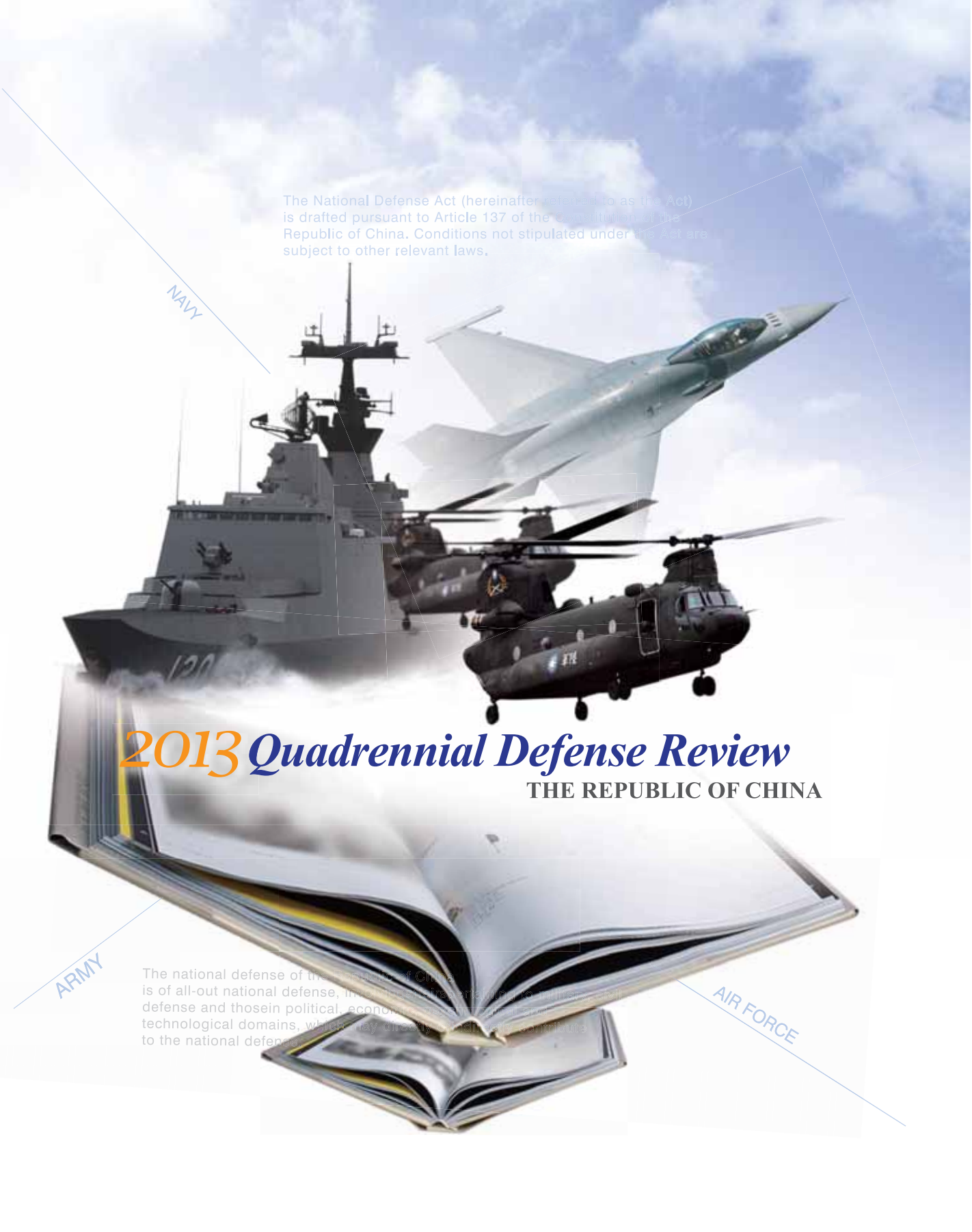
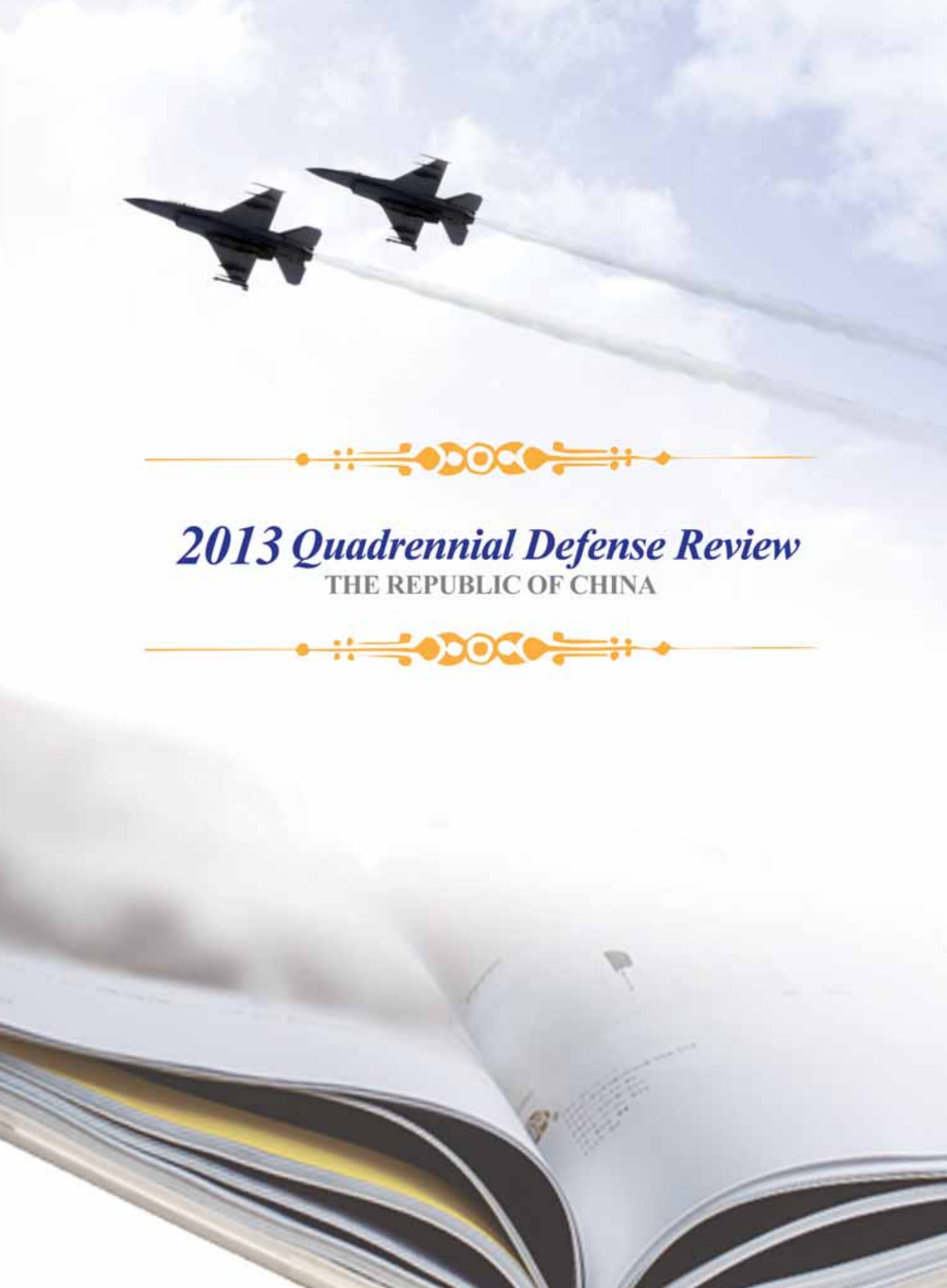


2013 Quadrennial Defense Review

THE REPUBLIC OF CHINA



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Minister's Foreword

The Ministry of National Defense (MND), in compliance with Article 31 of the National Defense Act, releases the 2013 Quadrennial Defense Review (QDR) with a view to illustrating national defense strategy and force buildup direction to the Legislative Yuan and the public, and in hopes of enhancing national defense through reviewing the past and planning for the future.

Following the President's concept of the "three legs of national security" and national development vision of the "golden decade," the MND invites domestic experts on security and strategic studies to participate in the development of this QDR. The 2013 QDR anticipates external and internal security environment and defense challenges, incorporates the guidance of "checking the enemy through strategy," and builds an all-out defense consensus, in order to respond to international security environmental changes and meet substantial defense requirements.

Currently, the improved relations, close economic and cultural exchanges, and high interdependence between the two sides of the Taiwan Strait have directly reduced the public's threat awareness. However, to this day, Mainland China has never renounced the use of force against Taiwan and its annual defense budget growth has continuously increased at a double-digit rate. Moreover, in November 2012, Mainland China declared at its 18th Party Congress that it would continue "expanding and intensifying military preparedness" and "building strong national defense and powerful armed forces that are commensurate with China's international standing," demonstrating the fact that the PLA military threats to the ROC have not decreased. In addition, factors like increasing uncertainties in the Asia-Pacific security environment,

US “rebalancing” strategy toward Asia, as well as impacts of limited financial resources and low birth rate on the promotion of voluntarism are posing challenges to the ROC Armed Forces in force buildup and combat readiness.

Based on the strategic concept of “resolute defense, credible deterrence,” with the adoption of forward-looking, innovative, and practical thinking, and in consideration of available defense budget, the MND will continue to procure and build modern weapon systems and equipment according to approved schedules, implement the Six Organization Acts, and promote the transformation of the Chung-Shan Institute of Science and Technology to an administrative institution. Through organizational adjustment and consolidation, resource integration, and operational process improvement, the MND is able to enhance efficiency of senior-level organizations, streamline and solidify force structure so as to improve joint operations effectiveness. In addition, disaster relief is one of the Armed Forces’ core missions. The policy guidance is “preparing for disasters in advance, prepositioning troops with an eye to disaster preparedness, and ensuring readiness for rescue operations.” Moreover, the complementary measures of voluntarism will continue to be perfected in order to build an elite and strong force to deter threats, prevent wars, and ensure the public’s safety and prosperity, social stability and national security.

Regarding the aforementioned purposes, the MND publishes this QDR, hoping to gain support and comments from the public.

Kao, Hua-Chu
Minister of National Defense
March, 2013

Introduction

I. Purpose of the 2013 Quadrennial Defense Review

The Ministry of National Defense (MND), in compliance with Article 31 of the National Defense Act, is required to submit a Quadrennial Defense Review (QDR) within ten months after each presidential inauguration as an effort to review and formulate defense and military strategies and articulate defense policy direction for the next four years. Thus, the MND engaged all of its staff units, responsible agencies, and civilian experts and scholars on defense affairs and military strategies in the production of the 2013 QDR, hoping to make the government's defense policies and military planning more comprehensive.

The QDR is the uppermost strategic guidance for our national defense and the basis for the MND's Ten-Year Force Buildup Concept and Five-Year Force Construction Plan. Internally, it serves to guide the direction for our military preparation and to inform the public and the international community of the government's national defense goals. In coordination with the President's term in office, the MND completed its first QDR in March 2009 in order to propose the direction of defense and military development. The promulgation of the second QDR indicates that the four-year defense review has become a routine institutionalized process, holding a significant meaning for the transparency of our defense policies and the establishment of an all-out defense consensus.

II. Significance of the 2013 Quadrennial Defense Review

Ever since the inauguration of President Ma Ying-jeou, the government has actively promoted "institutionalization of cross-Strait rapprochement," encouraged cross-Strait interaction and cooperation, and has achieved many concrete outcomes. Against this background, the MND made public for the first time the 2009 QDR to embody the President's ideas of national defense in the defense policy planning, realize the spirit of civilian control of military, and make future defense reform and development plans through the reviewing of major policies. The 2013 QDR inherits the ideas of the previous version and continues the goal of building a "Hard ROC" defense capability so as to fulfill the mission of safeguarding the territory and the people.

Currently, the security environment within which we are situated has witnessed a number of changes, and it continues to encounter a variety of challenges. Across the Taiwan Strait, Mainland China has not renounced the use of force against Taiwan in spite of improved cross-Strait relations. In the region, issues such as sovereignty claims over disputed islands in the East and South China Seas, instability in the Korean Peninsula, and US "rebalancing" strategy continue to form the dynamics of the situation. Domestically, we are confronted with problems like limited budgets and demographic changes. These issues, along with the impacts of non-traditional security threats, must be considered by the ROC Armed Forces in force buildup and readiness. In light of these changes, the 2013 QDR is not only consistent with the fundamental defense ideas and military strategy illustrated in the previous version, but also strives for innovative development by guiding the ROC Armed Forces to maximize available defense resources and to meet security challenges in an effective manner.

III. Framework of the 2013 Quadrennial Defense Review

The 2013 QDR incorporates defense policies and strategic guidance and concepts announced by the President. It is divided into four aspects: "Security Environment and National Defense Challenges," "National Defense Policy and Strategic Guidance," "Joint Warfighting Capabilities and Preparedness" and "Defense Organization and Transformation."

1. Security Environment and National Defense Challenges

The Asia-Pacific region continues to encounter a variety of challenges. Mainland China remains our primary military threat, and sovereignty claims over disputed islands and maritime rights and interests continue to escalate. Moreover, the situation in the Korean Peninsula is still unstable, and the U.S. maintains its influence on the region with the "rebalancing" strategy. In addition, growing non-traditional security threats, low birth rate, and weakening public awareness of security threats all pose challenges to our national defense. In this regard, the ROC Armed Forces must actively engage force readiness, establish multiple capabilities, closely cooperate with neighboring countries, appropriately allocate and utilize defense resources, and encourage public engagement in defense affairs, so as to ensure our national security, maintain peace across the Taiwan Strait, and contribute to the stability of the Asia-Pacific region.

