

# CENTRE FOR JOINT WARFARE STUDIES



## CENJOWS

### CHINESE MILITARY PARADE 2019 – HIGHLIGHTS

1. **Ongoing Modernisation of Armed Forces of China. Display of Eqpt During 2019 Military Parade: New Technologies.** China conducted its biggest ever military parade on 01 Oct 2019 as part of its celebrations for 70 years of Communist Party rule. It took place in Tiananmen Square in front of officials, selected members of the public, and 188 military attaches from 97 countries. A total of 15,000 military personnel took part, including 59 different elements of the military, while 580 pieces of military equipment and 160 aircraft participated. For the first time, a contingent from China's 8,000-strong UN peacekeeping also participated.
2. During the parade, PLA placed particular emphasis on new technologies which included new missiles, stealth and unmanned vehicle capabilities etc. The important ones on display were:-
  - (a) The latest road-mobile DF-41 intercontinental ballistic missile on display is believed to have a range of up to 9,400 miles, which would make it world's longest-range military missile and make it capable of targeting any part of the globe. It is said to carry a warhead payload of 10 multiple, independently targetable re-entry vehicles (MIRV). A MIRV warhead can be guided towards a specific target, so one could potentially hit 10 different targets over a wide area (Details of D-41 at Para 6 to 9).
  - (b) Another ballistic missile system on display was the DF-17, said to be able to carry a hypersonic glide vehicle akin to Russia's Avangard system. This will be able to manoeuvre evasively at incredibly high speeds. Hypersonic glide vehicle technology also permits it to fly at a much lower altitude just prior to delivering its

warhead, thus frustrating attempts to detect and intercept. DF 17 is a hypersonic ballistic nuclear missile believed capable of breaching all existing anti-missile shields deployed by the U.S. and its allies.

(c) The DF-26 ballistic missile which, fired from land bases, is believed to have the accuracy to strike at the key element of US power projection, the US Navy's aircraft carriers. It is dubbed "Guam killer" in reference to the U.S. Pacific island base.

(d) Some more new missile systems including anti-ship, anti-aircraft and cruise missiles, as well as a new long-range multiple rocket launcher were on display. Among these were the "carrier killer" Dongfeng-21D (DF-21D), unveiled at military parade in 2015, designed to hit warships at sea at a range of up to 1,500 kilometers. Long-range submarine-launched and ship-based YJ-18A anti-ship cruise missile was also on display. Other weapons featured were the JL-2 missile, which can be launched from a nuclear submarine providing sea-based nuclear deterrence.

(e) Unmanned aircraft on display included a supersonic surveillance and targeting drone called the DR-8 and a stealthy batwing-shaped drone dubbed Sharp Sword, designed to be launched from aircraft carriers. The parade offered the first clear look at the supersonic DR-8 spy drone, which would be expected to play a key role should there be a conflict with US aircraft carrier strike groups in the South China Sea or Western Pacific. The Gongji-11 is described as an attack drone and the "final version" of the Sharp Sword drone that first flew in 2013. It was displayed for the first time on the back of a truck. The GJ-11 stealth attack drone closely resembles the U.S. Navy's X-47B attack drone. It has performed well in tests but has not yet been put into service.

(f) Y-20 transport aircraft, J-20 stealth fighters and early warning and surveillance aircraft were on display. In the air was its new single-seat fighter, the J-20, which is said to be in operational service. **It is known as a "fifth generation fighter"**, meaning that it incorporates stealth technology; it has a supersonic cruising speed and highly integrated avionics.

(g) The latest variant of China's strategic bomber the H6-N - capable of in-flight refuelling and carrying air-launched ballistic missiles. China showed jets in aerial refueling formation, and the Z-20 medium lift helicopter, similar to a U.S. UH-60 Black Hawk, also made its public debut.

(h) A new and advanced radar system that could "detect jets and missiles" was also introduced, as well as new HQ-9B surface-to-air missiles capable of intercepting multiple air strike weapons in a complex electro-magnetic environment.

(j) A pellet-like underwater drone **Deep-sea drone was on display and is the** manifestation of the PLA's embrace of unmanned systems for naval warfare.

