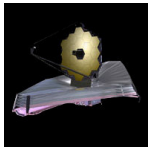

# 4478 - Test AMI filter offsets to bring target at pixel center

Cycle: 2, Proposal Category: CAL/NIRISS

**INVESTIGATORS**


| *Name* | *Institution* |
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**OBSERVATIONS**

| *Folder* | *Observation* | *Label* | *Observing Template* | *Science Target* |
|---|---|---|---|---|
| Filter dependent offsets | | | | |
| | 1 | | NIRISS Aperture Masking Interferometry | (1) HD-37093 |
| | 2 | | NIRISS Aperture Masking Interferometry | (1) HD-37093 |
| | 3 | | NIRISS Aperture Masking Interferometry | (1) HD-37093 |
| | 4 | | NIRISS Aperture Masking Interferometry | (2) HD-36805 |
| | 5 | | NIRISS Aperture Masking Interferometry | (2) HD-36805 |
| | 6 | | NIRISS Aperture Masking Interferometry | (2) HD-36805 |

**ABSTRACT**

Observations of two stars, selected to be single stars, will be made in the AMI mode with the three medium-band filters to test that the star can be positioned consistently at the centre of a pixel allowing for the filter-to-filter offsets that are observed in normal imaging. Having a consistent position for the observations in different filters is helpful in the analysis of the amplitudes and phases of the interference pattern observed through the mask, and should improve the AMI sensitivity.

This calibration program may change in response to system developments and the final Cycle 2 science program.

**OBSERVING DESCRIPTION**

For each of the stars we will acquire the star in the usual manner in F480M and then apply offsets in the observations in the F430M and F380M filters which should centre the star consistently within a pixel for all three observations. We need to do this for both stars in a non-interruptable sequence because we are testing the placement for general science observations that would normally execute together, and so we wish to have the same guide star and orientation for the entire set of observations.

## Proposal 4478 - Targets - Test AMI filter offsets to bring target at pixel center

**Fixed Targets**

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (1) | HD-37093 | RA: 05 31 8.2592 (82.7844133d)<br>Dec: -65 07 42.06 (-65.12835d)<br>Equinox: J2000 | Proper Motion RA: 8.63 mas/yr<br>Proper Motion Dec: 5.96 mas/yr<br>Epoch of Position: 2015.5 | |
| *Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*<br>*Category=Calibration*<br>*Description=[Point spread function]*<br>*Extended=NO* | | | | |
| (2) | HD-36805 | RA: 05 29 6.4686 (82.2769525d)<br>Dec: -66 41 13.00 (-66.68694d)<br>Equinox: J2000 | Proper Motion RA: -3.22 mas/yr<br>Proper Motion Dec: 12.99 mas/yr<br>Parallax: 0.00232"<br>Epoch of Position: 2015.5 | |
| *Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*<br>*Category=Calibration*<br>*Description=[Point spread function]*<br>*Extended=NO* | | | | |

## Observation

**Proposal 4478, Observation 1**

Mon May 01 16:02:07 GMT 2023

**Diagnostic Status: Warning**

Observing Template: NIRISS Aperture Masking Interferometry

## Diagnostics

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (1) | HD-37093 | RA: 05 31 8.2592 (82.7844133d) | Proper Motion RA: 8.63 mas/yr | |
| | | Dec: -65 07 42.06 (-65.12835d) | Proper Motion Dec: 5.96 mas/yr | |
| | | Equinox: J2000 | Epoch of Position: 2015.5 | |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*
*Category=Calibration*
*Description=[Point spread function]*
*Extended=NO*

## Acquisition

| # | Target | Acquisition Mode | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SAME | AMIBRIGHT | F480M | NISRAPID | 11 | 1 | 1 | 0.566 | 140710.17 |

## Template

| Subarray | Direct Image |
|---|---|
| SUB80 | false |

## Dithers

| # | Primary Dithers | Subpixel Positions |
|---|---|---|
| 1 | NONE | NONE |

## Spectral Elements

| # | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|
| 1 | F480M | NISRAPID | 10 | 64 | 1 | 64 | 54.42 | 140710.6 |

