

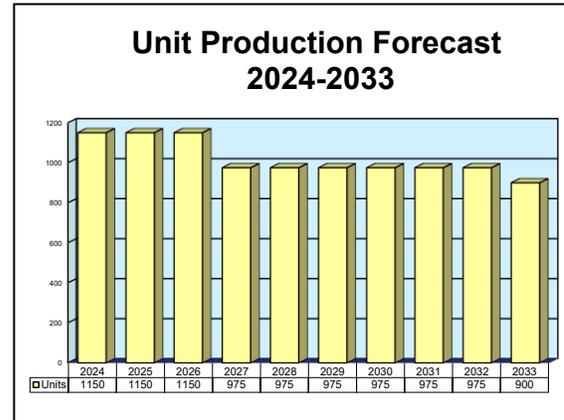
ARCHIVED REPORT

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Russian Automatic Grenade Launchers

Outlook

- AGS-17 production reportedly ended in 2007 with completion of China's licensed-production run
- AGS-30 remains in serial production for Russian Army procurement and limited export sales
- AGS-17 in service with both sides in the Ukraine War
- Forecast reflects ongoing Russian AGS-30 production



Orientation

Description. Medium-caliber automatic grenade launchers.

Sponsor. The Ministry of Defense of the Russian Federation sponsors these legacy programs of the Soviet Union.

Status. Development through serial production.

Total Produced. Through 2023, we estimate the contractors and licensees produced 71,819 AGS-17 and 33,703 AGS-30 automatic grenade launchers.

Application. Ground- or vehicle-mounted fire support at the infantry company level for both offensive and defensive operations.

Price Range. In 2024 U.S. dollars, the AGS-17 carries an estimated unit price of \$27,467. The Russian Army AGS-30 carries a 2024 estimated unit price of \$27,787.

Contractors

Prime

Federal State Unitary Enterprise, Rosoboronexport, Rosoboronexport State Corp	http://www.roe.ru , 27/3 Stromynka St, Moscow, Russian Federation, Tel: + 7 495 534 6183, Fax: + 7 495 534 6153, Prime
China North Industries Corp (NORINCO)	http://www.norinco.cn , 12A Guang An Men Nan Jie, PO Box 100053, Beijing, China, Tel: + 86 10 6352 9988, Fax: + 86 10 6354 0398, Email: norinco@norinco.cn , Licensee
KBP Instrument Design Bureau	http://www.kbptula.ru , 59 Shcheglovskaya Zaseka St, Tula, Russian Federation, Tel: + 7 4872 41 0210, Fax: + 7 4872 42 6139, Email: kbkedr@tula.net , Second Prime
Molot Machine-Building Plant OAO	http://www.molot.biz , ul Lenina, 135, Vyatskie Polyany, Kirov Oblast, Russian Federation, Tel: + 7 83334 6 20 34, Fax: + 7 83334 2 68 80, Email: guns@molot.biz , Second Prime

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 75 Glen Road, Suite 302, Sandy Hook, CT 06482, USA; rich.pettibone@forecast1.com

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Technical Data

AGS-17 Plamya

Crew. One (to fire the weapon).

Shield. None.

Muzzle Brake. None.

Ammunition. The AGS-17 fires 30x28mm ammunition in the following types:

Recoil System. Blowback, selective fire.

- VOG-17A High Explosive-Fragmentation (HE-Frag)

Breech Mechanism. Open bolt.

- VOG-17M (7P9M) HE-Frag

Feed. A 29-round non-disintegrating belt, in a drum-type magazine.

- Training (dummy)

Carriage Type. None. The weapon employs a tripod mount, per specific application.

Dimensions. The following data reflect the production-standard AGS-17.

	<u>SI Units</u>	<u>U.S. Units</u>
Caliber	30 mm	1.18 in
Length	84.1 cm	33.11 in
Overall length (with tripod)	1.28 m	4.19 ft
Weapon weight	17.86 kg	39.29 lb
Magazine weight (empty)	2.87 kg	6.31 lb
Magazine weight (loaded)	14.34 kg	31.54 lb
PAG-17 sight unit weight	1.0 kg	2.2 lb
SAG-17 tripod weight	12.09 kg	26.60 lb

Performance. The range data reflect firing VOG-17M HE-Frag ammunition.

	<u>SI Units</u>	<u>U.S. Units</u>
Maximum range	1,700 m	1,859.1 yd
Maximum effective range	1,200 m	1,312.3 yd
Muzzle velocity	183 mps	600.38 fps
Maximum rate of fire	400 rds/min	400 rds/min

The AGS-17 (with the standard spares kit) reportedly has a 6,000-round service life.

