10852 - Coronagraphic Polarimetry with NICMOS: Dust grain evolution in T Tauri stars

Cycle: 15, Proposal Category: GO

(Availability Mode: AVAILABLE)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
10	(1) GM-AUR	NIC2	1	30-Apr-2008 21:01:30.0	yes
11	(1) GM-AUR	NIC2	1	30-Apr-2008 21:01:37.0	yes
20	(2) SZ-82	NIC2	1	30-Apr-2008 21:01:42.0	yes
21	(2) SZ-82	NIC2	1	30-Apr-2008 21:01:48.0	yes
30	(8) HD29459	NIC2	1	30-Apr-2008 21:01:53.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
31	(3) GO-TAU	NIC2	1	30-Apr-2008 21:02:00.0	yes
40	(4) DOAR-25	NIC2	1	30-Apr-2008 21:02:08.0	yes
41	(4) DOAR-25	NIC2	1	30-Apr-2008 21:02:13.0	yes
50	(5) DM-TAU	NIC2	1	30-Apr-2008 21:02:18.0	yes
51	(5) DM-TAU	NIC2	1	30-Apr-2008 21:02:23.0	yes
60	(6) HIP21556	NIC2	1	30-Apr-2008 21:02:28.0	yes
61	(6) HIP21556	NIC2	1	30-Apr-2008 21:02:34.0	yes
70	(7) HD42807	NIC2	1	30-Apr-2008 21:02:40.0	yes
71	(7) HD42807	NIC2	1	30-Apr-2008 21:02:45.0	yes
91	(4) DOAR-25	NIC2	1	30-Apr-2008 21:02:50.0	yes
A1	(2) SZ-82	NIC2	1	30-Apr-2008 21:02:54.0	yes

16 Total Orbits Used

ABSTRACT

The formation of planetary systems is intimately linked to the dust population in circumstellar disks, thus understanding dust grain evolution is essential to advancing our understanding of how planets form. By combining (1) the coronagraphic polarimetry capabilities of NICMOS, (2) powerful 3-D radiative transfer codes, and (3) observations of objects known to span the Class II-III stellar evolutionary phases, we will gain crucial insight into dust grain growth. By observing objects representative of a known evolutionary sequence of YSOs, we will be able to investigate how the dust population evolves in size and distribution during the crucial transition from a star+disk system to a system containing planetesimals. When combine with our previous study on dust grain evolution in the Class I-II phase, the proposed study will help to establish the fundamental time scales for the depletion of ISM-like grains: the first step in understanding the transformation from small submicron sized dust grains, to large millimeter sized grains, and untimely to planetary bodies.

OBSERVING DESCRIPTION

We are observing 7 targets (5 science targets and two calibration targets) using NICMOS (camera 2) coronagraphic polarimetry. Each target is observed in two single-orbit visits. For each target, the first visit of each visit pair carries one or more allowable absolute orientation ranges (listed in order of preference). The second visit in each visit pair is linked with an ORIENT FROM requirement to the first visit in each pair. We number the visit pairs as (10,11),(20,21)...(70,71). The first digit of the visit number corresponds to the target number in the target list.

The observing strategy (definition of the Visit structures and exposures within) is very similar for all visit pairs, differing only in (a) Orientation requirements, (b) target acquisition filters and exposure times, and (c) multiaccum sample-sequences used for post-coronagraphic (direct) polarimetric imaging.

VISIT STRUCTURE (EXPOSURES)

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Each visit begins with a coronagraphic target acquisition (ACQ) exposure (exp #1). All targets had been successfully acquired for coronagraphic observations previously (in either GO/10177 or GTO/7233). Our target co-ordinates are predicated on those prior observations, as are our exposure times for the ACQ mode exposures and are consistent with ICRS coordinates after applying proper motion corrections from the epochs of the earlier NICMOS observations to epoch 2000.0. Our ACQ exposure times are designed to reach an exposure depth of 77,000 electrons in the central pixel of the PSF for the filter employed. Except for our (brighter) calibration targets we acquire all five science targets (10 acquisitions) with the F160W filter.

After target acquisition and the re-centering slew, we take three sets of (POL0, POL120, POL240) images, sequentially. Rather than repeating each polarizer three times then moving on to the next polarizer, we cycle through the POL filter sets in the same order three times. This strategy provides for some mitigation of the potential effects of image persistence decay and PSF instability during data reduction. We recognize that repetitively operating the filter wheel mechanism incurs a small amount of additional overhead, however, this is an acceptable trade given the possibilities for

higher level uncorrectable instrumental systematics using the alternate method. In ALL cases, for ALL targets (including our calibration targets) we use STEP64/NSAMP=12 multiaccum sampling (256s integration time per multiaccum).

For our Disk Targets (Visits 10-51), following the deep coronagraphic exposure we take two shorter F110W coronagraphic multaccum exposures. Our first epoch target fields indicate the presence of *candidate* co-moving companions. We will test this via differential proper motion measures between the earlier H-band and newly obtained POL coronagraphic images. If a common proper motion is established, the F110W images will also provide color measurements of the candidate companions, and help to establish their physical nature.

For our unpolarized standard stars (Visits 60-71), following the deep coronagraphic exposure we slew that target out of the hole and take a single set of POL0, POL120, and POL240 direct images (at the coronagraphic focus setting). These are relatively short exposures, but are exposed deeply enough to allow us to investigate with direct imaging, instrumental polarimetric artifacts which might be induced in the very near spatial region surrounding the coronagraphic hole.

VISIT LEVEL ORIENTATION SPECIFICATIONS
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Without regard to "schedulability", we describe the Orientation requirements for the science targets which would optimize the science return. We have used these criteria to define both the absolute and relative Orientation requirements for all visits. In some cases, the optimal orientations were found to be non-schedulable. In those cases we individually considered the possible trades and assigned SCHEDULABLE orientations (based upon the APT 15.2.2 Visit Planner). When possible (most cases) we provide multiple absolute orientation ranges for the first visit in each visit pair. In most cases we comment on the possibilities for alternate differential (Orient From) requirements (which cannot be entered via APT 15.2.2) which may be implemented by our Program Coordinator if needed.

SCIENCE TARGETS (1-5): We are polarimetrically observing scattered light from inclined circumstellar disks about T-Tauri stars. All have previously been observed with broadband (F110W) NICMOS coronagraphy. The orientations, morphologies, and spatial extent are well established

for all of the disks. Below we describe both the rational for the given preferred absolute orientation ranges on the first visit of each visit-pair, and give the allowable relative (orient from) ranges on the second visit of each visit pair. In some cases the preferred (best) orientations are not actually achievable (as informed by APT) in 2GM.

"OPTIMUM" ABSOLUTE ORIENTATIONS (1st Visit in pairs):
The NICMOS coronagraphic obscuration is asymmetrically placed in the NIC2 aperture, near one "corner" of the field of view. Specifically, the coronagraphic obscuration is at (X,Y)[SIAF] = (5.5", 3.3") from the (-X,+Y) edge of the FOV. If there were no field dependent coronagraphic polarimetric artifacts, for the first visit, we would ideally orient the disk MAJOR axis (where the disk is visible to a larger angular extent) along the image X[SIAF] axis. This would place the disk minor axis along the image Y axis, with the star 3.3" from the edge of the detector in the Y direction. Such an orientation provides imaging of the four symmetric sectors of the disk with minimum interference from the HST+NICMOS diffraction spikes.

The preferred orientation provides the optimum information on: (a) the dark disk mid-plane between the brighter upper and lower scattering lobes, in the direction of forward scattering along the disk minor axis, (b) the back-scattered light from the upper lobe of the disk, and (c) the disk ansae located on and near the major axes. Understanding (a) is critical to investigating the (possible) segregation of grain populations with scale height above (and below) the mid-plane. Taken together, (a-c) enable us to study the grain polarization and scattering efficiencies with illumination angle, which constrains their physical properties. Because the disk above (and below) the mid-plane are brighter on the minor axis (toward the direction of their revealed mid-planes), the disk there is seen with higher SNR, and to a larger radial extent when compared to the opposite direction. Hence, we would preferentially orient the disks with the observable mid-plane azimuthally straddling the Y[SIAF] axis. The opposite (180 degree different) orientation should also be "acceptable", given the angular extent of these disks as imaged earlier with shorter wavelength broadband coronagraphy - but in this program, we are taking significantly deeper exposures than our earlier observations, and therefore observing with the opposite orientation risks truncating part of disk in the forward scattering direction by the edge of array.

Given that the ideal orientations may not be achievable, we have determined that the disks can be oriented (in the first of each visit pairs) with the MINOR axis on the image horizontal (X axis), although this is much less preferred. In that case, the outer portion (r >3.3") of the disk major axis (which would be along the Y axis, and therefore closer to the edge of the FOV) would be truncated by the array edge. With the minor axis oriented

along the X-axis, we potentially risk loosing information at larger radii, which may impact our ability to analyze any asymmetries in the azimuthal direction at the disk ansae; however, there is a low expectation for observing such asymmetries given the earlier broadband imaging.

ARTIFACT AVOIDANCE (1st Visit in pairs):
The above is for the ideal case, however, our NICMOS coronagraphic polarization calibration program revealed the existence of an instrumental polarization artifact which appears ~3.2" from the occulted target at an SIAF position angle of ~177 deg CCW from image +Y axis (i.e., nearly "below" the obscuration, slightly toward the image -X direction). The polarization artifact has an angular extent ~11 deg. Therefore, for the first visits, we specify orientations which avoid placing the both the major and minor axes directly through this artifact. To account for this artifact, we orient the disk axes so they are "tilted" w.r.t. the SIAF axes, at a minimum of 8 deg CCW in SIAF. We prefer that the incremental rotation to compensate for the polarization artifact be as small as possible (hence we have provided for rotational parity), but also recognize the difficulties in finding suitable scheduling windows (which APT does not model with high fidelity), and are allowing for a tolerance in the absolute orientation up to 20 degrees. Thus, the absolute orientations provided allow for a rotation of the disk axes from 8 to 28 degrees CCW from the SIAF axes.

