



10609 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

| <i>Visit</i> | <i>Targets</i> | <i>Configurations</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|--------------------|-----------------------|--------------------|-------------------------------|-------------------------------|
| 01 | (2) NGC-5253 | ACS/HRC | 2 | 30-Dec-2005 21:01:27.0 | yes |
| 02 | (7) NGC-1156 | ACS/HRC | 2 | 30-Dec-2005 21:01:42.0 | yes |
| 03 | (5) NGC-4449 | ACS/HRC | 2 | 30-Dec-2005 21:02:03.0 | yes |
| 04 | (4) ESO-495--G-021 | ACS/HRC | 2 | 30-Dec-2005 21:02:16.0 | yes |
| 05 | (3) IC-4662 | ACS/HRC | 2 | 30-Dec-2005 21:02:29.0 | yes |
| 06 | (1) MESSIER-082-A | ACS/HRC | 1 | 30-Dec-2005 21:02:42.0 | yes |

Proposal 10609 - Overview

| <i>Visit</i> | <i>Targets</i> | <i>Configurations</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|-------------------------|-----------------------|--------------------|-------------------------------|-------------------------------|
| 07 | (6) MESSIER-082-C | ACS/HRC | 1 | 30-Dec-2005 21:02:48.0 | yes |
| 08 | (1) MESSIER-082-A | ACS/HRC | 1 | 30-Dec-2005 21:02:53.0 | yes |
| 09 | (6) MESSIER-082-C | ACS/HRC | 1 | 30-Dec-2005 21:03:00.0 | yes |
| 10 | (8) NGC-1156-NUC | NIC2 | 1 | 30-Dec-2005 21:03:25.0 | yes |
| 11 | (3) IC-4662 | NIC2 | 1 | 30-Dec-2005 21:04:10.0 | yes |
| 12 | (5) NGC-4449 | NIC2 | 1 | 30-Dec-2005 21:04:48.0 | yes |
| 54 | (9) ESO-495--G-021-COPY | ACS/HRC | 2 | 30-Dec-2005 21:05:05.0 | yes |
| 57 | (10) MESSIER-082-C-COPY | ACS/HRC | 1 | 30-Dec-2005 21:05:12.0 | yes |

20 Total Orbits Used

ABSTRACT

We propose to investigate mass segregation and star cluster evolution and dissolution processes in Super Star Cluster (SSC) populations in a small sample of nearby starburst galaxies. ACS/HRC and NICMOS images of these nearby ($d < 10$ Mpc) starbursts can reveal evidence for mass segregation in the form of variations in size, shape, and color of the SSCs as a function of wavelength. The compactness of the cluster light profiles, and hence the stellar mass distributions, is a critical indicator of the likely fate of an SSC: long life and eventual evolution into a globular-like cluster, or dissolution.

These observations will allow us to generate spectral energy distributions (SEDs) for a large sample of the SSCs at all ages and extinctions in each system. We will combine the SEDs with population synthesis models and existing ground-based spectra and Spitzer images to estimate ages, reddenings, and masses thus derive a more complete picture of the star-formation histories of the galaxies. For the brightest and most likely virialized among the SSCs we will also constrain their initial mass functions (IMFs) using high-resolution spectroscopy. Conclusions about IMFs from this technique require detailed information about the SSC concentration, light profiles, and virial status, which are only possible via ACS data.

The proposed observations will provide an extensive and comprehensive data set for a large number of SSCs. By addressing the issues of mass segregation, evaporation, and destruction of SSC populations, the proposed observations will provide strong constraints on theories regarding the processes involved in the formation and evolution of SSCs and globular clusters. Given the dire predictions for the lifetime of HST, and its tremendous impact on the study of SSCs, we feel that the proposed observations not only are necessary and timely (even urgent) but will also be a fitting (and possibly final) addition to HST's legacy in the study of starburst SSCs.

OBSERVING DESCRIPTION

We are proposing to obtain ACS/HRC and NICMOS images of a small sample of nearby starburst galaxies in several filters: F330W, F435W, F550M, F658N, F814W in the ACS/HRC and F110W, F160W, F187N, F190N, F220M in NICMOS. The purpose of these observations is to perform photometry and measure the shapes, sizes, concentrations, and SEDs of the SSCs within the galaxies. We will compare the shapes and sizes as a function of wavelength in order to search for evidence of mass segregation. These observations therefore require high spatial resolution and signal-to-noise ratios. Our choice of the ACS/HRC is driven by the fact that this is the only optical instrument available that critically samples the HST PSF.

The galaxies in the sample were taken from the list of dwarf/irregular galaxies given by Larsen (2004) and were chosen because they are nearby (< 10 Mpc), active starbursts (all are Wolf-Rayet galaxies) containing numerous SSCs. (We also added 2 positions in M82 to the target list.) The galaxies span a range of galaxy types, environments, gas contents, and metallicities and seem to have different apparent starburst trigger mechanisms. They represent part of a larger set of starburst galaxies whose SSCs we are studying via ground-based spectroscopy. They also have a wealth of supporting data available either in the public archives or in our private possession. Other nearby starbursts that have already been observed with the ACS/HRC (e.g., NGC 1569, which we have already begun to analyze) will be added to our sample once archival data become public. The distance limit arises from our desire to establish a reasonable sample of objects while still being able to resolve the SSCs and accurately measure their shapes and light profiles. As stated above, SSCs are typically very compact, with radii of only a few pc. At 10 Mpc, this translates into an angular size of

Proposal 10609 - Overview

only 0.04 arcsec at the distances of the galaxies in the sample. The ACS/HRC on board HST provides the only means of resolving these SSCs and accurately measuring their light profiles, sizes, and shapes.

The list of requested filters includes four broad optical/near-infrared filters that, as best as possible, avoid strong nebular emission lines (e.g. F550M). As shown by Anders et al. (2004), the minimum number needed to determine reliable photometric ages and masses from the optical SEDs is four, with U and B being crucial. We have also selected the narrow-band filters for H α and P α (and associated continuum), which will help both to constrain the fit ages and extinctions, and to locate the youngest clusters, which can be missed by purely broad-band cluster searches (e.g. Alonso-Herrero et al. 2002).

We have estimated exposure times based on previous HST/WFPC2 observations (where possible) as well as by adopting 'typical' parameters for an SSC at the mean distance of the galaxies in the sample. We thus expect SSCs more massive than about $5 \times 10^4 M_{\odot}$ (a rather light-weight SSC) to have $V < 19$ for ages less than 100 Myr. We expect the typical reddening for the clusters to be $A_V \sim 1$. We have attempted to estimate the signal-to-noise (S/N) needed to achieve an accuracy of 10 percent in the radius, shape, and light profile measurements by simulating stellar clusters observed with the ACS/HRC and measuring their radii. We adopted the parameters appropriate for the clusters in the galaxies in our sample. An example of the results of these simulations is shown in Fig. 5, which presents the measured radius as a function of photometric S/N. From this figure it is clear that to achieve an accuracy of 10 percent in the radius estimate, we require a photometric S/N in the cluster image of > 150 . To achieve signal-to-noise ratios this high for the cluster parameters given above, we estimate (based also in part on our previous and successful ACS/HRC observations of M82-F; GO-9473 and McCrady et al. 2005) we need to integrate for ~ 1000 s, 800 s, 800s, and 400 s through the F330W F435W, F550M and F814W filters respectively. The F658N observations will require an additional 400 s. All exposures will be broken into 4 sub-exposures acquired using the ACS dither-box pattern. Orientations have been specified for each object. For the NIC2 observations we estimate we require exposure times of 60 s, 100s, and 100 s for the F110W, F160W, and F222M filters. The Pa α and nearby continuum images require exposures of ~ 300 s each. Hence the NICMOS observations require one orbit per object. All observations will consist of multiple dither positions. We note here that the proposed observations for M82 will be centered on starburst regions A and C in this galaxy (O'Connell & Mangan 1978).

REAL TIME JUSTIFICATION

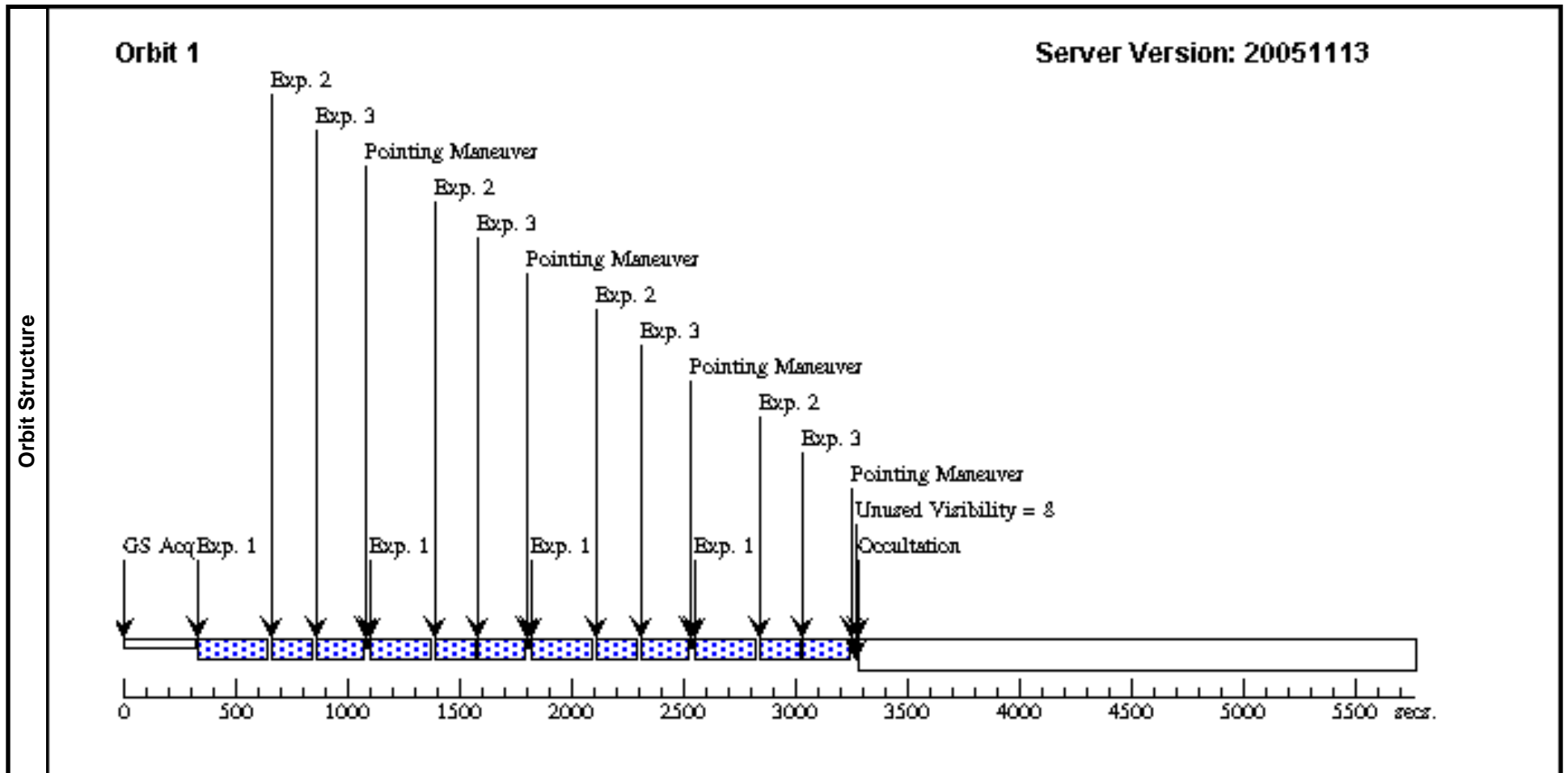
The declination of M82 places it in the CVZ. We are proposing to obtain U-band images of regions A and C with the F330W filter, which will require exposure times of approximately 4500 s. These observations can be carried out most efficiently through CVZ observations.

