NOT MANY JOBS TAKE A WHOLE ARMY:
SPECIAL OPERATIONS FORCES AND THE
REVOLUTION IN MILITARY AFFAIRS

Malcolm Brailey

Institute of Defence and Strategic Studies
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This paper studies the recent transformation in the employment and operations of ‘Special Operations Forces’ (SOF). In this paper, I argue that these changes constitute a ‘revolution’, and I use the theory of ‘revolutions in military affairs’ (RMA) as a framework of analysis to demonstrate this. SOF have moved from a marginal, albeit important part of traditional conventional strategy towards being a central component of any government warfighting or security calculus. The SOF ‘revolution’ may be seen in the context of the missions they are called on to perform and the capabilities they therefore must posses. Second, the organizational structures, doctrine and tactics of SOF also demonstrate high levels of innovation; and the combination of technology with SOF’s traditionally high-levels of resourcefulness and adaptability has resulted in new approaches to the conduct of operations. Taken together, these changes may offer governments an increasingly viable and effective alternative to traditional approaches to the use of force by states.

Malcolm Brailey is an Associate Research Fellow at the Institute of Defence and Strategic Studies, Nanyang Technological University, Singapore. His academic qualifications include an MA (International Relations) (Honours) from the Australian National University, a Graduate Diploma in Defence Studies from Deakin University, and a BA from the University of New South Wales. A former Australian Army infantry officer, Malcolm is a graduate of the both the Australian Defence Force Academy and the Royal Military College Duntroon. Malcolm served in a variety of regimental, staff and training appointments, including operational service with the NATO Stabilization Force (SFOR) in Bosnia-Herzegovina during 2001. Malcolm joined IDSS in July 2003 to work as a member of the newly formed RMA Program. His area of speciality is land warfare transformation issues and associated operational concepts. His other research areas of interest include US and Australian defence policy, homeland security, international law and the ethics of armed conflict.
In the decade or so that has elapsed since the collapse of the Soviet Union in August 1991, armed conflict and the use of military force has transcended many traditional and well established boundaries. Whilst numerous scholars have grappled with the systemic and strategic implications of these changes, significantly less attention has been given to the developments and transformations occurring to the many and varied actors who participate in ‘war’. One key exception to this lacuna has been the debate about the ‘revolution in military affairs’ (RMA), and in particular the impact of this ‘revolution’ on the structure and doctrine of contemporary armed forces. The RMA may continue to be a contested concept on the fringes of academic research, however, governments and policy makers from around the developed world have wholeheartedly embraced the tenets of defence ‘transformation’ as prophesised by the RMA; and also largely accepted the need to remake armed forces to both reflect, and be responsive to, the changing and complex global security environment.

One of the most interesting phenomena occurring within this rubric, and one rarely associated with the idea of an ‘RMA’, has been the steadily increasing importance of ‘special operations forces’ (SOF). In the later part of the twentieth century, it became almost standard practice amongst armed forces the world over to include elite combat units within their organisational structure. Generally, the raison d’etre for SOF was to support the aims of conventional strategy and the activities of conventional military forces. However, over the last ten years, SOF have been developing into a potent and indispensable component of modern armed forces outside of and separate to conventional structures and doctrine. They display great utility across the spectrum of conflict and shape the strategy and conduct of operations in both character and intent.

1 Thanks to the Australian Defence Force Recruiting Organization (ADFRO), whose recent Special Forces Direct Entry recruiting campaign carried the catchy title “Some Jobs Don’t Take a Whole Army”, from which I have most clearly borrowed and adapted.
The aim of this paper is to examine contemporary SOF using the RMA as a framework of analysis. First, I will briefly locate and define both the RMA and SOF from a theoretical perspective. Second, I will identify the major changes and emerging trends in the missions and capabilities of SOF. Third, I will use a similar framework to examine the innovative tactics and organization of SOF evident today. It is my contention that SOF are moving from existing as a marginal niche capability in the fringes of strategy to being a central and vital component of national and international security calculations; and that they may offer an increasingly viable and effective alternative to traditional approaches to the use of force by states.4 The majority of my argument is drawn from an analysis of the transformation and employment of SOF from two developed nations at either end of the ‘material’ scale: the United States of America (US) and Australia. These two nations have greatly advanced the SOF concept in recent years, and so provide relevant and salient examples of both the possibilities and trajectories of the SOF ‘revolution’.5

SOF and RMA – a theoretical perspective

It is necessary to preface my examination of SOF and the RMA with a brief foray into what these terms actually mean from a theoretical perspective. The RMA and SOF suffer from completely opposite shortcomings in this regard; the RMA being a rich theoretical concept with contestable empirical substance, and SOF being an inherently rich empirical subject with little or no available theory of contemporary strategic relevance.6 As such, the RMA requires some level of simplification and synthesis in order to be a useful

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4 I am not proposing here that SOF will make traditional strategy obsolete. However, as my argument infra this paper will show, SOF are now able to be utilised as an independent tool of military force – and hence special operations will have increasing strategic importance.

5 The United Kingdom, South Africa and Israel are other nations that also have highly developed SOF; however unlike the US and Australia there is very little public access information available – making it extremely difficult for the researcher to include substantive evidence of transformation.

6 The most well known ‘theory’ of special operations is McRaven, W.H. 1995. Spec Ops, Case Studies of Special Operations Warfare: Theory and Practice, Novato, CA: Presidio. The main shortcoming of this book, by McRaven’s own admission, is the definition of ‘special operations’ that he uses to establish his theory; limited as it is to ‘direct action’ tasks. Regardless, his ‘principles’ of special operations remain a helpful tool of analysis and, no doubt, mission planning.
concept here, and the study of SOF will gain added nuance from a rudimentary look at its strategic fundamentals.

SOF tend to be that part of any defence force often glorified by the media and the entertainment industry, but that remain shielded behind the closed doors of government security policy and (more often) self-imposed secrecy. Also, as SOF are generally composed of unique forces specific to particular country requirements, they therefore exhibit few commonalities internationally other than a shared ‘elite’ status. As such, the initial temptation in defining SOF is to simply juxtapose their identity against the mainstream or conventional military identity; the ‘special’ as opposed to the ‘general’ purpose forces that make up a defence force. This simplistic approach is however largely inadequate for the purposes of a wider study of SOF from a strategic theory perspective, as it would include too wide a variety of military organizations with very different missions and capabilities. For example, some ‘special’ units may full-fill internal policing and intelligence roles, while others may focus on a particular specialization or capability like parachuting. This tells us little about their strategic function and highlights national differences rather than international commonalities. An alternative and more fruitful approach is to define what constitutes a ‘special operation’ and to then extrapolate from that which kinds of forces are selected and trained to perform those operations on a case-by-case basis.

Maurice Tugwell and David Charters provide possibly the most concise and inclusive definition of ‘special operations’, which despite being written in 1984, remains particularly salient. They define special operations as: ‘[s]mall scale, clandestine, covert or overt operations of an unorthodox and frequently high-risk nature, undertaken to achieve significant political or military objectives in support of foreign policy’. The US

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7 Tugwell, M. and Charters, D. 1984. ‘Special Operations and the Threats to United States Interests in the 1980s’ In Special Operations in US Strategy, Washington DC: NDU Press, p35. It is important for the reader to note the difference between ‘covert’ and ‘clandestine’ in this context. Kevin O’Brien has provided a succinct definition in that ‘clandestine operations refer to those operations carried out by uniformed soldiers…such that their activities can be neither confirmed nor denied, but such that these operations are not done in the public eye; in contrast, covert operations refers to those operations carried out by non-uniformed soldiers and/or civilians such that their involvement…can be plausibly denied’. See
Department of Defense (DoD) has more recently affirmed the scope of this academic position with a similar definition of it’s own, stating that: ‘[s]pecial operations are operations conducted in hostile, denied, or politically sensitive environments to achieve military, diplomatic, informational, and/or economic objectives employing military capabilities for which there is no broad conventional force requirement’.  

