



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

Terms of Reference

Working Group 2: Analytic Support to C2 Acquisition

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Background and Working Group 2 Vision

This working group will explore the optimal use of operations analysis in the acquisition process of networked systems. It will focus on the application of analytic tools and methods to quantify the value that the C2 system brings to the warfighter. Specifically, it will look across various Services' examples of C2 system evaluation to determine recommended measures (e.g., how to quantify the value of information, how to translate data rates and volumes to information measures, etc) and methodologies.

The working group session will be structured to look across Service approaches at the differing evaluation methodologies required to inform each major phase of the acquisition process as a program progresses through MS-A to MS-C. For example, early technology development may require measures and methods to assess the promise and maturity of new and emerging technologies, while more mature C2 systems may call for measures and methods to assess their networking and information flow capabilities.

Objectives

Objective 1: Identify examples of analysis tools and methods successfully used to quantify the effectiveness of C2 systems.

Objective 2: Identify analysis methods applicable to phases of the acquisition cycle (i.e., assessing value of technology readiness or potential capability during early design phases vs. assessing full system capability later in the acquisition process).

Objective 3: Report findings and actionable recommendations for promoting adequate analysis of C2 systems to inform acquisition decisions.

Working Group 2 Organization

Working Group 2 Chair	Dr. Suzanne Beers, The MITRE Corporation
Working Group 2 Co-Chair	Tylar Temple, AMSAA, Aberdeen
Working Group 2 Co-Chair	Christina Shapiro, AMSAA, Aberdeen

Working Group Operations

In the agenda, WG2 has five working group sessions (nearly 17 hours) to develop recommendations for analysis of decision making during development, procurement, test and evaluation, integration, certification and operation of networked C2 systems. The WG2 co-chairs will conduct a facilitated problem-solving exercise, from issues to recommendations, to include action planning and outbrief development.

During the first day, attendees will hear presentations of research, testing, and

evaluation focused on the difficulties and risks associated with measuring decision making in a networked C2 environment. Each presentation will be allowed 30-35 minutes. Immediately following each presentation, the attendees will brainstorm on and discuss the factors/risks of inadequate analysis of decision making in the networked environment to create a root cause analysis fishbone diagram. Presentations and analysis will be distributed throughout the first day to keep ideas flowing and attendees engaged. Attendees will be encouraged to generate factors/risks on sticky notes and post them on the wall in the form of a fishbone diagram with notes categorized by methods, measurement, materials, machine, human, and environment. By the close of business Tuesday January 24, the fishbone diagram should be fairly “fleshed out.”

A similar process will follow on Wednesday January 25, however, the distributed exercise will turn to brainstorming potential solutions to the root causes identified previously. The attendees will refine and organize the list of solutions. On Thursday January 26, WG2 will begin outbrief development. At this time, the attendees will summarize the findings from the root cause analysis and solution brainstorming and prioritize the solutions for action as needed. Finally, attendees will develop specific, actionable recommendations and identify potential for follow-up. WG2 efforts will be outbriefed later that afternoon.

