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## Electromagnetic Railgun

The Electromagnetic Railgun Innovative Naval Prototype (INP) was initiated in 2005. The Phase I goal of 32 mega-joule muzzle energy proof-of-concept demonstration has been achieved. A future weapon system at this energy level would be capable of launching a 100-nautical mile projectile. This launch energy has the advantage of being able to stress many components to evaluate full-scale mechanical and electromagnetic forces. Phase I was focused on the development of launcher technology with adequate service life, development of reliable pulsed power technology and component risk reduction for the projectile.

Phase II, which started in 2012, will advance the technology for transition to an acquisition program. Phase II technology efforts will concentrate on demonstrating a 10-rounds-per-minute firing rate. Thermal management techniques required for sustained firing rates will be developed for both the launcher system and the pulsed power system. The railgun is a true warfighter game-changer. Wide-area coverage, exceptionally quick response and very deep magazines will extend the reach and lethality of ships armed with this technology.

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### Program Funding

#### Fiscal Year 2012 Funding Opportunity Announcement (FOA) for Navy and Marine Corps Science, Technology, Engineering and Mathematics (STEM) Programs 12-002

[FOA12-002](#) (PDF - 134.24 KB)

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#### Long-Range Broad Agency Announcement for Navy and Marine Corps Science and Technology 12-001

[12-001](#) (PDF - 209.78 KB)

[Amendment 0001](#) (PDF - 249.24 KB)

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