

# 1264 - NIRSpec and MIRI IFS of SMGs

Cycle: 1, Proposal Category: GTO

### INVESTIGATORS

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#### **OBSERVATIONS**

| Folder | Observation | Label                              | Observing Template                  | Science Target     |  |  |
|--------|-------------|------------------------------------|-------------------------------------|--------------------|--|--|
| MIRI - | GN20        |                                    |                                     |                    |  |  |
|        | 1           | GN20-MRS [WRIGHT<br>_0302]         | MIRI Medium Resolution Spectroscopy | (1) GN20-MRS       |  |  |
|        | 2           | GN20-Imager [WRIGH<br>T_0301+0305] | MIRI Imaging                        | (2) GN20-IMAGER    |  |  |
|        | 3           | GNz11-Imager                       | MIRI Imaging                        | (7) GNz11-offset   |  |  |
|        | 16          | GN20-MRS-BGK                       | MIRI Medium Resolution Spectroscopy | (13) GN20-MRS-BKG  |  |  |
| MIRI - | HFLS3       |                                    |                                     |                    |  |  |
|        | 6           | HFLS3-MRS [WRIGH<br>T_0401]        | MIRI Medium Resolution Spectroscopy | (4) HFLS3-MRS      |  |  |
|        | 7           | HFLS3-Imager                       | MIRI Imaging                        | (5) HFLS3-IMAGER   |  |  |
|        | 17          | HFLS3-MRS-BGK                      | MIRI Medium Resolution Spectroscopy | (14) HFLS3-MRS-BKG |  |  |

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|-------------|--------------------------|------------------------------|--|-------------------------|--|--|--|
| Folder      | Folder Observation Label |                              | Observing Template                                 | Science Target          |  |  |  |
| MIRI -      | SPT                      |                              |  |                         |  |  |  |
|             | 9                        | SPT - MRS                    | MIRI Medium Resolution Spectroscopy                | (6) SPT0311-MRS         |  |  |  |
|             | 14                       | SPT - MRS-BKG                | MIRI Medium Resolution Spectroscopy                | (12) SPT0311-MRS-BKG    |  |  |  |
|             | 15                       | SPT - Imager                 | MIRI Imaging                                       | (11) SPT0311-IMAGER     |  |  |  |
| NIRSp       | ec - SMGs                |                              |  |                         |  |  |  |
|             | 11                       | GN20 - NIRSpec               | NIRSpec IFU Spectroscopy                           | (8) GN20-NIRSPEC        |  |  |  |
|             | 12                       | HFLS3 - NIRSpec              | NIRSpec IFU Spectroscopy                           | (9) HFLS3-NIRSPEC       |  |  |  |
|             | 13                       | SPT0311-58 NIRSpec           | NIRSpec IFU Spectroscopy                           | (10) SPT0311-58-NIRSPEC |  |  |  |

#### ABSTRACT

The observation IDs for the NIRSpec observations are: GN20 FERRUIT\_3049 HFLS3 FERRUIT\_3050

And for MIRI: GN20 MRS and IMAGER WRIGHT\_0301 to 0308 HFLS3 MRS and IMAGER WRIGHT\_0401 to 0403

\* UPDATE JUNE 2019: The galaxy SPT0311-5823 has been added to the original proposal.

\* UPDATE JUNE 6, 2022: minor modifications in MIRI imager (MIRIM) pointings intended to achieve the optimization of the original science goals for specific roll angle

covered by the LRP observing windows (implemented using the offset requirement).

UPDATE JUNE 17, 2022: 1) NIRCam parallel for GNz11-imager (observation 3) change filters from F115W and F277W to F200W and F356W to optimize wavelength coverage between HST and MIRI band. 2) MIRIM simultaneous to SPT-MRS (obs. 9) and SPT-MRS-BKG (obs. 10) change filters (F1000W to F560W in obs.14 and F560W to F770W in obs.9) for a better coverage of the wavelength range in the simultaneous imaging while MRS prime.

UPDATE OCTOBER 27, 2022 (MIRI updates for GN20 and HFLS3): modifications in the existing APT to optimized the observational strategy based on the analysis of SPT0311 data taken in July: 1) Add MRS background observations and corresponding new targets (GN20-MRS-BGK and HFLS3-MRS-BGK), 2) remove one of the two MRS configurations previously requested (secondary emission lines), 3) perform one integration per

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MRS dither and increase the number of dithers to reduce effect of persistence of cosmic showers, 4) remove the special requirement of interruptible between MRS and MIRIM observations, 5) add MIRIM images in two additional filters to better cover the spectral wavelength in imaging, 6) change MIRIM dither to CYCLING. These changes keep the main science goals and charge times within the previously allocated limits while optimizing the observational strategy. Also, gives more flexibility to schedule MIRI imaging and spectroscopy.

This APT is for MIRI and NIRSpec-IFU observations of 3 high-z dusty, infrared luminous galaxies.

The combination of spectral coverage and subarcsec integral field medium resolution spectroscopy (MRS), makes MIRI a unique instrument to peer into the dustenshrouded phase of IRluminous starforming galaxies (DSFG) at high redshifts. MIRI provides the first direct subarcsec view ever at the (restframe) nearinfrared light distribution of the evolved stellar population, ionized and hot molecular gas phase in z~26 massive DSFGs, and therefore will investigate the physical processes of the obscured star formation and black hole growth in massive starforming galaxies (SFR above 100 Msun/yr) in the early universe. MRS spectroscopy of the main near-infrared emission lines (hydrogen Paschen, [FeII], H2 , etc) will be obtained for the currently known highest redshift DSFGs (SPT0311-5823 and HFLS3), and for GN20, a DSFG at z~4 located in GOODS-North. Mid-IR imaging of the host galaxies and nearby fields will also be obtained with the MIRI imager in the near-IR (i.e. 1.2-1.5 microns) rest-frame (i.e. F770W for GN20 and F1000W for HFLS3 and SPT0311-5823).

The NIRSpec-IFU observations are part of the NIRSpec GTO Physics of Galaxy Assembly IFS survey. The goal of this program is to characterize the internal structure of distant galaxies andthereby investigate the primary physical processes driving galaxy evolution across cosmic time. The main specific objectives are to: trace the distribution of star formation, map the resolved properties of the stellar populations, trace the gas kinematics (i.e. velocity fields, velocity dispersion) and hence determine dynamical masses and also identify non-virial motions (outflow and inflows), map metallicity gradients and dust extinction. These quantities will be mapped for the brightest and most extended star-forming galaxies and AGN/QSO hosts up to z>8.

The NIRSpec-IFU observations are performed at R100 and R2700. The specific band for the high-resolution observations is aimed at including the most important emission lines (from ~ H-beta to H-alpha).

#### **OBSERVING DESCRIPTION**

The original version of the proposal submitted in 2017 included the IFS observations with MIRI and NIRSpec for two IR luminous galaxies, GN20 and HFLS3. Since the revised 2019 version of the proposal included an additional source, SPT0311-5823.

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In the first submission to STScI, the proposal included MIRI and NIRSpec-IFS observations of targets HFLS3 and GN20, and only MIRI IFS of targets GN20a+b. The revised June 2019 submission, includes NIRSPec -IFS and MIRI observations of HFLS3, GN20 and SPT0311, while the MIRI IFS observations of GN20a+b are no longer part of the program, and we included a MIRI image of GN-z11. The total time needed for this proposal has increased with respect to the previous submission, but the total times for the "MIRI high-z" and "NIRSpec GA-IFS" GTO programs are within the internally approved ranges.

#### MIRI IFS and MIRI Imager:

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The purpose of the program is to get a mid-IR spectra of the high-z IR-luminous galaxies GN20, HFLS3 and SPT0311-5823, using 2 MRS configurations with simultaneous Imager observations of nearby fields in two filters (F560W, F1000W for HFLS3 and SPT0311, F560W and F770W for GN20). In addition, we request the imaging of the host galaxies and surrounding field at 10 microns (F1000W) for HFLS3 and SPT0311-058, and F770W for GN20

A MIRI F560W image of the z~11 candidate GN-z11 and surrounding area will be taken in the GOODS-N field together with the MRS observations of the z~4 DSFG GN20. The MIRIM image of the GN-z11 will take in parallel a NIRCam imaging in two filters of the GN20 host and surrounding area, including GN20a and GN20b. The MIRI and NIRCam images will be combined to explore this region of the GOODS-N field rich in DSFGs. To optimize the overlap region between the MIRI and NIRCam imaging of the GN20 and GN-z11 regions, final adjustments in the position and orientation of the GN-z11 pointing with the MIRI imager by a few arcsec will likely be done once the epoch of the observations is known.

The PAs have been selected to avoid bright stars (which would saturate the detectors) in the MIRI imager fields, and to guarantee low background conditions.

The dithering strategies were selected to optimize the PSF and detector effects for all the MRS channels. HFLS3 and GN20 have sizes of about 1-1.2 arcsec, and therefore a point-like dithering strategy is used as most relevant lines are in channels 2 and 3, SPT0311-5823 is more extended (sizes of about 3 arcsec) and therefore a dithering strategy for extended sources. A dedicated background observation with 2-point dither is included for this galaxy. These strategies could be subject to change without modifying the total charged time, after the assessment of the bakcground properties during the commissioning of the instrument.

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NIRSpec-IFU:

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These three IR-luminous galaxies will be observed using the NIRSpec-IFU as part of the "Physics of Galaxy Assembly IFU survey" program. Observations will be performed with grating/filters PRISM (R100) and G395H/F290LP (R2700). By combining with the MIRI observations, we take advantage of the "smart accounting" option to save slew overheads.

For NIRSpec, the allowed PA range is defined such that contamination in the R100 spectra due to nearby sources leaking through the MSA is minimized. For the emission line high-resolution (R2700) spectra this is not so critical, but still we have checked for very bright sources in the MSA quadrants.

The PA restrictions (updated for the March 2020 submission) are impossed to minimise MSA-leakage, taking also into account the constraints for the MIRI observations.

A 4-point dither pattern will be used, were the first 4 points of the "medium" cycling pattern provide a good compromise between an amplitude (~0.5 ") large enough to "jump" the failed open microsutthers and to deal with other sources of background, while keeping a large FoV with complete exposure time (~2.5"x2.5"). This dither pattern also allows a good sub-pixel sampling.

No extra background exposures are included. For R100 it was considered that there will be a relatively large number of spaxels free from galaxy emission to derive the background. For the R2700, in addition, the goal is to study the emission lines and therefore the background should be less relevant.

Even though the contamination by bright targets leaking through the MSA is expected to be small for the PAs selected (see above), we take an extra leakage exposure for R100 in one pointing in order to be able to understand the effects of the surronding field.

JWST Proposal 1264 (Created: Tuesday, October 3, 2023 at 11:00:32 AM Eastern Standard Time) - Overview The IRS2RAPID reading mode was selected to maximise S/N and optimise the detection and removal of cosmic rays.

The exposure times used were computed using JWST ETC (v1.1.1).

#### Proposal 1264 - Targets - NIRSpec and MIRI IFS of SMGs

|      | #                            | Name   | Target Coordinates  | Targ. Coord. Corrections                          | Miscellaneous                                   |
|------|------------------------------|--|---|---|---|
|      | (1)                          | GN20-MRS   | RA: 12 37 11.8885 (189.2995354d)  |   |   |
|      |                              |  | Dec: +62 22 12.10 (62.37003d)   |   |   |
|      |                              |  | Equinox: J2000  |   |   |
|      | Comments: Th                 | is object was generated by the t                                     | arget selector and retrieved from the NED database.   |   |   |
|      | Category=Ga<br>Description=[ | axy<br>Active galactic nuclei]                                       |   |   |   |
|      | (2)                          | GN20-IMAGER  | RA: 12 37 13.0365 (189.3043188d)  |   |   |
|      |                              |  | Dec: +62 21 51.63 (62.36434d)   |   |   |
|      |                              |  | Equinox: J2000  |   |   |
|      | Comments: Th                 | is object was generated by the t                                     | argetselector and retrieved from the NED database.  |   |   |
|      | Category=Ga<br>Description=[ | axy<br>Active galactic nuclei, Starburs                              | t galaxies]   |   |   |
|      | (4)                          | HFLS3-MRS  | RA: 17 06 47.8000 (256.6991667d)  |   |   |
|      |                              |  | Dec: +58 46 23.51 (58.77320d)   |   |   |
|      |                              |  | Equinox: J2000  |   |   |
|      | Comments: Th                 | is object was generated by the t                                     | arget selector and retrieved from the NED database.   |   |   |
|      | Category=Ga<br>Description=[ | laxy<br>Active galactic nuclei, High-rec                             | lshift galaxies, Starburst galaxies]  |   |   |
|      | (5)                          | HFLS3-IMAGER   | RA: 17 06 49.8895 (256.7078729d)  |   |   |
|      |                              |  | Dec: +58 46 10.24 (58.76951d)   |   |   |
| 6    |                              |  | Equinox: J2000  |   |   |
| Jet: | Comments: Th                 | is object was generated by the t                                     | argetselector and retrieved from the NED database.  |   |   |
| arg  | Category=Ga<br>Description=  | laxy<br>Active galactic nuclei]                                      |   |   |   |
| μ    | (6)                          | SPT0311-MRS  | RA: 03 11 33.2000 (47.8883333d)   |   |   |
| xe   |                              |  | Dec: -58 23 33.40 (-58.39261d)  |   |   |
| Ē    |                              |  | Equinox: J2000  |   |   |
|      | Comments: Th                 | is object was generated by the t                                     | arget selector and retrieved from the NED database.   |   |   |
|      | Category=Ga<br>Description=  | laxy<br>High-redshift galaxies, Infrarea                             | l galaxies, Starburst galaxies]   |   |   |
|      | Extended=YE                  | S  |   |   |   |
|      | (7)                          | GNz11-offset   | RA: 12 36 19.8900 (189.0828750d)  |   |   |
|      |                              |  | Dec: +62 14 38.72 (62.24409d)   |   |   |
|      |                              |  | Equinox: J2000  |   |   |
|      | Comments: Co<br>(12:36:25.46 | oordenates are offset from the tr<br>+62:14:31.4. target 15) are not | ue values for GNz11 in order to obtain simultaneous MIRI in<br>used here for centering the MIRI imager. | age of GNz11 and NIRCam images of GN20 system for | the selected V3 angle. The coordenates of GNz11 |
|      | Category=Ga                  | laxy   |   |   |   |
|      | Description=[<br>Extended=NO | Hign-reasnift galaxies]  |   |   |   |
|      | (8)                          | GN20-NIRSPEC   | RA: 12 37 11.8999 (189.2995829d)  |   |   |
|      |                              |  | Dec: +62 22 12.10 (62.37003d)   |   |   |
|      |                              |  | Equinox: J2000  |   |   |
|      | Comments:                    |  |   |   |   |
|      | Category=Ga<br>Description=1 | laxy<br>High-redshift galaxies. Starbur                              | st galaxies]  |   |   |
|      | Extended=YE                  | 5  | 0   |   |   |
|      |                              |  |   |   |   |
|      |                              |  |   |   |   |
|      |                              |  |   |   |   |
|      |                              |  |   |   |   |

