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ADI
The strategic edge
The Impact of the Major External Powers on the Security of Southeast Asia

By Major T.J. McCullagh, RAA

Introduction

Southeast Asia is an area brimming with potential. It is an area of immense strategic importance, not only for its rich natural minerals and agricultural resources, but also because it sits astride one of the most important sea lanes linking the Indian and Pacific Oceans.

The end of the Cold War brought with it the end of confrontation, but also buried many long-held certainties. Consequently, the entire Asian region is entering an era which is less predictable and marked by impending strategic change. The next 10-15 years are likely to see the gradual re-definition of Japan’s role, a reunified Korea, and China’s national development and expanding interests. India, with a growing naval presence, may seek to gain domination over the entrances to the Straits of Malacca as a competing force against China’s influence in the South China Sea. It is also likely that the United States, despite her substantial economic interests in the region, will further withdraw military assets. Geo-politics is likely to be replaced by geo-economics, as economic giants such as Japan and the New Industrial Countries of Hong Kong, South Korea, Singapore and Taiwan plus the fast-growing economies of the remainder of ASEAN and Indochina compete against economic arrangements set up in North America and Europe. These are the uncertainties that are likely to jeopardise regional stability in the future.

Although the security picture in Southeast Asia is relatively optimistic, the region does still have its share of trouble spots; Cambodia, although it has a signed peace settlement is having some trouble implementing it and the undefined boundaries in the South China Sea are resulting in conflicting claims from littoral states over the Spratly and Paracel Islands. Troubles on the doorstep are: the Korean peninsula which is still divided, the presence of Communist bastions China, Vietnam and North Korea, the indecision over the ‘Northern Territories’, India’s ambitions in Southeast Asia which are still unclear, and Myanmar’s unelected military government which is a cause for major concern.

In an emerging multipolar world, no region can work in isolation, and the influence of external powers will have a strong bearing on the actions of each of the internal actors. The principal external powers that will have a direct bearing on the security of Southeast Asia are: Japan, the United States, China and, to a lesser extent, India. Each of these nations has different aspirations in the region and as such will play a role in the weaving of a complex web of relationships with each nation of Southeast Asia.

Japan

Introduction

For a nation that has the world’s second most powerful economy, Japan is yet to match its economic might with military and political power. The country is constrained by postwar foreign policies, Asian neighbours suspicious of Japanese power, and by domestic public opinion opposed to any move to increase the role of its Self Defence Forces.

From the end of the Second World War until the mid 1970s, the Japanese restrained their defence policies. Towards the late 1970s, and with United States’ approval, the Japanese adopted a more active security policy prompted by the Soviet build-up in Northeast Asia (including its troop deployments into the Northern Territories), the invasion of Afghanistan and the Soviet acquisition of naval bases in Vietnam. As a result, Japan evolved from a reluctant partner to an active military ally of the United States, under the umbrella of the United States-Japanese Security Treaty.

Japan As a Military Power

There is a growing concern in the Asian region that Japanese is an increasing military, economic and political power with the potential to once again dominate the region with a modern form of the ‘Greater East Asia Co-Prosperity Sphere’. These concerns have many tangible signs. Japan is the second largest defence spender in the world, the second largest economy and is the largest investor in the Southeast Asian region.
But the Japanese military is limited in four important ways:

(a) The Japanese Constitution allows Japan the right to individual self-defence and, as a result, Japan's capabilities are purely defensive. Japan has no offensive weapons such as nuclear arms, long-range bombers or aircraft carriers.

(b) Japan has the lowest percentage of defence spending in the region. Japan's defence spending during the period of 1976-86 was set at 1% of GNP. Although the absolute size of the budget is very large, 40% of it is committed to personnel.

(c) There is no conscription system in Japan and there are serious difficulties in recruiting personnel into the Japanese Armed Forces. Military education has been denounced and Self Defence Force (SDF) officers do not enjoy much social esteem. The military profession is not an elitist career.

(d) Professor T. Nakanishi of the University of Shizuoka says: "The Japanese people are gradually accepting the idea that Japan will play an expanded political role in the world, but psychologically they cannot accept the idea of sending the Self Defence Force abroad." It took 20 months of bitter debate before the Diet finally approved a bill to send the SDF abroad on peace-keeping missions.

However, suspicions about Japan will persist as long as Japan continues to downplay their militarism in the 1930s and 1940s. Many Southeast Asian countries resent the fact that Japan has never made a clear and unambiguous apology for her actions earlier this century.

Although Japanese militarism is held in check, Japan is making its presence felt in many other ways:

(a) Japan has relaxed some of the criteria that she set for herself many years ago. The Government has relaxed the ban on arms exports to permit transfer of technology to the United States. The defence budget has now exceeded 1% of GNP.

(b) Japan has an interest in controlling the international flow of arms, and is particularly concerned about North Korea and China selling weapons of mass destruction.

(c) Japan does have economic clout. It is the largest provider of developmental aid in the region, all of which has some political strings attached. For example:

(1) The Japanese have made it clear to the military junta in Myanmar that any increase in assistance will require an improvement in Rangoon's human rights record as well as the implementation of economic reforms.

(2) Japan has also told North Korea that it will not receive economic and technical assistance until it agrees to nuclear safeguards and political restructuring.

Finally, in its Defence White Paper of 1960 titled Defence of Japan, the Japanese Government demonstrated that its security attention is still fixed on what is happening to its north rather than the south. The uncertainties over the Northern Territories, North Korea's potential nuclear capability, the reunification of North and South Korea and prospects for economic development in Siberia are all major concerns for Japan.

### Relationship With The United States

"The primary challenge for Japan at the end of the Cold War will be to keep the United States diplomatically and militarily involved in Asia while simultaneously committed to a liberal, international economic order."

Japanese strategic planning relies firmly on her relationship with the United States. It is likely that Japan will try to strengthen this alliance and use economic rather than military power to protect and promote her interests in the region. Japan's attempt to establish a role in the New World Order is complicated by its relationship with the United States. The two nations are allies in security matters, but adversaries in world trade. Despite trade frictions and a growing American current account deficit, the security arrangement between the two countries is sound.

Japan will also have to wait for its neighbours to grow comfortable with a more active Japanese policy. Tokyo believes that one way to allay suspicions in the region is to continue the security alliance with the United States. Japan needs a safety net so that when she moves forward with any expanded role, her regional neighbours will not become alarmed.

### Economic Groupings

Japan needs the United States for both economic as well as security reasons. If the United States decided to exclude Japan from any trading arrangement or Japan decided to create an Asia-Pacific trade bloc minus the United States, then there would be clear security implications for the region. A Japanese trade bloc minus the United States could undermine the United States-Japan defence relationships and thereby
provide the imperative for a Japanese defence build-up. An Asian-Pacific economic grouping dominated by Japan and the United States could be an effective counter against European protectionism.

### Conclusion

In conclusion, whether Japan takes on an aggressive foreign policy stance in the region will depend on several conditions:

(a) A change in the United States-Japanese economic and security alliance.

(b) A significant reduction in the United States’ presence in the region which would lessen her capability to react quickly in security-related situations, and provide the reason for an expanded Japanese military.

(c) The emergence of conditions that place Japanese economic growth and security at risk. Japan is a resource-poor country dependant on the close cooperation of regional trading partners.

(d) The acquisition of nuclear weapons by North Korea, and eventually a reunified Korea which may become an economic and political threat, would loom as a security concern to Japan.18

Japan wants to assume a greater role politically and diplomatically in regional and world affairs. This will occur and should not be confused with militarism but rather seen as a role commensurate with its economic power. Of the three regional powers — Japan, China and India — Japan is the most satisfied with the present status quo. Any change to the regional security environment will do more harm to Japan than good.

### The United States

"In looking at the security of the Asia Pacific region, one still has to begin with the role of the United States, simply because the continued strategic engagement of that country in the Western Pacific is vital to maintaining a stable security system in Asia for the foreseeable future as it has been in the past."19

### A Remaining United States Presence

The United States has stressed a number of times that it will not leave a power vacuum in the Asia Pacific and is still committed to the security of the region.20 United States Secretary of Defence, Mr Dick Cheney, on a visit to the Asia-Pacific region in April ’92, said that the United States will maintain its military roles without permanent bases, and furthermore it is not seeking alternative bases.21 A continuing United States presence is likely to remain in the East Asia region for the following reasons:

(a) **Trade issues.** American trade with the Asia Pacific area is growing at a staggering rate. The United States’ trade with the region is greater than its trade with Western Europe or Latin America.22 The rapid development of the regional economies has accelerated the economic interaction between the United States and the other countries of the Pacific Basin area.

(b) **Security Interest.** American security depends on Pacific security and the keystone is the Japanese-American Treaty of Mutual Cooperation and Security. Any changes to the balances of power away from American favour will directly affect the United States’ interests for the following reasons:

(1) The United States sees itself as a balance between the major regional protagonists —
Japan, China and India. Any reduction over a short period of time may well lead to a rapid increase in these regional powers competing to gain an upper hand.

(2) The primary security concern for the United States in the region is the North Korean nuclear programme. Pyongyang's coy attitude about IAEA inspections creates uncertainty and suspicion about a regional nuclear hazard.

(3) The sea lines of communication are vital to United States-Asian interactions. Any threat to these lines would restrict trade between the region and the United States and deny vital access to raw materials.

(c) Political Interests. Many of the countries that have close economic, social and security ties with the United States create a political interest that has an impact on the United States. The American/Western ideals of open markets, human rights and peaceful coexistence amongst races provides impetus for much of the American political input into the region. Any changes to these arrangements will affect the manner in which the United States views the region. An example is the United States' interest in the recent elections in Thailand. The United States clearly indicated to Thailand that a Prime Minister with a drug-tainted background, such as Narong Wongwan, could potentially threaten bilateral relations and thus the stability of the region.

(d) Social Interests. The United States is a Pacific nation not only in geographic but also in demographic terms. Over 3.5 million Americans of an Asia-Pacific origin live in the United States. The social impact of this is immense: not only is American society adopting Asian languages and business concepts, but the typical political lobby groups, hallmarks of the real Asian influence, are becoming ever more apparent, as evidenced by the powerful Korean politico-backlash following the Los Angeles riots.

However, an American presence will not remain forever. During the recent Presidential campaign, the American people have delivered a strong signal that there has to be retreat from global strategic play and a restoration of American interests at home. As a result we are likely to see Washington being more selective in concerns of interest in the region. It would appear that America may be attempting to ease Japan into the regional equation as both an economic and political power-broker.

Economic Issues

America is becoming increasingly concerned with economic impact from the region. Exports to the region have grown 1400% from 1968 to 1988 and as mentioned, Japan is the United States' major regional trading partner. America supports the Asia Pacific Economic Cooperation (APEC), however, is opposed to Malaysia's proposed East Asia Economic Caucus (EAEC), which is seen as leading to a trading bloc. America would strongly support the involvement of other regional countries in the APEC such as China, Taiwan and Hong Kong. Over 30% of the United States' exports is with the Asia-Pacific area. Any economic grouping excluding her from the region will have major consequences.

Conclusion

"But the important and enduring value of this role is the reassurance the United States 'balancing wheel' provides to regional powers, allowing them to refrain from acquiring military force capabilities of a size that would prove destabilising." The United States is an important element in the regional balance of power, for without her presence, a race to fill the vacuum would be between Japan, China and potentially India. The United States will withdraw her global presence in many ways and over a protracted period, and intervention is likely to occur only when American interests are directly affected. Currently, the United States has too many economic interests in Southeast Asia and other regional countries to embark on an isolationist role.

China

Introduction

With a population of 1.15 billion people and defence force of 3.2 million, a member of the nuclear club and a major exporter of ballistic missiles and conventional arms, China is a major protagonist in the regional security balance. Consequently, any changes to China's foreign policy will directly affect the regional balance of power.
For the last decade, China has adopted a pragmatic approach to her foreign policy, stressing modernisation, economic development and mending fences with her neighbours. Deng Xiaoping has asserted that the foreign policy objective is to create a peaceful environment in which to modernise the country and quadruple the GDP per capita to $US800-1000 before the year 2000. But China has to bear a cost: rapid economic development will have social and political consequences.

Though encouraged by China’s open-door and reform policies, many in Southeast Asia are worried that the Middle Kingdom may be tempted to step in as regional policeman in view of her increasing military modernisation programme.

**China’s Strategic View**

China sees the region in a situation of strategic change. Firstly, the end of the Cold War and the collapse of the Soviet Union was welcomed by Beijing as it meant the end of a potential enemy and an opportunity to spend valuable resources on economic development. China sees the next 10-15 years as a period of relaxed international relations heightened by economic competition, followed by a period of growing regional tensions as the balance of power is readjusted. Chinese leaders recognise that China must use the present period to modernise her economy and advance her technology so that she will have a voice in the emerging multi-polar world.

Secondly, China’s relationship with Southeast Asia is the best it has been since 1949. She has normalised relations with Indonesia, now has formal relations with all six ASEAN members and is a regular participant in the annual ASEAN foreign ministers conferences. This improved relationship has occurred mainly because China has abandoned her policy of supporting revolutionary forces outside the country, and all nations in East Asia now share a common concern over how to deal with the post-Cold War era and the domination of Japan and the United States.

Finally, Beijing is also extending her strategic influence by military assistance to other Asian countries. Pakistan, North Korea, Myanmar and Thailand have all benefited from major and cheap arms sales from China.

China sees three major threats to her security in the next 10-15 years:
(a) Internal instability as a result of the transformation to a more liberal economy.
(b) The threat of Japanese domination of the region.
(c) The loss of strategic assets in the South China Sea.

**Internal Threats**

China’s prospects for a role in the region are closely linked to the resolution of her internal problems. Aware that she is the last major country espousing communism and, at the same time, attempting to embark on a road to economic development involving capitalist ideals, Chinese leaders are trying to ride a very fine line. In 1990, Deng Xiaoping warned that “should civil war break out in China, it would not cease.” He said that if the Communist Party lost control on the mainland, the result would be chaos that could drive 100 million Chinese to flee to Indonesia, 10 million to Thailand and 500,000 to Hong Kong. His message was essentially that China and the region would be better off by sticking with his Communist regime than risking such a catastrophe.

The cataclysmic changes that occurred in Eastern Europe and the Soviet Union have left Beijing jittery. The Chinese economy is plagued by fundamental flaws and Deng Xiaoping has recognised the need for reform, but reform Chinese style: “If capitalism has something good, then socialism should bring it over and use it. We must not be worried about whether Chinese-style socialism might be eroded by capitalism. Reform and greater openness are China’s only way out.”

**The Japanese Threat**

Chinese plans to develop the economy and become one of the great powers of the 21st century can only be done with Japanese economic assistance. Nevertheless, this is balanced against China’s concerns about Japan’s great power ambitions in Asia. “There is, thus, an ambivalence in China’s Japan policy reflecting the contradictions between short-term policy requirements of economic co-operation and long-term considerations demanding strategic responses.” China sees Japan’s economic influence as a prelude to political and even military influence.

China is also concerned that Japanese influence in some Indochinese countries could undermine China’s security. Although most countries are pleased about the end of the Cambodian conflict, China sees this as the impetus for an emerging new strategic order.
involving Indochina and Japan. This may explain China’s improved relations with Vietnam and Laos since the end of the Cold War.

However, Japan and China have developed a cooperative rapport. This has been reflected in Japan’s liberal treatment of China in the post-1989 uprising and the hospitality shown to Japanese dignitaries in China. Japan has responded with generous loans such as the $US5.8 billion for energy development last year and $US545 million in official assistance in 1992.

The South China Sea

The South China Sea is one of the most strategic bodies of water in the world, connecting vital trade lanes. As the United States and former Soviet naval presences are reduced in the region, China has both the will and the capability to dominate these sea lanes.

China could see herself having to protect her commercial sea lanes and offshore assets from a Japanese threat which could be more economic than military. Recently, the PLA Daily stated that: “Economics is the driving force behind maritime rights, ocean territory is that which maritime rights depend upon, and maritime defence is the way in which a nation protects its rights.” An increased naval capability is in line with Beijing’s policies on the Spratlys and the Paracels. China’s strategic interests in these islands will guarantee her future naval and commercial access to the South China Sea. Her navy, in power projection terms, will be used as a political instrument to offset Japan’s increasing regional presence. There may be more behind China’s insistence that the South China Sea is part of China and her claims to the Spratlys Islands.

Conclusion

Whether China will act as a status quo force in the region in the interests of all regional partners, or push the communist ideological line remains to be seen. At the moment, as indicated, the evidence is ambiguous. Given time however, China will probably adopt a cooperative attitude in establishing a workable international strategic system, rather than remaining with the ideals of the pure communist model. This may well only happen after the ‘old guard’ passes away and the roots of economic development take control.

To manage the transition from post-Cold War uncertainties to the emergence of new regional powers will require careful diplomacy. A retreat from economic reform and consequent retarded development may leave the Middle Kingdom with military force as its only instrument of power. Because China is successfully modernising at her own pace and has enjoyed a reduction in big power threats, she will tend to turn outward and consequently will play a more dominant role in the affairs of the region.

India

Introduction

During the Cold War, India was regarded as a pawn in the global chess game between the Eastern and Western blocs. Since the end of this period of turmoil, India is often seen sitting somewhere between two extremes: as an emerging power with a will to exercise her regional influence, and as a nation totally concerned with the problems of nation building. Of concern to most Southeast Asian countries is India’s emerging power projection capacity, and in particular, her nuclear capability and very strong navy.

India’s emergence into Southeast Asia in the post-Cold War period is complicated by the fact that India is yet to articulate her strategic view in clear and unambiguous terms, in the form of a Defence White Paper. Shaken by the loss of her intimate relationship with the Soviet Union, India is a struggling nation balancing internal problems of religious secularism, overwhelming poverty, and separatist movements, with an external threat from Pakistan to the east and a perception of China encircling from the north and east. As a result, India seems more interested in containing her own problems than developing new ones by moving into Southeast Asia.

Foreign Policy

Any change in India’s foreign policy will depend on the following:

(a) An Improvement in the Indian-Pakistan Relationship. The Kashmir dispute is the major obstacle to a thawing of this relationship. The rise of religious revivalism in both countries, is also restricting the ability of the respective governments to manoeuvre towards an outcome. Future hopes
likely to use or develop scarce resources to develop a strong eastern policy. India is more likely to concentrate on internal reconstruction in the immediate future and embark on ‘fence-minding’ with regional neighbours. Although this will not necessarily mean an end to the Indo-Pakistani standoffs, it does mean that there are opportunities for Southeast Asian countries to develop confidence-building measures at all levels with India. Due to her geographic position, India must be integrated into any regional security equation. Her nuclear capability and naval dimension will also ensure that she will continue to play a major role in determining and maintaining regional stability.

Conclusion

Southeast Asia is one of the most exciting areas in the world. With the end of the Cold War and emerging multi-polarity, a conflict of interests is more likely to occur than ever before. With an easing United States presence, but an ‘over-the-horizon’ capability, other major powers in the region will play an increasing role in the power equation. It is likely that Japan will take a greater role, sponsored by an easing of the United States presence. China and India are unlikely to enter into the equation with force, devoting resources to deal with internal and economic development problems. Geoeconomics rather than geo-politics will play a larger role. Future economic grouping in the region are likely to involve key players such as Japan, China, the United States, and the Asia-Pacific nations. Smaller economic groupings are unlikely to make a significant impact.

Overall, the security outlook is favourable. Most of the countries in the region will continue down the path of nation-building based on participation in the global economic system. The exceptions to this are Indo-China, which is quickly realising the value of a market-oriented environment, and Myanmar which is being pressured to adopt a more realistic outlook. For the nations of Southeast Asia a new dawn has arrived. For the watching world, Southeast Asia will be a potent mixture of the excitement of rapid economic growth and uncertainty as new powers emerge.

NOTES

1. Southeast Asia is defined as those countries of ASEAN (Singapore, Malaysia, Thailand, Indonesia, Brunei and the Philippines) and the Indo-Chinese countries (Vietnam, Laos, Cambodia). The ‘region’ is defined as Southeast Asia, Northeast Asia and East Asia (China, Japan, Taiwan and North and South Korea) and west to Myanmar.
2. In geo-politics the emphasis is on solid and secure national boundaries; geo-economics emphasises cross-border flow of goods, investments, tourism and technology. For more detail

3. The Soviet Union occupied these former Japanese islands at the end of World War II. The Northern Territories, or the Kurile Islands, are of great strategic importance as they guard the entrances to the Sea of Japan and the Sea of Okhotsk.


9. The Peacekeeping Operations Bill (PKO) was passed on 16 June 92 and will allow the commitment of up to 2000 troops to United Nations peacekeeping operations. Reuters Reports, New Straits Times, Kuala Lumpur, 16 and 17 Jun 92.


12. In 1990, Japan gave US$8.45 million to Myanmar, which was 73% of all the aid that the country received that year. Observers say that this is indicative of Japan’s quiet, behind the scenes efforts to push for democracy and human rights. Op Cit, Desmond E.W., “Venturing Abroad”, p.47.


17. This will not be easy. There has been much adverse comment from Singapore, Taiwan and South Korea after the 16 Jun 92, passing of the Peace Keeping Operations Bill. See Reuters Reports, New Straits Times, Kuala Lumpur, 16 and 17 Jun 92.


21. This view was expressed by the Malaysian Minister of Defence, Dato’ Seri Mohd Tun Razak, at the Chief of the General Staff Land Warfare Conference in Darwin, 9 Apr 92, in a Paper “Regional Security: Towards Cooperative Security and Regional Stability”.

22. Five out of the seven United States mutual defence treaties are with nations of the Pacific.

23. Canberra Times, 30 Apr 92, p.7. This point is supported strongly by Malaysia. Defence Minister Najib recently said: “A power vacuum in Southeast Asia is not desired and a continuing American presence will be essential as efforts are made to upgrade both national and regional security.” See Zakaria Hj Ahmad, “The Quest for Regional Security”, The Star, Kuala Lumpur, 19 May 92.


25. A large number of the semi-conductors, ball bearings and micro-chips essential to the American defence industry are produced in Asia. See Op Cit, McLaurin and Moon, p.18.


27. Exports to Europe grew during the same period only 74%. See Op Cit, Solomon, p.52.


32. China is making herself heard in the international arena in many ways. She has signed the Nuclear Non-Proliferation Treaty, and did not oppose the use of force against Iraq, however she is unwilling to limit sales of nuclear technology and other weapons of mass destruction to volatile parts of the world. China has displayed little interest in the United Nations’ decision to establish a register of arms sales around the world.

33. Ross, R.S., “China’s Strategic View of Southeast Asia: A Region in Transition”, in Contemporary Southeast Asia, Vol 12, No 2, Sep 90, p.108.

34. China has a formidable defence industry. It is the 5th largest arms dealer in the world, with sales of about US$1.5-2.0 billion per year since 1980. The foreign exchange from defence sales in providing a huge boost to the development of China’s economy. See Cheung, T.M., “Unguided Missile”, in FEER, 6 Feb 92, p.42-43.


37. Economically, Japan was China’s number one trading partner in 1991, totalling over US$22.8 billion, compared with US$14.2 in Sino-US trade. Di Hua, ibid, p.10.

38. Op Cit, Ross, R.S., p.113. It has also been mooted that Beijing will support Japanese interests in the United Nations while Japan will lobby for Chinese interests within the Group of Seven leading industrial nations. See Cheung, T.M., “Using the UN”, in FEER, 30 Jan 92, p.18.

THE IMPACT OF THE MAJOR EXTERNAL POWERS ON THE SECURITY OF SOUTHEAST ASIA

BIBLIOGRAPHY

Books


Articles and Periodicals


Reuter Reports, New Straits Times, Kuala Lumpur, 16 Jan, 17 Jun, and 16 Jul 92.

Richardson, M., “Regional Mistrust Increasing”, in Asia-Pacific Defence Reporter, Apr-May 92.

Ross, R.S., “China’s Strategic View of Southeast Asia: A Region in Transition”, in Contemporary Southeast Asia, Vol 12, No 2, Sep 90.


Tasker, R., “Premier of Last Resort”, in Far Eastern Economic Review, 16 Apr 92.


Unpublished Material

Di Hua, “China in the 1990s: A Friendly Family Member of the East Asian Community Confronting the United States Superpower”, Address at the First Asia-Pacific Defence Conference Singapore, 26-28 Feb 92.


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ERRATUM

There was no intended return to the religious sectarianism of World War I in the conclusion of my article in Journal No. 92.

The first line of the second last paragraph on page 57 in the article titled, “World War I: a testing time for Australian Christianity — a lesson for the future”; should have read:

“The lessons to be learned by Australian Christians . . .”, not “. . . Australian Catholics . . .” as was printed.

A publishers Freudian slip perhaps?

Chaplain Len Eacott, RFD

No. 37 SQUADRON 

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FSGT Bob Pearman

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An Examination of the Military Implications of Australia's Continued Claims to a Large Part of Antarctica

By Colonel J.V. Johnson, RFD, ED, MA, PhD, FRGS, Director, Reserve Staff Group — Army

Introduction

This article — written in the first instance in response to the Army Master Studies List of the Directorate of Army Studies — examines the implications to the Australian Defence Force (albeit with emphasis on the Australian Army) of Australia's continuing claim to a large part of the Antarctic sub-continent. It commences with an examination of the historical background to Australia's involvement in the region, a brief resume of the activities of other nations in the area.

An examination is made of the legal basis of Australia's claim to the Australian Antarctic Territory and current developments in international forums on the subject. This is followed by an overview of the resource bases of the sub-continent and review of the strategic issues and a detailed examination of the factors which might affect military operations in Antarctica.

Definitions

For the purposes of this article, “Antarctica” is defined as all that area south of latitude 50 degrees exclusive of continental South America and Tierra del Fuego.

Australian Antarctic Territory includes that part of continental Antarctica as defined in the Australian Antarctic Territory Acceptance Act 1933-1973 being all the islands and territories other than Adelie Land situated south of the 60th degree south latitude and lying between the 160th degree east longitude and the 45th degree east longitude, Heard and MacDonald Islands and Macquarie Island.

Australia's Involvement in the Antarctic

Australia’s involvement in Antarctica can be traced to the first great period of Antarctic exploration, 1839-43. The three main voyages of discovery — Wilkes’ inconclusive American expedition, Dumont D’Urville’s French Expedition and Ross’ British scientific expedition all sailed from Australia. Ross wintered in Tasmania and D’Urville returned there to bury some of his casualties. This prompted some interest in the region, but no formal moves were made for another 40 years. In 1885, the Victorian Parliament debated a motion that the Colony should undertake the exploration of the Antarctic region. The motion was defeated on economic grounds but in the following year the Royal Society of Victoria formed an “Australian Antarctic Exploration Committee” comprised of academics and government officials. The early scientific interests identified included magnetism, auroral science and meteorology.

Again, lack of funding put an end to the plans of this Committee, but not before wider interest had been aroused in the issue. The desire for Australia to take a political interest in the region was first expressed in an editorial in the Melbourne Argus of 24 April 1892 which argued that:

“... we have a historic connection with Antarctic research and our proximity to those unknown regions has ever indicated to scientific men that Australia should take a leading part in any such expedition of discovery ... there is no reason why the flag of Australia should not float over this vast unclaimed and un-named territory”.

Finally in 1894, a Norwegian resident of Melbourne, H.J. Bull, managed to interest a Norwegian sealer to finance a voyage to seek out whales, using a steam whaler called **Antarctic**. Local scientific interests were re-kindled and a fellow Norwegian resident in Melbourne, C.E. Borchgrevink joined the expedition to carry out scientific research. The expedition reached Cape Adare and became the first party to set foot on the Antarctic Continent.

Some four years later, Borchgrevink led a privately-funded, London-based expedition to Cape Adare in the ship **Southern Cross**. This expedition left a ten man wintering party at the Cape, including a Tasmanian scientist, Louis Bernacchi. The expedition made no territorial claims and made only one incursion from the coast in which one member of the expedition died.

