10614 - Internal Structure and Figures of Binary Asteroids

Cycle: 14, Proposal Category: GO

(Availability Mode: SUPPORTED)

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?*
21	(11) EUGENIA-FIX	FGS	1	06-Sep-2006 21:01:26.0	yes
22	(12) KALLIOPE-FIX	FGS	1	06-Sep-2006 21:01:33.0	yes
03	(21) SYLVIA-FIX	FGS	1	06-Sep-2006 21:01:39.0	yes
23	(23) SYLVIA-FIX-2	FGS	1	06-Sep-2006 21:01:44.0	yes
04	(13) ANTIOPE-FIX	FGS	1	06-Sep-2006 21:01:48.0	yes
05	(22) CAMILLA-FIX	FGS	1	06-Sep-2006 21:01:53.0	yes
25	(24) CAMILLA-FIX-2	FGS	1	06-Sep-2006 21:01:57.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
06	(18) HERMIONE-FIX	FGS	1	06-Sep-2006 21:02:01.0	yes
26	(6) 121-HERMIONE	FGS	1	06-Sep-2006 21:02:03.0	yes
30	(9) 617-PATROCLUS	FGS	1	06-Sep-2006 21:02:05.0	yes
07	(14) EMMA-FIX	FGS	1	06-Sep-2006 21:02:08.0	yes
08	(16) HUENNA-FIX	FGS	1	06-Sep-2006 21:02:12.0	yes
09	(15) PATROCLUS-FIX	FGS	1	06-Sep-2006 21:02:16.0	yes
59	(19) PATROCLUS-FIX2	FGS	1	06-Sep-2006 21:02:19.0	yes
69	(20) PATROCLUS-FIX3	FGS	1	06-Sep-2006 21:02:23.0	yes
10	(17) PULCOVA-FIX	FGS	1	06-Sep-2006 21:02:28.0	yes

16 Total Orbits Used

ABSTRACT

The goal of this proposal is to obtain very important information on the internal structure of a number of asteroids, and insight on the gravitational reaccumulation-process after a catastrophic disruptive collision. High resolutions observations with the HST/FGS interferometer are proposed to obtain high precision data for the topographic shape and size of a number of selected asteroids. Here we focus on objects with satellites, hence with known masses, so that the bulk density and porosity will be derived in the most accurate manner. This will yield plausible estimates on the internal properties of the objects, test wether they are close or not to figures of equilibrium (in terms of shape and adimensional rotational frequency), and provide estimates of their relative density.

The HST/FGS in interferometric mode is an ideal facility to carry out this program.

OBSERVING DESCRIPTION

We request consecutive scans per orbit mainly for the following reasons: (a) with multiple scans one can detect and reject corrupted scans (from spacecraft jitter); (b) multiple scans are co-added to considerably increase the S/N ratio.

- guide-star acquisition: 6 min;
- target acquisition: 1 min;
- overhead per visit: 1 min;
- overhead per scan: 0.2 min;
- science exposures: our science exposure consists of 4 TRANS scans of 2 arcsec on the sky each sampled every (nominal) 1.0 mas. Since each sample takes a fixed 0.025 s, the 4 scans take 200 s, for a total of 2.5+3.3 ~ 6 min per exposure, allowing approximately 7 exposures per orbit. The strategy is slightly changed in VISIT#9 for the -fainter- Trojan asteroid Patroclus, and in VISIT#8 in accordance with the Orbit Planner.

When observing close to the stationary point, the primary component of the asteroid motion on the sky is the parallax resulting from the orbital motion of the HST platform (it is of the order of 5 mas/s for main belt asteroids but less for Trojans). Thus the asteroid needs to be re-acquired at each visit. Depending on the object, details of the scan strategy may vary slightly. In particular the number of scans would be increased for the faint asteroid 617-Patroclus and the number of visit decreased. No special calibration observations should be necessary in TRANS mode. We shall use stellar template interferograms made available from the STScI, all targets having coulor index B-V~0.7.

ADDITIONAL COMMENTS

Note on special scheduling of targets 4 and 9:
Observations of the binary systems 90-Antiope and 617-Patroclus would preferably be done when the -resolved- components are at maximal separation in the plane-of-sky (this does not concern the other targets since the satellite should not be detected). Accurate timing could be provided, if possible, within a few weeks before the HST acquisition period from ground-based lightcurve observation. These will enable us to schedule, from the knowledge of the rotational phase of the lightcurve extrema, the times of HST observations when the components will be at maximum angular distance. In any case we will provide all the necessary data (coordinates, times of suitable rotational phase, etc.) within six weeks before the HST observations.

Note on two-gyro mode:
Observations should be done at a period when the asteroids are close to their stationnary point. There are generally two such periods possible during Cycle 14, leaving apparently some freedom in the HST scheduling. It is stressed that both periods are given in the Timig Requirements of this Phase II proposal, but that in case of 2 Gyro observing mode, there will unfortunately be only a single visibility period available (except target 1, 22-Kalliope, see Special Requirements of Phase I proposal). In such case one should put highest priority to period where the target is visible.

Visit

Proposal 10614, Visit 21, completed Thu Sep 07 01:02:31 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: FGS

Special Requirements: ORIENT 90.0D TO 100.0 D; BETWEEN 08-JUL-2005:08:15:00 AND 08-JUL-2005:10:00:00

