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Abstract ID: 15114

Title: Value of Virtual Integration in Training Exercises - USMC Use Case

Subcommittee: Policy, Standards, Management, and Acquisition

Abstract Text: Commandant of the Marine Corps stated in his 2015 Commandant's Planning Guidance (CPG),

"Our investment in training systems will reflect the priority we place on preparing for combat and be fully integrated with training and readiness standards. I expect all elements of the MAGTF to make extensive use of simulators where appropriate." This vision will entail an enterprise-level effort to improve operational readiness by interoperating and federating Live, Virtual and Constructive (LVC) domains to enhance individual, collective and battlestaff training.

The challenge lies in acceptance and perception of value in utilization of virtual simulation in live training exercises. Marine Corps Systems Command (MARCORSYSCOM), Training and Education Command (TECOM), and Naval Air Warfare Training Support Division (NAWC-TSD) were tasked in 2014 by I MEF CG with interoperating and federating previously non-interoperable and 'stove-piped' virtual and constructive Training Aids, Devices, Simulators and Simulations (TADSS) at I MEF's/ First Marine Expeditionary Brigade's (1st MEB's) Large Scale Exercise 2014 (LSE-14) to demonstrate that LVC TADSS could collectively stimulate a Marine Air Ground Task Force (MAGTF) Commander's Common Operational Picture (COP) in a notional Command Post Exercise (CPX). The expected outcome would be an operationally-effective MEF with capabilities to conduct full-spectrum military operations; thereby, demonstrating the value of virtual devices inclusion for providing training to both the primary (battlestaff) and secondary (supporting unit) training audiences. Past exercises utilized live-plus-constructive training models for this type of exercise.

This paper will present the impact of virtual integration on training efficacy achieved for primary and secondary training audiences. Included will be training value assessment, limitations; plus cost factors in terms of avoidance. Recommendations include providing effective environmental attributes/fidelity to support task performance to meet required Training and Readiness (T&R), plus process improvements to obtain training-related simulation data for analysis in support of future virtual integration in training exercises.

Will this paper have one or more authors from outside the U.S.?

No

Discussion Points:

- 1. training value
- 2. cost avoidance
- 3. LVC
- 4. virtual simulation
- 5. training efficacy

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Biography:

Mr. Jones is the Instructional Systems Specialists Functional Lead with U.S. Marine Corp Systems Command Program Manager for Training Systems in Orlando, FL. Mr. Jones has 15 years of experience in performing human performance and training effectiveness evaluations. His various professional experiences include serving as the human factors lead on combat vehicle and helicopter programs to systems safety and Instructional Systems Design lead on training aids, devices, simulators, and simulations (TADSS). Last year, Mr. Jones was tasked with leading the effort to determine the training value achieved by including virtual simulation in USMC I MEF Large Scale Exercise (LSE14). Mr. Jones is serving as the lead instructional systems specialist for

the Live, Virtual, Constructive Training Environment (LVC-TE) Analysis of Alternatives (AoA). Mr. Jones was a featured panelist at the Current Trends in ISD and IPA within LVC Events special events at 2014 I/ITSEC. He has a B.S. in Human Factors Psychology and Masters in Business Administration.

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Biography:

Mr. Seavers is Senior Operations Research Analyst with the U.S. Marine Corps Systems Command Program Manager for Training Systems in Orlando, FL. He is the Functional Lead for Cost Analysis for all PM TRASYS programs as well as the Tier 1 Cost Analyst for Product Manager Range Training Systems. Mr. Seavers has been a DoD cost analyst for twenty-six years (twenty-one years with Industry and five years in Federal Service) with both the U.S. Army and U.S. Marine Corps. Mr. Seavers' cost experience with the Army and Marine Corps includes Program Life Cycle Cost Estimates, Independent Government Cost Estimates, Proposal Evaluations, Analysis of Alternatives, Earned Value Management, and Business Case Analyses for multiple ACAT I through IV Programs. This experience includes Missile Systems, Radar Systems, Aviation Systems, Sub-Munition Systems, and Training Systems. He is DAWIA Level Three certified and a Certified Cost Estimator/Analyst through the International Cost Estimating and Analysis Association (formerly SCEA). Last year, Mr. Seavers participated in the Proof of Concept Study on Proficiency for the M1A1 AGTS. Currently, Mr. Seavers is serving as the lead cost analyst for the LVC-TE AoA. He has a Bachelor's degree in Finance and a Masters in Business Administration.

Status: APPROVED