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MESSAGE FROM THE EDITORS

This month the Editors of the *Senior Officer Professional Digest* recommend ten articles drawn from professional and academic journals on the subjects of hybrid warfare, nanotechnology, food security, global metropolitan policing, cyber-guerrilla warfare, indigenous forces, metrics in counterinsurgency, reconstruction, conventional warfare and the principles of war.

Much conjecture exists regarding the continuing transformation of modern warfare. A myriad of opinion currently influences decision-makers on how best to prepare future forces for the likelihood of both conventional and asymmetric threats. Frank G Hoffman succinctly illustrates the current debate within the United States and highlights the emergence of 'multi-nodal' threats and hybrid warfare. With a similar future focus, Ajey Lele's article explores the continuing evolution of nanotechnology and its potential military applications. Alan Dupont and Mark Thirlwell analyse the recent 'global food crisis' as well as the wider strategic implications of food security, while the interesting works of John P Sullivan and James J Wirtz, and Clapperton Mavhunga focus on similar asymmetric threats, as they explore global metropolitan policing and the link between Sun Tzu and Zimbabwe's Movement for Democratic Change respectively.

With a renewed emphasis on coalition counterinsurgency efforts in 2009, senior officers will gain beneficial insight from a number of Afghanistan-focused articles. Vishal Chandra expresses concern regarding current coalition efforts to build and mentor the fledgling Afghan National Army, while David Wilson and Gareth E Conway highlight flaws in the development and implementation of metrics. Finally, Bas Rietjens, Myriame Bollen, Masood Khalil and Sayed Fazlullah Wahidi's article criticises recent reconstruction programs, highlighting 'superficial' policies as a potential cause of failure.

As Hoffman's piece reminds us, the ability to conduct conventional operations will remain a core remit of future land forces. Roger N McDermott's analysis of the recent performance of Russian forces provides important lessons on effectively utilising all resources in battle, while Tal Tov reminds senior officers of the tragedy that will eventuate when one ignores the principles of war.

Enjoy,
The Editors.

Frank G Hoffman, 'Hybrid Threats: Reconceptualising the Evolving Character of Modern Conflict', *Strategic Forum*, No. 240, April 2009.

Officers and military analysts will be familiar with the work of Frank G Hoffman and his reputation as a leading specialist in the field of hybrid threats. His works include *Conflict in the 21st Century: The Rise of Hybrid Wars* – a monograph that resonates for the Australian Army's Adaptive Campaigning concepts. In the most recent edition of *Strategic Forum*, Hoffman advocates for policy makers to 'prepare and shape forces in an environment of greater uncertainty and fewer resources', against enemies 'who will employ all forms of war, perhaps simultaneously'. In anticipation of the US *Quadrennial Defence Review*, Hoffman's article is a call for policy makers to accept that national security is not a choice between counterinsurgent and conventional war; future forces must plan for the added dimension of hybrid war. The essay succinctly illustrates the complexity of foreseeable twenty-first century warfare and offers guidance towards building a force structure that is capable of responding to the likely emergence of *multi-nodal* threats.

'We do not face a widening number of distinct challenges but rather their convergence.'

The author's division of the US defence community into four competing camps, representing Counterinsurgents, Traditionalists, Utility Infielders and those advocating Division of Labor, acts as a welcome reminder that there is far more sophistication to current military thinking than canonical black and white debate. However, Hoffman believes that none of these camps quite grasp the complex nature of modern warfare. Readers will benefit from his conclusions that future competitors (both state and non-state) will utilise 'unique combinational threats specifically designed to target vulnerabilities' as well as blending 'the lethality of state conflict with the fanatical and protracted fervour of irregular warfare'. 'Hybrid Threats: Reconceptualising the Evolving Character of Modern Conflict' is recommended for its impressions on ideas currently guiding US military policy as well as for its relevance closer to home regarding future force preparedness.

Lieutenant Colonel Frank G Hoffman, USMCR (Retd), is a Research Fellow in the Center for Emerging Threats and Opportunities at the Marine Corps Combat Development Command.

