



# 14268 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

Cycle: 23, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

## INVESTIGATORS

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## VISITS

| <b>Visit</b> | <b>Targets used in Visit</b> | <b>Configurations used in Visit</b> | <b>Orbits Used</b> | <b>Last Orbit Planner Run</b> | <b>OP Current with Visit?</b> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 01           | (1) RXSJ00437+3725<br>ANY    | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 5                  | 07-Sep-2016 17:20:41.0        | yes                           |
| 02           | (2) ZW535.012                | COS/FUV                             | 3                  | 07-Sep-2016 17:20:47.0        | yes                           |
| 24           | (2) ZW535.012                | COS/FUV                             | 3                  | 07-Sep-2016 17:20:50.0        | yes                           |
| 25           | (2) ZW535.012                | COS/FUV                             | 3                  | 07-Sep-2016 17:20:53.0        | yes                           |
| 03           | (3) RXSJ00508+3536<br>ANY    | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:20:59.0        | yes                           |
| 26           | (3) RXSJ00508+3536<br>ANY    | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:21:06.0        | yes                           |
| 04           | (4) IRASF00040+4325          | COS/FUV                             | 3                  | 07-Sep-2016 17:21:11.0        | yes                           |
| 05           | (5) RXSJ01188+3836<br>ANY    | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:21:15.0        | yes                           |
| 06           | (5) RXSJ01188+3836<br>ANY    | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:21:18.0        | yes                           |

| <b>Visit</b> | <b>Targets used in Visit</b> | <b>Configurations used in Visit</b> | <b>Orbits Used</b> | <b>Last Orbit Planner Run</b> | <b>OP Current with Visit?</b> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 07           | (6) MRK352<br>ANY            | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:21:26.0        | yes                           |
| 08           | (7) RXJ0028.1+3103<br>ANY    | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:21:33.0        | yes                           |
| 09           | (8) KAZ238<br>ANY            | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 3                  | 07-Sep-2016 17:21:38.0        | yes                           |
| 10           | (8) KAZ238<br>ANY            | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:21:41.0        | yes                           |
| 11           | (9) FBS0150+396<br>ANY       | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 5                  | 07-Sep-2016 17:21:48.0        | yes                           |
| 12           | (10) 3C48<br>ANY             | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:21:53.0        | yes                           |
| 13           | (10) 3C48<br>ANY             | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 5                  | 07-Sep-2016 17:21:57.0        | yes                           |
| 14           | (11) 4C25.01<br>ANY          | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:22:03.0        | yes                           |
| 15           | (12) PG0052+251              | COS/FUV                             | 3                  | 07-Sep-2016 17:22:08.0        | yes                           |
| 16           | (13) RXSJ0155.6+3115<br>ANY  | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 5                  | 07-Sep-2016 17:22:12.0        | yes                           |

| <b>Visit</b> | <b>Targets used in Visit</b> | <b>Configurations used in Visit</b> | <b>Orbits Used</b> | <b>Last Orbit Planner Run</b> | <b>OP Current with Visit?</b> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 17           | (13) RXSJ0155.6+3115<br>ANY  | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 5                  | 07-Sep-2016 17:22:16.0        | yes                           |
| 18           | (14) RBS2055<br>ANY          | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 3                  | 07-Sep-2016 17:22:20.0        | yes                           |
| 19           | (14) RBS2055<br>ANY          | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:22:24.0        | yes                           |
| 20           | (15) RXSJ00537+2232<br>ANY   | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:22:30.0        | yes                           |
| 21           | (16) MRK1148<br>ANY          | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:22:37.0        | yes                           |
| 22           | (17) RBS2005<br>ANY          | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 4                  | 07-Sep-2016 17:22:44.0        | yes                           |
| 23           | (18) MRK1179<br>ANY          | ACS/WFC<br>COS/FUV<br>WFC3/UVIS     | 5                  | 07-Sep-2016 17:22:52.0        | yes                           |

103 Total Orbits Used

**ABSTRACT**

HST has transformed our view of galaxies by demonstrating that the diffuse circumgalactic medium (CGM) surrounding galaxies contains at least as many metals and baryons as their disks. UV absorption-line studies of single sight lines through an ensemble of galaxy halos have provided key new constraints to sophisticated cosmological simulations, in particular on the nature of feedback and accretion that drive CGM properties. Although largely unconstrained by studies limited to one sightline per galaxy, the geometry of the CGM has significant diagnostic power for critically testing simulation assumptions. We therefore propose Project AMIGA (Absorption Maps In the Gas of Andromeda) to map the CGM of the L\* galaxy M31

using COS G130M/G160M observations of 25 (18 new + 7 archival) sightlines at  $R=25$  to 330 kpc from M31 ( $0.08 < R/R_{\text{vir}} < 1.1$ ). We will determine the metal distribution of the cool and warm diffuse CGM gas separately and the total metal and baryonic masses of the M31 CGM. This survey will for the first time characterize the radial profile of a galaxy's CGM in three azimuthal zones (major+minor projected axes and an intermediate zone). Our team will use the spatial distribution of the CGM properties to test at an unprecedented level new numerical simulations, especially the physics of feedback. These observations and simulations will allow us to relate the observed CGM properties to the star formation history of M31. This Large program will make M31 a fundamental benchmark for studies of large-scale gas flows around galaxies, much as programs like PHAT have established it as a template for our understanding of stellar populations.

## **OBSERVING DESCRIPTION**

We are observing 18 sightlines in the M31 halo to study the gas content with COS and the stellar populations with parallel ACS and WFC3 (simultaneously).

For the COS G130M and G160M, our minimum  $S/N \sim 15$  per resolution element near the key species (OI 1302, CII 1334, SiII 1190, 1193, 1523, SiIII 1206, SiIV 1393, 1402, CIV 1548, 1550) is driven by our pilot study. This will provide 2 sigma upper limits on the column densities of SiIII 1206, SiIV 1393, and CIV 1548 small enough to place useful constraint on the covering fraction if no absorption is detected, and the  $S/N$  is high enough to model the weakest absorption at any distance from M31.

Both COS G130M and G160M gratings are required because CIV cannot be observed with a single grating setting with the other ions. CIV is the most important high ion to directly probe coronal gas; SiIV being a much less useful tracer of coronal gas. G160M will also give SiII 1523, AlII 1670, and FeII 1608.

We set two central wavelengths per grating (1291 and 1327 for G130M and 1589 and 1623 for G160M). With the required 4 FP-POS per grating, this will provide a complete UV spectrum with no gap. The complete wavelength coverage is critical for an accurate identification of all the lines in the COS UV spectra.

All the 18 proposed targets are confirmed FUV bright QSOs by GALEX. We also use the cross-mission search at MAST to find any existing UV spectra; we found 5 QSOs with a UV spectrum. Using the online COS ETC, we estimated the exposure time required to reach  $S/N=15$  near 1206 (SiIII) and 1555 (CIV) using the FUV GALEX magnitudes or UV fluxes when available. The choice of these wavelengths ensure  $S/N > \sim 15$  near all

the species considered in our study.

According to the bright object tool in the APT, there are two bright stars in the field of view of MRK352 and KAZ238. According to SIMBAD, toward MRK352, the bright star is a G5 D star ( $B=9.07$ ,  $V=7.78$ ,  $B-V=1.29$ ), toward KAZ238, the bright star is also a cool star based on its color magnitudes ( $B=12.83$ ,  $B=11.25$ ,  $B-V=1.58$ ). Therefore none of these QSOs or stars in their fields will pose a bright limit threat to COS.

Visits with more than 5 orbits were segmented in two visits to satisfy the SAA restrictions.

The parallel data are constructed to maximize the field coverage of M31 around the COS sightlines. In orbits that have 3 or less primary exposures, we will use both WFC3 and ACS to simultaneously image two fields of the M31 halo. Each of the ACS and WFC3 observations will be obtained in F606W and F814W so we can build CMDs and measure the stellar content of the M31 halo. All buffer dumps will be hidden in this configuration. For orbits where we require 4 or more primary COS observations, the lengths of the integrations are too short to hide buffer dumps from both parallel cameras. In these cases, we use just ACS due its larger field of view. For visits with only 3 orbits, the primary setup (4 FP-POS and 4 CENWAVE) did not allow for the implementation of the parallels: the individual exposures are too short in this configuration as to dump the buffer on a single parallel, we need the primary exposures to be  $\sim 400$ s; with the required configuration (to have complete wavelength coverage) of 16 exposures spread over 3 orbits, the individual exposures are typically less than 400 s in the 3 orbit configuration.

The default ORIENT places a bright star on the parallel imaging field in Visit 20, and we have therefore set a ORIENT restriction from 30 degrees to 285 degrees, which does not affect the primary observations.

Note, owing to an oversight in the way the phase I APT file was built, not all of the intended parallels were included. We filed a TTRB request for 84 ACS and 84 WFC3 parallel orbits and this was approved.

# Proposal 14268 - Visit 01 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|                       |                                                                                                                                     |                                                      |                                                                                    |                          |                              |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                 | Proposal 14268, Visit 01, completed <span>Wed Sep 07 21:22:55 GMT 2016</span>                                                       |                                                      |                                                                                    |                          |                              |
|                       | <b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |                                                      |                                                                                    |                          |                              |
| Fixed Targets         | #                                                                                                                                   | Name                                                 | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       |
|                       | (1)                                                                                                                                 | RXSJ00437+3725<br>Alt Name1:<br>1RXSJ004343.6+372521 | RA: 00 43 42.4500 (10.9268750d)<br>Dec: +37 25 19.00 (37.42194d)<br>Equinox: J2000 |                          | V=17.40<br>GALEX FUV = 16.97 |
| Comments: Extended=NO |                                                                                                                                     |                                                      |                                                                                    |                          |                              |
|                       |                                                                                                                                     |                                                      |                                                                                    |                          |                              |

# Proposal 14268 - Visit 01 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

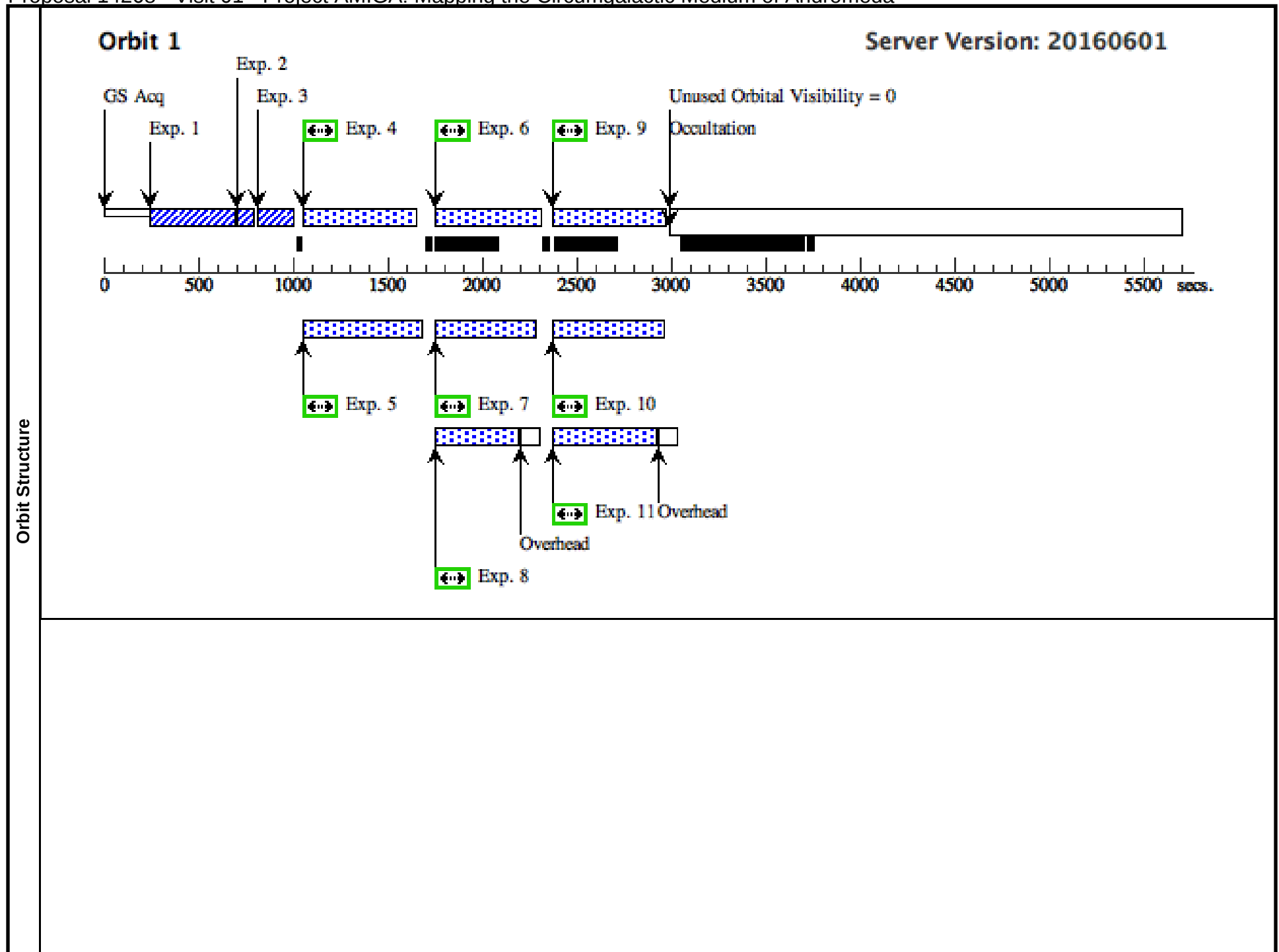
| Exposures | #  | Label<br>(ETC Run)  | Target                 | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.730<br>959) | (1) RXSJ00437+372<br>5 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 8.5 Secs (8.5 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.730<br>964) | (1) RXSJ00437+372<br>5 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 3.3 Secs (3.3 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730<br>959) | (1) RXSJ00437+372<br>5 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 8.5 Secs (8.5 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.716<br>582) | (1) RXSJ00437+372<br>5 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-5 in Visit 01   | 484 Secs (484 Secs)<br>[==>]    | [1]   |
|           | 5  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-5 in Visit 01   | 423 Secs (423 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.716<br>582) | (1) RXSJ00437+372<br>5 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 6-8 in Visit 01   | 510 Secs (510 Secs)<br>[==>]    | [1]   |
|           | 7  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 01   | 410 Secs (410 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 01   | 410 Secs (410 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.716<br>582) | (1) RXSJ00437+372<br>5 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 01  | 550 Secs (550 Secs)<br>[==>]    | [1]   |
|           | 10 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 01  | 470 Secs (470 Secs)<br>[==>]    | [1]   |
|           | 11 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 01  | 550 Secs (550 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.716<br>582) | (1) RXSJ00437+372<br>5 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-14 in Visit 01 | 782 Secs (782 Secs)<br>[==>]    | [2]   |
|           | 13 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 01 | 700 Secs (700 Secs)<br>[==>]    | [2]   |
|           | 14 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 01 | 720 Secs (720 Secs)<br>[==>]    | [2]   |
|           | 15 | (COS.sp.716<br>640) | (1) RXSJ00437+372<br>5 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=25<br>41;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 15-17 in Visit 01 | 810 Secs (810 Secs)<br>[==>]    | [2]   |
|           | 16 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 15-17 in Visit 01 | 785 Secs (785 Secs)<br>[==>]    | [2]   |

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|    |                                      |                        |              |                                              |                                          |                     |
|----|--------------------------------------|------------------------|--------------|----------------------------------------------|------------------------------------------|---------------------|
| 17 | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F606W        | Prime + Parallel Group 15-17 in Visit 01     | 800 Secs (800 Secs)                      | [2]                 |
| 18 | (COS.sp.716 640) (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=25 41;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 01 | 780 Secs (780 Secs) |
| 19 | ANY                                  | ACS/WFC, ACCUM, WFC    | F606W        | Prime + Parallel Group 18-20 in Visit 01     | 700 Secs (700 Secs)                      | [2]                 |
| 20 | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F606W        | Prime + Parallel Group 18-20 in Visit 01     | 835 Secs (835 Secs)                      | [2]                 |
| 21 | (COS.sp.716 640) (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=25 41;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 01 | 785 Secs (785 Secs) |
| 22 | ANY                                  | ACS/WFC, ACCUM, WFC    | F606W        | Prime + Parallel Group 21-23 in Visit 01     | 705 Secs (705 Secs)                      | [3]                 |
| 23 | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F606W        | Prime + Parallel Group 21-23 in Visit 01     | 720 Secs (720 Secs)                      | [3]                 |
| 24 | (COS.sp.716 640) (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=25 41;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 24-26 in Visit 01 | 830 Secs (830 Secs) |
| 25 | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 24-26 in Visit 01     | 680 Secs (680 Secs)                      | [3]                 |
| 26 | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 24-26 in Visit 01     | 750 Secs (750 Secs)                      | [3]                 |
| 27 | (COS.sp.716 583) (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M 1589 A | BUFFER-TIME=52 97;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 27-29 in Visit 01 | 709 Secs (709 Secs) |
| 28 | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 27-29 in Visit 01     | 740 Secs (740 Secs)                      | [3]                 |
| 29 | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 27-29 in Visit 01     | 865 Secs (865 Secs)                      | [3]                 |
| 30 | (COS.sp.716 583) (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M 1589 A | BUFFER-TIME=52 97;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 30-31 in Visit 01 | 585 Secs (585 Secs) |
| 31 | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 30-31 in Visit 01     | 470 Secs (470 Secs)                      | [4]                 |
| 32 | (COS.sp.716 583) (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M 1589 A | BUFFER-TIME=52 97;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 32-33 in Visit 01 | 560 Secs (560 Secs) |
| 33 | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 32-33 in Visit 01     | 480 Secs (480 Secs)                      | [4]                 |

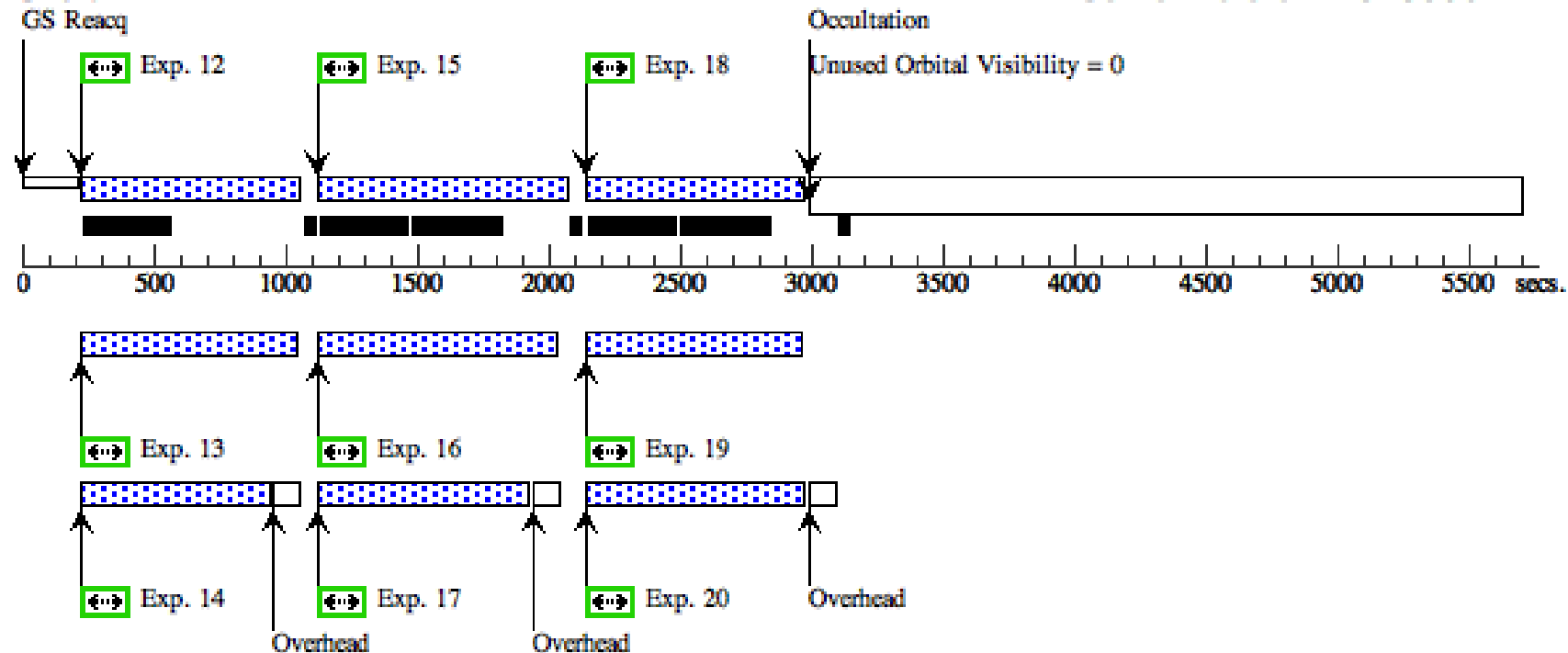
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|    |                  |                     |                        |                 |                                                 |                                          |                     |       |     |
|----|------------------|---------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|---------------------|-------|-----|
| 34 | (COS.sp.716 583) | (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=52<br>97;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 34-35 in Visit 01 | 570 Secs (570 Secs) | [==>] | [4] |
| 35 | ANY              |                     | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 34-35 in Visit 01 | 480 Secs (480 Secs) | [==>] | [4] |
| 36 | (COS.sp.716 645) | (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 36-38 in Visit 01 | 590 Secs (590 Secs) | [==>] | [4] |
| 37 | ANY              |                     | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 36-38 in Visit 01 | 590 Secs (590 Secs) | [==>] | [4] |
| 38 | ANY              |                     | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 36-38 in Visit 01 | 600 Secs (600 Secs) | [==>] | [4] |
| 39 | (COS.sp.716 645) | (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 39-41 in Visit 01 | 852 Secs (852 Secs) | [==>] | [5] |
| 40 | ANY              |                     | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 39-41 in Visit 01 | 680 Secs (680 Secs) | [==>] | [5] |
| 41 | ANY              |                     | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 39-41 in Visit 01 | 740 Secs (740 Secs) | [==>] | [5] |
| 42 | (COS.sp.716 645) | (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 42-44 in Visit 01 | 810 Secs (810 Secs) | [==>] | [5] |
| 43 | ANY              |                     | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 42-44 in Visit 01 | 730 Secs (730 Secs) | [==>] | [5] |
| 44 | ANY              |                     | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 42-44 in Visit 01 | 750 Secs (750 Secs) | [==>] | [5] |
| 45 | (COS.sp.716 645) | (1) RXSJ00437+372 5 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 45-47 in Visit 01 | 810 Secs (810 Secs) | [==>] | [5] |
| 46 | ANY              |                     | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 45-47 in Visit 01 | 730 Secs (730 Secs) | [==>] | [5] |
| 47 | ANY              |                     | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 45-47 in Visit 01 | 830 Secs (830 Secs) | [==>] | [5] |



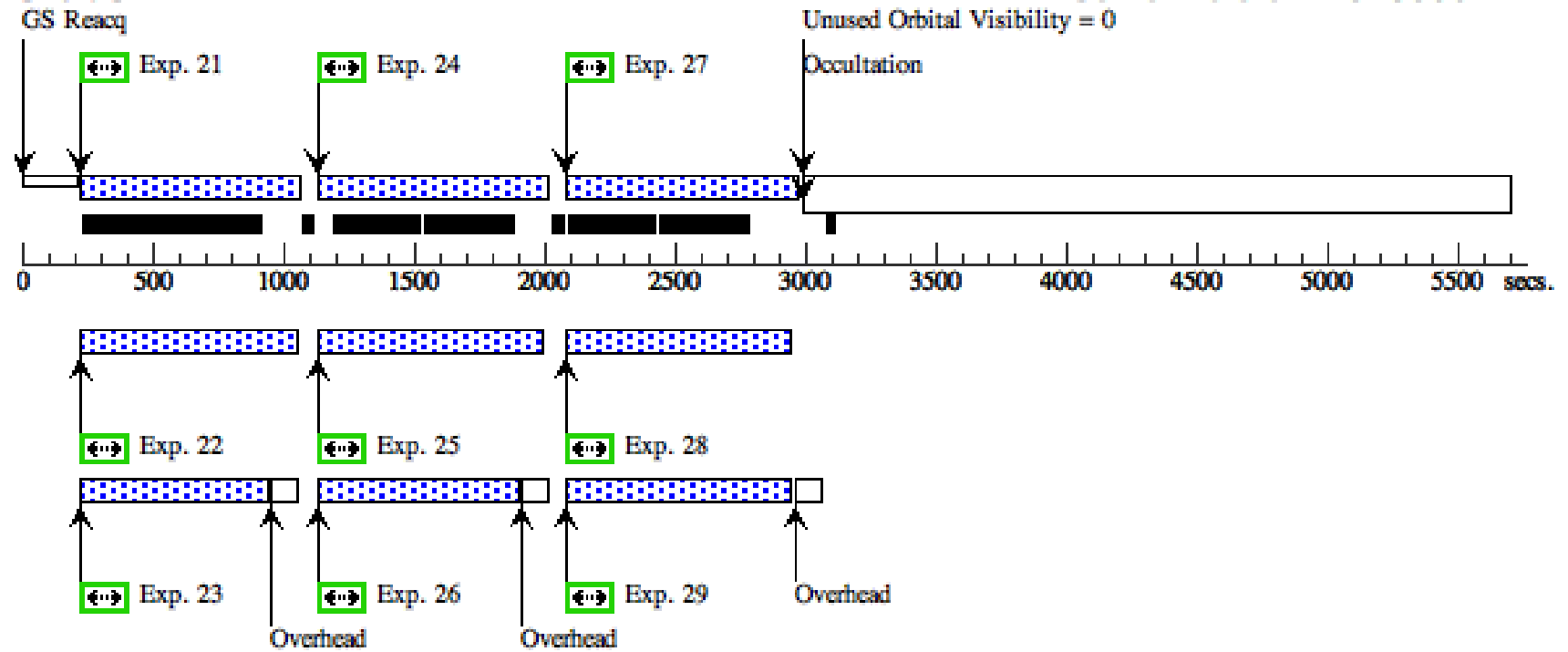
## Orbit 2

Server Version: 20160601



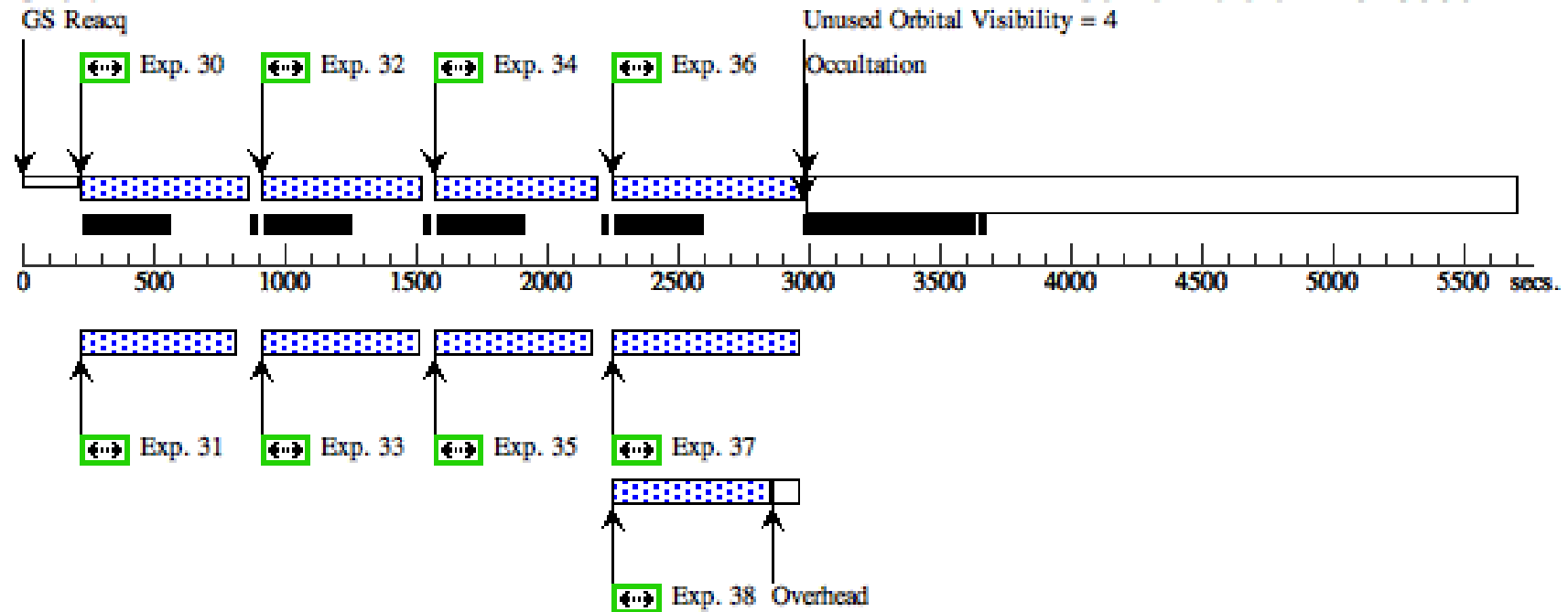
### Orbit 3

Server Version: 20160601



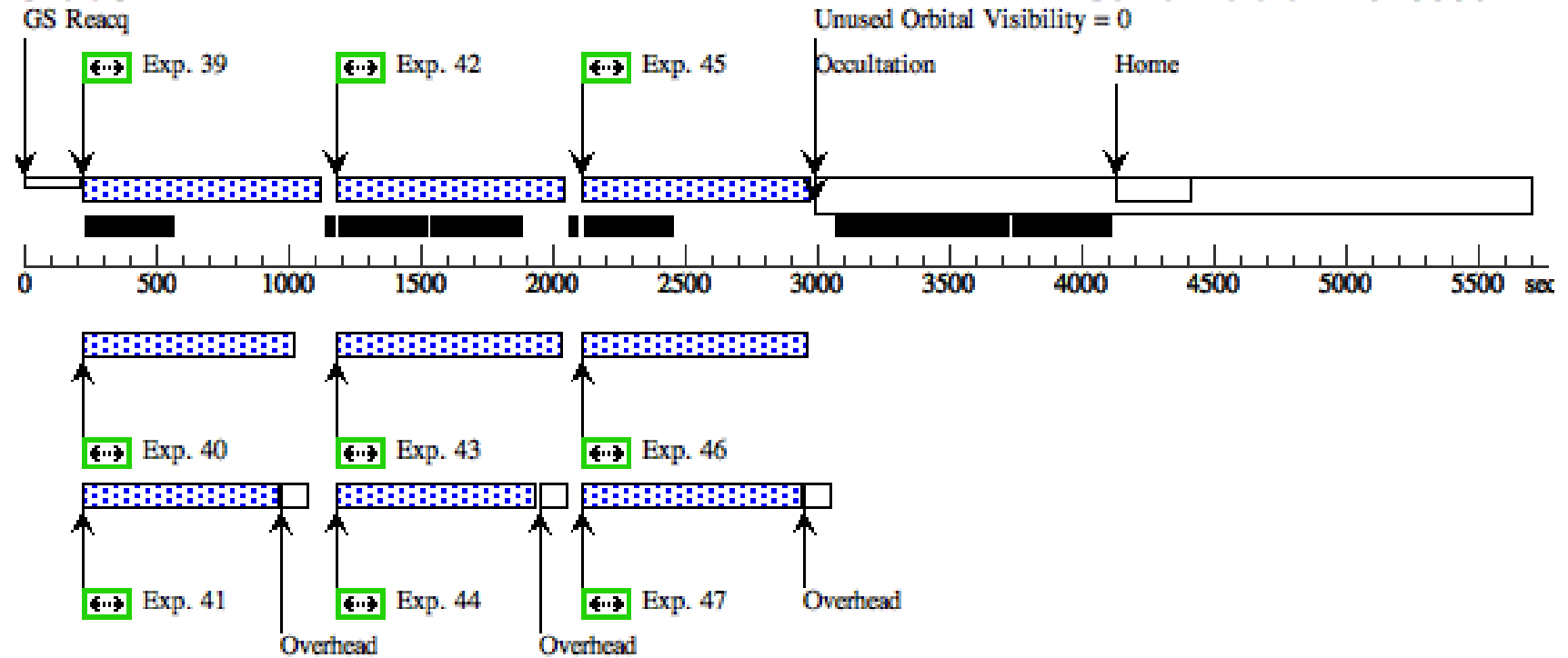
# Orbit 4

Server Version: 20160601



## Orbit 5

Server Version: 20160601



# Proposal 14268 - Visit 02 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

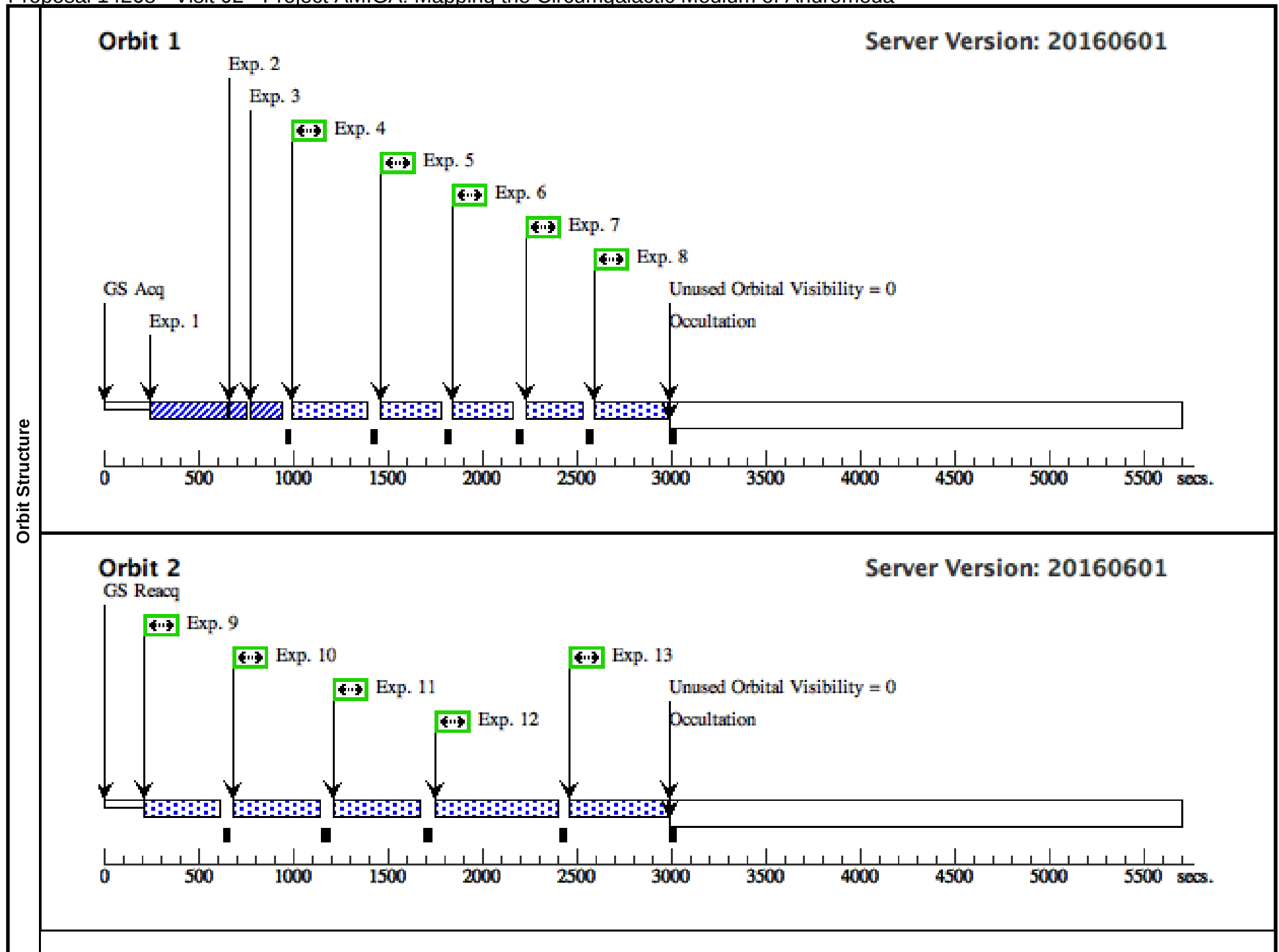
|               |                                                                                                                                                            |                                                                                       |                                                                                   |                          |                              |                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit         | <b>Proposal 14268, Visit 02, failed</b><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: COS/FUV<br>Special Requirements: SCHED 100% |                                                                                       |                                                                                   |                          |                              | Wed Sep 07 21:22:55 GMT 2016 |
|               |                                                                                                                                                            |                                                                                       |                                                                                   |                          |                              |                              |
| Fixed Targets | #                                                                                                                                                          | Name                                                                                  | Target Coordinates                                                                | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|               | (2)                                                                                                                                                        | ZW535.012<br>Alt Name1:<br>2MASXJ00362092+4539<br>532<br>Comments: <i>Extended=NO</i> | RA: 00 36 20.9230 (9.0871792d)<br>Dec: +45 39 53.22 (45.66478d)<br>Equinox: J2000 |                          | V=14.25<br>GALEX FUV = 16.26 | Reference Frame: ICRS        |

# Proposal 14268 - Visit 02 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target        | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|---------------|--------------------------|-----------------|---------------------------------------------------------|---------------|--------|---------------------------------|-------|
|           | 1  | (COS.sa.730 970)   | (2) ZW535.012 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |        | 4.3 Secs (4.3 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.730 968)   | (2) ZW535.012 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |        | 1.7 Secs (1.7 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730 970)   | (2) ZW535.012 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |        | 4.3 Secs (4.3 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=1;<br>FLASH=YES         |               |        | 283 Secs (283 Secs)<br>[==>]    | [1]   |
|           | 5  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=2;<br>FLASH=YES         |               |        | 270 Secs (270 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=3;<br>FLASH=YES         |               |        | 271 Secs (271 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=4;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 8  | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=1;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=2;<br>FLASH=YES         |               |        | 348 Secs (348 Secs)<br>[==>]    | [2]   |
|           | 10 | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=3;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 11 | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=4;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 12 | (COS.sp.716 685)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=1;<br>FLASH=YES         |               |        | 470 Secs (470 Secs)<br>[==>]    | [2]   |

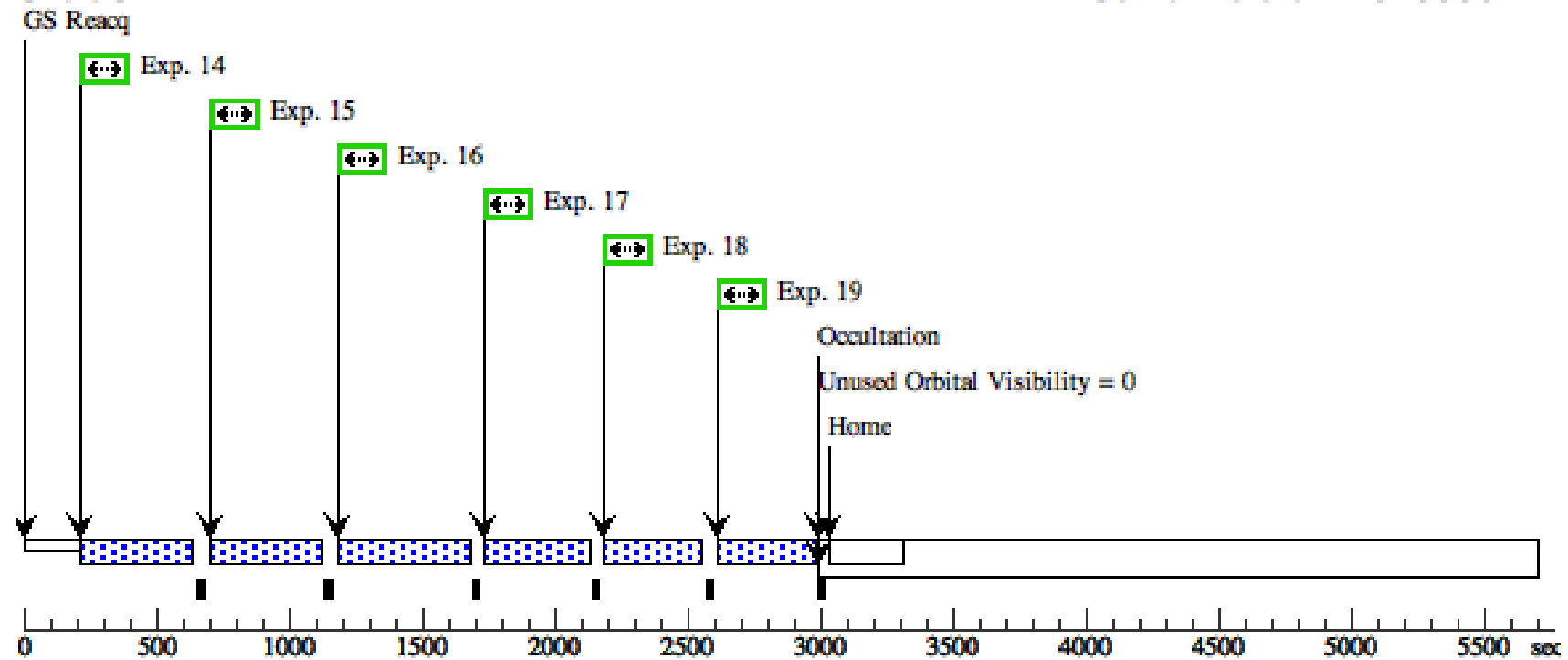
# Proposal 14268 - Visit 02 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|  |    |                                |                        |                 |                                                 |                              |     |
|--|----|--------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------|-----|
|  | 13 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=2;<br>FLASH=YES | 470 Secs (470 Secs)<br>[==>] | [2] |
|  | 14 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=3;<br>FLASH=YES | 370 Secs (370 Secs)<br>[==>] | [3] |
|  | 15 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=4;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 16 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=1;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 17 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=2;<br>FLASH=YES | 349 Secs (349 Secs)<br>[==>] | [3] |
|  | 18 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=3;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |
|  | 19 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=4;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |



### Orbit 3

Server Version: 20160601



# Proposal 14268 - Visit 24 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

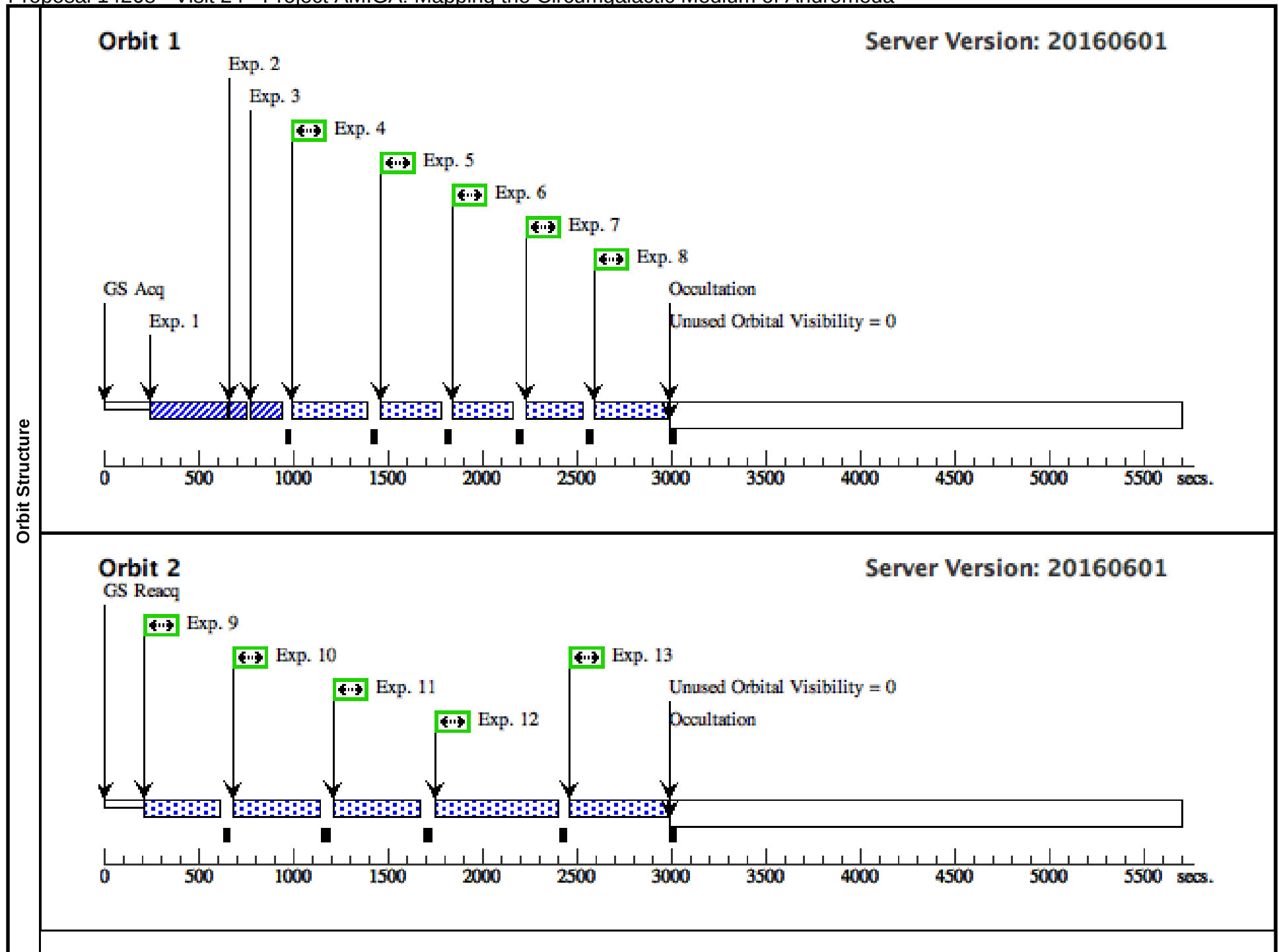
|               |                                                                                                                                                                                                        |                                                       |                                                                                   |                          |                              |                              |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit         | <b>Proposal 14268, Visit 24, failed</b><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: COS/FUV<br>Special Requirements: SCHED 100%<br><i>Comments: HOPR repeat of visit 02</i> |                                                       |                                                                                   |                          |                              | Wed Sep 07 21:22:55 GMT 2016 |
|               |                                                                                                                                                                                                        |                                                       |                                                                                   |                          |                              |                              |
| Fixed Targets | #                                                                                                                                                                                                      | Name                                                  | Target Coordinates                                                                | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|               | (2)                                                                                                                                                                                                    | ZW535.012<br>Alt Name1:<br>2MASXJ00362092+4539<br>532 | RA: 00 36 20.9230 (9.0871792d)<br>Dec: +45 39 53.22 (45.66478d)<br>Equinox: J2000 |                          | V=14.25<br>GALEX FUV = 16.26 | Reference Frame: ICRS        |
|               | <i>Comments: Extended=NO</i>                                                                                                                                                                           |                                                       |                                                                                   |                          |                              |                              |

# Proposal 14268 - Visit 24 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target        | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|---------------|--------------------------|-----------------|---------------------------------------------------------|---------------|--------|---------------------------------|-------|
|           | 1  | (COS.sa.730 970)   | (2) ZW535.012 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |        | 4.3 Secs (4.3 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.730 968)   | (2) ZW535.012 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |        | 1.7 Secs (1.7 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730 970)   | (2) ZW535.012 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |        | 4.3 Secs (4.3 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=1;<br>FLASH=YES         |               |        | 283 Secs (283 Secs)<br>[==>]    | [1]   |
|           | 5  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=2;<br>FLASH=YES         |               |        | 270 Secs (270 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=3;<br>FLASH=YES         |               |        | 271 Secs (271 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=4;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 8  | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=1;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=2;<br>FLASH=YES         |               |        | 348 Secs (348 Secs)<br>[==>]    | [2]   |
|           | 10 | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=3;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 11 | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=4;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 12 | (COS.sp.716 685)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=1;<br>FLASH=YES         |               |        | 470 Secs (470 Secs)<br>[==>]    | [2]   |

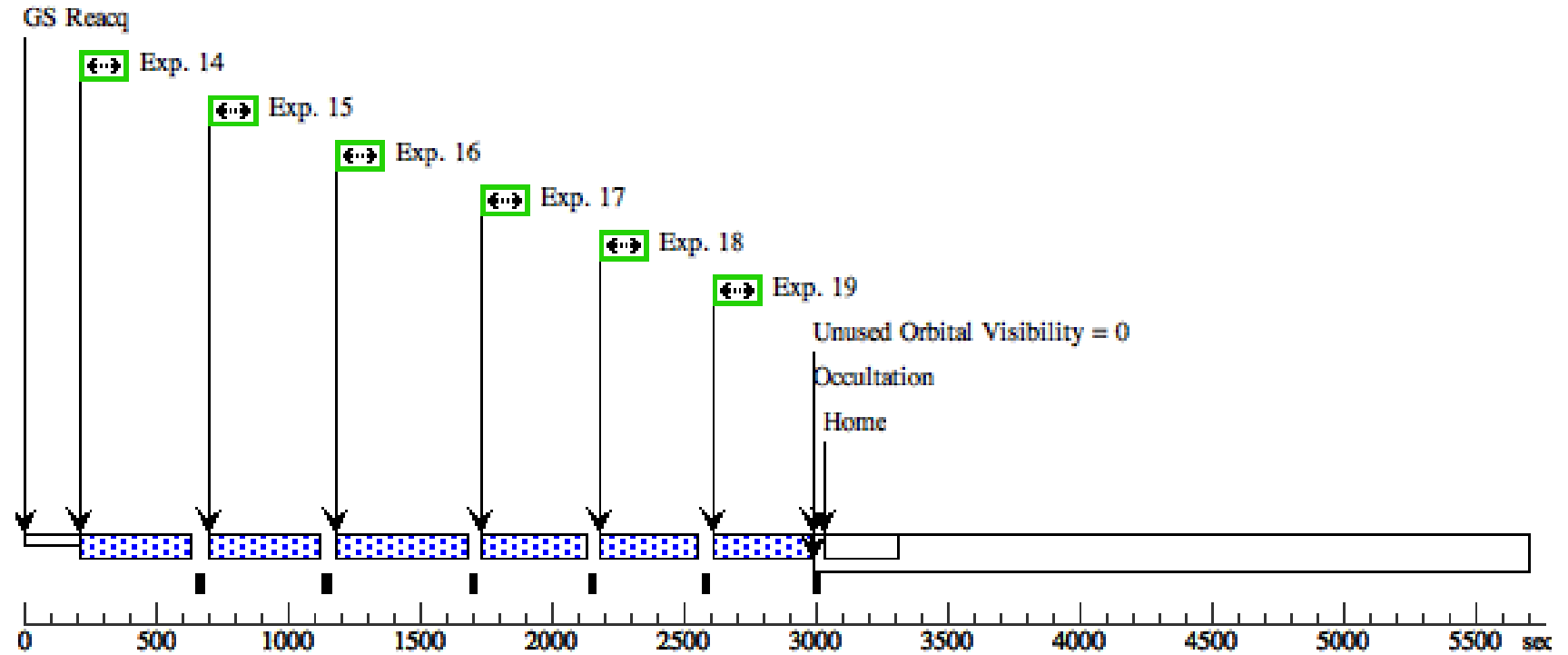
# Proposal 14268 - Visit 24 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|  |    |                                |                        |                 |                                                 |                              |     |
|--|----|--------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------|-----|
|  | 13 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=2;<br>FLASH=YES | 470 Secs (470 Secs)<br>[==>] | [2] |
|  | 14 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=3;<br>FLASH=YES | 370 Secs (370 Secs)<br>[==>] | [3] |
|  | 15 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=4;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 16 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=1;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 17 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=2;<br>FLASH=YES | 349 Secs (349 Secs)<br>[==>] | [3] |
|  | 18 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=3;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |
|  | 19 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=4;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |



### Orbit 3

Server Version: 20160601



# Proposal 14268 - Visit 25 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

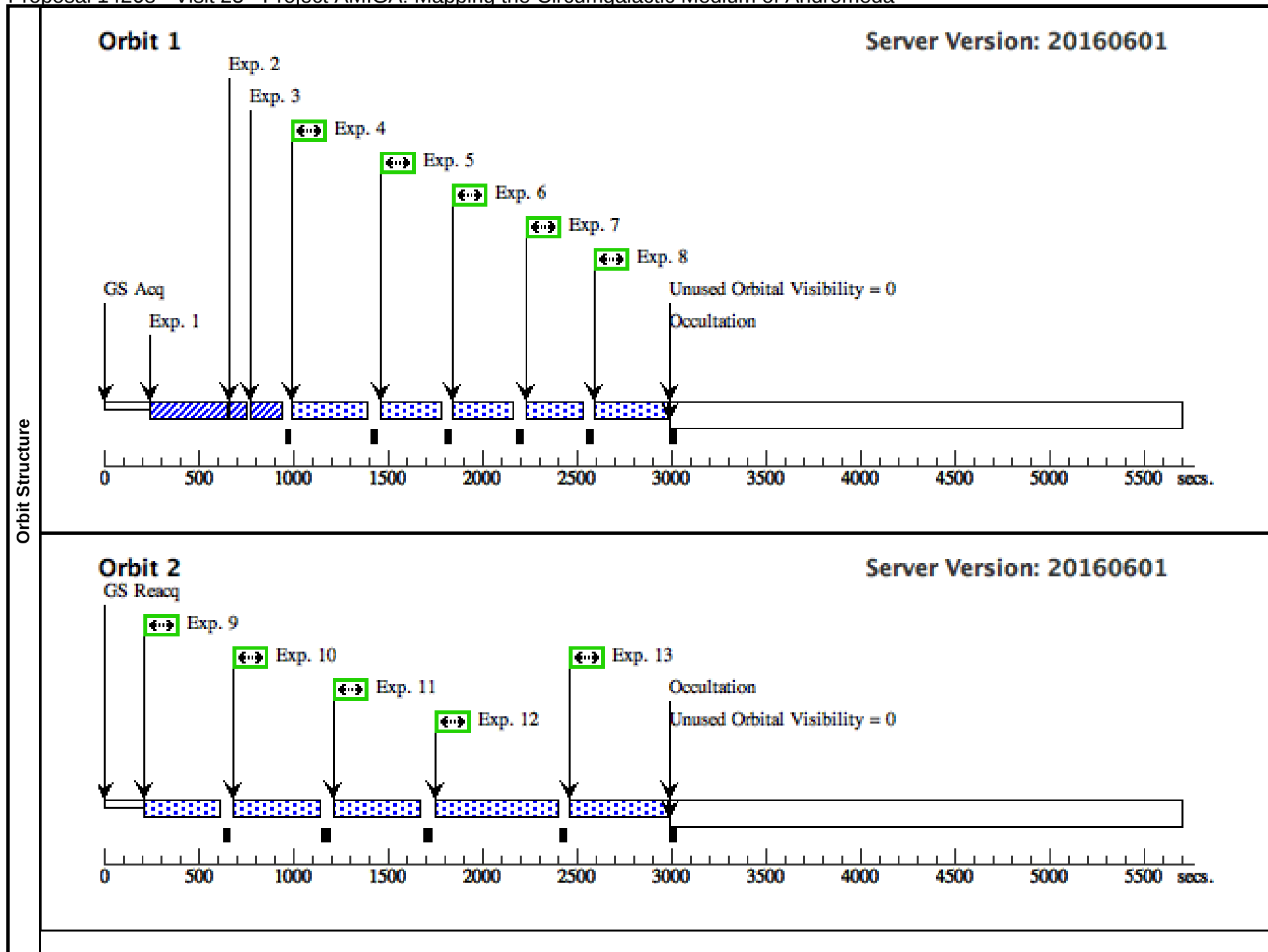
|                              |                                                                                                                                                                                                            |                                                       |                                                                                   |                          |                              |                              |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit                        | <b>Proposal 14268, Visit 25, scheduling</b><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: COS/FUV<br>Special Requirements: SCHED 100%<br><i>Comments: HOPR repeat of visit 24</i> |                                                       |                                                                                   |                          |                              | Wed Sep 07 21:22:55 GMT 2016 |
|                              |                                                                                                                                                                                                            |                                                       |                                                                                   |                          |                              |                              |
| Fixed Targets                | #                                                                                                                                                                                                          | Name                                                  | Target Coordinates                                                                | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|                              | (2)                                                                                                                                                                                                        | ZW535.012<br>Alt Name1:<br>2MASXJ00362092+4539<br>532 | RA: 00 36 20.9230 (9.0871792d)<br>Dec: +45 39 53.22 (45.66478d)<br>Equinox: J2000 |                          | V=14.25<br>GALEX FUV = 16.26 | Reference Frame: ICRS        |
| <i>Comments: Extended=NO</i> |                                                                                                                                                                                                            |                                                       |                                                                                   |                          |                              |                              |

# Proposal 14268 - Visit 25 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target        | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|---------------|--------------------------|-----------------|---------------------------------------------------------|---------------|--------|---------------------------------|-------|
|           | 1  | (COS.sa.730 970)   | (2) ZW535.012 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |        | 4.3 Secs (4.3 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.730 968)   | (2) ZW535.012 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |        | 1.7 Secs (1.7 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730 970)   | (2) ZW535.012 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |        | 4.3 Secs (4.3 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=1;<br>FLASH=YES         |               |        | 283 Secs (283 Secs)<br>[==>]    | [1]   |
|           | 5  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=2;<br>FLASH=YES         |               |        | 270 Secs (270 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=3;<br>FLASH=YES         |               |        | 271 Secs (271 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.716 682)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=18<br>78;<br>FP-POS=4;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 8  | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=1;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=2;<br>FLASH=YES         |               |        | 348 Secs (348 Secs)<br>[==>]    | [2]   |
|           | 10 | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=3;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 11 | (COS.sp.716 683)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=18<br>44;<br>FP-POS=4;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 12 | (COS.sp.716 685)   | (2) ZW535.012 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=1;<br>FLASH=YES         |               |        | 470 Secs (470 Secs)<br>[==>]    | [2]   |

