THE COMMITMENT-NONCOMMITMENT DILEMMA OF INDEPENDENT DETERRENCE: FRANCE

by

PETER FRANCIS DRURY, JR.

B.A., Providence College, 1954

9984

A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF ARTS

Department of Political Science

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1971

Approved by:

Major Professor

LD
2668
T4
1971
D75
copy2

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENT iii

LIST OF TABLES iv

INTRODUCTION 1

FOREIGN POLICY 11

- Western European Union
- The North Atlantic Treaty
- European Economic Community
- Bilateral Agreements

WEAPON PROCUREMENT 48

- Cooperative Defense and Defense-Related Projects
- Weapon Purchases
- Foreign Ownership of Defense and Defense-Related Industries

MILITARY CAPABILITY AND MILITARY REPUTATION 62

- France versus U.S.S.R.: Strategic Nuclear Military Capabilities
- Military Reputation
- Military and Crisis Behavior of France

MILITARY POTENTIAL 82

- GNP, Defense Expenditures, and GNP Growth Rate
- Science and Technology

SUMMARY AND CONCLUSIONS 98

FOOTNOTES . . . . . .

BIBLIOGRAPHY . . . . . .

ACKNOWLEDGEMENT

I am grateful to Professor T. Alden Williams, my major professor, for his inspiration, encouragement, and professional guidance not only for this project, but for my entire program of study at Kansas State University. His personal interest and dedication have contributed immeasurably to the quality of my education.

I am also grateful to Professor H. Pierre Secher and the instructional staff of the Political Science Department for their cooperative response to every request for assistance.

LIST OF TABLES

Table		Page
1.	INTERNATIONAL DEFENSE PROCUREMENT PROJECTS (FRANCE)	52
2.	ESTIMATES OF COMPARATIVE OFFENSIVE STRATEGIC STRENGTHS, EARLY 1966	67
3.	ESTIMATES OF COMPARATIVE DEFENSIVE STRATEGIC STRENGTHS, EARLY 1966	68
4.	FRENCH AND SOVIET GNP, DEFENSE EXPENDITURES, WORLD RANKINGS, 1960-1963	87
5.	FRENCH AND SOVIET GNP, DEFENSE EXPENDITURES, GNP PER CAPITA, WORLD RANKINGS, 1964-1966	88
6.	COMPARATIVE GROWTH RATE OF GNP	91
7.	FRENCH AND SOVIET ESTIMATED GROSS EXPENDITURES ON RESEARCH AND DEVELOPMENT, 1962	93
8.	FRENCH AND SOVIET ESTIMATED MANPOWER ENGAGED IN RESEARCH AND DEVELOPMENT, 1962	93
9.	FRENCH AND SOVIET GRADUATE STUDENTS, 1962	95

INTRODUCTION

President Charles de Gaulle made a series of statements in the early 1960's building up to his withdrawal of French military forces from NATO, and expressing his determination to acquire a nuclear force. On 31 May 1960, he said France must be "the sole mistress of her resources and her territory; in short,...her destiny...must remain in her own hands."[1] On 9 October 1960, he said France, without her own nuclear force, could "no longer be a European power, a sovereign nation, but simply a satellite." She must have, he continued, "the nuclear means of dissuasion which today are the principal, if not the only, protection for people who wish to remain free."[2] On 11 April 1961, he said, it is "intolerable for a great state to leave its destiny up to the decisions and actions of another state, however friendly it may be."[3] And on 10 and 11 March 1966, he officially notified the other Alliance members that he was withdrawing his forces.[4]

In acquiring a nuclear arsenal, De Gaulle sought, first, a means to deter Union of Soviet Socialist Republics (U.S.S.R.) aggression by threatening minimal, but yet unacceptable, retaliation against Russia, and second, a device to enhance French diplomatic political influence. The political worth of nuclear weapons was not lost on De Gaulle. His thoughts on the matter were undoubtedly

expressed by one of his aides, Jacques Baumel, general secretary of the Gaullist party, who said the French nuclear force "is highly effective in diplomacy."[5] However, a nation that pursues independence at the sacrifice of dependent alliance protection, as De Gaulle seemingly did, encounters a problem in its diplomatic bargaining.

The form of bargaining power De Gaulle employed in international relations theoretically includes two features: (1) threats, and (2) a credible commitment to enforce those threats. When a nation directly threatens another nation's populace, what it wants most from its military force is "the influence that resides in latent force. It wants the bargaining power that comes from its capacity to hurt."[6] This relation of civilian violence to warfare can be analyzed from the perspective that threats of pain and damage made prior to the outbreak of hostilities are coupled to military force. If, as Thomas C. Schelling says, deterrence is concerned with the exploitation of potential force, the threatened nation will measure the threat against its adversary's military power and credibility.[7]

How can a nation make its threat credible? One method is by fervent announcements of intent like the French Third Republic "threats" against German aggression in Czechoslovakia. However, such theoretical commitment is frequently qualified and rarely effective. The only certain method is total commitment, which entails the following:

forfeiting all options not to carry out its threats, surrendering freedom of choice voluntarily but irreversibly, and placing itself in a position rendering retreat impossible -- a position that only an overt act by its adversary can alter and, if such an act is executed, inflicts mutual damage. Moreover, the commitment must not only be firm, but must also be communicated persuasively. A threat is effective only if the threatener demonstrates to the threatened he has the incentive to enforce his threats. In bargaining, diplomatic or otherwise, the purpose of a commitment is to maneuver the other party into the position of having the last chance to avoid mutual consequences. Any escape routes the threatener retains, however, vitiate his commitment and, if perceptible to his opponent, impair the credibility of the threat.[8] However, a cardinal rule of diplomacy is to proceed slowly in affairs of greatest importance, and to preserve options and alternatives including alliances until they become very costly or absolutely untenable. Hence, the threat and commitment strategy creates an acute dilemma for a nation employing it in an age of nuclear weapons: should it forfeit all options for the sake of credible commitment, or should it retain some options at the cost of deterrent credibility and concede non-commitment?[9] De Gaulle, in seeking independence of action, credibility of commitment, and political influence by withdrawing his forces from NATO, was faced with the commitment/non-commitment dilemma.

This paper examines the thesis that the Gaullist independent nuclear deterrent, while real enough in terms of narrow force capability, was vitiated by a rhetorical commitment rather than total forfeiture of dependency options.

The study focuses on the 1958-1965 period and examines France's military behavior and those facets of economic and technological behavior bearing directly on military behavior. For the purposes of this study, the European Economic Community is considered the most likely economic organization to effect military behavior and her most important economic tie. France's military behavior and those economic and technological aspects affecting that behavior, although not encompassing all aspects of her behavior, provide the strongest indicators of her commitment or non-commitment to policy.

Nuclear deterrence is of course a modern phenomenon. Its "proofs" are tenuous and only a generation old for the super powers and far less valid for the French in the 1960's. The search for theoretical relationships between nuclear, non-nuclear, and pre-nuclear international politics preoccupies the field.[10] International relations, as a field of inquiry, concerns the division of power among nation-states and the interaction between and among power centers, with power being broadly defined and including all facets of influence and control man exercises over

his fellow man. The central focus of international relations involves the interaction of government, with the most important interactions conducted in the diplomatic, military, and economic areas.[11] President de Gaulle viewed states in a constant struggle to maximize their power. "Yes," he ended his 31 May 1960 address, "international life, like life in general, is a battle."[12] Scholars have linked diplomacy and military power closely. Schelling contends a nation's military power can be used, and usually is, to influence other governments or its people by the pain and destruction it can inflict upon them. Using military force as bargaining power, is part of diplomacy.[13] He emphatically states "the power to hurt is bargaining power. To exploit it is diplomacy -- vicious diplomacy, but diplomacy."[14] Albert Legault, in his study for the Canadian Institute of International Affairs, concludes that if strategy is the exploitation of "a state's military resources to reach objectives fixed by its policies,...it is evident that military strength has as its objective,...an end essentially political."[15] Klaus Knorr posits the very function of military power "is to advance or defend vital national interests" on an international scale.[16] Therefore, military power is a pillar for diplomatic behavior and the examination of France's military power is an examination of one of the aspects which sustains her political influence.

During the eventual eight years from 1958 to 1965,

the Fifth Republic replaced the Fourth Republic, General de Gaulle became President, and the Algerian war ended. France shucked off a costly expenditure in the Algerian war and chose to produce nuclear weapons and modernize her armed forces consistent with De Gaulle's simplicity of objectives and homogeneity of policy. This period immediately preceded the withdrawal of French forces from NATO control and best illustrates the considerations on which he based his decision and the extent of France's real commitment or non-commitment to her stated policy.

Two assumptions regarding De Gaulle's decision to pull his forces out of NATO must be made. First, one must assume that his motives were genuinely aimed at freedom of action to defend the territorial integrity of France without interference from other NATO members, particularly the United States. Included in this aim was the freedom to deter U.S.S.R. aggression by threatening nuclear retaliation directly against the Russian people, thus removing the encumberances of the "counterforce" strategy advocated by U.S. Secretary of Defense Robert S. McNamara.[17] French Defense Minister Pierre Messmer countered the McNamara concept with the following: "The only objectives that have a deterrent value are <u>demographic</u>; to aim for missile sites would be an absurdity." [Original emphasis.][18] The freedom of action De Gaulle sought could be attained legally only by removing France from the defense alliance.

Members of such alliances sacrifice a degree of political flexibility because their security depends on other nations and they are bound to consult with fellow members prior to initiating any action. Article 4 of the North Atlantic Treaty enjoins the parties to consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened.[19]

The second assumption regarding the removal of his military forces from NATO is that President de Gaulle based his decision largely on external environmental factors. He was not decisively influenced by domestic considerations. This logical assumption derives from France's internal political climate at the time, the prevailing political culture of France, and the adverse effect his decision had on France's labor force. Politically, President de Gaulle had been reelected to a seven-year term by 55.1 percent of the votes just two months prior to his decision.[20] Culturally, studies have empirically demonstrated the people of western nations regard foreign and military policy as belonging to the government's domain.[21] Economically, France accompanied her removal of forces with a demand for all NATO headquarters and foreign units to leave France, causing thousands of French workers to lose their jobs. If this unemployment was to have any effect on De Gaulle, it would have militated against, rather than for, his withdrawal policy.

The commitment to enforce her threats can be measured

by examining her political, military, and economic treaties and agreements with other European and Atlantic countries, her public pronouncements, and her cooperation with other countries in developing or procuring defense and defense-related equipment. The following would be indicators of retaining her options and thus favor an assessment of non-commitment: she retained such political, military, or economic ties with Western countries that caused her to sacrifice independence of action; her public pronouncements indicated a lack of confidence in her deterrent force, an allegiance to the Western countries, or the possibility of joining or rejoining a defense pact opposed to the U.S.S.R.; or she developed or procured defense or defense-related equipment from Western countries. Conversely, if she was not tied to the west or engaged in these activities, this would indicate she had forfeited her options and hence favor an assessment of commitment to policy. To assist in measuring her activities, answers to the following questions will be sought. Was France allied to the West politically? Was she bound to a cooperative defense? Was her economy inextricably tied to other countries? Were her public pronouncements consistent with her independent stance? Was she developing and procuring defense and defense-related equipment from other countries and, if so, for what reason? The indices to evaluate commitment or non-commitment will be established in appropriate chapters.

France's commitment depends also on the three elements constituting military power: actual military capabilities, military reputation, and capacity to increase military capabilities, or military potential.[22] The examination of her military power is part of the overall study aimed at determining France's commitment to her policy of nuclear deterrence. Clearly, if France threatens the Soviet Union with nuclear retaliation, she must have the capability to deliver her nuclear weapons against Russian targets, which, as Messmer indicated, are Russian cities. Possessing the capability to strike an enemy and a willingness to do so, however, are separate facets of military power. Therefore, an examination of France's military reputation is conducted to weigh her determination to fulfill her threats. France's military potential is studied to assess her capability to increase her military capability, and her behavior in utilizing this capacity. If France was truly committed to her policy, her expenditure patterns should have demonstrated an increasing flow of funds to the military sector.

France is only one of several European countries with the capacity to develop nuclear weapons. Great Britain preceded France into the nuclear club and Italy and the Federal Republic of Germany (FRG) both have a recognized ability to develop a nuclear force. Should the United States withdraw a substantial number of its military force from Europe, and should France attempt to establish hegemony of the

region, Great Britain, Italy or the FRG may elect to follow the independent course taken by France. Therefore, an analysis of France's attempt to gain political influence through military power may be helpful in predicting a generalized behavior pattern of other nuclear military and potential nuclear military nations.

CHAPTER I

FOREIGN POLICY

French foreign policy during the period 1958-1965 derived its direction from President de Gaulle. The much-maligned Fourth Republic, however, concluded agreements with France's allies establishing institutions that provided the basis for her political, economic, and military recovery from the devastation of WW II. The Brussels Pact, the Western European Union, the North Atlantic Alliance, the Council of Europe, the Organization of European Economic Cooperation, the European Coal and Steel Community, the European Economic Community, and the European Atomic Community were all founded during the Fourth Republic. Although De Gaulle opposed most of these units at their inception, he nevertheless used them to his advantage.

This chapter examines France's foreign policy regarding her European and Atlantic allies in order to determine her commitment to independently enforce her deterrent policy. The Western European Union, North Atlantic Treaty, European Economic Community, her bilateral agreements, and her public pronouncements are analyzed to determine if France forfeited her options in the political, military, and economic areas. Public pronouncements are analyzed for supportive evidence rather than evaluated in isolation.

POLITICAL, MILITARY, AND ECONOMIC AREAS

The index to determine France's political commitment to her deterrent policy in the political area is that non-membership in a political organization indicates commitment, whereas membership in such an organization in which decisions are reached by majority vote, with all members required to abide by those decisions, indicates non-commitment. The rationale for this index is that non-membership in a political body permits independence and denotes no reliance on other countries for assistance, thus indicating commitment to autonomous strategies. Conversely, membership in a political body in which binding decisions are reached by majority vote, is tantamount to surrendering independence and denotes a reliance on other countries for assistance, thus indicating non-commitment. There is one exception. If the majority vote rule does not apply to areas considered important, and individual members retain the option of identifying those areas they consider important, membership in the organization is not an indication of non-commitment. The rationale for this exception is that a procedure requiring unanimity on important questions while permitting members the liberty of identifying what is important amounts to giving each member a veto and negates majority rule. The index for political commitment would not apply to the U.S. and U.S.S.R. Their participation in political bodies is recognized as

that of lending leadership and enhancing hegemony in their respective spheres of influence.

The index to determine France's military commitment to her deterrent policy in the military area is that non-membership in a military alliance, and absence of international relationships in which military strategy is coordinated, indicate commitment, whereas membership in a military alliance requiring other members to provide military assistance in the event of armed aggression, or maintaining military liaison with a military alliance to plan coordinated operations, indicates non-commitment. The rationale for this index is that non-membership in a military alliance and no relationship in which military strategy is coordinated permits freedom of action and denotes no reliance on other countries for assistance in defending vital interests, thus indicating commitment. Conversely, membership in an alliance requiring other members to provide military assistance or maintenance of military liaison with an alliance to plan coordinated military operations denotes a reliance on other countries for security, thus indicating non-commitment. The exclusion of the U.S. and U.S.S.R. in the political realm applies to the military. The index, rationale, exception, and exclusion of the U.S. and U.S.S.R. applied to the political area, apply also to the economic area.

WESTERN EUROPEAN UNION

France is a charter member of the Western European Union (WEU) and De Gaulle, in enhancing France's sovereignty by withdrawing French forces from NATO's military structure, did not rupture the political and military provisions of the WEU. Therefore, it is necessary to analyze those provisions to demonstrate that the Gaullist independent deterrent was a rhetorical commitment rather than a total forfeiture of dependency options.

The Third German Reich left a gaping hole in Europe's center, a hole into which the Soviet Army poured. Victorious Russians occupied Berlin and Vienna, and were within 75 miles of the Rhine River. The U.S.S.R., taking advantage of the situation, embarked on a policy of expansion. Conquered territory was annexed to the Soviet Union: all of Lativa, Lithuania, and Estonia, and sections of Finland, East Prussia, Poland, Czechoslovakia, and Rumania. Except for Austria, wherever the Soviet Army set camp Communist governments were installed: Poland, East Germany, Albania, Bulgaria, Rumania, Hungary, and finally, Czechoslovakia. Hence Russian power was entrenched in Central Europe through a series of satellite states. Stalin also coveted other territories. Greece was embroiled with Communist guerrillas and in danger of being overrun, Turkey underwent pressure to grant bases in the Dardanelles and a segment of its northeast territory, and Russian

forces in northern Iran refused to be dislodged.[23]

The Russian activity evoked a profound anxiety throughout the world and when Great Britain announced in March, 1947, that she could no longer maintain her presence in Greece and Turkey, the United States moved to fill the breach. President Truman, before a joint session of Congress on 12 March 1947, identified a new role for the U.S. in world affairs by requesting emergency military and economic aid for Greece and Turkey to battle Communist subversion. President Truman's concern was for all of Western Europe and was not limited to Greece and Turkey. He told Congress the U.S. must assist free people to work out their own destinies and that the survival of Greece as an independent nation was of grave importance to "a much wider situation". The subjugation of Greece would have a profound effect on all European people still struggling to maintain their freedom and independence while they repaired the damages of war. "The free peoples of the world look to us for support in maintaining their freedom."[24] Secretary of State George C. Marshall opened the way for massive economic aid to Europe during a Harvard commencement address on 5 June 1947. Without such aid, he emphasized, political stability could never return to Europe. In Marshall's views, a rehabilitation of the economic structure of Europe was necessary for the emergence of political and social conditions required for free institutions.[25]

The defeat by Hitler's Germany in 1940 was a traumatic

experience for France. She emerged from World War II technically a winner, although a mere skeleton of her pre-war days. Much of her industry had been destroyed or had fallen into disrepair. Moreover, France had played only a tertiary role in regaining her sovereignty as U.S. and British forces spearheaded the drive expelling the Germans from her territory.[26] France was immediately beset with colonial problems when hostilities ended in Europe. She dispatched troops to Indochina to quell an incipient uprising, granted independence to Tunisia and Morocco in the face of nationalistic stirrings, and, shortly after the Indochina debacle ended, became engulfed in an even more agonizing struggle in Algeria. In Europe, she appeared to be as much concerned with a renascence of German militarism, to which she had succumbed three times in seventy years, as she was with a menacing Russia. Nevertheless, her contributions to European integration during those early years were considerable. Two of the leading integrationists were Frenchmen Jean Monnet[27] and Foreign Minister Robert Schuman, who introduced the first accepted integration plan, the European Coal and Steel Community (ECSC). The plan, which became effective 10 August 1952, was not merely an agreement or an alliance. It was a supranational entity empowered to make decisions based on European coal and steel interests and not on those of individual countries.[28]

Despite her preoccupation with social unrest at home and in the colonies, France was sensitive to the

Russian advances into Europe's heartland. In January, 1948, Britain advanced a plan to contain Communist expansionism. Out of this proposal the Treaty of Economic, Social and Cultural Collaboration and Collective Self-Defense, commonly known as the Brussels Pact or Treaty of Brussels, was signed on 17 March 1948. The rapidity in which the agreement was reached was due in large measure to the signatories' reaction to the Communist coup in Prague on February 25. Five nations, Great Britain, Belgium, France, Luxemburg, and the Netherlands, signed the original pact with West Germany and Italy acceding to modified terms in 1954. The main article of the Treaty, after the inevitable amenities referring to the United Nations Charter, provides that if any member "should be the object of an armed attack in Europe,..." the other parties will provide "all the military and other aid and assistance in their power."[29]

Until 1950, there was no question regarding the rearming of Germany. It was simply inconceivable that she should share in the defense of Europe. However, the overt attack by Russian-backed North Korea on South Korea in 1950 influenced the American government to propose German rearmament in September, 1950. This proposal sent reverberations throughout France. Old prejudices that had remained below the surface erupted and opposition flared from all quarters. The greatest fear seemed to center on the resurrection of the dreaded German General Staff.

