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Designed for deep and shallow water ASW operations and proven in worldwide littoral environments, FLASH is the most versatile ASW sensor for use in support of operations conducted by independent warships or task groups. The system offers the best optimisation between mechanical performance (weight, volume) and acoustic performance (optimal frequency).

More than 90 FLASH systems have been delivered and the British Royal Navy (EH101 - Merlin), the US Navy (MH60R) and the UAE Naval Forces (Cougar) all have FLASH in operation.

FLASH has also been ordered by the French and Norwegian Navies (NFH90). The FLASH-S variant has been ordered by Sweden.
Key Features of FLASH:

- **Optimised Mission Effectiveness:**
  FLASH provides a significant improvement over previous generations of medium frequency dipping sonars, enabling a much improved rate of area search. This makes a decisive difference to mission effectiveness for endurance-limited helicopters.

- **Multistatic Operation:**
  FLASH offers highly efficient operation in multistatic modes when used with complementary surface ship sonar suites such as the Thales Underwater Systems product CAPTAS or CAPTAS Nano.

- **Acoustic Performance:**
  Low frequency and a large bandwidth in the FM mode ensure detection of low Doppler targets in shallow high reverberation waters.

- **Processing:**
  Parallel processing of FM, CW and Passive data incorporating Doppler, auto classification, broadband, narrowband and intercept facilities.

  Powerful additional features such as extensive operator tools, performance prediction/optimisation and full built-in test greatly aid operator efficiency.

**Compact Installation:**
With compact installation, light weight and minimal space requirement, FLASH is ideally suited to meet the dipping sonar requirements of a wide range of platforms including Unmanned Surface Vessels (USVs) and can be fully integrated with the platform’s mission system or in stand-alone configuration. Helicopters include:

- EH101 (Agusta Westland)
- MH60R, SH60/70 and S92 (Sikorsky)
- NH90 (NH Industries)
- SEA KING
- AS 532/COUGAR NAVAL (Eurocopter)
- SH-2G (Kaman)
- SUPER/FUTURE LYNX (Agusta Westland)

**Underwater Communications:**
A NATO standard Underwater Telephone (UWT) facility.

**Common Acoustic Processor**
The Common Acoustic Processor (CAP) utilises COTS technology and, where required, incorporates sonobuoys processing capability complete with an integrated VHF sonobuoy receiver. In applications where space is restricted a compact lightweight processor with integral display is available.

**SUBMERSIBLE UNIT**
The upper body houses a folding LF receive array with 12 arms and the lower body houses the stacked piezo-electric ceramic transducer rings. Pulse shape and power are managed by the operator to achieve optimum propagation in the prevailing conditions. FM pulse compression offers good detection with Doppler providing accurate range resolution. FLASH-S comprises a fixed transmit and receive array with a separate high frequency classification sonar in the lower section.

**TECHNICAL CHARACTERISTICS**

- **Frequencies:** Choice of 3 frequencies between 3 and 5kHz
- **Azimuth Coverage:** 24 Preformed Beams over 360°
- **Transmission Modes:** OMNI
- **Pulse Modes:** FM, CW, COMBO (FM and CW) together
- **Submersible Unit Deployment:** 4.75m/s (max)
- **Submersible Unit Recovery:** 8.5m/s (max)
- **Maximum Operating Depth:** 700m