





ARMY JOURNAL

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ARMY JOURNAL

A periodical review of military literature

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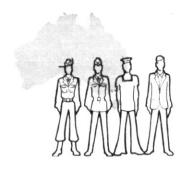
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(Defence Public Relations)

An Army Pilatus Porter is wheeled from its camouflaged position by a bush airstrip during an Army exercise in New South



EDITORIAL

THE walkout of national teams at the recent Montreal Olympic Games raises an interesting problem. We are told that the majority of the athletes involved felt no antagonism to the athletes of those nations their governments saw as the rogues of the piece. Why then were they denied the chance to compete because of a political issue which had nothing whatsoever to do with the XXIst Olympiad of the Modern Era?

It is pleasant to read, with the ideal of honest competition between individuals of all nations under extreme pressure, that an East German swimmer was prepared to say of an American rival, "If I thought about him during the race, I would stop after fifty metres and applaud. He is a very great swimmer." That is the true olympic spirit. Baron de Fredi Coubertin would undoubtedly have applauded both young men.

The dilemma of the athletes has a parallel in that of soldiers pitched by the policies of their nations into a war with fellow soldiers for whom they often feel no animosity whatsoever; indeed more often they regard their adversaries with admiration, even affection. The fraternisation and football matches of Christmas 1914 may not have pleased the politicians, but they showed clearly the absurdities of a war which destroyed probably the finest and most talented generation the world has ever known.

It is not the differences which we find in others of a different race, colour or religion but their similarities to ourselves as human beings which give us surprise and pleasure. Children see in a playmate almost the mirror image of themselves. Differences to them do not exist, or at least do not matter.

Why then can we not live in amity? Individually we could, but collectively we acquire an aggressiveness which at its worst can lead to open conflict. No soldier wants war. As General Sherman said, "I look upon war with horror." It is, however, his duty to prepare for war and if necessary to kill others in defence of the ideals his nation holds dear. It is human nature that there should always be threats posed to those ideals. In the words of another American, General Eisenhower, "In the final choice a soldier's pack is not so heavy a burden as a prisoner's chains."

The nation that wishes to defend its land and its honour must spare no effort, refuse no sacrifice and make itself so formidable, no enemy will dare assail it. A League of Nations may be an instrument for the preservation of peace, but an efficient army is a far more potent one.

Sir John Monash.



Lieutenant Colonel M. J. Ball Royal Australian Army Ordnance Corps

"Assuming that Australia's production of oil can be maintained at its present rate, then Australia's annual cost of oil imports will, in 1985, at a conservative cost of \$10 a barrel, be \$4 billion."

Lewis G. Weeks in ina Review

Editor's Note: This Paper was first written in 1974, and it is with this in mind that it should be read. It is felt that alterations, with the benefit of hindsight would detract from the Paper's value. Colonel Ball has written a postscript to the Paper, with his present thoughts on the subject.

INTRODUCTION

A NY consideration of the oil supply of a nation is inherently strategic because of the global nature of the oil industry and the international distribution of reserves. Oil has become essential to modern technical societies, and is the lifeblood of modern, mobile military forces.

Currently, somewhat more than half of all petroleum products consumed are traded internationally. Nations which are reliant upon imported oil are particularly sensitive to international threats to the oil trade. These threats may be to the source of supply itself, or to international shipping lanes. A brief reminder only needs to be given

Lieutenant Colonel Ball graduated from the Officer Cadet School in 1958 and was commissioned into the Royal Australian Army Service Corps. After service in several regimental postings, he attended the Army Long Petroleum Installation Course at the RAOC Training Centre in 1965, followed by attachments to RAOC units in BAOR. On return to Australia he was OC 8 and subsequently 9 Petroleum Platoons from 1966 to 1971, including service in South Vietnam in 1967-68, and in 1971 was appointed DADST(POL), AHQ(ST) Canberra. During the reorganization of the Army he was reallotted to RAAOC in 1973 and was posted as SO2 (Trg) in D Sup. After attending the Australian Staff College in 1974, he returned to the Department of Defence (Army Office) where he is currently SO1 (Coord) in DGCO, Office of the Chief of the General Staff.

to the growth of the naval forces of the Great Powers, and the interest shown by those powers in the Indian Ocean, to appreciate the vulnerability of Australia's sea trade.

Prior to 1968, Australia depended almost wholly upon overseas sources of crude oil or refined products. The discoveries of crude oil which were made in the period 1961-1965 had proved insignificant in terms of national consumption. The discovery of oil fields in Bass Strait has resulted in a marked reduction in oil imports, and Australia has attained a high degree of self-sufficiency in certain refined products. However, because of the nature of the Australian offshore oilfields, and the pattern of oil consumption, Australia is no less sensitive to interference to its oil supplies than previously.

Despite the reliance which Australia has upon imports of oil, public debate on this subject is usually based solely upon economic, not security, considerations. The study conducted by Dr. A. Hunter, in 1967, was singular in that it was the first major study which mainly considered the oil industry from a defence viewpoint.¹

The aim of this article is to examine the pattern of oil consumption in Australia and the strategic position in respect to oil supply.

THE IMPORTANCE OF ENERGY TO NATIONAL SECURITY

Energy sources are fundamental to a nation's strength. Energy provides the muscle by which a nation's goals can be achieved. The ability of a nation to maintain itself free from interference from competing nations is dependent upon a variety of factors, of which energy is but one. Methods of the evaluation of world power include the equation of land area, population and energy consumption,² or more complex schemes which take into consideration land area, population density, technical efficiency, food supply, mineral production, nuclear capability and other factors.³ The ranking of world powers by these methods provides a similar result to a ranking based strictly upon energy consumption, Table I illustrates this point.

It is clear that energy consumption is a vital element in the assessment of a nation's power. A major factor in the strategic security of a nation must therefore be the degree of control it can exert over its sources of energy. A nation which is concerned with defence against aggression and maintaining freedom of action, must take steps to maintain control of its energy resources, and to discover new sources of energy within its boundaries, or to stockpile adequate reserves.

Indexes of World Power

Rank	Cole Method	German Method	Energy Consumption Method ¹
1	USA	USA	USA
2	USSR	USSR	USSR
3	Communist China	United Kingdom	Communist China
4	India	Communist China	United Kingdom
5	United Kingdom	West Germany	West Germany
6	Canada	Canada	France
7	West Germany	Japan	Canada
8	Brazil	France	Japan
9	Japan	India	Poland
10	France	Poland	East Germany
11	Australia	Australia	Czechoslovakia
12	Poland	Brazil	India
13	Indonesia	Czechoslovakia	Italy
14	East Germany	Italy	Republic of Sth. Africa
15	Mexico	East Germany	Australia
16	Italy	Argentina	Belgium
17		Republic of Sth. Africa	Netherlands
18			Mexico
19			Spain
20			Romania
21			Sweden
22			Argentina
23			Hungary
24			Brazil

TABLE 1

AUSTRALIA'S DEPENDENCE UPON PETROLEUM AS A SOURCE OF ENERGY

Sources of Energy

Approximately 50 per cent of the primary energy consumed in Australia is derived from petroleum products. Table 2 shows the sources of primary energy. It can be seen that any interruption to the supply of oil would have a considerable effect upon the economy of this country. The continued decline of the traditional sources of energy, black and brown coal, has been offset by the increased contri-

bution of petroleum products and natural gas. Forecast consumption indicates a continued percentage increase in natural gas, at the expense of petroleum products.⁵ However, it should be noted that, in Australia, natural gas reserves are generally discovered as a result of exploration for oil, and that most gas fields are in the same geographic locations as oil fields. Much of the argument that follows is therefore applicable to future supplies of natural gas.

Australian Consumption of Primary Energy⁶

(Percentage of Million Million BTU)

Year	Black	Brown	Total	Petro- leum Products	Natural Gas	Hydro- Elec- tricity	Mood	Bagasse	Total Primary Energy
Actual									
1964-1965	37.0	11.6	48.6	43.8		2.0	3.4	2.3	100
1968-1969	32.9	11.4	44.3	49.7	0.1	1.5	2.2	2.2	100
1971-1972	29.8	10.6	40.4	49.5	4.5	1.9	1.7	2.0	100
Forecast									
1978-1979	28.2	9.2	37.4	47.4	11.6	1.3	0.8	1.5	100
1983-1984	27.0	10.3	37.3	41.8	18.1	1.1	0.5	1.2	100

TABLE 2

Users of Energy

Not only is 50 per cent of Australian energy derived from petroleum products, but a surprisingly small percentage of the total consumption of petroleum products is dedicated to personal consumption. That is, some 80 per cent of the total is consumed by the agricultural and pastoral industries, the mining industry, manufacturing industry, building and construction, transport industry, and personal and government services. Table 3, Inputs of Petroleum Products by Industry Groups, illustrates this point. It is unlikely that the situation has changed since 1958-59, even though the number of private vehicles registered has increased from 68 per cent of all private and commercial vehicles in 1960, to 78 per cent in 1972. During this period the percentage of diesel locomotives has risen from 17.3 per cent of all locomotives in 1962 to 73.3% in 1972. Although significant, the net result of these increases will be a negligible shift in the inputs of petroleum products to the area of personal consumption and trade and transport.

Inputs of Petroleum Products by Industry Group (1958-59)

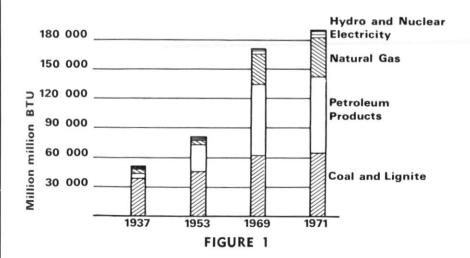
Industry Group	\$m	Petroleum Products
Agriculture and pastoral	54.6	11.3
All mining	4.6	1.0
Manufacturing industry	75.4	15.6
Building and construction	37.6	7.6
Trade and transport	215.0	44.2
Personal and government services	9.6	2.0
Personal consumption	89.4	18.3
Total	486.2	100.0

TABLE 3

Future Trends in Energy Consumption

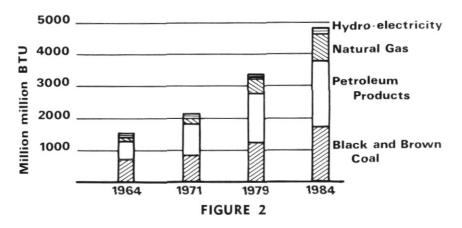
Having considered the importance of energy in the strategic security of a nation, and the contribution that oil makes to the demands for energy in Australia, it is appropriate to now consider what trends are occurring in terms of energy consumption.

World Energy Consumption (Excluding Soviet Bloc and China)(8)



The steady growth in world consumption depicted in Figure 1 has been repeated in Australia, as shown by Figure 2.

Australian Energy Consumption (9)



Alternative Sources of Energy

As shown in Table 2 and Figure 2, petroleum products are expected to continue to be the major source of energy in Australia for some years. Alternative sources of energy may be developed, or substitutes made, but it is unlikely that either course of action will greatly reduce the increase in the consumption of petroleum products which is expected to occur over the next ten years.

New Forms. The most likely new forms of energy in Australia will be solar energy and/or nuclear energy. The successful harnessing and transformation of solar energy for use as fuel, electricity and heat, is unlikely to significantly contribute to the energy market within twenty years. The development of fast breeder nuclear reactors, and nuclear fusion reactors, could produce sufficient energy to make obsolete present fossil fuels. However, this energy source is also unlikely to make any significant contribution to the Australian energy market within fifteen to twenty years. Research into either form of energy production is, in

Australia, relatively insignificant. Nuclear research is opposed, for various reasons, by many Australian political parties and pressure groups. It is suggested that it is unlikely that there will be any government sponsored initiatives in this area for some years.

Substitutes. The early substitute of other energy forms for petroleum products is also unlikely. Seventy five per cent of Australia's electricity is already generated in thermal stations using black or brown coal. The major exceptions are stations in South Australia and Western Australia for which coal supplies are inadequate or uneconomical. Minor exceptions are stand-by plants in other major cities, and diesel fuelled stations in country towns. Hydro-electric power makes a contribution in Tasmania and also in New South Wales, where the Snowy Mountains Scheme is designed to provide energy at peak load times only. It is therefore doubtful if the consumption of petroleum products in the generation of electricity can be significantly reduced.

Coal. There is scope for the increased use of coal in industry, and this is advocated by officials of the Department of Minerals and Energy.¹¹ Australia has immense coal deposits, with black coal reserves estimated at 230 years. However, the capital expenditure required to convert many industrial plants from an oil burning system to coal would be a major factor against this measure. Another major factor is the efficiency at which oil fired plants operate. Both thermal efficiency and handling efficiency is far higher in oil fired plants, consequently manufacturers have consistently tended away from coal and towards oil. Environmentalists would also oppose any large scale introduction of coal on the grounds of increased atmospheric pollution.

