

Table 1: Cluster 1 FGM calibration parameters statistics over the entire mission lifetime. Offsets are expressed in nT, angles in degrees, matrix elements are adimensional factors.

parameter	mission average			mean yearly standard deviation			decadal trend		
offset_r2	[ -5.0	0.9	-0.1 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r3	[ -5.1	0.9	-0.1 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r4	[ -54.3	19.2	-5.1 ]	[ 0.8	0.3	0.2 ]	[ -14.1	3.1	-1.3 ]
offset_r5	[ -52.1	18.9	-4.8 ]	[ 0.8	0.3	0.1 ]	[ -10.1	1.3	-1.0 ]
offset_r6	[ -440.4	185.0	-30.0 ]	[ 13.7	5.6	1.0 ]	[ -32.9	0.0	0.0 ]
offset_r7	[ -688.5	305.1	-31.1 ]	[ 9.6	4.5	0.7 ]	[ 0.0	0.0	0.0 ]
offset_sc	[ 1.4	6.8	0.0 ]	[ 0.3	0.3	0.2 ]	[ -0.7	1.8	-0.8 ]
Angle_xyz	[ 0.3807	0.6676	0.0000 ]	[ 0.0076	0.0119	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
Matrix_r2	[ 1.0523	0.0000	0.0003 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0106	1.0522	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0003	0.0000	0.0000 ]
	[ 0.0179	-0.0035	1.0350 ]	[ 0.0000	0.0001	0.0001 ]	[ 0.0000	0.0024	-0.0004 ]
Matrix_r3	[ 1.0343	0.0000	0.0002 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0100	1.0337	0.0000 ]	[ 0.0001	0.0000	0.0000 ]	[ -0.0010	0.0000	0.0000 ]
	[ 0.0181	-0.0030	1.0178 ]	[ 0.0000	0.0001	0.0001 ]	[ 0.0002	0.0028	-0.0003 ]
Matrix_r4	[ 1.0223	0.0000	0.0001 ]	[ 0.0003	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0102	1.0173	0.0000 ]	[ 0.0001	0.0001	0.0000 ]	[ -0.0007	0.0000	0.0000 ]
	[ 0.0180	-0.0076	1.0064 ]	[ 0.0000	0.0001	0.0001 ]	[ 0.0001	0.0009	0.0003 ]
Matrix_r5	[ 1.0062	0.0000	0.0002 ]	[ 0.0003	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0105	0.9995	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0012	0.0000	0.0000 ]
	[ 0.0175	-0.0081	0.9896 ]	[ 0.0000	0.0001	0.0000 ]	[ 0.0008	0.0004	-0.0001 ]
Matrix_r6	[ 1.0184	0.0000	0.0000 ]	[ 0.0014	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0063	1.0118	0.0000 ]	[ 0.0002	0.0003	0.0000 ]	[ -0.0005	0.0000	0.0000 ]
	[ 0.0113	-0.0052	1.0064 ]	[ 0.0003	0.0002	0.0002 ]	[ 0.0000	0.0000	0.0000 ]
Matrix_r7	[ 1.0010	0.0000	0.0000 ]	[ 0.0142	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0099	0.9994	0.0000 ]	[ 0.0001	0.0136	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0179	-0.0071	0.9897 ]	[ 0.0002	0.0001	0.0135 ]	[ 0.0000	0.0000	0.0000 ]

Table 2: Cluster 2 FGM calibration parameters statistics over the entire mission lifetime. Offsets are expressed in nT, angles in degrees, matrix elements are adimensional factors.

