



10910 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Cycle: 15, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

| <i>Name</i> | <i>Institution</i> | <i>E-Mail</i> |
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VISITS

| <i>Visit</i> | <i>Targets used in Visit</i> | <i>Configurations used in Visit</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 11 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 20:59:57.0 | yes |
| 15 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:00:11.0 | yes |
| 21 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:00:22.0 | yes |
| 25 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:00:45.0 | yes |
| 31 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:00:56.0 | yes |
| 32 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:01:07.0 | yes |
| 33 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:01:18.0 | yes |
| 34 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:01:39.0 | yes |

| <i>Visit</i> | <i>Targets used in Visit</i> | <i>Configurations used in Visit</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 35 | (1) M87-JET | ACS/HRC | 1 | 21-May-2007 21:01:50.0 | yes |
| 43 | (1) M87-JET | WFPC2 | 1 | 21-May-2007 21:01:57.0 | yes |
| 44 | (1) M87-JET | WFPC2 | 1 | 21-May-2007 21:02:03.0 | yes |
| 45 | (1) M87-JET | WFPC2 | 1 | 21-May-2007 21:02:09.0 | yes |
| 46 | (1) M87-JET | WFPC2 | 1 | 21-May-2007 21:02:15.0 | yes |
| 47 | (1) M87-JET | WFPC2 | 1 | 21-May-2007 21:02:21.0 | yes |

14 Total Orbits Used

ABSTRACT

As the nearest galaxy with an optical jet, M87 affords an unparalleled opportunity to study extragalactic jet phenomena at the highest resolution. During 2002, HST and Chandra monitoring of the M87 jet detected a dramatic flare in knot HST-1 located ~1" from the nucleus. Its optical brightness eventually increased seventy-fold and peaked in 2005; the X-rays show a similarly dramatic outburst. In both bands HST-1 is still extremely bright and greatly outshines the galaxy nucleus. To our knowledge this is the first incidence of an optical or X-ray outburst from a jet region which is spatially distinct from the core source -- this presents an unprecedented opportunity to study the processes responsible for non-thermal variability and the X-ray emission.

We propose five epochs of HST/ACS flux monitoring during Cycle 15, as well as seven epochs of Chandra/ACIS observation (5ksec each, five Chandra epochs contemporary with HST). At two of the HST/ACS epochs we also gather spectral information and map the magnetic field structure.

The results of this investigation are of key importance not only for understanding the nature of the X-ray emission of the M87 jet, but also for understanding flares in blazar jets, which are highly variable, but where we have never before been able to resolve the flaring region in the optical or X-rays. These observations will allow us to test synchrotron emission models for the X-ray outburst, constrain particle acceleration and loss timescales, and study the jet dynamics associated with this flaring component.

OBSERVING DESCRIPTION

Visits 31-35: Flux monitoring and proper motions of knots in the M87 Jet. We will obtain ACS/HRC F250W images of the jet using a setup which duplicates our recent Cycle 13 monitor observations. A single orbit is required. The superluminal knots in region HST-1 which have estimated fluxes $2 * 10^{-18} \text{ erg cm}^{-2} \text{ s}^{-1} \text{ \AA}^{-1}$ at 3000 \AA (assuming a ν^{-1} spectrum found in nearby knots) will have $\text{SNR}=24$ in 2400 sec. Sub-exposures will be dithered to improve PSF sampling by the 0.05" pixels and minimize detector artifacts; a large 3" dither is also used to remove the occulting finger. The observations are scheduled to be within 3 days of Chandra M87 observations (where possible); the Chandra observations are an important part of this program. Short polarization observations in either F330W or F606W are included to allow correction of instrumental polarization effects on the observed F250W fluxes (theses are needed since the target is expected to be highly polarized). Visits 11, 15: ACS/HRC multi-band observations roughly 6 months apart. Images taken in F220W, F475W, and F814W for derivation of optical spectral indices. Again a large dither is used to avoid data loss due to the occulting finger. Visit 21, 25: ACS/HRC F606W polarimetry is performed so as to derive the magnetic field configuration of the jet, and especially region HST-1. Same large dithers are used to avoid the occulting finger.

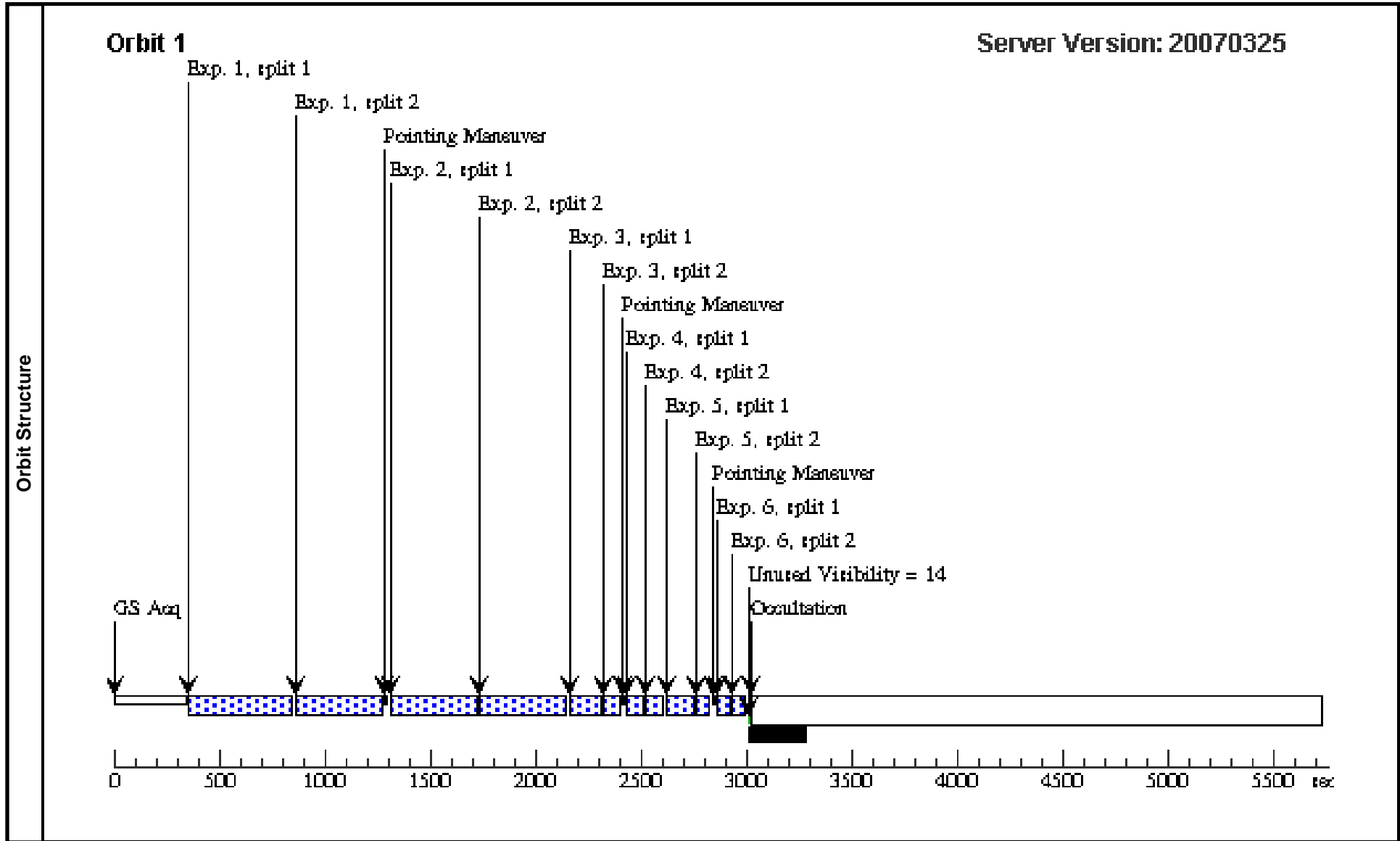
Visit 43 replaces visit 33 due to ACS failure. 30-jan-2007

Visit 44 replaces visit 34 due to ACS failure. 28-feb-2007 JB

Proposal 10910 - Visit 11 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:24 GMT 2007