#### Proposal 1264 - Targets - NIRSpec and MIRI IFS of SMGs

| Series:  | (9)                                  | HFLS3-NIRSPEC  | RA: 17 06 47.8000 (256.6991667d)                        |  |
|--|--------------------------------------|--|---|--|
|  |                                      |  | Dec: +58 46 23.51 (58.77320d)                           |  |
| Conversion:         Weigners-Guitz         Weigners-Guitz         Weigners-Guitz           100         ST011-58-NRSPEC         RA: 011 13 2000 (47 888583.0)<br>Dec: 48 23 33 0 (58. 39264)<br>Entroite 2000         Dec: 48 23 33 0 (58. 39264)<br>Entroite 2000           Conversit:         Conversit:         Conversit:         St000 (47 888533.0)<br>Dec: 48 23 33.00 (58. 39264)<br>Entroite 2000           (1)         ST031 I-DMAGER         RA: 01 I 33 2000 (47 888533.0)<br>Dec: 58 23 3.00 (58. 39264)<br>Equino: 12000         RA: 01 I 33 2000 (47 888333.0)<br>Dec: 58 23 3.00 (58. 39264)<br>Equino: 12000         Dec: 58 23 3.00 (58. 39264)<br>Equino: 12000           (1)         ST031 I-MAGER         RA: 01 I 13 2000 (47 888333.0)<br>Dec: 58 23 3.00 (58. 39264)<br>Equino: 12000         Dec: 58 23 3.00 (58. 39264)<br>Equino: 12000           Conversit:         File object was generated by the targetelector and retrieved from the NED daubase.         Dec: 68 23 24.01 (58. 39874)<br>Dec: 58 23 24.01 (58. 39874)<br>Dec: 58 23 24.01 (58. 39874)<br>Equino: 12000         Dec: 68 23 24.01 (58. 39874)<br>Equino: 12000           Conversit:         File object was generated by the targetelector and retrieved from the NED daubase.         Dec: 68 23 24.01 (58. 39874)<br>Equino: 12000           Conversit:         File object was generated by the targetselector and retrieved from the NED daubase.         Dec: 68 23 24.01 (58. 39874)<br>Equino: 12000         Dec: 68 43 53.78 (58.01940)<br>Dec: 68 43 53.78 (58.01940)<br>Equino: 12000         Dec: 68 43 53.78 (58.01940)<br>Equino: 12000         Dec: 68 43 53.78 (58.01940)<br>Dec: 68 43 53.78 (58.01940)<br>Equino: 12000  |                                      |  | Equinox: J2000  |  |
| Langent endown of the second of the second endown o   | Comments                             | s:   |   |  |
| Lineaded-LSE         R-103 11-33-MIRSPEC         R-103 11 33 200 (47 38858330)<br>Dec: -58 23 33 50 (-58 39264d)<br>Equinoc: 1200           Common: Constraints from Figure 1 in Marranet 18 adjusting FoV         Dec: -58 23 33 50 (-58 39264d)           Decompone: Constraints from Figure 1 in Marranet 18 adjusting FoV         Decompone: Constraints from Figure 1 in Marranet 18 adjusting FoV           Decompone: Constraints from Figure 1 in Marranet 18 adjusting FoV         Decompone: Constraints from Figure 1 in Marranet 18 adjusting FoV           Common: Constraints from Figure 1 in Marranet 18 adjusting FoV         Decompone: Constraints from Figure 1 in Marranet 18 adjusting FoV           Common: Constraints from Figure 1 in Marranet 18 adjusting FoV         Decempone: Constraints from Figure 1 in Marranet 2 eductes. Starburst gulatice 1           Common: Constraints from Figure 1 in Marranet 2 eductes. Starburst gulatice 1         Decempone: Figure 1 in Marranet 2 eductes. Starburst gulatice 1           Common: Constraints for Object was generated by the targetolector and retrieved from the NED database.         Dece: -582 342,61 (-58, 3957(7)           Componet: This object was generated by the targetolector and retrieved from the NED database.         Decerption: Figure 1-104, 2001           Common: Figure 1-MRS-BKC         R: 12 37 36030 (98)2500120         Dec: -682 342, 56 (02, 3957(7)           Common: Figure 1-Maranet Retrieve 10 Starter 2 gulating. Starburst gulating 1         Decemponet 100 (98)2500120         Dec: -682 31, 56 (62, 59910)           Commont: Funder Figure 10 HRS d  | Category=<br>Descriptio              | =Galaxy<br>on=[High-redshift galaxies_Star]          | burst valaxies]   |  |
| (1)     SPD311-S8-NIKSPEC     A: (2) 13.32:00 (7.5895:83:0)       Concent:     E::::::::::::::::::::::::::::::::::::   | Extended=                            | =YES   | oursi Salawes)  |  |
| be::::::::::::::::::::::::::::::::::::   | (10)                                 | SPT0311-58-NIRSPEC                                   | RA: 03 11 33.2600 (47.8885833d)                         |  |
|  |                                      |  | Dec: -58 23 33.50 (-58.39264d)                          |  |
| Connents: Coordinates from Figure 1 in Marrow-18 adjusting FoV<br>Georgeny=Galaxy<br>Description=[High-redshift galaxies, Informet galaxies, Stanburg galaxies]<br>Lec. 452 33.40 (45.833334)<br>Desc. 452 33.40 (45.83334)<br>Desc. 452 43.42.41 (45.833174)<br>Desc. 453 31.42.61 (45.8335174)<br>Desc. 454 451 11 Desc. 454 23.51 Add (189.26501254)<br>Desc. 454 453 11 Desc. 454 23.51 Add (189.26501254)<br>Desc. 454 453 11 Desc. 454 (45.835174)<br>Desc. 454 453 11 Desc. 454 (45.835174)<br>Desc. 454 453 11 Desc. 454 (45.8494)<br>Desc. 454 453 11 Desc. 454 453 1 |                                      |  | Equinox: J2000  |  |
| Large optimizer         Highe readshift galaxies, Infrared galaxies, Starburst galaxies, Starburst, Starburst, Starburst, Starburst, Starburst, Starburst,   | Comments                             | s: Coordinates from Figure 1 in I                    | Marrone+18 adjusting FoV                                |  |
| (1) PT031-PMAGE Results in 11 32.000 (7.3883334)   | Description<br>Extended=             | =Galaxy<br>m=[High-redshift galaxies, Infra<br>=YES  | ared galaxies, Starburst galaxies]                      |  |
| be:       5.833.30.0(58.392.01.4)         comments:       bis object was generated by terrejectel from the NED database.         Comments:       bis object was generated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejectel from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejected from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejected from the NED database.         Description:       High-redshift gataxies. Infraregeneerated by terrejected from the NED database.         Description:       High-redshift gataxies. Infraregeneerate         Description:       High-redshift gataxies.         Description:       High-redshift gataxies. <td< td=""><td>(11)</td><td>SPT0311-IMAGER</td><td>RA: 03 11 33.2000 (47.8883333d)</td><td></td></td<>   | (11)                                 | SPT0311-IMAGER                                       | RA: 03 11 33.2000 (47.8883333d)                         |  |
| Image: Series       Engines: 2000         Cancepory-Giles       Series         Cancepory-Giles       Series         Series       Series         Cancepory-Giles       Resci 31 132,9352 (47,8872300)         Cancepory-Giles       Equinos: 2000         Cancepory-Giles       Equinos: 2000     <   |                                      |  | Dec: -58 23 33.40 (-58.39261d)                          |  |
| Connents: This object was generated by the targetselector and retrieved from the NED database.<br>Generation=:[High-redath] galaxies, Intraret galaxies, Starburst galax   |                                      |  | Equinox: J2000  |  |
| Category - Galaxy<br>Extended - TVE         RA: 03 11 52,9352 (47, 88723004)<br>Dec: -58 23 42,61 (-58,395174)<br>Equinox: 12000           Comments: This object was generated by the targetselector and retrieved from the NED database.<br>Category - Galaxy<br>Extended - VE         RA: 12 37 3.030 (189,26501254)<br>Dec: +62 21 35.66 (62,359914)<br>Equinox: 12000           (13)         GN20-MRS-BKG         RA: 12 37 3.030 (189,26501254)<br>Dec: +62 21 35.66 (62,359914)<br>Equinox: 12000           Comments: background for GN20 MRS observations<br>Category - Galaxy<br>Extended - VE         RA: 12 37 3.630 (189,26501254)<br>Dec: +62 21 35.66 (62,359914)<br>Equinox: 12000           Comments: background for GN20 MRS observations<br>Category - Galaxy<br>Extended - VE         RA: 12 37 3.630 (189,26501254)<br>Dec: +62 21 35.66 (62,359914)<br>Equinox: 12000           Comments: background for GN20 MRS observations<br>Category - Galaxy<br>Decerption= [High-redshift galaxies]<br>Extended - VE         Dec: +62 24 13.56 (62,359914)<br>Equinox: 12000           Comments: background for HFL53 MRS observations<br>Category - Galaxy<br>Decerption= [High-redshift galaxies]<br>Extended - VE         Dec: +58 45 37.78 (58.760494)<br>Equinox: 12000           Comments: background for HFL53 MRS observations<br>Category - Galaxy<br>Decerption= [High-redshift galaxies]<br>Extended - VE         RA: 12 36 25.4600 (189.1068334)<br>Dec: +62 14 31.40 (62.242064)<br>Equinos: 12000           Comments:<br>Category - Galaxy<br>Decerption= [Active galaxies nuclei, High-redshift galaxies]<br>Extended - VE         Extended - VE  | Comments                             | s: This object was generated by t                    | the targetselector and retrieved from the NED database. |  |
| (12)       SPT0311-MRS-BKG       R.s. 03 11 32.9352 (47.88723004)<br>Dec: -582 34 2.61 (-58.395174)<br>Equinos: 12000         Comments: This object was generated by the targetselector and retrieved from the NED database.<br>CategoryGatary<br>Description=//ligh-redshift galaxies, Information of the NED database.<br>CategoryGatary<br>Extended-VE       Second (19.2000)         Comments: This object was generated by the targetselector and retrieved from the NED database.<br>CategoryGatary<br>Extended-VE       Second (19.2000)         Comments: Lackground for GN20 MRS-BKG       R.s. 12 37 3.6030 (19.26501250)<br>Dec: +62 21 35.66 (62.359910)<br>Equinos: 12000         Comments: Lackground for GN20 MRS observers       Second (20.2000)         Comments: Lackground for HFLS3 MRS obsorvers       Second (20.2000)         Cat  | Category=<br>Descriptic<br>Extended= | =Galaxy<br>m=[High-redshift galaxies, Infra<br>=YES  | ared galaxies, Starburst galaxies]                      |  |
| bc: -58 23 42.61 (-58.39517d)           Equicon: 12000           Comments: Tuis object was generated by twisteristerist was territeved from the NED database.<br>Category:-Uaxional Comments: Starburst galaxies, Informational Comments, Informational Comments,  | (12)                                 | SPT0311-MRS-BKG                                      | RA: 03 11 32.9352 (47.8872300d)                         |  |
| Comments: This object was generated by the targetector and retrieved from the NED database. Category = Giatxy         Description=: [High-redshift galaxies, Istarburs galaxies]         (13)       GN20-MRS-BKG       RA: 12 37 3.6030 (189.26501250)<br>Description=: [High-redshift galaxies]         (13)       GN20-MRS-BKG       RA: 12 37 3.6030 (189.26501250)<br>Description=: [High-redshift galaxies]         Extended=/EX       Description=: [High-redshift galaxies]         (14)       HFLS3-MRS-BKG       RA: 17 06 4.5112 (256.67713004)<br>Description=: [High-redshift galaxies]         Extended=/EX       Description=: [High-redshift galaxies]         Extended=/EX       Description=: [High-redshift galaxies]         Extended=/EX       Description=: [High-redshift galaxies]         Extended=/EX       Extended=/EX         (14)       HFLS3-MRS-BKG       RA: 17 06 4.5112 (256.67713004)<br>Description=: [High-redshift galaxies]         Description=: [High-redshift galaxies]       Description=: [High-redshift galaxies]         Extended=VEX       Description=: [High-redshift galaxies]         Extended=VEX       Description=: [High-redshift galaxies]         Extended=VEX       Description=: [High-redshift galaxies]         Extended=VEX       Description=: [Ligh-redshift galaxies]         Extended=VEX       Description=: [Ligh-redshift galaxies]         Extended=VEX       Description=: [Ligh-redsh  |                                      |  | Dec: -58 23 42.61 (-58.39517d)                          |  |
| Comments: This object was generated by the targetselector and retrieved from the NED database.<br>Gategory = Galaxy<br>Description = [High-redshift galaxies, Infrared galaxies, Starburst galaxies]<br>Leanded = VE<br>(13) No. NRS-BKG RA: 12.37.3.6030 (189.2650125d)<br>Dec: +62.21.35.66 (62.35991d)<br>Equinox: J2000<br>Comments: background for GN20 MRS observations<br>Category = Galaxy<br>Description = [High-redshift galaxies]<br>Leanded = VE<br>(14) HFLS3-MRS-BKG RA: 17.06 42.5112 (256.6771300d)<br>Dec: +58.45 37.78 (58.76049d)<br>Equinox: J2000<br>Comments: background for HFLS3 MRS observations<br>Category = Galaxy<br>Description = [High-redshift galaxies]<br>Leanded = VE<br>(15) GN-Z11 RA: 12.362 5.4600 (189.1060833d)<br>Dec: +62.14.31.40 (62.24206d)<br>Equinox: J2000<br>Comments:<br>Category = Galaxy<br>Description = [High-redshift galaxies]<br>Leanded = VE<br>(16) GN-Z11 RA: 12.362 5.4600 (189.1060833d)<br>Dec: +62.14.31.40 (62.24206d)<br>Equinox: J2000   |                                      |  | Equinox: J2000  |  |
| Category=Galaxy         Extended=YES           (13)         GN20-MRS-BKG         R.1 2 37 3.6030 (189.2650125d)<br>Dec: +62 21 35.66 (62.35991d)<br>Equinox: J2000           Comments: background for GN20 MRS observations         Dec: +62 21 35.66 (62.35991d)<br>Equinox: J2000           Comments: background for GN20 MRS observations         Dec: +62 21 35.66 (62.35991d)<br>Equinox: J2000           Comments: background for GN20 MRS observations         Dec: +62 21 35.66 (62.35991d)<br>Equinox: J2000           Comments: background for HFLS3 MRS observations         Dec: +58 45 37.78 (58.76049d)<br>Dec: +58 45 37.78 (58.76049d)<br>Equinox: J2000           Comments: background for HFLS3 MRS observations         Dec: +62 14 31.40 (62.24206d)<br>Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000           Comments: background for HFLS3 MRS observations         Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000           Comments: background for HFLS3 MRS observations         Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000           Comments: background for HFLS3 MRS observations         Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000           Comments: background for HFLS3 MRS observations         Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000  | Comments                             | s: This object was generated by t                    | the targetselector and retrieved from the NED database. |  |
| $ \begin{array}{ c c c } IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII$   | Category=<br>Descriptic<br>Extended= | =Galaxy<br>on=[High-redshift galaxies, Infra<br>=YES | ared galaxies, Starburst galaxies]                      |  |
| Dec: +62 21 35.66 (62.35991d)         Equinox: J2000         Category=Galaxy         Description=[High-redshift galaxies]         Extended=YEE         (14)       HFLS3-MRS-BKG       RA: 17 06 42.5112 (256.6771300d)<br>Dec: +58 45 37.78 (58.76049d)<br>Equinox: J2000         Comments:       bec: +58 45 37.78 (58.76049d)<br>Equinox: J2000         Comments:       bec: +58 45 37.78 (58.76049d)<br>Dec: +58 45 37.78 (58.76049d)<br>Equinox: J2000         Comments:       bec: +18 45 37.78 (58.76049d)<br>Equinox: J2000         (15)       N-Z11       RA: 12 36 25.4600 (189.1060833d)<br>Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000         (15)       N-Z11       RA: 12 36 25.4600 (189.1060833d)<br>Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000         Comments:       Category=Galaxy         Desc: +62 I4 31.40 (62.24206d)<br>Equinox: J2000       Dec: +62 I4 31.40 (62.24206d)<br>Equinox: J2000  | (13)                                 | GN20-MRS-BKG   | RA: 12 37 3.6030 (189.2650125d)                         |  |
| Equinox: J2000         Comments: background for GN20 MRS observations         Description=[High-redshift galaxies]         Extended=VE         (14)       HES3-MRS-BKG       RA: 17 06 42.5112 (256.6771300d)         Dec: +58 45 37.78 (58.76049d)       Dec: +58 45 37.78 (58.76049d)         Equinox: J2000       Equinox: J2000         Comments: background for HFLS3 MRS observations       Equinox: J2000         Comments: background for HFLS3 MRS observations       Extended=VE         (15)       GN-Z11       RA: 12 36 25.4600 (189.1060833d)         Dec: +62 14 31.40 (62.24206d)       Equinox: J2000         (15)       GN-Z11       RA: 12 36 25.4600 (189.1060833d)         Dec: +62 14 31.40 (62.24206d)       Equinox: J2000         Comments:       Equinox: J2000  |                                      |  | Dec: +62 21 35.66 (62.35991d)                           |  |
| Comments: background for GN20 MRS observations         Category=Galaxy         Extended=YES         (14)       HFLS3-MRS-BKG       RA: 17 06 42.5112 (256.6771300d)<br>Dec: +58 45 37.78 (58.76049d)<br>Equinox: J2000         Comments:       background for HFLS3 MRS observations         Category=Galaxy       perceription=[High-redshift galaxies]         Extended=YES       second for HFLS3 MRS observations         Category=Galaxy       perceription=[High-redshift galaxies]         Extended=YES       second for HFLS3 MRS observations         (15)       GN-Z11       RA: 12 36 25.4600 (189.1060833d)<br>Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000         Comments:       category=Galaxy         Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000       Equinox: J2000         Comments:       category=Galaxy         Extended=NO       second for HFLS3 MRS observations  |                                      |  | Equinox: J2000  |  |
| Category=Galaxy           Description=[High-redshift galaxies]           Extended=YES           (14)         HFLS3-MRS-BKG         RA: 17 06 42.5112 (256.6771300d)<br>Dec: +58 45 37.78 (58.76049d)<br>Equinox: J2000           Comments:         bcc: r58 45 37.78 (58.76049d)<br>Equinox: J2000           Comments:         bcc: redshift galaxies]           Extended=YES         Ferring (100, 100, 100, 100, 100, 100, 100, 100  | Comments                             | s: background for GN20 MRS ob                        | bservations   |  |
| Likended - FLS         (14)       HFLS3-MRS-BKG       RA: 17 06 42.5112 (256.6771300d)<br>Dec: +58 45 37.78 (58.76049d)<br>Equinox: J2000         Comments: background for HFLS3 MRS observations<br>Category=Galaxy<br>Description=[High-redshift galaxies]<br>Extended=YES       Extended State of the sta  | Category=<br>Descriptic              | =Galaxy<br>on=[High-redshift galaxies]<br>- VFS      |   |  |
| Dec: +58 45 37.78 (58.76049d)         Equinox: J2000         Comments: background for HFLS3 MRS observations         Category=Galaxy         Description=[High-redshift galaxies]         Extended=YES         (15)       GN-Z11         RA: 12 36 25.4600 (189.1060833d)         Dec: +62 14 31.40 (62.24206d)         Equinox: J2000         Comments:         Category=Galaxy         Dec: +62 IA 31.40 (62.24206d)         Equinox: J2000         Comments:         Category=Galaxy         Description=[Active galactic nuclei, High-redshift galaxies]         Extended=NO   | (14)                                 | HFLS3-MRS-BKG  | RA: 17 06 42.5112 (256.6771300d)                        |  |
| Equinox: J2000<br>Comments: background for HFLS3 MRS observations<br>Category=Galaxy<br>Description=[High-redshift galaxies]<br>Extended=YES<br>(15) GN-Z11 RA: 12 36 25.4600 (189.1060833d)<br>Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000<br>Comments:<br>Category=Galaxy<br>Description=[Active galactic nuclei, High-redshift galaxies]<br>Extended=NO   | l` ´                                 |  | Dec: +58 45 37.78 (58.76049d)                           |  |
| Comments: background for HFLS3 MRS observations<br>Category=Galaxy<br>Description=[High-redshift galaxies]<br>Extended=YES<br>(15) GN-Z11 RA: 12 36 25.4600 (189.1060833d)<br>Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000<br>Comments:<br>Category=Galaxy<br>Description=[Active galactic nuclei, High-redshift galaxies]<br>Extended=NO   |                                      |  | Equinox: J2000  |  |
| Description=[High-redshift galaxies]<br>Extended=YES<br>(15) GN-Z11 RA: 12 36 25.4600 (189.1060833d)<br>Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000<br>Comments:<br>Category=Galaxy<br>Description=[Active galactic nuclei, High-redshift galaxies]<br>Extended=NO   | Comments<br>Category=                | s: background for HFLS3 MRS o<br>=Galaxy             | bservations   |  |
| (15)       GN-Z11       RA: 12 36 25.4600 (189.1060833d)         Dec: +62 14 31.40 (62.24206d)       Dec: +62 14 31.40 (62.24206d)         Equinox: J2000       Equinox: J2000         Comments:       Category=Galaxy         Description=[Active galactic nuclei, High-redshift galaxies]         Extended=NO  | Description<br>Extended              | on=[High-redshift galaxies]<br>=YES                  |   |  |
| Dec: +62 14 31.40 (62.24206d)<br>Equinox: J2000<br>Comments:<br>Category=Galaxy<br>Description=[Active galactic nuclei, High-redshift galaxies]<br>Extended=NO   | (15)                                 | GN-Z11   | RA: 12 36 25.4600 (189.1060833d)                        |  |
| Equinox: J2000<br>Comments:<br>Category=Galaxy<br>Description=[Active galactic nuclei, High-redshift galaxies]<br>Extended=NO  |                                      |  | Dec: +62 14 31.40 (62.24206d)                           |  |
| Comments:<br>Category=Galaxy<br>Description=[Active galactic nuclei, High-redshift galaxies]<br>Extended=NO  |                                      |  | Equinox: J2000  |  |
| Category=Galaxy<br>Description=[Active galactic nuclei, High-redshift galaxies]<br>Extended=NO   | Comments                             | s:   |   |  |
| Extended=NO  | Category=<br>Description             | =Galaxy<br>on=[Active galactic nuclei. High          | n-redshift calaxies]                                    |  |
|  | Extended                             | =NO  | ······································                  |  |

