14TH ASIA PACIFIC PROGRAMME FOR SENIOR MILITARY OFFICERS (APPSMO)



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INSTITUTE OF DEFENCE AND STRATEGIC STUDIES S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES NANYANG TECHNOLOGICAL UNIVERSITY

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SUMMARY OF APPSMO 2012

The 14th Asia Pacific Programme for Senior Military Officers (APPSMO), organised by the Institute of Defence and Strategic Studies (IDSS) at the S. Rajaratnam School of International Studies (RSIS), was held at the Sentosa Resort & Spa from 7-10 August 2012. Since its inception in 1999, APPSMO has provided a unique and important forum for military officers and defence analysts to network and exchange views on a broad range of subjects related to regional and international security. The 14th APPSMO has continued to facilitate defence diplomacy with the attendance of over 50 military officers and defence planners from more than 20 countries, representing Asia, Oceania, North America and Europe.

During the week-long programme, the participants attended a series of seminars and discussions that featured experts from both the academic and policy communities. The theme for APPSMO 2012 was "The Military Professional in the 21st Century Security Environment". Some of the key topics discussed included the various challenges to the military professional stemming from technological developments, the evolution of warfare, the changing ethos of the warrior, and the emergence of the legal and ethical dimensions to combat operations.

The participants also engaged in a variety of excursions, including visits to the Information Fusion Centre at the Changi Naval Base and a guided tour of Singapore. The international military officers and invited speakers also attended the National Day Parade on 9 August 2012, along with their Singaporean military hosts. The 14th APPSMO reinforced its important role in facilitating interaction and a better understanding among senior military officers in and beyond the Asia Pacific, thereby contributing to the development of mutually beneficial ties among militaries around the world.

WELCOMING REMARKS



Ambassador Barry Desker Dean, RSIS, and Director, IDSS

In his welcoming remarks, **Ambassador Barry Desker**, Dean, RSIS, and Director, IDSS, noted that APPSMO had grown from strength to strength, from its modest start in 1999, to what is essentially a global programme drawing participants from more than 20 countries and engaging an impressive panel of local and international experts and academics.

He noted that, over the years at APPSMO, a broad and interesting range of topics had been discussed, including

the wars in Iraq and Afghanistan, the threat of and responses to terrorism, the rise of China and India, the promises and perils of globalisation, and the emergence of non-traditional security threats. However, Dean Desker noted that this year's theme was highly apt, given the dramatic and often confusing transformations in the political, economic, social and technological domains.

Dean Desker touched on the questions that participants and facilitators would be grappling with over the course of the programme, including those on the patrolling of borders, the protection of sovereignty, and defence of the homeland.

KEYNOTE ADDRESS



Dr Ng Eng Hen Minister for Defence, Singapore

Dr Ng Eng Hen began by noting the appropriateness of this year's theme for APPSMO, given the major events of the last decade. For military establishments, 9/11 ushered in, at the turn of the century, an era of complex security challenges. Terrorism on a global scale was followed by more transnational threats related to pandemics, piracy, food security, natural disasters, financial crises and cyberattacks. Globalisation, too, has affected the military domain. That explained why Singapore, a tiny nation, has had military personnel serving in Afghanistan and the Gulf of Aden for some time now, a scenario unimaginable before. Such deployments of the Singapore Armed Forces in remote places thousands of kilometres away, in unfamiliar terrain and with complex mission requirements are stark illustrations of the heightened expectations placed upon "the military professional in the 21st century".

Dr Ng noted that the new norm requires more from military establishments. Rapid change and the ensuing ambiguity will challenge defence establishments as they seek to provide stability and security for their citizens. Security relationships forged in the post-WWII and Cold War era will be tested for their relevance as strategic shifts occur between different powers. The rise of China and India has focused attention on the Asia Pacific region.

According to one International Monetary Fund projection, Asia's economy will account for more than 40 per cent of global output by 2030. The Association of South East Asian Nations (ASEAN), with 600 million people and a combined GDP of US\$1.2 trillion in 2010, was expected to grow to 740 million people and boast a combined GDP of US\$3 trillion by 2030. The political, economic and cultural ramifications of a newly empowered Asia are bound to impact existing security and economic relationships. While China is currently the largest trading partner of ASEAN and many regional countries, the U.S. remained the dominant resident security power in the region, and has further committed to rebalancing towards the Asia Pacific. That was brought home by U.S. Secretary of Defense Leon Panetta's announcement at the Shangri-La Dialogue in June 2012, where he said that by 2020, the U.S. Navy's forces would move towards a 60-40 split from a 50-50 split between the Pacific and Atlantic oceans.

Dr Ng concluded by saying that it was clear that there are new demands placed on today's military professionals. They are expected to respond to changing external dynamics and rapid technological advances. Soldiers must be competent in a wide spectrum of missions, which include peacekeeping, counter-insurgency and humanitarian assistance. They can be deployed at short notice to faraway places where they will have to navigate sensitive racial, religious and cultural practices. They are increasingly being called upon to conduct defence diplomacy and interact with their counterparts. They will have to find new ways to connect with and train a younger and more educated generation.

DISTINGUISHED LUNCH TALK "THE US PIVOT TO ASIA: CONTINUITY OR CHANGE?"

Prof Khong Yuen Foong (RSIS)



Prof Khong Yuen Foong (RSIS)

Professor Khong Yuen Foong noted that since late last year, there has been much talk, some excitement, and perhaps a bit of consternation (in some quarters) about the U.S. pivot to Asia. The dominant narrative was that the U.S. was returning in a big way to Asia, which it had neglected in the last decade; the timing could not have been better because the U.S. was returning to balance an increasingly assertive China. That further explained the enthusiasm of the majority (of Asian) states for the pivot.

Prof Khong, however, argued that the U.S. had never left, and that, in fact, the pivot was not about returning to balance China (a narrative that was, nevertheless, attractive to both the U.S. and its allies). Rather, it was about consolidating U.S. military preponderance or hegemony in the region.

Prof Khong contended that far from neglecting Asia since the end of the Cold War and during the Global War on Terror (GWOT) years, the U.S. has been, since the 1990s, actively shoring up its alliances and forging new networks across Asia. Furthermore, the U.S. has also encouraged its allies to deepen their military cooperation. These moves were part and parcel of a grand strategy of preventing the rise of a peer competitor in the region.

Prof Khong pointed out that while the military dimension of the pivot had received the most attention, the lack of a coherent economic dimension or strategy could complicate or undo the U.S. rebalancing strategy in Asia. He noted that at the last Shangri-La Dialogue, U.S. Secretary of Defense Leon Panetta announced the U.S.'s intention to shift naval presence from a 50-50 split between the Atlantic and the Pacific to a 40-60 split in favour of the Pacific. Withdrawing from Iraq and winding down the war in Afghanistan have allowed the Obama administration to reorder U.S. foreign policy priorities, and Asia is where they hope and want the action to be.

Prof Khong argued that this was a continuation or consolidation of what the U.S. had been doing in the region. He said that if one accepted the 'U.S. neglected Asia' narrative, last year's pivot to Asia would naturally be seen as a comeback. However, this narrative seemed flawed as it accepted the U.S. was a Pacific power, but concurrently argued that it could neglect East Asia due to the distractions in the Middle East in the decade following 9/11.

