# 12247 - Identifying and studying gamma-ray bursts at very high redshifts

Cycle: 18, Proposal Category: GO

(Availability Mode: SUPPORTED)

**INVESTIGATORS**


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**VISITS**

| *Visit* | *Targets used in Visit* | *Configurations used in Visit* | *Orbits Used* | *Last Orbit Planner Run* | *OP Current with Visit?* |
|---|---|---|---|---|---|
| GA | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:13.0 | yes |

| *Visit* | *Targets used in Visit* | *Configurations used in Visit* | *Orbits Used* | *Last Orbit Planner Run* | *OP Current with Visit?* |
|---|---|---|---|---|---|
| GB | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:20.0 | yes |
| GC | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:25.0 | yes |
| GD | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:29.0 | yes |
| GE | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:34.0 | yes |
| GF | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:39.0 | yes |
| GG | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:43.0 | yes |
| GH | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:47.0 | yes |
| GI | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:51.0 | yes |
| GJ | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:55.0 | yes |
| GK | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:01:59.0 | yes |
| GL | (1) GRB-GRISM-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:02:04.0 | yes |
| J1 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:02:08.0 | yes |
| J2 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 2 | 01-Nov-2012 21:02:14.0 | yes |
| H1 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:02:19.0 | yes |
| F1 | (7) GRB100905A | WFC3/IR | 2 | 01-Nov-2012 21:02:27.0 | yes |
| F2 | (7) GRB100905A | WFC3/IR | 2 | 01-Nov-2012 21:02:33.0 | yes |
| F6 | (7) GRB100905A | WFC3/UVIS | 2 | 01-Nov-2012 21:02:38.0 | yes |
| F7 | (7) GRB100905A | WFC3/UVIS | 2 | 01-Nov-2012 21:02:43.0 | yes |
| Y1 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 1 | 01-Nov-2012 21:02:48.0 | yes |
| Y2 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 2 | 01-Nov-2012 21:02:54.0 | yes |
| Y3 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 4 | 01-Nov-2012 21:03:02.0 | yes |
| J3 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 4 | 01-Nov-2012 21:03:12.0 | yes |
| H3 | (6) GRB-IMAGING-TARGET-1 | WFC3/IR | 4 | 01-Nov-2012 21:03:21.0 | yes |

39 Total Orbits Used

**ABSTRACT**

Gamma-ray bursts are bright enough to be seen to very high redshifts and their afterglows can provide redshifts and positions of their host galaxies, and in some cases details of the host ISM and the IGM close to the burst. Thus GRBs offer a unique probe of early star formation and the galaxy populations in the era of reionization. Our efforts to identify high-z GRBs were rewarded with the recent discovery of GRB 090423 at redshift 8.2. However, it remains the case that some good candidate high-z GRBs cannot be followed up quickly or deeply enough with ground-based IR spectroscopy, and indeed for others it is likely the Ly-alpha break falls in difficult regions of the IR spectrum. WFC3/IR on HST can obtain redshifts based on the location of the Ly-alpha break via slitless grism spectroscopy, to considerably deeper limits (and hence later times) than is possible from the ground, thus offering a solution to this problem. Our proposal aims to increase the efficiency of locating z>7 GRBs over the next three years by performing such spectroscopy on candidates for which photometry suggests they are very high redshift, but where the redshift can't be secured from the ground. We also propose to monitor the afterglows of any high-z GRBs found, and to perform an initial search for their hosts.

**OBSERVING DESCRIPTION**

We propose to observe the locations of candidate or confirmed high-z GRBs using ACS/WFC or WFC3/IR. The aims are to i) determine or confirm redshifts via grism spectroscopy, ii) measure the late time lightcurves of the bursts and iii) characterize the nature of the host galaxies. We have therefore defined several observations

1) WFC3 grism spectroscopy. Visits GA-GF specify short exposures in F110W, followed by a 2 point dither observation using G102. The visits themselves will be triggered together and use POS-TARG offsets to recreate a 6-point dither pattern. Visits GG-GL are similar, but for candidate higher redshift events, and utilize F160W for the short astrometric observation, and G140L. The visits are 1 orbit long for scheduling convienience, but will be triggered together.

2) Short exposures for lightcurve monitoring, may be taken at similar times to spectroscopy. This includes 1 orbits (early) and 2 orbit (later) time observations of the afterglows in F105W, F125W and F160W. The preicse filters will be chosen at the time to optimally sample both lightcurve and SED. For bursts at lower-z (e.g. 6<z<7), we have also specified ACS/WFC F814W and F850LP observations.

