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Electromagnetic Compatibility

– Electromagnetic compatibility on biophysical basis – designers in
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The efficiency of Somavedic Medic on magnetic field disturbances due to geopathic stress

Efficiency and stress test summary

The IIREC was invited by Somavedic to test the measurability of the efficiency of Somavedic Medic on magnetic field disturbances. Current knowledge suggests that biological irritability is induced by uneven gradients in static and extremely low-frequency magnetic fields. These irregularities (disturbed zones) in the magnetic fields can be imaged, quantified and evaluated from the viewpoint of their biological effects by means of magnetic induction measurement through a grid (a test patented by Dr. Medinger.) The same procedure can be used to test if a unit or a process is suitable for elimination of such disturbances, i.e. for the levelling of magnetic field gradients (“magnetic field equalization”). The measurements were done for Somavedic Medic based on the measuring field with known geopathic and other disturbances of the magnetic field.

Following the procedure, the unaffected original field was measured first. Then Somavedic Medic, provided as a test unit, was positioned next to the measuring field and activated by being connected to the power grid (Figure 1, next page). The measurement was repeated after 24-hour operation of the unit (test of efficiency). To examine sustainability of the efficiency, the unit was subjected to 72-hour stress in an extremely inhomogeneous magnetic field. Subsequently, the measurement was repeated in the original testing field (stress test).



Fig. 1: Activated Somavedic Medic unit next to the measurement field (with a wooden measuring grid, conduction and a measuring probe holder)

Methodology:

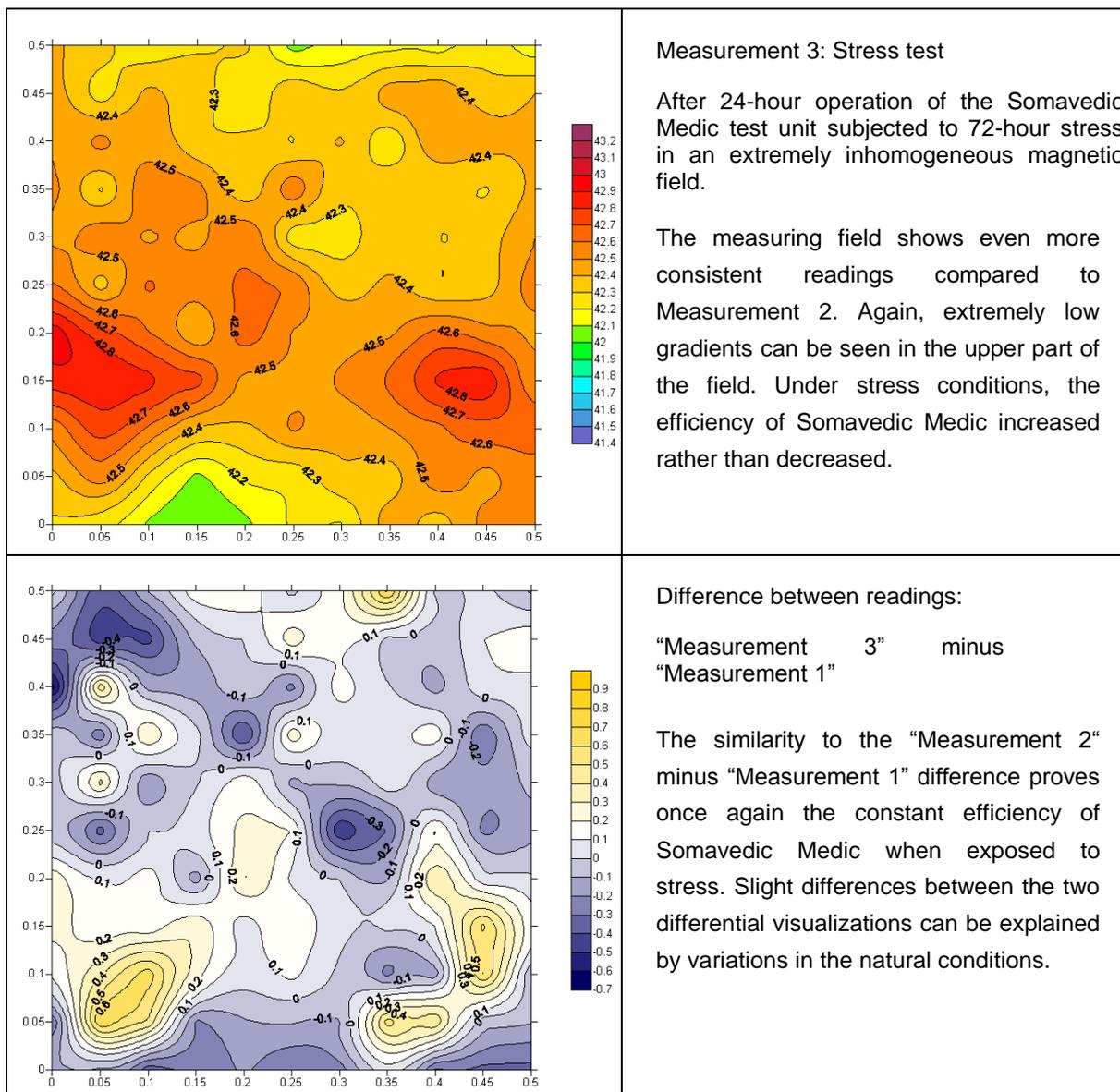
The read value was vertical magnetic induction in static and extremely low frequency areas of up to approx. 15 Hz. This value was read in an area of 50 cm x 50 cm in 121 points 5 cm distant from one another. The distribution of the readings was graphically depicted based on arithmetic interpolation in the form of a magnetic field pattern as the “Field Coherence Pattern” (FCP). In the end, using the “Field Gradient Divergence” (FGD) method, the readings were used to develop a quantity for inhomogeneousity (two-dimensional divergence) of the field’s gradient. Using this objective method based on pure physical measurement and a mathematical analysis, the level of disturbance of the magnetic field in each measurement point was quantified. Major specifications of the used Teslameter:

