

Just in time - just too late

How can OA decide?

- Not the right Question!
  - Just in Time → Just Enough
    - OA to support the decision maker at all levels
    - Driving factors will vary with levels of operation
      - Need the appropriate measures of effect at each level
      - Cost as a driver
    - Bottom up approach required (eg consumption rates from historical analysis)

- Factory to Foxhole

- Need to establish where OA will have the most impact
- C4I is a key aspect (infrastructure)
- Integrated logistics picture (what info required)

- Land domain is the most complex
  - Expeditionary ops is driving need for reduced logs footprint
  - Need to understand the range of scenarios
    - Sequencing and tempo
    - Concurrency
  - Impact of EBA (long term consequences)
  - Variability –
    - surge conditions vs steady state
    - Geographical and environmental impact

- Risk Management

- OA to expose the issues in balancing cost and risk
- Education required at each level
- Need to capture sources of uncertainty

- Uses of OA

- Develop robust solutions (sensitivity analysis)
- Comparison of solutions
- Assess consequences of uncertainty
- Selling outcomes - credibility
- Presenting the multi variable solutions in appropriate format to decision makers
- Revamp staff handbooks
- Understanding level of redundancy (balanced with vulnerability)

- OA tools

- Combination of hard and soft methods
- Provide insight and understanding
- Role of experienced OA in the field (to interpret and explain)
- Different commodities require different types of analysis

- Historical analysis
  - Lessons identified where relevant
  - Data collection with context
  - Supports the bottom up analysis



- Human factors

- Awareness and understanding, leads to
- Greater trust in the system, relies on
- Visibility provided by C4I systems.
- Need to include HF in hard analysis (a real challenge
  - MITL experimentation may provide insight)
- Motivational factors (why should the soldier bother?)
- Behaviours and culture (is over-ordering ingrained?)

- Coalition planning
  - Provides additional constraints on planning
    - Commonality – resource sharing
  - Different C2 systems etc
  - Additional cultural issues
  - Who pays?

- Contractorisation

- Additional complexity
- Outsourcing risk of supply
- Reduces flexibility
- Increases strategic risk
- Losing in house expertise to manage the system