



**War, Business
and World
Military-Industrial
Complexes**

Edited by

BENJAMIN FRANKLIN COOLING

**WAR, BUSINESS
AND
WORLD
MILITARY-INDUSTRIAL
COMPLEXES,**

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INTRODUCTION

The subject of "military-industrial complexes" or MIC promises to continue as a major issue for study in the military affairs of the 1980s. Temporarily muted after an apogee of excitement in the 1970s, the American MIC has been largely forgotten by a society barraged with politically sensitive issues of MX missile system deployment and the supposed hollowness of its volunteer armed forces. Still, the underlying centrality of the business-military interlock will not necessarily be obviated by a new decade. The continuing escalation of international trade in weapons, competition for markets among weapons producers (as well as their governments), and the ostensible futility of limiting those seeking profit and power via the arms business should keep the issue quietly alive during future periods of tenuous peace.

This particular book traces its conceptual roots to an early morning seance between Robin Higham and the editor during an Organization of American Historians meeting several years ago. From the beginning, it was designed to provide a companion volume to *War, Business, and American Society*, published by Kennikat in 1977. The latter contained suggestions for further research which stressed the need for greater understanding of transnational aspects of military-industrial links. Could European and Asian experiences shed light upon the historical antecedents as well as contemporary ruminations of our own MIC? Could such experiences also evidence unique and provocative lessons of their own? The present volume points to such goals. We simply must know more about non-American military and business experiences of the past and present so as to anticipate the future.

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There have been difficulties in compiling the present anthology. There apparently exists a dearth of scholars willing and able to write about the non-American MIC. Thus, gaps remain for Japan, China, India, and Israel, for example, with the latter two examples simply falling prey to political pressure which kept several potential contributors from participation in this study. Similarly, Americans have applied moralistic values to MIC (the very word "complex" carries sinister overtones), which daunt efforts at impartial evaluation of non-American experiences. Such tones are generally absent from other national stories. Other nations have managed to accommodate their military-industrial links as necessary accompaniment to war and survival in the industrial age. They have adapted their political, economic, and societal mores to cope with the linkages. Therefore, it may be semantically improper, if not impossible, to utilize the term MIC when analyzing other than the American experience.

THE PAPERS

The present volume comprises essays by a cross section of international historians involved with various facets of military and business ties. Their perspective is both historical and contemporary insofar as one complements the other. As in the American volume, the essayists do not all agree upon either composition, impact, or connotations of MIC in the international context. They have sought to stimulate further study, and it may prove useful to review briefly the nine essays and their highlights.

Robin Higham provides a broad opening essay in which he probes the British experience. He integrates technological with entrepreneurial factors in a discussion of land, sea, and air armaments procurement, literally from the time of Hastings. He shows how the British have blended government with private production. He concludes that there has never been anything "sinister" about the British MIC. Rather, it has comprised a "gentlemanly military-industrial complex" both inculcating and perpetuating British standards and values quite in synchronization with the mores and ethics of society.

Jeffrey Clarke discusses the French MIC largely in the context of the peculiarly French approach of "etatism," or state-run industries for political expediency. His focus remains, however, on land armaments, and he shows the evolution of private (if state-sponsored) munitions industries as the Industrial Revolution made its impact upon plans, programs, management, and production through the years. While the

government continued to rely upon its own munitions factories, it permitted automotive and aviation industries to inject a very influential private element into the military-industrial relationship. The venerable independence of French industry, ever-increasing bureaucratic meddling following nationalization in the 1930s, and the internecine battles between military and business sectors form part of Clarke's story. He concludes that, since 1936, the French experience has been one of centralization of weapons procurement and federalization of weapons production but without a return to the state monopoly of the *ancien régime*.

Edward Homze traces in detail the undulating historical experience of the military and industry in Germany. He focuses largely on the traditional question of accountability, since MIC as a sinister element in bringing on two world wars and spawning the rise of Adolf Hitler still drives the direction of our concern for the German experience. Rather, he shows that the military and the industrialists long vied with one another for power and hegemony in the German state, yet realized that cooperation and teamwork were necessary to achieve their goals within the fabric of an illiberal, authoritarian, structured society. He concludes that, despite the Allies' determination to exterminate the MIC at the end of World War II, the phenomenon survives in West Germany today but is not dangerous.