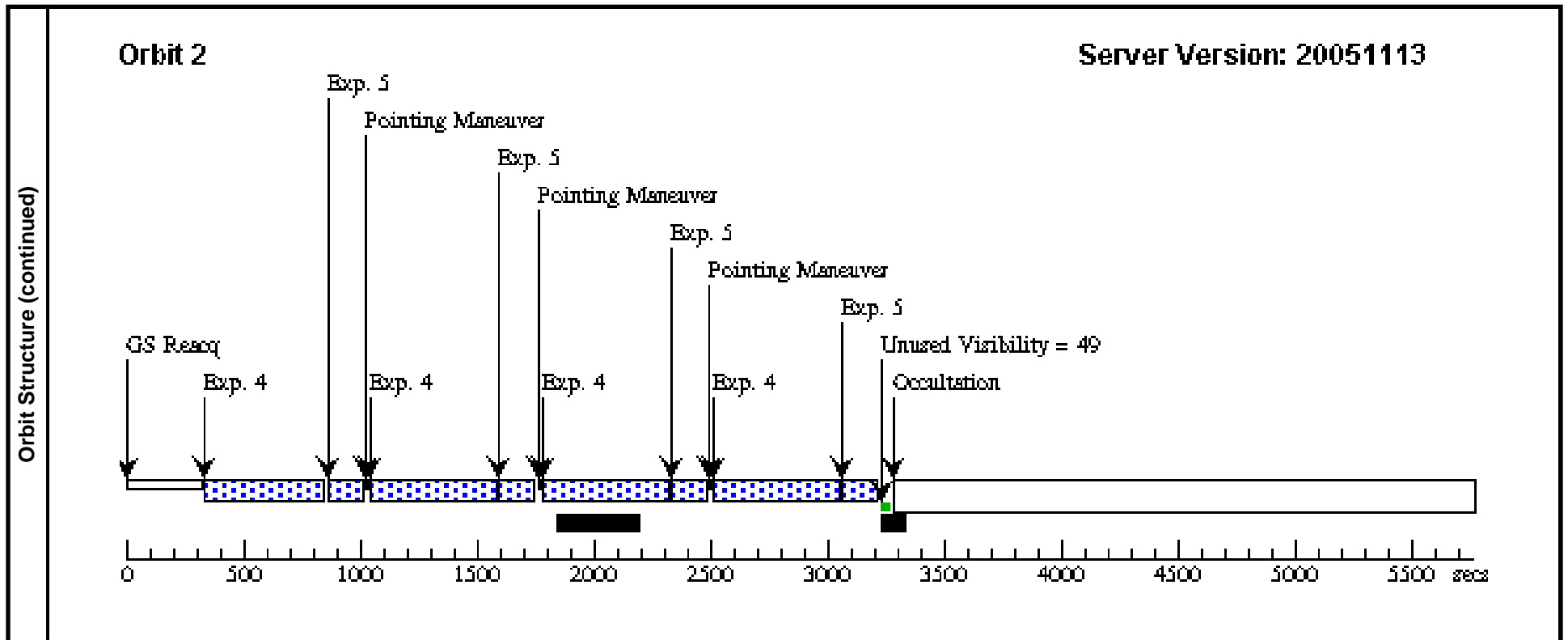
Proposal 10609 - Visit 01 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Visit | Proposal 10609, Visit 01 Sat Dec 31 02:05:15 GMT 2005 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: ORIENT 75.0D TO 100.0 D; ORIENT 270.0D TO 295.0 D | | | | | | | | | | |
|---------------|---|--------------|---|---|------------------------|------------------------|------------------------------|-----------------|-------------------------|-----|-------|
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | (1-3), (4-5) | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | | Fluxes | Miscellaneous | | | | |
| | (2) | NGC-5253 | RA: 13 39 55.7620 (204.9823417d) Dec: -31 38 28.43 (-31.64123d) Equinox: J2000 Plate Id: (?) | | | V=17.3+/-0.5 | Coordinate Source: HST_IMAGE | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | | Orbit |
| | 1 | | (2) NGC-5253 | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 200.0 Secs | | |
| | | | | | | | | | [=>(Pattern 1)] | | [1] |
| | | | | | | | | | [=>(Pattern 2)] | | |
| | | | | | | | | | [=>(Pattern 3)] | | |
| | | | | | | | | [=>(Pattern 4)] | | | |
| 2 | | (2) NGC-5253 | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 92.0 Secs | | | |
| | | | | | | | | [=>(Pattern 1)] | | [1] | |
| | | | | | | | | [=>(Pattern 2)] | | | |
| | | | | | | | | [=>(Pattern 3)] | | | |
| | | | | | | | | [=>(Pattern 4)] | | | |
| 3 | | (2) NGC-5253 | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 150.0 Secs | | | |
| | | | | | | | | [=>(Pattern 1)] | | [1] | |
| | | | | | | | | [=>(Pattern 2)] | | | |
| | | | | | | | | [=>(Pattern 3)] | | | |
| | | | | | | | | [=>(Pattern 4)] | | | |
| 4 | | (2) NGC-5253 | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=NO; GAIN=2 | | Pattern 4-5 (1) | 449.0 Secs | | | |
| | | | | | | | | [=>(Pattern 1)] | | [2] | |
| | | | | | | | | [=>(Pattern 2)] | | | |
| | | | | | | | | [=>(Pattern 3)] | | | |
| | | | | | | | | [=>(Pattern 4)] | | | |

Proposal 10609 - Visit 01 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------|--------------|----------------------|---------------|------------------------|---------------|-----------------|---|-------|
| | 5 | | (2) NGC-5253 | ACS/HRC, ACCUM, HRC | F658N | CR-SPLIT=NO; GAIN=2 | | Pattern 4-5 (1) | 60.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [2] |





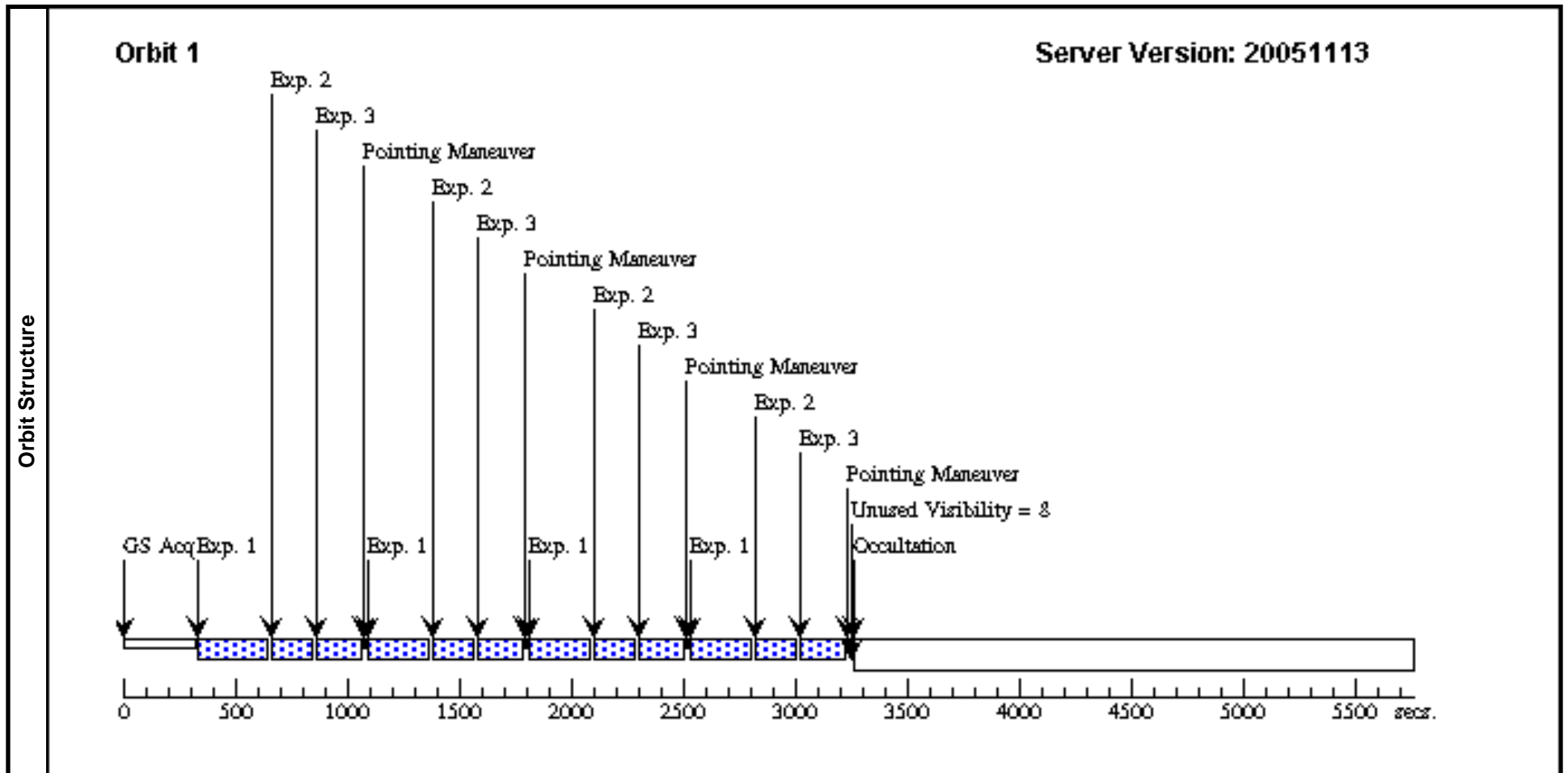
Proposal 10609 - Visit 02 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

