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**CONCLUDING OBSERVATIONS AND  
POTENTIAL IMPLICATIONS**

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The critical variable for determining the contours of the Information-Age Army is information. The degree of information superiority that one side might be able to achieve over the other is, potentially, what most needs to be measured for effectiveness in the Information Age.

Furthermore, as argued in earlier chapters of this report, gaining knowledge is as much a contest as is maneuver or the effective application of firepower in military operations. Thus, we have focused here on relative measures beginning with relative knowledge, for which we developed the knowledge metric. This metric expresses the relationship between ideal and actual knowledge, for both sides, in military operations.

Information superiority can be thought of, analytically, as the outcome of a two-sided interaction between opponents (i.e., a game or contest), in which one side achieves a decisive advantage, or some degree of dominance, over the other. In the extreme or best case, the superior side enjoys perfect information on both its own and its opponent's forces, as well as perfect intelligence about the opponent—including knowledge of the opponent's plans, intentions, and choices almost as soon as the opponent has decided to act upon them; it can even include the ability to affect what the opponent knows. In short, the superior side achieves "information dominance."

The high degree of superiority that one side can conceivably obtain over another in the Information Age is what makes this variable, on the one hand, so critical and potentially revolutionary. On the other hand, if neither side can achieve information dominance over the

other—or even significant degrees of information superiority—the technologies of the Information Age and their much-heralded benefits may not prove to be as one-sided or decisive, for either side, as enthusiasts tend to assume. First and foremost among MOEs for the Army of the future, therefore, are those that measure how to achieve and maintain information superiority and, if possible, information dominance.

The quest for information superiority leading to dominance might also change the nature of land power and ground warfare in the future. The direction of this change, as the Army evolves from its current force structure to Army XXI and, beyond that, to the AAN, could result in a reconfiguration of current relationships between firepower and maneuver on the battlefield. The historical balance between firepower and maneuver, which tended to favor firepower throughout much of the 20th century, could change, thanks largely to the role of information versus other technologies and systems.

By the time the AAN arrives in 2025 or beyond, Information-Age developments might already have enabled Army maneuver units to fight dispersed across both the length and the depth of future battlefields. In other words, ground forces may no longer measure success or failure by their ability to maintain a continuous FLOT but, rather, by the amount of both immediate and surrounding battlespace a given unit can control at a particular time. Even if FLOT movement continues to endure as an important yardstick, measuring it will be affected by the role that information plays in such calculations. The ability to maneuver ground units more effectively than at present (to maximize their operational reach) is what Information-Age technologies promise to provide.

Measuring the effectiveness of forces in combat, therefore, will remain a central focus for the Army in the Information Age. Only in the most extreme case—such total information dominance over an enemy that he chooses not to fight at all—is Information-Age warfare likely to obviate the need for combat. More likely, it seems, is a future characterized by contests in which information superiority is at issue, with both sides competing for it in dynamic fashion (e.g., through measures taken as initiatives and countermeasures launched in response) and the outcome being decided by force of arms. In the Information Age, however, such combat outcomes

seem likely to bear a strong positive relationship to the contributions that new technologies of the era, including but not limited to information technologies, can make to warfare. Hence, new MOEs, like the ones we have posited in this report, are needed to gauge the effectiveness of the new technologies' contributions to combat.

Finally, security and stability operations, formerly known as military operations other than war (MOOTW), will continue to function as significant claimants on the need for and use of military forces. Measuring the effectiveness of forces employed in this context is no mean feat, whether at present, in the recent past, or during the Information-Age future. But measure we must, in terms that are relevant to the new future and its technological promises. We have tried to suggest here not only that such measurements are necessary, because of the continuing role that security and stability operations will play in the future, but also that new MOEs tailored to MOOTW-like missions and Information-Age technologies are possible. We believe they can actually be established for the Information Age, not least because they can be constructed in ways that conform in important respects to the MOEs we have postulated for Information-Age combat.