France's negotiating position, however, was poor. She had been weakened by her heavy commitment of forces to Indochina, and American support was being increasingly sought and obtained. Therefore the French government, fearing direct negotiations between the U.S. and Germany, conceived the European Defense Community (EDC). The initial French proposal was designed to limit the full impact of German rearmament by restricting wholly nationalist units to 800-1200 men. This limitation was rejected by France's allies, however, mainly on technical grounds.[30]

EDC was a supranational community with common institutions, common or integrated armed forces, and a common budget. Its mission was to assure a collective effort against aggression -- an attack on one member would be an attack on all. The six charter members were Belguim, France, FRG, Italy, Luxemburg, and the Netherlands. Britain consented to an associate membership and other Western European countries were encouraged to join. But EDC was never implemented. Negotiations began in February, 1951 and a draft treaty was initialed on behalf of the six members on 8 May 1952. The teaty was signed on 27 May 1952, the day following the signing of a new agreement between FRG and the Western Powers restoring West Germany's sovereignty and ending the occupation of her territory. The treaty did not become effective, however, until ratified by all six parliaments. It took the French parliament more than two years to come to grips with the ratification issue. Finally,

due largely to the new government of Pierre Mendès-France who had resolved to settle some pending foreign policy problems, a vote was conducted on 30 August 1954 and ratification defeated. Four of the other five members had ratified the Treaty, with Italy delaying its action until France had voted. With the exception of the Communists, France's political parties divided on the Treaty, some right down the middle. Most Christian Democrats, many Socialists, and some Radicals and Independents supported the plan because of its European integration features. The Gaullists were strongly opposed, mainly on nationalistic grounds, as was a large segment of the armed forces who saw dismemberment of the French high command.[31]

Defeating EDC did not end the problem. France had stood alone in opposing German rearmament, although others certainly entertained misgivings. Nevertheless, the United States insisted, West Germany must be a full partner sharing in her own defense. Therefore, the European nations re-examined the provisions of the Brussels Pact. In the Paris Protocols of 23 October 1954, the Pact was amended and renamed the Western European Union.[32] West Germany and Italy acceded to the new Treaty and Germany permitted to rearm. However, safety measures were incorporated into the Treaty guarding against revived German militarism. Signatories agreed to the number of land and air forces each

could maintain, with any increase requiring unanimous approval. Like restrictions were placed on naval forces. The strengths and armaments of the internal defense and police forces on mainland Europe were subject to fixed agreements to be decided at a later date, and Britain agreed to maintain four divisions and a tactical air force on continental Europe for fifty years. The French insisted on the British forces and viewed their presence on the continent as a counterweight to any renewed German aggressiveness. In a declaration signed in London on 3 October 1954, Germany renounced the manufacture of atomic, biological, and chemical weapons for all time, and the manufacture of certain types of conventional armaments unless approved by two-thirds of the Brussels Council of Ministers. The declaration was incorporated into the Treaty and an agency was established to report on compliance with the armaments control provisions. All countries approved the Treaty, with the French Parliament ratifying it on 27 March 1955 after a six month debate, and it became effective on 5 May 1955.[33]

Of greater import to the examination of France's commitment or non-commitment to policy, however, is that the Protocols retained the provision requiring members to provide "all the military and other aid and assistance in their power" should one be attacked. This appears to be an unquestionable obligation and, as previously noted, De Gaulle did not renounce the WEU or any of its provisions

when he withdrew from NATO. Therefore, France is required to provide military assistance to Great Britain, Belgium, FRG, Italy, Luxemburg, and the Netherlands should they be attacked and, more importantly, they are required to provide military assistance to France should she be attacked.

Considering the restrictions on the size of forces as military, there are no binding political requirements in the WEU Treaty. Under the provisions of Article 9, all disputes between the parties falling within the scope of Article 36, paragraph 2 of the Statute of the International Court of Justice will be referred to the Court. However, the purview of the Court under Article 36, paragraph 2 of the Statute is limited to rendering interpretations of obligations the Parties have voluntarily accepted, such as treaties. Therefore, this obligation is not considered political in and by itself. Furthermore, the political decisions made by the WEU are not binding on its members and hence France's membership does not constitute non-commitment to her deterrent policy in the political sense. Conversely, membership in the WEU precludes an assessment of commitment. Therefore, France's political involvement in the Western European Union does not lend itself to evaluating her commitment or non-commitment to policy. The military obligations she incurs -- requirement to provide military assistance to others and others to her -- denote a dependence on other nations, thereby indicating non-commitment to her independent nuclear military policy. The

military requirements imposed on France's partners to assist in her security take on added significance when the obligations of WEU and NATO are correlated. As will be shown below, all of France's WEU allies are members of NATO. Therefore, should France invoke the military provisions of WEU, she would indirectly invoke the provisions of NATO.

THE NORTH ATLANTIC TREATY

France, an original signatory to the North Atlantic Treaty, had been protected by NATO's military shield since its inception in 1949. De Gaulle's action of withdrawing his military forces from that organization was designed to demonstrate his independence. However, he retained his membership in the Alliance and maintained liaison with NATO's military commands. Since De Gaulle's break with the Alliance was only partial, and since he indirectly retained NATO's protection through the WEU, it is therefore necessary to analyze the North Atlantic Treaty to demonstrate France's rhetorical commitment to her deterrent policy.

The events occurring in Europe leading to the Treaty of Brussels, previously described, also led to the formation of the North Atlantic Alliance and its military arm, the North Atlantic Treaty Organization. The formation of NATO was not due to any overt attack by the U.S.S.R. on a Western European country. The overthrow of the democratic regime in Czechoslovakia and the attempt in March, 1948 to evict the British, U.S., and French forces from Berlin by implementing a ground blockade were not direct attacks. It was,

nevertheless, reasonable to assume that Western Europe was a top priority target of the Russians. The North Atlantic Treaty was a reaction to the high probability of the Soviets' encroachment upon Western Europe and "it was France which made the most impassioned plea for United States protection."[34]

The Treaty manifested the determination of twelve North American and European nations to halt further Soviet expansion.[35] Signed 4 April 1949, the Treaty built upon the Treaty of Brussels which, by itself, could not stop U.S.S.R. aggression. As Edgar S. Furniss, Jr. points out, "the Brussels Treaty could become truly effective only with American assistance."[36] The Brussels Treaty was also directed, in part, against Germany, with both Article 7 and the preamble calling for its members to "take such steps as may be held necessary in the event of renewal by Germany of a policy of aggression." This anti-German clause, removed by the Paris Protocols of October, 1954, does not appear in the North Atlantic Treaty.[37] Apart from the non-U.S. involvement and the anti-German overtones of the Brussels Treaty, there were other significant differences between the two pacts. As was seen, the Brussels Treaty, and later the WEU, promised "aid and assistance by all means, military and other." The Atlantic Treaty is not so binding. Article 5 says, "the Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all," which seems to carry

an automatic commitment, but it continues "if such an armed attack occurs, each of them...will assist the Party or Parties so attacked by taking forthwith...such action as it deems necessary, including the use of armed force."[38] This was "not so precise and automatic in its provisions as the French would have liked," but there were cogent political reasons for this less than total and automatic commitment of the United States.[39]

U.S. participation in the Atlantic Treaty was a break with precedent. With this Treaty, the United States involved itself in an entangling alliance with a European nation for the first time in 149 years, and was not taken unopposed. Senator Robert A. Taft, the most influential Republican in Congress, led the conservative forces in opposing the Treaty. He considered the Treaty a dangerous deviation from past policies. While acknowledging the dangers confronting Europe, he posited the United Nations Charter should be modified or the Monroe Doctrine extended to encompass Western Europe rather than choose an alliance which would place the U.S. "at the mercy of the foreign policies of eleven other nations...for a period of 20 years."[40] At the other end of the political spectrum, Henry A. Wallace, a leading liberal, also opposed the Alliance. Representing the Progressive Party of America, Wallace appeared before the U.S. Senate Committee on Foreign Affairs and accused the Truman Administration of waging an undeclared war on Russia

and refusing Russian offers of peace talks. Wallace testified the military alliance would only serve to aggravate the differences between the U.S. and Russia, undermine the United Nations, and drain U.S. resources.[41] In all, the Senate Committee on Foreign Relations heard ninety-six witnesses testify regarding the Treaty, fifty of them opposing it. Nevertheless, the Senate approved the Treaty on 21 July 1949 and the vast prestige of the U.S. now backed the West Europeans.[42] Congress quickly dispelled any misapprehension the U.S. considered the new Alliance an old-fashioned defensive alliance by appropriating one billion dollars for NATO on 6 October 1949. On 9 September 1950, President Truman announced the dispatch of four divisions to Europe and, in December, he designated General Dwight D. Eisenhower Supreme Allied Commander, Europe (SACEUR).[43]

The salient features of the Treaty, insofar as it concerns this study, are (a) it is strictly defensive, (b) it may be invoked only in a clearly defined geographical area, (c) it permitted modification after ten years and renounciation after twenty years, (d) each party is to judge what his own action will be in the event of aggression, (e) all parties must maintain and develop their individual and collective capacity to resist armed attack, (f) the parties will strengthen their free institutions, and (g) the parties will encourage economic collaboration between any or all of them. The highest authority in the Alliance

is the North Atlantic Council, the organ for political control. The task of the Council is to provide a forum for discussing political problems relevant to the members and, although the Alliance was initially concerned with security, political issues have been discussed from the outset.[44]

The Council's chief role before France withdrew her forces was to provide the military commanders with unanimously reached political guidance upon which strategic military planning was based. The requirement for unanimity often led to awkward exchanges and prevented discussion on some questions that may have proven too embarrassing. Subordinate to the Council in 1965 was the International Staff Secretariat, composed of five executive divisions, (1) Executive Secretariat, (2) Political Affairs, (3) Economics and Financial, (4) Production, Logistics and Infrastructure, and (5) Scientific Affairs.[45] Also subordinate to the Council was the Military Committee, composed of the chiefs-of-staff of the fifteen countries except Iceland, which had no army and was represented by a civilian. The Military Committee used as its working instrument the Standing Group, consisting of U.S., British, and French representatives.[46]

The Communist attack on South Korea in June, 1950 spurred the Atlantic allies into action. In September, they agreed to establish a supreme headquarters and combined commands. The U.S. contribution of four divisions and Eisenhower's appointment as SACEUR has been noted. In

December, 1951, Italy, already a member of NATO, was for all practical purposes released from the military restraints imposed by the peace treaty. On 18 February 1952, Greece and Turkey acceded to the Treaty and on 5 May 1955, FRG acceded. As a gesture to calm the fears of German rearmament, particularly those of the French, the Supreme Allied Commander's powers were enlarged and, in effect, all German armed forces came under his command.[47] This was basically the condition of the Alliance when De Gaulle ascended to power.

As noted earlier, De Gaulle's conception of international relations was that of a constant struggle for power. To De Gaulle, it was only natural for the U.S. and the Soviet Union to retain their nuclear weapons and hence their hegemony. For either nation to dispose of their nuclear arsenal would run counter to his philosophy of international life. No state, "whatever its ideology, its nature and its propaganda," would dispose of their arsenal if they were in the position of the U.S. and the U.S.S.R.[48] This statement also illuminates De Gaulle's views on ideology. Ideologies are transitory, the struggle will continue no matter what the prevalent ideologies of the era. "The banner of ideology in reality covers only ambitions. And I believe it has been thus since the world was born."[49] Moreover, the nation-state was the fundamental actor. "Only the states...are valid, legitimate and capable of achievement."[50] They alone have "the authority to act in the name of the

nation."[51] Consequently, the state must have the power to act. The Fourth Republic "found itself deprived of authority in internal affairs and assurance in external affairs, without which it could not act."[52] Under the Fifth Republic, however, France "will flourish again or will perish according to whether the State does or does not have enough strength, constancy and prestige to lead her along the path she must follow."[53] De Gaulle's conception of the path France must follow in international affairs is quite clear: "All my life I have thought of France in a certain way," he observed, "France is not really herself unless in the first rank....In short, to my mind, France cannot be France without greatness."[54]

De Gaulle envisioned France as a world power. In his press conference of 5 September 1960, he referred to the U.S., Great Britain, and France as the three Western world powers whose political interests extended beyond Europe, and on 16 April 1964, he asserted that France had a role "as regards the evolution which is bringing so many people of Africa, Asia and Latin America to develop themselves."[55] Moreover, alliances were not to interfere. In his 14 January 1963 press conference, he said, "alliances have no absolute virtues, whatever may be the sentiments on which they are based."[56] Edward Kolodziej interprets De Gaulle's view on alliances as "convenient accords that bind only as they serve the interests of the parties to them."[57] Clearly, De Gaulle's withdrawal of French forces from NATO's command

was consistent with his philosophy. The announcement of his intention to withdraw French forces, although unsettling his allies, was merely the capstone to what had been a systematic disengagement.

President De Gaulle first attempted to gain equal status with the U.S. and Great Britain within NATO before he started gradually withdrawing from that body. Barely three months in office, he proposed, in a secret memorandum to President Eisenhower and Prime Minister Harold Macmillan, a triumvirate to draw up nuclear strategy with world-wide implications.[58] His rationale for such an action was that the three were the only Western powers with an actual or potential nuclear weapons capability and the only Western powers with world-wide interests. Each participant, moreover, would have a veto over policy. De Gaulle advanced this proposal in September, 1958, more than a year before France detonated her first atomic bomb in February, 1960. Eisenhower rejected the proposal on 20 October 1958, stating it would destroy the concept of unanimity under which NATO operated.[59] Italy, FRG, Canada, Norway, Belguim, and the Netherlands added their dissent to that of Great Britain and the U.S.[60]

After being rebuffed in his quest for equality with Great Britain and the United States, De Gaulle proceded gradually withdrawing forces from NATO while increasing his pronouncements of French sovereignty. In 1959, he made his first two moves: he withdrew his Mediterranean

fleet from NATO control and notified NATO that nuclear weapons could no longer remain on French soil unless France was given control over their use.[61] He justified the removal of the fleet by claiming France may be obliged to employ it outside the NATO area of interest, i.e., the Middle East or North Africa. He accompanied his reasons for withdrawal by maintaining the fleet would still be avilable for use in a common battle. Did he perceive his action as weakening the Alliance? "Quite the contrary. Indeed I believe that the Alliance will be all the more vital and strong," he said, "as great powers unite on the basis of a cooperation in which each carries his own load, rather than on the basis of an integration." Integration meant states were "deprived of their roles and responsibilities in the domain of their own defense."[62] De Gaulle's contention, which he reiterated throughout his tenure, was that the Alliance would grow in strength as France grew more independent. During the same press conference, he hastened to point out that the U.S. and British had retained the greater part of their fleets under national control, and the "principal element of their strength, their atomic bombers." While demonstrating his independence by these moves, France was pressing ahead with the development of her own nuclear force, thus assuring that she would be "the sole mistress of her destiny."

The U.S. attempted to deter France from acquiring an independent nuclear force. During the year 1961-1965, the U.S. advanced numerous proposals offering to share a degree

of control of nuclear weapons within the NATO framework.[63] But De Gaulle would not be deterred. To be a world power required nuclear weapons; therefore France would acquire such weapons and retain control of them. The argument of opposing strategies regarding employment of nuclear weapons, previously mentioned, was also raging during this period. Any delay in nuclear retaliation in the face of Russian aggression was contrary to the French concept. Immediate retaliation against Russian cities was the only effective deterrent. It may well be that this very basic difference in strategic viewpoints motivated De Gaulle to take the action he eventually took -- withdrawal of his forces from NATO -- but his actions and pronouncements prior to 1966 do not support this supposition. His news conference of 11 April 1961 spelled out his views on nuclear weapons and the Alliance. First, since the U.S. and the Soviet Union had not renounced their nuclear arsenals, "France, for reasons which concern her own defense and that of several others" must also have such a force.[64] Second, it was understandable that those who possess nuclear weapons did not wish France to also have them. "But, so long as others have the means to destroy her, it is necessary for her to have the means to defend herself." Third, he questioned not the Atlantic Alliance, "but the present organization of the Atlantic Alliance." This point is significant. His basic objection was the <u>organization</u> of the Alliance and not the <u>utility</u> of the Alliance itself. As evidenced by his quest for equal status, De Gaulle wanted

a greater influence in NATO and not a dismemberment of the organization and a loss of the protection it afforded. Fourth, national, not integrated, defense was an absolute necessity. Fifth, the continental European states must know "which weapons and under what conditions their overseas allies would join them in battle." And sixth, the area of interests of the Alliance must be extended beyond Europe and revised to reflect this expansion.[65]

In May, 1962, President de Gaulle voiced doubts regarding the dependability of the U.S. to come to the aid of Europe with nuclear weapons. With America and Soviet Russia "capable...of reciprocally destroying each other,... no one can tell when, how or why one or the other of these great atomic powers would employ its nuclear arsenal."[66] He made the following points in his 14 January 1963 press conference: (a) France intended to have a national defense; (b) she could not conduct a major modern war by herself and she must have allies; (c) alliances had no absolute virtues; (d) alliance and independence were both justified and not contradictory; (e) the U.S. demonstrated the will to employ nuclear weapons in defense of Europe at a time when the U.S. was not vulnerable to attack; (f) the U.S.S.R. can now strike America with nuclear weapons; (g) the protection of Europe with nuclear weapons had now taken second place in U.S. strategy; (h) no one, particularly no one in America, could say where, when, how, and to what extent American nuclear weapons would defend Europe; (i) France rejected the nuclear sharing proposals; and (j) France

would cooperate with her allies.

As De Gaulle attacked the credibility of the U.S. and the organization of the Alliance, he continued to disengage from NATO. France failed to assign two returning divisions from Algeria to NATO, although she had not met previously agreed upon quotas.[67] She withdrew her Atlantic fleet from NATO on 21 June 1963, withdrew her naval staff officers on 24 April 1964, and removed her surface vessels from a NATO naval exercise at the last minute in September, 1964. She refused to participate in the army war game, "Fallex", in June, 1965, and did not adopt the NATO calibre rifle.[68] Accompanying her disengagement was a new tactic linking the security of Western Europe to her emerging nuclear force. Michel Debré, a trusted De Gaulle aide and the man largely responsible for writing the Constitution of the Fifth Republic, pledged that "the French force represents a guarantee for Europe as well as for France."[69] Premier Georges Pompidou, in presenting the government's military program to the National Assembly on 2 December 1964, said "each of our soldiers, each of our atomic bombs serves Europe as much as France."[70] De Gaulle, at Strasbourg on 22 November 1964, looked to the day the West Europeans would "put into practice among themselves in the political domain -- which is first that of defense -- an organization," allied to the U.S., "but which would truly be theirs, with its objectives, its resources, and its obligations."[71]

President de Gaulle's 21 February 1966 news conference

presaged the total withdrawal of his forces from NATO's command. The specifications of the withdrawal were spelled out in a series of memoranda and will be addressed below. During the news conference he again questioned the determination of the U.S. to employ its nuclear arsenal in defense of Europe and stated the threat of Russian aggression had eased considerably since 1949. Continuing, he said that American involvement in other parts of the world could escalate into a general conflagration involving Europe -- even if Europe did not desire it so. Without abrogating the Treaty, France modified her position in the Alliance. Accordingly, she reestablished a normal position of sovereignty in which French territory and French forces, "and any foreign element that would be in France, will in the future be under French command alone. This is to say that it in no way means a rupture, but a necessary adaptation."[72]

Prior to issuing the memoranda officially notifying the other fourteen governments of his intention, De Gaulle dispatched a letter to President Lyndon B. Johnson on 7 March 1966 detailing the actions he was taking. The letter informed Johnson that, barring unforeseen events, France would remain a member of the Atlantic Alliance beyond 4 April 1969, but would not adhere to the military provisions either in the form of multilateral or bilateral agreements with the American government. France, he said, is terminating "her participation in the 'integrated' commands" and no longer placing her forces at the disposal of NATO. She was, however, prepared to discuss arrangements regarding "military

facilities to be granted mutually in the event of a conflict in which she would be engaged at their [the NATO countries] side." Moreover, France would discuss "the conditions for cooperation of her forces and theirs in the event of a common action, especially in Germany." De Gaulle also unilaterally changed the provisions of the Treaty. France is resolved today "to fight at the side of her allies in the event that one of them would be the object of unprovoked aggression [emphasis added]."[73] The Treaty wording is "armed attack," not unprovoked aggression. The official notification contained essentially the same information as that in the Johnson letter, but with two notable exceptions. First, De Gaulle did not use the words "unprovoked aggression." Second, he presupposed that the French land and air forces stationed in Germany would remain there "in the framework of the Convention of 23 October 1954."

Although the memoranda did not contain the Treaty-modifying words "unprovoked aggression," De Gaulle's use of them could hardly be an accident inasmuch as his letter to Johnson was written in his own hand.[74] Premier Pompidou used the same phrases on 13 April 1966 while addressing a joint session of the National Assembly and Senate, and Foreign Minister Maurice Couve de Murville used the qualifying words "unprovoked attack" a week earlier.[75] The Germans, in addressing the French forces remaining on their soil,

pointed out to De Gaulle in a March 29 note that France was claiming the right to station forces in Germany under a Council decision, part of which -- that relating to integrated command -- she was now revoking.[76] The reason France stationed forces in Germany is unclear. It certainly did not coincide with her strategic concept of massive nuclear retaliation for all but border incidents. The two French divisions in Germany are positioned along the French and German border, therefore, by the time an invader reached the French divisions, the action could no longer be termed an incident. Carl Amme speculates these forces may be used to block the invader on German territory before reaching France. He believes the true reason, however, is political: to influence Germany's action until a peace treaty is signed for all of Germany. This, he says, "would give France increased weight vis-á-vis the Soviet Union: Russia stations troops in East Germany and France stations troops in West Germany."[77] France may have been motivated more by history -- three times in seventy years she succumbed to German invaders -- than by Russian threats or political considerations.

