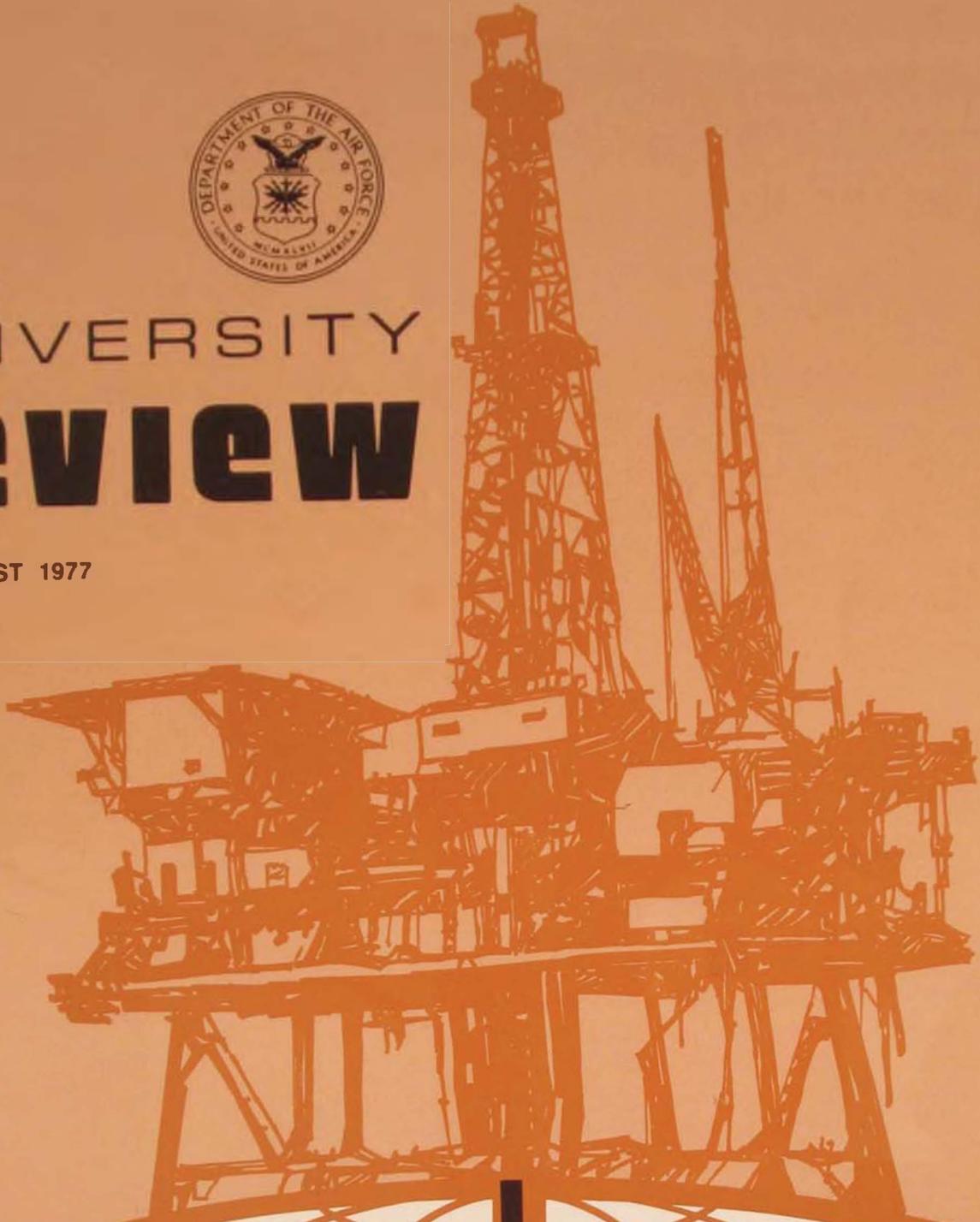




AIR
UNIVERSITY
review

JULY-AUGUST 1977





The Professional Journal of the United States Air Force



from the editor's aerie

If the recent crop of college graduates cherishes the expectation that they have seen the last of report cards, then they are subject to blighted hopes. Whether it be a banker confronted by the examiner or a plumber awaiting the building inspector, our society seems determined that we be periodically evaluated.

Our report card results from a reader questionnaire that was included in a recent USAF Officer Periodic Survey. This sample was limited to a selected audience and did not include generals, airmen, or readers outside the Air Force. The survey departs from our previous practice of enclosing questionnaires in copies of the *Review* and was thus answered by those who had recent access to our journal; those personnel selected at random by the Officer Periodic Survey may not have seen the *Review* lately—or ever. Nevertheless, we are happy to share a preliminary analysis with you.

There was a striking correlation between advanced rank and familiarity with the *Review*. Over 70 percent of the colonels indicated they read at least part of each copy. There was a gradual decrease in readership in descending rank to second lieutenant, 60 percent of whom said they did not read it. There was a similar correlation in the rank structure regarding the evaluation of how well the *Review* was performing its mission.

All ranks were generally agreed that articles on strategy, tactics, the threat, and leadership and management were the most useful. Technical and historical pieces were reported as less useful, and book reviews were read least of all. Unless we receive contrary opinion, then, space committed to book reviews will be gradually cut back.

Incidentally, the survey demonstrated conclusively that the obvious and growing professionalism among the women officers of the Air Force is not reflected in their interest in the professional journal. A significantly larger portion of the women either did not read or had never heard of the *Review* than was the case for the men. Any explanations?

In the opening article, Ambassador John Walsh takes us on a global tour of the world's dwindling energy resources. The cover, by Art Editor Bill DePaola, reflects the earth's steadily shrinking oil pool.

The issue of women in combat is raised by Dr. Kenneth Werrell, who advocates their complete employment in the profession of arms. Jacqueline Cochran, who probably holds more flight records than any other living flier, offers a negative opinion. We doubt that we have heard the last of this controversy.

As we go to press, word has been received of an adverse decision on the production of the B-1 bomber. Nevertheless, because we doubt that the last word will be published on this controversial subject for some time to come, we include an article by Dr. C. K. Burke that offers new perspectives on the utility of the B-1.



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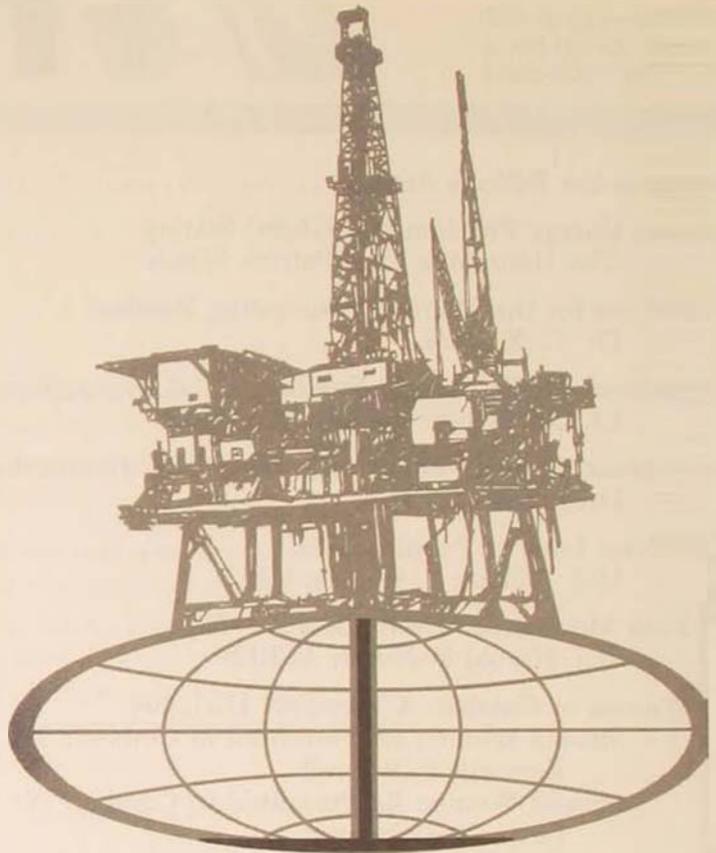
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ATTENTION

The *Air University Review* is the professional journal of the United States Air Force and serves as an open forum for exploratory discussion. Its purpose is to present innovative thinking and stimulate dialogue concerning Air Force doctrine, strategy, tactics, and related national defense matters. The *Review* should not be construed as representing policies of the Department of Defense, the Air Force, or Air University. Rather, the contents reflect the authors' ideas and do not necessarily bear official sanction. Thoughtful and informed contributions are always welcomed.

THE ENERGY PROBLEM IN A GLOBAL SETTING

THE HONORABLE JOHN PATRICK WALSH



THE WORLD has entered a period of growing turbulence with mixed and ominous portents. Population has soared, along with a marked proliferation of nation-states. And with the increased numbers, there appears to be growing callousness between governments and peoples and between governments. Simultaneously, transportation and communication technology have shrunk the globe and contributed to the articulation of issues previously obscured by distance. Democracy is essentially limited to the industrial states while authoritarianism grows elsewhere. In much of the world, the shades of night increasingly obscure human rights, civil liberties, and the freedom of the press.

Virtually everywhere, government strives for relevancy in the face of increasingly complex issues. Yesteryear's bright dreams of a unified world remain unrequited. The United Nations, the visionary Parliament of Man, survives in disharmony, marked by limited accomplishments and tarnished hopes. East and West remain in precarious balance while North and South drift toward confrontation. If the sixties were the Decade of Rising Expectations, the seventies appear to be the Decade of Declining Hopes. In much of the world, the outlook for stability and economic growth can hardly be viewed sanguinely.

The strength and cohesion of the industrial states have been weakened by the consequences of inflation and recession and by

their increasing dependence on Third World sources for raw materials, particularly oil. This is their collective Achilles' heel. Supply blockages would have catastrophic consequences. This reality is a major constraint on their policy formulations. Furthermore, the world trade and financial systems are under considerable stress, reflecting to a significant degree the vast surge in energy prices and the concomitant major accumulation of foreign exchange reserves by a small number of oil exporting countries.

Existing energy cost levels are adversely affecting economic growth in many industrial and developing countries, thus increasing unemployment and contributing to political instability. And the outlook in these respects is not favorable. While energy is not currently in short supply, it seems probable that we have entered a period of accelerated depletion of reserves and rising real costs of energy. This situation and outlook demand a high degree of collaboration within the industrial world and between the industrial and developing countries. But this is neither an easy nor assured outcome. Individual governments within each grouping ride their pet hobbyhorses at the expense of unity, and disarray appears to deepen. As William Butler Yeats mordantly noted,

The best lack all conviction, while the worst
Are full of passionate intensity.

How this global situation develops will depend to a considerable degree on the actions and leadership of the American people. We must now establish a comprehensive national energy policy, consonant with our more straitened circumstances. We must face up to reality.

The Nature and Causes of the Problem

In the postwar period, the substantial expansion of production throughout the indus-

trial world was built on the availability of cheap sources of natural energy. This growth, in turn, provided the marginal resources for assistance to the developing countries that were increasing their own use of energy. Oil was the Queen of Fuels, and coal declined in significance. Expectations for nuclear energy were high, particularly after the mid-fifties, but very little consideration was given to other potential energy sources. The oil market was dominated by the international Seven Sisters,* and the origin in 1960 of the Organization of Petroleum Exporting Countries (OPEC) was hardly noted. Throughout the sixties oil was in surplus on world markets, and its price was depressed below the \$2.08 per barrel level that prevailed in 1958. Oil consumption in the United States grew at an annual rate of 4.5 percent and at a higher rate in Western Europe and Japan. Natural gas consumption soared, particularly in North America. Meanwhile, exploration peaked in the United States, and there were warnings about declining reserves of hydrocarbons. There is little evidence, however, that the implications of these warnings were understood either by government or other elements of society.

The closing of the Suez Canal in 1967 and the periodical severing of the Trans-Arabian Pipeline drove tanker rates upward and contributed to the development of the giant tankers. In 1970, the revolutionary regime in Libya of Colonel Muammar el-Qaddafi concluded that it should receive a price differential relative to Persian Gulf oil because of the freight advantage. In the course of bizarre negotiations, the companies capitulated to Libyan demands, and a price-ratchetting process began between Libyan and Persian Gulf producers. Efforts to halt this process resulted in a January 1971 agreement between the companies and the Gulf producers, which in effect gave OPEC the power to

*The seven biggest oil corporations: Standard Oil of New Jersey, Standard Oil of California, Mobil Oil, Shell, British Petroleum, Texaco, and Gulf.

control production and prices. If the five-year price and supply agreement held at all, the Yom Kippur War in October 1973 provided the excuse for its termination. With supply curtailed by the Arab oil embargo, OPEC decreed a fourfold price increase effective 1 January 1974. The era of cheap energy was over.

In the face of the Arab oil boycott of October 1973 and the steep OPEC price increase, the industrial countries were thrown into considerable disarray. The cited actions caught the world at a delicate point of economic passage, contributing to high levels of inflation and subsequent recession. These trends deepened the inherent problems of the developing countries.

The United States reacted to these events initially with considerable vigor. Operation Independence was announced with brave goals of reduced energy consumption and increased energy production. Conservation was discussed as a new ethic. In addition, the International Energy Agency was established with 19 members committed to collaborate in conservation, energy research

Since the Arabs possess the lion's share of OPEC's surplus capacity, further increases in U.S. import demand would have to come from those sources.

and development, and, if necessary, energy-sharing. By the magic of goal-setting, oil imports were to be reduced to very low levels. Simultaneously, the United States government railed against the price-gouging by the oil exporters. OPEC was viewed as a public menace. Punitive Congressional action against its members was contained in the Trade Act of 1974, and the Secretary of State alluded to the possibility of military action in

the event of a renewed embargo. The Congressional committee structure churned into action, numerous hearings were held, and much testimony was taken. The legislative results, however, have been minimal.

The performance of the industrial world as a whole, and of the United States in particular, has not been consonant with the exigencies of the situation or with expressed objectives and goals. Due to a variety of factors, especially the global recession, energy consumption declined in 1974 and 1975. But as economic growth resumed and memories of the embargo dimmed, energy consumption in 1976 increased sharply. In the United States, total energy consumption was about four percent above 1975 levels with a particularly sharp increase in the use of refined petroleum products. These trends accelerated during the first quarter of this year. Products demand, which averaged 16.3 million barrels a day (mmbd) in 1975, approximated 17.4 mmbd in 1976, and probably exceeded 19.5 mmbd during the January-March period of 1977.

Meanwhile, the production of U.S. oil and natural gas has continued to decline. Oil output peaked in 1970 and natural gas in 1973; oil is now about 16.5 percent and natural gas about 13 percent below peak levels. Traditional fields have declined in productivity, and exploration and exploitation have been hampered by high costs and a variety of price controls. This has resulted in a drop in output and a depletion in proven reserves, particularly in respect to natural gas.

Since the supply of other energy sources in the 1970-77 time-span has not significantly changed, the overall increase in energy consumption has forced a very substantial rise in the importation of hydrocarbons, primarily oil. In 1970, oil imports averaged about 3.4 mmbd or 23.3 percent of total domestic demand. In 1976, imports approximated 8.0 mmbd or more than 41 percent of domestic demand. In the same time span, the cost of

fuel imports rose from \$2.56 billion to over \$32 billion. The latter outlay was a major factor in the substantial 1976 trade deficit. During the first quarter of this year, daily oil imports have exceeded 9 mmbd at an average price about eight percent higher than in 1976. This was a major factor in the record trade deficits during this period and probably presages a hydrocarbon import cost of about \$45 billion for the year as a whole. Outlays of this magnitude would heavily burden our trade and current account balance.

In addition to the financial and inflationary consequences of this growing dependence on imported hydrocarbons, there is reason for concern about the source and location of those imports. As late as 1970, Western Hemisphere sources provided 78 percent of U.S. oil imports, primarily from Canada and Venezuela, but subsequently this pattern has shifted dramatically. Currently about 80 percent of our imports comes from the Eastern Hemisphere, and over 40 percent of the total is supplied by Arab producers, particularly Saudi Arabia. Since the Arabs possess the lion's share of OPEC's surplus capacity, further increases in U.S. import demand would have to come from those sources. When the Alaska pipeline is in operation, a welcome supply of North Slope oil will be available, but this source will provide only temporary surcease unless consumption can be checked. At some point in the next decade, Mexico may become a significant exporter, but at the best this will be a slow process.

At the present time, global crude oil production exceeds 58 mmbd. The OPEC members provide more than 90 percent of the crude in world trade, the Arab share approximating 60 percent. Currently, world demand for OPEC oil approximates 31 mmbd. The two most significant countries in this supply/demand equation are Saudi Arabia and the United States, with the former supplying about 30 percent of the OPEC output and the latter importing about the same per-

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centage. The way in which they handle their separate energy positions will be major factors in world markets. The Saudis, for example, could influence future price levels by increasing, maintaining, or reducing their current offtake levels. Somewhat similarly, the United States could increase or decrease international price pressures by moderating or increasing current import demand levels. Since U.S. imports during the first quarter of 1977 were almost 50 percent more than in 1973, it seems evident that it has provided major underpinning for OPEC pricing decisions, including the awkward two-tier pricing system established at the December 1976 meeting.

There are numerous variables in the global energy supply and demand picture. Future economic growth rates are uncertain, but they are likely to be correlated fairly closely to the growth in energy demand. The current global oil supply is adequate and will be augmented in the next year by increasing supplies from Alaska's North Slope and the North Sea fields. However, growing global demands will gradually push against the self-imposed OPEC offtake ceilings. Unless these are raised, supply will tighten with concomitant increases in price pressures. This could lead to ruthless competition for access to tight supplies. Although the Soviet Union is currently self-sufficient in respect to energy, it may become a net importer within a few years.

The energy outlook for the next decade is somber, marked by a grim race between the depletion of existing hydrocarbon sources, conservation efforts, and the search for new energy sources. Whether supply dislocations occur or not, substantial increases are probable in the real cost of energy. This is likely to be a heavy burden for the world economy and political structure to carry.

The Strategic Significance of the Energy Problem

In a very real sense, the United States has now joined the crowd. For many years, Western Europe has received over 70 percent and Japan over 90 percent of its oil from the Middle East, particularly from the Persian Gulf area. Currently about 50 percent of our oil comes from this region, and this percentage will inevitably increase. When the Arab boycott was announced on 17 October 1973, it affected about 19 percent of our oil imports. Similar Arab action would now affect more than 40 percent of our imports.

There are a number of interrelated aspects to the heavy dependence of the industrialized countries on imported hydrocarbons. The most serious of these is the vulnerability of supply. In the event of major power hostilities, the U.S.S.R. ostensibly would endeavor to cut the oil flow at its sources or to interdict tanker passage. Either would be difficult to prevent. Safeguarding the lengthy sealanes to Western Europe, Japan, and the United States would be a formidable task in the face of Soviet submarines, surface ships, and bombers. This is not an acceptable situation from a national security viewpoint.

Furthermore, in conditions short of open warfare, the flow of Persian Gulf oil could be at least diminished by sabotage. In addition, the Arabs in the past have demonstrated the strength of the embargo weapon. In the event of renewed Israeli-Arab conflict, they would probably reimpose the embargo. This

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could reflect the positive decision of the governments or their inability to resist the demands of their agitated populaces. The results would be the same. Countervailing political and economic actions by the consumer nations would be unlikely to force a resumption of oil exports. Resort to military action would be highly adventurous and would have long-term adverse consequences.

An embargo of significant duration would have most serious economic results for the industrial countries. Production and distribution would be disrupted, and heavy unemployment would occur. This, in turn, would subject individual governments to considerable strain. While the consultative and sharing provisions of the International Energy Agency would be triggered, it is by no means assured that the members would agree on counteractions against those who had imposed the embargo. Dangerous levels of disagreement might appear within our alliance structure, with other governments, and within our own country. Under these circumstances, the threshold to war might be low.

In addition to the problem of supply vulnerability, the heavy global demand for high-priced imported oil has had distortionary consequences for the global economy, adversely affecting production, trade, price levels, the balance of payments, and international monetary stability. This, in turn, has adversely affected the political, eco-

conomic, and security interests of much of the world.

Since the price surge at the outset of 1974, the members of OPEC and particularly Saudi Arabia have amassed very large reserves of gold and foreign exchange, far exceeding those of the industrial countries. In 1976, the OPEC members as a whole had a current account surplus of over \$40 billion, with three-quarters of this accruing to Saudi Arabia, Kuwait, and the Union of Arab Emirates. In view of the heavy demand for oil and the price increases that have already occurred, their current account surplus is likely to be higher this year even if their imports rise.

While the international financial system has displayed considerable finesse in handling the vast shifts in resources embodied in these developments, its capacity as currently constituted to perform this function over the years is questionable. The maintenance of very high levels of private bank financing is particularly doubtful. International indebtedness is quite high, and the refinancing requirements of the importing countries are growing in number and difficulty, especially with respect to the less-developed countries. The foreign indebtedness of the latter has about doubled since 1973 and now approximates \$180 billion, including a substantial proportion of private credits. This precarious situation will dampen their economic growth rates and could lead to a series of defaults.

To darken the outlook even further, the OPEC members may decree additional price rises, particularly if demand remains buoyant and begins to press against their offtake ceiling capacities. In any event, hydrocarbon production will decline at some time in the absence of massive new oil discoveries, which will give rise to additional price pressures.

Separately and collectively, these are major issues that require urgent joint consideration by the industrial countries. Whether the

dreams of the less-developed countries are requited in respect to a New International Economic Order, it is evident that extensive cooperative action will be required to maintain the stability of the existing system. If we continue to drift with these problems, the ultimate consequences could be very serious.

In effect, our inability or unwillingness to establish a more rational balance between the domestic supply and consumption of energy and the consequent surge in oil imports is creating a major threat to our economy and to our national security.

The linchpin of our alliance structure is the strength and stability of the industrial triad of Western Europe, North America, and Japan. Furthermore, the economic prospects and stability of the developing countries are heavily dependent on the security and relative prosperity of the industrial countries. However, dependence on Middle Eastern oil

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is a serious threat to the industrial structure. The United States no longer has the capacity in crisis conditions to transfer oil to its allies or even to meet its own energy requirements, and we do not currently possess a strategic oil reserve. The individual and collective foreign policies of the industrial countries are heavily burdened by this reality, and the consequences could be calamitous. This situation cuts directly across domestic and foreign policy.

American diplomacy must be focused on the realities and potentialities of the global energy balance. The stability of the world and our own national security are intertwined with the various energy issues. While the ramifications are global in nature, we should realize that the prime area of decision is within the continental limits of the United States. Diplomacy cannot indefinitely compensate for inadequacies of domestic policies. We must establish a viable national energy policy.

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We should collaborate closely with our industrial allies in the International Energy Agency and in other forums. Energy, non-fuel raw materials, economic development, and international financial issues are interwoven in the ongoing considerations of the Conference on International Economic Cooperation. Substantial compromises will be required by both the industrial and developing countries if these discussions are to result in a reasonable degree of success. The major objective of the industrialized countries is to obtain assurances of continuing energy supplies at price levels that do not disrupt the world economy, while avoiding harmful arrangements in respect to nonfuel raw materials and international debt relationships. Conversely, the objective of the developing nations is to win support for the general concept of a New International Economic Order that would embrace raw material buffer stock arrangements, price

indexing, debt relief, and the transfer of technology.

In view of its growing dependence on Persian Gulf oil, the United States must be particularly assiduous about its relations with Saudi Arabia and Iran, the two largest oil exporters. Unless Saudi Arabia, for example, is prepared to expand its offtake significantly, supply shortages could materialize in the course of the next several years. Since Saudi Arabia is running heavy financial surpluses at current production levels, it has little direct interest in accommodating the desires of the consumer nations. In a sense, this reality circumscribes the flexibility of U.S. policy in respect to Saudi Arabia and to the region as a whole. This includes the tangled and complex Israeli-Arab issues. The outbreak of war between the Arabs and Israelis would probably precipitate an embargo. And the continuation of the current impasse could lead to Arab intransigence in regard to the supply and pricing of oil. Until recently, American military power, technology, and prestige created an asymmetrical relationship with the oil exporting countries. Today, however, these relationships are more evenly balanced. Saudi Arabia and Iran, for example, still need the shield of American power and a continuing supply of American equipment and technology to defend and develop their countries. Conversely, the United States now needs a growing supply of Saudi and Iranian oil to maintain its economic growth in the absence of domestic restraints on energy consumption. Mutual dependence, however, is not necessarily conducive to amicable relationships since the members of this triangle have both converging and diverging interests and problems. A particular problem emerges from the lack of American comprehension of the changing nature of the U.S.—Saudi—Iranian power equation. Our ability to force acceptance of our views has been considerably diminished as has our capacity to reject their specific desires. The equation

includes the supply of military equipment, the tangled skein of Arab boycott provisions and countervailing Congressional enactments, and sensitive human rights issues. Hobson-type choices loom in respect to these problem areas.

A National Energy Program

There are no quick and certain solutions to our domestic energy problem. This is the frustrating reality with which we will have to live. Furthermore, our efforts to bring it under better control will be difficult to formulate and implement. Adjusting to straitened circumstances is seldom easy, and, in these respects, we should be aware that the President will propose, Congress will dispose, and the people will judge the results.

A coherent national energy policy must be formulated, enacted by Congress, and vigorously implemented. This action must be accompanied by a determined, systematic effort to contribute to public comprehension of the nature of the problem and the rationale for the varied aspects of the overall program. Unless this can be accomplished, the program will remain a bent arrow, both in the society as a whole and within the U.S. Congress.

Extensive reorganization will be required at the federal level to establish a rational structural approach to energy issues. This process should be accompanied by a reorganization of the relevant Congressional committee structure. There should be no illusions, however, about the significance of the structural changes. Structure is only a tool, contributing to relative degrees of efficiency and inefficiency. Unless the program is substantively sound and the requisite will exists to implement it, we shall continue to drift with the problem.

The energy problem must be viewed as a fundamental threat to our national security, to the well-being of our people, and to

domestic tranquillity. It cannot be effectively managed by resorting to gimmicks, press agency, or persiflage. While the problem of energy should not be viewed in a penitential sense, it will require painful sacrifices. Furthermore, its consequences are likely to rest unevenly on varying elements of the society. Those whose ox is gored can be expected to remonstrate. Unless the administration and Congress were prepared to stand firm, political pressures could produce a growing list of exceptions that would effectively destroy the energy program, while producing a vast regulatory monster.

The objective of the domestic program should be to bring the supply and the demand for energy into better juxtaposition, while simultaneously improving the usage efficiency of existing fuel sources. Coal, for example, should replace oil and natural gas to the extent feasible. The program should not be an autarchical effort to produce energy self-sufficiency. Even if it is successful, the United States will still import very substantial volumes of oil and natural gas.

The American society has a strong propensity to consume energy, accompanied by conspicuous waste. Substantial reductions in energy consumption could occur without serious economic losses. However, blithe suggestions that at least fifty percent of the energy utilized is wasted can be misleading. Eliminating waste would hit sensitive economic nerves far below that level, resulting in serious economic dislocations including increased costs, impediments to production, and unemployment, which in turn would contribute to societal unrest and political disarray.

Economic development requires an annual increase in energy consumption, which traditionally has exceeded three percent. This percentage probably would decline as the economy grew in sophistication. Furthermore, curtailments in waste could make energy available for more productive pur-

poses, including antipollution efforts. It remains to be seen, however, if traditional energy growth rates could be reduced in periods of economic expansion. This savings would require a highly effective energy conservation program.

Energy consumption could be directly controlled. Oil import ceilings could be established, and energy in its varied forms, including gasoline, could be rationed. In time of war this would be necessary. However, such restriction, particularly in peacetime, would be an extremely cumbersome procedure with high potentiality for corruption. It is very doubtful that the administration would propose and Congress enact legislation authorizing such a system.

The stability of the world and our own national security are intertwined with the various energy issues. While the ramifications are global in nature, we should realize that the prime area of decision is within the continental limits of the United States.

Theoretically, it is possible that a national consensus could be developed that would lead to voluntary reduction in the use of energy, but it is improbable. In a practical sense, this sequence would be putting the cart before the horse. It is far more likely that such a consensus would develop after the energy program had been promulgated. And, in fact, the degree of success of such a program will be a measure of the degree of public acceptance of the need to conserve.

Energy consumption is computed in broad terms: transportation (24.9%), residential and commercial (34.1%), industrial (35.2%), non-fuel, for example, petrochemicals (5.5%), and miscellaneous (0.3%). To be successful, the

energy program must affect each of these segments, primarily by reflecting the reproduction cost of energy. If, for example, gasoline and diesel prices are held at the lowest level in the industrial world and rationing is not instituted, there would be no reason to anticipate a fall-off in the consumption rate until the existing rolling stock was replaced by cars and trucks with significantly higher per gallon gasoline ratings. This process will be a gradual one. Some gasoline price increases will emerge from existing legislation and the increasing costs of the petroleum industry. It is quite possible that this gradual increment would be viewed by the consumer as part of creeping inflation and would not lead to a cutback in consumption. On the other hand, a sharp increase in federal excise taxation of gasoline and diesel fuels would be likely to have the desired effect, although it would also have dislocational consequences, including inequities. The funds derived from such taxes could be earmarked for the effort to expand the output of energy, for public transport or for the purpose of alleviating some of the indicated inequities. There should be no illusions about the divisive nature of a stiff increase in fuel prices. The truckers, in particular, will oppose higher prices and more rigid speed standards.

Mandating the pace of technology is an uncertain process. However, the establishment of tight average gasoline ratings for automotive production would either lead to accelerated technology or a reduction in automotive weight. The latter process would also be expedited by the imposition of special taxes on heavier cars and rebates on lighter cars. Again, actions of this nature would be controversial, since they would probably affect company earnings and employment adversely. Furthermore, they would increase the expenses of those who wish to have and need to have larger cars.

The logic and implications of higher fuel costs would also apply to commercial air

transport, private aircraft, the various types of power boats, and to the varied forms of automotive campers. Spin-off consequences for vehicle producers and for the large tourist industry would result.

The use of public transportation facilities must be stimulated. This requirement has both positive and negative facets and is bound to be controversial. It presupposes that adequate transportation facilities are in place and operating with reasonable efficiency and safety. In these respects, there are great variations within the country as, for example, between New York and Los Angeles. Capital and operating costs in the public transport sector are high, and the creation and maintenance of viable transport systems are hardly feasible without substantial federal financing. Car-pooling is an awkward and irritating process which can be stimulated by traffic regulations and taxation of parking facilities, but it will not contribute to the tranquillity or productivity of the individuals concerned nor will it deepen their affection for the public officials responsible for such regulations. There is a limit to the tolerance level of the citizenry for government in a collective sense, and vexatious regulations can be counterproductive.

In the interest of energy conservation, building codes for all types of residential, commercial, and industrial structures should be tightened. In various ways, the insulation capacities of existing structures should be improved. Some inequities in respect to those who have already accomplished this task appear inevitable. The electrical utility companies could be made the focal point of this effort in either a mandatory or advisory capacity. Alternatively, higher insulation standards could be encouraged by tax concessions.

Higher standards could also be mandated for various types of equipment and for electrical appliances. While beneficial in an energy sense, these measures would increase the

pervasiveness of governmental regulations and probably increase costs.

There is ample room for energy saving in the commercial sector. Building codes could be tightened, and operating hours could be locally controlled. The most effective energy limitations for both residential and commercial buildings probably could be indirectly enforced through higher energy prices. Entertainment facilities, which are high-energy utilizers, will be subject to higher energy costs. Night football and baseball games are cases in point. Owners of existing high-cost structures may be subject to adverse consequences.

American industry, which is sensitive to cost factors, has already tightened its energy belt. While further efficiency is possible, at some point energy curtailment would have ill effects on production. It seems probable that concern about the availability and cost of energy is already adversely affecting investment decisions and, therefore, the construction industry.

The productivity of American agriculture reflects to a considerable degree high-energy utilization. Furthermore, it is capital rather than labor intensive. Higher energy costs will result in higher operating costs. To the extent that these cannot be covered by improved efficiency, they will result in higher product costs and, perhaps, in reduced production.

While it is imperative to improve the efficiency of energy use, there should be no illusions that our national objectives can be realized solely through this route. It must be accompanied by a systematic and vigorous effort to expand energy production in its varied forms. In an approximate sense our energy is currently derived from the following sources: oil (46.5%), natural gas (27.9%), coal (18.5%), hydroelectric (4.5%), and nuclear (2.5%). These proportions are unlikely to change significantly in the short term, although the use of coal and nuclear energy

will expand moderately. The availability of North Slope oil late this year should check the decline in domestic oil production, but natural gas production will continue to fall in the absence of an accelerated rate of exploration and exploitation, particularly in off-shore areas. Increases in consumption will necessitate a further expansion in oil imports.