2. National Defense Policy and Strategic Guidance

The purpose of our national defense is to safeguard the nation and maintain world peace. At present, our defense policy centers on seven

major objectives: 1) building credible capabilities; 2) demonstrating defense resolution; 3) safeguarding regional stability; 4) strengthening intangible combat capabilities; 5) enhancing disaster prevention and relief preparedness; 6) promoting voluntarism; and 7) improving welfare for military personnel. Moreover, we uphold the principle of "not producing, not developing, not acquiring, not storing, and not using" nuclear weapons, and will commit to the Missile Technology Control Regime (MTCR) in order to fulfill our responsibility as a member of the international community and maintain peace and stability in the region.

Our national defense objectives continue to achieve war prevention, homeland defense, contingency response, conflict avoidance, and regional stability. The military strategy, by adhering to the concept of "resolute defense, credible deterrence", utilizes an all-out defense force to defend the homeland and ensure national security.

3. Joint Warfighting Capabilities and Preparedness

Joint operations are key to winning a war. Faced with various security threats and limited defense resources, the ROC Armed Forces shall adopt the "innovative and asymmetric" concept to strengthen major warfighting capabilities, including joint counter air, sea control, and ground defense capabilities. The ROC Armed Forces will continue to develop C^4ISR capabilities, integrate logistics capabilities, and strengthen reserve mobilization and joint disaster relief capacities to achieve the overall efficiency of "disaster relief during peacetime and combat during wartime." The ROC Armed Forces will also need to fortify their overall intangible combat capabilities and build a loyal and consolidated modern force

to enhance their combat readiness and maximize the probability of victory.

4. Defense Organization and Transformation

In response to global military development trends and with consideration to available defense resources, the ROC Armed Forces are determined to carry out defense reform, strike a balance between military modernization and force streamlining, and build a "small but superb, small but strong, small but smart" elite force capable of handling all manner of defense challenges. In the future, the MND will replace "balanced force buildup" with "prioritized force buildup," appropriately adjust organizational structure in accordance with the principle of "accountability and specialization," and will follow the principle of "streamlining active duty force and expanding reserve force" to reduce the force level to 215,000 by the end of 2014. The MND will continue its efforts to refine armaments management mechanisms, appropriately allocate defense resources, combine defense technologies and economic development, and examine policy demands and priority in accordance with the "planning, programming and budgeting system (PPBS)" to optimize the cost-effectiveness of defense budgets. In addition, in response to changes in the strategic environment and demographic structure, the MND will continue to promote voluntarism and establish comprehensive supporting measures to build a professional force and a credible reserve force.

Chapter 1

Security Environment and National Defense Challenges

2013 Quadrennial Defense Review

The Asia-Pacific security situation continues to face a number of challenges. Mainland China remains our primary military threat, sovereignty claims over disputed islands and maritime rights and interests are increasing, and non-traditional security threats continue to grow in Taiwan. In the face of such complex national defense challenges, the ROC Armed Forces must vigorously carry out force development, gain multi-functional capabilities, and engage in close regional cooperation so as to maintain peace in the Taiwan Strait, ensure national security, become a "peacemaker" in the international community, and contribute to peace and stability of the Asia-Pacific region.

Section 1 Asia-Pacific Security Environment Changes

Competition and cooperation currently coexist in the Asia-Pacific security environment. Competition among major powers continues to influence development of regional security, some states have experienced leadership changes, and uncertainty persists. Other states have initiated a series of strategic adjustments to demonstrate their importance and to maximize their interests. The main factors affecting developments in the Asia-Pacific security environment include rapid growth of Mainland China's national power, the U.S. "rebalancing" strategy towards Asia, sovereignty claims over disputed islands in the East and South China Seas and maritime rights/interests, as well as the nuclear threat in Northeast Asia; all of which are closely related to our national security. The challenges posed by non-traditional security issues upon the national defense are no less important than those of traditional security issues, given the potential casualties, asset loss and psychological impact they might cause, and thus such issues should also be actively and effectively managed.

I. Rapid Growth of Mainland China's Power

The rise of Mainland China is the primary factor for changes in the Asia-Pacific security environment. At present, Mainland China's core objective is to sustain economic development and enhance comprehensive national power. Driven by the rapid growth of its comprehensive national power in recent years, Mainland China has been actively engaged in regional affairs and provided countries in the region with assistance in order to extend its influence. In the foreseeable future, Mainland China's political and military power will continue to grow, gradually changing the Asia-Pacific balance of power, geo-strategic situation and regional security.

Mainland China's military modernization has progressed rapidly. Its force projection capabilities have extended over the First Island Chain into the Pacific. At the current stage, Mainland China is actively developing "anti-access/area denial (A2/AD)" capabilities and related tactics. With commissioning of its aircraft carrier and various combat platforms, Mainland China could dissuade countries outside the region from involving with regional conflicts, delay or impede their military deployment, or hamper their operational effectiveness, all of which threaten the U.S. force projection in the Western Pacific and freedom of action in East Asia. This will increase the U.S. risk when engaging in regional affairs, causing the credibility of its security commitment to be questioned and challenged.

From an economic perspective, countries in the Asia-Pacific region believe Mainland China's rise is both an opportunity and challenge. However, from a security perspective, they hold various degrees of concern towards Mainland China's military expansion. Therefore, while they continue to strengthen their own defense capabilities, Asia-Pacific countries hope that the U.S. will maintain its military power in the Asia-Pacific region for the sake of regional peace and stability.

II. US Asia-Pacific Strategic Adjustment

The U.S. continues to maintain its leadership in the Asia-Pacific region. In recent years, the U.S. has adopted a "rebalancing" strategy towards Asia, and is actively interacting with Asia-Pacific countries, building stronger diplomatic, economic and military relations to secure its traditional leading role in Asia and protect its national interests. Moreover, the U.S. is incorporating economic and security cooperation into regional mechanisms, utilizing the combined strength of friendly and allied countries to ensure that their common interests are not threatened by any individual country, thereby

maintain regional security and stability.

Under the strategic guidance of "rebalancing," even though the U.S. faces pressure from defense budget cuts, it will continue to enhance air force and naval capabilities in the Asia Pacific region, demonstrate its military power, and step up military cooperation with friendly and allied countries, so as to counter "A2/AD" capabilities of countries within the region. Furthermore, the U.S. will also strengthen its control over air, sea, space and cyberspace, ensuring the operational safety and preventing its force projection from being interfered with or blocked.

III. Sovereignty Claims over Disputed Islands and Maritime Rights and Interests

The tension in the Asia-Pacific region has recently escalated due to sovereignty claims over disputed islands and maritime rights and interests, including the South China Sea, Diaoyutai Islands, Kuril Islands/Northern Islands, Dokdo/Takeshima, and Okinotorishima, as well as marine resource mining and maritime delimitation in the East China Sea. Among which, the disputes over the Diaoyutai Islands and islands in the South China Sea involve the most complex issues and impact on regional peace and stability as well as the ROC national defense and security the most.

The Diaoyutai Islands are located on the border line between the ROC and Japanese Air Defense Identification Zones (ADIZs); they are also a strategic choke point for Mainland China to pass through the First Island Chain; this raises concern among various states. The recent situation in the East China Sea has become more complex as a result of the dispute over the Diaoyutai Islands, putting regional peace and security in a state of uncertainty. President Ma Ying-jeou has proposed the East China Sea Peace Initiative and its implementation guideline, so as to secure the right to have a say on

this issue in the international community, effectively demonstrate the ROC's sovereignty over the Diaoyutai Islands, call on the international community to seriously look at related disputes, and promote a peaceful resolution in an attempt to avoid armed conflicts and preserve the peace and stability in the East China Sea.

The current situation in the South China Sea is complex and volatile. On the one hand, surrounding countries endeavor to maintain good and stable relations, hoping to resolve the South China Sea issue via bilateral or multilateral negotiations. On the other hand, claimants of the South China Sea are also taking unilateral actions, exploring and exploiting resources, expanding armaments, and increasing military deployment to exert greater control over islands and waters in the South China Sea. At the same time, other countries are interfering via numerous means, adding more uncertainties to the situation.

IV. Northeast Asia Issues

The Korean Peninsula remains the most unstable factor in Northeast Asia. In recent years, North Korea has been developing its nuclear capability and ballistic missiles, provoking South Korea militarily, and exporting military technologies, causing turbulence in the region. After the leadership transition in North Korea, its military and diplomatic policies become increasingly assertive. Its third nuclear test has aroused international condemnation, making the resumption of the Six Party Talks more difficult and bringing great uncertainty to the Korean Peninsula.

The military alliance led by the U.S. continues to be the foundation of stability in Northeast Asia. The US-Japan alliance is the cornerstone for regional security. In the meantime, the US-South Korea alliance remains the main mechanism for responding to North Korea's military threat, and might

develop into a trilateral cooperation involving the U.S., Japan and South Korea under the U.S. active mediation. This expansion of cooperation and capabilities in military security will further preserve peace and stability in Northeast Asia. However, military cooperation between Japan and South Korea is greatly influenced by their sovereignty claims over disputed islands. Developments of this dispute should be closely observed in the future.

V. Non-traditional Security Threats

Non-traditional security threats are comparable to traditional security threats. Non-traditional issues in the Asia-Pacific region include natural disasters, food security, energy security, maritime environmental protection, infectious diseases, maritime security, terrorism, financial security, and information security. Such issues could not be resolved by individual country, but require close cooperation among regional countries to respond effectively. Among them, natural disasters are becoming more diverse, frequent, and intense, and may result in complex disasters which pose a major threat to the sustainable development of affected countries. Hence, peacetime military operations is increasingly important.

The South Asia Tsunami in 2004, Typhoon Morakot in 2009, and Japan's complex disaster in 2011 have shown that affected countries need rapid and effective humanitarian assistance from the international community. Furthermore, it is necessary to enhance disaster prevention and relief capabilities through combined relief efforts, joint exercises, disaster prevention and relief tactics, techniques, procedures (TTPs), and experience exchanges, so as to increase disaster relief capabilities and prepare for the impact of future disasters collectively.

Section 2 Security Situation in the Taiwan Strait

The security environment in the Taiwan Strait remains under Mainland China's military threat. Although cross-Strait relations continue to improve, the security situation in the Taiwan Strait is becoming comparatively stable, and the possibility of armed conflict is reduced, Mainland China has never renounced the use of force and continues to carry out military preparations against Taiwan and a third party that might intervene into the Strait. As the military balance in the Taiwan Strait shifts towards Mainland China's favor, the ROC Armed Forces must build credible capabilities and demonstrate strong resolution, providing powerful buttress for peaceful cross-Strait interactions.

I. Relaxation of Cross-Strait Relations

Over the past four years, both sides of the Taiwan Strait have resumed institutionalized talks, gradually heading towards rapprochement. At the current stage, cross-Strait relations continue to develop positively, making for the most stable condition in six decades. Under the ROC constitutional framework, the current state of "no unification, no independence, and no use of force" will be maintained on the basis of the "1992 Consensus and One China with Respective Interpretations," and according to the principle of "putting Taiwan first for the benefit of its people" and "putting pressing issues ahead of less pressing ones, easier topics before more difficult ones, and economic concerns prior to political ones." Cross-Strait peaceful development will be gradually promoted as we set aside the disputes and pursue the win-win situation, as well as interact with the Mainland side in order to establish long-term, stable and institutionalized cross-Strait relations. By doing so, we can ensure better development of cross-Strait relations and peace in the Taiwan Strait.

II. Mainland China's Military Strategy against Taiwan

The cross-Strait rapprochement does not change our plan to modernize our defense capabilities. Mainland China has never renounced military actions and preparations against Taiwan, and continues to formulate operational guidance and plans targeting Taiwan. In recent years, the Nanjing and the Guangzhou Military Regions have been outfitted with new major weapon systems and equipment and currently possess a variety of capabilities against Taiwan. The goal of their military exercises is to rapidly end an island conflict and reduce the possibility of foreign interference. Furthermore, Mainland China continues to protest against US arms sales to the ROC, demanding that the U.S. sequentially reduce its arms sales to the ROC each year until final termination. It hopes to hinder the further improvement of our defense capabilities and expand the gap in military power across the Taiwan Strait.

In addition, Mainland China has integrated its "three-front war" strategy of legal, public opinion and psychological warfare, using propaganda and cross-Strait exchange activities to confuse the public's awareness of friend/foe and disunite the people. It attempts to influence the media and public opinion, and create great pressure by deceiving and infiltrating public opinion in Taiwan and friendly countries. It hopes to justify and legitimize its right to war against Taiwan by manipulating the interpretation of international laws and laws of war, attempting to gain the right of military actions to prevent other countries from interfering with military conflict in the Taiwan Strait.

III. The Current Military Threat Posed by Mainland China

Mainland China's overall operational capabilities and threat, evaluated based on the progress of its military modernization, strategic doctrine development,

force structure and deployment, and weapons development and production capabilities, are as follows:

1. Joint intelligence, surveillance and reconnaissance capabilities

The People's Liberation Army (PLA) continues to enhance its command, control, communication, intelligence, surveillance, reconnaissance and targeting capabilities and is acquiring multi-dimensional means to carry out; extending its control over the entire area west of the First Island Chain. It is capable of supporting any military actions within the area while actively developing global reconnaissance and area targeting surveillance and identification capabilities in the Asia-Pacific region.