French memoranda, dated 29 March 1966, set specific dates for completing certain actions regarding her withdrawal of forces.[78] Assignment of French forces and staff personnel to NATO would terminate 1 July 1966, while the French staff personnel and students at the NATO Defense College would terminate 23 July 1966. The two NATO command headquarters and the Canadian and U.S. installations on French territory

were to be removed by 1 April 1967, although additional time could be granted regarding the installations. The memoranda also expressed a willingness to "make special provisions" regarding the NATO pipeline, establish liaison with NATO commands, reach an accord with the U.S. and Canada on the use of military facilities in the event of a conflict in which France was an ally, and discuss the stationing of French forces in Germany.[79] The last point was slightly modified from his 11 March memoranda in which he presupposed the divisions would remain in Germany. After final agreement was reached on the various outstanding issues, it became clear how selective De Gaulle's withdrawal from NATO really was. He did not remove the two French divisions from Germany and his request for liaison with NATO commanders regarding these forces was granted. According to the former U.S. Ambassador to the North Atlantic Council, Harlan Cleveland, this liaison has resulted in joint planning for the employment of the divisions. The French remained in NATO's air defense system (although retaining command of her air forces), the communications net, and continued to participate in NATO development projects. A French military liaison officer was also maintained with NATO's Military Committee. De Gaulle authorized NATO the use of the pipeline and French territory for overland communications. He permitted U.S. military aircraft conducting bombing practice in FRG to penetrate French airspace and

he continued to authorize transit flights of NATO aircraft, although permission was granted on a monthly, rather than a yearly, basis.[80]

Thus De Gaulle, while manifesting his independence by placing the armed forces directly under his control and removing foreign military units from France, was retaining his seat in the political chamber, pledging allegiance to the Alliance beyond April, 1969, retaining military links and conducting joint planning with NATO, participating in selective NATO projects and systems, and making arrangements for the joint use of military facilities in the event of war. More importantly, he did not abrogate Article 5 of the Treaty. His use of the qualifying words "unprovoked aggression" is unclear. Certainly no protocal was signed modifying the Treaty to incorporate this qualification. However, such a modification would be superfluous because the parties to the Treaty are only required to take such action as they deem necessary. In practical terms, very little was changed, and only the public pronouncements in which De Gaulle, Pompidou, and Couve de Murville employed the terms "unprovoked aggression" and "unprovoked attack" seem to indicate any diminution of adherence to the Treaty's provisions. Even these pronouncements, however, are offset by actions and other public statements.

Several experts point to France's sheltered geographical

position and posit its strategic importance to the West.[81] Their contention is twofold: the North Atlantic Allies could not and would not permit the fall of France without attempting to rescue her and, secondly, she is protected by Germany's geographic location. France, by retaining membership in the Alliance, enhances the West's determination to defend her. Experts also point to the nuclear aegis the U.S. provides France, thus permitting her latitude of action.[82] Pronouncements by French officials are even more revealing and support the evidence indicating her commitment was rhetorical. De Gaulle, in his 14 January 1963 press conference, said, "It is obvious that one country, especially one such as ours, cannot...conduct a major modern war all by itself. To have allies goes without saying for us."[83] General André Beaufre, a leading French military strategist, in discussing the defense of Europe said, "the defense of one state cannot constitute a problem wholly independent of the defense of neighboring states," adding, "it has become impossible today to conceive of an efficient defense system on less than a European scale."[84] Premier Pompidou and Foreign Minister Couve de Murville, in defending France's unilateral withdrawal from NATO before the National Assembly in April, 1966, alluded to the need for allies.[85] Pompidou said, "To say that we would be unable alone to face up to aggression by one of the two big atomic powers is an obvious fact." Couve de Murville had the following to say,

> People will then object, but what happens to our security?...And now our unilateral action risks jeopardizing everything by leading the United States to take its protection away from a dissenting France, if not to abandon all of Europe?
>
> Strange questions...not only because they depict the Atlantic Alliance as a one-way commitment--that of the United States toward Europe--but also because of the lack of consideration they imply for Washington's policy, as if Washington were committed to this Europe-America partnership only because the Europeans are docile allies. Were there not on this side of the Atlantic essential interests for the other side, which it wanted and still wants to watch over? [emphasis added.]

Because the Atlantic Alliance has a political function and France is a member of the Alliance, a determination of commitment to her deterrent policy cannot be rendered. However, political decisions are reached under the unanimity rule and not the majority rule, therefore her membership does not indicate non-commitment. Thus, France's political participation in the Atlantic Alliances does not lend itself to evaluating her commitment or non-commitment to her deterrent policy. Her military liaison with NATO, her coordinated planning for employment of the two divisions in Germany, and her willingness to share her military facilities with Canada and the U.S., reinforced by her public pronouncements, denote a dependence on other countries for her defense, thereby indicating non-commitment to her deterrent policy.

EUROPEAN ECONOMIC COMMUNITY

If French economic policies were dictated by external interests, her military behavior would have been influenced accordingly. Therefore, France's relationship with the European Economic Community (EEC), the most important economic organization in which she held membership, must be analyzed to determine if her military behavior was dictated by economic policies imposed on her against her will. Certainly, a nation subjected to the economic dictates of others could not independently govern its own military behavior.

The devastation of World War II gave impetus to the idea of European integration. Many Europeans thought an end to the calamitous conflicts that had ravaged their continent for centuries could best be found in a united Europe. The first step toward this goal, the integrationist thought, lay in the economic realm. Events and conditions in Western Europe eased the way. The totality of the war caused the destruction of their industries, inducing governments to take a more active part in regulating the economy and providing stimuli to accelerate recovery. The De Gaulle government of 1944-1946 spearheaded this relatively new endeavor, that is, a capitalist state directing the economy.[86] External influences also played a part. The Marshall Plan was offered on the condition the countries pooled their efforts to solve their economic problems. To satisfy this condition and promote the best allocation of aid dollars, the Organization for European Economic

Cooperation (OEEC) was formed.[87] Thus, government regulation of the economy and the founding of OEEC created the conditions for an integrated European economy. The success of OEEC and other organizations, notably the ECSC, led to the formation of the European Economic Community, or the Common Market, composed of France, Italy, FRG, Belgium, Luxemburg, and the Netherlands. The aim of EEC, which came into being on 1 January 1958, was to ensure continued economic expansion by creating a single market for all goods and products in lieu of six separate national markets.[88] The founders and principal supporters of the Market, however, viewed it as a political enterprise according to Harold van B. Cleveland.[89] Once economic integration had been achieved, they surmised, political integration was sure to follow.

The two principal functions of EEC are: abolish tariffs, quotas, and similar barriers to the free movement of goods between and among members, and implement a common external tariff in place of the separate national tariffs. These twin mechanisms were to be accomplished in three stages, implemented over a period of twelve years. Twice the timetable was accelerated under the urgings of De Gaulle. By 1 January 1966, internal tariffs had been reduced by 80 percent from the 1957 level, and 67 percent of the external tariffs had been implemented.[90] The original accords of EEC were vague on agricultural products, leaving specific details to a later date. In 1964, President de Gaulle

insisted an agreement be reached on grain prices. The German government resisted proposals that would reduce prices below the level their farmers were already receiving. The French, however, who stood to gain the most benefit from a common grain price, were adamant and an agreement was finally reached, but not before De Gaulle threatened to withdraw from EEC.[91]

The Market experienced its greatest crisis when France boycotted the proceedings from July, 1965 to January, 1966. The underlying reason for De Gaulle bolting the meetings was the "unanimity rule." The Market regulations stipulate the unanimity rule will be phased out over a period of time and replaced by majority rule as agreement is reached on a common price for all products comprising each area.[92] De Gaulle objected to any further transition to majority rule and said, "nothing that is important...should be decided or implemented except by the Governments of the six states."[93] Following six months of debate and vacillation, the other five members compromised and France returned to the meetings. No final policy on unanimity versus majority rule was enacted, the matter was merely by-passed. In effect, the members agreed to disagree, recording in the minutes "the French delegation considers that, when very important interests are at stake, the discussion must be continued until unanimous agreement is reached."[94] The French viewpoint went unchallenged and the unanimity rule was not applied to areas France considered "important."

By flouting the rules, De Gaulle warded off what he saw as another impingement to his independence.

There is little doubt that France's membership in the EEC is beneficial to her. In the 1945-1958 period, she showed a constant balance of payments deficit. Devaluation of her currency in 1958 and the inception of the EEC contributed toward her surplus 1959-1964 balance of payments. She recorded a large net surplus, $970 million, in 1965, due in part to the wage and price stabilization measures taken in 1963-1964. Her foreign trade since EEC began operations has increased. Exports to EEC countries in 1957 represented 25 percent of her total export trade, in 1964 it had increased to nearly 40 percent. Similarly, imports from EEC members rose from 21 percent of total imports in 1957 to 37 percent in 1964. However, France's trade with non-EEC members also increased, e.g., in 1964 exports to non-EEC countries increased by 10 percent over 1963, only 3 percent less than her increase to EEC countries, and imports reflected a similar parallel.[95] Beginning in 1964, De Gaulle concluded a series of trade agreements with Communist countries. The first was a five-year Franco-Rumanian pact aimed at expanding commerce by 100 percent. Similar trade accords were made with Russia, Poland, Czechoslovakia, Hungary, and Bulgaria. In 1965, France set a new record for trade with the Communist world: the $776 million two-way total was an increase of 14 percent over 1964, which had already increased 11 percent over 1963.[96]

France's economy is not dependent on EEC, in fact, she conducts more trade outside the EEC than within. More significant, however, is the virtual veto she exercises over EEC decisions on issues she considers important. Consequently, no economic policies adversely influencing her military behavior could be imposed on her. Her boycott of EEC emphatically manifested her independence in that body. Thus, her economic relationship with EEC does not indicate non-commitment to policy. Conversely, membership itself precludes an assessment of commitment. Therefore, France's participation in EEC does not lend itself to evaluating commitment or non-commitment to her deterrent policy.

BILATERAL AGREEMENTS

The only noteworthy French bilateral agreements were concluded with the FRG. The first, the so-called Friendship Treaty, was signed in 1963. The Treaty called for a "special" relationship between the two countries leading to regular exchanges and conferences at all levels of foreign policy making. However, before the German Parliament ratified the Treaty it imposed a preamble that essentially stripped it of its special character. The preamble cites the need for close collaboration between Europe and the U.S., the unification of Europe with British participation, and the abolishment of tariffs between and among the Common Market, Great Britain, and the U.S.[97] The preamble, coming in the wake of De Gaulle's veto of Great Britain's EEC application, was

particularly nettling to him. Relations between the two countries had cooled even before the Treaty was ratified, and it failed to accomplish its intended purpose, as De Gaulle acknowledged in his 28 October 1966 press conference.[98] The second agreement, concluded on 21 December 1966, pertains to the two French divisions stationed in Germany and merely maintains the accords reached prior to De Gaulle's break with NATO, except the forces are now controlled by France directly, with Germany acknowledging the legality of this transfer of control.[99] Neither agreement is significant in determining France's commitment or non-commitment to policy.

SUMMARY

The analysis of France's regional foreign policy during the 1958-1966 period demonstrates that the Gaullist independent nuclear deterrent was vitiated by a rhetorical commitment rather than total forfeiture of dependency options. Although her political and economic relationships with the WEU, NATO, and EEC did not restrict her independence and, therefore, could not be used as evidence of non-commitment, her continued membership in those organizations precluded an assessment of political and economic commitment. However, her military relationship with the WEU and NATO, supported by her public pronouncements, conclusively demonstrate her dependence on other nations for security. By retaining membership in the WEU, she indirectly retained the protection

afforded by NATO, specifically, the nuclear shield of the U.S. Moreover, her military behavior with NATO further emphasized her dependency. She coordinated military contingency plans for both forces and facilities, authorized NATO the use of her territory and airspace, and continued to participate in NATO nets and projects -- all of which demonstrate a rhetorical commitment to her independent nuclear deterrent policy.

CHAPTER II

WEAPON PROCUREMENT

Patterns of French weapon procurement help demonstrate her inability or unwillingness to develop independently the weaponry needed to enforce her deterrent policy. A nation opting to provide its own security must be capable of developing the requisite materiel if its independent status is to be maintained. However, a nation dependent on other nations for financial assistance and defense or defense-related technology might lose this support and, therefore, is incapable of a long-term commitment to independent action.

Immediately following World War II, at a time France was striving to rebuild her war-ravaged economy, her military forces were engaged in two prolonged insurgent wars, first in Indochina and then in Algeria. The cost of maintaining an armed force of approximately one million men to combat these insurgencies restricted her weapon procurement options. Therefore, in analyzing her weapon procurement behavior, the restrictions placed on her by the insurgencies are considered.

The areas of French weapon procurement analyzed in this chapter are (a) cooperative defense and defense-related projects, (b) weapon purchases, and (c) foreign ownership of defense and defense-related industries.

Cooperative defense and defense-related projects.

Three measures of cooperative projects are available: number of projects, concentration of projects, and vital components. The number of cooperative projects undertaken by France prior to the end of the Algerian war in 1962 are not considered due to the previously mentioned restrictions caused by the insurgencies. To demonstrate commitment, the number of cooperative projects during the years 1962-1965 must have declined, and no such projects undertaken after 1965. If French participation in cooperative projects fail to meet this criteria, her behavior indicates non-commitment. Assuming De Gaulle's decision to seek freedom of action was planned in advance, the number of such projects should have declined between 1962 and 1965. A nation involved in cooperative projects demonstrates a weakness in lack of resources or technology, or an unwillingness to invest the funds needed to acquire the technological expertise to develop more advanced weapon systems. Such a nation cannot hope independently to meet the challenge presented by the technological "break throughs" that occur approximately every five years. There are two exceptions to this index. Projects in which another country manufactures French weapons on license and projects in which France entered for political reasons are not considered indicators of non-commitment. Regarding concentration of projects, to demonstrate commitment France could not undertake 50 percent of

her cooperative projects in one weapons area, such as aircraft, with the same nation. The rationale for this index is that a concentration in one area with the same nation indicates a dependence on that nation for technological assistance and hence an inability to develop that area independently. Such a relationship over an extended period of time could render a segment of France's defense industry dependent on that other nation's companion industry. Moreover, since the bulk of defense development funds are supplied by governments, should a segment of France's defense industry become dependent on another nation's industry, French weapons would, in effect, be dependent on the dictates of that nation's government. To demonstrate commitment in the area of vital components, France must have developed and produced all such components at least once during the 1962-1966 period. The rationale for this index is that should France fail to produce all vital components at least once, this failure indicates an inability to do so owing to a lack of funds or technological expertise. This failure also demonstrates a dependency on the industries of other nations for her weapons, indicating a long-term non-commitment to independent nuclear deterrence.

Weapon purchases. The index and rationale applied to coopeartive defense and defense-related projects apply to weapon purchases. Weapons purchased prior to 1962 for use in Algeria are not considered, nor are small arms and small arms ammunition purchased after 1962. Other purchases

indicate a lack of resources, technology, or willingness to expend the necessary funds to attain technological independency and is, therefore, assessed as non-commitment.

Foreign ownership of defense and defense-related industries. Aerospace, shipbuilding, electronics, vehicles, and general armaments industries constitute defense and defense-related industries. Commitment is indicated by French interests owning more than 90 percent of each of her main defense and defense-related industries. The rationale for this index is that foreign ownership of industry indicates a lack of resources or technology, and a dependency on foreign assistance.

COOPERATIVE DEFENSE AND DEFENSE-RELATED PROJECTS

Table 1 depicts the cooperative defense procurement projects in which France participated. She cooperated in eleven projects from 1962 to 1965: none in 1962 and 1963, two in 1964, and nine in 1965. This is a decided increase and indicates non-commitment. Five projects were undertaken after 1965, again indicating non-commitment. The two licensed production projects, the HAWK missile and the Tyne engine, do not qualify as exceptions to the index because they were licensed to France for production, the HAWK from the U.S. and the Tyne from Great Britain.[100]

Table 1 shows France participated in nine joint aircraft procurement projects, five (or more than 50 percent) with the same country -- Great Britain. All five projects

Table 1

INTERNATIONAL DEFENSE PROCUREMENT PROJECTS (FRANCE)[101]

Project	Year Initiated	Countries	Joint Project Type
Transall transport aircraft	1959	FRG, France	Development and Production
Atlantique maritime patrol aircraft	1959	FRG, Belgium, the Netherlands, France, U.S. (financing only)	Development and Production
HAWK SAM (missile)	1959	FRG, Belgium, the Netherlands, Italy, France, U.S. (financing only)	Licensed production
Tyne engine for Transall and Atlantique	1961	Britain, FRG, Belgium, France	Licensed production
Leopard/AMX tank	1961	FRG, France	Independent production, joint evaluation
Mirage III-V aircraft	1964	U.S., France	Flight test
Martel tele-guided ASM (missile)	1964	Britain, France	Development
Jaguar strike/trainer aircraft	1965	Britain, France	Development and production
AFVG (variable geometry) aircraft	1965	Britain, France	Development and evaluation
RB-172--T260 engine for Jaguar	1965	Britain, France	Development and evaluation

M-45 engine for AFVG	1965	Britain, France	Design and production
RB-162 engine for Mirage III-V	1965	Britain, France	Development, licensed production
Milan AT missile	1965	FRG, France	Development
Hot AT missile	1965	FRG, France	Development
SS-10 and 11 AT missile	1965	U.S., France	Development (U.S. financing only)
AS-37 ASM (missile)	1965	FRG, France	Joint evaluation
Roland SAM (missile)	1966	FRG, France	Development
Sud SA-330 tac heli	1967	Britain, France	Development and production
Sud SA-340 LOH (heli)	1967	Britain, France	Joint evaluation
Westland WG-13 utility heli	1967	Britain, France	Development
SA-321 Super Frelon hvy duty heli	1967	FRG, France U.S.	Development of improved Frelon

were undertaken in 1965 or after, two in 1965 and three in 1967. Moreover, the two countries are developing the civil aircraft, Concorde, raising their joint projects to six out of ten, or 60 percent, thus denoting non-commitment. France undertook these joint projects with Great Britain because she lacked the finances to develop the aircraft independently, and not because of an unwillingness to expend the necessary funds or that she lacked the technological

expertise.[102] Financial stringencies also forced her to abandon the joint development of the AFVG (variable geometry) aircraft in July, 1967 and the joint development of a large computer with Great Britain.[103] Considering the cost of research and development for advanced weapon systems alone, this is understandable. Estimates of research and development suggest the following approximate annual rates of expenditure:

Weapon	Average Annual[104] R&D Cost ($M)
Solid-fuel IRBM plus nuclear warhead	300-500
Mach 2 nuclear bomber excluding bomb	80-100
Variable geometry aircraft	100-150
VTOL aircraft	40- 50
Ground-to-air AA missile	50- 60
Air-to-air missile	50- 60
Battle tank	5- 10
Combat vehicle	2- 5
Mobile gun	1- 2

These figures take on added significance when considering (1) a system is in research and development 5-12 years, and (2) the research and development cost is not spread evenly over the years of development, i.e., more than three-quarters of the cost may be spent in only five of those twelve years.

Table 1 also shows France participated in four joint aircraft engine procurements, all with Great Britain. Furthermore, all the engines were of British design, as is the Concorde engine.[105] The French "lack the big engine

capacity and electronics potential."[106] This dependence on another country for aircraft engines probably denotes a lack of resources and certainly a lack of technology, indicating non-commitment. Possibly more serious than her inability to produce the engines is her weakness in electronics, at least from the standpoint of long-range commitment. Judith H. Young credits several important production licenses granted by American companies to France as being of substantial benefit to her strategic missile program.[107] Michael Getler, quoting a high -- but otherwise unnamed -- authority in the French Ministry for Armaments, says France spends "a good 10-15%" of its military electronics budget for U.S. produced or licensed equipment.[108] France's electronic computer industry is also deficient, and will be discussed below.

Another indicator of French non-commitment was her decision to participate in the NATO Air Defense Ground Environment system (NADGE). NADGE ties the electronic facilities for detecting and tracking objects penetrating NATO airspace into one computerized, integrated system and alerts and guides NATO aircraft to the target for the purpose of identifying and intercepting them.[109] France's decision to rely on NATO facilities was dictated primarily by geographical considerations. She does not have the geographical depth to make a system of her own as effective as NADGE in terms of warning time.[110] Lack of finances

and electronic technology may have influenced her decision also, but there is no evidence to support this speculation.

The Concorde project has been mentioned. There are two other defense-related projects that France continued to participate after her withdrawal announcement, the European Launcher Development Organization and the European Space Research Organization. Both agencies are concerned with space research and telecommunications and both are multilateral.[111] Joining other nations in these exploratory fields indicates non-commitment.

WEAPON PURCHASES

France purchased several types of aircraft, rockets, and missiles from the U.S., indicating non-commitment. She purchased 50 Crusader interceptors for her aircraft carriers, Clemenceau and Foch, and 12 KC-135 tankers to carry out mid-air refuelling, without which her only strategic nuclear delivery means in 1966, the Mirage, could not reach most Russian cities without passing over Soviet satellite countries. She also bought the Honest John rocket, her only surface-to-surface tactical missile capable of delivering a nuclear warhead, two surface-to-air missiles (SAM), the Nike-Ajax and Nike-Hercules, and a ship-to-air missile, the Tartar.[112] Two major weaknesses of critical significance are seen in the French purchases. First, she did not have the independent capability to deliver her nuclear warheads without increasing the vulnerability of her delivery means by flying over Soviet

satellite countries. Second, the Nikes and the Hawk, U.S. developed weapons, comprised her entire surface-to-air missile air defense, raising questions of her capability to independently protect her delivery means.

FOREIGN OWNERSHIP OF DEFENSE AND DEFENSE-RELATED INDUSTRIES

The defense and defense-related industries are, again, aerospace, shipbuilding, electronics, vehicles, and general armaments. France attempted to exclude foreign interests from defense industries and, with one exception, succeeded. The exception is Soviété Nationale d'Etude et de Construction de Moteurs d'Aviation (SNECMA), France's major engine company, in which the U.S. company, Pratt and Whitney, owns 10 percent, indicating non-commitment.[113] The company produces Pratt and Whitney engines and the British engine, Olympus, for the Concorde, although at one time it developed turbojets independently. The French aerospace industry has run into a cost problem. A weapon system that calls for large research and development costs but is required in limited quantities at home, may be judged an unprofitable use of resources. To offset the cost, foreign markets are needed. However, competition, particularly from the U.S., is stiff. For the year July, 1967-June, 1968, the U.S. sold 415 aircraft for approximately $1,130 million to its NATO partners, France sold only 65 Mirage V and nine Atlantique for less than $325 million.[114]

For reasons such as this, Christopher Layton describes the French aerospace industry as "chronically uneconomic," and John Calmann, who based his study largely on personal discussions with officials, says France seemed less confident about the ability of her "aircraft industry to compete internationally in the civil market."[115]

There is no evidence of foreign ownership in the French shipbuilding industry, thereby indicating commitment.

