DEFENCE TRANSFORMATION-AN APPRISAL

Introduction

> As we prepare for the future, we must think differently and develop the kinds of forces and capabilities that can adapt quickly to new challenges and to unexpected circumstances. We must transform not only the capabilities at our disposal but also the way we think, the way we train, the way we exercise and the way we fight. We must transform not only our armed forces, but also the Department that serves them by encouraging a culture of creativity and prudent risk-taking. We must promote an entrepreneurial approach to developing military capabilities, one that encourages people to be proactive, not reactive, and anticipates threats before they emerge.
>
> Donald H. Rumsfeld, Secretary of Defense, USA

"Transformation", "reform", "modernization" - whatever one calls change - is not a new phenomenon in the Army. Transformation, "generates increased combat power by networking sensors, decision makers, and shooters to achieve shared awareness, increased speed of command, high tempo of operations, greater lethality, increased survivability, and a degree of self-synchronization."

Change is essential. Effecting change is not easy. This has been recognized by senior Army leaders throughout history. Defence transformation has preoccupied the U.S. Defence Department for over a decade and has the promise of a paradigm shift in the character and conduct of warfare. At the same time, it is more than simply overlaying new technologies and new hardware on existing force structures; it requires fundamental changes in military doctrine, operations, and organization.

While several countries including India are closely studying and assessing the implications of the emerging revolution in military affairs, they have, for a variety of reasons, made little progress so far in actually transforming their armed forces along its lines. In fact, most countries are unlikely, despite their best efforts, to move beyond "modernization-plus," at least not in near future .

The concept, doctrine, organization, threat perception, leadership, budget, culture and level of technology used by us at India are at wide variance with USA. However, we must keep ourselves at breast with all transformational activities happening across the globe, draw

correct lessons and change Indian armed forces as per our condition that exist in the subcontinent while keeping a close watch on Global War On Terrorism (GWOT).
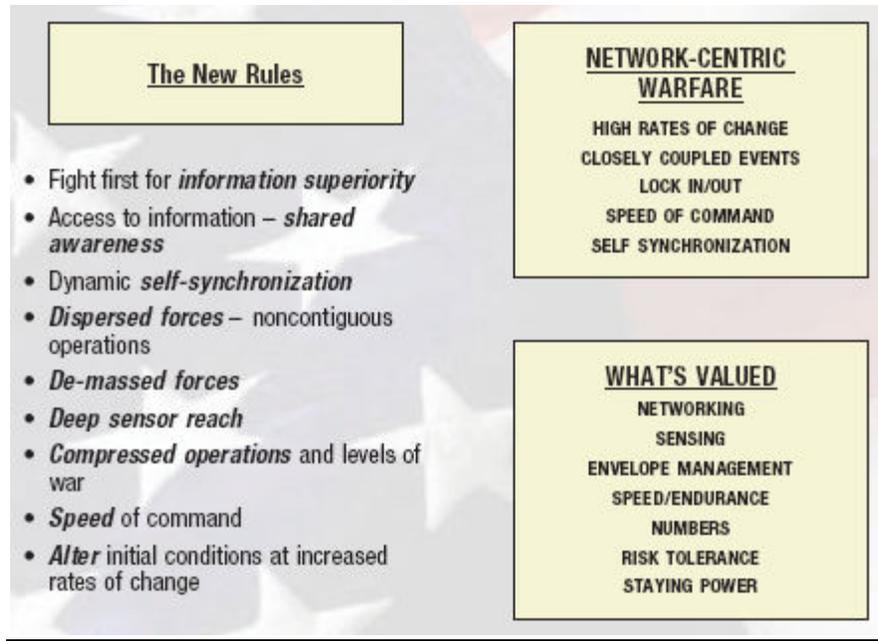
The terms RMA, Organization, Leadership, Network Centric Warfare(NCW). Management of Change, Information Technology(IT), Future Warfare are closely related to Defence Transformation. In this essay a detailed study of Defence Transformation presently in progress at the USA will be carried out. The significance of technology, jointmanship, leadership, logistics, training, culture, budget and limitations of transformation and its implications for Indian Armed Forces will be analysed.