Prof Khong said that while the narrative about the U.S. returning to balance an assertive China contained an element of truth, it missed some important things (actions by the U.S.), that, when added together, suggested a more purposive U.S., boasting rather impressive strategic foresight. He suggested that the U.S. never left, but had been consistently seeking to prevent the emergence of a peer competitor throughout the post-Cold War years. It had quietly and steadfastly consolidated its alliances and strategic partners in the region. After leaving Clark Air Base and Subic Naval Base in the Philippines, the U.S. moved quickly to sign MOUs with Singapore, Malaysia and Indonesia that allowed its navy to use their facilities. This 'places instead of bases' approach is still very much alive today. After the Mischief Reef incident of 1996, the Philippines was keen to bring back the U.S., and signed a Visiting Forces Agreement with the U.S., which paved the

way for American forces to re-enter Philippines for military exercises and joint operations. Cobra Gold, a military exercise that has been conducted annually between the U.S. and Thailand navies since 1980, has, in recent years, also involved the navies of Japan, South Korea, Malaysia, Singapore and Indonesia. It was one of the largest multilateral exercises of its kind, and was largely about improving working relationships with strategic partners and enhancing inter-operability among the navies.

The U.S. also upgraded its Asian allies to the status of Major Non-NATO allies (MNNA): Australia, Japan and South Korea in 1989; Thailand and the Philippines in 2003. To some extent, that was a branding exercise, but the U.S. also moved to strengthen and reinvigorate its alliance with Japan in substantive ways. The 1997 Review of the guidelines on U.S.-Japan Defence Cooperation specified Japan's expanded security role to "the areas surrounding Japan". The Bush administration also institutionalised the "Defence Policy Review Initiative (DPRI), which redefines the roles, missions, and capabilities of alliance forces and outlines key realignment. In 2011, the Obama administration also agreed to initiate the Security Consultative Security Meeting or the 2+2 (Secretaries of State and Defense and their Japanese counterparts)".

The focus on upgrading the alliance was understandable, since the U.S. saw Japan as the sub-hub or major spoke of its Asian alliances. These bilateral activities could also be seen as an American attempt to nudge Japan along the road to becoming a normal power, i.e., one that was more willing to consider force as an instrument of statecraft. The strengthening of these alliances was also facilitated by another development: the conclusion of Free Trade Agreements (FTAs) with Australia (2004), Singapore (2004), and South Korea (2007). Both the Clinton and Bush administrations also reached out to India with the aim of strengthening relations across the board – diplomatically, militarily, and culturally – and to induct India as a strategic partner of the U.S. in Asia.

Prof Khong noted that the pivot was, therefore, less about re-focusing its efforts on Asia and more about reinforcing an already enviable position. For example, one of the major strategic innovations of the Bush years was the attempt to link America's democratic allies in Asia. It began with the Trilateral Security Dialogue in 2002 between the U.S., Japan and Australia, which was later upgraded to ministerial status in 2005. In 2007, India (a non-formal ally) was inducted into the dialogue, making it the Quadrilateral Security Dialogue (QSD). That was an attempt to bring India closer to Japan and Australia, and strengthen strategic linkages between the four democracies. Japan and Australia signed a formal security act in 2007 – it was Japan's first such agreement outside the U.S.-Japan alliance. In the same year, the annual U.S.-India naval exercise -- Malabar 02 -- was also extended to four other countries: to involve the navies of India, the U.S., Australia, Japan and Singapore. It was a massive exercise in the Bay of Bengal, with the U.S. fielding 13 warships, including a nuclear powered aircraft carrier.

Prof Khong, thus, disagreed with those who argued that it was only China that was making hay while the U.S. was asleep in the sunshine. He viewed the U.S. as a country going forth with a quiet, patient but methodical approach to consolidating its alliances and engaging its strategic partners in the region, and encouraging them to deepen strategic ties with each other. He believed that ASEAN, as an organisation, did not figure significantly in these moves by the U.S., and perhaps that was why there was such angst in Southeast Asia about an absent U.S. Nonetheless, the U.S. was working hard with those military allies who could bring something to the table.

Prof Khong said that if his analysis of the consistency of the U.S.'s view of its interests and the continuity of U.S. policy toward the region was correct, it followed that the U.S. never left and did not really need the recent incidents to reassert its strategic prerogatives in the region. As such, the U.S. never left, but it was coming back in style, albeit against the backdrop of perceptions about an assertive China. Any doubts about China are likely to nudge regional countries even closer to the U.S. Most were happy to see the U.S. casting a strategic glance back to East Asia, and viewed the U.S. pivot as conducive to peace and stability in the region. As such, they were happy to add their voices to a narrative about the U.S. returning to balance an increasingly powerful and assertive China.

Prof Khong stressed that his main point was that the U.S. was not back to balance Chinese power in Asia. Rather, it was back to maintain and consolidate its military preponderance. The U.S.' grand strategy is purposive and possibly even impressive. Based on what the U.S. has been doing in East Asia since the mid-1990s, the U.S. may even be said to have acceded to Deng Xiaoping's adage to his countrymen: bide your time and hide your strength. Indeed, the U.S. has so methodically and patiently built its strength in the last 20 years that if you were a strategist looking out from Beijing, military-diplomatic encirclement by an arc of democracies led by the U.S. might not be an inaccurate description of Beijing's strategic dilemma. China's neighbours, wittingly or unwittingly, are therefore facilitating this underplaying of U.S. strength when they welcome the U.S. back with the "we need you to balance China's rising power" narrative.

Prof Khong said that pundits, policymakers, and scholars both in the West and Asia tended to use the concept of the need for the U.S. to balance Chinese power. That was a misnomer. The U.S. is the preponderant power and hegemon of the region and wants to keep it that way. So when Asians talk about the importance of having balance of power for regional peace and stability, what they actually seem to mean is the need for a preponderance of American power. As a clarification, that is, however, not because they subscribe to the theory of hegemonic stability – as it then does not matter who the hegemon is, and should not be identity-specific. But, in truth, the identity of the hegemon matters profoundly. Most in the region seem more comfortable with American hegemony because: (1) it is the distant power in a region where many are more suspicious of each other than they are of the U.S.; (2) its ideological precepts sit better with many countries in the region; and (3) U.S. soft power is hard to resist.

In terms of the economic dimension, Prof Khong said that it made sense for the U.S. to pivot to Asia because that is where the money is. Hilary Clinton was quoted as saying that "in times of scarce resources, there is no question

that we need to invest wisely, where they (investments) will yield the biggest returns, which is why the Asia Pacific represents such a real 21st century opportunity for us." Essentially, the economic centre of gravity is shifting to East Asia, and it makes sense to ensure that the U.S. maintains and grow its economic stake in the region. Moreover, the U.S.'s biggest creditors are also in Asia. So, the economic imperative of growing trade with and investment in Asia is obvious, especially given America's economic woes since the 2008 financial crisis.

That said, China has or is replacing the U.S. as the biggest trading partner for many countries in the region. That should worry the U.S. because where trade goes, strategic alignments may follow. If China is going to be the main provider of East Asia's economic growth, it should not be surprising that, over time, the East Asians will be inclined to support – or at least not offend – China on the vital strategic matters of the day.

Some view the TPP, America's first major initiative in terms of shaping the regional economic architecture, as a strategic counterpoint to CAFTA, and an alternative to Chinese economic/strategic dominance. However, Prof Khong felt that was strangely and even crudely incongruous. He noted that the trend in the region was toward inclusiveness. Given the pattern of trade and investment flows with Asia, it just does not make sense to have a trade pact that does not include China and India. Thus he expected others to argue for China and India's inclusion; or the Pact would slide into irrelevance.

In conclusion, Prof Khong said that post-Cold War U.S. military strategy in the region has been more purposive and farsighted than commonly assumed. Indeed, it was not as if things in the region are out of balance and the U.S. was now coming back to put things back in order. The political-military piece of the U.S. grand strategy jigsaw puzzle is, in fact, already nicely in place. The U.S. is, therefore, not returning to balance anyone, but merely consolidating its primacy.