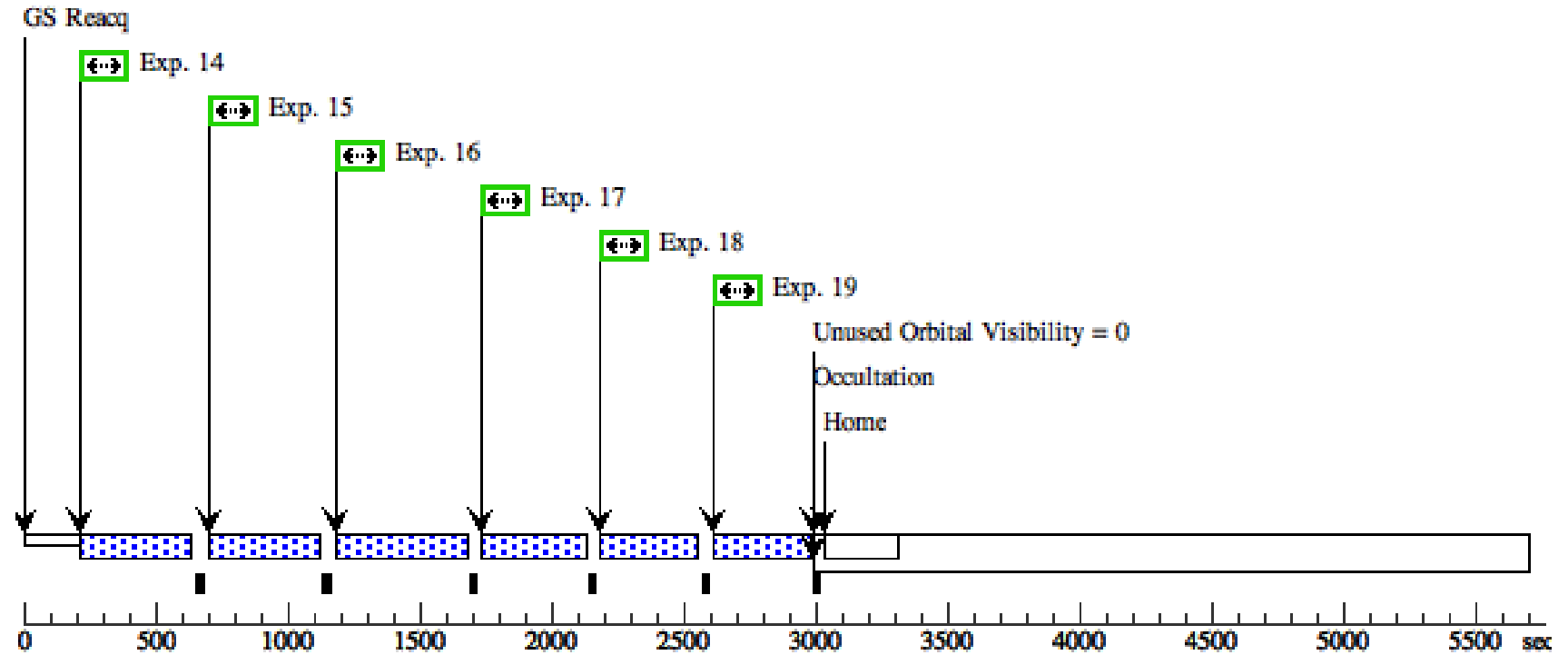
# Proposal 14268 - Visit 25 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|  |    |                                |                        |                 |                                                 |                              |     |
|--|----|--------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------|-----|
|  | 13 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=2;<br>FLASH=YES | 470 Secs (470 Secs)<br>[==>] | [2] |
|  | 14 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=3;<br>FLASH=YES | 370 Secs (370 Secs)<br>[==>] | [3] |
|  | 15 | (COS.sp.716 (2) ZW535.012 685) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=31<br>54;<br>FP-POS=4;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 16 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=1;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 17 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=2;<br>FLASH=YES | 349 Secs (349 Secs)<br>[==>] | [3] |
|  | 18 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=3;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |
|  | 19 | (COS.sp.716 (2) ZW535.012 686) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=38<br>50;<br>FP-POS=4;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |



### Orbit 3

Server Version: 20160601



# Proposal 14268 - Visit 03 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|                       |                                                                                                                                     |                                                            |                                                                                    |                          |                              |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                 | <b>Proposal 14268, Visit 03, completed</b> <span>Wed Sep 07 21:22:55 GMT 2016</span>                                                |                                                            |                                                                                    |                          |                              |
|                       | <b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |                                                            |                                                                                    |                          |                              |
| Fixed Targets         | #                                                                                                                                   | Name                                                       | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       |
|                       | (3)                                                                                                                                 | RXSJ00508+3536<br>Alt Name1:<br>2MASXJ00505076+3536<br>430 | RA: 00 50 50.7449 (12.7114371d)<br>Dec: +35 36 43.01 (35.61195d)<br>Equinox: J2000 |                          | V=14.60<br>GALEX FUV = 16.58 |
| Comments: Extended=NO |                                                                                                                                     |                                                            |                                                                                    |                          |                              |

# Proposal 14268 - Visit 03 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

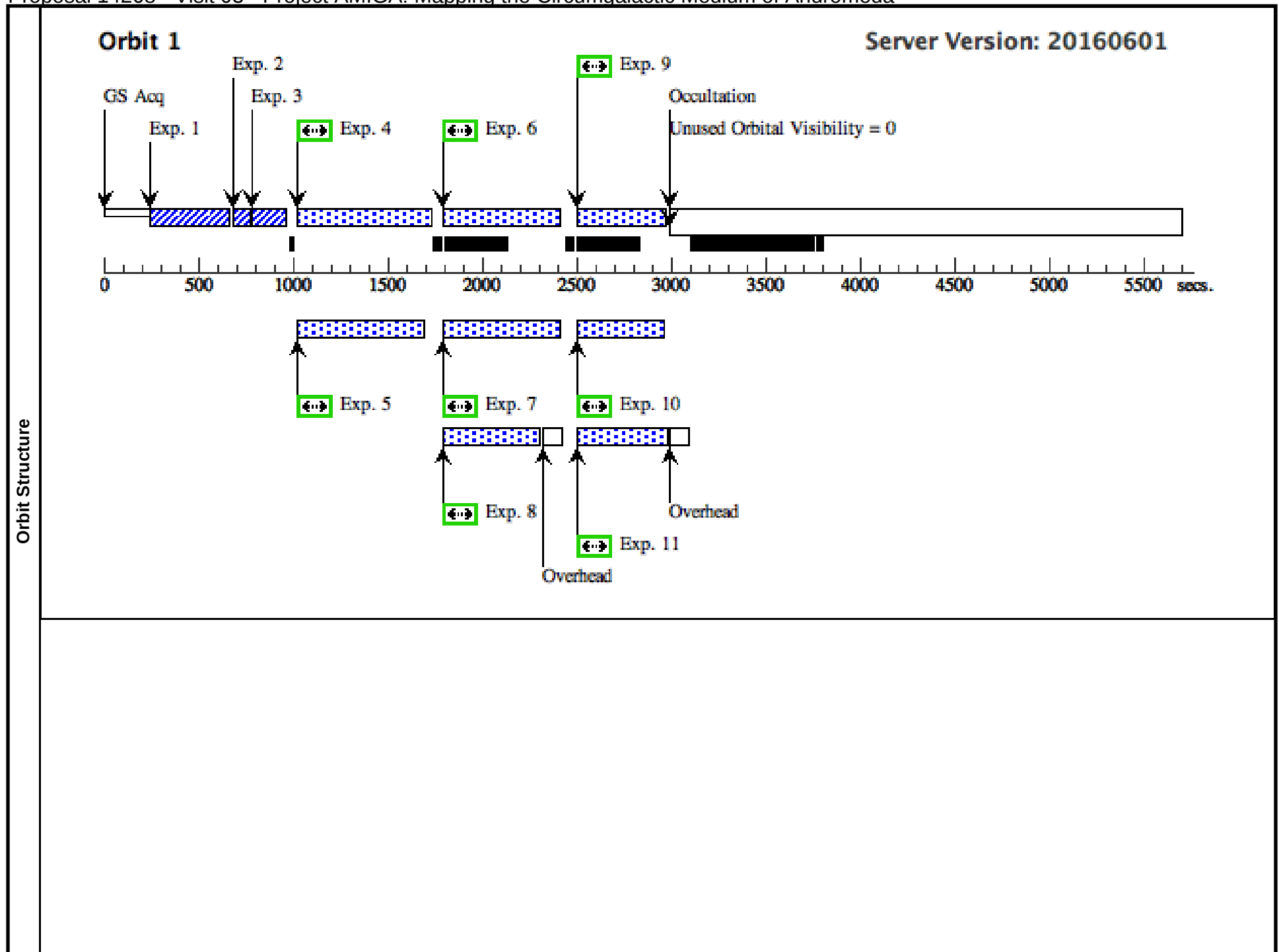
| Exposures | #  | Label<br>(ETC Run)  | Target                 | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.730<br>971) | (3) RXSJ00508+353<br>6 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 5.8 Secs (5.8 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.730<br>973) | (3) RXSJ00508+353<br>6 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 2.3 Secs (2.3 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730<br>971) | (3) RXSJ00508+353<br>6 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 5.8 Secs (5.8 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-5 in Visit 03   | 587 Secs (587 Secs)<br>[==>]    | [1]   |
|           | 5  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-5 in Visit 03   | 467 Secs (467 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 6-8 in Visit 03   | 570 Secs (570 Secs)<br>[==>]    | [1]   |
|           | 7  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 03   | 500 Secs (500 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 03   | 485 Secs (485 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 03  | 414 Secs (414 Secs)<br>[==>]    | [1]   |
|           | 10 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 03  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 03  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-13 in Visit 03 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 13 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-13 in Visit 03 | 400 Secs (400 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 14-15 in Visit 03 | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 15 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 14-15 in Visit 03 | 410 Secs (410 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 03 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                     |                        |                        |                 |                                                 |                                              |                              |     |
|----|---------------------|------------------------|------------------------|-----------------|-------------------------------------------------|----------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 16-17 in Visit 03 | 418 Secs (418 Secs)<br>[==>] | [2] |
| 17 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 16-17 in Visit 03 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 18-20 in Visit 03 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 03 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                 |                        | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 03 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 21-23 in Visit 03 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 03 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                 |                        | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 03 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=42<br>81;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Gro<br>up 24-25 in Visit 03 | 547 Secs (547 Secs)<br>[==>] | [3] |
| 25 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 24-25 in Visit 03 | 520 Secs (520 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=42<br>81;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 26-27 in Visit 03 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 26-27 in Visit 03 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=42<br>81;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 28-30 in Visit 03 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 28-30 in Visit 03 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                 |                        | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 28-30 in Visit 03 | 500 Secs (500 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=43<br>81;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 31-33 in Visit 03 | 550 Secs (550 Secs)<br>[==>] | [3] |

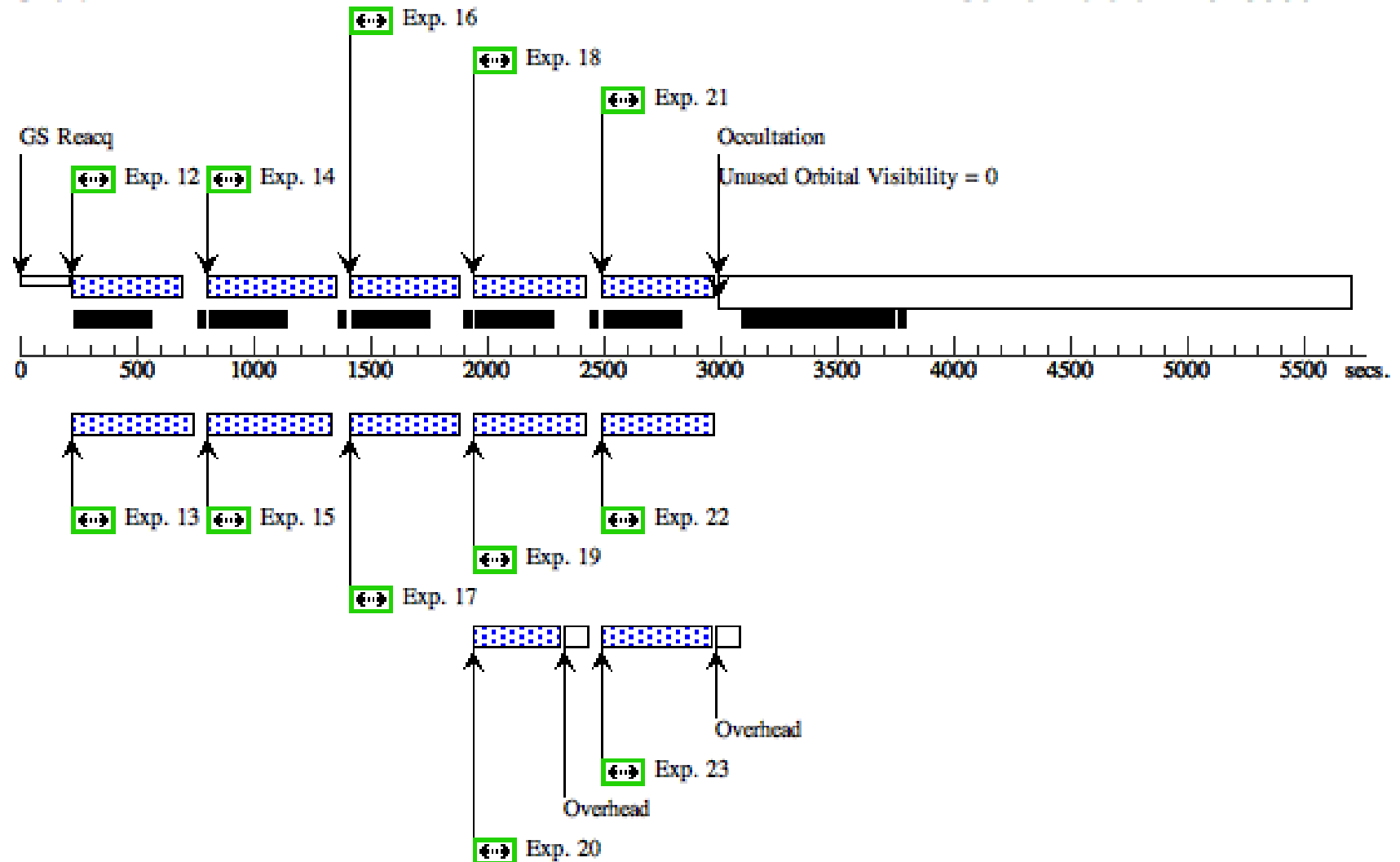
# Proposal 14268 - Visit 03 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                  |                        |                        |                                          |                                              |                     |
|----|------------------|------------------------|------------------------|------------------------------------------|----------------------------------------------|---------------------|
| 32 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 31-33 in Visit 03 | 475 Secs (475 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [3]                 |
| 33 | ANY              | WFC3/UVIS, ACCUM, UVIS | F814W                  | Prime + Parallel Group 31-33 in Visit 03 | 600 Secs (600 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [3]                 |
| 34 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=1;<br>FLASH=YES | 586 Secs (586 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 35 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 34-35 in Visit 03 | 570 Secs (570 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 36 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=2;<br>FLASH=YES | 550 Secs (550 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 37 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 36-37 in Visit 03 | 470 Secs (470 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 38 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=3;<br>FLASH=YES | 562 Secs (562 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 39 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 38-40 in Visit 03 | 470 Secs (470 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 40 | ANY              | WFC3/UVIS, ACCUM, UVIS | F814W                  | Prime + Parallel Group 38-40 in Visit 03 | 520 Secs (520 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 41 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=4;<br>FLASH=YES | 562 Secs (562 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 42 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 41-43 in Visit 03 | 475 Secs (475 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 43 | ANY              | WFC3/UVIS, ACCUM, UVIS | F814W                  | Prime + Parallel Group 41-43 in Visit 03 | 600 Secs (600 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |



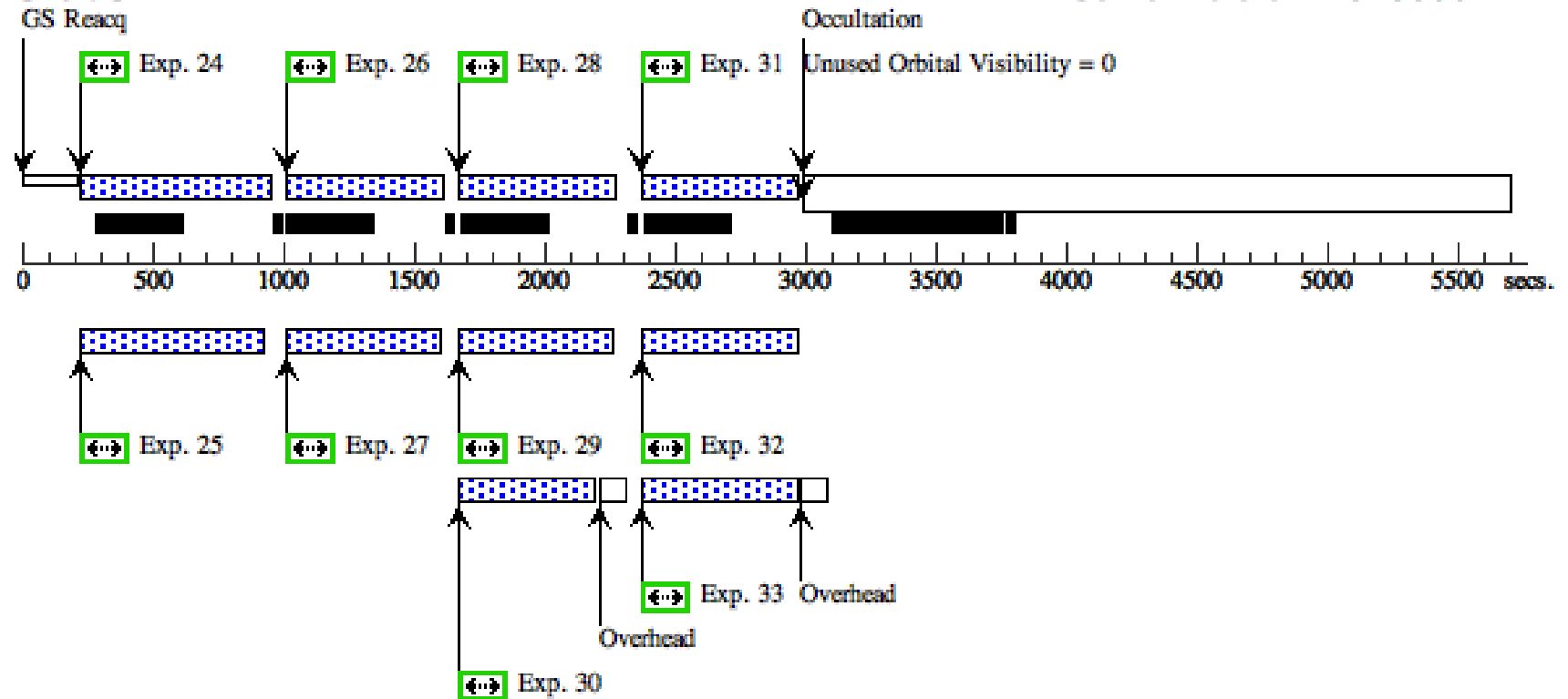
## Orbit 2

Server Version: 20160601



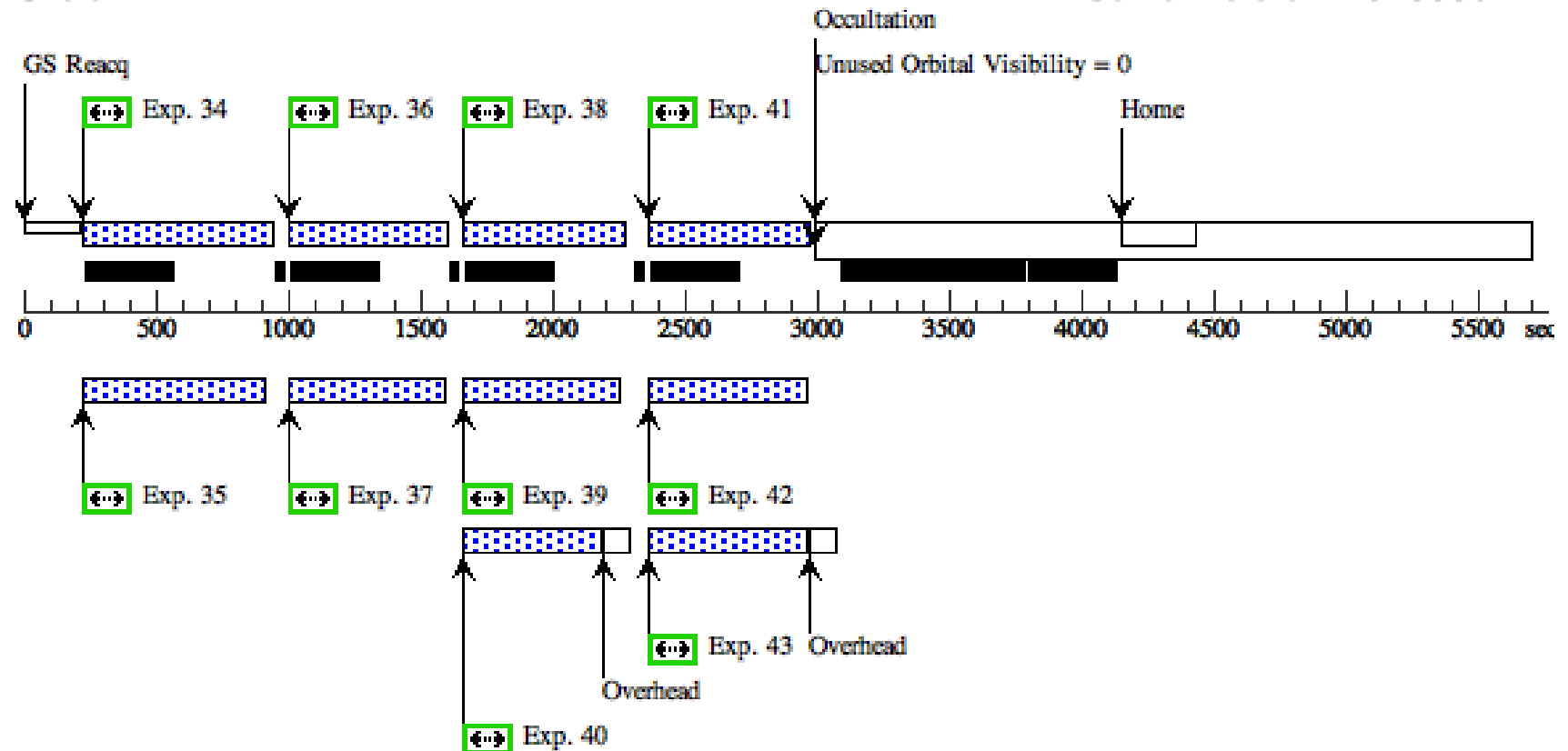
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 26 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|               |                                                                                                                                                                                                                   |                                                            |                                                                                    |                          |                              |                              |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit         | <b>Proposal 14268, Visit 26</b><br><b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100%<br><i>Comments: HOPR repeat of visit 3</i> |                                                            |                                                                                    |                          |                              | Wed Sep 07 21:22:56 GMT 2016 |
|               |                                                                                                                                                                                                                   |                                                            |                                                                                    |                          |                              |                              |
| Fixed Targets | #                                                                                                                                                                                                                 | Name                                                       | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|               | (3)                                                                                                                                                                                                               | RXSJ00508+3536<br>Alt Name1:<br>2MASXJ00505076+3536<br>430 | RA: 00 50 50.7449 (12.7114371d)<br>Dec: +35 36 43.01 (35.61195d)<br>Equinox: J2000 |                          | V=14.60<br>GALEX FUV = 16.58 | Reference Frame: ICRS        |
|               | <i>Comments: Extended=NO</i>                                                                                                                                                                                      |                                                            |                                                                                    |                          |                              |                              |

# Proposal 14268 - Visit 26 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

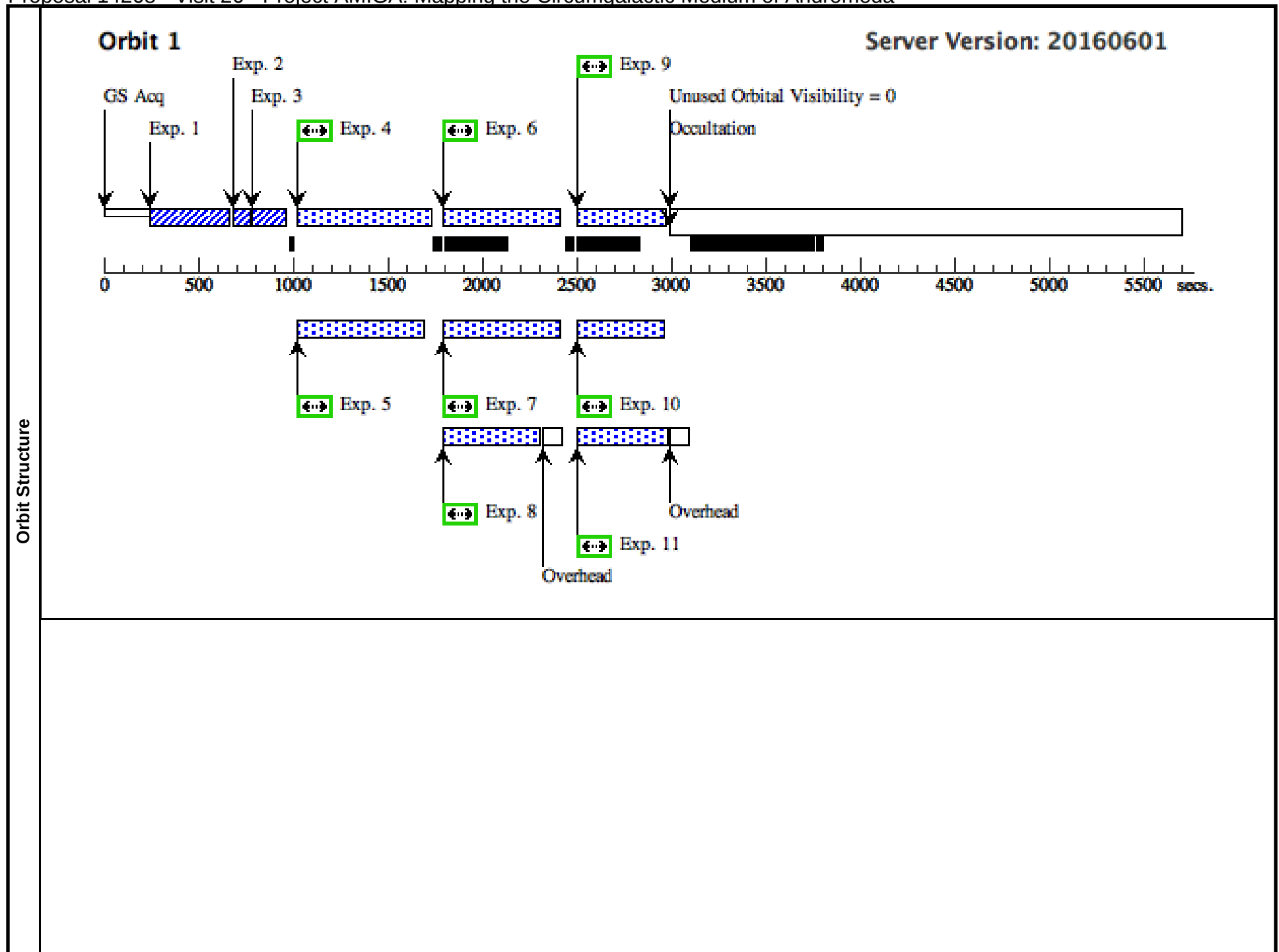
| Exposures | #  | Label<br>(ETC Run)  | Target                 | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.730<br>971) | (3) RXSJ00508+353<br>6 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 5.8 Secs (5.8 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.730<br>973) | (3) RXSJ00508+353<br>6 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 2.3 Secs (2.3 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730<br>971) | (3) RXSJ00508+353<br>6 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 5.8 Secs (5.8 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-5 in Visit 26   | 587 Secs (587 Secs)<br>[==>]    | [1]   |
|           | 5  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-5 in Visit 26   | 467 Secs (467 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 6-8 in Visit 26   | 570 Secs (570 Secs)<br>[==>]    | [1]   |
|           | 7  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 26   | 500 Secs (500 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 26   | 485 Secs (485 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 26  | 414 Secs (414 Secs)<br>[==>]    | [1]   |
|           | 10 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 26  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 26  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.717<br>921) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>96;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-13 in Visit 26 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 13 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-13 in Visit 26 | 400 Secs (400 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 14-15 in Visit 26 | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 15 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 14-15 in Visit 26 | 410 Secs (410 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 26 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                     |                        |                        |                 |                                                 |                                              |                              |     |
|----|---------------------|------------------------|------------------------|-----------------|-------------------------------------------------|----------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 16-17 in Visit 26 | 418 Secs (418 Secs)<br>[==>] | [2] |
| 17 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 16-17 in Visit 26 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 18-20 in Visit 26 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 26 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                 |                        | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 26 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.717<br>924) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>59;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 21-23 in Visit 26 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 26 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                 |                        | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 26 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=42<br>81;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Gro<br>up 24-25 in Visit 26 | 547 Secs (547 Secs)<br>[==>] | [3] |
| 25 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 24-25 in Visit 26 | 520 Secs (520 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=42<br>81;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 26-27 in Visit 26 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 26-27 in Visit 26 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=42<br>81;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 28-30 in Visit 26 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                 |                        | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 28-30 in Visit 26 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                 |                        | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 28-30 in Visit 26 | 500 Secs (500 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.717<br>925) | (3) RXSJ00508+353<br>6 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=43<br>81;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 31-33 in Visit 26 | 550 Secs (550 Secs)<br>[==>] | [3] |

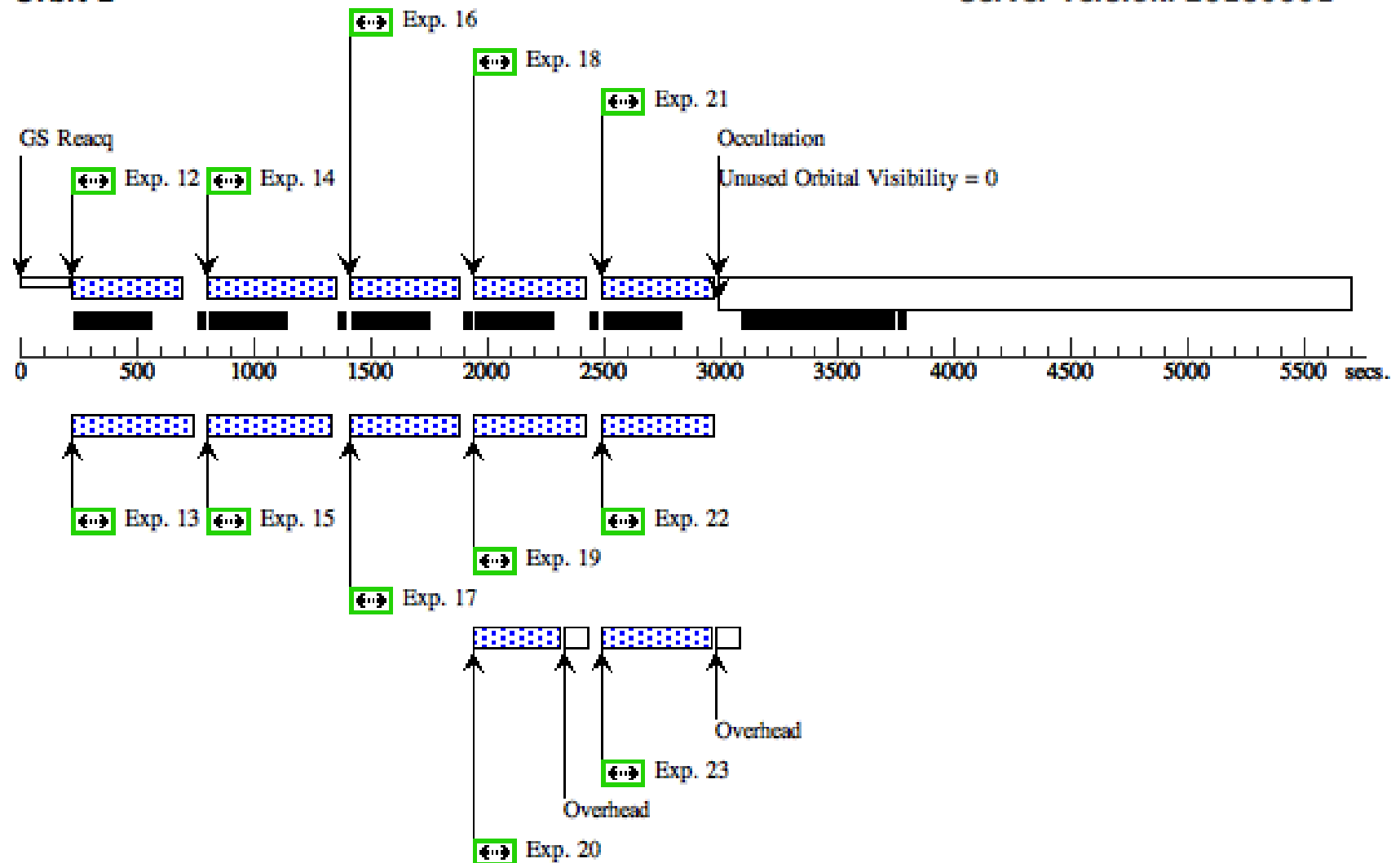
# Proposal 14268 - Visit 26 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                  |                        |                        |                                          |                                              |                     |
|----|------------------|------------------------|------------------------|------------------------------------------|----------------------------------------------|---------------------|
| 32 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 31-33 in Visit 26 | 475 Secs (475 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [3]                 |
| 33 | ANY              | WFC3/UVIS, ACCUM, UVIS | F814W                  | Prime + Parallel Group 31-33 in Visit 26 | 600 Secs (600 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [3]                 |
| 34 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=1;<br>FLASH=YES | 586 Secs (586 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 35 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 34-35 in Visit 26 | 570 Secs (570 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 36 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=2;<br>FLASH=YES | 550 Secs (550 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 37 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 36-37 in Visit 26 | 470 Secs (470 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 38 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=3;<br>FLASH=YES | 562 Secs (562 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 39 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 38-40 in Visit 26 | 470 Secs (470 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 40 | ANY              | WFC3/UVIS, ACCUM, UVIS | F814W                  | Prime + Parallel Group 38-40 in Visit 26 | 520 Secs (520 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 41 | (COS.sp.717 926) | (3) RXSJ00508+353 6    | COS/FUV, TIME-TAG, PSA | G160M 1623 A                             | BUFFER-TIME=46 48;<br>FP-POS=4;<br>FLASH=YES | 562 Secs (562 Secs) |
|    |                  |                        |                        |                                          |                                              | [4]                 |
| 42 | ANY              | ACS/WFC, ACCUM, WFC    | F814W                  | Prime + Parallel Group 41-43 in Visit 26 | 475 Secs (475 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |
| 43 | ANY              | WFC3/UVIS, ACCUM, UVIS | F814W                  | Prime + Parallel Group 41-43 in Visit 26 | 600 Secs (600 Secs)                          |                     |
|    |                  |                        |                        |                                          | [==>]                                        | [4]                 |



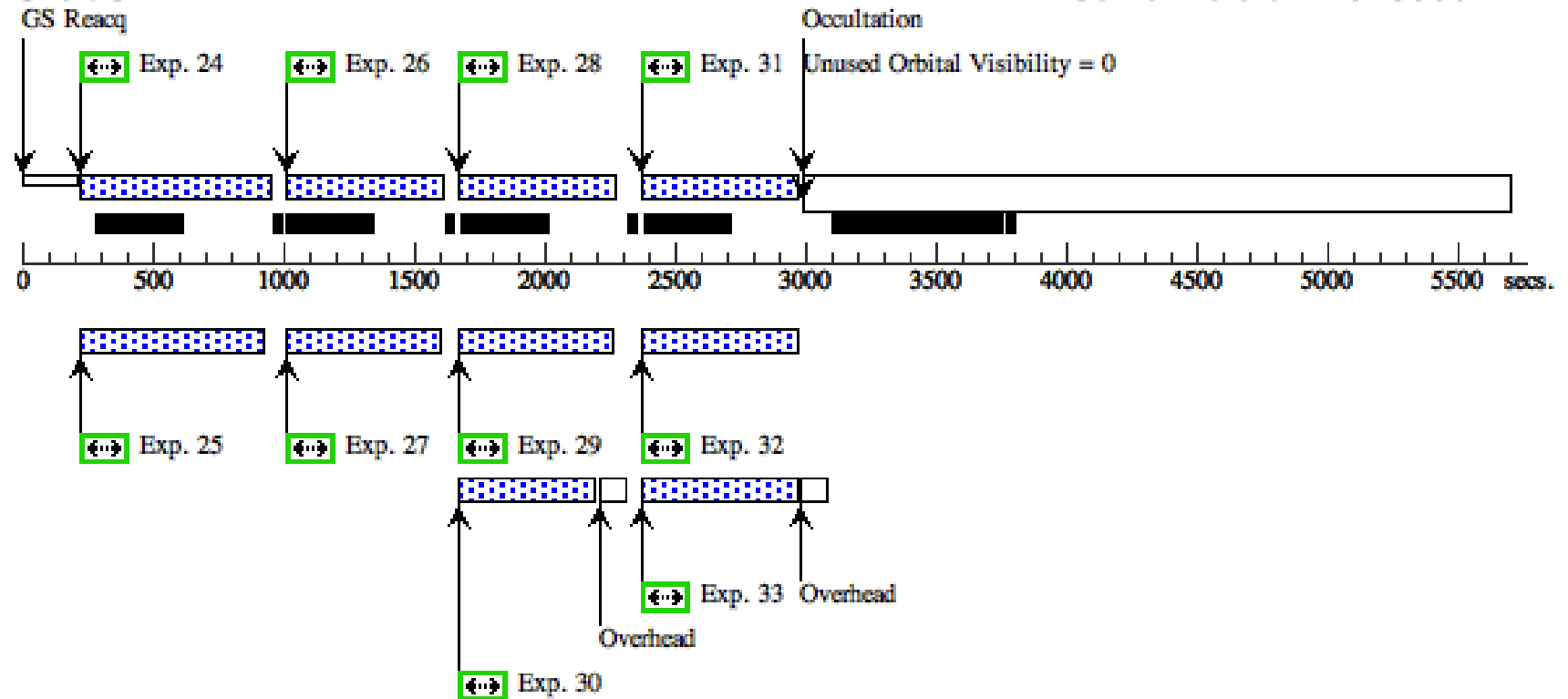
## Orbit 2

Server Version: 20160601



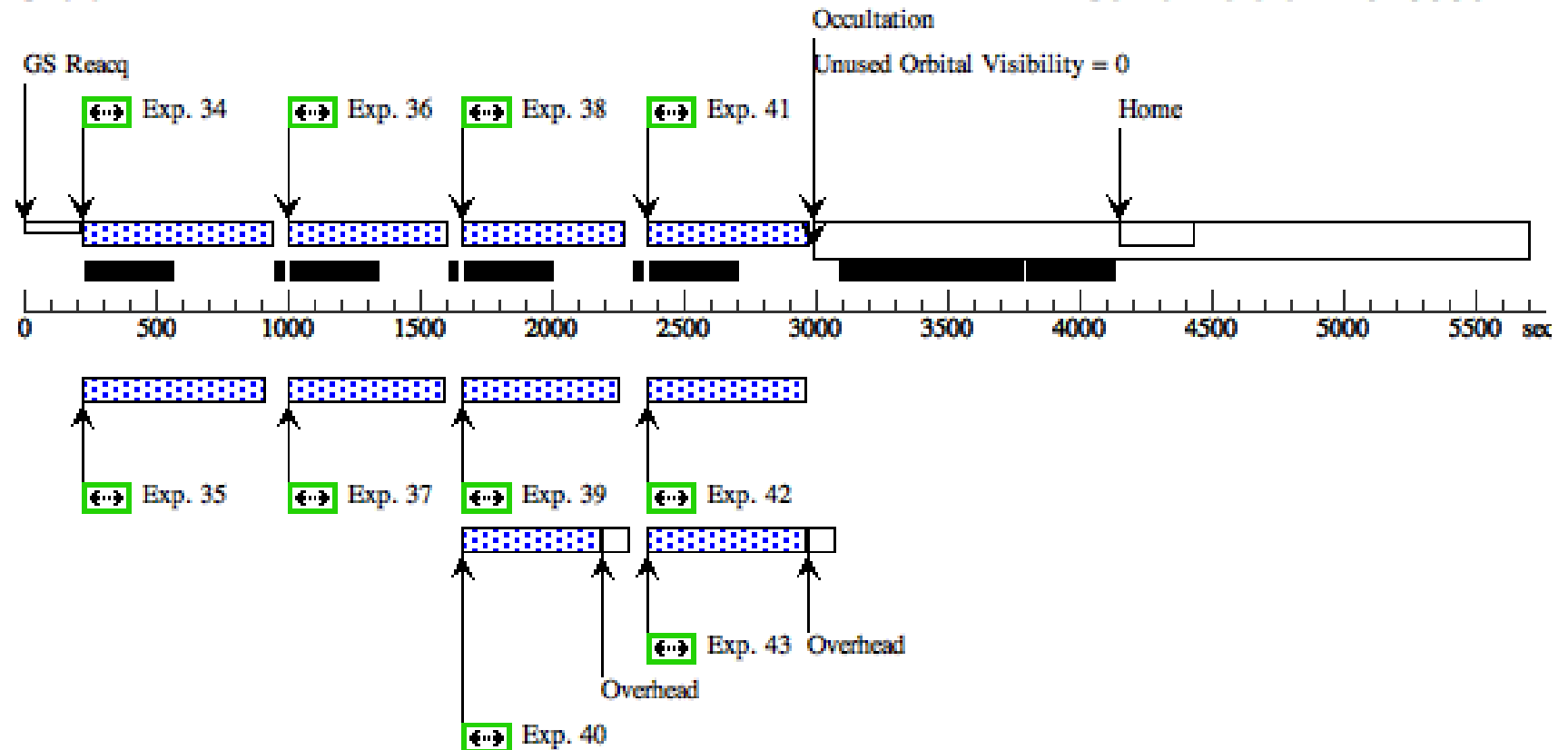
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 04 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

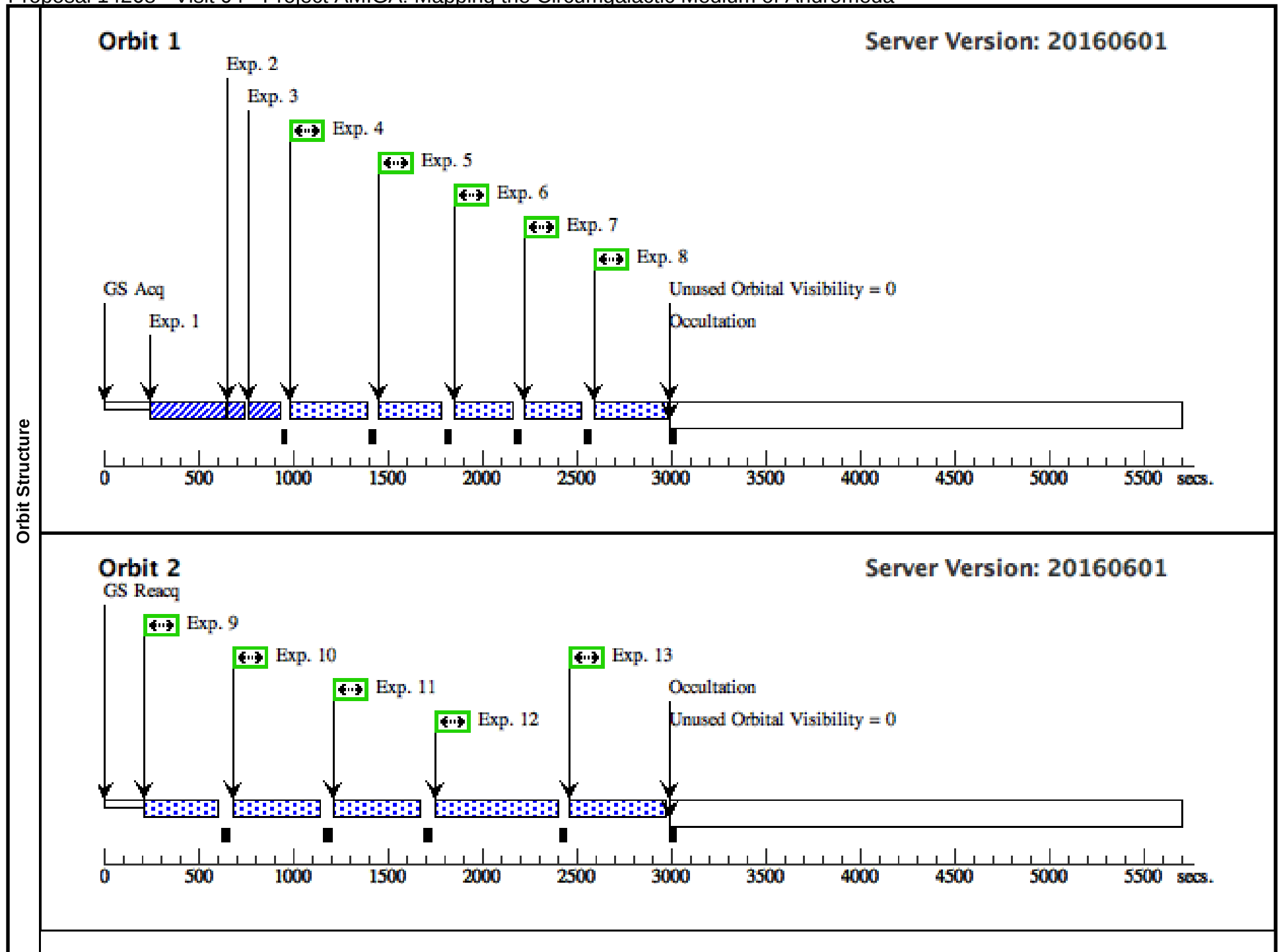
|                       |                                                                                                          |                                                             |                                                                                   |                          |                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------|----------------------------------------------------|
| Visit                 | Proposal 14268, Visit 04, completed <span>Wed Sep 07 21:22:56 GMT 2016</span>                            |                                                             |                                                                                   |                          |                                                    |
|                       | Diagnostic Status: No Diagnostics<br>Scientific Instruments: COS/FUV<br>Special Requirements: SCHED 100% |                                                             |                                                                                   |                          |                                                    |
| Fixed Targets         | #                                                                                                        | Name                                                        | Target Coordinates                                                                | Targ. Coord. Corrections | Fluxes                                             |
|                       | (4)                                                                                                      | IRASF00040+4325<br>Alt Name1:<br>2MASSJ00063656+4342<br>283 | RA: 00 06 36.5690 (1.6523708d)<br>Dec: +43 42 28.32 (43.70787d)<br>Equinox: J2000 |                          | V=14.62<br>GALEX FUV = 15.93; (F=2.0e-14,<br>FUSE) |
| Comments: Extended=NO |                                                                                                          |                                                             |                                                                                   |                          |                                                    |

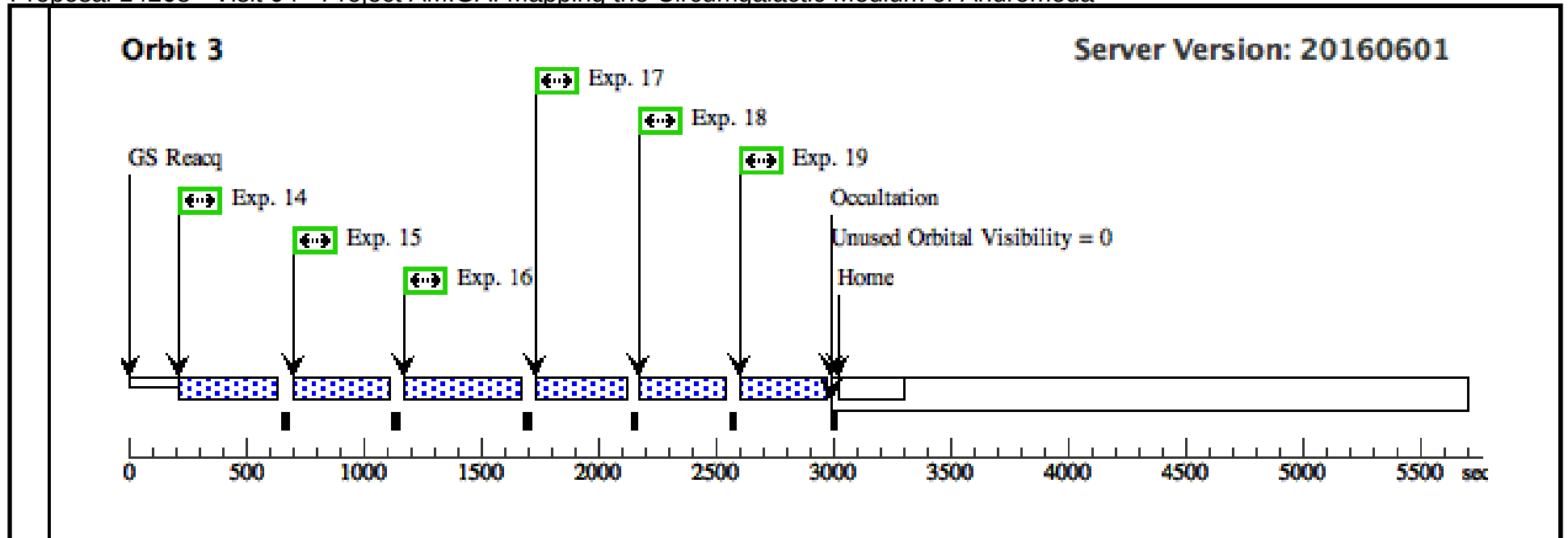
# Proposal 14268 - Visit 04 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run)  | Target                  | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|-------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|--------|---------------------------------|-------|
|           | 1  | (COS.sa.730<br>983) | (4) IRASF00040+43<br>25 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |        | 3.1 Secs (3.1 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.730<br>982) | (4) IRASF00040+43<br>25 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |        | 1.2 Secs (1.2 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730<br>983) | (4) IRASF00040+43<br>25 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |        | 3.1 Secs (3.1 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.727<br>612) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=1;<br>FLASH=YES         |               |        | 293 Secs (293 Secs)<br>[==>]    | [1]   |
|           | 5  | (COS.sp.727<br>612) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=2;<br>FLASH=YES         |               |        | 280 Secs (280 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727<br>612) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=3;<br>FLASH=YES         |               |        | 260 Secs (260 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.727<br>612) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=4;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 8  | (COS.sp.727<br>608) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=1;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727<br>608) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=2;<br>FLASH=YES         |               |        | 340 Secs (340 Secs)<br>[==>]    | [2]   |
|           | 10 | (COS.sp.716<br>683) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=3;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 11 | (COS.sp.727<br>608) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=4;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 12 | (COS.sp.727<br>613) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=1;<br>FLASH=YES         |               |        | 470 Secs (470 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 04 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|  |    |                     |                         |                        |                 |                                                 |                              |     |
|--|----|---------------------|-------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------|-----|
|  | 13 | (COS.sp.727<br>613) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=2;<br>FLASH=YES | 461 Secs (461 Secs)<br>[==>] | [2] |
|  | 14 | (COS.sp.727<br>613) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=3;<br>FLASH=YES | 371 Secs (371 Secs)<br>[==>] | [3] |
|  | 15 | (COS.sp.727<br>613) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=4;<br>FLASH=YES | 355 Secs (355 Secs)<br>[==>] | [3] |
|  | 16 | (COS.sp.727<br>615) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=1;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 17 | (COS.sp.727<br>615) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=2;<br>FLASH=YES | 340 Secs (340 Secs)<br>[==>] | [3] |
|  | 18 | (COS.sp.727<br>615) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=3;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |
|  | 19 | (COS.sp.727<br>615) | (4) IRASF00040+43<br>25 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=4;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |





# Proposal 14268 - Visit 05 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

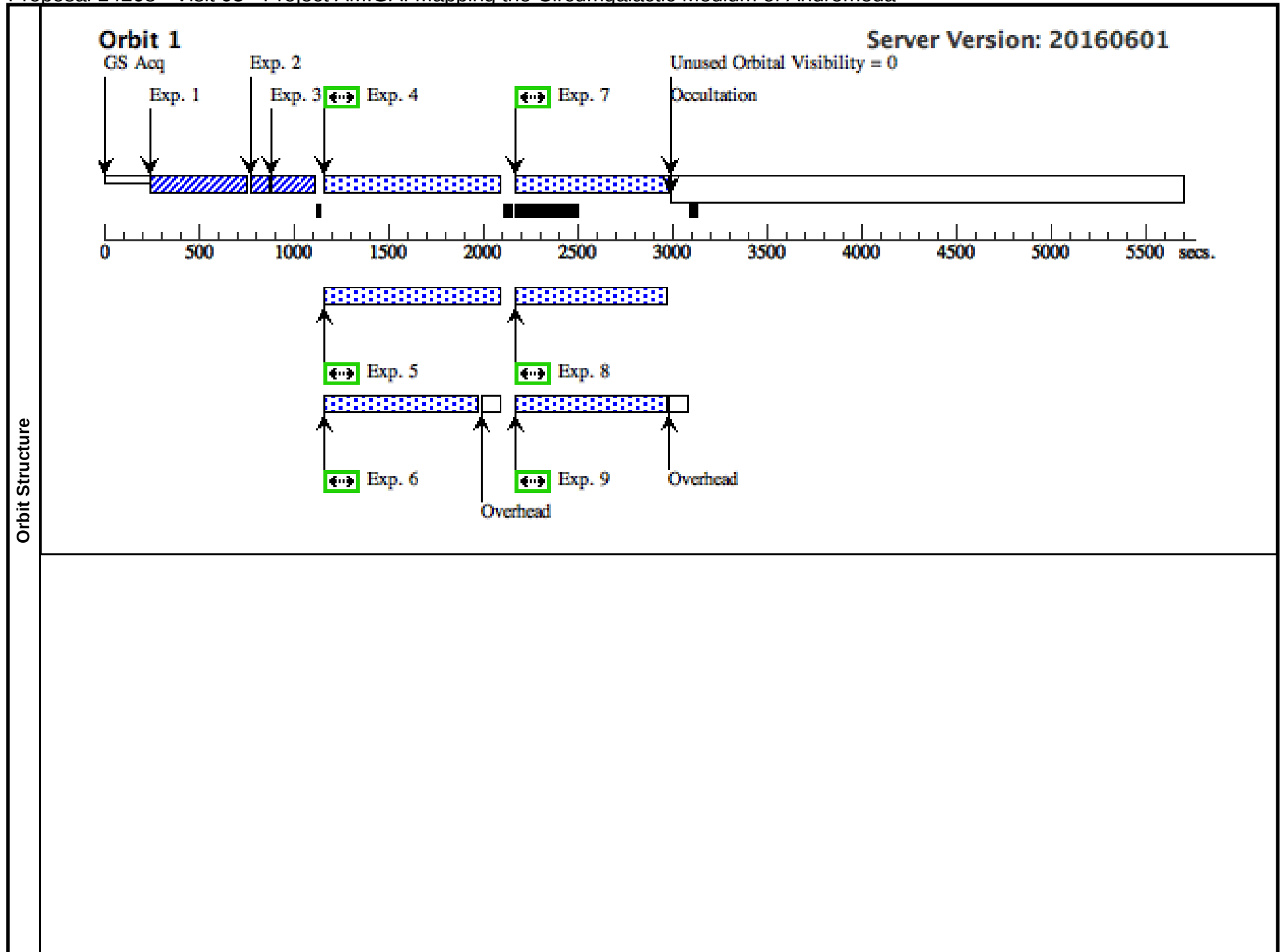
|                       |                                                                                                                                     |                                                      |                                                                                    |                          |                              |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                 | Proposal 14268, Visit 05, completed <span>Wed Sep 07 21:22:56 GMT 2016</span>                                                       |                                                      |                                                                                    |                          |                              |
|                       | <b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |                                                      |                                                                                    |                          |                              |
| Fixed Targets         | #                                                                                                                                   | Name                                                 | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       |
|                       | (5)                                                                                                                                 | RXSJ01188+3836<br>Alt Name1:<br>1RXSJ011848.2+383626 | RA: 01 18 49.4000 (19.7058333d)<br>Dec: +38 36 20.00 (38.60556d)<br>Equinox: J2000 |                          | V=16.80<br>GALEX FUV = 17.61 |
| Comments: Extended=NO |                                                                                                                                     |                                                      |                                                                                    |                          |                              |
|                       |                                                                                                                                     |                                                      |                                                                                    |                          |                              |

# Proposal 14268 - Visit 05 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run)  | Target                 | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.730<br>988) | (5) RXSJ01188+383<br>6 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 15.9 Secs (15.9 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.730<br>989) | (5) RXSJ01188+383<br>6 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 6.2 Secs (6.2 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730<br>988) | (5) RXSJ01188+383<br>6 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 15.9 Secs (15.9 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.718<br>499) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=31<br>52;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-6 in Visit 05   | 813 Secs (813 Secs)<br>[==>]    | [1]   |
|           | 5  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-6 in Visit 05   | 723 Secs (723 Secs)<br>[==>]    | [1]   |
|           | 6  |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-6 in Visit 05   | 783 Secs (783 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.718<br>499) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=31<br>52;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 7-9 in Visit 05   | 755 Secs (755 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 7-9 in Visit 05   | 675 Secs (675 Secs)<br>[==>]    | [1]   |
|           | 9  |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 7-9 in Visit 05   | 800 Secs (800 Secs)<br>[==>]    | [1]   |
|           | 10 | (COS.sp.718<br>499) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=31<br>52;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 10-12 in Visit 05 | 1238 Secs (1238 Secs)<br>[==>]  | [2]   |
|           | 11 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 10-12 in Visit 05 | 1130 Secs (1130 Secs)<br>[==>]  | [2]   |
|           | 12 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 10-12 in Visit 05 | 1140 Secs (1140 Secs)<br>[==>]  | [2]   |
|           | 13 | (COS.sp.718<br>499) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=31<br>52;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 13-15 in Visit 05 | 1330 Secs (1330 Secs)<br>[==>]  | [2]   |
|           | 14 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 13-15 in Visit 05 | 1130 Secs (1130 Secs)<br>[==>]  | [2]   |
|           | 15 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 13-15 in Visit 05 | 1140 Secs (1140 Secs)<br>[==>]  | [2]   |
|           | 16 | (COS.sp.718<br>500) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=31<br>08;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 16-18 in Visit 05 | 1265 Secs (1265 Secs)<br>[==>]  | [3]   |

