Not for green technology, but for country

Clara Ennist, Editorial Intern

After a 2009 Executive Order mandating that the US Armed Forces purchase green ammunitions, green technology has caused its share of snafus for the Military including allegedly carcinogenic training ammunition and the Navy's infamous "Great Green Fleet. [1]"

When building better weapons, a focus on green technology is untenable; rather, weapons need to be accurate, cost effective, and pose the least harm to US soldiers. How "green" a weapon is can be an unintended, positive consequence.

Enter the Navy's Electromagnetic Rail Gun (EMRG) with guided munitions. According to the Office of Naval Research (ONR), the Electromagnetic Rail Gun "fires projectiles using electricity instead of chemical propellants…at (speeds of) 4,500 mph to 5,600 mph". The EMRG is not only incredibly fast, it is also better for soldiers. Because they do not use a chemical propellant, the munitions no longer pose a threat of detonation while in transport the same traditional ammunitions do, and they reduce the amount of unexploded ordinance on the battlefield. Additionally, with a range of 200 nautical miles, the EMRG would allow sailors to remain further off shore from the target. Also, with a length of 24 inches and a weight of 20-30 pounds (consider that the Tomahawk Missile weighs over 4,000 pounds) each round would be considerably easier to transport and store in comparison to. Finally, the EM Rail Gun would consume less fuel because it only utilizes about thee gallons per launch.

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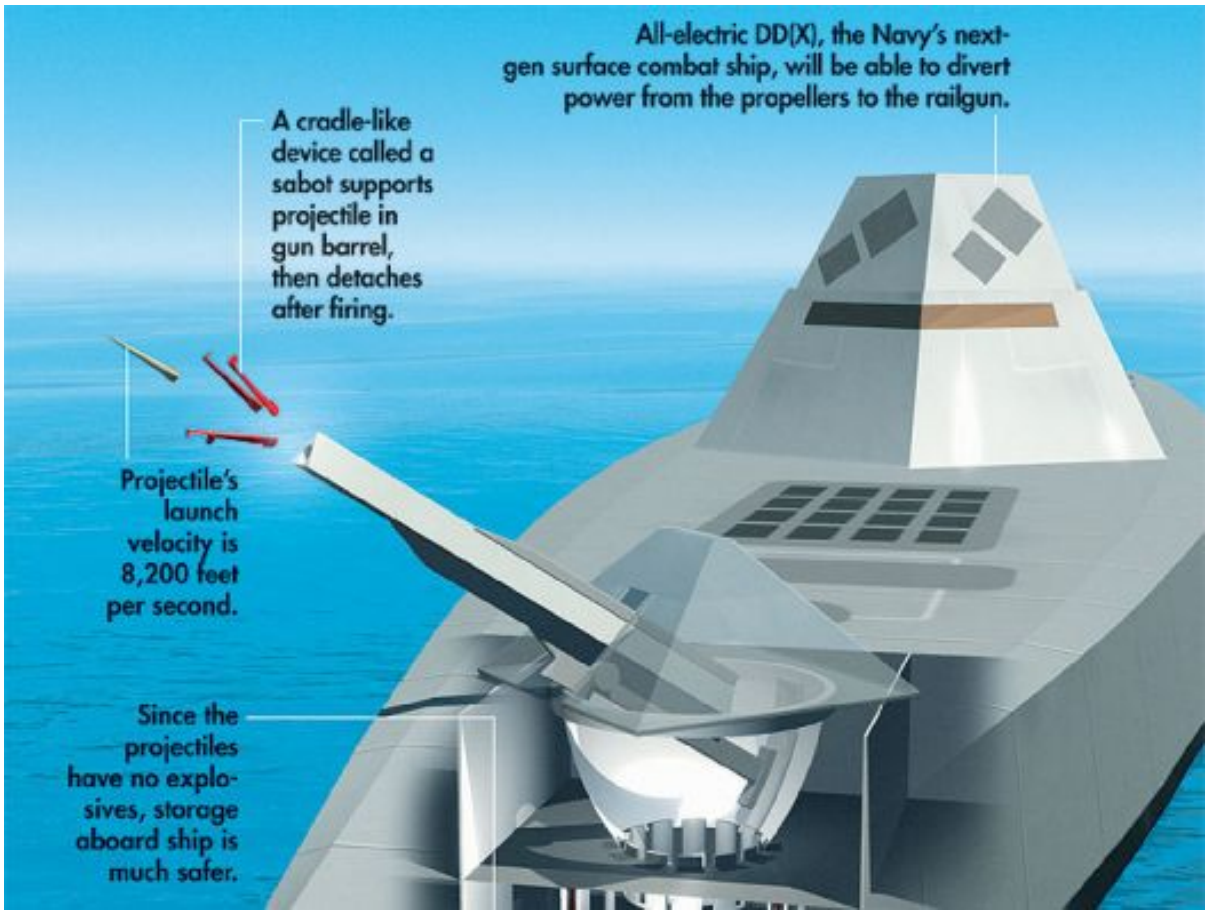
Speed and safety are not, however, enough. The ONR is now looking for guided munitions in order to make its rail gun an incredibly accurate, lethal weapon. After seven years and $240 million the ONR has announced its Hyper Velocity Projectile Research Program, an effort to produce guided munitions for the EMRG. On August 20th the ONR will brief industry about its program and will begin to move into the beginning of an acquisition program. While the ONR still has to solve the problem of powering its EMRG, its high-powered ships, debuting in 2015, may have the capacity to fuel the EMRG. Furthermore, the Navy is on schedule to perform live demonstrations of the guided munitions in 2017.



In its attempts to make guided munitions for its Electromagnetic Rail Gun, the ONR is not prioritizing green technology. Instead, it is focusing on making a weapon with more accuracy and power at a cheaper cost-per-shot. While the Navy's goal is to have a devastatingly fast and accurate weapon, the EMRG is still a greener device. The guided munitions would not pose the same problems as typical unexploded ordinances—leaching chemicals and contaminating the surrounding area for civilians—and they would use considerably less fuel in terms of both transportation costs and cost-per-shot.

Yet no matter how green the EMRG would be, it is still not the duty of the US Armed Forces to promote green technology. By making a weapon that is safer to handle, cheaper in terms of cost-per-shot, and more accurate, the Navy does follow its duty to protect the United States of America and its citizens.

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