
Securing India's Future with a Bolstered Conventional and Nuclear Deterrent

Balraj Nagal

Conventional and nuclear deterrence constitute the most important components of any nation's national security strategy. National security, in essence, is securitisation of the country's national interests, comprising survival, vital, and peripheral interests, encompassing the security of the state, its territorial integrity and sovereignty. In the same vein, it can be deduced that ideological and other facets of national interest, can prosper only when there is an absence of danger/threat from foreign intervention. Therefore, to ensure a peaceful and coercion-free environment, the necessity of a strong existential deterrent cannot be overemphasised, and specifically in India's context, it implies, and comprises, both nuclear and conventional deterrence.

Conventional deterrence aims to: firstly, prevent aggression or an imposed war; secondly, if war is imposed, to deny a quick and decisive victory to the attacker; and thirdly, to possess the capability to impose punishment on the attacker. The goal is to persuade the opponent/adversary that any kind of aggression is the least attractive of all alternatives.¹ Deterrence rests on capabilities, intention and credibility of intention, and the persuasive power or psychological pressure of punishment or reward. The principles

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of conventional deterrence, rooted in the foundational premise of the physical and operational domains, however, convey signalling by psychological means. The first and foremost principle of deterrence is preparedness, which implies that capability is built to meet the requirements of the aim. The second rests on the credibility of the deterrent; i.e., it must be proved in peacetime with the leadership demonstrating understanding of its application. The third

principle addresses the psychological plane by publicity of the capability and intention by means of official communication. The last principle is based on constant evaluation and change to adapt to the emerging threats that have still not completely shaped up. India must address the aims, goals and principles of deterrence to ensure a peaceful and stable environment, to achieve the requisite deterrence.

Security Environment and Threats

The security environment today in the immediate and extended South Asia is complex and complicated, with security threats ranging from the sub-conventional to the nuclear, a collusive threat from China and Pakistan, the joint build-up in the Indian Ocean, the proxy terror war, the rapid increase in nuclear arms by Pakistan and modernisation of the Chinese nuclear arsenal, and the advanced technologies deployed by China in support of new strategies and increased conventional military capabilities.

The People's Liberation Army (PLA) of China is 2.3 million strong, of which the PLA Air Force (PLAAF) comprises 0.4 million, the PLA Navy (PLAN) 0.235 million and the balance 1.25 million plus comprises the Army,² besides, the Rocket Force's strength of approximately 0.2 million.³

The internal security force, called the People's Armed Police (PAP), has a strength of 0.7 million.⁴ The entire Army and PAP are essentially meant for land operations. The Chinese PLA has two amphibious divisions and three amphibious brigades.

For more than three decades, China's investments and the modernisation of its military have indicated its growing prowess. Take, for instance, the latest Defence White Paper of 2015, which states "...building a strong national defense and powerful armed forces is a strategic task of China's modernization drive and a security guarantee for China's peaceful development."⁵ Soon after the publication of the 2015 Defence White Paper, the PLA reorganised its headquarters by separating the Army from the General Staff Department, and created two new forces, i.e., Rocket Force and Support Force.⁶ It also reorganised the military regions into five Integrated Theatre Commands, with one specific Theatre Command catering for the western region to include the entire border shared with India.⁷ Being the largest geographical command, it also holds the largest number of forces, with capability for rapid reinforcements from the rest of China.

The strategic concept of 'active defence' is the essence of the military strategic thought of the Communist Party of China (CPC), as stated in *China's Military Strategy* in a Xinhua release of May 2015. Active defence boils down to adherence to the unity of strategic defence and operational and tactical offence.⁸ The PLA Army will continue to reorient from theatre defence to trans-theatre mobility, building small, multi-functional and modular units, and constructing a combat force structure for joint operations.⁹ The guidance to the PLA from the document appears offensive in intent, couched in doublespeak language of strategic defence, operational and tactical offence, with an intention to fight in the adversary's territory. The concept of mobile operations and trans-theatre mobility now provides China the ability to transfer forces to the Tibet Autonomous Region (TAR) quickly and conduct operations in shorter

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timeframes. Given that small-scale wars, conflicts and crises are recurrent in some regions, the world still faces both immediate and potential threats of local wars, is what the 2015 White Paper on National Defence argues. It is known that local land warfare between India and China can occur only in the Tibetan region, with a basic strategy based on the offensive philosophy. With no viable defences in the Tibetan plateau, China is expected to conduct offensives and

maintain escalation dominance to achieve its political and military aims. Local war should be understood in the regional context and not as local limited war that is tactical in nature.

