**A jetboat is a**[**boat**](https://en.wikipedia.org/wiki/Boat)**propelled by a jet of water ejected from the back of the craft. Unlike a**[**powerboat**](https://en.wikipedia.org/wiki/Powerboat)**or**[**motorboat**](https://en.wikipedia.org/wiki/Motorboat)**that uses an external**[**propeller**](https://en.wikipedia.org/wiki/Propeller)**in the water below or behind the boat, a jetboat draws the water from under the boat through an**[**intake**](https://en.wikipedia.org/wiki/Intake)**and into a**[**pump-jet**](https://en.wikipedia.org/wiki/Pump-jet)**inside the boat, before expelling it through a**[**nozzle**](https://en.wikipedia.org/wiki/Nozzle)**at the**[**stern**](https://en.wikipedia.org/wiki/Stern)**.**

**Jetboats were originally designed by**[**Sir William Hamilton**](https://en.wikipedia.org/wiki/Bill_Hamilton_(engineer))**in 1954. His goal was a boat to run up the fast-flowing rivers of**[**New Zealand**](https://en.wikipedia.org/wiki/New_Zealand)**that were too shallow for propellers.**

**Previous attempts at waterjet propulsion had very short lifetimes, generally due to the inefficient design of the units and the fact that they offered few advantages over conventional propellers. Unlike these previous waterjet developments, such as [Campini's](https://en.wikipedia.org/wiki/Secondo_Campini" \o "Secondo Campini) and the**[**Hanley Hydrojet**](https://en.wikipedia.org/w/index.php?title=Hanley_Hydrojet&action=edit&redlink=1)**, Hamilton had a specific need for a propulsion system to operate in very shallow water, and the waterjet proved to be the ideal solution. The popularity of the jet unit and jetboat increased rapidly. It was found the waterjet was better than propellers for a wide range of vessel types, and waterjets are now used widely for many high-speed vessels including passenger ferries, rescue craft, patrol boats and offshore supply vessels.**

**Jetboats are highly manoeuvrable, and many can be reversed from full speed and brought to a stop within little more than their own length, in a manoeuvre known as a "crash stop". The well known *Hamilton turn* or "jet spin" is a high-speed manoeuvre where the boat's engine throttle is cut, the steering is turned sharply and the throttle opened again, causing the boat to spin quickly around with a large spray of water.**

**There is no engineering limit to the size of jetboats, though whether they are useful depends on the type of application. Classic prop-drives are generally more efficient and economical at low speeds, up to about 20 knots (37 km/h; 23 mph), but as boat speed increases, the extra**[**hull**](https://en.wikipedia.org/wiki/Hull_(watercraft))**resistance generated by struts,**[**rudders**](https://en.wikipedia.org/wiki/Rudder)**, shafts and so on means waterjets are more efficient up to 90 km/h; 60 mph). For very large propellers turning at slow speeds, such as in**[**tugboats**](https://en.wikipedia.org/wiki/Tugboat)**, the equivalent size waterjet would be too big to be practical. The vast majority of waterjet units are therefore installed in high-speed vessels and in situations where shallow draught, maneuverability, and load flexibility are the main concerns.**

**The biggest jet-driven vessels are found in military use and the high-speed passenger and car ferry industry. South Africa's [Valour-class](https://en.wikipedia.org/wiki/Valour-class_frigate" \o "Valour-class frigate) frigates (approximately 120 metres or 390 feet long) and the 127 metres (417 ft) long United States**[**Littoral Combat Ship**](https://en.wikipedia.org/wiki/Littoral_combat_ship)**are among the biggest jet-propelled vessels as of 2020. Even these vessels are capable of performing "crash stops"**