Britain's civilians. The gravity of the situation was summarized by Admiral Sir John Jellicoe, commander of the Grand Fleet, in October 1916: at the current rate of shipping losses, reductions in imports of essential materials, including food, would force the Allies to accept Germany's peace terms by the summer of 1917 regardless of the military situation on the continent.<sup>4</sup>

One of the principal reasons for this crisis was that German submarine design and production outpaced the development of technology to locate and destroy them. Prior to the introduction of convoys in May 1917, British anti-submarine measures largely focused on using a substantial number of slow, lightly-armed steel trawlers to patrol coastal waters in the company of fast yachts and destroyers in an attempt to take the war to the enemy. Auxiliary patrol groups were considered by the Royal Navy to be its most offensive weapon against submarines, particularly as the approach evolved from patrolling to hunting after the introduction of hydrophones. Trawlers swept for German mines, and when Britain established "controlled sailings" for Norwegian tonnage travelling to England in December 1916, trawlers provided an escort, a function they would serve close to the coasts on both sides of the Atlantic when transatlantic convoys were introduced the following year. In addition to towing submarine nets, trawlers patrolled net barriers set across the straits of Dover and Otranto by wooden drifters, which were even smaller coastal vessels used in the herring fishery.

Trawlers were given these roles not just because of their suitability, but because they were readily available as a result of Britain's strength as a fishing nation. The stock of trawlers, however, was quickly depleted. Of the 1,800 trawlers that sailed from British harbours in 1914, the Admiralty requisitioned 1,300 by September 1916, the year that saw a drop in Britain's annual catch of fish by more than a third at a time when domestic food supply was becoming more constrained. War took a considerable toll on the fishing vessels used by the Royal Navy, with 264 trawlers and 130 drifters lost to submarine attacks, mines, and collisions. Many more trawlers were needed in response to the expanding German submarine presence and mounting losses. Production could not keep pace with demand, which led the Admiralty to initiate a program in October 1916 to construct 500 new trawlers in Britain by the close of 1918. Plans were amended after the Admiralty recognized that drifters could be used for minesweeping, anti-submarine patrol, and releasing trawlers from servicing the fleet. The final request approved by the War Cabinet in

The National Archives of the United Kingdom (hereafter TNA), Records of the Admiralty, ADM 1/8597/1, Director of Naval Construction Department, "Admiralty Trawlers and Drifters. 1916-1921," 1921, 5; Barnett, *British Food Policy*, 88.

<sup>&</sup>lt;sup>4</sup> Barnett, British Food Policy, 69-70, 87.

<sup>&</sup>lt;sup>5</sup> C.I. Hamilton, *The Making of the Modern Admiralty: British Naval Policy-Making 1805-1927* (Cambridge, New York, 2011), 250.

<sup>&</sup>lt;sup>6</sup> Friedman, Fighting the Great War, 272.

<sup>&</sup>lt;sup>7</sup> Ibid., 276.

<sup>&</sup>lt;sup>9</sup> "War Losses of the Royal Navy Admiralty Return," *Marine Engineering and Canadian Merchant Service Guild Review* 9:10 (October 1919), 338.