

Military Operations Research Society (MORS) Workshop

April 19-22, 2010

Working Group 1 (WG1) Data and Knowledge Management Terms of Reference (TOR)

Co-Chairs:

1. Dr. Michael Baranick, National Defense University,
2. Dr. David Knudson, Center for Army Analysis, and
3. Mr. David Pendergraft, AF/A9 Air Force Studies & Analysis and Lessons Learned
4. MAJ Paul Evangelista, USMA

Background:

A large number of scholars have written about the problems of trying to identify, collect, and manage data to analyze the impact of ISAF's operations in Afghanistan (e.g. Bauman "Future Imperfect," *Training and Simulation Journal* August 2009). Current operational circumstances in Afghanistan indicate continuing information-related needs and issues for Stability and Reconstruction(S&R) efforts. Understanding these needs and issues, the ISAF J2, MG Flynn, has generated a set of questions that illustrate gaps in information and an understanding of the intelligence situation in Afghanistan, most related to the population. Recent workshops and working groups continue to cite data issues and shortfalls as inhibitors to in-theater planning and assessment, including:

- Mismatch between data required by analysts and data collected by operators,
- Disconnect of data needs among operators – analysts – commanders,
- Lack of standard data architecture resulting in information excesses and gaps
- Lack of centralized repository or management approach, leaving existing data inaccessible or unknown
- Lack of adequate collection program standards to address irregularities, inconsistencies, and incompleteness of data

Purpose:

Assist Military Analysts:

- To better understand the data collection and analytic requirements for irregular warfare (IW).
- To develop methods and procedures for identifying, gathering, organizing and preserving data.

We intend to accomplish this task by using questions posed by MG Flynn and Mr. Bauman, along with speakers to help to stimulate discussions.

Problems:

- US military's data collection and management efforts are in need of serious reform
- There is not a coherent and approved methodology for gathering and managing data for analytical purposes
- Data collected by operators' are not what analysts needs to conduct timely analysis
- There is a lack of information to support analysis (e.g., adequate metadata, indications of pedigree)
- Collection standards are inadequate for the analysis community due to data gaps
- There is no centralized data repository or manager to coordinate collection and analysis efforts, reduce duplication of effort, or improve awareness of available tools and data sets for analysts and planners.

Goals

WG1 will discuss and provide judgments on presentations which aim to:

- Focus on data issues associated with Afghanistan-Pakistan Area of Responsibility and use questions posed by MG Flynn, J2 ISAF as a starting point
- Develop appropriate taxonomies, ontologies, and mental models to organize the knowledge landscape
- Identify data requirements, analysis methods and tools, and possible opportunities to address these requirements
- Develop recommendations that address both short and long term outcomes for data collection, management, and analysis

Data and Knowledge Management Working Group 1 Agenda

Tuesday, 20 April 2010

1600-1700 Session 1: Introduction and remarks by Working Group Chair

Wednesday 21 April 2010

0800 Working Groups Convene

Breakout Session 1: Approaches to and Challenges of data and knowledge management

Goals:

- Determine the role that data and knowledge management has in model development and assessment and the location of various data sets
- Determine what the sources of uncertainty are in assessing vulnerability in risk analysis, and how to determine if the level of uncertainty is acceptable

0800 – 0830 Dr. Michael Baranick, Working Group Chair
Introduction on Data Problems

0830 – 0900 Christina Krause
Data Sources

0900 – 1000 Major Paul Evangelista, Ph.D.
Data for the Field and its utility
0830 – 0900 Q&A Discussion

1000 – 1100 Dr. Brian Efird
Stove-Piped data sources for IW Human Behavioral Modeling
0930 – 1000 Q&A Discussion

1100 – 1200 Directed Group Discussion

1200 – 1300 Lunch

1300 – 1400 Dr. William Young
Corruption in Helmand Province, Afghanistan

1330 – 1400 Q&A Discussion

1400 – 1500 Don Hodge
1100 – 1130 Q&A Discussion

1530 – 1700 Directed Group Discussion

Thursday 22 April 2010

0800 Working Groups Reconvene

0800 – 0900 Working Group 1 Discussion continued

0900 – 1000 Working Group 1 Chairs present to working group 1

1000 – 1015 Break

1015 – 1200 Final comments and additions. Out-brief Presentation finalized

1200 – 1330 Lunch

1330 – 1400 Data and Knowledge Management Working Group Present

1400 – 1700 Remaining Working Groups and Synthesis Group Present

Friday, 23 April 2010

0800 Working Group / Synthesis Group Wrap-Up