

Sea Dragons: China's Growing Marine Capability [Explained]

Intro

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Tension looms over China's maritime borders. From aggressive territorial disputes and confrontations in the South China Sea to the ever present desire to reunify with Taiwan, any major conflict between China and the United States will likely be a naval and amphibious fight.

But what are China's amphibious capabilities? The Chinese military in general is shrouded in mystery, mainly because of the government's relative secrecy when it comes to military affairs.

Today, we're delving into the dramatic growth of China's amphibious capability since its sweeping 2017 reforms, their equipment, the organization of their units, and how they're broadly meant to be used.

I'm your host Brendan, and this is Battle Order.

Capability Overview

China's amphibious warfare capability is split between two forces: its Navy Marine Corps, and its Army's Amphibious Combined Arms Brigades. These two forces are roughly the same size, but are organized differently and play two different but complementary roles.

Broadly, the Marines are a lighter and more versatile force with a larger contingent of special operations forces. As an integral component of the navy, their mission is more general, covers the entirety of China's coast, and will likely be China's global force going into the future.

The Army's Amphibious units on the other hand are a more specialized and heavier force aimed directly at Taiwan and islands in the South China Sea. While the Marines may be used for anti-piracy, manning garrisons on artificial islands, amphibious reconnaissance, or securing islands or an initial beachhead to provide cover for a naval force, the Army with its heavier mechanized infantry would be used to consolidate gains, expand beachheads, and advance into an enemy's depth. The Army can focus only on this mission because it's large enough to have units min-maxed to certain environments and missions.

Prior to 2017, the Marines only consisted of two brigades: the First Marine Brigade founded in 1980, and the 164th Marine Brigade which was converted from an Army unit in 1998. But following 2017, it expanded dramatically.

The Navy Marine Corps has essentially become a Group Army-level command, equivalent to a western corps, mirroring Ground Force Group Armies in structure. The Marines now consist of 6 Marine Brigades, a Special Operations Brigade, a Shipborne Helicopter Aviation Brigade, an Artillery Brigade, defense engineering brigade, and service support brigade.

Meanwhile, the Army has 6 Amphibious Combined Arms Brigades split across three different group armies. This of course doesn't include the whole host of maneuver, fires, and support units that the Army possesses.

Garrison Locations

Before we talk about units, first we have to go over how Chinese forces are organized geographically. Mainland China is broken into large geographical areas called Theatre Commands. In the context of amphibious capability, the relevant ones are the Southern Theatre Command, focused on the South China Sea and Southeast Asia; the Eastern Theatre Command focused on Taiwan and the East China Sea; and the Northern Theatre Command focused on the Yellow Sea, Korean Peninsula, and Russia. Most units within their areas are subordinate to the theatre commands.

The Marine Corps received a new group army-level headquarters located in Chaozhou just a 50 minute drive from the 4th Marine Brigade's garrison in Jieyang. Together with the 3rd Marine Brigade based in Jinjiang, Fujian about 4 hours northeast, these two brigades make up the Marine Corps' presence under the East Sea Fleet and higher Eastern Theatre Command.

Marine units in the South Sea Fleet under the Southern Theatre Command include the original 1st Marine Brigade and 2nd Marine Brigade, the latter having been renamed from the 164th Marine Brigade, which are both garrisoned in Zhanjiang, Guangdong province. The Special Operations Brigade is also garrisoned in Sanya, Hainan.

Up in the Northern Theatre Command under the North Sea Fleet, the Marines have an additional 2 brigades. These are the 5th Marine Brigade based in Laoshan and the 6th based in Haiyang, both based in Shandong province.

The readiness of these brigades likely varies, as most of them were converted from Army coastal defense units in 2017. The Special Operations Brigade is likely the most ready, followed by the 1st and 2nd Marine Brigades as they existed before the reforms. The others are 3 years into their build up, but have a way to go before building the experience to conduct successful amphibious operations on a large scale.

In addition to the Marines, the Army's Amphibious Brigades are more focused at the hotspots on China's coast. They come under the command of Group Armies: the 72nd and 73rd Group Armies in the Eastern Theatre and the 74th Group Army in the Southern Theatre.

The 72nd Army's brigades are the 5th and 124th Amphibious Brigades based in Huzhou, Zhejiang province. The 14th and 91st Amphibious Brigades come under the 73rd and are both based in Tongan, Fujian province. And lastly, the 1st Amphibious Combined Arms Brigade and 125th Amphibious Brigade are garrisoned in Huizhou, Guangdong province under the 74th Group Army.

