

U.S. to supply Patriot missiles to Ukraine

The Patriot missile system would be the most effective long-range defence sent to Ukraine, able to intercept ballistic and cruise missiles – but not cost effective for bringing down cheap Iranian drones

PATRIOT PAC-3 MISSILE DEFENCE

1 Detection

Multifunction phased array radar searches sky for aircraft or missile threats. Range up to 100km, can track up to 100 targets simultaneously

2 Engagement control station (ECS)

Weapons control computer determines intercept point, relays data to launcher. Course can be corrected during missile flight

ECS truck manned by three crew, system also capable of working autonomously

3 Launcher

Fires missile towards intercept point. Missiles can be ready to fire in nine seconds

Launcher cost: **\$10 million**

Up to eight launchers, each carrying 16 missiles

4 Flight

Missile tracked by radar and guided with help from ECS and its own homing sensors

5 Terminal phase

Ka-band seeker locks on target, activates flight controls and primes warhead. Target destroyed by kinetic energy released in head-on collision

PAC-3 specifications

Length	5.2m
Diameter	40cm
Warhead	90kg
Speed	Mach 5
Range	70km
Altitude	24km
Cost per missile	\$4m