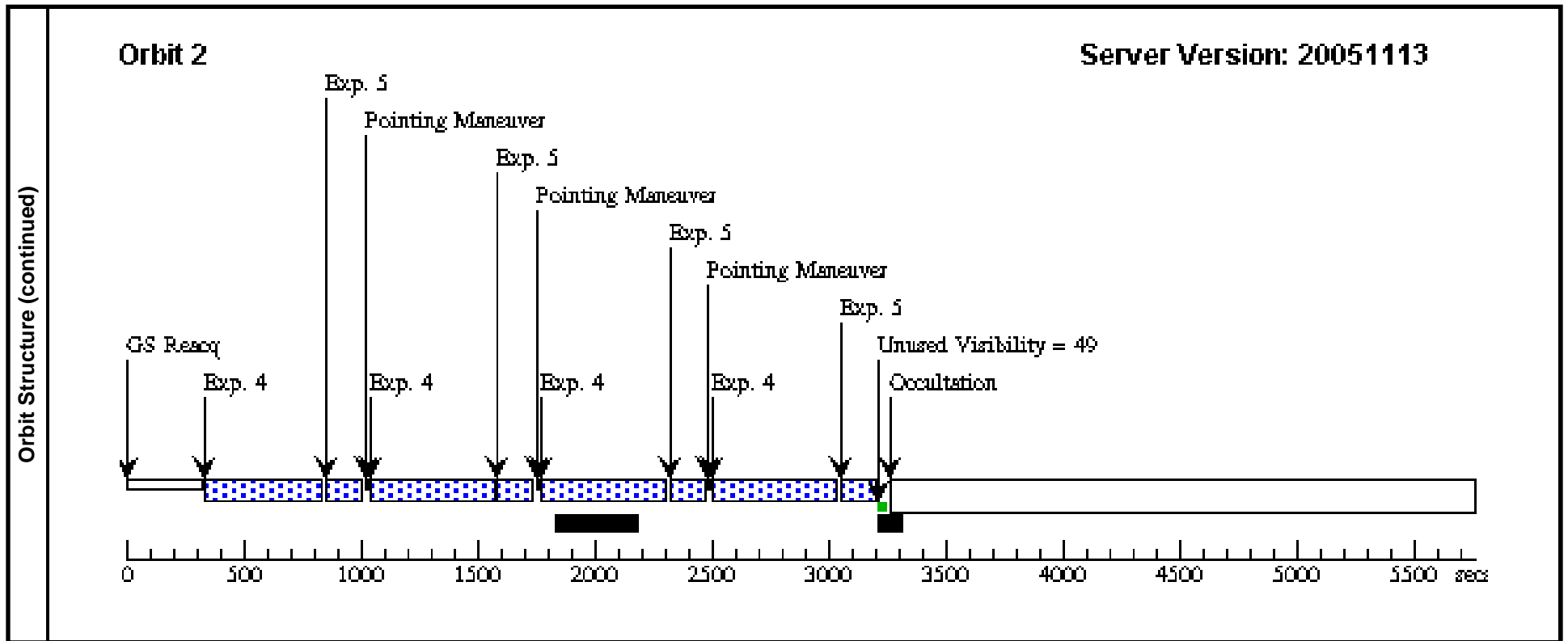
Sat Dec 31 02:05:17 GMT 2005

| Visit | Proposal 10609, Visit 02 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: ORIENT 265.0D TO 300.0 D | | | | | | | | | |
|---|--|----------|---|---|----------------|------------------------------|---------------|-----------------|--|-------|
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (7) | NGC-1156 | RA: 02 59 42.2200 (44.9259167d) Dec: +25 14 20.11 (25.23892d) Equinox: J2000 Plate Id: (?) | | V=17.41+/-0.01 | Coordinate Source: HST_IMAGE | | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | | (7) NGC-1156 | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 195.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 2 | | (7) NGC-1156 | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 91.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 3 | | (7) NGC-1156 | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 148.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 4 | | (7) NGC-1156 | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=NO; GAIN=2 | | Pattern 4-5 (1) | 445.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [2] |

Proposal 10609 - Visit 02 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------|--------------|----------------------|---------------|------------------------|---------------|-----------------|---|-------|
| | 5 | | (7) NGC-1156 | ACS/HRC, ACCUM, HRC | F658N | CR-SPLIT=NO; GAIN=2 | | Pattern 4-5 (1) | 60.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [2] |





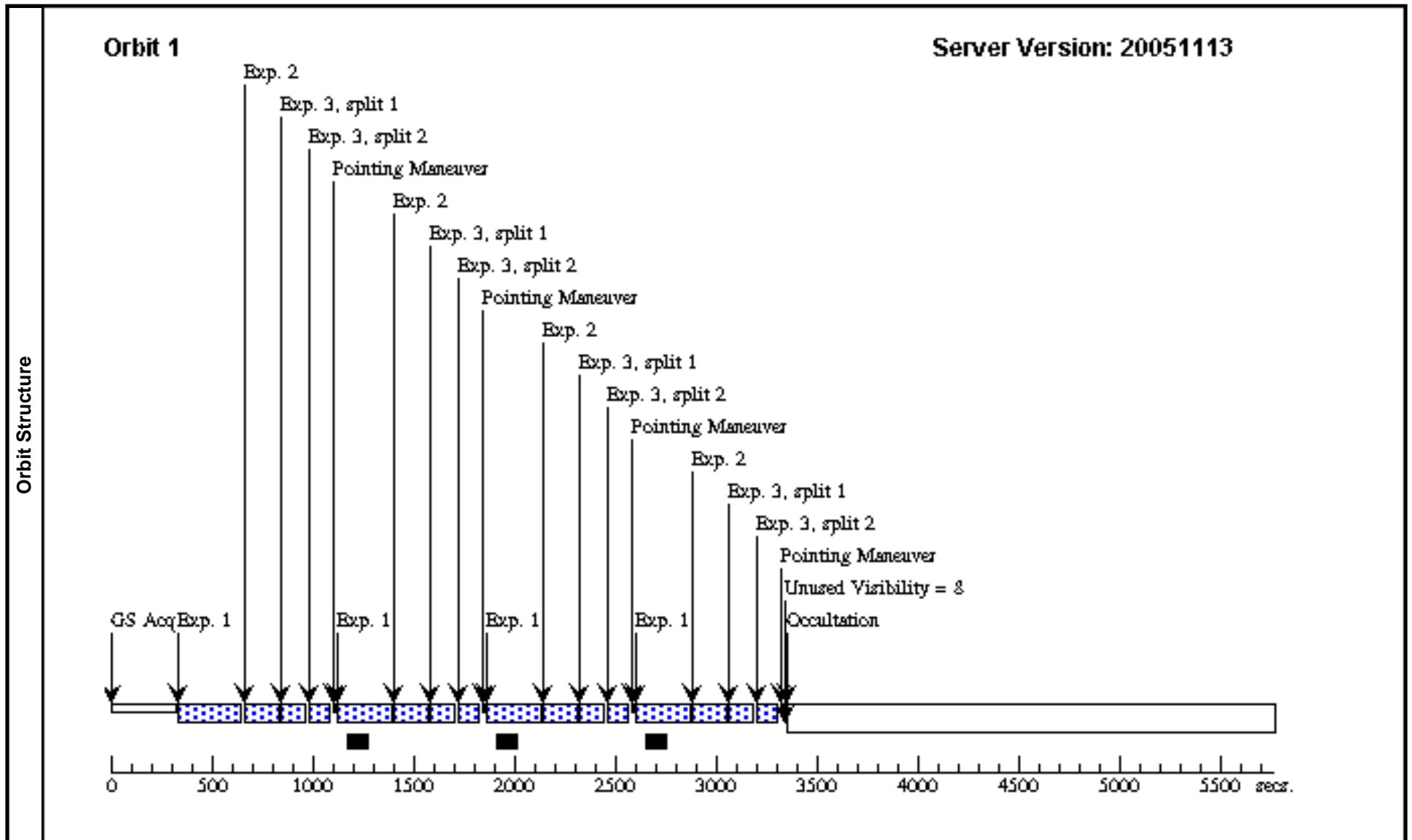
Proposal 10609 - Visit 03 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Sat Dec 31 02:05:18 GMT 2005

| | | | | | | | | | | | |
|---|--|---|---|---|---------------------------------|------------------------|--------------------------|-----------------|--|--------------|------------------|
| Visit | Proposal 10609, Visit 03 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: ORIENT 255.0D TO 270.0 D | | | | | | | | | | |
| | Patterns | # | Primary Pattern | | | | Secondary Pattern | | | | Exposures |
| (1) | | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | | (1-3), (4-5) | |
| Fixed Targets | # | Name | Target Coordinates | | Targ. Coord. Corrections | | Fluxes | | Miscellaneous | | |
| | (5) | NGC-4449 | RA: 12 28 11.0800 (187.0461667d) Dec: +44 05 36.15 (44.09338d) Equinox: J2000 Plate Id: 00XX | | | | V=15.55 | | Coordinate Source: HST_IMAGE | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | | Orbit |
| | 1 | (5) NGC-4449 | | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 190.0 Secs | | |
| | | | | | | | | | [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | | [1] |
| | 2 | (5) NGC-4449 | | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 78.0 Secs | | |
| | | | | | | | | | [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | | [1] |
| 3 | (5) NGC-4449 | | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=2; GAIN=2 | | Pattern 1-3 (1) | 135.0 Secs | | | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)] | | [1] |

