



# Archerfish Mine Neutralisation System

Maritime Services' Archerfish mine neutralisation system provides significant time and logistical advantages over contemporary, remotely operated vehicle (ROV) mine disposal systems.

Archerfish is used by the US Navy for its Airborne Mine Neutralisation System (AMNS) programme and has been selected as its common neutraliser.

The system is man-portable and deployable from ships, helicopters,

small boats and UxVs, and provides mission role flexibility for inspection and/or warshot variant weapons.

Twin propulsors allow Archerfish to operate in either transit mode – rapid movement from launch platform to target - or hover mode during

identification and destruction of the target. Equipped with a directed energy warhead, Archerfish has evolved from BAE Systems' expertise and extensive technology development in torpedoes, naval mines and minehunting.

## Archerfish development

### Mine Neutralisation System

- Launched and operated from surface ships, helicopters, small boats and UxVs
- Mine clearance time reduced by a factor of 4
- Low unit cost for the weapon.
- Highly effective against ground mines and moored mines
- Existing magazines accommodate more disposal weapons improving time on station
- Reduced through-life costs
- Insensitive munition warhead
- Electronic scanning sonar
- Stand-alone system can be fitted to small craft
- Available as an inert reusable training and inspection variant.

## The Archerfish operational concept

MCM platform identifies a contact as a probable mine.

Archerfish is deployed via a launching cradle, which then manages the fibre optic link throughout the mission.

Under command guidance Archerfish is automatically navigated to the target area using an Acoustic Positioning System (APS).

Using either auto height or auto depth Archerfish approaches the target area, relocating the contact with either vehicle sonar or camera.

Following target identification, accurate placement of the Archerfish vehicle enables a mine to be control detonated using the Archerfish directed energy warhead.

Targets identified as non-mine are normally also destroyed to remove mine-like contacts from the operational environment.

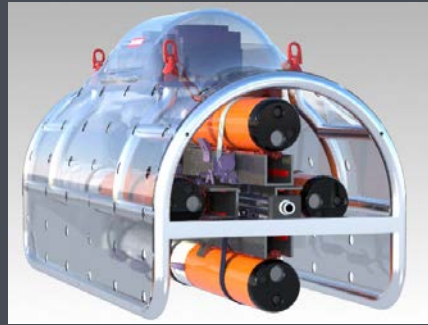
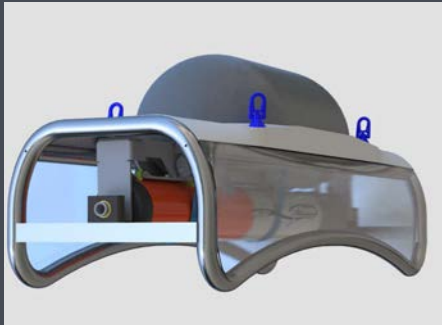
## Countering the mine threat

Archerfish receives commands via a fibre optic telemetry and communication link dispensed from the rear of the vehicle. As the target is approached and speed is reduced the hover mode is engaged allowing the vehicle to manoeuvre around the mine.

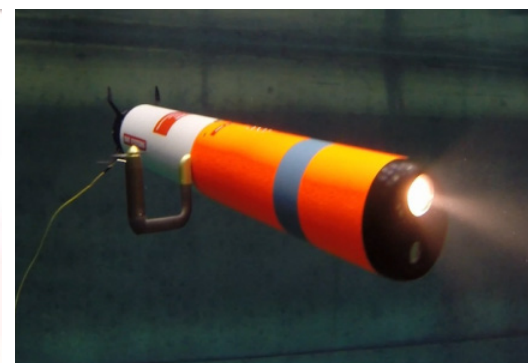
Excellent manoeuvring characteristics enable Archerfish to traverse the target to obtain pictures and sonar images from a variety of angles.

Archerfish approaches the target under command guidance. In the final stages of the approach, the Archerfish sonar and video also acquire the target and transmit more detailed information to the operator via the fibre optic link.

The complete Archerfish weapon system has been designed to place the directed energy warhead with great accuracy. To achieve maximum effectiveness, the warhead and its vehicle have been developed together as an integrated package.



Our cutting edge design provides flexible launch system options, ensuring the solution is reconfigurable and tailorable to specific customer or operational needs.



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