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The modernization of the Chinese Armed Forces

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Abstract:

Xi Jinping's China has set itself the goal of having a world-class military force in 2049. The ability of Beijing to overcome the major obstacles to its development in the various fields has been systematically undermined.

Starting in the mid-20th century from an enormous but very deficient army and having had to sacrifice its modernization to economic development, in the last three decades, the Chinese Armed Forces have taken an astonishing leap.

The hypothesis that the Asian giant will achieve the proposed military supremacy must be seriously considered. The strategic implications will be enormous, and careful consideration should be given to the decisions now taken.

Keywords:

People's Liberation Army, China, strategy, military supremacy, Xi Jinping.

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Modernización de las Fuerzas Armadas chinas

Resumen:

La China de Xi Jinping se ha marcado el objetivo de disponer en 2049 de una fuerza militar de primera categoría a nivel global. Sistemáticamente, se ha minusvalorado la capacidad de Pekín para superar los grandes obstáculos que se oponían a su desarrollo en los diferentes ámbitos.

Partiendo, a mediados del siglo pasado, de un ejército enorme, pero muy deficiente y habiendo tenido que sacrificar su modernización al desarrollo económico, en las últimas tres décadas, las Fuerzas Armadas chinas han dado un salto asombroso.

Se debe contar seriamente con la hipótesis de que el gigante asiático llegue a conseguir el propósito de supremacía militar que se propone. Las consecuencias estratégicas serán enormes y ahora conviene ponderar con prudencia las decisiones que se vayan a tomar.

Palabras clave:

Ejército de Liberación del Pueblo, China, estrategia, supremacía militar, Xi Jinping.

Introduction

Up until a few years ago, the dominant consensus was that the People's Republic of China (PRC) would follow the example of the other Asian nations that preceded it in modernising their societies –first Japan and then the Asian tigers– and would become democratic, following the development and modernity patterns of the Western states. This circumstance meant that insufficient attention was paid to the strategic consequences of the emergence of the Asian giant¹.

We now know that in the foreseeable future China is not only not going to converge towards the liberal-democratic model, but is reinforcing its authoritarian profile. The Chinese Communist Party (CCP) leaves no room for doubt about its rejection of the Western model and advocates a different one inspired by its history and its own civilizational references.

From the military point of view, which is more cautious in its judgements because it always incorporates the most dangerous hypothesis into its plans, the strategic significance of the rise of the Red Dragon was not realised in time either. At the turn of the century, when the Chinese economy was beginning to rank among the world's leading economies, its armed forces showed no signs of being able to challenge the hegemonic military power. According to the US Department of Defence's 2000 report to Congress –the first in the series of annual reports– it was a sizable but largely archaic military that did not match the long-term ambitions of the CCP².

However, developments in the PRC, both economically and particularly militarily, have exceeded forecasts, and at the 19th Congress of the CCP in October 2017 Xi Jinping announced that the aim of the People's Liberation Army (PLA) is to become a world-class military by 2049.

