



15681 - COS Side 2 Initial NUV Checkout for Back-up Target in One-Gyro Mode

Cycle: 26, 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	(2) IDK-M002 NONE	COS COS/NUV	3	18-Apr-2019 13:00:18.0	yes

3 Total Orbits Used

ABSTRACT

The proper focus of the NUV channel is critical for the best performance of COS. In the event of a switch to the Side 2 electronics, an NUV focus sweep will be performed (Program 13192) and compared to a focus sweep performed with the Side 1 electronics to ensure that the focus has not changed. The primary target in Program 13192 is NGC188-41, and the comparison sweep for that target was performed in Program 13530. In the event that we are operating in One-Gyro mode when a side switch occurs, the primary target may not be available, and a backup target (IDK-M002) will be used instead. This program performs a focus sweep which will be used for comparison purposes in that case.

OBSERVING DESCRIPTION

This program consists of a single 3-orbit visit which will perform an NUV focus sweep using MIRRORA with the target IDK-M002. The layout will be very similar to what has been used in previous NUV focus sweeps (Programs 11469 and 13530), although it will require 3 orbits instead of 2

because the target is not as bright.

The focus offset pattern is shifted slightly in this program with respect to that used in Program 13530 in order to more make the spot size vs. position more symmetric. The spacing between exposures on the wings of the pattern has also been increased to cover a larger focus range.

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Visit	Proposal 15681, IDK-M002 NUV Focus Sweep (01), implementation Thu Apr 18 17:00:20 GMT 2019 Diagnostic Status: Warning Scientific Instruments: COS, COS/NUV Special Requirements: SCHED 100%																
	(IDK-M002 NUV Focus Sweep (01)) Warning (Form): This visit contains an ALIGN/OSM exposure which should be preceded by an FUV science exposure to define the starting position for the scan.																
Diagnosics																	
Fixed Targets	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>IDK-M002</td> <td>RA: 02 28 49.2574 (37.2052392d) Dec: -73 43 58.50 (-73.73292d) Equinox: J2000</td> <td>Proper Motion RA: 11.450 mas/yr Proper Motion Dec: -3.476 mas/yr Epoch of Position: 2000</td> <td>V=15.78</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	IDK-M002	RA: 02 28 49.2574 (37.2052392d) Dec: -73 43 58.50 (-73.73292d) Equinox: J2000	Proper Motion RA: 11.450 mas/yr Proper Motion Dec: -3.476 mas/yr Epoch of Position: 2000	V=15.78	Reference Frame: ICRS				
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Comments: Category=STAR Description=[G V-IV] Extended=NO																	

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#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	PSA ACQ/I MAGE (COS.ta.131 8710)	(2) IDK-M002	COS/NUV, ACQ/IMAGE, PSA	MIRRORA		GS ACQ SCENARI O BASE1BE		60 Secs (60 Secs) [==>]	[1]
2	Nominal Fo cus Exposur e (COS.im.13 18716)	(2) IDK-M002	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES			255 Secs (255 Secs) [==>]	[1]
<i>Comments: Exposure at nominal focus position</i>									
3	Move Focus To -200 (0)	NONE	COS, ALIGN/OSM		FOCUS=-200			0 Secs (0 Secs) [==>]	[1]
<i>Comments: Offset to focus position</i>									
4	NUV Expos ure (COS.im.13 18716)	(2) IDK-M002	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES			255 Secs (255 Secs) [==>]	[1]
<i>Comments: Exposure during focus sweep</i>									
5	Move Focus To -150 (0)	NONE	COS, ALIGN/OSM		FOCUS=-150			0 Secs (0 Secs) [==>]	[1]
<i>Comments: Offset to focus position</i>									
6	NUV Expos ure (COS.im.13 18716)	(2) IDK-M002	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES			255 Secs (255 Secs) [==>]	[1]
<i>Comments: Exposure during focus sweep</i>									
7	Move Focus To -100 (0)	NONE	COS, ALIGN/OSM		FOCUS=-100			0 Secs (0 Secs) [==>]	[1]
<i>Comments: Offset to focus position</i>									
8	NUV Expos ure (COS.im.13 18716)	(2) IDK-M002	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES			255 Secs (255 Secs) [==>]	[1]
<i>Comments: Exposure during focus sweep</i>									
9	Move Focus To -75 (0)	NONE	COS, ALIGN/OSM		FOCUS=-75			0 Secs (0 Secs) [==>]	[1]
<i>Comments: Offset to focus position</i>									
10	NUV Expos ure (COS.im.13 18716)	(2) IDK-M002	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES			255 Secs (255 Secs) [==>]	[1]
<i>Comments: Exposure during focus sweep</i>									
11	Move Focus To -50 (0)	NONE	COS, ALIGN/OSM		FOCUS=-50			0 Secs (0 Secs) [==>]	[1]
<i>Comments: Offset to focus position</i>									