Natural Gas. The use of natural gas, as shown in Table 2, will result in a reduction in the overall dependence upon petroleum products. However, as noted earlier, many of the problems associated with maintaining the security of oil supplies apply also to most of Australia's reserves of natural gas. The emphasis on the use of natural gas has, to date, been on personal consumption. That is, as a substitute for town gas, briquettes, or electricity as the energy source for home cooling and heating appliances. If present trends continue, the most likely effect in the short term is that natural gas will not markedly reduce the dependence of industry upon petroleum products.

The Transport Industry. The transport industry is worthy of separate mention. Although coal could be used for steam raising, it is

highly unlikely that either Australian railways or Australia's trading fleet would revert to coal. Natural gas is technically capable of powering heavy engines, but it would be unwise for Australian industry to be geared to a unique technology which is unmatched by similar overseas developments and support. 12 It is significant to note that the Minister for Minerals and Energy (in the Labor Government), Mr. R. F. X. Connor, sees an increasing use of Liquefied Petroleum Gas as an alternative to gasoline, particularly by fleet managers, but not to the point where it takes up a significant part of the gasoline market.¹³ The attraction of LPG has mainly been due to its low price compared to gasoline. This situation is, however, unlikely to continue for two reasons. First, overseas experience has been that as LPG consumption increases, governments tend to increase the rate of duty on this product, (the main factor responsible for its low price), to a point where total price approximates that of gasoline. Secondly, world prices for LPG rose by about forty per cent in April 1974, and it now seems likely that Australia's prices will follow.14

Summary

As energy consumption increases, the consumption of petroleum products will also increase until such time as alternative forms of energy can be utilised. There would seem to be little likelihood of this situation changing within the next fifteen to twenty years, unless research into these processes is more actively sponsored by Australian Governments. Consideration therefore needs to be given by the Government to the expected increases in the consumption of energy and to the control of existing resources and development of new energy forms.

CONSUMPTION OF PETROLEUM PRODUCTS IN AUSTRALIA

The Pattern of Consumption

The pattern of consumption of petroleum products in Australia has changed during the past ten years. Prior to the early sixties gasoline constituted the bulk of the total gallonage consumed. The introduction of turbine engined aircraft, the increasing demand for diesel fuelled engines and the replacement of coal by oil in many industries, has markedly reduced the consumption of gasoline and increased the consumption of the heavier oil fuels. This trend is expected to continue, as shown in the following table.

Forecast of Australian Consumption of Petroleum Products¹⁵ (000 Gallons)

(000 00000)			
Product	1972-73 ¹⁶	1984-85	% Change 1984-85 over 1972-73
Aviation Gasoline	20,830	25,530	+ 12.5
Motor Spirit	2,533,732	4,933,235	+ 94.7
Aviation Turbine Fuel	317-917	968,741	+204.7
Lighting Kerosine	49,932	68,896	+ 38.0
Heating Oil	147,611	366,898	+148.6
Power Kerosine	14,152	3,847	— 72.8
Automotive Distillate	919,867	2,397,721	+160.7
Industrial Diesel Fuel	299,055	432,786	÷ 44.7
Fuel Oil	1,609,102	2,199,077	+ 36.7
Liquefied Petroleum Ga	s 133,595	226,972	+ 80.1
Other Fuels	673,782	1,241,317	+ 84.2
Total, Petroleum Fuels	6,719,575	12,878,659	+ 91.7
Lubricants	93,097	134,295	+ 44.3
Bitumen	102,512	160,175	+ 56.3
Other Products	237,399	612,349	+158.4
Total Consumption (000) Gallons	7,152,583	13,786,478	+ 92.7
	, , , , , , , , , , , , , , , , , , , ,	,,,,,,,,,	

TABLE 4

Table 4 illustrates that the consumption of petroleum fuels in 1984-85 is expected to be almost double the actual consumption in 1972-73. Of special significance are the increases forecast in the demand for the 'heavier' products, such as aviation turbine fuel, automotive distillate, industrial diesel fuel and fuel oil.

Indigenous crude is rich in gasoline and distillate fractions, and therefore does not yield the same quantity of heavier products that can be obtained from an equal volume of Middle East crude oil. The problem is illustrated in Table 5.

Comparison of Gippsland and Kuwait Oil Yields

	Simple F		Complex Process			
	% Gippsland Kuwait		Gippsland Kuw			
Motor Spirit	22.4	10.0	41.9	24.5		
Aviation Fuel	12.2	10.0	12.2	10.0		
Gas Oil	23.2	17.8	23.2	17.8		
Fuel Oil	34.3	56.0	11.5	38.4		
Gas/LPG etc loss	7.9	6.2	11.2	9.3		
	100.0	100.0	100.0	100.0		

TABLE 5

Because of the above, Australian producers would have difficulty satisfying the Australian market from Australian crude oil (given that adequate supplies of indigenous crude were available), unless some balance can be maintained between the growth in consumption of the gasoline, kerosine, distillate and heavier products group. A government fuels policy which is aimed at effecting such a balance would seem to be necessary if an objective of the Australian Government is self-sufficiency in oil supply.

INDIGENOUS SUPPLIES OF OIL

The discovery of the Halibut and Kingfish crude oil fields in Bass Strait dramatically changed the immediate dependence of Australia upon overseas suppliers of oil. The prospect of self-sufficiency has been improved by further discoveries. Crude oil and condensate from the Cooper Basin in central Australia, condensate from the giant offshore gas fields on the North West Shelf, and the Tuna, Mackerel, Marlin and Clam fields in Bass Strait, can be seen as further contributions to national security. Unfortunately a close examination of the situation reveals that after a very short period in which indigenous crude oil has been on stream, Australia's degree of self-sufficiency may be declining. Also, and from a strategic viewpoint, the locations of the major fields are such that the supply of indigenous crude oil is vulnerable to interdiction, albeit not as vulnerable as supplies from the Middle East.



(Esso Australia Ltd)

The Marlin Platform: Gas producer situated in Bass Strait off the Victorian coast, near Sale.

Self Sufficiency

Present Situation. Official Petroleum Information Bureau statistics show that in 1972-73 imported crude oil and refined products equalled 43 per cent of Australia's total consumption, the balance (57%) being met by indigenous crude oil. The net refinery feedstock position is currently 65-70 per cent indigenous crude to 30-35 per cent imported crude oil. Known recoverable reserves in Australia are estimated at ten years for current production rates, which have peaked at about 400,000 barrels a day. The quantity of recoverable reserves would undoubtedly be increased if the price of Australian crude oil was raised to a level which would make some oilfields, or extraction methods, economically viable.

The Future. Whilst production appears to have peaked at about 400,000 barrels a day, as discussed previously, consumption is increasing. Current prospects are that this production rate will continue until at least the early 1980s.¹⁷ By 1985 it is expected that on current trends the refinery feedstock ratio position will progressively decline and, by 1985, could be down to 20 per cent indigenous crude to 80 per cent imported crude.¹⁸

Exploration

Obviously, the ratio predicted above could be improved by an increase in known recoverable reserves due to further discoveries of economically viable oilfields. Considerable exploration effort has been expended in Australia with disappointing results. One of Australia's most promising areas has been the North West Shelf, but six years of drilling on the Woodside-Burmah leases in that region has failed to discover a commercial field. The prospects of further discoveries in Australia are diminishing due to a decline in exploration activity. This is shown in Table 6.

The decline in exploration activity is related to several factors, of which the major are a lack of funds, including Government assistance, and the failure rate experienced by exploring companies.²¹

The Chance of Success. Promoters provide funds for oil exploration companies which have a reasonable chance of success in discovering an oilfield for which there is a market. The first exploration effort for oil in Australia was in the Coorong district of South Australia, where the first genuine oil well was started in 1892. Like many of its successors,

	Number of	Well	s Drill	ed ^{19 20}			
STATE OR	To end						
TERRITORY	1967	1968	1969	1970	1971	1972	1973
Western Australia	389	127	206	63	32	44	22
Queensland	621	51	49	61	20	24	11
Victoria	191	23	32	53	22	23	16
South Australia	156	15	14	25	25	32	11
New South Wales	108	6	8	12	1	1	4
Northern Territory	38	1	6	6	5	5	3
Tasmania	. 28	2	3	4	1	4	4
Papua New Guinea	49	7	4	2	2	1	5
TOTAL	1,580	232	322	226	108	134	76

TABLE 6

this well was unsuccessful. With the exceptions of the Bass Strait field, the few successes have been either small fields such as Moonie or Barrow Island, or economically unworkable, such as the Mereenie field in the Northern Territory.²²

Finance. Oil exploration is an expensive business. Over \$1,000 million has been expended by private enterprise on petroleum exploration development and production in Australia. Past failures, together with recent Government action in removing subsidies and taxation incentives, have resulted in many companies ceasing their search for oil in Australia. To compound matters, it would seem that the most likely prospects for oil are to be found in the off-shore area, and off-shore exploration and production costs are many times the cost of on-shore fields. L. G. Weeks, a well-known petroleum geologist, has pointed out 'the geologic fact that practically all of the world's offshore oil and gas accumulations will be found in young sediments, that is, sediments of Tertiary or Mesozoic-Tertiary age'. More significantly, 'These young sediments have a record of much greater yield than older sediments. About 87-90 per cent of the world's proved reserves are in sediments of these young ages.'23 The inland sediments of Australia are mainly of an older era, indicating that the most likely areas for successful oil exploration will continue to be off-shore.

Summary. Australia's oil reserves will only be substantially increased as a result of further successful exploration. Because of the high capital investment required, it is suggested that Government policies should include measures to encourage investors who are willing to

provide the necessary risk capital. It should be noted that the total expenditure on petroleum exploration, development and production in Australia, to 31 December 1972, was as follows:

Total Expenditure \$1,371,024,000 — 100%

consisting of:

Private Enterprise \$1,182,827,000 — 86.3% **Government Expenditure** \$188,197,000 — 13.7%

Defence Aspects

From a defence point of view the present trend towards a reduction in the degree of self-sufficiency can only be considered as being undesirable. The existing dependence upon off-shore oilfields is also undesirable. Off-shore production platforms are vulnerable to attack by air and sea. The submarine pipeline from the Gippsland offshore field could be easily damaged; the production platforms could be destroyed. Oil from the North West Shelf (if a commercial field was discovered there), must be carried by sea for more than four thousand miles before reaching the major refineries and markets.

The north-west of Western Australia is that part of the continent which is furthermost from the present location of Australia's armed forces. Notwithstanding the present economic and strategic value of this area, existing defence commitments to the area are limited to a handful of Navy patrol boats based at Perth and Darwin.

Conservation of Existing Stocks. In a situation where the oil reserves of a nation are diminishing, one option which is open to a government is to impose some form of control on the rate at which existing stocks are used. As far as can be determined, this option has not been chosen in Australia.²⁴

Summary. In the short term, it is difficult to see any major increases being made to the existing level of Australia's recoverable reserves of crude oil. The present low level of exploration is unlikely to result in any significant on-shore or off-shore discoveries. For the next ten years, it is likely that Australia will continue to rely upon the off-shore fields, supplies from which may be unavailable at a time when self-sufficiency in petroleum supplies is most needed. As suggested by K. Stacey:

'The very best program for military necessities, would have been to earmark all interior fields for emergency (war-time) usage.'25

OVERSEAS SUPPLIES OF OIL

Present Supplies

The Persian Gulf countries (mainly Kuwait, Iraq and Saudi Arabia), continue to be the major suppliers of crude oil and refined products to Australia. In 1972-73 these countries contributed 93.7 per cent of all imported crude oil, and 56.8 per cent of all imported refined products (mainly fuel oil). To date, insignificant quantities have been imported from Indonesia or Brunei, the oil producing countries located closest to Australia. Indeed, Japanese trade agreements with Indonesia, based upon aid or loans provided by Japan in return for the guaranteed supply of oil, may well limit severely the quantity available to Australia from that country. The Middle East countries are likely to continue to be the major suppliers of crude oil to Australia.

Future Supplies

The Middle East nations are unique in that they possess some 54 per cent of the total world crude oil reserves. At current rates of production these Middle East reserves alone represent twenty years consumption for the whole world. World wide reserves currently represent thirty-five years, while annual increase in reserves due to exploration and improved production techniques have, for several years, matched increases in production. There is unlikely to be, therefore, a world wide shortage of crude oil in the short term. The ability of Australia to obtain adequate supplies of oil from the Middle East may, however, be restricted by other factors.