In the future, the PLA will gradually integrate its over-the-horizon (OTH) radars with global/regional satellite surveillance and reconnaissance systems that are currently under construction, hoping to form a real-time and accurate surveillance, reconnaissance and warning system to enhance command and control (C2) in joint operations. Furthermore, the PLA will strengthen its military space power, which includes Beidou navigation satellite system, and develop surveillance capabilities to monitor objects in the space. .

2. Strike capabilities of the PLA Second Artillery

Tactical ballistic missiles and cruise missiles deployed by the PLA are all capable of reaching Taiwan with greater accuracy and maneuverability. Furthermore, the PLA has deployed anti-ship ballistic missiles to enhance its ability against Taiwan and "A2/AD" capabilities.

In the future, the Second Artillery will continue to develop "all frontier, all weather, all dimension" strike capabilities under the guidance of "both nuclear and conventional," hoping to enhance strategic deterrence and conventional strike capabilities under conditions of informatization. It aims to deter, block and disable our forces, and deny military intervention from other countries into the Taiwan Strait.

3. Integrated air operations capabilities

The PLA Air Force is continually retrofitting its third generation fighters and currently developing its fourth generation fighters with stealth, supersonic and beyond-visual-range (BVR) capabilities. Moreover, it is strengthening long-range operations capabilities via new generation fighter-bomber and supporting aircraft, unmanned combat aerial systems (UCAS), and advanced long-range precision munitions. It also strengthens deployment of new air-defense missiles to form multiple layers, joint air defense and anti-missile capabilities.

In the future, the PLA Air Force will continue to transform from "homeland air defense" towards "balanced offense and defense," so as to achieve the strategic objective of "integrated air and space operations, balanced offense and defense." It hopes to gain air superiority in all areas west of the First Island Chain, so that it will be able to respond to possible local wars and military conflicts.

4. Integrated maritime operations capabilities

The PLA Navy has shifted its strategic objective from "offshore defense" to "far sea defense." In recent years, it has emphasized

offshore maneuver operations and regional sea control training, and has enhanced its combined arms operations and cross-region capabilities. It now possesses the ability to impose a partial blockade on Taiwan and conduct "A2/AD" operations in certain areas, which can deny US intervention in the Taiwan Strait. In addition, to accelerate the modernization and transformation to a blue water navy, and strengthen amphibious operations capabilities, it continues to develop aircraft carriers and carrier-based aircraft, build new types of surface combatants, nuclear-powered and conventional submarines, as well as large amphibious vessels, air-cushioned craft and large replenishment ships.

The PLA will continue to strengthen overall capabilities of its existing aircraft carrier, develop indigenous medium-sized aircraft carriers, establish carrier strike groups, build replenishment ships, develop blue water operational capabilities, strengthen strategic deterrence of submarine-launched nuclear missiles and counterstrike capabilities, and improve its capabilities to respond to non-traditional security threats.

5. Integrated ground operations capabilities

The PLA is currently accelerating the modernization of main battle weapon systems and informatization, and strengthening ground strike, protection, and command and communications capabilities. It hopes to enhance air-land battle, rapid strike and special operations capabilities, and thereby build a new composite and agile ground force with multiple capabilities.

In the future, the PLA will continue to form composite forces under the guidance of mechanization, informatization and all – theater mobility. These forces will be able to carry out amphibious landing operations, cross-region maneuver operations, airborne (heli-borne) assaults, ground air-defense, special operations and information command and control to fulfill requirements of operations against Taiwan and beyond its borders.

6. Information and electronic operations capabilities

The PLA has gained significant improvement in information operations capabilities after forming an information corps, actively developing information warfare platforms, and utilizing capabilities of the private sector. In recent years, in order to enhance its electronic warfare (EW) capabilities, the PLA has developed and outfitted EW equipment, and thereby possess electromagnetic reconnaissance and electronic soft and hard kill capabilities.

In the future, the PLA will accelerate information infrastructure planning to effectively carry out cyber warfare missions by improving data link communications system and enhancing cyber-attack and defense technologies. It will continue to develop electromagnetic parameter reconnaissance to strengthen its EW capabilities.

7. Major military exercises

Under the framework of "complex electromagnetic environments" and "joint military exercises and training," the PLA carries out a variety of military and paramilitary exercises, such as

joint campaign, joint amphibious operations, joint air defense, cross-region mobility, contingency operations, base defense, anti-terrorism and stability operations, peacekeeping, and combined military exercises and training. It hopes to strengthen its readiness against Taiwan and enhance its ability to execute diverse military missions and "A2/AD" operations.

Section 3 Domestic Security Environment Challenges

The domestic security environment has seen major changes as a result of an economic downturn, changes in demographic structure, increasingly severe natural disasters, mounting cyber security challenges, and weaker threat awareness among the public. The Armed Forces must carefully respond to national defense challenges stemming from the numerous economic, social and environmental issues so as to achieve sustainable defense development and safeguard the nation.

I. Defense Resource Constraints

Defense resources are becoming more and more constrained as the economy slows down. The financial crisis and European debt problems have affected Taiwan's economic development, resulting in growing financial difficulties for the government. Meanwhile, given considerations of government policy priorities, the ratio of the defense budget to the overall government budget shows sequential decline each year. Consequently, benefits and welfare packages for military personnel cannot be significantly improved, resulting in a lack of incentives for recruits and retention adding difficulty in promoting voluntarism. After the implementation of the volunteer system, personnel

costs will create even greater pressure, and will increase the difficulty in implementing major national defense policies. The ROC Armed Forces must find reasonable and adequate financial resources and properly allocate and apply those resources to ensure combat readiness and sustainable military modernization.

II. Low Birth Rate

The growing difficulty in defense manpower supply has become a major challenge to the current force structure and military service system. The ROC has one of the lowest birth rate in the world. The decreasing number of qualified manpower, and the current force level and military service system will eventually result in insufficient conscripts. The ROC Armed Forces must properly streamline force level and transform to a volunteer system to recruit volunteers with commitment to serve longer term with good quality, so as to maintain credible warfighting capabilities.

III. Disaster Prevention and Relief

Due to climate change, natural disasters pose a severe threat to people's lives and property. Therefore, disaster prevention and relief has been tasked as one of the ROC Armed Forces' core missions. During routine exercises and training, active duty and reserve units should have more sound and feasible disaster planning, equipment, and training so as to strengthen disaster prevention and relief capabilities. The MND will work closely with other agencies and effectively coordinate with local governments and related units to accomplish disaster prevention and relief missions.

IV. Cyber Security

Cyber security is an important national defense issue. Cyber networks has become one of the major battlespace in modern warfare, where potential enemies utilize civilian assets and information talents to steal, alter and remove our political, economic and military information on websites. Cyber attacks have evolved from simple to complex attacks aiming at targets with strategic value. Once a conflict starts, adversaries may disable our command, control and logistics networks, and delay our response measures through cyber attacks. In light of this, the ROC Armed Forces should be fully prepared, and combine the strengths of all governmental agencies to ensure information security and network accessibility.

V. Threat Awareness

For over half a century, the public has been living away from wars in peace and prosperity that they gradually neglect threats and surrounding security issues. However, Mainland China has never renounced the use of force against Taiwan, so we must not place our national security in the hands of the good will shown by Mainland China. In order to gain public support for defense development and ensure long-term peace and stability and sustainable development, the ROC Armed Forces should look to the experiences of other countries regarding all-out defense education in order to carefully assess enemy threats, actively integrate government, schools and social resources, implement all-out defense education, improve the awareness of espionage activities, encourage public participation in defense affairs, strengthen the public's vigilance of maritime territorial sovereignty, and increase threat awareness, in order to gain support of defense modernization and ensure lasting peace and sustainable development.

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Chapter 2

National Defense Policy and Strategic Guidance

2013 Quadrennial Defense Review

Article 137 of the ROC Constitution stipulates that "It shall be the objective of the national defense of the Republic of China to safeguard national security and preserve world peace." To take responsibility as a being part of the international community, we always commit to the principles of the MTCR and "not producing, not developing, not acquiring, not storing, and not using" nuclear weapons. In consideration of the development of the current security environment and the challenges that it brings about, the Ministry of National Defense aims to build a "Hard ROC" defense force, following the military strategic guideline of "resolute defense, credible deterrence," defend the ROC's sovereignty, protect its territorial integrity and national interests, and maintain regional peace and stability. These objectives are based on the guidance of "check the enemy through strategy" and the President's concept of the "three legs of national security," which includes realizing peace in the Taiwan Strait through cross-Strait rapprochement, expanding breathing space in the international community through viable diplomacy, and deterring external threats via strong national defense.

Section 1 National Defense Policy

The primary objective of our national defense policy is to build a "Hard ROC" defense force. The ROC Armed Forces will continue to implement national defense transformation and military preparation, in order to deter enemies from launching an attack and to achieve the goal of deterrence and war prevention. This will allow people to live in peace and prosperity, and the nation to achieve sustainable development. On this basis, the seven policies at the current stage are as follows:

I. Build Credible Capabilities

Based on trends of the security situation, technological innovation and strategic requirements, the ROC Armed Forces will continue to reform their defense organization and modernize force structure, adopt "innovative and asymmetric" thinking, enhance joint operations effectiveness, establish a robust armaments development mechanism, and combine the strength of all citizens to deter any attempts to invade Taiwan. These measures will enable the ROC Armed Forces to serve as strong hold for peace in the Taiwan Strait, ROC territorial integrity and regional stability.

II. Demonstrate Defense Resolution

Military and civilians together should demonstrate determination to defend national security by allocating a reasonable defense budget, carefully planning military investments, effectively allocating resources, facilitating development of indigenous national defense, strengthening mobilization capabilities during peacetime, and consolidating people's will to fight against the enemy.

III. Safeguard Regional Stability

Under the government's foreign policy, the MND will promote substantial relations with friendly and allied countries, enhance regional security dialogues and exchanges, and actively participate in international security affairs. Based on the principle of "safeguarding sovereignty, shelving disputes, pursuing peace and reciprocity, and promoting joint exploration and development," the MND will defend to maintain our sovereignty over islands and maritime rights and interests, and jointly promote regional security and stability together with Asia-Pacific countries.

IV. Strengthen Intangible Combat Capabilities

The MND will build the ROC Armed Forces into a force with core values and military ethics that aims to "consolidate national identity, cultivate esprit de corps, shape military discipline, push for administrative reforms, foster military virtues, and build a sense of honor among military personnel."

V. Enhance Disaster Prevention and Relief Preparedness

Based on the principle of "disaster relief is akin to fighting a battle" and guidance of "preparing for disasters in advance, prepositioning troops with an eye to disaster preparedness, and ensuring readiness for rescue operations," the ROC Armed Forces should strengthen disaster relief capabilities and assist disaster prevention in accordance with the law.

VI. Promote Voluntarism

In consideration of the nation's long-term development requirements, in response to the public's expectations, and on the premise of effectively

safeguarding national security and maintaining military obligation as stipulated in the Constitution, the military service system is transforming into voluntarism. The active duty force will consist entirely of volunteers, building a "small but superb, small but strong, small but smart" elite force.

VII. Improve Welfare for Military Personnel

Considering soldiers' mission and responsibility to protect national survival and the rights of people with their lives and the support from their families, the nation must honor the contribution of the Armed Forces. The MND will continue to care for the welfare of military personnel, improve working condition and provide better protection of their rights and interests; at the same time, it will advance the quality of life for military dependents, provide thorough services and accommodations, offer better consultation for retiring personnel, and care for veterans and military dependents living near military facilities, so as to boost the morale of the Armed Forces and encourage military personnel to make the military their career choice.

Section 2 National Defense Strategy

Under the guidance of national defense policy, national defense strategy at the current stage includes war prevention, homeland defense, contingency response, conflict avoidance, and regional stability.

I. War Prevention

1. Strengthen readiness for defensive operations

Actively implement defense transformation, develop defense technologies, continue to procure defensive weapons, establish

"innovative and asymmetric" capabilities, and strengthen force preservation and infrastructure protection capabilities. Furthermore, enhance mobilization capabilities of reserve forces, implement all-out defense to effectively defend the homeland, and demonstrate the determination to face any threats or challenges.

2. Promote regional military and security exchanges and cooperation

Taiwan is located in the center position of the First Island Chain in the Western Pacific and possesses geo-strategic importance. Hence, the ROC Armed Forces maintain good relations with other countries through high-level visits, security dialogues, track II exchanges, education and training, military procurement, and military assistance, and strive to engage in bilateral or multilateral military exchanges and cooperation so as to collaboratively establish security mechanisms and maintain regional peace and stability.

3. Consolidate national defense power

Measures to consolidate national defense power include cultivate military talents for foreign affairs, continue to participate in international affairs, promote military diplomacy, implement Revolution in Military Affairs (RMA), promote R&D in defense technologies, continue to practice civilian control of the military, improve military-civilian coordination mechanisms and relationship, uphold the military's honor, glory and ethics, and improve the quality and boost the morale of military personnel.

4. Cross-Strait confidence issue

In response to Mainland China's proposal of "Cross-Strait Military Security Confidence Building Measures," our current cross-Strait policy is to implement exchanges between the two sides with an emphasis on economic, cultural and livelihood issues and gradually build confidence based on the principle of "putting pressing issues ahead of less pressing ones, easier topics before more difficult ones, and economic concerns prior to political ones." Currently, the objective and subjective conditions for the issue have not yet matured; the MND will carefully assess the feasibility of such measures in accordance with the government's policy.

