# 17688 - WFC3 IR Grism Flux/Trace Calibration

Cycle: 32, Proposal Category: CAL/WFC3

(Availability Mode: RESTRICTED)

**INVESTIGATORS**


| *Name* | *Institution* |
|---|---|
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**VISITS**

| *Visit* | *Targets used in Visit* | *Configurations used in Visit* | *Orbits Used* | *Last Orbit Planner Run* | *OP Current with Visit?* |
|---|---|---|---|---|---|
| 01 | (1) GD-153 | WFC3/IR | 1 | 14-Jul-2025 16:00:48.0 | yes |
| 51 | (1) GD-153 | WFC3/IR | 1 | 14-Jul-2025 16:00:50.0 | yes |
| 91 | (1) GD-153 | WFC3/IR | 1 | 14-Jul-2025 16:00:52.0 | yes |
| 02 | (2) GD-71 | WFC3/IR | 1 | 14-Jul-2025 16:00:54.0 | yes |
| 52 | (2) GD-71 | WFC3/IR | 1 | 14-Jul-2025 16:00:56.0 | yes |
| 92 | (2) GD-71 | WFC3/IR | 1 | 14-Jul-2025 16:00:58.0 | yes |
| 03 | (3) GRW+70D5824 | WFC3/IR | 1 | 14-Jul-2025 16:01:00.0 | yes |
| 04 | (4) P330E | WFC3/IR | 1 | 14-Jul-2025 16:01:02.0 | yes |
| 05 | (4) P330E | WFC3/IR | 1 | 14-Jul-2025 16:01:03.0 | yes |
| 95 | (4) P330E | WFC3/IR | 1 | 14-Jul-2025 16:01:05.0 | yes |

10 Total Orbits Used

**ABSTRACT**

This program will observe GD-153, GD-71, and GRW+70 to verify the flux calibration near the center of the field (-20, 0) and a few other positions using the WFC3 IR G102 and G141 grisms. These calibrations will be compared with those derived from previous programs:

17367 (GD-153, GD-71, GRW+70),
17018 (GD-153, GD-71, GRW+70),
16583 (GD-153, GD-71, GRW+70),
16408 (GD-153, GD-71, GRW+70),
15728 (GD-153),
15587 (GD-153),
14994 (GD-153),
14544 (GD-153),
14386 (GD-153),
14024 (GD-71),
13579 (GD-153),
13092 (GD-153),
12702 (GD-71),
12357 (GD-71),
11937 (GD-71)

to check for any time evolution. The data will also be used to calculate wavelength solutions for the grisms and to check for time-dependent sensitivity evolution of the G102 and G141 observing modes.

**OBSERVING DESCRIPTION**

Observations of GD-153 to verify the flux calibration near the center of the field and at a few other previously observed positions using the WFC3 IR G102 and G141 grisms. These calibrations will be compared with those derived from previous programs. The data will also be used to calculate wavelength solutions for the grisms, and will be used to check time-dependent sensitivity of G102 and G141 observing modes.

Observations will be taken with postargs of (-20,-0) (-20,+15) (-20,-15).

Observations of GD-71 to verify the flux calibration near the center of the field and at a few other previously observed positions using the WFC3 IR G102 and G141 grisms. These calibrations will be compared with those derived from previous programs. The data will also be used to calculate wavelength solutions for the grisms, and will be used to check time-dependent sensitivity of G102 and G141 observing modes.
Observations will be taken with postargs of (-20,-0) (-20,+15) (-20,-15) (-40,+0).
Direct imaging done with only one imaging filter: F098M for G102 and F140W for G141.
ORIENT restrictions applied to minimize contamination in this crowded field.

Observations of GRW+70 to verify the flux calibration near the center of the field and at a few other previously observed positions using the WFC3 IR G102 and G141 grisms. These calibrations will be compared with those derived from previous programs. The data will also be used to calculate wavelength solutions for the grisms, and will be used to check time-dependent sensitivity of G102 and G141 observing modes.
Observations will be taken with postargs of (-20,-0) (-20,+15) (-20,-15) (-40,+0).
Direct imaging done with only one imaging filter: F098M for G102 and F140W for G141.
ORIENT restrictions applied to avoid contamination.

The original flux monitor observed GD71 and GD153 at a range of detector positions but was reduced to a single orbit of GD153 based on the stability of the initial calibration. Using a longer time baseline, a decrease in sensitivity of ~0.1% per year has been measured, so GRW+70 was added (and GD71 resumed) to more accurately track these time-dependent losses.

# Proposal 17688 - GD153 G102 and G141 (01) - WFC3 IR Grism Flux/Trace Calibration

## Visit

**Proposal 17688, GD153 G102 and G141 (01), failed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: BETWEEN 01-JAN-2025:00:00:00 AND 31-MAR-2025:00:00:00

*Comments: Visit targetting GD153*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (1) | GD-153 | RA: 12 57 2.3225 (194.2596771d) | Proper Motion RA: -38.410 mas/yr | V=13.4 | Reference Frame: ICRS |
| | | Dec: +22 01 52.63 (22.03129d) | Proper Motion Dec: -202.953 mas/yr | | |
| | | Equinox: J2000 | Epoch of Position: 2000 | | |

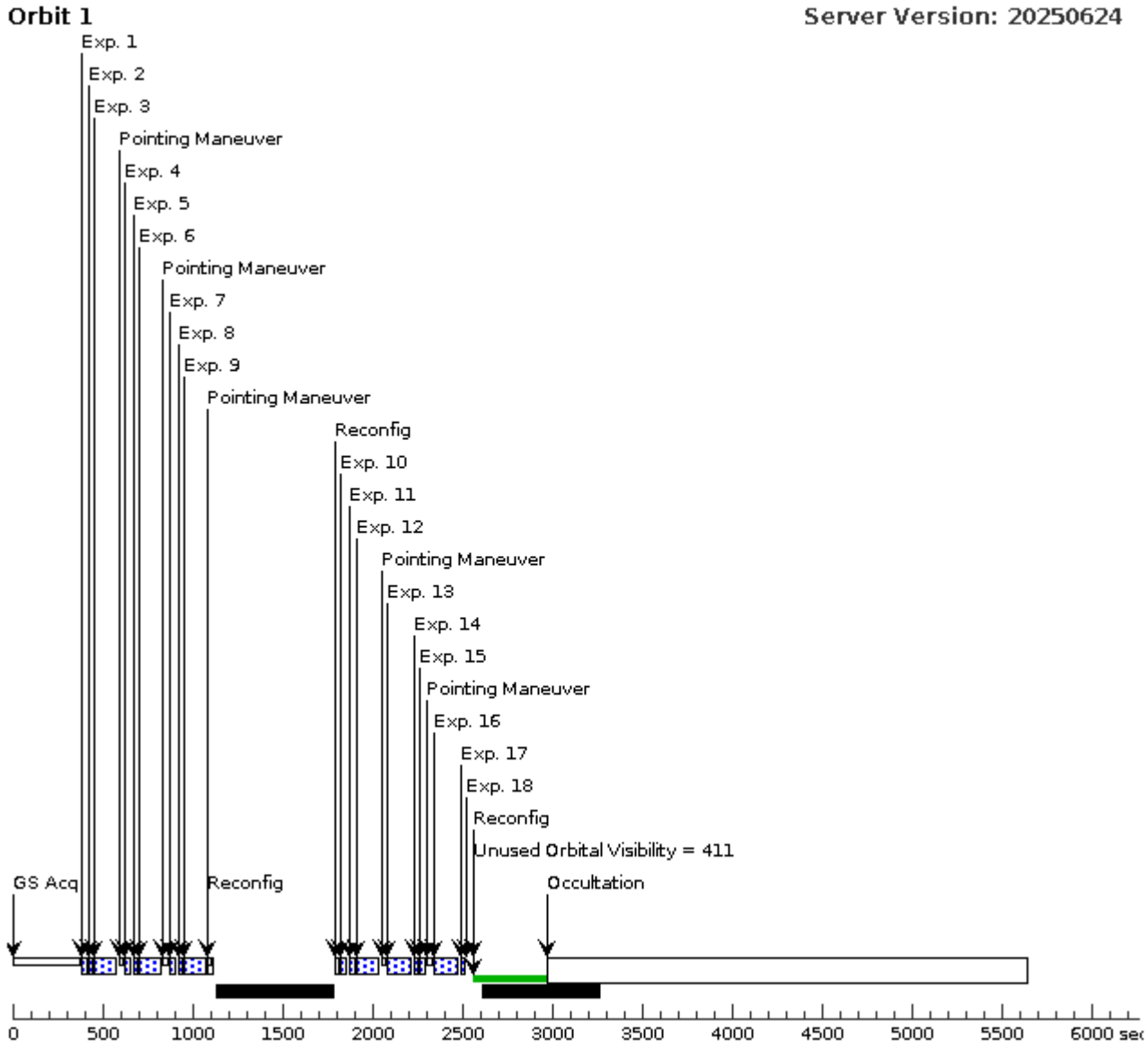
*Comments: According to ISR WFC3-2011-05, GD-153 is used as the primary flux calibrator for the WFC3 IR grisms.*
*Category=STAR*
*Description=[DA]*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0; GS ACQ SCENARIO BASE1O3 | Sequence 1-3 Non-Int in GD153 G102 and G141 (01) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 2 | In -20 -0 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-0 | Sequence 1-3 Non-Int in GD153 G102 and G141 (01) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 3 | In -20 -0 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 1-3 Non-Int in GD153 G102 and G141 (01) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 4 | In -20 +15 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G102 and G141 (01) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 5 | In -20 +15 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G102 and G141 (01) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 6 | In -20 +15 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G102 and G141 (01) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 7 | In -20 -15 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G102 and G141 (01) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 8 | In -20 -15 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G102 and G141 (01) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 9 | In -20 -15 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G102 and G141 (01) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 10 | In -20 -0 F160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G102 and G141 (01) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 11 | In -20 -0 F140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G102 and G141 (01) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 12 | In -20 -0 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G102 and G141 (01) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 13 | In -20 +15 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G102 and G141 (01) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 14 | In -20 +15 F160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G102 and G141 (01) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 15 | In -20 +15 F140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G102 and G141 (01) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 16 | In -20 -15 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 16-18 Non-Int in GD153 G102 and G141 (01) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 17 | In -20 -15 F 160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID POS TARG -20,-15 ; NSAMP=2 | Sequence 16-18 Non-Int in GD153 G102 and G141 (01) | 5.864582 Secs (5.865 Secs)<br>*[==>]* | <br>***[1]*** |
| | 18 | In -20 -15 F 140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID POS TARG -20,-15 ; NSAMP=1 | Sequence 16-18 Non-Int in GD153 G102 and G141 (01) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |

**Orbit Structure**



# Proposal 17688 - GD153 G102 and G141 (51) - WFC3 IR Grism Flux/Trace Calibration

## Visit

**Proposal 17688, GD153 G102 and G141 (51), failed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: BETWEEN 01-JAN-2025:00:00:00 AND 31-MAR-2025:00:00:00

*Comments: Visit targetting GD153*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (1) | GD-153 | RA: 12 57 2.3225 (194.2596771d) | Proper Motion RA: -38.410 mas/yr | V=13.4 | Reference Frame: ICRS |
| | | Dec: +22 01 52.63 (22.03129d) | Proper Motion Dec: -202.953 mas/yr | | |
| | | Equinox: J2000 | Epoch of Position: 2000 | | |

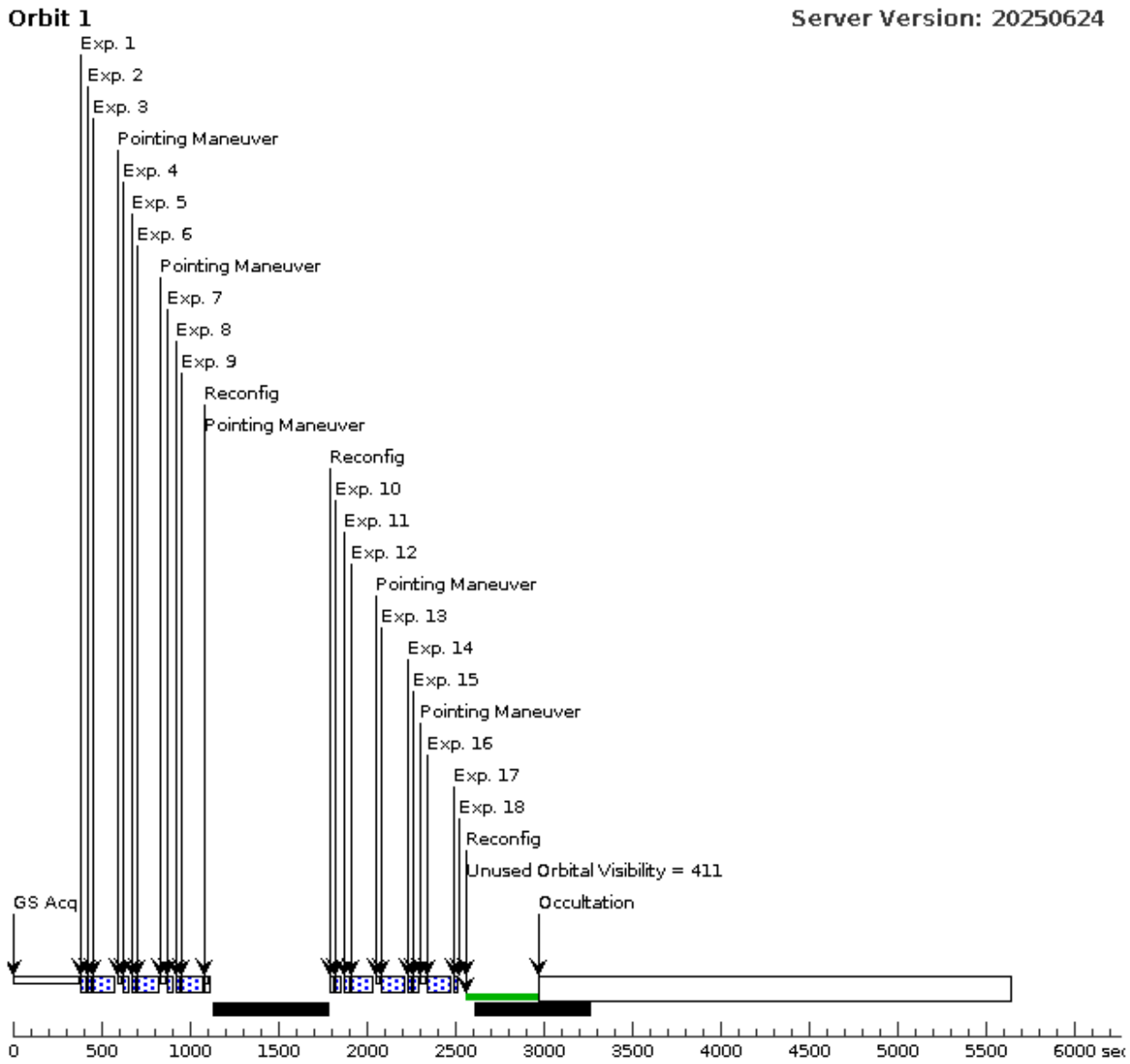
*Comments: According to ISR WFC3-2011-05, GD-153 is used as the primary flux calibrator for the WFC3 IR grisms.*
*Category=STAR*
*Description=[DA]*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0; GS ACQ SCENARIO BASE1O3 | Sequence 1-3 Non-Int in GD153 G102 and G141 (51) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 2 | In -20 -0 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-0 | Sequence 1-3 Non-Int in GD153 G102 and G141 (51) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 3 | In -20 -0 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 1-3 Non-Int in GD153 G102 and G141 (51) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 4 | In -20 +15 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G102 and G141 (51) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 5 | In -20 +15 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G102 and G141 (51) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 6 | In -20 +15 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G102 and G141 (51) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 7 | In -20 -15 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G102 and G141 (51) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 8 | In -20 -15 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G102 and G141 (51) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 9 | In -20 -15 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G102 and G141 (51) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 10 | In -20 -0 F160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G102 and G141 (51) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 11 | In -20 -0 F140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G102 and G141 (51) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 12 | In -20 -0 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G102 and G141 (51) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 13 | In -20 +15 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G102 and G141 (51) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 14 | In -20 +15 F160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G102 and G141 (51) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 15 | In -20 +15 F140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G102 and G141 (51) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 16 | In -20 -15 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 16-18 Non-Int in GD153 G102 and G141 (51) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 17 | In -20 -15 F 160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID POS TARG -20,-15 ; NSAMP=2 | Sequence 16-18 Non-Int in GD153 G102 and G141 (51) | 5.864582 Secs (5.865 Secs)<br>*[==>]* | <br>***[1]*** |
| | 18 | In -20 -15 F 140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID POS TARG -20,-15 ; NSAMP=1 | Sequence 16-18 Non-Int in GD153 G102 and G141 (51) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |

**Orbit Structure**



# Proposal 17688 - GD153 G141 and G102 (91) - WFC3 IR Grism Flux/Trace Calibration

## Visit

**Proposal 17688, GD153 G141 and G102 (91), completed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: BEFORE 05-JUN-2025:00:00:00

*Comments: Visit targeting GD153*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (1) | GD-153 | RA: 12 57 2.3225 (194.2596771d) | Proper Motion RA: -38.410 mas/yr | V=13.4 | Reference Frame: ICRS |
| | | Dec: +22 01 52.63 (22.03129d) | Proper Motion Dec: -202.953 mas/yr | | |
| | | Equinox: J2000 | Epoch of Position: 2000 | | |

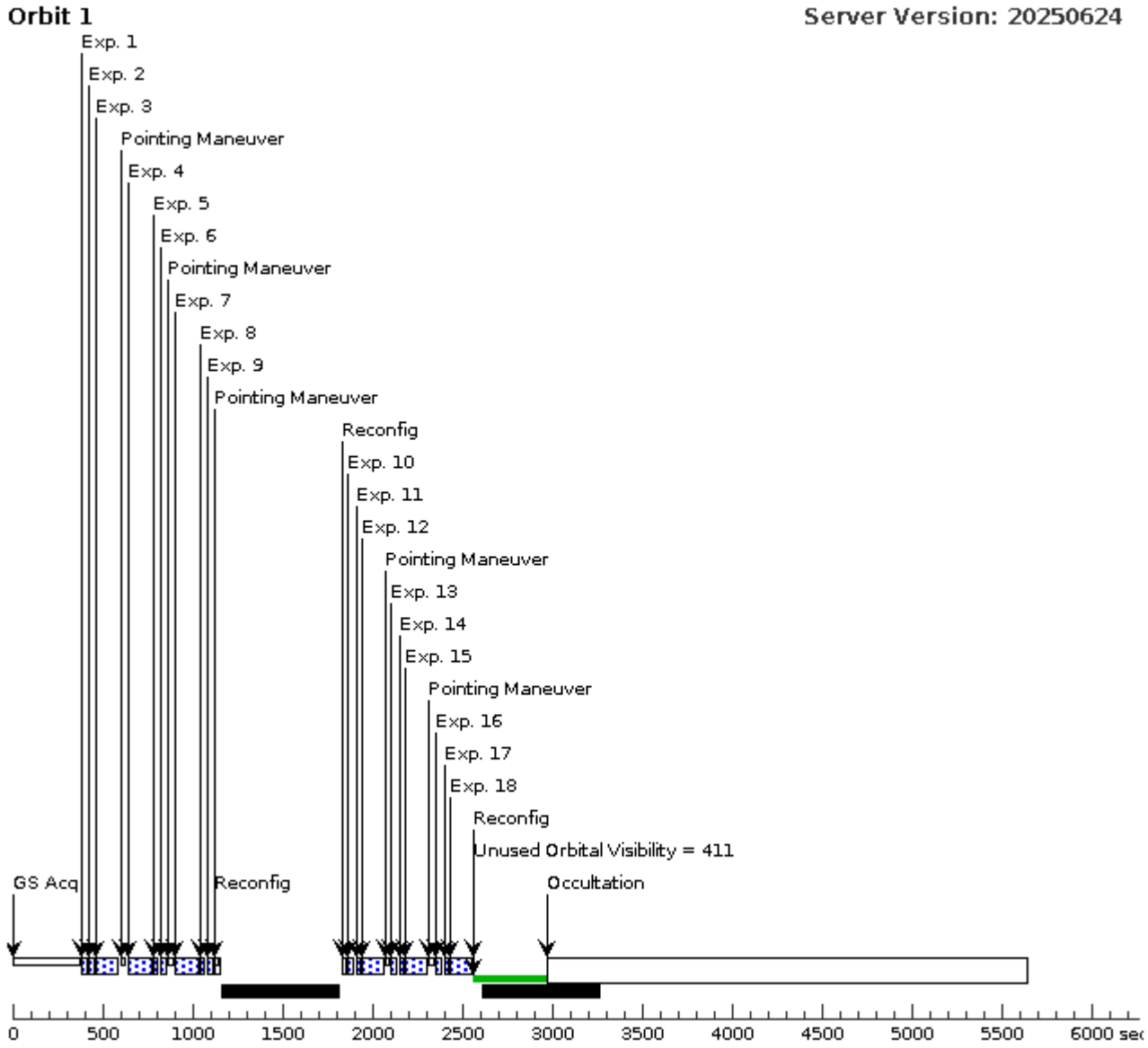
*Comments: According to ISR WFC3-2011-05, GD-153 is used as the primary flux calibrator for the WFC3 IR grisms.*
*Category=STAR*
*Description=[DA]*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 1-3 Non-Int in GD153 G141 and G102 (91) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 2 | In -20 -0 F140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-0 | Sequence 1-3 Non-Int in GD153 G141 and G102 (91) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 3 | In -20 -0 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 1-3 Non-Int in GD153 G141 and G102 (91) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 4 | In -20 +15 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G141 and G102 (91) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 5 | In -20 +15 F160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G141 and G102 (91) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 6 | In -20 +15 F140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,+15 | Sequence 4-6 Non-Int in GD153 G141 and G102 (91) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 7 | In -20 -15 G141 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G141 and G102 (91) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 8 | In -20 -15 F160W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G141 and G102 (91) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 9 | In -20 -15 F140W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-15 | Sequence 7-9 Non-Int in GD153 G141 and G102 (91) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 10 | In -20 -0 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0; GS ACQ SCENARIO BASE1O3 | Sequence 10-12 Non-Int in GD153 G141 and G102 (91) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 11 | In -20 -0 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G141 and G102 (91) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 12 | In -20 -0 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 10-12 Non-Int in GD153 G141 and G102 (91) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 13 | In -20 +15 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G141 and G102 (91) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 14 | In -20 +15 F105W | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID; NSAMP=1 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G141 and G102 (91) | 2.932291 Secs (2.932 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 15 | In -20 +15 G102 | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 13-15 Non-Int in GD153 G141 and G102 (91) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 16 | In -20 -15 F098M | (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 16-18 Non-Int in GD153 G141 and G102 (91) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 17 | In -20 -15 F 105W (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID POS TARG -20,-15 ; NSAMP=1 | Sequence 16-18 Non-Int in GD153 G141 and G102 (91) | 2.932291 Secs (2.932 Secs) [==>] | [1] |
| | 18 | In -20 -15 G 102 (1) GD-153 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS POS TARG -20,-15 25; NSAMP=5 | Sequence 16-18 Non-Int in GD153 G141 and G102 (91) | 102.934351 Secs (102.934 Secs) [==>] | [1] |