Bernacchi’s reputation as both a physicist and an expeditioner led him to be included in Scott’s first expedition of 1901. This expedition, largely financed by the Royal Geographical Society, made territorial claims for Britain, and was followed by a second one
MAP OF ANTARCTICA
Showing Territorial Claims

The shaded area is disputed by Argentina, Chile and the U.K.
in 1907-09 which included three Australian scientists: Professor Edgeworth David, Doctor Douglas Mawson and Mr Raymond Priestly. The expedition, led by Shackleton, used the steam vessel Nimrod, the Chief Officer of which was Captain John King Davis. This expedition, devoted primarily to science rather than exploration, marked the beginning of serious Australian involvement in Antarctica. Mawson returned to Australia to comment that Antarctica provided:

"... an opportunity to prove that the young men of a young country could rise to those traditions which have made the history of the British Polar exploration one of triumphant endeavour". (Mawson, D. Home of the Blizzard. (1915) p.x)

Mawson’s enthusiasm led to the mounting of an Australian Antarctic Expedition in 1911 which laid the foundations for Australia’s continued participation in Antarctic research and exploration and established Australia as a nation with serious scientific and territorial interests in Antarctica. Mawson made territorial claims for the entire coastal expanse of the sub-continent from Cape Adare to Gaussberg, about 2000 miles, as well as carrying the Australian flag well inland. Although Mawson’s territorial claims were made simply in the name of the King, such claims resulted from Australian expeditions.

The effect of World War I led to little Australian activity in Antarctica in the 1920s, yet in this period France annexed Terre Adelie (1925) and the U.S. made its first expedition into the Ross Sea area in 1928. Rapid expansion of commercial whaling led to the Imperial Conference of 1926 considering formal annexation of territory and in 1929 a British, Australian and New Zealand Expedition was raised under the leadership of Mawson. The expedition was maritime in nature and further landings were made for proclamation purposes.

A second British, Australian and New Zealand Antarctic Research Expedition (‘BANZARE’) was mounted in 1930, and was again maritime in nature. Better weather enabled it to traverse nearly 40 degrees of longitude along the Antarctic coastline, making frequent proclamations along the route.

In 1933, the British and Australian Governments negotiated the establishment of Australian sovereignty over all those areas discovered as a result of Mawson’s pre-war expedition and the subsequent two BANZAREs. This was formalised in the Australian Antarctic Territory Acceptance Act 1933 and a United Kingdom Order-in-Council which fixed 24 August 1936 as the date of transfer of sovereignty.

Australia’s formal claim to its Antarctic Territory is therefore based on proclamation, exploration, occupation and legislation of the 1930s.

In the immediate post-war period, both the United States and the USSR became very active in Antarctic waters and several landings were made and new proclamations issued in areas previously claimed by Australia. Neither country informed the Australian Government of their intentions or actions and copies of proclamation notices are still being discovered around the Antarctic coast. There has even been one instance of both a US and a USSR note being discovered within a few feet of each other.

It should not be assumed that Australia was idle during this period. In fact, the contrary was the case. On 5 December 1946, the Minister for External Affairs, Dr H.V. Evatt, announced to Parliament that:

“The Government attaches great importance to the whole question of resuming in the Australian Antarctic work which was interrupted by the war and is planning fuller investigations into the possibilities of the Australian Antarctic Territory with the object of exploiting its resources to the best advantage.” (Hansard Vol. 189, p.1046).

Again, a lack of money and the absence of any really suitable ship lead to the early post-war activities being limited to the sub-Antarctic islands. An attempt to reach the continent using a converted Norwegian herring trawler (HMAS Wyatt Earp) was defeated by a combination of foul weather and pack-ice, but permanent stations were established on Macquarie Island and Heard Island in the summer of 1947-48.

It was not until the summer of 1953-54 that a suitable vessel was chartered to enable the establishment of a permanent research station on the Antarctic sub-continent. This was at Mawson, and it has been continually occupied to the present day. In 1954, Australia was operating three permanent research stations, two in the sub-Antarctic and one on the Antarctic landmass itself. In so doing, Australia became the first nation to establish a permanent presence in the region, thus consolidating its territorial claims to Antarctica.

Australia’s Claim to the Antarctic Territory

The Position at Law

At the time that Mawson Station was established, Australia had a reasonably sound claim at international law to the territories as defined in the Act. The principles relied on at that time were those enshrined in the concept of terra nullius or claims to unoccupied lands. These can be summarised as discovery (essentially
by the combination of the Mawson Expedition and the subsequent BANZAREs; continued exploration (based on a combination of Australian summer voyages to the territory and by inland journeys from Mawson); and continued occupation and effective control (by maintaining the party at Mawson all-year round and by making Australia’s occupation public, for example, by legislation — the Australian Antarctic Territory Act 1954 was proclaimed to regulate the occupation of the territory).

However, the law of nations is dynamic in nature and has undergone considerable change since 1954, assuming an intertemporal dimension which, in effect, argues that whilst acts must be judged according to the law contemporaneous with their creation, rights validly acquired may nevertheless be lost if they are not maintained in accordance with developing international law.

Australia’s period of sole occupancy was not to last for long. In August 1951, the International Union of Geology and Geophysics had proposed that an “international geophysical year” be held during 1957-58 to coincide with a predicted period of major sunspot activity and it was logical that much of the activity associated with this event should be based in Antarctica. Realising that this would, inevitably, pose a challenge to Australia’s claims (which were, in effect, unenforceable), the Australian Government invited other nations to set up research bases in the Australian Antarctic Territory. This avoided the embarrassment experienced by New Zealand, whose claim to the “Ross Dependencies” was rudely shattered by the U.S. Antarctic Territory. This avoided the embarrassment of McMurdo Sound. Nevertheless, the U.S. was firmly behind the new proposals for a treaty to regulate activities of all nations in the Antarctic. The Treaty provided for three essential heads of agreement; freedom of scientific research; non-militarisation of the region; and a “suspension” of territorial claims (the last one being a recognition of the fact that those nations who had not established claims did not wish to recognise the validity of existing ones). The Treaty was duly incorporated into Australian law as the Antarctic Treaty Act 1960.

Australia welcomed the Treaty as it maintained the status quo ante in relation to Australian territorial claims and relieved the Government of having to concern itself with threats to national security from the south. The Treaty established, in effect, a Pax Antarctica which was eminently suitable to Australia, whose interests were best served by keeping the region demilitarised.

During the 1970s, however, it became apparent that the Treaty system was starting to develop problems. Scientific activities in the region remained well managed, but rising interest in resource exploitation, both by some Treaty Members and by third world countries excluded from the Treaty by not being involved in polar science began to put the system under strain. The Australian Government responded by launching an extensive rebuilding programme at its three continental stations (Mawson, Davis and Casey) in an attempt to demonstrate its ongoing commitment to the region, hoping thereby to manifest its intention to remain a permanent resident nation in the region and to rely on the existing Treaty provisions to retain the Pax Antarctica which would permit Australian occupancy to continue unchallenged. It is questionable if this move has been really successful as it not only served to concentrate activities in very localised areas but also diverted resources and logistic effort away from the scientific programme, thus restricting further coastal and inland exploration beyond that already being undertaken in support of the International Antarctic Glaciological Project. Therefore, in traditional public international law terms Australia’s position was relatively unchanged, or perhaps even weakened.
Pressure on the Treaty system arose from both within and without. In 1986, the Australian Government became concerned that South Africa and France might be considering nuclear testing at Marion Island and Kerguelen and Saint-Paul Islands respectively. At the same time France commenced to build an all-weather airstrip at its continental station, Dumont D'Urville. Japanese and Eastern European whaling activities and general fishing activities of those nations and of Chile and Argentina caused further concern.

The Resource Issue — An Overview

The resource argument took a new turn in the United Nations in 1981 when third world nations began to agitate for a greater share in the development of the Antarctic, advancing a new argument to the effect that Antarctica should be developed for the benefits of mankind as a whole, and the developing nations in particular. This claim represented a move towards a concept of common heritage or *rex communis* which had already been broadly accepted at international law in relation to the law of the seas and outer space. The underlying issue was one of resource exploitation and was a reflection of growing pressure to exploit the potential for mineral extraction in the Antarctic. It should be noted that the developing nations did not display any interest in scientific research or to exploit the potential for mineral extraction in the Antarctic. It should be noted that the developing nations did not display any interest in scientific research or suggest that they should in any way contribute to the cost of locating and extracting such minerals (including petroleum) but rather simply expressed a claim to the spoils.

Australia’s reaction to the minerals issue was a guarded one. Clearly, massive exploitation of Antarctic mineral resources by any nation or nations would have an economic impact on Australia, given the importance of mining to the national economy. The initial reaction was to seek some form of agreement within the Antarctic Treaty that would permit Australia to have some say in the matter and at the same time withstand serious intrusion into Australia’s territorial claims. The position was stated at a Symposium on Antarctic Studies in Madrid in 1987 as one in which:

"... we support a minerals convention ... which would be a consistent and integral part of the Antarctic Treaty System."


In taking this view the Government hoped that environmental concerns might be utilised to restrain the onset of mineral prospecting and exploitation and that any minerals convention might help avert the potential environmental and political problems inherent in unregulated minerals activity in Antarctica.

As the minerals issue is the only one to have posed a serious challenge to the Antarctic Treaty in 30 years it is important to make a brief examination of the matter. In hard factual terms the mineral Treaty is overstated. In the first place, only 2% of the Antarctic surface is exposed (i.e. free of ice cover) and the claims made about mineral potential are at the best based on mineral occurrences rather than mineral reserves. However, the application of the theory of continental drift to Antarctica and the linking structures in southern Australia. Sri Lanka and South Africa all indicate that mineral resources could exist in the region. This, however, is yet to be established and at present it cannot be disputed that claims made that there are significant mineral resources in the Antarctic are based more on circumstantial evidence than on fact.

Also, mineral exploitation on land in Antarctica in terms of hard-rock mining must be assessed within a reasonable framework of economic, technical and geological constraints. Experience in the Arctic has indicated that underground mining for precious metals (although not coal) in a permafrost environment can be achieved, but the limitations imposed by the sea gap surrounding Antarctica would, at present, put such mining at a competitive disadvantage. In relation to hydrocarbons, the Deputy Director (Scientific) of the Australian Antarctic Division (Dr P. Quilty) has noted that the only factors inhibiting the development of Antarctic resources were political, technological and economic and that if the first and last factors were overcome, the technology would evolve quickly, although it was his opinion that hydrocarbons extracted in Antarctica would be too expensive to be competitive with cheaper alternative sources of energy or hydrocarbons extracted elsewhere in the world. (Harris, S. (ed), *Australia’s Antarctic Policy Options* Canberra, Centre for Resources and Environmental Studies, 1984, p.167).
ly, the Prince Charles Mountains, inland from Mawson Station have shown a potential for both diamonds and coal. As a result, it can only be expected that these regions will assume more prominence in strategic and international affairs in the future.

Whilst it can be argued that the minerals issue has been side-lined by the 1991 Environmental Protocol which has placed a ban on mining activities in the Antarctic, the Protocol is, in effect, obscured by controversy and diluted by escape clauses which leave the future far from clear. At best, the Protocol could prevent mining activity for fifty years, at worst any nation could violate it at any time. Such a situation could be precipitated by changes in availability of mineral resources brought about by political change outside the region, for example, in South Africa. (See, in this context, Wells, J.W., Antarctic resources: a dichotomy of interest, Australian National University Strategic and Defence Studies Centre (Working Paper No. 242) 1991).

Australia has attempted to formalise its position in relation to mining by passing the Antarctic Mining Prohibition Act 1991 which provides penalties of $100,000 for any person found to be engaging in mining activity in the Australian Antarctic Territory which was redefined to include the continental shelf extending to 60 degrees south. No consideration was given to the realities of enforcing such an enactment, nor the inadequacy of the penalties. Nevertheless, the Act provides an indication that Australia is not prepared to tolerate any mining activities within its territory, so the military implications inherent in such a stance can no longer be ignored.

Australian Antarctic Territory

Strategic Issues

Although it could be argued that the issue of mineral resource exploitation is of paramount strategic importance to any examination of the Antarctic Territory there are other factors which must be taken into consideration. In the first half of the present century, British Imperial interests in the region were clearly strategic and were linked to the domination of the southern maritime trade routes via the Cape of Good Hope and Cape Horn. Major naval battles were fought in the region in the early stages of both world wars — the Battle of the Falklands in the first, and the Battle of the River Plate in the second. Britain's more recent military activity in the region could, arguably, have related as much to maintaining a presence in the south as to preserving the aspirations of the Falkland Islanders.

Whilst it might be claimed that although the Antarctic is in Australia’s region of primary strategic concern, it is no longer of such maritime importance and does not provide a ready base for a hostile nation to occupy, it nevertheless remains (with the exception of New Zealand) the nearest landmass to the most populated areas of Australia and dominates the approaches to Australia from the south. For that matter, Argentina, Chile, New Zealand, the UK (from the Falklands) and the US (from McMurdo Sound) can all project military air power into the region without notice. That the Antarctic is a region of military importance which cannot be discounted by Australia was borne out in the 1987 Defence White Paper which noted that:

“The national interest of Australia lies in ensuring that Antarctica remains demilitarised and free from political and strategic competition. So long as Antarctica remains demilitarised, no threat to the security of Australia itself is in prospect from or through that region . . . with the other Treaty consultative parties, we are working on means to preserve the Treaty.” (Commonwealth of Australia, The Defence of Australia 1987, Canberra, Australian Government Publishing Service 1987, p.19.)

Australia can no longer rely on the Antarctic Treaty to maintain the region as a zone of strategic irrelevance. Like it or not, the increasing interest of third world nations in the Antarctic, the lack of enthusiastic unanimity shown for the minerals issue at the Madrid Symposium, and the pressures of economic factors make it inevitable that it is only a matter of time before the Antarctic takes on a military-strategic dimension which Australia and the Australian Defence Force will be unable to ignore.

A Military Appreciation of the Australian Antarctic Territory

Any attempt to conduct a military appreciation of the Australian Antarctic Territory must commence with an examination of the physical geography of the region. Australia’s permanent Antarctic Stations are all located on the coastal littoral. None have permanent airfield facilities, although a survey has been made of an ice free area near Davis, and a ski-field has been opened at Casey on several occasions for ski-equipped US LC-130 Hercules aircraft. All three stations have semi-sheltered harbours, but none have tie-up facilities, all unloading being via amphibious vehicle or barge. All harbours freeze over in early April and remain frozen.
until November, although the sea ice at Casey frequently breaks out during winter blizzards, re-freezing in a matter of hours after the winds abate. No permanent stations exist inland, although there are limited ‘permanent’ facilities at some scientific locations, some of these being under the ice. Various ‘shelters’ exist at glaciological, biological and geological sites but all are primitive and provide accommodation only for field parties of up to six.

The sub-Antarctic station at Macquarie Island has permanent accommodation but lacks a sheltered harbour and the island has claimed many ships, including the Australian-chartered Nella Dan. Heard Island, likewise, has reasonable — although ageing — accommodation but no port facilities. Neither of the island stations have facilities for landing fixed-wing aircraft.

Insertion of a military party into the Australian Antarctic Territory would therefore have to take place either by a direct sea landing at one of the stations (or anywhere along the coast) during the summer months or by an aerial insertion from either a carrier-borne aircraft or from a permanent airfield either in Antarctica or from a base in another country within range — effectively limiting such activities to Argentina, Chile, the Falklands, New Zealand and South Africa or from internal airfields in Antarctica — McMurdo Sound, Dumont D’Urville or the Soviet station at Mirny. Weather conditions and available daylight are such that aerial operations could only take place between late October and early May.

The Antarctic environment is not conducive to military operations. Whilst wars have been fought in similar climates (the Russian campaigns of World War II being examples) the terrain is markedly different. 98% of the Antarctic is covered by ice, varying in depth to greater than a mile. Much of this ice sheet is mobile, resulting in crevasses that render cross country mobility, even on skis, hazardous. Vehicles (which have to be tracked) require special ice-grousers to be fitted to the tracks. Even in the relatively stable areas, the constant action of wind produces sastrugi or ridges in the ice surface which make vehicular movement slow and uncomfortable. The highly polished surface of the ice makes foot travel, even with crampons, slow and dangerous. Blizzards and whiteouts make navigation difficult as does the total unreliability of magnetic compass. The Antarctic is the highest, driest and windiest land mass on earth and is the world’s largest desert. The only available water is the ice-cap itself, and there is absolutely no food available once the coast has been left behind.

The topography of the Antarctic is therefore unique, and one in which no military experience has been obtained apart from the brief and near disastrous landing by the British SAS on a glacier in South Georgia during the early stages of the Falklands War. Within the Australian Antarctic Territory, with the exception of the Vestfold Hills area near Davis, blue ice conditions are experienced within a kilometre of the coast. Conventional digging and preparation of fortified or defended positions is therefore impossible. A totally new approach to ‘ground’ is therefore needed should military operations ever be considered in the region.

As noted earlier, wars have been fought in climates as cold as that encountered in coastal Antarctica. Despite this, the impact of the climate still needs consideration in the unique Antarctic context. Ambient temperatures can vary at the coast between +5°C in midsummer and -30°C in winter, with some small variations above and below these figures. To a very large extent, temperature effects can be overcome by clothing and modifications to vehicle operation as has been proved by the activities of the Australian National Antarctic Research Expeditions over the past 40 years. Certainly, prolonged exposure is fatal, and conventional engines and fuels fail after the temperature falls much below -15°C, but given adequate shelter and correct fuels and lubricants, men and vehicles continue to function well into the minus fifties. This does not, however, suggest that, even if the topography was conducive to such activities, conventional minor tactics would flourish under such conditions.

Perhaps the greatest impact of climate lies in the winds. Winds of velocities up to 150knh are commonplace, and winds in excess of 300knh have been recorded at Casey. In such winds, movement is quite impossible. Vehicles are blown over, driven snow reduces visibility to zero and the noise makes any form of oral communication impossible. The wind chill factor associated with such winds greatly magnifies the effect of cold. Massive drift banks build up down-wind of stationary objects making subsequent movement very difficult until vehicles, stores and equipment can be relocated and broken out. The effect of winds is further magnified by the fact that the intense low pressure systems that create these blizzards form with very little warning. Pressure can fall by up to 100mb in a matter of hours which in military terms means that a patrol could not safely move more than about two hours from a sheltered base without requiring meteorological updates. These blizzards can last for several days and then clear as rapidly as they rose.

The Antarctic is, therefore, the most hostile region known to man. It is quite impossible to ‘live off the land’ once the impoverished biota of the coastal littoral has been left behind. The first serving officer to
... doomed by nature to perpetual frigidness, never to feel the warmth of the sun's rays: whose horrible and savage aspect I have not words to describe". (Cook, J.: A Voyage towards the South Pole and around the World (London, Strahan and Cadell, 1777) Vol. II., p.231).

The only concession is that, like Spencer Chapman's jungle, it is neutral, conferring no advantage on anyone, other than a fragile one gained from polar experience which really only serves to reinforce the fact that the single constant in the region is its malevolence towards man.

Quite apart from considerations of the land battle is the simple issue of access. Apart from access by air, which is restricted by extremes of range, the only practical approach to Antarctica is by sea. Such an approach traverses the most daunting seas in the world, where the climatic elements are just as forbidding as those found ashore.

All three of Australia's permanent Antarctic Stations are ice-bound in winter. Even at Casey, where the pack-ice is sometimes broken out during intense depressions, the break-out is restricted to the coastal edge of the ice sheet, with the pack-ice remaining at sea. Similar situations can exist even in summer and, whilst in the 38 years of operation of the continental stations, none has ever been frozen in throughout summer, barely a year goes past without a relief ship being ice-bound to some extent and there have been several near misses. Therefore, any military operation involving the use of conventional shipping is going to be subject to weather constraints, even if these only apply as the expedition nears the Antarctic coast.

Before reaching the coast, any vessel approaching the Antarctic has to run the gauntlet of some of the worst maritime conditions encountered anywhere on the high seas. One of the continuing lessons of polar history is that the sea conditions are never the same from one year to the next, with the northern extreme of icebergs and pack ice varying greatly from year to year. The regular passage of the sub-polar low pressure systems ensures that seas will rarely be calm and violent storms are common. Damage to deck cargo must be accepted, and even the strongest stomachs have their limits, with low morale of sailors and passengers alike being a common result of the passage south. The likelihood of carrier-borne operations being a serious consideration from within the latitudes 50 degrees south to 60 degrees south is therefore small.

Any expedition approaching Antarctica by sea — military or otherwise — must therefore be prepared to accept the possibility that it will arrive with damaged stores, exhausted crews and debilitated passengers, or that its journey will be stalled for up to a week at a time in the pack ice where the enforced idleness will have a corresponding effect on morale.

All these considerations are 'combat neutral'. It must be borne in mind that in this age of radar and satellite intelligence the chances of a ship of any size being able to approach an Antarctic Station undetected are almost nil. An ice-bound ship makes a perfect target for an air strike as there is no chance of it taking evasive action and its ability to move at all once in the pack ice is so retarded that any move between detection and the strike force (even if Australian-based) reaching the area would be insufficient to avoid engagement and possible destruction.

The physical factors affecting military operations in the Antarctic therefore point to very real difficulties facing any potential aggressor.

What, therefore, is the threat? Pax Antarctica is being undermined by world depletion of resources in the inhabited areas of the globe. The Antarctic Treaty has prevented the exploitation of the resources of Antarctica to date by restricting activities within the area to the pursuit of science and by freezing (pun unintended) territorial claims to the area. Nevertheless, Australia has a reasonable claim to the 42% of the region, based on discovery and permanent occupation and therefore has a clear interest in maintaining that claim should the Treaty break down.

At present, the threats to Australia lie in other nations occupying and exploiting the mineral-potential areas of the Australian Antarctic Territory. Already, there is reason to believe that a fair amount of prospecting goes on under the cover of legitimate scientific research, and it is notable that several other nations have conducted expeditions into the Australian Antarctic Territory with scant regard for Australia's claims. Similarly, it must be borne in mind that Japan, the USA and the USSR (amongst others) do not recognise Australia's claim at all.

Australia's attempts to reinforce its claim are in fact restricted to the restating of its claims — albeit coupled with recognition of such being effectively suspended by the Treaty — and by the extensive rebuilding of the three mainland stations. The potential threat lies, therefore, in either the occupation of a site within the Australian Antarctic Territory by another nation without prior consultation or the forced occupation of an existing Australian station, permanent or temporary (i.e. summer only). Of these, the most likely would be Davis, located as it is at the gateway to the Vestfold Hills and the Prydz Bay area, although one could not discount Mawson, as it controls access to the Prince Charles Mountains — also identified as an area of
mineral potential — or even Casey, because of its reasonable harbour and its location on a shear moraine, which gives indication of the mineral potential of its hinterland.

Arising from these assumptions, the military implications are essentially twofold. The first is the need to protect the current major installations from seizure by a foreign power, wishing thereby to dispute Australia's sovereignty over the area; and the second is the need to eject a foreign expedition which enters the Australian Antarctic Territory without the consent of the Australian Government, either expressly or through the operation of the Antarctic Treaty.

To meet either of these contingencies, there would be a need to station troops in the Antarctic, and at each of the three permanent Stations. To do this would be in violation of the Antarctic Treaty which limits the use of service personnel to logistic operations. This provision has, however, stopped the large-scale use of military personnel by the US at McMurdo Sound which is maintained as a naval station (Naval Support Force Antarctica), or by the French who have used military engineers to construct their all-weather airfield at Dumont D'Urville or the Argentines who post servicemen to their small Stations on the Antarctic Peninsula. Whilst the USSR does not appear to use military personnel on its stations, there is no question that its oversnow vehicles are military in design (some even having the weapons racks) and the rotary wing aircraft employed are military models. Similarly, the 1991 Pakistan expedition was supported entirely by service personnel and the planning of the operation was undertaken by military staff. (Wells, p.6.)

Australia's only military involvement is in the use of RACT amphibious vehicles in the ship to shore logistics operations of each relief expedition. Two regular army officers have in the past been seconded to the Antarctic Division for a year as the Station Leader at Casey and Mawson respectively, and there have been five instances of a reserve officer serving as Station Leader — four at Casey and one at Mawson. However, only one of these remains active at the present moment. This provides a very narrow experience base, considerably smaller than is the case for most other nations operating in the area. Australia continues to rely on chartered ships for most of its resupply, and the government-financed Aurora Australis is partly owned by P&O and has no RANR officers.

If Australia is to take its obligations seriously, there is a need to provide greater familiarisation with the Antarctic for its servicemen. Adventure training is one avenue, which could take the form of support to and participation in the summer scientific programmes of the Antarctic Division, thus giving an insight into both coastal and inland Antarctica. Serving personnel of all ranks could be encouraged to seek secondment to the Antarctic Division for winter programmes — as radio operators, vehicle mechanics, cooks, tradesmen and expedition leaders. In this way a body of experience could be built up which would be of value if or when the Antarctic Treaty system wears thin.

In the event that the Antarctic Treaty system fails, and that a new scramble for resources takes place in the region, the role of the ADF would have to be extended to the surveillance of the Southern Ocean in order to detect possibly hostile vessels operating in or near Australia's claimed territory (which includes the seas out to the sixtieth parallel), thus reducing the possibility of a shore-based action. The option of stationing troops in the region would also have to be considered. As outlined above, the role of any force in the region would be the defence of existing installations and the ejection of any foreign occupying parties within the Australian Antarctic Territory.

As it is most likely that any action necessitating a military response would take place in summer, the scientific research parties normally deployed at that time might need to be reinforced with protective parties, and a polar ready reaction force of perhaps company strength should be positioned at each Station for the duration of the research season. This force could be engaged in environmental familiarisation and training when not required, thus building up the required expertise. In the event of an intrusion into the Australian Antarctic Territory by a foreign power this force should, if deployed quickly enough, be able to eject the intruders. It would, therefore, have to be air mobile (and the additional rotary-wing presence on the Stations resulting from this would be a boon to the research activities) and relatively self-contained. The vehicle establishment of the stations would have to be augmented with some form of APC type vehicle, which could also perform the logistic support role for winter scientific parties. As noted earlier, Soviet parties have in the past used vehicles which were clearly military in design.

During the winter, there would be a reduced requirement for a military presence, although this should not be discounted entirely. Whilst long range movement such as that required to occupy an Australian Station from a base set up by another country is very difficult, it is not impossible, and long range traverses have been conducted with considerable success by Australian, Soviet, British and French parties in the past. Prudence would thus dictate that some military presence should be maintained during the winter. Such military personnel remaining for the winter should, as far as possible, be employed within the normal duties of the research
training, thus providing the smallest drain on the maintenance of winter parties.

**Training and Equipment for Antarctic Operations**

Inherent in the success of any military operation is sound training and good equipment. Not since the Syrian campaign in World War II has the Australian Army involved itself in any form of alpine or cold weather training. Given the unique nature of the Antarctic environment, the question of training and equipment becomes very important.

Whilst it can be argued — superficially — that anyone who is fit can learn to fight anywhere in a reasonably short time it must be borne in mind that the Antarctic is, as stressed throughout this paper, the most hostile environment on earth. Australia has a very wide range of terrain and climate, but none really matches Antarctica, a problem faced by the training element of the Antarctic Division over many years. The Antarctic environment is a 'cold-dry' one, matched only by parts of Canada, Greenland and the continental USSR. It is also completely featureless for the greater part of its interior, and provides no natural support to man. For this reason alone, the Army needs to consider ways of giving serving soldiers some exposure to the region, if only to note these problems.

In the short term, increased adventure training in Australia can be used as a prelude to polar service. Such training must be conducted in 'cold-dry' areas at times of worst weather possible, in order that trainees experience the blizzard and whiteout conditions which are prevalent in the Antarctic. Ice-sheet conditions, even if 'manufactured' are an essential part of training, as walking in crampons is an acquired skill. Crevasse rescue techniques, applicable to both men and machines form a part of any expeditioner's training. Experience in snow cave and igloo construction, and first aid permitting a levelled before ski-equipped aircraft can operate in sub-zero temperatures providing that graphite is used in place of conventional lubricants. Vehicles have operated throughout the region with varying degrees of success. Given that proper attention is paid to maintenance and the use of correctly modified fuels, vehicles will function quite well. The restrictions imposed on vehicular movement are more environmental than military, the greatest problems being presented by the ice surface, crevasses and visibility (in terms of blizzard and drifting snow conditions) which effectively reduce snow movement to average speeds only slightly in excess of walking pace.

