

AD-E30120

(12)

DNA 5814F-2

# NUCLEAR STRATEGY AND NATIONAL STYLE

Volume II—Appendices

National Strategic Style: Country Studies

Hudson Institute, Inc.

Quaker Ridge Road

Croton-on-Hudson, New York 10520

31 July 1981

Final Report for Period 1 February 1980—31 July 1981

CONTRACT No. DNA 001-80-C-0121

APPROVED FOR PUBLIC RELEASE;  
DISTRIBUTION UNLIMITED.

DTIC  
ELECTE  
S OCT 3 1983 D  
B

THIS WORK WAS SPONSORED BY THE DEFENSE NUCLEAR AGENCY  
UNDER RDT&E RMSS CODE B370080464 P99QAXDB00159 H2590D.

Prepared for

Director

DEFENSE NUCLEAR AGENCY

Washington, DC 20305

DTIC FILE COPY

83 08 25 059

Destroy this report when it is no longer  
needed. Do not return to sender.

PLEASE NOTIFY THE DEFENSE NUCLEAR AGENCY,  
ATTN: STTI, WASHINGTON, D.C. 20305, IF  
YOUR ADDRESS IS INCORRECT, IF YOU WISH TO  
BE DELETED FROM THE DISTRIBUTION LIST, OR  
IF THE ADDRESSEE IS NO LONGER EMPLOYED BY  
YOUR ORGANIZATION.



UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM															
1. REPORT NUMBER DNA 5814F-2	2. GOVT ACCESSION NO. AD-A133 207	3. RECIPIENT'S CATALOG NUMBER															
4. TITLE (and Subtitle) NUCLEAR STRATEGY AND NATIONAL STYLE Volume II--Appendices National Strategic Style: Country Studies		5. TYPE OF REPORT & PERIOD COVERED Final Report for Period 1 Feb 80--31 Jul 81															
7. AUTHOR(s) Edward S. Boylan      Rebecca V. Strode Robin Ranger          David S. Yost Project Leader: Colin S. Gray		6. PERFORMING ORG. REPORT NUMBER HI-3362-RR															
9. PERFORMING ORGANIZATION NAME AND ADDRESS Hudson Institute, Inc. Quaker Ridge Road Croton-on-Hudson, New York 10520		8. CONTRACT OR GRANT NUMBER(s) DNA 001-80-C-0121															
11. CONTROLLING OFFICE NAME AND ADDRESS Director Defense Nuclear Agency Washington, D.C. 20305		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS Subtask P99QAXDB001-59															
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE 31 July 1981															
		13. NUMBER OF PAGES 134															
		15. SECURITY CLASS. (of this report) UNCLASSIFIED															
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE N/A since UNCLASSIFIED															
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.																	
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)																	
18. SUPPLEMENTARY NOTES This work was sponsored by the Defense Nuclear Agency under RDT&E RMSS Code B370080464 P99QAXDB00159 H2590D.																	
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) <table border="0"> <tr> <td>British Strategic Deterrent</td> <td>France, a Great Power</td> <td>Strategic Style</td> </tr> <tr> <td>British Strategic Thinking</td> <td>France's Military Establishment</td> <td>Sun Tzu</td> </tr> <tr> <td>China</td> <td>French Strategy</td> <td>United Kingdom</td> </tr> <tr> <td>Chinese Style of Warfare</td> <td>Soviet Military Style</td> <td>USSR</td> </tr> <tr> <td>France</td> <td>Soviet Strategic Culture</td> <td></td> </tr> </table>			British Strategic Deterrent	France, a Great Power	Strategic Style	British Strategic Thinking	France's Military Establishment	Sun Tzu	China	French Strategy	United Kingdom	Chinese Style of Warfare	Soviet Military Style	USSR	France	Soviet Strategic Culture	
British Strategic Deterrent	France, a Great Power	Strategic Style															
British Strategic Thinking	France's Military Establishment	Sun Tzu															
China	French Strategy	United Kingdom															
Chinese Style of Warfare	Soviet Military Style	USSR															
France	Soviet Strategic Culture																
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The appendices in this volume examine the national character and national strategic style and doctrine of four countries: the Soviet Union, France, the United Kingdom and China. These country studies supplement the main body of the research project on nuclear strategy and national style by Colin S. Gray, contained in Volume I of the report.																	

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 68 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

## PREFACE

The Appendices presented here are four country studies which supplement Volume I of this report. They are in no sense essential for the support of the main text, but they may be judged by some readers to be useful additions to the cultural width and depth of the study. These four appendices, on the U.S.S.R., France, the United Kingdom, and China, were commissioned so as to enrich the study and to push outwards the perimeter of understanding of "national style" analysis. Given that this is a novel field of inquiry, the author did not know quite what to expect of his consultants. The result is gratifying. Three of these four appendices are judged to be penetrating "country analyses" (on the U.S.S.R., France, and China), while the fourth (on the United Kingdom) is acknowledged to be highly tendentious--though still very interesting. This author (Colin Gray) does not agree with some of the major points advanced by Robin Ranger in his analysis of the British "national style" in strategy, but Ranger's analysis is judged to be sufficiently interesting as to warrant inclusion, in toto, in these Appendices.

Accession For	
NTIS	<input checked="checked" type="checkbox"/>
DTIC	<input type="checkbox"/>
Unpublished	<input type="checkbox"/>
Justified	<input type="checkbox"/>
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	

## TABLE OF CONTENTS

	<u>Page</u>
Preface.....	1
Appendix A--SOVIET STRATEGIC STYLE	
by Rebecca V. Strobe.....	3
Militarism.....	5
Mass.....	14
Conservatism.....	17
Conclusion.....	25
References and Footnotes.....	26
Appendix B--THE FRENCH WAY OF WAR.	
by David S. Yost.....	31
France's History as a Great Power.....	33
France's Military Establishment and Contemporary Competitors Over Time.....	40
French Civil-Military Relations.....	50
French National Character.....	56
Conclusions.....	58
References and Footnotes.....	62
Appendix C--UNDERSTANDING BRITISH STRATEGIC THINKING: THE ART OF MUDDLING (AND MUMBLING) THROUGH	
by Robin Ranger.....	69
"Modernizing" the British Strategic Deterrent: How to Make a Major Strategic Decision Without Appearing to Do So.....	71
The British Way in Strategic Thinking: The Historical Context, 1588-1945.....	79
British Strategic Thinking Since 1945.....	88
Appendix D--THE CHINESE CULTURAL STYLE OF WARFARE	
by Edward S. Boylan.....	95
References and Footnotes.....	124

## APPENDIX A

### SOVIET STRATEGIC STYLE

Rebecca V. Strobe

In seeking to identify prominent features of what might be called Soviet strategic style, it is important first to delineate the boundaries of the inquiry. Strategic style, or the manner in which a nation deals with issues of military power, is not identical to political culture, for although the political system within which military and military-industrial institutions operate clearly has a major impact upon those institutions, it must nevertheless take its place alongside other important determinants as well. That a particular political system is oppressive does not necessarily imply that its military strategy will be aggressive and ruthless, any more than a free society must necessarily give birth to a purely defense-oriented strategy wedded to the principles of bellum justum. After all, it was liberal England which, in the nineteenth century, established the world's mightiest empire. And democratic America, in the twentieth, elaborated the notions of massive retaliation and assured destruction, than which a more ruthless strategy can hardly be imagined.

Above all, strategic style is not a function of what is sometimes called "national character." In the first place, discussions of "national character" tend either to degenerate into silly stereotypes or to be so imbued with teleological purpose as to render their conclusions and rules of evidence problematic.<sup>1</sup> Secondly, it is not clear that a hierarchically organized military establishment would necessarily reflect the same attitudes and institutional norms as the population as a whole, even if the elements of "national character" could be determined. Finally, strategic style, whatever it may prove to be, cannot be used to predict

a country's policy decisions on all discrete defense issues. Such analyses ignore the multitude of unique considerations inherent in the flow of international affairs and domestic politics and provide a model which is simply too inflexible for application to powerful national actors dealing with specific problems. Attempts to use the U.S.S.R.'s strategic style in order to explain Soviet bargaining tactics in the SALT talks, for instance, usually end merely as perplexed laments that U.S. negotiators failed to show the skill exhibited by their Soviet counterparts, and what was purportedly to be a unique Soviet approach to arms control turns out to be nothing more than good common sense and hard bargaining.<sup>2</sup>

With these caveats in mind, it remains useful to examine the salient features of Soviet strategic style--that is, patterns of behavior in the creation and utilization of military power which recur with sufficient frequency to support the hypothesis that they are endemic to the Soviet system. An understanding of these patterns can, it is hoped, give the analyst a feel, in broad terms at least, for the manner in which Soviet military and political leaders approach security issues, and while not providing detailed answers to specific questions concerning Soviet force posture, can at least guard against the formation of wholly unrealistic expectations.<sup>3</sup>

Just what factors work together to produce an observable style in the conduct of military affairs may vary from one country to the next; but, in the case of the Soviet Union, geography, historical experience, and economic and technical constraints seem to have made decisive contributions. Within these broad categories, certain elements played an important role in the formation of military traditions and security perceptions

even under Russia's ancien régime and continue to exert their influence under Soviet rule; others are unique to the Soviet period. More specifically, those factors affecting Soviet strategic style which have their roots in the history of tsarist Russia, but have continued unabated to the present day are the state's massive territory, prolonged policy of colonialism, and chronic economic and technical backwardness. Other contributing factors have arisen only since 1917, the most important being World War II, Stalin, and the problem of legitimacy. All these elements combine to create a distinctively Soviet approach to national security, characterized by militarism, conservatism, and an emphasis on mass.

#### Militarism

The roots of Soviet militarism and expansionism often have been traced to the alleged paranoia of a Soviet leadership traumatized by Russia's long history of invasion: by the Mongols in the thirteenth century, Napoleon in 1812, and Germany in 1915 and 1941. In support of this thesis it is common to cite Stalin's famous speech of 1931:

Those who fall behind get beaten. But we do not want to be beaten. No, we refuse to be beaten! One feature of the history of old Russia was the continual beatings she suffered for falling behind, for her backwardness. She was beaten by the Mongol Kahns. She was beaten by the Turkish Beys. She was beaten by the Polish and Lithuanian gentry. She was beaten by the British and French capitalists. She was beaten by the Japanese barons. All beat her--because of her backwardness; because of her military backwardness, cultural backwardness, political backwardness... Such is the jungle law of capitalism. You are backward, you are weak--therefore you are wrong; hence you can be beaten and enslaved. You are mighty--therefore you are right; hence we must be wary of you. That is why we must no longer lag behind.



Certainly the vulnerability of the U.S.S.R.'s long land borders has done nothing to diminish the weight of the armed forces within Soviet society, but the source of its militarization may well lie elsewhere. After all, Imperial Russia and its Soviet successor have enjoyed their share of victories as well: the small settlements of ancient Muscovy did not gain control of one-sixth of the world's land mass, of over 100 nationalities speaking as many distinct languages, by losing all the time.<sup>5</sup> On the contrary, Russian armies have for centuries been armies of conquest, subjugating the Muslim principalities of Kazan and Astrakhan in the sixteenth century and Siberia in the seventeenth; attacking the Ottoman Empire and partitioning Poland in the eighteenth, followed by the seizures of Turkestan and parts of China in the nineteenth. The twentieth century has seen Soviet armies absorb (or reabsorb) the Ukraine, Poland, Belorussia, the Baltic states, Azerbaidjan, Armenia, Georgia, Central Asia, Bessarabia, Karelia, the Kurile Islands, and Konigsberg, not to mention the quasi-empire of Eastern Europe. A military organization which for most of its history has been engaged not in the defense of its homeland but in territorial expansion may well have developed traditions of confidence and decisiveness hardly consistent with the notion of paranoia.

This is not to say that the Soviets are not cautious in the application of armed force. Indeed, they are; but the decision to move being made, the Soviet military acts on a scale sufficiently large and with resolve sufficiently firm to bring the situation at hand quickly under control. The large numbers of forces committed either by the Soviets themselves or by Cubans under their direction in Hungary, Czechoslovakia, Angola, Ethiopia, and Afghanistan attest to this fact. Here, too, is the reason

that plaintive Western projections that, with each new aggression, the Soviet Union may at last have found its Vietnam, have thus far proven incorrect.

It is sometimes argued that the militarism of Soviet society derives from this history of colonialism, itself an outgrowth of the state's search for relief from the limitations imposed by Moscovy's poor soil, harsh climate, and lack of warm water ports. Yet it is hard to explain the protracted nature or, in some cases, the exact direction of Russian expansionism in these terms.<sup>6</sup> It may be that Russia's militarism precedes its colonialism; that the tsars conquered their neighbors simply because that is what kings do; and that the Soviet leadership seeks to expand its sphere of control for nothing else than the sheer joy of aggrandizement. Thus, if one can convince oneself that the Soviet Union is guided in its foreign policy by traditional Russian national interests, the fact should nevertheless provide little comfort. Whatever emphasis one places on the U.S.S.R.'s revolutionary ideology, the conclusion is much the same. The Soviet Union, like Russia before it, is bent on territorial and political expansion, and its armed forces enjoy the considerable influence one would expect to find in a state which organizes itself for war.

It would be hard to overestimate the extent to which military considerations have provided the impetus for domestic reform and social organization throughout Russia's history. Serfdom, for example, came much later to Russia than to Western Europe--not becoming entrenched until the seventeenth century--and the state's military ambitions played a crucial role in its introduction. Following the social upheaval of the Time of Troubles

(1580-1620), an acute labor shortage developed in central Russia, as peasants migrated or fled to the southeastern frontier. To secure their socio-economic status, Muscovite landlords began to press the state for the power to deny peasants the right to move.<sup>7</sup> The state, meanwhile, had entered upon a phase of political consolidation and territorial expansion, and badly needed the services of these landlords as military officers to pursue its frequent wars. So a deal of sorts was made: nobles agreed to serve the state as a military class in return for the right to own serfs and hence to preserve their agricultural wealth.

War as the major impetus for Russian socio-political reform can again be seen in the reign of Peter the Great--one of the few tsars venerated by Soviet historians. Of the thirty-five years of his reign (1689-1725), only one was peaceful; in all the rest there were only thirteen months in which Russian armies were not at war. Peter's greatest test came in the Northern War against Sweden, during the early phases of which he suffered a humiliating defeat at the hands of the 18-year-old Swedish king, Charles XII. At the Battle of Narva, Peter's ill-equipped army was routed by a well-armed Swedish force only one-fourth its size. Following this defeat, Peter determined to modernize his army. He spent the rest of his life in this endeavor, sparing no cost and ignoring the condition of his people. His interest in conquest brought profound alterations in Russian society. He established Europe's first large standing army, manned by conscripted serfs. Nobles were required to provide one conscript for every 100 male serfs they possessed. The term of service for these conscripts was 25 years, which meant, in effect, for life, since few

survived the full tour of duty. Indeed, the families of new conscripts held a funeral service for them before they were taken away.

Peter also built Russia's first navy, incorporating the best of West European maritime science, and established the country's first military academies. At the same time, he altered Russia's class structure and tax laws in order to increase revenues and enlarge the conscript pool. Prior to his reforms, Russian society had consisted of nobles, who served as officers in order to retain their property rights; serfs, who paid no taxes but were liable to conscription; and several intermediary classes of free men, who could not be conscripted but did pay taxes to finance the state's military endeavors. Peter increased the number of serfs (and hence the number of conscripts) by eliminating many of the free middle classes, and then increased state revenues by making the serfs liable to both conscription and taxation. Moreover, the army was billeted in towns and villages at peasant expense, the serfs having to feed and clothe the soldiers while the soldiers in turn robbed and terrorized them.<sup>8</sup> In short, military prowess took priority over social well-being.

Although serfdom was introduced and broadened in the seventeenth and eighteenth centuries to strengthen Russia's armed forces, it gradually became detrimental to state power. Military effectiveness is tied at a fundamental level to the social structure on which it rests, and by the time of the Crimean War that structure had been corrupted by the enervating effects of peasant bondage. Serfdom demoralized the population and sapped economic growth. It is not surprising that just as military expansion had played a major role in the establishment of serfdom, so military defeat in the Crimean War provided the impetus for its abolition.

Reform sprang from the desire to recapture the sense of national vitality which had been lost over the preceding decades and which the war made more painfully evident with each passing day. The malaise which had set in was poignantly expressed by the liberal censor A.V. Nikitenko, who, upon hearing the news of the fall of Sevastopol' at the cost of 34,000 Russian lives, wrote in his diary:

Our war is not just two years old--we have been at war for thirty years, maintaining an army of a million strong and unceasingly threatening Europe. What was all this for? What advantage and what glory did Russia gain from it?

But if defeat in 1855 brought malaise, in 1917 it brought complete collapse, enabling a small cabal of disciplined revolutionaries to gain control of the country and, indeed, the Empire. The Bolsheviks' espousal of an ideology based on violent conflict--whether, as for Lenin, between classes, or, as for Stalin, between states--certainly did nothing to reduce the spirit of militarism fostered by the imperial regime. Nor was the lesson of Lenin's own rise to power lost on the Bolsheviks. Over centuries of tsarist rule, only once, in the late 1800s, did the government undertake its armed forces in an effort to balance the budget and improve industrial capacity.<sup>10</sup> But the collapse of 1917 surely demonstrated to the Soviets the folly of that course. Lenin and his War Commissar Trotsky proceeded immediately to rebuild Russia's ravaged military power, even if it meant compromising their ideology. Trotsky's reforms of March-April 1918 laid the foundation for the professionalized, disciplined fighting force the Soviet Army is today. Centralized command was reinstituted, former tsarist officers were reinstated in whatever

numbers were deemed necessary to regain military efficiency, and the draft was reintroduced to assure adequate manpower.

Stalin's efforts to increase Soviet military might were even more Olympian. The First Five Year Plan called for vast increases in armaments production and set the precedent for giving the military product industries top priority in financial and material resource allocation. The Second Five Year Plan continued this trend, with defense spending increasing twenty times over between 1933 and 1938.<sup>11</sup> These enormous expenditures were funded quite literally by starving the peasantry. At a cost of some twenty million lives, Soviet agriculture was collectivized and the new kolkhozniki forced to sell their produce to the state for intolerably low compensation. Thus, while famine raged in the countryside, the U.S.S.R. exported grain to obtain the hard currency needed to purchase from abroad technology and capital goods for industrialization. Once again military needs took precedence over social well-being and led the government to embark upon a program of major social reorganization.

However, a price had to be paid. A regime which seizes power despite its almost total lack of popular support, proceeds to suppress all opposition, and then through terror, collectivization, purges, and general deprivation imposes untold misery upon the population is certain to face a legitimacy problem once the ideology for the sake of which all this was supposedly done proves to be an empirically flawed and spiritually vapid anachronism. Yet once again it is to war that the Soviet government has turned for help. The present leadership, possessing neither the fervor of Lenin nor the brutal charisma of Stalin, and ruling over a country with an unattractive political system and a weak economy, has

little of which to boast before its now thoroughly cynical populace except military prowess. It is an appeal of considerable effectiveness, for it touches the chords of nationalism and historical conceptualization, stirring the same emotions as did Stalin in 1931--you will never be beaten again.

It is this legitimizing aspect of current Soviet militarism which explains the leadership's monotonous determination not to let the Great Patriotic War die. After all, whatever the regime's faults may be, it did save the country from Hitler. But despite the state's efforts to keep alive the memory of the Great Patriotic War, time inexorably erodes its value for legitimization. Conveniently, however, the threat of nuclear war serves largely the same purpose. Time and time again, the Soviet media remind the population that it is only the military might amassed by the far-sighted communist regime which restrains the aggressive imperialists from launching a surprise nuclear attack. This omnipresent threat provides a rationale for the continued militarization and mobilization of Soviet society. It may also explain in part the Soviet emphasis on civil defense. A population which is largely mobilized on a continuous basis for military production constitutes a military resource, and this confuses the distinction between the military and civilian sectors of society. The economy as a whole is viewed as a military resource, and hence, as a potential military target. As such, it merits the protection which civil defense has to offer.

A claim to legitimacy based on the mere threat of war is, however, less convincing than that founded on proven success in combat. And though it is never discussed openly, one senses in Soviet writings a certain

lack of confidence on the part of the regime in its ability to maintain control over the population under the extreme stresses which nuclear war would impose. The leadership seems particularly concerned over the performance of its youth, untried by the crucible of World War II. Marshal Grechko, for example, in his work On Guard for Peace and the Construction of Communism, in the midst of a passage full of superlative praise for every other aspect of the Soviet Armed Forces, notes without further comment that "a particular feature" of the Soviet officer corps is its youth, with over 65 percent of officers at regimental level under the age of 30.<sup>12</sup> Major-General V.V. Zemskov may have had this age structure in mind when he stated that, in the nuclear era, Party-political work among the population and the armed forces is more important than ever, both because modern war will involve such high casualties and because nuclear war is likely to be of brief duration.<sup>13</sup> Zemskov fears perhaps that a nuclear war will undermine political control before there is time to conduct the sort of tactical retreat, purges, and regrouping which preceded the Red Army's return to the offensive in World War II. Similarly, Col. M.P. Skirido writes:

The effectiveness of the moral-psychological training of our country's population depends in large measure on fulfilling the requirements of the CPSU and the Soviet government for observing strict state and Party discipline, and on a thorough understanding on the part of Soviet citizens, particularly young people, of their responsibility for meeting their obligations and carrying out their duty to the homeland and their fellow citizens.

The absence of combat experience on the part of most younger Soviet citizens may also alter Party-military relations once the imminent generational change in the Soviet leadership comes to fruition. While Stalin



relied on his Civil War comrades and Khrushchev and Brezhnev on their World War II associates for top military and defense ministry personnel, the next-generation Party chief will probably not have occupied a position of authority during World War II, and therefore will not have notable comrades-in-arms from which to choose his military advisors. He might, as Jerry Hough has suggested, pick someone he knew as commander of a military district associated with his regional Party base, but "front-line friendships" as a means of Party control over the military will be absent.<sup>15</sup> What type of Party-military relationships will evolve instead is difficult to predict. Hough believes they will become more professional; they may be more ascerbic and competitive.

To recap: militarism has played a prominent role in both tsarist and Soviet history, with conquest providing both regimes a basis on which to claim legitimate rule. It is this which gives all members of the Soviet leadership, regardless of their bureaucratic interests, a stake in the U.S.S.R.'s military strength and renders it unlikely that political divisions in the Soviet Union run along a "hawk-dove" axis. Adam Ulam has suggested that policy disagreements within the Politburo are more likely to revolve around the degree of risk various members are willing to take in pursuit of power expansion, and while one cannot really know what form debate takes among the leadership, Ulam's hypothesis is at least in tune with the patterns of Soviet history.

#### Mass

The factors which have contributed to Soviet militarism--a large land mass with borders not easily defensible, the preservation of a terri-

torially contiguous colonial empire, the impact of totalitarianism and particularly of Stalin's brutality, the experience of World War II, and the onset of the nuclear age--have led also to an emphasis in the Soviet Union on mass in both manpower and equipment. The need to defend long borders and to maintain control over non-Slavic peoples encouraged both Imperial Russia and the young Soviet state to maintain a large standing army, as did the regime's awareness, particularly under Lenin and Stalin, that its rule rested largely on coercion. A great quantity of men under arms was also deemed necessary in order to compensate for the country's technological inferiority. This reliance on quantity over quality seemed vindicated by World War II, when huge numbers of Soviet tanks and soldiers overwhelmed qualitatively superior German armaments. Modern developments in military science have reinforced this trend, since, given the destructiveness of nuclear weapons, a war-fighting doctrine requires large numbers of men and materiel.