II. Homeland Defense

1. Build an elite armed force

In response to the requirement for high quality manpower in advanced technological conditions and economic and social changes, the MND will promote military service system transformation into voluntarism, strengthen the defense organization and refine force structure with available national defense resources in order to build a "small but superb, small but strong, small but smart" elite force.

2. Establish highly effective joint operations capabilities

Based on joint operational doctrine, the MND will continue to improve joint operations command mechanisms and develop joint operations capabilities with an emphasis on "long-range precision engagement" and "simultaneous joint operations" in order to deter enemy incursions.

3. Acquire modern weapon systems

With the guideline of "maintaining fundamental warfighting capabilities while focusing on the development of asymmetric capabilities," the MND will prioritize the indigenous development of key technologies and weapon systems. In addition, the MND will continue to procure advanced weapon systems that are defensive in nature and cannot be indigenously produced, and replacing obsolete systems so as to build the modern force required by our national defense.

4. Strengthen force preservation

Continue to strengthen force preservation measures to respond to the threat of sudden and high-intensity assaults from the enemy; back up operational functions of all major systems to sustain initial combat losses and rapidly regain and exert operational capabilities; provide necessary support to ensure the operation of infrastructure such as telecommunications, transportation, energy, reservoirs, and electrical grids to sustain military operations.

5. Accumulate all-out defense capabilities

Continue to promote all-out defense education, cultivate the public's patriotism and support for national defense; coordinate interagency efforts to establish a robust all-out defense system; maintain capabilities of reserve force through mobilization and training to ensure rapid mobilization during peacetime and wartime.

III. Contingency Response

1. Improve surveillance, reconnaissance and early warning capabilities

Continue to integrate intelligence, surveillance and reconnaissance capacity, enhance intelligence gathering, analysis, integration and early warning capabilities, closely monitor the surrounding sea and air security situation and strengthen intelligence exchanges with friendly countries in order to effectively prevent crises.

2. Perfect contingency response mechanisms

When the nation faces terrorist threats or sudden attacks from infiltrating enemies, the joint operations command mechanism should immediately deploy rapid response units to assist responsible authorities and local governments based on the principle of "stabilizing situation, controlling crisis, and unifying contingency response operations" so as to rapidly resolve crisis and achieve the goal of "preventing internal jolts and external assaults."

3. Enhance contingency operational capabilities

Prepare contingency response planning for possible assaults by the enemy, conduct simulation exercises in order to familiarize with response procedures, and strengthen overall contingency and crisis response capabilities so as to rapidly control and resolve crises and reduce damages.

4. Improve disaster prevention and relief capabilities

Based on the existing disaster relief mechanisms and capabilities, the ROC Armed Forces will continue to learn from other countries'

experiences and conduct disaster relief preparation that are aligned with the government's disaster prevention exercise in order to rapidly and effectively assist local governments' rescue efforts. In addition, the MND will continue to acquire dual-purpose equipment with both warfighting and disaster relief functions and build mobilization capacity to enhance the ROC Armed Forces' overall disaster relief capabilities.

5. Reinforce information security

Integrate the national information and communications security systems and strengthen network security readiness. Adopt measures such as information security workshops, reporting bulletins, unannounced inspections and contingency responses and exercises to enhance personnel's awareness of information security. Avoid information security shortfalls and prevent enemy attacks against the ROC Armed Forces' information systems to strengthen the robustness of information security. Furthermore, reinforce the protection of command and control information security platforms to effectively support missions in both peacetime and wartime.

IV. Conflict Avoidance

1. Implement military conflict avoidance measures

Information transparency measures, such as periodically announcing exercises and publishing the National Defense Report, help enhance surrounding countries' understanding of the ROC's defense policy, objectives of military preparation and readiness, and contents of military activities. These measures will reduce

distrust, miscalculation and misunderstanding and facilitate mutual understanding.

2. Strictly abide by conflict avoidance regulations

The ROC Armed Forces will abide by the principle of "crisis prevention, situational control, emergency response, rapid management, and escalation avoidance" and the readiness regulation of "not provoking incidents, not escalating conflicts, and reducing hostile actions" to avoid military conflicts caused by miscalculation or accidents during mission execution.

V. Regional Stability

1. Maintain peace and security in the Asia-Pacific

Following the sequence of "establishing relationship, solidifying friendly relations, reaching consensus, shaping and forging virtue alliances," the MND will enhance security dialogues and exchanges with countries in the Asia-Pacific region, fully serve our strategic warning function in the First Island Chain of the Western Pacific, shoulder more international responsibility in traditional and non-traditional security issues, and seek closer security ties with Asia-Pacific countries.

2. Jointly safeguard regional maritime and air security

Enhance cooperation with Asia-Pacific countries to protect the security of sea and air lines of communication (SLOCs and ALOCs) surrounding Taiwan and in the East and South China Seas, establish institutionalized channels for strategic dialogues and cooperation,

jointly ensure freedom of navigation and over flight as well as the security of SLOCs and ALOCs, and play a key role in facilitating regional stability.

3. Participate in international anti-terrorism and humanitarian assistance activities

With strong believe in maintain peace, the ROC Armed Forces will assist in constraining terrorist activities and piracy, conducting personnel training/exchanges and intelligence exchange with regional countries, and seeking the opportunity to participate in multilateral military exercises. Furthermore, provide humanitarian assistance in coordination with the government's foreign policy to fulfill our responsibility as a global citizen.

4. Commit to non-proliferation norms

The Republic of China follows international standards to enhance peace and stability in the Asia-Pacific region. This is demonstrated by our commitment to not produce, not develop, not acquire, not store, and not use nuclear weapons; and will only develop defensive weapon systems. Additionally, the ROC will continue to support regional and global non-proliferation efforts. In 1998, the ROC incorporated contents of the MTCR into the Foreign Trade Act as a measure and reference to control Strategic Hi-Tech Commodity (SHTC) transfers. The ROC will continue to control the export of sensitive technologies and related missile system items.

Section 3 Military Strategy

In consideration of the regional security environment and strategic postures of Taiwan and potential enemies and under the guidance of national defense strategy, the ROC Armed Forces have adopted a military strategy of "resolute defense, credible deterrence." The ROC Armed Forces upholds a defensive national defense and will never provoke war. However when the enemy initiate an invasion and a war is inevitable, the ROC will integrate its joint forces with all-out defense capabilities to engage in homeland defense, protect territorial integrity and ensure national security.

I. Military Strategic Missions

In order to implement the strategy of "resolute defense, credible deterrence," the ROC Armed Forces must effectively carry out the following missions:

1. Resolute defense to ensure the security of national territory

Homeland defense operations requires the ROC Armed Forces to be able to conduct fortified defense, reinforce and support, and recapture operations in order to sustain enemy's first strike, avert decapitation, and maneuver forces to carry out counterattacks and sustainment. We will adopt a fortified defense, mutually support and recapture measures to achieve "strategic sustainment and tactical decisiveness." Strategically, the ROC Armed Forces will assume a defensive posture to fight for time and space and create advantageous conditions. Tactically, the ROC Armed Forces need to fully utilize favorable conditions of force, space and time, effectively counter enemy's measures, apply all-out defense to resist and defeat enemy invasions and ensure homeland security.

2. Credible deterrence to dissuade enemy's intention of invasion

The ROC Armed Forces should continue force training and combat preparation, effectively integrate the interoperability of weapon systems, enhance joint operational performance, and exert overall warfighting capabilities, forcing the enemy to consider the costs and risks of war, thereby deterring any hostile intention to launch an invasion.

3. Counter blockade to maintain sea and air lines of communication

Most of the ROC's livelihood and strategic supplies are imported. Therefore, SLOCs and ALOCs are critical to national survival. In peacetime, the ROC Armed Forces need to maintain security in surrounding airspace and sea areas. In wartime, the ROC Armed Forces will integrate joint operations capabilities to counter the enemy's blockade against Taiwan, open safe air and sea transportation routes, maintain communication with the outside world, and ensure the continuity of those capabilities.

4. Joint interdiction to delay the enemy from approaching the homeland

Based on the defense operational guidance, the ROC Armed Forces will monitor enemy's avenues of approach and utilize space and time factors to gain advantageous tactical positions, combine joint forces, concentrate superior forces and fires, execute multilayered interdictions, and defeat the enemy in transit.

5. Ground defense to deny enemy landing and setting footholds

If the enemy attempts an amphibious landing with its superior naval and air support, the ROC Armed Forces need to apply the overall capabilities of all-out defense, construct full-dimension, in-depth defensive systems integrate confine and attack, and execute continuous counterstrikes to destroy enemy forces on the beachhead before they secure their footholds.

II. Future Requirements for Defense Operations

In order to fulfill the missions defined in the military strategy and in consideration of the conditions of battle areas in the Taiwan Strait and far out at sea, characteristics of modern warfare, and developments in military technologies and weapon systems, the ROC Armed Forces need to develop our defense operations preparedness according to the following principles:

1. Force planning, building and deployment must focus on preventing the enemy's possible surprise, decapitation, paralysis or other asymmetrical operations, and also focus on strengthening far-seas rapid response and mutually support capabilities, gradually building a modern defense force that meets the requirements of defense operations.

2. Capabilities of each service (branch), force structure, command mechanisms, military doctrines, tactics and operational methods, and education/training should be integrated for joint operations, in hopes of multiplying warfighting capabilities and gaining local superiority.

3. All major weapon systems and platforms should acquire a higher level of systematic links to reduce the time required for the decision cycle of "detect – process – decide – act," so that integrated warfighting

capabilities can meet the objectives of effective and rapid command and control, real-time and uninterrupted communication, and precision and highly effective firepower.

4. Facing the threat of sudden and high-intensity assaults, the ROC Armed Forces, in terms of defense operations, should emphasize redundant capacity and sustainability of operational functions, and enhance critical infrastructure protection to keep it from being paralyzed in the initial stage of military operations and avoid the failure to achieve strategic sustainment.

5. Given the fact that the ROC Armed Forces will be disadvantaged in number of defense operations, capability development should emphasize effectiveness of contingency operations and force/firepower mobility for swifter response and greater agile maneuvers, which will enable the ROC Armed Forces to take advantage of tactical situations and reverse unfavorable conditions.

6. Develop the ROC Armed Forces' "innovative and asymmetric" capabilities targeting the enemy's COG and critical vulnerabilities, to leverage the advantages in time and space in defense operations to block or paralyze enemy attacks.

7. According to the military strategy and concept of "active duty force for strike and attack, reserve force for homeland defense," the ROC Armed Forces will implement military mobilization preparation and integrate force, equipment, and training. It will also enhance coordination with the executive branch of the government in order to mobilize reserve force and materials rapidly to enhance joint operational capabilities and achieve defensive missions.

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Chapter 3

Joint Warfighting Capabilities and Preparedness

2013 Quadrennial Defense Review

Joint warfighting capabilities are the key to victory in modern warfare. All services and branches of the ROC Armed Forces must coordinate and unify their capabilities to exert joint efforts, obtain the best outcome, and accomplish defense missions. Facing enemies with quantitative advantages, the ROC Armed Forces, based on the "innovative and asymmetric" concept, should develop operational capabilities targeting enemies' weakness, maximize the effectiveness of limited defense resources, and plan force development in order to defend the homeland, safeguard sovereignty claims over disputed islands and maritime rights and interests. Furthermore, disaster prevention and relief has been tasked as one of the ROC Armed Forces' core missions. In addition to regular training and exercises, the ROC Armed Forces must strengthen their disaster prevention and relief capabilities and provide local governments with disaster relief assistance in accordance with the law.

Section 1 Main Warfighting Capabilities

I. Joint Counter Air Capabilities

1. Vision

The objective of joint counter air operations is to establish "early detection and warning, long-range precision engagement, and joint multilayered interdiction" capabilities so as to ensure "accurate intelligence, flexible command and control, all-theater defense, and all-weather operations," obtain air superiority in designated airspace, gradually destroy or disable the enemy's air warfighting capabilities, degrade the enemy's operational systems and sustaining capabilities, and secure territorial airspace.

2. Current development

Currently, joint counter air capabilities are developed based on the priority of information and electronic warfare, joint force preservation, joint interdiction, and homeland defense. At present, the ROC Air Force is capable of conducting all-weather air operations and joint interdiction missions as well as coordinating with air defense capabilities of other services to exert joint air defense efficiency and gain local air superiority in operational areas. Faced with the growing threat of the PLA airpower and ballistic missiles, the ROC Armed Forces must strengthen air defense capabilities to ensure local air superiority in the Taiwan Strait.

3. Future objectives

(1) Intelligence collection, early warning, and tactical air control capabilities

a. Build regional operations control centers (ROCC), renew

automatic air defense systems to effectively integrate aerial intelligence and information, establish intelligence and information sharing environments to increase operational effectiveness.

b. Improve the performance of early warning systems to enhance early warning capabilities.

c. Enhance all-weather radar surveillance, missile attack warning, common operational picture (COP), and identification friend or foe (IFF) capabilities.

(2) Air interception capabilities

a. Acquire next-generation fighters (with stealth, air-refueling, long-range and BVR engagement capabilities; equipped with advanced EW systems and air-launched, land-attack, and anti-ship missiles) and UCAS.

b. Acquire long-range missile systems with multi-target engagement capabilities and anti-radiation missiles to enhance air-to-air and air-to-surface combat capabilities of fighters.

c. Continuously build advanced data link systems to enhance digital C2 capabilities of existing fighters and strengthen overall air superiority.

