



The B1-B can carry 81,500lb Mk-82 bombs internally

Combat Air Power in Irregular Warfare:

**Operational utility, the lack of narrative and
risk of strategic failure**

By Wg Cdr Harry Kemsley

*To make war on rebellion is messy and slow,
like eating soup with a knife.*

(T.E. Lawrence, Seven Pillars of Wisdom)

Although based on significant debate with colleagues within and outside the Service, the views expressed in this paper are personal and do not necessarily reflect the opinions and policies of the UK MoD or the Royal Air Force. The author has completed a larger study, supported by King's College London, which has explored further the ideas expressed in this short paper among many other related issues. An unclassified version of the larger study is expected to be made available mid-2007.

Abstract

Historical and contemporary military experiences have been increasingly dominated by non-conventional forms of conflict. The enduring military ethos, essentially based on a conventional approach to warfare, may well have ensured that we were prepared for a war, and preparing for the possibilities of future war, but it seems, we have remained ill-prepared for the most likely war. If the stunning, conventional victory of Operation Iraqi Freedom in 2003 has confirmed the former two, the rude shock of the subsequent insurgency has underlined the latter.

After establishing the contemporary strategic context and the ever more vital nature of perceptions and 'narrative' in the so-called 'Information Age', this paper describes the broad implications for military operations. This background forms the basis for a review of Air Power (AP) activities against contemporary, irregular adversaries

generally, and those by Combat Air platforms more specifically.

Based on extensive real-world data, the conclusions show that AP can and does deliver significant operational utility, particularly when fully integrated with Land forces. Moreover, it does so both with and without resorting to destructive force. However, its employment, if not carefully explained in the information environment, can present risks to the more strategic aims of the contemporary mission. It is proposed here that information has primacy in modern Irregular Warfare. Consequently, rather than a focus on greater precision or shorter response times for Combat AP per se, we need to invest more time in developing a successful Influence Strategy to win the War of Narratives.

Aim of Paper

The aim of this paper is to illustrate the range of roles in the full spectrum of activities that make up Combat Air Power (AP), their potential utility and risks in contemporary Irregular Warfare.¹

Caveats and Definitions

Delivery of AP in a Joint Context

Whilst this paper does, necessarily, concentrate on the contributions made by AP to the military endeavours in Irregular Warfare, it does not contend that AP should be regarded as a stand-alone capability. AP is a Joint tool, able to provide independent effect if required, but is more often fully integrated in the Joint military enterprise. The important part of discussing AP's contribution to Irregular Warfare here is not which service is best suited for operations, but how to use AP 'in conjunction with other forms of military [and civil] power.'²

Combat AP Focus

Despite the significant contribution made by other types of Air and Space asset, this paper will focus primarily on Combat Air platforms. The roles of other Air platforms such as those used for Strategic or Tactical Mobility (including helicopters), Space-based or Air Surveillance and Reconnaissance, will be discussed only briefly.³

In a period of high operational tempo, relevance to contemporary security challenges is likely to be a key evaluator. Against a backdrop of budgetary constraints, the debate may well be the most acute for the less-well-understood relevance and utility of Combat Air assets, which must therefore be the priority here.

Small Wars and Stabilisation Operations against Asymmetric Opponents

Terms and definitions for non-conventional forms of warfare abound. Western militaries have used terms such as 'Small Wars', 'Military Operations Other Than War', 'Low Intensity Warfare', 'Asymmetric Warfare', 'Stabilisation Operations', 'Counterinsurgency' and so on. If presented on a notional Venn diagram, the definitions of these terms could be depicted as overlapping ellipses covering an operational arena of what this paper will term 'Irregular Warfare'. Thus, the term irregular is used here in an 'exceedingly inclusive' sense, referring to all types of non-conventional methods of violence, including terrorism, employed to counter the traditional capabilities of a more regular opponent.⁴

For the purposes here, the threats posed by irregular opponents are equally inclusive. Irregular threats

would include illicit acts of a military, political, psychological, and economic nature, conducted by both indigenous and non-state actors for the purpose of eliminating or weakening the authority of a local government, or influencing an outside power. Though primarily asymmetric in nature, irregular adversaries are therefore intended to include the broad range of insurgents, guerrillas, terrorists, and similar groups and organizations that operate in and from the numerous weakened, rogue and failed states that exist today.⁵

For some, overly broad definitions may lose utility, perhaps even blurring the distinction between conventional and non-conventional conflict. However, a key facet that segregates the large-scale, conventional wars, from their irregular, non-conventional counterparts is the shift in focal point, from predominantly military factors to more human ones:

Military operations become the focus of any conventional war, [but] in a small war the military dimension of the conflict is generally overshadowed by political, social, economic and psychological concerns⁶

For the purposes here the notion of Irregular warfare will be defined as follows:

The [Irregular Warfare] concept does have a usefully unambiguous core meaning. Irregular Warfare is warfare between regulars and irregulars.⁷

Scope

The paper is in 2 parts⁸. First, the broad strategic context and the vital nature of information and 'narrative' will be discussed in order to understand the contemporary dynamics for military

operations generally and here, more specifically for AP. The principle is that context changes with time. Consequently organisations must constantly analyse context and ask themselves 'So what?', 'How does that affect what we are doing now, and in the future?'

Second, the shape, emphases and results of Air Power's employment in contemporary Irregular Warfare will be illustrated to highlight the broad spectrum of roles and utility of AP. The intent is to demonstrate with examples the diversity of AP roles planned for and employed, and thereby, to describe an alternative view of AP's utility in Irregular Warfare than might be widely recognised or understood, above all for Combat Air platforms.

Finally, conclusions will be drawn to challenge, in particular, the modern-day airman. It is imperative that we better understand AP's full contribution to contemporary operations and any risks associated with them before we expect our colleagues in the Joint environment to do so.

Part 1: Narrative and Modern Irregular Warfare

Introduction

Given the prominence of Irregular Warfare in both historical and contemporary experience one could be forgiven for wondering whether that which is currently called 'irregular' should actually become known as the 'regular' form of war. In modern military operations, the regularity of such 'wars amongst the people' also appears to be increasing.⁹ From early

in the 19th Century until 1980 almost half the violent international conflicts were so-called 'small wars', a subset of what is defined here as Irregular Warfare.¹⁰ A brief review of 'on-going' wars reveals that over 90% of recent and current conflicts could be categorised as 'irregular'.¹¹ For example, uniformed personnel deployed by the UN on peacekeeping missions for largely non-conventional scenarios, rose from approximately 48,000 in November 2001 to 81,000 by October 2006. The projected total for the end of 2006 was 83,500, which was expected to continue to rise at an 'alarming rate' in the coming years.¹²

To some, the apparent increase in non-conventional conflict is not a coincidence. The end of the Cold War in 1991 is said to herald the arrival of a Post-Ideological era of warfare, where the '...largely bi-polar ideological competition has been re-framed in a blend of ideology and belief-systems through an increasingly diffuse adversary set.'¹³

The 'Great Confrontation' of the Cold War could be viewed as a period of unrelenting Irregular Warfare. Military interventions to suppress or support irregular forces were justified on grounds of 'socialist solidarity or protecting democracy and human rights.'¹⁴ More recently, the removal of at least one half of the global-control mechanism between the 2 superpowers is said to have allowed the emergence of latent irregular conflicts; particularly in the Balkans and parts of Africa.¹⁵

Other analysts have explained recent military experience as the emergence of a 'Fourth Generation' of warfare (4GW).¹⁶ Although not without detractors, 4GW

is traced to the post-World War II period, as major powers attempted to retain their control over colonies and captured territories.¹⁷ Unable to withstand direct engagement with the conventional strength of their adversaries, 4GW irregular opponents use tactics of secrecy, terror, and confusion as part of a broad psychological, 'force-on-mind' approach to overcome the physical capability gap they face in the 'force-on-force' arena.¹⁸ Historical examples of 4GW would include Mao's concept of the People's war, The Intifada (I and II) in Palestine, and Ho Chi Minh's conduct in the Indochina Wars.¹⁹

Notwithstanding explanations of the enduring and apparently increasing prominence of irregular conflict, two implications are undeniable: Western armed forces must focus on, and learn from, their experiences in this form of warfare.²⁰ Unfortunately, the conservative nature of the military culture and an apparent focus on conventional conflict undermines the necessary adaptations.

Irregular warfare is a distraction from preparations for major conflict... and readiness for the big war is believed to ensure competence in the small war. For these and other reasons, military doctrine has maintained a division between 'real war' and [Irregular Warfare].²¹

A military ethos based principally in a conventional approach to conflict may well have ensured that we were prepared for a war, and preparing for the possibilities of future war, but in all likelihood, we have remained ill-prepared for the most prominent war. The stunning, conventional victory of Operation Iraqi Freedom in 2003 appears to confirm the former two;

the 'rude shock of the subsequent insurgency'²² appears to have underlined the latter.

Studying the past has a way of introducing humility...because it suggests the continuity of the problems we confront and the unoriginality of most of our solutions for them.²³

Despite being involved in predominantly non-conventional operations throughout almost its entire history²⁴, the RAF has seemingly failed to capture and retain the many lessons and 'best practice' identified from such experience.²⁵ Although now perhaps starting to change, modern UK AP doctrine offers only the briefest glimpses of the complexities of modern Irregular Warfare. Statements in emerging operational concepts suggest the need for 'agility across the spectrum of conflict' implying an acknowledgement of Regular as well as Irregular forms of warfare. However, such concepts fail to explain, to the same extent, the military implications and operational challenges of the latter.²⁶

The inability or unwillingness to identify and learn lessons from previous, similar experience has also been apparent in modern conflict. Perhaps the significant increase in urbanisation, technological advances in precision weaponry and Unmanned Aerial Vehicles, and the non-stop advances of instant global communications undermine any considerations of 80 year old AP solutions to contemporary irregular challenges. Yet, the continuities are more plentiful than are the changes. For example, in 1924 as the British Government attempted to quell rebellious tribes in Iraq, the High Commissioner Sir Henry Dobbs sent

the following guidance to his local Commander-in-Chief, and subsequently Marshal of the RAF, Sir John Salmond:

A situation may frequently arise in which the capture or killing of a specified offender or offenders would have a good effect, while the indiscriminate bombing of non-combatants associated with such offender or offenders would have a bad effect. The Air Forces are unable to select and identify with precision the persons who are to be the object of their attack or to affect a capture. They cannot distinguish between age and sex... If the Air Officer Commanding considers that he cannot secure the end at which I have asked him to aim by the use of ground forces with or without aerial demonstrations and that the dropping of bombs from the air is necessary, I then have to decide whether I should prefer to abandon the end indicated rather than to attempt to secure it by bombing.²⁷

The reason for the political guidance stemmed from an adverse Parliamentary reaction to the heavy casualties from recent Air and Land operations, which were 'not easily defended in the public eye'.²⁸ Some of the lessons from this historical experience are clear, endure today and can be found in extant military doctrine. For instance, the realities of political constraint on military actions that can and are driven by perceptions and consequent sensitivities to media portrayals of events; that military forces and their political masters must be seen to act precisely, proportionally, and with restraint; and the risks of 'bad' strategic outcomes potentially outweighing any prospective 'good' tactical outcomes from a military activity. However, other lessons are less obvious and are

perhaps of even greater significance today than before. For example, if otherwise legitimate, precise and justifiable military operations are poorly represented or explained in the public eye, it is less likely they will be understood and may ultimately undermine rather than support the political objectives.

This paper will illustrate that contemporary AP can and does deliver significant operational utility in Irregular Warfare, particularly when fully integrated with Land forces; an aspect of AP employment that has been repeatedly demonstrated throughout military aviation history. Moreover, it will be shown that Combat AP, perhaps the least well understood participant, delivers the operational advantages of speed, flexibility and apparent ubiquity predominately without resorting to destructive force. However, as will be explained through a description of the contemporary strategic context and the modern primacy of information, despite the clear operational utility of Combat Air platforms, their use as with all forms of military power can present risks if not carefully explained in the information environment through an effective engagement in the battle of narratives.