**Orbit Structure**



# Proposal 17688 - GD71 G102 and G141 (02) - WFC3 IR Grism Flux/Trace Calibration

## Visit

**Proposal 17688, GD71 G102 and G141 (02), failed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 135D TO 154 D; ORIENT 197D TO 225 D; ORIENT 280D TO 310 D; ORIENT 26D TO 30 D; ORIENT 43D TO 55 D; BETWEEN 04-NOV-2024:00:00:00 AND 31-DEC-2024:00:00:00

*Comments: Visit targetting GD71*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (2) | GD-71 | RA: 05 52 27.6197 (88.1150821d) | Proper Motion RA: 76.841 mas/yr | V=13.06 | Reference Frame: ICRS |
| | | Dec: +15 53 13.23 (15.88701d) | Proper Motion Dec: -172.944 mas/yr | | |
| | | Equinox: J2000 | Parallax: 0.019245" | | |
| | | | Epoch of Position: 2000 | | |

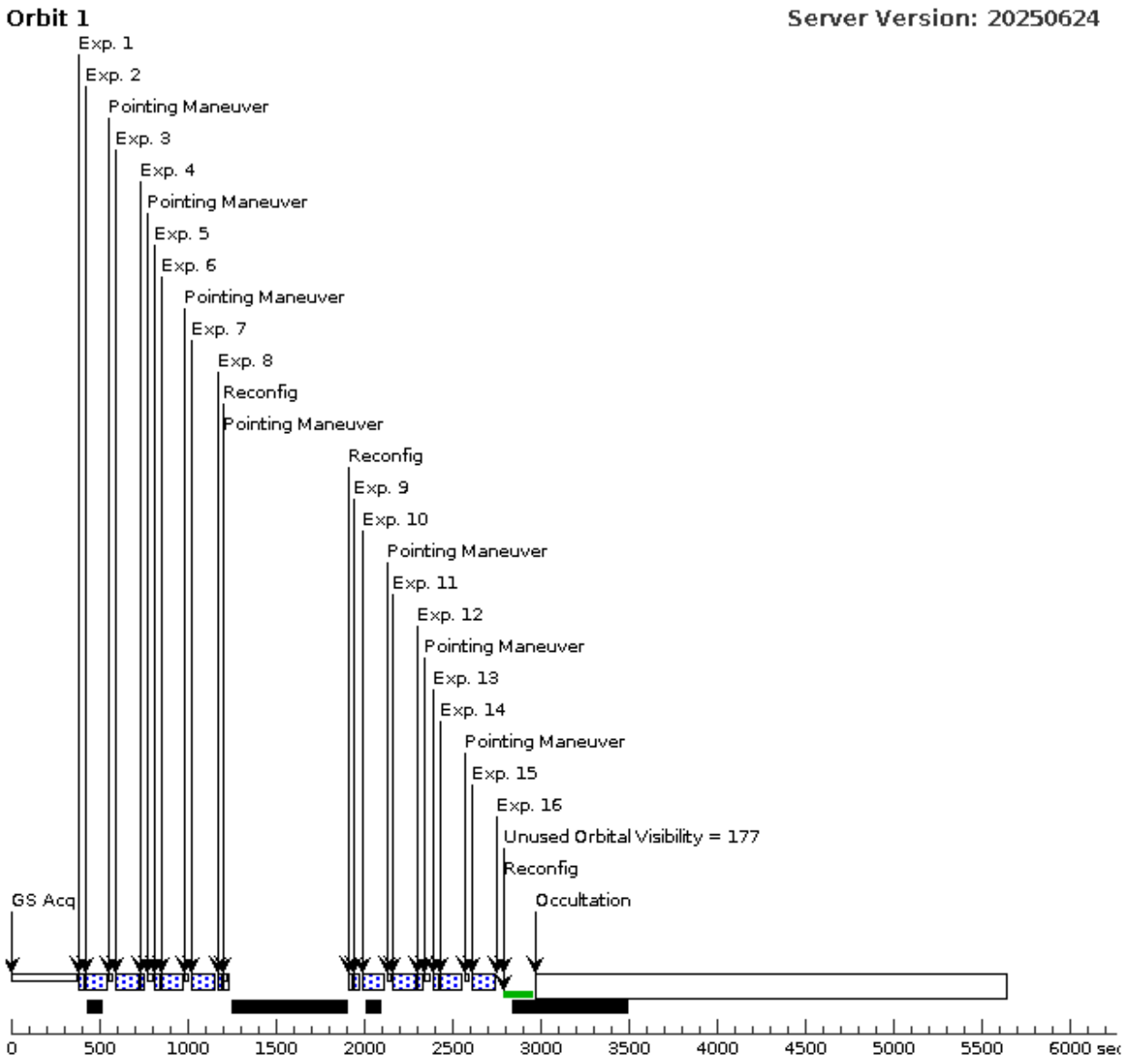
*Comments: GD-71 is a primary HST flux standard that has been used in the past to calibrate the NICMOS and ACS grism modes, which provides us with the ability to cross-calibrate between instruments. GD-71 is specifically chosen for the WFC3 IR grism calibration because it will provide an aditional flux calibration target (GD-153 is used in SMOV for the IR grism calibration), so that the calibration is not based on a single target. An additional calibration target also minimizes the potential for problems from other nearby sources in the field.*

*The original flux monitor observed GD71 and GD153 at a range of detector positions but was reduced to a single orbit of GD153 based on the stability of the initial calibration. Using a longer time baseline, a decrease in sensitivity of ~0.1% per year has been measured, so GRW+70 was added (and GD71 resumed) to more accurately track these time-dependent losses.*
*Category=STAR*
*Description=[DA]*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F0 98M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 1-2 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 2 | In -20 -0 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 1-2 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 3 | In -20 +15 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 4 | In -20 +15 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 5 | In -20 -15 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 6 | In -20 -15 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 7 | In -40 +0 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 8 | In -40 +0 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 9 | In -20 -0 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 10 | In -20 -0 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 11 | In -20 +15 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 12 | In -20 +15 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 13 | In -20 -15 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 14 | In -20 -15 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 15 | In -40 +0 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GD71 G102 and G141 (02) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 16 | In -40 +0 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GD71 G102 and G141 (02) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |

**Orbit Structure**



# Proposal 17688 - GD71 G102 and G141 (52) - WFC3 IR Grism Flux/Trace Calibration

## Visit

**Proposal 17688, GD71 G102 and G141 (52), failed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 135D TO 154 D; ORIENT 197D TO 225 D; ORIENT 280D TO 310 D; ORIENT 26D TO 30 D; ORIENT 43D TO 55 D; BETWEEN 04-NOV-2024:00:00:00 AND 31-DEC-2024:00:00:00

*Comments: Visit targetting GD71*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (2) | GD-71 | RA: 05 52 27.6197 (88.1150821d) | Proper Motion RA: 76.841 mas/yr | V=13.06 | Reference Frame: ICRS |
| | | Dec: +15 53 13.23 (15.88701d) | Proper Motion Dec: -172.944 mas/yr | | |
| | | Equinox: J2000 | Parallax: 0.019245" | | |
| | | | Epoch of Position: 2000 | | |

