

Trident – Britain's nuclear arsenal

Trident II D5 – Britain's submarine-launched nuclear deterrent – is carried aboard four Vanguard Class submarines. The U.S.-supplied missiles, armed with British-built warheads, entered service with the Royal Navy in 1994. Trident was initially given a 30-year lifespan, due to end in 2024

Nuclear warheads:

Can carry up to 12 MIRVs – **multiple independently targeted reentry vehicles** – clustered around third-stage rocket. UK missiles currently armed with one to three MIRVS due to cost cuts

Second stage

First stage: Solid fuel rocket motor.
MIRVS released when missile travelling at over 20,000ft a second – within two minutes of launch

Trident II D5:

Length: 44ft
Diameter: 74in
Weight: 130,000lb
Range: 4,600 miles
Cost per missile: £16.8 million

Trident submarine fleet based at Faslane, Scotland

UK

Warhead

Contact sensor
Aiming, fusing section
Nuclear charge – 100 kiloton (six times power of Hiroshima) or 475 kiloton warhead

Vanguard Class submarine:

132 crew.
Carries 16 missiles. One boat on patrol at all times.
U.S. Trident submarines have had life extended to 45 years

Steam generator:

Replacement could extend service life by 10 to 15 years