Proposal 10609 - Visit 03 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

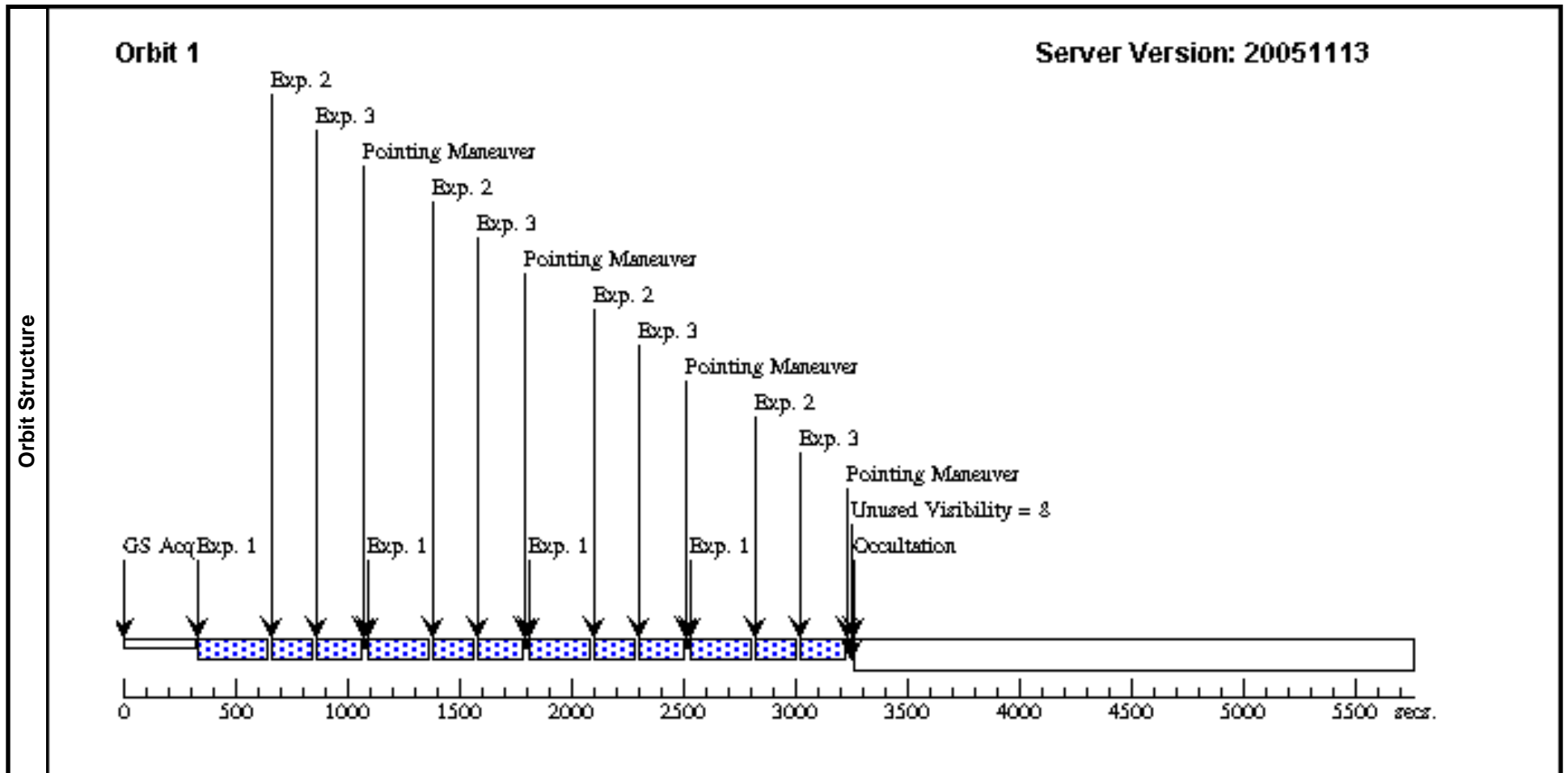
| | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|------------------------------|---|-------|--------------|----------------------|---------------|-----------------------|---------------|-----------------|--|-------|
| | | | | | | | | | | |
| Exposures (continued) | 4 | | (5) NGC-4449 | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=2; GAIN=2 | | Pattern 4-5 (1) | 360.0 Secs | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)] | [2] |
| | 5 | | (5) NGC-4449 | ACS/HRC, ACCUM, HRC | F658N | CR-SPLIT=2; GAIN=2 | | Pattern 4-5 (1) | 60.0 Secs | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] [==>(Pattern 3, Split 1)] [==>(Pattern 3, Split 2)] [==>(Pattern 4, Split 1)] [==>(Pattern 4, Split 2)] | [2] |

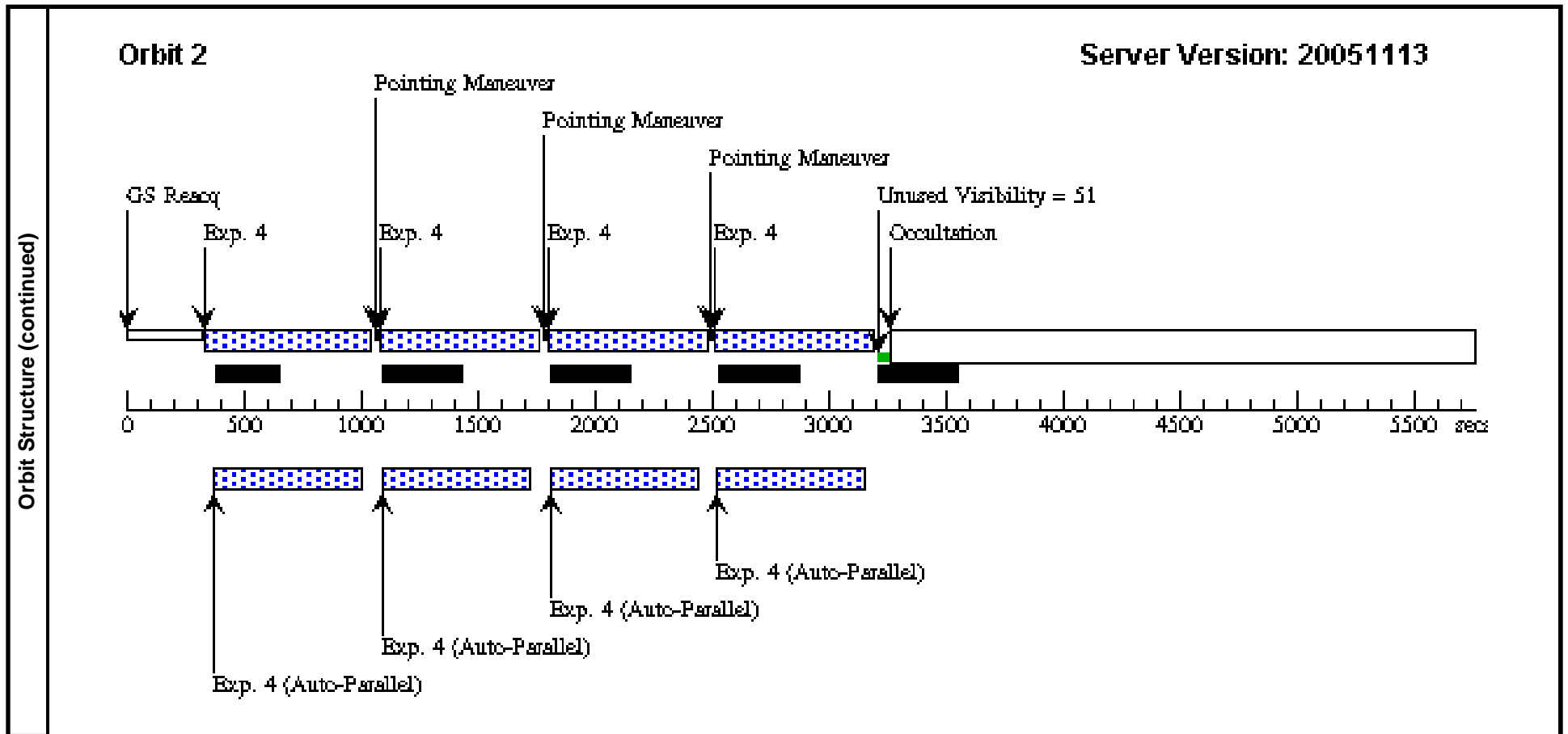


Proposal 10609 - Visit 04 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Sat Dec 31 02:05:20 GMT 2005

| Visit | Proposal 10609, Visit 04 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none) | | | | | | | | | |
|---|--|----------------|---|---|---------------|------------------------------|---------------|-----------------|--|-------|
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | (1-3), (4) | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (4) | ESO-495--G-021 | RA: 08 36 15.2100 (129.0633750d) Dec: -26 24 33.69 (-26.40936d) Equinox: J2000 Plate Id: (?) | | V=17.1 | Coordinate Source: HST_IMAGE | | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | | (4) ESO-495--G-021 | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 195.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 2 | | (4) ESO-495--G-021 | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 91.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 3 | | (4) ESO-495--G-021 | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 148.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 4 | | (4) ESO-495--G-021 | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=NO; GAIN=2 | | Pattern 4-4 (1) | 651.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [2] |