Ajey Lele, 'Role of Nanotechnology in Defence', *Strategic Analysis*, Vol. 33, No. 2, pp. 229–41.

Nanotechnology is a rapidly expanding scientific field of research with potentially groundbreaking military applications. Materials like metals that will bend on cue or paints that can alter their composition to replicate their surroundings are just a few of the possibilities that nanotechnologies could potentially offer. Accordingly, staying abreast of developments in this field is a task of obvious importance to senior officers.

Yet, works on such complex technology can often be impenetrable to personnel not trained in advanced physics, chemistry and biology. Thankfully, Ajey Lele offers a brief and engaging analysis of the field of nanotechnology, written in lay-man's terms, and focusing on those aspects of the field likely to produce 'practical, relevant and achievable' military applications soon. The article also deals with the legal ramifications that such radically new technologies could have, increasing officers' awareness of the issues that will attend the introduction into service of nanotechnologies. As such, this is a highly recommended and exceedingly relevant article for all ADF officers.

Wing Commander Ajey Lele, Indian Air Force, is a Research Fellow at the Institute for Defence Studies and Analyses, New Delhi.

Alan Dupont and Mark Thirlwell, 'A New Era of Food Insecurity?', *Survival*, Vol. 51, Iss. 3, June 2009, pp. 71–98.

'Given [the] apparent success in defeating the third horse of the apocalypse, the unexpected onset in 2007-08 of "the worst food crisis in a generation", triggered by soaring agricultural commodity prices, came as a rude shock.'

Between 2007 and 2008 global food prices rose to levels not seen since the 1970s, triggering a number of economists to suggest that the world was in the grip of a Malthusian emergency—where the world's food capacity was unable to support its population. Following from these concerns, predictions of consequential inter-state and intra-state conflict became increasingly common. Alan Dupont and Mark Thirlwell's article provides some measure of balance to these doomsday

scenarios while still acknowledging the importance of food security overall. Factors attributed to the food crises are discussed in depth, such as growing urbanisation, rising economic prosperity, an increased biofuel industry, in addition to a number of recent financial developments. In this process cautionary advice is offered, so as not to ignore the historical cyclical nature of food prices. The author's posit that recent reflex reactions to strengthen food security may have in fact created greater uncertainty of price and supply in the long term. Interestingly, this observation resonates with the strategic concept of the 'security dilemma'. As states attempt to protect their own food supplies in response to perceptions of imminent shortages, others respond in kind, causing a gradual spiralling of uncertainty which may lead to greater insecurity overall.

However, it is the extent to which Dupont and Thirlwell illustrates the complexity of 'new security' studies that makes this article so fascinating. An illustration of the interplay between global energy, water and food supplies will prove valuable reading. In addition, the manner with which factors such as climate change and water and energy shortages affect food stocks is saliently discussed. Those with an interest in the analysis of transnational security and wider strategic affairs will find this article highly informative and is thus recommended in earnest.

Alan Dupont is a non-resident Senior Fellow at the Lowy Institute for International Policy. Mark Thirlwell is Program Director of International Economy at the Lowy Institute for International Policy.

John P Sullivan and James J Wirtz, 'Global Metropolitan Policing: An Emerging Trend in Intelligence Sharing', *Homeland Security Affairs Journal*, Vol. V, No. 2, May 2009, <<http://www.hsaj.org/?article=5.2.4>>.

Transnational criminal groups, such as al-Qaeda, promise to be an enduring threat to the Western world primarily because of the resilience of their networked organisation. While al-Qaeda has essentially political motivations, other groups, like the Japanese yakuza and Eastern European mafiyas, simply look to profit financially from breaking the law. Regardless of their motivations, these groups pose significant threats to the security and stability of countries and regions the world over. The Army has its part to play in fighting such organisations, and measures recently introduced as part of the Adaptive Army initiative will help make it more agile and adaptable in the face of these new threats.