Diagnostics

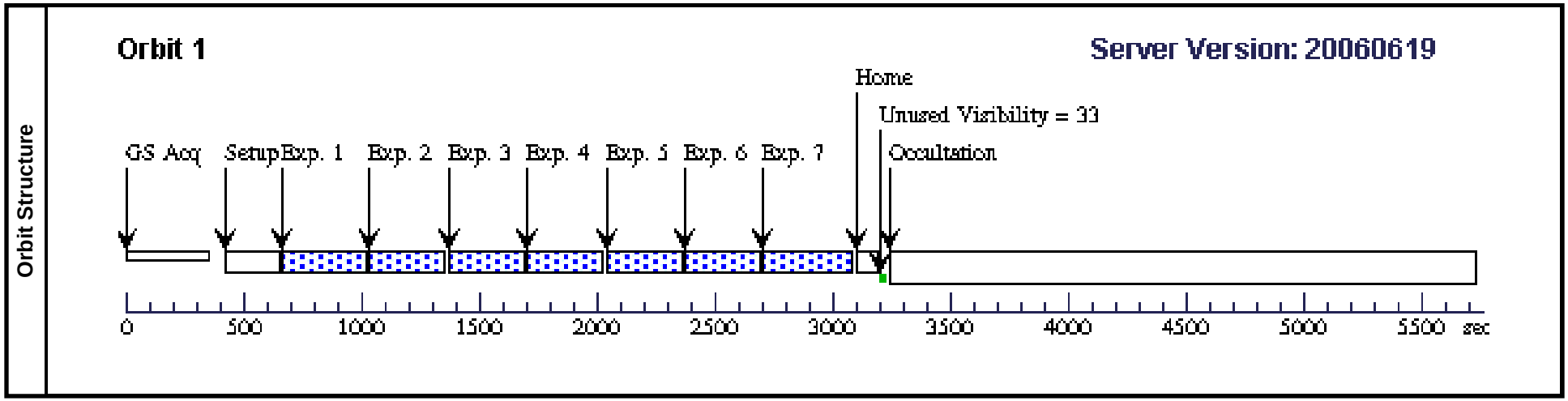
(Visit 21) Warning: GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	EUGENIA-FIX	RA: 15 21 15.2100 (230.3133750d) Dec: -09 06 7.91 (-9.10220d) Equinox: J2000		V=11.8+/-0.1	Coordinate Source: MOSS Calculations from proposal orbital elements

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(11) EUGENIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0; ACQ-DIST=20	GS ACQ SCENARIO BASE13GO	Sequence 1-7 Non-Int	200.0 Secs *[==>]*	***[1]***
2		(11) EUGENIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0; ACQ-DIST=20		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	***[1]***
3		(11) EUGENIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0; ACQ-DIST=20		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	***[1]***
4		(11) EUGENIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0; ACQ-DIST=20		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	***[1]***
5		(11) EUGENIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0; ACQ-DIST=20		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	***[1]***
6		(11) EUGENIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0; ACQ-DIST=20		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	***[1]***
7		(11) EUGENIA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0; ACQ-DIST=20		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 33
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 22, completed Thu Sep 07 01:02:32 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

Special Requirements: BETWEEN 25-JUL-2005:08:05:00 AND 25-JUL-2005:09:00:00

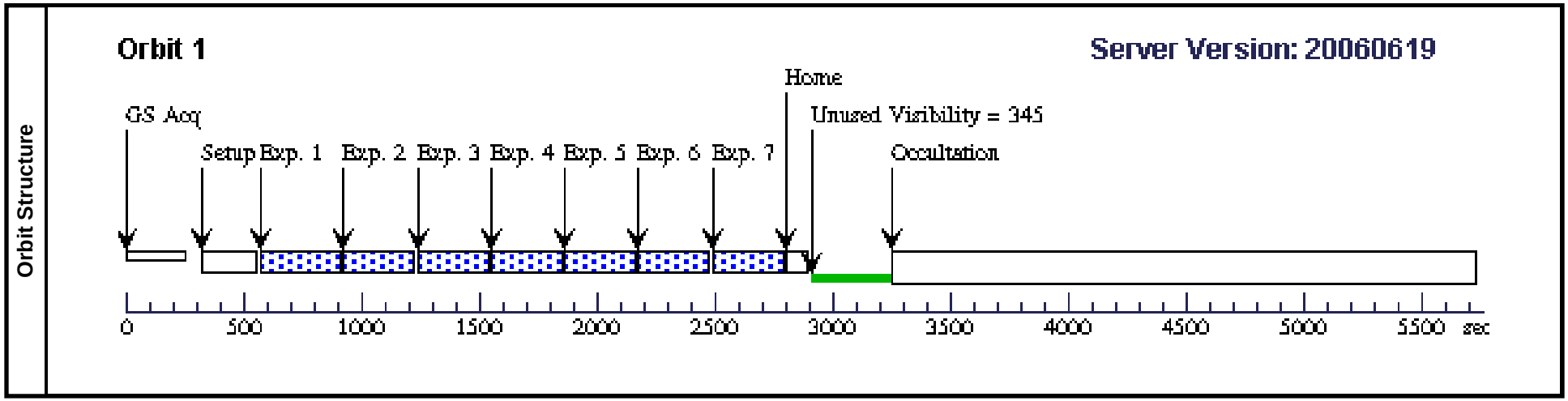
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	KALLIOPE-FIX	RA: 23 28 59.0500 (352.2460417d) Dec: -24 15 42.01 (-24.26167d) Equinox: J2000		V=11.2+/-0.1 B-V=0.69	Coordinate Source: MOSS calculations

Comments: Fixed coordinate position for observation at mid-point of HST orbit. Used to ambush asteroid with FGS TRANS mode.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(12) KALLIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.5	GS ACQ SCENARIO SINGLE	Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
2		(12) KALLIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.5		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(12) KALLIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.5		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(12) KALLIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.5		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(12) KALLIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.5		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(12) KALLIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.5		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
7		(12) KALLIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.5		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20060619
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Home
Unused Visibility = 345
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 03, implementation Thu Sep 07 01:02:33 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

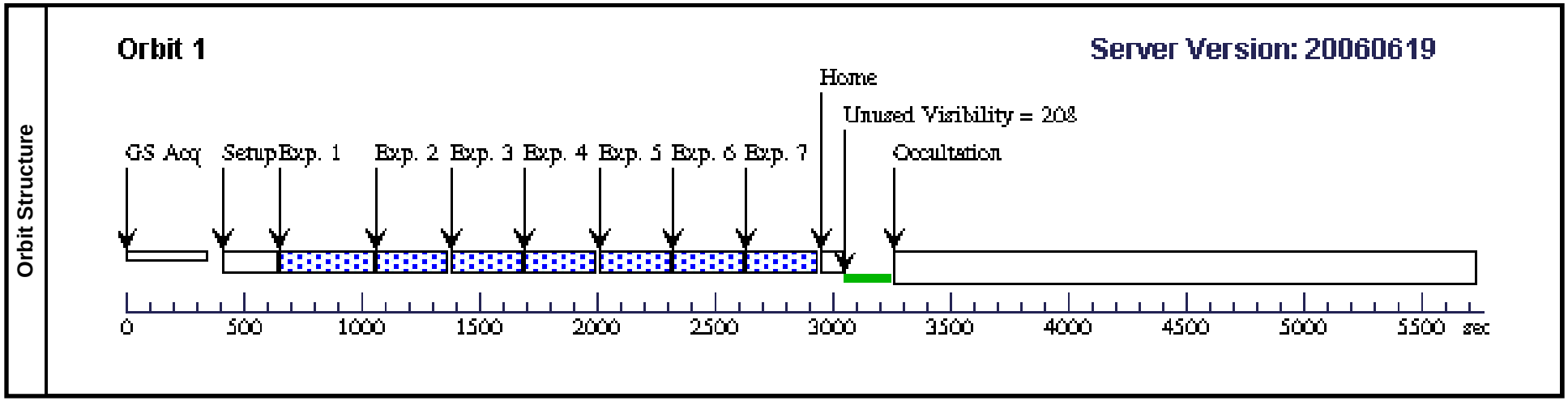
Special Requirements: BETWEEN 26-NOV-2006:16:15:00 AND 26-NOV-2006:16:45:00