ST ENGINEERING DISTINGUISHED DINNER LECTURE "AN ASIAN PERSPECTIVE ON REBALANCING"

Prof Iwan J. Azis'

Professor Iwan Azis' presentation focused on Asia's need for sustainable and inclusive growth in the context of the challenges of rebalancing. Prof Azis introduced the subject historically by looking at the pre-Global Finance Crisis (GFC) imbalance in the global economy.

He highlighted the increase in the imbalance in the global economy (estimated for 2010 at US\$1.6 trillion) between import-oriented countries, like the U.S., which owned 71% of the global deficit in 2012, and export-oriented countries, like Asian and oil-producing countries. Growing demand in industrial countries and low supply elasticity in the U.S. mean a strong growth of exports and continued trade surplus in export-oriented economies and that contributes to the widening of global current account imbalances. This dynamic caused what Prof Aziz called an "easy money" environment that fuelled the current GFC.

The fear of deflationary pressure going back to Year 2000 levels encouraged the Federal Reserve to adopt an accommodative fiscal and monetary policy that caused excessive spending and credit boom, and raised U.S. imports from Asia, which exacerbated the U.S. global account deficit. That caused a massive return of the capital back to Asia. During the GFC, the account surplus in many export-oriented countries, especially in Asia started to fall because of the decrease in U.S. and European demand, the emerging Asian trade diversity. Prof Azis concluded his introduction by highlighting the severe damages that growing imbalances could create.

In the second part of his lecture, Prof Azis focused on the needs and challenges of Asian countries in shaping the G-20 agenda for balanced and sustainable growth. From the Asian perspective, rebalancing translates into two strategic goals: (a) increasing intraregional trade and (b) stimulating domestic demand. Those two objectives come from the different natures of the economies of Asian countries. According to Prof Azis, raising consumption should be the priority for the People's Republic of China (PRC), while raising investment is the challenge for the rest of Asia. However, this challenge is against the global trend for Asia, because since 2000, a major source of growth in most countries except China has been private



Professor Iwan J. Azis

consumption, not investment. The low investment and, on the other hand, the saving trends in Asia may be explained by, among other factors, the still fresh memory of the Asian crisis, institutional constraints, a hostile investment climate and limited infrastructure. Prof Azis noted the irony of the fact that excess savings have built up even as the region badly needed financing for new and improved infrastructure.

Assessing the impact of the GFC on export-oriented countries such as Japan, Korea, PRC, Malaysia, Singapore and Thailand, Prof Aziz noted that it would be ill-advised for Asia to continue relying on markets in industrial countries for their final goods exports. Therefore, intraregional trade in final goods is expected to increase and it is important for the region to dismantle barriers to intraregional trade. Free trade among Asian countries was the only reasonable solution that would simultaneously deal with the problems of global imbalances.

Prof Aziz insisted on the need to develop more FTAs among Asian countries. He added that the stability of intra-regional exchange rates was no less important as evidence has shown that stable intraregional rates can help foster intraregional trade. The important capital outflows from the U.S., and the awareness that it can potentially create distortions in the Asian economy, reinforces the need for regional cooperation on capital control and exchange rate issues. However, Asia was likely to shy away from a strong form of cooperation or other forms that require strong institutions such as monetary union or a common currency.

Prof Aziz emphasised that the current sovereign debt crisis in Europe made the benefit of having such arrangements doubtful. Nonetheless, Asia still has many other options for better cooperation, ranging from the basket of currencies system to the Bretton Woods-like system. After the Chiang Mai Initiative was multilateralised in early 2010, finance ministers of ASEAN+3 made a decision to establish an independent surveillance unit - the ASEAN+3 Macroeconomic Research Office. It marked the region's first step toward institutionalising financial cooperation. Prof Aziz also briefly pointed out concerns over the declining value of the U.S. dollar. Many Asian countries worry that rising commodity prices and a soaring U.S. deficit could lead to higher inflation that would undermine the value of their U.S. dollar-denominated reserves.

Prof Aziz concluded his lecture by noting the interactions between domestic demand and development issues in Asia. According to Prof Aziz, financial inclusion in Asia was closely linked to the development of social safety nets and physical infrastructure (to reduce supply bottlenecks); and an increase in investment for sustainable long-term growth, such as energy efficiency. Prof Aziz said he believed in evaluating the current progress in Asia on such measures, adding that the effectiveness of those policies needs to be evaluated based on indicators that go beyond the narrow macroeconomic and financial sector.

He pointed out that Asian countries need to reshape their investment pattern, as investments in the financial sector continue to exceed those in the real sector, which was failing to provide sufficient employment opportunities. The challenge for Asia was how to channel excess savings toward more productive investments in a manufacturing sector that will generate jobs. From this perspective, efforts to raise domestic demand are not only necessary for lowering global imbalances, but imperative for many Asian countries since they can also make development and growth more inclusive.

Prof Aziz ended his presentation by acknowledging that while the Asian region has done relatively well in terms of output growth and macroeconomic management, even during the crisis, the development and welfare outcomes have not been good. The G-20 should encourage policy makers to seriously reassess the development pattern that has produced unfavourable outcomes, in particular, focus ought to be directed toward the interactions of these issues with a strategy and policy approach needed to lower and mitigate global imbalances.

SESSION 1 NEW DIMENSIONS IN INTERNATIONAL SECURITY

Chair: Prof Khong Yuen Foong (RSIS)
Speaker: Sir Steve Smith (Exeter)



Sir Steve Smith

Sir Steve Smith talked on the dominant account of security in International Relations, Realism, and provided some alternative approaches. These ideas were then used to focus on the case study of the notion of the Responsibility to Protect (R2P). Sir Steve began by raising two questions on theory – why assumptions should be considered and why military officers should be concerned with theory. Assumptions have become increasingly important with individuals as they become more involved with policy discussions over time.

He noted the human brain is a consistency-seeking mechanism and it changes the facts provided to fit existing assumptions. While officials claim to prefer evidence-based policies, in reality, they prefer to search for policy-based evidence to support their preconceptions and reject evidence to the contrary. The core issue, hence, was how evidence interacted with officials' assumptions. Their preconceptions were crucial as there are also no neutral channels of information. The crucial aspect for officers is to convey evidence such that it appears conciliatory with their superiors' notions.

Secondly, Sir Steve stated that theory was a formal set of preconceptions through which information was filtered. Theory was not optional and theory structures the relationship between evidence and how it was processed. Theory also influenced the kind of evidence the observer searches for. It was important to be aware of our own assumptions and those of superiors.

He provided a case study on the theme of R2P, which had been adopted by the United Nations (UN) General Assembly in July 2009. He expounded the three key notions of R2P: states have a responsibility to protect their population from mass atrocities; the international community has a responsibility to assist the state to fulfil its responsibility; and if a state fails to protect its citizens from mass atrocities, the international community has a responsibility to intervene through coercive measures. The UN Security Council passed Resolution 1973 that approved the use of military force for member states to protect the Libyan population. However, Syria, China, Russia and a number of states abstained from supporting R2P.

Sir Steve reiterated the role of assumptions in analysing the usefulness of R2P: the Russian and Chinese reasoned that violence would intensify if R2P was implemented in Syria, but supporters of R2P claimed that they desired to prevent the violence against the Syrian population. He said that unless the international community was ready to dedicate ground forces, R2P in the form of safe zones would be inadequate.