The most efficient method of maximizing exploration and exploitation of hydrocarbons would be the removal of all price controls on energy. Domestic price levels would then come into line with world energy cost levels. This adjustment would have shock consequences for the American economy and society, including our competitiveness in world markets unless corrected by a decline in the exchange rate of the dollar. The Carter administration is unlikely to give full-rein to market forces, and it is quite doubtful that Congress would approve proposals of that nature. The present complex system of varying price levels for domestic oil and natural gas will continue with gradual price increases. However, new sources of natural gas should be decontrolled. This action should stimulate exploration and development efforts to produce more oil and natural gas from domestic sources, the continental shelf, and the Prudhoe Bay region. Exploration work should also proceed in the Alaskan Naval Petroleum Reserve No. 4 area. Until this is done, there is no way to determine the extent of the hydrocarbons in that vast region. Some, if not all, of these developmental efforts will be delayed by environmental considerations and legal suits. It will be late in the year at the earliest before a final decision is made regarding the route of a natural gas line from the Prudhoe Bay area. As a result, this energy source will not reach American and Canadian markets during this decade.

Coal production and utilization must be expanded. To do so will require the passage of a strip-mining bill with which the industry can live, and compromises will have to be

reached between environmental and production requirements. To the maximum feasible degree, electrical utilities should be compelled to shift to coal, which will probably require some modification of environmental standards. It may also require disincentives in respect to the use of natural gas, which could be accomplished by federal regulations or federal taxes.

Despite the problems related with nuclear energy, phased expansion of nuclear power facilities will have to continue. There is no current substitute for the energy they can produce.

Hydroelectric power has leveled off as an energy source, and the more favorable sites for large dams have been utilized. However, some further expansion may prove feasible by resort to the use of smaller dams.

Energy derived from exotic sources is unlikely to reach significant proportions for many years. These sources include solar, hydrogen, geothermal, thermal gradients, shale, coal gasification, and oil sands. Their development is currently impeded by technological problems, environmental considerations, and high costs. Sufficient research funds should be made available for each. Furthermore, federal developmental funding may be merited for coal gasification and possibly for other potential sources.

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The expeditious development of an adequate oil-reserve supply must be an integral part of the national energy program. This provision has major national security im-

plications. In essence, it would be insurance against an oil embargo. The costs will be high, however, in terms of fiscal outlays and increased oil demand pressures, but these are the unavoidable prices of past errors.

The Energy Policy Act of December 1975 declared that it is national policy to establish oil reserves of one billion barrels. The only deadline established was 500 million barrels by the end of 1982.

On 13 April 1976, the Ford administration announced a Presidential decision to commit \$871 million by 30 September 1977, for storage facilities, studies, and the purchase of 50 million barrels of oil with a goal of 150 million barrels by the end of 1978. Subsequently, the Carter administration increased the fiscal allocation to \$3 billion, and raised the target reserve figure to 250 million barrels by the end of 1978 and 500 million barrels by the end of 1980 instead of 1982.* This is a laudable development, but moving from goals to a reserve in existence is time-consuming and expensive. Furthermore, the safety margins provided by the indicated target levels are being eroded by the high import growth rate.

The energy problem and the way it is handled will be a major factor in the public assessment of the Carter administration and the Ninety-fifth Congress.

The global and domestic energy problems are very deep-seated and will have major consequences for the international milieu for many years to come. There should be no illusions about the inherent threats embodied in the energy problem to our national security, economic well-being, and domestic tranquility. The corrective measures that will have

*On 20 April 1977, they again raised it to one billion barrels.

to be implemented will force changes in our unique lifestyle and will have painful economic, social, and political consequences. Individual and collective sacrifices will be required, and an effective energy program will cut across other national objectives, such as dampening inflation, expanding the economy, and diminishing unemployment. We will have to choose between objectives with disjunctive effects.

The energy problem and the way it is handled will be a major factor in the public assessment of the Carter administration and the Ninety-fifth Congress. In the existing political atmosphere, mandating public sacrifices is hardly the route to political popularity. The issue will severely test the leadership qualities of the President and the cohesiveness of our policy.

Our vast economy is intricately intertwined with much redundancy. As a generalization, it can adjust to most problems, including material shortages and national physical disasters. It is, however, heavily dependent on the ready availability of natural energy. Furthermore, its vibrance depends to a considerable degree on the availability of cheap energy. Soaring energy prices will lead to considerable rationalization of the production and distribution processes.

Despite the intertwined nature of the economy, there are unique aspects to the varying energy sources. Each form of energy—coal, oil, natural gas, nuclear, hydroelectric, and exotic fuels—has specialized histories, characteristics, constituencies, and regulations. Policy proposals regarding them will be complex and politically controversial. Typical examples are the decontrolling of natural gas and oil prices; the expansion of nuclear plants; forcing the utilities and certain industrial plants to use coal; taxing coal for environmental and other purposes; choosing a route for a Prudhoe Bay natural gas pipeline; solving the problem of moving North Slope oil inland; federal participation

in financing the costs of developing exotic fuels such as shale, coal gasification, hydrogen, thermal gradients, and solar energy; choosing a site for the national solar center; and constructing deep-sea facilities to handle giant tankers.

Somewhat comparably, energy consumption also involves specialized interests, and efforts to restrain consumption will conflict with other objectives and contribute to political discord. What appears to be waste to some will be regarded as necessity to others. Furthermore, the conservation effort will embody elements of compulsion not normally experienced in peacetime. This pressure will occur at a time of growing resentment of the pervasive nature of governmental involvement in what are deemed by many to be personal affairs.

It is difficult to visualize any element, short of war, that is likely to be as divisive as the implementation of an effective energy program. In the first instance, it is likely to lead to considerable tugging and pulling within the administration and between the administration and Congress. Despite the basic national interest involved in this issue, the members will probably view the varied aspects of the administration's proposals in parochial and local terms. Maintaining party unity in the ensuing embroglio will be extremely difficult. Furthermore, in a matter as sensitive as this, the legislative process is likely to be very slow and cumbersome. Various members will ride pet hobbyhorses, and it may prove easier to form blocking than affirmative voting groups. As a result, the legislation that ultimately ensues probably will be considerably different from the original administration proposals. If the ultimate legislation proved to be effective, this would not be particularly relevant. There is, however,

substantial danger that a divided Congress will be unwilling or unable to produce meaningful legislation. This, in turn, would increase the dangers inherent in the energy problem.

Unless a high degree of civility and restraint can be maintained in the national debate which stretches before us, one can visualize the likelihood of a series of rancorous disputes which will occur in Congress and elsewhere. These would include quarrels within the administration; between the administration and Congress; between federal and state governments; between energy producing and energy deficit regions; between industry and labor and within each of those sectors; and between the environmentalists and energy production advocates.

Since the energy issue affects the interests of the nation as a whole, the administration and the Congress are likely to be inundated with advice. Pressure groups will endeavor to promote and protect their individual interests with considerable zeal. And in this welter of communication, it will not be easy to keep the national interest in focus. In view of the nature of the problem and the objective of a national energy policy, it is unlikely that there will be individual winners in the accelerating debate. In fact, there is considerable danger that we will fail the test of responsible democracy and that we will all be losers. Ineluctable forces would then come into play to our national detriment.

Air University

Editor's note

The article reflects data available to the author before the President submitted his energy program to Congress. Nevertheless, Ambassador Walsh's comments regarding an effective energy program remain sound.



A CASE FOR THE MANNED PENETRATING BOMBER

DR. G. K. BURKE

THOUGH the outcome is uncertain, the summer of 1977 should witness the final chapter in the saga of the B-1 bomber, "the most expensive weapon system in the nation's history" (approximately \$24 billion). This aircraft may also be the most extensively researched system in the nation's history, as well as the most maligned and the most misunderstood. It has been called spurious and unnecessary by some; essential and criti-

cal by others. The volumes of testimony concerning it line whole shelves in major libraries; few of us are able to master the technology and nomenclature necessary to a proper understanding of the claims and counterclaims of the protagonists.¹

It is possible, however, that the difficulties surrounding this controversial system are more apparent than real. If the decision to procure the projected force of 244 B-1s is made in the affirmative, it will constitute the backbone of one leg of the strategic Triad for a period of some thirty years, commencing around 1986. Its merits (or demerits) might then most readily be gauged through an evaluation of its ability to contribute to the strategic Triad and through an evaluation of the Triad itself.

In theory the Triad, composed of the land- and sea-based missile forces in addition to the manned bombers, provides the nation with the capability to inflict unacceptable levels of damage on any power or group of powers—the potential capability of the People's Republic of China (PRC) would have to be included in any thirty-year progression—capable of threatening the survival of our nation.² In recent years it has also been considered sagacious to include a redundant capability, a capability beyond assured destruction, for inflicting lower levels of damage (counterforce) aimed at targets other than a potential adversary's urban and industrial centers (countervalue).

In the future, this counterforce capability will continue to be necessary because in its absence the nation would be perilously exposed should a foe choose to strike at weapons rather than populations. In such a circumstance, the national leadership would find itself in the position of having to reply to a limited strike aimed at isolated weapon systems with massive countervalue retaliation or capitulate to the adversary's demands. Since the first alternative would invite the foe to reply in kind, assuming the adversary

still possessed active weapons, the situation created could be harrowing. The latter alternative is unthinkable.

In the face of the dual nature of this strategic counterforce/countervalue challenge, the question becomes what level of force is necessary? Sizing the force is not easy because realities differ from nation to nation, and no man is able to predict with high confidence what the exact circumstances of some unnamed future crisis will be. Nevertheless, the best analysis available, that made by then Secretary of Defense Robert S. McNamara twelve years ago, estimated that 400 one-megaton equivalents (OME) optimally delivered upon the Soviet Union would be sufficient to destroy 30 percent of the civil population and 76 percent of the industry. It was further estimated that this megatonnage would effectively terminate civilization in the U.S.S.R.³

In the meantime, however, considerable doubt has arisen over the continued validity of this analysis. The question hinges largely on one's interpretation of four vital caveats. *First, the use of OME as a unit of measurement for nuclear destruction has been criticized as being obsolete.* OME is calculated by raising the explosive force of the warhead to the two-thirds power. Hence, a 27 megaton (MT) warhead equals 9 OME, or has a burst equal to nine one-megaton explosives.⁴ The equation is $3 \times 3 \times 3 = 27$, $3 \times 3 = 9$; by the same process a 27 kiloton (KT) warhead would equal .09 OME. This reduction in explosive force was necessary because a great deal of the burst, particularly among the large explosives, is released in close and overkills the immediate area of the target. Thus, this unit of measurement once represented a considerable advance in the predicting of the destructive force of a nuclear burst.

However, recent developments have further improved the sophistication of the model. This upgrading was made necessary by

the fact that most targets are small, and many are not circular, as is the arc of the blast. By raising the number to the three tenths power for American warheads and to the four tenths power for those of the U.S.S.R., more of the wasted energy released by a typical burst is accounted for. Within the framework of this model, a 27 MT warhead would equal 2.691 adjusted one megaton equivalents (AOME). On the other hand, a 50 KT explosive (the standard Poseidon warhead) has been raised in value from .13 OME to .409 AOME. This is true for all small warheads, and the strategic implications are considerable.⁵

Second, and most disturbing, for some ten years the Soviet Union has been systematically engaged in hardening its society. This process has included: civil defense training and evacuation planning for the populace, massive shelter construction programs for vital command and control elements, dispersing from 60 to 80 percent of the new industry to small or medium-sized towns, employing simple measures to harden vital machinery to withstand up to 300 pounds per square inch (psi), and the placing of key factories in positions that render destruction of more than one of them by a single re-entry vehicle (RV) impossible. The end product of this massive program (estimated to cost between \$50 and \$100 billion) is a society that might secure 98 percent population survivability in the event of all-out countervalue strikes. Such programs would appear to have invalidated analyses based on 400 OME or even 400 AOME.⁶

Third, the 400 OME or AOME must be optimally delivered. Prior to the enemy's initiation of hostilities, the most vital targets would be covered by at least one weapon apiece. But afterwards, in the confusion and destruction that will inevitably accompany any thermonuclear counterforce strike aimed at weapon systems, this may not be true. Some target may still be covered by

more than one weapon, others by none. The following rule then prevails: If prompt response is desired, more than 400 OME/AOME must survive in order to deliver 400 OME/AOME optimally.⁷

Fourth, the 400 OME figure fails entirely to account for the redundant force necessary to reply to lower-level strikes. When all is considered, a conservative estimate of the force necessary to deter the Soviet Union across the entire counterforce/countervalue spectrum must be increased by an order of magnitude, with particular emphasis on weapons programmed to offset Soviet "societal hardening" measures. This force should include large numbers of (1) medium-size, accurately delivered explosives programmed to eliminate the numerous, hard, widely dispersed targets the new matrix consists of and (2) extremely large explosives, programmed to create the large quantities of fallout necessary to attack an evacuated populace protected by, "... hasty shelters constructed from materials at hand."⁸

When the PRC is factored in, the estimate increases substantially. The PRC is only 20 percent urbanized contrasted to the Soviet Union, 56 percent, and the United States, 73.5 percent. This is relevant since assured destruction is related to urban population density and concentration. That explains why the Soviet Union was once considered vulnerable to 400 optimally delivered OME, compared to the 200 OME requirement for the United States. Precisely what the figure for the PRC would be has never been declassified, but it may safely be assumed to be at least twice that of the U.S.S.R. In toto, then, a conservative, responsible estimate would indicate that the original McNamara estimate is now inaccurate by several orders of magnitude.⁹

THE ROLE of each arm of the Triad in producing this force level might

next attract the attention and consideration of the analyst. The most heralded of the arms is the ballistic missile submarine because of its invulnerability to detection and destruction in terms of one swift strike. But it should be noted that a conventional warfighting phase of undetermined duration in Western Europe looms among the most sophisticated projections of nuclear confrontation. Given weeks or months, portions of the ballistic missile fleet could be detected and destroyed. And this condition would be greatly exacerbated if the real-time antisubmarine warfare (ASW) breakthrough, projected by Dr. Malcolm R. Currie, former Director of Defense Research and Engineering, were to occur.

A second difficulty results from the relatively small and inaccurate RVs that current and projected sea-launched ballistic missiles (SLBMs) are armed with: they are ill-equipped to attack hardened or dispersed industrial and population targets. For example, the projected Trident 1 and Trident 2 submarine-launched missiles, outfitted with optimally designed inertial guidance systems, have notional accuracies of no more than .25 nautical miles (NM). The Trident 1 missile is expected to be armed with eight 100 KT warheads and the Trident 2 with as many as seven 350 KT Mark 12A RVs. The former would have approximately a .32 single shot kill probability (SSKP) against a structure hardened to withstand 300 psi, while the latter would possess approximately .59 SSKP. Neither value is impressive. This lack of performance could be overcome by equipping the ballistic missile submarine fleet with terminal guidance systems, but many critics feel that accuracies of at least .05 NM (1.00 SSKP against a target hardened to withstand 300 psi) will destabilize the strategic balance because missiles so equipped would be equally lethal against hardened missile silos. In any event, terminal guidance will not achieve initial operating capability before 1987.¹⁰

Of more significance, small warheads produce small quantities of fallout, which is one aspect of a nuclear burst that is directly proportional to the size of the explosion (approximately 100 pounds to a one-megaton detonation). Since large quantities of fallout may be necessary to secure the assured destruction of an evacuated populace dispersed in hastily constructed shelters, small submarine-launched RVs may be expected to have limited value in attacking it. These re-entry vehicles might be more cost-effectively employed against general, soft area targets.¹¹

The following should also be observed:

- (1) Attacks on submarines at sea produce little or only limited collateral damage. This system invites attacks upon itself to a far greater degree than either of the other two arms of the Triad.
 - (2) Ten Trident boats will cost an estimated \$15 billion. To procure a force approaching the level required for assured destruction would impose an unendurable fiscal burden on the nation.
 - (3) A sudden breakthrough could wipe out the entire deterrent if it were committed to a single medium.
 - (4) Severe communication problems may exist in relation to the ballistic missile submarine. The boat may possess more survivability than the means to communicate with it, even assuming that the Seafarer communication system is constructed.
 - (5) Limited strikes from a ballistic missile submarine present serious difficulties. Once a missile is launched the boat has disclosed its position and would in some instances be in danger of destruction.
- Conclusion: Though a key portion of the strategic Triad, the ballistic missile submarine lacks the cost-effective survivability to cover the entire counterforce/countervalue spectrum alone.¹²

The second arm of the deterrent is the land-based missile force. This arm of the Triad is currently passing through a stage of

uncertainty. Careful analysis indicates that if current trends continue, by the late 1980s a Soviet land-based missile force of 313 SS-18 and approximately 65 SS-19 ICBMs will be sufficient to destroy about 95 percent of the current American land-based missile force.¹³ Since the Vladivostok *aide-mémoire* permits each superpower to procure 1320 missiles with multiple warheads, the situation could assume critical dimensions.

The logical response to such a threat would appear to be to move at once in the direction of one of the mobile basing alternatives available. Eventually this may become necessary, but at present powerful forces argue against the adoption of such a course. Three factors are paramount: (1) The inability to detect the number of missiles present in either the covered trenches or the multiple aim points of the two most-often-proposed land mobile systems could mean the end of SALT negotiations and serve as a powerful catalyst to nuclear proliferation. (2) The existing silo force is relatively inexpensive to maintain. This would not be true of a land mobile force, which will be 1.5–2.0 times as costly. Equally disturbing is that in a period of high labor costs the approximately eight men it requires to operate and maintain each Minuteman 3 leap to an average of 40 to 50 men for most mobile systems studied so far.¹⁴ (3) The greatest problem may lie in creating cost-effective firepower. Even the 10,000 point system recommended by Paul H. Nitze would secure inadequate survivable firepower within the confines of currently proposed Minuteman force levels.¹⁵ Juxtaposed, if a crash program were mounted and the entire Minuteman force of 1000 missiles was replaced by the 150–170,000 pound version of the MX, it should be possible to secure a formidable poststrike force. But it should be further noted that to procure such a force could entail expenditure in the area of \$20–\$30 billion. This figure does not include the \$10–\$20 billion estimate for the mobile system itself.

Lastly, the proposed MX, with its fourteen 350 KT Mark 12A RVs, will encounter many of the same difficulties the Trident missiles are apt to be exposed to in terms of attacking a widely dispersed populace.¹⁶

Conclusion: With regard to the land-based missile force, follow current force planning goals. Introduce modifications to the current silo-based Minuteman force, withhold land mobile basing and large-scale MX alternatives pending the outcome of U.S.–Soviet negotiations.

Manned bombers constitute the third and final arm of the strategic Triad. They are the least understood of the three systems comprising the Triad, but paradoxically they are also the most lethal. The maximum payload per unit is enormous. Today a single B-52G/H optimally equipped with four gravity bombs (10 MT × 2 + 5 MT × 2) and six 200 KT short-range attack missiles (SRAM) disposes a payload that due to its enormous weight is optimal for attacking widely dispersed targets. In terms of megatonnage, an optimally armed B-52 would notionally dispose 30 MT as compared to a Trident submarine's 19.¹⁷

From another standpoint, the extreme accuracy of air-delivered gravity bombs renders the manned bomber the ideal candidate to attack such portions of Soviet society that have been hardened to withstand nuclear assault. In fact, witnesses before the Senate Armed Services Committee have testified that some targets in the single integrated operations plan (SIOP) cannot be attacked cost effectively by any other means. (For example, the Hoover Dam may require up to 10,000 psi.)¹⁸

Considering that the prime mission of our strategic forces is deterrence, the manned bomber force is the only leg of the Triad that can be flexed in time of crisis. Neither ICBMs nor SLBMs can be recalled once fired. It is unthinkable that either of them would ever be launched under any conditions other than



The Air Force B-1 manned bomber undergoing extensive testing and evaluation is shown during an early test flight with its variable sweep wings extended (opposite, top) and during a test flight with its wings fully swept (opposite, bottom). The aircraft is capable of high subsonic speeds at low altitude and supersonic speeds at high altitudes. On 30 October 1974, four days after the public roll-out of the B-1, initial static tests of the four GE F101 engines were begun (below). The four-part static test program included acoustic and vibration effects on aircraft systems, exhaust plume effects on aircraft structures, engine performance, and engine operation integration with the total aircraft system.



general hostilities. But the bomber force can be launched on warning and recalled at any time short of reaching the target. In short, the bomber force gives our national command authorities a strategic option between all or nothing when hostilities appear imminent.

As with the other arms of the Triad, several caveats need to be observed. First, a single B-52 with ten weapons embarked could strike at no more than ten targets, while the Trident class submarine could theoretically (if implausibly) strike at up to 192. Second, in terms of a large target structure, one comprised of many small noncircular sites, the manned bomber fares poorly when contrasted to the submarine. A B-1 with an optimal payload of 24 SRAMs possesses 15 AOME, the Trident submarine with 24 missiles, 98. Third, in many instances the bomber would deploy a payload far less than the maximum one quoted above (a typical B-52 bomb load might consist of 1 MT \times 4 or 400 KT \times 4). The target structure to be attacked would be the determinant. Therefore, across some profiles the submarine would be superior.

But it must be remembered that the bomber is a reusable platform, and no other system has this capability in cost-efficient terms. When this capability is factored into the equation, it invalidates most other measurements. Invariably, the manned bomber is undervalued because its real-time capability for multiple strikes is ignored. This becomes more apparent when it is remembered that the Minuteman 3 and Poseidon missiles have a current price of approximately \$9 million per unit. The cost of reloading missile silos or submarines would be prohibitive. Of equal significance, many bombers may be purchased for the price of one submarine. The proposed force of 244 B-1 bombers has an estimated cost of \$24 billion. A mere ten Trident-class submarines have been cost estimated at \$15 billion. Conclusion: No high-volume force capable of coping with

current Soviet civil defense measures is able to be developed in a cost-effective manner without a high volume, high accuracy manned bomber.¹⁹

IF IT is assumed that a manned bomber is a viable portion of the Triad, the next consideration should involve the configuration of the aircraft. Under this heading few serious analysts question the need to procure a replacement for the aging B-52 fleet. Built to perform over a 5000 hour flight profile, the average B-52 has logged over 8000 hours with many exceeding 11,000; built to perform for ten years, the last B-52/H was delivered in October 1962. By 1990 these veterans will no longer be able to perform a first-line mission. If they are not supplemented by some alternative system, it is doubtful that they will be able to perform at all.²⁰

In terms of the future, two candidates have been proposed to augment/replace the aging B-52 fleet: the Air Force B-1 manned, penetrating bomber and the Brookings Institution cruise missile armed, wide-body, stand-off bomber.²¹ Which of the two will eventually be adopted and procured as the B-52 follow-on is not clear at this writing. Nevertheless, the final decision should be based on considerations involving basic survivability, which must be seen both in terms of escaping from a base under attack and in terms of successfully penetrating to the target.

Regarding the former consideration, two factors become relevant: (1) In a "worst possible case" scenario, eight minutes of vacillation by the national command authorities in the face of a dedicated attack by depressed trajectory SS-N-8 missiles could lead to the complete loss of *any* bomber force. Conclusion: *Any* bomber force is vulnerable even to small human error. No bomber force possesses a sufficiently high level of survivability

to be entrusted with the whole of the nation's strategic defense.²² (2) In "worst plausible case" scenarios, crisis preparations combined with the anticipated timely decision-making at the national level will be able to invalidate any foreseeable enemy attack aimed at preempting the bombers on their runways. Conclusion: In most plausible crises, the manned bomber is a valid system and remains a vital portion of the strategic Triad.

This conclusion is most readily grasped by examining a typical crisis. Whatever the origin (possibly involving Europe), the administration would have adequate warning of the impending collision, would be eager to control the level of tension, but at the same time would find it advantageous to optimize its force level should negotiations collapse. From the standpoint of the manned bomber, this state could be most readily achieved by deploying the available number of bombers at sparsely inhabited points where a preemptive strike could not reach them prior to their successful escape. Though it should be observed that at present the Soviets have not developed depressed trajectory capability for their modern naval missiles (SS-N-6 and SS-N-8), they have tested it on the enormous land-based SS-9 system. Inasmuch as the next generation of bombers is expected to have a life-cycle span of thirty years, the possibility that this "within the state-of-the-art" concept may be deployed is difficult to ignore.²³

Were it to be deployed, its impact may be illustrated by observing that the total escape time for B-1 is approximately 240 seconds. The Brookings wide-body cannot perform the same mission profile in less than 330 seconds and is only able to perform it that well if rocket-assisted takeoff is provided. In addition, B-1 is smaller and hence is able to take off more swiftly than the wide-body, one every 7.5 seconds as opposed to one every 15 seconds. Finally, B-1 is able to operate from short (7500 foot) runways, as contrasted to the approximately 10,500 foot runways

needed for the wide-body. The result of this phenomenon is that only Rapid City, South Dakota, has the right combination of runway length and distance from the sea to enable the wide-body to escape attack from dedicated SLBMs. In contraposition, the four largest municipal airports in the state of Wyoming themselves possess a notional capability to launch 49 percent of the proposed B-1 crisis force of 210 in the face of the same assault. Conclusion: Of a total force procurement of 244, generating a crisis alert force of 210, B-1 produces 210 survivors operating either from existing airstrips or easily modified airstrips, the wide-body fewer than ten.²⁴

In light of this harsh reality, a force of wide-bodies would have one of two choices: either to risk preemptive destruction or proceed to airborne alert. The latter move would preserve that portion of the force so deployed, but the gambit has its drawbacks. Primary among these is that it requires a very large force on the ground to sustain a very small force in the air. It is estimated that in the early 1960s the United States possessed a capability to sustain 12.5 percent of the then existing bomber force in the air for a period of one year. For crises of shorter duration improved percentages should be possible, but the implications are obvious.²⁵

A second problem encountered in scenarios involving airborne alert touches on the delicate question of crisis management. While in some situations it might be deemed desirable to place bombers on airborne alert to signal resolve, in others it might not. It should be understood in advance that placing bombers on airborne alert has ominous escalatory overtones. Even a quick deployment to deep interior bases, away from vulnerable coasts, would not have the same impact. Conclusion: Airborne alert is not necessarily a desirable state.

Provided the bombers survive attempts aimed at preemptive destruction, they must then possess the capability to penetrate to

their targets. Twenty years ago Albert Wohlstetter estimated that on a typical mission an individual bomber possessed between .5–.9 chance of survivability, depending on the state of the defense and the skill and execution of the offense. Under present conditions, analysis would indicate that the wide-body is near the lower end of that profile, while the B-1 is at the upper end.²⁶

The wide-body, presumed to be in the 747 class, is vulnerable to a wide range of criticisms. Among them is the fact that the 1500 nautical-mile-range cruise missile that the Brookings experts proposed as the irreducible minimum does not exist. Proposed air-launched cruise missiles (ALCMs) have notional ranges of between 1000–1200 nautical miles. And while a longer-range ALCM could be developed from the Navy's sea-launched cruise missile (SLCM) program, to achieve 1500 nautical miles in the airborne mode would entail additional expenditure.²⁷

Of more significance, the aircraft and its missile (whatever the range) are vulnerable to enemy air defense. The Soviet Union has the world's largest and most modern air defense system. It currently lists in its inventory 5000 air surveillance radars, over 2500 interceptors, and some 12,000 surface-to-air missile (SAM) launchers. It is constantly being upgraded. This air defense would have a wide range of options to deploy against the handful of surviving lumbering wide-bodies that could be maintained on airborne alert.²⁸

First, the Soviets could attack them at extreme range with a combination of airborne warning and control system (AWACS) aircraft and transports (possibly of the Il-76 class) armed with air-to-air missiles. The proportion that this problem is apt to assume may be best illustrated by observing that analysis indicates that even the current primitive Soviet AWACS (NATO code-named Moss) works acceptably over water, the very medium above which the wide-body would be expected to launch its ALCMs. Future

AWACS should be far more effective, especially when they are combined with the high-altitude profile the lumbering wide-body would be flying and its vast radar cross section.²⁹

Second, in regions where the wide-body would have to approach nearer to the coast to attack its targets, less costly and sophisticated measures should suffice. Current or projected interceptors supported by AWACS and, in some instances, by in-flight refueling should be able to exact a considerable toll among the lumbering wide-bodies. It is possible that the mortality rate would approach the 50 percent mark.³⁰

Third, in addition to the bomber, the ALCM itself may be attacked. It is not often noted, but all projected cruise missiles fly a portion of their profile at very high altitudes (as much as 45,000 feet). At such heights, even primitive interceptors with standard air-to-air weapons should be lethal. Of perhaps more importance, during the next 30 years interceptors equipped with look-down-shoot-down systems should be developed and deployed. Brookings experts estimate that 600 such interceptors, each equipped with six missiles capable of a 50 percent intercept/reliability, could inflict up to 1000 kills on a notional cruise missile force.³¹

Fourth, sophisticated terminal air defenses should be able to engage and kill several hundred more slow-moving, subsonic cruise missiles. The effectiveness of these defenses hinges largely on the number of sites to be defended, the number of rounds each launcher is able to fire at an approaching ALCM concentration, and, most significant, how many sites are able to be avoided by skillfully preplanning ALCM flight patterns. Taking these factors into consideration, one conservative estimate yields approximately 300 additional kills.³²

Finally, it would appear that the wide-body/cruise missile system is a vulnerable weapon. It would also appear that the Brook-

ings experts were cognizant of this. To overcome the weaknesses inherent in the wide-body system, they proposed that a path for the ALCMs be cleared through the terminal defenses with air-launched ballistic missiles (ALBMs). This system does not exist in any form today, and the expense of developing it might be exorbitant.³³ Conclusion: Without ALBM support the wide-body system is highly vulnerable and, in addition, is subject to the earlier elaborated caveats concerning the difficulty of attacking dispersed populations with low fallout producing explosives (ALCM warhead = 250 KT).³⁴

The strategic picture involving B-1 is different. B-1 combines a relatively small radar cross section with an electronic countermeasures suite that will prove difficult for many enemy sensors to penetrate. The aircraft is capable of near sonic speed at heights as low as 200 feet above the ground. This renders tail chase by any foreseeable interceptor highly implausible. Should the enemy improve his sensors or electronic countermeasures, B-1 has room to grow and will be fully capable of accepting advanced systems such as the short-range ballistic defense missile (SRBDM) and the advanced strategic air-launched missile (ASALM). The former would be used to protect the bomber from air-to-air missiles; the latter will be capable of nuclear engagement against air or land-based targets and will combine SRAM speed (Mach 2.5–3.0) with ALCM range (650 NM). If their deployment becomes necessary, they should provide an acceptable answer to an advanced Soviet AWACS and look-down-shoot-down interceptors.³⁵

Above all B-1 will penetrate to the target with its weapon mix of SRAMs (as many as 24), or gravity bombs, or ALCMs, or SRBDMs, or ASALMs, providing unrivaled flexibility of payload, extraordinary accuracy of delivery, and even some immediate reconnaissance of the target area. The fact that this system is manned optimizes system survival

bility by providing the maximum number of options for defense suppression, ranging from jamming, to avoidance, to destruction. Unlike the ALCM it will not be bound to a set, slow-moving flight profile devoid of alternatives.

The lethality of the system is best gauged by observing the performance of the aircraft under conditions depicting "the worst plausible case." This scenario envisions the national command authorities' failing to disperse exposed aircraft to secure inland sites. Thus, only those bombers deep based at Minot and Grand Forks, North Dakota, and at Rapid City would survive preemption. If Rapid City were outfitted with a double squadron wing, some 34 B-1s could escape a dedicated attack by depressed trajectory SLBMs with a notional capability to travel 1100 NM in 445 seconds and have operational access to Hudson Bay.³⁶

The amount of firepower deliverable by such a force in a single strike would vary with the payload carried. But if .9 of those able to escape preemption proved to be mechanically reliable and .85 survived enemy defenses (as the USAF has hypothesized), then 26 B-1s should reach their goals armed with as many as 24 SRAMs per bomber (if each proved to have a .9 reliability that would equal almost 600 weapons delivered on target) or a far smaller number of heavy gravity bombs.³⁷

Under similar conditions, a mere six wide-bodies would escape from their only safe haven, Rapid City. And it is questionable that any weapons would be delivered on target by this handful of survivors if the rest of the equation included: .9 mechanical reliability, .5 survivability, and serious degradation to the 50 ALCMs (.9 reliability) embarked aboard each aircraft from both interceptors and terminal defenses.

IN THE period of the late 1980s the concept of the strategic Triad may be discarded, and

revolutionary strategies may develop. However, until such plans are reasonably formulated, the classical model will necessarily have to be followed. If it is, and if it is decided that a high-volume, high-accuracy payload is

a desirable feature for the strategic forces of the United States, then there would appear to be little cost-effective alternative to the B-1 bomber system.

New Rochelle, New York

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TACTICAL AIR POWER AND ENVIRONMENTAL IMPERATIVES

LIEUTENANT COLONEL ROBERT S. DOTSON, AFRES

SOME months ago, a thoughtful article by Major Dennis W. Stiles in the *Air University Review* dealt with the intrinsic strengths and weaknesses of tactical air forces.¹ By their very nature, tactical fighters can do some things well and others poorly, independent of the environment in which they are employed. But the combat environment itself imposes additional conditions that must be accommodated if tactical aircraft are to be employed effectively. It is necessary, then, to expand on the concepts explored by Major Stiles so that we may attempt to answer hard and specific questions about:

- the composition of the future tactical fighter force structure (how many F-15s, F-16s, and A-10s);
- the weapons that can be best combined with our aircraft to obtain the most effectiveness for the dollars available to us.

