The Future of China's Amphibious Assault Fleet 中共兩棲突擊艦隊未來發展之研析 取材:《外交學人》



譯者:朱子宏 中校

學歷:美國色岱爾軍校 2007 年班、砲兵正規班畢業、美國陸軍 指揮參謀學院 2018 年班、政治大學戰略與國際事務所碩士、美 國陸軍指揮參謀學院軍事理論碩士;曾任排長、測量官、教官、 連長、外事連絡官,現服務於國防大學陸軍指揮參謀學院聯合防 衛作戰組。

作者簡介: Rick Joe,為國際期刊-外交學人(The Diplomat)期合作之軍事評論家, 關注議題為中共軍力發展,在解放軍海軍與空軍武器裝備部份多有論述。

資料來源:外交學人(The Diplomat)網站專文,2019年7月17日刊登,參考網址:https://thediplomat.com/2019/07/the-future-of-chinas-amphibious-assault-fleet/

壹、前言

One of the more long-awaited People's Liberation Army Navy (PLAN) projects over the last decade is the 075 landing helicopter dock (LHD). Initially this project was erroneously named as the 081 class for a few years (that designation refers to a class of minehunters instead), before the consensus settled on 075.

解放軍海軍在最近十年間,致力於發展代號 075 之直升機船塢登陸艦(以下簡稱 075)等建案,在其定名前,係以代號 081 為其建案名稱(後為獵雷艦建案使用)。

It has been known for many years that 075s would be constructed at Hudong Zhonghua shipyard, where the PLAN's 071 landing platform dock (LPD) ships were built. However until the last year or so there was no clear confidence as to when the first 075 could be expected to be observed, or how

many may be built. In the last few months a number of very informative new pictures and rumors have emerged, allowing us to create a more detailed timeline for the near term.

許多人知悉,解放軍海軍規劃由滬東中華船廠來生產 075,其曾經產製代號 071 之船塢登陸艦(以下簡稱 071)。 然而,截至去年為止,仍無法準確得知第一艘 075 完工時間,或者是其產製數量。依據過去幾個月獲得具參考價值的照片與傳言,使我們可以更清楚地推斷其產製期程。

This piece will also review overall composition of the PLAN amphibious assault fleet today and in the near future, as well as overall PLA sealift capability. Particular attention will be paid to vessels that may be relevant for a Taiwan invasion contingency, given that news and defense media appear to be particularly fixated on such a scenario.

這些資訊可同時檢視解放軍海軍兩棲突擊艦隊的現況與後續發展,以及解放軍整體海運之優劣。本文就近期新聞媒體大幅報導有關共軍犯臺能力,及其所使用之艦艇加以論述。

貳、本文

075 Landing Helicopter Dock, LHD

Currently it is thought that an initial batch of three 075 LHDs have been ordered, all to be constructed at Hudong Zhonghua. The first ship's modules began assembly in the main large drydock in early 2019 alongside the eight 071 LPDs in the same drydock. Numerous good quality aerial photos and even a satellite photo were taken around the time of and during the eight 071 LPDs' launch on June 6, 2019. These photos depicted both the eight 071s and the first 075 residing alongside each other in the same drydock. During the eight 071s' launch, the full drydock was flooded and the first 075 was watertight despite its hull being incomplete, allowing the eight 071s to be floated out into the Huangpu River. Subsequent photos taken after the launch of the eight 071s showed that additional hull modules have since been assembled to the ship, including the first module for the hangar and overlying flight deck.

一、075型直升機船塢登陸艦

首批 3 艘 075 的訂單已委由滬東中華船廠製造。第一艘船段將於 2019 年初在主要的乾塢中組裝,此乾塢亦是生產 8 艘 071 之處。為數眾多的高品質空照圖與衛星偵照圖,於 2019 年 6 月 6 日八艘 071 下水典禮前後獲得,圖中顯示075 與 8 艘 071 位於同一個乾塢。在 8 艘 071 下水期間,乾塢注滿了水,以完成首艘 075 的船體水密試驗,並使 8 艘 071 能夠順利航進黃埔江。後續照片顯示,在 8 艘 071 陸續下水期間,該艦亦持續完成船體結合,包括首段的機庫及飛行甲板。

The most recent rumors suggest that the second 075 hull has begun assembly alongside the first 075 hull in the same drydock. Considering that the number of modules that could be observed in staging areas around the drydock were too numerous for merely a single 075, and considering the size of the drydock can enable two 075-sized ships to be assembled simultaneously, it is likely to be a matter of time until we receive photographic evidence of the second 075 hull being worked on alongside the first hull in the same drydock. In terms of timeline, the most conservative estimate for the launch of the first 075 would be early to mid-2020 – however, some more spectacular rumors have suggested it may be launched around October 2019.