Information Age

> "What we are seeing, in moving from the Industrial Age to the Information Age, is what amounts to a new theory of war: power comes from a different place, it is used in different ways, it achieves different effects than it did before. During the Industrial Age, power came from mass. Now power tends to come from information, access, and speed. We have come to call that new theory of war network centric warfare. It is not only about networks, but also about how wars are fought—how power is developed."

> Vice Admiral (Ret.) Arthur K. Cebrowski,
> Director, Office of Force Transformation,
> IEEE Spectrum

Primary Characteristics of the Emerging Way of War. Although the concept of what the future force will look like and how it will conduct military operations is still evolving, two salient characteristics seem to stand out. It will be a joint, network-centric force and it will be capable of executing Effects Based Operations (EBO), enabled by NCW. Already, the combination of modern technology and new operational concepts has enabled networked units and individual platforms to operate together in ways not considered possible just a few years ago. Network-centric warfare (NCW) is characterized by the ability of geographically dispersed forces to attain a high level of shared battlespace awareness that is exploited to achieve strategic, operational, and tactical objectives in accordance with the commander's intent. This linking of people, platforms, weapons, sensors, and decision aids into a single network creates a whole that is clearly greater than the sum of its parts. The result is networked forces that operate with increased speed and synchronization and are capable of achieving massed effects, in many situations without the physical massing of forces required in the past.

The New Rules

- Fight first for *information superiority*
- Access to information – *shared awareness*
- Dynamic *self-synchronization*
- *Dispersed forces* – noncontiguous operations
- *De-massed forces*
- *Deep sensor reach*
- *Compressed operations* and levels of war
- *Speed* of command
- *Alter* initial conditions at increased rates of change

NETWORK-CENTRIC WARFARE

HIGH RATES OF CHANGE
CLOSELY COUPLED EVENTS
LOCK IN/OUT
SPEED OF COMMAND
SELF SYNCHRONIZATION

WHAT'S VALUED

NETWORKING
SENSING
ENVELOPE MANAGEMENT
SPEED/ENDURANCE
NUMBERS
RISK TOLERANCE
STAYING POWER

**New Rules of Information Age Warfare**

What Is Transformation

> It is not the strongest of the species that survives nor the most intelligent that survives. It is the one that is the most adaptable to change.
>
> Charles Darwin

US Department of Defense (DOD) has defined transformation in one document as a process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organizations that exploit the nation's advantages and protect against asymmetric vulnerabilities to sustain strategic position, which helps underpin peace and stability in the world. Transformation anticipates and creates the future and deals with the co-evolution of concepts, processes, organizations, and technology. Profound change in any one of these areas necessitates change in all. Transformation also identifies and leverages new sources of power. Military transformation is about changing the culture of the Armed Forces. Therefore, transformational activity must facilitate a culture of change and innovation in order to maintain competitive advantage in the information age. That culture must foster leadership, education, processes, organizations, values, and attitudes that encourage and

reward meaningful innovation.