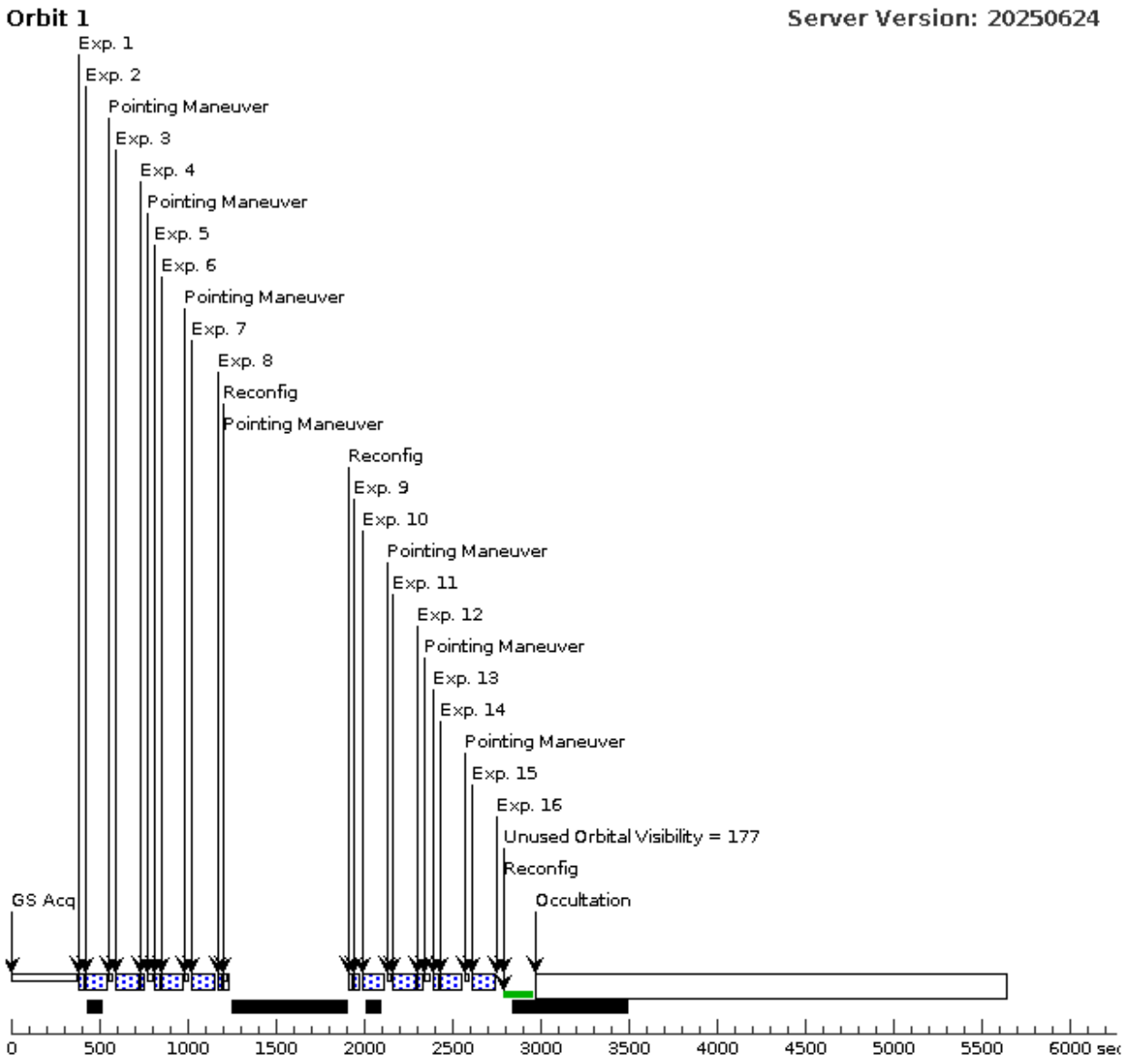
*Comments: GD-71 is a primary HST flux standard that has been used in the past to calibrate the NICMOS and ACS grism modes, which provides us with the ability to cross-calibrate between instruments. GD-71 is specifically chosen for the WFC3 IR grism calibration because it will provide an aditional flux calibration target (GD-153 is used in SMOV for the IR grism calibration), so that the calibration is not based on a single target. An additional calibration target also minimizes the potential for problems from other nearby sources in the field.*

*The original flux monitor observed GD71 and GD153 at a range of detector positions but was reduced to a single orbit of GD153 based on the stability of the initial calibration. Using a longer time baseline, a decrease in sensitivity of ~0.1% per year has been measured, so GRW+70 was added (and GD71 resumed) to more accurately track these time-dependent losses.*
*Category=STAR*
*Description=[DA]*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F0 98M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 1-2 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 2 | In -20 -0 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 1-2 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 3 | In -20 +15 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 4 | In -20 +15 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 5 | In -20 -15 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 6 | In -20 -15 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 7 | In -40 +0 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 8 | In -40 +0 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 9 | In -20 -0 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 10 | In -20 -0 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 11 | In -20 +15 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 12 | In -20 +15 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 13 | In -20 -15 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 14 | In -20 -15 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 15 | In -40 +0 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GD71 G102 and G141 (52) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 16 | In -40 +0 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GD71 G102 and G141 (52) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |

**Orbit Structure**



## Visit

**Proposal 17688, GD71 G102 and G141 (92), scheduling** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 135D TO 154 D; ORIENT 197D TO 225 D; ORIENT 280D TO 310 D; ORIENT 26D TO 30 D; ORIENT 43D TO 55 D

*Comments: Visit targetting GD71*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (2) | GD-71 | RA: 05 52 27.6197 (88.1150821d) | Proper Motion RA: 76.841 mas/yr | V=13.06 | Reference Frame: ICRS |
| | | Dec: +15 53 13.23 (15.88701d) | Proper Motion Dec: -172.944 mas/yr | | |
| | | Equinox: J2000 | Parallax: 0.019245" | | |
| | | | Epoch of Position: 2000 | | |

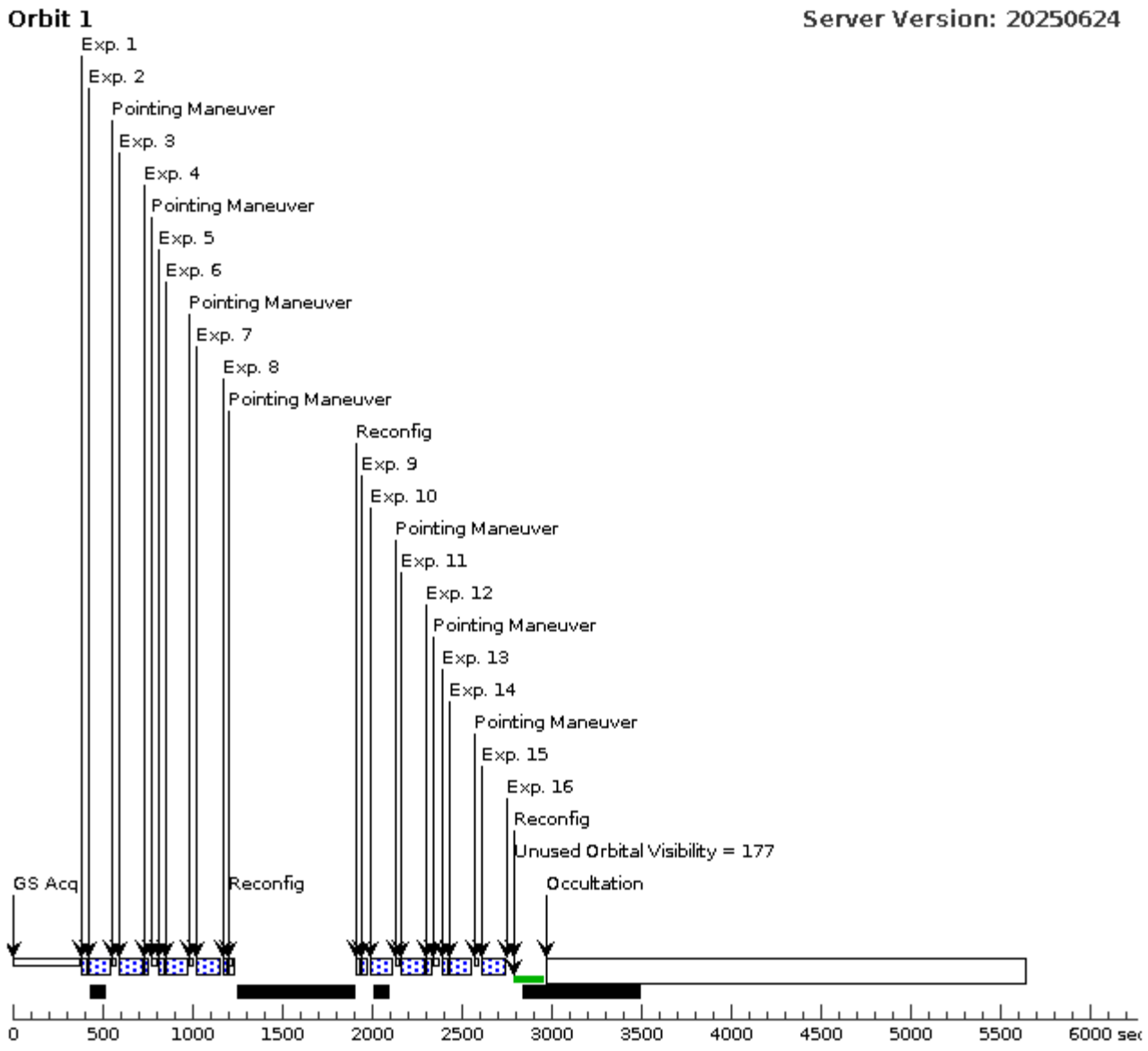
*Comments: GD-71 is a primary HST flux standard that has been used in the past to calibrate the NICMOS and ACS grism modes, which provides us with the ability to cross-calibrate between instruments. GD-71 is specifically chosen for the WFC3 IR grism calibration because it will provide an aditional flux calibration target (GD-153 is used in SMOV for the IR grism calibration), so that the calibration is not based on a single target. An additional calibration target also minimizes the potential for problems from other nearby sources in the field.*

