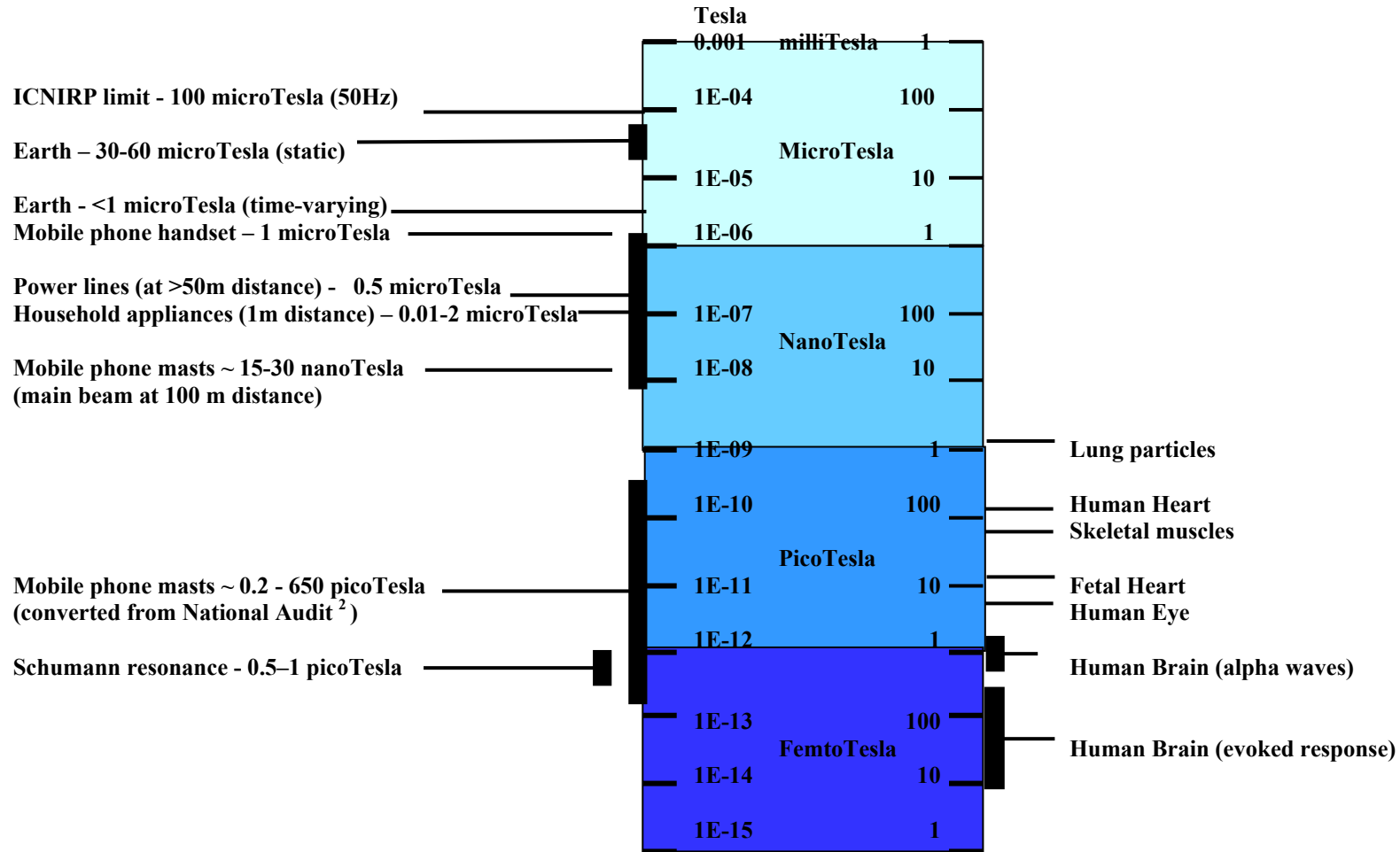


MAGNETIC FLUX DENSITY

ENVIRONMENTAL FIELDS

BIOLOGICAL FIELDS (Squid Magnetometer measurements¹)



¹ From - http://www.lanl.gov/quarterly/q_spring03/pdfs/larg_4_03_squid.pdf

² The intensity I (power density) of an electromagnetic wave and its magnetic flux density B are related by the equation

$$I = \frac{c}{\mu_0} B^2$$

If I is measured in W/m² and B in μT this relation becomes

$$I = 239B^2 \quad \text{or} \quad B = 0.0647\sqrt{I}$$

Examples

Intensity in W/m ²	Magnetic Flux Density in μT	Magnetic Flux Density in pT
1	0.0647	64700
0.01	0.00647	6470
1E-04	0.000 647	647
1E-06	0.000 0647	64.7
1E-08	0.000 00647	6.47
1E-10	0.000 000 647	0.647
1E-12	0.000 000 0647	0.0647

Results from measurements of mobile phone masts (UK national audit) at http://www.ofcom.org.uk/sitefinder/audit_info

$$\sim 1\text{E-}11 \text{ W/m}^2 - 1\text{E-}04 \text{ W/m}^2 \quad = \quad 0.204 \text{ pT} - 647 \text{ pT}$$