Aircraft operations are also limited by physical factors. Even when wind, drifting snow and daylight permit flying, the ice surface impedes landing. **Sastrugi** have to be levelled before ski-equipped aircraft can land, and such an activity is time-consuming and lasts for only two days before the ridges re-form. Even rotary-wing landings are hazardous as even surface-blown snow can make it difficult for the pilot to establish exactly where the surface is, and damage to landing gear is not uncommon. Antarctic Division experience has shown that field parties maintained by helicopters have to hold considerable reserves of food and fuel, as timely support cannot be guaranteed. Unfortunately, because helicopter support for Antarctic Division operations is managed on a contractual basis, there are
probably no RAAF or Army pilots with polar experience in fixed wing operations, and since several years have elapsed since RAAF flights operated into McMurdo Sound there is probably a similar dearth of experience in C-130 operations as well.

In conclusion, therefore, military operations in Antarctica would be difficult to mount and sustain. The need to cross the sea/air gap to gain access to the continent deprives any potential aggressor the advantage of surprise, and few nations have the resources to mount an attack from the continent shelf.

Conclusions

It is unlikely that any nation would wish to risk the international odium arising from an attack on another nation's research facilities in the Antarctic for pure material gain. However, an attempt to establish an exploitative base in the territory of another nation might not prove so difficult, especially if the move was made without prior warning. Once established, it is unlikely that international diplomacy would lead to its removal, and it is equally unlikely that diplomatic approval would follow for a military action to expel the occupier, even if such an action was confined to blockading the site and forcing the occupants to depart or starve.

Nevertheless, the contingency that a direct attack might be made in the context of a wider disagreement (as was the case of the Argentine occupation of South Georgia in the Falklands/Malvinas dispute) cannot be discounted. As a wider range of nations become interested in the Antarctic (and clearly for material as opposed to scientific reasons), it is quite conceivable that one of our regional neighbours might become involved and see a token incident in the Antarctic as a more acceptable means of applying military pressure on Australia than a direct low level attack on the Australian mainland. Given the resource stakes involved such an action might become even more attractive.

Australia lays claims to some 42% of the Antarctic mainland, an area which is becoming increasingly more interesting to other nations as a possible source of mineral wealth and fossil fuels. Despite international agreements on the need to maintain the region as inviolate and preserved for environmental and scientific reasons the fragility of such agreements is well known and it is not beyond either reason or the history of past experience to expect that a change of attitude could take place with little notice.

Assuming that Australia wishes to maintain this claim it is necessary at the policy level to examine both diplomatic and military options for exercising control over the territory. At the diplomatic level the mainstay must be continued encouragement of, and support for the Antarctic Treaty system as that 'freezes' territorial claims and discourages the resort to force by demilitarising the region. If, however, *Pax Antarctica* is weakened to the extent of unenforceability in the diplomatic arena, the military option has to be considered, either in the context of an alliance grouping or as a unilateral consideration.

It can therefore be argued that it is in Australia's interest to undertake some low-level training of ADF personnel in polar operations even if this is restricted to adventure training, the occasional visit of a naval vessel to the region and perhaps the use of military aviation support to ANARE summer programmes. Perhaps Antarctica could be included in a familiarisation voyage for ADFA graduates into the RAN, or as a destination for a JSSC 'country visit'. Such activities would not violate the Antarctic Treaty but would serve as an indication of Australia's continuing commitment to the region.

SELECT BIBLIOGRAPHY

There is a quite substantial body of information available on this topic, to which reference could be made. The major works are:

**On Law of the Nations**

**On the Minerals Debate**

**On the Environmental Debate**

**On Australian Foreign Policy in the region**
Harris, S. (Ed), *Australia's Antarctic Policy Options*. Canberra, Centre for Resources and Environmental Studies, 1984.

**General**

**Historical**
A Letter to a Friend – Delbruck’s Strategy of Attrition

By Colonel Jim Wood, Australian Army

My dear friend,

I was delighted to receive your letter concerning the Strategy of Indirect Response (Defence Force Journal No. 98 January/February 1993).

You have obliged me to turn out some old papers and to renew my acquaintance with that giant of military literature, Professor Hans Delbruck (1848-1929). Much could be said about Delbruck, his influence upon the evolution of German military thought and his monumental work, History of the Art of War within the Framework of Political History, published in four volumes.

I first came across Delbruck by accident in an article on strategy in the Encyclopaedia Britannica where Delbruck is mentioned, seemingly as a footnote to Clausewitz, von Moltke and von Schlieffen, because of his theory of the ‘Strategy of Exhaustion’. This reference to a strategy of exhaustion caught my imagination at the time when we were making much of our proposed involvement in what were being referred to as Low Level Contingency situations in our northern territories. My initial response, as I considered the implications for a small army as it responded to the extraordinary demands placed upon us hunting down ‘wills of the wisp’ as they flitted from map square to map square, was that finally our masters had got it right. Such a strategy would suit our purpose admirably, we would merely sit tight and let our enemy wear himself out surviving in our vastness. Alas, more mature reflection intruded itself and I began to contemplate the converse. Actually our enemy might well impose upon us the strategy of exhaustion by avoiding battle and conducting ‘invasion by seepage’ in a thousand places along our coastline. In effect we would be exhausted by a ‘death from a thousand cuts’.

Suitably intrigued, I tracked Delbruck down in Earle’s work Makers of Modern Strategy, where Gordon Craig has a chapter entitled ‘Delbruck: The Military Historian’. Craig credits Delbruck with the development of two ideas first raised by Clausewitz in 1827. The first idea was that method of waging wars the sole objective of which was to seek battle in order to bring about the annihilation of the enemy. This method, according to Craig, Delbruck called Niederwerfungstrategie — the Strategy of Annihilation. The second idea, according to Craig, Delbruck called Ermattungsstrategie — the Strategy of Exhaustion, and sometimes the Two Pole strategy. This second strategy (Exhaustion) differed from the first (Annihilation) in so much as the commander chose his course of action, in the light of all the circumstances, known or as they became known, from a range of options between two ‘poles’. These two poles were battle and manoeuvre and the commander might elect therefore to give battle or manoeuvre to avoid it.

Delbruck’s advocacy of this Strategy of Exhaustion flew in the face of the military thinking of his time, conditioned in large measure, by the influence of Clausewitz, the deference accorded von Moltke, and an imperfect examination by the scholars of military history of the lessons to be drawn from that history. Particularly pervasive was the emphasis accorded the ‘decisive battle’. It may be also that Delbruck’s critics judged too quickly his views on the History of the Art of War without placing them in the context of the full title of his work, ie. within the Framework of Political History. In this fault such an error is understandable because as Craig points out, Delbruck did not include in his work ‘a general discussion of the relationship of politics and war’ (p.272), rather “he fits the purely military into its general background, illustrating the close connection of political and military institutions and showing how changes in one sphere led of necessity to corresponding reactions in the other.”

In those days when the ties between political leaders and military leaders were so close, ie, the Kaiser as political leader was also the Commander-in-Chief, then it is not surprising that the close ties were so readily understood and the nuances taken for granted. Such a situation contrasts with the almost rigid divisions between politics and the profession of arms which existed for much of the 20th century but which in recent times has undergone yet another transmutation. Now we have situations where political leaders are the Commander-in-Chief, or if not formally so designated seem obliged to so behave.

Delbruck however is best understood from his own work, or at least as we read it in the translation from the German into English by Walter J. Renfroe Jr. published by Greenwood Press, Westport, Connecticut in 1975. There, in the Excursus to Chapter VI, Book III, Vol IV pp.378-379, Delbruck credits Clausewitz (in his Report of 1827) ‘to be considered the true discoverer of the truth that there are two different basic forms
of strategy’. However, as Delbruck sought to establish a distinction between these two strategies he came under fire from the learned commentators of his time. In the Excursus he was to summarise his views as follows:

“The root of all the understanding was the expression “Strategy of Attrition” (Ermattungs-Strategie). I coined this phrase as the opposite of Clausewitz’s expression “Strategy of Annihilation” (Niederwerfungs-Strategie), and I must confess that the expression has the weakness of coming close to the misconception of a pure manoeuvre strategy. To date I have not found a better expression, since the expression “double pole strategy” which I then used in order to eliminate that misunderstanding, is also disputable and has not taken hold.”

Thus on the one hand Delbruck clarifies the distinction proposed by Clausewitz. However, Renfroe’s translation, as far as I can ascertain, the authoritative version, introduces Delbruck’s version as the Strategy of Attrition, rather than the Strategy of Exhaustion, used by Craig and the Encyclopaedia Brittanica. You may seek therefore to argue that there is a difference in meaning between attrition and exhaustion, and that was my initial inclination, however; I have elected to stay with Renfroe.

What more should be said about the Strategy itself? Well Craig summarises his analysis (p.273) as follows:

“In Ermattungsstrategie, the battle is no longer the sole aim of strategy; it is merely one of several equally effective means of attaining the political ends of the war and is essentially no more important than the occupation of territory, the destruction of crops or commerce and the blockade. This second form of strategy is neither a mere variation of the first nor an inferior form. In certain periods of history, because of political factors or the smallness of armies, it has been the only form of strategy which could be employed. With limited resources at his disposal the Ermattungsstrategie must decide which of several means of conducting war will best suit his purpose, when to fight and when to manoeuvre, when to obey the law of “daring” and when to obey that of “economy of forces”.”

In support of this analysis and its conclusion, Craig (p.273) offers the reader the words of Delbruck:

“The decision is therefore a subjective one, the more so because at no time are all circumstances and conditions, especially what is going on in the enemy camp, known completely and authoritatively. After a careful consideration of all circumstances — the aim of the war, the combat forces, the political repercussions, the individuality of the enemy commander, and of the government and people of the enemy, as well as his own — the general must decide whether a battle is advisable or not. He can reach the conclusion that any greater actions must be avoided at all cost; he can also determine to seek [battle] on every occasion so that there is no essential difference between his conduct and that of one pole.”

Before examining Delbruck’s strategy in its Australian setting I remind you that his work attracted intense opposition at the time, and Craig, despite his preparedness to bring Delbruck to our notice and to praise his History of the Art of War, concludes that “his theory of strategy has never been generally accepted either by historians or by military men” (p.283).

Should Delbruck’s theory receive similar treatment today or is there merit in an examination of its relevance to our present circumstances? The recent success by UN forces against Iraq will rekindle faith in the modern day application of the ‘decisive battle’ and especially the Strategy of Annihilation. Some may see the Gulf War as the natural expression or outcome of the pent up forces seeking release after 45 years of Cold War, itself premised on the Strategy of Annihilation. Others might argue that actually both the principal protagonists in the Cold War had tacitly demonstrating Delbruck’s Strategy of Attrition — where battle is no longer the sole aim of strategy. Indeed every step was taken to actually avoid a decisive battle (i.e. using nuclear weapons) albeit concurrently seeking every advantage to wear down the opponent. Has the final outcome of such a strategy been realised in the present circumstances of what was known for so long as the Soviet Union?

How might we apply Delbruck’s theory to the long and costly wars in Indo-China as the respective protagonists variously pursued strategies designed to force or avoid the decisive battle? Is not the stark lesson of the French and later the US withdrawal from Indo-China that in modern warfare the primary and possibly the only objective is the political one. How does the emphasis given by Delbruck to the placement of military activities within the Framework of Political History accord with our knowledge of the conduct of the war in Indo-China?

What then could we discuss about our own tradition and experience? Could we argue that much of our experience has been earned within the context of a Strategy of Annihilation whereby the sole objective was to seek battle in order to bring about the annihilation of the enemy. Was this especially the case in our experience in Europe and the Middle East? Contrarily have we been engaged in actually pursuing a Strategy of Attrition with occasional illustrations of resort to a decisive battle? Our experience in Asia provides stark
illustrations, especially during World War II, of our involvement, willy nilly, in our enemy's Strategy of Annihilation. Repeatedly, in Singapore, Ambon, Rabual, Java, we sacrificed men in futile gestures to the god of the decisive battle. Moreover, we learned little from this as our troops were committed to the bloody campaign in Papua New Guinea the objective of which was to annihilate the enemy.

Ironically the architect of our strategy then, a foreigner, himself pursued a broader canvas more akin to Delbruck's, whereby his island hopping campaign saw the decisive battle as 'merely one of several equally effective means of attaining the political ends of the war'. Even so the final outcome of this strategy was not massive land battle precipitated by the planned ground assault on the Japanese main islands. Rather the decisive battle had its expression in the political decision to use atomic weapons against the Japanese cities of Hiroshima and Nagasaki.

A thorough consideration of Delbruck's theory may well make us very uncomfortable. As soldiers we have been obliged properly, to 'fit in' to the political decisions, i.e. policies made by our government. These decisions have been made invariably, in isolation from any input by our senior officers, and equally invariably placed us in support of the policies of our Great and Powerful Friends. Thus, the question of our military commanders, either abroad or at home, deciding which strategy would best give effect to the policy of our government, did not arise. Invariably they had to fit with strategies, where these existed, already decided by their senior, foreign, military commanders or with whatever means evolved locally by way of the implementation of policy.

One particular corollary of this 'tradition of dependence', especially as seen in the post 1945 policy of Defence in Depth, whereby we fought on other people's territory, was that our commanders did not have to take into account the political consequences of abandoning the local civil population to the enemy. However, our government, having now removed this extraordinary advantage by insisting that we fight our battles on our own soil, has also removed the extraordinary advantage we might have had — the luxury, if necessary, of 'deciding whether a battle is advisable or not'. It is now inconceivable that the Australian Army might abandon the local civil population of say Darwin. In effect, the local Australian commander, for a host of moral and political reasons, would be obliged to adopt a Strategy of Annihilation even though the enemy having decided to attack say Darwin, the likely outcome would be the annihilation of our forces, not those of the enemy. Finally we now have lost the one factor, essential to our professional uniqueness, our technical expertise. Our political leaders will dictate how the battle is to be fought — and we will be obliged to accord with the place, timing and means chosen by our enemy because his assessment was that by pursuing such a course of action, i.e. a strategy, he will be successful.

Yet as Delbruck proposes, when expounding the merits of the Strategy of Attrition, "in certain periods of history, because of the political factors or the smallness of armies, it has been the only form of strategy which could be employed". Moreover the keys to manoeuvre are mobility (as expressed in the capacity to move more effectively than your opponent) and the time to do so. Our advantages in terms of space within which to manoeuvre are unique. However, as an army we have never had the concomitant capacity with which to redress the smallness of our forces, let alone have we been in a position, as we are now, to exploit the unique advantages of the vastness of our mainland. Moreover, the government alone has the will and the means to remove these practical limitations and also put into place the legislation necessary to make possible the early and efficient evacuation of the civil population from a likely or actual area of operations. Unless the situation is remedied our military commanders will have no freedom to manoeuvre, worse, the government will have nominated the vital ground. As I have already said, in that event, our government will not only dictate the policy, it will also dictate the strategy and predestine the outcome.

Should things come to pass that we are obliged for the first time to fight the land battle on our own soil so also it will have come to pass that our enemy has the strength and the advantage to bring about this situation. For the first time Hannibal will have arrived on our soil and we will be obliged to offer battle at our own Cannae. Lest I close this brief letter with a pen poisoned by despair I must return to Delbruck.

In his comments on the Second Punic War (Renfroe, Volume I, Chapter III, pp.362-63) Delbruck challenged the view that:

"Up to the battle of Cannae, Hannibal's strategy was one of annihilation and that Hannibal then shifted to a strategy of attrition. Since Hannibal continuously sought battle in the open field, this concept seems the obvious one; but it is incorrect . . . . For even after Cannae he definitely did not stop seeking open battle, and the fact that he did not succeed in bringing this about was not his own doing but rather of the Romans. Hannibal, then did not carry out a change in his strategy, but he was and remained, from the start, a strategist of attrition. If he had followed a strategy of annihilation at the start, he would have had to have self confidence in his power
to do... after the victory at Cannae, Hannibal sought a negotiated peace with the Romans, and also that his treaty with Philip of Macedon presumes the continuance of Rome as power — we might even say as a great power. Accordingly, Hannibal’s strategy was directed towards forcing Rome, by means of the heaviest possible blows, loss of her allies, and laying waste of her countryside, to make certain cessions of territory to Carthage and to limit her own size.

It is... also incorrect... to set up Hannibal and Fabius Cunctator as representatives of the two types of strategy. If Hannibal had been able to be an annihilation strategist, then all of the manoeuvering of the Cunctator would have been in vain; Hannibal would simply have besieged and taken Rome, and the war would have been over. The difference between Hannibal and Fabius is not one of principle, but a purely practical one, going back to the dissimilarity of their armies. Hannibal based his actions on deriving the greatest advantage from his strength, that is, his cavalry and his tactical manoeuvrability, and this inclined him toward the open battle. Fabius recognised the inferiority of the Romans in this area and sought to bring down the enemy by means of secondary methods of conducting war. Both of them, however, sought not to annihilate the enemy, but to force him, through attrition, to be willing to make peace or to abandon his foe’s territory.”

How then do we prevent Hannibal reaching our shores, or should he do so, having the strength to invest and subdue Rome? My friend, as I merely reconnoitre the edges of this most complex matter I feel an echo of the desperation no doubt felt by those destrined to oppose Hannibal at Cannae, or in latter times at Ambon and Rabual. Nevertheless, unlike them, we, in these times of peace, have an opportunity to examine and test the means by which this nation might preserve its freedom.

What do you think my friend? Does Delbruck have a place?

Your old friend.

Colonel Jim Wood is a regular contributor to the Australian Defence Force Journal. At the time of writing this article he was Project Officer, Command and Staff College, Queenscliff.
In Pursuit: Montgomery After Alamein

By Colonel Charles D. McFetridge, US Army

"... the importance of the victory is chiefly determined by the vigour with which the immediate pursuit is carried out. In other words, pursuit makes up the second act of the victory and in many cases is more important than the first."

— Carl von Clausewitz

As dawn broke over the Eighth Army on 4 November 1942, victory was at hand. After 10 brutal, gruelling days of fighting, Panzer Armee Afrika had been battered to remnants. By eight o’clock, the morning haze burned off and open desert stretched before the armoured cars of the 12th Lancers. The pursuit was on. The ‘Benghazi Handicap’ was running for the last time.

Three months and 1,350 miles after El Alamein, the British entered Tripoli, administrative capital of Italian Libya and goal of British offensives since 1940. It was deserted. The German and Italian defenders had withdrawn to defensive positions in Tunisia. Pursuit of Rommel’s army was over for the moment; the soldiers on both sides rested, refitted, and regrouped for the next round of battle. The distance covered was impressive but the strategic result a dismal British failure. Rommel’s small remnant had escaped virtually unscathed.

The failure of Montgomery’s Eighth Army to capture or destroy the Panzer Armee was deeply disappointing. However, it generally attracts only brief notice in most accounts of the war in North Africa. The issue is mentioned frequently enough, but is usually dismissed with a glib phrase or perhaps a paragraph. There has been no thorough analytical study of pursuit in either the memoirs of the participants or the official campaign histories. The pursuit, sandwiched between the great victory of El Alamein and the final triumph in Tunisia, was overshadowed by the Allied landings on 8 November in French North Africa. More dramatic events elsewhere made the pursuit seem inconsequential in the long run.

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This is understandable. Compared to the drama of El Alamein, Kasserine, and Wadi Akarit, nothing very exciting happened. No great encirclements, no long columns of prisoners, no dramatic battlefield surrenders occurred.

The post-Alamein pursuit, however, was of significant strategic importance. It was one of the few opportunities for the Western Allies to crush an Axis Army and close a theatre of operations. This could have decisively influenced the course of the war. El Alamein was also the last opportunity to score a decisive, strategic victory under exclusively British leadership. The tide of American arms and armies thereafter pushed the British into a supporting role. Had the pursuit been properly done, it is likely the Axis bridgehead would have been fatally compromised, the surrender of Italy hastened, the war shortened. Such speculations are debatable. There is no dispute, however, that the Panzer Armee Afrika escaped certain annihilation, at least temporarily.

The Axis forces that recoiled across the western desert arrived at the Tunisian border defenses in very weak condition. Even after meagre reinforcements arrived, only 34 German and 57 Italian tanks were available to face over 700 British tanks with more coming up. Almost 1,000 Axis aircraft had been over-run or destroyed for lack of repair parts, fuel, maintenance, and crews. Ammunition, fuel, and supplies were virtually exhausted.

More significant than the losses, however, was what Rommel had saved. Ahead of the Axis rear guards had gone the considerable infrastructure of the Panzer Armee. Supply, transport, medical units, repair depots, maintenance specialists for ground and air combat equipment, engineer construction units, Allied prisoners-of-war, intelligence analysts, communications companies, and operations and logistics staffs with their records, reports, and planning tables transported by thousands of trucks reached safety. Much of the muscle had eroded, but the army’s brain, skeleton, and nervous systems were intact. In Tunisia they quickly reorganised. Around these unglamorous, but essential, components Rommel’s army was rebuilt — and quickly.

Rear echelon troops had little direct fighting power. Easily destroyed, these ‘soft’ components were nonetheless difficult to replace. Their technical skills, however, had to be in place before major combat units, brigades and divisions, could effectively function. Their survival meant that the scarce air and naval transport available could be devoted to bringing in ‘teeth’ (infantry, artillery, armour) rather than ‘tail’ elements. In saving them, Rommel could regenerate his army and fight on in Africa until mid-May 1943.

Field Marshal Rommel’s success was amazing by any measure. The conduct of a retreat under pressure is an extraordinarily difficult operation to successfully execute. The retreating force must use every artifice to
slow the pursuer but must abandon or destroy anything that cannot be carried off. The pursuing force has the initiative, at the very least. The pursuers’ losses in material and wounded will be recovered, restored, and eventually returned to the fight.\(^9\)

General Montgomery had the initiative and much, much more. Allied naval superiority was overwhelming. The Royal Air Force commanded the air, checked only by weather and supplies. The Eighth Army began the pursuit well-supplied, close to its major depots, with an awesome superiority in tanks, guns, and equipment.\(^6\) British tactical intelligence was excellent. From an increasing flow of enemy POW’s, tactical signals intelligence, unchallenged aerial photography,\(^7\) and front line reports, British commanders should have had a much better picture of the battlefield than their opposite numbers in the Panzer Armee.\(^8\) At the strategic level there was something even better.

Montgomery had Ultra. Though imperfect and sometimes incomplete, the ability to read the German Enigma machine codes gave Allied commanders a priceless, decisive advantage. In the African campaign, almost everything of any consequence was radiated in cipher. Ultra even provided that most difficult to obtain information: the enemy’s intentions. At 1950 hours, 2 November, Rommel sent a situation report to Oberkommando des Wehrmacht (OKW) giving his strength and intention to retreat. By 0555 the next morning, 3 November, the decrypted message was sent to Cairo for CINC Middle East (General Alexander); at 0835 hours the gist was transmitted to all Middle East stations, including the commanding general, Eighth Army.\(^9\) Preparations for withdrawal were soon confirmed by aerial reconnaissance and tactical signal intercepts. General Montgomery knew then, a full day before the retreat began, of the imminent departure of Rommel’s army. Given the British tactical and operational advantages, why does El Alamein not rank with Jena, Megiddo and O’Connor’s 1940 offensive as strategic victories?

The disappointing results of the British pursuit have been addressed by historians, biographers, even participants. Field Marshals Rommel and Montgomery contributed their own assessments. Most commentators have dismissed the causes in a few glib and glossy phrases. Bad weather, weak subordinates, weak planning, partially trained troops, a daring and skilled opponent, and exhaustion have all been cited. As we better understand Ultra’s impact on the war, the ‘blame’ has been focused more narrowly on Montgomery. Monty-bashing is popular sport.\(^10\) His towering vanity, abrasive pettiness, arrogance, and ingratitude make him an easy and attractive target on both sides of the Atlantic.

Certainly Montgomery bears the responsibility for the post-Alamein failure of his army, as any commander must. His culpability, however, is more than passive. His personal decisions and actions seriously call into question his generalship during this period. But Montgomery deserves only partial credit for what happened. None of the explanations are comprehensive. A more thorough assessment is needed, not only on historical grounds, but also as a guide to better operational understanding in the future. Such an assessment can also illustrate some of the lessons to be learned from the pursuit and serve as the basis for further analysis. This study cannot examine the entire operation from El Alamein to Tripoli. Proper examination of the complex movements, the air and sea components, the logistical aspects and the command structure, assuming the records for both sides even exist, would require a lengthy book. I intend only to illustrate some representative actions and focus on three key questions. How did the Panzer Armee Afrika get away? Why did Eighth Army fail to bag its quarry? What were the results and what can we learn from this episode?

While the pursuit proper began on 4 November, it naturally flowed from the results of the battle of El Alamein. The battle began on the night of 23-24 October under the code name Operation Lightfoot. Although achieving local surprise and initial success, especially in the New Zealand attack in the south, British armour failed to boldly follow up the initial breaks in the Axis defence. The momentum slowed and the opportunity faded. After three days the attacks had failed to break through the Axis defences, and General Montgomery ordered a temporary halt to regroup. Field Marshal Rommel counter-attacked, using up his fuel, ammunition, and armour, but was unsuccessful at pushing the British back from key areas seized during Lightfoot. Eighth Army then reorganised, shifting the main effort from the southern half of the front to a salient carved out just north of the centre of the line. The second phase of the battle, Operation Supercharge, focused the massive combat power of two corps, totalling four infantry and two armoured divisions, and ruptured the German-Italian defences. Recognising the inevitable, Rommel gave orders on 3 November to withdraw, only to be stopped by Adolph Hitler’s famous ‘no retreat’ message. Fresh British attacks on the night of 3-4 November ripped a hole in Rommel’s defences that could not be patched with the handful of German and Italian tanks remaining. British armoured units began to work their way through intense congestion in the salient and out into open desert.

The pursuit proper can be divided into four phases for ease of discussion. The first phase, beginning on
4 November, offered the greatest opportunities to the Eighth Army. The British push through the defences began at about 0830 and by 1000 was increasing in momentum. Rommel had ordered his last relatively intact armoured formation, the veteran Italian Ariete Division, up from the south to close the gap. By 1530, Ariete had been surrounded and destroyed in heavy fighting by 7th Armoured Division. The Italian XX Corps was now destroyed; the Italian X Corps, holding the line south of the breakthrough, was cut off and surrendered a few days later. German rear guards delayed 1st Armoured Division near Tel el Mampsra where forward progress stopped after five miles.* 10th Armoured Division, reconstituted only that morning, was ordered west then counter-ordered south around 7th Armoured Division’s tight with Ariete. 10th Armoured Division made only a few miles through this confusion before halting for darkness. 7th Armoured Division had halted after destroying Ariete, some two or three miles forward of the salient. 2nd New Zealand Infantry Division made the best progress but, after assembling its brigades, stopped well south of El Daba. That night, as the British X Corps stopped to rest, rest, and regroup, Rommel ordered his forces through Fuka and beyond.

The morning of 5 November, British X Corps ordered the three armoured divisions to turn sharply north to objectives at El Daba (1st Armoured Division) and Ghazal (10th Armoured Division). These short hooks caught some Italian formations and generally completed the destruction of the Italian XXI Corps. This was small compensation for the loss of momentum. The New Zealanders, followed by 7th Armoured Division, pushed west only to be halted south of Fuka, well short of the coast road, by a mine field later found to be a dummy. The Germans, though desperately short of fuel, continued to stay just out of reach.

The final British lunge toward Sollum and Halfaya Pass was slowed again by confusion, lack of fuel, German rear guard actions, and heavy rains. Each attempt to loop behind the Germans failed. By 11 November, Rommel was clear of the immediate threat of encirclement, having yielded Mersa Matruh, Sidi Barrani, and Bardia. Montgomery ordered a temporary pause at the Egyptian-Libyan border on 10 November for supplies to catch up with the pursuing divisions. Thus ended the first, and most promising, part of the pursuit.

