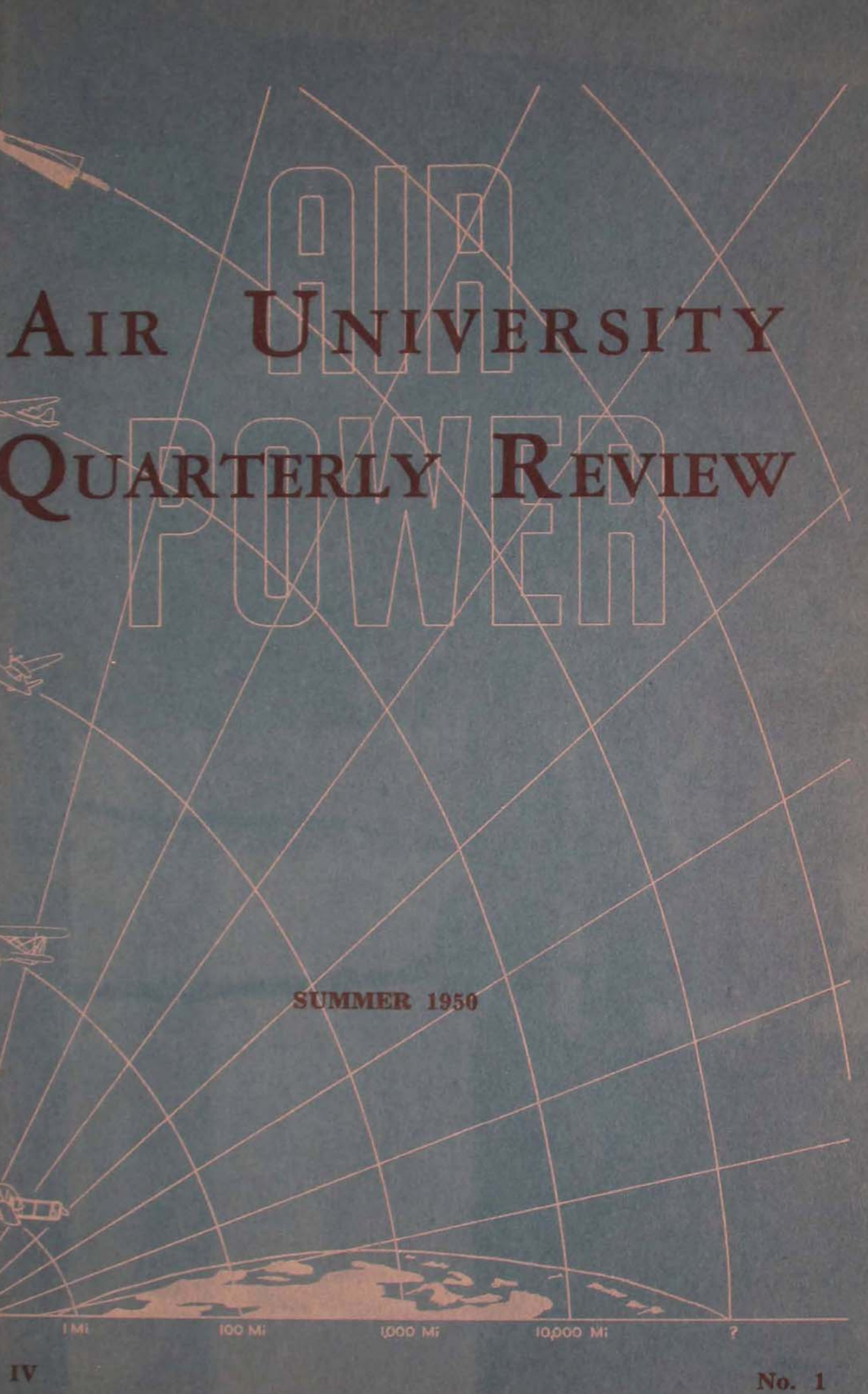
AIR UNIVERSITY QUARTERLY REVIEW

AIR POWER



SUMMER 1950

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THE
UNITED STATES AIR FORCE
AIR UNIVERSITY QUARTERLY REVIEW

VOLUME IV SUMMER 1950 NUMBER 1

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Published quarterly by the Air University, Maxwell Air Force Base, Alabama. The printing of this publication has been approved by the Director of the Bureau of the Budget, 17 June, 1949. Students and faculty of the Air University schools are provided free copies as textual material. Printed by Field Printing Plant, AU. Price, single copy, 50 cents; yearly subscription, $2.00. Address orders to Air University Book Department, Maxwell Air Force Base, Alabama. Properly credited quotations are authorized.

PRIZE EDITORIAL

NATIONAL SCHIZOPHRENIA

WHEREVER WE GO in America today we hear remarks which indicate a refusal to consider war as a real factor in the very nature of international civilization. The statement "We won't fight unless attacked" has become an aphorism of the times, a sort of denial of our obvious intentions to use war as a final instrument for protecting our way of life. Many people maintain that we must preface all our international thinking with the faith that war is not inevitable, a form of vehement repression of the mere thought of war as a means to solve international conflict. This is one side of our national "mind," the side which denies the reality of war in the world today.

Completely dissociated from this part of our "mind" is a part which admits the hard fact that war is highly probable. When this part of our "mind" is in touch with reality, such as when we read the news, we accept war as the fact to be contended with. But when we lay the newspaper down, we regress into our peaceful dream-world where war has no place. To thus reject the reality of war because of its universal distaste will in no way solve the problem it presents.

Empirical evidence leads us to but one conclusion regarding war: it is indigenous to civilized man. The hope that we can change this unhappy characteristic of our culture is not furthered by believing that war will never again occur, any more than disease can be conquered by asserting that there will be no more disease. Fervent wishing for peace, coupled with a "see no evil" attitude toward the stark reality of war as a basic factor in the present structure of our international civilization, will only serve to hasten a hot war. Unless we alert our whole mental attitude to the truth of war's imminence, we shall likely be swept by it into an abyss of miserable bondage far more dangerous than the war we denied.

Sometimes our aversion to war blinds us to other evils of the world. Ambassador Walter Bedell Smith (well corroborated by others) estimates that Russia holds fifteen million of its nationals in slavery. Considering this, together with the plight of the "free" people in that sad country, one might wonder whether war is civilization's ultimate evil. Would we not willingly suffer the lesser disease of war to guard against the cancerous fate that has befallen this other nation? In the

words of Patrick Henry, "Is life so dear or peace so sweet as to be purchased at the price of chains and slavery?" There was a time in our history when we faced the basic issue with more candor.

Today we say our international differences must be resolved by negotiation. There is nothing new in this concept. Negotiation has always been a method to resolve problems and to forestall war. Yet negotiations have broken down and wars have followed. The situation has not changed today. The international organization we set up for peaceful resolution of disputes was not given power to enforce its mandates, and there seems little likelihood of it becoming a true world authority in the foreseeable future unless we carry the ball.

