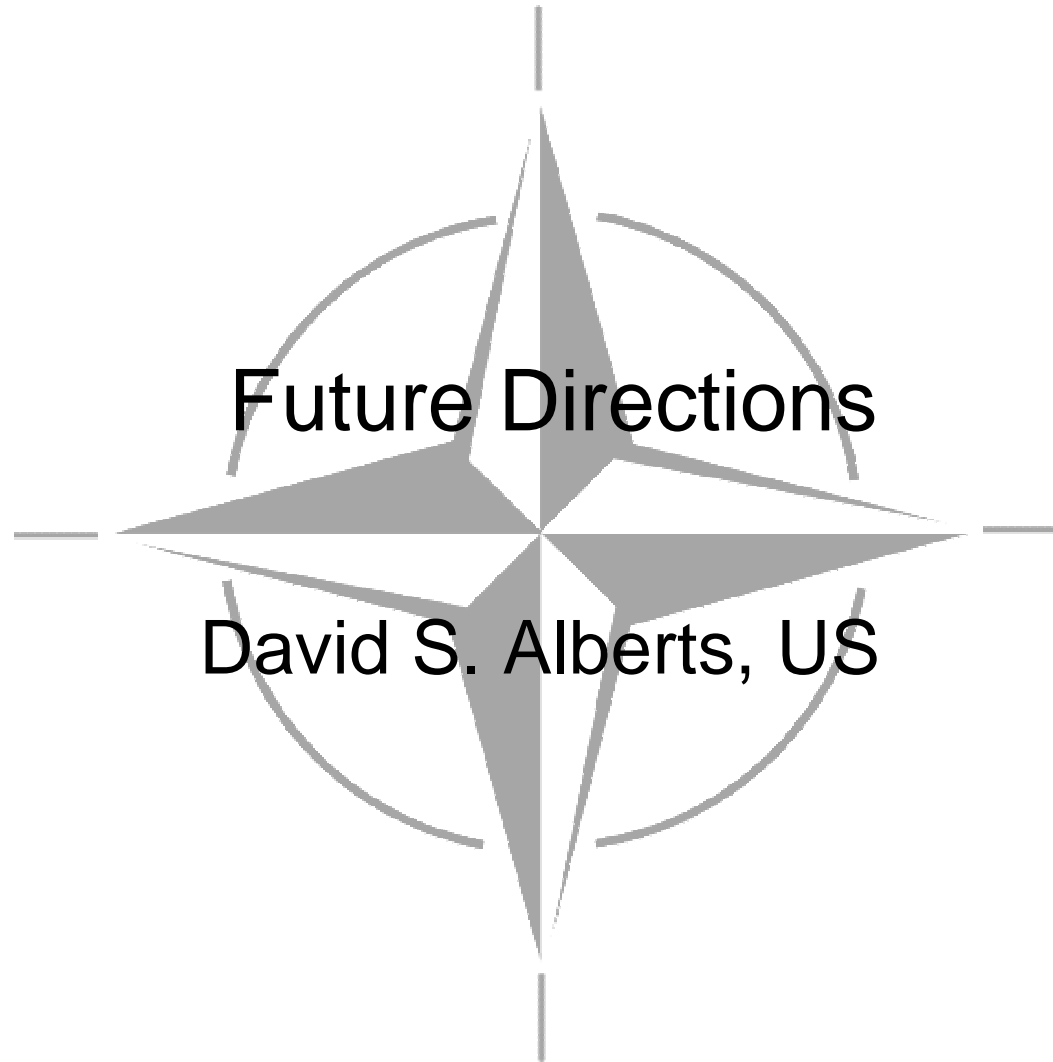




# NATO Code of Best Practice (COBP) for C2 Assessment



# Report Documentation Page

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## Future Directions

- What's Next After SAS-039?
- What's the Future of Military Analysis?



