

Kh-101 / Kh-102 Russian Air Launched Cruise Missile

WEG Location: <https://odin.tradoc.army.mil/WEG/Asset/267e8808a88421dfcfa3fad0bcca1b07>

Tiers:



Domain: Air, Cruise Missiles, Long-Range Cruise Missiles (LRCM) (More than 1,000 km), Air-Launched Cruise Missiles (ALCM) (More than 1,000 km)

Proliferation: Russian Federation

Origin: Russia (RUS)



Notes

The Kh-101 / Kh-102 Raduga is a new line of conventional and nuclear-capable air-launched cruise missiles (ALCM) developed and deployed by Russia. A stealthy missile, the Kh-101 / Kh-102 is designed to defeat air defense systems by flying low and hugging the terrain to avoid their radar systems. The Kh-101 is the conventional warhead version while the Kh-102 is the nuclear-capable version of the Raduga. The missile also has radar-absorbing capabilities which make it difficult to detect. It boasts a radar cross-section of .01 square

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meters. The missile has no booster engine and therefore, relied on the altitude of its launch aircraft to assist it in reaching attack speed. The altitude window is 3,000m to 12,000m flying at a speed of 900km/h.

System

Alternate Designation: Kh-101; Kh-102

Class: Air Launched Cruise Missile

Effective Range: 5,000 km (a source said that the range could be as high as 10,000 km)

Circular Error Probability: 6

Basing: Tu-160 "Blackjack" (12 missiles), Tu-22M3/5 "Backfire" C (4 missiles), Tu-95M16 "Bear-H" (8 missiles), and Su-27IB (INA), Su-34 (2 missiles)

Dimensions

Length: 7.45

Missile Weight: 2,400

Diameter: 0.5

Fin Span: INA

Payload

Warhead Options: Conventional and Nuclear

Warhead Type: Kh-101 = Conventional; Kh-102 = Nuclear

Warhead Weight: 450

Nuclear Yield: 250

Conventional Warhead Weight: 400

Conventional Warheads Available: HE, Fragmentation, Submunitions

Propulsion Characteristics

Engine: TRDD-50A Turbofan

Propellant: INA

Speed: 900

Flight Ceiling: 6,000

Minimum Flight Altitude: 30

Cruise Altitude: 30-70 m above the ground

Endurance: 10

Fire Control

Guidance System: Inertial, Electro-optical correction, GLONASS satellite navigation, and IR TV terminal guidance.

Note:: For inflight course correction, the missile uses a pre-loaded map in its onboard computer to perform terrain comparison.

Sources

Images: <https://www.turbosquid.com/3d-models/kh-55-missile-3d-3ds/704593>