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MASTER OF MILITARY STUDIES

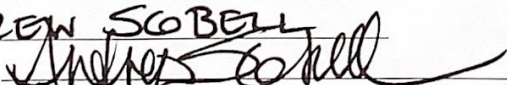
**The ROC Marine Corps Future Role in Overall Defense Concept (ODC)
Under the Threat of the PRC/PLA**

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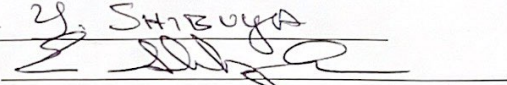
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Executive Summary

Title: The Republic of China (ROC) Marine Corps future role in Overall Defense Concept (ODC) under the threat of the PRC/PLA

Author: Major YUTAI CHANG, the Republic of China Marine Corps

Thesis: The ROC Marine Corps needs a new role in Overall Defense Concept (ODC) under the threat of the PRC/PLA.

Discussion: According to Taiwan's military strategy of "resolute defense and multi-domain deterrence," the Ministry of National Defense (MND) has developed an Overall Defense Concept (ODC) to counter the PRC/PLA's invasion. The ODC discusses three phases of 1) force protection, 2) decisive battle in littoral zones, and 3) destruction of the enemy at landing beaches. The ODC applies innovative and asymmetric operational thinking, integrates joint capabilities, and takes initiative to disrupt the People's Liberation Army (PLA)'s invasion. However, the ODC does not clearly define the role of the Republic of China (ROC) Marine Corps in Taiwan. Therefore, the ROC Marine Corps still continues to use the legacy missions and roles to counter the modernized PLA's tactics. This thesis paper focuses on the three main areas: (1) analysis of the PLA's tactics on the conduct of invasion in Taiwan, (2) analysis of current roles and missions of the ROC Marine Corps in response to the PLA's invasion tactics, and (3) recommendation of the ROC Marine Corps future asymmetric role to integrate with different services of ROC armed forces to successfully disrupt the PLA's attack.

Conclusion: The future role of the ROC Marine Corps should integrate with other services as a joint force and fight asymmetrically to successfully disrupt the PLA's invasion.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

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LIST OF ACRONYMS

A2/AD - Anti-access/Area denial (A2/AD)
ARG - Amphibious Reconnaissance Group
CDCMs - Coastal defense cruise missiles
DMO - Distributed Maritime Operations
DoD - Department of Defense
EABO - Expeditionary advanced base operations
HMH- Heavy lift helicopter
HMLA - Light attack helicopter
HVTs - High value targets
ISR - Intelligence, Surveillance, and Reconnaissance
JLTV - Joint Light Tactical Vehicles
LAR - Light Armored Reconnaissance
LAWs - Light Amphibious Warships
LCT - Littoral combat team
LOCE - Littoral operations in a contested environment
LP/OP - Listening Post and Observation Post
MND - Ministry of National Defense (MND)
NAI - Named areas of interest
NDS - National Defense Strategy
NSM - Naval Strike Missiles
ODC - Overall Defense Concept
PLA - The People's Liberation Army
PLAA - PLA Army
PLAMC - PLA Marine Corps
PLAN - PLA Navy
PRC - The People's Republic of China
ROC - Republic of China (Taiwan)
ROCAF - ROC Air Force
ROCN - ROC Navy
SLOC - Sea line of communication
SOF - Special operation forces
UAV - Unmanned aerial vehicle
UN - United Nation
VMH - Medium tilt-rotor
WEZ - Weapon engagement zone

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The Republic of China (ROC) Marine Corps Future Role in the ROC's Overall Defense Concept (ODC) Under the Threat of the People's Republic of China (PRC) People's Liberation Army (PLA)