The French, although successful in excluding foreign interests from electronic defense industry, have failed in excluding those interests from electronic defense-related industry. International Business Machines is the third largest industry in France and General Electric owns 50 percent of Machines Bull, the largest French-owned firm of data-processing equipment.[116] The French government, after initially blocking General Electric from part ownership, relented and authorized the sale. "The Bull story has some moral. It demonstrates the sheer economic fact that France is not in a position to develop this high technology industry on its own."[117] Another U.S. firm, United Aircraft, owns 20 percent of the French electronic company Percilec SA. U.S. firms own 42 percent of the telegraphic and telephone equipment in France, 43 percent of the electronic and statistical machines (including 75 percent of the computers), and 75 percent of the accounting machines; which explains France's $109.3 million balance of payment

deficiet in the electrical and electronic industry for 1963, and her low rating in total sales (her top company ranked twentieth among European and U.S. electrical companies).[118] The U.S. dominance of France's computer industry may have an adverse effect on France. The computer is a massive technical industry for the rest of the economy and should the U.S. companies withdraw their financial support and expertise, it could drastically retard her economic and military progress.

There is no evidence of foreign ownership in the tank, vehicle, ordnance, and munitions defense production arrangements, thereby indicating commitment. General Motors, Chrysler, and Ford have plants in France, but they did not contribute to the defense effort.

France's goal was to create a defense-related capacity that would enable her to act independently. If she could have developed and procured her systems at home, she would have stimulated her economy as well as created an independent defense capacity. However, advanced technology seemed to require investment of resources beyond her means. She has not developed an independent capacity in aircraft engines and electronic computers. The financial strain of developing her nuclear force and the problem of establishing markets "for her defense products, have made the limitations of a largely antarchic programme apparent."[119] Finding markets has been difficult for France. The British and U.S. governments have pressured Germany into buying goods to offset

the cost of maintaining forces on German soil. The U.S., until 1967, insisted the offset be in defense equipment, thus hampering French efforts to sell her own wares. The German defense expenditures abroad illustrate this difficulty. For the years 1958-65, Germany purchased $3,500 million worth of defense equipment from the U.S. and only $875 million from France, with political considerations accounting for part of the purchase from France.[120] Another difficulty France faced in selling her equipment was that European countries were reluctant to purchase an entire system without performing part of the research and development work or production before agreeing to buy. Calmann, drawing his conclusions from interviews with French and British officials, believes that those French officials working directly with joint projects may have been making a conscious attempt to undermine the Fifth Republic's policy of independence by integrating French industries with those of other nations in fact, even if theoretically they are independent.[121]

The analysis of French weapon procurement behavior during the 1958-1966 period demonstrated that the Gaullist independent nuclear deterrent was a rhetorical commitment. The examination of her cooperative defense and defense-related projects revealed that the number of projects increased as she approached her date of withdrawal from NATO's military structure, she concentrated her joint aircraft development with Great Britain, and she demonstrated an inability to

develop big engines, specifically big aircraft engines. There was also a suggestion that she was deficient in developing electrical components for her strategic missiles. The examination of her weapon purchases revealed that she relied heavily on the U.S. for advanced weapons. She purchased 12 KC-135 tankers to provide the range to avoid flying over Soviet satellite countries enroute to most Soviet cities, and air defense missiles to protect her delivery means. The analysis of her defense and defense-related industries showed that, although she excluded foreign interests from her defense industries with one exception, her defense-related electrical industry was heavily dependent on U.S. firms. Overall, the analysis of the French weapons procurement behavior demonstrated major weaknesses in financial resources, big engine capacity, and electronics potential. These limitations reflect long-range indicators of non-commitment to an independent nuclear deterrent.

CHAPTER III

MILITARY CAPABILITY AND MILITARY REPUTATION

Military capability and military reputation are two of the three elements constituting military power, military potential being the third. The efficacy of a state's military forces, or their capability, rests on their size, composition, equipment, logistical reach, and availability for new application. In examining military capability and the components that determine its effectiveness, the measurement must be conducted in a specific mode of war and compared with another nation's military capability in that same mode. For instance, if the military capabilities of the French forces and the Algerian guerrillas were studied within the framework of a conventional conflict, quite probably France would be considered the stronger. However, the actual conflict between the two took place within the framework of an insurgent war and the Algerians proved to be the stronger. Moreover, a nation's forces may be well equipped to defend its homeland but lack the logistical capacity or long-range aircraft to engage in offensive operations far removed from her home territory. Thus, in one stance, that nation would be deemed militarily capable of waging war while in the second instance it would not.[122]

The French deterrent strategy was based on an immediate

nuclear response to Soviet aggression.[123] General André Beaufre justified the utility of such a strategy by drawing on the 1962 Cuban missile crisis. Beaufre maintained the McNamara "flexible response" strategy was tantamount to sending a message to the U.S.S.R. saying the U.S. now lacked the resolve to employ nuclear weapons, and as a result, Russia moved missiles into Cuba. When President John F. Kennedy made it clear the U.S. would use nuclear weapons to safeguard its interest, however, the Russian missiles were quickly withdrawn. Beaufre said:

> Now the Cuban experience had shown that these fundamental positions must, in the case of crisis, be reaffirmed, demonstrated, and dramatized to strengthen or restore the credibility of a recourse to arms. [Nuclear weapons][124]

De Gaulle seems to have endorsed Messmer's "demographic" strategy in his January, 1963 press conference when, after acknowledging France's nuclear arsenal would be modest, said it would nevertheless destroy "millions and millions of men" in a few seconds.[125]

Several scholars point out that France is more concerned with deterrence than defense for security.[126] Pompidou, in his address before the joint session of the National Assembly and the Senate on 13 April 1966 and again in his speech on 20 April 1966 to the National Assembly, repeatedly affirmed the primacy of deterrence. "The goal of national defense is no longer to win a war, but to make it impossible.

Nuclear weapons are all that count," he said. "People believe a war can be won, while in fact we can only hope to avert it by atomic deterrence. Deterrence alone can guarantee peace,...[and] the only deterrence is nuclear." While making these statements, Pompidou was also emphatically rejecting McNamara's flexible response strategy.[127]

An hypothesis, called the "trigger theory," has been advanced regarding France's nuclear weapons. The hypothesis suggests that should the U.S. attempt to restrict a conflagration with Russia to a conventional or tactical nuclear war, the French will use their nuclear force against Russian cities and "trigger" the strategic arsenel of the U.S. Former Ambassador Cleveland lends support to the contention France intends to use the trigger theory. "I once heard a French official explain to Secretary Rusk [U.S. Secretary of State Dean Rusk]," Cleveland reports, "that the French nuclear weapons would be available to 'trigger' a U.S. nuclear response if the Americans seemed reluctant to come to the aid of Western Europe in an emergency." When Rusk asked how that would work, the official replied that with French missiles poised toward Russia, the Soviets would either stop their aggression or launch their nuclear force on NATO, which would automatically involve the U.S. "'No,' said Mr. Rusk thoughtfully, 'I think our first reaction would be to make sure the Russians knew where your missiles were coming from'."[128]

The analysis of France's military capability is limited

to her strategic nuclear force and is compared to the Soviets strategic capability for the following reasons. First, France's strategy of quick resort to nuclear weapons paralleled that of Russia.[129] Second, her deterrence was directed against Russia. Third, her security was based on nuclear deterrence. Fourth, the comparison with the U.S.S.R. is made only to determine if the French had the capacity to penetrate the Soviet defense and attack the Russian cities; therefore capabilities are included. The index to ascertain if France possessed the capability to independently enforce her threats and thus a credible commitment, is that she must have had the capacity to deliver one nuclear warhead against a Russian city. The rationale for this index is that the Mirage IVA, France's only strategic nuclear delivery means in 1966, was equipped with 60-kiloton weapons.[130] If a primitive and relatively small-yield atomic bomb could cause over 160,000 casualties in 1945, one of the French nuclear weapons, which is three times as powerful, could devastate a Russian city.[131] If that city were Moscow, the effect on Russia would be that much greater. "The Russians have historically displayed an understandably defensive concern for their homeland, and especially for Moscow, traditionally regarded as the 'Third Rome'."[132] The Russians, in calculating the risks involved in any aggression, must consider a retaliatory strike against Moscow.

FRANCE VERSUS U.S.S.R.: STRATEGIC NUCLEAR MILITARY CAPABILITIES

Three of the five elements that determine the efficacy of military capability are size, equipment, and logistical reach. Composition and availability for new application are not considered; composition because only one segment of the armed forces is being studied, and availability for new application because equipment usually requires extensive modification to convert it to a nuclear capability. Availability for new application of personnel is also not considered because of the long period of training required for all critical positions associated with strategic nuclear systems. Table 2 depicts the size and equipment of offensive strategic nuclear forces, and Table 3 the size and equipment of defensive strategic forces. The naval vessels are included in the defensive comparison because the aircraft from three of the French aircraft carriers would probably be used in an air defense role. The remaining French vessels would then be assigned the mission of protecting the carriers while the Russian vessels would probably be tasked with destroying the French carriers.

Table 2 shows an overwhelming Soviet superiority in offensive strategic weapons: 1,140 missiles and 1,100 bombers to France's 36 bombers. In addition to a numerical inferiority, the range of the French bomber fleet was limited without mid-air refueling by the 12 American built KC-135 tankers. Theoretically, her aircraft had a one-way range capability

Table 2

ESTIMATES OF COMPARATIVE OFFENSIVE STRATEGIC STRENGTHS, EARLY 1966.[133]

Category	France	Soviet Union
Missile and Air Power		
Land-based ICBMs	--	270
Fleet ballistic missiles	--	120
IRBMs and MRBMs	--	750
Long-range bombers	--	200
Medium bombers	36	900
Seapower		
Ballistic missile submarines	--	40

Abbreviations:

ICBM -- Inter-continental ballistic missile
IRBM -- Intermediate-range ballistic missile
MRBM -- Medium-range ballistic missile

Table 3

ESTIMATES OF COMPARATIVE DEFENSIVE STRATEGIC STRENGTHS, EARLY 1966.[133]

Category	France	Soviet Union
Air Force		
Fighter/interceptor aircraft	738	> 6,000
Air defense missiles	576[a]	> 10,000
Naval		
Medium Bombers	---	400
Other aircraft	275	400
Aircraft Carriers	4	---
Cruisers	2	20
Destroyers	80	60
Submarines, non-missile	18	370

[a] 216 HAWK missiles are not included due to their limited altitude capability.

to all major cities but, with the exception of Leningrad, this would entail flying over Communist satellite countries, thereby increasing their vulnerability. The Soviets did not encounter the same problem. Their medium bombers could take off or land in the satellite countries, thus reducing their air mileage considerably. Table 3 also shows an overwhelming Soviet defensive superiority: a 20:1 air defense missile and submarine advantage, and an almost 10:1 fighter/interceptor advantage. The French aircraft carrier advantage is nullified by the Soviet naval bomber and submarine advantage. The responsiveness and possibly the quality of the air defense systems also favor the Soviets. The extensive early-warning and air-defense system of the Soviet Union continues to expand and improve in quality, whereas the French, as previously discussed, must rely on NATO for its early warning.[134] To counter the Russian air defense system, the French bomber force has been adapted with low-level penetration devices.[135] The most glaring French weakness, however, is in the missile field. The French have no defense against the 1,140 nuclear-tipped Soviet missiles. Clearly, should the Russians strike first with nuclear weapons, the 36 French aircraft comprising her retaliatory force could be destroyed before they become airbrone.

The total reliance on the U.S. for refueling tankers and air defense missiles, discussed in Chapter 2, would certainly have a long-range effect on the French, but the

short-range effect would have been minimal. The obverse is true regarding the nuclear warheads for the Honest John, Hercules, 155 mm howitzers, and the 72 fighter/interceptors the U.S. provided under the two-key system.[136] The long-term prospects for the French force are rather dim. As her IRBM missiles become operational, and she reportedly is encountering difficulty in their development, so will the Russian Ballistic Missile Defense system (BMD).[137] France's attempt to develop her own BMD and a modern anti-submarine warfare system was abandoned due to financial stringencies, although she still cooperates with NATO in these areas.[138]

The underlying strategic ingredient of deterrence is fear, without which no threat can be said to exist.[139] Based on Soviet commentary regarding the French nuclear weapons, they appeared to have little or no fear of the force de frappe. The principal Soviet themes were, first, the military significance was belitted, although little professional analysis was presented. Second, the certainty of reprisal and the destruction of France was stressed. Third, the force de frappe was pictured as essentially a political instrument for exerting influence on both her allies and the Soviet Union. Its success in influencing Soviet policy, however, was rejected. Fourth, her limited arsenal was portrayed in the context of the trigger theory or as a device to force the U.S. to readopt the massive retaliation doctrine. Fifth, the force would ultimately

find its way into the hands of the West Germans, and sixth, although contradictory to the other themes, De Gaulle was lauded for his desire to ensure against German resurgence and American hegemony.[140] Soviet Premier Nikita Krushchev, in referring to the French nuclear force, told British Prime Minister Harold Wilson in June, 1963, "it was ludicrous to suppose that a manned bomber had any chance of inflicting damage on the Soviet Union."[141]

Some scholars and French officials have more or less agreed with the Russians. Jacques Baumel, while extolling the virtues of the force as a diplomatic tool, also said "To be sure, the French nuclear force has limited military value,..."[142] Horst Mendershausen and Amme cite the weapons as being primarily aimed at weakening German-American bonds and substituting French hegemony in Western Europe.[143] General Beaufre, who normally reflected De Gaulle's views, declared strategic aircraft obsolete as far back as 1963, and the highly regarded Institute for Strategic Studies, in referring to the force de frappe, said, "Its credibility must be limited in face of the known Soviet air defense capability."[144]

However, the French did not profess that their force was equal to the Soviet force. In a confrontation with Russia, France sought a proportional deterrence wherein whatever stake the U.S.S.R. had in attacking, France would offset by possible destruction of major Soviet cities.

Presumably, France could "tear an arm off" the aggressor.[145] Most detractors of the force de frappe have, if only by omission, admitted this potentiality. One Russian, General Talenskii, openly acknowledgedthe possibility. He says that even states "with limited nuclear stocks could inflict substantial damage on a stronger neighbor," adding "this would be suicide, but such acts are not unknown."[146] If the Soviets were the first to employ nuclear weapons, and presumably they would do so if they were attacking, the French retaliatory capability could be destroyed on the ground. However, if the conflict were preceded by a buildup of political tensions, the French would have the major portion of their fleet airborne or covertly located at airfields outside France. Moreover, as good as the Soviet's air defense may be, there is no air defense weapons system, aircraft or missile, that has a 100 percent assurance of kill probability. A system achieving a 99 percent kill probability after firing two missiles, can fire an unlimited amount of succeeding missiles and still not achieve 100 percent kill assurance. If France were successful in getting all 36 of her nuclear bombers airborne and targeted equally against three Russian cities, only one aircraft -- or 8 percent -- in each flight needed to penetrate the Soviet defense to devastate three Russian cities. This possibility did exist. Therefore, France's military capability is considered sufficent to enforce her threat of nuclear retaliation. Therefore, insofar as her military capability was concerned, her commitment was credible.

MILITARY REPUTATION

Military capabilities, both actual and potential, are vital elements of military power, but by themselves do not constitute military power. The capabilities of a nation's armed forces and the nation's capacity to increase these capabilities, compose the base from which military power is derived. However, a powerful base is not sufficient for military power. Another essential condition is a state's recognized willingness to employ military force on behalf of interests it deems important enough to justify the costs of such employment.[147] This condition, that is the recognized willingness to employ force, is the element of America's military power De Gaulle questioned, at least publicly. He acknowledged America's powerful base, but once the Soviet Union possessed the capability to strike U.S. cities "no one in the world -- particularly no one in American -- can say <u>if</u>, where, when, how and to what extent the American nuclear weapons would be employed to defend Europe." [Emphasis added.]

France's security rests on nuclear deterrence, and deterrence occurs above all in the minds of men. It depends in the first instance on psychological criteria.[148] In order for France to deter the U.S.S.R., the U.S.S.R. must perceive France's employment of nuclear weapons against her. Hence, the basic question is, will France use her nuclear weapons in the face of Russian aggression? Knorr contends the answer to whether or not a nation will exercise her

military capability rests on her military reputation, an intangible asset, which is based on her previous military and crisis behavior and on the absence of new evidence which would counsel a discounting of past behavior.[149] Raymond Aron, however, modifies Knorr's contention by saying the collective will is not constant throughout history, but that it varies from period to period. Moreover, the men in power exercise a varying degree of influence over the collective will.[150] This portion of the study examines France's military and crisis behavior for the thirty-five years preceding her withdrawal from NATO's military structure. Specifically, her behavior is confined to those instances in which she had a previous commitment to employ her military capability.

There were eight international and two colonial disputes in which France had previously pledged to use her military forces if necessary. Only two of the international disputes directly threatened France or French territory: Germany's reoccupation of the Rhineland in 1936, and the Suez crisis in 1956, which was the direct result of Egyptian interference in French Algeria. All of the disputes took place before France acquired nuclear weapons; therefore they are examined to lend supporting evidence to France's probable behavior and are not considered critically indicative. The international crisis situations are discussed in chronological order, followed by the two colonial disputes. In the international disputes, a crude measurement of relative strengths

is provided between France and her allies on one hand and her potential enemies on the other.

MILITARY AND CRISIS BEHAVIOR OF FRANCE

By the Treaty of 1906, France pledged to cooperate with Great Britain and Italy in maintaining the integrity of Ethiopia.[151] Italy, however, began making menacing moves toward the Ethiopian Kingdom in December, 1934. A clash between Italian and Abyssinian soldiers took place at the wells of Wal-Wal on the Abyssinian and Italian Somaliland border, a clash which was to be the pretext for later Italian aggression against the Kingdom. Italy, under the dictatorship of Benito Mussolini, launched a full-scale attack in October, 1935. The matter was brought before the League of Nations where selective, but ineffectual, economic sanctions were voted against Italy. The combined military strengths of France and Great Britain were greater than that of Italy, with the British Navy alone capable of thwarting the invasion.[152] Militarily, however, France and Great Britain, although committed to Ethiopia by Treaty, sat idly by while Mussolini subjugated their self-proclaimed protectorate.

The Treaty of Versailles established a "demilitarized zone" in Germany's Rhineland. The Treaty declared that Germany could not erect fortifications on the left bank of the Rhine or within fifty kilometers of the right bank. She could not maintain any military forces in the zone, hold any military maneuvers, or maintain any facilities for

military mobilization.[153] In addition to the Treaty of Versailles, there was the Pack of Locarno, a series of treaties entered into by seven European countries in October, 1925.[154] One of the treaties, commonly referred to as the Rhineland Pact, held that should Germany violate the articles of the Treaty of Versailles establishing the demilitarized zone, such a violation would constitute an unprovoked act of aggression and immediate action would be required of the other Parties. Such a violation was to be brought before the League of Nations to establish the fact of violation. Once established, the other Parties were bound to give military aid to the Party against whom the offense had been perpetrated.[155] On 7 March 1936, Chancellor Adolf Hitler sent his German troops streaming into the Rhineland. Germany, which had been disarmed under the Peace Treaty provisions, was still militarily inferior to the French. "It must be remembered that France alone was at this time quite strong enough to drive the Germans out of the Rhineland, even without the aid...[of] Great Britain."[156] But again France, even though Hitler clearly violated the provisions of both the Treaty of Versailles and the Locarno Pact, did not take the military action required of her by the Pact. Although this study does not attempt to weigh the individual instances of behavior, her unwillingness to act in the Rhineland incident seems to be a serious violation of commitment. The Ethiopian affair could be shrugged off as not endangering her homeland, but in view of the historical sufferings

inflicted upon her by German militarism, her inertia in the Rhineland could, by itself, be interpreted by Russia as portending France's future reactions.

France's next crisis arose with Hitler's annexation of Austria on 13 March 1938. In 1935, France and Italy had concluded an agreement calling for joint military action should Hitler move against Austria.[157] A year prior to this agreement, on 17 February 1934, the British, French, and Italian Governments made a common declaration to maintain Austrian independence.[158] Subsequently, Italy deserted the allies' ranks and covertly informed Hitler she would not oppose any German action regarding Austria. While moving against Austria, Germany's fledgling war machine broke down due to mechanical deficiencies, indicating that France was still the stronger military force.[159] Nevertheless, France again refused to back her commitment with military action.

