An Enterprise Evaluation Methodology for Baselining Australian Theatre Command

Dr. Marilyn Cross Head Joint Operations Analytical Support Command and Control Division



LTCOL David Bell Rebecca Cause Dr. John Chisholm Mark Ellis Dawn Hayter Greg Marsh Warren Richer

Australian Government

Department of Defence

Defence Science and Technology Organisation



Australian Government Department of Defence Defence Science and Technology Organisation



- Aim and Scope of Study
- AST Subject of Evaluation
- Requirements of Theatre Evaluation
- Comparison of Evaluation Methodologies
- Enterprise Evaluation Methodology
- Feasibility of Evaluation Methodology













Aim and Scope of Study

- Feasibility of Evaluation Methodology
- Suite of Measurements of Theatre
- Initial Baseline to Measure over Time







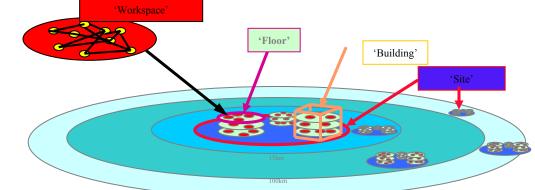
AST Subject of Evaluation

- Australian Theatre (AST) Raised in 1997
- Principal Joint Operational HQ
- Planning and Conduct of Operations and Campaigns
- Development and Refinement of Campaign Doctrine And Processes
- HQAST plus Component Commands
- (Transformed to JOC 2003)



Requirements of Theatre Evaluation

- How Theatre Operates with Respect to how it is Expected to Perform
- Relevant for Different Theatre Tempos
- Assess Theatre's Capacity To Plan, Coordinate and Conduct Concurrent Activities And Campaigns
- Compatible with Both Single Service and Strategic Level
 Evaluation
 Workspace

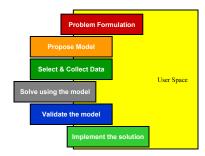


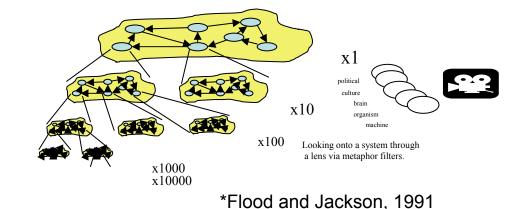


Anstralian Government Department of Defence Defence Science and Technology Organisation

Comparison of Evaluation Methodologies

- 1. Assigned Force Effectiveness
- 2. Functional Decomposition Model
- 3. Principal Component Model







Assigned Force Effectiveness

- Advantages
 - "Black Box" Approach To Measuring System Performance
 - Simple And Direct

- Disadvantages
 - Measurements Made At Different Times Difficult To Compare
 - Environment
 Influences
 Measurements
 - No Insight Into Mechanisms Operating Within Boundaries Of System



Functional Breakdown Model

- Decomposes System Into Functional Elements
- Australian Joint Essential Tasks ASJETS
- Advantages
 - Direct Measure of System Components
 - Can Measure
 Differences over Time

- Disadvantages
 - Cannot Measure
 Interaction at
 Functional Interfaces
 - Not Values or Principles



Principal Component Model

- Identifies Elemental Descriptive Statements
- Aggregates Elements Into Groups to Give Principal Components of System
- Advantages
 - Evaluates Values and Principles That Drive an Organization
 - Deep Understanding of System

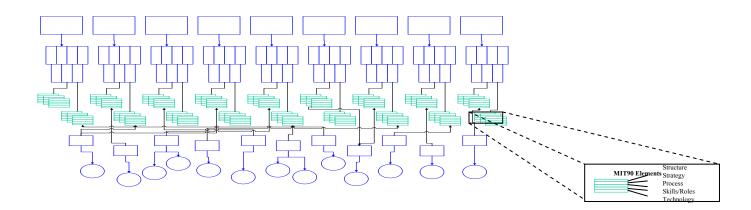
- Disadvantages
 - Selection And
 Understanding of
 Appropriate Goals
 - Comprehensive Set of Elemental Statements