3) Late time observations to charaterize the nature of the host galaxy, and provide a template for subtraction from early data. These observations will be >4 orbits in duration, and may use either ACS or WFC3 depending on the redshift.

## Visit

**Proposal 12247, Visit GA, withdrawn** Fri Nov 02 01:03:30 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F110W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | | Pattern 4, Exps 2-2 in Visit GA (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GB, withdrawn** Fri Nov 02 01:03:32 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F110W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.33875, 0.1211 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.33875, 0.1211 | Pattern 4, Exps 2-2 in Visit GB (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GC, withdrawn** Fri Nov 02 01:03:33 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F110W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.451215,0.403263 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.451215,0.403263 | Pattern 4, Exps 2-2 in Visit GC (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GD, withdrawn** Fri Nov 02 01:03:34 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F110W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.789965,0.524363 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.789965,0.524363 | Pattern 4, Exps 2-2 in Visit GD (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GE, withdrawn** Fri Nov 02 01:03:35 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F110W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.90243, 0.806526 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.90243, 0.806526 | Pattern 4, Exps 2-2 in Visit GE (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GF, withdrawn** Fri Nov 02 01:03:35 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F110W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 1.24118, 0.927626 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 1.24118, 0.927626 | Pattern 4, Exps 2-2 in Visit GF (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GG, withdrawn** Fri Nov 02 01:03:36 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0,0 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0,0 | Pattern 4, Exps 2-2 in Visit GG (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GH, withdrawn** Fri Nov 02 01:03:37 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.33875, 0.1211 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.33875, 0.1211 | Pattern 4, Exps 2-2 in Visit GH (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GI, withdrawn** Fri Nov 02 01:03:38 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.451215,0.403263 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.451215,0.403263 | Pattern 4, Exps 2-2 in Visit GI (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GJ, withdrawn** Fri Nov 02 01:03:39 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.789965,0.524363 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.789965,0.524363 | Pattern 4, Exps 2-2 in Visit GJ (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GK, withdrawn** Fri Nov 02 01:03:39 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 0.90243, 0.806526 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 0.90243, 0.806526 | Pattern 4, Exps 2-2 in Visit GK (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit GL, withdrawn** Fri Nov 02 01:03:40 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*On Hold Comments: Trigger will occur on high-z GRB*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (4) | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | | (2) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (1) | GRB-GRISM-TARGET-1 | Trigger on high-z gRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=7;<br>SAMP-SEQ=SPARS50 | POS TARG 1.24118, 0.927626 | | *[==>]* | *[1]* |
| 2 | | (1) GRB-GRISM-TARGET-1 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | NSAMP=13;<br>SAMP-SEQ=SPARS100 | POS TARG 1.24118, 0.927626 | Pattern 4, Exps 2-2 in Visit GL (4) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | *[1]* |

## Orbit Structure

## Visit

**Proposal 12247, Visit J1, withdrawn** Fri Nov 02 01:03:41 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: F125W, 1 orbit, 4 point dither*

*On Hold Comments: Awaiting GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (1) | Pattern Type=WFC3-IR-DITHER-BOX-MIN<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F125W | NSAMP=14;<br>SAMP-SEQ=SPARS50 | | Pattern 1, Exps 1-1 in Visit J1 (1) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]*<br>*[==>(Pattern 3)]*<br>*[==>(Pattern 4)]* | ***[1]*** |

Orbit Structure
Orbit 1
Server Version: 20120802
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Visibility = 56
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

## Visit

**Proposal 12247, Visit J2, withdrawn** Fri Nov 02 01:03:42 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: F125W, 2 orbit, 4 point dither*

*On Hold Comments: Awaiting GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (1) | Pattern Type=WFC3-IR-DITHER-BOX-MIN<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F125W | NSAMP=14;<br>SAMP-SEQ=SPARS100 | | Pattern 1, Exps 1-1 in Visit J2 (1) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | ***[1]*** |
| | | | | | | | | *[==>(Pattern 3)]*<br>*[==>(Pattern 4)]* | ***[2]*** |
| 2 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F125W | NSAMP=10;<br>SAMP-SEQ=SPARS25 | | | *[==>]* | ***[2]*** |

Orbit Structure

## Visit

**Proposal 12247, Visit H1, withdrawn** Fri Nov 02 01:03:43 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: F160W, 1 orbit, 4 point dither*

