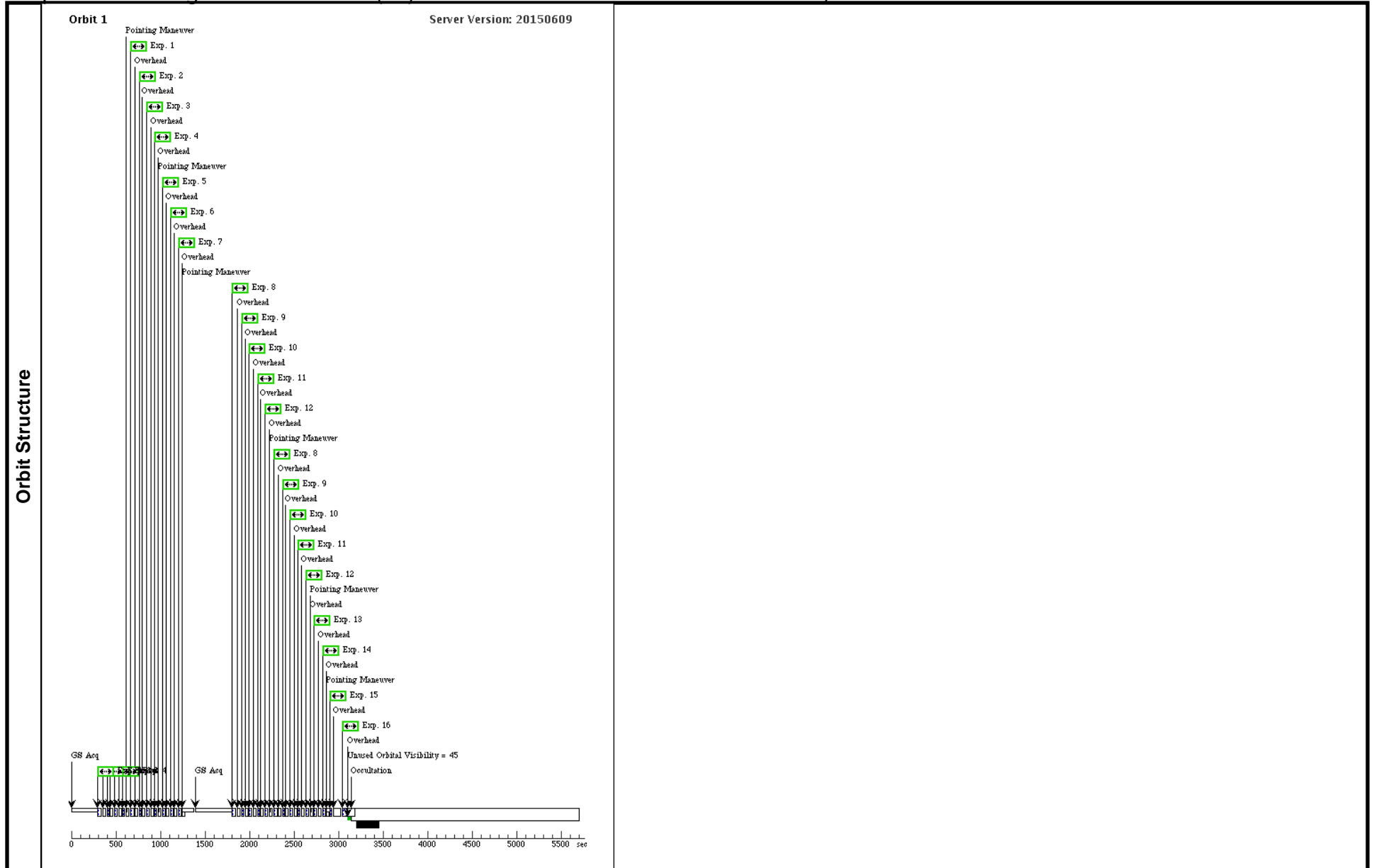


Proposal 14382 - gd153 - iteration 8 (33) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs. | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|---------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-4 in gd153 - iteration 8 (33) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-4 in gd153 - iteration 8 (33) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-4 in gd153 - iteration 8 (33) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-4 in gd153 - iteration 8 (33) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |               |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 6     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |               |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-12 in gd153 - iteration 8 (33) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-12 in gd153 - iteration 8 (33) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-12 in gd153 - iteration 8 (33) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-12 in gd153 - iteration 8 (33) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-12 in gd153 - iteration 8 (33) (2) | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 13    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |

Proposal 14382 - gd153 - iteration 8 (33) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (2) GD153 (F300X) subarray on chip 2 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, (2) GD153 chip2                               | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 9 (34) - WFC3/UVIS contamination and stability monitor

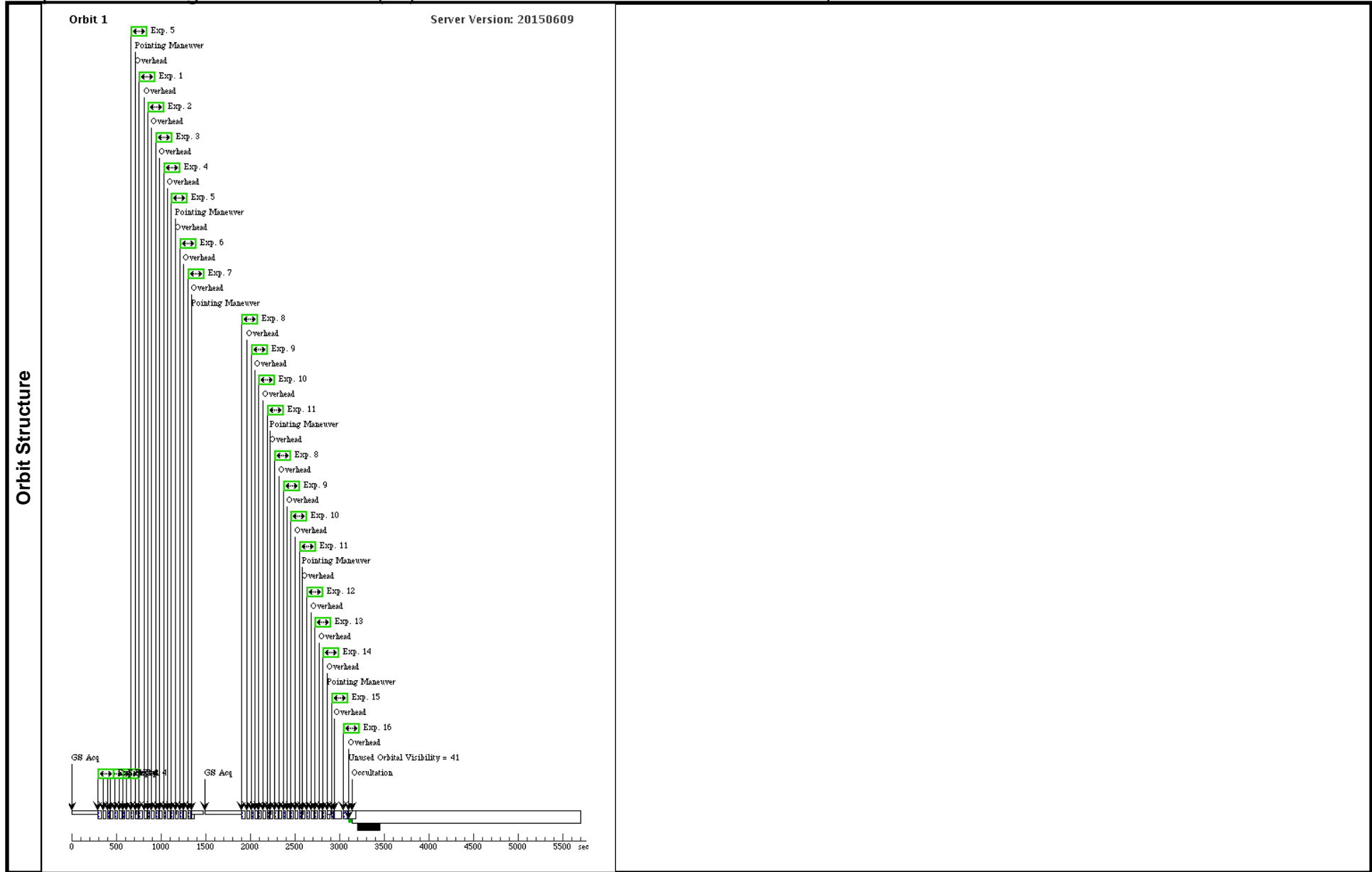
|  |  |  |  |   |                  |                       |
|--|--|--|--|---|------------------|-----------------------|
| <b>Visit</b>   | <b>Proposal 14382, gd153 - iteration 9 (34), scheduling</b> <span style="float: right;">Sat Oct 31 01:17:22 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 04-AUG-2016:00:00:00 AND 10-AUG-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|  | <b>Patterns</b>  | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
| (2)  |  | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-5), (8-11)   |                  |                       |
| <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)  | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
| <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> |  |  |  |   |                  |                       |