China's advancements in military technology¹⁰ have placed it in a favourable position; the weapons and platforms now being introduced in service and training in the conduct of operations in an informationised environment provide it with a distinct advantage. Electronic and information warfare constitute the fundamental basis of an informationised environment. China has invested heavily in these fields and it is expected that these will be used extensively in the battle zone and command and control domains.

Outer space has become a commanding height in the international strategic competition.¹¹ China will secure its space assets to serve its national economic and social development, and maintain outer space security. Also, cyber space has become a new pillar of economic and social development, and a new domain of national security. As cyber space weighs more in military security, China will expedite the development of a cyber force, and enhance its capabilities of cyber space situation awareness, given that it demonstrated its prowess in Anti-Satellite (ASAT) capability in 2007. India's space-based assets are vulnerable and can be destroyed during any war. The array of satellites deployed as part of Anti-

Access/Area Denial (A2/AD) can be expanded and used against India at any time. China continues its doublespeak on cyber warfare, calling itself a victim whereas the cyber capabilities that China possesses, have targeted many Indian official and government sites.¹² In the future, these could be used increasingly to cripple vital Indian systems, thus, having a critical bearing on both military and non-military domains.¹³

The PLAN is gradually shifting its focus from “offshore waters defence” to a combination with “open seas protection” to build a combined, multi-functional and efficient marine combat force structure.¹⁴ The PLAN gains major focus in the latest White Paper, where a marked shift of intention is noticeable from offshore to the open seas and international cooperation, in addition to the bases at Djoubuti and Gwadar. Besides, access to the Maldives and Sri Lankan ports gives China¹⁵ the capability to operate well beyond its coastal seas. The aircraft carrier’s induction and the increase in nuclear-powered submarines have enhanced China’s power projection and sea-denial capabilities. The growth and modernisation of the PLAN in the coming decade will allow it to dominate the coastal areas and encourage forays into the Indian Ocean. The Chinese efforts to build a ‘String of Pearls’ chain of military bases in the Indian Ocean are directed against India to dominate the Indian Ocean Region (IOR).

Similarly, the PLAAF is shifting the focus from territorial air defence to both defence and offence, and building an air space defence force structure that can meet the requirements of informationised operations. The PLAAF will boost its capabilities for strategic early warning, air strike, air and missile defence, information counter-measures, airborne operations, strategic projection and comprehensive support.¹⁶ China has built up the PLAAF with imported and indigenous aircraft, most of which are meant for tactical employment, with a number of limited bombers for a strategic role. However, in a local war, all the aircraft can be deployed in the Tibetan region with some penalty on performance parameters due to the exceptional height of the region.

The terrain in Tibet, being mountainous, poses problems of quick and rapid concentration, movement and logistics which China will have to contend with for military operations. In the eastern sector, the roads are through narrow valleys and at high altitudes, making them vulnerable to air action. In the western and central sectors, the high altitudes and limited avenues for operations pose their own problems and remain vulnerable to air action. The terrain is also a limiting factor for the period when military operations are feasible, on an average, not more than six months in a year. This restriction benefits the defender, wherein, being coupled with narrow valleys, the monitoring and intelligence gathering becomes easier. The long lines of communication from Mainland China are an area of vulnerability during operations, though during peace, these cause only a time delay.