Historically, ‘unorthodox’ strategy is certainly not a new phenomenon; guerrilla warfare has long been the tactic of the ‘irregular’ combating the ‘regular’. In this context ‘irregular’ has tended to be associated with non-state or quasi-state groups, and ‘regular’ with the armed forces of governments and legitimate political actors. Colin Gray has correctly noted that what is striking about ‘special operations’ in the latter part of the 20th century has been the ‘extraordinary growth in the irregular activities of the regulars…to secure strategic effect through an unconventional style’. Gray has argued elsewhere that the use of ‘special operations’ as a distinct strategy by states and the concurrent expansion of SOF may be attributed largely to their ‘strategic utility’; utility in economy of force and utility in expansion of strategic choice. For the purposes of this paper then, SOF may be said to be those elements of legitimate state-based military forces that are specifically selected, trained and organised to carry out ‘special operations’ and which provide those same states with a unique capability of high strategic utility.

The RMA, in contrast to SOF, remains a contested concept studied variously by historians, political scientists, strategists and futurists. The general idea is that occasionally in history, social or technological developments bring about a radical change

12 Whilst this may seem like an obvious point, it is important to make, as it is this fact that distinguishes SOF from other elite national security elements; such as paramilitary police units (who support domestic policy) or larger regular units such as marines or paratroopers (who carry out a ‘specialised’ conventional task).
in the character or conduct of warfare. MacGregor Knox and Williamson Murray have made possibly the most important recent contribution to the debate by making a clear distinction between ‘military revolutions’ and the ‘revolution in military affairs’.\(^{13}\) They first define ‘military revolutions’ as being those periods of ‘upheaval’ that ‘recast society and the state as well as military organizations, [and that] alter the capacity of states to create and project military power’.\(^{14}\) Importantly, these revolutions are uncontrollable, unpredictable and unforeseeable.

Alongside and within these greater revolutions lie ‘clusters of less all-embracing changes’ best conceptualised as ‘revolutions in military affairs’. Knox and Murray maintain that these types of RMA are susceptible to human direction; and therefore consist primarily of military organizations themselves ‘devising new ways of destroying their opponents’.\(^{15}\) Achieving an RMA requires ‘the assembly of a complex mix of tactical, organizational, doctrinal and technological innovations in order to implement a new conceptual approach to warfare or to a specialised sub-branch of warfare’.\(^{16}\) When seen through this particular conceptual ‘lens’, developments and innovations in SOF over the past decade do have a high degree of resonance with the characteristics of an ‘RMA’. At the very least, they certainly constitute a rational and deliberate response to particular strategic developments and specific adversaries, as well as exhibiting superior levels of military innovation along tactical, organizational, doctrinal and technological lines. The remainder of this paper will examine therefore the details of what I believe constitutes the current SOF ‘revolution’.

**SOF Missions and Capabilities**


\(^{14}\) *Ibid*, pp6-8. Knox and Murray identify five such revolutions in history: the creation of the nation state; the French Revolution; the industrial revolution; the First World War and the advent of nuclear weapons.

\(^{15}\) *Ibid*, p12.

\(^{16}\) *Ibid*. I find this definition of an RMA subtly superior to, and more useful than standard approaches that see technology itself as changing the character of war. For example, Andrew Krepinevich has defined an RMA as one ‘when the application of new technologies into a significant number of military systems…[occurs] in a way that significantly alters the character and conduct of conflict’. See Krepinevich, A.F. 1994. ‘Cavalry to Computer: The Pattern of Military Revolutions’ *The National Interest*, 37: 30.
It would be incorrect to imply that contemporary SOF are fundamentally different from either their historical antecedents or recent forerunners. Irregular units or raiding forces have been an important factor in warfare for millennia.\textsuperscript{17} What has changed, and what appears to be a trend of increasing importance, is that contemporary SOF are required to conduct an extremely broad range of missions in a highly complex security environment. Furthermore, the capabilities that SOF must possess in order to achieve those missions include both traditional as well as genuinely new and innovative elements. Whilst specific roles are generally country dependent, in this paper I highlight several key areas I consider significant in the recent wider development of SOF missions and capabilities. They include the conduct of global operations within a strategic culture of pre-emptive action (including the so called ‘global war on terror’); homeland security roles (including domestic counter-terrorism); several key missions outside of the ‘warfighting’ rubric, including counter-drug operations and various peacekeeping roles; and finally the resurgence of unconventional warfare missions – a more ‘traditional’ SOF task.

SOF have most recently been required to conduct operations on a global scale, across various regions, within what I call a ‘strategic culture of pre-emptive action’.\textsuperscript{18} The events of 11 September 2001 in New York and 12 October 2002 in Bali underscored the (perhaps perceived) need for governments to take pre-emptive action (or to at least maintain a military pre-emptive capability) against two key threat agents; international terrorism and the proliferation of Weapons of Mass Destruction (WMD).\textsuperscript{19} SOF have become the ‘force of choice’ for both international counter-terror operations and counter-proliferation activities. A recent RAND report has noted that this offensive orientation is markedly different from past counter-terrorism efforts such that it may be defined as Offensive Counter-Terrorism (OCT) to better distinguish it from more traditional

\textsuperscript{17} Again, see Laqueur and Asprey, \textit{op cit.}
\textsuperscript{18} The catalyst for this culture being the \textit{National Security Strategy of the United States of America September 2002}, or more broadly the suite of policies that have come to be known as the ‘Bush Doctrine’. Whilst this is an internal US policy initiative, other nations sympathetic to the US have also stated an intent for a similar ‘pre-emptive’ strategy; Australia being a key example.
\textsuperscript{19} For the purposes of operational clarity, these two types of threat agents should not always be conflated; though the most dangerous threat would certainly be WMD equipped terrorists.
doctrinal tasks. Whilst this has largely been conducted by the armed forces of the US, it may be reasonably speculated that other coalition and partner nations have participated and cooperated with the US on such tasks. The exact nature and number of such missions remains closely guarded for operational security reasons, however there is substantial secondary evidence suggesting a high level of SOF activity in the global ‘war on terror’ (GWOT) and the hunt for WMD. William O’Connell, US Assistant Secretary of Defense for Special Operations and Low Intensity Conflict (SO/LIC), has recently pointed out that US SOF are currently conducting ‘combat missions, strategic reconnaissance…and training operations worldwide’.21

In addition to the high profile activities in Iraq and Afghanistan, US SOF (and partner nations) have also been concurrently involved in OCT operations in the Philippines, Djibouti, Yemen, Somalia, Pakistan, Georgia, Uzbekistan and also Columbia.22 In terms of operational success, it has been reported that over 3000 operatives have been captured in over 100 countries and more than 50 terrorist leaders and planners have been either killed or captured in 20 different countries since 11 September 2001.23 The utility of SOF for this global mission lies not just in ‘hard’ (or war-fighting) capabilities, but more importantly in their high level of ‘soft’ capabilities such as languages, regional area specialties (cultural and political) and use of information technology. Indeed, SOF have so evolved in this regard (and as demonstrated by their operational success) that Anthony Cordesman has labelled them as ‘snake eaters with masters degrees’.24