近來傳聞指出,第二艘 075 船體於第一艘 075 旁開始組裝。就船艦數量與 乾塢能夠容納兩艘 075 之大小來判斷,最保守的估計,第一艘 075 最早將於 2020 年中完工,而也有較為樂觀的推測,其完工日期為 2019 年 10 月。

Given the pace of work Hudong Zhonghua has demonstrated with the first 075 as well as their past work with 071s, it is very plausible that all three 075s ordered as part of the rumored first batch could be launched by 2021. A speculative timeline from this author suggests that the first 075 could be launched in late 2019/early 2020 (with the 2nd 075 partway complete by this time), after which assembly of the third 075 will occur at the position within the drydock formerly occupied by the first 075. The second 075 could be launched by late 2020 (similarly with the third 075 partway complete by this time), and finally the third 075 would be launched in mid to late 2021.

依據滬東中華船廠對 071 與 075 的建造期程,第一批三艘的 075 可於 2021年全數下水,且第一艘 075 下水完工時間可能於 2019年底或 2020年初(第二艘 075部分船體也可能完工)。在第一艘 075完工後,第三艘 075將於原第一艘 075之船位進行組裝。第二艘 075可能於 2020年底完工(同樣地,第三艘 075

部分船體有可能完工),而第三艘 075 將於 2021 年底完工。 In terms of size, the 075 LHD is currently estimated to have a full displacement of about 31,000 tons, with the capacity to carry up to 30 helicopters. It is likely to have a well deck capable of accommodating two Type 726A landing craft air cushion (LCAC) as well, and a vehicle/cargo bay.

就船體大小而言,075 滿載排水量大約為 31,000 噸,最多可搭載 30 架直升機。其船塢將能夠容納兩艘 726A 型氣墊登陸艇(以下簡稱 726A),並具有專用車輛艙與貨艙。

There are significant indications that the first batch of three 075s will be followed by additional LHDs. Part of these plans include a larger "075A" LHD that may displace around 40,000 tons or more. However, it is not known if an order of 075As will occur immediately after the current first batch of 075s, or if the PLAN will order for another batch of 075s first. This allows a tentative set of predictions to be made; by 2025 it is likely that at least three LHDs of the 075 class will be in service, and by 2030 it is almost certain that significantly more than three LHDs will be in service but it is not known if this will be six, eight, nine, or perhaps even more LHDs (likely made up of a combination of 075s and 075As).

具指標性的第一批 3 艘 075 完工後,將會有其他直升機船塢登陸艦陸續加入。這些計畫包含了更大型的 075A 型兩棲突擊母艦,其噸位將會落於 40,000 噸以上。然而,無法確定 075A 型的訂單,是否會在第一批的 075 完工後立即開工建造,又或者是解放軍海軍會量產更多的 075。據此,推測解放軍海軍在2025 年將具有最少 3 艘 075 服役,且在 2030 年有三艘以上直升機船塢登陸艦,惟無法確定是六、八、九艘或是更多的直升機船塢登陸艦服役(可能由 075 與075A 組成)。

There are no indications of any active development for a short take-off vertical landing fighter aircraft that could be used for the PLAN's LHD fleet.

目前沒有任何情資顯示,解放軍海軍研發可於直升機船塢登陸艦隊進行短場重直起降的戰鬥機之跡象。

071 Landing Platform/Dock LPD

The 071 LPD is a well-known ship class at this point. Six ships are currently in service, with another two ships in sea trials and fitting out respectively. The seventh and eighth ships are likely to be commissioned by late 2019 and late 2020 respectively. It is not currently known if any additional 071 LPDs will be ordered in the next few years, considering Hudong Zhonghua will likely be quite busy constructing 075s in this time.