DERIVED ORIENTATION RANGE REQUIREMENTS:
For the first visit in each visit pair we thus provide four orientation ranges which typically differing by 90 degrees (although all four are not always achievable due to scheduling constraints), but note that not all have equal preference. We provide all four recognizing in recognition of the difficulties often encountered in observation scheduling. The orientations are given in order of preference in each Visit definition, should more than one scheduling window be found.

SPECIFICALLY, in the Visits, given:

PA_MINOR_FORWARD = Position angle of the minor axis bifurcating the disk mid-plane (forward scattering direction)

AND Absolute Orientation Tolerance: 0 to 20 degrees from Preferential.

Then, the orientation ranges (in SIAF) in order of preference, are as follows (unless otherwise stated in Visit level comments):

SIAF_RANGE (CCW from SIAF +Y axis) to place PA_MINOR_FORWARD:
(1) 188 to 208 deg CCW
(2,3) 98 to 118 deg *OR* 278 to 298 deg
(4) 8 to 28
Note: SIAF orientation ranges (2) and (3) have equal preferential weight.

We then compute, for each target, given its PA_MINOR_FORWARD angle as measured from our earlier epoch NICMOS images:

ABSOLUTE_ORIENT_RANGE =
360 mod(PA_MINOR_FORWARD + SIAF_RANGE +APER_REF)

where APER_REF == Aperture Reference angle (NIC2) = 224.5 degrees

RELATIVE ORIENTATIONS (2nd Visit of the visit pairs):
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Because we are taking polarimetric observations, the second visit of each visit pair should ideally: (a) have the target "rotated" into a different quadrant of the array, i.e., an orientation differing in absolute value by at least 90 degrees w.r.t to the first visit, and (b) not be near an antipodal angle (i.e., not too close to 180 degrees apart). Additional preferences are to (c) maximize the area of the disk to be observed without corruption (degradation) by the HST diffraction spikes when combining the two visits and (d) sample in the 2nd visit the area which might be degraded by the artifact discussed above.

For the ideal case, the second visit would be differentially oriented 135 deg or 225 deg RELATIVE TO THE FIRST VISIT (either would equally acceptable) to maximize the azimuthal area sampled using both visits. However, given the polarimetric artifact, doing so would rotate part of the region of the disk affected by the artifact in the 1st visit onto a diffraction spike in the 2nd visit. To avoid this, the ORIENT FROM angle in the first

case should not exceed 125 deg. In order to assure sufficient azimuthal sampling (such that at the full disk is unaffected by diffraction spikes in at least one of the two visits) the ORIENT FROM should not be less than 120 (90 + 30) degrees. This puts a fairly restrictive ORIENT FROM range of 120 to 125 on the second visit. The second possible orient range is correspondingly 210 to 215 deg. Either ORIENT FROM is equally acceptable. Other constraints appear when scheduling has proved impossible.

VISIT PAIR ORIENT/ORIENT-FROM CONSTRAINTS:
Whenever possible, we have provided (up to) FOUR possible ORIENTATION RANGES for each target (differing by 90 degrees, each with a tolerance of 0 to 20 degrees), each constrained by TWO linked ORIENT FROM requirements. Thus, their are can be up to EIGHT possible combinations of orientations which would be acceptable.

We note that the APT front-end S/W, however only allows for a single Orient From specification on a linked visit. Hence, while we supply only one input as a scheduling requirement, our proposal program coordinator may freely select between a (120 to 125) or (210 to 215) degree Orient From requirement.

(As a final note, we have found that APT expects input of ORIENT FROM angles only in the range of -180 to + 180 degrees, so the specification of the 210 to 215 degree range is input as -150 to -145 deg.)

PSF/Polarimetric Calibration Targets
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Our PSF/Polarimetric calibration targets carry NO absolute orientation requirements on their first visits, but DO carry the same allowable ORIENT FROM requirements on their second visits as the Science targets.

TIMING LINKAGES
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There are *NO* timing linkages between any of the visits. However, *IF* possible, i.e., if multiple scheduling windows exist, we would REQUEST the execution of at least one of our PSF/polarimetric calibration target visits as early in Cycle 15 as possible. This will allow us to evaluate the effectiveness of our calibration strategy when the first science data imagery are acquired, and if necessary revise our strategy accordingly.

REAL TIME JUSTIFICATION

We have NO realtime requirements.

CALIBRATION JUSTIFICATION

Two of our targets (4 Visits, #60,61 and 70,71) are designed to obtain high SNR polarimetric observations of unpolarized standard stars. The need (justification) for this was addressed in our Phase 1 proposal, and 4 orbits were granted to obtain those calibration data. These observations are taken using only AVAILABLE instrument and spacecraft capabilities, and need NO special resources from STScI to obtain or provide the data. I.e., the observations are conducted in a manner identical to those which would be obtained for science targets.

ADDITIONAL COMMENTS

1. We are investigating the POSSIBILITY of replacing one of our unpolarized standard stars with a calibrator of larger H-K color index. Identifying such beasts, particularly of sufficient brightness, has thus far yielded no suitable candidates. We wish to retain that "option" of substituting one of our calibration targets, until such an option would be precluded by intruding into the development of an integrated scheduling plan. As this is a calibration observation (as identified in our Phase I proposal to the TAC) we believe such a substitution may be authorized by the programs Contact Scientist (or Program Coordinator) without a formal request to the TTRB.

2. Our exposure sequences in each visibility period (visit) are wrapped in a SEQ-NON INT requirement. As implied by this requirement: (a) the order of execution should not be permuted, as the ordering of exposures has been designed to permit the identification, and mitigation, of image persistence, (b) the Visit should not be split into two visibility periods -- all exposures MUST be obtained under a single guide star and coronagraphic target acquisition within a single unocculted visibility period.

3. IF possible we request SAA un-impacted orbits.

Visit

Proposal 10852, Visit 10, completed Thu May 01 01:02:58 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: ORIENT 209.0D TO 213.0 D

Comments: GM AUR. First of two visits.
FIELD ORIENTATION REQUIREMENTS.
PA Disk minor axis in forward direction = 328.5 Degrees.
ORIENT RANGES IN ORDER OF PREFERENCE: (21 deg to 41 deg), (291 deg to 311 deg), (111 deg to 131 deg), (211 deg to 221 deg)
NONE of the preferential orientation ranges are schedulable with EITHER of the two preferential Orient From ranges for Visit 11
ORIENT RANGES SCHEDUALABLE WITHOUT LINKS: 199.74 deg to 272.94 deg
From this we specify: ORIENTATION = 211 deg for Visit 10 and (211 deg + 60 deg = 271 deg) for Visit 11

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GM-AUR	RA: 04 55 10.9800 (73.7957500d) Dec: +30 21 59.40 (30.36650d) Equinox: J2000		V=12.3+/-0.5 J=9.341, K=8.28, H = 8.603, K = 8.283, H-K = +0.32	Reference Frame: ICRS

Comments: P.A. Disk Minor axis in direction of forward scattering = 328.5 +/- 2.5 deg (Schneider et al 2003)

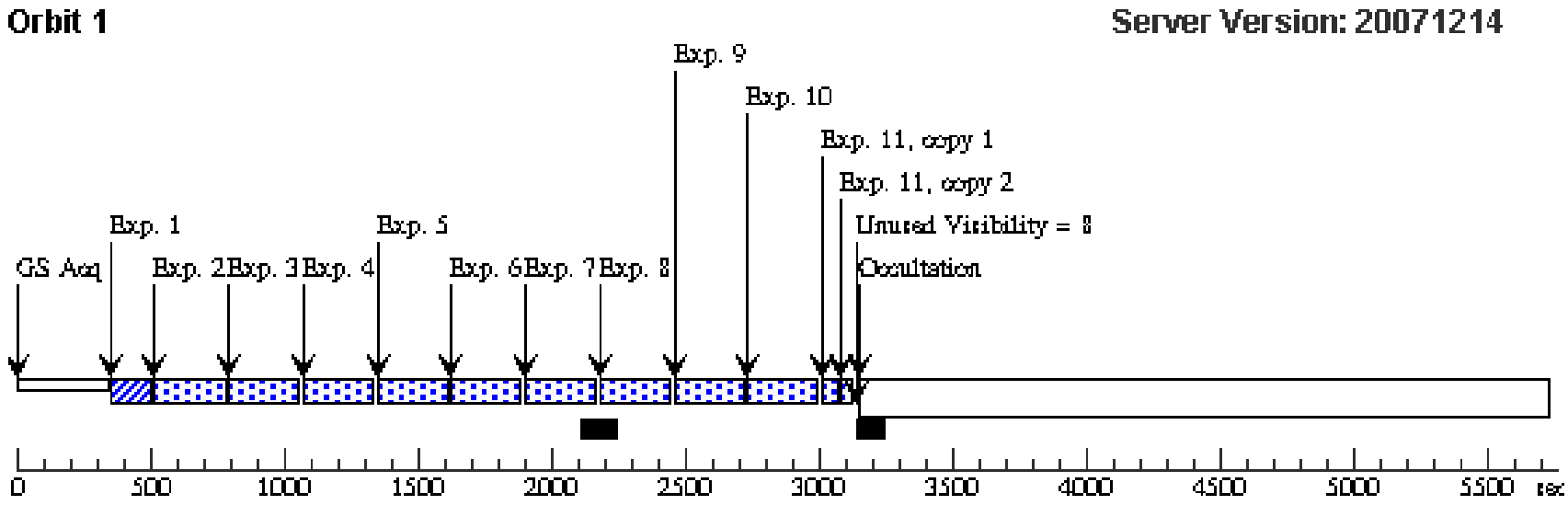
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) GM-AUR	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.8 Secs *[==>]*	 ***[1]***
Comments: Verify with archive image									
2		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
8		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
9		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
10		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).									
11		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	***[1]***