So to summarize, the Chinese have 12 amphibious and marine brigades and 1 special force marine brigade of varying capabilities. Four conventional amphibious brigades and the special force brigade face towards the South China Sea. Six brigades face towards Taiwan and the East China Sea, and two brigades face towards the Yellow Sea. A small marine contingent from these units accompanies China's presence in the Gulf of Aden for anti-piracy work. Gulf of Aden deployments cycle through the three fleets once every 4 months, and the marine contingent likely comes from the brigades reconnaissance element or the special operations brigade. To support this mission, they deploy an indeterminate number of Marines to their first overseas military base adjacent to the Port of Doraleh in Djibouti. This is part of a Chinese effort to develop force projection capabilities globally.

Sealift

Now, although China's amphibious combined arms capability has grown substantially, a large marine force does not make a capable amphibious power. In order to be effective, China's overall naval capacity has to be capable enough to maintain naval superiority so that it can transport its marines, make a contested landing, and provide sustained support.

In theory, China's Type 71 amphibious transport docks roughly equivalent in role to a San Antonio-class can carry about 800 marines, but 500 marines per ship are more common.¹ The actual bottle neck here would most likely be in the amount of vehicles in the battalion. If you're talking about an Army Amphibious Battalion for example, just the rifle companies, assault gun company, and mortar battery have between 62 and 65 vehicles between them, and that's not counting logistics and service vehicles that'd be in the battalion support company.

So in reality, you'd need a minimum of 2 Type 71s probably supported by 1 or 2 Type 72 landing ships, equivalent to a Harpers Ferry-class, to actually land the entire battalion with some attached brigade support. Such a formation would essentially be equivalent to a US Marine expeditionary unit.

Further, if the ground package is the marine brigade's air assault battalion, a Type 75 amphibious assault ship equivalent to a US Wasp or America-class would have to be involved to provide an adequate amount of helicopters to allow for an air assault insertion. This would be in addition to other supporting amphibious ships.

According to one Chinese media source, an entire amphibious combined arms brigade can be delivered at once by 4 Type 071 amphibious transport docks and 8 Type 72 landing ships.² This seems plausible, but if the Marine air assault battalion is included, Type 75s would most likely have to be included similar to a US Marine expeditionary brigade, which can consist of between 2 to 5 amphibious assault ships, 2 to 5 landing ship docks, and 2 to 5 landing platform docks.

However, differences in force structures would probably lead to a Chinese MEU or MEB looking a little different. Overall, the Chinese amphibious capability is much more heavily mechanized,

¹ <https://www.strategypage.com/htmw/htamph/20190917.aspx>

² https://www.sohu.com/a/220991586_600485

compared to the US Marines who are principally light infantry supported by task force amphibious APCs, air assets and naval assets. Further, US Marine Corps aviation is superior to the Chinese Marines' capability by a long shot, and fighter cover launched from amphibious assault ships will be impossible for the Chinese until their experimental J-18 Red Eagle F-35-equivalent short take off, vertical landing fighter gets off the ground, which could take a significant amount of time.

Outside the scope of the air assault battalion's vertical assault potential, fleet helicopter capacity has largely been described as a capability meant for the brigade's more elite reconnaissance units. And even if China has the ships to carry enough helicopters, their marine air capabilities are in question. At the time of its creation, China's new Marine Aviation Brigade only had 100 helicopters at the time it was created. This is because it basically drew from pre-existing naval aviation assets to form new units. By comparison, a Chinese Army Aviation Brigade alone, of which there are multiple, has 70 helicopters. Thus, marine aviation could probably support one, maybe two brigades at once, but not the entire force. That may be fine if we're talking about a normal deployment/build up/rest rotation schedule, but perhaps not if preparing for an all-out war.

Although China is quite a ways out from having a capability that could invade Taiwan, that isn't to say their force is useless. It is still capable of performing a wide range of amphibious missions aside from amphibious forced entry. It could also most likely conduct contested amphibious invasions against targets closer to home.

For example, in 2018, the U.S. Department of Defense believed China had the capability of amphibiously invading the Taiwanese-held island of Kinmen only 6 kilometers off China's coast. While far closer to China than Taiwan, meaning there'd be no issues with using land based aviation for air cover and navally blockading them would be fairly easy, as of 2013 this island was also defended by 3 garrison infantry brigades, an armor brigade and supporting units. The DOD also believed the Taiwanese Matsu islands, also closer to China than Taiwan, were in reach. Smaller islands in the South China Sea, like Pratas Island, would also be within China's capability.

Marine Brigade

Now for what the units look like. Before we start, make sure to take everything with a grain of salt, as this is what we've been able to pull together from Chinese media, the observations of Chinese military enthusiasts, and our own educated judgement based on what we know about military doctrine. The script for this video is linked in the description, with footnotes leading to Chinese media sources.