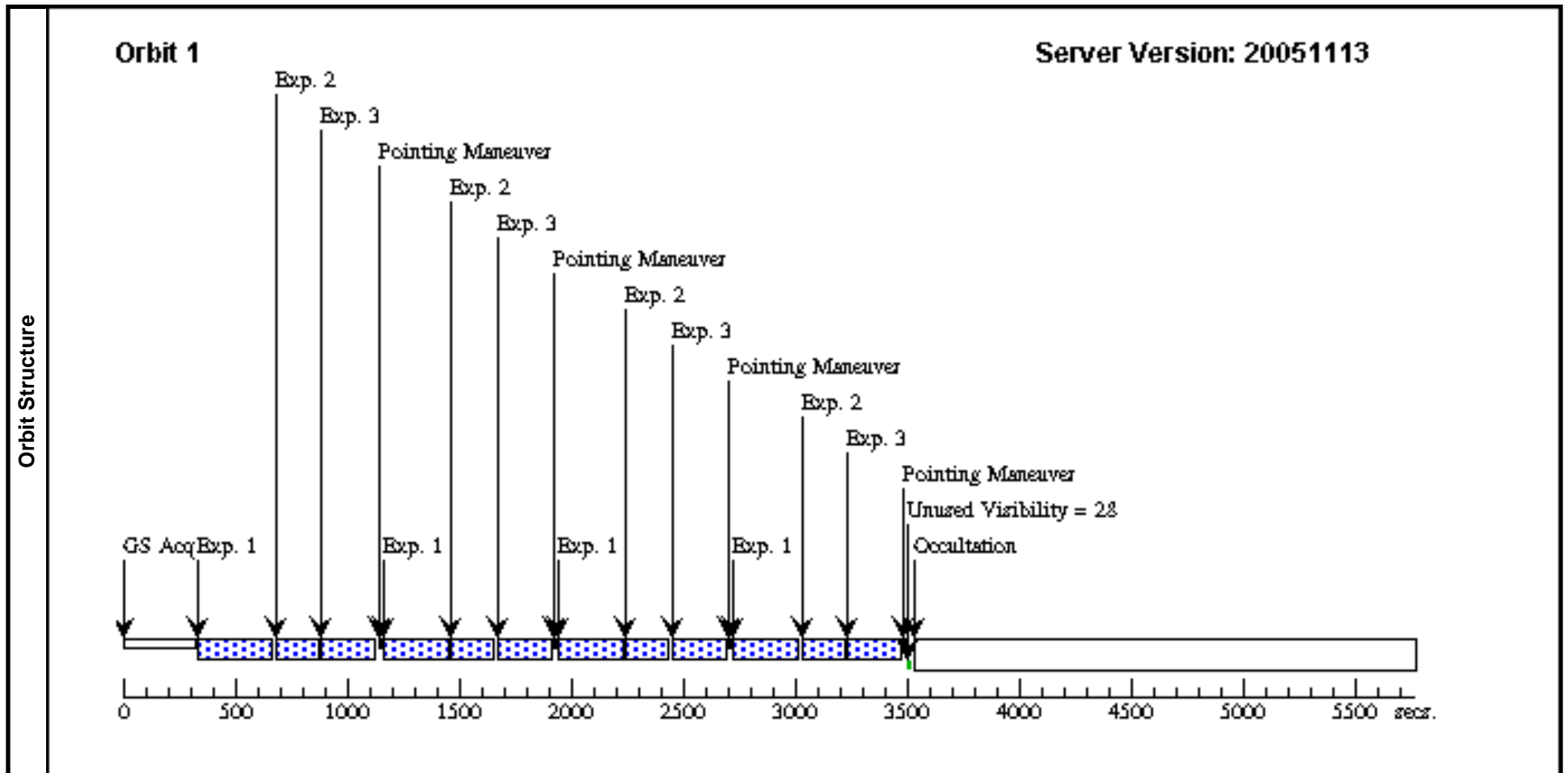


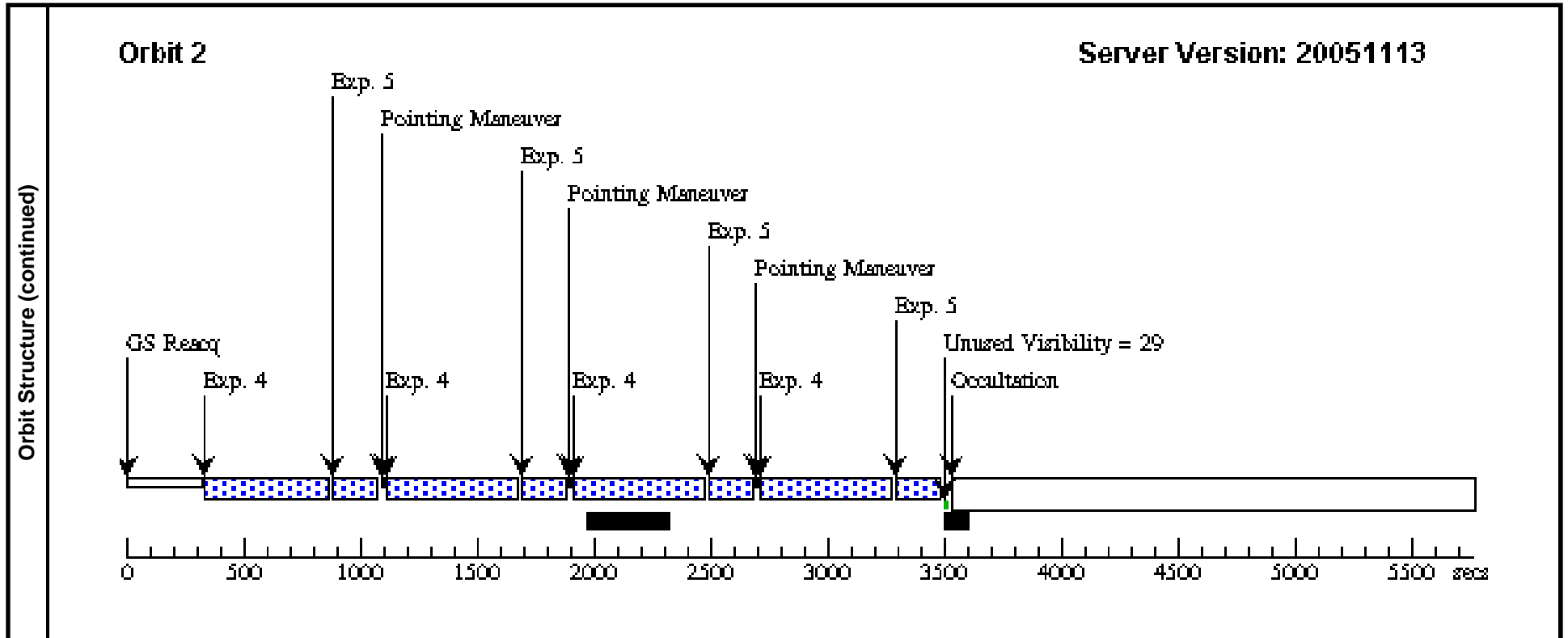
Proposal 10609 - Visit 05 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Visit | Proposal 10609, Visit 05 Sat Dec 31 02:05:20 GMT 2005 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: ORIENT 90.0D TO 270.0 D | | | | | | | | | |
|---|---|-------------|---|---|------------------------|------------------------------|-----------------|--|-------------------------|-------|
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (3) | IC-4662 | RA: 17 47 9.7700 (266.7907083d) Dec: -64 38 18.20 (-64.63839d) Equinox: J2000 Plate Id: 0218 | | V=19.0 | Coordinate Source: HST_IMAGE | | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (3) IC-4662 | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 219.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] | |
| | 2 | (3) IC-4662 | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 100.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] | |
| | 3 | (3) IC-4662 | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 180.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] | |
| | 4 | (3) IC-4662 | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=NO; GAIN=2 | | Pattern 4-5 (1) | 476.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [2] | |

Proposal 10609 - Visit 05 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Exposures (continued) | # | Label | Target | Config, Mode, Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------|-------------|------------------------|---------------|------------------------|---------------|-----------------|--|-------|
| | 5 | | (3) IC-4662 | ACS/HRC, ACCUM, HRC | F658N | CR-SPLIT=NO; GAIN=2 | | Pattern 4-5 (1) | 100.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [2] |

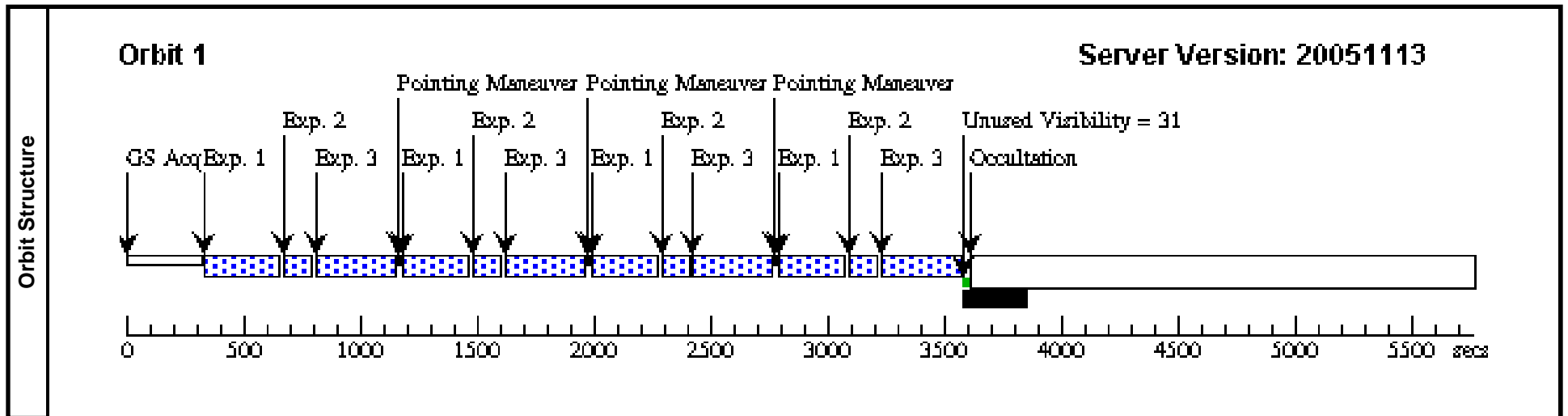




Proposal 10609 - Visit 06 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Sat Dec 31 02:05:21 GMT 2005

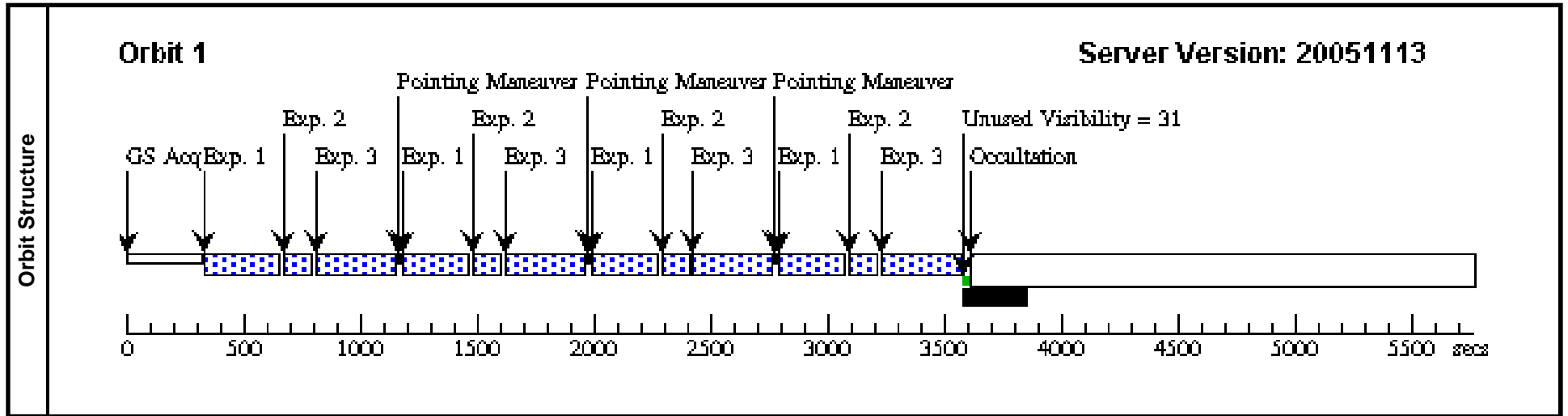
| Visit | Proposal 10609, Visit 06 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: SAME ORIENT AS 08 | | | | | | | | | | |
|---|---|-------------------|---|---|--------------------------|------------------------|-------------------|-----------------|------------------------------|-----------|-------|
| | Patterns | # | Primary Pattern | | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | (1-3) | | | |
| Fixed Targets | # | Name | Target Coordinates | | Targ. Coord. Corrections | | Fluxes | | Miscellaneous | | |
| | (1) | MESSIER-082-A | RA: 09 55 53.1700 (148.9715417d) Dec: +69 40 48.83 (69.68023d) Equinox: J2000 Plate Id: (?) | | | | | V=19.0 | Coordinate Source: HST_IMAGE | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | | Orbit |
| | 1 | | (1) MESSIER-082-A | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 210.0 Secs | | |
| | | | | | | | | | [==>(Pattern 1)] | | [1] |
| | | | | | | | | | [==>(Pattern 2)] | | |
| | | | | | | | | | [==>(Pattern 3)] | | |
| | | | | | | | | | [==>(Pattern 4)] | | |
| 2 | | (1) MESSIER-082-A | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 35.0 Secs | | | |
| | | | | | | | | | [==>(Pattern 1)] | | [1] |
| | | | | | | | | | [==>(Pattern 2)] | | |
| | | | | | | | | | [==>(Pattern 3)] | | |
| | | | | | | | | | [==>(Pattern 4)] | | |
| 3 | | (1) MESSIER-082-A | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 283.0 Secs | | | |
| | | | | | | | | | [==>(Pattern 1)] | | [1] |
| | | | | | | | | | [==>(Pattern 2)] | | |
| | | | | | | | | | [==>(Pattern 3)] | | |
| | | | | | | | | | [==>(Pattern 4)] | | |



