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AN ANALYSIS OF THE ANGLO-AMERICAN COMBINED BOMBER OFFENSIVE IN EUROPE DURING WORLD WAR II, 1942-1945 USING THE *MOWBRAY STRATEGY/PROCESS MODEL*

by

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SECTION I

INTRODUCTION

The Anglo-American Combined Bomber Offensive (CBO) during World War II was selected as a strategy of massive and systematic bombing of German war related factories and cities in order to destroy the German military industrial and economic system and to undermine the morale of the German people "to a point where their capacity for armed resistance [would be] fatally weakened." (7:135; 8:97; 9:228) This brief treatise analyzes the military strategy of the CBO using the military strategy/process "model" developed by James A. Mowbray (*Mowbray Model*) of the Air War College faculty (14:16-20)

The *Mowbray Model* is useful to analyze the development of a historical military strategy by examining the impact of factors beginning with the threat confronting a nation or coalition of nations on the national interests involved, then how that threat influences the political and military leadership, and in turn, the national policy in formulating the objective and ultimate strategy (14:16-18) Although a certain amount of description and explanation of the *Mowbray Model* is obviously necessary, the model merely provides the framework for analysis The scope and focus of this paper is not that framework but rather the analysis of the strategy utilized during the CBO That is, this analysis will use the *Mowbray Model* to show how various factors influenced the development of the strategy of the CBO and why that strategy was used

SECTION II

BACKGROUND

World War II began September 1, 1939, when Germany invaded Poland and ended September 2, 1945, with the signing of peace accords aboard the USS Missouri in Tokyo Bay. The genesis of the conflict centered on the ethnocentric policy concepts formulated by Adolf Hitler when he became Chancellor of Germany in 1933. (18:12)

In the years preceding the war, Hitler's racist ideology and his doctrine of acquiring space (land) to support what he viewed as the superior race focused the attention of Germany primarily on Poland, Russia, Austria and France. Germany's world trade and naval ambitions also posed a dire threat to Great Britain. (18:14-19) An admirer of Mussolini's fascist agenda, Hitler formed an alliance with Italy, with an eye toward aiding Italy in its expansionist program and gaining Italian support in the German annexation of Austria and the conquering of other European states. (18:20-21) Within two years of the Polish invasion, Germany was at full-scale war against the Allied powers, including Russia, France and England.

In the Pacific, an adherent of the German/Italian Axis lacking in natural resources to feed her own industries and already engaged in a war against China, Japan coveted the resource-rich British colonies of Southeast Asia and the oil-rich Dutch colony in the East Indies. (15:28) An American trade embargo engineered to force Japan to cease her war with China threatened Japan's efforts to obtain necessary industrial resources, and on December 7, 1941, Japan attacked the U.S. naval fleet at Pearl Harbor in an effort to neutralize the American fleet. (15:28)

Now under direct attack by the Axis, the United States entered the war in support of the Allied coalition of powers. It is fair to say that overall military doctrine of the Allied powers in World War II was based in significant part, if not wholly, upon the policy announced by President Roosevelt that the Allies would insist upon unconditional surrender from the Axis powers. This was apparently an unpremeditated comment made at a press conference, a remark which some have criticized as being careless and politically motivated, and one which initiated a policy liable to prolong the war. (12:151; *see also* 4:9) Regardless of one's view as to whether the President's comment was careless or policy well thought out, it became the overriding Allied aim. (4:4)

Since the American national interest required the survival of Great Britain as a ~~great power, one of the key strategic decisions of the United States was that~~ initial efforts toward Japan would be limited to containment and harassment until Germany was defeated. (4:3, 5) Limitations of space prevent a detailed discussion here of the overall air, ground and maritime strategy of the entire war, but it is sufficient for the purposes of this analysis to note that,

> The Allied offensive in Europe was to include economic pressure through blockade, a sustained air offensive against German military power, early defeat of Italy, and the buildup of forces for an eventual land offensive against Germany. As rapidly as possible, the Allies were to achieve "superiority of air strength over that of the enemy, particularly in long-range striking forces." (3:505; quotes in original.)