Military Transformation Process. The military transformation process depicted in Figure 2 begins with an analysis of the strategy, threat, and technology drivers for transforming the force and the six critical operational goals, which provide the focus for the Department's transformation efforts. Transformational capabilities will be attained when the results of concept development and experimentation are implemented in selected elements of the US Armed Forces.
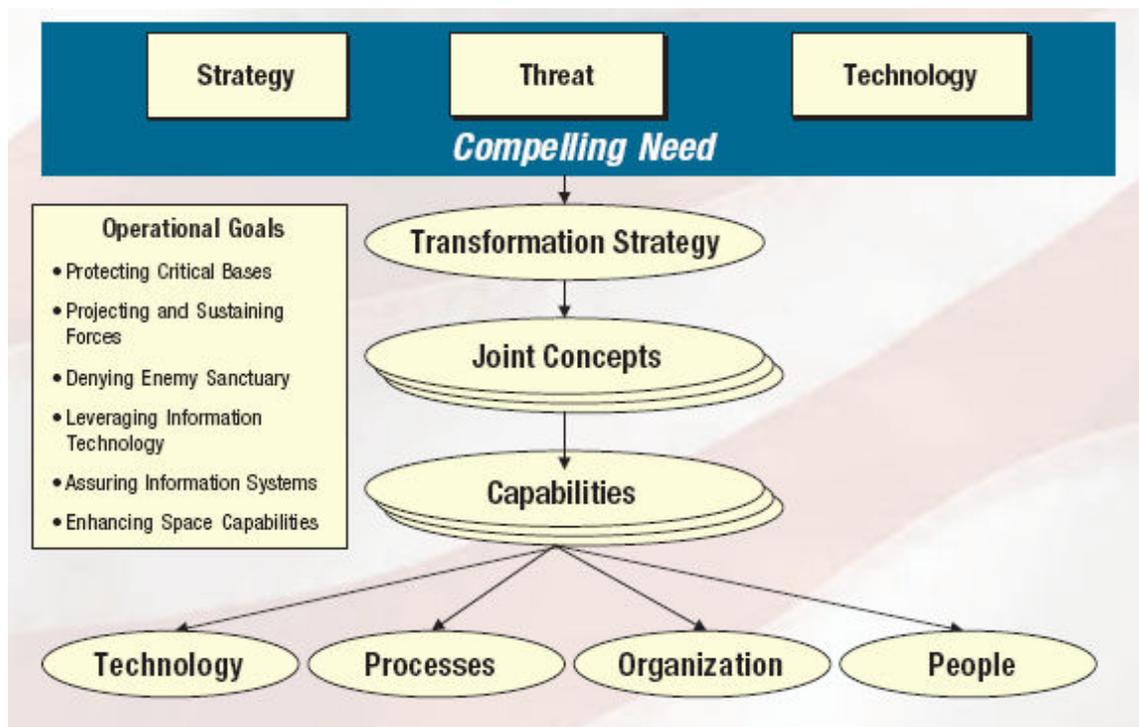
Figure 2. Military Transformation Process

Joint Transformation

Separate ground, sea and air warfare is gone forever. If ever again we should be involved in war, we will fight in all elements, with all services, as one single concentrated effort. Peacetime preparatory and organizational activities must conform to this fact.

--President Dwight D Eisenhower

At its extreme, jointness means the full integration of the different service divisions,i.e., where capabilities are "born joint." Jointness would be far more prevalent, and would penetrate further into each service, than it has in the past. This concept of jointness seems consistent with the services each retaining the responsibility and authority to create and sustain specific defence capabilities but engaging jointly in planning the capabilities needed, allocating the capabilities across the services, deciding on battle plans, and tailoring the modules to be deployed.

Meanwhile, each of the US military services has been developing new operational concepts to implement Joint Vision 2020. The Navy has focused on NCW, using new information technologies to link the forces together digitally. The Air Force has concentrated on EBO, which assess how best to destroy the connections between elements of an enemy's political and economic networks with minimal collateral damage. The Army has focused on Rapid   Decisive Operations (RDO), that is, reaching the conflict quickly and acting before the enemy can react. Elements of these three strategies are merging together.

Leadership

> If the mind is to emerge unscathed from this relentless struggle with the unforeseen [in war], two qualities are indispensable: first, an intellect that, even in the darkest hour, retains some glimmerings of the inner light which leads to truth; and second, the courage to follow this faint light wherever it may lead.
>
> Carl von Clausewitz

The leadership development process must result in leaders who are competent, have the right education and experience through schooling and assignment processes, be of sound character and integrity, cherish dignity, have the self-discipline to always do what's right, and understand human nature and how they can influence human nature at any give point to accomplish the mission. The   leader must also be confident in his own abilities to operate independently if necessary and on operations with direct visibility to the highest levels of government and Army leadership. The leader must have the confidence in the capabilities of subordinates where trust between all is second nature and never questioned.

