# 17701 - Confirming Onion-Shell Accretion in T Tauri Stars

Cycle: 32, Proposal Category: GO

(Availability Mode: SUPPORTED)

**INVESTIGATORS**



| *Name* | *Institution* |
|---|---|
| **Dr. Thanawuth Thanathibodee (PI) (Contact)** | **Chulalongkorn University** |
| Dr. Catherine Espaillat (CoI) (AdminUSPI) | Boston University |
| Dr. Nuria Calvet (CoI) | University of Michigan |
| Prof. Zhaohuan Zhu (CoI) | University of Nevada - Las Vegas |
| Caeley Pittman (CoI) | Boston University |



**VISITS**

| *Visit* | *Targets used in Visit* | *Configurations used in Visit* | *Orbits Used* | *Last Orbit Planner Run* | *OP Current with Visit?* |
|---|---|---|---|---|---|
| 01 | (1) CVSO-1335<br>CCDFLAT | STIS/CCD<br>STIS/NUV-MAMA | 1 | 27-May-2025 17:00:14.0 | yes |
| 02 | (2) CVSO-40<br>CCDFLAT | STIS/CCD<br>STIS/NUV-MAMA | 3 | 27-May-2025 17:00:16.0 | yes |
| 03 | (3) CVSO-1763<br>CCDFLAT | STIS/CCD<br>STIS/NUV-MAMA | 2 | 27-May-2025 17:00:17.0 | yes |
| 04 | (4) SO-682<br>CCDFLAT | STIS/CCD<br>STIS/NUV-MAMA | 2 | 27-May-2025 17:00:18.0 | yes |
| 05 | (5) 2MASS-J16253849-2613540<br>CCDFLAT | STIS/CCD<br>STIS/NUV-MAMA | 1 | 27-May-2025 17:00:19.0 | yes |
| 06 | (5) 2MASS-J16253849-2613540<br>CCDFLAT | STIS/CCD<br>STIS/NUV-MAMA | 1 | 27-May-2025 17:00:20.0 | yes |

10 Total Orbits Used

**ABSTRACT**

Accretion from disks onto low-mass, pre-main sequence stars (T Tauri stars) is an important process in star and planet formation. Close-in, rocky planets form in an environment affected by magnetospheric accretion in T Tauri disks. Numerical simulations have been used to study this dynamic process, confirming key observable results. In recent years, advances in numerical methods and increases in computational power have enabled detailed studies of accretion by simulating the interaction between the star, its magnetosphere, and an MRI-active inner disk. New simulations suggest the existence of inner filaments, where mass proceeds horizontally and accretes onto the star in an onion-shell-like structure. Observational evidence of such a structure exists as a low-velocity redshifted absorption feature in the H-alpha profiles of T Tauri stars accreting at very low rates, but an independent verification is required. Here, we propose to confirm onion-shell accretion in five low accretors with joint HST/STIS and Gemini/GHOST observations. Modeling the accretion shock emission can help to distinguish between models with inner filaments and models where accretion occurs strictly through high-latitude flows. Our results will provide insight into young stars' immediate environment -- a region crucial for close-in planet formation.

**OBSERVING DESCRIPTION**

We will use 9 HST orbits to obtain NUV-optical spectra of 5 T Tauri stars with very low accretion rates (low accretors) to search for evidence of Onion-shell accretion using multi-column accretion shock models. For each star, we will obtain the NUV spectrum with STIS/NUV-MAMA+G230L and the optical spectra with STIS/CCD+G430L+G750L. We will use the 52x2 slit for all configurations. The NUV spectra are needed to measure the accretion luminosity, while the optical spectra will be used for scaling with photospheric templates. We aim for SNR greater than 3 redward of 2300 Angstrom for the NUV spectra and SNR~50 in the optical. To estimate the NUV exposure times, we scaled the spectrum of a low accretor RECX-11 by distance, and we used the Kurucz/Bruzual synthetic spectra for SNR estimation in the optical. To complement the HST observations, we also request coordinated observations with NOIRLab to use the GHOST instrument on Gemini-South within a few days of the HST observations. The GHOST spectra will provide additional accretion diagnostics for accretion flow modeling to confirm the Onion-shell geometry.

## Visit

**Proposal 17701, CVSO 1335 (01), scheduling** Tue May 27 21:00:20 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: PCS MODE FINE