Contemporary Strategic Context

The contemporary strategic context has been dominated by 2 'epoch making' events. First, the end of the Cold War, which coincided with or energised the prominence of Irregular Warfare as discussed above; and second, the terrorist attacks against the American World Trade Centre on 11 September 2001, heralding the advent of what the US called the 'War on Terror'.²⁹ Nonetheless, within the apparent

flux of the modern conflict there are a number of enduring characteristics and established trends.³⁰

Unpredictability and the Tyranny of the Now

Warfare remains the province of uncertainty, an intrinsically human and thereby, unpredictable and diverse phenomenon. Contemporary military forces must focus on the 'tyranny' of the many irregular challenges immediately to hand. However, the 'tyranny of the now' cannot completely overshadow preparations for other, perhaps more conventional, potential confrontations and the ever present likelihood of strategic 'Shocks.'³¹

Tyranny of Constraint

The use of the 'minimum necessary force' is an enduring characteristic of Western war-making theory and doctrine. For modern Irregular Warfare it is a vital one.³² Constraint and proportionality must guide military actions as fundamental principles not only because they are founded in the Laws of Armed Conflict, but also to demonstrate the legitimacy of any military actions taken and the political intent directing them. Even under considerable provocation, when perhaps a more punitive, less restrained military response might have been called for in previous years, contemporary Western governments have constrained their military forces. For example, following the 9/11 terrorist attacks, Operation Enduring Freedom experienced very significant controls from the Coalitions' governments despite sometimes placing severe limitations on the command and control process, and created significant frustration for the local military commanders.³³

Globalisation, Primacy of Information and the Tyranny of Real Time

Globalisation has enhanced the mobility of resources, people and information, with a concomitant spread of wealth, multiculturalism and ideas.³⁴ In parallel, the emergence of global information technologies has enabled the real-time coverage of almost any act, no matter how small or significant, local or distant. In the contemporary context the primacy of information and the sensitivity of policy makers to it, stems from the speed of delivery, their inability to control any associated interpretations and the potential influence over perceptions and understanding of world events.³⁵ The broadcast of:

...heart-rending and visually striking anecdotes, and even the historically miniscule levels of casualties which Western forces now sustain have become neuralgic pressure points when distraught relatives routinely parade their grief in millions of living rooms around the world.³⁶

It is the ability of any act in the physical domain, as selected by media editors, to be immediately reflected in the global information domain that amplifies the event and proposed outcomes.³⁷ It is the potentially distorted amplification in the modern information realm that brings ever more pressure for constraint from military commanders and restraints placed upon them by their political masters.³⁸

However, the issue here is not just the constraint on activity, or how actions are ultimately perceived, but also the translation process: from the 'language' of the physical act to that of the informational realm. Every commander who has complained about negative

press coverage will know there are no controls over who translates either their activities into information or the narrative they attach to it. Similarly, there can be no control over who else seeks to influence that translation.³⁹

However, the misinterpretation of military affairs is by far a new problem. Military commanders and their political masters have long been aware of the importance of 'propaganda'. General Sir Frank Kitson characteristically noted in 1971 that:

*Firm reaction in the face of provocation may be twisted by clever propaganda in such a way that soldiers find the civilian population regarding their strength as brutality, and their direct and honest efforts at helping to restore order as the ridiculous blunderings of a herd of elephants.*⁴⁰

Rather, it is the primacy of information, the speed of its creation and transmission, and the battle of narratives subsumed within it, which must focus not only the political leadership but also the minds of contemporary military commanders. There will remain an element of conventional war making in all forms of conflict. However, as will be discussed in the next section, the competing narratives between irregular and regular opponents are at the heart of our ability to gain and maintain 'Campaign Authority'⁴¹ and establishing ourselves as the legitimate alternative to our adversaries. Through our actions, words and inactions we must not only capture the hearts of our target audiences, they must also convince their minds.

Narrative: It's the Story Stupid⁴²

In current UK doctrine, achieving and

maintaining perceptions of legitimacy and popular consent are considered part of establishing Campaign Authority. Such an objective has been recognised as a key endeavour for creating the necessary environmental conditions for success in modern warfare.⁴³ As with any political venture however, success is ultimately concerned with exerting your will over others through some means of influence. Whatever the means employed, our 'Influence Strategy'⁴⁴ for Irregular Warfare must convince the indigenous and wider audiences of our Campaign Authority; that we truly represent a 'Force for Good' and a legitimate alternative to the stark version of the world represented by our irregular opponents.⁴⁵ Equally, we must convince our adversaries there is more to be gained from 'good behaviour than bad.'⁴⁶

Campaign Authority and Trust

In any human interaction, achieving consent, a subjective construct based on perceptions and belief, is a function of trust.⁴⁷ In the perceptions of the relevant target audiences, where our actions demonstrate our 'benevolence', 'competence' to deliver security, and 'predictability'; and our words demonstrate 'transparency' and 'honesty', it has been proposed we would gain the required trust and consent.⁴⁸ By extension, such actions and words would support the achievement of Campaign Authority. Conversely, where our actions were perceived to be detrimental to the local population, personal security was deemed to be in near constant jeopardy, or their expectations of our actions were seldom met, the target audience would be unconvinced and unlikely to trust us.

However, as discussed earlier, it is not just our actions and words that are at

stake here, but also those of third-parties. The dynamic interplay of all parties' activities in the physical and information domains play a vital and interdependent role in achieving trust, consent and eventually, Campaign Authority. While controlling the activities of third parties, particularly in the information domain, is impossible to any practical extent, controlling our own activities and ensuring we explain ourselves adequately should not be.

Information Operations, Media Operations and Credible Explanations

One of the key criticisms of Western military forces in recent conflict is the emphasis placed on physical actions and an insufficient explanation of the rationale behind them in the information arena.⁴⁹ Military Information Operations⁵⁰ essentially focus on an adversary, the degradation of their will, decision making and associated information systems, and the simultaneous protection of the same for friendly forces. Consequently, the responsibility to represent military activities in the public domain falls to Military Media Operations⁵¹, which although often timely and accurate have been described as too 'clinical'⁵², and can be overly focussed on the tactical use of force. For example, media depictions of Combat AP activities are often concerned only with destructive engagements as seen through an officially released cockpit video for example.⁵³ Official media broadcasts of AP's employment are accompanied by unclassified scripts that highlight aspects such as military targeting procedures and precision munitions, both aimed at minimising collateral damage, and the adherence to given rules of engagement.

In general [during the conflict against Hezbollah in the summer of 2006], Israel endeavoured to keep its military actions proportionate to the threat in legal terms. However, the Law of Armed Conflict does not shape perceptions nor shape extant international value judgements.⁵⁴

Where a given military activity is accompanied with convincing images and narrative describing the threat posed by the target for example, as well as the restraint shown in the engagement, our explanations may become more compelling. Whilst the observance and description of mandated constraints are necessary features of our demonstrable legitimacy, in the absence of other credible explanations that engage and persuade the target audiences, they are not sufficient.

Narratives to Neutralise Conventional Asymmetry

Contemporary irregular opponents have been described as viewing the information realm as the key battleground.⁵⁵ As such, exploiting opportunities in the information domain becomes the vital part of irregular forces' Influence Strategy, as defined here.⁵⁶ The use of physical acts of violence becomes merely a means to coerce opponents indirectly, through information and the fear and uncertainty it can create. The enhanced sensitivity of Western audiences and their governments is manipulated to produce negative attitudes towards the apparent chances of success. Any media coverage of alleged atrocities or mistakes of the regular military forces are magnified by the narratives broadcast by irregulars and can have further disproportionate impacts on opinion.⁵⁷ Thus, the aim for the irregular is to indirectly neutralise the physical advantages



Israel launched a series of bombing raids into Lebanon after Hezbollah forces crossed into Israel, killing three soldiers and abducting two more, a move the Israeli prime minister called an ‘act of war’

the conventional opponent holds through the power of information over perceptions, opinions and ultimately political decision-makers.

The recent 2006 Israeli-Hezbollah conflict provided evidence of the importance of an effective delivery of information and engagement in the ‘battle of narratives’ rather than an almost exclusive focus on military activities in isolation.

As the Israeli Air Campaign continued to escalate against targets that were militarily valid but that sometimes involved high levels of collateral damage and uncertain tactical and military effect [their media information systems were] ineffective and often unintelligible. [Moreover, the delivered Israeli narrative of events] failed to explain the scale of the Hezbollah threat in defending its actions and did nothing to diminish the victim status of their irregular opponents.⁵⁸

The regional and international populations were also ‘bombarded’ by a vivid counter-Israeli narrative, in

part instigated by the political arm of Hezbollah as well as the Palestinian authorities. Though the outcome of the conflict was undoubtedly affected by more than just the narrative battle, anti-Israeli military rhetoric quickly dominated the propaganda interchange. Whilst the Israeli government saw the departure of its Defence Chief, and commenced special investigations into what went wrong; the reputation and Campaign Authority of its military forces have also been damaged.⁵⁹

The apparent mismatch of Western military forces’ focus on physical activities and the adversaries’ primary attention to information-based activities may be a significant weakness in contemporary Western Irregular Warfare strategy.

The effect insurgents have on the information environment is comparable to the ripples that dropping a large stone into a lake causes. Long after the stone has hit the bottom, the residual effects expand in all directions, are difficult to stop, and ultimately crash into the banks of the lake. Current U.S. counterinsurgency strategy focuses on the splash of the stone (the Physical Environment), and not enough on stopping the ripples (the Information Environment) before they reach the bank - the enemy’s strategic Physical Environment objective.⁶⁰

Clearly it would be imprudent to enter into public debate concerning all aspects of military operations, such as our limitations and constraints, for fear that adversaries would identify opportunities to abuse them. However, the reluctance to engage in almost any effective debate or explanations about, for example, our perceptions of the

threat and the consequent courses of action taken, allows others to interpret our actions for us. Moreover, if the unopposed third-party interpretation is delivered with an adversarial narrative it may undermine the perceptions of our actions and potentially reduces trust, which erodes the very Campaign Authority we seek to achieve.

Mobilising Narratives

Finally, unfettered exposure to a one-sided narrative, such as portrayals of apparently 'disproportionate' collateral damage caused by AP, can also present other more strategically diffuse security concerns.⁶¹ Diasporas within Western communities can be radicalised through the power of such messages, recruited to irregular causes and even conduct terrorist acts, both on domestic ground such as the July 2005 London bombings⁶², or further afield.

*Convicted Bali bomber Imam Samudra, when asked for reasons why he had helped plan and execute the attack that killed 202 civilians in Bali, mainly Australians, replied that it had partly been in response to the thousands of [collateral] Afghan civilian deaths that had been caused by Operation Enduring Freedom in October 2001.*⁶³

Mobilising narratives can be viewed as a rationale that enables irregulars to offer potential recruits an explanation for any felt grievances. Similarly, misinterpretations of ideologies have provided justification for illicit and terrorist acts.⁶⁴

Thus, the irregular opponent through effective use of narrative can, not only neutralise our endeavours in the physical realm, but also negate our Campaign Authority in the informational realm of perceptions. In addition, an

effective narrative can mobilise latent support, drawing sustenance for irregular organisations. If the irregulars' interpretation of events is to be revealed for its true substance, it is essential that we enter the 'narrative Battlespace' in the virtual or informational realm with the same vigour and precision that we attempt to use in the physical domain.⁶⁵ Clearly, not all parties will be convinced by our narrative. However, without an effective counter-narrative and overarching Influence Strategy, public opinion may rest principally in the hands of media interpretations and the narratives of our adversaries.