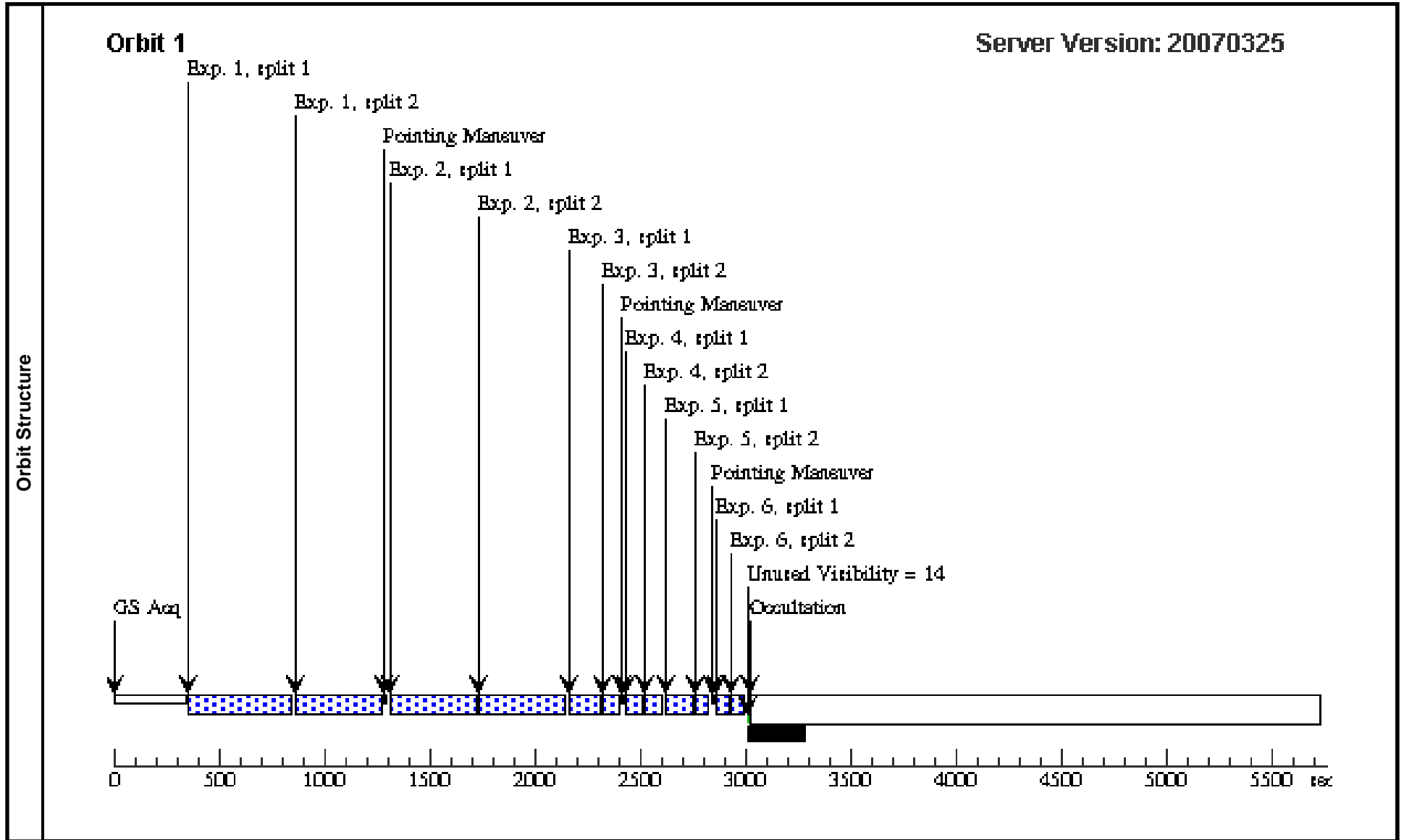
| Visit | Proposal 10910, Visit 11, completed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; SAME ORIENT AS 31; GROUP 11.31 WITHIN 1.0D | | | | | | | | | |
|-----------|--|---------|---|----------------------|--------------------------|-----------------------|---------------|----------------------|--|-------|
| | Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | 1 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F220W | CR-SPLIT=2 | POS TARG 1,0 | Sequence 1-6 Non-Int | 755.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 2 | 2 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F220W | CR-SPLIT=2 | POS TARG 4,0 | Sequence 1-6 Non-Int | 755.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 3 | 3 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F475W | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-6 Non-Int | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 4 | 4 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F475W | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-6 Non-Int | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 5 | 5 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-6 Non-Int | 48.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 6 | 6 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-6 Non-Int | 48.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |



Proposal 10910 - Visit 15 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:25 GMT 2007

| Visit | Proposal 10910, Visit 15, withdrawn Diagnostic Status: No Diagnostics Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; SAME ORIENT AS 35; GROUP 15.35 WITHIN 1.0D | | | | | | | | | |
|-----------|--|---------|---|----------------------|--------------------------|--------------|-----------------------|----------------------|--|-------|
| | Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | | V=16.7 | Reference Frame: GSC1 | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | 1 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F220W | CR-SPLIT=2 | POS TARG 1,0 | Sequence 1-6 Non-Int | 755.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 2 | 2 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F220W | CR-SPLIT=2 | POS TARG 4,0 | Sequence 1-6 Non-Int | 755.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 3 | 3 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F475W | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-6 Non-Int | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 4 | 4 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F475W | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-6 Non-Int | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 5 | 5 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-6 Non-Int | 48.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 6 | 6 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F814W | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-6 Non-Int | 48.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |



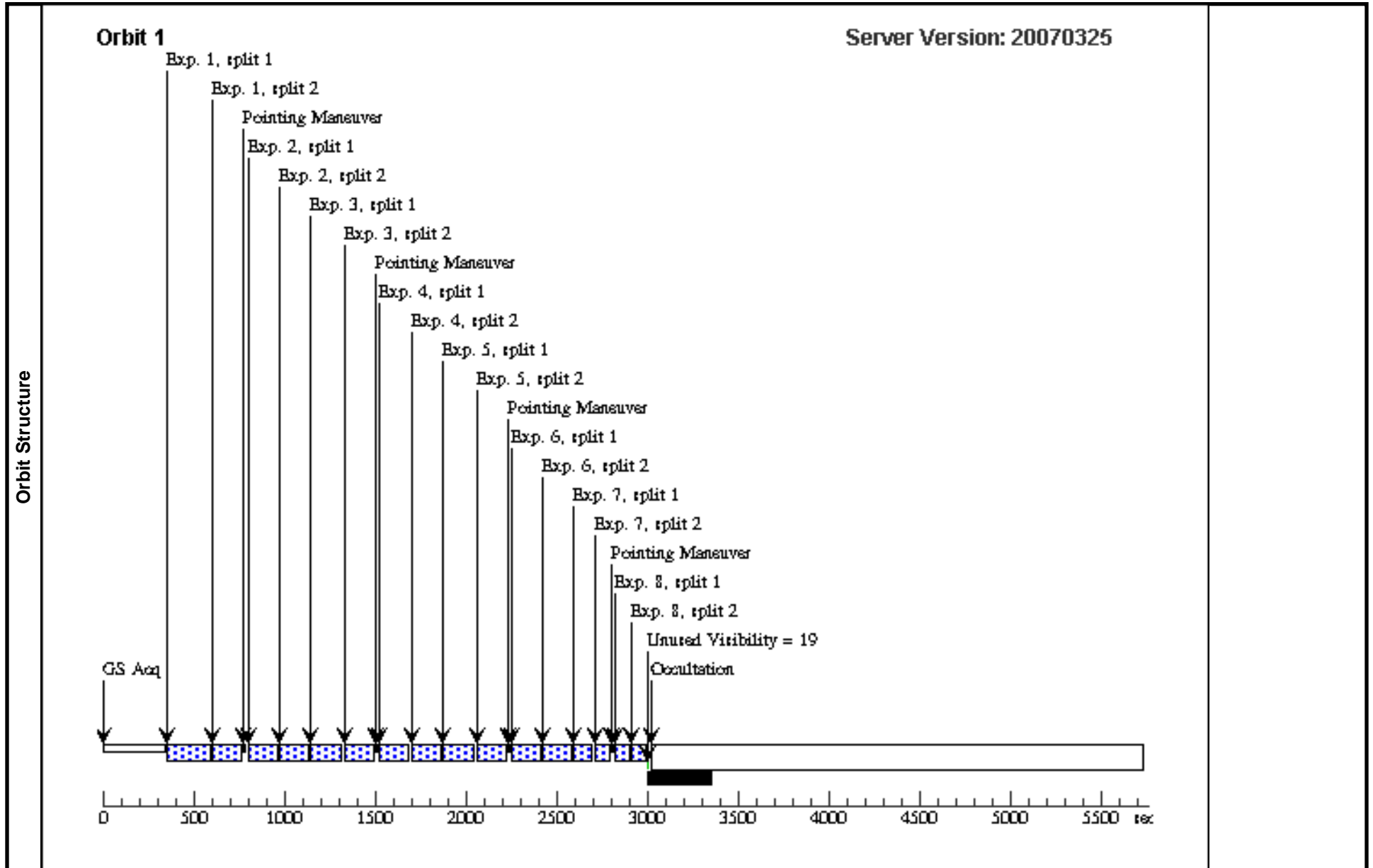
Proposal 10910 - Visit 21 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:26 GMT 2007

| | | | | | | | | | | |
|---|--|---|---|---------------------------------|----------------------|-----------------------|----------------------|----------------------|--|--------------|
| Visit | Proposal 10910, Visit 21, completed Diagnostic Status: Warning Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; SAME ORIENT AS 31; AFTER 11 BY 0.9 Orbits TO 1.1 Orbits | | | | | | | | | |
| | Diagnostics | (Visit 21) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | |
| (Visit 21) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 21) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
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| (Visit 21) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 21) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | 1 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL0V | CR-SPLIT=2 | POS TARG 1,0 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 2 | 2 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL0V | CR-SPLIT=2 | POS TARG 4,0 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 3 | 3 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL60V | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 4 | 4 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL60V | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 5 | 5 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL120V | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |

Proposal 10910 - Visit 21 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------------|---------------------|----------------------|------------------|---------------|----------------------|----------------------|-------------------------|-------|
| | 6 | 6 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL120V | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-8 Non-Int | 240.0 Secs | |
| | | | | | | | | | [==>(Split 1)] | [1] |
| | | | | | | | | | [==>(Split 2)] | |
| 7 | 7 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-8 Non-Int | 80.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |
| 8 | 8 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-8 Non-Int | 80.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |



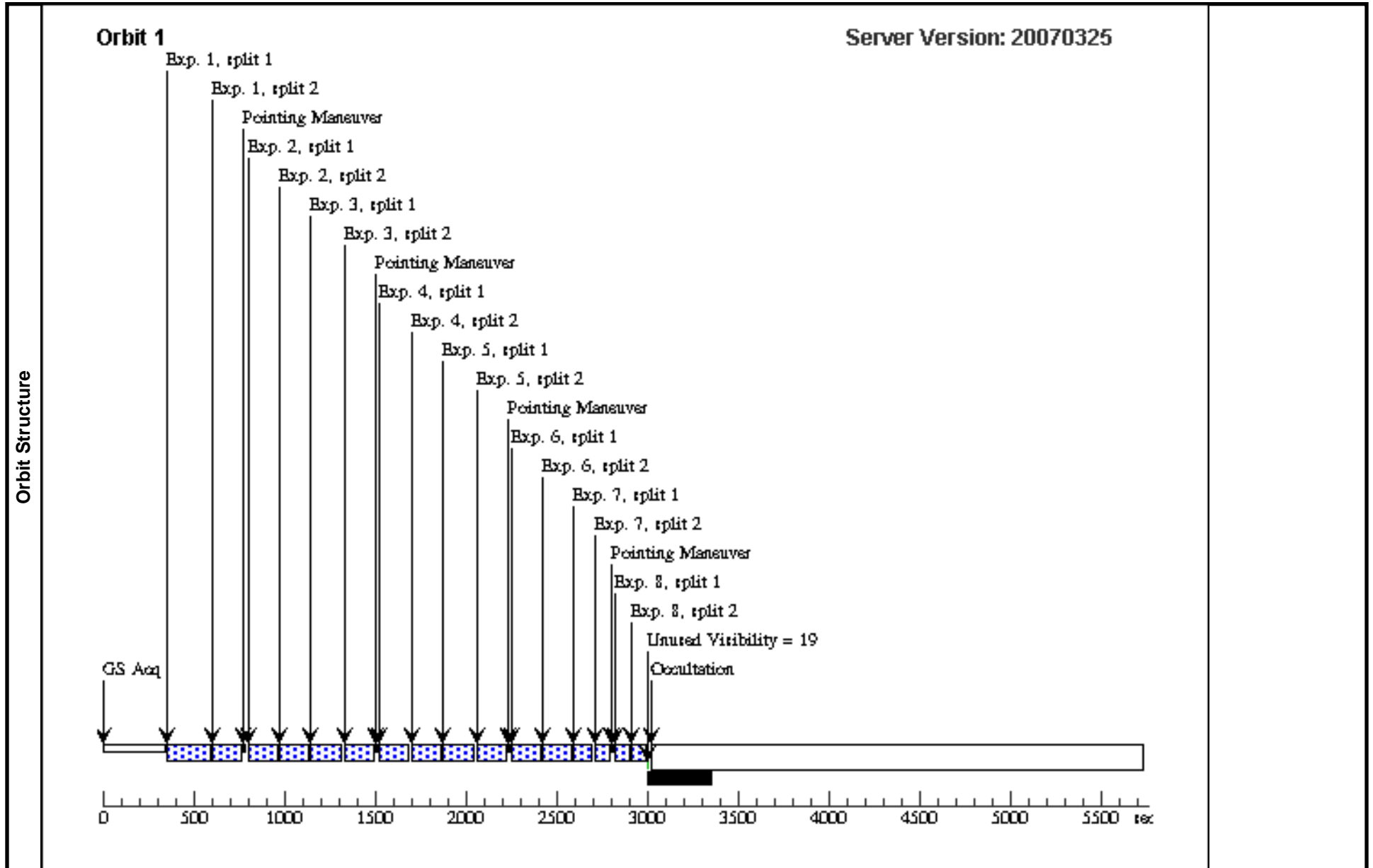
Proposal 10910 - Visit 25 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:28 GMT 2007

| | | | | | | | | | | |
|---|--|---|---|---------------------------------|----------------------|-----------------------|----------------------|----------------------|--|--------------|
| Visit | Proposal 10910, Visit 25, withdrawn Diagnostic Status: Warning Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; SAME ORIENT AS 15; AFTER 15 BY 0.9 Orbits TO 1.1 Orbits | | | | | | | | | |
| | Diagnostics | (Visit 25) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | |
| (Visit 25) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 25) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
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| (Visit 25) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 25) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | 1 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL0V | CR-SPLIT=2 | POS TARG 1,0 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 2 | 2 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL0V | CR-SPLIT=2 | POS TARG 4,0 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 3 | 3 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL60V | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 4 | 4 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL60V | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 5 | 5 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL120V | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-8 Non-Int | 240.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |

Proposal 10910 - Visit 25 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------------|---------------------|----------------------|------------------|---------------|----------------------|----------------------|-------------------------|-------|
| | 6 | 6 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL120V | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-8 Non-Int | 240.0 Secs | |
| | | | | | | | | | [==>(Split 1)] | [1] |
| | | | | | | | | | [==>(Split 2)] | |
| 7 | 7 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W | CR-SPLIT=2 | SAME POS AS 2 | Sequence 1-8 Non-Int | 80.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |
| 8 | 8 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W | CR-SPLIT=2 | SAME POS AS 1 | Sequence 1-8 Non-Int | 80.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |



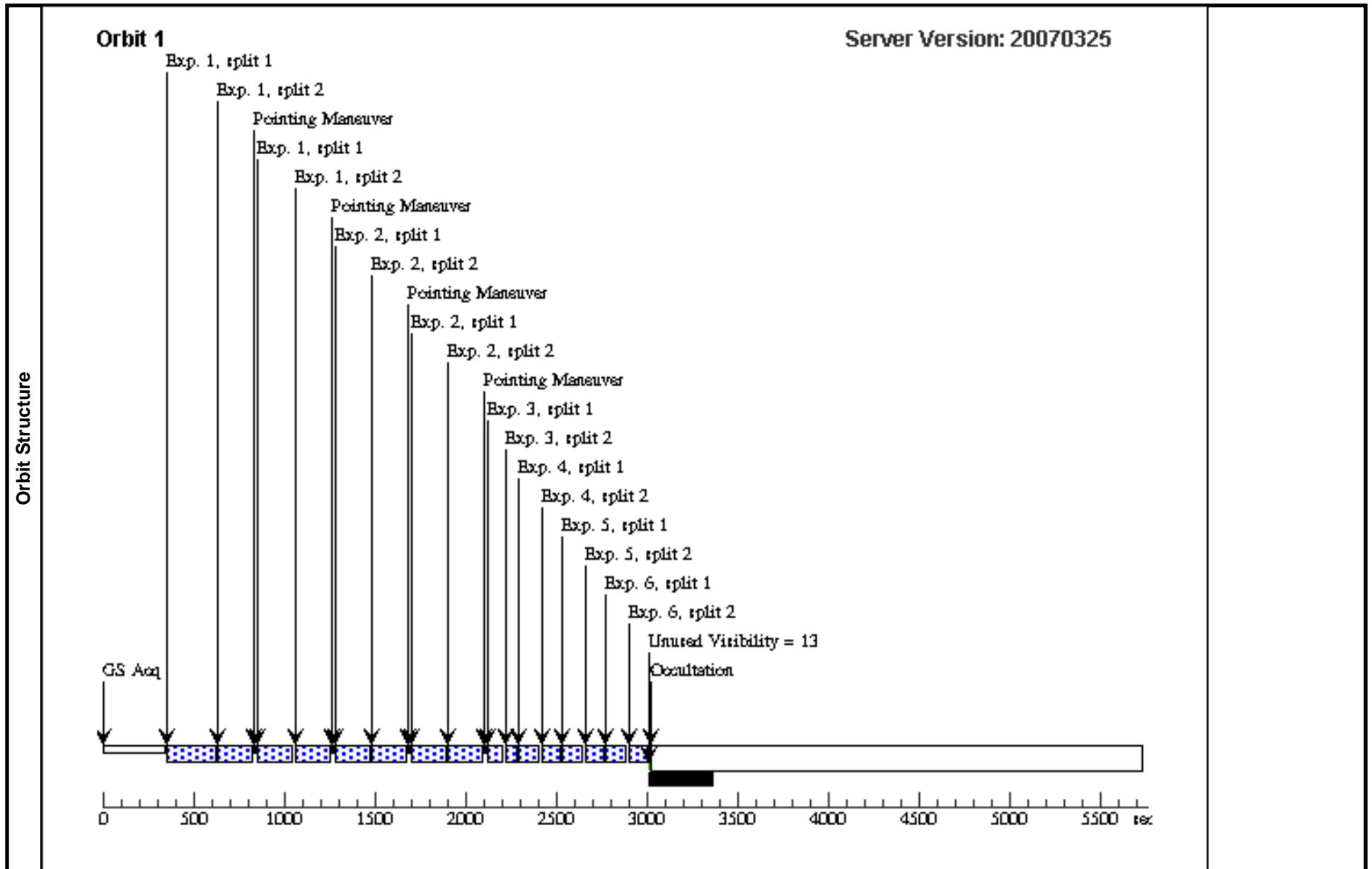
Proposal 10910 - Visit 31 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:29 GMT 2007

| | | | | | | | | | | |
|----------------------|---|--|--|---------------------------------|--------------------------|-----------------------|----------------------|--|--|--------------|
| Visit | Proposal 10910, Visit 31, completed Diagnostic Status: Warning Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; ORIENT 296.0D TO 311.0 D; BETWEEN 12-NOV-2006:00:00:00 AND 30-NOV-2006:00:00:00 Comments: Please schedule as close as possible to Chandra observation on 15 Nov 2006. | | | | | | | | | |
| | Diagnosics (Visit 31) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 31) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 31) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 31) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 31) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 31) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | |
| Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | | |
| | (1) | Pattern Type=ACS-HRC-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.084 Line Spacing= | Coordinate Frame=POS-TARG Pattern Orientation=32.14 Angle Between Sides= Center Pattern=false | | | | | (1), (2) | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 4,0 | Pattern 1-1 (1) | 300.0 Secs | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] |
| | 2 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 1,0 | Pattern 2-2 (1) | 300.0 Secs | |
| | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] | |
| 3 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=2 | POS TARG 1,0 | | 45.0 Secs | | |
| | | | | | | | | [==>(Split 1)] [==>(Split 2)] | [1] | |

Proposal 10910 - Visit 31 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------------|---------------------|----------------------|-----------------|---------------|---------------|----------------|-------------------------|-------|
| | 4 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W POL0UV | CR-SPLIT=2 | SAME POS AS 3 | | 120.0 Secs | |
| | | | | | | | | | [==>(Split 1)] | [1] |
| | | | | | | | | | [==>(Split 2)] | |
| 5 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W POL60UV | CR-SPLIT=2 | SAME POS AS 3 | | 120.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |
| 6 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W POL120UV | CR-SPLIT=2 | SAME POS AS 3 | | 120.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |



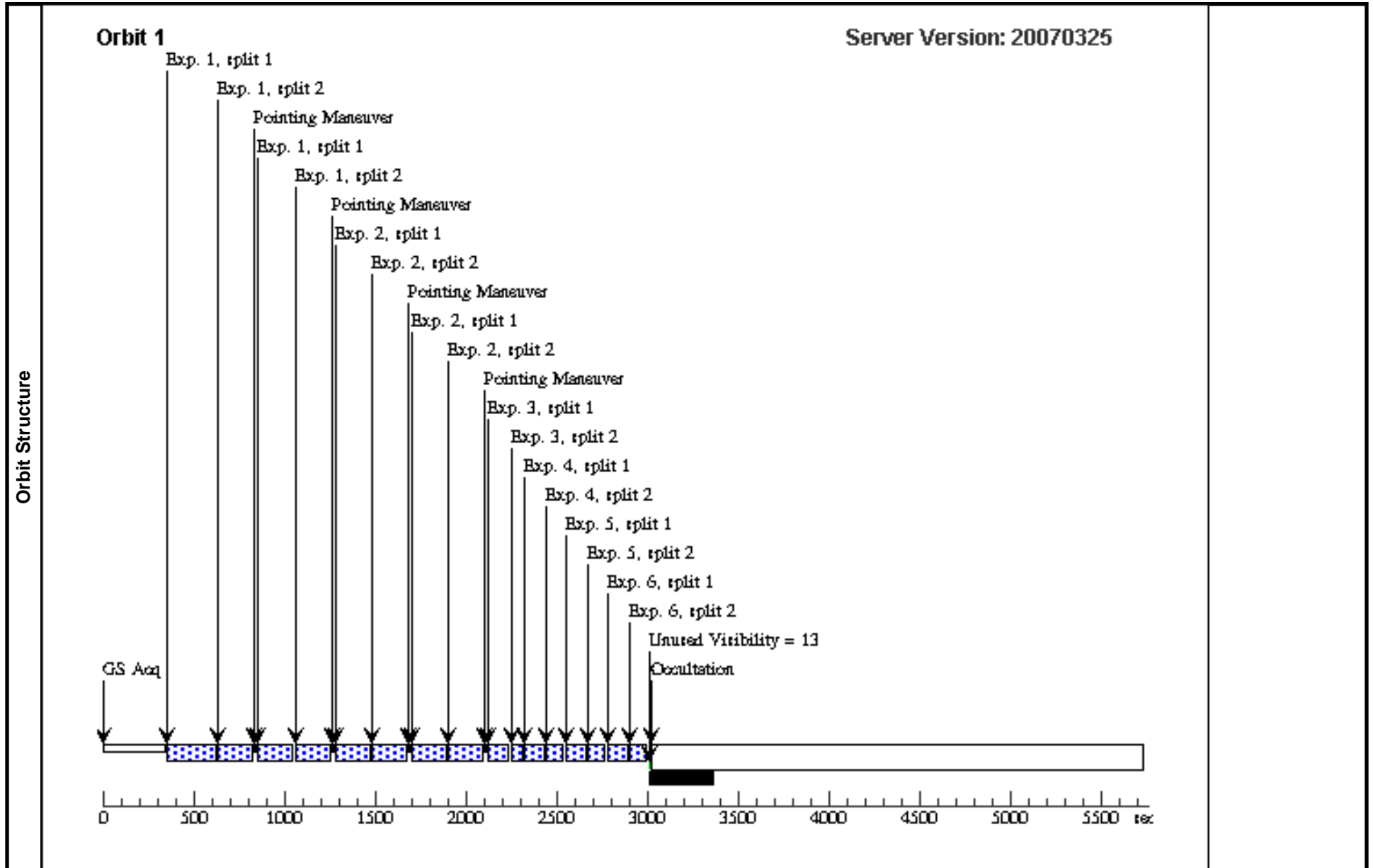
Proposal 10910 - Visit 32 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:30 GMT 2007

| | | | | | | | | | | |
|---|---|--|--|---------------------------------|--------------------------|-----------------------|----------------------|--|--|--------------|
| Visit | Proposal 10910, Visit 32, completed Diagnostic Status: Warning Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; ORIENT 270.0D TO 297.0 D; BETWEEN 26-DEC-2006:00:00:00 AND 02-JAN-2007:00:00:00 Comments: Please schedule as close as possible to Chandra observation on 29 Dec 2006. | | | | | | | | | |
| | Diagnostics | (Visit 32) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | |
| (Visit 32) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 32) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 32) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 32) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| (Visit 32) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | | |
| Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | | |
| | (1) | Pattern Type=ACS-HRC-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.084 Line Spacing= | Coordinate Frame=POS-TARG Pattern Orientation=32.14 Angle Between Sides= Center Pattern=false | | | | | (1), (2) | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 7,0 | Pattern 1-1 (1) | 300.0 Secs | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] |
| | 2 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 4,0 | Pattern 2-2 (1) | 300.0 Secs | |
| | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] | |
| 3 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W | CR-SPLIT=2 | POS TARG 4,0 | | 45.0 Secs | | |
| | | | | | | | | [==>(Split 1)] [==>(Split 2)] | [1] | |

Proposal 10910 - Visit 32 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------------|---------------------|----------------------|----------------|---------------|---------------|----------------|-------------------------|-------|
| | 4 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL0V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | |
| | | | | | | | | | [==>(Split 1)] | [1] |
| | | | | | | | | | [==>(Split 2)] | |
| 5 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL60V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |
| 6 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL120V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |



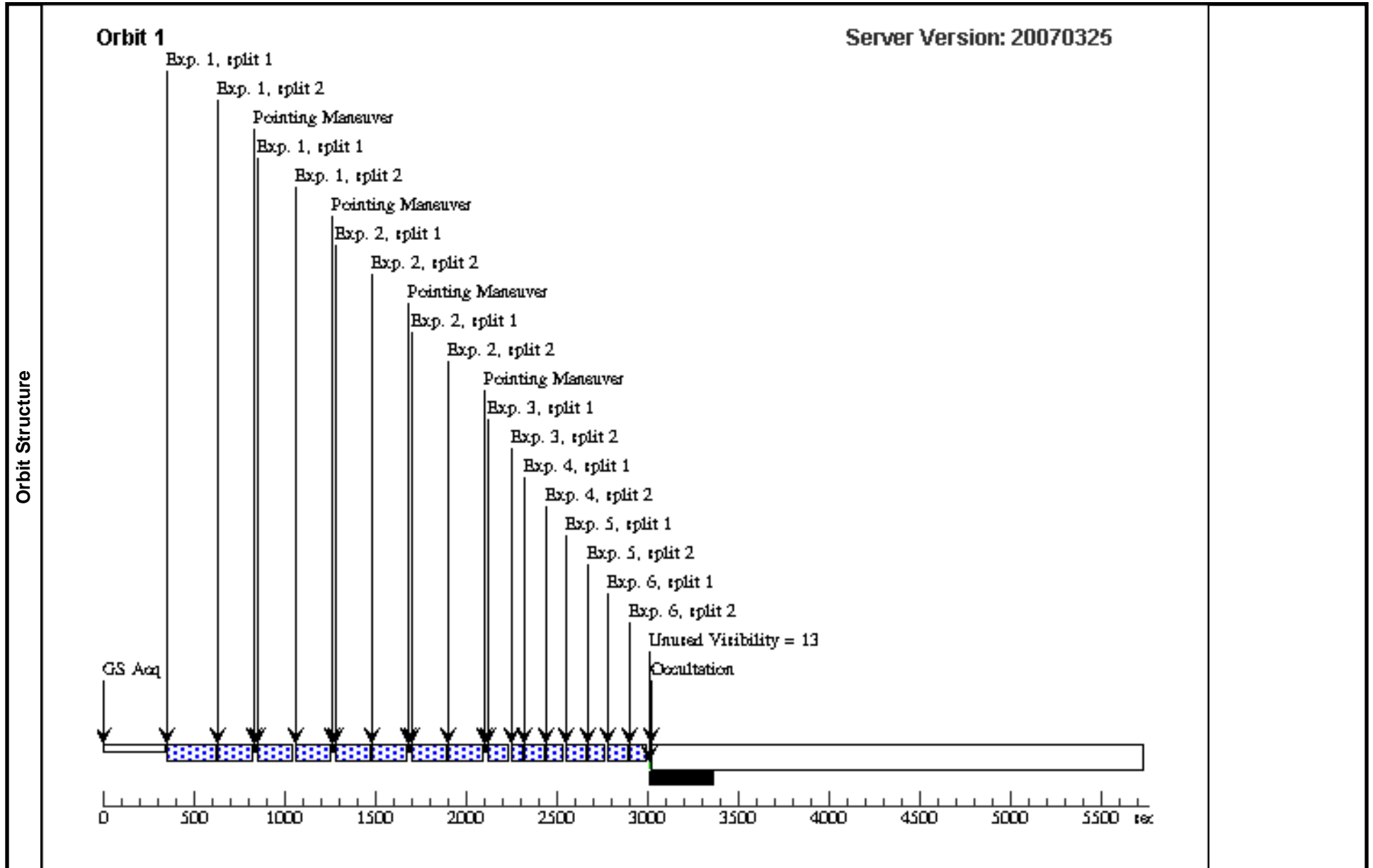
Proposal 10910 - Visit 33 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:31 GMT 2007

| | | | | | | | | | | |
|----------------------|---|--|--|---------------------------------|--------------------------|-----------------------|----------------------|--|--|--------------|
| Visit | Proposal 10910, Visit 33, withdrawn Diagnostic Status: Warning Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; ORIENT 270.0D TO 285.0 D; BETWEEN 08-FEB-2007:00:00:00 AND 15-FEB-2007:00:00:00 Comments: Please schedule as close as possible to Chandra observation on 11 Feb 2007. | | | | | | | | | |
| | Diagnosics (Visit 33) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 33) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 33) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 33) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 33) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 33) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | |
| Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | | |
| | (1) | Pattern Type=ACS-HRC-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.084 Line Spacing= | Coordinate Frame=POS-TARG Pattern Orientation=32.14 Angle Between Sides= Center Pattern=false | | | | | (1), (2) | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 7,0 | Pattern 1-1 (1) | 300.0 Secs | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] |
| | 2 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 4,0 | Pattern 2-2 (1) | 300.0 Secs | |
| | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] | |
| 3 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W | CR-SPLIT=2 | POS TARG 4,0 | | 45.0 Secs | | |
| | | | | | | | | [==>(Split 1)] [==>(Split 2)] | [1] | |