First, the Marine Brigade. It's estimated that the brigade is manned by 6,000 marines. When compared to Army brigades, Marine brigades are diverse in their composition and delivery.

Following 2017 reforms, the Chinese Marine Brigade consists of the following:^{3 4}

- 1 brigade headquarters and brigade company
- 1 combat support battalion
- 1 service support battalion
- 3 combined arms battalions
- 1 air assault battalion
- 1 artillery battalion
- 1 air defense battalion
- And, in some brigades, 1 reconnaissance battalion

The brigade headquarters consists of a command staff and political officers. Most command echelons in the Chinese hierarchy all the way down to the company level maintain so-called political instructors and co-commanders along with tactical leaders.

The brigade company allegedly consists of a helicopter unit of indeterminate size, a transportation company, a medical team, and a teaching team. The teaching team in particular is interesting. It appears to provide basic training for new non-commissioned officers and promotion training for company-grade officers, suggesting a decentralized training and career progression system within the Marine Corps.

Meanwhile, it's pretty clear that the service support battalion provides logistical support to the brigade. However, it's less clear what the combat support battalion consists of. Based on what the Marine Brigade was like before the reforms, this likely includes an Engineer Company, a Communications Company, Chemical Company, and possibly a Diving Company, although this could have been shunted into the reconnaissance battalion.

But perhaps the biggest deviation from the Army's practice is that the Marine brigades can consist of a combination of 4 different types of infantry battalions. These include the air assault battalion, which appears to be universal, and then a combination of 3 heavy, medium, or light combined arms battalions. This gives a Marine brigade the full breadth of tactical and strategic mobility, firepower, and protection available to the Chinese military. A sort of jack of all trades formation. Some sources state brigades have all three types, while some state there is no set amount for the different types of battalion, and that it actually depends on the composition of the units before they were converted into Marine Brigades.⁵

Each combined arms battalion broadly consists of a battalion HQ, 3 maneuver companies, 1 assault vehicle company, 1 artillery battery or firepower company, and 1 support and service company.

The heavy battalion is defined by its tracked infantry fighting vehicles. Its maneuver companies are mounted in the ZBD-5 infantry fighting vehicle, which is armed with a 30mm autocannon, a coaxial 7.62mm machine gun, and 2 HJ-73D anti-tank guided missiles. Allegedly able to speed

³ [Secondary count of maneuver brigades minus air assault](#)

⁴ [Yuwen](#) (2019) Taiwanese defense article

⁵ https://k.sina.com.cn/article_1183596331_468c3f2b00100tqbt.html?from=mil

at 45 kilometers per hour overwater,⁶ it's seen as the brigade's most capable infantry carrier for amphibious landings.

Each Marine maneuver company either consists of 10 or 14 vehicles. As part of the 2017 reforms, Army amphibious units transitioned from the Russian-style 10-vehicle company to the American-style 14-vehicle company. However, we haven't seen concrete evidence of this transition in the Marine Corps. If any Chinese viewers have any evidence of a 14-vehicle heavy Marine company, let us know in the comments.

The infantry are supported by an assault gun company and what is described as an artillery company, which seem to have replaced a pre-reform mortar company and air defense missile company. In the heavy battalion, the assault guns are the ZTD-5, which are armed principally with a 105mm gun. Doctrinally, these assault guns replaced Type 63A amphibious light tanks beginning in 2007 and battalion-level assault gun companies replaced pre-form amphibious tank battalions. Meanwhile, the artillery company most likely contains 6 or 9 PLZ-07B 122mm self-propelled howitzers. While this would have been a brigade-level option in the past, we believe they're putting 122mm guns at the battalion level because:

1. One, they're flagging these companies as artillery companies, rather than mortar or firepower companies specifically.
2. And two, they've gone through the effort of adopting amphibious self-propelled howitzer solutions to match their maneuver platforms, which vary from battalion to battalion. Fitting the artillery to each of the battalion-level platforms would seem redundant if those guns were held at the brigade level.

Brigade artillery also likely varies brigade-to-brigade due to brigades being at different levels of readiness.

The range of both direct and indirect fire support to the infantry component means the battalion is capable of operating independently of other maneuver battalions or brigade fires. The support and service company is also likely capable of providing immediate supply, medical, mess, transportation, and other critical services. However, they'd still most likely need brigade and army-level logistical support to meet the heavy POL, munitions, and maintenance burden of mechanized forces, which would even be further complicated and intensified during an amphibious operation.