Without question, a conflict in Europe would pose the most demanding environment for our tactical air forces, and it is in the context of a conventional war in Europe that the thoughts to follow will evolve.

The Backdrop of Strategy and Technology

The Air Force's tactical fighter squadrons, active and Reserve, are assuming a role of unprecedented importance in preserving the integrity of the Atlantic alliance. Because our nation no longer enjoys overwhelming nuclear superiority over the forces of the Warsaw Pact, defense of Western Europe by an early use of theater-nuclear forces has lost

the appeal that this so-called trip-wire strategy held for the NATO nations in the fifties and sixties. The perceived linkage between theater-nuclear war and general war has become uncomfortably tighter with the acquisition of a formidable nuclear arsenal by the Soviet Union.

It is no surprise, then, that the defense of Europe has been planned around NATO's conventional forces—under the expectation that these forces can prove strong enough to preserve the territorial integrity of the alliance while keeping the intensity of the conflict well below the nuclear threshold.

But the Soviet Union has not been content to upgrade only its nuclear forces. Any respected source of data will show the conventional forces of the Warsaw Pact to be unsettlingly heavy in armor and artillery, the hardware which provides firepower and shock for a rapidly moving conventional offensive. To deter the Pact, and to defeat their conventional forces if deterrence fails, we must maintain first-rate conventional forces of our own. However, the nations of the alliance, including our own, have shown a reluctance to offset Warsaw Pact quantitative advantages in conventional ground forces by expanding our own armies to any appreciable degree. Rather than opt for the labor-intensive solution—with its attendant manpower costs—we have, instead, chosen the capital-intensive approach. We have decided to counter Warsaw Pact mass with Western technology.

A prime example of this reliance on technology is the future strengthening of NATO's tactical air forces with the F-16 and the replacement of F-4s in our own active Air Force with A-10s, F-15s, and F-16s. But it is not enough to obtain new equipment. There is much to be explored in determining the most profitable ways to employ that equipment to enhance deterrence and to make Central Europe a burial ground for Pact armor if deterrence fails.

Author's note: The views expressed in this article are those of the author and do not necessarily reflect those of the U.S. Air Force or the Office of Management and Budget.

R.S.D.

Counterair and Support of Ground Forces

The necessity for an effective division of labor between NATO's ground forces and air forces was highlighted recently in an article in *Air Force Magazine* that describes the role of NATO tactical air power as a partner with alliance ground forces in stopping a Warsaw Pact armored thrust across Europe. One paragraph of the article is particularly illuminating:

If intelligence is right, NATO ground forces could achieve local superiority against the first assault echelon. The second, equally decisive, "if" is whether US and other NATO tactical airpower would be able to deal with the Pact's second echelon before it could engage NATO ground forces at the forward edge of the battle area. This, then, leads to the third requirement for a successful defense by NATO forces—the rapid achievement of local air superiority over the main battle area to permit air interdictions of Pact follow-on attacks.²

For the air-superiority mission, the key words are *local air superiority over the main battle area*. The emphasis on aerial battle implicit in this statement, rather than attack of Warsaw Pact airfields, reflects two important developments for Western airmen:

- NATO air-superiority aircraft will have a distinct technological edge over those of the enemy as the F-15 and F-16 enter NATO air forces in quantity.
- Attacks on heavily defended Warsaw Pact airfields—where enemy aircraft are well protected with aircraft shelters and surface-to-air defenses—may be prohibitively costly compared with the damage inflicted.

For the ground-attack mission, the paragraph cited earlier describes what could be an increasingly important role for NATO air forces with the words: *whether US and other NATO tactical airpower would be able to deal with the Pact's second echelon before it could engage NATO ground forces at the forward edge of the battle area*. Implied here is

a shift in emphasis from the familiar close-air-support (CAS) mission—where aerial ordnance is delivered near friendly ground forces—to ground attack in support of friendly ground forces beyond the effective range of weapons organic to those ground forces (the so-called "battlefield" interdiction mission).*

This interpretation does not mean that close air support will be abandoned for battlefield interdiction but that the preponderance of the ground-support effort will be concentrated against follow-on echelons of Pact forces. But close air support will continue to be a particularly important Air Force mission.

Close Air Support

If breakthroughs by Pact armor threaten at the forward edge of the battle area (FEBA), air power will be massed in space and time to beat down the Pact forces before they can attain breakthrough momentum. Because CAS attacks must not endanger friendly ground forces, precision-guided weapons such as the Maverick missile will be particularly useful in this role. The A-10 will soon play the primary CAS role for the U.S. Air Force, and it is well-suited to this mission. The A-10 can perform in Europe's poor weather when other aircraft cannot, and, for a CAS aircraft, this capability far outweighs others in importance. The mission must be flown when the ground situation demands—not when the weather permits.

Because the A-10 will be thrown into the breach when points of attempted Pact breakthrough become discernible, it may be wise strategy to limit A-10 sorties early in the conflict to conserve the striking power of the

* Author's note: AFM 2-1, *Tactical Air Operations—Counter Air, Close Air Support, and Air Interdiction*, identifies air interdiction as one of the five combat functions performed by tactical air forces. Air Force doctrine does not differentiate within the air interdiction function based on target distances relative to the forward edge of the battle area (FEBA). The term "battlefield" interdiction used in this article refers to that portion of the air interdiction function described above (i.e., ground attack in support of friendly ground forces beyond the range of weapons organic to those ground forces).

A-10 force for maximum effect when breakthrough massing by the Pact begins to occur. This strategy, of course, would require NATO ground forces to hold their own against Pact first-echelon forces where breakthroughs are not attempted and would depend upon success by the battlefield-interdiction force in disrupting Pact artillery and follow-on echelons. (Battlefield interdiction will be treated in detail later.)

A reduced employment of the A-10 early in the conflict could:

- preserve the A-10 force until it is most critically needed:
 - conserve Maverick missiles;
 - allow additional time for suppression of Pact air-defense weapons at the FEBA to reduce attrition of the A-10; and
 - conserve the A-10 force so that, when the Pact offensive stalls, the A-10 can precede counterattacking NATO armies to help rout Pact ground forces. After Pact surface-to-air defenses have been suppressed (or have run low on ammunition because their high rates of fire), the A-10 could be particularly lethal in such a counterattack role.

The second point—to conserve Maverick missiles—is particularly important. If A-10s expend Mavericks at the rates of which they are capable, before attempted Pact breakthroughs at the FEBA begin to develop, these valuable weapons may be in short supply when they are most needed to defeat breakthrough forces.

Earlier, it was stated that the Air Force has a continuing, central role to play in the battle at the FEBA. What does seem to be emerging, however, is perhaps a more important ground-attack mission—beyond the FEBA and beyond the effective range of the Army’s organic weapons—for our tactical air forces.

Battlefield Interdiction

This mission will enable air power to be applied with maximum speed and mass in

ground attack because a number of constraints that limit the intensity of weapons delivery in close air support will be overcome. Specifically:

- Because ordnance will not be delivered near friendly ground forces in battlefield interdiction, there will be a relative lack of dependence on forward air controllers (FACs) to coordinate air attacks—and this coordination can slow the rate at which weapons are employed.
- Because of this reduced dependence on FACs, battlefield interdiction will have a relatively reduced vulnerability to enemy electronic countermeasures (ECM), which may hinder coordination of strike aircraft with FACs in the CAS mission—another factor that can slow the rate of weapons delivery.
- Battlefield interdiction will enable

Table 1. Battlefield interdiction attack modes—options and definitions

Options:

- Option 1 — Single-pass attack with area weapons
- Option 2 — Multiple-pass attack with precision-guided munitions

Definitions

- W_s — Weapon loads per sortie
- K_p — Target kills per pass
- L_s — Losses per sortie
- P_{li} — Probability of loss during ingress to target
- P_{lp} — Probability of loss per weapon delivery pass
- P_{le} — Probability of loss during egress from target
- S_a — Sorties per unit equipment (UE) aircraft (based on UE aircraft at the beginning of each day)
- P_{ls} — Probability of loss per sortie

$$(1 - P_{ls}) = (1 - P_{li})(1 - P_{le})(1 - P_{lp})^n$$

Where n = number of passes

K_s — Target kills per sortie

$$K_s = (1 - P_{li}) \sum_{n=1}^{\text{total passes}} (1 - P_{lp})^n K_p$$

the mass employment of area weapons, munitions that allow intense firepower to be delivered at high rates but which are dangerous to use near friendly troops in close air support.

However, these advantages of battlefield interdiction come at greater risk of attrition, compared with operations in the CAS mode, because of a relatively longer exposure to enemy defenses. Therefore, gains in effectiveness must be balanced against increased risks of loss. Attempts to achieve such a balance have resulted in lively and useful debates about the following modes of attack for battlefield interdiction:

- single-pass deliveries of area weapons;
- multiple-pass deliveries of precision-guided weapons.

Because this article attempts to deal with the specifics of the battlefield-interdiction mission, the strengths and weaknesses of each attack mode will be explored in some detail.

Table 1 lists definitions that will be used in subsequent tables to illustrate tradeoffs in the two modes of attack. Shown in Table 2 are assumptions about the various parameters defined in Table 1. These assumptions are intended to be relatively consistent, from one option to the other, though the absolute values may not suit the individual reader's intuition. The reader can easily determine the effects of his own assumptions by placing them in the framework described by the tables.

The effects of the assumptions shown in Table 2 are found in the five-day campaign history for 500 unit-equipment (UE) aircraft at the bottom of the table. Specifically, for Table 2:

- The single-pass option results in about one third the kills produced by multiple attacks.
- The losses incurred in the multiple-pass attacks are greater than those of the single-pass option by more than a factor of two.

Table 2. Battlefield interdiction illustrative example

Assumptions •

Option 1

- $W_s = 8 \times$ Rockeye
- $K_p = .9$
- $P_{li} = .01$
- $P_{lp} = .03$
- $P_{lc} = .01$
- $S_a = 2$

Therefore:

$$(1 - P_{ls}) = (1 - .01)(1 - .03)(1 - .01)$$

$$P_{ls} = .05$$

$$K_s = (1 - .01)(1 - .03)(.9) = .86$$

Option 2

- $W_s = 6 \times$ Maverick
- $K_p = .7$
- $P_{li} = .01$
- $P_{lp} = .03$
- $P_{lc} = .01$
- $S_a = 2$

Therefore:

$$(1 - P_{ls}) = (1 - .01)(1 - .01)(1 - .03)^6$$

$$P_{ls} = .18$$

$$K_s = (1 - .01) \sum_{n=1}^6 (1 - .03)^n (.7) = 3.74$$

Illustrative Campaign History

Day	1	2	3	4	5	Total
Option 1						
UE aircraft	500	450	405	364	328	-
Sorties	1000	900	810	728	656	4094
Kills	860	774	697	626	564	3521
Losses	50	45	41	36	33	205
Kills per loss						17.2
Option 2						
UE aircraft	500	320	245	157	100	-
Sorties	1000	640	490	314	200	2644
Kills	3740	2394	1833	1174	748	9889
Losses	180	115	88	57	36	476
Kills per loss						20.8

*The reader should remember that these values, though not necessarily unrealistic, are illustrative. The data and equations shown are presented in detail so that the reader can employ his own parameters if those shown in this and subsequent tables do not suit him.

- Fewer losses and, thus, a higher kills-per-loss ratio for the single-pass option.

Multiple kills from an area weapon could result if sufficient area of coverage and density of coverage can be applied against dense targets. If a multiple-kill area weapon could be employed: it would be highly cost effective. Table 6 shows that:

- If the outcomes in losses shown in Table 5 were to be equalized by purchasing additional aircraft for the multiple-pass option so that the surviving UE aircraft would be the same in each case, \$2.3 billion would be required to procure additional UE aircraft;

- For the cost of these additional aircraft and the Mavericks expended, \$500,000,000 in R&D could be expended for the new weapon, and its cost could be \$484,000 per sortie.

Table 6. Cost effectiveness of an area weapon (FY76 dollars)

Deficit in surviving UE aircraft for the multiple-pass option of Table 5

$$(500 - 205) - (500 - 495) = 290$$

Cost to procure 290 additional UE (435 total aircraft — based on the F-16 program ratio of 650 total aircraft for 432 UE aircraft):

— Flyaway Cost (based on F-16 end-of-program flyaway cost in FY 80)	\$1827 million (435 aircraft @ \$4.2 million each)
— Procurement Additive (@ .25 of flyaway cost)	\$457 million
— Subtotal	\$2284 million

Maverick Costs:

$$1650 \text{ sorties} \times \frac{6 \text{ weapons}}{\text{sortie}} \times \frac{\$20 \text{ thousand}}{\text{weapon}} = \$198 \text{ million}$$

Total \$2482 million

New-Area-Weapon Economics:

$$\$2482 \text{ million} - \$500 \text{ million (R\&D)} = \$1982 \text{ million}$$

$$\frac{\$1982 \text{ million}}{4094 \text{ sorties (Table 5)}} = \frac{\$484 \text{ thousand}}{\text{sortie}}$$

It should be noted that no peacetime operating and support (O&S) costs have been assessed against the additional UE aircraft, though O&S expenditures would be required to provide 290 fresh, combat-ready UE aircraft at the fifth day of conflict.

The key point shown by Table 6 is this: If a weapon could be delivered against Warsaw Pact artillery and armored targets, and could achieve multiple kills in one pass, this weapon would be highly cost effective—even if its R&D cost and unit acquisition cost were quite high.

Though this section on battlefield interdiction is somewhat detailed, the problem of target acquisition, prior to attack, has not been dealt with specifically because it is not clear that a target-acquisition sensor—eyeball or other device—would favor either single-pass or multiple-pass weapons for visual attacks. With either weapon the pilot must find, identify, and strike the target. However, poor weather would preclude attacks with precision-guided weapons, while area weapons could be employed in the general area of suspected targets. Also, poor contrast of target and background could deny the lock-on of a precision weapon when a pilot can sufficiently locate a target to deliver an area weapon.

Area and Precision Weapons

The desirability of one weapon or the other for battlefield interdiction depends, as the tables have shown, on:

- the attrition suffered by attacking in one mode compared with the other;
- whether multiple kills can be achieved by dropping area weapons in one pass.

Actually, a mix of area and precision-guided weapons may be a better answer than the either/or implications of the tables shown earlier.

First, the use of area weapons early in the conflict, especially against massed artillery, could provide multiple kills and reduced losses to our tactical fighters. Later, after defense suppression has been applied liberally, and possibly after the enemy has attempted to reduce his losses by spreading his forces, precision-guided munitions could be employed to good effect. Such a mixed-weapons strategy could achieve a favorable balance between kill rate and force conservation.

It will not be surprising, therefore, to see the F-16, armed with a new area weapon, evolve as a very important ground-attack system in the NATO arsenal. The F-16, with its small size, high speed, and ability to maneuver defensively without great energy loss, should prove to be a highly survivable aircraft. Also, its survivability will be enhanced by its bombing system which will incorporate a continuously computed impact point (CCIP) release cue that will allow effective weapons delivery without exposure to the risks of relatively long periods of target tracking required by other weapons. Finally, the F-16 should be able to carry the load that a new area munition will probably require.

Though this treatment of battlefield interdiction has covered a good deal, more needs to be said about the importance of force conservation. Perhaps this subject is an appropriate closing note.

Force Conservation

The environmental imperatives of a war in Central Europe may place a high premium on early force conservation by NATO to defeat the Pact, because:

- NATO air forces are indispensable to the containment of a Pact offensive and must be employed with effect at the outset of battle;

- Pact forces, enjoying a favorable advantage in ground forces, are less dependent on their air forces for early air support;

- The Pact tactical air force may be employed sparingly near the FEBA early in the conflict so that Pact surface-to-air defenses can attrit NATO's air force—unimpeded by cumbersome requirements for the coordination of their own aircraft and surface weapons;

- After the Pact surface-to-air defenses have been substantially suppressed or have drawn down their ammunition, the Pact tactical air force may be unleashed to destroy the remainder of NATO's air forces and to add more punch to the ground offensive.

Thus, the conspicuous absence of Soviet-trained Egyptian fighter forces during the early battles of the 1973 Yom Kippur War may be an indication of Soviet employment concepts for tactical fighters. We may well have witnessed a conscious effort by the Egyptians to withhold fighters from the battle area until duels between the opposing air force and friendly surface-to-air weapons had run their course.

Because the Warsaw Pact will come at NATO with quantity on the ground and in the air, we must conduct battlefield interdiction and close air support skillfully, so that we conserve our forces while exploiting the great firepower potential only tactical air power can bring to the battlefield—to stop the enemy's ground offensive before it gains momentum.

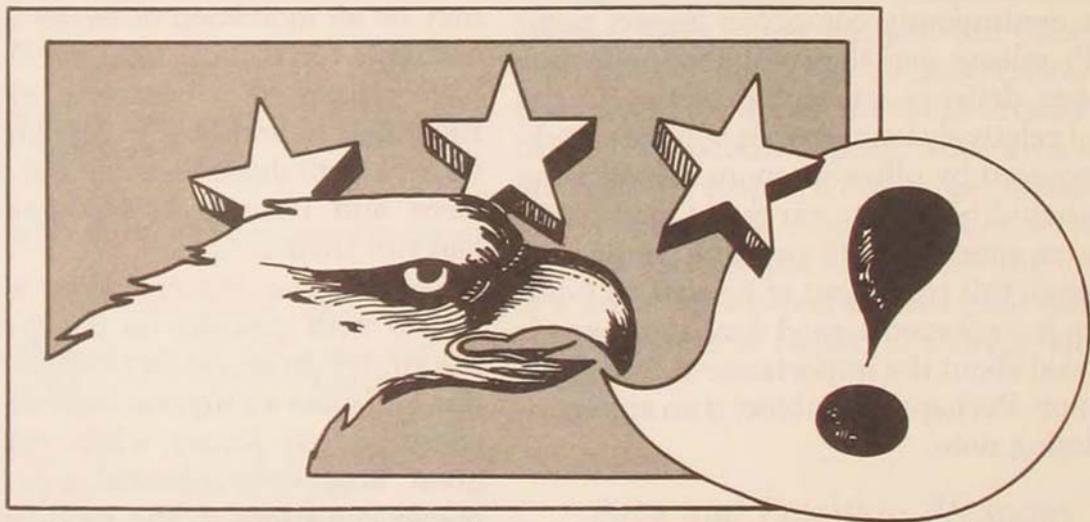
Fairfax, Virginia

Notes

1. Major Dennis W. Stiles, "Air Power: A New Look from an Old Roof-top," *Air University Review*, November-December 1975, pp. 49-59.
2. Edgar Ulsamer, "Tac Air—History's Most Potent Fighting Machine," *Air Force Magazine*, February 1976, p. 22.

NATIONAL SECURITY policy is vitally important—or so, at least, we are instructed almost daily by scholars and soldiers, politicians and pundits. Despite its importance, or perhaps because of it, national security is a subject for frequent discussion and debate. But a curious and puzzling feature about national security issues is not that they are widely discussed; rather, what is bewildering is how narrowly they sometimes seem to be understood.

Discussions of national security or defense policy, whether academic or casual, seem invariably to take for granted a number of fundamental considerations, what I call “unspoken assumptions.” *Any* discussion of national security policy is necessarily founded on several basic beliefs, about which there has to be agreement, tacit or otherwise, before any sensible dialogue can ensue. Usually, such agreement is simply understood or unexpressed, and the conversation or lecture or article proceeds unchallenged. One thing needed for a more detailed investigation of defense policy is a study of precisely those unspoken assumptions that lie, usually mute, at the heart of defense policy discussions.



NATIONAL SECURITY POLICY

the unspoken assumptions

DR. JAMES H. TONER

This article outlines five unspoken assumptions that constitute the foundation of both national security policy itself and of all informed and intelligent discussion about and criticism of such policy. Readers are encouraged to challenge the number or the exposition of the assumptions I have marshaled here. Unless and until there is some common understanding about these unspoken assumptions, national security policy cannot be debated and discussed, argued and analyzed, as it must be, whether over the neighbor's fence, in the Pentagon, or in the national political arena.

The Unspoken Assumptions

Of the five unspoken assumptions enumerated here, the first one is perhaps the most philosophical. Any discussion of this assumption will lead, almost inevitably, to the question, "Why is American society worthy of protection?" The answer is important—and not just for academic reasons.

*American society
is worthy of protection.*

Any discussion of national security policy implies acceptance of the proposition that American society is worthy of protection. If the society were entirely venal and debauched, there would be little point in expending blood and treasure to secure it. It is precisely on this point that some discussions of national security issues end before they actually begin. A violent revolutionary, for example, will surely have a different version of national security priorities from those held by a mainstream American liberal or conservative.

The Code of Conduct for Members of the United States Armed Forces, or Executive Order 10631, 17 August 1955, instructs the soldier that "I serve in the forces which guard my country and our way of life. I am

prepared to give my life in their defense." Because American armed forces have never been portrayed as purely mercenary, it is a matter of great personal conviction to soldiers that what they are defending—and possibly dying for—is eminently worthy of their efforts. Not for nothing do United States Army drill sergeants wear emblems emblazoned with, "This We'll Defend." The same Code of Conduct instructs the soldier never to forget that he must be "... dedicated to the principles which made my country free. I will trust in my God and in the United States of America."

Whether the discussion concerns the individual soldier in the field or the entire military establishment, people who debate military practices and policies should recognize and reflect on the elementary and paramount issue: Is our society worthy of protection? If so, why? To what extent does it merit protection? Under what circumstances does it forfeit the right to such protection? Is there a different point of view on the issue between soldiers and civilians?

*There is a real threat
to American security.*

It is possible to define national security simply as "*the ability of a nation to protect its internal values from external threats.*"¹ How important this idea is has been explained by Henry T. Nash, who contends that

Since World War II America's foreign policy has been a response to a sense of threat. The basic guiding principles of this policy were formulated immediately following the war in response to the threat of Communism and have remained fundamentally intact for a quarter of a century.²

Put bluntly, if there are no threats to American national security, the American military establishment is superfluous and should be dismantled or at least severely cut back. And one does not have to browse long through a library to find a number of works dedicated

to the proposition that international threats to American society are mere misperceptions by American leaders; or that such threats are manufactured by American military leaders for the aggrandizement of the military; or that such threats are the result of Communist self-defense efforts in the face of massive American armaments.

In discussions of American defense policy, there is probably no more important strategic question than this: Is there a real threat to American security? If the answer to that question is yes, corollary questions will quickly follow: How extensive or dangerous is the threat to the United States? What is the nature of the threat? What can be done to diminish or eliminate it? Can a threat be a positive thing in leading to a balance of forces? If so, is it possible to live with a rival in a state of mutual insecurity? What are the alternatives?

The United States has the means to establish its national security.

At first glance such a proposition seems hardly to warrant any attention. But consider that this year's military budget request of about \$115 billion is the highest in history. And consider that in an open society there is active and energetic competition among a number of groups and causes for a larger piece of the "federal pie." Almost every year there is a hue and cry that the defense budget is exorbitant. Even in the United States, which is still wealthy beyond the dreams of most people in the Third World, there is a limit to spending. Frequently, the first place policy-makers seek to lower such spending is in the annual defense budget.

The competition for government funds in closed societies is, in some respects, more tightly controlled. Closed societies may secretly funnel an incredible percentage of the gross national product (GNP) into military spending, with little fear (or toleration) of

competing groups pressing their claims for greater budgetary allocations in nondefense matters. The Soviet Union, for example, does not publish figures on its military expenditures, but it appears to be substantially increasing its military budget. American experts believe that last year's Soviet military budget was \$141 billion; the United States spent \$94 billion. In 1964, the United States spent \$110.4 billion on defense (in 1976 dollars), while the Soviets spent \$100 billion. Recently, the Central Intelligence Agency (CIA) admitted that it may have been underestimating by almost half the percentage of Soviet GNP spent on the military. Some analysts contend that the Soviets have been spending as much as 15 percent of their GNP on defense, compared with about 6 percent for the United States.³

Ordinarily, in the United States, the question to be asked is not whether there must be defense spending; rather, the basic question is "How much is enough?"⁴ With an unsettled national and international economy and with the nagging questions of unemployment and inflation, it is not too much to suggest that the material means of establishing national security are no longer sure and certain. How much for guns? How much for butter? And who establishes those priorities? Can we afford the national defense that we require? Can we afford *not* to have that defense?

This unspoken assumption—which is the paramount question in terms of national logistics—concerns materials and money. But at this time, it also concerns the men and women who are the means of national defense. Without people, after all, the implements and instruments of national defense are merely so many wasted goods. Again, while this precept appears to be self-evident, it may be worth recalling the words of Mao Tse-tung: "Weapons are an important factor in war, but not the decisive factor; it is people, not things, that are decisive. The contest

of strength is not only a contest of military and economic power, but also a contest of human power and morale."⁵ In asking whether the United States has the means of self-protection in terms of people, we are, in effect, inquiring into our own character. As the great military strategist Sir Basil Liddell Hart once put it, "The nature of armies is determined by the nature of the civilization in which they exist."⁶

Of all the unspoken assumptions underlying debate about national security policy, perhaps the one that should never be taken for granted is the question of whether American defense forces possess the proficiency and the morale necessary to ensure national security.

The United States has the will to establish its national security.

In almost any listing of the elements of national power, one can find some reference to national will or some synonym thereof. If a nation lacks the desire and determination to defend itself, all the powerful and sophisticated weaponry in the world cannot assure its security. Without the conviction that defending itself is mightily important, a nation may, in fact, be inviting its enemies to aggress against it, and is almost certainly foreordaining its defeat in war.

This fourth unspoken assumption is worthy of attention because of three paradoxes of the American understanding of the problems of national security. Each of the three paradoxes emanates, to some extent, from the American post-World War II insistence that soldiers should become more cordial to the civilian society; that soldiers should adopt an ethic more sympathetic to that of the society as a whole; that soldiers should be willing to demonstrate a more progressive attitude and thus be more responsive to the times. The American people have been, and will continue to be, uncom-

fortable with professional military men if only because Americans traditionally tire easily of the things and thoughts of war; Americans prefer to turn their minds to less unpleasant ideas.⁷

The first paradox to be understood in trying to comprehend the circumstances and setting of American national security is that it is precisely that most commendable and perennial American concern with peace—a streak in the American political tradition that remains somewhat utopian—that requires Americans to take special care about the adequacy and upkeep of their armed forces. The second paradox with which we must be concerned stems from the first and reveals that Americans are customarily unhappy with professional military forces, and despite an imperative need to preserve the power, prestige, and professionalism of its armed services, Americans energetically set about to civilianize their soldiers and their soldiers' ethic. The third paradox deals with the nature of global strategy in the post-1945 world and reveals that in a world in which global conflict—the righteous war, the crusade—is precluded on pain of virtual human extinction, the type of war which Americans must learn to wage is exactly the type they will have none of and for which they adamantly refuse to prepare their armed services.

Do Americans have the will only for "all or nothing" wars? Is it true for Americans, as General Douglas MacArthur once suggested, that "In war there is no substitute for victory"?⁸ Or, can America muster the will to fight the kind of limited, political war in which the Communists seem increasingly to place their military faith? Serious discussion of this unspoken assumption leads in short order to the analysis of such intractable questions as: What is victory? (Must it always be the conquest or unconditional surrender of the enemy?) What are the purposes of warfare? Who defines them?

Security is a flexible, adjustable concept.

If sailors killed in the 7 December 1941 attack on Pearl Harbor could be brought back to life, imagine how shocked they would be to learn that the nation whose implements of war killed them is now one of America's closest friends. The same, of course, is true of Germany, a nation that the United States struggled desperately against in two world wars. The same sailors might be equally shocked to learn that the Soviet Union, which was fighting valiantly (with American aid) against the Nazi invasion in 1941, had become America's chief antagonist almost immediately after the war. The constellations of world politics change, and it is practically axiomatic that national security policies and strategy must change course with them. What permanence there is in international affairs is not to be found in allies but in fundamental national values. "England," Lord Palmerston is supposed to have said in the mid-nineteenth century, "has no permanent friends, only permanent interests."

American nuclear strategy has changed a good deal in the past three decades. From 1945 until 1949, the United States was the sole owner of "the bomb." The doctrine of "massive retaliation," or immediate response to aggression "at places and with means of [our] own choosing,"⁹ was the strategic formula during most of the Eisenhower administration. Under President Kennedy, the policy of "flexible response" or "graduated response" became the new strategy. The use of force was to be controlled very carefully, with responses to any acts of aggression geared to defeating the aggression without triggering a nuclear response from the enemy. Emphasis was placed on the development of conventional forces so that the nation would be able to wage limited war and not have to threaten nuclear strikes in every military circumstance. Under President Nixon, a doctrine was developed that

aimed at providing a protective shield if a nuclear power threatened a nation friendly or important to the United States. In addition, the Nixon Doctrine promised that while America would observe all its treaty commitments and furnish military and economic assistance in accordance with those commitments to nations endangered by aggression, the United States expected those endangered nations to bear the primary responsibility for providing the manpower for their own defense. Most recently, the subtleties of deterrence policy seem to be replacing any simple slogans for nuclear strategy.

In short, to serve the purposes for which it is designed, strategy must be flexible in order to respond to the peculiar challenges and opportunities of the moment. Clearly, the issue of strategy cannot be dismissed with the single shibboleth, "Superiority!" A wise strategic blend requires more additives than the military one alone. As Bernard Brodie has written, ". . . good strategy presumes good anthropology and sociology."¹⁰ But while security policy and strategy must be amenable to evolving circumstances, some attention must be paid to those enduring national values which it is the task of that strategy to preserve and protect.

If we assume that strategy cannot be reduced to a magic or rigid formula, just how flexible can it be? On what basis does the nation choose its allies and mark out its long-term interests? What are the occasions when compromise is warranted? And when is compromise impossible? These are intensely difficult matters, both for statesmen to decide and for the citizenry to debate. In discussing the issues that cluster around this unspoken assumption, one should recall the admonition attributed to the Athenian leader Pericles: "I fear our own mistakes far more than the strategy of our enemies."

These, then, are the fundamental, unspoken assumptions which, regardless of whether they are ever articulated in national security

debates, lie at the heart of defense policy. They form the basis not only for public discussion but also for official decisions. For it is on these elementary and bedrock ideas that American military policy is founded. It is the task of American policy-makers to formulate a national security policy that is in keeping with the spirit of American assumptions about such policy and is, at the same time, based on a realistic assessment of the international exigencies of the moment.

Such policy-makers include, principally, the President and his closest advisers (sometimes referred to as the "kitchen cabinet"). Other important national security policy-makers include the members of the National Security Council and other key scientific, military, political, and economic advisers. Lengthy discussion of the theories and models of policy-making would have to include a study of the role of the Congress and of various governmental bureaucracies, something which space does not permit here.¹¹ It may be enough in the present context to record that the President is entrusted with primary responsibility for the national defense.

American policy-makers have to develop security policy on the basis of the five national unspoken assumptions already outlined. But, in addition, such policies must be formulated with a view to obtaining three principal objectives that, in recent years, have necessarily become the cornerstone of American defense policy.

The Objectives of Defense Policy

The first objective of our national security policy is survival of the nation—and in a manner that reflects our cherished national values. Open societies from Athens to America have had major problems to surmount in international competition with closed societies. And, as recent transgressions of the American intelligence community will testi-

fy, the strains and tensions of that international danger can lead to a powerful temptation for the open society to emulate the closed society. Adolf Hitler, for example, confidently predicted that "The great strength of a totalitarian state is that it forces those who fear it to imitate it."¹² George Kennan, too, has admitted the fear that Americans, locked in a struggle (regardless of whether it might be downplayed at a given moment) with the Soviet Union, might be tempted to copy it in a number of respects: "After all, the greatest danger that can befall us in coping with this problem of Soviet communism is that we shall allow ourselves to become like those with whom we are coping."¹³

A major objective of all security policy is to ensure the survival of the nation. But survival alone makes no sense unless it is in the service of fundamental values that imbue the nation's existence with meaning and purpose. Secretary of State Dean Acheson put it well: "... the means we choose to overcome the obstacles in our path must be consonant with our deepest moral sense." Thus could Senator Frank Church say of alleged CIA murder plots: "The notion that we must mimic the Communists and abandon our principles [is] an abomination."¹⁴

A few moments of reflection on this basic objective of security policy reveals its difficulty. It says, in essence, that there are things that the United States will not and cannot do, despite the possible concomitant sacrifice of advantage. "If one fought against an enemy ostensibly *because* of his methods," wrote Kennan, "and permitted oneself to be impelled by the heat of the struggle to adopt those same methods, who, then, could be said to have won?"¹⁵

There will, of course, be those who disagree, those who argue that victory is all that matters. Probably the best rebuttal is that of General Matthew B. Ridgway: "If we put 'victory' at any cost ahead of human decency,

then I think God might well question our right to invoke His blessing on our Cause."¹⁶

A second major objective of national security policy is the prevention of nuclear war through a posture of military readiness that deters major aggression and yet is equipped to deal effectively with less flagrant, but still serious, military threats or aggression. The curious logic of deterrence tells us that the United States possesses its thousands of nuclear warheads in order never to use them. But mere possession of such weapons of mass destruction raises the most awesome moral problems and clearly dictates that the nation do its utmost never to employ such weapons—unless no conceivable alternative exists.