Proposal 10910 - Visit 33 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------------|---------------------|----------------------|----------------|---------------|---------------|----------------|-------------------------|-------|
| | 4 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL0V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | |
| | | | | | | | | | [==>(Split 1)] | [1] |
| | | | | | | | | | [==>(Split 2)] | |
| 5 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL60V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |
| 6 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL120V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |



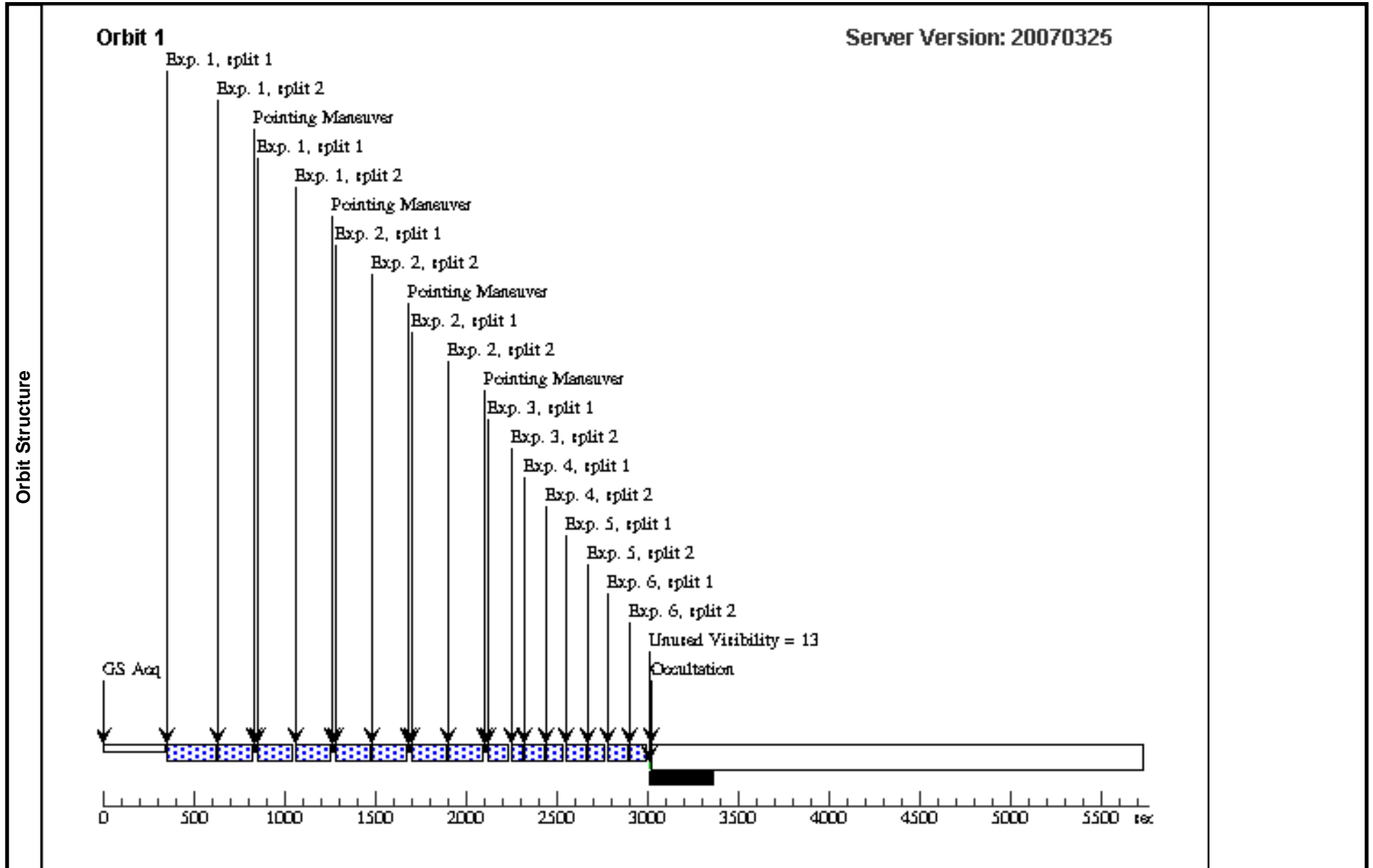
Proposal 10910 - Visit 34 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:32 GMT 2007

| | | | | | | | | | | |
|----------------------|--|--|---|--|----------------------|--------------------------|----------------------|----------------|--------------------------------|---------------------------|
| Visit | Proposal 10910, Visit 34, withdrawn Diagnostic Status: Warning Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; ORIENT 207.0D TO 219.0 D; BETWEEN 24-MAR-2007:00:00:00 AND 31-MAR-2007:00:00:00 Comments: This is ACS visit which should be withdrawn due to ACS failure. It is replaced by visit 44. (Please schedule as close as possible to Chandra observation on 27 Mar 2007.) | | | | | | | | | |
| | Diagnosics (Visit 34) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 34) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 34) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 34) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 34) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 34) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | |
| Patterns | # | Primary Pattern | | | | Secondary Pattern | | | Exposures | |
| | (1) | Pattern Type=ACS-HRC-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.084 Line Spacing= | | Coordinate Frame=POS-TARG Pattern Orientation=32.14 Angle Between Sides= Center Pattern=false | | | | | (1), (2) | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG -2,0 | Pattern 1-1 (1) | 300.0 Secs | [1] | |
| | | | | | | | | | | [==>(Pattern 1, Split 1)] |
| | | | | | | | | | | [==>(Pattern 1, Split 2)] |
| | | | | | | | | | | [==>(Pattern 2, Split 1)] |
| 2 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 1,0 | Pattern 2-2 (1) | 300.0 Secs | [1] | | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] | |
| | | | | | | | | | [==>(Pattern 1, Split 2)] | |
| | | | | | | | | | [==>(Pattern 2, Split 1)] | |
| 3 | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W | CR-SPLIT=2 | POS TARG 1,0 | | 45.0 Secs | [1] | | |
| | | | | | | | | | [==>(Split 1)] | |
| | | | | | | | | [==>(Split 2)] | | |

Proposal 10910 - Visit 34 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------------|---------------------|----------------------|----------------|---------------|---------------|----------------|-------------------------|-------|
| | 4 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL0V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | |
| | | | | | | | | | [==>(Split 1)] | [1] |
| | | | | | | | | | [==>(Split 2)] | |
| 5 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL60V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |
| 6 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F606W POL120V | CR-SPLIT=2 | SAME POS AS 3 | | 110.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |



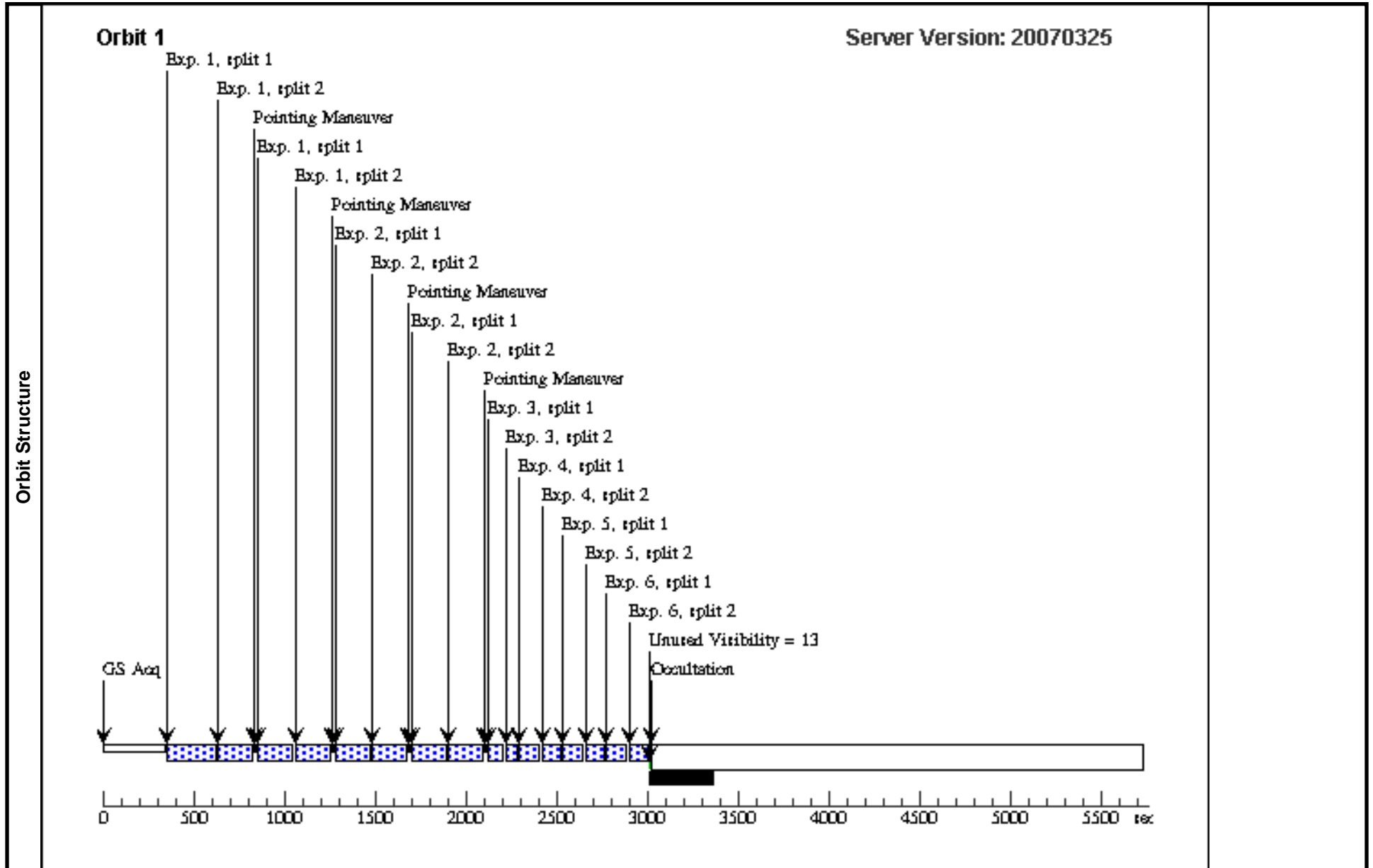
Proposal 10910 - Visit 35 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:33 GMT 2007