*The original flux monitor observed GD71 and GD153 at a range of detector positions but was reduced to a single orbit of GD153 based on the stability of the initial calibration. Using a longer time baseline, a decrease in sensitivity of ~0.1% per year has been measured, so GRW+70 was added (and GD71 resumed) to more accurately track these time-dependent losses.*
*Category=STAR*
*Description=[DA]*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F0 98M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 1-2 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 2 | In -20 -0 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 1-2 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 3 | In -20 +15 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 4 | In -20 +15 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 5 | In -20 -15 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 6 | In -20 -15 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 7 | In -40 +0 G102 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 8 | In -40 +0 F098M | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 9 | In -20 -0 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 10 | In -20 -0 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 11 | In -20 +15 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 12 | In -20 +15 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 13 | In -20 -15 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 14 | In -20 -15 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 15 | In -40 +0 G141 | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GD71 G102 and G141 (92) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 16 | In -40 +0 F140W | (2) GD-71 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GD71 G102 and G141 (92) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |

**Orbit Structure**



# Proposal 17688 - GRW+70 G102 and G141 (03) - WFC3 IR Grism Flux/Trace Calibration

## Visit

**Proposal 17688, GRW+70 G102 and G141 (03), completed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 160D TO 315 D; ORIENT 340D TO 130 D; BETWEEN 04-NOV-2024:00:00:00 AND 31-DEC-2024:00:00:00

*Comments: Visit targetting GRW+70*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (3) | GRW+70D5824 | RA: 13 38 50.4781 (204.7103254d) | Proper Motion RA: -402.093 mas/yr | V=12.773 | Reference Frame: ICRS |
| | Alt Name1: HIP-66578 | Dec: +70 17 7.64 (70.28546d) | Proper Motion Dec: -24.608 mas/yr | J = 13.25 | |
| | | Equinox: J2000 | Parallax: 0.03771" | | |
| | | | Epoch of Position: 2000 | | |

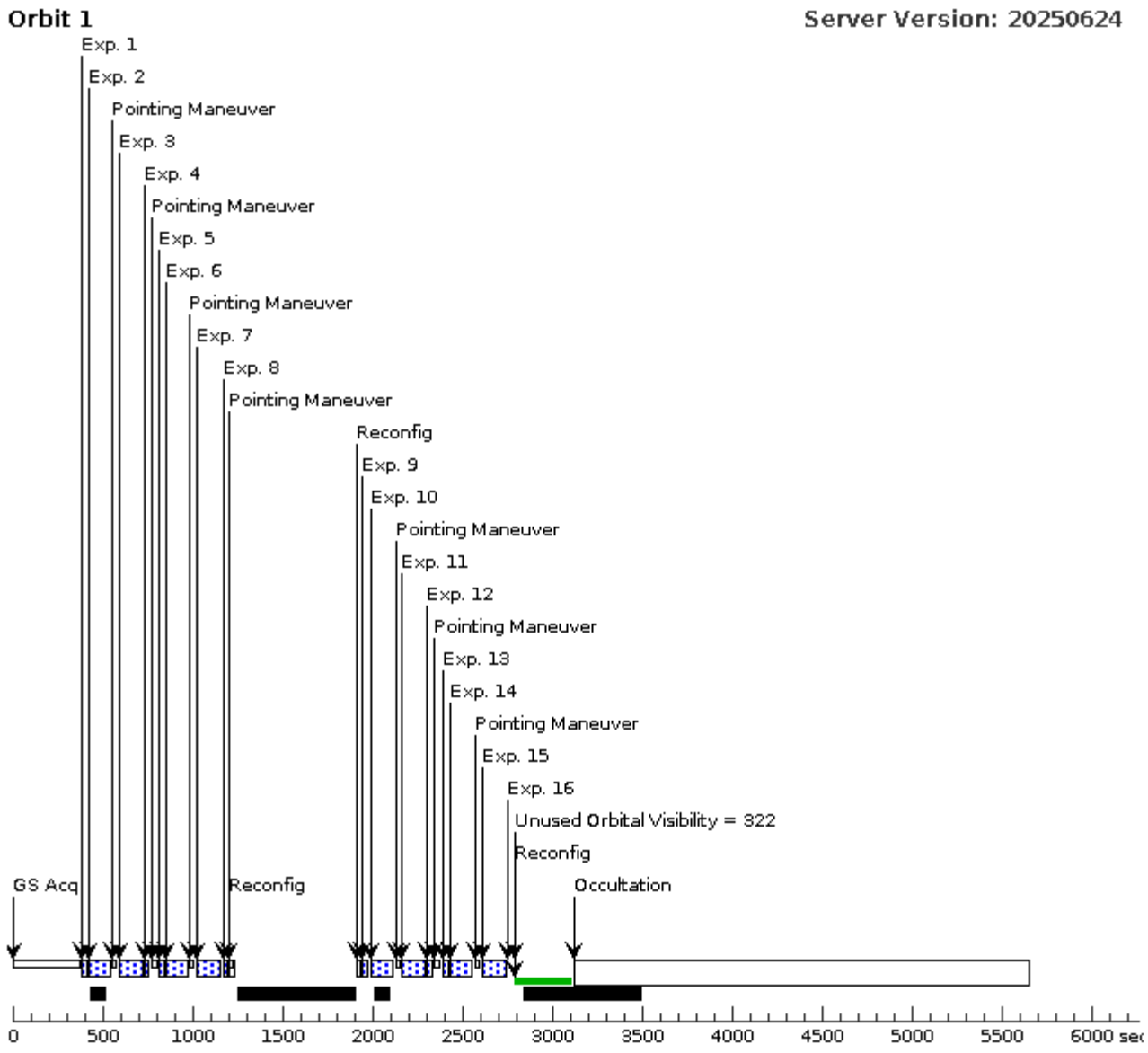
*Comments: GRW+70 is specifically chosen for the WFC3 IR grism calibration because it will provide an aditional flux calibration target (GD-153 is used in SMOV for the IR grism calibration), so that the calibration is not based on a single target. An additional calibration target also minimizes the potential for problems from other nearby sources in the field.*