Why might the U.S.S.R. have maintained a war-fighting doctrine in the face of nuclear weapons? In addition to the excellent arguments which can be made for such a strategy on purely logical grounds, the Soviets' World War II experience again played a crucial role. Perhaps the most important lesson the Soviets drew from the war is that even great material and human loss can be translated in political gain. Despite a badly damaged industrial infrastructure, terrible shortages of food, the lack of basic consumer goods, and the death of some twenty million people, the U.S.S.R. emerged from the war as the second greatest power on earth and the strongest power on the Continent, with a chain of puppet states to provide the political and territorial dominance in Eastern

Europe that thirty years of propaganda and Comintern subversion had been unable to produce.

The emphasis on mass led the armed forces to solve manpower problems through conscription. Imperial Russia, as has been noted, produced modern Europe's first and largest standing army by conscripting serfs. The Red Army began drafting early in 1918, and today military service is required of virtually all physically able young men in the Soviet Union.

Conscription also has produced a divergence between the professionalism of the officers corps and the grudging compliance of the rank-and-file. Peter the Great educated all young nobles (starting from age twelve) to be officers, training them in military science, navigation, and ballistics. Yet the army was manned by conscripted serfs--men who, being cut off from family, friends, and normal society, with no hope of ever returning to civilian life, had no stake in society and had known nothing but repression from the government. Consequently, officers viewed their men as agglomerations of potential rebels and deserters from whom performance could be extracted only through the severest discipline. Since serf labor was cheap and peasants' lives little valued, the Russian army developed a strategy which sought to win by overwhelming the opponent numerically, even if it meant suffering terribly heavy casualties.

While the position of the Soviet soldier is certainly much improved, the remnants of this tradition still may be seen today. Pay remains low, accommodations rugged, and officers arrogant. Stalin's World War II strategy was based on overcoming Germany's technological superiority through mass, a strategy which cost the U.S.S.R. more lives than any

other combatant. The Soviet drive to obtain numerical superiority in numbers of ICBMs, SLBMs, and perhaps eventually in warheads is well known. At the same time, Soviet propaganda attempts to prepare the population for the greatest casualties it has ever suffered, while the civil defense program aims primarily at protecting the political leadership and an essential work force, not the population as a whole.

### Conservatism

Among the most notable features of Soviet strategic style is the conservatism of the military establishment, evident in both strategy formulation and weapons design: here the impact of Stalin has been the greatest, producing attitudes which reflect both the strengths and the weaknesses of the Soviet system. Geography, too, has presented the armed forces with constraints which have fostered a conservative approach to security issues.

Soviet strategy differs markedly from its U.S. counterpart in its formulation and in its content. Those who contribute to the defense policy emanating from Washington comprise a diverse community of analysts--civilians and military professionals, academics and businessmen, historians and scientists. Soviet strategy, in contrast, is formulated only by a small number of high-ranking military officers in accordance with the general guidelines set by the Politburo. This reflects both the highly restrictive processes of policy formulation common to authoritarian states and the respect demanded by and given to the armed forces in a militaristic government.

Two important consequences follow from the elite nature of Soviet strategic formulation--one a strength, the other a weakness. On the positive side, Soviet strategy benefits from a unity of purpose often lacking in U.S. strategic debate.<sup>16</sup> This very unity of ends, however, may degenerate into a narrow view of means. The Soviet armed forces may lack a measure of flexibility in adapting to changing technology, as the few senior officers responsible for strategic formulation seek to draw on their own combat experiences, without consulting men with different generational or institutional backgrounds. But again, the clear sense of one's primary goals (attainable only when the number of policy-makers is kept small) meliorates this problems. Certainty of the ends being pursued enables the government to channel its research funds more effectively into projects which facilitate the attainment of those goals. Thus, the interface between strategy and technology in the Soviet Union has been marked rather more by "strategy pull" than "technology push."<sup>17</sup> The Soviets maintain their strategic doctrine with considerable tenacity, adapting new weapons to traditional roles. Ballistic missiles, for example, have for the most part been viewed as a variety of extremely powerful artillery, to be used for bombarding the front and the rear in preparation for and in the course of ground troop engagements.<sup>18</sup> This assimilation of ballistic missile technology by existing strategy stands in marked contrast to the course of events in the United States, where the advent of ICBMs led to a wholesale revision of military precepts.

Soviet conservatism is evident as well in the hierarchy of the services. Protocol requires them always to be listed in the following order: Strategic

Rocket Forces (SRF), Ground Forces, Air Defense Forces (PVO Strany), Air Force, and Navy. The SRF receive pride of place in deference to their enormous firepower, but it is interesting that the Ground Forces and Air Defense Forces retain a prestige at least equal to that of the more glamorous Air Force and Navy. In part, this is a reflection of the U.S.S.R.'s geographical position. Traditionally a land power, the Soviet Union quite naturally favors the army. Soviet generals, like their tsarist predecessors, know what it means to meet the enemy head-on, without the luxury of the island status enjoyed by the United States. For the U.S.S.R., to lose is to give up territory; hence the requirement for an army capable of assuming the offensive and a substantial defensive force to protect the rear.<sup>19</sup> With little margin for error, the Soviets have been reluctant to risk fundamental revisions of the strategic doctrine which thus far has served them quite well. The Soviets themselves have commented on the contrast with the United States, where, they note, strategy seems to change with each new administration.<sup>20</sup>

Along with stability of strategy is stability of top personnel. Perhaps as a reaction against the extreme insecurity of military and political leadership in the Purge years, or perhaps as a result of the apparently inevitable bureaucratic ossification which plagues failed ideologies, military and military-industrial leaders of the Khrushchev and especially the Brezhnev eras have enjoyed remarkably long tenures. I.D. Serbin, for instance, has been head of the Central Committee's Department of Defense Industry since the 1950s. Even organizational flux in a leader's career may be motivated by functional stability. Thus, in the 1950s, General Mitrofan Nedelin essentially followed nuclear weapons

around. When the basic decisions to produce and test nuclear-armed missiles were being made, Nedelin moved from his position as Commander of Artillery to Deputy Minister of Defense for Armaments. He then shifted back to Commander of Artillery when, after the initial tests, it came time to introduce missiles into the artillery troops. When the Strategic Rocket Forces were formed in 1959, Nedelin was given their command, which he retained until his death in 1960.<sup>21</sup> The consequence of this type of functional stability is that Soviet military leaders tend to be rather narrowly focused, but are at the same time highly experienced within their particular field of expertise.

Conservatism in strategy has been matched by conservatism in weapons development. While the United States emphasizes the complexity, versatility, and technological sophistication in the designs of its weapons, even if this means sacrificing a certain amount of quantity in exchange for higher quality, Soviet weapon systems tend to be based on

- simplicity,
- commonality,
- incrementalism, and
- reliance on foreign technology.

The simplicity of Soviet weapon designs refers to their modest performance specifications, sufficient to fulfill the minimum task required, and no more. Commonality is evident in the use of standardized parts and assemblies whenever possible. The ASL-82 engine, for instance, was used to outfit the World War II-vintage LA-5 fighter, the TU-2 frontal bomber, and the PE-8 long-range bomber. Indeed, twenty years later it

was still in service on the MI-4 helicopter.<sup>22</sup> Similarly, the SU-7 ground attack fighter and the SU-9 interceptor, although fitted with different wings and armament, nevertheless possess identical fuselages and tails.<sup>23</sup> The principle of commonality is also evident in the SS-16 mobile ICBM, the first two stages of which are essentially the same as those comprising its IRBM counterpart, the SS-20.

The conservatism of Soviet weapons design policy is nowhere better exemplified than in its stress on innovation through incremental improvement. Though there are occasional instances of discontinuous advances in performance characteristics, the predominant pattern is one of gradual upgrading. Thus the U.S.S.R. began to replace the SS-11 with the SS-17 and SS-19 in 1975; nevertheless, two newer models of the SS-11 continued to be deployed, perhaps as a hedge against possible SS-17 and -19 failures.<sup>24</sup>

The second major avenue to qualitative improvement employed by the Soviets is to borrow from Western technology and experience. Numerous examples could be given, from the jet engine to integrated circuitry. Such innovation may take the form of partial borrowing or complete replication.

Several benefits accrue to Soviet design policy. Weapons can be produced more quickly if they are unencumbered by nonessential accessories and are derived from previous models. In addition, simplicity facilitates training and maintenance. World War II in particular drove this lesson home to the Soviets. As a former Soviet test pilot, M. Gallai, explains:

A plane does not live by speed alone. Consequently, all our efforts were directed toward getting the new fighters "off," with the goal of making them reliable and accessible to any



pilot of average qualifications. (In a major war, you won't get very far on aces alone!)<sup>25</sup>

The dynamic aspects of Soviet weapon design--incremental innovation and foreign technology borrowings--facilitate force modernization at lower unit costs, thereby strengthening the quantitative measures of military power. Again, the U.S.S.R.'S wartime experience played a crucial role in establishing the Soviet predilection for incrementalism on the design of aircraft, for example, Gallai writes:

The fact is that any measure--even the most effective--is not suitable if its realization would hold up the output of combat aircraft from the assembly line for even a few days. The front can't wait! ...The ability to achieve improved tactical-technical characteristics without having to turn the whole aircraft design upside down became one of the most important elements in the work style of our aeronautical engineers and scientists, even in relatively calm times, when there was no special need for it.<sup>26</sup>

The Soviets do not like to discuss their reliance on foreign technology, but one can surmise that this method of innovation reduces outlays on R&D, not only on individual projects, but on applied science as a whole. According to one emigre scientist, the government to some extent even looks to the West's allocation of research funds as a model for ordering its own investment priorities.<sup>27</sup>

But for all the advantages of Soviet weapon design policy, there are costs as well. Over-reliance on foreign technology, for instance, may bring short-term savings on R&D, but it exacts a tremendous toll in the long run by inhibiting domestic experimentation and ultimately weakening the country's scientific base. That the U.S.S.R. spends some 40 percent more on R&D than does the United States, yet continues to exhibit inferior technology, is a manifestation of this dilemma. Moreover,

while incremental innovation can provide steady, gradual improvements in weaponry, it inhibits the realization of major advances and thereby exposes the U.S.S.R. to the risk of sudden obsolescence due to technological breakthroughs in the United States. The Soviet Union has not chosen quantity over quality in weapons production; it has accepted it for lack of any other option. For both economic and political reasons, the Soviet R&D community has been unable to produce the sort of sophisticated equipment typical of the West and hence has been obliged to make a virtue of necessity.

Economic causes of the simplicity--some would say backwardness--of Soviet weapon design are the supply problems and inadequate incentive structure endemic to a planned economy. As military equipment grows more complex, it becomes increasingly difficult, even with the top priority assigned to defense industries, to insulate weapon production from the deficiencies of the rest of the economy.<sup>28</sup> Thus, in response to an appeal by O. Antonov for improved quality in the production of sophisticated equipment, the Novosibirsk aviation enterprise director G. Vanag replied that everyone recognized the need for innovation, but that without resources, the enterprise is left "to fight one-on-one against difficulties which the planners themselves are simply unable to handle."<sup>29</sup>

Supply problems conceivably could be overcome by allocating a still greater share of the country's GNP to the military. There is, however, a deeper source of Soviet design conservatism, the roots of which go back, like the planned economy, to the early years of Stalin's rule, and which is much less amenable to solution. This is the network of disincentives to innovation which atrophies the performance potential of the scientific and industrial communities. Reluctance to experiment

with new techniques and concepts results not only from the excessive bureaucratization of rigid planning, but also from the basic distrust the leadership feels towards all intellectual segments of society. First, this distrust has fostered censorship, which weakens the country's scientific base by limiting the number of people allowed access to relevant knowledge. Even a man of such high rank as Maj. Gen. of the Engineering-Technical Service, M. Gorianov had to use open-source Western data on U.S. nuclear weapon capabilities in his 1960 article for the top secret "Special Collection" of Military Thought, because he could not gain access to similar Soviet data on the U.S.S.R.'s nuclear weapons.<sup>30</sup> This element has probably lessened somewhat with time and may continue to do so. But a more serious problem derives from the system's negative incentive structure which relies more on sanctions imposed for failure than on rewards for success.

The fear which the threat of sanctions engenders among the scientific community reached its apex under Stalin, who, believing that an "epidemic of improvements" degraded weapon designs, went so far as to encourage designers to resist demands for innovations from military consumers: "It's hard to make a good machine, but very easy to spoil it. And it's the designer who'll have to answer for it!"<sup>31</sup> The scientist could see his career ruined even for petty mistakes, and significant failures could mean imprisonment or even death. Such harsh punishments are no longer imposed for errors in design, but they remain in the historical cognizance of many scientists in the U.S.S.R. today. Failure is still sanctioned more in terms of living standards and prestige than success is rewarded. Given the price which failure may exact, combined with the comfortable

lifestyle available to the moderately successful, it is not surprising that scientists and engineers hesitate to contract into ambitious projects. Risk aversion is a salient characteristic of the Soviet R&D community, one which encourages design simplicity, modest, incremental innovation, and heavy reliance on proven foreign technology.

### Conclusion

The features of Soviet strategic style outlined here have had their impact not only in strictly military matters, but politico-military affairs as well. In the SALT negotiations, for example, the traditional Soviet emphasis on mass reinforced the Soviet's determination to preserve their heavy missile forces, and the stress on quantity predisposed the U.S.S.R. to take a dim view of President Carter's early proposals for "deep cuts" in numbers of launchers. Conservatism, combined with a predilection for quantity, has also contributed to the apparent Soviet practice of "saving" retired missiles for possible future use in a reload capacity, rather than following the United States' more cost-efficient example of dismantling obsolete systems. Finally, Soviet militarism, had it been sufficiently recognized in the United States at the outset of the SALT process, might have endowed U.S. policy-makers with a healthy dose of skepticism concerning the ultimate ends reasonably to be expected from a detente process. Looking to the future, Western policy-makers might well consider the recurrent patterns of Soviet military behavior as they seek to capitalize on Soviet weaknesses and to counter Soviet strengths.

#### REFERENCES AND FOOTNOTES

1. The problems of teleological historiography are evident in attempts to view Nazism as a direct and seemingly inevitable development for the rise of German nationalism under an authoritarian-minded Martin Luther.
2. See, for example, Lt. Gen. (ret.) Edward Rowny's paper, "The Soviets Are Still Russians," presented to the Air force Intelligence Conference "The Soviet Union: What Lies Ahead?" Reston, Virginia, September 25-27, 1980.
3. Among the illusions which belong in this category are the notions (1) that the Soviet foreign policy elite is bifurcated into "hawks" and "doves" who conceive of military power in the same terms as did outspoken American activists in the late 1960s and early 1970s, (2) that powerful defense industrialists have forced high defense expenditures upon an unwilling but helpless Brezhnev, and (3) that the Soviet leadership is paranoid and therefore requires extraordinary security guarantees.
4. Stalin, "The Tasks of Business Executives," in Works, Vol.13 (Moscow, 1955), pp.40-41.
5. This seemingly obvious, but often overlooked point has been well made by Richard Pipes in his "Militarism and the Soviet State," Daedalus, Vol.109, No.4 (Fall 1980), p.2.
6. The Ukraine, of course, was valuable for its agricultural product, but Siberia, for all the mineral wealth it is now known to possess, seemed at the time of its conquest in the 16th century, to hold

little of value other than furs. Similarly, continuing Russian/Soviet interest in mountainous and land-locked Afghanistan defies explanation by economic or maritime considerations.

7. As early as 1497, the peasantry had been denied the right to move from one estate to another except on St. George's Day, perhaps to facilitate tax collection. Still, the peasant could change his residence once a year; hence, he was not yet enserfed. See Richard Hellie, Enserfment and Military Change in Muscovy (Chicago: University of Chicago Press, 1971), p.24.
8. The classic history of Peter's reforms is Vasili Klyuchevsky, Peter the Great, trans. by Liliana Archibald (New York: Vintage, 1958).
9. Quoted in Hugh Seton-Watson, The Russian Empire, 1801-1917 (London: Oxford University Press, 1967), p.331.
10. Pipes, "Militarism and the Soviet State," p.3.
11. The defense budget grew from 1.4 billion rubles in 1933 to 23.2 billion rubles in 1938. See Merle Fainsod, How Russia Is Ruled (Cambridge, Mass: Harvard University Press, 1963), p.477.
12. Marshal of the Soviet Union A.A. Grechko, On Guard for Peace and the Construction of Communism (Moscow, 1971), Part 1, Chapter 2, trans. in Selected Soviet Military Writings, 1970-1975 (A Soviet View) USAF translation (Washington, D.C.: USGPO, n.d.), p.176.
13. Major Gen. V.V. Zemskov, "Nekotorye voprosy rukovodstva voynoi," Kommunist Voorushennykh sil, No.22 (November 1972), p.18.
14. Col. M.P. Skirido, "Leadership in Modern War," in Narod, Armia, Polkovodets (Moscow, 1970) trans. by USAF in Selected Soviet Military

Writings: A Soviet View (Washington, D.C.: USGPO, 1977), p.153.

Emphasis added.

15. Jerry Hough, Soviet Leadership in Transition (Washington, D.C.: Brookings, 1980), p.107.
16. When applied to the U.S.S.R., the bureaucratic politics model of decision-making, even in a modified form, is generally applicable only to second-order questions such as resource allocation.
17. Col. V.M. Bondarenko, a prominent Soviet commentator on the role of technological development in the armed forces, recently underscored the primacy of strategy by means of an analogy. "Military science," he wrote, "is at one and the same time both a 'filter' which sorts the achievements of science and technology according to their relevance for military affairs, and a 'magnet' which attracts scientific research toward the solution of problems concerning the country's defense capability. Of course, the effectiveness of this system depends not only on military science. Here an enormous role is played also by policy, which creates the social requisites for strengthening the ties between the military and science, and which illumines these ties with moral goals and motives." See Bondarenko, Sovremennaiia nauka i razvitie voennogo dela [Modern Science and the Development of Military Affairs] (Moscow, 1976), p.92.
18. The Dzerzhinskii Military Engineering Academy was transformed from an artillery into a missile academy, and prior to the formation of the Strategic Rocket Forces, nuclear missile detachments were formed within the artillery troops. In 1959, Commander of Artillery Mitrofan Nedelin was appointed first commander of the newly formed Strategic

Rocket Forces. While the Soviets concede that nuclear weapons may achieve strategic objectives by themselves, the bulk of Soviet strategic writings stress a combined arms approach.

19. The emphasis given to civil defense is, of course, also relevant here. As J.W. Russel and E.N. York have pointed out, there may be strong synergisms between PVO Strany and the civil defense system, with each protecting values whose safety the other cannot guarantee. See J.W. Russel and E.N. York, Expedient Industrial Protection Against Nuclear Attack (Seattle, Washington: The Boeing Company, March 1980), p.56
20. See Strategiia imperializma i bor'ba SSSR za mir i razoruzhenie [The Strategy of Imperialism and the U.S.S.R.'s Struggle for Peace and Disarmament], ed. by V.Ia. Aboltin (Moscow, 1974), p.12.
21. V. Tolubko, Nedelin: Pervyi glavkom strategicheskikh [Nedelin: First Chief Commander of Strategic Rockets] (Moscow, 1979), p.181.
22. M. Gallai, "Ispytano v nebe" [Tested in the Sky], Novyi mir, No.4, 1963, p.51.
23. Arthur Alexander, R & D in Soviet Aviation, R-589-PR (Santa Monica, Cal.: RAND, 1970), pp.21-22.
24. Edward Luttwak, Strategic Power: Military Capability and Political Utility, Washington Paper No.38 (Beverly Hills, Cal.: Sage, 1976), p.22.
25. M. Gallai, "Ispytano v nebe: Okochanie" [Tested in the Sky: Conclusion], Novyi mir, No.5, 1963, p.86.
26. M. Gallai, Tret'e izmerenie [Third Dimension], (Moscow, 1973), p.33.



27. A. Fedoseev, Zapadnia: Chelovek i sotsializm The Trap: Man and Socialism , (Frankfurt/Main: Posev, 1976), pp.115-116.
28. On this point, see Fedoseev, ibid., p.25; G. Ozerov, Tupolevskaia sharaga [Tupolev's sharaga], 2nd ed. (Frankfurt/Main: Posev, 1973), p.57; and Maj. Gen. M. Cherednichenko, "Sovremennaia voina i ekonomika" [Modern War and Economics], Kommunist voorushennykh sil, No.18, (September, 1971), p.25-26.
29. G. Vanag, "Upravlenie kachestva" [Quality Control], Trud, Jan. 6, 1979, p.2.
30. Oleg Penkovsky, The Penkovsky Papers, trans. by P. Deriabin (London: Collins, 1965), p.169.
31. See A. Akovlev, Tsel' zhizni: Zapiski aviakonstruktora [The Aim of Life: Notes of an Aviation Designer], 2nd ed. (Moscow, 1970), pp.347-348.

## APPENDIX B

### THE FRENCH WAY OF WAR

David S. Yost

The purpose of this essay is to explore some possible answers to the following questions: Is there a French way of war? That is, is there a distinctively French strategic style that derives from a unique national approach to questions of war and diplomacy? If enduring patterns and tendencies can be identified in French diplomatic and military history, what relevance (if any) do they have for French defense policy decisions today?

Colin Gray has rightly characterized the work done to date in strategic studies on national style as just "the first stirrings of interest." The few works that qualify as examples of the genre are not in accord as to the principal indicators constituting a national strategic style. One general assumption that does seem to be shared by scholars trying to identify national strategic styles is that a country's historical experiences predispose its policymakers to certain decisions, though they may--of course--choose to deviate from established patterns. As Snyder puts it:

Historical lessons thus have to be seen as establishing a latent propensity in the majority of observers, a propensity that may or may not achieve fruition depending on other factors (such as political or organizational self-interest) that influences the observer's judgment.

In studying the Soviet strategic culture, Snyder stressed the lessons of World War II (e.g., the Soviet Union can depend only on its own power to ensure its security), and the post-Stalinist dominance of the military in defense policy-making in order to conclude that Soviet strategic thought places greater emphasis than American thought

on unilateral, as opposed to cooperative, damage-limiting strategies in the event deterrence fails. For a variety of reasons, the preponderance of Soviet thought on this question has shown a preference for the unilateral approach to damage limitation by means of unrestrained counterforce strikes and, where technically feasible, active and passive defenses. By contrast, U.S. thinking has increasingly moved toward the cooperative strategy of mutual restraint and intrawar deterrence.<sup>2</sup>

Other contrasts between characteristically Russian/Soviet and Anglo-American approaches can be drawn by going much further back in history:

- vulnerable land frontiers vs. insular security and easy victories in interventions abroad.
- high casualties in war, including civilians vs. low casualties in war, with comparatively peripheral civilian involvement.
- no clear limits on military spending vs. how-much-is-enough attempts to minimize military spending.
- experience of defeat and subjugation vs. a "limited liability" approach and disbelief in the possibility of defeat.
- normalcy defined as international anarchy vs. normalcy defined as peace and good will, to be institutionalized in international organizations.
- respect for military professionalism in decision-making vs. distrust of the military and civilian predominance.
- no substitute for military power and numerical superiority vs. belief that economic and/or cultural strength can substitute for military power; irrelevance of superiority.