AGS-30 (TKB-722K)

Crew. One (to fire the weapon).

Feed. A 30-round belt in a box-type magazine.

Muzzle Brake. None.

Carriage Type. None. The weapon employs a tripod mount, per specific application.

Recoil System. Blowback, selective fire.

Shield. None.

Breech Mechanism. Open bolt.

Ammunition. Same as the AGS-17.

Dimensions. The following data reflect the latest version of the AGS-30, mounted on a tripod but without ammunition.

	<u>SI Units</u>	<u>U.S. Units</u>
Caliber	30 mm	1.18 in
Length	110 cm	43.31 in
Weapon weight	16.03 kg	35.26 lb
Magazine weight (loaded)	13.7 kg	30.14 lb
PAG-17 sight unit weight	1.0 kg	2.2 lb

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Performance. The range data reflect firing VOG-17M HE-Frag ammunition.

	<u>SI Units</u>	<u>U.S. Units</u>
Maximum range	1,700 m	1,859.1 yd
Maximum effective range	1,200 m	1,312.3 yd
Muzzle velocity	185 mps	606.94 fps
Maximum rate of fire	425 rds/min	425 rds/min



30mm AGS-17 Grenade Launcher

Source: Russian Army

Variants/Upgrades

Variants. To date, the basic AGS-17 design has spawned four variants, as follows:

<u>Designation</u>	<u>Description</u>
AGS-17A	Russian industrial designation 9-A-800. Variant of basic AGS-17 for helicopter-borne operations. Features a cooling shroud and solenoid-actuated trigger mechanism.
BP-30	1970s vintage naval variant of basic AGS-17; mounts on turret of hovercraft and other light naval craft.
W97 AGL	People's Republic of China copy of basic AGS-17; produced and marketed under the auspices of China North Industries Corp. Entered People's Liberation Army service in 1982.
6S4 Mius	Remote-control variant of the basic AGS-17, mounted in a turret-like device. Remote-control device with laser rangefinder weighs 35 kilograms (77 lb); complete turret assembly weighs 200 kilograms (440 lb). Four independent turrets can link to one remote-control device.

Note: To date, there are no reports of the contractor developing any AGS-30 variants.

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Modernization and Retrofit Overview. Other than the integration of the AGS-17 with the 6U6 machine gun mount and the possible retrofit of optical sighting systems, this is generally not applicable.



30mm AGS-30 Grenade Launcher

Source: KBP Instrument Design Bureau

Program Review

Background. In 1974, the Soviet Union commenced production of the 30mm Avtomaticheskyyi Granatmyot Stankovyyi 17 (AGS-17) as a direct response to the performance of the 40mm Mark 19 in Vietnam. For a detailed discussion of the Mark 19, see the "Mark 19" report in this service.

Russian Answer to Mark 19

During the time the Soviet Army was issuing the AGS-17 Plamya ("Flame"), U.S. forces lost interest in the Mark 19. Development of the American grenade launcher stalled. By 1980, the performance of the AGS-17 in Afghanistan was generating considerable interest worldwide, leading to widely circulated – and completely erroneous – statements that the AGS-17 was a groundbreaking weapon system, for which the U.S. had no counterpart.

U.S. Dusts off Mark 19

The U.S. response was to dust off the dormant Mark 19 program. Thus, the introduction of the AGS-17 as a response to the Mark 19 led to the re-introduction of the Mark 19 as a counter to the AGS-17.

In the Russian Federation, the Federal State Unitary Enterprise Rosoboronexport acts as the primary conduit between the Russian defense industry and the international market. All Russian arms manufacturers thus effectively operate under the auspices of Rosoboronexport. In the People's Republic of China, China North Industries Corp (NORINCO) occupies a position equivalent to Rosoboronexport.

Description. In general appearance, the AGS-17 is similar to the basic Mark 19 design. The relatively short barrel, which features disc-shaped cooling fins, attaches to the rectangular receiver. A large circular drum-type magazine attaches to the right side of the receiver; the non-disintegrating belt exits the left side of the receiver. The twin spade-type grip/firing assembly and cocking handle mount at the rear of the weapon.

The AGS-17 fires from either a ground-based tripod or a vehicular pintle mount. Two tripods are available: the standard SAG-17 tripod and a lightweight, folding aluminum tripod for airborne units. A specialized high-angle mount for use in mountainous areas is also available, consisting of a modified 6U6 air defense machine gun mount. For high-angle use, the AGS-17

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can fire from the 6U6 heavy machine gun mount, either independently or coaxially, with a 12.7x107mm NSV machine gun.