(3) Joint air and missile defense capabilities

a. Integrate early warning radars, missile warning centers, and the Patriot systems and new types of missiles to establish a robust missile defense system and enhance the ROC Armed Forces' overall missile defense capabilities.

b. Integrate short-, mid- and long-range air defense fires and build

a multilayered interdiction network based on the guidance of "first near then far, first low then high, first protect vulnerable points then comprehensive protection" to ensure the security of airspace.

c. Develop new missile defense and low altitude air defense systems to enhance overall air defense capabilities.

(4) Base and position protection capabilities

The protection of critical bases and positions should be made mobile, underground, or into hardened tunnels (shelters). Strengthen counter anti-radiation missiles, camouflage, rapid runway repair, and system redundancy and recovery capabilities.

II. Joint Sea Control Capabilities

1. Vision

Joint sea control operations aim to establish "high quality and efficient, rapid deployment, and long-range strike" capabilities. The future development should lead to the directions of stealth, speed, long-range, mobility, precision, intense firepower, and superior protection. By utilizing integrated command, control, intelligence, surveillance and reconnaissance systems, the ROC Armed Forces will construct three-dimensional mobile maritime strike forces to control our territorial waters, defend against enemy invasions, safeguard sovereignty claims over disputed islands and maritime rights and interests, and ensure security of SLOCs, ALOCs, and freedom of maneuver.

2. Current development

With early warning and maneuver , the ROC Armed Forces are

currently capable of striking enemies with three-dimensional, multilayered interdiction and rapid response capabilities to ensure sea control and protect the safety of SLOCs and bases. In response to the threat at sea and the increasingly complex security situation of surrounding waters, the ROC Armed Forces must develop a number of joint air and sea capabilities to effectively defend the Taiwan Strait and safeguard our territorial waters and maritime rights and interests.

3. Future objectives

(1) Surveillance, early warning and tactical sea control capabilities

a. Expand the area of surveillance over Taiwan's surrounding waters to strengthen early warning capabilities and effectively control naval/air intelligence.

b. Establish an advanced tactical data link and naval/air intelligence C2 system; effectively integrate air, surface and underwater forces to execute joint surveillance, training and exercises, and combat missions.

(2) Surface and underwater operations capabilities

a. Acquire submarines and advanced surface combatants and reinforce airborne anti-submarine and mine warfare capabilities to build an effective sea control and strike force so as to strengthen counter blockade and joint interdiction capabilities.

b. Build a new-generation integrated C2 system, upgrade battlespace management capabilities, including COP display, fleet operational C2, and operations decision making support.

c. Acquire stand-off precision anti-ship weapons to strengthen maritime and airborne interdiction capabilities.

d. Establish a mine warfare research unit and acquire mine hunters to improve mine countermeasure capabilities and ensure the safety of SLOCs.

(3) Logistics support capabilities

Enhance the capabilities of logistics support, rescue, recovery and personnel evacuation, including procuring new models of fast combat support ships (AOE) and salvage vessels (ARS).

III. Joint Ground Defense Capabilities

1. Vision

Joint ground defense operations seek to establish "three-dimensional, digitized, automated, and special operations" ground combat capabilities in accordance with the concept of "active duty force for strike and attack, reserve force for homeland defense," so that joint ground forces may obtain full battlefield awareness throughout the defense operations, defeat the enemy's airborne (heli-borne), amphibious landing, special operations, and infiltration forces, and ensure the safety of regions, bases and facilities.

2. Current development

Current development of joint ground defense capabilities focuses on the enhancement of overall air-land operations and special operations capabilities, obtaining rapid mobile strike capabilities, and preventing the enemy's "decapitation" operations. Furthermore, highly effective long-range precision weapons will be acquired to

gain the ability to strike the enemy in transit and defeat the enemy at the beachhead. In light of enemy threat to our territory, the ROC Armed Forces must strengthen force preservation and counterstrike capabilities to defend our homeland against invasions.

3. Future objectives

(1) Joint anchorage attack capabilities

In accordance with the operational guidance of "attacking the enemy at sea," the ROC Armed Forces seek to enhance detection range of current systems, precision of weaponry, and joint operations capabilities, and effectively integrate C^4ISR systems to establish early warning and long-range precision strike capabilities for defeating the enemy in transit. The ROC Armed Forces will also continue to procure and develop multiple launch rocket systems, UAS, and utility and attack helicopters to execute joint anchorage area attacks.

(2) Beachhead combat capabilities

Based on the guidance of "determined victory at beachhead," the ground forces should stop the enemy from landing and establishing lodgment. In the future, ground forces need to be equipped with weapon systems such as high-effectiveness anti-armor missiles, short-range anti-armor rockets and new type of tanks.

(3) Mobile counterstrike capabilities

Capabilities that require improvement include enhancing troop mobility and fires coordination. In addition, the ROC Armed Forces will continue to produce light and medium tactical

wheeled vehicles and armored infantry combat vehicles to improve mobile strike capabilities. New types of self-propelled howitzers will also be renewed to provide capabilities required for contingency and mobile strike missions.

(4) Anti-airborne (anti heli-borne) capabilities

To achieve the goal of neutralizing the enemy's air-borne (heli-borne) attacks, force rendezvous, and the support for amphibious operations, the ROC Armed Forces must enhance the capabilities of command, communication, surveillance, reconnaissance, and short range air defense (SHORAD).

(5) Mobile surveillance capabilities

Acquire and develop mobile air defense radars, vehicle-mounted air defense radars, and night vision equipment to increase target acquisition capabilities.

(6) Garrison operations

Continue to improve garrison (military police) operational capabilities in conjunction with the overall defense operational guidance and defense requirements to ensure the safety of the nation's capital and critical areas.

(7) Force preservation capabilities

Enhance force preservation measures including critical military infrastructure protection, camouflage, concealment and deception (CCD), dispersion, and mobile deployment to increase survivability and sustainability on battlefields.

(8) Amphibious support capabilities

Establish rapid response and reinforcement capabilities for all theaters of operations (TOs) and offshore islands; procure and develop platforms to support missions, so as to effectively support offshore islands and TOs when conducting ground defense and contingency response operations.

Section 2 Support Capabilities

I. Joint C^{4}ISR Capabilities

1. Vision

The Armed Forces' joint C^{4}ISR aims to gain real-time battlespace information by constructing a networked system, integrating C2 centers, weapon platforms and surveillance systems via advanced information and communications technologies, and applying innovative concepts and battlefield management systems.

2. Current development

The ROC Armed Forces have integrated main C2ISR system data links, built an automated air defense C2 system, established C2 joint operating environment regulations, enhanced joint communications system capabilities, strengthened communications security mechanisms, and established mid- to long-range surveillance systems to enhance joint C^{4}ISR capabilities. The ROC Armed Forces must strengthen battlespace management, command, control, intelligence and early warning capabilities to accurately monitor enemy activities and flexibly execute force maneuver.

3. Future objectives

(1) C2 systems

a. Enhance C2 performance: Continue to enhance the performance of existing C2 systems, satisfy data link bandwidth requirement, and increase security and jamming resistant capabilities based on information and communications technologies (ICT) development trends so as to strengthen command, control and intelligence measures and improve survivability on battlefields.

b. Complete platform linkage: Continue to expand platform data link systems to effectively conduct tactical C2 measures, including command and control of forces, target allocation, fires coordination, and battle damage assessment, thereby defeating the enemy.

c. Establish ground force C2 systems: Continue to build ground force C^4ISR systems based on the joint defense operations concept so as to strengthen battlefield management and C2 performance, thus improving overall operational capabilities.

(2) Communications systems

a. Integrate communications platforms: Integrate radio networks at various operating bands, land-line telephones and Voice-Over IP (VOIP) telephones of command posts at each echelon; improve the interoperability of existing and new communications equipment, and enhance voice C2 functions.

b. Strengthen radio communications networks: Procure and develop new ultra-high and high frequency radios, construct a frequency-hopping, secure and jamming resistant radio

networks, and obtain robust mobile communications capabilities to promote C2 and information distribution.

c. Utilize civilian communications resources: Plan and develop a military mobile broadband network platform in coordination with domestic civilian mobile communications facilities, thereby satisfying the requirements of C2 communication for ground operations and disaster relief missions.

d. Develop communications security devices: Develop security modules for new communications devices, strengthen the robustness of encryption, and improve maintenance and management of encryption devices to ensure information and communications security.

(3) Intelligence, surveillance and reconnaissance systems

a. Extend the surveillance coverage: Effectively employ mid- and long-range electronic surveillance systems, extend ground, sea and air surveillance capabilities, integrate C2 systems, establish COP, and share battlefield information to enhance early warning capacity and battlefield transparency.

b. Improve reconnaissance techniques: Strengthen electronic parameter reconnaissance capabilities, gradually increase mobile reconnaissance equipment, and provide operations centers (command posts) at each echelon with integrated warning information.

II. Joint Information Operations and Electronic Warfare Capabilities

1. Vision

Joint information operations (IO) and electronic warfare (EW) aim to establish "early warning, rapid response, effective countermeasures, and delaying enemy attack" capabilities so as to defend the security of our C2 systems, fire control, radar systems, and communication platforms, and to avoid enemy exploitation, paralysis and sabotage. This will ensure comprehensive information and electronic security and advantages throughout defense operations.

2. Current development

At present, the ROC Armed Forces have integrated information security mechanisms and continue to expand electromagnetic parameter databases and EW protection capabilities for important C2 nodes, effectively enhancing joint IO and EW capabilities. Confronting a complex IO and EW environment in the future, the ROC Armed Forces must strengthen their information, network and electronic protection capabilities to ensure information and network security as well as EW protection performance.

3. Future objectives

(1) Joint IO capabilities

a. All information security systems and mechanisms should be integrated to increase early warning and joint information security capabilities.

b. Security and protection measures of military networks should be coordinated, and measures such as joint surveillance and reconnaissance should be utilized to enhance the capacity of various information security protection networks.

c. Introduce the latest military information security technologies for the military purpose of enhancing information security and operational capabilities.

d. Standardization of the ROC Armed Forces' information organization and manpower allocation should be planned to educate and train information specialists so as to enhance emergency response capabilities for information security.

e. Continue to develop comprehensive information warfare capabilities to ensure IO and EW superiority.

(2) Joint EW capabilities

a. The ROC Armed Forces will incorporate EW development trends of other countries into EW development and gradually increase and integrate future EW C2 platforms in order to consolidate overall warfighting capabilities.

b. The ROC Armed Forces should apply their initial EW capabilities and coordinate the planning of electromagnetic protection capacity to increase battlefield survivability.

c. Early warning capabilities of all major combat forces will be coordinated with electromagnetic protection capacity of major positions to establish comprehensive joint EW protection capabilities.

Section 3 Logistics Readiness

I. Vision

The ROC Armed Forces' objective for logistics readiness is to establish "precise logistics management and rapid logistics support" capabilities. It will integrate logistics capabilities of each service and combine resources of the defense industry and private sectors to augment logistics and material mobilization capacity, construct a comprehensive logistics support system, and enhance logistics operations efficiency in order to effectively support defense operations.

II. Current Development

The ROC Armed Forces' current focuses of logistics readiness are organizational restructuring and performance enhancement. The Main tasks include designating the Army Headquarter responsible for general logistics support for the ROC Armed Forces and each service for service-centric logistics; expanding business commission, outsourcing manpower, privatizing state-owned enterprises and hiring contracted employees so as to release logistics personnel quota for combat manpower; refining warehouse management to enhance the effectiveness of asset utilization; strengthening emergency maintenance and repair capabilities to provide better logistics support during peacetime and wartime; and improving the logistics management system to effectively control logistics capacity and satisfy requirements for training exercises.

III. Future Objectives

1. Integrate logistics capabilities of the ROC Armed Forces

Appropriately streamline forces in coordination with logistics organization restructuring and outsourcing; at the same time, simplify work contents and operating procedures to integrate logistics capabilities of the ROC Armed Forces.

2. Establish contract management capacity

Actively cultivate professional contract management personnel and strengthen outsourcing contract management and performance assessment to lower the risk of outsourcing, improve contract management effectiveness, and properly implement outsourcing operations.

3. Develop a central supply database

Use configuration data and logistics information system to sequentially integrate information of spares and parts of the three services, and develop a central supply database to accurately monitor the overall status of military assets, improve military supply management, and enhance asset utilization effectiveness.

4. Enhance the efficiency of logistics support

Establish a "supporting force control system" for logistics transportation forces to effectively manage the location and status of vehicles, and thus enhance the efficiency of logistics support.

5. Integrate logistics information systems

Develop logistics management systems, apply information technology for the development of data link interface and data warehouse mechanisms, integrate military logistics readiness information, and effectively control logistics resources to improve management performance.

Section 4 Reserve Mobilization

I. Vision

The objective of reserve mobilization is to establish "timely mobilization and engagement" and "on-site mobilization and engagement" capabilities. In accordance with the All-out Defense Mobilization Preparation Act and through the all-out defense mobilization mechanism, the MND will effectively integrate the administration systems and properly utilize national resources to achieve mobilization readiness and support military mobilization with collective efforts. Furthermore, the principle of "accurate mobilization operations, swift force composition, and rapid capability recovery" will be applied to refine the mobilization policy, consolidate reserve capabilities, and accomplish defense operations.