- "deterrence" flows from war-winning and war-survival capabilities vs. "deterrence" depends on guaranteeing mutual destruction; war-termination questions neglected.
- military necessity drives policy-making vs. moral choices and opportunities in policy-making.

Such broad and highly generalized contrasts simplify and even caricature complex historical realities. Nonetheless, they represent much of the essence of the few studies so far completed in the area of national strategic style.<sup>3</sup> They illustrate the high level of generality to be expected in studying the French case, and will later be contrasted with inferences about the French way of war.

In looking at the French military-diplomatic experience (and how the French interpret it), four factors seem to stand out:

- (1) France's history as a great power;
- (2) the quality and uniqueness of France's military establishment and strategic thinking as compared to its contemporary competitors;
- (3) the historical pattern of French civil-military relations;  
and
- (4) the question of French national character.

After reviewing the main facts regarding each factor, conclusions will be drawn as to their current policy implications.

#### France's History as a Great Power

Curious as it may seem to Americans, French historians and commentators think it natural to begin French military history with the Gauls and the

battles between Caesar and Vercingetorix.<sup>4</sup> Needless to say, if Vercingetorix is relevant, so is Charlemagne and so are the numerous medieval kings of France. The French still take pride in the battle of Bouvines (1214), where King Philippe II Auguste defeated the Holy Roman Emperor and the King of England; still mourn the dead nobility of Crecy (1346), cut down by English archers at the beginning of the Hundred Years' War; and see Joan of Arc (1412-1431) as the finest expression of French patriotism. Indeed, they think it appropriate to stress French leadership in defeating the Huns at Chalons (421) and the Saracens at Poitiers (732), and underline France's dominant role in the Crusades--from the founding of the Latin Kingdom of Jerusalem (1100) to the gallant defeats of Saint Louis (Louis IX) in the late thirteenth century. In contemplating this long-term vision of French history, they conclude that the thread that gives it cohesion is the gradual consolidation of central authority in Paris by the King of France--an authority that is essential to ensure domestic order and military security. They emphasize two key facts: France was the first unified state in Europe, and was for most of its history the most populous in Europe in relation to its politically relevant neighbors (i.e., Russia was virtually inaccessible during the Middle Ages and until the eighteenth century).

Except for later disturbances such as the wars of religion in the late sixteenth century, the authority of the French King over the "hexagon" was for the most part established by the end of the fifteenth century: French invasions of Italy in 1494 are in fact commonly identified as an indicator of the beginning of the modern states-system. In this states-

system France grew accustomed to a role as one of the Great Powers. Indeed, in the sixteenth and seventeenth centuries, France was for all practical purposes one of the two Great Powers; only the Hapsburgs threatened her. All the "German" wars from 1648 to 1789 may be seen, from the French point of view, as wars fought to protect a favorable equilibrium in Central Europe following the devastation of various German states in the Thirty Years' War. Louis XIV was so uniformly victorious until the War of the Spanish Succession (1688-1713) that he made Philip II's device Nec Pluribus Impar (a match for many) his own. France lost the War of the Spanish Succession and lost most of her overseas holdings to Britain in the eighteenth century, but still she could be regarded as a Great Power. Indeed, as Wight notes, "Revolutionary and Napoleonic France...with no allies of importance overthrew three military coalitions within fifteen years, before the fourth brought her to her knees."<sup>5</sup>

After the defeat of Napoleon, France was still a Great Power--second only to Russia in Europe in population during the first half of the nineteenth century--and widely mistrusted abroad as the power most likely to seek hegemony over the Continent. Even after her defeat and the establishment of the German Empire as a consequence of the Franco-Prussian War (1870-71), France was still regarded as a Great Power--though more dependent on allies for her security than at any previous point in her history. The tremendous loss of life in World War I (1.4 million French dead, or over 10 percent of the active male population<sup>6</sup>) was in a sense the price France paid to regain Alsace-Lorraine and (incidentally) to earn Marshal Foch's status as the supreme allied commander. France therefore retained her Great

Power rank in the interwar period--the French Army was regarded even by Churchill as the surest guarantee of Western security--but the fragility of her preeminence was evident in her attempts to enforce the Treaty of Versailles and to seek alliances (particularly guarantees from Britain and the U.S.).

The 1940 defeat, according to Wight, meant that France will "probably" never again be a Great Power.<sup>7</sup> This is a conclusion many of the French reject, basing their rejection on the Resistance and on General de Gaulle's Free French movement as truer incarnations of French legitimacy than was Vichy. Furthermore, the acquisition of nuclear weapons and the maintenance of extensive ties--financial, cultural, and military--with French-speaking countries in Africa and elsewhere have tended to reinforce the common French conviction that France is still a Great Power.

In summing up France's historical role as a Great Power, French writers stress the following points of continuity:<sup>8</sup>

- France requires a substantial military establishment to protect her vulnerable frontiers.
- France's natural frontiers (sometimes construed to include Belgium and the Rhineland) are "proportionate to her strength and abilities" (Montesquieu) and constitute France's rightful domain.
- France has always shown flexibility in alliances in order to maintain the balance of power, even engaging in alliances with such contemporary infidels as Muslims, Protestants, and Communists.

-- France has served as the "guardian of weak princes" (in Germany, Italy, and Eastern Europe especially) against those who would subjugate them.

-- France has stressed political and prestige considerations over economic ones; French colonization stressed the mission civilisatrice over profit.

Errors in French policy derive from failure to adhere to these principles. Louis XV's flawed statecraft in the Seven Years' War (1756-1763) left France incapable of preventing the partitions of Poland, but his successor was at least able to help another weak state--the United States--and incidentally weaken France's greatest rival. This notion of "guarding weak princes" could also be seen as a policy of keeping many of France's neighbors weak and controllable, but the French do not draw this conclusion--except as regard the failure of Napoleon III to prevent the unification of Germany. Some French sources even attribute this failure to Napoleon I, who is reported as saying:

I made the mistake of my career in not removing the Hohenzollerns from the throne of Prussia when I had the opportunity. As long as this house reigns and until the red cap of liberty is erected in Germany, there will be no peace in Europe.

While Louis XIV is defended as acting from legitimate motives of raison d'état in the War of the Spanish Succession (preventing the encirclement which would arise from a Hapsburg on the throne in Madrid), Napoleon is criticized (even by de Gaulle) as exceeding France's natural limits and pursuing a personal policy of aggrandizement. But de Gaulle hastens to add that Napoleon's legacy of glory is of priceless value to the French:



...France is grateful to him for what he made of the French. They had recovered from Rossbach [a defeat in the Seven Years' War]...France has not forgotten him...In 1940, he was behind me when I told the French they were not what they seemed to be.

That many Frenchmen still think of France as a Great Power is above all attributable to the successes of General de Gaulle:

- in insisting during World War II that France be accorded all the perquisites of a Great Power (notably occupation zones in Germany and Berlin and a seat on the U.N. Security Council; this consideration appears to have been foremost in de Gaulle's mind in his insistence in December 1944 that Strasbourg not be evacuated);<sup>11</sup>
- in establishing the institutions that are seen as keystones of France's stability and prosperity--in addition to the Ecole Nationale d'Administration, the Commissariat a l'Energie Atomique, the Commissariat General du Plan, etc., one must stress the strong executive power established in the Constitution of the Fifth Republic;
- in ending the Algerian war and making decolonization appear a triumph of France's mission civilisatrice; and
- in accelerating France's nuclear weapons program and staking out a more autonomous role for France in both the European Community and NATO. In de Gaulle's words in 1961, "France proposes to recover the exercise of its full sovereignty. It is intolerable for a great state that its destiny be left to the decisions and actions of another state."<sup>12</sup>

Although de Gaulle in his final retirement apparently doubted whether he had convinced the French to make his commitment to French grandeur,<sup>13</sup> the fact remains that de Gaulle's principles have been appropriated by virtually all political factions in France. These principles form an important part of the received wisdom of French politicians, even if sometimes distorted, or used cynically and rhetorically at other times.

Objectively, France probably ceased being a Great Power with the 1870 defeat--if we define a Great Power as one able confidently to contemplate war with any other power. In post-Renaissance French history, in fact, one has the impression that up until the mid-nineteenth century, French political elites often resorted to war for reasons of domestic policy (to consolidate or change a regime); but since 1870 France has been preoccupied with the German question, and has been posing as a Great Power while seeking allies<sup>14</sup>--or, in nuclear weapons, instruments denied to the Germans. As one recent survey of French military history concluded, "[n]ational feeling in this respect regarding the Russian/Soviet threat has never had the characteristics of unanimity, depth, and duration presented by anti-German feeling...Only the reunification of Germany, whether neutralized or not, could in the short term shake the current feeling of continental security that the French enjoy."<sup>15</sup> The determination to be able to continue to hold something approximating first rank status, with all of its traditional rationales (above all, an independent policy regarding all major world issues), is still a leading principle of French policy--in part because of its striking implementation and articulation by de Gaulle.

### France's Military Establishment and Contemporary Competitors Over Time

In trying to determine whether there is a French way of war, it seems relevant to ask about France's military establishment in comparison to its contemporary competitors over time: Has its size, quality, structure or performance been atypical? Has the strategic thinking of this establishment been distinct in any respect? A preliminary conclusion, which may serve to provoke discussion, begins with the obvious point that from the Middle Ages to the present France's military policy was generally altered in conformity with prevailing trends in Europe and the West. And, to the extent that French policy can be identified as distinct, it would appear that the French carry to its logical extreme the archtypical military policy of the era. Whether this behavior is advantageous has depended on the characteristics of their opponents.

During the Hundred Years' War, for example, the French knights had the finest cavalry in Europe. This became a disadvantage when they persisted in outmoded offensives against the new tactics of English infantry and archers. The French finally managed to win not only through the exertions of Joan of Arc but also through the formation under Charles VII in 1445-1448 of the first standing and artillery-equipped armies in Europe, the compagnies de l'ordonnance du roi. These soon became superior to any competitors in organization and numbers, though Spanish, German, and Italian gunmakers eventually excelled the French in quality of artillery. Except for isolated mistakes in tactics such as Francois I's errors at Pavia (1525), the French armed forces in the sixteenth century were

preeminent over their Italian and Hapsburg foreign adversaries and the Protestants at home.

The seventeenth century saw the supremacy of France in all contemporary areas of military power and science. Vauban was the master of Europe in siegecraft and fortifications, and military leaders such as Turenne and the prince of Conde had few peers abroad. Above all, France pioneered the systematic disciplining and strengthening of the corrupt and uncontrollable army system of the past. With funds provided by Jean Colbert's mercantilism, Michel le Tellier and his son, the Marquis de Louvois, established systems of supply, training, and discipline that gave France "the most remarkable instrument of state power that Europe had yet seen."<sup>16</sup> Again, the innovations were pressed further than anywhere else at the time.

France retained a reasonable degree of military superiority during the eighteenth century, and even took the lead in terms of standardized and accurate artillery. As if to fulfill Guibert's prophetic analyses in the 1770s, the end of the eighteenth century saw in the Revolution and Napoleon the most impressive military triumphs in French history. In Howard's words:

The secret of the success of the new French armies was to lie in the combination of the professionalism of the ancien régime with the enthusiasm of the Nation in Arms...organized in the first instance by a fanatical totalitarian regime and then led by the greatest military genius the world had seen since Alexander the Great.<sup>17</sup>

There is no need to belabor either the managerial accomplishments of Carnot or Napoleon's skillful application of the principles of war. Partly because he lacked effective sea power, Napoleon in the end overextended France's

resources. France under Napoleon drove the logic of the military situation to extremes that were ultimately self-defeating.

During the period 1815 to 1866, France's military establishment was again typical of its era. One might even say that France was hyper-typical in the zeal of the Bourbon authorities to assure themselves and Europe that France had left Napoleonic aspirations behind. In France's military establishment, this meant an attempt to return to eighteenth century standards of professionalism. While conscription was retained, it applied only to those too poor to purchase an exemption or otherwise avoid it. The levée en masse of the Revolution was abandoned because of "distrust of the masses and of the democratic and equalitarian tendencies of the national army born of revolutionary enthusiasm"; moreover, there was a need for "politically reliable troops useful for conducting foreign wars or for suppressing revolutions at home."<sup>18</sup>

The military establishment was used for these purposes by the restored Bourbons and by Louis-Philippe and Napoleon III with no particular distinction in comparison to the activities of other major European states. The French military performance in the Crimean War was as deplorable as that of the British and the Russians; while French interventions overseas (Algeria, Mexico, Africa, Indochina, etc.) seem to have been compounded of a typical amount of success and failure.

It was at this point that typicalness, or hyper-typicalness, became inadequate; excellence in military affairs had passed to the Prussians, as they demonstrated in short and decisive wars against Denmark and Austria. Only Napoleon III and a few of his advisors recognized France's inadequacy

in 1866; although they promptly revised the laws on conscription, the revisions were incomplete and not even fully enforced. One reason why the new laws were not enforced was that the French military establishment was confident that only long-serving professional soldiers could have the military spirit required for victory:

...the French army hierarchy was shocked by the Prussian victory of 1866...because the official French doctrine, as taught in the military schools, maintained that the German army, composed of short-term conscripts, was by definition deficient in military spirit and, hence, in fighting ability.<sup>19</sup>

All the bad lessons of the African wars had been faithfully learned, a contempt for the enemy, a blind reliance on improvisation.<sup>20</sup>

In the wake of the 1870 defeat, the French concluded that they had failed to organize their manpower properly, that conscription had to be universal and supported by extensive General Staff plans for rapid mobilization and deployment by rail. As Challenger points out, there was, of course,

nothing truly original in the French solution to the problem of national security in the post-1870 era. So powerful was the Prussian example that virtually all the European nations, except, of course, Great Britain, built national security systems based upon conscription and the mass army.<sup>21</sup>

Nor was there anything abnormal in the French assumption that war would be short and decisive.

What was distinctive about the French was that (in characteristically hyper-typical fashion) they carried this assumption to the extreme in theorists such as Grandmaison and Foch. This was not entirely irrational in the context of the contemporary and nearly universal faith that the war would be rapidly decided by offensive maneuvers.<sup>22</sup> The Foch formula

of "Victoire=Volonte" (victory=will) and its stress on morale over numbers, tactics, strategy, and weapons has been often described; and Foch himself later conceded that his prewar arguments were "infantile."<sup>23</sup> An evocative description is provided by Correlli Barnett:

French tactical doctrine was based not on careful analysis of recent wars but on myth and abstract thought...Between the defeats of 1870-71 and 1914 a myth therefore was woven of the Furia Francese, of the irresistibility of massed Frenchmen dashing forward to the pas de charge, bugles squealing, colors streaming, of the glorious memories of Marengo and Austerlitz...of the supposed recipe for success of Napoleon I...the French leadership became a victim of its own public relations: its strategy, its military organization and equipment and its tactical doctrine were influenced by the myth. Hence the offensive, whatever the circumstances. But this was not to be based on the careful use of ground or on the firepower of modern rifles and machine guns, or on modern artillery preparation; it was merely an abstract idea. Elan<sup>24</sup> and cran ("guts") would do it all by a succession of charges...

Similarly, Colonel Loiseau de Grandmaison "opposed the development of heavy artillery on the grounds that it hampered the mobility of troops on the offense and nurtured the false doctrine that firepower was more important than spirit and élan vital."<sup>25</sup>

Incidentally, although the French High Command has been criticized for totally misreading German intentions (Plan XVII maintained that the main German offensive would come in Alsace-Lorraine),<sup>26</sup> it has since become known that the French made a deliberate decision in 1914 not to prepare for a German offensive through Belgium. The assumption was that France must not appear to threaten Belgian neutrality before Germany violated this neutrality, in order to ensure that Britain would enter the war as France's ally.<sup>27</sup>

Quite apart from the controversial political and morale reasons for France's defeat in 1940, it is hard to characterize the military reasons. It is plain that France's attempts to obtain security guarantees from the U.S. failed, as did her attempts to enforce the Treaty of Versailles in order to keep Germany weak in economic and military terms. The question is whether it is truly accurate to characterize France's military preparations for World War II as wholly defensively-minded. Specimens of evidence for the defensive-minded point of view are the Maginot Line and a figure like Gen. Narcisse Chauvineau (a spokesman for a continuous front of anti-tank defenses to stop any German attempts at armored mobility).<sup>28</sup>

It is rarely pointed out, however, that the French Army "had more tanks than the German on the Northeastern Frontiers of France in May 1940." In point of fact, Russel Stolfi argues, the "French vehicles, given the reality of the thinly plated German and the heavily protected French vehicles, and the approximate equality in tank cannons, had a great advantage in any tank battle." Why then did the French lose? Stolfi suggests that, just as in World War I,

the French High Command failed to identify the crucial German thrust... and did not allow the situation which was still murky to clarify itself. Instead of coolly determining just how serious the danger was around Sedan and coordinating attacks from both north and south of the area against the German bridge-heads, the French High Command dissipated its armoured divisions in several hasty and ill-coordinated attacks. By 18 May 1940, the French High Command had thrown away the mobile strength which might have slowed the German advance...<sup>29</sup>

The above interpretation has the ring of truth. It amounts to saying that the French could have won, but lost because the Germans fought more effectively; that is, the Germans seized the initiative and held it with



an appropriate concentration of forces long enough to break through. Nonetheless, it is not the orthodox view, which emphasizes the Maginot Line and the refusal of top French generals and politicians to listen to de Gaulle and other strategists championing a more active defense. Once the top military leadership and the politicians are added in, it becomes possible to harmonize these two points of view, as Challenger suggests:

...by the early 1930s the French had built a system of national security founded on principles that were almost completely the reverse of those that had prevailed in 1914. But this system, too, was inflexible and proved unable to respond to crises short of total war...when Hitler moved into the Rhineland...the leaders of the French Army informed the Cabinet that French military forces were not organized to carry out a rapid movement of their own into the Rhineland and could not, in short, mount a quick surgical operation. Indeed, the high command suggested that any sort of French military response would require something close to a national mobilization. Worse still, they sketched out a scenario in which there was a real prospect that any French operations in the Rhineland would bog down in a trench warfare stalemate on the 1914-1918 model...the Rhineland incident stands out for the way that it revealed the limitations of the defensively oriented national security system that the French had created. Moreover, the revelation of such limitations served only to further appeasement. Within a short time leaders of the French Right were arguing that since the nation did not possess any army capable of pursuing an anti-German policy, then the nation should pursue a foreign policy that was in accord with her military situation; that is, a policy of appeasing Hitler and acceding to further German moves.<sup>30</sup> (Emphasis added.)

Key phrases in the above citation are underscored because they sustain this part of the argument: the French tendency to be hyper-typical and to drive logic to extremes promoted inflexible policies appropriate only to total war prior to World War I and World War II. After the experience of World War I, acute awareness of the implications of such conflict made France vulnerable to coercion and liable to engage in appeasement. French

strategic policy today and in the prospective future is analogous and is likely to produce similar results.

The French strategy for defense in Europe today vibrates between the 1972 white paper's propositions and the innovations proposed in 1975 and 1976 by Chirac, Giscard, and Mery. The 1972 white paper holds that the U.S. guarantee is unreliable and that only France's "proportional deterrent" can guarantee the security of France. It will protect France against Soviet aggression through the use of tactical nuclear warning shots at the frontiers of France that will convince the Soviets of France's willingness to execute its counter-city threats. Should the Soviets be so rash as to strike preemptively France's air bases and IRBMs, the insinuation is that France would strike Soviet cities with its surviving SLBMs and bombers almost automatically. Given the magnitude of the French threat, the Soviets will not attack France, even if they occupy West Germany.

This strategy is hyper-typical of its age. Alert readers will recognize it as a French version (logic driven to the wall) of NATO's 1967 "flexible response"--the demonstrative use of tactical nuclear weapons will convince the Soviets of NATO's willingness to consider further uses of nuclear weapons, including "assured destruction" of Soviet cities. Through such threats--and not through war-fighting capabilities--will the crisis be managed, and the pre-war situation restored. The French version, as expounded by military intellectuals, comes complete with pseudo-mathematical equations reminiscent of Foch's "Victoire=Volonte."

In addition to being a hyper-typical caricature of an already intrinsically inadequate Western strategy, the 1972 white paper version of French

strategy is--to use the key phrases above--"inflexible," "unable to respond to crises short of total war" and liable to serve "only to further appeasement." Since the Soviet response to the French SLBMs could be wholly disproportionate and essentially destroy France, the French are arguably less likely to execute their threat in a crisis or war than to try to use it to negotiate the most favorable settlement possible for France. I have been told this by some of the top political commentators in France, and by some French military officers--not that the official secret doctrine calls for a negotiated surrender, but they see this outcome as more likely (particularly when Giscard was chief executive) than actual use of France's strategic nuclear forces. At the same time, I have been assured that de Gaulle would very possibly have followed through with the threat (or at least could be more credible in making such threats), and that there remained (even under Giscard) a chance that the French would follow their logic to its end and attack Soviet cities--knowing that the Soviets could then annihilate France. Some of my French sources have added that France might then be saved from destruction by Soviet desires to seize the country's valuable agricultural and industrial assets as intact as possible. They conclude that the whole issue is hypothetical anyway, so long as the American guarantee protects West Germany.

It is obviously logically inconsistent to assert at the outset that the American guarantee is no longer credible, and to assume at the end that it will remain credible enough; but many French observers adopt this point of view. The latter proposition--that France has an interest in the continued reliability of the American guarantee--was a part of the

package of doctrinal innovations proposed in 1975 and 1976 by Chirac, Giscard, and Mery. This very proposition was one of the chief reasons why the French government retreated from public display of such possible innovations to reaffirmations of the 1972 white paper's principles. The Gaullists objected to the notion that France need depend on external guarantees to assure her security, while the Communists objected to the notion that the Soviets constitute a threat. The other doctrinal innovations of 1975-76 (forward use of tactical nuclear warheads as battlefield weapons, "enlarged sanctuarization," France's more certain participation in the forward battle in West Germany) were all dropped as politically too hazardous in terms of France's domestic politics. The resurrection of such concepts in a May 1980 report by the Union pour la Democratie Francaise (Giscard's political party) is certain to create a new political furor.<sup>31</sup>

The net result is that the 1972 white paper probably remains an adequate description of France's strategy for the most serious contingency that French armed forces have to face--a Soviet attack against Western Europe. This strategy is typical of the long history of the French military establishment in its hyper-typicalness--in its logical extremes. At the same time, this strategy is typical of France's responses to threats within Europe since the tremendous losses of World War I--an inflexible policy suitable only for total war and therefore likely to create opportunities for coercion by the external threat. In this case, however, it would be the Left rather than the Right demanding appeasement and negotiated settlement with the "wave of the future."