The second phase of the pursuit evicted Rommel from Cyrenaica and recaptured Tobruk, Benghazi and Agedabia. In two weeks Rommel had retreated behind weak rear guards and extensive delaying obstacles to an old defensive position at El Agheila. Rommel’s fuel shortage and weak combat strength forced him to follow the coastal road around the Cyrenaica bulge. The desert track cross-country to Mechili-Msus-Agedabia was open for a repeat of the outflanking attacks used in previous offensives. Montgomery, however, overruled the suggestions of his superiors and the please of his subordinates and permitted only light armour to use this avenue. Rain again hampered rapid action and kept the RAF grounded. By a whisker, the German flank guards held off the British armoured cars and again the Panzer Armee escaped.

The third phase lasted three weeks (24 November to 14 December) while the two armies faced each other at El Agheila. Montgomery built up for a battle while Rommel prepared another withdrawal. Although well aware of Panzer Armee’s startling weakness in every category, Montgomery insisted the preparations go forward for a major set-piece attack. A wide envelopment by the New Zealanders on 12-15 December, though delayed by fuel shortages, cut the road behind Rommel’s German rear guards. After a desperate, but successful, battle they escaped. The Italian infantry had left a week before for the next defence line at Buerat.

The last phase was played out in the remaining corner of Italian Libya. Rommel fully occupied the Buerat defensive position on 26 December. In almost an identical replay of the El Agheila battle, Montgomery built up supplies until 13 January. Rommel again pulled back just as the British attack was poised to begin. The Axis withdrawal proceeded unmolested through Tripoli which the British occupied the same day Panzer Armee settled into good defensive positions in Tunisia. The pursuit was over. Despite overwhelming superiority on land, sea, and air, the Eighth Army had conspicuously failed to achieve any success after 4 November. Panzer Armee Afrika had emerged tired but intact.

Of the several culprits blamed for Rommel’s escape, the earliest was the weather. Montgomery maintained, “Rommel’s forces were saved from complete disaster by heavy rain.” Heavy rains on 6-7 November had indeed slowed movement, accelerated fuel consumption, grounded the RAF, interfered with communications equipment, and disorganised the British rear echelons. In the storms, resupply convoys got mired or simply lost. Columns stretched out, bogged down. Tank units ran out of fuel. Heavy rains on 15-17 November also impeded the cross-country thrust across the Cyrenaica bulge.

The weather, of course, knows no favourites. It rained on both sides. While much (but not all) of the German and Italian wheel traffic could use the hard-surfaced coastal road and thus suffered less from the mud, this was a mixed blessing. Traffic jams negated much of this advantage; Rommel himself noted...
columns 'partly of German, partly of Italian vehicles — jammed the road ... Rarely was there any movement forward and then everything jammed up again.'

Fuel consumption was a major problem for both sides. The Panzer Armee had none. Eighth Army had ample supplies but had enormous problems getting fuel forward to the advancing units as they pushed across the open desert. Cross-country movement is slower and does use more fuel, particularly in soft going. However, the British superiority in both tanks and fuel supplies would still have permitted Eighth Army to maintain direct pressure, as well as send outflanking columns deeper inland where the terrain was firmer. Rain certainly did not stop General Ramcke and 600 German paratroopers who raided a British supply column, seized the British transport, and made their way back across the chaotic battlefield to rejoin Rommel on 7 November. The reduced RAF activity was no doubt welcome to the retreating German and Italian soldiers, though there is very considerable question about the effectiveness of the RAF in low-level ground attack at this stage of the war. The rains also grounded the German and Italian air forces, including a combined fleet of 300 transports bringing in critical fuel supplies.

The breakdown in communications was a significant problem. British radio sets, generally quite good, were largely ineffective at key periods because of the atmospheric disturbances. Wire lines, of course, were left far behind in the fixed defences of Alamein. Given the fluidity of mobile pursuit, the incessant cross-attachment of units and the weakness in prior planning, this loss of radio communications was extremely serious and contributed to the overall breakdown in command and control. The Germans faced similar radio problems, though on a smaller scale, but with the added danger that even a single major error on their part would end the game. On balance, the weather was more an excuse than a cause for the failure to run down or encircle the retreating Panzer Armee.

Strong, confident, audacious subordinate commanders could have overcome many problems, including some of the effects of the weather and loss of communication. More importantly, determined leaders could have spurred the weary troops to greater efforts. General Montgomery states he ‘drove’ the Eighth Army hard. Along the way he relieved a corps commander and gave ‘an imperial rocket’ to a division commander. Even the official British campaign history attests that subordinate commanders seemed to lack enterprise. Rommel noted, ‘The British command continued to observe its usual caution.’ This is in very marked contrast to the Germans who lived, adrenalin pumping, on the razor edge of disaster for three months. German accounts of the retreat repeatedly mention driving through the night to their next position. Conversely, the Eighth Army generally halted at dusk and failed to maintain the momentum of the pursuit after the break-out.

For example, late on 5 November, 22nd Armoured Brigade and much of the 2nd New Zealand Division were closing in on the coast road near Fuka, when they were halted by a minefield. It took three houses to get attached engineers forward who then discovered the minefield was a dummy, emplaced by the British as they retreated in July. Part of the New Zealand division crossed as darkness fell and then all halted for the night.

With some notable exceptions, we read little of division and corps commanders being forward with the leading echelons, taking the pulse of battle. Brigade commanders were forward but could not marshal the critical resources, air and artillery support, to focus combat power at the decisive point. British X Corps was out of touch with most of its subordinate divisions throughout 4 November. Without the front line ‘feels’, X Corps (Lumsden) issued plans for 5 November, assuming Panzer Armee Afrika was still in battle positions around Alamein. In fact, they had already left for Fuka and beyond. It was late in the morning before this was corrected. General Freyberg, 2nd New Zealand Division commander, spent the whole day unaware that he had been attached to X Corps at about 1000 that morning. General Lumsden, the X Corps Commander, was not forward and in contact with his divisions. He lost a golden opportunity because of his cautious short hooks to Daba and Ghazal early on and his reluctance in urging forward his armour.

The fundamental problem with most mid-level commanders was not their location, but their authority, their freedom of action. They were simply not trusted by Montgomery to conduct fluid, independent operations. This was particularly true of the experienced armoured commanders, Lumsden and Gatehouse, who were crucial to the success of the pursuit. This lack of trust bred a lack of confidence. In such an atmosphere, audacity will be rare. General Montgomery had made emphatically clear that exact compliance with orders was the rule. This highly structured, rigidly centralised command climate stripped subordinates of the incentive, if not the confidence, to display initiative.

On 10 November, for example, 22nd Armoured Brigade reached the Egyptian frontier and came within reach of an enemy column moving west at a distance of about 14 miles. Although the 11th Hussars (division reconnaissance battalion) reported the column contained about 18 tanks, the 22nd Armoured declined to give chase because the brigade objective, Capuzzo, lay
to the north. The enemy escaped with what was about 50% of Rommel's surviving tanks. 26

Flexibility was reserved for the Eighth Army and General Montgomery. If changes were necessary, as was the case after Operation Lightfoot, Montgomery would make them. Recommendations that percolated up to corps and army level were routinely ignored or rejected. 27 Following 'the plan', Montgomery's plan, assured success in set-piece battle. In the free-wheeling conditions of the pursuit, however, no detailed plan was available. Brigade, division, and corps commanders had not lost the capacity to improvise but simply lacked the authority. Without directives, they stopped to regroup and await orders. The delays left gaps through which Rommel repeatedly snatched his forces.

The most ironic cause of the failure of the pursuit was very poor staff planning — ironic because the planning of the operation should have been its strongest asset. Ample staff planning time was available; Montgomery and Alexander had demanded and gotten seven weeks respite, after Rommel's September offensive failed, to plan and train. 28 After two years of desert fighting, the senior staffs should have been experienced, familiar with the theatre of operations, the enemy, and the technical and logistical requirements of operations. This was only partially true. The establishment of world-wide operations and the raising of various division, corps, army, and theatre staffs had diluted the available pool of trained officers. 29 Desert experience was a double-edged sword. After over two years in the desert, many officers were exhausted, sick with minor ailments, and perhaps a bit cynical. The wholesale replacement of theatre, army, corps, and division commanders, along with Eighth Army Chief of Operations, no doubt affected staff morale. Add to this General Montgomery's 'Christ come to cleanse the temple' greeting speech, and we can well imagine the effect on staff creativity. 30 Creating the post of Eighth Army Chief of Staff and installing General de Guingand was a great improvement, but it was also a significant change in how the British Army normally did business.

The Eighth Army could absorb these changes while on the defence, since this was a fairly stable situation. The results during Operations Lightfoot and Supercharge were mixed, however. Reconnaissance and intelligence was ineffective at really understanding Rommel's defensive concept. Vigorous patrolling to breach the British and begin to erode the German mine fields, look for gaps, and confuse the Panzer Armee intelligence was ineffective. This could have been done without compromising operational security and would have greatly sped up Lightfoot which thrashed around in German 'devil's gardens' for days. Meticulous planning cannot solve every possible contingency, of course; but the plans for Lightfoot and Supercharge laid the basis for the pursuit. Their structures caused many subsequent problems.

The operational plan had several serious flaws. First, the Eighth Army reorganised for Operation Supercharge and then committed the forces to battle in an illogical, self-constricting way. Eighth Army was divided into 3 corps, two (XII and XXX) were infantry heavy, reinforced with tank brigades from the
remaining corps. X Corps was the armour heavy sledgehammer that would break through the position itself in Panzer Armee’s rear. To speed the breakthrough, Eighth Army put XXX Corps into the salient with X Corps layered over them, prepared to push through the gaps that XXX Corps would create. If the infantry of XXX Corps was held up, X Corps was to thrust forward and create its own gaps as necessary. While the broad concept may have been General Montgomery’s, it is the staff’s business to simplify, clarify and streamline — to make things easier on subordinate commanders rather than more difficult. This was not done.

The result of giving two corps responsibility for the same ground and essentially the same mission was tactical confusion and administrative catastrophe. It can be fairly said that the success of the battle occurred despite, rather than because of, this tactical plan. The dust, sporadic artillery fire, and nightfall created chaos in the packed salient. The artillery, engineer, fuel, and ammunition supply columns of XXX Corps competed with tank, infantry, and reconnaissance units of X Corps. The resulting chaos is well-documented by virtually everyone who was there. Since X Corps expected to have to batter through the Axis defences, the corps organised accordingly with engineers, infantry breaching parties, and artillery well forward and transport filled with ammunition rather than fuel. Each breaching column of the 1st Armoured and 10th Armoured Division stretched almost 10 miles when on the move, comprising over 400 vehicles. When the breakout occurred, British armour lacked the fuel to thrust boldly forward. This caused critical halts that permitted Panzer Armee to escape. The irony was that the Eighth Army had ample fuel reserves available while Rommel’s forces were desperately short.

The organisational changes and early commitment of X Corps organisation had been significantly altered for Lightfoot, then changed again for Supercharge. Brigades had been shuffled among different division throughout the Eighth Army during the battle to the extent that only one of the 11 divisions fought as an entity. This contrasts to General Montgomery’s early statements that divisions would be concentrated and fought as such. The disorganisation this caused accelerated as units tried to link up, usually at night, and coordinate. This practice continued during the pursuit as well. The example of the 2nd New Zealand Division is illustrative. At various times, it controlled seven brigades from four different divisions and was under the command of both XXX and X Corps. This was not accidental. Prior to Lightfoot, General Freyberg was expected to participate in all planning conferences for both corps, write division plans for two different corps operations, and train his division to work with the newly attached 9th British Armoured Brigade. Several brigades of armour from X Corps were initially stripped from their parent divisions to reinforce the infantry corps. Although 4 armoured divisions were on the Eighth Army order of battle, only 3 were ever constituted at any one time and for part of the battle only 1st and 7th operated as entities. Reorganisation and shifting units during battle is always difficult, even for well-trained and experienced troops. It precludes well-coordinated plans, causes delays, and usually increases casualties accordingly. Good staffs understand and minimise this turbulence rather than succumb to the temptation of moving flags around on the map, as was done here.

Additionally, by committing the X Corps to battle from virtually the beginning of Supercharge, Eighth Army was left without a powerful reserve, rested and ready that could exploit unexpected opportunity. The plan committed every armoured brigade to the main battle. X Corps was a main battle force. It was to sweep in a tight turn to the rear of the Panzer Armee, cut communications and compel the German and Italian elements to fight their way out of the pocket. The corps and division planning staffs focused, understandably, on fighting this battle in the vicinity of Ghazal station and Sidi Rahman. Their mission was tactical rather than operational or strategic. There was no corps de chasse.

The third major shortcoming of the Eighth Army’s plan was the lack of any really good strategy for exploitation and pursuit. The vague and hazy concept of operations for the follow up to the main battle is remarkable. As Montgomery had “guaranteed” victory at Alamein to both Eighth Army and Churchill, it seems notably lacking to fail to do good conceptual planning for the pursuit. None of the four armoured division staffs were designated to prepare and train specifically for pursuit. The only exploitation forces designated “to operate offensively on the enemy supply routes” were two regiments (battalions) of armoured cars. No operational or strategic goals were specified. There simply was no strategic concept of operations. Nor did the corps or divisions develop in detail the obvious contingency plans for a pursuit.

Given this, the logistical support plan was inevitably faulty despite the energy that went into it. While the accomplishments were impressive taken in isolation, the over-all performance must be rated unsatisfactory. Many of the planning estimates were grossly in error. * The term corps de chasse is one coined by Churchill. Montgomery did not use this term but instead called it his corps d’élite.
Supplies did not keep up with the advancing spearheads. On at least three occasions, major Axis forces escaped because the British pursuit was stalled for lack of fuel. In contrast, after 4 November, Panzer Armee had only one major mauling from lack of fuel — this despite the continuing critical fuel ‘reserves’ of Panzer Armee.

The logistical and administrative measures that should have been prepared in adequate detail for a long advance across the desert were left fuzzy. Basic questions, such as: what is the objective?, what units are going to carry the fight?, how much combat power can be supplied?, and how far?, went unresolved. Given the detail of planning for other aspects of the operation, this conceptual vacuum was ominous. Indeed, the effort that went into planning Lightfoot and Supercharge may have simply absorbed all the available planning talent. The logistical failure to sustain the pursuit could have been overcome. Had Eighth Army designated a single corps (X Corps was the logical candidate) as the main effort and concentrated all supply efforts toward it, better results could have been achieved. If the four divisions of X Corps were too much, then two or three could surely have been maintained and would have been more than a match for the few remaining German tanks.

Air and seaborne resupply efforts were greatly under-utilised. Some creativity in these areas was demonstrated but Montgomery was unaware of the plans as his own memoirs reveal. Given the critical importance of supply, Montgomery seems to have been indifferent to the logistic preparations and to have accepted the supply requirements of the RAF without question. Air and seaborne resupply was particularly under-utilised. In contrast to Panzer Armee, which lived on it. aerial resupply was

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* 0900, 6 November, 20 miles short of its objective at Mersa Matruh, fuel exhausted after 12 hours’ drive, 1st Armoured Division watched about 1,000 vehicles escape, Pitt, p.229. 1st Armoured was not refuelled until 8 November.

On 10 November near Sollum, fuel delays to 7th Armoured allowed Axis troops to escape, Playfair, p.96-97.

Later on 10 November, Montgomery directed a halt to westward movement beyond Bardia-Capuzzo-Sidi Azeiz because they could not be supplied. Playfair, p.95.

** 6 November, 22nd Armoured Brigade over-ran a leaguer of 21st Panzer Division tanks out of fuel and destroyed 16 as well as numerous guns. Playfair, p.90, and Hinsley, p.451.
little more than auxiliary to other means with the British. To sustain the attack on the El Agheila position, for example, the US 316th Troop Carrier Command’s 39 C-47s carried over 130,000 gallons of fuel for the RAF to forward bases. Had similar efforts been made to sustain a tank thrust across the base of Cyrenaica, the Panzer Army would never have reached El Agheila but would have perished south of Benghazi as Marshal Graziani’s Army had two years before. No assault on El Agheila would have been required.

Poor staff work failed to coordinate more than just the air and naval support which were, after all, separate services. Even army assets were poorly integrated into the plan. The Long Range Desert Group, Special Air Services, and Commandos were greatly under-employed, if not wasted altogether. Their role prior to Alamein had consisted of several, generally costly and unsuccessful, raids on airfields, ports, and logistic facilities. These raids shot their bolt prematurely, preventing them from mounting any effective interdiction later. During the battle, they observed the coast road and provided some information from observation posts deep in the enemy rear. Properly positioned, they could have established a chain of relay stations deep in Rommel’s rear to guide the pursuit force, conveyor-belt fashion, on firm ground to deep objectives. Given the lack of night training, cross-country navigation skills, and boldness in some of Eighth Army’s formations, the special operations forces would have been invaluable. Marking the relay stations for aerial resupply would have sustained, even accelerated, the momentum to Rommel’s rear. Alternatively, special operations units could have paved the way for amphibious landings, coordinated with the ground pursuit, to cut the coast road at any number of places. Such missions would have contributed far more than the odd ambush of Axis trucking.

Lack of training in fluid operations was a contributing cause of the lacklustre vigour of Eighth Army’s pursuit. Montgomery felt the training level of his army was inadequate even for the complexities of Operation Lightfoot. Accordingly, he delayed the start of the offensive in order to retrain his troops. Yet this training focused on close combat, infantry assault, and mine breaching operations rather than fast, offensive, fluid manoeuvre. Montgomery did not need to train the whole army in such operations, but a corps or even a division so trained would have proved its value. It was Montgomery’s intention that X Corps should be his ‘corps d’élite which was to resemble Rommel’s Panzer Army’. To emulate the Afrika Korps, however, required more than assault training; it required confidence, flexibility, and team work. Neither the time nor the vision for this were forthcoming.

In the long run, Panzer Army’s survival owed a very great deal to its own reputation. Its very weakness, as we now know made naked by Ultra, seems to deprive it of a decisive role in its own survival. It would be incorrect, however, to sweep Rommel and his handful of tanks off the board entirely. Their legend, their audacity, and their tactical skill were still potent weapons. British commanders held back, waiting for the expected counter-attack that was now simply beyond Rommel’s resources. Twice Rommel pulled back at the last minute after stalling Eighth Army for weeks. This bluff and timing were all the more remarkable because of the British intelligence advantages. The names Rommel and El Agheila were enough to mesmerise the Eighth Army. Montgomery was determined to win the ‘Battle of Agheila’ regardless of the fact that there was no intention on Rommel’s part to stand and fight. And Montgomery knew it. Indeed, Montgomery’s victory message of 12 November listed every division in Rommel’s army as having ‘ceased to exist as effective fighting formations’. Through Ultra, Montgomery knew the strength and intentions of Afrika Korps. Rommel signalled on 8 December that he would pull back from the Mersa Brega-El Agheila position when seriously attacked. With close to 600 tanks present, Montgomery hesitated another week only to grab thin air yet again as Rommel scrambled back to Buerat. There Rommel replayed the charade for another three weeks. He was not, after all, called the Desert Fox for nothing.

Despite their great personal valor, some responsibility for the failure must also attach itself to the troops of the Eighth Army. The flair for bold, creative innovation is rare enough at any time. By Alamein, it was running out in the British Army. Many of the audacious young British leaders, tank leaders particularly, had been used up in death rides at Gazala, Halfaya Pass, and the grinding battles around El Alamein. Corps and division commanders recognised the problem before Alamein and expected delays. When the opportunity beckoned the bold, all too often the response was to stop, leaguer up, and regroup. The contrast between Montgomery’s pursuit and O’Connor’s two years before is remarkable.

A major factor in the failure to press the pursuit was leadership. This is, of course, a contentious statement. Commanders from battalion to corps drove themselves and their troops hard. Even the bravest could only do so much. But the fact remains that, as a group, they simply did not overcome the obstacles of enemy, fatigue, and over-centralisation to produce a bold fait accompli.
With some exceptions, there seems to have been a notable lack of forward thrust. Senior commanders were frequently not forward. There were notable exceptions, like Generals Briggs, Harding and Freyberg. In contrast, General Gatehouse, 10th Armoured, displayed considerable hesitation during the Battle of El Alamein, commanding his division from 10 miles back of the lead brigades. He was out of touch with the actual disposition of his forward elements and at one point wanted to withdraw. Montgomery spoke to him in no uncertain voice, and ordered him to go forward at once and take charge of his battle.\footnote{Montgomery found the corps commander supporting Gatehouse and threatened to sack them both. The corps and army commanders also failed to create the best opportunities for the pursuit. With a full day's warning that the Panzer Armee was about to break and run, no one took the elementary precaution of consolidating and preparing even a single division to exploit the imminent withdrawal. Apparently no warning orders of any kind were issued. General Freyberg was eager to launch his division in pursuit but had to wait hours while it reassembled. Although the 2nd New Zealand Division was well-forward and had sufficient transport, its brigades were scattered across the battlefield. In some instances, corps commanders actually restrained their more dynamic division commanders. The commanders of 1st Armoured, 7th Armoured, and 4th Indian Divisions fully intended to prepare their divisions for a rapid pursuit. They were forbidden to make those preparations. Here the corps and army commanders are at fault.}

Despite Montgomery's pep talks, much of the hesitation and timidity in the pursuit can be traced to the mental attitude of some of the commanders. Desert veterans and many of the newcomers were mesmerised by Rommel. Too many men had been beaten too often by his unexpected riposte. Caution also arose from concern for casualties. El Alamein was an expensive battle, especially for the infantry. The British Army was already breaking up divisions (44th Infantry, 8th Armoured) for lack of manpower. This trend would continue through the rest of the war as losses exceeded replacements. The British Army was shifting from manpower to firepower-oriented tactics. Throughout the pursuit, especially at El Agheila and Buerat, it was the RAF and the artillery that were counted on to do the killing and win the battle. When a hard shove would have crumpled up the Panzer Armee, weeks were wasted accumulating artillery ammunition and stagging the RAF forward. In the long run, the delays probably cost more British casualties from mines, artillery, and extending the campaign than would have been suffered in a vigorous, all-out pursuit.

If the troops, the staffs, and the subordinate commanders were all factors in hesitant pursuit, what responsibility rightly belongs to the Army Commander? Many of the factors recounted so far are, of course, traceable to Bernard Law Montgomery. As Army Commander, the responsibility for the failure to destroy Rommel's beaten army is his. He never personally accepted this onus, however; his memoirs would have us believe the whole episode was a continuation of the great victory at El Alamein. He acknowledged that Rommel escaped but blamed the weather, supply problems, and weak subordinates. Nevertheless, he failed: why?

In truth, some subordinates did fail to act aggressively. In this, Montgomery was only partially the cause. But he was responsible for selecting most and supervising all of them. If he doubted Lumsden, Gatehouse, and others, he should not just have threatened to sack them but should have supervised their actions more closely from the beginning. He later did so, but the opportunities were largely gone. At El Agheila, he virtually supplanted the commander of the 51st Highland Division. He eventually replaced Lumsden with Horrocks but then left X Corps, and much of his armour, far to the rear near Mechili and continued the pursuit with XXX Corps. In fact, there are numerous instances of Montgomery slowing the pursuit and holding back his subordinates.\footnote{A more dynamic division commanders. The command-

If his subordinates failed him, in part at least, it was because they failed to see the broad goal of the campaign. Despite his self-congratulatory pep talks to leaders down to battalion level, there was little to convey Montgomery's long-range objective. The planning (and thinking) horizon was limited to beating Rommel in the purely tactical sense. What the Eighth Army was to do afterwards was extremely vague. The available evidence would indicate that Montgomery had not thought much beyond Tobruk before 5 November.\footnote{Only weeks later did he begin to focus on Tripoli and Tunisia as ultimate objectives. Many of the short-falls in tactical and logistical planning derive from this shortsightedness. Montgomery focused on the immediate battle and caused everyone else to do likewise.}

In part, of course, this single-minded concentration was important in instilling confidence in his army that they could beat Rommel under his leadership. To Montgomery, this meant concentrating every resource and activity toward the immediate goal of defeating Panzer Armee Afrika in a great tactical battle. It is small wonder the task obsessed him. Montgomery knew he was the second choice for the job of Army Commander. He had never commanded a corps, let alone an army, in battle; his experience was limited to division command during the Battle of France and...
evacuation at Dunkirk. He had never been in the western desert and had imported many new faces with him. Churchill had picked him for command, but Churchill had picked and then fired many before him with more illustrious pedigrees. Montgomery had “guaranteed” victory and knew he had to produce nothing less. These factors reinforced his inherently conservative nature.

Conservatism and thoroughness were hallmarks of Montgomery’s character. He was not one to take chances. He insisted on a “properly coordinated plan” at all times and brooked no arguments. He was determined to keep a firm hand on the battle in order to ensure the master plan was not “mucked about” by subordinate commanders having ideas inconsistent with it. Prying Montgomery from one of his ideas was always difficult. It soon became impossible.

“It is those who worked most closely with Montgomery who feel most strongly that Alam Halfa and Alamein ‘condemned him to success’: that his method thereafter was to plan certainties and put his bets on them, but never to take risks…”

Montgomery’s narrowly focussed conservatism was reinforced by both training and experience. Like too many of his generation, he had experienced the bloody consequences of the disastrous offensives in 1914-1918. Montgomery was an infantryman, a product of the western front, with virtually no experience in mobile warfare. He had a “special blindness” to the opportunities offered by the tank for rapid pursuit. Had he served with General Allenby in Palestine, his mental approach might have been much different. He would at least have had a practical lesson in successful mobile warfare and pursuit of a defeated enemy army. Staff exercises between the wars emphasised defence and set-piece attacks. The nation that invented the tank and produced J.F.C. Fuller and B.H. Liddell-Hart had not systematically prepared its senior commanders to conduct mobile warfare. Montgomery concentrated his energy on things he had experienced, understood, and was confident of his abilities to accomplish. He understood the dogged defence and the role of artillery and infantry in setpiece, methodical attack. This is what he would conduct even when, as at El Agheila and Buerat, he knew it was unnecessary.

His conduct of other operations was much less assured. So he did not invest much effort in planning pursuit and exploitation, supply, amphibious and airborne operations, or use of special operations forces until and unless forced to do so. By then it was too late to achieve even mediocre results.

The results of the last great chase across North Africa were profound. The obvious facts firmly established General Montgomery’s reputation. He had beaten the Desert Fox and expelled him from Egypt and Libya forever. Only a handful of German and Italian tanks had escaped. Rommel was cornered in Tunisia between Eisenhower’s Anglo-American armies and Montgomery’s own. The final Axis collapse four months later was almost an anti-climax. The Allies had finally found a winning team. Churchill called the final victory in North Africa “not the beginning of the end but… the end of the beginning”.

On a more practical level, the campaign confirmed General Montgomery’s already high opinion of his infallibility. If he had been stubborn before, afterward he was virtually immovable. His inflexibility and reluctance to accept risk had profound influence on future Allied operations. This was soon demonstrated in the campaigns in Sicily, Italy, and at the Falaise Gap, where his methodical plodding slowed the campaign tempo and allowed the Germans the freedom of action to escape destruction. The lethargic advance up the toe of Italy toward the beleaguered Salerno landing areas was a reply of the post-Alamein pursuit. It was not until late 1944 that he demonstrated any broad strategic vision, advocating the narrow thrust argument to blitz into Germany. By then it was too late. No one, and certainly not Eisenhower, would believe that Montgomery had the boldness to lead such a daring attack. The debacle at Arnhem provides a hint of what might have resulted from a grander, narrow thrust.

In retrospect, Montgomery probably should have been replaced in January 1943 and posted where his methodical approach was more useful. His popularity, of course, totally ruled this out. Nevertheless, his failure to destroy Rommel’s army was a strategic defeat. Rommel’s delay of Eighth Army permitted the German build-up in Tunisia, the recovery and reinforcement of the Luftwaffe in Africa, and the continuance of Italy in the Axis. The Axis build-up stalled Eisenhower’s drive east and set the stage for the painful defeat of Kasserine. By stretching out the campaign well into 1943, the invasions of Sicily and Italy were delayed and the cross-channel attack postponed until 1944. These delays permitted the straining German war effort time to reinforce Italy and the Mediterranean and to fortify and prepare defences that caused far more casualties than any risked in a ruthless pursuit.