Twice France reneged on her treaty commitments to Czechoslavakia, one in 1938 and again in 1939. The treaty with Czechoslovakia, once of the Locarno Pact treaties, was a virtual defense alliance.[160] On 14 March 1938, French Premier León Blum, "solemnly declared to the Czech Minister in Paris that France would unreservedly honor her engagements to Czechoslovakia."[161] On 12 June, Blum's successor, Edouard Daladier, "renewed his predecessor's pledge of March 14, and declared that France's engagements towards Czechoslovakia are sacred, and cannot be evaded."[162] Three months later

Daladier, in concert with British Prime Minister Neville Chamberlain, joined with Hitler in concluding the Munich agreements whereby Czechoslovakia was to cede her Sudetenland to Germany. France, with Czechoslovakia as an ally, was still a stronger military force than Germany in 1938. At the time of the Munich Conference, Czechoslovakia was deploying thirty to forty divisions along some of the best defensible terrain in Europe. Germany, although having a vastly superior air force, had only thirty-five mobilized divisions. To conquer the Czechs, nearly all the division would have been required, leaving the French Army with an almost eight to one manpower advantage along the Western Front. Once again, France had turned her back on an ally and, in this instance, had joined forces with their common enemy.[163] Czechoslovakia, stripped of her allies and not even included in the Munich discussions, capitulated on 30 September 1938, and Hitler's forces poured into the Sudetenland. Five and one-half months later, on 15 March 1939 -- a year and a day after Blum's avowal that France would unreservedly honor her commitments -- Hitler occupied the rest of Czechoslovakia without any French interference.

Germany's invasion of Poland on 1 September 1939 finally brought France into action. France and Poland were allied by a treaty very similar to the Franco-Czech alignment. Concluded in Locarno in 1925, it, too, was a virtual defense alliance.[164] France, as history has shown, had waited too

long to fulfill her commitments. Her declaration of war on 3 September came after Germany had gained military superiority and she was easily subdued in 1940.

Discounting her colonial wars for the moment, France was involved in two more military crises following World War II. The peace arrangements following the war called for France to administer a portion of Berlin, where she stationed a brigade of army troops along with U.S., British, and Russian forces. As mentioned earlier, the Soviets attempted to coerce the allies into abandoning Berlin by establishing a ground blockade in June, 1948. The allies remained steadfast and the Russians lifted the blockade in 1949. France was allied with the only atomic power at the time and this fact may have been the reason she remained firm. Whatever the reason, however, she did remain firm. The second crisis occurred in November, 1956, when she and Great Britain, in concert with Israel, invaded Egypt. The Algerian war was just starting in earnest when France, in October, 1956, intercepted a ship carrying Egyptian military equipment destined for the Algerian rebels.[165] For this and other Egyptian provocations, France resorted to military force.[166] Faced by a Russian threat to come to Egypt's assistance, a lack of support from the U.S., and hostile world opinion, she recanted by removing her forces. The reason she recalled her forces cannot be determined with any certainty. The essential point is that she did display a willingness to use her military forces on behalf of her

interests.

Of the eight situations discussed, France displayed a willingness to back a commitment with military forces in only three of the situations. However, there are two other crises that should be included, although not international disputes in the same context as those already discussed, and they are Indochina and Algeria. In each situation France resorted to military force to back her commitment, her commitment in these crises being to retain her colonial empire. Including these two crises, France still backed her previous commitments with military forces only fifty percent of the time.

In none of the crisis situations in which France was involved did nuclear weapons play a part and therefore her previous military and crisis behavior cannot be used to determine her commitment to employ nuclear weapons against the Soviet Union. This is not to say that nations will definitely act differently just because nuclear weapons are involved. But the sheer enormity of nuclear destructive power clearly makes different behavior a distinct possibility if not a certainty. Nuclear war endangers the lives of millions instead of thousands, when what is risked is no longer the loss of a province but the survival of society itself.[167] With the survival of society hinging on the use of nuclear weapons, certainly the possibility of nations deviating from historical patterns is such that an unequivocal determination of their future behavior cannot be made based

on their previous behavior. Nevertheless, insofar as patterns of national response tell anything about France's commitment to actually use her nuclear forces, her previous military and crisis behavior indicates her commitment is at least open to question.

CHAPTER IV

MILITARY POTENTIAL

Military potential, the third element of military power, depends primarily on a nation's economic and technological capacity, administrative skill, and political management of military power.[168] Military potential determines if a state can afford to develop and deploy nuclear capabilities for the purpose of deterring any nuclear opponent during an indefinite future, and the magnitude and kind of such forces it can afford.[169] Another aspect of military potential is that it can be converted into military capability, but this aspect is more concerned with converting potential into conventional capabilities, such as mobilizing the population and changing civilian factories into war plants. This second application of military potential has very little bearing on a nation's strategic nuclear capability. Certainly a war economy provides more funds for research and development, but the extensive time required to develop new weapon systems appears to negate even this advantage. Therefore, military potential is examined here from the standpoint of whether France can afford to develop and deploy sufficient nuclear capabilities to deter Soviet aggression, rather than her ability to convert potential into capability. A sufficient nuclear capability, as perceived by De Gaulle, was a force

having the capability to "tear an arm off" Russia by attacking only her cities.

The administrative skills and political management that help make up military potential are more concerned with the conversion aspects applicable to long-term war, rather than the short, nuclear war envisioned in this study; therefore they will not be examined in depth. The facet of administrative skills needed for a short, nuclear war is the managerial ability to transform economic and technological resources diverted to the military sector into effective military forces.[170] Buchan and Harlow both attest to the French ability in this area by evaluating French management of defense-related industries as among the best in Europe.[171] The aspect of political management applicable to a brief but devastating war dominated by nuclear weapons concerns the ability of the government to increase the state's military effort and centers on the public's acceptance of the government's foreign policy goals.[172] A poll commissioned and published by Le Nouvel Observateur was conducted in April, 1966, and again in July, 1967, with the results demonstrating French voter approval of De Gaulle's foreign policies.[173]

The purpose of this chapter is to examine France's military potential from the standpoint of her commitment to develop a modest, but independent, nuclear force. Her development of a nuclear weapon and a delivery means by 1 July 1966 is an accomplished fact and proof she had the

potential, desire, and ability to do so. However, for her to demonstrate commitment to an independent course of action, she must have had both the ability to expand her military effort and she must have actually expanded that effort. To measure France's ability to expand her military effort, her gross national product (GNP) for the years 1960-1966 is examined; to measure her military effort, her defense expenditures for the same period is examined.[174] For a positive indication of commitment, both her GNP and military effort must increase each year. First, a growing GNP generates additional funds that can be used for military purposes without requiring reductions in absolute volumes of personal consumption, investment, or other public expenditures. This is not to say that other expenditures cannot be reduced for the sake of increased military spending. This reduction usually occurs in time of war. However, reducing non-military expenditures in time of peace is politically dangerous and can only be done for a relatively short period of time, particularly in a democracy such as that of France. A sustained GNP growth rate is required owing to the extensive time -- measured in years -- to develop and deploy nuclear weapons and the high cost incurred by these weapons. Second, military expenditures must increase for several reasons, one being to absorb increased costs of weapon systems caused by inflation. Another reason is to pay the increased cost of deploying the systems once they are developed. A third reason is to

pay for additional research and development aimed at improving systems deployed or being deployed while at the same time conducting research on new weapon systems. This last reason, particularly that of improving current systems, seems imperative for France because her reliance on twelve, U.S.-provided tankers is a major weakness with long-range implications, a weakness that must be eliminated if she is seriously committed to an independent deterrent policy.

Insofar as France's military potential is concerned, her commitment or non-commitment to policy is determined solely by her ability to expand her military effort and her behavior in expanding that effort. However, this chapter also presents related evidence. This evidence, compiled for the year 1962, provides supporting if not conclusive evidence of her commitment or non-commitment to policy. Moreover, all evidence pertaining to France is compared with the U.S.S.R.'s effort. This comparison is not intended to determine France's commitment since the two nations require quite different forces, strategies, and expenditure levels for their respective deterrents. The comparison merely illustrates the relative effort each is making.

GNP, DEFENSE EXPENDITURES, AND GNP GROWTH RATE

As defined earlier, a GNP reflects a nation's total economic output of goods and services. The larger a nation's GNP, the larger military effort it permits. A large GNP

represents an ability to make a large military effort, and this ability is what potential means.[175] This is not to say a nation with a large GNP will expend large sums on defense. Japan, in 1965, had the third largest GNP, yet ranked eleventh in defense expenditures. Nevertheless, generally speaking there is a positive correlation between a nation's GNP and its defense expenditure.[176]

Tables 4 and 5 reflect yearly increases in France's GNP and defense expenditures during the 1960-1966 period. The steady decline in the percentage of her GNP spent on defense from 6.6 percent in 1961 to 5.8 percent in 1965 does not indicate non-commitment. As will be shown, 1961 was the year France significantly reduced her military effort in Algeria. Moreover, she reduced the strength of her army from more than one million men in 1961 to 585,000 in 1965.[177] Reflecting this cutback of personnel was the decline in her military operating expenses from $2.3 billion in 1961 to $2.1 billion in 1965.[178] Conversely, her overall defense expenditures increased during the same period, indicating the decline in the percentage of her GNP spent on defense was due to her disengagement from Algeria rather than a non-commitment to policy.

France not only manifested her commitment by increasing her defense expenditures each year; she also consistently ranked higher in defense expenditures than her GNP rank. Her defense expenditures placed her fourth during the years 1960-1964, third in 1965, and fifth in 1966, while her GNP placed her fifth during the years 1960-1963, and sixth

Table 4

FRENCH AND SOVIET GNP, DEFENSE EXPENDITURES, WORLD RANKINGS, 1960-1963.[179]
(Amounts in current U.S. dollars at market price, and official exchange rates)
(in millions of U.S. dollars)

	GNP		Defense Expenditures		
		World Rank		As % of GNP	World Rank
1960					
France	59,960	5	3,881	6.5	4
U.S.S.R.	184,626	2	18,463	10.0[a]	2
1961					
France	64,717	5	4,266	6.6	4
U.S.S.R.	192,507	2	19,251	10.0[a]	2
1962					
France	72,125	5	4,381	6.1	4
U.S.S.R.	193,463	2	19,346	10.0[a]	2
1963					
France	79,318	5	4,628	5.8	4
U.S.S.R.	198,912	2	19,891	10.0[a]	2

[a]Soviet military expenditure is estimated as a conservative ten percent based on data furnished by Military Balance 1965-1966, p. 43, and World-Wide Defense Expenditures and Selected Economic Data, p. 8.

Table 5

FRENCH AND SOVIET GNP, DEFENSE EXPENDITURES, GNP PER CAPITA, WORLD RANKINGS, 1964-1966[180]
(Amounts in U.S. dollars at current prices and purchasing power equivalent rates)

	GNP			Defense Expenditure		
	Mil $	$ Per Capita	World Rank	Mil $	As % of GNP	World Rank
1964						
France	99,800	2,061	6	5,850	5.9	4
U.S.S.R.	300,000	1,316	2	40,000	13.3	2
1965						
France	105,800	2,159	6	6,180	5.8	3
U.S.S.R.	313,000	1,358	2	40,000	12.8	2
1966						
France	109,281	2,212	6	6,305	5.8	5
U.S.S.R.	357,000	1,531	2	47,000	13.2	2

during the years 1964-1966. Another indication of her commitment to develop a credible independent nuclear force is reflected by the increased funds in her program laws for strategic nuclear weapons. The French defense budget contains only a portion of her defense expenditures; some defense funds are included in program laws. These laws provide funds for long-term armaments programs such as the strategic nuclear force, although additional funds for this force are also contained in her annual defense budget. There have been two program laws, the first accounting for the 1960-1964 period, and the second accounting for the 1965-1970 period. Although specific annual amounts spent on the strategic nuclear force from the program laws are not a matter of public record, total amounts for each period are. From the first program, $1.8 billion were expended on the strategic force, or a yearly average of $360 million.[181] From the second program, $5.72 billion were expended, or a yearly average of $953 million, almost a 300 percent a year increase.[182] The amount designated for the strategic nuclear force in the military budget is not a matter of public record. However, those items of the budget containing nuclear force funds -- technical studies, research, investment, and weapons and munitions manufacture -- increased from $1.12 billion in 1960 to $1.92 billion in 1965, supporting the contention that France was increasing her expenditures for strategic nuclear weapons.[183]

A relatively high GNP per capita usually denotes an advanced level of economic and technological development, and an ability to produce and employ complicated military materiel. France ranked higher than Russia (see Table 5) but that did not alter her relative military position to Russia as differences in GNP per capita have no direct bearing on differences in national military power.[184] The salient point is that France had a high GNP per capita, ranking in the top twelve nations during 1964-1966, thereby indicating she had the potential to further develop her strategic nuclear force.

Initiating the development of the French nuclear force predated President de Gaulle. In the mid-1950's, the Fourth Republic took steps to develop both a nuclear bomb and the Mirage IV as a first-generation delivery system. In 1958, a committee undertook an investigation of French resources to determine if France had the capacity to develop and manufacture strategic ballistic missiles. The committee declared such an effort feasible.[185] Since the earnest development of a nuclear force commenced in the mid-1950's, Table 6 shows France's GNP growth rate for the period 1956-1966.

The comparative growth rates of France and Russia demonstrate that France could not compete on the same scale as the Soviets. The U.S.S.R. GNP, which was larger than the French GNP initially, experienced a greater growth rate.

Table 6

COMPARATIVE GROWTH RATE OF GNP
(percent)[186]

	1956-1961	1962-1966
France	4.9	5.4
U.S.S.R.	6.4	5.6

If, the average 1962-1966 rate is applied to the 1966 GNP's, the Soviet GNP increases $14 billion more than the French GNP, or approximately 200 percent more than France's total defense expenditure for that year. However, France was not competing with the U.S.S.R. and her growth rate during the period permitted her to increase her military effort without compressing non-military expenditures.

SCIENCE AND TECHNOLOGY

1962 was the first year France was essentially free of the Algerian war encumbrances. On 8 January 1961, the French and Algerians approved a self-determination referendum for Algeria: 70 percent of those voting in Algeria and 75 percent of those voting in France voiced approval.[187] French and Algerian representatives initiated peace negotiations on 20 May 1961, the same day France terminated offensive operations and announced that six thousand prisoners would be released.[188] De Gaulle, in his

1962 New Year's message, told the French nation the coming year would witness the modernization of the major part of the French Army, and added on 5 February that "before the end of the next year we will possess the first operational element of a French atomic force."[189] Although the peace negotiations were not concluded until 19 March 1962, French involvement was clearly ending in 1961, thus freeing funds for an accelerated effort toward developing a strategic nuclear force in the pivotal year of 1962. This year is also significant for another reason. The time required to develop a credible nuclear force necessitated a significant effort in 1962 if De Gaulle was to have an operational force by 1 July 1966, the day he left NATO's military structure.

Science and technology are the key productive resources effecting all branches of production, both civilian and military. They are most important in providing the means for a strategic nuclear deterrence. The most practical method of studying the scientific and technological efforts is by examining expenditures on, and manpower engaged in, research and development.[190] Tables 7 and 8 reflect the expenditures of France and the U.S.S.R. in terms of money and manpower for the crucial year of 1962.

In a direct comparison of absolute expenditures between the two countries, Russia overwhelms France. Russia expended approximately 400 percent more funds than France, had almost 1500 percent more scientists and engineers engaged in research and development, and had nearly 200 percent more

Table 7

FRENCH AND SOVIET ESTIMATED GROSS EXPENDITURES ON RESEARCH AND DEVELOPMENT, 1962[191]
(Amounts in millions of U.S. dollars at official exchange rates)

	GNP	GERD	As % of GNP	Military R&D	Military R&D as % of GERD	Military R&D as % of GNP
France	72,125	1,108	1.5	520	46.9	.72
U.S.S.R.	193,463	4,773	2.5	2,000	41.9	1.03

Table 8

FRENCH AND SOVIET ESTIMATED MANPOWER ENGAGED IN RESEARCH AND DEVELOPMENT, 1962[192]
(in thousands)

	Scientists & Engineers	Other Personnel	Total	Total R&D Personnel Per 1,000 Population
France	28.0	83.2	111.2	2.4
U.S.S.R.	416.0	623.0	1,039.0	4.7

personnel per thousand population engaged in research and development. The Soviets, however, are competing with the U.S. in areas such as space exploration and BMD, relatively expensive projects. France, on the other hand, has joined other nations in cooperative programs in these fields, thereby reducing the cost. How much Soviet money and manpower were devoted to programs in which France has only a minimal interest cannot be determined, but French expenditure in research and development funds as a percentage of her GNP was only one percent less than that of Russia. The fact that, percentage-wise, she nearly equaled a nation such as Russia in the research and development effort is strong supporting evidence of commitment.

More significant as an indicator of French commitment is the percentage of research and development funds she devoted to military research and development. The almost 47 percent allocated to this area is five percent more than the Soviet allocation. Considering the magnitude of the Russian military program, that is, developing weapons for every type of warfare, France's greater relative effort in military research and development presents strong supporting evidence of her commitment to developing an independent nuclear force. Also lending support to this argument is the very small difference between the two states' expenditures on military research and development as a percentage of their GNP. The additional three-tenths of one percent spent by the Russians is insignificant in

light of the differing defense objectives of the two countries.

The critical element for continued scientific and technological progress is education. The increased relevance of science emphasizes the importance of formal education, especially graduate study.[193] Table 9 shows France had more graduate students than Russia in 1962, but only fifty-seven percent of the number of Russians enrolled in the natural sciences and engineering. Nevertheless, the 27,000 French students nearly equaled the 28,000 scientists and engineers engaged in research and development in 1962 (Table 8), indicating France continued to develop her scientific and technological potential.

Table 9

FRENCH AND SOVIET GRADUATE STUDENTS, 1962[194]
(Thousands of enrolled students)

	Natural Sciences and Engineering	Other	Total
France	27.0	43.9	70.9
U.S.S.R.	47.3	14.5	61.8

Military potential for the nuclear deterrence of the U.S.S.R. has precise and distinctive meaning for France. That meaning derives from -- and makes sense only in relation to -- France's assertion that her minimal strategic nuclear force is primarily independent of Russian capability and

that she does not depend on parity of force with Russia. Her modest force demands only that potentiality sufficient to inflict damage on the Soviets at a level where aggression and diplomatic slights are a bad risk for the Soviet leaders. The Russian cities are the targets of the force de frappe, not the entire countryside or the Soviet armed forces. France seeks to deter, not defeat Russia.

The key indicators for determining France's commitment to developing a modest nuclear deterrent force are GNP and indices of defense expenditure, particularly those for her strategic force. Analysis of those indicators suggests that France did pursue a commitment to her policy. Her GNP increased annually, thereby demonstrating an ability to increase her defense effort. Her defense expenditures also increased each year, thus demonstrating her effort to expand her capability. In consonance with a commitment to policy was the relationship between her GNP and defense spending. Her world-wide ranking in defense expenditures was consistently higher than her GNP standing. Under the second program law, the yearly average of funds for her strategic nuclear force increased almost 300 percent a year over the yearly average under the first program. Related, but not critically indicative, French behavior in science and technology reinforces the suggestion that her utilization of potential indicated commitment. The percentage of the GNP she devoted to research and development in 1962, and particularly the military research development segment of those funds, is

evidence of her effort and nearly equaled the relative effort of a country such as Russia. The large number of graduate students in the natural sciences and engineering in relation to the scientists and engineers engaged in research and development further substantiates her effort to increase her scientific and technological potential.

The overall review of military potential indicates France, during the 1960-1966 period, was committed to her policy of independently enforcing her threat.

CHAPTER V

SUMMARY AND CONCLUSIONS

France, under President Charles de Gaulle, acquired an independent nuclear deterrent designed to deter Soviet aggression and, in part, to increase her diplomatic influence in the international system. French behavior apparently received its impetus from De Gaulle's vision of French grandeur, "France cannot be France without greatness." Throughout his presidential tenure, he repeatedly emphasized the French need for a nuclear force to attain independence and greatness. His statement on 9 October 1960 serves as an illustration. France, without her own nuclear force, he said, could "no longer be a European power, a sovereign nation, but simply a satellite." The ambivalence of France's position, however, was reflected in other statements by De Gaulle and French officials. He told his press conference on 14 January 1963, "It is obvious that one country, especially one such as ours, cannot...conduct a major modern war all by itself. To have allies goes without saying for us." General André Beaufre cited the need for a defense system on a European scale, while Premier Georges Pompidou, in addressing the National Assembly after the announcement of withdrawal, told the deputies that France could not "alone face up to aggression by one of the two big atomic powers." But it was Foreign Minister Maurice Couve de Murville,

a week prior to Pompidou's statement, who may have revealed the true French strategy and conviction of continued U.S. protection when he told the deputies the U.S. "still wants to watch over" her essential interests in Europe.

Realizing the limitations of France relative to the U.S.S.R., the nuclear force envisioned by De Gaulle was not intended to compete with the Russian force. The French force de frappe was not designed to defeat Russia, but merely to deter Russian aggression by "tearing an arm off" her. She did not seek a second strike force, but instead one designed for immediate strike: any aggression above the border incident level would be answered with nuclear retaliation. She did not seek parity with the U.S.S.R., her strategy and purposes did not require equality in strength or numbers. The backbone of her deterrent policy was a relatively small strategic nuclear force, primarily independent of the Russian capability. France sought a force sufficient in size and credibility to demand respect and make the Russians wary of taking liberties at her expense.

When De Gaulle launched the Fifth Republic, the following options had been open to him. First, he could follow a pure alliance strategy in which deterrence, and the nuclear defense aspect of France's natural interest, would be dictated by alliance decisions. Second, he could follow an alliance strategy in which he maintained membership in an alliance but retained an independent means to provide his own security.