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| uc           | Proposal 1264,  | , Observation 1:          | GN20-MRS [V       | RIGHT_0302        | ]                  |                   |                     |                   |              |                      |                       | Tue Oct 03 1      | 5:00:33 GMT 2023    |
|--------------|-----------------|---------------------------|-------------------|-------------------|--------------------|-------------------|---------------------|-------------------|--------------|----------------------|-----------------------|-------------------|---------------------|
| atic         | Diagnostic Sta  | tus: Warning              |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| Ž            | Observing Tem   | plate: MIRI Med           | lium Resolution   | Spectroscopy      |                    |                   |                     |                   |              |                      |                       |                   |                     |
| se           |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| ð            |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| SS           | (Visit 1:1) War | ning (Form): Ov           | erheads are prov  | isional until the | Visit Planner ha   | s been run.       |                     |                   |              |                      |                       |                   |                     |
| stic         | (GN20-MRS [W    | WRIGHT_0302]              | (Obs 1)) Informa  | ational (Form):   | The Visit Planne   | r and Spike may J | produce different s | chedulability res | ults.        |                      |                       |                   |                     |
| Ö            |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| ag           |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| Di           |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| ts           | # 1             | Name                      | ]                 | larget Coordii    | ates               |                   | Targ. Co            | ord. Correction   | 15           | Μ                    | liscellaneous         |                   |                     |
| ge           | (1)             | GN20-MRS                  | I                 | RA: 12 37 11.88   | 85 (189.2995354    | 4d)               |                     |                   |              |                      |                       |                   |                     |
| l ar         |                 |                           | Ι                 | Dec: +62 22 12.   | 10 (62.37003d)     |                   |                     |                   |              |                      |                       |                   |                     |
| ٦<br>ק       |                 |                           | I                 | Equinox: J2000    |                    |                   |                     |                   |              |                      |                       |                   |                     |
| ixe          | Comments: Thi   | s object was gen          | erated by the tar | get selector and  | l retrieved from t | he NED database   |                     |                   |              |                      |                       |                   |                     |
| Ш.           | Description=[A  | axy<br>Active galactic ni | uclei]            |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| nc           | #               |                           |                   |                   |                    |                   | Target              |                   |              |                      |                       |                   |                     |
| iti          | 1               |                           |                   |                   |                    |                   | NONE                |                   |              |                      |                       |                   |                     |
| uis          |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| ß            |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| ۲<br>۲       |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| ate          | AcqFilter       |                           | Prin              | ary Channel       |                    | Simultane         | ous Imaging         | II                | nager Subarr | ay                   | Grating               | Wheel Directi     | on                  |
| đ            | F560W           |                           | All N             | ARS               |                    | YES               |                     | F                 | ULL          |                      | NEUTR                 | AL                |                     |
| en           |                 |                           |                   |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| L<br>S       |                 |                           |                   | D:41 /            |                    |                   | 0.4                 |                   |              |                      |                       |                   |                     |
| ers          | #               |                           |                   | A Delint          | ype                |                   |                     | ized For          | ,            |                      |                       |                   |                     |
| lth          | 1               |                           |                   | 4-Point           |                    |                   | EATE                | NDED SOURCE       | 2            | INI                  | EGATIVE               |                   |                     |
|              |                 |                           | _                 |                   |                    |                   |                     |                   |              |                      |                       |                   |                     |
| Its          | #               | Wavelength<br>Range       | Detector          | Filter            | Readout<br>Pattern | Groups/Int        | Integrations/E      | Exposures/Dit     | Dither       | <b>Total Dithers</b> | Total<br>Integrations | Total<br>Exposure | ETC<br>Wkbk.Calc ID |
| Jer          |                 | 8-                        |                   |                   |                    |                   | F                   |                   |              |                      |                       | Time              |                     |
| en           | 1               |                           | IMAGER            | F560W             | FASTR1             | 114               | 3                   | 1                 | Dither 1     | 4                    | 12                    | 3818.455          |                     |
| Ш            | 1               | MEDIUM(B)                 | MRSLONG           |                   | SLOWR1             | 40                | 1                   | 1                 | Dither 1     | 4                    | 4                     | 3822.387          |                     |
| ra           | 1               | MEDIUM(B)                 | MRSSHORT          |                   | SLOWR1             | 40                | 1                   | 1                 | Dither 1     | 4                    | 4                     | 3822.387          |                     |
| ect          | 2               |                           | IMAGER            | F770W             | FASTR1             | 114               | 3                   | 1                 | Dither 1     | 4                    | 12                    | 3818.455          |                     |
| sp.          | 2               | MEDIUM(B)                 | MRSLONG           |                   | SLOWR1             | 40                | 1                   | 1                 | Dither 1     | 4                    | 4                     | 3822.387          |                     |
| <b>1 1 1</b> | 2               | MEDIUM(B)                 | MRSSHORT          |                   | SLOWR1             | 40                | 1                   | 1                 | Dither 1     | 4                    | 4                     | 3822.387          |                     |

#### Proposal 1264 - Observation 1 - NIRSpec and MIRI IFS of SMGs

Aperture PA Range 300 to 310 Degrees (V3 300.0 to 310.0)

Special Requirements Group Observations 1, 16, Non-interruptible Same Aperture PA 1, 16

#### Proposal 1264 - Observation 2 - NIRSpec and MIRI IFS of SMGs Proposal 1264, Observation 2: GN20-Imager [WRIGHT\_0301+0305] Observation Tue Oct 03 16:00:33 GMT 2023 **Diagnostic Status: Warning** Observing Template: MIRI Imaging Diagnostics Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. Name **Target Coordinates** Targ. Coord. Corrections Miscellaneous **Fixed Targets** GN20-IMAGER (2)RA: 12 37 13.0365 (189.3043188d) Dec: +62 21 51.63 (62.36434d) Equinox: J2000 Comments: This object was generated by the targetselector and retrieved from the NED database. Category=Galaxy Description=[Active galactic nuclei, Starburst galaxies] Template Subarray FULL Dithers **Dither Type Starting Point** Number of Points Points **Starting Set** Number of Sets **Optimized For** Direction Pattern Size CYCLING 5 2 MEDIUM 1 1 **Spectral Elements** ETC Wkbk.Calc # Filter Readout Pattern Groups/Int Integrations/Exp Exposures/Dith Dither **Total Dithers** Total Total Exposure Integrations ID Time 5 F560W FASTR1 108 1 1 Dither 1 5 1498.522 F770W FASTR1 108 1 1 Dither 1 5 5 1498.522 5 5 F1280W FASTR1 108 1 1 Dither 1 1498.522 **Special Requirements** Aperture PA Range 304.83425324 to 314.83425324 Degrees (V3 299.99880427 to 309.99880427)

| Pr            | oposal 1264 -   | <b>Observation</b>  | on 3 - NIRSp    | ec a   | and MIRI IFS     | of SMC     | S      |                                 |                               |                    |                          |                        |                     |
|---------------|---|---|-----------------|--------|------------------|------------|--------|---------------------------------|-------------------------------|--------------------|--------------------------|------------------------|---------------------|
| Observation   | Proposal 1264, Ob<br>Diagnostic Status:<br>Observing Template<br>Coordinated Paralle  | Proposal 1264, Observation 3: GNz11-Imager       Tue Oct 03 16:00:33 GMT 2023         Diagnostic Status: Warning       Observing Template: MIRI Imaging         Coordinated Parallel Template(s): NIRCam Imaging       Userving Template (S): NIRCam Imaging         (Visit 3:1) Warning (Form): Data Excess over lower threshold       Userving Template (S): NIRCam Imaging |                 |        |                  |            |        |                                 |                               |                    |                          |                        |                     |
| Diagnostics   | (Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.<br>(Visit 3:1) Informational (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.  |   |                 |        |                  |            |        |                                 |                               |                    |                          |                        |                     |
| Г             | # Nam   | ie  | Target Co       | ordina | ites             |            | r      | Farg. Co                        | ord. Correc                   | tions              | Miscella                 | neous                  |                     |
| Fixed Targets | (7)       GNz11-offset       RA: 12 36 19.8900 (189.0828750d)<br>Dec: +62 14 38.72 (62.24409d)<br>Equinox: J2000         Comments: Coordenates are offset from the true values for GNz11 in order to obtain simultaneous MIRI image of GNz11 and NIRCam images of GN20 system for the selected V3 angle. The coordenates of GNz11 (12:36:25.46 +62:14:31.4, target 15) are not used here for centering the MIRI imager.<br>Category=Galaxy<br>Description=[High-redshift galaxies]<br>Extended=NO |   |                 |        |                  |            |        |                                 |                               |                    |                          |                        |                     |
| ē             | MIRI Imaging  |   |                 |        |                  |            |        | NIRCa                           | n Imaging                     |                    |                          |                        |                     |
| Templat       | Subarray: FULL  |   |                 |        |                  |            |        | Module:<br>Subarray<br>Target F | ALL<br>y: FULL<br>lacement: N | Iodule Gap         |                          |                        |                     |
| S             | #   | Dither Type   | Starting Point  |        | Number of Points | Points     |        | Starting                        | g Set                         | Number of Sets     | <b>Optimized For</b>     | Direction              | Pattern Size        |
| he            | 1   | CYCLING   | 1               |        | 7                |            |        |                                 |                               |                    |                          |                        | MEDIUM              |
| Ē             | 2   | CYCLING   | 1               |        | 5                |            |        |                                 |                               |                    |                          |                        | MEDIUM              |
| ents          | MIRI Imaging  | Filter  | Readout Pattern | Grou   | ps/Int Integr    | ations/Exp | Exposu | res/Dith                        | Dither                        | Total Dithe        | rs Total<br>Integrations | Total Exposure<br>Time | ETC Wkbk.Calc<br>ID |
| Ĕ             | 1   | F560W   | FASTR1          | 72     | 2                |            | 1      |                                 | Dither 2                      | 5                  | 10                       | 2011.904               |                     |
| l 🖫           | 2   | F770W   | FASTR1          | 75     | 2                |            | 1      |                                 | Dither 1                      | 7                  | 14                       | 2933.217               |                     |
| Spectral      | 3   | F770W   | FASTR1          | 75     | 2                |            | 1      |                                 | Dither 1                      | 7                  | 14                       | 2933.217               |                     |
| ents          | NIRCam Imaging  | Short Filter  | Long Filter     |        | Readout Pattern  | Groups/In  | t      | Integra                         | tions/Exp                     | Total Integrations | Total Dithers            | Total Exposure<br>Time | ETC Wkbk.Calc<br>ID |
| ١Ĕ            | 1   | F200W   | F356W           |        | SHALLOW4         | 7          |        | 1                               |                               | 5                  | 5                        | 1825.251               |                     |
| Ш<br>Ш        | 2   | F150W   | F277W           |        | SHALLOW4         | 7          |        | 1                               |                               | 7                  | 7                        | 2555.351               |                     |
| Spectral      | 3   | F115W   | F444W           |        | SHALLOW4         | 7          |        | 1                               |                               | 7                  | 7                        | 2555.351               |                     |