## Fixed Targets

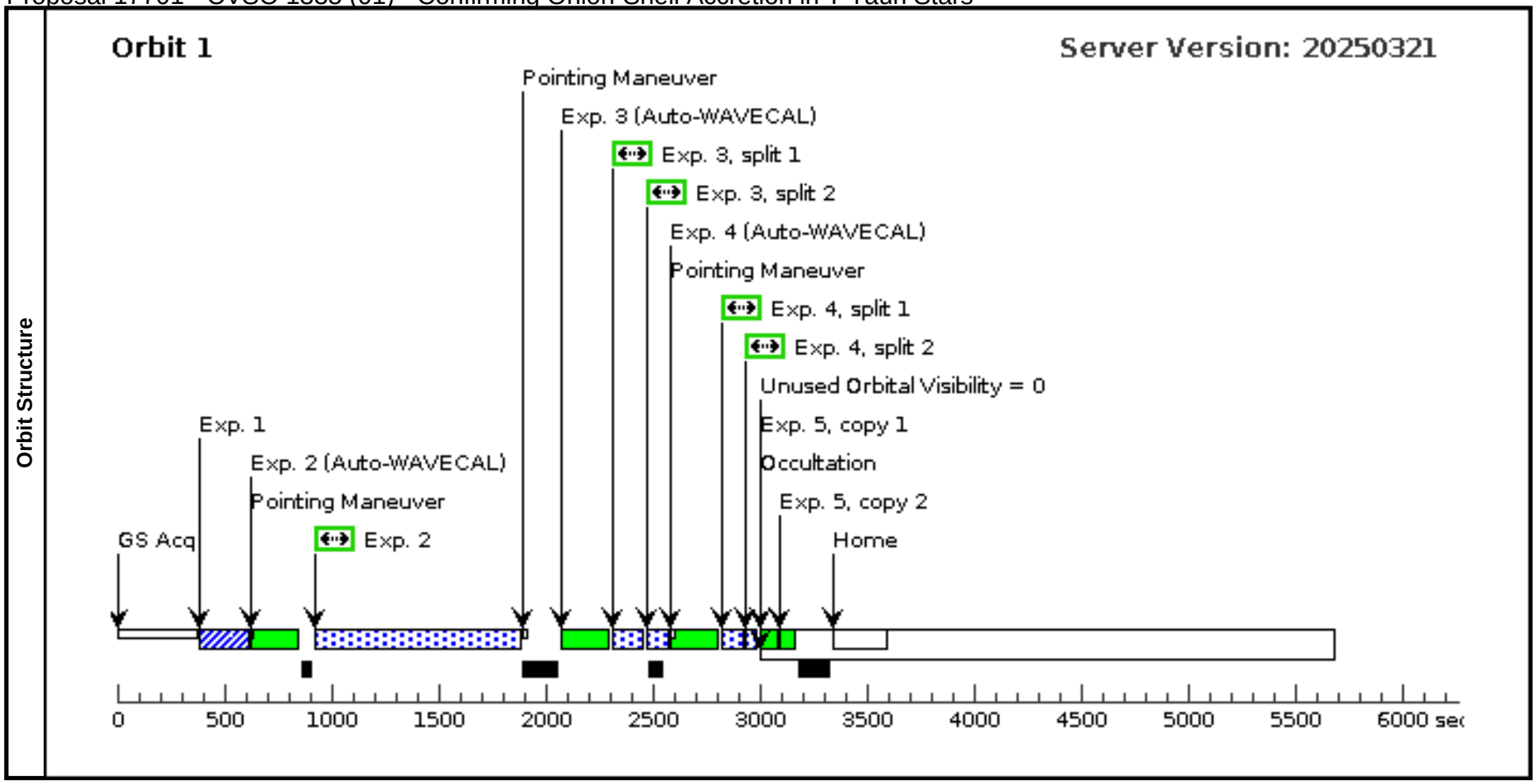
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (1) | CVSO-1335 | RA: 05 32 10.1680 (83.0423667d)<br>Dec: -00 37 12.51 (-.62014d)<br>Equinox: J2000 | Proper Motion RA: 1.339 mas/yr<br>Proper Motion Dec: -0.9090000048672664 mas/yr<br>Parallax: 0.0027494999999999998"<br>Epoch of Position: 2000 | V=13.8 | Reference Frame: ICRS |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*

*SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.*
*Category=STAR*
*Description=[T TAURI STAR]*

## Exposures

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | (STIS.ta.1932757) | (1) CVSO-1335 | STIS/CCD, ACQ, F28X50LP | MIRROR | ACQTYPE=POINT | | | 2 Secs (2 Secs)<br>*[==>]* | <br>***[1]*** |
| 2 | (STIS.sp.1931333) | (1) CVSO-1335 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L<br>2376 A | BUFFER-TIME=1366 | | | 923 Secs (923 Secs)<br>*[==>]* | <br>***[1]*** |
| 3 | (STIS.sp.1946559) | (1) CVSO-1335 | STIS/CCD, ACCUM, 52X2E1 | G430L<br>4300 A | CR-SPLIT=2 | | | 130 Secs (130 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | <br>***[1]*** |
| 4 | (STIS.sp.1931331) | (1) CVSO-1335 | STIS/CCD, ACCUM, 52X2 | G750L<br>7751 A | CR-SPLIT=2 | | | 40 Secs (40 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | <br>***[1]*** |
| 5 | | CCDFLAT | STIS/CCD, ACCUM, 52X2 | G750L<br>7751 A | | | | *[==>(Copy 1)]*<br>*[==>(Copy 2)]* | ***[1]*** |


Orbit Structure
Orbit 1
Server Version: 20250321
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 3, split 1
Exp. 3, split 2
Exp. 4 (Auto-WAVECAL)
Pointing Maneuver
Exp. 4, split 1
Exp. 4, split 2
Unused Orbital Visibility = 0
Exp. 5, copy 1
Occultation
Exp. 5, copy 2
Home
Exp. 1
Exp. 2 (Auto-WAVECAL)
Pointing Maneuver
GS Acq
Exp. 2
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

## Visit

**Proposal 17701, CVSO 40 (02), scheduling** Tue May 27 21:00:21 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: PCS MODE FINE

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (2) | CVSO-40 | RA: 05 26 41.6246 (81.6734358d)<br>Dec: -00 40 52.44 (-.68123d)<br>Equinox: J2000 | Proper Motion RA: 0.092 mas/yr<br>Proper Motion Dec: 0.019 mas/yr<br>Parallax: 0.0023935"<br>Epoch of Position: 2000 | V=14.96 | Reference Frame: ICRS |

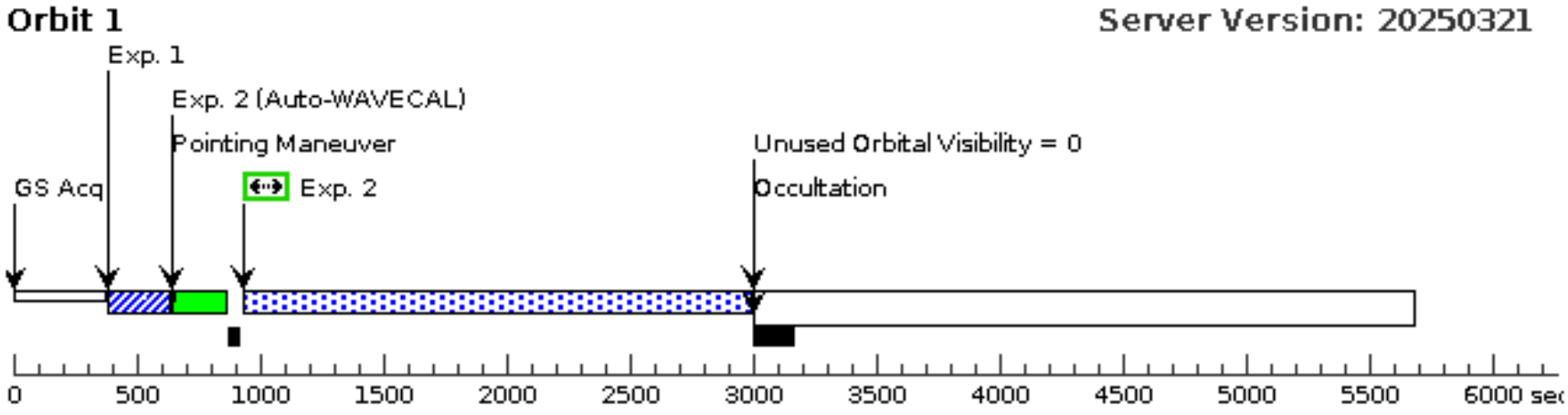
*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*

