

# Red seas: China's advancing amphibious force capabilities

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**China is equipping its marines with some of the most advanced amphibious platforms in the world. *Samuel Cranny-Evans* examines these systems, the force that uses them, and how the PLANMC compares to Western competitors**

The US Army Futures Command has defined China as its long-term pacing threat, the country with which the US Army must prepare to compete in the coming decades. The task is considerable for the well-armoured US Army, but for the US Marine Corps (USMC), China's reliance on a family of heavily armed amphibious vehicles presents a significant challenge.

For the People's Liberation Army (PLA), its Marine Corps (PLAMC) is a source of pride. The PLAMC is equipped and trained to assert Chinese authority over the disputed islands in the South China Sea, Taiwan, and the Senkaku islands owned by Japan. Because of this, the PLAMC enjoys a higher level of funding and equipment than other PLA units.



*Selection and training for the PLANMC is rigorous, with recruitment based on standards for Special Operations troops. According to some sources recruits are required to have graduated senior middle school or higher, swim 5 km in full personal combat gear within 2.5 hours, and run the same in 23 minutes. (Xinhua News Agency)*

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The original 1st and 2nd Marine Brigades are deployed in Zhanjiang, along with a unit of amphibious landing ships. The 1st Brigade was created in 1980, while the 2nd Brigade transferred from the army in 1998 (originally the 164th Division) and, until recently, was equipped with second-hand equipment from the 1st Brigade. Both units are now similarly equipped and almost the entire corps is part of the South China Sea fleet.

China's marine corps has a complement of about 12,000 professional marines, and the size of the PLAMC can be increased by the addition of amphibious mechanised infantry divisions from the PLA, which bolster the force to about 20,000. The size of the PLAMC is planned to increase to 100,000 through the addition of other units within the PLA.

The PLA Navy (PLAN) is also believed to be capable of landing divisional formations through amphibious operations, which would likely represent all 12,000 marines. However, it is more likely to focus on brigade sized – 6,000 personnel – deployments to maintain surprise and maximise chances of achieving anti-access/area denial (A2/AD) effects in the South China Sea.

The PLAMC is a different entity compared with most marine forces in the world. For example, the UK Royal Marines are essentially light infantry, reliant mostly on their section combat skills for success. The US Marine Corps (USMC) employs a much greater level of armour than others, but its most potent land asset – the M1A1 main battle tank – is reliant on large and vulnerable Landing Craft Air Cushion (LCAC) landing craft.

For the PLAMC, the USMC could reasonably be seen as its primary competitor in the land domain. In contrast to the USMC, it is equipped with an entire family of tracked amphibious vehicles; the Type 05, which includes the ZBD-05 armed with a 30 mm cannon, the ZTD-05 armed with a 105 mm direct-fire gun, and the PLZ-07B armed with a 122 mm howitzer.

The Type 05s are intended to be deployed at sea from a naval ship and conduct an opposed landing. The vehicles are designed around their amphibious capabilities. The infantry fighting vehicle (IFV) variant is capable of travelling in Sea State 4, and has a buoyancy reserve equivalent to 27% of its 26.5 tonne gross vehicle weight. Although some sources state that the vehicle can reach 40 km/h (21.6 kt) on water, it is considered likely that the speed is closer to 25 km/h, but this is still almost double that of the legacy AAV7A1 RAM/RS used by the USMC.

The Type 05 includes unique amphibious design features. Prior to entering water, the bow blade at the front of the vehicle (when folded it gives the bow a distinctive sharp nose) is hydraulically extended, and the driver's periscope is elevated so they can see above the blade. Bilge pumps are activated and a second flat blade is lowered at the rear of the vehicle as it enters the water. Once an appropriate water depth is reached the suspension raises the road wheels to reduce drag. A snorkel is also elevated at the rear right of the platform to provide the engine with oxygen. The bow blade and blade at the rear create a hydroplane effect that elevates the body of the vehicle above the water during travel to reduce water resistance.

The vehicle is powered by two waterjets at the rear of the vehicle and steered through a combination of closing one water jet and by a section of the side skirt, which can be opened out towards the front of the vehicle.

The amphibious capability of the Type 05 family means that the vehicles can be used by the PLAMC to reach a location – a disputed island for example – from beyond the horizon. Once there, the PLAMC would seek to establish an A2/AD bubble. Essentially, an area with a large concentration of air-defence and anti-ship assets, as well as the capabilities provided by the PLAMC and its armour, would make the prospect of intervention extremely costly and unpalatable for many forces.

**[Continued in full version...]**

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