

BepiColombo

**FLIGHT REPORTS
of MPO-MAG**

BC-MAG-TR-1007

Issue: 2 Revision: 1

2022-12-19

**OVERVIEW OF
AVAILABLE MPO-MAG DATA
AND
DATA QUALITY ASSESSMENT**

Mission Phase:	VGA-2
Time Period	August 7, 2021 - August 12, 2021

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1 Introduction

This document provides information about all available data and its quality for the time period between August 7, 2021 until August 12, 2021. This covers the Mission Phase VENUS SWINGBY 2 (VGA-2).

For day where measurement data are available overview plots have been created. The data availability plots show all data calibration levels available. The science modes of the data are distinguished by different colors. An overview table of available data completes the data overview.

Furthermore a list of known relevant events happening onboard the s/c is present to give a hint, where the data quality might be diminished by s/c interference.

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1.1 Relevant Events for MPOMAG

Switch on	Switch off	EVENTS	VISIBLE	REFERENCE
2021-07-31T14:10	2021-07-30T12:10	<p>MIO back to Dormant mode 2021-07-15T06:20</p> <p>MPOMAG power cycle from 2021-07-30T12:10 to 2021-07-31T14:10 for a TCM</p> <p>30-Jul-21: Venus swing-by TCM-2w manoeuver slot; 05-Aug-21: Venus swing-by TCM-1w manoeuver slot; MIO was activated since at 2021-08-08T14:50</p> <p>2021-08-10T05:51:41 WOL</p> <p>2021-08-10T06:22:03 to 09:22 Slew into CA Attitude</p> <p>2021-08-10T09:31:41 WOL</p> <p>2021-08-10T12:51 HGA to HOLD</p> <p>2021-08-10T14:51 HGA back to Earth tracking</p> <p>2021-08-10T14:54 WOL</p> <p>2021-08-10T15:22 to 18.22 Slew to CAM3 imaging attitude</p> <p>2021-08-10T22:51 WOL</p> <p>2021-08-11T10:51:41 WOL executed</p> <p>2021-08-11T10:56:00 MIO commanded into Dormant.</p> <p>VSB2 C/A: 2021-08-10T13:51:53.722 UTC. Periapsis distance: 6604.247 km (552 km altitude).with</p> <p>2021-08-11T23:21:41 WOL executed</p> <p>MPO SA maintenance: moving MPO SA by ± 2 deg in each direction between 2021-08-13T11:00 and 14:24</p> <p>MIO back to dormant mode at 2021-08-11T10:56</p> <p>MIO reactivated at 2021-08-14T09:20 until 2021-08-19</p>		<p>MOR #114</p> <p>DR-07-31</p> <p>MOR #118</p> <p>DR-08-10</p> <p>DR-08-10</p> <p>DR-08-10</p> <p>DR-08-10</p> <p>DR-08-10</p> <p>DR-08-10</p> <p>DR-08-10</p> <p>DR-08-10</p> <p>DR-08-11</p> <p>DR-08-11</p> <p>DR-08-11</p> <p>DR-08-13</p> <p>DR-08-13</p> <p>MOR #118</p> <p>MOR #118</p> <p>MOR #118</p>