Third, he could follow an independent strategy. The third option, an independent strategy, implies that a nation is not assured of military assistance from other nations and must, therefore, develop the means to provide its own security.

A nation seeking diplomatic influence by means of an independent nuclear deterrent is confronted with an acute dilemma: should it commit itself to an independent course by forfeiting all its options, or should it retain some options and thus sacrifice commitment with an inherent loss of independence. For a commitment to be credible, Thomas Schelling says that all options not to retaliate must be forfeited: a nation must "relinquish further initiative, having rigged the incentives so that the other party must choose in one's favor." To demonstrate commitment, a nation must maneuver itself into a position from which it "can be dislodged only by an overt act, an act that precipitates mutual damage because the maneuvering party has relinquished the power to retreat."[195] Hence, there are no degrees of commitment; a nation is totally committed or it is not committed and any evidence of non-commitment indicates that nation is not committed to an independent nuclear deterrent strategy.

Once the French force was developed, De Gaulle made his most dramatic diplomatic move -- he withdrew his forces from the NATO military structure to enhance French sovereignty

manifest her independence. The analysis of evidence, however, demonstrated that the Gaullist independent nuclear deterrent, while real enough in terms of narrow force capability, was vitiated by a rhetorical commitment rather than total forfeiture of dependency options. This assessment was derived from the following summary of evidence.

France manifested her commitment by developing a strategic nuclear force capable of inflicting severe, and perhaps unacceptable, damage on the U.S.S.R. Under De Gaulle's leadership, she developed a force that could "tear and arm off" Russia. To avoid flying over Soviet satellite countries enroute to Russian cities, she had to rely on foreign-made tankers. This reliance is a drawback with long-range implications, but on 1 July 1966, the day she implemented her independent strategy, she had the tankers and hence the capability. Even more important, her commitment was demonstrated in the analysis of her military potential. The key indicators of her commitment were the annual increases in GNP and defense expenditures, particularly the expenditure increases on strategic nuclear forces. In consonance with her commitment was the relationship between her GNP and defense spending. Her world-wide ranking in defense expenditures was consistently higher than her GNP ranking. Under the second program law, the yearly average funding for her strategic nuclear force increased almost 300 percent a year over the yearly average under the first program. Related, but not critically indicative, French

behavior in science and technology reinforces the suggestion that her utilization of resources indicated commitment. The percentage of her GNP devoted to research and development in 1962, and particularly the military research and development segment of those funds, is evidence of her effort and nearly equaled the percentage devoted to this area by a country such as Russia. The large number of graduate students enrolled in the natural sciences and engineering in relation to those scientists and engineers engaged in research and development, further substantiates her effort to increase her scientific and technological potential.

Evidence of non-commitment, however, appeared in other areas. Possibly the most significant, insofar as short-range implications were concerned, was her continued membership in WEU if for no other reason than her partners in WEU were also members of NATO. Should the provisions of WEU be invoked, it automatically would invoke the NATO agreements and thereby activate the nuclear force of the U.S. Hence, through her WEU allies, she remained under the nuclear aegis of the U.S.

The military relationship France maintained with NATO also indicated non-commitment. Despite removing her forces from NATO's command, she maintained military liaison, coordinated military plans for employing the two French divisions stationed in Germany, and invited Canada and the U.S. to consult on plans for mutually sharing military facilities

in France should they be allied with her in any future conflagration. De Gaulle authorized NATO the use of the pipeline, airspace, and overland communication. He continued to participate in NATO research and development projects, air defense warning and communications nets, and the air defense system, although he retained command of his air forces. Thus De Gaulle, while manifesting his independence by placing the armed forces directly under his command and removing foreign military units from French territory, was at the same time participating in selected NATO programs and coordinating military contingency plans, thereby suggesting his continued dependence on that organization for security.

Evidence of non-commitment with long-range implications was seen in the examination of French weapon procurement patterns. The number of cooperative defense projects increased at a time commitment behavior would have reflected a decrease. Moreover, she concentrated her aircraft projects with one country, Great Britain, for two very critical reasons -- lack of finances and lack of technological expertise in big engines. John Calmann, whose study of cooperative projects was primarily based on interviews, believed the French officials directly engaged in the joint aircraft projects with Great Britain may have been attempting to integrate the aircraft industries of the two countries. France also exhibited a lack of electronics potential. These

three weaknesses -- finances, big engine capacity, and electronics potential -- are all critical to the continued development of a credible nuclear deterrent. Her weapons purchases also illustrated these weaknesses. She relied on the U.S. for carrier-based interceptor aircraft, her ground-based air defense missiles, a ship-to-air missile, and KC-135 tankers for the mid-air refueling of her strategic nuclear force. Indications of non-commitment appeared in her defense and defense-related industries. Pratt and Whitney owned 10 percent of her major aircraft engine company, SNECMA, and other U.S. firms dominated her defense-related electronics industry, again illustrating the three major weaknesses in her weapon procurement policy.

De Gaulle, who sought the greatness for France that was once hers, was above all a realist. He recognized that France's limited resources precluded her ever attaining the same stature and military prominence as the U.S. and the U.S.S.R. Therefore, he did not attempt to match the two super powers in overall military strength. Instead, he directed his resources at an attainable objective, a nuclear force capable of inflicting sufficent damage on the Soviets to at least demand consideration. But the limits of her resources forced De Gaulle into patterns of non-commitment behavior. He could not engage the U.S.S.R. in a major war alone and therefore he retained military links with WEU and NATO. Moreover, France's non-commitment behavior in weapon

procurement was dictated by her limitation of finances, big engine capacity, and electronic potential. Undoubtedly, her ambivalent patterns of behavior are a consequence of the inherent weaknesses in the French model, and only her limited resources blocked her advancement into the committed category.

FOOTNOTES

1. Major Addresses, Statements and Press Conferences of General Charles de Gaulle: May 19, 1958-January 31, 1964 (New York: French Embassy, Press and Information Division, n.d.), p. 77.

2. The New York Times, 10 October 1966, p. 10.

3. Major Addresses, p. 124.

4. Complete texts of memoranda are contained in Brigadier K. Hunt, NATO Without France: The Military Implications, Adelphi Paper No. 32 (London: [International] Institute for Strategic Studies, December, 1966), pp. 22-23.

5. Nathan Leites, The Future of the French Nuclear Force, RAND Corporation, Memorandum RM-4273-ISA (Santa Monica, California: RAND Corporation, April, 1965), p. 3, citing Le Monde, October 8, 1963.

6. Thomas C. Schelling, Arms and Influence (New Haven: Yale University Press, 1966), pp. 30-32.

7. Thomas C. Schelling, The Strategy of Conflict (New York: Oxford University Press, 1960), p. 9.

8. Thomas C. Schelling, "An Essay on Bargaining," The American Economic Review, XLVI (June 1956), 282-296.

9. Schelling, Arms and Influence, p. 32.

10. See for example Evan Luard, "Conciliation and Deterrence: A Comparison of Political Strategies in the Interwar and Postwar Periods," World Politics, XIX, 2 (January, 1967), 167-189; see also Richard N. Rosecrance, Action and Reaction in World Politics: International System in Perspective (Boston: Little, Brown and Co., 1963).

11. E. Raymond Platig, "International Relations as a Field of Inquiry," International Politics and Foreign Policy, ed. James N. Rosenau (2nd ed., New York: Free Press, 1969), pp. 13-16.

12. Major Addresses, p. 78.

13. Schelling, Arms and Influence, p. vi.

14. Ibid., p. 2.

15. Albert Legault, Deterrence and the Atlantic Alliance, trans. Archibald Day (Toronto, Canada: Canadian Institute of International Affairs, 1966), p. 75.

16. Klaus Knorr, Military Power and Potential (Lexington, Massachusetts: D.C. Heath and Co., 1970), p. 13.

17. For a French evaluation of counterforce strategy, see André Beaufre, NATO and Europe, trans. Joseph Green (New York: Alfred A. Knopf, Inc., 1966), pp. 67-71. For a complete discussion of the United States view of flexible response, see William W. Kaufmann, The McNamara Strategy (New York: Harper & Row, 1964), Chs. II-III.

18. Carl H. Amme, Jr., NATO without France (Stanford: Stanford University Press, 1967), p. 36, citing Pierre Messmer, "Notre Politique Militaire," Revue de Defense Nationale, May, 1963.

19. Full text of Treaty is in U.S., Congress, Senate, Committee on Foreign Relations, Hearings, North Atlantic Treaty, Pt. 1, 81st Cong., 1st Sess., (Washington: Government Printing Office, 1949), pp. 1-3.

20. Pierre Avril, Politics in France, trans. John Ross (Baltimore: Penguin Books, 1969), p. 113.

21. Gabriel A. Almond and Sidney Verba, The Civic Culture (Princeton: Princeton University Press, 1963), Pt. 2. Surveys were conducted in Great Britain, United States, Federal Republic of Germany, and Italy. None was conducted in France. One may assume, however, the French political culture in this respect is consistent with those western countries that were surveyed. See also Roy C. Macridis (ed.), Modern European Governments (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1968), pp. 6-7; Herbert Luethy, France Against Herself, trans., Eric Mosbacher (New York: Praeger, 1955); Raymond Aron, Democracy and Totalitarianism, trans., Valence Ionescu (London: Weidenfield and Nicholson, 1968); Edward Kolodziej, Patterns of French Foreign Policy: 1958-1967, Report RAC-R-59-2 (McLean, Virginia: Research Analysis Corporation, December, 1968), p. 9.

22. Knorr, Military Power and Potential, pp. 3-4.

23. Frank P. Chambers, Christina P. Harris, and Charles C. Bayley, This Age of Conflict (Rev. ed.; New York: Harcourt, Brace and Company, 1950), pp. 666, 800-886.

24. U.S., Department of State, Bulletin, XVI (23 March 1947), 536-537.

25. U.S., Department of State, Bulletin, XVI (15 June 1947), 1159-1160.

26. See Lynn Montross, War Through the Ages (3rd ed., New York: Harper & Row, 1960), pp. 924-946. The Normandy invasion force consisted of 39 divisions: 20 U.S., 14 British, 3 Canadian, 1 French, and 1 Polish. On 15 September 1944, there were 48 divisions in France and the Low Countries: 25 U.S., 12 British, 7 French, 3 Canadian, and 1 Polish.

27. See Anthony Sampson, The New Europeans (London: Hodder and Stoughton, 1968), pp. 6-13, for a discussion of Monnet's integrationist activities.

28. Robert Schuman, "France and Europe," Foreign Affairs, XXXI (April, 1953), 349-360.

29. Article IV of the original Treaty. Full text of Treaty is in Lawrence S. Kaplan (ed.), "The Brussel Pact," NATO and the Policy of Containment (Boston: D.C. Heath and Company, 1968), pp. 9-12; see also "Charter of the United Nations and Statute of the International Court of Justice," Encyclopedia Americana (1968), 27, pp. 456-468. Article 51 of the UN Charter proclaims the "right of individual or collective self-defense." Articles 52 and 53 grant recognition to "regional arrangements" provided such arrangements or agencies and their activities are in keeping "with the Purposes and Principles of the United Nations." Hence, when the five nations signed the alliance, they did so in the name of collective self-defense "in accordance with the Charter of the United Nations."

30. Dorothy Pickles, France: The Fourth Republic (2nd ed., New York: Barnes & Noble, Inc., 1958), pp. 193-194.

31. See Daniel Lerner and Raymond Aron (eds.), France Defeats EDC (New York: Frederick A. Praeger, 1957) for a most comprehensive study of France and the EDC; see also New York Times, 31 August 1954, p. 10; and Herbert L. Matthews and Saul K. Padover, "Two Views on the French Rejection of EDC," France in Crisis, ed. Elizabeth Davey (New York: H.W. Wilson Company, 1957), pp. 118-122.

32. "Paris Protocols Amending the Brussels Treaty and Establishing the Western European Union, October 23, 1954," Documents on Germany, 1944-1961 (Washington, D.C.: Government Printing Office, 1961), pp. 155-172. Prepared for the use of the Committee on Foreign Relations, U.S. Senate, 87th Cong., 1st Sess.

33. See Nathan Leites and Christian de la Malène, Paris from EDC to WEU, RAND Corporation, Memorandum RM-1668-RC (Santa Monica, California: RAND Corporation, 1 March 1956), for the discussion and motivations of the French political parties.

34. Benjamin F. Fairless, "1968 Benjamin F. Fairless Memorial Lectures," The Atlantic Alliance: Its Origin and its Future, ed. John J. McCloy (New York: Columbia University Press, 1969), p. 25.

35. The original twelve signatories were Belgium, Canada, Denmark, France, Iceland, Italy, Luxemburg, Norway, the Netherlands, Portugal, and the United States. Greece and Turkey acceded to the Treaty in 1952 and FRG in 1955.

36. Edgar S. Furniss, Jr., "The Twilight of French Foreign Policy," Yale Review, XIVL (Autumn, 1954), p. 71.

37. Documents on Germany: 1944-1961, p. 157.

38. Hearings, North Atlantic Treaty, p. 2.

39. Furniss, Yale Review, p. 71.

40. See U.S., Congressional Record, 81st Cong., 1st Sess. (1949), XVIIC, Pt. 7, 9205-9206, for Senator Taft's speech.

41. See Hearings, North Atlantic Treaty, pp. 417-432, for Mr. Wallace's testimony.

42. See Lawrence S. Kaplan, "NATO and the Language of Isolationism," South Atlantic Quarterly, LVII (April, 1958), 204-216; see also, "The North Atlantic Treaty," Department of State Publication, No. 3462 (March, 1949), 8-12, for the Administration's arguments in support of the Alliance.

43. See Armin Rappaport, "The American Revolution of 1949," NATO Letter (February, 1964), pp. 3-8.

44. NATO Handbook (Brussels: NATO Information Service, January, 1971), pp. 9-10.

45. Infrastructure refers to fixed installations necessary for the development and operation of armed forces, e.g., airfields, fuel, pipelines, post installations, and storage facilities. NATO: Facts About the North Atlantic Treaty Organization (Paris: NATO Information Service, 1965), p. 135.

46. Ibid., p. 56.

47. William T.R. and Annette B. Fox, NATO and the Range of American Choice (New York: Columbia University Press, 1967), p. 15.

48. Speeches and Press Conferences, No. 208 (New York: French Embassy, Press Information Division, 23 July 1964), p. 8.

49. Major Addresses, p. 237.

50. Ibid., p. 176.

51. Ibid., p. 93.

52. Ibid., p. 14.

53. Ibid., p. 15. Address presented before the Constitution of the Fifth Republic was accepted.

54. Charles de Gaulle, War Memoirs, Vol. I, The Call to Honor, trans., Jonathan Griffin (New York: Viking Press, 1955), p. 3.

55. Major Addresses, p. 96; see also French Affairs, No. 166 (New York: French Embassy, Press and Information Division, 16 April 1964), p. 4.

56. Major Addresses, p. 216.

57. Kolodziej, Patterns of French Foreign Policy, p. 25.

58. See The New York Times, 1 May 1964, p. 34, and 3 May 1964, p. 10E. The memorandum has still not been officially released.

59. See U.S., Congress, Senate, Committee on Government Operations, Hearings, The Atlantic Alliance, Pt. 7, 89th Congress, 2nd Sess. (Washington: Government Printing Office, 1966), pp. 230-31. See Ibid., 228-229 for State Department review of De Gaulle memorandum.

60. Kolodziej, Patterns of French Foreign Policy, p. 28.

61. Amme, NATO without France, p. 33.

62. Major Addresses, p. 49.

63. See Kolodziej, Patterns of French Foreign Policy, pp. 31-37, for the various U.S. proposals.

64. De Gaulle did not specify who the "several others" were. Subsequent statements indicate he was referring to the other West European nations.

65. Major Addresses, pp. 123-124.

66. Ibid., p. 180.

67. See George Liska, Europe Ascendant: The International Politics of Unification (Baltimore: Johns Hopkins Press, 1962).

68. Edward A. Kolodziej, "France and NATO: Reflections on the Gaullist Era," NATO in the Seventies, ed. Edwin H. Fedder (St. Louis: Center for International Studies, February, 1970), p. 70.

69. W. W. Kulski, De Gaulle and the World (Syracuse: Syracuse University Press, 1966), p. 123; see also Jean Blondel and E. Drexel Godfrey, Jr., The Government of France (3rd ed., New York: Thomas Y. Cromwell Company, 1968), p. 33.

70. Kulski, De Gaulle and the World, p. 122.

71. Speeches and Press Conferences: No. 212 (New York: French Embassy, Press and Information Division, 22 November 1964), p. 3.

72. French Foreign Policy: Official Statements, Speeches, and Communiques, 1966 (New York: French Embassy, Press and Information Division, n.d.), pp. 20-21.

73. Ibid., p. 24.

74. Harlan Cleveland, NATO: The Transatlantic Bargain (New York: Harper & Row, 1970), p. 101.

75. French Foreign Policy, p. 44; see also Speeches and Press Conferences, No. 242, 7 April 1966, p. 2.

76. See French Foreign Policy, p. 38.

77. Amme, NATO without France, p. 69.

78. French Foreign Policy, p. 36.

79. Ibid., pp. 37-38.

80. Cleveland, NATO: The Transatlantic Bargain, pp. 102-103.

81. See Alastair Buchan, NATO in 1960's (Rev. ed., New York: Frederick A. Praeger, 1963), p. 86, "the United States cannot afford a prolonged period of bad relations with France, if only because of the central geographic positions she occupies in Europe." See also McCloy, The Atlantic Alliance, p. 59; Legaulet, Deterrence and the Atlantic Alliance, pp. 20-21; and Hunt, NATO Without France, p. 1.

82. See Ingemar Doerfer, "System 37 Viggen: Science, Technology and the Domestication of Glory," Public Policy, eds., John D. Montgomery and Albert O. Hirschman, XVII (Cambridge: Harvard University Press, 1968),225, "So far France is the only state which has attempted to take this step [moving from suboptimization to optimization] and it is

not entirely clear whether she has succeeded or not....If France has succeeded, her success has been dependent on the very balance of power that she rejects." See also Schuetze, The Atlantic Papers Annual, p. 144, "De Gaulle could maintain his independent posture only as long as the NATO deterrent works"; Amme, NATO without France, p. 154, "De Gaulle's freedom of action...is predicated upon the American nuclear commitments."; and Hunt, NATO Without France, p. 1, France "is secure under the protection of the American nuclear guarantee."

83. Major Addresses, p. 216.

84. Beaufre, NATO and Europe, pp. 98-99.

85. French Foreign Policy, pp. 50, 60.

86. See Stanley Hoffmann, et al., In Search of France (Cambridge: Harvard University Press, 1963), pp. 60-74.

87. Salomon Wolff, "The Organization for Economic Cooperation and Development," Western Europe, ed., John Calmann (New York: Frederick A. Praeger, 1967), p. 624.

88. Tony Burgess, "The Structure of the European Community," Western Europe, p. 570.

89. Harold van B. Cleveland, "The Common Market After De Gaulle," Foreign Affairs, XVIIL (July, 1969), p. 702.

90. Marianne Geller, "The Economic Character of Western Europe," Western Europe, p. 324.

91. Roy Price, "Customs Union and Economic Union in the EEC," Western Europe, p. 585; see also Harold Cleveland, Foreign Affairs, XLVII (July, 1969), 700-702, and "The Common Market: Burial or Revival," Time, Vol. 94 (5 December 1969), pp. 43-44, for a lucid discussion on the benefits accrued to French agriculture under Market decisions.

92. Pierre Uri, "From Economic Union to Political Union," Western Europe, pp. 598-599.

93. New York Times, 10 September 1965, p. 3.

94. Sampson, The New European, p. 39; see also New York Times, 30 January 1966, p. 16.

95. Anthony Sharp, "France," Western Europe, p. 56.

96. James Edwards, "De Gaulle's European Strategy," France Under De Gaulle, ed. Irwin Isenberg, Vol. 39, No. 1, (New York: The H.W. Wilson Co., 1967), 170-174.

97. Paul Reynaud, The Foreign Policy of Charles de Gaulle, trans., Mervyn Savill (New York: The Odyssey Press, 1964), pp. 86-87.

98. French Foreign Policy, p. 157.

99. Ibid., pp. 218-220.

100. Kenneth Hunt, The Requirements of Military Technology in the 1970's (London: [International] Institute for Strategic Studies, September, 1967), p. 9; see also Robert Rhodes James, Standardization and Common Production of Weapons in NATO (London: [International] Institute for Strategic Studies, July, 1967), pp. 16-18.

101. Adapted from C.J.E. Harlow, The European Armaments Base: A Survey, Pt. 1 (London: [International] Institute for Strategic Studies, June, 1967), pp. 28-29.

102. John Calmann, European Co-operation in Defense Technology: The Political Aspect (London: [International] Institute for Strategic Studies, April, 1967), pp. 6, 9-10; see also C.J.E. Harlow, The European Armaments Base: A Survey, Pt. 2 (London: [International] Institute for Strategic Studies, June, 1967), p. 29; and Hunt, The Requirements of Military Technology in the 1970's, pp. 24-25.

103. Hunt, The Requirements of Military Technology, p. 23; see also Christopher Layton, The Atlantic Papers (New York: The Dunellen Company, Inc., 1970), p. 121.

