



12052 - COS NUV Grating Efficiency Test

Cycle: 17, Proposal Category: CAL/COS

(Availability Mode: RESTRICTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	WAVE	COS/NUV	2	29-Jan-2010 21:13:04.0	yes
02	WAVE	COS/NUV	2	29-Jan-2010 21:13:25.0	yes

4 Total Orbits Used

ABSTRACT

We will perform two more grating efficiency tests to enable better comparison of results of grating efficiency tests done on the ground with external target spectroscopic sensitivity monitoring on orbit.

The GETS contains 10 NUV exposures designed to get the same S/N of various emission lines throughout the NUV band. The sequence and duration of exposures in this NUV GET are the same as used by the IDT on the ground from 2004-2009 to monitor the relative efficiencies of the NUV gratings. The sequence starts with a 20-minute wait, to ensure that the lamp has cooled from any usage in a previous visit.

OBSERVING DESCRIPTION

We will perform two more grating efficiency tests to enable better comparison of results of grating efficiency tests done on the ground with external target spectroscopic sensitivity monitoring on orbit.

The GETS contains 10 NUV exposures designed to get the same S/N of various emission lines throughout the NUV band. The sequence and duration of exposures in this NUV GET are the same as used by the IDT on the ground from 2004-2009 to monitor the relative efficiencies of the NUV gratings. The sequence starts with a 20-minute wait, to ensure that the lamp has cooled from any usage in a previous visit.

Proposal 12052 - Visit 01 - COS NUV Grating Efficiency Test

Visit	<p>Proposal 12052, Visit 01 Sat Jan 30 02:13:31 GMT 2010</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/NUV</p> <p>Special Requirements: BETWEEN 01-FEB-2010:00:00:00 AND 28-FEB-2010:23:23:59</p> <p><i>Comments: Both passes of the GET (Grating Efficiency Test) are run in this visit back-to-back with a 20-minute wait in between. A 20-minute wait is also inserted at the start of the first pass to insure that the lamp has cooled.</i></p> <p><i>All exposures use Pt Ne lamp 2.</i></p>
Diagnostics	<p>(Visit 01) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU</p>

Proposal 12052 - Visit 01 - COS NUV Grating Efficiency Test

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	NUV-G185-TEST-INIT	WAVE	COS/NUV, TIME-TAG, WCA	G185M 1986 A		QESIPARM USELA MP LINE2		30 Secs [==>]	[1]
<i>Comments: This is an initialization exposure to facilitate a 20-minute lamp-cooling wait prior to start of first pass of GET test.</i>									
2	NUV-G185	WAVE	COS/NUV, TIME-TAG, WCA	G185M 1986 A	BUFFER-TIME=11 1; CURRENT=MEDI UM	AFTER BY 1200 S TO 1500 S; QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	210 Secs [==>]	[1]
<i>Comments: NUV GET exposure; This exposure executes 1200-1500 seconds after previous exposure in order to allow lamp to cool.</i>									
<i>This exposure commences the first section or pass of test exposures (exposures 2-11).</i>									
3	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G185M 2010 A	BUFFER-TIME=98	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	195 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
4	NUV-G225	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2186 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	300 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
5	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2217 A	BUFFER-TIME=11 5	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	225 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
6	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2390 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	75 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
7	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2410 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	300 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
8	NUV-G285	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2617 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	90 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
9	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2637 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	300 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
10	NUV-G230	WAVE	COS/NUV, TIME-TAG, WCA	G230L 2635 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	30 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
11	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G230L 3360 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	105 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									