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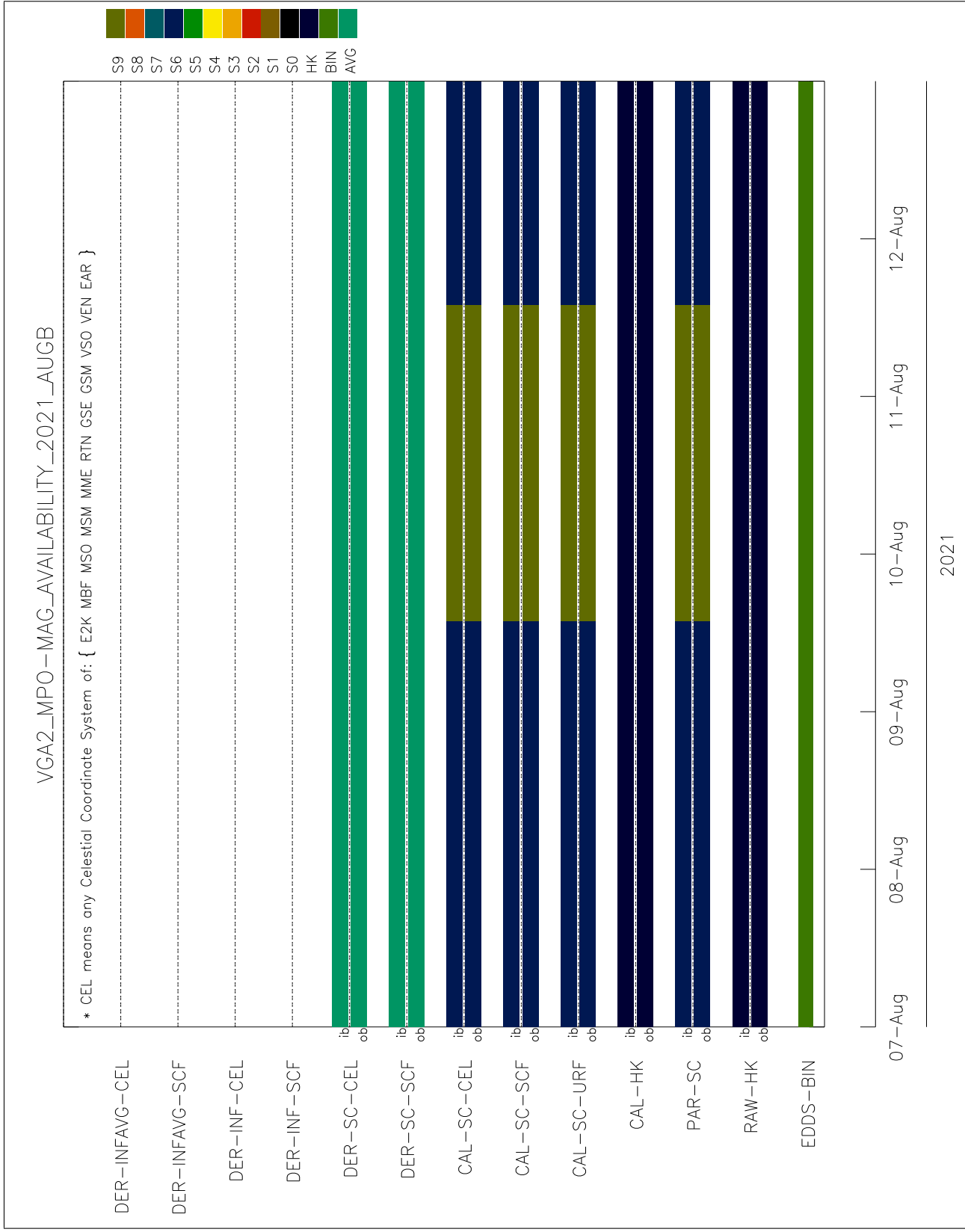


Figure 1: Overview August 2021

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DATE	CALIBRATION LEVEL	COORDINATES	SAMPLE RATES (Hz)
2021-08-07	edds_bin	URF	all available
2021-08-07	raw_hk_ob	URF	standard HK rate
2021-08-07	cal_hk_ob	URF	standard HK rate
2021-08-07	par_sc_ob	URF	16
2021-08-07	cal_sc_ob	URF	16
2021-08-07	cal_sc_ob	SCF	16
2021-08-07	cal_sc_ob	E2K VSO	16
2021-08-07	der_sc_ob	URF	N / A
2021-08-07	der_sc_ob	SCF	AVG
2021-08-07	der_sc_ob	E2K VSO	AVG
2021-08-07	raw_hk_ib	URF	standard HK rate
2021-08-07	cal_hk_ib	URF	standard HK rate
2021-08-07	par_sc_ib	URF	16
2021-08-07	cal_sc_ib	URF	16
2021-08-07	cal_sc_ib	SCF	16
2021-08-07	cal_sc_ib	E2K VSO	16
2021-08-07	der_sc_ib	URF	N / A
2021-08-07	der_sc_ib	SCF	AVG
2021-08-07	der_sc_ib	E2K VSO	AVG
2021-08-07	der_inf	URF	N / A
2021-08-07	der_inf	SCF	N / A
2021-08-07	der_inf		MISSING!!
2021-08-08	edds_bin	URF	all available
2021-08-08	raw_hk_ob	URF	standard HK rate
2021-08-08	cal_hk_ob	URF	standard HK rate
2021-08-08	par_sc_ob	URF	16
2021-08-08	cal_sc_ob	URF	16
2021-08-08	cal_sc_ob	SCF	16
2021-08-08	cal_sc_ob	E2K VSO	16
2021-08-08	der_sc_ob	URF	N / A
2021-08-08	der_sc_ob	SCF	AVG
2021-08-08	der_sc_ob	E2K VSO	AVG
2021-08-08	raw_hk_ib	URF	standard HK rate
2021-08-08	cal_hk_ib	URF	standard HK rate
2021-08-08	par_sc_ib	URF	16
2021-08-08	cal_sc_ib	URF	16
2021-08-08	cal_sc_ib	SCF	16
2021-08-08	cal_sc_ib	E2K VSO	16
2021-08-08	der_sc_ib	URF	N / A
2021-08-08	der_sc_ib	SCF	AVG
2021-08-08	der_sc_ib	E2K VSO	AVG
2021-08-08	der_inf	URF	N / A
2021-08-08	der_inf	SCF	N / A
2021-08-08	der_inf		MISSING!!