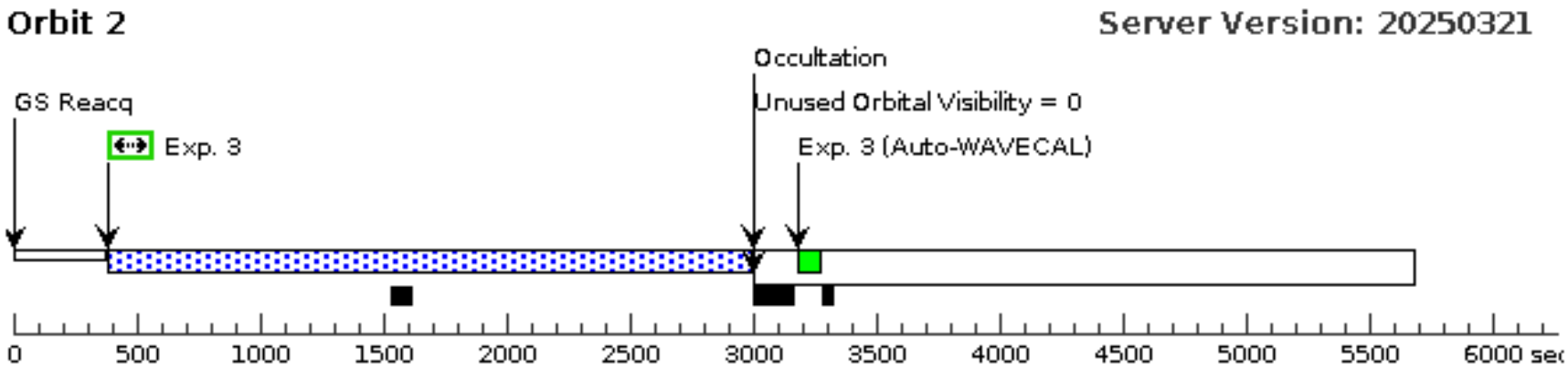
*SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.*
*Category=STAR*
*Description=[T TAURI STAR]*