| | | | | | | | | | | |
|----------------------|---|--|--|---------------------------------|--------------------------|---------------------|-----------------------|--|--|--------------|
| Visit | Proposal 10910, Visit 35, withdrawn Diagnostic Status: Warning Scientific Instruments: ACS/HRC Special Requirements: PCS MODE FINE; SCHED 100%; ORIENT 147.0D TO 151.0 D; BETWEEN 01-MAY-2007:00:00:00 AND 03-MAY-2007:00:00:00 Comments: Please schedule as close as possible to Chandra observation on 10 May 2007. | | | | | | | | | |
| | Diagnosics (Visit 35) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 35) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 35) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 35) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 35) Warning: SAME POS MAY NOT BE APPROPRIATE (Visit 35) Warning: SAME POS MAY NOT BE APPROPRIATE | | | | | | | | | |
| Patterns | # | Primary Pattern | | | Secondary Pattern | | | Exposures | | |
| | (1) | Pattern Type=ACS-HRC-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.084 Line Spacing= | Coordinate Frame=POS-TARG Pattern Orientation=32.14 Angle Between Sides= Center Pattern=false | | | | | (1), (2) | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | | Fluxes | Miscellaneous | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | | V=16.7 | Reference Frame: GSC1 | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | POS TARG 3,0 | Pattern 1-1 (1) | 300.0 Secs | |
| | | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] |
| | 2 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F250W | CR-SPLIT=2 | | Pattern 2-2 (1) | 300.0 Secs | |
| | | | | | | | | [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)] | [1] | |
| 3 | (1) M87-JET | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W | CR-SPLIT=2 | | | 45.0 Secs | | |
| | | | | | | | | [==>(Split 1)] [==>(Split 2)] | [1] | |

Proposal 10910 - Visit 35 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

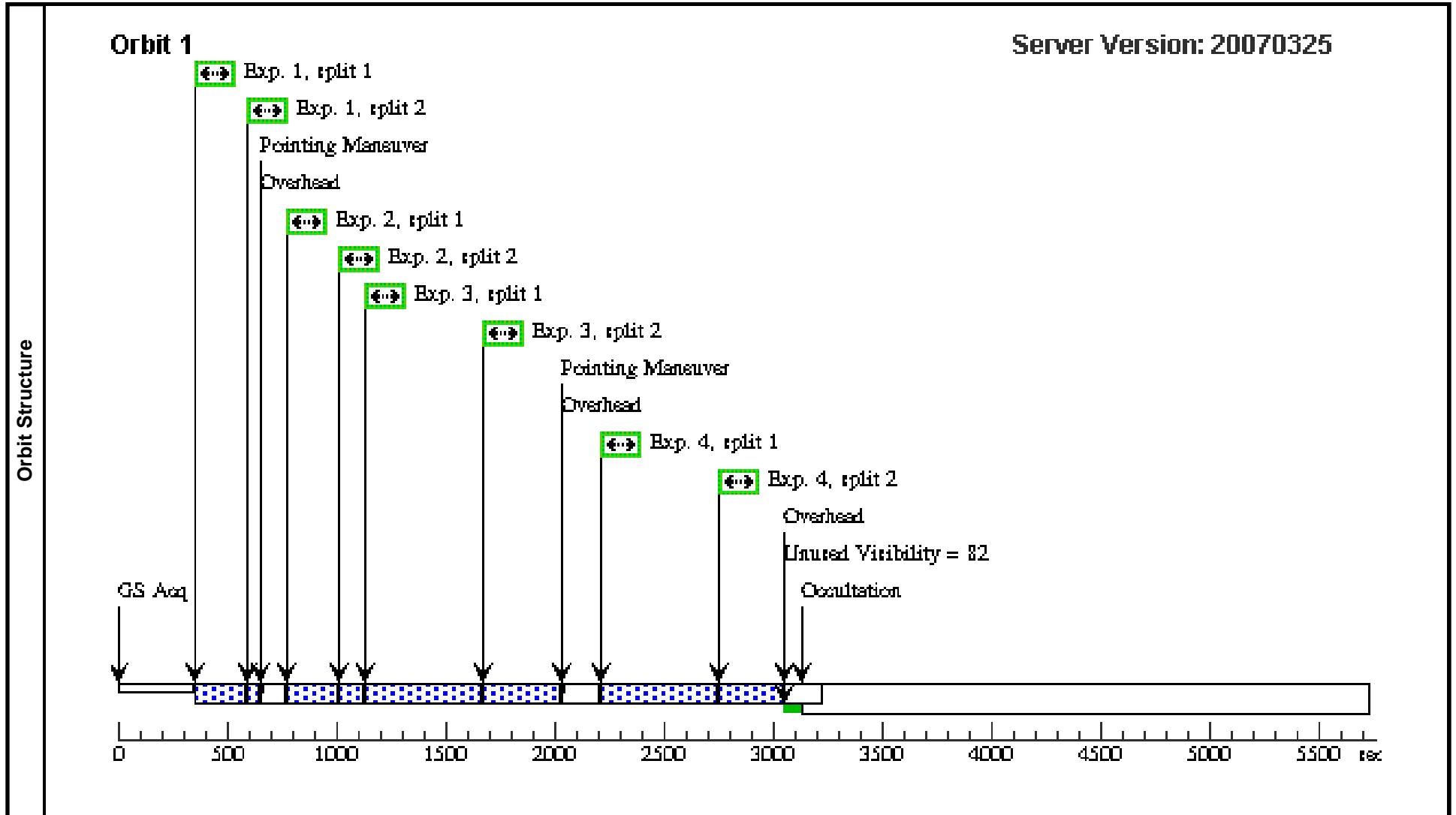
| Exposures (continued) | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
|-----------------------|---|-------------|---------------------|----------------------|-----------------|---------------|---------------|----------------|-------------------------|-------|
| | 4 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W POL0UV | CR-SPLIT=2 | SAME POS AS 3 | | 120.0 Secs | |
| | | | | | | | | | [==>(Split 1)] | [1] |
| | | | | | | | | | [==>(Split 2)] | |
| 5 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W POL60UV | CR-SPLIT=2 | SAME POS AS 3 | | 120.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |
| 6 | | (1) M87-JET | ACS/HRC, ACCUM, HRC | F330W POL120UV | CR-SPLIT=2 | SAME POS AS 3 | | 120.0 Secs | | |
| | | | | | | | | [==>(Split 1)] | [1] | |
| | | | | | | | | [==>(Split 2)] | | |



Proposal 10910 - Visit 43 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:34 GMT 2007

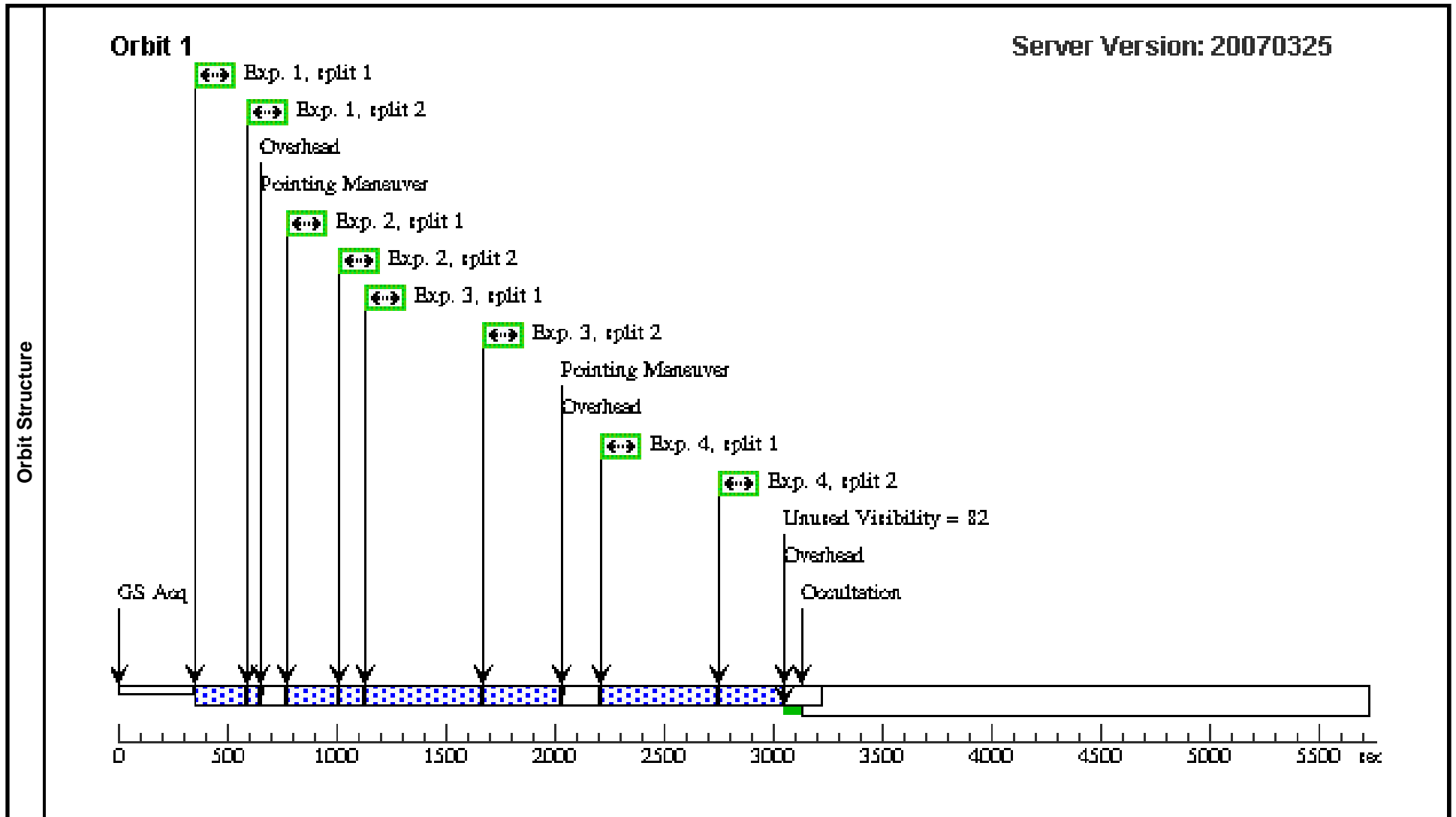
| Visit | <p>Proposal 10910, Visit 43, completed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFPC2</p> <p>Special Requirements: PCS MODE FINE; BETWEEN 01-FEB-2007:00:00:00 AND 02-MAR-2007:00:00:00</p> <p><i>Comments: THIS VISIT REPLACES VISIT 33 AFTER ACS FAILURE. IT IS COORDINATED HST - CHANDRA OBSERVATION.</i></p> <p><i>Please schedule as close as possible to Chandra observations on 12 - 19 Feb 2007.</i></p> <p><i>I have widened the schedule window to help schedulers, but the above dates are still the preferred ones. JB - 1feb2007</i></p> | | | | | | | | | | | | | | | | | | | | |
|------------------|--|---|--------------------------|-----------------------------|-----------------------|------------------------|----------------------|---------------|--|--------------|---|------|--------------------|--------------------------|--------|---------------|-----|---------|---|--|--------|
| | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>M87-JET</td> <td>RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY</td> <td></td> <td>V=16.7</td> <td>Reference Frame: GSC1</td> </tr> </tbody> </table> | | | | | | | | | | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 |
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | | | | | | | | | | | | | |
| (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | | | | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit | | | | | | | | | | | |
| | 1 | (1) M87-JET | WFPC2, IMAGE, PC1 | F606W | CR-SPLIT=0.5 | | | | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] | | | | | | | | | | | |
| | 2 | (1) M87-JET | WFPC2, IMAGE, PC1 | F606W | CR-SPLIT=0.5 | POS TARG 0.25,0.2 5 | | | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] | | | | | | | | | | | |
| | 3 | (1) M87-JET | WFPC2, IMAGE, PC1 | F255W | CR-SPLIT=0.5 | POS TARG 0.25,0.2 5 | | | 600.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] | | | | | | | | | | | |
| | 4 | (1) M87-JET | WFPC2, IMAGE, PC1 | F255W | CR-SPLIT=0.5 | | | | 520.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] | | | | | | | | | | | |



