

**THE EFFECTS OF ELECTROMAGNETIC PULSE (EMP) ATTACK TO  
HUMAN LIFE REFLECTED IN WILLIAM R. FORSTCHEN'S *ONE  
SECOND AFTER* (2009) : SOCIOLOGICAL APPROACH**



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Naskah artikel tersebut, layak dan dapat disetujui untuk dipublikasikan.

Demikian persetujuan yang dibuat, semoga dapat dipergunakan sepenuhnya.

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**Abstract**

*This Study is focused on the effects of electromagnetic pulse attack to human life. The problem of this study is “what are the effects of electromagnetic pulse attack to human life expressed in ‘One Second After’ novel using sociological approach”. The object of the study is ‘One Second After’ novel by William R. Forstchen. This study belongs to qualitative research. In this method, there are two types of data source, namely primary and secondary data source. The primary data source is the novel and the secondary data source is other materials related to the study. Both data are collected through library research and analyzed by descriptive analysis. The result of the study shows that: 1) based on the analysis it is clear that there is a close relation between this novel and the social reality in America in early twenty first century, 2) Forstchen wants to explore the effects of electromagnetic pulse attack to human life in the futurist context of American in early of twenty first century through ‘One Second After’ novel.*

*Keyword: electromagnetic, effect, attack, pulse, One Second After, Sociological Approach*

## **A. Introduction**

The theme of *One Second After* is primarily the effects of electromagnetic pulse attack to human life. Hannis (2012 :01) states an electromagnetic pulse (later: EMP) is “a burst of electromagnetic radiation that is usually caused by either a very high yield explosion-such as a nuclear detonation-or by a natural solar eruption that periodically emanates from our sun”. It means that a nuclear bomb will cause the burst of EMP. The threat of EMP will also be a weapon to attack the enemy. An EMP weapon is defined as “a pulse of energy that creates a powerful electromagnetic field capable of short-circuiting a wide range of electronic equipment, particularly computers, satellites, radios, radar receivers and even civilian traffic lights” (Division of Environmental Health Office of Radiation protection, 2003)

EMP is not new issue in the world. According to Hannis (2012: 01), Soviets had a plan to use EMP attack during cold war. As the history of cold war, nuclear weapon was issued as the weapon to attack the enemy even that did not happen. In this modern era which is provided by sophisticated technology, people can do anything with those, the technologies which make all the things easier. Though, the technology can be a target of EMP attack.

EMP is not radioactive so that it will not influence the health however it can make electronic tools to be un-functioned (Division of Environmental

Health Office of Radiation protection, 2003: 02). The observation in Hawaii proved that the detonation of EMP of 800 miles east caused streetlights and fuses failed on Oahu and telephone service was disrupted on the Island of Kauai.

The attack of EMP threatens the people who live with electronic tools. When they depend their daily activity on the technology, they must be ready toward this attack. Hannis (2012 :02) explain some probably effects of EMP to human life as follows: transportation would be rendered inoperable., Hospitals and emergency services could be incapacitated, water would not flow, vehicles would not run, and food would spoil and go undelivered, the result of those would be starvation, robbing, violence, disease, and lawlessness on a scale not experienced in modern times.

A data has been published that America and China are trying to attack each other by threatening terrorism. Chinese military writings describe EMP (electromagnetic pulse) as the key to victory, where EMP is used against U.S. The resulting EMP would massively disrupt U.S. communications and computer systems, shutting down everything (EMP Commission, 2010).

If the world's industrial countries fail to devise effective ways to defend themselves against dangerous electronic assaults, then they will disintegrate within a few years. The Americans could not find food to eat, raising poverty, and violence.” *Electronics To Determine Fate Of Future Wars* (Iranian Journal, December 1998)

The discussion about the effects of electromagnetic pulse attack to human life not only delivered by the politician or scholars but also by the fiction authors. One of them is William R. Forstchen. Forstcehn delivered his idea about the effects of electromagnetic pulse attack to human life in America by writing *One Second After* novel. He criticizes the phenomena of effects of electromagnetic pulse attack in American society through the story of novel. There is correlation between the effects of electromagnetic pulse attack and the novel. It is an interesting topic to be discussed. Therefore, the writer wants to study the novel by using sociological perspective (Swingewood and Laurenson, 1972: 11).

## **B. Research Method**

This study belongs to qualitative method. There are two types of data source, namely primary and secondary data source. The primary data source is the novel *One Second After*, meanwhile the secondary data sources are other materials related to the study. Both data are collected through library research. In collecting data, the writer takes some steps as follow: Reading the novel for several times to get deep understanding, giving underline to the important information in the novel, determining the main issue of the novel, determining the characters that will be analyzed, reading some related books to find out the theory, data and information needed, taking note of important thing both

primary and secondary data sources, classifying and determining the relevant data, classifying the material that has been selected to support in analyzing the novel.