Economic Factors. The cost of importing substantial quantities of oil would place a severe strain on Australia's balance of payments. If Australia had to import 80 per cent of the crude oil required in 1972/73, at a conservative price for that period of \$10 per barrel, \$1,600 million would be added to Australia's foreign payments. In 1972/73 this would have meant that a balance of payments surplus of \$1,659 million would have become a surplus of \$59 million and, in 1973/74, a deficit of \$678 million would have increased to \$2,278 million.

Security Factors. More seriously, greater reliance upon overseas sources of oil would mean that Australia's supplies would be liable to interruptions due to a variety of causes. These could include:

a world wide shortage of tanker vessels,

- · political or economic blackmail by the producing countries,
- political and military instability in the Middle East, and
- direct interdiction of the 7,000 miles of sea lanes between the Middle Fast and Australia.

Summary

Bearing in mind the dependence of Australia on oil as an energy source (Table 2 refers), it would seem prudent for steps to be taken to limit the effect of interruptions to Australia's oil supplies. As discussed earlier, action that could be taken includes careful control of energy sources by means of a Government energy or fuels policy, which includes the development of substitutes for petroleum, and increased exploration activity on the Australian land mass. Another course of action that is open to the defence planner is that of ensuring adequate supplies of oil products are stockpiled in Australia.

GOVERNMENT STORAGE INSTALLATIONS IN AUSTRALIA

Petroleum product storage installations in Australia can be grouped as follows:

- government owned or controlled storage,
- commercial storage for crude oil at refineries, and
- commercial storage for refined products at seaboard and inland terminals.

From a strategic viewpoint, the most important groups are refinery and seaboard storage installations. Government and inland installations are relatively small and are generally located in proximity to existing markets or consuming organizations.

Civilian Government Departments

Some Australian and State Government Departments control a certain amount of storage capacity, as do governmental authorities such as electricity commissions. As far as can be ascertained, such installations are related to the consumer's needs, in terms of both storage capacity and location, and would not be available for general use during any period of national emergency.

Department of Defence

The capacity of fuel storage installations which are controlled by the Department of Defence is difficult to assess. However, it seems that storage installations on Service bases are generally designed to provide the minimum capacity necessary for operating stocks plus a reserve against short-term interruptions in supply. For example, storage tanks in many Army bases are supplied by civilian oil companies as part of a contract to supply fuel. The size of such storage tanks is therefore often related to factors such as the frequency of delivery which is most economical for the supplying oil company.

CIVILIAN STORAGE INSTALLATIONS

Civilian storage installations are those constructed and operated by members of the oil industry. Storage installations are constructed after consideration of a variety of factors, the constant of which include the fluctuation of consumption which the installation is primarily designed to overcome, and financial factors. The decision to erect storage, in terms of the maximum quantity which could be held, and the day-to-day level of stocks, is the sole prerogative of the particular company involved. Apart from the necessary procedures associated with any form of construction, there is no Australian or State Governmental input or control over the storage capacities of new installations. The reporting of stocks held by the industry is a monthly report on levels of storage, submitted to the Department of Minerals and Energy, by a projection for the next three months.

Crude Oil Storage at Oil Refineries

Because of the irregularities of shipping, each refinery holds stocks of crude oil. At present, the annual production capacity of Australian refineries is approximately 15 per cent in excess of annual consumption. To accommodate periodic maintenance and the unexpected shutdown of plant, a margin of ten per cent is normally regarded as desirable. Table 7 shows the ratio of crude oil storage to production at all Australian refineries. It can be seen that the Australia-wide average is 17 days stocks of crude oil, when storage tanks are all full. The periods over which individual refineries could operate without receiving supplies of crude oil varies from 12 to 48 days. This period is, again, when all storage tanks are full. It must be noted that, for various reasons, it is unlikely that crude oil stocks would ever be in excess of 75 per cent of storage capacity.

Australian Oil Refineries
Relationships of Crude Oil Storage to Production²⁶

Refinery	Production Capacity	Crude Oil Storage Production			
	(barrels/day)	Barrels	Days		
Amoco. Bulwer Island					
Queensland.	26,000	1,250,000	48		
Ampol. Lytton, Qld.	60 to 75,000	1,094,000	14.5		
Australia Oil					
Refining Kurnell, NSW.	80,000 to 90,000	1,854,000	23		
BP. Kwiwana, W.A.	110,000	1,736,000	16		
BP. Westernport, Vic.	50,000	883,000	17.5		
Petroleum Refineries					
(Aust) Adelaide, SA.	48,000	1,570,000	33		
Altona, Vic.	93,000	1,140,000	12		
Shell. Geelong, Vic.	104,000 to 110,000	1,718,600	15.5		
Clyde, NSW.	60,000 to 80,000	651,600	8		
TOTAL					
(Weighted average)	686,000	11,897,200	17		

TABLE 7

Refined Product Storage. Excluding minor inland depots and service stations, the Australian oil industry controls refined product storage installations with a total capacity of approximately 90 million barrels. Oil industry sources suggest that only two thirds of this capacity can be full at any one time because of the need to distribute products and maintain tanks. 60 million barrels represents about 17 weeks of Australian consumption at current rates. From a defence viewpoint, it must be noted that these stocks are all located on the seaboard, either within existing refinery complexes (26.5%), or at separate seaboard bulk storage installations in populated areas. That is, all are readily accessible to the seaborne or airborne forces of any aggressive power, and are already part of what could be considered as being existing targets for a potential enemy.

The Storage Problem

The Australian oil industry usually holds stocks of refined products which represent approximately 17 weeks consumption, plus a

further 17 days consumption in the form of crude oil. All these stocks are located on the seaboard and are therefore accessible to the seaborne or airborne forces of an enemy. The level at which these stocks might be at any one time is determined by the industry.

In the event of any emergency which would affect the supply of crude oil to refineries in Australia, and the importation of refined products, existing stocks would last about 19 weeks at current rates of consumption. The rationing of supplies would extend that period. It will, however, be remembered that only 18.3 per cent of all petroleum products go into personal consumption (Table 3 refers). Any rationing therefore, would either have a limited effect if limited to personal consumption, or would not significantly extend the stocks available without causing some disruption in industry and commerce. In addition, during a period of such a national emergency, any stocks required by the Department of Defence would generally have to be allotted from those stocks held by the oil industry, presumably after the exercise of appropriate emergency powers by the Australian Government.

There is a need to overcome a situation in which the vast majority of the nation's reserves are held by, at levels determined by, the oil industry. One solution would be for the Australian Government to either hold, or control, reserves.

Government Held Reserves. Crude oil and refined products could be held by the government in storage installations at inland sites. In 1967, Dr Hunter established the cost of erecting and fabricating a 500,000 barrel storage tank (the optimum size), at about \$1 million.²⁷ To provide only thirty days storage, thirty-three such tanks would be required. Allowing for a five per cent annual increase in the cost of the storage tank, and a price of \$5 a barrel of oil (an estimated price for Bass Strait oil in 1975), thirty days storage would require a capital outlay of \$57.5 million. To this cost would be added annual operating costs.

Oil Industry Held Reserves. It is suggested that a more feasible solution would be one in which the oil industry was required to hold a minimum level of reserves. Government controls could be exercised over the quantity of storage erected by members of the oil industry, and reports of stocks held would be received for defence as well as economic reasons. This course of action would not be cost free, but could be less expensive than a proposal for the Australian Government

to hold a strategic reserve. Such a policy could include the construction of additional storage installations in inland areas.

SUMMARY

A major factor in the strategic security of a nation is the degree of control it exercises over its sources of energy. Australia is dependent upon petroleum products for approximately 50 per cent of its energy needs. Energy consumption in Australia is, in line with a world-wide pattern, increasing each year. Alternatives to petroleum products as a major source of energy are unlikely to be available in Australia in less than fifteen to twenty years. The consumption of petroleum products will therefore increase as energy consumption increases.

In addition to an overall increase in the use of petroleum products, the pattern of usage is changing. The heavier products such as aviation turbine fuel, automotive distillate, industrial fuel oil and fuel oil, are in greater demand relative to the lighter gasoline. This feature of the Australian market could increase the requirement for imported crude oil, from which can be produced greater quantities of these products than are available from indigenous crude.

Exploration for oil in Australia has resulted in 65-70 per cent of Australia's crude oil requirements being met by indigenous crude oil, and 56 per cent of all products required being produced from local sources. Whilst this obtains in 1974, known recoverable reserves, which are at ten years of present production, are unlikely to maintain this degree of self-sufficiency into the late 1970s. By 1985, imported crude oil could be supplying about 80 per cent of Australia's crude oil requirements. The recent decline in the level of exploration activity in Australia is not encouraging, and will reduce the possibility of the discovery of new oilfields.

In addition to an increased reliance upon overseas sources of crude oil, Australia's stategic position is not strengthened by the fact that almost all of its crude oil reserves are in off-shore fields. Production from these fields could be interrupted. Although there is unlikely to be any world-wide shortage of crude oil, overseas supplies may be politically or economically expensive, or may be simply non-available.

Stock levels of crude oil and refined products in Australia are determined by the oil industry. The Australian Government does not hold any significant reserves.

It is considered that the Australian Government needs to exercise greater control over the energy resources of Australia, especially crude oil and petroleum product reserves, taking into account defence requirements.

CONCLUSIONS

The following conclusions can be drawn:

- there is an urgent need to promote research into new forms of energy sources including the production of nuclear and solar energy, with a view to introducing those forms of energy production into Australia as soon as possible;
- a balance should be maintained between the levels of consumption of light and heavy petroleum products, according to the characteristics of indigenous crude oil;
- the level of oil exploration in Australia needs to be increased significantly, especially exploration for on-shore fields;
- recoverable reserves of crude oil should not be exhausted, and a reserve of crude oil should be retained in place as directed by the Australian Government;
- the Australian oil industry should be required to hold a reserve of petroleum products to a level, and in locations, nominated by the Australian Government.

ADDENDUM

- 1. As at 31 December 1974 the number of exploratory oil wells completed in Australia that year totalled 59.
- 2. On 14 September 1975 the then Prime Minister, Mr. Whitlam, announced a new approach to pricing of Australian crude oil as from 18 September 1975. The policy had a two-fold objective to provide the maximum practicable incentive for exploration of new oil fields and at the same time give existing producers from known discoveries a fair return on their investment which would ensure that all economically recoverable oil is produced from known oil fields. As an example, oil produced from Gippsland/Bass Strait would be increased by 23 cents per barrel to \$2.33 per barrel; oil from Moonie would be increased progressively from the 14 September 1975 price of \$2.15 per barrel to \$5.25 per barrel as from 18 September 1977. To provide an incentive for exploration, producers of new oil would receive a return of around

\$6.90 per barrel. It was intended by the Labor government that these prices would apply for three years. On 24 September 1975 the Labor Government announced further developments in that Government's policies towards foreign investment.

3. The Annual Report for 1975 of the Australian Petroleum Exploration Association notes that:

'On the last 289 exploration wells drilled, not one has made a significant discovery. Over 450 wells have been drilled since the last commercial discovery was made. Of these, 55 were drilled in 1974. Consequently, the geological incentive for explorers in Australia has diminished. This factor has been compounded by harsh, economic conditions and unsympathetic political attitudes. At a time when the geological risk is growing, economic incentives have been removed by Government and a resources policy has been implemented that discourages local investors, local companies and overseas groups.'

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⁶ Fuels Branch, Department of Minerals and Energy (Reproduced in Petroleum Information Bureau, Oil and Australia, December 1973, Melbourne, 1973, p. 30).

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11 'Replace Oil, Gas with Coal Riches', The Age, 20 June 1974.

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- 18 Petroleum Information Bureau, Unpublished article, May 1974.
- 19 Petroleum Information Bureau, Oil and Australia 1974, p. 46.

- 20 See Addendum note 1.
- 21 Sec Addendum note 2.
- 22 See Addendum note 3.
- 23 Weeks, L. G., 'World Offshore Petroleum Resources,' Bulletin of American Association of Petroleum Geologists, Vol 49, 1965, (reproduced in Hunter 1968, p. 38).
- 24 See Addendum note 2.
- 25 Stacey, K., Consumption and Production of Petroleum from the Australian Mainland, 1968-1990. Australian National University, Canberra, 1968, p. 33.
- 26 Results of correspondence between refining companies and the author. Excludes the small Total plant at Matraville NSW.
- 27 Hunter, p. 25.

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(Strategic bombers - radar; Radar - electronic).