Negotiation on the international level today, as always, is backed by two major forces: the threat of war and the threat of adverse public opinion. When public opinion is held divided through biased or controlled communications on either side, only the threat of war remains as the final criterion for resolving grave controversies. The side which is conceded the strongest battalions or **the most ready will to use its battalions,** even though their strength may be in doubt—that side wins the arguments. When we deny that potential war is a vital factor in our present civilization, we are saying we shall not fight to uphold our principles of freedom and democracy. Our position in the cold war is weakened and hot war is approached.

These are the facts of today that we must live with and face with courage. Dreaming of the golden millennium when international troubles will be handled like neighborly disputes will avert war no better than will a psychotic become adjusted to reality by regressing into a world of phantasy.

There were thirty-three years between the Civil War and the Spanish-American War, nineteen years between the Spanish-American War and our entrance into World War I, and twenty-three years of peace for us between the two World Wars. It would seem to be a practical measure to shoot for more extended periods of peace—say fifty years—which might be a realistic goal. If we could do that we might learn something about how to maintain peace. We shall hardly learn by wishing for the moon.

Col. Dale O. Smith
Stanford University

Air Power and the Heartland

Lt. Col. Harry A. Sachaklian

ON January 25, 1904, the brilliant British geographer, Sir Halford J. Mackinder, read a paper before the Royal Geographical Society entitled "The Geographical Pivot of History."*

In this thought-provoking discourse, Mackinder set out to show a "correlation between the larger geographical and the larger historical generalizations." Although he recognized that "man and not nature initiates," he contended very strongly that certain geographical facts explained much of the history of the world.

He presented the geography of the world in a novel map form. He described the large land mass of Eastern Europe and all of Asia north of the mid-Asian mountain belt as being the "Pivot Area" surrounded by an "Inner or Marginal Crescent," and outside of that lay the rest of the world, which he called the "Lands of the Outer or Insular Crescent." He considered the "Pivot Area" as being entirely continental, the "Inner Crescent" as being mixed continental and oceanic, and the "Outer Crescent" as being entirely oceanic.

From this presentation he predicted that the Russian Empire and Mongolia would develop a "vast economic world . . . inaccessible to oceanic commerce." He then asked the question, "Is not the pivot region of world politics that vast area of Euro-Asia which is inaccessible to ships, but in antiquity lay open to the horse-riding nomads, and is today about to be covered with a network of railways?"

The impact of this discourse was considerable. It excited much comment and received enthusiastic acceptance in some quarters. Yet the logic of the argument, based on an appreciation of thousands of years of history, appears to be contradicted by an event which took place a few short weeks before the delivery of the lecture, the first successful flight of a powered aircraft by the Wright brothers in December of 1903.

*Reprinted in full in "The World of General Haushofer" by Andreas Dorpalen (Farrar and Rinehart, 1942).

As a matter of fact, in the discussion that followed Mackinder's talk on that fateful day, one Mr. L. Amery (later to achieve world-wide eminence as British Secretary of State for India and in other posts) pointed out that, "Both the sea and the railway are going in the future to be supplemented by the air as a means of locomotion, and when we come to that . . . a great deal of this geographical distribution must lose its importance and the successful powers will be those who have the greatest industrial bases. . . ."*

Here then is an apparent flaw in the reasoning of Mackinder that was not adequately answered then (who knew the role of air power in 1904?) and has not been adequately answered to this day.

Ten years later a world war began. After years of bitter conflict, certain great historical events took place. The Russian Empire was overthrown, and an entirely new form of political organization shouldered aside the more moderate elements in Russia and seized control of the "Pivot Area" with the avowed intention of first consolidating their victory and then extending their system to cover the world. Imperial Germany was finally defeated but in the process had developed the land power's answer to sea power, the submarine. Meanwhile the airplane had been transformed from a delicate and unpredictable curiosity to a deadly instrument of warfare.

In 1919, while the world was engrossed in the weighty problems of recovering from this terrible war and in so doing was engaging in violent controversy regarding the terms of its settlement, Mackinder published what is probably his most important work, the book *Democratic Ideals and Reality*.

The true greatness of Mackinder as a geographer, historian, and philosopher is perhaps best revealed in this monumental work. In this book Mackinder interprets history as being a constant struggle between land power and sea power. He points out that land power will win in the long pull of history, since it can deny bases to sea powers. He makes the point that if a single power should control the vast land mass of Europe and Asia it would be in a position to dominate the world. The vast resources at its disposal would enable it to become both a land and a sea power, and consequently it would possess enough force to overwhelm the nations owning only sea power.

*Proceedings of the Royal Geographical Society, London, as reported in the **Geographical Journal**, April, 1904. Taken from **Geopolitics** by Robert Strausz-Hupé (G. P. Putnam Sons, 1942).

This book is the source of the term "Heartland" which Mackinder uses to describe that which he had previously called the "Pivot Area." His geographical limitations of this area are vague but generally extend from the Volga basin on the west to the Pacific Ocean on the east and from the Arctic regions of the north (which he called the Icy Sea) to the belt of Asiatic mountains on the south. He calls this area, "the greatest natural fortress on earth," completely uninfluenced by sea power and hence capable of unimpeded and independent development. He again stresses that the resources and the space of this area are so great that, if properly organized, they would enable its owner to outstrip the world.

The purpose of the book, as the title suggests, was to guide the victorious democratic powers in the determination of the treaties that would mark the end of World War I. He warned the victors that, regardless of the democratic impulse to consider ethics and the rights of mankind, there were certain geographic facts that, if ignored, would play into the hands of the "organizer," (his term for the now-called totalitarian) "The Nemesis of democratic idealism."

The most significant passage in the entire book would appear as appropriate today as the day it was written. It represents the condensation of generations of history into a few words. He states:

"Unless you would lay up trouble for the future, you cannot now accept any outcome of the war which does not finally dispose of the issue between German and Slav in East Europe. You must have a balance as between German and Slav, and true independence of each. You cannot afford to leave such a condition of affairs in East Europe and the Heartland as would offer scope for ambition in the future, for you have escaped too narrowly from the recent danger.

"A victorious Roman general, when he entered the city, amid all the head turning splendor of a 'Triumph,' had behind him on the chariot a slave who whispered into his ear that he was mortal. When our statesmen are in conversation with the defeated enemy, some airy cherub should whisper to them from time to time this saying:

"Who rules East Europe commands the Heartland:
Who rules the Heartland commands the World Island:
Who rules the World Island commands the World."

(Oh, for a battalion of such cherubs at Yalta and at Potsdam!)

exception "Lenaland." He further states: "All things considered, the conclusion is unavoidable that if the Soviet Union emerges from this war as conqueror of Germany, she must rank as the greatest land power on the globe. Moreover, she will be the Power in the strategically strongest defensive position. The Heartland is the greatest natural fortress on earth. For the first time in history it is manned by a garrison sufficient both in numbers and in quality."