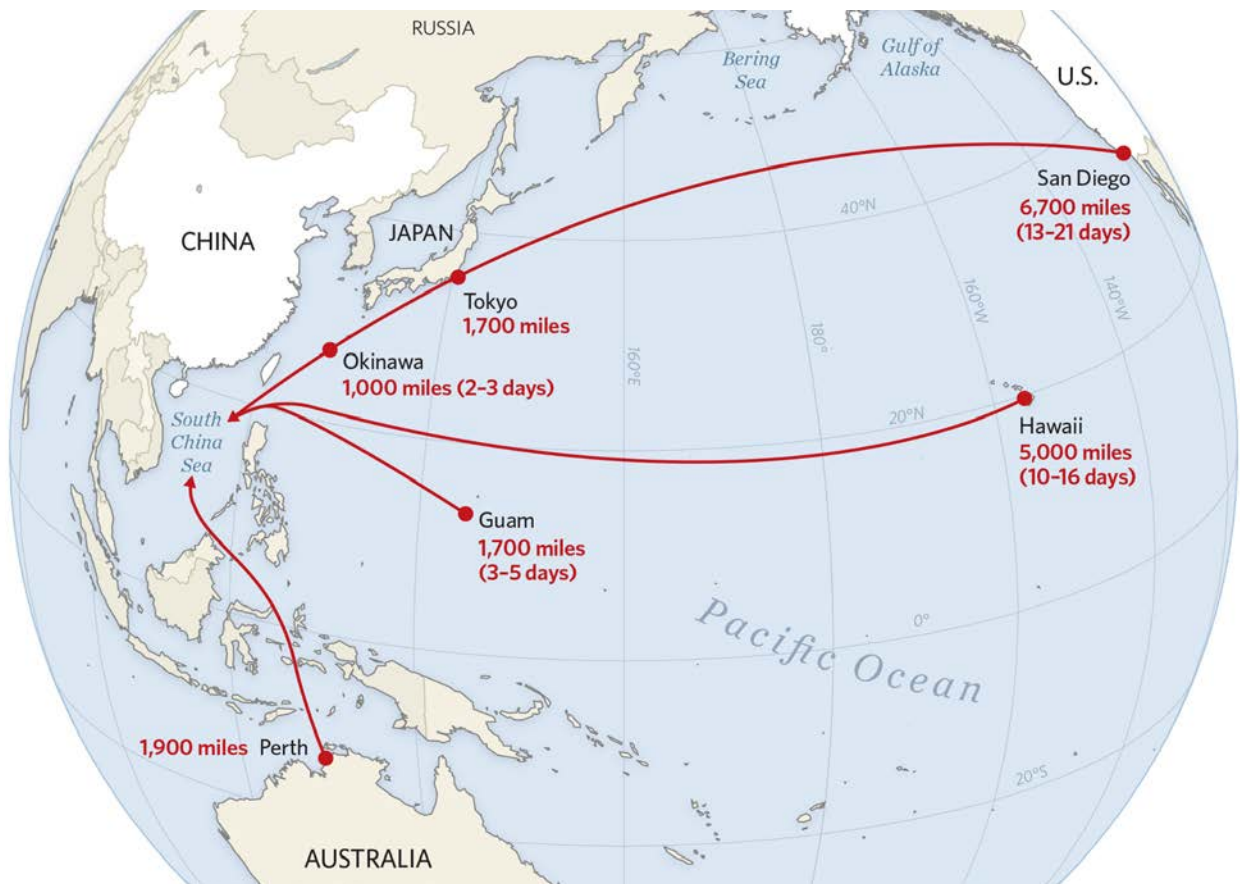
Although any judgement of the future is uncertain, China's claim has high credibility: the reforms initiated in the past decades are bearing fruit, the pace of transformation of the Chinese armed forces is astonishing and the PRC has already achieved excellence in

¹ O'BRIAN, Robert C. *How China Threatens American Democracy. Beijing's Ideological Agenda Has Gone Global*. Foreign Affairs, November/December 2020.

² *Military and Security Developments Involving the People's Republic of China 2020. Annual Report to Congress*. US Department of Defense, p. i.

some military capabilities. The possibility of the Asian giant becoming a major military power, not inferior to any other, seems fairly likely, at least when considered in Asian regional terms. The tyranny of distance (Figure 1) and the great vulnerability of the surface naval forces, the backbone of the American thalassocracy, mean that while the USA remains militarily superior globally, it may no longer be so in the Indo-Pacific theatre. This paper argues that, in such circumstances, the main working hypothesis should be that the PLA will become a world-class armed force in a couple of decades' time.

Figure 1: Tyranny of distance separating the USA from the South China Sea



Source: Heritage Foundation

Background, the PLA shakes off the cobwebs

Established in 1927 by Mao Zedong, the then Red Army was victorious after two decades of war against the nationalists of Chiang Kai-Shek and the Japanese occupation forces. Although far inferior technologically, the PLA fought against the USA in the Korean War (1950-53) and the Vietnam War (1959-75). The Chinese armed forces emerged from the

Cultural Revolution (1966-76) as a fundamental pillar of the CCP's power, although their strictly military capacity was very deficient, as was clearly shown by their defeat in the Sino-Vietnamese war in 1979³.

