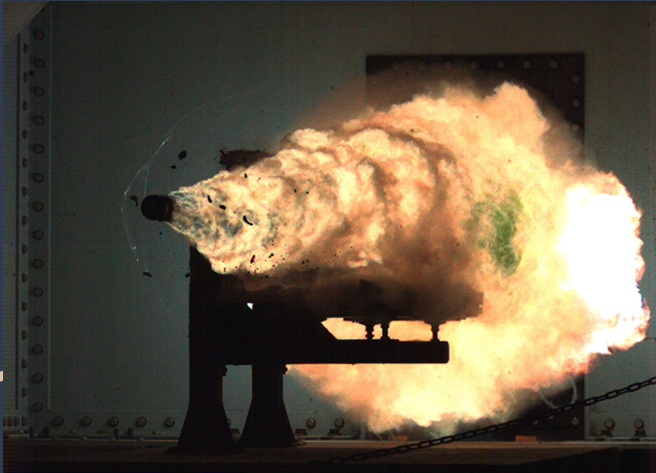


AI vs Intelligence in Rail Guns

Evan Keller

A dark blue diagonal gradient bar that starts from the bottom left and extends towards the top right, covering the lower half of the slide.

Overview

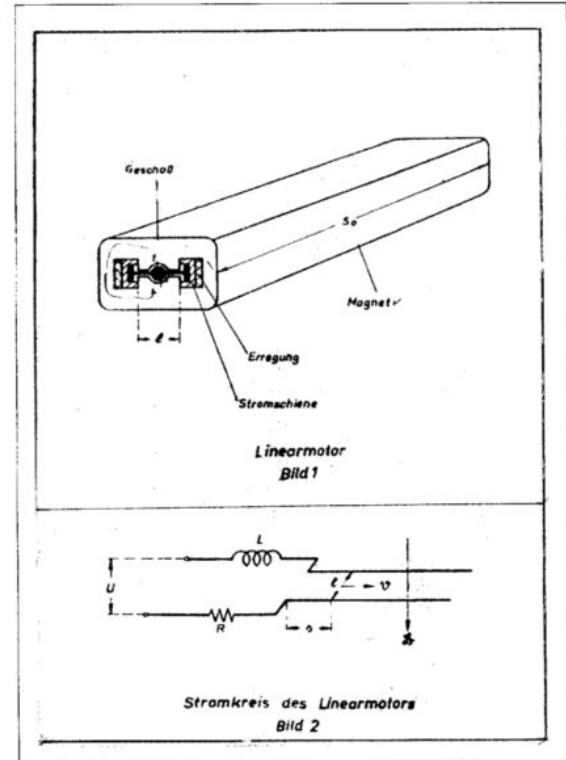


Railgun Testing by the US Navy

- [History](#)
- [Plan and Implementation \(Mechanics\)](#)
- [Plan and Implementation \(Uses\)](#)
- [Railgun concepts](#)
- [Upsides of the Advancement](#)
- [Statistics Graph](#)
- [Downsides of the Advancement](#)
- [Summary](#)
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History

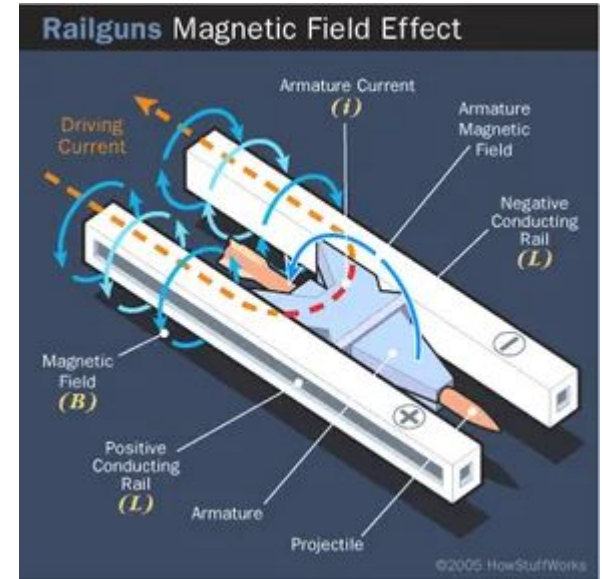
- First concept created in 1918
- Louis Octave Fauchon-Villeplee made the “Electric Apparatus for Propelling Projectiles”
- Later developed by Germany's ordnance office in WW2 (see image)
- Main advancements done by the US Navy starting in 2005