#### Proposal 1264 - Observation 3 - NIRSpec and MIRI IFS of SMGs

Aperture PA Range 304.43544897 to 305.43544897 Degrees (V3 299.6 to 300.6) No Parallel Attachments

## Proposal 1264 - Observation 16 - NIRSpec and MIRI IFS of SMGs

| L C       | Proposal 1264,                  | Observation 16           | 5: GN20-MRS-B     | GK                 |                   |                   |                     |                 |                |                      |              | Tue Oct 03 16:   | 00:33 GMT 2023 |
|-----------|---------------------------------|--------------------------|-------------------|--------------------|-------------------|-------------------|---------------------|-----------------|----------------|----------------------|--------------|------------------|----------------|
| ați       | Diagnostic Stat                 | us: Warning              |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| Ž         | Observing Tem                   | plate: MIRI Med          | lium Resolution   | Spectroscopy       |                   |                   |                     |                 |                |                      |              |                  |                |
| se        |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| ð         |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| S         | (GN20-MRS-B                     | GK (Obs 16)) W           | arning (Form): I  | mager Filter ove   | rlap.             |                   |                     |                 |                |                      |              |                  |                |
| ŝ         | (Visit 16:1) Wa                 | rning (Form): O          | verheads are prov | visional until the | Visit Planner has | s been run.       |                     |                 |                |                      |              |                  |                |
| ğ         | (GN20-MRS-B                     | GK (Obs 16)) In          | formational (For  | m): The Visit Pl   | anner and Spike r | nay produce diffe | erent schedulabilit | y results.      |                |                      |              |                  |                |
| agi       |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| ā         |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| 6         | # N                             | Name                     | Т                 | arget Coordina     | ites              |                   | Targ. Co            | ord. Correction | IS             | М                    | iscellaneous |                  |                |
| et        | (13)                            | GN20-MRS-BK              | G R               | A: 12 37 3.6030    | (189.2650125d)    |                   |                     |                 |                |                      |              |                  |                |
| arg       |                                 |                          | E                 | Dec: +62 21 35.6   | 6 (62.35991d)     |                   |                     |                 |                |                      |              |                  |                |
| ĽΞ        |                                 |                          | E                 | quinox: J2000      |                   |                   |                     |                 |                |                      |              |                  |                |
| ed        | Comments: bac                   | kground for GN2          | 20 MRS observat   | ions               |                   |                   |                     |                 |                |                      |              |                  |                |
| l îÊ      | Category=Gala<br>Description=[H | xy<br>Iigh-redshift gald | axies]            |                    |                   |                   |                     |                 |                |                      |              |                  |                |
|           | Extended=YES                    |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| <u>lo</u> | #                               |                          |                   |                    |                   |                   | Target              |                 |                |                      |              |                  |                |
| siti      | 1                               |                          |                   |                    |                   |                   | NONE                |                 |                |                      |              |                  |                |
| Ţ.        |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| Ŭ         |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| ð         | AcaFilter                       |                          | Prim              | arv Channel        |                   | Simultaneo        | us Imaging          | Ir              | nager Subarray |                      | Grating      | Wheel Directio   | n              |
| lat       | neqi nei                        |                          | All N             | IRS                |                   | YES               | Jus Inluging        | f               | ULL            |                      | NEUTR        | AL               |                |
|           |                                 |                          | 7 111 1           | iitto              |                   | 1 Lb              |                     | 1               | <b>JEE</b>     |                      | neo m        |                  |                |
| Цеј       |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| Ś         | #                               |                          |                   | Dither Ty          | ре                |                   | Optimi              | zed For         |                | Di                   | rection      |                  |                |
| hei       | 1                               |                          |                   | 2-Point            | •                 |                   | POINT               | SOURCE          |                | NE                   | EGATIVE      |                  |                |
| ă         |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| ts        | #                               | Wavelength               | Detector          | Filter             | Readout           | Groups/Int        | Integrations/E      | Exposures/Dit   | Dither         | <b>Total Dithers</b> | Total        | Total            | ETC            |
| Jen l     |                                 | Range                    |                   |                    | Pattern           |                   | хр                  | h               |                |                      | Integrations | Exposure<br>Time | Wkbk.Calc ID   |
| len       | 1                               | :                        | IMAGER            | F1800W             | FASTR1            | 114               | 3                   | 1               | Dither 1       | 2                    | 6            | 1909.228         |                |
| <u> </u>  | 1                               | MEDIUM(B)                | MRSLONG           |                    | SLOWR1            | 40                | 1                   | 1               | Dither 1       | 2                    | 2            | 1911.194         |                |
| tra       | 1                               | MEDIUM(B)                | MRSSHORT          |                    | SLOWR1            | 40                | 1                   | 1               | Dither 1       | 2                    | 2            | 1911.194         |                |
| eci       |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
| S         |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |
|           |                                 |                          |                   |                    |                   |                   |                     |                 |                |                      |              |                  |                |

#### Proposal 1264 - Observation 16 - NIRSpec and MIRI IFS of SMGs

Aperture PA Range 300.0 to 310.0 Degrees (V3 300.0 to 310.0)

Special Requirements Group Observations 1, 16, Non-interruptible Same Aperture PA 1, 16

### Proposal 1264 - Observation 6 - NIRSpec and MIRI IFS of SMGs

| ч                             | Proposal 1264   | 4, Observation 6:                  | HFLS3-MRS [       | WRIGHT_040                | 1]                      |                  |                       |                   |                |                      |              | Tue Oct 03 16    | 5:00:33 GMT 2023 |
|-------------------------------|---|------------------------------------|-------------------|---------------------------|-------------------------|------------------|-----------------------|-------------------|----------------|----------------------|--------------|------------------|------------------|
| atic                          | Diagnostic St   | atus: Warning                      |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| Ž                             | Observing Ter   | mplate: MIRI Med                   | lium Resolution   | Spectroscopy              |                         |                  |                       |                   |                |                      |              |                  |                  |
| Se                            | 1   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| ð                             | 1   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| SS                            | (Visit 6:1) Wa  | arning (Form): Ov                  | erheads are prov  | isional until the         | Visit Planner has       | s been run.      |                       |                   |                |                      |              |                  |                  |
| stic                          | (HFLS3-MRS  | [WRIGHT_0401                       | ] (Obs 6)) Inform | national (Form):          | The Visit Plann         | er and Spike may | produce different     | schedulability re | sults.         |                      |              |                  |                  |
| ğ                             | 1   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| ag                            | 1   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| ā                             |   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| ŝ                             | #   | Name                               | 7                 | farget Coordin            | ates                    |                  | Targ. Co              | ord. Correction   | IS             | M                    | iscellaneous |                  |                  |
| ge                            | (4)   | HFLS3-MRS                          | F                 | A: 17 06 47.80            | 00 (256.6991667         | d)               |                       |                   |                |                      |              |                  |                  |
| Dec: +58 46 23.51 (58.77320d) |   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| Equinox: J2000                |   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| ×e                            | Comments: This object was generated by the target selector and retrieved from the NED database. |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| ΪĒ.                           | Category=Gai<br>Description=[   | laxy<br>[Active <u>galactic ni</u> | uclei, High-redsł | ift gala <u>xies, Sta</u> | rburst <u>galaxies]</u> |                  |                       |                   |                |                      |              |                  |                  |
| ç                             | #   | , <b></b>                          |                   |                           |                         |                  | Target                | t                 |                |                      |              |                  |                  |
| Ē                             | 1   |                                    |                   | -                         | -                       |                  | NONE                  |                   | -              |                      |              |                  |                  |
| lisi                          | 1   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  | Ì                |
| ត្រ                           | 1   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  | Ì                |
| Ă                             |   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| fe                            | AcqFilter   |                                    | Prin              | nary Channel              |                         | Simultane        | ous Imaging           | Ir                | nager Subarray | y                    | Grating      | , Wheel Directi  | ion              |
| ple                           | F560W   |                                    | All N             | <b>MRS</b>                |                         | YES              |                       | FI                | ULL            |                      | NEUTR        | AL               |                  |
| ۲<br>۲                        | 1   |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| ř                             | <u> </u>  |                                    |                   |                           |                         |                  |                       |                   |                |                      |              |                  |                  |
| S                             | #   |                                    |                   | Dither Ty                 | уре                     |                  | Optim                 | ized For          |                | Dir                  | rection      |                  |                  |
| ţ                             | 1   |                                    |                   | 4-Point                   |                         |                  | POINT SOURCE POSITIVE |                   |                |                      |              |                  |                  |
| ā                             | 2   |                                    |                   | 4-Point                   |                         |                  | POINT                 | SOURCE            |                | NE                   | GATIVE       |                  |                  |
| Ś                             | #   | Wavelength                         | Detector          | Filter                    | Readout                 | Groups/Int       | Integrations/E        | Exposures/Dit     | Dither         | <b>Total Dithers</b> | Total        | Total            | ETC              |
| ent                           | 1   | Range                              |                   |                           | Pattern                 |                  | хр                    | h                 |                |                      | Integrations | Exposure<br>Time | Wkbk.Calc ID     |
| ĮŠ                            | 1   |                                    | IMAGER            | F560W                     | FASTR1                  | 114              | 3                     | 1                 | Dither 1       | 4                    | 12           | 3818.455         |                  |
| Ш                             | 1   | MEDIUM(B)                          | MRSLONG           |                           | SLOWR1                  | 40               | 1                     | 1                 | Dither 1       | 4                    | 4            | 3822.387         |                  |
| ਯ                             | 1   | MEDIUM(B)                          | MRSSHORT          |                           | SLOWR1                  | 40               | 1                     | 1                 | Dither 1       | 4                    | 4            | 3822.387         |                  |
| 5                             | 2   | × .                                | IMAGER            | F770W                     | FASTR1                  | 114              | 3                     | 1                 | Dither 2       | 4                    | 12           | 3818.455         |                  |
| be                            | 2   | MEDIUM(B)                          | MRSLONG           |                           | SLOWR1                  | 40               | 1                     | 1                 | Dither 2       | 4                    | 4            | 3822.387         |                  |
| S<br>S                        |   | MEDIUM                             | MDCCHODT          |                           | ST OWD 1                | 40               | 1                     | 1                 | Dither 2       | 4                    | 4            | 3822 387         |                  |

#### Proposal 1264 - Observation 6 - NIRSpec and MIRI IFS of SMGs

Aperture PA Range 287.0 to 287.0 Degrees (V3 287.0 to 287.0)

Special Requirements Group Observations 6, 17, Non-interruptible Same Aperture PA 6, 17