For a comparison of what could and should have been done, we have three excellent contemporary British examples: Lieutenant General Richard O’Connor’s winter offensive against the Italians in 1940-41, General Slim’s brilliant destruction of the Japanese in Burma in 1944-45, and the break-out and pursuit across France in 1944. In each of these campaigns, the enemy armies were thoroughly routed, their material captured or destroyed, and, in the last two, the theatres closed for active combat operations. This would have happened
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in North Africa as well, if Eighth Army had "bagged Panzer Armee" and arrived at the Tunisian border by 15 December or even Christmas. A dedicated pursuit force, aiming at such a goal, supplied and reinforced by sea and air and ready to attack from the march, could have achieved this and fatally compromised the Axis build-up in Tunis. Of course, this was neither envisioned nor planned. Even Prime Minister Churchill's repeated strong prompts to General Alexander to hurry Montgomery along were to no avail. The trained force, the strategic vision, the detailed planning and coordination, the bold leadership, and the audacity did not exist.

NOTES

2. Panzer Armee Afrika, later German-Italian Panzer Armee in Afrika, was the official title for the combined German-Italian forces in the Western Desert. It included the German Afrika Korps and the Italian X, XX and XXI Corps.
4. "Panzer Armee claimed that the retreat cost it only 17 anti-tank guns and 14 tanks — hardly a tribute to the vigour of Eighth Army's pursuit: 20 and 14 respectively had been lost at sea." Bennett, Ultra and Mediterranean Strategy, footnote 6, p.180.
5. Nigel Hamilton has written the most extensive account of the pursuit in the second of his three volume biography. Hamilton admits Montgomery was ultimately responsible for the failure of the pursuit but then casts the apologia for Montgomery's actions in terms that clearly misrepresent, if not deliberately distort, the facts. Hamilton, Master of the Battlefield, pp.3-130.
7. From El Aghelia to Tripoli alone, 114 German and 327 Italian aircraft were over-run in various states of repair. Most of these must have been earcasises cannibalised to keep other aircraft flying since over-all Axis operational air strength did fall by nearly that much. Playfair, The Mediterranean and Middle East, Vol IV, p.238.
9. Eighth Army repaired over 300 tanks during and after Alamein. Damaged German and Italian tanks were lost forever. Much of the Italian Infantry, particularly south of the break-through, was abandoned to capture, Playfair, pp.78.
10. About 500 British tanks opposed 36 German and about 130 Italian tanks. Many of the British tanks were the new Shermans, superior to any German or Italian tanks then in the desert. Guns, infantry, and other measures of strength were comparable, Playfair, pp.78-79.
11. As Panzer Armee Afrika began to break up, camouflage, radio discipline, and other methods of operational security eroded. Hinsley, pp.446-447.
12. Axis intelligence gathering was particularly ineffective prior to the launching of Operation Lightfoot. High altitude aerial reconnaissance ended about 15 September while low level reconnaissance was almost prevented by British air superiority. Walker, p.203, and Hinsley, pp.431-432.
14. Montgomery has few sympathetic biographers. His strongest apologists are Nigel Hamilton, Alan Moorehead, and Major General Francis de Guingand. Virtually all other analyses are directly critical of his handling of this operation. Especially see Barnett, The Desert General, Chapter VI.
15. As early as 1947, Major General de Guingand, in his book Operation Victory, attributed the slow pursuit to weather. Montgomery picked up this theme in El Alamein to the River Sangro and repeated it in his Memoirs.
17. Pitt, The Crucible of War, Vol 3: Montgomery of Alamein, pp.230 and 242. The Afrika Korps also lost tanks and other vehicles to fuel shortages made worse by the soft, muddy cross-country travel. This was especially true among the armoured rear guards of 21st Panzer Division. Walker, Alam Halfa and Alamein, p.449.
19. J.F.C. Fuller quotes Major General de Guingand and Luftwaffe Field Marshal Kesselring on the general ineffectiveness of RAF air attacks. A Military History of the Western World, p.501. Playfair notes that sorties of fighter-bombers and bombers fell from 348 on 3 November before the pursuit to 110 on 5 November after the pursuit began but before the rains. Fighter sorties plummeted from 734 to 238. Playfair, p.88.
22. Playfair, p.96. 2nd New Zealand Division was even accused of having "failed to press its advance." In response, Major General Freyberg wrote in his report, "The policy was not to get involved, but, if possible, to position our forces to cut the enemy off." This was the concept of General Leese's XXX Corps. It does not reflect an understanding of what was necessary to destroy Panzer Armee Afrika. Walker, p.474.
23. The most critical part of a pursuit is the first night. British armour stopped early on 4 November though already behind the bulk of remaining German and Italian forces. Pitt, p.225 and Walker, p.435. Freyberg's New Zealanders were farthest west but also halted, after a minor skirmish, to close up. Walker, pp.434-435.
24. Playfair, p.86.
25. This is not a suggestion of cowardice. General Briggs (1st Armoured Division) had his tank knocked out on the morning of 4 November; Generals Harding (7th Armoured) and Horrocks (subsequent commander of X Corps) were wounded later in the campaign while moving with their frontline troops. The British command structure, however, did not easily facilitate forward command and control. Communications were more extensive at established headquarters. General Harding's tactical command facility was one tank with radios and a single jeep without them. Furthermore, British generals also did not routinely have chiefs of staff to relieve them of day-to-day coordination. The Germans, lacking the intelligence resources, consistently "read" the battle as well or better than their British counterparts.; Montgomery apparently did not visit the front until 6 November. Walker, p.445. Also see John Ferris, "The British Army, Signals and Security in the Desert Campaigns, 1941-42," Intelligence and National Security, pp.255-291, for a discussion of British command, control, and communications system.
26. See Playfair, p.95.


29. Indeed, staffs were over-produced to command formations that subsequently could not be manned. The shortage of troops led to the cannibalisation of 8th Armoured and later 44th Infantry Divisions between September and December 1942. Technical troops, such as signallers, remained in short supply. Ferris, pp.270-276.

30. If there were only lingering questions. Montgomery's famous "no retreat" order and his tirade his first morning in command settled all doubts. That morning he got "extremely angry" because a staff officer woke Montgomery with the situation reports. This was well-established and sensible routine, which did not help the staff officer who took the brunt of his wrath. Montgomery, p.94.

31. "It will be clearly understood that should 30 Corps not succeed in reaching the final objectives... the armoured divisions of 10 Corps will fight their way to the first objective" (emphasis in the original). Montgomery, p.122.


33. A 26 October decrypted message confirmed Panzer Armee's fuel stocks at 3 (days') supply; one-third of that was still at Bengazi. By 1 November Panzer Armee completely depended on airlifted fuel from Crete. On 10 November, Ultra revealed Rommel had fuel for only 4 or 5 days. Hinsley, pp.442-443 and 454.

34. Walker, p.210-211.


36. At one point 8th Armoured Division staff, stripped of troops, was directed to prepare such a plan. The ultimate "deep" objective of Tobruk was considered. No actual troops were assigned, however; in the event, General Montgomery cancelled the project. Playfair, pp.81-82, and Walker, p.412.

37. Quoted from Montgomery's operations order. Montgomery, p.121. This lack of direction rippled down. 2nd New Zealand Division only gave an "explosive division's mission" to divisional cavalry, even though the division was designated to go to X Corps for the pursuit. Walker, p.237.

38. Only on 5 November did Montgomery give the X Corps commander the line of Dema-Timimi-El Mechili as an objective to seize. Playfair, p.87.

39. "It was becoming clear that the Eighth Army's estimates of petrol consumption made before the pursuit began were far from accurate, so much so that, on figures kept by the NZASC, petrol was being used at almost twice the quantity calculated." The reasons for these deviations from the most direct route to avoid the enemy or difficult ground, soft going, night driving in low gear, leakage from "flimsy" cans, and fuel from every vehicle used for boiling water and heating rations. Walker, p.464.


41. "... it was clear that the air forces had to have all they wanted" (emphasis mine). Montgomery, p.130.

42. Playfair, pp.101-107.

43. In addition, there were 40 Hudson aircraft available to ferry bombs, ammunition, and other supplies needed by 8th Army or Desert Air Force. Playfair, p.17.

44. As early as 25 October, General Gatehouse requested to halt a night attack saying his armour was trained for a static role and not for difficult night operations! Walker, p.311. Later, Brigadier Custace, commanding 8th Armoured Brigade, stopped at nightfall on 4 November because he considered his men "untrained for movement during the dark hours." Pitt, p.223. Brigadier Kippenberger, 5th New Zealand Brigade, voiced similar concerns to his division commander the same day. Walker, p.434.

45. Montgomery, p.103.

46. Montgomery, p.130.

47. 54 German, 42 Italian tanks, no fuel reserves, desperate shortage of ammunition. The Luftwaffe was "immobilised" for lack of fuel. Hinsley, p.458.

48. Prior to *Operation Lightfoot*, after talking with Lumsden and Gatehouse, Freyberg came to the conclusion that the armoured formations were likely to be cautious rather than resolute. This fear was so strong among the infantry that Freyberg (New Zealand), Moorehead (Australia) and Pienaar (South Africa) went to the corps commander (Leece) to "voice their disgust." Walker, p.211.

49. See Barnett's revised edition (1986) of *The Desert Generals* for an excellent analysis and comparison of both generals' operations.

50. See Montgomery, pp.117-118. This episode is disputed by others who claim Gatehouse was in fact forward and only came back to his headquarters to use the field phone to participate in the conference. Be that as it may, his conduct of the battle is open to question; later on General Lumsden found it necessary to issue orders directly to 10th Armoured Division's brigades, because Gatehouse was out of contact with either his own division headquarters, the corps, or his subordinate brigades. Walker, p.311.

51. 4th Light Armoured (designated to lead) was near Alamein station jostling other units to get forward. 5th New Zealand Brigade was at the base of the salient waiting for 4th Light Armoured to pass. 9th Armoured and 6th New Zealand were in defences on the northwest of the salient (6th New Zealand was waiting for transport which was held up to the rear). The New Zealand division cavalry was in the salient to the rear of other elements. Walker, p.427.


53. Only 9 of 24 infantry brigades in Eighth Army were British. The rest were Indian, Australian, New Zealand, South African, Free French, and Greek. All 7 of the armoured brigades were British.

54. He did exercise greater supervision after the initial disappointments of 4-12 November, but by then it was too late. Since he did closely supervise Lumsden subsequently, he bears the full responsibility for failing to push aggressively across Cyrenaica in strength.

55. See particularly Walker's account of Montgomery's visit, 6 November, to 10th Armoured Division, when he ordered them to halt and clear the area to the rear. Hunt describes Montgomery's refusal to permit General Lumsden's plan to push boldly across Cyrenaica. Walker, p.445, and Hunt, p.156.

56. This was the farthest point in 8th Armoured Division's planning for pursuit. X Corps was only given the Dema-Timimi-El Mechili area objective on 5 November. On 12 November, Montgomery mentions "Benghazi and beyond" in Libya as objectives in his victory message. By 15 November, he is carefully directing Lumsden in the pursuit to El Agheila, but again no directive for further western pursuit.

57. The popular desert veteran, General Gott, had been given the post but was shot down and killed in route. See Hunt for a rare character sketch of General Gott and a comparison of Gott and Montgomery, pp.119-121.

58. Playfair, p.35.

59. Montgomery, p.128. One of the first commanders Mont-
gerny fired was Major General Renton, commanding general of 7th Armoured Division. Renton, a veteran of two years in the desert, disagreed over who should have the authority to commit the British armour to counter-attack. Carver, p.94. Walker frequently notes Major General Freyberg’s opinion that British armour commanders only gave lip service to plans but held the determination to run the armoured battle their own way. Walker, p.310.

Montgomery was never able to fully appreciate the concept of Ultra Goes to War. Lewin, 1986.

Major General (later Field Marshall) Harding had that experience and was well served by it. General (later Field Marshal) Wavell was also there. Montgomery had served twice briefly in Palestine (1931 and 1938) and in Egypt but seems not to have made a serious study of Allenby’s campaign. Even the British official history notes the dramatic difference between Allenby’s pursuit after Megiddo (1918) and Montgomery’s after Alamein. Playfair, p.81.

Even cavalry concentrated on these tasks. The U.S. Army Command and General Staff School booklet, The Tacttical Employment of Cavalry, Fort Leavenworth, Kansas, 1937, devotes 26 paragraphs to attack, 16 to defence, 7 to reconnaissance, and 3 to pursuit by horse cavalry. The mechanised cavalry section does not address exploitation or pursuit at all.

Montgomery was never able to fully appreciate the concept of the “expanding torrent”, though Liddell-Hart tried to clarify it during their association. Particularly see Lord Chalfont’s description of Montgomery’s character and his limitations in pursuit. The phrase, special blindness, is Lord Chalfont’s.

Ultra had disclosed Rommel’s intentions, soon confirmed by tactical means, to retreat. The first Italian infantry had pulled out of position at El Aghila, headlights blazing, horns honking, motors roaring, on 6 December. This continued nightly for three nights, unmolested by artillery or air attack. Irving, The Trail of the Fox, p.249.

By January 1943, despite severe logistical bottlenecks, Axis strength facing Eisenhower in Tunisia had reached about 100,000 (74,000 Germans, 26,000 Italians) along with 379 tanks, over 5,000 vehicles and 600 guns. Rommel had to make do with less than 5,000 men, 50 tanks, and 118 guns to hold back Eighth Army. Howe, pp.370 and 682-683.

The collapse of German units in the Ukraine and the encirclement of Stalingrad at this time made it very difficult and time consuming to assemble substantial reinforcements for North Africa. In addition, these had to trickle in through transportation bottlenecks that limited the daily available sealift capacity to 1,500 tons and an additional 585 tons in airlift. A build-up was practical only if Rommel could delay long enough to make substantial reinforcement possible. Howe, p.366.

BIBLIOGRAPHY


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Controlling the Possession and Use of Biological and Chemical Weapons

By Lieutenant Colonel L. P. Haines

Introduction

The recent signing of the Chemical Weapons Convention (CWC) in Paris represents a milestone in international arms control. Biological and chemical weapons have long attracted the attention of those seeking to control the spread of arms in the international community. This is due in part to the moral issues they raise as a unique class of weapons. They also present special difficulties for the negotiation and implementation of effective arms control agreements. Despite efforts at curbing proliferation, the potential scope of biological and chemical warfare is continuing to expand as a consequence of more broadly-based technological developments. This article will review progress of international efforts to control the possession and use of biological and chemical weapons, and examine some of the issues that these controls raise.

For the purposes of the article, some broad definitions will be adopted. Chemical and biological (CB) weapons, the implements of chemical and biological warfare (CBW), are the means whereby toxic or infective agents can be used to harm an enemy, his animals or his plants. Some are designed for the mass-destruction of life over wide areas, and others for localised effects. Some are designed to kill, others to disable temporarily. It would also be appropriate to note that while efforts to curb CB weapons have involved arms control — that is military cooperation between potential opponents, with this class of weapons there has been a more specific focus on disarmament — the reduction or elimination of weapons.

Historical Overview

CB weapons have a history of at least 3000 years. There are references to CBW in recorded history of several civilisations, including the Hellenic, the Roman, the Byzantine, the Sung Chinese, and that of mediaeval and Renaissance Europe. However, it was not until the late 19th and early 20th centuries, when advancing technology greatly enhanced their potential destructiveness, that CB weapons attracted the serious attention of arms control. The Hague Conventions (1899) included articles banning the use of projectiles diffusing 'asphyxiating or deleterious' gases. However, these articles were violated by both sides in World War 1, during which there were some 1.3 million casualties caused by chemical weapons, mainly chlorine and mustard gas. The casualties included some 90,000 fatalities. Negative public reaction influenced the signing of the 1925 Geneva Protocol which, while banning the use of CB weapons, did not prohibit their possession. During the inter-war years, the only recorded use of chemical weapons was in Ethiopia and in Manchuria in the mid-1930s.

CB weapons were not used in World War II, although both sides possessed them. As the Cold War developed, both the US and the USSR dramatically expanded their CB weapon stockpiles and developed CBW doctrine. Since World War II, chemical weapons have reportedly been used in Yemen, South-East Asia, Afghanistan and Iraq. In the 1960s, some five countries were understood to possess chemical weapons. By the 1990s, this had risen to twenty. A focus on detente and a concern with emerging bio-technology led in 1972 to the signing of another major arms control agreement — the Biological and Toxin Weapons Convention which provided for a comprehensive ban on such weapons. Since then, concern over proliferation of chemical weapons in the Middle East and Asia and the chemical weapons stockpiles of the USA and the USSR, has focussed international attention on the negotiation of a Chemical Weapons Convention. This agreement, signed in January 1993, yet to be signed — is intended to provide for a comprehensive ban on the possession and use of chemical weapons. There have also been bilateral discussions between the USA and the former USSR on chemical weapons. International attention has again been drawn to the issue recently through the activities of the United Nations Special Commission overseeing
CBW Arms Control Negotiations and Agreements

The 1925 Geneva Protocol

The Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare remains today as the fundamental agreement prescribing the world’s norms and restraints against chemical warfare. This agreement was reaffirmed by 149 nations at the January 1989 conference on chemical weapons in Paris. The fundamental weakness of the Protocol, however, is that it has failed to halt the production, stockpiling and use of chemical weapons. The Protocol prohibits “...the use in war of asphyxiating, poisonous, or other gases, and all analogous liquids, materials, or devices...” The Protocol, while banning the use of chemical weapons, says nothing about their possession. While some parties to the Protocol argued at the time of signing for a comprehensive ban, the experience of World War I had led others to conclude that there was little military value in such weapons. Moreover, other nations in recognising the Agreement, entered reservations. For example, many of the 125 parties to the Protocol reserved the right to use chemical weapons in retaliation and against non-parties. As a result, it has been suggested that the Protocol in effect prohibits the ‘first use’ of chemical weapons in some circumstances, and little more.7 There are also some doubts about the applicability of the Protocol to riot control agents and herbicides. While no states appeared at the time of its signing to have begun work on the development of biological weapons, the Protocol did foreshadow these developments and included a ban on the use of bacteriological weapons.

The 1972 Biological Weapons Convention

The fact that CB weapons were not used in World War II ensured that they featured relatively little in arms control processes in the following 20 years. The one exception was the renunciation by West Germany when it re-established its sovereignty in 1954 of the manufacture of nuclear, biological and chemical weapons. Interest was re-kindled in CBW arms control in the 1960s with a focus by the superpowers on detente, the conclusion of the Nuclear Non-Proliferation Treaty in 1968 and concern over the use by the US of tear gas and herbicides in Vietnam. However, it soon became obvious that it would be exceedingly difficult to reach agreement on a comprehensive ban on both biological and chemical weapons, largely because of the difficult issue of verification. Accordingly, in a move sponsored by Britain, it was decided that CBW arms control could best be progressed by the conclusion first of a separate treaty prohibiting biological weapons. This idea was fostered on the basis that biological weapons had never been used in war, that there was an even greater abhorrence of them than chemical weapons and that renunciation of them may be possible even in spite of inadequate verification provisions.

The Convention on the Prohibition of the Development, Production and the Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction was concluded in April 1972. The agreement was facilitated by the US decision in 1969 to renounce biological warfare and destroy its stocks of such weapons, and by the Soviet acceptance in 1971 of separating biological from chemical weapons for the purpose of achieving a comprehensive ban. The Convention prohibits the development, production, stockpiling, transfer and acquisition of “…microbial or other biological agents or toxins, whatever their origin or method of production, of types that have no justification for prophylactic, protective or other peaceful purposes; and weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict…” Significant, the Convention also committed parties to it to continuing negotiations to reach agreement on the prohibition of chemical weapons. While the Convention has been a milestone in the arms control process in that it obtained agreement on the prohibition of an entire class of weapons, it is fundamentally flawed in that compliance with it is virtually unverifiable. The Convention contains no provision for on-site inspections, with ‘national technical means’ being the primary means of verification. As evidenced recently in Iraq, it is simply impossible to confirm a biological warfare capability other than through on-site inspections — and even then there are difficulties. These weaknesses notwithstanding, the Convention was re-affirmed at Review Conferences in Geneva in March 1980 and September 1986.

The Chemical Weapons Convention

Following the conclusion of the 1972 Biological Weapons Convention, the Geneva Conference on Disarmament began to explore the practical aspects of a chemical weapons ban. This continued until
1977, when bilateral negotiations between the US and the former USSR began. Throughout this period, scope and verification remained the central issues of discussion. All the participating governments agreed that a chemical weapons treaty should provide for a comprehensive disarmament of chemical warfare weapons, that it should be properly verified and that it should be global in scope. In the course of the pre-1977 discussions, on-site inspection seemed to be a verification technique too intrusive to be politically feasible. However, after 1977 the opposition of socialist states to this form of verification was withdrawn and this facilitated the bilateral discussions that continued until 1980.

During that year, however, the US withdrew from these negotiations claiming Soviet intransigence on the verification issue and citing Soviet aggression on Afghanistan as rendering ongoing discussions of little value. As a result, focus again shifted to multilateral negotiations in Geneva.

In 1984, the Conference on Disarmament reached agreement on the basic goal of complete ban on the development, production, acquisition, possession, transfer, or use of chemical weapons. Since then, negotiations have advanced through the progressive development of a 'rolling text'. This text draws heavily on a draft, US Chemical Weapons Convention tabled by the then Vice-President Bush in 1984. The 'rolling text' contained brackets and gaps to indicate areas of disagreement or to sections that require further work. Negotiations during the mid-1980s centred on the verification issue and on the specific point of 'challenge inspections'. A significant milestone here was the announcement in August 1987 at the Conference on Disarmament by the then Soviet Foreign Minister Shevednadze that the Soviet Union accepted the principle of mandatory challenge on-site inspections for monitoring compliance with a chemical weapons agreement. Significantly too, it was only in 1987 that the USSR first admitted that it possessed chemical weapons. These developments occurred against a background of progress in other areas of arms control, such as the conclusion in 1987 of the INF Treaty.

A number of contentious issues remained to be settled. These related to the need for the Convention to control the proliferation of chemical weapons that became increasingly evident in the 1980s, and to provide for effective verification. Other areas of contention included definitional issues such as whether herbicides and riot control agents should be included, the costs of implementing the Convention, the institutional mechanisms that it would require, the number of nations that would have to ratify it for it to become effective and the involvement of the chemical industry in determining declaration and verification procedures. On this last issue, Australia has had a significant involvement. Since 1985, it has chaired the so-called 'Australia Group' of 19 industrialised countries whose representatives meet in the Australian Embassy in Paris. This group establishes rules that its government then applies domestically for controlling the export of chemicals that could be used in chemical weapons. Concerns with proliferation and difficulties with establishing effective verification techniques resulted in an International Conference on Chemical Weapons in Paris in January 1989. The 149 nations represented at the conference reaffirmed their commitment not to use chemical weapons, although there was some concern arising from the Conference that the US may be moving away from the idea of a complete ban to that of controlling proliferation. An important consequence of the Paris Conference was the convening of a further conference in Canberra in September 1989. The purpose of this Conference was to involve industry and governments worldwide in a common effort to control the trade in chemical weapons pre-cursors, as well as to gain chemical industry support for a chemical weapons ban.

**US-Soviet Bilateral Negotiations**

Several developments in the early 1990s provided a new impetus to efforts to conclude the Chemical Weapons Convention. In May 1991, President Bush announced several changes to the US position which improved prospects for agreement. Most importantly, though, in March 1992 Australia produced a new text to replace the 'rolling text' that had provided the basis for negotiations so far. The original text had included brackets and footnotes representing areas of disagreement. This had made progress difficult. The new text, however, offered compromise on many of the contentious issues. By September 1992, the Ad Hoc Committee on Chemical Weapons of the Conference on Disarmament had negotiated a final draft and forwarded it to the United Nations General Assembly. In January 1993, more than 100 countries signed the Convention in Paris. This Convention prohibits the production, development and stockpiling of chemical weapons, as well as use. However, it will not enter force until 1995 and parties will have until 2005 to destroy any chemical weapons they may have. In addition to its main provisions, the Convention requires parties to destroy facilities for the production of chemical weapons, not to engage in preparations for chemical warfare, not to use riot control agents such as tear...
gas as a method of warfare, to declare within 30 days of the treaty coming into force the kind and quantities of chemical weapons they possess, to cooperate with the Organisation for the Prohibition of Chemical Weapons (OPCW) which will be responsible for verifying compliance with the Convention, and to assist other parties that may come under chemical attack.

**Issues**

**The Deterrent Effect of CB Weapons**

It is widely believed that the reason Germany did not use chemical weapons during World War II was the deterrent effect of what they understood to be the Allied Chemical Weapons Inventory. Deterrence has been an important consideration in the justification of both the US and USSR's CBW capabilities. It has also been suggested that some of the other nations that have acquired chemical weapons in recent years see them as having the same kind of deterrent power within their regions as the superpowers attribute to strategic nuclear weapons. NATO has relied on the US chemical retaliatory capacity to deter Soviet use of such weapons. The lack of such a deterrent may have forced NATO to respond earlier than necessary with nuclear weapons. The retention of chemical deterrent within NATO was seen as a means of raising the nuclear threshold within the doctrine of 'flexible response'. It seems clear that this deterrent must have been eroded in the 1970s and 1980s with deterioration of the US chemical capability. Indeed, the binary modernisation program was directed at restoring the credibility of the deterrent. The need to restore the deterrent was influenced in the 1970s by the suspected use of chemical weapons in Afghanistan and Cambodia. It has also been suggested that the real aim of chemical deterrence is not to impose large numbers of casualties on an adversary or to dissuade him from initiating a chemical attack, but rather to force him into Individual Protective Equipment (IPE) and reduce his fighting efficiency. IPE is generally considered to reduce combat efficiency by between thirty and fifty per cent. There is no doubt that a strong protective posture is an essential component of chemical deterrence.

**Proliferation**

It was the issue of proliferation that provided the stimulus for CBW arms control in the 1980s. The only countries that have admitted that they possess chemical weapons are the US, the USSR and Iraq. Estimates of countries possessing or seeking a chemical capability vary, but it has been put as high as 37. Some 20 countries are believed to already possess these weapons, and these tend to be concentrated in the Middle East and Asia. Such states include Iran, Syria, Egypt, Israel, Libya, Myanmar, China, North Korea, Taiwan, Vietnam, South Korea and Ethiopia. Since the 1960s, chemical weapons have allegedly been used by Egypt in South Yemen in 1963-1968, by Vietnam in Laos between 1975 and 1987, by Ethiopia against Eritrean and Somalia-backed rebels since 1976, by Vietnam in Cambodia since 1978, by China and Vietnam in 1978, by Iraq against Iran between 1984 and 1988 and by Iraq against the Kurds in 1988. Significantly, some of these countries are known to sponsor terrorist activities. It has been argued that chemical weapons are becoming the poor countries' answer to nuclear weapons. The reason for this is that a developing country with a relatively unsophisticated industrial base can produce such weapons cheaply and quickly. This production is often based on equipment and materials that is provided by Western chemical companies. It is this fact that provided the rationale for the so-called 'Australia Group' and has focussed recent efforts in concluding the Chemical Weapons Convention on involvement of the chemical industry. The consequences are potentially even more serious in regions where ballistic missile technology is also proliferating. Significantly, third world countries were most vocal in their opposition to the suggestion that the US may be moving away from the idea of a comprehensive ban to that of a non-proliferation treaty.

**Problems of Verification**

Reaching agreement on effective verification techniques provided the main barrier to the successful conclusion of the Chemical Weapons Convention. The key issues were the monitoring of the chemical industry and the problem of how to protect confidential business information — as well as sensitive
national security information — in the monitoring and inspection process. Reaching agreement here is seen as involving a trade-off of adequacy against feasibility. The scientific and industrial capacities from which chemical weapon capabilities may be drawn are deeply and widely diffused within any economy. A program of inspections must be adequate enough to ensure compliance, yet not so intrusive as to become unfeasible for security or other practical reasons.