parameter	mission average			mean yearly standard deviation			decadal trend		
offset_r2	[ 1.2	0.3	-0.5 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r3	[ 1.3	0.3	-0.5 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r4	[ 4.0	0.3	-0.2 ]	[ 0.1	0.1	0.0 ]	[ 0.0	-0.3	-0.3 ]
offset_r5	[ 5.1	1.2	0.7 ]	[ 0.1	0.1	0.1 ]	[ 0.0	0.0	0.0 ]
offset_r6	[ 22.9	-5.5	-1.5 ]	[ 0.8	0.5	0.4 ]	[ 0.0	0.0	0.0 ]
offset_r7	[ 54.3	-0.8	6.8 ]	[ 0.1	0.4	0.5 ]	[ 0.0	0.0	0.0 ]
offset_sc	[ -1.3	-2.9	-0.7 ]	[ 0.2	0.2	0.1 ]	[ -0.2	0.0	0.0 ]
Angle_xyz	[ -0.1627	0.3328	0.0000 ]	[ 0.0015	0.0019	0.0000 ]	[ -0.0108	0.0071	0.0000 ]
Matrix_r2	[ 1.0422	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0123	1.0491	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0047	-0.0115	1.0555 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0001	0.0002 ]
Matrix_r3	[ 1.0256	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0125	1.0316	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0002	0.0000	0.0000 ]
	[ 0.0044	-0.0113	1.0389 ]	[ 0.0000	0.0001	0.0000 ]	[ -0.0003	0.0000	0.0002 ]
Matrix_r4	[ 1.0136	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0125	1.0196	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0001	0.0000	0.0000 ]
	[ 0.0045	-0.0113	1.0154 ]	[ 0.0000	0.0001	0.0000 ]	[ -0.0002	0.0000	0.0003 ]
Matrix_r5	[ 0.9962	0.0000	0.0000 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0121	1.0025	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0003	0.0000	0.0000 ]
	[ 0.0050	-0.0106	0.9994 ]	[ 0.0000	0.0001	0.0000 ]	[ -0.0008	0.0000	0.0000 ]
Matrix_r6	[ 1.0100	0.0000	0.0000 ]	[ 0.0004	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0073	1.0138	0.0000 ]	[ 0.0003	0.0005	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0031	-0.0071	1.0106 ]	[ 0.0001	0.0002	0.0004 ]	[ 0.0000	0.0000	0.0000 ]
Matrix_r7	[ 0.9865	0.0000	-0.0002 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0117	0.9919	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0050	-0.0111	0.9879 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]

Table 3: Cluster 3 FGM calibration parameters statistics over the entire mission lifetime. Offsets are expressed in nT, angles in degrees, matrix elements are adimensional factors.

parameter	mission average			mean yearly standard deviation			decadal trend		
offset_r2	[ 0.2	-2.0	-0.9 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r3	[ 0.2	-2.0	-0.9 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r4	[ 6.5	4.7	4.1 ]	[ 0.1	0.1	0.1 ]	[ 0.0	0.0	0.0 ]
offset_r5	[ 7.4	5.4	4.4 ]	[ 0.1	0.1	0.1 ]	[ 0.0	0.0	0.0 ]
offset_r6	[ 75.1	77.3	63.7 ]	[ 9.1	8.9	7.5 ]	[ 0.0	0.0	0.0 ]
offset_r7	[ 120.4	121.7	95.5 ]	[ 1.7	2.1	1.9 ]	[ 0.0	0.0	0.0 ]
offset_sc	[ -2.7	-3.1	-1.6 ]	[ 0.2	0.1	0.1 ]	[ -0.4	0.3	0.0 ]
Angle_xyz	[ 0.8034	-0.1749	0.0000 ]	[ 0.0009	0.0014	0.0000 ]	[ -0.0065	0.0071	0.0000 ]
Matrix_r2	[ 1.0422	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0057	1.0355	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0002	0.0000	0.0000 ]
	[ -0.0068	-0.0135	1.0553 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0001	-0.0003	0.0001 ]
Matrix_r3	[ 1.0238	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0057	1.0198	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0002	0.0000	0.0000 ]
	[ -0.0068	-0.0134	1.0372 ]	[ 0.0000	0.0000	0.0001 ]	[ -0.0001	-0.0003	0.0000 ]
Matrix_r4	[ 1.0041	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0059	1.0061	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0002	0.0000	0.0000 ]
	[ -0.0066	-0.0121	1.0194 ]	[ 0.0000	0.0000	0.0001 ]	[ 0.0000	0.0002	0.0000 ]
Matrix_r5	[ 0.9890	0.0000	0.0000 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0053	0.9912	0.0000 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0075	-0.0121	1.0024 ]	[ 0.0001	0.0000	0.0001 ]	[ 0.0000	0.0000	-0.0003 ]
Matrix_r6	[ 1.0032	0.0000	0.0000 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0036	1.0060	0.0000 ]	[ 0.0001	0.0002	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0043	-0.0075	1.0127 ]	[ 0.0001	0.0002	0.0004 ]	[ 0.0000	0.0000	0.0000 ]
Matrix_r7	[ 0.9885	0.0000	0.0000 ]	[ 0.0135	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0057	0.9937	0.0000 ]	[ 0.0001	0.0137	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0068	-0.0117	1.0024 ]	[ 0.0001	0.0002	0.0138 ]	[ 0.0000	0.0000	0.0000 ]

