## **Test Values for WMM2025**

The computation was carried out with double precision arithmetic. Single precision arithmetic can cause differences of up to 0.1 nT. Heights are with respect to the WGS 84 Ellipsoid. Grid Variation is with respect to the Grid North of the Universal Polar Stereographic Projection

Date	Height (km)	Lat (Deg)	Lon (Deg)	X (nT)	Y (nT)	Z (nT)	H (nT)	F (nT)	I (Deg)	D (Deg)	GV (Deg)
2025.0	0	80	0	6521.6	145.9	54791.5	6523.2	55178.5	83.21	1.28	1.28
2025.0	0	0	120	39677.8	-109.6	-10580.2	39677.9	41064.3	-14.93	-0.16	
2025.0	0	-80	240	6117.5	15751.9	-52022.5	16898.1	54698.2	-72	68.78	-51.22
2025.0	100	80	0	6216	92.4	52598.8	6216.7	52964.9	83.26	0.85	0.85
2025.0	100	0	120	37688.6	-96.2	-10152.1	37688.7	39032.1	-15.08	-0.15	
2025.0	100	-80	240	5907.6	14780.3	-49540.7	15917.1	52035	-72.19	68.21	-51.79
2027.5	0	80	0	6500.8	294.5	54869.4	6507.5	55253.9	83.24	2.59	2.59
2027.5	0	0	120	39701.6	-167.4	-10381.8	39702	41036.9	-14.65	-0.24	
2027.5	0	-80	240	6200.7	15730.3	-51783.7	16908.3	54474.2	-71.92	68.49	-51.51
2027.5	100	80	0	6196.7	233.8	52670.5	6201.1	53034.3	83.29	2.16	2.16
2027.5	100	0	120	37711.5	-148.7	-9969.8	37711.8	39007.4	-14.81	-0.23	
2027.5	100	-80	240	5984	14760.1	-49317.7	15927	51825.7	-72.1	67.93	-52.07
2027.0			270								-32.01
	Height	Lat	Lon	Xdot	Ydot	Zdot	Hdot	Fdot	Idot	Ddot	-52.01
Date	Height (km)	Lat (Deg)		Xdot (nT/yr)	Ydot (nT/yr)	Zdot (nT/yr)	Hdot (nT/yr)	Fdot (nT/yr)	ldot (deg/yr)	Ddot (deg/yr)	-32.01
<b>Date</b> 2025.0	Height (km)	<b>Lat</b> ( <b>Deg</b> ) 80	<b>Lon</b> ( <b>Deg</b> )	Xdot (nT/yr) -8.3	Ydot (nT/yr) 59.5	Zdot (nT/yr) 31.1	Hdot (nT/yr) -7	Fdot (nT/yr) 30.1	Idot (deg/yr) 0.01	Ddot (deg/yr) 0.52	-32.01
Date 2025.0 2025.0	Height (km)	Lat (Deg) 80	Lon (Deg) 0 120	Xdot (nT/yr) -8.3 9.5	Ydot (nT/yr) 59.5 -23.1	Zdot (nT/yr) 31.1 79.4	Hdot (nT/yr)	Fdot (nT/yr) 30.1 -11.2	Idot (deg/yr) 0.01 0.11	Ddot (deg/yr) 0.52 -0.03	-32.07
Date 2025.0 2025.0 2025.0	Height (km)  0 0 0	Lat (Deg) 80 0 -80	<b>Lon</b> ( <b>Deg</b> )	Xdot (nT/yr) -8.3 9.5 33.3	Ydot (nT/yr) 59.5 -23.1 -8.6	Zdot (nT/yr) 31.1 79.4 95.5	Hdot (nT/yr) -7 9.6 4	Fdot (nT/yr) 30.1 -11.2 -89.6	Idot   (deg/yr)   0.01   0.11   0.03	Ddot (deg/yr) 0.52 -0.03 -0.12	-32.01
2025.0 2025.0 2025.0 2025.0	Height (km)  0  0  100	Lat (Deg)  80  0  -80  80	Lon (Deg)  0 120 240 0	Xdot (nT/yr) -8.3 9.5 33.3 -7.7	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5	Zdot (nT/yr) 31.1 79.4 95.5 28.7	Hdot (nT/yr) -7 9.6 4 -6.9	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6	Idot (deg/yr) 0.01 0.11 0.03 0.01	Ddot (deg/yr) 0.52 -0.03 -0.12 0.52	-52.01
2025.0 2025.0 2025.0 2025.0 2025.0	Height (km)  0  0  100  100	Lat (Deg)  80  0  -80  80  0	Lon (Deg)  0 120 240 0 120	Xdot (nT/yr) -8.3 9.5 33.3 -7.7 9.2	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5 -21	Zdot (nT/yr) 31.1 79.4 95.5 28.7 72.9	Hdot (nT/yr) -7 9.6 4 -6.9 9.2	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6 -10	0.01 0.03 0.01 0.11	Ddot (deg/yr) 0.52 -0.03 -0.12 0.52 -0.03	-32.01