Orbit Structure



Visit

Proposal 10852, Visit 11, completed Thu May 01 01:02:59 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: ORIENT 58.0D TO 62.0D FROM 10

Comments: GM AUR. Second of two visits.
Non-optimal diffrential orientation range specified due to lack of schedualability.
Orientation +60 deg (+/-2) from Visit 10. Use +60 deg if possible.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GM-AUR	RA: 04 55 10.9800 (73.7957500d) Dec: +30 21 59.40 (30.36650d) Equinox: J2000		V=12.3+/-0.5 J=9.341, K=8.28, H = 8.603, K = 8.283, H-K = +0.32	Reference Frame: ICRS

Comments: P.A. Disk Minor axis in direction of forward scattering = 328.5 +/- 2.5 deg (Schneider et al 2003)

Exposures

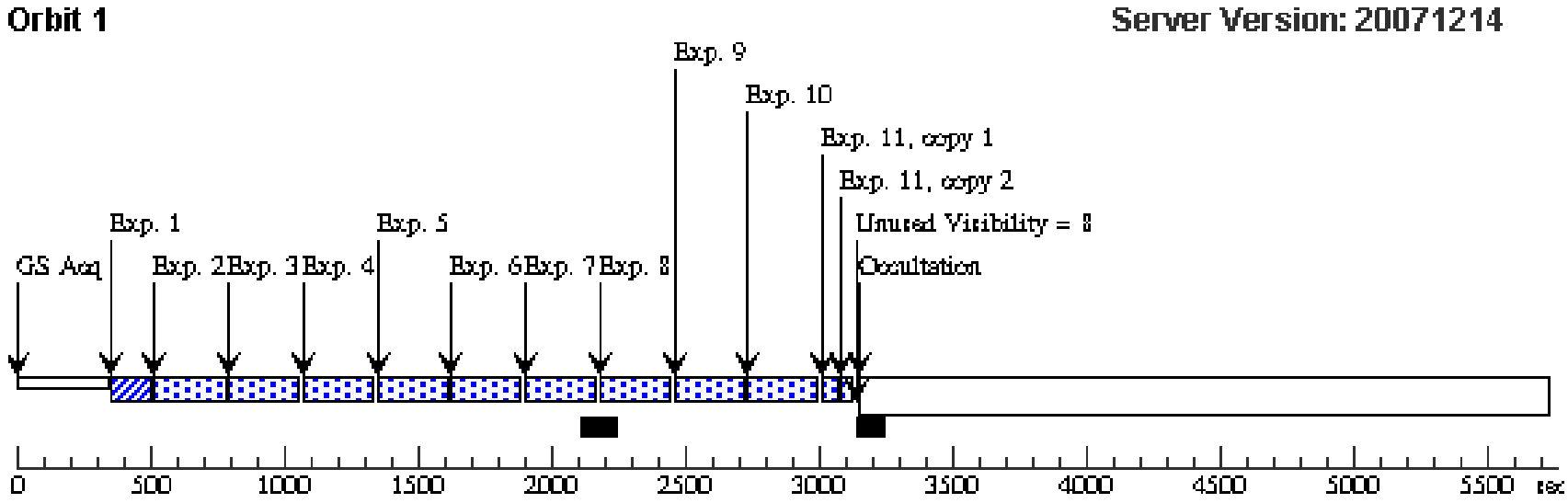
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) GM-AUR	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.8 Secs *[==>]*	 ***[1]***
Comments: Verify with archive image									
2		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
8		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
9		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
10		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(1) GM-AUR	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).

Orbit Structure



Visit

Proposal 10852, Visit 20, completed Thu May 01 01:03:00 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 282.5D TO 302.5 D; ORIENT 192.5D TO 212.5 D; ORIENT 12.5D TO 32.5 D; ORIENT 102.5D TO 122.5 D

Comments: SZ-82. First of two visits.
FIELD ORIENTATION REQUIREMENTS.
PA Disk minor axis in forward direction = 230 Degrees.
ORIENT RANGES IN ORDER OF PREFERENCE: (282.5 deg to 302.5 deg), (192.5 deg to 212.5 deg), (12.5 deg to 32.5 deg), (102.5 deg to 122.5 deg)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SZ-82	RA: 15 56 9.2300 (239.0384583d) Dec: -37 56 5.90 (-37.93497d) Equinox: J2000	Proper Motion RA: -0.004789s/yr Proper Motion Dec: -0.04997"/yr Epoch of Position: 2000.0	V=11.57 J=8.783, H= 8.089, K=7.739, H-K = +0.35	Reference Frame: ICRS

Comments: GSC 07838-00962, HIP 78053, IRAS 15528-3747, IM Lup. Weak-line T Tauri star. Scattered Light disk imaged with NICMOS F160W in GO/10177.

Exposures

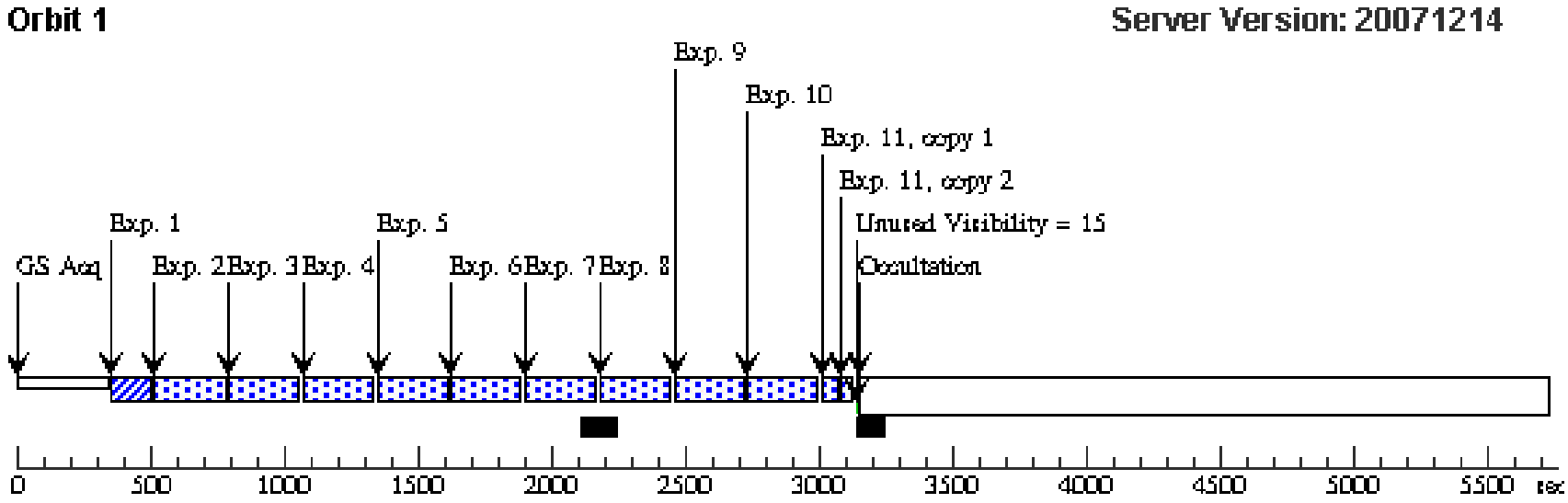
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) SZ-82	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.237 Secs *[==>]*	 ***[1]***
Comments: H = 8.1, M0V. Goal = 77, 000 e-. F160W @ 0.237S (79, 500e-)									
2		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
8		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
9		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
10		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).

Orbit Structure



Visit

Proposal 10852, Visit 21, completed Thu May 01 01:03:00 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT -150.0D TO -145.0D FROM 20

Comments: SZ-82. Second of two visits.
We specify relative orient of +120 to 125 deg from Visit 20, which APT hows as schedulable.
A relative orient of -150 deg to -145 deg from Visit 20 is also acceptable.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SZ-82	RA: 15 56 9.2300 (239.0384583d) Dec: -37 56 5.90 (-37.93497d) Equinox: J2000	Proper Motion RA: -0.004789s/yr Proper Motion Dec: -0.04997"/yr Epoch of Position: 2000.0	V=11.57 J=8.783, H= 8.089, K=7.739, H-K = +0.35	Reference Frame: ICRS

Comments: GSC 07838-00962, HIP 78053, IRAS 15528-3747, IM Lup. Weak-line T Tauri star. Scattered Light disk imaged with NICMOS F160W in GO/10177.