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23 See statement by Marshall Billingslea, Principal Deputy Assistant Secretary of Defense SO/LIC, ‘Waging the War on Terrorism’, Speech to the Heritage Foundation, 11 April 2003. Downloaded from: [www.heritage.org/research/nationalsecurity](http://www.heritage.org/research/nationalsecurity). These figures most likely represent a tally of all terrorists killed or captured by several US agencies, and hence may not all be a result of SOF operations. Similar results for WMD counter-proliferation operations are notably lacking from statements issued by US officials, however that should not detract from the fact that the hunt for WMD remains a policy priority that, it must be assumed, also translates to at least some level of operational activity.
Counter-terrorism is also an essential and parallel mission for SOF within the domestic environment.\textsuperscript{25} Whilst many nations have in fact maintained (and in some case very successfully used) SOF domestic counter-terror capabilities for some time, the military was typically seen as a force of ‘last resort’ with primary responsibility resting with law enforcement agencies. Once again, the events of 11 September 2001 have caused somewhat of a paradigm shift in this regard. The growth of religiously motivated terrorism and the corresponding increase in the scale and lethality of terrorist attacks has meant that the standard ‘law-enforcement’ type response may now be inadequate. The much higher level of operational capability found in military SOF would seem to be the more natural and logical response to domestic terrorist incidents.\textsuperscript{26} Indeed, military and SOF involvement have come to be seen as a defining part of any strategy for ‘homeland security’; a new strategic \textit{milieu} that has seen both public citizens and governments adjust their perceptions about where the boundaries of national defence and security policies lie.\textsuperscript{27} As a result, the SOF mission to conduct domestic counter-terrorism (whilst not being particularly ‘new’) has certainly received a vastly increased focus from many governments. This development has directly led to a significant increase in SOF capability within many nations.

Australia, for example, has recently effectively doubled its’ domestic SOF counter–terror capability. In May 2002, the Australian Defence Minister Robert Hill announced the details of a number of new counter-terrorism initiatives, the most significant for SOF being the raising of a second ‘Tactical Assault Group’ (TAG) at a cost of AUD$219.4 million over the next four years.\textsuperscript{28} The second TAG is based in Sydney on the East coast,

\textsuperscript{25} I define counter-terrorism as offensive measures taken to prevent, deter and respond to terrorist acts. This should not be confused with anti-terrorism, which would be broader defensive measures taken to reduce vulnerability to terrorist acts. Naturally, SOF capabilities lend themselves more to the former.
\textsuperscript{26} I do acknowledge that it in most countries counter-terrorism remains a ‘civil’ responsibility with the military responding only to requests for support.
\textsuperscript{27} The term ‘homeland security’ has come to be associated with any national level government policies or organizations that seek to ‘defend’ states (internally) from terrorism in a holistic fashion. The method is best characterised by the newly formed US Department of Homeland Security – though many other states have also sought to remodel their internal security apparatus along these lines.
\textsuperscript{28} See Minister for Defence, ‘Budget 2002-03, Counter-Terrorism Capabilities Doubled’, Media Release MIN 204/02, 14 May 2002.
complementing an existing TAG located in Perth, Western Australia. The original Perth TAG and the new Sydney TAG are primarily designed to resolve hostage (or ‘siege’) style terrorist incidents beyond the capabilities of police. This is broadly known as ‘special recovery’, but TAG capabilities also extend to a wider range of tasks such as service-assisted or protected evacuation, entry from the air and sea, maritime point of entry and combat search and rescue. Clarke Jones believes that it is almost inevitable that any major act of terrorism occurring within Australian territory or against Australian interests would elicit an ADF response, and the doubling of the TAG capability is a further important signal in that regard. The Australian SOF community is now firmly a part of the Commonwealth Governments’ ‘Homeland Security’ concept. It provides policy advice (both inside and outside of the Department of Defence) and contributes to national command and control arrangements, in addition to maintaining an increased operational capability to combat terrorism within the Australian domestic environment.

Developments in the US are somewhat harder to detect, given that traditionally domestic counter-terrorism has long been the responsibility of the Federal Bureau of Investigation’s Hostage Rescue Team (HRT). However, the recently established US Northern Command (NORTHCOM) has been tasked with deterring, preventing and defeating threats and aggression targeted at the US and its territories. Part of this mission is the ongoing conduct of Operation Noble Eagle, which is the US based homeland defence and civil support operation associated with the wider war on terrorism. It can be reasonably assumed that, when mature, NORTHCOM will have access to existing US

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29 The original TAG was formed in 1980 as a direct consequence of the Hilton Hotel bombing in Sydney in 1978. It was Australia’s first military specialist counter-terrorist capability and was both drawn from and embedded in, the Special Air Service Regiment (SASR) in Perth. See Lewis, D (MAJGEN). 2003. ‘Guarding Australians Against Terrorism’ Australian Army Journal, December 2003, 1 (2): 45-52.

30 Minister for Defence Media Release 204/02. The exact nature of TAG capabilities is not disclosed by official sources.


32 Lewis, loc cit.

33 In addition, the US Military is legally restricted from participating in domestic law enforcement, as codified in the Posse Comitatus Act of 1878. See Guttiéri, K. 2003. ‘Homeland Security and US Civil-Military Relations’ US Naval Postgraduate School, Strategic Insight, 1 August 2003. Downloaded from: www.ccc.nps.navy.mil

SOF units in situations requiring a military response to terrorist incidents. The two main US counter-terrorist units are currently the Army’s 1st Special Forces Operational Detachment – Delta Combat Application Group (CAG) and the Naval Special Warfare Development Group (previously known as SEAL Team Six). Moreover, the US Special Operations Command has established a Counter-Terrorism Campaign Support Group that has been specifically tasked with providing interagency (civil and military) support to existing federal agencies at the operational level. The significance of the domestic counter-terrorist mission has meant that ‘Enhancing Homeland Security’ is now the second ‘Operational Priority’ (after pre-empting global terrorist and CBRNE threats) for US Special Operations Command.

Over the last decade or so, SOF have also been called upon to perform a wide variety of missions, outside of the ‘warfighting’ rubric, in support of non-traditional national security objectives or international peacekeeping efforts. Initially, it is likely that governments were drawn into using (or choosing) SOF due to their high levels of operational readiness and broad range of capabilities vis-à-vis conventional units. SOF tend to have developed that unique capability within defence forces of being extremely agile in responding to such tasks, and maintain the high levels of training needed to perform with minimum risk (both political risk and the more obvious operational risk). However, over time, the generally outstanding performance of SOF units on such non-traditional missions has meant that they are now often the ‘tool of choice’ for policy makers and politicians in times of international crisis or whenever national military commitments or deployments are considered. The SOF of both the US and Australia have been used extensively in this fashion throughout the 1990s and into the early years of the 21st Century. Two very good examples (apart from the widespread use of SOF on peacekeeping tasks) of such ‘new’ SOF missions are counter-drug operations and efforts to track down and capture war criminals.