Navy seeks ideas for fleet defense. Electronics International, 27 May 76: 40-42. (Shipboard Intermediate Range Combat System; Sea defence — U.S. Navy). Rehabilitation of Defence Service personnel. U.S.I. Journal (India), April/June

1975: 174-176. (Rehabilitation — Indian Armed Forces; Indian Armed Forces -Rehabilitation).

Administration of military stations. U.S.I. Journal (India), April/June 1975: 177-181. (India - military administration; Administration - Indian military areas).

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Terrorism as a security management problem. Security Management (U.S.), March 76: 10-12. (Security management; Terrorist attacks - commercial/industrial

organizations).

Protecting the executive. Security Management, March 76: 14-16. (Security management; Terrorist attacks — personnel protection; Terrorists — characteristics). Practical employee protection. Security Management, March '76: 22-25 (Security management; Terrorist attacks - personnel protection).

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FOR EXCEPTIONAL GALLANTRY

In the last year of her life, QUEEN VICTORIA knitted eight scarves to be presented to those men who performed, in the eyes of their superiors, deeds which were above the accepted standards of gallantry at the time.

Already the VICTORIA CROSS had been instituted, as the highest possible award for gallantry; so it was decided to make this gesture for deeds performed of a higher degree of bravery. Quite the majority of troops on service in South Africa didn't even know of such an award, so it generally came as some surprise to those who received a scarf and I presume to some extent a little disappointment since the VC had by this time become a coveted and much sought after decoration. However, the men who received scarves had in most cases been recommended for a VC at least twice and possibly more which made the award of one of these most prized by the recipient.

As a result of the Dominions' involvement in the War in South Africa, regard was paid to them in a fashion that had never been previously considered by the Mother Country and of the eight scaryes, four went to servicemen from the Dominions.

List of recipients of the QUEEN'S SCARF OF HONOUR:

Imperial troops: Queen's Regt: C/Sgt. Ferret DCM.

West Yorks Regt; C/Sgt. E. Kingsley DCM.

Devonshire Regt; Sgt. W. Colclough.

East Surrey Regt; C/Sgt. Clay DCM.

Dominion troops: 2 Bn. R. Canadian Regt; R. R. Thompson.

NSW Mounted Rifles; Pte. A. H. du Frayer.

NZ Mounted Infantry; Captain Coutts.

Robert's Horse; Tpr. L. Chadwick.

Nothing concerning the particular actions for which these men received the award is known, however I understand that the son of du Frayer is working on a book on the subject. It is reasonable to suppose that he may have performed a number of gallant acts during the period before he was invalided back to Australia during September of 1900. As he was only in the country for eight months, the only possible action that he could have been in was Paardeburg, and possibly only half of that action. It is of interest to note that both the New Zealand Mounted Infantry and Robert's Horse were in the engagement, although not the same Brigade as the NSW MR. The pursuit to Bloemfontein would have brought some lively actions, and it was possibly here that Private du Frayer came to notice.

Contributed by Sgt N. C. Selway, CMF, AACC, attached Royal New South Wales Regiment.

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1991-2-8-4--

AUSTRALIAS IMMEDIATE POST FEDERATION MILITARY FORCES

Problems involved in their Reconstruction

Major Warren Perry, RL

WHEN the Federal Government assumed responsibility in 1901 for the defence of the Commonwealth of Australia, its military forces did not automatically arise out of the ashes of the inherited State forces into a unified national army effectively organised and adequately armed, equipped and trained.¹ This desirable object was attained gradually; and its attainment began with much mental labour which was directed to the formulation of Defence policy, to planning ways and means to give effect to this policy and to drawing up Estimates to pay for the execution of the plans produced.

The three outstanding personalities who shaped and breathed life into Australia's first post-Federation army in these days, during the first four years of the Commonwealth's existence, were Sir John Forrest who was the Minister for Defence for most of the period concerned, Major General Sir Edward Hutton who was the commander of the military forces, and Captain R. H. M. Collins who was the permanent head of the Department of Defence. Out of a body of permanent and part-time officers and other ranks, whose dissimilar State organisations had been designed in pre-Federation times for purposes not those of the Federal Government, they organised, in accordance with prescribed

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establishments, a Field Force and forces of Garrison Troops in each State. The Field Force was designed for use, collectively, in the defence of Australia as a whole; and a force of Garrison Troops was maintained in each State for local defence purposes within its State. These forces were directed and controlled, as a whole, by the GOC; he was responsible direct to the Minister for Defence for their preparedness for war; and, in the event of the invasion of territory of the Commonwealth of Australia, for their employment in military operations against the invading enemy forces.

In the treatment of this subject attention will be devoted mainly to the work of General Hutton which covered the period from January 1902 to November 1904. It was mainly on Hutton's shoulders that fell the heavy burdens of planning the scheme for the organisation, administration, training and equipping of the Commonwealth's first military forces. To a lesser extent the work will be examined of Forrest who held the Defence portfolio for a much longer period than any of his four immediate successors.¹ⁿ Our examination of Captain Collins²² work will not occupy much time. Although Collins' role was both important and indispensable it was nevertheless played largely off stage, so to speak, and beyond the reaches of the normal aids and devices of publicity. Occasional rumblings were heard from Hutton's side about the Defence Department's Military Branch not getting within the Department the co-operation it needed with the cordiality and effectiveness it expected.³ But we need to know more about the personal relations of Collins and Hutton, in official and social intercourse, than we do before we can make a reliable and credible assessment of the nature and effectiveness of the co-operation of their respective branches in the Department of Defence.

At the ministerial level we shall see in action for widely varying lengths of time six Ministers for Defence under whom Hutton served. These were Forrest, who served longest; Lyne, who was only an Acting Minister at a critical period during Forrest's absence in London; Drake, whose term of office lasted for only six weeks; Chapman, during whose term of office the *Defence Act 1903*, which Forrest had initiated, was assented to and came into force five months later; Dawson, whose relations with Hutton became strained for reasons which Hutton denied were due to any fault on his part; and McCay whose importance is only less than that of Forrest because he was Hutton's Minister for



(Australian War Memorial)
General Sir Edward Hutton, first Commander of the
Commonwealth Military Forces.

merely the last three months of Hutton's period of command. We can see reflected in the behaviour of all these Ministers, as they played out their parts on the ministerial stage, the complexities of decision-making on a national level where few, if any precedents existed for guidance; where the skill had to be acquired for dealing with new situations; and where ability to learn quickly was essential if chaos and confusion were to be stayed off.

The coming of the new year in 1902 marked the entry of the Commonwealth into the second year of its existence and the beginning of the Barton Government's second year of office.

Sir John Forrest, who had been the Minister for Defence since mid January in the previous year, still had much spade work to do in his department. He was still building up his departmental machinery for the administration and command of the Commonwealth's naval and military forces. Since the 1 March 1901 he had been provided with an established Department of Defence plus an efficient permanent head and a small but experienced civil staff. But he was still without officers, on the 1 January 1902, either to command the Commonwealth's naval and military forces or to serve in these appointments as his naval and military advisers. This situation was remedied for the Minister by the end of that month, however, in so far as the military forces were concerned.4

On Wednesday 29 January 1902 Major General Hutton of the British Army arrived in Melbourne from London. In the previous month he had been appointed to command the Commonwealth Government's military forces for a term of five years; and he assumed command the day he arrived in Melbourne. At this time he was already widely known in Australia; he had held a command in New South Wales before Federation and in the earlier part of the South African War, 1899-1902, he had commanded Australian troops again. He was known for his own industry and efficiency, for his insistence on high standards in training, and for his intolerance of slackness in discipline. He was also known for his outspokenness within the service on behalf of the interests of the Army and of the officers and other ranks he commanded; and he never hesitated to speak frankly and fearlessly, as the Federal Government's adviser, on military matters.

The military problems which confronted Hutton when he arrived in Melbourne to begin his work were conditioned by the political and economic circumstances of the time; and in coping with these problems during the next three years he was tested severely by critics and detractors. He had taken up his duties in times that were difficult both politically and economically. The Barton Government was hesitant and divided; it was uncertain of its powers to spend money; and it soon became obvious to observers that despite its talented members only time and experience would give this government strength and confidence to do the work it was created to do. Neither had the Barton Government yet declared its Defence policy. This failure created immediate difficulties for Hutton whose work consisted largely in the execution

of this policy. Neither had the Barton Government yet enacted its basic Federal Defence legislation. So again Hutton had no Federal Defence Act to administer. This handicap had been overcome in the previous year, at the Federal level, by administering the military forces in each State of the Commonwealth in accordance with the Defence legislation which had been in force there immediately prior to Federation. This device presented the Department of Defence with legal difficulties and it limited the mobility of the Commonwealth's military forces as a whole. It may be pointed out by way of illustration that under this makeshift legal arrangement officers and other ranks could only be transferred out of their home States if they volunteered.⁷



(Australian War Memorial)
Three officers of the South Australian Militia Forces
(Scotish Company) in ceremonial dress, in immediate
pre-Federation days, 1900.

Economically, the Commonwealth of Australia was launched in a time of depression caused by a major drought. This drought lasted from 1895 to 1903; it affected the greater part of the continent; and in some parts of Australia no rain was recorded for seven years. The sheep population declined during this drought from 106 millions to 53 millions; and it took thirty years to build it up again to 106 millions.8 Rain came towards the end of Hutton's period of command in Australia. In addition the prices of wool and wheat rose again gradually; and with improvements in prices the depression gradually lifted. But this returning prosperity, it will be seen, came too late to benefit the work Hutton had come to Australia to do. Retrenchments could not be undone; drastically reduced Estimates of past years could not be retrospectively increased to their original figures; and the many "shoes" that had been lost for the "want of a nail" could not be recovered by Hutton in the last year of his command.

But despite these handicaps Hutton was a man of resource who strove strenuously to do the best he could with the means at hand; and he brought to the solution of the big tasks that lay ahead three great assets: his keen interest in the duties of the appointment; his reputation and military experience which were unrivalled in Australia; and his disinterestedness in the execution of the Federal Government's Defence policy.

Let us look now more closely at some of the particular tasks that Hutton and his succession of ministers had to cope with during the next three years. In order to make a start on his work and to open up normal command channels with his six senior subordinate commanders, the Commandants in the six States, Hutton had first to provide himself with:

- (a) A headquarters;
- (b) And a staff to assist him with his duties.

In his General Order No. 1, dated 1 March 1902, it was notified that: "Until further orders the Head-Quarters of the Military Forces of the Commonwealth of Australia will be at Victoria Barracks, Melbourne." This headquarters was, in reality, the Military Branch of the Central Administration of the Department of Defence. In the same General Order the following list was promulgated of the staff of Headquarters in Melbourne:

HEADOUARTERS

GENERAL OFFICER COMMANDING

Major General Sir Edward Hutton.

AIDE-DE-CAMP

Captain H. W. Dangar, R.A.A.

PRIVATE SECRETARY TO THE G.O.C.

Captain J. W. Niesigh, 7th NSW Volunteer Regiment.

DEPUTY ADJUTANT GENERAL AND CHIEF STAFF OFFICER

Colonel J. C. Hoad.

DEPUTY QUARTERMASTER GENERAL

Colonel J. E. D. Taunton.

ASSISTANT ADJUTANT GENERAL

Lieutenant Colonel M. W. Bayly.

ASSISTANT ADJUTANT GENERAL FOR ARTILLERY

Lieutenant Colonel J. J. Byron, R.A.A.

ASSISTANT QUARTERMASTER GENERAL

Lieutenant Colonel W. T. Bridges, R.A.A.

ASSISTANT ADJUTANT GENERAL FOR ENGINEER SERVICES

Major P. T. Owen.

DIRECTOR GENERAL OF MEDICAL SERVICES

Colonel (Hon. Surgeon General) W. D. C. Williams

OFFICER FOR GENERAL DUTY

Quartermaster (and 2nd Lieutenant) W. Granger.

If a comparison were made between this staff list of 1902 and a staff list of Army Headquarters in Melbourne, say fifty years later, the most striking differences would be found in:

- (a) The classes and titles of appointments in 1902 and 1952
- (b) The numbers and ranks of the principal staff officers in 1902 and 1952.

Even by the standards of 1902 Hutton's staff was small. Yet he was continuously assailed by critics who asserted that his staff was too big. It is a source of wonder even today that he managed to get so much work done with the aid of this miniature staff. In a Minute, dated in August 1900, the Colonial Defence Committee in London had recommended that this Australian Headquarters Staff should consist of 13

officers, three of whom were to be officers of the British Army. It will be seen from Hutton's staff list that his staff, excluding personal staff, was five less than the number recommended by the Colonial Defence Committee; and it was an exclusively Australian Army staff. Hutton's Headquarters Staff was also two less than the pre-Federation Headquarters Staff of the single Colony of New South Wales. 10

Later that month, on the 26 March 1902, hopes of an early statement of Defence policy in statutory form were dashed when the Prime Minister informed the House of Representatives that the Defence Bill would not be proceeded with in that Session.¹¹ Another fifteen months were to elapse before Sir John Forrest was to present a new Defence Bill to the House of Representatives for its first reading.