Jacob W. Kipp departs from the broad sweep of the first three essays and explores the nineteenth-century Russian naval-industrial complex in depth. He places this story of state monopoly against the background of a declining tsarist society and decadent economy. Threads of reform, technological modernization, bureaucratic conservatism, and importation of foreign ideas and techniques resemble other MIC development of that period. But the similarities with the West stop there, for Kipp suggests that Russian naval reformers sought to exploit establishment of a private munitions industry to effect an economic takeoff for the state. This consciously spawned Russian MIC failed to achieve more lasting and universal benefits, although a rather solid military-industrial linkage was formed in certain sectors that are vital at least for national defense.

Compared with traditional MIC countries, smaller nations like Canada have had mixed experience with development of military-industrial links. Robert Bothwell shows how the Canadians developed a strong weapons procurement base during World War II, largely because of American and British need. Then, with the onset of peace and rapidly escalating costs in the postwar period, this MIC declined commensurate with national policy and strategy and the ability to purchase material elsewhere. He suggests a certain Canadian satisfaction with such developments.

Australians D. T. Merrett and C. B. Schedvin expand the study of

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MIC in countries of the British Commonwealth by showing how their nation's membership in the British firmament produced strategic policies which both stimulated and hampered development of a domestic munitions base. Their detailed treatment of the twentieth-century experience provides something of a model study of small nations vying with the superpowers in any given era in the arena of MIC. Technological cost, a studied reliance on alliances, and a relatively unsophisticated industrial base have perpetuated Australia's MIC experience as one of dependence upon the outside for weapons supply—despite conscious and fluctuating efforts to the contrary.

Klaus-Richard Böhme and Ulf Olsson have chosen to explore the intriguing experience of their neutral Swedish homeland, which has been in the forefront of weapons sales and transfers abroad in our contemporary world. They focus their attention upon development of the Swedish aircraft industry and particularly its expansive phase resulting from World War II. Interestingly enough, their essay echoes with domestic cries of "merchants of death" similar to the moralism shown in the America of the 1930s and 1970s. Once more, these authors have set their discussion against a national backdrop of defense policies vis-à-vis Europe combined with a partnership between government and industry in exploiting the world trade in arms.

Frank D. McCann, Jr., carries the discussion to the Third World in his examination of Brazil's eight-decade determination to move "from total dependence on imported arms to the advanced stages of independence in arms production." He uses the centrality of the army in this process, further illustrating the complex involvement of Latin American military institutions with virtually all aspects of societal development and nation-building. The Brazilians, too, learned what so many other small nations have learned over the course of their history—that dependence upon outside munitions sources seriously handicaps national defense in times of crisis. Reliance, for example, on the United States was tenuous at best, and hence Brazil has moved since World War II to build up its own domestic MIC as a means not only for survival or even achievement of hegemony in South America but to secure status as a world power.

One of the great "hot-spots" for potential conflict in the world lies in sub-Saharan Africa. The subject of MIC and that tinderbox forms the focus of Paul L. Moorcraft's concluding essay in this volume. Survival, not profit, governs MIC in this sector—a domain for the white ruling hierarchy. As world reaction, especially of former allies such as Great Britain, turned against Rhodesia and South Africa, arms self-sufficiency became all-important to survival. While the specifics of the military-industrial relationship remain elusive for open publication, Moorcraft

has uncovered sufficient data to provide an engaging and challenging picture of determination, self-sufficiency, aid supplied from foreign entrepreneurs, and international collaboration in the face of United Nations sanctions. An MIC seems alive and well in repressive South Africa.

Essays such as these always must form stimulants to further consideration. Hopefully, they portray the colorful international fabric of MIC. As with the American volume, we must conclude that MIC International as well as MIC America has an historical past, stretching beyond the perceptions of either Dwight D. Eisenhower, who coined the phrase "military-industrial complex," or the myriad political scientists who have scrutinized the phenomenon over the past decade. It will prove tempting for readers to search other national experiences for those sinister cabals, engineered coups, and crimes against humanity ostensibly endemic to MIC in this country. Yet it may be more rewarding to consider the larger implications of the phenomenon, some of which remain largely unexplained. It would seem that small nations as they move toward world prominence have traditionally sought armaments independence. The MICs of superpowers (Europe in the last century, America added to the group in our time) have generally thwarted attainment of that independence by a combination of industrial power, superior salesmanship, possible product superiority, and almost certainly politics. Always one must marvel at the powerful role of multinationals in the armaments field and at their grip on world economics beyond the ken (much less the control) of national governments or even international regulatory bodies.