|  | P                          | Proposal 1264, Observation 7: HF  | LS3-Imager  |  |   |  |   |  |   | Tue Oct 03   | 16:00:33 GMT 2023                             |
|--|----------------------------|---|---|--|---|--|---|--|---|--|---|
| Ë  | I                          | Diagnostic Status: Warning  | -   |  |   |  |   |  |   |  |   |
| Ş  | C                          | Observing Template: MIRI Imaging  |   |  |   |  |   |  |   |  |   |
| Sel  |                            | 6 1 6 6   |   |  |   |  |   |  |   |  |   |
| ğ  |                            |   |   |  |   |  |   |  |   |  |   |
| ŝ  | C                          | Visit 7:1) Warning (Form): Overhea  | ds are provisional unt  | il the Visit Plan  | nner has been run.  |  |   |  |   |  |   |
| ŭ  | Ì                          |   |   |  |   |  |   |  |   |  |   |
| ğ  |                            |   |   |  |   |  |   |  |   |  |   |
| <u>ام</u>                                      |                            |   |   |  |   |  |   |  |   |  |   |
| ö  |                            |   |   |  |   |  |   |  |   |  |   |
| ŝ  | #                          | # Name  | Target Co   | ordinates  |   | Targ. Co                                       | ord. Correc   | ctions   | Miscella  | neous  |   |
| <u>g</u>                                       | (                          | (5) HFLS3-IMAGER  | RA: 17 06   | 49.8895 (256.70  | 078729d)  |  |   |  |   |  |   |
| a  |                            |   | Dec: +58 4  | 6 10.24 (58.769  | 951d)   |  |   |  |   |  |   |
|  |                            |   | Equinox: J  | 2000   |   |  |   |  |   |  |   |
| ě  | C                          | Comments: This object was generate  | d by the targetselecto  | r and retrieved j  | from the NED database.  |  |   |  |   |  |   |
| ΪĹ   |                            | Category=Galaxy<br>Description=[Active galactic nuclei]   |   |  |   |  |   |  |   |  |   |
| e  | S                          | Subarray  |   |  |   |  |   |  |   |  |   |
| at   | F                          |   |   |  |   |  |   |  |   |  |   |
| l d  | ·                          | OLL   |   |  |   |  |   |  |   |  |   |
| Ter  |                            |   |   |  |   |  |   |  |   |  |   |
|  | -                          |   |   |  |   |  |   |  |   |  |   |
| S<br>ا   | #                          | <b>#</b> Dither Type  | Starting Point  | Number   | r of Points Points  | Startin  | g Set   | Number of Sets O   | ptimized For  | Direction  | Pattern Size                                  |
| hers   | #<br>1                     | #         Dither Type           I         CYCLING   | Starting Point  | 4 Number   | r of Points Points  | Startin<br>2                                   | g Set   | Number of Sets O   | ptimized For  | Direction  | Pattern Size<br>MEDIUM                        |
| Dithers  | <u>#</u><br>1              | #         Dither Type           I         CYCLING   | Starting Point  | Number 4   | r of Points Points  | Starting<br>2                                  | g Set   | Number of Sets O   | Optimized For   | Direction  | Pattern Size<br>MEDIUM                        |
| its Dithers                                    | #<br>1<br>#                | #     Dither Type       I     CYCLING       #     Filter  | Starting Point 1 Readout Pattern  | Number<br>4<br>Groups/Int  | r of Points Points Integrations/Exp   | Starting<br>2<br>Exposures/Dith                | g Set<br>Dither                                     | Number of Sets     O       1     1       Total Dithers                     | Deptimized For  | Direction<br>Total Exposure  | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc       |
| nents Dithers                                  | #                          | #     Dither Type       I     CYCLING       #     Filter       I     E560W                                      | Starting Point 1 Readout Pattern FASTR1   | Number<br>4<br>Groups/Int  | r of Points Points Integrations/Exp   | Starting<br>2<br>Exposures/Dith                | g Set Dither  | Number of Sets O   | Deptimized For<br>Total<br>Integrations                     | Direction<br>Total Exposure<br>Time  | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| lements Dithers                                | #<br>1<br>#<br>1<br>2      | #     Dither Type       I     CYCLING       #     Filter       I     F560W       P     F770W                    | Starting Point 1 Readout Pattern FASTR1 FASTR1  | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> </ul>  | r of Points Points Integrations/Exp 1   | Starting<br>2<br>Exposures/Dith                | g Set Dither Dither 1 Dither 1                      | Number of Sets C<br>1<br>Total Dithers<br>4<br>4                           | Deptimized For<br>Total<br>Integrations<br>4                | Direction Total Exposure Time 1110.016 1110.016                                  | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| Elements Dithers                               | #<br>1<br>1<br>2<br>3      | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point 1 Readout Pattern FASTR1 FASTR1 FASTR1   | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> </ul>                           | r of Points Points Integrations/Exp 1 1 1   | Starting<br>2<br>Exposures/Dith                | g Set<br>Dither<br>Dither 1<br>Dither 1             | Number of Sets C<br>1<br>Total Dithers<br>4<br>4<br>4                      | Total<br>Integrations<br>4<br>4                             | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| ral Elements Dithers                           | #<br>1<br>1<br>2<br>3      | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1                          | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> </ul>                           | r of Points Points Integrations/Exp 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | Starting<br>2<br>Exposures/Dith<br>1<br>1<br>1 | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets     O       1     Total Dithers       4     4       4     4 | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4<br>4 | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| ectral Elements Dithers                        | #<br>1<br>1<br>2<br>3      | #Dither TypeICYCLING#FilterIF560W2F770W3F1280W  | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1                          | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> </ul>                           | r of Points Points Integrations/Exp 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | Starting<br>2<br>Exposures/Dith<br>1<br>1<br>1 | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets     O       1     Total Dithers       4     4       4     4 | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4      | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| Spectral Elements Dithers                      | #<br>1<br>1<br>2<br>3      | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1                          | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> </ul>                           | r of Points Points Integrations/Exp 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   | Starting<br>2<br>Exposures/Dith<br>1<br>1      | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets     O       1     Total Dithers       4     4       4     4 | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4<br>4 | Direction Total Exposure Time 1110.016 1110.016 1110.016                         | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| ts Spectral Elements Dithers                   | #<br>1<br>1<br>2<br>3      | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point 1 Readout Pattern FASTR1 FASTR1 FASTR1 FASTR1 0291.83425324 Degre              | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> <li>wes (V3 286.998</li> </ul>  | r of Points         Points           Integrations/Exp         1           1         1           1         3           380427 to 286.99880427         380427 | Startin;<br>2<br>Exposures/Dith<br>1<br>1      | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets     O       1     Total Dithers       4     4       4     4 | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4<br>4 | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| ents Spectral Elements Dithers                 | #<br>1<br>1<br>2<br>3<br>· | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1<br>FASTR1                | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> <li>wes (V3 286.998)</li> </ul> | r of Points Points<br>Integrations/Exp<br>1<br>1<br>1<br>1<br>880427 to 286.99880427  | Startin;<br>2<br>Exposures/Dith<br>1<br>1<br>1 | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets O   | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4      | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016<br>1110.016 | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| ments Spectral Elements Dithers                | #<br>1<br>2<br>3           | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1<br>9 291.83425324 Degree | <ul> <li>Number 4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> <li>wes (V3 286.998)</li> </ul>          | r of Points Points Integrations/Exp 1 1 1 1 1 880427 to 286.99880427  | Startin;<br>2<br>Exposures/Dith<br>1<br>1<br>1 | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets O   | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4      | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016<br>1110.016 | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| irements Spectral Elements Dithers             | #<br>1<br>1<br>2<br>3      | #     Dither Type       L     CYCLING       #     Filter       L     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1<br>9 291.83425324 Degree | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> <li>wes (V3 286.998)</li> </ul> | r of Points Points Integrations/Exp 1 1 1 1 880427 to 286.99880427  | Startin;<br>2<br>Exposures/Dith<br>1<br>1<br>1 | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets O   | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4<br>4 | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016<br>1110.016 | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| equirements Spectral Elements Dithers          | #<br>1<br>2<br>3           | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1<br>9 291.83425324 Degree | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> <li>wes (V3 286.998)</li> </ul> | r of Points Points Integrations/Exp 1 1 1 1 880427 to 286.99880427  | Startin;<br>2<br>Exposures/Dith<br>1<br>1<br>1 | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets     O       1     Total Dithers       4     4       4     4 | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4<br>4 | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| Requirements Spectral Elements Dithers         | #<br>1<br>1<br>2<br>3<br>· | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1<br>9 291.83425324 Degree | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> <li>wes (V3 286.998)</li> </ul> | r of Points Points Integrations/Exp 1 1 1 1 880427 to 286.99880427  | Starting<br>2<br>Exposures/Dith<br>1<br>1<br>1 | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets     O       1     Total Dithers       4     4       4     4 | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4<br>4 | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| ial Requirements Spectral Elements Dithers     | #<br>1<br>2<br>3<br>•      | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1<br>9 291.83425324 Degre  | <ul> <li>Number</li> <li>4</li> <li>Groups/Int</li> <li>100</li> <li>100</li> <li>100</li> <li>es (V3 286.998)</li> </ul>  | r of Points Points Integrations/Exp 1 1 1 1 380427 to 286.99880427  | Startin;<br>2<br>Exposures/Dith<br>1<br>1<br>) | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets     O       1     Total Dithers       4     4       4     4 | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4      | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| ecial Requirements Spectral Elements Dithers   | #<br>1<br>2<br>3           | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1<br>9 291.83425324 Degree | Number<br>4 Groups/Int 100 100 100 es (V3 286.998)   | r of Points Points<br>Integrations/Exp<br>1<br>1<br>1<br>380427 to 286.99880427   | Startin;<br>2<br>Exposures/Dith<br>1<br>1<br>) | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets O   | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4      | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |
| Special Requirements Spectral Elements Dithers | #<br>1<br>2<br>3           | #     Dither Type       I     CYCLING       #     Filter       I     F560W       2     F770W       3     F1280W | Starting Point<br>1<br>Readout Pattern<br>FASTR1<br>FASTR1<br>FASTR1                          | Number<br>4 Groups/Int 100 100 100 es (V3 286.998)   | r of Points Points<br>Integrations/Exp<br>1<br>1<br>1<br>380427 to 286.99880427   | Startin;<br>2<br>Exposures/Dith<br>1<br>1      | g Set<br>Dither<br>Dither 1<br>Dither 1<br>Dither 1 | Number of Sets O   | Deptimized For<br>Total<br>Integrations<br>4<br>4<br>4      | Direction<br>Total Exposure Time<br>1110.016<br>1110.016<br>1110.016             | Pattern Size<br>MEDIUM<br>ETC Wkbk.Calc<br>ID |

#### Proposal 1264 - Observation 7 - NIRSpec and MIRI IFS of SMGs

#### Proposal 1264 - Observation 17 - NIRSpec and MIRI IFS of SMGs

| n      | Proposal 1264,  | Observation 17        | 7: HFLS3-MRS-     | BGK                |                   |  |                    |                 |                |                      |              | Tue Oct 03 16    | :00:33 GMT 2023 |
|--------|-----------------|-----------------------|-------------------|--------------------|-------------------|--|--------------------|-----------------|----------------|----------------------|--------------|------------------|-----------------|
| Ĭ      | Diagnostic Stat | us: Warning           |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| Ž      | Observing Temp  | olate: MIRI Med       | lium Resolution   | Spectroscopy       |                   |  |                    |                 |                |                      |              |                  |                 |
| se     |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| ရ      |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| ŝ      | (HFLS3-MRS-H    | 3GK (Obs 17))         | Warning (Form):   | Imager Filter o    | /erlap.           |  |                    |                 |                |                      |              |                  |                 |
| ţi     | (Visit 17:1) Wa | ning (Form): O        | verheads are prov | visional until the | Visit Planner ha  | s been run.                              |                    |                 |                |                      |              |                  |                 |
| S<br>S | (HFLS3-MRS-H    | BGK (Obs 17)) I       | Informational (Fo | orm): The Visit l  | Planner and Spike | may produce dif                          | ferent schedulabil | itv results.    |                |                      |              |                  |                 |
| lgi    | <b>X</b>        |                       |                   | ,                  |                   | i ji |                    | .,              |                |                      |              |                  |                 |
| Ë      |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
|        | # N             | lame                  | 1                 | arget Coordin      | ates              |  | Targ. Co           | ord. Correction | IS             | Μ                    | iscellaneous |                  |                 |
| ets    | (14) H          | IFLS3-MRS-BF          | KG F              | A: 17 06 42.51     | 12 (256.67713000  | 1)                                       |                    |                 |                |                      |              |                  |                 |
| rg     |                 |                       | Γ                 | Dec: +58 45 37.7   | '8 (58.76049d)    |  |                    |                 |                |                      |              |                  |                 |
| Ца     |                 |                       | E                 | Equinox: J2000     |                   |  |                    |                 |                |                      |              |                  |                 |
| eq     | Comments: back  | ground for HF         | LS3 MRS observe   | ations             |                   |  |                    |                 |                |                      |              |                  |                 |
| Ě.     | Category=Gala   | xy<br>iah radahift ad | ariant            |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| -      | Extended=YES    | ign-reasniji gau      | uxiesj            |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| ч      | #               |                       |                   |                    |                   |  | Target             |                 |                |                      |              |                  |                 |
| Ĕ      | 1               |                       |                   |                    |                   |  | NONE               |                 |                |                      |              |                  |                 |
| ir     |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| 5      |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| Ă      |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| ate    | AcqFilter       |                       | Prin              | ary Channel        |                   | Simultaneo                               | ous Imaging        | Ir              | nager Subarray |                      | Grating      | Wheel Directi    | on              |
| ы      |                 |                       | All N             | /IRS               |                   | YES                                      |                    | F               | JLL            |                      | NEUTR        | AL               |                 |
| E E    |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| Ĕ      |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| ŝrs    | #               |                       |                   | Dither T           | pe                |  | Optimi             | zed For         |                | Di                   | rection      |                  |                 |
| Ę      | 1               |                       |                   | 2-Point            |                   |  | POINT              | SOURCE          |                | NE                   | EGATIVE      |                  |                 |
| ā      |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| nts    | #               | Wavelength            | Detector          | Filter             | Readout           | Groups/Int                               | Integrations/E     | Exposures/Dit   | Dither         | <b>Total Dithers</b> | Total        | Total            | ETC             |
| Jer    |                 | Range                 |                   |                    | Pattern           |  | хр                 | h               |                |                      | Integrations | Exposure<br>Time | Wkbk.Calc ID    |
| en     | 1               |                       | IMAGER            | F1800W             | FASTR1            | 114                                      | 3                  | 1               | Dither 1       | 2                    | 6            | 1909.228         |                 |
| Ξ      | 1               | MEDIUM(B)             | MRSLONG           |                    | SLOWR1            | 40                                       | 1                  | 1               | Dither 1       | 2                    | 2            | 1911.194         |                 |
| Ira    | 1               | MEDIUM(B)             | MRSSHORT          |                    | SLOWR1            | 40                                       | 1                  | 1               | Dither 1       | 2                    | 2            | 1911.194         |                 |
| ec.    |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| Sp.    |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |
| Ľ,     |                 |                       |                   |                    |                   |  |                    |                 |                |                      |              |                  |                 |

#### Proposal 1264 - Observation 17 - NIRSpec and MIRI IFS of SMGs

Group Observations 6, 17, Non-interruptible Same Aperture PA 6, 17

### Proposal 1264 - Observation 9 - NIRSpec and MIRI IFS of SMGs

| Ч       | Proposal 1264                                   | , Observation 9:       | : SPT - MRS        |                  |                    |                  |                     |                   |                  |                      |              | Tue Oct 03 16    | 5:00:33 GMT 2023 |
|---------|---|------------------------|--------------------|------------------|--------------------|------------------|---------------------|-------------------|------------------|----------------------|--------------|------------------|------------------|
| ati     | Diagnostic Sta                                  | tus: Warning           |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| Ž       | Observing Tem                                   | plate: MIRI Med        | dium Resolution S  | Spectroscopy     |                    |                  |                     |                   |                  |                      |              |                  | Ì                |
| SS6     | Background Ob                                   | servations:[SPT        | - MRS-BKG (O       | bs 14)]          |                    |                  |                     |                   |                  |                      |              |                  |                  |
| ð       |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| cs      | (SPT - MRS (C                                   | bs 9)) Warning (       | (Form): Filter mis | smatch betwee    | n science and bac  | kground observat | ions may result in  | incorrect backgro | ound subtraction | on.                  |              |                  |                  |
| sti     | (Visit 9:1) War                                 | ning (Form): Ov        | erheads are provi  | sional until the | visit Planner ha   | s been run.      |                     |                   |                  |                      |              |                  | l                |
| <u></u> |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| iaç     |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| Δ       | ļ   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| ι<br>υ  | # 1   | Name                   | T                  | arget Coordir    | iates              |                  | Targ. Co            | ord. Correction   | IS               | Μ                    | iscellaneous |                  |                  |
| l de l  | (6) SPT0311-MRS RA: 03 11 33.2000 (47.8883333d) |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| ar      |   |                        | )ec: -58 23 33.4   | 40 (-58.39261d)  |                    |                  |                     |                   |                  |                      |              |                  |                  |
|         |   |                        | E                  | equinox: J2000   |                    |                  |                     |                   |                  |                      |              |                  |                  |
| ě       | Comments: This<br>Category=Gala                 | s object was gen<br>wv | erated by the targ | get selector and | 1 retrieved from t | he NED database. |                     |                   |                  |                      |              |                  |                  |
| ίĒ      | Description=[H                                  | Aigh-redshift gal      | axies, Infrared go | alaxies, Starbu  | rst galaxies]      |                  |                     |                   |                  |                      |              |                  |                  |
| ┢╴      | Extended=1ES                                    |                        |                    |                  |                    |                  | Torgot              |                   |                  |                      |              |                  |                  |
| ē       | 1   |                        |                    |                  |                    |                  | NONE                |                   |                  |                      |              |                  |                  |
| isi.    | 1   |                        |                    |                  |                    |                  | none                |                   |                  |                      |              |                  |                  |
| l B     |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| Å       |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| ŧ       | AcqFilter                                       |                        | Prim               | ary Channel      |                    | Simultane        | ou <u>s Imaging</u> | In                | nager Subarra    | ay                   | Grating      | g Wheel Directi  | on               |
| pla     |   |                        | All N              | /IRS             |                    | YES              | YES FULL            |                   |                  |                      |              | RAL              |                  |
|         |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| ۳       |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| rs      | #   |                        |                    | Dither T         | уре                |                  | Optim               | ized For          |                  | Di                   | rection      |                  |                  |
| the     | 1   |                        |                    | 4-Point          |                    |                  | EXTEN               | NDED SOURCE       |                  | NE                   | EGATIVE      |                  |                  |
| ā       |   |                        |                    |                  |                    |                  |                     |                   |                  |                      |              |                  |                  |
| s       | #   | Wavelength             | Detector           | Filter           | Readout            | Groups/Int       | Integrations/E      | Exposures/Dit     | Dither           | <b>Total Dithers</b> | Total        | Total            | ETC              |
| ent     |   | Range                  |                    |                  | Pattern            |                  | хр                  | h                 |                  |                      | Integrations | Exposure<br>Time | Wkbk.Cale ID     |
| ÌÈ      | 1   | -                      | IMAGER             | F770W            | FASTR1             | 111              | 6                   | 1                 | Dither 1         | 4                    | 24           | 7448.207         |                  |
| Ш       | 1   | SHORT(A)               | MRSLONG            |                  | SLOWR1             | 39               | 2                   | 1                 | Dither 1         | 4                    | 8            | 7549.215         |                  |
| ਯ       | 1   | SHORT(A)               | MRSSHORT           |                  | SLOWR1             | 39               | 2                   | 1                 | Dither 1         | 4                    | 8            | 7549.215         |                  |
| t l     | 2   |                        | IMAGER             | F1000W           | FASTR1             | 111              | 6                   | 1                 | Dither 1         | 4                    | 24           | 7448.207         |                  |
| a<br>B  | 2   | MEDIUM(B)              | MRSLONG            |                  | SLOWR1             | 39               | 2                   | 1                 | Dither 1         | 4                    | 8            | 7549.215         |                  |
| က       | 2   | MEDIUM(B)              | MRSSHORT           |                  | SLOWR1             | 39               | 2                   | 1                 | Dither 1         | 4                    | 8            | 7549.215         |                  |