## After SAS-039

- Tomorrow SAS-026 Members Will Review the Feedback Received During this Symposium
- May - June '02 Continue Consultations via WWW
- Informal Meeting at 2002 C2RTS (Monterey, California)
- Presentations on COBP
  - MORS & C2RTS - June 2002, ISMOR - August 2002
- Publish Revised COBP C2 Assessment
  - Web Version - Summer 2002, NATO Document to follow
- Potential Follow On to SAS-026
  - Lecture Series, COBP Experimentation, Special Topic in C2 Analysis



# Future of Military Analysis

- Purpose of Analyses are to Inform Decisions
- To do so, Future Analyses Will Need to Effectively Deal With:
  - Nature of Information Age Organizations
  - Full Spectrum of Missions
  - Characteristics and Capabilities of “Non-traditional”, Asymmetric Adversaries
  - Uncertainty, Risk, Agility



# Information Age Organizations

*Will Have New Ways of*

- Dealing With the Future (Uncertainties & Risks)
- Developing Capabilities
- Managing (Command and Control)
- Dealing with Information and Systems



# Information Age Organizations

## *New Ways of Dealing With the Future*

- Predict and Plan → Prepare and Adapt
- Perfect Tasks → Develop Agility
- Develop I&W → Develop Persistent Surveillance



# Information Age Organizations

## *New Ways of Dealing Developing Capabilities*

- Define Requirements → Experiment
- Engineer → Grow
- Insert Technology → Co-evolve  
Mission Capability Packages
- Test Systems → Assess Operations



# Information Age Organizations

## *New Approaches to Command and Control*

- Commander's Intent → Command Intent
- Do What I Tell You → Do What Makes Sense
- Control → Converge
- Constrain Subordinates → Enable Subordinates
- Synchronize → Self Synchronize
- Avoid Risk → Manage Risk



# Information Age Organizations

*New Ways of Dealing with Information and Systems*

- System of Systems → Federation of Systems
- Server-Client → Peer-to-Peer
- Push → Pull
- Use and Distribute → Post Before Process



## Full Spectrum of Missions

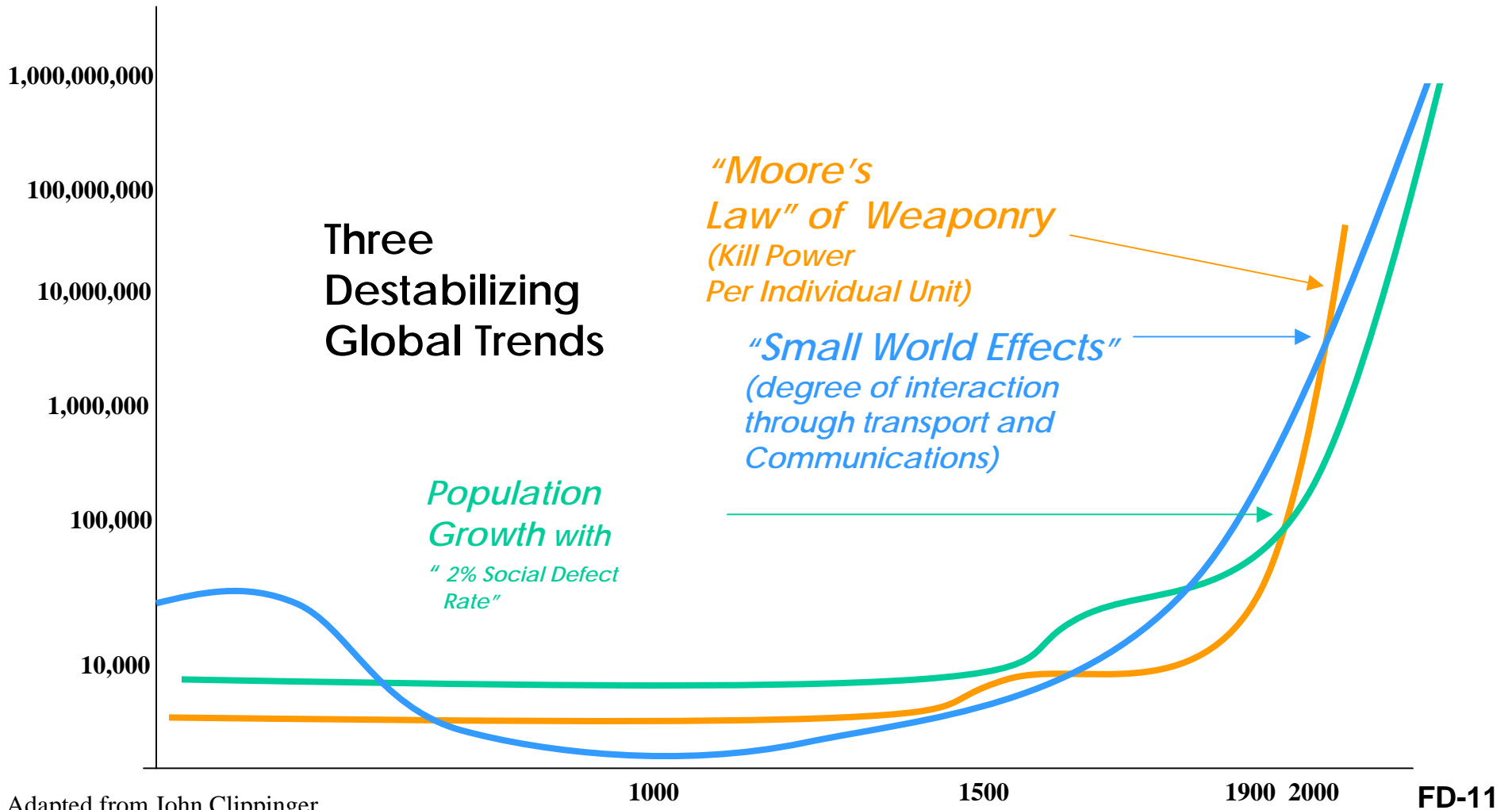
- From “ Conventional” Terrorism to WMD
- Focus on Asymmetries
- Recognize the Intelligence of Adversaries
- Attention to what is important across the board
  - Quality Awareness
  - Collaboration
  - Shared Awareness
  - Agile C2
  - Inter-agency, Coalition