II. Current Development

The focus of the ROC Armed Forces reserve mobilization at the current stage includes amending mobilization laws and regulations, expanding the functions of mobilization preparation meetings at each level, developing inventory, management, and certification mechanisms for civilian mobilization supplies, improving defense mobilization exercises, and enhancing training on disaster prevention and relief during mobilization recalls. Currently, these measures

have effectively integrated all-out defense mobilization capabilities and increased the reserve mobilization force capacity, fulfilling the reserve mobilization policy of joint disaster relief during peacetime and operational support during wartime. In the future, the ROC Armed Forces will continue to implement all-out defense and military mobilization measures to ensure the capabilities of the reserve force.

III. Future Objectives

1. All-out defense mobilization

(1) Amend laws and regulations in coordination with government policy

In response to organizational restructure of the "Jingtsui Program" and implementation of voluntarism, the MND will review and initiate amendments to the All-out Defense Mobilization Preparation Act, Management Regulations for Reservists and Regulations for Reserves Summons so as to establish a robust legal foundation and mobilization mechanism to support military operations and disaster prevention and relief missions.

(2) Expand functions of mobilization preparation meetings at each level

Utilize the all-out defense mobilization system, three-level meeting system (Executive Yuan, government agencies and county/city governments) and four-level project system (outline, project, classification, and execution) to incorporate central and local governments' efforts. Furthermore, through the three-in-one meeting of "mobilization, capabilities incorporation and

coordination, and disaster prevention and relief," the capacity of state-owned and private sectors, social welfare organizations and other civilian groups can be effectively integrated.

(3) Implement survey, inventory, and management of civilian supplies

Implement survey, inventory, and management of civilian supplies with the "supply mobilization, inventory, and management data system" to effectively control mobilization capacity of vehicles, heavy machinery, ships, aircraft, fixed facilities, medical institutes and other important supplies, thereby achieving the objective of providing necessary supplies when required.

(4) Strengthen defense mobilization exercises

Organize the annual "All-out Defense Mobilization (Wan An) and Disaster Prevention and Relief Exercise" with an emphasis on response to large complex disasters. Utilize the exercise to refine command mechanisms at each level, integrate resources, employ the capacity of private organizations, and enhance cross-regional support capabilities so as to replenish battlefield loss and meet the requirement of disaster prevention and relief during peacetime.

2. Military mobilization

(1) Strengthen manpower management and utilization

In accordance with voluntarism, draftees will receive military training based on military occupational specialty demand. After completing the training, draftees will be listed in the "reserve

personnel management information system" in order to expand reserve manpower and improve process flow. In addition, based on the principle of "putting younger personnel on combat duty and senior on skilled duty" and "recently discharged first mobilized," personnel discharged from the military within eight years will be on the priority list for the reserve force order of battle to ensure reserve force combat power.

(2) Conduct comprehensive reserve force training

Implement five- to seven-day education recall of reserve force biannually and one-day training recall of military service companies with an emphasis on specialty refresher training, marksmanship training, basic combat training, combined training, disaster prevention and relief, reserve-focused subjects, and service expertise. This will enhance the cadre members' ability to execute readiness missions and soldiers' combat skills, thereby consolidating and maintaining combat and disaster relief capabilities of reservists.

(3) Improve military mobilization exercises

Combine "Tung Hsin" and "Tzu Chiang" mobilization exercises based on the scenarios framework of the "Han Kuang Exercise" to validate reserve force generation, pre-combat refreshment training, supplies, vehicle mobilization, and homeland defense capabilities, thereby improving military mobilization exercises and enhancing joint operations performance.

(4) Utilize reserve force for disaster relief

In response to the demand for disaster prevention and relief during the flood season, training of recalled reserve force

will adopt the method of "overlapping batches and flexible adjustment." This will maintain the disaster relief capabilities of reserve force, so that they may assist with disaster relief missions along with the active duty force on order.

Section 5 Joint Disaster Relief

I. Vision

Disaster prevention and relief has been tasked as one of the ROC Armed Forces' core missions. Under the President's guidance of "emphasizing disaster prevention over disaster relief, and prioritizing disaster avoidance over disaster prevention," the ROC Armed Forces will adopt the measures of "preparing for disasters in advance, prepositioning troops with an eye to disaster preparedness, and ensuring readiness for rescue operations" to complete personnel and supply mobilization and provide support to local governments for disaster prevention and relief to enhance the nation's overall disaster prevention and relief capabilities.

II. Current Development

In recent years, the ROC Armed Forces have enhanced their overall disaster prevention and relief capabilities to a level that can meet the demand of local governments. This was achieved by strengthening communication with local governments, complex disaster prevention and relief deployment, and the utilization of reserve forces for disaster prevention and relief. Faced with the threat of natural disasters, the Armed Forces are currently reinforcing their disaster relief capabilities to provide support to disaster relief missions of governments at all levels.

III. Future Objectives

1. Implement disaster avoidance and readiness measures

The ROC Armed Forces will continue to work with local governments' surveys in potential disaster areas and assist with the early evacuation, accommodation and settlement of civilians. Live exercises will be conducted to validate results, so that local governments will be able to timely evacuate civilians reside in high-risk areas before a disaster occurs.

2. Participate in international humanitarian assistance

The ROC Armed Forces will continue to execute international humanitarian assistance operations in coordination with the government's overall foreign policy and regulations of the International Cooperation Development Law.

3. Refine disaster prevention education/training

The ROC Armed Forces will cooperate with the National Fire Agency to incorporate the military, police, fire departments, civilian disaster relief organizations and specialized personnel in joint training for disaster prevention and relief so as to establish communication networks and cultivate joint disaster relief capabilities to enhance the nation's overall disaster prevention and relief capabilities.

4. Improve the effectiveness of disaster relief equipment

The MND will procure equipment adequate for both military operations and disaster relief missions and adjust such procurement annually to improve the ROC Armed Forces' ability to assist in disaster relief.

Section 6 Overall Intangible Combat Capabilities

I. Vision

The ROC Armed Forces' intangible combat capabilities include military philosophy, military ethics, and military arts. The objectives are to "solidify national identity, cultivate patriotic integrity, nurture honorable virtues, emphasize military discipline, harness force solidarity, consolidate the will to win, counter enemies' psychological operations, and establish all-out defense." Overall intangible combat capabilities are developed to build a loyal, unified, consolidated, and sophisticated modern military.

II. Current Development

The ROC Armed Forces aim to enhance their psychological warfare defense, inspire patriotism among servicepersons, maintain mental health of personnel, emphasize strict discipline, strengthen internal security, and improve their image through a number of measures, including psychological warfare training, cultural publicity education, counseling, military discipline maintenance, corruption prevention, ensuring internal security and counter-espionage and media. The Armed Forces must continue to implement political warfare measures in response to future enemy threats, boost morale, and maintain military discipline, and thus enhance their overall intangible combat capabilities.

III. Future Objectives

1. Strengthen psychological warfare effectiveness

In response to enemy threats and Mainland China's "three-front war," the ROC Armed Forces must continue to enhance psychological warfare intelligence gathering and analysis

capabilities, develop information and electronic equipment and innovative tactics and techniques for psychological warfare, and strengthen servicepersons' mental health and threat awareness, in order to establish superior psychological warfare capabilities. Furthermore, to achieve the objective of war prevention, the ROC Armed Forces will advocate the concepts of freedom and democracy through psychological warfare communication platforms, in order to win over the hearts and mind of the citizens of Mainland China and friendly nations, guide public opinions, enhance effectiveness of public outreach, thereby lowering the possibility of military conflicts.

2. Deepen the influence of cultural education

The purpose of cultural education is to communicate core values of intangible combat capabilities. The ROC Armed Forces aim to enrich educational content through comprehensive and systematic curriculum for military schools, forces, new recruits and reservist education so as to firmly establish the belief in "fight for the survival and development of the ROC, and fight for the safety and welfare of citizens in Taiwan, Penghu, Kinmen and Matsu," and thus engender a sense of honor and responsibility among servicepersons. The ROC Armed Forces will further strengthen patriotism of all servicepersons, so that they will pass on our honorable history, demonstrate loyalty, and abide by military ethics.

3. Enhance counseling functions

Innovative concepts and flexible methods should be adopted to enhance the performance of the ROC Armed Forces' "three-level

guardian system," including strengthening the linkage between military medical systems, establishing a sound suicide prevention mechanism, implementing a counseling and supervision system, procuring scientific instruments and equipment, constructing a counseling information platform, stepping up disaster relief-related counseling work, and conducting specialized studies. Furthermore, capabilities of social welfare organizations should be integrated to help servicepersons adapt to life in the military to enhance overall combat power.

4. Persist in maintaining military discipline

Stimulate morale through daily management, education and training and internal and external control; reinforce the concept of obeying disciplines, following orders and promoting integrity; and cultivate military honor and morality so as to unify the forces and ensure warfighting capabilities.

5. Dedicate to internal security and counter-espionage

In response to the current security situation and enemy threats, the MND should actively strengthen its counter-intelligence security mechanisms. The MND will increase military personnel security awareness through flexible internal security education, consolidate defensive information security through intensive security inspection training, ensure the integrity of military personnel through integrating security investigation capacity, prevent and manage violations through the enhancement of control over situation, and expand intelligence sources to eradicate enemies' espionage activities and ensure the security of the ROC Armed Forces.

Chapter 4

Defense Organization and Transformation

2013 Quadrennial Defense Review

The ROC Armed Forces have stepped up defense reform since the successful implementation of the National Defense Act and Organization Act of the Ministry of National Defense (simplified as the "Two Defense Acts" hereafter). However, faced with the development of cross-Strait and regional security situations, and the rapid development of military technologies and changes in forms warfare, the MND must continue to dedicate its efforts to defense reform and transformation. In light of requirements for joint capabilities development, future defense transformation will focus on adjusting the organizational structure, integrating defense resources, and strengthening warfighting capabilities. The MND will also gauge a balance between military modernization and force streamlining in order to build a "small but superb, small but strong, and small but smart" elite force that can respond to different defense challenges.

Section 1 Organizational Structure

I. Refine Planning Mechanism for Force Buildup

Base on the "innovative and asymmetric" concept, the ROC Armed Forces will replace "balanced force buildup" with "mission-oriented, prioritized force buildup." In consideration of cost effectiveness, defense resources allocation will concentrate on building strategically sustainable joint operations forces to acquire superior capabilities in critical time and space to win defensive operations. Specific measures are as follows:

1. Based on the strategic guidance of the QDR, force buildup planning is conducted following the chain of guidance of "Defense Strategy → Military Strategy →Ten-Year Force Buildup Concept → Joint Warfighting Capability Planning →Five-Year Force Construction Plan → Five-Year Administration Plan → Annual Administration Plan and Wartime Administration Plan." The force buildup and defense readiness planning is guided by the President's national security guidance and the MND's defense strategy. The planning mechanisms will support the President's and Ministry's defense strategy and guide the direction of force buildup.

2. To procure weapons and equipment required for joint operations, future military investment programs will make adjustment according to "Joint Warfighting Capability Planning." The investment plans must complete "Operational Requirement Documents" before being included in the Five-Year Force Construction Plan and proceeding to the stage of "system analysis" and "investment outline plans." This will ensure the effective utilization of defense resources and further achieve the objectives of force buildup and defense readiness.

II. Streamline the Defense Organization

The ROC Armed Forces has implemented the "Jingtsui Program" from 2011 to the end of 2014. The program was planned based on the enemy threat, national security situation, overall resource distribution, and implementation of voluntarism in order to build a defense organization that can meet future requirements of wars.

Each unit in the defense organization is given specific area of responsibility and functions based on "accountability to specialization." These responsibilities and functions include defense administrative affairs, strategic planning, integrated assessment, resource allocation, manpower resources planning, all-out defense mobilization, legal affairs, inspector general, procurement, military ethics, comptroller, military medical affairs, and armaments. In addition, defense organization tasks include force buildup and readiness, force training, establishing the order of battle, and formulating and executing operational plans. The adjustments of the organizational structure are as follows:

1. Ministry of National Defense

(1) The 6 departments and 6 offices with 25 divisions are adjusted into 4 departments and 7 offices with 28 divisions.

(2) The Inspector General's Office, Defense Procurement Office, and Ethics Office have been established; Chung-Shan Institute of Science and Technology will be converted into an administrative institution once the amendment to the Organization Act is passed and takes into effect.

(3) The 6 military service HQs (Army, Navy, Air Force, Combined Logistics, Reserve, and Military Police) are merged into three HQs (Army, Navy, and Air Force). The Reserve and Military

Police Commands are transferred and subordinate to the General Staff Headquarters.

2. General Staff Headquarters

(1) The 7 offices and 28 divisions (centers) are adjusted into 6 offices and 23 divisions (centers).

(2) The Office of Deputy Chief of the General Staff for Training is established, and the General Affairs Office disbanded.

(3) The Air Defense Missile Command is established.

(4) The MND has identified disaster prevention and relief as one of the ROC Armed Forces' core missions and adjusted the force structure of each military service based on strategies, tactics and equipment acquisition so that they are capable of conducting disaster relief missions during peacetime and combat missions during wartime.

3. Services headquarters and the Reserve and Military Police Commands

The military services headquarters and the Reserve and Military Police Commands will develop comprehensive functions including force planning, warfighting preparation and training, force management, and service-oriented logistics in order to enhance force development and readiness capabilities. During peacetime, the services commands are responsible for major tasks of force development and readiness. In wartime, the military services will carry out missions as ordered and sustain warfighting capabilities.