*The original flux monitor observed GD71 and GD153 at a range of detector positions but was reduced to a single orbit of GD153 based on the stability of the initial calibration. Using a longer time baseline, a decrease in sensitivity of ~0.1% per year has been measured, so GRW+70 was added (and GD71 resumed) to more accurately track these time-dependent losses.*
*Category=CALIBRATION*
*Description=[PHOTOMETRIC]*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F098M | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0; GS ACQ SCENARIO BASE1O3 | Sequence 1-2 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 2 | In -20 -0 G102 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 1-2 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 3 | In -20 +15 G102 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 4 | In -20 +15 F098M | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 3-4 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 5 | In -20 -15 F098M | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 6 | In -20 -15 G102 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 5-6 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 7 | In -40 +0 G102 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 8 | In -40 +0 F098M | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 7-8 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 9 | In -20 -0 F140W | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 10 | In -20 -0 G141 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-0 | Sequence 9-10 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 11 | In -20 +15 G141 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 12 | In -20 +15 F140W | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,+15 | Sequence 11-12 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 13 | In -20 -15 F140W | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 14 | In -20 -15 G141 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -20,-15 | Sequence 13-14 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 15 | In -40 +0 G141 | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS25; NSAMP=5 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GRW+70 G102 and G141 (03) | 102.934351 Secs (102.934 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |
| 16 | In -40 +0 F140W | (3) GRW+70D5824 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID; NSAMP=2 | POS TARG -40,+0 | Sequence 15-16 Non-Int in GRW+70 G102 and G141 (03) | 5.864582 Secs (5.865 Secs) | |
| | | | | | | | | *[==>]* | ***[1]*** |

**Orbit Structure**



## Visit

**Proposal 17688, P330E G102 and G141 (04), completed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 180D TO 240 D; BETWEEN 20-FEB-2025:00:00:00 AND 13-JUL-2025:00:00:00

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (4) | P330E | RA: 16 31 33.8124 (247.8908850d)<br>Dec: +30 08 46.40 (30.14622d)<br>Equinox: J2000 | Proper Motion RA: -8.882 mas/yr<br>Proper Motion Dec: -38.70500008815725 mas/yr<br>Parallax: 0.0022149"<br>Epoch of Position: 2000 | V=12.917 | Reference Frame: ICRS |

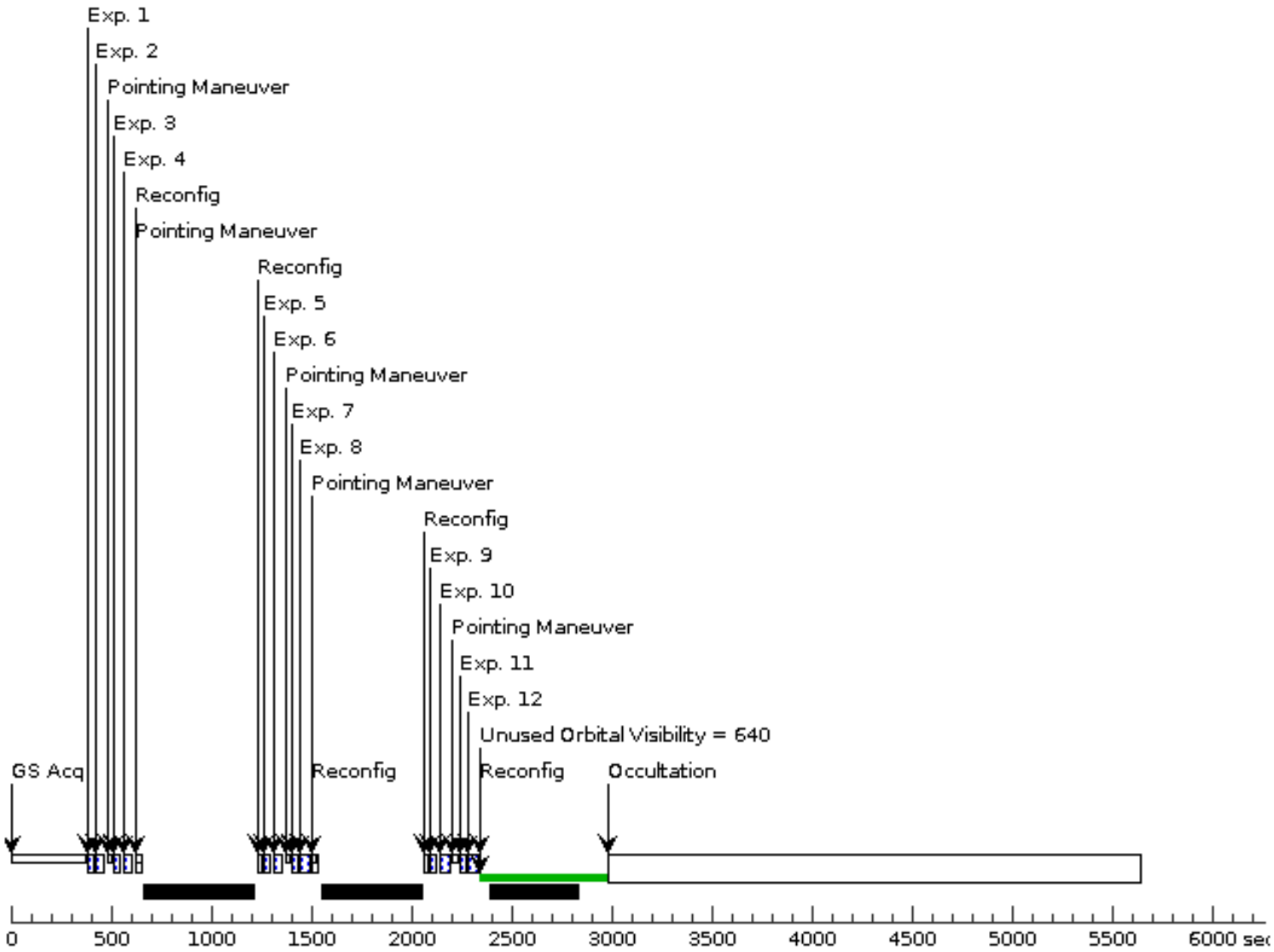
*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*

*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=[G V-IV]*
*Extended=NO*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-0 | Sequence 1-2 Non-Int in P330E G102 and G141 (04) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |
| 2 | In -20 0 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=RAPID; NSAMP=11 | POS TARG -20,0 | Sequence 1-2 Non-Int in P330E G102 and G141 (04) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | <br>***[1]*** |
| 3 | In -20 +15 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 3-4 Non-Int in P330E G102 and G141 (04) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |
| 4 | In -20 +15 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=RAPID; NSAMP=11 | POS TARG -20,+15 | Sequence 3-4 Non-Int in P330E G102 and G141 (04) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | <br>***[1]*** |
| 5 | In -20 -15 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 5-6 Non-Int in P330E G102 and G141 (04) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |
| 6 | In -20 -15 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=11; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 5-6 Non-Int in P330E G102 and G141 (04) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | <br>***[1]*** |
| 7 | In -20 -0 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-0 | Sequence 7-8 Non-Int in P330E G102 and G141 (04) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |
| 8 | In -20 0 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,0 | Sequence 7-8 Non-Int in P330E G102 and G141 (04) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | <br>***[1]*** |
| 9 | In -20 -15 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 9-10 Non-Int in P330E G102 and G141 (04) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |
| 10 | In -20 -15 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 9-10 Non-Int in P330E G102 and G141 (04) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | <br>***[1]*** |
| 11 | In -20 +15 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 11-12 Non-Int in P330E G102 and G141 (04) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | <br>***[1]*** |
| 12 | In -20 +15 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 11-12 Non-Int in P330E G102 and G141 (04) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | <br>***[1]*** |

Orbit Structure



## Visit

**Proposal 17688, P330E G102 and G141 (05), failed** Mon Jul 14 20:01:06 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 180D TO 240 D; AFTER 04 BY 14 D TO 45 D

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (4) | P330E | RA: 16 31 33.8124 (247.8908850d)<br>Dec: +30 08 46.40 (30.14622d)<br>Equinox: J2000 | Proper Motion RA: -8.882 mas/yr<br>Proper Motion Dec: -38.70500008815725 mas/yr<br>Parallax: 0.0022149"<br>Epoch of Position: 2000 | V=12.917 | Reference Frame: ICRS |