Exposures

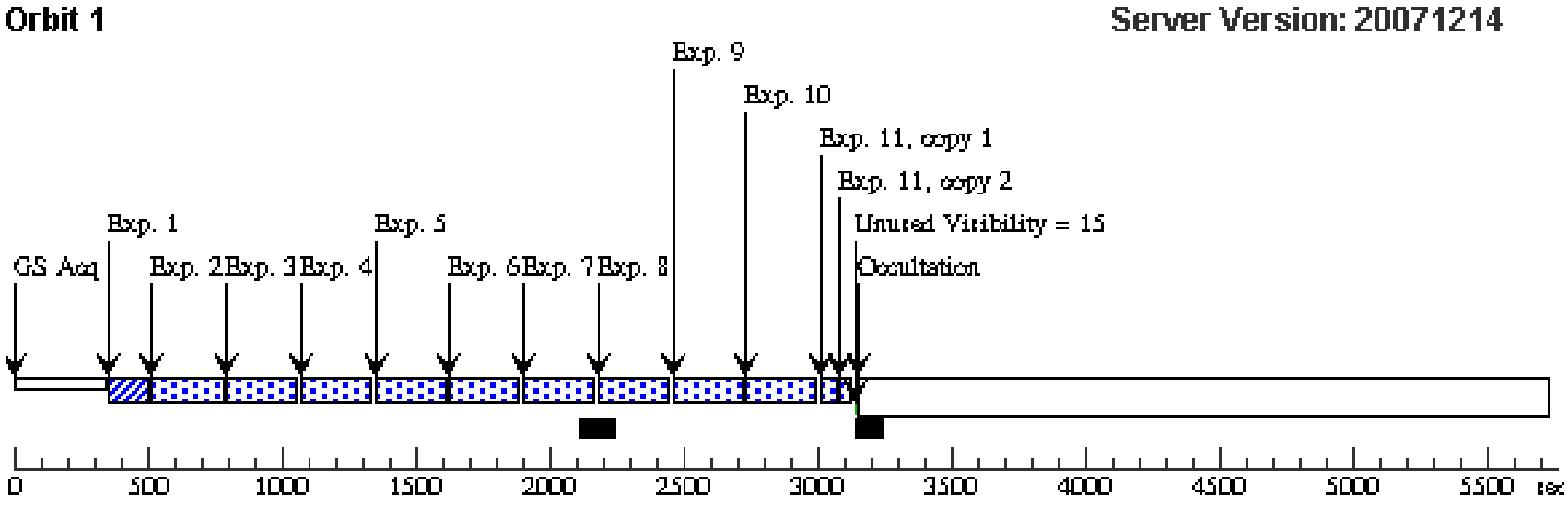
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) SZ-82	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.237 Secs *[==>]*	 ***[1]***
Comments: H = 8.1, M0V. Goal = 77, 000 e-. F160W @ 0.237S (79, 500e-)									
2		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
8		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
9		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).

Orbit Structure



Visit

Proposal 10852, Visit 30, completed Thu May 01 01:03:01 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE

Comments: This visit uses PSF star HD29459.
This visit MUST immediately preceed the single orbit visit of GO Tau.
We intend to use the two-FGS acquisition of this PSF star, which is VERY close in the sky to GO Tau to "tweak up" the gyro bias errors ahead of doing the GO Tau observation - as that can only be scheduled with single FGS guiding -- in order to minimize the (otherwise) anticipated single FGS "roll drift".

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	HD29459	RA: 04 39 23.1483 (69.8464512d)	Proper Motion RA: 0.001239s/yr	V=(?)	Reference Frame: ICRS
		Dec: +25 13 5.79 (25.21828d)	Proper Motion Dec:	J=5.740,	
		Equinox: J2000	Parallax: 0.00897"	H=5.716,	
			Epoch of Position: 2000.0	K=5.656	

Comments: PSF Star. Spectrum = A5V.
To be observed in orbit IMMEDATELY before GO Tau visit which can be done with only single FGS guiding, so as to twak up the gyro biases to minimize the 2-gyro roll drift with single FGS gudiding.
PM_RA in TIME is +16.82 mas/yr.

Exposures

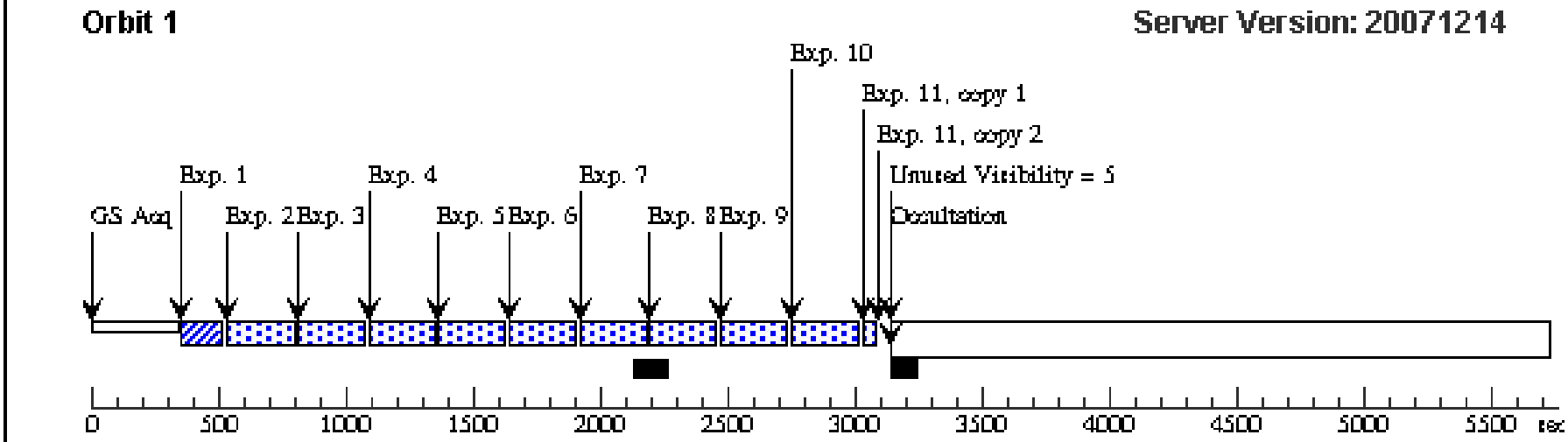
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(8) HD29459	NIC2, ACQ, NIC2-ACQ	F187N		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.932 Secs	
								[==>]	***[1]***
Comments: H = 5.719, A5V. Goal = 77, 000 e-. F160W @ 0.932S (77,000 e-)									
2		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
8		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
9		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
10		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(8) HD29459	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP8; NSAMP=10		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 40s, Repeat twice (total integration time = 80s).

Orbit Structure



Visit

Proposal 10852, Visit 31, completed Thu May 01 01:03:02 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; AFTER 30 BY 0.8 Orbits TO 1.2 Orbits

Comments: GO Tau. Visit will be using a single star for guiding.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	GO-TAU	RA: 04 43 3.0900 (70.7628750d) Dec: +25 20 18.60 (25.33850d) Equinox: J2000		V=15.38 J=10.712, H= 9.776, K=9.332, H-K = +0.444	Reference Frame: ICRS

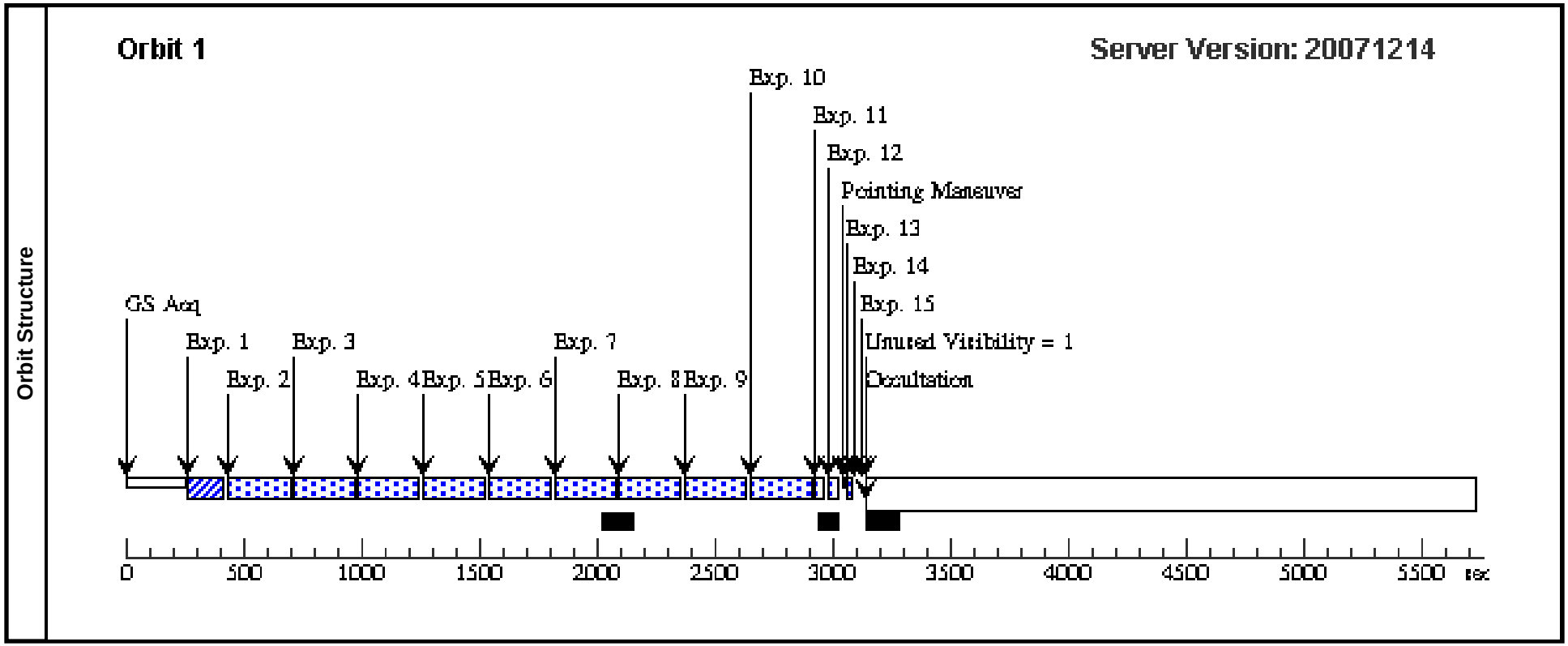
Comments: IRAS C04400+2514. Scattered Light disk imaged with NICMOS F160W in GO/10177.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(3) GO-TAU	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO ONEB1TNS	Sequence 1-15 Non-Int	0.237 Secs *[==>]*	 ***[1]***
Comments: H = 8.1, M0V. Goal = 77, 000 e-. F160W @ 0.237S (79, 500e-)									
2		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
3		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
4		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
5		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
6		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
7		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
8		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
9		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-15 Non-Int	*[==>]*	***[1]***
11		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=8		Sequence 1-15 Non-Int	*[==>]*	***[1]***
Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).									
12		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-15 Non-Int	*[==>]*	***[1]***
Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).									
13		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=SCAMRR; NSAMP=25	POS TARG 3.0,0.0	Sequence 1-15 Non-Int	*[==>]*	***[1]***
14		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 13	Sequence 1-15 Non-Int	*[==>]*	***[1]***
15		(3) GO-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 13	Sequence 1-15 Non-Int	*[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20071214
GS Acq
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Exp. 12
Pointing Maneuver
Exp. 13
Exp. 14
Exp. 15
Unused Visibility = 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10852, Visit 40, scheduling Thu May 01 01:03:02 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 257.0D TO 257.0 D