Agenda

Monday, 23 January 2012		
1200-1600	Early Registration	MORS Staff
1300-1600	Tutorials	Tutorial Chair
	Mission Command and Mission Command Systems Measurements	TRAC speaker
	Workshop Integration and Synthesis Process	Terry McKearney, Michael Pafford
Tuesday, 24 January 2012		
0715-0800	Continental Breakfast and Registration	MORS Staff
0800-0810	Plenary Session Kickoff and Welcome	Trena Lily, MORS President
0810-0815	Proponent's Welcome	Ms. Pamela Blechinger, Director, TRAC-FLVN
0815-0855	Keynote Address	TBD – flag/SES level with J6 and ORSA background, or NII background
0855-0910	Charter to Working Groups	Lee Lehmkuhl, Terry McKearney
0915-1130	WG2 Session 1 – Introductions and Working Group Overview	Suzanne Beers, Tylar Temple, Christina Shapiro
0915-0945	Introductions, Objectives, and WG2 Operations	Suzanne Beers, Tylar Temple, Christina Shapiro
0945-1015	Presentation 1 -1	TBD WG Attendee
1015-1045	Presentation 1-2	TBD WG Attendee
1045-1100	Break	
1100-1130	Open discussion & session wrap-up	
1130-1300	Lunch with speaker	TBD – possibly Bobby Junker or Gary Toth from ONR Code 31
1300-1630	WG 2 Session 2 – Analysis Techniques to Inform MS-A	Suzanne Beers, Tylar Temple, Christina Shapiro
1300-1330	Presentation 2 -1	TBD WG Attendee
1330-1400	Presentation 2-2	TBD WG Attendee
1400-1415	Break	
1415-1445	Presentation 2-3	TBD WG Attendee
1445-1515	Presentation 2-4	TBD WG Attendee
1515-1530	Break	
1530-1630	Daily Wrap-up	Suzanne Beers, Tylar Temple, Christina Shapiro

1730-2000	Social	MORS Staff
Wednesday, 25 January 2012		
0715-0800	Continental Breakfast and Registration	MORS Staff
0800-1130	WG 2 Session 3 – Analysis Techniques to ‘inform MS-B	Suzanne Beers, Tylar Temple, Christina Shapiro
0800-0815	Day 1 Review and Day 2 Focus	Suzanne Beers, Tylar Temple, Christina Shapiro
0815-0845	Presentation 3-1	TBD WG Attendee
0845-0915	Presentation 3-2	TBD WG Attendee
0915-0930	Break	
0930-1000	Presentation 3-3	TBD WG Attendee
1000-1030	Presentation 3-4	TBD WG Attendee
1030-1045	Break	
1045-1130	Session 3 Wrap-up & Discussion	WG-2
1130-1300	Lunch	Speaker TBD – possibly panel discussion with Service and DoD experts to discuss “real world” senior management perception of C2 value.
1300-1630	WG 2 Session 4 – Analysis Techniques to inform MS-C	Suzanne Beers, Tylar Temple, Christina Shapiro
1300-1330	Presentation 4-1	TBD WG Attendee
1330-1400	Presentation 4-2	TBD WG Attendee
1400-1415	Break	
1415-1445	Presentation 4-3	TBD WG Attendee
1445-1515	Presentation 4-4	TBD WG Attendee
1515-1530	Break	
1530-1600	Session 4 Wrap-up & Discussion	WG-2
1600-1630	Daily Wrap-up	WG-2
Thursday, 26 January 2012		
0730-0800	Continental Breakfast and Registration	MORS Staff
0800-1200	Working Group 2 Session 5 – Outbrief Development	Suzanne Beers, Tylar Temple, Christina Shapiro
0800-0900	Summarize findings for measures and metrics to inform MS decisions	WG2
0900-0915	Break	
0915-1015	Summarize findings for challenges to quantifying value of C2 and information	WG2
1015-1030	Break	
1030-1130	Develop Recommendations for	WG2

	Joint Framework	
1130-1200	Break	
1200-1300	Working lunch in Working Group sessions	MORS Staff
1300-1330	Working Group 1 Outbrief	LTC Gerry Benard
1330-1400	Working Group 2 Outbrief	Suzanne Beers, Tylar Temple, Christina Shapiro
1400-1420	Break	MORS Staff
1420-1450	Working Group 3 Outbrief	Clyde Smithson
1450-1520	Working Group 4 Outbrief	Jennifer Ockerman, Sylvia Acchione-Noel
1520-1550	Synthesis Group Outbrief	Mike Pafford
1550-1630	Wrap up and Conclusion.	Trena Lily, Lee Lehmkuhl, Terry McKearney, MORS Staff
Friday, 27 January 2012		
0800-1200	Working Group and Synthesis Chairs gather to prepare final report draft	Lee Lehmkuhl, Terry McKearney

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.