## PSF References

PSF Reference: true

| Special Requirements | |
|---|---|
| | Offset -0.00451 arcsec, 0.0130325 arcsec<br>No Parallel Attachments<br><br>Group Observations 1, 2, 3, 4, 5, 6, Non-interruptible |

## Observation

**Proposal 4478, Observation 2**

Mon May 01 16:02:07 GMT 2023

**Diagnostic Status: Warning**

Observing Template: NIRISS Aperture Masking Interferometry

## Diagnostics

(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (1) | HD-37093 | RA: 05 31 8.2592 (82.7844133d) | Proper Motion RA: 8.63 mas/yr | |
| | | Dec: -65 07 42.06 (-65.12835d) | Proper Motion Dec: 5.96 mas/yr | |
| | | Equinox: J2000 | Epoch of Position: 2015.5 | |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*
*Category=Calibration*
*Description=[Point spread function]*
*Extended=NO*

## Acquisition

| # | Target | Acquisition Mode | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SAME | AMIBRIGHT | F480M | NISRAPID | 11 | 1 | 1 | 0.566 | 140710.17 |

## Template

| Subarray | Direct Image |
|---|---|
| SUB80 | false |

## Dithers

| # | Primary Dithers | Subpixel Positions |
|---|---|---|
| 1 | NONE | NONE |

## Spectral Elements

| # | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|
| 1 | F430M | NISRAPID | 7 | 82 | 1 | 82 | 51.168 | 140710.5 |

## PSF References

PSF Reference: true

| Special Requirements | |
|---|---|
| | Offset 0.0089479 arcsec, 0.0076509 arcsec<br>No Parallel Attachments<br><br>Group Observations 1, 2, 3, 4, 5, 6, Non-interruptible |

## Observation

**Proposal 4478, Observation 3** Mon May 01 16:02:07 GMT 2023

**Diagnostic Status: Warning**

Observing Template: NIRISS Aperture Masking Interferometry

## Diagnostics

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (1) | HD-37093 | RA: 05 31 8.2592 (82.7844133d) | Proper Motion RA: 8.63 mas/yr | |
| | | Dec: -65 07 42.06 (-65.12835d) | Proper Motion Dec: 5.96 mas/yr | |
| | | Equinox: J2000 | Epoch of Position: 2015.5 | |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*
*Category=Calibration*
*Description=[Point spread function]*
*Extended=NO*

## Acquisition

| # | Target | Acquisition Mode | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SAME | AMIBRIGHT | F480M | NISRAPID | 11 | 1 | 1 | 0.566 | 140710.17 |

## Template

| Subarray | Direct Image |
|---|---|
| SUB80 | false |

## Dithers

| # | Primary Dithers | Subpixel Positions |
|---|---|---|
| 1 | NONE | NONE |

## Spectral Elements

| # | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|
| 1 | F380M | NISRAPID | 4 | 95 | 1 | 95 | 37.78 | 140710.4 |

## PSF References

PSF Reference: true

| Special Requirements | |
|---|---|
| | Offset -0.007059 arcsec, 0.0192214 arcsec<br>No Parallel Attachments<br><br>Group Observations 1, 2, 3, 4, 5, 6, Non-interruptible |

## Observation

**Proposal 4478, Observation 4**

Mon May 01 16:02:07 GMT 2023

**Diagnostic Status: Warning**

Observing Template: NIRISS Aperture Masking Interferometry

## Diagnostics

(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (2) | HD-36805 | RA: 05 29 6.4686 (82.2769525d)<br>Dec: -66 41 13.00 (-66.68694d)<br>Equinox: J2000 | Proper Motion RA: -3.22 mas/yr<br>Proper Motion Dec: 12.99 mas/yr<br>Parallax: 0.00232"<br>Epoch of Position: 2015.5 | |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*
*Category=Calibration*
*Description=[Point spread function]*
*Extended=NO*

## Acquisition

| # | Target | Acquisition Mode | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SAME | AMIBRIGHT | F480M | NISRAPID | 7 | 1 | 1 | 0.384 | 140710.19 |

