

# *Working Group 8: SSTRO*

## Structure and Approach

- Working Group
  - Chair: Dr. Paul West, USMA
  - Co-chair: Dr. Richard Deckro, AFIT
- Approach
  - Key issues:
    - *Understanding* the operation
    - *Prioritizing* resources to perform the operation
    - *Balancing* flow through the SSTR process
  - Process description: 6-7 person multidisciplinary groups guided by 3 central questions, followed by synthesis of ideas into a single response

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# Working Group Members

Cherie Beck	Ctr for Human Emergence	Leroy "Jack" Jackson	TRAC-NPS
Jonathan Beris	NPS	John Lawson	MCCDC
Jeff Burkhalter	USA ERDC	Danielle Miller	OSD PA&E
Alok Chaturvedi	Purdue / Simulex	Brice Nicholson	Claremont University
Doug Clark	Gard Assoc. LLC / NRL	Jay Persons	TRAC-FLVN
Dave Davis	GMU	John Salerno	AFRL
Tom Ferlemen	BAH	Barry Silverman	U Penn
LeeEllen Friedland	MITRE	Dan Snyder	JFCOM-J9 (BAH)
Rebecca Goolsby	ONR	Eric Whittington	NPS
John Hummel	Argonne Natl Lab	Victor Wiley	HQ USAF/A9

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# Work Prior to the Workshop

- White papers written by co-chairs and distributed to WG members
  - *Human, Social, and Cultural Behavior Modeling for Stability, Security, Transition, and Reconstruction Operations*, Paul D. West
  - *Issues in Stability, Security, Transition and Reconstruction Operations*, Richard F. Deckro

- Discussion questions developed:

### SSTRO Lines of Inquiry

In 2018, what do we want our models to do to:

1. Assure that we understand the micro-climate of an area before entry, the linkages between elements of SSTRO and how they feed into one another (inputs/outputs)
  - a. Maintaining robustness of the model in a dynamic environment
  - b. Avoid fighting not only the last war, but the last campaign?

### SSTRO Lines of Inquiry

In 2018, what do we want our models to do to:

2. Prioritize SSTRO to serve total U.S. interests (e.g., DOD, DOS) as well as host nation, coalition, and broader international community

### SSTRO Lines of Inquiry

In 2018, what do we want our models to do to:

3. Balance transition to indigenous groups (clans, tribes, regional, or national), maintaining integrity of host nation decisions while supporting U.S. interests .
  - a. What if they democratically vote in a theocracy?
  - b. How do we not impose our will on a free and democratic society?

### How do we get there?



- **Definitions:**
  - **Stability Operations:** Military and civilian activities conducted across the spectrum from peace to conflict to establish or maintain order in states and regions
  - **Military Operations in Support of SSTR:** DOD activities that support U.S. government plans for stabilization, security, reconstruction and transition operations, which lead to sustainable peace while advancing U.S. interests

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# Results: Capability Needs

- Representation of a wide spectrum of cultures and institutions (formal and informal)
- Representation at multiple scales for Blue, Red, Green
  - Temporal
  - Spatial
  - Demographic

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# Results: Capability Needs

- Representation of behaviors during conflict, disaster, etc
- Flexibility in representing different types of operations supporting U.S. interests
- *Criteria for thresholds* to determine when transitions occur between S, S, T, and R
- Criteria for distinguishing friendly locals from hostile

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# Results: Capability Needs

- Representation of inter-organizational dynamics
- Representation of situational awareness
- Representation of dynamic, competing views/needs/priorities by all groups
- Analytical capability to evaluate balance/tradeoff options and conduct sensitivity analysis

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# Results: Capability Needs

- Collaborative planning capability that spans neighborhood to national (possibly multi-national) level
- Architecture that supports PMESII M&S interoperability and reuse
- “Service bus” for data repositories
  - Provides management and error checking
- Dynamic Data Driven Application Systems with real-time forecasting

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# Results: Capability Needs

- Accepted measures of effectiveness and performance
- Clearly defined initial state
- Clearly defined end state – What does success look like?
- Thorough understanding of the underlying theories
  - Social
  - Physical

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# Key Insights

- Need cross-disciplinary theory of SSTRO
- Model must consider NGO, Coalition, and host nation factors at multiple scales
- Model must be sufficiently flexible to respond to unknown future national security interests
- SSTRO “ownership” is bigger than DOD – It must span DOD, DOS, DHS, providing for
  - Common definitions
  - Database architecture management
  - Unity of effort
- Need new look at the problem from new eyes

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# Limiters to SSTRO Modeling

Capability barriers include:

- Ability to obtain, organize, and access data (e.g., metadata)
- Policy issues for open data access
- Fidelity requirements (these are unknown)
- Available resources
- Lines of authority
- Clash of cultures between models (e.g., ethics by discipline; focus)