Implications for Military Operations

The implications for military operations from the broad and interrelated issues described above are both numerous and complex. In the interests of space however, only 3 will be briefly discussed here: first, the implications of uncertainty and 'force balance'⁶⁶; second, the military contribution to the envisaged counter-narrative and Influence Strategy; and third, the increasing importance of intelligence, surveillance and reconnaissance (ISR) capabilities in modern Irregular Warfare.

Uncertainty and Force Balance

Choices concerning an acceptable force balance to meet current and future challenges are made based on a myriad of factors, not least available resources and assessments of the most likely and most dangerous courses of action by potential adversaries. However, the rate of change in the strategic context, particularly in the last 2 decades, and the length of modern procurement cycles can bring earlier decisions concerning the delivered military make-up into question. Nonetheless, in the words of the former US Secretary of Defense, Donald

Rumsfeld, and as has been the case throughout military experience, 'you go to war with the Army you've got... not the Army you might want or wish to have at a later time.'⁶⁷

In contemporary operations regular militaries must use the force balance available to the best of their abilities. Where, as is the case today, the forces were procured more for conventional operations, but are facing irregular challenges, risks may have to be taken and their employment may need to be non-conventional. As we shall see in Part 2 of this paper, in the case of Combat AP there is evidence that this is already happening to useful operational effect.

Military Operations and the Contribution to Counter Narrative

Where attaining Campaign Authority is the focus of a successful Influence Strategy, all operations, civil and military, must be coherent with the chosen counter-narrative. However, as described for the recent Israeli experiences, an Influence Strategy is made up of coherent actions and explanations, a physical and virtual language, which must enhance the perceptions of our intent, convince allies and neutrals of our legitimacy, and coerce opponents toward desired behaviour.

Military Precision and Available Means

In military doctrine frequent mention is made of the need for precision in military targeting to demonstrate and enhance our legitimacy. The imperative for precision is also underlined for the employment of Combat AP in modern Irregular Warfare.⁶⁸ However, precision is generally only discussed in association with the discriminate and accurate delivery of lethal force.⁶⁹ The delivery of precise destruction demands that enormous endeavours are undertaken to reduce the inevitable risk of

collateral damage to the maximum extent practicable.⁷⁰ But even the damage caused on the authorised target, however small, may be rapidly transmitted throughout the global information realm, with or without negative interpretation by irregular adversaries. Moreover, the legitimacy we seek through discrimination and accuracy need not relate solely to destructive means. For example, if we seek to disrupt or deter belligerent behaviour, the timely arrival and/or presence of military forces can and has been sufficient.⁷¹ Thus, where a range of means are available to achieve a desired effect, precision now becomes a function of discriminating the potential target, and accurately applying the most appropriate means, be that destructive force or otherwise.

Revolution of Rising Expectations

An ability to achieve precision, in itself, will create rising expectations that it will be achieved. As our ability to employ more precise means increases and collateral damage levels fall, so the threshold of that which will be deemed 'acceptable' will necessarily fall. Accidents, for example, that may have previously passed unnoticed or been more readily excused become unacceptable. Add the modern amplifying effect of the real-time, global media glare and there can be said to be a contemporary revolution in rising expectations of greater discrimination and lower collateral damage.

Time-Sensitive vs

Mission-Sensitive Targeting

The apparent focus on lethal precision is also often accompanied with an emphasis on the need for speed in reaction and delivery, for example through so-called 'time-sensitive targeting'.⁷² Modern operations, enabled by sophisticated communication and networking

technology, can shorten the time from detecting a potential target and delivering a response with unprecedented concision. Whilst the validity of shaving seconds from an activity performed in a war that will last years has been questioned by scholars and military academics,⁷³ a key issue should be to ensure there is time for 'judgement'.⁷⁴ Questions of the likely impact on the broader, strategic mission must be weighed against the often more tactical imperatives associated with targeting. Where potentially rapid and precise lethal actions, can be nonetheless portrayed negatively on a wider scale we risk undermining our legitimacy at the strategic level. In Irregular Warfare, 'mission-sensitive targeting' may be a more appropriate focus than the time-sensitive variant mentioned above.⁷⁵

Contribution to Counter Narrative

The inference here is not that destructive force can never be justified, or that military commanders must 'walk on eggshells unable to act for fear of bad press'.⁷⁶ Equally, it is not being proposed that lethal capabilities that will allow commanders to seize opportunities against useful, but often fleeting targets, have no lasting utility in contemporary irregular operations. But rather that due consideration must be given to the range of means available to achieve a given end. Moreover, due deliberation must be given to how actions in the tactical arena might be understood in the wider domain from all perspectives; what necessary information actions might be required to mitigate any possible negative impact, or enhance the positive ones; and fundamentally therefore, how the actions might impact the overarching military mission of legitimacy and Campaign Authority.⁷⁷

Clearly, the need to weigh up numerous, perhaps subjective factors in the minds

of commanders can consume time and reduce 'tempo'.⁷⁸ Traditional military doctrine emphasises the need for achieving greater tempo than our adversaries, initially to pre-empt any actions taken by them and ultimately to paralyse the opponent as they become overwhelmed by the relative speed of our actions. However, the greater speed described in the conventional understanding of tempo risks overemphasising physical actions against adversaries and underplaying the need for wider considerations in the narrative Battlespace of, for example the perceptions of allies and neutrals.

Thus, military operations will support a successful Influence Strategy through an understanding of the balance of risks, an intelligent use of appropriate means and tempo, and sufficient explanation or accompanying counter-narrative. Furthermore, where the simultaneous achievement of tactical objectives and the maintenance of demonstrable legitimacy are deemed to be unlikely, commanders may have to overrule the use of force except in the most extreme circumstances. In the words of a current senior RAF commander,

*Airmen must manage the risks and NOT be afraid to take operationally necessary ones. Nonetheless, whilst the use of force is not necessarily the last resort, it must always be the most cerebral one.*⁷⁹

From Overwhelming Force toward Overwhelming ISR

Thus, in Irregular Warfare, precision becomes knowing that there are a range of means available to achieve a given end, and the intelligence (in both senses) to know when, where and why to use them and then how to explain actions taken.⁸⁰

Traditional Irregular Warfare doctrines describe, among other objectives, the need to reduce the freedom of manoeuvre of the adversary, to 'drain the swamp'.⁸¹ Most frequently, the physical freedom of manoeuvre is considered in relation to the precise targeting of communications and support infrastructures, key individuals and storage facilities for example. In this context, the ability to be accurate and discriminate in your actions requires that you can find and identify a target, track its movement where appropriate and then be able to bring appropriate means to bear. However, as is increasingly acknowledged in contemporary military operations, detection, discrimination and tracking are onerous tasks, particularly in urban areas, placing an enormous emphasis on the capabilities of guiding reconnaissance and surveillance support, data exploitation and intelligence dissemination networks.

However, in the contemporary context as described here, the irregular opponent must be denied freedom-of-manoeuve in the information domain as well. As many of the illicit actions as possible that are undertaken by the irregular must be seen, explained and exposed.⁸² Much of the misinterpretations of friendly activities, world events or ideologies through global and local media channels need to be detected, rebutted and legitimate alternatives offered, thereby denying the irregular adversary the strategic impact he seeks through the narrative war. This places another very significant task on the civil and military intelligence services and their information counterparts.

Thus the need for physical and virtual precision in our counter-narrative, places considerable emphasis on not only our military surveillance and reconnaissance capabilities (in the physical and

information domains) but also on an all-source, inter-agency, intelligence, processing and dissemination infrastructure. In such an environment, the more traditional emphasis on achieving 'overwhelming force' in military operations might need to be balanced with the additional need for 'overwhelming ISR' in the contemporary irregular fight.



F/A-18C Hornets fly over the USS Enterprise during Operation Southern Watch

Part 2: Combat Air Power, Narrative and Modern Irregular Warfare

Introduction

In the modern context, the achievement and maintenance of Campaign Authority have been described in Part 1 as centring on factors such as perception, legitimacy and trust. The military implications include the need to act with mission-sensitivity, while explaining our actions effectively and exposing those of our opponents. In turn, the judgement, precision and restraint demanded of contemporary military

commanders have underlined the need for intelligence, both informational and cerebral. Against this foundation, the contribution made by, primarily Combat AP to the 3 interrelated issues of restraint, precision, and intelligence will be described here before briefly reviewing the relevance of more conventional AP roles to contemporary irregular operations.

The details and methodology used to create an empirical database, which is at the heart of much of the analysis behind the tabulated data presented in this and the subsequent major section, is beyond the scope and classification of this paper.⁸³ The database includes thousands of missions spanning non-lethal, non-kinetic and kinetic Combat AP activity in conjunction with contemporary ground operations from several real-world Theatres of operations during randomly selected but consecutive 3 month periods of 2005/6. The results or effects of the Air activity held in the database and therefore the conclusions drawn in this analysis were derived largely from the views of the soldiers and their commanders involved.⁸⁴

Restraint

Our ability to achieve desired effects without resorting to destructive force may not only enhance the perceptions of our activities and intent, but also our legitimacy. The aim here therefore, is to examine the tasking of Combat AP when employed in conjunction with Contemporary Land operations.

Extant UK AP doctrine identifies 6 Core Air and Space Roles.⁸⁵ Of these the actual employment of Combat AP could be categorised predominantly within Integrated Air Operations (IAO). Table 1 illustrates the range of tasks⁸⁶ performed

by Combat AP within the IAO role⁸⁷ across 3 distinct types of employment: kinetic, non-kinetic and non-lethal activities.⁸⁸

The most striking aspect of these statistics is that during the study samples 78% of all Combat AP sorties conducted, did not use their available destructive potential performing non-kinetic tasks only, and less than 1% of sorties resulted in the employment of destructive means. The dominance of non-kinetic activities and the almost total absence of kinetic employment is perhaps all the more surprising when considered in the light of the more virulent media coverage of Combat AP's use, as will be discussed again later. Nonetheless, if restraint is a necessary part of legitimacy those commanders controlling AP's employment appear to understand it.

Ultimately, the use of any military power must achieve the required outcomes whether restrained or not. To some, the lack of destructive employment may appear to undermine the case for the cost-effectiveness of Combat AP. However, it is the contention here that an activity, as set by the ground commander in the cases considered here, which achieves its aim precisely and without the use of destructive force is more likely to enhance and support the Campaign Authority of friendly forces than where the reverse is true, all other things being equal. Moreover, where the outcome desired is deterrence or disruption and a non-kinetic means is employed, the deterrent or disruptive effect more likely to be achieved where the belligerent being targeted perceives a credible threat. In other words, a SHoF conducted by an Air Transport platform, for example, unable to kinetically

destroy the target is unlikely to deter as effectively as the aircraft expected to be carrying weapons, such as a Combat Air platform.

Combat AP Employment (Type & Role)		Role Sub-Totals	Type
Type	Role:IAO - Tasks	%	%
Non-Lethal	EW	17	21
	Information Relay	4	
Non-Kinetic	Armed Recce (incl NT ISR)	52	78
	Armed Escort	1	
	Air Presence	4	
	SHoF	21	
Kinetic	Ordnance Employment	1	1

Table 1: Combat AP Range of Tasks Performed by 'Type' and 'Role' – Integrated Air Operations (IAO) – in Contemporary Irregular Warfare (Source: Combat AP Joint Effects Database)

Precision

Precision lethality is a well documented feature of modern Combat AP and will not be further annotated in this paper. The ability to destroy targets with minimal ordnance and collateral damage is a clear aspect of demonstrable proportionality and thereby, legitimacy. However, precision in the modern context has been described in Part 1 of this paper to require a range of means, destructive and non-destructive, which if accurately applied might deliver a given desired outcome.