*On Hold Comments: Awaiting GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (1) | Pattern Type=WFC3-IR-DITHER-BOX-MIN<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=14;<br>SAMP-SEQ=SPARS50 | | Pattern 1, Exps 1-1 in Visit H1 (1) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]*<br>*[==>(Pattern 3)]*<br>*[==>(Pattern 4)]* | ***[1]*** |

Orbit Structure
Orbit 1
Server Version: 20120802
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Visibility = 56
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

## Visit

**Proposal 12247, Visit F1, completed** Fri Nov 02 01:03:44 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: (none)

*Comments: F140W, 2 orbit, 4 point dither*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (1) | Pattern Type=WFC3-IR-DITHER-BOX-MIN<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | | (1) |

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (7) | GRB100905A | RA: 02 06 12.0400 (31.5501667d)<br>Dec: +14 55 46.30 (14.92953d)<br>Equinox: J2000 | | V=28+/-2 | Reference Frame: Swift |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (7) GRB100905A | WFC3/IR, MULTIACCUM, IR | F140W | NSAMP=14;<br>SAMP-SEQ=SPARS100 | GS ACQ SCENARIO BASE1B3 | Pattern 1, Exps 1-1 in Visit F1 (1) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | ***[1]*** |
| | | | | | | | | *[==>(Pattern 3)]*<br>*[==>(Pattern 4)]* | ***[2]*** |
| 2 | | (7) GRB100905A | WFC3/IR, MULTIACCUM, IR | F140W | NSAMP=10;<br>SAMP-SEQ=SPARS25 | | | *[==>]* | ***[2]*** |

Orbit Structure

## Visit

**Proposal 12247, Visit F2, implementation** Fri Nov 02 01:03:46 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 55D TO 125 D; ORIENT 145D TO 215 D; ORIENT 235D TO 305 D; ORIENT 325D TO 35 D

*Comments: F140W, 2 orbit, 4 point dither*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (1) | Pattern Type=WFC3-IR-DITHER-BOX-MIN<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | | (1) |

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (7) | GRB100905A | RA: 02 06 12.0400 (31.5501667d)<br>Dec: +14 55 46.30 (14.92953d)<br>Equinox: J2000 | | V=28+/-2 | Reference Frame: Swift |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (7) GRB100905A | WFC3/IR, MULTIACCUM, IR | F140W | NSAMP=14;<br>SAMP-SEQ=SPARS100 | GS ACQ SCENARIO BASE1B3 | Pattern 1, Exps 1-1 in Visit F2 (1) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | ***[1]*** |
| | | | | | | | | *[==>(Pattern 3)]*<br>*[==>(Pattern 4)]* | ***[2]*** |
| 2 | | (7) GRB100905A | WFC3/IR, MULTIACCUM, IR | F140W | NSAMP=10;<br>SAMP-SEQ=SPARS25 | | | *[==>]* | ***[2]*** |

Orbit Structure

## Visit

**Proposal 12247, Visit F6, withdrawn** Fri Nov 02 01:03:48 GMT 2012

**Diagnostic Status: Warning**

Scientific Instruments: WFC3/UVIS

Special Requirements: ON HOLD

*Comments: F606W, 2 orbit, 4 point dither*

*On Hold Comments: Awaiting outcome of visit F1*

## Diagnostics

(Visit F6) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit F6) Warning (Orbit Planner): VISIBILITY OVERRUN

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (7) | Pattern Type=WFC3-UVIS-DITHER-BOX<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.173<br>Line Spacing=0.112 | Coordinate Frame=POS-TARG<br>Pattern Orientation=23.884<br>Angle Between Sides=81.785<br>Center Pattern=false | | (1) |

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (7) | GRB100905A | RA: 02 06 12.0400 (31.5501667d)<br>Dec: +14 55 46.30 (14.92953d)<br>Equinox: J2000 | | V=28+/-2 | Reference Frame: Swift |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (7) GRB100905A | WFC3/UVIS, ACCUM, UVIS | F606W | | GS ACQ SCENARIO BASE1B3 | Pattern 7, Exps 1-1 in Visit F6 (7) | 1380 Secs | |
| | | | | | | | | *[==>1388.0 Secs (Pattern 1)]*<br>*[==>1388.0 Secs (Pattern 2)]* | ***[1]*** |
| | | | | | | | | *[==>1443.0 Secs (Pattern 3)]*<br>*[==>1443.0 Secs (Pattern 4)]* | ***[2]*** |