The relationship between the People's Republic of China (PRC) and Republic of China (ROC), also known as Taiwan, has been ambiguous for several decades because the second Chinese civil war has never ended since 1949 when the Chinese nationalists retrograded to Taiwan. The ROC had a seat on the United Nations (UN) until the UN General Assembly gave the seat to the PRC in 1971.¹ During the Carter administration in 1979, the United States formally recognized the PRC as the only China and cut diplomatic ties with the ROC.² Yet, the United States signed the Taiwan Relations Act the same year to maintain its legitimacy to prevent any resort to force or other forms of coercion that would jeopardize the security, the social system, or economic system of the people on Taiwan.³ To the PRC, Taiwan is an autonomous province with a significant geographic location. As the PRC's 2019 defense white paper states, its defense policy is to take active defense to safeguard its sovereignty, security, and development interests; the PRC has never given up the option of employing military forces to ensure its territorial integrity. The PRC regards the declaration of Taiwan independence and external party interventions in its domestic issue as violations of its territorial integrity.⁴ The anti-secession law was ratified by the PRC in 2005 to legitimize its use of military means to solve any dispute over its sovereignty.⁵ China continues to modernize its military and to expand the People's Liberation Army (PLA)'s anti-access/area denial (A2/AD) capability with an ambition of being a world-class military by the end of

2049, a hundred years after its establishment.⁶ On the other hand, Taiwan has claimed itself an independent country and has developed an asymmetrical military strategy to counter the PLA's aggression.

According to Taiwan's military strategy of "resolute defense and multi-domain deterrence," the Ministry of National Defense (MND) has developed an Overall Defense Concept (ODC). The ODC discusses three phases of 1) force protection, 2) decisive battle in littoral zones, and 3) destruction of the enemy at landing beaches (See Figure 1: the ODC phases).⁷ The ODC applies innovative and asymmetric operational thinking, integrates joint capabilities, and takes initiative to disrupt the PLA's invasion. However, the ODC does not clearly define the role of the ROC Marine Corps in Taiwan. Therefore, the ROC Marine Corps still continues to use the legacy missions and roles to counter the modernized PLA's tactics. This master's thesis focuses on the three main areas: (1) analysis of the PLA's tactics on the conduct of invasion in Taiwan, (2) analysis of current roles and missions of the ROC Marine Corps in response to the PLA's invasion tactics, and (3) recommendation of ROC Marine Corps' future asymmetric role to integrate with different services of ROC Armed Forces to successfully disrupt the PLA's attack.



Figure 1: the ODC Phases

Source: Ministry of National Defense R.O.C., “2019 National Defense Report,” December, 2019.

PLA’s tactics on the conduct of invasion in Taiwan

According to the *Chinese Invasion Threat* published in 2017, the PLA’s tactics on how the invasion of Taiwan would be conducted are broken into three phases: blockade and bombing operations, amphibious landing operations, and combat operations on the island.⁸ During the blockade and bombing phase, the PLA would attempt to isolate Taiwan from the outside world by conducting cyber and electronic attacks, missile strikes, air and naval blockades, and bombing operations.⁹ Cyber and electronic attacks include jamming or hacking the ROC’s communication systems and neutralizing air defense assets in Taiwan. The compromise of the communication systems and air defense assets would be followed by the suppression of missile strikes. These missile strikes would focus on the destruction of the major military airfields and ports, as well as key infrastructures in Taiwan in preparation for the following air and naval blockade.¹⁰ The air blockade could be achieved by launching

PLA fighters and surface-to-air missiles to limit ROC Air Force (ROCAF) aerial avenues of approach and gain the local air superiority around Taiwan Strait.¹¹ After the local air superiority is gained, the PLA would deploy its Navy to set the naval blockade.¹² The conduct of the naval blockade can be divided into three-ringed maritime areas. The first innermost maritime area is to confine the freedom of movement of the ROC Navy (ROCN) by laying mines. The second ring would involve PLA surface warships and submarines cutting off the ROCN sea line of communication (SLOC). The third ring, the outer waters and the farthest from Taiwan mainland, would be patrol zones with the PLA's patrol boats guiding the international commercial ships to maintain the international commercial SLOC and to prevent any third-party intervention. With the air and naval blockade established, the PRC would conduct a series of strategic bombardment on the ROC governmental buildings to target key ROC leaders. With the information on the locations of the ROC key leaders from the PRC intelligence agencies, the PRC plans to execute the decapitation strikes to remove the top command and control personnel and facilities to achieve the strategic outcome, which is to coerce the ROC into surrender before the execution of amphibious landing operations.¹³

The amphibious landing operation is the second phase of the invasion plan. In order to seize the Taiwan mainland, it is required for the PRC to have physical occupation of the mainland before the ROC's surrender. PLA special operation forces (SOF) airborne infiltrating the theater could only harass the ROC defense and provide intelligence for the

coordination of the indirect fire support and information collection for the PLA's named areas of interest (NAI), and they cannot achieve the strategic result of seizure of the objectives.