" I don't need someone who's only good at the killing and breaking, I need somebody that has the breadth of education experience and intellect to take on all the rest of these missions that he

or she is going to be saddled with when the shooting stops or when it subsides to some level. They're the ones that are going to count on the ground out there, more than anything else. And I think that's the issue in any discussion as to what happens to our military from here on out."[Source: Gen Anthony Zinni, Address at the Marine Corps Association and Naval Institute: Forum 2003: "How Do We Overhaul the Nation's Defense to Win the Next War?", Crystal Gateway Marriot, Arlington, VA, 4 Sep 03]

Retired US Army Chief of Staff Gordon Sullivan warns about this very same point when he cautions "The old maps, the old ways of doing business will not work in today's new territories. Simply improving an existing process will not solve a problem… Doing the same thing you have always done-no matter how much you improve it- will get you only what you had before"(Sullivan & Harper, Hope is not a Method, New York : Times Business 1997, p152). Military thinker Trevor Dupuy in his book Understanding War (1987) advanced an important idea about the actual importance of technology in warfare. In the chapter "Technology and Human Behavior in Combat", he asserted that historical data about war indicates that " No technology, no weapon however great its actual or potential lethality, has been more important for the winning of battles or wars as the men who controlled the weapons … the essential nature of war has not changed. Wars are fought by men, and there has been no discernible difference in the fundamental nature of man over the past five thousand years of recorded history. Because the nature of man has not changed, neither has his basic objective when he turns to war: the employment of lethal instruments to force his will upon other men with opposing points of view ".

HOW WILL WE KNOW WHEN LEADERS HAVE SKILLS
FOR SUCCESS IN THE UPPER-RIGHT HAND QUADRANT?

Information Age

When their BEHAVIOR demonstrates:
- Ability to **LISTEN**
- Collaboration across organizations
- Mutual understanding & respect with partners
- Culture of innovation
- Understanding of the context
- Continuous learning
- Enterprise skills
- Developing "learning organizations"
- Understanding the culture they operate in
- Use of effective metrics for success
- **Leaders developing leaders**

Globalization II

Industrial Age

Globalization III

Innovative Change Agents Discouraged. One widely recognized ingredient for successful transformation has been a visionary group of visionaries with relatively persistent tenure, that

dare to conceive of bold new ways of conducting warfare. Admiral William Owens asked before he retired, Where is the revolutionary who will lead the Revolution in Military Affairs (RMA)? There was no one he could point to. No Billy Mitchells, no Alfred Mahans, no George Pattons, no George Marshalls. What is different about the Army now versus other times in the past is that there are currently no rewards for risk taking and even the smallest mistakes are punished. As one officer in the U.S. Army Command and General Staff College Survey stated, Risk aversion has become a military cultural thing; commanders are not willing to take risks (and subordinates know it).

Few incentives exist for commanders to protect their mavericks in today's Army. Since one bad or merely neutral officer evaluation report (OER), our equivalent of ACR can ruin a career, a highly risk averse senior rater can derail an innovative change agent easily. Supporting evidence comes from the survey: Top-down loyalty does not exist. Senior leaders will throw subordinates under the bus in a heartbeat to protect or advance their career. This trend is not only found in the US Army. In 1996, terrorists blew up a U.S. apartment building in Saudi Arabia after the commander had argued for increased security consistently for months. He was blamed for the attack despite his efforts to avoid this outcome. The Chief of Staff of the US Air Force attempted to save this officer's career by preemptively resigning as the responsible commander, but the local commander was forced to retire anyway. This pattern strongly suggests high levels of risk aversion are being institutionally reinforced in US military organizations.

