



Capabilities Based Planning: Principles and Next Steps for Implementation

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Summary Up Front

- The distinction between CBP and TBP is less sharp than supposed
- The great innovation in CBP is not the irrelevance of threat (uncertainty) but risk management (attention to variation)
 - Managing variation in problem definition (threat) and in solutions (strategy, conops and capabilities) within resource constraints
 - Requires a system capable of ongoing risk identification and assessment
- Managing variation imposes a huge burden on analysis
 - Eventually CBP will require reform of planning, requirements, training, test and evaluation, programming, and budgeting
 - However, the first order of business is remedial action to strengthen joint analysis of requirements and programs
 - Broader reform efforts would benefit from attention to a few planning principles that might prevent false starts



What it isn't

- CBP and TBP are not dichotomous
 - No reference to threat means never knowing how much is enough, or how good is good enough (i.e. no standards for effects against different threats)
 - No reference to capability options squanders resources and cedes initiative to the adversary
- CBP is not an antidote to uncertainty
 - Absolute uncertainty is the antithesis of defense planning
 - If the problem cannot be bounded, risk cannot be assessed nor resources prioritized
 - Making surprise an assumption invites paralysis
 - Relative uncertainty (variability that is bounded, but undifferentiated) runs the risk sub-optimizing against the more important problems
- Not unbounded uncertainty, not undifferentiated variability
 - Prioritized variability in problem sets, prioritized variability in solution sets
 - Must bound the threat, choose among solution concepts, assess risk, and conduct cost benefit analysis



What it is: Growing Consensus

- Inherently an exercise in portfolio management through a process of risk adjudication
- Should enable risk assessments and trades across stovepipes
- Requires more rigorous disaggregation of military activities (from strategy to missions) to permit comparison and better understand trade-space (options and associated risk)
- CBP will require a much more robust joint analytic system:
 - Conceptual framework (taxonomy and lexicon)
 - JOCs, scenarios, risk metrics and joint data
 - CBP requires a much broader set of scenarios to test capabilities against (variability among and within scenarios)



Planning Principles: Conceptual Framework

- The great conceptual barrier:
 - Threats and capabilities are distinct, but linked
 - It's only a threat if consequences are severe and solutions difficult
 - It's only a solution if the problem is significantly reduced
 - Evaluating multiple solutions (with variance among and within) and multiple problems (with variance among and within) is complex
- Decoupling problems from solutions eliminates risk adjudication
 - Threats: bottom-up, program-centric stovepipes
 - Capabilities: special pleading
 - 6 QDR goals
 - 4 current challenge areas and 4 JOCs
 - Missions articulated in terms of environment; threat or capabilities:
 - Undersea warfare, Space, Missile or Chem-Bio Defense, Special Ops or IO



Planning Principles: Discrimination

Essential elements of categories (discrimination is a virtue, vagueness a sin)

- Strategic Challenges: Irregular, Catastrophic, Traditional and Disruptive
 - Mix time frames, consequences, and essential characteristics
- JOCs: HLD, SD against WMD, MCOs and Stability Ops
 - Defined too broadly, overlapping, do not isolate essential elements
 - MCO: terrain and enemy forces?; Stab Ops: popular support?; Strat Det against WMD: assured destruction at acceptable cost?; HLD: damage limitation?
 - Replacing SD against WMD with CT
- Risk metrics to assess contribution of alternative capability sets to execution of JOCs in a range of scenario variations



Planning Principles: Clear Taxonomy and Lexicon

- Timeframe is important: present, future and long-term
 - Both the problem and potential solutions differ over time
 - Trades between timeframes are possible
 - Near term always balancing against preparedness in future
 - Mid term is more concrete: the force you are building (goal should be mid-term acquisition)
 - Long term always requires a hedging approach since so much is in flux
- Levels of analysis are important (each requires output metrics)
 - Decision makers must see trade space in the aggregate, between challenge areas and between supporting missions
 - Each level must have agreed upon means of assessing alternative capability contributions and risk