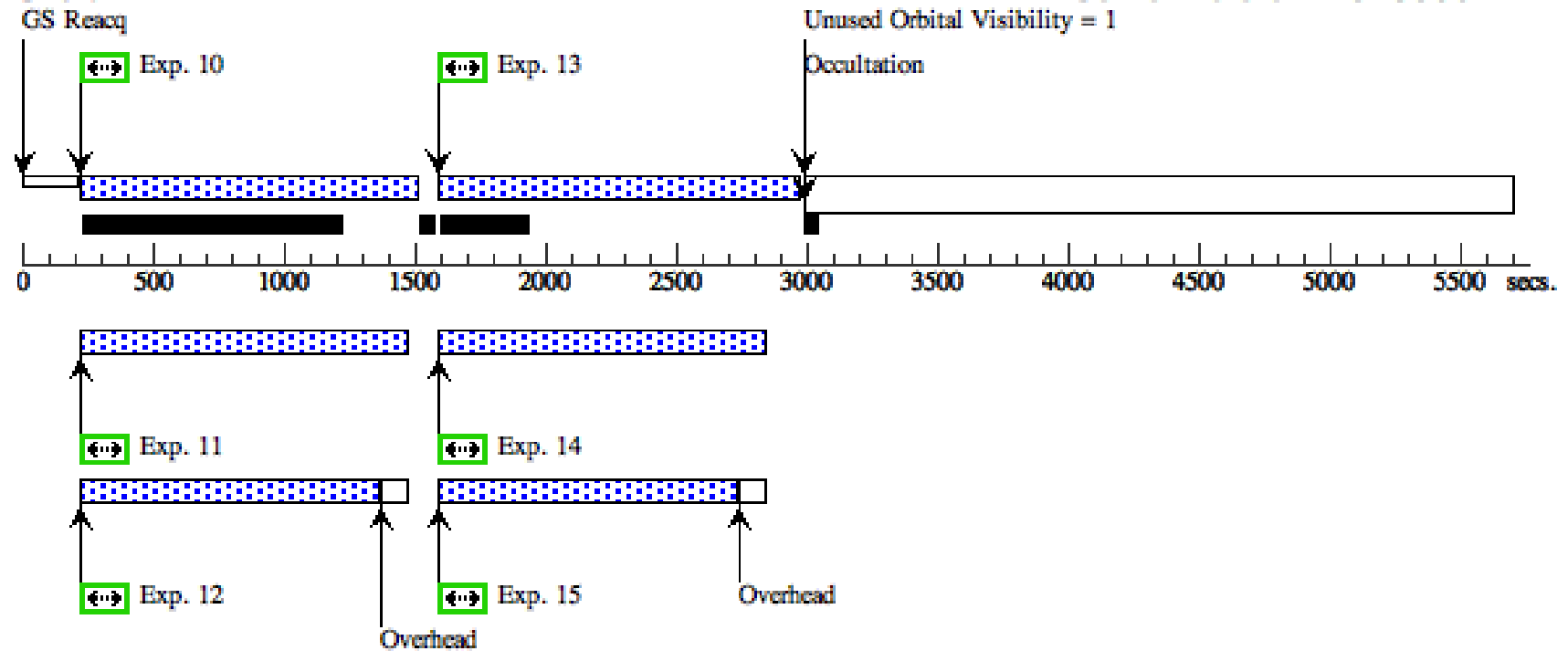
# Proposal 14268 - Visit 05 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                                      |                        |              |                                              |                       |     |
|----|--------------------------------------|------------------------|--------------|----------------------------------------------|-----------------------|-----|
| 17 | ANY                                  | ACS/WFC, ACCUM, WFC    | F606W        | Prime + Parallel Group 16-18 in Visit 05     | 1230 Secs (1230 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F606W        | Prime + Parallel Group 16-18 in Visit 05     | 1240 Secs (1240 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | (COS.sp.718 500) (5) RXSJ01188+383 6 | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=31 08;<br>FP-POS=2;<br>FLASH=YES | 1220 Secs (1220 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | ANY                                  | ACS/WFC, ACCUM, WFC    | F606W        | Prime + Parallel Group 19-21 in Visit 05     | 1150 Secs (1150 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F606W        | Prime + Parallel Group 19-21 in Visit 05     | 1270 Secs (1270 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | (COS.sp.718 500) (5) RXSJ01188+383 6 | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=31 08;<br>FP-POS=3;<br>FLASH=YES | 1268 Secs (1268 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | ACS/WFC, ACCUM, WFC    | F606W        | Prime + Parallel Group 22-24 in Visit 05     | 1180 Secs (1180 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F606W        | Prime + Parallel Group 22-24 in Visit 05     | 1180 Secs (1180 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | (COS.sp.718 500) (5) RXSJ01188+383 6 | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=31 08;<br>FP-POS=4;<br>FLASH=YES | 1300 Secs (1300 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | ACS/WFC, ACCUM, WFC    | F606W        | Prime + Parallel Group 25-27 in Visit 05     | 1225 Secs (1225 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F606W        | Prime + Parallel Group 25-27 in Visit 05     | 1250 Secs (1250 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |



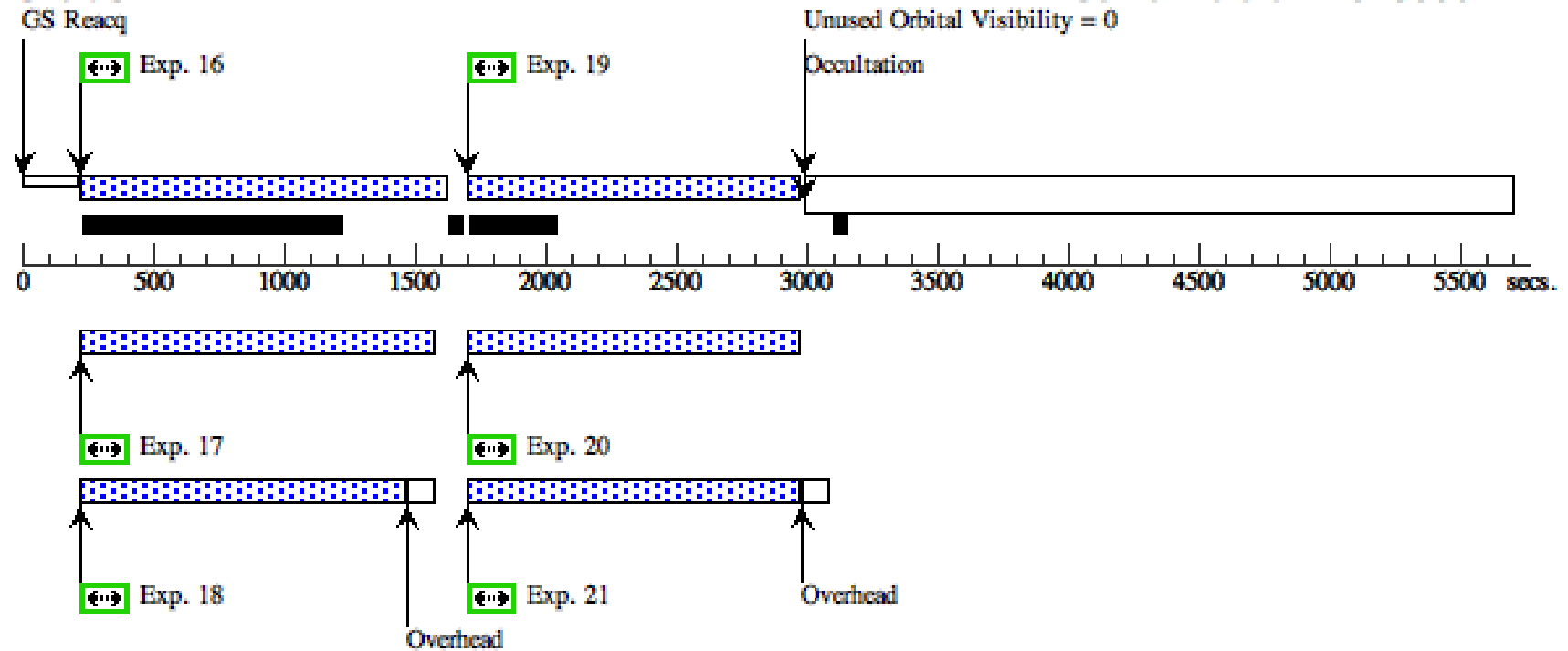
## Orbit 2

Server Version: 20160601



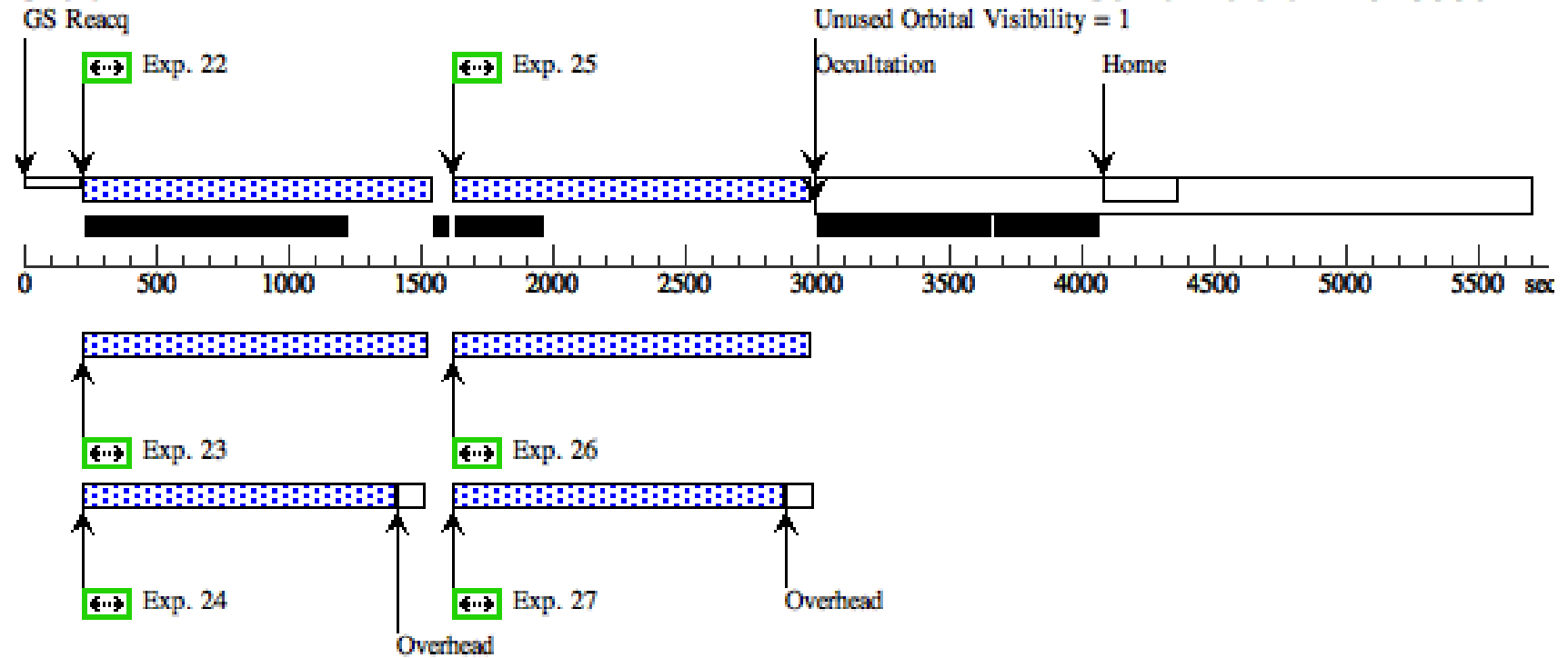
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 06 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

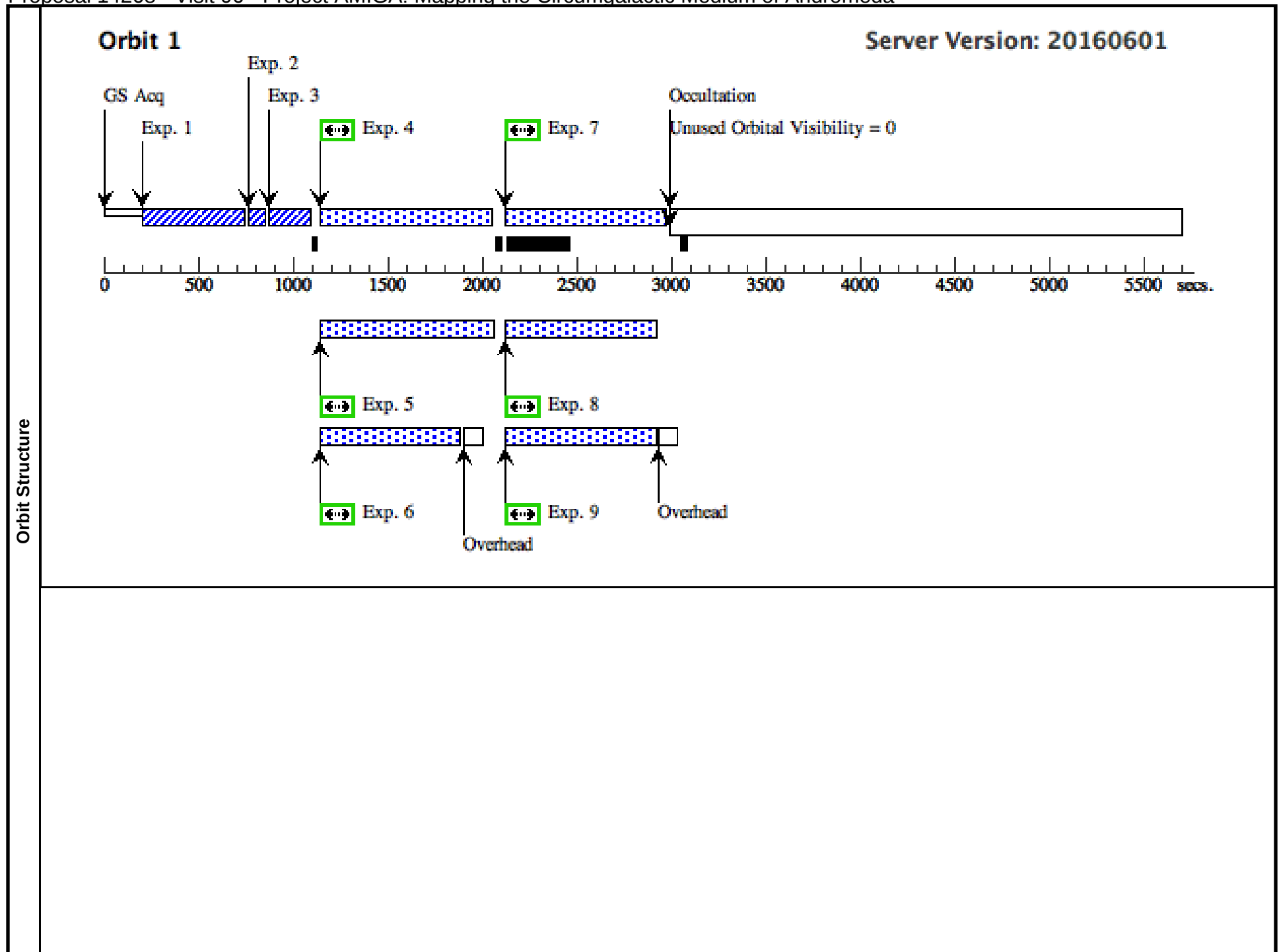
|                       |                                                                                                                                     |                                                      |                                                                                    |                          |                              |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                 | <b>Proposal 14268, Visit 06, completed</b> <span>Wed Sep 07 21:22:56 GMT 2016</span>                                                |                                                      |                                                                                    |                          |                              |
|                       | <b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |                                                      |                                                                                    |                          |                              |
| Fixed Targets         | #                                                                                                                                   | Name                                                 | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       |
|                       | (5)                                                                                                                                 | RXSJ01188+3836<br>Alt Name1:<br>1RXSJ011848.2+383626 | RA: 01 18 49.4000 (19.7058333d)<br>Dec: +38 36 20.00 (38.60556d)<br>Equinox: J2000 |                          | V=16.80<br>GALEX FUV = 17.61 |
| Comments: Extended=NO |                                                                                                                                     |                                                      |                                                                                    |                          |                              |

# Proposal 14268 - Visit 06 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run)  | Target                 | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.730<br>997) | (5) RXSJ01188+383<br>6 | COS/FUV, ACQ/SEARCH, PSA | G160M<br>1589 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 15.1 Secs (15.1 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.730<br>995) | (5) RXSJ01188+383<br>6 | COS/FUV, ACQ/PEAKXD, PSA | G160M<br>1589 A | SEGMENT=BOTH                                            |               |                                              | 5.9 Secs (5.9 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.730<br>997) | (5) RXSJ01188+383<br>6 | COS/FUV, ACQ/PEAKD, PSA  | G160M<br>1589 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 15.1 Secs (15.1 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.718<br>501) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=70<br>14;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-6 in Visit 06   | 794 Secs (794 Secs)<br>[==>]    | [1]   |
|           | 5  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Gro<br>up 4-6 in Visit 06   | 714 Secs (714 Secs)<br>[==>]    | [1]   |
|           | 6  |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Gro<br>up 4-6 in Visit 06   | 714 Secs (714 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.718<br>501) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=70<br>14;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 7-9 in Visit 06   | 798 Secs (798 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Gro<br>up 7-9 in Visit 06   | 675 Secs (675 Secs)<br>[==>]    | [1]   |
|           | 9  |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Gro<br>up 7-9 in Visit 06   | 800 Secs (800 Secs)<br>[==>]    | [1]   |
|           | 10 | (COS.sp.718<br>501) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=70<br>14;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 10-12 in Visit 06 | 1288 Secs (1288 Secs)<br>[==>]  | [2]   |
|           | 11 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Gro<br>up 10-12 in Visit 06 | 1160 Secs (1160 Secs)<br>[==>]  | [2]   |
|           | 12 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Gro<br>up 10-12 in Visit 06 | 1180 Secs (1180 Secs)<br>[==>]  | [2]   |
|           | 13 | (COS.sp.718<br>501) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=70<br>14;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 13-15 in Visit 06 | 1300 Secs (1300 Secs)<br>[==>]  | [2]   |
|           | 14 |                     | ANY                    | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Gro<br>up 13-15 in Visit 06 | 1100 Secs (1100 Secs)<br>[==>]  | [2]   |
|           | 15 |                     | ANY                    | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Gro<br>up 13-15 in Visit 06 | 1200 Secs (1200 Secs)<br>[==>]  | [2]   |
|           | 16 | (COS.sp.718<br>502) | (5) RXSJ01188+383<br>6 | COS/FUV, TIME-TAG, PSA   | G160M<br>1623 A | BUFFER-TIME=73<br>85;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 16-18 in Visit 06 | 1268 Secs (1268 Secs)<br>[==>]  | [3]   |

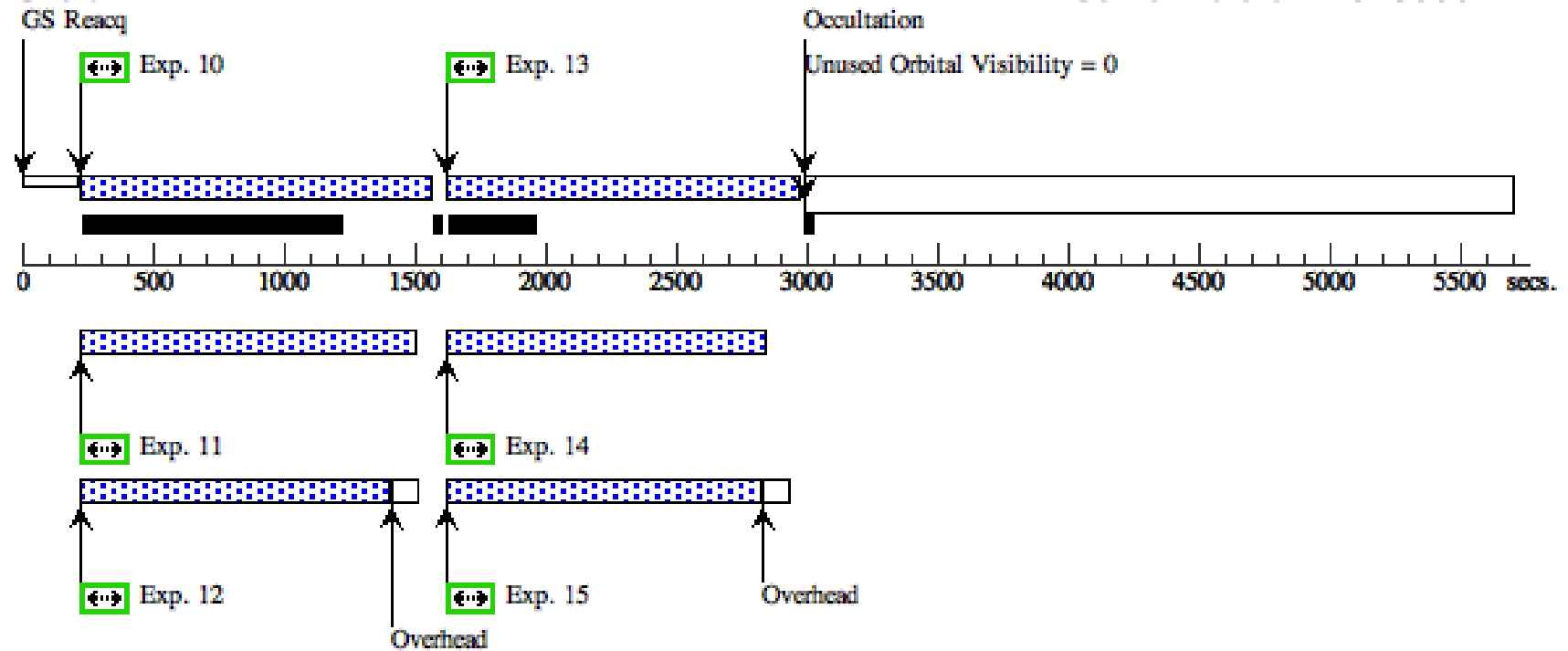
# Proposal 14268 - Visit 06 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                                      |                        |              |                                              |                       |     |
|----|--------------------------------------|------------------------|--------------|----------------------------------------------|-----------------------|-----|
| 17 | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 16-18 in Visit 06     | 1220 Secs (1220 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 16-18 in Visit 06     | 1250 Secs (1250 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | (COS.sp.718 502) (5) RXSJ01188+383 6 | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=73 85;<br>FP-POS=2;<br>FLASH=YES | 1240 Secs (1240 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 19-21 in Visit 06     | 1170 Secs (1170 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 19-21 in Visit 06     | 1250 Secs (1250 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [3] |
|    | (COS.sp.718 502) (5) RXSJ01188+383 6 | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=73 85;<br>FP-POS=3;<br>FLASH=YES | 1277 Secs (1277 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 22-24 in Visit 06     | 1180 Secs (1180 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 22-24 in Visit 06     | 1200 Secs (1200 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | (COS.sp.718 502) (5) RXSJ01188+383 6 | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=73 85;<br>FP-POS=4;<br>FLASH=YES | 1310 Secs (1310 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 25-27 in Visit 06     | 1200 Secs (1200 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |
|    | ANY                                  | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 25-27 in Visit 06     | 1200 Secs (1200 Secs) |     |
|    |                                      |                        |              |                                              | [==>]                 | [4] |



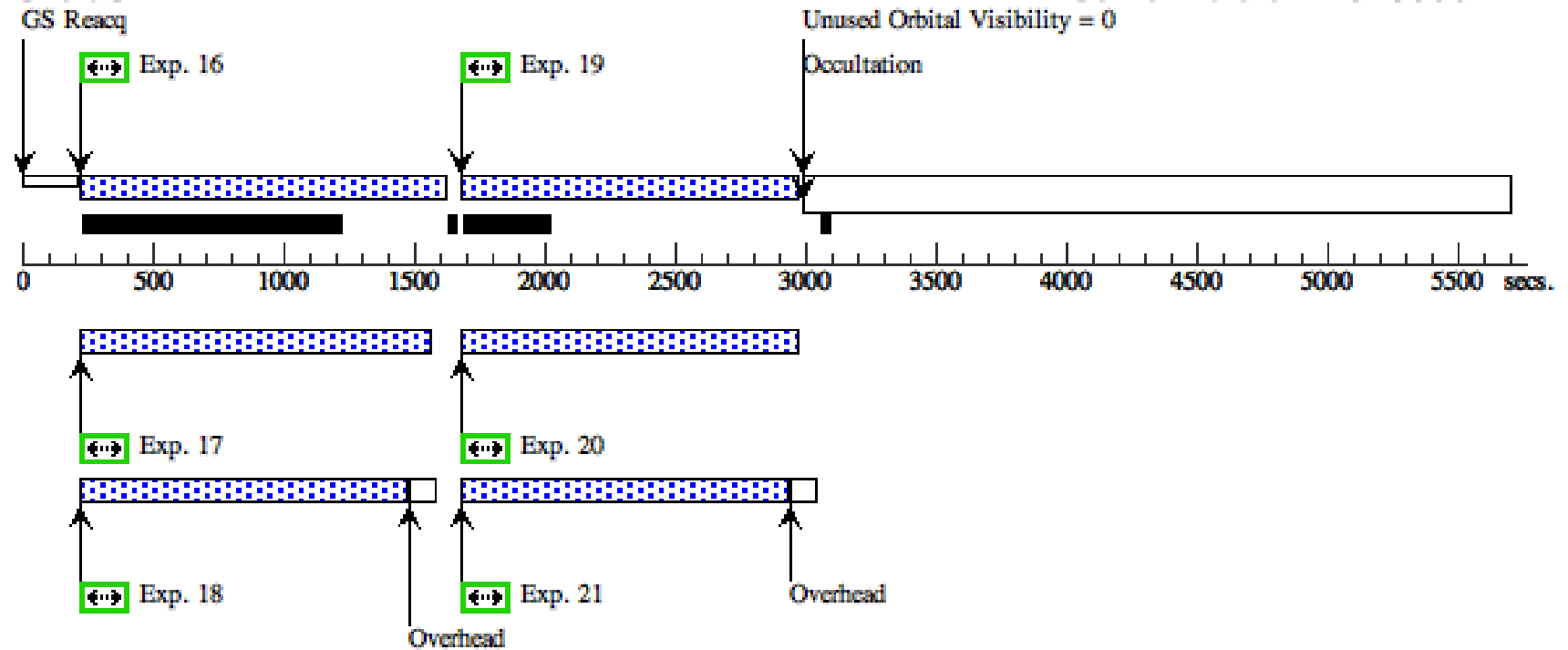
## Orbit 2

Server Version: 20160601



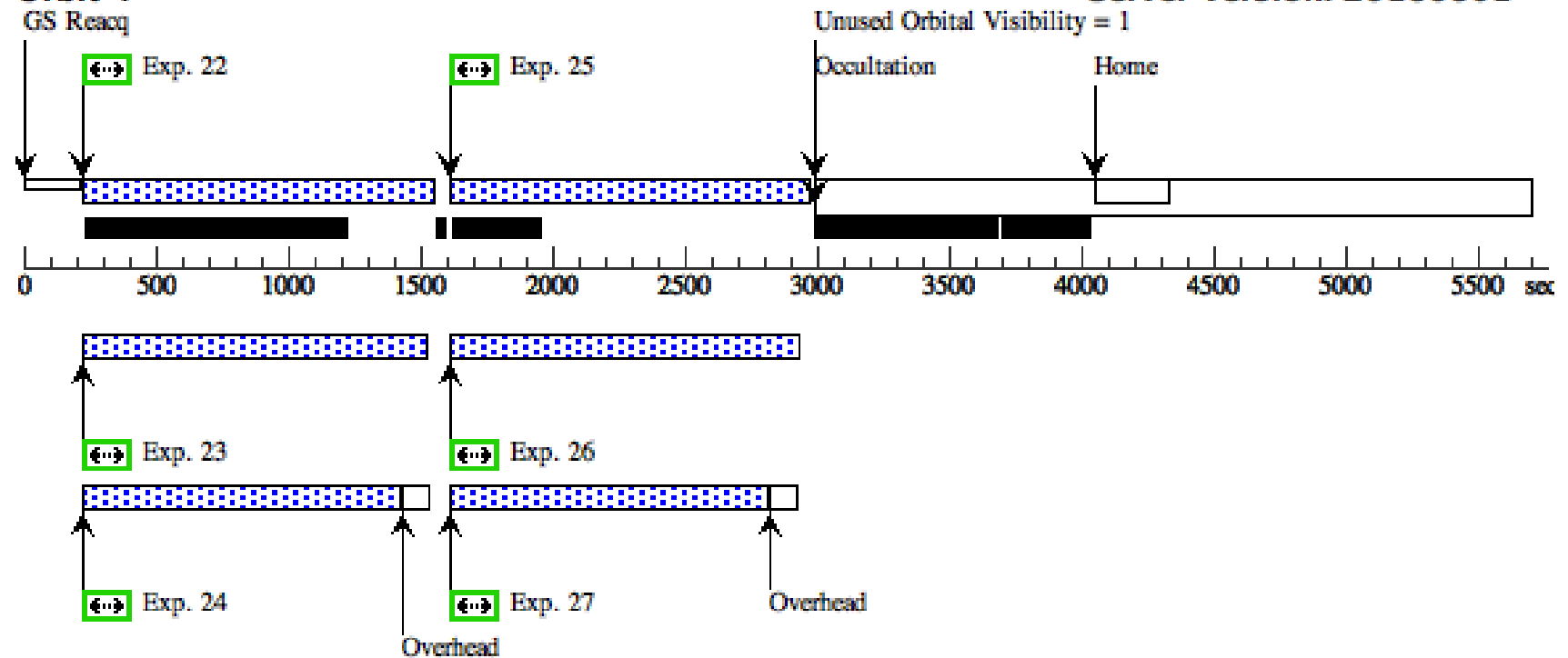
### Orbit 3

Server Version: 20160601



# Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 07 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|               |                                                                                                                                                                                                           |        |                                                                                    |                          |                                                            |                              |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------|------------------------------|
| Visit         | <p>Proposal 14268, Visit 07, completed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV</p> <p>Special Requirements: SCHED 100%</p>                           |        |                                                                                    |                          |                                                            | Wed Sep 07 21:22:56 GMT 2016 |
|               | (Parallel Exposure 30 (Prime + Parallel Group 28-30 in Visit 07)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser |        |                                                                                    |                          |                                                            |                              |
| Fixed Targets |                                                                                                                                                                                                           |        |                                                                                    |                          |                                                            |                              |
|               | #                                                                                                                                                                                                         | Name   | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                                                     | Miscellaneous                |
|               | (6)                                                                                                                                                                                                       | MRK352 | RA: 00 59 53.3090 (14.9721208d)<br>Dec: +31 49 37.17 (31.82699d)<br>Equinox: J2000 |                          | V=14.81<br>GALEX FUV = 16.69; (F=1.0e-14,<br>FUSE,<br>IUE) | Reference Frame: ICRS        |
|               | <p>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</p> <p>Extended=NO</p>                                                                               |        |                                                                                    |                          |                                                            |                              |

# Proposal 14268 - Visit 07 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

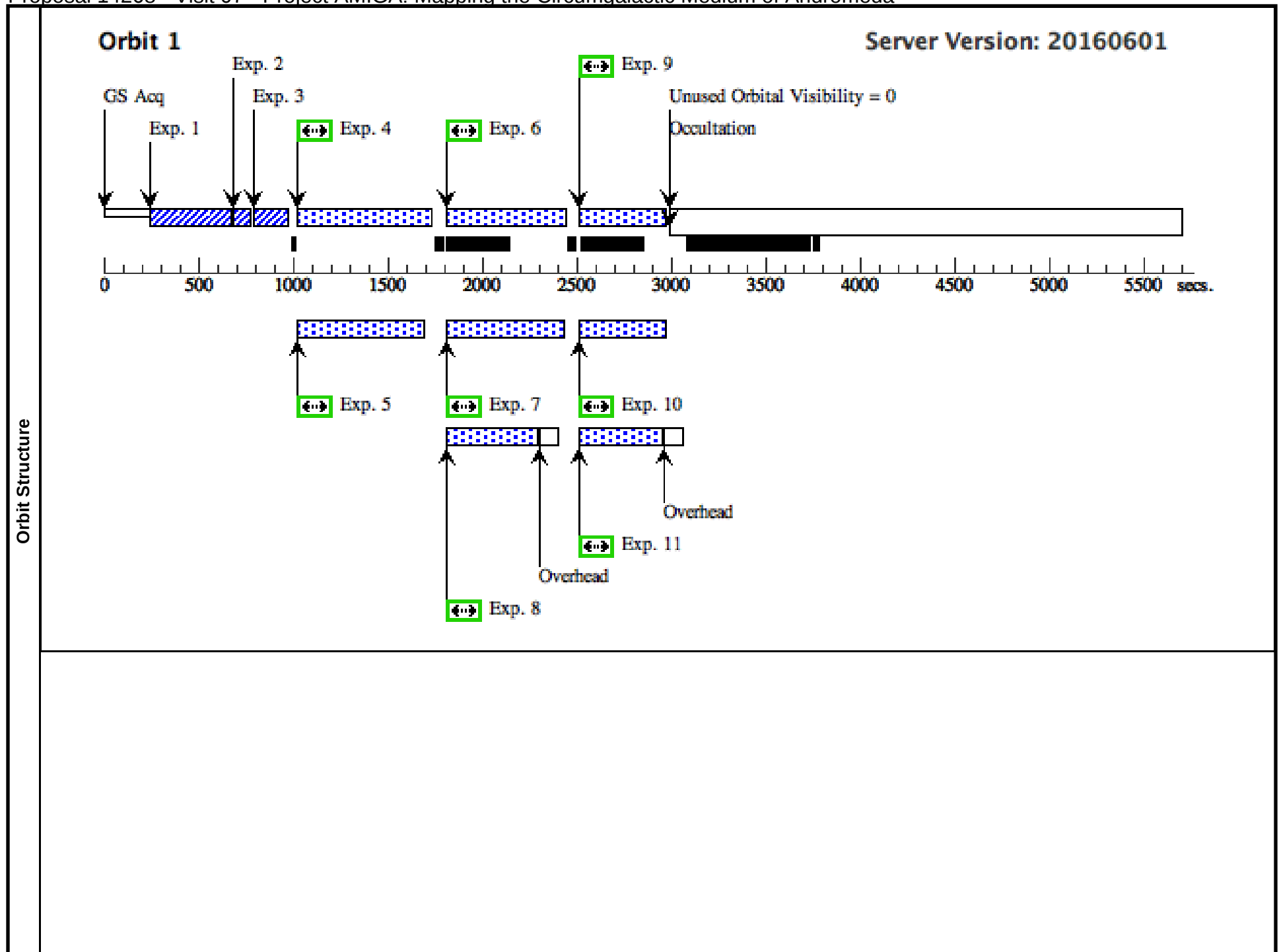
| Exposures | #  | Label<br>(ETC Run) | Target     | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 002)   | (6) MRK352 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 6.3 Secs (6.3 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 004)   | (6) MRK352 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                          | 2.5 Secs (2.5 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 002)   | (6) MRK352 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 6.3 Secs (6.3 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.727 641)   | (6) MRK352 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>66;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 4-5 in Visit 07   | 593 Secs (593 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-5 in Visit 07   | 463 Secs (463 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727 641)   | (6) MRK352 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>66;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 6-8 in Visit 07   | 580 Secs (580 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 07   | 495 Secs (495 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 07   | 450 Secs (450 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 641)   | (6) MRK352 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>66;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 9-11 in Visit 07  | 410 Secs (410 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 07  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 07  | 440 Secs (440 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.727 641)   | (6) MRK352 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>66;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 12-13 in Visit 07 | 460 Secs (460 Secs)<br>[==>]    | [2]   |
|           | 13 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 12-13 in Visit 07 | 340 Secs (340 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.727 642)   | (6) MRK352 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=23<br>27;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 14-15 in Visit 07 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 15 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 14-15 in Visit 07 | 430 Secs (430 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 07 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                             |                        |                 |                                                 |                                                |                              |     |
|----|-----------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.727 (6) MRK352 642) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=23<br>27;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group<br>up 16-17 in Visit 07 | 420 Secs (420 Secs)<br>[==>] | [2] |
| 17 | ANY                         | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group<br>up 16-17 in Visit 07 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.727 (6) MRK352 642) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=23<br>27;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group<br>up 18-20 in Visit 07 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                         | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group<br>up 18-20 in Visit 07 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group<br>up 18-20 in Visit 07 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.727 (6) MRK352 642) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=23<br>27;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group<br>up 21-23 in Visit 07 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                         | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group<br>up 21-23 in Visit 07 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group<br>up 21-23 in Visit 07 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.727 (6) MRK352 630) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=44<br>86;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group<br>up 24-25 in Visit 07 | 574 Secs (574 Secs)<br>[==>] | [3] |
| 25 | ANY                         | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group<br>up 24-25 in Visit 07 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.727 (6) MRK352 630) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=44<br>86;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group<br>up 26-27 in Visit 07 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                         | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group<br>up 26-27 in Visit 07 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.727 (6) MRK352 630) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=44<br>86;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group<br>up 28-30 in Visit 07 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                         | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group<br>up 28-30 in Visit 07 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group<br>up 28-30 in Visit 07 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.727 (6) MRK352 630) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=44<br>86;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group<br>up 31-33 in Visit 07 | 550 Secs (550 Secs)<br>[==>] | [3] |

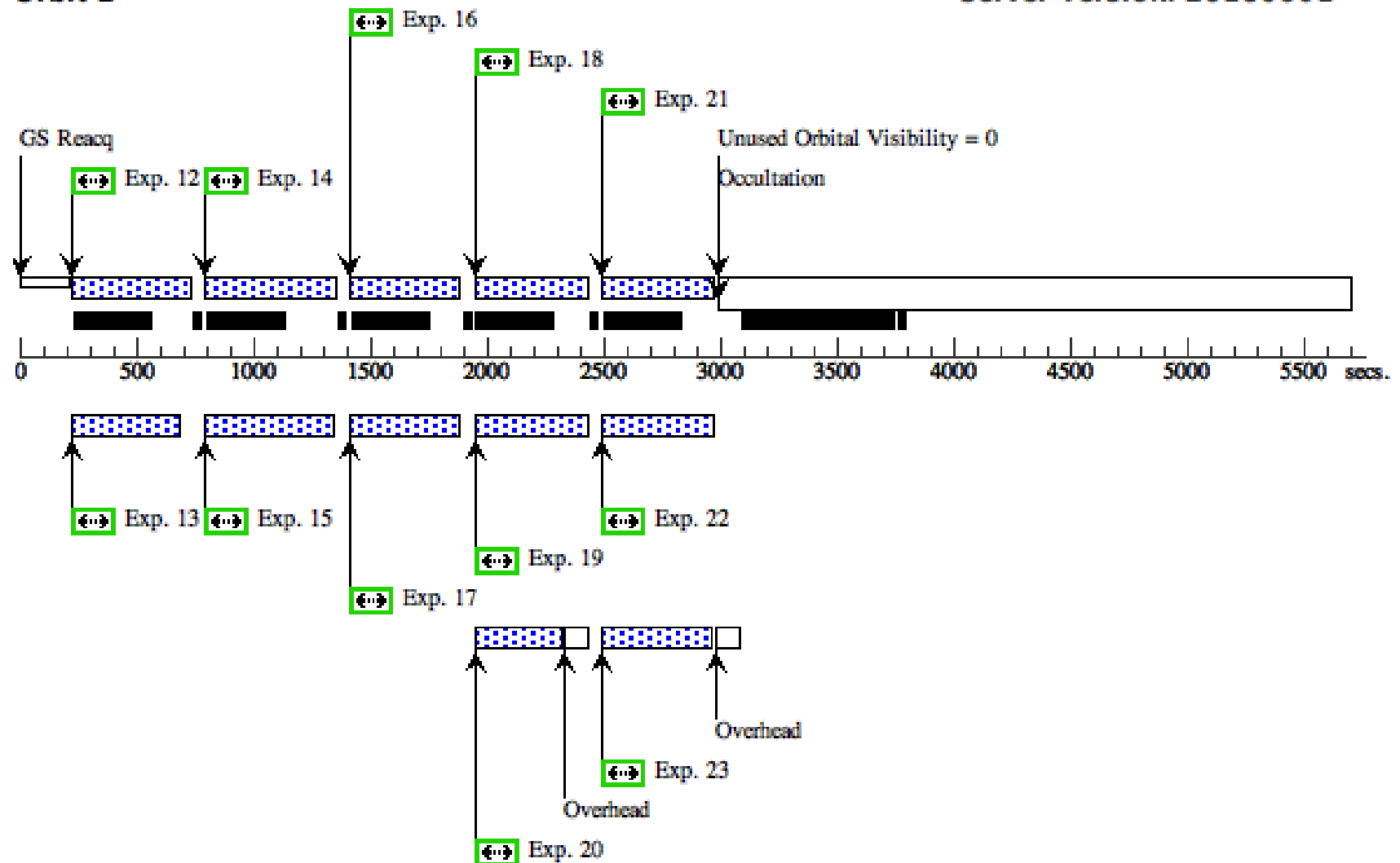
# Proposal 14268 - Visit 07 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |     |                             |                        |              |                                              |                                          |                     |
|----|-----|-----------------------------|------------------------|--------------|----------------------------------------------|------------------------------------------|---------------------|
| 32 | ANY | ACS/WFC, ACCUM, WFC         | F814W                  |              | Prime + Parallel Group 31-33 in Visit 07     | 475 Secs (475 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [3]                 |
|    | 33  | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 31-33 in Visit 07     | 600 Secs (600 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [3]                 |
|    | 34  | (COS.sp.727 (6) MRK352 632) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=48 60;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 34-35 in Visit 07 | 599 Secs (599 Secs) |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 35  | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 34-35 in Visit 07     | 570 Secs (570 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 36  | (COS.sp.727 (6) MRK352 632) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=48 60;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 36-37 in Visit 07 | 550 Secs (550 Secs) |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 37  | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 36-37 in Visit 07     | 470 Secs (470 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 38  | (COS.sp.727 (6) MRK352 632) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=48 60;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 38-40 in Visit 07 | 550 Secs (550 Secs) |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 39  | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 38-40 in Visit 07     | 470 Secs (470 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 40  | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 38-40 in Visit 07     | 520 Secs (520 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 41  | (COS.sp.727 (6) MRK352 632) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=48 60;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 41-43 in Visit 07 | 550 Secs (550 Secs) |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 42  | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 41-43 in Visit 07     | 475 Secs (475 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |
|    | 43  | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 41-43 in Visit 07     | 600 Secs (600 Secs)                      |                     |
|    |     |                             |                        |              |                                              | [==>]                                    | [4]                 |



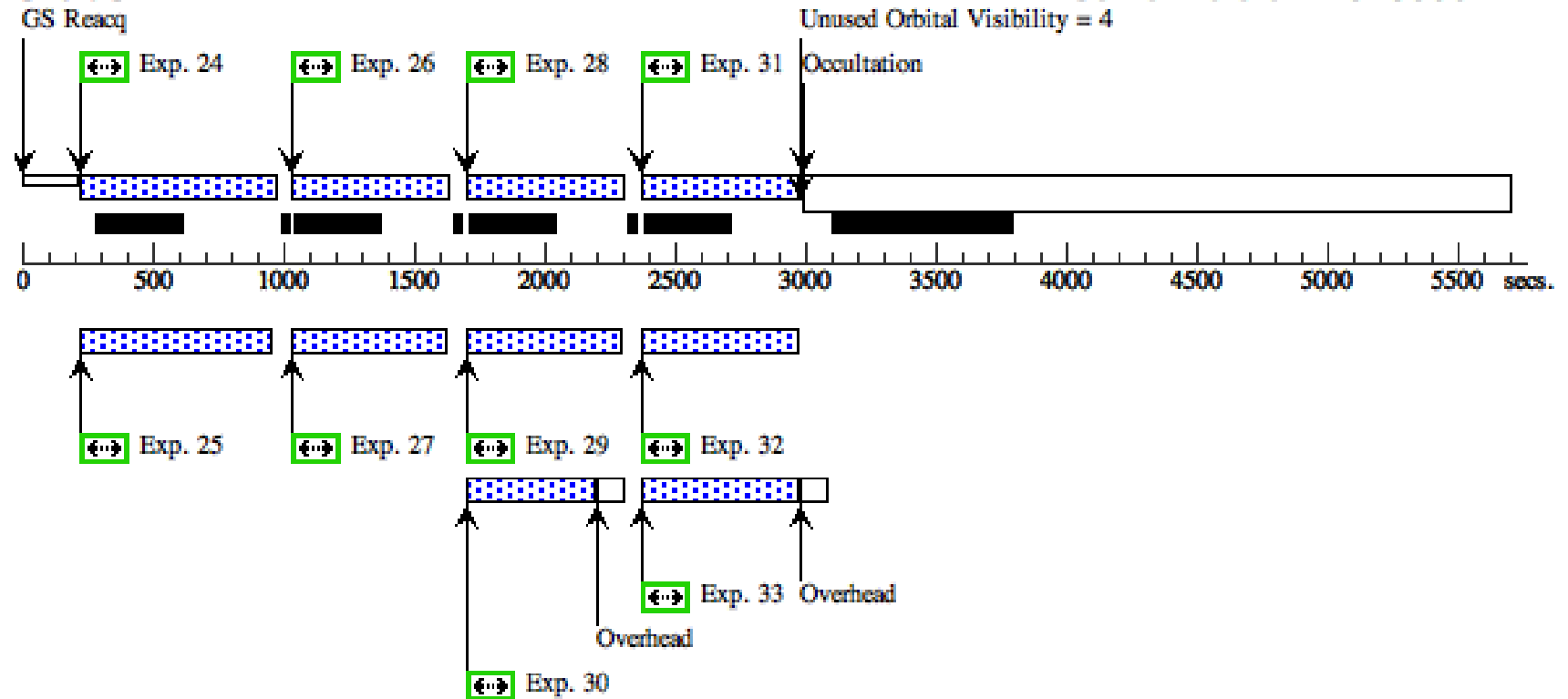
## Orbit 2

Server Version: 20160601



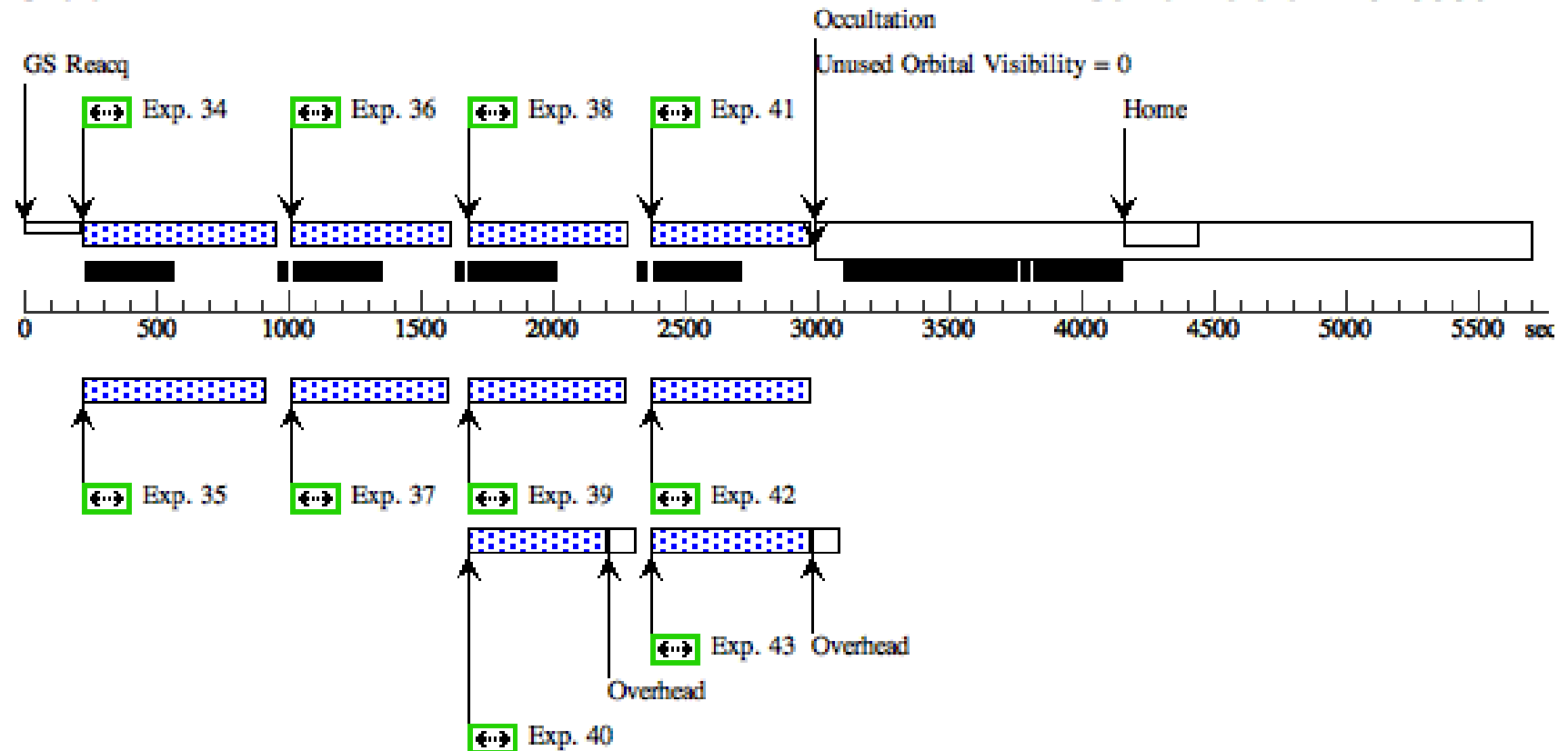
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 08 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|               |                                                                                                                                                                                                           |                                          |                                                 |                          |                   |                              |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------|--------------------------|-------------------|------------------------------|
| Visit         | Proposal 14268, Visit 08, completed                                                                                                                                                                       |                                          |                                                 |                          |                   | Wed Sep 07 21:22:56 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                                                                |                                          |                                                 |                          |                   |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                                                       |                                          |                                                 |                          |                   |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                                                          |                                          |                                                 |                          |                   |                              |
| Diagnos       | (Parallel Exposure 30 (Prime + Parallel Group 28-30 in Visit 08)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser |                                          |                                                 |                          |                   |                              |
| Fixed Targets | #                                                                                                                                                                                                         | Name                                     | Target Coordinates                              | Targ. Coord. Corrections | Fluxes            | Miscellaneous                |
|               | (7)                                                                                                                                                                                                       | RXJ0028.1+3103                           | RA: 00 28 10.7300 (7.0447083d)                  |                          | V=15.22           | Reference Frame: ICRS        |
|               |                                                                                                                                                                                                           | Alt Name1:<br>2MASSJ00281072+3103<br>480 | Dec: +31 03 48.10 (31.06336d)<br>Equinox: J2000 |                          | GALEX FUV = 16.75 |                              |
|               | Comments: Extended=NO                                                                                                                                                                                     |                                          |                                                 |                          |                   |                              |

# Proposal 14268 - Visit 08 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

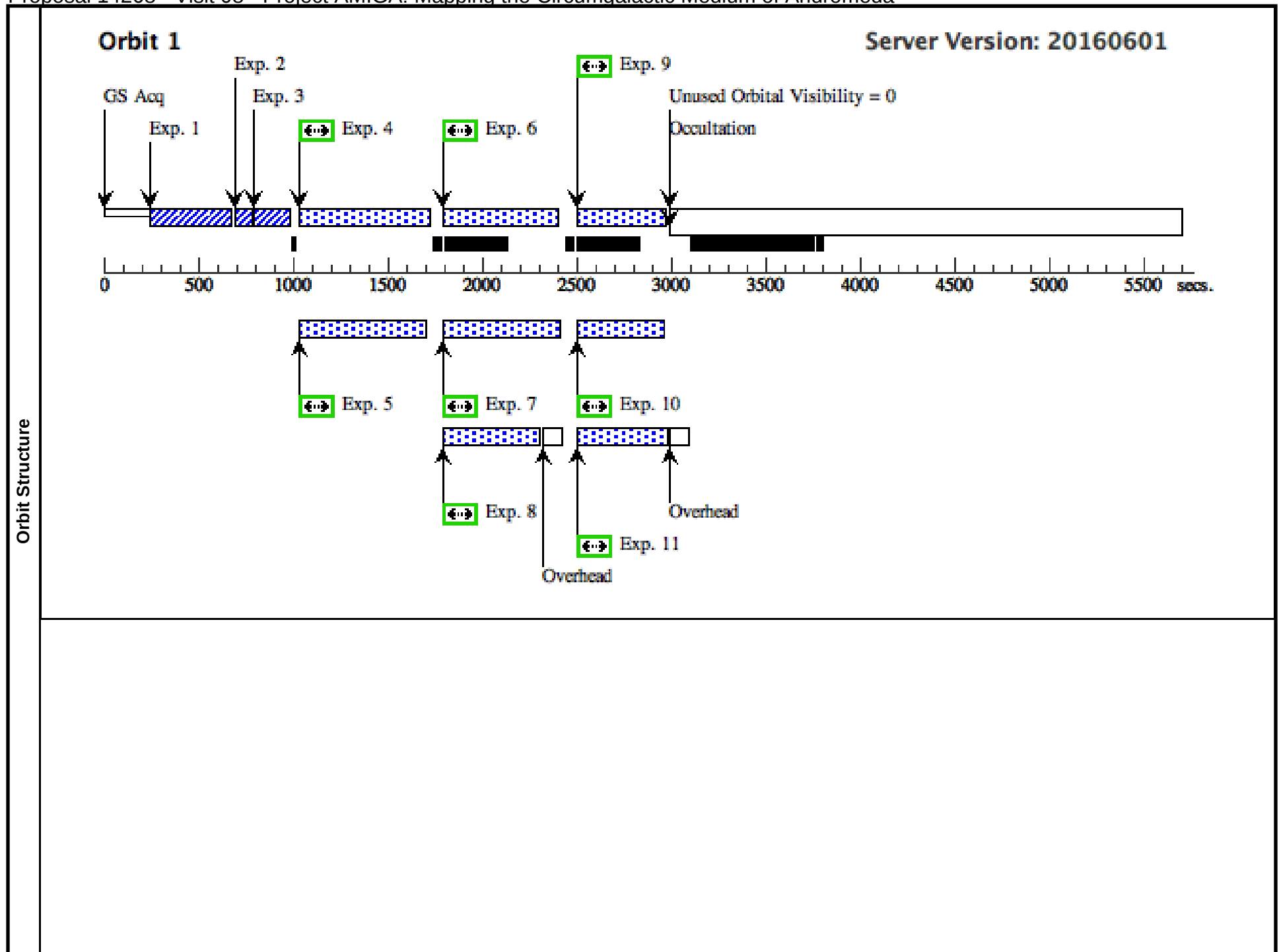
| Exposures | #  | Label<br>(ETC Run) | Target             | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|--------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 010)   | (7) RXJ0028.1+3103 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 6.8 Secs (6.8 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 008)   | (7) RXJ0028.1+3103 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                          | 2.7 Secs (2.7 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 010)   | (7) RXJ0028.1+3103 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 6.8 Secs (6.8 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.727 694)   | (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>86;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 4-5 in Visit 08   | 574 Secs (574 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY                | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-5 in Visit 08   | 464 Secs (464 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727 694)   | (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>86;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 6-8 in Visit 08   | 560 Secs (560 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY                | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 08   | 500 Secs (500 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY                | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 08   | 485 Secs (485 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 694)   | (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>86;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 9-11 in Visit 08  | 420 Secs (420 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY                | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 08  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY                | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 08  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.727 694)   | (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>86;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 12-13 in Visit 08 | 460 Secs (460 Secs)<br>[==>]    | [2]   |
|           | 13 |                    | ANY                | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 12-13 in Visit 08 | 340 Secs (340 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.727 695)   | (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=22<br>48;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 14-15 in Visit 08 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 15 |                    | ANY                | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 14-15 in Visit 08 | 430 Secs (430 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 08 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                                     |                        |                 |                                                 |                                          |                              |     |
|----|-------------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.727 (7) RXJ0028.1+3103 695) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>48;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 16-17 in Visit 08 | 420 Secs (420 Secs)<br>[==>] | [2] |
| 17 | ANY                                 | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 16-17 in Visit 08 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.727 (7) RXJ0028.1+3103 695) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>48;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 08 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                                 | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 08 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                                 | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 08 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.727 (7) RXJ0028.1+3103 695) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>48;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 08 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                                 | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 08 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                                 | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 08 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.727 (7) RXJ0028.1+3103 697) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>29;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 24-25 in Visit 08 | 578 Secs (578 Secs)<br>[==>] | [3] |
| 25 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 24-25 in Visit 08 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.727 (7) RXJ0028.1+3103 697) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>29;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 26-27 in Visit 08 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 26-27 in Visit 08 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.727 (7) RXJ0028.1+3103 697) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>29;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 28-30 in Visit 08 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 08 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                                 | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 08 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.727 (7) RXJ0028.1+3103 697) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>29;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 31-33 in Visit 08 | 550 Secs (550 Secs)<br>[==>] | [3] |

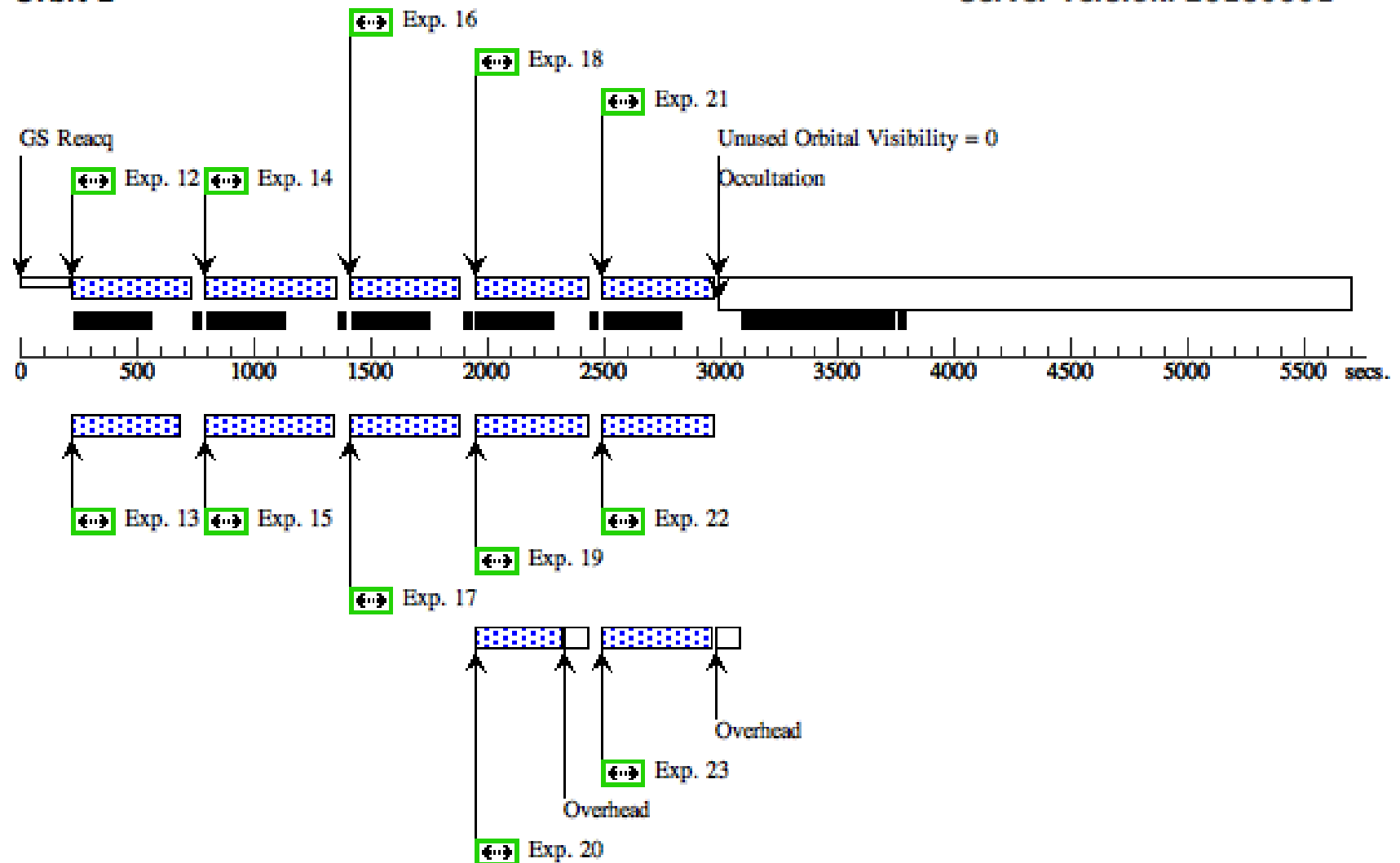
# Proposal 14268 - Visit 08 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                                     |                        |                 |                                                 |                     |     |
|----|-------------------------------------|------------------------|-----------------|-------------------------------------------------|---------------------|-----|
| 32 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 31-33 in Visit 08        | 475 Secs (475 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [3] |
| 33 | ANY                                 | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 31-33 in Visit 08        | 600 Secs (600 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [3] |
| 34 | (.727702) (7) RXJ0028.1+3103        | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=48<br>83;<br>FP-POS=1;<br>FLASH=YES | 599 Secs (599 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 35 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 34-35 in Visit 08        | 570 Secs (570 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 36 | (COS.sp.727 702) (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=48<br>83;<br>FP-POS=2;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 37 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 36-37 in Visit 08        | 470 Secs (470 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 38 | (COS.sp.727 702) (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=48<br>83;<br>FP-POS=3;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 39 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 38-40 in Visit 08        | 470 Secs (470 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 40 | ANY                                 | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 38-40 in Visit 08        | 520 Secs (520 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 41 | (COS.sp.727 702) (7) RXJ0028.1+3103 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=48<br>83;<br>FP-POS=4;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 42 | ANY                                 | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 41-43 in Visit 08        | 475 Secs (475 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |
| 43 | ANY                                 | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 41-43 in Visit 08        | 550 Secs (550 Secs) |     |
|    |                                     |                        |                 |                                                 | [==>]               | [4] |