3. This parade seeks to celebrate China's achievements in terms of defence innovation and indigenous production. The key message is that the PLA has truly

moved into a new era - Xi Jinping's new era - and that following far-reaching reforms, it is well positioned to advance towards becoming a truly modernised force by 2035 and world-class force by 2049. The technological advancement that China has achieved is almost unprecedented. Warfare has become increasingly information-driven in recent years - about networks rather than just systems. This was reflected in the variety of unmanned systems on display in the parade in Beijing. The parade was also a show of strength to the US. China has one clear strategic aim in mind to which many of its new weapons systems are tailored. In the event of a conflict, the aim is to push US military power as far away from its shores as possible, ideally deep into the Pacific. This strategy is known as "anti-access area denial" - sometimes abbreviated as A2AD. This explains China's focus on long-range air and maritime systems that can hold the US Navy's carrier battle groups at risk.

4. China is also developing future weapons based on New technologies and the main areas of interest are as follows:-

(a) **Artificial intelligence Technology.** China's People's Liberation Army is also investing in a range of AI-related projects and PLA research institutes are partnering with the Chinese defence industry. The PLA anticipates that the advent of AI could fundamentally change the character of warfare.

(b) **Killer robots and Drones.** The PLA may leverage AI in unique and perhaps unexpected ways and some PLA thinkers anticipate the approach of a "singularity" on the battlefield, where humans can no longer keep pace with the speed of machine-led decisions during combat. Drones are being developed for use in all dimensions and China is developing this capability expeditiously.

(c) **Unrestricted Warfare.** China is developing a range of capabilities linked to the space and cyber domain in order to sidestep the overwhelming might of the US military in the Pacific region. The PLA calls this fighting "local wars under informationised conditions". China recognised almost two decades ago that in the mid-term the PLA could be no match for US conventional forces and began working on what was dubbed "unrestricted warfare" - combining multiple methods to defeat a superior opponent. At the same time they launched civilian acquisition projects in the high-tech domain to increase Chinese competitiveness and to boost indigenous production capabilities which sometimes involved dual-use technologies.

(d) **Space Theatre.**

(i) One of the most pressing concerns for the US navy is the threat posed by a "carrier killer" anti-ship missile with enhanced targeting capabilities facilitated from space.

(ii) One of the PLA's most sensitive advances has been the secret deployment and testing of advanced anti-satellite (ASAT) and Anti Ballistic Missile (ABM) weapons systems. Two years ago, China successfully intercepted one of its own ballistic missiles as it streaked through space. This test coincided with the Pentagon's sale of Ballistic Missile Defence (BMD) Patriot systems to Taiwan. This capability, combined with the

potential for China to develop its own Ballistic Missile Defence umbrella, suggests that the space domain will be a new theatre for US-China rivalry. This would suggest that China has experimented with techniques which could be used for "space mining", where mines or mini-satellites armed with jamming technologies could be placed within the orbits of an opponent's spacecraft.

(e) **Carrier Group.** In addition to its "sea denial" and space warfare strategies, China is also expanding its conventional capabilities. China plans to build three aircraft carrier battle groups, each armed with 40 fighters, up to eight warships, three nuclear-powered attack submarines and a number of support vessels.

(f) The PLA Air Force in recent years has extended its ability for offshore operations, enhancing an offensive capability. It is planning an overhaul of its ageing fleet with the deployment of over 3,000 new aircraft.

5. The Military Parade of 2019 showcased the excellent progress made by China in modernizing the Defence Forces. The emphasis was on new technologies like Missiles which aim to reach greater ranges in short time (hypersonic) with stealth technology so as to avoid detection and evade BMD of the enemy. They are also focusing on UAVs and Drones which will be able to operate in multiple domains. The new technologies which will be incorporated in these will include stealth, high speeds and greater ranges. Drone will be structured for swarming and the Naval variant of these have already been demonstrated. There is also the vision to expand the navy and the Air Force with the latest technologies and include AI, Space and Cyber domains as the new focus areas so that the dominance of US in traditional areas of warfighting can be disrupted.

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