Early in the following month Hutton submitted a Minute, dated 7 April 1902, to the Minister for Defence on Australia's defence situation and his recommendations for dealing with it. The Minute was organised into eight sections four of which dealt with:

- (a) Strategical Considerations.
- (b) Number of Troops available and required and how provided.
- (c) Organisation, Instruction, Training and Equipment.
- (d) Expenditure.

On the 23 April 1902 the Minister laid Hutton's Minute on the Table of the House of Representatives; it was ordered to be printed; and it was soon dropped from Parliament's memory. No decision was made on it by Parliament; and the Government took no action at that time which could be construed as settling the questions of policy which Hutton's Minute raised. The Minister for Defence was probably more concerned about his impending departure for London than with satisfying Hutton's pressing need for a clear-cut statement on the Government's Defence policy.

Early in the following month, on the 6 May 1902, the Prime Minister and the Minister for Defence left Melbourne by train for Adelaide from where they sailed for London. In London they were to witness the Coronation of King Edward VII and attend the Colonial Conference of 1902. The absence of these two ministers from their parliamentary duties in Melbourne was unexpectedly extended from about three to five months by King Edward VII's sudden illness. This long absence was another set back to Hutton who was obliged to submit and discuss his Estimates for 1902-03 with the Acting Minister

for Defence, Sir William Lyne. It was said in the press that: "The Minister for Defence has left his post at a critical time to witness the Coronation ceremonies in London and has handed over his Department, temporarily, to Sir William Lyne, who, like himself, is not exceptionally well qualified to attend to its ministerial duties, especially when economies have to be effected".¹²

In the midst of discussions on Defence Estimates for 1902-03 a not wholly unforeseen reduction occurred in Defence expenditure. The war in South Africa ended on the 31 May 1902. Australia had made a considerable contribution, relative to its population, in men to the Imperial Forces during this campaign of almost three years' duration. The six Australian colonies raised and maintained at their own expense 290 officers and 5492 other ranks; a further 323 officers and 5765 other ranks were raised by these colonies but maintained at the Imperial Government's expense. After the 1 January 1901 the Commonwealth Government raised an additional 235 officers and 4070 other ranks; and these served as Australian Commonwealth troops.¹³

At a later date General Hutton expressed regret that no practical steps had been taken to compile an official "Australian Military History of the part played by Australian Troops during the recent campaign in South Africa"; and he said that the work of a private committee of officers which had been formed "for the purpose of initiating this much needed history" had been suspended because of the "publicly expressed intention of the late Prime Minister that this undertaking should be considered by the Commonwealth Government, in conjunction with the Governments of the States concerned". There the matter has rested ever since. Hutton's hope was not fulfilled that "a Military History¹⁴ may be commenced at an early date, before the incidents of the late war are forgotten, and while personal knowledge and correspondence on the subject of the campaign are still available".¹⁵

Soon after the restoration of peace the Commonwealth's second financial year began on the 1 July 1902 and retrenchments followed soon afterwards. One item in the Defence Estimates for 1902-03 amounted to £25,000. It was to enable compensation to be paid to officers whose services were to be dispensed with under the new regulations prescribing ages, which varied according to rank, for retirement from the Permanent Military Forces and the Citizen Military Forces. These regulations came into force on the 1 July 1902¹⁷ and they super-

seded any regulations hitherto in force in any State of the Commonwealth. The first batch of officers were retired, in accordance with these new regulations, on the 1 September 1902.¹⁸

In any discussion of Australia's scheme of defence, at this time, there were two ever recurring questions — When will the Barton Government declare its Defence policy? and When will it embody this policy in a Defence Act? At the Lord Mayor's Dinner in Melbourne, on Monday evening 10 November 1902, Hutton pointed out in the course of a speech that: "Australia's defence system is now in a state of transition"; and "There is nothing for the forces and the public to do but to exercise patience until the Defence Bill is passed and the Federal Government's defence policy is declared".¹⁹

Early in the following month Hutton issued a General Order²⁰ in which he set out new Peace and War Establishments for all classes of units, for a Field Force and for forces, in each State, of Garrison troops.²¹ These Establishments were an essential part of the plan for the converting of the Commonwealth's inherited military forces from their pre-Federation organisations into one national organisation, consisting of those proportions of Arms and Services that were laid down in the "Peace and War Establishments of the Military Forces of the Commonwealth of Australia" which were set out in this General Order.²²

General Hutton explained in a press interview in December 1902²³ that a unit's Establishment was the first element in the creation of an organised military force for it provided, with the approval of Parliament, a definite number of officers, non-commissioned officers and men. After this approval they then had to be provided with clothing, equipment, ammunition and all the other requirements for converting them into an organised military unit. It followed as a matter of course, General Hutton said, that if the various military units in a country like Australia lacked uniformity of organisation in the various States then it would become an impossibility to carry out economically any effective system of command and administration. It would be impracticable, to put it in another way, to command and administer any military force and to mobilise it with rapidity, unless the units of the various Arms and Services of the force were organised and administered upon a defined and common basis and could be easily expanded, if mobilisation These Establishments, Hutton said, would form the were ordered. basic organisation of Australia's Military Forces and they would be

brought into operation gradually; it was desired to avoid sudden drastic changes and "clean sweep" methods; and to aim rather at gradual evolution towards uniformity in organisation, training and equipment. The re-organisation of the forces in each State was based on one overall plan. The cost of the scheme, Hutton said, if carried out in its entirety would be less than the amount expended on Military defence during the Financial Year 1902-03 — the year in which he was speaking — and the cost would not be an increasing one.

This reconstruction of the Commonwealth's military forces on the basis of General Hutton's recommendations came into effect, officially,²⁴ on the 1 July 1903. On that date all units, organised in accordance with Hutton's approved Establishments, were formed into two main groups — a Field Force for the defence of the Commonwealth as a whole and for each State for local defence purposes a force of Garrison Troops.²⁵ As from this date too, all officers on the Active List were transferred to units of the new Commonwealth organisation.²⁶

Early in the following month, on the 7 August 1903, Forrest relinquished the Defence portfolio because of a Cabinet reshuffle and in a Departmental farewell message he said:

I desire to thank the General Officer Commanding and his officers for the valuable assistance he and they have given me, under the circumstances of much uncertainty owing to retrenchment, and of difficulty owing to the necessity to re-organise and consolidate the Forces of the six States of Australia.

The Defence Estimates, submitted to Parliament for 1903-04, are £259,633 less than the Estimates submitted for 1901-02 and it can thus be readily realised how severe has been the retrenchment, and how difficult has been the situation. I am glad, however, that the re-organisation of the Force is now practically completed; uniformity of administration, and Regulations and Orders, has taken the place of the six separate hitherto existing, and the whole Military Force has been placed on a uniform basis. The Defence Bill,²⁷ is in a fair way of being passed by Parliament and as soon as it becomes law, the Regulations and Orders which have been made, and upon which the re-organisation has taken place, will be confirmed under its provisions.

During the next twelve months Hutton had the disturbing experience of having a succession of four Defence ministers. Senator Drake²⁸

succeeded Forrest as Minister for Defence. But by another Cabinet re-shuffle, consequent on the resignation of the Prime Minister from the Federal Parliament late in September 1903, the Deakin Ministry came into office; and the Hon. Austin Chapman²⁹ succeeded Senator Drake as Minister for Defence. The Deakin Government, which gave the nation its first Commonwealth Defence Act, was succeeded in April 1904, by the Watson Ministry in which the Hon. Andrew Dawson³⁰ became Chapman's successor as Minister for Defence.

In the following month Hutton pointed out, in his second and last Annual Report dated 1 May 1904, that: "It is satisfactory to be able to record that the work of re-organisation and reconstruction



(Australian War Memorial)
Lieutenant General Sir James McCay, who was Minister
for Defence in 1904-05.

recommended in the Minute on the Defence of Australia, dated 7 April 1902, and amplified in the recommendations contained in the Annual Report dated 1 May 1903, has, in a large measure, been either completed or has reached an advanced state of development".

The Watson Ministry was a shortlived one too. In August 1904 it was succeeded by the Reid-McLean Ministry in which Lieutenant Colonel McCay³¹ became Hutton's last Minister for Defence and Sir George Reid his last Prime Minister. Reid, who had also been Hutton's last Premier in New South Wales when Hutton laid down his command in that Colony in 1896, said generously of Hutton at the Lord Mayor of Melbourne's Dinner in November 1904 that: "I have never had a single difference, from first to last, with my warlike friend".³² McCay, unlike his predecessors except perhaps Drake, had a genuine interest in Defence matters; he also had a knowledge of military affairs which he had acquired by systematic study and by practical experience gained as an Army officer. McCay was a fine platform speaker; he was a most effective debater; and he had an inexhaustible capacity for work. But he came on to the stage only three months before Hutton's service in Australia ended.

General Hutton laid down his command and sailed from Port Melbourne on the 15 November 1904 for England. As his ship moved out from the pier the garrison battery at Williamstown fired a salute of thirteen guns in his honour.

The object of this outline has been to indicate the nature and extent of Hutton's task during the period of his command in the Commonwealth of Australia. But when he had this period reduced from five to three years he had necessarily to force the pace to get the work done. Had it been spread over the longer period things may have proceeded more smoothly and his Ministers would have been less worried about the cost of his programme. Hutton made mistakes of course. He courted popularity carelessly. Many of his contemporaries believed that he was, in the language of the cabman quite "a harbitrary cove". In his dealings with people in high places he did not stoop to conquer and he did not kneel in order to rise. It is not surprising to observe, therefore, that he was not always tactful and he was sometimes indiscreet. Nevertheless one may say of Hutton, as Lord Rosebery said of William Pitt, that: "No one suspected his honesty; no one doubted his capacity; no one impeached his aims". 33

Abbreviations

C.A.G.	Commonwealth of Australia	Gazette.
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C, of A. Commonwealth of Australia.

C.P.D. Commonwealth Parliamentary Debates.

C.P.P. Commonwealth Parliamentary Papers.

Notes

1 See "The Commonwealth of Australia: Its Inauguration and Immediate Military Problems." Army Journal, Canberra. No. 316, Sep., 1975, pp. 28-36.

1a Later the Rt. Hon. Baron Forrest of Bunbury and of Fife. Born 22 Aug., 1847. Minister for Defence of the Commonwealth of Australia from 17 Jan.,

1901 to 7 Aug., 1903. Died 3 Sep., 1918.

² Later Captain Sir Robert Henry Muirhead Collins, CMG, RANR. Born 20 Sep., 1852. Secretary of the Department of Defence of the Commonwealth of Australia from 1 Mar., 1901 to 28 Feb., 1910. Died 19 Apr., 1927.

³ Major General Hutton's (Second) Annual Report. Dated 1 May 1904. p. 22.

C.P.P. 1904. Vol. 2, Part 1, (No 25-F3537).

3a For text of minute from Major General Hutton, in Aug., 1904, to the Minister

for Defence see The Age, 26 Aug., 1904, p. 5.

3b According to the Defence Estimates for 1901-02 the Department's civil staff consisted of the permanent head, chief accountant, chief clerk, 6 clerks, a senior messenger, a junior messenger, and a caretaker. See C.P.P. 1901-02. Vol. 2, Parliamentary Paper No. B2. F6588a.

4 The Defence Department's Naval Branch was not formed until much later. Captain W. R. Creswell was appointed, in February 1904, to assume the powers and duties of the Naval Officer Commanding the Commonwealth Naval Forces "until there is a Naval Officer Commanding or until further orders". In this capacity Captain Creswell took up duty in the Department of Defence in Melbourne. See C.A.G., No. 13, dated 27 Feb., 1904, p. 140.

This term had originally been proposed by Field Marshal Lord Roberts. Before Hutton left England he informed the War Office that he would ask the Australian Government, when he took up duty, to reduce this term to 3

years. This reduction was subsequently made.

Warren Perry, "Military Reforms of General Sir Edward Hutton in New South Wales, 1893-96," The Australian Quarterly, Sydney, December 1956, pp. 65-75.

⁷ C.P.D. Vol. 14, 16 Jul., 1903, p. 2267.

