Steven Gray, 'Imperial Coaling: Steam-power, the Royal Navy and British Imperial Coaling stations circa. 1870-1914', University of Warwick

Supervisors: Dr David Lambert (Warwick) and Dr Robert Blyth (NMM)

The project is concerned with the expansion of a steam-powered Royal Navy in the second half of the nineteenth century and the wider ramifications across the British empire. Steam propulsion made vessels less subject to the vagaries of tides, winds and currents, but it also made them utterly dependent on a particular resource – coal – and its distribution around the world. As J. R. Hill has put it: the problem for the Navy lay 'in where the coal was, or was not' (*The Journal for Maritime Research*, 1999). Nevertheless, the issue of coal supply received relatively little attention insofar as it affected the Royal Navy's ability to act until the 1870s. From this point, the Admiralty began to realise that one of Britain's greatest problems in any future conflict would be the availability and security of coal supplies across the empire. This emerging 'coal consciousness' involved a recognition of the strategic role of coal and coal supply, and of the vital importance of distant coaling stations situated on major commercial routes. Coaling stations, such as Halifax, Bermuda, the Bahamas, Jamaica, Gibraltar, Malta, Suez, Aden, Trincomalee, Bombay, Singapore, Hong Kong and King George's Sound, emerged as key sites in this, and many were expanded, fortified and defended in the late nineteenth century. Transformed by labour migration, larger garrisons and expanded coaling facilities, these stations felt the local effects of the demands of imperial coaling.

The project is concerned with three main sets of questions. First, how did developments in steam-propulsion and the emergence of 'coal consciousness' affect how the British thought about their empire, especially political leaders, naval strategists and imperial bureaucrats? This was evident in debates about the importance attached to different colonial possessions, as well as in new ways of thinking about the empire itself. For example, improvements in maritime engines allowed commercial vessels to steam from headland-to-headland, leading to the idea of 'sea lanes' that had to be protected by the Royal Navy. Such changes in how the spaces and places of the empire were understood were represented in maps, tables of data and other forms. Second, how were coaling stations complex sites of colonial relations, rather than merely strategic imperial nodes? Asking such a question means attending to the effects that the expansion of coaling activities had on local populations, labour relations, politics, cultures and local infrastructure. Third, how was the provision and distribution of imperial coal reliant on other logistical networks and infrastructures – from collieries in South Wales to the sailing ships that transported the coal to distant stations? While coal

itself might appear to be an inert and homogenous object in these processes of distribution, this is to ignore differences between types of coal and the ways in which its particular qualities and by-products served to shape and even disrupt the networks through which it was transported and stored.