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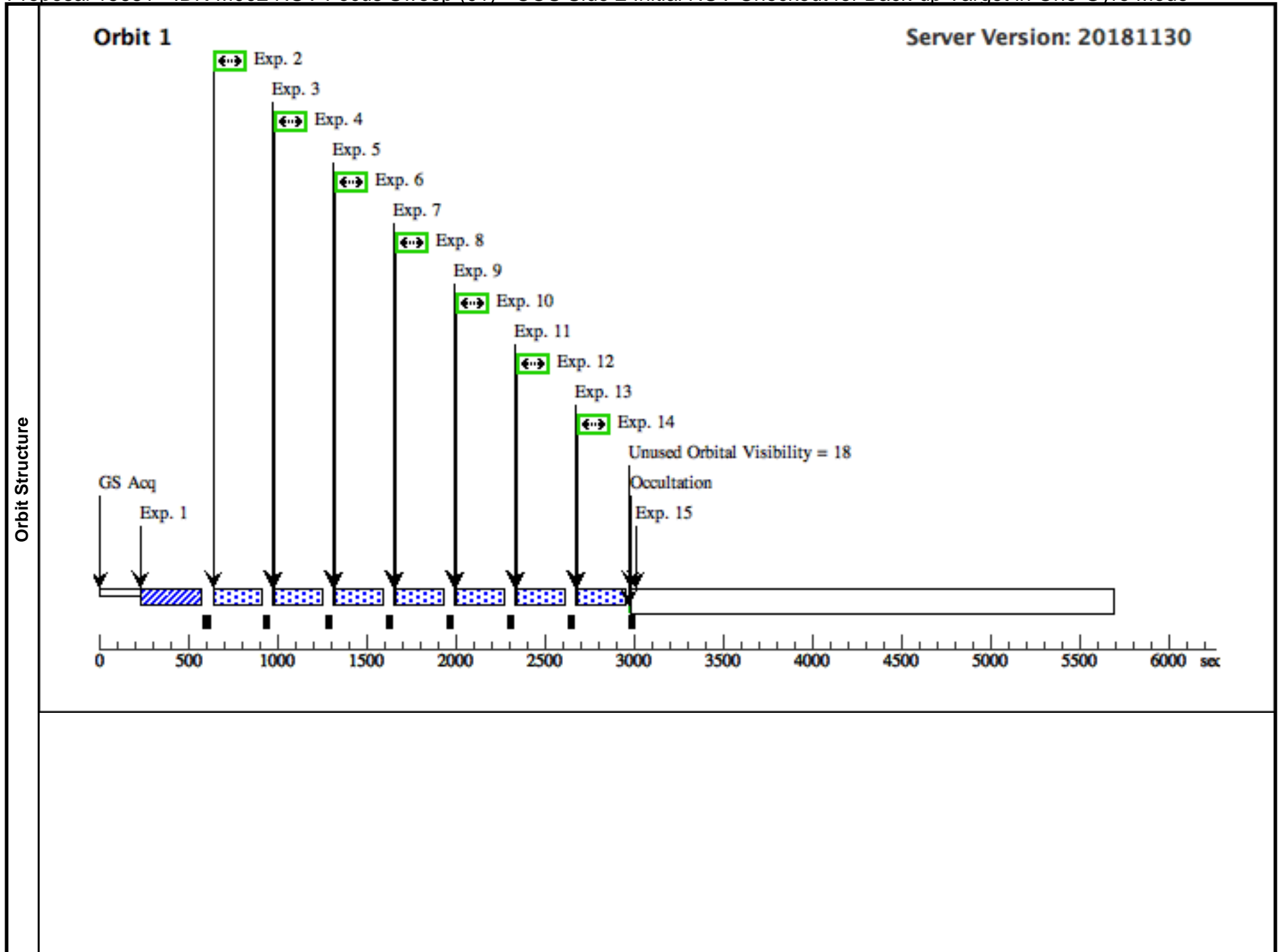
12	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	255 Secs (255 Secs) [==>]	[1]
<i>Comments: Exposure during focus sweep</i>						
13	Move Focus NONE To -25 (0)	COS, ALIGN/OSM		FOCUS=-25	0 Secs (0 Secs) [==>]	[1]
<i>Comments: Offset to focus position</i>						
14	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	255 Secs (255 Secs) [==>]	[1]
<i>Comments: Exposure during focus sweep</i>						
15	Move to Nominal Focus (0)	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) [==>]	[1]
<i>Comments: Nominal Focus Location</i>						
16	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[2]
<i>Comments: Exposure during focus sweep</i>						
17	Move Focus NONE To +25 (0)	COS, ALIGN/OSM		FOCUS=25	0 Secs (0 Secs) [==>]	[2]
<i>Comments: Offset to focus position</i>						
18	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[2]
<i>Comments: Exposure during focus sweep</i>						
19	Move Focus NONE To +50 (0)	COS, ALIGN/OSM		FOCUS=50	0 Secs (0 Secs) [==>]	[2]
<i>Comments: Offset to focus position</i>						
20	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[2]
<i>Comments: Exposure during focus sweep</i>						
21	Move Focus NONE To +75 (0)	COS, ALIGN/OSM		FOCUS=75	0 Secs (0 Secs) [==>]	[2]
<i>Comments: Offset to focus position</i>						
22	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[2]
<i>Comments: Exposure during focus sweep</i>						
23	Move Focus NONE To +100 (0)	COS, ALIGN/OSM		FOCUS=100	0 Secs (0 Secs) [==>]	[2]
<i>Comments: Offset to focus position</i>						