8 Alan Barnard (Editor)), The Simple Fleece: Studies in the Australian Wool

Industry. M.U.P. in association with A.N.U., 1962, p. 267.

9 The Federal Minister for Defence, Sir John Forrest, set up his offices in Victoria Barracks, Melbourne as from the 1 April 1901 because accommodation could not be found for him in the Treasury Building in Treasury Place, Melbourne where, prior to Federation, the Minister for Defence of the Colony of Victoria had been accommodated with his permanent head. See The Age, 30 Mar., 1901, p. 8.

10 Major General Hutton's (First) Annual Report upon the Military Forces of

the C. of A. dated 1 May 1903. See C.P.P. 1903. Vol. 2, pp. 57-94.

11 For a contemporary criticism of this Defence Bill see George A. King, "The Australian Army". United Service Magazine, London. Vol. 27 No. 893, April 1903, pp. 29-35.

12 A leader on "Defence Retrenchment" in The Register, Adelaide, 26 May 1902,

p. 4.

- Major General Hutton's (First) Annual Report upon the Military Forces of the Commonwealth of Australia. Dated 1 May 1903, p. 14. C.P.P. 1903. Vol. 2, pp. 57-94.
- 14 Lieutenant Colonel P. L. Murray's Official Records of the Australian Military Contingents to the War in South Africa is not in any sense an adequate history of the campaign.
- ¹⁵ Major General Hutton's (Second) Annual Report. Dated 1 May 1904.
- ¹⁶ For these ages see C.A.G., No. 22, dated 9 May 1902, p. 212.
- 17 For text of these regs see C.A.G., No. 22, dated 9 May 1902, p. 212.
- For officers retired see C.A.G., No. 45, dated 19 Sep., 1902, pp. 499-500. On the 10 Oct., 1902 the Acting Minister for Defence, Sir William Lyne, made a statement in the House of Representatives concerning the nature and extent of this retrenchment. See C.P.D. Vol. 12, 10 Oct., 1902, pp. 16, 737 ff.
- 19 The Argus, 11 Nov., 1902, p. 5.
- General Order No. 230, dated 5 Dec., 1902. It seems that this order was for action only in so far as it did not involve expenditure. The Peace Establishments were re-published later in CAG, No. 35, dated 25 Jul., 1903, pp. 387-395; and this Gazette notification said that they had been approved by the Governor General-in-Council on the 24 Jul., 1903; but that "nothing in this Order shall be taken", it said, "as an authority for the expenditure of public money".
- 21 The organisation based on these Establishments was first outlined by General Hutton in his "Minute upon the Defence of Australia for the Consideration of the Minister of State for Defence" dated 7 Apr., 1902. C.P.P. 1901-02. Vol. 2, pp. 53-60. See also "Military Forces of the Commonwealth: Scheme of Organisation of, into a Field Force (for inter-State or Commonwealth Defence), and into Garrison Troops (for local or State Defence). Ordered to be printed on 6 Aug., 1903 by the H. of R. and published in C.P.P. 1903. Vol. 2, pp. 95-121.
- ²² See footnote 20.
- ²³ The Sydney Morning Herald, 6 Dec., 1902, p. 12 for "Proposed Peace and War Establishments: Explanation by General Hutton."
- ²⁴ The actual date of this change-over from the pre-Federation organisation to the new Federal Organization might not have coincided with the official date for financial reasons. The *Appropriation Act, 1903-4*, was not assented to until the 22 Oct., 1903.
- ²⁵ See "Commonwealth Military Forces: Conversion, Disbandment and Re-organisation of Corps" in C.A.G., No. 35, dated 25 Jul., 1903, pp. 396-407.
- ²⁶ C.A.G., No. 62, dated 7 Nov., 1903, pp. 768-772.
- Forrest introduced the *Defence Bill 1903* for its first reading on 30 Jun., 1903 and its second reading on 16 Jul., 1903. It was assented to on 22 Oct., 1903; and came into force on 1 Mar., 1904.
- ²⁸ The Hon. James George Drake. Born 26 Apr., 1850. Minister for Defence from 7 Aug., 1903 to 24 Sep., 1903. Died 1 Aug., 1941.
- ²⁹ Later the Hon. Sir Austin Chapman, KCMG. Born 10 Jul., 1864. Minister for Defence from 24 Sep., 1903 to 27 Apr., 1904. Died 12 Jan., 1926.
- ³⁰ The Hon. Andrew Dawson. Born 16 Jul., 1863. Minister for Defence from 27 Apr., 1904 to 17 Aug., 1904. Died 20 Jul., 1910.
- Later Lieutenant General the Hon. Sir James Whiteside McCay, KCMG, KBE, CB, VD, MA, LL.M. Born 21 Dec., 1864. Minister for Defence from 17 Aug., 1904 to 5 Jul., 1905. Died 1 Oct., 1930.
- 32 The Argus, 10 Nov., 1904, p. 8.
- Perry. "Military Reforms of General Sir Edward Hutton in the Commonwealth of Australia, 1902-04". The Victorian Historical Magazine. Vol. 29, No. 1, Feb., 1959, pp. 34-57.



I have recently read the Editorial in the June issue of the *Army Journal* in which you invite comments from your readers concerning the Journal, its contents and its format.

I am a former CMF officer and am now on the reserve of officers. Apart from my unit association and membership of some clubs, the *Army Journal* provides my only link with the Australian Army.

I look forward to reading each issue and I pass on my copy to other former officers living in my neighbourhood. They, like me, consider the Journal to be of great value and significance.

Whereas, I do not feel capable of writing an article for your pages I should like to make the following suggestions for your consideration:

- I should like to see more book reviews of contemporary military literature appearing in the Journal. I think that such reviews would assist readers such as myself to keep our libraries up to date.
- I think that there should be more articles containing current technical doctrine and general organisation of the Australian Army published. Readers such as myself, find it difficult to keep up to date with current tactical thought and with present organisations because we are not equipped with pamphlets nor can one rely on press reports.

 *Brighton, Victoria.**

 Geoffrey R. Gronow, ED **

Editor's Comment: I should like to thank Mr Gronow for his suggestions. I think we are coming close to satisfying the first of his requirements. It is up to Directorates and individuals to submit articles of the kind he suggests in his second point.

The following is an extract from a letter by Brigadier J. H. Thyer, CBE, DSO.

I found Captain Graco's article "Alexander and Eisenhower" (Army Journal No 325, June 1976) very interesting. The type analysis

could be debated in Army Journal and create a wider interest with some good purpose.

I have one criticism. In World War I and subsequently Australia has produced some outstanding and brilliant generals. Monash, Blamey, Lavarack, Wynter, Sturdee, Vasey, Berryman, Morshead, Mackay come immediately to mind. I am sure if careers of these leaders and others were subjected to Graco's analysis the exercise would be more interesting and more profitable.

My own assessment gives Monash a greater military potential than Eisenhower.

J. H. Thyer

Kensington Gardens, SA

Brigadier.

I read your Editorial in the *Army Journal* No 325, June 1976, concerning articles appearing the Journal.

I believe that we in the Australian Army stymie any provocative comments put forward in articles submitted to either the *Army Journal* or the *Army, The Soldier's Newspaper*.

One can read British and American service journals and magazines full of stimulating articles and criticism by members of the Armed Forces, of ideas put forward in them. More importantly, all ranks are represented.

I believe the comment, "The views expressed in the articles are the authors' own and do not necessarily represent official opinion or policy" on page one should allow authors some latitude, but very rarely seems to. From this flows lack of interest by readers.

If the *Army Journal* is to become a journal for big ideas, then it should heed the article "Alexander and Eisenhower: Their Career Lines of Ascent" (AJ June 1976), and allow members of the elite nucleus of rule breakers and mavericks to express their ideas and thoughts and thus provoke worthwhile argument.

The Army Journal is worth reading for mundane material. Thought provoking or stimulating — never!

Irwin Barracks, Karrakatta, WA.

D. Cruden, Major

Editor's Note: I agree that more articles of a thought provoking nature would be most welcome, but surely not all articles appearing are mundane.

In your article "Alexander and Eisenhower" (*Army Journal* No. 325, June 1976), the photograph on page 9 bore the caption "Eisenhower with the Allied Chiefs of Staff, London, February, 1944". This caption is wrong, as the officers appearing with Eisenhower in the photograph were not the Allied Chiefs of Staff.

An appropriate caption would have been "Eisenhower (Supreme Commander Allied Forces Europe) with his principal staff and commanders".

Featured in the photograph were (left to right):

Seated: Air Chief Marshal Sir Arthur Tedder (Deputy Supreme Commander), General Dwight D. Eisenhower (Supreme Commander), General Sir Bernard Montgomery (Commander British Land Forces—and initially to be Commander Allied Land Forces).

Standing: Lieutenant General Omar N. Bradley (Commander US Land Forces), Admiral Sir Bertram Ramsay (Commander Allied Naval Forces), Air Chief Marshal Sir Trafford Leigh-Mallory (Commander Allied Air Forces), Lieutenant-General Walter Bedell Smith (Chief of Staff to General Eisenhower).

Of the group, Bradley (now General of the Army) is the only survivor.

The Allied Chiefs of Staff (British and American) as at February 1944 were:

British:

Admiral of the Fleet Sir Andrew Cunningham

Field Marshal Sir Alan Brooke

Marshal of the Royal Air Force Sir Charles Portal

American:

Admiral Ernest J. King

General George C. Marshall (Army)

General Henry H. Arnold (Air Force)

The ranks and (in the case of the British) the titles were those applicable at the time.

Bellair, South Australia.

R. N. Irwin Lieutenant Colonel (Retired)



Lieutenant Colonel P. R. Phillips, MC Royal Australian Regiment

"So What's New?"

↑ MERICANS can lay claim with some conviction to having begun the revolutionary era which over the last two hundred years has put an end to most of the world's monarchies. In this Bicentennial Year of the American colonists' declaration of independence, we yet live in a world racked by revolutions which still display the essential features developed in the American colonies in the decade before independence. Although the American experience arose from a largely spontaneous uprising it would not have developed into a war for independence without sound leadership and an extra-legal organisation to gain mass support. This leadership relied on the now familiar political weapons of contrived issues and incidents, mass rallies, riots and propaganda. Even terror had its place in what was otherwise a remarkably restrained uprising which evolved from resistance to revolution. It had few martyrs but plenty of supporters drawn, surprisingly, from the colonial towns and cities, not the countryside which we have come to regard as the revolutionaries' sanctuary. It is surprising also

Lieutenant Colonel Phillips, a previous contributor to the Army Journal, was Commanding Officer, 3rd Battalion, Royal Australian Regiment, in his last appointment. He is currently a project officer for the Committee of Enquiry into the Professional Development of Officers.

to see in it many of the features of modern protest movements in America — placard waving, boycotts, sit-ins, picketting and mob violence.

The Bicentenary may well fire the student of military history to turn to the many excellent studies of the American War of Independence. This article may serve as a useful background and, hopefully, encourage further interest. The development of the Revolution from a resistance movement is complex and spread on a broad and fascinating canvas. It is well documented especially in the excellent work by Pauline Maier. I can only set out here highlights along a spluttering powder train which starts hazily in the 17th Century and sets off the main charge at Lexington and Concord on 19th April 1775. This thread flares up along the way: the impressment riots of 1747, opposition to the Stamp Act of 1765, the Boston "Massacre" of 1770, the Boston "Tea Party" of 1773. Some of these are used to illustrate this article, an approach which tends to unduly highlight the role played by the then small Massachusetts Bay town of Boston and its radical leaders like Samuel Adams and the "Loyal Nine". Nevertheless. Boston played a prominent and provocative part in bringing the American colonies to a state of war with Britain and its administration presided over by the pudgy Hanoverian King George III.

The American colonists were consciously and practically political to a far greater extent than we are today. They had been spared mediaeval tyranny but it was still recent history; they were conscious of the fragility of their libertarian tradition won in the English revolution and enshrined in the philosophies of John Locke (1632-1704). There existed a strong sense of community arising from the environment, Puritan origins, pioneering spirit, loyalty to King and mother country but also firm, if not well defined, views about the role of government and the rights, indeed the duty, of the people to resist and overthrow tyranny. Josiah Quincy saw disorder as evidence of healthy democracy and even Thomas Jefferson made the Maoist-like remark that he "liked a little rebellion now and then".2

"Damned Colonials!"

Mob riot was not new to the Colonies; each had riot laws based on English common law. A riotous mob ("mobile vulgus") was difficult to contain at a time when there was no police and law and order were in the hands of a sheriff and such citizens as he could co-opt ("posse comitatus"). Garrisons were established near trouble spots so that the troops could be used in aid of the civil power but the principle of minimum force had been already well established. Troops had to be called out by the Governor and their specific actions authorised by a magistrate. A posse or body of troops which used undue violence was indictable in law in its turn for riot.

