Abstract Submitted for the DNP07 Meeting of The American Physical Society

The Explanation of the Photon's Electric and Magnetic Fields; and its Particle and Wave Characteristics RUSSELL MOON, Dr., VICTOR VASILIEV, Pr. — Using the principles of the Vortex Theory, the creation of the photon's electric and magnetic components are explained: the condensed region of space is responsible for creating the photon's electric component and its particle effect; its expansion and contraction is responsible for its frequency; its motion through three dimensional space creates a wave in the surrounding space. This wave is responsible for the photon's magnetic component and wave characteristics. The simultaneous expansion and contraction of both the dense region of space that is the photon and the surrounding space it passes through explains why the electric and magnetic effects are at right angles to each other. Also the photon's particle and wave characteristics are explained. 1. Russell Moon, The Bases of the Vortex Theory of Space. Publishing house of ZNAK, Moscow, Russia, 2002, 32 pp., (in Russian). 2 R.G. Moon, The Possible Existence of a New Particle: the Neutral *Pentaquark?* Book of materials, The Research Centre of Ecological Safety of the Russian Academy of Sciences: Scientific Seminar Of Ecology and Space 1, February 22, 2005, Saint-Petersburg, Russia, 2005, pp. 98-104.

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