Richard Sterling wrestled with this problem and gave as his answer this judgment:

... no one can escape the terrible question: Are there any circumstances in which I would endorse the use of nuclear weapons? Each person must find his own answer. Those who answer yes, as does the writer, assume an appalling responsibility and may be tragically wrong. But the same may be said of those who answer no. Those who prefer, for themselves or mankind, survival over all other values frequently get what they are looking for—a valueless existence. Frequently, too, the sacrifice of all other values does not achieve the survival so ardently desired. In the final analysis, no one can say with certainty whether nuclear pacifism or acceptance of the nuclear contingency represents the more dangerous stance. The only certain result of nuclear pacifism is that the nuclear option will eventually be vested in men and nations less pacifically inclined.¹⁷

The third major objective of security policy is the promotion of a world environment in which all states can enjoy peace and pursue prosperity. Today, as never before, the nations of the world are interdependent. Problems of war, pollution, resource depletion, and population explosion simply do not respect national borders. Problems in the atmosphere and under the oceans cannot be settled or solved merely by national initiatives. While prudent security policy recog-

nizes the desperate need for increased interdependence, it is equally aware of continued global competition and threats to the physical security and well-being of the nation. Problems such as these have no simple textbook answers. The perennial dilemma of when open cooperation is wise to yield to guarded competition is never easy to resolve. Perhaps the best answer, as true today as it was in 1748 when it appeared as a sentence in *The Spirit of the Laws*, was provided by Montesquieu: "The law of nations is naturally founded on this principle, that different nations ought in time of peace to do one another all the good they can, and in time of war as little injury as possible, without prejudicing their real interests."

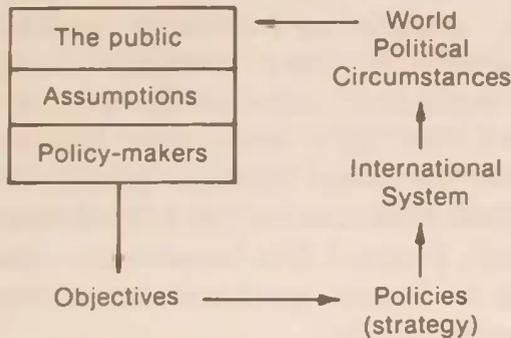
Wise defense policy is thus a careful balance of realism and idealism struck by statesmen with an ear to the assumptions of the citizenry and an eye to the imperatives of the world political system. But American defense policy, one hopes, is not founded merely on what is expedient; it must be founded as well on an ordered conception of what is ethically required, for that, in essence, is what makes American society worthy of protection. The British writer and diplomat, Sir Harold Nicolson, had this to say about the moral dimension of statecraft:

There does exist such a thing as international morality. Its boundaries are not visibly defined nor its frontiers demarcated; yet we all know where it is. If other countries transgress these frontiers, We at least should respect them. *Allis licet: tibi non licet*. That is to say, what is right for others is not right for us. That should be our motto; by that we shall in the end prevail.¹⁸

The National Security Circuit

It is possible to depict diagrammatically what has been outlined here. As we have noted, national security policy is founded on certain bedrock assumptions, shared by the public and by policy-makers alike, who participate in a dialogue of sorts about those as-

sumptions. The role of policy-makers is to produce a national strategy and defense policy that reflects public assumptions and is developed according to prevailing security objectives. Such a strategy is dictated, in part, by what *must* be done, according to the exigencies of the moment, and, in part, by what *should* be done, according to the assumptions of the society being protected. The resultant strategy then plays its role on the stage of the international system and helps to shape world political circumstances. These circumstances, in turn, provide new challenges and opportunities, influencing the assumptions and objectives of the nation's security policy:



PUZZLING out national security policy is a burdensome and serious responsibility in which, in a republic, we all have some share. If one assumes, as I do, that our society merits protection, that threats to our security exist, that we have the means and will to establish our security, and that security is flexible, then the task of our national security policy is reasonably clear: We must try to ensure our principled survival, try to avert nuclear war, and try (whenever possible) to cooperate with other nations. The task is awesome and not a little discouraging. We may, however, find some consolation in the injunction of Sir Winston Churchill:

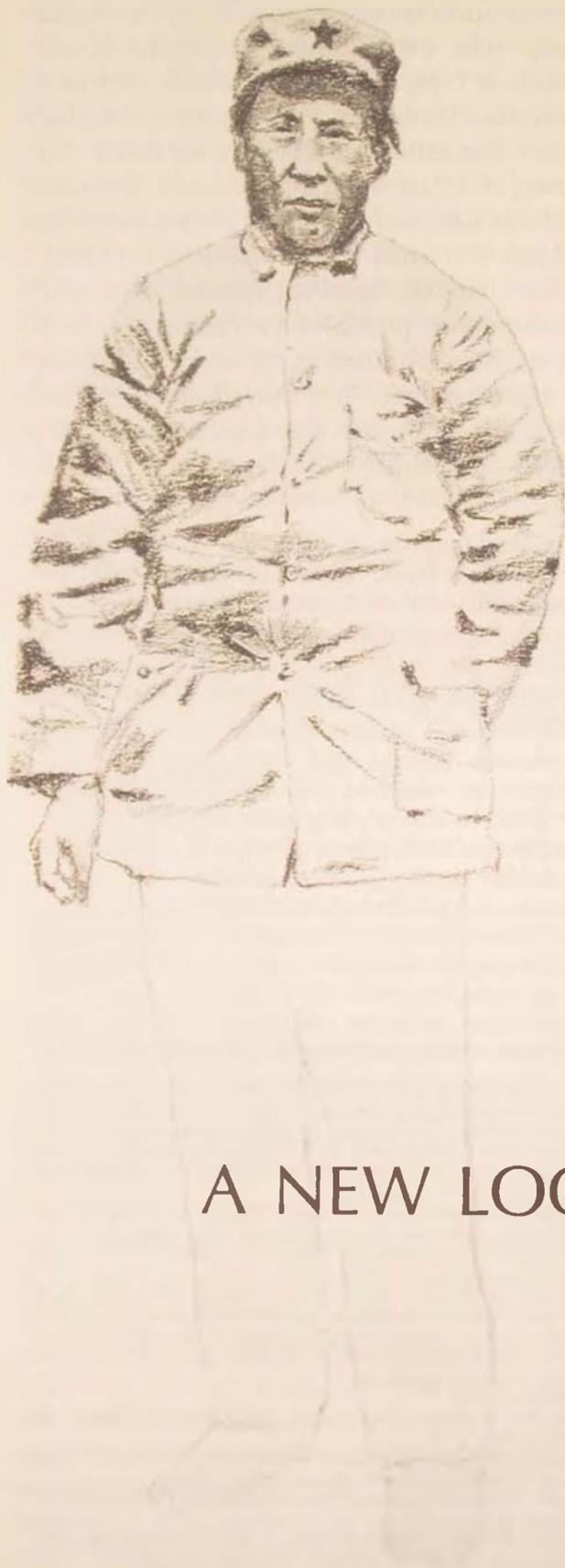
The day may dawn when fair play, love for one's fellow men, respect for justice and freedom, will enable tormented generations to march forth serene and triumphant from the hideous epoch in which we have to dwell. Meanwhile, never flinch, never weary, never despair.¹⁹

Norwich University

Notes

1. Morton Berkowitz and P. C. Bock, "National Security," *International Encyclopedia of the Social Sciences*, 1968, XI, p. 40; their emphasis.
 2. Henry T. Nash, *American Foreign Policy: Response to a Sense of Threat* (Homewood, Illinois: The Dorsey Press, 1973), preface.
 3. "That Alarming Soviet Buildup," *Time*, March 8, 1976, p. 35.
 4. Cf. Alan C. Enthoven and K. Wayne Smith, *How Much Is Enough? Shaping the Defense Program, 1961-1969*. Colophon book (New York: Harper & Row, Publishers, 1971).
 5. Mao Tse-tung, *Selected Works*, II (Peking: Foreign Languages Press, 1965), p. 143.
 6. Quoted in Roy E. Appleman, *United States Army in the Korean War: South to the Naktong, North to the Yalu*, Department of the Army, Office of the Chief of Military History (Washington, D.C.: Government Printing Office, 1961), p. 49.
 7. On this theme, see T. R. Fehrenbach, *This Kind of War: A Study in Unpreparedness* (New York: Pocket Books, Inc., 1963), pp. 92-93, 100, 126, 152-53, 193, 366, 455, 457, 460-61, 466-67, 471, 490, 492, 496, 499, 553, 558, 649, and 706.
 8. On this theme, see John W. Spanier, *The Truman-MacArthur Controversy and the Korean War* (New York: W. W. Norton & Co., Inc., 1965), p. 222.
 9. From an address by John Foster Dulles, on January 12, 1954, as it appears in Peter V. Curl, editor, *Documents on American Foreign Relations, 1954*, published for the Council on Foreign Relations (New York: Harper & Brothers, 1955), p. 10.

10. Bernard Brodie, *War and Politics* (New York: Macmillan, 1973), p. 332.
 11. To pursue the point, cf. Graham T. Allison, *Essence of Decision: Explaining the Cuban Missile Crisis* (Boston: Little, Brown, 1971); Morton H. Halperin, with Priscilla Clapp and Arnold Kanter, *Bureaucratic Politics and Foreign Policy* (Washington, D.C.: The Brookings Institution, 1974); and James N. Rosenau, *The Scientific Study of Foreign Policy* (New York: The Free Press, 1971), Chapter V.
 12. Quoted in Charles Burton Marshall, *The Limits of Foreign Policy*, enlarged edition (Baltimore: The Johns Hopkins Press, 1968), p. 104.
 13. George F. Kennan, *Memoirs, 1925-1950*, Atlantic Monthly Press Book (Boston: Little, Brown, 1967), p. 559.
 14. Acheson is quoted in Robert Leckie, *Conflict: The History of the Korean War, 1950-1953* (New York: G. P. Putnam's Sons, 1962), p. 399. Church is quoted in "Leaving Murky Murders to the Senate," *Time*, June 16, 1975, p. 10. "Ours is not a wicked country," said Church, "and we cannot abide a wicked government."
 15. Kennan, p. 198.
 16. Matthew B. Ridgway, *The Korean War* (Garden City, New York: Doubleday, 1967), p. 76.
 17. Richard W. Sterling, *Macropolitics: International Relations in a Global Society* (New York: Alfred A. Knopf, 1974), p. 92.
 18. Harold Nicolson, *Diplomacy*, third edition (New York: Oxford University Press, 1963), p. 147.
 19. From a Churchill address of March 1, 1955, in *Parliamentary Debates*, 5th series, vol. 537, col. 1905.



IN THE last decade, insurgency, or “wars of national liberation,” became the dominant form of conflict in the world, and Mao Tse-tung’s revolutionary theory of People’s War became famous as the doctrine behind this new kind of war. In 1965, Mao—through his surrogate, Lin Piao—proclaimed that People’s War was “universal truth,” a model for revolution applicable to any society anywhere.¹ With the war in Vietnam expanding, many in this country concluded that Lin’s article was designed to outline the grand Chinese design for the eventual destruction of the United States. As a result, People’s War became the object of much study and great concern within the American military.

A NEW LOOK AT PEOPLE’S WAR

MAJOR WILLIAM L. COGLEY

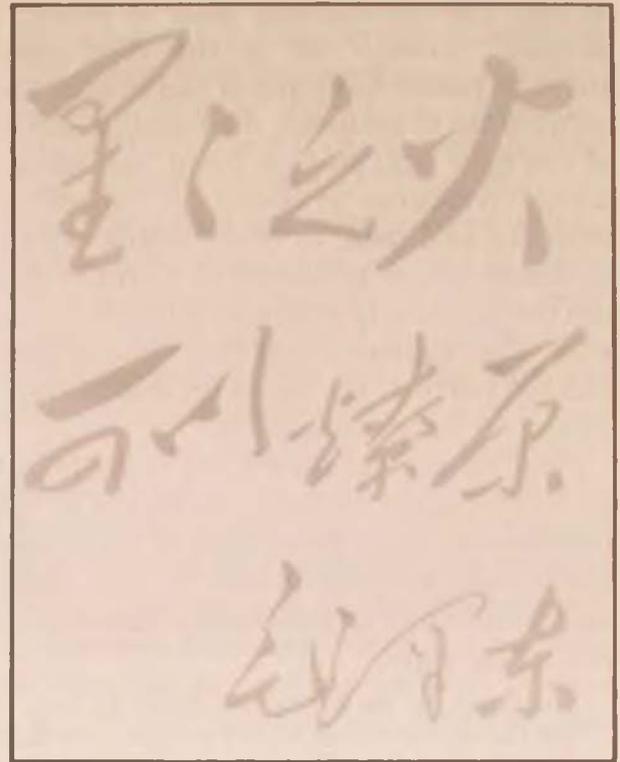
In this decade, that concern has faded. Chinese Communist support for revolutionary movements has declined since the Cultural Revolution, and American involvement in Vietnam has come to an end. The theory itself has not fared well; it was significantly modified by Ho Chi Minh and Vo Nguyen Giap and then "subverted" by the newer ideas of Che Guevara, Frantz Fanon, and Herbert Marcuse. Noting these developments, one scholar recently concluded that while People's War might not be dead yet, the time had come for an autopsy on the body.² Many in the American military seem to agree that People's War has outlived its usefulness, and they see no need to include it in our strategic consideration. Clearly, we must now re-examine the theory.

What is the theory of People's War? Is it dead or alive? What is its role in the 1970s? Does it have a place in the strategic thinking of the American military? These questions provide the focus for a new look at People's War.

Theory of People's War

People's War was not an overnight phenomenon.³ The theory developed over a period of about ten years, from the time in 1926 when Mao first discovered revolutionary potential among the peasants until the spring of 1938 when he completed the last of his major theoretical works. During this time, Mao's ideas shifted and evolved in response to experience, new problems, and situational changes. Thus, the theory is best described in the context of the events that shaped it. We shall first discuss the basic concepts of the theory that Mao developed during the Kiangsi Soviet period, and then review the refinements that he made when he put the theory into systematic, written form in the late 1930s.⁴

Although the seminal ideas of People's War entered Mao's mind in 1926, it was 1930



"A single spark can start a prairie fire," Mao's motto is shown here in his own calligraphy.

before his thoughts seem to have crystallized. The result was the formulation of his three essential principles of People's War: that his revolution would be carried out from bases located in remote, rural areas; that it would involve a central role for the Red Army, a role that would be more of a political than a military one; and that his revolution would take the form of a protracted war—a war of long and undetermined length, but one which would proceed through orderly stages.⁵

In the early years when Mao was first applying and evaluating these essential principles, his major concern was the defense of his base area, the Kiangsi Soviet. The Nationalist forces opposing him were clearly superior in numbers of weapons, equipment, men, and the like; moreover, they could easily encircle and penetrate his base area. To defend

against the Nationalists, Mao, in effect, re-defined "power." We in the West usually think of power in terms of the number and capabilities of weapons, the number and skill of the men who employ them, and the economic resources available to support the weapons and men. In other words, we tend to define power primarily in terms of material things; man is involved, but only secondarily. Mao declared that this view of power was too narrow. He based his wider view of power on three arguments.

First, he argued that there was a broader set of resources available on which to build power—the most important of them being the morale and will power of man, continually reinforced by political mobilization. He put it this way:

Weapons are an important factor in war, but not the decisive factor; it is people, not things, that are decisive. The contest of strength is not only a contest of military and economic power, but also a contest of human power and morale. Military and economic power is necessarily wielded by people.⁶

In short, Mao concluded that man, who is spiritual, can defeat weapons, which are simply material. That is why he believed man's morale and will power to be such an important source of power. Next, Mao said that material resources could be transferred from one side to the other; this is the meaning behind his statement that the enemy was the Communist transport corps.⁷ Last, Mao asserted that one could increase his power in certain ways that had not been fully exploited in the past, the most effective of them being proper definition of a situation. He said that one could begin with an overall inferior situation and, by properly defining it, identify certain parts within which he was superior—that is, one could find superior subsituations; then, by acting within one of these superior subsituations and by continually moving from one superior subsituation to another, one would eventually transform his

overall inferior situation into an overall superior one. This was Mao's idea of maintaining the initiative—never losing a battle, always being on the offense even within defense.⁸ In sum, power, in Mao's view, was defined primarily in spiritual terms and only secondarily in material terms.

The military strategy that Mao employed in defense of the Kiangsi Soviet was guerrilla warfare, i.e., the use of small units engaged in hit-and-run, harassment-type operations. Guerrilla war was a natural outgrowth of Mao's wider view of power, making maximum use of all the ideas within it. These two elements, together with the three essential principles, make up the basic concepts of the theory of People's War. They were not, however, sufficient to preserve the Kiangsi Soviet. In its initial form, People's War was a failure.⁹

After the famous Long March in the wake of the Nationalist destruction of the Kiangsi Soviet,¹⁰ Mao put his theory into systematic written form—refining and expanding on the basic concepts as a result of his experience in Kiangsi. He seemed to have learned two lessons. The first was that remote, rural bases remained vulnerable to military pressure. To relieve that pressure, Mao added to his theory the principle of political protection for bases. In this particular case, it meant "If I can't beat them, I'll join them," and he began to advocate a second united front with the Nationalists against the Japanese. He succeeded in December 1936.¹¹ The principle of political protection for bases appears in the theory of People's War in Mao's formulation of a political objective for the war against Japan: "To drive out Japanese Imperialism, and to build a new China of freedom and equality."¹² That is quite specific for theory, but it was Mao's style to put his theoretical statements into concrete terms. To those who knew the situation in China at the time, his meaning was very clear.¹³

The other lesson Mao learned in Kiangsi

was that guerrilla warfare alone offered little hope for expansion. Successful guerrilla war depends on two basic advantages: full support of the populace in the battle area and intimate knowledge of its terrain. When guerrillas begin expansionary activity, it is inevitable that at some point these two advantages will no longer apply. To overcome the limitations of guerrilla war, Mao added to his theory the concept of mobile warfare, i.e., the employment of regular forces engaged in offensive operations on big fronts over wide areas. The concept of mobile war leads us into a discussion of Mao's entire military strategy within the theory of People's War.

Mao began by saying that since the war against Japan was going to be a protracted one, it was reasonable to assume that it would proceed through three orderly stages. The first stage he envisioned was the strategic defensive, the stage in which the enemy had strategic superiority and the revolutionaries were on the defensive. Next was the strategic stalemate stage, during which the power of both sides was more equal—because the revolutionaries had been building on their spiritual strength—but the enemy retained the upper hand. The last stage was the strategic counteroffensive, in which the revolutionaries had gained strategic superiority and become engaged in destruction of the enemy.¹⁴ Behind this three-stage formulation lies one very crucial assumption that Mao made. He assumed that at some point during stage two, some sort of "external force" would act on the enemy's situation in a way that destroyed his strategic superiority.¹⁵

To fight this three-stage war, Mao provided his forces with a purely military objective for war: "to preserve oneself and destroy the enemy."¹⁶ He also provided them with three types of warfare, each of which was related to the objective and the stages by means of its role or function: mobile, guerrilla, and positional war, i.e., the attack upon or defense of point geographic targets. To Mao,

mobile war was always primary overall within protracted war. It was also prime in stages one and three, because its role was annihilation—destruction of the enemy—and destruction of the enemy is the key element of the dual military objective.¹⁷ Guerrilla war, for Mao, was always secondary overall within protracted war, but it was primary in stage two; this is because guerrilla war can play two roles. When employed in conjunction with mobile war—when guerrillas provide regular forces with assistance—guerrilla war can play an annihilation role. However, when employed alone, because of its inherent limitations, it can play only the role of attrition, gradual weakening of the enemy. This latter role made guerrilla war primary in the strategic stalemate stage. During this stage, Mao had to continue military operations in order to maintain the initiative, but the one thing he could not do was cause so much trouble that he would call too much attention to his revolutionaries. To do so would bring down upon them the still overwhelming power of the enemy—resulting in their destruction—before that external force had a chance to destroy the enemy's strategic superiority. Guerrilla war was ideally suited for this strategy. Finally, positional war was always supplementary in Mao's view because its only role was attrition. It was not that he discounted it totally, just that he believed it had uses only in certain special situations—situations in which the revolutionaries clearly had superiority and in which the political benefits of employing it were worth the military risks involved.

That is the military strategy of People's War. Although it is the portion of the theory that most American students—especially those in the military—concentrate on, it is only one aspect of People's War, and to Mao, a secondary aspect. To Mao, the primary aspect of People's War involved political mobilization of the people and the army: the battle to make the political objective of the

war known to everyone; and the battle to mobilize the people to implement a political program that will achieve the political objective of the war.¹⁸ The primacy of political mobilization rests on Mao's belief that power is defined primarily in spiritual terms. To him, political mobilization is the practical means of actuating spiritual power. Political mobilization, then, is the key to the whole theory of People's War. Certainly, that was the case in the Chinese experience.

At the end of the Long March in 1935, the Communists were near the point of extinction. Yet, by August 1945 their power was almost equal to that of the Nationalists. Many explanations for that dramatic change have been offered, but they can all be reduced to one point: successful political mobilization. Such mobilization was the product of a very complex web of interrelated and interacting factors, and a complete explanation of all of them may never be possible. However, there are three factors that stand out as important: the Japanese invasion and occupation, the Communist economic and social reform program, and the Communist organizational ability. First, let us examine the effect of the Japanese.

The Japanese invaded China in July 1937, and by the end of 1938 they had occupied most of the northern and eastern parts of the country. The invasion and occupation had a significant impact on the situation of both political parties. On the Nationalist side, it drove Nationalist government officials and the traditional elite from rural areas, thereby eliminating the party's means of control over the peasantry. It also forced the Nationalists to retreat from the coastal cities that had served as the political and economic power base of the more progressive party elements, thereby increasing the power of traditional factions and in turn limiting the options available to deal with needed reforms. Last, it weakened the Nationalist system in general by accelerating inflation, debilitating the

army, and lowering morale. In a word, the Japanese destroyed the Nationalist Party's control over a large segment of its population and contributed to its inability to regain that control after the war.

Meanwhile, the impact on the Communist party was much different. Because they had overextended themselves, the Japanese were unable to replace the Nationalist control system they had eliminated, thus leaving the Communists with an open field in which to mobilize the peasantry. The appearance of the Japanese also permitted the Communists to assume an anti-Japanese stance and argue successfully for the United Front. Not only did this silence the remaining conservatives in the countryside by creating fear that opposition to the Communists would appear pro-Japanese but it also alleviated the Nationalist military threat which in the past had inhibited peasant acceptance of the Communist reform program and hampered its implementation. The Japanese, then, gave the Communist party access to a leaderless peasantry that no longer feared the consequences of attempting to improve its own lot and provided it with an environment relatively free of military pressure in which to operate.¹⁹

The next factor behind successful political mobilization was the Communist economic and social reform program. The extent of peasant unrest in the 1920s and 1930s makes it obvious that the Chinese peasant had discovered that there was some sort of better life available, and he wanted that better life above all else. It was that better life which the Communist reform program offered him. The reports of on-the-scene observers and later researchers all lead to the inescapable conclusion that the reform program was the appeal that gained the Communists mass support among the peasants.²⁰ That support would not have lasted long had the Communists not been able to carry out their program, but they were able to do so, and the

program had a significant impact on the life of the average peasant in Communist-controlled areas. Economic reform produced newfound material prosperity, and social reform produced a new sense of personal digni-

ty. Together, new material prosperity and new personal dignity produced a population that had a vested interest in Communist success—willing to fight other Chinese as well as the Japanese in order to maintain the Com-



In 1965, Lin Piao, Mao Tse-tung's vice chairman and minister of defense, declared People's War as valid not only for China but also "a great contribution . . . to oppressed nations and peoples throughout the world." The two old comrades-in-arms had been firm allies, as seen here, since the early days of the Chinese Communist struggle.

munist rule. In short, the reform program created revolutionary potential among the peasants of China.

Communist organizational ability, the third major factor behind successful political mobilization, was responsible for effective implementation of the reform program and for effective exploitation of the peasant support that it produced. "Organizational ability" is a general term that is relatively meaningless without some definition. In this context, it is best described as the ability to:

- weld people into cohesive groups capable of effective action, providing the vehicles through which the policies of leadership are translated into reality;

- employ the group structure as a two-way information system, ensuring that the accomplishments of the movement as a whole and the policies of the leadership are known and understood by all the members and that the interests and policy-implementation problems of all members are known and understood by the leadership;

- maintain control over all members of the movement, enabling the leadership to apply its policies consistently and to employ effective sanctions against those who resisted or deviated from their policies.

The role of organizational ability in the War of Resistance is so pervasive that it is impossible to do it justice in a few words. Here we can only sketch the broad outlines of its contribution to successful political mobilization.

The relationship of organizational ability to the reform program has been noted. Actually, the Communist party did not impose reform, it inspired it. The peasants carried out the reform through groups—mass organizations and local self-government committees—which the Communists had helped them form. Thus, the peasant, for the first time, gained a sense of participation in the determination of his own destiny, and recognition of that fact produced a profound psy-

chological change in his mind—he found that it was possible for him to change his situation in life.

The Communists were able to deepen and reinforce this psychological change through the two-way information system, which from the top down consisted mostly of education. Education was limited to the basic "three R's," but they were always taught with a highly political content designed to widen the peasant's world and to create in him a belief that, contrary to the old Confucian tradition, change was right and proper. Military intelligence was the most obvious contribution of the information system working in the other direction, but it also produced administrative feedback: information on ideological, organizational, and policy-implementation problems. Because of its effectiveness, the Communist leadership was able on several occasions to act to correct problems that had only recently developed at lower levels.

Education, of cadres and soldiers in this case, appears again as the principal method of control. The education was so intensive that it might better be termed indoctrination. Not only did it clarify policies but it also imbued students with the "spirit" of the party. For cadres and army commanders, internalization of this "spirit" meant that they were able to carry out their duties with a minimum of supervision, which was essential in the situation of the Communists, operating mostly behind Japanese lines. For ordinary soldiers, internalization of the "spirit" meant that they religiously followed the "three rules and eight points,"²¹ thus making an invaluable contribution to the Communist effort to gain mass support by producing the first army in China that treated the peasant with justice and dignity.

While there were many other factors involved, the three noted above were the key factors; it was their combined effect that was most responsible for the outcome. Their interaction might be compared to a chemical

reaction in which the Communist reform program combined with organizational ability in the presence of a catalyst, the Japanese invasion and occupation, to produce successful political mobilization. As Mao had expected, successful political mobilization produced real Communist power: a Communist party in control of vast areas of northern China with the support of millions of people and in command of an army of more than a million men with a guerrilla force of perhaps twice that number. Although it took four more years to destroy the Nationalist military forces, the outcome was virtually inevitable by 1945, because the Communist system had already vitally undermined the Nationalist political, economic, and social underpinnings. The theory of People's War had guided the Communists to victory—a new model for revolution had been born.

People's War in the 1970s

Western observers usually regard People's War as a model, a model for Communist-directed or Communist-influenced revolution in the form of rural insurgency. That perspective is the product of our own efforts to analyze the theory and its success, Chinese efforts to employ the theory as a foreign policy weapon, and Mao's 1965 claim of universality. With that perspective, we approach People's War as an indivisible body of thought and judge its impact on revolutionary activity throughout the world accordingly. We note that People's War embodies a very particularistic model, Mao's claim notwithstanding. As described above, the theory evolved in response to particular conditions, problems, and events in China from 1926 to 1945. No similar situation has developed elsewhere in the world as yet, and we cannot envision one arising in the future.²² We observe that People's War did stimulate other revolutionary theories and strategies, causing much disruption and difficulty for us;

however, these theories and strategies have increasingly deviated from the model, even to the point of contradicting some of its basic tenets.²³ This assessment leads us to the conclusion that the influence of People's War has been transitory. While its success inspired new forms of warfare, the doctrines behind the new forms now have only a loose relationship to the People's War model.

Thus, the question of the health of People's War arises. What life it has had as a model for revolution since 1949 has, for the most part, been breathed into it by Chinese efforts to promote it as relevant to other revolutionary efforts. Now that Peking has reduced its support for revolutionary movements, even that bit of life is fast ebbing away. People's War, then, is near death. Or is it?

Could it be that the health of People's War might appear quite different if our approach to it were not so restricted? It could. Being so involved with our effort to analyze People's War and assess the effect of Chinese efforts to promote it, we have neglected to consider the existence of another perspective: the perspective of those with a cause but without the power to achieve their goals, those who—for lack of a better term—can be identified as “revolutionaries.” The revolutionary does not study People's War seeking to compare it with his own or other strategies; he studies it seeking help in his quest for power. To him, People's War is less a model than a source of ideas or principles on which to build a strategy suited to his particular requirements. He takes what is needed and discards the rest. In this sense, as a source of ideas for revolution, People's War has been very much alive and remains so today.

Of the many ideas within the theory, two are worthy of note here to illustrate the role that People's War plays as a source of ideas for revolution. The first is Mao's idea that power is defined primarily in spiritual terms and only secondarily in material terms. This definition is the keystone of People's War,



Chairman Mao Tse-tung, author of the theory of People's War, with his able assistant, Lin Piao, receives the plaudits of the people at Tien An Men Gate, at about the time of Lin Piao's 1965 proclamation.

and it constitutes Mao's most significant contribution to modern revolutionary theory. The revolutionary's greatest dilemma is that he has been left with but one alternative, the use of armed struggle, yet he is unable to employ it because he lacks the required material resources. People's War successfully solved that dilemma. It demonstrated that people, rather than things, could be decisive in war, that man could defeat weapons—meaning that those who are weak can defeat those who are strong if only they rely on the spiritual power of man. Spiritual power makes armed struggle a viable alternative for the revolutionary.

Spiritual power has had a profound effect on armed struggle in later revolutionary strategies. The form has varied—guerrilla warfare, mobile warfare, and terrorism have been employed, alone or in some combination—but all strategies have contained a common approach to armed struggle rooted in reliance on spiritual power. In that approach, ideological indoctrination and organizational efforts rank with combat in the mission of the armed force; political considerations take precedence over military considerations in determining courses of action on the battlefield; control of people is more important than control of land; and psychological defeat of the enemy rather than physical destruction of his war-making capability is the ultimate objective. Armed struggle based on spiritual power is just as violent and destructive as that based on the conventional view of power, but its principles, priorities, and objectives are far different. Despite surface appearances, it is primarily political, secondarily military.

Failure to recognize, or refusal to accept, the different nature of armed struggle based on spiritual power has been the major stumbling block for those attempting to counter it. Convinced that power is defined primarily in material terms, that weapons are the decisive factor in war, professional military offic-

ers and civilian leaders have concentrated on military action and neglected or ignored political action.²⁴ Consequently, they have fought—and often won—the wrong war. French forces were on the verge of defeating the National Liberation Front in Algeria, yet President De Gaulle granted the country independence. American and South Vietnamese units defeated North Vietnamese and Vietcong forces on the battlefield time after time, but a Communist regime now rules Saigon. In both cases, military success proved irrelevant: the war was lost politically.²⁵ Armed struggle based on spiritual power is by no means an invincible strategy, but the conventional military approach is inadequate to defeat it. Until that fact is recognized, it will remain an effective tool for the revolutionary.

The other noteworthy idea within People's War is closely related to the first: an "external force" that destroys the enemy's strategic superiority. A minor feature of People's War,²⁶ it has assumed greater importance with recognition of its effectiveness in armed struggle based on spiritual power. The revolutionary faces an enemy armed force he cannot hope to defeat strategically by military means. People's War suggests that he may solve this problem by looking beyond the immediate arena of conflict for some type of pressure which, if brought to bear, will neutralize the enemy force. The pressure may be political, economic, or military; it may be spontaneous or created. It originates at a distance from the conflict and exerts its influence on the enemy force indirectly. Once the "external force" takes effect, there is no need to defeat the enemy force in battle or break its will to fight. Its military capability has been rendered ineffective; hence, strategic superiority has been negated.

Later revolutionary strategies have included a conscious effort to create an "external force." A classic example is the 1968 Tet

Offensive in Vietnam. It was a disaster for the Communists on the battlefield, but a triumph in the United States.²⁷ The shock of the offensive crystallized the antiwar sentiments of the American people and produced the "external force" being sought by the North Vietnamese and Vietcong. Although it was not immediately apparent, that force effectively destroyed the strategic superiority of U.S. forces in Vietnam. A current example, somewhat different in nature, is the Palestinian terrorist campaign. Unable to confront Israel militarily, the Palestine Liberation Organization (PLO) faced oblivion in the late 1960s. It turned to international terrorism in an effort to create an "external force" of world opinion that would compel the Israelis to recognize the PLO and eventually submit to its demands. Clearly, the effort has succeeded to date. Pressure on Israel to accept PLO representation at the Middle East negotiating table mounts steadily. Israel is now on the defensive against the PLO, its strategic superiority negated by the terrorism-generated "external force."²⁸

History has demonstrated that it is virtually impossible to counter an "external force" after it takes effect. The damage has been done, and adjustment to the new reality is the only course of action available. The defense against an "external force" is to prevent its development. Military and civilian leaders involved in revolutionary situations must be prepared to look far beyond the combat area and identify potential forces that might adversely affect their efforts; then, they must act to preclude the development of those forces. This is no easy task. If American leaders had recognized the threat in time, they might have been able to prepare the public for the Tet Offensive and forestalled its disastrous effect. However, there appears to be little the Israelis could have done to prevent the pressures generated by PLO terrorism, even if they had been aware of the danger it posed beforehand. In sum, an

"external force" is devastating in effect and difficult to defend against; it is a valuable weapon in the revolutionary's arsenal.