The Chemical Weapons Convention provides for inspections with several types of objectives. These include: verifying declarations by a state concerning its possession of chemical weapons and production facilities; overseeing the destruction of those that are declared; determining the disposition of any abandoned chemical weapons stocks on the territories of the parties; ensuring that facilities producing chemical weapons-related chemicals for permitted purposes are not exceeding their allowed limit; conducting routine inspections of industrial chemical manufacturing facilities that have a capacity to manufacture chemical weapons; and carrying out inspections of activities on the territory of a party in response to an allegation by another party that the activities may be inconsistent with the provisions of the Convention. This last type of inspection — the challenge inspection — proved to be the most contentious during the developing of the treaty. The original draft Convention proposed that states could ask for short-notice, mandatory on-site inspections at any place or at any time. This met with widespread opposition and the completed Convention contains a compromise which incorporates a concept of ‘managed access’ which, while still providing for mandatory on-site inspections at any place and at any time, allows sensitive activities at a site not related to chemical warfare to be shielded from inspection.

The Convention provides for the creation of the Organisation for the Prohibition of Chemical Weapons (OPCW) that would police the treaty through a system of reports and inspections of both government and commercial chemical manufacturing and consuming facilities. The key problems with this are the difficulties of discerning by observation the differences between a chemical weapons production plant and a peaceful, commercial production facility. Some feeling of the scope of the problem can be gleaned when it is appreciated that in the US alone, there are some 50,000 sites in which chemicals are manufactured or consumed in the manufacture of other products. It was these sort of concerns that prompted the involvement of the chemical industry in the ongoing negotiations and indeed the September 1989 Canberra Conference. It has also been assessed that the cost of the international agency to oversee this system of reports and inspections would be between SUS200 and SUS300 million annually. The ease with which a chemical weapons capability can be concealed has been highlighted by the activities of the United Nations Special Commission overseeing the location and destruction of Iraq’s chemical weapons inventory.

**Conclusion**

CB weapons retain a unique place in the field of arms control. Arms control has progressed more in this area than perhaps in any other. Three major arms control agreements have been achieved this century. Despite ongoing concerns with proliferation, complete CB disarmament is indeed within sight. This can probably be attributed to moral considerations regarding use of CB weapons and to the proliferation that has occurred in the last 20 years. While the 1972 Biological Weapons Convention provided for a comprehensive ban on biological weapons (albeit with inadequate verification provisions), recent proliferation in the possession and use of chemical weapons has confirmed the inherent weaknesses of the 1925 Protocol. The recently signed Chemical Weapons Convention will provide for a comprehensive ban on these weapons. Bilateral negotiations between the US and the former USSR progressed in parallel with the multilateral talks in Geneva. The latter negotiations were specifically directed at eliminating the chemical weapon stockpiles of the superpowers. The Gulf War has perhaps even heightened the attention of chemical weapons generally, and increased multilateral efforts to conclude the Chemical Weapons Convention. However, some important issues, principally concerning verification, still remain to be resolved.

**NOTES**

4. J.R. Robinson, Chemical/Biological Warfare — An Intro-
duction and Bibliography, Los Angeles, Centre for the Study of Armament and Disarmament, 1974, p.(v).
13. Robinson, op cit, p.49.
15. Anon, op cit, p.4.
18. Robinson, op cit, p.3.
19. Floweree, op cit, p.5.

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The Persian Gulf Conflict: Implications for RAAF Air Power Doctrine

By Group Captain Gary Waters, RAAF

The recent air war in the Persian Gulf witnessed the forging of a powerful tool through the union of technology and doctrine. Technology, in the form of stealth and precision, allowed the Coalition military strategy to be implemented in accordance with extant strategic air doctrine. Coalition strengths were brought to bear on Iraqi weaknesses; civilian casualties and collateral damage were kept to minimal levels; and Coalition casualties were well below the level expected. Within 48 hours of the first Coalition air attack, Saddam Hussein 'could no longer broadcast on television or nationwide AM radio, all major military headquarters were wrecked, Iraqi air defences were largely incapacitated, and in Baghdad the population at large was deprived of electricity, telephone service, and piped water'. Yet, Baghdad remained largely intact, as it did at war's end.

During the first 39 days of the war, Iraqi military units were isolated — cut off from re-supply and reinforcement — and tanks, artillery pieces, aircraft and naval vessels were destroyed. Despite the destruction achieved and the impressive sortie counts, only some 85,000 tons of bombs were dropped, of which approximately 8,000 were precision weapons that accounted for much of the damage. By contrast, American and British air forces dropped 134,000 tons of bombs on Germany, in March 1945 alone.

This article presents a brief analysis of the air war in the Gulf and its implications for RAAF air power doctrine. It is based on a far more exhaustive study conducted by the author during 1991, while attached to the RAAF’s Air Power Studies Centre and as the RAAF Visiting Fellow to the Strategic and Defence Studies Centre at the Australian National University. Specifically, the article presents a brief overview of the air war itself, outlines current RAAF doctrine, derives some of the more relevant broad implications and concludes with discussion on planning a strategic air campaign.

Overview of the Air War

The Allies enjoyed greater numbers of aircraft and considerable technological superiority over Iraq’s Air Force. Hence, air power was seen as a logical choice to overcome the problems faced by the Allies in the Gulf. Iraqi weaponry was significant by regional standards, but paled in comparison to that of the Coalition. Iraq did, however, possess a sophisticated integrated air defence system which had to be neutralised as soon as possible. In the end, Coalition aircraft established control of the air at night, even before a shot was fired.

The recent war with Iran had revealed some glaring weaknesses in Iraq’s potential to wage an air war. Lack of strong leadership and individual aircrews initiative, an unwillingness to contest the skies in air-to-air combat, and poor co-ordination of air and ground forces, all evidenced during the 1980-1988 war, were still present.

More importantly, Iraq’s military, supporting economy and infrastructure were ideal for air attack. Heavy, dug-in forces relying on continual resupply of fuel, munitions and spares provided an abundance of targets. The semi-industrial nature of the supporting economy, the urbanisation of the population, and the modern infrastructure of oil refineries, power generation plants and transport networks provided still more targets which could be attacked to undermine support for the military. Dependence on transport nodes over the Tigris and Euphrates rivers also left the Iraqis vulnerable. Finally, the absence of ground cover and the nature of the reasonably good weather meant that Iraqi forces on the ground had few places to hide. So restricted were they in this respect, that they were forced to forgo mobility by ‘bunkering-down’ in positions well-removed from towns, and thus proved to be easily encircled and cut-off from re-supply and reinforcement. Moreover, when these forces did decide to move, they were afforded little cover and became easy targets for air attack.

Another major consideration for the use of air power was Saddam’s strategic warfare potential, in the form of Nuclear, Biological and Chemical (NBC) weapons and Scud missiles. An early Coalition land invasion of Iraq would have been seen by many as exceeding the UN mandate and may well have split the Coalition. However, air power together with its precision weapons allowed the coalition to target Saddam’s strategic military capability without invading Iraq and with minimal collateral damage and loss of civilian lives.

Finally, domestic pressure on coalition partners, especially the US, argued for minimal casualties of own nationals, and air power provided the wherewithal to attrite Saddam’s forces to the point where a ground
campaign could be conducted with little loss of life. The Allies had to use “overwhelming force to win decisively, as quickly as possible, with minimum casualties”.

The air campaign was conducted in four phases. The aim of Phase 1 was to target Iraq’s strategic offensive capability by gaining air superiority, disrupting Iraqi Command and Control (C2), and destroying Iraq’s Nuclear, Biological and Chemical (NBC) weapons and Scud missile capability. The phase was to be completed by Day Seven, (D-Day was Day Zero, 16 January 1991). The aim of Phase 2 was to suppress enemy air defences in the Kuwait Theatre of Operations (KTO), and to be completed by Day Eight. During Phase 2, the enemy air defences to be engaged were not like the robust integrated systems of Baghdad and other major cities, but were mobile systems which the field army had deployed. During Phase 3, emphasis shifted towards the field army in the KTO, to isolate and attrite it, although targets from Phases 1 and 2 were still attacked as necessary. Phase 3 was to be completed by Day 30, but no later than Day 39. G-Day (start of the Coalition ground offensive) turned out to be Day 39 (24 February 1991), and by Day 43, Phase 4, which was air support of ground operations, was completed.

The phases were not discrete, and merged, mainly because more air power than had been anticipated originally was provided, and once air superiority had been won, Phase 3 actually began earlier than planned. In fact, from Day One, the Iraqi field army suffered air attacks: an aspect of the operation which General Schwarzkopf insisted upon. The air initiative was taken with a massive attack, and held throughout the war.

Poor weather and the dedication of extra effort to locate and destroy the Scud missile launchers added some delays and contributed to the overlapping of phases. During the first 10 days, approximately 40 per cent of scheduled attack sorties had to be cancelled due to poor visibility or low overcast conditions. Planning allowed for 13 per cent cloud cover, which was typical for the region at that time of year, yet cloud cover was actually 39 per cent. About half of all attack sorties to Iraq were either cancelled or diverted because of weather.

Before any attack could be mounted, the electronic war had to be won. This entailed suppression of enemy air defences, so that Iraqi early warning radars would be either switched off or destroyed; hence the use of F-4Gs and F-16s with High-speed Anti-Radiation Missiles (HARM) and Tornado GR.Is with Air Launched Anti-Radiation Missiles (ALARM). Jamming aircraft such as the EF-111A Raven, EA-6B Prowler and EC-130H Compass Call created confusion and protected the strike aircraft.

Initial attacks by Tomahawk missiles and F-117A stealth fighters took the Iraqis by surprise and when surveillance and Surface-to-Air Missile (SAM) radars were activated, the Suppression of Enemy Air Defence (SEAD) aircraft were ready and waiting. Strategic targets in heavily-defended Baghdad were attacked by Tomahawks and F-117 aircraft only.

Once a safe corridor had been cleared by the electronic combat aircraft, the strike aircraft flew into Iraq and attacked targets such as C2 positions, power stations, communication facilities and the priority airfields. Fighter escort was provided over the various strike packages and defensive fighter Combat Air Patrol (CAP) was flown to protect coalition air bases.

Co-ordination of the first and subsequent air attacks was provided by Airborne Warning and Control System (AWACS) aircraft, and a large fleet of tankers provided the necessary Air-to-Air Refuelling (AAR). In all, and over the subsequent weeks, centralised C2 was an integral element. The close co-ordination allowed air power to be used in a unified manner and afforded the flexibility which led to concentration of force and economy of effort.

The Coalition's intention was to destroy and disrupt the SAM system, to ground the hundreds of Iraqi fighters, and to damage as much of the Anti-Aircraft Artillery (AAA) as possible, before a sustained air bombardment campaign could be conducted against military targets and targets of strategic importance. The result was, that in a matter of days, Iraq's aircraft were grounded in Hardened Aircraft Shelters (HASs), fuel and munition stocks were destroyed, and non-hardened C2 facilities were destroyed, as were many radar and SAM facilities.

Only rarely did air-to-air combat eventuate and no Coalition aircraft were lost to Iraqi fighters. Even the avenue of Iraqi aircraft fleeing to Iran was closed, and as the war progressed, Iraqi air activity virtually ceased.

The flexibility and decisiveness of air power, long acclaimed, was witnessed through the marvels of sophisticated aircraft systems and precision weapons. Responsiveness was the catch-cry of the Gulf War. Responsiveness to political needs at the outset, responsiveness to operational commanders' plans, and responsiveness to fluid tactical situations, were all made possible through the use of air power.

Air power was able to threaten every element of Iraq's military machine — enemy troops, pieces of equipment, supply depots, ammunition and fuel dumps, all the while risking only hundreds of personnel — the aircrews who continually put themselves at risk to reduce the casualties that a ground war would have suffered. The 2,235 Coalition combat aircraft showed just what unopposed air power could do once air superiority had been won.
RAAF doctrine argues that the essence of air power is embodied as three different but inter-related air campaigns. The first, Control of the Air, allows friendly forces to operate at a time and place of their choosing, while denying such freedom to enemy forces. This is achieved by defending airspace against hostile enemy aircraft and by attacking enemy aircraft on the ground, airfield runways/taxiways and airfield support services.

The second, Air Bombardment, involves strategic attacks against an enemy’s war-making capacity, including national resources and elements of national infrastructure. The third campaign, Air Support for Combat Forces, complements the combat power of sea, land and air power forces in terms of firepower, mobility, manoeuvre and sustainability.

Significantly, the RAAF’s three doctrinal campaigns — control of the air, air bombardment, and air support for combat forces — were all reflected in the air war in the Gulf. Control of the air equated to the destruction of Iraqi air defences and the gaining of air superiority; air bombardment equated to the destruction of Iraq’s strategic capability; and air support for combat forces equated to the isolation and attrition of the Iraqi field army and support for allied ground force operations. Moreover, RAAF doctrine too places priority on Battlefield Air Interdiction (BAI) to isolate forces in space and over time before providing Close Air Support (CAIRS) to friendly forces. Implicit in RAAF doctrine is the belief that ground forces should not attack until air power has been used to isolate and attrit enemy forces.

Doctrinally, air forces have always argued that air superiority and preferably air supremacy must be established at the outset before the enemy’s offensive capabilities can be destroyed and defensive forces neutralised. The gaining of air superiority has meant targeting an enemy’s critical C2 and infrastructure nodes, and implicit within the ability to obtain air superiority has been the need for intelligence, reconnaissance and communications. This classic way of using air power was evidenced in the Gulf War, where the air power equation also included space-based systems and cruise missiles.

Technology and its clever use provided the Coalition air forces with the ability to prove their doctrine once and for all. Colonel Dennis Drew, Director of the Air Power Research Institute at Maxwell Air Force Base, is quoted as saying that the limitations of air power have now been stripped away by the electronic and computer revolution. Through advances in “engineering, lifting ability and night-flying capability . . . we can carry anything and deliver it anywhere with precision”.

Incremental and gradual use of air power had no place in the strategy to defeat Saddam. Military planners waited until they believed the time was right to use military power and the political leadership supported its military in this regard. The use of manoeuvre and surprise, when coupled with modern technology (for firepower, mobility and electronics), should set the scene for conflict of the future. There is nothing new in this, but the fact that it was used with such stunning effect in the Gulf is.

Many of the concerns expressed by arm-chair strategists were disproved by the diplomatic, operational and tactical soundness of Coalition planning and conduct of operations. Thousands of Coalition casualties did not eventuate. High technology weapons did not fail in the harsh environment. Anti-Western terrorism did not materialise, Saddam did not use chemical weapons. The Coalition did not disintegrate. Israel did not join the war in retaliation for Scud attacks. The Arab nations did not become divided, and in this respect, Prince Bandar bin Sultan, the Saudi Ambassador in Washington was quite correct when he said “the pundits under-estimated the Arab masses.”

There are four broader issues which need to be addressed at this stage. They are the four significant elements which RAAF doctrine argues as characterising the nature of war. First is friction, which encompasses those unpredictable and confused factors which lead to chaos in war. Second is the interaction of offence and defence which demands that a defender be able to regain the initiative through offensive action. Third is the ability to focus on an enemy’s centre of gravity and to protect one’s own centre of gravity. A centre of gravity is that vital element or group of elements of a nation which provides the strength and balance of that nation. Fourth is people, encompassing morale, leadership, discipline, training and doctrine. Some may suggest that technology should be discussed as a fifth element, but the AAP 1000 argues that technology is not intrinsic to the fundamental nature of war, although it does influence the way in which war is conducted.

Friction can arise from internal or external sources. One clear example of internal friction for the Allies in the Gulf was that some of the sensitive combat systems could not be fully tested until conflict had started, thus deficiencies had to be rectified in-theatre. Another example was that the USAF did not deploy with sufficient training munitions and hence training during the build-up was limited.

One of the most visible forms of internal friction was in the area of Bomb Damage Assessment (BDA). Tactical reconnaissance assets were in short supply
and tactical intelligence and BDA were not provided as timely as desired; nor was the quality of a high enough standard. The video tape recorders in many fighters were not of sufficient quality to provide accurate BDA, which could have solved the problem of timeliness. Moreover, less than half the air-to-air kills were able to be confirmed. AWACS and Joint Surveillance Target Attack Radar System (J-STARS) aircraft provided the support at the theatre or operational level, and the tempo and decision-cycle showed corresponding increases. However, tactical intelligence and BDA simply could not keep pace with these increases.

Elements of external friction for the Coalition were the weather, Iraq's use of Scud missiles, and Iraqi deception measures. Iraqi deception and disinformation was intended to: reduce the effectiveness of Coalition air strikes, enhance the survivability of Iraqi forces, and destabilise the coalition. While Iraqi measures were largely unsuccessful in misleading the Allies, the measures did complicate the overall Coalition effort.

### Implications for Doctrine

During the Gulf War, the value of air power in high intensity conflict was evidenced. So too was its ability to substitute for land power. Yet the Iraqis found that their formidable land power could in no way substitute for their lack of air power. If no other observation can be made, at least nations should realise that the fundamental military priority must be to contain the ability of their enemies to generate air power.

The Iraqis had been flying about 100 sorties per day during January, until the war started, after which Iraqi sorties halved and then stopped altogether, well before the war ended. Their defensive air strategy achieved nothing, whereas the Coalition's offensive strategy won the air war in the first week.

Interestingly, the use of diversion by Iraq, which in one case compelled Coalition air forces to hunt and destroy Scud launchers, was not expanded as a warfighting concept to the Iraqi Air Force. The Iraqi Air Force could have caused considerable disruption had it attacked Coalition troops, staging areas, or airbases, thus underscoring the importance of an offensive element to any defensive strategy.

Bureaucracy and inter-service rivalry must be kept out of war. There has been a perceived tendency for the US to concentrate on the air/land interface (which is only one link in the military chain), and the campaign plans which were based around a broad air strategy appeared to come into conflict with a limited air strategy which had the support of land force action as its driving element.

It is important doctrinally to be able to conduct the three air campaigns defined in RAAF doctrine, concurrently if necessary, and to focus attention (and thus concentrate force) as required. This point underscores the prime maxims of air power which are articulated in RAAF doctrine, and is a clear example of the need for independent air forces.

The operational commander must be able to look at today's battle, tomorrow's and next week's, thus he should not be overloaded with too much detail. He must determine which roles will be performed and apportion the air effort to meet those roles. In this respect, unity of air power is fundamental to success, and the air commander, having been given that unity, must have a campaign plan which will use the air resources to best effect.

The incredible precision of weapons used showed that air power could be an affordably-effective element of military power through the consequent reductions in numbers of aircraft and aircrew needed to destroy a target. Such precision also showed the value of air power as a useful political element, as it could selectively destroy a target with minimal civilian casualties or collateral damage.

It is possible that air power alone, given time, could have forced the Iraqis out of Kuwait. However, the value of a combined arms approach was remarkable — it witnessed the use of air power until sufficient attrition of enemy forces had been achieved and over a suitable period which wearied the Iraqis and isolated them, and then a fast, furious land offensive which surrounded them and forced a surrender.

The Gulf War underscored the important observation that conflict can be regarded as a doctrine versus doctrine contest, so there does need to be a concerted effort to understand and learn an enemy's or potential enemy's doctrine long before conflict has been joined.

Another fundamental observation is that the concepts of parallel and series air operations can now be better explained as a result of the Gulf War. In the past, lack of accuracy or numbers of bombs on target has meant that targets had to be attacked and re-attacked, with the aim being gradual degradation of the target. The time between re-attacks provided an enemy with respite and the chance to effect certain levels of repair. (This is the concept of air operations being conducted in series).

However, with greatly improved accuracies and bombing weight, attacks in parallel were possible during the Gulf War. Stealth minimised the need for huge force packages and together with precision weapons
and other technological advances paved the way for parallel air operations. This meant that the breadth of the enemy’s capability could be attacked at the one time and an entire system destroyed. The Gulf War witnessed the ability of offensive air power to negate the absorption and recovery capability of targets, even hardened ones.

The conduct of air operations in parallel, rather than in series, should be one of the first doctrinal tenets of air power for the future. Use of stealth and precision is one obvious way of achieving parallel operations, but should not be accepted blithely as the only method. More conventional aircraft, using Precision Guided Munitions (PGMs) and supported by SEAD, Electronic Warfare (EW), AWACS and AAR, can achieve parallel operations. A fine balance must be struck between stealth and packages of more conventional forces.

Strategic intelligence is important. An Iraqi invasion of Kuwait featured prominently as a likely event within the Pentagon, and Central Command (CENTCOM) Headquarters had already set the objectives for a response before the invasion. Yet, despite an awareness that Saddam would invade, the world was unprepared, and military forces had little real warning time. 

Desert Shield demanded a readily-deployable naval force, followed by immediate airlift support and covered by a force of air superiority fighters. Subsequent forces of light ground units, and ground attack aircraft followed. Heavier units and more forces were then brought in by air and sea lift. Underpinning the entire deployment was the surveillance, reconnaissance, and Command, Control, Communications and Intelligence (C3I) provided by space-based systems.

For future contingency planning, these points and sequence of events are important. Even if scaled down, the responsiveness of air power, the fundamental need for seapower and the eventual use of land forces, all requiring sophisticated C3 and effective logistics, point to the way ahead. In its rush for jointness, Australia must be careful not to negate the inherent strengths of each of its Services. As Colonel Dennis Drew, Director of the USAF’s Airpower Research Institute, says: “Be careful [the rush to jointness] does not become a rush to mush”.

Any observations for the RAAF from the Gulf War should therefore encompass: the need for versatile combat forces which are specialists in their own discrete forms of warfare, yet well-versed in the intricacies of joint warfare; rapid mobility, both strategic and tactical; and the ability to control the high ground, which can be achieved through air superiority.

Force reductions, which Australia has considered, cannot be allowed to degrade operational capabilities any further. Should potential adversaries view Australia’s capabilities as waning to a level that any adversary may consider challenging, then Australia will have force-reduced itself into an otherwise avoidable conflict. Hardware deficiencies in early warning, Airborne Early Warning and Control (AEW&C), electronic warfare systems, Anti-Radiation Missiles (ARMs), AAR, some radar systems; lack of trained crews; and cutbacks in operational flying hours are all issues which Australia must face up to and resolve.

The concentration of force in the Gulf showed the true destructive capacity of air power and its ability to saturate enemy defences and hence reduce friendly losses. Any lessons to come from the Gulf War must surely centre around the need to train in such force-package operations and not to limit training to small-force operations of two or four aircraft. The concentration on role-specialised wings must surely come into question now, with at least consideration being given to composite wings which can offer a force-package combination, flying from a version of a ‘maxi-base’.

If ever Australia needed reminding that its air force must be organised primarily for wartime effectiveness rather than peacetime efficiency, now would seem appropriate. Yet, the RAAF has been subjected to persistent budget and manpower cuts and continual threats to its broad spectrum of air power capability.

Wartime effectiveness demands airbase resilience, which is an expensive proposition. Explosive Ordnance Disposal (EOD), rapid runway repair, use of satellite airfields, redundancies, and so on may be expensive, but an airbase can prove to be a particularly potent weapon if it is provided with an inherent ability to recover from enemy air attacks. In that, resilience of airfield surfaces, redundant support services, robust and secure communications and C2 centres all need to be addressed by Australia, while remaining cognisant of the costs involved.

Iraqi aggression and the consequent use of military power by the UN should underscore the value of the military as an instrument of national policy. Moreover, the outcome of the Gulf War and its myriad lessons should signal warning signs to Australia that not only can it ill-afford to see its air power capability weakened further, it must also improve that capability. Air power has such a vital role to play in ensuring peace and stability and in gaining victory if necessary. It has become the dominant form of military power.

Chairman of the Joint Chiefs of Staff, General Colin L. Powell said on 21 February to the Senate Armed Services Committee: “Air power has been the decisive arm so far, and I expect it will be the decisive arm
through the end of the campaign, even if ground forces and amphibious forces are added to the equation”. He went on to say: ‘If anything, I expect air power to be even more decisive in the days and weeks ahead’. In that, he was most certainly prescient.

The Coalition realised that success in the Gulf War would rest with air power. Air power had to win the control of the air battle, to the extent of gaining total air superiority. It had to destroy Iraq’s ability to sustain the war. It had to destroy or at least severely disrupt Iraq’s military power, and finally it had to act as the spearhead of forces to liberate Kuwait. While destruction was to be one of the important elements of the air campaign, so too were dislocation and demoralisation.

“The nation’s need for a quick-reacting power-projection capability with great lethality will grow as we draw back from overseas basing and as we draw down our force structure”. This observation for Australia needs no further elaboration. Neither does the following observation: ‘The value of collective defence in crisis is clear’. Most certainly, collective security and UN peace enforcement would seem to be the way ahead for military intervention in higher level conflict in future. However, Australia should not necessarily plan on UN intervention in low-level regional disputes; rather it should contribute to an expansion of the ability for regional collective security measures to maintain peace and stability, by maintaining a strong and broad-based air power capability.

Planning a Strategic Air Campaign

The concept of a strategic air campaign obviously centres around its objectives. Nations possess five strategic elements which can be depicted as concentric rings, with the innermost ring representing the most critical. These elements, or rings, are: leadership, key production, infrastructure, population, and fielded military forces. Taken together, these elements form a nation’s strategic centre of gravity and provide the strategic base and stability to fight a war. In countering a nation’s ability to fight a war, concentration of effort should be directed against the inner rings, working out. The air campaign will be expected to minimise enemy casualties and collateral damage while minimising friendly losses. In so doing, it will call for identification of an enemy’s strategic weaknesses and concentration of friendly strengths against those weaknesses.

Specifically, attacks against leadership should not be viewed purely in terms of the “decision-making elite” concept proposed by Dr Ross Babbage. Rather, they should be designed around C3I centres. Areas of key production would include electricity, refined oil, and NBC capabilities. The elements of infrastructure which should be attacked include transportation, telecommunications, railroads and bridges. Erosion of national will to support the warring regime and the fielded forces represent the key elements of the population factor. Finally, in terms of fielded forces, attacks against strategic air defence and long-range offensive capabilities and any elite military forces (such as Iraq’s Republican Guard) should be prosecuted early in the conflict.

Democracies tend to fight autocracies or totalitarian regimes, not other democracies; hence the value of attacking the C3I systems has more utility than many in Australia may believe. Clausewitz argued that an enemy’s field forces represented the prime centre of gravity, once a nation was at war. While this may have been true once, when civil and military functions were concentrated in the one leader who would actually be in the field with the forces, it is not so today. Today, air power allows a nation to reach over the fielded forces of another and behind them to attack the inner strategic rings of C3I and key production.

Attacks on population do not mean the wanton killing or bombing of civilians, but rather, the conduct of psychological warfare to reduce the support of that population for its government. The flexibility of air power allows this to be done through such things as leaflet dropping, vicinity bombing and so on. As to the charge of collateral damage from strategic air attacks, there was more accidental and collateral damage caused in Baghdad as a result of Iraqi SAMs and AAA being aimed too low than from Coalition air attacks.

The attacks on Iraqi oil were aimed at internal distribution and storage nodes, not at the production and export capabilities. Attacks on the electricity system were the result of very restrictive targeting guidelines. Specific pin-point delivery had to be used which could hit the switching facilities in the grids and transformer yards where civilians did not work and which could be rebuilt relatively easily after the war. Generator hulls and areas where people worked were largely left alone. Destruction of the electricity grid had a side effect of stopping fuel and water pumps, which had not been considered during early planning.

Only six telecommunications nodes represented the critical ones to be attacked, two of which were in Baghdad. Two weeks into the war, messengers had to be used to relay communications and Saddam himself had to move into Kuwait to run the battle of Khafji because his communications with the theatre were down.

Strategic air defence is the only way a nation can protect its strategic targets — its five rings — its centre of gravity. Thus, if a nation’s strategic air defence can
be stopped or destroyed, the way would then be open for attacks against the strategic targets just mentioned. There was ample evidence of this in the Gulf War.

Important and critical strategic nodes tend to be small in size. During World War II in the bombing of Germany, many such nodes were left untouched, yet surrounding buildings were reduced to rubble. In the Gulf, the specific nodes were attacked, without reducing surrounding buildings to rubble.

Ten per cent of the bomb tonnages dropped in the Gulf involved precision weapons, yet accounted for approximately 80-90 per cent of the critical damage achieved. The amount of weapons involved could have been moved by 450 C-141 sorties, which at rates of effort witnesses in the Gulf, could have been completed in four days. The observation for the future is that a major air operation can be supplied so quickly, because the quantity of PGMs needed to inflict the planned levels of damage require so little air transport, comparatively speaking.

When an air campaign is being planned, the number of targets and aim points must drive the types and numbers of sorties needed to attack all targets. This should be the determinant of force structure for a military force, and the use of offensive air power should be considered fundamental to any defence plan.