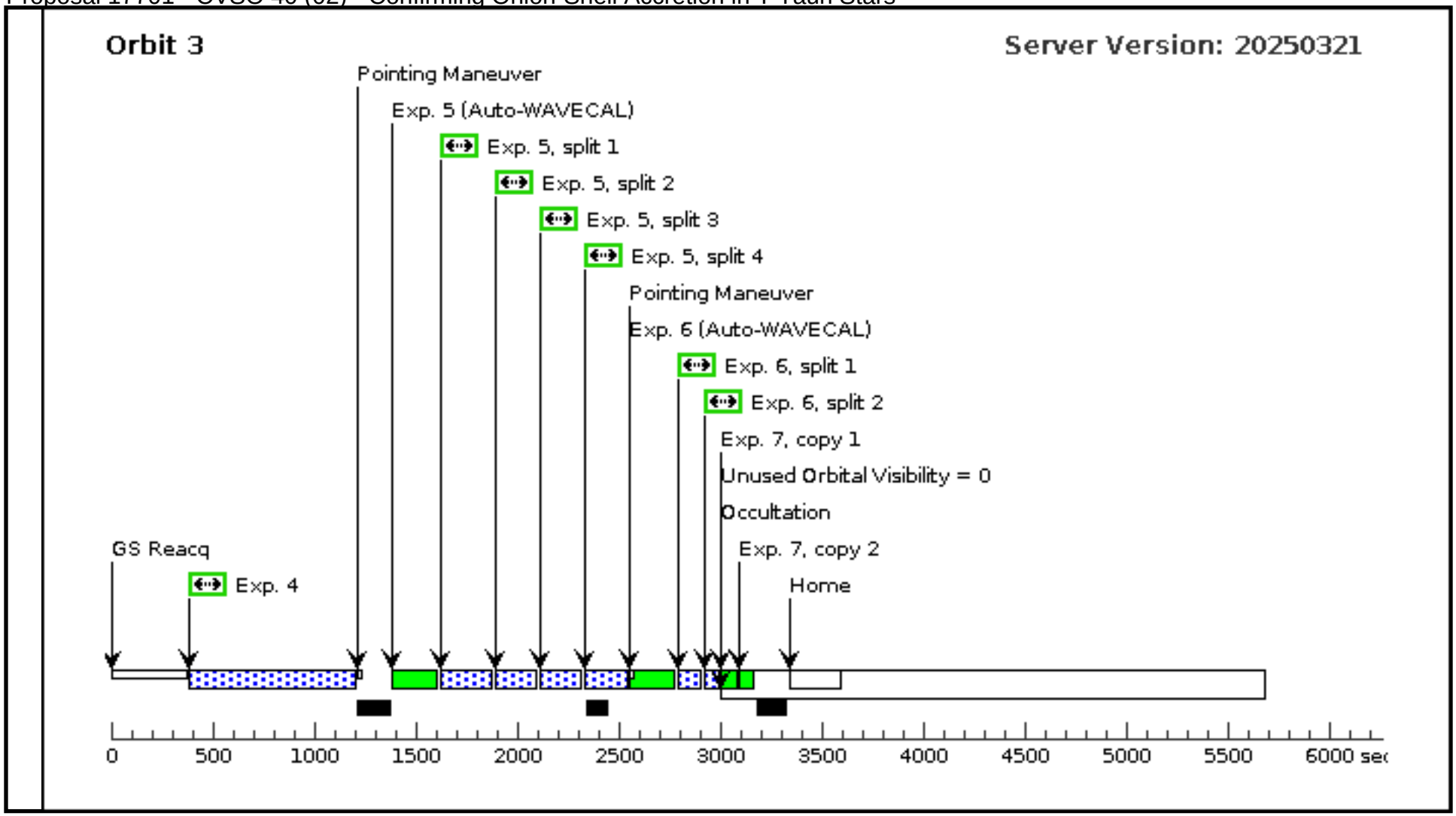
## Exposures

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | (STIS.ta.1932751) | (2) CVSO-40 | STIS/CCD, ACQ, F28X50LP | MIRROR | ACQTYPE=POINT | | | 5 Secs (5 Secs)<br>*[==>]* | *[1]* |
| 2 | (STIS.sp.1932768) | (2) CVSO-40 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1162 | | | 2018 Secs (2018 Secs)<br>*[==>]* | *[1]* |
| 3 | (STIS.sp.1932768) | (2) CVSO-40 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1162 | | | 2597 Secs (2597 Secs)<br>*[==>]* | *[2]* |
| 4 | (STIS.sp.1932768) | (2) CVSO-40 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1162 | | | 777 Secs (777 Secs)<br>*[==>]* | *[3]* |
| 5 | (STIS.sp.1932762) | (2) CVSO-40 | STIS/CCD, ACCUM, 52X2E1 | G430L 4300 A | CR-SPLIT=4 | | | 700 Secs (700 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]*<br>*[==>(Split 3)]*<br>*[==>(Split 4)]* | *[3]* |
| 6 | (STIS.sp.1932758) | (2) CVSO-40 | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | CR-SPLIT=2 | | | 70 Secs (70 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | *[3]* |
| 7 | | CCDFLAT | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | | | | *[==>(Copy 1)]*<br>*[==>(Copy 2)]* | *[3]* |

Orbit Structure




Orbit 3
Server Version: 20250321
Pointing Maneuver
Exp. 5 (Auto-WAVECAL)
Exp. 5, split 1
Exp. 5, split 2
Exp. 5, split 3
Exp. 5, split 4
Pointing Maneuver
Exp. 6 (Auto-WAVECAL)
Exp. 6, split 1
Exp. 6, split 2
Exp. 7, copy 1
Unused Orbital Visibility = 0
Occultation
Exp. 7, copy 2
GS Reacq
Exp. 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

## Visit

**Proposal 17701, CVSO 1763 (03), scheduling** Tue May 27 21:00:21 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: PCS MODE FINE

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (3) | CVSO-1763 | RA: 05 37 26.0136 (84.3583900d)<br>Dec: -05 34 1.33 (-5.56704d)<br>Equinox: J2000 | Proper Motion RA: 1.674 mas/yr<br>Proper Motion Dec: -0.3859999424093985 mas/yr<br>Parallax: 0.0025203"<br>Epoch of Position: 2000 | V=14.85+/-0.858 | Reference Frame: ICRS |

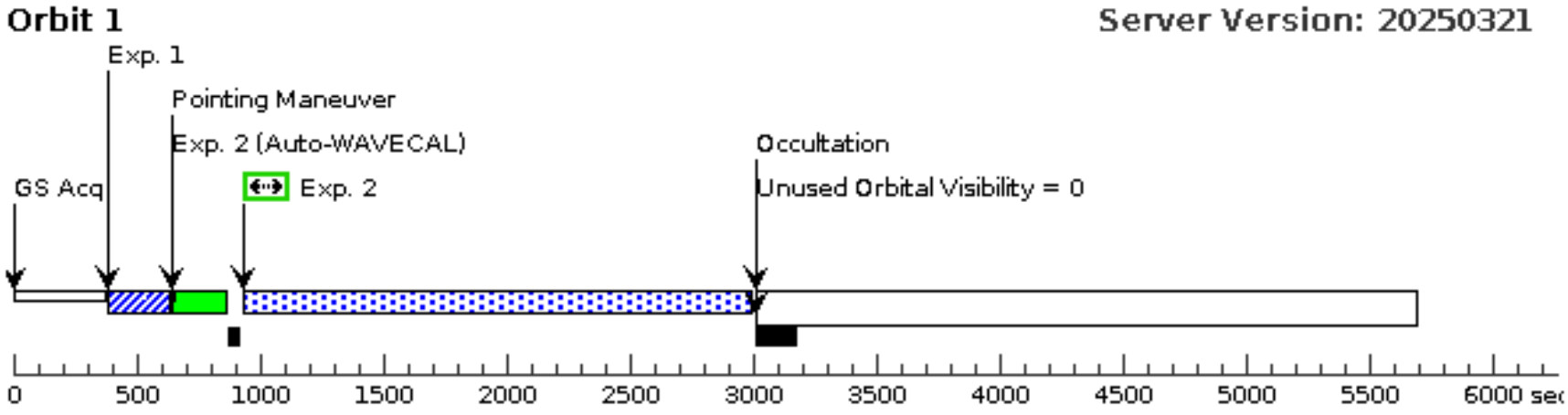
*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*