Finally, we return to one last given. Does anyone truly care anymore? Have the peoples of the world in the 1980s moved too readily toward *Star Wars* and the twenty-first century? Has MIC become a way of life, defying balance and perspective and promising too alluring a cornucopia of security and a full dinner pail? This volume will possibly suggest new avenues for addressing such questions. Hopefully, it will cause continuing scholarly investigation of the intriguing, undeviating saga of MIC—past, present, and future.

The editor and publisher, after carefully examining the original sources and references submitted with each chapter, concluded that the bulk of the readers would not have ready access to most of the materials cited. Therefore only significant extracts have been documented. The editor has prepared useful lists of suggested readings to complement each chapter and has prepared a good working bibliography of the overall topic. A fully footnoted version of this book is on file in the library of the United States Army Military History Institute, Carlisle Barracks, Pennsylvania, and may be borrowed via interlibrary loan.

ROBIN HIGHAM

1. COMPLEX SKILLS AND SKELETONS IN THE MILITARY-INDUSTRIAL RELATIONSHIP IN GREAT BRITAIN

In England, a country with a long history of military arsenals and naval dockyards supported by the private manufacture of specialties, a natural military-industrial relationship has long existed governed by the mores and ethics of the society in which it flourished. There was nothing sinister about it. It tended to ebb and flow depending upon the demands of defense and commerce. In times of either military or technical stress there was a heavier reliance upon private resources, since these were more innovative, research-minded, and flexible. Private sources were more likely to develop important ideas and techniques, to be more innovative. How the different services reacted to innovations tended to vary with the state of the art and of the relationships between arsenal or dockyard and private industry in that field at the time as well as with the political, social, and economic connections of the entrepreneur at the time. Even when there was a period of radical change, as at the end of the nineteenth century when the internal-combustion engine, the submarine, motor vehicle, and airplane as well as the radio appeared, there was little change in relationships. The explanation lies in the fact that either the inventors came from the upper or middle classes and were already imbued with British standards and values or they were soon associated with firms steeped in those traditions. Much was done, in fact, by personal contacts.

A closer look at the situation in Britain in the nineteenth and twentieth centuries will show that, far from the military-industrial relationship being a sinister complex, it was a natural and complementary arrangement which suited most of those in the society because in one way or another they believed in maintaining British freedom of choice. It was not a democratic system but one in which the crown and its servants

in the Burkean tradition did what they considered best for the country. Moreover, by the fourth quarter of the twentieth century much of the most important sector of the armaments industry (aerospace) was nationally owned. And it might also be noted that, if major contracts have gone to fewer companies because only those of immense size have had the resources to handle them, subcontracting has spread widely.

Doing business abroad did involve the use of agents, and complex practices did exist but were regarded as a necessity of doing business.

The English military-industrial relationship developed gradually, starting with the Anglo-Saxon period, when the king maintained a small professional army which had to be supplied with arms and armor. To do so, he gradually built up the royal arsenal system, starting merely with an arms room in the royal palace which became chests of weapons when on the road. After William the Conqueror built the Tower of London, a permanent Royal Arsenal came into being which employed a variety of craftsmen to manufacture or assemble the necessities of war. But when gunpowder appeared in the 1300s it was an innovation outside the ken of the arsenal, requiring the king's needs to be contracted out. Moreover, as cannon founding was a specialized work undertaken by bell founders at their works close to the raw materials, and the demand was small, the arrangement worked well and comfortably. For a long time contracts were never for more than a few guns, which could be produced at some leisure for campaigns were few and far between. King Harold in 1066 was the only European general before 1450 to fight two major battles in one year.

When after the Wars of the Roses a navy with a steady need for guns began to become a permanent royal weapon, it was only natural that all guns should be handled by the Royal Arsenal, whether for land or sea service. The Royal Arsenal at Woolwich inherited that role and continued in it well into the twentieth century. As the need for ships expanded, Royal Dockyards were established in various parts of the kingdom in which timber was seasoned, masts preserved, and ships built and refitted. In general, the dockyards built selected larger vessels, and private firms contracted for the smaller ones as well as constructing those ships for which in threatening times the dockyards had no slipway capacity. As the Industrial Revolution hit the navy, private constructors built a number of large ships and often had a virtual monopoly on the construction of smaller types, especially of new inventions such as the destroyer and the submarine. Small naval vessels did not interest the dockyards because they could usually be converted from merchant designs by their builders at minimal cost. And when specialized vessels were needed the private

yards had the expertise to design and develop them or to build them to Admiralty design. It may well have also been that the dockyards were afraid of costing innovations because this was normally done at the Admiralty, whereas private yards made their living knowing how to make a handsome profit out of what they had bewailed as a hard bargain and out of repeat business.

