Foreword

I joined the Royal Navy to be a Diver, to be a Minewarfare and Clearance Diving Officer, to be exact. I grew up with my younger life revolving around a swim team and watching Jacque Cousteau (that amazing military leader, scientist, film maker and inventor of the aqua lung) on television as he dived in the far flung oceans of the world. I was drawn to the sea.

Achieving my ambition, I found myself in the Persian Gulf in 1988-1989 plying my specialist minewarfare and clearance diving trade on the frontline in the aftermath of the "tanker war," serving in the same task group as Rob Hoole. Together we were part of the effort that laid the foundation for the Royal Navy's *Hunt*-class mine countermeasure vessels' (MCMVs) success at clearing Saddam Hussein's minefields off the Iraqi Coast in 1991. Whilst the Royal Navy's specialists were prepared to face and deal with the threat from sea mines during Desert Storm, others in that Service were less so. The same can also be said of the U.S. Navy which had been drawing down their ability to counter the threat of sea mines for the previous decade. Senior decision makers, driven by reducing financial resources, had prioritised elsewhere.

I witnessed no clearer demonstration of this than on 18 February 1991. My ship HMS *Atherstone* was easing slowly into the area that intelligence suggested had been mined. I had just come up from a seabed search dive to classify a sonar contact, and was standing dripping water on the bridge wing next to my captain, as I debriefed him on the dive. I asked him whether all the frigates and destroyers on the horizon knew something we did not—about the extent of the potential minefields in the area—as they were steaming back and forth, ploughing a furrow on the chart table with classic Williamson turns at the end of their tracks. Gazing over to the distant ships, we had our answer: the stern of USS *Princeton* lifted out of the water as she detonated a Manta sea mine. A \$10,000 mine had neutralised a billion-dollar warship.

My captain calmly announced on Main Broadcast that the mine threat warning was now red! There is an old saying in the Minewarfare community, "Where the Fleet Goes, We've Been," except we had not been over in that destroyer and frigate holding area before they got there. Every one of those frigates and destroyers crash stopped and called for the MCMVs to lead them south and into deeper, safer waters. Approaching a British Type 42 destroyer with every man on the upperdeck and above the waterline, the worried captain hailed from the bridge and expressed his surprise as the task group had been in the same area all day. He had forgotten that sea mines can be equipped with a ship count mechanism before detonation. Everyone that day relearnt the age-old lesson that any ship can be a minesweeper, once.

Twenty-six years later, I am still involved in minewarfare and diving. As Deputy Commander Naval Striking and Support Forces NATO, I am responsible for delivering Exercise Baltic Operations (BALTOPS), which earlier this year amongst a Task Force of 40 ships of various sizes and capabilities, included a Task Group of 25 MCMVs from 12 different countries exercising their skills on GPS-positioned sea mines air dropped from USAF B1s and B52s in precise locations across the Baltic Sea. We train hard in the challenging conditions of the Baltic Sea in order to fight easy.

It is a complex area of the world. Much has been made of Russia's increasingly capable long-range air and surface missile systems that have been incorporated into the Anti-Access Area-Denial (A2AD) measures in the Baltic Region. The goal of this concept is to prevent an opponent from entering into a theatre (Anti-Access) and deprive him of freedom of action in this theatre (Area-Denial). Whilst the term A2AD might be new, the concept is not. This is exactly what a minefield is designed to do; stop the enemy from entering an area and if he does deprive him of his room to manoeuvre.

The threat from mines is as prevalent and real today as it was in the many conflicts discussed in this book. We forget the lessons from our past and from those who served before us at our peril. This excellent book reminds us of the lessons we have identified, but to address the threat posed by increasingly complex sea mines today and in the future, they have to become lessons learnt.

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