Executive Summary

Cyber-warfare is the latest polemic within contemporary strategy. It is either the war winning technology that will restore decisiveness to modern conflict, or the Emperor’s new clothes. Amid the hyperbole, there is little discussion on the impact of cyber-warfare on international affairs, with greater focus on the technical means of attack. This study attempts to provide some answers to the question of ‘so what’?

Drawing on the major incidents of cyber-warfare since the turn of the millennium, this study investigates three key areas. First, the academic implications of cyber-warfare, specifically whether cyber-warfare is a domain in its own right, alongside the traditional domains of land, sea, air and space, and what it’s defining characteristics are. Next, the employment of cyber against military targets in the tactical environment, especially against modern militaries which have significant reliance on Network Enabled Capability. Finally, the use of cyber-warfare against strategic targets will be considered as well as the potential impact of cyber terrorism. Throughout, the key discussion is on the impact of cyber-warfare, both in a kinetic, cyber-physical form and in softer, influence operations.

This study concludes that cyber-warfare is sufficiently distinct to be considered a domain in its own right, with clearly definable characteristics which are different to, but complement those of the other domains. Furthermore, there is sufficient evidence that cyber can play a significant role in tactical and strategic operations. Yet it is equally apparent that cyber-warfare is not a silver bullet which will replace traditional means of warfare. Whilst capable of independent operations, it is not a decisive weapon on its own and, in keeping with the other four military domains, it’s best use is in conjunction with other types of military force, excepting very low level confrontations. Cyber-warfare is new, but it is here to stay and its development will excite further debate as new capabilities emerge.