Planning Principles: End to End Transparency

- Assumptions (the fudge factor; informed judgment; reassessment)
- Data
 - Assessment of risk and capability options should not turn on the issue of opaque data (makes comparison of analytic results impossible)
- Modeling and Simulation
 - We tend to ignore areas that are difficult to model, in part because we do not make the modeling transparent
- Capability definition (end to end visibility for the entire system)
 - Horizontal integration of functions that deliver and assesses a capability
 - Concept - architectures - capabilities - programs - test and evaluation - training - readiness
 - Permits entire system to contribute to identification of weak links and risk assessment in common, comparative format (level playing field)



Reorganization

- Organizations have mandates, mandates produce cultures:
 - Obscuring critical distinctions to minimize political accountability
 - Identifying the desirable without awareness of the costs
 - Assumption that only what can be counted, counts
 - Failure to prioritize warfighting requirements (risk minimization)
- Secretary or Deputy cannot be the first point of integration
- Need a subordinate with oversight of strategy, planning and joint analysis of requirements and capabilities
 - Shift resources from stove-piped acquisition analysis to strategy, planning and joint analysis of requirements and capabilities
 - Provides attention to entire end to end process and institutional memory



Objections

- Transparent decision making not possible in a democracy
- Authority too centralized
 - Services and outsourcing second assessment can compensate
- Creative tension is healthy
 - Accountability, focus and a transparent audit trail are more important
- Paralysis by analysis
 - You'll reach conclusions and deliver a program anyway
- What can be counted doesn't count
 - Expert opinion can be integrated; assumptions can be highlighted
- Standards (e.g. 10-30-30) lock in artificial simplicity
 - Must have a departure point for deviation and risk assessment



Conclusions

- Focus less on uncertainty and surprise; emphasize variability
- Start implementing a system that will identify risk and permit comparison of alternative capability solutions
- Begin with the easy steps:
 - Reorganize for joint analytic muscle
 - Enforce data sharing
 - Build a contractor base for modeling and simulation based on DoD imposed standards
 - Impose a taxonomy and lexicon with full appreciation for its evolution
 - Lobby for Congressional buy-in



Back Up

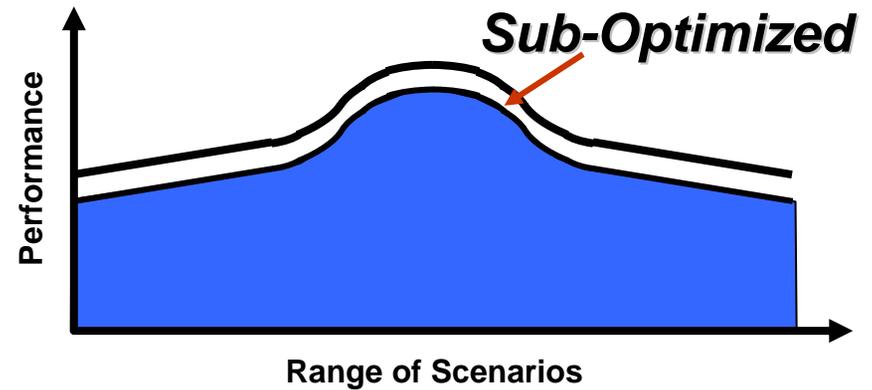
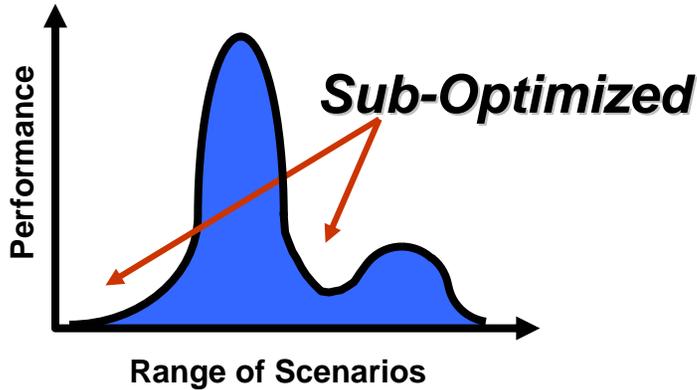
Threats and Capabilities