In line with the strategic requirement of being lean and effective, and possessing both nuclear and conventional missiles, the PLA Second Artillery Force (PLASAF) will strive to transform itself in the direction of informationisation, enhance the safety, reliability and effectiveness of missile systems, and improve the force structure, featuring a combination of both nuclear and conventional capabilities. The PLASAF will strengthen its capabilities for strategic deterrence and nuclear counter-attack, and medium- and long-range precision strikes.¹⁷ The Rocket Force, as the PLASAF is now referred to, has a combination of nuclear and conventional missiles. The large number of conventional missiles in China's inventory gives it a deep and flexible capability to conduct saturation strikes on most areas in northern and central India. This counter-force and counter-strategic targets capability can provide it with a psychological advantage, besides a military edge. The SSBN (nuclear powered ballistic submarine) force now entering service, will be capable of targeting anywhere in India from the safe waters of the East China Sea and South China Sea. The land missiles have moved to mobile status, and manoeuvrable missile capability has been demonstrated in the Anti-Ship Ballistic

Missile (ASBM) capability. This will also be found in future missiles introduced or the replacement inventory. The Multiple Independent Reentry Vehicles (MIRVs) and hypersonic vehicle technology¹⁸ are available to further complicate the calculus. The independent status of the Rocket Force also indicates shorter command and control channels. The nuclear forces deployed at the two bases in the northern Tibet Autonomous Region (TAR) and east of the TAR are equipped with nuclear missiles that are capable of targeting only

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India. The military exercises conducted in the TAR clearly demonstrate an offensive intent against India since the practice terrain is only akin to India and Pakistan, with Pakistan least likely to be a target since it is China's all-weather ally and friend. The other longer-range missiles at bases at the centre and east of China are capable of addressing targets in India.¹⁹ The missiles are mobile and manoeuvrable, giving them better and greater survivability, flexibility, dispersion, camouflage and concealment. These have enhanced the second strike ability and reduced the time of strikes and retaliation.

China has concentrated in the past decades on developing its defence industrial base, and has succeeded in producing fairly advanced weapons and platforms, with espionage and reverse engineering playing a stellar role. The military weapons and equipment that China now possesses are superior in comparison to India, whose systems are indigenous, whilst a few are imported, giving the Chinese an edge.

On the western front, Pakistan can be described as an existential threat to India since the past 70 years. The wars of 1947-48 and 1965 and the limited conflict in Kargil during 1999 was initiated by Pakistan,

without possessing adequate capability, specifically to take away Jammu and Kashmir (J&K). The 1971 War did succeed in removing East Pakistan, however, this loss has not made Pakistan realise the perils of revising the subcontinental order. The experience of the Mujahideen operations in Afghanistan has emboldened it to plan the annexation of a part of India through sub-conventional means since the late 1980s through a proxy war by waging terrorism in J&K. Today, Pakistan's armed forces possess capabilities that are beyond its security requirements, with the Army numbering approximately six and one half lakhs, with nearly the same number of reservists, holding fairly modern weapons and equipment. The Pakistani armed forces must be seen in the context of an economy that is one-sixth of India's, but whose armed forces are more than 50 percent of India's. The sustenance of such numbers will have to be supported by outside aid and at the cost of the development of the nation-state. The Pakistan Air Force (PAF) possesses approximately 400 frontline aircraft and its Navy is capable of limited sea-denial and sporadic threats. In real terms, it has two armoured divisions, 18 infantry divisions and 500,000 paramilitary troops for border and depth operations, nearly 3,000 tanks, 3,000 infantry combat vehicles, 4,000 artillery pieces and aviation assets.²⁰ The Air Force possesses aircraft capable of nuclear weapons delivery. The important feature of the Pakistan Army composition is the armoured division and the offensive corps created in Gujranwala and Multan.²¹ These attack formations demonstrate an offensive intent; the armoured thrust in the Khem Karan sector during the 1965 War aimed at cutting off the Punjab and J&K region from the rest of India and remains a reminder of Pakistan's military philosophy. The defensive-offensive strategy is a cover for its planned strategy of offensives into India. The Beg Doctrine²² was a reaffirmation of the same in the 1980s. The annual training being conducted by the Pakistan Army over the decades is a definite pointer. The overall ratio of armoured formations

is more or less equal between the two countries, which gives Pakistan similar capabilities as India, and the defensive formations also equal the forces available for the Pakistan front since India also has to keep the formations for the China border in place. The proxy war is one method of tying down the Indian Army, and it should be expected during any war, that this strategy will be escalated to choke the lines of communication and destabilise the hinterland. There is no threat to Pakistan from Afghanistan, hence, the Durand Line can be left to the constabulary or border guards.