In the meantime, the Royal Arsenals had begun to work with fire-arms, and weapons like the Brown Bess musket were assembled by royal workers at the Tower of London from parts supplied by outside manufacturers and fitted together by royal workers. And while the arsenals gradually worked into the making of rifles, in the nineteenth century the manufacture of artillery was delayed because innovative patents were held by private firms like Armstrong and Whitworth later merged into Armstrong-Whitworth's. The nineteenth century also saw the growth of Britain as an arms supplier to the world and the consequent rise of firms like Vickers, who soon made the major components needed for complete weapons systems. Concurrently much the same thing was happening with shipbuilding, where a firm like Scott's of Clydebank not only had shipbuilding capacity but also pioneered propulsion systems and supplied them to the dockyards for their ships, too.

In the twentieth century the capital costs of maintaining weapons-manufacturing capacity together with slackened demand after World War I, led to the dockyards' confining themselves to cruisers and smaller vessels and to the important work of refitting all major warships. The overall effect by World War II was a lack not only of facilities but also of vital skilled manpower. The workers had either moved off to other work or were in marginal physical condition for the work demanded. As the dockyards learned how to refit the complex new smaller vessels like submarines, so they also started building them, though as always the designs came from the Admiralty.

Started by the navy, taken over by the army, tanks represented a compromise in design and development in the naval fashion. The initiative for innovation in armored vehicles came both from the service and from private inventors; the designs were developed by first the Admiralty's Landship Committee and then by the War Office but were implemented by specialist private firms in the 1914-1918 war. In the interwar years tanks were built partly by the Royal Arsenal at Woolwich and partly by Vickers, until the great expansion in production in World War II, when automakers were brought in.

Similarly, aircraft manufacturing started at the Royal Aircraft Factory, but that establishment was quickly attacked as incompetent, and aircraft development, apart from blimps, was contracted out to private

manufacturers such as the Aircraft Manufacturing Company, Vickers, and Handley Page. The boom times of World War I were followed by the bust of the twenties and early thirties, in which the Air Ministry worked to keep a nucleus of firms in being until rearmament, at which time auto manufacturers were brought in to run the duplicate "shadow" factories. But the aircraft factories never ran efficiently, in part because they had to expand from producing three aircraft a month to making 600 in the wake of a technological revolution, and there was neither the vision nor the experience to do so. Thus, as in shipbuilding, production was at overcapacity. The technological revolution was similar to that which had hit warships in 1840 to 1860. The dockyards were saved then in the absence of war by a considerable commercial demand. The latter was not available to aviation until after 1945.

One great advantage that existed for all companies after 1856 was the Limited Liability Companies Act. Whereas up to that time every stockholder in a joint-stock company was liable for the debts of the company, after that date an investor's liability was limited to what he had actually invested. Stimulated by the railways' needs of 1844 and thereafter, the 1856 act enabled the new armaments companies with their great demands for capital for steel works, rolling mills, and large complex machinery as well as a large work force and well-paid management to raise the necessary funds by tapping a public reserve of borrowable money which had heretofore lain fallow under a mattress. The 1856 act coincided roughly with the arrival of steam, steel, and specialization. Family firms increasingly began to be merged into regional giants, such as the Birmingham Small Arms Company, or into specialists like Vickers and Armstrong, which themselves merged in 1926.

In the twentieth century there has been an inexorable march from a multitude of private aircraft and engine firms in World War I to twelve airframe and four engine firms in 1920; and, finally, nationalized firms have signaled the governmental takeover of commercial companies, so the military-industrial complex has become one integral body whose major market is overseas rather than domestic. Where the royal arsenals and dockyards originally enjoyed a monopoly and the private firms had to compete, it is now the nationalized industries which have to urge the government to assist, or at least not to hamper, them in competition for outside markets.

One indication of the rather different position of the armaments manufacturers in Britain as compared to their status in the United States is the lack of scandals. Certainly there were a few individuals like Sir Basil Zaharoff of Vickers, who had a reputation as a sharp salesman, but of the great scandals only one can be laid at the door of the companies—the