Achieving long-range striking air superiority over Germany was to be accomplished primarily through strategic bombing, a (then) new technique of warfare defined by General Carl Spaatz, one of the leading air commanders in World War II and first Chief of Staff of the autonomous United States Air Force, as "an independent air campaign, intended to be decisive, and directed against the essential war-making capacity of the enemy." (17:120)

In Europe that air campaign was carried out through the CBO, a product of a directive issued as the result of the conference held in 1943 in Casablanca at which U S President Franklin Roosevelt British Prime Minister Winston Churchill and the Combined Chiefs of Staff of the American and British armed services had, in essence established a formula for ending the war (12:151)

Whether the CBO itself was "decisive" is to this day the subject of some disagreement but in fact the effort was frustrated to one degree or another by various factors, including among others, delays in obtaining adequate long-range escort fighter support, decisions by political and top level military leaders to invade North Africa to ensure control of the Mediterranean, differing interpretations of the Casablanca Directive, and differences between the United States and British airmen as to targeting and methods of bombing (4:13, 24, 32 66; 7:136 139; *see also* 16:H12)

SECTION III

DESCRIPTION OF THE COMBINED BOMBER OFFENSIVE

Overview

One historical analyst has defined the strategic air war in Europe as falling into three phases: first, during 1942 as groping, growing, and becoming organized; during 1943 and the first half of 1944, as wresting air superiority away from the Luftwaffe and paving the way for a successful cross-Channel invasion; and finally, after June 1944, as a purely strategic air campaign. (9:228) Although both England and the United States had conducted bombing activities in Europe prior to 1943, the Anglo-American combined bomber offensive, was the enactment of the last two phases of the strategic air war in Europe.

The middle phase provided the base for the final phase against Germany's war-making capacity. (9:228) The overall political and military strategy of the middle phase had two objectives: to reduce Germany's war making ability, and to gain "air superiority" over Europe, that is, to make it possible to carry out effective ground, naval, and air operations despite enemy opposition. (9:228-229) Those objectives goals were ultimately accomplished by the CBO, but their realization was not accomplished without struggle -- both internal and external.

Description

On the surface, the Casablanca Directive appeared to be straightforward: "Your primary object will be the progressive destruction and dislocation of the German military, industrial and economic system, and the undermining of the morale of the German people to a point where their capacity for armed resistance is fatally weakened." (7:136; 8:97;

9:228) That the intent was not so obviously expressed, however, is evidenced by the fact that by the time the directive was adopted by the Combined Chiefs of Staff on May 18 1943 a sentence had been added, apparently to clarify what was meant by "fatally weakened": "This is construed as meaning so weakened as to permit initiation of final combined operations on the Continent." (8:102)

In point of fact, the added sentence created more interpretations and raised further doubts as to the basic strategic purpose of the CBO. (8:97) For example, the RAF Bomber Command viewed the primary objective of the Casablanca Directive to be focused upon and defined by the "undermining of the morale of the German people to a point where their capacity for armed resistance is fatally weakened." (8:102) This interpretation was consistent with RAF strategic bombing doctrine that Germany could be defeated by general, more or less indiscriminate area bombing by night (described by some as "terror bombing"), directed toward whole industrial areas rather than specific key targets. (7:136 163) Disagreeing with their RAF counterparts, the American airmen focused on those aspects of the directive speaking to "the progressive destruction and dislocation of the German military, industrial and economic system," and consistent with their yet largely untested doctrine, felt the German war economy could best be shattered by selective daytime precision bombing. (7:136; 8:102) Arguably, the two air forces were adopting different tactical methods in pursuit of different strategic ends, but they were linked by a common, overriding objective -- the overwhelming defeat of Germany. (11:234; *see also* 13:101)

Major General Haywood Hansell, one of the "greats" among planners of World War II air warfare, has noted somewhat of a disconnect between both the RAF and American

airmen's views and those of the highest level military and political leaders of both nations as to the primary purpose of the CBO. To the latter, General Hansell opines, "the real objective of the bombing offensive was making possible an invasion of the continent." (8:103)

However one may view the objective of the CBO campaign strategy, top of the list of overall coalition strategic objectives was the total defeat of the enemy, and the CBO was executed to achieve this overriding goal. (4:10) Whatever disagreement may have existed between RAF and American airmen as to appropriate targets and methods to carry out the CBO were resolved by the CBO Plan, drawn up after the Casablanca Conference, which called for both daytime and nighttime bombing -- round the clock. (17:121) The RAF would conduct "area" bombing at night, while the American Eighth Air Force would bomb selected industrial targets during daylight hours. (4:92)

