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The emphasis on amphibious operations in World War II required that new types of naval transport be built, especially designed for carrying troops and material on to a hostile shore. The Royal Canadian Navy used these new vessels at different landing operations, in Dieppe, Sicily, Southern France and Normandy.

The purpose of this Fact Sheet is to briefly describe the Landing Ships, and Landing Craft used by the Royal Canadian Navy (RCN) during World War II. Some UK landing vessels were also crewed by RCN personnel under a personnel loan agreement. Notable among these was the Landing Ship Tank (LST), which is included for this reason.

## Landing Ships

The original Landing Ships were developed from existing sea-going vessels, usually with a shallow draft, that were modified for the primary purpose of delivering troops and equipment from shore to shore. However, over the course of the war, several variants were constructed for specific roles. After the war, the final variant was further refined to become the first commercial roll-on/roll-off ferries that still operate today.

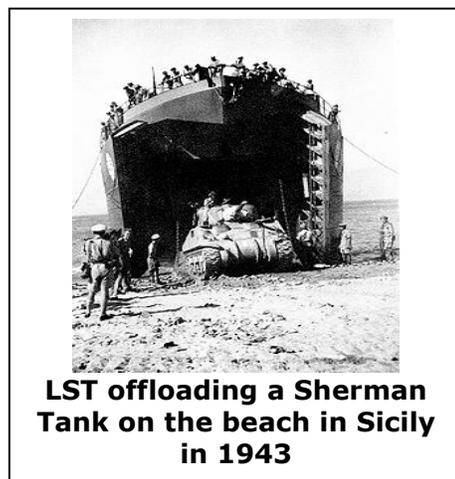


**HMCS Prince David**

**Landing Ship Infantry (LSI):** The Royal Canadian Navy (RCN) bought two pre-war

steamers from Canadian National Steamships, and converted them for transporting troops: HMCS *Prince David* and HMCS *Prince Henry*. They could carry 550 infantrymen, as well as six Landing Craft, Assault (LCA) and two Landing Craft, Mechanized (LCMs). Their role was to get within a few kilometres from the landing beach and to launch the LCAs and LCMs from their davits. The LCAs and LCMs then acted as shuttles between the ships and the beach until all men were landed. On June 6, 1944, D-Day, *Prince David* and *Prince Henry* were used for landing Canadian and British troops on Juno Beach.

**Landing Ship, Tank (LST):** LST was the military designation for naval vessels created during World War II to support amphibious operations by carrying significant quantities of tanks, other vehicles, and cargo, and for landing troops directly onto an unimproved shore. Three basic versions of the LST were developed during the war and Canada made use of the second and third versions.



**LST offloading a Sherman Tank on the beach in Sicily in 1943**

The original version consisted of modified, shallow draft tankers originally used in South America. However, after some

operating experience, it was decided to design a purpose-built Mark 2 version, and after some initial consultation with the Royal Navy, the US Navy's Bureau of Ships was charged with the design and construction.

The Mark 2 vessels were over 300 feet in length, and 50 feet wide. They were armed with 3-inch, 40mm and 20mm guns and in addition to their mechanized payload, they could each carry approximately 140 infantrymen.

About 1,000 of these ships were built in the United States during the Second World War for use by Allied navies.

A further refinement and improvement of the Mark 2 was carried out by the Royal Navy, resulting in a Mark 3 version. This variant was approximately 350 feet in length with a beam of 55 feet. These ships had ~~both~~ bow doors for landing vehicles on to a beach as well as sufficient lifting capability to launch LCAs, LCTs and LCMs from the deck. Canadian shipyards produced 26 of these vessels during the War.

## **Landing Craft**

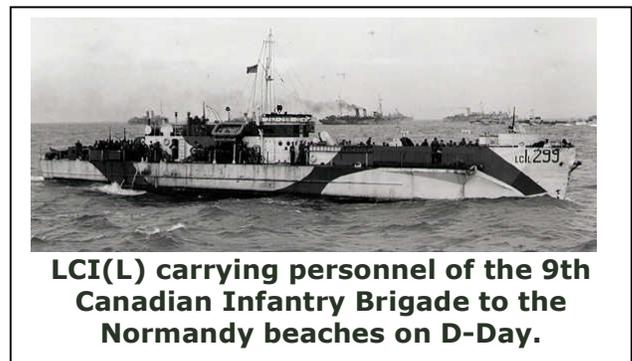
Landing craft were specially built vessels used to convey a landing force (infantry and vehicles) from the sea to the shore during an amphibious assault. Most renowned are those used to storm the beaches of Normandy and the Mediterranean, and the many Pacific islands during WWII. This was the high point of the landing craft, with a significant number of different designs produced in large quantities by the United Kingdom and the United States.

Because of the need to run up onto a suitable beach, WWII landing craft were flat-bottomed, and many designs had a

flat front, often with a ramp that could be lowered, rather than a normal bow. This made them difficult to control and very uncomfortable in rough seas. The control point was normally situated at the extreme rear of the vessel, as were the engines. They tended to be known by an abbreviation derived from the official name rather than by their full title.

