War Against Information-Age Terrorism

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This is the first of a series of papers the author proposes to write on this important subject. Comments, suggestions and further elaboration would be welcome- Director

“To be in accordance with dharma, the place and time of battle must be specified beforehand.” Arthashastra (10.3.26), Kautilya

In a time when insurgency and terrorism have blended into a single entity, and the distinction between a full-fledged confrontation and a low intensity conflict has blurred, the relevance of the concept of a Dharmic war is circumspect. While classical nihilist viewpoint saw violence as a means of struggle, post-modern terrorists today often regard violence as an end in itself that generates identity or damages the adversary’s identity. The actions of the Pakistan sponsored terrorist groups in Kashmir reflect this growing trend.

Causes for Terrorism:

Military theorists have traditionally held three causes for terrorism [1]:

1. It appeals as a weapon of the weak and the subjugated – a shadowy way to wage war by attacking asymmetrically against an ostensibly stronger enemy. The action of the PLO and associated organizations against the Jewish state of Israel falls into this category.
2. “I bomb, therefore I am” has also been ascribed to terrorist motives. It enables a perpetrator to publicize his identity, project it explosively, and touch the nerves of powerful distant leaders. Attack on the J&K legislature building illustrates this fact.

3. Terrorism has sometimes appealed as a way to achieve a new future order by willfully wrecking the present. Promises of an Islamic paradise after the Armageddon comes in this category.

While the importance of addressing the root causes of terrorism cannot be understated, it is imperative on every civilized nation on Earth to safeguard its citizens from the actions of a select group of misanthropes. In order to effectively neutralize the scourge of terrorism, it is essential to understand the chief characteristics of modern day ‘Information Age Terrorism.’

**Traditional Viewpoint of War:**

The traditional Newtonian paradigm of war has upheld the following characteristics of any conflict: [2]

1. **Deterministic predictability** i.e. given the initial conditions and having identified the ‘universal laws of combat’, we should try to resolve the problem and predict the result.
2. **Linearity** of the system is assumed as it imparts stability to the system. In layman’s language, a direct and proportional connection is established between each cause and effect.
3. Newtonian viewpoint is **reductionist.** Surprisingly here, Carl von Clausewitz seems to disagree as he clearly states ‘But in war more than in any other subject, we must begin by looking at the nature of the whole; for here more than elsewhere the part and the whole must always be thought of together.’
4. The military operation is treated as a **closed system** not susceptible to perturbations from its surroundings. The focus is also on optimization on the Cartesian assumption of existence of an optimal solution.
5. **Synchronization** is upheld as sacrosanct in the microscopic command and control operation.

**Emerging Trends:**

The three main attributes of emerging terrorist activities are as follows: [1]

1. **Organization:** Terrorists will continue moving from hierarchical toward information-age network designs. While Arquilla et al hold hybrid/symbiotic structures to be of ancillary relevance, the perception of the undersigned is different. The structure I postulate is as follows: At the core is a council in an all-channel network. In the intermediate step, a star network is formed with each primary node as its epicenter. In the periphery are chain type links to each secondary node.
2. **Doctrine and strategy**: Systemic disruption may become as much an objective as target destruction. After 9/11 attacks, the NYSE was closed for several days. Some experts have been ascribed an economic motive for the Aug 25 Mumbai Blasts. [4]

3. **Technology**: Terrorists are likely to increasingly use advanced information technologies for offensive and defensive purposes, as well as to support their organizational structures.

**Technological Advances:**

The terrorist in his search for ‘Weapons of Mass Disruption’ [3] is aided by technological advances like:

1. Novel *communications technologies* ranging from satellite phones to the Internet.
2. Information-processing technologies like *advanced encryption* techniques.
3. *Steganography* to embed messages into digital photographs or music clip.

**Tiers in Terror:**

The corrosive proxy war waged by ISI against our country has two tiers of terror. Hard-core professionals based in Islamabad characterize the principal layer, but the actual implementation is left to amateur cutouts. The deniability gained by ISI operating through willing amateurs is viewed as an excuse by the US dispensation to exculpate the Pakistani dictatorship.

A counter-espionage setup mirroring this organization is illustrated in this figure.

![Figure One: Block diagrammatic view of counter-terrorist setup](http://www.southasiaanalysis.org/southasia/sites/default/files/images/image%201.gif)
The archetypal master of statecraft, Kautilya mentions in Arthashastra [5] that any intelligence setup should keep the permanent and fixed employees at a bare minimum. In the present context, it translates to the simple equation that

Number of Agents in Layer One + Number of Agents in Layer Two << Number of Agents in Layer Three

**Network Design Classification:**

The present terrorist groups have incorporated a decentralized decision making and operations structure making it difficult for the armed forces to eradicate the terror by means of a single surgical strike. Thus the design may sometimes appear either as

1. *Acephalous (headless) design:* After the Houdini act by Bin Laden in the Tora Bora caves, the Al Qaeda (“The Base”) is functioning with out a central command unit.
2. *Polycephalous (Hydra-headed) design:* Kashmir terrorist groups have incorporated this strategy. The Abdul Majeed Dhar controversy in the Hizbul Mujahideen (HM) is illustrative of this pervasive phenomenon.

**Societal Networks:**

Modern societal networks have displayed three vital characteristics in the recent past namely:

1. *Positive feedback* loops producing vicious cycle: What started as a trickle of Kashmiri Pandits leaving their ancestral villages transformed into a large-scale emigration.
2. *Tight coupling between the nodes of the network causing Domino Effect:* Indian cricket aficionados and motor race enthusiasts would relate more to this point.
3. *Nonlinear behavior:* A small shock or perturbation to the network produces a disproportionately large disruption illustrated by the 9/11 attacks bringing the airline industry in the whole western world to its knees.

**Counter-Terrorist Unit Architecture:**

To counter the decentralized network of the terrorists, it is essential for intelligence agencies to adopt a similar organizational framework. I postulate the following basic schematic to illustrate several points.
Figure Two: Network Structure for counter-insurgency operations

At the core lies the centralized command A, which manipulates the macroscopic parameters leaving actual decision taking to the man in the field. In other words while command is top-down guidance, control is bottom-up feedback. The nodes in the sub-net A are fully-connected to each other and are equal to each other in rank and status.

Each node in A, which could be a person or an institution, is the epicenter of a star network. This network of agents designated B can be called the executors of the plan. This agent network is also fixed and is protected in the present case by a 1+1 protection scheme. Redundancy options and techniques are out of scope of our present discussion.

From agent C, we reach the actual implementers of the scheme. C is again the epicenter of a star network D. Each node in D leads to a chain network E. The agents in E who could also indulge in HUMINT are to be kept in a Mobile ad-hoc network scenario.

The tradeoff in counter-espionage network design is between connectivity and security. Ideally speaking, a network is maximally effective if the number of hops to the centralized command is limited at say 2. The Al Qaeda bombers attacking the WTC demonstrated this principle. (See Fig 3 below taken from [6])
Reference:

1. "Networks, Netwar & Information-Age Terrorism" by John Arquilla, David Ronfeldt and Michelle Zanini, RAND


5. Kautilya, Arthashastra Translated by LN Rangarajan


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