Proposal 14382 - gd153 - iteration 9 (34) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs. | Groups   | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|---------------|--|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in gd153 - iteration 9 (34) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in gd153 - iteration 9 (34) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in gd153 - iteration 9 (34) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in gd153 - iteration 9 (34) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 1-5 in gd153 - iteration 9 (34) (2)  | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |               |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |               |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-11 in gd153 - iteration 9 (34) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-11 in gd153 - iteration 9 (34) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |               | Pattern 2, Exps 8-11 in gd153 - iteration 9 (34) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |               | Pattern 2, Exps 8-11 in gd153 - iteration 9 (34) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 13    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |               |  | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |               |  | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |

Proposal 14382 - gd153 - iteration 9 (34) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 (2) GD153 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip 2 (2) GD153                              | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 10 (35) - WFC3/UVIS contamination and stability monitor

|  |   |  |  |   |                  |                       |
|--|---|--|--|---|------------------|-----------------------|
| <b>Visit</b>   | <b>Proposal 14382, gd153 - iteration 10 (35), implementation</b> <span style="float: right;">Sat Oct 31 01:17:22 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 10-NOV-2016:00:00:00 AND 16-NOV-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|  | <b>Patterns</b>   | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
| (2)  |   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-4), (8-12)   |                  |                       |
| <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)   | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
| <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> |   |  |  |   |                  |                       |

