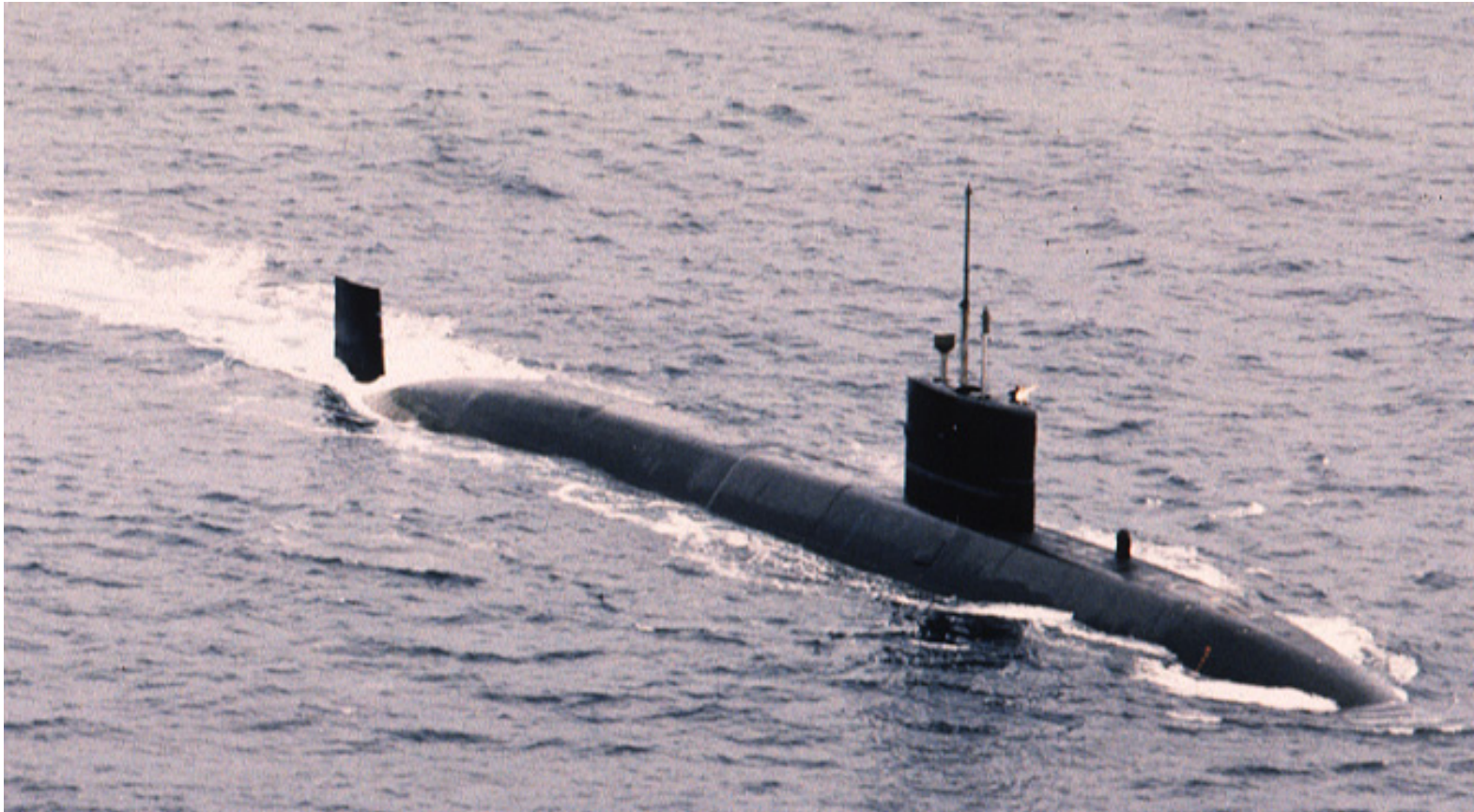




C4ISTAR Issues for UK Submarines



RUSI, 24 Sep 02

Cdr Phil Buckley

Report Documentation Page

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Future Navy Operational Capability

- Versatile Maritime Force
 - Power Projection
 - Flexible Global Reach
 - Optimised Access
 - **C4ISR**





Maritime C4ISR - The Ideal Platform

- Submarine Strengths
 - Deployed Early
 - Covert
 - Endurance
 - Size
 - Analysis Capacity
 - Tactical Mobility



A dark submarine is shown underwater in a blue-green environment. The submarine is oriented horizontally, moving from left to right. A large conning tower is visible on its upper surface. Several smaller structures and sensors are visible along its hull. The water is slightly hazy, suggesting depth. The overall scene is a conceptual illustration of submarine detection capabilities.