Riots were not uncommon in the Colonies. Attempts to enforce the White Pine Acts of 1722 and 1729, which reserved this timber for the Navy's use, met with forceful resistance from the colonists.³ But riot on a wider scale crupted in the form of resistance to the press gangs which forcefully conscripted ships' crews. When Commodore Knowles swept Boston harbour in 1747 to fill his crews widespread rioting led to the mob ruling in place of the Governor and council until the men who had been seized were released. Later, in the opposition to the "Sugar" Act of 1764, we begin to see evidence of some direction behind the riots. The House of Commons clearly intended this Act to raise revenue and included in it provisions to reinforce earlier acts and mercantilist policies. To the British it was eminently reasonable that revenue should be extracted from the Colonists for the purpose of their defence in view of the costly French and Indian War and Pontiac's Indian uprising.⁴

The Americans, however, while they accepted the British Government's right to legislate for them and regulate trade, viewed the imposition of duties for other than regulatory purposes as an unacceptable impost on their rights. Colonial merchants led the fight by evasion of the duties, boycotting British imports, shunning the pilots who brought in naval ships who were to police the Act and by offering seamen higher wages to keep them out of the Navy.⁵ The Act caused an increase in the popular business of smuggling and its provisions for policing trade by use of Royal Navy ships and Admiralty courts around added opposition. Indeed the British Navy at that time was already held in poor regard by the Colonists. Its officers policed the regulatory acts without feeling or flexibility and Admirals, like Montagu and Graves, were at odds with Government and military leaders ashore.⁶

"Hurrah for the Liberty Boys"

In Britain, George Grenville's Ministry heaped a new abuse on the Americans in its Stamp Act passed on 22 March 1765. It clearly sought revenue, without pretence at regulation. It magnified American discontents, and so led to further riots, justified in American eyes by the British traditional distaste for excisemen. But most significantly it gave form to extra-legal organisations and promoted leaders who were to shape the Revolution. Names like Patrick Henry, then a new member of the Virginia House of Burgesses, the fiery pamphleteer Dan Dulaney and Benjamin Franklin, then Pennsylvania's Colonial Agent in Britain became familiar throughout the Thirteen Colonies. A significant organisation also arose in response to the Stamp Act — the Sons of Liberty. The title was not unique; it expressed a patriotic sentiment dear to most Englishmen and had been used in the House of Commons debate by the American protagonist, Colonel Isaac Barré. Liberty remained a rallying cry enshrined later in the Declaration of Independence, the Constitution, as well as such symbols as Boston's Liberty Tree and New York's Statue of Liberty.

Virginians were the first to suggest resistance to the Stamp Act, Rhode Island was the only Colony whose government endorsed resistance, but the Bostonians were the first to put resistance into practice. Here the Liberty Boys, a group of artisans and shopkeepers, secretly planned measures to gain repeal of the Act. Their first aim was to prevent its execution and their target was the officially appointed Distributor of Stamps for Massachusetts, Andrew Oliver. Here they put the mob to good effect. Now, Boston already had two warring factions known as the North and South End mobs which did battle on the traditional Pope's Day riot on 5 November. The latter group was led by one, Ebenezer McIntosh, a ruffian shoemaker who was later to style himself "General", dress in velvet and lace ruffles and sport a cane under his arm like a military dandy. As leader of the most successful gang at that time, he was induced to join forces and then by riot, force non-compliance with the Act.

On 14 August 1765, his mob hanged Oliver in effigy and after burning some of Oliver's new buildings, beheaded the effigy in front of his house which they then, for good measure, damaged also. Governor Bernard sent the Sheriff to the scene but he tactfully withdrew. When the Governor called out the militia "the Colonel, a realistic man, replied that any drummer sent out would be knocked down and his drum broken before he could strike it and besides the drummers were probably all up at Oliver's house engaged in what they would consider more worthwhile activities." A further riot on 29 August resulted in more house burnings and even robbery, The Governor was forced to retire to Castle William while the "cool and haughty"

Lieutenant Governor Hutchinson was stoned and had his house damaged. These riots were an important catalyst to the movement towards revolution. The excesses of the mob on 29 August were regretted afterwards for having set back the radical cause, but they achieved the aim and, in the process, the Sons of Liberty learned the need to restrain mob violence and put mob leadership in better hands.

Oliver was eventually forced to publicly renounce his office, standing in the rain, before a crowd of 2,000. In the other colonies similar action effectively prevented distribution of the hated stamps and officials were forced to renounce their appointments or flee. Town meetings and corporate action were readily organised in those times. Mobs were effectively aroused by pamphlets, letters in the press, skilled oratory, and even by serving drink "and Cheshire cheese and other provocations to intemperance".8 The radicals were also quick to enlist idle sailors and waterfront dregs to rouse a mob. Morris makes the point that mobbism was "no synonym for liberal reform" and that on the contrary they were often moved for extremely reactionary motives.⁹ The Sons of Liberty, from isolated loose organisations, gathered form and connection in opposition to the Stamp Act. In every Colony, they were backed by men of substance. Though politically inclined to the radical Whigs, they had wide appeal, often based on some existing organisation: in Charlestown — the Fire Company, in Albany — the Dutch Reformed Church, elsewhere fellowship clubs, Freemasons and the like. They were essentially bourgeois in character and drew little support from rural areas. In 1765, they had a strictly limited aim to prevent execution of the Stamp Act and so force its repeal. This was done by coercing supporters of the Act and keeping "business as usual". Like today's revolutionaries, they depended on mass support. They used the media of the day - newspapers, pamphlets, town meetings and innkeepers. The papers tended to represent them as more daring than fact and represented their opposition in quaint and lurid prose. The Boston Gazette of 2 December 1765 published this epigram which gives a contemporary view of Britain:

> "Spurn the Relation — She's no more a Mother, Than Lewis to George, a most Christian Brother, In French Ware and Scotch, grown generous and rich, She gives her dear Children, Pox, Slavery and Itch".¹⁰

"Make 'em Pay!"

From October 1765 until the repeal of the Stamp Act in March 1766, the Sons of Liberty developed, by correspondence and the inter-Colonial Stamp Act Congress, as a widespread and effective organisation. With repeal, however, there was a lull in the resistance movement. Few people saw the consequences of the Declaratory Act which accompanied repeal and reaffirmed Britain's right to tax the Colonies. However, in the following year, the British Parliament at the behest of its brilliant Chancellor of the Exchequer, Charles Townshend, gave the Colonists new cause for complaint.

The Townshend Revenue Act of 1767 imposed a whole new range of duties and worse, it was to be used in part to pay Colonial officials who had previously been beholden to Colonial legislatures. At the same time, New York's refusal to provide billets for troops was met by a Quartering Act which was also seen as a form of arbitrary tax. The theme "no taxation without representation" was being debated on both sides of the Atlantic. In the Colonies, it was the turn of men like John Dickinson in his widely read "Farmer's Letters" and the cleric Mayhew to rekindle colonial opposition, not in resistance but in passive boycotts and by shunning British imports. Indeed, to this point, the resistance had been restrained, loyal in tenor and without martyrs. John Wilkes, the British Member of Parliament and American ally, now imprisoned in London, was the American's darling. But the colonists were soon to have their own martyrs at home.

"Send in the Army!"

British troops, who, during the Stamp Act riots were held in Castle William, were now quartered in the town. On the evening of 5 March 1770, a sentry outside the Customs House was engaged in an altercation with some apprentices. This, possibly with the help of other disturbances or agitation drew a large crowd. Captain Preston and a small squad went to relieve the sentry. After taunts by the crowd, they fired on them leaving several dead and wounded (two of whom died of wounds). Preston and his men were tried and two soldiers convicted of manslaughter but the incident was now the "Boston Massacre" — an event which has been described as "more important than Lexington, Bunker Hill or the surrender of Burgoyne or Cornwallis".11

A sketch of the event by Paul Revere was widely circulated and despite its inaccuracies did much to inflame passions throughout the Colonies. Whether the radicals had in some measure provoked the "Massacre" is debatable (someone rang the town bells, a fire alarm, which brought out many of the crowd). However it focused attention on colonial opposition to the use of standing armies in peace, and provided there another useful propaganda weapon.

The Colonists had no love for the British Army. Britain was a naval power whose army was composed of the dregs of the lower classes and mercenaries. They were regarded as little more than animals by their officers and were known to the colonists as "bloodybacks" for the fierce floggings they had to undergo for breaches of discipline. They were little more than a rabble, given to "boozing" and competing for part-time work in the towns where they were billeted. Small wonder, they were disliked. For all that, Americans like Washington had fought with distinction for the Army in the French and Indian Wars but were regarded as second class by the British. Some British openly regretted the end of hostilities with France over Quebec because the Americans, in their eyes, were now too "uppety". The British Army, when asked to stamp out the fires of revolution, was not up to the task and acted too slowly and indecisively. However, its leaders showed a good understanding of the enormity of the task of counter revolution and correctly advised the British Government that a very large force would be needed.12

The American militia was more a home guard, varied in quality and motley in character. In places it had a ceremonial function like Hancock's Boston Cadets, a gubernatorial guard of honour which was far from loyal to the governor. Hancock himself was a leading member of the Sons of Liberty and some of his troops even took part in the Boston tea raids. Some units were strengthened by the good leadership of men like Colonel Israel Putnam whose Connecticut Regiment was to grow to 15,000 strong in the War. But the militia was of little significance until after the Battles of Concord and Lexington when it was reorganised and strengthened by Washington, supplies stockpiled and men placed on alert ("Minutemen").

In the period 1771-1773, Britain, preoccupied in Europe and at odds with Spain, lost its last opportunity to solve the American problem peacefully. Resistance grew stronger. George III by his failure to answer colonial petitions was seen to be a Nero in American eyes.

Non-importation committees sprang up in most colonial towns and even assumed some rights of Government. They demanded, for example, the right to inspect merchants' invoices and papers, to judge through vigilance committees the guilt of suspected violaters and to regulate prices to prevent profiteering. (Tarring and feathering was popular sport). These committees drew up compacts which were to be valuable as prototypes for later colonial constitutions. But it was the Committees of Correspondence, private pressure groups, which proved most effective in the cause of revolution. They framed and organised the carriage of reports across the countryside, unifying the colonies and laying down guidelines for action.

"Tea or Coffee?"

Before proceeding further, however, it is necessary to mention that final step short of armed rebellion in which a cleverly organised Boston mob brought about the heavy handed British reaction which led to war. Now Americans were then confirmed tea drinkers (their taste for coffee came at the end of the century). Large quantities were imported from Britain or smuggled from Holland. The British East India Company, which made ninety per cent of its profit from tea, was overstocked and, on the advice of a select committee headed by General Burgoyne, Parliament by enactment allowed the company to dump its surplus in the colonies. This together with the still vexed question of duties was the last straw for many colonists.

Feelings were high when the first ship laden with tea, the Dartmouth, arrived in Boston Harbour on 28 November 1773. Governor Hutchinson was pressed to turn it away but he stubbornly refused on the technicality that, as it was in harbour, the tea was dutiable and it could not by law be re-shipped to England. On 16 December, a large party dressed as Mohawk Indians slipped aboard the Dartmouth and other vessels and despatched over 90,000 pounds of tea into the waters of the harbour. This was no mob in riot but a well planned and executed operation which required collusion on the part of some officials and guards on the ship. Colonel Leslie's regiment of troops was not called out and Admiral Montagu, although aware of the raid, did nothing — later claiming that his ships' cannon would only have caused unnecessary bloodshed.

The Boston Tea Party, as it was called, aimed at forcing repeal of Townshend's duty. Some saw it also as a gamble by the popular

leaders in Boston to restore confidence in themselves among the other Colonies.¹³ In Britain, the intransigent George III and his advisers decided on repression and the "Intolerable" Acts which sparked the war. So, while the Boston raid did not achieve its aim, it assisted popular leaders like Samuel Adams, Alex McDouggal and Charles Thomson to build an organisation. Reports flashed across the country. Paul Revere, on one of his many famous rides, took a report to New York which "created a ferment". As the British Government reacted to this affront by closing Boston harbour, committees of correspondence grew in power. The Quebec Act renewed fears of Popery and the arrival of Gage and more troops in Boston was further incitement to the Colonies. Samuel Adams put these issues to good effect in his correspondence. He was uniquely placed as Clerk to the General Assembly in Massachusetts, by his articles and correspondence and control of the Boston mobs to lead the resistance movement and shape its course to revolution. He saw the value of the committee of correspondence as a superior form of executive to the cumbersome town meeting.

