## China Military Jet Engine Development Overview: An eReader

## China SignPost™ 洞察中国-"Clear, high-impact China analysis." ©

For the past two years, we've worked hard to bring readers cutting edge analysis of China's military jet engine development. The motivations for our focus are clear. First, to the best of our knowledge, no other open source publications have performed this sort of in-depth analysis of Chinese military and commercial jet engine development. This analytical gap is simply too important to leave unfilled. Second, weakness in jet engine production increasingly threatens to imperil China's rapid progress in other aerospace dimensions such as airframe design and avionics, which are moving ahead far more quickly. The "linchpin" status of aeroengines makes the subject vital to understand for anyone interested in the future trajectory of China's military aviation development.

With these powerful strategic forces in mind, we are pleased to bring you a one-stop shop of indepth analysis, highlighted by our latest work, <u>The 'Long Pole in the Tent': China's Military Jet Engines</u>, which just came out in <u>The Diplomat</u>.

For the full analysis, see Andrew Erickson and Gabe Collins, "The 'Long Pole in the Tent': China's Military Jet Engines," The Diplomat, 7 December 2012. Here are our most important points overall:

..."a critical question remains unanswered: how rapidly and to what extent will the J-15 and other Chinese military aircraft be powered by indigenous engines?"

"As in so many other areas, China's overall development and production of military aircraft is advancing rapidly. Yet, as with a tent, it is the "long pole" that is essential to function and undergirds performance. In the case of aircraft, the most critical and difficult-to-produce component—the "long pole"—is the engine. Given the wide array of market-tested alternatives, nobody will buy a unit in which this central component is flawed. Hence, China's currently significant efforts to make progress there, the outcome and impact of which remains uncertain."

Now of course there's much more too it. If you haven't seen it already, the full article is accessible at <a href="http://thediplomat.com/2012/12/07/the-long-pole-in-the-tent-chinas-military-jet-engines/">http://thediplomat.com/2012/12/07/the-long-pole-in-the-tent-chinas-military-jet-engines/</a>

For those who are especially interested in the subject, here's the complete package of our Chinese jet engine analysis to date:

Andrew Erickson and Gabe Collins, "The 'Long Pole in the Tent': China's Military Jet Engines," The Diplomat, 7 December 2012.

Gabe Collins and Andrew Erickson, "<u>Is China About to Get Its Military Jet Engine Program Off</u> the Ground?" China Real Time Report (中国事实报), Wall Street Journal, 14 May 2012.

Gabe Collins and Andrew Erickson, "A Chinese 'Heart' for Large Civilian and Military Aircraft: Strategic and commercial implications of China's campaign to develop high-bypass turbofan jet engines," China SignPost™ (洞察中国) 47 (19 September 2011).

Gabe Collins and Andrew Erickson, "China's Jet Engine Future," The Diplomat, 13 July 2011.

Gabe Collins and Andrew Erickson, "<u>Jet Engine Development in China</u>: <u>Indigenous high-performance turbofans are a final step toward fully independent fighter production</u>," *China* SignPost™ (洞察中国) 39 (26 June 2011).

Finally, for those who truly can't get enough on this subject, below are some particularly insightful analyses that have cited our Chinese aeroengine research:

<u>David Axe</u>, "<u>Engine Woes Could Ground China's Stealth Armada</u>," Danger Room, *Wired*, 18 September 2012.

Marc Szepan, "Changing the Rules of the Game: The Commercial Aircraft Industry in China," Harvard Asia Quarterly, 14.1/2 (Spring/Summer 2012): 112-22.

James Fallows, *China Airborne* (New York: Pantheon Books, 2012).

Phillip C. Saunders and Joshua K. Wiseman, <u>Buy, Build, or Steal: China's Quest for Advanced Military Aviation Technologies</u>, China Strategic Perspectives 4 (Washington, D.C.: National Defense University Press, December 2011).

John Reed, "China's Ability to Make Quality Jet Engines," DoD Buzz, 28 September 2011.

Robert Karniol, "China Defense Industry Faces Homemade Engine Troubles," China Post, 20 July 2011.

Dave Majumdar, "China Nears Jet Engine Breakthrough: Report," Defense News, 30 June 2011.

So, have a great holiday, but don't take your eye off developments in China—new and interesting things could be emerging at any time!

Seasons Greetings,

**Andrew and Gabe** 

## **About Us**

China Signpost™ 洞察中国-"Clear, high-impact China analysis."©

China SignPost™ aims to provide high-quality China analysis and policy recommendations in a concise, accessible form for people whose lives are being affected profoundly by China's political, economic, and security development. We believe that by presenting practical, apolitical China insights we can help citizens around the world form holistic views that are based on facts, rather than political rhetoric driven by vested interests. We aim to foster better understanding of key internal developments in China, its use of natural resources, its trade policies, and its military and security issues.

China SignPost™ 洞察中国 founders Dr. Andrew Erickson and Mr. Gabe Collins have more than a decade of combined government, academic, and private sector experience in Mandarin Chinese language-based research and analysis of China. Dr. Erickson is an Associate Professor at the U.S. Naval War College's China Maritime Studies Institute (CMSI) and an Associate in Research at Harvard's John King Fairbank Center for Chinese Studies. Mr. Collins is a law student at the University of Michigan Law School. His research focuses on commodity, security, and rule of law issues in China, Russia, and Latin America.

The positions expressed here are the authors' personal views. They do not represent the U.S. Naval War College, Navy, Department of Defense, or Government, and do not necessarily reflect the policies or estimates of these or any other organizations. The authors have published widely on maritime, energy, and security issues relevant to China. An archive of their work is available at <a href="https://www.chinasignpost.com">www.chinasignpost.com</a>.