Comments: This ivisit is using faint guide stars. It should execute as far apart from visit 41 as possible.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	DOAR-25	RA: 16 26 23.5900 (246.5982917d) Dec: -24 43 14.00 (-24.72056d) Equinox: J2000		V=13.87 J=9.391, H=8.397, K=7.847, H-K = +0.551	Reference Frame: ICRS

Comments: IRAS 16234-2436, ROXR1 23. Scattered Light disk imaged with NICMOS F160W in GO/10177.

Exposures

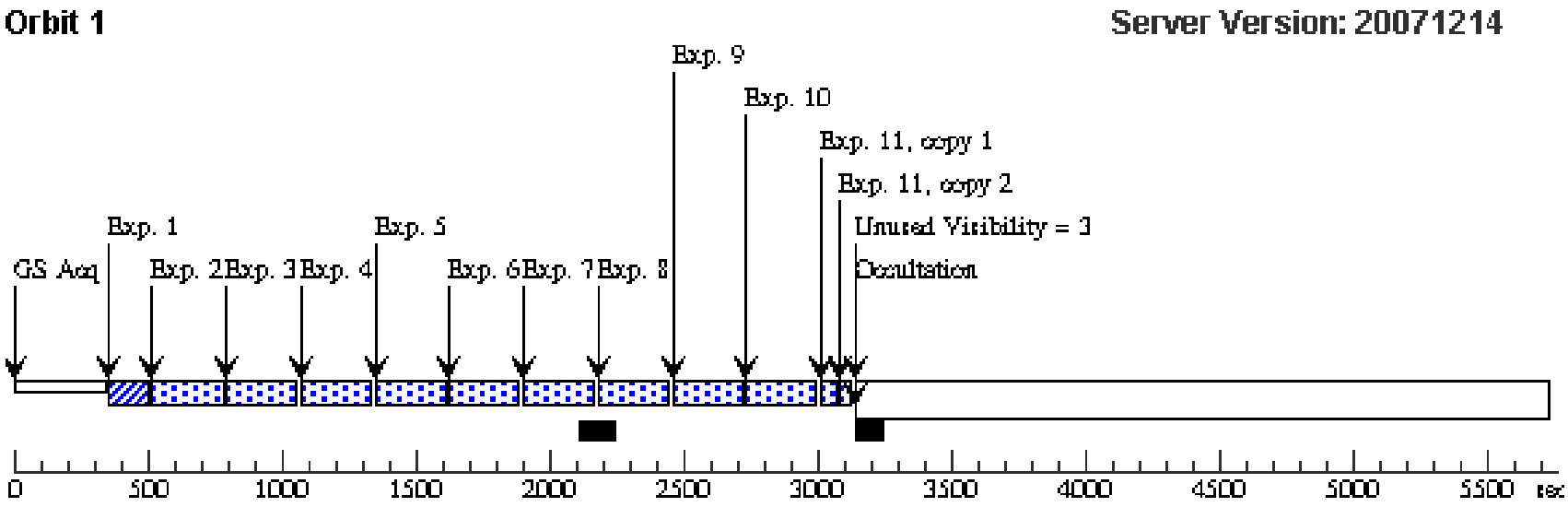
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) DOAR-25	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.314 Secs *[==>]*	 ***[1]***
Comments: H = 8.4, K7V. Goal = 77, 000 e-. F160W @ 0.314S									
2		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
8		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
9		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).

Orbit Structure



Visit

Proposal 10852, Visit 41, failed Thu May 01 01:03:03 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 265.0D TO 265.0 D

Comments: This visit is using faint guide stars. It should execute as far from visit 40 as possible.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	DOAR-25	RA: 16 26 23.5900 (246.5982917d) Dec: -24 43 14.00 (-24.72056d) Equinox: J2000		V=13.87 J=9.391, H=8.397, K=7.847, H-K = +0.551	Reference Frame: ICRS

Comments: IRAS 16234-2436, ROXR1 23. Scattered Light disk imaged with NICMOS F160W in GO/10177.

Exposures

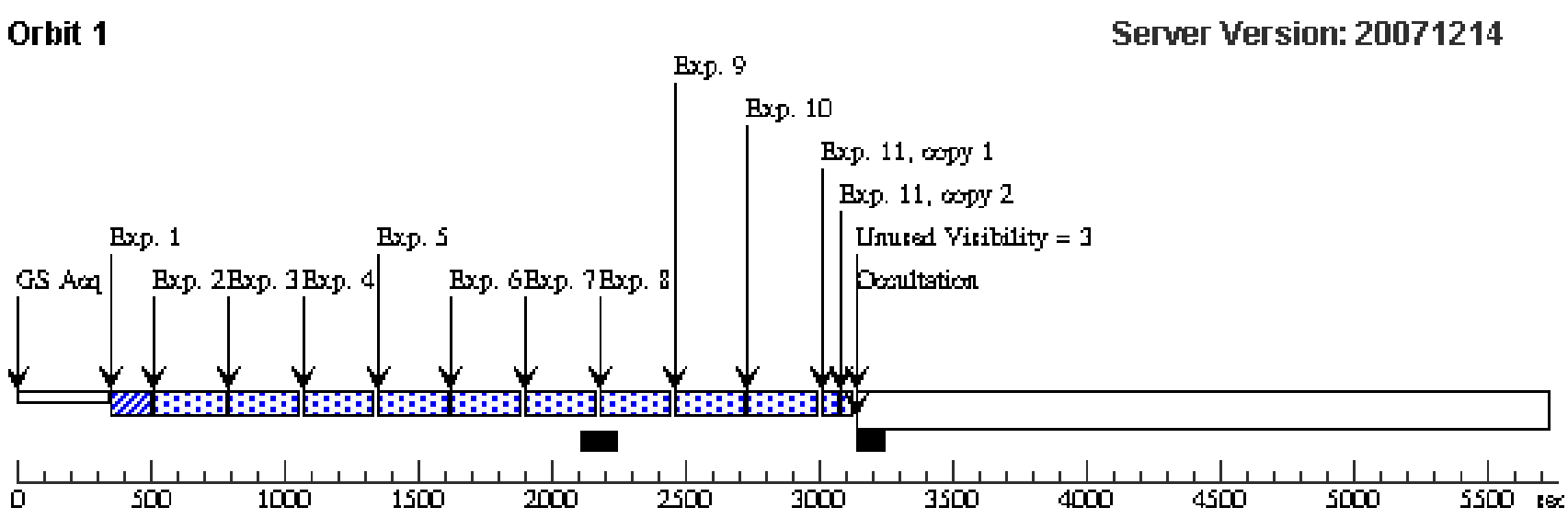
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) DOAR-25	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.314 Secs *[==>]*	 ***[1]***
Comments: H = 8.4, K7V. Goal = 77, 000 e-. F160W @ 0.314S									
2		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
8		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
9		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).

Orbit Structure



Visit

Proposal 10852, Visit 50, completed Thu May 01 01:03:03 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 135.5D TO 155.5 D; ORIENT 45.5D TO 65.5 D; ORIENT 225.5D TO 245.5 D; ORIENT 315.5D TO 335.5 D

Comments: DM TAU. First of two visits.
FIELD ORIENTATION REQUIREMENTS.
PA Disk minor axis in forward direction = 83 Degrees.
ORIENT RANGES IN ORDER OF PREFERENCE: (135.5 deg to 155.5 deg), (45.5 deg to 65.5 deg), (225.5 deg to 245.5 deg), (315.5 deg to 335.5 deg)
ORIENT RANGES APT SCHEDUALABLE WITHOUT LINKS: (41.09 deg to 47.30 deg), (242.93 deg to 311.98)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	DM-TAU	RA: 04 33 48.7300 (68.4530417d) Dec: +18 10 10.10 (18.16947d) Equinox: J2000		V=14.05 J=10.442, H=9.757, K=9.522, H-K = +0.235	Reference Frame: ICRS