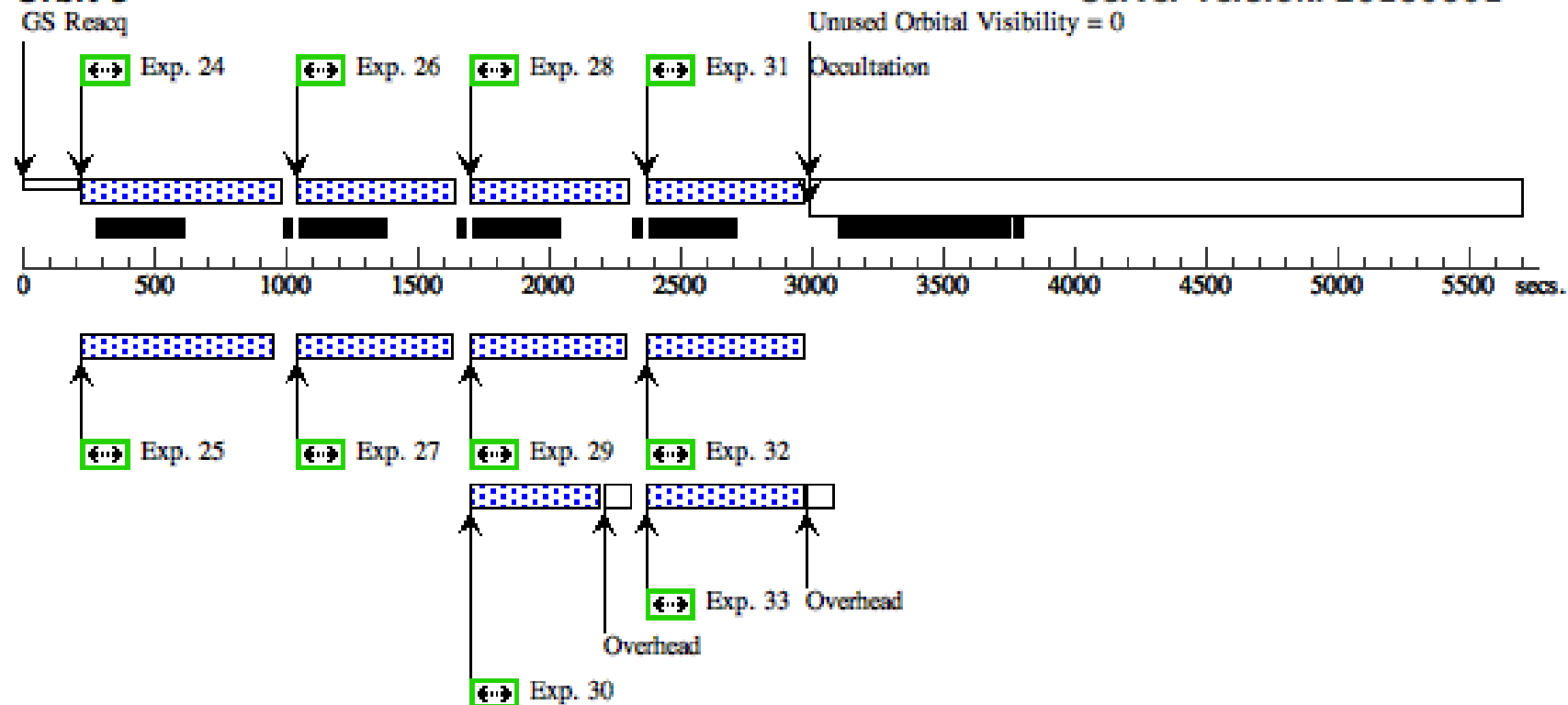
## Orbit 2

Server Version: 20160601



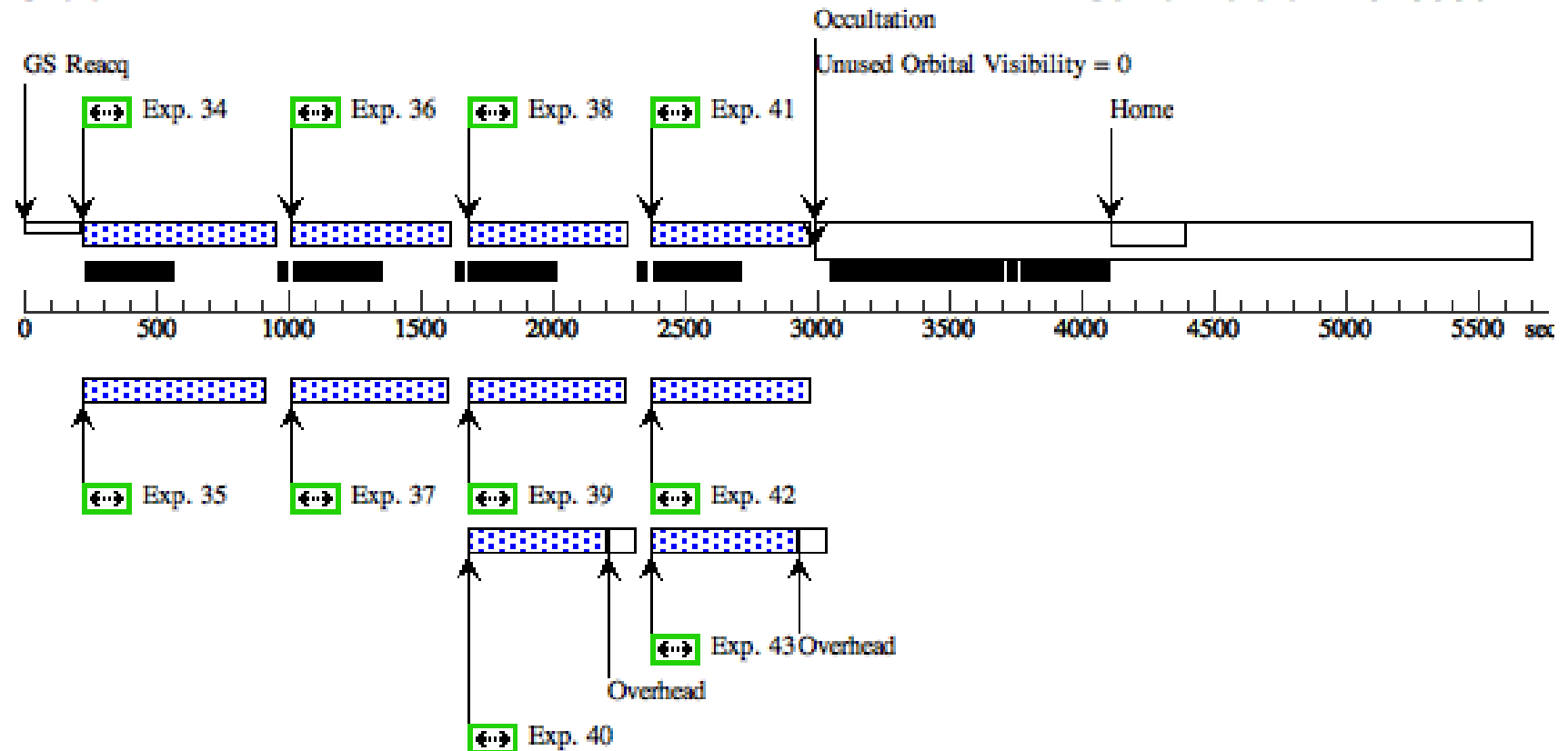
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 09 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

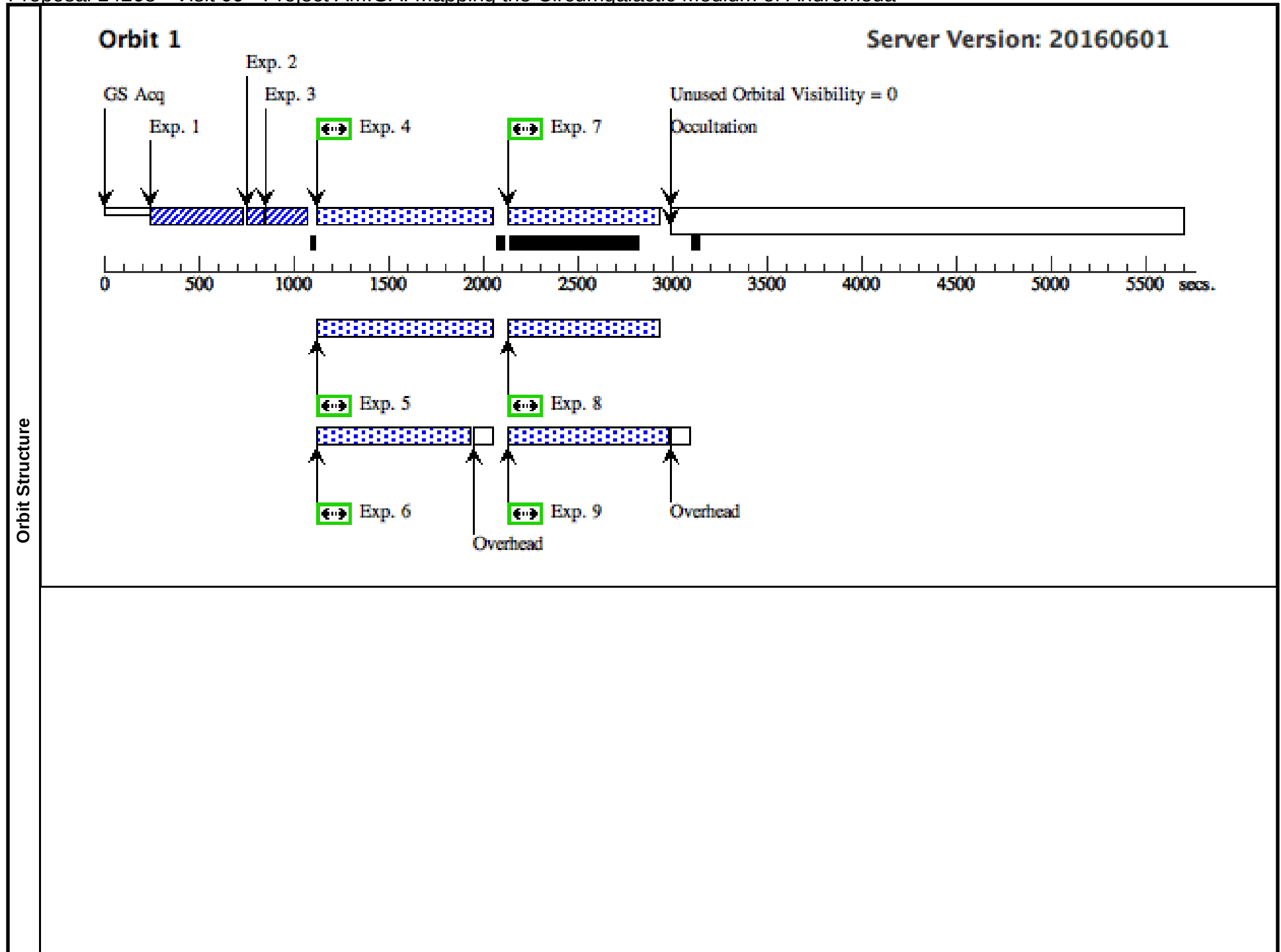
|               |                                                                                                                                                                        |        |                                                                                  |                          |                              |                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit         | Proposal 14268, Visit 09, completed                                                                                                                                    |        |                                                                                  |                          |                              | Wed Sep 07 21:22:56 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                             |        |                                                                                  |                          |                              |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                    |        |                                                                                  |                          |                              |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                       |        |                                                                                  |                          |                              |                              |
| Diagnosics    | (Visit 09) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting. |        |                                                                                  |                          |                              |                              |
| Fixed Targets | #                                                                                                                                                                      | Name   | Target Coordinates                                                               | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|               | (8)                                                                                                                                                                    | KAZ238 | RA: 00 00 58.1920 (.2424667d)<br>Dec: +33 20 38.51 (33.34403d)<br>Equinox: J2000 |                          | V=15.90<br>GALEX FUV = 17.44 | Reference Frame: ICRS        |
|               | Comments: Extended=NO                                                                                                                                                  |        |                                                                                  |                          |                              |                              |

# Proposal 14268 - Visit 09 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target     | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 012)   | (8) KAZ238 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 13.4 Secs (13.4 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731 014)   | (8) KAZ238 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                          | 5.2 Secs (5.2 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 012)   | (8) KAZ238 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 13.4 Secs (13.4 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.727 510)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=30<br>11;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 4-6 in Visit 09   | 813 Secs (813 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-6 in Visit 09   | 723 Secs (723 Secs)<br>[==>]    | [1]   |
|           | 6  |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 4-6 in Visit 09   | 783 Secs (783 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.727 510)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=30<br>11;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 7-9 in Visit 09   | 748 Secs (748 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 7-9 in Visit 09   | 673 Secs (673 Secs)<br>[==>]    | [1]   |
|           | 9  |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 7-9 in Visit 09   | 848 Secs (848 Secs)<br>[==>]    | [1]   |
|           | 10 | (COS.sp.727 510)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=30<br>11;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 10-12 in Visit 09 | 860 Secs (860 Secs)<br>[==>]    | [2]   |
|           | 11 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 10-12 in Visit 09 | 700 Secs (700 Secs)<br>[==>]    | [2]   |
|           | 12 |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 10-12 in Visit 09 | 710 Secs (710 Secs)<br>[==>]    | [2]   |
|           | 13 | (COS.sp.727 510)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=30<br>11;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 13-15 in Visit 09 | 760 Secs (760 Secs)<br>[==>]    | [2]   |
|           | 14 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 13-15 in Visit 09 | 700 Secs (700 Secs)<br>[==>]    | [2]   |
|           | 15 |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 13-15 in Visit 09 | 712 Secs (712 Secs)<br>[==>]    | [2]   |
|           | 16 | (COS.sp.727 511)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=29<br>69;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 16-18 in Visit 09 | 740 Secs (740 Secs)<br>[==>]    | [2]   |

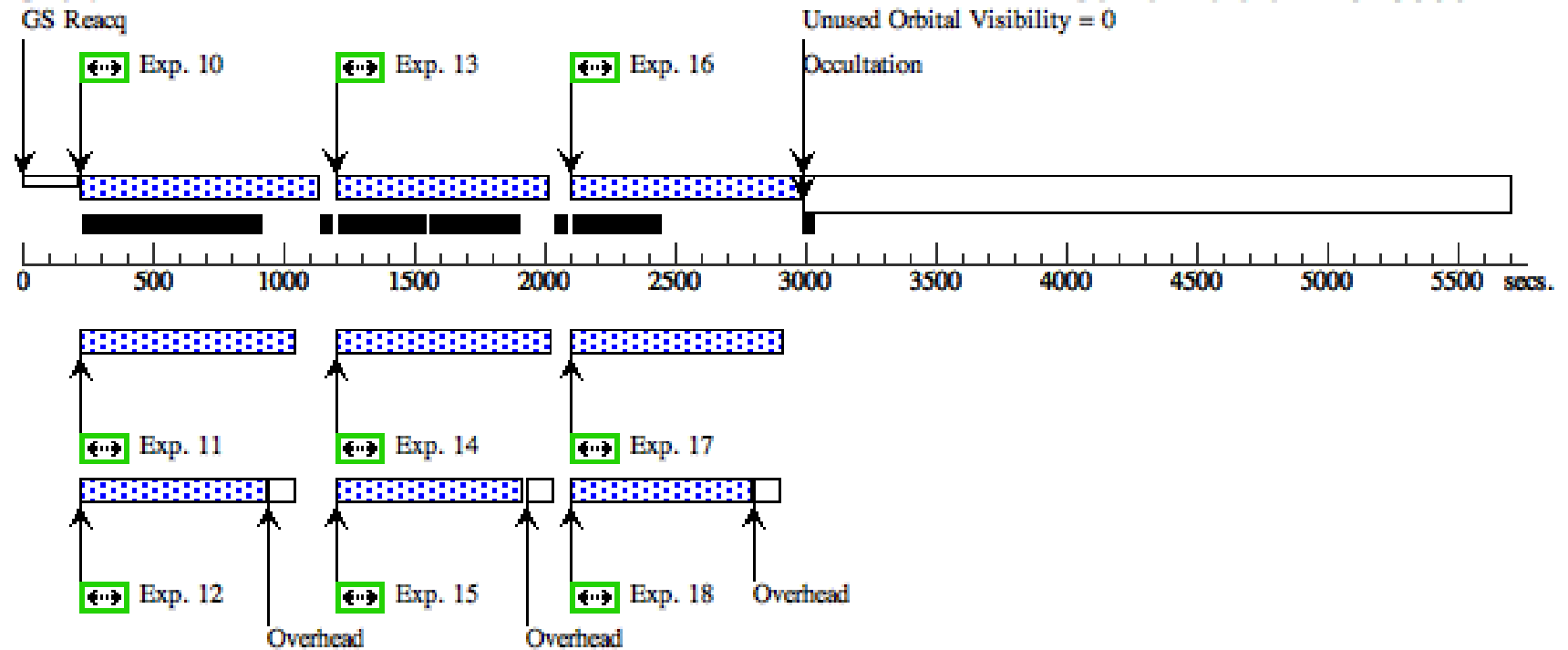
# Proposal 14268 - Visit 09 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                             |                        |                 |                                                 |                       |     |
|----|-----------------------------|------------------------|-----------------|-------------------------------------------------|-----------------------|-----|
| 17 | ANY                         | ACS/WFC, ACCUM, WFC    | F606W           | Prime + Parallel Group 16-18 in Visit 09        | 690 Secs (690 Secs)   |     |
|    |                             |                        |                 |                                                 | [==>]                 | [2] |
|    |                             |                        |                 |                                                 | 690 Secs (690 Secs)   |     |
|    |                             |                        |                 |                                                 | [==>]                 | [2] |
|    |                             |                        |                 |                                                 | 1315 Secs (1315 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1190 Secs (1190 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1150 Secs (1150 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
| 18 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F606W           | Prime + Parallel Group 16-18 in Visit 09        | 690 Secs (690 Secs)   |     |
|    |                             |                        |                 |                                                 | [==>]                 | [2] |
|    |                             |                        |                 |                                                 | 1315 Secs (1315 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1190 Secs (1190 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1150 Secs (1150 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1250 Secs (1250 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
| 19 | (COS.sp.727 (8) KAZ238 511) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=29<br>69;<br>FP-POS=2;<br>FLASH=YES | 1315 Secs (1315 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1190 Secs (1190 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1150 Secs (1150 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1250 Secs (1250 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
| 20 | ANY                         | ACS/WFC, ACCUM, WFC    | F606W           | Prime + Parallel Group 19-21 in Visit 09        | 1190 Secs (1190 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1150 Secs (1150 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1250 Secs (1250 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
| 21 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F606W           | Prime + Parallel Group 19-21 in Visit 09        | 1150 Secs (1150 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1250 Secs (1250 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
| 22 | (COS.sp.727 (8) KAZ238 511) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=29<br>69;<br>FP-POS=3;<br>FLASH=YES | 1250 Secs (1250 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
| 23 | ANY                         | ACS/WFC, ACCUM, WFC    | F606W           | Prime + Parallel Group 22-24 in Visit 09        | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
| 24 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F606W           | Prime + Parallel Group 22-24 in Visit 09        | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1170 Secs (1170 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |
|    |                             |                        |                 |                                                 | 1140 Secs (1140 Secs) |     |
|    |                             |                        |                 |                                                 | [==>]                 | [3] |



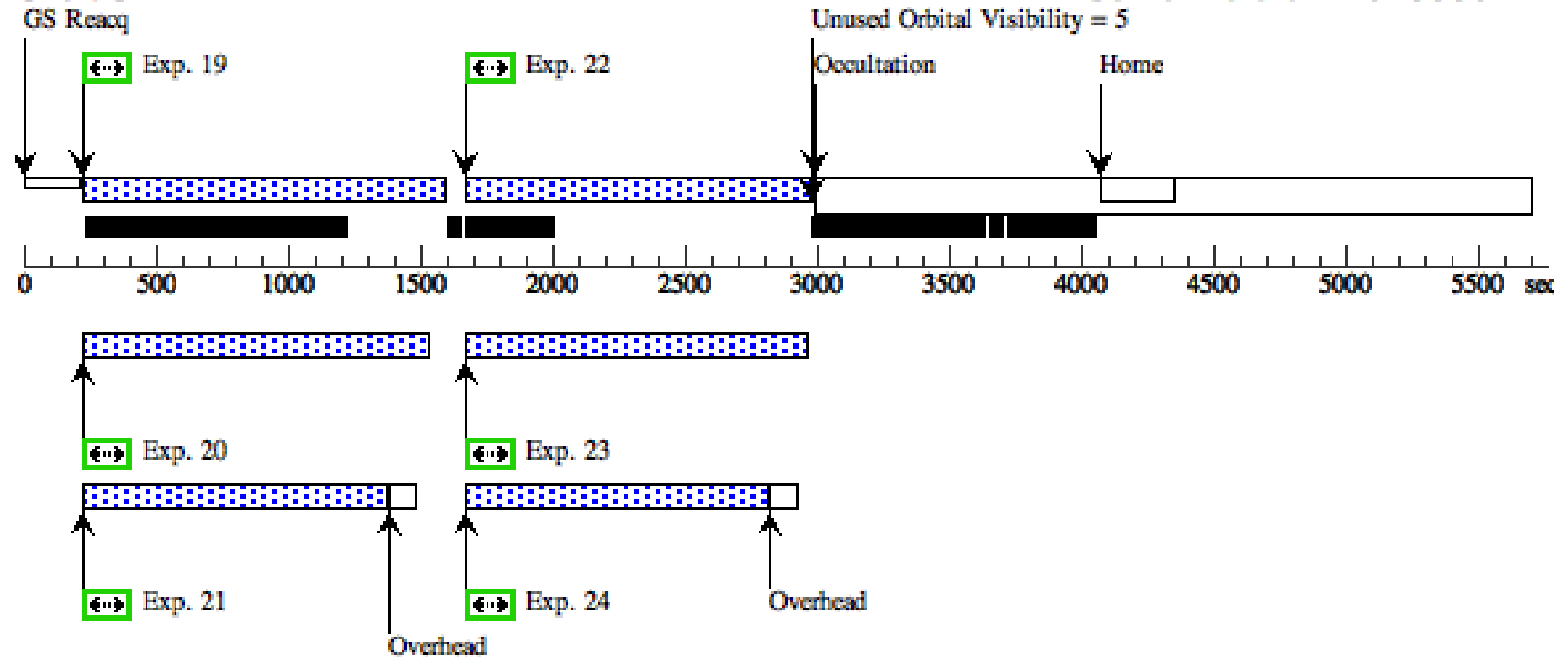
## Orbit 2

Server Version: 20160601



### Orbit 3

Server Version: 20160601



# Proposal 14268 - Visit 10 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

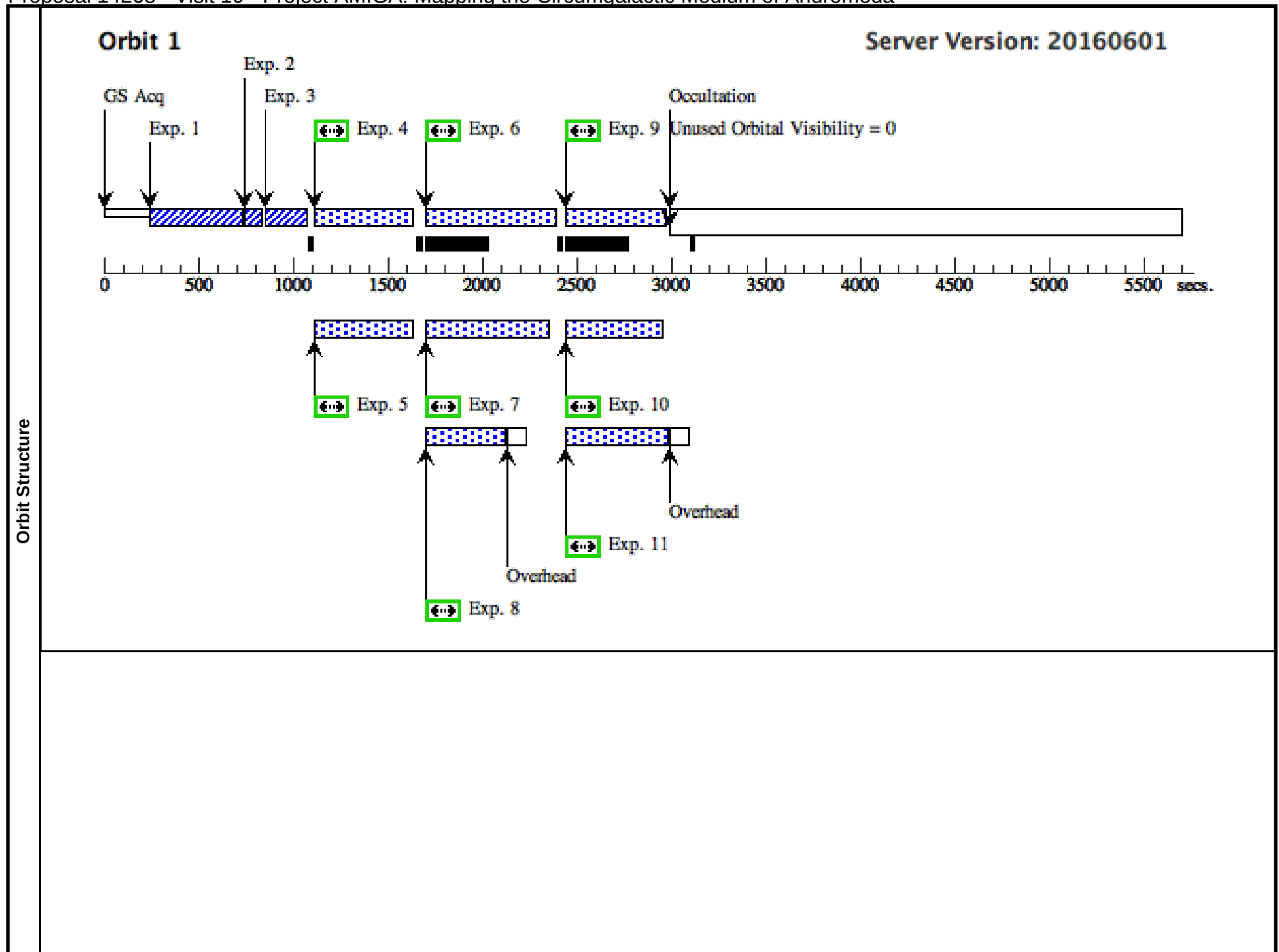
|               |                                                                                                                                                                        |        |                               |                          |                   |                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------|--------------------------|-------------------|------------------------------|
| Visit         | Proposal 14268, Visit 10, completed                                                                                                                                    |        |                               |                          |                   | Wed Sep 07 21:22:56 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                             |        |                               |                          |                   |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                    |        |                               |                          |                   |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                       |        |                               |                          |                   |                              |
| Diagnosics    | (Visit 10) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting. |        |                               |                          |                   |                              |
| Fixed Targets | #                                                                                                                                                                      | Name   | Target Coordinates            | Targ. Coord. Corrections | Fluxes            | Miscellaneous                |
|               | (8)                                                                                                                                                                    | KAZ238 | RA: 00 00 58.1920 (.2424667d) |                          | V=15.90           | Reference Frame: ICRS        |
|               |                                                                                                                                                                        |        | Dec: +33 20 38.51 (33.34403d) |                          | GALEX FUV = 17.44 |                              |
|               |                                                                                                                                                                        |        | Equinox: J2000                |                          |                   |                              |
|               | Comments: Extended=NO                                                                                                                                                  |        |                               |                          |                   |                              |

# Proposal 14268 - Visit 10 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target     | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 018)   | (8) KAZ238 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1327 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 12.7 Secs (12.7 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731 017)   | (8) KAZ238 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1327 A | SEGMENT=BOTH                                            |               |                                          | 5 Secs (5 Secs)<br>[==>]        | [1]   |
|           | 3  | (COS.sa.731 018)   | (8) KAZ238 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1327 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 12.7 Secs (12.7 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.727 511)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=29<br>69;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 4-5 in Visit 10   | 463 Secs (463 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-5 in Visit 10   | 313 Secs (313 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727 513)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=65<br>65;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 6-8 in Visit 10   | 509 Secs (509 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 10   | 530 Secs (530 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 10   | 390 Secs (390 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 513)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=65<br>65;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 9-11 in Visit 10  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 10  | 390 Secs (390 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 10  | 540 Secs (540 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.727 513)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=65<br>65;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 12-14 in Visit 10 | 1332 Secs (1332 Secs)<br>[==>]  | [2]   |
|           | 13 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 10 | 1212 Secs (1212 Secs)<br>[==>]  | [2]   |
|           | 14 |                    | ANY        | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 10 | 1252 Secs (1252 Secs)<br>[==>]  | [2]   |
|           | 15 | (COS.sp.727 513)   | (8) KAZ238 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=65<br>65;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 15-17 in Visit 10 | 1250 Secs (1250 Secs)<br>[==>]  | [2]   |
|           | 16 |                    | ANY        | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 15-17 in Visit 10 | 1180 Secs (1180 Secs)<br>[==>]  | [2]   |

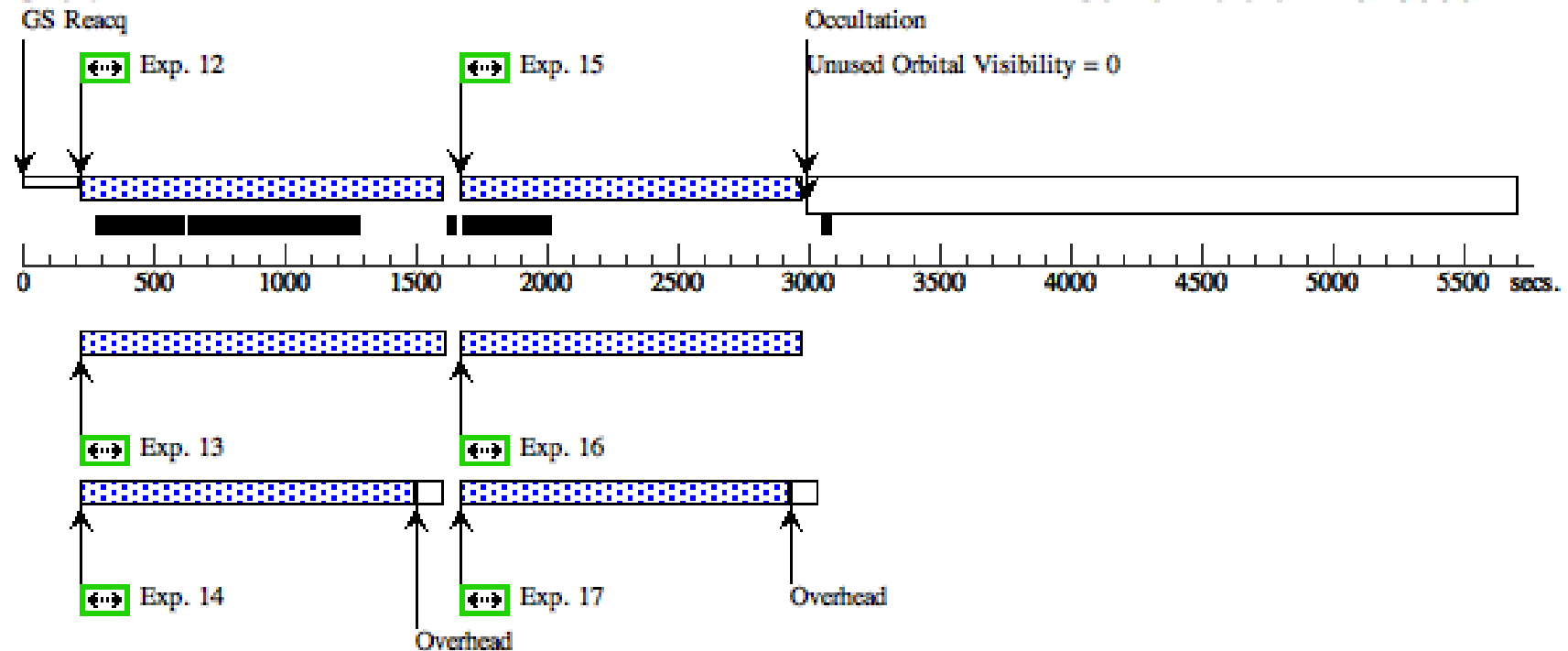
# Proposal 14268 - Visit 10 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                             |                        |              |                                              |                                          |                       |     |
|----|-----------------------------|------------------------|--------------|----------------------------------------------|------------------------------------------|-----------------------|-----|
| 17 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 15-17 in Visit 10 | 1250 Secs (1250 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [2] |
| 18 | (COS.sp.727 (8) KAZ238 516) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=69 47;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 10 | 1279 Secs (1279 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [3] |
| 19 | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 18-20 in Visit 10 | 1229 Secs (1229 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [3] |
| 20 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 18-20 in Visit 10 | 1279 Secs (1279 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [3] |
| 21 | (COS.sp.727 (8) KAZ238 516) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=69 47;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 10 | 1230 Secs (1230 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [3] |
| 22 | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 21-23 in Visit 10 | 1160 Secs (1160 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [3] |
| 23 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 21-23 in Visit 10 | 1250 Secs (1250 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [3] |
| 24 | (COS.sp.727 (8) KAZ238 516) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=69 47;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 24-26 in Visit 10 | 1278 Secs (1278 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [4] |
| 25 | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 24-26 in Visit 10 | 1208 Secs (1208 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [4] |
| 26 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 24-26 in Visit 10 | 1228 Secs (1228 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [4] |
| 27 | (COS.sp.727 (8) KAZ238 516) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=69 47;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 27-29 in Visit 10 | 1300 Secs (1300 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [4] |
| 28 | ANY                         | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 27-29 in Visit 10 | 1200 Secs (1200 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [4] |
| 29 | ANY                         | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 27-29 in Visit 10 | 1250 Secs (1250 Secs) |     |
|    |                             |                        |              |                                              |                                          | [==>]                 | [4] |



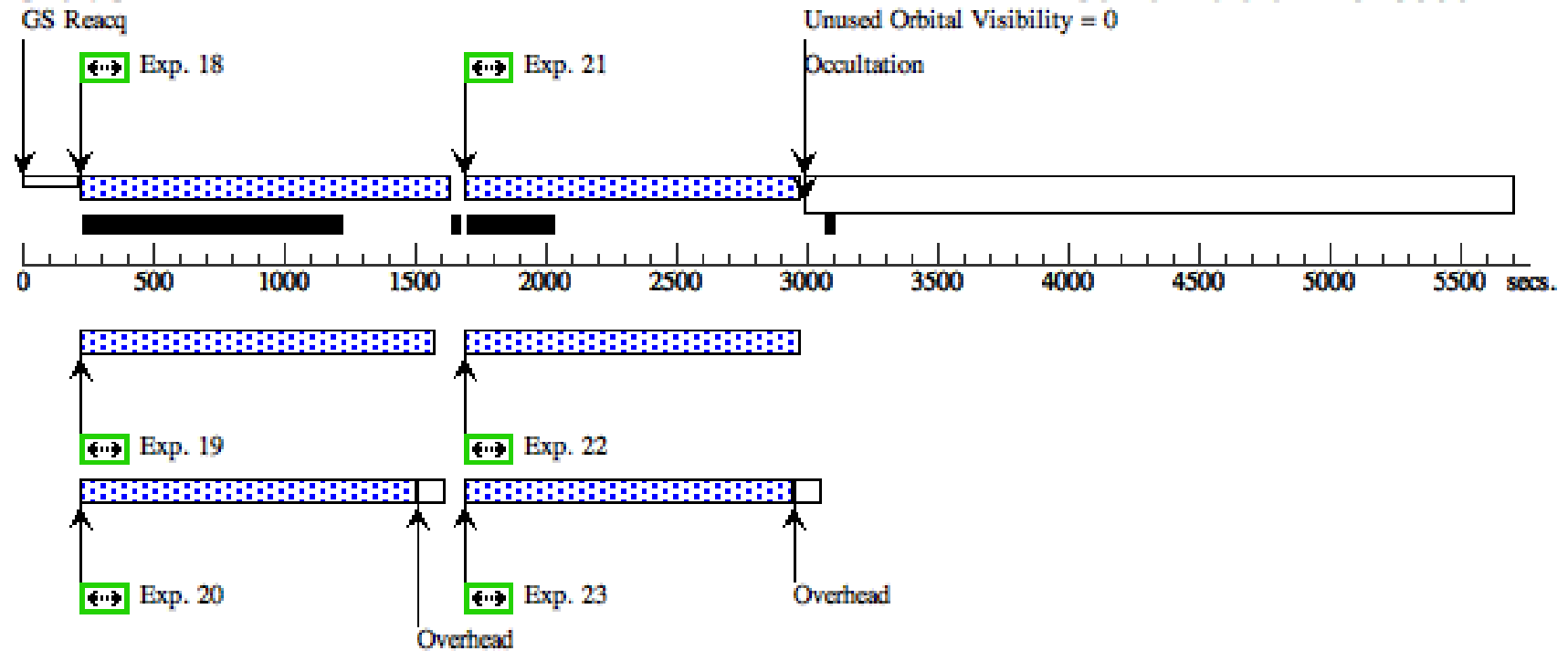
## Orbit 2

Server Version: 20160601



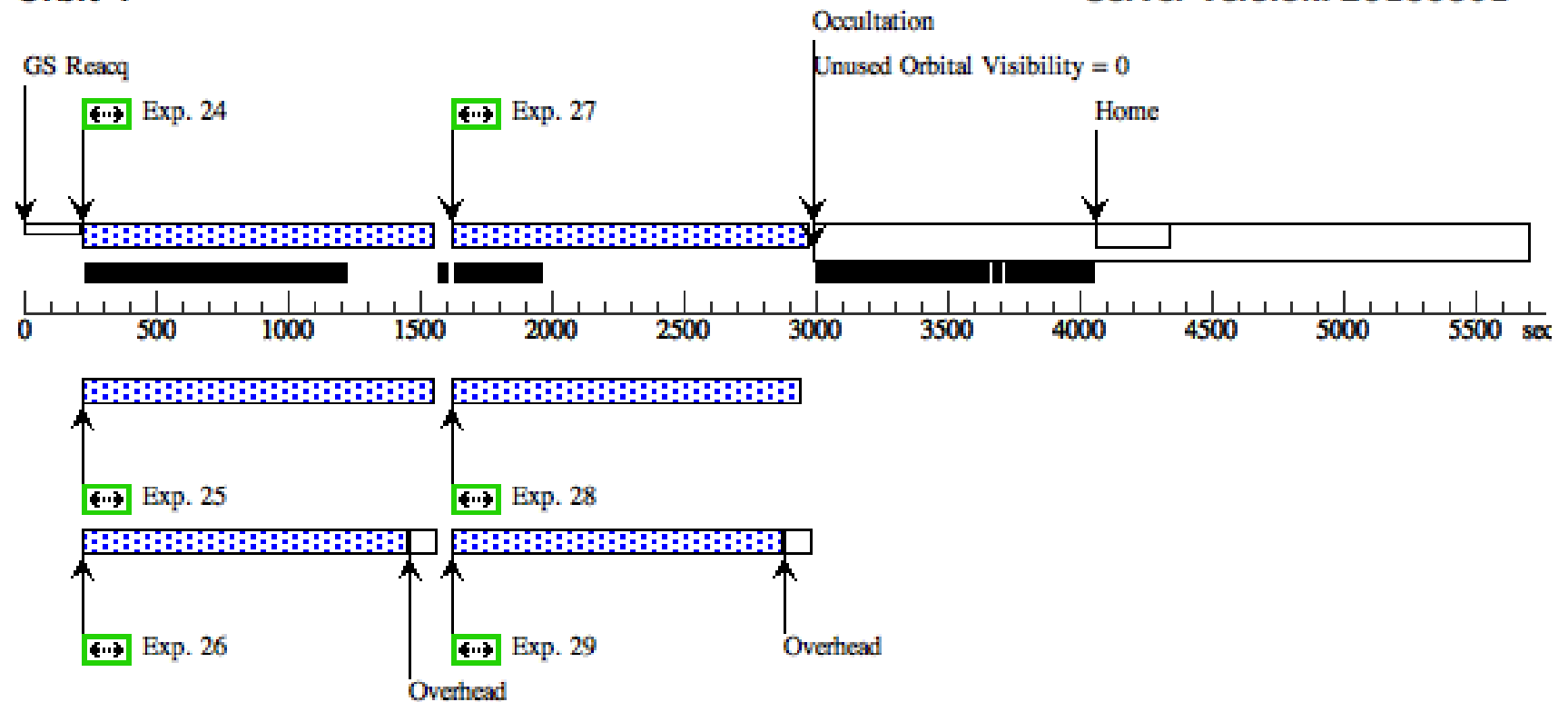
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 11 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|                                                                                                                                    |                                                                                                                                     |             |                                                                                   |                          |                              |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                                                                                                                              | Proposal 14268, Visit 11, completed <span style="float: right;">Wed Sep 07 21:22:56 GMT 2016</span>                                 |             |                                                                                   |                          |                              |
|                                                                                                                                    | <b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |             |                                                                                   |                          |                              |
| Fixed Targets                                                                                                                      | #                                                                                                                                   | Name        | Target Coordinates                                                                | Targ. Coord. Corrections | Fluxes                       |
|                                                                                                                                    | (9)                                                                                                                                 | FBS0150+396 | RA: 01 53 6.7380 (28.2780750d)<br>Dec: +39 55 45.24 (39.92923d)<br>Equinox: J2000 |                          | V=15.11<br>GALEX FUV = 17.06 |
| Comments: Listed as a sdOA star in Simbad, but spectroscopically confirmed to be a QSO at z=0.211 by CoI Prochaska.<br>Extended=NO |                                                                                                                                     |             |                                                                                   |                          |                              |
|                                                                                                                                    |                                                                                                                                     |             |                                                                                   |                          |                              |

# Proposal 14268 - Visit 11 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

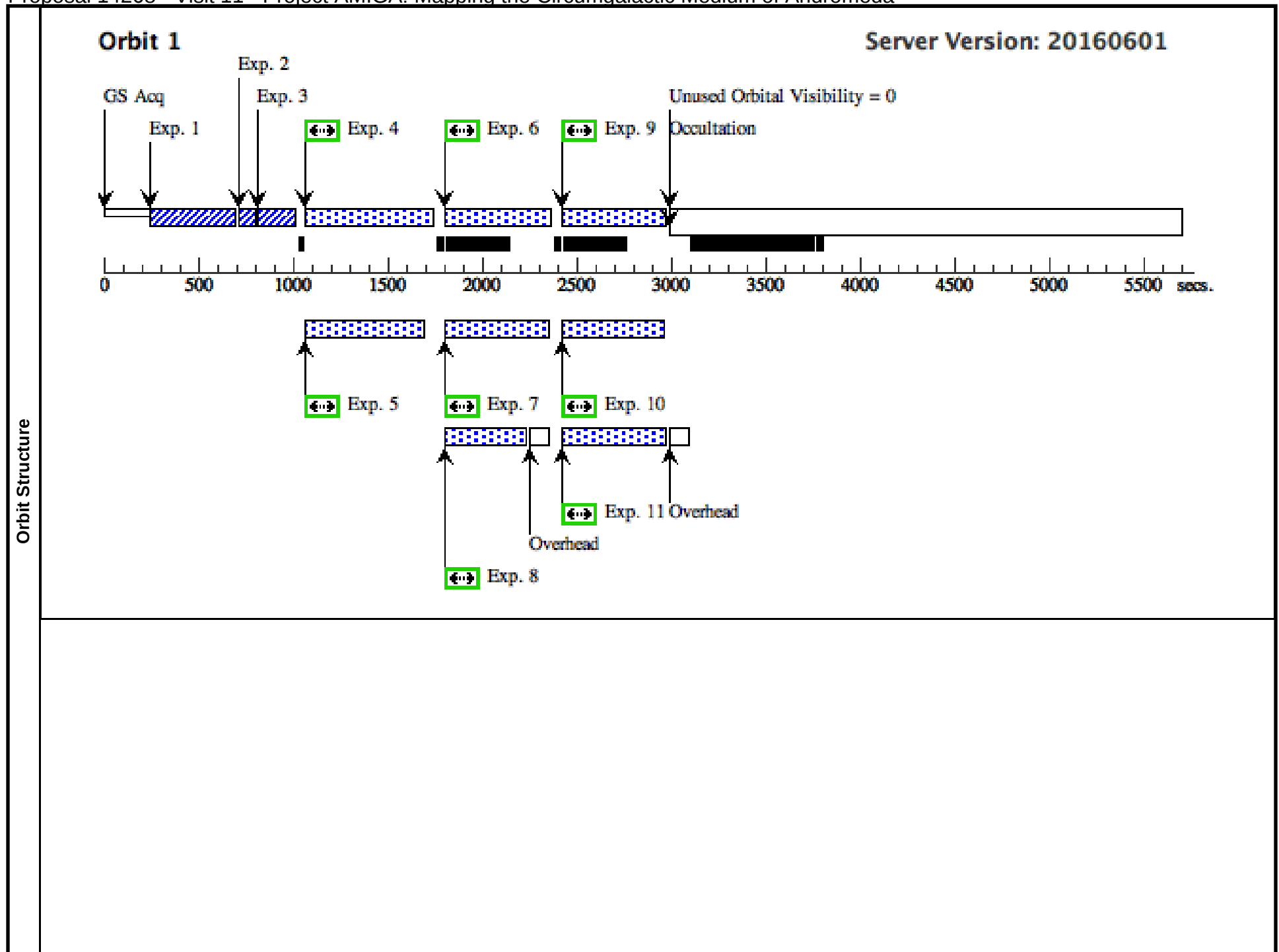
| Exposures | #  | Label<br>(ETC Run) | Target          | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|-----------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 024)   | (9) FBS0150+396 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 9.2 Secs (9.2 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 026)   | (9) FBS0150+396 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                          | 3.6 Secs (3.6 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 024)   | (9) FBS0150+396 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 9.2 Secs (9.2 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.727 675)   | (9) FBS0150+396 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=26<br>68;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 4-5 in Visit 11   | 558 Secs (558 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY             | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-5 in Visit 11   | 428 Secs (428 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727 675)   | (9) FBS0150+396 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=26<br>68;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 6-8 in Visit 11   | 505 Secs (505 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY             | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 11   | 430 Secs (430 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY             | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 11   | 400 Secs (400 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 675)   | (9) FBS0150+396 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=26<br>68;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 9-11 in Visit 11  | 497 Secs (497 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY             | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 11  | 420 Secs (420 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY             | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 11  | 550 Secs (550 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.727 675)   | (9) FBS0150+396 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=26<br>68;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 12-14 in Visit 11 | 812 Secs (812 Secs)<br>[==>]    | [2]   |
|           | 13 |                    | ANY             | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 11 | 700 Secs (700 Secs)<br>[==>]    | [2]   |
|           | 14 |                    | ANY             | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 11 | 720 Secs (720 Secs)<br>[==>]    | [2]   |
|           | 15 | (COS.sp.727 677)   | (9) FBS0150+396 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=26<br>27;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 15-17 in Visit 11 | 780 Secs (780 Secs)<br>[==>]    | [2]   |
|           | 16 |                    | ANY             | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 15-17 in Visit 11 | 785 Secs (785 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 11 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                                  |                        |                 |                                                 |                                          |                       |     |
|----|----------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|-----------------------|-----|
| 17 | ANY                              | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 15-17 in Visit 11 | 800 Secs (800 Secs)   | [2] |
| 18 | (COS.sp.727 (9) FBS0150+396 677) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=26<br>27;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 11 | 780 Secs (780 Secs)   | [2] |
| 19 | ANY                              | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 11 | 700 Secs (700 Secs)   | [2] |
| 20 | ANY                              | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 11 | 835 Secs (835 Secs)   | [2] |
| 21 | (COS.sp.727 (9) FBS0150+396 677) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=25<br>41;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 21-22 in Visit 11 | 500 Secs (500 Secs)   | [3] |
| 22 | ANY                              | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 21-22 in Visit 11 | 440 Secs (440 Secs)   | [3] |
| 23 | (COS.sp.727 (9) FBS0150+396 677) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=25<br>41;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 23-24 in Visit 11 | 590 Secs (590 Secs)   | [3] |
| 24 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 23-24 in Visit 11 | 430 Secs (430 Secs)   | [3] |
| 25 | (COS.sp.727 (9) FBS0150+396 666) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=55<br>39;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 25-27 in Visit 11 | 1236 Secs (1236 Secs) | [3] |
| 26 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 25-27 in Visit 11 | 1200 Secs (1200 Secs) | [3] |
| 27 | ANY                              | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 25-27 in Visit 11 | 1250 Secs (1250 Secs) | [3] |
| 28 | (COS.sp.727 (9) FBS0150+396 666) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=55<br>39;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 28-29 in Visit 11 | 550 Secs (550 Secs)   | [4] |
| 29 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 28-29 in Visit 11 | 480 Secs (480 Secs)   | [4] |
| 30 | (COS.sp.727 (9) FBS0150+396 666) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=55<br>39;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 30-31 in Visit 11 | 560 Secs (560 Secs)   | [4] |
| 31 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 30-31 in Visit 11 | 480 Secs (480 Secs)   | [4] |
| 32 | (COS.sp.727 (9) FBS0150+396 666) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=55<br>39;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 32-33 in Visit 11 | 570 Secs (570 Secs)   | [4] |

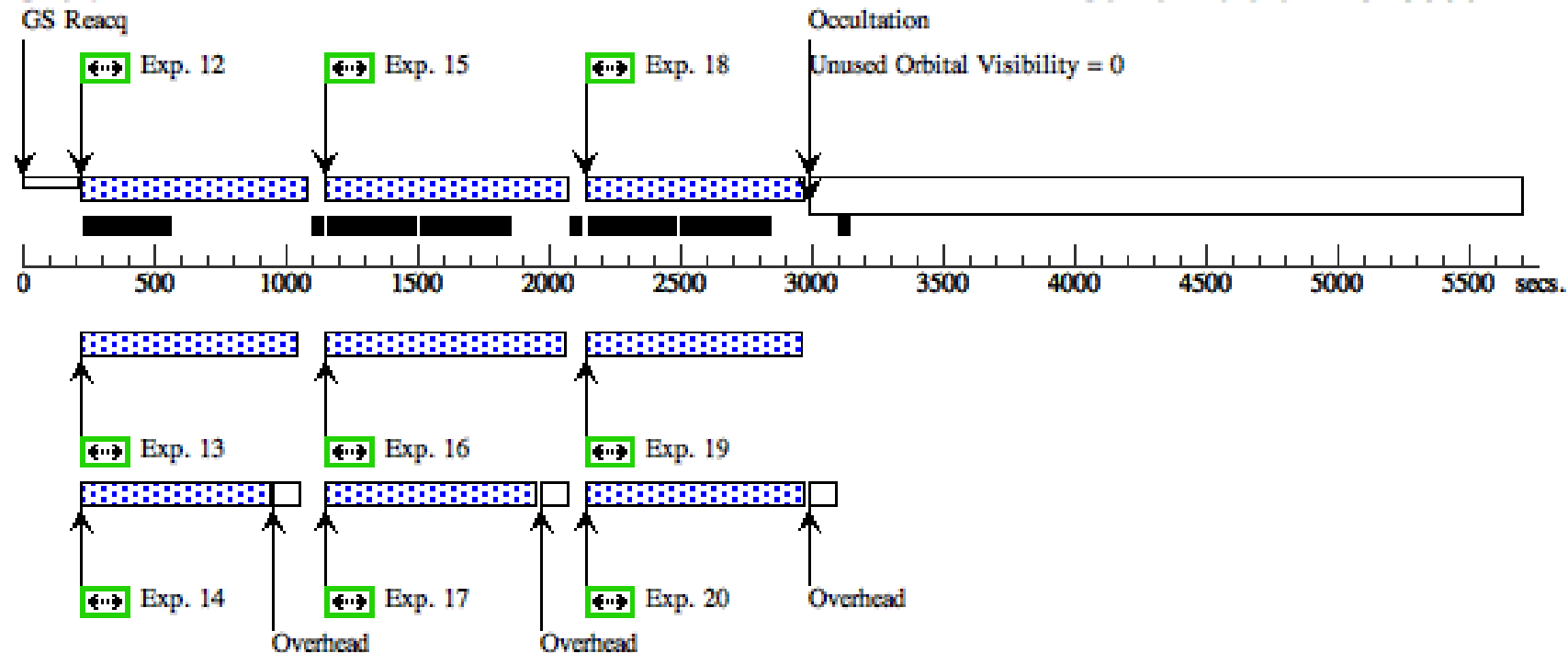
# Proposal 14268 - Visit 11 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                                  |                        |                 |                                                 |                                          |                     |     |
|----|----------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|---------------------|-----|
| 33 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 32-33 in Visit 11 | 480 Secs (480 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [4] |
| 34 | (COS.sp.727 (9) FBS0150+396 670) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=59<br>29;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 34-36 in Visit 11 | 628 Secs (628 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [4] |
| 35 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 34-36 in Visit 11 | 590 Secs (590 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [4] |
| 36 | ANY                              | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 34-36 in Visit 11 | 600 Secs (600 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [4] |
| 37 | (COS.sp.727 (9) FBS0150+396 670) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=59<br>29;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 37-39 in Visit 11 | 852 Secs (852 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 38 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 37-39 in Visit 11 | 680 Secs (680 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 39 | ANY                              | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 37-39 in Visit 11 | 740 Secs (740 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 40 | (COS.sp.727 (9) FBS0150+396 670) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=59<br>29;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 40-42 in Visit 11 | 810 Secs (810 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 41 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 40-42 in Visit 11 | 730 Secs (730 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 42 | ANY                              | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 40-42 in Visit 11 | 750 Secs (750 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 43 | (COS.sp.727 (9) FBS0150+396 670) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=59<br>29;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 43-45 in Visit 11 | 810 Secs (810 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 44 | ANY                              | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 43-45 in Visit 11 | 730 Secs (730 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |
| 45 | ANY                              | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 43-45 in Visit 11 | 830 Secs (830 Secs) |     |
|    |                                  |                        |                 |                                                 |                                          | [==>]               | [5] |