An examination of the broad spectrum of variables that might constitute the profile of Combat AP mission begins to illuminate the flexible potential of this military instrument and the precision with which it can and has been applied. Although only an example, the key here is to understand that the many

variables shown at Figure 1, such as 'purpose', altitude 'profile', 'posture', can not only be varied by mission to achieve a specific outcome, they can be dynamically varied on each pass over the target. A Combat Air Platform can loiter within audible and/or visual range with suitable height ('medium low' altitude profile shown at Figure 1) to act as a deterrent to belligerents and, simultaneously, reassure the local population that it is 'safe to vote at the democratic elections', for example.⁸⁹ Equally, for a more discrete operation the aircraft can be held at sufficient range to both respond in required timescales without having been seen or heard and, with the appropriate sensors, deliver an intelligence feed to the on-scene commander in real-time.



Figure 1: Example of Combat AP Spectrum of Employment or Language of Means in support of (iso) an Influence Strategy. (Source: Combat AP Joint Effects Database)

Thus, the ground situation can and does directly and dynamically determine the manner in which the Air asset is employed through judicious use of the range of options available. The spectrum of Combat AP means is now shown to stretch from non-aggressive, re-assuring Air Presence tasks, though more threatening Shows of Force (SHoF) to the infrequently used destructive

potential. Insofar as we communicate our intentions as much by our physical activity and inactivity as by what we say, this AP spectrum of means becomes a physical language of means available to support the desired Influence Strategy. Where we seek to convey reassurance to one target audience and coercive pressure upon another, the posture, profile and presence of the means employed need only be varied accordingly. Given the range and speed of Combat Air platforms this can offer the Joint Commander a responsive and flexible, wide-area instrument to support desired effects or outcomes. Moreover, dynamically exploiting this spectrum could offer considerable precision to the on-scene commander if applied intelligently.

Before continuing the 'intelligence' contribution of Combat AP it would be useful to review the degree to which the platforms are re-tasked once airborne and into what alternative mission types and tasks. An examination of the 'airborne re-tasking' statistics from the after-action reports of ground commanders and aircrews involved,

Table 2: Combat AP Airborne Missions Re-Tasks by 'Type' and 'Role.' (Source: Combat AP Joint Effects Database)

Airborne (Re-) Tasked Mission Averages by Combat AP Employed (Type/ Role)		Sorties on Mission	Sorties Re-Task	Kinetic Re-Task
Type	Role:AO - Tasks	%	%	%
Non-Lethal	Electrical Warfare (EW)	99	1	0
	Information Relay	14	86	0
Non-Kinetic	Armed Recce (incl Non-Traditional ISR)	42	58	1
	Armed Escort	1	99	1
	Air Presence	11	89	3
	Show of Force (SHoF)	98	2	2
Kinetic	Ordnance Employment	88	12	

summarised at Table 2, suggests that this is a prevalent aspect of Combat AP's integration with Land operations.

Table 2 describes the degree to which Combat Air platforms are re-tasked during a given mission. For example, Armed Reconnaissance missions for Combat AP are not only a significant task overall (>50% of total activity, from Table 1), but also a particularly dynamic one with over 58% of tasked missions being re-tasked to other activities once airborne.

Unsurprisingly given the tiny proportion of kinetic missions overall (<1% of the total at Table 1), there are very few kinetic re-tasks for Non-Lethal and Non-Kinetic sorties once airborne (<2% of the total number of the missions shown at Table 2). Equally, given the usually specialised nature of the Air platforms involved, very few of the EW sorties are re-tasked dynamically (<1% shown at Table 2). However, the Non-Kinetic missions are frequently given alternative tasks once airborne as may be expected given the nature of the tasks involved. Table 3 examines the frequency and type of airborne re-tasks specifically applied to the employment of planned Armed Reconnaissance missions (Armed Recce is re-tasked on approximately 60% of occasions). Either, using their own sensors, the Combat Air platforms involved detect potential targets and immediately interface with ground commanders to relay the information (42% of Armed Recce airborne re-tasks shown at Table 3), and/or they can be ordered to perform the wide variety of 'Air Presence' and SHoF profiles described above, against the same or other nominated targets (>50% of Armed Recce airborne re-tasks shown at Table 3).⁹⁰

Armed Reconnaissance Missions		Airborne Re-Tasked Armed Reconnaissance Missions		Re-Task (Avg.)
Type	Role/ATO - Tasks	Type	New Tasks	%
Non-Kinetic	Armed Recce (incl NT ISR)	Non-Lethal	EIV	1
			Information Relay	42
		Non-Kinetic	Armed Escort	1
			Air Presence	7
			SHoF	48
Kinetic	Ordnance Employment	1		

Table 3: Airborne Re-Tasked Armed Reconnaissance Missions. (Source: Combat AP Joint Effects Database)

Therefore, contemporary experience suggests Combat AP not only offers flexibility and precision across a range of means, but is frequently used as such with significant numbers of sorties being employed across a variety of airborne missions. Furthermore, when fully integrated with the Land element, the activities of the Air platform can be tuned to requirements of the ground situation.

Intelligence

Accurate and timely intelligence that increases the commander’s understanding or ‘resolution’ of his environment is of prime importance to all warfare not just irregular forms. The ostensibly restrained, flexible and potentially precise nature of Combat AP employment described above fundamentally rests on the decision makers involved receiving the information they need, when they need it. Air Power platforms have proven to be remarkably useful in this regard both in terms of their traditional and non-traditional employment for ISR purposes, and their ability to cross-cue vital information to other systems in near or actual real-time.⁹¹

Environmental Resolution: Traditional and Non-Traditional ISR

The traditional ISR tasks for Combat platforms include Armed Reconnaissance and Tactical Reconnaissance.⁹² In contemporary

operations, the reaction to any located target is generally completed with or instigated by a ground commander. As described earlier, in modern, non-conventional operations, once Combat platforms have relayed the target information they can be called upon to complete additional, kinetic or more frequently, non-kinetic tasks such as Air Presence or a SHoF to maintain contact and/or pressure on the target until another agency can respond more directly.

In recent experience, the use of non-specialist Air assets in the conduct of Non Traditional ISR (NT ISR) has emerged as an evolving capability.⁹³ NT ISR tasks are conducted primarily by Combat Air platforms, taking advantage of spare capacity with on-board sensors (including the ‘Mk 1 eyeball’) to provide imagery intelligence to other agencies or even simple radio transmissions to confirm target details.

Although yet to be formalised in doctrine, the NT ISR process has become an integral part of the information collection process and is normally conducted alongside the formal ISR collection management process using common procedures where appropriate. The key feature here however, is that NT ISR collection requests are fulfilled by an NT ISR capable platform whilst transiting to, from, or holding overhead, an operating area. By refining the areas over which these assets fly, it is possible to combine a primary mission, for example providing Air Presence, SHoF or even kinetic Close Air Support cover to Land operations, while conducting pre-planned NT ISR tasks. The priorities for pre-planned or opportunity NT ISR tasks can be set in response to a Land Commander’s Air Support Request, and

can be dynamically managed through the appropriate Air/Land integration cells or the on-scene commander with his supporting Tactical Air Controller.

The benefits of the additional, non-traditional source of environmental resolution are evident. However, it is important to stress that the lack of specialisation in some of the equipment used in the NT ISR task can lead to, for example, lower imagery definition than would be produced by a specialist sensor. In addition, the inability to manipulate data in flight or conduct post-mission analysis of the same can limit the utility of this capability. Nonetheless, the dynamic multi-tasking of Combat AP in both target response and detection roles is a key advantage of these Air vehicles; an advantage that perhaps becomes unique when considered with the range and speed over which such capabilities can be applied.⁹⁴

*Information Force Multiplier:
Cross-Cue Data Link*

The relay of information, often in real-time, has immediate relevance and benefit to the operational commanders. In addition, this is probably one of the most valuable global contributions made by Combat AP to Land operations in contemporary irregular warfare. Where previously Land units might have had to deploy numerous ground elements to patrol and detect belligerent activity, it is possible to employ Air support to lessen this burden.

Whilst the technology involved like that associated with NT ISR is far from a panacea, when integrated adequately in the planning of Joint military operations, it can add significant useful resolution and also mitigate the operational

risks associated with low Land Force density. For example, Space-based and other non-Combat Air platforms that can detect movement, patterns of life and changes, alongside their non-traditional counterparts with their capability to detect and react to targets, offer a considerable ISR armoury to complement the Land effort; again, particularly when considered against the apparent ubiquity and persistence of modern Air systems.

Conventional Air Power Roles: Rapid Global Mobility and Control of the Air

Before completing this section, it is worth briefly tackling the broader relevance of AP to contemporary operations through 2, more conventional roles: 'Rapid Global Mobility' and 'Control of the Air.'

Rapid Global Mobility

The global reach of AP, particularly when combined with tactical Air transport and Support helicopters, underpins the capability for a rapid concentration and sustainment of potentially massive firepower at strategic range. In so doing, AP can enable not only a potentially smaller Land footprint but also bring coercive pressure to bear on an adversary without unduly raising the risks to own forces. The force-multiplying effect of AP delivered by platforms from outside the Theatre of operations, for the relatively small number of Special Forces in Afghanistan, would be a recent example.⁹⁵ Equally, with Strategic Airlift capabilities available light Land forces can be rapidly deployed, potentially deterring further aggression; or an established expeditionary force can be sustained without the need for excessive exposure to surface threats.

However, a less traditional perspective on the ability to rapidly employ AP on a global scale also highlights aspects that may be pertinent to our desire to support a successful Influence Strategy. ISR assets, particularly the unmanned variants, enjoy the type of range and persistence that allows their use for potentially coercive purposes. It was stated earlier that a successful Influence Strategy should not only place appropriate emphasis on judgement in the use of force and the need to explain our activities, but also expose the activities of our adversaries. An early deployment of suitable ISR means, perhaps with stand-off from their actual target, in the full glare of world opinion could bring significant pressure to bear on adversary decision-makers and strengthen our counter-narrative through the provision of useful evidence.⁹⁶ As such, the Rapid Global Mobility of ISR can be viewed as providing Coercive ISR'. Moreover, such coercion underlines AP's ability to be employed as a 'Force-on-Mind' capability, which does not have to be restricted to purely tactical engagements using kinetic or non-kinetic force.⁹⁷

Finally, intentions are also harder to portray as ominous when global mobility forces are employed to bring food, clothing, and medical supplies to indigenous populations facing natural disasters. Equally, where civilian populations are in peril, the ability to evacuate them with extraordinary speed can further underline positive perceptions.

During November 2004, the UK needed to mount a short-notice Non-combatant Evacuation Op in the Ivory Coast. From conception to execution took 5 days...By the time all aircraft and personnel had

returned to the UK...In total some 212 individuals were evacuated to [a place of safety].⁹⁸

Humanitarian efforts, although usually called for only in the face of unforeseen events that clearly cannot be created to suit, when supported by rapid Air and Sea strategic mobility provide significant support to our counter-narrative strategy. In addition, they can undermine the corrosive attempts by modern adversaries to misconstrue our actions.

Control of the Air

The UK AP principal Standing Home Commitment Military Task is the protection of UK sovereignty and security at home. The UK Airspace Security task objective is 'to provide a continuous Recognised Air Picture (RAP) and an Air Policing capability, providing for the interception and possible destruction of rogue and hostile aircraft, to maintain the integrity of the UK's airspace'.⁹⁹

For western nations, the counter-air role surely continues to deserve its classic doctrinal primacy, in the new context of ensuring that nothing like September 11th happens again. Hi-jacked airliners are only one potential means by which adversaries could exploit the enormous reach and destructive power of air vehicles – combat aircraft and cruise or ballistic missiles could be just as effective, especially if armed with the weapons of mass destruction around which so many fears currently revolve. Air defences need to reach an unprecedented level of effectiveness if they are to move beyond their historical achievement of imposing unacceptable marginal attrition on attacking forces, and to provide instead a near perfect shield against strikes which

*might come at any time and in any form.*¹⁰⁰

With such a National task, the relevance, priority and utility of Combat AP can be unquestioned. However, the Control of the Air implied in the Standing Home Commitment has equal applicability to the support of contemporary operations overseas as it does in UK sovereign airspace.¹⁰¹ The use of rogue aircraft tactics is an equally likely prospect against national interests overseas, including friendly military forces, as it is at home. The use of Combat AP platforms in the myriad of roles already described which are also capable of dynamically reacting to the hostile use of civilian aircraft presents yet another dimension to their operational utility.