Yet regardless of the fact that the Soviet Union would fulfill all the factors of his "who rules" equation, he devotes the remainder of his article to the problems of "cleaning" Germany. This is one of Mackinder's few departures from realism. It should have been obvious that a defeated Germany, conquered by the Soviet Union, would be purged and not cleansed. It should be obvious that if the Heartland, "manned by a garrison sufficient both in numbers and in quality" possesses the requisite attributes to "command the World Island" and consequently to "command the World," the mantle of world conqueror would fall on the Kremlin and not on Berchtesgaden.

Mackinder makes his first reference to air power in this article. He states: "Some persons today seem to dream of a global air power which will 'liquidate' both fleets and armies. I am impressed, however, by the broad implications of a recent utterance of a practical airman: 'Air Power depends absolutely on the efficiency of its ground organization.' That is too large a subject to discuss within the limits of this paper. It can only be said that no adequate proof has yet been presented that air fighting will not follow the long history of all kinds of warfare by presenting alternations of offensive and defensive tactical superiority, meanwhile effecting few permanent changes in strategical conditions."

Mackinder wrote this article just a little bit too soon. He had ruled out of his discussion any reference to the fact that sea power and air power, as well as Soviet land power, would have something to do with the defeat of Germany. Because of this omission, there is reason to believe that Mackinder did not fully appreciate the role of air power at the time he wrote this article. His recent death deprives the world forever of learning whether or not he still felt that his comments on air power were valid in view of Hiroshima and Nagasaki.

If air power depends on the efficiency of its ground organi-

zation, so does sea power. Man is a land animal and cannot support himself afloat indefinitely anymore than he can support himself aloft indefinitely. If conflict between sea power and land power is the basic assumption upon which the Heartland theory is founded, surely a third expression of power, air power, cannot be brushed aside with an argument that applies equally well to one of the first two elements.

If the "greatest natural fortress on earth" becomes capable of unimpeded and independent development because it is completely uninfluenced by sea power, surely this capability must be considered restricted in terms of its vulnerability to air power. The Heartland is no better equipped with an impenetrable roof than was ill-fated "Festung Europa."

As for Mackinder's assertion that air fighting would effect "few permanent changes in strategical conditions," the laments of Yamashita, as reported in the *Infantry Journal* of April, 1946, would appear to be adequate rejoinder. The Japanese, like the Germans, learned the true meaning of air power only after it was used against them.

The war with Germany ended with the collapse and utter disintegration of the German government. This would have appeared to have been the signal for the visitation of "airy cherubs," but the reality is that the fundamental agreements that govern the postwar world were reached before the final defeat of Germany. It might have been well to have heeded Mackinder's warning, phrased in other terms, in view of the rapid developments immediately pursuant to the crushing of German armed might.

Mackinder's equation backfired. The rulers of the Heartland promptly took custody of East Europe and set out on a program to "command the World Island." They did this quickly and efficiently while the other powers debated the "cleansing" of Germany. The consolidation of East Europe with the Heartland was accomplished so smoothly and effectively that it is reasonable to suppose it represented the carrying out of a master plan, conceived long in advance.

Perhaps the irony of the eager acceptance of the Heartland concept by Haushofer and his *Institut für Geopolitik* is matched in this case where the victim has succeeded in accomplishing what the attacker failed to do.

It is with a chill of apprehension, then, that the world sees another grim reality. Who rules the Heartland now rules East

Europe. If Mackinder's equation, as he stated it, is valid, the empire of the world, born of geography and conceived by land power, is in sight.

THE prospects for survival of the powers of the Inner and Outer Crescents would indeed look bleak without the factor of air power. The present tenant of the Heartland, the Union of Soviet Socialist Republics, fulfills all of the requirements stipulated by Mackinder. It does now "rank as the greatest land power on the globe." It possesses a mass, virile population. It has a rapidly growing industrial base that will soon rank in all categories second only to that of the United States. It has the most powerful political organization ever created in terms of its ability to keep the entire Heartland constantly in a state of mobilization.

Whether the rulers of the Heartland are themselves impressed by Mackinder's theories is not clear. Dr. George B. Cressey, the eminent geographer of Syracuse University, states that the U. S. S. R. considers these theories as manifestations of Fascist propaganda."* The Rev. Edmund A. Walsh, of Georgetown University, indicated in a recent lecture to the Air University that he believed otherwise.**

In any event the reaction of the rulers of the U. S. S. R. to the question of air power is as automatic as the reflex of a knee tapped by a neurologist's hammer. There is reason to believe that the only thing in the world feared by the U. S. S. R. is United States air power. The reasons for this fear are inextricably linked with the U. S. Air Force's concept of the Strategic Air Force. The super-bomber and the super-bomb are the backbone of this concept and as weapons of retaliation have an inhibiting effect far in excess of any military force ever created.

There is certainly no other power that could possibly restrain the rulers of the U. S. S. R. from directing its powerful Red Army to march to the Atlantic. Except for the grim spectre of devastation from the air, there could be no better time for the rulers of the Heartland to proceed directly to their next step, the command of the World Island.

The clearest expression of Soviet reaction to United States air power occurs in the deliberations of the Military Staff

*The Basis of Soviet Strength by George B. Cressey (Whittlesey House, 1945).
**Lecture to the combined schools of the Air University, November 5, 1947.

Committee of the United Nations. Although the Military Staff Committee meets in secret sessions, the same arguments used there are, to be sure, repeated in the open sessions of the Security Council.*

The U. S. S. R. is attempting to destroy by diplomatic and psychological means the only obstacle in the path of fulfillment of the Mackinder equation, United States air power. There is no cheaper way to deny command of the air.

Their representatives first strove without success to include heavy bombers in the list of weapons of mass destruction and thereby subject them to international control. Failing in this maneuver, they concentrated their efforts on the deliberations of the Military Staff Committee concerned with the principles upon which the U. N. Security Force would be formed. Here they insisted upon a principle of so-called "equality of contribution" amongst the Big Five Nations. This principle would have restricted the contributions of heavy bombers by the United States to the Security Force to the same size as that of China, in effect, none.

The whole scope of the Soviet's offensive against United States air power became clearly evident by the remarks of Mr. Gromyko in the Security Council on the question of the over-all size of the Security Force. He stated that since the "Fascist aggressors" had been crushed there existed no real threat to the world peace today. Accordingly the Security Force did not need to be large at all. Since the prime value of such a force was to be its moral effect, its requirements could easily be met on the "principle of equality of contribution." He then indicated that all nations could disarm down to their contributions to the Security Force and permanent peace would be in sight.

The prospects of world disarmament is an appealing one to the Western democracies. The burdens of maintaining a large armed force are heavy and irritating. Yet such disarmament would be a greater strategic victory for the U.S.S.R. than Stalingrad, since it would ensure command of the World Island by the rulers of the Heartland.

As Mackinder points out, land power, when opposed only by sea power, can carry out the equation. By world disarmament, the U. S. S. R. would disband a Red Army that can

*Observations of the author while on temporary duty with the Military Staff Committee, June-July, 1947.

be readily reconstituted. In exchange, the United States would destroy an air force that would require years to rebuild. Before such an air force could be rebuilt, the rulers of the Heartland would have the World Island firmly in their grasp. Then the race for air supremacy would take place, with the combined resources of the World Island at the disposal of the rulers of the Heartland.