Limitations

> When I was a young officer, I was taught that if you have air superiority, land superiority and sea superiority, you win. Well, in Vietnam we had air superiority, land superiority and sea superiority, but we lost. So I realized there is something more to it.
>
> Colonel John Boyd

As the US Army's force deployment challenges in Afghanistan and Iraq have demonstrated, the United States military is not organized, trained, or equipped to conduct protracted counterinsurgency and counter-terror operations on a large scale. In particular, the manpower requirements to sustain these counterinsurgency campaigns are considerably greater than those that can be supported by current force structure. The feature of insurgents blending into civil population, superior human intelligence, enlarging its organization in time, unconstrained in choosing the time, location and type of attacks, being free from legal constraints, use of media to its advantage-- make it a force with own networking and its situational awareness.

Technological sources of intelligence were of little value in Somalia. Commanders relied on human intelligence as the primary source of information. As General Anthony Zinni, then Director of Operations at United Nations Task Force Somalia recalled, he had access to very good technical intelligence, but sensors could not: "penetrate the faction leaders and truly understand what they were up to. Or maybe understand the culture, the clan association affiliation, the power of the faction leaders, and maybe understanding some of the infrastructure too." Because of ambiguities in target selection and identification, many targets were hit unintentionally. Mistakes occurred not because of a lack of information; the sheer volume of data and the difficulty in separating good from bad information presented difficulties. As Secretary of Defense William Cohen attested after the war, "our vast intelligence system can create such a haystack of data that finding the one needle that will pinpoint a target in the right time frame is difficult, indeed." The best-known intelligence failure was the bombing of the Chinese Embassy in Belgrade.

Strategic and operational uncertainties were amplified at the tactical level. Soldiers and marines operated in a populous, congested urban area in which almost everyone was armed; it was difficult to distinguish between friendly forces, neutrals, and those opposed to the humanitarian effort. For marines and soldiers, the complex social, political, and geographical environment blurred distinctions between peacekeeping operations and combat operations. Major General Tom Montgomery remarked, "If this isn't combat, then I'm sure having a helluva nightmare."

Impediments To Defense Transformation in Third World Countries

Several factors currently inhibit defense transformation. The first comprises costs and resource constraints. Transformation doesn't come cheap, despite assertions made early on by some proponents that the exploitation of commercial off-the-shelf (COTS) technologies would greatly reduce costs. Rather, even to make a start requires the acquisition of many new and expensive types of military-unique systems. Even many dual-use COTS information and communications technologies are not easily adapted to military use, as they often require substantial modification, such as ruggedization or additional capabilities

At the same time, funding for transformational systems must generally compete with large and expensive "legacy" programs—such as fighter aircraft, tanks, and large warships, as well as huge manpower costs usually associated with sizable ground forces.   Also US economy can only support its military for expensive transformation efforts. US defence budget for 2005 was $ 401.7 billion.

Second, the organizational and institutional cultures found in most   militaries impede transformation. Militaries in the third world are often extremely conservative, risk-averse and highly bureaucratic organizations. Of course, large organizations anywhere, certainly militaries and defense ministries, are typically resistant to change especially disruptive change, since it can threaten the stability of normal day-to-day operations, standard operating procedures, war plans, and even career paths. Armed forces are especially hierarchical, with heavily top-down command-and-control structures.

Another implication of the decidedly conservative nature of regional defense establishments is a characteristic preference for traditional systems. Militaries often prize large and conspicuous weapons platforms—such as main battle tanks, modern fighter aircraft, and aircraft carriers— more than less visually striking but transformational systems, such as UAVs, C4I networks, and precision-guided munitions. In addition, high-ranking military officials have tended to prefer immediate, high-profile hardware acquisitions over longer-term software fixes.

Many militaries also lack any tradition of joint operations and instead possess strong single service cultures and severe interservice rivalries. In such a state of affairs it is doubly difficult to introduce ideas of jointness, interoperability and combined-arms operations as basic war-fighting concepts, or to create common C4ISR and logistical support systems.

 Most defence technology and industrial bases are ill equipped to contribute much to defence transformation. Most regional defence research, development, and industrial bases lack the design skills, technological expertise, or links to advanced commercial technology sectors needed to develop and manufacture transformational systems. In particular, the defence industries do not possess sufficiently advanced systems-integration capabilities to link together highly complex systems of systems, such as C4ISR networks. In addition, heavy emphasis in most of these countries on self-reliance in arms production means that resources are often wasted on duplicating the development and manufacture of weapons systems already widely available on the global arms market.