Compared to the heavies, the medium combined arms battalion is organized identically, but mounted on wheeled 8x8 platforms instead. This unit has been sold as a quick-reaction force with greater strategic and in-theatre mobility than the heavy battalion, similar in concept to the American Stryker brigades. Its maneuver companies are equipped with the ZBD-09 infantry fighting vehicle, which has been slightly modified for marine use for better maneuverability in the water. Meanwhile, the assault gun company is equipped with ZTL-11, and the artillery battery is

⁶ [Military Recognition, ZBD-05](#)

equipped with PLL-09 self-propelled guns.⁷ These platforms are equivalent in capability to their heavy tracked counterparts.

The light battalion is most likely somewhat different from the heavy and medium battalions. For starters, their infantry are carried in either air transportable Lynx 8x8 all-terrain vehicles⁸ as a stopgap or, in the future, Warrior CSK utility vehicles same as the Army's high mobility infantry. Sources suggest that rather than having an artillery company, light battalions have 3 maneuver companies supported by a light assault vehicle company, a firepower company, and a support company.⁹

The firepower company is said to consist of a mortar platoon equipped with 8 PP87 82mm mortars split into 2 sections, an anti-armor rocket platoon equipped with 8 PF-98s also split into 2 sections, and an ATGM platoon with 4 HJ-8 ATGMs.¹⁰

It's possible that self-propelled ATGM, artillery and mortar carrier variants of the Warrior CSK could be introduced with the Marines once they get sufficient numbers of them for infantry carrying purposes, as has been done with Army's high mobility infantry. A version with a 122mm howitzer could even be in the cards, which would make the light battalion's indirect fire capability on par with the other combined arms battalions, but this is just speculation.

Rounding out the maneuver battalions, each Marine Brigade will be outfitted with an air assault battalion. We're unsure how these will be organized, but it is likely that they'd be similar to the light infantry, with 3 maneuver companies and a firepower company.

These units are intended to be transported via helicopter, and will likely continue to use the Lynx 8x8 ATV as it's transportable inside China's tactical cargo helicopters.

~~But even with more air assault units, marine air assault capability in general will likely be hampered by a shortage of helicopters for the task and a small number of amphibious assault ships with flight decks in service.¹¹ Unlike the Army, whose air assault infantry brigades have an integral helicopter battalion, the Marines rely on a marine corps aviation battalion whose inventory and coverage is limited. This issue is most pronounced in the East China Sea and Yellow Sea, where Marine units still rely heavily on Navy aviation to conduct heliborne training. The issue is most likely less serious in the southern command overlooking the South China Sea, which is covered by the Marine Corps' new aviation brigade.~~

As for the big guns, we're uncertain about the composition of the brigade's artillery battalion, especially with 122mm artillery seeming to be pushed down to the battalion-level. However, we can assume that the brigade's artillery battalion most likely has at least a battery of PHZ-89

⁷ [Wheeled SPGs in Djibouti](#)

⁸ [On the Lynx 8x8](#)

⁹ [Notes on Army's light infantry battalions](#) (and a good source on other battalions as well)

¹⁰ [Stuff about Marines](#)

¹¹ [Comments on Chinese Marine air assault shortcomings.](#)

122mm self-propelled multiple launch rocket systems and probably one to two batteries of towed 152mm, 130mm, or 122mm howitzers.¹²

The Chinese likely intend to replace the PHZ-89 MLRS with the newer PZH-10, although we don't know how big a priority the Marine Corps will be for that roll-out.¹³ Meanwhile, the towed PL-66 152mm howitzer would be the most likely legacy option for gun artillery, but the Army at least is looking to replace these with newer self-propelled PLC-181 155mm howitzers mounted on a truck chassis.¹⁴ Whether the Marines will also is unclear.

Based on the typical size of Chinese artillery units, our educated guess as to the size of this battalion would be 3 batteries with 6 guns per battery if they're keeping it classic, or 9 guns if they're following what the Army is doing post-reform.

None of these options are amphibious, and would have to be taken to shore either in landing craft or in the case of towed guns, sling loads by helicopters.

And finally, providing local air defense to the brigade's units is an air defense battalion. This battalion contains 24 FN-6 short-range MANPADS systems, with 4 companies of 6 MANPADs each to attach to each of its maneuver battalions.

Army Amphibious Brigade

Compared to the Marine Brigade, the Army's Amphibious Brigades are much more simple. With the intended role of the Army Amphibious Brigade being as a follow-on force more capable of high intensity operations, they're likely more specialized in the post-landing ground fighting role.

