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## CHINA'S 6G TO POWER AI ARMY OF THE FUTURE

1. **China's Military Developing 6G Internet to Power AI Army of the Future.** China has discussed using 6G-telecommunication technology to modernize its fighting forces, even though the country has just begun implementing 5G technology and 6G exists only in theoretical studies. The Chief telecoms engineer Xin Su is working on a close to zero latency 6G Internet network. The network is being solely produced for the Army.
2. This 6G technology has the capability to put China for the first time ahead of the US, because of 6G's vastly superior bandwidth, extremely low latency, and high connectivity properties. The future of combat will be autonomous and reliant on data drive artificial intelligence.
3. An article titled "*If 6G Were to be Used in the Future Battlefield*", published by the PLA's China National Defence News on Monday 13 April 2020, said that 6G had a distinct technological edge and rich potential for military applications when compared to 5G.
4. The article said: "If 6G technology is introduced into the military, it will surely have a major impact on military practices, such as war formation, equipment development, and battlefield communications. Promoting the gradual application of 6G in the military might be one of the major focuses for the Chinese armed forces to adapt to the new military changes in the future."
5. The terms 6G and 5G refer to the sixth and fifth-generation of mobile wireless networks. While 5G is known to have data transmission speeds at least 10 times greater than 4G, rolled out in 2009, 6G is envisioned to have a speed 10 times greater than 5G.

6. China officially launched 5G networks in November. Industry and researchers have speculated that 6G could be in use by 2030.

7. The article said potential 6G benefits went beyond data transmission speed. Better internet access, high transmission rates, low delay and broad bandwidth would deliver military advances such as:-

- (a) Gathering intelligence;
- (b) Visualizing combat operations; and
- (c) Delivering precise logistical support.

8. The article added: "Based on the 6G network, the commander could make the right decisions quickly after the control-and-command network mined, learned and analyzed vast data from the ground,"

9. The China National Defence News report said that battle units could get highly specific and instantaneous information on troop locations and equipment, allowing the military to make tailored logistic plans.

10. China officially started researching the 6G telecoms technology in early November, according to a Ministry of Science and Technology notice. The ministry announced that it had two teams overseeing 6G research:-

- (a) One comprised government departments in charge of executing 6G technology,
- (b) While the other was made up of 37 experts from universities, science institutions, and corporations who would provide technical advice to the government.

11. China has already rolled out 130,000 5G base-stations across its vast landmass. Wang Xi, vice-minister for science and technology, said it was not yet clear how 6G would be applied or what its key indicators would be, but China attached high importance to the research and development of the future technologies and was striving to make breakthroughs.

12. China is not the only country researching 6G wireless technology. US President Donald Trump said in February last year that he wanted, "5G, and even 6G, technology in the United States as soon as possible".

13. Japan has also recently joined the 6G-research race, announcing in January an intention to lead standardization efforts and to study challenges it might present.

14. Timothy Heath, a senior defence researcher at the Rand Corporation, a US think tank, said that as little was known about 5G, discussions about the use of 6G in warfare were currently speculative. "We have seen China making clear progress in [artificial intelligence], 5G, quantum technologies, unmanned systems and supercomputers. But overall, the US still has the lead in new technologies," he said.

15. 6G would give operators greater control over the unmanned military machines that would play a lead role in future wars, he said. “Yet we must also keep in mind that greater control from the top might weaken the initiative and creativity of personnel on the field.”

<https://www.express.co.uk/news/world/1274075/china-military-latest-6G-technology-artificial-intelligence-AI-army-xi-jinping>

<https://www.scmp.com/news/china/military/article/3080235/chinas-military-draws-6g-dream-modernise-fighting-forces-and>