Table 4: Cluster 4 FGM calibration parameters statistics over the entire mission lifetime. Offsets are expressed in nT, angles in degrees, matrix elements are adimensional factors.

parameter	mission average			mean yearly standard deviation			decadal trend		
offset_r2	[ 1.4	1.0	1.6 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r3	[ 1.4	1.1	1.6 ]	[ 0.0	0.0	0.0 ]	[ 0.0	0.0	0.0 ]
offset_r4	[ 9.6	7.5	9.8 ]	[ 0.1	0.1	0.1 ]	[ 0.0	0.0	0.0 ]
offset_r5	[ 10.7	9.0	10.5 ]	[ 0.2	0.1	0.1 ]	[ 0.0	0.0	0.0 ]
offset_r6	[ 97.8	76.9	97.5 ]	[ 2.8	2.4	3.0 ]	[ 0.0	0.0	0.0 ]
offset_r7	[ 161.9	135.5	160.6 ]	[ 2.6	2.5	2.7 ]	[ 0.0	0.0	0.0 ]
offset_sc	[ -14.4	-4.3	2.7 ]	[ 0.2	0.1	0.1 ]	[ 0.4	0.0	-0.4 ]
Angle_xyz	[ -0.0070	0.3394	0.0000 ]	[ 0.0017	0.0033	0.0000 ]	[ -0.0109	0.0000	0.0000 ]
Matrix_r2	[ 1.0421	0.0000	-0.0003 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0074	1.0794	0.0000 ]	[ 0.0000	0.0001	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0084	-0.0220	1.0517 ]	[ 0.0000	0.0000	0.0001 ]	[ -0.0004	0.0002	0.0017 ]
Matrix_r3	[ 1.0235	0.0000	-0.0003 ]	[ 0.0000	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0075	1.0603	0.0000 ]	[ 0.0000	0.0000	0.0000 ]	[ -0.0001	0.0000	0.0000 ]
	[ 0.0087	-0.0215	1.0342 ]	[ 0.0001	0.0000	0.0000 ]	[ -0.0002	0.0003	-0.0001 ]
Matrix_r4	[ 1.0045	0.0000	-0.0001 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0074	1.0458	0.0000 ]	[ 0.0000	0.0001	0.0000 ]	[ -0.0001	0.0000	0.0000 ]
	[ 0.0086	-0.0215	1.0178 ]	[ 0.0000	0.0001	0.0001 ]	[ -0.0001	0.0003	-0.0003 ]
Matrix_r5	[ 0.9885	0.0000	-0.0001 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0078	1.0279	0.0000 ]	[ 0.0001	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0086	-0.0201	1.0016 ]	[ 0.0000	0.0001	0.0000 ]	[ 0.0000	0.0000	-0.0001 ]
Matrix_r6	[ 1.0054	0.0000	0.0000 ]	[ 0.0002	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0050	1.0305	0.0000 ]	[ 0.0002	0.0010	0.0000 ]	[ -0.0005	0.0000	0.0000 ]
	[ 0.0057	-0.0136	1.0145 ]	[ 0.0003	0.0004	0.0005 ]	[ 0.0000	0.0000	-0.0010 ]
Matrix_r7	[ 0.9879	0.0000	0.0000 ]	[ 0.0155	0.0000	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ -0.0072	1.0282	0.0000 ]	[ 0.0001	0.0161	0.0000 ]	[ 0.0000	0.0000	0.0000 ]
	[ 0.0086	-0.0211	1.0047 ]	[ 0.0001	0.0003	0.0158 ]	[ 0.0000	0.0000	0.0000 ]