R2P has five main problems: why some cases warrant R2P but not others; the permanent members' veto options on implementing R2P; concerns that R2P infringes sovereignty; why R2P applies only to specific issues and not other disasters; and imposition of Western standards on other societies. Views concerning R2P are influenced by different preconceptions; hence, R2P can be implemented not based on facts but through biased political lenses.

He then focused on the role of theory in international politics. He summarised the basic points and criticisms of Realism, the dominant theory of international politics. Realism focused on state-centric notions of security. Through the lens of Realism, R2P served the strategic interests of those states pushing for intervention. Afterwards, he provided the three main alternatives to Realism's perception of security – constructivism, critical security studies and human security. Constructivism emphasised the definition of security, critical security studies on the individual's sense of security, and human security on non-military aspects of security. Human

security, espoused by the UN Development Programme, was emerging as a strong criticism of Realism's state-based security perspective and the notion of R2P stood between Realism's state-based security perspective and the UN's emphasis on human security.

Comparing death toll figures on 11 September 2001, due to the terrorist attacks in the U.S. and deaths from diseases and starvation elsewhere, Sir Steve highlighted the different views of security. He also highlighted a number of statistics that emphasised the world's poor performance in terms of human security. He questioned whether these human security issues were relevant to security and R2P. He then explained the views on R2P which are espoused by the different approaches to security.

Sir Steve concluded that there were no non-theoretical approaches to security and that R2P worked in Libya but not in Syria. He concluded by questioning how Realism's views of state-centric security could be squared with the emerging picture of violence, non-traditional security issues and how states could be expected to respond to such new dimensions in international security.



SESSION 2

MILITARY TECHNOLOGY AND MILITARY PROFESSIONALS: OPPORTUNITIES AND PITFALLS

Chair: Dr Michael Raska (RSIS)

Speakers: Dr Steven Metz (SSI) and BG (Ret.) Gurmeet Kanwal (CLAWS)



Dr Michael Raska

Dr Michael Raska from RSIS began the session by highlighting that technology has always had an influence on the continuing transformation of the armed forces. He noted that military professionals are finding ways to deal with the issues of integrating technology with force employment as well as apply it to operational concepts and organisational adaptation. Dr Raska expressed hope that the panellists would address some of these concerns, particularly within the framework of the Revolution in Military Affairs (RMA) debate that has been on-going for the past two decades.

Dr Steven Metz, Chairman of the Regional Strategy Department of the Strategic Studies Institute, explored the role of technology in the military sphere, particularly in the area of social media in armed conflict. He began his discussion by framing technology as a double-edged sword, noting that it presented advantages and disadvantages for the military. Technology could offer new capabilities and allow military professionals to do things faster and more effectively. He argued RMA theorists have speculated that new technologies are continually driving improvements in situational awareness, which in turn, enabled innovative operational techniques such as truly dispersed, swarming military operations. In such an environment, the traditional centralised command structure would be rendered obsolete.

Dr Metz noted that there is a wide range of emerging and important technologies that had the potential to change the nature of warfare, such as miniaturisation and non-lethal weapons. Furthermore, advances in robotics could trigger a new RMA like nothing the world has seen since the discovery of gunpowder. Another aspect of these innovations was that it seemed to be coming from the civilian sector instead of the military.

Another opportunity that technology offers is tremendous improvement in the training and intellectual development of military professionals. He pointed out that many military forces around the world are moving towards virtual-reality training and operations. For example, the U.S. military was using technology to provide near-instantaneous expertise from anywhere around the world to deployed personnel on matters such as local culture and language.



Dr Steven Metz

Technology may also reduce the operational footprint of military forces in the future. He suggested that robotics could eliminate the need for tens of thousands of soldiers in manpower-intensive operations such as counterinsurgency, where a significant amount of troops were required for patrols and other missions. A possible result would be a battalion consisting of a handful of human soldiers, supplemented by a large number of robots.

On the other hand, technology could also add complexity and slow overall processes. He said that technology also forced military professionals to be constant learners in order to understand its applications, which eliminated the advantages of time-saving that technology was supposed to offer. Furthermore, the constant process of integrating new technologies into established structures was both expensive and time-consuming. He also warned that new technologies could create dependence on the part of military forces that relied heavily on these constructs. For example, he pointed out that the U.S. military was concerned that its soldiers may have lost the ability to operate without the use of its advanced systems. Could a U.S. Army brigade still function optimally if satellite navigation systems are disrupted?

He also highlighted the impact of social media on contemporary military operations. Nearly every future military mission was likely to be captured and 'live cast' to the world. He cited the uprising in Egypt, which featured in-depth coverage over a range of mass media, such as the television and the internet. For military commanders, this development has a profound impact on operational security and the conduct of operations – everything that the troops do can be captured and disseminated to the rest of the world almost immediately.

Finally, he noted that technology offered new capabilities not just for military forces, but also for adversaries. Social media such as YouTube and Twitter seemed to be pushing insurgencies to a terrorism-based mode of operations. In the past, insurgencies would try to emulate national military forces - initially by waging guerrilla warfare before growing to establish conventional military force. However, with the advent of the internet and social media, future insurgencies would probably be dispersed through networked organisations that relied heavily on technology. While this would suggest that insurgencies were less likely to gain enough power to take over states, it would also suggest that they were much harder to eradicate. This phenomenon was already evident in Iraq, and Dr Metz believes that the insurgency there would continue for a long time.

BG (Ret.) Gurmeet Kanwal, Director of the Centre for Land Warfare Studies, noted at the start of his discussion that managing the impact of technology has always been a challenge for military forces. He suggested that an ideal

way to ascertain emerging technologies was to relate these developments to the strategic environment. He also believed that technological developments in Asia are largely driven by the military industrial complex.

Pointing to a map of the world, BG (Ret.) Kanwal pointed out that we were living in an era of strategic uncertainty. The world, according to him, was moving from a clear future to an ambiguous one, where threats that were once easily identifiable, are likely to be less clearly defined. He added that military forces were also moving from conventional state-on-state warfare to unconventional operations such as counter-terrorism. These developments would shape emerging technologies.



BG (Ret.) Gurmeet Kanwal

He noted that non-state adversaries were already exploiting networks to conduct operations, citing the September 11 terrorist bombings as an example. Military forces, according to him, have often found it difficult to defeat dispersed, networked operations employed by insurgents and terrorists in recent years. However, he added that governments had the resources to invest and develop network technologies, which could allow conventional forces to catch up and surpass the lead that non-state actors currently possess. Beyond the technology, military professionals would also be required to understand the language and culture in the operating environment.

He explored some of the ways in which military forces could cope with ever-changing technology. According to him, two critical qualities were required: organisational flexibility and individual adaptability. Military forces needed to decide the kinds of people to recruit, from the more highly-educated segment of the populace with university degrees or from the other spectrum. This concern was more acute for air and naval forces,

given their dependency on high-end platforms and the corresponding need for technically savvy recruits. However, he warned that university graduates would be typically older, which then reduced the potential time-inservice for these personnel.

At the same time, military commanders should also be consistently kept up-to-date on the latest developments in technology, in order not to fall behind the younger generation of personnel who were typically more comfortable with technology than their senior counterparts. Finally, he argued that every individual in the military must take the initiative to learn how to cope with emerging technologies, although this endeavour seemed to be more difficult for officers as they must learn to exploit a wide variety of systems as they progress through their careers.

