

## APS1018-The History and Philosophy of Engineering

### Executive Summary—The Engineer in Warfare

This work provides an understanding of the role of the engineer in enabling warfare throughout human history. This is accomplished by first synthesizing a consistent definition of warfare based on historical literature, then utilizing said definition to explore a number of technologies spanning the breadth of human history. Each technology is reviewed on two levels by use of available primary and secondary sources: firstly in relation to the historical context of its development and enabling pre-requisite technologies; and secondly in relation to its use and deployment as enabled by engineers (or otherwise technically-proficient persons). Afterwards, the existence and/or impact of any trends on the role of the engineer is assessed to conclude that the technical class in its power to create such technical systems also must equally act within the political system to control their use. Anything less is abdication of ethical responsibility. Further insights from this analysis will be achieved by interpretation of observed trends through the lens of *Just War Doctrine* and a final extrapolation on the role of the engineer in future warfare to note that engineers, in recognizing their political capital emergent from their technical capabilities, can move beyond these constraints and attempt to have some control on the use of the technical labours.