### French Civil-Military Relations

French civil-military relations occupy an impressive portion of the library of military sociology for several reasons:<sup>32</sup>

- The French military was historically the "grande muette"-- the silent partner and instrument of the executive--until 1870.
- After the defeat of 1870-71, the Army cultivated an already existing ethos of military virtue to extraordinary extremes, as became apparent in the Dreyfus affair (1894-1906).
- 1940 created a division of loyalties in that the legitimacy credentials of both the Vichy and de Gaulle governments appeared suspect.
- The Indochina War (1946-1954) was waged exclusively by the professional military (no conscripts) at great cost in terms of fatalities (about twice the U.S. fatality rate in Vietnam) amid a climate of indifference and even hostility from the French public; this promoted military resentment against the civilian leadership of France, which was seen as corrupt and decadent.
- The Algerian War (1954-1962) aggravated tendencies within the Army officer corps to cultivate a sense of mission isolated from the mainstream of French society. It was the prospect of civil war provoked by the Army in Algeria that brought

General de Gaulle to power in 1958, and it was an attempted revolt by four generals in 1961 that allowed de Gaulle to consolidate his power.

In the enormous literature on French civil-military relations, the main question of interest to the search for a French strategic style is: Who makes policy? Does the policymaker's civilian or military nature make a difference as to the kind of policy that is made?

Since 1870 and especially since the Dreyfus affair, French politicians have been concerned lest the military subculture become too ingrown and anti-democratic. The politicians tried to influence the nature of the military's sub-culture by modulating the entry levels and promotion prospects of certain social and political groupings. But, in the pre-World War I era at least, the military and strategic planning was left primarily in the hands of the military.<sup>33</sup>

Dissatisfaction with the results led to sentiments approximating Clemenceau's alleged remark that "war is too important to be left to the generals." The politicians played a much more active role in the formulation of policy in the interwar period; but their views were often simply reflections of those of the top military chieftains, who truly were champions of an inflexible defensive stance.

In the post-1945 era, policy was determined largely by the military under the Fourth Republic because its weak governments abdicated their responsibilities. Since the beginning of the Fifth Republic in 1958, however, there has been a successful assertion of civil control over the

military. The path de Gaulle initiated for the modernization of the post-Algerian army has been pursued: resignation and early retirement of most of those who sympathized with the 1961 revolt, abolition of regiments and bureaus associated with those rebellious elites, and--above all--outlining a military doctrine for defense in Europe and rapid inter-vention overseas, particularly in Africa. The lead provided by de Gaulle has been readily accepted by those soldiers classified by political scientists and sociologists as the armée des techniciens (those dedicated to new technology and modernization of the armed forces with nuclear forces under a stable political regime) and the armée traditionnelle (those obeying constituted authority); the rebellious armée militante has evidently been dispersed and overwhelmed.<sup>34</sup>

Does the current civilian dominance of France's policy-making matter? No, in that many of the French military men I have talked to find France's declaratory strategy (1972 white paper version) plausible and credible. Indeed, the 1972 white paper was willingly prepared by high military officers attached to the Centre de Prospective et d'Evaluations of the Defense Ministry. If the military were preparing the strategy, it might very well turn out to be similar to that currently formulated on the basis of directives from the political leadership. Although the permanent civilian bureaucracy and the General Staff are important in formulating the options available to the civilian leadership (they played the key role in the Fourth Republic's nuclear program),<sup>35</sup> the politicians seem to make the final determination of policy.

At the same time, there are many highly situated officers in the French military who would prefer alternative strategies such as (a) greater and more versatile tactical nuclear war-fighting capabilities, to be used in conjunction with NATO forces in a re-cast NATO doctrine; and/or (b) the creation of a European deterrent in conjunction with Britain and/or West Germany in order to create an in-theater substitute for the increasingly incredible American guarantee. Whether military dominance of the policy-making process would bring such ideas to the fore is perhaps a question too hypothetical to be worth considering.

It is probable that, even if France does acquire enhanced radiation warheads for its tactical nuclear systems, the basic French strategy for using tactical nuclear weapons (warning shots for deterrent purposes) will not change.<sup>36</sup> This is because--even more than civilian dominance of policy-making--the current system can be seen as characteristically French in the primacy of internal political considerations in defense policy-making.

Challenger makes a case for the primacy of internal political considerations over issues of military effectiveness against anticipated threats in the analysis of the parliamentary dimension of defense policy in the 1870-1914 era. The defenders of the Third Republic feared that professional soldiers would become the allies of the political Right, and therefore favored a system of short-term conscription. Conservatives favored long-service conscripts as being more effective soldiers and politically more reliable in domestic contingencies:

Anyone who has the patience to go through the almost endless pages of debate in the Chamber of Deputies over the conscription



legislation of 1872, 1889, 1905, and 1913 can readily be pardoned if at times he comes to think that these political questions were the only issues ever discussed and that the problem of military effectiveness was, at best, a secondary consideration.<sup>37</sup>

Similarly, Challenger adds, in the interwar period the Left and Right could not agree on the proper use of the nationalized defense industries; and when Paul Reynaud put de Gaulle's ideas before the Chamber of Deputies in 1937,

There was virtually no discussion of the military merits of the de Gaulle proposals or his views on the role of air and armor. What happened was that the debate focused on the political implications of a professional army, with speaker after speaker rejecting the concept as anti-democratic and foreign to the republican tradition. The basic reason for de Gaulle's failure was that he hitched his air-armor chariot to the idea of a professional army, and the latter was simply not acceptable.<sup>38</sup>

The same constraints, mutatis mutandis, apply today. French defense debates largely consist of exchanges of political polemics, with the Gaullists and the Communists accusing the government of betraying the legacy of de Gaulle, the government asserting that it is truly faithful to the legacy, and the Socialists proposing alternatives based on icons of their tradition such as Jean Jaures. At least in the defense debates, there is little interest in objective threat assessment; rather, the question is: "what are the speaker's political motives in making this assessment of the threat or in advocating this change in policy?" The Communist flip-flop in May 1977 on the utility of France's nuclear forces was rightly seen as motivated by internal political considerations, as was the government's September 1978 decision to yield to the Gaullists on the issue of an additional SSBN.<sup>39</sup>

Because of such political considerations, conscription is destined to be a part of France's defense policy for the indefinite future. Incidentally, although the Left supports conscription for fear of praetorianism and for fear that a professional army could become too useful a government instrument for internal security, the Army finds conscription useful as a means of limiting its decline in national attention.<sup>40</sup> At the same time, many Army officers find conscription an inefficient use of resources and inconsistent with the overall deterrent thrust of the national strategy.<sup>41</sup>

In short, strategic alternatives to the 1972 white paper would have to run the gauntlet of peculiarly French internal political considerations. Any policy that posits a return to NATO, however covert, or cooperation with West Germany (or even Britain) is certain to be fought by assorted Communists, Gaullists, and Socialists as a betrayal of France's independence and de Gaulle's legacy.

Incidentally, the 1972 white paper also matches France's capabilities more readily than do the 1975-1976 innovations. It is arguable that France has not the means to claim an ability to provide an extended deterrent guarantee ("sanctuarisation elargie") to the rest of Western Europe, nor the means to participate in a protracted conventional conflict, nor even the nuclear means to engage in much intrawar deterrence/flexibility in escalation in defense of France alone.

### French National Character

The impact of French national character on a presumed French way of war is indeterminate. The characteristics making up French national character have been reported by political scientists and sociologists as:<sup>42</sup>

-- individualism -- a marked avoidance of voluntary group affiliations like community service clubs, at least by Anglo-American standards. This is explained (at least in part) by France's Catholicism (in contrast to self-governing Protestant religious congregations) and by the Ancien Regime's deliberate discouragement of voluntary associations in favor of a highly centralized government.

-- mistrust -- secretiveness and suspicion of the motives of others.

-- incivisme -- that is, a lack of civil spirit and distrust of the government, manifested in extensive tax fraud and what often seems a lack of concern for others. But this apparent incivisme must be qualified:

Ask a Frenchman for his money to save his country and perhaps he will not give it to you, in fact at the very moment when he shows himself ready to sacrifice his life. But appeal to him if you are defending, not a political platform of interests, but ideals like liberty, equality, or the Republic, and you will find yourself surrounded by hundreds and thousands of enthusiastic supporters.<sup>43</sup>

-- ambivalent attitude toward authority -- fear of strong government, but turning to a savior-figure in time of crisis, when an external or internal threat is feared.

-- insistence on principle -- a tendency to prize clarity of thought, rationality, consistency, and the pursuit of principles to their logical end.

The impact of these national character attributes on the French strategic style might be put as follows: they are not inconsistent with, and are partly explicable by, the national historical experience of frequent internal political upheavals (mistrust, individualism, incivisme) and a strong national state (ambivalent attitude toward authority). Geyl suggests that the latter characteristic includes a highly legalistic habit of mind, and explains why the French have ambivalent feelings toward figures like Talleyrand and de Gaulle, who at first appeared to challenge constituted authority for purely personal reasons.<sup>44</sup> The excessive insistence on principle is perhaps most clear in the pre-World War I doctrine of the offensive.

Mistrust and individualism on a "national" rather than personal scale may be seen as stemming in part from France's twentieth century experience with allies. French generals and officials still point out that the U.S. was not available for combat in 1914 and 1940, and declined to ratify the Treaty of Versailles or make any other commitment to French security in the interwar period. Even the British evacuation at Dunkirk is deplored (quite irrationally from an Anglo-Saxon viewpoint) as an abandonment or betrayal of France by Britain. Another element here is the widespread French conviction that their absence from the 1945 Yalta conference somehow allowed Britain and the U.S. to betray Eastern Europe, consigning that region to Soviet hegemony.<sup>45</sup> Nor were the French pleased with U.S. behavior

in the 1956 Suez crisis, nor with general Western attitudes--unsupportive in most cases--toward their lonely wars in Indochina and Algeria. As one French general told me, "With such a disappointing history of experience with allies, can you blame France for wishing to keep her freedom of decision?"

### Conclusions

The Russian/Soviet vs. Anglo-American contrast that is one of the main products of studies in national strategic style throws little light on the French case. To the extent that the French resemble one side or the other, they tend to share the Anglo-American side's distrust of the military (particularly since 1940); idealism about the possibility of fundamental reform in international relations (although it is much more guarded); and (in the strategic nuclear context) tendency to stress pre-war deterrence over war-fighting, war-survival, and war-termination considerations. If the Soviet strategic style is a product of the brutal historical experience of Russia and the Soviet Union, it may be asked: why does France, with vulnerable frontiers and a history of defeat in the recent past (1870 and 1940, plus the bloodletting of 1914-1918), not take war-winning more seriously?

One possible answer may be that France's military superiority from the late Middle Ages to the mid-nineteenth century was the functional equivalent of insularity. This historical experience allowed the French to build up a tradition of grandeur in foreign policy postures, and promoted a habit of looking upon military problems as questions of internal politics--

from starting wars for reasons of domestic politics in the seventeenth, eighteenth, and early nineteenth centuries to analyzing military questions in terms of domestic political advantage in the late nineteenth and twentieth centuries. The decline in France's strength relative to possible opponents became acute in the mid-nineteenth century. Since 1870, it has become obvious that France is no longer the same kind of an innovator or pace-setter in military affairs but more of an imitator driving the logic of contemporary military wisdom to the limit--from the offensive à outrance planning prior to World War I to "proportional deterrence" today.

The French strategic style seems to consist in its essence of three factors:

(1) A preoccupation with considerations of Great Power status.

The French want the rank and prestige of a great power. The old rationales of mission civilisatrice and "guardian of weak princes" speak to them in terms of their capability for intervention in Africa and their independence in NATO decision-making. Giscard struck a deep chord when he refers to France as the world's third nuclear power, superior to Britain and China. The French are willing to pay fairly high costs for this rank, and not solely because of their frequent declarations to the effect that (in de Gaulle's words) nation-states are such "cold monsters" that France cannot rely on others and must assure her own security.

- (2) A tendency to drive the military wisdom of the era to its logical extreme. In contemporary nuclear terms, this has meant the elaboration of a strategic nuclear capability that is designed primarily for pre-war deterrence rather than actual use in the event deterrence fails. Although one suspects the French would not implement their threat and could be coerced, the French will probably take whatever measures are within France's financial and technological grasp to preserve its technical (if not political) credibility. Ballistic missile defenses, missile hardening, mobile IRBMs, additional SSBNs, and other measures would therefore be within the logic of the nuclear posture the French have adopted and will probably continue with for the indefinite future.
- (3) Military decision-making dominated by civilians, who are preoccupied with domestic political considerations. Some of the virtually permanent features of French defense policy--conscription, the independent stance within NATO, and proportional deterrence for France alone--are attributable not to any analysis of the threat, but to domestic political considerations and imperatives. They will therefore only be altered with great difficulty.

These conclusions naturally require further study and analysis. Among the several topics that were not touched upon in this paper, and which seem to merit particular attention, are (1) the French tradition

of colonial war, from the beginnings of the modern period (the conquest of Algiers in 1830) through Vietnam, Algeria, and contemporary interventions in Africa; (2) the French process of weapons design and procurement, which seems to have some commonalities with the Soviet system;<sup>46</sup> and (3) French decision-making during wars, as opposed to the peacetime military preparations stressed in this paper. For example, there are indications that in the recent past, French tactical nuclear doctrine differed from U.S./NATO doctrine regarding "the employment of nuclear weapons when precise enemy information is lacking," with the French oriented toward distinctly prompter and more extensive use of nuclear weapons.<sup>47</sup> Is this behavior perhaps reminiscent of excessively precipitate attacks in the opening phases of the campaigns in August 1914 and May 1940?



# REFERENCES AND FOOTNOTES

1. Jack L. Snyder, The Soviet Strategic Culture: Implications for Limited Nuclear Operations, R-2154-AF (Santa Monica, Cal.: RAND, September 1977), p.29.
2. Ibid., p.38.
3. Cf. Inter alia, John Erickson, "The Soviet Military System: Doctrine, Technology and 'Style'," in Erickson and E.J. Feuchtwanger, eds. Soviet Military Power and Performance (London: Macmillan, 1979), pp.24-27, 39-41; Michael Howard, The British Way in Warfare: A Reappraisal (London: Jonathan Cape, 1975); Russell F. Weigley, The American Way of War (New York: Macmillan, 1973); Arnold Wolfers and Laurence W. Martin, eds., The Anglo-American Tradition in Foreign Affairs (New Haven: Yale University Press, 1957).
4. Charles de Gaulle, La France et son armee (Paris: Plon, 1938), p.1; Maxime Weygand, Forces de la France (Paris: Boivin, 1951), p.20.
5. Martin Wight, Power Politics, ed. by Hedley Bull and Carsten Holbraad (London: Leicester University Press, 1978), p.35.
6. The best discussion of statistics of French war dead in World War I is found in Judith M. Hughes, To the Maginot Line: The Politics of French Military Preparation in the 1920s (Cambridge, Mass.: Harvard University Press, 1971), pp.7-21.
7. Wight, Power Politics, p.48.
8. This discussion is drawn primarily from Jules Cambon, "The Permanent Bases of French Foreign Policy," in Hamilton Fish Armstrong, ed. The Foreign Affairs Reader (New York: Harper, 1947); and Jean-Baptiste

- Duroselle, "Changes in French Foreign Policy Since 1945," In Search of France (New York: Harper and Row, 1963).
9. E. Saillens, Facts About France (Paris: Librairie Hachette, 1918), p.162.
  10. De Gaulle cited in Andre Malraux, Felled Oaks: Conversation with de Gaulle (New York: Holt, Rinehart and Winston, 1971), pp.66-67.  
Cf. de Gaulle, La France et son armee, pp. 110, 149-150.
  11. The War Memoirs of Charles de Gaulle, Vol.3, Salvation, 1944-1946, trans. by Richard Howard (New York: Simon and Schuster, 1960), pp.163-174.
  12. Press conference of 11 April 1961, cited in General Robert Close, Europe Without Defense? 48 Hours that Could Change the Face of the World (New York: Pergamon, 1979), pp.76-77.
  13. Malraux, Felled Oaks, pp.17, 27, and 30.
  14. This is one of the themes of Roger Mettam and Douglas Johnson, French History and Society: The Wars of Religion to the Fifth Republic (London: Methuen, 1974), pp.28, 68, 76, 113, 118-19.
  15. Andre Martel, "Defense francaise: la menace et l'ennemi 1536-1966," Strategique, No.1, 1979, pp.49-50.
  16. Michael Howard, War in European History (London: Oxford University Press, 1976), p.66. An entertaining description of the Le Tellier-Louvois reforms can be found in W.H. Lewis, The Splendid Century: Life in the France of Louis XIV (New York: Doubleday Anchor, 1957), Chapter V, "The Army."
  17. Howard, War, p.76.

18. Arpad F. Kovacs, "French Military Institutions Before the Franco-Prussian War," American Historical Review, Vol.51 (January 1946), p.217.
19. Richard D. Challener, The French Theory of the Nation in Arms, 1866-1939 (New York: Columbia University Press, 1955), p.15.
20. D.W. Brogan, The French Nation: From Napoleon to Petain, 1814-1940 (New York: Harper and Brothers, 1957), p.145.
21. Richard Challener, "French National Security Policies, 1871-1939," in Russell F. Weigley, ed. New Dimensions in Military History: An Anthology (San Rafael, Cal.: Presidio Press, 1975), p.99.
22. Exceptions to the near-universal assumption that the war would be short were Moltke, Joffre and Kitchener. Cf. Barbara Tuchman, The Guns of August (New York: Macmillan, 1962), pp.119-20.
23. Foch cited in Stefan T. Possony and Etienne Mantoux, "Du Picq and Foch: The French School," in Edward Mead Earle, ed. Makers of Modern Strategy: Military Thought from Machiavelli to Hitler (Princeton, N.J.: Princeton University Press, 1943), p.228.
24. Correlli Barnett, The Swordbearers: Supreme Command in the First World War (Bloomington, Ind.: Indiana University Press, 1963), p.29.
25. Challener, "French," p.105.
26. Barnett, Swordbearers, p.27.
27. Guy Pedroncini, "Strategie et relations internationales: la seance du 9 janvier 1912 du Conseil Superieur de la Defense Nationale," Revue d'Histoire Diplomatique, Vol.91 (1977), pp.143-58.

28. Cf. Alvin D. Cox, "General Narcisse Chauvineau: False Apostle of Prewar French Military Doctrine," Military Affairs, Vol.37 (February 1973), pp.15-19.
29. Russel H.S. Stolfi, "Equipment for Victory in France in 1940," History, Vol.55 (February 1970), pp.1, 13, 20. A similar argument, which pins the blame on Gamelin's "Breda Variant" as a crucial premature offensive, is Don W. Alexander, "Repercussions of the Breda Variant," French Historical Studies, Vol.8 (1974), pp.459-488.
30. Challener, "French," pp.112-13.
31. "France Shifts Nuclear Stance," Aviation Week and Space Technology, June 2, 1980, p.23.
32. Among the book-length studies are John S. Ambler, The French Army in Politics, 1945-1962 (Columbus: Ohio State University Press, 1966); Edgar S. Furniss, Jr., De Gaulle and the French Army: A Crisis in Civil-Military Relations (New York: Twentieth Century Fund, 1964); George Kelly, Lost Soldiers: The French Army and Empire in Crisis, 1947-1962 (Cambridge, Mass: MIT Press, 1965). A useful concise discussion is Ronald J. Stupak, "The Military's Ideological Challenge to Civilian Authority in Post-World War II France," ORBIS, Vol.12 (Summer 1968), pp.582-604.
33. Joel A. Setzen, "Background to the French Failures of August 1914: Civilian and Military Dimensions," Military Affairs, Vol.42 (1978), pp.87-90.

34. These terms are used by Stupak and others. Cf. Alastair Horne, A Savage War of Peace: Algeria, 1954-1962 (London: Penguin, 1977), pp.544-51.
35. This is one of the principal findings in Lawrence Scheinman, Atomic Energy Policy in France Under the Fourth Republic (Princeton, N.J.: Princeton University Press, 1965).
36. Only 300 "neutron bombs" are proposed by the authors of the May 1980 UDF report. Cf. Aviation Week and Space Technology, June 2, 1980, p.23.
37. Challenger, "French," p.101.
38. Ibid., p.109, 115.
39. Cf. David S. Yost, "French Defense Budgeting: Executive Dominance and Resource Constraints," ORBIS, Vol.23 (Fall 1979), pp.604-605.
40. Michel Martin, "Conscription and the Decline of the Mass Army in France, 1960-1975," Armed Forces and Society, Vol.3 (Spring 1977), pp.355-406.
41. Lothar Ruehl, La politique militaire de la cinquieme republique (Paris: Presses de la Fondation Nationale des Sciences Politiques, 1976), pp.352-353.
42. A handy summary may be found in John S. Ambler, The Politics and Government of France (Boston: Houghton Mifflin, 1971), pp. 47-70.
43. Andre Siegfried, France, A Study in Nationality, (New Haven: Yale University Press, 1930), p.20.

44. Pieter Geyl, "The French Historians and Talleyrand," in Debates with Historians (Cleveland and New York: World Publishing Company, 1958), pp.232-37.
45. The French "Yalta myth" is discussed briefly by Alfred Grosser in "Western Europe," in Peter Duignan and Alvin Rabushka, eds. The United States in the 1980s, (Stanford, Cal.: Hoover Institution Press, 1980), pp.707-12.
46. Arthur J. Alexander, Weapons Acquisition in the Soviet Union, United States, and France, P-5989 (Santa Monica, Cal.: RAND, 1973), p.26.
47. Joseph R. Franklin, "An Examination of the Army's Role in French Military Strategy," unpublished Ph.D. dissertation, American University, 1968, p.131.



## APPENDIX C

### UNDERSTANDING BRITISH STRATEGIC THINKING: THE ART OF MUDDLING (AND MUMBLING) THROUGH

Robin Ranger

This paper analyzes the question of whether there is, or has been, such a thing as British strategic thinking and what its characteristics have been. My conclusion is that there is such a thing, but that it can better be described as the British style in strategy or as British strategic culture.

Its main features, in contrast to the U.S. and European traditions of strategic analysis, are a reluctance to engage in theoretical analysis or to articulate the major assumptions of British strategy. These must therefore be inferred from British defense policy(s) and procurement, particularly as the British have retained an almost closed system of defense policy-making unique among the Western democracies. Not only are decisions arrived at in secret, but there is little attempt to justify them. There has thus been little development of the insider-outsider strategic analyst and therefore a correspondingly limited development of the non-governmental strategic studies community on other than an individual basis.

As against these rather negative conclusions, the British decision to expand their strategic nuclear capabilities to include Limited Nuclear Options (LNOs) indicates a remarkably hard-headed analysis of Britain's strategic situation, backed by political decision-makers. When combined with the British abandonment of their centuries old Imperial role, and their effective identification of British defense with the defense of NATO-Europe, this indicates that they may improve their strategic thinking and policy on NATO issues. Their approach is likely to be conservative,



hard-line and, in terms of strategic logic, somewhat Gaullist. Unlike France, however, Britain's strategic style is to avoid ideological conflicts with the U.S. over abstract principles like national independence, but to change U.S. policies regarded as undesirable by collaboration, securing information in practice, if not in theory.

Because the British style of strategic thinking is vague, much of this paper has had to be devoted to explaining why this has been, and is, so. To illustrate these points, I have started with an analysis of the recent British decision to purchase the Trident I SLBM system from the U.S. as a concrete example of the British strategic style, especially its reluctance to explain what they are thinking or doing. The historical evolution of this style is then traced up until World War II, and subsequently. Although the historical Section II may be omitted at first reading, it justifies what may otherwise seem curious, even questionable, statements about British strategic thinking in Sections I and III.