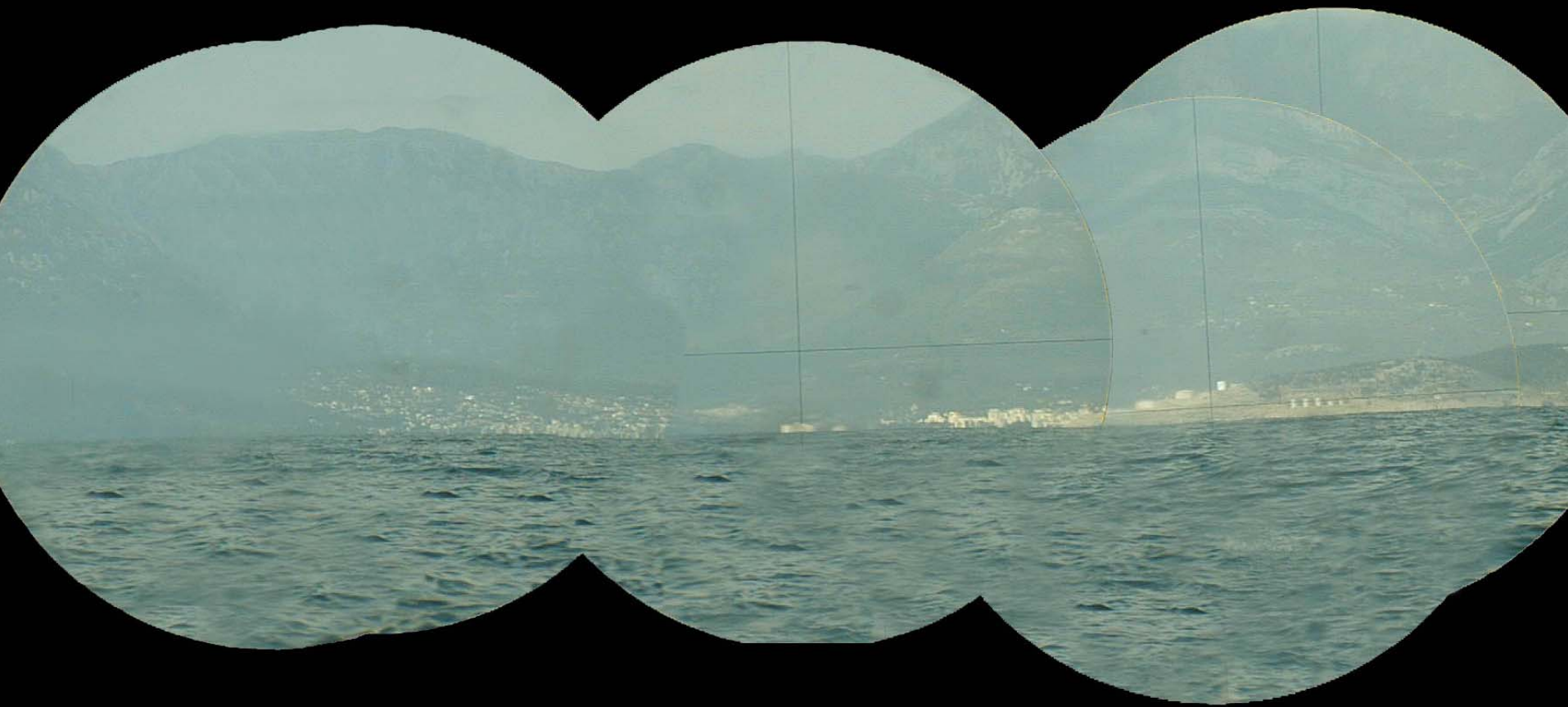
Communications

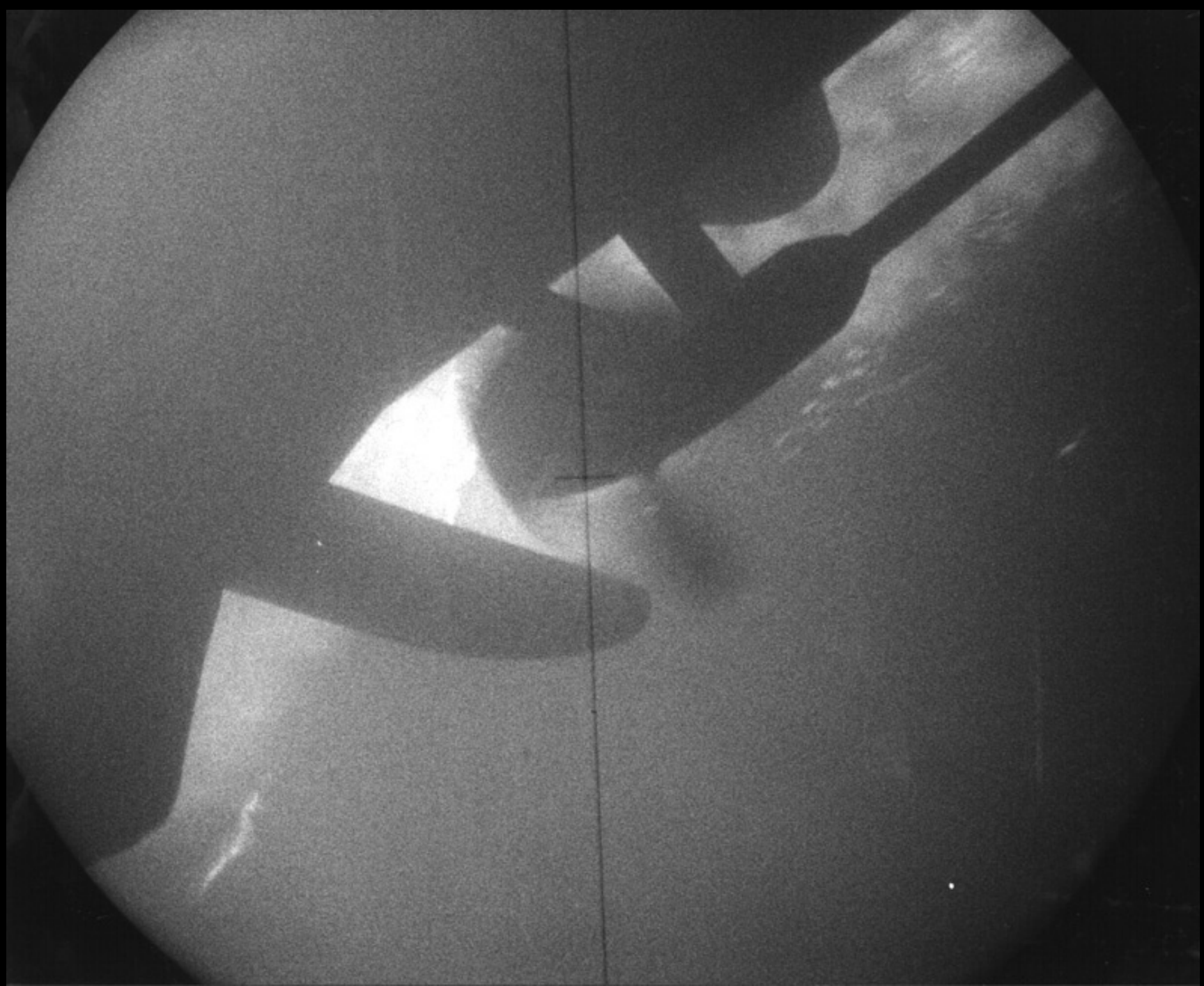
Visual

Sigint

Acoustic

Submarine ISTAR





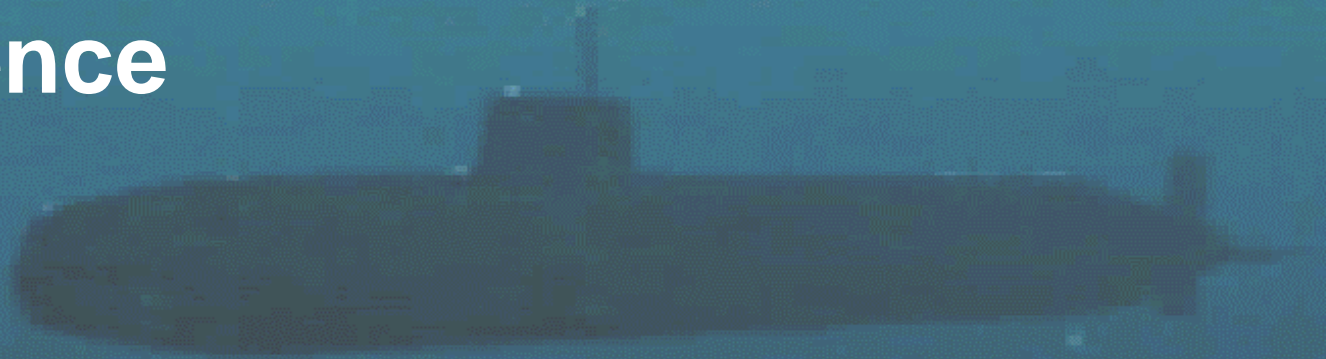


An aerial photograph of a submarine on the surface of the ocean. The submarine is dark and has a white conning tower with a yellow flag on top. It is moving from left to right, leaving a white wake behind it. The water is dark blue with small waves.

Signals Intelligence

- ELINT
- COMINT

Acoustic Intelligence





C4ISTAR

- Strategic or Tactical
- “Customer” requirements
 - Identify comms circuit
 - Identify level & type of activity
 - Subsequent action
- Submarine communications capacity and bandwidth



A submarine is shown underwater in a blue-green environment. The submarine is dark and sleek, with a conning tower visible. Several labels are placed around the submarine to indicate different detection methods: 'Communications' is circled in red and points to the conning tower; 'Visual' is on the side of the hull; 'Sigint' is on the side of the hull; 'Acoustic' is near the bow; and 'Submarine ISTAR' is at the bottom right.

Communications

Visual

Sigint

Acoustic

Submarine ISTAR