104. Harlow, The European Armaments Base, Pt. 1, p. 22.

105. Harlow, The European Armaments Base, Pt. 2, pp. 17-20.

106. Walter Schuetze, Atlantic Papers Annual, I (New York: The Dunellen Company, Inc., 1970), p. 177.

107. Judith H. Young, The French Strategic Missile Programme, Adelphi Paper No. 38 (London: [International] Institute for Strategic Studies, 1967), p. 9, citing Sociéte d'Applications Générales d'Electricité et de Mécanique. See also Hunt, The Requirements of Military Technology in the 1970's, p. 22, and Harlow, The European Armaments Base, p. 2, p. 31.

108. Michael Getler, "French Market Expected to be Stable," Missiles and Rockets, XVII, 1 (5 May 1965), 32.

109. Jon McLin, Rationalizing Defensive Production in NATO, Pt. 2, American Universities Field Staff Reports, West Europe Series, III, 2, October, 1968, 1.

110. Hunt, NATO Without France, p. 17.

111. Calmann, European Co-operation in Defense Technology, pp. 8-9.

112. Harlow, The European Armaments Base, Pt. 2, pp. 24-31.

113. Many of the facts presented in this section rest heavily on Harlow, The European Armaments Base, Pts. 1 and 2, who compiled most of his material from company reports and more than 70 interviews with company and defense ministry officials and military experts.

114. Schuetze, The Atlantic Papers Annual, p. 175.

115. Layton, The Atlantic Papers, p. 113; see also Calmann, European Co-operation in Defense Technology, p. 9.

116. Cleveland, NATO: The Transatlantic Bargain, p. 168.

117. Layton, The Atlantic Papers, p. 40.

118. Ibid., pp. 16, 108, 186.

119. Alastair Buchan, The Implications of a European System for Defense Technology (London: [International] Institute for Strategic Studies, October, 1967), p. 1.

120. Calmann, European Co-operation in Defense Technology, p. 13.

121. Ibid., pp. 9-11, 16.

122. Knorr, Military Power and Potential, pp. 4, 15.

123. Beaufre, NATO and Europe, p. 70; see also André Beaufre, Deterrence and Strategy, trans., R. H. Barry (New York: Frederick A. Praeger, Inc. 1963); General Charles Alleret, "Flexible Response: A French View," Survival VI, 6 (November-December, 1968), 258-264; and Amme, NATO without France, p. 58.

124. Beaufre, NATO and Europe, p. 74.

125. Major Addresses, p. 218.

126. See Edward A. Kolodziej, "French Strategic Policy and International Affairs," (Charlottsville, Virginia: Department of Government and Foreign Affairs, 1969), p. 26 (mimeographed); see also Amme, NATO without France, p. 57; and Harlow, The European Armaments Base, Pt. 2, p. 27.

127. French Foreign Policy, pp. 44-47, 53-61, passim.

128. Cleveland, NATO: The Transatlantic Bargain, pp. 39-40.

129. See Marshall V.D. Sokolavsky, (ed.), Military Strategy (New York: Frederick A. Praeger, Inc., 1963), p. 189; see also Major General N. Talenskii, 'On the Question of the Laws of Military Science," Military Thought, September, 1953, cited by Herbert Dinerstein, War and the Soviet Union (New York: Frederick A. Praeger, Inc., 1959), pp. 37-63.

130. Strategic Survey 1966 (London: [International] Institute for Strategic Studies, 1967), p. 14.

131. France and Its Armed Forces (New York: French Embassy, Press and Information Division, December, 1964), p. 9.

132. Amme, NATO without France, p. 47.

133. Data compiled from Military Balance: 1965-1966 (London: [International] Institute for Strategic Studies, 1965); Military Balance: 1970-1971 (London: [International] Institute for Strategic Studies, 1971); Amme, NATO without France, p. 80; LTC Michel A. Maze, French Liaison Officer, Fort Leavenworth, Kansas; and author's estimate.

134. Military Balance: 1965-1966, p. 4.

135. Military Balance: 1967-1968 (London: [International] Institute for Strategic Studies, 1967), pp. 21-22.

136. Editorial, The New York Times, 15 April 1966, p. 38.

137. Lawrence W. Martin, The Atlantic Papers Annual, p. 43; see also McCloy, The Atlantic Alliance, pp. 41-42; and Hunt, The Requirements of Military Technology in the 1970's, p. 31.

138. Hunt, ibid., p. 29, see also Schuetze, The Atlantic Papers Annual, p. 182; and The New York Times, 8 September 1966, p. 14.

139. Kolodziej, French Strategic Policy and International Relations, p. 26.

140. See Thomas W. Wolfe, Soviet Commentary on the French "Force de Frappe," RAND Corporation, Memorandum RM-4359-ISA (Santa Monica, California: RAND Corporation, January, 1965).

141. The New York Times, 11 June 1963, p. 16.

142. In Leites, The Future of French Nuclear Force, p. 3.

143. Horst Mendershausen, "From NATO to Independence: Reflections on de Gaulle's Secession" (paper prepared for a seminar presentation at the Washington Center of Foreign Policy Research, Washington, D.C., March, 1966), pp. 7-14; see also Amme, NATO without France, p. 25.

144. Beaufre, NATO and Europe, p. 74; see also Strategic Survey, 1966, p. 14.

145. See Buchan, NATO in the 1960's, p. 85; and Kolodziej, Patterns of French Foreign Policy, p. 52. The phrase "tear an arm off" is alledged to be the words De Gaulle used during a closed-door address to the Ecole Militaire on 3 November 1959 and reported in the French periodical L'Année Politique, 1959, pp. 631-33.

146. Wolfe, Soviet Commentary on the French "Force de Frappe," p. 10, citing, N. Talenskii, "The Absolute Weapon and the Problem of Security," Mezhdunarodnaia Zhizn, No. 4, April, 1962, p. 36.

147. Knorr, Military Power and Potential, p. 5.

148. Henry A. Kissinger, "Conditions of World Order," Daedalus, VC (Spring, 1966), 506.

149. Knorr, Military Power and Potential, p. 5. See also William Kaufmann (ed.), Military Policy and National Security (Princeton: Princeton University Press, 1956), p. 19.

150. Raymond Aron, Peace and War, trans., Richard Howard and Annette Baker Fox (Garden City, New York: Doubleday and Company, Inc., 1966), p. 49.

151. Bruce M. Russett, "The Calculus of Deterrence," Journal of Conflict Resolution, VII (1963), 102.

152. See Winston S. Churchill, The Gathering Storm, (Boston: Houghton Mifflin Company, 1948), p. 177.

153. Ernest R. May, "The Peace Conference and Peace Treaties," Encyclopedia Americana, XXXIX (1968), 346-347.

154. The seven signatories were France, Great Britain, Italy, Poland, Czechoslovakia, Belgium, and Germany.

155. Chambers, Harris, and Bayley, This Age of Conflict, pp. 138-141.

156. Churchill, The Gathering Storm, pp. 194-195.

157. Paul-Marie de la Gorce, The French Army: A Military-Political History, trans., Kenneth Douglas (New York: George Braziller, 1963), pp. 256-257.

158. Churchill, The Gathering Storm, p. 94.

159. Ibid., pp. 270-271.

160. Chambers, Harris, and Bayley, This Age of Conflict, p. 139. See also Gorce, The French Army, pp. 265-266.

161. Churchill, The Gathering Storm, p. 281.

162. Ibid., p. 290.

163. Ibid., pp. 279-337.

164. Chambers, Harris, and Bayley, The Age of Conflict, p. 139.

165. John Steward Ambler, The French Army in Politics: 1945-1962 (Columbus: Ohio State University Press, 1966), p. 165.

166. Russett, Journal of Conflict Resolution, p. 98.

167. Henry A. Kissinger (ed.), Problems of National Security (New York: Frederick A. Praeger, Inc., 1965), p. 5.

168. Knorr, Military Power and Potential, p. 25.

169. Ibid., p. 21.

170. Ibid., p. 26.

171. Buchan, The Implications of a European System for Defense Technology, p. 10; see also Harlow, The European Armaments Base, Pt. 2, p. 27.

172. Knorr, Military Power and Potential, pp. 137-138.

173. Kolodziej, Patterns of French Foreign Policy, p. 8, citing Le Nouvel Observateur, 7-13 August 1967, pp. 2-e.

174. See U.S. Arms Control and Disarmament Agency, World-Wide Defense Expenditures and Selected Economic Data: Calendar Year 1964, Research Report 66-1 (Washington, D.C., 1966), p. 3. "Gross National Product is defined as an economy's total output of goods and services, valued at current market prices paid by the ultimate consumer."

175. Knorr, Military Power and Potential, p. 50.

176. U.S. Arms Control and Disarmament Agency, World-Wide Military Expenditures and Related Data: Calendar Year 1965, Research Report 67-6 (Washington, D.C., December, 1967), p. 20.

177. France and Its Armed Forces, p. 46.

178. Ibid., p. 48. Military operating expenses includes pay and maintenance of personnel, upkeep of material and installations, and miscellaneous operating expenses.

179. Adapted from France and its Armed Forces, pp. 22, 44; Harlow, European Armaments Base, Pt. 1, p. 3; Military Balance 1965-1966, p. 42; C. Freeman and A. Young, The Research and Development Effort in Western Europe, North America and the Soviet Union (Paris: Organization for Economic Cooperation and Development, 1965), pp. 71, 124.

180. U.S. Arms Control and Disarmament Agency, World-Wide Military Expenditures and Related Data, pp. 17, 20; and U.S. Arms Control and Disarmament Agency, World Military Expenditures: 1966-1967, Research Report 68-52 (Washington, D.C., December, 1968), pp. 17, 20, 24. Purchasing power equivalent (PPE) rates are used to obtain a more realistic and consistent basis for international comparisons than official exchange rates, which are set primarily for foreign trading purposes. PPE rates are conversion rates from national currencies into U.S. dollars which take into account what the value of equivalent goods and services would be if purchased in the U.S.

181. Judith Young, French Strategic Missile Programme, p. 6.

182. France and its Armed Forces, p. 52.

183. Ibid., p. 47.

184. Knorr, Military Power and Potential, p. 51.

185. Judith Young, French Strategic Missile Programme, p. 2.

186. 90th U.S. Congress, Joint Economic Committee, Soviet Economic Performance: 1966-1967 (Washington: Government Printing Office, 1968), p. 13.

187. Orville D. Menard, The Army and the Fifth Republic (Lincoln: University of Nebraska Press, 1967), p. 200.

188. Ibid., p. 22.

189. Major Addresses, pp. 156, 160.

190. Knorr, Military Power and Potential, pp. 73-81.

191. Freeman and Young, Research and Development Effort, pp. 71, 73, 117; and Emile Benoit and Harold Lubell, "The World Burden of National Defense," Disarmament and World Economic Interdependence, ed. Emile Benoit (New York: Columbia University Press, 1967), p. 36.

192. Freeman and Young, Research and Development Effort, p. 72. Soviet figures reflect the authors' conservative estimates; their higher estimates are 487.0, 985.0, 1,372.0, and 6.7.

193. Knorr, Military Power and Potential, p. 85.

194. United Nations Educational Scientific and Cultural Organization, Statistical Yearbook (Mayenne, France, 1966), p. 348; and Freeman and Young, Research and Development Effort, p. 149.

195. Schelling, The Strategy of Conflict, p. 37.

BIBLIOGRAPHY

A. Primary Sources

Books

Churchill, Winston S. Gathering Storm. Boston: Houghton Mifflin Co., 1948.

Gaulle, Charles de. Edge of the Sword. Trans., Gerard Hopkins. New York: Criterion Books, 1950.

_____. War Memoirs. Vol. I. Call to Honor. Trans., Jonathan Griffin, New York: Viking Press, 1955.

Sokolovsky, V.D. (ed.). Military Strategy. New York: Frederick A. Praeger, 1963.

Public Documents, Official References, and Sponsored Reports

Freeman, C., and A. Young. Research and Development Effort in Western Europe, North American and the Soviet Union. Paris: Organization for Economic Co-operation and Development, 1965.

French Embassy. Press and Information Division. France and its Armed Forces. New York, 1964.

_____. Press and Information Division. French Affairs. No. 166 (16 April 1964), and No. 169 (2 December 1964), New York.

_____. Press and Inforamtion Division. French Foreign Policy: Official Statements, Speeches and Communiques, 1966. New York, n.d.

_____. Press and Information Division. Official Statements. No. 134. New York, 2 June 1967.

_____. Press and Information Division. Speeches and Press Conferences. No. 195 (22 October 1963), No. 202 (24 February 1964), No. 203 (24 February 1964), No. 208 (23 July 1964), No. 212 (22 November 1964), No. 216 (4 February 1965), No. 219 (23 February 1965), No. 224 (17 June 1965), No. 242 (7 April 1966), No. 243 (13 April 1966), No. 253A (28 October 1966), No. 260A (16 May 1967), and No. 276 (27 November 1967), New York.

Gaulle, Charles de. Major Addresses, Statements and Press Conferences of General Charles de Gaulle: May 19, 1958-January 31, 1964. New York: French Embassy, Press and Information Division, n.d.

Herrmann, George. Structural Mechanics Research at Some Laboratories in France, U.S., Office of Naval Research Technical Report ONRL-10-67. London: Branch Office of Naval Research, 1967.

Hill, R.J. French Strategy and its Political Base, Canada, Department of National Defence Paper ORD 66/P20. Ottawa, Operational Research Division, August, 1966.

International Labour Office. 1966 Year Book of Labour Statistics. Geneva, n.d.

Jantsch, Erich. Technological Forecasting in Perspective. Paris: Organization for Economic Cooperation and Development, 1967.

Kramer, Ronald P. Future Undergraduate Pilot Training: System Study. Aeronautical Systems Division Technical Report NOR 70-149. Wright-Patterson Air Force Base, Ohio, 1971.

Kolodziej, Edward A. Patterns of French Foreign Policy: 1958-1967, Research Analysis Corporation Report RAC-R-592. McLean, Virginia: Research Analysis Corporation, 1968.

Leites, Nathan. Future of the French Nuclear Force, RAND Corporation Memorandum RM-4273-ISA. Santa Monica, California: RAND Corporation, 1965.

_____. Guesses About de Gaulle, RAND Corporation Memorandum RM-3667-LSA. Santa Monica, California: RAND Corporation, 1963.

_____, and Christian de la Malène. Paris From EDC to WEU, RAND Corporation Memorandum RM-1668-RC. Santa Monica, California: RAND Corporation, 1956.

McClelland, Muriel. Inequality in Industrial Authority. U.S., Office of Naval Research Technical Report TR-4 (69-4). Princeton: Center for International Studies, 1969.

NATO: Facts About the North Atlantic Treaty Organization. Paris: NATO Information Service, 1965.

NATO Handbook. Brussels: NATO Information Service, 1971.

"Paris Protocols Amending the Brussels Treaty and Establishing the Western European Union, October 23, 1954," Documents on Germany, 1955-1961. Washington, D.C.: Government Printing Office, 1961, pp. 155-172.

Petit, Michael J., and Jean-Baptiste Viallon. Grain-Livestock Economy of France, with Projections to 1970 and 1975, U.S., Economic Research Service Report No. 3. Washington, D.C.: U.S. Department of Agriculture, 1968.

Reese, Howard C. Beyond De Gaulle, Research Analysis Corporation Report RAC-P-16. McLean, Virginia: Research Analysis Corporation, 1966.

Schonfeld, William R. Toward Understanding the Bases of Democratic Political Instability: A Case Study of French Social Authority Patterns, U.S., Department of Defense Advance Research Projects Agency Technical Reports No. 2. Princeton: Center for International Studies, 1969.

United Nations Educational Scientific and Cultural Organization, Statistical Yearbook. Mayenne, France, 1966.

United Nations. Monthly Bulletin of Statistics. New York, January, 1968.

_____. Statistical Yearbook 1966. New York, 1967.

_____. Yearbook of National Accounts Statistics 1966. New York, 1967.

U.S. Arms Control and Disarmament Agency. World-Wide Military Expenditures and Selected Economic Data: Calendar Year 1964, Research Report 66-1. Washington, D.C., 1966.

_____. _____. World-Wide Military Expenditures and Related Data: Calendar Year 1965, Research Report 67-6. Washington, D.C., 1967.

_____. _____. World Military Expenditures: 1966-67. Research Report 68-52. Washington, D.C., 1968.

U.S. Department of the Army, Command and General Staff College, French Army, Reference Book 550-1 [by LTC Michel Maze, French Liaison Officer.] [Fort Leavenworth, Kansas, 1971.]

U.S., Congress. Joint Economic Committee. Soviet Economic Performance, 1966-1967. 90th Cong. 2nd Sess. Washington: Government Printing Office, 1968.

_____. Senate. Committee on Foreign Relations. Documents on Germany, 1944-1961. 87th Cong., 1st Sess. Washington, D.C.: Government Printing Office, 1961.

_____. _____. _____. Hearings, North Atlantic Treaty. Pt. 1, 81st Cong., 1st Sess. Washington, D.C.: Government Printing Office, 1949.

_____. _____. _____. Hearings, United States Policy Toward Europe. 89th Cong., 2nd Sess. Washington: Government Printing Office, 1966.

_____. _____. Committee on Government Operations. Hearings, The Atlantic Alliance. Pt. 7, 89th Cong., 2nd Sess. Washington: Government Printing Office, 1966.

_____. _____. _____. The Atlantic Alliance: Unfinished Business. 90th Cong., 1st Sess. Washington: Government Printing Office, 1967.

U.S. Congressional Record. Vol. XCVII.

U.S. Department of State. Bulletin. XVI, XLVI, XLVII and LIV.

[U.S.] Department of State. "North Atlantic Treaty," Publication, No. 3462, March, 1949.

Wolfe, Thomas W. Soviet Commentary on the French "Force de Frappe," RAND Corporation Memorandum RM-4359-ISA. Santa Monica, California: RAND Corporation, 1965.

B. Secondary Sources

Books

Almond, Gabriel A., and Sidney Verba. Civic Culture. Princeton: Princeton University Press, 1963.

Ambler, John Steward. The French Army in Politics: 1945-1962. Columbus: Ohio State University Press, 1966.

Amme, Carl H., Jr. NATO without France: A Strategic Appraisal. Stanford: Stanford University Press, 1967.

Aron, Raymond. Democracy and Totalitarianism. Trans., Valence Ionescu. London: Weidenfield and Nicholson, 1968.

_____. France: Steadfast and Changing. Cambridge: Harvard University Press, 1960.

_____. France: The New Republic. New York: Oceana Publications, 1960.

_____. Peace and War. Trans., Richard Howard and Annette Baker Fox. Garden City, New York: Doubleday and Company, 1966.

Avril, Pierre. Politics in France. Trans., John Ross. Baltimore: Penguin Books, 1969.

Beaufre, André. Deterrence and Strategy. Trans., R.H. Barry. New York: Frederick A. Praeger, 1963.

_____. NATO and Europe. Trans., Joseph Green. New York: Alfred A. Knopf, 1966.

Beloff, Nora. The General Says No: Britain's Exclusion from Europe. Baltimore: Penguin Books, 1963.

Benoit, Emile. (ed.). Disarmament and World Economic Interdependence. New York: Columbia University Press, 1967.

Blondel, J[ean]. (ed.). Comparative Government. Garden City, New York: Doubleday and Company, 1969.

_____, and E. Drexel Godfrey, Jr. (eds.). Government of France. 3rd ed. New York: Thomas Y. Crowell, 1968.

Buchan, Alastair. Arms and Stability in Europe. New York: Frederick A. Praeger, 1968.

_____. NATO in the 1960's: The Implication of Interdependence. Revised ed. New York: Frederick A. Praeger, 1963.

Calleo, David P. Europe's Future: The Grand Alternatives. New York: Horizon Press, 1965.

Calmann, John. (ed.). Western Europe: A Handbook. New York: Frederick A. Praeger, 1967.

Cerny, Karl H. (ed.). NATO in Quest of Cohesion. New York: Frederick A. Praeger, 1965.

Challener, Richard D. The French Theory of the Nation in Arms. New York: Columbia University Press, 1955.

Chambers, Frank P., Christina Phelps Harris, and Charles C. Bayley. This Age of Conflict, A Contemporary World History: 1914 to Present. Revised ed. New York: Harcourt, Brace and Co., 1950.

Cleveland, Harlan. NATO: The Transatlantic Bargain. New York: Harper & Row, 1970.

Cosgrove, Carol Ann, and Kenneth J. Twitchett. (eds.). The New International Actors. London: MacMillian, 1970.

Cottrell, Alvin J., and James E. Dougherty. The Atlantic Alliance. New York: Frederick A. Praeger, 1964.

Curtis, Michael. Western European Integration. New York: Harper & Row, 1965.

Davey, Elizabeth (ed.). France in Crisis. The Reference Shelf, Vol. 29, No. 2. New York: H.W. Wilson Co., 1957.

Deutsch, Karl, et al. France, Germany, and the Western Alliance. New York: Charles Scribner's Sons, 1967.

Dinerstein, Herbert. War and the Soviet Union. New York: Frederick A. Praeger, 1959.

Dogan, Mattei, and Richard Rose (eds.). European Politics. Boston: Little, Brown and Co., 1971.

Enke, Stephan (ed.). Defense Management. Englewood Cliffs, New Jersey: Prentice-Hall, 1967.

Fedder, Edwin H. (ed.). NATO in the Seventies. St. Louis: Center for International Studies, 1970.

Fox, William T.R., and Annette B. Fox. NATO and the Range of American Choice. New York: Columbia University Press, 1967.

Freymond, Jacques. Western Europe Since the War: A Short Political History. New York: Praeger, 1964.

Furniss, Edgar S., Jr. De Gaulle and the French Army. New York: Twentieth Century Fund, 1964.

