The mathematics of nuclear weapons

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Abstract

In this paper, I describe the mathematics of nuclear weapons.
The paper ends with "The End"

Introduction

Knowledge has been demanded of me of the mathematics of nuclear weapons.
In this paper, I describe the mathematics of nuclear weapons.

The mathematics of nuclear weapons

Let the number of **types** of nuclear weapons be T.

For $i \in \{1, 2, \ldots, T-1, T\}$,
Let the **number** of i^{th} type of nuclear weapon be n_i.
Let the **mass** of the i^{th} type of nuclear weapon be m_i.
Let the **damage** by the i^{th} type of nuclear weapon be δ_i.
Then the **yield** of the i^{th} type of nuclear weapon is

$$y_i = \frac{\delta_i}{m_i} - 1$$

Then we have the following equations of the mathematics of nuclear weapons:

$$N = \sum_{i=1}^{T} n_i$$

$$M = \sum_{i=1}^{T} n_i m_i$$

$$\Delta = \sum_{i=1}^{T} n_i \delta_i$$

$$\Psi = \sum_{i=1}^{T} n_i y_i$$

$$\frac{\Delta}{M} - 1 = \epsilon \frac{\Psi}{N}$$

$$d = 1 - \epsilon$$

where

N is the **total number** of nuclear weapons
M is the **total mass** of nuclear weapons
Δ is the **total damage** by nuclear weapons
Ψ is the **total yield** of nuclear weapons
ϵ is the **overall efficiency** of nuclear weapons
d is the **mass defect** of nuclear weapons

The End