Effectiveness of Combat AP

Notwithstanding the restrained, flexible and potentially accurate nature of Combat AP, if it does not produce the required outcome, it cannot be seen as effective. Without tangible, discernible outcomes from the application of the capability, question marks over its relevance and utility will persist.

Exactly as discussed earlier, much of the concern over Combat AP's role in Irregular Warfare centres on concerns over demonstrable legitimacy through perceptions of a disproportionate use of destructive force. In October 2002, a Times correspondent wrote of the rising resentment across the Moslem world following the perceived indiscriminate use of Combat AP in Afghanistan:

We want no nonsense about precision weapons and surgical strikes... Aerial bombardment is never proportionate, measured or targeted. It has evolved a

*logic of its own, an escalation of horror similar to that unleashed by the terrorist. Like all distant and indiscriminate violence, it breeds a violent response. It is the dumbest weapon of war. At present the bombing is likely to increase anti-western hysteria in the Middle-East...*¹⁰²

The article was later corrected by the correspondent in the light of the rapid conclusion of hostilities, and the subsequent explanations of the operations that had taken place. Indeed, the operations became widely acclaimed and underlined the highly effective contribution of precision AP supporting the relatively small number of ground troops in the removal of the Taliban regime. Nonetheless, it exemplifies the manner in which AP activities can be misperceived, poorly represented and therefore, often misunderstood. In addition, it also demonstrates how to correct misrepresentation through achieving a successful outcome, ensuring an effective engagement in the argument and the provision of credible explanations for the battle of the narratives.

The evidence presented earlier suggests that kinetic power is most often withheld in contemporary operations and that considerably more effort is expended using the non-lethal and non-kinetic prowess of Combat Air platforms. Even if the statistics are a reflection of nothing more than a reluctance to use kinetic force, this still leaves unanswered the question of the effectiveness of the non-destructive activities. Moreover, if the latter can be shown to produce tangible results, then military commanders could more explicitly consider, employ and explain such AP techniques in operations against irregular opponents.

The data available for this paper will be presented in 2 arenas: the apparent operational utility and efficacy of non-destructive Combat AP use, and the potential impact of ineffective engagement in the Information Domain to fully explain the same.

Operational Utility

For the purposes of the analysis completed here only discernible or reportable outcomes were recorded as positive results. For example, where a ground commander requested a SHoF and could determine to their satisfaction that the ongoing belligerent activity had ceased as a result, a positive 'Disrupted' effect would have been recorded. However, where during an Armed Escort task for example, the convoy being escorted was not attacked and in the minds of the convoy commander or their Tactical Air Control Party (TACP) this could not necessarily be attributed to the assumed 'Deterrent' presence of the Combat AP an uncertain outcome was recorded. Equally, if for example an escort aircraft re-tasked with SHoF passes over a nominated target had been unable to complete it, a negative outcome was recorded.¹⁰³

Although not discussed individually here, all positive missions were categorised as having achieved 1 of 4 effects: Detected, Deterred, Disrupted or Destroyed.¹⁰⁴ Table 4 summarises the available data for Combat AP missions that were reported to have achieved 1 or more of the 4 positive, discernible tactical outcomes. The results thus presented at Table 4, neither intend to prove causality between a given task and outcome nor establish rigorous statistical correlation that might be used to predict accurately future outcomes. Rather it is proposed that where a

positive outcome has been discerned once it may be again, and where this occurs on sufficient occasions it becomes worthy of note and further investigation.

Discernible Tactical Outcome by Combat AP Employed (Type/ Role)		Task Effect	Type Effect (Ave)
Type	Role:IAO - Tasks	%	%
Non-Lethal	EW	4	20
	Information Relay	30	
Non-Kinetic	Armed Recce (incl NT ISR)	40	30
	Armed Escort	20	
	Air Presence	3	
	SHoF	60	
Kinetic	Ordnance Employment	90	

Table 4: Discernible Tactical Outcomes for the Employment of Combat AP by 'Type' and 'Role: IAO - Tasks' (all data to 1 significant figure). (Source: Combat AP Joint Effects Database)

From Table 4 it is apparent that whilst all Combat AP activities have greater than zero discernible tactical effects, those associated with SHoF and Ordnance Employment have the greatest percentage of positive outcomes (shown as 'Task Effect' at Table 4). However, such a conclusion could probably be predicted given that these activities are the most integrated with the Land element, generally focused against a specific incident or target of interest, which would allow the observer to have an obvious steady state to measure any changes against. Consequently, any positive outcomes would not only be more readily discernible, there would usually be people there to watch for them. Although this is less likely to be the case for the other non-destructive mission types, several of the non-

destructive activities also had sufficient impact on their environment for these to be recorded by the ground commander concerned (seen as >20% discernible, positive outcomes for the Non-Lethal and Non-Kinetic Types of mission at Table 4), as will be discussed further shortly.

Armed Reconnaissance, described earlier as one of the more dynamic and flexible activities is also one that apparently delivers useful outcomes. For example, through its principle mission of 'Detection', and the re-tasking categories shown at Table 3 covering all 3 types of employment, Armed Reconnaissance missions achieved a mixture of all 4 outcome categories on approximately 40 percent of all missions analysed.

Other non-destructive activities, such as EW missions or Air Presence in Table 4, appear to have almost no discernible tactical outcomes. However, when the nature of the tasks involved and their likely flight profiles are considered, it is perhaps surprising that any positive outcomes are recorded at all. Looking at Air Presence for example, the chance that a tactical Land commander can associate these broader ranging activities with any specific, tactical event is difficult to explain. However, 2 other aspects need to be considered: first, the outcomes of the re-tasked missions for Air Presence sorties, which are as varied as those shown for Armed Reconnaissance; and the need for a higher level perspective of this mission. The following overview of the use of Air Presence to support the Democratic Election Process in Afghanistan October 2005, serves as an example of the greater clarity that can be gained for the operational utility and effectiveness of some Combat AP activities only from a broader viewpoint.

During the Spring of 2004, the Combined Joint Task Force-76 (CJTF-76) worked closely with a number of Air planners to use Air Presence missions to support the Land operations against the anti-coalition militia and preparations for the forthcoming elections. The aims of the Presence missions were three-fold: provide force protection (FP) to friendly forces in their operating areas, pressurise the militia forces by keeping an Air Patrol over them, and to offer a level of 'reassurance' to the local civil populace during the build-up to the democratic elections.¹⁰⁵



Figure 2: Combat Air Patrol – Air Presence and SHoF – Routes for Afghanistan Election 2004 (taken from Field Artillery 2005)

During planning it became clear that the FP of friendly forces would require aircraft to operate over unpopulated areas and would require a careful allocation of assets to maximize the required coverage and an equally careful selection of Combat Air patrolling points to meet the required reaction times for the various objectives. Simultaneously, Combat Air Presence missions would be required over the populated areas.

The compromise selected was the nomination of Air Patrolling points

and connecting Air Presence routes (see Figure 2). Minimum operating altitudes were set for different aircraft with maximum Presence time limits to ensure that whilst the visual and audible presence might be felt in the major cities it would not be perceived as overbearing. Conversely in known militia areas away from dense population the aircraft were tasked to posture themselves more aggressively whilst remaining cognisant of the potential ground-to-air missile and small arms threat. When away from both population centres and militia areas, the aircraft climbed back to normal cruising altitudes. The Air Presence plan was executed during the build-up phase with increasing intensity and then throughout the election itself.

Although no specific data has been recorded with regard to particular tactical events that can be attributed to the presence of the Combat AP during this period, the higher level CJTF HQ assessed the activity to have been a significant factor in the success of the elections, as the following paragraph from their after action report states.

Feedback on the shows of presence from the ground was almost immediate. The local populace conveyed to civil affairs and provincial reconstruction teams the feeling of safety they received from the air presence over their cities and villages. Freedom of movement for locals to carry out their daily activities without the threat of attack was a great burden lifted from their shoulders. The realization that coalition Forces were in Afghanistan to help protect its citizens, ridding them of terrorists who had tormented them and their way of life for so long, truly had sunk in. Additionally, with this increased force protection, coalition elements moved

freely on their presence patrols with little harassing fire or engagement from the enemy. The immediate results validated the tremendous psychological effects air presence can have. Even without the coalition's employing munitions, the anti-coalition militia respected the quick-strike capabilities and devastation [Combat AP] can produce when incorporated into a ground manoeuvre plan...as a visual presence and the ultimate deterrent.¹⁰⁶

Engage in the Argument

A key theme throughout this paper has been the need to acknowledge the importance of perceptions and trust when military commanders make judgements about the manner of delivery and/or actual use of force. Earlier, trust was described as resting on an individual's belief that an organisation is competent to complete its mission, predictable in behaviour, benevolent in intent and honest in their portrayal of events around them, whether good or bad. Proponents of 4GW suggest that it is in this virtual or psychological battleground that contemporary adversaries operate, attempting to undermine our legitimacy with a corrosive, anti-Western narrative, and thereby influence the decision makers and radicalise followers. Perceptions and beliefs are clearly very complex psychological facets of human behaviour, made up of countless variables that adapt and interrelate in response to other equally fathomless stimuli. Nonetheless, it is exactly these countless and immeasurable factors that must be addressed if the hearts and minds of target populations are convinced of or coerced by our argument and actions.

However, if the factors to be addressed are complex, the ability to assess how we

are progressing toward our goal in such a ‘human’ domain has proved equally elusive to contemporary commanders.¹⁰⁷ Two techniques to be considered here are the reviews of polling data and media monitoring.

Polling Data

The attitudinal information contained at Table 6 and Figure 3 is an average from a period during and following the dates of the first Combat AP sorties, analysed and discussed above, for one of the regional populations. Although only a single sample of opinion data, the overwhelming impression of both polls is the negative outlook of the local indigenous populace toward the future of their country (>40% of people questioned believed the country was ‘heading in the wrong direction’ as shown at Figure 3).

validity of polling methods and results notwithstanding, the apparent strength of feeling described by these data is undeniable. However, earlier analysis suggested that in the application of Combat AP at least, Coalition military forces had been conducting operations in a restrained, precise and apparently legitimate fashion, and had been seen to be operationally effective.

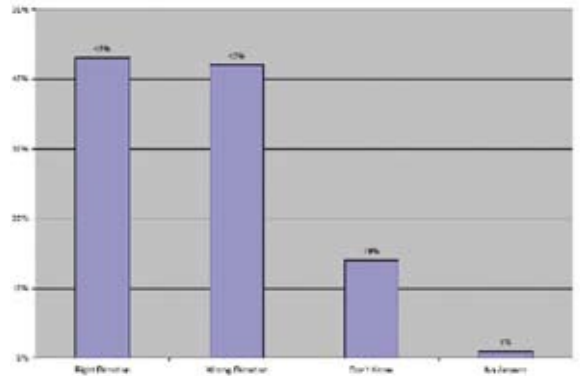


Figure 3: Iraqi Population Answers to the Question: Do you think Iraq today is generally heading in the right or wrong direction? (Source: The Brookings Institute ‘Iraq Index’ dated 17 January 2006)

Iraqis who believe attacks against British and American troops are justified	45% (65% in Maysan province)
Iraqis ‘strongly opposed’ to presence of Coalition troops	82%
Iraqis who believe coalition forces are responsible for any improvement in security	<1%
Iraqis who feel less secure because of the occupation	67%
Iraqis who believe conditions for peace and stability have worsened	43%
Iraqis who do not have confidence in multi-national forces	72%

Table 5: Iraq Attitudinal Survey (Source: The Brookings Institute ‘Iraq Index’ dated 17 January 2006)

Of particular concern for establishing trust and thereby consent to Coalition Campaign Authority, are the poor perceptions of personal security (approximately 70% as shown at Table 6) and low confidence in the competence of Coalition forces (<1% as shown at Table 6). Concerns over the

Evidently, the insinuation here is not that the operational application of Combat AP during the subject period, in isolation of any other military or civilian factor, had a dramatic impact on the strategically important opinions of the local population. Rather that any perceptions of AP would need to be seen in this strategic context. Moreover, any application of force from the air or otherwise would need to similarly reflect on the apparent lack of trust and perceived legitimacy the Coalition already had at this time before conducting further operations in a manner that may deepen the issues further. If achieving Campaign

Authority is a key enabler to success in Irregular Warfare these statistics suggest that at the time of the empirical study behind this paper and the polling data presented here, it had still yet to be accomplished, much less maintained.