_____. France: Troubled Ally: De Gaulle's Heritage and Prospects. New York: Frederick A. Praeger, 1960.

Gallois, Pierre. The Balance of Terror. Boston: Houghton Mifflin Co., 1961.

Gilpin, Robert T. France in the Age of the Scientific State. Princeton: Princeton University Press, 1968.

Gorce, Paul-Marie de la. French Army: A Military-Political History. Trans., Kenneth Douglas. New York: George Brazillar, 1963.

Grosser, Alfred. French Foreign Policy Under De Gaulle. Boston: Little, Brown and Co., 1966.

Haines, G. Grove (ed.). European Integration. Baltimore: John Hopkins Press, 1957.

Herter, Christian. Toward an Atlantic Community. New York: Harper & Row, 1963.

Hoffmann, Stanley, et al. In Search of France. Cambridge: Harvard University Press, 1963.

Isenberg, Irwin. (ed.). France Under De Gaulle. The Reference Shelf, Vol. 39, No. 1. New York: H.W. Wilson Co., 1967.

_____. (ed.). The Outlook for Western Europe. The Reference Shelf, Vol. 42, No. 2. New York: H.W. Wilson Co., 1970.

Johnstone, Alan W. United States Direct Investment in France. Cambridge: Massachusetts Institute of Technology Press, 1965.

Kaplan, Lawrence S. (ed.). NATO and the Policy of Containment. Boston: D.C. Heath and Co., 1968.

Kaufmann, William W. McNamara Strategy. New York: Harper and Row, 1964.

_____. (ed.). Military Strategy and National Security. Princeton: Princeton University Press, 1956.

Kennan, George. Russia, the Atom, and the West. New York: Harper & Row, 1957.

Kissinger, Henry A. (ed.). Problems of National Strategy. New York: Frederick A. Praeger, 1965.

_____. Necessity of Choice. New York: Harper & Row, 1961.

_____. Troubled Partnership. New York: McGraw-Hill Book Co., 1966.

Kitzinger, U[we] W. Politics and Economics of European Integration. New York: Frederick A. Praeger, 1963.

Knorr, Klaus. Military Power and Potential. Lexington, Massachusetts: D.C. Heath and Co., 1970.

_____. War Potential of Nations. Princeton: Princeton University Press, 1956.

Kraft, Joseph. Grand Design: From Common Market to Atlantic Partnership. New York: Harper & Row, 1962.

Kulski, Wladyslaw. De Gaulle and the World: The Foreign Policy of the Fifth Republic. Syracuse: Syracuse University Press, 1966.

Layton, Christopher, and Sidney E. Rolfe. Atlantic Papers. New York: Dunellen Co., 1970.

Legault, Albert. Deterrence and the Atlantic Alliance. Trans., Archibald Day. Toronto, Canada: Canadian Institute of International Affairs, 1966.

Lerner, David, and Raymond Aron (eds.). France Defeats EDC. New York: Frederick A. Praeger, 1957.

Lindberg, Leon. Political Dynamics of European Economic Integration. Stanford: Stanford University Press, 1963.

Liska, George. Europe Ascendant: The International Politics of Unification. Baltimore: Johns Hopkins Press, 1964.

Luethy, Herbert. France Against Herself: A Perceptive Study of France's Past, Her Politics and Her Unending Crisis. Trans., Eric Mosbacher. New York: Frederick A. Praeger, 1955.

Macridis, Roy. De Gaulle, Implaccable Ally. New York: Harper & Row, 1966.

_____. (ed.). Modern European Governments. Englewood Cliffs, New Jersey: Prentice-Hall, 1968.

Martin, Laurence W., Walter Schuetze, and Robert Triffin. Atlantic Papers Annual. I. New York: Dunellen Co., 1970.

McCloy, John J. (ed.). Atlantic Alliance: Its Origin and Its Future. New York: Columbia University Press, 1969.

Meisel, James H. Fall of the Republic. Ann Arbor: University of Michigan Press, 1962.

Menard, Orville D. The Army and the Fifth Republic. Lincoln: University of Nebraska Press, 1967.

Montross, Lynn. War Through the Ages. 3rd ed. New York: Harper & Row, 1960.

Mulley, F. W. Politics of Western Defense. London: Thomas and Hudson, 1962.

Osgood, Robert Endicott. NATO: The Entangling Alliance. Chicago: University of Chicago Press, 1962.

Pickles, Dorothy. France: The Fourth Republic. 2nd ed. New York: Barnes & Noble, 1958.

Reynaud, Paul. Foreign Policy of Charles de Gaulle. Trans., Mervyn Savill. New York: Odyssey Press, 1964.

Rosecrance, Richard N. Action and Reaction in World Politics: International System in Perspective. Boston: Little, Brown and Co., 1963.

_____. (ed.). Dispersion of Nuclear Weapons. New York: Columbia University Press, 1964.

Rosenau, James N. (ed.). International Politics and Foreign Policy. 2nd ed. New York: Free Press, 1969.

Sampson, Anthony. New Europeans. London: Hodder and Stoughton, 1968.

Scheinman, Lawrence. Nuclear Policy of the French Fourth Republic. Princeton: Princeton University Press, 1966.

Schelling, Thomas C. Arms and Influence. New Haven: Yale University Press, 1966.

_____. Strategy of Conflict. New York: Oxford University Press, 1960.

Schlesinger, Arthur. Thousand Days. Boston: Houghton Mifflin Co., 1965.

Serfaty, Simon. France, De Gaulle, and Europe: The Policy of the Fourth and Fifth Republics Toward the Continent. Baltimore: Johns Hopkins Press, 1968.

Sorenson, Theodore C. Kennedy. New York: Harper and Row, 1965.

Stanley, Timothy W. NATO in Transition. New York: Frederick A. Praeger, 1965.

Steel, Ronald. End of Alliance: America and the Future of Europe. New York: Viking Press, 1964.

Werth, Alexander. De Gaulle: A Political Biography. New York: Simon and Schuster, 1966.

Willis, F. Roy. France, Germany, and the New Europe, 1945-1963. Stanford: Stanford University Press, 1965.

Periodicals and Other Serials

Alleret, Charles. "Flexible Response: A French View," Survival, VI, 6 (November-December, 1968), 258-264.

Amme, Carl H., Jr. "Arms Control Concepts and the Military Balance in Europe," Orbis, VIII (Winter, 1965), 832-853.

Augenstein, B.W. "The Chinese and French Programs for the Development of National Nuclear Forces," Orbis, XI (Fall, 1967), 846-863.

Balassa, Bela. "Whither French Planning," Quarterly Journal of Economics, LXXIX (November, 1965), 537-554.

Ben, Philip. "De Gaulle's Moves Against NATO Have a Long History: Ami, Go Home," New Republic, 9 April 1966.

Ben-David, Joseph. "The Scientific Role: The Conditions of Its Establishment in Europe," Minerva, IV (1965), 15-54.

Buchan, Alastair. "Partners and Allies," Foreign Affairs, XLI (July, 1963), 621-637.

Burgess, W.R. "Economic and Political Consequences of General de Gaulle," Political Science Quarterly, LXXVIII (December, 1963), 537-547.

"By Word and Deed, the Once and Future King," Newsweek, LXVI (13 December 1965), 43.

Carter,H. Corsfall. "A Hard Look at the Community," International Affairs, XLVI (April, 1970), 280-292.

Christian Science Monitor.

Cleveland, Harold van B. "The Common Market After De Gaulle," Foreign Affairs, XLVII (July, 1969), 697-710.

Coffey, J. I. "A NATO Nuclear Deterrent?" Orbis, VIII (Fall, 1964), 584-594.

_____. "Strategy, Alliance Policy, and Nuclear Proliferation," Orbis, XI (Winter, 1968), 975-995.

Defferre, Gaston. "De Gaulle and After," Foreign Affairs, XLIV (April, 1966), 434-445.

Deutsch, Karl W. "Integration and Arms Control in the European Political Environment: A Summary Report," American Political Science Review, LX (June, 1966), 354-365.

_____. "On the Concepts of Politics and Power," Journal of International Affairs, XXI (1967), 332-341.

Diebold, John. "Is the Gap Technological?" Foreign Affairs, XLVI (January, 1968), 276-291.

Doerfer, Ingemar. "System 37 Viggen: Science, Technology, and the Domestication of Glory," Public Policy, eds. John D. Montgomery and Albert O. Hirschman, XVII. Cambridge: Harvard University Press, 1968.

Feld, Werner. "The Association Agreements of the European Communities: A Comparative Analysis," International Organization, XIX (Spring, 1965), 223-249.

"Four Views on Seven Years," Newsweek, LXVI (13 December 1965), 44-45.

Fox, William T.R. "Science, Technology and International Politics," International Studies Quarterly, XII (March, 1968), 1-15.

Furniss, Edgar S., Jr. "The Twilight of French Foreign Policy," Yale Review, XLIV (Autumn, 1954), 64-80.

Gallois, Pierre M. "Raison d'êtr of French Defense Policy," Atlantic Community Quarterly, I (Winter, 1963-64), 541-555.

Getler, Michael. "French Market Expected to be Stable," Missiles and Rockets, XVII, 1 (5 May 1965), 32.

Gordey, Michel. "French People and de Gaulle," Foreign Affairs, XLII (July, 1964), 546-558.

Gordon, Lincoln. "NATO and European Integration," World Politics, X (January, 1958), 219-231.

Grosser, Alfred. "The Evolution of European Parliaments," Daedalus, XCIII, 1 (1964), 153-178.

_____. "France and Germany: Divergent Outlooks," Foreign Affairs, XLIV (October, 1956), 26-36.

_____. "General de Gaulle and the Foreign Policy of the Fifth Republic," International Affairs, XXXIX (April, 1963), 198-213.

Heymont, Irving. "The NATO Nuclear Bilateral Forces," Orbis, IX (Winter, 1966), 1025-1041.

Hoffmann, Stanley. "De Gaulle, Europe, and the Atlantic Alliance," International Organization, XVIII (Winter, 1964), 1-28.

Huizinga, J.H. "Which Way Europe?" Foreign Affairs, XLIII (April, 1965), 487-500.

Johnson, Douglas. "Political Principles of General de Gaulle," International Affairs, XLI (October, 1965), 650-662.

Kaplan, Lawrence S. "NATO and the Language of Isolationism," South Atlantic Quarterly, LVII (April, 1958), 204-216.

Kelly, George A. "Algeria, the Army, and the Fifth Republic (1959-61): A Scenario of Civil-Military Conflict," Political Science Quarterly, LXXIX (September, 1964), 335-359.

Kissinger, Henry A. "Conditions of World Order," Daedalus, VC (Spring, 1966), 503-529.

Kolodziej, Edward A. "French Strategy Emergent: General André Beaufre -- A Critique," World Politics, XIX, 3 (April, 1967), 417-442.

Larmour, P. J. "De Gaulle and the New France," Yale Review, LV (Summer, 1966), 500-520.

Lieber, R. J. "French Nuclear Force: A Strategic and Political Evaluation," International Affairs, XLII (July, 1966), 421-431.

Luard, Evan. "Conciliation and Deterrence: A Comparison of Political Strategies in the Interwar and Postwar Periods," World Politics, XIX, 2 (January, 1967), 167-189.

Luethy, Herbert. "De Gaulle: Pose and Policy," Foreign Affairs, XLIII (July, 1965), 561-573.

Malmgren, H.B. "A Forward-Pause Defense For Europe," Orbis, VIII (Fall, 1964), 595-606.

May, Ernest R. "The Pace Conferences and Peace Treaties," Encyclopedia Americana, 1968, Vol. XXIX.

Mendl, Wolf. "The Background of French Nuclear Policy," International Affairs, XLI (January, 1965), 22-36.

Moline, Edward G. "Das Problem der 'technologischen Luecke' zwischen den Vereinigten Staaten und Europa," Europa-Archiv, XXII (June, 1967), 427-434.

New York Times.

Peyre, Henri. "A New France: Changes in French Society and Culture," Current History, L (April, 1966), 193-200.

Pickles, William. "Making Sense of de Gaulle," International Affairs, XLII (July, 1966), 410-420.

Pompidou, Georges. "France: the Real Europe," Atlantic Community Quarterly, III (Fall, 1965), 326-331.

Rappaport, Armin. "The American Revolution of 1949," NATO Letter (February, 1964), 3-8.

Rose, François de. "Atlantic Relationships and Nuclear Problems," Foreign Affairs, XLI (April, 1963), 479-490.

Russett, Bruce M. "The Calculus of Deterrence," Journal of Conflict Resolution, VII (1963), 97-109.

Schelling, Thomas C. "An Essay on Bargaining," American Economic Review, XLVI (June, 1956), 282-296.

Schlamm, William S. "The Death of Gaullism," National Review, XVII (25 January 1966), 63-65.

Schlesinger, James R. "Economic Growth and National Security," Orbis, V (Winter, 1962), 453-569.

Schuman, Robert. "France and Europe," Foreign Affairs, XXXI (April, 1953), 349-360.

Spaak, Paul-Henri. "The Search for Consensus: A New Effort to Build Europe," Foreign Affairs, XLIII (January, 1965), 199-208.

Strausz-Hupé, Robert. "De Gaulle: Prophet for Europe or Disturber of the Peace," Atlantic Community Quarterly, II (Spring, 1964), 45-52.

_____. "Restoration Europe and World Politics," Yale Review, LV (Summer, 1966), 488-499.

Stupak, Ronald J. "Military's Ideological Challenge to Civilian Authority in Post-World War II France," Orbis, XII (Summer, 1968), 582-604.

Thompson, David. "General De Gaulle and the Anglo-Saxons," International Affairs, LXI (January, 1965), 11-21.

Time.

Washington Post.

Werth, Alexander. "De Gaulle's World View," Nation, CXCVIII (24 February 1964), 195-197.

Wohlstetter, Albert. "Nuclear Sharing: NATO and the N+L Country," Foreign Affairs, XXXIX (April, 1961), 355-387.

Wolfers, Arnold. "Pole of Power and the Pole of Indifference," World Politics, IV (1951), 39-63.

Wood, David M. "The Changing French Political Scene: The 1965 Presidential Election," Business and Government Review, VII (November-December, 1966), 5-16.

Series

Brenner, Michael J. Technocratic Politics and the Functionalist Theory of European Integration, Cornell Research Paper in International Studies, VII. Ithaca, New York: Center for International Studies, 1969.

Cleveland, H[arold] van B., and J. B. Cleveland. Atlantic Alliance: Problems and Prospects. Headline Series No. 177. New York: Foreign Policy Association, 1966.

Furniss, E[dgar] S., Jr. France Under de Gaulle. Headline Series No. 139. New York: Foreign Policy Association, 1960.

Gallagher, Charles F. Franco-Algerian Agreements: An Analysis of the Policy of Co-operation in Sharan Oil, American Universities Field Staff Reports, North Africa Series, XI, 1 (Algeria) August, 1965.

Hunt, Brigadier K[enneth]. NATO Without France: The Military Implications, Adelphi Paper No. 32. London: [International] Institute for Strategic Studies, 1966.

[International] Institute for Strategic Studies. Defense, Technology and the Western Alliance. London, 1967.

Vol. I-VI.
Buchan, Alastair. "The Implications of a European System for Defence Technology." VI. October, 1967.
Calmann, John. "European Co-operation in Defense Technology: The Political Aspect." I. April, 1967.
Harlow, C.J.E. "The European Armaments Base: A Survey." II, Pts. 1, 2. June and July, 1967.
Hunt, Brigadier K[enneth]. "Requirements of Military Technology in the 1970's." V. September, 1967.
James, Robert Rhodes. "Standardization and Common Production of Weapons in NATO." III. July, 1967.
Kramish, Arnold. "Atlantic Technological Imbalance: An American Perspective." IV. August, 1967.

_____. Military Balance: 1965-1966. London, 1965.

_____. Military Balance: 1967-1968. London, 1967.

_____. Military Balance: 1970-1971. London, 1970.

_____. Strategic Survey: 1966. London, 1967.

_____. Strategic Survey: 1967. London, 1968.

International R & D Trends and Policies: An Analysis of Implications for the U.S., Aerospace Research Center Publication. Washington, .D.C: Aerospace Industries Association of America, Inc., 1972.

Lerner, Daniel, et al. Static and Dynamic France: Problems and Prospects of French Urban and Regional Studies. Monograph of the Center for International Studies, C-64-16. Cambridge: Massachusetts Institute of Technology, May, 1964.

McLin, Jon. Rationalizing Defensive Production in NATO, American Universities Field Staff Reports, West Europe Series, III, October, 1968.

Sutton, John L., and Geoffrey Kemp. Arms to Developing Countries: 1945-1965, Adelphi Papers, No. 28. London: [International] Institute for Strategic Studies, 1966.

"Western Europe and the United States -- End of the Atlantic Alliance?" Great Decisions 1966, Fact Sheet No. 3. New York: Foreign Policy Association, 1966.

Young, Judith H. French Strategic Missile Programme, Adelphi Papers No. 38. London: [International] Institute for Strategic Studies, 1967.

Unpublished Materials

Brown, Bernard E. "French Experience of Modernization." Paper presented at the Annual Meeting of the American Political Science Association, September, 1968, Washington, D.C.

Caplow, Theodore, and Kurt Finsterbusch. "France and Other Countries: A Study of International Interaction." Paper presented at the Annual Meeting of the American Sociological Association, August, 1967, San Francisco, California.

Gillespie, Robert W. "Policies of England, France, and Germany as Recipients of Foreign Direct Investment." Paper presented at the Conference on International Mobility and Movement of Capital, January-February, 1970, Washington, D.C.

Hoffmann, Stanley, "Heroic Leadership: The Case of Modern France." Paper presented at the Annual Meeting of the American Political Science Association, September, 1966, New York.

Holsti, Ole R., and John D. Sullivan. "Non-conforming Bloc Polities: France and the People's Republic of China." Paper presented at the Annual Meeting of the American Political Science Association, September, 1966, New York.

Hunt, William H. "Legislative Roles and Ideological Orientations of French Deputies." Paper presented at the Annual Meeting of the American Political Science Association, September, 1969, New York.

Jouvenel, Bertrand de. "Futuribles." Lecture presented to RAND Corporation's Interdepartmental Seminar, 30 November 1964, Santa Monica, California.

Kolodziej, Edward A. "French Strategic Policy and International Affairs." Charlottsville, Virginia: Department of Government and Foreign Affairs, 1969. (mimeographed.)

_____. "The Status Quo and Revisionism in French Strategic and Foreign Policy: The Dramatic Tension. A Case Study in Middle-Power Behavior." Paper presented at the Annual Meeting of the International Studies Association, March, 1968, Washington, D.C.

Mendershausen, Horst. "From NATO to Independence: Reflections on de Gaulle's Secession." Paper prepared for a seminar presentation at the Washington Center of Foreign Policy Research, March, 1966, Washington, D.C.

Paret, Peter. "Nationalism and the Sense of Military Obligation." Paper presented at the Annual Meeting of the American Historical Association, December, 1966, New York.

Peterson, Wallace C. "Planning and the Common Market Economy." Paper presented at the Annual Meeting of the Allied Social Science Association, December, 1968, Chicago, Illinois.

Scheinman, Laurence. "Nationalism in France." Paper presented at the Annual Meeting of the American Political Science Association, September, 1968, Washington, D.C.

Wahl, A. Nicholas. "Fifth Republic, 1965." Paper presented at the Annual Meeting of the American Political Science Association, September, 1965, Washington, D.C.

Zoppo, C. E. "France as a Nuclear Power." Lecture delivered to a seminar of the National Security Studies Program of the University of California at Los Angeles, 27 April 1962, Los Angeles, California.

THE COMMITMENT-NONCOMMITMENT DILEMMA OF INDEPENDENT DETERRENCE: FRANCE

by

PETER FRANCIS DRURY, JR.

B.A., Providence College, 1954

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF ARTS

Department of Political Science

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1971

Gaullist France asserted her strategic maturity in the 1960's by withdrawing from the North Atlantic Treaty Organization's military structure after developing an independent force de frappe to deter Soviet aggression against France. Given the importance of response credibility in nuclear deterrence, and the importance of genuine independence in the credibility of France's minimal deterrent force, France was thus confronted with the dilemma Thomas C. Schelling suggests: should France enhance her credibility by renouncing all options other than an independent nuclear retaliation strategy, or should she retain the insurance of some alliance-related options at the sacrifice of deterrent credibility?

The theoretical dilemma permits a model of only two postures: a posture of commitment, that is, forfeiture of all significant alternatives to an independent nuclear response, or a posture of non-commitment, wherein any retained option discredits the credibility of an independent deterrent threat.

In applying Klaus Knorr's three tests of military power -- capability, reputation, and potential -- a capability analysis of French nuclear strategic forces indicates a posture of commitment sufficient for theoretical deterrence. Two key indicators of nuclear military potential -- patterns of gross national product growth and independent defense expenditures, particularly strategic

nuclear force funding -- also suggest a posture of commitment. However, these analyses point to no more than rhetorical commitment in view of France's dubious reputation for independent, ready response to pre-nuclear era military crises, her technological dependence on her western allies, and her retention of alliance-related options. She illustrated her military dependence on NATO by retaining indirect access to that organization's protection through the Western European Union and her informal relationship with NATO's military commands.

In the absence of any tests of extended nuclear deterrence, Schelling's hypothetical dilemma relates more closely to the rhetorical commitment of the Gaullist independent deterrent than to its implementation or operation.