It is true that the U. S. S. R. is currently making tremendous efforts to create a modern air force. But it is also true that it needs this air force only because other air forces exist. The U. S. S. R. has already demonstrated by its proposals for world disarmament that it would be more than willing to discard its creation if other nations would do likewise. After all, the U. S. S. R. can achieve its aims without air power if it has no air opposition to meet. It would prefer to engage the world in the medium best suited to it: land power.

The modern interpretation of Mackinder's equation might well be phrased somewhat as follows:

Who rules the Heartland already commands East Europe:
Who rules the Heartland can command the World Island,
if not prevented from doing so by modern air power:
Who rules the World Island can command the World,
but must achieve supremacy in the air to do so.

IN the last analysis, expressions of power are relative and not absolute. Germany was by no means fully mobilized when it began its attack on Poland in 1939. But the Germans had carefully calculated that no power on earth could be mobilized in time to stop them. The fact that they erred in their calculations is history, but so is the fact that they plunged the world into the bloodiest war of all time, despite their error.

The reality, as in the case of Germany, is not whether the U. S. S. R. has any "scientific right" to the World Island, or whether possession of the World Island guarantees world domination, but whether the U. S. S. R. can be prevented from seizing and consolidating the World Island.

If it is the threat of force that is deterring the U. S. S. R. from using its own military power to capture the World Island, that force cannot be anything but air power. The U. S. S. R. need not fear land or sea power, since it has a land power already completely mobilized that exceeds the effective

strength of the combined armies of the rest of the world and obviously sea power cannot be applied against the vital sources of its strength.

Since the close of World War II, the rulers of the Heartland have been faced with a situation wherein their prime expression of power, land power, has been stalemated by another form, air power. They have been forced to utilize other means than their own military force to continue their program.

With the typical cunning of the Asiatic, these means have been so contrived as to avoid engaging the air power they fear. Every step the U. S. S. R. has taken to expand its area of domination has been designed as an internal affair ostensibly involving only the victim nation. Each one of these steps has resulted in progressively increasing cost to the lands of the Inner and Outer Crescents in their efforts to stabilize again the world situation.

However this series of limited conflicts has resulted in one very significant trend. The rest of the world is unifying in a determination to resist vigorously any further addition to the Communist Empire.

At the present time the ability of the rest of the world to resist further aggression is centered almost entirely on American air power and the atom bomb. As yet the U. S. S. R. has not offered sufficient provocation to cause these nations to agree on its employment. Whether the moral scruples and genuine abhorrence of violence of the rest of the world will vanish in the wake of incidents such as the Korean aggression is a matter to occupy the most serious attention of the calculators in the Kremlin.

With the ruthless flexibility of the "organizers," these would-be world conquerors can turn "border incidents" and "domestic disturbances" on and off like water from a faucet. They cleverly exploit the desire for peace in the rest of tne world by conducting propaganda "peace offensives" and world wide "peace petitions." They demonstrate again and again their nervousness regarding air power by designing their propaganda to increase the reluctance of the rest of the world to use its only real defensive weapon, air power.

So far the calculators of the Kremlin have met with astonishing success. Whether the heady wine of an unbroken series of minor victories will cloud the judgment of the calculators is something yet to be seen. If it does and they do mis-

calculate the temper of the world, their error will rank as the most awful blunder of all time.

In any event it is now apparent that the rulers of the Heartland must either build an air power sufficient to attain and maintain mastery of the air or abandon any hope of securing the World Island by use of their own armed forces.

Conversely the lands of the Inner and Outer Crescents can best prevent the command of the World Island by the rulers of the Heartland by now building and then constantly maintaining an air power capable, at a moment's notice, of initiating and sustaining air attacks designed to devastate the Heartland.

The threat implicit in the air power concept has deterred Red Army aggression for five years. The ability of American and Allied air power to continue to act as a deterrent depends on winning a race for air superiority. Historically all armament races have ended in open warfare. But the principal gain in such a race is precious time for the less-prepared. The principal loss in such a race again is precious time for the best-prepared.

The lands of the Inner and Outer Crescents have consistently ignored the warnings of Mackinder. The rulers of the Heartland have skillfully played their game of chess. There are but a few moves left to the rest of the world that show any promise of success. If these few moves are played as poorly as the earlier ones, the game will reach a point where the rest of the world will be faced with the equally distasteful alternatives of acknowledging defeat and surrendering the stakes or of kicking over the chess board. Either course would be an admission of ineptness at chess, but such a confession would surprise no one. There is no denying that the rulers of the Heartland have steadily captured pawns, knights, and bishops with alarming ease and without comparable loss.

The complete fulfillment of the Mackinder equation is within the grasp of the rulers of the Heartland. To prevent it, there remains to the lands of the Inner and Outer Crescents only the faint hopes of the remaining few moves and if these fail, the grim task of destroying the menace by air power.

The creation of an air power capable of performing that task and the development of a willingness to use it when necessary is the most urgent and clear-cut requirement that has ever faced the proponents of "democratic idealism."

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Military Decision and the Mathematical Theory of Games

COLONEL O. G. HAYWOOD, JR.

The United States military philosophy of decision is formulated in the well-known "Estimate of the Situation." The doctrine determines a course of action based on an estimate of enemy capabilities to oppose our possible courses of action. Dr. von Neumann has proposed a general theory of "games" which permits a clearer understanding of the decision process in general. Analysis of the "Estimate of the Situation" in the light of game theory indicates that the "Estimate" leads to a most conservative decision. Game theory provides more profitable decisions. The development from game theory of a practical military doctrine of decision better than the "Estimate of the Situation" is worthy of the coordinated effort of authorities in the art of war and in the theory of games.

The mathematical theory of games of strategy developed by Dr. John von Neumann has provided a new approach to the theory of competitive behavior. The theory is presented in detail in his *Theory of Games and Economic Behavior*,* written jointly with Dr. Oskar Morgenstern who analyzes the application of the theory to economic problems. The RAND Corporation and others have studied the possibility of applying the theory to military problems. As a rule these applications have been to simplified problems of strategy, tactics, or logistics. As a mathematical device for analyzing the outcome of conflict, it is possible that the theory may furnish a tool of value to military commanders in arriving at decisions concerning courses of action or strategies. But the armed forces of the United States already have an established doctrine for making

*John von Neumann and Oskar Morgenstern, **Theory of Games and Economic Behavior** (Princeton University Press, 1947).

command decisions, formulated in a "Standard Armed Forces Form for the Estimate of the Situation." This present paper is devoted to an analysis of this doctrine in the light of game theory.

The mathematical theory of games is not a method for the solution of games of chance (such as roulette), in which the value of the outcome is determined by the action of one person and by chance acting with determinable probabilities. Rather the theory recognizes the existence of opposing interests, each exercising rational control over part but not all of the factors determining the outcome. The theory is a theory of rational conflict.