37 Of course SOF from many other nations have also played such roles, including the UK, Canada and New Zealand to name but three. Most NATO nations have contributed SOF units to operations in the Balkans and now in Afghanistan.
In recent years, the US Federal Government has extensively tasked SOF with covert, clandestine and overt counter-drug missions in South and Central America (though Thailand is another notable area of interest/support in this regard). Principally, this has taken the form of US SOF supporting ‘interagency and host-nation measures taken to detect, interdict or disrupt any action that may be reasonably related to illegal narcotics activity’. 38 Indeed, in 1997 alone, US SOF conducted some 194 counter-drug missions, presumably mostly in Central America. 39 US SOF remain in the region and are ‘continuously training’ host-nation counter-narcotics forces, particularly in Ecuador and Columbia; where the key rebel leader and drug baron Ricardo Palmeira was recently captured by Columbian military forces, allegedly with the assistance of US SOF. 40

Australian SOF have also begun to play a key role in major counter-drug operations recently. On April 20, 2003, Australian SOF (including elements of the SASR, Army Commandos and Navy Clearance Divers) boarded a North Korean ship suspected of drug trafficking in Australian Territorial waters. The ship, the Pong Su, was assaulted from both helicopter and inflatable craft (both launched from a Naval frigate). The operation was a major success for the Australian SOF and the various cooperative law enforcement agencies, as the ship was subsequently found to be carrying some 50 kilograms of heroin. 41 It is significant that only SOF assets are able to carry out such an assault, and at extremely short notice with little or no preparation. The SASR in particular had long been developing an off-shore recovery capability in the context of its domestic counter-terrorist role; a capability that is now of increasing appeal to state and federal law-enforcement agencies as well as to governments who are planning counter-drug operations. Even in the context of domestic crime, it seems then that SOF will continue to play a vital and perhaps indispensable role through the provision of high-risk recovery capability.

38 Ibid, p40.
The location and capture of international war criminals indicted by UN War Crimes Tribunals is another new and complex mission for SOF. The role of SOF from various nations has been particularly notable in the former Yugoslav state of Bosnia Herzegovina. A large number of war criminals, indicted by the International Criminal Tribunal for the Former Yugoslavia (ICTY) since its formation in 1993, remained at large in Bosnia following the signing of the Dayton Peace Accords in 1995. Whilst the NATO military forces in Bosnia (IFOR and SFOR respectively) remain acutely aware of Personnel Indicted For War Crimes (PIFWCs), the task of tracking them down and actually effecting arrests has been left largely to the SOF of the US and the UK, who operate outside of the NATO mandate and largely on national ‘direct-action’ or ‘special recovery’ (SR) tasks. US Special Mission Units (SMU - such as the aforementioned SEAL Team 6 and Delta Force) have been operating in Bosnia sporadically since 1997, mounting two major missions involving up to 300 and 100 operators respectively in that year alone. US SOF also demonstrated considerable SR capability during operations in Somalia between 1992-95. Despite the now infamous casualties sustained during one such raid by Task Force Ranger on 3 October 1993 (as depicted by the movie ‘Blackhawk Down’), US SMU/SOF (and allegedly UK SAS ‘observers’) conducted a series of raids to apprehend key members of Mohamed Aideed’s leadership infrastructure.

The UK Special Air Service Regiment (SAS) has also been operating in Bosnia for some time, and the search for war criminals has been a core task for them. Unlike the US SOF, whose SMUs are flown in specifically for certain tasks, the SAS has maintained a small permanent detachment in Bosnia, and as such has the advantage of being able to both gather their own intelligence, plan and train for specific missions, and also to react rapidly on any local information. Most notably, the SAS captured General Stanislav Galic, the Serb Commander who besieged Sarajevo, during December 1999. Eleven such

operations were conducted by the SAS in the British Sector of Bosnia alone up to 2000, arresting 15 suspects and killing two more (as a result of the operation). These operations are on-going and the SAS is still actively searching for the two main PIFWC at large, Radovan Karadzic and Ratko Mladic.

More recently, during the 2003 invasion and reconstruction of Iraq, a much larger and more concerted effort to capture war criminals has materialised. SOF have participated in large operations, often in combination with conventional units and civilian intelligence elements, to track down and capture former Baathist leadership members and military figures. This effort was made infamous by the issue of the ‘deck of cards’ listing 52 key personalities wanted by the US, most of which have now been captured. A new covert force, ‘Task Force 121’, has allegedly been created to ‘hunt down’ not only former Iraqi leaders but also key terrorist operatives across the region. Much about this force remains classified, however with the recent capture of Saddam Hussein in Iraq it is believed the force has now shifted focus to Afghanistan and the final search for senior al Qaeda leaders. It is clear that Task Force 121 is a unique SOF task unit (with elements from all three US services and potentially with UK involvement as well) designed to act with greater speed on intelligence tips about such ‘high-value targets’.

Finally, one of the most interesting and challenging missions facing the SOF is that of Unconventional Warfare (UW). UW constitutes a ‘broad spectrum of military and paramilitary operations…conducted by, with, or through indigenous or surrogate forces who are organised, trained, equipped, supported and directed by an external source.’

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44 ‘SAS Sweep on Serb Butcher, Daily Mail (UK), 21 December 1999. Downloaded from: www.specialoperations.com/Focus/butcher
45 Authors own observations in Bosnia during 2001. At least one PIFWC, a Colonel of the Bosnian Serb Army, was arrested in Banja Luca during 2001.
46 Task Force 121 is a unit of US Central command (CENTCOM) and as such is responsible for tracking down terrorists within the CENTCOM geographic area of responsibility (of which both Iraq and Afghanistan are part).
Ironically, UW was one of the original missions that led to the establishment of standing SOF units in modern (western) armed forces; developed out of the extensive experience gained by the Allied nations during World War Two in training and equipping partisan and guerrilla forces, notably in France and Yugoslavia in Europe and in Burma and Timor in Asia.\textsuperscript{49} However, the ‘art’ of conducting UW has been rarely practiced by most western SOF since the early years of the Vietnam War, and had largely become a ‘legacy mission’ de-emphasised in favour of other operational priorities.\textsuperscript{50} UW has once again however become a focal point for SOF capabilities, driven largely by the spectacular success of (predominately) US SOF in Afghanistan during late 2001 and early 2002 on Operation Enduring Freedom (OEF).\textsuperscript{51}

In that particular case, the attraction of using SOF in an UW role was twofold. First, in the words of US Secretary of Defence Donald Rumsfeld, ‘you don’t fight terrorists with conventional capabilities, you do it with unconventional capabilities’, and the specialized combat skills that only SOF personnel could provide. Second, US leaders (both political and military) wanted to avoid repeating bitter British and Soviet experiences in the same country that occurred when large numbers of conventional ground troops had been deployed in the past.\textsuperscript{52} During OEF, the most famous example of SOF UW success is undoubtedly the liberation of the city of Mazar-e Sharif on 10 November 2001. During this operation, elements of the US 5\textsuperscript{th} Special Forces Group (SFG) assisted the Northern

\textsuperscript{49} Jones, G.M. and Tone, C. 1999. ‘Unconventional Warfare: Core Purpose of Special Forces’ \textit{Special Warfare}, Summer 1999: 5-6. The origins of other SOF outside the Allied nations (the Soviet Union for example) is not considered here.

\textsuperscript{50} Erckenbrack, A. 2002. ‘Transformation: Roles and Missions of ARSOF’ \textit{Special Warfare}, December 2002: 8. Given the levels of armed conflict globally post-1954 this may seem to be a brash statement, however, in general most SOF operations post the early Vietnam War period were focussed on Counter-Insurgency techniques against guerrilla forces, as opposed to the prosecution of ‘guerrilla’ style operations themselves.

\textsuperscript{51} Several other ‘coalition’ partner nations contributed SOF to OEF; Britain, Canada and Australia being the largest. It is unknown to what extent these nations SOF elements participated in UW tasks. It appears to have been restricted to US SOF in the main; nevertheless, the importance of UW would not have been lost on these other nations present.