Proposal 10609 - Visit 07 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

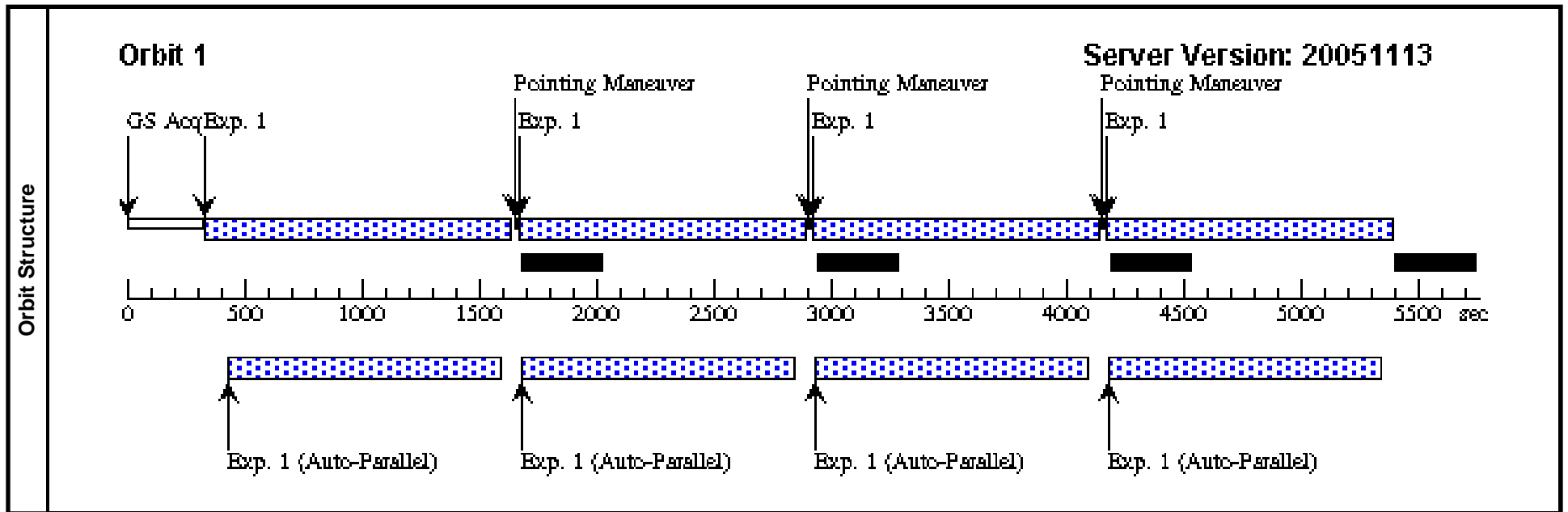
Sat Dec 31 02:05:22 GMT 2005

| Visit | Proposal 10609, Visit 07 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: SAME ORIENT AS 09 | | | | | | | | | | |
|---|---|---------------|---|---|--------------------------|------------------------|-------------------|-----------------|--|------------------------------|-------|
| | Patterns | # | Primary Pattern | | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | | (1-3) | |
| Fixed Targets | # | Name | Target Coordinates | | Targ. Coord. Corrections | | Fluxes | | Miscellaneous | | |
| | (6) | MESSIER-082-C | RA: 09 55 48.7900 (148.9532917d) Dec: +69 40 40.63 (69.67795d) Equinox: J2000 Plate Id: (?) | | | | | V=19.0 | | Coordinate Source: HST_IMAGE | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | | Orbit |
| | 1 | | (6) MESSIER-082-C | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 210.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | | [1] |
| | 2 | | (6) MESSIER-082-C | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 35.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | | [1] |
| | 3 | | (6) MESSIER-082-C | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 283.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | | [1] |



Proposal 10609 - Visit 08 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

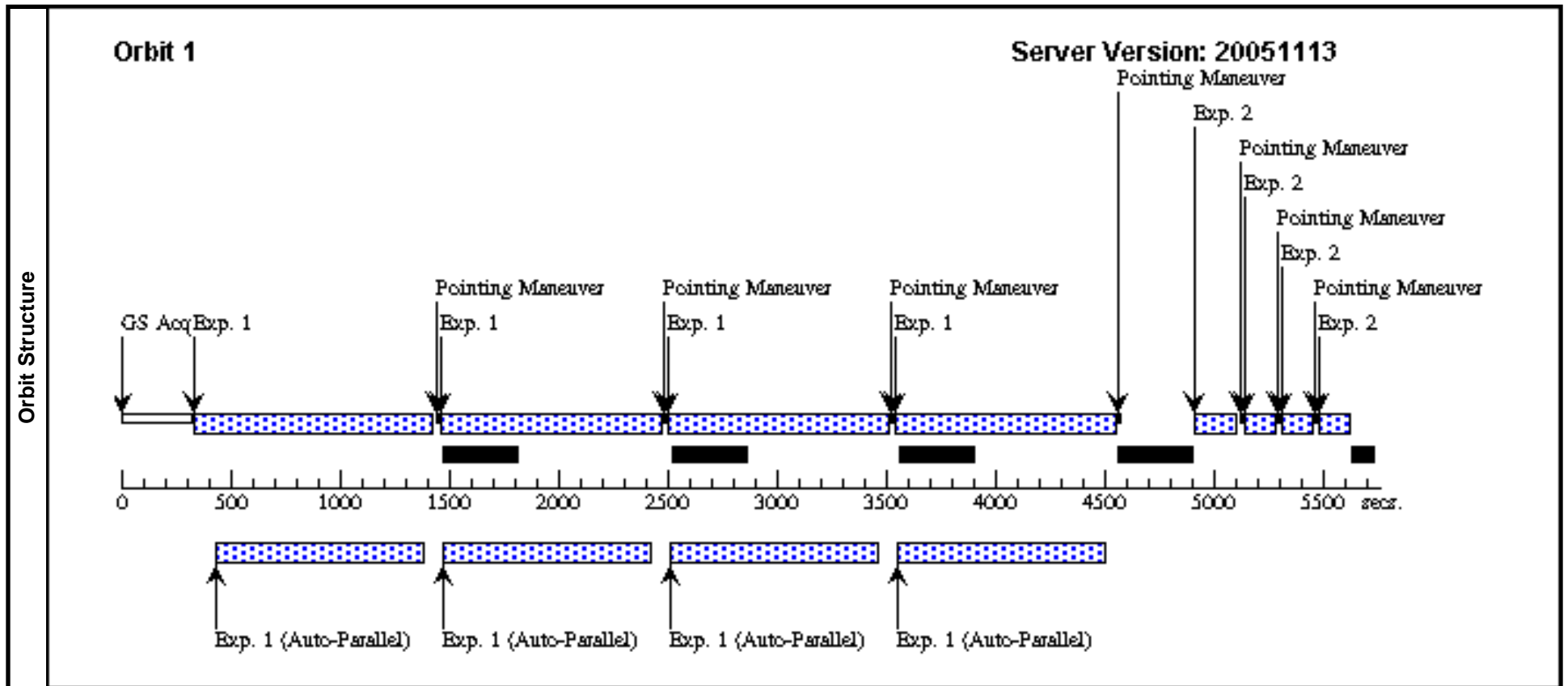
| | | | | | | | | | | |
|---|---|---|---|---------------------------------|----------------------|------------------------------|----------------------|-----------------|---|--------------|
| Visit | Proposal 10609, Visit 08 Sat Dec 31 02:05:22 GMT 2005 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: CVZ; ORIENT 270.0D TO 340.0 D | | | | | | | | | |
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | |
| (1) | | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | (1) | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | MESSIER-082-A | RA: 09 55 53.1700 (148.9715417d) Dec: +69 40 48.83 (69.68023d) Equinox: J2000 Plate Id: (?) | | V=19.0 | Coordinate Source: HST_IMAGE | | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | | (1) MESSIER-082-A | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-1 (1) | 1184.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |



Proposal 10609 - Visit 09 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Sat Dec 31 02:05:22 GMT 2005

| Visit | Proposal 10609, Visit 09 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: CVZ; ORIENT 270.0D TO 360.0 D | | | | | | | | | |
|---|---|---------------|---|---|---------------|------------------------|------------------------------|-----------------|--|-------|
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | (1), (2) | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | | Fluxes | Miscellaneous | | | |
| | (6) | MESSIER-082-C | RA: 09 55 48.7900 (148.9532917d) Dec: +69 40 40.63 (69.67795d) Equinox: J2000 Plate Id: (?) | | | V=19.0 | Coordinate Source: HST_IMAGE | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | | (6) MESSIER-082-C | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-1 (1) | 974.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 2 | | (6) MESSIER-082-C | ACS/HRC, ACCUM, HRC | F658N | CR-SPLIT=NO; GAIN=2 | | Pattern 2-2 (1) | 100.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |



Proposal 10609 - Visit 10 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Sat Dec 31 02:05:23 GMT 2005

| Visit | Proposal 10609, Visit 10 Diagnostic Status: No Diagnostics Scientific Instruments: NIC2 Special Requirements: (none) | | | | | | | | | | | | | | |
|---------------|---|---------------------------------------|---------------------------------|-------------------------------|--------------------------|----------------------|-------------------|---------------------------------------|----------------------------|-------------------------|----------------------|----------------------|-----------------|-----------------|-----------------|
| | Patterns | # | Primary Pattern | | | | Secondary Pattern | | | | Exposures | | | | |
| Patterns | | (2) | Pattern Type=NIC-SPIRAL-DITH | Coordinate Frame=POS-TARG | | | | | | | (1-2) | | | | |
| | (3) | Pattern Type=NIC-SKY-SPIRAL-DITH-CHOP | Coordinate Frame=POS-TARG | Pattern Orientation=0 | Angle Between Sides= | Center Pattern=false | Line Spacing= | Pattern Type=NIC-SKY-SPIRAL-DITH-CHOP | Coordinate Frame=CELESTIAL | Pattern Orientation=320 | Angle Between Sides= | Center Pattern=false | Line Spacing= | (3-5) | |
| Fixed Targets | # | Name | Target Coordinates | | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | | | | | |
| | (8) | NGC-1156-NUC | RA: 02 59 42.8500 (44.9285417d) | Dec: +25 14 28.68 (25.24130d) | Equinox: J2000 | Plate Id: 00EJ | V=17.41+/-0.01 | Coordinate Source: HST_IMAGE | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | | Orbit | | | | |
| | 1 | (8) NGC-1156-NUC | NIC2, MULTIACCUM, NIC2 | F110W | SAMP-SEQ=STEP1 | NSAMP=10 | | Pattern 1-2 (2) | [=>(Pattern 1)] | [=>(Pattern 2)] | [=>(Pattern 3)] | [=>(Pattern 4)] | [=>(Pattern 5)] | [=>(Pattern 6)] | [=>(Pattern 7)] |