The effort is made in this paper to bridge the wide gap existing between practical military doctrine and mathematical theory. The result may not be entirely satisfactory to either military men or scientists. This work will have served its intended purpose, however, if it stimulates some military readers to study and to participate in the development of game theory toward its eventual useful military application, and if it stimulates experts in game theory to seek, and indeed insist on, active participation in their studies by qualified professional military men.

The author has endeavored to keep the text understandable for those unqualified in higher mathematics or game theory. It is believed that essential accuracy has not been seriously compromised. But we may well bear in mind the injunction of the famed British philosopher Alfred North Whitehead, "Seek simplicity, but distrust it." Simplicity is compounded in this paper; it is a simplified treatment of a student thesis prepared for the Air War College which is itself in many respects a simplified treatment of this complex subject.*

Outline of the Theory of Games

As many readers will be completely unfamiliar with game theory, it may be well to begin with a brief account of it. This is particularly important as some of the terms associated with the theory are ambiguous in everyday usage.

A *game* is the set of rules which describes it. These rules specify clearly what each individual, called a *player,* is allowed to

*A copy of the author's thesis, entitled: "Military Doctrine of Decision and the von Neumann Theory of Games," may be obtained on loan from the Librarian, Air University Library, Maxwell Air Force Base, Alabama. In addition to the material covered in this article, the thesis discusses doctrines of decision other than the "Estimate of the Situation" and proposes a military doctrine utilizing the "mixed strategies" of game theory.

know and to do under all possible circumstances. The rules stipulate, in particular, the time or manner by which the game ends and the amount each player then loses or receives. This amount is the *value* or *utility* of the game. For military situations, it may be considered as the *military worth* of the outcome. If the game requires the use of chance devices, the rules describe how the chance events shall be interpreted. A game of poker, for example, is the set of rules which describes the deals, draws, betting, *etc.* The deal is a chance event with the probability of receiving any particular hand governed by the rules of the game prescribing the composition of the deck of cards and the number of cards dealt each player. The decision as to the draw is a personal choice made by each player; the outcome of each draw is a chance event. Betting is entirely personal choice. The outcome of the game, or the amount paid or received by each player, is determined by the chance events and the personal choices. The chance events and the personal choices are known as *chance moves* and *personal moves*. Thus play of a game consists of a sequence of moves, where a move is the choice, either chance or personal, of one among several alternatives.

In military conflict the personal moves concern factors which may be controlled or influenced by either or both of the opposing forces—state of morale and training, deployment of troops, ammunition supply, *etc.* The chance moves pertain to factors which affect the outcome but are not susceptible to control by either of the military forces, for example, unpredictable changes in weather.

Games can be classified according to the sum of all payments made by all players at the end of the game. If this sum is always zero—that is, if the players pay only to each other—the game is called a *zero-sum game*. In such a game, there is no production or destruction of utility. Parlor games are examples of zero-sum games. If the sum of the payments is not necessarily zero, the game is a *non-zero-sum game*. The payments need not, of course, be money. In chess a player either wins, draws, or loses. If he wins one game, his opponent loses one game. The game of chess is thus zero-sum.

Games can also be classified according to the number of independent players, as two-person, three-person. The persons must be independent. A *person* consists of all players who are bound together in a common interest by the rules of the game. For example, contract bridge is a two-person game, since each

pair of partners is linked by the rules of the game to assist each other and receive the same outcome. Likewise battle between two opposing military forces is a two-person game.

In the actual play of a game each player may formulate a plan in advance to cover all possible contingencies, instead of making his decisions at the time of each of his personal moves. A *strategy* is a plan made by a player in advance of the game. For every possible situation that may arise, the strategy specifies what choices of actions the player will select from among the alternative actions available to him based on every possible element of information which he may possess at the moment in conformity with the pattern of information which the rules of the game provide. A plan is a *pure strategy* if it specifies one choice of action for each possible circumstance.

For example if you enter a game of straight poker, you might decide in advance of the deal what bet you will make for every possible hand you may receive and what your response will be for every possible bet an opponent may make. Perhaps this illustration would be clearer if instead of playing yourself, you send an agent who is completely uninformed as to the game but has a brilliant memory. You advise him exactly what decision or choice to make at every conceivable move that may come up in any play of the game, so that he has only to follow your orders mechanically. You have then given him a *particular strategy* which is one of the pure strategies by which the game may be played. This strategy might be identified by a number —for example, strategy 1.

Suppose you work out all of the possible pure strategies by which the game may be played. Now, instead of selecting one particular strategy by which to play, suppose you assign a probability to each particular strategy and direct him to play all of the strategies, his frequency of play of any particular strategy to be determined by the probability you have assigned it. Such instructions would constitute a *mixed strategy*. The agent should be furnished some random device which will permit him to make a completely impartial selection of a particular strategy for each game. In playing a mixed strategy, it is not necessary to play all of the pure strategies. If there are particular strategies you do not desire to play at all, you simply assign to them the probability zero.

To return to our poker game, you might decide in advance that you will bet high and call any other bettors if you receive a "full house" or higher; and on hands of lower value you will

bluff and "see" on the average of one time out of three. This plan calls for a pure strategy for high hands and a mixed strategy for low hands. Your agent, or yourself if you actually play the game, does not himself know what he will do every time he receives a low hand. To bluff well, he must do so without a pattern of action; in other words, he bluffs best if his bluffs are entirely random. He might, for example, keep three pennies in his pocket, one dated 1947 and the other two different. He could then draw a penny from his pocket each time he receives a low hand, and bet high whenever he gets the 1947 penny. His action is thus completely random, with the desired probability that he will get the 1947 penny and bluff one time out of three.

A strategy makes use of the information available to the player in accordance with the rules of the game. No freedom of action is lost through the use of a strategy since the strategy specifies the choice as a function of the information available.

A play of the game then consists in the choice of some strategy by each player without knowledge of that chosen by any other player. If the pure strategies of a player are finite, they can be represented by a finite set of numbers. The totality of possible outcome of the play of a two-person game may be shown in a tabulation or rectangular *matrix*. The pure strategies of one person are shown in the rows; the pure strategies of the other person are shown in the columns; and each element in the matrix is the value of the outcome of an opposition of the two strategies indicated by its row and column.

Every instance in which a particular game is played, from beginning to end, is referred to as a *play* of the game. As we have said above, the outcome of a play is determined by the personal moves of the players and the chance moves as prescribed by the rules of the game. Since the probability of the choice of each of the alternatives of each of the chance moves is prescribed by the rules of the game, the *outcome expectancy* of a play is determined solely by the personal moves, or the strategies, of the players. The expectancy is the sum of all possible outcomes, each multiplied by the probability that it will occur.