Even so, readers, especially American readers, will probably end by sharing the author's frustration at the nebulous nature of the topic: we all know it is there, but cannot pin it down. Perhaps British strategic thought is like this, you cannot look at it directly, you only see it out of the corner of your eye. If this sounds too poetic, try reading British political memoirs, especially Harold Macmillan's, or discussing British defense policy with senior civil servants! However, it is worth adding a biographical note: the author was, for a short while, a member of the senior grade of the Civil Service, was educated and lived in England until 1970, and has lived since in Canada--whose approach to strategic

issues is a fascinating blend of the British and American systems, but more of the British. The result could be described as a sometime, soi-distant insider's view looking in from the outside, after a summer of research on European security issues, including, very much, the British connection.

'Modernizing' the British Strategic Deterrent: How to Make a Major Strategic Decision Without Appearing to Do So

The antithesis between the British and the Continental--including U.S.--approach to strategic issues is exemplified by their approach to strategic nuclear issues. American traditions--strategic, intellectual and political--require strategic policies, force acquisitions and deployments to be justified, in the course of a (fairly) open debate, in terms of an intellectually defensible strategic doctrine and to be technically feasible. French traditions eschew the open debate in favor of a largely closed debate within the Executive, which must then be able to defend its decision in terms of doctrine and logic, Gaullist or otherwise. President Giscard d'Estaing's announcement of increases in French nuclear forces is a good recent example.

In complete contrast, the British have undertaken a major expansion of their strategic nuclear forces without formally admitting they are doing so, and without providing any political or strategic justifications remotely comparable to the importance, and cost, of this action. The result has been almost a caricature of a British strategic debate, avoiding logic, regarding technical data as unimportant, conducted in symbolic phrases, and mostly in secret. This accords with the essentially anti-

intellectual British approach to strategy: it is something that the British government does, in a process of pragmatic adjustments, not something a bunch of intellectuals debate. Such speculation is divorced from reality and un-English. Those who do analyze strategic issues within the permanent Civil Service and the military--they are not called strategic analysts and would be horrified at being so addressed--are unlikely to commit their most important thoughts to doctrinal papers, as the U.S. or French approaches would require. Instead, their ideas are advanced indirectly, emerging in policy decisions. Finding out what the British think, in strategic terms, means looking at what they do, not what they say, since they say very little.

These characteristics of what is best understood as British strategic culture are one manifestation of the British political culture and of British society. Since the values of all these are antithetical to those of their American counterparts, and are very different from those of the French, it is not surprising that the British strategic style is extremely hard for Americans and Europeans to grasp--and vice versa. Hence, also, the continuing difficulty in making progress in that theoretically sensible area, Anglo-French nuclear cooperation, in contrast to the success of Anglo-American nuclear cooperation. The latter is, for the British, a practical matter, conducted with surprising discretion by the U.S. government.

As a background to Trident, it bears repeating that Britain has had an independent nuclear force, whose rationale has been implicitly Gaullist, since 1952, without ever really explaining what its rationale was. But

the British policy of using cooperation with the U.S. to alter U.S. policy, resulted in the 1962 Nassau Agreement. Under this, the U.S. agreed to supply Britain with Polaris A-3 SLBM and technical assistance in the construction of British SSBN to carry them at a nominal charge of cost--plus five per cent for Research and Development. Britain has also deployed significant Theater Nuclear Forces (TNFs), although their existence has been barely acknowledged, officially. The first, and last, doctrinal justification of these forces was the 1957 Defense White Paper, the Sandys Paper (named after the Minister of Defense, Duncan Sandys), a British version of the Dulles' doctrine of Massive Retaliation. This had owed much, in turn, to British thinking on the need to rely on what Sir John Slessor called The Great Deterrent.

Subsequently, British nuclear doctrine, at least as articulated in public and, to a large extent, in private, consists of some seemingly banal propositions, functioning as surrogates for the real issues. They have recently been restated by the British Secretary of Defense, Francis Pym, and are set out below, each being followed by a suggestion, in square brackets as to the real British position. How far this is admitted, even to themselves, by policy-makers, is doubtful. Mr. Pym's view appears to be that the Russians are bad chaps, so defense is a good thing and, since Trident is a good system, Trident is a good thing.

Proposition 1: British nuclear weapons were developed, from 1940 to 1952, in a political and military setting in which it was inconceivable not to develop them. In particular, after 1945, there was doubt as to whether the U.S. would commit herself to the defense of Western Europe

until the NATO Treaty was signed in 1949. Even then, the shortage of U.S. nuclear weapons meant that the British had to have their own to hit their own priority targets, like submarine pens. The British deterrent--as it became--was thus acquired almost by accident, and certainly not because of any Gaullist doubts of the U.S. nuclear guarantee of the U.K., or of Western Europe.

[This is disingenuous. A central British concern since 1945 has been the ultimate, irreducible, uncertainty as to the validity of the U.S. nuclear guarantee, especially after the passing of the World War II political leadership in both countries. The British know that political change in the U.S. could combine with a failure to maintain her military forces to produce the danger of an American failure to safeguard their interests if the Soviets invaded Western Europe. The British must therefore be able to compel them to--as they would put it--live up to their own best instincts. The British are also acutely aware, from experience, that in real crises, self-preservation tends to win out: a President could be tempted to save Los Angeles, Chicago, or New York, at the expense of London, Bonn, or Paris. The U.S. has, in this century, twice allowed the British and her European allies to come to the brink of defeat in a European war, in 1914-1917, and 1939-1941, so it must be "Third Time Lucky." The argument is neo-Gaullist but it has none of the anti-Americanism of de Gaulle; it is a recognition of the way things are in politics between states, and of the extraordinary reversals possible.]

Proposition II. Once acquired for one set of reasons, the British deterrent was too valuable a military and political asset to throw away.

It is relatively cheap absolutely or as a percentage of the defense budget to maintain and to modernize; even Trident would cost only five percent of the defense budget in its most expensive years.

[The analogy is with an old family butler, who adds a touch of useful class at negligible cost. It is deceptive. The British have spent very significant resources, given their poor economic performance, on making their nuclear force as effective as possible. The Chevaline Warhead Improvement Program, whose existence was only revealed in 1980, cost about £1,000 million from 1971 onwards, hidden as a one-line budget item "Other Research and Development." Such secret expenditures suggest an absolute priority for the British nuclear force. So does the obvious prejudgment of the options by officials in favor of Trident, costing £4,000-5,000 million; about \$12-14 billion.]

Proposition III. Britain's minimum deterrent has to destroy enough Soviet cities, and people, to deter a Soviet attack on Britain, even if the Soviets (wrongly) thought that the U.S. would not retaliate. It is designed to avoid Soviet misjudgments, since they could be tempted to strike at U.S. reinforcements for NATO, in a European war, staging through Britain. Since the British know they can rely on the U.S., Britain's forces are normally targeted in cooperation with the U.S. Single Integrated Operational Plan (SIOP). This reflects NATO targeting needs, so British nuclear forces are normally assigned to NATO, and form part of its nuclear forces. They could be withdrawn in a supreme national emergency, but this is not a serious option.

[The reason Britain can rely on the U.S. is because Britain can release nuclear forces on her own. How many Soviet cities and people the British force could, or should, kill is not usually discussed, certainly not with the precision of U.S. debates on U.S.-Soviet nuclear capabilities. This avoids discussion of the sensitive issues of which targets the U.K. wants to hit, when, and with what nuclear forces--strategic, theater or battle-field? British nuclear first release is only realistically likely in the context of a Soviet attack on Western Europe, making it likely that TNF will have to be released first, e.g., in support of British I Corps, forward deployed in the Northern FRG. The British may be prepared to initiate first release much earlier than the U.S. Given that British forces are an integral part of British society, especially its officer corps, they are likely to get nuclear support if they are going under to a Soviet attack. Discussing--especially in public--British tactical nuclear strikes on East or West Germany would be, to use a favorite British term--"tactless."]

Proposition IV. Buying Trident is thus the only sensible modernization decision, especially given the U.S. generosity in repeating the 1962 Nassau formula. This makes Trident cheaper than an SLCM/SSBN combination, more credible and more reliable, since Britain is familiar with Polaris, but changes nothing.

[Presenting Trident as an economic decision finesses the strategic issues. Buying Trident is the most important strategic decision since that to buy Polaris, a decision taken by a very small circle of officials and senior Cabinet Ministers, including the Prime Minister. This is profoundly undemocratic, but accords with the British tradition of secrecy,

and of informing the public and Parliament, not consulting them. Strategically, Trident represents a massive jump in British nuclear capabilities, to those needed for LNO, and so offers a new spectrum of influence on U.S. targeting and release policies. It also assumes--probably correctly--abrogation of the 1972 ABM Treaty, and Soviet construction of significant BMD, requiring enhanced British penetration capabilities. Economically, Trident may strain the defense budget in the late 1980s unless this is increased, which will be done if necessary. Also, having modernized the strategic forces, the British will want to modernize their TNF, probably using ALCM on Tornado aircraft (plus SLCM on surface vessels and submarines?) with U.S. assistance in LRCM technology, particularly guidance. Given the French intention of developing an Enhanced Radiation Weapon (ERW), the British may do the same.]

Proposition V. The Trident decision was taken in accordance with British Parliamentary traditions. The Government made the decision and laid it before Parliament for debate and approval. More public discussion would have been desirable but impossible, given the security problem and the sensitivity of the issues.

[Provided "security" is understood as a synonym for "political sensitivities," this statement is surprisingly truthful. A prolonged, informed, public debate would raise all the awkward issues indicated above vis à-vis the U.S. and Britain's NATO-Europe allies. It would also stimulate public opposition in the U.K. to the British deterrent and to stationing U.S. GLCM in the U.K. as part of NATO's 1979 TNF modernization decision. Since the British Establishment has decided the decision to its satisfaction,



this was, in its view, sufficient: what can outsiders, like academics, analysts or journalists add, especially since most of them have no access to any of the classified data needed? Nothing! So also for Parliament. Members are supposed to obey their Party Whips, not think for themselves, and know little of the details. The Parliamentary Hearings on modernization were a useful exercise in public relations, but really window-dressing, and gave an undesirable platform to irresponsible opponents of Trident.]

The point has thus been made: the British style of strategic thinking, and of strategic decision-making, is unique. It is intelligible once it is realized that the basic underlying assumptions of British policy are seldom spelled out, so much so that it may be doubted whether there exists a British Cabinet paper laying out The Bases for Expanding British Nuclear Capabilities, in the Light of the Increased Soviet Threat and the Declining Credibility of the U.S. Nuclear Guarantee. Instead the basis for the decision would have run something like this: all those involved have talked to one another about the replacement of the Polaris SLBM/SSBN force over the last decade. They had agreed on the Chevaline program to expedite the Trident option, agreed to be the best in political, technical and economic terms: the economics might be a bit debatable, but were not crucial. In broad terms, the political rationale for the British deterrent was stronger than ever. U.S. policy was extremely erratic and could get more so, whilst the Soviets were becoming more dangerous. The U.S. was prepared to be extremely generous on Trident, enhancing the Anglo-American Special Relationship in nuclear matters. There was therefore every reason to have the decision in favor of Trident made firm,

while a Conservative government was in power in the U.K., and before the U.S. Presidential election. Everybody in the U.S. system who needed to be consulted had been consulted, and approved. The consensus for a traditional British strategic decision, based on self-interest and self-preservation, had therefore been established, in the traditional manner.

Just how traditional a manner is clearer from a survey of what British strategic thinking has or, rather, has not been, in the past. Much of this may be familiar, but its implications perhaps less so.

#### The British Way in Strategic Thinking: The Historical Context, 1588-1945

The extent to which Britain is still weighed down by her past is difficult to realize for outside observers, but is a factor that remains essential in understanding her approach to all issues, including defense issues. British strategic thought thus continues to be conspicuous by its absence, if by this is meant any sort of coherent analysis about the role of force in preserving, advancing, or defending British interests; about what forces could, or should, be procured, and about the relationship between military means and political ends. Put thus bluntly, the statement invites rejection--but it is true. There has been no Clausewitz, no Jomini among British military writers, and the one great British military thinker, Captain Sir Basil Liddell-Hart, was regarded as a largely irrelevant theorist in his own country for most of his life. On the naval side, it was left to an American, Mahan, to explain to the British what their principles of maritime strategy were, and always had been, with his The Influence of Sea Power Upon History (1890). Nor were there any political writers left to fill this gap. In the nuclear era, the British contribution

to strategic thinking has remained slight; in the early days, P.M.S. Blackett and Sir John Slessor, later Alastair Buchan, Hedley Bull and Michael Howard.

Yet, despite this lack of formal strategic thinking, British strategic culture, a product of history, experience, pragmatism and expansionism, provided British policy-makers with adequate analytical guidelines until the twentieth century. Essentially, these were:

- (a) Maintain British Naval supremacy, in terms of building capacity, manpower reserves and ships in reserve, as well as in commission;
- (b) Use this supremacy to protect, and expand, Britain's Merchant Marine in peace and war;
- (c) Acquire colonies outside Europe;
- (d) Use Continental European Armies, hired if necessary, to preserve a balance of power inside Europe such that no hegemonial power can emerge, capable of threatening British trade, or naval power;
- (e) Keep the British Army minute, so that it will not threaten civil liberties at home as in the seventeenth century, a small volunteer force, whose officers are gentlemen, not career soldiers, will be politically safe, and sufficient for imperial policing, plus token participation in European wars.

Almost all British strategic commentators, from the Elizabethan Sir Walter Raleigh onwards, repeated variations in these themes, elucidating the consequences of being a relatively prosperous island power. In a broad

strategic sense, any British statesman, naval, or military officer--the roles were often interchangeable--knew what British thinking was. The problems in translating these principles into practice were practical: how to maintain naval supremacy cheaply, so as not to upset trade; who to ally with in Europe; where to acquire new, and profitable, colonies. Hence, the British stress on the virtues of pragmatism and the absence of any permanent alliances, only the permanence--as the Victorian Prime Minister Lord Salisbury, put it--of Britain's interests.

Significantly, the technological means for maintaining British interests remained virtually unchanged for the best part of three centuries, roughly from 1588 to 1888. Primarily, this meant naval technology, which changed so slowly that another Elizabethan, Drake, who helped defeat the Spanish Armada in 1588, could have captained one of Nelson's ships at Trafalgar in 1805. Naval supremacy could be maintained because of the rapid reinforcement capabilities represented by British shipbuilding resources, plus the skilled manpower reserve of seamen and officers. Naval officers were professionals, unlike most Army officers; the seamen were mostly conscripted by the Press Gang. Britain did not have a standing Army; it did have a standing Navy. However belated and slow the British mobilization might be, the standing Navy, plus the English Channel, provided virtually assured defense against invasion, whilst it was completing. British complacency was grounded in experience: the last effective invasion by a foreign power had been in 1066. Similarly, experience suggested that although all Britain's Continental rivals understood her strategy perfectly well, none of them, singly or in combination, could defeat it.

This would require the sort of investment in naval forces that no Continental power could afford, given the even more pressing demands for land forces, a situation that remained true until emergence of a unified Germany, and of two extra-European naval powers, the U.S. and Japan. Britain's maritime strategy may not have been rationally articulated, but it was remarkably successful. British forces were also a military means to an economic end: building up profitable trade. Until the late Victorian era, the British Empire was expected to be--and was--a very profitable business operation. The British did not fight for ideas; they fought for trade.

All this is to make the basic point that Britain's strategic culture was--and is--quite different from that of the Continent and was remarkably successful, although handicapping the British adjustment to a century of technological change. The same argument holds, broadly, for Britain's political and social culture. Until the late 1970s, it could be argued that the economic price Britain was paying for her continued failure to adapt was more than countered by the general quality of life in a conservative society--The New York Times managed, typically, to discover this elementary truth shortly after it had ceased to be true. Hence, the classic British defense of their anti-analytical approach to defense--and other--issues: "It may look funny to you foreigners, but it works."

This approach owed much to the fact that Britain was the only European power whose society was not drastically affected, politically, by the transformation of land warfare by revolutionary armies and generals from 1790 onwards. These changed the whole relationship between force

and policy, a change we are still trying to understand, so that there is a direct line of descent from Clausewitz and Jomini to the late Bernard Brodie's War and Politics. The reason why strategic analysis and strategists have emerged is obvious, but often forgotten. We need theoretical answers to the question of what technological innovation(s) means, because we have too little, or no, experience of their effects. Since Napoleon and the Industrial Revolution, experience has not been enough, and pragmatism has been potentially fatal in military thinking in the European experience and in the U.S. view. British experience, and thinking, was different. Their Army remained pre-Revolutionary until the Crimean War (1854-56) and changed less in the next century than might be expected. It remained essentially as small, volunteer Imperial policing force until the last of the Empire was abandoned about 1970, and is still policing Northern Ireland. Mass conscription was introduced only in two World Wars (even then, not until 1916) and the Cold War (1945-1962). The British Army did not--collectively--think, or encourage thinking, about the nature of modern war in the Nineteenth or Twentieth Centuries because this was not something it would have to fight very much of, and certainly not something for which Britain would be ready to prepare for on the Continental scale. The British Expeditionary Force (BEF) of 1914 was still a small, volunteer force--for a short Continental war. Colonial wars did not lend themselves to abstract analysis and theorizing, but required a pragmatic application of experience and proven technologies. Hence, the distrust of strategic theories and theorists by the British military establishment, which had difficulty in appreciating General "Boney" Fuller's ideas of

the all-tank army, or Liddell-Hart's concepts of armored warfare--blitz-krieg--especially since these seemed to have little relevance to British strategic interests, defined in Imperial terms. Even today, British forces are still recruited voluntarily, still small, and still very traditional.

Surprisingly, perhaps, given the continuous changes in naval technology after 1853, the Royal Navy neither developed nor encouraged a significant capacity for strategic analysis or thought. This is less surprising, when the general tendency of navies, as social institutions, to discourage innovation is remembered and when, for the British, is added the weight of a tradition of almost unbroken success since 1588. There is also, though, a curious paradox that has yet to be fully resolved: the Royal Navy was, in fact, a leader in almost all the technological and material innovations from 1853 to--at least--1945. Yet, it often failed to follow through on its initial lead, or to evaluate the strategic significance of these changes. Part of the answer lay in the British equation of sea-power with the battlefleet and the battleship, plus the British loss of her superior industrial base, but only part.

Nonetheless, the contrast is still sharp between the period of strategic innovation or, at least, adaptation (1853-1914) and the period of stagnation (1914-1945/1987). In the first, the British transferred a sailing navy into a Dreadnought Navy, and completely redeployed it, strategically, against Imperial Germany. British naval thinkers pioneered the concept of "command of the sea," popularized by Mahan, and replaced the traditional close blockade--still practiced by the Japanese in the 1904-5 Russo-Japanese War--with distant blockade. They included naval officers

like the Colomb brothers and civilians like Sir Julian Corbett. Even so, the result was, in 1914, a Navy lacking a proper staff, typifying its difficulty in thinking about how a war would be fought. It had extreme difficulty in meeting the challenge posed by German submarine warfare, the traditional remedy for the defense of merchant shipping, the convoy being resisted by the Admiralty in 1917 until it was nearly too late. Arguably, though, the real failure of British naval strategic thinking came in the postwar period, when there was no attempt to analyze and apply the experience of World War I. The effect of the two new weapons systems that had emerged, the submarine and the aircraft (land, as well as sea-based) were grossly underestimated. So, less obviously, was the potential of oil refueling at sea, both for the British, and for their adversaries, who could again engage in long-range surface raids against commerce. In terms of deterrence theory, the British Far Eastern Strategy against Japan remains an example of almost total analytical failure. Deterrence rested on the dispatch of a British fleet to the strategic base at Singapore, but how it was supposed to deter the Japanese was never analyzed, nor was the size of the fleet, or the defense of the base, ever properly related to Japanese countermeasures. Inevitably, the result was total failure, at the cost of heavy losses. Significantly, too, this was a new challenge to strategic thinking, in a way in which Imperial Germany was not. Germany was seen as yet another Continental power bidding for hegemony, to be countered in the traditional way, by organizing a European coalition to defeat her, without heavy British army commitments. The



U.S. challenge was also new, but met, uniquely, by simply assuming that she would be an ally.

As the new service, the RAF, founded in 1917, had an interest in acquiring an intellectual justification for its independence. Like the USAF, it embraced the doctrine of victory through strategic bombing, expounded by the Italian Douhet. However, although the RAF High Command was certainly arguing Douhet's theory of air power, and may--or may not, the question is still debated--have read some of his writings, the RAF never referred specifically to them. Within the British strategic and political culture, this was wise. The RAF was already advancing a new strategic theory to justify its existence, which was therefore suspect enough. To add that these ideas were supported by a Continental writer, and an Italian at that, would have been to invite rejection. Instead, the RAF spoke of the Trenchard Doctrine, named after its first commander. Again, like the USAF, the RAF concentrated on its strategic bombing force, even though its technical capabilities were insufficient to meet the doctrinal demands in it, neglecting tactical air operations. Both thus shared a failure of strategic thinking, but the RAF was thinking. More typical of British strategic culture was the development of an extremely sophisticated air defense system, including the first radar, without any doctrinal justification and in opposition to the prevalent RAF doctrine.

Up until World War II, the continuity of British strategic thinking, style, and culture, was thus as remarkable as the absence of its articulation. There was really very little tradition of strategic writing, either within the services, or amongst the very small circle of civilians

interested in defense issues. It is difficult, in retrospect, to realize the extent to which defense issues were--and perhaps still are--regarded in Britain as the esoteric preoccupation of a very small group of professionals, mostly senior military officers and civil servants. Outside of this group, academics were--again, perhaps still are--expected to devote themselves to historical work, whilst journalists mostly operated at a very low level of expertise. To a large extent, the idea of British defense intellectuals has always been an inherent contradiction: this species does not flourish in the British strategic climate. Complicating the picture, however, is the fact that military writers, intellectual generals, and admirals, do flourish, it is just that they write on almost everything except current strategic issues: if they do, they tend to engage in advocacy rather than analysis. Currently, General Sir John Hackett exemplifies this tradition, with his The Third World War: August 1985, a contribution to the long line of novels of future wars. Similarly, British politicians have, as a rule, neither written on, nor specialized in, defense issues, on a continuing basis, notwithstanding the great exception, Sir Winston Churchill. Incidentally, his record as a strategist is so poor as to discourage emulation.

The absence of British strategic thinking in the post-war period should therefore be seen as the continuation of a long-established tradition. Ironically, the British upgrading of their deterrent, discussed earlier, represents an untypically successful series of British defense analyses and decisions, albeit conducted in a typically oblique manner.

Otherwise, poor analysis has helped produce poor policy since World War II.