Militaries and defence industries   have few strong linkages to innovative local industries, such as the information technology sector, limiting the potential for "spin-on"—that is, from commercial to military. Most regional arms industries are state owned and insulated from both market forces and the private sector. This demarcation, however, makes it more difficult for the defence sector to benefit from cross-fertilization with commercial technologies, as well as making it harder and less attractive for civilian industries to participate in military research, development, and manufacturing. At the same time, local militaries in general remain distrustful of commercial off-the-shelf technologies and prefer "mil-spec'ed" equipment. However, If TATAs can manufacture Humvee vehicles for the US Army it can surely meet our requirements. The

point is what will happen to white elephants like Ordnance Factory Boards(OFB) units like Vehicle Factory Jabalpore?   Armed Forces suffer silently.

For the last 50 years India has been trying to set up a defence industrial base, yet we are not to far down the road. In the early 1980s a big push was given to the process with the expectations that the 2000+ cycle will see Indian Armed Forces equipped with India made tanks, light fighter aircrafts, and Surface to Air Missiles(SAM). In 1997 the government announced that a 10 year plan had been made to increase the ratio of expenditure on procurement from domestic sources from 30% to 70% by 2005. We are nowhere near achieving it. There is no accountability from organizations like DRDO.

Consequently, exploitation of dual-use technologies for defence transformation is unlikely to occur to any large degree. While nearly all countries see the great promise of advanced commercial technologies for military uses particularly information technologies or space, few have made actual, deliberate, and concerted efforts to engage in such spin-on. Most exploitation of dual-use technologies in the region has so far been modular that is, simply "piggybacking" on existing or emerging commercial systems (such as nationwide fiber-optic telecommunications networks) rather than adapting commercial technologies to military purposes. Great work has been done to put IT and communication networks in place at least up to Brigade Headquarters level. But what is the use of these infrastructures if we don't use them to our advantage. Where are the softwares for use? Maximum use of this fantastic communication network in our army is to see MS Branch postings and promotions. Our young officers and men are good, smart and technology savvy. It is not possible to stop them using internet, cellphones, SMS, email, blogging. Yet danger is that more one uses networked technology more is the security vulnerability. Our officers and men will talk to their parents or wife from battlefield, they will use blogs to exchange their views on ongoing operations with people all over the world. What is our response as an institution? As a typical hierarchical and rigid organization we always fall behind in the race and reactive in formulating policies.

Most countries in Indian subcontinent   region despite their best efforts are unlikely to transform their militaries to the extent made possible by the information revolution and the emerging revolution in military affairs, at least not in near future. There are simply too many factors to move beyond modernization plus. These factors particularly include budgetary constraints; cultural, organizational, and bureaucratic resistance; weaknesses in national defence technology and industrial bases; and under appreciation of the complexity of adapting commercial dual-use technologies to military purposes. Overall, defence transformation may simply be too disruptive and too threatening to military and civilian elites, too expensive, and technologically too demanding.

Indian Scenario

The Indian Ministry of Defence is one of the largest spenders, employers, industrial complexes and scientific experts in the world. ….Somehow paradoxically, although the number and rank of the people involved have also expanded, there has not been really innovative or even significant change in the way, that problems are analysed or handled and the concept of "tradition" has been used to circumvent the obvious need for change.

- Arun Singh, Former Minister of State for Defence

In India Transformation can come about by necessity driven, personality driven backed by the government or media driven. After 62 debacle massive expansion took place, Mountain Divisions came into being. Results started showing immediately in 65 war. But it really showed its worth in 71 0perations. This can be an example of necessity driven transformation. Thereafter in the 80s a major modernization and reorganization took place under the guidance of General K Sundarjee.

Bureaucracy. India's labyrinthine bureaucracy offers additional barriers to innovation and change. The civilian side has always dominated civil-military relations in India. The Ministry of Defence and Ministry of Finance composed largely of career bureaucrats have dominated procurement and budget decisions. The role of the military in determining policy and procurement has been deliberately minimized. Without fundamental changes in the Indian defense bureaucracy any rapid change in the Armed Forces is difficult to come through.

The example of non finalization of 10th defence plan yet can be an example of how the bureaucracy works. The plan was for the period 2002-2007. We are now in 2006! Third Report of the Standing Committee on Defence (2004-05) (Fourteenth Lok Sabha) presented to Lok Sabha on 25 April, 2005 has been scathing in its criticism. It states, "The Committee express their serious concern that despite their strong recommendation for an immediate finalisation of Tenth Defence Plan with committed allocation, there has been little progress with no firm indication of annual outlays for the remaining two years of Tenth Defence Plan by the Ministry of Finance. The Committee are not convinced with the sketchy reasons advanced by the Ministry for delays and feel that the Ministry had neither shown any urgency nor followed up with the Ministry of Finance to get the firm commitment of funds to finalise the Plan. The Committee are unhappy to note that instead of approaching the Ministry of Finance for supplementary allocation the Ministry of Defence has felt contended to bank on delays on the part of suppliers or some slippage taking place in already concluded contracts so that Ministry could progress new projects out of available allocation. This shows a casual approach on the part of Ministry to pursue for higher allocation with the Ministry of Finance and goes contrary to Government resolve to eliminate all delays in Defence Modernisation. The Committee feel that it

tantamounts to compromising the security concerns of the nation. The Committee, therefore, desire that the Government should immediately finalise the Tenth Plan with firm indications of funds for the remaining years of Tenth Plan without any delay so that the modernisation process can proceed smoothly."

Budgetary Support. "Forget knowledge is power, …money is real power"**.** The most important part is the availability of funds to carry out major transformational efforts. Even a country like USA is finding it tough to carry out modernization plans. They are unable to acquire costly new weapons and equipments as well as increase the strength of the Army or Marine Corps when any soldier who has fought counterinsurgency operation will vouch for requirement of more boots on the ground. The same problem would come up if and when Indian Army tries to transform.   During the 1980s Reorganized Army Plains Division (RAPID) was created by reducing a brigade from the division structure on the assumption that manpower thus reduced would be replaced by force multipliers and surveillance efforts. However, the financial resources were never allotted for the technological wherewithal.

There has been a downward trend in % share of GDP spent on defence. India has spent 2.9, 2.7 and 2.6 % of its GDP in 2001, 2002 and 2003 respectively. But the Indian defence budget for FY 2006-07 is 89,000 Crores, 2.29% of GDP as against 2.39% in the previous year. There has been actually a fall in the defence budget in terms of percentage of GDP though economic growth is around 8% now. Finally the Eleventh Plan size for the defence ministry has been pegged at 2.57 percent of the GDP assuming a GDP growth rate of eight percent between fiscal 2007 and 2012.

Joint, Combined or Integrated Warfare. Even after four wars and innumerable crises we have failed to evolve joint doctrine and concepts. We are in the process of starting the journey. Transformation of the military must be based on a new joint doctrine which follows a top down approach and not bottoms up approach. General Shankar Roychowdhury (Retd) states, "Indian Army individually as well as the defence forces, must no longer be allowed to function independent disconnected entities, without the required inter-service synergy for fullest exploitation of their respective capabilities. In some senses, provision of an enabling environment of jointmanship and stamping them on the individual ethos and culture of each service may well be the most challenging task, which should be accorded an overall priority higher than many other issues." Lt Gen P S Joshi (Retd), the first Chief of Integrated Staff to Chairman Chiefs of Staff Committee (CISC) has written a remarkable article on Synergy and Jointmanship in the Defense Services published in Pinnacle Journal October 2005 issue which is a must read for anybody concerned with jointmanship. The General in his forthright, candid and no nonsense manner has passionately argued for synergy and jointmanship, the road blocks and the way out. Thankfully inter sevice rivalry exists all over the world. Denis Healy former Secretary of State USA stated, "I sometimes feel that I had learnt nothing about politics until I met the Chiefs of Staff. Each felt his prime duty was to protect the interests and traditions of his own service."

