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What 5G means to the military

5G wireless communications is expected to move voice, video, text, and image data with bandwidth as fast as 300 GHz to create data on demand for the battlefield.

Although 5G has the potential for lightning-fast military data communications, its higher frequencies have relatively short ranges, which will require building large numbers of fixed-site and mobile towers.

NASHUA, N.H. - Emerging fifth-generation wireless communications — better-known as 5G — will be far more than quick-connect phone calls and fast movie downloads, particularly for the U.S. military. 5G, in fact, could make reality of what military leaders as far back as the 1980s referred to as the “infosphere,” where access to data from video, voice, sensors, targeting, reconnaissance, and even the sights on infantry weapons are easy and instantaneous for anyone who needs it, John Keller reports for *Military & Aerospace Electronics*. Continue reading original article.

The Intelligent Aerospace take:

December 7, 2020 - Enabling unmanned aerial vehicles (UAVs) to operate safely in congested commercial air space with commercial passenger aircraft, business jets, and commercial helicopters also lends itself to 5G, says Mike Southworth, senior product manager at the Curtiss-Wright Corp. Defense Solutions. . "Commercial drones operating in commercial air space — 5G was the infrastructure they were thinking of using for the drones to communicate. Not crashing into something else, and collision-avoidance, 5G could help enable that."

Networking separate infantry warfighters also is a potential application of 5G, says Pentek's Rodger Hosking. "The military increasingly relies on data-connected warfighters. That means connecting soldiers, vehicles, command posts, ships, satellites, and planes with information that consists of everything that you know, using voice, data, imagery, and signals-intelligence information. 5G gives the military the potential for boosting the data rate capabilities between the links of these operations by 20 to 100 times faster than the current state of the art of LTE or 4G wireless speeds."

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