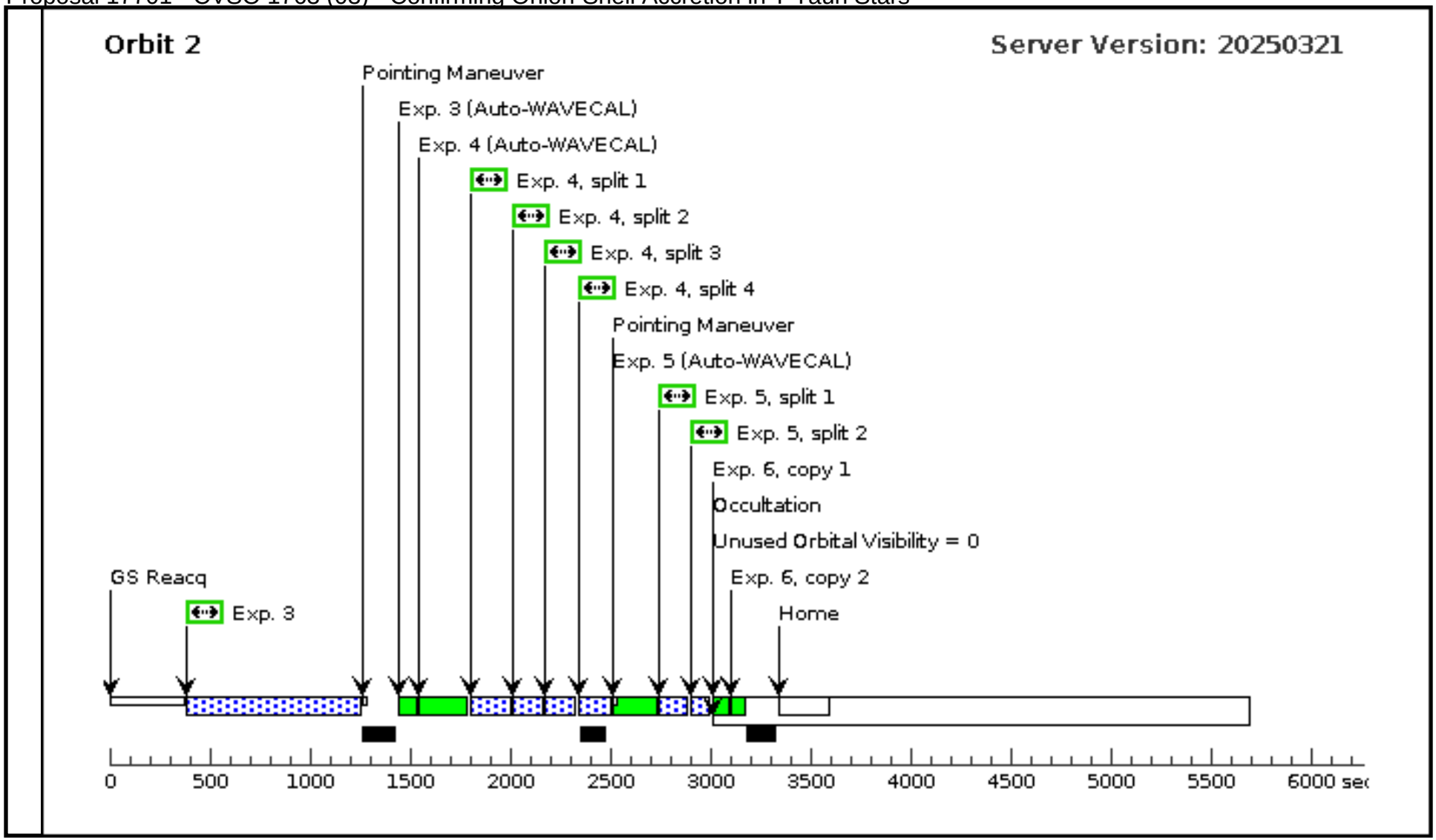
*SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.*
*Category=STAR*
*Description=[T TAURI STAR]*

## Exposures

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | (STIS.ta.1932769) | (3) CVSO-1763 | STIS/CCD, ACQ, F28X50LP | MIRROR | ACQTYPE=POINT | | | 5 Secs (5 Secs)<br>*[==>]* | <br>***[1]*** |
| 2 | (STIS.sp.1932772) | (3) CVSO-1763 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1156 | | | 2023 Secs (2023 Secs)<br>*[==>]* | <br>***[1]*** |
| 3 | (STIS.sp.1932772) | (3) CVSO-1763 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1156 | | | 857 Secs (857 Secs)<br>*[==>]* | <br>***[2]*** |
| 4 | (STIS.sp.1932771) | (3) CVSO-1763 | STIS/CCD, ACCUM, 52X2E1 | G430L 4300 A | CR-SPLIT=4 | | | 480 Secs (480 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]*<br>*[==>(Split 3)]*<br>*[==>(Split 4)]* | <br>***[2]*** |
| 5 | (STIS.sp.1932770) | (3) CVSO-1763 | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | CR-SPLIT=2 | | | 120 Secs (120 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | <br>***[2]*** |
| 6 | | CCDFLAT | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | | | | *[==>(Copy 1)]*<br>*[==>(Copy 2)]* | ***[2]*** |

Orbit Structure




Orbit 2
Server Version: 20250321
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 4 (Auto-WAVECAL)
Exp. 4, split 1
Exp. 4, split 2
Exp. 4, split 3
Exp. 4, split 4
Pointing Maneuver
Exp. 5 (Auto-WAVECAL)
Exp. 5, split 1
Exp. 5, split 2
Exp. 6, copy 1
Occultation
Unused Orbital Visibility = 0
Exp. 6, copy 2
Home
GS Reacq
Exp. 3
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

## Visit

**Proposal 17701, SO 682 (04), scheduling** Tue May 27 21:00:21 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: PCS MODE FINE

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (4) | SO-682 | RA: 05 38 42.2801 (84.6761671d)<br>Dec: -02 37 14.82 (-2.62078d)<br>Equinox: J2000 | Proper Motion RA: 1.072 mas/yr<br>Proper Motion Dec: -0.3490000608508126 mas/yr<br>Parallax: 0.0024402"<br>Epoch of Position: 2000 | V=15.27 | Reference Frame: ICRS |

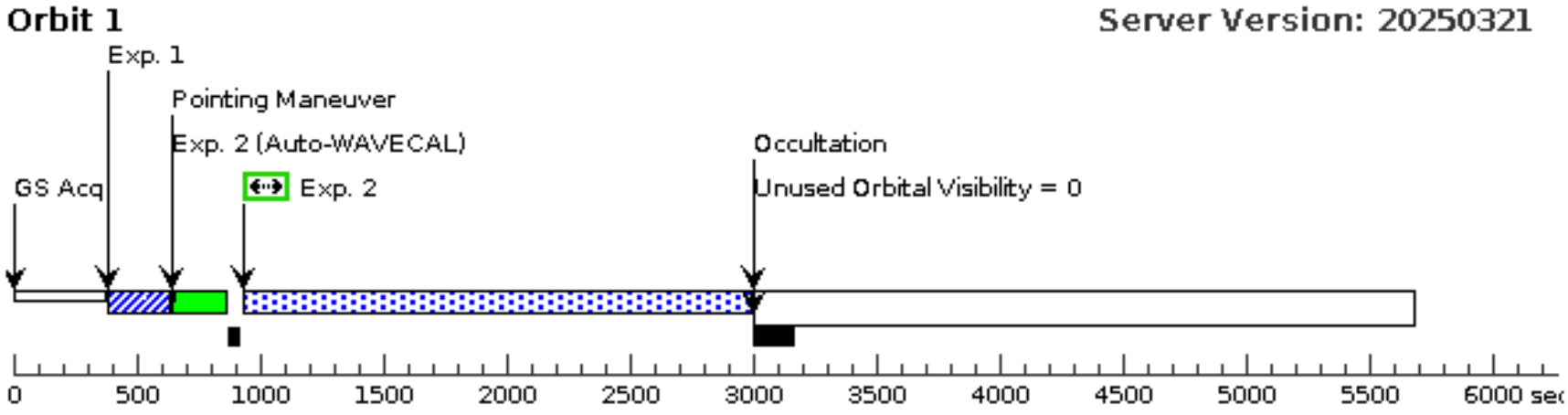
*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. The SIMBAD-resolvable name is [HHM2007] 682.*

