



Joint Framework for Measuring C2 Effectiveness
23-26 January 2012 | JHU Applied Physics Lab, Laurel, MD

Terms of Reference

Working Group 1: Deriving Operational Metrics for Networked C2

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Background and Working Group 1 Vision

This working group will focus on the development of a Command and Control (C2) Metrics Framework for military forces conducting operations in a networked environment. This working group recognizes that the Army has replaced the term and definition of command and control with the term and definition of mission command; however, C2 is still used in the joint community and will be used by this working group. For this working group, a “metrics framework” includes both a set of questions to answer in conducting C2 analysis and a set of measures applied in the analysis. Understanding the strengths and limitations of current C2 metrics frameworks in use today by the different services is a key component to developing this framework. Although this working group will focus on the development of the framework, time permitting, the working group will identify and/or develop high level measures that further define this framework. The framework and measures will allow analysts to inform the value of current and future C2 systems from the perspective of the commander. The C2 Metrics Framework and supporting measures will enable disciplined and structured analyses to inform decisions senior leaders will make regarding current and future C2 systems.

The scope of the working group discussion will consider C2 and C2 systems measures from the strategic to the tactical level for military operations in a joint, interagency, intergovernmental, and multinational environment. These measures will apply to the analysis, test and evaluation, and experimentation concerning C2 issues across the doctrine, organization, training, materiel, leadership and education, personnel and facilities domains. WG1 will out-brief the C2 Measures Framework and actionable recommendations to the MORS Workshop.

Objectives

Objective 1: Understand the current C2 metrics frameworks the different services use today.

Objective 2: Develop an overarching C2 Metrics Framework.

Objective 3: Identify and/or develop high level example measures that further define the overarching C2 Metrics Framework.

Working Group 1 Organization

Working Group 1 Chair	LTC Gerald Benard, US Army TRAC-FLVN
Working Group 1 Co-Chair	Mr. Bruce Gorski, The MITRE Corporation (Lieutenant Colonel, USA Retired)
Working Group 1 Mentor	Mr. Don Kroening, Booz Allen Hamilton (BAH) (Colonel, USAR Retired)

Working Group Operations

The WG1 agenda has five working sessions (nearly 17 hours) to develop the C2 Metrics Framework. The WG1 Chair will modify the agenda shown below as necessary to accomplish working group objectives.

On Tuesday January 24, WG1 participants will hear several presentations on current approaches to C2 Metrics Frameworks. Presentations will be approximately an hour long followed by a thirty minute discussion on the strengths, limitations and gaps of the framework. The first presentation will be an Army approach to developing a Network Metrics Framework for C2 and C2 systems. The intent is to have other organizations brief different approaches to C2 Metrics Frameworks or recent C2 analyses.

On Wednesday January 25, the group will begin the session with a review of framework qualities recorded the previous day. The WG1 Chair will then assign sub-groups to develop specific deliverables for Objectives 2 and 3. The day will conclude with the sub-group leads back briefing WG1.

On Thursday January 26, WG1 will develop the C2 Metrics Framework briefing that the WG1 Chair will present at the WG1 Out-brief session in the afternoon. WG1 will also provide the synthesis group a written report for inclusion in the MORS Joint Framework for Measuring C2 Effectiveness final report. The final report will also include specific, actionable recommendations and identify potential items that require follow-up.

Agenda

To educate participants and support WG1 discussions, tutorials and posters are encouraged. The intent is to identify one or more tutorials about recent efforts in C2 systems analysis to present on Monday, January 23. If there is interest in demonstrating a method, tool, measure, and/or analysis, please contact the WG1 chair about the potential for conducting a tutorial. MORS intends to provide a wall space for posters about the measurement of decision making in the common area outside the working session areas. WG1 participants who offer content in the form of tutorials and posters should ensure the content aligns with the overall objectives of the MORS special session.

Tuesday, 24 January 2012		
0915-1130	WG1 Session 1 – Welcome and An Army Network Measures Framework	
0915-0930	Welcome Remarks, Introductions and Sign In	Chair
0930-0945	WG Objectives, Schedule, Products	Chair
0945-1045	An Army Network Measures Framework Brief	Chair
1045-1130	Army Network Measures Framework Feedback	Chair
1300-1630	WG1 Session 2 – Two Other Framework Approaches	
1300-1400	(1) Measures Framework Brief	TBD
1400-1430	Measures Framework Feedback	WG Chair
1430-1530	(2) Measures Framework Brief	TBD
1530-1600	Measures Framework Feedback	WG Chair
1600-1630	Session Wrap Up (Items to ponder overnight)	WG Chair
Wednesday, 25 January 2012		
0800-1130	WG1 Session 3 – Framework Review and Group Development	
0800-0830	Framework Feedback Review	WG Chair
0830-0900	Framework Structure Discussion	WG Chair
0900-0930	Group Assignments, Guidance, Expected Products	WG Chair
0930-1030	Group Mission Analysis	Group Leads
1030-1100	Group Mission Analysis Briefs	Group Leads
1100-1110	Cross Level Groups/Assignments	WG Chair
1110-1130	Group Time	Group Leads
1300-1630	WG1 Session 4 – Group Time	
1300-1530	Group Time	Group Leads
1530-1630	Group Briefings	Group Leads
Thursday, 26 January 2012		
0800-1200	WG1 Session 5 – Out-brief Development	
0800-0900	Core Group Work	WG Chair
0900-1000	Framework Briefing	WG Chair

1000-1100	Framework Briefing Feedback and Adjustments	All
1100-1200	Core Group Work toward Objective 3	WG Chair

Security Procedures

This workshop will be conducted at the UNCLASSIFIED level. Participation from non-U.S. experts involved in the issues of networked command and control is invited.

Facilities

This workshop will be conducted at the Kossiakoff Center, Johns Hopkins Applied Physics Laboratory in Laurel, MD.

The conference hotel for the workshop will be the Columbia Sheraton, 10207 Wincopin Circle, Columbia, MD
(877) 207-9358.