Media Survey

Numerous organisations have significant experience in the monitoring of text and broadcast media in support of operations. In the UK the MoD studies articles supplied by the BBC's monitoring centre and extracts sections of the texts that meet specific criteria according to a given project or Campaign's subject interests. Each extracted section can then be tagged with an appropriate category label from the criteria list.

Of particular interest is the labelling and subsequent analysis of what sentiment is being expressed about a topic and who is expressing the sentiment. A simple histogram, for example, can then be used to display the ways in which the sentiment towards people, organisations or topics changes over time.¹⁰⁸ Using such assessments in combination with other indicators, politicians and their military commanders can gauge change and progress in the attitude of the populations they seek to influence.

Although no media monitoring report concerning specifically AP employment over the analysis period, or subsequently, is available, a short review of the articles in only the Western press and the sentiments expressed within them can be sobering enough for AP practitioners. For example, the assertion in the Lancet Mortality report of October 2004 that:

Making conservative estimates... air strikes from coalition forces accounted for

*most violent deaths. We have shown that collection of public-health information is possible even during periods of extreme violence. Our results need further verification and should lead to changes to reduce non-combatant deaths from air strikes.*¹⁰⁹

The report may have been merely coincident with, or perhaps precipitant to, a number of articles concerning the use of Combat AP in contemporary military operations. A common theme in the subsequent articles appears to have been surprise or even incredulity at the lack of information available to explain the activity and the apparent lack of critical analysis of the use of Combat AP. For example,

*One of the least reported aspects of the U.S. occupation of Iraq is the oftentimes indiscriminate use of air power by the American military. The Western mainstream media has generally failed to attend to the F-16 warplanes dropping their payloads of 500, 1,000, and 2,000-pound bombs on Iraqi cities - or to the results of these attacks. While some of the bombs and missiles fall on resistance fighters, the majority of the casualties are civilian - mothers, children, the elderly, and other unarmed civilians.*¹¹⁰

In the face of such reporting, U.S. Central Command Air Force (CENTAF) publishes daily AP summary reports that detail Air activity. Unfortunately, their lack of detail allows them to be criticised for:

*...underemphasiz[ing] potentially damaging information like the fact that bombing runs ... are regularly conducted in heavily-inhabited areas of Iraq's cities and towns where the resistance may also be strongly embedded.*¹¹¹

After a list of AP sorties flown on a given day, the CENTAF statements simply describe Coalition aircraft activity as supporting Iraqi and Coalition ground force operations or state that the Air platforms are focused on creating a secure environment for upcoming parliamentary elections. For example, in the analysis period CENTAF summaries included commentary such as:

...46 air missions over Iraq flown in order to provide support to coalition troops, infrastructure protection, reconstruction activities and operations to deter and disrupt terrorist activities. Air Force F-16 Fighting Falcons, an MQ-1 Predator and Navy F/A-18 Hornets provided close-air support to coalition troops in contact with anti-Iraqi forces near Balad and Ramadi.¹¹²

Although these daily tabulations offer some account of the Combat AP employment they lack the degree of explanation required to underpin and promote positive interpretations of the activities; not least where any ongoing legitimacy deficit is being underlined by negative media accounts such as the examples above. It is insufficient to simply record raw statistics and offer no credible and detailed account of what occurred and why. Equally, footage of a kinetic strike against an alleged adversary without a narrative to explain the action in the manner shown allows other to fill the information 'void' on our behalf. If we wish to win the argument and defeat irregular adversaries, we need to become more compelling, more transparent and more convincingly engaged in the battle of narratives, not just fast and lethally precise.

Conclusions

Military operations and the field of battle

are governed by three influences - luck, opportunity and unfairness.¹¹³

In a battle of ideas or narrative, Western conventional force and technological advantages cannot be relied upon in themselves to provide the solutions. Success in Irregular Warfare is no more about speed of action and lethal precision per se, than it is the ability to bring force to bear on force. Fundamentally, time taken to judge more precisely whether tactical actions are appropriate will pay greater dividends in the more strategic 'Long War'.

The hard won and preciously guarded liberal values of Western society come with their own tariff. For example, military interventions in third-party countries almost by definition must be seen as illiberal; freedom of speech encourages the likelihood of radical thought, individual interpretation and permits the often supposed media bias; and the need for political consensus to underpin legitimacy are all features of a liberal society. However, achieving a legitimate political mandate for intervention almost inevitably will lead to compromise solutions, vague military objectives, and tighter political constraints than military commanders might prefer. Nonetheless, in the face of recurring setbacks in contemporary Irregular Warfare and the occasionally withering media coverage of the military operations that accompany them, commanders could be excused for feeling as though they have run out of the luck, would prefer more opportunities to take the initiative but that, fundamentally, 'unfairness' dominates the modern military experience.

Evidence presented here suggests that Combat AP when closely integrated

with Land operations can and has been employed with considerable restraint, precision and military effectiveness. Moreover, there is a very broad range of discrete and dynamically variable actions available with the presence of Combat AP that would be unavailable in their absence. The modern Combat Air platform offers kinetic, non-kinetic and non-lethal types of activity to help the tactical commander detect, deter, disrupt and where judged necessary destroy nominated targets.

Equally, when used judiciously, Combat AP can deliver significant though perhaps less tangible operational advantages to the Joint military endeavour. For example, through AP's speed, range and apparent ubiquity it has been shown here to multiply the apparent Land force-density and help mitigate risks associated with low force numbers. For example, when employed in direct support of the 2004 Afghanistan Elections, Combat AP was seen to provide considerable 'soft' effect as well. The positive impact on local and wider opinion was identified and underscored by regional Coalition commanders.

Nonetheless, modern attempts to exploit the operational utility of both restrained non-destructive and destructive power does not appear to translate well into improved perceptions of military interventions generally or Combat AP specifically. Attitudinal polls and media surveys reveal a significant disapproval of almost any military intervention. However, they also reveal a lack of understanding or even mistrust of the same.

The attainment of Campaign Authority has been described here as a central objective in modern warfare. Such an

achievement demands attention to not only our physical acts but also those we take in the information domain if we are to gain and maintain the trust of those we seek to convince and coerce those who seek to defeat us that there is more to be gained from non-belligerence. However, to change perceptions, convince the minds and capture the hearts of our target audiences, and coerce an adversary, the physical and virtual language of our actions and words must be both precise and compelling. Precision in such a context becomes more than simply accurate destructive targeting. To be compelling, demands a sufficient understanding of those watching and listening to you. Only through striving to gain such an understanding of not only our adversaries but also those yet to be convinced or turned against us will we be compelling.

However, judged on the examples given in this paper of the military attempt to inform and explain its actions, it should perhaps not be surprising that misperceptions and misrepresentations about the same flourish. In the absence of any alternative explanation, that presented by the often anecdotal media and our adversaries must eventually become seen as the legitimate version of events. Where the same military interventions are conducted in a context of an initial 'legitimacy deficit' the balance of risks between military imperative and strategic impact become all the more crucial, but so does the need to effectively engage in the argument.

Restrained actions through adherence to even stringent Rules of Engagement and Collateral Damage Estimates are a necessary but not sufficient function of success in the modern information-dominated context. Israel saw its war with

Hezbollah as just, but was apparently ineffective at justifying the same to the wider audiences and did little to reverse the 'victim' status of the Lebanese people. Equally, the difficulties Israel faced in the narrative battle were hardly reversed by statements from the IDF Chief of Staff as serious as the threat to 'turn back the clock in Lebanon by 20 years.'¹⁴

Thus, the need for an overarching Influence Strategy becomes paramount. In the contemporary context information dominates many aspects of both civilian and military life. An effective Influence Strategy cannot be regarded as an 'enabling' activity in the same way as air-to-air refuelling enables longer airborne missions and therefore greater 'productivity'. The need to influence, convince and coerce different key audiences simultaneously must drive the actions and words of modern commanders as key drivers of strategy, tactics and execution.

*To make war on rebellion is messy and slow, like eating soup with a knife.*¹⁵

Given the enduring regularity of our involvement in the suppression of 'rebellion' we should have considerable corporate experience to draw from in the military arena. The evidence presented here for the operational utility of Combat AP suggests some of the operational lessons are being learned and put into practice, particularly when employed non-destructively and fully integrated with Land activities. However, in the hearts and minds of ourselves and the populations we seek to convince, the war remains messy and slow, and strategic failure looms.

Clearly, much of the apparent 'mess' is the carnage and destruction wrought

by our adversaries. But at least part of the problem may also be the Western military focus on these physical activities rather than the informational power they are really designed to wield. Trust has been described here as resting on an individual's belief that an organisation is competent to complete its mission, predictable in behaviour, benevolent in intent and honest in their portrayal of events around them, whether good or bad. However, beliefs are perception based and predominantly shaped in the informational realm not just through physical acts but through an effective Influence Strategy. Thus, it is the contention here that until we become more compelling in both deed and words real progress will remain slow, we will fail to achieve the Campaign Authority we seek, and never graduate to eating soup with a spoon.

Notes

1 For the purposes of this paper 'Combat AP' will be defined as all aircraft, helicopter or unmanned air vehicles capable of delivering destructive and/or disruptive force which a military formation can apply against an opponent at a given time.

2 Owen, RC. Col., USAF, 'Aerospace Power and Land Power in Peace Operations: Toward a New Basis for Synergy', *Airpower Journal* (Fall), 1999.

3 See Elder, R. Wyn Major, USAF, 'The Role of Non-Lethal Airpower in Future Peace Operations - Beyond Bombs on Target', Air University, Maxwell, 2003, for a broad review of the non-combat AP capabilities in a non-conventional context.

4 Gray, CS., 'Another Bloody Century', Weidenfeld & Nicolson, 2005, pg 214.

5 The definitions described and used here accord closely with the extant USMC doctrine for operations against irregular threats. The author is grateful to Lt Col Lance McDaniel, USMC who has been responsible for much of his Service's doctrine re-write in this area, for access to his emerging drafts and re-drafts in the recent 2 years.

6 Corum J, and Johnson W, 'Airpower in Small

Wars: Fighting Insurgents and Terrorists', Lawrence: University of Kansas Press, 2003, p 5.

7 Gray, CS., 'Another Bloody Century', Weidenfeld & Nicolson, 2005, pg 215.

8 It is understood that the Air Power Review will see this whole paper split around the 2 parts described here.

9 Smith, R., 'The Utility of Force; The Art of War in the Modern World', Allen Lane, 2005

10 Small, M and Singer, D, 'Resort to Arms', Beverly Hills: Sage Publications, 1982, p 55-60.

11 The review completed here was far from exhaustive; rather it was intended to be representative of the comparative incidence of Regular and Irregular Warfare (to 1 significant figure). The sources used were the UN Peace Keeping online site (www.un.org/dept/dkpo) and Banks, AS., ed., 'Political Handbook of the World. 5th ed.', Binghamton, NY: CQ Press, 2004. For a comprehensive list of historical and contemporary warfare see for example Lee, R. 'The War List', 2006 (available at www.historyguy.com/War_list.html).