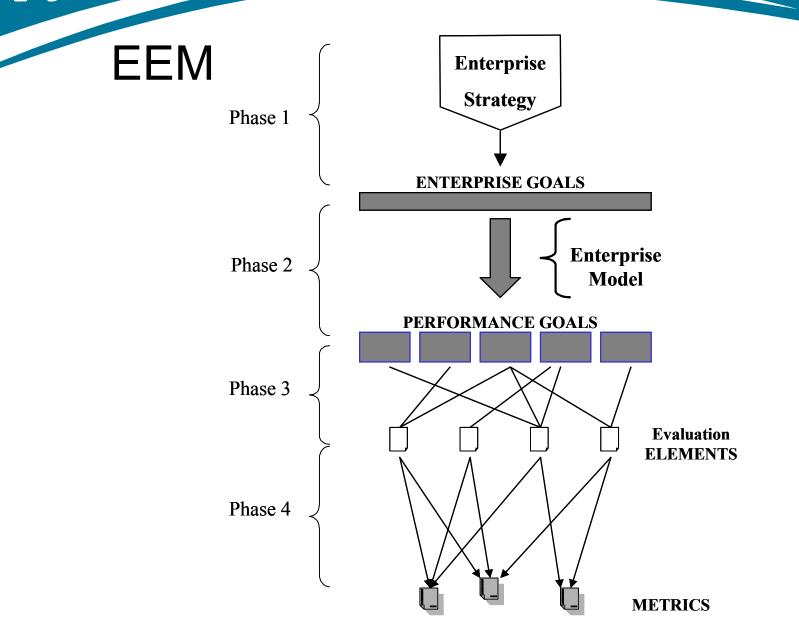
Anstralian Government Department of Defence Defence Science and Technology Organisation

Enterprise Evaluation Methodology EEM

- Based on Principal Component Model
- Extracts Theatre Strategy into Performance Measures
- Applied a soft approach based on MIT90



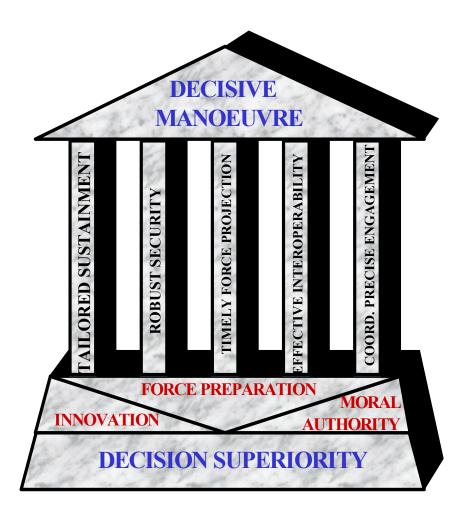






Anstralian Government Department of Defence Defence Science and Technology Organisation

Enterprise Goals for Theatre



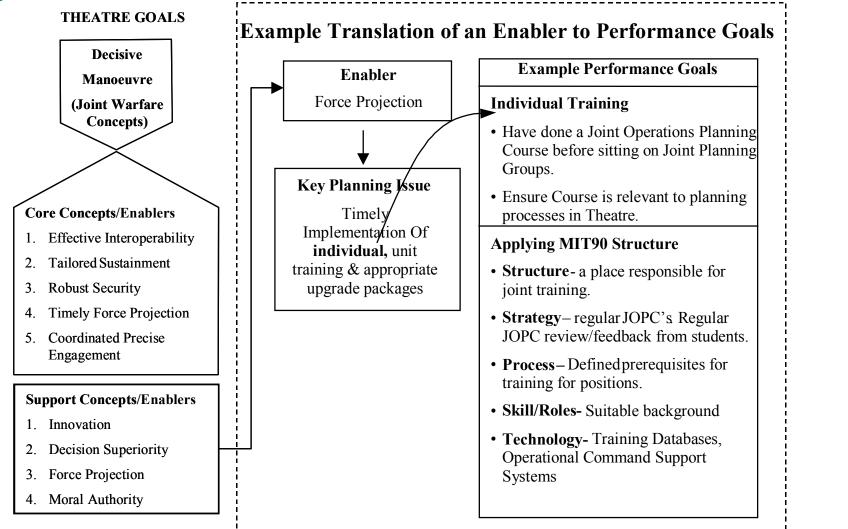


MIT90 Model

- Describes 5 interacting areas of change
 - Technology
 - The Information Technology that can be applied to facilitate business processes.
 - Individuals and roles
 - Concerned with people within the organization, tasks they undertake, and the education and training they require to perform their functions.
 - Structure
 - The way that the organization is partitioned and the way the partitions interrelate.
 - Management processes
 - The standardized sequences of activities that organizations adopt in order to undertake the tasks they perform regularly.
 - Strategy
 - General modes of doing business in pursuit of organizational goals.