\textsuperscript{52} As quoted in Kennedy, H. 2002. ‘Will Special Ops Success Change the Face of War?’ \textit{National Defense Magazine}, February 2002. The reader should not confuse Secretary Rumsfeld’s use of ‘unconventional’ here with my prior definition of UW. Clearly, he is referring rather to asymmetric strategy more broadly and the use of SOF in particular. Downloaded from: \url{www.nationaldefensemagazine.org/article.cfm?id=721}
Alliance to defeat the vastly superior Taliban forces.\textsuperscript{53} This pattern of success continued with US SOF advisors assisting Northern Alliance (\textit{et al}) forces in the taking of almost every major city in Afghanistan, including Kabul, Jalalabad, Konduz and finally Kandahar.\textsuperscript{54} The 5\textsuperscript{th} SFG had been conducting a similar UW mission in another Central Asian country for some six weeks prior to the attacks of 11 September 2001, and were rapidly re-deployed by mid-October where they subsequently linked up with Harmed Karzai and his Northern Alliance forces.\textsuperscript{55} The members of this SOF unit all had significant experience in Central Asia and many spoke local or regional languages; demonstrating the long-term commitment required to develop UW skills and capabilities.

The revival of UW in US defence policy has resulted in SOF being seen as ‘Global Scouts’, who serve to ‘assure US allies and friends of US government resolve’\textsuperscript{56}, and who in the future will be used to defeat improved enemy ‘means and methods of anti-access and anti-denial’ activities.\textsuperscript{57} Even prior to the recent UW missions conducted in support of the GWOT, the US was already using its SOF in training and assistance missions worldwide, deploying to 144 countries in 1997 alone.\textsuperscript{58} The ‘SOF centric’ campaign in Afghanistan was so successful that it has been described as a possible future model for the conduct of warfare applicable across a wide range of future conflict types.\textsuperscript{59} Whilst this may seem to be a predominately US mission parameter (given the preponderance of US military power and the global nature of US interests), the SOF of many nations posses parallel or latent capabilities that may be associated with the conduct of UW and the

\begin{footnotesize}
\begin{enumerate}
\item Biddle, S. 2002. \textit{Afghanistan and Future of Warfare: Implications for Army and Defense Policy}, Carlise PA: US Army War College Strategic Studies Institute, pp8-10. For a detailed account of this operation, see ‘The Liberation of Mazar-e Sharif: 5\textsuperscript{th} Special Forces Group Conducts UW in Afghanistan’ \textit{Special Warfare}, June 2002: 34-41.
\item Kennedy, \textit{op cit}. Similar UW missions were conducted in OIF during 2003.
\item \textit{Special Operations force Posture Statement}, \textit{op cit}, p28.
\item Erckenbrack, \textit{op cit}, p8.
\end{enumerate}
\end{footnotesize}
training of indigenous forces. The UW mission and use of indigenous or surrogate forces, whilst under-shadowed by the Global War on Terror (GWOT) at present, may yet prove to be an extremely effective method of dealing with state based threats, weak states and even perhaps non-state actors.

SOF Organization and Tactics

The second major vector of change that constitutes a part of the ‘SOF Revolution’ has been the ways that SOF are organised and trained, and in some of the new ways in which they fight. The nature of special operations, at least post World War Two, has generally demanded a combination of land, air and sea assets operating simultaneously in a multidimensional fashion. As such, whilst conventional armed forces world-wide still cling to their single service doctrine and dogma, SOF in many countries have been transforming themselves into truly ‘joint’ force organizations. In terms of command and control (and even tactical cooperation at times), they now reflect units and task groups employed along capability not service lines. Hand in hand with this development has been a very strong emphasis on interoperability with foreign SOF, as forged on numerous multinational missions during the 1990s. This has meant that today SOF are at the forefront of the many truly ‘coalition’ operations and combined missions conducted as part of the GWOT and international peacekeeping.

In terms of concrete tactical developments, SOF (regardless of nationality) have generally continued to develop and demonstrate specialized combat skills in a wide variety of tactical procedures and high-risk environments. The elite status of SOF has traditionally been crafted around exceptional individual soldier skills and small unit tactics, and this

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60 The Australian SOF community has a long history of ‘training and advisory’ experience; ranging from the Australian Army Training Team Vietnam (AATV) to more recent assistance missions aiding the training of the fledgling Timor Leste Defence Force. My assessment of their UW capability and/or experience is, of course, speculative.

61 An extremely important and interesting trend to note in this regard is the increasing use of Private Military Companies (PMCs). Governments such as the US and UK are now turning to PMCs to provide training and assistance to foreign nations defence forces on a contract basis. Former SOF personnel staff many of these companies; and as such make an interesting case of ‘UW by proxy’. An example is the use of US company Military Professional Resources International (MPRI) to train elements of the Bosnian Federation Army.
fact does not require any new analysis to confirm. In this paper, I examine two new and potentially revolutionary ways in which SOF conduct tactical level operations. First, the combination of SOF ground forces directing precision-guided/air-delivered weapons is a key new development. Second, the concept and conduct of ‘Network Centric’ special operations (given the importance of ‘information’ in warfare as opposed to ‘information warfare’- though that is also significant) coupled with the increasing use of high-technology equipment at the individual operator level has increased significantly.

The theory and practice of ‘joint’ warfighting refers to the ‘synergistic application of the unique capabilities of each service so that the net result is a capability that is greater than the sum of its parts’. However, the desire for operations of a joint nature stems not just from the natural advantages of military efficiency, but also from changes in the global strategic context (and a blurring between the so called ‘levels of war’ and ‘operations other than war’) that are driving a civil/political requirement for more precise applications of combat power across the globe. Joint warfighting presents a series of problems for conventional military forces, who cannot easily adapt to (or innovate) the required doctrinal concepts and organizational changes. In contrast, SOF are inherently ‘joint’ on a number of levels.

First, special operations are usually multidimensional by nature and therefore demand the involvement and cooperation of land, sea and air force elements. Second, more than any other sector of modern armed forces, SOF conduct joint and combined training regularly both within the SOF community and with conventional forces. SOF have therefore a strong operational legacy of planning and executing joint missions across a wide spectrum of conflict types. Furthermore, SOF routinely operate in close conjunction with other civil government agencies (such as customs, national police elements and intelligence agencies), international organizations (such as the UN or NATO) and even Non-Governmental Organizations (NGOs) and Private Military Companies (PMCs). As such, SOF worldwide have been able to not just ‘talk the talk’ of joint warfighting

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63 Ibid, p33.
concepts and doctrine, but also to ‘walk the walk’ on operations and in training through adopting truly joint organizational structures.

The US SOF community has been at the forefront of joint doctrine, training and organization for well over a decade. In 1986, the US Congress expressed concern for the status of SOF within overall US defence planning. This arose largely as a result of shortcomings identified from the failed Iranian hostage rescue attempt in 1979 (Operation Eagle Claw) and interoperability problems from the Grenada invasion in 1983 (Operation Urgent Fury). These concerns lead directly to the creation of the United States Special Operations Command (USSOCOM), as authorised by the Cohen-Nunn Amendment to the DoD Authorization Act of 1987.64 This law mandated the creation of a unified command with ‘service-like’ responsibilities to oversee all SOF, reporting directly to the Secretary of Defense for all budget, equipment, training and doctrinal issues.65

In addition, USSOCOM is one of the nine US ‘combatant commanders’ (the remaining eight are ‘geographic’ rather than functional), and is thus responsible for planning, directing and executing special operations and providing SOF units to support the other Geographic Combatant Commander’s theatre security cooperation plans.66 USSOCOM commands approximately 49,000 service personnel, both active duty and reserve forces, organized into three component commands, namely the US Army Special Warfare Command, Naval Special Warfare Command, and Air Force Special Operations Commands. The trilateral bodies make up the major SOF units and training establishments, while one sub-unified command (Joint Special Operations Command) provides a joint headquarters to study special operations requirements and to ensure interoperability and equipment standardization. The Joint Special Operations Command