12 UN Military Planning Service of the Dept of Peacekeeping Operations, 'Uniformed Personnel in UN Peacekeeping: 1991 – 2006', DPI/2444, 10 November 2006.

13 Kan, Paul R., 'Webs of Smoke: Drugs and Small Wars', Small Wars and Insurgencies, vol. 17, No2, 148-162, June 2006

14 Ibid.

15 Smith, R., 'The Utility of Force; The Art of War in the Modern World', Allen Lane, 2005

16 Lind, WS., et al, 'The Changing Face of War: Into the Fourth Generation', Marine Corps Gazette, October 1989 or see for example, Hammes, TX., Col (ret'd) USMC, 'A Sling and a Stone', Zenith Press, 2004, for a more recent application of the 4GW concept.

17 Echevarria, AJ., 'Fourth Generation Warfare and Other Myths', Strategic Studies Institute, Carlisle, PA, November 2005.

18 Interview with Air Vice-Marshal C Moran OBE MVO MA BSc RAF, Assistant Chief of the Air Staff on 29 January 2006.

19 Hammes, TX., Col (ret'd) USMC, 'A Sling and a Stone', Zenith Press, 2004

20 Freedman, L., 'The Transformation of Strategic

Affairs', International Institute of Strategic Studies, London (Adelphi Paper 379), 2006.

21 Ibid.

22 Sabin, P., 'Using History to Understand Contemporary Conflicts', History Teaching Review Year Book, Edited by Andrew Hunt, Vol. 20. 2006.

23 John Lewis Gaddis, 'The United States and the End of the Cold War: Implications, Reconstructions, Provocations', New York: Oxford Univ. Press, 1992, p. 3.

24 For a historical review see for example, Towle, PA., 'Pilots and Rebels: the Use of Aircraft in Unconventional Warfare 1918 – 1988', Brassey's, 1989.

25 Significantly, an initiative to address this issue in the wider Joint context has begun in the UK with the release of an interim, 'Joint Doctrine Note' entitled 'Countering Irregular Activity' that seeks to open the debate towards a UK Joint perspective of Irregular Warfare. Nonetheless, to date no Irregular Warfare doctrine for UK AP exists. To the extent that doctrine captures 'best practice' and non-conventional operations dominate contemporary experience this will need to be addressed. Also, see Nagl, JA., 'Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife', Praeger, 2002, for an enlightening comparison on how 2 militaries in 2 conflicts apparently differed in their ability to learn from earlier mistakes.

26 See for example, Directorate of Air Staff, UK MoD, 'Future Air and Space Operational Concept', available at <http://www.raf.mod.uk/downloads/documents>. The concept, although arguably conceived more for conventional warfare, appears adaptable to, and has potential for success in a more irregular arena as well. However, several challenges remain to be explored and overcome if the concept is to realise its potential. See Kemsley MBE, MH., Wg Cdr RAF, 'Agile Mission Groups and Netwar: Challenges for the Future Operational Concept of the RAF', World Defence Systems, Issue 15, 2006 for a fuller discussion of these issues.

27 PRO Air 5/338, UK High Commissioner Sir H Dobbs to Air Officer Commanding, 1924.

28 Nils Naastad, 'RAF, Prudent Air Power and the Fear of History', Ch10 of 'British Air Power' edited by Peter W Gray, HMSO, London, 2003

29 Sabin, P., 'Using History to Understand Contemporary Conflicts', *History Teaching Review Year Book*, Edited by Andrew Hunt, Vol. 20. 2006.
30 Ibid.

31 A strategic 'Shock' is defined as a high impact, low probability event. An example of a military Shock might be the US-European de-coupling and low European defence spending, which could enable or encourage conventional military threats to Europe to re-emerge, perhaps from a resurgent Russia or the Middle East in the future. Not attempting to mitigate shocks through prudent preparation or by sending the wrong strategic messages, it is argued may even induce a shock, for example the invasion of the Falkland Islands by the Argentines in 1982. See UK Joint Doctrine and Concepts Centre, 'Strategic Trends', Shrivenham, UK Defence Academy, March 2003 for a full discussion.

32 Minimum Necessary Force is defined as 'Force, up to and including deadly force, limited to the degree, intensity and duration necessary to achieve the objective' (see Joint Warfare Publication 3-46, 'Legal Support to Joint operations', Shrivenham, JDCC, October 2004).

33 See for example, Lambeth, BS., 'Air Power against Terror: America's Conduct of Operation Enduring Freedom', RAND, 2005, pgs 311-325 'The Impact of Rule-of-Engagement Constraints'.

34 Bhagwati, J., 'In Defense of Globalization', Oxford University Press, 2004.

35 Gowing, N., 'Real Time Television Coverage of Armed Conflicts and Diplomatic Crises: Does It Pressure or Distort Foreign Policy Decisions?' John F Kennedy School, Harvard University, 1994.

36 Sabin, P., 'Using History to Understand Contemporary Conflicts', *History Teaching Review Year Book*, Edited by Andrew Hunt, Vol. 20. 2006.

37 Emery, Norman, Maj., et al, 'Fighting Terrorism and Insurgency: Shaping the Information Environment', *Military Review*, January-February 2005.

38 Freedman, L., 'The Transformation of Strategic Affairs', International Institute of Strategic Studies, London (Adelphi Paper 379), 2006.

39 Emery, Norman, Maj., et al, 'Fighting Terrorism and Insurgency: Shaping the Information

Environment', *Military Review*, January-February 2005. .

40 Kitson, F., 'Low Intensity Operations: Subversion, Insurgency, and Peacekeeping', London: Faber and Faber Ltd., 1971.

41 Campaign Authority is defined as an amalgam of 4 interdependent factors: the perceived legitimacy of the international mandate; the perceived legitimacy of the authority of those conducting operations; the degree to which factions, local populations and other actors subjugate themselves to the authority of those conducting operations and the degree to which the activities of those conducting operations meet the expectations of factions, local populations and others.

42 Title adapted from the insightful paper of a similar name by Ramakrishna, K., 'It's the Story, Stupid: Developing a Counter-Strategy for Neutralizing Radical Islamism in Southeast Asia', CSRS Discussion Paper 05/48, September 2005

43 UK Joint Doctrine and Concepts Centre, 'Joint Discussion Note 4/05: The Comprehensive Approach', Shrivenham, UK Defence Academy, January 2006.

44 An 'Influence Strategy' is presented here as a pan-government approach to influencing the perceptions of target audiences and thereby, endeavouring to persuade, convince, deter, disrupt, compel or coerce target audiences to adopt a desired Course of Action (CoA). Moreover, the influence desired is sought through the combination of a co-ordinated and synchronised plan for physical and information-based activities, both driven by wider influence objectives rather than purely operational ones per se. As such the definition is a broad and overarching one that would include those for the 'Information Campaign' and 'Influence Activities' already seen in extant UK military doctrine, and implies the primacy of information operations over those of . An 'Information Campaign' is defined as the coordinated information output of all Government activity undertaken to influence decision-makers in support of policy objectives, while protecting one's own decision-makers. An 'Influence Activity' is defined as any activity whose primary purpose is to influence will, and is achieved by the promotion of identified

themes to target audiences through broadcast messages (Development, Concepts and Doctrine Centre, 'United Kingdom Glossary of Joint and Multinational Terms and Definitions', Edition 7, Shrivenham, June 2006).

45 Interview with Air Chief Marshal Sir Brian Burridge KCB CBE ADC RAF (ret'd) 26 April 2006.

46 Ibid.

47 Coleman, J., 'Foundations of Social Theory', Cambridge: Harvard University Press, 1994

48 Van der Kloet, Irene, 'Building Trust in the Mission Area', *Small Wars & Insurgencies*, Vol 17, No 4, 421-436, December 2006 based on his related dissertation entitled 'A Soldierly Perspective on Trust: A Study into Trust within the Royal Netherlands Army', Tilburg University, Enschede: Febo Press, 2005. To paraphrase: competence - the trusted party should have the ability to perform the task to which trust relates; predictability - the trusted party should be able to complete the given task for a given deadline and do so consistently; benevolence - the willingness to do something for someone else, which implies that one will dedicate oneself to the task, and thus put more effort into its achievement; and honesty - where deviations from the expected outcomes exist, any given explanation must be an honest reflection upon the events especially collateral mistakes.

49 See for example, Emery, N. Maj., et al, 'Fighting Terrorism and Insurgency: Shaping the Information Environment', *Military Review*, January-February 2005.

50 Information Operations are defined as coordinated actions undertaken to influence an adversary or potential adversary in support of political and military objectives by undermining his will, cohesion and decision making ability, through affecting his information, information based processes and systems while protecting one's own decision makers and decision-making processes. Development, Concepts and Doctrine Centre, 'United Kingdom Glossary of Joint and Multinational Terms and Definitions', Edition 7, Shrivenham, June 2006

51 Media Operations are defined as that line of activity developed to ensure timely, accurate, and effective provision of Public Information and

implementation of Public Relations policy within the operational environment, whilst maintaining operational security. Ibid.

52 Cordingley, P., Maj Gen, 'In The Eye Of The Storm', Hodder & Stoughton, 1996.

53 A matter that will be returned to later in the paper in the light of the overwhelming proportion of tasks completed by even Combat AP that are non-destructive in nature and outcome

54 Cordesman, Anthony H., 'Preliminary 'Lessons' of the Israeli-Hezbollah War', Working Draft for Outside Comment, Revised: August 17, 2006, CSIS (<http://www.csis.org/burke/>)

55 Hammes, TX., Col (ret'd) USMC, 'A Sling and a Stone', Zenith Press, 2004

56 Whether such an approach represents a new form of warfare or just an evolution of traditional irregular tactics taking advantage of new information technologies is outside the scope of this paper.

57 Sabin, P., 'Using History to Understand Contemporary Conflicts', *History Teaching Review Year Book*, Edited by Andrew Hunt, Vol. 20. 2006.

58 Cordesman, Anthony H., 'Preliminary 'Lessons' of the Israeli-Hezbollah War', Working Draft for Outside Comment, Revised: August 17, 2006, CSIS (<http://www.csis.org/burke/>)

59 Hezbollah's status as a terrorist organisation ensures a rough ride from the UN but locally they have already made political gains. See for example Cambanis, T., 'Hezbollah gains as Lebanon's leaders struggle; as nation readies for truce, militia's influence grows', *Boston Globe*, 13 August 2006.

The Israeli Defence Chief was forced to step down in the face of increasing pressure from public opinion that was fuelled by the media coverage of the conflict and subsequent analysis. See for example, *Guardian Unlimited* 'Minister's warning as Israeli military chief quits', 17 January 2007.

60 Emery, N Maj., et al, 'Fighting Terrorism and Insurgency: Shaping the Information Environment', *Military Review*, January-February 2005.

61 Interview with Air Marshal Sir Clive Loader KCB OBE FRAeS RAF, Deputy Commander-in-Chief Strike Command, dated 5 February 2006.

62 Intelligence and Security Committee, 'Report into London Terrorist Attacks on 7 July 2005', HMSO,

May 2006.

63 Ramakrishna, Kumar, 'It's the Story, Stupid: Developing a Counter-Strategy for Neutralizing Radical Islamism in Southeast Asia', CSRS Discussion Paper 05/48, September 2005

64 Ibid.

65 A 'Battlespace' in military doctrine is defined as 'All aspects of air, surface, sub-surface, land, space and the electromagnetic spectrum that encompasses the area of operations' (Development, Concepts and Doctrine Centre, 'United Kingdom Glossary of Joint and Multinational Terms and Definitions', Edition 7, Shrivenham, June 2006). The suggestion here is that such a definition overlooks the informational dimension of the operational environment. All activities in the air, surface, sub-surface domains or EM spectrum can have an impact on vital perceptions. Thus, any military actions (or inactions) become part of our virtual language in support of, or undermining, the intended narrative. If we purport to be a 'Force for Good' we must be clear in our actions and words for whose good, and judge the likely answers from all perspectives. As discussed in the previous section, success in the narrative Battlespace may actually be more important than the physical realms more traditionally considered.