The biggest achievement of Pakistan in the past decade has been the fast growth of its nuclear arsenal, with impressive delivery systems which can target any place in India, especially the induction of the Shaheen 3 by which Israel also stands threatened.²³ It can safely be assumed that Pakistan today possesses upward of 120 nuclear weapons²⁴ with matching delivery capability, all India-centric, except the Shaheen 3, which has a dual role. It has nuclear fissile production facilities to give it enough nuclear weapons for strategic and tactical usage. Pakistan's nuclear forces and arsenal are the world's fastest growing, with approximately 20-25 weapons being added every year, along with induction of Tactical Nuclear Weapons (TNWs). It is under this nuclear deterrence that Pakistan undertakes terror proxy war in J&K, and seeks to fuel similar sub-conventional conflicts in other parts of India. It is firmly of the belief that conventional war can be stalemated with the use of tactical nuclear weapons, and that India will not escalate any war to cross the red lines.

The religious colour given to the Mujahideen war in Afghanistan is being replicated in India, in the hope that Indian Muslims will get radicalised, causing communal disharmony. The nuclear, military and economic assistance that China provides to Pakistan is directed to use Pakistan as a cheap option to keep India embroiled in a conflict with Pakistan.

India's Existing and Evolving Strategy

India's security needs are expanding to the full range of the spectrum of conflict, from lone wolf to nuclear attacks. The present force structure and strategy essentially cater for a defensive policy with limited offensive capability, and separate strategies for Pakistan and China. The need for a proactive strategy is a fundamental requirement in a fast changing world, where reaction is prone to delayed actions as well as loss of escalation dominance. In conventional non-nuclear operations, the shift from the attritional style of warfare to mobile operations provides greater flexibility to planners and policy-makers. Not only does it release troops from fixed areas, it also creates an offensive approach and attitude in the forces. The centre of gravity for future wars will also include the political, population, and psychological domains. Hence, wars will be fought across the length of the nation, on many planes, besides the military, such as cyber, population, or infrastructure. Technology must play a critical role in addressing threats and in the conduct of war as a force multiplier. In any security facet, human resources will remain a paramount requirement and should be trained to the highest standards in all fields i.e. political, diplomatic, military and technical.

The Indian armed forces number approximately 1.4 million with about 1.2 million in the Army, 0.14 million in the Air Force and 0.07 million in the Navy. The Army defends the LoC and Line of Actual Control (LAC) of over 7,000 km. The Army comprises 40+ divisions comprising three offensive corps in the plains, desert, and one offensive corps in the mountains.²⁵ The balance forces are essentially defensive and have limited reserves. The aviation dimension of the Army is limited to reconnaissance and surveillance, command and control, and evacuation of casualties. At the organisational level, India should create an Integrated Joint Command of the Army and Air Force for better synergy and coordination at all levels. India must adopt a strategy of proactive defence and expanded deterrence to include the heartland of China, ensuring that

China is not capable of a quick victory, and the cost it incurs should outweigh the planned objectives, also hitting its population's psychology.

The Air Force is equipped with aircraft more suited to counter-air operations and air defence, and not for close air support for ground operations. However, it is constrained by the number of aircraft in service. The reduced strength of combat squadrons in the Air Force jeopardises the ability to function to the envisaged role. The Navy is capable of performing its designated mission at present, but will need greater strength and punch in the future to dominate the Indian Ocean Region (IOR).

In case Pakistan forces a war on India, the challenge for India should be to adopt a strategy in the air-land domain to destroy its military capabilities and capture a sizeable portion of the heartland and liberate areas of J&K under Pakistan's occupation, choke Pakistan by a naval blockade, negate its offensive capabilities, and keep the war from escalating to the nuclear plane.

The terrain in Arunachal Pradesh overlooking the China front is suited to defensive operations and India needs to enhance its long-range capability to interdict the Chinese lines of communication, with greater and longer-range firepower to destroy the ingressing forces, develop systems to degrade the terrain to cause blockades of massive size, induct specialised close support ground attack aircraft suitable for operations in the mountains and intense anti-aircraft environment, obtain third dimension capability for troop movement in the mountain terrain, better Intelligence, Surveillance and Reconnaissance (ISR) systems, and use Special Forces for tasks to degrade capabilities. This calls for reorganisation of formations to improve the manpower-to-firepower ratio, lighter weapons and artillery, better mobility vehicles and integral aviation assets, long-range conventional missiles at the theatre level, and

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even use of atomic demolition munitions deep inside the Earth strata for Earth displacement (only in exceptional defensive cases).