Plan and Implementation

Mechanics

- A railgun fires a projectile using electricity and conductive rails
- Energy is sent through the rails, creating an electromagnetic field
- Projectile is accelerated by the field, launching out of the rails
- Longer rails and more power=higher projectile velocity



Plan and Implementation Uses



Concept art for large-scale railguns

- The railgun would be used on military ships for defence
- Projectiles would be fired at cruise missiles or enemy aircraft to defend the ship
- Larger scale railguns could be used for planetary defence
- Used in modern warfare/future wars

Railgun Concepts

Railguns are a popular concepts in Sci-Fi video games and movies

These are some examples



Pros vs Cons of Railguns

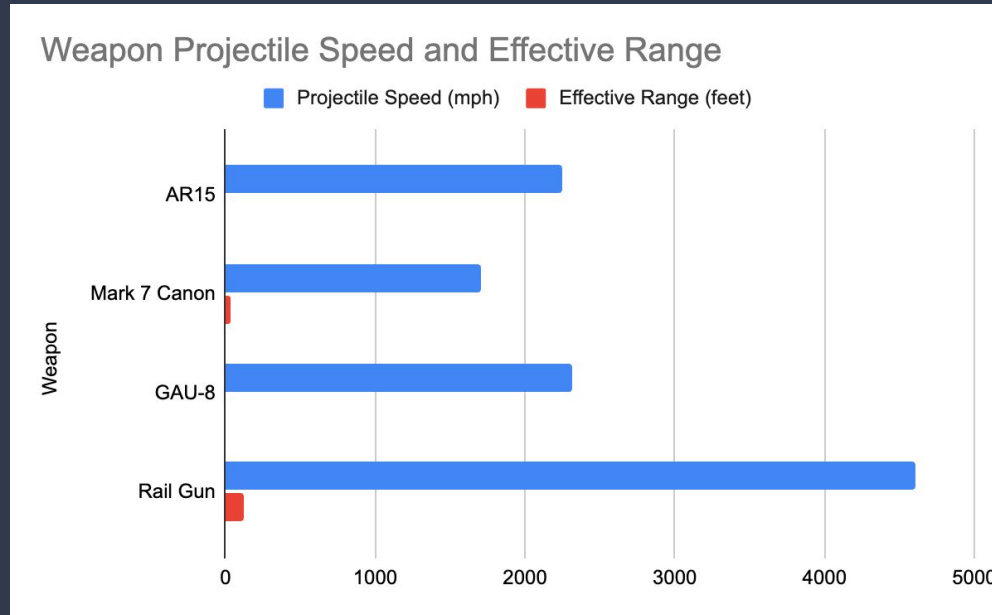
Pros



A railgun prototype on the USS Millinocket

- Railgun projectiles would achieve higher speeds than standard cannon projectiles
- Over mach 6 speed and 126 mile range
- High velocity of projectiles means explosives aren't necessary

Graph of Railgun Statistics Compared to Other Conventional Cannons



Pros vs Cons of Railguns

Cons

- Railguns are still in development- haven't been completed
- Massive amount of energy needed to operate
- Railguns can't sustain constant use
- Can only be used near a power supply

- I support the advancement/development of railguns
- They have potential use by the US military
- Could be used to help maintain peace in the world



Chinese railgun prototype on the ship Haiyang Shan

Summary

References



A US Navy railgun prototype

- [Railguns: Everything You Always Wanted to Know](#)
- [Railgun- Mechatronics](#)
- [US Navy Cancels Development of High-Tech Railgun Weapon](#)
- [Rail Gun Basics](#)
- [Ins and outs of railguns: Will they eventually see widespread usage?](#)