

Katherine C. Epstein. *Torpedo: Inventing the Military-Industrial Complex in the United States and Great Britain*. Cambridge, MA: Harvard University Press, 2014. 10 figures. xii + 305pp. ISBN 978-0674725263 (Hardback). Price £30.00.

The focus of military historians of late has been on the First World War, undoubtedly an understandable emphasis with the centennial of the Great War upon us. But the study of the pre-First World War era, particularly as it relates to naval history, is vibrant with much discourse and debate. Over the past few years a number of significant monographs have been published that have enhanced and challenged naval historians' understanding of the era including works by Dirk Bönker, Stephen Cobb, Shawn Grimes, Nicholas Lambert, and Matthew Seligmann.

Katherine C. Epstein's recent book, *Torpedo: Inventing the Military-Industrial Complex in the United States and Great Britain*, adds to the naval historiography of the years preceding the Great War by offering a unique comparative focus on the technological progress of a particular weapon system: the torpedo. Epstein argues that the involvement of private companies in the design, testing and development of torpedoes by the governments of the United States and Great Britain in the decades leading up to the First World War represents an earlier date for the origination of what President Dwight D. Eisenhower described as the "military-industrial complex" in his 1961 farewell address to the American people. The considerable research and development efforts, and expense, associated with not just designing a naval weapon but continually improving its performance necessitated a new form of cooperation between private enterprise and national governments. This new collaboration, according to Epstein, 'raised fundamental and complex questions about the nature of property in relation to invention. When more than one party helped to invent a piece of technology, how could ownership of the intellectual property rights be established?' (p.15). Epstein argues that the courts, at least in the United States, resolved these questions in favor of the government and against the traditional property rights of the private sector.

Of necessity, the book begins with a detailed engineering discussion of the operation of the torpedo and its design deficiencies as of the late nineteenth century. *Torpedo* then describes the design and development of the weapon in the United States contrasted with that of Great Britain. Epstein analyses in considerable detail the process in the two nations. The penultimate chapter of the book studies the legal disputes that arose between the United States and two of the private torpedo designers and manufacturers, E.W. Bliss Company and the Electric Boat Company, in the years just before the First World War. Epstein uses the arguments of the parties and outcomes of these cases to contend that 'under cover of so-called national security imperatives, the government took inconsistent positions and repeatedly

REVIEWS

infringed private intellectual property rights – all over technology it did not fully understand and was unsure how to use in battle.’ (p.133). In contrast, Great Britain and the Royal Navy followed a very different design path. By ‘internalizing invention’ more than the United States ‘Britain avoided the worst legal headaches’ compared with the United States (p.226).

Epstein’s book is based on considerable archival research in the United States and Great Britain, and presents a cogent analysis. If there is any deficiency it is in her reliance on only three cases to support her argument that the United States government and the courts trampled on the intellectual property rights of private parties. Intellectual property law certainly is complex and the litigation involving the E.W. Bliss and Electric Boat companies presented possible conflicts between public and private property rights but both the first E.W. Bliss case and the Electric Boat litigation were decided based upon basic contract interpretation questions, not issues of patent infringement or property ownership. Indeed, the government’s attempt in the first E.W. Bliss action to base its case on the 1911 National Defense Act failed at the trial court level and was not resurrected on appeal. E.W. Bliss lost its second action against the United States litigation because it could not properly allege, much less prove, the existence of a contract to pay it royalties and because it lacked standing to sue for patent infringement as a licensee. The latter legal principle was well established at the time and continues to exist today. It was not ‘yet another example of the law lagging behind rapid changes in technology and business practices.’ (p.162). Nevertheless, Epstein establishes that neither the government nor private industry had the foresight nor inclination to directly and clearly address important intellectual property related issues either before or after disputes arose.

Epstein hopes that *Torpedo* ‘encourages new conversations’ between military and legal historians (p.17). Her book certainly does that. It presents an engaging examination of a single weapon system that should be read by all persons interested in the intersection of history, technology and the law.

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