Therefore, the PLA's amphibious operation becomes the means to transport its troops to achieve the objectives. Nevertheless, navigation through the Taiwan Strait could be challenging and risky. The territory of Taiwan comprises the Taiwan mainland itself, Penghu Islands, and Kinmen and Matsu islands, all of which are heavily defended by the ROC Armed Forces (See Figure 2: the Taiwan territory)¹⁴.

Before transportation of troops through the Taiwan Strait, the PRC has to navigate through waters within the threat posed by the ROC Armed Forces' defensive position on these offshore islands. Kinmen and Matsu islands that are close to the mainland China could serve as a listening post and observation post (LP/OP) for Taiwan. Any indications from the LP/OP or satellite images that manifest the preparation for invasion of Taiwan would provide an early warning and time for the ROC to mobilize and transition into a wartime period with the forces maneuvering into battle positions on the Taiwan mainland. It is likely that the PRC would take over the Kinmen and Matsu islands in a quick fashion to blind the ROC and ensure no disruption at the first stage of the amphibious operation.¹⁵ In addition, the average width of Taiwan Strait is about 180 kilometers (km). To sustain PLA Army (PLAA) and PLA Marine Corps (PLAMC) combat ashore, the PLA needs a forward operating base to provide constant logistic support. Penghu islands, located around 50 km west off the Taiwan mainland,

could be an ideal option to serve the purpose. Besides, without taking Penghu islands, ROC Armed Forces on the islands would pose a flanking threat to the PLA Navy (PLAN) movement to Taiwan. Once Penghu islands are taken, the PLAN could ensure the local SLOC in Taiwan Strait is secure and would be able to navigate to the staging areas or anchorages about 10 to 30 miles offshore for transition to ship-to-shore movement.

Prior to the PLA's landing ashore on mainland Taiwan, waves of missiles, bombs, and artillery shells would rain down on the shoreline defenses to continuously neutralize or suppress the ROC's major coastal defense systems, ports, and airfields in order to maintain the local air and maritime superiority. Once ship-to-shore connectors maneuver close to the landing beaches, the PLA would redirect suppressing indirect fires inland in order to prevent fratricide. SOFs that infiltrated before would guide and facilitate the amphibious forces landing ashore on the beachheads. Once the amphibious landing forces seize the beachheads and gain the lodgment, they would attempt to establish the combat power ashore as soon as possible by occupying nearby airfields and ports, especially near the capital city, Taipei city, and other major cities in Taiwan.

The capture of the major beachheads, airfields, and ports enabling the follow-on forces' reinforcement would transition to the third phase of the invasion plan. The intent of seizing lodgment, airfields, and ports close to Taipei city is to conduct the decapitation plan by severing the command and control systems from the capital city to other counties or cities,

destroying the government buildings, and removing the civilian leadership if their locations are exposed. However, the capital city in Taiwan will be heavily protected and defended by the ROC Army. If a gap expands inside the defense line, counterattacks could be expected to fill the gap. As a result, military feints or deception will be conducted in other major cities, such as Taichung or Kaohsiung to divert and to draw the ROC Army's attention so as to distribute its forces. If the decapitation plan is executed successfully, the PRC expects this would destroy the Taiwanese will to fight, yield its surrender, finally bring about the end of the second Chinese civil war, and achieve its strategic objective of reunification.



Figure 2: the Taiwan Territory

Source: U.S. Department of State, "Taiwan CIA map updated," Jan. 2nd, 2018, https://commons.wikimedia.org/wiki/File:Taiwan_CIA_map_updated.jpg.