Orbit Structure

## Visit

**Proposal 12247, Visit F7, withdrawn** Fri Nov 02 01:03:49 GMT 2012

**Diagnostic Status: Warning**

Scientific Instruments: WFC3/UVIS

Special Requirements: ON HOLD

*Comments: F775W, 2 orbit, 4 point dither*

*On Hold Comments: Awaiting outcome of visit F1*

## Diagnostics

(Visit F7) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit F7) Warning (Orbit Planner): VISIBILITY OVERRUN

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (7) | Pattern Type=WFC3-UVIS-DITHER-BOX<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.173<br>Line Spacing=0.112 | Coordinate Frame=POS-TARG<br>Pattern Orientation=23.884<br>Angle Between Sides=81.785<br>Center Pattern=false | | (1) |

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
|---|---|---|---|---|---|
| (7) | GRB100905A | RA: 02 06 12.0400 (31.5501667d)<br>Dec: +14 55 46.30 (14.92953d)<br>Equinox: J2000 | | V=28+/-2 | Reference Frame: Swift |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (7) GRB100905A | WFC3/UVIS, ACCUM, UVIS | F775W | | GS ACQ SCENARIO BASE1B3 | Pattern 7, Exps 1-1 in Visit F7 (7) | 1380 Secs | |
| | | | | | | | | *[==>1388.0 Secs (Pattern 1)]*<br>*[==>1388.0 Secs (Pattern 2)]* | ***[1]*** |
| | | | | | | | | *[==>1443.0 Secs (Pattern 3)]*<br>*[==>1443.0 Secs (Pattern 4)]* | ***[2]*** |

Orbit Structure
Orbit 1
Server Version: 20120802
Occultation
Pointing Maneuver
*** VISIBILITY OVERRUN = 6
GS Acq
Overhead
Pointing Maneuver
Exp. 1
Exp. 1
Overhead
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Orbit 2
Server Version: 20120802
Pointing Maneuver
Occultation
GS Reacq
Overhead
*** VISIBILITY OVERRUN = 5
Exp. 1
Exp. 1
Overhead
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

## Visit

**Proposal 12247, Visit Y1, withdrawn** Fri Nov 02 01:03:51 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: F105W, 1 orbit, 4 point dither*

*On Hold Comments: Awaiting GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (1) | Pattern Type=WFC3-IR-DITHER-BOX-MIN<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F105W | NSAMP=14;<br>SAMP-SEQ=SPARS50 | | Pattern 1, Exps 1-1 in Visit Y1 (1) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]*<br>*[==>(Pattern 3)]*<br>*[==>(Pattern 4)]* | ***[1]*** |

Orbit Structure
Orbit 1
Server Version: 20120802
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Visibility = 56
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

## Visit

**Proposal 12247, Visit Y2, withdrawn** Fri Nov 02 01:03:52 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: F105W, 2 orbit, 4 point dither*

*On Hold Comments: Awaiting GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | Exposures |
|---|---|---|---|---|
| (1) | Pattern Type=WFC3-IR-DITHER-BOX-MIN<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F105W | NSAMP=14;<br>SAMP-SEQ=SPARS100 | | Pattern 1, Exps 1-1 in Visit Y2 (1) | *[==>(Pattern 1)]*<br>*[==>(Pattern 2)]* | ***[1]*** |
| | | | | | | | | *[==>(Pattern 3)]*<br>*[==>(Pattern 4)]* | ***[2]*** |
| 2 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F105W | NSAMP=10;<br>SAMP-SEQ=SPARS25 | | | *[==>]* | ***[2]*** |

Orbit Structure

## Visit

**Proposal 12247, Visit Y3, withdrawn** Fri Nov 02 01:03:53 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: 4 orbit F105W, 8 point dither*

*On Hold Comments: Awaiting high-z GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | | Exposures |
|---|---|---|---|---|---|
| (2) | Pattern Type=BOX<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F105W | NSAMP=14;<br>SAMP-SEQ=SPARS100 | | Pattern 2, Exps 1-1 in Visit Y3 (2) | *[==>(Pattern 1,1)]*<br>*[==>(Pattern 1,2)]* | ***[1]*** |
| | | | | | | | | *[==>(Pattern 2,1)]*<br>*[==>(Pattern 2,2)]* | ***[2]*** |
| | | | | | | | | *[==>(Pattern 3,1)]*<br>*[==>(Pattern 3,2)]* | ***[3]*** |
| | | | | | | | | *[==>(Pattern 4,1)]*<br>*[==>(Pattern 4,2)]* | ***[4]*** |

Orbit Structure

Orbit 3
Server Version: 20120802
Unused Visibility = 297
GS Reacq
Exp. 1
Pointing Maneuver
Exp. 1
Pointing Maneuver
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Orbit 4
Server Version: 20120802
Unused Visibility = 297
GS Reacq
Exp. 1
Pointing Maneuver
Exp. 1
Reconfig
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500

## Visit

**Proposal 12247, Visit J3, withdrawn** Fri Nov 02 01:03:56 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: 4 orbit F125W, 8 point dither*

*On Hold Comments: Awaiting high-z GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | | Exposures |
|---|---|---|---|---|---|
| (2) | Pattern Type=BOX<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F125W | NSAMP=14;<br>SAMP-SEQ=SPARS100 | | Pattern 2, Exps 1-1 in Visit J3 (2) | *[==>(Pattern 1,1)]*<br>*[==>(Pattern 1,2)]* | ***[1]*** |
| | | | | | | | | *[==>(Pattern 2,1)]*<br>*[==>(Pattern 2,2)]* | ***[2]*** |
| | | | | | | | | *[==>(Pattern 3,1)]*<br>*[==>(Pattern 3,2)]* | ***[3]*** |
| | | | | | | | | *[==>(Pattern 4,1)]*<br>*[==>(Pattern 4,2)]* | ***[4]*** |

Orbit Structure

Orbit 3
Server Version: 20120802
GS Reacq
Exp. 1
Pointing Maneuver
Exp. 1
Pointing Maneuver
Unused Visibility = 297
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Orbit 4
Server Version: 20120802
GS Reacq
Exp. 1
Pointing Maneuver
Exp. 1
Unused Visibility = 297
Reconfig
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500

## Visit

**Proposal 12247, Visit H3, withdrawn** Fri Nov 02 01:03:59 GMT 2012

**Diagnostic Status: No Diagnostics**

Scientific Instruments: WFC3/IR

Special Requirements: ON HOLD

*Comments: 4 orbit F160W, 8 point dither*

*On Hold Comments: Awaiting high-z GRB trigger*

## Patterns

| # | Primary Pattern | | Secondary Pattern | | Exposures |
|---|---|---|---|---|---|
| (2) | Pattern Type=BOX<br>Purpose=DITHER<br>Number Of Points=4<br>Point Spacing=0.572<br>Line Spacing=0.365 | Coordinate Frame=POS-TARG<br>Pattern Orientation=18.528<br>Angle Between Sides=74.653<br>Center Pattern=false | Pattern Type=WFC3-IR-DITHER-LINE<br>Purpose=DITHER<br>Number Of Points=2<br>Point Spacing=0.636<br>Line Spacing= | Coordinate Frame=POS-TARG<br>Pattern Orientation=41.788<br>Angle Between Sides=<br>Center Pattern=false | (1) |

## Generic Targets

| # | Name | Criteria | Description |
|---|---|---|---|
| (6) | GRB-IMAGING-TARGET-1 | Trigger on high-z GRB | GAMMA RAY EMITTER |

## Exposures

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | (6) GRB-IMAGING-TARGET-1 | WFC3/IR, MULTIACCUM, IR | F160W | NSAMP=14;<br>SAMP-SEQ=SPARS100 | | Pattern 2, Exps 1-1 in Visit H3 (2) | *[==>(Pattern 1,1)]*<br>*[==>(Pattern 1,2)]* | ***[1]*** |
| | | | | | | | | *[==>(Pattern 2,1)]*<br>*[==>(Pattern 2,2)]* | ***[2]*** |
| | | | | | | | | *[==>(Pattern 3,1)]*<br>*[==>(Pattern 3,2)]* | ***[3]*** |
| | | | | | | | | *[==>(Pattern 4,1)]*<br>*[==>(Pattern 4,2)]* | ***[4]*** |

Orbit Structure

Orbit 3
Server Version: 20120802
Pointing Maneuver
GS Reacq
Pointing Maneuver
Unused Visibility = 297
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Orbit 4
Server Version: 20120802
Unused Visibility = 297
GS Reacq
Pointing Maneuver
Reconfig
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500