The primary forces used in the CBO were the RAF Bomber Command flying the Lancaster, and the B-24 "Liberator" and B-17 "Flying Fortress" of the American Eighth Air Force. Consistent with their air warfare doctrines, the British had developed the large Lancaster for heavy night bombing, while the American bombers were designed and built for precision daytime bombing. (17:121)

The full impact of these resources, however, was depleted, or at least delayed, first by the diversion into North Africa in late 1942, which committed many heavy bombers intended for use in Europe much longer than anticipated. (8:105-106; 13:103) Second, the Americans were suffering unacceptable heavy losses during unescorted daylight bombing runs, despite changes in combat formation or other tactics. (9:231) This problem was eventually remedied by the deployment of the P-51 ("Mustang"), but it was March 1944

before there were enough Mustangs to begin escorting large daylight raids into the heart of Germany (9:231)

Additionally, the strategic air forces were frustrated by the requirement to divert efforts to targets not necessarily vital to the German war economy, such as, German submarine bases along the French coast. (9:231; 13:153) This is not to imply that such diversion was unnecessary. German submarines still remained the principal threat to Allied operations at this stage of the war. (13:100) The Allies had decided at the Casablanca Conference that their prime targets must be the German U-boats. (11:231) Next in order of targeting were transportation, aircraft industry, oil plants and "other targets in enemy war industry." (12:161-162)

The CBO was executed principally in three phases in 1943 and 1944. (7:146) Until adequate escort fighter protection for long range bombing runs was provided in the final phase, although the CBO inflicted immense damage to most of the places attacked, the German war economy was relatively unaffected. (4:113; 7:146) Further, though the weight of bombs dropped on Germany in 1943 was five times more than the year before, German armaments production actually increased by 50 per cent. (7:153)

Such facts do not necessarily suggest the CBO was a failure. Allied strategic bombing diverted an enormous amount of German manpower and materiel which otherwise could have been used on the Eastern and Western fronts. (7:153) In so doing, as stated by Major General Hansell, whose opinion is admittedly biased, at the very least the CBO provided the *sine qua non* for the invasion of Europe. (8:116)

SECTION IV

ANALYSIS OF THE COMBINED BOMBER OFFENSIVE

The *Mowbray Model* illustrates the factors which influence the development of a past national, coalition, theater or campaign military strategy, laid down in a sequence from the impact of the perception of the threat on national interests to the execution of the strategy (14:16-17). The graphic illustration of the model illustrates the strength of impact of each of the various factors on developing the strategy by the width and direction of arrows indicating the "flow of influence from higher to lower levels of concern." (14:16-17) That is, the wider the arrow under a given factor, the more important that factor is to the aim (14:16). Further detail as to the Model itself, will not be provided here, but rather the Model's analytical scheme will be applied in examining the various factors influencing strategy in the pages that follow.

The Threat

Mowbray defines the threat confronting a nation or a coalition of nations, as the reason for and focus of any strategy (14:18). Hitler's dramatic rise to power in Nazi Germany and the formation of the Axis coalition of powers in the few years prior to the beginning of World War II clearly focused American strategy, policy and military doctrine (6:455). Prior to these developments, American national interests were officially articulated by the political leadership as a policy of defending the nation's shorelines (2:445; 6:455). That policy was surely influenced by such events as the impact of the Great Depression and the unpopularity of American involvement in World War I on societal values and the nation's resources. Given the threat of aggressive, hostile expansionist policies and

doctrines of the Axis however national policy broadened to more fully encompass the Monroe Doctrine s commitments to American allies in the Western Hemisphere (6:455)

The Axis threat also impacted military leadership thinking on force structure, technology and doctrine In essence, while military policy continued to be defensive in focus, the threat with American national interests and political commitments, forced a capability for offensive, as well as defensive military action. (6:455)

The threat had an even more obvious and direct influence on the Allied powers in Europe, who were literally fighting for survival The Axis threat to the Allies, to Great Britain in particular, with the threat to the Western Hemisphere in general not only influenced American strategy but directly formed the foundation of the Allied coalition strategy throughout the war. (4:3) Because of the strong political commitments between the Allies, the threat posed by the Axis also provided the glue which held the CBO strategy together in the face of otherwise strong disagreements and necessary diversions of forces and resources throughout the period of 1942-1945