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(21)	SYLVIA-FIX	RA: 08 30 17.3800 (127.5724167d) Dec: +26 59 55.44 (26.99873d) Equinox: J2000		V=12.6+/-0.1 B-V=0.70	Coordinate Source: Cheby calculations for this orbit from SOGS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(21) SYLVIA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	*[1]*
2		(21) SYLVIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
3		(21) SYLVIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
4		(21) SYLVIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
5		(21) SYLVIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
6		(21) SYLVIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
7		(21) SYLVIA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 20%
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 23, implementation Thu Sep 07 01:02:34 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

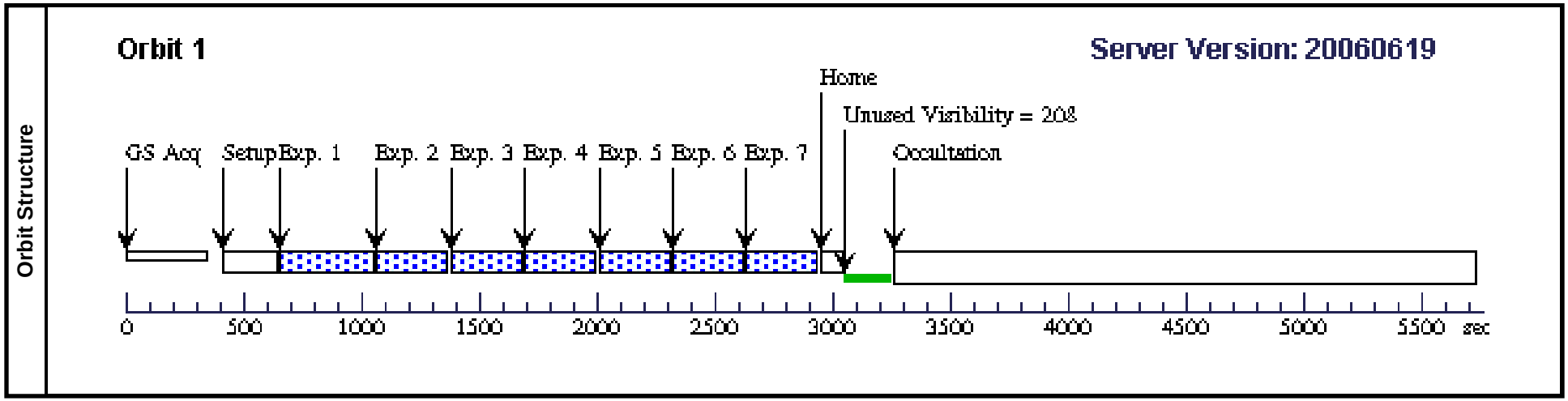
Special Requirements: BETWEEN 26-NOV-2006:21:05:00 AND 26-NOV-2006:21:30:00

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(23)	SYLVIA-FIX-2	RA: 08 30 17.3200 (127.5721667d) Dec: +27 00 37.74 (27.01048d) Equinox: J2000		V=12.6+/-0.1 B-V=0.70	Coordinate Source: Cheby calculations for this orbit from SOGS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(23) SYLVIA-FIX-2	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	*[1]*
2		(23) SYLVIA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
3		(23) SYLVIA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
4		(23) SYLVIA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
5		(23) SYLVIA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
6		(23) SYLVIA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
7		(23) SYLVIA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 20%
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 04, completed Thu Sep 07 01:02:34 GMT 2006

Diagnostic Status: Warning

Scientific Instruments: FGS

Special Requirements: BETWEEN 27-AUG-2005:12:20:00 AND 27-AUG-2005:14:00:00

Diagnostics

(Visit 04) Warning: GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE

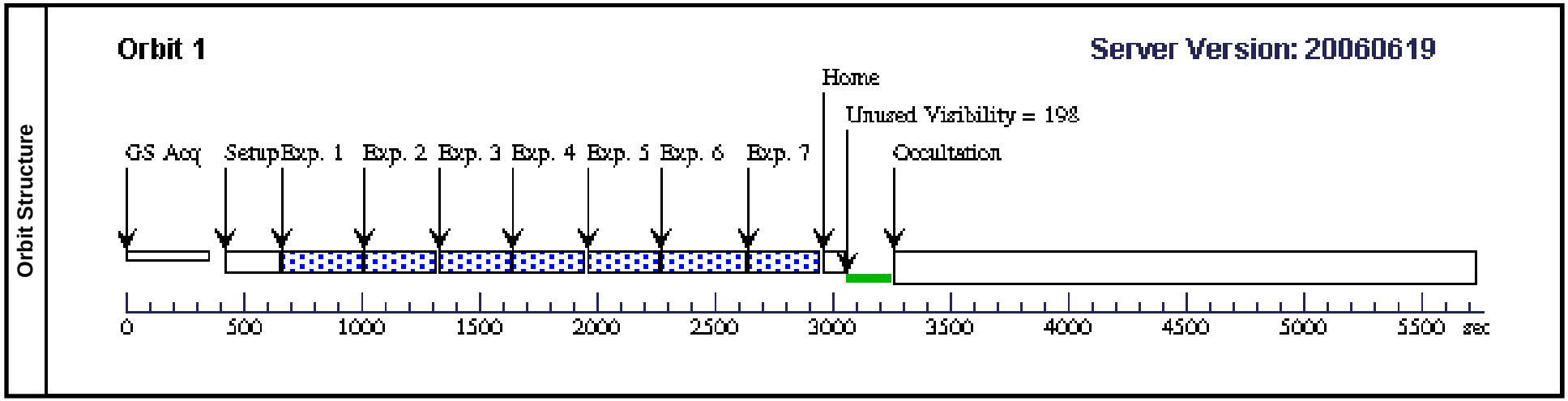
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	ANTIOPE-FIX	RA: 18 50 27.0200 (282.6125833d) Dec: -25 14 25.81 (-25.24050d) Equinox: J2000		V=12.7+/-0.1 B-V=0.69	Coordinate Source: SOGS cheby display