Variability, not Uncertainty

Threat-Based Planning



Capabilities-Based Planning



A Continuum, Not a Dichotomy

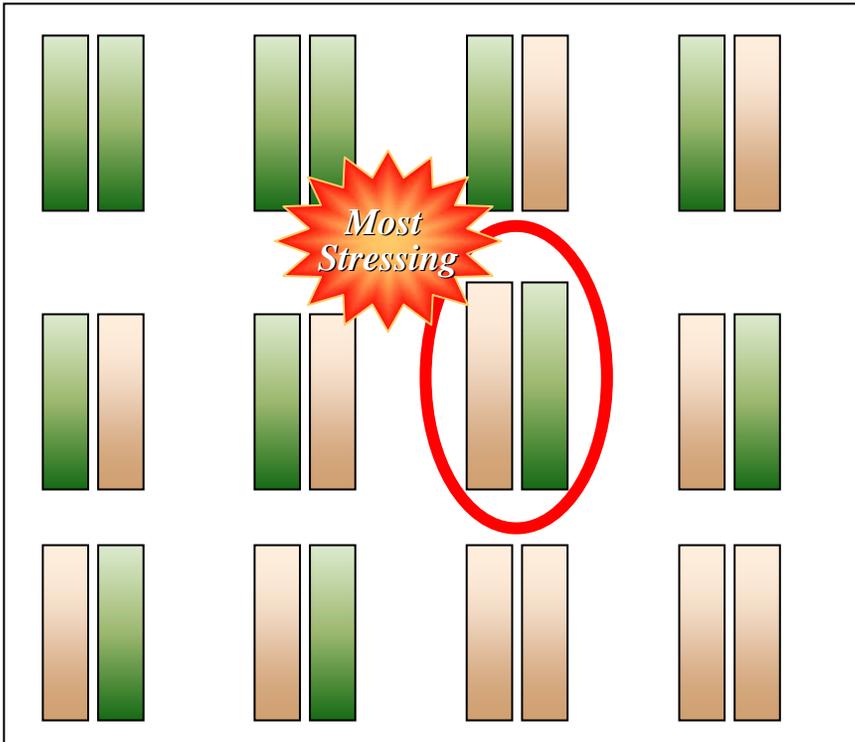
- Cold War threat-based planning still had capability dimensions
- Good capabilities-based planning considers threat. Otherwise:
 - Deliberate planning degenerates to checklist
 - Difficult to rationalize force sizing
 - Increases potential of sub-optimizing capabilities

Where is the point of diminishing returns?

What is a Lesser Included Case?

Single Most Stressful Scenario, or...

Multiple Stressing Scenarios



- (1) Which of (12?) possible concurrency combinations is the most stressing?
- (2) Are all other combinations "lesser included cases"?
- (3) If so, work risk management through that that most stressful case.
- (4) If not, work risk management across range of scenarios.



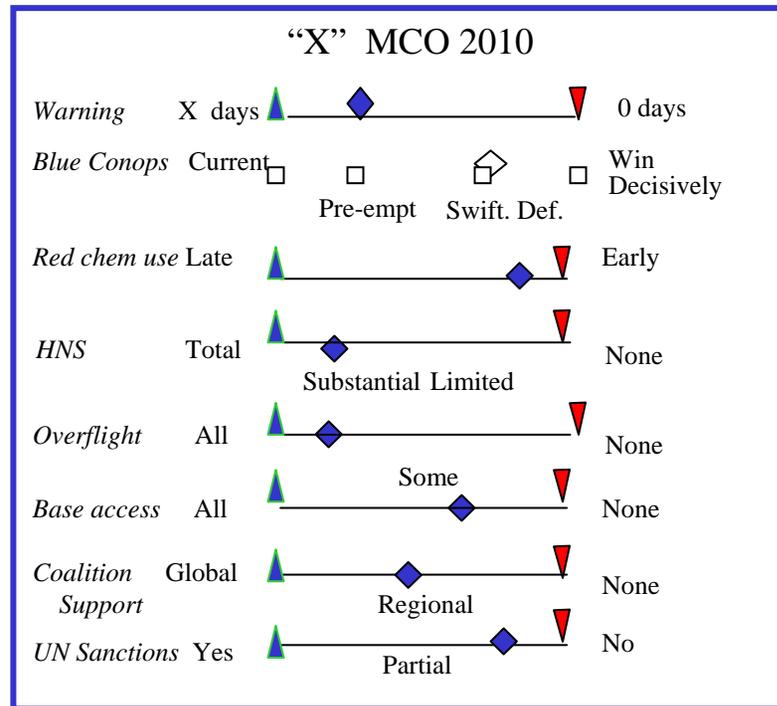
Variability Within Scenarios

“Point Solution” Format

MTW “X”