Since the birth of the PRC, its defence policy has been governed by the firm intention to equip itself with the ability to prevent one or several foreign powers from dictating its future again, as occurred in the century of humiliations. The Opium Wars (1839-42 and 1856-60) and the consequent geopolitical pittance of the powers of the day for taking over the spoils of the Chinese empire are considered –not without reason– to be a historical infamy that has put the proud “Kingdom of the Centre” on the defensive against the dictates of the Western world, with particular resentment towards Japan and rivalry with Russia.

However, when he came to power in 1978, Deng Xiaoping gave low priority to defence. The essential objective of Chinese policy was economic growth, to which all the country's lines of action, including foreign policy, were subordinated, with some red line such as Taiwan⁴. Deng was trying to avoid external conflicts that could jeopardise the priority of economic development. Furthermore, a low-profile policy was to reduce the natural resistance that a country of China's size would encounter in order to make its way on the international stage.

The leading Chinese visionary designed a long-term strategy whose outcome he knew he would never see. He did not renounce the idea of China regaining its lost centrality, which would require a modern and powerful armed force at the time, but he thought that it would be impossible to achieve this goal without a prior economic and scientific-technological basis. At the time –after the brief border war of 1969– the main strategic concern came from intense rivalry with the Soviet Union. A massive land deployment was therefore required, aimed at the northern border. The other major strategic vulnerability was the secessionist western territories of Tibet and Singkiang. However, if China wished to become a dominant regional power, sooner or later the strategic theatre par excellence would have to be that of the adjacent seas and free access to the Indian and Pacific Oceans (Figure 2).

³ *China Military Power. Modernizing a Force to Fight and Win*. Defense Intelligence Agency, January 2019, p. .

⁴ FANJUL, Enrique, “Luces y sombras de la nueva política exterior china”, Real Instituto Elcano, 7 January 2016.

In 1989, the Tiananmen crisis became the first major setback. The PLA intervened against the demonstrators, damaging their image both inside and outside their borders. Since then, China has suffered a rigorous arms embargo from the Western powers. The survival of the regime and the fear of foreign interference reinforced its strategic priority.

Figure 2: China's geostrategy for access to the Indian and Pacific Oceans



Source: Prepared internally

The USA's landslide victory over Saddam Hussein in the second Gulf War (1990-91) that led in the US to the Revolution in Military Affairs set off alarm bells in Beijing. America's technological superiority had wiped out what was considered the world's fourth largest army: powerful, well-armed and battle-hardened in the recent war against Iran (1980-88).

The PLA began to shift its strategic focus from the large-scale protracted land war that characterised Mao Zedong's "People's War" to fighting in small-scale regional conflicts along China's periphery. The doctrine of "Active Defence" focused on developing what was called "people's warfare under modern conditions" and could be described as "local warfare under high-tech environment". This doctrine addressed the rapid response to a number of contingencies along China's land and maritime borders, particularly in the East

and South China Seas. If conflicts related to its interests arose there, China expected to find a more technologically advanced enemy, such as the USA or Japan⁵.

The new international landscape created by the end of the Cold War and Beijing's interest in the reunification of Taiwan –both for reasons of national identity and its key strategic position (Figure 2)– also called for a thorough strategic review. The CCP understood the serious shortcomings of its armed forces and established long-term objectives to strengthen and transform them in relation to the major national aspirations.

China's military reform and strategic reorientation was greatly helped by the improvement in relations with Moscow. The Kremlin took advantage of China's international isolation to sell it a large quantity of weapons, at first light and progressively more developed, becoming the main partner in the military modernisation of the emerging power. A complex process of confidence-building measures and delimitation of the common border was also begun, enabling the progressive demilitarisation of the border and the shifting of China's military effort from the north to the east and of the land army to a much more aero-naval and missile-based.