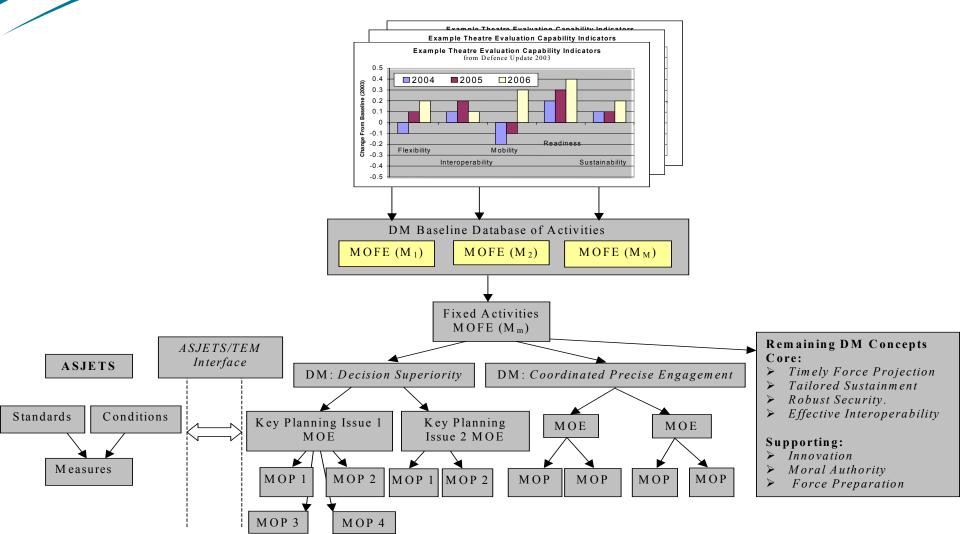
Performance Goals to Eval Elements





Anstralian Government Department of Defence Defence Science and Technology Organisation

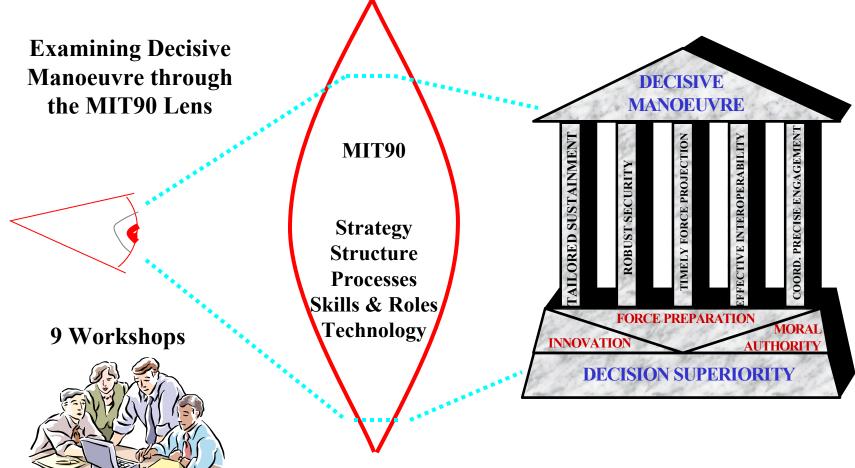
Evaluation Element to Metric





Australian Government Department of Defence Defence Science and Technology Organisation

Summarising the Process

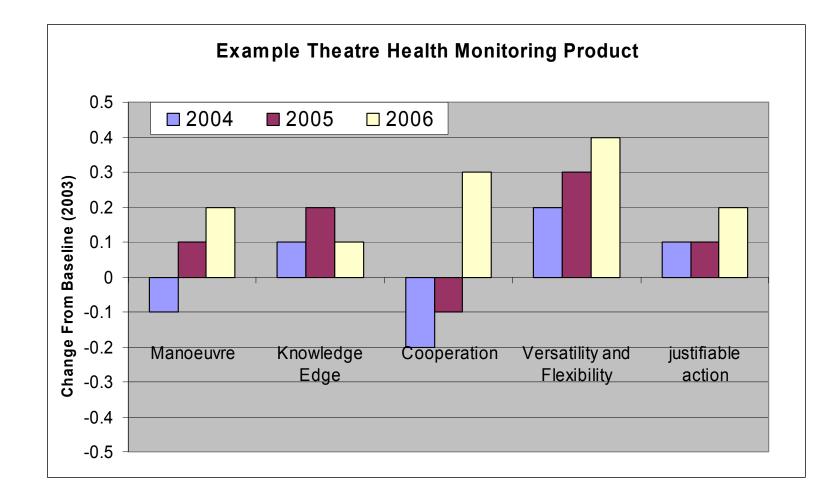


Theatre Evaluation Methodology (TEM)



Joint Operations Analytical Support Command & Control Division

Evaluation Product





What we learned

- EEM will generate useful metrics
- There is a cost:
 - lot of effort by practitioners/SMEs to develop
 - (Our pilot was a longitudinal slice for Aus Doctrine, in the face of restricted resources)
- There is a benefit of undertaking EEM:
 - practitioners/SME's learned lessons





Anstralian Government Department of Defence Defence Science and Technology Organisation

Feasibility of Evaluation Methodology

- We have described the "how" method
 As opposed to the usual "what" method
- Method needs researcher + practitioner
 - It needs solid participation by those within the process being evaluated
- Issues
 - Generation of metrics is resource intensive
 - EEM models a changing system can it catch up?
 - Evaluation undertaken in this way is an intervention
- Ongoing development and validation are needed



Australian Government Department of Defence Defence Science and Technology Organisation

Questions?