III. Build a Suitable Force

Based on the enemy threat, national security situation, the overall resource allocation, and the idea of "combat, equipment, organization, and training," the MND will build joint forces suitable for the future operational environment. At present, the MND is implementing the "Jingtsui Program" in accordance with voluntarism and the principle of "streamlining active duty force and expanding reserve force." The force level of the ROC Armed Forces will be reduced from 275,000 to 215,000 by the end of 2014. Since the implementation of the "Jingtsui Program" from 2011 to the end of 2012, the personnel of the ROC Armed Forces has been reduced by 35% as planned. We will review the appropriateness of the organization and force structure of the "Jingtsui Program" based on the program schedule and the implementation of voluntarism and continue to adjust accordingly. The main force structure of the ROC Armed Forces will be as follows:

1. Army

(1) Army corps command × 3, army aviation and special operations command, and regional defense command × 4.

(2) Education, Training and Doctrine Development Command and Logistics Command.

(3) District command × 4 and artillery command × 3.

(4) Combined arms brigade × 7 (including mechanized infantry brigade × 3, and armored brigade × 4).

(5) Recruit training brigade × 6.

2. Navy

(1) Fleet Command (including flotilla × 6, squadron × 1, and group × 1), Navy Aviation Command, Maritime Surveillance & Reconnaissance Command, and offshore island commands.

(2) Marine Command (including Marine brigade × 2, and group × 5).

(3) Education, Training and Doctrine Development Command and Maintenance and Support Command.

3. Air Force

(1) Joint Air Operations Command (including Combat Control Wing, Communications, Navigation and Information Wing, and Meteorological Wing).

(2) Education, Training and Doctrine Development Command and Maintenance and Support Command.

(3) Tactical fighter wing × 7 and Song-shan AFB Command.

(4) Air Defense Artillery Command (including air defense artillery group × 2).

4. Reserve Force

(1) Regional reserve command × 3, county and city reserve command × 18.

(2) Reserve force training center × 3.

(3) Augmentation in wartime: Ground reserve, service support reserve, political warfare reserve, and naval shore-based reserve forces.

5. Military Police

Regional military police command × 4, military police station × 21, military police battalion × 5.

6. MND Subordinate Combat Forces

(1) Air Defense Missile Command.

(2) Joint Information Operations Command.

Section 2 Resource Management

I. Refine Armaments Management

1. Principles for refining the armaments development mechanism

(1) The sequential acquisition of weapons and equipment should be based on security threats, military strategic concepts, and future joint operations requirements and should give consideration to weapons development trends of advanced countries, as well as domestic technological level and financial condition. Its purpose is to achieve armaments readiness and enhance capabilities of the ROC Armed Forces.

(2) Armaments development should be based on armaments strategic planning, which consists of acquisition, technology and logistics strategies. These strategies aim to enhance self-reliant defense capabilities, refine the weapons and equipment lifecycle management mechanism, support force buildup and readiness, and outline the measures for armaments readiness.

2. Plans for advancing the armaments development mechanism

(1) Military investment plans

Weapon systems are acquired based on the principle of "procuring mainly indigenously-made weapon systems and

complementing them with imported weapon systems." The best acquisition approach is determined cautiously in accordance with the guidance of "prioritizing joint R&D and production over procurement off the shelf." Furthermore, all military investment plans are implemented in coordination with the timetable of military development to obtain maximum investment benefits with the most reasonable costs in the shortest time period.

(2) Defense technology development

Given the expected technology developments in the next 15 to 25 years, the requirements for joint operations and the existing core R&D capacity, the MND, with the emphasis on maintaining fundamental warfighting capabilities and developing "innovative and asymmetric" capabilities, has combined domestic R&D capacity and laid down short-, mid-, and long-term objectives to establish a sustainable defense technology mechanism to maximize the domestic R&D capacity and application of technologies.

(3) International armaments exchanges

With the objective of "sharing resources for mutual benefits," the MND will continue to establish armaments exchange mechanisms and sign related agreements with advanced countries to promote technology information exchanges, technology transfer and joint technology R&D so as to gradually establish the R&D capacity for indigenous production of weapon systems.

(4) Acquisition project management

Strengthen project planning, control and supervision measures, review and amend regulations regarding weapon acquisition

based on experiences in acquisition management, organize weapons acquisition training, and cultivate high-quality specialized manpower to enhance effectiveness in weapons and equipment acquisition.

(5) Promotion of the Transformation of the Chung-Shan Institute of Science and Technology

a. Transformation of the Chung-Shan Institute of Science and Technology from a military into an administrative institution will continue to be implemented to enhance domestic technology development capabilities and improve the benefits of technology transfer so as to perfect regulation and operating mechanisms, introduce corporate management, and enhance organizational effectiveness.

b. Strengthen scientific research capabilities, refine core research capabilities, and expand the transfer of dual-use technologies to the private sector through flexible organizational, personnel and procurement systems so as to drive development of the domestic technology industry, attract quality talent and enhance both defense technology and economic development.

II. Maximize the Utilization of Defense Resources

1. Development and utilization of defense financial resources

Government finances have been limited in recent years due to the economic downturn, and defense financial resources are constrained consequently. However, the demand for defense financial resources has been growing year-to-year because of the implementation of

voluntarism, the acquisition of major weapons and equipment, and the weaponry maintenance and repair peak time. To realize defense objectives, the MND will actively raise a reasonable and suitable budget, properly allocate resources to mitigate the impact on mid- and long-term administrative programming, and ensure consistent force development and readiness.

Future defense budgetary allocation will be based on the concept of "zero-based budget" and the procedure of "PPBS." Administrative requirements and program priorities will be comprehensively reviewed with an emphasis on legally obligated expenses consequent to the implementation of voluntarism, maintaining the readiness of battle equipment, and acquiring major weapon systems and equipment. Moreover, control mechanisms will be reinforced to maximize the cost-effectiveness of the limited financial resources.

2. Defense funding and resource management

(1) Implement PPBS

a. Properly allocate financial resources: With limited defense financial recourses, the MND will properly allocate budgets for personnel maintenance, operational maintenance, and military investment based on the priority, necessity, and urgency of each of the three categories. Each military service is required to prudently control and utilize its budget in accordance with the principle of PPBS and the concept of "zero-based budget."

b. Increase budget flexibility: Under the Organization Act and by adjusting the organizational structure and integrating functions of different units, the MND will, with existing

budget and implementation of projects, review the organizational integration and streamlining to increase budget flexibility and cost-effectiveness.

c. Adjust budget in accordance with law: Surplus funds of each year should be appropriately used for urgent or unexpected needs based on the principle of effective utilization and in accordance with law through a budget adjustment and control mechanism, thereby improving budget efficiency.

(2) Refine cost planning

a. Military cost analysis capabilities will be developed by feeding data on military expenses to the five-year administration plan and annual budget, establishing and verifying a database on military institutions training cost and military personnel expenses, and analyzing operation and life cycle costs of major weapon systems and equipment.

b. The MND will verify and investigate cost data and integrate the Executive Yuan's new accounting system and the information system to provide real-time and complete cost information to enhance accounting management effectiveness.

(3) Integrate statistical information

a. Periodically revise statistical statements based on current policies to ensure that data are up-to-date and complete. Furthermore, use the statistical data assessment mechanism to increase the accuracy of statistical data for military statistical analysis and serve as a basis for decision-making and administration plans.

b. Enhance the effectiveness of defense statistical information service through the data integration of annual statistics reports, administration statistical plans and general survey, and the incorporation of databases of military costs, logistics management, disaster relief resource management, and personnel management. Furthermore, the statistics generated by analytical projects will be provided and serve as a reference for budgeting, policy decision and cost effectiveness assessment.

(4) Thorough internal control

a. Based on the spirit of rule of law and anti-corruption determination, the MND has formed an internal control ad hoc committee under the Executive Yuan's policy guidance that establishes internal control mechanisms for the ROC Armed Forces at each level to curb corruption and manage risk.

b. Assess the importance and risk of the administration of each unit, examine operation control mechanisms, introduce internal control factors and concepts, and establish common operation examples to enhance administrative performance.

(5) Integrate funding resources

a. Adopt corporate models for special funds and utilize business administration concepts for cost-effectiveness. Furthermore, funding sources and defense budgets should be integrated in accordance with law and affordable range to maximize the effectiveness of financial management.

b. Enhance overall operational effectiveness through business alliance and specialized integration, the incorporation of "service industry" into "welfare and education industries", and the streamlining of the organizational structure and operational procedures.

III. Combine Defense and Civilian Needs

1. The development of a self-reliant defense industry

(1) For any military investment project worth over NTD 50 million, the MND will ask the Industrial Development Bureau of the Ministry of Economic Affairs (MOEA) to invite domestic experts and scholars to evaluate the production capacities of local companies. The MND will give priority to items which can be indigenously produced (procure locally) to fulfill the policy of developing a self-reliant defense industry.

(2) For any foreign military procurement worth over USD 5 million, the MND will carry out industrial cooperation offsets and request at least 40% of the total cost for industrial cooperation. Based on the "Regulations on Industrial Cooperation Requirement Planning and Application" and to favor both the defense application and industrial development, the MND divides the aforementioned fund equally to the defense application and industrial development. In the future, the MND will allocate 60% to the defense application and 40% to the industrial development so as to improve the capacity of domestic defense industry.

(3) The "Ad Hoc Committee Coordination Department of Defense Industry" jointly formed by the MND and the MOEA establishes a supply chain of subsystems, modules and parts, accelerates

development of the defense industry, drives industrial upgrade, completes the military supply system, and enhances outsourcing effectiveness.

2. Military-civilian dual-use technology development

Following government policy, the MND will encourage the private sector to participate in military R&D and production, build a two-way mechanism and operating platform for technology transfer from military to civilian and vice versa, and develop innovative dual-use technologies. Implementation of the MOEA's "critical technology," "traditional industry revitalization" and "defense outsourcing" will work to create a self-reliant defense industry and stimulate economic growth, creating value for both the military and the civilian.

3. Defense outsourcing

(1) Pursuant to Article 22 of the National Defense Act, which aims to develop a self-reliant defense industry, and in coordination with the Executive Yuan's policy of revitalizing the economy and expanding domestic demand, the Armed Forces' R&D, production and maintenance of weapons and equipment and procurement of general military products will be outsourced to the private sector.

(2) Based on the principle that "the ROC Armed Forces will not produce or import products that can be supplied by domestic manufacturers," the ROC Armed Forces will outsource non-sensitive, low priority and non-essential capabilities to the private sector and encourage domestic firms to participate in the

defense industry in hopes of achieving a self-reliant defense and vibrant domestic industries.

(3) When procuring high-tech weapon systems from other countries, the MND will make effort to set the production and assembly line in Taiwan or require that maintenance know-how be transferred to domestic firms so as to ensure future maintenance and repair capabilities and upgrade the domestic technology industry.

4. Overall military base usage

Based on the concept of balanced development of national security, local development, civilian needs and disaster prevention and response, but without affecting defense readiness, the MND will review the use of military bases in accordance with the "Regulations on Release of Military Bases" to realign force deployment and reduce restricted areas so as to conserve management manpower, release land for economic and local development, stimulate economic growth, thereby accomplishing integration of defense and civilian needs.

IV. Step Up Defense Talent Cultivation

1. Vision of defense talent cultivation

Talent cultivation in the ROC Armed Forces is "purpose-oriented and plan-based" and aims to create general and specialized military and civilian personnel with dedication, talent, and diligence. In the future, the MND will continue to refine its education system based on requirements for transformation into voluntarism, developments of defense affairs, developments of military technologies, and future

warfare trend so as to accumulate high quality manpower and satisfy defense requirements.

2. Planning for defense talent cultivation

(1) Cultivate talents for strategy and command & staff

a. Strategy and command & staff education emphasizes the cultivation of internationalized and specialized talent, as well as the improvement of course design for strategic planning, operations, command, and disaster prevention and relief to enhance the quality of commanding officers.

b. The MND will continue to review training programs for sending officers to foreign war colleges, command & staff colleges, and think tanks so as to expand their international perspectives and enhance their strategy and command & staff competencies.

(2) Promote postgraduate education

a. Enhance the professional competencies of the ROC Armed Forces by adjusting the quota and supporting measures for personnel pursuing a master's or doctoral degree and thereby satisfying the demand for well-trained staff, defense technology R&D personnel and military institute faculty.

b. Full-time programs in military institutes are designed primarily for cadre members of basic level units and specialized military branches and will foster their military competencies and specialty in courses so as to build the foundation for further development and professional skills. Cadre members of agencies, maintenance depots, and military

schools will receive after-hours training in order to raise the quality of manpower resources while conserving defense resources.

(3) Improve efficiency of training programs through foreign military sales (FMS) channels

a. Continue to implement training programs through FMS channels to cultivate military professionals in such areas as weapon and equipment operation and maintenance, tactics and combat skill specialized training, military exercises, and international strategic exchanges.

b. Continue to review and refine the process and measures of training programs through FMS channels, such as application, training, evaluation, assignment, and expanding domestic training in order to maximize the effects of training results to enhance the ROC Armed Forces' military professional knowledge and skills and to increase resources investment rewards.

(4) Implement policies of the Non-Commissioned Officer (NCO) system

a. Implement the five-core policy, including the implementation of the NCO system, responsibility assignment, confidence building, professional training, and career management, to build an independent and comprehensive NCO development system and consolidate capabilities of basic level forces.

b. Annually adjust NCO Corps organization and training pipelines, verify the current decentralization status of officers

and NCOs at each unit, and ensure the functions of "officers for planning, and NCOs for executing," so that NCOs will be empowered to fully utilize their expertise.