In analyzing the novel, the writer analyzes the data based on sociological perspective. Focus will be on the effects of electromagnetic pulse attack to human life reflected in *One Second After* novel and in American society in early of twenty first century.

### **C. Research Findings and Discussion**

The writer gets some research finding in analyzing *One Second After* novel. Each finding has some cases to be discussed. After they have examined, all of components will get back together in a schematic manner in the discussion.

#### **1. Findings**

In analyzing *One Second After* novel, the writer gets some findings. There are some effects of electromagnetic pulse attack to human life in the novel *One Second After* and in reality to the next future.

##### **a. The effects of electromagnetic pulse attack to human life in the novel *One Second After***

Social aspects contain social class, social relation, class model, social public system. Forstchen shows there are some

effects of electromagnetic pulse attack in society. People are trying to get food by fighting and hurting other people.

The economic aspect reflects that there are poor and rich people in society. Forstchen also defines that the economy of American can be from some sources, agricultural and business. It can be seen in Swannanoa villagers and the wealth of Jennifer. She works as an entrepreneur of cars. Money, luxurious house, and food become things that must be fulfilled. People will do anything to get it, such as doing bad actions like robbing, stealing and selling body. Since there is no food because of electromagnetic pulse attack, people do robbing and selling body to get foods and safe place to live.

Politic aspect also contributes plot of the novel. America practices federal government. There is a character who join politic as mayor of a town. Science and technology takes important role in the novel. It is shown by technological tools such as television, radio, refrigeration, juice blender, and many other electronic tools.

Then, Religion plays important role in America. Christian becomes the majority religion in America. It can be seen that there are many colleges of Christian. Another religion is catholic that is professed by Jennifer Dobson and Tyler. Then, there is also an old

faith that still believed by minority. It is Wiccan. People in America must follow their faith. If they do fault, they will be punished by society. Since there is no food to eat because of electromagnetic pulse attack people become cannibals.

Cultural aspect includes art, food, daily life habit, belief and fashion. Forstchen tells about food people usually consume, how people dress in America, smoking habit, and tradition of American. Most people like to consume meat, vegetables and potato. They also like to smoke. They dress casually and professionally. People also still celebrate annual traditional event.

**b. The effects of electromagnetic pulse attack to human life in the reality to the next future.**

EMP is not new issue in the world. According to Hannis (2012: 01), Soviets had a plan to use EMP attack during cold war. As the history of cold war, nuclear weapon was issued as the weapon to attack the enemy even that did not happen.

According to Iranian Jurnal, 1998 (Commission to Assess the Threat from High Altitude Electromagnetic Pulse (EMP), the world will be dissolved for many years when it has no prevention to face this attack.

EMP will be a threat to the world future. America has prepared the plan to face it. America has established a commission to prevent EMP. The commission is known as the *Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack*. Hannis, (2012 :02) states that the establishment of this commission is as a safeguard of the nation.

Hannis (2012 :02) explain some probably effects of EMP to human life such as transportation would be rendered inoperable, hospitals and emergency services could be incapacitated, water would not flow, vehicles would not run, and food would spoil and go undelivered, the result of those would be starvation, robbing, violence, disease, and lawlessness on a scale not experienced in modern times.

## **2. Discussion**

Story is the reflection of what occurred in that time. The author represents the phenomena of the effects of electromagnetic pulse attack to human life by writing the novel. There is correlation between the novel and the social reality in American society. The novel tells about the effects of electromagnetic pulse attack like robbing, violence, starvation, and poverty. The author delivers her idea through the novel in order to make the reader more understand about the social reality in America. In the novel *One Second After*, Forstchen wants to criticize about people who

become spoiled and proud of what they have. People might be lost what they have in this modern era because of electromagnetic pulse attack. They will lost what they have only in a split second. It is drawn clearly by William R. Forstchen that the effects of EMP attack can cause social disorder in society.

#### **D. Conclusion**

After analyzing *One Second After* novel, the writer draws some conclusions. The story of the novel reflects the effects of electromagnetic pulse attack to human life.

Based on the sociological analysis of *One Second After* novel above, the researcher concludes that William R. Forstchen as the author of this novel emphasizes the social condition in America at the time. He shows the social reality in early twenty first century. There are effects of electromagnetic pulse attack in human life in the near future.

William R. Forstchen criticizes the social reality in America through the theme, plot and characterization in *One Second After*. The theme of the story is “the effects of electromagnetic pulse attack can cause social disorder in society”. It is reflected in the plot of the novel. People are getting starvation, poverty, robbing and violence in society.

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