National/Coalition Interests

Although the *Mowbray Model* distinguishes national/coalition interests from national/coalition objectives (14:18-19), the two concepts are not mutually exclusive. As Dr Mowbray points out, "The national interests of the country . are a major if not the major influence upon policy and the objective of the war " (14:19) Indeed, the concepts are intertwined with national strategy, which fuses all the powers of a nation to attain national interests and objectives. (1:10) The same can be said for coalition strategy and its relationship to coalition interests and objectives.

In addition to ensuring the survival of Great Britain (4:1) for the war in general clearly the American national interest in preventing Axis influence, if not expansion, in the Western Hemisphere was a prime factor which shaped national policy and the objective of the war. That interest was truly national in scope, held by virtually every American man, woman and child. As expressed by one who was a child during the war: "In our vivid expectation, losing World War II would mean being occupied. Even if we were not taken over, we had an only somewhat less horrendous anxiety that we would be bombed. . the more acute fear of losing the war itself. was supplanted as a personal preoccupation by a kind of monomaniacal focus on the war and the drive to win it." (5:H5)

The coalition interests of the Allies were no less influential upon coalition policy and the objective of the war. "British Prime Minister Winston Churchill and U.S. President Franklin D. Roosevelt cast the struggle against Nazi Germany and Japan as a crusade to save civilization itself." (16:H12) Likewise, American national and Allied coalition interests had an equally powerful influence upon the policy and campaign objectives of the CBO. Even prior to the war, in the 1930's Great Britain viewed a strong bomber force as a deterrent to bombing attacks on the mother country (12:152), and the objectives outlined in the Casablanca Directive speak for themselves as to the influence of the Allied coalition interests in their development. (See 7:136; 13:100; 17:119)

Influences of Societal Values, Resources and Political Leadership

The societal values and national resources of each ally in a coalition of powers provide inputs to the political leadership developing the policy which governs the military and determines the objective. (14:18) For both the war in general and the CBO campaign, the key societal values of the various Allied powers were similar enough that they may

fairly considered to be shared. These societal values had a direct influence on the national resources available to conduct the war and the CBO campaign. For example, American societal values, evidenced by victory gardens, "Rosie the riveter," motion pictures, popular music and the like, directly impacted national resources. Civilian life in World War II was "one unbroken stretch of national resolve and sacrifice" which created what has been described as "an unmatched economic and technological colossus." (10:H6; *see also* 5:114) As one observer noted: "By war's end, U.S. plants were turning out 60,000 warplanes and a thousand cargo ships a year. . . . In all, the U.S. war effort produced 296,601 aircraft, 71,060 ships, 86,388 tanks. This miracle of production, as much as manpower using the weapons coming off the lines, won the war." (10:H7) Although the numbers may differ, the societal values of English citizens had a similar impact on British national resources available for the war overall and the CBO campaign. Undoubtedly those "inputs" led the American and British political leadership to develop the resolute policy for the war of total defeat of their enemies.

Societal values not only influenced Allied overall war strategy, but that of the CBO campaign as well. By way of example, British societal values regarding retaliation for German attacks on London, Coventry and other English cities were a major factor (along with, no doubt, their failures at daytime precision bombing) influencing the top Anglican political and military leaders to develop a policy of area bombing -- including civilians. (7:142, 144, 150, 153; 17:121) Perhaps due in part to the fact that their mainland had never suffered such widespread attacks on civilian populations, the American societal values opposed mass bombing of civilians. (4:116)

The Interplay of Military Leadership, Doctrine, Force Structure and Technology

As Dr. Mowbray opined, the military's contribution to the accomplishment of a national (or coalition) objective is determined by the capability of the military leadership, which in turn, is driven by the available force structure. (14:18) The force structure is determined by doctrine as well as technology. (14:18) The *Mowbray Model* illustrates the dynamic interrelationship of those factors and their ultimate influence on strategy. (14:19)