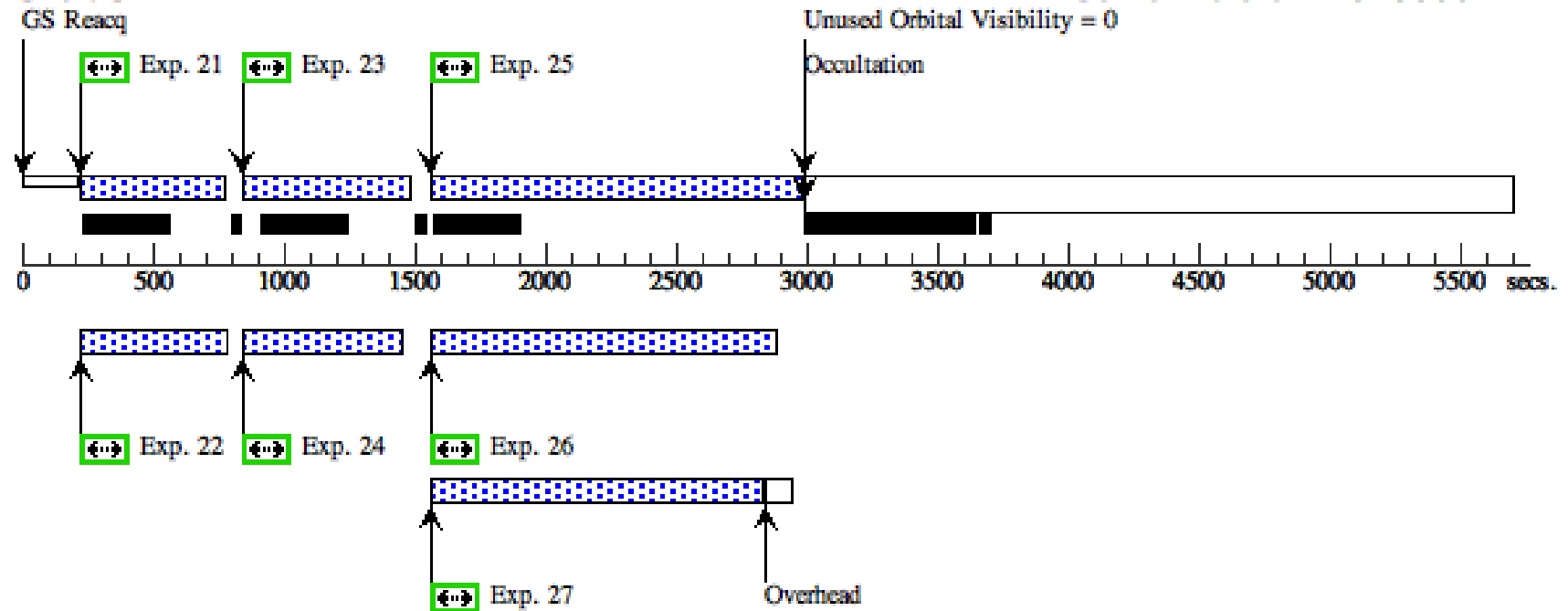
## Orbit 2

Server Version: 20160601



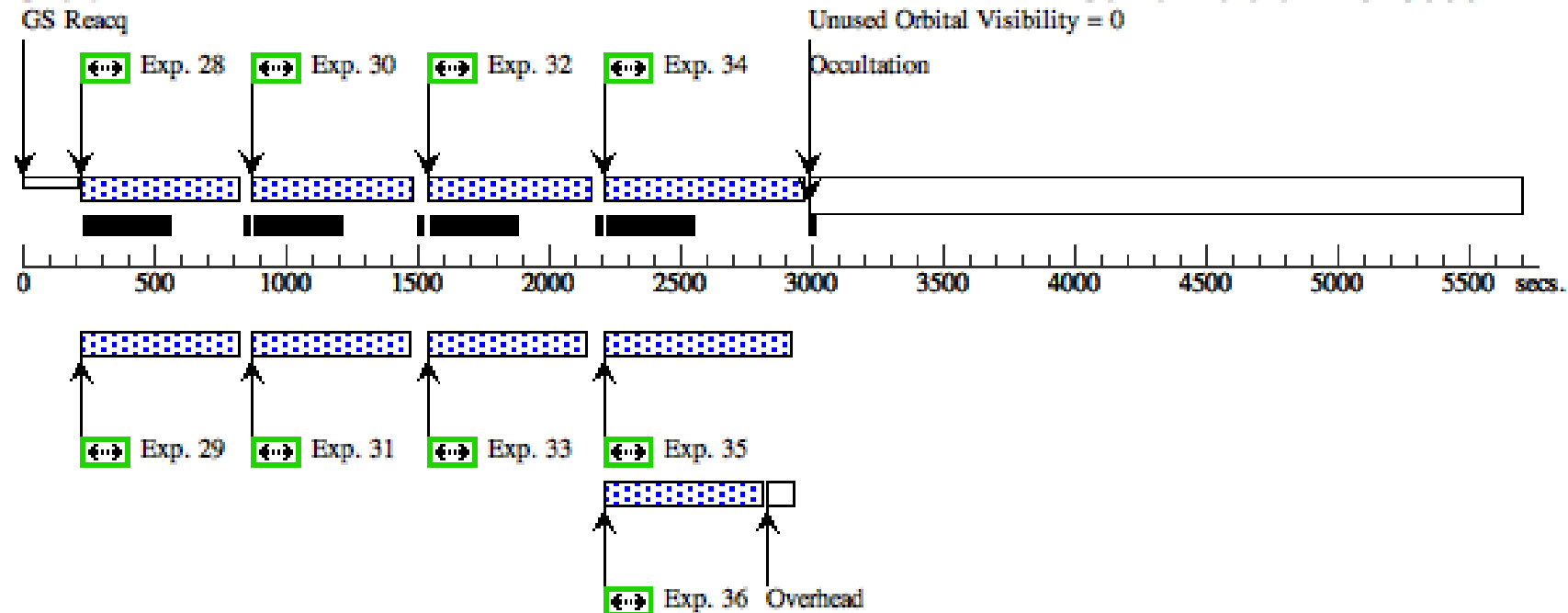
### Orbit 3

Server Version: 20160601



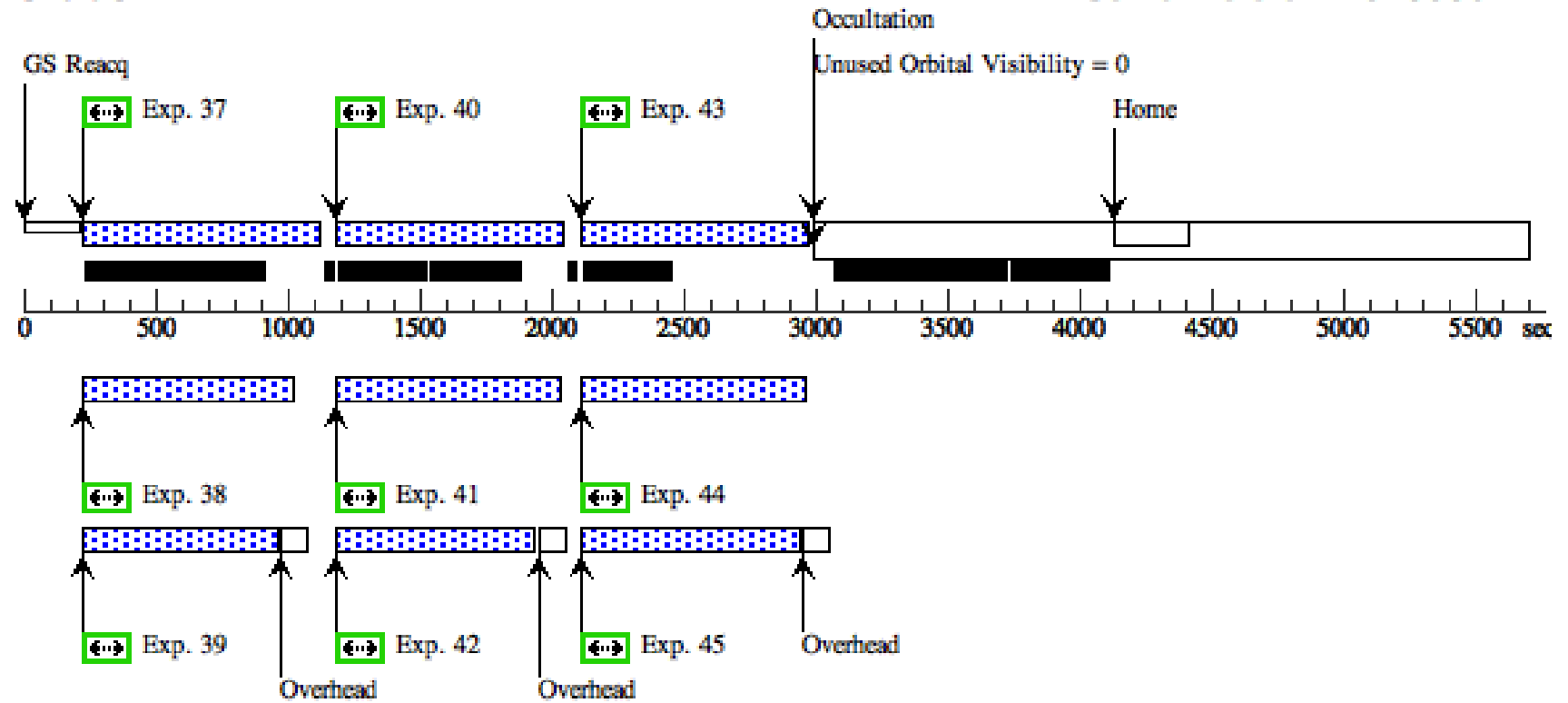
# Orbit 4

Server Version: 20160601



## Orbit 5

Server Version: 20160601



# Proposal 14268 - Visit 12 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

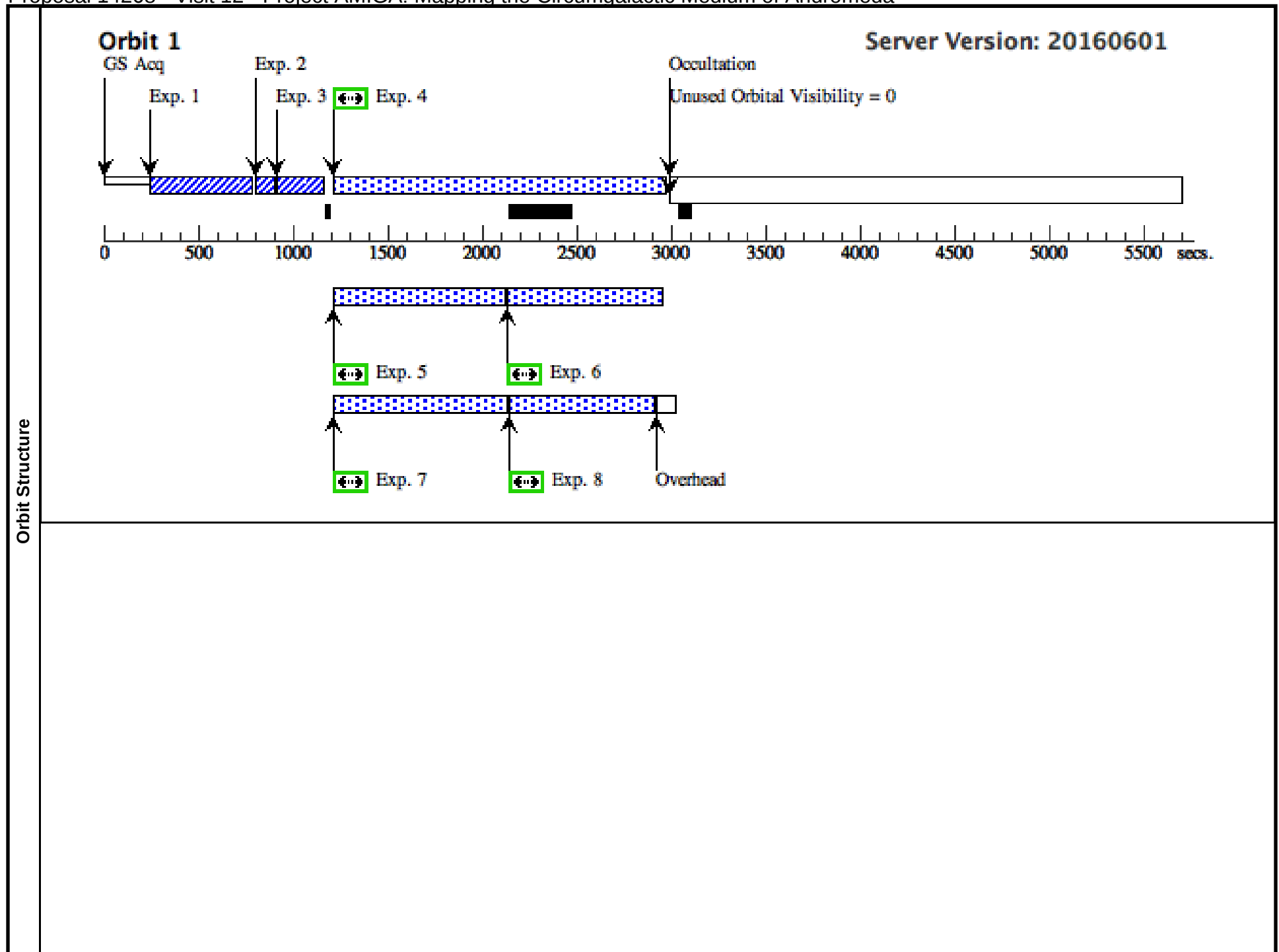
|               |                                                                                                                                                                        |      |                                                                                    |                          |                                                                     |                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|------------------------------|
| Visit         | Proposal 14268, Visit 12, completed                                                                                                                                    |      |                                                                                    |                          |                                                                     | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                             |      |                                                                                    |                          |                                                                     |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                    |      |                                                                                    |                          |                                                                     |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                       |      |                                                                                    |                          |                                                                     |                              |
| Diagnosics    | (Visit 12) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting. |      |                                                                                    |                          |                                                                     |                              |
| Fixed Targets | #                                                                                                                                                                      | Name | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                                                              | Miscellaneous                |
|               | (10)                                                                                                                                                                   | 3C48 | RA: 01 37 41.2971 (24.4220713d)<br>Dec: +33 09 35.12 (33.15976d)<br>Equinox: J2000 |                          | V=16.20<br>GALEX FUV = 17.90; (F=3.5e-15,<br>GHRS,<br>IUE,<br>FUSE) | Reference Frame: ICRS        |
|               | Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.<br>Extended=NO                                                       |      |                                                                                    |                          |                                                                     |                              |

# Proposal 14268 - Visit 12 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run)  | Target    | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|-----------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 031)    | (10) 3C48 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 19.3 Secs (19.3 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731 030)    | (10) 3C48 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                          | 7.6 Secs (7.6 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 031)    | (10) 3C48 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 19.3 Secs (19.3 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.727 498)    | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=32<br>98;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 4-8 in Visit 12   | 1645 Secs (1645 Secs)<br>[==>]  | [1]   |
|           | 5  |                     | ANY       | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-8 in Visit 12   | 700 Secs (700 Secs)<br>[==>]    | [1]   |
|           | 6  |                     | ANY       | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-8 in Visit 12   | 700 Secs (700 Secs)<br>[==>]    | [1]   |
|           | 7  |                     | ANY       | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 4-8 in Visit 12   | 770 Secs (770 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY       | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 4-8 in Visit 12   | 770 Secs (770 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 498496) | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=32<br>98;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 9-11 in Visit 12  | 1320 Secs (1320 Secs)<br>[==>]  | [2]   |
|           | 10 |                     | ANY       | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 12  | 1200 Secs (1200 Secs)<br>[==>]  | [2]   |
|           | 11 |                     | ANY       | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 12  | 1160 Secs (1160 Secs)<br>[==>]  | [2]   |
|           | 12 | (COS.sp.727 498)    | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=32<br>98;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 12-14 in Visit 12 | 1250 Secs (1250 Secs)<br>[==>]  | [2]   |
|           | 13 |                     | ANY       | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 12 | 1170 Secs (1170 Secs)<br>[==>]  | [2]   |
|           | 14 |                     | ANY       | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 12 | 1140 Secs (1140 Secs)<br>[==>]  | [2]   |
|           | 15 | (COS.sp.727 498)    | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=32<br>98;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 15-17 in Visit 12 | 1297 Secs (1297 Secs)<br>[==>]  | [3]   |
|           | 16 |                     | ANY       | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 15-17 in Visit 12 | 1207 Secs (1207 Secs)<br>[==>]  | [3]   |
|           | 17 |                     | ANY       | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 15-17 in Visit 12 | 1167 Secs (1167 Secs)<br>[==>]  | [3]   |

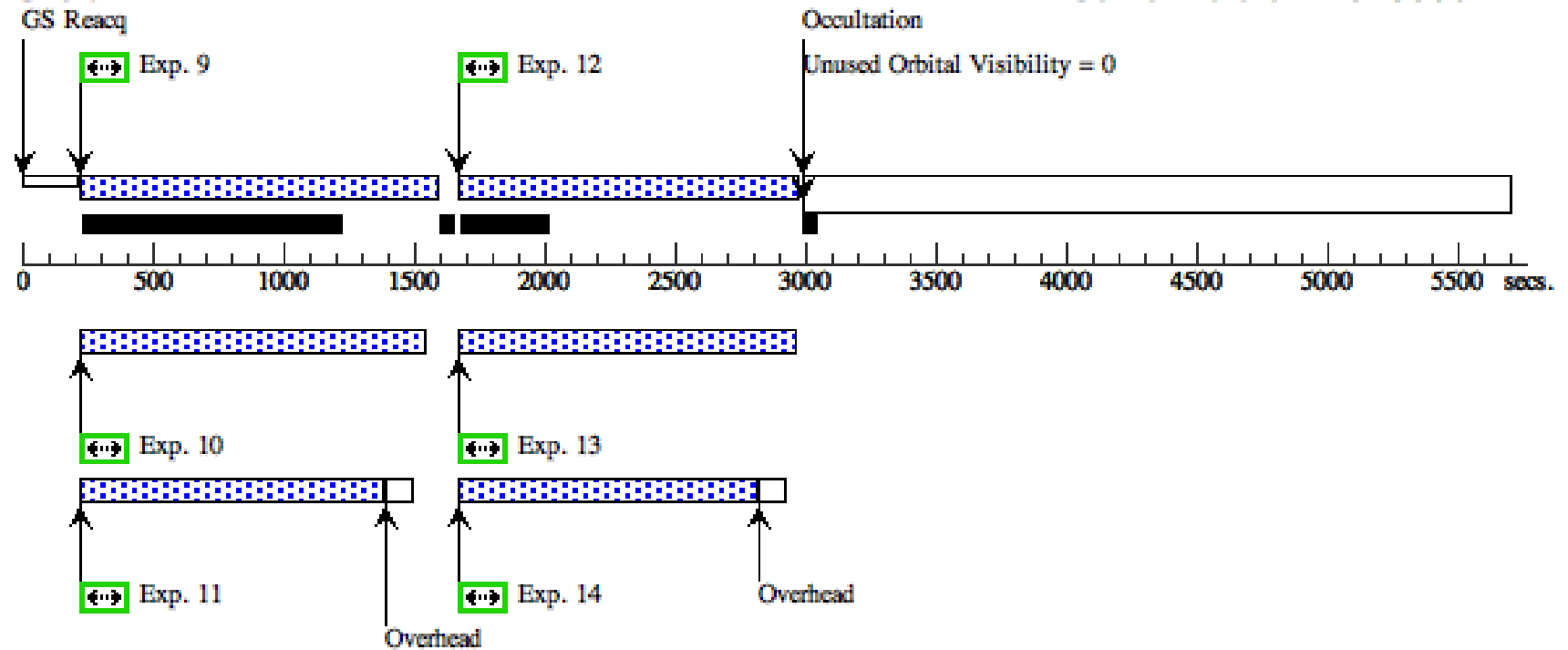
# Proposal 14268 - Visit 12 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                            |                        |                 |                                                 |                                          |                                |     |
|----|----------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|--------------------------------|-----|
| 18 | (COS.sp.727 (10) 3C48 496) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=32<br>54;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 12 | 1190 Secs (1190 Secs)<br>[==>] | [3] |
| 19 | ANY                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 12 | 1170 Secs (1170 Secs)<br>[==>] | [3] |
| 20 | ANY                        | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 12 | 1140 Secs (1140 Secs)<br>[==>] | [3] |
| 21 | (COS.sp.727 (10) 3C48 496) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=32<br>54;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 12 | 1320 Secs (1320 Secs)<br>[==>] | [4] |
| 22 | ANY                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 12 | 1200 Secs (1200 Secs)<br>[==>] | [4] |
| 23 | ANY                        | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 12 | 1160 Secs (1160 Secs)<br>[==>] | [4] |
| 24 | (COS.sp.727 (10) 3C48 496) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=32<br>54;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 24-26 in Visit 12 | 1250 Secs (1250 Secs)<br>[==>] | [4] |
| 25 | ANY                        | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 24-26 in Visit 12 | 1170 Secs (1170 Secs)<br>[==>] | [4] |
| 26 | ANY                        | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 24-26 in Visit 12 | 1140 Secs (1140 Secs)<br>[==>] | [4] |



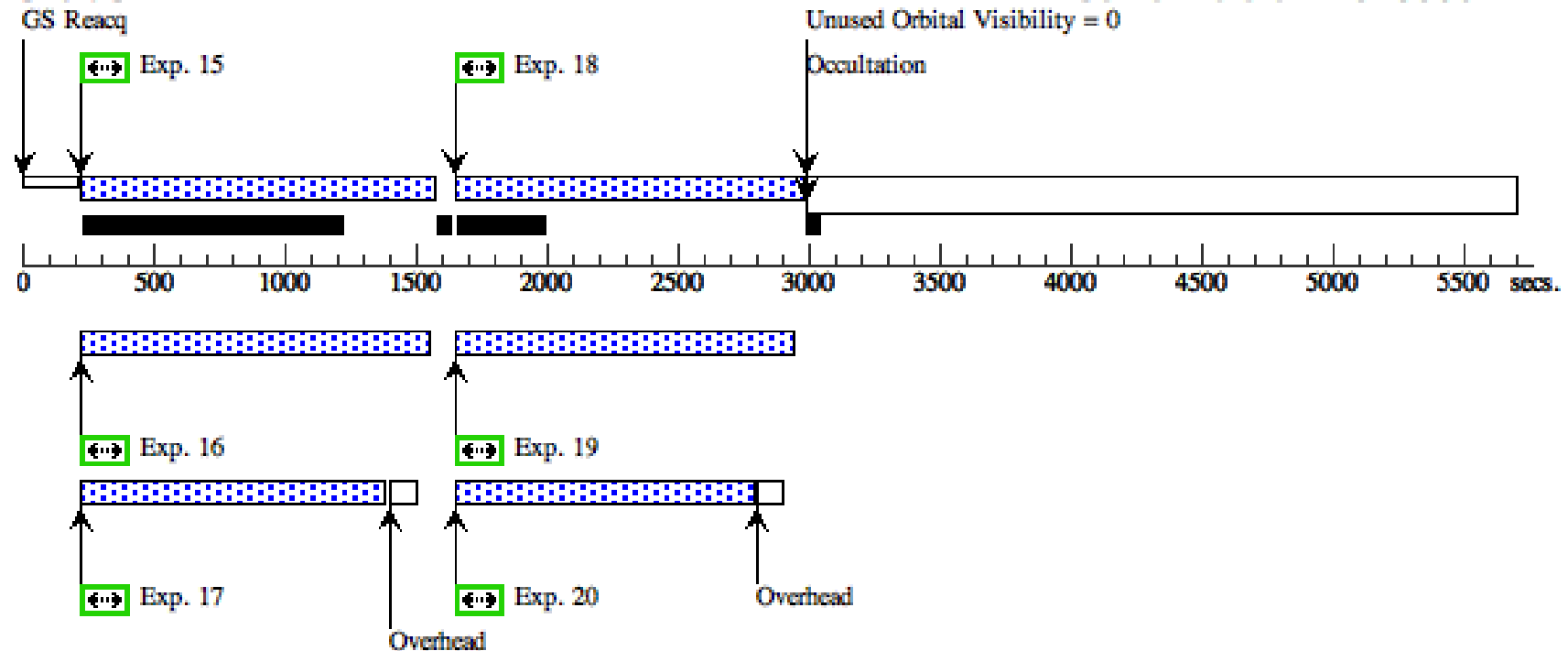
## Orbit 2

Server Version: 20160601



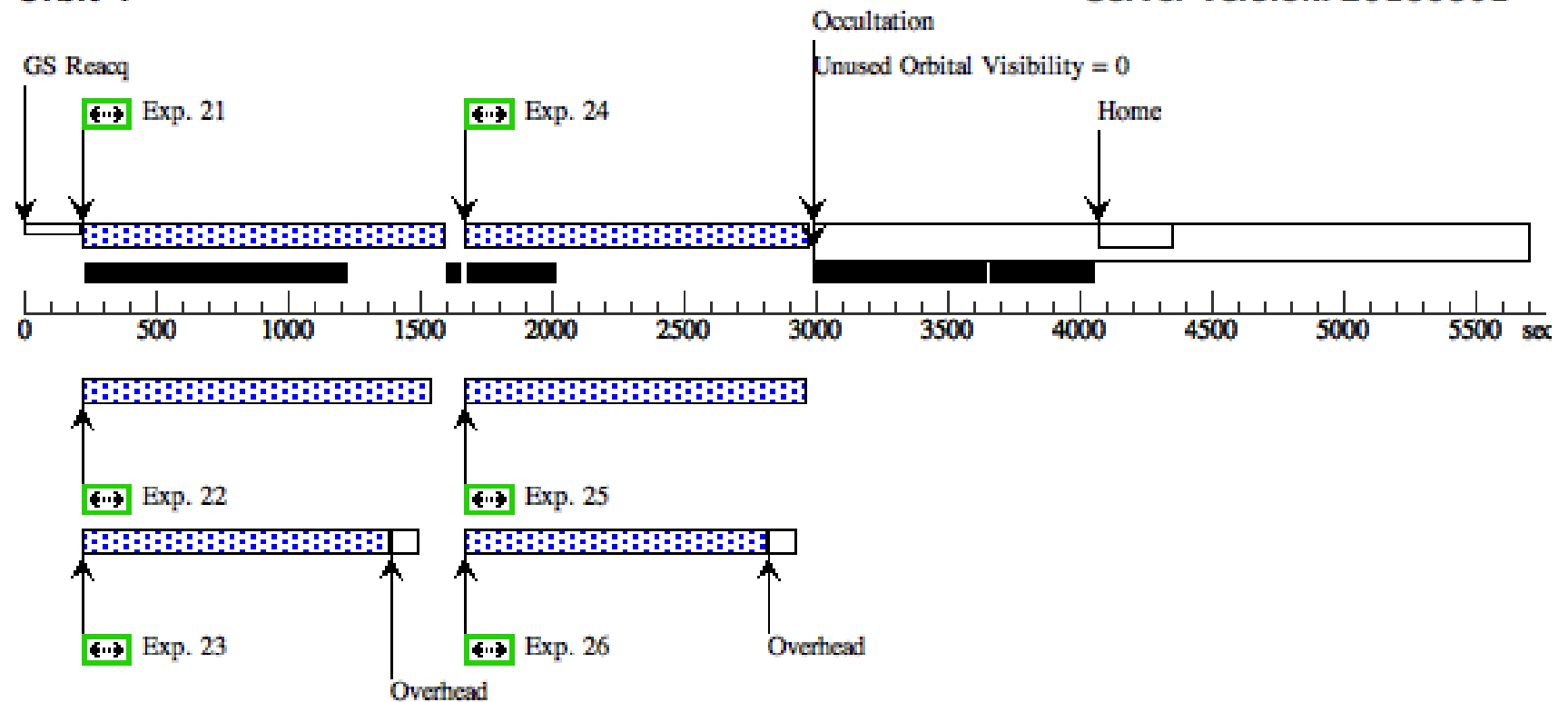
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 13 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

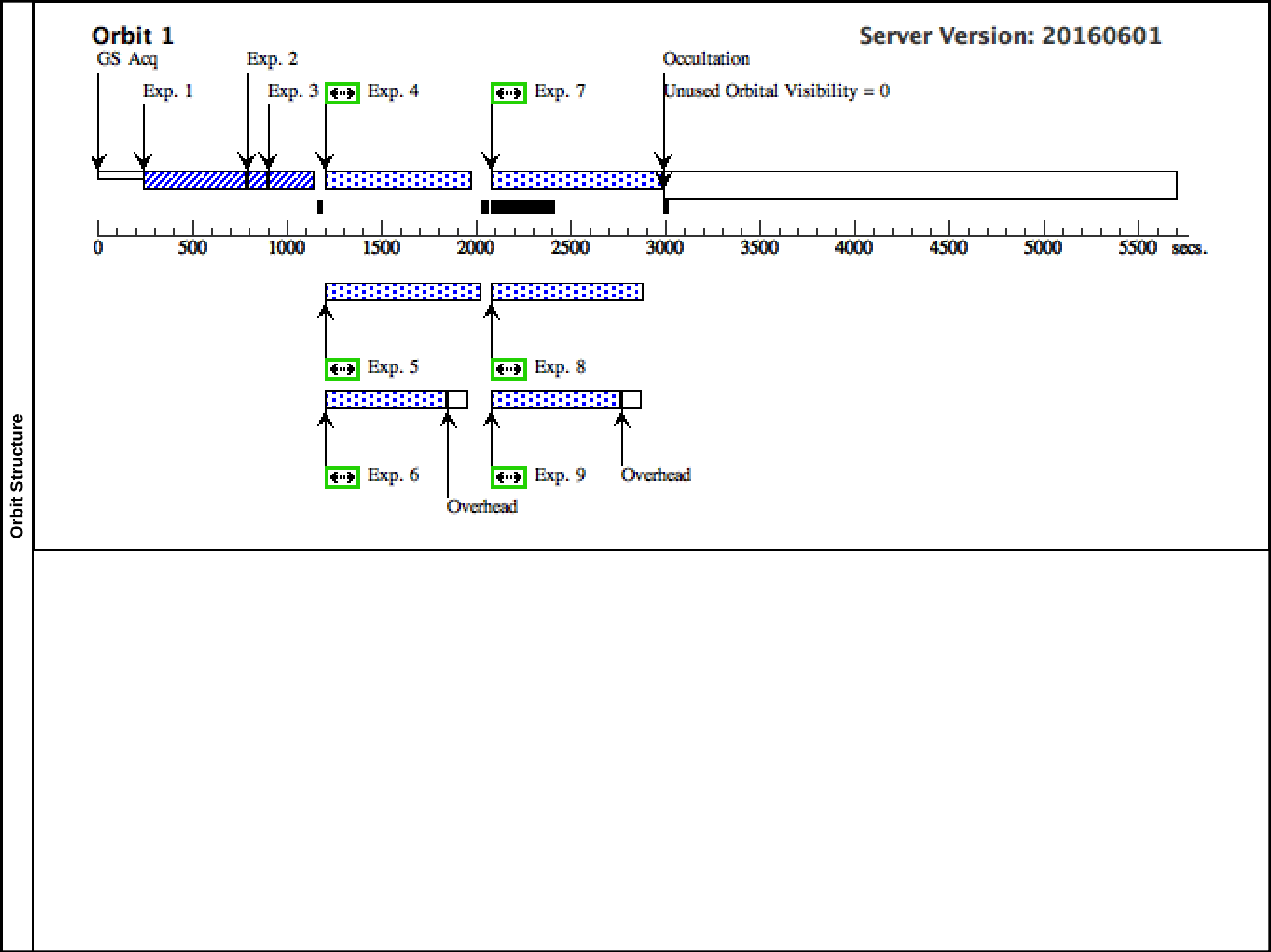
|               |                                                                                                                                                                        |      |                                 |                          |                                |                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------|--------------------------|--------------------------------|------------------------------|
| Visit         | Proposal 14268, Visit 13, completed                                                                                                                                    |      |                                 |                          |                                | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                             |      |                                 |                          |                                |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                    |      |                                 |                          |                                |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                       |      |                                 |                          |                                |                              |
| Diagnos       | (Visit 13) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting. |      |                                 |                          |                                |                              |
| Fixed Targets | #                                                                                                                                                                      | Name | Target Coordinates              | Targ. Coord. Corrections | Fluxes                         | Miscellaneous                |
|               | (10)                                                                                                                                                                   | 3C48 | RA: 01 37 41.2971 (24.4220713d) |                          | V=16.20                        | Reference Frame: ICRS        |
|               |                                                                                                                                                                        |      | Dec: +33 09 35.12 (33.15976d)   |                          | GALEX FUV = 17.90; (F=3.5e-15, |                              |
|               |                                                                                                                                                                        |      | Equinox: J2000                  |                          | GHRS,<br>IUE,<br>FUSE)         |                              |
|               | Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.<br>Extended=NO                                                       |      |                                 |                          |                                |                              |

# Proposal 14268 - Visit 13 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target    | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|-----------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 042)   | (10) 3C48 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1327 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 18.3 Secs (18.3 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731 043)   | (10) 3C48 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1327 A | SEGMENT=BOTH                                            |               |                                          | 7.1 Secs (7.1 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 042)   | (10) 3C48 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1327 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 18.3 Secs (18.3 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.727 496)   | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=32<br>54;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 4-6 in Visit 13   | 713 Secs (713 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY       | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 4-6 in Visit 13   | 613 Secs (613 Secs)<br>[==>]    | [1]   |
|           | 6  |                    | ANY       | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Group 4-6 in Visit 13   | 613 Secs (613 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.727 500)   | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=75<br>03;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 7-9 in Visit 13   | 718 Secs (718 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY       | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 7-9 in Visit 13   | 678 Secs (678 Secs)<br>[==>]    | [1]   |
|           | 9  |                    | ANY       | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Group 7-9 in Visit 13   | 678 Secs (678 Secs)<br>[==>]    | [1]   |
|           | 10 | (COS.sp.727 500)   | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=75<br>03;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 10-12 in Visit 13 | 1278 Secs (1278 Secs)<br>[==>]  | [2]   |
|           | 11 |                    | ANY       | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 10-12 in Visit 13 | 1208 Secs (1208 Secs)<br>[==>]  | [2]   |
|           | 12 |                    | ANY       | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Group 10-12 in Visit 13 | 1228 Secs (1228 Secs)<br>[==>]  | [2]   |
|           | 13 | (COS.sp.727 500)   | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=75<br>03;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 13-15 in Visit 13 | 1300 Secs (1300 Secs)<br>[==>]  | [2]   |
|           | 14 |                    | ANY       | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 13-15 in Visit 13 | 1200 Secs (1200 Secs)<br>[==>]  | [2]   |
|           | 15 |                    | ANY       | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Group 13-15 in Visit 13 | 1200 Secs (1200 Secs)<br>[==>]  | [2]   |
|           | 16 | (COS.sp.727 500)   | (10) 3C48 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=75<br>03;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 16-18 in Visit 13 | 1269 Secs (1269 Secs)<br>[==>]  | [3]   |

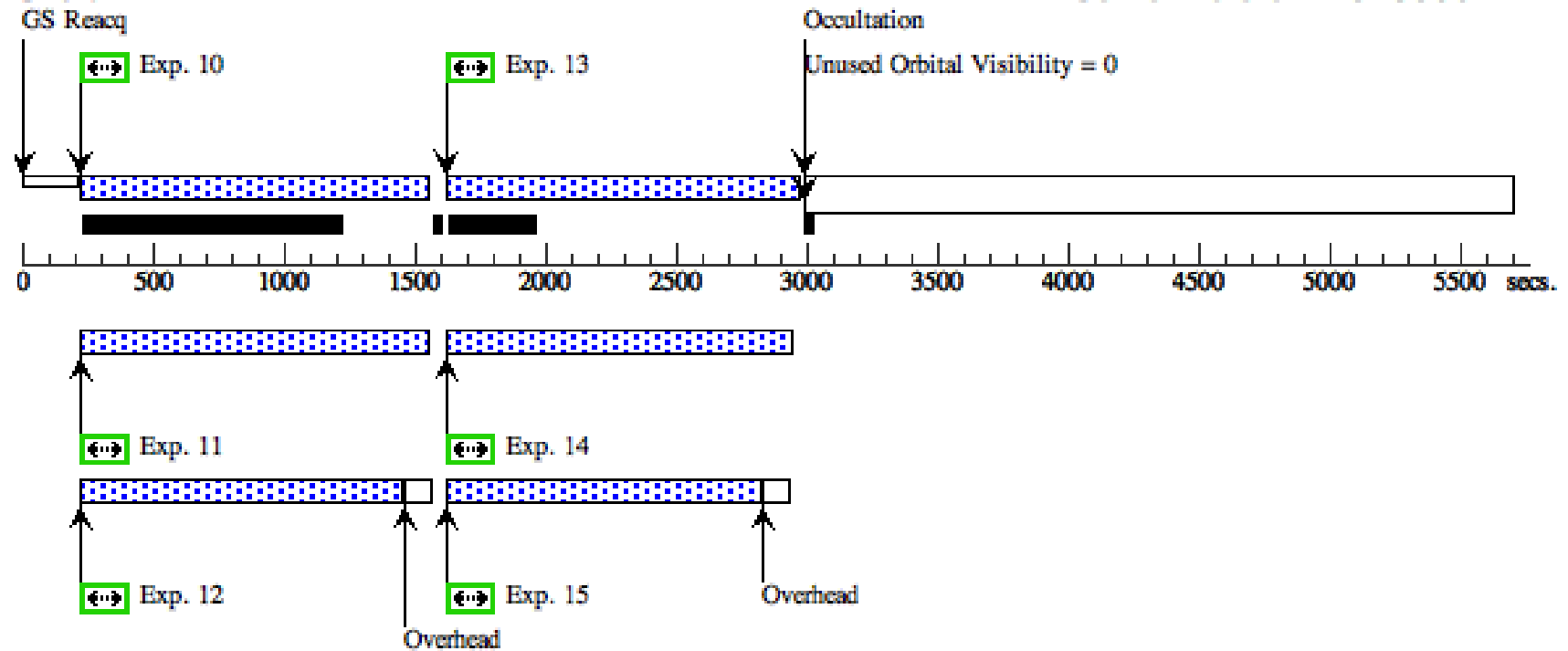
# Proposal 14268 - Visit 13 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                              |                                          |                       |
|----|-------------------------------|------------------------|-----------------|----------------------------------------------|------------------------------------------|-----------------------|
| 17 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 16-18 in Visit 13     | 1199 Secs (1199 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [3]                   |
| 18 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 16-18 in Visit 13     | 1199 Secs (1199 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [3]                   |
| 19 | (COS.sp.727 (10) 3C48 501)    | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=78 57;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 19-21 in Visit 13 | 1240 Secs (1240 Secs) |
|    |                               |                        |                 |                                              |                                          | [3]                   |
| 20 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 19-21 in Visit 13     | 1170 Secs (1170 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [3]                   |
| 21 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 19-21 in Visit 13     | 1200 Secs (1200 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [3]                   |
| 22 | (COS.sp.727 (10) 3C48 501669) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=78 57;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 22-24 in Visit 13 | 1338 Secs (1338 Secs) |
|    |                               |                        |                 |                                              |                                          | [4]                   |
| 23 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 22-24 in Visit 13     | 1218 Secs (1218 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [4]                   |
| 24 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 22-24 in Visit 13     | 1238 Secs (1238 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [4]                   |
| 25 | (COS.sp.727 (10) 3C48 501)    | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=78 56;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 25-27 in Visit 13 | 1250 Secs (1250 Secs) |
|    |                               |                        |                 |                                              |                                          | [4]                   |
| 26 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 25-27 in Visit 13     | 1180 Secs (1180 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [4]                   |
| 27 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 25-27 in Visit 13     | 1250 Secs (1250 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [4]                   |
| 28 | (COS.sp.727 (10) 3C48 501)    | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=78 56;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 28-32 in Visit 13 | 2704 Secs (2704 Secs) |
|    |                               |                        |                 |                                              |                                          | [5]                   |
| 29 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 28-32 in Visit 13     | 1245 Secs (1245 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [5]                   |
| 30 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 28-32 in Visit 13     | 1245 Secs (1245 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [5]                   |
| 31 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 28-32 in Visit 13     | 1260 Secs (1260 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [5]                   |
| 32 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 28-32 in Visit 13     | 1260 Secs (1260 Secs)                    |                       |
|    |                               |                        |                 |                                              | [==>]                                    | [5]                   |



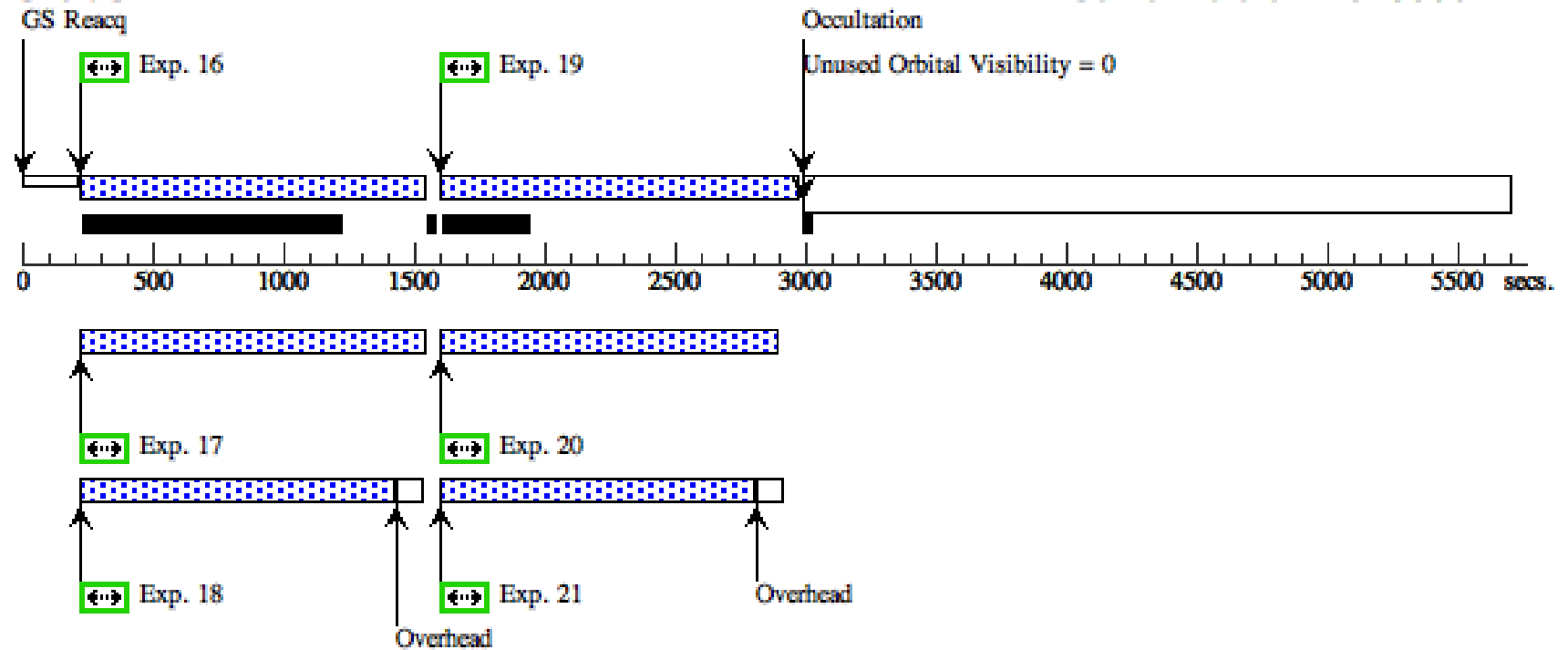
## Orbit 2

Server Version: 20160601



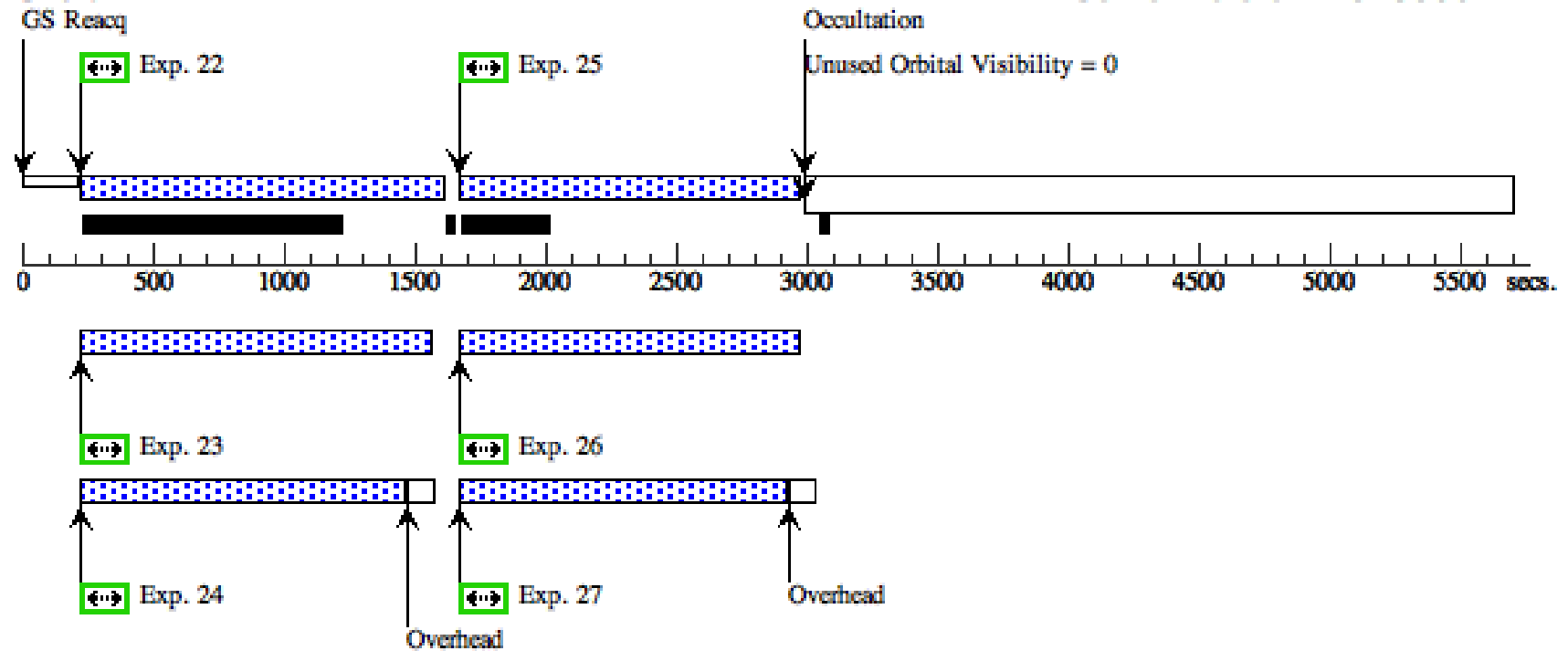
### Orbit 3

Server Version: 20160601



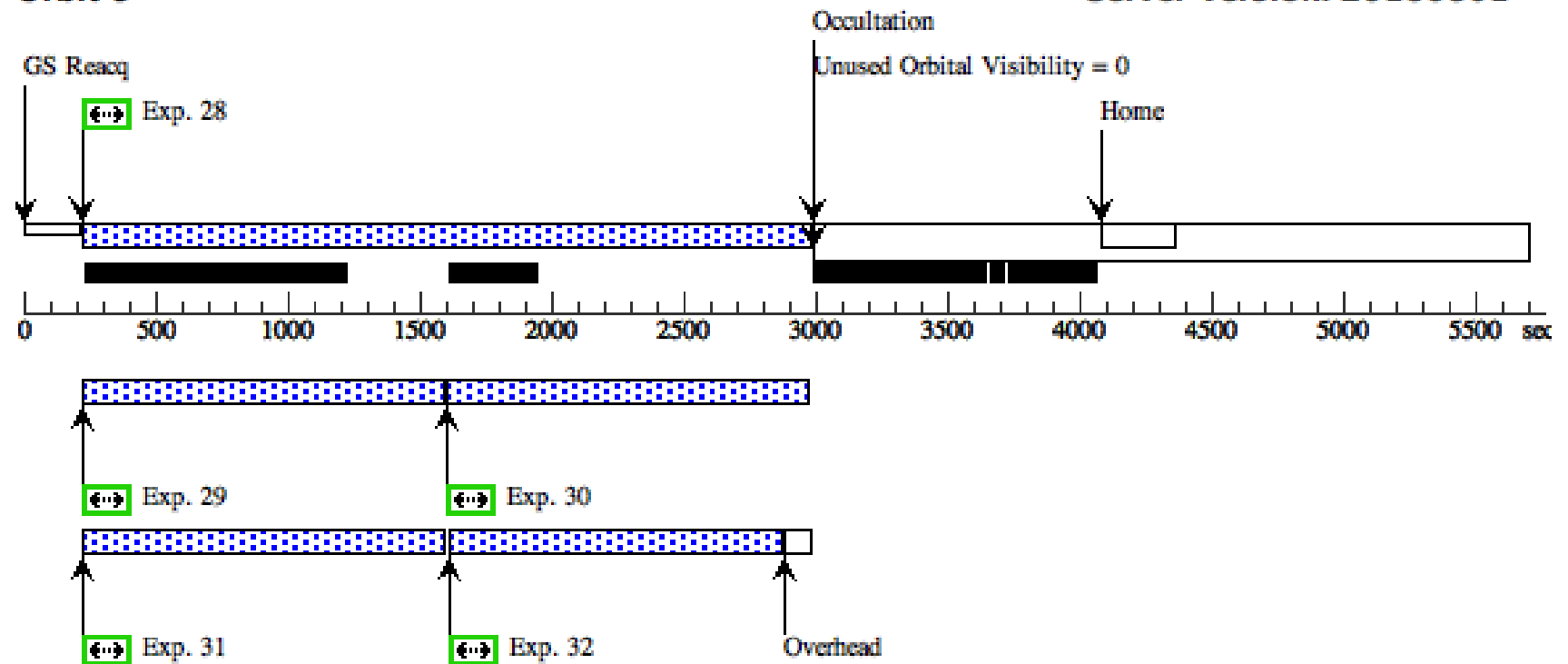
# Orbit 4

Server Version: 20160601



## Orbit 5

Server Version: 20160601



# Proposal 14268 - Visit 14 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|               |                                                                                                                                                                                                           |         |                                                                                   |                          |                              |                              |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit         | <p>Proposal 14268, Visit 14, completed</p> <p>Diagnostic Status: <b>Warning</b></p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV</p> <p>Special Requirements: SCHED 100%</p>                    |         |                                                                                   |                          |                              | Wed Sep 07 21:22:57 GMT 2016 |
|               | (Parallel Exposure 30 (Prime + Parallel Group 28-30 in Visit 14)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser |         |                                                                                   |                          |                              |                              |
| Fixed Targets |                                                                                                                                                                                                           |         |                                                                                   |                          |                              |                              |
|               | #                                                                                                                                                                                                         | Name    | Target Coordinates                                                                | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|               | (11)                                                                                                                                                                                                      | 4C25.01 | RA: 00 19 39.7813 (4.9157554d)<br>Dec: +26 02 52.34 (26.04787d)<br>Equinox: J2000 |                          | V=15.40<br>GALEX FUV = 16.67 | Reference Frame: ICRS        |
|               | Comments: Extended=NO                                                                                                                                                                                     |         |                                                                                   |                          |                              |                              |

# Proposal 14268 - Visit 14 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

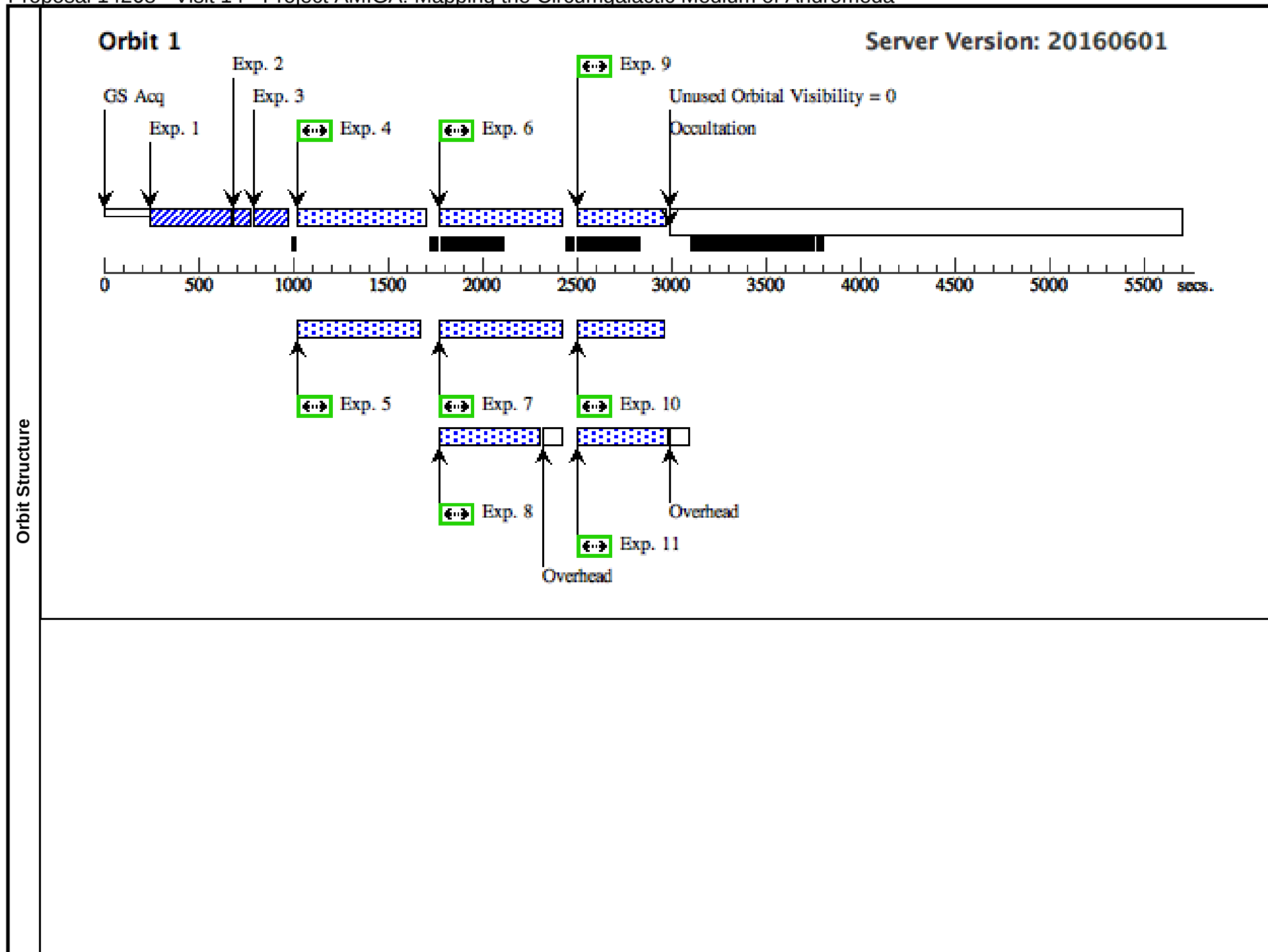
| Exposures | #  | Label<br>(ETC Run) | Target       | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|--------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 053)   | (11) 4C25.01 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 6.3 Secs (6.3 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 051)   | (11) 4C25.01 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                          | 2.5 Secs (2.5 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 053)   | (11) 4C25.01 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 6.3 Secs (6.3 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.727 624)   | (11) 4C25.01 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>77;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 4-5 in Visit 14   | 559 Secs (559 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-5 in Visit 14   | 446 Secs (446 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727 624)   | (11) 4C25.01 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>77;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 6-8 in Visit 14   | 600 Secs (600 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 14   | 525 Secs (525 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 14   | 505 Secs (505 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 624)   | (11) 4C25.01 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>77;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 9-11 in Visit 14  | 420 Secs (420 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 14  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 14  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.727 624)   | (11) 4C25.01 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=22<br>77;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 12-13 in Visit 14 | 460 Secs (460 Secs)<br>[==>]    | [2]   |
|           | 13 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 12-13 in Visit 14 | 340 Secs (340 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.727 625)   | (11) 4C25.01 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=22<br>39;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 14-15 in Visit 14 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 15 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 14-15 in Visit 14 | 430 Secs (430 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 14 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                                 |                                          |                              |     |
|----|-------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.727 (11) 4C25.01 625) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>39;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 16-17 in Visit 14 | 420 Secs (420 Secs)<br>[==>] | [2] |
| 17 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 16-17 in Visit 14 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.727 (11) 4C25.01 625) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>39;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 14 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 14 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 14 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.727 (11) 4C25.01 625) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>39;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 14 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 14 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 14 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.727 (11) 4C25.01 643) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=47<br>15;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 24-25 in Visit 14 | 578 Secs (578 Secs)<br>[==>] | [3] |
| 25 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 24-25 in Visit 14 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.727 (11) 4C25.01 643) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=47<br>15;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 26-27 in Visit 14 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 26-27 in Visit 14 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.727 (11) 4C25.01 643) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=47<br>15;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 28-30 in Visit 14 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 14 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 14 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.727 (11) 4C25.01 643) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=47<br>15;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 31-33 in Visit 14 | 550 Secs (550 Secs)<br>[==>] | [3] |

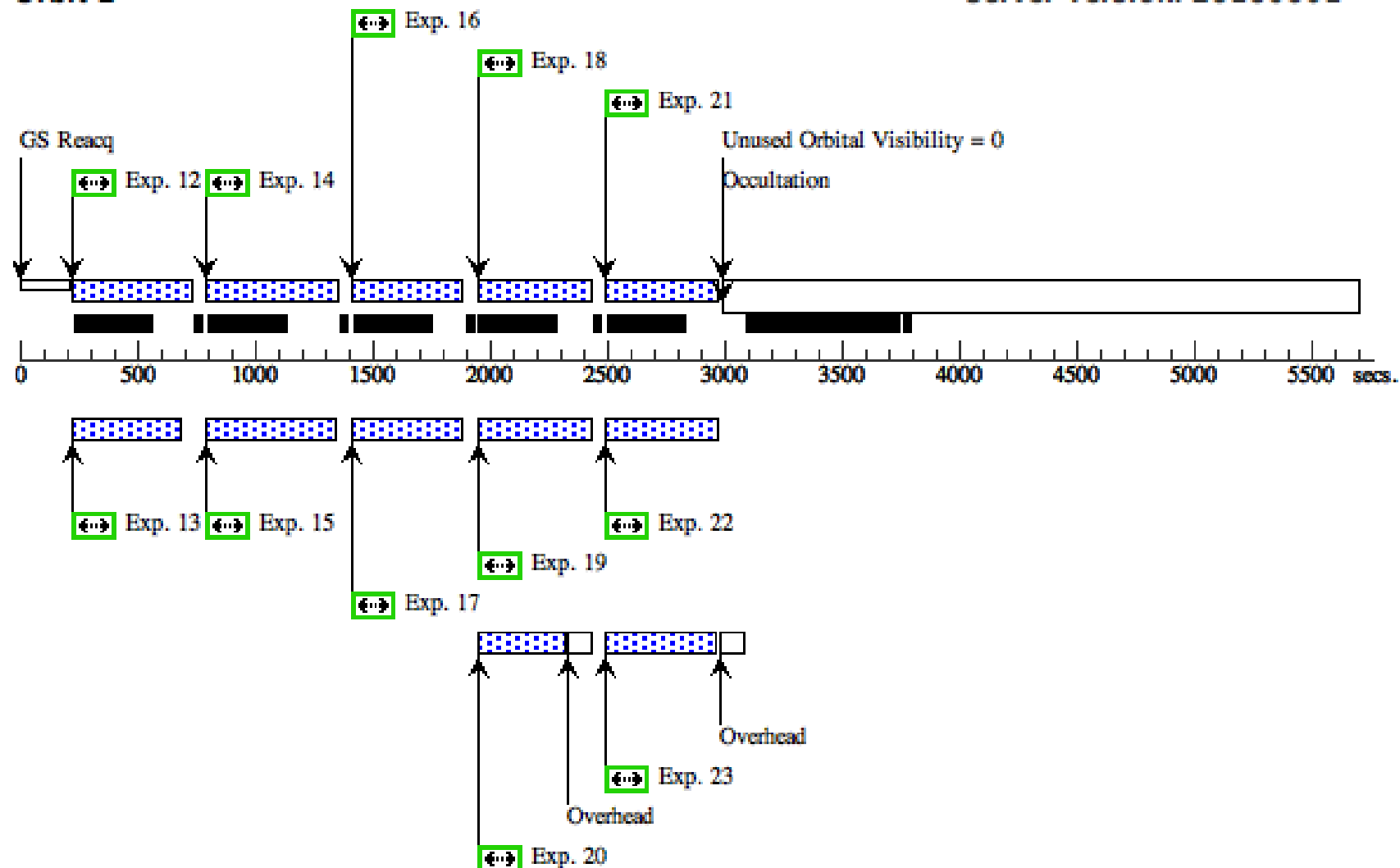
# Proposal 14268 - Visit 14 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                                 |                     |     |
|----|-------------------------------|------------------------|-----------------|-------------------------------------------------|---------------------|-----|
| 32 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 31-33 in Visit 14        | 475 Secs (475 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [3] |
| 33 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 31-33 in Visit 14        | 600 Secs (600 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [3] |
| 34 | (COS.sp.727 (11) 4C25.01 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=50<br>95;<br>FP-POS=1;<br>FLASH=YES | 599 Secs (599 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 35 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 34-35 in Visit 14        | 570 Secs (570 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 36 | (COS.sp.727 (11) 4C25.01 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=50<br>95;<br>FP-POS=2;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 37 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 36-37 in Visit 14        | 470 Secs (470 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 38 | (COS.sp.727 (11) 4C25.01 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=50<br>95;<br>FP-POS=3;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 39 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 38-40 in Visit 14        | 470 Secs (470 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 40 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 38-40 in Visit 14        | 520 Secs (520 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 41 | (COS.sp.727 (11) 4C25.01 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=50<br>95;<br>FP-POS=4;<br>FLASH=YES | 570 Secs (570 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 42 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 41-43 in Visit 14        | 475 Secs (475 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |
| 43 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 41-43 in Visit 14        | 600 Secs (600 Secs) |     |
|    |                               |                        |                 |                                                 | [==>]               | [4] |