#### Proposal 1264 - Observation 9 - NIRSpec and MIRI IFS of SMGs

Aperture PA Range 200.0 to 358.0 Degrees (V3 200.0 to 358.0) Special Requirements

Sequence Observations 9, 14, 15, Non-interruptible

|         | p03u1120        | 1 00001                 |                   | T III Oper        |                    |                 | 00             |                 |               |                      |              |                  |                  |  |
|---------|-----------------|-------------------------|-------------------|-------------------|--------------------|-----------------|----------------|-----------------|---------------|----------------------|--------------|------------------|------------------|--|
| 5       | Proposal 1264,  | Observation 14          | 4: SPT - MRS-B    | KG                |                    |                 |                |                 |               |                      |              | Tue Oct 03 16    | 5:00:33 GMT 2023 |  |
| ğ       | Diagnostic Stat | us: Warning             |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| Ž       | Observing Tem   | plate: MIRI Med         | dium Resolution   | Spectroscopy      |                    |                 |                |                 |               |                      |              |                  |                  |  |
| se      | Background Ob   | servation For: [S       | SPT - MRS (Obs    | 9)]               |                    |                 |                |                 |               |                      |              |                  |                  |  |
| 8       |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| S       | (Visit 14:1) Wa | rning (Form): O         | verheads are pro  | visional until th | e Visit Planner ha | is been run.    |                |                 |               |                      |              |                  |                  |  |
| sti     |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| 2       |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| iag     |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| ā       |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| S       | # N             | Name                    | ]                 | Farget Coordir    | ates               |                 | Targ. Co       | ord. Correction | IS            | М                    | iscellaneous |                  |                  |  |
| jet     | (12) S          | SPT0311-MRS-I           | BKG I             | RA: 03 11 32.93   | 52 (47.8872300d    | )               |                |                 |               |                      |              |                  |                  |  |
| arc     |                 |                         | Ι                 | Dec: -58 23 42.0  | 1 (-58.39517d)     |                 |                |                 |               |                      |              |                  |                  |  |
| Ë.      |                 |                         | I                 | Equinox: J2000    |                    |                 |                |                 |               |                      |              |                  |                  |  |
| ĕ       | Comments: This  | s object was gen        | erated by the tar | getselector and   | retrieved from th  | e NED database. |                |                 |               |                      |              |                  |                  |  |
| ιÊ      | Description=[H  | xy<br>Iigh-redshift gal | axies, Infrared g | alaxies, Starbu   | st galaxies]       |                 |                |                 |               |                      |              |                  |                  |  |
|         | Extended=YES    | • • •                   |                   |                   | -                  |                 |                |                 |               |                      |              |                  |                  |  |
| <u></u> | #               |                         |                   |                   |                    |                 | Target         |                 |               |                      |              |                  |                  |  |
| sit     | 1               |                         |                   |                   |                    |                 | NONE           |                 |               |                      |              |                  |                  |  |
| jų.     |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| Ŭ∀      |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| Ē       | AcqFilter       |                         | Prin              | nary Channel      |                    | Simultane       | ous Imaging    | Ir              | nager Subarra | ay                   | Grating      | g Wheel Directi  | on               |  |
| ola     |                 |                         | All N             | MRS               |                    | YES             | FULL           |                 |               |                      |              | NEUTRAL          |                  |  |
| Ē       |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| ₽       |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| rs      | #               |                         |                   | Dither T          | уре                |                 | Optimi         | zed For         |               | Di                   | rection      |                  |                  |  |
| the     | 1               |                         |                   | 2-Point           |                    |                 | EXTEN          | IDED SOURCE     |               | NI                   | EGATIVE      |                  |                  |  |
| ă       |                 |                         |                   |                   |                    |                 |                |                 |               |                      |              |                  |                  |  |
| ŝ       | #               | Wavelength              | Detector          | Filter            | Readout            | Groups/Int      | Integrations/E | Exposures/Dit   | Dither        | <b>Total Dithers</b> | Total        | Total            | ETC              |  |
| ent     |                 | Range                   |                   |                   | Pattern            |                 | хр             | h               |               |                      | Integrations | Exposure<br>Time | Wkbk.Calc ID     |  |
| Ĩ       | 1               |                         | IMAGER            | F560W             | FASTR1             | 111             | 3              | 1               | Dither 1      | 2                    | 6            | 1859.277         |                  |  |
| Ш       | 1               | SHORT(A)                | MRSLONG           |                   | SLOWR1             | 39              | 1              | 1               | Dither 1      | 2                    | 2            | 1863.414         |                  |  |
| a       | 1               | SHORT(A)                | MRSSHORT          |                   | SLOWR1             | 39              | 1              | 1               | Dither 1      | 2                    | 2            | 1863.414         |                  |  |
| t l     | 2               | . /                     | IMAGER            | F560W             | FASTR1             | 111             | 3              | 1               | Dither 1      | 2                    | 6            | 1859.277         |                  |  |
| þě      | 2               | MEDIUM(B)               | MRSLONG           |                   | SLOWR1             | 39              | 1              | 1               | Dither 1      | 2                    | 2            | 1863.414         |                  |  |
| S       | 2               | MEDIUM(B)               | MRSSHORT          |                   | SLOWR1             | 39              | 1              | 1               | Dither 1      | 2                    | 2            | 1863 414         |                  |  |

#### Proposal 1264 - Observation 14 - NIRSpec and MIRI IFS of SMGs

#### Proposal 1264 - Observation 14 - NIRSpec and MIRI IFS of SMGs

Aperture PA Range 200.0 to 358.0 Degrees (V3 200.0 to 358.0) Special Requirements