Once we recognize People's War as a source of ideas for revolution and examine the function it performs in this role, yet another perspective emerges. The revolutionary is not the only world actor with a cause but without the power to achieve his goals. Nations, too, often find themselves in similar situations. The weak nation facing the strong, the small nation facing the large, encounters the same obstacles at the international level that confront the revolutionary at the domestic level. People's War can be a source of ideas for it as well. It seems only a matter of time before national strategies employing ideas such as spiritual power and the "external force" appear.²⁹ Thus, People's War may be more than a source of ideas for revolution in the future, it may be a source of ideas for warfare in general, be it revolution or conflict among nations.

OUR NEW look at People's War, then, reveals that it remains very much alive in the 1970s. In fact, its role may expand in the future. It is apparent that the theory must be a consideration in the strategic thinking of the American military. Revolution persists in the world, and People's War plays an active part in it. Despite the current mood, we cannot assume that the United States will never again be involved in a revolutionary situation. Moreover, since the United States is one of the world's largest and strongest nations, it is reasonable to assume that our future adversaries will be comparatively small and weak. In either case, we may be confronted with a strategy built on the ideas of People's War.

That strategy will be based on a view of power that is radically different from ours; it will employ an armed force that works on entirely different standards from ours. If we are successfully to combat an adversary in-

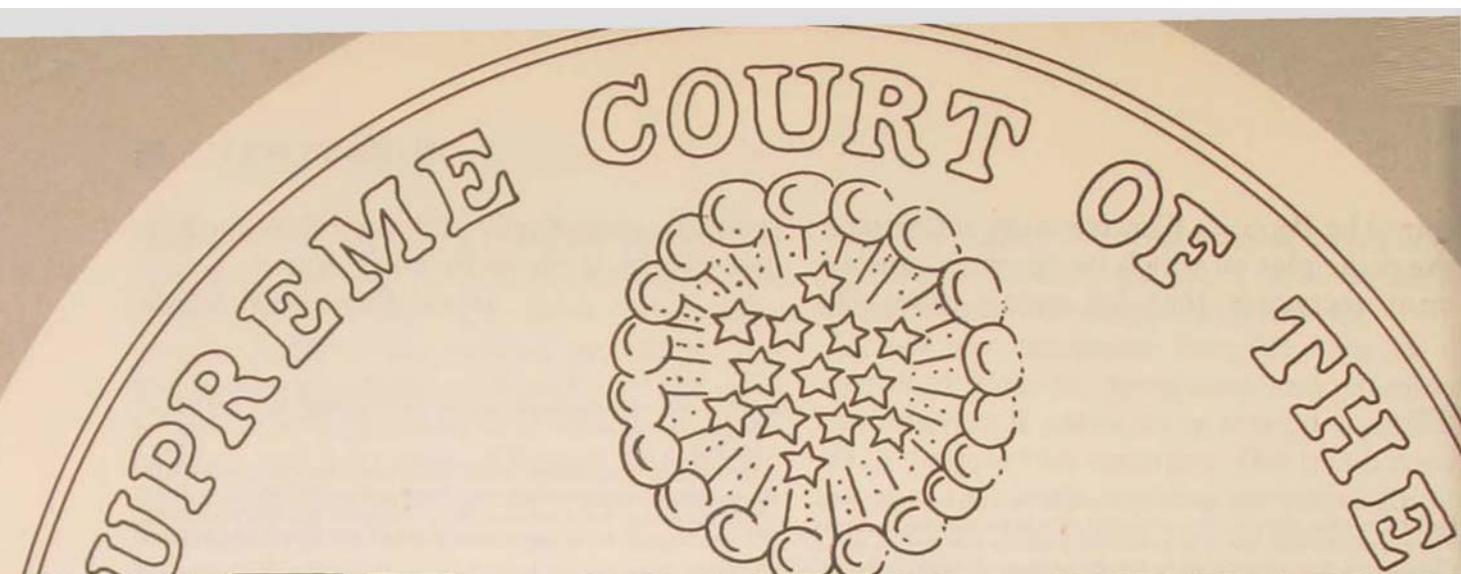
spired by People's War, we must understand the principles on which he operates, and we must recognize that his war is primarily

political, secondarily military. Our starting point is the study of People's War.

Armed Forces Staff College

Notes

1. "Comrade Mao Tse-tung's theory of people's war has been proved by the long practice of the Chinese revolution to be in accord with the objective laws of such wars and to be invincible. It has not only been valid for China, it is a great contribution to the revolutionary struggles of the oppressed nations and peoples throughout the world." Lin Piao, *Long Live the Victory of People's War* (Peking: Foreign Languages Press, 1968), p. 95; originally published in *People's Daily*, 3 September 1965.
2. Chalmers Johnson, *Autopsy on People's War* (Berkeley: University of California Press, 1973).
3. For other analyses of People's War, see Howard L. and Scott A. Boorman, "Chinese Communist Insurgent Warfare, 1935-49," *Political Science Quarterly*, LXXI (June 1966), pp. 171-95; Edward L. Katzenbach and Gene Z. Hanrahan, "The Revolutionary Strategy of Mao Tse-tung," *Political Science Quarterly*, LXX (September 1955), pp. 321-40; Katzenbach, "Time, Space, and Will: The Politico-Military Views of Mao Tse-tung," in T. N. Green, editor, *The Guerrilla—and How to Fight Him* (New York: Praeger, 1962), pp. 11-21; Ralph H. Powell, "Maoist Military Doctrines," *Asian Survey*, VII (April 1968), pp. 239-62.
4. The Kiangsi Soviet period includes the years from 1927 to 1934, during which Mao established the Kiangsi Soviet in southern Kiangsi, Hunan, and Fukien provinces. The theory of People's War is presented in three of Mao's major articles: "Problems of Strategy in China's Revolutionary War" (December 1936), "Problems of Strategy in Guerrilla War against Japan" (May 1938), and "On Protracted War" (May 1938).
5. See Stuart Schram's introduction to Mao Tse-tung, *Basic Tactics*, translated by Schram (New York: Praeger, 1966), pp. 20-25.
6. Mao Tse-tung, "On Protracted War," *Selected Military Writings of Mao Tse-tung* (Peking: Foreign Languages Press, 1968), pp. 217-18. Mao also pointed out that another resource was intelligence. Knowledge of the enemy and oneself, he concluded, was a significant source of power.
7. Mao, "Problems of Strategy in China's Revolutionary War," p. 147.
8. Mao, "Problems of Strategy in Guerrilla War against Japan," pp. 177-79. Although the idea sounds complex in the abstract, it is quite simple in practice and often applied in recent years—witness the Palestinian terrorist campaign. Another method of increasing power that Mao suggested was the use of deception to lure the enemy into making his own mistakes. This idea Mao took almost directly from an ancient Chinese military strategist, Sun Tzu. In fact, the roots of many of the concepts in People's War can be found in the thoughts of Sun Tzu.
9. However, since Mao was not in control of the Communist movement during the last Nationalist campaigns against the Kiangsi Soviet, his faith in the worth of the basic concepts remained unshaken.
10. In October 1934, the Nationalists forced the Communists to abandon the Kiangsi Soviet. Over the next twelve months, the Communists marched some 6000 miles through the rugged terrain of western China to a new base in northern Shensi province; the journey became known as the Long March.
11. During this month, Chiang Kai-shek was kidnapped by the troops of a warlord ally in what is known as the Sian Incident. Chiang was released only after agreeing, in principle at least, to the formation of a Second United Front. The First United Front was established in 1922 and destroyed by Chiang in 1927; it was directed at defeating the various warlords and unifying China.
12. Mao, "On Protracted War," p. 229. While the united front policy is interpreted here as an application of the principle of political protection for bases, others have identified it as a principle in itself. See Lyman P. Van Slyke, *Friends and Enemies: The United Front in Chinese Communist History* (Stanford, California: Stanford University Press, 1967).
13. Obviously, the North Vietnamese and Vietcong received the message, since for most of the war in Vietnam, political protection was the primary defense for many of their base areas. We have only to recall the laments of U.S. military officers about the political restrictions which prevented them from attacking Laotian and Cambodian base areas.
14. Mao, "On Protracted War," pp. 210-15.
15. *Ibid.*, p. 218. Mao argues that one or more countries will come to China's aid in the war against Japan, and in the end, it was the U.S., by means of actions in the Pacific Islands, which actually destroyed Japan's superiority in China.
16. *Ibid.*, p. 230.
17. Although "annihilation" is the official translation, the Chinese term *hsiao-mieh* also connotes dispersion or dissipation, suggesting that destruction of the enemy might not necessarily involve his physical destruction. The significance of that connotation will become apparent later in the article.
18. *Ibid.*, pp. 228-29. Later, Mao adds, "There are, of course, many other conditions indispensable to victory, but political mobilization is the most fundamental." *Ibid.*, p. 261.
19. It has been argued that peasant nationalism generated by the Japanese invasion and occupation was the decisive factor in the successful Communist mobilization effort; see Chalmers Johnson, *Peasant Nationalism and Communist Power: The Emergence of Revolutionary China, 1937-45* (Stanford, California: Stanford University Press, 1962). However, Johnson overstates his case. In particular, he minimizes the effect of the reform program as noted in the subsequent discussion.
20. See Edgar Snow, *Red Star over China* (New York: Random House, Inc., 1938); Jack Belden, *China Shakes the World* (New York: Harper, 1949); Harrison Forman, *Report from Red China* (London: Hale, 1949); Donald C. Gillin, "'Peasant Nationalism' in the History of Chinese Communism," *Journal of Asian Studies*, February 1964, pp. 269-89.
21. The Three Main Rules of Discipline and Eight Points for Attention were a set of regulations designed to govern the ordinary soldier's behavior, for the most part his behavior toward the civilians he might encounter. The rules were as follows: all actions are subject to command; don't steal from the people; be neither selfish nor unjust. The points were direct: replace the door when you leave the house; roll up the bedding on which you've slept; always be courteous; be honest in your transactions; return what you borrow; replace what you break; don't bathe or urinate in the presence of women; don't search the pocketbooks of those you arrest unless you have authority.
22. Hammond Rolph, "People's War: Vision or Reality," *Orbis*, vol. XIV, no. 3 (Fall 1970), pp. 572-87.
23. Johnson, *Autopsy on People's War*, pp. 87-102.
24. Two exceptions have been General Sir Gerald Templer in Malaya and Ramon Magsaysay in the Philippines. See Brigadier Richard L. Clutterbuck, *The Long, Long War: Counterinsurgency in Malaya and Vietnam* (New York: Praeger, 1966); Charles T. Bohannon and Napoleon D. Valeriano, *Counter-guerrilla Operations: The Philippine Experience* (New York: Praeger, 1962).
25. Edgar O'Ballance, *The Algerian Insurrection, 1954-62* (Hamden, Connecticut: Archon Books, 1967); Lawrence E. Grinter, "How They Lost: Doctrines, Strategies and Outcomes of the Vietnam War," *Asian Survey*, XV (December 1975), pp. 1114-32.
26. Mao made little effort to develop the "external force" that he described in "On Protracted War." He seems to have used the idea primarily to buttress his argument that spiritual power would eventually bring China victory over Japan. The additional support was required because not all of Mao's comrades, particularly the professional military officers, had his faith in spiritual power, and they often resisted his efforts to exploit it. See William W. Whitson, *The Chinese High Command: A History of Communist Military Politics, 1927-71* (New York: Praeger, 1973), pp. 24-100.
27. There is much debate about Communist objectives in the Tet Offensive. If we accept the opinion that they believed it would produce a general uprising and result in capture of South Vietnam's major cities, we must also accept the fact that they were carried away with their own propaganda. That is highly unlikely; realistic appraisal of the situation was always their hallmark. The only plausible explanation is that the offensive was planned for its psychological effect. We might also note that the Irish Republican Army is attempting to create a similar effect in England through terrorism, without success as yet.
28. Emile A. Nakhleh, "The Anatomy of Violence: Theoretical Reflections on Palestinian Resistance," *Middle East Journal*, vol. XXV, no. 2 (Spring 1971), pp. 180-200.
29. In some respects, the time has already arrived. Although the Vietnam war was a revolutionary situation, it was also a conflict between nations—one small and weak, the other large and strong. The outcome speaks for itself.



SECRET

FOUR MOMENTOUS EVENTS IN 1971-72

*Catalysts for Reform of the
National Security Classification
System?*

MAJOR HAROLD F. NUFER, AFRES

PERHAPS at no similar period in United States history have four separate happenings within a seven-month span so shaken the confidence of many Americans with regard to foreign policy pronouncements and/or actions by the Executive Branch in international relations as did the events between June 1971 and January 1972. Three of those events involved what has become known as the Pentagon Papers, a mammoth (47 volume) study covering the decision-making process of the United States government vis-à-vis that area still known as South Vietnam, for the period of 1945-68. The fourth happening appeared to be the blatant disregard, by a Washington, D.C., newspaper columnist, for the top secret label and meaning affixed to certain minutes of the National Security Council's deliberations. Although these occurrences all fell within a seven-month period, the repercussions are still being felt in the mid-1970s.

This article will focus, specifically, on three areas of inquiry: on secrecy as a national security shield by the Executive Branch of the federal government; on the conduct of the Supreme Court of the United States when the nine justices on that tribunal are pressured into making extremely quick decisions; and on declassification of documents efforts by Executive Branch departments and agencies, principally in the years since 1971. The question to be answered through this exploration is the following: Have these four momentous events served as catalysts for reform of the National Security Classification System?

Secrecy: A National Security Shield

The question of secrecy in the conduct of military affairs is generally recognized as necessary, especially in time of war. Thus, many aspects of the American invasion of North Africa during World War II were clas-

sified, and no casualty figures or other negative results were reported by U.S. newsmen unless such stories were first cleared by the Pentagon. Possibly most U.S. officers and enlisted personnel are given "secret"¹ clearances for work with or access to classified information, whether given orally through the chain of command or by written document. Nevertheless, a need to know determines the matter: an American military man or woman will not receive access to classified material simply by virtue of his or her clearance listed on personnel records.

Still, there is a broader use of secrecy than that already noted, such as that found in the rather amorphous area of diplomacy regarding the national security of the United States. For instance, although John Jay's input into the *Federalist Papers* was modest, compared with that of Alexander Hamilton and James Madison, he rightly should be credited with a strong justification for secrecy in the conduct of international relations. Writing under the pseudonym of "Publius" (as did Hamilton and Madison), the learned New York lawyer, Jay, in *Federalist Paper* No. 64, stressed the following:

It seldom happens in the negotiation of treaties, of whatever nature, but that *perfect secrecy and immediate dispatch are sometimes requisite*. There are cases where the most useful intelligence may be obtained if the persons possessing it can be relieved from apprehensions of discovery. . . . The [U.S.] President must . . . be able to *manage the business of intelligence in such a manner as prudence may suggest*.² (Italics added.)

Jay was in part defending the powers of the American President as enumerated and implied in Article II of the U.S. Constitution, as well as in the "Supremacy Clause" found in Article VI of that document;³ however, one may turn to a number of U.S. Supreme Court decisions and acts of Congress (in addition to Executive decisions) to substantiate the views expressed by the Federalist Jay on the need for secrecy in diplomatic and/or mili-

tary conduct of the Executive Branch.⁴ (John Jay later—from October 1789 to June 1795—served as Chief Justice of the Supreme Court of the United States, resigning to concentrate his full efforts as an American ambassador.⁵)

More recently, there have been a number of events in the thirty-two-year, post-World War II era which, under the protective blanket aegis of national security, have retained classified labels on a need-to-know basis within the Executive Branch. Twice during a four-year period (1967 and 1971), I queried Dr. William M. Franklin, Director of the Historical Office in the Department of State, to obtain documentation pertaining to “background meetings” of administration officials and military leaders concerning the decision-making process that led to U.S. entrance into a “strategic trusteeship,” under the United Nations Security Council, for the formerly Japanese-mandated islands of Micronesia during 1945–47. Both times, Dr. Franklin replied that such requested documents were still classified.⁶

Cooperation does exist, however, between the Executive Branch and the news media with respect to the public release of heretofore classified material, when practicable. Benjamin C. Bradless, executive editor of the *Washington Post*, indicated that “the Executive Branch . . . normally, regularly, routinely and purposefully *makes classified information available to reporters and editors in Washington.*”⁷ (Italics added.)

The Pentagon Papers and the Court

Although publishing excerpts in 1971 from the approximately 7000 pages of documentation that represented the Pentagon Papers⁸ may not have compromised diplomatic or military negotiations then classified, to rely on the judgment of editors of newspapers—

even though considered reputable, as were those of the *New York Times*, the *Washington Post*, and others, later—is establishing a *questionable* precedent. As was suggested (by this writer) the day after the Pentagon Papers were first published in the *New York Times* in June 1971, we had no way of knowing what delicate agreements or advising our State Department diplomats or the then National Security Council adviser, Dr. Henry A. Kissinger, may have been engaged in at that very moment; for diplomacy is “ninety-five per cent covert.” Ten days later, the White House announced that Dr. Kissinger had just completed a secret trip to Peking and that President Nixon planned to visit China in early 1972. Through hindsight, one might wonder how that trip to China might have fared (if at all) had a “broadside blast” in the published Pentagon Papers included what might have been considered as insulting and, possibly, unwarranted references to Chairman Mao’s regime vis-à-vis the Vietnam war still being prosecuted.⁹

Barely three weeks after the first of six installments of excerpts from the Pentagon Papers appeared in the *New York Times*, on June 13, 1971 (followed by the *Washington Post* on June 18), the U.S. Supreme Court made headlines during a brief four-day period in late June. The nation’s highest tribunal, by grouping the two individual cases involving those two newspapers as one,¹⁰ held an extraordinary Saturday session (on June 26) to hear the litigants (the *New York Times* and the *Washington Post*, as Plaintiffs; the United States [meaning, the Executive Branch], as Defendant) present their respective oral arguments,¹¹ with a mere four days elapsing before that court’s *per curiam* decision was announced (on June 30).¹²

The *per curiam* decision in the Pentagon Papers Case was but three short paragraphs, followed by all nine justices writing their individual opinions, either concurring (as six did) or dissenting (as the other three justices

chose to do). The crux of the brief decision, which ruled against the Executive Branch on 30 June 1971, was as follows:

"Any system of prior restraints of expression comes to this Court bearing a heavy presumption against its constitutional validity." *Bantam Books, Inc. v. Sullivan*, 372 U.S. 58, 70 (1963). . . . The Government "thus carries a heavy burden of showing justification for the imposition of such a restraint." *Organization for a Better Austin v. Keefe*, 402 U.S. 415, 419 (1971) and the District Court for the District of Columbia and the Court of Appeals for the District of Columbia Circuit in the *Washington Post* case [1971] held that the Government [i.e., the Executive Branch] had not met that burden. We agree.¹³

Thus, in the opinion of the U.S. Supreme Court, the Executive Branch, by seeking lower federal court injunctions against the continued publication of excerpts from the Pentagon Papers, had, in the highest court's view, failed to meet the "heavy burden of showing justification" for the enforcement of such prior restraints.¹⁴

Some 33 pages of the *United States Reports* were required to express the concurring opinions in the Pentagon Papers Case, with Associate Justice Hugo L. Black (who wrote the majority opinion of the court) maintaining that the Executive Branch's continued demand to have the federal courts maintain injunctions against the two newspapers in question from publishing classified documents was, in the words of that late jurist, "a flagrant, indefensible, and continuing violation of the First Amendment," and Black further felt it "unfortunate" that some of his brethren on the court were "apparently willing to hold that the publication of news may sometimes be enjoined. Such a holding would make a shambles of the First Amendment."¹⁵

Possibly, the most extreme view by one of the six concurring justices in the Pentagon Papers Case, with regard to the First Amend-

ment guarantee of freedom of the press, was articulated by the now retired Justice William O. Douglas, who, while acknowledging that "these disclosures [i.e., the publishing of classified documents in the two newspapers] may have a serious impact" on the conduct of American foreign policy, concluded by indicting "secrecy" and gave strong support for "open debate and discussion:"

*Secrecy in government is fundamentally anti-democratic, perpetuating bureaucratic errors. Open debate and discussion of public issues are vital to our national health. On public questions there should be "uninhibited, robust, and wide open" debate The stays in these cases that have been in effect for more than a week constitute a flouting of the principles of the First Amendment.*¹⁶ (Italics added.)

A proportionate amount of space in the Pentagon Papers Case was taken by the three dissenters on the Burger Court, led by the Chief Justice himself, Warren E. Burger. He viewed the Pentagon Papers Case as one in which the court was given insufficient time to consider the salient issues, unless one would want to make the First Amendment a coverall for carte blanche rights of the press:

In these cases, the imperative of a free and unfettered press comes into collision with another imperative, the effective functioning of a complex modern government and specifically the effective exercise of certain constitutional powers of the Executive. *Only those who view the First Amendment as an absolute in all circumstances—a view I respect, but reject—can find such cases as these to be simple or easy We do not know the facts of the cases.* No District judge knew all the facts. No Court of Appeals judge knew all the facts. No member of this Court knows all the facts.¹⁷ We all crave speedier judicial processes, but *when the judges are pressured as in these cases, the result is a parody of the judicial function.*¹⁸ (Italics added.)

The late Justice John M. Harlan, in his dissent, also stressed the frenzied train of events experienced by the highest court as it strove

to deal with the Pentagon Papers matter in late June 1971, noting that "the briefs of the parties were received [by the court] less than two hours before [oral] argument on June 26."¹⁹

Briefs of *amici curiae* ("friends of the court") were presented at the 26 June oral arguments session by the representatives for the following groups, all on behalf of the plaintiffs, the newspapers: the Twenty-Seven Members of Congress, the American Civil Liberties Union (ACLU), and the National Emergency Civil Liberties Committee.²⁰ One may wonder why the Nixon administration chose not to have any *amici curiae* submitted on behalf of the Executive Branch in this instance.

Senator Gravel Enters the Controversy

United States Senator Mike Gravel (Democrat, Alaska) became involved in the Pentagon Papers controversy by unexpectedly convening the Subcommittee on Buildings and Grounds, which he chairs under the Senate's Public Works Committee, on Tuesday evening (29 June 1971)—barely 14 hours prior to the U.S. Supreme Court's decision in the Pentagon Papers Case was announced—to which Gravel invited news media representatives. Then, to everyone's apparent surprise, the Alaska senator proceeded to read orally selected portions from the transcripts of the Pentagon Papers. After several hours, punctuated by pauses during which Senator Gravel literally wept over the contents, he submitted the 47 volumes for inclusion in that day's *Congressional Record*. His actions were to lead eventually to another U.S. Supreme Court decision in June of the following year.²¹

What made Gravel's actions of 29 June 1971 particularly unusual is that the then Senate Majority Leader, Mike Mansfield

(Democrat, Montana), had promised, on 24 June, on behalf of his 99 colleagues in the Senate, that the voluminous Pentagon Papers—then in the possession of that upper house of the U.S. Congress—would be placed in a vault and not released by the Senate pending action by the U.S. Supreme Court; thus, this conduct of Senator Gravel is difficult to understand. That Gravel was a "dove" regarding the Vietnam war is well known. One may assume that the Alaska Democrat also felt strongly in favor of the First Amendment freedom-of-the-press rights which had been argued the previous Saturday (26 June) before the U.S. Supreme Court by the noted American constitutional law professor, Alexander M. Bickel.

The U.S. Senate took no censuring action against Senator Gravel for his unauthorized reading of excerpts from the classified Pentagon Papers into the subcommittee minutes. However, there was talk among the senators that such action should be taken.²²

As for the *New York Times* and the *Washington Post*, those newspapers resumed publishing portions of the Pentagon Papers following their favorable ruling of 30 June 1971 by the U.S. Supreme Court, with the understanding that the editors would be circumspect with regard to releasing any information harmful to national security. Accordingly, the *New York Times* resumed publication of excerpts from the classified documents on 2 July.²³ Other newspapers across the nation did likewise.

Dr. Daniel Ellsberg was to stand trial, along with his associate, Anthony J. Russo, Jr., on eight charges of espionage, six of theft, and one of conspiracy resulting from the pilfering of the Pentagon Papers. However, when it was learned that John D. Ehrlichman, then a White House Presidential aide, had approached the sitting federal district judge involved—William Matthew Byrne in Los Angeles—and asked that judge if the latter might be interested in becoming the next

Director of the FBI, Judge Byrne declared a mistrial for both Ellsberg and Russo, dismissing all charges after only four-and-a-half months of the trial, in May 1973.²⁴ Thus, one can see the Pentagon Papers controversy caught up in the web that became known as the "Watergate scandal" during 1972-1974.

Columnist Anderson Compromises Diplomacy

The fourth and final event during the seven-month period from June 1971 to January 1972 that appeared to serve as a catalyst for reform of the National Security Classification System did *not* involve the Pentagon Papers or the U.S. Supreme Court, although some legal action was contemplated by the Justice Department. This last happening centered on the public release by Washington columnist Jack Anderson, through his widely syndicated newspaper column during the winter of 1971-72, of the minutes of certain top secret meetings held by the National Security Council. Those minutes showed the public that the Nixon administration maintained, during the Indian-Pakistani Conflict of late 1971, a pro-Pakistan position—when, at the same time, the State Department had been claiming official neutrality with regard to those two South Asian nations. What happened to Anderson as a result of his revelations? He earned the 1971 Pulitzer Prize "for national reporting."²⁵ The *New York Times* also won a Pulitzer Prize that same year: "for meritorious service to journalism for its publication of the Pentagon papers."²⁶

One may question the apparent double standard of excellence cited by the above awarding of the Pulitzer Prize. On one hand, the *New York Times* was lauded for publishing classified documents pertaining, in part, to warfare then being conducted in Southeast Asia; and Anderson was honored for releasing top secret minutes of the National

Security Council shortly after hostilities between India and Pakistan ceased. Is it in the best interests of the Executive Branch to have classified materials publicly released by nongovernmental sources? Should the federal government be forced into a declassification program by outside pressures? What has the Executive Branch done since 1971 to declassify documents relating to the national security of the nation?

Declassification Efforts since 1971-72

A school-book solution in the closing pages of this article would seem to credit the preceding four momentous events as the impetus for a ground swell in the declassifying of documents in the Executive Branch in the interim since mid-1971. However, the facts available seem to place the initiative at a point earlier than the Pentagon Papers controversy. For example, the Director of Information Security in the Department of Defense (DOD) referred to a Presidential directive issued on the subject of declassification in January 1971, some five months prior to the *New York Times* release of the Pentagon Papers. That study within the Executive Branch in early 1971 focused on the then existing classification, downgrading, declassification, and safeguarding procedures of the federal government and culminated in the issuance of Executive Order 11652, on 8 March 1972.²⁷

The U.S. Army indicated that its declassification efforts dated back to 1946 and involved "*all records originated before and during WW II.*"²⁸ And the National Archives became involved in the Executive Branch declassification program also in early 1971.²⁹ Thus, one may conclude that the Executive Branch initiated its own declassification efforts before the four momentous events occurred in mid-to-late 1971 and no doubt did

feel a spur to accelerate such reorganizational procedures as a result of the public's concern over the Pentagon Papers and subsequent happenings.³⁰

Where does the Executive Branch stand more recently with regard to public access to governmental source materials? The U.S. Air Force Chief of Staff, in commenting on the Freedom of Information Act of 1966, which was amended in 1974, stated:

The [Freedom of Information] act ensures the American public that its right to know what goes on in its government will not be restrained or suppressed for capricious reasons by Federal agencies or individuals. However, *it does not automatically open every file and document in the Air Force for public inspection.* The security classification system is not affected, and certain reports will continue to maintain their "privileged" status and be exempted from disclosure under the act.³¹ (Italics added.)

The Chief of the Freedom of Information and Personal Torts Branch in the Office of Judge Advocate General commented also on the effects of the above act, indicating that the 1974 amendments, which actually became effective in February 1975, are "designed to make the workings of the executive branch . . . more open by compelling the executive agencies to disclose their records to the public upon request in a timely manner."³² Again the "timely manner" would not compromise established classifications where the national security is involved.

The Chief of Information Security Division in the United States Air Force believes

that the "'Pentagon papers case' resulted in the complete revision of the classification system."³³ These four momentous events of 1971-72 did have an effect on the declassifying of numerous governmental documents as well as on needed revisions in the procedures for handling such materials. However, the initiative for such changes predated the Pentagon Papers controversy of mid-1971. Overall, one may conclude that, in the words of the then Secretary of Defense, Donald H. Rumsfeld, "the Department of Defense will conduct its activities in an open manner, consistent always with the need for security and personnel safety."³⁴

President Jimmy Carter, in his press conference just prior to Secretary of State Cyrus R. Vance's unsuccessful trip to Moscow for disarmament talks with Communist Party Chief Leonid Brezhnev and Foreign Minister Andrei Gromyko, in late March of this year, declared his belief that foreign policy is a direct extension of domestic politics; thus, the new Commander in Chief reiterated his desire to "talk publicly about details of [foreign] policy negotiations."³⁵ Whether President Carter's "open Presidency" in 1977 may prove to be a change in the *secrecy* normally found in the conduct of foreign affairs—as discussed at the outset of this article and practiced by each of the Chief Executives dating back especially to Franklin D. Roosevelt in 1940—remains to be tested in future months.

Houghton, Michigan

Notes

1. For an official explanation of the three categories of clearances—i.e., "confidential," "secret," and "top secret"—see Air Force Regulation 205-1, "Safeguarding Classified Material," 2 January 1968.

2. See *The Federalist Papers* (New York: Mentor Books, The New American Library of World Literature, Inc., 1961), pp. 392-93. *The Federalist Papers*, a collection of 85 articles which appeared in the newspapers of New York City between October 27, 1787, and March 1788, was intended

to convince the voters of that state that the Constitution of 1787 had to be ratified by all 13 states as a vote of confidence for the proposed new federal government. The late Professor Clinton Rossiter, of Cornell University, referred to *The Federalist Papers* as "the most important work in political science that has ever been written, or is likely ever to be written, in the United States," and expressed his opinion that "The Federalist stands third only to the Declaration of Independence and the Constitution itself among

all the sacred writings of American political history." *Ibid.*, Introduction, p. vii.

3. Article VI states that "this constitution, and the Laws of the United States, . . . and all Treaties made, . . . shall be the supreme law of the land, . . . any Thing in the Constitution or Laws of any State to the Contrary notwithstanding." (Italics added.)

4. See, for example, *McCulloch v. Maryland*, 4 Wheat. (17 U.S.) 316 (1819); *United States v. Curtiss-Wright Corp.*, 299 U.S. 304 (1936); *C & S Air Lines v. Waterman Corp.*, 333 U.S. 103 (1948); the "espionage laws" (18 U.S.C. § 792-98 and 50 U.S.C. § 783), and the Freedom of Information Act (5 U.S.C. § 552, as amended in 1974).

5. Jay was in the unique position of performing some "ambassadorial duties" while sitting as the Chief Justice. For a succinct account of Jay's activities in both the Executive and Judicial branches of the federal government during the late eighteenth century, see Richard Hofstadter, William Miller, and Daniel Aaron, *The Structure of American History* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), pp. 82-89.

6. See Harold F. Nufer, "Unifying Factors in the Trust Territory of the Pacific Islands: An Analysis for the Period of 1963-72," unpublished Ph.D. dissertation, Tufts University, 1974, pp. 8-9 and footnote 7.

7. See "The Mass Media and Foreign Policy," *Great Decisions: 1973* (New York: Foreign Policy Association, Inc., 1973), p. 21.

8. Originally known as the "McNamara Study," the Pentagon Papers covered the history of decision-making in the Vietnam war from 1945 to March 1968, when that study was closed. See Dr. Daniel Ellsberg, "Secrecy and Security," *Crisis in Confidence: The Impact of Watergate* edited by Donald W. Harward (Boston: Little, Brown and Company, 1974), p. 66.

9. Dr. Ellsberg said that he gave a copy of the Pentagon Papers to the U.S. Senate Foreign Relations Committee in the fall of 1969. *Ibid.*, p. 65.

10. The two newspapers were considered by the U.S. Supreme Court as one case on writ of certiorari to the U.S. Courts of Appeals for the Second Circuit (in New York) and the District of Columbia Circuit, respectively. See *New York Times Co. v. United States*, 403 U.S. 713 (1971).