Future. Probably it is good that no major transformation effort is on the anvil in India. Now is the time for vigorous healthy debate encouraging criticality and participation at all levels, modify the concepts and doctrine keeping in view the future as well as lessons learnt in recent operations and sub conventional warfare, empower people, communicate to all about our vision and transformation plans, identify intellectual leaders in the armed forces, carry out experimentations in theory as well as in training exercises and institutionalize the change process. ARTRAC and all the Cat A Establishments have a major role to play in giving the intellectual stimulus. We should have regressive planning which means directions are given from highest strategic body to the lower echelons of command. Our political leadership shies away from giving written directions to the service chiefs. We must have National Security Strategy followed by National Military Strategy followed by five year Defence Plans like 11th or 12th plan and a Long Term Perspective Plan. Then CISC should issue The Joint Vision. Based on the Joint Vision statement respective services should issue their individual service vision statements. We must think about capability based planning in place of existing threat based planning. No transformation can take place without active support and budget allotment by the government. Armed Forces should go back to the government with our present capability and ask what do they want us to do. Clear cut message should be given if a particular capability is required to be acquired what should be the budgetary effect. Hopefully by the time all these issues are resolved visionary leaders both in uniform and outside will emerge to carry the transformation forward. Perhaps Captain Alfred Thayer Mahan's great generalization that no military service should or can undertake to reform itself is valid. Change must be directed from outside the military in order to transform it and achieve true jointness. Perhaps somebody with the knowledge, vision and respect he commands within the strategic community like Arun Singh would meet the requirement.

We have to keep the service culture always in mind. All the debates, systematic study and analysis have to be carried out now. As Col Douglas Macgregor testifying before the House Armed Services Committee on 15 July, 2004 on Army Transformation: Implications for the Future states, "Whenever an Army Chief of Staff makes a pronouncement, regardless of whether the pronouncement is based on sound analysis and accurate data, every officer knows that in order to be promoted, he or she must sign on unconditionally for the "party line." In this cultural setting, there is no argument, no debate and no experimentation."

Conclusion

Let noble thoughts come to us from every side.

Rig Veda

The US military transformation is a project, mandated by strategy, threat, technology, risk imperatives guided and shaped by operational goals and military objectives of US defense authorities. It is unique to USA. Application of this model is not feasible for any military let alone India. However, US military transformation provides important lessons which we can learn

Achieving transformation is by no means certain. First, the process is complex because it affects many different and fundamental aspects of the joint warfighting system. Second, change is always resisted in favour of the status quo. Third, transformation competes for both attention and resources with other important, immediate demands on the ministry, notably counterterrorism, counterinsurgency operations and Internal Security. Fourth, there is an increasing demand on resources for current operations vis-a vis investments in the future. Finally, transformation is a journey, not a destination. Decision making will need to be tailored to this reality, i.e., more emphasis on the management of change versus traditional management of major new programs.

Of course, it is easy to criticize. Change especially radical change inherent in the RMA is always hard, and it is human nature to be suspicious of and hostile toward the unknown. It should not be surprising to see so much organizational, institutional, and cultural resistance to the idea of transformation. Moreover, transformation as a concept suffers from the fact that it is basically an open-ended, continuous process since there will always arise new technological innovations that can affect the character and conduct of warfare, and therefore military doctrine and organization. When does a military decide that it has finally and successfully transformed itself?

At the same time, however, transformation along the lines of the U.S. model may not be necessary to "get the job done." A modernization-plus strategy that is, evolutionary and sustaining innovation alone may be sufficient to meet our defence requirements, particularly with respect to their strategic context (that is, their immediate threat perceptions and defence requirements) and their available resources. We do not need to emulate the American transformation paradigm in order to derive valuable new capabilities and other benefits from their current modernization efforts. A partial solution could be more than adequate.

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