Current roles and missions of the ROC Marine Corps in response to the PLA's invasion tactics

According to the *ROC National Defense Report 2019*, each service of the ROC Military has its roles and missions in different phases of the ODC. The ODC is comprised of three phases: force protection, fighting decisive battles in littoral zones, and destroying the enemy at landing beaches.¹⁶ The first phase is force protection, which is continuously carried out throughout the whole operation. The PLA may seize the initiative in the execution of the invasion plan in Taiwan by conducting electronic and cyber-attacks, missile attacks, air strikes on mainland Taiwan and offshore islands to gain the local air superiority for the follow-on operations. Upon the PLA showing signs of invasion, the ROC president would announce the presidential declaration of the mobilization to raise the emergency status in Taiwan.¹⁷ The ROC Armed Forces would preserve their combat powers during the PLA's missile barrage stage. Air defense systems may be activated by the ROC Armed Forces to prevent severe damage to the major military facilities and important governmental assets. At the same time, electronic warfare units may use countermeasures to jam, disrupt, or mislead the targeting of the PLA's missiles. ROC Armed Forces would employ tactics of dispersion, deception, camouflage, concealment, and misleading to minimize the initial destruction caused by the PLA's missile attacks. Civilian leadership may move to secret, well-protected command complexes to ensure their safety and maintain the command and control capability of the ROC to counter the invasion threat.

The second phase of the ODC is to fight decisive battles in littoral zones. The geo-spatial battle space of the decisive battles in littoral zones is roughly 40 km to 100 km west off the Taiwan mainland across the air and sea domains. During this phase, the ROC Armed Forces may emerge from defensive battle positions to conduct offensive joint air and maritime interdiction. The ROCAF would be responsible for the air interdiction with the air defense systems targeting PLAAF fighter jets and ROCAF fighters dealing with the PLAAF fighters and bombers. If opportunities permit, the ROCAF may target high-value targets (HVTs), such as command posts, airfields, ports, and supply depots along the Chinese coast. The ROCN would employ patrol boats to lay mines as early as possible along the PLAN avenues of approach close to the ROC landing beaches. Surface warships may navigate from the protected locations to the Taiwan Strait to counter the PLAN surface ships with the anti-ship missiles. Submarines may covertly observe the PLAN amphibious ready groups or carrier strike groups' current status and if opportunities permit, deploy torpedoes to sink the PLAN surface warships and employ missiles on the HVTs along the Chinese coast. For the Kinmen and Matsu islands, ROC Armed Forces would conduct counter-artillery fires on the airfields and ports on the Chinese Mainland. For Penghu islands, ROC Armed Forces would employ coastal defense cruise missiles (CDCMs) to counter the PLAN surface warships and disrupt its maritime order of battle. The collective efforts to conduct joint interdiction by ROCAF and ROCN from 40 km to 100km west off Taiwan mainland would mark the

culmination of the second phase. If the PLAN still manages to navigate through 40 km west off the Taiwan mainland, it will directly transition to the third phase of the ODC.

The third phase of the ODC is to destroy the enemy at landing beaches. The geo-spatial battle space of destroying the enemy at landing beaches is about 40 km west off the Taiwan mainland to the mainland itself. The PLAN would conduct activities such as anchorages, transition to amphibious connectors, mine-clearing along the avenues of approach, ship-to-shore movement, and landing troops ashore at this stage. The ROCAF and ROCN would be joined by the ROC Army to work together as joint forces to counter the imminent landing threat as the PLAN navigates within the weapon engagement zone (WEZ) of the ROC Army. Limited accessible landing beaches in Taiwan and employed naval mines would limit and canalize the PLAN and landing force's avenues of approach, which would be the joint pre-planned engagement areas or kill zones for the ROC Armed Forces.¹⁸ The PLAN will be vulnerable during the anchorage and connectors-transition stage. The ROCAF and ROCN will seize the opportunity and concentrate anti-ship missiles on these HVTs. The ROC Army would employ helicopters armed with anti-ship missiles and domestic multiple launch rocket systems to provide overlapping and massing sectors of fire to destroy the HVTs. If the PLAN continues its amphibious landing operation towards the limited accessible landing beaches, the ROC Army would employ weapons of different ranges to neutralize, disrupt, and destroy the amphibious landing forces. If the PLA landing troops land ashore and dismount