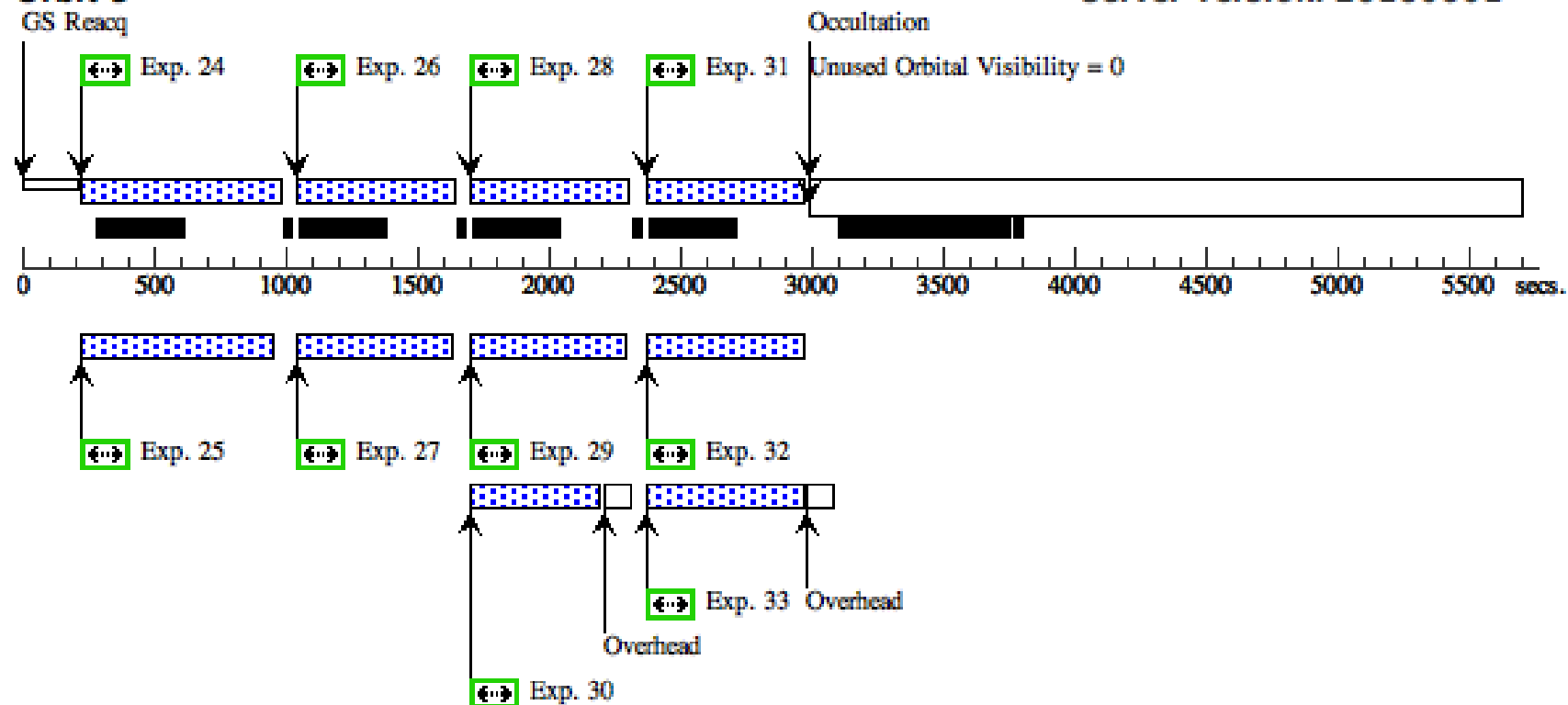
## Orbit 2

Server Version: 20160601



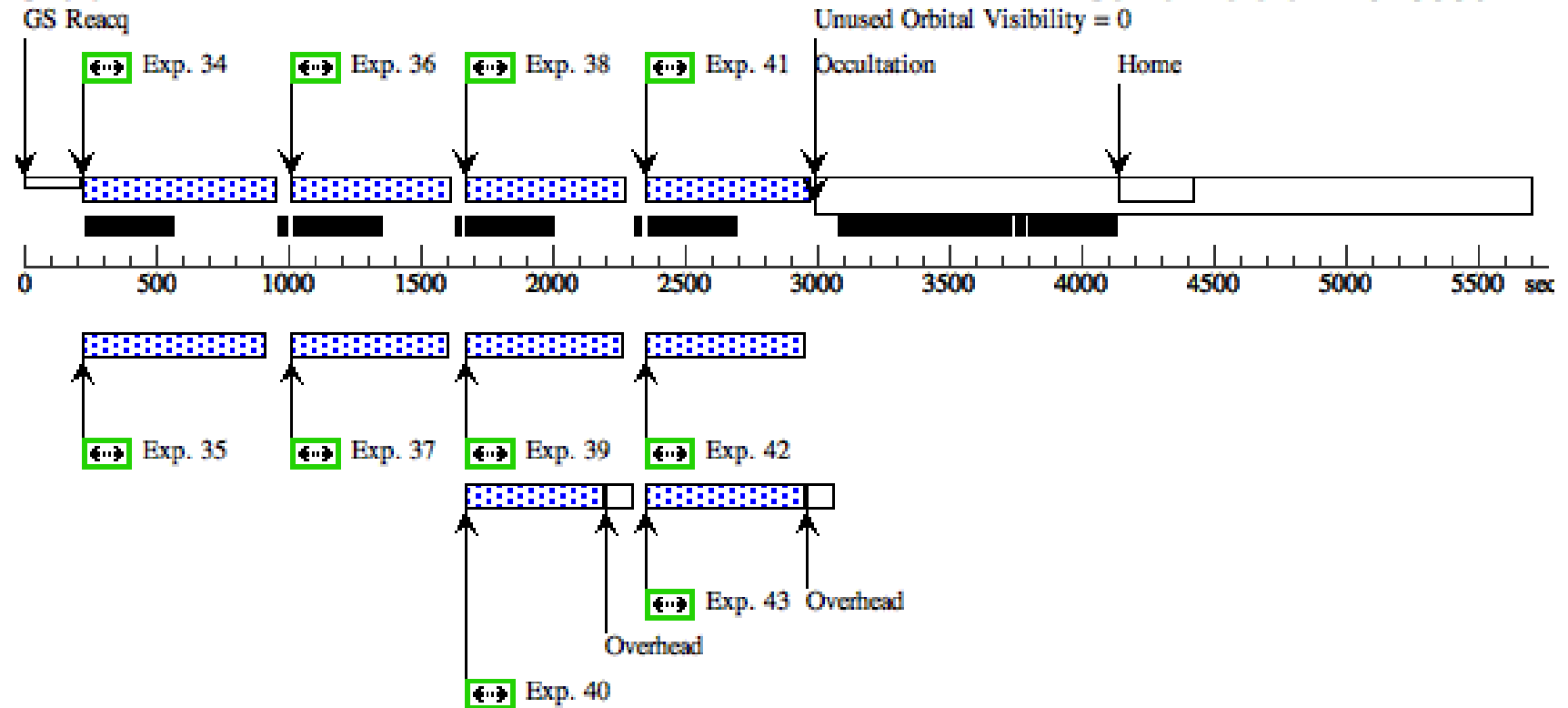
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



Proposal 14268 - Visit 15 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

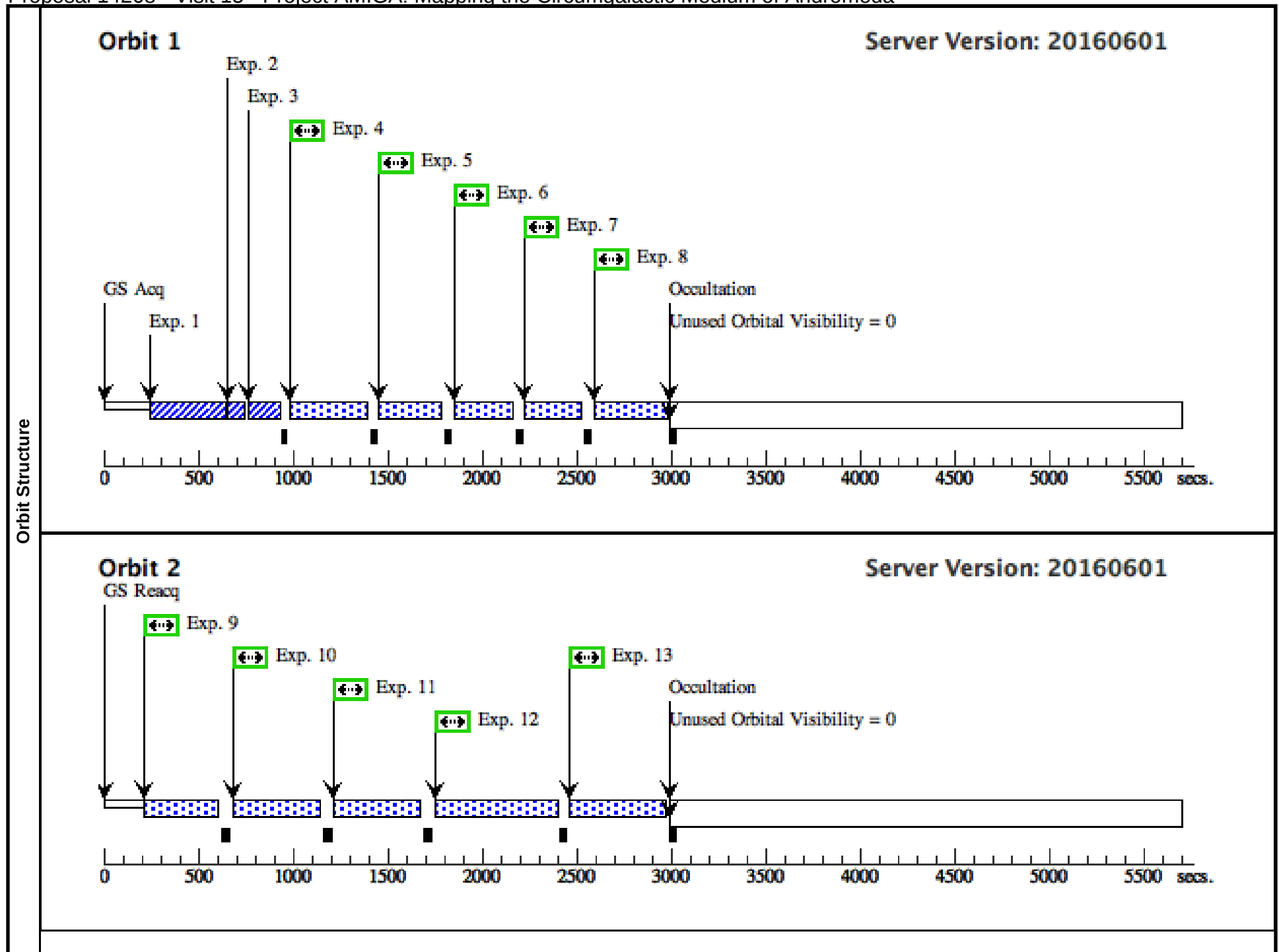
|               |                                                                                                   |            |                                 |                          |                                |                              |
|---------------|---------------------------------------------------------------------------------------------------|------------|---------------------------------|--------------------------|--------------------------------|------------------------------|
| Visit         | Proposal 14268, Visit 15, completed                                                               |            |                                 |                          |                                | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: No Diagnostics                                                                 |            |                                 |                          |                                |                              |
|               | Scientific Instruments: COS/FUV                                                                   |            |                                 |                          |                                |                              |
|               | Special Requirements: SCHED 100%                                                                  |            |                                 |                          |                                |                              |
| Fixed Targets | #                                                                                                 | Name       | Target Coordinates              | Targ. Coord. Corrections | Fluxes                         | Miscellaneous                |
|               | (12)                                                                                              | PG0052+251 | RA: 00 54 52.1309 (13.7172121d) |                          | V=15.42                        | Reference Frame: ICRS        |
|               |                                                                                                   |            | Dec: +25 25 38.94 (25.42748d)   |                          | GALEX FUV = 15.92; (F=2.0e-14, |                              |
|               |                                                                                                   |            | Equinox: J2000                  |                          | IUE)                           |                              |
|               | Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. |            |                                 |                          |                                |                              |
|               | Extended=NO                                                                                       |            |                                 |                          |                                |                              |

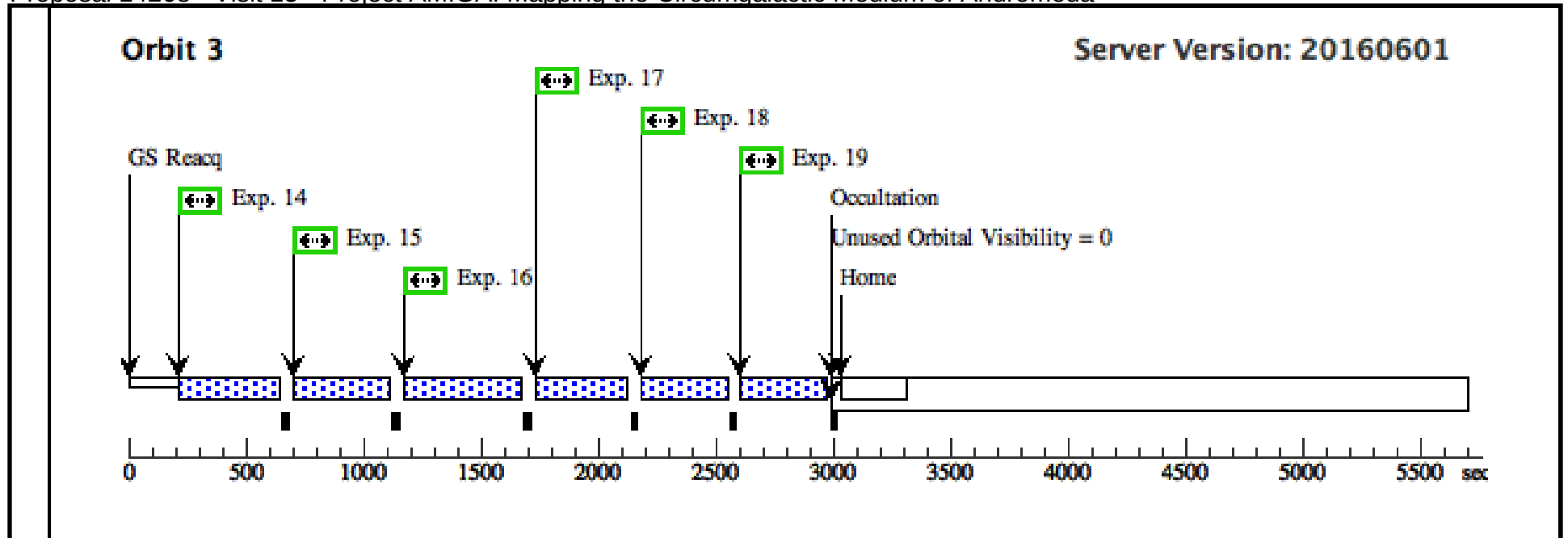
# Proposal 14268 - Visit 15 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run)              | Target | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------------------|--------|--------------------------|-----------------|---------------------------------------------------------|---------------|--------|---------------------------------|-------|
|           | 1  | (COS.sa.731 12) PG0052+251 178) |        | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |        | 3.1 Secs (3.1 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 12) PG0052+251 179) |        | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |        | 1.2 Secs (1.2 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 12) PG0052+251 178) |        | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |        | 3.1 Secs (3.1 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.727 12) PG0052+251 612) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=1;<br>FLASH=YES         |               |        | 295 Secs (295 Secs)<br>[==>]    | [1]   |
|           | 5  | (COS.sp.727 12) PG0052+251 612) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=2;<br>FLASH=YES         |               |        | 280 Secs (280 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727 12) PG0052+251 612) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=3;<br>FLASH=YES         |               |        | 260 Secs (260 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.727 12) PG0052+251 612) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=15<br>43;<br>FP-POS=4;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 8  | (COS.sp.727 12) PG0052+251 608) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=1;<br>FLASH=YES         |               |        | 250 Secs (250 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 12) PG0052+251 608) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=2;<br>FLASH=YES         |               |        | 342 Secs (342 Secs)<br>[==>]    | [2]   |
|           | 10 | (COS.sp.716 12) PG0052+251 683) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=3;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 11 | (COS.sp.727 12) PG0052+251 608) |        | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=15<br>13;<br>FP-POS=4;<br>FLASH=YES         |               |        | 410 Secs (410 Secs)<br>[==>]    | [2]   |
|           | 12 | (COS.sp.727 12) PG0052+251 613) |        | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=1;<br>FLASH=YES         |               |        | 470 Secs (470 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 15 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|  |    |                                  |                        |                 |                                                 |                              |     |
|--|----|----------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------|-----|
|  | 13 | (COS.sp.727 (12) PG0052+251 613) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=2;<br>FLASH=YES | 461 Secs (461 Secs)<br>[==>] | [2] |
|  | 14 | (COS.sp.727 (12) PG0052+251 613) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=3;<br>FLASH=YES | 373 Secs (373 Secs)<br>[==>] | [3] |
|  | 15 | (COS.sp.727 (12) PG0052+251 613) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=27<br>71;<br>FP-POS=4;<br>FLASH=YES | 355 Secs (355 Secs)<br>[==>] | [3] |
|  | 16 | (COS.sp.727 (12) PG0052+251 615) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=1;<br>FLASH=YES | 365 Secs (365 Secs)<br>[==>] | [3] |
|  | 17 | (COS.sp.727 (12) PG0052+251 615) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=2;<br>FLASH=YES | 340 Secs (340 Secs)<br>[==>] | [3] |
|  | 18 | (COS.sp.727 (12) PG0052+251 615) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=3;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |
|  | 19 | (COS.sp.727 (12) PG0052+251 615) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=30<br>63;<br>FP-POS=4;<br>FLASH=YES | 320 Secs (320 Secs)<br>[==>] | [3] |





# Proposal 14268 - Visit 16 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

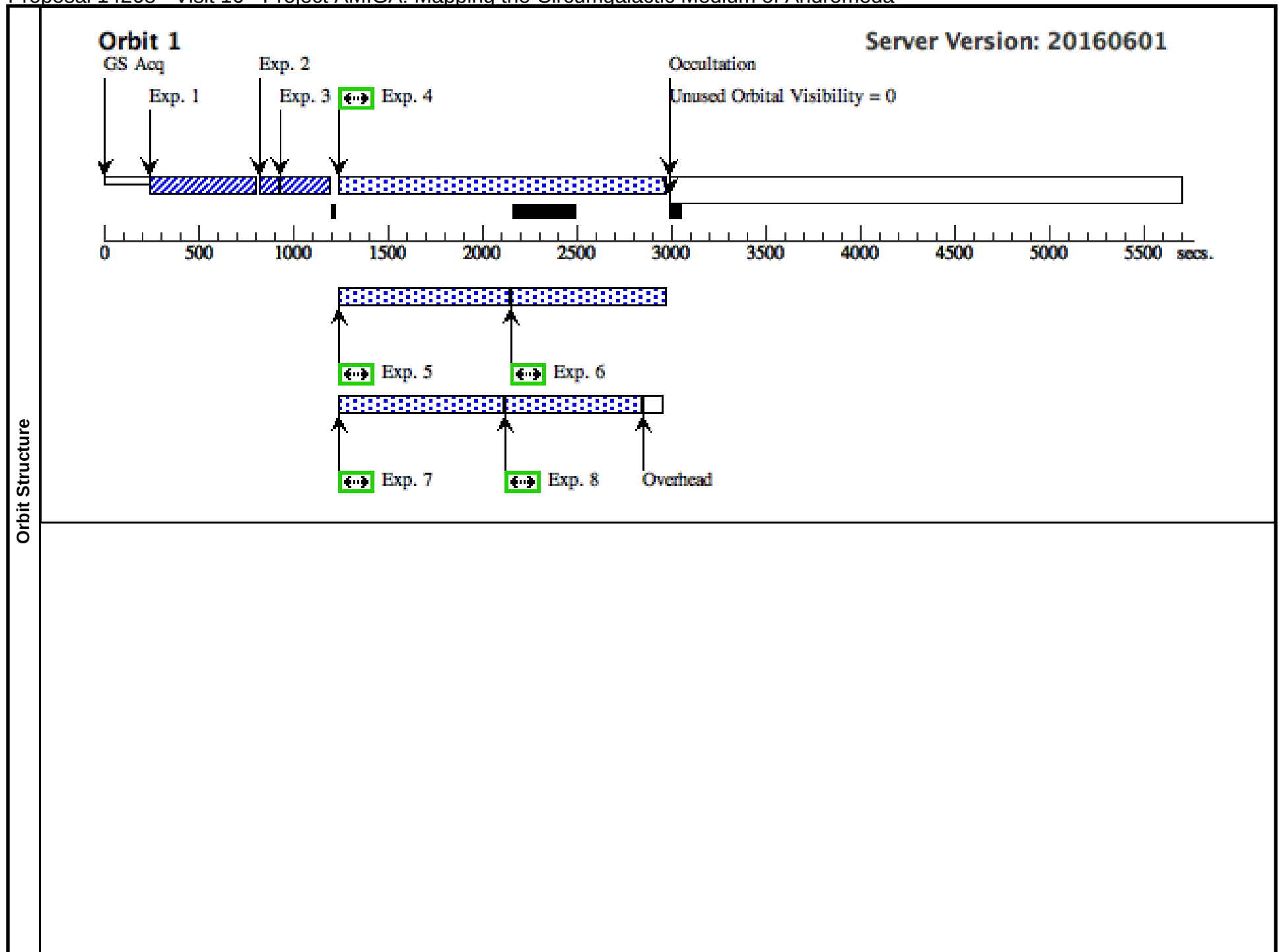
|                                                                                                                  |                                                                                                                                     |                                                             |                                                                                    |                          |                              |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                                                                                                            | Proposal 14268, Visit 16, completed <span>Wed Sep 07 21:22:57 GMT 2016</span>                                                       |                                                             |                                                                                    |                          |                              |
|                                                                                                                  | <b>Diagnostic Status: No Diagnostics</b><br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |                                                             |                                                                                    |                          |                              |
| Fixed Targets                                                                                                    | #                                                                                                                                   | Name                                                        | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       |
|                                                                                                                  | (13)                                                                                                                                | RXSJ0155.6+3115<br>Alt Name1:<br>2MASSJ01553602+3115<br>179 | RA: 01 55 36.0280 (28.9001167d)<br>Dec: +31 15 17.96 (31.25499d)<br>Equinox: J2000 |                          | V=17.30<br>GALEX FUV = 17.90 |
| Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.<br>Extended=NO |                                                                                                                                     |                                                             |                                                                                    |                          |                              |

# Proposal 14268 - Visit 16 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run)  | Target                   | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|--------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731<br>181) | (13) RXSJ0155.6+31<br>15 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 21.4 Secs (21.4 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731<br>180) | (13) RXSJ0155.6+31<br>15 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 8.4 Secs (8.4 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731<br>181) | (13) RXSJ0155.6+31<br>15 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 21.4 Secs (21.4 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.718<br>677) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=33<br>69;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-8 in Visit 16   | 1615 Secs (1615 Secs)<br>[==>]  | [1]   |
|           | 5  |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 16   | 695 Secs (695 Secs)<br>[==>]    | [1]   |
|           | 6  |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 16   | 695 Secs (695 Secs)<br>[==>]    | [1]   |
|           | 7  |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 16   | 720 Secs (720 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 16   | 720 Secs (720 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.718<br>677) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=33<br>69;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 16  | 1320 Secs (1320 Secs)<br>[==>]  | [2]   |
|           | 10 |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 16  | 1190 Secs (1190 Secs)<br>[==>]  | [2]   |
|           | 11 |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 16  | 1150 Secs (1150 Secs)<br>[==>]  | [2]   |
|           | 12 | (COS.sp.718<br>677) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=33<br>69;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-14 in Visit 16 | 1250 Secs (1250 Secs)<br>[==>]  | [2]   |
|           | 13 |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 16 | 1170 Secs (1170 Secs)<br>[==>]  | [2]   |
|           | 14 |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 16 | 1140 Secs (1140 Secs)<br>[==>]  | [2]   |
|           | 15 | (COS.sp.718<br>677) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=33<br>69;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 15-17 in Visit 16 | 1297 Secs (1297 Secs)<br>[==>]  | [3]   |
|           | 16 |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 15-17 in Visit 16 | 1207 Secs (1207 Secs)<br>[==>]  | [3]   |
|           | 17 |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 15-17 in Visit 16 | 1167 Secs (1167 Secs)<br>[==>]  | [3]   |

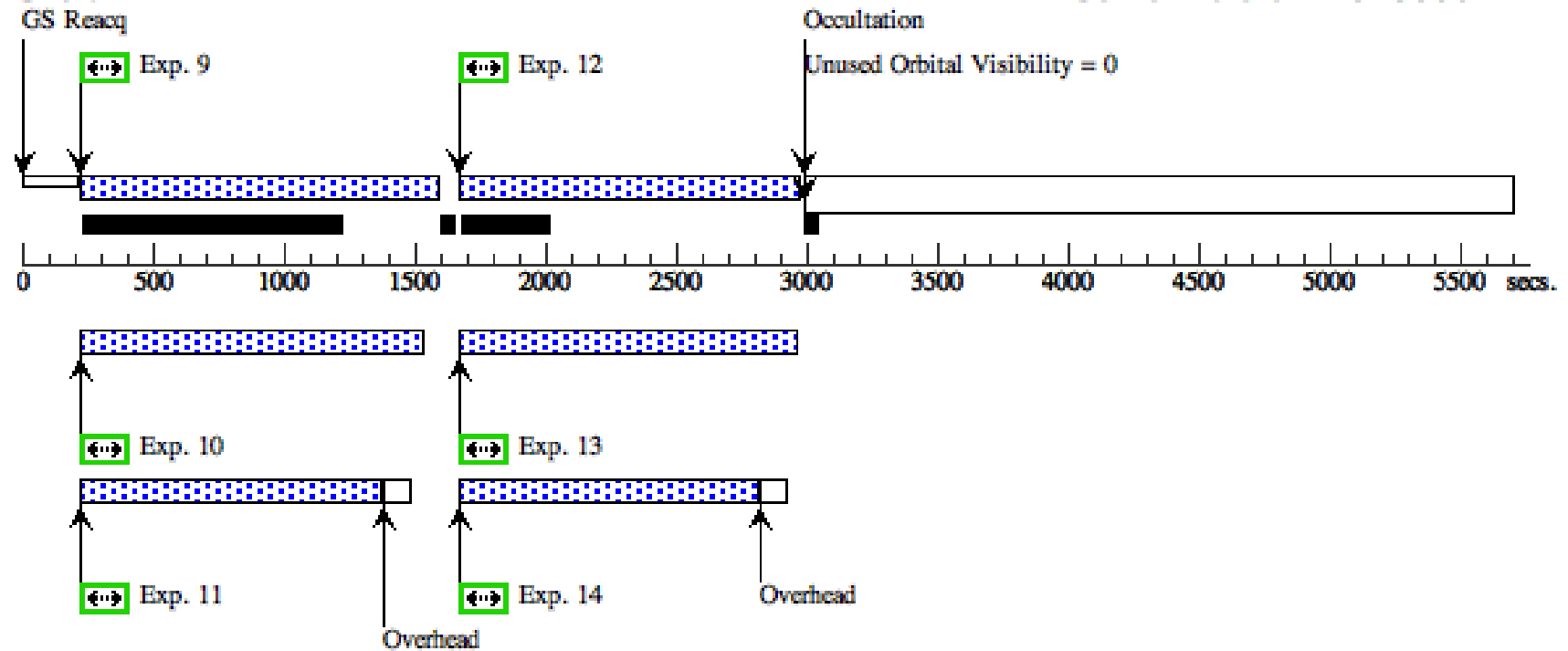
# Proposal 14268 - Visit 16 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                     |                          |                        |                 |                                                 |                                              |                                |     |
|----|---------------------|--------------------------|------------------------|-----------------|-------------------------------------------------|----------------------------------------------|--------------------------------|-----|
| 18 | (COS.sp.718<br>678) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=33<br>24;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Gro<br>up 18-20 in Visit 16 | 1190 Secs (1190 Secs)<br>[==>] | [3] |
| 19 | ANY                 | ACS/WFC, ACCUM, WFC      | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 16 | 1170 Secs (1170 Secs)<br>[==>] | [3] |
| 20 | ANY                 | WFC3/UVIS, ACCUM, UVIS   | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 16 | 1140 Secs (1140 Secs)<br>[==>] | [3] |
| 21 | (COS.sp.718<br>678) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=33<br>24;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 21-23 in Visit 16 | 1320 Secs (1320 Secs)<br>[==>] | [4] |
| 22 | ANY                 | ACS/WFC, ACCUM, WFC      | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 16 | 1200 Secs (1200 Secs)<br>[==>] | [4] |
| 23 | ANY                 | WFC3/UVIS, ACCUM, UVIS   | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 16 | 1160 Secs (1160 Secs)<br>[==>] | [4] |
| 24 | (COS.sp.718<br>678) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=33<br>24;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 24-26 in Visit 16 | 1250 Secs (1250 Secs)<br>[==>] | [4] |
| 25 | ANY                 | ACS/WFC, ACCUM, WFC      | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 24-26 in Visit 16 | 1170 Secs (1170 Secs)<br>[==>] | [4] |
| 26 | ANY                 | WFC3/UVIS, ACCUM, UVIS   | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 24-26 in Visit 16 | 1140 Secs (1140 Secs)<br>[==>] | [4] |
| 27 | (COS.sp.718<br>678) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=33<br>24;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 27-31 in Visit 16 | 2704 Secs (2704 Secs)<br>[==>] | [5] |
| 28 | ANY                 | ACS/WFC, ACCUM, WFC      | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 16 | 1245 Secs (1245 Secs)<br>[==>] | [5] |
| 29 | ANY                 | ACS/WFC, ACCUM, WFC      | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 16 | 1245 Secs (1245 Secs)<br>[==>] | [5] |
| 30 | ANY                 | WFC3/UVIS, ACCUM, UVIS   | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 16 | 1258 Secs (1258 Secs)<br>[==>] | [5] |
| 31 | ANY                 | WFC3/UVIS, ACCUM, UVIS   | F606W                  |                 |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 16 | 1258 Secs (1258 Secs)<br>[==>] | [5] |



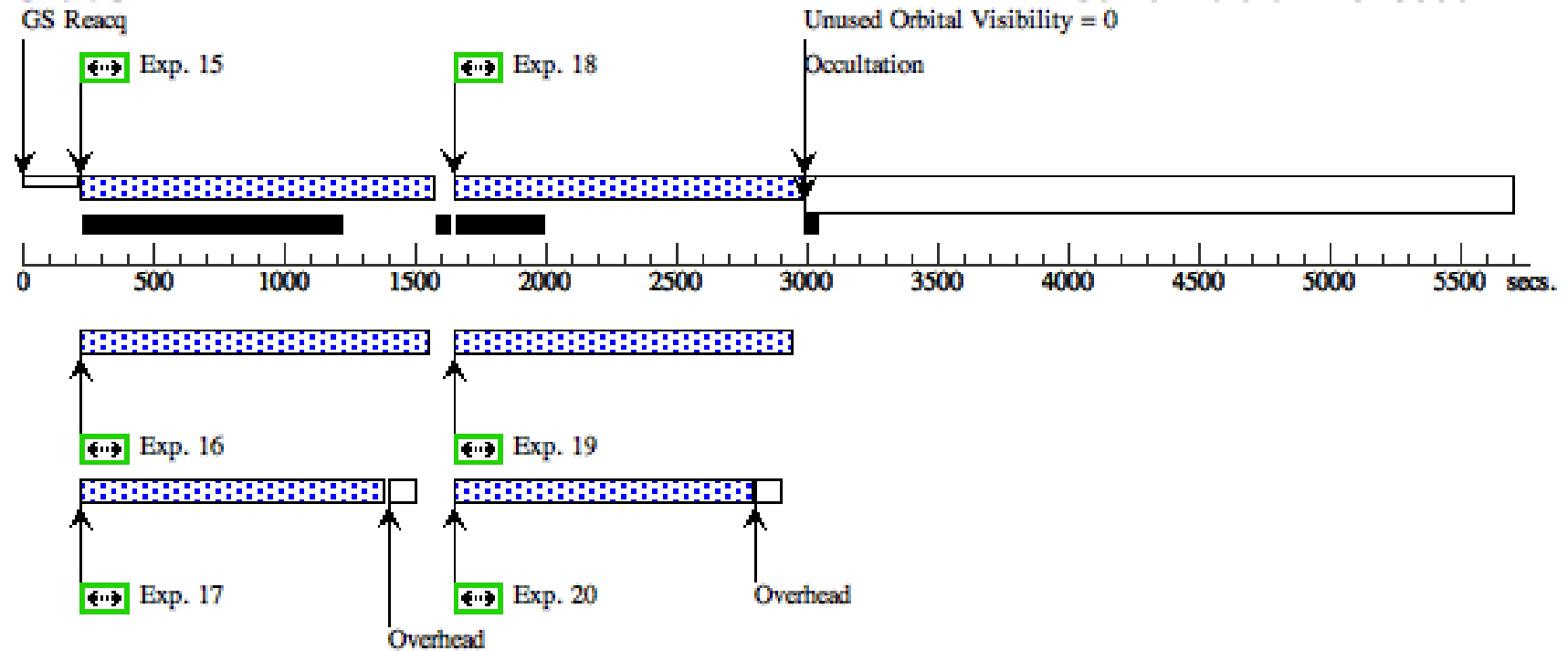
## Orbit 2

Server Version: 20160601



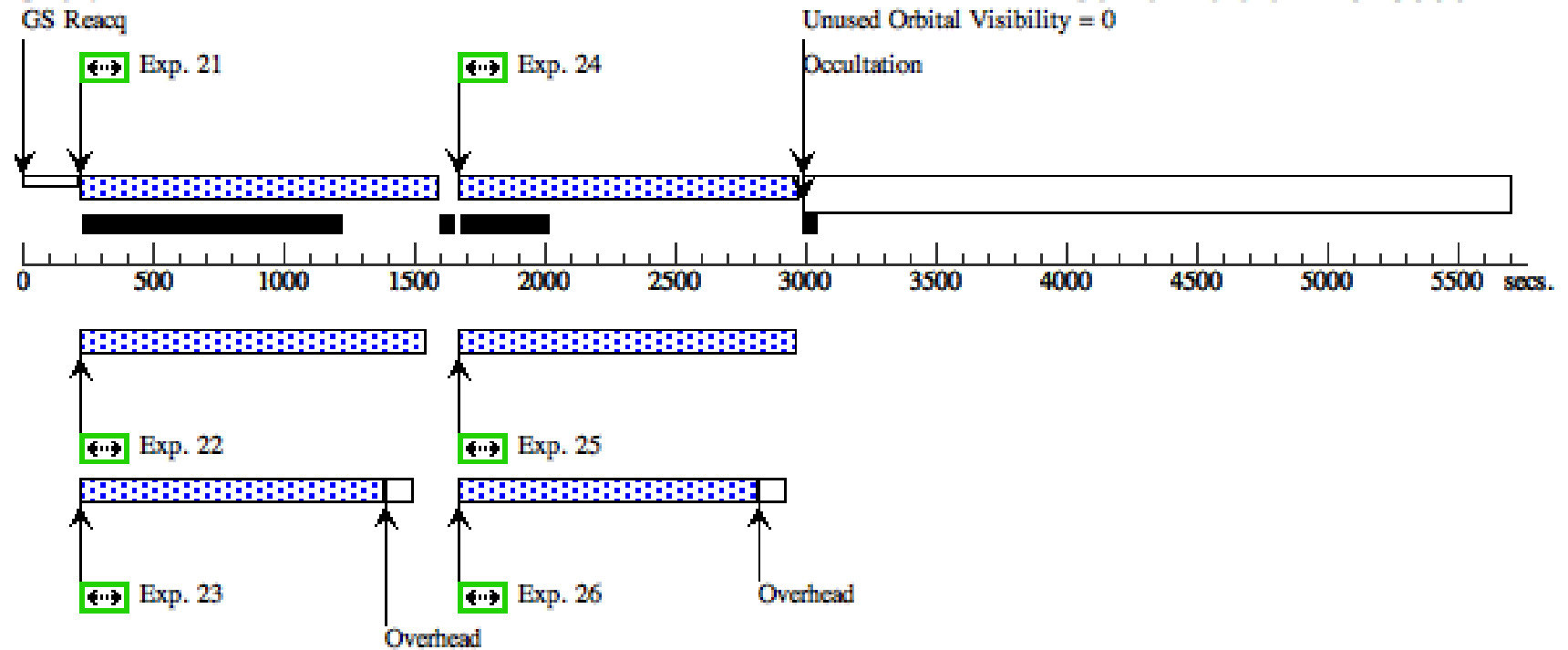
### Orbit 3

Server Version: 20160601



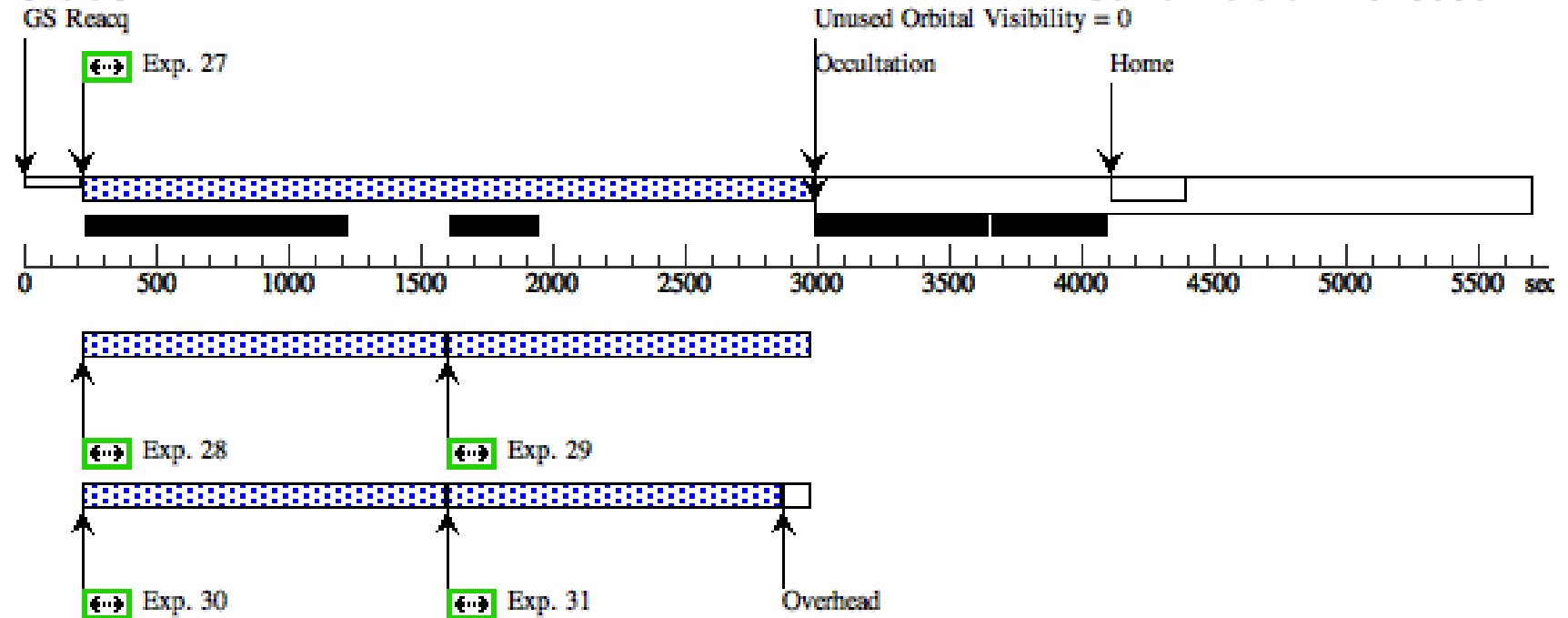
# Orbit 4

Server Version: 20160601



## Orbit 5

Server Version: 20160601



Proposal 14268 - Visit 17 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

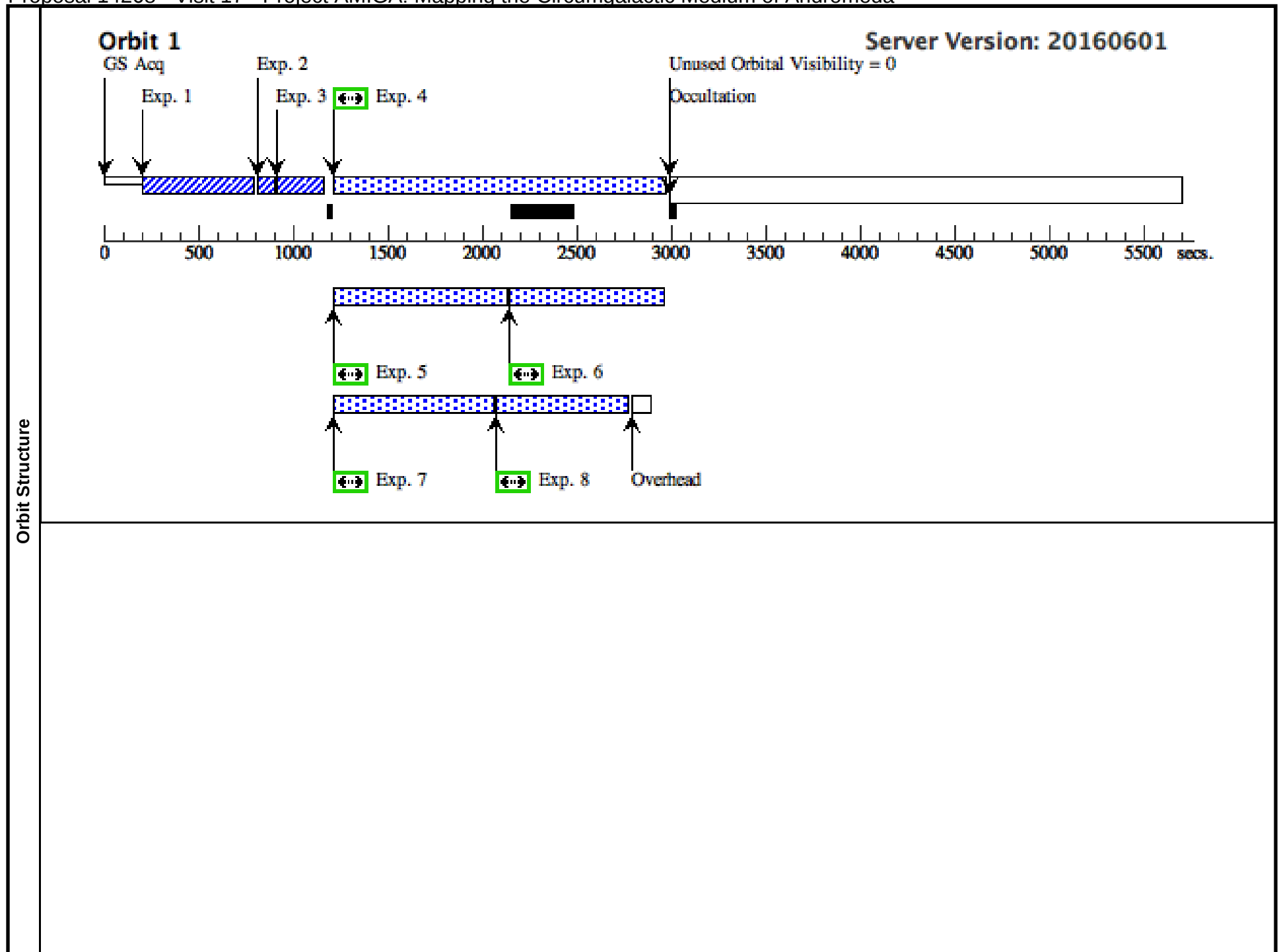
|                                                                                                                  |                                                                                                                              |                                                             |                                                                                    |                          |                              |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                                                                                                            | Proposal 14268, Visit 17, completed <span>Wed Sep 07 21:22:57 GMT 2016</span>                                                |                                                             |                                                                                    |                          |                              |
|                                                                                                                  | Diagnostic Status: No Diagnostics<br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |                                                             |                                                                                    |                          |                              |
| Fixed Targets                                                                                                    | #                                                                                                                            | Name                                                        | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       |
|                                                                                                                  | (13)                                                                                                                         | RXSJ0155.6+3115<br>Alt Name1:<br>2MASSJ01553602+3115<br>179 | RA: 01 55 36.0280 (28.9001167d)<br>Dec: +31 15 17.96 (31.25499d)<br>Equinox: J2000 |                          | V=17.30<br>GALEX FUV = 17.90 |
| Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.<br>Extended=NO |                                                                                                                              |                                                             |                                                                                    |                          |                              |

# Proposal 14268 - Visit 17 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run)  | Target                   | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|--------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731<br>182) | (13) RXSJ0155.6+31<br>15 | COS/FUV, ACQ/SEARCH, PSA | G160M<br>1589 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 20.2 Secs (20.2 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731<br>183) | (13) RXSJ0155.6+31<br>15 | COS/FUV, ACQ/PEAKXD, PSA | G160M<br>1589 A | SEGMENT=BOTH                                            |               |                                              | 7.9 Secs (7.9 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731<br>182) | (13) RXSJ0155.6+31<br>15 | COS/FUV, ACQ/PEAKD, PSA  | G160M<br>1589 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 20.2 Secs (20.2 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.718<br>679) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=77<br>47;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-8 in Visit 17   | 1641 Secs (1641 Secs)<br>[==>]  | [1]   |
|           | 5  |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 17   | 710 Secs (710 Secs)<br>[==>]    | [1]   |
|           | 6  |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 17   | 700 Secs (700 Secs)<br>[==>]    | [1]   |
|           | 7  |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 17   | 700 Secs (700 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-8 in Visit 17   | 700 Secs (700 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.718<br>679) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=75<br>03;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 17  | 1304 Secs (1304 Secs)<br>[==>]  | [2]   |
|           | 10 |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 17  | 1130 Secs (1130 Secs)<br>[==>]  | [2]   |
|           | 11 |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 17  | 1230 Secs (1230 Secs)<br>[==>]  | [2]   |
|           | 12 | (COS.sp.718<br>679) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=77<br>47;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-14 in Visit 17 | 1250 Secs (1250 Secs)<br>[==>]  | [2]   |
|           | 13 |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 17 | 1204 Secs (1204 Secs)<br>[==>]  | [2]   |
|           | 14 |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 17 | 1225 Secs (1225 Secs)<br>[==>]  | [2]   |
|           | 15 | (COS.sp.718<br>679) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=77<br>47;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 15-17 in Visit 17 | 1318 Secs (1318 Secs)<br>[==>]  | [3]   |
|           | 16 |                     | ANY                      | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Gro<br>up 15-17 in Visit 17 | 1200 Secs (1200 Secs)<br>[==>]  | [3]   |
|           | 17 |                     | ANY                      | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Gro<br>up 15-17 in Visit 17 | 1225 Secs (1225 Secs)<br>[==>]  | [3]   |

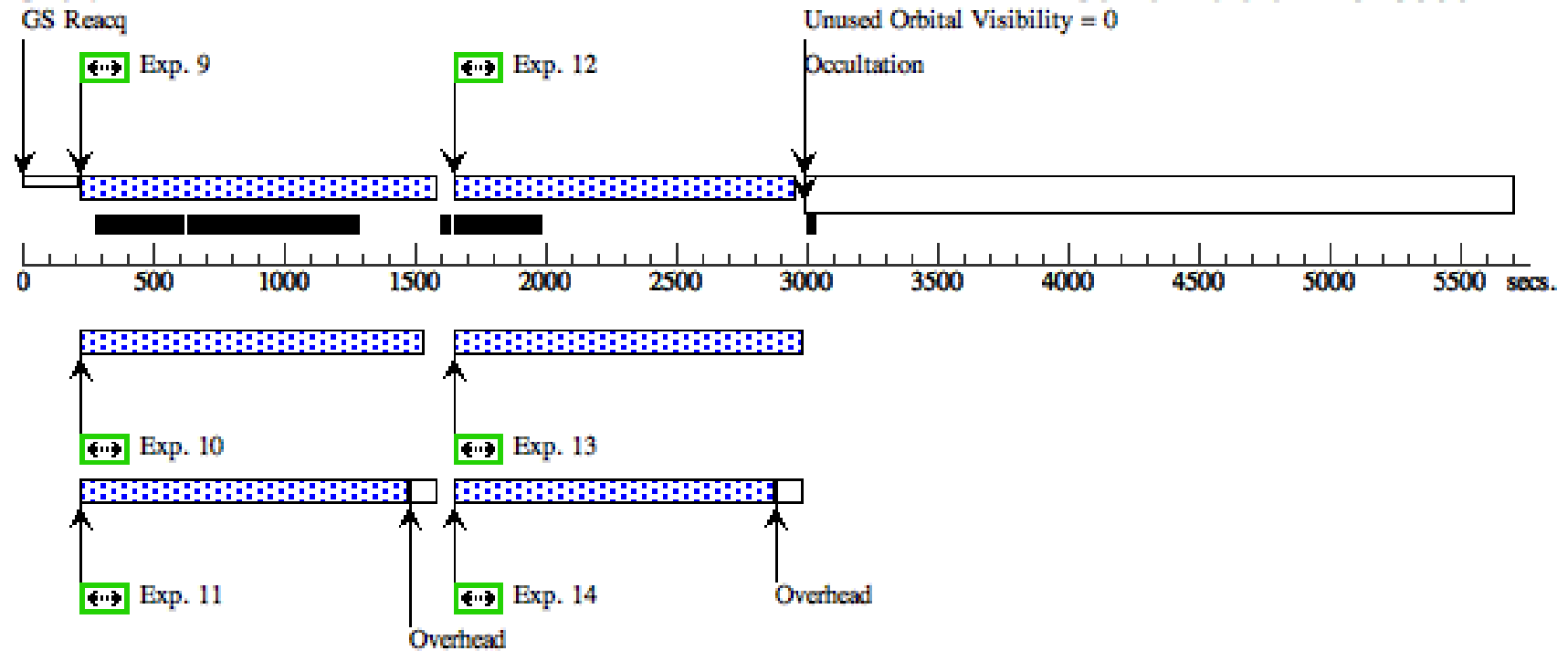
# Proposal 14268 - Visit 17 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                     |                          |                        |                 |                                                 |                                              |                                |     |
|----|---------------------|--------------------------|------------------------|-----------------|-------------------------------------------------|----------------------------------------------|--------------------------------|-----|
| 18 | (COS.sp.718<br>680) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=80<br>91;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Gro<br>up 18-20 in Visit 17 | 1190 Secs (1190 Secs)<br>[==>] | [3] |
| 19 | ANY                 |                          | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 17 | 1200 Secs (1200 Secs)<br>[==>] | [3] |
| 20 | ANY                 |                          | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 17 | 1250 Secs (1250 Secs)<br>[==>] | [3] |
| 21 | (COS.sp.718<br>680) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=80<br>91;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 21-23 in Visit 17 | 1300 Secs (1300 Secs)<br>[==>] | [4] |
| 22 | ANY                 |                          | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 17 | 1170 Secs (1170 Secs)<br>[==>] | [4] |
| 23 | ANY                 |                          | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 17 | 1200 Secs (1200 Secs)<br>[==>] | [4] |
| 24 | (COS.sp.718<br>680) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=80<br>91;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 24-26 in Visit 17 | 1289 Secs (1289 Secs)<br>[==>] | [4] |
| 25 | ANY                 |                          | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 24-26 in Visit 17 | 1200 Secs (1200 Secs)<br>[==>] | [4] |
| 26 | ANY                 |                          | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 24-26 in Visit 17 | 1250 Secs (1250 Secs)<br>[==>] | [4] |
| 27 | (COS.sp.718<br>680) | (13) RXSJ0155.6+31<br>15 | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=80<br>91;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 27-31 in Visit 17 | 2704 Secs (2704 Secs)<br>[==>] | [5] |
| 28 | ANY                 |                          | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 17 | 1225 Secs (1225 Secs)<br>[==>] | [5] |
| 29 | ANY                 |                          | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 17 | 1225 Secs (1225 Secs)<br>[==>] | [5] |
| 30 | ANY                 |                          | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 17 | 1250 Secs (1250 Secs)<br>[==>] | [5] |
| 31 | ANY                 |                          | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 27-31 in Visit 17 | 1250 Secs (1250 Secs)<br>[==>] | [5] |



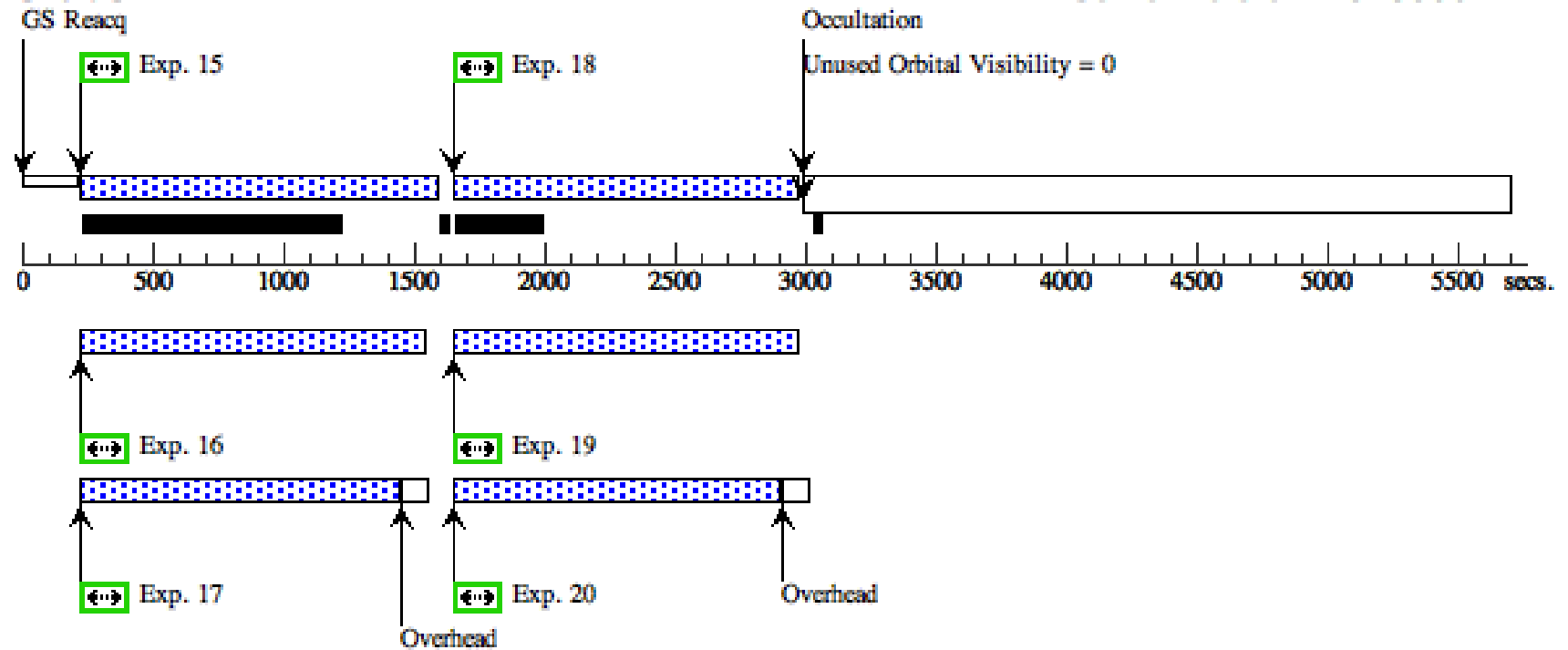
## Orbit 2

Server Version: 20160601



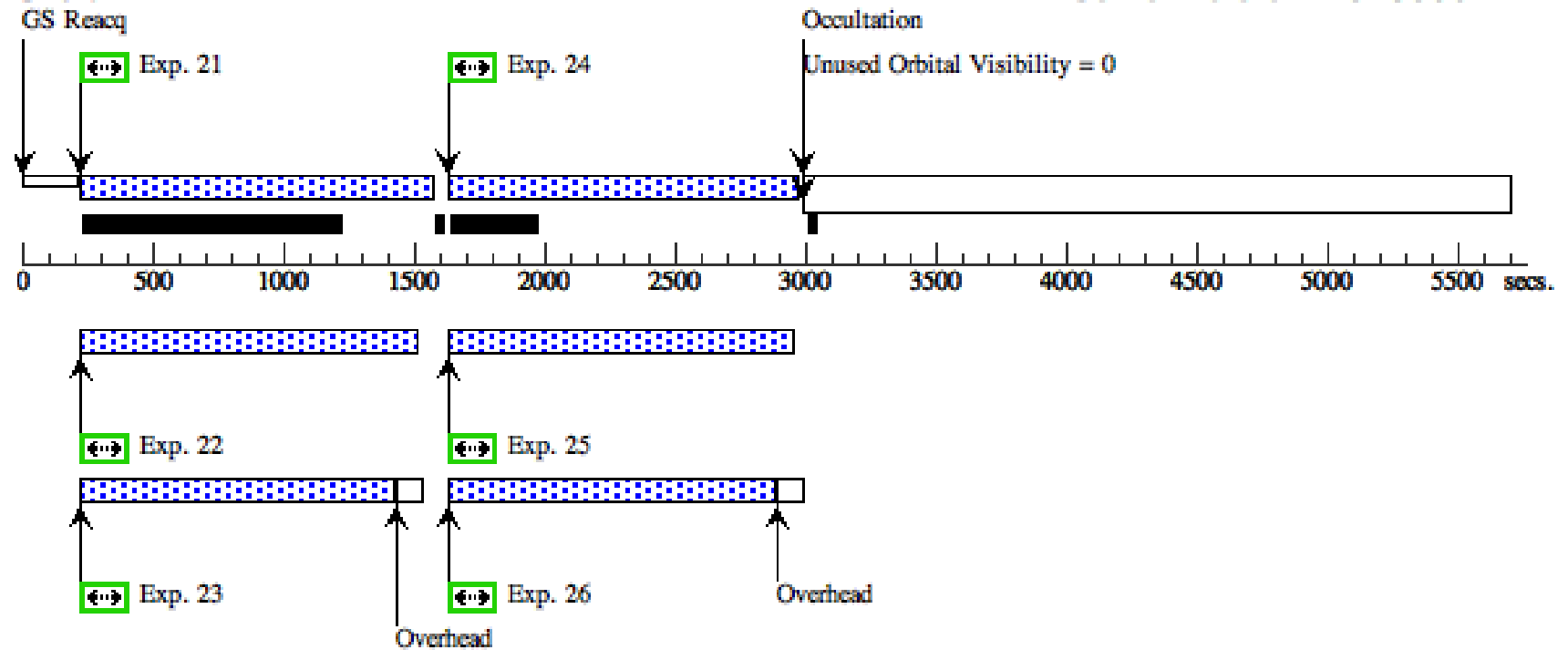
### Orbit 3

Server Version: 20160601



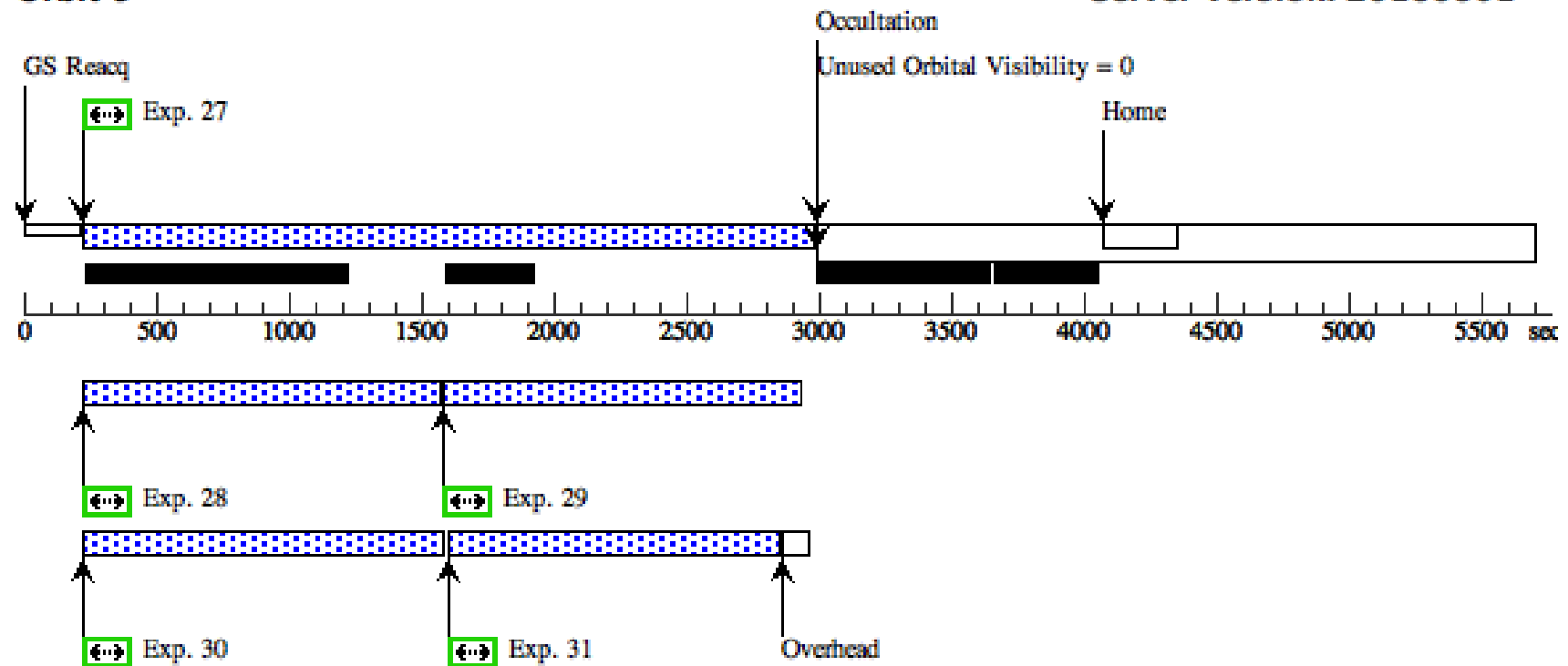
# Orbit 4

Server Version: 20160601



## Orbit 5

Server Version: 20160601



# Proposal 14268 - Visit 18 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

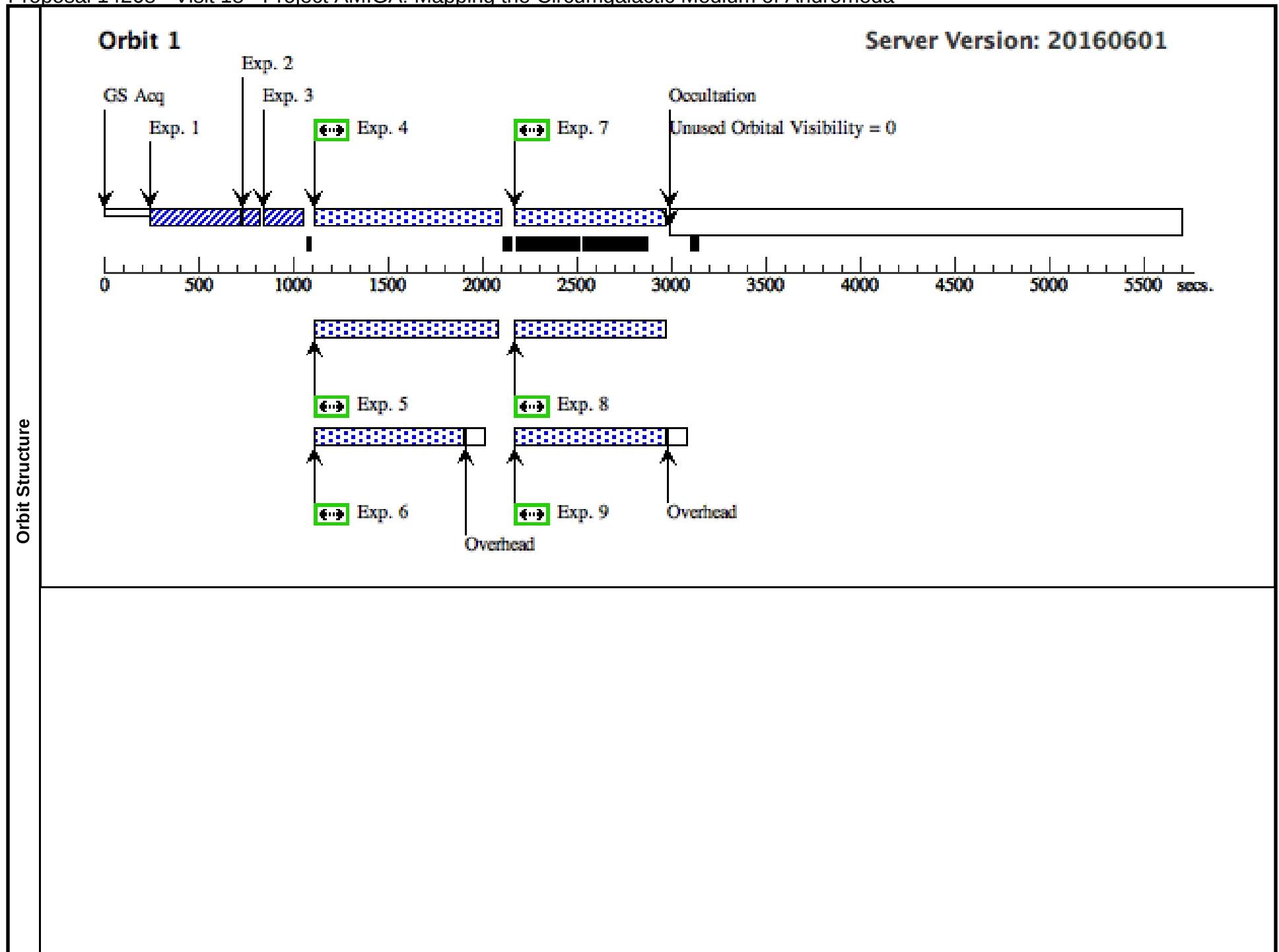
|               |                                                                                                                                                                        |         |                                  |                          |                   |                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------------|--------------------------|-------------------|------------------------------|
| Visit         | Proposal 14268, Visit 18, completed                                                                                                                                    |         |                                  |                          |                   | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                             |         |                                  |                          |                   |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                    |         |                                  |                          |                   |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                       |         |                                  |                          |                   |                              |
| Diagnos       | (Visit 18) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting. |         |                                  |                          |                   |                              |
| Fixed Targets | #                                                                                                                                                                      | Name    | Target Coordinates               | Targ. Coord. Corrections | Fluxes            | Miscellaneous                |
|               | (14)                                                                                                                                                                   | RBS2055 | RA: 23 51 52.7710 (357.9698792d) |                          | V=16.60           | Reference Frame: ICRS        |
|               |                                                                                                                                                                        |         | Dec: +26 19 32.58 (26.32572d)    |                          | GALEX FUV = 17.34 |                              |
|               |                                                                                                                                                                        |         | Equinox: J2000                   |                          |                   |                              |
|               | Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.                                                                      |         |                                  |                          |                   |                              |
|               | Extended=NO                                                                                                                                                            |         |                                  |                          |                   |                              |