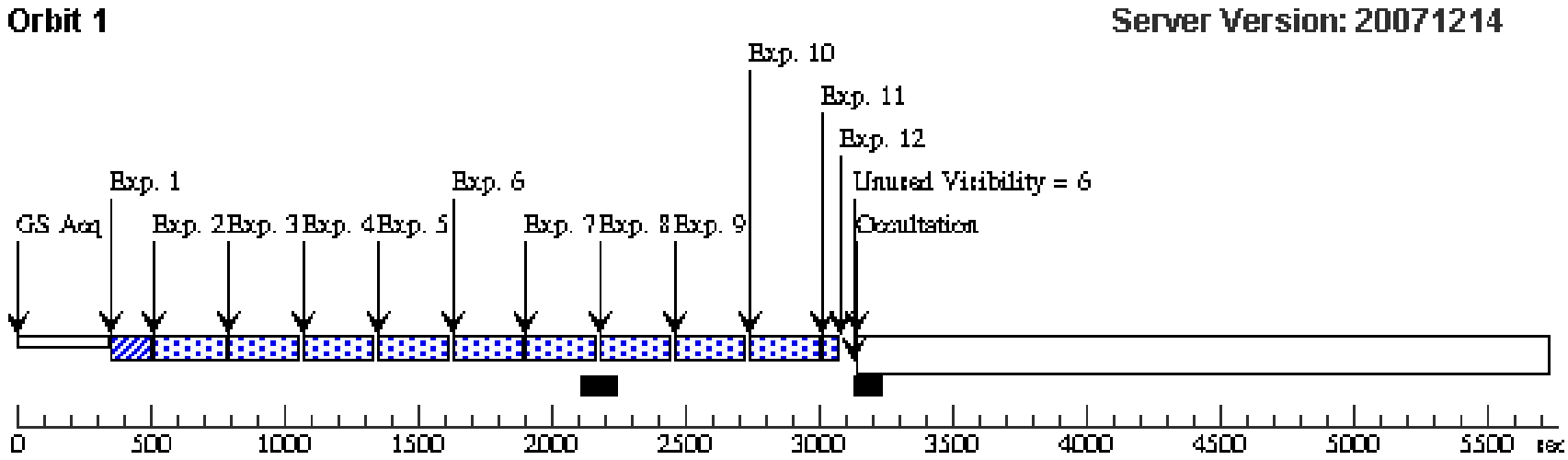
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) DM-TAU	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-12 Non-Int	1.091 Secs *[==>]*	 ***[1]***
Comments: H = 9.8, K5. Goal = 77, 000 e-. F160W @ 1.091									
2		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
3		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
4		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
5		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
6		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
7		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
8		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
9		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
11		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP8; NSAMP=11		Sequence 1-12 Non-Int	*[==>]*	***[1]***
Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).									
12		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP8; NSAMP=10		Sequence 1-12 Non-Int	*[==>]*	***[1]***
Comments: Exp Time - 40s.									

Orbit Structure



Visit

Proposal 10852, Visit 51, completed Thu May 01 01:03:04 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT -150.0D TO -145.0D FROM 50

Comments: GM AUR. Second of two visits.
PREFERED SECOND VISIT ORIENTATIONS:

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	DM-TAU	RA: 04 33 48.7300 (68.4530417d) Dec: +18 10 10.10 (18.16947d) Equinox: J2000		V=14.05 J=10.442, H=9.757, K=9.522, H-K = +0.235	Reference Frame: ICRS

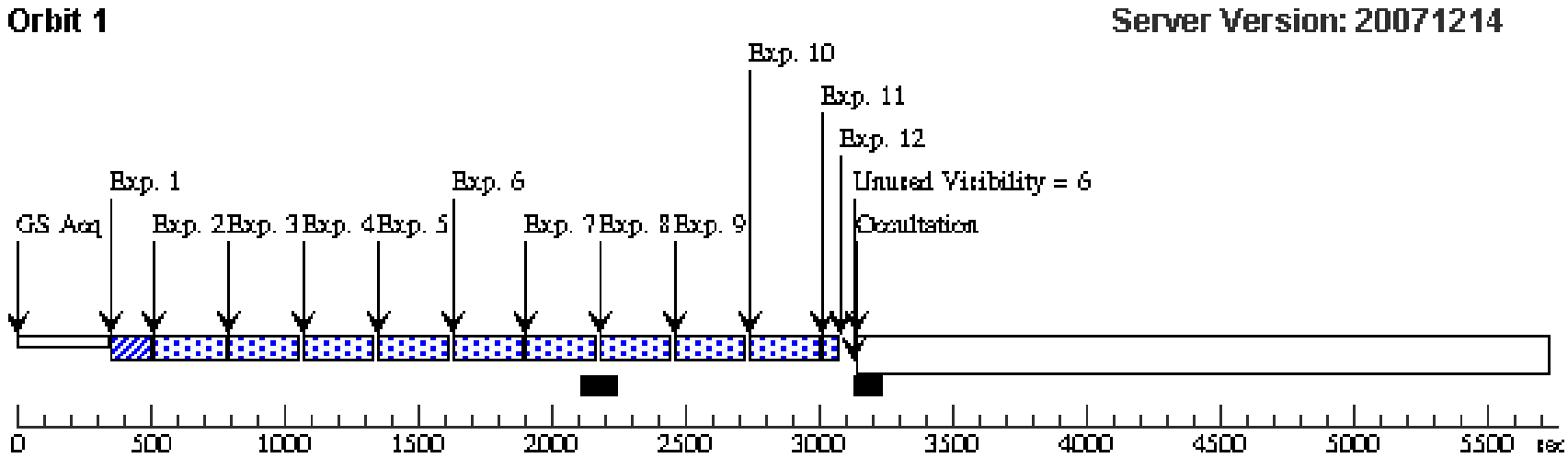
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) DM-TAU	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-12 Non-Int	1.091 Secs *[==>]*	 ***[1]***
Comments: H = 9.8, K5. Goal = 77, 000 e-. F160W @ 1.091									
2		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
3		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
4		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
5		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
6		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
7		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
8		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
9		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-12 Non-Int	*[==>]*	***[1]***
11		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP8; NSAMP=11		Sequence 1-12 Non-Int	*[==>]*	***[1]***
Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).									
12		(5) DM-TAU	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP8; NSAMP=10		Sequence 1-12 Non-Int	*[==>]*	***[1]***
Comments: Exp Time - 40s.									

Orbit Structure



Visit

Proposal 10852, Visit 60, completed Thu May 01 01:03:04 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE

Comments: HIP 21556. Unpolarized Standard Star. H-K = + 0.24
Absolute Orientation is Unrestricted.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	HIP21556	RA: 04 37 41.8665 (69.4244438d)	Proper Motion RA: -0.015338s/yr	V=10.35	Reference Frame: ICRS
		Dec: -11 02 19.95 (-11.03888d)	Proper Motion Dec: -0.1936"/yr	J = 6.943,	
		Equinox: J2000	Parallax: 0.0923"	H = 6.331,	
			Epoch of Position: 2000.0	K = 6.091	

Comments: Unpolarized Standard. P% < 0.1% in I-band (Wisniewski, Phd. Thesis and http://jura.astro.utoledo.edu/~jpw/thesis/unpol.pdf).
H-K = + 0.24 (2MASS). Spec: M1.5.
PM_RA in TIME is -225.81 mas/yr.

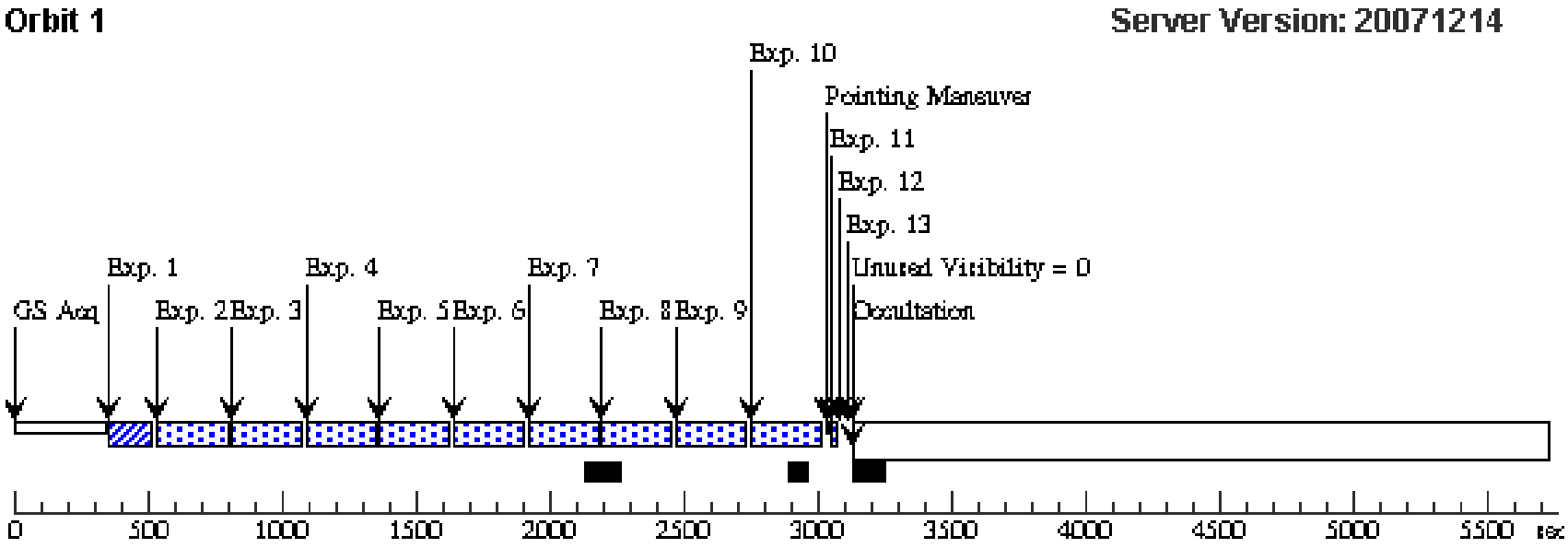
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) HIP21556	NIC2, ACQ, NIC2-ACQ	F180M		GS ACQ SCENARIO BASE1TNS	Sequence 1-13 Non-Int	0.314 Secs *[==>]*	 ***[1]***
Comments: H = 6.32. M1. Goal = 77, 000 e-. F180M @ 0.314s									
2		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
3		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
4		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
5		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
6		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
7		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
8		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
9		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	*[1]*
11		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=SCAMRR; NSAMP=25	POS TARG 3.0,0.0	Sequence 1-13 Non-Int	*[==>]*	*[1]*
12		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*
13		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*