Sequence Observations 9, 14, 15, Non-interruptible

| The Oct 03 16:00:33 GM         The Oct 03 16:00:33 GM         The Oct 03 16:00:33 GM         Operation: Warning         The Oct 03 16:00:33 GM         Operation: Warning (Tornplate: MIRI Imaging         Miscultation: Warning         Visit 15:1) Warning (Tornplate: MIRI Imaging         Miscultation: Warning         Wisit 15:1) Warning (Tornplate: MIRI Imaging         Miscultation: Target CoordInates         Targe Coord. Corrections       Miscultaneous         Wisit 15:1) Warning (Tornplate: MIRI Imaging         Targe Coord. Corrections       Miscultaneous         Wisit 15:1) Warning (Tornplate: MIRI Imaging         Miscultaneous         Wisit 15:1) Warning (Tornplate: MIRI Imaging         Miscultaneous   | Pro      | posal 1264 - Observat               | tion 15 - NIRSp             | ec and MIR            | I IFS of SM      | 1Gs            |             |                |               |                |                     |
|--|----------|-------------------------------------|-----------------------------|-----------------------|------------------|----------------|-------------|----------------|---------------|----------------|---------------------|
| Biolognatic Status: Warning      Observing Template: MIRI Imaging     Visit 15:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.            # Name         Targe Coordinates         Targe Coord. Corrections         Miscellaneous            Biology Template: MIRI Imaging          Miscellaneous          Miscellaneous          Miscellaneous            Biology Template: MIRI Poly Miscellaneous          Miscellaneous          Miscellaneous          Miscellaneous            Biology Template: MIRI Poly Miscellaneous          Miscellaneous          Miscellaneous           <  | Ľ        | Proposal 1264, Observation 15: Sl   | PT - Imager                 |                       |                  |                |             |                |               | Tue Oct 03     | 3 16:00:33 GMT 2023 |
| Bookerving Template: MIRI Imaging         Miscellance in the Visit Planner has been run.         Miscellance in the Visit Planner has been run.           Image: State in the Visit State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.           Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.           Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.           Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.         Image: State in the Visit Planner has been run.   | Ĕ        | Diagnostic Status: Warning          |                             |                       |                  |                |             |                |               |                |                     |
| 900<br>910<br>910<br>910<br>910<br>910<br>910<br>910<br>910<br>910   | Ž        | Observing Template: MIRI Imaging    | 3                           |                       |                  |                |             |                |               |                |                     |
| Image: state of the state                                 | se       |                                     | -                           |                       |                  |                |             |                |               |                |                     |
| Storm         Total Exposure Constraints         Mance         Targe Coord. Corrections       Mixedhaneous         Mixe   | g        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Bit Production       Difference       Target Coordinates       Target Coordinates       Miscellaneous         111       SP103114MAGER       R.A.:031133.2000 (47.8883333.0)<br>Equitions 12000       Equitions 12000       Equitable Sections       Miscellaneous         111       SP103114MAGER       R.A.:031133.2000 (47.8883333.0)<br>Equitions 12000       Equitable Sections       Equitable Sections       Equitable Sections         121       Subarray       FULL       Equitable Sections       1       1       POINT SOURCE       Pointer Size         1       4-Point-Section       1       1       POINT SOURCE       Pointer Size       Encoder 1         1       FILL       Filter       Readout Pattern       GroupsOnt       Integrations/Exp       Exposures/Dill       Dilher Total       Total       Total       Total       Encoder 1         1       F1000W       FASTR1       81       3       1       Dilher 1       4       12       2719.539         1       F1000W       FASTR1       81       3       1       Dilher 1       4       12       2719.539         1       F1000W       FASTR1       81       3       1       Dilher 1       4       12       2719.539         1       F1000W       FAS   | ŝ        | (Visit 15:1) Warning (Form): Overh  | neads are provisional until | l the Visit Planner h | as been run.     |                |             |                |               |                |                     |
| opport       Name       Target Coordinates       Targe, Coord, Corrections       Miscellaneous         10       SPT0311-IMAGER       RA: 08 11 33 3000 (47 88833330)<br>Dec: -58 23 33.40 (-58 39261d)<br>Liquinos: 12000       Secondaria:       Seconda  | ģ        |                                     | 1                           |                       |                  |                |             |                |               |                |                     |
| By the second of the second                  | ğ        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Image: constraint of the second se                                | ag I     |                                     |                             |                       |                  |                |             |                |               |                |                     |
| #         Name         Target Coordinates         Targ. Coord. Corrections         Miscellaneous           111         SPT0311-IMAGER         RA:03 11 32,000 (47.88833334)         Dec::58 23 33.40 (58.392614)         Equinos::12000           Comments: This object was generated by the targetselector and retrieved from the NED database. Category::-Galaxy         Category:-Galaxy         Exercised::-SPE 33:340 (58.392614)           Category::-Galaxy         Exercised::-SPE 33:340 (58.392614)         Exercised::-SPE 33:340 (58.392614)         Exercised::-SPE 33:340 (58.392614)           Description::-[High-redshift galaxies, Infrared galaxies, Infrared galaxies, Infrared galaxies, Starburst galaxies]         Exercised::-SPE 33:340 (58.392614)         Exercised::-SPE 33:340 (58.392614)           Biointray         FULL         Image: Subarray         Image: Subarray         FULL         Image: Subarray           FULL         Image: Subarray         Image: Subarray         FOINT SOURCE         FOSITIVE         DEFAULT           Image: Subarray         Image: Subarray         Image: Subarray         Image: Subarray         Total Exposure         Subarray         Suberay         Suberay  | ā        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Bit       Dither Type       Starting Point       Number of Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         8       #       Dither Type       Starting Point       Number of Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         8       #       Dither Type       Starting Point       Number of Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         8       #       Dither Type       Starting Point       Number of Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         8       #       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Expended-filter       Total Dithers       Total Point       Differ (Nuclear Note)       Differ (Nuclear Note)       Total Point       To  |          | # Name                              | Target Coor                 | dinates               |                  | Targ. Co       | ord. Correc | ctions         | Miscella      | neous          |                     |
| Product       Dec: 58 23 33.40 (58.39261d)<br>Equinon: 12000         Comments: This object was generated by the tragretatector and rerieved from the NED database.<br>Cargery-Galaxy<br>Description: High-redshift galaxies, Infrared galaxies, Starburst galaxies]         Subarry         FUL1.         Product       Starting Point       Number of Points       Points       Number of Sets       Optimized For       Direction       Pattern Size         Product       Points-Sets       1       1       POINT SOURCE       POSITIVE       DEFAULT         Product       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total       Time       Time </th <th>ets</th> <th>(11) SPT0311-IMAGER</th> <th>RA: 03 11 33</th> <th>8.2000 (47.88833336</th> <th>d)</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>   | ets      | (11) SPT0311-IMAGER                 | RA: 03 11 33                | 8.2000 (47.88833336   | d)               |                |             |                |               |                |                     |
| Image: Problem in the second secon                                | arg      |                                     | Dec: -58 23 3               | 33.40 (-58.39261d)    |                  |                |             |                |               |                |                     |
| Viscouries       This object was generated by the targetselector and retrieved from the NED database.<br>Category-Galaxy<br>Description=[High-redshift galaxies, Infrared galaxies, Starburst galaxies]         Subarray<br>FULI.       Subarray<br>FULI.       Starting Point       Number of Points       Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         901       1       4-Point-Sets       1       1       POINT SOURCE       POSITIVE       DEFAULT         911       4-Point-Sets       1       1       POINT SOURCE       POSITIVE       DEFAULT         911       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total Dithers       Total       Total Action       Total Exposure       ETC Wabi         911       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         911       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         911       Supervise PA Range 204.83425324 to 2.83425324 begrees (V3 199.99880427 to 357.99880427)       Strating Action Strategory       Supervise PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)         912       Aperture PA Range 204.83425324 to 2.  | Ë        |                                     | Equinox: J20                | 00                    |                  |                |             |                |               |                |                     |
| Image: Control of the second secon                                | e<br>e   | Comments: This object was generat   | ted by the targetselector a | and retrieved from th | he NED database. |                |             |                |               |                |                     |
| Extended = YES         Subarray         FULL         FULL         Image: Starting Point Sets       Starting Point Number of Points       Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         Image: Starting Point       Starting Point       Number of Points       Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         Image: Starting Point       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total Dithers       Total Integrations       Total Exposure       ETC Wkb         Image: Starting Point       FASTR1       81       3       1       Dither       Total Dithers       Total Exposure       ETC Wkb         Image: Starting Point       FASTR1       81       3       1       Dither       4       12       2719.539         Starture PA Range: 204:83425324 to 2:83425324 begrees (V3 199.99880427 to 357.99880427)       Starture PA Range: 204:83425324 to 2:83425324 Degrees (V3 199.99880427)       Starture PA Range: 204:83425324 to 2:83425324 to 2:83425324 to 3:57.99880427)         Option For Directions 9, 14, 15, Non-interruptible       Starture PA Range: 204:83425324 to 2:83425324 to 3:87.99880427)       Starture PA Range: 204:83425324 to 2:83425324 to 3:87.99   | ιÊ       | Description=[High-redshift galaxie  | es, Infrared galaxies, Star | burst galaxies]       |                  |                |             |                |               |                |                     |
| B       Subarray         FULL       FULL         FULL       Point-Sets       Number of Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         Full       4-Point-Sets       1       1       POINT SOURCE       POSITIVE       DEFAULT         Full       4-Point-Sets       1       1       Point SOURCE       POSITIVE       DEFAULT         Full       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total Dithers       Total Integrations       Total Exposure       ETC Wkb         Integrations       FASTR1       81       3       1       Dither 1       4       12       2719,539         Starting Point       Reage 204.83425324 to 2.83425324 to 2.83425324 begrees (V3 199.99880427 to 357.99880427)       Offset 15.0 arcsec       Sequence Observations 9, 14, 15, Non-interruptible       Sequence Observations 9, 14, 15, Non-interruptible  | _        | Extended=YES                        | • •                         | • -                   |                  |                |             |                |               |                |                     |
| Image: Point sets       Dither Type       Starting Point       Number of Points       Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         1       4-Point-Sets       1       1       POINT SOURCE       POSITIVE       DEFAULT         #       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total Dithers       Total Exposure       ETC Wkbi         1       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         Image: Difference PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)       0357.99880427)       0357.99880427)       0357.99880427)       0357.99880427)       0357.99880427)         Image: Difference PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)       Starting Starting PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427)       Starting Starting PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427)         Image: Difference PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)       Starting PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427)         Image: Difference PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)       Starting PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427)   | ate      | Subarray                            |                             |                       |                  |                |             |                |               |                |                     |
| Image: Point sets       Dither Type       Starting Point       Number of Points       Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         1       4-Point-Sets       1       1       POINT SOURCE       POSITIVE       DEFAULT         1       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total       Total       Exposure       ETC Wkb         1       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         1       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         1       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         1       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         1       Offset 15.0 arcsec, 50.0 arcsec       Sequence Observations 9, 14, 15, Non-interruptible       <  | đ        | FULL                                |                             |                       |                  |                |             |                |               |                |                     |
| #       Dither Type       Starting Point       Number of Points       Points       Starting Set       Number of Sets       Optimized For       Direction       Pattern Size         1       4-Point-Sets       1       1       POINT SOURCE       POSITIVE       DEFAULT         1       Filter       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total       Total Exposure       ETC Wkb/         1       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         Stepuence       Observations 9, 14, 15, Non-interruptible       Stepuence Observations 9, 14, 15, Non-interruptible       357.9988042710       357.9988042710       357.9988042710       357.9988042710       357.9988042710   | e        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Image: soluting run     Function     Function     Function     Function     Function       1     4-Point-Sets     1     1     POINT SOURCE     POSITIVE     DEFAULT  | s        | # Dither Type                       | Starting Point              | Number of Po          | ints Points      | Startin        | n Set       | Number of Sets | Ontimized For | Direction      | Pattern Size        |
| Image: problem in the second secon                                | Jer      | 1 4-Point-Sets                      |                             |                       |                  | <u>5tartin</u> | 5,500       | 1              | POINT SOURCE  | POSITIVE       | DEFAULT             |
| Image: sequence Observations 9, 14, 15, Non-interruptible       Readout Pattern       Groups/Int       Integrations/Exp       Exposures/Dith       Dither       Total Dithers       Total Integrations       Total Exposure       ETC Wkb         1       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539  | Ē        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Integration         Integration         Time         ID           1         F1000W         FASTR1         81         3         1         Dither 1         4         12         2719.539           Image: 100 million         Aperture PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)         Offset 15.0 arcsec, 50.0 arcsec         Sequence Observations 9, 14, 15, Non-interruptible         Image: 100 million         Image: 1   | s.       | # Filter                            | Readout Pattern G           | Froups/Int I          | Integrations/Exp | Exposures/Dith | Dither      | Total Dithe    | rs Total      | Total Exposure | ETC Wkbk.Calc       |
| I       F1000W       FASTR1       81       3       1       Dither 1       4       12       2719.539         Image: Second S   | ent      | ······                              |                             |                       | g <b>r</b>       | F********      |             |                | Integrations  | Time           | ID                  |
| Will       Big         Big       Aperture PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)         Offset 15.0 arcsec, 50.0 arcsec       Sequence Observations 9, 14, 15, Non-interruptible         Sequence Observations 9, 14, 15, Non-interruptible       Sequence Observations 9, 14, 15, Non-interruptible   | Ĕ        | 1 F1000W                            | FASTR1 8                    | 31 3                  | 3                | 1              | Dither 1    | 4              | 12            | 2719.539       |                     |
| Figure PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)         Offset 15.0 arcsec, 50.0 arcsec         Sequence Observations 9, 14, 15, Non-interruptible  | ш        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Aperture PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)         Offset 15.0 arcsec, 50.0 arcsec         Sequence Observations 9, 14, 15, Non-interruptible  | a        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Aperture PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)         Offset 15.0 arcsec, 50.0 arcsec         Sequence Observations 9, 14, 15, Non-interruptible  | <u></u>  |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Aperture PA Range 204.83425324 to 2.83425324 Degrees (V3 199.99880427 to 357.99880427)<br>Offset 15.0 arcsec, 50.0 arcsec<br>Sequence Observations 9, 14, 15, Non-interruptible  | ğ        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Aperture PA Range 204.83423324 to 2.83423324 to 2.83423324 Degrees (V3 199.99880427)<br>Offset 15.0 arcsec<br>Sequence Observations 9, 14, 15, Non-interruptible   | s        | A porture DA Dence 204 92425224 (   | to 2 82425224 Decreas (1    | 12 100 00890427 to    | 257 00880427)    |                |             |                |               |                |                     |
| Sequence Observations 9, 14, 15, Non-interruptible   | , îț     | Offset 15.0 arcsec, 50.0 arcsec     | 10 2.83423324 Degrees (N    | v 5 199.99880427 to   | 557.99880427)    |                |             |                |               |                |                     |
| Special Require State of the rest of the r | Ĕ        | Sequence Observations 9, 14, 15, N  | on-interruntible            |                       |                  |                |             |                |               |                |                     |
| Special Requ   | ire      | Sequence Observations 9, 11, 19, 10 | on menupuole                |                       |                  |                |             |                |               |                |                     |
| Special Re   | n b      |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Special  | Å        |                                     |                             |                       |                  |                |             |                |               |                |                     |
| Spec   | a        |                                     |                             |                       |                  |                |             |                |               |                |                     |
|  | ec<br>Se |                                     |                             |                       |                  |                |             |                |               |                |                     |
|  | sp       |                                     |                             |                       |                  |                |             |                |               |                |                     |
|  | pecia    |                                     |                             |                       |                  |                |             |                |               |                |                     |

#### Proposal 1264 - Observation 11 - NIRSpec and MIRI IFS of SMGs

| nc      | Proposal 1264,     | Observation 11: (          | GN20 - NIRSpec      |  |   |                   |              |             |                      |                       | Tue Oct 03 16          | 5:00:33 GMT 2023    |
|---------|--------------------|----------------------------|---------------------|--|---|-------------------|--------------|-------------|----------------------|-----------------------|------------------------|---------------------|
| atic    | Diagnostic Stat    | us: Warning                |                     |  |   |                   |              |             |                      |                       |                        |                     |
| Ž       | Observing Temp     | olate: NIRSpec IFU         | J Spectroscopy      |  |   |                   |              |             |                      |                       |                        |                     |
| bse     | Comments: The      | PA is restricted to        | minimise potential  | MSA leakage co                         | ontamination                              |                   |              |             |                      |                       |                        |                     |
| ō       |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| cs      | (Visit 11:1) War   | rning (Form): Over         | heads are provision | nal until the Visit                    | t Planner has been ru                     | ın.               |              |             |                      |                       |                        |                     |
| osti    |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| Ĕ       |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| ) ia    |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
|         | #                  | Jamo                       | Tara                | at Coordinates                         |   |                   | Targ Coord   | Corrections |                      | Miscellaneous         |                        |                     |
| ets     | (8)                | N20-NIRSPEC                | RA: 1               | 2 37 11.8999 (18                       | 39,2995829d)                              |                   | Targ. Coord. | corrections |                      | Wilstenaneous         |                        |                     |
| ľg      |                    |                            | Dec:                | +62 22 12.10 (62                       | .37003d)                                  |                   |              |             |                      |                       |                        |                     |
| Ч       |                    |                            | Equin               | ox: J2000                              | ,   |                   |              |             |                      |                       |                        |                     |
| ed      | Comments:          |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| Ě       | Category=Gala      | xy<br>'ioh-redshift oalaxi | es Starburst valax  | iesl                                   |   |                   |              |             |                      |                       |                        |                     |
|         | Extended=YES       | ign reasingt garasin       | os, staroursi garax |  |   |                   |              |             |                      |                       |                        |                     |
| ate     | TA Method          |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| đ       | NONE               |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| em      |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| L s     | #                  |                            | Dithor Type         |  | Sizo                                      |                   | Storting Poi | nt          | Number of Poi        | nte                   | Doints                 |                     |
| Jer.    | 1                  |                            | CYCLING             |  | MEDIUM                                    |                   | 5tarting 1 0 | III.        | 4                    |                       | Tomts                  |                     |
| DE      | -                  |                            | er ellite           |  | inibbrenit                                |                   | -            |             |                      |                       |                        |                     |
| ents    | #                  | Grating/Filter             | Readout<br>Pattern  | Groups/Int                             | Integrations/Ex<br>p                      | Leakcal           | Dither       | Autocal     | <b>Total Dithers</b> | Total<br>Integrations | Total Exposure<br>Time | ETC<br>Wkbk.Calc ID |
| Ĕ       | 1                  | G395H/F290LP               | NRSIRS2             | 25                                     | 1   | false             | true         | NONE        | 4                    | 4                     | 7352.801               |                     |
| Шe      | 2                  | PRISM/CLEAR                | NRSIRS2RAPI         | 60                                     | 1   | false             | true         | NONE        | 4                    | 4                     | 3559.689               |                     |
| ā       | 3                  | DDISM/CI ΕΛΡ               |                     | 60                                     | 1   | true              | false        | NONE        | 1                    | 1                     | 880 022                |                     |
| ctr     | 5                  | I KISW/CLEAK               | D                   | 00                                     | 1   | uue               | Talse        | NONE        | 1                    | 1                     | 889.922                |                     |
| 9<br>be |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| 60      | A resultance DA Da | 96 90207495 4              | - 01 90207495 D-    | (112 207 02                            | 044067 +- 212 020                         | 40(7)             |              |             |                      |                       |                        |                     |
| pt;     | Aperture PA Ra     | nge 233.89297485 0         | to 241.89297485 De  | Degrees (V3 507.92<br>Degrees (V3 94.9 | 2044067 to 312.9202<br>2044067 to 102.920 | 14067)<br>144067) |              |             |                      |                       |                        |                     |
| Ĕ       | Aperture PA Ra     | nge 328.89297485           | to 11.89297485 D    | egrees (V3 189.9                       | 2044067 to 232.920                        | )44067)           |              |             |                      |                       |                        |                     |
| ire     |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| ۲<br>۵  |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| Ř       |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| ia      |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| Sec     |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |
| м<br>М  |                    |                            |                     |  |   |                   |              |             |                      |                       |                        |                     |

#### Proposal 1264 - Observation 12 - NIRSpec and MIRI IFS of SMGs

| uo       | Proposal                | 1264, Observation 12: H           | IFLS3 - NIRSpec     | 2                                     |                        |         |              |             |               |                       | Tue Oct 03 16          | :00:33 GMT 2023     |
|----------|-------------------------|-----------------------------------|---------------------|---------------------------------------|------------------------|---------|--------------|-------------|---------------|-----------------------|------------------------|---------------------|
| ati      | Diagnosti               | c Status: Warning                 |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| Ž        | Observing               | g Template: NIRSpec IFU           | J Spectroscopy      |                                       |                        |         |              |             |               |                       |                        |                     |
| l s      | Comments                | s: The PA is restricted to        | minimise potentia   | l MSA leakage co                      | ontamination           |         |              |             |               |                       |                        |                     |
| ō        |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| cs       | (Visit 12:1             | 1) Warning (Form): Over           | heads are provisio  | nal until the Visi                    | it Planner has been ru | ın.     |              |             |               |                       |                        |                     |
| sti      |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| Ξ        |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| iaç      |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| ∟        |                         |                                   |                     |                                       |                        |         |              | ~           |               | 2.61 11               |                        |                     |
| ts       | #                       | Name                              | Targ                | et Coordinates                        | 56 60016674)           |         | Targ. Coord. | Corrections |               | Miscellaneous         |                        |                     |
| ge       | (9)                     | HLSS-MIKSPEC                      | KA:                 | 17 00 47.8000 (2<br>+ 58 46 22 51 (59 | 20.09910070)           |         |              |             |               |                       |                        |                     |
| Tar      |                         |                                   | Equir               | +384023.31(38)                        | 5.775200)              |         |              |             |               |                       |                        |                     |
| Ծ        | Comments                | ç.                                | Equi                | IOX. <b>J</b> 2000                    |                        |         |              |             |               |                       |                        |                     |
| ,×       | Category=               | =Galaxy                           |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| "        | Descriptio<br>Extended= | on=[High-redshift galaxie<br>=YES | es, Starburst galax | aes]                                  |                        |         |              |             |               |                       |                        |                     |
| te       | TA Meth                 | od                                |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| ola      | NONE                    |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| Ē        |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| Τe       |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| ŝrs      | #                       |                                   | Dither Type         |                                       | Size                   |         | Starting Po  | int         | Number of Poi | nts                   | Points                 |                     |
| Ę        | 1                       |                                   | CYCLING             |                                       | MEDIUM                 |         | 1            |             | 4             |                       |                        |                     |
| ۵        |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| ents     | #                       | Grating/Filter                    | Readout<br>Pattern  | Groups/Int                            | Integrations/Ex<br>p   | Leakcal | Dither       | Autocal     | Total Dithers | Total<br>Integrations | Total Exposure<br>Time | ETC<br>Wkbk.Calc ID |
| Ĕ        | 1                       | G395H/F290LP                      | NRSIRS2             | 25                                    | 1                      | false   | true         | NONE        | 4             | 4                     | 7352.801               |                     |
| Ш        | 2                       | PRISM/CLEAR                       | NRSIRS2RAPI         | 60                                    | 1                      | false   | true         | NONE        | 4             | 4                     | 3559.689               |                     |
| ਗ਼       | 3                       | PRISM/CI FAR                      | D<br>NRSIRS2RAPI    | 60                                    | 1                      | true    | false        | NONE        | 1             | 1                     | 889 922                |                     |
| 1<br>T   | 5                       | T KISWI/CLEAK                     | D                   | 00                                    | 1                      | uuc     | Tarse        | NONE        | 1             | 1                     | 007.722                |                     |
| ğ        |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| 60       | A                       | DA Danas 228 802075 ta            | 226 902075 D        | (112 00 0204                          | 4082 +- 07 02044082    | )       |              |             |               |                       |                        |                     |
| j,       | Aperture                | PA Kalige 228.892975 to           | 250.892975 Degr     | ees ( <b>v</b> 5 89.9204              | 4082 10 97.92044082    | .)      |              |             |               |                       |                        |                     |
| Ĕ        |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| ire      |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| l B      |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| Å        |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| <u>a</u> |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| ec       |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |
| sp       |                         |                                   |                     |                                       |                        |         |              |             |               |                       |                        |                     |