66 A balanced force is one that is said to have '...all the necessary capabilities to carry out a particular mission without unnecessary redundancy'. In the context presented here, force balance concerns the make-up of all military forces when set against contemporary irregular missions.

67 Former Secretary of Defense Donald H. Rumsfeld, taken from transcript of 'Secretary Rumsfeld Town Hall Meeting in Kuwait' dated 08 December 2004, available at www.defenselink.com/transcripts.

68 See for example Lacy, MW, 'Al Qaeda's Global Insurgency: Airpowers in the Battle for Legitimacy', *Air & Space Chronicles*, Jul 2003 for a pertinent review of this relationship between tactical, lethal precision and legitimacy for AP's use against terrorist targets.

69 Indeed the extant UK military definition of precision is 'The ability to destroy or neutralise targets with a high degree of lethality,

discrimination and accuracy.' (emphasis added) Development, Concepts and Doctrine Centre, 'United Kingdom Glossary of Joint and Multinational Terms and Definitions', Edition 7, Shrivenham, June 2006.

70 Collateral damage is defined as the damage to personnel and property adjacent to, but not forming part of, the authorised target. Ibid.

71 Empirical evidence to support this will be discussed in a later section of the paper. However, it is probably sufficient to say at this juncture that the deterrent utility of military presence through patrolling, be that on the ground or in the air, is a truism in military operations that probably does not need much further explanation.

72 Time-sensitive targets are defined as 'those targets requiring immediate response because they represent a serious and imminent threat to friendly forces or are high payoff, fleeting targets of opportunity'. Ibid.

73 Interview with Dr P Sookdheo of Barnabus Fund dated September 2005 and see Hammes, TX., 'Time Sensitive Targeting: Irrelevant to Today's Fights', RUSI Defence Systems, August 2006, for a brief but interesting review of this issue.

74 Such judgement would rest on many aspects of the situation faced by the decision maker. Key areas, not discussed in this paper, include cultural and religious sensitivity, knowledge of local customs, and the historical context leading to the present-day situation. The endeavour to understand our opponents is explicit in all aspects of military doctrine and demonstrated in practice. However, the implicit need to examine the more human factors of not just the adversary but also the wider audiences is perhaps less well understood or actioned. See for example, Alwyn-Foster, [insert initials], Brig Gen, British Army, 'OIF Phase 4: The Watershed the US Army Still Needs to Recognise', [insert journal], 2005.

75 Hammes, TX., 'Time Sensitive Targeting: Irrelevant to Today's Fights', RUSI Defence Systems, August 2006.

76 Interview with Air Chief Marshal Sir Glenn L. Torpy, KCB, CBE, DSO, BSc (Eng), FRAeS, RAF, Chief of the Air Staff dated 5 June 2006.

77 Ibid.

78 Tempo is defined as 'The rate or rhythm of activity relative to the enemy, within tactical engagements and battles and between major operations. It incorporates the capacity of the force to transition from one operation of war to another.' (emphasis added) Development, Concepts and Doctrine Centre, 'United Kingdom Glossary of Joint and Multinational Terms and Definitions', Edition 7, Shrivenham, June 2006.

79 Interview with Air Marshal Sir Clive Loader KCB OBE FRAeS RAF, Deputy Commander-in-Chief Strike Command, dated 5 February 2006.

80 Sabin, P., 'Using History to Understand Contemporary Conflicts', History Teaching Review Year Book, Edited by Andrew Hunt, Vol. 20. 2006.

81 The phrase is adapted from Mao Zedong's advice to his guerrillas to 'move through the people like a fish moves through water'. The Briggs Plan, implemented fully in 1950 during the Malayan Emergency involved the relocation of the population ('water') to expose the irregulars ('fish') by depriving them of the support, cover, and resources of the local population and removing their freedom of movement.

82 Ideally with the full weight of a legitimate judicial process applied, which might require the phrase 'kill or capture' adversaries, as is oft heard in military operations, to be reversed in its initial focus.

83 AKA 'Combat Air Power Joint Effects Database' created by the author with the support of staff from the UK Joint Force Air Component Head Quarters, RAF High Wycombe and data from several real-world Theatres of operations.

84 As stated the data has relied on testimony from those that might best judge the operational impact of Combat AP: the soldiers, airmen and commanders that requested and controlled the aircraft involved. The author passes his thanks to all of those that must necessarily remain nameless, for their often very detailed reports written at the end of what must have been some very long days.

85 Air Command and Control, defined as those operations which ensure the efficient planning and execution of AP; Counter-Air Operations, which provide the required degree of control of the air; Air Operations for Strategic Effect (AOSE), aimed directly at reducing or eliminating an

enemy's ability and/or will to continue fighting; Integrated Air Operations (IAO), integrating AP with other Joint Force capabilities actions; Rapid Global Mobility, to move and support men, materiel and assets at speed over strategic distances; and Intelligence, Surveillance, Targeting and Reconnaissance (ISTAR), encompassing AP's contribution to the acquisition, processing and dissemination of information and intelligence. Directorate of Air Staff, UK MoD, 'Future Air and Space Operational Concept', available at <http://www.raf.mod.uk/downloads/documents>.

86 At Table 1, Non-Lethal 'EW' denotes the use of non-destructive electronic warfare techniques such as communications jamming; Non-Lethal Information Relay concerns the use of on-board sensors and associated communications equipment to relay detected images or other data to an appropriate decision-maker (either on-scene commander or at higher formation headquarters). The Non-Kinetic types of task including Armed Reconnaissance and Escort, Air Presence and Shows of Force (SHoF) will be defined shortly in the discussion that follows.

87 Whether some Combat AP activity could be described as focused directly on coercing the irregular opponent's ability or will to fight is a mute point and may suggest a need to re-categorise some of the analysis as AOSE. However, as almost all sorties analysed were requested by and therefore, integrated with Land operations, and in the interests of simplicity, all mission data was categorised under the IAO AP role.

88 Kinetic activity is defined here as the employment of a Combat Air platform's destructive potential; Non-kinetic employment are those tasks associated with a Combat aircraft that has the potential to destroy but does not do so; and Non-lethal employment is associated with a Combat Air platform that may have a destructive potential but in addition can use on-board sensors or other equipment to support combat operations, for example with jamming communications systems.

89 Katz, Joseph, A, 'The Role of Shows of Force in the First Democratic Elections', Combined and Joint Task Force-76 (CJTF-76) Fire Support Officer in Bagram, Afghanistan, serving in Operation

Enduring Freedom, Field Artillery, Jan-Feb 2005

90 A Show of Force (SHoF) lacks a formally agreed definition. However, as Figure 1 suggests, a SHoF involves the threatening use of a Combat AP, using the height, speed and the additional use of flares as required altering the required coercive impact. Although it is feasible to complete a SHoF with a non-Combat platform the lack of credible threat may undermine its effectiveness. The key difference between a SHoF and Air Presence is the generally less aggressive posture of the latter, though they should be regarded as part of the same Non-Kinetic continuum.

91 Air reconnaissance is defined as a mission undertaken to obtain by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydrographical or geographical characteristics of a particular area. Information can be collected from photographic, radar, and optical sensors mounted in a variety of manned and unmanned air and space vehicles. Development, Concepts and Doctrine Centre, 'United Kingdom Glossary of Joint and Multinational Terms and Definitions', Edition 7, Shrivenham, June 2006.

92 Armed Reconnaissance missions are flown with the primary purpose of locating, reporting and potentially responding to targets of interest in assigned general areas, lines of communication or infrastructure routes, and not for the purpose of attacking specific pre-briefed targets. Tactical Air Reconnaissance missions employ visual, and specialist photographic or electronic means to locate, identify and track the activities and resources of opposing forces for possible attack by other assets. Ibid.

93 As with SHoF described earlier, to date there is no formally agreed definition of NT ISR. In essence it is the use of a Combat Air platform and its associated sensors to complete an ISR task. The novel aspect of this type of application is the lack of specialisation. The sensors predominately used are those more designed to support direct targeting procedures but, with on-board data link or voice relay, any detected information can be passed to ground commander either on scene or within a head

quarters very quickly.

94 This subsection was compiled with the assistance of Wing Commander Andrew Coope, MA RAF, currently working at the RAF Air Warfare Centre and formerly a Deputy Chief of Strategy in the Combined Air Operations Centre in Qatar during recent operations.

95 Lambeth, BS., 'Air Power against Terror: America's Conduct of Operation Enduring Freedom', RAND, 2005.

96 Danskin, William B, Lt Col, USAF, 'Aggressive ISR in the War on Terrorism - Breaking the Cold War Paradigm', Air & Space Power Journal, Summer 2005

97 Interview with Air Vice-Marshal C Moran OBE MVO MA BSc RAF, Assistant Chief of the Air Staff on 29 January 2006 and.

98 Quoted from paper delivered by Air Chief Marshal Sir Brian Burridge KCB CBE ADC RAF (ret'd) on 11 January 2007 during the RAeS Air Power Group Lecture at the UK Defence Academy, Shrivenham, entitled 'Future Air Capabilities – Fully Comprehensive or Third Party Fire and Theft?'

99 Quoted in Directorate of Air Staff, UK MoD, 'Future Air and Space Operational Concept', available at <http://www.raf.mod.uk/downloads/documents>.

100 Sabin, P., 'Using History to Understand Contemporary Conflicts', History Teaching Review Year Book, Edited by Andrew Hunt, Vol. 20. 2006.

101 Of course, the production of a RAP for Air Control and Policing tasks also brings into question the ability to integrate military and civilian air operations, whilst seeking to detect potentially aggressive actions. Where indigenous infrastructure lacks this capability, the employment of a deployable Air Command and Control role comes into focus.

102 Quoted by Peter Almond in his article 'Air Power and the Media: A personal view from the media world', at Ch3 of 'British Air Power', edited by Peter W Gray, HMSO, London, 2003.

103 For some such an approach may seem over severe, too simplistic and imprecise, relying too greatly on the perceptions of those involved and lacking sufficient corroborating evidence from third parties or sources. There is little doubt that a

debate will need to be had concerning the type of data and analysis that might be required to more accurately assess the effectiveness of Combat AP's non-destructive use; this short paper is not the place for that to happen. Nonetheless, the adherence to only discernible, positive outcomes as perceived and recorded by the entities requesting and controlling the activity was deemed a sufficient indication of the tactical outcome for the purposes here. Moreover, reporting the results to 1 significant figure is in tacit recognition of the undeniably subjective, perhaps imprecise nature of the source data. The results presented should only be viewed therefore, as an indication of the 'order of magnitude' of occasions when Combat AP activity produced a given outcome. Future studies may now be required to further analyse results such as these.

104 Detection: the discovery by any means of the presence of a person, object or phenomenon of potential military significance; Deterrence: the convincing of a potential aggressor that the consequences of coercion or armed conflict would outweigh the potential gains; Disruption: the use of force [here taken to include all types of Combat AP employment] to shatter the cohesion of [an adversary] and prevent it from functioning effectively in combat; and Destruction: to kill or so damage an enemy force that it is rendered useless. Development, Concepts and Doctrine Centre, 'United Kingdom Glossary of Joint and Multinational Terms and Definitions', Edition 7, Shrivenham, June 2006.

105 Katz, Joseph, A, 'The Role of Shows of Force in the First Democratic Elections', Combined and Joint Task Force-76 (CJTF-76) Fire Support Officer in Bagram, Afghanistan, serving in Operation Enduring Freedom, Field Artillery, Jan-Feb 2005

106 Ibid.

107 See for example, Burkett, WH., 'Assessing the Results of Effects-Based Operations (EBO): The Relationship between Effects-Based Operations and the Psychological Dimension of Warfare', USAWC Strategy Research Project, Carlisle, PA, 2003.

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Notes

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