# Non-Traditional & Asymmetric Adversaries

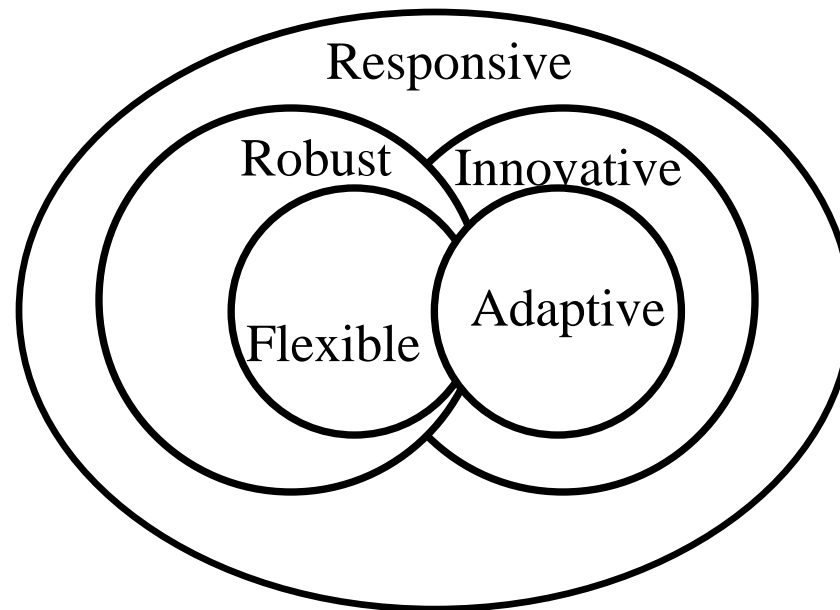
## Collapse of Strategic Deterrence

People



# Uncertainty, Risk, and Agility

- The Answer to Uncertainty and Risk is Agility
- Agility Has Five Components





# Implications for Analysis

- **Problem Formulation**
  - New Measures of Merit
  - More Variables
  - Fewer Constraints on Variables
- **Models**
  - Increased Emphasis on Representation of Information and Cognitive Domains
  - Ability to Change Processes and Organizations
  - Ability to Generate Emergent Behaviors
- **Solution Strategies**
  - Scenario Independent Approaches
  - Move from Optimization to Generation of Response Surfaces
- **New Customers**
  - Experiments and Experimental Campaigns
  - Defense Strategists

## **Future Directions**

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