Orbit Structure



Visit

Proposal 10852, Visit 61, completed Thu May 01 01:03:05 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 120.0D TO 125.0D FROM 60

Comments: HIP 21556. Unpolarized Standard Star. H-K = + 0.24
We specify an Orient From Visit 60 of 120 deg to 125 deg.
An alternative Orient From of -150 deg to -140 deg is equally acceptable.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	HIP21556	RA: 04 37 41.8665 (69.4244438d)	Proper Motion RA: -0.015338s/yr	V=10.35	Reference Frame: ICRS
		Dec: -11 02 19.95 (-11.03888d)	Proper Motion Dec: -0.1936"/yr	J = 6.943,	
		Equinox: J2000	Parallax: 0.0923"	H = 6.331,	
			Epoch of Position: 2000.0	K = 6.091	

Comments: Unpolarized Standard. P% < 0.1% in I-band (Wisniewski, Phd. Thesis and http://jura.astro.utoledo.edu/~jpw/thesis/unpol.pdf).
H-K = + 0.24 (2MASS). Spec: M1.5.
PM_RA in TIME is -225.81 mas/yr.

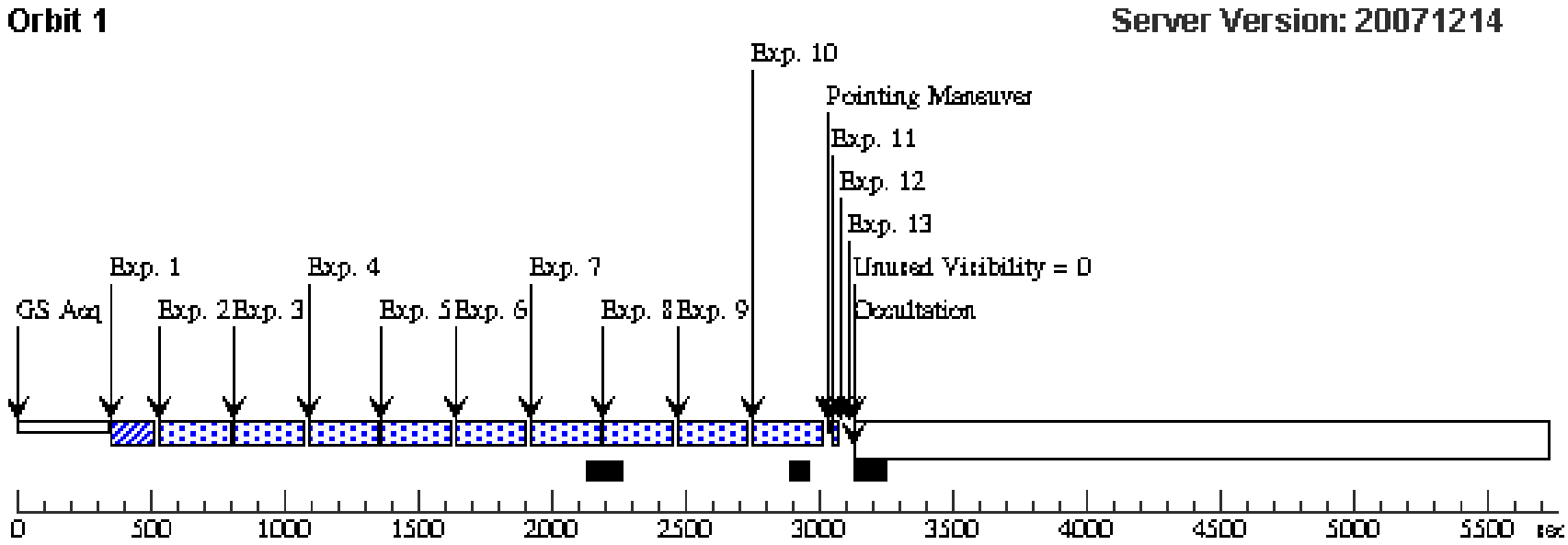
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) HIP21556	NIC2, ACQ, NIC2-ACQ	F180M		GS ACQ SCENARIO BASE1TNS	Sequence 1-13 Non-Int	0.314 Secs	
								[==>]	***[1]***
Comments: H = 6.32. M1. Goal = 77, 000 e-. F180M @ 0.314s									
2		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
3		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
4		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
5		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
6		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
7		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
8		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
9		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	*[1]*
11		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=SCAMRR; NSAMP=25	POS TARG 3.0,0.0	Sequence 1-13 Non-Int	*[==>]*	*[1]*
12		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*
13		(6) HIP21556	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*

Orbit Structure



Visit

Proposal 10852, Visit 70, completed Thu May 01 01:03:05 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE

Comments: HIP 42807. Unpolarized Standard Star. H-K = + 0.16
Absolute Orientation is Unrestricted.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HD42807	RA: 06 13 12.5028 (93.3020950d)	Proper Motion RA: 0.005298s/yr	V=6.44	Reference Frame: ICRS
		Dec: +10 37 37.72 (10.62714d)	Proper Motion Dec: -0.2971"/yr	J = 5.253,	
		Equinox: J2000	Parallax: 0.0552"	H = 5.010,	
			Epoch of Position: 2000.0	K = 4.849	

Comments: Unpolarized Standard. UKIRT (http://www.jach.hawaii.edu/UKIRT/instruments/irpol/irpol_stds.html) from "Planets, Stars & Nebulae studied with Photopolarimetry", 1974, T. Gehrels (ed.), University of Arizona Press, Tuscon, pp. 168-169.
H-K = +0.161, Spectrum = G2V
PM_RA in TIME is +78.11 mas/yr

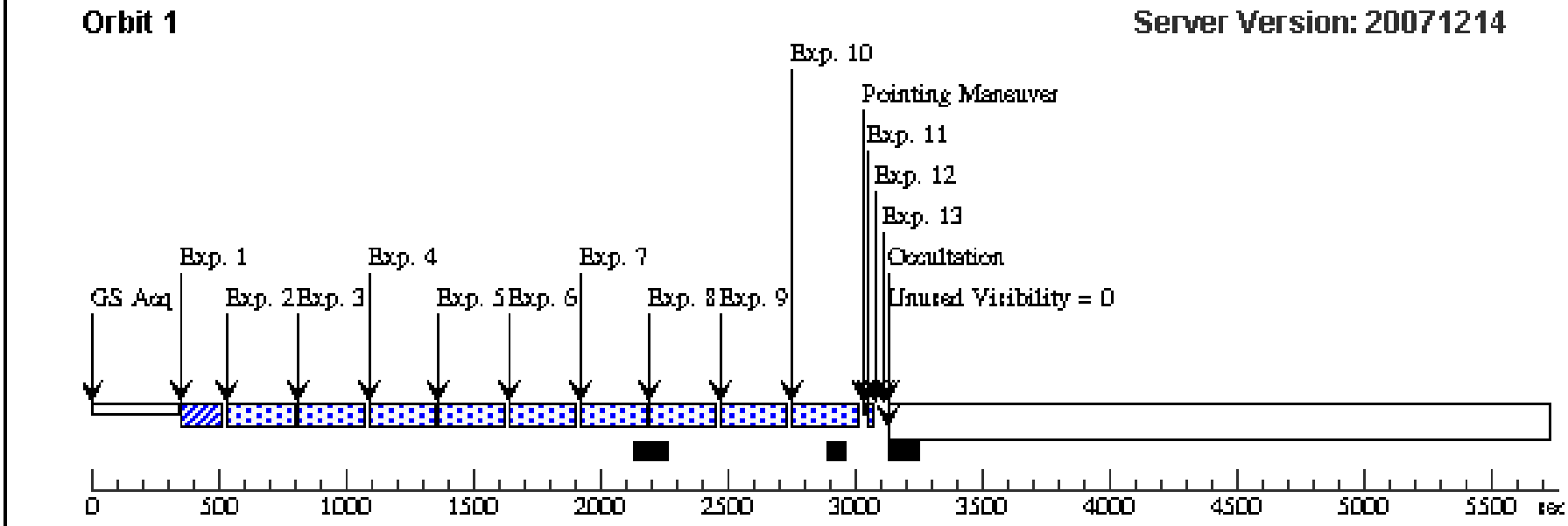
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) HD42807	NIC2, ACQ, NIC2-ACQ	F187N		GS ACQ SCENARIO BASE1TNS	Sequence 1-13 Non-Int	0.457 Secs	
								[==>]	***[1]***
Comments: H = 5.01. G2V. Goal = 77, 000 e-. F1187N @ 0.457s									
2		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
3		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
4		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
5		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
6		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
7		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
8		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
9		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	*[1]*
11		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=SCAMRR; NSAMP=25	POS TARG 3.0,0.0	Sequence 1-13 Non-Int	*[==>]*	*[1]*
12		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*
13		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*

Orbit Structure



Visit

Proposal 10852, Visit 71, completed Thu May 01 01:03:06 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 120.0D TO 125.0D FROM 70