2025.0 2025.0 2025.0 2025.0 2025.0 2025.0	Height (km)  0  0  100	Lat (Deg)  80  0  -80  80  0 -80	Lon (Deg)  0 120 240 0	Xdot (nT/yr) -8.3 9.5 33.3 -7.7 9.2 30.6	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5 -21	Zdot (nT/yr) 31.1 79.4 95.5 28.7 72.9 89.2	Hdot (nT/yr) -7 9.6 4 -6.9 9.2 3.9	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6 -10 -83.8	Idot   (deg/yr)   0.01   0.11   0.03   0.01   0.11   0.03	Ddot (deg/yr) 0.52 -0.03 -0.12 0.52 -0.03 -0.11	-52.01
2025.0 2025.0 2025.0 2025.0 2025.0 2025.0 2025.0 2027.5	Height (km)  0  0  100  100  100  0	Lat (Deg)  80  0  -80  80  0  80  80  0  80	Lon (Deg)  0 120 240 0 120 240 0 0	Xdot (nT/yr) -8.3 9.5 33.3 -7.7 9.2 30.6 -8.3	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5 -21 -8 59.5	Zdot (nT/yr) 31.1 79.4 95.5 28.7 72.9 89.2 31.1	Hdot (nT/yr)  -7  9.6  4  -6.9  9.2  3.9  -5.6	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6 -10 -83.8 30.3	0.01 0.03 0.01 0.11 0.03 0.01 0.03	Ddot (deg/yr) 0.52 -0.03 -0.12 0.52 -0.03 -0.11 0.53	-32.01
Date  2025.0 2025.0 2025.0 2025.0 2025.0 2025.0 2027.5	Height (km)  0  0  100  100  100	Lat (Deg)  80  0  -80  80  0  -80  80  0  0	Lon (Deg)  0 120 240 0 120 240 0 120 240	Xdot (nT/yr) -8.3 9.5 33.3 -7.7 9.2 30.6 -8.3 9.5	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5 -21 -8 59.5 -23.1	Zdot (nT/yr) 31.1 79.4 95.5 28.7 72.9 89.2 31.1 79.4	Hdot (nT/yr)  -7  9.6  4  -6.9  9.2  3.9  -5.6  9.6	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6 -10 -83.8 30.3 -10.7	0.01 0.01 0.03 0.01 0.11 0.03 0.01 0.01	0.52 -0.03 -0.12 0.52 -0.03 -0.11 0.53 -0.03	-32.01
2025.0 2025.0 2025.0 2025.0 2025.0 2025.0 2025.0 2027.5	Height (km)  0  0  100  100  100  0  0  0 0	Lat (Deg)  80  -80  80  -80  -80  -80  -80  -80	Lon (Deg)  0 120 240 0 120 240 0 0	Xdot (nT/yr) -8.3 9.5 33.3 -7.7 9.2 30.6 -8.3	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5 -21 -8 59.5	Zdot (nT/yr) 31.1 79.4 95.5 28.7 72.9 89.2 31.1 79.4 95.5	Hdot (nT/yr)  -7  9.6  4  -6.9  9.2  3.9  -5.6	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6 -10 -83.8 30.3	0.01 0.03 0.01 0.11 0.03 0.01 0.03	Ddot (deg/yr) 0.52 -0.03 -0.12 0.52 -0.03 -0.11 0.53 -0.03 -0.12	-32.01
Date  2025.0 2025.0 2025.0 2025.0 2025.0 2025.0 2027.5 2027.5 2027.5 2027.5	Height (km)  0  0  100  100  100  0  100  0  100	Lat (Deg)  80  0  -80  80  0  -80  80  0  0	Lon (Deg)  0 120 240 0 120 240 0 120 240 0 120 240 0	Xdot (nT/yr)  -8.3  9.5  33.3  -7.7  9.2  30.6  -8.3  9.5  33.3  -7.7	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5 -21 -8 59.5 -23.1 -8.6 56.5	Zdot (nT/yr) 31.1 79.4 95.5 28.7 72.9 89.2 31.1 79.4 95.5 28.7	Hdot (nT/yr)  -7  9.6  4  -6.9  9.2  3.9  -5.6  9.6  4.2  -5.6	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6 -10 -83.8 30.3 -10.7 -89.5 27.8	Idot (deg/yr) 0.01 0.11 0.03 0.01 0.11 0.03 0.01 0.11 0.04	Ddot (deg/yr) 0.52 -0.03 -0.12 0.52 -0.03 -0.11 0.53 -0.03 -0.12 0.52	-32.01
2025.0 2025.0 2025.0 2025.0 2025.0 2025.0 2027.5 2027.5	Height (km)  0  0  100  100  100  0  0  0 0	Lat (Deg)  80  -80  80  -80  -80  -80  -80  -80	Lon (Deg)  0 120 240 0 120 240 0 120 240 0 120 240	Xdot (nT/yr) -8.3 9.5 33.3 -7.7 9.2 30.6 -8.3 9.5 33.3	Ydot (nT/yr) 59.5 -23.1 -8.6 56.5 -21 -8 59.5 -23.1 -8.6	Zdot (nT/yr) 31.1 79.4 95.5 28.7 72.9 89.2 31.1 79.4 95.5	Hdot (nT/yr)  -7  9.6  4  -6.9  9.2  3.9  -5.6  9.6  4.2	Fdot (nT/yr) 30.1 -11.2 -89.6 27.6 -10 -83.8 30.3 -10.7 -89.5	Idot   (deg/yr)	Ddot (deg/yr) 0.52 -0.03 -0.12 0.52 -0.03 -0.11 0.53 -0.03 -0.12	-32.01