Proposal 10910 - Visit 44 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:34 GMT 2007

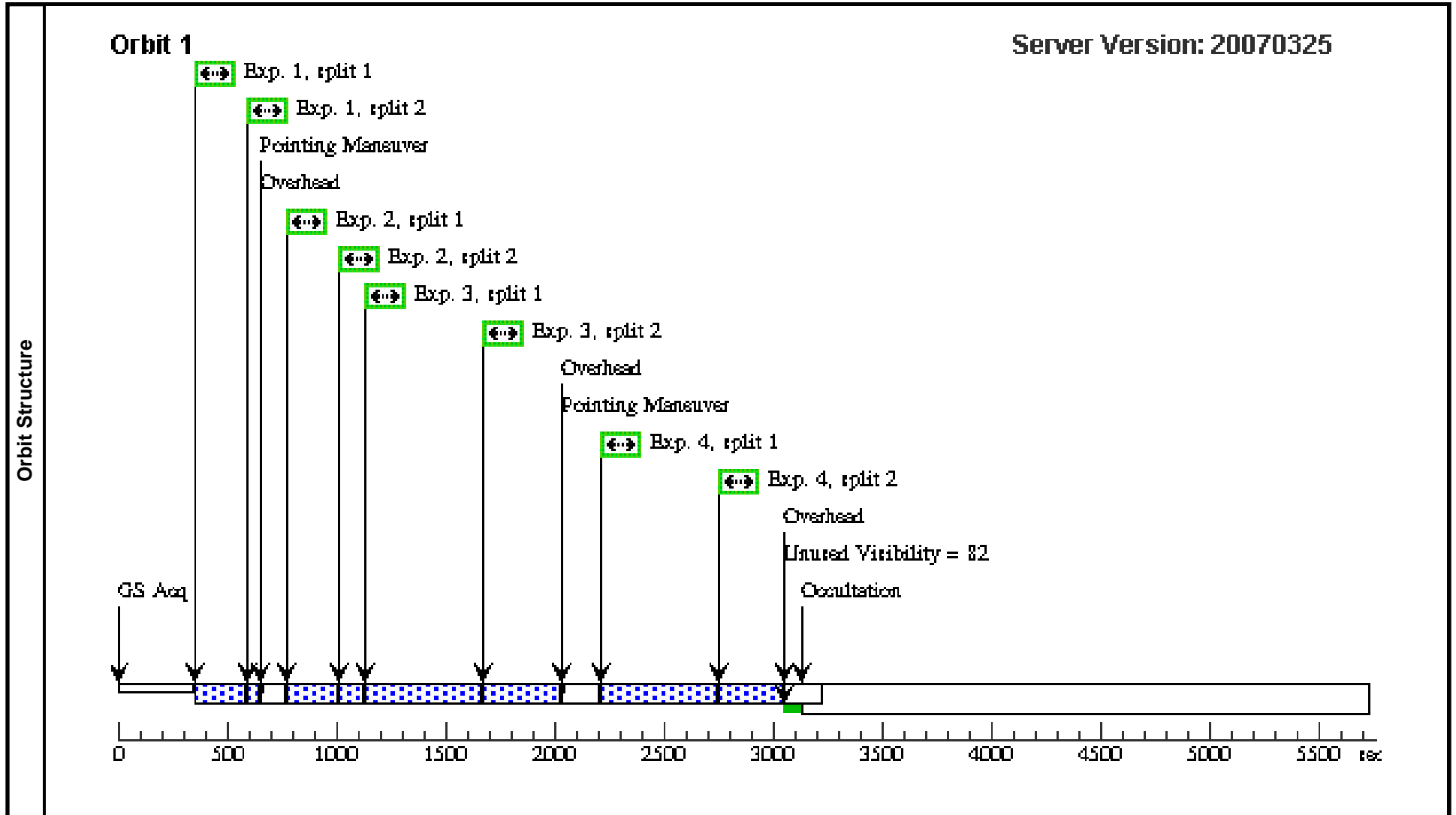
| Visit | <p>Proposal 10910, Visit 44, completed</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: WFPC2</p> <p>Special Requirements: PCS MODE FINE; BETWEEN 24-MAR-2007:00:00:00 AND 07-APR-2007:00:00:00</p> <p><i>Comments: THIS VISIT REPLACES VISIT 34 AFTER ACS FAILURE. IT IS COORDINATED HST - CHANDRA OBSERVATION.</i></p> <p><i>Please schedule as close as possible to Chandra observation on 27 Mar 2007.</i></p> <p><i>I have widened the schedule window to help schedulers, but the above date is still the preferred ones. JB - 28feb2007</i></p> | | | | | | | | | | | | | | | | | | | | |
|------------------|---|---|--------------------------|-----------------------------|-----------------------|------------------------|----------------------|---------------|--|--------------|---|------|--------------------|--------------------------|--------|---------------|-----|---------|---|--|--------|
| | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>M87-JET</td> <td>RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY</td> <td></td> <td>V=16.7</td> <td>Reference Frame: GSC1</td> </tr> </tbody> </table> | | | | | | | | | | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 |
| # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | | | | | | | | | | | | | |
| (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | | | | | | | | | | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit | | | | | | | | | | | |
| | 1 | (1) M87-JET | WFPC2, IMAGE, PC1 | F606W | CR-SPLIT=0.5 | | | | 80.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | |
| | 2 | (1) M87-JET | WFPC2, IMAGE, PC1 | F606W | CR-SPLIT=0.5 | POS TARG 0.25,0.2 5 | | | 80.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | |
| | 3 | (1) M87-JET | WFPC2, IMAGE, PC1 | F255W | CR-SPLIT=0.5 | POS TARG 0.25,0.2 5 | | | 600.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | |
| | 4 | (1) M87-JET | WFPC2, IMAGE, PC1 | F255W | CR-SPLIT=0.5 | | | | 520.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | |



Proposal 10910 - Visit 45 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:35 GMT 2007