Chief of Army, Lieutenant General Gillespie has stated that there is always room for improvement, and John P Sullivan and James P Wirtz's article offers one concept with the potential to improve Defence's ability to combat transnational criminal groups: 'global metropolitan policing'. While ostensibly an emerging practice of police forces the world over, the ADF can benefit from the ideas within this article when engaging in constabulary missions of its own. Indeed, much of the successful counterinsurgency work being carried out today by US forces in Iraq is practically indistinguishable from police work, and many officers engaged there have called for increased intelligence sharing at lower levels of command, thereby mirroring Sullivan's and Wirtz's observations. The ADF's close interaction with international police forces in Timor Leste and Solomon Islands signals the increasing importance of cooperative police-type operations. Accordingly, senior officers of the ADF would do well to consider the concept of 'global metropolitan policing'.

Lieutenant John P Sullivan, Los Angeles Sherriff's Department, is a cofounder of the Los Angeles Terrorism Early Warning Group. He currently serves as a special projects officer for counterterrorism, intelligence, and emergency operations. Dr James J Wirtz is Dean of the School of International Graduate Studies at the Naval Postgraduate School, Monterey. He is Editor of the Initiatives in Strategic Studies: Issues and Policies series.

Clapperton Mavhunga, 'The Glass Fortress: Zimbabwe's Cyber-Guerrilla Warfare', *Journal of International Affairs*, Vol. 62, No. 2, Spring 2009, pp. 159–73.

Information operations (IO) are an increasingly critical component of modern warfare and, in certain circumstances, may even become the decisive element in counterinsurgency or counterterrorism operations. Sun Tzu's adage to 'know thy enemy' applies equally as well to IO as it does to kinetic operations and fortunately for

Australian officers, Clapperton Mavhunga's article on 'cyber-guerilla warfare' examines such operations from an interesting and informative perspective: that of the irregular combatant.

'Could information technology – specifically radio, the Internet and cell phones – be the ... AK-47 of the 21st century?'

Zimbabwe's Movement for Democratic Change has long waged an IO campaign against the Mugabe Government, accusing it of violently repressing legitimate political opposition. Mavhunga shows how this organisation has utilised mass communications such as radio and print, and combined them with new technologies like the Internet and cellular telecommunications to create powerful weapons of resistance and instruments for the foment of ideological opposition. The author also highlights how these 'weapons of the mind' have been used to achieve physical effects, including the ongoing emigration of skilled labour from Zimbabwe, which has placed acute economic pressure on the ruling government. This Zimbabwean 'brain drain' shows how potent the tangible effects of an IO campaign can be.

Officers and strategists concerned with the varied aspects of IO will find this an interesting article and well worth their time. For arms corps officers, it will also be of interest as a lesson in the potential power of the pen compared with that of the sword.

Dr Clapperton Mavhunga is Assistant Professor of Science, Technology and Society at the Massachusetts Institute of Technology.

Vishal Chandra, 'Making the new Afghan National Army: Challenges and Prospects', *Strategic Analysis*, Vol. 33, Iss. 1, 2009, pp. 55–70.

Arguably, success in facilitating the development of a unified, stable and legitimately-governed Afghan nation is dependent upon the Coalition's success in producing a cohesive, credible and sustainable national army that is capable of providing security to all and answerable to a central authority. Vishal Chandra's article provides illumination on the current dilemma facing the Coalition tasked with this mission, who, it is argued, 'make up a complex web of disparate entities pulling in several directions', mirroring a society that is ethnically, tribally and politically diverse. Chandra highlights a myriad of societal obstacles to the Afghan National Army's (ANA) success at present, and explores the compounding deficiencies of Coalition doctrine, manpower levels and logistics. Success in the current mission will likely require the recognition and acceptance of these problems as well as a unified and timely response.

