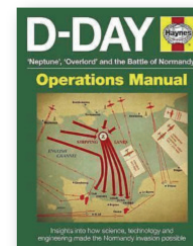


BOOK REVIEW:

D-Day: 'Neptune', 'Overlord' and the Battle of Normandy: operations manual: insights into how science, technology and engineering made the Normandy invasion possible



by Jonathan Falconer

Haynes Publishing: Sparkford, Yeovil, Somerset; 2013; 179 pp.; ISBN 9780857332349 (hardback); RRP \$48.90; Ursula Davidson Library call number: 583 FALC 2013

The Allied invasion of Normandy on 6 June 1944 was the largest amphibious operation in history. This D-Day 'operations manual' focuses primarily on the science, technology and engineering which underpinned key aspects of the invasion.

The author, Jonathan Falconer, has published more than 25 books on aspects of aviation and military history. He was commissioning editor of the 14-volume 'Battle Zone Normandy' series in 2004 for Sutton Publishing and is now a senior commissioning editor with Haynes Publishing.

The objective of Operation Overlord was to secure a lodgement on the European Continent from which further offensive operations could be developed. The lodgement was to be effected in the Bay of the Seine across the 50 miles of beaches which formed the southern shore of the Bay between Varreville and Ouistreham by five infantry divisions (two American, two British and one Canadian), supported by Commandos and United States Rangers, all of whom were to be delivered by ship and landing craft. Prior to the amphibious assault, three airborne divisions would be dropped/air-landed on both the western and eastern flanks of the invasion to provide flank protection.

Follow-up forces would be landed by ship and landing craft at the rate of one-and-a-third divisions a day. Once a firm lodgement had been established, the objects were to capture the port of Cherbourg and then sweep south to occupy the Brittany ports. Initially, though, two harbours prefabricated in Britain and towed to and assembled in the Bay of the Seine, beginning on D-Day, would provide harbour and breakwater facilities.

This 'manual' is not so much about strategy and grand tactics as it is about technology and innovation – from radio and radar aids that ensured landing craft arrived on the right beaches; to tank-carrying gliders, swimming tanks, Mulberry prefabricated harbours and advanced landing grounds. The manual describes the development, construction and use of a wide range of innovative machines, structures and systems, explaining their uses on D-Day and after, and revealing how they contributed to the success of 'Overlord'.

The book has a short introduction, including a brief outline of the D-Day plan, followed by seven chapters, a brief epilogue, a list of primary and secondary sources, useful contacts, and an index.

Chapter One describes how the planning was facilitated by aerial photography, geology and hydrography; how radio countermeasures and electronics played their part in the choice of suitable landing beaches, ensured that sea channels to the Normandy coast were cleansed of mines,

and kept the Germans guessing from whence and when the invasion would come.

Chapter Two describes the wide variety of landing ships and landing craft used, some quite specialised. More prominent among them were the: Landing Ship Tank and Landing Ship Infantry; Landing Craft Tank, Landing Craft Infantry, and Landing Craft Vehicle and Personnel; and the 'Duck' Amphibious Truck (DUKW).

Chapter Three is devoted to the Mulberry harbours and associated breakwaters and to the imagination, resource, resolution and courage of those who planned and carried out their prefabrication in Britain, transport to Normandy, assembly in the Bay of the Seine and then operated them to logistically support 'Overlord' until September 1944 by which time Dieppe, Ostend and later Antwerp had been captured allowing their continued use to be phased out by December.

Chapter Four looks at the deployment of a diverse collection of specialised armoured vehicles and equipment in the assault phase of the Normandy landings which enabled the British and Canadian commanders to get their forces off the beaches quickly, saving vital time and lives. Much of the equipment was conceived and developed by Major-General Sir Percy Hobart and his 79th Armoured Division – hence "Hobart's funnies"; and were based on the Churchill infantry tank, especially the Armoured Vehicle Royal Engineers version developed for assault engineer operations. They included the: Churchill Petard Spigot Mortar; Churchill Armoured Ramp Carrier; Churchill Bobbin, which laid a carpet over soft sand; Churchill Small Box Girder bridge; and the Churchill Crocodile – the feared flamethrower.

Chapters Five to Seven are devoted to the special equipment developed by Britain and the United States to support the airborne and air-landing operations on the west and east flanks of the invasion. Chapter Five covers the aircraft and equipment used by paratroopers; and the gliders and tugs used by air-landed brigades. Chapter Six is devoted to the Horsa assault glider; and Chapter Seven focuses on the building of advanced landing grounds.

This book is for a general reader, not the specialist scientist or engineer. Each chapter stands alone and the chapters can be read in any order. The book provides a fascinating insight into the science and engineering which underpinned key aspects of D-Day and frequently the courage required to utilise the technology. I recommend the book to anyone who wishes to gain a more comprehensive understanding of what it took to lodge the allied armies in Europe in 1944.

David Leece