Comments: Fixed target position of Antiope at 2005.239:13:15:00.0 which is half-way through 1-orbit observation in visit 04.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(13) ANTIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.2	GS ACQ SCENARIO BASE13GO	Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
2		(13) ANTIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.2		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(13) ANTIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.2		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(13) ANTIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.2		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(13) ANTIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.2		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(13) ANTIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.2		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	 ***[1]***
7		(13) ANTIOPE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.2		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 198
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 05, implementation Thu Sep 07 01:02:35 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

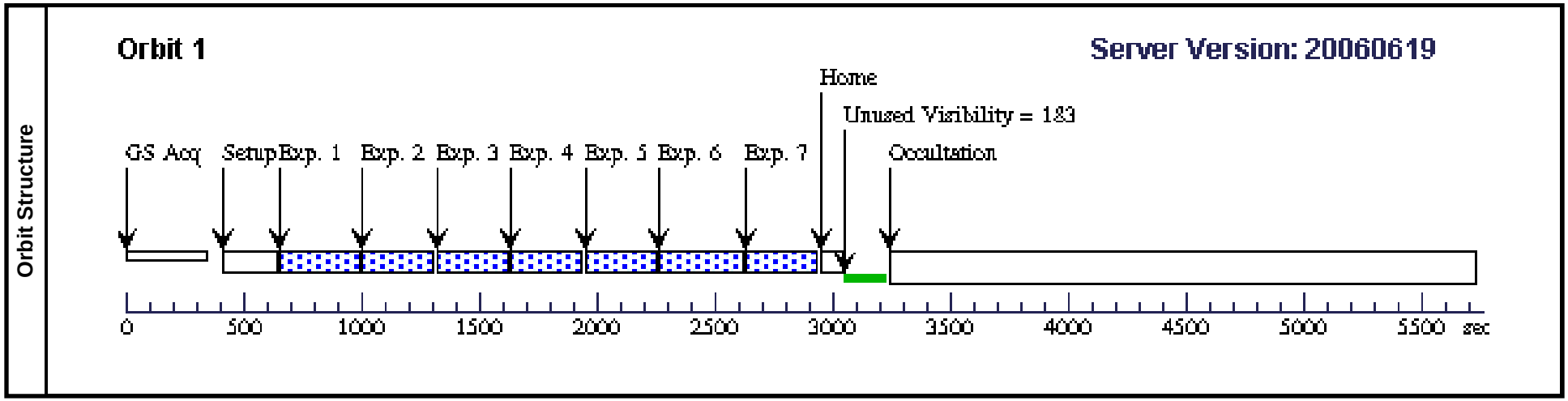
Special Requirements: BETWEEN 10-DEC-2006:17:40:00 AND 10-DEC-2006:18:10:00

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(22)	CAMILLA-FIX	RA: 09 06 59.4300 (136.7476250d) Dec: +06 20 40.57 (6.34460d) Equinox: J2000		V=12.8+/-0.1 B-V=0.70	Coordinate Source: Cheby calculations for this orbit from SOGS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(22) CAMILLA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
2		(22) CAMILLA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(22) CAMILLA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(22) CAMILLA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(22) CAMILLA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(22) CAMILLA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	 ***[1]***
7		(22) CAMILLA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 1&3
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 25, implementation Thu Sep 07 01:02:35 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

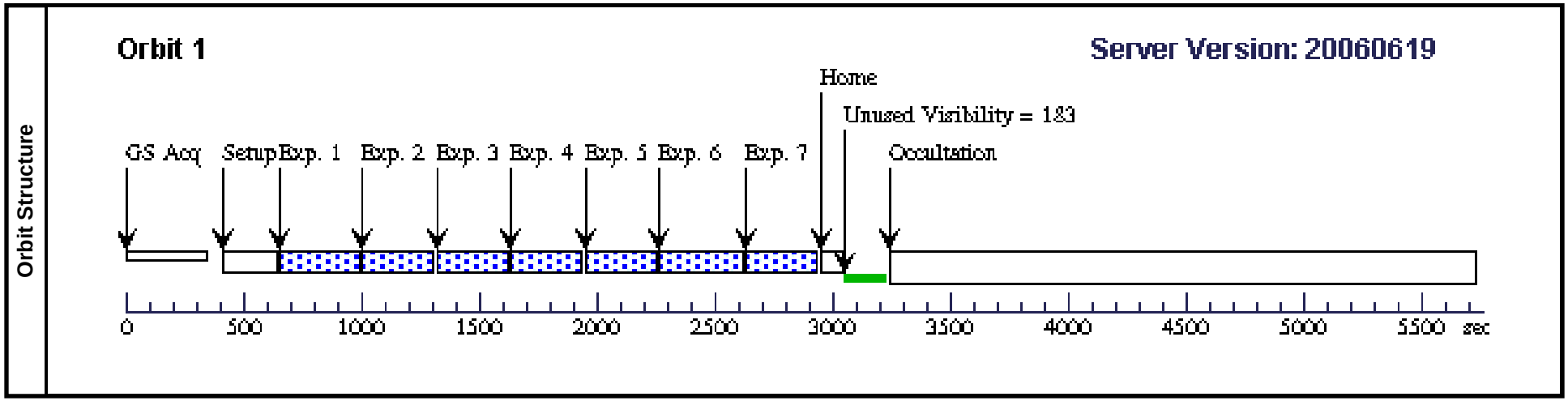
Special Requirements: BETWEEN 10-DEC-2006:14:20:00 AND 10-DEC-2006:14:50:00

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(24)	CAMILLA-FIX-2	RA: 09 06 59.3600 (136.7473333d) Dec: +06 20 52.07 (6.34780d) Equinox: J2000		V=12.8+/-0.1 B-V=0.70	Coordinate Source: Cheby calculations for this orbit from SOGS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(24) CAMILLA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
2		(24) CAMILLA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
3		(24) CAMILLA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
4		(24) CAMILLA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
5		(24) CAMILLA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*
6		(24) CAMILLA-FIX-2	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	*[1]*
7		(24) CAMILLA-FIX-2	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	*[1]*


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 1&3
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 06, completed Thu Sep 07 01:02:35 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

