

[REDACTED]

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Special Analysis

IRAN:

Characteristics and Capabilities of the Silkworm

The Chinese HY-2—Silkworm—antiship cruise missile acquired by Iran, although based on 1950s technology, is a reliable, effective antiship weapon. If properly launched at an unprotected ship of medium-to-large size, the HY-2 probably has as much as a 70-percent chance of hitting the target. Ships protected by active or electronic defense systems may be able to defeat a single HY-2 but could have trouble defending against two or more missiles approaching at once.

(b)(1),(b)(3)

[REDACTED] Iran is nearing completion of its first HY-2 site capable of supporting a full battery of four launchers and associated equipment. It has an elevated radar position, a graded missile-ready support area, and four launch positions, giving this site the capability to launch as many as four missiles in salvo. [REDACTED]

Two other HY-2-related sites have already been completed, but one probably was used for test purposes only and the other—also near Kuhestak—appears to have been abandoned. The HY-2, however, is a mobile system; the missile can be launched from virtually any flat, road-served coastal location as long as targeting requirements are met. [REDACTED]

System Capabilities

The HY-2 is a copy of the Soviet SS-N-2 a/b Styx missile; it has been lengthened to add fuel for increased range. China produces three versions of the missile, the HY-2, HY-2a, and HY-2g. The HY-2g can cruise at 100 feet, enabling it to avoid early detection by the target ship. The HY-2a—an infrared-homing version—cruises at a higher altitude but is less susceptible to electronic countermeasures than the radar-guided models. [REDACTED]

In comparison with other antiship missiles currently used in the Gulf war, the HY-2 carries a warhead three times larger than Exocet's and seven times larger than Sea Killer's, making it—unlike the Exocet—capable of severely damaging or sinking a tanker. The HY-2 delivers this warhead to its maximum range of 57 miles (95 kilometers) in five minutes and to 40 miles (65 kilometers), a more likely range for targets in the strait, in about three and a half minutes. [REDACTED]