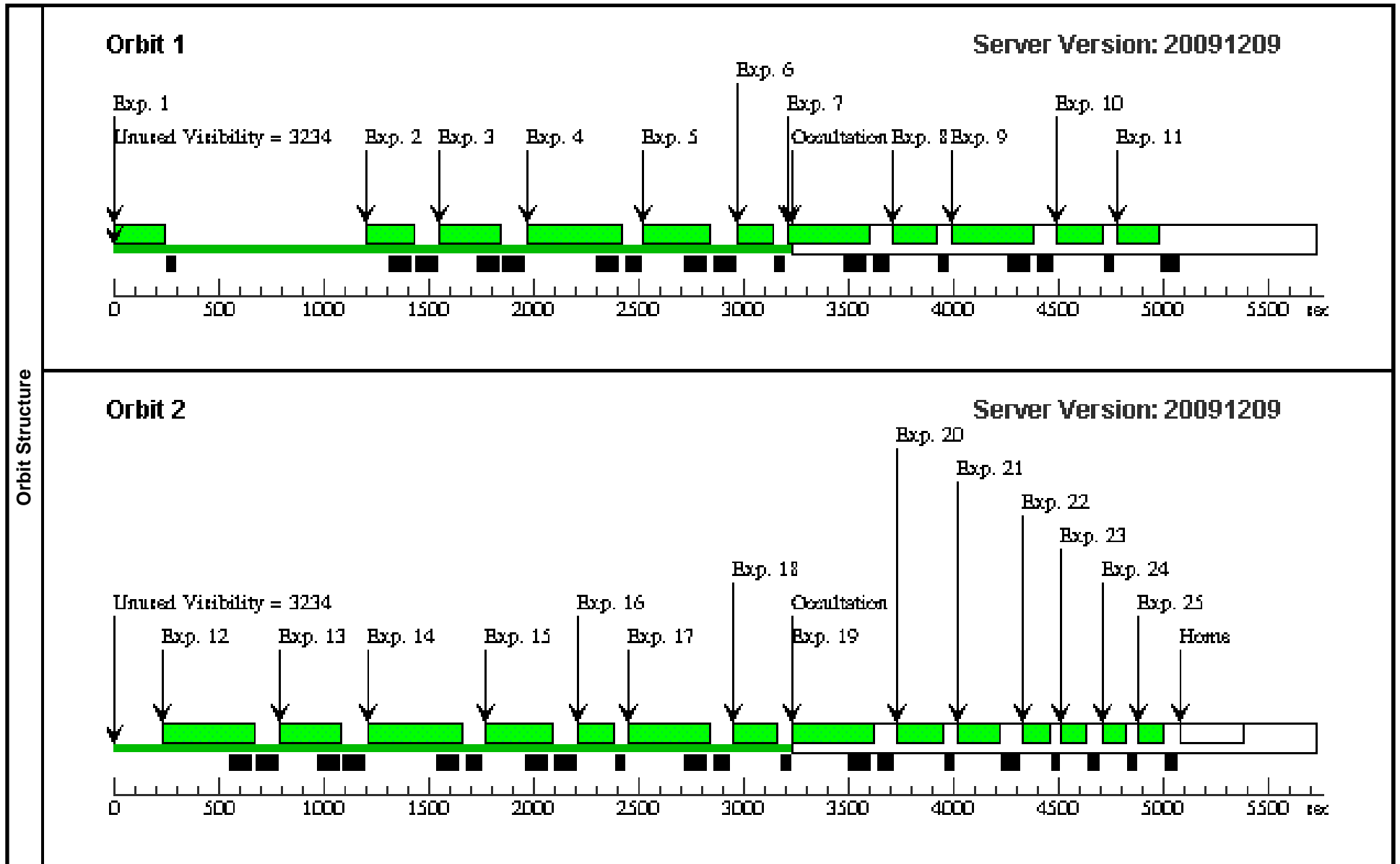
Exposures

Proposal 12052 - Visit 01 - COS NUV Grating Efficiency Test

12	NUV-G185	WAVE	COS/NUV, TIME-TAG, WCA	G185M 1986 A	BUFFER-TIME=11 1; CURRENT=MEDI UM	AFTER BY 1200 S TO 1500 S; QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	210 Secs [==>]	[2]
<i>Comments: NUV GET exposure; This exposure executes 1200-1500 seconds after previous exposure in order to allow lamp to cool.</i>									
<i>This exposure commences the second section or pass of test exposures (exposures 12-21).</i>									
13	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G185M 2010 A	BUFFER-TIME=98	QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	195 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
14	NUV-G225	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2186 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	300 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
15	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2217 A	BUFFER-TIME=11 5	QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	225 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
16	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2390 A		QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	75 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
17	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2410 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	300 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
18	NUV-G285	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2617 A		QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	90 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
19	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2637 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	300 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
20	NUV-G230	WAVE	COS/NUV, TIME-TAG, WCA	G230L 2635 A		QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	30 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
21	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G230L 3360 A		QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	105 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
22		WAVE	COS/NUV, TIME-TAG, WCA	MIRRORA		QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	7 Secs [==>]	[2]
23		WAVE	COS/NUV, TIME-TAG, WCA	MIRROB		QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	30 Secs [==>]	[2]
24		WAVE	COS/NUV, TIME-TAG, WCA	MIRRORA		QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	12 Secs [==>]	[2]