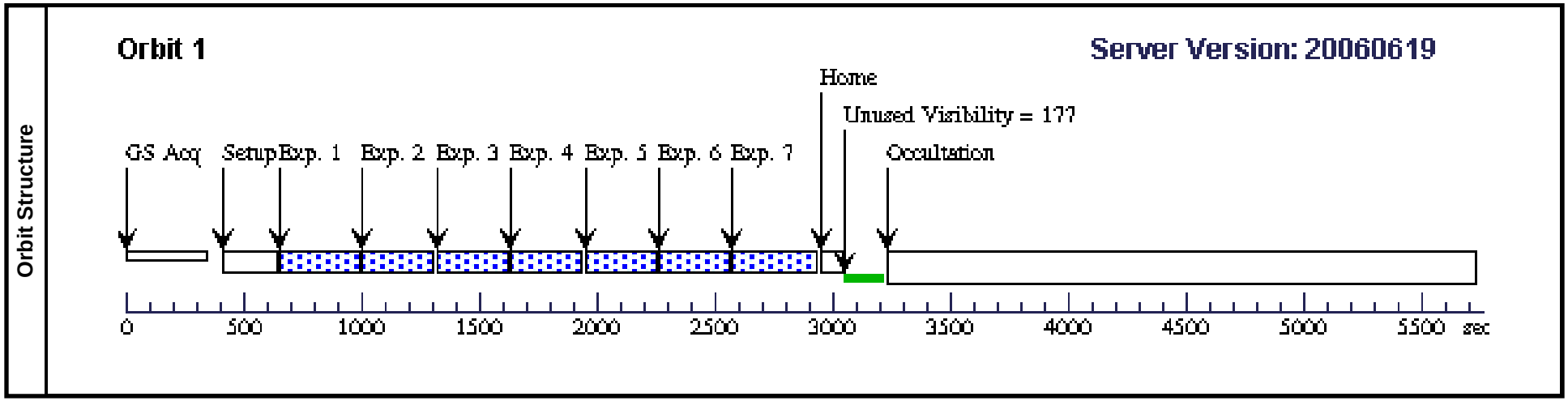
Special Requirements: BETWEEN 27-MAY-2006:12:20:00 AND 27-MAY-2006:13:00:00

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(18)	HERMIONE-FIX	RA: 13 48 48.3500 (207.2014583d) Dec: -04 59 31.13 (-4.99198d) Equinox: J2000		V=13.7+/-0.01 B-V=0.72	Coordinate Source: SPSS calculations

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(18) HERMIONE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
2		(18) HERMIONE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(18) HERMIONE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(18) HERMIONE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(18) HERMIONE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(18) HERMIONE-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
7		(18) HERMIONE-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 177
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 26, withdrawn Thu Sep 07 01:02:36 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

Special Requirements: BETWEEN 10-MAY-2006:00:00:00 AND 01-JUN-2006:00:00:00

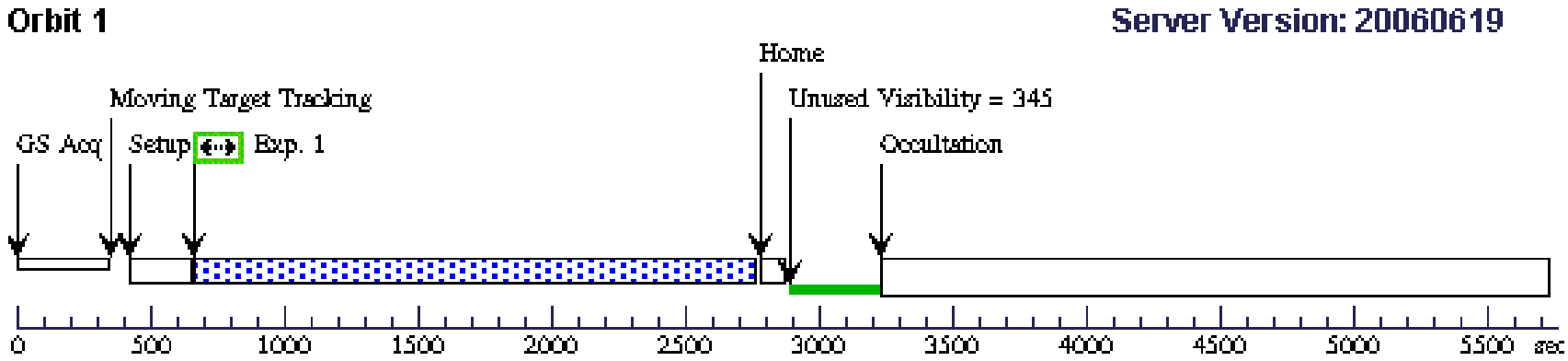
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window
(6)	121-HERMIONE	TYPE=ASTEROID,A=3.444091,E=0.1435845,I=7.577398,O=73.426995,W=295.305623,M=156.980182,EQUINOX=J2000,EPOCH=10-MAY-2005:00:00:00			

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(6) 121-HERMIONE	FGS, POS, 1	F583W				2000.0 Secs	
								[==>]	***[1]***

Orbit Structure



Visit

Proposal 10614, Visit 30, withdrawn

Thu Sep 07 01:02:36 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

Special Requirements: (none)

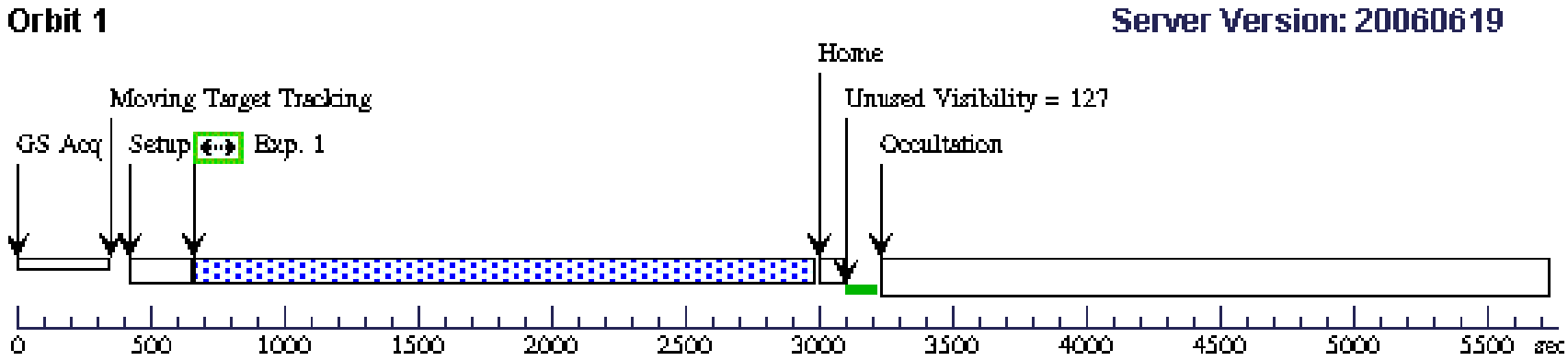
Solar System Targets

#	Name	Level 1	Level 2	Level 3	Window
(9)	617-PATROCLUS	TYPE=ASTEROID,A=5.22791692,E=0.13812707,I=22.033928,O=44.370601,W=307.867935,M=141.609328,EQUINOX=J2000,EPOCH=10-MAY-2005:00:00:00			