Each amphibious brigade consists of:¹⁵

- A brigade headquarters
- 1 Combat Support Battalion
- 1 Combat Service Battalion
- 4 Combined Arms Battalions
- 1 Artillery Battalion
- 1 Air Defense Battalion
- And 1 Reconnaissance Battalion

The combined arms battalions are all organized and equipped identically. Each consists of a Battalion Headquarters and Battalion Company, 3 maneuver companies, 1 assault gun company, 1 mortar battery, Support Company.¹⁶

The Battalion HQ or Battalion Company includes command infantry fighting vehicles, communications vehicles for the staff probably including a telephone wirelaying section, and an

¹² [Pics of towed brigade artillery](#)

¹³ [Explaining PZH-10 and Generalities on Chinese Rocket Arty](#)

¹⁴ [On Army's PLC-181 replacement](#)

¹⁵ [On the Army amphibious brigade](#)

¹⁶ [Notes on army battalion organization](#) and [general source with more indepth info on battalions](#)

indeterminate amount of reconnaissance vehicles. We don't know exactly what's in this company, but we're guessing there are at least two command variant IFVs for the battalion commander and battalion political officer, a reconnaissance platoon, and communications platoon.

The maneuver companies are mounted in the ZBD-05 amphibious infantry fighting vehicle, same as the heavy marine infantry. Each consists of a company HQ and 3 rifle platoons. The Company HQ has 2 vehicles, one for the company commander and one for the company political officer. Based on some photographic evidence, it also seems that the company HQ includes 4 flamethrower teams, each including 2 men crewing a Type 58 flamethrower, the Chinese version of the Russian LPO-50. 2 teams sit in each vehicle.

Meanwhile, each rifle platoon consists of 4 vehicles. Under the Platoon leader, there are at least 3 rifle squads and possibly a weapons squad of some sort. It is unclear what the weapons squad consists of, but Type 88 machine guns and a QLZ-87 automatic grenade launcher crew seems probably based on photographic evidence. Meanwhile, one or more of the squads can also take out a PF-98A rocket launcher, while others just take out magazine fed light machine guns in lieu.

Meanwhile, the assault vehicle company is organized similarly, with 2 command infantry fighting vehicles in the company HQ and 3 platoons of 4 assault guns each. Like the Marines equivalent, this company is equipped with ZTD-05 assault guns.

However, the inclusion of a mortar battery is where the Army diverges from the Marines. It appears this mortar battery is equipped with 6 PLZ-05A 120mm self-propelled mortars rather than 122mm artillery. The battalion likely also has its own artillery reconnaissance squad in its Battalion Company, in addition to the artillery reconnaissance that's included in the brigade reconnaissance battalion. Larger howitzers are contained in the brigade's artillery battalion, which consists of 3 batteries of 9 guns each outfitted with the PLZ-07B 122mm SPG. It appears that army artillery batteries increased from 6 guns to 9 guns during the reforms.

The fact that the army battalion is equipped with self-propelled mortars rather than howitzers could suggest that the army amphibious brigade is supposed to deploy as a single unit, whereas the Marine Corps brigade may be expected to fight more dispersed and thus need proper battalion artillery. We judge this assumption to be reasonable, given the Marine brigades are sort of a motley crew with multiple mission profiles and a more global expeditionary outlook, whereas the Army amphibious brigades are specialized and pretty much exclusively focused on Taiwan and the South China Sea.

Air defense is also more robust in army amphibious brigades, being provided by 3 platoons of 35mm self-propelled anti-aircraft guns and an indeterminate amount of self-propelled surface to air missiles. More local air defense is provided by battalion-level MANPADS platoons. As a result, the army brigade lends itself more to land warfare against a peer than the Marine

brigade, at least when it comes to air defense alone. While more mobile, a purely MANPADS based air defense is far less capable and only offers rudimentary, short range anti-air capability.

Summary

To summarize, China's Navy Marines and Army Amphibious Infantry play complementary roles in its overall expeditionary strategy.

Marine units are broadly lighter and more diverse in their capabilities. They have to be, because they're saddled with more missions from fleet protection and amphibious reconnaissance to expeditionary warfare and forced entry. They are overall lighter, more mobile, have a higher proportion of special operations capable units, and are more integrated with their Navy parent. But as a result of their focus, they have less staying power and are generally not as well suited for sustained land warfare operations.

The Army by contrast has specialized their amphibious units as heavy mechanized infantry. Unlike the Marines, who are more generalists, the Army are more exclusively aimed at contested amphibious operations, breaking out of a beachhead and attacking into the enemy's depth. They are heavier, and thus more capable, but less strategically mobile and more of a resource burden.

Outro

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