# Proposal 14268 - Visit 18 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target       | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|--------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 185)   | (14) RBS2055 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 12.1 Secs (12.1 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731 186)   | (14) RBS2055 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                          | 4.8 Secs (4.8 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 185)   | (14) RBS2055 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 12.1 Secs (12.1 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.727 793)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=29<br>25;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 4-6 in Visit 18   | 875 Secs (875 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-6 in Visit 18   | 765 Secs (765 Secs)<br>[==>]    | [1]   |
|           | 6  |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 4-6 in Visit 18   | 765 Secs (765 Secs)<br>[==>]    | [1]   |
|           | 7  | (COS.sp.727 793)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=29<br>25;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 7-9 in Visit 18   | 750 Secs (750 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 7-9 in Visit 18   | 675 Secs (675 Secs)<br>[==>]    | [1]   |
|           | 9  |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 7-9 in Visit 18   | 800 Secs (800 Secs)<br>[==>]    | [1]   |
|           | 10 | (COS.sp.727 793)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=29<br>25;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 10-12 in Visit 18 | 872 Secs (872 Secs)<br>[==>]    | [2]   |
|           | 11 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 10-12 in Visit 18 | 690 Secs (690 Secs)<br>[==>]    | [2]   |
|           | 12 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 10-12 in Visit 18 | 700 Secs (700 Secs)<br>[==>]    | [2]   |
|           | 13 | (COS.sp.727 793)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=29<br>25;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 13-15 in Visit 18 | 750 Secs (750 Secs)<br>[==>]    | [2]   |
|           | 14 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 13-15 in Visit 18 | 690 Secs (690 Secs)<br>[==>]    | [2]   |
|           | 15 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 13-15 in Visit 18 | 700 Secs (700 Secs)<br>[==>]    | [2]   |
|           | 16 | (COS.sp.727 794)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=28<br>82;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 16-18 in Visit 18 | 740 Secs (740 Secs)<br>[==>]    | [2]   |

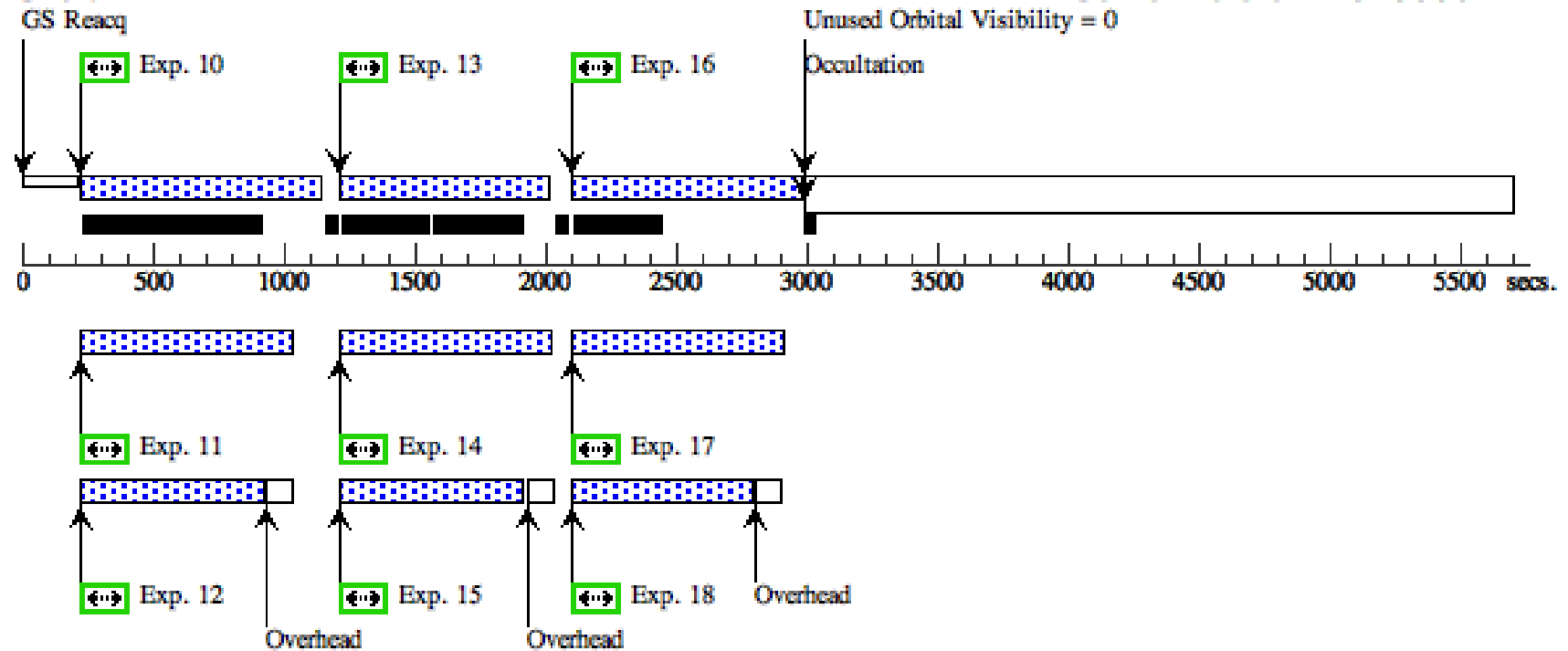
# Proposal 14268 - Visit 18 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                                 |                                          |                       |
|----|-------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|-----------------------|
| 17 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           | Prime + Parallel Group 16-18 in Visit 18        | 690 Secs (690 Secs)                      |                       |
|    |                               |                        |                 |                                                 | [==>]                                    | [2]                   |
| 18 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           | Prime + Parallel Group 16-18 in Visit 18        | 690 Secs (690 Secs)                      |                       |
|    |                               |                        |                 |                                                 | [==>]                                    | [2]                   |
| 19 | (COS.sp.727 (14) RBS2055 794) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=28<br>82;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 19-21 in Visit 18 | 1311 Secs (1311 Secs) |
|    |                               |                        |                 |                                                 |                                          | [3]                   |
| 20 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           | Prime + Parallel Group 19-21 in Visit 18        | 1180 Secs (1180 Secs)                    |                       |
|    |                               |                        |                 |                                                 | [==>]                                    | [3]                   |
| 21 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           | Prime + Parallel Group 19-21 in Visit 18        | 1140 Secs (1140 Secs)                    |                       |
|    |                               |                        |                 |                                                 | [==>]                                    | [3]                   |
| 22 | (COS.sp.727 (14) RBS2055 794) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=28<br>82;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 22-24 in Visit 18 | 1250 Secs (1250 Secs) |
|    |                               |                        |                 |                                                 |                                          | [3]                   |
| 23 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           | Prime + Parallel Group 22-24 in Visit 18        | 1170 Secs (1170 Secs)                    |                       |
|    |                               |                        |                 |                                                 | [==>]                                    | [3]                   |
| 24 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           | Prime + Parallel Group 22-24 in Visit 18        | 1140 Secs (1140 Secs)                    |                       |
|    |                               |                        |                 |                                                 | [==>]                                    | [3]                   |



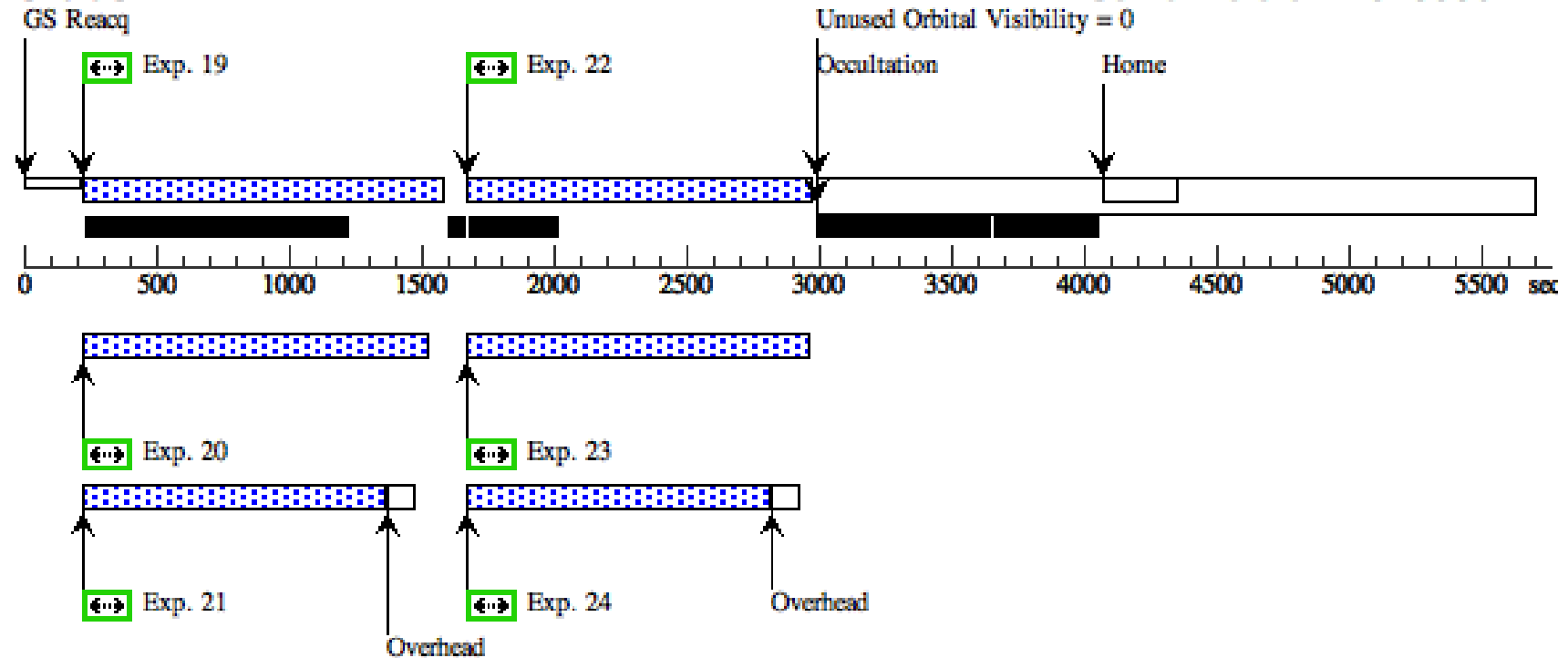
## Orbit 2

Server Version: 20160601



### Orbit 3

Server Version: 20160601



# Proposal 14268 - Visit 19 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

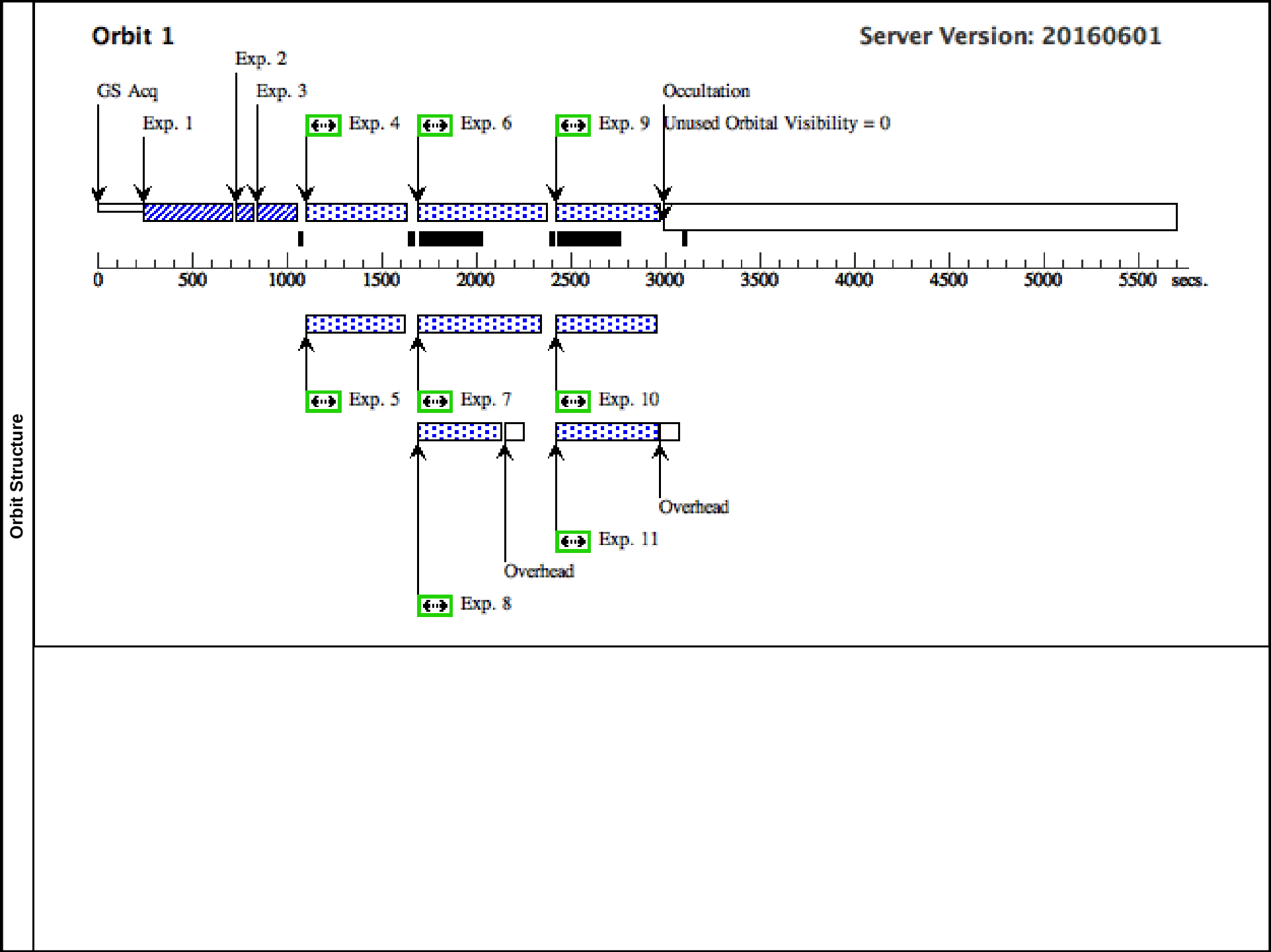
|               |                                                                                                                                                                        |         |                                  |                          |                   |                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------------|--------------------------|-------------------|------------------------------|
| Visit         | Proposal 14268, Visit 19, completed                                                                                                                                    |         |                                  |                          |                   | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                             |         |                                  |                          |                   |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                    |         |                                  |                          |                   |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                       |         |                                  |                          |                   |                              |
| Diagnostics   | (Visit 19) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting. |         |                                  |                          |                   |                              |
| Fixed Targets | #                                                                                                                                                                      | Name    | Target Coordinates               | Targ. Coord. Corrections | Fluxes            | Miscellaneous                |
|               | (14)                                                                                                                                                                   | RBS2055 | RA: 23 51 52.7710 (357.9698792d) |                          | V=16.60           | Reference Frame: ICRS        |
|               |                                                                                                                                                                        |         | Dec: +26 19 32.58 (26.32572d)    |                          | GALEX FUV = 17.34 |                              |
|               |                                                                                                                                                                        |         | Equinox: J2000                   |                          |                   |                              |
|               | Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.                                                                      |         |                                  |                          |                   |                              |
|               | Extended=NO                                                                                                                                                            |         |                                  |                          |                   |                              |

# Proposal 14268 - Visit 19 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

| Exposures | #  | Label<br>(ETC Run) | Target       | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                   | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|--------------|--------------------------|-----------------|---------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 188)   | (14) RBS2055 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1327 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                          | 11.5 Secs (11.5 Secs)<br>[==>]  | [1]   |
|           | 2  | (COS.sa.731 187)   | (14) RBS2055 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1327 A | SEGMENT=BOTH                                            |               |                                          | 4.5 Secs (4.5 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 188)   | (14) RBS2055 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1327 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                          | 11.5 Secs (11.5 Secs)<br>[==>]  | [1]   |
|           | 4  | (COS.sp.727 794)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=28<br>82;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 4-5 in Visit 19   | 479 Secs (479 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 4-5 in Visit 19   | 313 Secs (313 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.727 796)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=62<br>97;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Group 6-8 in Visit 19   | 500 Secs (500 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 19   | 530 Secs (530 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 6-8 in Visit 19   | 410 Secs (410 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.727 796)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=62<br>97;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Group 9-11 in Visit 19  | 498 Secs (498 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 19  | 408 Secs (408 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Group 9-11 in Visit 19  | 538 Secs (538 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.727 796)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=62<br>97;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Group 12-14 in Visit 19 | 1338 Secs (1338 Secs)<br>[==>]  | [2]   |
|           | 13 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 19 | 1180 Secs (1180 Secs)<br>[==>]  | [2]   |
|           | 14 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F814W           |                                                         |               | Prime + Parallel Group 12-14 in Visit 19 | 1220 Secs (1220 Secs)<br>[==>]  | [2]   |
|           | 15 | (COS.sp.727 796)   | (14) RBS2055 | COS/FUV, TIME-TAG, PSA   | G160M<br>1589 A | BUFFER-TIME=62<br>97;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Group 15-17 in Visit 19 | 1250 Secs (1250 Secs)<br>[==>]  | [2]   |
|           | 16 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F814W           |                                                         |               | Prime + Parallel Group 15-17 in Visit 19 | 1180 Secs (1180 Secs)<br>[==>]  | [2]   |

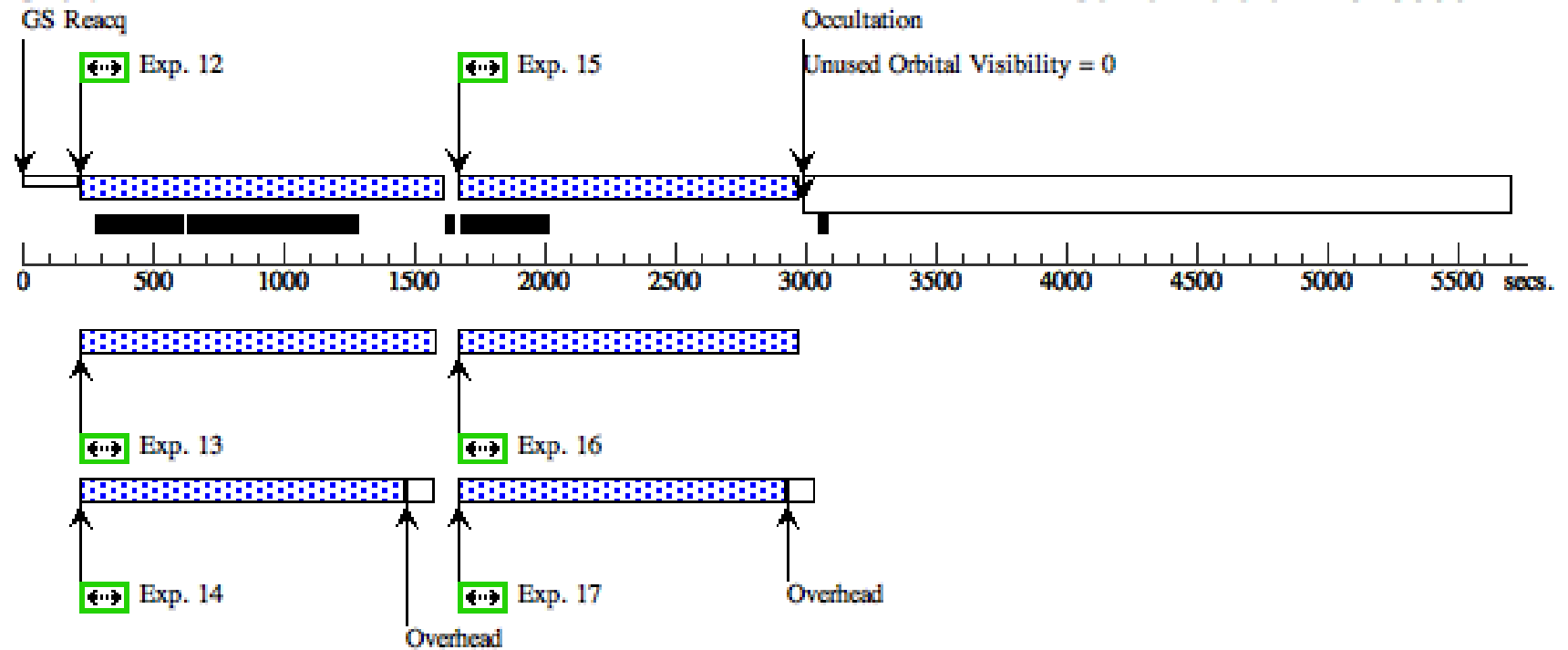
# Proposal 14268 - Visit 19 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |              |                                              |                                          |                       |     |
|----|-------------------------------|------------------------|--------------|----------------------------------------------|------------------------------------------|-----------------------|-----|
| 17 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 15-17 in Visit 19 | 1250 Secs (1250 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [2] |
| 18 | (COS.sp.727 (14) RBS2055 794) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=66 82;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 19 | 1279 Secs (1279 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [3] |
| 19 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 18-20 in Visit 19 | 1200 Secs (1200 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [3] |
| 20 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 18-20 in Visit 19 | 1250 Secs (1250 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [3] |
| 21 | (COS.sp.727 (14) RBS2055 794) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=66 82;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 19 | 1230 Secs (1230 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [3] |
| 22 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 21-23 in Visit 19 | 1160 Secs (1160 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [3] |
| 23 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 21-23 in Visit 19 | 1250 Secs (1250 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [3] |
| 24 | (COS.sp.727 (14) RBS2055 794) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=66 82;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 24-26 in Visit 19 | 1289 Secs (1289 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [4] |
| 25 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 24-26 in Visit 19 | 1180 Secs (1180 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [4] |
| 26 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 24-26 in Visit 19 | 1200 Secs (1200 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [4] |
| 27 | (COS.sp.727 (14) RBS2055 794) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=66 82;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 27-29 in Visit 19 | 1300 Secs (1300 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [4] |
| 28 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 27-29 in Visit 19 | 1200 Secs (1200 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [4] |
| 29 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 27-29 in Visit 19 | 1250 Secs (1250 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]                 | [4] |



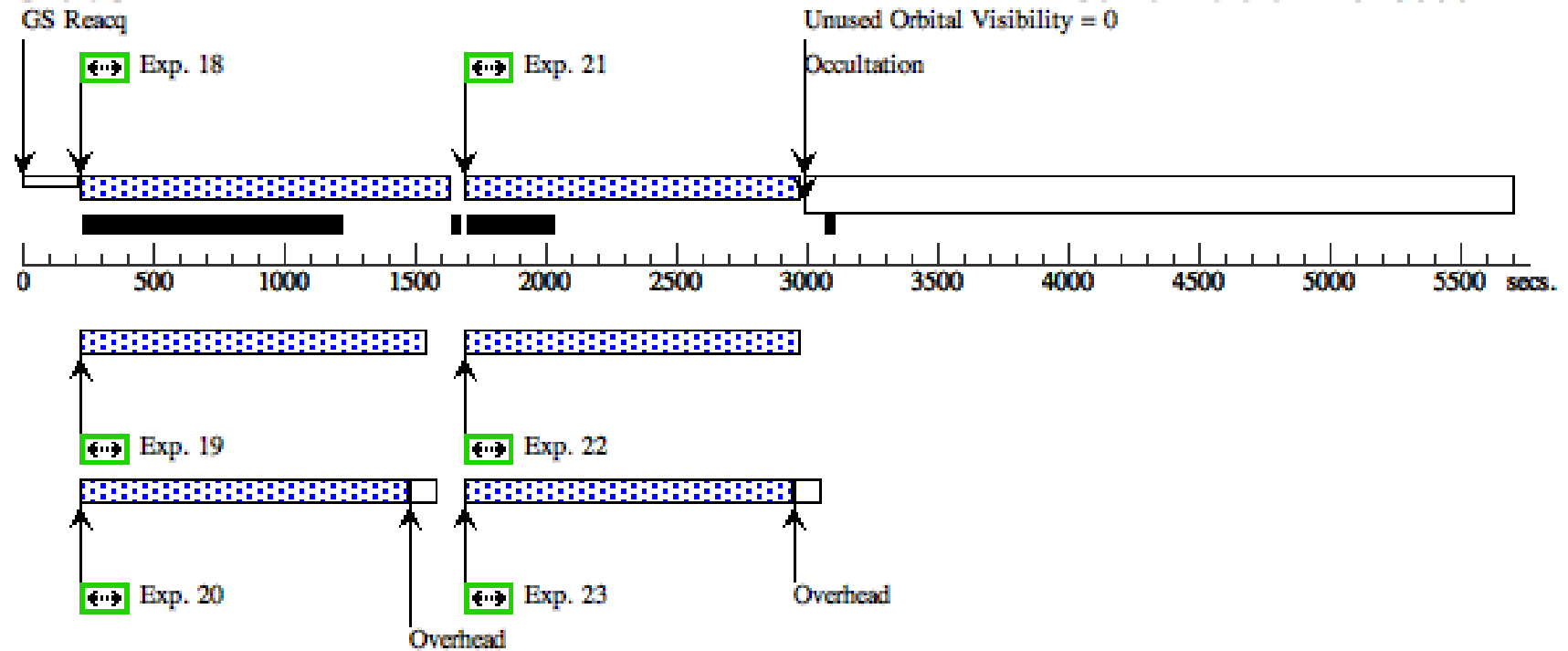
## Orbit 2

Server Version: 20160601



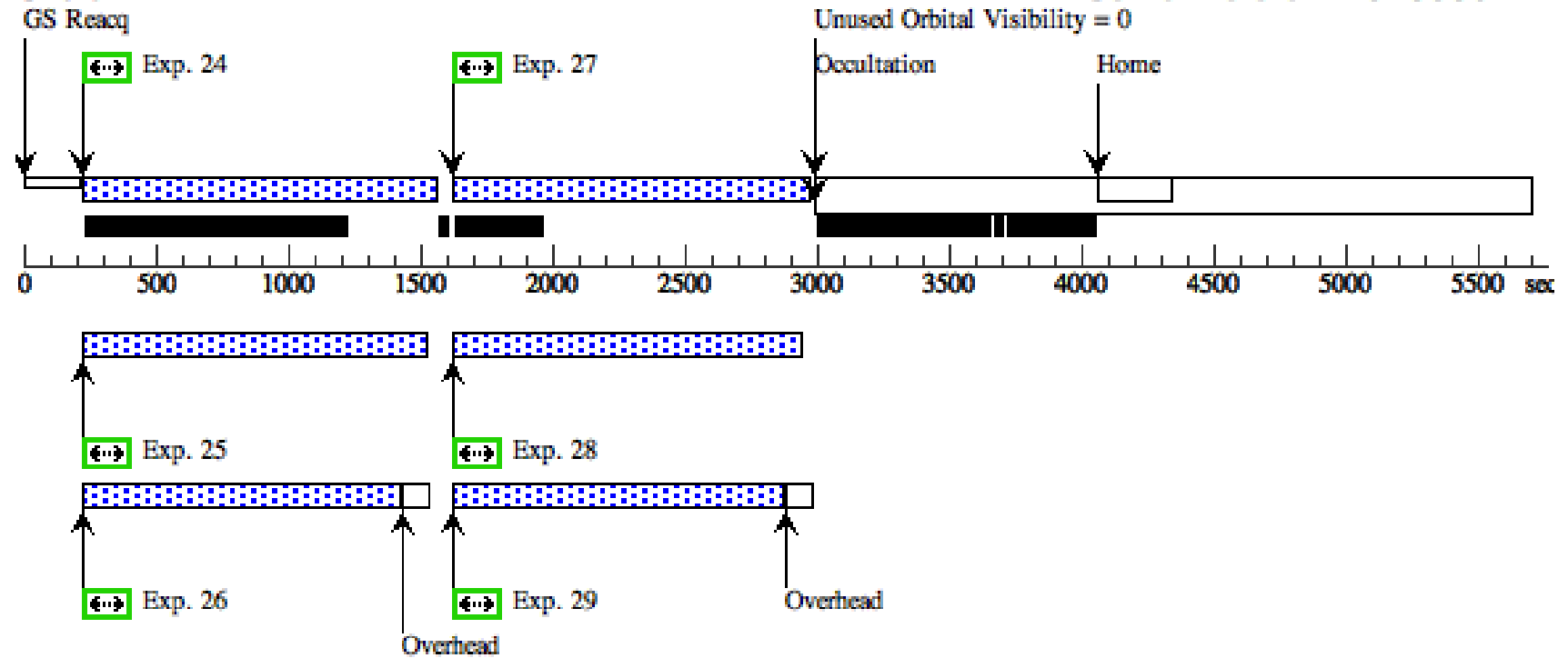
### Orbit 3

Server Version: 20160601



# Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 20 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|               |                                                                                                                                                                                                           |                |                                                                                    |                          |                              |                              |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit         | Proposal 14268, Visit 20, completed                                                                                                                                                                       |                |                                                                                    |                          |                              | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                                                                |                |                                                                                    |                          |                              |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                                                       |                |                                                                                    |                          |                              |                              |
|               | Special Requirements: SCHED 100%; ORIENT 30D TO 285 D                                                                                                                                                     |                |                                                                                    |                          |                              |                              |
| Diagnos       | (Parallel Exposure 30 (Prime + Parallel Group 28-30 in Visit 20)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser |                |                                                                                    |                          |                              |                              |
| Fixed Targets | #                                                                                                                                                                                                         | Name           | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|               | (15)                                                                                                                                                                                                      | RXSJ00537+2232 | RA: 00 53 46.1442 (13.4422675d)<br>Dec: +22 32 22.16 (22.53949d)<br>Equinox: J2000 |                          | V=15.80<br>GALEX FUV = 16.53 | Reference Frame: ICRS        |
|               | Comments: Extended=NO                                                                                                                                                                                     |                |                                                                                    |                          |                              |                              |

# Proposal 14268 - Visit 20 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

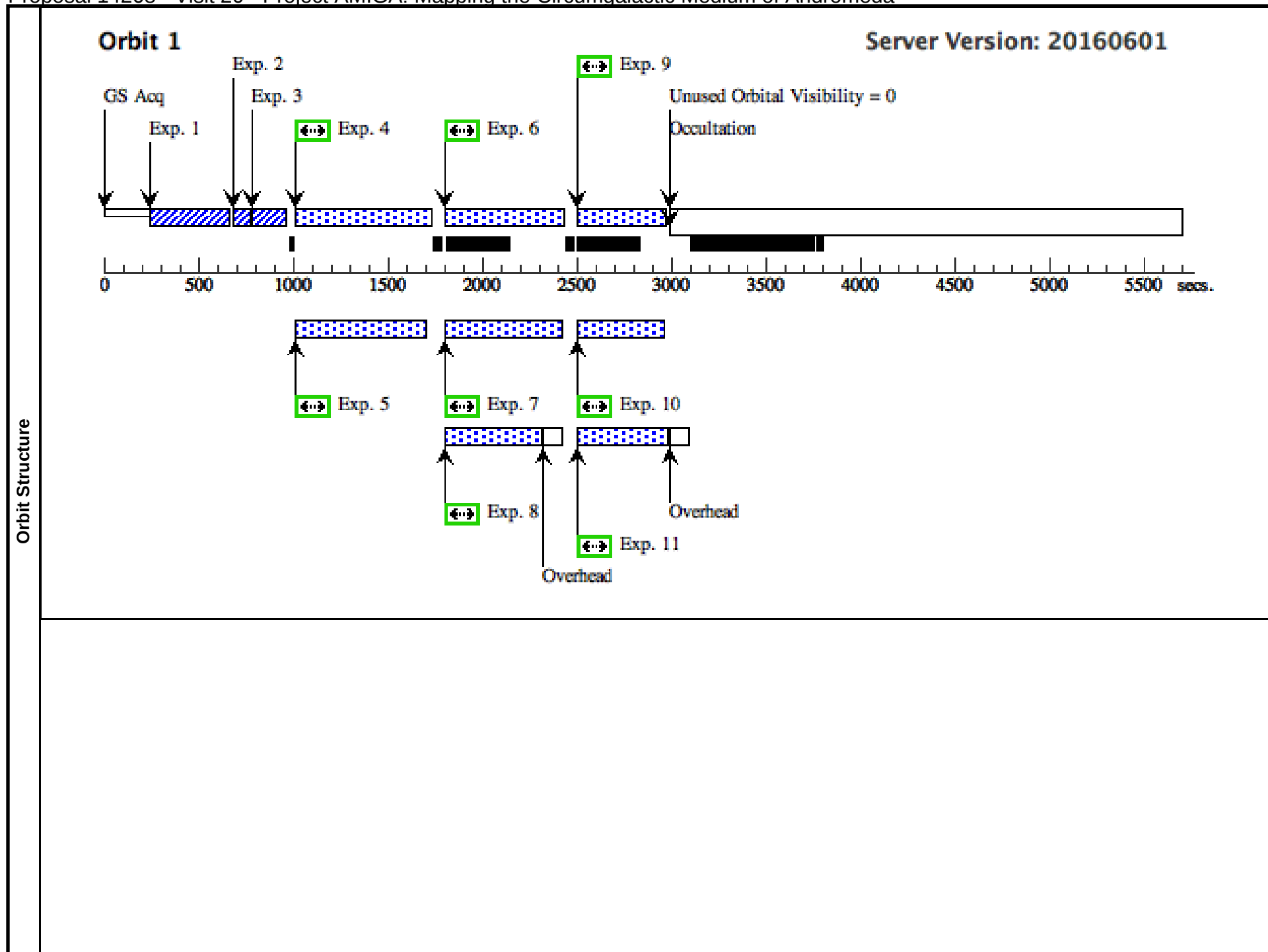
| Exposures | #  | Label<br>(ETC Run)  | Target                  | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|---------------------|-------------------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731<br>190) | (15) RXSJ00537+22<br>32 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 5.6 Secs (5.6 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731<br>194) | (15) RXSJ00537+22<br>32 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 2.2 Secs (2.2 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731<br>190) | (15) RXSJ00537+22<br>32 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 5.6 Secs (5.6 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.730<br>907) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>46;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-5 in Visit 20   | 596 Secs (596 Secs)<br>[==>]    | [1]   |
|           | 5  |                     | ANY                     | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-5 in Visit 20   | 483 Secs (483 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.730<br>907) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>46;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 6-8 in Visit 20   | 573 Secs (573 Secs)<br>[==>]    | [1]   |
|           | 7  |                     | ANY                     | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 20   | 498 Secs (498 Secs)<br>[==>]    | [1]   |
|           | 8  |                     | ANY                     | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 20   | 478 Secs (478 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.730<br>907) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>46;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 20  | 420 Secs (420 Secs)<br>[==>]    | [1]   |
|           | 10 |                     | ANY                     | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 20  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 |                     | ANY                     | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 20  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.730<br>907) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=21<br>46;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-13 in Visit 20 | 460 Secs (460 Secs)<br>[==>]    | [2]   |
|           | 13 |                     | ANY                     | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-13 in Visit 20 | 340 Secs (340 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.730<br>909) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=21<br>09;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 14-15 in Visit 20 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 15 |                     | ANY                     | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 14-15 in Visit 20 | 430 Secs (430 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 20 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                     |                         |                        |                 |                                                 |                                              |                              |     |
|----|---------------------|-------------------------|------------------------|-----------------|-------------------------------------------------|----------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.730<br>909) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>09;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 16-17 in Visit 20 | 420 Secs (420 Secs)<br>[==>] | [2] |
| 17 | ANY                 |                         | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 16-17 in Visit 20 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.730<br>909) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>09;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 18-20 in Visit 20 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                 |                         | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 20 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                 |                         | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Gro<br>up 18-20 in Visit 20 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.730<br>909) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=21<br>09;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 21-23 in Visit 20 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                 |                         | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 20 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                 |                         | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Gro<br>up 21-23 in Visit 20 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.730<br>910) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=41<br>56;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Gro<br>up 24-25 in Visit 20 | 578 Secs (578 Secs)<br>[==>] | [3] |
| 25 | ANY                 |                         | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 24-25 in Visit 20 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.730<br>910) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=41<br>56;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Gro<br>up 26-27 in Visit 20 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                 |                         | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 26-27 in Visit 20 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.730<br>910) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=41<br>56;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Gro<br>up 28-30 in Visit 20 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                 |                         | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Gro<br>up 28-30 in Visit 20 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                 |                         | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Gro<br>up 28-30 in Visit 20 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.730<br>910) | (15) RXSJ00537+22<br>32 | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=41<br>56;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Gro<br>up 31-33 in Visit 20 | 550 Secs (550 Secs)<br>[==>] | [3] |

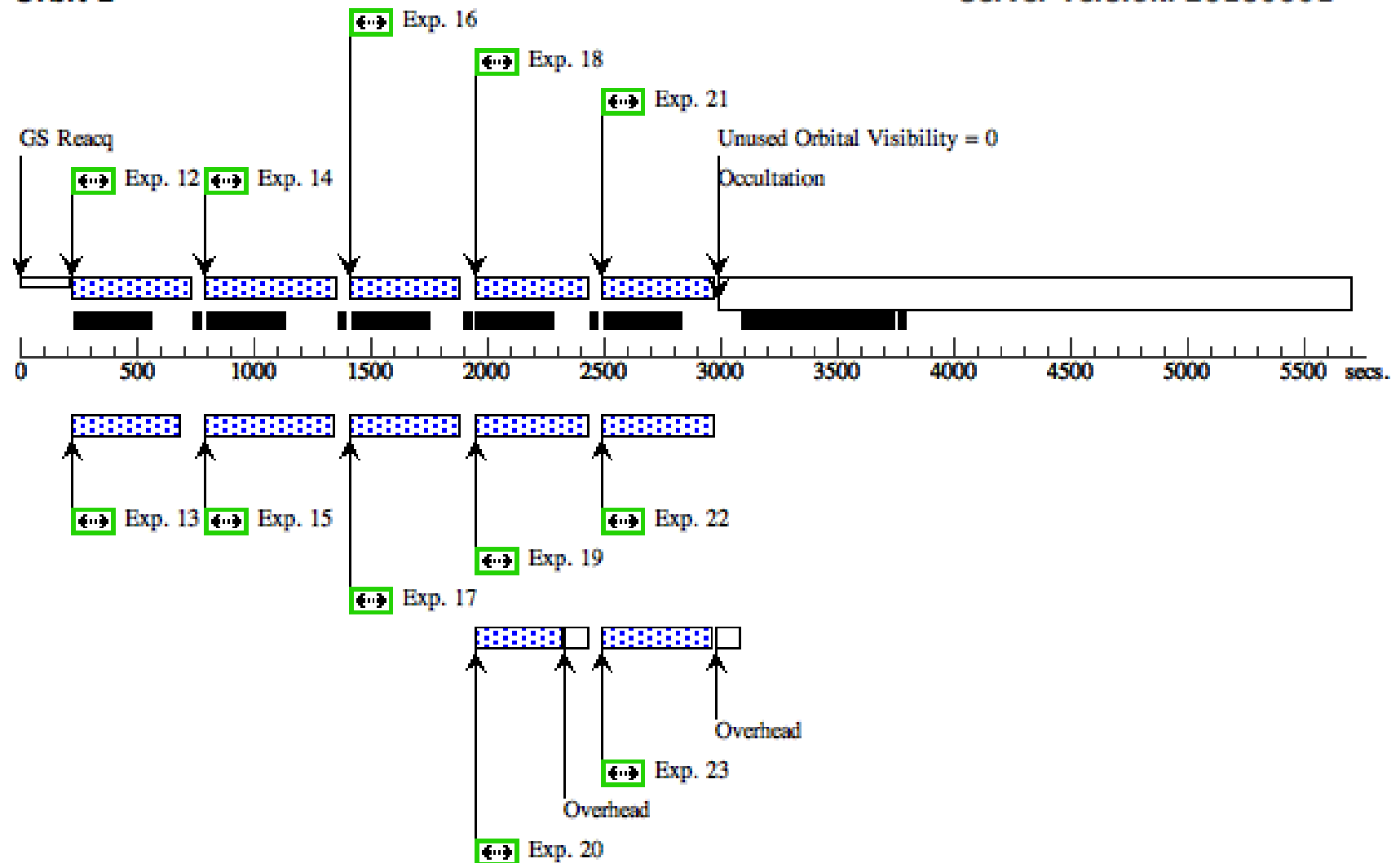
# Proposal 14268 - Visit 20 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                                       |                        |              |                                              |                     |     |
|----|---------------------------------------|------------------------|--------------|----------------------------------------------|---------------------|-----|
| 32 | ANY                                   | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 31-33 in Visit 20     | 475 Secs (475 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [3] |
| 33 | ANY                                   | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 31-33 in Visit 20     | 600 Secs (600 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [3] |
| 34 | (COS.sp.730 911) (15) RXSJ00537+22 32 | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=45 19;<br>FP-POS=1;<br>FLASH=YES | 599 Secs (599 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 35 | ANY                                   | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 34-35 in Visit 20     | 570 Secs (570 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 36 | (COS.sp.730 911) (15) RXSJ00537+22 32 | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=45 19;<br>FP-POS=2;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 37 | ANY                                   | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 36-37 in Visit 20     | 470 Secs (470 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 38 | (COS.sp.730 911) (15) RXSJ00537+22 32 | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=45 19;<br>FP-POS=3;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 39 | ANY                                   | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 38-40 in Visit 20     | 470 Secs (470 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 40 | ANY                                   | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 38-40 in Visit 20     | 520 Secs (520 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 41 | (COS.sp.730 911) (15) RXSJ00537+22 32 | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=45 19;<br>FP-POS=4;<br>FLASH=YES | 550 Secs (550 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 42 | ANY                                   | ACS/WFC, ACCUM, WFC    | F814W        | Prime + Parallel Group 41-43 in Visit 20     | 475 Secs (475 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |
| 43 | ANY                                   | WFC3/UVIS, ACCUM, UVIS | F814W        | Prime + Parallel Group 41-43 in Visit 20     | 600 Secs (600 Secs) |     |
|    |                                       |                        |              |                                              | [==>]               | [4] |



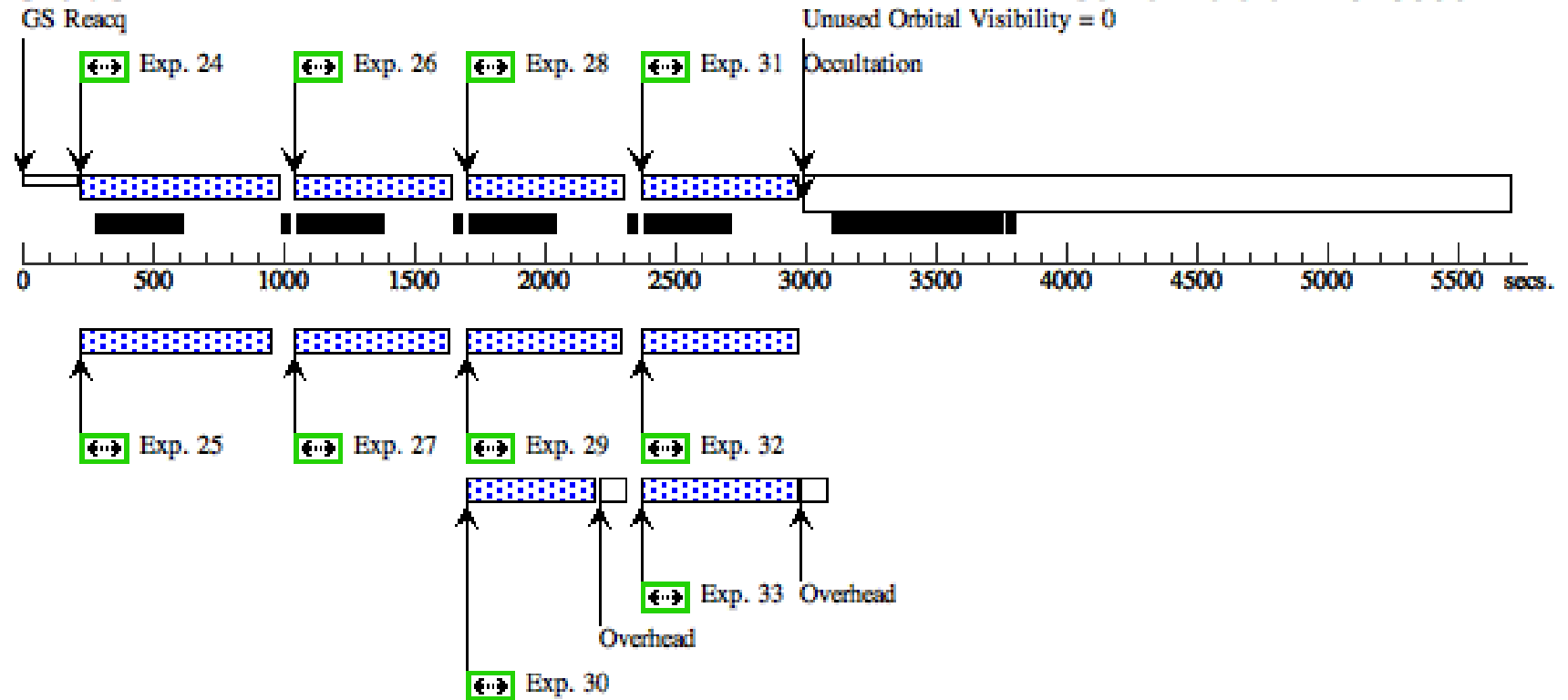
## Orbit 2

Server Version: 20160601



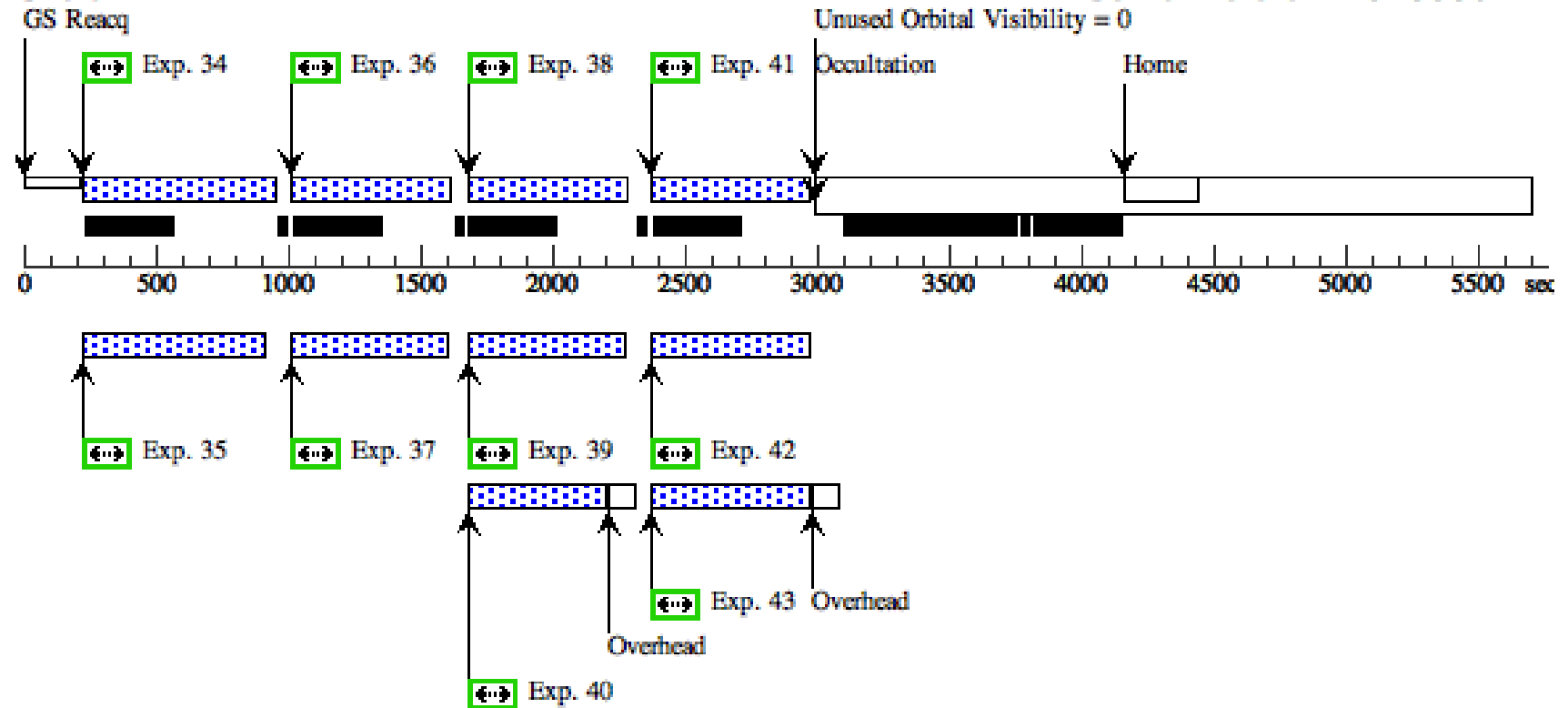
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 21 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|               |                                                                                                                                                                                                           |         |                                 |                          |                                |                              |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------|--------------------------|--------------------------------|------------------------------|
| Visit         | Proposal 14268, Visit 21, completed                                                                                                                                                                       |         |                                 |                          |                                | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                                                                |         |                                 |                          |                                |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                                                       |         |                                 |                          |                                |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                                                          |         |                                 |                          |                                |                              |
| Diagnos       | (Parallel Exposure 30 (Prime + Parallel Group 28-30 in Visit 21)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser |         |                                 |                          |                                |                              |
| Fixed Targets | #                                                                                                                                                                                                         | Name    | Target Coordinates              | Targ. Coord. Corrections | Fluxes                         | Miscellaneous                |
|               | (16)                                                                                                                                                                                                      | MRK1148 | RA: 00 51 54.7570 (12.9781542d) |                          | V=15.96                        | Reference Frame: ICRS        |
|               |                                                                                                                                                                                                           |         | Dec: +17 25 58.44 (17.43290d)   |                          | GALEX FUV = 16.00; (F=8.5e-15, |                              |
|               |                                                                                                                                                                                                           |         | Equinox: J2000                  |                          | IUE)                           |                              |
|               | Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.                                                                                                         |         |                                 |                          |                                |                              |
|               | Extended=NO                                                                                                                                                                                               |         |                                 |                          |                                |                              |

# Proposal 14268 - Visit 21 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

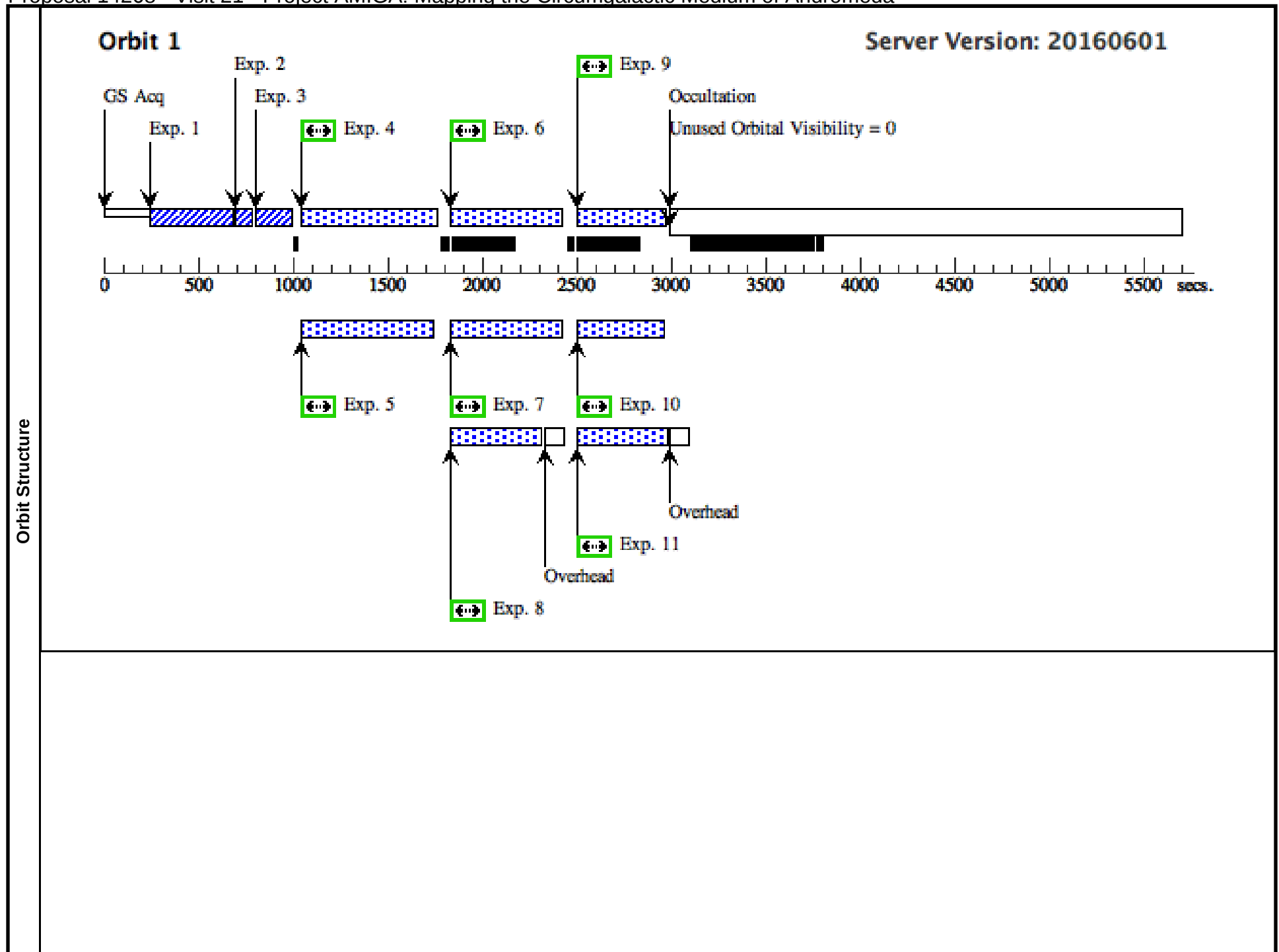
| Exposures | #  | Label<br>(ETC Run)            | Target       | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|-------------------------------|--------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 (16) MRK1148 197) | (16) MRK1148 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               | Prime + Parallel Gro<br>up 4-5 in Visit 21   | 7.5 Secs (7.5 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 (16) MRK1148 195) | (16) MRK1148 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               | Prime + Parallel Gro<br>up 4-5 in Visit 21   | 2.9 Secs (2.9 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 (16) MRK1148 197) | (16) MRK1148 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               | Prime + Parallel Gro<br>up 4-5 in Visit 21   | 7.5 Secs (7.5 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.730 (16) MRK1148 920) | (16) MRK1148 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=24<br>53;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-5 in Visit 21   | 603 Secs (603 Secs)<br>[==>]    | [1]   |
|           | 5  | ANY                           | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-5 in Visit 21   | 493 Secs (493 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.730 (16) MRK1148 920) | (16) MRK1148 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=24<br>53;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 6-8 in Visit 21   | 538 Secs (538 Secs)<br>[==>]    | [1]   |
|           | 7  | ANY                           | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 21   | 463 Secs (463 Secs)<br>[==>]    | [1]   |
|           | 8  | ANY                           | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 21   | 454 Secs (454 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.730 (16) MRK1148 920) | (16) MRK1148 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=24<br>53;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 21  | 420 Secs (420 Secs)<br>[==>]    | [1]   |
|           | 10 | ANY                           | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 21  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 | ANY                           | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 21  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.730 (16) MRK1148 920) | (16) MRK1148 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=24<br>53;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-13 in Visit 21 | 459 Secs (459 Secs)<br>[==>]    | [2]   |
|           | 13 | ANY                           | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-13 in Visit 21 | 339 Secs (339 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.730 (16) MRK1148 922) | (16) MRK1148 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=24<br>13;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 14-15 in Visit 21 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 15 | ANY                           | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 14-15 in Visit 21 | 430 Secs (430 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 21 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                                 |                                          |                              |     |
|----|-------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.730 (16) MRK1148 922) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=24<br>13;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 16-17 in Visit 21 | 420 Secs (420 Secs)<br>[==>] | [2] |
| 17 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 16-17 in Visit 21 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.730 (16) MRK1148 922) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=24<br>13;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 21 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 21 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 21 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.730 (16) MRK1148 922) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=24<br>13;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 21 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 21 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 21 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.730 (16) MRK1148 923) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=49<br>45;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 24-25 in Visit 21 | 577 Secs (577 Secs)<br>[==>] | [3] |
| 25 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 24-25 in Visit 21 | 549 Secs (549 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.730 (16) MRK1148 923) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=49<br>45;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 26-27 in Visit 21 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 26-27 in Visit 21 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.730 (16) MRK1148 923) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=49<br>45;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 28-30 in Visit 21 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 21 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 21 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.730 (16) MRK1148 923) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=49<br>45;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 31-33 in Visit 21 | 550 Secs (550 Secs)<br>[==>] | [3] |

