



The Smithsonian/NASA Astrophysics Data System



[Home](#) [Help](#) [Sitemap](#)

NASA Brandt Missile

- Fulltext Article not available
- [Citations](#)
- [Find Similar Articles](#)
- [Full record info](#)

Curved electromagnetic missiles

[Myers, John M.](#); [Shen, Hao-Ming](#); [Wu, Tai Tsun](#); [Brandt, Howard E.](#)

IN: Microwave and particle beam sources and directed energy concepts; Proceedings of the Meeting, Los Angeles, CA, Jan. 16-20, 1989 (A90-31126 12-33). Bellingham, WA, Society of Photo-Optical Instrumentation Engineers, 1989, p. 361-369. Research supported by SDIO.

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



The ADS is Operated by the [Smithsonian Astrophysical Observatory](#) under [NASA](#) Grant NNX09AB39G