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(9) 617-PATROCLUS	FGS, POS, 1	F583W				2000.0 Secs	
								[==>]	***[1]***

Orbit Structure



Visit

Proposal 10614, Visit 07, completed Thu Sep 07 01:02:36 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

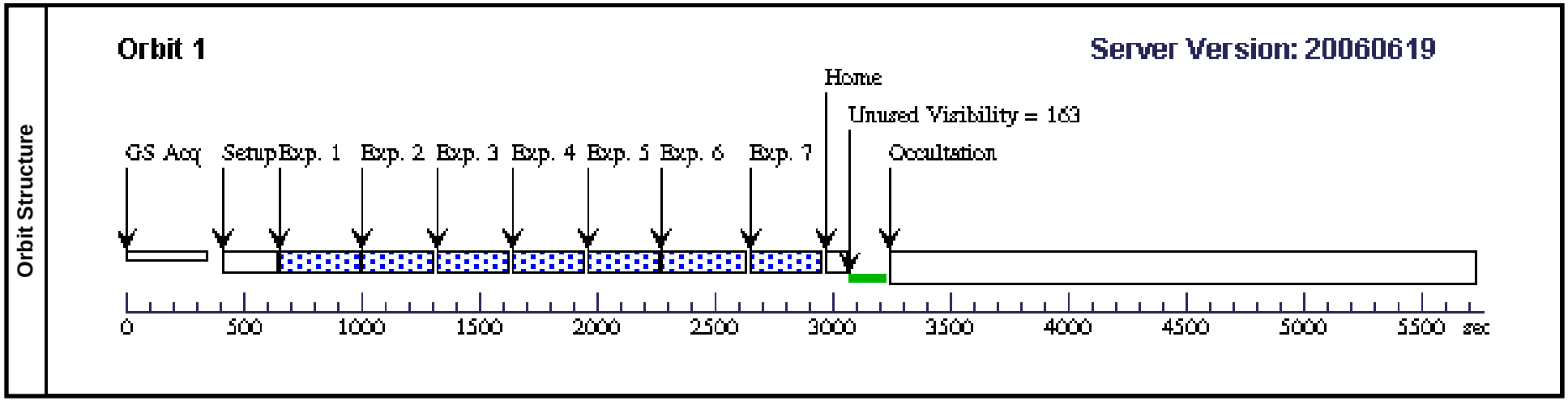
Special Requirements: BETWEEN 29-DEC-2005:14:40:00 AND 29-DEC-2005:15:30:00

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(14)	EMMA-FIX	RA: 10 20 1.1100 (155.0046250d) Dec: +07 30 56.00 (7.51556d) Equinox: J2000		V=14.5+/-0.1 B-V=0.71	Coordinate Source: SPSS calculations

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(14) EMMA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
2		(14) EMMA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(14) EMMA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(14) EMMA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(14) EMMA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(14) EMMA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-7 Non-Int	250.0 Secs *[==>]*	 ***[1]***
7		(14) EMMA-FIX	FGS, TRANS, 1	F583W	SCANS=4; STEP-SIZE=1.0		Sequence 1-7 Non-Int	200.0 Secs *[==>]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20060619
Home
Unused Visibility = 163
GS Acq
Setup
Exp. 1
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 10614, Visit 08, completed Thu Sep 07 01:02:37 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

Special Requirements: BETWEEN 05-JAN-2006:16:10:00 AND 05-JAN-2006:16:45:00

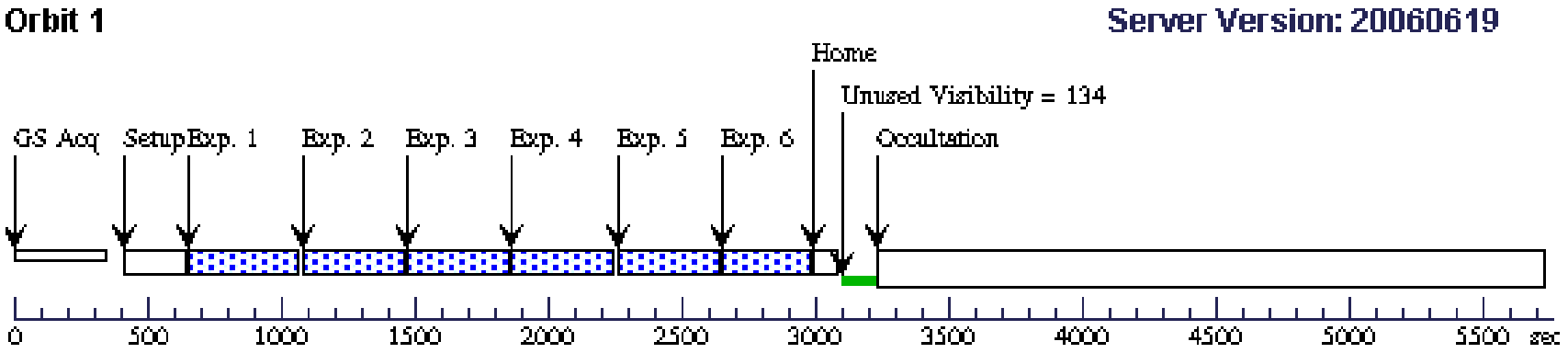
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(16)	HUENNA-FIX	RA: 11 34 17.3400 (173.5722500d) Dec: +02 17 49.50 (2.29708d) Equinox: J2000		V=15.1+/-0.1 B-V=0.67	Coordinate Source: SPSS calculated for specific orbit

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(16) HUENNA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-6 Non-Int	250.0 Secs *[==>]*	 ***[1]***
2		(16) HUENNA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-6 Non-Int	250.0 Secs *[==>]*	 ***[1]***
3		(16) HUENNA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-6 Non-Int	250.0 Secs *[==>]*	 ***[1]***
4		(16) HUENNA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-6 Non-Int	250.0 Secs *[==>]*	 ***[1]***
5		(16) HUENNA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-6 Non-Int	250.0 Secs *[==>]*	 ***[1]***
6		(16) HUENNA-FIX	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=1.0		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 10614, Visit 09, failed Thu Sep 07 01:02:37 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