However, as Chandra argues, even in lieu of addressing these organisational issues, a number of domestic societal realities will remain. Policy makers are tasked with reconciling the need to create a national force amongst a people that has traditionally held conflicting tribal and ethnic loyalties. An historical reliance on tribal militias and a mistrust of central governments is also likely to further undermine the legitimacy of the ANA's mandate, and reduce its already limited ability to install order within a chiefly lawless environment. This article is both a call for caution and reflection in current and future debate. While policies to engage with militants and negotiate with elements of the Taliban might deliver a short-term decline in insurgent violence, the long-term imperative is for Afghanis to be able to trust their national army. A loss of face through striking bargains with one's own enemy may only hinder success in the long war ahead.

'A whole range of elements are arrayed against its development as a unifying national force with an identity of its own.'

Vishal Chandra is Associate Fellow at the Institute for Defence Studies and Analysis.

David Wilson and Gareth E. Conway, 'The Tactical Conflict Assessment Framework: A Short-lived Panacea', *The RUSI Journal*, Vol. 154, Iss. 1, February 2009, pp. 10–15.

In a war among the people, meeting the needs of the population underpins any measure of a success. Knowing what these needs are and how best to deliver them is a science itself. Thus, it is important for counterinsurgents to establish reliable metrics to understand the sources and causes of the existing conflict, and also for the purpose of monitoring operational progress and measuring overall strategic success. David Wilson and Gareth E Conway's article highlights the recent experience of the British military in Afghanistan's Helmand Province, and provides insight into the difficulties presently faced in attempting to collect empirical data from within Afghan society. Focusing on the 2007 Tactical Conflict Assessment Framework (TCAF), Wilson and Conway map out the original aims of the program itself, highlight its subsequent failures, and of particular relevance to Australian officers, provide lessons that are pertinent to current and future intelligence gathering operations.

'It is often said that in Afghanistan people will tend to tell you what they think you want to hear, rather than voicing their true opinion on a matter.'

As Carl von Clausewitz posits, 'the most far-reaching act of judgment that the statesman and commander have to make is to establish . . . the kind of war on which they are embarking'. Similarly, knowing what constitutes reliable metrics of success in war is fundamental. Failure to capture consistent and relevant data in

counterinsurgency may trigger negative operational effects and have serious strategic implications. Vietnam-era 'body counts' conducted during a People's War is one such example. Therefore, it is recommended that senior officers carefully consider the lessons of the TCAF in Afghanistan. It acts as a reminder that metrics in counterinsurgency are essential rather than simply useful, and that practices which aim to contribute to the ultimate success of any counterinsurgent mission must be successful by their own measure.

Lieutenant Colonel David Wilson is a commanding officer of 23 Engineer Regiment in the British Army and has acted as Commander Joint Force Engineers, Helmand Task Force. Dr Gareth Conway worked as a deployed Operational Analyst at HQ, Helmand Task Force, during Operation Herrick 8.

Bas Rietjens, Myriame Bollen, Masood Khalil and Sayed Fazlullah Wahidi, 'Enhancing the Footprint: Stakeholders in Afghan Reconstruction', *Parameters*, Vol. XXXIX, No. 1, Spring 2009, pp. 22–39.

In any nation building mission, assessing best practice with regard to the whole-of-government approach is both important and difficult. Clearly, reconstruction efforts are central to either success or failure in this process, as it 'is in many ways the essential process that bridges conflict and stabilisation'. It would thus be wise to learn from policies that initially appeared quite promising, yet have eventually proved largely superficial. Those with a keen interest in nation-building will benefit from the issues raised by this article. The conclusions the authors draw are also likely to stir healthy debate on current people-centric strategies that so far have delivered far less than promised.

Bas Rietjens, Myriame Bollen, Masood Khalil and Sayed Fazlullah Wahidi explore what is one of the accepted key elements in successful nation building: indigenous stakeholder participation. Here, the authors argue that the overriding aims should be enhancing local ownership, strengthening the legitimacy of local authorities and reducing the perception gap between the Afghan population and Coalition forces. However, as the authors know, simply putting an 'Afghan face' on everything is deeply flawed. Instead, the authors offer a mix of options to enhance local ownership. While the problems associated with reconstruction are widely accepted, Rietjens and his associates offer practical efforts to mitigate against local perceptions of superficiality. Those involved in Afghanistan's reconstruction—or reconstruction elsewhere—would do well to think about the article's recommendations.