- X days warning
- Current Blue conops
- Red chem use
- HNS = Total
- Overflight = Yes
- Base access = Yes
- Coalition = N/A
- UN sanctions = No

“Bounded Variable” Format



Legend

Variable Types

- Continuous variable
- Discrete variable

Bounds

- ▲ Least stressful
 - ▼ Most stressful
- } Set by senior decision makers

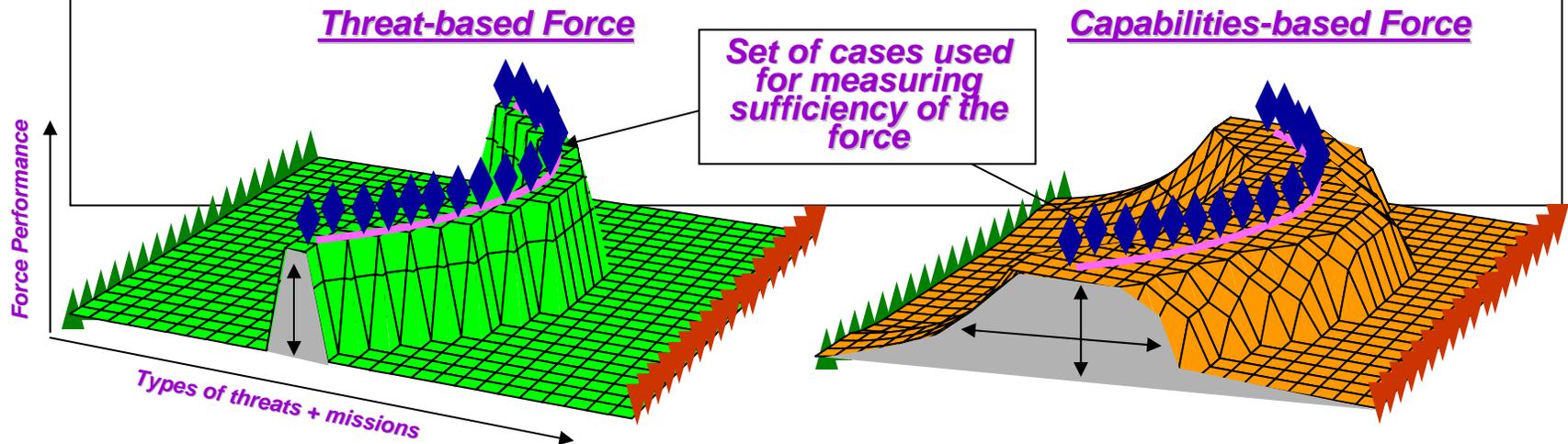
Baseline Values

- ◆ Most likely case – per Intelligence Community
- ◇ Specific case set by senior decision makers.

(for illustrative purposes only)

More Robust Forces

- Capabilities-based planning accounts for more variability in threat
- It produces forces that are more robust across a wide range of threats
- Risk tradeoff...
 - Forces may be better prepared to response to a more diverse set of possible contingencies
 - Forces may be sub-optimized for a specific, critically important contingency that we can reasonably anticipate and want to deter



