

The background image is a faded, high-angle photograph of a military tank in a conflict zone. The tank is positioned in the middle ground, and a person is visible in the foreground, appearing to be in motion or taking cover. The overall scene is desaturated and has a grainy, historical quality.

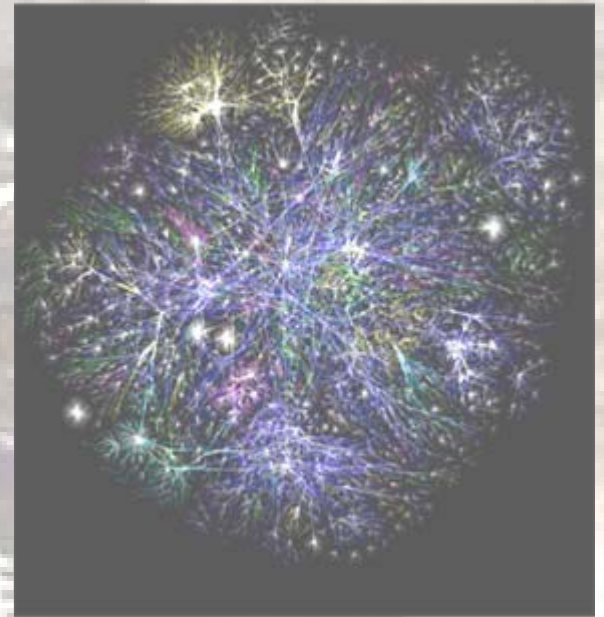
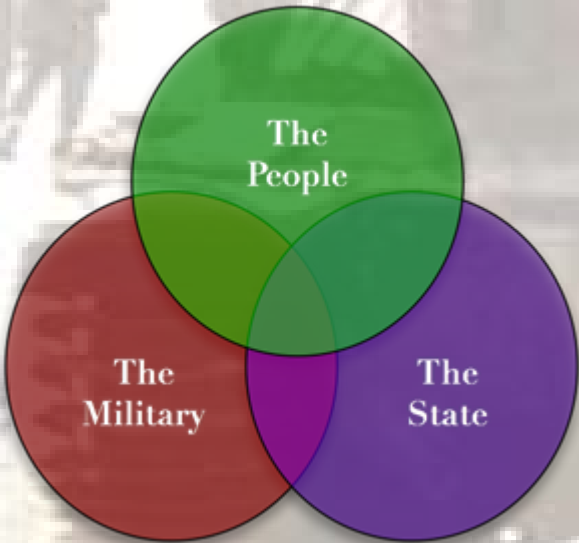
Technology in Persistent Conflict: Threat Focused Solutions

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Evolution of Conflict

Past

Future



Present

State



Individual

Technology in War

Goliath

vs.

David

(Physics/Chemistry)

(Sociology/Psychology)

Designed to impose will upon an environment, not operate within it

Operates within the environment not upon it

Side with the most mass wins (traditional conflict)

Does not require sustained mass (war of the flea)

High Cost, Difficult to Sustain

Efficient, Sustainable

Episodic, Technical, Reactive (CT)

Protracted, Human, Proactive

“This is another type of war, new in its intensity, ancient in its origin--war by guerrillas, subversives, insurgents, assassins, war by ambush instead of by combat; by infiltration, instead of aggression, seeking victory by eroding and exhausting the enemy instead of engaging him.”

-John F. Kennedy, Commencement at West Point, 1962

Capability Development

Historical Method:

Tech Based, Reactive

Metrics based on Design

Single-Purpose

Operations Orders with
Information Annexes

Technology Supports Material
Solutions

VS.

Required Method:

Threat Based, Anticipatory

Metrics based on Influence

Multi-Purpose

Information Orders with
Operations Annexes

Non-Material Solutions to
Enable Technology

“A secret organization...which has scattered its members in small groups over the whole of the Empire, but is nevertheless inspired by a common goal, a common aim...an organization that acts according to a common plan...”

-Mikhael Bakunin, 1870

Thoughts and Observations

- **Information Age = Exponential Creation of New Data**
 - Contributions from LE, Academia, Private Sector
 - Required skill sets reside outside USG talent pool
- **RDT&E as a Learning Tool**
 - Failure is accepted, success anticipated
 - Innovation is required, not just encouraged
 - Not all requirements will come from edge users
- **Non-Material Solutions enable Technology**

“The speed of technical response will never match the speed with which an enemy can change his mind.” – Townley

Take Aways

Avoid:

**Risk Aversion, Institutional Protectionism,
Intellectual Complacency, Capabilities Focus**

Encourage:

**Innovation, Communication, Multi-
Purpose Solutions, Threat Focus**

Remember:

**Our current understanding of the engagement zone
is different from that of our adversary's.**

“The striking of terror into the enemies is not only a means, it is the end in itself. It is the point where the means and the end meet and merge. Once a condition of terror into the opponent's heart is obtained, half the war is won. It is the decision we want to impose upon him.”

- S.K. Malik, *The Quranic Concept of War*