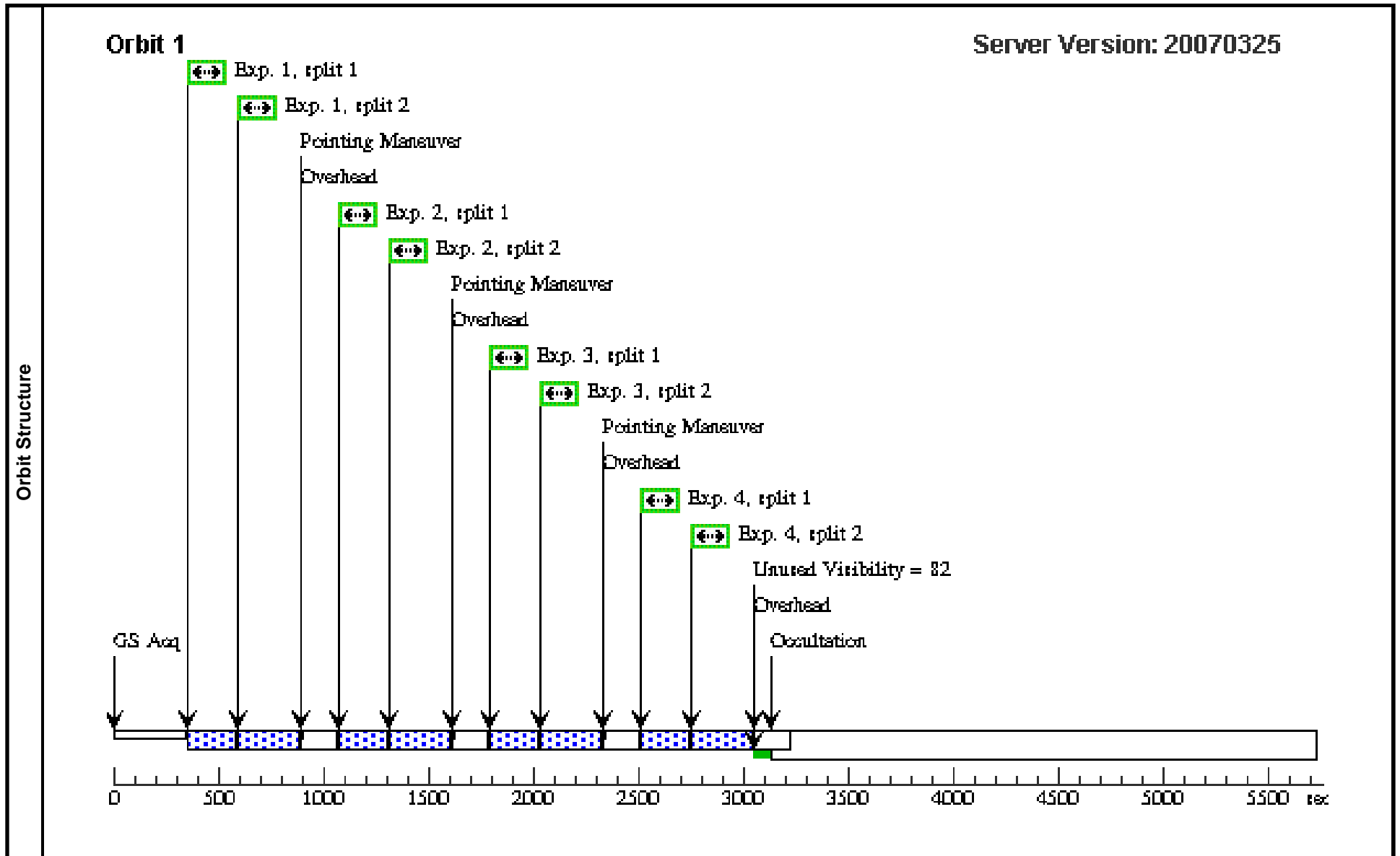
| | | | | | | | | | | |
|------------------|--|--------------|---|-----------------------------|---------------------------------|------------------------|----------------------|---------------|--|--------------|
| Visit | Proposal 10910, Visit 45, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFPC2 Special Requirements: PCS MODE FINE; BETWEEN 01-MAY-2007:00:00:00 AND 10-MAY-2007:00:00:00; GROUP 45,46,47 WITHIN 24.0H <i>Comments: THIS VISIT REPLACES VISIT 35 AFTER ACS FAILURE.</i> <i>IT IS COORDINATED HST - CHANDRA OBSERVATION.</i> <i>Please schedule as close as possible to Chandra observation on 10 May 2007.</i> | | | | | | | | | |
| | Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | |
| (1) | | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (1) M87-JET | WFPC2, IMAGE, PC1 | F606W | CR-SPLIT=0.5 | | | | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 2 | (1) M87-JET | WFPC2, IMAGE, PC1 | F606W | CR-SPLIT=0.5 | POS TARG 0.25,0.2 5 | | | 80.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 3 | (1) M87-JET | WFPC2, IMAGE, PC1 | F255W | CR-SPLIT=0.5 | POS TARG 0.25,0.2 5 | | | 600.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |
| | 4 | (1) M87-JET | WFPC2, IMAGE, PC1 | F255W | CR-SPLIT=0.5 | | | | 520.0 Secs [=>(Split 1)] [=>(Split 2)] | [1] |



Proposal 10910 - Visit 46 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:35 GMT 2007

| | | | | | | | | | | |
|----------------------|--|--------------|---|---------------------------------|---|--------------------------|----------------------|---------------|--|--------------|
| Visit | Proposal 10910, Visit 46, scheduling Diagnostic Status: Warning Scientific Instruments: WFPC2 Special Requirements: PCS MODE FINE <i>Comments: THIS VISIT REPLACES VISIT 35 AFTER ACS FAILURE. IT IS COORDINATED HST - CHANDRA OBSERVATION.</i> <i>Please schedule as close as possible to Chandra observation on 10 May 2007.</i> | | | | | | | | | |
| | (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 46) Warning: EXPOSURE TIME DECREASED FOR WFPC | | | | | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | |
| | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | |
| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit |
| | 1 | (1) M87-JET | WFPC2, IMAGE, PC1 | F814W | CR-SPLIT=0.1358; CR-TOLERANCE= 0.0000 | | | | 302.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] |
| | 2 | (1) M87-JET | WFPC2, IMAGE, PC1 | F814W | CR-SPLIT=0.1358; CR-TOLERANCE= 0.0000 | POS TARG 0.489,0. 249 | | | 302.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] |
| | 3 | (1) M87-JET | WFPC2, IMAGE, PC1 | F814W | CR-SPLIT=0.1358; CR-TOLERANCE= 0.0000 | POS TARG 0.249,0. 498 | | | 302.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] |
| | 4 | (1) M87-JET | WFPC2, IMAGE, PC1 | F814W | CR-SPLIT=0.1358; CR-TOLERANCE= 0.0000 | POS TARG 0.747,0. 747 | | | 302.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] |



Proposal 10910 - Visit 47 - HST / Chandra Monitoring of a Dramatic Flare in the M87 Jet

Mon May 21 20:02:36 GMT 2007

| Visit | Proposal 10910, Visit 47, scheduling Diagnostic Status: Warning Scientific Instruments: WFPC2 Special Requirements: PCS MODE FINE; BETWEEN 01-MAY-2007:00:00:00 AND 10-MAY-2007:00:00:00 <i>Comments: THIS VISIT REPLACES VISIT 35 AFTER ACS FAILURE. IT IS COORDINATED HST - CHANDRA OBSERVATION.</i> <i>Please schedule as close as possible to Chandra observation on 10 May 2007.</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|---|--------------------|---|---|---------------|-------------------|--|--|---|-------|--------|-----------------------|-------------------|-------|---------------------------------------|--|--|--|--|-----|---|-------------|-------------------|-------|---------------------------------------|---|-------------------|--|--|-----|---|-------------|-------------------|-------|---|---|-------------------|--|--|-----|---|-------------|-------------------|-------|---|--|--|--|--|-----|--|--|--|--|--|
| | (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC (Visit 47) Warning: EXPOSURE TIME DECREASED FOR WFPC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Diagnosics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fixed Targets | <table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>M87-JET</td> <td>RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY</td> <td></td> <td>V=16.7</td> <td>Reference Frame: GSC1</td> </tr> </tbody> </table> | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (1) | M87-JET | RA: 12 30 48.8200 (187.7034167d) Dec: +12 23 30.89 (12.39191d) Equinox: J2000 Plate Id: 00IY | | V=16.7 | Reference Frame: GSC1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Exposures | <table border="1"> <thead> <tr> <th>#</th> <th>Label</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1) M87-JET</td> <td>WFPC2, IMAGE, PC1</td> <td>F300W</td> <td>CR-SPLIT=0.435; CR-TOLERANCE=0.000</td> <td></td> <td></td> <td></td> <td>462.0 Secs [==>(Split 1)] [==>(Split 2)]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>(1) M87-JET</td> <td>WFPC2, IMAGE, PC1</td> <td>F300W</td> <td>CR-SPLIT=0.435; CR-TOLERANCE=0.000</td> <td>5</td> <td>POS TARG 0.25,0.2</td> <td></td> <td>462.0 Secs [==>(Split 1)] [==>(Split 2)]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>(1) M87-JET</td> <td>WFPC2, IMAGE, PC1</td> <td>F450W</td> <td>CR-SPLIT=0.2000; CR-TOLERANCE=0.0000</td> <td>5</td> <td>POS TARG 0.25,0.2</td> <td></td> <td>202.0 Secs [==>(Split 1)] [==>(Split 2)]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>(1) M87-JET</td> <td>WFPC2, IMAGE, PC1</td> <td>F450W</td> <td>CR-SPLIT=0.2000; CR-TOLERANCE=0.0000</td> <td></td> <td></td> <td></td> <td>202.0 Secs [==>(Split 1)] [==>(Split 2)]</td> <td>[1]</td> </tr> </tbody> </table> | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit | 1 | (1) M87-JET | WFPC2, IMAGE, PC1 | F300W | CR-SPLIT=0.435; CR-TOLERANCE=0.000 | | | | 462.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | 2 | (1) M87-JET | WFPC2, IMAGE, PC1 | F300W | CR-SPLIT=0.435; CR-TOLERANCE=0.000 | 5 | POS TARG 0.25,0.2 | | 462.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | 3 | (1) M87-JET | WFPC2, IMAGE, PC1 | F450W | CR-SPLIT=0.2000; CR-TOLERANCE=0.0000 | 5 | POS TARG 0.25,0.2 | | 202.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | 4 | (1) M87-JET | WFPC2, IMAGE, PC1 | F450W | CR-SPLIT=0.2000; CR-TOLERANCE=0.0000 | | | | 202.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | |
| | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time/[Actual Dur.] | Orbit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | (1) M87-JET | WFPC2, IMAGE, PC1 | F300W | CR-SPLIT=0.435; CR-TOLERANCE=0.000 | | | | 462.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | (1) M87-JET | WFPC2, IMAGE, PC1 | F300W | CR-SPLIT=0.435; CR-TOLERANCE=0.000 | 5 | POS TARG 0.25,0.2 | | 462.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | (1) M87-JET | WFPC2, IMAGE, PC1 | F450W | CR-SPLIT=0.2000; CR-TOLERANCE=0.0000 | 5 | POS TARG 0.25,0.2 | | 202.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | (1) M87-JET | WFPC2, IMAGE, PC1 | F450W | CR-SPLIT=0.2000; CR-TOLERANCE=0.0000 | | | | 202.0 Secs [==>(Split 1)] [==>(Split 2)] | [1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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