

Operational Energy in History

By Oliver Fritz | May 09, 2014

The Department of Defense has made great strides since the 2010 establishment of the Office of the Assistant Secretary of Defense for Operational Energy Plans and Programs. Most recently, the office released [DoDD 4180.01 "DoD Energy policy."](#) The Department will use this Directive to advance energy security, mitigate costs, and enhance military capability through energy improvements in the years ahead.

It is equally important to recognize the role that energy has played in the military operations of the past. The accompanying infographic outlines several examples of this. From Napoleon to World War II, operational energy has contributed to both military defeat and military success.

This graphic is one of a [continuing series](#) that examines the themes and activities of operational energy. Please contact us at osd.operational-energy@mail.mil with suggestions and ideas for future graphics.

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OPERATIONAL ENERGY IN HISTORY

NAPOLÉON
1812: Hampered by the weather and long vulnerable supply lines, Napoleon's invasion of Russia ended in disaster.

END OF SAIL
1814: The USS *Fulton* was the first U.S. Navy warship to be propelled by steam instead of wind to increase speed and capability.

COAL TO OIL
1910s: Led by Winston Churchill, the Royal Navy switched from locally sourced coal to foreign oil to improve speed and range.

MID-AIR REFUELING
1929: The Army Air Corps "Question Mark" set an airplane endurance record of more than 150 hours thanks to 42 mid-air refuelings.

RAPID UPGRADES
1943: A new engine and drop tanks allowed upgraded P-51 Mustangs to escort bombers all the way to Berlin.

RED BALL EXPRESS
1944: The Red Ball Express, a convoy of trucks, used 300,000 gallons of fuel a day to deliver 400,000 gallons for the Third Army's drive across France.

NORTHERN DISTRIBUTION NETWORK
2011: Stretching almost 1,000 miles, the Northern Distribution Network delivered almost 250,000 tons of supplies to support operations in Afghanistan.

Office of the Assistant Secretary of Defense for Operational Energy Plans and Programs

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