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25	WAVE	COS/NUV, TIME-TAG, WCA	MIRRORB	QESIPARM USELA MP LINE2	Sequence 12-25 Non -Int	30 Secs [==>]	[2]
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Proposal 12052 - Visit 01 - COS NUV Grating Efficiency Test

Visit	<p>Proposal 12052, Visit 02 Sat Jan 30 02:13:33 GMT 2010</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/NUV</p> <p>Special Requirements: AFTER 01 BY 165 D TO 195 D</p> <p><i>Comments: Both passes of the GET (Grating Efficiency Test) are run in this visit back-to-back with a 20-minute wait in between. A 20-minute wait is also inserted at the start of the first pass to insure that the lamp has cooled.</i></p> <p><i>All exposures use Pt Ne lamp 2.</i></p>
Diagnostics	<p>(Visit 02) Warning (Orbit Planner): MAXIMUM DURATION EXCEEDED FOR INTERNAL OR EARTH CALIB SU</p>

Proposal 12052 - Visit 02 - COS NUV Grating Efficiency Test

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	NUV-G185- TEST-INIT	WAVE	COS/NUV, TIME-TAG, WCA	G185M 1986 A		QESIPARM USELA MP LINE2		30 Secs [==>]	[1]
<i>Comments: This is an initialization exposure to facilitate a 20-minute lamp-cooling wait prior to start of first pass of GET test.</i>									
2	NUV-G185	WAVE	COS/NUV, TIME-TAG, WCA	G185M 1986 A	BUFFER-TIME=11 1; CURRENT=MEDI UM	AFTER BY 1200 S TO 1500 S; QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	210 Secs [==>]	[1]
<i>Comments: NUV GET exposure; This exposure executes 1200-1500 seconds after previous exposure in order to allow lamp to cool.</i>									
<i>This exposure commences the first section or pass of test exposures (exposures 2-11).</i>									
3	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G185M 2010 A	BUFFER-TIME=98	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	195 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
4	NUV-G225	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2186 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	300 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
5	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2217 A	BUFFER-TIME=11 5	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	225 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
6	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2390 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	75 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
7	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2410 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	300 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
8	NUV-G285	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2617 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	90 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
9	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2637 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	300 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
10	NUV-G230	WAVE	COS/NUV, TIME-TAG, WCA	G230L 2635 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	30 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									
11	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G230L 3360 A		QESIPARM USELA MP LINE2	Sequence 2-11 Non-I nt	105 Secs [==>]	[1]
<i>Comments: NUV GET exposure</i>									

Exposures

Proposal 12052 - Visit 02 - COS NUV Grating Efficiency Test

12	NUV-G185	WAVE	COS/NUV, TIME-TAG, WCA	G185M 1986 A	BUFFER-TIME=11 1; CURRENT=MEDI UM	AFTER BY 1200 S TO 1500 S; QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	210 Secs [==>]	[2]
<i>Comments: NUV GET exposure; This exposure executes 1200-1500 seconds after previous exposure in order to allow lamp to cool.</i>									
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<i>Comments: NUV GET exposure</i>									
15	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2217 A	BUFFER-TIME=11 5	QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	225 Secs [==>]	[2]
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16	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2390 A		QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	75 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
17	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G225M 2410 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	300 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
18	NUV-G285	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2617 A		QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	90 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
19	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G285M 2637 A	BUFFER-TIME=19 0	QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	300 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
20	NUV-G230	WAVE	COS/NUV, TIME-TAG, WCA	G230L 2635 A		QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	30 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									
21	NUV	WAVE	COS/NUV, TIME-TAG, WCA	G230L 3360 A		QESIPARM USELA MP LINE2	Sequence 12-21 Non -Int	105 Secs [==>]	[2]
<i>Comments: NUV GET exposure</i>									