(5) Strengthen the occupational skills of NCOs and the enlisted

a. In order to expand the sources and expertise of NCOs, those with at least a junior college degree will become the backbone of forces and will be complemented by NCOs with high (vocational) school education to fill basic level requirements. Furthermore, basic, expertise, continuous education, and certification courses will be offered according to the experience of NCOs, the NCO education system, and mission characteristics of each military service, thereby satisfying the demand for professional NCO competencies.

b. Assist NCOs in acquiring technical skills certificates via the current training mechanism, and encourage NCOs to pursue further education and acquire a degree, so as to improve the quality of NCOs and enlisted, satisfy the demand for high-tech manpower of a volunteer force, increase recruitment incentive, and enhance the retention of NCOs and enlisted.

(6) Enhance military civilian training

a. Improve training system: Military civilians should be subjected to professional military education based on career development requirements and suitable training courses should be tailored to competencies required by military civilians' positions. These measures aim to reconstruct a hierarchical training system based on the MND's civilian official structure and current duty assignment, strengthening the role of military

civilians in defense policy. Furthermore, the Executive Yuan's training policy will be combined with the MND's civilian training system to establish a general education doctrine for MND civilians, which will be included in the military doctrine development system so as to cultivate civilian officials with both defense expertise and general knowledge. In the future, strategic human resource management will be employed to include civilian official evaluation and promotion mechanisms in the MND's training system. Planned education and position assignment will improve the quality of civilian officials and improve the likelihood that they will serve longer.

b. Integrate training resources: A special unit is designed to manage the implementation of civilian official education and training programs, formulation of comprehensive training plans, integration of training site information, construction of a database on lecturers for each field, and coordination of external training institutes for offering training courses. The unit will utilize limited resources to improve the MND's performance in civilian official training.

Section 3 Warfighting Capacity

I. Promote Voluntarism

1. Rationale for the transformation into a volunteer force

(1) In response to changes in the strategic environment, development of high-tech weapons, the low birth rate in Taiwan, and with the consideration of the nation's long-term development

requirements, the MND will implement complementary measures, refine equipment readiness, strengthen force training, and promote the transition to voluntarism under the premise of ensuring national security and maintaining the constitutional obligation of military service.

(2) After the transition to voluntarism is implemented, the active duty force will consist of volunteers, who will undertake contingency response and disaster relief missions during peacetime and execute homeland defense along with the reserve force during wartime. Original conscription will then be converted to compulsory military training service. Draftees will receive short-term basic military training and be incorporated into reserve personnel management. During wartime, they will be immediately mobilized to support homeland defense operations.

2. Transformation objectives

The military service system will be transformed into a volunteer system in accordance with the Executive Yuan's guidance. The policy objectives are as follows:

(1) Build a professional Armed Forces

Recruit high-quality and adaptable volunteers to form a highly professional active duty force and meet the needs of high-tech and informatized modern warfare.

(2) Implement a volunteer system that meets national conditions

The constitutional obligation of military service will remain after the transition is implemented ; the 1-year service period will be

converted into a 4-month military training so as to maintain a sufficient reserve force.

(3) Strengthen the capabilities of the active duty force

Implement the streamlining and elite-force building policy and improve education and training to elevate defense readiness and capabilities of the volunteer force, forming a strong active duty force.

(4) Establish credible reserve capabilities

Strengthen the "all-out defense mobilization" mechanism to improve the readiness of reserve force personnel, organization, equipment and training, enhancing homeland defense capabilities of the reserve force.

(5) Create a better service environment

Create incentives, including better service environment, better medical care and dependent welfare, and comprehensive career planning, to recruit and retain young talents in the military.

3. Complementary measures

(1) Adjust the defense organization and force structure

Adjust the defense organization, force level and structure with consideration of "defense operations requirements," "available funding resources" and "projected recruitment level" and in coordination with the timetable of voluntarism transformation and implementation of the "Jingtsui Program."

(2) Practical defense budget planning

Continue to refine financial planning mechanisms, monitor

mid- and long-term funding trends, calculate accurate budget requirements, and balance expense and funding of pension system. Furthermore, adjust complementary measures in coordination with the government's financial condition, in order to ensure the sustainability of the volunteer system.

(3) Strengthen active duty force training

Sequentially execute training for each stage so that soldiers are proficient in combat skills, refine various measures to improve overall training results and capabilities of the active duty force, and create an environment for volunteer servicepersons to pursue further education either full-time, on-the-job, or after-hours, thereby enhancing their expertise.

(4) Establish reserve mobilization capabilities

Turn draftees into qualified soldiers with their own specialty in the 4-month military service by strictly conducting recruit and specialty training. This will build sufficient and efficient reserve mobilization capabilities.

(5) Execute reserve force homeland defense missions

After draftees complete their military training, they will be incorporated into the reserve force and are subject to education recall every two years. In wartime, they will be combined with the active duty force to carry out homeland defense operations.

(6) Implement the logistics outsourcing policy

The ROC Armed Forces will outsource non-sensitive, non-urgent and non-essential equipment maintenance to the private sector

and review logistics outsourcing items in coordination with organizational adjustment of the "Jingtsui Program" to maintain logistics capabilities.

(7) Improve the working condition for servicepersons

Build high quality living quarters and spaces to improve the working environment for basic-level servicepersons; legalize benefits for military personnel (dependents) as government finance allows, and gradually increase their rights and benefits to compete for jobs within the private sector; collaborate with the Veterans Affairs Commission to provide retirement counseling and care measures appropriate for each rank to increase incentives to recruit and retain talents.

(8) Continue to amend laws and regulations on the military service system

Revision of related laws will be completed in two stages based on the timetable for transformation into a volunteer force. At the current stage, articles of the Act of Military Service System concerning rights and obligations associated with military service have been amended and promulgated. In the next stage, laws concerning military service system, military service, selection, appointment, assignment, military education, insurance and compensation will be reviewed and revised following the increase in the number of volunteer officers, NCOs and enlisted with respect to career management, cultivation, career planning, selection and elimination, and deceased compensation and injury care.

II. Integrate Joint Operations Capacity

1. Principles for refining the joint operations command mechanism

Dictated by the Two Defense Acts, the General Staff Headquarters serve as the Defense Minister's military command staff and the joint operations command center. In the future, the MND will continue to improve the "joint operations command mechanism" in response to organization reforms, personnel streamlining, and defense operations requirements in order to make the mechanism "function both during wartime and peacetime with coherent authority" and fully exert C2 effectiveness of joint operations.

2. Plans for refining the joint operations command mechanism

The ROC Armed Forces' joint operations command mechanism is the core of combat decision-making and command. Organizational functions, inter-unit coordination and software/hardware infrastructure are on track as verified by annual Han-Kuang Exercises. The organizational structure will continue to be refined, and the data link system will be expanded to accelerate operational response. Primary improvements include:

(1) Integrated joint operations C2 effectiveness

Integrated C^4ISR systems are being built to improve joint operations command, integrate modern systems and platforms, enhance battlefield management and command efficiency, and improve command capabilities for joint operations.

(2) Enhance intelligence fusion and application

Develop tools for synchronized intelligence operations at all levels, enhance information fusion, analysis and dissemination capabilities among units, and expand intelligence coordination functions to support joint operations.

(3) Enhance IO and EW capabilities

Integrate network warfare, EW, psychological warfare, deception, and physical attack capabilities based on force buildup plans to satisfy joint operations requirements. Integrate soft/hard kill and the flexible execution of joint IO/EW plans to fully exert the ROC Armed Forces' warfighting capabilities.

(4) Simplify mobilization organization and processes

Considering the future mobilization institution's function, structure, organization and wartime operation and orientation by function integration, the MND will streamline organization and simplify mobilization processes in order to combine wartime and peacetime missions. In addition, the Department of Reserve Affairs will be changed to the All-out Defense Mobilization Office to take responsibility of all-out defense mobilization. The operational systems will be responsible for reserve force establishment, training and utilization in order to build a coherent and smooth mobilization mechanism to achieve the goal of "unifying command and control and combining wartime and peacetime missions."

(5) Consolidate all-out defense capability coordination mechanism and training

Each TO will review and practice the standing-up process for "all-out defense capability coordination centers" in coordination with regular military exercises. Also, the functions and applications of all-out defense capability coordination organizations should be incorporated into group education and training topics for officers and NCOs so that all levels are knowledgeable and familiar with the mechanism, thereby building effective coordination capabilities to support military operations.

(6) Improve logistics coordination and support

Each service HQ will establish operational procedures for military service logistics C2, mobile emergency repairs for all repair units, and emergency acquisition, validate them through exercises, and evaluate amendments to relevant plans and regulations, so that each military command can effectively execute logistics C2 operations during wartime.

(7) Improve psychological warfare measures and overall intangible combat capabilities

Exclusive "political warfare centers" should be established, and divisions dedicated to "public outreach and psychological warfare" and "news broadcast" should be assigned to incorporate psychological warfare measures and enhance overall intangible combat capabilities in support of military missions.

III. Build an All-out Defense Consensus

1. Plans for improving all-out defense

The four all-out defense missions of "school education," "social education," "government agency (institution) on-the-job education," and "military historical relics protection, promotion and education" will be implemented by coordinating inter-agency efforts and combining the capacity of government agencies and social resources. Arrange "friendly, proactive, interactive and lively" campus activities for all-out defense education, open military bases, develop e-learning courses, and organize military historical relics exhibitions to incorporate national security concepts into daily life, popularize defense knowledge, and further gain public support and participation in defense development.

2. Plans for promoting all-out defense

(1) Lead academic research and consolidate defense concepts

Effectively combine human and material resources of government agencies, private organizations, and education institutions at each level for the National Defense University to plan and collectively organize the "Academic Conference on All-out Defense Education" with the private sector so as to promote all-out defense research and consolidate defense concepts.

(2) Combine diverse activities and expand public participation

Encourage the public to participate in defense affairs via various activities, such as "visits by senior officials," on-the-job education for civil servants, school education, summer combat experience camp, military base opening, art and cultural activities,

composition contest, and commendation for extraordinary contribution.

(3) Utilize network platforms to enhance defense education

Refine contents and functions of the all-out defense education websites, design the websites based on amicability and interactivity, create an interactive interface, and use diverse, lively and abundant information to increase the public's interest in and understanding of defense affairs.

(4) Utilize media channels to increase promotion effectiveness

Utilize the MND's current publication advertising channels, central and local government press releases, and private media channels to provide information of all-out defense. Furthermore, flexibly utilize news strategies and positive news issues, and explain policies through the MND spokesperson's Facebook page, official websites, press conferences, and media invitations, actively marketing defense administration and creating a quality image for the ROC Armed Forces.

(5) Promote public affairs service to win the public support

The main purpose of public affairs service is to "strengthen the mind of the servicepersons and win the hearts of the people." The service will be provided to servicepersons, dependents, civilians, people's representatives, local personages and the media. TOs will oversee all public affairs activities within their operational areas and will use the "public affairs coordination meeting" as a communication platform for showing concern for major military and public affairs, such as disaster prevention and

relief, promoting friendly relations, public welfare activities, and dispute mediation. Relations with local people are maintained via promoting friendly relations, understanding public opinions, resolving complaints, and winning the people's hearts, so that the public will support military operations.

Afterword

The 2013 QDR is the second QDR released by the MND. This QDR lays out the direction of defense reform, force buildup, and combat readiness for the ROC Armed Forces. As a joint effort of the MND and the academia, the QDR contains a comprehensive review of and future development plans for defense affairs and military strategy. The QDR establishes a routine and institutionalized process of defense review, works to enhance public awareness on defense policies, and serves as a platform for strategic communication with the international community; all of which highlight the importance of the QDR to enhance defense transparency.

The 2013 QDR reviews the implementation of defense policies over the past four years, reflects current internal and external security trends, and anticipates future defense challenges. In accordance with national economic developments and overall financial conditions, the QDR also plans for future defense missions and objectives. The examination of the present security situation reveals the fact that tremendous changes have occurred within ROC's strategic environment. Confronted with diverse and complex strategic challenges in the region, the MND and subordinate units will continue its devotion to force buildup and defense readiness, promote military diplomacy, ensure peace and stability in the Taiwan Strait, and protect national security. In addition, non-traditional security threats have become more severe and the challenges they pose are no less than those of traditional security issues. Disaster relief capabilities are therefore one of the core concerns of future defense policies. Furthermore, this QDR also proposes plans to address internal defense challenges such as limited financial resources and demographic changes.

Under the policy guidance of "building credible capabilities, demonstrating self-defense resolution, safeguarding regional stability, strengthening intangible combat capabilities, enhancing disaster prevention and relief capabilities, promoting voluntarism, and improving welfare for military personnel," the ROC Armed Forces will continue to strengthen warfighting capacity, promote defense reform and military system transformation, and perfect resource management, so as to build "Hard ROC" joint warfighting capabilities, create asymmetric advantages, fulfill the commitment to the nation and public, and ensure national security.

The MND follows the set schedule and releases the 2013 QDR within ten months after presidential inauguration. The MND appreciates the assistance and efforts made by domestic experts on security studies and defense strategy. The ROC Armed Forces must pursue excellence, leverage limited resources and build an elite force to be the solid buttress for the government to promote cross-Strait engagement and safeguard national security.

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