SESSION 3

WHITHER THE WARRIOR ETHOS? THE CHANGING ROLE(S) OF THE MILITARY PROFESSIONAL

Chair: Prof Joseph Liow (RSIS)

Speakers: Dr Christopher Coker (LSE) and Dr Christopher Dandeker (King's College)



Dr Christopher Coker

Presenting on "A Humanitarian versus The Warrior: A Widening Rift?", the first speaker, **Dr Christopher Coker** of the London School of Economics, started off by explaining the various discourses on war. Defining these discourses as a set of ideas that provided ways to represent knowledge and make sense of the world, he noted that they, however, inadvertently limited our understanding to manageable perceptions. He expounded that a particular "culture has no single discourse on war"; rather, it was made up of a number of distinct ideas that encompassed the values and expectations of a varied group.

He argued that the discourse of war changed after 1989 with the three principles of wars of honour, wars of profit, and wars of virtue. On the importance of the warrior ethos, he outlined what made the "humanitarian warrior." First was his agency - the problem of humanitarian war was the challenge that some soldiers faced when they found

it is different from the war they were taught to fight. It also meant that the humanitarian warrior needed to appear more humane and principled. Second was his subjectivity. Humanitarian warriors were increasingly involved based on public opinions and legitimacy. Third was the issue of inter-subjectivity. They were increasingly aware of how their actions were being interpreted and felt by their opponents. He also gave examples on how British and U.S. soldiers were expected to be warriors at some point of time in their careers.

He conceded that there were problems about that issue, and that a gap between the intellectual discourse and reality existed. For example, a Canadian survey revealed what that country's public wanted: the army should not be fighting overseas wars; it should instead protect the homeland and focus on humanitarian operations. He added that the warrior's critique of the humanitarian soldier was that the latter was a "glorified aid worker".

He also raised the question of whether "cyber warriors" such as computer hackers and "cubicle warriors" like drone pilots could be categorised as warriors as well in today's world. Noting that the military was trending away from humanitarianism, peacekeeping, and nation building, he said that technology may replace the "warriors" in the future, when robots began to outperform humans in their capacity. All these, he said, signalled the need for a redefinition of the warrior and warrior ethos.

The next speaker, **Dr Christopher Dandeker** of King's College, presented on the topic "Whither the Warrior Ethos: The Role of Military in the Contemporary Army." He started off by citing Janowitz's *The Professional Soldier: a pragmatic absolutist view of war*, where one does not seek the absolute goal of victory, but instead deterrence through international relations. It offered an interactionist view between military and politics. He compared Janowitz's work against Huntington's *Soldier and The State*, which stated that the military should try to free itself from interference by the government using its professional expertise, which he termed the "science of war."

Dr Dandeker highlighted Janowitz's theory of the need for the soldier to balance between being the technician, manager, and heroic warrior leader. Moskos' *The Postmodern Military* also highlighted the mixed roles of the military profession. Be it the "militarisation of profession, or the professionalisation of the military," Dr Dandeker said that the current circumstances called for the rise of the soldier-statesmen (like David Petraeus) and soldier-scholars (such as Rupert Smith). He also singled out events like APPSMO, where the warrior ethos was shared to encourage an internationalised military culture.

He then addressed the issue of loyalty, which dealt with the issue of to whom or to what soldiers should be loyal. Underlining the "dark side" of the military culture, he recounted stories of soldier abuse in Afghanistan and



Dr Christopher Dandeker

Somalia, where group interests were placed above other ideals. He listed the core values of the warrior, including selfless commitment of sacrifice, moral and physical courage, moral integrity and risk-taking. Explaining the concept of hybrid war, Dr Dandeker noted that lessons had to be applied across fields. The working space for the military was also becoming increasingly complex, as they have to work with many actors, not all of them military.

In conclusion, he cautioned on the evolution of military roles; the need to recognise their tenacity and courage in danger while taking risks, but avoiding recklessness at the same time. That included reviewing one's loyalty to his unit, service, and nation. He also reiterated the importance of professionalism, an attribute the manager and technologist must be obsessed with. History, he added, has supplemented the military with the combat leader. But without the warrior – and his sense of honour and compliance – it would be much more difficult to be a versatile soldier.

SESSION 4

FUTURE OF WARFARE: AFTER COUNTER-INSURGENCY (COIN) OPERATIONS

Chair: Dr Ong Wei Chong (RSIS)

Speakers: Prof Pascal Vennesson (RSIS) and Dr Ahmed Salah Hashim (RSIS)

Dr Ahmed Salah Hashim began his lecture by stating that insurgencies and counter-insurgency operations (COIN) are not new and would continue to be relevant. However, the heavy western involvement in COIN should fade away in time. He said the "hearts and minds" approach of winning over local populations to the side of the West had proved disappointing.

Specifically, he explained that COIN was starting to lose its allure because first, COIN was difficult due to the complex doctrinal demands and training that have to be mastered by both host nations as well as intervening Western forces In addition, COIN involved mostly small-unit action that deprived conventional militaries of their massed advantage. Second, he opined that the philosophical foundations of Western counter-insurgency

were obsolete because they were tied to the Western imperative to pacify native populations in order to civilise and help them progress, whereas the contemporary era recognised that native religions, cultures and nations were not inferior to their Western counterparts, thereby deserving peer civilisation status. Third, Irag's case did not validate the Western COIN approach since local factors like the Sunni backlash against Al-Qaeda and the natural exhaustion of the insurgents towards violence seemed to better account for the victory against insurgency. While in Afghanistan, a centralised state did not exist to begin with, which made COIN irrelevant. Lastly, the "hearts and minds" COIN approach seemed to have been superseded by militarised counter-terrorism, which classified insurgents as terrorists and sought to "win" the conflict using lethal force.



Dr Ahmed Salah Hashim

Thereafter, Dr Hashim set forth his views on insurgency in the future as consisting of traditional irregular warfare insurgencies that would be difficult to eradicate, the growth of hybrid warfare and functionally specialised insurgent organisations like FARC and Hezbollah, which have both conventional as well as asymmetric capabilities, and the growth of "de-statisation" of warfare, under which failed states reverted to competing private armies and warlords. With no state structure to fight over, insurgencies in the conventional sense could not exist.

Outlining how the West should react to the latest insurgency paradigms, Dr Hashim recommended that the West limit its COIN presence in host nations as most successful COIN mission have involved a small Western force serving in an advisory role in conjunction with a host government that was innovative and willing to learn and apply the new vision. Specifically, he mentioned the deployment of only 800-1,000 U.S. troops in Colombia, which helped their military blunt FARC's effectiveness.

Next, **Professor Pascal Vennesson** spoke about the shifting characteristics of the predictions about war, the difficulties encountered in this endeavour and war in the global village. He started by elaborating that predicting the nature of war was ubiquitous and important for military/political and economic planning involving policy formulation, resource allocation and force structures. However, these predictions do not seem to work, he added.

As for why predictions about war fail, Prof Vennesson argued that that war was such a complex phenomenon that reliance on a single factor was insufficient for predictive efficacy and it was possible to neglect the idea that factors could interact with each other to influence outcomes, thus making war predictions multi-causal and non-linear. In addition, many predictions were based on underestimations or misunderstandings of the identities, preferences and actions of potential adversaries. Thirdly, many scholars assumed that the evolution of war would be linear and coherent, thus oversimplifying the process while other analysts only considered the end state of their predictions, neglecting the process by which war changes, which may well produce different outcomes. Lastly, predictions tended to be extreme and revolutionary with the frequent result that disappointment sets in when the future is not drastically different. That led to cynicism and a possible abandonment of war prediction.



Professor Pascal Vennesson

Thereafter, Prof Vennesson highlighted the intertwining relationship between the military and the society which it serves in relation to predictions about war. Hence, war prediction was not solely a military domain since the predictive process could also be influenced by societal perceptions about war's future characteristics. Therefore, as the military was drawn from and embedded within society, soldiers' knowledge contributed to shaping the public's images about future wars, while social characteristics and attitudes influenced soldiers' analyses.