11. The noted American constitutional law professor, the late Alexander M. Bickel, represented the newspapers involved; Solicitor General Erwin N. Griswold argued the case for the Executive Branch. *Ibid.*

12. See 403 U.S. 714.

13. *Ibid.*

14. See 403 U.S. 714-15.

15. See 403 U.S. 722, 724. Joining Black in concurring were Associate Justices William O. Douglas, William J. Brennan, Jr., and Thurgood Marshall—those justices then generally referred to as the liberals remaining from the old Warren Court (1953-69)—as well as Potter Stewart and Byron R. White, the latter two usually referred to as "swing" members of the court so far as leaning to the liberal view or to the conservative argument in a given case.

16. See 403 U.S. 728, 730.

17. Chief Justice Burger was referring to what he viewed as the impossibility of the nine members of the U.S. Supreme Court being able to digest the contents of the 47 volumes comprising the Pentagon Papers (or, some 7000 pages) in the brief four days between the oral arguments on 26 June and the court's decision announced on 30 June. Normally, several weeks—often, a number of months—will elapse between the arguments in court and the decision date. For example, nine months ensued between such events in *Baker v. Carr*, 369 U.S. 186 (1962), which was the watershed decision of that court respecting reapportionment of state legislatures.

18. See 403 U.S. 748, 752. All three dissenting justices—Warren E. Burger, John M. Harlan, and Harry A. Blackmun—were in agreement on the pressure felt by them in trying to come to grips with the substantive issues in the Pentagon Papers Case in such a short time.

19. See 403 U.S. 753. A typical brief submitted to the justices prior to the oral arguments may run over 100 pages in length.

20. See 403 U.S. 713.

21. See *Gravel v. United States*, 408 U.S. 606 (1972). The four charges brought against Senator Gravel were: (first,) "the retention of public property or records with intent to convert, (second,) the gathering and transmitting of national defense information, (third,) the concealment or removal of public records or documents, and (fourth,) conspiracy to commit such offenses and to defraud the United States." *Ibid.* Although Senator Gravel and his legislative aides were not fined or imprisoned for their actions vis-à-vis the public disclosure of classified documents, the U.S. Supreme Court did hear the case on 19-20 April 1972, handing down its decision two months later. In essence, the highest court held, as follows: first, that Gravel's aides were protected under the "Speech or Debate Clause" of Article I; second, that the "Speech or Debate Clause" does not extend immunity to Gravel's aides so far as testifying before a grand jury regarding "the alleged arrangement for private publication of the Pentagon Papers"—and there were press reports that Senator Gravel "arranged" to have the Pentagon Papers published by Beacon Press or the M.I.T. Press (see 408 U.S. 610)—and third, that the U.S. Court of Appeals' "protective order was overly broad in enjoining interrogation of [Gravel's] aide with respect to any act 'in the broadest sense,' that he [the aide] performed within the scope of his employment, since the aide's immunity extended only to legislative acts as to which the Senator would be immune." Thus, the U.S. Supreme Court "vacated and remanded" Gravel's case, in this instance returning such to the U.S. Court of Appeals for the First Circuit. (See 408 U.S. 606-607.)

22. For a more recent review of the behavior by some senators and congressman, including Senator Gravel, see Mark R. Arnold, "Kiss and Tell on Capitol Hill?" in the *National Observer* (February 21, 1976), p. 3.

23. See "Supreme Court, 6-3, Upholds Newspapers on Publication of the Pentagon Report: *Times* Resumes Its Series, Halted 15 Days," *New York Times*, June 30, 1971, p. 1; also see "Victory for the Press," *Newsweek*, July 12, 1971, pp. 16-20.

24. See Ellsberg, "Secrecy and Security," p. 65.

25. See "The Mass Media and Foreign Policy," p. 21.

26. *Ibid.*, p. 14.

27. Personal letter from Arthur F. Van Cook, Director of Information Security, Office of the Assistant Secretary of Defense (Security Policy), Washington, D.C., 5 July 1974, p. 1.

28. Draft article, "World War II Records Declassification Management," (Washington, D.C.: Department of Army, Adjutant General Center) Revised: 15 July 1974, p. 1.

29. See James E. O'Neill, "Secrecy and Disclosure: The Declassification Program of the National Archives and Records Service," *Prologue*, V (Spring 1973), 43; see also David P. Young, "Secrecy and Disclosure: Braking the Classification Machine," *Prologue*, V (Spring 1973), 41-42.

30. For an in-depth review of the security classification system as it has affected the DOD, including the impact of the Freedom of Information Act (as revised in 1974), see Daniel J. Birmingham, Jr., Colonel, USAF, "Problems in the Security Classification System," *Air War College Research Report Summary*, No. 5534 [1975], 55 pages.

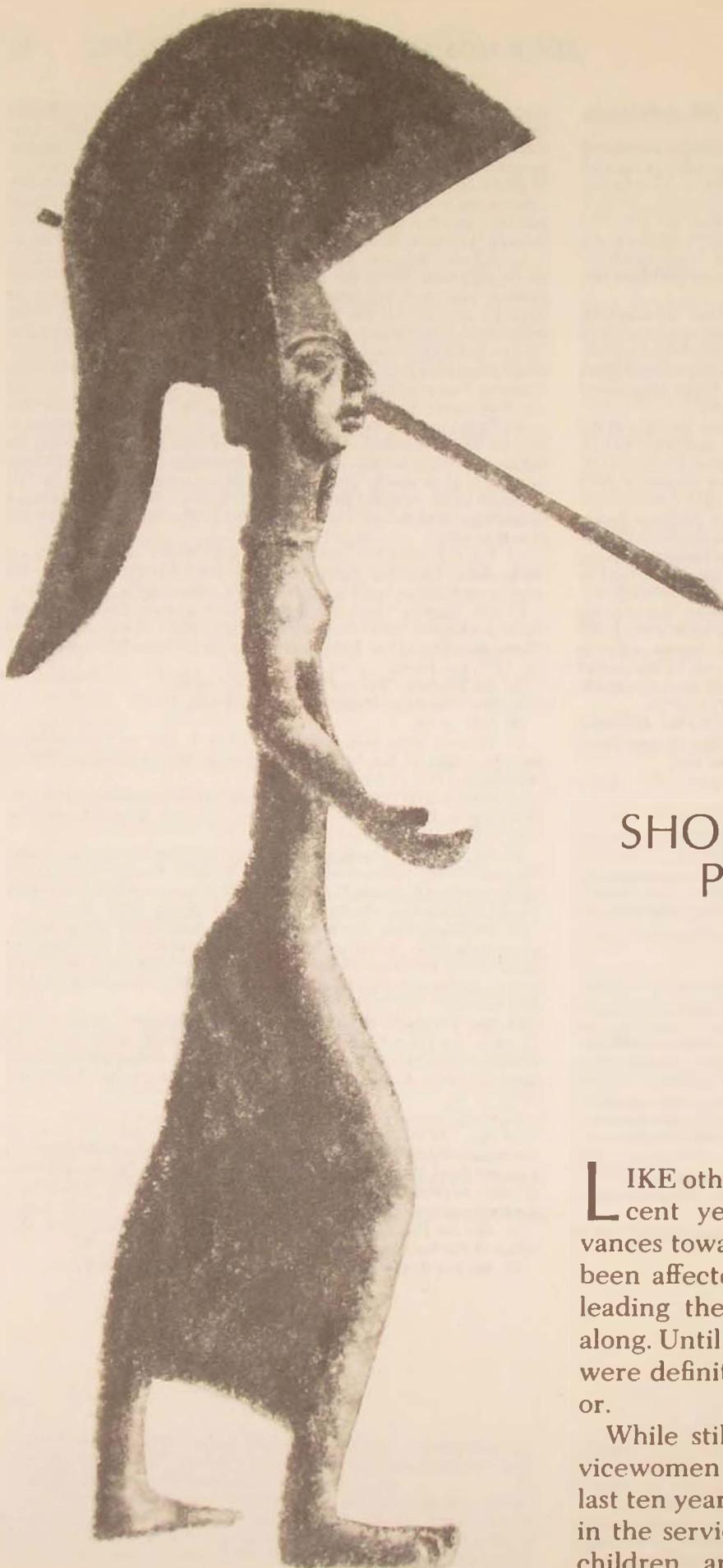
31. See "The Public Has a Right to Know," a statement by General David C. Jones, Air Force Chief of Staff, in the *TIG Brief*, published by The Inspector General, U.S. Air Force, 25 April 1975, as reprinted in *Supplement to the Air Force Policy Letter for Commanders*, No. 7-1975 (July 1975), p. 12.

32. *Ibid.*

33. See "1974 Amendment to Freedom of Information Act," by Lieutenant Colonel James W. Johnson, Chief, Freedom of Information and Personal Torts Branch, Litigation Division, Civil Law Directorate, Office of Judge Advocate General, in *Supplement to the Air Force Policy Letter for Commanders*, No. 6-1975 (June 1975), p. 2.

34. See *Air Force Policy Letter for Commanders* (Washington, D.C.: Office of the Secretary of the Air Force, 1 March 1976), p. 3.

35. See *Los Angeles Times* (March 24, 1977), pp. A-1 and A-7.



SHOULD WOMEN BE PERMITTED IN COMBAT? YES

KENNETH P. WERRELL

LIKE other minority groups, women in recent years have made impressive advances toward equal status. The military has been affected by these changes, sometimes leading the way, sometimes being pushed along. Until the 1960s, women in the military were definitely treated as special and inferior.

While still not granted equal status, servicewomen have made dramatic gains in the last ten years. The right of women to remain in the service despite marriage, dependent children, and pregnancy has been recog-

nized. A Congressional quota limiting the number of women in the service to two percent of the total personnel was eliminated in 1967. In June 1974, 3.5 percent of U.S. military personnel were women, a figure expected to rise to 6.2 percent in 1978. In the Air Force the percentage is expected to rise from 3.8 (1974) to 8.5.¹ Quotas on the numbers of women in the various officer grades have also been eliminated, and women have advanced into general grade. ROTC was fully opened to women in 1973.

The most recent victory for women, and a major one at that, was legislation allowing women to enter the service academies. In the summer of 1974, 15 women entered King's Point, the Merchant Marine Academy, and the service academies followed suit in 1976. The Air Force Academy enrolled 157 in the summer of 1976, where, from all reports, they have done a creditable job. Most agree that academy training is important to success in the military, since top military positions have traditionally been filled by academy graduates: 100 percent in the Navy, 82 percent in the Army, and 29 percent in the Air Force. Military jobs open to women have expanded greatly; although most servicewomen still serve in clerical roles, 434 of 482 Army jobs, 66 of the Navy's 88 jobs, and 98 percent of the Air Force jobs by Air Force Specialty Code (AFSC) are now open to servicewomen.²

The last major legal barrier facing women in the military is the law barring them from combat. This law was enacted as part of the 1948 legislation that permitted women to serve as part of the regular and reserve military. It states that women in the Navy "may not be assigned to duty in aircraft that are engaged in combat missions nor may they be assigned to duty on vessels of the Navy other than hospital ships and transports."³ Similarly, Air Force servicewomen "may not be assigned to duty in aircraft engaged in combat missions."⁴ Curiously enough, tradition—not

law, not regulation—prohibits Army women from combat. The omission of the Army from the combat ban, the absence of any Congressional debate on the subject when the measure was discussed, and the fact that these provisions were added to the original by the House Armed Services Committee suggest that no one really considered that women might go into combat.⁵ These combat exclusion provisions seem to have been primarily aimed at keeping women from inadvertently straying into combat and only incidentally restrict them from combat.

Until the 1970s, the military applied the spirit of Congress's wishes broadly by keeping all but nurses off ships and aircraft. Since all Navy line officers and pilots can be ordered into combat, women are not permitted in these job categories. The Air Force went one step further and restricted women officers not only from pilot and navigator slots but also from missile operations—certainly well beyond the letter of the law. However, there are signs of loosening in this area. In early 1973 eight Navy women began pilot training, and six earned their wings. The Navy also ran tests of women at sea but stayed within the law by using the hospital ship U.S.S. *Sanctuary* for the experiment; when that ship was decommissioned, the program ended. In the summer of 1976, 19 Air Force women entered pilot training.⁶

Still the legal barrier remains. It too will fall: the only questions are when and how. Will the services push for its abolition? Or will executive action be employed as was the case with racial integration of the military? Other possibilities are actions by either Congress or the courts. Finally, the passage of the Equal Rights Amendment may end the prohibition of women from combat.

American women have served as noncombatants with the military throughout this nation's wars, but their status was not regularized until 1901, when Congress established the Army Nurse Corps. During World

War I about 11,000 American women performed numerous military roles at home and overseas. In World War II these numbers and roles expanded, with over one-quarter million women serving in uniform. About 40 percent of the women in the Army, the WACs, served with the Army Air Forces. More important, their performance was better and their problems fewer than most expected. Relative to the average male soldier, the average servicewoman was more motivated (all were volunteers) and better educated. While the military was careful not even to hint that women might be employed in combat—going so far as to ban weapon's training and drill with dummy rifles—a number of women served on noncombat aircrews. As women were banned from aircraft between 1945 and this decade, it is germane to inquire how they performed. The answer: very well indeed. The Women's Airforce Service Pilots (WASP) program graduated 1074 women as civilian pilots; they certainly showed their physical and psychological fitness and, also, that women could fly most aircraft as well as men.⁷

The valuable service of women convinced most of the military and Congress to regularize their service. This was accomplished in 1948 with laws that are still on the books. As already mentioned, two sections of this law prohibit service by Navy and Air Force women in combat.

Of course women have served in combat. During the Bicentennial year we were bombarded with much, including the exploits of Revolutionary War heroines. There are stories of other women in other wars, including Americans, who served in the military while disguised as men, but they served as individuals.

In modern times countries other than the United States have employed women in combat. In 1917 the Russians organized 1000 women into a unit with the awesome name of Battalion of Death. During World War II

women saw even more extensive service in combat, in partisan as well as regular units. English women served in military posts, including at antiaircraft artillery guns that came under fire in the defense of Britain. Female agents were parachuted into German-occupied Europe. But it was the partisans and the Russians, fighting for their very existence, who made the most use of women in the greatest number of roles. Since 1945, women have fought in various guerrilla wars.

Today, Israel makes the most use of womanpower. Outnumbered and practically surrounded, Israel is a state under siege or, if you prefer, a frontier society where hostile gunfire is possible anytime, anywhere. Women are drafted and receive weapon training although they are not trained for combat. While Israeli servicewomen may be assigned to combat units as noncombatants, the purpose of their service is to free men for combat.⁸

MANY HAVE argued for and against women in the American military, more often than not with greater emotion than intellect. The best argument the critics make to keep women from combat is that there is no need at this time. While true as far as it goes, it misses the point. It is precisely at this time when no emergency exists that action should be taken to carefully plan and implement measures that can be applied in an emergency.

The best argument of the proponents is that of increased military efficiency. There is always a need for recruiting the very best personnel, and to exclude a sizable personnel pool such as women is ridiculous. Soldiers should be judged on their ability to do the job, not their age, color, or sex. In an all-volunteer military, which is relatively small and expensive, quality must be as high as possible. Military efficiency must be the first, main, and foremost determinant. Further-

more, the presence of female soldiers boosts overall morale: British and Israeli experiences indicate that the sight of women under fire has a bracing effect on male soldiers. In some U.S. military classrooms, the presence of females has increased the academic performance of males.⁹

Some critics claim that women would be unable to perform adequately in combat because of biological and emotional differences. Admittedly this is true of some women, but it is also true of some men. Experience in World War II indicates that women can take the emotional and physical stresses of combat. Recently the Commander of the Marine Training Base on Parris Island asserted that "there is no reason the female can't fight just like the male."¹⁰

While the average woman is both physically smaller and weaker than the average man, it should be noted that warfare has moved away from an emphasis on physical prowess. Modern operations with missiles and aircraft differ greatly from traditional warfare. The superintendent of the Naval Academy told a Congressional hearing in 1974 that he would be hard pressed to find a Navy combat job a woman could not do.¹¹ Or as former Chief of Naval Operations, Admiral Elmo Zumwalt said, "... women are able to do the work in any rating, and there is no question but that women will be able to serve in all ships effectively. . . ."¹²

Critics also note that the idea of women in combat is, in the words of an Air Force general, "an offense against the dignity of women."¹³ What is more dignified than service to one's country? The rights and responsibilities of citizenship should be extended to all, not only to the male half of the population, and soldiering is one of the most important and most basic of these responsibilities. If the U.S. military is to be more than a band of mercenaries, our society must stress citizen responsibility.

Critics express concern over female casual-

ties. Women might be captured by foes who, as in the last two American wars, have treated prisoners with little regard for the rules of war or Western traditions. True. But this concern should be extended to all soldiers, not just women, as should concern for all soldiers killed or wounded. If the thought of women being maimed and killed is repulsive to society, perhaps it will be a welcome incentive to choose carefully the wars we enter. Allowing only highly paid male volunteers to carry war's burden makes war all too easy, which it should not be.

A central concern of many of the critics, however, is the traditional hang-up of sex and sexism. What of toilets and sleeping facilities? How will the military and the country respond to the knowledge that men and women are living in close and stressful proximity for long periods of time? Problems, yes, but should policy be based on problems of this magnitude?

Finally, there is the practical importance for servicewomen of changing this situation. Lifting the combat ban will permit the full utilization of women in the military and open up avenues of promotion and roles now closed. Combat has always been the acme of the military profession. No group banned from combat training and combat service can hope to achieve equality. Combat training and service are symbolic of the military and what the military stands for. Certainly, combat training and service are a major factor in promotion.

Surely there will be problems. The integration of blacks indicates all too clearly the difficulties of implementing an overdue and correct action which was, at the very least, unpopular with numbers of the military and the general public. The same is true with women. But attitudes can be changed. The past performance of women in the military and their present motivation and abilities suggest that women can successfully handle this challenge and opportunity. In the end

the measure should be simply equality across the board for all: black, white, rich, poor, young, old, male, female. Military efficiency should come first. The criterion should be simply: Can they do the job? The military and the country, as well as women, stand to gain. Now is the time to try—slowly, carefully, and reasonably—without the pressures of war.

What can the Air Force do? It can lead the way. At the very least women should be permitted to train for combat and service in positions that reflect the changes in the conduct of war—missile operators and aircrews. Why can't women serve as missile operators? Physical strength is not a primary consideration. Motivation, self-confidence, and psychological stability are the major requisites. As all American intercontinental ballistic missiles (ICBMs) are deployed within the U.S., there would be no problem with the question of capture. And if these weapons are used, we need concern ourselves little afterwards, if we have that luxury, with the welfare of the crews.¹⁴

Likewise, women could perform pilot duties. Again physical strength counts little to-

day, relative to other attributes. Not only did American women pilots do well in World War II, but so did Russian airwomen who served in combat. One all-woman fighter unit downed 38 German aircraft, and at least two Soviet airwomen scored 12 or more of these victories.¹⁵ Former Secretary of Defense Melvin Laird put it simply, "I don't see why there shouldn't be a woman fighter pilot. . . ."¹⁶ Even more impressive are the comments of General John C. Meyer, who was responsible for 24 aerial kills in World War II: "Physically, intellectually or emotionally, I cannot see any reason why some women can't be first-rate fighter pilots."¹⁷

First things first. Change the law. Train women. Assign them to all positions in the Air Force. Then implement full integration. Finally, if war erupts, employ women with their units.

Abolishing the combat exclusion of women is more than a woman's issue. It is an issue of justice, an issue of military effectiveness. On these grounds how can this action be delayed any longer? This is the challenge for the country, the military, and the Air Force.

Radford, Virginia

Note

1. George Wilson, "Women Seek Equality in Combat," *Washington Post* (16 June 1975), A1; 10: U.S.C. Sect. 3209.

2. N. Goldman, "The Utilization of Women in the Military," *The Annals* (March 1973); "How the Military Is Putting Women into 'Men Only' Jobs," *U.S. News and World Report* (10 December 1973); "When Women Enter the Service Academies," *U.S. News and World Report* (18 August 1975); "More Jobs for Women in the Military," *U.S. News and World Report* (21 August 1972).

3. 10: U.S.C. Sect. 6015.

4. 10: U.S.C. Sect. 549.

5. Congressional Record, 80th Cong., 2d sess., pp. 4691-4719, 6958-71.

6. "Young, Successful, and First," *Saturday Evening Post* (October 1974); Lt. Cmdr. A. E. Norton to author, 31 December 1975; James N. Eastman, Jr., to author, 16 January 1976; "Navy Women," *All Hands* (August 1975); Assistant Secretary of Defense (Public Affairs), News Release 553-75 (20 December 1975).

7. J. Merton England, "Women Pilots with the Army Air Forces, 1941-44," Air Force Study #55, 1946; Dorothy Shafter, *What Comes of Training Women for War?* (Washington, 1948); M. Treadwell, *United States Army in World War II, Special Studies: The Woman's Army Corps* (Washington, 1954).

8. Israeli Defense Force, *Chen* (Tel Aviv, 1969); Verna Dickerson, "The

Role of Women in the Defense Force of Israel," Army War College thesis, May 1974.

9. N. Goldman, "The Changing Role of Women in the Armed Forces," *American Journal of Sociology* (January 1973); Wesley F. Craven and James L. Cate, *The Army Air Forces in World War II*; vol. VII, *Services Around the World* (Chicago, 1958), p. 522.

10. Major General Arthur J. Poillon quoted by George Wilson in "U.S. Marines Now Looking for 'A Few Good Women,'" *Roanoke Times* (7 March 1976), p. 2; *Congressional Quarterly* (13 July 1974), p. 1820.

11. Phil Stevens, "Women at Academies," *Air Force Times* (26 June 1974), 34:3.

12. Television Interview, *Dallas Times Herald*, 7-7: B6.

13. *Congressional Quarterly* (13 July 1974), p. 1820.

14. Arthur D. Vaughn, "Is It Feasible to Employ Women on Minuteman Crews?" Air University thesis, May 1975.

15. *Air Facts and Feats* (London, 1970); E. Meos, "Russian Women Fighter Pilots," *Flight* (27 December 1962), pp. 1019-20.

16. Quoted in "Distaff Pilots? Why Not, Laird Asks," *Air Force Times* (12 April 1972).

17. Quoted in "How the Military is Putting Women into 'Men Only' Jobs," *U.S. News and World Report* (10 December 1973). Also see J. Merton England, "Women Pilots with the Army Air Forces, 1941-44," Air Force Study #55, 1946.



SHOULD WOMEN BE PERMITTED IN COMBAT? NO

JACQUELINE COCHRAN

I WAS asked by a congressional committee and testified on women being sent to the military academies. I thought it was a waste of money and effort on the part of our government to give women the same course that is furnished the military cadets. I also believed then, as I do now, that it was a disruptive force to have the military academies invaded by women. There are some things that I don't think women should be permitted to do. I naturally assumed that we would never put women into combat.

I have read the article by Kenneth P. Wierrell, who advocates that women be put into combat. If for no other reason than because women are the bearers of children, they

should not be in combat. Imagine your daughter as a ground soldier, sleeping in the fields and expected to do all the things that soldiers sometimes have to do! It presents to me an absolute horror!

I don't think that you can draft women for war and pick out the jobs that they would be allowed to do. I think that you can have women in the service, as we did in World War II, where their jobs are defined, but I think it would be very difficult to assign some to combat and be selective as to the types of jobs they could do. I believe that if women were ever drafted into combat, the mothers and fathers would be up in arms.

Indio, California

military affairs abroad

The major function of defence in national policy is to provide a form of power which can be used to influence the actions or opinions of other governments in the furtherance of national aims.¹

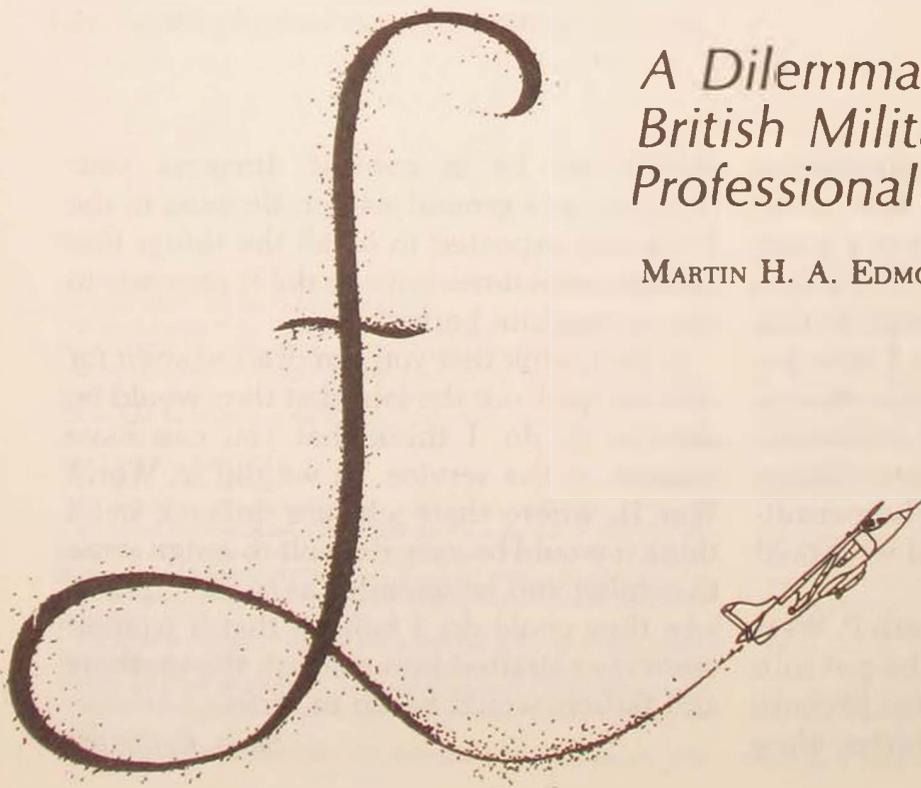
Ministry of Defence working paper

THE quoted statement was included in an in-house document circulated within the Ministry of Defence and serves to indicate what was perceived in 1968 to be its principal organisational objective. The document continued by outlining in simple terms three modes within which defence operated: dissuasion (deterrence), prevention (defence), and compulsion.

BRITISH DEFENCE CAPABILITIES AND COMMITMENTS

A Dilemma in British Military Professionalism

MARTIN H. A. EDMONDS



objectives of defence planning

In translating these objectives into practical reality, the defence planner in Britain has had to determine which actions or policies of other governments need to be influenced, judge the most effective mode of influence, and make provision for the appropriate military capability to exercise that influence. The problem was to acquire a plan fitted to the foreseeable needs of the future and the means of meeting them.² Such a plan required a clarification of the political assumptions underlying defence policy in terms of the threat to the nation's survival and the role of the Armed Services in supporting national objectives. In the light of these assumptions, the task was to determine the forces needed, the weapons they required, and the organisation and control of the total defence effort.³

The 1965 *Statement on the Defence Estimates* was more explicit and forthright than usual. First, the accusation was levelled at the previous administration that Britain's defence forces had been allowed to become seriously overstretched and dangerously under-equipped. To some extent reference was being made to the aftereffects of the 1957 Defence White Paper.⁴ Although many of the 1957 decisions were reversed in the early 1960s, their effect had been to create a capability gap, especially in the area of combat military aircraft.⁵ Second, a new approach to defence planning, management, and control was announced, modelled on that adopted earlier by the United States. This method was the programme budgeting process which, it was asserted, would equate more effectively the ends of defence planning and the costs of achieving them.⁶ Finally, the 1965 *Statement* reiterated more emphatically a sentiment contained in the 1957 White Paper: "It is in the true interests of defence that the claims of military expenditure should be considered in conjunction with the

need to maintain the country's financial and economic strength."⁷

The task of defence planning in 1965 was, therefore, presented as a serious attempt to match political commitments with military resources and to relate the resources made available for defence to the economic circumstances of the nation.⁸ The *Statement*, however, provided no guideline as to which was to have priority, the political commitments of defence or the economic circumstances of the nation. The only clear indication provided was a strong reluctance because of the prevailing circumstances to keep defence spending at a level of around 7 percent of gross national product (GNP).

Defence capability is the appropriate admixture of men, organisation, and equipment to fulfill a specific number of military tasks. These tasks should, theoretically at least, be equated with commitments. More accurately, defence capability is synonymous with the concept of *kriegsbild*, conceptualized as the relationship between the military resources at the disposal of the state and the manner and context in which they might be exercised.⁹ In the field of foreign policy it has been argued that a policy should not be considered to exist if commitments are not balanced with adequate resources.¹⁰ A policy, therefore, lacks credibility and fails to achieve its objective if commitments cannot be backed with effective action. The same argument applies to a defence policy commitment; if it lacks credibility, then that policy commitment is worthless.¹¹

political and military commitments

The credibility of a commitment depends on a number of factors.¹² Many of them concern the perceptions of those governments or nations to which the commitment is directed. The factors that enhance credibility most are the demonstration of the determination and

the will of a government to fulfill its obligations. Declaratory commitments can only go a limited way in this respect; credibility must ultimately depend on the evidence. In a military context this must be the acquisition of the means by which any policy commitment, or number of policy commitments simultaneously,¹³ could be met if the options were exercised and the commitments invoked. In defence planning terms, the means refers to the men, materiel, and organisation together with the operational tactical and strategic plans covering the manner in which these capabilities are to be employed. The art of defence planning, the art of taking on commitments, is to demonstrate to potential adversaries not only determination but also the futility of a challenge to policy objectives through recourse to military means.¹⁴

The concept of "commitment" has been identified as either situational, that is to say an undertaking of a government, "the fulfillment of which is contingent on whether it still serves national interests in a given situation," or nonsituational and refers to an undertaking, the fulfillment of which rests on "a conviction that a government must keep its commitments." This latter type of commitment takes on "a symbolic demonstration of a country's dedication to principles, security interests, and other considerations removed from the situation with which the commitment is concerned."¹⁵ It is also significant to note that it provides a focus for and sense of purpose to the Armed Forces of the nation.

The meaning of any military commitment lies in the capability of a government to be able to fulfill it when a *casus foederis* arises. The problem, therefore, is first, how to determine when such an occasion has arisen and, second, who decides how the commitment should be fulfilled. Broadly, two types of commitment exist: one is an undertaking that is embodied in a treaty or documented agreement in which a prescribed course of military action is defined at a specified time

within a given set of circumstances; the other is "an actual employment or intent to employ force in specific circumstances and situations."¹⁶ The latter is distinguished from the former in that the action, or the intention to act, need not necessarily arise from an obligation previously incurred. Commitments need not, therefore, be contractual; they can, for example, be unilateral and declaratory.¹⁷

Military commitments must be treated on the assumption that they would be honoured if invoked. The more likely a commitment can be honoured, the greater its credibility. Contractual commitments are more credible than declaratory ones, simply because they invariably necessitate preparation and a defined course of action. The difficulty is that those circumstances defined in the agreement which constitute a *casus foederis* are open to wide interpretation; and there are no instruments in law by which one state can force another to honour its commitments.¹⁸ Whether a state will honour a commitment depends in part on its degree of adherence to the principle that commitments should be honoured and in part on its ability to honour the commitment with the capabilities at its disposal. It stands to reason that these capabilities must relate not only to the commitment but also give reasonable assurance that they will lead to a successful outcome. No government, however well intentioned when a commitment was first adopted, will honour that commitment if in so doing it would incur disproportionate costs.¹⁹ There is, therefore, considerable onus on governments with military commitments to provide continuing proof of their intention to honour them by possessing and maintaining a more than merely "sufficient" military image.

Purposive, goal-oriented military planning has not been a distinguishing characteristic of British defence planning over the past ten years. The evidence indicates that military forces have been earmarked to meet a wide range of generally declared commitments

without strong evidence of capabilities having been specifically developed or maintained for any one of them with the single exception of the independent nuclear deterrent. This conclusion is to some extent confirmed by the observation of military personnel that Britain does not have commitments as such, no matter what the White Papers might say. Instead, there have been numerous contingency plans that have been continually updated and modified by the Operations Planning Staff in the light of changing military circumstances.

These contingency plans are the *de facto kriegsbild* of the Armed Forces. Their significance depends on what forces, equipment, and organisational structure can be put together at any one time and on the content of intelligence reports of potential adversaries. This is the capability that is intended to give credibility to British military commitments; but no matter how professional,²⁰ efficient, or successful the planning staff may be in formulating these plans or moulding a *kriegsbild* suited to all likely military operations, the fundamental consideration is the relevance of these hypothetical plans and structures to the declaratory and contracted politico-military commitments prevailing at the time.

the equation of commitments and capabilities

To reiterate, the prime objective of defence planning is to balance equipment, manpower, and organisation with policy; it is, simply, to equate capabilities with commitments. Achievement of this objective is complicated by the difference in the time period needed to introduce new military equipment compared with that either to instrument change in the Armed Forces' organisation or to effect an alteration in defence policy. The lead time in the development and production of new defence equipment is in the range of

five to eight years, depending on the type of equipment and the extent to which it extends the technological state of the art. Only by purchase from abroad can the time cycle of weapons acquisition be shortened effectively. Experience has demonstrated that the lead times on various advanced weapon systems have caused considerable problems in forward planning and in cost estimation. Weapons procurement can only be an immediately relevant exercise if military commitments and defence policy objectives remain reasonably constant. As a hedge against rapidly changing domestic and international environments, the British government has reacted by encouraging the Armed Forces to think in terms of multirole weapon systems designed to fulfill a number of military roles and meet the requirements of a range of commitments. Whilst this approach may appear to have made political and economic sense, it has not entirely enjoyed the support of the Armed Services.

