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Abstract

A relatively inexpensive computer code is developed to calculate the peak value of the electric field contained in an electromagnetic pulse generated by the gamma rays from a high altitude nuclear burst. The code is based on the Karzas and Latter theory for the production of Compton electrons and their interaction with the earth's magnetic field. The code can be used to calculate the peak value of the electric field at a target anywhere on or above ground level, resulting from a nuclear burst above 60 km altitude with a gamma yield up to 60 tons. Either the direct or the ground reflected wave can be calculated. With special care, bursts up to one kt of gamma yield can be used.

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