from the connectors, their mobility corridors will be confined by the pre-planned beach and land obstacles and obstacles set up during the PLAN Strait crossing period. That means those obstacles would limit the PLA's avenues of approach ashore. If the PLA landing troops continue to push inland, and create a defensive gap to the ROC Army while seizing the lodgments, ROC Armed Forces would employ the Marine Corps that serves as a strategic reserve to conduct counterattacks to fill the gap. However, the traditional missions of the ROCMC are to guard the naval bases, to serve as a strategic reserve to conduct counterattacks on Taiwan mainland, and to reinforce, regain, or counterattack on offshore islands that are taken by the PLA. The ODC treats the ROCMC only as a strategic reserve to the ROC Armed Forces and does not differentiate the different capabilities of each service. The traditional missions that make the ROCMC unique and different from the ROC Army lie in the conduct of the amphibious operation to reinforce, regain, or counterattack on offshore islands. Yet, the ODC does not discuss the amphibious operation on the offshore islands, nor does it mention the role of the ROCMC during the second phase. As a matter of fact, the ROCMC could play a vital role in the ODC and work together with other services as a joint force to fill some gaps and provide overlapping sectors of fire to increase the probability of success in defending against the PLA's invasion.

The ROCMC has more unique capabilities that can be used in the ODC and that can distinguish itself from the ROC Army. First, the Amphibious Reconnaissance Group (ARG)

is the special unit to the ROCMC. The ARG is comprised of one support squadron, two reconnaissance squadrons, one underwater demolition squadron, and one special operation squadron, all of which have special capability. The underwater demolition squadron to the ARG not only has the capability to detonate underwater explosives, but also the ability to lay mines in shallow waters, which could fill the gap in the mine-deployment plan because the ROCN deploys mines through the patrol boats that could only deploy in deep waters. The ability to lay mines in different depths of waters as weapons and obstacles increases the solidity of the ROC Armed Forces' defense plan. Second, the reconnaissance squadrons and special operation squadron to the ARG have the capability to conduct covert infiltration of the PLA's airfields, port facilities, and even command posts if opportunities permit. Once they reach the airfields or ports or have intelligence information on the locations of the command posts, they could report grid coordinates back to the ROC Armed Forces to use weapons to engage aircrafts or ships that are ready to be deployed and bomb the PLA's command posts. Third, the ROCMC will designate mechanized and motorized infantry battalions to escort the convoy of the CDCMs, invaluable anti-ship assets in the execution of the ODC, to protect their safety while they emerge from defense positions to maneuver to advantageous positions to provide counter fire against the PLAN. Moreover, the Marine Corps could still conduct the amphibious operation to reinforce, regain, or counterattack the offshore islands if local air superiority is maintained. The amphibious ships embarked with the landing forces could find

shelters close to the Bashi Channel and the Philippine Sea during the PLA missile suppression stage and still manage to reach the offshore islands with the local air superiority gained by the mobile air defense systems and fighter jets from ROCAF. Amphibious capability is the essence of the ROCMC and indispensable to the ROC Armed Forces. In addition to the ROCMC current capability, the United States plans to equip and to enhance ROC Armed Forces asymmetrical capabilities to defend Taiwan against the PLA's invasion.¹⁹ With the support of the US armed sales programs, ROCMC could have more asymmetric capability and vital missions in the future by learning from the United States Marine Corps (USMC), which has planned to reorganize its force structure and developed new tactics to counter the rise of modern revisionist powers such as China.

With China's rapid development of A2/AD capability and its territorial expansion in the South China Sea, the US has reoriented its strategic focus from the Middle East to the Indo-Pacific theater.²⁰ As the Chinese military and economy continue to grow, it will accelerate its military modernization to the extent of becoming a regional hegemon in the near-term and a global great power in the future. The United States National Defense Strategy (NDS) is to keep the Department of Defense (DoD) as the preeminent military power in the world and ensure that the balances of power remain in the US's favor. To counter a growing great power threat like China, the USMC needs an innovative force development to adjust the way Marines have fought under the adversary's long-range