The time required to effect organisational changes within the Armed Services and the central organisation for defence is about five years. All organisations take time to adjust to new procedures and new structural relationships. Since 1965 there have been a number of major organisational and structural reforms both within the British Armed Forces and the Ministry of Defence. Indeed, re-organisation appears to have been a persistent activity, and by the time that one set of organisational reforms has been absorbed, another set is already in train.

Changes in defence policy and military commitments need take no longer than a few months. In most cases of a major defence review in Britain since 1965, it was envisaged that policy changes would be put into effect over a period of time, so that the fullest use of defence equipment could be made and its disruptive effect minimised. Despite the intention, there have been instances when commitments have changed

overnight and equipment summarily cancelled. Under such circumstances, the objective of keeping capabilities and commitments balanced must have been virtually impossible. What is more significant, however, is the question of how long it was estimated it would take to restore the three variables into equilibrium. Equally important is the question of what is the disruptive effect of policy change on the British Armed Forces and their professional ethos.

The responsibility of advising the British government on strategy and military operations and on the military implications of defence policy commitments is vested in and assumed by the Chiefs of Staff Committee, although much of the initiative for defence studies on policy, requirements, and operations may have fallen to the Chief of Defence Staff.²¹ It has fallen to the Chiefs of Staff Committee over the past ten years to try and construct a *kriegsbild* for the British Armed Forces within the context of a number of rapidly changing and increasingly stringent political and economic constraints. In the absence of details of these commitment-related contingency plans, an assessment of whether a credibility gap has existed, or still exists, between capability and commitment in British defence planning must be based on the stated assumptions about defence policy planning and evidence from the public record. This necessitates examining not so much the effects of recent defence policy changes as the cumulative effects of policy changes over the past ten years. Such evidence as there is suggests immediately that the credibility of the British government's politico-military commitments is seriously open to challenge.

Defence Policy Planning 1964–74: Capabilities and Commitments

On taking office in the autumn of 1964, the incoming Labour administration was elector-

ally and ideologically committed to a thorough review of defence policy and defence expenditure. However, there were other, more pressing, reasons. First, there was ample evidence that British forces were overcommitted and underequipped.²² Second, the reforms introduced into the central organisation for defence by the Conservative administration had still to be completed. And last, the economic situation was such that overall defence expenditure would have to be reviewed in relation to necessary cuts in public expenditure.

The state of the economy proved to be the highest priority. Government policy required that defence policy should be reviewed in the light of a financial ceiling on the annual defence budget within five years provisionally put at £2,000 million at 1964 prices.²³ The ceiling, which ceased to be provisional after July 1965, represented a saving of 16 percent in defence expenditure on the projected defence budget for 1969 and marked a drop in defence expenditure from 7 percent to 6 percent of the estimated gross national product. Early studies suggested that considerable saving could be effected by a number of equipment cancellations and substitutions. Within a few months the provisional fifth Polaris submarine was cancelled and several substitutions were made in Royal Air Force (RAF) equipment. TSR.2 and the HS 681 were replaced by the United States F-111A and C-130E, respectively, the HS P.1154 supersonic VTOL fighter by the subsonic development aircraft, the P.1127 Harrier, and the Hunter ground support fighter replaced by the American F-4 Phantom. Although the impact of these changes on the British aerospace industry was enormous, they did have the merit that the lead time on new aircraft was considerably shortened and consequently improved military capability in the short to medium term, given prevailing commitments.

The Labour Government's Defence Re-

view was completed by the end of 1965. It demonstrated that even with the cancellations and substitutions already effected, the target budgetary ceiling could not be achieved without further cuts involving Army ground forces, RAF strike capability, or the Navy's attack carrier programme. "All were options with serious implications for military commitments."²⁴ In this event, the Navy carrier programme was terminated and a number of severe conditions applied to defence commitments "East of Suez."²⁵ These conditions were so limiting that it was debatable whether in the event that these commitments were invoked they could ever be met.²⁶

There is ample evidence that the Defence Review of 1964-65 was considered a final one, and that subject only to marginal updating, no further policy change would be introduced for at least another five years or so. A number of major equipment decisions had been taken, commitments had been upheld, albeit on a conditional basis, and the whole exercise had been accomplished not only within the context of the government's "National Plan" but also on the basis of "objective" cost studies incorporated within the defence policy planning process. Confidence that a firm foundation had been laid was soon to be shattered.

The July 1966 economic crisis evidently necessitated defence cuts. Directives were given for the 1969-70 ceiling defence budget to be reduced from £2,000 million to £1,850 million. A second Defence Review was therefore initiated in the middle of 1966 and emerged in July 1967. This time emphasis was predictably placed on cutting back military commitments in the interests of relieving pressure on the balance of payments. Military equipment, however, was left almost untouched. The major decisions were to reduce the British forces in Europe and to start a phased withdrawal of forces from Malaysia and Singapore.²⁷ Perhaps for "non-

situational" reasons the government retained its declaratory policy to maintain a military presence East of Suez.²⁸ The Review, however, failed to effect the savings required of it by £50 million.

As a result of this second Defence Review, an observation was made at the time that:

If . . . one considers all the cuts made . . . since 1964 it is difficult to relate them to any coherent central pattern or plan. They give the impression of having been made piecemeal as and when recurrent economic failures dictated . . . Thus on paper Britain is still committed to a global strategy with forces that are not only unbalanced but which also lack the flexibility which is so essential.²⁹

Whatever the accuracy of this observation, the situation again changed dramatically following the announcement of the devaluation of the pound in November 1967. In January 1968 an announcement was made during the debate on Public Expenditure that the Government intended to withdraw British forces from the Far East and the Persian Gulf by 1972. Although the commitment to station forces East of Suez was therefore terminated, the declaratory commitment to contribute forces to maintain peace in the area, should the circumstances arise, was nonetheless retained. In line with this reduction in commitment and to effect immediate economies, the F-111A and the Chinook helicopter were cancelled, and the carrier *Victorious* was not to be recommissioned after her overhaul.³⁰ Without the F-111A, the "tokenism" of the East-of-Suez declaratory commitment was brought finally to an end.

The *Statement on the Defence Estimates* in February 1968 merely confirmed these decisions and detailed the speed of the withdrawal. It also re-emphasized the British commitment to North Atlantic Treaty Organization (NATO) and made Europe the focus of British defence planning. However, it still made provision for a general capability based in Europe that would be deployed overseas as circumstances demanded.³¹ In the light of

the meaningfulness of declaratory military commitments discussed above³² and of equipment cuts over the preceding four years, this commitment must be considered to have had little credibility.

A cut in defence expenditure, however, does not necessarily mean either a reduction in security or a diminution in capability. Devaluation helped towards balancing capability and commitment and in so doing raised the credibility of Britain's remaining military commitments. In consideration of the subsequent military engagement in Northern Ireland, the decision to withdraw might now be seen to be fortuitous, before the lack of credibility of the East of Suez commitment became wholly evident. Furthermore, the decision coincided with a shift in NATO strategy following the Harmel Report and enabled the Secretary of State for Defence to announce with some conviction that with the new focus on a European commitment it would be possible to have "balanced and effective forces which offer a good career to those who serve in them."³³ This was a second fresh start, in respect of which a number of major equipment decisions became possible for roles specifically designed for the European theatre and which conveniently coincided with a political objective to join the European Economic Community.³⁴ Redundant forces and equipment trained and designed specifically for Britain's global commitment were redirected as part of Britain's expanded commitment to NATO.

Upon the defeat of Labour at the general election in 1970, the now obligatory Defence Review by a new administration was undertaken. In real terms, very little of significance happened although a declaratory military commitment to retain a military interest East of Suez was reaffirmed. The government asserted that it would "honour [its] obligation for the protection of British territories overseas and those to whom [it] owes a special duty by treaty or otherwise."³⁵

To this end a "token," and largely naval, presence was committed to the Far East, the last remaining carrier was kept in commission for an extended period, additional naval capability was to be provided through a shipborne guided missile, the "Exocet," a Fire Power Agreement signed to cover combined military operations in the Far East, and the Territorial Army Reserve expanded. These additional commitments were claimed to have been achieved at little extra cost to the taxpayer through more "effective" use of resources.³⁶

the defence cuts of 1974-75

After the defeat of the Conservative administration, the new Labour Secretary of State for Defence announced on 21 March 1974 that the Government had "initiated a review of current defence commitments and capabilities" against the resources that could be devoted to defence with the view of achieving savings on defence expenditure over a period while maintaining "a modern and effective defence system."³⁷ The extent of these savings was announced on 3 December 1974; defence expenditure was to be reduced progressively as a proportion of gross national product from 6.6 percent in 1974 to 4 1/2 percent in 1984. This, it was calculated, would effect a total saving of around £4,700 million at 1974 prices.³⁸ The details of the savings were less significant than the unequivocal assertion that the ten-year programme would achieve "a new balance between commitments and capabilities to meet the Government's strategic priorities." To assist in obtaining this objective, the Review not only determined that commitments outside Europe would be "reduced as far as possible" but also identified after discussions with NATO and European allies the areas where and how the British military forces could most effectively contribute. The effects of these decisions on the services were to be

minimized by taking full advantage of the ten-year period envisaged under the programme: natural wastage both in manpower and equipment was to be used to the full, replacement programmes for equipment were to be reduced or stretched, entirely new weapon systems were to be cancelled or reduced, and those specialized units that had been established primarily for non-European commitments, such as the RAF transport fleet, reduced or disbanded.

The prospect of effecting these economies was received by the Armed Services with misgiving. The effects, both personally and institutionally, were not to be taken lightly, since they followed in the wake of three major defence reviews in ten years the cumulative impact of which had not been absorbed either separately or collectively. To soften the impact of the 1975 defence cuts, the Government made a commitment to the Armed Services that their essential requirements for meeting commitments in Europe would be met in full. As a consequence the Navy's cruiser programme, the procurement of the multi-rate combat aircraft (MRCA), and major items of equipment for a modern mobile field army in Central Europe were left predominantly alone. Such Armed Forces re-organisation as was necessary to trim costs was designed to eliminate or reduce elite units, such as the Parachute Regiment, and to shift the ratio of "teeth" arms to administration and support groups.

For a while it appeared that the lesson of the effects of the previous ten years of half-initiated or half-completed defence reviews had been learnt. A long-term plan had been initiated, twice as long as any previous one, but, more important, an attempt was made to equate specific European commitments with specific capabilities in concert with Britain's allies. A target had been set for the Armed Services which offered "relevance" in equipment, organisation, and manpower, even if the intervening period of adjustment

would leave Britain with military capabilities that fell far short of the optimum. And yet the credibility of the long-term plan depended on the political will of the Government not to change its mind or bend before further pressures to cut defence in face of a worsening national economy. Although pressure was put on the Secretary of Defence from the left wing of the Labour Party to cut defence spending—figures of up to £500 million were quoted—the Chiefs of Staff evidently called a halt; enough was enough. Any further cuts, as the Expenditure Committee's Defence and External Sub-Committee found out during 1975, would impair further "the very serious situation which confronts NATO."³⁹

*commitments, cuts, and
military professionalism*

The four defence reviews between 1965 and 1975 have led to one basic conclusion: defence spending during the period must be seen in the context of overall Government objectives. This has been manifested in terms of a defence budgetary ceiling expressed as a percentage of GNP. But the period has also been marked by periodic economic crises, and the defence ceiling has been changed frequently; military and defence policy planners have therefore been unable to establish a firm "base-line" from which to work out fully their *kriegsbild* within a framework of political and military commitments. The effect, at the time of the last Defence Review, was to leave the British Armed Forces in much the same situation that they were in at the beginning of the period, overstretched and underequipped. The claim that defence planning is a "continuous process" has proved to be ill-founded in practice.⁴⁰

To some extent the gap between capability and commitments created by successive weapon programme cancellations, substitutions, cutbacks, and stretches, and force re-

organisations, reductions, and redeployments has been filled by expedients made possible through a high element of luck.⁴¹ The expedients include such devices as substitution of one weapon system for another, the use of obsolete equipment beyond their planned operational life, extended use of limited numbers of weapons between maintenance and refits, the use of defective equipment, and the restriction of training with live ammunition to the absolute minimum. For the professional military the whole period has been one that has taken their adaptability, initiative, and ingenuity as well as their readiness to operate long hours in units that are undermanned and doing tasks for which they were not primarily trained.

Whilst the practical impact of the defence reviews was a source of irritation to the Armed Services, the major source of frustration was the realization that the military commitments which they had an obligation to fulfill were likely beyond their capability of meeting. Furthermore, sudden changes—first in equipment and not policy, then in policy and not equipment, then in both simultaneously before any obsolete equipment had been replaced from the late 1950s—left a feeling of apprehension and resentment about what was to happen next. Little wonder that the military were sceptical of any defence pronouncement.

Military professionalism in the West ideally demands subservience to political masters and noninvolvement in partisan politics. It also presupposes a responsibility to society to guarantee a minimum level of competence and an obligation to act when circumstances demand. During the ten years prior to 1975, successive reviews have immediately affected the British Armed Forces and their professional ethos. This has largely been because the perceived requirements of the military to meet the obligations that politicians have defined for them have not been

met. In essence, they have been prevented from fulfilling the requirements of their profession.

On the one hand, military professionalism demands that the services do their best to fulfill the commitments of their political masters. To a large degree the British military have done this, albeit at some cost to their own sense of integrity by way of a “cover-up” operation of the real extent of their situation. This expedient may have helped disguise the situation, and the public at large may have been unaware of its full extent, but the effect it has had on the morale of the services and the attractiveness of the military as a career has, in the opinion of many servicemen, assumed serious proportions. On the other hand, the professional ethic of the British Armed Forces demands subservience to political masters and noninvolvement in politics and presupposes a responsibility to society to guarantee a minimum level of competence and an obligation to act when circumstances demand and political directions are issued.

During the 1964–74 period, the successive policy changes, structural alterations, and equipment cancellations and substitutions have immediately affected the professional ethos of the British Armed Forces and confronted them with a dilemma. It has been suggested above that a credibility gap has existed between military commitments and capabilities and that this gap has only been seen to have been filled through a combination of luck, military adaptability, and the commitment of the individual serviceman. But as it is unreasonable for the military professional to plan to meet commitments made by politicians when these plans are continually being thwarted by circumstances over which they have no control, so it is wrong to expect the military to continue to be compliant.

The evidence suggests that since early 1976 the British military hierarchy, respon-

sive to pressure from below, has been less compliant than previously regarding political pressure for further defence cuts. Rumours of additional cuts beyond the £4,700 million announced in 1975 amounting to £800 million have not materialized; in the process of reducing public expenditure further, the Ministry of Defence has come off lightly. It would appear that the military have finally dug in their heels.

In support of their stand, the military have taken the unusual and almost unprecedented step of taking their case into the public domain. In the press and on TV the service chiefs have been reported as saying that past economies have taken almost as much as is possible without leaving Britain with virtually no viable defence capability at all, an argument supported by their increasing emphasis on the recent expansion of Soviet conventional capability. As a part of this exercise in publicizing the critical issues facing the British defence forces, the British public have been presented with the picture on television of a senior RAF officer saying, on the one hand, that enough is enough as far as cuts were concerned yet reassuring his audience that the RAF is as efficient and effective as ever before.⁴² It is a reflection of the times that a serviceman be placed in a position

where his professionalism is publicly compromised.

THE SOLUTION would appear from the British experience to be straightforward. From a morale point of view it would be preferable to have a military capability in excess of commitments; situations where the military have felt themselves not to be up to the task, or have felt themselves to be up to it but with little in reserve, have had an erosive effect. Even with this change of philosophy, for indeed such an alteration would be precisely this, the principal problem of planning would remain, which is to achieve a balance of organisation and equipment within a given time frame. For this to be achieved, greater emphasis should be placed on continuity of policy. Limited commitments would help towards this, as well as projecting, for internal and external consumption alike, a more realistic assessment of Britain's ability to honour its obligations. Without this change not only will the British Armed Forces continue to be in a state of disequilibrium but also the worth of British commitments will be judged by other states—increasingly in a "situational" and merely declaratory light.

*University of Lancaster
England*

Notes

1. *Decision Making in Defence*, mimeographed, Ministry of Defence working paper, December 1968.

2. *Parliamentary Debates*, House of Commons, Hansard, 3rd March 1965, Col. 1352. These words have been attributed to Secretary of State Denis Healey himself.

3. *Statement on the Defence Estimates*, Cmnd. 2592, February 1965, p. 6.

4. *Defence Outline of Future Policy*, Cmnd. 124, April 1957, p. 9.

5. *Flight International*, 19 December 1963, pp. 994-99.

6. *Parliamentary Debates*, House of Commons, Hansard, 3rd March 1965, Col. 1350.

7. *Defence Outline of Future Policy*, Cmnd. 124, April 1957, p. 1.

8. *Statement on the Defence Estimates*, Cmnd. 2592, February 1965, p. 5.

9. H. Beach, "Note on the Part Played by *Kriegsbild* in British Defence Policy," mimeographed, USSG working paper, Edinburgh 1970, p. 1.

10. Walter Lippmann, "U.S. Foreign Policy, Shield of the Republic," cited by P. Seabury and A. Drischler, "How to Decommit without Withdrawal Symptoms," *Foreign Policy*, vol. 1, 1970-71, p. 47.

11. P. Nailor, "Management of Britain's External Relations: Defence Policy," in J. Groom and R. Boardman, *The Management of Britain's External Relations* (London: Macmillan, 1973). Professor Nailor discusses the problems of the relationship between defence and foreign policy with reference to long- and short-term planning and how defence planners try

to bridge the gap between utility and uncertainty. He has implied, however, that whilst military force still has utility, it is increasingly being "questioned as an essential component of major policy making." Pp. 230 et seq.

12. For a discussion of these, see T. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), pp. 35-91. See especially pp. 49-59.

13. J. T. Howe, *Multicrisis* (Cambridge: Massachusetts Institute of Technology Press, 1971), pp. 31-36 and passim. Howe investigates issues of U.S. overcommitment arising from the existence of a wide range of commitments and obligations at the same time as the war in Vietnam.

14. Schelling, p. 35.

15. F. B. Weinstein, "The Concept of Commitment in International Relations," *Journal of Conflict Resolution*, vol. XIII, no. 1, 1969, pp. 40-41.

16. Seabury and Drischler, p. 47.

17. Schelling, pp. 35-36.

18. P. Reuter, *International Institutions* (London: Allen and Unwin, 1958), p. 132.

19. J. Brierly, *The Basis of Obligation in International Law* (London: Oxford University Press, 1946), pp. 111-12. He cites Oppenheim, *International Law*, third edition, 1920, "The consent of a State to a treaty presupposes a conviction that it is not fraught with danger to its existence and vital development."

20. M. Howard, *Central Organisation of Defence* (London: Royal United Services Institution, 1970), p. 44. See also Nailor, p. 224.

21. Howard, pp. 44-45.

22. *Statement on the Defence Estimates*, Cmnd. 2592, February 1965, p. 5.

23. D. Greenwood, *Budgeting for Defence* (London: Royal United Services Institution, 1972), p. 65. For a discussion of how the figure of £2,000 million was arrived at, see also B. Reed and C. Williams, *Denis Healey and the Policies of Power* (London: Sidgwick and Jackson, 1971).

24. Greenwood, p. 65.

25. *Statement on the Defence Estimates*, Part I, The Defence Review, Cmnd. 2901, February 1966, p. 7.

26. The *Statement on the Defence Estimates 1966* had admitted that British forces were already overstretched before the Defence Review cuts to forces East of Suez (paragraph 19, p. 7). The questionable effectiveness of the military commitment in the Far East is referred to in N. Brown, *Arms without Empire* (Harmondsworth: Penguin Books, 1967). See also Sir John Slessor, "Britain's Role East of Suez," *The Times* (London), 1 November 1965, p. 9.

27. *Supplementary Statement on Defence Policy*, Cmnd. 3357, July 1967, p. 5. The decision was to halve the forces in the Far East from 80,000 to 40,000 by 1970-71.

28. *Ibid.* Here the supplementary statement begins to play with words. It states, "we shall continue to honour our obligations under SEATO, but forces assigned to specific SEATO plans will be progressively altered in nature and size." There is no attempt to clarify what constitutes an "obligation"; since the same paragraph refers to the fact that it was the government's intention to change commitments in the Far East, it must be assumed that in no way did (or does) the Ministry of Defence equate "commitment" with "obligation."

29. Editorial, *Journal of the Royal United Services Institute*, February 1968, p. 2.

30. *Statement on the Defence Estimates*, Cmnd. 3540, February 1968, p. 2. See especially paragraph 2, which refers to the failure to balance military tasks and resources in 1964 (during the Malaysian "confrontation") and to the principle guiding the reduction in manpower that commitments (i.e., military tasks) should proportionately be reduced.

31. *Ibid.*, p. 3.

32. *Ibid.*, pp. 7-9.

33. *Statement on the Defence Estimates*, 1968, p. 3.

34. For example, the decision to go ahead with the MRCA (Tornado) multirole aircraft in collaboration with West Germany and Italy.

35. *Supplementary Statement on Defence Policy*, Cmnd. 4521, October 1970, p. 4.

36. Greenwood, p. 72. Greenwood described the arithmetic of the Conservative Government's defence budget as "ingenious" and "Orwellian"; the changes to the new defence programme in budgetary terms he labels as "cosmetic."

37. *Statement on Defence Estimates 1975*, Cmnd. 5976, p. 1.

38. *Ibid.*, p. 2.

39. House of Commons Expenditure Committee Defence and External Affairs Sub-Committee 7th Report, *British Forces in Germany*, 1 April 1975, Session 1974-75, *House of Commons Paper 472*, pp. XV-XVI.

40. *Statement on Defence Estimates*, Cmnd. 3203, February 1967, p. 2.

41. Beach, p. 10.

42. Sir Dennis Smallwood, KCB, CBE, DSO, DFC, Air Officer Commanding in Chief, Strike Command RAF, interview on Granada Television, Monday, May 24, 1976.

The guardian's attitude toward the guarded is revealed in the story about the young veteran who asked his Oxford tutor what *he* had done during the war. "Young man," was the reply, "I am the civilization you fought to preserve."

ORVILLE D. MENARD

R books and ideas



THE ELECTRONICS REVOLUTION

DR. THOMAS H. ETZOLD

A COMMON theme pervades these two books by Vice-Admiral Sir Arthur Hezlet and Paul Dickson: In the twentieth century, electronics has altered not only technical aspects of warfare but its nature. Sir Arthur believes that electromagnetics, the airplane, and the submarine have been

the most significant developments in naval warfare in recent times.† In an even more striking assertion, Paul Dickson proposes that electronics, especially in sensor applications, has brought about a revolution in warfare as profound and consequential as that occasioned by atomic weapons.‡

†Vice-Admiral Sir Arthur Hezlet, *Electronics and Sea Power* (New York: Stein and Day, 1976, \$15.00), 318 pages.

‡Paul Dickson, *The Electronic Battlefield* (Bloomington: Indiana University Press, 1976, \$10.00), 244 pages.

In *Electronics and Sea Power*, which surveys uses of electromagnetics in naval warfare from early in the nineteenth century to late in the twentieth, Sir Arthur discusses three broad categories of application. The first, important by mid-nineteenth century, was communication, originally by cable and then, near the end of the century, by radio. The second category was detection, with beginnings in the battery-powered searchlights of the Royal Navy about 1875, a time when sonar, radar, and over-the-horizon detection would have seemed too incredible even to be good science fiction. The third category was control of missiles, which Sir Arthur nominates as the most revolutionary development of the years following World War II, for it has led to the virtual replacement of naval guns by missiles.

Together with the pace of improvement, these three applications today mean, in Sir Arthur's opinion, that "nothing but the best will be any good in the future." Low-mix ships will be vulnerable, impotent, and obsolescent almost by definition. This is an interesting argument—an important concern each year as budgeteers, project officers, and admirals argue over force structure, weapon development, and procurement. It is unfortunate that, in developing this viewpoint, Sir Arthur did not adhere more closely to another of his avowed goals, namely, to "make the text intelligible to the general reader without removing much that is of real interest to the naval officer or the expert in electrics or electronics."

The book is laden with abbreviations, designations, and a garble of British and American terms for various devices. In places, whole series of paragraphs consist of nothing more than consecutive one-sentence descriptions of various weapons and systems, descriptions useless to amateur and expert alike. Here, for instance, is Sir Arthur's entire mention of one weapon: "In the United States they also produce a smaller anti-ship-

ping missile called 'Harpoon' with radar terminal homing." It would do little good to catalog here the errors or imprecisions in the text. Suffice to say that the conclusion is interesting, but the volume is unfocused, tiresome, and often trivial without being particularly informative. Perhaps the best chapters are the first ones dealing with the Royal Navy up to the First World War, years before the Navy—and the book—became hardware-intensive.

What Sir Arthur praises, Paul Dickson would like to bury, for he believes that electronics—especially sensor technology—has altered warfare for the worse and far beyond the ability of people to manage. In *The Electronics Battlefield* he asserts that for centuries success at war has meant "inflicting the greatest damage from the furthest [sic] distance." In terms of this definition, sensor technology now verges on "doing for conventional warfare what the atomic missile revolution did for total war: that is, to bring it to its logical end point—in this case not only distance from the enemy but destructive precision." Three developments of the Vietnam years underlie the emergence of sensor technology and an imminent revolution in the nature of conventional warfare: first, the integration and miniaturization of complex electronic circuits; second, the appearance and refinement of remotely manned systems; third, the creation of a science of "bionics"—not superstrong secret agents but the study of living systems to "provide the keys to new invention." For example, low-light television image intensification was improved partly through study of the eyes of horseshoe crabs.

The foregoing developments in electronics, remote systems, and bionics have made possible the electronic battlefield, or perhaps one should say battlefields, because Dickson discusses two meanings of this signal phrase. The first meaning, EB I for short, refers to the development, improvement, and use of

unattended ground sensors, and is, perhaps, not so worrisome, although it is not nice. The second meaning, EB II as the concept is tagged in Dickson's book, refers to automated war, such as the electromechanical battle zones suggested in a widely reported and quoted speech by General William C. Westmoreland on 14 October 1969. The great difference between EB I on the one hand, and EB II—*Blipkrieg*, the author calls it—on the other, is that in the latter version sensors are linked directly to weapons so that humans do not necessarily factor into the detection-response sequence. The sensor beeps; the gun, bomb, mine, or missile booms.

Dickson objects to this line of technological evolution and military revolution for several reasons. First, he believes that EB technology is making conventional warfare more lethal, which offends his humanistic values. Second, he resents that EB technology has been funded in bits and pieces, rather than as a line item or project in the defense budget, for that has made it possible to keep the public from questioning EB's ultimate effects on warfare, or even finding out much about it—all of which violates his democratic and journalistic ethics. Finally, Dickson expresses his outrage at the idea that the final lesson of Vietnam for American military men may be that it was inefficient and that military professionals may turn to the technology of the electronic battlefield for redress.

Many people who should read this book probably will not, and that is too bad. Dickson's veneer of reason does not entirely hide his emotional and negative reaction to trends in military technology. That will, to some readers, seem justification enough for discarding the book or ignoring the concerns of

the author. For the author is a journalist not a scientist, a civilian and not an insider with clearances, information, and experience concerning many of the topics on which he touches. That may seem another good reason not to read the book or take it seriously.

But Dickson raises questions that deserve at least to be discussed and, if possible, answered: some about fallibility of systems, some about ethical responsibility in this "new" warfare, and some about its legality. "Will the electronic battlefield work well enough to insure that there will be no accidental, automated attacks on Americans or allied troops, no electronic *My Lais*?" he asks. Who is responsible when things go wrong—or right as the case may be—in remote warfare conducted by machines? What is the legality of deploying sensor-weapon systems that cannot discriminate reliably between combatants and noncombatants?

Fallibility, responsibility, legality—these are reasonable questions concerning the effects of the electronic battlefield on conventional warfare. Dickson deserves credit for raising them even in the present form of investigative journalism.

FINALLY, and together, these books pose a single point to consider, one raised most eloquently in recent years by Elting Morison in *Men, Machines, and Modern Times*. The point: how men do affects what they do. Thus, it is essential to employ technology with all deliberation. It is easy to forfeit or to avoid deliberate evaluation and decision on questions such as those Dickson asks. It is difficult to live with the unintended consequences, the unexpected results of failure to manage machines.

Naval War College

WHITHER ZIONISM?

DR. LEWIS B. WARE

I HAVE come to believe—at least since the publication by the great psychoanalyst Erik H. Erikson of his superb biographies of Luther and Gandhi—that there is much to recommend the complementariness of history and psychology. Dr. Jay Gonen's book, *A Psychohistory of Zionism*,[†] is another among recent studies that confirms my original prejudice. Only I am chagrined as a professional historian that psychologists tend to write better history than historians write psychology. If I were to venture an answer for this phenomenon, I might be forced to conclude somewhat enviously that psychology possesses a more precise set of theoretical constructs with which to explore certain relationships that concern both our disciplines: especially those between symbols and their elaboration as discernible historical patterns.

From the theoretical point of view, Dr. Gonen does not hide the fact that he is applying a Freudian bias to the study of Zionism. This is as it should be since, of all the theorists of modern psychology, only Freud has managed to combine a rigorously scientific view of man's inner relationship to his universe with the flexibility of interpretation required to render artistically man's world-view in terms of symbols. To this end the author undertakes his study with a num-

ber of discrete, yet subtly interrelated essays which attempt to show the evolution of the Zionist world-view as an antidote to negative Jewish ego-symbols that have long determined the problematic nature of the relations between Jewish and non-Jewish society. In particular, Dr. Gonen devotes his attention to the symbolism of the *schnorrer* (the beggar), the *luftmensch* (the dreamer), and the *goy* (the Gentile).

To *schnorr*, says the author, is to beg from Jew and Gentile alike at the expense of the *schnorrer's* dignity and self-esteem. In the hierarchy of negative Jewish ego-symbols, the highest form of *schnorring* is the kind of begging which the Court Jew, the *stadtlan*, does with the Gentile authorities on behalf of the Jewish community. But, as the author points out, the prestige that the *stadtlan* receives from Jews in no way compensates for the resulting deprivation of his own psyche. Similarly, the *schnorrer* can also be a *luftmensch*, the pathological dreamer of grandiose dreams, who hopes that by some miraculous intervention his fantasies of power and independence vis-à-vis non-Jewish authority will be realized and, in so doing, release him from the burden of self-hatred.

Central to the characterology of both *schnorrers* and *luftmenschen* is that in the

[†]Jay Y. Gonen, *A Psychohistory of Zionism* (New York: Mason/Charter, 1976, \$15.00), 374 pages.

wider context of Jewish history in the Diaspora the real enemy remains forever the *goy*, not the acquiescent Jew. And in the constant struggle against the Gentile's anti-Semitism, many of the Gentile's values are assimilated to the Jewish character. It is to this assimilation and its deleterious effects on the Jewish psyche that Zionism responds as a political, social, and cultural program that holds out psychological redemption to an entire people. Dr. Gonen's task, therefore, is to trace psychologically the working out of this redemptive process through Zionism from its historical inception to its final expression in Israeli nationhood.

If I were to criticize this admirable book, I would do so on exactly this point: that Dr. Gonen does not treat the historical process as well as he treats certain isolated historical instances. Consequently, the book lacks an overall focus on the development of the interrelationship between symbols and their sociopolitical expression as implied in the appearance of a new and unique Israeli people with its own world-view. Hence, it might have been more accurate to call the book a psychosymbology rather than a psychohistory of Zionism. Be that as it may, these minor criticisms ought not detract from the worth of this compelling, well-written study for all serious students of Middle Eastern affairs.

UNFORTUNATELY, the same recommendation cannot be made for Moshe Dayan's autobiography, *Moshe Dayan: Story of My Life*.† Though not badly written, the book is uneven in presentation and, like most books of its type, is meant by the

author to be an *apologia pro vita sua*. Only on rare occasions, when General Dayan is not engrossed in justifying his policies, does he give the reader some insights into his role in the shaping of Israel's contemporary history.

One such occasion is the tripartite negotiation between Israel, France, and Great Britain that led to the 1956 Suez Campaign. Dayan, Ben-Gurion, and Shimon Peres played dominant roles in these talks, and the author is at his best when analyzing the political motives of each partner for securing President Gamal Abdel Nasser's downfall after the Egyptian leader nationalized the Suez Canal. The hitherto unknown story of these discussions makes fascinating reading and lends credence to the book as a historical document, even if the author eschews proper use of citations and source methodology.

However, it is not the historical Moshe Dayan that this reviewer sought in his autobiography but Dayan, the elusive man. The author himself is not prone to self-revelation. Nevertheless, a sensitive reader will uncover, with careful scrutiny of the text, some personal characteristics that shed light on Dayan's thoughts and self-perceptions. Of interest are three important personal inclinations: first, Dayan romanticized the Bedouin; second, he sentimentalized the life of the kibbutznik; and third, he revealed an overwhelming passion for the pursuit of archaeology.

