

## Annex A – TAP

<b>Activity</b>	MSG-058	Conceptual Modelling for M&S										2007		
<b>Activity REF. Number</b>	RTG-038													
<b>Principal Military Requirements</b>	2											UU	May 2010	
<b>Military Functions</b>				4										
<b>Panel and Coordination</b>	MSG						IST							
<b>Location and Dates</b>	Multiple										P-I			
<b>Publication Data</b>	TR				2010			50			UU			
<b>Keywords</b>	M&S		Interoperability			M&S Re-use			VV&A					

### I. BACKGROUND AND JUSTIFICATION

Current M&S standards have provided a first step to interoperability and a state-of-the-art way to interconnect simulations and tools to build distributed systems of simulation but it is recognized that existing standards are not meant for exchange of semantics and concepts. The final objective of the TG is to achieve a common understanding and use of information exchanged between simulations for better satisfying military requirements for education, training and operational support. Conceptual models are key to the transformation of user needs and requirements to M&S design, and eventually implementation. The purpose of this NMSG TG is to develop a guidance document on Conceptual Models, which can be used in the future by NATO to support M&S requirements.

### II. OBJECTIVE(S)

Major objectives of this Task Group are to:

- Clarify the “Conceptual Model” concepts, discuss the terminology, and emphasize the utility to better formalize Conceptual Models, etc.;
- Investigate methodologies, simulation and software engineering processes, initiatives and technologies;
- Draft a guidance document on conceptual modelling that can be used by different stakeholders; and
- Foster the establishment of the guidance document as a SISO standard.

### III. TOPIC TO BE COVERED

The first step will be to clarify what a conceptual model for Military M&S is and what it represents. A common understanding is that conceptual models should serve as frames of reference for simulation development by documenting important entities/concepts, their properties, and their key actions and

interactions: a conceptual model should bridge between the requirements and simulation design. The second step will consist to investigate methodologies, simulation and software engineering processes, initiatives and technologies useful for the establishment and content of conceptual models. The final work will be to provide a tailorable set of guidance to the M&S community on conceptual modeling. This will guide users through the conceptual modeling effort by explaining how to apply it in practice. If possible a future guidance will be proposed to the international community for standardization via the SISO (Simulation Interoperability Standards Organization).

Deliverables and/or end product:

The final report should be a “guidance document” freely available to the international community.

#### **IV. DELIVERABLE**

Technical Report.

#### **V. TECHNICAL TEAM LEADER AND LEAD NATION**

Co-Chair: Mr. William F. Waite, United States.

Lead Nation: United States.

#### **VI. NATIONS WILLING/INVITED TO PARTICIPATE**

Canada, France, Netherlands, Norway, Romania, Spain, Sweden, Turkey, United Kingdom, United States.

#### **VII. NATIONAL AND/OR NATO RESOURCES NEEDED**

Nations should provide funding for their own participation (manpower and traveling resources).

#### **VIII. RTA RESOURCES NEEDED**

RTA will publish the final report and electronic support through its RTO Wise.

#### **IX. ADDITIONAL INFORMATION**

**Limited Participation Technical Team:** No.

**Comments:** This activity will be co-chaired by the USA and Romania.