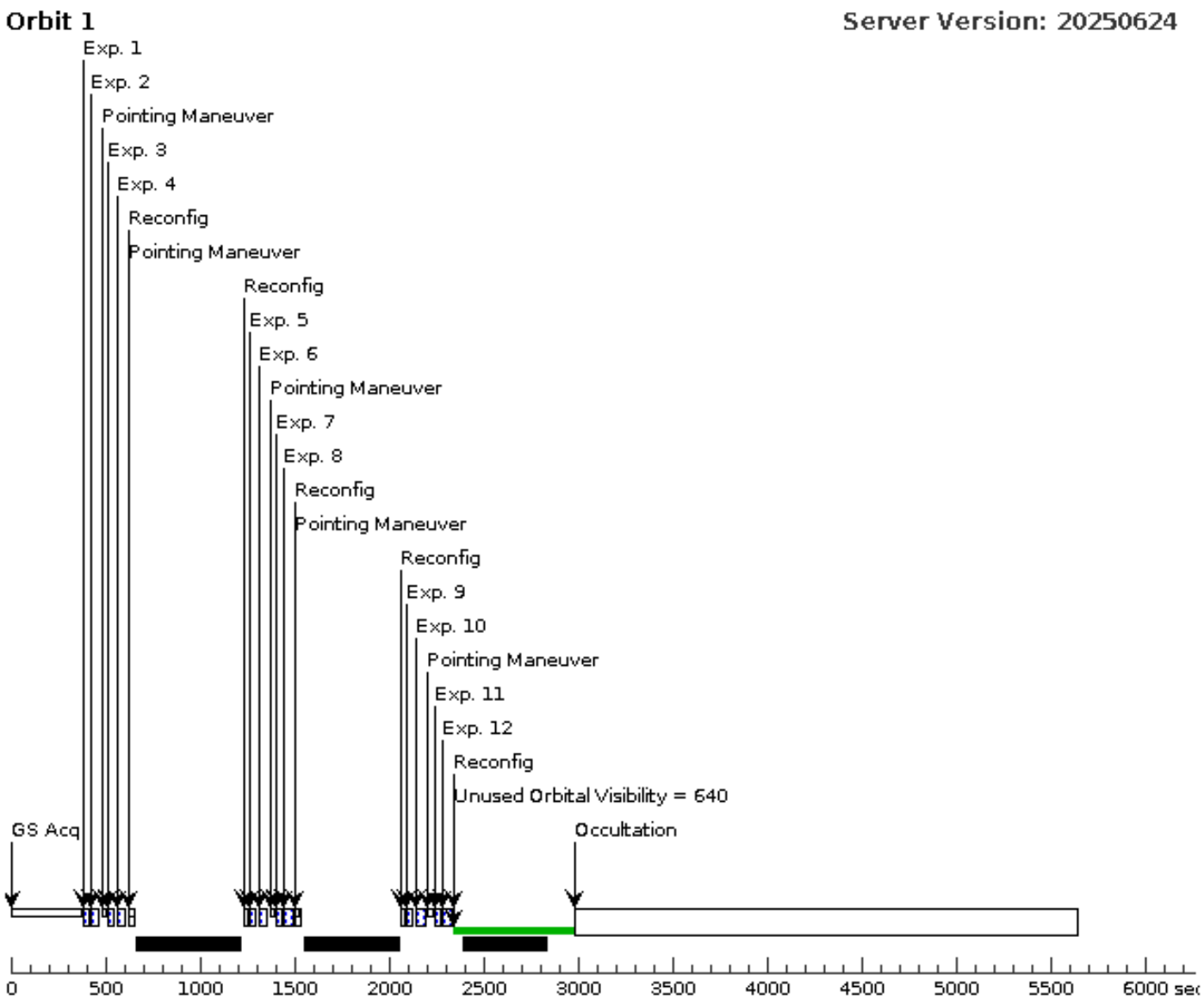
*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*

*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=[G V-IV]*
*Extended=NO*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-0 | Sequence 1-2 Non-Int in P330E G102 and G141 (05) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | *[1]* |
| 2 | In -20 0 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=RAPID; NSAMP=11 | POS TARG -20,0 | Sequence 1-2 Non-Int in P330E G102 and G141 (05) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | *[1]* |
| 3 | In -20 +15 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 3-4 Non-Int in P330E G102 and G141 (05) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | *[1]* |
| 4 | In -20 +15 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=RAPID; NSAMP=11 | POS TARG -20,+15 | Sequence 3-4 Non-Int in P330E G102 and G141 (05) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | *[1]* |
| 5 | In -20 -15 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 5-6 Non-Int in P330E G102 and G141 (05) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | *[1]* |
| 6 | In -20 -15 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=11; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 5-6 Non-Int in P330E G102 and G141 (05) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | *[1]* |
| 7 | In -20 -0 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-0 | Sequence 7-8 Non-Int in P330E G102 and G141 (05) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | *[1]* |
| 8 | In -20 0 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,0 | Sequence 7-8 Non-Int in P330E G102 and G141 (05) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | *[1]* |
| 9 | In -20 -15 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 9-10 Non-Int in P330E G102 and G141 (05) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | *[1]* |
| 10 | In -20 -15 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 9-10 Non-Int in P330E G102 and G141 (05) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | *[1]* |
| 11 | In -20 +15 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 11-12 Non-Int in P330E G102 and G141 (05) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | *[1]* |
| 12 | In -20 +15 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 11-12 Non-Int in P330E G102 and G141 (05) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | *[1]* |

**Orbit Structure**



## Visit

**Proposal 17688, P330E G102 and G141 (95), implementation** Mon Jul 14 20:01:07 GMT 2025

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 235D TO 260 D; BEFORE 20-MAR-2026:00:00:00

*Comments: Duplicate of failed visit 05*

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (4) | P330E | RA: 16 31 33.8124 (247.8908850d)<br>Dec: +30 08 46.40 (30.14622d)<br>Equinox: J2000 | Proper Motion RA: -8.882 mas/yr<br>Proper Motion Dec: -38.70500008815725 mas/yr<br>Parallax: 0.0022149"<br>Epoch of Position: 2000 | V=12.917 | 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=[G V-IV]*
*Extended=NO*

**Exposures**

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | In -20 -0 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-0 | Sequence 1-2 Non-Int in P330E G102 and G141 (95) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | ***[1]*** |
| 2 | In -20 0 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=RAPID; NSAMP=11 | POS TARG -20,0 | Sequence 1-2 Non-Int in P330E G102 and G141 (95) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | ***[1]*** |
| 3 | In -20 +15 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 3-4 Non-Int in P330E G102 and G141 (95) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | ***[1]*** |
| 4 | In -20 +15 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=RAPID; NSAMP=11 | POS TARG -20,+15 | Sequence 3-4 Non-Int in P330E G102 and G141 (95) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | ***[1]*** |
| 5 | In -20 -15 F098M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 5-6 Non-Int in P330E G102 and G141 (95) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | ***[1]*** |
| 6 | In -20 -15 G102 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=11; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 5-6 Non-Int in P330E G102 and G141 (95) | 32.255201 Secs (32.255 Secs)<br>*[==>]* | ***[1]*** |
| 7 | In -20 -0 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-0 | Sequence 7-8 Non-Int in P330E G102 and G141 (95) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | ***[1]*** |
| 8 | In -20 0 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,0 | Sequence 7-8 Non-Int in P330E G102 and G141 (95) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | ***[1]*** |
| 9 | In -20 -15 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 9-10 Non-Int in P330E G102 and G141 (95) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | ***[1]*** |
| 10 | In -20 -15 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,-15 | Sequence 9-10 Non-Int in P330E G102 and G141 (95) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | ***[1]*** |
| 11 | In -20 +15 F153M | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | F153M | NSAMP=1; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 11-12 Non-Int in P330E G102 and G141 (95) | 2.932291 Secs (2.932 Secs)<br>*[==>]* | ***[1]*** |
| 12 | In -20 +15 G141 | (4) P330E | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=8; SAMP-SEQ=RAPID | POS TARG -20,+15 | Sequence 11-12 Non-Int in P330E G102 and G141 (95) | 23.458328 Secs (23.458 Secs)<br>*[==>]* | ***[1]*** |

Orbit Structure