	Precision Teslameter 05/40
Total range	$\pm 200 \mu\text{T}$
Resolution	$0.1 \mu\text{T}$
Linearity deviation	$\pm 0.3 \%$ of the reading
Frequency range	0 Hz to 1 kHz
System of sensors	Fluxgate, direction sensitive

FCP results:

Readings in μT (colour-coded values according to the scale), coordinates in metres

	<p>Measurement 1: Base</p> <p>Measurement prior to installation and launching of Somavedic Medic shows relatively strong vertical magnetic induction variations (between 41.4 and 43.2 μT). A normal natural value is approx. 42 μT. Zones with strong gradients can be recognised by the lines of the same vertical induction placed densely next to each other. Biological irritability zones can be found on transitions from these zones to areas with small gradients.</p>
	<p>Measurement 2: Test of efficiency</p> <p>Efficiency of Somavedic Medic after 24-hour operation</p> <p>General coloration (with the same colour scale) shows that the situation normalized. At the upper part of the measuring field, closest to the Somavedic Medic unit, a natural value of vertical magnetic induction occurred (42 μT, green colour). Apart from the left-hand side, the increased values were suppressed to max. 42.6 μT.</p>
	<p>Difference between readings:</p> <p>“Measurement 2” minus “Measurement 1”</p> <p>This pattern shows the efficiency of Somavedic Medic. The increased and decreased values are depicted in yellow and blue, respectively. The values decreased particularly where they were increased during Measurement 1, and vice versa. Thus the compensatory effects of Somavedic unit can be ascertained. Whereas difference uncertainty is 0.15 μT, the effects equalling tenths of μT are significant.</p>



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FGD results:

The following maps show the calculated degree of disturbance in μT per sqm for each measuring point (colour-coded values according to the scale), coordinates in metres. The intensity of the disturbance is apparent from the colouring of the measuring points and the thickness of the surrounding coloured disk.

	<p>Measurement 1: Base</p> <p>The field shows some pronounced disturbances which blend into zones. With maximums of 11 μT per sqm, there are even extreme ($> 10 \mu\text{T}$ per sqm), according to our experience, biologically highly effective degrees of disturbance.</p>
	<p>Measurement 2:</p> <p>After 24-hour operation of Somavedic Medic</p> <p>The same colour scale allows direct comparison with Measurement 1. The maximum disturbance level is now 7.3 μT per sqm; extreme degrees of disturbance no longer exist. The number and intensity of disturbances declined significantly. At the upper part of the measuring field, closest to the Somavedic Medic unit, the field can be considered virtually disturbance-free.</p>
	<p>Measurement 3:</p> <p>After 24-hour operation of the Somavedic Medic test unit subjected to 72-hour stress in an extremely inhomogeneous magnetic field.</p> <p>The degrees of disturbance continued to decline compared to Measurement 2. This is the definitive evidence that the efficiency of the device was not even affected by the extreme stress of the magnetic field.</p>

Evaluation of results:

Individual measurements were conducted to verify measurable efficiency of Somavedic Medic against magnetic field disturbances. The results are predicative and show clear effects.

1. The selected base showed well-known magnetic field disturbances that were reflected significantly in both the image of the vertical magnetic induction (VMI) grid and the representation of the degree of disturbance at the individual measuring points.
2. After 24-hour operation of Somavedic Medic, i.e. after repeated measuring at the same time of day and at a virtually unchanged moon phase, the initially disturbed magnetic field shows significant normalization. The mean, or median, value of the read values shifts from 42.42 μT to about 42.25 μT , whereby the latter achieved due to the operation of Somavedic corresponds to the natural normal value.
3. The evaluation of the degrees of disturbance at individual measuring points also implies distinctive field normalization. The number and intensity of points with strong degrees of disturbance ($> 5 \text{ mT per sqm}$) decline significantly. Extreme disturbances ($> 10 \text{ mT per sqm}$) disappeared completely after 24-hour Somavedic operation.
4. Particularly significant is the almost perfect equalization of the magnetic field in close proximity to Somavedic Medic. It is manifested by a) adjusting vertical magnetic induction to a natural value of about 42 μT , b) eliminating magnetic-field gradients and finally c) lowering the degree of disturbance at the measuring points close to zero.
5. Repeated measuring after 72-hour operation of the test unit in an extremely inhomogeneous magnetic field showed that the efficiency of the device had increased rather than decreased. Both the FCP visualization and the FCP differential visualization, as well as the FGD evaluation indicate at least the same (earlier established) efficiency in equalizing gradients in a test magnetic field.

Overall, the result confirms efficient and stable, even under extreme stress, equalization of the magnetic field by Somavedic Medic. This effect could not be caused by conventional shielding or compensation of the magnetic field. The conducted measurements at the same time indicate fulfilment of the conditions required for awarding the efficiency certificate for equalizing geopathic effects of the magnetic field.

Further procedure:

Further testing of long-term effects and efficiency in relation to technical fields (magnetic field disturbances in the proximity of a mobile phone) and motor vehicles will be conducted to review further manufacturer claims. A detailed test report will be executed on the set of all tests and in case all test results are positive, a comprehensive test certificate will be awarded. Such certificate will be valid for 3 years and requires regular quality reviews of the awarded product.

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