Eighteen months of the Combined Bomber Offensive in Germany could probably be done in 1991 in 18 days, using the concept of five strategic rings to help determine targets, and stealth and precision to attack them. In determining the most appropriate method of affecting strategic centres of gravity, planners would be well-advised to employ lateral thinking. For example, one must ask why Schweinfurt and Regensburg were attacked during World War II, when destruction of electricity grids would have achieved the required effect of closing the factories.

### Concluding Comment

The Gulf War has provided airmen with experience in locating, targeting and hitting targets with precision after transiting through hostile airspace. A myriad of lessons will be distilled from the high states of operational readiness which were maintained and the attendant logistics and sustainment issues which surfaced. The point that doctrine played such an important part in victory must not be lost, and it behoves Australia, as it does other nations, to derive the relevant implications for its air power doctrine. This article is a start in that direction.

27. The author is indebted to Colonel John Warden III, USAF, for his succinct description of the five rings, given to the author during a visit to the Pentagon in August 1991.


30. In fact, the year in which history reflects a change in thinking from Clausewitz’s ‘On War’, published after his death in 1831, is 1883, when von der Goltz published his ‘The Nation in Arms’. This is discussed lucidly in Martin van Creveld, The Transformation of War, Macmillan, New York, 1991, p.43.


Group Captain Gary Waters joined the RAAF in January 1969. His more recent postings have included Bracknell UK, where he attended the RAF Advanced Staff Course in 1985, and RAAF Staff College, Fairbairn Canberra from 1986 to 1988, where he served as an instructor and then Director of Air Operations Studies. In January 1989, he was appointed Director of Studies at RAAFSC for the review of the RAAF’s Command and Staff Course. In June 1989, he was posted for six months to the newly formed Air Power Studies Centre, where he contributed to the writing of the AAP 1000, Royal Australian Air Force Air Power Manual.

From January 1990 he was the RAAF Visiting Fellow to the Strategic and Defence Studies Centre at the Australian National University, where he produced two books; RAAF Air Power Doctrine: A Collection of Contemporary Essays and The Architect of Victory: Air Campaigns for Australia, both published by SDSC. In May 1991, he was posted back to the Air Power Studies Centre, where he undertook a study of the Gulf War and produced a book entitled Gulf Lesson One — The Value of Air Power: Doctrinal Lessons for Australia, published in June 1992.

He was employed in the Directorate of Logistics Development and Planning during 1992, where he produced several papers on logistics doctrine and strategic planning and a book entitled Line Honours: Logistics Lessons of the Gulf War, published in December 1992. In January 1993, he was posted as the Director of the Air Power Studies Centre.

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Milne Bay — Re-Visited

By Alex Graeme-Evans

“At the dead of night quickly complete the landing in the enemy area and strike the white soldiers without remorse. Unitedly smash to pieces the enemy lines and take the aerodrome by storm. For this reason strict control of sound and light is most important and every endeavour must be made to maintain secrecy of the plan (in the absence of special orders do not load ammunition).”

Opening paragraph to captured Japanese Operation Orders for the Milne Bay Landing Party

Behind the Legend

It always seems to be the case, at great pivotal moments in history when the outcome of events appear most uncertain, that the press is not there to record the event and controversy inevitably arises afterwards, once the event becomes famous.

Why? The answer is simple: the trappings of human nature. A dispute may emerge as to who was actually responsible for the successful outcome, since those on the ‘periphery’ of the action would also like to bask in the after-glow of a perceived valiant deed. And why not, since it is generally a ‘team effort’ that wins out; issues of what was ‘most important’ then become a matter of interpretation.

Further, because the ‘fog of war’ is part and parcel of any campaign (and more poignantly so when one is far from civilisation, in swampy terrain where visibility is down to a few metres and poor wireless communications were a fact of life, it is ironically often left to the historians afterwards to painstakingly unravel in a comprehensive manner what most probably happened on the battlefield.

The historians then relay such information back in their writings at a later date, to those who were actually there, but who were restricted as of necessity at the time to primarily looking after those in visual contact; their immediate section, platoon, company comrades, and of course themselves!

Milne Bay was very much like that, and until only recently, when historians at last went back to basics and cross-checked events with the men who were there, we can now obtain a more accurate picture as to what exactly happened there.

Such endeavours by post-war historians with respect to Milne Bay were particularly important since at the time, pragmatic politics intervened and facts were twisted ‘in the national interest’ to under-write what certain units achieved and to over-write what other units actually did.

Indeed, there is direct evidence that certain journalists who did arrive after the battle and did accurately record the overall perspective of events had to re-write their prose to comply with Higher Command dictation: not unlike the re-submitting of the age old RMC Extra Drill forms!

Such points are raised first up in this article to serve simply as background information, for in reality and in the most sanguine of forms, battle casualties do not lie. The 18th Brigade AIF (the Rainbow Brigade), one of Australia’s battle-hardened finest, suffered 267 casualties in the course of the battle, the 7th Brigade AMF, 69!

The main balance of this article will now cut through the political screen that was erected at that time and concentrate in summarised form on what actually occurred as can be brought together from surviving eye-witness accounts, operational reports, publications of the time, and post-war secondary sources.

Why Such a Legend?

Cultural blinkers, which are only just now beginning to be removed after two centuries of European settlement in Australia, have significantly and consistently moulded our perceptions over the years as to where we stood on the international scene and where our loyalties lay.

It was therefore as much a major shock to everyday Australians as it was to Europeans when in 1905 the newly constructed Japanese Navy convincingly trounced the pride of the Russian Imperial Navy in the battle of the Tsushima Straits. Yet, because the belief in Western technological superiority was so strong, the lesson was not fully assimilated by the public at large at the time and was then overtaken by subsequent events on the international forum — World War I.
However, when Japan again flexed her logistic and industrial muscle in late 1941 and all local attempts to stem the flow of the staggering and speedy incursion of the Japanese Imperial forces into the Pacific basin, the ever prevailing belief of organisational, cultural and technological superiority of the Western world, fell from a great height. In its place arose profound fear that the banzai-screaming hordes of the Japanese Imperial Army were as unstoppable, as they were merciless.

Would the next stop in their island hopping adventures be Australia?

Psychologically, and just in time, it was the Battle of Milne Bay which reversed the pendulum swing of that fear. It served as a new age Roman warrior Horatius on the bridge, denying access to the advancing hordes.

The flow-on effect in terms of the raising of morale amongst Western Allied infantry forces of the success of the battle was incalculable, for it proved conclusively not only that with the correct preparation the Japanese infantry could be defeated, but in fact the well trained Australian infantryman was the better product: more adaptable to changed circumstances, equal to the challenge, as courageous and in fact smarter.

It was not the Australian infantryman’s fault that his Q store had continued to issue him with camouflage screen more fitted for the Western desert, than the dark green shadows of the New Guinea jungle!

One of our past and more respected Governor-General’s, Viscount Slim, in his recollections of the Burma campaign entitled *Defeat into Victory* had this to say about the battle:

“We were helped by a very cheering piece of news that now reached us, and of which as a morale raiser, I made great use. In August and September 1942, Australian troops had at Milne Bay in New Guinea inflicted on the Japanese their first undoubted defeat on land.

If the Australians in conditions like ours had done it, so could we.

Some of us may forget that of all the Allies, it was Australian soldiers who first broke the spell of the invincibility of the Japanese army; those of us who were in Burma have cause to remember.”

The Legend therefore of the Battle for Milne Bay does have a very special place in Australian military history.

Indeed, at the time it was considered more important than the now much publicised Kokoda Trail. Why? Because Milne Bay served as a watershed in raising morale when it was most needed. It gave hope to many that indeed the tide might turn once more in the Allies favour; a most fortunate omen for the future in what had been Australia’s most darkest year to that time, 1942.

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**Why Milne Bay?**

Milne Bay was a strategic pearl, which in the race to secure airbases the Allies were lucky to occupy in the nick of time in mid-1942. Subsequent to the successful outcome to the battle, it remained a key logistic base for the balance of the war.

The urgent need to locate, develop and operate airfields from the southern tip of Papua came sharply into focus after the successful outcome of the Battle of the Coral Sea, and were perceived as being able to fulfil the following vital functions:

- to be a southern flank guard for Port Moresby against the likely approach of any future Japanese amphibious assault force;
- provide airfields from which Allied aircraft could strike at Rabaul and the northern Solomons without having to cross the 13,000 feet high Owen Stanley mountain range;
- provide an advance base for projected future offensive operations on the north east coast of New Guinea.

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**A Matter of Timing**

The base, as history subsequently records, fulfilled these objectives to the full, but it was close run affair at the time as to who would get there first, the Japanese or the Allies.

General MacArthur, as the Supreme Allied Commander, ordered the construction of the airfields to begin on 22 June 1942, and three days later the initial garrison of two infantry companies and a machine-gun platoon of the 14th Brigade AMF from Port Moresby, disembarked.

By 2 July the 7th Brigade AMF had received orders to move from Townsville to Milne Bay, and the Code Name for the construction project was referred to as *Fall River*.

What had accelerated the rush was that apparently a Japanese reconnaissance plane had been shot down a few days earlier over Port Moresby, and documents found on the dead pilot indicated that the Japanese themselves in the very near future intended to occupy the Milne Bay coconut plantations for exactly identical, but opposite intentions, to that of the Allies.
Indeed the battle-hardened 18th Brigade AIF, which would soon serve as the ‘avenging sword’ that would create the legend was not fully landed until a few days before the battle. The newly-posted Milne Force Commander Major-General Clowes did not have his headquarters fully operational and actually took over official command of all Allied troops until the afternoon of the day the first Japanese Marine stepped onto the shore of Milne Bay.

The Tactical Nature of the Battle Itself

When compared to later battles in the closing phases of the First New Guinea Campaign, the battle casualties suffered at Milne Bay as against medical casualties (malaria, scrub typhus, fevers, etc) were not immeasurably great nor the duration of the battle long. It was, however, very much an Australian all-arms affair.

Overhead during the daylight hours in the course of the battle being waged by the ground troops, were the valiant and defiant Kittyhawks of No. 75 and No. 76 Squadrons RAAF: straffing any visual exposure by the enemy, and not returning to the main operational airstrip (Gurney Field) until both fuel and ammunition were fully expended.

On land it was probing forward patrols of the 2/9th Battalion in the vanguard of the 18th Brigade’s advance on the morning of 7 September which confirmed that all organised resistance by the Japanese had collapsed and only stragglers were now being encountered. However, despite this greatly improved state of affairs, for those present, it was not really clear until much later in the month that a great victory had just been won.

Such is the ‘fog of war’.

Why such uncertainty prevailed was because the Allies had access to the Japanese Naval Code transmissions and Allied High Command had intercepted messages making it clear that the Japanese were seriously considering making a second landing at Milne Bay with a fresh contingent of two new infantry battalions, on or about 10 September.

This of course was of major concern to the Milne Force commander, since as the sinking of the Anshun on the night of 6 September clearly showed, the Japanese navy had local command of the sea at night in the combat zone, and could freely land these fresh battalions in much closer proximity to the operational airstrip which was the strategic prize of the area.

As it turned out, the drubbing given to their initial invasion force (and particularly after the relentless advance without reverses of the 18th Brigade AIF during the period 31 August to 7 September), created such uncertainty in the mind of the local Japanese Area Commander (as to what exactly they were up against) and when coupled to an increasing commitment in the Solomon Islands and a promise of minimal air support only available from their air force, the second Japanese landing was cancelled.

However, the impact of such a decision made by the enemy, took a while to mature as an on-the-spot reality from the Allied forces’ perspective, and only then did the conscious feeling emerge of having just won a great tactical and strategic victory. For many present though this was not a major thought, for there was still plenty more work to be done in securing the base against any possible future attack.

It was therefore left to the ‘newspapers back home’ to do the talking.

The Several Phases of the Battle

There were essentially three main phases in the battle.

First Phase

The first phase was the Japanese landing on the night of 25 August west of Ahioma, which in the darkness of the night they had mistakenly believed to be close to the main base and the operational airstrip Gurney Field, where the Kittyhawks and Hudson bombers were based.

Because of this mistake in location (it had been the intent of the Japanese Invasion force to capture the airfield in the course of the night), their timetable was thrown in jeopardy, and with delaying tactics imposed by 61st Battalion Militia personnel, did not reach even the outer defence perimeter of the base by dawn.

At that time and in all fury the Kittyhawks took to the air as soon as there was sufficient light to get airborne and shot to pieces all signs of concentrated enemy activity: the most spectacular action of which was to create a sea of burning aero fuel, smouldering food dumps and burning landing barges at the enemy’s main beach-head at Waga Waga.

An attritional cat and mouse game then ensued over the next few days, with Major-General Clowes sticking to his original Battle Plan of keeping his battle-hardened avenging sword, the 18th Brigade in tactical reserve until he had more information as to enemy strengths and general dispositions.

One major disability which the Milne Force Commander faced (which the Allied Supreme Force Commander General MacArthur more safely secured
in his hotel in Brisbane appeared to fail to fully appreciate), was that with Command of the Sea at night being under the control of the enemy, Clowes, adversary could, if he so inclined, supply more landing craft to his initial invasion force to provide them with added mobility during the hours of darkness or alternatively drop off fresh contingents of marines anywhere along the shore that he chose.

Fortunately for the Allies, the military intelligence of the Japanese invasion commander as to the exact location of the main airstrip where the Kittyhawks were grounded at night was still poor on the second night ashore (the 26th). Being unaware of the exact location he could not use the naval guns of the Japanese warship the Tenryu (with which he was communicating by wireless) to wreak havoc there and hopefully frustrate further harassing aerial attacks on his forces the next day.

Even so, despite their problems derived from poor intelligence, the Japanese continued to push the militia forces back along the government track towards the outer perimeter of the main base and by the early hours of the 27th were located at the Gama River ford.

Later that morning, with the Japanese once more taking to the depths of the jungle to avoid overhead aircraft attacks, the 2/10th battalion AIF then temporarily attached to the commander 7th militia brigade, was instructed to conduct a reconnaissance in force which would end up in the early afternoon at a place called KB mission. This location had been the earlier campsite of part of the 61st militia battalion, but was now in disputed territory and most certainly used by the Japanese at night.

What now happened, was the type of misfortune that occurs on the battlefield when the fog of war, like an ever pervading blanket, distracts concise thought. For, having successfully completed the main part of its mission the 2/10th (which had been suitably attired for the swift movement reconnaissance duties originally allotted it), was then inexplicably instructed to remain overnight at KB mission, and not return back to base through the main outer defense perimeter.

The consequences of this instruction without accompanying rectifications of their then light equipment state (no mortars and heavy machine guns or anti-tank guns) was very grave indeed. What now transpired was in the course of the night — without even entrenching tools — the men of the battalion were forced with light arms fire, sticky bombs and grenades only, to defend themselves (from behind the bases of coconut trees) against a large enemy force equipped with infantry tanks.

Furthermore, once it became clear to the enemy tank commanders that the Australian infantry battalion they were confronting had no counter to their presence, their actions grew ever bolder and many a brave man died as a result.

It was only through traditional "true grit" and discipline that the men of the 2/10th were able to hang on as long as they did that night, but in the end they were forced to fall back. It was not until late in the night, after superhuman efforts by one Corporal O'Brien of D company that a Boyes anti-tank gun was brought up the track in the pitch blackness and the tanks halted at a small creek.

As dawn came on the morning of the 28th the Japanese had now reached the clearing of the uncompleted number three strip which marked on the other side the edge of main defense perimeter. At that time though they were unable to go further, because their remaining two infantry tanks were bogged when they needed them most and the defensive fire laid down by the defenders was intense, and also because they knew very shortly the aerial demons, the Kittyhawks of No. 75 and 76 squadrons RAAF, would yet again be in the skies straffing anything that moved.

**Second Phase**

While they did not know it at the time, the Japanese had now reached the high water mark in their aggressive endeavours to expel the Allied forces from the strategic ground for which the locality of Milne Bay was now so highly prized by both sides.

In this second phase the Japanese commanders endeavoured to consolidate their resources and prepare for a further leap forward. They were still an extremely potent force which would require neutralisation before the area could be regarded free for further development as a logistics base by the allies.

As a result we know from translations of authentic Japanese accounts of the action that a further attack against the defences of the main perimeter were put off late on the afternoon of the 29th, and from our own reports we are aware that the Milne force commander General Clowes had his frustrations also. An intended counter-attack by the 18th brigade late in the day had likewise to be put off because air reconnaissance had spotted another Japanese convoy which appeared to be heading in the direction of Milne Bay.

This new development imposed further caution on the Milne force commander. He needed to keep in reserve just a little longer his battle-experienced avenging sword to await the outcome of this new flotilla's intentions before committing his shock-troop reserve to the main battle.

Fresh Japanese troops were in fact disembarked from the flotilla that nights but fortunately for the Allies, the flotilla commander dropped them off at
the old landing site, not closer to the main base. He had no option but to do this since he had been unable to make wireless contact with his land counterpart, the Japanese Invasion Commander.

The enemy flotilla before departure also took on board wounded, and wary of air vengeance in the morning, steamed out of the bay very early, well before dawn. In the course of this landing operation the Japanese destroyer *Urakaze* detected then caught in its searchlights and sank the RAAF tender, whilst it was making its way towards the entrance of the bay.

The 30th passed reasonably quietly whilst as we now know the Japanese prepared for an assault to cross No. 3 strip that night.

In the pre-dawn of 31 August 1942 at approximately 0300 hours this new staged assault took place, and as a Japanese chronicler himself describes, the combined concentrated fire of the dug-in Militia Battalion forces (61st at the inland and 25th at the seaward end of the strip), skilful use of mortars and indirect fire by the artillery utilising the technique of tree bursts to create a major shrapnel effect, together with the heavy direct fire of the American heavy calibre machine-guns, turned the grasslands into a ‘sea of fire’.

All punch was now taken out of the attack, and the initiative further became dislocated from the Japanese perspective when within a short period two of the most senior field commanders were killed.

A second smaller rush at the seaward end then took place, and then, close to dawn, bugles were blown and the Japanese retreated once more into the jungle before the Kittyhawks had time to become operational.

**The Making of the Legend**

We now come to the third phase, the making of the legend that captured the imagination of embattled Western forces at that most uncertain period in the Pacific region, when an apparent successful outcome for the Allies did not appear at all certain.

The seat of the Legend commences with the long awaited commencement of the 18th Brigade AIF counter-attack. Its apparent delay in implementation was in fact to deny Major-General Clowes any further advancement in his distinguished career when the dust settled, because of the perceived view of others as to his slowness in acting, but that is another issue in itself, outside of the bounds of this article.¹³

The 18th Brigade advance commenced at 0900 hours on the morning of 31 August. D company of the 2/12th Battalion was in the vanguard under the command of Captain Geoff Swan of Carrick, Tasmania. In full view of snipers in the trees and an enemy opposition unknown, it had first to cross the open ground of the partly constructed airstrip and then move off into the gloom of the jungle beyond.
The Rest is History

Over the next few days the 18th Brigade, by superior bushcraft and feat of arms, and merciless in their resolve (having observed first hand the needless barbarity of the mutilation and torture of bound and gagged prisoners, destroyed all organised opposition in their path with such telling effect that by the morning of 6 September the 2/9th Battalion, then in the vanguard, had pushed through the enemy’s beach-head and only stragglers remained.

The Japanese Marines in quite uncustomary fashion had opted for evacuation as against continue the fight with more reinforcements. The main contingent of those that did get away did so on the night of 4 September, when warships came in close to shore for that very purpose.

As the edicts of Clausewitz has so correctly observed in timeless fashion, the sheer professionalism of the 18th Brigade AIF in so efficiently carrying out its task, had weighed so heavily on the mind of the surviving enemy commander during the period 1-3 September, that his advice to his superiors off-shore was quite clear: that the best course of action was to evacuate. He had no NCO command fabric left, with which to carry on the fight.

The reality of such a conclusion must have been completely foreign to the Japanese commander’s way of thinking, as was the reality that he had no option but to so recommend and thereby accept failure, with the inevitable consequences that would bring.

Counting the Cost

As best as can be calculated, some 1200 Japanese perished either in the course of the action or through starvation or misadventure afterwards when attempting to escape the region. In direct contrast, total battle casualties for the Allies were calculated at the time (if we accept Major-General Clowes Secret Report drafted shortly after the action to be the most accurate), as:

"24 Offrs, 329 Ors, killed, wounded and missing of whom 12 Offrs, 149 Ors, were either killed or are missing."[1]

While the normal ration of decorations were meted out after the action, it is very important to stress that they were too few — for most men deserved them, and many men died carrying out acts of bravery which remained unwitnessed.

One of those who died, whose feats of valour were fully recognised was Corporal French of the 2/9th Battalion, a former hairdresser from Crows Nest, Queensland. He received the posthumous Victoria Cross for placing his own life on the line on 4 September 1942 in the course of the advance, to save his section suffering heavy casualties from three well sited machine-gun posts.

With the resolve of such men, the Legend became cauterised.

The line battalions of the 18th Brigade AIF in 1942 were the 2/9th (based and recruited in Queensland), 2/10th (based and recruited in South Australia), and the 2/12th (comprising a mix of tall northern Queenslanders and stockier Tasmanians).

Their unit histories are entitled respectively: 2/9th not published as yet, but Not a Conquering Hero by Frank Folleston, Mackay Press, gives a general account from the perspective of an infantryman from that unit; 2/10th Purple and Blue by Frank Allchin was published shortly after the war and is about to be reprinted in Adelaide; 2/12th Of Storms and Rainbows Volume 2 12th Battalion Association, Hobart, provides the most recent detailed account of the battle overall and to that extent a general brigade-in-action history of the battle.

The activities of the 7th Brigade AMF 9th, 25th and 61st Battalions is more fragmented, but is at least covered in part in a work by Baker and Knight entitled Milne Bay 1942.

After the Battle

The success of Milne Force, under the able field command of Major-General Clowes to frustrate the attempts of the Japanese to secure the air base for their own purposes, and the resultant forestalling of the intended pincer attack to take Port Moresby by land and the strategic consequences that then flowed from this tactical victory, is now history.

Indeed, some historians strongly argue that the early success at Milne Bay was pivotal to the overall success of the First New Guinea Campaign: that it made the tactical retreat of Japanese forces back along the Kokoda Trail inevitable.

From Milne Bay, the Allies now had their springboard to harry and commence to roll up the incursions of the land of the Rising Sun into the region. The question was could they now keep it?

From Milne Bay, sub-units of the 18th Brigade AIF reached out with the aid of supporting arms to first clear adjoining islands of stranded Japanese soldiers, and then on to the bloody fighting at Buna, where with
the Americans stalled the valiant 18th Brigade was once more called upon to storm the ramparts, and with men dressed in cotton fatigue charged well entrenched machine-gun posts of the enemy, and whilst many fell, others continued to fight another day.

First, in continuing the rout along the Sanananda track, and then after leave the Second New Guinea Campaign (Shaggy Ridge), and finally after further leave, the Borneo Balikpapan landing.

A Weighing of Might Have Beens

Had the Japanese Invasion Force not been destroyed, and the Milne Bay base made operational for Japanese aircraft, the stack of cards which did fall in the Allies favour subsequent to the Japanese being repulsed may have never eventuated or at the very least taken far longer to achieve.

And, of equal import, in many ways the Battle for Milne Bay served as a readily identifiable test case for the 'home-fire' burners. It was the Battle for Milne Bay (of PR photos of men in khaki peering into Japanese bogged infantry tanks) that dispelled the myth most convincingly as to the alleged invincibility of the banzai attacks of the Japanese soldier, and demonstrated the adaptability of the Australian soldier to be as good a jungle fighter as anyone else in the business.

A proud heritage that has continued on in subsequent years and in other places.

NOTES
1. These comparative records, published here for the first time time are derived from CARO records collected over the last 8 years by members of the 12th Battalion Association.
2. There is an emerging story told by Brigadier Field 7th Brigade AMF (formerly CO of the 2/12th Battalion AIF) in his capacity as the first Milne Force Commander at Milne Bay of frustrations being incurred at ordered equipment not arriving there (The Code Name for Milne Bay being Fall River), but ending up instead at Fall River Massachusetts — USA where, 'nobody knew what to do with it'.
3. As stated in the recollections of Captain Hugh Griffin in his memoirs Griffins in Khaki in the Chapter entitled The Fall River Garrison.
4. For a closely considered analysis of the figures refer pp. 172-173 Of Storms and Rainbows Volume Two by this author.
5. The Japanese landed at three separate points west of Ahioma, at Lakwind, Waga Waga and Wanadalana prior to midnight on 25 August 1942, and confirmation of the final conclusion of

Mr Graeme-Evans has written previously for both the Army Journal and the Australian Defence Force Journal and is currently preparing an article on the Battle for Buna (December 1942). Copies of Volume 2 of Of Storms and Rainbows which contains a complete (131 pages) chapter on the Battle of Milne Bay, are still available from the 12th Battalion Association Secretary, 2 Swanston Street, Newtown, Hobart, Tasmania or phone 002 28 2936.
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Greek-Italian War 1940-1941
Only Those Who Know How to Die are Worthy of Life

By Brigadier Ioannis Stouras, Hellenic Army, Embassy of Greece Defence Attaché

From the book of Angelos Terzeki. The Greek Epic 1940-1941. Published by Hellenic Army General Staff/7th Staff Office, 1990.

Prelude to Invasion

If it is true that a nation worthy of life forges itself and matures through struggle, then the Italian invasion in Greece in the Autumn of 1940 must be judged on special criteria. It should be seen as one of those events which, though stemming from an intent at once both mean and malevolent, is transformed by virtue of the spirit of history and becomes a source of moral strength and of life.

Mussolini believed that audacity could overcome human dignity and that ferocity could eradicate the thirst for freedom. He had dreamed the reconstitution of the Roman Empire. He had failed to understand that history cannot be copied, but is created with new conditions and new destinies that correspond to the overall course of the human race.

Mussolini’s Italy, after the occupation of Albania in April 1939, for one and a half years would make every endeavour to allay the fears of its minor adversary, Greece, which within a long period of 5000 years up to the more recent past, had never ceased to provide proof in blood of its passion for independence.

The occupation of Albania naturally caused particular alarm in Greece. Mussolini proclaimed his respect for Greece’s territorial integrity and his desire to promote cordial relations with Greece. Yugoslavia maintained a vacillating position towards Hitler and Mussolini. Romania, under pressure from Germany, had joined the Axis, while Bulgaria had already been on the way to the German side.

Turkey’s behaviour, although linked with treaties with Greece, England and France, appeared so negative for the whole of the Greek-Italian war, that Greek forces were tied down on the Bulgarian front. On 22 May 1939 the Foreign Ministers of Germany and Italy signed a Pact of Alliance, that in essence this was a prelude to war.

Thus, while the skies of south-east Europe were growing ever darker and the rolling of thunder was beginning to be distinctly heard, Greece left isolated in its dramatic peninsula without any real help from anywhere prepared itself yet again in its long history to confront its fate: the struggle against despotism.

The first reaction of the Greek General Staff is contained in the orders of 9 April 1939 to the commanders of the 2nd Army Corps and the 9th Division. “In the event of invasion of our territory by Italian troops, your orders are to defend with tenacity our territory to the very last...” In the following days the first plan of campaign was drawn up, which was of a purely defensive nature and provided for the possibility of invasion from both North and West.

In August 1939, the greater part of the Italian forces in Albania gathered on the Greek borders. The Italian airforce continually violated Greek air space. On 23 August 1939, the Greek General Staff ordered the mobilisation of the Units of Epirus while facing Albania.

On 1 September 1939, the world woke up to an alarming piece of news. Germany had launched a sudden attack on Poland. The Second World War had begun; war whose instigator, Adolf Hitler, believed would be over with the speed of lightning. It was to be a war based on the rash calculation that the Western Powers, taken by surprise, politically faint-hearted and paralysed by the unexpected blow, would have neither the time nor, indeed, the inclination to react.

The initial results to some extent justified Hitler. Poland was over-run within 24 hours. After Poland, came Czechoslovakia, Belgium, Holland, Luxembourg, Norway, France...