Special Requirements: BETWEEN 23-DEC-2005:16:20:00 AND 23-DEC-2005:17:00:00

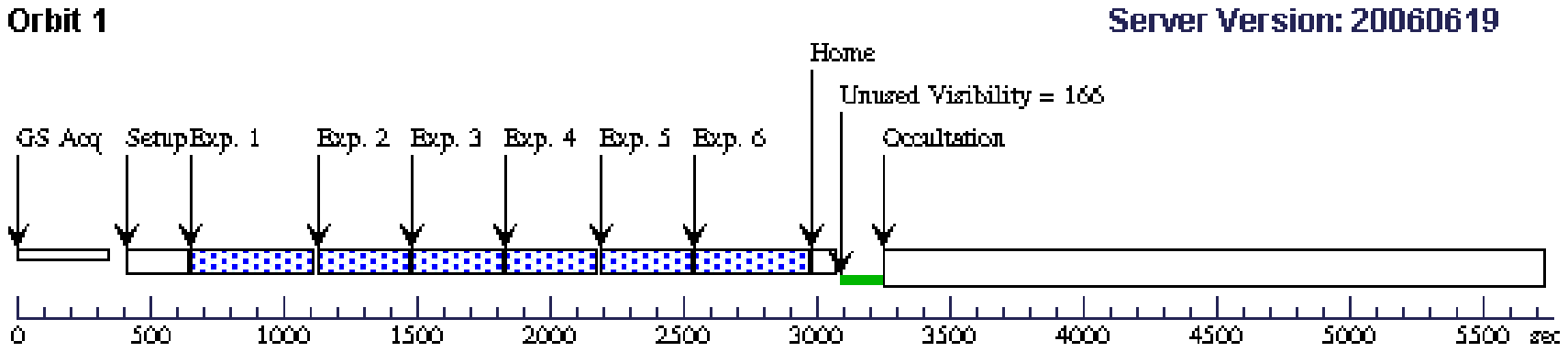
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	PATROCLUS-FIX	RA: 11 54 17.7700 (178.5740417d) Dec: +23 57 20.31 (23.95564d) Equinox: J2000		V=16.2999+/-0.1 B-V=0.70	Coordinate Source: SPSS calculations for specific orbit

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(15) PATROCLUS-FIX	FGS, TRANS, 1	F583W	SCANS=8; STEP-SIZE=1.5		Sequence 1-6 Non-Int	270.0 Secs *[==>]*	 ***[1]***
2		(15) PATROCLUS-FIX	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(15) PATROCLUS-FIX	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(15) PATROCLUS-FIX	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(15) PATROCLUS-FIX	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(15) PATROCLUS-FIX	FGS, TRANS, 1	F583W	SCANS=8; STEP-SIZE=1.5		Sequence 1-6 Non-Int	270.0 Secs *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 10614, Visit 59, failed Thu Sep 07 01:02:38 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

Special Requirements: BETWEEN 20-JAN-2006:14:10:00 AND 20-JAN-2006:14:50:00

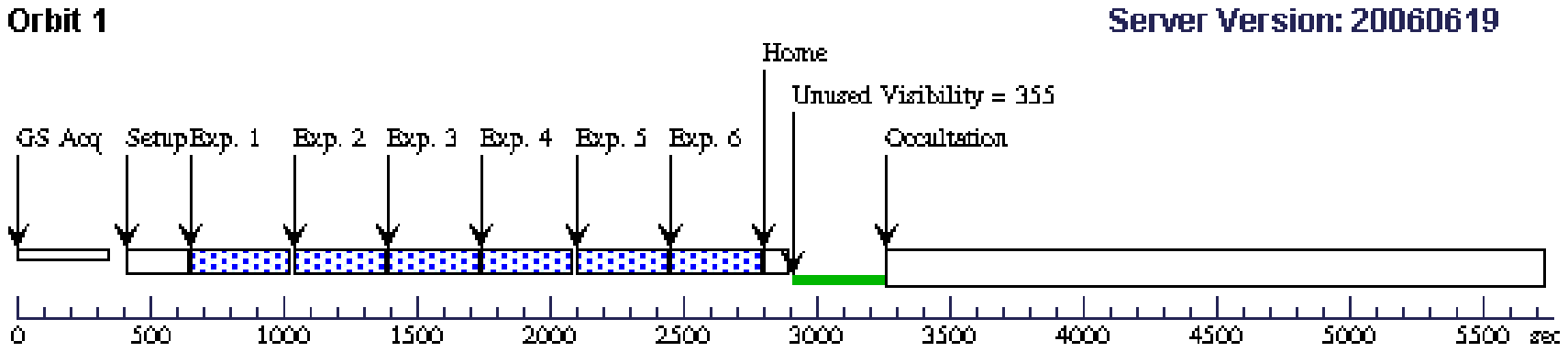
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(19)	PATROCLUS-FIX2	RA: 11 54 41.4900 (178.6728750d) Dec: +25 18 40.91 (25.31136d) Equinox: J2000		V=16.2999+/-0.1 B-V=0.70	Coordinate Source: SPSS calculations for specific orbit

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(19) PATROCLUS-FIX2	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
2		(19) PATROCLUS-FIX2	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(19) PATROCLUS-FIX2	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(19) PATROCLUS-FIX2	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(19) PATROCLUS-FIX2	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(19) PATROCLUS-FIX2	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 10614, Visit 69, completed Thu Sep 07 01:02:38 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

