Also see ADB 094426 an unclassified guide for EMP as a PDF

See http://www.oregonstatehospital.net/d/otherfiles/ADA278230.pdf

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The gamma photons, neutrons, beta particles, X-rays, and positive ions emitted from the nuclear detonation causes electrons to be ejected from their perspective atoms, thus ionizing the atmosphere in the burst vicinity. This increase in electron density attenuates or refracts all electromagnetic signals from a few seconds to several hours depending on weapon yield and HOB. A nuclear detonation distributes approximately one millionth of its energy in the form of an intense EMP with a frequency content of a few hertz (Hz) to several hundred megahertz (MHz). The two EMP situations which are based upon weapon HOB are Endo-Atmospheric (SREMP) and Exo-Atmospheric (HEMP). SREMP occurs with an atmospheric event at an altitude of less than 40 km above sea level, possessing an extremely large electric and magnetic field over the burst vicinity. HEMP occurs from an event occurring at an altitude greater than 40 km above sea level and possesses a large electric and magnetic field over a diverse area.

Of the two EMP situations, HEMP is considered the most militarily significant. In fact, HEMP is a line-of-sight phenomenon and can cause damage over hundreds of thousands even millions of square miles, HEMP has the greatest range of damage of all nuclear effects.

A.6 Time History of Effects. All effects produced by a Nuclear weapon are dependent upon weapon yield, type of weapon, HOB, atmospheric conditions, and distance from GZ. See Figure #A-2 on the following page for the sequence and time history of nuclear weapon effects from an example 27 kT weapon detonation at a HOB of 180 m at a distance of 1 km. This is page A-3 of ADA 278230

Thanks to Jim:

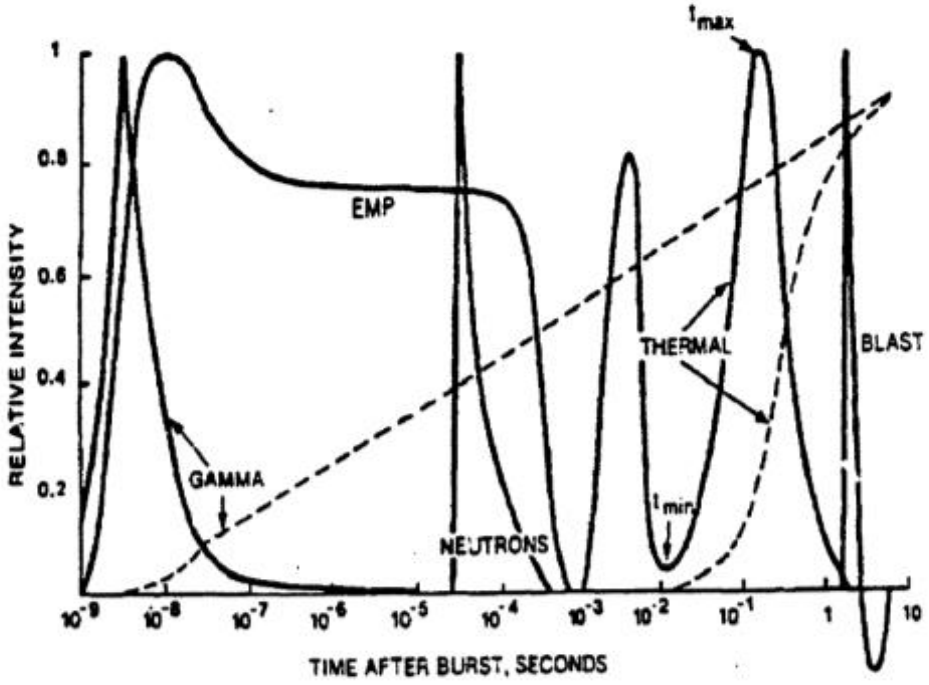

FIGURE #A-2: Example Time History From 27 kT Nuclear Weapon.