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PLANCK tests General Relativity DMITRI RABOUNSKI, LARISSA BORISSOVA — If the origin of a microwave background (EMB) is the Earth, what would be its density and dipole anisotropy at different altitudes? The density of the EMB is answered through Einstein's equations containing the electromagnetic field. The dipole anisotropy is analysed by using the geodesic equations for photons (mediators for electromagnetic radiation). It is shown that the EMB decreases with altitude: its density at the 900 km altitude (COBE) is 0.68 times less than that at the 25 km altitude (U2 aeroplane), while at the 2nd Lagrange point (1.5 mln km, WMAP and PLANCK satellites) it should be only 10^{-7} of the value detected by U2 or COBE. The dipole anisotropy of the EMB doesn't depend on altitude. WMAP indicated the same anisotropy of the background at the 2nd Lagrange point that near the Earth. When, in addition to it, PLANCK will manifest the 2.7 K monopole microwave signal deceased at the 2nd Langrange point, it will be a new experimental verification of General Relativity. This result is in support to the experimental analysis, according to which the 2.7 K microwave background is not of cosmic origin, but of the Earth, and is generated by the oceans.

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