64 Schoomaker, *op cit*, p3.
65 These are known as ‘Title 10 Responsibilities’, as codified in Title 10 US Code Section 167. The Cohen-Nunn Act also established the Office of the Assistant Secretary of Defense for Special operations and Low Intensity Conflict (SO/LIC), who provides the immediate civilian oversight over many USSOCOM activities. See *Special Operations Force Posture Statement 2003/04, op cit*, pp 8-10.
66 This is the case with both OEF and OIF, where SOF were provided to US Central Command (USCENTCOM) for the conduct of operations. See Feickert, A. 2003. ‘US Special Operations Forces (SOF): Background and Issues for Congress’ Library of Congress Congressional Research Service (CRS), *CRS Report For Congress*, 15 August 2003, p3.
also develops joint doctrine and tactics in addition to conducting joint exercises and training.\textsuperscript{67}

The Australian Defence Force has more recently undertaken a similar transformative initiative in the organization of SOF by also creating a new and independent Special Operations Command (SOCOM). The Defence Minister Robert Hill launched SOCOM on 5 May 2003.\textsuperscript{68} The creation of SOCOM may be understood as part of a direct reaction by the Australian government to the Bali bombings in October 2002. It reflected the determination of the National Security Committee of the Federal Cabinet to enhance the ADF’s SOF capability and to meet the increasing need for an effective joint, inter-agency and alliance counter-terrorism and anti-terrorist capability.\textsuperscript{69}

SOCOM is a true independent joint command, with command status equivalent to the existing Maritime, Land and Air Commands. The Commander SOCOM reports directly to the Chief of the Defence Force (CDF) for counter-terrorist operations and the Commander Australian Theatre (COMAST) for SOF support to all other operations. Whilst SOCOM is comprised largely of land SOF units and supporting elements (such as organic SOF logistic and helicopter support), it is also working towards full integration with naval SOF (such as Clearance Dive Teams) and dedicated air force support. SOCOM also maintains a significant ‘liaison cell’ element within the Headquarters ADF (HQ ADF) to provide future capability development, strategy, and doctrine development direction to the broader defence community; as well as acting as the coordinator for counter-terrorist operations and serving as an inter-agency link to other government bodies and organizations in the national capital.\textsuperscript{70}

Perhaps the most striking example of the joint nature of SOF themselves and the role of SOF in wider ‘joint warfighting’, may be found in the conduct of OIF in early 2003.

\textsuperscript{68}Minister for Defence Media Release 47/2003 ‘New Special Operations Command’ Monday, 5 May 2003.
\textsuperscript{69}Lewis, ‘Guarding Australians’ \textit{loc cit.}
\textsuperscript{70}\textit{Ibid.}
SOF (and US Ranger forces) played a major role throughout this campaign, and analysts such as Anthony Cordesman have reported that in fact some 9,000 to 10,000 SOF were specifically deployed into Iraq by US General Franks, accounting for approximately 8% of total forces engaged in combat. Units from all three USSOCOM Component Commands were present in Iraq (including the previously mentioned SMUs), as well as significant contributions from the Australian and UK SOF communities, who were all grouped together into a Combined Special Forces Component reporting directly to CENTCOM. SOF units operating in Iraq displayed and utilised joint warfighting doctrine and principles on a number of levels.

First, as has already been outlined, SOF units themselves were inherently ‘joint’ organizations, to the extent that even multinational coalition partners were fully integrated into a single command structure (albeit with their own national command elements). Second, SOF units independently conducted specialised and small-scale operations of a joint nature; such as the capture of airfields, the securing of offshore oil terminals and the aforementioned search for Iraqi leadership targets. Michael Noonan has recently described these ‘autonomous’ operations as a defining characteristic of modern warfare, where SOF are able to accomplish results disproportionate to their size precisely because of the high performance standards set by their members, the collective experience they bring to bear and the latitude they are given to perform their duties.

Third, SOF contributed (often as a key component) to wider joint operations at the theatre level in combination with air and land elements, and further through inter-agency cooperation with non-military organizations. Examples of this include the now famous ‘Scud Hunting’ missions conducted by Australian and UK SAS in Western Iraq, which combined small elements of armour (in one case including Main Battle Tanks) with other major land force units (such as the US 173rd Airborne Brigade and the UK 45 Royal

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71 Cordesman, *op cit*, p362.
72 Noonan, *op cit*, p37. Noonan actually constructs a dichotomy whereby ‘autonomous’ operations are directly contrasted by ‘centralized’ operations; that being those operations where forces are massed for greatest effect under strict command and control arrangements.
Marine Commando)\textsuperscript{74} and missions working closely with or attached to the CIA.\textsuperscript{75} Indeed, a reasonable assessment of recent combat operations in Iraq is that we saw a maturing of joint force operations whereby ‘for the first time…integration enabled conventional (air, ground and sea) forces to leverage SOF capabilities to deal effectively with asymmetric threats and enable precision targeting simultaneously in the same battle space. Likewise, special operators were able to use conventional forces to enhance and enable special missions’.\textsuperscript{76}

The ability of SOF to conduct joint operations has also lead to concrete tactical innovations. Potentially the most important and successful advancement in this regard has been the integration of airpower with SOF on the ground. This has involved the use of numerous tactics, techniques and procedures developed in order to enhance SOF acting as ‘human sensors’ for strategic air missions (the so called ‘sensor-to-shooter’ link); and also the use of air power to provide joint fire support to SOF acting as an independent manoeuvre force.\textsuperscript{77} In terms of specific special operations tasks, US Joint Special Operations Doctrine dictates two missions that define SOF support to combat air actions. The first is direct action (DA), whereby SOF designate (or often ‘illuminate’ with laser targeting devices) strategic and operational level targets for air-delivered precision-guided munitions to destroy. The second is special reconnaissance (SR) whereby SOF provide target acquisition, area assessment and post-strike reconnaissance (or Bomb Damage Assessment – BDA) data.\textsuperscript{78}

The need for this SOF capability and corresponding tactics stems from the military reality that whilst it may have become routine for air forces (particularly the US Air Force) to hit stationary targets, locating and prosecuting attacks on mobile and time-critical targets remains a much more difficult task. It is acknowledged that the use of SOF to find and

\textsuperscript{74} Noonan, \textit{op cit}, p31.
\textsuperscript{75} Cordesman, \textit{op cit}, pp362-63.
eliminate strategic targets as part of an air-power campaign is not particularly new. William Rosenau has written extensively on the use of US SOF ‘behind enemy lines’ to hunt for critical ground targets and then call in air strikes in both the Vietnam and Persian Gulf (1991) wars.\footnote{For an extremely detailed account of these operations, see Rosenau, W. 2001. \textit{Special Operations Forces and Elusive Enemy Ground Targets: Lessons From Vietnam and the Persian Gulf War}, RAND Publication MR-1408-AF.} However, Rosenau also points out that in both instances the operations proved less successful than US officials had hoped. This was because the operations, in both cases, were disrupted by effective enemy counter-measures, shortfalls in technology and a lack of environmental (or ‘situational’) awareness of the SOF units operating in vast areas of difficult terrain.\footnote{Ibid, p2.}