#### Proposal 1264 - Observation 13 - NIRSpec and MIRI IFS of SMGs

| n                                    | F  | Proposal 1264, Observation 13: S   | PT0311-58 NIRS   | рес  |   |   |                                 |                                 |                      |                                      | Tue Oct 03 16   | :00:33 GMT 2023     |
|--------------------------------------|--|--|--|--|---|---|---------------------------------|---------------------------------|----------------------|--------------------------------------|---|---------------------|
| ati                                  | Ι  | Diagnostic Status: Warning   |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| Ž                                    | C  | Observing Template: NIRSpec IFU  | Spectroscopy   |  |   |   |                                 |                                 |                      |                                      |   |                     |
| se                                   | C  | Comments: The PA is restricted to r  | ninimise potential   | MSA leakage co   | ntamination   |   |                                 |                                 |                      |                                      |   |                     |
| ð                                    |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| S                                    | (  | (Visit 13:1) Warning (Form): Overh   | neads are provision  | nal until the Visit  | Planner has been ru   | ın.   |                                 |                                 |                      |                                      |   |                     |
| sti                                  |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| ğ                                    |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| ag                                   |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| Ō                                    |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| s                                    | #  | # Name   | Targ   | et Coordinates   |   |   | Targ. Coord.                    | Corrections                     |                      | Miscellaneous                        |   |                     |
| jet                                  | (  | (10) SPT0311-58-NIRSP  | EC RA: 0   | 3 11 33.2600 (47   | 7.8885833d)   |   |                                 |                                 |                      |                                      |   |                     |
| arç                                  |  |  | Dec: ·   | 58 23 33.50 (-58   | .39264d)  |   |                                 |                                 |                      |                                      |   |                     |
| E H                                  |  |  | Equin  | ox: J2000  |   |   |                                 |                                 |                      |                                      |   |                     |
| ĕ                                    | 0  | Comments: Coordinates from Figur   | re 1 in Marrone+1  | 8 adjusting FoV  |   |   |                                 |                                 |                      |                                      |   |                     |
| Ē                                    | I  | Description=[High-redshift galaxie   | s, Infrared galaxi   | es, Starburst gald   | axies]  |   |                                 |                                 |                      |                                      |   |                     |
| 0                                    | E  | Extended=YES   |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| ate                                  |  | NONE   |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| du                                   | 1  | NONE   |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| Le l                                 |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| S                                    | #  | #  | Dither Type  |  | Size  |   | Starting Poi                    | nt                              | Number of Poin       | nts                                  | Points  |                     |
| he                                   | 1  | 1  | CYCLING  |  | MEDIUM  |   | 1                               |                                 | 4                    |                                      |   |                     |
| ā                                    |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
| ts                                   |  |  |  |  |   |   |                                 |                                 |                      |                                      |   |                     |
|                                      | #  | # Grating/Filter   | Readout<br>Pattern   | Groups/Int   | Integrations/Ex<br>p  | Leakcal   | Dither                          | Autocal                         | <b>Total Dithers</b> | Total<br>Integrations                | Total Exposure<br>Time  | ETC<br>Wkbk.Calc ID |
| men                                  | #  | # Grating/Filter<br>1 G395H/F290LP   | Readout<br>Pattern<br>NRSIRS2  | Groups/Int<br>25   | Integrations/Ex<br>p<br>1   | <b>Leakcal</b><br>false   | Dither                          | Autocal                         | Total Dithers        | Total<br>Integrations<br>4           | Total Exposure<br>Time<br>7352.801  | ETC<br>Wkbk.Calc ID |
| Elemen                               | #<br>1<br>2  | # Grating/Filter 1 G395H/F290LP 2 PRISM/CLEAR  | Readout<br>Pattern<br>NRSIRS2<br>NRSIRS2RAPI   | <b>Groups/Int</b> 25 60  | Integrations/Ex<br>p<br>1   | Leakcal<br>false<br>false   | Dither<br>true<br>true          | Autocal<br>NONE<br>NONE         | Total Dithers 4 4    | Total<br>Integrations<br>4<br>4      | Total Exposure<br>Time           7352.801           3559.689                          | ETC<br>Wkbk.Calc ID |
| al Elemen                            | #<br>1<br>2  | # Grating/Filter 1 G395H/F290LP 2 PRISM/CLEAR  | Readout<br>Pattern<br>NRSIRS2<br>NRSIRS2RAPI<br>D  | <b>Groups/Int</b> 25 60  | Integrations/Ex<br>p<br>1<br>1  | Leakcal<br>false<br>false   | Dither<br>true<br>true          | Autocal<br>NONE<br>NONE         | Total Dithers 4 4    | Total<br>Integrations<br>4<br>4      | Total Exposure<br>Time           7352.801           3559.689           880.022        | ETC<br>Wkbk.Calc ID |
| ctral Elemen                         | #<br>1<br>2<br>3   | <ul> <li><b>Grating/Filter</b></li> <li>G395H/F290LP</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> </ul>  | Readout<br>Pattern<br>NRSIRS2<br>NRSIRS2RAPI<br>D<br>NRSIRS2RAPI<br>D  | <b>Groups/Int</b> 25 60 60   | Integrations/Ex<br>p<br>1<br>1<br>1   | Leakcal<br>false<br>false<br>true                                 | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE<br>NONE | Total Dithers 4 4 1  | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure<br>Time           7352.801           3559.689           889.922        | ETC<br>Wkbk.Calc ID |
| pectral Elemen                       | #<br>1<br>2<br>3   | #Grating/Filter1G395H/F290LP2PRISM/CLEAR3PRISM/CLEAR   | Readout<br>Pattern<br>NRSIRS2<br>NRSIRS2RAPI<br>D<br>NRSIRS2RAPI<br>D  | <b>Groups/Int</b> 25 60 60   | Integrations/Ex<br>p<br>1<br>1<br>1   | <b>Leakcal</b><br>false<br>false<br>true                          | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE<br>NONE | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure<br>Time           7352.801           3559.689           889.922        | ETC<br>Wkbk.Calc ID |
| Spectral Elemen                      | #<br>1<br>2<br>3   | <ul> <li><b>Grating/Filter</b></li> <li>G395H/F290LP</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> </ul>  | Readout<br>Pattern<br>NRSIRS2<br>NRSIRS2RAPI<br>D<br>NRSIRS2RAPI<br>D  | Groups/Int 25 60 60  | Integrations/Ex<br>p<br>1<br>1<br>1   | Leakcal<br>false<br>false<br>true                                 | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE<br>NONE | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure<br>Time           7352.801           3559.689           889.922        | ETC<br>Wkbk.Calc ID |
| nts Spectral Elemen                  | #<br>1<br>2<br>3   | <ul> <li><b>Grating/Filter</b></li> <li>G395H/F290LP</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> </ul>   | Readout<br>Pattern<br>NRSIRS2<br>NRSIRS2RAPI<br>D<br>NRSIRS2RAPI<br>D  | Groups/Int<br>25<br>60<br>60<br>Degrees (V3 346.<br>Degrees (V3 346.                     | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920                       | Leakcal<br>false<br>false<br>true<br>)44067)<br>)44067)           | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE<br>NONE | 4       4       1    | Total<br>Integrations441             | Total Exposure<br>Time           7352.801           3559.689           889.922        | ETC<br>Wkbk.Calc ID |
| ments Spectral Elemen                | #<br>1<br>2<br>3<br>3  | <ul> <li>Grating/Filter</li> <li>G395H/F290LP</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> </ul>  | Readout<br>Pattern           NRSIRS2           NRSIRS2RAPI<br>D           NRSIRS2RAPI<br>D           0           158.89297485           10           278.89297485           10           1.89297485           10 | Groups/Int 25 60 60 Degrees (V3 346. Degrees (V3 99.9 grees (V3 214.92                   | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920<br>044067 to 222.9204 | Leakcal<br>false<br>false<br>true<br>)44067)<br>)44067)<br>14067) | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE         | 4       4       1    | Total<br>Integrations441             | Total Exposure<br>Time           7352.801           3559.689           889.922        | ETC<br>Wkbk.Calc ID |
| rements Spectral Elemen              | #<br>1<br>2<br>3<br>3<br><i>A</i><br><i>A</i><br><i>A</i><br><i>A</i><br><i>A</i>      | #       Grating/Filter         1       G395H/F290LP         2       PRISM/CLEAR         3       PRISM/CLEAR         4       Aperture PA Range 125.89297485         Aperture PA Range 238.89297485       Aperture PA Range 353.89297485   | Readout<br>Pattern           NRSIRS2           NRSIRS2RAPI<br>D           NRSIRS2RAPI<br>D           10           158.89297485           10           1.89297485           10                                    | Groups/Int 25 60 60 Degrees (V3 346. Degrees (V3 99.9 grees (V3 214.92                   | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920<br>044067 to 222.9204 | Leakcal<br>false<br>false<br>true<br>)44067)<br>14067)            | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE         | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure           Time           7352.801           3559.689           889.922 | ETC<br>Wkbk.Calc ID |
| quirements Spectral Elemen           | #<br>1<br>2<br>3<br>4<br><i>A</i><br><i>A</i><br><i>A</i>                              | #       Grating/Filter         1       G395H/F290LP         2       PRISM/CLEAR         3       PRISM/CLEAR         4       Aperture PA Range 125.89297485         Aperture PA Range 238.89297485       Aperture PA Range 353.89297485   | Readout<br>Pattern           NRSIRS2           NRSIRS2RAPI<br>D           NRSIRS2RAPI<br>D           0           158.89297485           10           1.89297485           10                                     | Groups/Int<br>25<br>60<br>60<br>Degrees (V3 346.<br>Degrees (V3 99.9<br>grees (V3 214.92 | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920<br>044067 to 222.9204 | Leakcal<br>false<br>false<br>true<br>)44067)<br>)44067)<br>14067) | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE         | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure           Time           7352.801           3559.689           889.922 | ETC<br>Wkbk.Calc ID |
| Requirements Spectral Elemen         | #<br>1<br>2<br>3<br>4<br><i>A</i><br><i>A</i><br><i>A</i>                              | <ul> <li><b>Grating/Filter</b></li> <li>G395H/F290LP</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> <li>PRISM/CLEAR</li> <li>Aperture PA Range 125.89297485 f</li> <li>Aperture PA Range 353.89297485 f</li> </ul>   | Readout<br>Pattern           NRSIRS2           NRSIRS2RAPI<br>D           NRSIRS2RAPI<br>D           10           158.89297485           10           1.89297485           10                                    | Groups/Int<br>25<br>60<br>60<br>Degrees (V3 346.<br>Degrees (V3 99.9<br>grees (V3 214.92 | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920<br>044067 to 222.9204 | Leakcal<br>false<br>false<br>true<br>)44067)<br>)44067)<br>14067) | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE         | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure           Time           7352.801           3559.689           889.922 | ETC<br>Wkbk.Calc ID |
| al Requirements Spectral Elemen      | #<br>1<br>2<br>3<br>4<br><i>A</i><br><i>A</i><br><i>A</i>                              | #       Grating/Filter         1       G395H/F290LP         2       PRISM/CLEAR         3       PRISM/CLEAR         4       Aperture PA Range 125.89297485 (Aperture PA Range 353.89297485 (Aperture PA Ra | Readout<br>Pattern           NRSIRS2           NRSIRS2RAPI<br>D           NRSIRS2RAPI<br>D           0           10           158.89297485           10           278.89297485           10           1.89297485 | Groups/Int<br>25<br>60<br>60<br>Degrees (V3 346.<br>Degrees (V3 99.9<br>grees (V3 214.92 | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920<br>044067 to 222.9204 | Leakcal<br>false<br>false<br>true<br>)44067)<br>)44067)<br>14067) | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE         | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure<br>Time           7352.801           3559.689           889.922        | ETC<br>Wkbk.Calc ID |
| scial Requirements Spectral Elemen   | #<br>1<br>2<br>3<br>3<br>4<br><i>A</i><br><i>A</i><br><i>A</i>                         | #       Grating/Filter         1       G395H/F290LP         2       PRISM/CLEAR         3       PRISM/CLEAR         4       Aperture PA Range 125.89297485 t         Aperture PA Range 238.89297485 t         Aperture PA Range 353.89297485 t   | Readout<br>Pattern           NRSIRS2           NRSIRS2RAPI<br>D           NRSIRS2RAPI<br>D           0           158.89297485           10           278.89297485           10           1.89297485              | Groups/Int<br>25<br>60<br>60<br>Degrees (V3 346.<br>Degrees (V3 99.9<br>grees (V3 214.92 | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920<br>044067 to 222.9204 | Leakcal<br>false<br>false<br>true<br>)44067)<br>144067)<br>14067) | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE         | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure           Time           7352.801           3559.689           889.922 | ETC<br>Wkbk.Calc ID |
| Special Requirements Spectral Elemen | #<br>1<br>2<br>3<br>3<br>4<br><i>A</i><br><i>A</i><br><i>A</i><br><i>A</i><br><i>A</i> | #       Grating/Filter         1       G395H/F290LP         2       PRISM/CLEAR         3       PRISM/CLEAR         4       Aperture PA Range 125.89297485         Aperture PA Range 238.89297485       Aperture PA Range 353.89297485   | Readout<br>Pattern           NRSIRS2           NRSIRS2RAPI<br>D           NRSIRS2RAPI<br>D           10           158.89297485           10           1.89297485           10                                    | Groups/Int<br>25<br>60<br>60<br>Degrees (V3 346.<br>Degrees (V3 99.9<br>grees (V3 214.92 | Integrations/Ex<br>p<br>1<br>1<br>1<br>92044067 to 19.920<br>2044067 to 139.920<br>044067 to 222.9204 | Leakcal<br>false<br>false<br>true<br>)44067)<br>)44067)<br>14067) | Dither<br>true<br>true<br>false | Autocal<br>NONE<br>NONE         | 4       4       1    | Total<br>Integrations<br>4<br>4<br>1 | Total Exposure           Time           7352.801           3559.689           889.922 | ETC<br>Wkbk.Calc ID |