

The Effect of High Power Electromagnetic Pulse on Telecommunication Network

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ABSTRACT

ABSTRACT And in the human life of technicalization for the constant progress of the modern scientific and technological civilization, no matter wireless communication or the wired communication already become indispensable in people's life, because of the importance of the communication too, so communication fight and information war become the asymmetric war that a kind of low cost can cause the high result during modernized war. This text suffers to the high electric magnetic pulse of power to the telecommunication network (Telecommunication Network) mainly (High Power Electromagnetic Pulse; HEMP) back influence produced toward telecommunication equipment, electric magnetic pulse is it strike by lightning produce strike by lightning the electric magnetic pulse to refer to in general (Lightning surge Electro Magnetic Pulse; LEMP), or core produce produce nuclear to produce the electric magnetic pulse (Nuclear Electro Magnetic Pulse; NEMP), this thesis focuses on and probes into modernized telecommunication network and structure mainly, and set up the situation that the model of the electric magnetic pulse component and the real equipment of simulation are struck by lightning. The electric magnetic pulse can produce very big reaction electric current (Induced current) and temporary voltage of attitude (Transient Voltage), the electronic equipment damage that makes sensitively , cause the communication system to paralysed even severed, in the face of this threat, how to strengthen the electric magnetic pulse protective capacities of the communication apparatus, worth further investigating and paying attention to.

Keywords : Telecommunication network ; High Power Electromagnetic Pulse ; Lightning surge Electro Magnetic Pulse ; Nuclear Electro Magnetic Pulse

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