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DATE	CALIBRATION LEVEL	COORDINATES	SAMPLE RATES (Hz)		
2021-08-09	edds_bin	URF	all available		
2021-08-09	raw_hk_ob	URF	standard HK rate		
2021-08-09	cal_hk_ob	URF	standard HK rate		
2021-08-09	par_sc_ob	URF	16	128	
2021-08-09	cal_sc_ob	URF	16	128	
2021-08-09	cal_sc_ob	SCF	16	128	
2021-08-09	cal_sc_ob	E2K VSO	16	128	
2021-08-09	der_sc_ob	URF	N / A		
2021-08-09	der_sc_ob	SCF			AVG
2021-08-09	der_sc_ob	E2K VSO			AVG
2021-08-09	raw_hk_ib	URF	standard HK rate		
2021-08-09	cal_hk_ib	URF	standard HK rate		
2021-08-09	par_sc_ib	URF	16	128	
2021-08-09	cal_sc_ib	URF	16	128	
2021-08-09	cal_sc_ib	SCF	16	128	
2021-08-09	cal_sc_ib	E2K VSO	16	128	
2021-08-09	der_sc_ib	URF	N / A		
2021-08-09	der_sc_ib	SCF			AVG
2021-08-09	der_sc_ib	E2K VSO			AVG
2021-08-09	der_inf	URF	N / A		
2021-08-09	der_inf	SCF	N / A		
2021-08-09	der_inf		MISSING!!		
2021-08-10	edds_bin	URF	all available		
2021-08-10	raw_hk_ob	URF	standard HK rate		
2021-08-10	cal_hk_ob	URF	standard HK rate		
2021-08-10	par_sc_ob	URF			128
2021-08-10	cal_sc_ob	URF			128
2021-08-10	cal_sc_ob	SCF			128
2021-08-10	cal_sc_ob	E2K VSO			128
2021-08-10	der_sc_ob	URF	N / A		
2021-08-10	der_sc_ob	SCF			AVG
2021-08-10	der_sc_ob	E2K VSO			AVG
2021-08-10	raw_hk_ib	URF	standard HK rate		
2021-08-10	cal_hk_ib	URF	standard HK rate		
2021-08-10	par_sc_ib	URF			128
2021-08-10	cal_sc_ib	URF			128
2021-08-10	cal_sc_ib	SCF			128
2021-08-10	cal_sc_ib	E2K VSO			128
2021-08-10	der_sc_ib	URF	N / A		
2021-08-10	der_sc_ib	SCF			AVG
2021-08-10	der_sc_ib	E2K VSO			AVG
2021-08-10	der_inf	URF	N / A		
2021-08-10	der_inf	SCF	N / A		
2021-08-10	der_inf		MISSING!!		

DATE	CALIBRATION LEVEL	COORDINATES	SAMPLE RATES (Hz)	
2021-08-11	edds_bin	URF	all available	
2021-08-11	raw_hk_ob	URF	standard HK rate	
2021-08-11	cal_hk_ob	URF	standard HK rate	
2021-08-11	par_sc_ob	URF	16	128
2021-08-11	cal_sc_ob	URF	16	128
2021-08-11	cal_sc_ob	SCF	16	128
2021-08-11	cal_sc_ob	E2K VSO	16	128
2021-08-11	der_sc_ob	URF	N / A	
2021-08-11	der_sc_ob	SCF		AVG
2021-08-11	der_sc_ob	E2K VSO		AVG
2021-08-11	raw_hk_ib	URF	standard HK rate	
2021-08-11	cal_hk_ib	URF	standard HK rate	
2021-08-11	par_sc_ib	URF	16	128
2021-08-11	cal_sc_ib	URF	16	128
2021-08-11	cal_sc_ib	SCF	16	128
2021-08-11	cal_sc_ib	E2K VSO	16	128
2021-08-11	der_sc_ib	URF	N / A	
2021-08-11	der_sc_ib	SCF		AVG
2021-08-11	der_sc_ib	E2K VSO		AVG
2021-08-11	der_inf	URF	N / A	
2021-08-11	der_inf	SCF	N / A	
2021-08-11	der_inf		MISSING!!	
2021-08-12	edds_bin	URF	all available	
2021-08-12	raw_hk_ob	URF	standard HK rate	
2021-08-12	cal_hk_ob	URF	standard HK rate	
2021-08-12	par_sc_ob	URF	16	
2021-08-12	cal_sc_ob	URF	16	
2021-08-12	cal_sc_ob	SCF	16	
2021-08-12	cal_sc_ob	E2K VSO	16	
2021-08-12	der_sc_ob	URF	N / A	
2021-08-12	der_sc_ob	SCF		AVG
2021-08-12	der_sc_ob	E2K VSO		AVG
2021-08-12	raw_hk_ib	URF	standard HK rate	
2021-08-12	cal_hk_ib	URF	standard HK rate	
2021-08-12	par_sc_ib	URF	16	
2021-08-12	cal_sc_ib	URF	16	
2021-08-12	cal_sc_ib	SCF	16	
2021-08-12	cal_sc_ib	E2K VSO	16	
2021-08-12	der_sc_ib	URF	N / A	
2021-08-12	der_sc_ib	SCF		AVG
2021-08-12	der_sc_ib	E2K VSO		AVG
2021-08-12	der_inf	URF	N / A	
2021-08-12	der_inf	SCF	N / A	
2021-08-12	der_inf		MISSING!!	