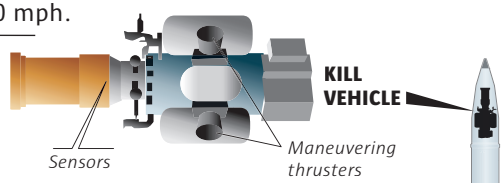
The threat and the defense

The U.S. deployed a Boeing-led missile defense system last year to counter the threat from hostile nations like North Korea, which intelligence experts say is developing nuclear weapons and ballistic missile technology that could reach the West Coast.

Here's how the system is supposed to work

5. The ***kill vehicle*** uses infrared and visible sensors to track the incoming warhead. The kill vehicle destroys the targeted warhead by colliding with it at a speed of 15,000 mph.



1. Orbiting ***tracking and surveillance satellites*** detect a missile launch using visible and infrared sensors. Information is sent to a ***fire control command center***.

Warhead

2. Ground-based ***radar stations*** track the missile, providing information to the ***fire control center*** and the ***interceptor missile base***. Future sea-based ***X-band radars*** will be added to the system in the north Pacific Ocean on floating platforms.

4. A ground-based ***interceptor missile***, comprised of a ***booster vehicle*** and a ***kill vehicle***, is launched from Fort Greely, Alaska.

Satellite

ALASKA

Aleutian Islands

Radar installation at Clear Air Force Station, Alaska

Radar installation at Eareckson Air Force Station in the Aleutian Islands.

Sea-based X-band radar

3. ***Fire Control Command Center*** at Schriever Air Force Base, Colorado, gives authority to launch interceptor.

RUSSIA
CANADA
UNITED STATES
NORTH KOREA
JAPAN
CHINA
SOUTH KOREA
PACIFIC OCEAN

Sources: GlobalSecurity.Org; U.S. Department of Defense; U.S. General Accounting Office; Raytheon

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