The interplay of these four factors significantly influenced the strategy implemented by the CBO. Although there is no shortage of critical opinion about certain decisions they made, the outcome of the war and history in general attest to the extraordinary capability of the American and Allied military leadership. As for the CBO, the influence of force structure -- particularly diversion and delay in provision of force -- on the Allied military leaders was pronounced, and beyond question, affected attainment of the campaign objectives. (8:105)

Both doctrine and technology determined the force structure for the CBO. Primarily because of technological advances in the years preceding the war, both American and British air war doctrines had come to focus on the bomber as the basic arm of air warfare. (6:503; 7:141) The evolution of doctrine focusing on heavy bombers supplanted earlier air war doctrine emphasizing pursuit aviation. (6:503) Because the heavy bomber doctrine failed to recognize the vulnerability of bombers to fighters, and the concomitant delay in providing long-range pursuit/fighter escort, the effectiveness of the CBO was delayed, if not significantly mitigated. (4:93; 7:139; 8:104; 9:231; 11:239; 12:162, 171, 173; 13:106)

Summary

Applying the Mowbray Strategy/Process Analysis Model to the Anglo-American Combined Bomber Offensive in Europe during World War II clearly shows how the Axis threat to the Allied powers was the focus of the CBO strategy That threat directly impacted both the national and coalition interests of the Allies These interests, with the prevalent societal values and resources available directly influenced the Allied political leadership which developed the policy of unqualified defeat of the enemy That policy, shared by the Allies, was implemented by capable military leadership Force structure air war doctrine and technology all had an effect on the timing and ability to attain the objective of the CBO Finally, the influence and interrelationship of all these factors shaped the campaign strategy of round the clock bombing with precision targeting by day and area bombing by night

SECTION V

SUMMARY AND CONCLUSIONS

That the planners of the 1942-1945 Anglo-American Combined Bomber Offensive (CBO) during World War II selected a strategy of methodical bombing of Germany on an enormous scale is an uncontroverted fact of history. However, whether that strategy was selected merely to weaken Germany so as to ensure the success of OVERLORD, the great cross-Channel attack in 1944, or to bring about the total destruction of the whole military, industrial and economic system as well as the morale of the German people is yet today the subject of some interpretation. The Casablanca Directive, stating, among other things the objectives of the campaign, was subject to differing interpretations when it was written and it remains so today. Thus the reason the strategy was selected for this campaign and whether the CBO was successful depends upon one's view of the purpose stated in the Casablanca Directive.

Did the CBO itself bring about overwhelming defeat of Germany? Although the writings of both Generals Hansell and Spaatz reflect the view that Allied air power was decisive in the war in Western Europe, modern historians have reached divergent conclusions about not only the CBO, but also air power in general, and the overall impact on the war. Whatever disagreement there may be regarding the "decisiveness" of the CBO, however, there seems to be unanimous agreement among all historical analysts that the CBO was certainly a significant factor in determining the outcome of the war in Europe. Further, if one views the objective of the CBO as making possible an invasion of the Continent, it can be seen as nothing less than an overwhelming success.

Although there appears to be no real consensus as to the ultimate purpose of the CBO, it is reasonable to conclude that the campaign strategy of sustained, massive day and night bombing of Germany by British and American heavy bombers was selected to weaken the German morale and warmaking ability to an extent to ensure the success of the cross-channel invasion. For the first time in the history of warfare, such a strategy was not only possible to implement, but its success could be realistically envisioned.