The need for more human ‘sensors’ on the ground was further demonstrated during Operation Allied Force, the air-centric campaign directed against Serbia in the early months of 1999. Again, whilst static targets such as bridges or factories were easily targeted by Tomahawk cruise-missiles and high-altitude precision bombing missions, aircraft delivered weapon attacks to destroy or disrupt Serbian ground forces (particularly in Kosovo) were more problematic. The utility of SOF for this type of task is demonstrated by the fact that some sources attribute what little success that was achieved in Kosovo to the efforts of US/UK covert support (including SOF personnel) to the Kosovar Liberation Army (KLA), of which ground targeting for air strikes was a vital component.\footnote{Cordesman, A. 1999. \textit{The Lessons and Non-Lessons of the Air and Missile Campaign in Kosovo}, Washington DC: Center for Strategic and International Studies, pp250-256.}

The tactics and technology associated with joint SOF/combat air power operations has significantly matured since these previous experiences, and has now been successfully validated in combat during both OEF and OIF. Indeed, David Sullivan has recently made an assessment about such operations in Afghanistan that the ‘synthesizing [of] SOF and combat airpower is a transformation in the operational art of employing forces’.\footnote{Sullivan, D, M. 2002. ‘Transforming America’s Military: Integrating Unconventional Ground Forces into Combat Air Operations’ Paper submitted to the US Naval War College, Joint Maritime Operations Department, Newport, RI. 04 Feb 2002, piv (Abstract).}
US, the origins of this new synergy may be traced to the *Joint Vision 2010* concept of effects-based precision engagement.\(^{83}\) The air war over Afghanistan in particular is evidence that US SOF (and SOF of coalition partners) have made significant progress towards joint operational integration.

Sullivan points out that the change in the nature and conduct of air operations in Afghanistan (and now further demonstrated in Iraq) resulted directly from ‘advances in technology and evolutions in joint doctrine’.\(^{84}\) This new ‘approach’ to warfare consisted of precision weapons being employed by aircraft operating at ‘sanctuary altitudes’ supported by SOF teams on the ground, equipped with optical lasing units, global positioning systems (GPS), laptop computers and various types of secure communications equipment. SOF teams on the ground were able to identify targets unseen or undetected by airborne collection platforms (including Unmanned Aerial Vehicles), and this fact alone contributed greatly to the decisive effect of strategic bombing in both Afghanistan and Iraq.

Tactical coordination and command and control of both SOF and combat air assets were also considered innovative. Targeting and fire support in a joint environment is normally a highly complex process. It is made even more challenging by the non-contiguous nature of the battlefield, especially in the case of Afghanistan. SOF teams and headquarter elements could not predict locations of opposition groups or mobile targets, which dictated against prior planning for interdiction missions, nor was there a clearly defined AO in which targets could be pre-recorded. Several important steps were taken that greatly assisted in the success of this new ‘paradigm’ that are worth outlining in this paper.

First was the use of ‘gridded’ areas of operation and ‘kill-boxes’. Traditionally, operational design has always included two fundamental components; a mission, and a designated area of operations in which to accomplish that mission. In non-contiguous


battlefields like Afghanistan this type of battlespace geometry did not exist; and so a series of unique fire support coordination measures (FSCM) were developed to achieve adequate coordination and safety, such as no-fire areas (NFAs), restricted-fire areas (RFAs) and ‘kill-boxes’. Second, rather than planned fire support, there was an increased use of ground-directed interdiction (GDI) initiated by SOF on demand. SOF teams could receive immediate close air support (CAS) if they were in unexpected contact with the enemy, or GDI of enemy forces that they could see and for which they provided targeting data. Essentially, combat aircraft flew to the general area and received their targets as ground teams found and reported enemy forces in real time.

This general tactical model was followed in OIF, where SOF teams (particularly the Australian SASR) were conducting the strategic role of ‘hunting’ for SCUD missile launchers and associated installations. Such targets were often mobile or well concealed, so destruction was achieved by handing over coordinates to coalition aircraft only once locations had been confirmed by detailed ground reconnaissance. Further, reliance on combat air strikes for emergency CAS meant that SOF units could operate in remote areas without the need for heavy artillery or other land based fire support elements. SOF also made extensive use of Blue-Force tracking devices (even at the individual level) to increase their own situational awareness and to reduce the possibilities of fratricide by air-delivered weapons. Blue Force Tracker is an automated transponder/beacon system that sends coded messages every 5 or 10 minutes identifying units and their GPS coordinates. This allows SOF teams to be fully coordinated into friendly battle plans, allow them to coordinate more closely with other local ground forces, and most importantly allow them to be identified and avoided by friendly aircraft delivering ordnance.

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85 Findlay, et al, *op cit*, p9. It is interesting to note that all these measures are designated by the Combined Force Air Component Commander (CFACC) – and that for the majority of the operations conducted in OEF and OIF SOF were therefore actually under command of the air component commander, rather than the ground component commander.
The use of Blue-Force Tracker devices is a further example of how SOF are becoming more familiar with (and hence reliant upon) high technology and communication devices to achieve unprecedented levels of battlefield communication, shared intelligence and situational awareness. At the tactical level, SOF have embraced the concept of ‘network-centric warfare’ (NCW) to the extent that the outcome of many special operations is now shaped by the use of high-technology devices at the individual user level. An even more important result is the innovative way that SOF operators and planners have been able to leverage the advantages of NCW technology. Very simply, NCW means using technologies and tactics that take full advantage of all available information on the battlefield and that then bringing all available combat assets to bear in a rapid and flexible manner. Despite the common misconception that NCW is therefore merely the ‘electronic linking’ of various computer systems, in reality it is far more than that, comprising both human and technological factors.

A better way to conceptualise NCW may be to understand it as a ‘powerful set of warfighting concepts and associated military capabilities’ that involve ‘networking [the] three domains of warfare (the physical, information, and cognitive domains) so as to generate increased combat power by: achieving greater speed of command; [and] increasing lethality, survivability and responsiveness’. 90 Looking beyond even that official definition, Alberts, Garstka and Stein describe NCW as being about ‘human and organisational behaviour…[NCW] is characterised by the ability of geographically dispersed forces to create a high level of shared battlespace awareness that can be exploited via self-synchronization and other network centric operations to achieve [the] commanders intent’. 91 SOF epitomize that vision and often make it reality. The efficiencies of NCW are created through extending the sensing ability of an individual entity (such as an SOF team) to the cumulative reach of the entire ‘network’, hence

increasing overall combat power and accelerating decision cycles.\footnote{For a detailed examination of the levels of efficiency created by NCW, see Smith, E.R. 2002. \textit{Effects Based Operations: Applying Network Centric Warfare in Peace, Crisis and War}, Washington DC: Command and Control Research Program, pp65-97.} Greg Gagnon has recently analysed the impact of NCW on special operations and found that the approach can improve the probability of mission success in three ways: simplicity and innovation in planning; security and repetition in preparation; and speed, surprise and adaptability in execution.\footnote{For a full description of these three elements, see Gagnon, G. 2002. ‘Network-Centric Special Operations: Exploring New Operational Paradigms’ \textit{Air and Space Power Chronicles}, 04 February 2002. The astute reader will note that Gagnon’s three elements match William McRaven’s theoretical components for the success of special operations (\textit{infra} note 6).} General Peter Cosgrove, Chief of the Australian Defence Force, has outlined that the real value of SOF and NWC capabilities may be that the ‘occasion, the means and the opportunity can come together to allow a tactical element to foreshadow and to achieve a strategic outcome – a situation improbable in warfare up until the Information Age in which we now live’.\footnote{General Peter Cosgrove, Chief of the Australian Defence Force, ‘Innovation, People, Partnerships: Continuous Modernisation in the ADF’, Speech to the ADO Network-Centric Warfare Conference, Tuesday 20 May 2003. Downloaded from: \url{www.defence.gov.au/cdf/speech200503.htm}}