Special Requirements: BETWEEN 15-FEB-2006:12:20:00 AND 15-FEB-2006:13:00:00

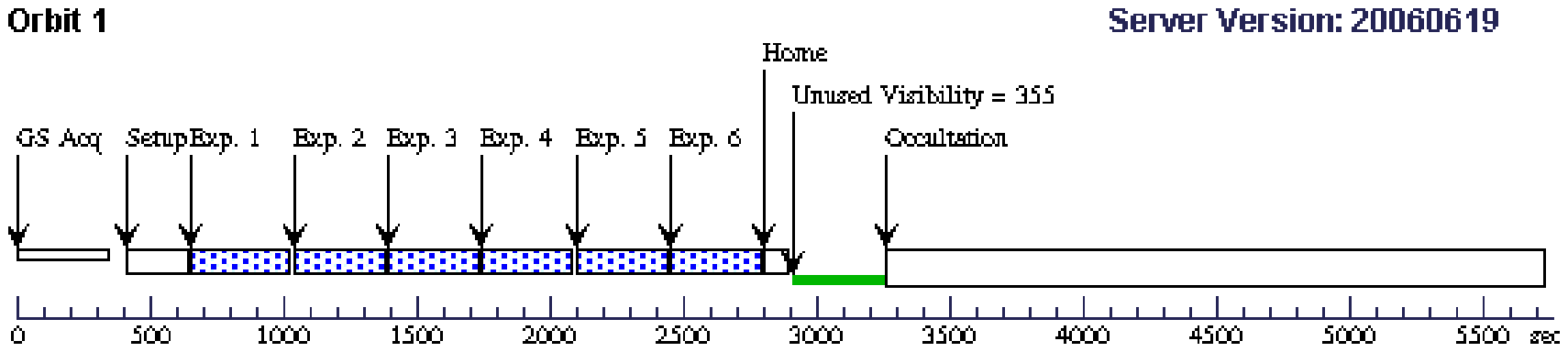
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(20)	PATROCLUS-FIX3	RA: 11 46 47.4500 (176.6977083d) Dec: +26 55 16.96 (26.92138d) Equinox: J2000		V=16.2999+/-0.1 B-V=0.70	Coordinate Source: SPSS calculations for specific orbit

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(20) PATROCLUS-FIX3	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
2		(20) PATROCLUS-FIX3	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
3		(20) PATROCLUS-FIX3	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
4		(20) PATROCLUS-FIX3	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
5		(20) PATROCLUS-FIX3	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***
6		(20) PATROCLUS-FIX3	FGS, TRANS, 1	F583W	SCANS=6; STEP-SIZE=1.5		Sequence 1-6 Non-Int	200.0 Secs *[==>]*	 ***[1]***

Orbit Structure



Visit

Proposal 10614, Visit 10, completed Thu Sep 07 01:02:38 GMT 2006

Diagnostic Status: No Diagnostics

Scientific Instruments: FGS

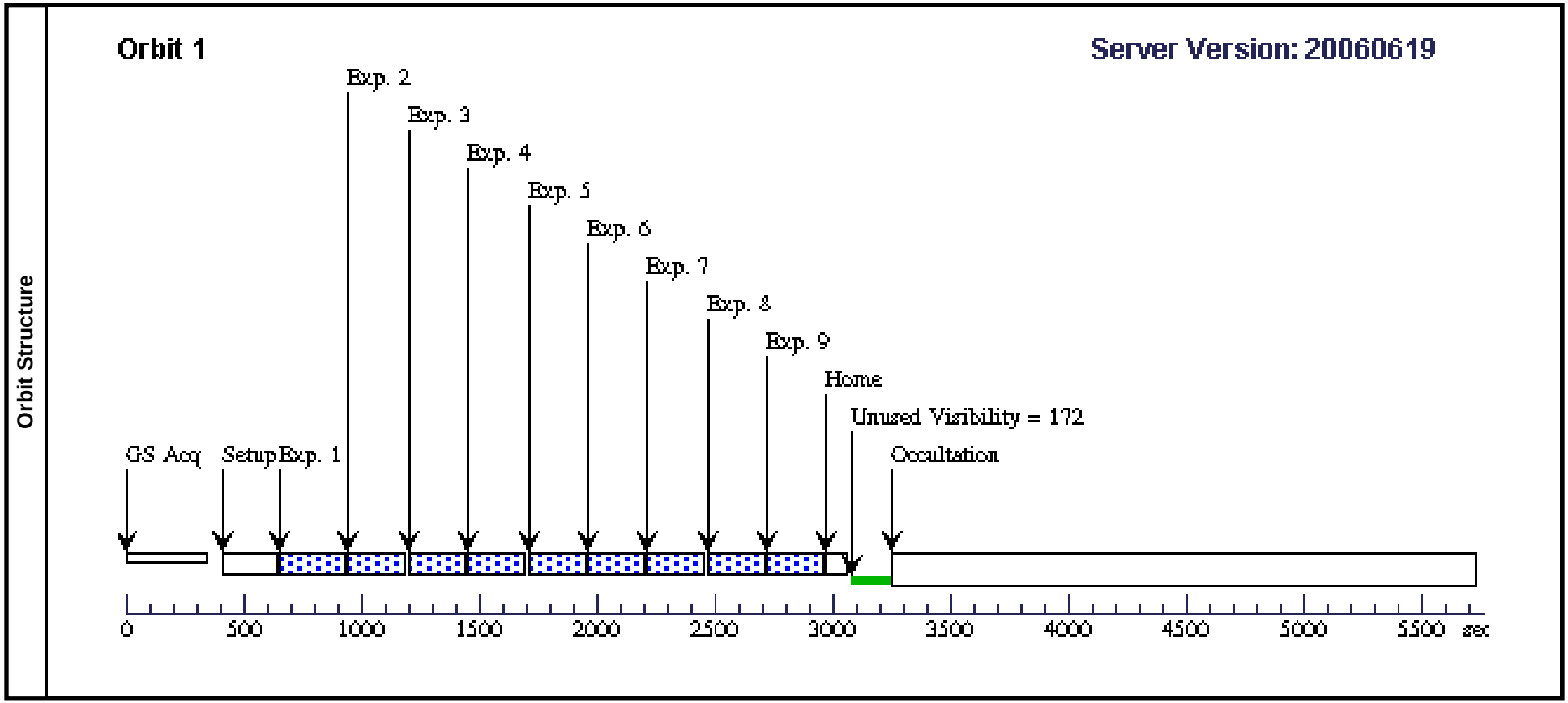
Special Requirements: BETWEEN 02-FEB-2006:19:00:00 AND 02-FEB-2006:19:30:00

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(17)	PULCOVA-FIX	RA: 12 34 26.2300 (188.6092917d) Dec: -17 48 44.72 (-17.81242d) Equinox: J2000		V=13.4+/-0.1 B-V=0.65	Coordinate Source: SPSS calculation for specific orbit

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
2		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
3		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
4		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
5		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
6		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
7		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
8		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***
9		(17) PULCOVA-FIX	FGS, TRANS, 1	F583W	SCANS=3; STEP-SIZE=1.0		Sequence 1-9 Non-Int	150.0 Secs *[==>]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20060619
Exp. 2
Exp. 3
Exp. 4
Exp. 5
Exp. 6
Exp. 7
Exp. 8
Exp. 9
Home
Unused Visibility = 172
GS Acq
Setup
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec