Revolution in Military Affairs
Processes, Problems and Prospects

REPORT OF A CONFERENCE ORGANIZED BY THE INSTITUTE OF DEFENCE AND STRATEGIC STUDIES (IDSS)

Marina Mandarin Hotel, Singapore
22–23 February 2005
OPENING REMARKS

In his opening remarks, Professor Amitav Acharya, Deputy Director, Institute of Defence and Strategic Studies, observed that the display of long-range precision weaponry and the pervasiveness of surveillance has led many observers to believe that the world is witnessing a Revolution in Military Affairs (RMA). Since then, modern technologies that have been continuously integrated into military operations with changes in military doctrines and organizations are fundamentally transforming the way wars are being fought. This transformation has been evident in U.S. operations in Bosnia and Kosovo in the 1990s as well as in Afghanistan and Iraq in the first half of this decade. This transformation is increasingly enabling the U.S. to meet its combat objectives with minimal collateral damage and small combat losses. This transformation, which is being led by advances in info-communications technologies, has demonstrated the importance of quality over quantity. Moreover, this quality lies not just in the application of advanced technologies but also in the availability of a well-trained force.

Several schools of thought have emerged over the past decade concerning the meaning of the RMA in material terms. The “system of systems” school argues that instead of being dominated by individual platforms, future warfare will depend on the ability to tie various platforms and forces into real-time networks. The “vulnerability” school posits that adversaries may benefit at least as much as the U.S., given the dual nature of these technologies. The “dominant battlespace knowledge” school hypothesizes that advances in sensor technology are rendering battlefields transparent and easing the attainment of victory for a transformed military. Finally, the “multidimensional” school argues for the importance of special forces as well as highly mobile networked forces in future warfare. However, the major weakness of all these schools of thought is that they highlight the revolution from the perspective of the U.S. The discussion has not been advanced enough to describe what the RMA means for small and medium powers.
Singapore has a well-educated workforce, knowledge-based economy and a sophisticated defence industrial base. Its small population makes it obviously interested in utilizing technology as a force multiplier. The Singapore Armed Forces (SAF) has already embarked on its own transformational agenda by moving towards a third-generation SAF. In 2003, the Ministry of Defence (MINDEF) launched the Future Systems Directorate as well as the SAF Centre for Military Experimentation with the purpose of exploring the viability and impact of the RMA.

The focus of this conference is to look at the processes, problems and prospects of implementing the RMA. Towards this end, this conference examines three broad themes: the potential impact of the RMA on the different levels of strategy; the impact of transformation on organizational culture; and the attempts at transformation by two countries (Japan and Sweden) with different geostrategic concerns. The conference also looks at the impact of military transformation on the strategic landscape of a region by looking at Southeast Asia as the case in point.

Session I
Transformation and Strategy—Problems and Pitfalls

Grant Hammond (U.S. Air War College), in his paper entitled “Revolutions—Political, Technological and Military: Reflections on Transformation, Strategy and the Future”, argued that the real revolution underway is a revolution in security affairs, where the actors involved, the means of waging war, the arena of conflict, and the motivations for doing so are all in a state of flux. The real revolution is not about new technologies and the accompanying changes in military doctrine and concepts, but the fact that there is a transformation underway in the international system itself. There are simultaneous changes underway in the world today that include a revision of the century-long experiment in faith in international law and institution building, efforts to form regional and global institutions of various kinds, and arms control and disarmament based on agreements and treaties. The movement of the U.S. to a position of hegemonic dominance is unparalleled in human history.
in the dimensions of its global power and influence, and the increasing global economic interconnectedness and unilateral political action, the expansion of non-state actors and their power and influence, and the scientific revolutions of supercomputing and information technologies, nanotechnology, biotechnology and directed energy.

There are four fundamental transformations underway that are transforming the nature of conflict itself. Firstly, there is the process of globalization, which constitutes a complex web of westernization, modernization and interdependencies of all kinds that impact on the flow of goods, services, finance and people. Secondly, there is a change underway in the technologies of warfare. Thirdly, there is a change in the politics of conflict itself. The appearance of powerful global non-state actors of various kinds and the competition waged among them and with states is changing the political landscape of the world. Finally, the character of conflict and war itself is being transformed.

The likes of drug cartels, international criminal groups, global news organizations, private military companies, separatist movements and terrorists with rapid global reach collectively represent the new phenomena of our times. Today, conflict takes place in a battlespace that is domestic as well as foreign. The targets of such conflicts are civilians, economies and psychological reactions of targets and bystanders alike, not merely “enemy” forces wearing uniforms. Transformation of how a modern military fights and the means with which it does so is definitely a part of strategy but not a substitute for one. A strategy for national security has to rely on more than military capabilities if it is to succeed or survive. The political, economic, diplomatic, psychological and technological elements of power are equally necessary to prevent or win the conflicts and wars of this century.

In his paper, “Network-Centric Warfare and Small Navies”, Paul Mitchell (Canadian Forces College) spoke on the impact of network-centric warfare (NCW) on small navies in a coalition. He mentioned that NCW increases efficiencies of operations as it allows platforms and units to share information and react instantly. The nascent NCW technology includes
Comprehensive Engagement Capability (CEC), Secret Internet Protocol Routing Network (SIPRNET) as well as Video Tele-Conferencing (VTC). The CEC enables detection of ships further out of range, piecing together of useful information and thereby generating a fuller picture. This increases the response, speed and capability of the vessel. SIPRNET involves e-mail, chat and other web pages for the armed forces over secure connections that enhance efficient communications. VTC enables the compression of command and communications, distribution of information and planning, and allows access to information resources. These technologies are of increasing importance to decision makers.

However, there has been little discussion in RMA literature on the impact of NCW on coalition warfare. The Canadian navy’s role in the recent U.S.-led operations illustrates the opportunities and challenges of a small navy working cooperatively with a much larger one. Even with NCW, there are many difficulties when it comes to sharing data between states. This is true at the policy level that involves sharing of data, especially “high fidelity data” as well as at the technical level, which enables the sharing of this data. Moreover, coalitions have access to everything except intelligence in which the information is based. NCW also raises some very important questions, such as: Will states relinquish command of their own forces to allies? Will a nation with a stronger military jeopardize its “competitive advantage” and share its knowledge on technology with a weaker state? The bottom line is that the conduct of coalition NCW requires a high level of trust.

In joint Canadian and American coalitions, the U.S. benefits from the participation of Canadian frigates, which are in shortage in the U.S. Canada, which has a relatively small navy, gains by having access to the latest American doctrine and procedures. In the preparation for Canadian and American naval coalition operations, the much smaller Canadian navy had to undergo the same training as the U.S. navy ships. They had to bear technology upgrades and commit their assets for longer terms. Professionalism, and not technology, became the driving force in the case of the Canadian navy. Mitchell emphasized that technology is not a panacea. Interoperability has been ultimately determined by policy. The relationship between Canada and the U.S. has been based on decades of trust as well as frequent operations over an extended period of time. This privilege, however, has not been extended to all navies, and the danger is that NCW and other RMA technologies might be a stimulus for unilateralism.

Ron Matthews (Cranfield University, U.K.) spoke on “Managing the Revolution in Military Affairs”. Matthews began by mentioning that what is originally a “military” technology revolution has now evolved to capture information and media warfare, military doctrinal and organizational change, civil industries and dual-use technologies. Moreover, economic and financial strength are now playing supportive and progressively dominant roles. Hence, efficient management of scarce defence resources—a topic of no little significance to small countries—has now come to be seen as a critical component of the RMA. Here, the overriding policy objective is value for money (VfM). The procurement of information technologies is not cheap, and that cost savings through scale and commercial-off-the-shelf systems in no sense adequately compensates for the high R&D and procurement costs associated with the RMA.
There has been a Revolution in Business Affairs (RBA) concurrent with the RMA, with the latter driving the former. The RMA itself is a representation of the effectiveness aspect in the cost-effectiveness relation that drives acquisition policy. The cost element focuses on the smart management of defence resources and pursuit of policies targeted on achieving both economy and efficiency of resource usage. Smart Acquisition and Lean Logistics are two principal change management programmes embedded into the growing patchwork of policies, including competitive tendering, contractorization, arms-trade liberalization, international arms collaboration and defence globalization. The purpose of addressing the economy and efficiency components of VfM is to screen thinking on the rationale and application of the broad range of relevant policies in search for affordability.

It is thus essential to revise the business procedures to ensure affordability. Policy measures should be devised to target critical cost areas across the defence budget, with priority areas almost always being acquisition and logistics. Efficient management of defence resources, particularly technology, is both a cause and an effect of military technology advances. Thus, defence, technology and management are intertwined, and the RMA is located at the conflation of these three critical interfaces. The trend towards VfM in an increasingly global, open-trading environment will lead governments to purchase abroad, promote collaborative programmes and foster transnational integration. The globalization of the defence industrial base, while connoting enhanced civil-military integration, is thus inversely related to defence-industrial sovereignty.

Discussion

A question was raised if “cost” is a relative factor in states attempting transformation. The answer noted that it varies from state to state, depending on the strategic needs of each state. There are states that seek to
acquire technology at any cost and there are states that base their procurement on cost reduction. The discussion then turned to the case of India. New Zealand, a small country, has gotten rid of its air force for both strategic and financial reasons. However, both China and India are emerging powers that are acquiring the capability to produce advanced weapons systems indigenously. With India’s success in commercial IT industries, will India be able to effect an RMA-type transformation in the near future? The discussion noted that the RMA discourse is U.S.-centric, and that it is routine to speak of whether or not a country has transformed its military by analysing whether or not it have “Americanized” its armed forces. However, India’s strategic needs are very different from those of the U.S. and so its transformation will be different qualitatively and quantitatively. For example, the need to deter its two nuclear-armed neighbours compels India to maintain a quantitatively large military. As for technological transformation, India will seek to exploit niche technologies, for example, space and nuclear technologies, instead of trying to acquire the full spectrum of U.S.-type technologies.

A second question focused on whether small states, given their strategic circumstances, are more flexible and hence better able to realize the RMA. Will smaller states be able to adapt faster and will they benefit from alliances? If they will, they become more vulnerable. The discussion noted that the imperative today is to understand that war and peace are not opposites, and that conflict is continuous. Smaller countries are concerned about changes in their environment, and as such are perhaps better equipped to transform. They probably have a bit of leverage over the larger states in this stand. Alliances can exist in many different forms, from political to cultural or from economic to military. The successes of alliances vary but there is much that small states can do to ensure their own survival. This question demands a fairly broad-based assessment and the comments provided are very speculative.

A third comment noted that the RMA is expensive, especially from a technological perspective and is made more complicated by human factors. Constant adaptation and adoption of new technologies is thus a very daunting task for small states. The example of Costa Rica, which has dismantled its military, is instructive, and may be a model for Singapore to follow. However, Singapore was born under unique circumstances and has constantly felt threats to its sovereignty—from communist subversion in the past to radicalized religious terrorism today. It has adopted conscription to meet these threats and to foster a Singaporean identity for its racially diverse populace. At the moment, the military also performs the functions of deterrence and defence and as such is important for state survival.

A final question examined the case of Canada, and whether or not it is turning into a small power from the middle power that it currently is. In a geographical sense, Canada is a large state. However, it is small in population. It is a G7 nation, but does not have an international economy since most of its goods go into the U.S. In many international operations like Bosnia, Canada has a high profile. However, it has not been translated into any strategic effect. The military in Canada has a better sense of what it can do than the government. The military also has to make do with minimal resources. However, there is still a sense that Canada has been declining or becoming a small power rather than maintaining middle power status.
Session II
Transformation and Organizational Culture

Nancy Roberts (Naval Postgraduate School, U.S.) spoke on “Transforming Organizational Culture: Lessons Learned from a Systems Perspective”. She began by saying that culture is central to the transformation process, although defining culture has always been a challenging task. In her paper, she introduced a systems perspective that integrates the normative as well as the behavioural views of culture. Roberts defined system as a set of interrelated elements that formed a whole separate from the environment. From the perspective of an Organizational System Framework (OSF), she observed that culture is emergent, meaning that it has evolved as a consequence of the organization’s direction and design elements. Roberts noted that a new culture emerges only after some of the organization’s basic elements are changed. She mentioned that executives can implement cultural change by espousing a new direction that includes new values and beliefs, and/or they can change the organization’s design elements.

The systems perspective represents a series of steps that any organization can pursue in a cultural transformation. The process begins with a diagnosis of the existing system that includes a description of the organization’s direction, its design factors, its culture, and the results it is achieving. Next, it is important to identify cultural attributes that have to be changed as well as those that have to be retained. As an example, the U.S. Navy has introduced a large group intervention techniques collectively called Appreciative Inquiry (AI) to change its culture in order to improve its performance. This is a collaborative search that enables the identification and understanding of the organization’s strengths, its potential, its greatest opportunities and people’s highest hopes for the future. The goal is to focus on the positive aspects of the organization to help people embrace and be energized by change rather than resist or attempt to undermine the transformation effort.

A key factor in successful transformation is in acknowledging the size of the
organization. For larger organizations, the transformation process can be accomplished with the introduction of transformation in phases. This approach assumes a very sophisticated level of change agency. It is also important to identify how radical the change will be. A successful transformation has to address individual level needs to address the emotional and psychological aspects of cultural change. Leadership is a decisive factor in the transformational process. Finally, it is important to remember that organization performance in the short term may be disrupted and degraded. Moreover, 50 to 70% of transformation efforts fail. Transformation is hard and perseverance in the face of imperfection is required to succeed.

In her paper, “Organizational Culture and Change: The Revolution in Military Affairs, Counterinsurgency and the U.S. Army”, Elizabeth Kier (University of Washington) argued that the integration of RMA technologies in the U.S. military will likely only enhance its combat effectiveness in major theatre wars. However, two important components of the U.S. army’s culture—its preference for large-scale conflict and its belief that “one size fits all”—discourage it from developing expertise and capabilities tailored to the lower end of the military spectrum. Given the central values and assumptions in the U.S. army’s culture, the RMA is likely to make the U.S. military increasingly poorly adapted to meet insurgent threats. The U.S. military’s cultural beliefs in overwhelming force, its casualty aversion, its faith in technology and its un-Clausewitzian conviction in a sharp divide between the military and the political means that the RMA is likely to further limit the U.S. military’s understanding of and ability to fight COIN operations.

While the key to success in conventional operations may be the destruction of the adversary’s military assets, the goal of a counterinsurgency campaign is gaining the support of the wider population or at a minimum providing security to populous areas. COIN strategists have to recognize that the conflict is not primarily a military one. Instead, population security is the first priority and resources have to be devoted to public works as well as social and economic reforms if the people are to be persuaded that their future lay with the government.
forces. However, the integration of RMA technologies is unlikely to push the U.S. army towards putting “boots on the ground”. This is likely to further isolate the U.S. army from the civilian population and consequently limit the RMA’s effectiveness. Moreover, the RMA’s promise of decisive and rapid victories is an unrealistic goal in COIN operations.

Given that asymmetrical conflicts are the most likely threat to U.S. security, this conclusion is troubling. It raises the question of what is to be done. It is important to note that an organization’s culture does not change naturally in response to its experiences. The primary mechanism of organizational change is not purposeful adoption by the individual organization but a Darwinian process of selective birth and death. Based on this analysis, Kier presented three policy recommendations.

- It is important to focus on the more accessible beliefs within the organization. Kier mentioned that the emphasis on casualty aversion in the U.S. army might be targeted, as it is more myth than reality. The institutionalization of this belief within the formal structure of the U.S. army can then be reversed.

- Given the difficulties of changing a culture, the best advice may be to work with it.

- If drastic cultural changes are needed, it may be better to create a new organization, or build on an existing but alternate one. For example, if the U.S. military is to effectively combat insurgencies, it is probably best not to attempt to transform the U.S. army’s culture within the artillery, infantry and armoured units, but instead to look elsewhere for the these capabilities. Special Forces may be expanded, or these capabilities may be developed into what are traditionally seen as non-combat units, such as military police units.

Discussion

From the two presentations, it seemed like transformation is both inevitable and a failure. It is inevitable because other states are likely to use network-enabled operations. It is also inevitable as we are in the process of changing a 19th century military hierarchy into a 21st century networked and mobile force. However, it is likely to be a failure not because of technology but because of issues related to organizational culture and leadership. Transformation in the U.S. can fail for the wrong reasons. For example, America’s commitments in Iraq and Afghanistan can leave its military without enough resources to acquire new technologies.

A second question focused on the “Appreciative Inquiry” technique, specifically if this technique is culture-specific, that is, it will generate different outcomes in different cultural environments. AI is neither a problem-based nor a culture-specific technique. It is unique among intervention techniques as it highlights the positive aspects of a situation. AI has enough flexibility to be adapted to any culture and any given situation, having been applied just as well to non-profit organizations and business organizations in addition to military organizations. However, AI requires a high level of participation among the participants throughout the organization.

A third question focused on the impact of organizational culture on strategy in an RMA-capable state. Many organizational theorists argue that militaries preferred offensive doctrines. Moreover, the RMA
promised to deliver rapid and decisive victories at low costs. Additionally, defence globalization is leading to the proliferation of defence and dual-use technologies. Will the combination of these factors lead to systemic instability? This question raises two specific themes: if militaries necessarily preferred offensive doctrines and if offensive doctrines necessarily led to war. There are good theoretical explanations in favour of as well as against these questions. However, militaries do not necessarily prefer offensive doctrines, and states go to war for reasons of policy and not because they have offensive military doctrines.

A final question addressed the idea that a military prepared for all-out war makes it capable of fighting all types of wars, including low-intensity conflicts. The discussion from the conference thus far acknowledges that technology is not the answer to meet all types of challenges. Moreover, organizational culture is very difficult to change. This raises the possibility of a “division of labour”. Given the problems raised during the presentations, including issues of interoperability in coalition warfare, perhaps a division of labour or specialization is needed, under which the U.S. will perform the high-intensity conventional military operations, the E.U. and Britain will perform counterinsurgency operations, and the Canadians and the Scandinavians will perform peacekeeping operations. It may be a feasible option for smaller states to decide to specialize for a particular type of operation but the U.S. does not have such an option. For example, it did not choose a COIN operation in Iraq. The U.S. military will likely be in favour of a division of labour though. Finally, it is important to remember that other states like the U.K. and Canada want to retain a full spectrum of military capabilities from conventional operations to peacekeeping.

**Session III**

**Country Perspectives**

Stefan Ring (National Defence College, Sweden) discussed the case of Sweden’s defence transformation efforts. While
official Swedish foreign policy during the Cold War was overtly neutral, in reality Sweden had tacit cooperative measures with Norway, the U.K., and the U.S. This included exchange of military intelligence and Swedish access to advanced technology. This has enabled Sweden to maintain a small but technologically advanced military. After the end of the Cold War, Sweden’s geopolitical environment underwent a major transformation. Sweden changed its policy of political non-alignment to one of military non-alignment. Sweden joined the E.U. in 1995 and has actively participated in NATO’s Partnership for Peace Programme since 1994. The Baltic States are today members of the E.U. and NATO, and Russia is no longer a military threat like the former Soviet Union used to be.

However, even though Sweden’s security environment has changed after the end of the Cold War, the capability to defend Sweden against an armed attack remains the main task of its military. After Russian forces left the Baltic States and Sweden became a member of the E.U. in the mid-1990s, Sweden’s military started moving towards a doctrine of “flexible defence” in order to meet the security challenges of the emerging international system while retaining the ability to defend itself against any potential invasion. Sweden is in the process of transforming its forces to move away from national and territorial defence towards crisis management operations with short reaction times, from mobilization force structures towards mobility and readiness, and towards joint operations.

Sweden now considers it important to make active contributions to the E.U.’s ability to manage crises, while still holding on to military non-alignment and a negative attitude to collective defence responsibilities. One of the main aspects of this involvement has been the Swedish responsibility to organize a battle group of 1,500 personnel together with Finland, Estonia and Norway. This has resulted in Sweden’s movement towards creating forces with NATO-interoperable equipment and staff procedures for the defence of Sweden, which fits into the evolving international system (as an instrument to promote the interest of the state). Transformation also involves moving away from a “people’s defence”, conscription-based approach to a “soldiers on contract” approach under which some of the conscripts sign contracts to stay for a few years. Moreover, Sweden is also internationalizing its national defence industry for the world market. For Sweden, “transformation of the mind” has been essential to build a small but highly modern military organization with a focus on the operational use of its units in accordance with Sweden’s foreign policy in the evolving international context.

Sugio Takahashi (National Institute for Defense Studies, Japan) discussed Japan’s defence transformation efforts. Japan’s unique security posture is based on its exclusively defence-oriented policy (EDOP), which makes it reluctant to pursue a U.S.-style RMA. In addition, the Japanese strategic environment is fundamentally different from that of the U.S. However, Japan’s self-restrained policy is in the midst of change. After the 9/11 attacks, Japan enacted special measures to dispatch transportation planes and vessels for logistical support of the U.S. forces. Later, in 2003, Japan enacted another set of special measures to send ground troops (technical) to Iraq. More recently, Japan has also changed its stand on the Taiwan Straits issue.

Japanese foreign policy is dropping its Cold-War passivism and becoming more “active”. As a result, under the terms of its revised alliance with the U.S., the SDF’s role will expand from territorial defence to
“areas surrounding Japan” and to provide “rear-area support” for the U.S. The Japanese version of the IT-RMA will be promoted in accordance with this transformation in Japanese national security strategy, which entails change from a defence posture just focusing on territorial defence, to defence posture for multiple purposes for both territorial defence and overseas operations. Japan’s defence transformation will be defined within the following strategic framework.

- EDOP will remain the core of Japan’s defence policy with some modifications for overseas operations. As a result, advanced high-speed networks will have higher priority in Japan’s IT-RMA than precision strike and stealth technology.
- The regional military balance—North Korea’s nuclear development and China’s military modernization—will be an important factor influencing Japan’s security strategy.
- Japan’s decade-long economic stagnation has compounded its fiscal problems, especially those related to defence modernization.
- Japan may lift some constraints on arms exports and joint defence production within well-defined restrictions, for example, in relation to the BMD system.
- Societal factors (including demographic trends) will also work to determine Japan’s defence strategy.

The goal of Japanese defence transformation is to develop overseas operation capabilities and to maintain a favourable regional military balance. As a result, the Japanese IT-RMA will be crystallized in three ways: advanced information networks for overseas peacekeeping operations, Ballistic Missile Defences and aerial network-centric warfare, as they represented solutions for Japanese strategic needs. In the case of the Japanese IT-RMA, technology is an intervening variable. The ultimate independent variable in Japan’s defence transformation is the changing attitude of its political leadership.
In his paper, “Transforming the Strategic Landscape of Southeast Asia”, Bernard Loo (Institute of Defence and Strategic Studies) analysed the impact that recent Southeast Asian force modernization programmes has had on the strategic environment in the region. There are many unresolved geopolitical disputes in Southeast Asia that are either bilateral or regional in nature, which encompass both territorial and resource-access disputes. Consequently, Southeast Asian militaries have been restructuring with their respective geopolitical and geostrategic conditions in mind. Since none of the Southeast Asian states view each other as existential threats, military modernization has thus far focused on attempts to rationalize military structures. Furthermore, although Southeast Asian states have been acquiring offensive strike capabilities, this has not been in very significant amounts. However, recent acquisitions may create conditions in which regional policymakers' strategic miscalculation may lead to accidental or inadvertent conflicts, especially as more states in the region acquire conventional military capabilities that give them some limited power-projection capabilities. Moreover, the transformation discourse ignores the powerful psychological element of deterrence with its focus on quality and sophistication over quantity. The transformation of military capabilities from essentially counterinsurgency to high-intensity force-on-force capabilities thus potentially transforms the very business of strategy for Southeast Asian states in a potentially negative way. If these force modernization programmes have a potentially negative impact on the strategic calculus that states in the region used, then its impact on the broader security environment is also potentially deleterious.

Discussion

Deterrence is a matter of both certainty and uncertainty. As a result, it is important for the policymakers of the states in contention to make very clear what capabilities they really have. The art is to remain very unclear about the when and where of the response, not about what can be done. Could it be that the states in Southeast Asia are increasingly finding themselves in this situation? The very existence of potential fracture lines within states increases the possibility of policymakers being forced to act in ways they do not intend to. The Falklands War case illustrates the power that domestic political conditions can have on policymakers' strategic decisions. Southeast Asian states need to be conscious of this fact. Southeast Asian states remain wary of their neighbours and their capabilities primarily as a result of a political climate that favours high levels of secrecy within the domestic political domain. This increases the difficulty of making certain one's own military capabilities. Furthermore, the assessment of capabilities in the IT era is daunting. However, Southeast Asian states have agreed to many CSBMs recently.

Given the SAF’s offensive orientation and the Malaysian armed forces transformation from a counterinsurgency force to a more conventional force with some offensive capabilities, is there any discussion in Southeast Asian states about military transformation that takes into consideration that one did not oppose one’s neighbour in a hardware sense? Transformation is, after all, not just about capabilities but also the doctrines and postures that states adopt. Many of the CSBMs that Southeast Asian states have agreed to over the years stem from inter-state political tensions and are not a result of actual or perceived military threats. However, some countries
in Southeast Asia are now beginning to acquire the military capabilities that may tempt their policymakers to seek military solutions to some of their political problems. Most conventional military forces in Southeast Asia incorporate both offensive and defensive capabilities. Theories of non-offensive defence are incompatible with the military thinking of the region. The question then is how confident policymakers are that their military organizations can allow the other party to act first.

Concerning the different views that Swedish military officers have about the form that transformation can take, the Swedish army is keen to maintain a mobilization-dependent armed forces with the primary aim of territorial defence. Is the reason behind this bureaucratic politics especially because it is a simple way to get more resources? History is one of the key reasons behind the army’s resistance to transformation (which calls for reduction in manpower), as there are regiments that have fought with Gustavus Adolphus. Later during the Cold War, Sweden’s defence against an invading Russia was the army’s primary task as a result. The contradictory forces of retaining the past as well as moving forward are hindering transformation in Sweden. Moreover, financial constraints are also impeding Sweden’s transformation process.

A final issue examined the impact of Japan’s past on its transformation efforts. Japan has not forgotten its own past. Japan’s history has been taken into consideration in its strategic thinking. When Japan thinks of its future overseas operations, it focuses on post-conflict reconstruction and humanitarian relief. It does not think about conducting high intensity offensive operations overseas. The Japanese past is thus psychologically constraining its future defence policy. This allows countries like China to take advantage of this constraint to further restrict Japanese overseas commitment.

Closing Remarks

In his closing remarks Acharya noted that the conference had thrown up four major themes.

A key issue is the range of differences in RMA literature about what the RMA is as well as the scepticism about its capabilities. At a very narrow level, the RMA can be looked upon as a technologically driven phenomenon, or it can be looked upon in the wider socio-political contexts through which the world is passing as a Revolution in Security Affairs. If that is indeed the case, it may not be possible to come to a common understanding about the RMA. How far can the concept be stretched without losing its analytical and policy value?