If in any two-person, zero-sum game the rules are modified to require Player A to select his strategy and make his choice known to Player B before the latter selects his strategy, but the rules are otherwise unchanged, the modified game is known as the *minorant game* for Player A of the original game. Con-

versely, if Player B must select his strategy and make it known to Player A before Player A selects his strategy, this is the *majorant game* for Player A. The minorant game for Player A is obviously the majorant game for Player B. Both the minorant and the majorant games are *strictly determined:* that is, if both players act rationally, only one value of outcome is possible. If the outcomes of the minorant and the majorant game are identical, the original game is *specially strictly determined.* In such a game the value of the outcome will remain the same regardless of which player selects and makes known his strategy first, or if neither makes it known, as long as each player acts rationally and selects his proper strategy. Such a strategy is known as a *good strategy.* There may be more than one good pure strategy for each player in a specially strictly determined game, but the value of the outcome is the same for all pairs of opposing good strategies. Normally games are not specially strictly determined and no good pure strategy exists. Dr. von Neumann has proved, however, that each person in a two-person, zero-sum game always has at least one good mixed strategy. Such games are then *generally strictly determined;* that is, if both Players A and B play a good mixed strategy, the outcome expectancy is uniquely determined. If Player A plays a good mixed strategy, he receives at least this outcome expectancy regardless of what Player B does. He may receive more if Player B does not play a good strategy.

The distinction among these games may be clarified by consideration of an illustrative game. Assume two players, A and B, to have three pure strategies each, with opposition outcome values as shown in the following matrix. These values measure payment by Player B to Player A. Thus, Player A seeks a maximum value; Player B a minimum.

Table 1: An Illustrative Game

Pure strategies of Player A	Pure strategies of Player B 1	2	3	*Minimum of row*
1	0	1.0	1.0	0
2	0.75	0.5	0.5	0.5
3	1.0	-0.5	2.0	-0.5
Maximum of column	1.0	1.0	2.0	

In the minorant game, Player A must select his strategy (a particular row of the matrix) before Player B selects his strategy (a particular column). Thus Player B, who is seeking to minimize, can always secure an outcome which is the minimum value in whatever row Player A selects. Player A, therefore, should select the row having the largest minimum value. The minimum of each row is shown in the right-hand column of the table. Player A selects his Strategy 2 because it gives the maximum value for this minimum—the maximin. Player A may thus assure an outcome of value 0.5.

In the majorant game Player B must select his strategy first. By similar reasoning, we see that he will inspect the maximum of each column (shown in the bottom row of the table) and select the column giving the minimum value for this maximum. Thus he may choose either his Strategy 1 or 2. Player A by proper selection of his strategy may then secure an outcome of value 1.0. This outcome depends, of course, on the rules of the game requiring Player B to choose his strategy first and make it known to Player A.

Even if the rules do not so specify, Player A may do better than the minorant game. If he decides to use a mixed strategy composed of Strategy 1 with a probability of one-fifth and of Strategy 2 with a probability of four-fifths, he may assure an outcome expectancy of 0.6 regardless of which strategy Player B chooses. (It is realized that this statement is not obvious. Its proof, while simple, is beyond the scope of this brief treatment of the subject.) The actual outcome in any particular game will be the value from the table corresponding to the actual strategies chosen—the outcome expectancy of Player A, however, will be 0.6, or twenty per cent better than he may secure by playing the minorant game.

McDonald has presented an entertaining, non-technical discussion of the theory of games in two articles in *Fortune*.* A brief but comprehensive summary of game theory is contained in the Project RAND report *Summary of RAND Research in the Mathematical Theory of Games*. The full structure of the theory is developed by von Neumann in some forty pages of quite difficult material* which, as von Neumann states, requires the reader "to familiarize himself with the mathematical way of reasoning definitely beyond its routine, primitive phases." The book is truly not elementary.

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*John McDonald, "Poker: An American Game," **Fortune**, March 1948, and "A Theory of Strategy," **Fortune**, June 1949.

*von Neumann and Morgenstern, **op. cit.**, pp. 31-84.

Analysis of the Estimate of the Situation

Military action requires an evaluation of the situation, a decision, and execution of this decision. The military doctrine embodied in the "Estimate of the Situation" encompasses the first two of these steps. The doctrine is formulated in five paragraphs:

1. The mission
2. The situation and courses of action
   a. Considerations affecting the possible courses of action
   b. Enemy capabilities
   c. Our courses of action
3. Analysis of opposing courses of action
4. Comparison of own courses of action
5. Decision

In terms of game theory the first four paragraphs of the "Estimate of the Situation" constitute the analytical development of the rules of the game. Then, from among the alternative courses of action which the commander is capable of implementing in the situation confronting him, he selects the one which promises to be most successful.

This doctrine is discussed at some length in the *Naval Manual of Operational Planning*. * In a "Guide to the Preparation of a Commander's Estimate of the Situation" the Manual specifies that "each of our own courses of action . . . is separately weighed in turn against each capability of the enemy which may interfere with the accomplishment of the mission. The results to be expected in each case are visualized. The advantages and disadvantages noted as a result of the analysis for each of our own courses of action are summarized, and the various courses of action are compared and weighed." A commander thus evaluates each pair of opposing courses of action and compares and weighs these evaluations. That he determine a preference for one outcome over another, for both over a third, *etc.*, is inherent in that weighing process. He cannot make his decision until he has established in his mind an order of preference for the outcomes which he visualizes resulting from the interactions of all of the opposing courses of action. It would be a simple further step to tabulate these evaluations, listing his courses of action in successive rows, the enemy courses of action in successive columns, and the evaluation of the outcome he visualizes for each possible interaction of op-

*Naval War College, Naval Manual of Operational Planning, 1948. Restricted.

posing courses of action in the proper row and column. It is evident that a course of action of the "Estimate of the Situation" corresponds to a pure strategy of the theory of games. Furthermore such a tabulation as proposed above for the "Estimate of the Situation" would be identical with a matrix of opposing strategies set up for analysis of the same conflict by the theory of games.

Further discussion of the correlation of game theory with the "Estimate of the Situation" may be simplified by assuming an illustrative military situation. There are two opposing military forces under Commanders A and B. Commander A uses the standard "Estimate of the Situation" form. He is told or he deduces his mission. He analyzes the situation. He notes the possible courses of action within the capabilities of the enemy which can affect the accomplishment of the mission. And he notes all practicable courses of action open to him which, if successful, will accomplish his mission. Let us assume that he determines that the enemy has three possible courses of action and that he likewise has three practicable courses of action. He proceeds to estimate the effect of each enemy capability on the success of each of his own courses of action. Suppose he estimates that the outcome of battle will be failure to accomplish his mission if both he and the enemy commander select their Courses of Action Number 1. However if he selects Course of Action 1 and meets the enemy's Course of Action 2, the outcome will be excellent from his point of view. Similarly he evaluates all nine possible interactions of the two opposing sets of three courses of action for each commander. These evaluations may then be tabulated as follows:

Table 2: An Illustrative Situation

Courses of action of Commander A	Courses of action of Commander B		
	1	2	3
1	*Failure*	*Excellent*	*Excellent*
2	*Good*	*Fair*	*Fair*
3	*Excellent*	*Defeat*	*Superior*

In this illustrative situation Commander A estimates that from his point of view one outcome promises to be superior,

three outcomes promise to be excellent, one to be good, two to be fair, one to be failure to accomplish his mission but with his forces remaining intact, and one to be failure in his mission with defeat for his forces. The relative desirability of the possible outcomes is expressed by these verbal or qualitative evaluations, varying from the best: superior—down through excellent, good, fair, and failure, to the worst: defeat.