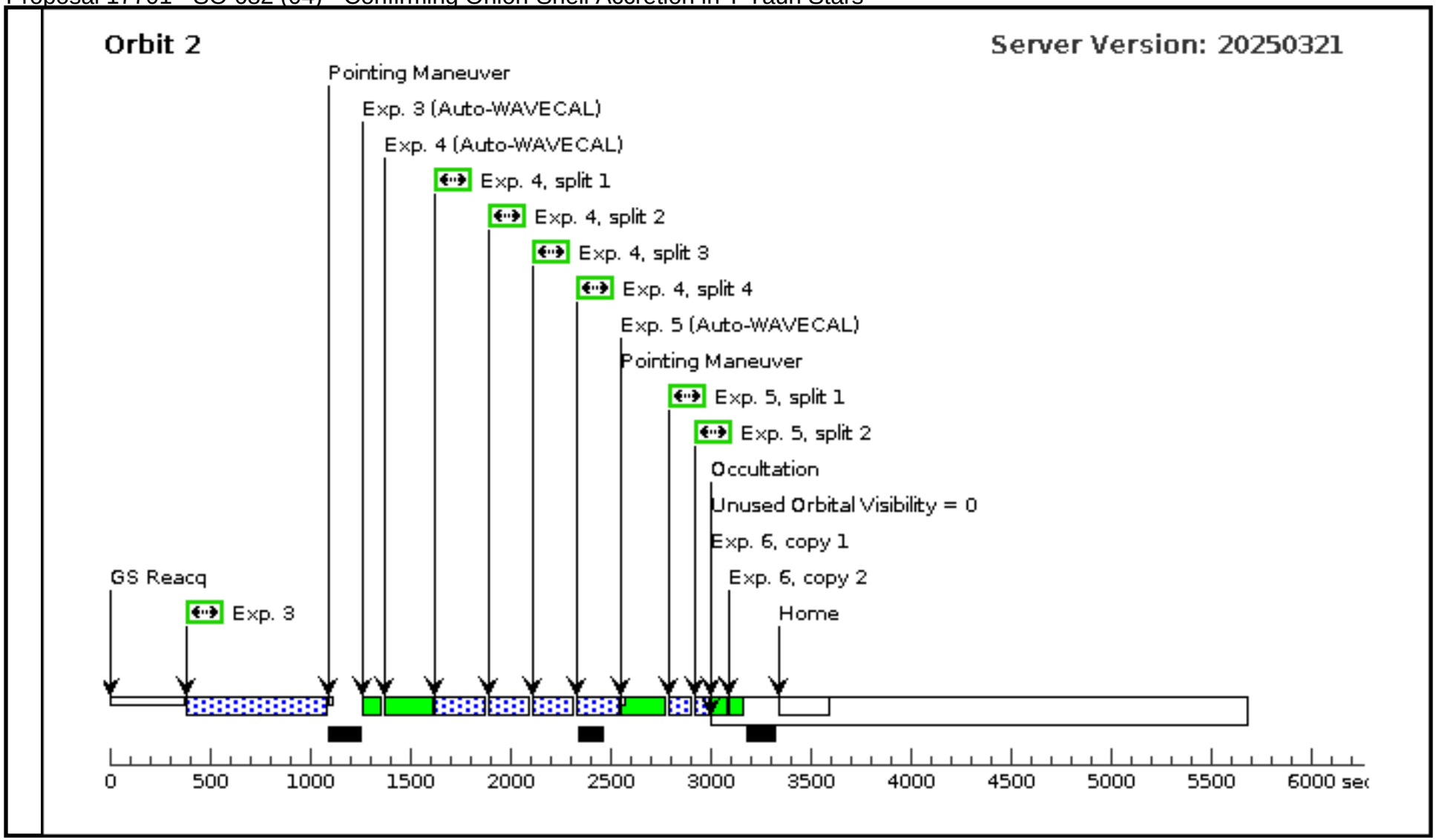
*SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.*
*Category=STAR*
*Description=[T TAURI STAR]*

## Exposures

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | (STIS.ta.1932773) | (4) SO-682 | STIS/CCD, ACQ, F28X50LP | MIRROR | ACQTYPE=POINT | | | 5 Secs (5 Secs)<br>*[==>]* | <br>***[1]*** |
| 2 | (STIS.sp.1932778) | (4) SO-682 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1158 | | | 2018 Secs (2018 Secs)<br>*[==>]* | <br>***[1]*** |
| 3 | (STIS.sp.1932778) | (4) SO-682 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1158 | | | 682 Secs (682 Secs)<br>*[==>]* | <br>***[2]*** |
| 4 | (STIS.sp.1932777) | (4) SO-682 | STIS/CCD, ACCUM, 52X2E1 | G430L 4300 A | CR-SPLIT=4 | | | 700 Secs (700 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]*<br>*[==>(Split 3)]*<br>*[==>(Split 4)]* | <br>***[2]*** |
| 5 | (STIS.sp.1932774) | (4) SO-682 | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | CR-SPLIT=2 | | | 70 Secs (70 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | <br>***[2]*** |
| 6 | | CCDFLAT | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | | | | *[==>(Copy 1)]*<br>*[==>(Copy 2)]* | ***[2]*** |

Orbit Structure




Orbit 2
Server Version: 20250321
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 4 (Auto-WAVECAL)
Exp. 4, split 1
Exp. 4, split 2
Exp. 4, split 3
Exp. 4, split 4
Exp. 5 (Auto-WAVECAL)
Pointing Maneuver
Exp. 5, split 1
Exp. 5, split 2
Occultation
Unused Orbital Visibility = 0
Exp. 6, copy 1
Exp. 6, copy 2
Home
GS Reacq
Exp. 3
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