#### British Strategic Thinking Since 1945

This is a much broader and more diffuse topic, since it includes thinking on specifically British problems, on NATO problems and on U.S. strategic policies affecting the U.S. The question is what, in 1981, the British have done to alter their tradition of not thinking too much about strategy, at least not openly? The answer is less than might be thought at first glance. This sounds heretical. Yet, consider the British contributions. In terms of major thinkers, Marshal of the RAF Sir John Slessor enunciated his theory of The Great Deterrent, a theory questioned by the scientist P.M.S. Blackett, who functioned as an intellectual gadfly, and by Rear-Admiral Sir Anthony Buzzard. Blackett, Buzzard, Slessor, Alastair Buchan (then defense correspondent of The Observer), Michael Howard, and Dennis Healey (then an opposition Labor Party MP) combined to provide the impetus for founding the Institute for Strategic Studies (ISS) in 1957 to improve the quality of strategic thinking in the U.K. A less widely acknowledged drive behind the ISS was the U.S. desire, especially in the Kennedy-McNamara era, to ensure that U.S. strategic ideas--and the resultant policies--were understood and, hopefully, accepted in the U.K. and in Western Europe. The ISS (later the International Institute--IISS) has thus functioned more as a clearing house for strategic ideas, and as a means of telling West Europeans what the U.S. thinks and--especially lately--vice versa, than as a center of significant major research projects or original ideas. (Skeptical readers should check their lists

of ISS/IISS publications.) Typically, its first Director, Alastair Buchan, had a high reputation as a contributor to the Alliance strategic debate, but as an educator, commentator and critic rather than as an original thinker or policy advocate, and his success in raising the level of the purely British strategic debate was limited in terms of the end product. Similarly, Professor Michael Howard certainly played a role in the reorganization of the British Ministry of Defense (MOD) in the 1970s but, like Buchan, was noted as an educator and military historian rather than as an original strategic thinker. In fact, it could be argued that the only really original British contribution to the strategic literature since the ISS was founded has been Hedley Bull's The Control of the Arms Race (1961), a brilliant summation of the then new arms control thinking being undertaken in the U.K. and U.S.--and Bull is an Australian! There have been British contributions to the strategic debates in the Alliance and in the U.S. But they have yet to produce individual works (except for Slessor and Bull) or schools of thought comparable in importance to those of the major American or French individuals or schools. (All of the above also begs the definitional question of how to classify British strategists resident in the U.S.: Anglo-American? Their access to information alone certainly sets them apart from British strategists outside government whilst their freedom to write for public consumption sets them apart from those inside government.)

The problem in terms of strategic thinking as it is understood in the U.S. is that, relative to the past experience, the British have come a long way. Unfortunately, relative to the development of strategic thought,

the British still have a long way to go. This may be too harsh a judgment. It is certainly not an argument for confusing the quality of strategic thought with its quantity. Nor is it meant as an endorsement of claims for the unqualified success of American strategic thinking, either in terms of analysis or of policy recommendations. But it is even more difficult to be too positive about British strategic analysis, or policies outside the nuclear area, when looking at the period from 1945 to 1980.

Specifically, the record is notably defective outside and inside Europe, except for the initial support for NATO's foundation. The Anglo-American strategist, Laurence Martin, accurately summarized post-war British defense policy as The Long Recessional. At no point in the retreat from Empire, beginning with the granting of independence to India in 1947, and ending with the withdrawal from the Gulf in the 1970s, did British strategic thinkers or planners raise the obvious question of whether British resources could match British commitments. There was no real debate on whether Britain could, or should, remain a power "East of Suez" until about 1963 and even then it was unwelcome to the British defense and foreign policy establishment, still dedicated to the idea of Britain as a world power. This is explicable on historical grounds, but the failure to coordinate defense and foreign policy is not.

On the other hand, the preoccupation with the imperial legacy and the consequent prevalence of imperial modes of thought, may explain the British failure to define their NATO strategy adequately, either individually or collectively. Britain's contribution to NATO was, after all, regarded as a poor relation in British defense policy until Britain became

unmistakably a purely European power in the 1970s. There were also some significant British contributions to NATO's move away from its almost total reliance on an early, and massive, resort to high yield, high collateral damage, tactical nuclear weapons. In particular, Dennis Healey, as Labor Minister of Defense (1964-70) did much to insist that NATO both adapt the U.S. strategy of flexible response and, much more importantly, try to understand what this doctrine meant in operational terms through the Nuclear Planning Group (NPG). Nonetheless, it remains true, in 1981, that it is impossible to say how long the British government, or its armed forces, expect the period of conventional defense against a major Soviet attack to last before either U.S., U.S.-NATO, or British--or French--TNW have to be used. It can be inferred that a conventional pause of, at most, 7-10 days is anticipated to be followed by a large-scale "symbolic" first-use. But discussion of this issue outside government circles is not welcome, partly because of traditional secrecy and partly for practical motives. The central objective of British strategy is to make sure the U.S. comes in on Britain's side in time to save the U.K. if war occurs in Europe. In the British view, noted above, open argument or disagreement with the U.S.--as practiced by the French--is counterproductive. Instead, the British will agree in principle with the U.S., even if they think the U.S. is completely wrong, and then, if necessary, implement the policy in such a way as to force its reversal. Britain almost certainly has a clearly defined NATO strategy for herself, and one which she wishes to see NATO-Europe and the U.S. follow--probably a short conventional pause, followed by large-scale U.K., U.S. and NATO TNF use on

the battlefi d, and for interdiction to defeat the Soviet and Pact forces. But the British will never say what this is--not even to themselves!

These peculiarities of British strategic thinking and policy are not only the result of an intellectual heritage of a British strategic style that abhors theorizing. There is also the heritage of a closed government system. The British remain unable to break the resultant vicious circle: those inside the system believe that only insiders have the necessary information and experience needed to advise policy-makers, but will not share this information because it will dilute their power. Outsiders are therefore debarred, by definition, from offering serious advice, and so come to believe that they cannot do so. In self-defense they also argue that they should not do so, and, as academics like Bull put it, they should remain in their ivory tower.

A major influence reinforcing this system has been the growth of the permanent (career) civil service, especially at the senior levels. Although much admired abroad, particularly in the U.S., the British civil service clearly suffers from its resemblance to a powerful monastic order of the Middle Ages, dedicated to neither God, nor Mammon, but to the acquisition and retention of political power. Novices are recruited young to the Service, formal training is largely absent, and promotion is for the best generalists. The power of the civil service is immense, precisely because there are no competing centers of experience linked to political power. Ministers have no expert assistance, and Parliamentary Committees virtually none. The Press is constrained by an effective Official Act. Unfortunately, while the British civil service is brilliant, hard-working,

literate, incorrupt and free of political bias, this reliance on the pragmatic-generalist has produced an appalling inability to analyze underlying problems, to address these, or to engage in effective planning. This has been particularly evident in economic, as well as strategic, policy. The British view of experts, especially technical experts, as second-class citizens in the world of defense policy, also explains the otherwise curious failure to translate their wartime expertise in Operational Research (Systems Analysis) into strategic analysis.

There seems little reason to expect significant changes in this pattern of British strategic thinking by inference. A greater attention to NATO issues is likely as these are now central to British political and military interests, but this is more likely to be reflected in British policy, as has already happened, than in any public debate. Such a conservative assessment is appropriate for a conservative strategic culture, which faithfully reflects an extremely conservative political culture and society.



## APPENDIX D

### THE CHINESE CULTURAL STYLE OF WARFARE

Edward S. Boylan

No nation has as vast a recorded history of armed conflict as China. The "Tso-chuan" or "Tradition of Tso," written somewhere between the late fourth and early second century B.C., is an account of Chinese political history, which most definitely includes military conflicts, of the period from roughly 700-400 B.C. Thus, we have a recorded span of over 2,500 years where Chinese forces have engaged in battle.

The purpose of this paper is to provide some insight into what form of Chinese "style" of warfare may be discerned over the span of the centuries. Before beginning this analysis some caveats must be stated. The "style" peculiar to some particular culture will not always manifest itself when the country in question engages in war. What we are concerned with are perspectives, outlooks, ways of formulating strategies, methods of attack, etc., which occurred often in the national history and should, presumably, occur again if the nation were to go to war in the future.

However, all such perspectives, outlooks, etc., must be affected by the exigencies of the particular conflict at hand. One cannot expect these cultural peculiarities always to occur regardless of the nature of the conflict.

Thus, a Maoist preference to "lure the enemy in deep" might make sense in planning the initial massive Chinese attack on U.N. forces near the Yalu. In continuing the offensive past the 38th parallel in an attempt to conquer all of South Korea, however, this was not a very useful dictum.

Also, one should not expect the various cultural idiosyncracies to be unique only to one culture. If a nation has a tendency to stress the

offensive, one should not believe that all other nations will be less offensive-minded. What one expects to be unique is the total collection of qualities. If all nations possess all these traits, then obviously there is nothing very unique about them.

In dealing with a country the size of China (or the United States, Soviet Union, etc.), one must also be very hesitant in speaking of a "national" style. There is simply too large a mixture of possible past historical experiences. A Sherman or a Patton will fight a different type of war from an Eisenhower. Chiang-Kai-Chek's forces were obviously as Chinese as Mao's, yet the former lost and the latter won. For obvious reasons, the focus in this paper will be on the Communist Chinese style of warfare.

That ancient maxims can come down through the centuries to affect modern day policies can be seen most strikingly by considering three general principles derived from ancient literature which appear to greatly influence current Chinese foreign policy. They are: (1) yuan-chiao-ching-kung; to cooperate with the far country and to strike at the near country; (2) i-i-chih-i; using a barbarian to check another barbarian; and (3) pi-shih-chi-shu; to avoid strength and to attack weakness.

The relevance of the first two principles to current Sino-Soviet and Sino-American relationships should be self-evident. The third theme, as will be discussed below, is reflected in much of Mao's military strategy.

As one might expect from a nation having such a long history of military conflict, there is no dearth of classical Chinese military commentaries. There can be little doubt that the primary classical Chinese source of

strategic wisdom is a volume known as "Sun Tzu," who is actually the author of the book in question, called The Art of War.<sup>1</sup>

Just who was Sun Tzu, precisely when the book was written, etc., are matters of some controversy. Wherever the truth lies in these controversies, the book is ancient by any standard and its wisdom is clear from any reading of the text.

Indeed, although the book was written thousands of years ago, some of Sun Tzu's comments read as if they were of modern origin. For example, the following quotation will certainly sound familiar to those who fought in Korea. "Now when masses of troops are employed, certainly they are widely separated, and ears are not able to hear acutely nor eyes to see clearly. Therefore officers and men are ordered to advance or retreat by observing the flags and banners and to move or stop by signals of bells and drums."<sup>2</sup>

In similar fashion, it could have been Mao, not Sun Tzu, who penned these words of wisdom: "If I am able to determine the enemy's dispositions while at the same time I conceal my own then I can concentrate and he must divide. And if I concentrate while he divides, I can use my entire strength to attack a fraction of his. There, I will be numerically superior. There, if I am able to use many to strike few at the selected point, those I deal with will be in dire straits."<sup>3</sup>

That Mao paid careful heed to Sun Tzu's words, even to the point of quoting Sun Tzu directly, seems rather clear. Thus, among the many sayings of Chairman Mao we find: "We must not belittle the saying in the book of Sun Wu Tzu, the great military expert of ancient China, 'Know

your enemy and know yourself and you can fight a hundred battles without disaster."<sup>4</sup>

The following sequence of quotations from Sun Tzu, with corresponding quotations from Mao in parenthesis, gives some idea of Sun Tzu's influence on Mao's thinking.

Now there are five circumstances in which victory may be predicted.

1. He who knows when he can fight and when he cannot will be victorious.

(Fight when you can win. Move away when you cannot win.)

2. He who understands how to use both large and small forces will be victorious.

(It signifies progress and development in a commander who is initially capable of commanding only a small formation, if he becomes capable of commanding a big one.)

3. He whose ranks are united in purpose will be victorious.

(All of us share the same hardships, from the commander of the army to the cook.)

4. He who is prudent and lies in wait for an enemy who is not will be victorious.

(The object of retreat is to induce the enemy to make mistakes or to detect his mistakes.)

5. He whose generals are able and not interfered with by the sovereign will be victorious.<sup>5</sup>

(In a word, it means guerrilla warfare waged independently and with initiative within the framework of an independent strategy.)

Perhaps the most famous "explanation" by Mao of his style of warfare is a 16-character set of slogans, which rhyme in Chinese, which he coined at Ching Kang Shan:

The enemy advances; we retire.

The enemy camps; we harass.

The enemy tires; we attack.

The enemy retreats; we pursue.<sup>6</sup>

In The Art of War we have the following advice (collected from several sections, not all placed together).

1. When he concentrates, prepare against him; where he is strong avoid him.
  - 1.a. If numerically weaker, be capable of withdrawing.
  - 1.b. If in all respects unequal [i.e., your forces are inferior], be capable of eluding him...
2. Keep him [the enemy] under a strain and wear him down.
  - 2.a. When the enemy is at ease, be able to weary him; when well fed to starve him; when at rest to make him move.
  - 2.b. Appear at places to which he must hasten; move swiftly where he does not expect you.
3. One defends when his strength is inadequate; he attacks when it is abundant.

The only place where Mao and Sun Tzu would appear to differ relates to the last of Mao's four dictums. Not very much is said by Sun Tzu about how to deal with retreating forces. What little he says, however, is rather defensive in nature. Thus we have:

1. When he pretends to flee, do not pursue.
2. Do not thwart an enemy returning homeward.
3. To a surrounded enemy you must leave a way of escape.
4. Do not press an enemy at bay.

The logic behind the last three remarks is not benevolence. Rather the perspective is that given no choice other than death the opponent

will fight to the death. Given an alternative, the opponent will flee toward "safety," allowing victory to be gained at a small cost of life.

Being thousands of years away from the China of that time, we are in no position to be sure Sun Tzu is incorrect. He is speaking about the psychological makeup of the Chinese warrior of his day.<sup>7</sup>

This brings us to a very important aspect of both current and historical (i.e., Sun Tzu) Chinese military strategy: an emphasis on psychological warfare, on attempting to gain victory by strategem rather than by brute force alone.

Indeed, one of the most striking features of Sun Tzu's work is the lack of emphasis on overt physical violence to obtain the desired political ends. Although Sun Tzu has an extended discussion of the tactics of maneuver, marches, etc., actual fighting is not considered the epitome of skill. The mark of a superior strategist is his ability to attack the mind of his opponent, using psychological kung-fu, so to speak, to obtain success. The army, if it were actually used at all, was the instrument delivering the final blow to an opponent previously made vulnerable.

Thus, we have the following sequence of comments from Sun Tzu:

1. Generally in war the best policy is to take a state intact; to ruin it is inferior to this.
2. To capture the enemy's army is better than to destroy it.
3. To subdue the enemy without fighting is the acme of skill.
4. Thus, what is of supreme importance in war is to attack the enemy's strategy.
5. Next best is to disrupt his alliances.
6. The next best is to attack his army.

7. The worst policy is to attack cities. Attack cities only when there is no alternative.
8. Thus, those skilled in war subdue the enemy's army without battle. They capture his cities without assaulting them and overthrow his state without protracted operations.

The difference between Western warfare and that advocated by Sun Tzu was perhaps best described by C.W.C. Oman: "For centuries war was studied as an art in the East, while in the West it remained largely a matter of hard fighting."<sup>9</sup>

A comparison of two stories of ancient military battles, one in the West, the other in the East, may also help to illustrate the difference in approach. In the Strategma of Frontinus the following story is told.

lphicrates, when campaigning in Thrace, having on one occasion pitched his camp on low ground, discovered through scouts that the neighboring hill was held by the enemy, and that from it came down a single road which might be utilized to overwhelm him and his men. Accordingly he left a few men in camp at night, and commanded them to light a number of fires. Then leading forth his troops and ranging them along the sides of the road just mentioned, he suffered the barbarians to pass by. When in this way the disadvantage of terrain from which he himself had suffered had been turned against them, with part of his army he overwhelmed their rear, while with the other part he captured their camp.<sup>10</sup>

Sun Tzu relates a similar tale regarding a battle (in 341 B.C.) between the forces of the Ch'i State, led by Sun Pin and T'ien Chi and the Wei State, led by P'ang Chuan.

Sun Pin spoke to T'ien Chi and said: "The troops of the three Chin States are usually fierce, brave and contemptuous of Ch'i. They consider Ch'i to be cowardly. The skillful fighter will take this circumstance into account and plan his strategy to profit from it. According to 'The Art of War,' if the army presses on to gain advantage from a distance of one hundred li, the commander of the van will be captured; if from fifty li, only half the troops will reach the critical point." He then ordered that when the Ch'i army crossed the borders and entered Wei, they should on the first night build one hundred

thousand kitchen fires, on the following night fifty thousand, and on the third thirty thousand.

P'ang Chuan marched for three days and, greatly pleased, said: "I have always been certain that the troops of Ch'i were cowards. They have been in my country for only three days and more than half their officers and soldiers have deserted!"

He thereupon left behind his heavy infantry and wagons, and with lightly armed shock troops only followed by forced marches. Sun Pin had calculated that P'ang Chuan would arrive at Ma Ling in the evening. The Ma Ling road is narrow, and on both sides there are many gorges and defiles where troops may be placed in ambush.

Sun Pin cut the bark off a great tree, and on the trunk wrote: "P'ang Chuan dies under this tree." He then placed the most skillful archers of the army with ten thousand crossbows in ambush on both sides of the road, and ordered that when in the evening they saw fire, all were to shoot at it. P'ang Chuan actually arrived that night and when he saw writing on a tree, ignited a torch to read what was written there. Before he had finished the ten thousand crossbowmen of Ch'i discharged their arrows simultaneously, and the army of Wei was thrown into the utmost confusion. P'ang Chuan, at his wit's end, realized that his troops would be defeated. Whereupon he cut his throat, and as he expired, said: "So I have contributed to the fame of that wretch!" Sun Pin, taking advantage of this victory, completely destroyed the Wei army and captured the heir apparent, Shen, after which he returned to Ch'i.

Although both stories involve the use of campfires to deceive the opponent, on a deeper level they are far different. In the first case the campfires were used in essence as a form of cover in order to conceal the true location of Iphicrates' troops. In the second case the campfires were used over a period of days in order to confuse the opponent and induce him to act rashly and leave most of his forces behind. In essence, P'ang Chuan was manipulated, through a strategem, to act against his best interests.

The best discussion of the role of strategem in Chinese strategy is given by Boorman.<sup>12</sup> His analysis is of particular interest because a considerable amount of time is spent contrasting the Chinese use of



strategem with Western ideas on the same subject. Although it is impossible to do full justice to the article in the comparatively limited space available here, the following excerpt should provide some idea of Boorman's approach.

Current strategic thinking in the United States places comparatively little stress on strategem or deception practices. Where it is most highly developed is significantly in the area of electronic warfare, which is minimally concerned with the long-run influencing of the behavior and intentions of an enemy operational commander. By contrast, American thinking is extremely sophisticated in other areas of military policy, such as logistics planning (well symbolized by the mammoth Annual Department of Defense Bibliography of Logistics Studies). American military planning tends to be overwhelmingly based on evaluation of enemy capabilities--of his physical and logistical situation.

...Capabilities orientation of American strategy is...well symbolized by the following quotation from a basic doctrinal source. "The U.S. Defense Establishment must be fully capable of attaining national objectives regardless of any course of action the enemy can employ. (Emphasis in original.) ("Fundamental Army Beliefs," United States Army and National Security ROTCM 145-45, 1962).... In modern warfare, the argument runs, the risks...and the stakes are too high for operational planning to rest on the assumption that enemy intentions can be effectively manipulated.

...The role of strategem in classical Chinese strategic theory is, however, unambiguous...[Successful] deception is held to be a mark of high strategic merit. Moreover,...,exchanges of strategem and counterstrategem are expected to be the normal currency of conflict interaction.

...This concept of strategy through strategem goes beyond attempts merely to outwit the opponent by conveying false intentions; it involves the more sophisticated task of directly manipulating his perception of reality, and in particular his perception of the values to him of various outcomes of the conflict. The aim, most particularly, is to manipulate his concept of his own objectives, and his own "face" to induce him--for whatever reason--to assign great psychological utility to courses of action favorable to one's own interest. "If we lose the field," said Shakespeare's Lartius, "we cannot keep the town." If one can cause the enemy's force to be inextricably bound up with holding the town first and foremost, one may thereby induce him to neglect the field. Control of the countryside will lead to encirclement of the city, and the city and the

countryside will both fall victim to the enemy's own evaluation of his priorities.<sup>13</sup>

Boorman uses the example of the zero-sum two person game in two interesting ways. The focus of the two-person game is the payoff matrix, which tells what will be the "payoff" if contestant "A" chooses action "a," while contestant "B" chooses action "b." In the abstract world of game theory there is only one payoff matrix known to both players. In the real world of conflict each side has its own "payoff matrix," not necessarily known by the opponent. One of the major goals of a strategem is to change the opponents's view of the payoff matrix so that he will take actions beneficial (in terms of a different payoff matrix) to one's own cause. Strategem now becomes the manipulation of the opponent's concept of reality in such a way that his utility function [i.e., payoff matrix], and a fortiori his course of action, shifts in a direction favorable to one's own best interests. An example would be inducing the opponent to commit himself to defense of a particular strong point far out of proportion to its intrinsic worth.

The game theory outlook on strategy in many ways can be viewed as a Western outlook, and thus the contrast between the strategem and the game theory outlook provides some sense of the difference between American and Chinese outlooks on strategy.

Game theory furnishes a...concentrated encapsulization of some Western strategic values. Being formal, the theory takes beliefs that are often [vague]...and pushes them to their formal asymptotes, thereby crystallizing their exact implications... Two-person zero-sum game theory is deliberately psychologically naïve; the only information determining strategy formation is assumed to lie in the payoff matrix--in capabilities, that is, rather than in intentions. The mini-max concept of strategy is an attempt to factor our enemy intentions by assuming that

one wants as much as one can get regardless of what those intentions may be....This dominant emphasis is quite consistent with the evolution of Western strategy in recent centuries, emphasizing as it has more and more the economic and organizational bases of military power and national-security policy. In fact, a work such as Makers of Modern Strategy, gives the impression that there is a negative relation between predilection to use strategem and the psychology engendered by a modern military establishment and technology. One elementary fact is that a mini-max strategy is a rich man's strategy; the implicit assumption is that the conservative, mini-max value is worth living for. Explicitly not taken into account is the possibility that a player may prefer a nonmaximum gamble, preferring death to continued existence should he lose...[There] is the possibility that one player may be able to psychoanalyze the other, but not vice-versa. In this case where symmetry is violated, the maximum concept no longer makes sense.<sup>14</sup> (Emphases in original.)

One should note that Boorman's criticism of the mini-max approach is open to dispute. The whole point behind the mini-max approach is that if player A follows mini-max while player B does not, then the payoff to A is larger than if B does follow mini-max as well. However, what does seem to be a particularly American approach is what might be called the operations research-war game approach to strategy, where most, if not indeed all, the important variables are quantifiable.

Boorman is also correct in labeling the mini-max approach a rich man's way of waging war. Only a rich man can afford the "slow but sure" mini-max approach where one can "guarantee" some known return. An attempt to manipulate the enemy might succeed sooner but is not certain. A poor man can only win through a "trick" of some form.

Another, somewhat analogous, distinction can also be made. The German military historian Hans Delbruck has suggested that there are two kinds of military strategy: the strategy of annihilation which seeks to overthrow the enemy's military power, and the strategy of attrition, usually employed

by a strategist whose means are not great enough to directly overthrow his enemy, and thus resorts to an indirect approach.<sup>15</sup>

For most of its battles American strategists were strategists of annihilation, while for most of its battles the Chinese were strategists of attrition. In Korea the United States began with a strategy of annihilation when only the North Koreans were in the field. Once the Chinese joined the fray the Americans quickly reconciled themselves to a strategy of attrition while (curiously) the Chinese, at least initially, hoped to totally reconquer all of Korea.