Hitler believed that it was his mission to wield the sword of sacred German justice against the spirit of the Treaty of Versailles which had marked the defeat of his country in the First World War. For his part, Mussolini believed that he was the Paradète, the Messiah of Italy, the successor of the Caesars.

By the summer of 1940, Italy had an overwhelming advantage over Greece. It had the initiative with regard to the commencement of the war; in other words, it had the inestimable strategic advantage of surprise. Its forces had already been mobilised and there was the overwhelming Italian air supremacy. The Adriatic Sea was also theirs.

Italy’s attempts to provoke a confrontation and find a cause for war were planned in such a way as to
gradually escalate. Italian air forces incessantly violated Greek air space, while some bombs were dropped near Greek warships anchored in the Corinthian Gulf.

On the morning of 15 August 1940 on the Isle of Tinos, the *Elli*, an old historic cruiser of the Greek Fleet, had arrived. It was just 0830 when a terrifying explosion shook both the ship and the island. The *Elli* was hit amidships. By 0950 the *Elli* no longer existed; she sank in flames.

Who had committed the crime? The Italian characters that found torpedo fragments would bring to fight the calling-card of the assassin. The Greek Government decided to say nothing in order to avoid any friction. However, the public, both at home and abroad, was not deceived. This sacrilegious act on the Isle of the Holy Virgin symbolically inaugurated the attack on Greece. The result would be to gradually strengthen the spirit of the Greek people during the two and a half months which followed, and also to lend a sacred aspect to the struggle which was coming.

At the end of September 1940, General Visconti Prasca, Commander of the Italian forces in Albania, sent to Rome the operational plan for the decisive attack on Greece. Meanwhile, the movement of forces began towards the Greek frontier, while the total number of Italian troops in Albania reached 100,000 men.

On 4 October 1940, the two dictators and their Foreign Ministers met at Brenner, where the question of Greece was discussed at length.

On 22 October 1940 at Ciano, the Foreign Minister of Italy began to compose the infamous ultimatum, which on 28 October 1940 at 0250 the Italian Ambassador Grazzi handed to the Greek Prime Minister.

With this ultimatum, the Italian Government demanded that its troops enter Greece and occupy strategic positions in order to assure Greece’s neutrality, otherwise the invasion would begin at six o’clock that morning.

The Greek Prime Minister, in the middle of the night, alone and answerable to the whole of Greece, heard in his blood the deep voice of the nation’s soul. He looked straight at the Ambassador and said in an emotional yet firm voice, “Alors, c’est la guerre” (So, we have war) and later at the end of their discussion he added in a grave voice, “Vous etes les plus forts” (You are more strong).

Outside, the sun was rising on the 28th of October. At 0530 Italian troops began their attack along the whole width of the Albanian front.

On the Greek-Albanian border, one of the most decisive, if not the most decisive, and dramatic acts of the war of the five continents would be played out.

For political reasons, the Greeks were not able to finalise their defence. On a limited scale and in ways that were indirect and piecemeal, the necessary movements had been carried out with the mobilisation of those two Divisions which were close to the borders, while other secondary measures had also been taken.

The total Greek forces on the Albanian frontier, consisting of 39 infantry battalions and 40 artillery batteries of various calibres, amounted to 35,000 men.

The Italian forces consisted of six infantry, two Alpine, one cavalry and one armoured Divisions divided into 59 infantry battalions, 135 artillery batteries of which 23 were heavy artillery, 150 tanks, 18 cavalry companies, six mortar battalions and one machine-gun battalion, totalling 100,000 men. The Italians had an overwhelming superiority in the air, they possessed 400 first rate planes, the Greeks had 140 aircraft. At sea, the Italian fleet of the Mediterranean, second only to the English fleet, acquired even greater freedom of action following the successes in Africa and the closing of the Adriatic.

The future Theatre of Operations had a breadth of 240 kilometres and on the Greek side was mountainous and inaccessible with steep slopes, narrow valleys and lacking in transport arteries.

Visconti Prasca’s plan was based on a sudden invasion using mobile units, before the mobilisation and concentration of the Greek forces could be carried out.

Prasca, a victim of his arrogant optimism and of the psychology of the regime he represented, had underestimated his adversary. He had forgotten that in a powerful confrontation between peoples, it is not only a question of machines and numbers, the struggle is also one between the qualities and spirit of the two nations, with all their moral foundation and convictions. In 1940, the Greeks, few in number, poor, forced into a position of being practically unprepared, had to defend.

The morning of 28 October brought with it a revelation. The news “War! The Italians are invading” was like an open invitation to a party. Pride, honour and bravery swelled every breast. Everyone felt awakening within him an awareness that 3000 years of history were calling him by name. The newspapers announced the Italian’s invasion while from the radio could be heard Metaxas’ message to the Nation, “The moment has arrived when we must fight for the freedom, the independence and the honour of Greece”.

The first war announcement from the General Headquarters has become a part of history. “At 5.30 this
The invasion started as soon as the gunfire had ceased, from many sides at the same time. The Italian columns, which had set out in the morning, Italian armed forces attacked our covering line for one and a half hours. And at a time when the Axis' forces were invincible and everywhere victorious; a small country on the edge of the Balkans stood up, determined to defend its rights. Once again, the world was made to realise that only those who know how to die are worthy of life.

On 30 and 31 of October, the enemy tried to advance towards Kalpaki but without success. On 31 October the Greek fleet notched up a success — the first of the war. Two destroyers bombarded the Italian's line for one and a half hours.

To the right of the 8th Division the Italians forced back the sparse Greek troops and a dangerous gap was created. Nevertheless General Katsimitros, facing the risk of the forces being divided, decided that the battle would be fought at Kalpaki. By 1 November, the Italians had still not succeeded in getting any closer to the Greek positions. At 0900, Italian planes dropped their bombs on the Greek line of defences.

At 1430, the Italian artillery fell silent and the infantry set out for the attack. The Greek artillery had now intensified its fire and pounded away rapidly and incessantly. A few enemy columns stopped their advance. Now rifle shots rang out from the Greek lines, as the enemy had come into firing range.

In the night, the enemy took hold of Grambala, a strong fortress at 1200m altitude which dominated the whole area. The Division ordered that Grambala must be taken immediately. At 0500 until daybreak with the cry of "Aera!" the bayonet-wielding Greek soldiers raced upon Italians who hadn't had time to fortify their positions retaking the height. The Italians gave way and escaped leaving behind 20 dead, six prisoners, three machine-guns, four mortars and a pile of ammunition. In order to smash through the centre of the line of defence, the enemy brought into the action its trump card, its tanks. Some of the first tanks were put out of action. Barbed-wire and obstacles made from iron rails blocked the road. The tanks spread out and took to the fields, but there the earth swallowed some, while others were blown over as mines exploded under their bellies. The Italians swerved, trying to find a way to escape.

On the evening of 5 November, the wireless of Epirus Division picked up the following Italian radio-message: "We are forced to temporarily break off the attack, while waiting for reinforcements. The Greeks, who are well-known for their stubbornness and determination, show such tenacity in the fighting that we need greater and more powerful means to force them out".

The assault began again on the morning of 7 November. At 1000 the Italians again took the Grambala. At precisely midnight, the Greeks launched a coordinated counter-attack with two companies. Defenders and attackers fought hand to hand. Everything was at stake here. Either Grambala, the key to Kalpaki and to Epirus, would remain in Italian hands, or the prestige of a major country, that wanted to become a Great
Power, would be in tatters. On 8 November after an order from Rome the offensive was called off, while the Italian Commander-in-Chief was replaced by the Minister of the Armed Forces, General Soddu.

History had already turned over a page. The defensive movement in Epirus finished and the 8th Division began sending out reconnaissance groups for an offensive.

The Italians began to withdraw to the north. Meanwhile, there were many indications in the enemy ranks that the morale of the troops had been shattered. On 18 November, Katsimitros announced his Order of the Day, which stated “The blessed day has arrived on which we will drive the enemy out of our land…”

The organisation of the defence in the region with the voluntary help of the villagers, was makeshift. The weapons, equipment and ammunition of the Detachment were minimal. On the verge of winter, which up to that point had been unseasonably mild, the invasion was general. The sentries, during those first hours of confusion, were no battalions or reserves to be had. The villagers themselves, old men and women, young girls, women and children, set about loading the supplies, and they clambered up the edges of the precipices, in the rain and darkness.

For two days and nights, the Pindos Detachment, up at a height of 2400 metres with half of its men suffering from frostbite, had fought to hold back the might of the Giulia Division. At the centre, the enemy had created an extremely dangerous bridgehead from which he could surge forward in order to break the backbone of the Greek front.

The counter-attack began on the morning of 1 November. The daring offensive met with only moderate success. As a result of this offensive, however, the course of operations in general had been changed and the army had gained confidence.

Three times, the young reserve Lieutenant Diakos from Dodecanese, captured the height of Tsouka and each time was beaten back. At the last attempt, Diakos and Second-Lieutenant Daskas were felled by a machine-gun. The next day, the two bodies were found mutilated and hacked to pieces. Such were the depths to which the enemy stooped in his thirst for revenge.

The Greek High Command was hostilely assembling new troops and sending them in quick succession to Pindos. It was a race as to who would be first to succeed, the Italians in cutting through the Greek line, or the Greeks in closing the wound at the front by hurriedly injecting new blood. Step by step, at a heavy price in blood, the Greek troops had begun to push the enemy back and to recover the ground that the enemy had taken possession of during those first days of surprise, during those first hours of confusion.

The Italians had stripped the villages which were recaptured by Greek troops. The Greek forces, far from their bases, were without food. The reward for their struggle was to limit their meals to bread and cheese. Throughout their long history, the Greeks have always fought like this, hungry and isolated. They have always had to fight on two fronts, against the enemy outside and the beast within. Perhaps it is for this reason that they possess the secret of freedom, which is an ascetic religion.

Meanwhile, Greek troops that had still not been fully mobilised, were now sent to Pindos, where it rained without respite. The days were growing colder and the fierce and bleak winter was approaching. The men no longer had the look of soldiers. They were like creatures of the wild, mythical herdsmen, wrapped up in their capes, with crook in hand, their faces thorny, their eyes feverish. The cruel marches, hunger, death, the lashing of the rain and the lack of sleep had transformed them into wild beasts.

On 5 November the Greek offensive began, General Girotti, the Commander of the Giulia Division would
The intricate battle of Pindos was now entering its final phase. The main concern of the Greek troops was to block the enemy’s path of escape.

On the evening of 16 November, Konitsa was again in Greek hands. The battle of Pindos was over. The Italian forces, fleeing towards Albania, took with them the forces which had been sent to reinforce the fatal Division of Pindos. Although winter had arrived with its heavy, frozen steps, the soldier turned up the collar of his greatcoat, now battered by the rains, pulled his helmet down over the woollen cap that had been knitted by some women — mother, sister, wife — and with his rifle in his hand, weapon and staff together, he set out from the snow-white ridges towards the frontier with Albania. He now had to expel the enemy from Greek soil.

At the front, all along the line, the Greek soldier everywhere began to see the same vision, a female figure, tall and slender, floating on the night air, with her veil trailing from her head over her shoulders. He recognised her, he had always known her, he had heard them sing of her as a babe while dreaming in his cradle. It was the tender-hearted mother in both suffering and joy, the wounded Virgin of Tinos, the protectress of the weak.

At 0630 on 14 November, the Greek troops began their offensive without any preliminary artillery fire. Successive Italian counter-attacks attempted to halt the Greek advance. The enemy’s line of defence had been broken. The Italians watched their line crumbling and desperately fought to save what they could, to hold onto their positions. The Greeks won these positions one by one, with great effort, while the losses were heavy on both sides.

On 17 November, the main road between Erseka and Korytna, behind Morava, was shelled by the Greek artillery. The first snow fell on the heights, but the Greek soldiers continued their efforts and on 21 November the key hill of the whole defensive line of Morava was taken and at 1745, a Greek battalion entered Korytna.

In Athens, around 0100, the bells started ringing. Everyone understood. It was then that waves of people, mingled with English, Australian and Canadian soldiers, flooded onto the main streets carrying flags. The streets of Athens echoed with bands and patriotic songs.

So, the Greek army sang as it set out and was reversing the odds, the expected course of war and was winning. This has been recognised by the foreign press. On 10 November the Sunday Express wrote “… the situation in Greece may become the key to victory …”, “The key to victory …”. Everyone suddenly realised that a people often betrayed but never yielding in its poverty, yet also with its age-old memories and its spirit, had once again taken upon itself the great Cause: to secure the dignity of life for all, or perish.

The military operations in Greece, took a different course from that which the Duce had foreseen. In only the first two weeks, both Epirus and Pindos had reduced him to silence.

Since 1 November the Greek troops had been engaged in offensive actions across the border, on Albanian territory.

On 5 November, the Greek High Command ordered the Army of Western Macedonia, to begin intensive operations with the objective of capturing Korytna.

The northern winter had arrived and the snow fell thickly. The marches took place in slippery ravines and the mist hid everything. The paths disappeared, supplies had more or less ceased. The Greek Army moved up to the borders of Albania concentrating its forces for the major offensive about to take place. It was the night of 13-14 November. The first defensive phase of war had come to an end. The next phase, an offensive along the entire front from the Ionian Sea to Lake Prespa was about to begin. Once again, for the fourth time in 40 years, the Greek Army would draw the bow of its fate.

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On the same day that Korytsa fell, the Rome radio broadcast: "... General Soddu is continuing to prepare for the occupation of Greece with cool determination ..." Mussolini had begun the war with the cool cynicism of the stronger. At least then he did not appear to be ruled by his passions. Now, having been humbled, he was choking with black hate and swore to bring disaster. These are the depths to which arrogance can lead a man.

Convulsions at the Frontier

The struggle was also hard at the front, the efforts of Greek forces to push the enemy back over the borders would be very hard. A few comparisons may help to show it in its true light. Against Italian forces that were prepared for war, that were exceptionally well-organised and supplied with modern equipment, that had been entrenched for some time in naturally fortified positions, the Greek Army arrived out of breath, having for the most part only just been mobilised, following exhausting and cruel marches. Against the formidable Italian air force the Greek Army had practically nothing to offer in opposition. The Italians on the northern front also possessed an armoured division of some 200 tanks. To counter these, not only did the Greeks not have any tanks, they did not even have any anti-tank weapons or guns. Each Italian infantry regiment was equipped with 60 mortars; the corresponding Greek regiment had only four. Each Italian division possessed an artillery unit comprising nine batteries; the Greek divisions had six. Finally, the Italian forces also had the advantage with regard to heavy artillery.

Nevertheless, within nine days, the Italian line had broken, Morava and Ivan had been taken. At the same time Korytsa, Erseka and Borova were also taken. On 22 November Greek troops could be seen on the streets of Leskovik. Now it was the turn of Premeti, another Greek town. The Allied forces, which until then had known only defeat and continual retreat, now beheld the first victory and with it the first ray of hope spread through their camps.

In the coastal sector, the Greek troops also were crossing the Kalames River and henceforth the struggle would move beyond the borders, into the enemy’s own territory. The main aim was to take Agii Saranda and its port.

On to Tepeleni

The taking of Pogradetz opened the way to the valley of the upper Shkumbin River and Elbasan. On the evening of 3 December, General Soddu reported to Mussolini: "... any military action with the aim of reversing the situation that has been created is no longer possible, and this can only be settled by political intervention".

Ciano relates in his Memoirs: "Mussolini, on 4 December summoned me to the Palazzo Venezia and told me ... he would have to ask Hitler to arrange a truce ..." General Pricolo also said: "It was the first serious and official recognition of the worst military crisis in our history and of our inability to deal with it ..."

It was from this time that the German threat began to appear on the horizon. In the mountains of Northern Epirus, the Greek Army continued its struggle. On the morning of 3 December, the Greeks entered Premeti. The Italians organised their main resistance along the line between Tepeleni and Kleisoura.
On 4 December, the forces on the coastal front entered Agii Saranda. On 8 December they took Derbitzani.

That same afternoon the Greek troops entered Argyrokastro. The news that Argyrokastro had been taken sent up a wave of enthusiasm through the land. The impact of the new Greek victories was, however, felt even more abroad.

Now the essence of the orders to all major units was to move the Greek forces to the junction Tepeleni and Kleisoura. However, one and a half months of war with exhausting marches, cruel weather conditions, scanty and sometimes non-existent supplies and provisions had transformed the Greek Army into a race of spectres and skeletons. In the fighting, during the assaults, soldiers would fall to the ground to protect themselves or to take aim, and from behind, their boots could be seen without soles. It was with bare feet that they marched over snow. Dysentery swept through whole companies. Wearing their uniforms which had been drenched and in tatters, they crossed rivers, slept, fought, shivered and froze. Hunger had hollowed their youth. War toughens man, but this war was not like other wars; it was an ordeal, a struggle with the natural elements — a daily sacrifice. In the mountains of Albania, this army turned into a race of lost souls, a haunting vision of fugitives from hell.

Greek troops had now arrived before Tepeleni.

The Hour of Ordeal

It was at this particular point that one of the most dramatic and poignant phases of the Greek-Italian war began. This phase would be characterised by a struggle with the elements of nature and by utmost endurance and ordeal. The operations that would lead the Greek advance to reach its further limits were now carried out with a frightening intensity and in intolerable conditions. Now it was necessary to hold onto everything that had been won, and to complete the rout of the enemy. The Greek soldier, therefore, had to stand with gun ready, vigilant, up there on the snow-covered mountains.

The initiative won by the Greeks had to be maintained, the attacking spirit could not be allowed to cool and the enemy could not be allowed time to re-organise.

On 23 December, the attack to capture Kleisoura began.

The advance was slow. Meanwhile, the snow fell continually, interspersed with rain. The columns became stretched out like endless, exhausted, mournful processions. In the nights, they were forced to halt where they were, drenched to the bone. It is at times such as these that man loses consciousness of the world around and feels as if he has been transported to hell, tormented there without hope of reprieve, condemned for all time.

Each day, more and more suffered the effects of frostbite. It was an insidious kind of death, that bit and cut off parts of the body. The casualties from frostbite were double those from the fighting. Out of a battalion of 800 men, only 20 were left. Everywhere on the mountain, one could see solitary soldiers stumbling as they tried to find their path. Some cried from the pain, from despair and hunger.

The Italians had organised their position with defensive works and rendered every approach deadly.

The advance of the Greek Army was achieved only step by step. The troops were now approaching the pass at Kleisoura.

In the coastal sector, the Greek troops entered Heimara, which was liberated for the third time in its history.

At first light on 19 December, the barefoot Euzones of the Tsakalotos Detachment ringed the enemy positions on the hill Koutsi.

Suddenly, from out of the still dawn, the buglers sounded, the Euzones surged forward. The mountain sides resounded with cries, the clamour, and the explosions of the first grenades. The Italians were surprised, caught in their sleep. Further back, however, they regrouped themselves and then began a fierce hand to hand struggle. When darkness fell, the Koutsi had been taken. The entire 141st Blackshirt Battalion decided to surrender after deliberations.

Four new Italian Divisions had appeared in Albania. On 29 December, Soddhu, who had replaced Prasca, was now himself replaced by Ugo Caballero. The leaders of this glorious invasion that had misfired did not last long.

During the period between 8 and 21 December the casualties of 4th Greek Division were 1148 men from the fighting while the losses from frostbite numbered 2711. On 6 January 1941, the Greek High Command ordered to halt the operations, except the 2nd Army Corps, which was ordered to take Kleisoura.

The harvest had been a rich one. In a space of two months, three Italian Commanders-in-Chief had exchanged places in Albania. The Greek advance varied in extent between 30 and 80 kilometres beyond the borders. One question, however, became even more pertinent: what would Germany do?

In moral terms, the battle had been fought and won. Perhaps there was justice in the world after all. The
The Limits of Endurance

On 6 January 1941 the forces of two camps facing each other at the front were: on the Greek side 13 infantry divisions and one cavalry division. Opposing these the Italians had 15 infantry and one armoured division, two regiments of Bersaglieri, a regiment of Grenadiers, two cavalry regiments and battalions of Blackshirts and Albanians, while the division "The Wolves of Toskane" had begun disembarkation at Avlon. At the centre, the Greek 2nd Army Corps had taken up position for the assault on Kleisoura.

The Italians had got wind of the coming assault. All day long, on 7 January they set about organising their positions. Therefore they were not able to withstand the offensive storm of Greek forces, who in the morning of 8 January at 0700 charged with bayonets fixed and led by their officers. By the afternoon, all the objectives for the day had been achieved.

At 1030 in the morning of 8 June a Greek regiment entered Kleisoura. The victory was an important one; the enemy had fought desperately.

The weather was continually worsening. The victories are difficult in a fierce winter where many died at their posts from the cold. The temperature had dropped to 12 degrees below zero. The advance continued. The Greek's intentions now were to outflank and capture the enemy forces. After Trebesina and Sedeli, the way to Avlon would then lay wide open and Albania stretches out defenceless and submissive. Now three Greek Divisions had to face nine Italian Divisions.

In such conditions, it was obvious that the operations could not be continued. They would have to wait for the spring. The Italians realised that they would have to hurry to take advantage of this, otherwise two eventualities might arise: either the Greeks would attack again and throw them back into the sea, or the Germans would intervene.
On 21 December Hitler had ordered a plan of operations for Greece to be drawn up codenamed *Marita*. During the last days of January, the Italian High Command endeavoured to answer threat by threat. The main attack was launched on the morning of 26 January. During the next four days, the Italians made successive and concerted attempts to encircle the area and take Kleisoura. The operation as a whole would be a failure, though the Italians did achieve something: they kept the Greek forces occupied there. The snowstorms began to rage again, making any advance impossible.

On 29 January, the Greek Prime Minister died. The cases of frostbite increased.

At the beginning of February, the Greek High Command was making provisions for the probable
expansion of the war by the Germans to the Bulgarian front. The Italians opposite were concentrating their forces. This was a forewarning of the Spring Offensive planned by Cavallero.

It was here that the Greek advance would come to a halt. It was stabbed in the back by a strong and sinister foe, the totalitarian Germany of Adolf Hitler. Thus began the last and truly incredible by the Greek Army, which would bring it to the verge of final victory, to the outskirts of Tepeleni. A little more and it would have broken through the Italian’s last line of defence and the way to Avlon would have been wide-open.

Germany, however, had already begun to stir and its shadow loomed on the horizon. During the first days of March, German troops began to enter Bulgaria, and were gradually being moved up to the Greek borders.

Although the German threat at the gates of the country was now plain, the army on the Albanian front did not let up. Frostbite decimated the Greek troops who clung on to this last line reached after incredible exertions by the Greek advance of 1940-41. This was the last Greek exploit and took place on the eve of the day which Ugo Cavallero would launch his fearsome offensive against the centre of the Greek front.

The war was entering its final phase.

**Not Even an Inch**

The Greek flank was recklessly and dangerously stretched in the north after the surge in Albania. Mussolini needed at least one military success before his ally intervened and sent new reinforcements to the front from Italy. In his speech on 23 February, in Rome he said: “The last bastion of Great Britain in Europe remains Greece . . . Spring will shortly be here . . . and everything will come rosy for us . . .” He arrived in Albania in order to watch the offensive.

The morale of the Greek Army was high; it was the morale of the victor. The sense of responsibility and the knowledge that there alone, in the whole world, freedom was making its presence felt, inspired optimism and resolution. The Italian offensive had to be given the reception it deserved.

At daybreak on Sunday 9 March, the Greek troops were rudely awoken by an incredible bombardment that furiously tore into the earth’s foundations. 100,000 shells fells over the Greek positions. At 0700 the infantry set out for the attack.

It might be thought that up on the heights, which

had been raked with fiery claws by a raging demon, no living soul would be found left breathing. And yet, from the earth, emerged human beings, like dead men rising from their graves. With their rifles pressed against their cheeks, they took aim and fired. The enemy was forced to halt. Italian losses were very heavy. Nevertheless, the Spring Offensive had to succeed; the honour of Italy was at stake. The Duce who was watching the attack from his observation post, after ten days would write to the King of Italy: “By noon . . . I had realised the attack was going to fail . . .”

Those who remained patched up there, in the night, no longer resembled anything human. However, they knew that below, back in Greece, their loved ones were waiting, their thoughts turning to their defenders. And around, in an immense circle, they felt the world looking on with bated breath to see what price freedom was willing to pay and what she wanted of the martyrs so that humanity might be saved.

The attacks of the next days were without success. Reckoning of first days: Cavallero — modest, Mussolini — zero.

On the fourth day, in the afternoon, Mussolini summoned the Italian commanders to a meeting. He said: “. . . if we abandon the offensive our whole cause will be lost . . . Germany is going to launch its offensive at the beginning of April . . . before Germany intervenes, it is essential that we record military success, otherwise the Germans will say, quite rightly, the Greeks withdrew because of them . . . I have told His Excellency Gugioni to send all the equipment that exists in Italy here . . .”

On the sixth day, the Greeks could see clearly from their observation post that the enemy troops had to be forced to march into the attack by the most violent means.

At 1030 on the morning of 22 March Italian messengers with white flags presented themselves at the Greek front lines on a hill. It was there that Mussolini would one day set up a monument to the Italians who had fallen on the Greek front.

The terms offered by the 2nd Greek Army Corps, demanding a truce along the whole front, were not accepted by the Italians who wanted nothing more than a total ceasefire so as to clear away the spectacle that was undermining the morale of their army.

On 25 March, Greek Independence Day, Cavallero would strike his last blow. The offensive would finally end here, drowned in blood.

The great Spring Offensive had resulted in a huge and irreparable defeat for the Italians, and before the Duce’s very eyes. Such a phenomenon surpasses the bounds of logic and passes into the realm of miracle.
Epilogue

The light had gradually begun to mellow. Spring had almost arrived. In the mountains, the snow melted the swollen rivers flowed joyfully on their way, and the swallows searched for trees left standing by the war to find twings for their nests. It was April, the month of Easter.

The soul of Greece, however, was clouded by hidden cares. The country found itself beneath the crushing weight of a German-occupied Europe. Turkey was too afraid to make any move. Yugoslavia, for its part, was playing a devious game.

Throughout the course of the war with Italy, the Germans not only presented themselves as holding an olive branch out to the Greeks, but also as being true lovers of Greece. What, in all truth, were those 680,000 German troops doing in Bulgaria? The entry of Germans into Bulgaria just seven days before Cavallero’s major offensive was a clear indication of the Reich’s intentions. In the meantime, the Greeks had taken over official or semi-official activities to halt the growing German threat.

Suddenly on 27 March, the democratic forces in Yugoslavia had risen up and on 29 announced a general mobilisation. Ten days earlier this country had access to the Tripartite Pact. These events were of particular significance for Greece, because its reaction to the imminent German invasion depended upon the stance adopted by Yugoslavia.

After that, in a very short time, both countries — Greece and Yugoslavia — would feel the consequences of the lightning war.

And thus it was that, on the morning of Sunday of 6 April 1941, the tiny Greek nation found itself fighting against the two largest land forces in the world.

At this moment a new special chapter of Greek history would be opened with which we are not occupied at this time.

World History had already recorded this struggle on its pages. The destiny of the Greek was the few to fight the many and he will win. We had not answered “no” to the Italians because we believed that we would beat them. We had answered in this way because it was demanded by the Greek conscience and by Greek History. When in the previous October, Italy had invaded, everyone had thought that the struggle would be purely for the honour of Greek arms. The splendour of that moment did not stem from the anticipation of victory, but from the decision to choose a glorious end. It was a decision at a time when the Axis’ forces were unbeaten and which also had as a result the awakening and enthusiasm of the friend of freedom all around the world.

In the Greek-Italian war, on the one side was the overwhelming armoury of a modern technocratic state, and on the other, obsolete weapons in the hands of a tiny nation struggling for its existence and customs. Yet, the Greek people gave to this struggle their own personal stamp, which, in general terms, resembled that of the War of Independence in 1821. This conflict was one between temperance and bombast, between love of country and imperialism.

More than just the picture of a nation fighting for its independence, the events following 28 October 1940 present on the stage of history a wider struggle: that of a race of people characterised by its passion for freedom.

Long after the clamour of fallen empires has died away, the reveille sounded by the bugle on the rock of Greece one autumn morning will remain as an echo, plain and clear, solitary and unwavering, in a weary world. “No! We are not beaten!”