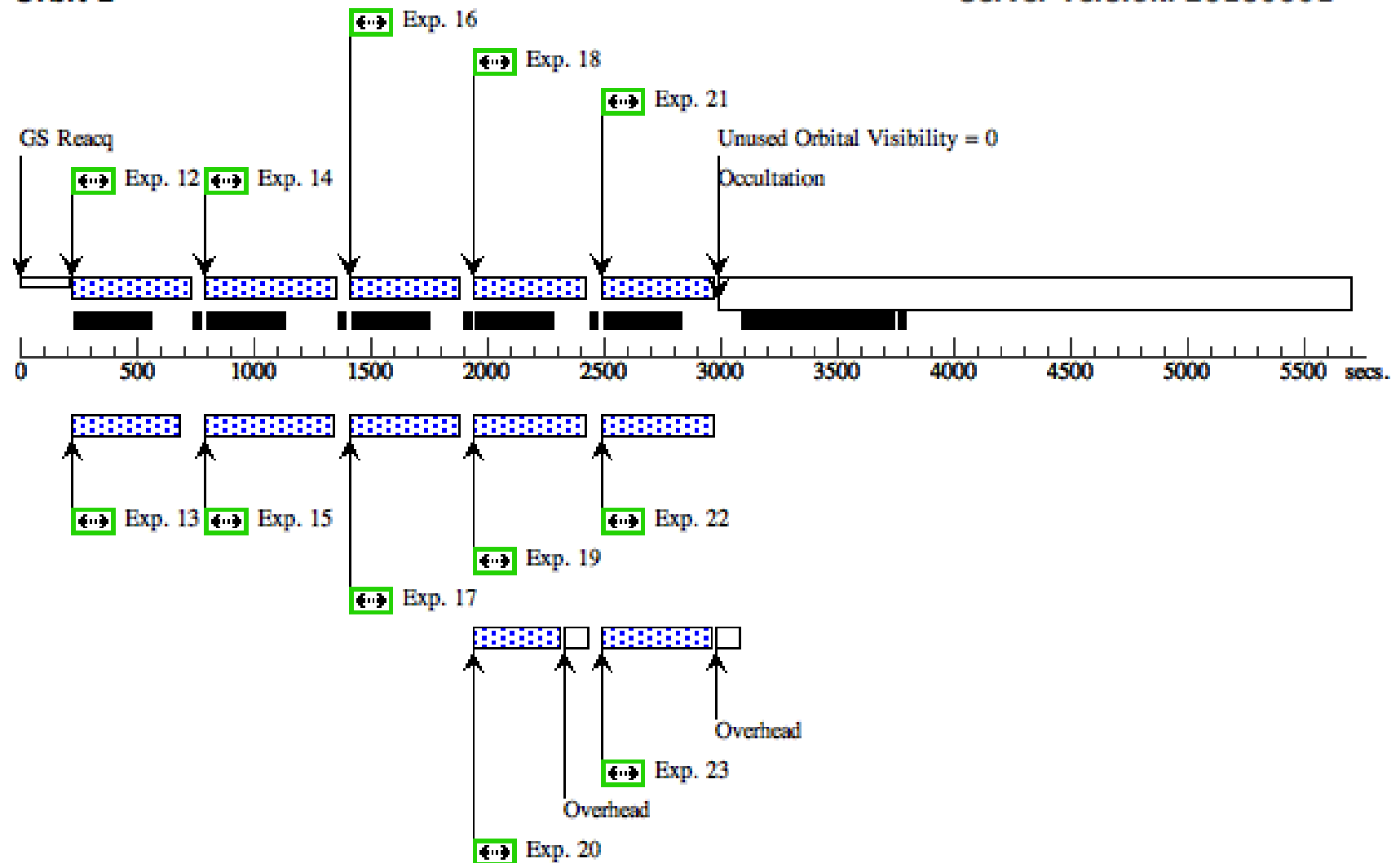
# Proposal 14268 - Visit 21 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |              |                                              |                                          |                     |     |
|----|-------------------------------|------------------------|--------------|----------------------------------------------|------------------------------------------|---------------------|-----|
| 32 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 31-33 in Visit 21 | 475 Secs (475 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [3] |
|    | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 31-33 in Visit 21 | 600 Secs (600 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [3] |
|    | (COS.sp.730 (16) MRK1148 924) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=53 29;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 34-35 in Visit 21 | 618 Secs (618 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 34-35 in Visit 21 | 589 Secs (589 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | (COS.sp.730 (16) MRK1148 924) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=53 29;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 36-37 in Visit 21 | 550 Secs (550 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 36-37 in Visit 21 | 470 Secs (470 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | (COS.sp.730 (16) MRK1148 924) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=53 29;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 38-40 in Visit 21 | 550 Secs (550 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 38-40 in Visit 21 | 470 Secs (470 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 38-40 in Visit 21 | 520 Secs (520 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | (COS.sp.730 (16) MRK1148 924) | COS/FUV, TIME-TAG, PSA | G160M 1623 A | BUFFER-TIME=53 29;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 41-43 in Visit 21 | 550 Secs (550 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 41-43 in Visit 21 | 475 Secs (475 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |
|    | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 41-43 in Visit 21 | 600 Secs (600 Secs) |     |
|    |                               |                        |              |                                              |                                          | [==>]               | [4] |



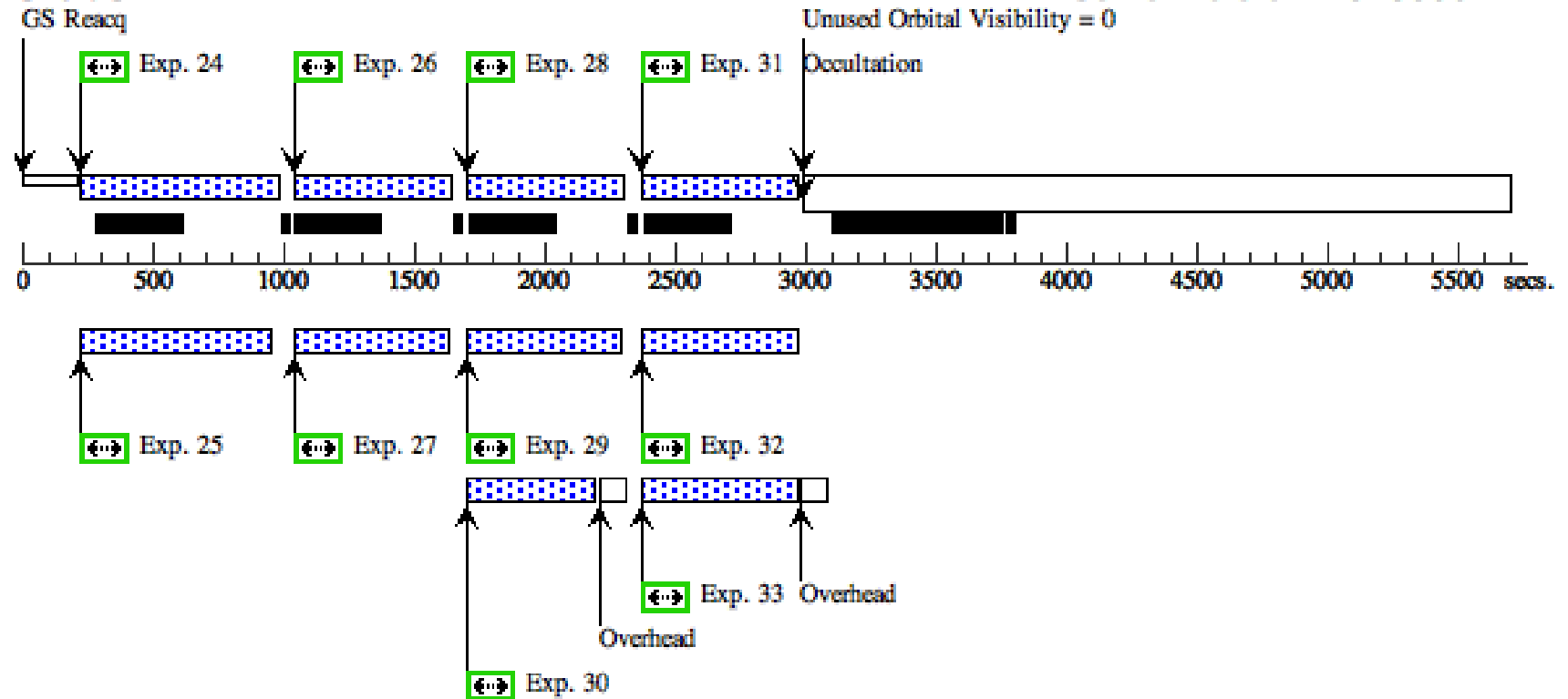
## Orbit 2

Server Version: 20160601



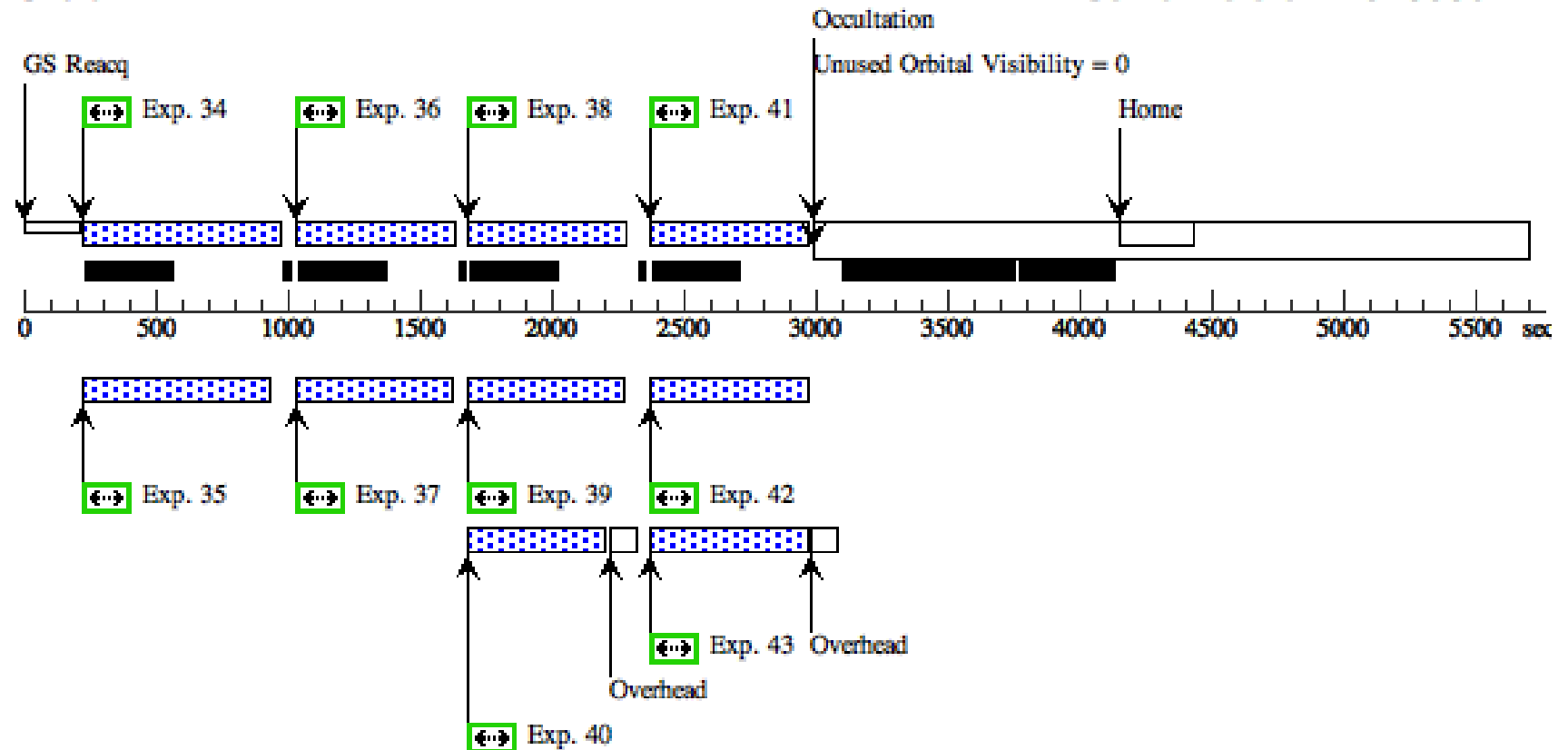
### Orbit 3

Server Version: 20160601



## Orbit 4

Server Version: 20160601



# Proposal 14268 - Visit 22 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|               |                                                                                                                                                                                                           |         |                                                                                     |                          |                              |                              |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------|--------------------------|------------------------------|------------------------------|
| Visit         | Proposal 14268, Visit 22, completed                                                                                                                                                                       |         |                                                                                     |                          |                              | Wed Sep 07 21:22:57 GMT 2016 |
|               | Diagnostic Status: Warning                                                                                                                                                                                |         |                                                                                     |                          |                              |                              |
|               | Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV                                                                                                                                                       |         |                                                                                     |                          |                              |                              |
|               | Special Requirements: SCHED 100%                                                                                                                                                                          |         |                                                                                     |                          |                              |                              |
| Diagnosics    | (Parallel Exposure 30 (Prime + Parallel Group 28-30 in Visit 22)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser |         |                                                                                     |                          |                              |                              |
| Fixed Targets | #                                                                                                                                                                                                         | Name    | Target Coordinates                                                                  | Targ. Coord. Corrections | Fluxes                       | Miscellaneous                |
|               | (17)                                                                                                                                                                                                      | RBS2005 | RA: 23 25 54.2440 (351.4760167d)<br>Dec: +21 53 14.03 (21.88723d)<br>Equinox: J2000 |                          | V=15.90<br>GALEX FUV = 16.69 | Reference Frame: ICRS        |
|               | Comments: Extended=NO                                                                                                                                                                                     |         |                                                                                     |                          |                              |                              |

# Proposal 14268 - Visit 22 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

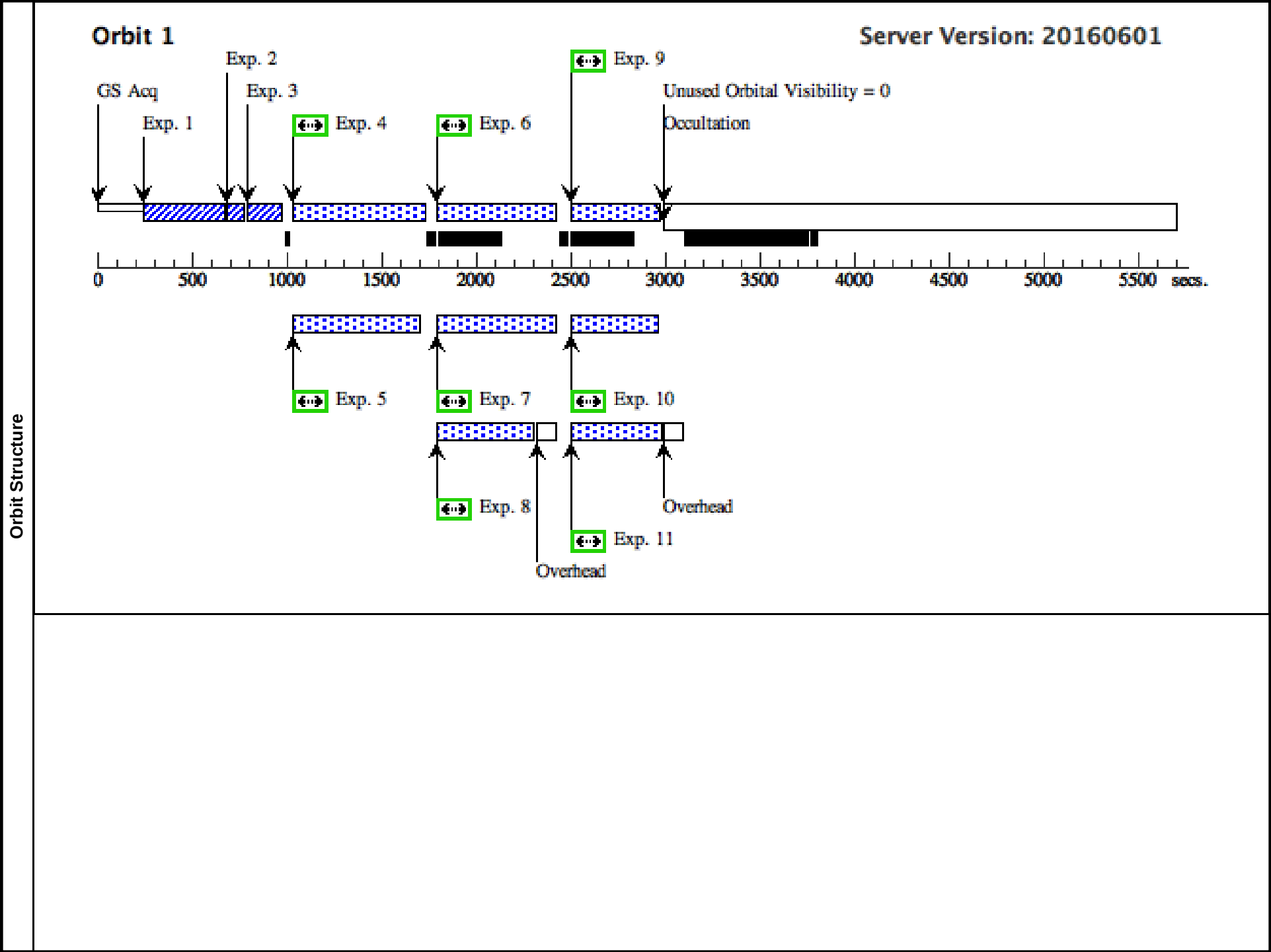
| Exposures | #  | Label<br>(ETC Run) | Target       | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|--------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 199)   | (17) RBS2005 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 6.5 Secs (6.5 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 203)   | (17) RBS2005 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 2.5 Secs (2.5 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 199)   | (17) RBS2005 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 6.5 Secs (6.5 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.730 937)   | (17) RBS2005 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>06;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-5 in Visit 22   | 576 Secs (576 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-5 in Visit 22   | 466 Secs (466 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.730 937)   | (17) RBS2005 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>06;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 6-8 in Visit 22   | 580 Secs (580 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 22   | 505 Secs (505 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 22   | 485 Secs (485 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.730 937)   | (17) RBS2005 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>06;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 22  | 420 Secs (420 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 22  | 340 Secs (340 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 22  | 480 Secs (480 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.730 937)   | (17) RBS2005 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=23<br>06;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-13 in Visit 22 | 460 Secs (460 Secs)<br>[==>]    | [2]   |
|           | 13 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-13 in Visit 22 | 340 Secs (340 Secs)<br>[==>]    | [2]   |
|           | 14 | (COS.sp.730 939)   | (17) RBS2005 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=22<br>68;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 14-15 in Visit 22 | 420 Secs (420 Secs)<br>[==>]    | [2]   |
|           | 15 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 14-15 in Visit 22 | 430 Secs (430 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 22 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                                 |                                          |                              |     |
|----|-------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|------------------------------|-----|
| 16 | (COS.sp.730 (17) RBS2005 939) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>68;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 16-17 in Visit 22 | 420 Secs (420 Secs)<br>[==>] | [2] |
| 17 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 16-17 in Visit 22 | 347 Secs (347 Secs)<br>[==>] | [2] |
| 18 | (COS.sp.730 (17) RBS2005 939) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>68;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 22 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 19 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 22 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 20 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 18-20 in Visit 22 | 370 Secs (370 Secs)<br>[==>] | [2] |
| 21 | (COS.sp.730 (17) RBS2005 939) | COS/FUV, TIME-TAG, PSA | G130M<br>1327 A | BUFFER-TIME=22<br>68;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 22 | 430 Secs (430 Secs)<br>[==>] | [2] |
| 22 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 22 | 355 Secs (355 Secs)<br>[==>] | [2] |
| 23 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W           |                                                 | Prime + Parallel Group 21-23 in Visit 22 | 475 Secs (475 Secs)<br>[==>] | [2] |
| 24 | (COS.sp.730 (17) RBS2005 936) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>60;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 24-25 in Visit 22 | 578 Secs (578 Secs)<br>[==>] | [3] |
| 25 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 24-25 in Visit 22 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 26 | (COS.sp.730 (17) RBS2005 936) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>60;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 26-27 in Visit 22 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 27 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 26-27 in Visit 22 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 28 | (COS.sp.730 (17) RBS2005 936) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>60;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 28-30 in Visit 22 | 550 Secs (550 Secs)<br>[==>] | [3] |
| 29 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 22 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 30 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 28-30 in Visit 22 | 470 Secs (470 Secs)<br>[==>] | [3] |
| 31 | (COS.sp.730 (17) RBS2005 936) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=45<br>60;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 31-33 in Visit 22 | 550 Secs (550 Secs)<br>[==>] | [3] |

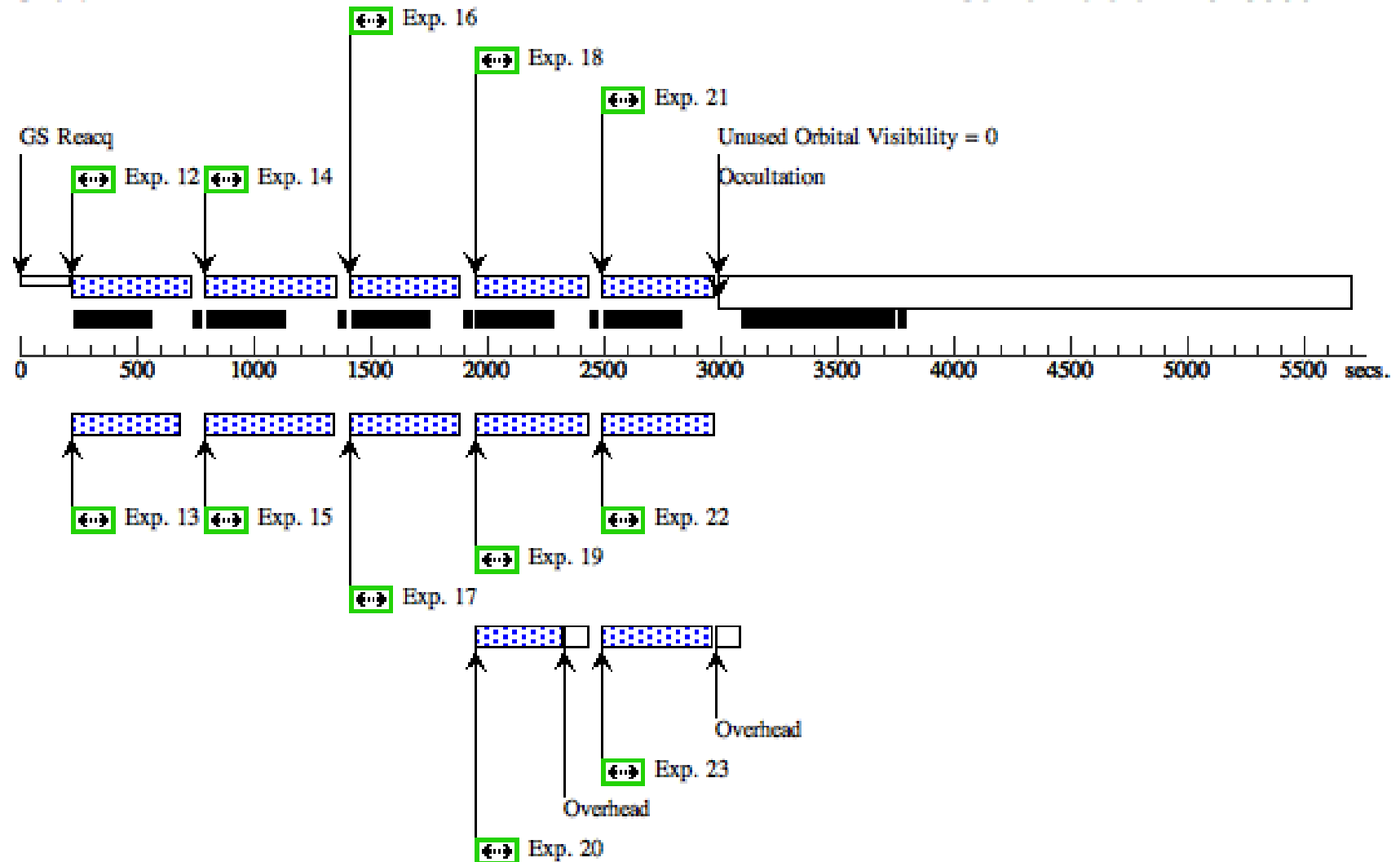
# Proposal 14268 - Visit 22 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                                 |                                          |                     |
|----|-------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|---------------------|
| 32 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 31-33 in Visit 22        | 475 Secs (475 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [3]                 |
| 33 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 31-33 in Visit 22        | 600 Secs (600 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [3]                 |
| 34 | (COS.sp.730 (17) RBS2005 933) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=49<br>36;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 34-35 in Visit 22 | 599 Secs (599 Secs) |
|    |                               |                        |                 |                                                 |                                          | [==>]<br>[4]        |
| 35 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 34-35 in Visit 22        | 570 Secs (570 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [4]                 |
| 36 | (COS.sp.730 (17) RBS2005 933) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=49<br>36;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 36-37 in Visit 22 | 550 Secs (550 Secs) |
|    |                               |                        |                 |                                                 |                                          | [==>]<br>[4]        |
| 37 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 36-37 in Visit 22        | 470 Secs (470 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [4]                 |
| 38 | (COS.sp.730 (17) RBS2005 933) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=49<br>36;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 38-40 in Visit 22 | 550 Secs (550 Secs) |
|    |                               |                        |                 |                                                 |                                          | [==>]<br>[4]        |
| 39 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 38-40 in Visit 22        | 470 Secs (470 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [4]                 |
| 40 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 38-40 in Visit 22        | 520 Secs (520 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [4]                 |
| 41 | (COS.sp.730 (17) RBS2005 933) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=49<br>36;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 41-43 in Visit 22 | 550 Secs (550 Secs) |
|    |                               |                        |                 |                                                 |                                          | [==>]<br>[4]        |
| 42 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           | Prime + Parallel Group 41-43 in Visit 22        | 475 Secs (475 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [4]                 |
| 43 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           | Prime + Parallel Group 41-43 in Visit 22        | 600 Secs (600 Secs)                      |                     |
|    |                               |                        |                 |                                                 | [==>]                                    | [4]                 |



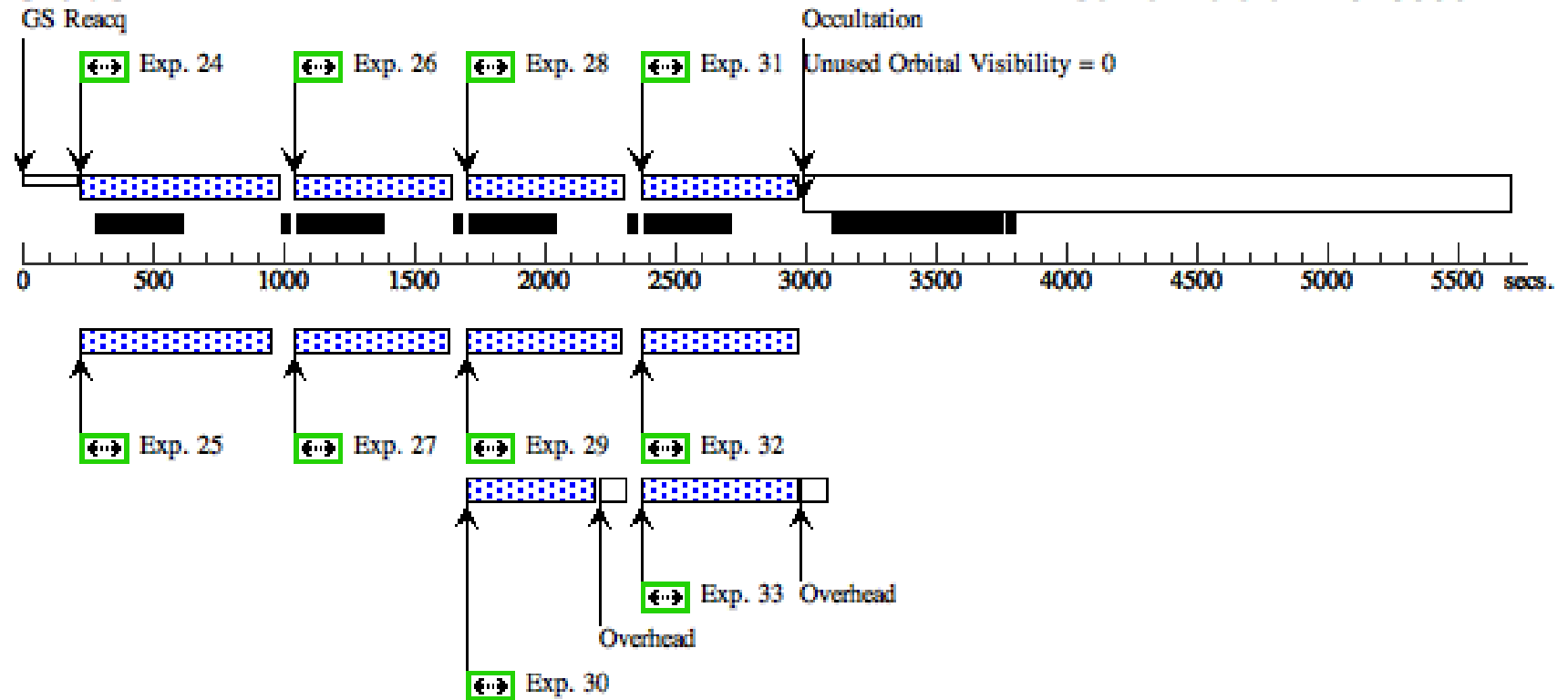
## Orbit 2

Server Version: 20160601



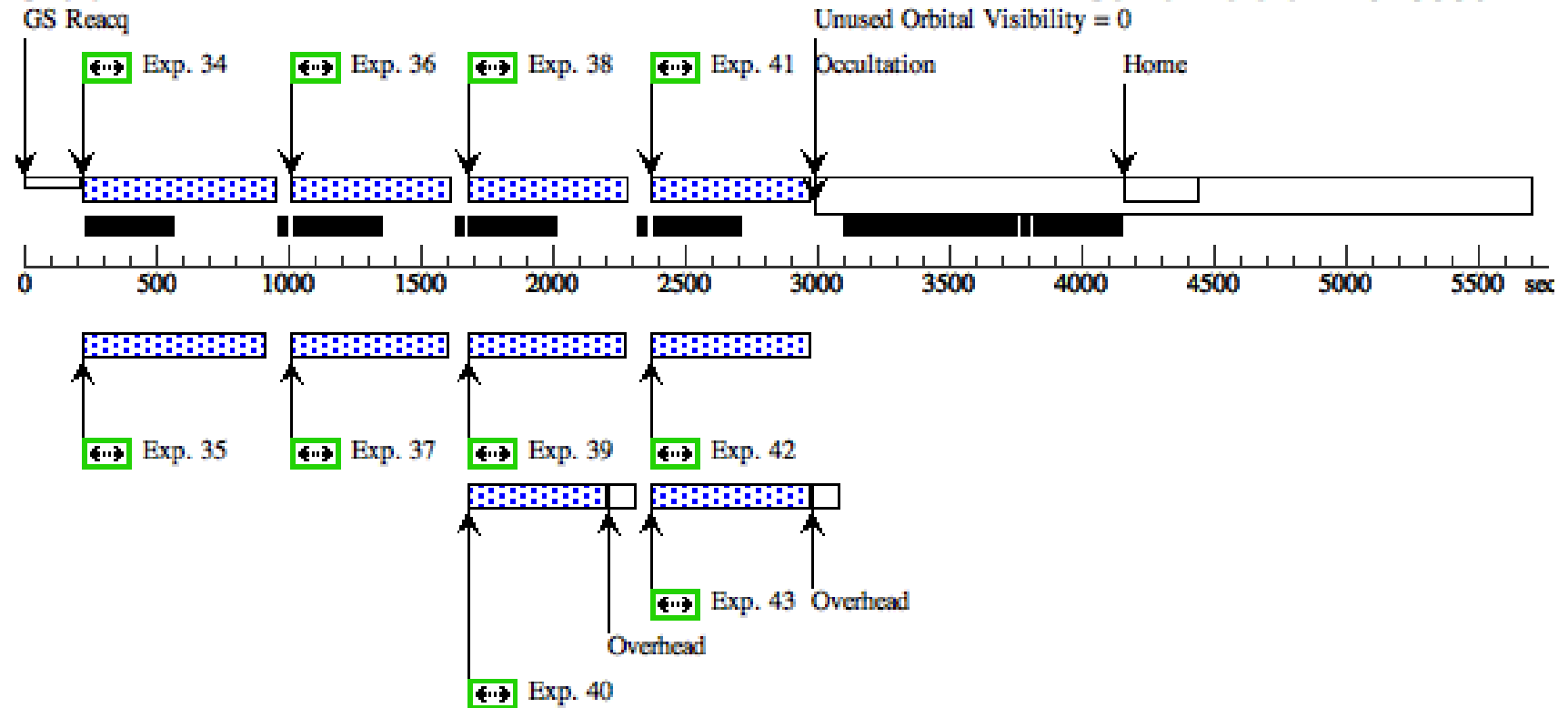
### Orbit 3

Server Version: 20160601



# Orbit 4

Server Version: 20160601



Proposal 14268 - Visit 23 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|                                                                                                                  |                                                                                                                              |         |                                                                                    |                          |                              |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------|------------------------------------------------------------------------------------|--------------------------|------------------------------|
| Visit                                                                                                            | Proposal 14268, Visit 23, completed <span>Wed Sep 07 21:22:57 GMT 2016</span>                                                |         |                                                                                    |                          |                              |
|                                                                                                                  | Diagnostic Status: No Diagnostics<br>Scientific Instruments: WFC3/UVIS, ACS/WFC, COS/FUV<br>Special Requirements: SCHED 100% |         |                                                                                    |                          |                              |
| Fixed Targets                                                                                                    | #                                                                                                                            | Name    | Target Coordinates                                                                 | Targ. Coord. Corrections | Fluxes                       |
|                                                                                                                  | (18)                                                                                                                         | MRK1179 | RA: 02 33 22.3220 (38.3430083d)<br>Dec: +27 56 13.11 (27.93698d)<br>Equinox: J2000 |                          | V=15.23<br>GALEX FUV = 16.98 |
| Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.<br>Extended=NO |                                                                                                                              |         |                                                                                    |                          |                              |

# Proposal 14268 - Visit 23 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

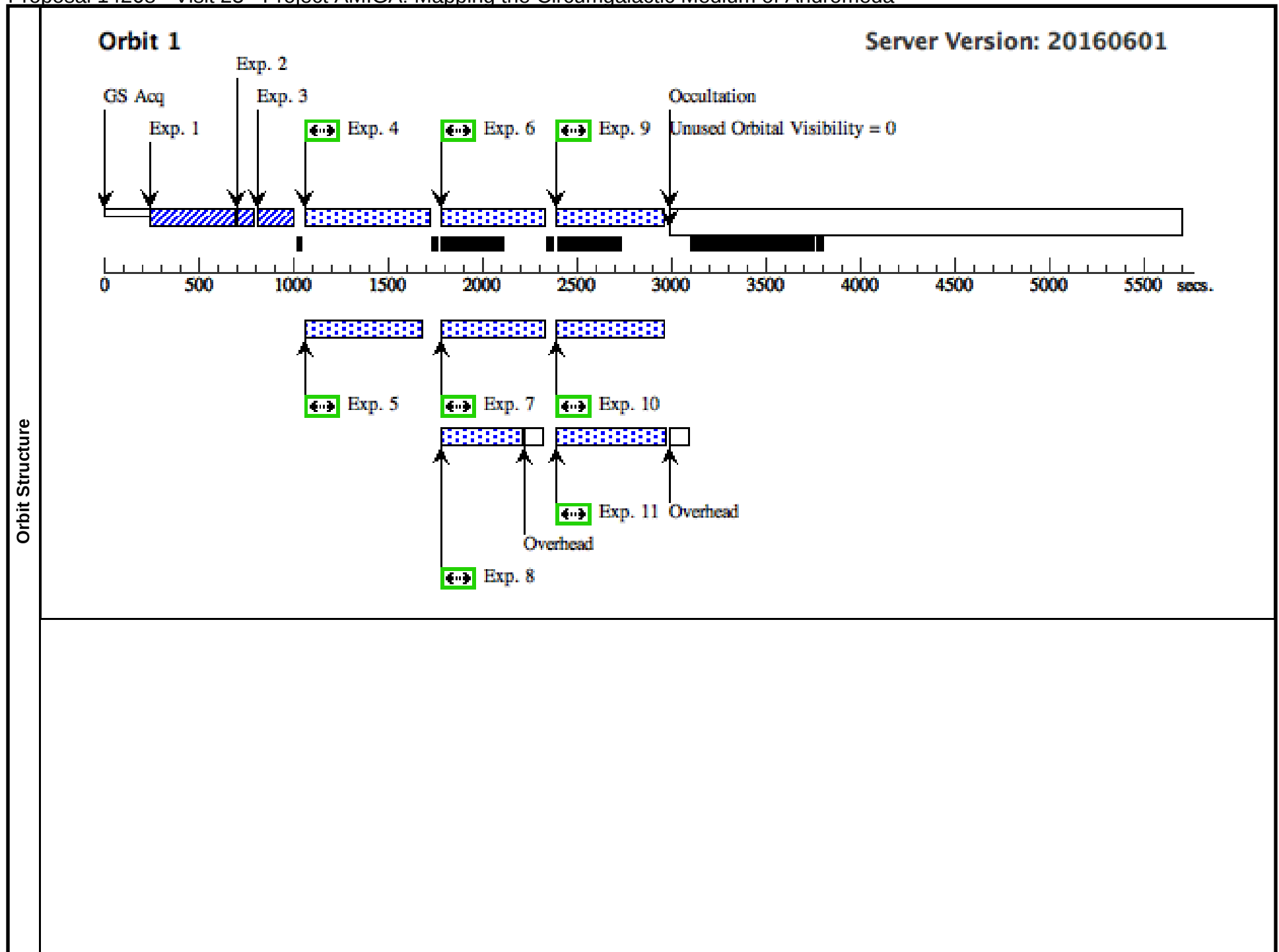
| Exposures | #  | Label<br>(ETC Run) | Target       | Config,Mode,Aperture     | Spectral Els.   | Opt. Params.                                            | Special Reqs. | Groups                                       | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|----|--------------------|--------------|--------------------------|-----------------|---------------------------------------------------------|---------------|----------------------------------------------|---------------------------------|-------|
|           | 1  | (COS.sa.731 208)   | (18) MRK1179 | COS/FUV, ACQ/SEARCH, PSA | G130M<br>1291 A | SCAN-SIZE=3;<br>CENTER=FLUX-W<br>T-FLR;<br>SEGMENT=BOTH |               |                                              | 8.6 Secs (8.6 Secs)<br>[==>]    | [1]   |
|           | 2  | (COS.sa.731 207)   | (18) MRK1179 | COS/FUV, ACQ/PEAKXD, PSA | G130M<br>1291 A | SEGMENT=BOTH                                            |               |                                              | 3.3 Secs (3.3 Secs)<br>[==>]    | [1]   |
|           | 3  | (COS.sa.731 208)   | (18) MRK1179 | COS/FUV, ACQ/PEAKD, PSA  | G130M<br>1291 A | STEP-SIZE=0.9;<br>SEGMENT=BOTH;<br>NUM-POS=5            |               |                                              | 8.6 Secs (8.6 Secs)<br>[==>]    | [1]   |
|           | 4  | (COS.sp.716 582)   | (18) MRK1179 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 4-5 in Visit 23   | 539 Secs (539 Secs)<br>[==>]    | [1]   |
|           | 5  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 4-5 in Visit 23   | 418 Secs (418 Secs)<br>[==>]    | [1]   |
|           | 6  | (COS.sp.716 582)   | (18) MRK1179 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=2;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 6-8 in Visit 23   | 500 Secs (500 Secs)<br>[==>]    | [1]   |
|           | 7  |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 23   | 430 Secs (430 Secs)<br>[==>]    | [1]   |
|           | 8  |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 6-8 in Visit 23   | 400 Secs (400 Secs)<br>[==>]    | [1]   |
|           | 9  | (COS.sp.716 582)   | (18) MRK1179 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=3;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 9-11 in Visit 23  | 520 Secs (520 Secs)<br>[==>]    | [1]   |
|           | 10 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 23  | 450 Secs (450 Secs)<br>[==>]    | [1]   |
|           | 11 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 9-11 in Visit 23  | 584 Secs (584 Secs)<br>[==>]    | [1]   |
|           | 12 | (COS.sp.716 582)   | (18) MRK1179 | COS/FUV, TIME-TAG, PSA   | G130M<br>1291 A | BUFFER-TIME=25<br>81;<br>FP-POS=4;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 12-14 in Visit 23 | 813 Secs (813 Secs)<br>[==>]    | [2]   |
|           | 13 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 23 | 690 Secs (690 Secs)<br>[==>]    | [2]   |
|           | 14 |                    | ANY          | WFC3/UVIS, ACCUM, UVIS   | F606W           |                                                         |               | Prime + Parallel Gro<br>up 12-14 in Visit 23 | 700 Secs (700 Secs)<br>[==>]    | [2]   |
|           | 15 | (COS.sp.716 640)   | (18) MRK1179 | COS/FUV, TIME-TAG, PSA   | G130M<br>1327 A | BUFFER-TIME=25<br>41;<br>FP-POS=1;<br>FLASH=YES         |               | Prime + Parallel Gro<br>up 15-17 in Visit 23 | 780 Secs (780 Secs)<br>[==>]    | [2]   |
|           | 16 |                    | ANY          | ACS/WFC, ACCUM, WFC      | F606W           |                                                         |               | Prime + Parallel Gro<br>up 15-17 in Visit 23 | 785 Secs (785 Secs)<br>[==>]    | [2]   |

# Proposal 14268 - Visit 23 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |              |                                              |                                          |                     |     |
|----|-------------------------------|------------------------|--------------|----------------------------------------------|------------------------------------------|---------------------|-----|
| 17 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W        |                                              | Prime + Parallel Group 15-17 in Visit 23 | 800 Secs (800 Secs) | [2] |
| 18 | (COS.sp.716 (18) MRK1179 640) | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=25 41;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 18-20 in Visit 23 | 780 Secs (780 Secs) | [2] |
| 19 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W        |                                              | Prime + Parallel Group 18-20 in Visit 23 | 700 Secs (700 Secs) | [2] |
| 20 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W        |                                              | Prime + Parallel Group 18-20 in Visit 23 | 835 Secs (835 Secs) | [2] |
| 21 | (COS.sp.716 (18) MRK1179 640) | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=25 41;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 21-23 in Visit 23 | 810 Secs (810 Secs) | [3] |
| 22 | ANY                           | ACS/WFC, ACCUM, WFC    | F606W        |                                              | Prime + Parallel Group 21-23 in Visit 23 | 705 Secs (705 Secs) | [3] |
| 23 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F606W        |                                              | Prime + Parallel Group 21-23 in Visit 23 | 720 Secs (720 Secs) | [3] |
| 24 | (COS.sp.716 (18) MRK1179 640) | COS/FUV, TIME-TAG, PSA | G130M 1327 A | BUFFER-TIME=25 41;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 24-26 in Visit 23 | 830 Secs (830 Secs) | [3] |
| 25 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 24-26 in Visit 23 | 680 Secs (680 Secs) | [3] |
| 26 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 24-26 in Visit 23 | 750 Secs (750 Secs) | [3] |
| 27 | (COS.sp.716 (18) MRK1179 583) | COS/FUV, TIME-TAG, PSA | G160M 1589 A | BUFFER-TIME=52 97;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 27-29 in Visit 23 | 680 Secs (680 Secs) | [3] |
| 28 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 27-29 in Visit 23 | 740 Secs (740 Secs) | [3] |
| 29 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W        |                                              | Prime + Parallel Group 27-29 in Visit 23 | 865 Secs (865 Secs) | [3] |
| 30 | (COS.sp.716 (18) MRK1179 583) | COS/FUV, TIME-TAG, PSA | G160M 1589 A | BUFFER-TIME=52 97;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 30-31 in Visit 23 | 580 Secs (580 Secs) | [4] |
| 31 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 30-31 in Visit 23 | 480 Secs (480 Secs) | [4] |
| 32 | (COS.sp.716 (18) MRK1179 583) | COS/FUV, TIME-TAG, PSA | G160M 1589 A | BUFFER-TIME=52 97;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 32-33 in Visit 23 | 560 Secs (560 Secs) | [4] |
| 33 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W        |                                              | Prime + Parallel Group 32-33 in Visit 23 | 480 Secs (480 Secs) | [4] |

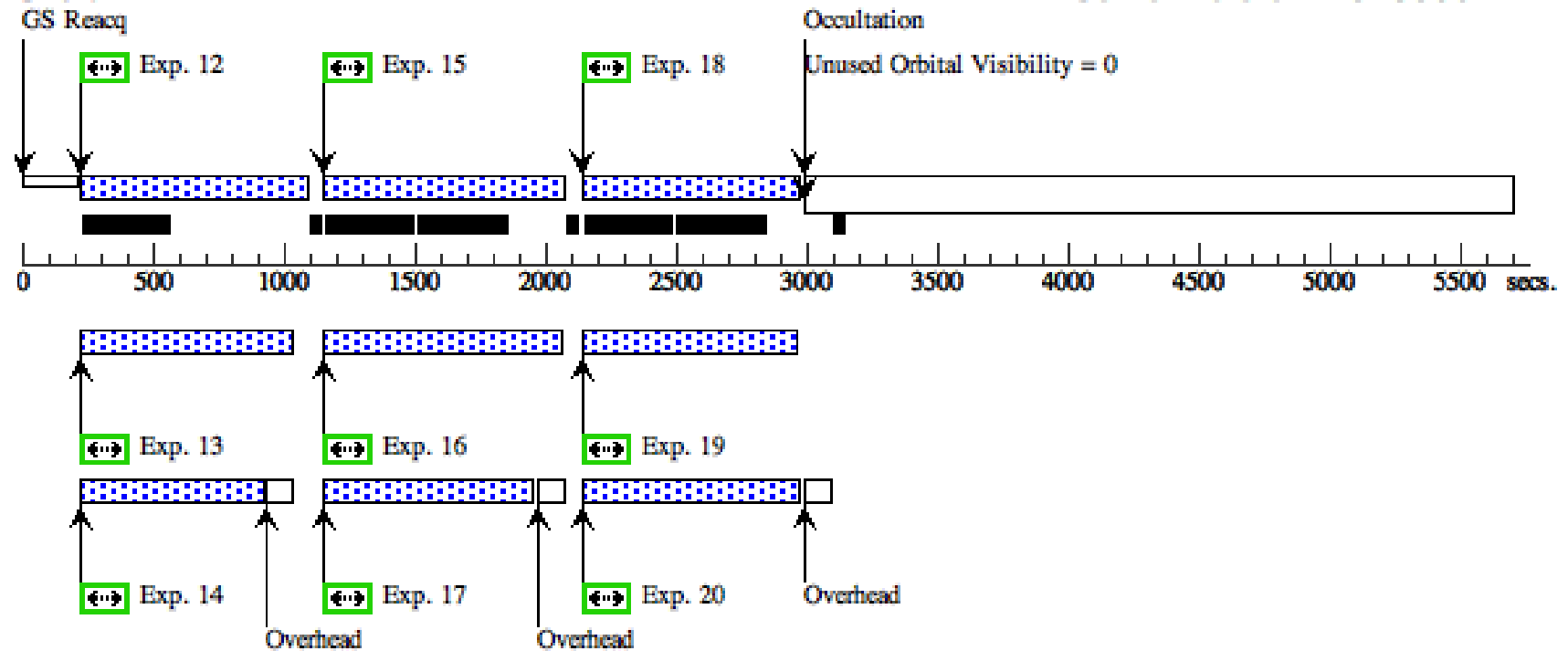
# Proposal 14268 - Visit 23 - Project AMIGA: Mapping the Circumgalactic Medium of Andromeda

|    |                               |                        |                 |                                                 |                                          |                              |     |
|----|-------------------------------|------------------------|-----------------|-------------------------------------------------|------------------------------------------|------------------------------|-----|
| 34 | (COS.sp.716 (18) MRK1179 583) | COS/FUV, TIME-TAG, PSA | G160M<br>1589 A | BUFFER-TIME=52<br>97;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 34-35 in Visit 23 | 570 Secs (570 Secs)<br>[==>] | [4] |
| 35 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 34-35 in Visit 23 | 480 Secs (480 Secs)<br>[==>] | [4] |
| 36 | (COS.sp.716 (18) MRK1179 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=1;<br>FLASH=YES | Prime + Parallel Group 36-38 in Visit 23 | 590 Secs (590 Secs)<br>[==>] | [4] |
| 37 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 36-38 in Visit 23 | 590 Secs (590 Secs)<br>[==>] | [4] |
| 38 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 36-38 in Visit 23 | 600 Secs (600 Secs)<br>[==>] | [4] |
| 39 | (COS.sp.716 (18) MRK1179 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=2;<br>FLASH=YES | Prime + Parallel Group 39-41 in Visit 23 | 853 Secs (853 Secs)<br>[==>] | [5] |
| 40 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 39-41 in Visit 23 | 680 Secs (680 Secs)<br>[==>] | [5] |
| 41 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 39-41 in Visit 23 | 740 Secs (740 Secs)<br>[==>] | [5] |
| 42 | (COS.sp.716 (18) MRK1179 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=3;<br>FLASH=YES | Prime + Parallel Group 42-44 in Visit 23 | 810 Secs (810 Secs)<br>[==>] | [5] |
| 43 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 42-44 in Visit 23 | 730 Secs (730 Secs)<br>[==>] | [5] |
| 44 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 42-44 in Visit 23 | 750 Secs (750 Secs)<br>[==>] | [5] |
| 45 | (COS.sp.716 (18) MRK1179 645) | COS/FUV, TIME-TAG, PSA | G160M<br>1623 A | BUFFER-TIME=56<br>86;<br>FP-POS=4;<br>FLASH=YES | Prime + Parallel Group 45-47 in Visit 23 | 810 Secs (810 Secs)<br>[==>] | [5] |
| 46 | ANY                           | ACS/WFC, ACCUM, WFC    | F814W           |                                                 | Prime + Parallel Group 45-47 in Visit 23 | 730 Secs (730 Secs)<br>[==>] | [5] |
| 47 | ANY                           | WFC3/UVIS, ACCUM, UVIS | F814W           |                                                 | Prime + Parallel Group 45-47 in Visit 23 | 830 Secs (830 Secs)<br>[==>] | [5] |



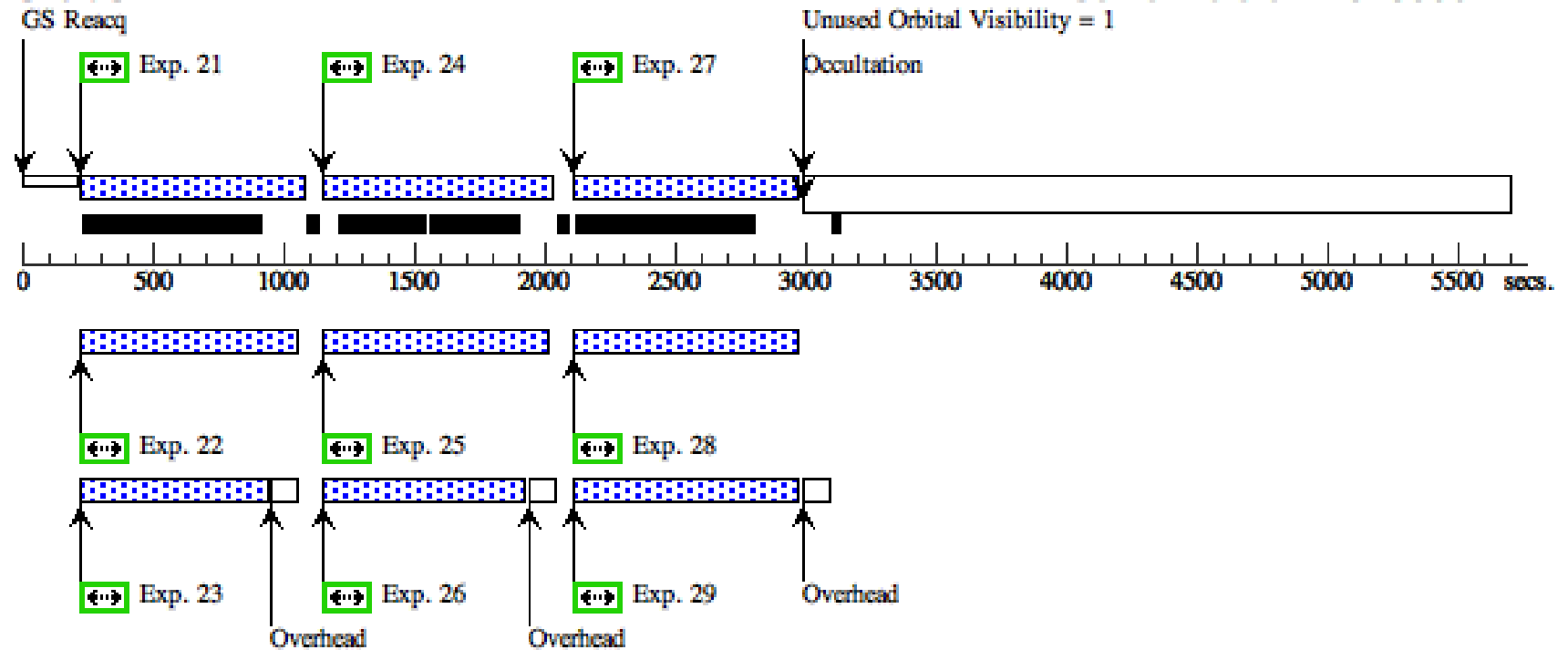
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Server Version: 20160601



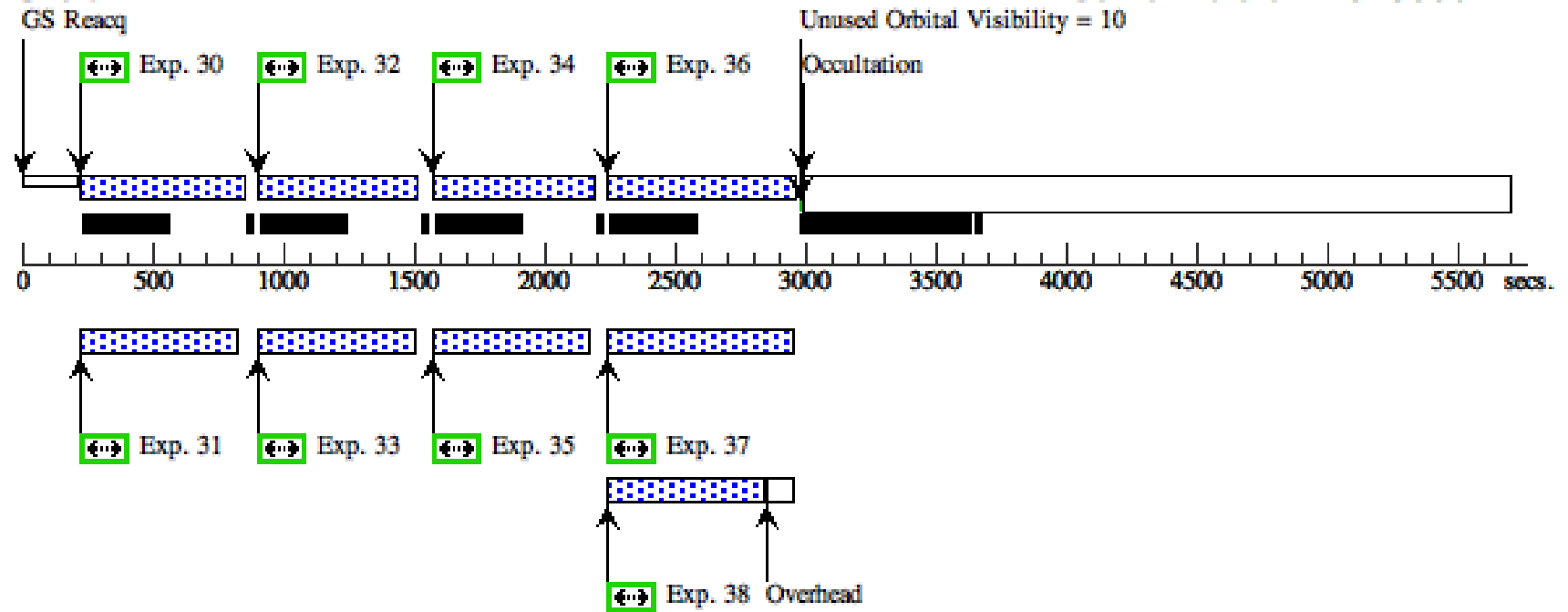
### Orbit 3

Server Version: 20160601



# Orbit 4

Server Version: 20160601



## Orbit 5

Server Version: 20160601