Proposal 10609 - Visit 10 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|-------|------------------|------------------------|---------------|---------------------------------|---------------|-----------------|--|-------|
| Exposures (continued) | 2 | (8) NGC-1156-NUC | NIC2, MULTIACCUM, NIC2 | F160W | SAMP-SEQ=STEP1 ; NSAMP=7 | | Pattern 1-2 (2) | [==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 3, Copy 3)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 5, Copy 1)] [==>(Pattern 5, Copy 2)] [==>(Pattern 5, Copy 3)] [==>(Pattern 6, Copy 1)] [==>(Pattern 6, Copy 2)] [==>(Pattern 6, Copy 3)] [==>(Pattern 7, Copy 1)] [==>(Pattern 7, Copy 2)] [==>(Pattern 7, Copy 3)] | [1] |
| | 3 | (8) NGC-1156-NUC | NIC2, MULTIACCUM, NIC2 | F222M | SAMP-SEQ=STEP2 ; NSAMP=19 | | Pattern 3-5 (3) | [==>(Pattern 1,1)] [==>(Pattern 1,2)] [==>(Pattern 2,1)] [==>(Pattern 2,2)] [==>(Pattern 3,1)] [==>(Pattern 3,2)] [==>(Pattern 4,1)] [==>(Pattern 4,2)] | [1] |

Proposal 10609 - Visit 10 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------|------------------|------------------------|---------------|---------------------------------|---------------|-----------------|--|-------|
| | | | | | | | | | | |
| Exposures (continued) | 4 | | (8) NGC-1156-NUC | NIC2, MULTIACCUM, NIC2 | F187N | SAMP-SEQ=STEP8 ; NSAMP=12 | | Pattern 3-5 (3) | [==>(Pattern 1,1)] [==>(Pattern 1,2)] [==>(Pattern 2,1)] [==>(Pattern 2,2)] [==>(Pattern 3,1)] [==>(Pattern 3,2)] [==>(Pattern 4,1)] [==>(Pattern 4,2)] | [1] |
| | 5 | | (8) NGC-1156-NUC | NIC2, MULTIACCUM, NIC2 | F190N | SAMP-SEQ=STEP8 ; NSAMP=12 | | Pattern 3-5 (3) | [==>(Pattern 1,1)] [==>(Pattern 1,2)] [==>(Pattern 2,1)] [==>(Pattern 2,2)] [==>(Pattern 3,1)] [==>(Pattern 3,2)] [==>(Pattern 4,1)] [==>(Pattern 4,2)] | [1] |

Proposal 10609 - Visit 11 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Sat Dec 31 02:05:25 GMT 2005

| Visit | Proposal 10609, Visit 11 Diagnostic Status: No Diagnostics Scientific Instruments: NIC2 Special Requirements: (none) | | | | | | | | | |
|---|---|---|--|--|---|---------------------------------|-------------------|-----------------|--|-------|
| | Patterns | # | Primary Pattern | | | | Secondary Pattern | | | |
| | | (2) | Pattern Type=NIC-SPIRAL-DITH Purpose=DITHER Number Of Points=7 Point Spacing=2 Line Spacing= | Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides= Center Pattern=false | | | | | (1-2) | |
| | (4) | Pattern Type=NIC-SKY-SPIRAL-DITH-CHOP Purpose=DITHER Number Of Points=5 Point Spacing=2 Line Spacing= | Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides= Center Pattern=false | Pattern Type=NIC-SKY-SPIRAL-DITH-CHOP Purpose=BACKGROUND Number Of Points=2 Point Spacing=89 Line Spacing= | Coordinate Frame=CELESTIAL Pattern Orientation=214 Angle Between Sides= Center Pattern=false | (3-5) | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (3) | IC-4662 | RA: 17 47 9.7700 (266.7907083d) Dec: -64 38 18.20 (-64.63839d) Equinox: J2000 Plate Id: 0218 | | V=19.0 | Coordinate Source: HST_IMAGE | | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | | (3) IC-4662 | NIC2, MULTIACCUM, NIC2 | F110W | SAMP-SEQ=STEP1 ; NSAMP=10 | | Pattern 1-2 (2) | [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] [==>(Pattern 5)] [==>(Pattern 6)] [==>(Pattern 7)] | [1] |

Proposal 10609 - Visit 11 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|-------|-------------|------------------------|---------------|---------------------------------|---------------|-----------------|--|-------|
| Exposures (continued) | 2 | (3) IC-4662 | NIC2, MULTIACCUM, NIC2 | F160W | SAMP-SEQ=STEP1 ; NSAMP=7 | | Pattern 1-2 (2) | [==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 3, Copy 3)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 5, Copy 1)] [==>(Pattern 5, Copy 2)] [==>(Pattern 5, Copy 3)] [==>(Pattern 6, Copy 1)] [==>(Pattern 6, Copy 2)] [==>(Pattern 6, Copy 3)] [==>(Pattern 7, Copy 1)] [==>(Pattern 7, Copy 2)] [==>(Pattern 7, Copy 3)] | [1] |
| | 3 | (3) IC-4662 | NIC2, MULTIACCUM, NIC2 | F222M | SAMP-SEQ=STEP2 ; NSAMP=14 | | Pattern 3-5 (4) | [==>(Pattern 1,1)] [==>(Pattern 1,2)] [==>(Pattern 2,1)] [==>(Pattern 2,2)] [==>(Pattern 3,1)] [==>(Pattern 3,2)] [==>(Pattern 4,1)] [==>(Pattern 4,2)] [==>(Pattern 5,1)] [==>(Pattern 5,2)] | [1] |

Proposal 10609 - Visit 11 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|-------------|------------------------|------------------------|---------------------------------|---------------------------------|--|--|--------|-------------------------|-------|
| | 4 | (3) IC-4662 | NIC2, MULTIACCUM, NIC2 | F187N | SAMP-SEQ=STEP8 ; NSAMP=11 | Pattern 3-5 (4) | [=>(Pattern 1,1)] [=>(Pattern 1,2)] [=>(Pattern 2,1)] [=>(Pattern 2,2)] [=>(Pattern 3,1)] [=>(Pattern 3,2)] [=>(Pattern 4,1)] [=>(Pattern 4,2)] [=>(Pattern 5,1)] [=>(Pattern 5,2)] | [1] | | |
| 5 | (3) IC-4662 | NIC2, MULTIACCUM, NIC2 | F190N | SAMP-SEQ=STEP8 ; NSAMP=11 | Pattern 3-5 (4) | [=>(Pattern 1,1)] [=>(Pattern 1,2)] [=>(Pattern 2,1)] [=>(Pattern 2,2)] [=>(Pattern 3,1)] [=>(Pattern 3,2)] [=>(Pattern 4,1)] [=>(Pattern 4,2)] [=>(Pattern 5,1)] [=>(Pattern 5,2)] | [1] | | | |

Proposal 10609 - Visit 12 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Visit | | Proposal 10609, Visit 12 Diagnostic Status: No Diagnostics Scientific Instruments: NIC2 Special Requirements: (none) | | | | Sat Dec 31 02:05:26 GMT 2005 | |
|---|--|---|---|---|--------------------------|------------------------------|------------------------------|
| Patterns | | # | Primary Pattern | Secondary Pattern | Exposures | | |
| | | (2) | Pattern Type=NIC-SPIRAL-DITH Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=0 Number Of Points=7 Angle Between Sides= Point Spacing=2 Center Pattern=false Line Spacing= | | (1) | | |
| | | (5) | Pattern Type=NIC-SKY-SPIRAL-DITH-CHOP Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=0 Number Of Points=5 Angle Between Sides= Point Spacing=2 Center Pattern=false Line Spacing= | Pattern Type=NIC-SKY-SPIRAL-DITH-CHOP Coordinate Frame=CELESTIAL Purpose=BACKGROUND Pattern Orientation=326 Number Of Points=2 Angle Between Sides= Point Spacing=96 Center Pattern=false Line Spacing= | (2-3) | | |
| Fixed Targets | | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
| | | (5) | NGC-4449 | RA: 12 28 11.0800 (187.0461667d) Dec: +44 05 36.15 (44.09338d) Equinox: J2000 Plate Id: 00XX | | V=15.55 | Coordinate Source: HST_IMAGE |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | |

Proposal 10609 - Visit 12 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

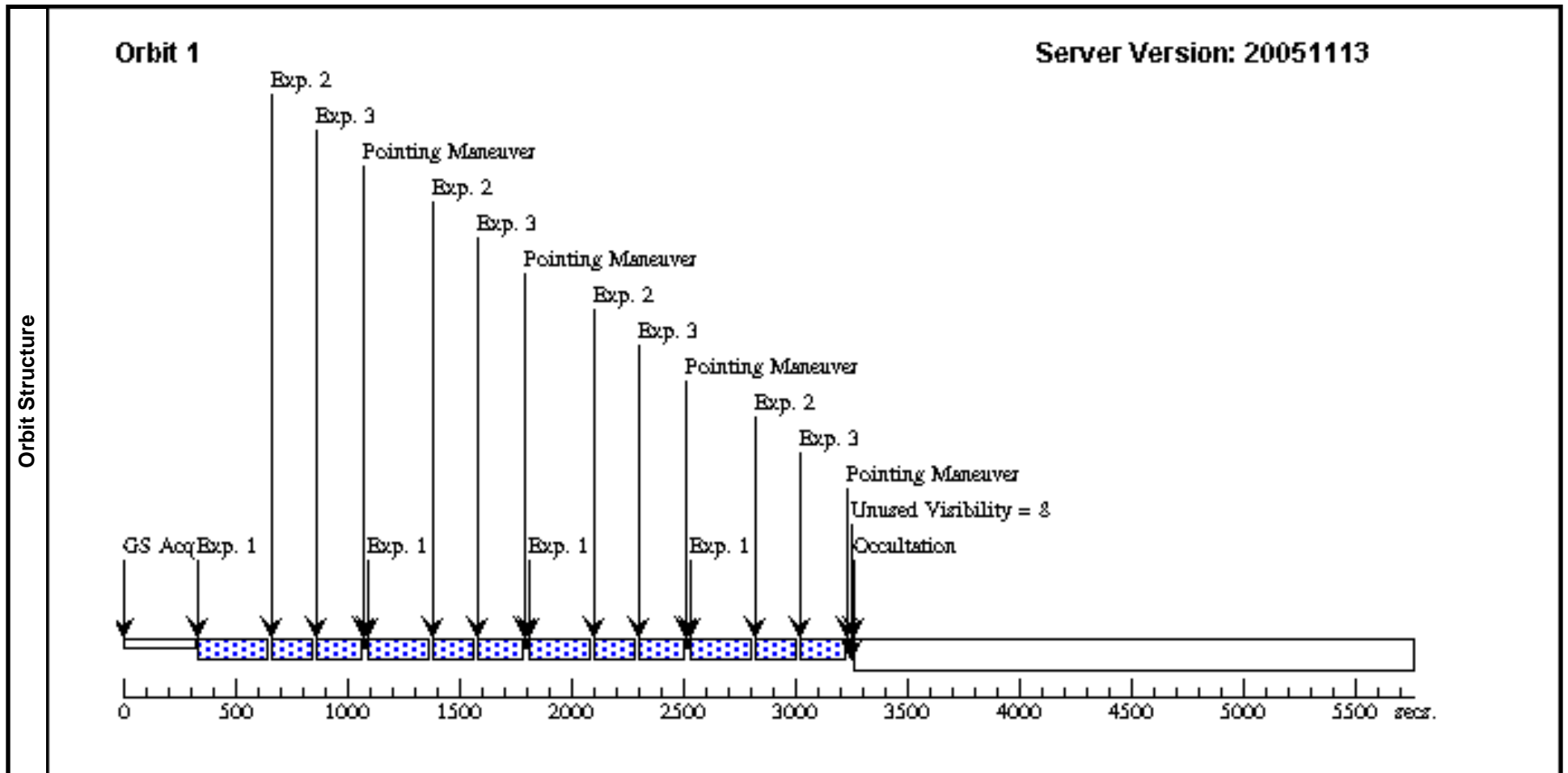
| # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|------------------|-------|--------------|------------------------|---------------|----------------------------------|---------------|-----------------|--|-------|
| Exposures | | (5) NGC-4449 | NIC2, MULTIACCUM, NIC2 | F110W | SAMP-SEQ=SCAM RR; NSAMP=15 | | Pattern 1-1 (2) | [==>(Pattern 1, Copy 1)] [==>(Pattern 1, Copy 2)] [==>(Pattern 1, Copy 3)] [==>(Pattern 1, Copy 4)] [==>(Pattern 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 2, Copy 4)] [==>(Pattern 3, Copy 1)] [==>(Pattern 3, Copy 2)] [==>(Pattern 3, Copy 3)] [==>(Pattern 3, Copy 4)] [==>(Pattern 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 4, Copy 4)] [==>(Pattern 5, Copy 1)] [==>(Pattern 5, Copy 2)] [==>(Pattern 5, Copy 3)] [==>(Pattern 5, Copy 4)] [==>(Pattern 6, Copy 1)] [==>(Pattern 6, Copy 2)] [==>(Pattern 6, Copy 3)] [==>(Pattern 6, Copy 4)] [==>(Pattern 7, Copy 1)] [==>(Pattern 7, Copy 2)] [==>(Pattern 7, Copy 3)] [==>(Pattern 7, Copy 4)] | [1] |

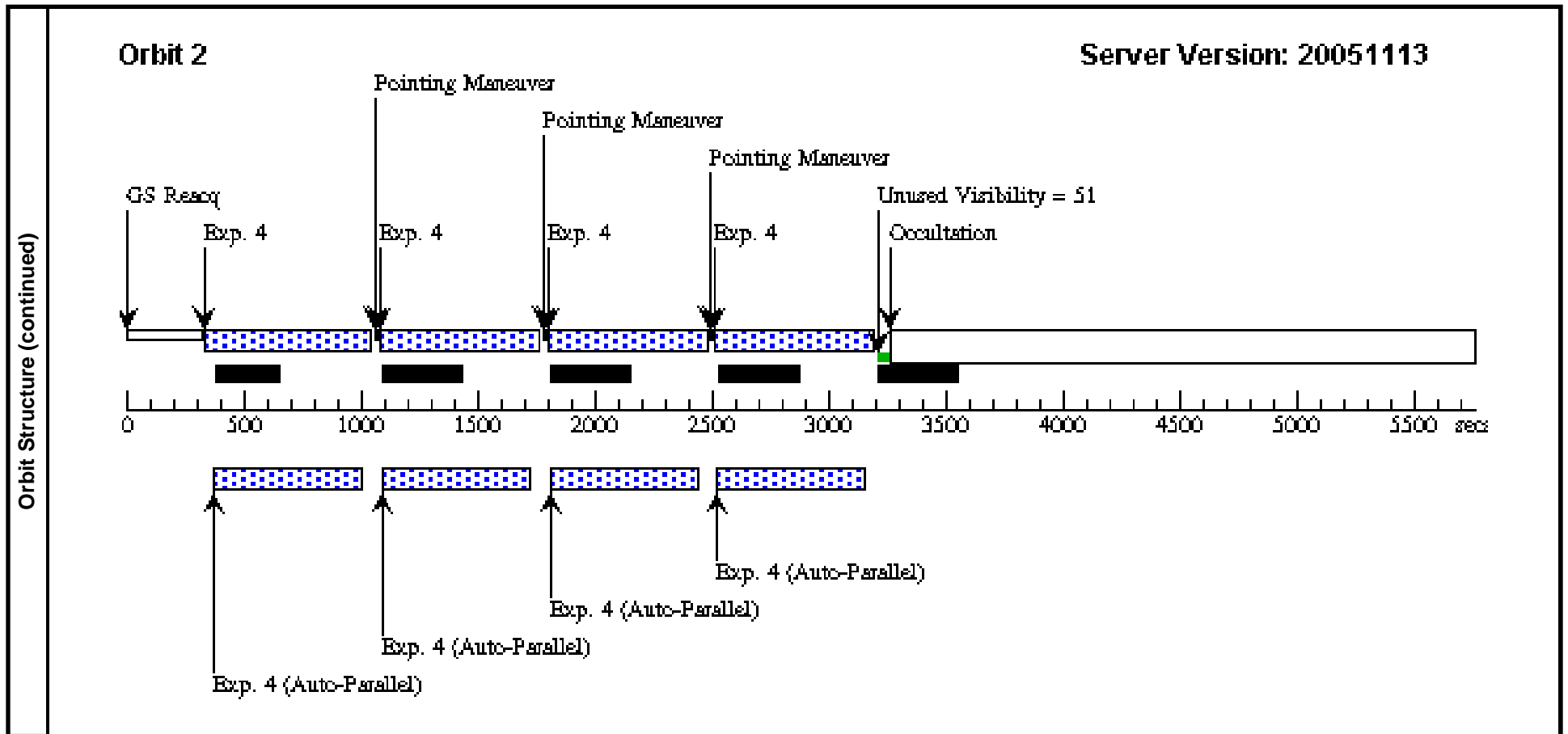
Proposal 10609 - Visit 12 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------|--------------|------------------------|---------------|---------------------------------|---------------|-----------------|--|-------|
| Exposures (continued) | 2 | | (5) NGC-4449 | NIC2, MULTIACCUM, NIC2 | F190N | SAMP-SEQ=STEP8 ; NSAMP=12 | | Pattern 2-3 (5) | [=>(Pattern 1,1)] [=>(Pattern 1,2)] [=>(Pattern 2,1)] [=>(Pattern 2,2)] [=>(Pattern 3,1)] [=>(Pattern 3,2)] [=>(Pattern 4,1)] [=>(Pattern 4,2)] [=>(Pattern 5,1)] [=>(Pattern 5,2)] | [1] |
| | 3 | | (5) NGC-4449 | NIC2, MULTIACCUM, NIC2 | F222M | SAMP-SEQ=STEP2 ; NSAMP=12 | | Pattern 2-3 (5) | [=>(Pattern 1,1)] [=>(Pattern 1,2)] [=>(Pattern 2,1)] [=>(Pattern 2,2)] [=>(Pattern 3,1)] [=>(Pattern 3,2)] [=>(Pattern 4,1)] [=>(Pattern 4,2)] [=>(Pattern 5,1)] [=>(Pattern 5,2)] | [1] |

Proposal 10609 - Visit 54 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

| Visit | Proposal 10609, Visit 54 Sat Dec 31 02:05:27 GMT 2005 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: (none) | | | | | | | | | |
|---|--|---------------------|---|---|---------------|------------------------------|---------------|-----------------|--|-------|
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | (1-3), (4) | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (9) | ESO-495--G-021-COPY | RA: 08 36 15.2100 (129.0633750d) Dec: -26 24 33.69 (-26.40936d) Equinox: J2000 Plate Id: (?) | | V=17.1 | Coordinate Source: HST_IMAGE | | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | | (9) ESO-495--G-021-COPY | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 195.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 2 | | (9) ESO-495--G-021-COPY | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 91.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 3 | | (9) ESO-495--G-021-COPY | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 148.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [1] |
| | 4 | | (9) ESO-495--G-021-COPY | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=NO; GAIN=2 | | Pattern 4-4 (1) | 651.0 Secs [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)] | [2] |





Proposal 10609 - Visit 57 - Sizes, Shapes, and SEDs: Searching for Mass Segregation in the Super Star Clusters of Nearby Starburst Galaxies

Sat Dec 31 02:05:27 GMT 2005

| Visit | Proposal 10609, Visit 57 Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: ORIENT 172.0D TO 178.0 D; ORIENT 156.0D TO 162.0 D | | | | | | | | | |
|---|--|--------------------|---|---|---------------|------------------------------|---------------|-----------------|--|-------|
| | Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | |
| | | (1) | Pattern Type=ACS-HRC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.15 Line Spacing=0.098 | Coordinate Frame=POS-TARG Pattern Orientation=19.9 Angle Between Sides=63.5 Center Pattern=false | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (10) | MESSIER-082-C-COPY | RA: 09 55 48.7900 (148.9532917d) Dec: +69 40 40.63 (69.67795d) Equinox: J2000 Plate Id: (?) | | V=19.0 | Coordinate Source: HST_IMAGE | | | | |
| <i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i> | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | | (10) MESSIER-082-C-COPY | ACS/HRC, ACCUM, HRC | F550M | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 210.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |
| | 2 | | (10) MESSIER-082-C-COPY | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 35.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |
| | 3 | | (10) MESSIER-082-C-COPY | ACS/HRC, ACCUM, HRC | F435W | CR-SPLIT=NO; GAIN=2 | | Pattern 1-3 (1) | 283.0 Secs [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)] [=>(Pattern 4)] | [1] |

