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Curved electromagnetic missiles

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Transient electromagnetic fields can exhibit interesting behavior in the limit of great distances from their sources. In situations of finite total radiated energy, the energy reaching a distant receiver can decrease with distance much more slowly than the usual 1/r squared. Cases of such slow decrease have been referred to as electromagnetic missiles. All of the wide variety of known missiles propagate in essentially straight lines. A sketch is presented here of a missile that can follow a path that is strongly curved. An example of a curved electromagnetic missile is explicitly constructed and some of its simpler properties are discussed.

Keywords: ELECTROMAGNETIC MISSILES, ELECTROMAGNETIC PULSES, ELECTROMAGNETIC WAVE TRANSMISSION, ANTENNA RADIATION PATTERNS, CURRENT DISTRIBUTION, CURVATURE, LENSES

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