二、071 型船塢登陸艦

071 型船塢登陸艦是廣為人知的艦型。目前有 6 艘正在服役中,另外 2 艘刻正進行海上測評。第七與第八艘可能分別於 2019 年底與 2020 年底正式服役。基於滬東中華船廠刻正致力於 075 之建造,目前無法得知未來數年是否會有更多的 071 訂單。

There is not much to write about the 071 class apart from its physical characteristics, some of which have been reported in an inaccurate manner. The ship has a full displacement of up to 25,000 tons, with a large hangar capable of accommodating four Z-8 sized 13-ton helicopters. A single 071 can carry up to 20 armored vehicles in its dedicated vehicle bay, and four Type 726A LCACs can be carried in its large well deck. However, multiple pictures have also shown that 071s can carry a large number of amphibious armored vehicles of the ZBD05/ZTD05 family in its well deck to deploy directly from the ship to beach, in rows made up of four vehicles each.

目前僅有少數文章對於 071 的船艦特徵與能力進行論述,且許多文章的論述不正確。本型船艦滿載排水量達 25,000 噸,其機棚可容納 4 架 直-8 大小的 13 噸直升機。每艘 071 可以於專用車輛艙內裝載 20 輛甲車並於船塢甲板上載運 4 艘 726A 氣墊登陸艇。然而,許多圖資顯示,071 能夠於其船塢甲板載運大量的 ZBD05/ZTD05 兩棲裝甲車輛,執行由艦至岸的部署,裝載時,每排可容納四輛 ZBD05 車輛。

The full length of the 071's well deck is likely over 130 meters (considering it can accommodate four 33 meter-long Type 726A LCACs), and the full length of a ZBD05 pattern vehicle is 9.5 meters. Assuming each vehicle needs a clearance of 1.5 meters immediately before and after it, the theoretical longitudinal footprint of a ZBD05 vehicle would be 12.5 meters. Therefore, the well deck of a 071 can likely accommodate around 10 rows of ZBD05 family vehicles, for a well deck capacity of 40 ZBD05 vehicles. In addition to around

20 vehicles in the dedicated well deck, the total capacity for carrying ZBD05 family vehicles of a single 071 should be considered 60 rather than only 20.

071 的船塢甲板全長約 130 公尺以上(將能容納 4 艘 33 公尺長的 726A 氣墊船),而 ZBD05 全長為 9.5 公尺,假設每輛車前後都需要 1.5 公尺的間隔,ZBD05 車輛的理論上縱向空間為 12.5 公尺。因此,071 的甲板可以每排容納 10 輛,共計 4 排,因此 071 至多可以容納 40 輛 ZBD05。考量車塢可以裝載 20 輛車外,與上述可容納 ZBD05 的數量來看,每艘 071 的裝載空間應訂為 60 輛車,而非 20 輛。

For a Taiwan contingency, the total (well deck plus vehicle bay) vehicle capacity is likely of greater interest than the "vehicle bay only" capacity, as the latter count would assume the well deck was used for other roles such as to operate LCACs. However, the initial waves of an amphibious assault would likely rely on deploying large numbers of amphibious armored fighting vehicles like ZBD05/ZTD05 to contest a beach, rather than relying on much smaller numbers of soft skinned and otherwise defenseless LCACs transporting handfuls of armored vehicles onto a beach where enemies may reside.

對臺用兵時,總裝載量(船塢甲板與專用車輛艙)大於僅計算專用車輛艙之裝載量,雖然甲板上乘載的可能是其他載具如:氣墊登陸艇。然而,首波兩棲攻擊將會仰賴大量的具裝甲防護力之 ZBD05/ZTD05 兩棲突擊車,可於登陸時來面對大量灘岸守備部隊之威脅,而非裝甲防護力薄弱的氣墊登陸艇且其無法載運大量的裝甲車輛。

The Landing Craft Air Cushion, LCACs

The PLAN operates a number of LCAC types. The most well known is probably the Zubr imported from Ukraine and Russia, boasting a full displacement of about 550 tons and capable of accommodating up to 140 tons in an internal bay. However, the size of the vessel does not allow it to be carried in LPDs or LHDs, and for the PLAN it would only be appropriate for operations within a few hundred nautical miles of China's coast (including Taiwan). At present five vessels have been identified, but the pace of delivery and subsequent construction has been relatively slow, and it's unknown how high the demand for Zubr LCACs will be.