The problem of Commander A is to select a course of action which promises to be the most successful in accomplishing his mission, that is, to secure the outcome which has the maximum value for him. He must expect that Commander B will be similarly motivated and will seek to secure the optimum outcome from his point of view. Since the values in the tabulation are expressed from the point of view of Commander A, he may consider that Commander B will seek to minimize the value of the outcome. Thus Commander A seeks to maximize, and Commander B seeks to minimize. The interaction of their rational selection of courses of action becomes a problem of two opposing minds, each seeking respectively to maximize and to minimize the outcome of the conflict.

It may be well to interpolate here that an experienced military commander would probably try to place himself in the position of the enemy commander and seek to evaluate the situation from his point of view. Judged from the enemy point of view, the interaction of the two Courses of Action Number 1 would be excellent, not failure; the matrix element evaluated in Table 2 as failure would be evaluated by Commander B as excellent. If the values in the tabulation are thus reversed to reflect the point of view of Commander B, he then would seek a course of action to obtain the outcome of maximum value. Such an analysis requires two tabulations, identical in all respects except that the values are oppositely viewed, or the negative of each other. Each commander would then have the problem of maximizing the outcome as viewed on his own tabulation of values. It is evident that the same result is obtained by using only one table, with Commander A attempting to maximize the value of the outcome and Commander B seeking to minimize it. It is to be emphasized that this is not placing Commander B in a defensive role—it is simply utilizing a mathematical concept so that one tabulation of values may be used for both commanders.

Let us return to Table 2. Commander A has the task of

deciding which course of action has the greatest advantages and least disadvantages with respect to the enemy's ability to oppose it. If he selects Course of Action 1, the outcome may be excellent but it also may be failure to accomplish his mission. If he selects Course of Action 2, the outcome will be either fair or good. If he selects Course of Action 3, the outcome may be superior, or it may be excellent, or it may be defeat of his forces and failure in his mission. The established doctrine dictates the selection of the course of action which promises to be most successful in the accomplishment of the mission. For Commander A, this is obviously his Course of Action 2, which assures either a "Good" or "Fair" outcome, provided of course his estimate of the situation is correct.

Although this decision can be reached from simple inspection of the table, it may be well to proceed to this decision in an alternative manner to develop the comparison with the von Neumann theory of games. Let us introduce a fourth column in the tabulation, in which we write the minimum value found in each row. Thus, on Row 1 in the fourth column we write "Failure." The complete tabulation follows:

Table 3: The Minorant Solution of the Illustrative Situation

Courses of action of Commander A	Courses of action of Commander B			
	1	2	3	minimum of row
1	*Failure*	*Excellent*	*Excellent*	*Failure*
2	*Good*	*Fair*	*Fair*	*Fair*
3	*Excellent*	*Defeat*	*Superior*	*Defeat*

Having done this, Commander A need only inspect the fourth column and select the course of action giving the best outcome in this column. In other words he selects the "Fair" obtainable by Course of Action 2 because it is the maximum value found in the fourth column; that is, it is the maximum of the minimum. As we have already noted in our outline of the theory of games, the maximum of the minimums (the *maximin*) is the solution of the minorant game. Thus the "Estimate of the Situation" leads to the same decision as the minorant game of the von Neumann theory.

The above conclusion is based on the tacit assumption that there is at least one course of action which promises success.

This is not an unreasonable assumption, at least in tactical applications of the doctrine. When a superior assigns a mission to a subordinate unit, it is reasonable to assume that he considers the accomplishment of this mission to be within this unit's capabilities. The *Naval Manual of Operation Planning* (pp. 18f) comments as follows on selection of the proper courses of action:

> "Before a course of action is adopted, it must be examined for suitability, feasibility, and acceptability. A course of action is suitable if . . . it will accomplish the mission within the required time limits; it is feasible if it can be carried out with the forces available and in the face of enemy capabilities; it is acceptable if the results to be obtained from its execution are worth the estimated cost.
>
> "If no course of action appears suitable, feasible, and acceptable, the commander concerned should present his conclusions and supporting facts to his superior. It may be that the detailed analysis has revealed probable losses far beyond those estimated by the superior when he assigned the mission. On the other hand he may be willing to pay the price for success of the mission, even to the expenditure of the entire force involved."

In effect if the subordinate estimates that no course of action appears suitable, feasible, and acceptable, the superior either changes the mission or the evaluation. In either case the course of action finally adopted promises to be suitable, feasible, and acceptable. Our tacit assumption, therefore, is justified, and we may conclude that the doctrine of the "Estimate of the Situation," which specifies selection of the course of action offering the greatest promise of success in view of the enemy's capabilities to oppose it, gives a decision identical with that determined by the minorant game of the von Neumann theory.

General Appraisal

The identity of the doctrine of the "Estimate of the Situation" with the minorant game of the von Neumann theory is significant. The minorant game is the most conservative possible play of the game. A player basing his decision on the minorant game is assuming that his opponent can find out his decision. By analogy the doctrine of the "Estimate of the Situation" leads to the most conservative decision a military commander can make.

The United States has become accustomed to being a strong military power. We have come to depend on our industrial and military strength rather than our cleverness. It is natural for

the stronger of two opponents to be conservative. He can win by sheer might if he plays the game safe; the weaker must take the chances. This type of thinking is observable every Saturday throughout the football season. It is well that we now question this concept. Do we still have the unquestioned preponderance of might to permit us the luxury of conservativism? And if we do today, will we have it tomorrow?

The philosophy of the "Estimate of the Situation" reflects the philosophy of a strong nation secure in its isolated fortress. Technology has reduced the impregnability of this fortress. Militant politics have created a divided world, with our potential enemies approaching ourselves and our allies in manpower, resources, and industrial plants and excelling us already in military power in being.

The doctrine of decision embodied in the "Estimate of the Situation" is a conservative one befitting a nation of unquestioned military supremacy. Keen military thought should be now devoted to the question as to whether technology and the trend of world politics has made such conservatism a luxury we can no longer afford.

It is realized that the great captains of U. S. military history have not adhered religiously to the philosophy of the "Estimate of the Situation." Bolder commanders have not discarded a course of action merely because it could not counter the enemy strategy optimum against it. Such commanders have placed some reliance on their estimates of what the enemy intended to do, rather than on what he was capable of doing. The fact remains, however, that the doctrine of decision taught in our service schools is a conservative doctrine.