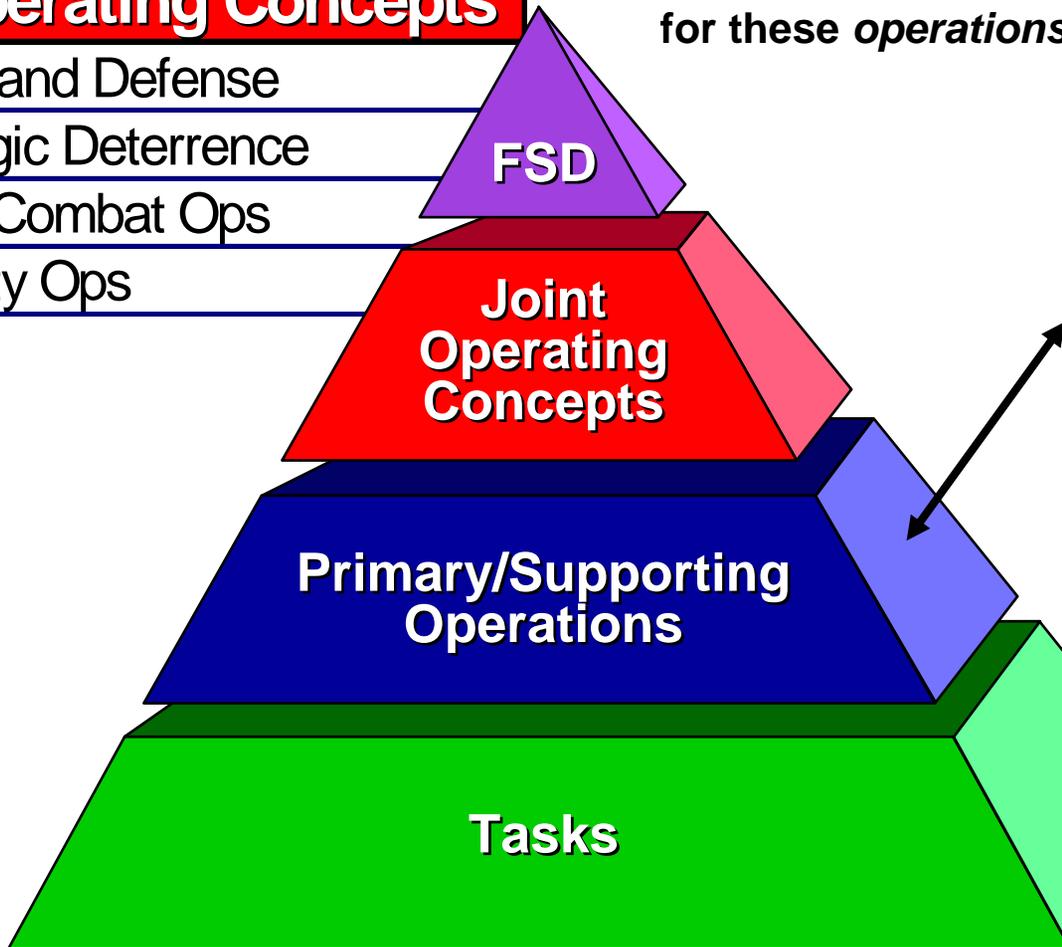


Nominal Mission and Concept Hierarchy

Joint Operating Concepts

1. Homeland Defense
2. Strategic Deterrence
3. Major Combat Ops
4. Stability Ops

Build architectures for these operations



Primary Operations	
1.	Land Offensive Ops
2.	Land Defensive Ops
3.	Direct Action/Spec Ops
4.	Counterair Ops
5.	Close Fire Spt Ops
6.	Space Ops
7.	ASW Ops
8.	SLOC Control Ops
9.	Destroy Naval forces
10.	Destroy fixed strategic targets
11.	Information Ops
12.	SEAD
13.	Interdiction (mobile targets)
14.	Forcible Entry Ops
15.	Littoral Ops
16.	Missile Defense
17.	Maritime Interdiction Ops
18.	Nuclear Ops
19.	Humanitarian & Civic Assistance
20.	Constabulary Ops
21.	Urban Ops
22.	Chem-Bio Defense
23.	Rear Area Security
24.	Noncombatant Evacuation Ops
25.	Unconventional Warfare/ Foreign Internal Defense
Supporting Operations	
26.	Intelligence Ops
27.	RSTA
28.	Mobility Ops
29.	Maintenance Ops
30.	Re-Supply Ops
31.	Cbt Search and Rescue
32.	Consequence Mgmt Ops
33.	Command and Control