Most of the specific NCW concepts and capabilities that SOF have been developing and employing on recent operations are focussed on shared situational awareness, robust communications and better sensor-to-shooter linkages. US and coalition SOF deployed on OEF and OIF certainly achieved their high levels of success due in no small part to NCW capabilities; to the extent that even USSOCOM insiders believe that this has resulted in a dramatic change in the way that SOF conducts their missions.\footnote{Comments by Brig Gen James Parker (USA), Director of USSOCOM Center for Intelligence and Information Operations, as quoted in Ackerman, R.K. 2003. ‘Special Operations Forces Become Network-Centric’ \textit{Signal}, March 2003: 17-21.} Major General Duncan Lewis, Commander Australian Special Operations Command (SOCOM), is convinced that the rise to prominence of SOF over the last decade (and as demonstrated by OEF and OIF) may be attributed in no small part to the three operational realities of NWC; situational awareness, precision fires and the growing transparency of the battlespace.\footnote{Lewis, D (MAJGEN). 2003. ‘Inside and Outside the Battlespace: Understanding the Rise of special Operations in Australia’ \textit{Australian Army Journal}, 1 (2), December 2003: 53-58.} SOF are now able to combine their traditionally high levels of resourcefulness and adaptability with a growing wellspring of battlefield awareness and
technological links with conventional forces. With accurate digital maps, SOF teams can deploy with real-time information on the disposition of friendly and unfriendly forces in their area and connectivity to supporting forces located throughout their battlespace. According to Brigadier General James Parker, Director of USSOCOM Center for Intelligence and Information Operations, several communications and information systems were ‘big winners’ for US and coalition SOF in OEF and OIF in terms of achieving a NWC approach.

In terms of communications equipment, the most important item was the AN/PRC-148 Multiband Inter/Intra Team Radio (MBITR), which provided embedded and secure communications within SOF teams amongst dispersed members. Also important was the Multiband Multimission Radio (MBMMR), a single channel ultra-high frequency satellite communications radio, used for transmission of target locations to operational centres in theatre. Iridium handheld satellite telephones with secure sleeves also proved to be invaluable for diverse SOF units conducting split operations in rugged terrain and for communicating with other government agencies and local allied troops outside coalition command structures. In terms of information systems, commercial Inmarsat played an important role in providing connectivity in remote locations, with the SOF Deployed Node-Light Terminal providing secure data and voice capability, as well as permitting SOF teams to ‘dial into’ the US DoD secret Internet network (SIPRNET). An unexpected requirement in Afghanistan was for a videoconference capability, and small, briefcase sized units were deployed for this purpose. Essential to mission planning and situational awareness was a ruggedized scaleable suite of computers, network gear and associated software. The Tactical Local Area Network (TACLAN) system provided the hardware base for the suite and the SOF Digital Environment (SDE) software package providing battlefield information, intelligence, collaboration and mission planning tools using an online approach to systems often maintained in the CONUS.\textsuperscript{97} However, it must be noted that technological innovation can bring its own hazards, particularly for SOF missions. In one instance, a US SOF operator in Afghanistan typed in the GPS coordinates of a target into his laptop, but had to change the battery before relaying the

\textsuperscript{97} All this information has come from Ackerman, \textit{loc cit.}
information; because of a ‘software glitch’, with the new battery installed, the laptop
gave the SOF operators own position as the target to a circling US fighter, resulting in a
‘Military Priorities and Future Warfare’ Janes Defence Weekly, 11 September 2002.}

\textbf{Conclusion and Implications}

The transformation of SOF over the past decade or so provides a clear example of what
Murray and Knox perceive as a ‘revolution in military affairs’. In the case of the two
nations that I have considered in this paper (US and Australia), the SOF community most
certainly exhibit the key characteristics of such an RMA; a ‘complex mix of tactical,
organizational, doctrinal, and technological innovations [assembled in order to]
implement a new conceptual approach to warfare \textit{or to a specialized sub-branch of
warfare}’ \footnote{Murray and Knox, \textit{The dynamics of military revolution}, \textit{op cit}, p12.} As Murray and Knox again predict, the key to any such
successful revolution must be ‘multi-dimensional problem-solving’ directed at specific
operational and tactical issues in a specific theatre of war against a specific enemy.\footnote{\textit{Ibid}, p192.}
In the context of SOF, the catalyst for this has undoubtedly been the numerous combat
operations conducted against an often amorphous and allusive enemy in the ongoing
GWOT, and during OEF and OIF. As I have shown, SOF have been asked by the
governments of many states to significantly expand their capabilities and range of
missions in the period since 11 September 2001. In the process, SOF have demonstrated
a willingness for change and innovation of their organizational structure, doctrine,
training and tactics, as well as successfully including new technological systems and
equipment into their operations.

The significance of this SOF revolution is manifested on several levels. First, the
conduct of contemporary special operations, as seen in Afghanistan and Iraq, may
provide both military planners and politicians with a new ‘model’ on how to prosecute
armed force against an opponent (be it state or non-state). SOF maintain a set of
capabilities that allow a strategic outcome to be achieved with fewer troops and resources, a lower profile (or ‘footprint’) and more certainty of success. The combination of SOF teams with indigenous forces and precision combat air-power is a case in point of such a model. It is acknowledged that some commentators strongly disagree with this claim, pointing to the idiosyncratic nature of conflict in both Afghanistan and Iraq, or to the fact that both OEF and OIF were rather merely typical twentieth century wars reliant as such on firepower and manoeuvre.\footnote{See particularly Stephen Biddle, \textit{op cit}, for this point of view.} As I have shown in this paper however, SOF have been able to utilise their specialist capabilities in high-risk environments and in response to security issues much wider than just major war. The possibilities of military force being used in a domestic environment or in non-warlike roles is no longer a normative or material barrier to policy makers. SOF have now truly moved from being a marginal, though at times important, component of conventional military strategy to being a central and vital element of any warfighting or security calculus.

Second, the successful adoption of joint structures, culture and doctrine by the SOF communities in the US and Australia may provide conventional forces of both large and small states with a template for the further development of ‘joint warfighting’, and a way to overcome the considerable organizational and cultural barriers. Further, they also provide a working example of the benefits of a NWC approach, both in the technology used and through the tactics SOF have developed and employed in combat. SOF may be useful in this regard as a live ‘battle-lab’ for future operational concepts and military technologies. The danger for SOF is that their appeal and success has in a way been ‘too good’; policy planners (particularly in the US) are already calling for conventional forces to become ‘more SOF-like’ on a wider scale.\footnote{Vice Admiral Arthur Cebrowski, Director US Office of force Transformation, has been one such high-profile proponent of this. See \textit{Inside the Pentagon}, 4 September 2003, 19 (36). Downloaded from: \url{www.insideDefense.com}} Others, such as Steven Metz, call for a significant expansion of SOF into a separate component of a future ‘objective force’ with responsibility for all indirect and intrastate wars.\footnote{Metz believes SOF should form a separate ‘track’ to the transformation of the US Army; leaving the conventional component to fight direct, interstate war. See Metz, S. and Millen, R.A. 2003. ‘Future War/Future Battlespace: The Strategic Role of American Landpower’ Strategic Studies Institute Monograph, Carlisle, PA: US Army War College.} Whilst this may seem like a strategic
and defence planning dream come true if fully implemented, the reality is that SOF numbers remain small because of the extensive periods of time and resources taken to select and train individual operators and small units to the necessary standard, and then to hone those skills on combat operations over many years. Any forced expansion of SOF units beyond their natural capacity to train and retain members may result in a loss of capability and a diminution of the culture that, paradoxically, makes SOF ‘special’.
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