Subsequently, the effects of uncertainty on war prediction were clarified as including the perception of uncertainty as a threat where fear about others' intentions and offensive capabilities led to the response of defensive power accumulation; perceiving uncertainty as a lack of information about the security paradigm allowing only probabilistic outcomes since institutions for gathering intelligence needed to be enhanced; and the complexity of war contributing to such uncertainty since cognitive limitations incapable of dealing with too much information led to an incomplete understanding of war, necessitating knowledge and expertise development.

In conclusion, Prof Vennesson reiterated that predictions about future warfare were here to stay and likely to remain a core, but disputed, component in the making of strategy. There was an increased recognition that such predictions would be challenging with our limited capacity, that both the military and society were likely to be involved, and that the different kinds of and responses to future uncertainties needed to be reckoned with. Finally, ways must be found to reconcile continuity and change.

SESSION 5

CONVENTIONAL NAVIES IN UNCONVENTIONAL OPERATIONS

Chair: Ms Jane Chan (RSIS)

Speakers: RADM Bernard Miranda (RSN) and Prof Geoffrey Till (RSIS)



RADM Bernard Miranda

RADM Bernard Miranda shared his operational experience as Commander of Combined Task Force (CTF) 151 and listed principles he thought were important to conducting unconventional operations. Among the principles, he emphasised the need to be adaptive, restraint on the use of force, patience and cultural sensitivity.

The principle of flexibility and being adaptive was required not only for on-scene commanders but also prior to deployment. Using his deployment to the Gulf of Aden as an example, RADM Miranda explained how his men, who were trained for conventional operations, had required only a few months of preparation as many of the skills would require only some modification for application in unconventional operations. The constraint of resources faced by many military forces further emphasises the importance of this principle.

The principle of restraint was more unique to unconventional operations where the commander often faced an asymmetric force. While it was tempting to utilise the arsenal of his multi-million fleet against the poorly equipped pirates off the coast of Somalia, an overuse of force could frequently result in a media crisis and compromise the political objective, despite achieving the operational objective. As Commander of CTF 151, he had to train and remind his subordinate commanders on the protocol of firing warning shots. One participant voiced his objection to this principle as he felt the measured use of force might not always be helpful and sometimes unrestrained force was required to send a political message. RADM Miranda told the participant that, as with all other principles, the principle of restraint force must be observed with flexibility. For example, if an act of piracy is being committed, his subordinate commander would disregard the protocol of warning shots. So depending on the Rules of Engagement (ROE), a commander could face a dilemma in trying to balance the use of force, since as commander of the task force, he had the power to alter some portions of the ROE to address a situation. Nevertheless, RADM Miranda felt that this principle was the differentiating factor between a soldier and a killer for hire.

Other principles vital to his mission were being patient and culturally sensitive. One of the major obstacles to RADM Miranda's mission in Somalia was the lack of judicial support as many states were either unwilling or unable to charge any of the arrested pirates. RADM would often have to make use of interpreters to conduct interviews and investigations, and if no state was willing to charge the pirates, RADM Miranda would have to release them, reducing weeks and even months of effort to naught.

Finally, RADM Miranda answered a participant's enquiry on whether the Republic of Singapore Navy (RSN) played a constabulary role. RADM Miranda explained that the role of the RSN was to keep the Sea Lines of Communications open, adding that the constabulary mission nominally fell under the purview of the police coast guard. While Singapore adopted a Whole of Government approach to its maritime security and the RSN would share some equipment such as optical equipment with other agencies, the RSN does not have full constabulary power.

Professor Geoffrey Till started by noting how the meaning of security had evolved from the simple and direct defence of national territory where conventional forces fought against conventional forces to the current context, where the military has to cater to a whole spectrum of activities from the most severe to the most likely. Unconventional operations, he argued, had always been in existence, but their priorities had been different. While there was still a need to maintain conventional military deterrence capability, a modern soldier was more likely to be deployed for unconventional operations. These unconventional operations might include urban warfare and cyber warfare.

Modern military faced the dilemma of having to perform more tasks with fewer resources. Hence the military has to make a choice on its capability as the skills required to perform an unconventional operation may be very different from those required in a conventional operation. To further complicate the problem, the military might often have to change plans at short notice due to a change in the task assigned by politicians and a changing environment. In short, the military had to be prepared for the unexpected.

Another problem that conventional forces faced was the ethical challenge. If the intention was humanitarian, for example, there was a need for the action to match the intention. So while casualties of one's own forces were to be avoided, the commander would need to prevent casualties of the innocent and even on the opposing side too. The enemy could often compensate its military inadequacies because of the military's moral dilemma. A military would have to be very adaptive to meet these challenges, but the larger an organisation was, the slower it would be to adapt and innovate.



Professor Geoffrey Till

Prof Till used the Libyan campaign as an example to illustrate his point. The complexity of the operation caused a lot of confusion for the U.K. armed forces. Firstly, the U.K. had not expected the Arab spring and was in the midst of a defence budget cut, so the armed forces were activated for the operation with fewer resources than they had desired. Initially faced with a lack of international political support, it was politically important for partners such as Qatar to participate, but operationally incorporating these forces was a challenge to the European forces. The European forces did their best to avoid civilian casualties, but the opposing forces fought from within the civilian population, which posed a huge dilemma to the armed forces. When asked by a participant whether the Libyan campaign could be considered an unconventional operation, Prof Till answered that the campaign was an unconventional operation with conventional elements, and hence, there was a huge number of conventional air-strikes.

Prof Till explained that the air-strikes were part of the answer to the challenges as the European forces had adopted the Air-Sea Battle concept, which utilised the Air and Sea forces heavily and relied on technological superiority. He concluded that the Air-Sea Battle concept appeared to fulfil the military and political objectives at a relatively lower cost and could serve as a model for future operations for the next decade or so.

SESSION 6

MILITARY PROFESSIONALS AND POLICY MAKERS: MANAGING EXPECTATIONS

Chair: Dr Bernard Loo (RSIS)

Speaker: Dr James Corum (Baltic Defence College)

Dr James Corum, Dean of the Baltic Defence College, delivered a presentation on the key issues in professional military education (PME) every senior military leader should be aware of. He based his observations on the many years he spent in both PME and uniformed service in the U.S. military, including operations in Afghanistan and Iraq, as well as academic appointments held in PME institutions in both the U.S. and U.K., in addition to his present deanship. Having worked with several militaries, he emphasised that his was a multi-national perspective, not a solely American one.

Dr Corum prefaced his presentation with three points. He first stressed that his list of issues was as applicable to small PME institutions as they are to big ones. In fact, small institutions serving smaller militaries may be at an advantage as their small class sizes typically gave flexibility to how lessons were conducted. Creative approaches to teaching, such as staff rides, could be more easily incorporated into the syllabus. Larger classes made this logistically challenging. The second point Dr Corum highlighted was that PME needed long-term vision. Shortterm goal setting could often lead to tunnel vision. The final point Dr Corum emphasised was that quality PME did not have to be expensive, and that cutting back on such education to save money in these austere times would be a false economy. He instead argued that PME could result in a lot more bang for the military's buck compared to some hardware purchases.

The first issue Dr Corum raised in his presentation proper highlighted the huge returns that investments in PME could reap. PME, he argued, could mean the difference between victory and defeat. Citing examples from history, including the success of the Prussian General Staff model, as well American successes during the Second World War, he argued a structured PME system, coupled with a General Staff, provided the Prussian and U.S. militaries with a reliable, constant intellectual core that could digest, and react to rapidly changing scenarios. PME provided officers with the critical skills to understand the many variables in battle, and how they interacted with each other.