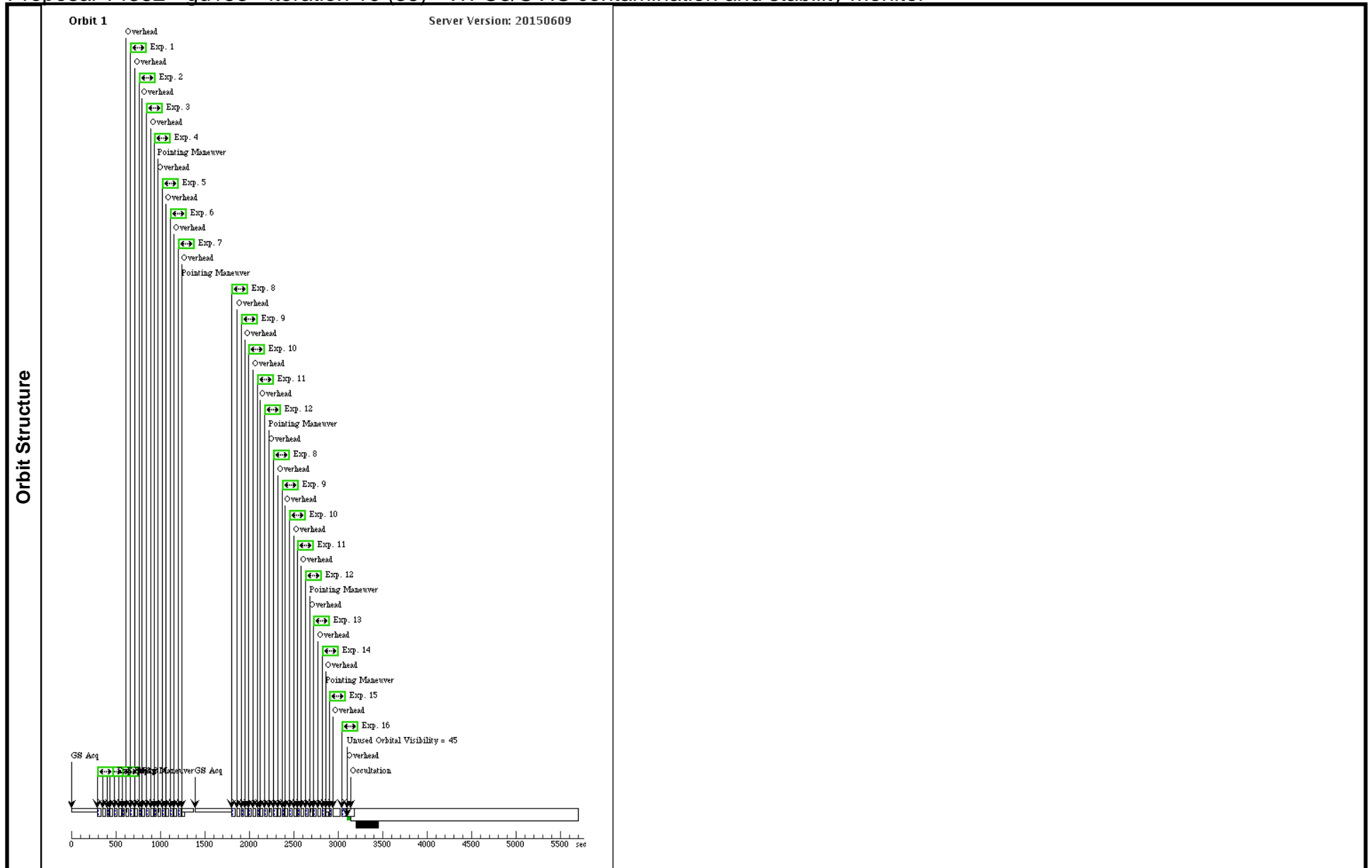


Proposal 14382 - gd153 - iteration 10 (35) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.            | Groups  | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|--------------------------|---|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O BASE1B3 | Pattern 2, Exps 1-4 in gd153 - iteration 10 (35) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-4 in gd153 - iteration 10 (35) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-4 in gd153 - iteration 10 (35) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-4 in gd153 - iteration 10 (35) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                          |   | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 6     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                          |   | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                          |   | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 8-12 in gd153 - iteration 10 (35) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                          | Pattern 2, Exps 8-12 in gd153 - iteration 10 (35) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                          | Pattern 2, Exps 8-12 in gd153 - iteration 10 (35) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 8-12 in gd153 - iteration 10 (35) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 8-12 in gd153 - iteration 10 (35) (2) | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 13    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                          |   | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                          |   | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |

Proposal 14382 - gd153 - iteration 10 (35) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 (2) GD153 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip 2 (2) GD153                              | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</p> <p>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</p> |   |                        |       |   |                   |                    |       |     |



Proposal 14382 - gd153 - iteration 11 (36) - WFC3/UVIS contamination and stability monitor

|  |   |  |  |   |                  |                       |
|--|---|--|--|---|------------------|-----------------------|
| <b>Visit</b>   | <b>Proposal 14382, gd153 - iteration 11 (36), implementation</b> <span style="float: right;">Sat Oct 31 01:17:22 GMT 2015</span><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS<br>Special Requirements: SCHED 50%; BETWEEN 10-DEC-2016:00:00:00 AND 16-DEC-2016:23:59:59<br><i>Comments: single orbit covering UVIS1, UVIS2, and grisms from both channels</i> |  |  |   |                  |                       |
|  | <b>Patterns</b>   | <b>#</b>   | <b>Primary Pattern</b>   | <b>Secondary Pattern</b>  | <b>Exposures</b> |                       |
| (2)  |   | Pattern Type=WFC3-UVIS-DITHER-<br>LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.145<br>Line Spacing=<br>Coordinate Frame=POS-TARG<br>Pattern Orientation=46.84<br>Angle Between Sides=<br>Center Pattern=false |  | (1-5), (8-11)   |                  |                       |
| <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)   | GD153  | RA: 12 57 2.3370 (194.2597375d)<br>Dec: +22 01 52.68 (22.03130d)<br>Equinox: J2000 | Proper Motion RA: -46 mas/yr<br>Proper Motion Dec: -204 mas/yr<br>Epoch of Position: 2000 | V=13.4           | Reference Frame: ICRS |
| <i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> |   |  |  |   |                  |                       |