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24	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[2]
<i>Comments: Exposure during focus sweep</i>						
25	Move Focus NONE To +125 (0)	COS, ALIGN/OSM		FOCUS=125	0 Secs (0 Secs) [==>]	[2]
<i>Comments: Offset to focus position</i>						
26	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[2]
<i>Comments: Exposure during focus sweep</i>						
27	Move Focus NONE To +150 (0)	COS, ALIGN/OSM		FOCUS=150	0 Secs (0 Secs) [==>]	[2]
<i>Comments: Offset to focus position</i>						
28	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[2]
<i>Comments: Exposure during focus sweep</i>						
29	Move Focus NONE To +175 (0)	COS, ALIGN/OSM		FOCUS=175	0 Secs (0 Secs) [==>]	[2]
<i>Comments: Offset to focus position</i>						
30	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[3]
<i>Comments: Exposure during focus sweep</i>						
31	Move Focus NONE To +200 (0)	COS, ALIGN/OSM		FOCUS=200	0 Secs (0 Secs) [==>]	[3]
<i>Comments: Offset to focus position</i>						
32	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[3]
<i>Comments: Exposure during focus sweep</i>						
33	Move Focus NONE To +250 (0)	COS, ALIGN/OSM		FOCUS=250	0 Secs (0 Secs) [==>]	[3]
<i>Comments: Offset to focus position</i>						
34	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[3]
<i>Comments: Exposure during focus sweep</i>						
35	Move Focus NONE To +300 (0)	COS, ALIGN/OSM		FOCUS=300	0 Secs (0 Secs) [==>]	[3]
<i>Comments: Offset to focus position</i>						

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36	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[3]
<i>Comments: Exposure during focus sweep</i>						
37	Move Focus NONE To +350 (0)	COS, ALIGN/OSM		FOCUS=350	0 Secs (0 Secs) [==>]	[3]
<i>Comments: Offset to focus position</i>						
38	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[3]
<i>Comments: Exposure during focus sweep</i>						
39	Move Focus NONE To +400 (0)	COS, ALIGN/OSM		FOCUS=400	0 Secs (0 Secs) [==>]	[3]
<i>Comments: Offset to focus position</i>						
40	NUV Exposure (2) IDK-M002 ure (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[3]
<i>Comments: Exposure during focus sweep</i>						
41	Move to Nominal Focus (0)	COS, ALIGN/OSM		FOCUS=0	0 Secs (0 Secs) [==>]	[3]
<i>Comments: Back to Nominal Focus Location</i>						
42	Nominal Focus Exposure (2) IDK-M002 e (COS.im.13 18716)	COS/NUV, TIME-TAG, PSA	MIRRORA	BUFFER-TIME=17 00; FLASH=YES	265 Secs (265 Secs) [==>]	[3]
<i>Comments: Exposure at nominal focus position</i>						



Orbit 2

Server Version: 20181130