## Template

| Subarray | Direct Image |
|---|---|
| SUB80 | false |

## Dithers

| # | Primary Dithers | Subpixel Positions |
|---|---|---|
| 1 | NONE | NONE |

## Spectral Elements

| # | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|
| 1 | F480M | NISRAPID | 7 | 69 | 1 | 69 | 43.056 | 140710.12 |

| | |
|---|---|
| **PSF References** | PSF Reference: true |
| **Special Requirements** | Offset -0.00451 arcsec, 0.0130325 arcsec<br>No Parallel Attachments<br><br>Group Observations 1, 2, 3, 4, 5, 6, Non-interruptible |

## Observation

**Proposal 4478, Observation 5** Mon May 01 16:02:07 GMT 2023

**Diagnostic Status: Warning**

Observing Template: NIRISS Aperture Masking Interferometry

## Diagnostics

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (2) | HD-36805 | RA: 05 29 6.4686 (82.2769525d)<br>Dec: -66 41 13.00 (-66.68694d)<br>Equinox: J2000 | Proper Motion RA: -3.22 mas/yr<br>Proper Motion Dec: 12.99 mas/yr<br>Parallax: 0.00232"<br>Epoch of Position: 2015.5 | |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*
*Category=Calibration*
*Description=[Point spread function]*
*Extended=NO*

## Acquisition

| # | Target | Acquisition Mode | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SAME | AMIBRIGHT | F480M | NISRAPID | 7 | 1 | 1 | 0.384 | 140710.19 |

## Template

| Subarray | Direct Image |
|---|---|
| SUB80 | false |

## Dithers

| # | Primary Dithers | Subpixel Positions |
|---|---|---|
| 1 | NONE | NONE |

## Spectral Elements

| # | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|
| 1 | F430M | NISRAPID | 5 | 86 | 1 | 86 | 40.688 | 140710.11 |

| | |
|---|---|
| **PSF References** | PSF Reference: true |
| **Special Requirements** | Offset 0.0089479 arcsec, 0.0076509 arcsec<br>No Parallel Attachments<br><br>Group Observations 1, 2, 3, 4, 5, 6, Non-interruptible |

## Observation

**Proposal 4478, Observation 6**

Mon May 01 16:02:07 GMT 2023

**Diagnostic Status: Warning**

Observing Template: NIRISS Aperture Masking Interferometry

## Diagnostics

(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

## Fixed Targets

| # | Name | Target Coordinates | Targ. Coord. Corrections | Miscellaneous |
|---|---|---|---|---|
| (2) | HD-36805 | RA: 05 29 6.4686 (82.2769525d)<br>Dec: -66 41 13.00 (-66.68694d)<br>Equinox: J2000 | Proper Motion RA: -3.22 mas/yr<br>Proper Motion Dec: 12.99 mas/yr<br>Parallax: 0.00232"<br>Epoch of Position: 2015.5 | |

*Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.*
*Category=Calibration*
*Description=[Point spread function]*
*Extended=NO*

## Acquisition

| # | Target | Acquisition Mode | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|---|
| 1 | SAME | AMIBRIGHT | F480M | NISRAPID | 7 | 1 | 1 | 0.384 | 140710.19 |

## Template

| Subarray | Direct Image |
|---|---|
| SUB80 | false |

## Dithers

| # | Primary Dithers | Subpixel Positions |
|---|---|---|
| 1 | NONE | NONE |

## Spectral Elements

| # | Filter | Readout Pattern | Groups/Int | Integrations/Exp | Total Dithers | Total Integrations | Total Exposure Time | ETC Wkbk.Calc ID |
|---|---|---|---|---|---|---|---|---|
| 1 | F380M | NISRAPID | 2 | 131 | 1 | 131 | 32.331 | 140710.10 |

| | |
|---|---|
| **PSF References** | PSF Reference: true |
| **Special Requirements** | Offset -0.007059 arcsec, 0.0192214 arcsec<br>No Parallel Attachments<br><br>Group Observations 1, 2, 3, 4, 5, 6, Non-interruptible |