Proposal 14382 - gd153 - iteration 11 (36) - WFC3/UVIS contamination and stability monitor

| #         | Label | Target                 | Config,Mode,Aperture              | Spectral Els. | Opt. Params.            | Special Reqs.            | Groups  | Exp. Time (Total)/[Actual Dur.]                               | Orbit |
|-----------|-------|------------------------|-----------------------------------|---------------|-------------------------|--------------------------|---|---|-------|
| Exposures | 1     | F218W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O BASE1B3 | Pattern 2, Exps 1-5 in gd153 - iteration 11 (36) (2)  | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 2     | F225W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F225W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 11 (36) (2)  | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 3     | F438W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F438W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 11 (36) (2)  | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 4     | F606W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 11 (36) (2)  | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 5     | F814W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 1-5 in gd153 - iteration 11 (36) (2)  | 11.5 Secs (23 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]   | [1]   |
|           | 6     | F275W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F275W         | CR-SPLIT=NO; FLASH=12.  |                          |   | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 7     | F336W-UVI (2) GD153 S1 | WFC3/UVIS, ACCUM, UVIS1-C512A-SUB | F336W         | CR-SPLIT=NO; FLASH=12.  |                          |   | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 8     | F218W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F218W         | CR-SPLIT=NO; FLASH=12.  | GS ACQ SCENARI O ONEB1B3 | Pattern 2, Exps 8-11 in gd153 - iteration 11 (36) (2) | 12.4 Secs (24.8 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)] | [1]   |
|           | 9     | F225W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F225W         | CR-SPLIT=NO; FLASH=12.0 |                          | Pattern 2, Exps 8-11 in gd153 - iteration 11 (36) (2) | 5.0 Secs (10 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 10    | F438W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F438W         | CR-SPLIT=NO; FLASH=12.0 |                          | Pattern 2, Exps 8-11 in gd153 - iteration 11 (36) (2) | 5.5 Secs (11 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]    | [1]   |
|           | 11    | F606W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F606W         | CR-SPLIT=NO; FLASH=12.  |                          | Pattern 2, Exps 8-11 in gd153 - iteration 11 (36) (2) | 3.0 Secs (6 Secs)<br>[==>(Pattern 1)]<br>[==>(Pattern 2)]     | [1]   |
|           | 12    | F275W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F275W         | CR-SPLIT=NO; FLASH=12.0 |                          |   | 5.4 Secs (5.4 Secs)<br>[==>]                                  | [1]   |
|           | 13    | F336W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F336W         | CR-SPLIT=NO; FLASH=12.0 |                          |   | 4.5 Secs (4.5 Secs)<br>[==>]                                  | [1]   |
|           | 14    | F814W-UVI (2) GD153 S2 | WFC3/UVIS, ACCUM, UVIS2-C512C-SUB | F814W         | CR-SPLIT=NO; FLASH=12.  |                          |   | 11.5 Secs (11.5 Secs)<br>[==>]                                | [1]   |

Proposal 14382 - gd153 - iteration 11 (36) - WFC3/UVIS contamination and stability monitor

|  |   |                        |       |   |                   |                    |       |     |
|--|---|------------------------|-------|---|-------------------|--------------------|-------|-----|
| 15   | G280 reference image (F300X) subarray on chip 2 (2) GD153 | WFC3/UVIS, ACCUM, UVIS | F300X | AMP=D;<br>SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>FLASH=12.0 | POS TARG 0.0,-50. | 1.0 Secs (1 Secs)  | [==>] | [1] |
| <p><i>Comments: Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</i></p> <p><i>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</i></p>  |   |                        |       |   |                   |                    |       |     |
| 16   | G280 image, chip 2 (2) GD153                              | WFC3/UVIS, ACCUM, UVIS | G280  | SIZEAXIS2=768;<br>CENTERAXIS2=1026;<br>AMP=D;<br>FLASH=12.0 | POS TARG 0.0,-50. | 40. Secs (40 Secs) | [==>] | [1] |
| <p><i>Comments: Only "UVIS" aperture is allowed with G280, so a postarg is used to move the target to UVIS2. Nominal "UVIS" aperture is ~10" above the chip gap on chip 1; a Y-postarg of about -50" places the target near the center of chip 2.</i></p> <p><i>SIZEAXIS2=768 is used to minimize data volume, while CENTERAXIS2 is used to center the subarray readout on the target location. The latter is set to 1026, to place the vertical center of the subarray at the vertical center of chip 2. These parameters are based upon similar observations obtained successfully in Cycle 17 (proposal 11934).</i></p> |   |                        |       |   |                   |                    |       |     |