Dr James Corum

More importantly, in the case of the Second World War and the U.S. military, many of the actual battles faced had been played out in war-games during PME courses. Much of the thinking, therefore, had already been done, and responses that could be quickly adapted to the present already planned.

Dr Corum, however, pointed out that this inadvertently led to the rise of a dangerous second issue in PME - that of rigidity and narrow-mindedness. PME typically focused on tactical and operational training, with only cursory attention paid to broader strategic issues. With the focus on war-fighting, the U.S. military thus performed poorly in the management of strategic issues, such as mass mobilisation and economic planning for war. This attention to war-fighting at the expense of the larger strategic context would continue through to the end of the Cold War.

An illustrative example of this was the U.S. military's approach in PME following its withdrawal from Vietnam. Scarred by its defeat in a war largely waged by insurgency, the U.S. military buried its head in the sand and expunged counter-insurgency from its PME syllabi, focusing exclusively instead on conventional operations against the Soviet threat. This narrow-mindedness resulted in the U.S. military becoming a "one trick pony," and woefully intellectually under-prepared for operations in Afghanistan and Iraq following 9/11. The U.S. military had been, for the preceding three decades, rote trained in

fixed war-fighting principles and thus struggled to adapt to the new strategic environment.

That example of a failure in PME led Dr Corum to raise the third issue of comprehensiveness in PME. He argued that in the new strategic environment, officers required critical skills beyond war-fighting. War colleges must now ensure their students were not only proficient in combat operations, but also well-versed in strategic thought, leadership, area studies and research methods. Aside from acquiring an intellectual ability to digest, synthesise and analyse information as it was presented, officers also needed to acquire inter-personal skills to relate to a wide range of partners who come from disparate backgrounds.

A comprehensive PME would provide good opportunities to not only acquire relevant knowledge, but also the environment to practice and hone these skills. Even officers who played a supporting function needed to be aware of this multi-dimensional bigger picture. He suggested NATO's approach to PME divided into four phases across an officer's career as an example of a sound PME structure. High quality PME in turn attracted high quality students. That was why it was imperative that PME incorporated best practices discerned from multiple perspectives through international partnerships. In this regard, small states were not necessarily mere followers, but could be innovators and leaders in niche areas too. Dr Corum cited the NATO Cooperative Cyber Defence Centre of Excellence as one such example.

Best practices should also not only be restricted to rigour in syllabi formulation and research focus, but pedagogy and manpower management within the PME institutions. That included proper accreditation and standards one would expect from any university, and proper faculty management. The professional and career development of PME instructors should be as important as the education of students. Without the former, the latter would suffer.

The fourth issue Dr Corum highlighted was that while many militaries recognised the importance of quality PME, they struggled to teach courses at a suitable pace, at a suitably high standard, and in a suitably academic environment. They faced a perennial challenge of pegging admission criteria at the right levels. Too high a bar, and there would be a shortage of suitable candidates. Too low, and standards would necessarily have to be dropped to the lowest common denominator with a concomitant

fall in credibility. This dilemma was typically addressed as a matter of logistics, where PME institutions accepted candidates who were due to attend the academic course as part of their projected career progression.

PME was thus seen as merely a series of boxes an officer had to tick in his or her career. Furthermore, militaries tried to minimise an officer's absence from operational duty by keeping courses short. While this allowed the net to be cast wide, it resulted in officers only being educated on paper, without having gained any additional skills in reality. Capable officers risked being insufficiently groomed to their fullest potential as they are rushed through the course.

Militaries also tended to be suspicious of civilian involvement in PME. Dr Corum, however, argued officers and civilian academics can, and should, learn from each other. Under the right circumstances with suitable support, the quality of research jointly conducted could be very high. Additionally, civilian academics could produce usable, quality work for defence ministries at little extra cost. Such arrangements could, therefore, be mutually beneficial.

The broader lack of interaction between military officers and their civilian counterparts in the defence ministry in PME was the fifth and final issue that Dr Corum explored. With many of the military's decisions made on their behalf by civilian officials, he argued that there must be at least a familiarity with the worlds both operate in, if not an intimate professional relationship. A PME environment would be the ideal venue to develop that. Yet, civilians were often kept out of PME, which was perceived to be a training domain exclusively for military officers.

One reason is organisational culture, but equally important was the lack of a structured professional education system for civilian defence officials like military officers do (as flawed as PME may be). Rarely were civilian officials required to complete mandatory courses as they assumed higher appointments. Dr Corum thus argued that PME should also be extended to civilian defence officials. He, however, acknowledged the logistical challenges this would pose as many of these officials could be crossposted out of the defence ministry as their careers as civil servants developed. On the other hand, military officers typically remained in uniform until retirement, making it easier for PME to be worked into their careers.

SESSION 7

THE NEW OPERATING ENVIRONMENT: THE LEGAL AND ETHICAL DIMENSIONS

Chair: Dr Bhubhindar Singh (RSIS)

Speaker: Prof Ian Clark (Aber), Prof Raul (Pete) Pedrozo (USNWC) and Ms Tara Maria Davenport (CIL)



Professor Ian Clark

Professor Ian Clark noted that ethics were fundamental to strategy and its political vitality, rather than being a mere option to strategic planners. This was particularly so in the new operating environment, which has seen high civilian-combatant casualty ratios, intense media scrutiny of conflicts and the enforcement of international humanitarian law.

Prof Clark argued that the traditional assumptions about the equality of belligerence, which made easy the application of ethics and the law of armed conflict, have been unsettled in today's operational environment. That has caused new ethical dilemmas in understanding the nature of contemporary conflict. In terms of military inequality, ethical issues revolved around conflicts without clear separation between combatants and noncombatants. In assisting another country, the political incentives would be to protect your own forces, but that increased the risk of damage towards civilians. The dilemma would thus be how to configure the distribution of risks between civilians in the host country and foreign armed forces. In terms of legal inequality, the ethical issue was the asymmetry of accountability. Some parties may lack rules of engagement, making it hard to convince other actors to abide by the laws of armed conflict.

Prof Clark also stressed the importance of separating one's thinking about the conduct of war from judgment on which party possessed the just cause for being involved in the conflict. The law of war proceeded on the assumption that soldiers on both sides of the conflict would be treated equally. While law and ethics would never have exactly the same objectives, they needed to be closely integrated as possible. To achieve this, there had to be an acceptance of the validity of ethical principles.

Professor Raul (Pete) Pedrozo presented on the legal and policy issues that have developed over the last decade in the area of precision targeting. In the past, a commander typically asked himself three questions during an operation. First, did he have the capability to conduct the operation? Second, was the operation legal? Third, was the operation ethical? Now, a fourth question has been added to the mix: how will a particular operation affect the larger strategic objectives? Prof Pedrozo's presentation focused specifically on the precision targeting of al-Qaeda terrorists and its associated forces. He noted that the U.S. targeting process in dealing with al-Qaeda was based on the law of armed conflict, rather than human rights law.



Professor Raul (Pete) Pedrozo

In the case of al-Qaeda, the U.S. had made several targeting decisions. Here, legitimate military targets referred only to individuals who were part of al-Qaeda and its associated forces. Prof Pedrozo noted the difficulty of distinguishing between enemy combatants and civilians, particularly as combatants were increasingly making use of civilians to protect themselves. Regardless, the legal obligation to minimise hostilities against civilians remained. Second, certain individuals were perceived to pose a higher level of threat to the U.S., such as senior al-Qaeda leaders and bomb-makers. Third, capturing the enemy was preferable to killing, although there would be instances where capture was not feasible due to risk to the civilian population or U.S. military personnel. Fourth, al-Oaeda and its associated forces were assessed to still have the intention of attacking the U.S., and thus the targeting process continued. Fifth, precision targeting had been adopted to minimise collateral damage. Sixth, following the decentralisation of al-Qaeda, the U.S. has had to consider the legality of acting in other states, such as Pakistan.