Comments: HIP 42807. Unpolarized Standard Star. H-K = + 0.16
We specify an Orient From Visit 70 of 120 deg to 125 deg.
An alternative Orient From of -150 deg to -140 deg is equally acceptable.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HD42807	RA: 06 13 12.5028 (93.3020950d)	Proper Motion RA: 0.005298s/yr	V=6.44	Reference Frame: ICRS
		Dec: +10 37 37.72 (10.62714d)	Proper Motion Dec: -0.2971"/yr	J = 5.253,	
		Equinox: J2000	Parallax: 0.0552"	H = 5.010,	
			Epoch of Position: 2000.0	K = 4.849	

Comments: Unpolarized Standard. UKIRT (http://www.jach.hawaii.edu/UKIRT/instruments/irpol/irpol_stds.html) from "Planets, Stars & Nebulae studied with Photopolarimetry", 1974, T. Gehrels (ed.), University of Arizona Press, Tuscon, pp. 168-169.
H-K = +0.161, Spectrum = G2V
PM_RA in TIME is +78.11 mas/yr

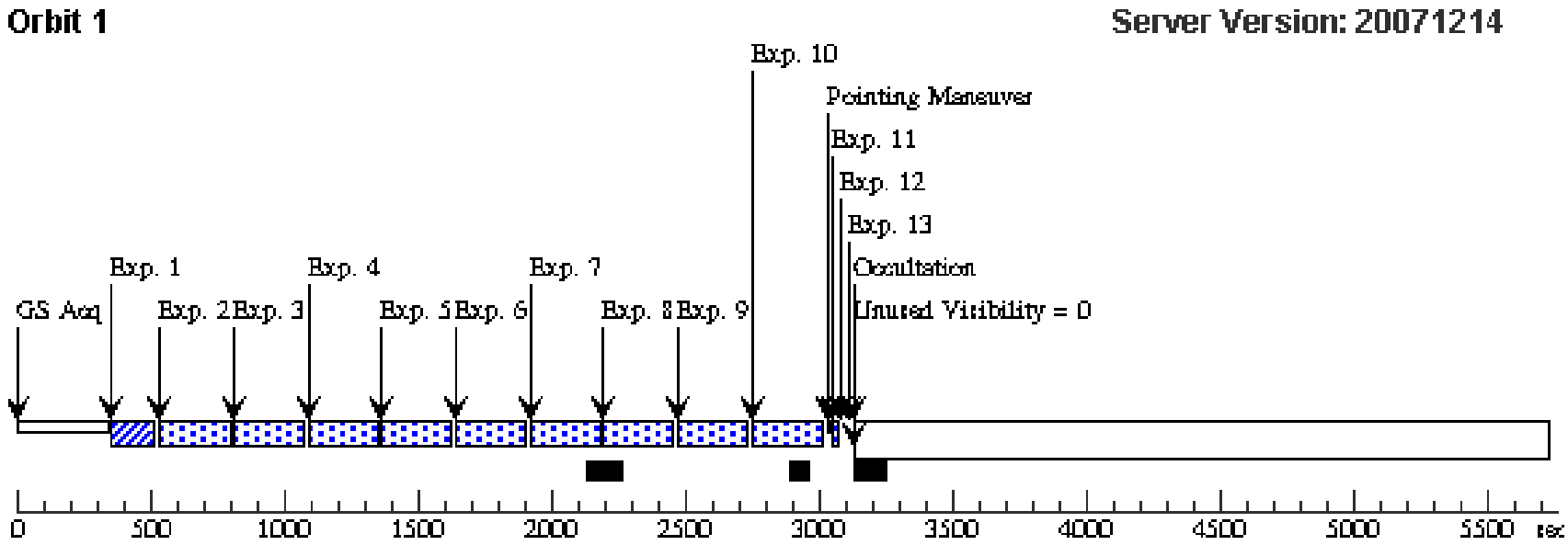
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(7) HD42807	NIC2, ACQ, NIC2-ACQ	F187N		GS ACQ SCENARIO BASE1TNS	Sequence 1-13 Non-Int	0.314 Secs	
								[==>]	***[1]***
Comments: H = 5.01. G2V. Goal = 77, 000 e-. F1187N @ 0.457s									
2		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
3		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
4		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
5		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
6		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
7		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***
8		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
9		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	*[1]*
10		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-13 Non-Int	*[==>]*	*[1]*
11		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=SCAMRR; NSAMP=25	POS TARG 3.0,0.0	Sequence 1-13 Non-Int	*[==>]*	*[1]*
12		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*
13		(7) HD42807	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=SCAMRR; NSAMP=25	SAME POS AS 11	Sequence 1-13 Non-Int	*[==>]*	*[1]*

Orbit Structure



Visit

Proposal 10852, Visit 91, completed Thu May 01 01:03:06 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 265.0D TO 265.0 D

Comments: This visit is using faint guide stars. It should execute as far from visit 40 as possible.
This is a copy of visit 41.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	DOAR-25	RA: 16 26 23.5900 (246.5982917d) Dec: -24 43 14.00 (-24.72056d) Equinox: J2000		V=13.87 J=9.391, H=8.397, K=7.847, H-K = +0.551	Reference Frame: ICRS

Comments: IRAS 16234-2436, ROXR1 23. Scattered Light disk imaged with NICMOS F160W in GO/10177.

Exposures

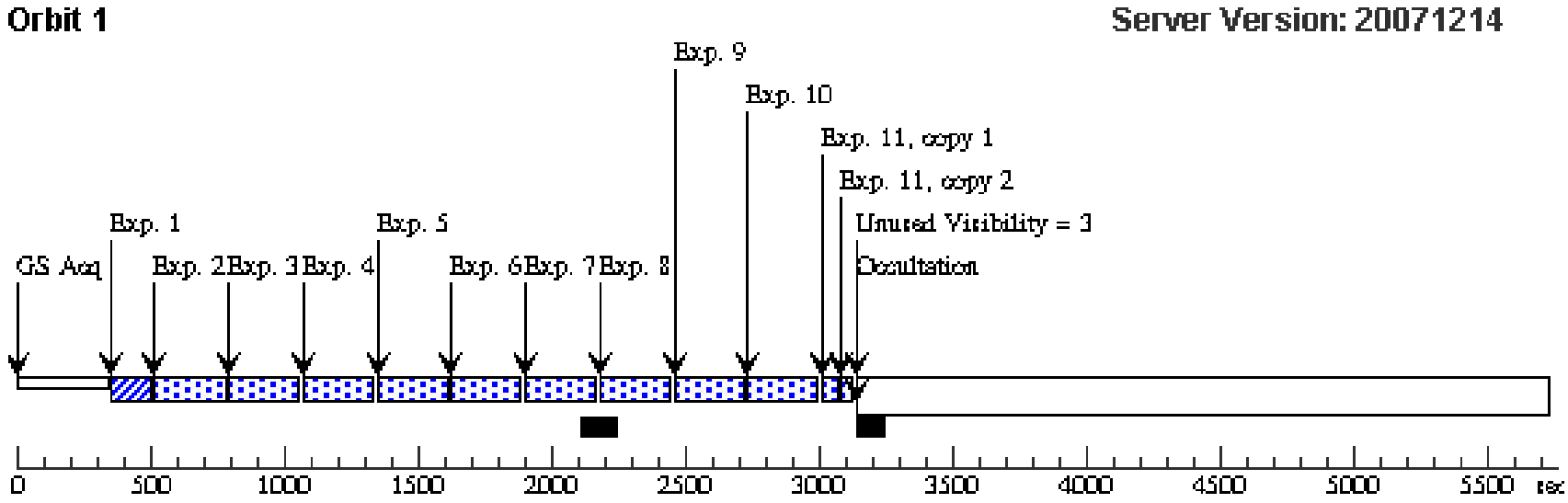
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) DOAR-25	NIC2, ACQ, NIC2-ACQ	F160W		GSPAIR S8EL016184F1S8EA009499F2; GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.314 Secs *[==>]*	*[1]*
Comments: H = 8.4, K7V. Goal = 77, 000 e-. F160W @ 0.314S									
2		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
3		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
4		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
5		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
6		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
7		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
8		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
9		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
10		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(4) DOAR-25	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).

Orbit Structure



Visit

Proposal 10852, Visit A1, implementation Thu May 01 01:03:06 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: NIC2

Special Requirements: PCS MODE FINE; ORIENT 22D TO 28 D

Comments: This is a copy of failed visit 21.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SZ-82	RA: 15 56 9.2300 (239.0384583d) Dec: -37 56 5.90 (-37.93497d) Equinox: J2000	Proper Motion RA: -0.004789s/yr Proper Motion Dec: -0.04997"/yr Epoch of Position: 2000.0	V=11.57 J=8.783, H= 8.089, K=7.739, H-K = +0.35	Reference Frame: ICRS

Comments: GSC 07838-00962, HIP 78053, IRAS 15528-3747, IM Lup. Weak-line T Tauri star. Scattered Light disk imaged with NICMOS F160W in GO/10177.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) SZ-82	NIC2, ACQ, NIC2-ACQ	F160W		GS ACQ SCENARIO BASE1TNS	Sequence 1-11 Non-Int	0.237 Secs *[==>]*	 ***[1]***
Comments: H = 8.1, M0V. Goal = 77, 000 e-. F160W @ 0.237S (79, 500e-)									
2		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
3		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
4		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
5		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
6		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
7		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
8		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL0L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***
9		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL120L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	***[1]***

Exposures (continued)

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	POL240L	SAMP-SEQ=STEP64; NSAMP=12		Sequence 1-11 Non-Int	*[==>]*	*[1]*
11		(2) SZ-82	NIC2, MULTIACCUM, NIC2-CORON	F110W	SAMP-SEQ=STEP16; NSAMP=9		Sequence 1-11 Non-Int	*[==>(Copy 1)]* *[==>(Copy 2)]*	*[1]*

Comments: Exp Time - 48s, Repeat twice (total integration time = 96s).

Orbit Structure