In the last decade of the 20th century, two events contributed to fostering an attitude of hostility towards the USA among Chinese leaders and accelerated military modernisation: the 7th Fleet's intervention in the 1996 Taiwan missile crisis and the accidental bombing of the Chinese embassy in Belgrade –where three Chinese citizens were killed– during the Kosovo war in 1999. The latter also turned public opinion against the USA⁶.

These circumstances, coupled with China's growing ambition and rapid technological progress, led the CCP to broaden the dimension and objectives of military reform, taking advantage of a “period of strategic opportunity” until 2020 when the country was not supposed to be involved in any major conflict. The defence budget was increased by an average of 10 percent per year between 2000 and 2016, major scientific and technological programmes were established to improve the defence industry and to reduce foreign dependence, training programmes were updated with a view to using the

⁵ *Annual Report on the Military Power of the People's Republic of China*. http://www.andrewerickson.com/wp-content/uploads/2020/09/DoD_China-Report_2000.pdf.

⁶ SINKKONEN, Elina. *China-Russia Security Cooperation. Geopolitical signaling with limits*, FIIA briefing Paper, January 2018, p. 3.

PLA in combat situations and joint action by the various services, and important steps were taken towards its professionalisation, eliminating in the process non-military economic activities –until then permitted for force sustainment– and strengthening the ideological loyalty of its components⁷.

In 2004 Hu Jintao gave the PLA a “new historical mission” whereby it was to assume a global role, leaving behind the concept of a defence focused exclusively on immediate territorial and sovereignty interests. This has resulted in international exercises and training, significant participation in UN-sponsored peacekeeping operations, especially in Africa, anti-piracy operations in the Gulf of Aden since 2009, and evacuations from war-torn territories in Libya and Yemen⁸.

In 2007, the PRC conducted the first test of an anti-satellite system that caused international alarm by leaving hundreds of pieces of hazardous waste in space due to the destruction of one of its own satellites and opening up the possibility of an arms race in outer space⁹.

An Anti Access/Area Denial (A2/AC) strategy for China’s neighbouring seas also began to take shape, which did not require technological parity with the USA to be effective and, being primarily land-based, could seriously challenge the world’s most powerful naval force.

During Hu Jintao’s second term, despite officially maintaining the discourse of “peaceful development”, Beijing’s attitude began to contrast with the pragmatism that had characterised its foreign policy since the 90s. China’s activism in relation to its territorial claims in the East and South China Seas, the maintenance of its support for North Korea despite repeated provocations by Pyongyang and various military incidents on the border with India meant a much more aggressive attitude¹⁰.

⁷ *China Military Power. Modernizing a Force to Fight and Win*. Defense Intelligence Agency, January 2019, p. 3.

⁸ *Ibidem*, p. 4.

⁹ ZISSIS, Carin. China’s Anti-Satellite Test. Council on Foreign Relations, 22 February 2007. <https://www.cfr.org/background/chinas-anti-satellite-test>

¹⁰ DELAGE, Fernando. *La estrategia asiática de Xi Jinping*, IEEE Journal No. 5/2005, p. 3.

Xi Jinping takes over

Since his arrival in power in 2012, Xi Jinping intensified his predecessor's strategic approach and gave clear evidence both of increased antagonism towards the USA and that Deng Xiaoping's 24-character strategy¹¹ had definitively come to an end. By 2010, the PRC had overtaken Japan in terms of GDP measured in dollars, transforming the Asian hierarchy of the past hundred years and making China the world's second largest economy¹². This made China feel strong enough to be able to undisguisedly claim the role it believed it was entitled to in regional and global geopolitics. In 2013, it launched the Belt and Road project, the backbone of China's global strategy for the new era, which gives it an eminently geo-economic character. In 2014, the Asian giant also became the leading trading power and the world's largest GDP in terms of purchasing power parity.

On the other hand, the relatively enlightened authoritarianism of Deng Xiaoping and his successors has evolved with Xi Jinping from a soft to a hard authoritarianism. Rather than a collegial group of uncharismatic technocrats constrained by retirement rules, there is now a president-for-life with a budding personality cult, overseeing thought control by digital means¹³. Xi has also become the leader of the party that holds the most posts since Mao Zedong and has limited internal debate within the CCP. The new times of great powers rivalry require unity of action behind a strong leader.

An integral part of the Chinese leader's vision for achieving the great national dream of regaining past greatness is the building of a modern, capable and disciplined military force. In his opinion, China's economic development, its territorial integrity and even the survival of the CCP cannot be guaranteed without a military force that can fight and prevail in modern warfare. Xi says he often examines the annals of modern Chinese history and is heartbroken by the tragic scenes in which the country was defeated because of its ineptitude. Such humiliations should not be repeated¹⁴.

¹¹ The 24-Character Strategy: "Observe and analyse calmly, strengthen our position, face problems calmly, hide our capabilities, wait for the right moment and keep a low profile and never look for leadership", dates from 1990 and was the legacy that Deng Xiaoping left to his successors and that served as a basis for Chinese diplomacy until the arrival of Xi Jinping.

¹² DELAGE, Fernando. *Art. Cit.*, p. 9.

¹³ KAPLAN, Robert. *A New Cold War Has Begun, Foreign Policy*, 7 January 2019. <https://foreignpolicy.com/2019/01/07/a-new-cold-war-has-begun>.

¹⁴ WUTHNOW, Joel and SAUNDERS, Phillip C. *Chairman Xi remakes the PLA. Assessing Chinese Military Reform*, National Defense University Press, Washington, 2019, introduction to the document, p. 1.

Xi Jinping has therefore placed great emphasis on strengthening the PLA as a fighting force, deepening the party's control over the military institution, improving its operational capabilities, deepening its professionalisation and enhancing its ability to project itself abroad. At the end of 2015, the most important military reform since the early 1990s was launched, aimed at one day surpassing US military strength, at least in China's regional environment. High-level organisational changes have been made to clarify the line of command, better integrate the Services in joint operations and facilitate a rapid transition from peace to war. In addition, the volume of the PLA has been reduced by 300,000 troops, major doctrinal adjustments have been made, operational expertise has been encouraged and great emphasis has been placed on combating corruption.

In a strategic partnership with Moscow, both powers questioned the US hegemonic order inspired by liberal-democratic principles. In the new multipolar order that has resulted, the revisionist powers are exploiting with certain impunity –each in their own way– the vulnerabilities stemming from the lack of definition between peace and war (grey zone) and the plural possibilities of hybrid war. In this context, China's Military Strategy has also been oriented towards emerging security domains such as outer space and cyberspace, emphasising the need to focus on global maritime operations. In 2017, the PRC established in Djibouti its first military base on foreign territory, in opposition to a principle previously proclaimed by itself¹⁵.

Figure 3: Nuclear forces in the world, January 2018

Country	Year of first nuclear test	Deployed warheads ^a	Stored warheads ^b	Other warheads	Total inventory
United States	1945	1 750 ^c	2 050 ^d	2 650 ^e	6 450
Russia	1949	1 600 ^f	2 750 ^g	2 500 ^e	6 850
United Kingdom	1952	120	95	–	215
France	1960	280	10	10	300
China	1964	–	280	–	280
India	1974	–	130–140	..	130–140
Pakistan	1998	–	140–150	..	140–150
Israel	..	–	80	..	80
North Korea	2006	–	..	(10–20)	(10–20) ^h
Totalⁱ		3 750	5 555	5 160	14 465

Source: SIPRI, World Nuclear Forces

¹⁵ *China Military Power. Modernizing a Force to Fight and Win*. Defense Intelligence Agency, January 2019, p. 5.

China is also investing considerable resources to equip itself with a nuclear capability more in keeping with the current geopolitical order, whose nuclear dimension, however, continues to reflect the power sharing at the end of the Cold War (Figure 3). Thus, the USA and the Russian Federation each have more than twenty times as many nuclear warheads as the PRC. For the time being, it is expected to double the arsenal of nuclear warheads (currently estimated to be at least 200) over the course of this decade. The PRC has acquired the “nuclear triad” through the development of an air-launched ballistic missile and nuclear capability, while improving its land and sea-based nuclear capabilities. In addition, it appears that it intends to raise the peacetime alert level with an expanded silo-based nuclear force¹⁶.

At the 19th CCP Congress in 2017, Xi Jinping set the PLA the following three milestones: in 2020, to become a mechanised force with growing digital and strategic capabilities; in 2035, a complete modernisation of the force; and in 2049, to become a first-class global military force. He also stressed that the centre of gravity of military reform should be innovation: “We must keep it firmly in our minds that technology is the main capacity to fight, by encouraging innovation of the main technologies and carrying out innovation independently¹⁷.”

In July 2019, the PLA formulated the “Military Strategic Guide for a New Era” to adapt to the changes of intelligent warfare, a form of integrated fighting that is fought on land, at sea, in the air, in outer space, electromagnetically and cybernetically, as well as in the cognitive domain, using intelligent weapons and equipment and their associated methods of operation, supported by the Internet of Things information systems¹⁸.

The PRC has focused resources, technology and political will over the past three decades to strengthen and modernise the PLA in almost every aspect and has managed to overtake the USA in certain areas:

¹⁶ *Military and Security Developments Involving the People’s Republic of China 2020. Annual Report to Congress.* US Department of Defense, p. ix.

¹⁷ Full text of Xi Jinping’s report to the 19th Congress of the CCP: www.xinhuanet.com/english/special/2017-11/03/c_136725942.htm.

¹⁸ NIDS China Security Report 2021. China’s Military Strategy in the New Era. National Institute for Defense Studies, Japan, November 2020, p. 2.

- Shipbuilding: Numerically (though not by tonnage) the largest navy in the world, with a total operating force of approximately 350 ships and submarines. The US fleet is approximately 293 ships at the beginning of 2020.
- Conventional ground-based ballistic and cruise missiles: has more than 1,250 ground-launched ballistic missiles (US has with a range of 70-300 kilometres) and ground-launched cruise missiles (US does not) with a range of 500-5,500 kilometres.
- Integrated air defence system: PRC has one of the world's largest forces of advanced surface-to-air long-range systems, including the Russian S-400 and S-300 and home-produced systems, which are part of its robust and redundant integrated air defence system architecture¹⁹.

Certainly, it still has a long way to go and the PLA must overcome deep-seated institutional culture. Its identity as a party army with centralised decision making makes it difficult to professionalise the armed forces and imbue them with a culture that values individual decision making and delegation of command. The newly established command and control structures will also have to be upgraded to enable dynamic and rapid joint military operations and to effectively integrate new processes and technologies. Perhaps one of the most difficult challenges of the current reforms is to move from the traditional land-based, inward-looking model to one that lays the foundation for armed forces capable of conducting joint operations around the world²⁰.

Part of China's success may rest on its increasingly close relationship with Russia, with synergies of all kinds. Beijing is using its relationship with Moscow to fill in the gaps in its military capabilities. Russia already provides China with advanced weapons systems that enhance its air, anti-ship and submarine defence capabilities, eroding the US military advantage in the Indo-Pacific region. Both countries are also increasing their technological cooperation, which could enable them to accelerate their innovation. The deepening Sino-Russian defence relationship amplifies the ability of both to project power and to challenge US dominance in key regions, forcing the US to pay attention to very separate strategic theatres and very different strategic cultures. Thus, their joint naval

¹⁹ *Military and Security Developments Involving the People's Republic of China 2020. Annual Report to Congress.* US Department of Defense, p. ii.

²⁰ *China Military Power. Modernizing a Force to Fight and Win.* Defense Intelligence Agency, January 2019, p. 5.

manoeuvres with countries like Iran allow them to create serious problems for Washington at a very low cost and a very high strategic value²¹.

Furthermore, the PRC is very well positioned in the development of artificial intelligence and 5G technologies and has made military advances in the application of second generation quantum technologies, which puts it in a good position to face the next revolution in military affairs²².

The US, still has the most formidable military force in the world, which is currently far superior to China's, and it will not be easy for the Asian giant to overthrow the American great power. However, Washington has the disadvantage of its distance to the Indo-Pacific theatre and China's strategic patience and versatility. US experts believe that in a military confrontation the US would now have an 80 percent chance of prevailing, but in a decade this advantage could be reduced to around 50 percent.²³ Beijing knows that time is on its side.

Over the past few decades, the most authoritative voices have almost always fallen short of forecasts regarding China's military development, and we are now seeing concrete results and very significant achievements. It seems reasonable to think that the PRC will achieve a large part of the objectives it has set itself. This will lead to a random and tense overall strategic picture. China will not relent until it recovers Taiwan and secures access to the Pacific and Indian Oceans. A strategic reflection is required that calls for prudence, which, while recognising the need for a certain containment of China, should seek a reasonable degree of understanding, which would, however, lead to an unstable and difficult coexistence. We must avoid a major ideological confrontation that could trigger passions, lead to a dangerous escalation of tensions and close the door to partial agreements in areas of global interest.

²¹ KENDALL-TAYLOR, Andrea, SHULLMAN, David. *Navigating the Deepening Russia-China Partnership*. CNSA, p. 1.

²² CASTRO TORRES, José Ignacio. *La segunda revolución tecnológica en la mecánica cuántica y su aplicación a las tecnologías de la defensa*. IEEE Analysis Paper 25/2019, pp. 23-27. http://www.ieee.es/Galerias/fichero/docs_analisis/2019/DIEEEA25_2019JOSCAS_Cuantica.pdf.

²³ *China's Rising Assertiveness Video*. CSIS, November 2020. <https://www.csis.org>.

Conclusion

With the birth of the PRC in 1949, the Asian giant regained its unity –with the exception of Taiwan–, freed itself from foreign interference and set about recovering its lost centrality, doing everything possible to prevent a repetition of the abuses suffered at the hands of the powers during the century of humiliation.

Given the economic abyss and technical backwardness into which China had fallen, Mao Zedong designed a defence strategy based on a large-scale, protracted war by all the people against the potential invader. The PLA was a large force but with very reduced military quality. Deng Xiaoping designed a long-term strategy that sacrificed defence, sought a low profile that would avoid confrontation and reduce the powers' resistance to China's rise, placing all the emphasis on economic development, a precondition for being able one day to claim its rightful place from a position of strength.

The overwhelming defeat of Saddam Hussein in the Second Gulf War (1990-91) and the geopolitical change brought about by the end of the Cold War prompted the first major military reform in China. Without modernising the PLA in line with the new technological standards, the PRC risked being at the mercy of the most advanced powers. The crisis of the Taiwan Strait and the US attack by mistake of the Chinese embassy in Belgrade further highlighted the Asian giant's vulnerabilities, reinforced mistrust of the US hegemonic power and made military modernisation more pressing.

With the new century came first a significant increase in the defence budget and, later, an assertive attitude in territorial claims. Since his arrival in power in 2012, Xi Jinping has made it clear that Deng's low-profile strategy has gone forever and that the Asian giant is not going to modernise following the liberal-democratic model, but one of its own inspired by its history and civilisation. Military modernisation has received a major boost with the aim of making the PLA a world-class military force by 2049.

Today, China's armed forces have reached an astonishing level of development, having surpassed those of the US in some respects, although they are still far from their global capabilities. The race for global military supremacy is uncertain, this is the area where the American great power has the greatest predominance over the Asian giant, but Beijing has the advantage that in strategic terms it would suffice to achieve military pre-eminence

in the surrounding geographical environment, and the US has the Pacific Ocean in its midst.

Until now, the dominant view has always underestimated the capacity of the PRC to successfully overcome the successive stages of modernisation and development. The reasonable thing to do is to work with the hypothesis that China will become a military power no less than any other, at least in the Asian region. If this happens, it will have very serious consequences for the global international order, it will force a review of many strategic considerations, and it is important not to make mistakes that could be very costly later on.

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