AAA Plt/2 (23mm ZSU-23-4 Shilka x 2) - 2x pr Plt

Iraq

Type: Mobile Vehicle(s)

Commissioned: 1974

Operator: Army

Length: 0 m

Width: 0 m

Crew: 1



Sensors / EW:
 - Gun Dish [RPK-2 Tobol] - (Gun Director) Radar, Radar, FCR, Surface-to-Air, Short-Range, Max range: 50 km

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Weapons / Loadouts:
 - 23mm ZSU-23-4 Shilka Burst [50 rnds] - Gun. Air Max: 1.5 km. Surface Max: 1.9 km. Land Max: 1.9 km.

OVERVIEW: The ZSU-23-4 "Shilka" is a highly mobile and lightly armored self-propelled anti-aircraft gun (SPAAG) which mounts four liquid-cooled 23mm automatic cannons and a fully integrated stabilized radar fire control system.

DETAILS: The ZSU-23-4 was developed in the late '50's to early '60's through the need for the Soviet Army to upgrade its existing SPAAG capabilities to better defend against top of the line Western ground attack aircraft and helicopters that would be targeting Soviet armor and mechanized formations. The primary system available at the time was the ZSU-57-2 which was limited in capability because of its optically aimed fire control system, lack of integrated radar and onboard ammunition stowage, and inability to engage targets while on the move or in low visibility conditions. The ZSU-23-4 consists of a fully stabilized turret mounted on a GM-575 fully-tracked chassis. The turret mounts four AZP-23 23mm liquid-cooled automatic cannons capable of a cyclic rate of fire of 800-1000 rounds per minute (RPM) each. The Shilka is typically loaded with 2000 rounds in 500-round belts per gun and can carry an additional 2000-4500 rounds of on-board ammunition depending on model. An RPK-2 "Tobol" (NATO name: GUN DISH) radar is mounted on top of the turret and can be used for search out to approximately 12nm, acquisition, and fire control. The fire control system is fully automated with the radar and uses an analog computer to determine superelevation and azimuth lead for the guns. Optical sighting is used in degraded mode in the event of system failure or ECM. The system is not without limitations. The 23mm round was lacking in power, short weapon range and problems transitioning the radar from search mode to fire control mode led to the system being eventually replaced by the more capable 2S6 Tunguska.

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NOTES: The ZSU-23-4 became operational around 1965 and was deployed in the air defense batteries of Soviet motor rifle and tank regiments. The regimental air defense battery initially consisted of a platoon of four ZSU-23-4 and a platoon of four ZSU-57-2 until the introduction of the SA-9 Gaskin SAM which replaced the platoon of ZSU-57-2 as it was phased out. For offensive operations the ZSU's typically operate approximately 400m behind the lead elements of the motor rifle and tank regiments, while the SA-9's deploy further back around the regimental command post to provide cover for higher value targets. In the defense, the SA-9's and ZSU-23-4's will typically be dug in to minimize visual detection and will provide air defense support to the forward battalions (ZSU-23-4) and regimental command post (SA-9). Development of the 9S80 DOG EAR search radar mounted on the tracked PPRU armored vehicle chassis in the late 1970's provided the regimental air defense battery command post with an organic search radar that could feed target data to the gun and missile platoons, allowing the ZSU to use the GUN DISH for tracking rather than search. The ZSU-23-4 received several upgrades to the radar and fire control system over its lifespan, improving accuracy and reducing ECM vulnerability. Other countries that used the ZSU-23-4 also installed their own upgrades and improvements to modernize the system and prolong its life. The ZSU-23-4 was widely exported by the Soviet Union and has been used operationally in the Middle East, Southeast Asia, Southwest Asia, and Africa. It has also been used in the secondary role of providing direct fire support against ground targets. During the Soviet War in Afghanistan the GUN DISH radar was removed and night vision devices were added specifically for use against ground targets.

SOURCES: GulfLINK Home. "Air defense Weapons of the Former USSR & Russia." Accessed November 14, 2013. http://www.gulflink.osd.mil/irfna/irfna_refs/n28en143/airdef.html#zsu23-4 ; Weaponsystems.net. "ZSU-23-4 Shilka." Accessed November 14, 2013. http://www.weaponsystems.net/weapon.php?weapon=EE03%20-%20ZSU-23-4 ; Military Factory. "ZSU-23-4 (Shilka) - Self-Propelled Anti-Aircraft Gun - - History, Specs and Pictures - Military Tanks, Vehicles and Artillery." Accessed November 14, 2013. http://www.militaryfactory.com/armor/detail.asp?armor_id=14 ; FM 100-2-3. Washington D.C.: Headquarters, Department of the Army, 1991