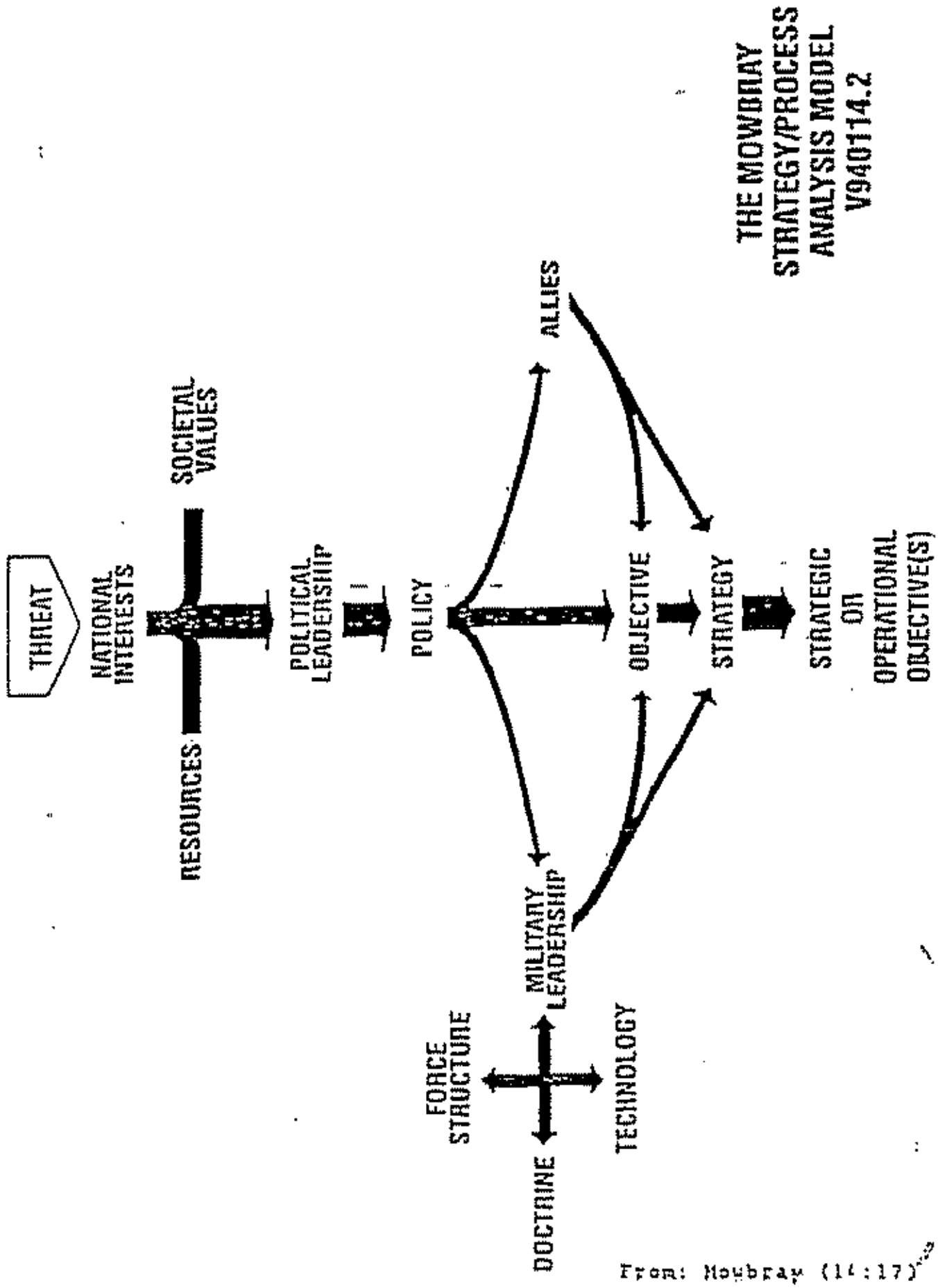
Although the concept of air warfare was not entirely new -- it had been around for at least 25 years -- the doctrines for the application of the air arm of military power were still evolving. That evolution was shaped not only by changes in perceived growing threats to national interest, but also in large measure by increased technology and national resources available to develop that technology. Aviation science and engineering were not so advanced in World War I to enable the production of long-range heavy aircraft, let alone convince, or even influence, top level military leadership to begin thinking in terms of strategic bombing.

By the time World War II was in full swing, however, all that had changed. The newly developed technology enabling the production of the British Lancaster and the American B-17 and B-24, and ultimately the long range P-51 escort fighter, provided the opportunity for Anglo-American political and military leaders to shift paradigms of military thinking to include strategic bombing as a viable strategy.

Although the RAF was established as an independent arm of the British military in World War II, American airmen within the Army Air Corps were still fighting for an autonomous air force. Decisive or not as to the outcome of the war in Europe, at the very least, the CBO represented the realization of the dreams of American airmen who sought to

vindicate their faith in an autonomous military air arm and independent air warfare based on bombing Although perhaps not the primary factor, surely the success of the CBO was a significant factor in the ultimate decision in 1947 to establish the United States Air Force as an independent service, coequal with the Army and Navy within what we now know as the Department of Defense.

APPENDIX



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