precision WEZ. As General Berger, the 38th Commandant of the USMC, describes in the *Force Design 2030*, the current force structure and legacy capabilities would be insufficient against the adversary threat, nor would they be adequate to support the naval concept. To counter China's A2/AD capability, the USMC has developed two concepts: littoral operations in a contested environment (LOCE) and expeditionary advanced base operations (EABO) that nest within the United States strategic guidance and complement the Navy's Distributed Maritime Operations (DMO) concept.²¹ These two concepts focus on the generation of "technically disruptive, tactical stand-in engagements that confront aggressor naval forces with an array of low signature, affordable, and risk-worthy platforms and payloads."²² *Force Design 2030* depicts the future structure of the USMC forces in 2030 to fit into the LOCE and EABO. Such adjustments as increasing fourteen rocket artillery batteries, three Light Armored Reconnaissance (LAR) companies, three unmanned aerial vehicle (UAV) squadrons and divestment of sixteen artillery batteries, entire tank companies, three medium tilt-rotor (VMM) squadrons, three heavy lift helicopter (HMH) squadrons, and two light attack helicopter (HMLA) squadrons would be able to create a more capable, quicker reaction and lower signature stand-in forces.²³ Rocket artillery batteries with high mobility and precision-guided weapons could be deployed dispersedly and could achieve rapid transition to different firing positions to fire and maneuver to increase the survivability. LAR companies are ground-reconnaissance units with high mobility and intelligence-collecting

capability. The increase in the quantity of the UAV units would mean more equipment that Marines control remotely at much safer places. In other words, it reduces the chances of putting Marines' lives in danger, achieves force protection, and increases survivability.

Removal of the tank companies and divestment of sixteen artillery batteries signify that a traditional amphibious landing would be unlikely especially under the adversary's WEZ. The traditional amphibious landing relies heavily on the control of the local air and maritime superiority in respect to the safety of the amphibious forces. In the future war scenario, the USMC is likely to fight as a stand-in force and under the adversary's A2/AD threat.

Therefore, removing tanks and reducing artillery would also increase the mobility of the amphibious force and its survivability and so does the divestment of the VMM, HMM, and HMLA squadrons. Furthermore, the USMC is not only reorganizing its force structure, but it is also conducting experiments on its trial unit.

The USMC is conducting a three-year experiment on its Marine Littoral Regiment or MLR in Hawaii.²⁴ According to Maj. Gen. Kevin Iiams, Assistant Deputy Commandant of Combat Development and Integration, the MLR will consist of a littoral combat team (LCT), a littoral logistics battalion, and an anti-air battalion. Based on the *Force Design 2030*, the MLR will be a lighter distributed unit that is hard to detect and capable of moving fast and employing firepower in a contested maritime environment.²⁵ According to Lt. Gen. Eric Smith, Deputy Commandant for Combat Development and Integration, the LCT is a

task-organized infantry battalion with a long-range anti-ship missile battery. It is designed to employ multiple platoon-reinforced expeditionary advance base (EAB) sites that can enable missions such as long-range anti-ship fires; forward arming and refueling of aircraft; intelligence, surveillance, and reconnaissance (ISR) of key terrain; and air-defense and early warning. The littoral anti-air battalion is to employ air defense, air surveillance and early warning, air control, and forward rearming and refueling missions; the littoral logistics battalion provides tactical logistics support to the MLR at the EAB sites.²⁶ The equipment of the MLR may include Joint Light Tactical Vehicles (JLTV) armed with anti-ship missiles such as Naval Strike Missiles (NSM).²⁷ Also, the USMC is experimenting with equipping infantry with deadly swarming drones.²⁸ Under China's A2/AD threat, the United States Military may not be dominant in air and maritime spaces in the future war. Hence, the US Marine Corps needs to be able to fight in this condition and rapidly employ forces to control key waterways, small islands to sink ships with the JLTV armed with anti-ship missile systems or even longer-range missile systems.

In order to implement the EABO and LOCE concept and to counter the PLA's long-range WEZ, the USMC experiments not only on its MLR's capability but also on the naval platform to transport Marines in the West Pacific region. The USMC is looking for a new warship with a smaller signature that can carry groups of Marines to conduct ship-to-shore movement at a faster speed. Light Amphibious Warships (LAWs) are important