On the Chinese front, less Arunachal Pradesh, the terrain suits India from a defensive perspective; hence, both options must be exercised. India needs to induct greater offensive capability into its forces in Ladakh, the central sector and the Sikkim region. The offensive forces should be armour and mechanised-based, heavily backed by long-range firepower systems and supported by close support

aircraft. Deep interdiction by the Air Force will form an essential part of the operational thought, and electronic warfare will be the primary means to degrade the command and control systems. The Special Forces will be directed to disrupt and destroy communication systems and many vital targets. The mobilisation and logistics routes from Mainland China are long and pass through rough and difficult terrain. The Tibetan people must be integrated into the overall plan to impose delay and attrition on forces inducted after the commencement of a war. The Tibetan resistance must also be used for deep targeting and intelligence. These capabilities will be dependent on India creating infrastructure in Ladakh and Sikkim to match the Chinese railway line to Lhasa and the road network in the TAR.

India now possesses long-range nuclear missiles, and it is imperative that these capabilities be transferred to the conventional domain as many other nations have done for Prompt Global Strikes (PGS). The same is also applicable to cruise missiles where ranges beyond aircraft are required. While satellites do provide ISR capabilities, India also needs to induct

high altitude Unmanned Aerial Vehicles (UAVs) and Unmanned Combat Aerial Vehicles (UCAVs) for ISR and destruction respectively. The aim and objective of these capabilities should be to take the war to areas outside the tactical battle areas, the targets being military command and control centres, political leadership headquarters, communication hubs, and propaganda organisations involved in the conduct of war. On the psychological plane, any war imposed on India by China is a far off war for Mainland China, whereas for India it is on the doorstep of the heartland.

With the established Chinese conventional

missile capability and lessons drawn from the two Iraq Wars, it is expected that deep targets in India will be addressed for the psychological impact of shock and awe. The covert and hybrid war now in vogue, remains well suited to the TAR where Tibetan nationalism has been suppressed, and has been simmering for decades. The old Special Frontier Force needs revamping to upgrade mission abilities.

India's space programme has focussed primarily on civilian usage, and now it is time to create new assets for the military to at least match Chinese assets and build in redundancies. The offensive content must be built into future asset development besides protective measures for continuous Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) capability. Space will be the new frontier where India must make rapid strides to ensure the safety of its assets and, if required, deny the same to the adversary. Technology has become inescapable in the fields of intelligence, surveillance, reconnaissance, command and control, guidance, target acquisition, stand-off capability,

India's Ballistic Missile Defence (BMD) should cover all vital areas, the penetration ability of missiles in the environment must be improved by technological means, as well as saturation strikes, MIRV missiles and MaRVs should become a mandatory feature.

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continuous operations, deception, space control, communications and a host of other activities related to any nation's national security, including that of India.

In case Pakistan forces a war on India, the challenge for India should be to adopt a strategy in the air-land domain to destroy its military capabilities and capture a sizeable portion of the heartland and liberate areas of J&K under Pakistan's occupation, choke Pakistan by

a naval blockade, negate its offensive capabilities, and keep the war from escalating to the nuclear plane. The terrain south of the river Chenab is well suited to offensive operations, for which adequate literature is available for examination. Though the concept of limited war is an often debated issue, there is no gainsaying the fact that total war is no longer a viable option due to the presence of nuclear weapons between two nuclear adversaries, hence, war below the level of total war will remain in the realm of possibility. The Revolution in Military Affairs (RMA) has now introduced precision weapons, real-time ISR, improved aircraft capabilities, and long-range conventional firepower systems. Therefore, India has multiple options to address Pakistan with, commencing from a limited air war to a full-scale war.

The concept of a limited air war is feasible since the Indian Air Force is well equipped to conduct counter-air, air defence and surgical strike operations. The targets for an air campaign, of necessity, will be strategic and operational to degrade command and control, eliminate offensive capabilities, destroy vital infrastructure and Pakistan's air assets. An air campaign can also precede land operations, followed by a short, limited objectives' war of intense violence but a shorter time period. The conduct of a conventional war can take many forms, starting with staggered

air, sea, and land war to simultaneous commencement of hostilities.

In each of the options, two important factors will be aimed at. Firstly, it must be a short and swift war, the objectives of which must be linked to the ground, and psychological impact. Secondly, the cost of the war plus the loss of Gross Domestic Product (GDP) during the war should be manageable and the war must result in degradation of Pakistan's military capabilities. The technological

capabilities discussed for the Chinese front equally apply on the Pakistani side as well. There is a need to further refine the Cold Start doctrine, and this refinement will require transformation and reorganisation of the formations, including creation of Integrated Joint Commands, and the offensive forces requiring relocation and mobility enhancement. Airborne operations assets should be increased and the Special Forces given targets in larger numbers. Conventional missiles strikes and UCAVs will play a strategic role in the war. The precision-guided weapons must be employed to selectively target the leadership of Pakistan in order to eliminate them.

Both the adversaries of India, namely, China and Pakistan, have improved their nuclear arsenals and capabilities. Therefore, India should make rapid improvements in its own nuclear forces and command and control assets. India's Ballistic Missile Defence (BMD) should cover all vital areas, the penetration ability of missiles in the environment must be improved by technological means, as well as saturation strikes and Multiple Independent Reentry Vehicles (MIRVs) missiles and Manoeuvrable Reentry Vehicles (MaRVs) should become a mandatory feature. In addition, cruise missiles must form part of the land, sea and

In the security calculus, a change must occur in national policies, to reprioritise India's order of national interests, defend the nation beyond its borders, and create structures to implement a grand strategy.

Future conventional deterrence must be based on a proactive offensive-defensive doctrine, i.e., to conduct operations across the entire conventional spectrum and emerging domains below the nuclear domain.

air vectors to complicate protection and increase penetrability. Introduction of hypersonic vehicles must be a priority area, coupled with Earth Penetrating Weapons (EPWs). Guidance, and survivability should be improved constantly. The yield of weapons must remain commensurate with the target and desired damage, and the total arsenal should be based on threat assessments and anticipated changes in defensive measures.

Conclusion

China and Pakistan have crafted policies inimical to India and colluded to produce security challenges which impose heavy demands on the country at the cost of its economic development and growth. The security and other domains of national interest demand an expanded area of interest and a faster response to emerging situations as is evident from events and crises in the recent past. India has been a status quo power, remaining inward-focussed for centuries –an approach caused by successive invasions and subjugation, and reactive policies post-independence, resulting in many setbacks. Reaction denies escalation dominance, and leads to delayed decision-making or action, therefore, to charter an independent course, determine the course of events and set the terms of a relationship, it is mandatory to adopt a proactive agenda and approach. In the security calculus, a change must occur in national policies, to reprioritise India's order of national interests, defend the nation beyond its borders, and create structures to implement a grand strategy.

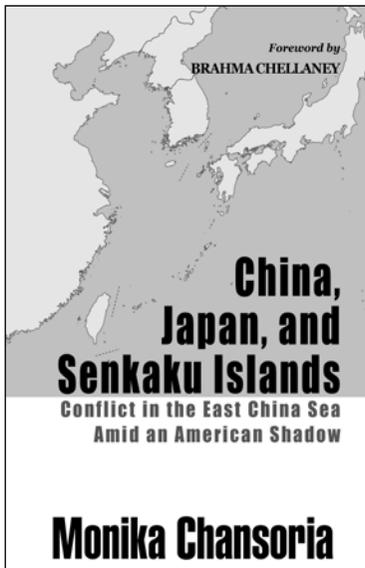
Future conventional deterrence must be based on a proactive offensive-defensive doctrine, i.e., to conduct operations across the entire

conventional spectrum and emerging domains below the nuclear domain. The nuclear deterrent must be upgraded, and, if required, enhanced in quantity, including the latest technological features incorporated in the three legs of the triad. To address such a wide variety and range of threats, and remain ahead in the decision loop, we need to develop and/or obtain advanced technology. Conventional and nuclear deterrence must reflect the national policies, for which the military must continuously transform and reorganise itself to be ready to maintain peace, and deter any/all potential threats.

Notes

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