In Vietnam, interestingly enough, the U.S. also adopted a strategy of attrition, while the North Vietnamese employed the strategy of annihilation. (Clearly we are better strategists of annihilation than attrition.)

There are many possible reasons why the Chinese adopted the indirect approach in many of their conflicts. In some cases, no doubt, it was because they were "poor" militarily, and the indirect approach is ideally suited for a poor-man's war. But this cannot be the only reason, for the Chinese were not always militarily deficient.

One very important cause was that much--but obviously not all--of Chinese military history is of the civil war variety. Often the issue was one of fealty to, or independence from, the central regime. Once fealty had been pledged the people could continue to live in peace. Moreover, to destroy the land and people would be counterproductive to the interests of the state.

For this reason there is much more emphasis on co-opting--rather than destroying--the enemy. This is reflected in Sun Tzu's remark (quoted

above) that those skilled in war capture the enemy's cities without assaulting them and overthrow the enemy state without protracted operations. He also suggests: "Treat the captives well, and care for them,...so that they may be used by us." This is called "winning a battle and becoming stronger."<sup>16</sup>

Mao followed Sun Tzu's advice very carefully during the Nationalist-Communist Civil War, and the Communists were very successful in convincing captured Nationalist troops to switch sides. (Had Hitler acted in similar fashion during his early successes in the invasion of the Soviet Union, the course of history might well have changed.)

A preference for co-opting, rather than annihilating, one's opponents can be seen not only in Sun Tzu's writings but also in actual political-military events in ancient China. Writing about ancient Chinese military history, Fairbanks lists the following, "specific habits of mind and action" in China.

- (1) A tendency to disesteem heroism and violence, not to glorify it, and to prefer nonviolent means in overcoming others or achieving one's aims; military force has therefore been kept in a perspective in which it is only one of several means to subdue an enemy, and not an end in itself. Military command should not be left to the military, since they by training lack this broad perspective.
- (2) A tradition of land warfare that prefers defense to offense and stresses the exhausting of an attacker or the pacification of a rebel as less costly than their extermination. Chinese naval power in the modern sense of the term remained abortive. For example, instead of controlling the sea, the Ming and Ch'ing both applied to maritime enemies the concept developed against invaders or rebels by land--ch'ien pi ch'ing-yeh, "strengthen the walls and clear the fields," concentrate the manpower, food and other resources of the countryside within the city walls and so starve out the leaders...

- (3) A tie-up between militarism and bureaucracy, rather than between militarism and commercial expansion, least of all overseas...The Chinese state decried commerce as an aim of high policy. State revenues came from land and salt taxes, plus corvee labor. Personal profit came from bureaucratic manipulation of perquisites. This extended to the military as bureaucrats. The danger of malfeasance on their part lay--in conducting punitive campaigns in such a way that a large portion of the campaign funds might be pocketed by the general in charge.<sup>17</sup>

In early Chinese history the political bureaucracy was able to keep the military well under control. Indeed,

the military failed to develop into a separate profession all the way up to the top level of power,...[the] military high command was regularly given to civil officials,...dynastic founders fresh from combat...regularly assumed the guise of sage rulers, and...their successors seldom took to the field in person... The military arm, not being the preferred means of government, had to remain at the disposal of civilian generalists... Extermination of hard-core rebels or enemies would require military means, yet it might at any moment become preferable to pursue their pacification [appeasement] by means of intimidation, bribery, enticement or diplomatic manipulation, all of which were non-military means. In the classic case,... Tseng Kuo-fen, in subduing the Niem rebels in the 1860s, would proscribe the rebel leaders while pardoning<sup>18</sup> their followers and recruiting them into his own forces...

One manner in which the military was kept under control was by establishing, in essence, a divided command. Rather than risk one general becoming too powerful, responsibility over forces was split between two or three generals. This, of course, reduced military efficiency, but that was not considered a very great price to pay.

In keeping with this trend of civilianizing the military, there were no large standing armies kept on alert during times of peace. Rather, the troops were dismissed or sent to do civilian tasks. In some cases agricultural-military communities were established near border areas, capable (it was hoped) of repelling invaders during times of war, and

surviving economically during peacetime. (The Israelis, interestingly, have established something similar in their controversial "settlements.") Thus, involvement of the PLA in non-military activities, especially during Cultural Revolution times, is not a remarkable change from previous practice.

This attitude of keeping the army under firm control, needless to say, has been the source of much tension between political sovereign and commanding general down through the years. Sun Tzu, for example, felt compelled to explain that there were "three ways in which a ruler can bring misfortune upon his army."

- (1) When ignorant that the army should not advance, to order an advance or ignorant that it should not retire, to order a retirement. This is described as "hobbling the army."
- (2) When ignorant of military affairs, to participate in their administration. This causes the officers to be perplexed.
- (3) When ignorant of command problems to share in the exercise of responsibilities. This engenders doubts in the minds of the officers.<sup>19</sup>

One presumes that Sun Tzu was speaking not from a theoretical standpoint but on the basis of past historical experiences.

Tension between those who wish to promote a modern, professional standing army and those who place their priorities in other areas has been a recurrent event in Chinese history. Indeed, it would seem that we are seeing yet another such clash of interests in the wake of the death of Mao.

As of now it would appear as if those in favor of professionalism hold the upper hand. However, if past history is any guide, such ascendancy may be short-lived. During most of Chinese history those opposing a modern, professional standing army have usually been in command.

During the 1860s, for example, the Tong-zhi Restoration occurred. During that time a small group of enlightened officials with military backgrounds argued for military modernization along Western lines.

The restoration was motivated by defense considerations, since China's territorial integrity was threatened from both her land borders and coasts. These officials also argued that China should seek modernization in other spheres such as agriculture, industry and technology--areas which are marked for change by China's current leaders. Within a few years, however, the restoration burnt itself out; lethargy returned....The effort ended ignominiously in September 1894 when the Chinese fleet was soundly beaten by Japan, damaging China's naval power to such an extent that it has taken nearly eight decades for it to re-emerge under the Communist admiral-generals.<sup>20</sup>

Precisely why the forces in favor of modernization have fared so poorly over the ages is beyond the scope of this paper. However, at least a partial explanation is provided by observing one important cultural trait of the Chinese in their military conflicts, a stress on the importance of man over machine.

Perhaps the most recent restatement of this theme was provided by Mao, who stated: "Weapons are an important factor in war, but not the decisive factor; it is people, not things that are decisive. The richest source of power to wage war lies in the masses of the people."<sup>21</sup> (Emphasis added.)

This is not a recent Maoist invention, nor a rationalization to compensate for a lack of nuclear weapons, missiles, etc. The emphasis on



man over machine goes back until ancient times in China. To give but one earlier historical example, during the Taiping Rebellion (in the 1850s and 1860s) an astute Western observer noted that among rebel soldiers there was often "a great demand...for swords [but] they seemed to take little interest in guns."<sup>22</sup> One historian, commenting on this, suggests that "such attitudes can be attributed in part to cultural conditioning; the argument that 'the conduct of war rests in men rather than implements' remained a persuasive one to Chinese military commanders of the time!"<sup>23</sup>

The focus on man over machine manifests itself in many ways. If, indeed, man, not machine, is the ultimate source of power, then it is the opponent's men, rather than machines, which must be attacked. Thus, there is very little emphasis on attacking economic targets. There is little desire to destroy the enemy's economic capability to wage war. Rather, the destruction of the enemy's forces in the field (though this may well be done by strategem, political pressure, etc.) which is the primary objective.<sup>24</sup>

Such a perspective obviously affects the types of weapons purchased, and the type of war fought. The relative lack of interest, historically, of the Chinese in naval warfare may be at least partially explained by this perception. (One should note that naval battles were fought and Chinese naval power was significant during some periods of China's history, but these stand for the most part as exceptions which prove the rule.)

This cultural tendency away from adopting the newest in military technology (which stands in remarkable contrast to the American fascination with whatever is the latest in mechanized slaughter) is reinforced (and

may in part even be explained) by the fact that the Chinese army is essentially a peasant army.

For peasants to be able to use modern weaponry considerable training would be required, and even then the effort could well not be totally successful. Since, historically, the emphasis was not on large standing armies, but on armies raised depending upon the exigencies of the moment, there was thus little time available to provide such training.

Another trait which relates to the peasant army focus is the under-emphasis on logistics. Given the rather simple needs of the peasants, large amounts of supplies are not needed. The best quartermaster is the enemy. (And, indeed, the Communist Chinese captured immense amounts of weapons from the Nationalist foes.) This too is no recent development. In ancient times the troops also were expected to find their own supplies as they conquered territory. "Those adept in waging war do not require a second levy of conscripts nor more than one provisioning. [In other words, they require provisioning when they depart and they return--between such times they live off the enemy.] They carry equipment from the homeland; they rely for provisions on the enemy. Thus the army is plentifully provided with food," says Sun Tzu.<sup>25</sup> (Emphasis added.)

Although not strictly a matter of Chinese cultural traits, it may be appropriate at this point to mention an interesting discussion by Boorman<sup>26</sup> as to how Communist Chinese military strategy bears far more than a superficial resemblance to the ancient Chinese game of Wei-ch'i--somewhat more well-known in the West by its Japanese name, go. (For simplicity, it will be referred to as go from this point on.)

The go board is a 19x19 square grid, with stones, black or white, placed on the various points of intersection. The objective of go is to surround stones of the opposite color, thereby "killing" them, as well as to control territory, i.e., areas within which a stone of the opposite color cannot be placed without facing the prospect of being killed.

Go is a rather subtle game, at least as complex as chess, if not indeed more so, despite the fact that there is only one type of piece, compared to the six different types of pieces in chess. The basic theme of go is one of encirclement and counterencirclement. Who is the attacker and who is the defender is often unclear. Go is a rather long game. In general, victory is only relative. The "victor" may control more territory than the "loser," but defeat is not total.

Because of its complexity, a player may be defeated tactically on one part of the board, yet recover by strategically outmaneuvering his opponent. Unlike chess, where a single mistake can be fatal, local success can lead to strategic debacle. Whereas Western military strategy often points toward the single decisive engagement, Maoist doctrine points to a more protracted conflict where small areas of control, widely separated geographically, can be developed and eventually combined to lead to strategic success.

Go is also what might be termed a discontinuous type of game. Black and white pieces are not grouped into two relatively continuous lines, each seeking to overcome the other, but resemble more a half-completed jigsaw puzzle, where actions taken in one area can have long-term implications in areas far afield.

Mao has often mentioned the game in explaining his own strategic approach.

Thus there are two forms of encirclement by the enemy forces and two forms of encirclement by our own--rather like a game of wei-chi. Campaigns and battles fought by the two sides resemble the capturing of each other's pieces, and the establishment of strongholds by the enemy and of guerrilla base areas by us resembles moves to dominate spaces on the board. It is in the matter of "dominating the spaces" that "the great strategic role of the guerrilla base areas in the rear of the enemy is revealed."<sup>27</sup>

Perhaps of greatest interest is Boorman's analysis of Mao's ten principles of operations, formulated in 1947, and how they relate to principles and themes in go. The following is a condensed list of principles together with Boorman's commentary.

1. Attack dispersed, isolated enemy first; attack concentrated, strong enemy forces later.<sup>28</sup>

[This] constitutes one of two possible answers to a recurring problem in military history:...which target [should] a military commander strike first, the enemy's outlying supplementary forces or his concentrated central position...In both [Mao's] ...strategy...and wei-chi the decision to attack weakness before strength derives from the...methodical character of both conflict theories. If strong groups are attacked before weak ones...the weak forces acting in conjunction with the strong may be able to contribute significantly to a successful over-all defense. If weak forces are neutralized, first, however, they are eliminated as potential reinforcements and diversionary elements, and the strong, erstwhile unapproachable group can be attacked with a maximum chance of success. The logic of this military principle underlies all Chinese Communist conflict theory and has remained pivotal in Communist international strategy since national victory in 1949-50.<sup>29</sup> (Emphasis in original.)

3. Make wiping out the enemy's effective strength our main objective; do not make holding or seizing a city or place our main objective. Holding or seizing a city or place is the outcome of wiping out the enemy's effective strength, and often a city or a place can be held or seized for good only after it has changed hands several times.

In wei-chi...no intersection is of itself worth more than any other, and hence control of no specific intersection--city or place--is a valid objective... In wei-chi...capture of hostile stores and groups generally implies seizure as territory of the intersections upon which the stores and groups stands; and...such action is frequently the only method of significantly expanding zones of territorial control. Regarding the final clause...note the following statement in an exposition of wei-chi--"in some cases territories will change hands several times during the game and points may be occupied successively by white, by black, and again by white..."<sup>30</sup>

4. In every battle, concentrate an absolutely superior force (two, three, four, and sometimes even five or six times the enemy's strength), encircle the enemy forces completely, strive to wipe them out thoroughly and do not let any escape from the net....Strive to avoid battles of attrition in which we lose more than we gain or only break even. In this way, although inferior as a whole (in...numbers), we shall be absolutely superior in every part and every specific campaign... As time goes on, we shall become superior as a whole and eventually wipe out all the enemy.

This is possibly the key dictum...and certainly the one to which Western analysts are most often attracted as occupying a pivotal position in communist Chinese strategy... Unfortunately most analysts fail to focus on "encirclement" rather than upon "concentration" or "annihilation"... From a wei-chi viewpoint encirclement is the essence of the complexities of principle 4. Seen in this light, concentration is merely the necessary precondition for encirclement; annihilation, its logical culmination. In wei-chi, as in war, encirclement demands superiority... and the margins of superiority postulated in 4 are on the order of their wei-chi counterparts.<sup>31</sup>

6. Give full play to our style of fighting--courage in battle, no fear of sacrifice, no fear of fatigue, and continuous fighting (that is, fighting successive battles in a short time without rest).
10. ...Periods of rest...should not in general be very long, and the enemy should so far as possible be permitted no breathing space.

[One] parallel [to wei-chi] is important enough to be mentioned here: the concept of the continuous pressing of the advantage. This principle, it should be noted, runs counter to that famous law of Clausewitz which postulates the diminishing force of the attack.... In good wei-chi...capture of one group makes vulnerable a second, whose killing exposes a third, and

so on in a cascade effect familiar the servo-mechanism engineer.... [The] Chinese Communists during the civil war both sought to exploit and realized results from this principle of constant assault in strategic, operational and tactical maneuvers. In particular,...surrender by a given Nationalist commander or his army, combined with constant physical and psychological pressure, resulted in additional capitulation of a series of other Nationalist forces."<sup>32</sup>

One should also note that Mao, at least, if not perhaps his successors, adopted such an outlook not only in a tactical sense, when fighting a war with the Japanese or the Nationalists, but also when surveying the world scene. "If the game of wei-chi is extended to include the whole world, there is yet a third form of encirclement as between us and the enemy, namely the interrelation between the front of aggression and the front of peace. The enemy encircles China, the Soviet Union, France and Czechoslovakia with his front of aggression, while we counterencircle Germany, Japan and Italy with our front of peace."<sup>33</sup> (Emphasis added.) Today, of course, the Soviet Union, not the United States, is the prime encircler, but otherwise one suspects the outlook is roughly the same.

An interesting article by Francis J. Romance<sup>34</sup> suggests that the recent expansion of the Chinese Navy is primarily a response to the perceived threat of a Soviet thrust to encircle China. One should note, however, that Swanson<sup>35</sup> also discusses the expansion of the Chinese Navy but does not see this as an important motivating factor for the expansion.

It is interesting to see how many of the themes which have been discussed above were present during the Nationalist-Communist civil war. First, it was a civil war, just as most of the ancient wars were civil wars. Second, the emphasis here too was not specifically on brute military

conquest. Strong points were avoided, at least initially, and the Nationalists were attacked psychologically at least as much as militarily.

Being, at least initially, the inferior force, the Communists used strategem to redress their disadvantage. Every effort was made to present multiple threats so that the Nationalist forces would have to be divided, thus allowing the Communists to obtain tactical superiority in battles of their choosing. The importance of encirclement, both tactical and strategic, has just been discussed.

Another basic theme which cannot be overemphasized, especially with regard to the Communist Chinese, and which is clearly evident in the civil war, is the emphasis on the infantry. The PLA then, and to a lesser but still major degree now, is an army of Chinese peasants. Just as Sun Tzu, knowing the Chinese of his day, suggested they should be given an escape hatch rather than be forced to fight to the death, Mao knew the martial qualities of the Chinese peasant of his day--capable of bravery and stoicism in the face of pain and death provided he could be sufficiently motivated. Injunctions to fight continuously sound nice, but are worthless if the army is unwilling or unable to do so. Thus, both Mao and Clausewitz may be correct--each had a different soldier in mind.

Let us now examine what light the analysis given to this point can shed on present and future Chinese military strategy. In particular, of what relevance is this historical analysis to Chinese nuclear strategy.

As is well-known, the official Chinese policy is one of "no-first-use." This is not merely a tactical move made because its potential nuclear

opponents have far more nuclear weapons. They truly do not have a good first use of nuclear weapons.

As was noted above, there is not much stress in Chinese strategy on attacks on economic targets, for which nuclear weapons have considerable utility. The Chinese stress is on attacking the enemy's forces in being, and ICBMs are not of great value in this role. Smaller tactical nuclear weapons, of course, would have utility, but China does not have such weapons.

Moreover, the Chinese style is one more of movement, attack by stealth, of hitting weak points in the hope of undermining strong points, and it is not clear how much value even tactical nuclear weapons would have in such a form of warfare.

Another reason why nuclear weapons may lack appeal to the Chinese is that if nuclear weapons were to be used by or against China it would most likely be on Chinese soil. The Chinese basically have a defensive orientation. From the Chinese perspective the main task is to defend against outside threats, not to acquire more and more territory.

In an article written in 1958, before China had even acquired nuclear weapons, then Commander of the Air Force Lin Ya-lou made the following revealing statement which clearly shows a Chinese perception of nuclear weapons as being useful for defensive purposes. "China's...scientists will certainly be able to make...atomic bombs in the not distant future.... By that time...we can use atomic weapons and guided missiles...in coping with our enemies who dare to invade our country."<sup>36</sup> (Emphasis added.)



(Lin Ya-lou, of course, had the United States in mind when discussing anonymous "enemies." Now it is the Soviet Union who is the most likely aggressor against China.) That the statement was made in the Liberation Army Newspaper, and thus meant primarily for domestic consumption, would seem to indicate this is an honest expression of the Chinese view and not a public-relations statement meant to disguise China's true rationale for deploying nuclear weapons.

Despite its image during the 1950s and 1960s as an aggressive power seeking to promote worldwide revolution, most of China's conflicts have been defensive in nature. China has had to fend off external attacks and destroy internal rebellions far more than it has attempted to expand the area under its control. (Given China's huge geographic area, this is not exactly surprising.)

There are, to be sure, times such as Korea when Chinese troops entered a fray far from home. For the most part, however, even here such actions were considered by the Chinese to be defensive. China had indicated well before it intervened in Korea that it considered American troops near the Yalu an unacceptable threat to its security.

The recent skirmish into Vietnam, and earlier into India, were not taken with a goal of capturing more territory, but rather to "teach" each country a lesson. Such actions seem part of the Chinese method of deterring undesirable actions by other nations. According to Whiting, who has made a major study of the Chinese style of deterrence, one major tenet is "the best deterrence is belligerence. To be credible, move military force; words do not suffice."<sup>37</sup>

Moreover, as the reader by now might come to expect, similar punitive excursions are not unknown in earlier Chinese history. Fairbanks, for example, reminds us that: "Ch'ing invasions of South or Southeast Asia by land (Nepal, 1793; North Burma, 1766-70; and North Vietnam, 1788-89) were not attempts at conquest but merely over-the-border chastisements to reestablish the proper order in tributary capitals."<sup>38</sup>

Unless one assumes a sharp expansion in India's nuclear weapons, the only potential nuclear antagonist for China is the Soviet Union. Given the disparity between the Chinese and Soviet nuclear arsenals, prudence alone, if not the other factors discussed above, would dictate that China not use nuclear weapons unless and until the Soviets do so first.

Nuclear weapons do have utility, however, for prestige and deterrence. Having a vision of itself as a "Great Power," China cannot remain without nuclear weapons when "lesser" powers such as England and France possess them. Given its disputes with the Soviet Union, it must deploy some limited number of nuclear weapons so that it cannot be totally vulnerable to "nuclear blackmail."

That the Chinese will deploy nuclear weapons in large numbers, however, is far from certain. Fairbanks has made what would appear to be an apt analogy.

...Nuclear power i.e., weapons now has the symbolic and potentially strategic value that the nascent Chinese navy once had. After all, the gunboat appeared on the China coast in 1840 as the decisive weapon of its day. Japan later responded to the Western impact by building a battle fleet, and China began to do the same. Missiles are today's rough equivalent, at

least in prestige and military theorizing. The real question here is whether modern China, having failed to develop naval power when it counted, will now succeed in creating the diversified armaments of a first-class power of the late twentieth century, nuclear missiles and all.<sup>39</sup>

Perhaps the clearest explanation of the lack of utility of nuclear weapons in Chinese eyes was given by Ross Terrill, who interviewed a highly placed Chinese policy-maker referred to merely as Mr. Y.

Do nuclear weapons increase a country's bargaining power? "Only if the other country fears them," he Mr. Y replied. "If the other country does not fear them, then nuclear weapons are not a deterrence, much less a decisive force in international struggles." Mr. Y was making an assumption that seemed basic to his view of the United States--that the United States almost certainly would not use nuclear weapons. Here was one more sign of its flagging will. He is less confident that the Russians lack the will to use nuclear weapons.

But Mr. Y did not merely mean that nuclear weapons are without power because they are unlikely to be used. He meant that they are literally without power to change the world! For a country cannot be "captured"--occupied and ruled--by the use of nuclear weapons; only physically laid waste. And the importance of nuclear weapons short of their actual use--their deterrent effect--exists only if the potential victim fears them.<sup>40</sup> (Emphasis in original.)

If the Chinese were to "go nuclear," one would expect an expansion not of ICBMs or nuclear submarines, but of smaller tactical nuclear missiles having great war-fighting value. Interestingly enough, a recent essay in the Liberation Army Daily argues for development of Chinese tactical nuclear weapons.<sup>41</sup>

In such a case the Chinese might drop their no-first-use stance and adopt what Paul Nitze has referred to as a "first-use-at-home" policy, i.e., that China would only use its nuclear weapons first if the targets were on its own soil. It would promise not to use its weapons on foreign soil as long as its antagonist would not use its weapons on Chinese soil.

In order for this posture to have some deterrent value China would have to have some ability to strike at long-range targets. Still, one would doubt that China would deploy a substantial American-style assured-destruction nuclear force.

(One should note that the American focus on "assured destruction" is another facet of the game-theoretic approach to warfare which is, as we have seen, alien to the Chinese approach.)

One final issue remains to be discussed before closing. Given the current upheaval in Chinese domestic politics, which for all practical purposes has meant at least a partial rejection of Mao's political views, is it not possible that China also will renounce Mao's military views as well, and wage war in a manner similar to any other "modern" nation?

No one can guarantee that the Chinese military will always remain true to Mao. Clearly, the current government is undertaking to modernize many aspects of Chinese society, including the military, to a far greater degree than Chairman Mao would have deemed desirable.

