



French Army Approaches to Networked Warfare

Michael Shurkin, Raphael S. Cohen, Arthur Chan

www.rand.org/t/RR2946

The French concept of network-centric warfare argues that information-sharing enables forces to forgo armor and mass. The concept underpins France's push for a middle-weight force—one that can deploy to Africa but is still robust enough for higher-end threats. By contrast, the U.S. Army's modernization challenge starts with a different strategic premise and makes different assumptions about available logistical capabilities.



RESEARCH QUESTIONS

- How has the French Army developed its concept of NCW, why did Army officials decide to invest in it, and how did they hope NCW might benefit them?
- How does the French concept of NCW differ from the U.S. concept?
- What lessons did the French Army learn from using NCW technology in the field?
- How have NCW technologies affected the French Army on a strategic, operational, tactical, and cultural level?
- What should the U.S. Army in particular and the Joint Force as a whole take away from the French Army's experience with NCW and with its modernization effort more broadly?



KEY FINDINGS

NCW does not represent a Revolution in Military Affairs

- NCW has not fundamentally changed how the French fight, but it has advantages, including better comprehension, faster decisionmaking, better coordination of units, and better optimization of resources.

The French Army does not know how NCW will integrate into coalition operations

- French Army units routinely partner with relatively underdeveloped forces in Africa that are not equipped with NCW technology. French officers acknowledged the challenges of integrating these forces into their formations, but many felt that the obstacles would not be insurmountable.

continued on back

- Perhaps a greater challenge is integrating fellow first-world militaries for a high-intensity fight. France has a relationship with other NATO countries but is struggling to implement cross-national NCW.

NCW provides only partial situational awareness

- French officers highlighted better situational awareness on friendly forces. At the same time, NCW cannot detail where enemy forces are in real time.
- Many French officers accepted the reality of incomplete intelligence, suggesting that too much intelligence inspired overconfidence and, ultimately, recklessness.

French military culture is resistant to new technology

- Two norms in French military culture present challenges to the adoption of NCW: *rusticité* and *subsidiarité*. *Rusticité* is pride in working with less and offers an important advantage in that the French are serious about retaining the skills required to fight without NCW technology. A potentially more significant cultural challenge is that of *subsidiarité*, or the principle of delegating authority to lower echelons. Improvements in technology could challenge this norm: As the upper echelon commanders' ability to monitor developments from afar improves, their ability to centralize authorities increases.



RECOMMENDATIONS

- The U.S. Army should moderate its ambitions. Few French officers believed that NCW would transform warfare or how they operate; rather, they believed that NCW would be an improvement over what they had. The French Army's more modest approach to modernization seemingly has paid off, whereas grander U.S. modernization plans have fallen flat.
- The French experience shows the value of moderating ambitions toward technology and highlights the trade-off inherent in incrementalism between the risks of failure and incompatibility. The U.S. Army leadership needs to weigh the pros and cons of incrementalism explicitly in the procurement process.
- Despite the fact that the French concept of NCW was developed in the late 1990s, the French fielded the technology in Côte d'Ivoire by 2006, allowing them to inject real-world lessons learned into the design processes. The French program benefited from these experiences, and the U.S. Army should follow a similar approach to the extent that operational conditions allow.
- The U.S. Army has different institutional norms than its French counterpart, but the need to address the cultural implications of technology remains the same. After all, technology does not simply affect how units exchange information; it also affects how leaders exercise command and control, how units operate, and, ultimately, how soldiers fight. The French experience reinforces the importance of considering these second-order effects as part of the development process.
- Although the U.S. Army lacks an explicit norm of *rusticité*, the same operational imperative—to be able to fight without technology—applies, especially as part of the Army's renewed emphasis on preparing for conflict with near-peer adversaries.

