

June 2019

Air-to-Ground Precision Guided Munition (A2G-PGM)



What is a Precision Guided Munition?

A Precision Guided Munition (PGM) is a missile, bomb or artillery shell equipped with a guidance system enabling it to increase its accuracy.

Multinational effort

The NATO Air-to-Ground PGM project offers participants a costeffective and flexible way to address all aspects of their air-to-ground PGM requirements. Starting in June 2019, the participants have broadened the project to also include air-to-air guided munitions.



First lot of PGM acquired through NATO project.



There are currently thirteen participating nations, twelve Allies and one partner nation. The United States actively supports this effort under its Lead Nation Procurement Initiative (LNPI) for any US sourced munitions to be acquired under this framework. In the first acquisition round a single lead actor, in this case the NATO Support and Procurement Agency (NSPA), initially acquired US produced PGMs on behalf of the participating nations. Participants have already received first deliveries of these munitions in August 2018 with per unit acquisition cost being around 15-20 percent lower than originally forecasted.

The PGMs are being delivered with a blanked third party transfer agreement, which means that they can be easily shared between the participating nations. This dramatically increases flexibility in stockpile management, as the administrative and technical process of transferring munitions could previously take months. Now it can now be completed in as little as a just a few days. In the future nations might also choose to store their munitions in shared warehouses, further reducing cost.

¹ Letter of Intent – initial non-binding document outlining participants' will to explore the area in question further.

² Memorandum of Understanding – legally binding document specifying details of cooperation.



Procurement process diagram for US sourced munitions.

Why is it important?

The Air-to-Ground PGM project seeks to address an issue that NATO first encountered during Operation Unified Protector in Libya, when Allies experienced difficulties with the availability of munitions. During this operation it was challenging for Allies to share their individual munition inventories. The project introduces a new, flexible approach allowing participating nations to share each other's PGM stocks therefore making Allied air forces more interoperable. Multinational procurement and warehousing means reduced costs and a more efficient acquisition process.

How does it work?

By relying on external guidance or its own guidance system, the PGMs can be aimed at a single target. In order to conduct accurate strikes, GPS, laser guidance, radio frequency or other methods can be used. The launch of PGM follows a target acquisition cycle, commonly composed of five steps (detection of target area, detection of target itself, orientation of target, target recognition, and weapon release).

Did you know?

- 1. PGMs are often referred to as 'smart bombs' because of their ability to control their fall precisely in order to hit a designated target.
- 2. The United States has been developing a new type of PGM that should be able to hit moving targets on land and at sea without the assistance of satellite navigation.

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