解放軍海軍具有不同型的氣墊登陸艇,最有名的莫過於自烏克蘭與俄羅斯進口的野牛級氣墊登陸艇,其噸位為550噸,且艙內裝載總重可達140噸。然而,受限於登陸艇的體積,無法藉由船塢登陸艦或是直升機船塢登陸艦載運,且僅適用於距中國大陸海岸百餘海浬內的範圍(包含臺灣本島)。目前可以確認解放軍海軍擁有5艘,但是後續交艦速度與建案相對地緩慢,且無法得知其對於野牛級氣墊登陸艇的需求。

The Type 726/A LCAC is the Chinese equivalent of the U.S. Navy's LCAC, designed to be deployed from 071 LPDs and 075 LHDs. Ten such vessels are currently thought to be in service, with more under construction. These vessels are larger than USN LCACs but are less space efficient, with slightly lower payload capacities and lower available deck space. Additional Type 726As are in construction at Jiangnan shipyard, with production rumored to begin at an additional shipyard in future. It is possible that the production run of Type 726As will correspond with the total well deck capacity for the PLAN's fleet of 071s and 075s.

三、氣墊登陸艇

代號 726A 型氣墊登陸艇(以下簡稱 726A)比照美國海軍氣墊登陸艇,可由 071 與 075 部署。目前判斷有 10 艘正在服役中,且持續建造中。726A 較美國 海軍氣墊登陸艇大,但是其空間運用之效益較差,酬載量與甲板空間均較小。 其餘 726A 刻正於江南船廠打造中,且有傳聞未來將運用其它船廠進行量產。 726A 的量產數將可能會與中共海軍艦隊的 071 與 075 的總數量成正比。

Other types of smaller LCACs capable of embarking squads of infantry also exist, but are only appropriate for small-scale insertion.

其他載運步兵班的小型氣墊艇仍然保留,但僅適用於小規模的作戰。

Landing Ship Tanks, LSTs

The PLAN operates up to 32 LSTs. These are divided between the Type 072, 072II, 072III, and 072A, respectively three, four, 10, and 15 strong per class. The 072 and 07II displace slightly over 4,000 tons while the 072III and 072A displace close to 5,000 tons. For the purposes of summary, each ship can carry up to 10 tanks each in terms of displacement. All LSTs have a bow

door and a rear well deck-style ramp for deployment of vehicles in the bow and aft directions via the cargo hold running through the full length of the ship.

四、戰車登陸艦

中共海軍現役有 32 艘的戰車登陸艦,分別為 3 艘 072 型、4 艘 072-II 型、10 艘 072-III 型與 15 艘 072A 型。072 型與 072-II 型約為 4,000 噸,而 072-III 型與 072A 型將近 5,000 噸。每艘登陸艦可載運 10 輛坦克。所有的坦克登陸艦均具有艦艏大門與後方甲板,便於車輛部署與下卸。

About 10 smaller Type 073A 2,000 ton LST style ships are also in service, and about a half dozen similarly sized, older 073 ships of a similar configuration. Their cargo capacity is correspondingly smaller compared to the 072 family of LSTs.

吃水量達 2,000 噸的 10 艘小型的 073A 型與 6 艘舊型 073 型坦克登陸艦服役中,其載運空間較 072 型坦克登陸艦小。

An 800 ton class landing ship — the 074 and 074A class — also exists, numbering about 12 and 10 respectively.

吃水量達 800 噸的 12 艘 074 型與 10 艘 074A 型登陸艦目前仍在服役中。

PLAA Landing Craft and Ship Taken Up From Trade, STUFT

One major sealift capability often overlooked in assessments of PLA amphibious assault sealift strength is the fleet of landing craft operated by the PLA Army/Ground Force (PLAA/PLAGF). These craft are not small, and can displace between 500 and 800 tons, featuring enclosed deckhouses, with enclosed or semi-enclosed cargo holds, and are operated by the PLAA to support their amphibious units. They regularly participate in exercises, carrying armored fighting vehicles, logistics vehicles, and troops.