Secondly, the RMA is substantially a question of “mind over matter”. The emphasis in this conference has been the human and social aspects of the RMA rather than its technological and hardware aspects. The RMA cannot be understood in purely material terms and it is important to discuss its political, organizational, cultural and human dimensions as well. Countries should not simply look to technology to transform their militaries nor should they acquire the technology first and attempt to change organizational culture later. Countries attempting to transform their militaries should attend to all of these factors simultaneously.

Thirdly, the variations in the RMA and the fact that there is no single approach to it
can be manifested in the very different U.S., U.K., Swedish and Japanese approaches to the RMA. Moreover, these variations in the RMA are not decided by technology but also by domestic politics and regional circumstances. Given these realities, Singapore should not shy away from developing its own approach to the RMA even if it does not fit into any of the more established approaches.

Finally, there is the issue of how a state should legitimize its RMA strategy, that is, how a state “sells” its RMA agenda to its friends, allies and adversaries, so as not to trigger a security dilemma. This point is of particular relevance to countries in neighbourhoods that are unevenly matched in terms of capabilities. Sweden is transforming its military by making a very legitimate attempt to integrate into the new security environment by developing closer links with the E.U. and NATO. As a result, the Swedish attempt is unlikely to trigger a security dilemma. However, the Japanese transformation is “hopelessly aligned” with the U.S. and is giving the perception of triggering a security dilemma with China. Like Sweden, Japan can make use of multilateral institutions like the ARF to legitimize its case. Similar arguments can be applied to the Singapore transformation agenda.
## CONFERENCE PROGRAMME AND AGENDA

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| 0900–2355 | Arrival of Delegates  
Dinner at Hotel Café, Brasserie Tatler  
Level 4 |

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| 0830–0945 | Registration  
0945–1000 | Opening Remarks  
Professor Amitav Acharya  
Deputy Director, Institute of Defence and Strategic Studies  

1000–1230 **Session I**  
Transformation and Strategy—Problems and Pitfalls  
Chair:  
Mr. Kwa Chong Guan  
Head, External Programmes, Institute of Defence and Strategic Studies  
Panellists:  
Grant Hammond  
U.S. Air War College  
*Revolutions-Political, Technological and Military: Reflections on Transformation, Strategy and the Future*  
Paul Mitchell  
Canadian Forces College  
*Network-Centric Warfare and Small Navies*  

1230–1400 Lunch at Brasserie Tatler, Level 4  
1400–1630 **Session II**  
Transformation and Organisational Culture  
Chair:  
Bernard Loo  
Assistant Professor, Institute of Defence and Strategic Studies  
Panellists:  
Nancy Roberts  
U.S. Naval Postgraduate School  
*Transforming Organisational Culture from a Systems Perspective: Some Lessons Learned*  
Elizabeth Kier  
University of Washington  
*Organisational Culture and Change: Prospects for the Revolution in Military Affairs*  
1900 Dinner (by invitation only) at Samy’s Curry Restaurant, Dempsey Road
Wednesday
23 February 2005

0930–1145  **Session III**
Country Perspectives

Chair:
Joshua Ho
Research Fellow, Institute of Defence and Strategic Studies

Panellists:
Stefan Ring
National Defence College, Sweden
*Case Study of the Defence Transformation Efforts of Sweden*

Sugio Takahashi
National Institute of Defence Studies, Japan
*How to Use Technological Innovation: The RMA in the Japan’s Defense Policy Transformation*

Bernard Loo
Institute of Defence and Strategic Studies
*Transforming the Strategic Landscape of Southeast Asia*

1145–1200  Closing Remarks
Professor Amitav Acharya
Deputy Director, Institute of Defence and Strategic Studies

1200  Conference Ends
Lunch at Ristorante Bologna, Level 4
Departure
## List of Paper Presenters and Chairpersons

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The Institute of Defence and Strategic Studies (IDSS) was established in July 1996 as an autonomous research institute within the Nanyang Technological University. Its objectives are to:

• conduct research on security, strategic and international issues;
• provide general and graduate education in strategic studies, defence management and defence technology; and
• promote joint and exchange programmes with similar regional institutions; organize seminars/conferences on topics salient to the strategic and policy communities of the Asia-Pacific.