"No Taxation Without Representation"

Practical men of action were now coming to the fore. A mob led by John Brown, not the one of the song, attacked and burned the Navy sloop Gaspee in 1772. This was a reprisal for the stealing of cattle and firewood by its crew under the "haughty and insolent Lieutenant William Dudington".14 But the mob was no longer the weapon of resistance. Now its threat alone was often enough. Public appeals were made for restraint by radical leaders, like Sears in New York, in order to "prove that we have acted, not as a mob, but as Friends to Liberty". 15 As Lord North's Coercive Acts took effect in 1764, so popular resistance organisations grew. Men like William Goddard riding out from Philadelphia spread the network of the committees of correspondence, covenants were sworn and calls were made for the complete cessation of trade with Britain. A secret meeting of the Massachussets General Council was held at night to discuss the Continental Congress. The Governor's secretary, Thomas Flucke, was refused entrance and had to read the order dissolving the Council outside the building in scenes reminiscent of Australia's recent political crisis.

The Congress met on 6 September and the Continental Association was signed linking the Thirteen Colonies on 20 October. The

militia drilled; arms and supplies were stockpiled and the stage was set for conflict which would change the whole basis of the resistance from economic to military warfare. This erupted on 19 April 1775 when troops were sent out from Boston through Lexington to seize cannon and powder hidden at the nearby town of Concord. Their progress was marked, however, by bell ringing, gunshots and burning beacons and they were met by Minutemen and harassed by farmer soldiers. Before the day was over 70 of their 1,500 troops were dead and many more were wounded or missing. Earl Percy, their leader, said of his enemies "Whoever looks upon them as an irregular mob, will find himself much mistaken". 16 The mob was important in the early stages of resistance, as any revolutionary knows, to focus interest in issues and win mass support and in the period between the Stamp Act and Lexington rioting occurred in every Colony. The radical leaders, however, saw the need for restraint, although they did not hesitate to employ violence, "Tory baiting", when it seemed necessary. Few of these leaders were professional radicals (except perhaps for Thomas Paine) like those we are now accustomed to see amongst Marxist revolutionaries. However, they learned from their mistakes and were assisted by the British intransigence and slowness to react. Indeed, it was not until some months after Lexington that the British finally set about the almost impossible task of raising 20,000 men as an expeditionary force.

Conclusion

The revolutionaries enjoyed a full measure of popular support. "The Revolution," in the words of Alexis de Tocqueville, "was the result of a mature and reflecting preference for freedom, not of a vague or ill defined craving for independence. It contracted no alliance with turbulent positions of anarchy, but its course was marked, on the contrary, by a love of order and law." While this describes the idealism of the groundswell to revolution well, it should be remembered that the preference for freedom would never have been exercised but for the work of those who fostered and spread those ideals.

Foremost in the early days were the Sons of Liberty but, as R. B. Morris points out, there was "no clear or undisputed lineage between them and the far more effective committees of correspondence." The American Revolution needed the direction of these organisations but, until battle was joined, never needed the disciplined cadre of revolutionaries which are a feature of Twentieth Century revolutions.

For the American experience did not need to be engineered, it arose, spontaneously for the most part, as the expression of the whole people, finally declared on 4 July 1776 in the midst of war.

Notes

- ¹ Maier, Pauline, From Resistance to Revolution, A. A. Knopf, New York, 1973.
- ² Ibid, p. 23.
- 8 Ibid, p. 6.
- ⁴ The French and Indian War (known also as the Seven Years War) was concluded by treaty in 1753 but left the British in considerable debt and brought an economic depression in its aftermath. The uprising by Ohio Valley Indians led to Pontiac's attempt to drive the British from Quebec back to the coast in 1763. Although put down by General Sir Thomas Gage, the newly appointed Commander in Chief, it reinforced the British views on the need for standing army in America and its financing, at last in part, by the Colonists.
- Morgan, E. S. & H. N., The Stamp Act Crisis: Prologue to Revolution, Collier, New York, 1962, p. 47.
- ⁶ This reflected the position in Britain where the Admiralty had a voice in Cabinet denied the Army. Indeed, the then First Lord, Lord Sandwich, a notorious rake and member of the Hell Fire Club, seems to have had considerable influence on the government. Strangely, the Royal Navy's failure later to adequately police the Stamp Act is seen by Morgan as contributing to the revolution, Ibid, p. 216.
- ⁷ Ibid, p. 164.
- s Ibid, p. 189. It is interesting to note also the use of placards by the mobs now a very refined American radical tactic.
- ⁹ Morris, R. B. The American Revolution Reconsidered, Harper and Low, New York, 1967, p. 130.
- 10 Morgan, op cit, p. 241.
- 11 Dupuy, T. N. The Military History of Revolutionary War Land Battles, Franklin Walls, New York, 1970.
- Major Thomas Jones, Royal Artillery, had boasted that the stamps would be rammed down New Yorkers' throats. For this his house was pulled down and he returned to Britain. He did, however, point out to the House of Commons that New York and New Jersey could field 50,000 men and like General Gage had the foresight to press for a large Army in the Colonics. Maier, op cit, p. 96.
- ¹³ Jensen, M., The Founding of a Nation: A History of the American Revolution 1763-1776, Oxford University Press, New York, 1968, p. 452.
- 14 In 1764, fifty residents of Newport joined the Rhode Island Colony's gunners at Fort George and opened fire on the navy ship St Johin because of its crew's actions in stealing pigs and chickens from a local miller. However the British regarded it as a reprisal for the ship's customs role.
- 15 Maier, op cit, p. 69.
- 16 Jensen, op cit, p. 587.
- 17 Morris, op cit, p. 130.

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URBAN TERRORISM: THEORY, PRACTICE AND RESPONSE, by Anthony Burton, London, Leo Cooper, 1975.*

Reviewed by K. I. Taylor Editor, Army Journal

* Available in Australia through Collins Wholesale Book Depot, 115 Elizabeth St., Melbourne.

WHEN television came to Australia in 1956, there were many cries of doom from "the breakup of the family" to "the death-knell of the Cinema". There were also warnings of "violence in the living room". But violence can be seen elsewhere every day — in the cinema, outside the pub on a Saturday night, increasingly in sport (television must take some blame for that), in Nature itself. Children's nursery rhymes are full of violence, and the animated cartoons they watch and the comics they read are based on it.

Not foreseen in 1956, television has become a boon to the prospective revolutionary, because it has given him a chance to be noticed. He thrives on publicity. There is a tendency to romanticize him, as the author of *Urban Terrorism* warns us, particularly if one is not immediately involved. He cites rich white liberals in the United States who believed that in giving money to extremists, they were honoring the memory of Martin Luther King!

The book is a chilling account of a world held to ransom by an international collection — clique would imply a greater bond than exists — of paranoiac fanatics who care little about who or what they

damage in pursuing their goal of the destruction of society. They depersonalize the "enemy" in an effort to justify their killing of him. But how do they justify the killing and maiming of innocent passers-by? Sometimes, as Anthony Burton points out, this backfires, and causes a hardening of public attitude towards them, which is counter-productive.

The book traces the history of urban guerrilla movements from the earliest days. As the author says, "Men have been fighting in the streets ever since the latter were built." Because it is such a vast canvas, the brushwork lacks detail, but there are some interesting analyses of terror groups as diverse as the Tupermaros of Uraguay, the Weathermen of the United States, the Stern Gang of Palestine and the Ustashe of Yugoslavia. The author brings out the links he sees between various groups, sometimes of inspiration only as between the Tupamaros and the French Maquis, sometimes of mutual help as between the EOKA leader, Nicos Sampson, while in a British prison and the IRA inmates. Some of the links may appear preposterous to a layman, but Anthony Burton, being a British soldier for sixteen years, and a lecturer to staff/ promotion candidates during the latter years of his service, has undoubtedly background knowledge on which to draw.

This knowledge he uses in the chapter "The British Experience of Urban Terror". He begins by saying, "No Army has had greater experience of combating contemporary urban terrorism than that of the United Kingdom and no country has been so consistently outmanoeuvred in the psychological and political aspects of the matter." Harsh words, but true. He might have added that no Army has shown such restraint under provocation.

The book discusses the appalling dilemma of a democratic government in combating terrorism, particularly since pre-emptive measures are unacceptable. The author sees a special anti-riot force as being liable to become politically involved, and the families of its members put at considerable risk. The military should be brought in as a last resort. They must never be seen to withdraw in face of aggression, and a prolonged period of anti-terrorist operations has an adverse effect on training and on the soldier's family life.

Mr Burton advocates a police force all of whom are trained in riot control on the Hong Kong model. This leaves a degree of flexibility and ensures that a balanced and minimum response to the situation can be maintained.

Urban terrorism must have a fertile bed in which to prosper, whether it be social misery, racial strife or religious bigotry. The leaders are seldom worried about the cause, but about the effect. That the struggle, the destruction, the killings are pointless to the vast majority of the population are of little concern; they are the seeds of power to the terrorist. It is illogical to rational beings, but, in the words of Anthony Burton, when urban terror strikes, "Logic is the first and most enduring casualty." &

AN AUSTRALIAN NUCLEAR WEAPONS CAPABILITY. The United Services Institution of the ACT — 1975.

Reviewed by Captain D. M. Horner, Royal Australian Infantry.

THE recent public discussion over the mining of uranium at Mary Kathleen has highlighted the way in which nuclear power has become an emotive issue. Similarly, the question of nuclear weapons has so often been charged with emotion. It is not unusual to hear the more belligerent members of a Mess declare unequivocally that if the country is to be defended adequately then the armed forces need a nuclear capability. Such self-professed patriots deeply resent the mindless naivety of the soft-headed university intellectuals who echo the "Ban the Bombs" cry of the Fifties. The intellectuals are naive because the Bomb has now been accepted as a fact of life and it is not going to be abandoned by those who possess it. Australians have to accept the reality that they live in a nuclear world. That fact cannot be reversed and Australia needs to achieve a position with regard to nuclear energy which secures the maximum advantage for her citizens. AN AUSTRALIAN NUCLEAR WEAPONS CAPABILITY from the USI of the ACT attempts to put these issues into perspective.

The Council of the USI has no policy on the topic of nuclear weapons for Australia, but the booklet represents the collective thoughts and ideas of individual members of the USI who discussed the question in two syndicates during 1975. The results were presented at a sym-

posium on 6 August 1975 and the booklet consists of the papers from each of the syndicates. It is worth remarking that the syndicates included a number of well-known academics and senior service officers.

The first paper deals with "Internal problems associated with any acquisition of nuclear weapons by Australia". It is a balanced assessment of the problems, although the political difficulties resulting from the moralist's point of view are largely ignored for the sake of the argument. The syndicate comes to the conclusion that the "acquisition or the use by Australia of nuclear weapons in other than the primary role of regional deterrence against nuclear blackmail could well be counter-productive". However, it believes that it is quite feasible from technological and economic considerations for Australia to develop her own regional strategic nuclear deterrent force. For the present Australia should take steps to reduce the lead time required to produce nuclear weapons, while at the same time improving the viability of her own non-nuclear defence forces.

The second paper deals with the strategic implications in the context of world politics, and also comes to the conclusion that it would not be in Australia's interests in the present strategic circumstances to acquire nuclear weapons. The question is approached by examining the implications of a decision by Australia to develop nuclear weapons. The advantages and disadvantages are weighed, and it is conjectured by the syndicate that since Australia cannot hope to acquire a fully credible second-strike capability then the net effect of a nuclear force may consequently be a decrease in the nation's security. The syndicate concludes that the Australian Government's policy of supporting the Non-Proliferation Treaty and its safeguards provisions is sound, and recommends that Australia should continue to develop her nuclear technology so that a nuclear weapons option may be exercised should the strategic situation suddenly demand it.

The views expressed in the booklet are arrived at by clear, logical and pragmatic argument. All the current arguments for and against nuclear weapons are neatly summed up and analysed. Those who may be surprised that such a body as the USI would not recommend the immediate acquisition of nuclear weapons would do well to read this small booklet.

The main criticism of the booklet must be levelled at the editor who seems to have attributed the papers to the wrong syndicates.

Nevertheless, the work achieves its aim. It does provide the material to "generate informed debate about questions of Australia's defence and security".

You will usually find that the enemy has three courses open to him; of these, he will adopt the fourth.

von Moltke.

Battles are usually fought at the junction of four maps.

Viscount Slim.

Our God and soldiers we alike adore

Ev'n at the brink of danger; not before: After deliverance, both alike requited, Our God's forgotten, and our soldiers slighted.

Francis Ouarles 1592-1644.

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