However, many of the traits discussed above stemmed from the time well before Mao, and are likely to remain relevant even if Mao were totally to be toppled from his pedestal. Given the vast size of the Chinese armed forces, the relative weakness of the Chinese economy, and the many other demands on China's quite limited resources, large-scale military modernization is not likely to take place over night.

Historically, there have been recurrent spasms of "modernization," but most have flared and sputtered out. Any military defeat in the wake of such a modernization is likely to be interpreted not as proof

of the need for more improvements, but rather as punishment for China straying from its traditional path.

What may be true is that the analysis given above would be far more relevant to Chinese involvement in a civil war, or a war against an invader, than a war on foreign soil. However, the most likely scenario for a substantial military conflict involving China is a Soviet invasion of China, where China would be on the defensive.

If China were to go to war again one should expect to see many of the traits discussed above appearing yet again; an emphasis on strategem over brute force, attacks on purely military as opposed to economic targets, a willingness to end the conflict once its essential political goals had been met, and a reliance on men over machinery. One hopes, of course, that neither China nor any of the other major powers will ever again engage in substantial military conflict. But just as history can teach us how a nation may fight its wars, it also teaches us how messianic is the hope that there will be an end to war.

#### REFERENCES AND FOOTNOTES

1. Sun Tzu has been translated a number of times. In this paper quotations will come from Sun Tzu, The Art of War, (trans. by Samuel B. Griffith), (Oxford: Clarendon Press, 1963). For conciseness Sun Tzu may often be referred to only by the initials S.T.
2. S.T., page 90.
3. S.T., page 98.
4. Mao Ze Dong, Selected Works, i, PLFP, 1965, page 187.
5. S.T., pages 82-83.
6. Mao Ze Dong Selected Works, i, p. 124.
7. Griffith, op. cit., has an entire introductory chapter on "Sun Tzu and Mao Tse-Tung," which discusses the impact of the former on the latter at greater length.
8. S.T., pages 77-79.
9. C.W.C. Oman, The Art of War in the Middle Ages, A.D. 378-1515, (revised and edited by John H. Beeler), (Ithaca, N.Y.: Cornell University Press, 1953).
10. Frontinus: The Strategems and the Aqueducts of Rome, (Charles Bennett, trans.), (Cambridge Mass.: Harvard University Press, 1925), pages 49-51.
11. S.T., pages 61-62. The story is part of the biography of Sun Tzu which is a preface to Sun Tzu's actual work. Sun Pin was a descendant of Sun Tzu. The story is presumed to have been brought down by Ssu-ma Ch'ien, a commentator on Sun Tzu.
12. Scott Boorman, "Deception in Chinese Strategy," in William W. Whitson,

- ed.), in The Military and Political Power of China in the 1970s,  
(New York: Praeger, 1973.)
13. Boorman, ibid.
  14. Boorman, ibid.
  15. See Gordon A. Craig, "Delbruck: The Military Historian" in E. Earle, ed., Makers of Modern Strategy: Military Thought from Machiavelli to Hitler, (Princeton, N.J.: Princeton University Press, 1974).
  16. S.T., p. 76.
  17. John K. Fairbanks, "Varieties of the Chinese Military Experience" in Frank A. Kierman, Jr. and John K. Fairbanks, eds., Chinese Ways in Warfare, (Cambridge, Mass.: Harvard University Press, 1974).
  18. Fairbanks, ibid.
  19. S.T., p. 81.
  20. L. Bruce Swanson, Jr., "China's Navy and Foreign Policy," Survival (July/August 1979).
  21. Mao Ze Dong, "Our Protracted War," Selected Works, ii, PFLP, 1965, p. 192.
  22. T.T. Meadows, The Chinese and Their Rebellions, (Dublin: Academic Press, 1972, first pub. London: 1856).
  23. Richard Smith, Mercenaries and Mandarins, (Nendeln, Liechtenstein: KTO Press 1978, distributed by Krause International, Div. of Kraus-Thomson, Org. Ltd., Millwood, N.Y.).
  24. See Li Tso-peng, "Strategically Pitting One Against Ten, Tactically Pitting Ten Against One," Peking Review, No. 16 (April 1965), p. 22, for a relatively recent restatement of a Chinese emphasis on annihilation of the enemy in the field as its basic military objective.
  25. S.T., pp. 72-73.

26. Scott Boorman, The Protracted Game, A Wei-Ch'i Interpretaton of Maoist Revolutionary Strategy, (Oxford: Oxford University Press 1969).
27. Mao Ze Dong, Problems of Guerrilla War Against Japan, (1938).
28. This is a clear restatement of the principle mentioned at the beginning of this paper to avoid strength and attack weakness.
29. Boorman, ibid., p. 150.
30. Boorman, ibid., p.151.
31. Boorman, ibid., pp. 151-152.
32. Boorman, ibid., pp. 152-153.
33. Mao Ze Dong, Six Essays on Military Affairs, PFLP, 1972.
34. Frances J. Romance, "Peking Counter-Encirclement Strategy: The Maritime Element," Orbis, Vol. 20, No. 2 (Summer 1976), pp.437-460.
35. L. Bruce Swanson, Jr., op. cit.
36. Liu Ya-lou, "Seriously Study Mao-Tse-Tung's Military Thinking," Liberation Army Newspaper, May 23, 1958.
37. Allen Whiting, The Chinese Calculus of Deterrence, (Ann Arbor, Mich.: University of Michigan Press, 1975).
38. John A. Fairbanks, "China's Foreign Policy in Historical Perspective," Foreign Affairs, Vol.47, No. 3, (April 1969), pp.449-463. .
39. John A. Fairbanks, ibid.
40. Ross Terrill, "China and the World," Atlantic, Vol. 229, No. 1 (January 1972), pp.39-62.
41. Xu Baoxi, "Research into the Initial Stage of Future War," Liberation Army Daily. The article is analyzed by Cheah Cheng Hye in an article "Bridging the Strategic Gap," Far Eastern Economic Review, April 25-May 1, 1980.



## DISTRIBUTION LIST

### DEPARTMENT OF DEFENSE

Armed Forces Staff College  
ATTN: Library

Assistant Secretary of Defense  
International Security Affairs  
ATTN: Policy Plans & NSC Affairs  
ATTN: F. Miller  
ATTN: ISA/PP

Assistant Secretary of Defense  
Program Analysis & Evaluation  
ATTN: S. Sienkiewicz  
ATTN: S. Johnson  
ATTN: Strategic Programs

Assistant to the Secretary of Defense  
Atomic Energy  
ATTN: J. Wade  
ATTN: Mil Appl, COL Kahn

Commander-in-Chief, Pacific  
ATTN: J-54  
ATTN: C3SRD

Defense Advanced Rsch Proj Agency  
ATTN: TIO

Defense Communications Agency  
ATTN: Code J300, M. Scher

Defense Intelligence Agency  
ATTN: DB-1, Rsch, Sov Wpn Div, CPT Ferrell  
ATTN: DT, J. Vorona  
ATTN: DB-4C, P. Johnson  
ATTN: DE, Estimates  
ATTN: RTS-2C, Tech Svcs & Spt  
ATTN: Library  
ATTN: DB-4C, J. Burfening  
ATTN: DIO-GPF, W. Magathan  
ATTN: DB  
ATTN: DN  
ATTN: DB-4C, E. O'Farrell  
ATTN: DT, Sci-Tech Intell

Defense Nuclear Agency  
ATTN: STNA  
ATTN: STRA  
ATTN: STSP  
ATTN: NATO  
ATTN: NAFO  
ATTN: NASD  
4 cy ATTN: TITL  
4 cy ATTN: NATA

Defense Tech Info Ctr  
12 cy ATTN: DD

Deputy Under Secretary of Defense (S&TNF)  
ATTN: T. Jones

DNA PACOM Liaison Office  
ATTN: CDR J. Bartlett

### DEPARTMENT OF DEFENSE (Continued)

Field Command Defense Nuclear Agency  
Det 1  
Lawrence Livermore Lab  
ATTN: FC-1, J. Crandley  
ATTN: FC-1

Field Command Defense Nuclear Agency  
Det 2  
Los Alamos National Lab/DST  
ATTN: MS-635, FC-2

Field Command  
Defense Nuclear Agency  
ATTN: FCPRK, LTC Wells  
2 cy ATTN: FCPR

Interservice Nuclear Weapons School  
ATTN: Doc Con

Joint Chiefs of Staff  
ATTN: J-3  
ATTN: J-5, Nuc/Chem Pol Br, J. Steckler  
ATTN: SAGA/SFD  
ATTN: SAGA/SSD  
ATTN: J-5, Nuc Div/Strat Div  
ATTN: J-5, Strategy Div, W. McClain

Joint Strat Tgt Plng Staff  
ATTN: JPPF  
ATTN: JLTW  
ATTN: JP, SIOP Dir  
ATTN: JL, Nat Strat Tgt List Dir

National Defense University  
ATTN: NWCLB-CR

Office of the Secretary of Defense  
Net Assessments  
ATTN: F. Giessler  
2 cy ATTN: LTC Andre  
2 cy ATTN: Military Assistants

US European Command  
ATTN: ECJ-3  
ATTN: ECJ-5

Under Secretary of Defense for Policy  
ATTN: Dir Strategic Policy, C. Estes  
ATTN: Dir Plng & Requirements, M. Sheridan  
ATTN: Dir Negotiations Policy, S. Buckley

Under Secretary of Defense for Rsch & Engrg  
ATTN: K. Hinman  
ATTN: Strat & Arms Control, G. Butler  
ATTN: Strat & Space Sys (OS), C. Knowles

### DEPARTMENT OF THE ARMY

Assistant Chief of Staff for Intell  
ATTN: DAMI-FIT

Deputy Chief of Staff for Rsch Dev & Acq  
ATTN: DAMA-CSM-N

DEPARTMENT OF THE ARMY (Continued)

Deputy Chief of Staff for Ops & Plns

ATTN: DAMO-SSM, Pol-Mil Div  
ATTN: Tech Advisor  
ATTN: DAMO-RQS  
5 cy ATTN: DAMO-NC, Nuc Chem Dir

Harry Diamond Labs

ATTN: 00100, Commander/Tech Dir/Div Dir  
ATTN: DELHD-NW-P, 20240  
ATTN: DELHD-DE, 30000  
ATTN: DELHD-TD, 00102, Tech Dir  
ATTN: DELHD-NP

US Army Armament Rsch Dev & Cmd

ATTN: DRDAR-LCN-E

US Army Ballistic Rsch Labs

ATTN: DRDAR-TSB-S

US Army Chem School

ATTN: ATZN-CM-CC

US Army Comd & General Staff College

ATTN: DTAC  
3 cy ATTN: ATZZL-CAD-LN  
3 cy ATTN: Combined Arms Rsch Library

US Army Concepts Analysis Agency

ATTN: CSSA-ADL

US Army Europe and Seventh Army

ATTN: AEAGD-MM, DCSLOG, Mun & Msl Div  
ATTN: AEAGC-O-W  
3 cy ATTN: DCSI-AEAGB-PDN

US Army Forces Cmd

ATTN: AF-OPTS

US Army Foreign Science & Tech Ctr

ATTN: DRXST-SD-1

US Army Infantry Ctr & School

ATTN: ATSH-CTD

US Army Intel Threat Analysis Det

ATTN: IAX-ADT

US Army Intel Ctr & School

ATTN: ATSI-CD-CS

US Army Materiel Dev & Readiness Cmd

ATTN: DRCDE-D

US Army Materiel Sys Analysis Actvty

ATTN: X5, W3JCAA

US Army Mobility Equip R&D Cmd

ATTN: DRDME-RT, K. Oscar  
ATTN: DRDME-WC, Tech Library, Vault

US Army Nuclear & Chemical Agency

ATTN: Library  
3 cy ATTN: MONA-OPS  
3 cy ATTN: MONA-OPS, J. Ratway

US Army TRADOC Sys Analysis Actvty

ATTN: ATAA-TAC

DEPARTMENT OF THE ARMY (Continued)

US Army Training and Doctrine Comd

ATTN: ATCD-FA

US Army War College

ATTN: Library  
ATTN: AWCAC, COL Braden, Dept of Tactics

USA Military Academy

ATTN: Doc Library

USA Missile Cmd

ATTN: DRSMI-YDR  
ATTN: DRSMI-RH

USAFACFS

ATTN: ATZR-MG

V Corps

ATTN: Commander  
ATTN: G-2  
ATTN: G-3

VII Corps

ATTN: G-3  
ATTN: Commander  
ATTN: G-2

DEPARTMENT OF THE NAVY

Anti-Submarine Warfare Sys Proj Ofc

ATTN: PM-4

Charleston Naval Shipyard

ATTN: Commanding Officer

David Taylor Naval Ship R&D Ctr

ATTN: Code L42-3

Joint Cruise Missiles Project Ofc

ATTN: JCMG-707

Marine Corps

ATTN: DCS, (P&O), Requirements Div  
ATTN: Code OT00-31  
ATTN: DCS, (P&O), Strategic Plns Div

Marine Corps Dev & Education Cmd

ATTN: Commander

Naval Air Dev Ctr

ATTN: Code 702, B. McHugh

Naval Air Systems Cmd

ATTN: Code 350D, H. Benefiel

Naval Intelligence Command Headquarters

ATTN: NIC-01

Naval Intell Support Ctr

ATTN: NISC-40  
ATTN: NISC-30

Headquarters

Naval Material Cmd  
ATTN: MAT-90  
ATTN: MAT-046

DEPARTMENT OF THE NAVY (Continued)

Naval Ocean Systems Ctr  
ATTN: J. Hooper  
ATTN: R. Hammond

Naval Postgraduate School  
ATTN: Code 56PR  
ATTN: Code 1424, Library

Naval Rsch Lab  
ATTN: Code 2627

Naval Sea Systems Cmd  
ATTN: SEA-406  
ATTN: SEA-06H2

Naval Submarine School  
ATTN: Commanding Officer

Naval Surface Force, Atlantic  
ATTN: Commander

Naval Surface Force, Pacific  
ATTN: Commander

Naval Surface Weapons Ctr  
ATTN: Code U41  
ATTN: Code R44, H. Glaz  
ATTN: Code F30  
ATTN: Code F31  
ATTN: Code R14

Naval Surface Weapons Ctr  
ATTN: Code DG-502, E. Freiling

Naval War College  
ATTN: Code E-11, Tech Service

Naval Weapons Ctr  
ATTN: Code 32607, L. Thompson

Naval Weapons Evaluation Facility  
ATTN: G. Binns  
ATTN: Tech Dir  
ATTN: H. Struve

Navy Field Operational Intell Ofc  
ATTN: Commanding Officer

Naval Underwater Systems Ctr  
ATTN: K. Walsh

Nuclear Weapons Tng Group, Pacific  
ATTN: Nuclear Warfare Dept

Nuclear Weapons Tng Group, Atlantic  
ATTN: Nuclear Warfare Dept

Office of Naval Rsch  
ATTN: Code 200  
ATTN: Code 431

Office of the Chief of Naval Operations  
ATTN: OP-00K

Sixth Fleet  
ATTN: Commander

DEPARTMENT OF THE NAVY (Continued)

Office of the Deputy Chief of Naval Ops  
ATTN: OP 05  
ATTN: NOP 654, Strat Eval & Anal Br  
ATTN: NOP 098, Ofc Res-Dev-Test & Eval  
ATTN: OP 987  
ATTN: OP 985F  
ATTN: NOP 951, ASW Div  
ATTN: NOP 955, AAW Div  
ATTN: OP 021  
ATTN: OP 022  
ATTN: OP 06  
ATTN: OP 09  
ATTN: NOP 950, Force Level Plns Div  
ATTN: NOP 953, Tac Readiness Div  
ATTN: NOP 954, Strike & Amphib Warf Div  
ATTN: NOP 00X, Navy Lg Rg Plng Gp  
ATTN: NOP 32, Surf Warf Div  
ATTN: NOP 35, Surf Cbt Sys Div  
ATTN: NOP 50, Avn Plns & Rqmts Dev  
ATTN: OP 963  
ATTN: OP 02  
ATTN: NOP 981, U/SEA/ST, War/Nuc En Dev  
ATTN: OP 03  
3 cy ATTN: NOP 96, N Prog Ofc-Sys Anal Div

Surface Warfare Development Group  
ATTN: Commander

Surface Warfare Officers School Cmd  
ATTN: Combat Systems Dept

US Atlantic Fleet  
ATTN: Code N-3  
ATTN: Code J-5  
ATTN: Code N-22

US Naval Air Forces  
Pacific Fleet  
ATTN: Commander

US Naval Air Forces  
Atlantic Fleet  
ATTN: Commander

US Naval Air Forces, Europe  
ATTN: N54

US Navy Second Fleet  
ATTN: Commander  
4 cy ATTN: ACOS Tac D&E Div

US Navy Seventh Fleet  
ATTN: Commander

US Navy Third Fleet  
ATTN: Commander

US Pacific Fleet  
ATTN: CINC  
ATTN: Code N2

US Submarine Force, Atlantic Fleet  
ATTN: Commander

US Submarine Force, Pacific Fleet  
ATTN: Commander

DEPARTMENT OF THE AIR FORCE

Air Force  
ATTN: INE, Estimates

Air Force Test & Evaluation Ctr  
ATTN: J. Hoge  
ATTN: QA

Air Force Weapons Lab  
ATTN: NTES, R. Guice  
ATTN: NSSB  
ATTN: SUL  
ATTN: AD, J. Ormond  
ATTN: NTYC, J. Burgio

Air University Library  
ATTN: AUL-LSE

Assistant Chief of Staff  
Studies & Analyses  
ATTN: AF/SAGF  
ATTN: AF/SAG, H. Zwemer  
2 cy ATTN: AF/SAMI, Tech Info Div

Ballistic Missiles Ofc  
ATTN: ENMP, D. Van Gari  
ATTN: SYE, R. Landers  
4 cy ATTN: ENSN

Deputy Chief of Staff  
Rsch, Dev, & Acq  
ATTN: AFRDQR  
ATTN: AFRDQI  
4 cy ATTN: AFRD-M, Spec Asst for MX

Deputy Chief of Staff  
Operations and Plans  
ATTN: AFXOOR, Opns, Opnl Spt

Deputy Chief of Staff  
Operations and Plans  
ATTN: AFXOXM, Plns, Frc Dev Mun Plns  
ATTN: Dir of Plns, AFXOX

Foreign Technology Div  
ATTN: TQ  
ATTN: SD

Pacific Air Forces  
ATTN: XO  
ATTN: IN

Strategic Air Cmd  
ATTN: SAC/IN

Tactical Air Command  
ATTN: TAC/DO  
ATTN: TAC/DR  
ATTN: TAC/INO  
ATTN: TAC/SMO-G  
ATTN: TAC/XP  
ATTN: TAC/XPB

US Air Force Academy Library  
ATTN: Library

US Air Force Scientific Advisory Brd  
ATTN: AF/NB

DEPARTMENT OF THE AIR FORCE (Continued)

US Air Forces in Europe  
ATTN: USAFE/DO&I  
ATTN: USAFE/DOA, Opns Anal  
ATTN: USAFE/DOJ, Cbt Opns  
ATTN: USAFE/IN  
ATTN: USAFE/XPX, Plns

US Readiness Cmd  
ATTN: J-3

Unites States Central Command  
ATTN: CCJE-03, Daigneault

USAF School of Aerospace Medicine  
ATTN: Radiation Sciences Div

OTHER GOVERNMENT AGENCIES

Central Intelligence Agency  
ATTN: OSWR/NED  
ATTN: OSR/SE/F

Federal Emergency Management Agency  
ATTN: Ofc of Rsch/NP, D. Bensen  
ATTN: Asst Assoc Dir for Rsch, J. Kerr

US Arms Control & Disarmament Agcy  
ATTN: A. Lieberman  
ATTN: C. Thorn

US Department of State  
ATTN: PM

DEPARTMENT OF ENERGY CONTRACTORS

University of California  
Lawrence Livermore National Lab  
ATTN: L-8, F. Barrish  
ATTN: L-21, M. Gustavson  
ATTN: P. Colella  
ATTN: L-35, J. Immele  
ATTN: L-9, R. Barker

Los Alamos National Lab  
ATTN: M/S634, T. Dowler  
ATTN: R. Stolpe  
ATTN: R. Sandoval

Sandia National Lab  
ATTN: 5612, J. Keizur  
ATTN: 5613, R. Stratton  
ATTN: Tech Library, 3141

Sandia National Labs, Livermore  
ATTN: 8324, J. Struve

DEPARTMENT OF DEFENSE CONTRACTORS

Academy for Interscience Methodology  
ATTN: N. Painter

Atmospheric Science Assoc  
ATTN: H. Norment

66th MI Group  
ATTN: K. Moran

DEPARTMENT OF DEFENSE CONTRACTORS (Continued)

BDM Corp

ATTN: R. Welander  
ATTN: J. Braddock  
ATTN: R. Buchanan  
ATTN: C. Wasaff  
ATTN: J. Bode

Boeing Co

ATTN: W. Cooley  
ATTN: S. Sandberg  
ATTN: L. Harding

General Research Corp

ATTN: A. Berry

Institute for Defense Analyses

ATTN: D. Moody  
ATTN: Classified Library

JAYCOR

ATTN: E. Almquist

Kaman Sciences Corp

ATTN: W. Long  
ATTN: F. Shelton  
ATTN: V. Cox

Kaman Tempo

ATTN: C. Anderson  
ATTN: K. Schwartz  
ATTN: DASIAC

Martin Marietta Corp

ATTN: F. Marion  
ATTN: M. Yeager

McDonnell Douglas Corp

ATTN: W. Gee  
ATTN: Tech Library Services

McLean Rsch Ctr, Inc

ATTN: W. Schilling

Mission Rsch Corp

ATTN: Tech Library

Natl Institute for Public Policy

ATTN: C. Gray

ORI, Inc

ATTN: R. Wiles  
ATTN: B. Buc

Pacific-Sierra Rsch Corp

ATTN: H. Brode, Chairman SAGE  
ATTN: G. Lang

Pacific-Sierra Rsch Corp

ATTN: D. Gormley  
ATTN: G. Moe

DEPARTMENT OF DEFENSE CONTRACTORS (Continued)

R & D Associates

ATTN: J. Thompson  
ATTN: A. Polk

R & D Associates

ATTN: F. Field  
ATTN: P. Haas  
ATTN: J. King

Rand Corp

ATTN: Library  
ATTN: T. Parker  
ATTN: J. Digby

Raytheon Co

ATTN: W. Britton

University of Rochester

ATTN: NAVWAG

Santa Fe Corp

ATTN: D. Paolucci

Science Applications, Inc

ATTN: J. Martin

Science Applications, Inc

ATTN: J. Goldstein

Science Applications, Inc

ATTN: D. Kaul

SRI International

ATTN: J. Naar  
ATTN: G. Abrahamson  
ATTN: W. Jaye

System Planning Corp

ATTN: S. Shrier  
ATTN: J. Jones  
ATTN: G. Parks

Systems Rsch & Applications Corp

ATTN: S. Greenstein

Tetra Tech, Inc

ATTN: F. Bothwell

TRW, Inc

ATTN: R. Anspach

Hudson Institute, Inc

ATTN: H. Kahn  
4 cy ATTN: L. Gray  
4 cy ATTN: E. Boylan  
4 cy ATTN: R. Ranger  
4 cy ATTN: R. Strode  
4 cy ATTN: D. Yost  
15 cy ATTN: Doc Con