Conventional Closed-Bolt Design

The AGS-17 operating sequence is as follows: the operator attaches a loaded drum magazine to the right side of the weapon and feeds the ammunition belt through the right side of the feed tray assembly. As the operator pulls the cocking handle to the rear of the weapon, the mechanism cocks the trigger and aligns a round of 30mm ammunition with the chamber. Upon release of the cocking handle, the action spring drives the bolt forward into the battery, chambering a round in the process. Depressing the trigger fires the weapon from the closed-bolt position.

The Next-Generation AGS-30

In 1994, the KBP Design Bureau introduced the next-generation 30mm automatic grenade launcher under the designation TKB-722K. Now known as the AGS-30, the TKB-722K fires the same 30mm ammunition as the AGS-17 and features the same PAG-17 sight. However, the AGS-30 is significantly lighter than the AGS-17,

containing 40 percent fewer parts. Only a minimal amount of information concerning the AGS-30 has trickled out of the Russian Federation. Consequently, we cannot properly evaluate the performance of the AGS-30 at this time. The weapon is reportedly in full-scale serial production for Russian Army requirements.

Rugged but Flawed

Examination and testing of the AGS-17 revealed that the weapon has no remarkable features, despite all the sensationalism and hype of the 1980s. It is simply a rugged, highly serviceable weapon. However, test data clearly show the AGS-17 is not nearly as rugged or durable as the Mark 19.

Furthermore, testing by the U.S. DoD revealed several significant design flaws in the weapon. Among the faults is the use of a single feed pawl, which allows the belted rounds to deviate from the bore line. This design flaw, coupled with an inherently dangerous fuze design, can result in a catastrophic failure – the weapon can blow apart. Indeed, this is exactly what happened when the U.S. Marine Corps tested several AGS-17 weapons. Whether the AGS-30 suffers from these same design flaws remains to be seen.

Funding

The Ministry of Defense of the Russian Federation continues funding Russian Army procurement of the AGS-30.

Worldwide Distribution/Inventories

Export Potential. Since 1990, in an effort to acquire hard currency, the Russian Federation has promoted most of its weapons on the international market. As automatic grenade launchers are currently hot items, continued export sales of Russian Army-surplus AGS-17 grenade launchers are likely throughout the forecast period. In addition, NORINCO continues to market its licensed copy of the AGS-17.

Nevertheless, the AGS series comes up short in direct competition with the American 40mm Mark 19 on the international market. Export sales will thus tend to be limited to nations with close trade relationships with the Russian Federation or the People's Republic of China – that is, former client states.

Countries. The AGS-17 is in service in **Afghanistan (Taliban), Angola, Armenia, Azerbaijan, Bulgaria, Cambodia (NORINCO W97 AGL), Chad, Cuba, Czech Republic, Democratic People's Republic of Korea, Ecuador, Georgia, India, Iran, Iraq, Ivory Coast, Montenegro, Mozambique, Myanmar, Namibia, Nicaragua, Pakistan, People's Republic of China, Poland, Russian Federation, Serbia, Sierra Leone, Slovakia, Somalia, South Africa, Sudan, Syria, Turkey, Ukraine, Vietnam, and Zambia (NORINCO W97 AGL).**

The AGS-30 is reportedly in service with **Algeria, India, Namibia, North Macedonia, Russian Federation, Saudi Arabia, and Vietnam.**

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Forecast Rationale

The AGS-30 remains the center of gravity for Russian 30mm automatic grenade launcher production. The KBP Design Bureau is currently engaged in full-rate serial production of the AGS-30 for Russian Army procurement. Given the large numbers of older AGS-17 grenade launchers available on the international market, prospects for export sales of the AGS-30 are not especially promising.

Russia's Ambitions versus Reality

On May 6, 2013, (then) Russian Prime Minister Dimitri Medvedev announced that 75 percent of the Russian armed forces' ordnance inventory would be new weapons. Under Russia's State Armaments Program, 11 percent of existing military equipment would be

upgraded, and 70 percent would be replaced with modern weapons.

However, as the invasion of Ukraine has demonstrated, Russia is, in fact, a regional power with limited global power-projection capability. The Russian military suffers from uneven readiness levels, extensive corruption, aging equipment, and limited logistical capabilities.

The Forecast International Weapons Group considers it highly unlikely the Russian MoD made a significant dent in modernizing its existing weapons inventory prior to the invasion of Ukraine. With the quagmire of the war in Ukraine, immediate combat requirements continue to trump long-term modernization ambitions.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
KBP Instrument Design Bureau												
AGS-30 TKB-722K												
	33,703	1150	1150	1150	975	975	975	975	975	975	900	10,200
Total	33,703	1150	1150	1150	975	975	975	975	975	975	900	10,200