五、解放軍陸軍登陸艇與徵用商船

有項主要的海運能力卻常在評估中共兩棲突擊作戰能力時被忽視,便是中共人民解放軍陸軍/地面部隊所操作的登陸艇部隊。這些艦艇排水量約500至800噸,具備密閉式指揮甲板與全開或半開式船艙,可供解放軍陸軍用來協助兩棲突擊部隊遂行作戰。這些艦艇定期參與各類演習,載運戰鬥車輛、後勤補給車輛與部隊。

For example, the Type 271 displaces 500 tons, while the bigger Type 271 III displaces 800 tons, with the latter capable of carrying three medium main battle tanks with a range of 1,000 nautical miles. Clear estimates of fleet size are difficult to ascertain, but as many as 80 ships of the Type 271/III LCT family may be in service today. A new design of ship similar to this configuration with higher speed was observed in 2015, suggesting the PLAA will continue maintaining a fleet of these ships for their own naval transport purposes

舉例來說,271型戰車登陸艇為500噸,271-III型為800噸,均可運載3輛中型戰車,運載距離達1,000海浬。正確的船艦空間難以評估,但是約有80艘的271型與271-III型服役中。2015年所觀察到之新一代船艦,構造類似,但其航速較快。解放軍陸軍將可能持續保留這類型艦艇,便於其執行海上運輸任務。

These 500 ton and 800 ton landing craft are entirely inappropriate for blue water operations or even long range regional missions. However, these vessels should have more than sufficient seakeeping to cross the Taiwan Strait to support an amphibious assault. In terms of seakeeping, cargo capacity, and enclosure, ships of the Type 271/III family obviously greatly exceed the 10 ton full displacement Higgins boat landing craft made legendary during D-day carrying a platoon of men, or even the USN's contemporary landing craft utility ships displacing under 400 tons when full. Efforts in future to assess PLA amphibious assault sealift capabilities should at least consider the variety of PLAA landing craft capable of a strait crossing.

這些 500 噸與 800 噸的登陸艇完全不適合海上作戰或執行遠海區域任務。然而,這些艦艇可滿足其跨越臺灣海峽的兩棲突擊作戰。綜觀 271 型與 271-III 型之航行距離、空間與能力,很明顯地優於諾曼第登陸 D-day,僅能載運一排兵力的 10 噸希金斯型(Higgins)登陸艇,可能更勝於當前美國海軍現役 400 噸以下的登陸艦艇。未來評估解放軍兩棲攻擊的海運能力時,應將解放軍陸軍可以跨海作戰的登陸艇納入考量。

Finally, another understudied element of potential PLA sealift resides in the fleet of Chinese roll on-roll-off (ro-ro) trade ships that can be requisitioned for military use. Such ships will require a port or a secured beachhead with a mobile Mulberry style harbor to enable delivery of their cargo, but the international use of ships taken up from trade (STUFT) for amphibious augmentation is long and well documented, and the PLA has often exercised with STUFT. One 2017 estimate from China Defense Blog suggested up to 150,000 troops with associated vehicles and supplies could be lifted by the Chinese state owned ro-ro fleet at once, if needed. Assessment of Chinese ro-ro STUFT ships should be considered in any sealift assessment, including for a Taiwan contingency.

最後,解放軍海運能力也能夠從其徵運商用滾裝貨輪為軍事用途的面向來研析,這些徵用商船需要港口或者是安全無虞的機動港口來運載。雖然運用徵用商船來進行兩棲突擊的程序繁瑣,但是,解放軍經常將其納入演習。依據 2017 年,中共國防部落格的一篇文章推測,中共在必要時,可徵用其自有滾裝貨輪,最高可運載約 15 萬人部隊,與其所需之車輛與後勤補給。因此,中共的海運能力評估應納入徵用商船,包含對臺用兵。

Summary

The PLAN amphibious assault fleet is likely to enjoy further expansion between now and the mid 2020s. Key projects to watch include the 075 LHD family, whether the 071 LPD family will be further expanded or not, and whether the PLAA landing ship fleet will be further sustained and recapitalized

參、結語

從現在到 2020 中期,解放軍海軍兩棲突擊艦隊可能會進一步發展,值得關注的發展包括了 075 系列建案、071 系列是否會擴編,及解放軍陸軍登陸艦隊是否會進一步擴編或組織變革。