An Analysis of Alternative Approaches to Measuring Multinational Interoperability

Early Development of the Army Interoperability Measurement System (AIMS)

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Researchers conducted an analysis of alternatives of interoperability measurement systems to support the U.S. Army in achieving interoperability with partners. Researchers identified a new approach, the Army Interoperability Measurement System, which includes a quantitative instrument for measuring interoperability levels and a qualitative component to enable capability gap analysis, among other features.

RESEARCH QUESTIONS

- What alternatives exist for the Army's interoperability measurement system?

KEY FINDINGS

- No current option had all the characteristics that would be required by the Army's interoperability system.

RECOMMENDATIONS

- The new measurement system should draw on strengths and eliminate weaknesses of other approaches, providing a more enduring and integrated interoperability measurement system. This system would fulfill the Army's need for a standardized and repeatable methodology to identify, evaluate, document, and organize interoperability issues with allies and partners; develop solutions; and communicate and execute those solutions with the Army's senior and operational leaders.
- The new system should be computer- or web-based.
- The Army should strive to reduce any additional personnel resourcing for the sole purpose of measuring interoperability.

- Measures in the new system should look very similar to those that are already collected during training events.

- The system should have both a quantitative and a qualitative data component with an embedded analytic capability that automatically calculates interoperability levels by priority focus area, ties levels to the qualitative data, and provides user-defined output to enable capability gap analysis.

- The system should have a standardized format for quantitative data that allows them to be analyzed over time and across exercises and a flexible format for qualitative data to capture newly emerging challenges.

- The system should have a component with measures that are as straightforward as possible, directly map to interoperability, and are aligned with doctrine to foster universal understanding.

- The Army should develop a measurement, not an assessment system, and work to make sure that users and stakeholders are educated on the differences.