## Visit

**Proposal 17701, 2MASS-J16253849-2613540 (05), completed** Tue May 27 21:00:21 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: PCS MODE FINE

## Fixed Targets

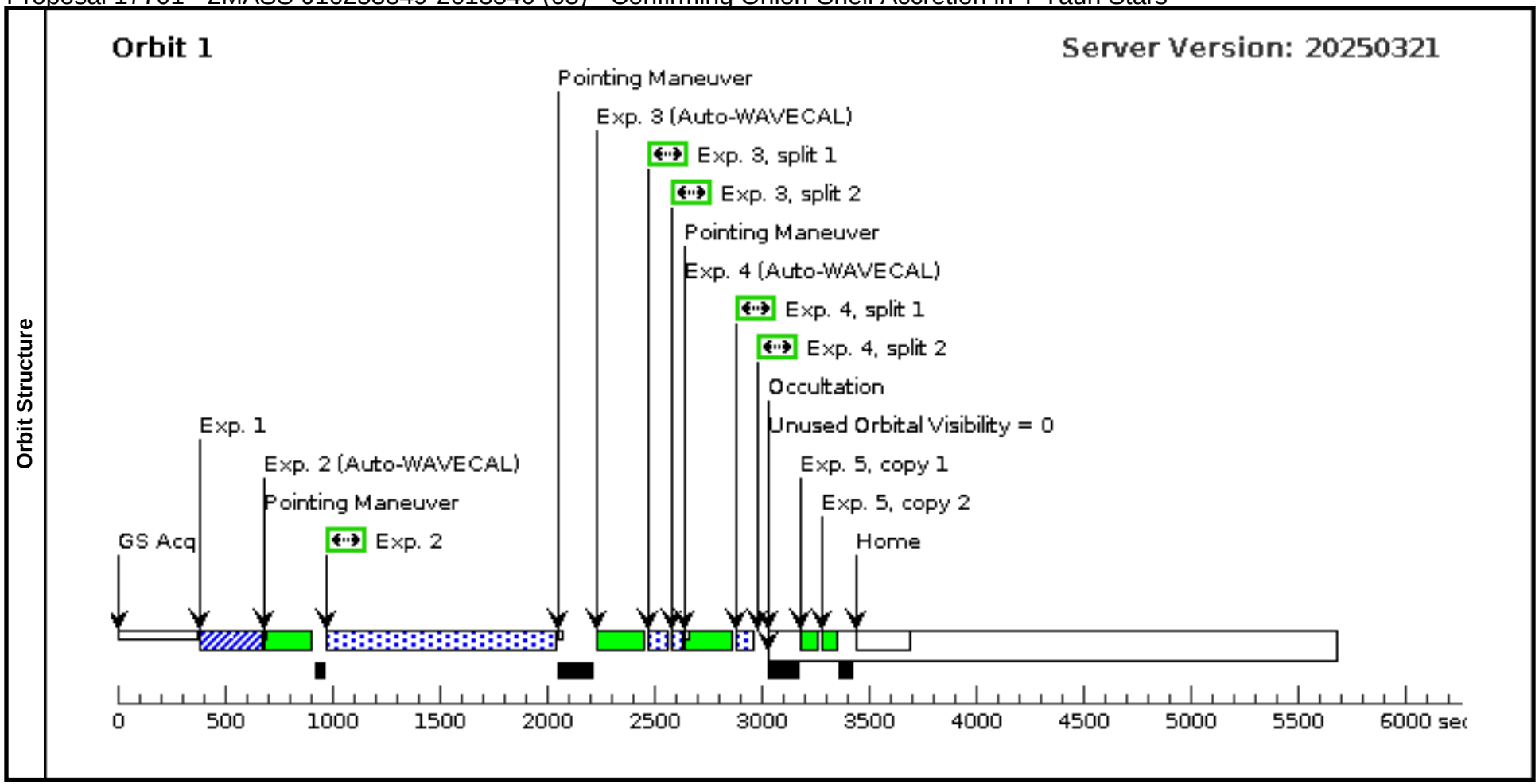
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (5) | 2MASS-J16253849-2613540 | RA: 16 25 38.4801 (246.4103338d)<br>Dec: -26 13 54.29 (-26.23175d)<br>Equinox: J2000 | Proper Motion RA: -9.8 mas/yr<br>Proper Motion Dec: -21.499999911611667 mas/yr<br>Epoch of Position: 2000 | V=11.4 | Reference Frame: ICRS |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*

*SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.*
*Category=STAR*
*Description=[T TAURI STAR]*

## Exposures

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | (STIS.ta.1932785) | (5) 2MASS-J16253849-2613540 | STIS/CCD, ACQ, F28X50OIII | MIRROR | ACQTYPE=POINT | | | 5 Secs (5 Secs)<br>*[==>]* | *[1]* |
| 2 | (STIS.sp.1932789) | (5) 2MASS-J16253849-2613540 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1109 | | | 1027 Secs (1027 Secs)<br>*[==>]* | *[1]* |
| 3 | (STIS.sp.1932788) | (5) 2MASS-J16253849-2613540 | STIS/CCD, ACCUM, 52X2E1 | G430L 4300 A | CR-SPLIT=2 | | | 30 Secs (30 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | *[1]* |
| 4 | (STIS.sp.1932787) | (5) 2MASS-J16253849-2613540 | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | CR-SPLIT=2 | | | 5 Secs (5 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | *[1]* |
| 5 | | CCDFLAT | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | | | | *[==>(Copy 1)]*<br>*[==>(Copy 2)]* | *[1]* |


Orbit Structure
Orbit 1
Server Version: 20250321
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 3, split 1
Exp. 3, split 2
Pointing Maneuver
Exp. 4 (Auto-WAVECAL)
Exp. 4, split 1
Exp. 4, split 2
Occultation
Unused Orbital Visibility = 0
Exp. 5, copy 1
Exp. 5, copy 2
Home
Exp. 1
Exp. 2 (Auto-WAVECAL)
Pointing Maneuver
GS Acq
Exp. 2
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec

## Visit

**Proposal 17701, visit 05 failure repeat (06)** Tue May 27 21:00:21 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: PCS MODE FINE

