## **ELECTRONICS DIVISION**

## BLACK ARROW THE NEW GENERATION LIGHTWEIGHT TORPEDO



BLACK ARROW is a lightweight Torpedo designed and entirely developed by WASS to meet all challenging operational requirements for ASW.

Although derived from technology generated by WASS in the development of A244/S Mod.3, A290 and MU90 LWT and of BLACK SHARK HWT, BLACK ARROW includes a number of conceptual innovations and inventions which makes it uniquely capable in the world, in terms of flexibility, performances and reduced Life Cycle Cost.

## DESCRIPTION

BLACK ARROW is the new lightweight Torpedo entirely designed by WASS with the purpose of facing threats represented by conventional, nuclear submarines and ships. BLACK ARROW is the result of the technology developed by WASS to create the other lightweight torpedoes A244/S Mod. 3, MU90 and the heavyweight torpedo BLACK SHARK; however, it involves a number of conceptual innovations and inventions that make it practically unique in the world as regards flexibility, performances and low-cost maintenance for the whole life cycle of the product.

BLACK ABBOW

BLACK ARROW is designed to be launched from conventional platforms (ships, aircrafts and helicopters) and other ones like UAV (Unmanned Aircraft Vehicle) and USV (Unmanned Surface Vehicle).

It has got a rechargeable battery with lithium-polymers technology that makes it particularly cost-effective; in fact, unlike the conventional lightweight torpedoes that foresee a one-shot battery, it can be launched many times in exercise configuration without the need to replace it.



The Navigation System is formed by an inertial platform called IMU (Inertial Measurement Unit), a press meter and a dedicated piloting software.

Four independent rudders placed at  $45^{\circ}$  with respect to the ground plane optimize its possibility of being manoeuvred

and controlled in the space, thus enabling it to perform extremely accurate manoeuvres.

BLACK ARROW represents an "insensitive" weapon according to the NATO rules and it can be configured both with a directive and an omnidirectional war head.





## For more information:

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MF00005 07-22