Bas Rietjens is an Assistant Professor at the Netherlands Defense Academy; Myriame Bollen is an Associate Professor at the Netherlands Defense Academy; Masood Khalil is the Program Manager of the Baz Consultancy Unit for the Rehabilitation of Afghanistan; and Sayed Fazlullah Wahidi is the Director of the Afghan General Help Coordination Office.

Roger N McDermott, 'Russia's Conventional Armed Forces and the Georgian War', *Parameters*, Vol. XXXIX, No. 1, Spring 2009, pp. 65–80.

'Russia's rapid military victory over Georgia in August 2008 surprised many commentators, since it stood in stark contrast to the manner in which Russian forces had once become bogged down in a protracted conflict in Chechnya.'

Russia's conventional armed forces have, in the space of the last twenty years, fallen from grace—once the feared, armoured juggernaut poised to smash through NATO lines in the Fulda Gap, they are now widely perceived as decrepit, underfunded, top-heavy and outdated. However, the swift defeat they inflicted on Georgian forces seemed to signal that the cries of 'Russia resurgent' coming from some observers were not entirely

without cause. As Roger N McDermott's article shows, while their performance had improved, there remains significant room for improvement.

Russian forces were hampered by defective support capabilities, particularly the problematic availability of Russia's global navigation satellite system (GLONASS). Russia's command and control apparatus demonstrated some improvements from the disastrous inertia witnessed during the conflict in Chechnya, but their systems, organisations and training were all still faulty. McDermott's article is of value for Australian officers as it demonstrates the type of flaws inherent to large forces which are equipped with high-tech weapons, but which are improperly organised to exploit them and poorly trained in their use and maintenance. The author also examines the political and organisational issues surrounding Russia's attempts to remediate these military flaws and how they may eventually hamper them.

'The most notorious example was the creation of a \$1 million Women's Park. This was understandably met with derision by the local people and undermined all-important credibility. Still, a box was ticked in London.'

This article provides a real-life example of how deficiencies in organisation and leadership create real vulnerabilities in seemingly formidable forces that can be exploited to considerable effect by the Army and the ADF more broadly.

Roger N McDermott is a Honorary Senior Research Fellow at the Department of Politics and International Relations, University of Kent at Canterbury. He is also a specialist in Commonwealth of Independent States defence affairs at the Jamestown Foundation in Washington, DC.

Tal Tovy, 'Are the Principles of War Applicable to Special Task Forces? Operation Gothic Serpent Re-examined', *The RUSI Journal*, Vol. 154, Iss. 2, April 2009, pp. 56–62.

When the greatest forces in military history have been defeated, it has usually stemmed from some insurmountable opposition that only the elite have had the courage to face—the Spartans at Thermopylae stand as perhaps the best historical example of this. However, even the best warriors sometimes engineer their own destruction through ignorance or poor judgement, and Tal Tovy argues that these very factors caused the defeat of US Rangers and Delta Force soldiers in Mogadishu in 1993.

Tovy argues that the most important principle of war for special forces—surprise—was violated repeatedly by the United States and United Nations because of the many overt statements, declarations and deployments that clearly linked the presence of Task Force Ranger with the objective of capturing Mohammed Farrah Aidid and his senior lieutenants. Despite some frustrating issues with written expression, Tovy's argument regarding the lack of surprise achieved reads soundly. The Rangers also violated other principles of war, sometimes in ways not immediately apparent, but which the author clearly lays out. Accordingly, as an instructive piece for operational planners, Tovy's article is of considerable value.

'[T]he article demonstrates that the classical principles of war were valid and enduring even in the actions of the special forces. Future operational planners should take note.'

Dr Tal Tovy is Assistant Professor in the history department at Bar-Ilan University, Israel. His research focus is guerrilla warfare.