

INTEGRATED PERFORMANCE MEASUREMENT AND ASSESSMENT IN DISTRIBUTED MISSION OPERATIONS ENVIRONMENTS: RELATING MEASURES TO COMPETENCIES

Thomas Carolan
Micro Analysis and Design, Inc.
Boulder, Colorado

Jean MacMillan ,
Eileen B. Entin ,
Rebecca M. Morley
Aptima, Inc.
Woburn, Massachusetts

Brian T. Schreiber ,
Antoinette Portrey
Lockheed Martin Technology Services Group
Mesa, Arizona

Todd Denning
L3 Communications, Link Simulation and Training Division
Mesa, Arizona

Winston Bennett, Jr.
Air Force Research Laboratory, Warfighter Training Research Division
Mesa, Arizona

Ongoing research at the Air Force Research Laboratory has underscored the importance of developing systematic methods for evaluating the impact of advanced training and rehearsal systems for both individual operators and teams. Given the expense associated with these systems, there is a critical need for reliable and valid methods and data to quantify the benefits of such systems. Previous attempts to quantify individual and crew performance have been modestly successful, but have not been integrative and inclusive. This paper describes the development of a competency-based and embedded performance measurement system for tracking individual and team performance in Distributed Mission Operations training events. The paper discusses the measurement challenges that must be addressed if focused assessment and evaluation of distributed training and rehearsal technologies and methods is to be accomplished. The paper describes the integrated approach taken by the research team at the Air Force Research Laboratory to develop and validate process- and outcome-oriented measures.

[This paper is available on the 2003 I/ITSEC CD ROM. Order it from I/ITSEC'S Website](#)