From the psychological point of view, Dayan's inclinations are not only relevant but applicable in the main to many Israelis. Romanticizing the Bedouin allows the Israeli to simplify the relationship between Jew and Arab by putting the relationship on the level of paternal stewardship. In this way all Arabs are reduced to the simple, noble unsophisti-

†Moshe Dayan, *Moshe Dayan: Story of My Life* (New York: William Morrow, 1976, \$15.00), 640 pages.

cation of the Bedouin whose virtues must be protected from contamination by civilization. If all Arabs can be psychologically Bedouinized, they may therefore be stereotyped, rendering all their actions immediately intelligible to the stereotyper. In the process, the Arab's personality becomes to the Jew static, fossilized, and thoroughly predictable. Thus, Arabs are viewed as a depersonalized collectivity which, in the interests of Jewish self-defense, must be preserved intact. This attitude, adopted by many Israelis, reflects a typical colonial response to a colonized people which, by justifying the colonizer's unshakable belief that only he "understands" the native, permits the relationship between the patron and client to be viewed in black-and-white terms. Dayan, for one, seems to be happy among Arabs only when he is sharing a nomad's desert hospitality.

Dayan is his most expansive when he recollects how wonderful it was to be a young kibbutznik, tilling the soil long before he attained a position of national responsibility. In the Zionist hierarchy of values, the colonization of Palestine is equated with the redemption of the Jewish people from rootless cosmopolitanism and degradation in the Diaspora. Collective development of the land, in particular, is meant to restore to the Jews psychological self-esteem and encourage, through a common effort, confidence, reliance, and devotion to the cause of self-mastery. The first generation of Palestinian-born Jews, to which Dayan belongs, was socialized to these values. The outcome was to create, as Dr. Gonen points out, a "cute but thorny" *sabra* who saw little profit in intellectualization. Rather, the *sabra* prefers practical solutions, is impatient for success, and possesses the *chutzpah* to impose his solu-

tions on the environment. In essence, Dayan, the *sabra* is reacting to the negative image of the passive, acquiescent Jew of the Diaspora.

Last, we remark Dayan's passion for digging up the remnants of ancient Israelitic civilization. Once again, were we to refer to Dr. Gonen's evaluation, we would discover that here is another aspect of the same phenomenon: in the evolution of all young nationalisms there exists a felt need to recreate a continuity with the past. Zionism, being no exception to this rule, looks back to a Golden Age when Jews lived a Jewish life in Palestine in order to justify the role Jewish nationalism has played in giving this ancient mythical unity modern political expression. In the course of events, history is rewritten to accommodate old and new perceptions, and myths are resurrected or reinvented. More important for Zionism is the pervasive power of such mythmaking in overcoming the hold that the Diaspora exercises on the Jewish mind. In discovering a vibrant Jewish civilization that ruled in Palestine, Israelis reinforce a sense of self-mastery necessary for the continued survival of the state while, simultaneously, they become better equipped psychologically to cope with the negative ego-symbols generated by life in exile.

DAN KURZMAN'S book, *The Bravest Battle*,[†] exhibits many of the same attitudes. It claims to be an authentic narrative of the Warsaw Ghetto uprising of 1943, where a handful of Jewish resistance fighters went to a certain death defending their coreligionists from inevitable deportation to the infamous Nazi extermination camps. The story exposes an appalling hu-

†Dan Kurzman, *The Bravest Battle: The 28 Days of the Warsaw Ghetto Uprising* (New York: Putnam's Sons, 1976 \$10.00), 386 pages.

man brutishness which all of us would do well to understand. Sadly, Kurzman's rendition of this tragic episode in human history only serves to cheapen its moral value for the reader. His writing is, first of all, profoundly ahistorical and, second, is designed to promote the story of the uprising for propagandistic purposes. This is readily apparent from the novelistic style of the book; the author provides the resistance fighters with improbable dialogues as he attempts to reconstruct the day-to-day fighting through the eyes of the participants. Since the vast majority of the fighters died in the ghetto and the documents on which the author's account is based are rarely cited, the overall effect is a travesty of fact that detracts from the gallant and heroic example of these men and women.

In order to intensify his narrative Kurzman indulges in unacceptable stereotyping. The Germans are portrayed as pure Nazi types, Prussian in demeanor, Teutonic in looks, and slaves to Hitler's racial theories while the Jews tend to be Semitic in appearance, passive and weak in character, and quick to compromise for one more day of life; all, of course, except the resistance fighters, who are the only ones to grasp the magnitude of the situation. The author's intent is to prove that Jews are not cowards. Moreover,

they can demonstrate superior military prowess against insurmountable odds. His story is, therefore, meant to project an image of the Jewish people as capable of defending itself against persecution, the ancient expression of which is the Masada episode in Jewish history when a group of Hebrew zealots chose to die rather than surrender their mountain stronghold to the Roman army. Masada has, consequently, become the rallying cry of Jews in the face of Arab threats of annihilation and a justification for Israeli militarism.

Perhaps a more telling manifestation of the Masada complex is to be found among the members of the Jewish Defense League in the United States, whose slogan "never again" indicates Jewish determination to resist to the last drop of blood the destructive impulses of the Gentile world. The major flaw of Kurzman's book is that he succeeds in making free use of all these potent psychological symbols not in the interests of advancing historical understanding of Jewish history and human compassion for the sufferings of the Jews but to encourage the hardening of the relationship between Jews and non-Jews into mutually suspicious and inflexible attitudes.

Maxwell AFB, Alabama

The soul of a civilization is its religion, and it dies with its faith.

WILL and ARIEL DURANT

The Age of Reason Begins (1961)

POTPOURRI

Development of Strategic Air Command: 1946–1976 by J. C. Hopkins with the assistance of Sheldon A. Goldberg. Offutt AFB, Nebraska: Hq Strategic Air Command, Office of the Historian, 21 March 1976, 186 pages, \$3.90.

The Office of the Historian at Strategic Air Command Headquarters has taken the occasion of the country's bicentennial, which also happens to be SAC's thirtieth anniversary, to produce this first complete, authoritative account of the development of SAC.

It would be hard to think of another organization that has been as instrumental in safeguarding the security of our Republic during the past three decades, so this work is a welcome bicentennial production. The book is soft bound but extensively illustrated, partly in color. For a noncommercial product, it is both dignified and attractive.

Basically, *Development of Strategic Air Command: 1946–1976* contains statistics on personnel, weapon systems, and organizations as well as a narrative of major events. Unfortunately, the organization is chronological rather than thematic. For each of the 30 years covered, the following information is presented: personnel, tactical aircraft, aircraft units, active bases, command leadership, organization, and operations.

There are, of course, obvious disadvantages to such an arrangement. In order to find an event or a fact, one must know the date beforehand or be resigned to flipping through the appropriate category, year after year, until the material is discovered. This drawback is compounded by the absence of an index or a table of contents.

There are plans to revise and bring the book up to date periodically, and the publisher welcomes suggestions for its improvement. One suggestion would be to supplement the chronological presentation with some thematic appendices so that the progression of events in key areas would be easier to trace.

As it stands now, *Development of SAC* is more the raw material of history than history in its own right. All the essential facts are there waiting to be arranged in a more convenient and readable form by some enterprising writer. Indeed, this is a function of the work, which has been designed to serve as "a valuable reference work for those interested in the strategic arena."

Those who plan to use the book for this purpose would be well advised to double-check the facts before using them, for there are some minor inaccuracies. For example, the authors continue to write of SAC bases in "French Morocco," long after that country had achieved its independence from France.

Another class of readers will find the book a joy to own. Also, anyone who ever served in SAC will want the book for its wealth of anecdotes and incidents.

Captain Steven E. Cady
Loring AFB, Maine

The Imperial Years: The United States since 1939 by Alonzo L. Hamby. New York: Weybright and Talley, 1976, x + 429 pages, \$14.95.

In his initial pages Alonzo Hamby sets forth two interesting propositions. First he admits to possessing no absolute truth and then claims his work is not a textbook. With its focus on politics and presidents, however, it comes close to being the latter. But the danger is averted by his illumination of the crushing egoism of Lyndon Johnson and Richard M. Nixon and a fluid writing style.

The book's virtue may be that it is not offered to college students but to informed Americans searching for perspectives. To this end, Hamby's work is remarkable. It demonstrates military realities and subordinates them to sharp appraisals of social and economic reality.

As a historian the author is refreshingly direct. He emphasizes that he and his fellows write from preconceived beliefs and proceed from honest personal viewpoints. He openly espouses the liberal tradition, eschews the brittle rashness of modish radicalism, and damns totalitarianism.

If there is any weakness in Hamby's work, it stems from these very perspectives. Like many historians, he lacks a gut comprehension of the depths of the Depression, which forever shaped minds like Nixon's and Gerald Ford's. He fails to understand that decade in the fifties when it seemed that our own special fears of poverty would be laid to rest. He fails to grasp the sense of unlimited power we possessed, which felt so comfortable because we were so virtuous.

To the progeny of World War II, who, like Hamby, came of age in the early sixties, it must have seemed that there had been an American Empire and the imperial years. To the children of the Depression, it seemed that our elders, Truman, Eisenhower, and even the upstart Kennedy, were leading us toward the realization of our multifaceted republican dreams. Alas, neither is true. Perhaps, though, we have moved toward a more sober national maturity.

The informed American could find no better book than Hamby's if he wishes a quick appraisal of the last four decades. Should he then wish to pursue the matter further, Hamby offers a complete bibliographic essay. Of course, the college student could also benefit from reflecting on this work.

Dr. Lawrence C. Allin
University of Maine

Peace Soldiers: The Sociology of a United Nations Military Force by Charles C. Moskos, Jr. Chicago: University of Chicago Press, 1976, xi + 168 pages, \$11.00.

Despite the fact that since 1956 almost 300,000 troops have served in peacekeeping operations under United Nations auspices, *Peace Soldiers* represents the first complete field study of such a force. Its subject is the United Nations Force in Cyprus (UNFICYP) in 1969 and 1970. Dr. Charles Moskos, one of the nation's foremost military sociologists, does not focus on the political, financial, or legal aspects of peacekeeping operations. Rather, he studies the social factors that affect peacekeeping soldiers in the performance of this nontraditional military role.

After a brief look at the history of peacekeeping

forces, the author reviews events that led to the introduction of a United Nations force onto Cyprus in 1964. Then follows a discussion of the organization and operation of UNFICYP. Having laid this background, Moskos turns to the heart of his project: an analysis of the attitudes, prior training, and military background of the soldiers themselves and the ways in which these factors affected their performance in Cyprus.

As the basis for his analysis and evaluation, Moskos uses the "constabulary ethic," based on two principles—impartiality and the *absolute minimum use of force* in the performance of peacekeeping duties. He concludes that the soldiers who composed UNFICYP—whether professionals from Britain, Canada, and Ireland or reservists from Denmark, Finland, and Sweden—demonstrated adherence to this ethic to an exceptionally high degree.

Contrary to conventional wisdom, Moskos's empirical findings demonstrate that:

- (1) there is no correlation between prior training and the performance of the constabulary task;
- (2) no correlation exists between a favorable attitude toward international organizations and performance of duties;
- (3) participation in international peacekeeping forces does *not* foster internationalist values; and
- (4) soldiers from major powers, habituated to conventional military operations, are as capable of adhering to the standards demanded of peacekeepers as are those from neutral states.

The single most striking aspect of the UNFICYP force was the almost universal development of the constabulary ethic among troops who differed in attitudes toward international organizations, in prior training for such a role, and in military background. As the author states, "the constabulary ethic was primarily engendered by on-duty, in-the-field peacekeeping experience."

One of the central questions Moskos addressed was whether military professionalism is compatible with the constabulary ethic. His answer is a resounding yes. In fact, he concludes, by inculcating the concept of civilian control of the military and the employment of military forces for political objectives, modern military professionalism enhances rather than reduces the performance of peacekeeping duties and adherence to the constabulary ethic on which such duties must be based.

Short, well-written, and absorbing, *Peace Soldiers* is worth reading not merely for its insight into one peacekeeping operation but also for what its author suggests about the employment of a

type of military force that may be increasingly important in the future.

Captain Robert C. Ehrhart, USAF
Department of History
USAF Academy

The Raid by Benjamin F. Schemmer. New York: Harper & Row, 1976, 326 pages, \$10.00.

The mission into North Vietnam in November 1970 to free prisoners brought a thrill to the hearts of many Americans. There was also disappointment because no prisoners were rescued.

Until the publication of *The Raid*, the Son Tay mission remained cloaked in mystery and surrounded by secrecy. After the initial flurry of publicity, it was as if darkness closed around the entire episode. Because there was no lasting news value, the media relegated the story to the back pages and then quickly dropped it altogether. The Defense Department was reluctant to discuss the operation because no prisoners had been returned and because of the unusual air tactics employed.

Six years ago the importance of such an operation was lost on the media, but it was not lost on the North Vietnamese. If the United States could launch an audacious raid into heavily defended territory on one occasion with no losses, then the capability existed for more such missions—perhaps with successful results. The prisoners were concentrated into Hanoi and their conditions improved. The Son Tay raid had the effect of aiding the prisoners and frightening the North Vietnamese.

Author Benjamin Schemmer has done an excellent job of reconstructing the story of the Son Tay mission from its inception through its completion. His prose is lively and well-paced, in large part due to his extensive use of interviews with participants to supplement written documents. The author has portrayed the human side of the operation with great vividness.

Mr. Schemmer explores at length the controversy over the quality of the intelligence provided the planners. He gives the intelligence community generally good marks, questioning only the beforehand knowledge that there were no prisoners at Son Tay. This question he cannot answer to his own satisfaction. The mission could not have been successful had not the general intelligence been accurate; there were gaps and some misinformation, as there are in any military operation. The "fog of war" is always operative. The superior

training of the raiders and outstanding leadership overcame intelligence lapses.

In sum, Benjamin Schemmer has added a fine book to the shelves of military history. *The Raid* is well worth reading by professionals and laymen alike, not solely for the fine story of a clandestine military operation but also for the human qualities portrayed.

Lieutenant Colonel Peyton E. Cook, USAF (Ret)
Sewanee Academy, Tennessee

The Shepherd by Frederick Forsyth. New York: Viking, 1976, 123 pages, \$4.95.

On Christmas Eve 1957, a young Royal Air Force fighter pilot leaves Germany on a routine flight back to his home base in eastern England, his mind very much on home and the holiday leave that lies ahead. Over the North Sea his Vampire jet suffers a complete electrical failure: with no radio, no navigational instruments, a rapidly dwindling fuel supply, and the inevitable fog rolling in across the Norfolk coast, it seems certain that this pilot will, like so many others, meet death in the freezing brutality of the North Sea. Only a miracle can save him—or a shepherd.

Frederick Forsyth's *The Shepherd* is a haunting short novel of "the shepherd" who guides this young pilot to safety. It is quite unlike his international bestsellers, *The Day of the Jackal* or *The Odessa File*, except in its authenticity, since the author draws on his own experiences as a National Service fighter pilot in the RAF of the late 1950s. The power and beauty of this story and the many black and white line drawings by Lou Feck bring to life the old, deserted World War II airfields and the fogbanks of the English Fens as readily as the timelessness of space and the loneliness of the single-seater fighter pilot. Eighth Air Force veterans and those with a more recent attachment to Lakenheath or Woodbridge may well be moved by the nostalgia the author evokes in such a short book. For me, it recalled impressions of Richard Hilary's *Last Enemy* and John Gillespie Magee's "High Flight." As a Christmas story, it is worthy of inclusion in any aviator's Christmas stocking.

Squadron Leader John D. Brett, RAF
Department of History
USAF Academy

LBJ: An Irreverent Chronicle by Booth Mooney. New York: Thomas Y. Crowell Company, 1976, 290 pages, \$8.95.

Booth Mooney, a sometimes Johnson aide and speechwriter, has written a very personal memoir of Lyndon Johnson. Drawing sparingly from the public record, Mooney attempts to evoke the spirit of LBJ by recording his own memories and those of Johnson's friends and enemies, aides and associates. The book, then, is essentially a collection of anecdotes illustrating many facets of Johnson's character.

The Johnson he recalls is a contradictory figure. The public man was first a powerful and dedicated majority leader, then the president who employed his highly developed political skills to enact one of the most impressive records of domestic legislation in United States history. But behind the bravado and machismo of the seemingly self-assured public servant was a man tortured by deep-seated feelings of insecurity for which he and his country paid dearly.

Mooney traces this insecurity to Johnson's "Hill Country" origins in central Texas. Johnson would not have accepted Mooney's bleak description of the area, for he drew strength from this land and its people and throughout his life felt himself to be a man of grassroots. At the same time his drive to succeed was a struggle to escape from the nagging economic insecurity of his childhood and the intellectual wasteland of Blanco County. The tragedy, Mooney believes, was that Johnson never came to terms with his background after he entered the national arena.

Despite his keen intelligence and political acumen, Johnson felt inferior among the class-conscious and highly educated members of the Democratic party's eastern wing. Mooney relates that even after entering the nether world of the vice-presidency, Johnson put forth his best effort to be a loyal supporter and subordinate of President John F. Kennedy. In return he was held in contempt by Robert Kennedy and the Kennedy entourage.

The Johnson presidency intensified both his strengths and his weaknesses. As Johnson hit full stride, the Great Society programs poured out of Congress under his forceful direction. As criticism of his foreign policy began to mount, however, Johnson seemed unable to differentiate between those who were attempting to help him and those who never wished him well. Nor was he able to understand that questions regarding policy were not personal attacks.

He could not follow his own prescription for responding to public criticism. The only thing you can do, he later told Richard Nixon, is "hunker down and take it like a jackass in a hailstorm." He lashed out at the press, which he could not manipulate; at his aides, who never seemed to work hard enough; and finally at his brother Sam, whom he rejected in a last pitiful outburst like a petty tyrant who could stand no "joshing," no criticism, and no upstaging.

It is at this point that the tale does not ring true. Were Booth Mooney and speechwriter Peter Benchley the only two men who escaped Johnson's wrath and sarcasm? Did Johnson have no close friends, besides Lady Bird, with whom he was on equal terms, to whom he could confide, and upon whom he could always count? There are only hints of them in the story. The basic weakness of a memoir of this type rests in the author's limited perspective and inability to reach into those areas of the subject's life of which he was not a part. Still the book is interesting and gives valuable insights into the life of a human being who touched the lives of all living Americans but who to many remains only a caricature of the tall Texan.

Dr. Charles A. Endress
Department of History
Angelo State University, Texas

The Fire Came By: The Riddle of the Great Siberian Explosion by John Baxter and Thomas Atkins. Garden City, New York: Doubleday, 1976, 165 pages, \$7.95.

Close to the rocky banks of the Podkamennaya Tunguska River, in an insect-plagued lowland near the Arctic Circle and midway between the great Siberian water courses of the Lena and the Yenisei, lies a mysteriously devastated miles-wide section of the taiga forest. There, to this day, once-proud, thirty-inch pines, preserved by the permafrost, sprawl fanlike in ugly scorched death, their trunks like macabre fingers, pointing to where the *fire came by*.

It was at 7:17 A.M. in the early light of 30 June 1908. The searing heat and blinding flash were companions to the annihilating blast. The shock wave that followed in seconds collapsed ceilings, shattered windows, and tossed people into the air 40 miles away in Vanavara. Shock waves hit 375 miles away in Kansk, where the Trans-Siberian

Express was nearly jolted from the rails, and workers on river rafts were flung into the swirling water. A pillar of fire lit up the sky of central Siberia for hundreds of miles. The vortex of the cataclysmic explosion sucked up dirt and debris into dark, ominous clouds that rose more than 12 miles and showered the region with black rain. But the showers did not extinguish the blazing forests which raged for days. Early in July, the skies over much of Europe and Asia presented a spectacle rivaling the aurora.

It was not until 1921 that the first scientific investigations were made. The inhospitable region of permafrost, summer slush, and ferocious mosquitoes yielded reluctantly to the first expedition of Leonid Kulik. Then came others.

The authors of this account review the findings of the major investigators, but they rely heavily on the 1927 (second) expedition of Kulik and the 1926 venture of Suslov; translations of portions of

their reports are in appendices. One resourceful Soviet researcher conducted an experiment, duplicating the area with wooden pegs for trees and using small explosive charges. Repeating the experiment many times and varying the height of the charge, he concluded that an intruder from space exploded about 16,000 feet above the Tunguska swamp. The authors compare this to a thermonuclear airburst of some 30 megatons.

After discarding the meteorite theory and some bizarre possibilities (such as a body of antimatter, a contraterrene substance, or a tiny "black hole" of superconcentrated particles), the authors suggest the possibility that the visitor was a spaceship whose thermonuclear propulsion was malfunctioning. They believe that the crew of the massive craft was maneuvering to an unpopulated haven in the emergency. They did not make it.

Lieutenant Colonel Richard E. Hansen, USAF (Ret)
Prattville, Alabama

Jacqueline Cochran, explaining how she became an internationally famous aviatrix, commented: I wanted to go higher than Rockefeller Center, which was being erected across the street from Saks Fifth Avenue and was going to cut off my view of the sky Flying got into my soul instantly but the answer as to why must be found somewhere back in the mystic maze of my birth and childhood and the circumstances of my earlier life. Whatever I am is elemental and the beginnings of it all have their roots in Sawdust Road. I might have been born in a hovel, but I determined to travel with the wind and stars.

BOOKS RECEIVED

The books listed herein are those received since the last list was published in our March-April 1977 issue. Many of them have already been sent to reviewers, and their reports will be presented later.

I. AIR POWER

- Homze, Edward L. *Arming the Luftwaffe: The Reich Air Ministry and the German Aircraft Industry, 1919-1939*. Lincoln: University of Nebraska Press, 1976. \$14.95.
- Morrow, John H., Jr. *Building German Airpower: 1909-1914*. Knoxville: University of Tennessee Press, 1976. \$12.95.
- Winton, John. *Air Power at Sea, 1939-1945*. New York: Crowell, 1977. \$12.95.

II. MILITARY AFFAIRS

- Carver, Field Marshal Sir Michael, editor. *The War Lords: Military Commanders of the 20th Century*. Boston, Massachusetts: Little, Brown, 1976. \$17.95.
- De Maiziere, Ulrich. *Armed Forces in the NATO Alliance*. Washington, D.C.: Center for Strategic and International Studies, 1976.
- Emerson, Gloria. *Winners and Losers: Battles, Retreats, Gains, Losses and Ruins from a Long War*. New York: Random, 1976. \$10.00. Journalist's report on the Vietnam war.
- Ireland, Bernard. *Warships of the World: Major Classes*. New York: Scribner's, 1977. \$7.95.
- Irving, David. *Hitler's War*. New York: Viking, 1977. \$17.50.
- Knorr, Klaus. *Historical Dimensions of National Security Problems*. Lawrence: University Press of Kansas, 1976. \$6.95 paper.
- Lewin, Ronald. *Slim: The Standardbearer*. Hamden, Connecticut: Shoestring Press, 1976. \$15.00.
- Marder, Arthur. *Operation Menace: The Dakar Expedition and the Dudley North Affair*. New York: Oxford University Press, 1976. \$18.75.
- Merrill, James M. *A Sailor's Admiral: A Biography of William F. Halsey*. New York: Crowell, 1976. \$9.95.
- Middlebrook, Martin. *Convoy*. New York: Morrow, 1976. \$12.50. On an episode of the World War II Battle of the Atlantic.
- Murdock, Clark A. *Defense Policy Formation: A Comparative Analysis of the McNamara Era*. Albany: State University of New York Press, 1974. \$13.00.
- Osur, Alan M. *Blacks in the Army Air Forces during World War II*. Washington, D.C.: Government Printing Office, 1977. \$2.40.
- Smith, Bradley F. *Reaching Judgment at Nuremberg*. New York: Basic Books, 1976. \$15.00.
- Tarr, Curtis W. *Private Soldier: Life in the Army from 1943 to 1946*. New York: Carlton Press, 1976. \$6.75.
- Thompson, H. K., and Henry Strutz, editors. *Doenitz at Nuremberg: A Reappraisal—War Crimes and the Military Professional*. New York: Amber, 1976. \$10.00.
- Wynn, Neil A. *The Afro-American and the Second World War*. New York: Holmes & Meier, 1976. \$15.00.

III. INTERNATIONAL RELATIONS

- Blair, John M. *The Control of Oil*. New York: Pantheon Books, 1976. \$15.00.
- Carlson, Sevinc. *Indonesia's Oil*. Washington, D.C.: Center for Strategic and International Studies, 1976.
- Cline, Ray S. *Secrets, Spies and Scholars: Blueprint of the Essential CIA*. Washington, D.C.: Acropolis Books, 1976. \$10.00.
- Grigorenko, General Peter G. *The Grigorenko Papers: Writings by General P. G. Grigorenko & Documents on His Case*. Boulder, Colorado: Westview, 1976. \$14.75. On the author's experiences with the KGB.
- Kun, Joseph C. *Communist Indochina: Problems, Policies and Superpower Involvement*. Washington, D.C.: Center for Strategic and International Studies, 1976.
- Lewis, David. *Sexpionage: The Exploitation of Sex by Soviet Intelligence*. New York: Harcourt Brace Jovanovich, 1976. \$8.95.
- McInnes, Neil. *Euro-Communism: The Third Schism of the Communist Movement*. Beverly Hills, California: Sage, 1976. \$3.00.
- Nathan, James A., and James K. Oliver. *United States Foreign Policy and World Order*. Boston, Massachusetts: Little, Brown, 1976. \$10.95.
- Pilpel, Robert H. *Churchill in America, 1895-1961: An Affectionate Portrait*. New York: Harcourt Brace Jovanovich, 1976. \$10.00.
- Rose, Lisle A. *Roots of Tragedy, The United States and the Struggle for Asia, 1945-1953*. Westport, Connecticut: Greenwood Press, 1976. \$15.95.
- Stevens, Robert W. *Vain Hopes, Grim Realities: The Economic Consequences of the Vietnam*

War. New York: Franklin Watts, 1976. \$5.95.
United States, Office of Strategic Services. *War Report on the OSS*, Vol. II. New York: Walker, 1976. \$12.95.

IV. GENERAL

Caplow, Theodore. *How to Run Any Organization*. New York: Holt, Rinehart & Winston, 1976. \$7.95.

Dreyfack, Raymond. *Sure Fail: The Art of Mismanagement*. New York: Morrow, 1976. \$6.95.

Gollattscheck, James F., et al. *College Leadership for Community Renewal*. San Francisco, California: Jossey-Bass Publishers, 1976. \$9.95.

Halperin, Morton H., and Robert Borosage. *The Lawless State: The Crimes of the US Intelligence Agencies*. Baltimore, Maryland: Penguin, 1976. \$2.95.

Herzberg, Frederick. *The Managerial Choice: To Be Efficient and to Be Human*. Homewood, Illinois: Dow, Jones & Irwin, 1976. \$11.95.

Koning, Hans. *A New Yorker in Egypt*. New York: Harcourt Brace Jovanovich, 1976. \$10.95.

Murray, Francis. *The Energy Independence Authority*. Washington, D.C.: Center for Strategic and International Studies, 1976.

Richman, Barry M., and Richard N. Farmer. *Leadership, Goals and Power in Higher Education: A Contingency and Open-Systems Approach to Effective Management*. San Francisco, California: Jossey-Bass Publishers, 1974. \$12.95.

Wise, David. *The American Police State: The Government against the People*. New York: Random, 1976. \$10.00. Discussion of the activities of the CIA, FBI, IRS, NSA, and other agencies.

Military service is an opportunity, a profession, and for many, a calling. . . . The calling of the military professional is unlike that of the scientist or of the lawyer, or minister, for while others may be asked to sacrifice comfort in the conduct of their duties, they are not—as you are—asked to risk their lives, if necessary, in the defense and service of their nation. Military service is public service in its highest form.

SECRETARY OF DEFENSE HAROLD BROWN

*Remarks before the 2nd Armored Cavalry Regiment
Grafenwoehr, Federal Republic of Germany, 24 March 1977*

the contributors



Ambassador John Patrick Walsh (Ph.D., The University of Chicago) is the State Department Adviser to the Commander of Air University. He is a Foreign Service Officer who has served in a variety of assignments at home and abroad, including being Ambassador to Kuwait. He was also an International Fellow at Harvard University.



Dr. G. K. Burke (Ph.D., St. John's University) is a private consultant dealing principally with foreign relations and defense questions. He was an instructor in history at St. John's University, has studied at Oxford University, and is the author of other articles in related areas.



Lieutenant Colonel Robert S. Dotson, AFRES, (USAF; M.A., Harvard University) is a budget examiner in the National Security Division of the Office of Management and Budget. His Air Force assignments included: study director for cost-effectiveness applications to force-structure analyses of the tactical fighter force in the Air Force Office for Studies and Analysis; F-105 fighter pilot in Southeast Asia; and T-38 instructor pilot. Colonel Dotson is a Distinguished Graduate of Squadron Officer School.



Dr. James H. Toner (Ph.D., University of Notre Dame) is Assistant Professor of Government at Norwich University. He was a fellow of the Inter-University Seminar on Armed Forces and Society and assistant professor at Notre Dame, where he taught international relations. Dr. Toner served as an officer in the U.S. Army from 1968 to 1972. In 1973, he was selected as a General Douglas MacArthur Statesman Scholar. His articles and reviews have appeared in *Army*, *Military Review*, *Review of Politics*, *International Review of History and Political Science*, and the *Naval War College Review*.



Major William L. Cogley (M.A., Stanford University) is a political/economic analyst with J-2 Division, Hq United Nations Command/United States Forces Korea. From 1972-76, he was Chief, Asian Studies Section, USAF Special Operations School. Other assignments have been Director of Operational Intelligence, Hq 12AF and Intelligence Officer, 366 and 35 Tactical Fighter Wings. Major Cogley is a Distinguished Graduate of Squadron Officer School and has completed Armed Forces Staff College and Air Command and Staff College.

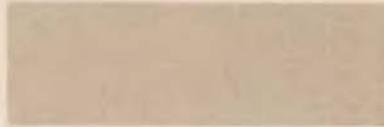


Major Harold F. Nufer, AFRES, (Ph.D., Tufts University) is an assistant professor of political science at Michigan Technological University and an AFROTC liaison officer. On active duty he instructed in AFROTC at Tufts and part-time for the University of Maryland at Tuy Hoa AB, RVN; he has also taught at Brigham Young University. A specialist in the Trust Territory of the Pacific Islands (Micronesia), he is spending his current sabbatical there. His book, *Micronesia under American Rule: An Evaluation of the Strategic Trusteeship (1947-77)*, will be published this year. Dr. Nufer, designated an "Outstanding Educator of America" in 1972, is a graduate of Air Command and Staff College and Air War College.



Kenneth P. Werrell (USAFA, Ph.D., Duke University) is Associate Professor of History at Radford College, Virginia. He served five years in the Air Force, including 3-1/2 years as a weather reconnaissance pilot in Japan. In September, Dr. Werrell will become Visiting Professor of History at the Army Command and General Staff College at Fort Leavenworth, Kansas.

aviation achievements. She was the first woman to pilot a bomber across the North Atlantic. General Henry H. Arnold appointed her director of women's flying training in the U.S., and she was the first American woman to enter Japan at the end of the war. She has established and still holds more international speed, distance, and altitude records than any other person and has logged approximately 15,000 hours at the controls of airplanes of all types. Miss Cochran, shown in the jet in which she set five records, is author of *The Stars at Noon* (1953), an autobiography.



Dr. Thomas H. Etzold (Ph.D., Yale University) is professor of strategy at the United States Naval War College. Previously, he taught in the history department of Miami University (Ohio). He is editor with F. Gilbert Chan of *China in the 1920s: Nationalism and Revolution*, author of *The Conduct of American Foreign Relations: The Other Side of Diplomacy*, and he has written many articles for professional historical and military periodicals.



Lieutenant Colonel Jacqueline Cochran (Mrs. Floyd B. Odjum), AFRES, a command pilot in the Civil Air Patrol, is a business executive and aviatrix, best known for her



Martin H. A. Edmonds (M.A., University of Manchester) is Senior Lecturer and Defence Lecturer in the Department of Politics, University of Lancaster, England. He has taught strategic studies and defense analysis since 1964 and during 1972-73 was Research Associate at the Institute of War and Peace Studies, Columbia University. Recent publications include *War in the Next Decade* with R. Beaumont and "Accountability and the Military-Industrial Complex," in *The New Political Economy*.



Dr. Lewis B. Ware (Ph.D., Princeton University) is Associate Professor of Middle Eastern History and a member of the Documentary Research Branch, Air University. He has taught and done research at the University of Tunis and in Cairo, as a Fellow of the American Research Center. Before coming to Maxwell, he was on the staff of New York University and served as a consultant to the International Research and Exchange Commission. Dr. Ware is a prize-winning amateur photographer.



The Air University Review Awards Committee has selected "The Diplomacy of Apology: U.S. Bombings of Switzerland during World War II" by Dr. Jonathan A. Helmreich, Dean of Instruction, Allegheny College, Meadville, Pennsylvania, as the outstanding article in the May-June 1977 issue of *Air University Review*.

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