

There are great differences between the conditions of to-day and 100 years ago. These lie in the greater speed of ships, in the longer range of guns, in the menace of the torpedo as fired from ships, destroyers and submarines, and the menace of mines, the use of aircraft as scouts, and of wireless telegraphy.

In the Napoleonic era our ships opened fire with guns at ranges of about 300 yards; the ships of to-day open fire at 22,000 yards (or 11 nautical miles) range, and gunfire begins to be very effective at 18,000 yards. The torpedo as fired from surface vessels is effective certainly up to 10,000 yards range, and this requires that a ship shall keep beyond this distance to fight her guns. As the conditions of visibility—in the North Sea particularly—are frequently such as to make fighting difficult beyond a range of 10,000 yards, and as modern fleets are invariably accompanied by very large numbers of destroyers, whose main duty is to attack with the torpedo the heavy ships of the enemy, it will be recognized how great becomes the responsibility of the Admiral in command of a fleet, particularly under the conditions of low visibility to which I have referred. As soon as destroyers tumble upon a fleet within torpedo range the situation becomes critical for the heavy ships.