to this concept.²⁹ A LAW will be able to carry roughly 75 Marines and have accommodation for 4,000 to 8,000 square feet cargo area, reach 15 knots at its full speed for 3,500 nautical miles without refueling, and ideally take a hit from the adversary and still transport troops to the designated islands or transition to another LAW. The LAW does not require transition to a different connector in the execution of ship-to-shore movement; that is, it can navigate directly from ship to shore and disembark Marines or JLTV armed with NSMs on a designated area in a quick fashion.³⁰ It is planned to arm with the 30mm gun to provide fire support as well as respond to threats. In order to maintain a low signature, a LAW will move quickly, evade detection, and avoid contact with the adversary unless it reaches its landing area.³¹ As far as these experiments are concerned, the USMC is taking a pragmatic approach to its force design in reorganizing its force structure and in experimenting with MLR, and LAW to achieve LOCE and EABO. Undoubtedly, ROCMC needs to fight an asymmetric war under the PLA's A2/AD threat. Therefore, it is wise for the ROCMC to stand on the shoulders of the giant, to learn from the USMC *Force Design 2030*, MLR and LAW experiments, and to find its future role in the ODC under the threat of the PLA.

Recommendation of ROC Marine Corps future asymmetric role

Learning from the USMC *Force Design 2030* and LOCE and EABO concepts, the ROCMC needs to adjust its capability and reorganize its forces to optimize the asymmetric combat power. These concepts focus on the elements of mobility with speed, precision in

direct and indirect fires, dispersion of disposition of forces, and long range of the unmanned aerial vehicles in order to achieve low-signature, lethal capability with surprise and survivability with the remote systems.

There are some organizations and equipment in the ROCMC that need to be reorganized and acquired in the future to optimize its asymmetric capability. First, the ROCMC's tank battalions consist of one Headquarter and Service (H&S) Company, two tank companies with M60A3, and one anti-armor company with CM25 TOW launchers. In the *Force Design 2030*, the USMC will get rid of tanks and leave the tank missions to the Army because they are heavy and require the amphibious ships to dock at the ports to embark and disembark in amphibious operations, which exhibits a large footprint to the adversary and contradicts the idea of low signature and moving fast. In the threat of the PLA, it is unlikely that the ROCMC will transport tanks to the offshore islands. On the Taiwan mainland, the ROC Army has better tanks than the ROCMC. The ROCMC could mimic the USMC's approach to convert two tank companies from each battalion into anti-armor companies that can be employed when the PLA attempts to seize the lodgment on the Taiwan mainland.

Second, besides the tank battalions, the infantry battalions need to reorganize as well. Each infantry battalion is comprised of one H&S Company and three rifle companies. The H&S company has six platoons: a support platoon responsible for the assistance of the battalion staff work, a maintenance platoon responsible for the battalion-level logistics, a

communication platoon for the battalion-level communication, a scout sniper platoon for battalion ISR, a 120mm mortar platoon for battalion-level indirect fire, and a javelin platoon for battalion-level anti-armor. In order to increase mobility and survivability to prevent the PLA's counter fire, the 120mm mortars need to be replaced because they are not self-propelled weapons and their range is about 6 km. 120mm mortars, with the ideas from the USMC's JLTV armed with NSM to provide mobility and long-range capability, can be replaced with the Hawkeyes 105mm self-propelled howitzers with the range of more than 10 km that can increase the mobility and extend the defensive range. In the scout sniper platoon, there is one scout sniper squad and one UAS squad, both of which can be used for ISR missions. While the USMC increases more UAV squadrons, the ROCMC should separate its UAS squad from the scout sniper platoon and establish an individual UAV platoon in H&S Company and each rifle company to have more ISR capability and arm UAV with armaments to have more lethality. Third, the USMC puts emphasis on the long-range precision-guided indirect fire weapons by increasing its rocket artillery batteries and divesting its traditional artillery batteries. The ROCMC artillery battalion should upgrade its M109A2 with a range of 18 km to M109A6, which has an extended range precision-guided artillery shell that can range about 40 km. The upgraded M109A6 can be employed to disrupt and destroy the PLAN at the anchorage and the transition to connectors in the third phase of the ODC.

In addition to the restructuring of the tank, infantry, and artillery battalions in each

brigade, the ROC Navy should procure CDCMs from the US. The ROCMC should not only have the missions of escorting the convoy to the CDCMs, but should also own the anti-ship missile capability. The rationale is that the ROCMC is the land maneuver force with the amphibious capability in the Navy, and the CDCMs are operated on land while the ROCN is procuring them. It is suitable for the ROCMC to have the CDCM capability and also provide security to its capability to streamline the command and control mechanism. With the concepts of EABO and LOCE, the ROCMC could employ the CDCMs on the Penghu, Kinmen, and Matsu islands. Any indications of preparation for an invasion from PLA could trigger the employment of the CDCMs on offshore islands and seize the initiative to counter the PLA's attempt.