## Fixed Targets

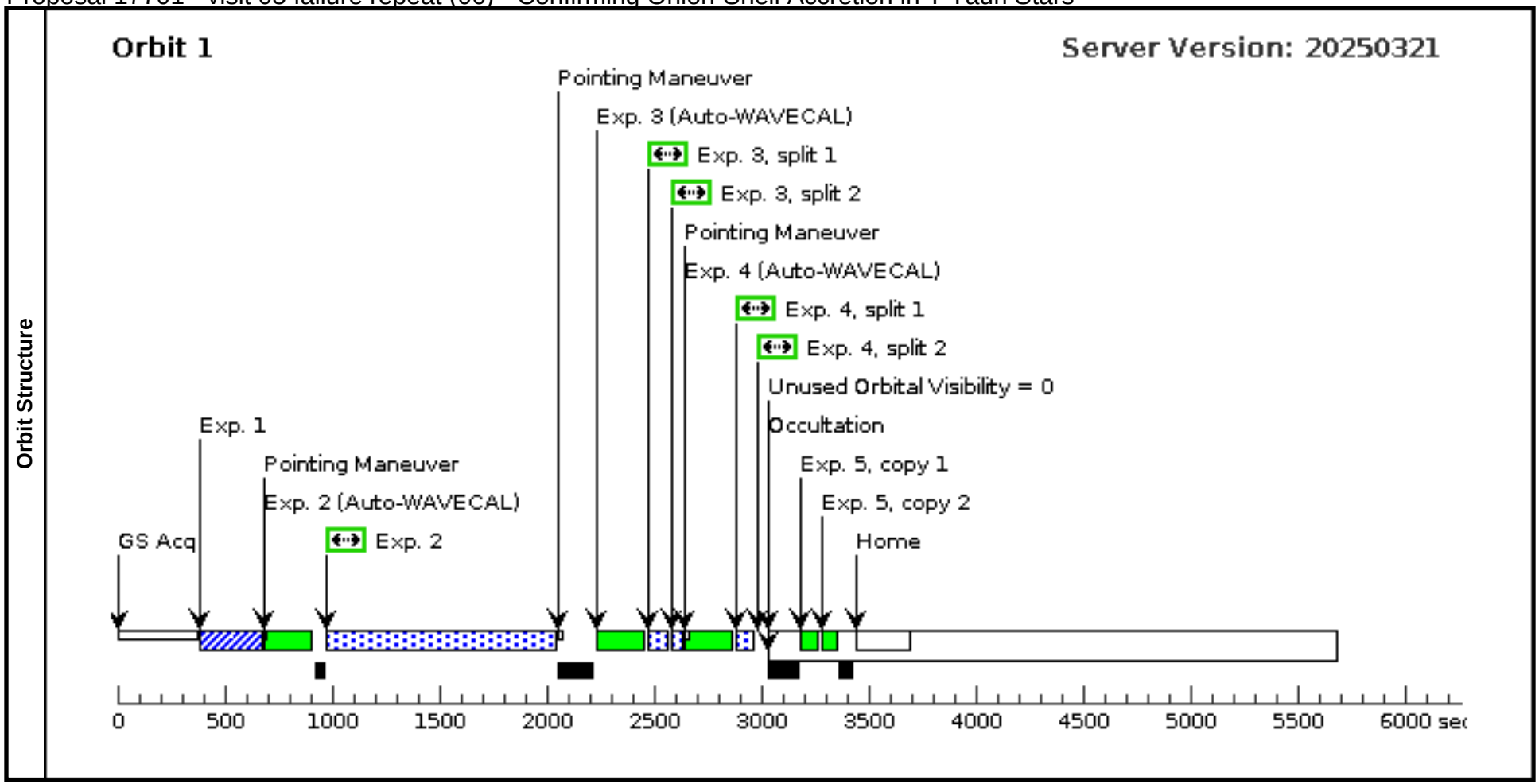
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (5) | 2MASS-J16253849-2613540 | RA: 16 25 38.4801 (246.4103338d)<br>Dec: -26 13 54.29 (-26.23175d)<br>Equinox: J2000 | Proper Motion RA: -9.8 mas/yr<br>Proper Motion Dec: -21.499999911611667 mas/yr<br>Epoch of Position: 2000 | V=11.4 | Reference Frame: ICRS |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*

*SIMBAD listed proper motion for this target. When retrieving targets with PM from SIMBAD, APT requests the coordinates be calculated with an epoch of the year 2000. Do not modify this epoch. Always review coordinates using the Target Confirmation tool, which graphically displays the PM.*
*Category=STAR*
*Description=[T TAURI STAR]*

## Exposures

| # | Label (ETC Run) | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | (STIS.ta.1932785) | (5) 2MASS-J16253849-2613540 | STIS/CCD, ACQ, F28X50OIII | MIRROR | ACQTYPE=POINT | | | 5 Secs (5 Secs)<br>*[==>]* | <br>***[1]*** |
| 2 | (STIS.sp.1932789) | (5) 2MASS-J16253849-2613540 | STIS/NUV-MAMA, TIME-TAG, 52X2 | G230L 2376 A | BUFFER-TIME=1109 | | | 1027 Secs (1027 Secs)<br>*[==>]* | <br>***[1]*** |
| 3 | (STIS.sp.1932788) | (5) 2MASS-J16253849-2613540 | STIS/CCD, ACCUM, 52X2E1 | G430L 4300 A | CR-SPLIT=2 | | | 30 Secs (30 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | <br>***[1]*** |
| 4 | (STIS.sp.1932787) | (5) 2MASS-J16253849-2613540 | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | CR-SPLIT=2 | | | 5 Secs (5 Secs)<br>*[==>(Split 1)]*<br>*[==>(Split 2)]* | <br>***[1]*** |
| 5 | | CCDFLAT | STIS/CCD, ACCUM, 52X2 | G750L 7751 A | | | | *[==>(Copy 1)]*<br>*[==>(Copy 2)]* | ***[1]*** |


Orbit Structure
Orbit 1
Server Version: 20250321
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 3, split 1
Exp. 3, split 2
Pointing Maneuver
Exp. 4 (Auto-WAVECAL)
Exp. 4, split 1
Exp. 4, split 2
Unused Orbital Visibility = 0
Occultation
Exp. 5, copy 1
Exp. 5, copy 2
Home
Exp. 1
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
GS Acq
Exp. 2
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec