



RCAS Commentary

China's Mainly Homegrown C919 Is Ready For Take-off

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About RCAS

香港亞洲研究中心| The Hong Kong Research Center for Asian Studies (RCAS) is a nonprofit research organization focusing on Asian affairs. It is a newly established institution founded in February 2022 by Dr. Nian Peng in Haikou and subsequently moved to Hong Kong in September 2023. We currently have an international research team with nearly 100 resident/nonresident researchers from China and other countries.

RCAS aims to become a leading research institute and think tank on Asian affairs in the Indo-Pacific region. To date, RCAS has conducted research programs on maritime disputes in the South China Sea (SCS), China's relations with the Indo-Pacific states, the Belt and Road Initiative (BRI), terrorism/counterterrorism in the Afg-Pak region, and so on. It is committed to promoting maritime cooperation, regional integration, and regional peace in the Indo-Pacific region at large.

RCAS has published nearly ten books in Chinese and English and more than 20 papers in SSCI/SCOPUS/CSSCI-indexed journals. Recent English publications include *Populism, Nationalism and South China Sea Dispute: Chinese and Southeast Asian Perspectives* (Singapore: Springer Nature, 2022); *Pakistan's Foreign Policy: Contemporary Developments and Dynamics* (London: Routledge, 2022); *Crossing the Himalayas: Buddhist Ties, Regional Integration and Great-Power Rivalry* (Singapore: Springer Nature, 2021); *The Reshaping of China-Southeast Asia Relations in Light of the COVID-19 Pandemic* (Singapore: Springer Nature, 2021); *Territorial Disputes, The Role of Leaders and The Impact of Quad: A Triangular Explanation of China-India Border Escalations* (2023); *Managing the South China Sea Dispute: Multilateral and Bilateral Approaches* (2022); *China-Pakistan Cooperation on Afghanistan: Assessing Key Interests and Implementing Strategies* (2022); *Hedging Against the Dragon: Myanmar's Tangled Relations with China since 1988* (2021); and *China-Pakistan Conventional Arms Trade: An Appraisal of Supplier's and Recipient's Motives* (2020).

RCAS has also published hundreds of articles, and its researchers have been interviewed in various local and international media outlets, such as *The Diplomat* in the United States, *East Asian Forum (EAF)* in Australia, *Bangkok Post* in Thailand, *Jakarta Post* in Indonesia, *Lian He Zao Bao*, *Think China* in Singapore, *South China Morning Post (SCMP)*, *China-US Focus* in Hong Kong, *CGTN*, *Global Times*, *World Affairs* in China. RCAS researchers have actively participated in international conferences or study visits in the United States, India, Pakistan, Sri Lanka, Nepal, Myanmar, Cambodia, and other places.

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China's homegrown C919 airplane has soared to new heights. The aircraft carried its millionth revenue passenger on 19 December 2024, and was used for the first time outside mainland China-on a commercial route operated by China Eastern Airlines-from Shanghai to Hong Kong on 1 January 2025. These are remarkable milestones, accomplished in just over a year since its service debut in May 2023.



▲ A COMAC C919 flies during an aerial display at the Singapore Airshow at Changi Exhibition Centre, in Singapore on 20 February 2024. (Edgar Su/Reuters).

Designed by the Shanghai-based state-owned Commercial Aircraft Corporation of China (COMAC), the C919 is a narrow-body, twin-engine, single-aisle aircraft that could challenge the global dominance of Boeing's 737 and Airbus's A320 families. COMAC was established by China in 2008 to develop homegrown aircraft and reduce its reliance on foreign aircraft. As China began ascending to great power status, it realised that its airspace was dominated by planes manufactured by foreign companies. The Chinese leadership dreams of making Shanghai the next aviation manufacturing capital, like Everett in the US-home to Boeing's largest manufacturing facility-and Toulouse in France, known as the "European capital of aeronautics".

The C919 airplane can accommodate between 158 and 192 passengers. By December 2024, COMAC had delivered 16 C919s to three Chinese airlines: China Eastern, China Southern and Air China. The company has already received record orders for over 1,000 units and will increasing its production capacity from one to 11 units per month by 2040. Most recently COMAC said that it has a target of delivering 30 C919s this year.

In February 2025, China Eastern Airlines, thus far the largest recipient, will expand its capacity by offering 260 flights with 42,400 seats per week using C919s. This represents about 1.4% of the airline's overall scheduled capacity.

In addition to its flagship C919, COMAC has developed the C909 (formerly known as ARJ21). Indonesia's TransNusa became the first overseas airline to operate a C909 aircraft, connecting Manado and Guangzhou in October 2024. Brunei's new carrier, GallopAir, has also placed orders, while Cambodia has shown interest in purchasing. COMAC is also developing its first widebody aircraft, the C929, although it will not be able to bring it to market until the 2040s.

Patches of turbulence

Headwinds and turbulence are part of a flight experience, and COMAC is no exception. In order to fly on international routes, COMAC needs certifications from two key global regulators: the European Union Aviation Safety Agency (EASA) and the US Federal Aviation Administration (FAA). By August 2024, EASA had completed its fourth round of on-site assessments, but the regulator is still far from issuing a certification.

Like other international brands, COMAC products are not 100% homegrown. It receives engines from the Franco-American venture CFM International and auxiliary power units from the US-based Honeywell. China's dependence on the West for these key parts exposes its vulnerability. How would these companies react if their governments considered COMAC a threat to Boeing and Airbus? In the age of hyper-geopolitical rivalry, such concerns cannot be ruled out. China has already faced bans and heavy tariffs on EVs and computer chips in recent years. Simultaneously competing with the world's most established manufacturing companies, Boeing and Airbus, which have monopolised the aviation industry since its inception, will be an uphill task for COMAC.

Once COMAC passes through this turbulent phase, the rest of the journey will be relatively pleasant. As COMAC prepares for take-off on international routes, a huge domestic market awaits homegrown aircraft. As mentioned before, COMAC has received orders many times more than it can produce, even with increased capacity.

International outreach and expansion

Experts suggest that COMAC can start international expansion from Southeast Asia for several reasons. Firstly, C919's existing travel range is best suited for flying to Southeast Asia. Secondly, the airplane has already conducted demonstration flights to Vietnam, Laos, Cambodia, Malaysia and Indonesia. In February 2024, the C919 and ARJ21 participated in Singapore's international airshow, marking their first international appearance.

Thirdly, China Eastern and China Southern's existing networks in Southeast Asia can provide a strong foundation. Fourthly, China has secured mutual recognition of airworthiness certification with Singapore, Indonesia and Myanmar. This means that C919 can fly to these countries even though it has not yet received certification from US and European regulators.

COMAC's marketing team also explores businesses in the Middle East, Central Asia, Africa and Latin America. Following Saudi Arabia's May 2024 announcement of the purchase of 105 Airbus planes, Dongfeng He, CEO of COMAC, made a whirlwind visit to the country to explore the vast market. Additionally, China has a significant market comprising Belt and Road Initiative member countries, to which it has exported its signature products, such as EVs and high-speed railways. At the moment, however, increasing production, obtaining certification, and ensuring exceptional safety as the world watches closely are greater challenges than selling new units.

COMAC's entry into the market could not have come at a more appropriate time. It benefits from the challenges faced by its dominant rivals, Boeing and Airbus, as both grapple with safety concerns, supply chain disruptions, and logistical inefficiencies.

Building a competitive aviation industry will break Boeing and Airbus's monopoly, reduce China's dependence on these companies, enhance China's prestige, and provide the world with alternatives.

Developing a national aviation industry

The C919 is part of President Xi Jinping's "new whole-nation system" which was reinvigorated in 2019 and integrated into China's 14th Five-Year Plan (2021 to 2025). The plan was conceptualised against the backdrop of China-US tech rivalry, in which the US has attempted to limit China's access to high-tech by imposing curbs. In response, Beijing demonstrated its resolve to advance its technologies to reduce Western dependence.

With huge domestic demand, a growing regional presence, and an eye on the international market, COMAC's C919, in particular, and other airplanes in general, have the potential to succeed. Building a competitive aviation industry will break Boeing and Airbus's monopoly, reduce China's dependence on these companies, enhance China's prestige, and provide the world with alternatives. Frequent travellers might have the opportunity to board an aircraft "Made in China", possibly operated by a Chinese airline as well.

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About Author



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