Last but not least, the USMC has conducted experiments on the use of LAWs to conduct future amphibious operations under the PLA's A2/AD threat. Similarly, the ROCN has been manufacturing domestic Landing Platform Docks or LPDs for the future amphibious operation. LPDs have the self-sufficient air-defense capability and embark connectors such as LCUs, LCMs, and Amphibious Assault Vehicles (AAV). Marines can operate as the Fleet Marine Force (FMF) on LPDs. During the PLA missile barrage stage, LPDs could find shelters to the east of Taiwan in the West Pacific with the integrated air defense systems from the Taiwan mainland and its air-defense system abroad to increase survivability. Once the opportunities permit and with the limited local air superiority, LPDs can transport Marines to

the offshore islands to reinforce, regain, or counterattack and even to counterattack on the Taiwan mainland from the rear of the adversary if the PLA landing forces land ashore.

In conclusion, learning from the USMC *Force Design 2030*, LOCE, and EABO concepts, the changes made to the ROCMC organization and equipment will enable Marines to have more asymmetric capability, to cohesively integrate with other services, and to play a vital role in each phase of the ODC. All the ROC Armed Forces would conduct force protection at the onset of the first phase of the ODC. Originally, ROCAF and ROCN play vital roles in the second phase of the ODC, which is from 40 km to 100 km to the west off Taiwan mainland. With the change of the ROCMC's future missions, the ROCMC could also play a significant role in the second phase of the ODC to use CDCMs to strike PLAN upon noticing the indication of invasion and can also disrupt PLAN's strait-crossing operations in the second and third phase of the ODC if the first attempt fails. In the third phase of the ODC which is about 40 km west off the Taiwan mainland to the Taiwan mainland itself, while the PLAN manages to navigate to the anchorage areas, the ROCMC would employ M109A6 with precision-guided ammunitions to disrupt the PLAN amphibious landing operation. If the PLAN proceeds to push closer to the landing beaches, the ROCMC would employ the underwater demolition squadron in advance to lay mines in shallow waters to limit the PLA landing forces' avenues of approach. If the PLA amphibious landing forces still attempt to seize the lodgment, the ROCMC, along with the ROC Army, would mass direct and indirect

fires on the engagement zone to destroy the PLA at the landing beaches. If unfortunately the PLA seizes the lodgment successfully, the ROCMC would employ the strategic reserve to conduct counterattacks to fill the gap to the defensive line. The recommended role would allow the ROCMC to integrate with other services as a joint force and successfully disrupt the PLA's invasion.

¹ (Culver 2020)

² (Scobell and Nathan 2012)

³ (Congress 1979)

⁴ (Department of Defense 2020)

⁵ (PRC 2005)

⁶ (Fravel 2020)

⁷ (Ministry of National Defense 2019)

⁸ (Easton 2017)

⁹ (Kozłowski 2015)

¹⁰ (Easton, China's Top Five War Plans 2019)

¹¹ (Defense Intelligence Agency 2019)

¹² (Shlapak, Orletsky and Wilson 2000)

¹³ (Beckhusen 2018)

¹⁴ (U.S. Department of State 2018)

¹⁵ (Wood and Ferguson 2001)

¹⁶ (Ministry of National Defense 2019)

¹⁷ (Easton, Stokes, et al. 2017)

¹⁸ (Thompson 2018)

¹⁹ (Setzekorn 2020)

²⁰ (Department of Defense, 2018 National Defense Strategy of the USA 2018)

²¹ (Berger 2019)

²² (Corbett 2018)

²³ (Berger, Force Design 2030 2020)

²⁴ (Feickert 2020)

²⁵ (Harkins 2020)

²⁶ (Eckstein 2020)

²⁷ (Snow 2020)

²⁸ (Larter 2020)

²⁹ (Congress 2020)

³⁰ (Eckstein, Marines Will Field Portfolio of JLTV-Mounted Anti-Ship Weapons in the Pacific 2020)

³¹ (Larson 2020)

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