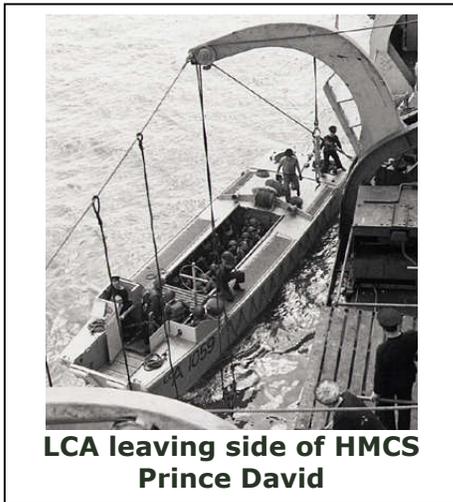
### **Landing Craft, Infantry (Large) LCI(L):**

The LCI(L) was capable of making sea voyages under its own power (some were sailed directly from the United Kingdom to take part in the *Operation Torch* landings in North Africa, and U.S. Navy LCIs island hopped across the Pacific). LCI (L)s were typically 158 feet long and 23 feet wide and carried around 200 troops. There were several sub-types of the craft, with the LCI(L) infantry carrier dominating; but LCIs also served as rocket (LCI(R)) and mortar (M), and gunboat (G) platforms, as well as a flotilla flagship (FF). While intended to run up on the beach, they usually had a normal type of bow with stepped ramps on each side for the troops to disembark. On June 6, 1944, the RCN had three flotillas with ten LCI (L)'s in each. They landed 4,600 men on the Normandy beaches.



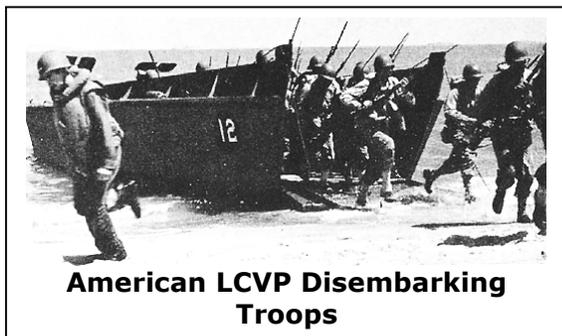
**Landing Craft, Assault (LCA):** Of the landing craft proper, the smallest were the British LCAs (13 tons). These were small wooden craft designed to be transported

around by larger vessels, such as the LSI, and then lowered into the water off the target beach. Typically they could carry 36 fully armed soldiers. The American variant of this craft was the slightly smaller Landing Craft, Personnel Large (LCPL) (10 tons) that lacked a bow ramp and was eventually superseded by the LCM/LCVP described below.



**LCA leaving side of HMCS  
Prince David**

**Landing Craft, Mechanized (LCM):** LCMs were developed in several sizes and configurations. The larger ones were up to 36 tons with a 15.2 m-long steel hull and a landing ramp at the bow. They were typically armed with machine guns. They could carry vehicles as well as up to 100 men, and were driven on to the beach and offloaded over the lowered ramp. The American Landing Craft, Vehicle,



**American LCVP Disembarking  
Troops**

Personnel (LCVP) was very similar in design to the LCM and has been seen in countless movies.

## Other Amphibious Craft

In addition to the vessels described above, other Allied forces used a large number of specialized variations as amphibious operations evolved over time. A partial list of these included:

**Landing Craft Support (LCS)** The Landing Craft Support was used to give some additional supporting firepower close in to the beach.

**Landing Craft Gun (LCG)** The Landing Craft Gun (LCG) was similar and was designed to give supporting fire to the landing. In addition to standard weaponry, they had two 4.7 inch destroyer guns.

**Landing Craft Utility (LCU)** The Landing Craft Utility was used to transport equipment and troops to the shore. They were capable of transporting tracked or wheeled vehicles and troops from amphibious assault ships to beachheads or piers.

**Landing Craft, Tank (LCT)** Of a similar size to the LCU was the Landing Craft Tank, which could carry up to 4 Tanks or other vehicles. These had a ramp at the front that was dropped for the vehicles to get ashore.

**Landing Craft Flak (LCF)** The Landing Craft Flak was a conversion of the LCT to give anti-aircraft support to the landing. They were first used in the Dieppe Raid early in 1942. The ramp was welded shut, and a deck built on top of the Tank deck.

**Landing Barges** Landing barges were adaptations of British Thames barges and lighters as landing craft. Some were fitted with engines while others were towed to

the beach. They were used for defence, transportation, supply (food, water and oil) and repair (fitted out with workshops).

**Landing Craft, Navigation (LCN)** Ninety-ton Landing Craft Navigation were used by British "*Combined Operations Assault Pilotage Parties*" for surveying landing sites

**Landing Craft Rocket (LCR)** The Landing Craft Rocket, was also known as the Landing Craft Tank (Rocket) (LCT(R)) to denote that it was a modified LCT. This vessel had a large set of launchers for the British RP-3 60 lb (27 kg), 3 in (76 mm) rockets mounted on the covered-over tank deck.

**Landing Craft, Hedgehog (LCA(HR))** The Landing Craft Hedgehog was a conversion of the British LCA which carried 24 spigot mortars - the Royal Navy's Hedgehog anti-submarine weapon - instead of personnel. The mortars were fired to clear mines and other obstructions. Having discharged its mortars, the LCA(HR) would then leave the beach area. They were towed to the beach by larger craft such as the LCT.

**Landing Craft, Control (LCC)** The "Landing Craft Control" were 56-foot U.S. Navy vessels, carrying only the crew and newly-developed radar. Their main job was to find and follow the safe routes in to the beach - lanes which had been cleared of obstacles and mines.

**Landing Vehicle Tracked (LVT)** The smallest landing craft were amphibians such as the U.S.-designed Landing Vehicle Tracked and amphibious (and sometimes armoured) personnel carrier. These were operated by Army personnel, not naval crews. They had a capacity of about three tons. The British introduced their own amphibian, the Terrapin

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