Prof Pedrozo concluded by saying that that the U.S. did not start the war with al-Qaeda, but it would end the war once the terror organisation stopped engaging in hostile acts against the U.S.

Ms Tara Maria Davenport discussed the implications of China's claims in the South China Sea for the freedom of navigation in the high seas and the exclusive economic zones (EEZ). The strategic significance of the South China Sea was in the network of the Sea Lines of Communication (SLOC) that ran through its waters. More than one-quarter of the world's trade passed through the SLOC in the South China Sea, and the routes were also used by naval vessels of the U.S. Pacific Command.

Ms Davenport highlighted several potential threats to freedom of navigation in the South China Sea. First, if military conflict broke out over the territorial disputes, it would affect the security of the SLOC. Second, China's claims in the South China Sea remained ambiguous. It had not indicated the coordinates of its claim, and there were various possible interpretations of the U-shaped line that it had adopted in the South China Sea.



Ms Tara Maria Davenport

China's claims were unlikely to affect freedom of navigation in the South China Sea in terms of the passage of commercial and military vessels through the SLOC, but it may interfere with high seas freedom recognised in the EEZ, such as the right to conduct military activities. While the U.S. argued that the traditional high seas freedom for states to conduct military activities has been preserved in the EEZ, China insisted that military activities in the EEZ were only permissible with the consent of the coastal state. Thus, it may be better for China to clarify what maritime zone it was claiming to alleviate concerns from other states. Meanwhile, the U.S. should state that its concern in the South China Sea disputes was not confined to freedom of navigation, but extended to other recognised freedom of the seas in the EEZ.

SESSION 8

INFORMATION AND SOCIAL MEDIA TECHNOLOGIES IN MILITARY OPERATIONS

Chair: Dr Bernard Loo (RSIS)

Speaker: Prof Paul Mitchell (CFC) and Dr William Mitchell (Royal Danish Defence College)



Professor Paul Mitchell

Professor Paul Mitchell began the session by articulating the four ways in which social media was used. Principally, social media was a means of communication between communities of interest. Networks of actors used social media to broadcast status updates to one another. shared information on common interests and discussed its meaning, activities familiar to anyone who has used Facebook or Twitter. The information posted on social media was a rich source of information about these actors and their networks, and analytical tools have been developed to mine these interests and relationships for a wide variety of purposes. Social media has "emergent" functions as well, as befitting its digital status. Information posted on social media sites often generated collaborative projects based on the ideas and concepts shared on them. What began as an innocent question or discussion on social media may result in new products and services. Finally, social media served command and control (C2) purposes for some of these collaborative projects. The network of actors, having gathered to discuss a common interest and agreed on a plan to exploit their objectives, could use the same technology to realise their common goals.

Despite the growing utility of social media in civil society, there was a troubled relationship between this communication medium and government services, which posed an interesting intellectual puzzle. While governments and militaries had taken advantage of other forms of digital communication engendered

by information technology, they had been slow to implement social media in their operations. Where they had, they relied on it principally for public affairs communications — simply another channel for broadcasting messages to interested communities. Some militaries and intelligence agencies had also taken advantage of social media analytics tools in order to data mine the rich sources of information on social media sites for various operational ends.

Collaboration and C2, however, have been more problematic for the government sector. There were numerous examples of how social media had facilitated the development of new products and services within civil society. Social games like foldit.com and eterna.com generated new scientific knowledge about proteins and amino acids, for example. In the military environment, forums like companycommander.com were ultimately "annexed" by institutional forces and "brought back within the wire". Some have claimed that has limited the effectiveness of the discussions taking place among the site's members. The CIA's "Intellipedia" was perhaps the most significant example of this type of activity, and its singular nature seemed to indicate broader problems with the nature of this type of technology. Finally, there were few examples of social media being used by government agencies as a C2 technique.

Prof Mitchell concluded by saying that the social implications of this evolution were only slowly becoming apparent. The 1990s model of the Revolution in Military Affairs was predicated on assumptions about the controllability of information and its efficient transmission into omniscient knowledge, assumptions that were laid bare in the experiences of battle in Kosovo, Iraq and Afghanistan. However, this did not obviate the conclusion that new social structures are evolving, which would have significant impact on the use of force by states. Just as industrialism led to the evolution of state structures, which in turn, shaped armies in particular ways, ultimately leading to the appearance of intellectual constructs such

as operational art, it can be expected that this emerging information environment will produce its own Napoleon who will be able to coordinate the information resources all around us to decisive strategic effect. It need not necessarily be a digital anarchist appearing mysteriously from cyberspace. The experience of World War I illustrated that a previously denigrated technology could explode in importance. Artillery moved from the occupation of scientific boffins to becoming the "Queen of Battle". At the present time, communications remain the province of "non-operators" in the signals or public affairs world. One could imagine future situations where communications assumed a centrality to the coordination of armed forces in the same manner as artillery did in World War I.

Dr William Mitchell followed by presenting some of the preliminary results from operations by Danish forces operating in Helmand, Afghanistan, from August 2010 to February 2011, with the purpose of identifying the command-and-control (C2) challenges that occurred in a complex battlespace. The objective was to highlight and analyse key C2 issues relative to battlespace agility and the generation of effects. The paper illustrated how the hierarchal-arranged operational C2 in battle reacted in the face of technology-driven, flattened and networked C2 arrangements. It relied on deliberate targeting data for the assessment of effects production vis-à-vis C2 structures. The results gave clear indications that traditional C2 hierarchies negatively affected battlespace agility.



Dr William Mitchell

Dr Mitchell argued that hierarchical C2 negatively affected battlespace agility and reduced warfighting effectiveness in a complex battlespace by negatively affecting information timeliness and currency. When information is subjected to hierarchical C2 channelling, the speed and precision of the information flow and subsequent knowledge-action-effects conversion became extremely open to perversions and delays by the demands exerted by the structural requirements of each level in the hierarchy. Every time we delay the transfer of one piece of relevant knowledge, such as for a booked-ahead fixed briefing, timeliness suffers, knowledge deteriorates, and we undermine our own flattening technological investments and their advantages.

Furthermore, he argued that hierarchical C2 negatively affected information precision, namely, every time the knowledge was repeated, and information precision was threatened. Like the 'rumour game', every filter between the original source and the capacity to act, would, without doubt, change the context to varying degrees. Information appropriateness suffered too. The fact that a complex battlespace required an increase in the quantity of relevant information to the planning process exacerbated this phenomenon.

Also, he said that the quantity of information required at the edge for one unit engaged in the local environment increased greatly. Therefore, the natural ownership of complete information to maintain battlespace agility has moved down the hierarchy out of pure necessity to tailor actions to fit the local complexities of a COIN environment.

Hierarchical operational information management was the major contributing factor to undermining the hierarchical C2 organisation. This was an issue identified by previous C2 research. Socially, for instance, a group of people in a room, whispering a story to the first person, who whispers it on to the next until it returns to the originator, will find that the result is usually a very different story than the version first told. The hierarchical arrangement cannot adapt to the speed of its own network technologies, and in a metaphoric sense, ends up frustrating itself in terms of optimal decision-making.

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