The theory of games does not yet offer a practicable doctrine of decision which is fully convincing. Practical men are often impatient of theories which appear to have no immediate application to real-life problems. They overlook the fact that many very useful developments have come from research directed solely toward attainment of knowledge. Similarly, great technical advances have followed from the development of a new tool. Dr. Conant points out: "Tremendous spurts in the progress of the various sciences are almost always connected with the development of a new technique or the sudden emergence of a new concept. It is as though a group of prospectors were hunting in barren ground and suddenly struck a rich vein of ore. All at once everyone works feverishly and the gold begins to

flow."* Game theory may well serve in this role as a stimulus and tool for the development of doctrines of decision. For example, there was little incentive for the development of a general concept of military worth prior to the development of a mathematical theory requiring such a concept. Dr. von Neumann comments concerning problems of economics that they are "not formulated clearly and are often stated in such vague terms as to make mathematical treatment *a priori* appear hopeless because it is quite uncertain what the problems really are. There is no point in using exact methods where there is no clarity in the concepts and issues to which they are to be applied."*

This quotation may be applied verbatim to military problems. Military men cannot with justice criticize a method for providing little of practical value to the solution of military problems when they have themselves done so little to develop clarity in the concepts and issues involved in these problems. The theory of games will have justified the time and money devoted to its development if it does no more than spur military men into study and clarification of the concepts and issues involved in military problems.

Game theory may be developed for application to problems of war only with the active participation of men experienced in war. This active participation is as necessary now in the early stage of first applications of the theory to elementary military problems as it will be should game theory ever become an element of an accepted science of war. As in other fields of science and technology, military personnel must remain familiar with the forefront of progress in game theory to be able to evaluate properly the military significance and validity of new developments, to give professional guidance to the effort from the point of view of the practical user, to prevent unwarranted reliance too soon on tentative results, and to permit early incorporation into military use of any practical benefits derived.

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*James B. Conant, **On Understanding Science** (Yale University Press, 1947) pp.73f.
*von Neumann and Morgenstern, **op. cit.**, p. 4.

The Morality of War

CHAPLAIN (COL.) JOHN J. WOOD

SINCE the conclusion of World War II, with its large-scale atrocities and war crimes against humanity, the question of the morality of modern warfare has arisen more frequently than ever before. Though it is by no means a new question, in that the morality of war was discussed by many medieval theologians and moralists, it is obviously one which has become of much greater significance in these days of international tension and discord. Its timeliness and importance to the moral theologian, the professional military man, the political scientist, the average citizen, and indeed to all men of good will and intentions is apparent to all.

Is war ever justified? Is modern war always and by its nature immoral? Are total war and the bombing of cities justifiable? Should one refuse to enter the military service if war is not justified in conscience? Should one refuse to support the defense budget by the payment of taxes if war is intrinsically immoral? These and similar questions many honest and well-meaning citizens are asking themselves today. And in the recent controversy between the Air Force and the Navy over the matter of strategic bombing, prominent military men themselves questioned the morality of war and of atomic bombing.

The question, though, is one for the moral theologian to settle rather than the military man. The writer, an Air Force chaplain with at least an ordinary background in moral theology and a first-hand experience of the horrors of war, has therefore examined the evidence to support the opinion that war is not intrinsically evil and that nations have long admitted its justifiability under certain conditions which are recognized in both moral theology and international law.

The Justifiability of War

The fact that a distinction is made between a just and an unjust war clearly implies that war is not intrinsically evil. It also infers that there are conditions or circumstances which justify a nation in defending its rights by physical means against an enemy's attack. This is a distinction which many writers of moral theology and international law have repeatedly made in discussing the morality of warfare. Furthermore, it is a distinction founded in reason, which clearly permits an

individual to defend himself by physical force against unjust aggression. In other words, force under certain circumstances is obviously the only effective means one possesses to protect his life or his goods when they are being jeopardized.

Even recognizing the great evil of war and the misery it brings on the world in general, the amount of evil and suffering in the world would be increased rather than diminished, were we to deny man the right to protect his life by physical means; for unjust aggressors would act without hindrance. Justice and righteousness could never be enforced if the wicked were permitted a monopoly of physical force. The right of self-defense and of resistance to physical violence and attacks on one's person has always been recognized by courts of law and requires no support here.

Basically it is this concept which justifies the employment of force by a nation or state in defense of its citizens, since all the arguments which justify force in the vindication of personal rights are equally applicable to political groups known as states. If an individual citizen is morally justified in the use of force to protect his life and goods, then *a fortiori* a state is justified in the use of force to protect all its citizens. In *War and Guilt,* the Right Reverend Monsignor Fulton Sheen put it in these words:

> Since self-defense is permissible for the individual, it is permissible for the State. If the arm has the right to protect the body against a blow, so too the arms of the State have a right to protect the body politic against attack.

This concept was very clearly recognized by medieval theologians and is likewise held by all modern writers of moral theology. St. Augustine (A.D. 354-430), the great coordinator of the Christian doctrine upon peace and war, St. Thomas Aquinas, St. Robert Bellarmine, Vittoria, Suarez, and many others in discussing war make it evident that there is nothing intrinsically evil about warfare. Suarez, the father of international law, wrote:

> Our conclusion is that war, absolutely speaking, is not intrinsically evil, nor is it forbidden to Christians.
>
> I hold that defensive war not only is permitted but sometimes is even commanded. The reason supporting this is that the right of self-defense is natural and necessary. The same is true of the defense of the state, especially if such defense is an official duty.

Modern writers also contend that the state has not only the right to wage war under some conditions but that it even has

the duty to do so. They base their contention on the right of self-defense. In an excellent treatise on political philosophy in *The State and Catholic Thought,* Heinrich A. Rommen contends that:

> The state is mortal; its end is finite and temporal. Should the realization of this end be gravely endangered by foreign unprovoked aggression, then the state has in fact no choice. It has not only the right to defend itself in war, but it has the duty to resist; a duty to itself and to the people, the political form of whose existence it is, as well as a duty to the international order that can function only as long as the individual states uphold their independence in realizing the order of the national common good.

It would appear from this that even a smaller nation, hopelessly outnumbered and with no hope whatsoever of victory, would be obliged to offer at least token resistance to an unjust aggressor. Nations like Finland and Belgium seem to have recognized this in their token resistance in the face of overwhelming odds, and in so doing they have made an invaluable contribution to international law and order.

Not only moral theologians, but also writers on international law have always recognized the right and justifiability of one state to defend itself against an aggressor nation. They base their arguments on the right of self-defense and on the fact that one is justified in fighting evil with evil, particularly when it is in defense of national honor or to restore international order and bring about peaceful conditions.

That this fact is still a recognized principle of international law seems clear from the statement of Robert H. Jackson, Representative and Chief Counsel for the U.S.A., in his classic address at the opening of the War Crimes Trials at Nuremberg, Germany, on November 21, 1945. "An honestly defensive war," he said, "is, of course, legal and saves those lawfully conducting it from criminality."

Conditions of a Just War

From the sources quoted above, as well as numerous others in moral theology and international law, it is evident that, objectively speaking, war may be justified. The conditions or circumstances which justify war, however, are the important factors in determining the justice of a particular war. Though they may be difficult to ascertain, all moralists recognize three general conditions as necessary: a just cause, a right intention, and a declaration by a legitimate or sovereign authority.

This would seem to preclude the possibility of two nations at war with each other being justified in their acts, since war cannot, objectively speaking, be formally just on the part of both. In other words, it is impossible to state that each nation in a war may be justified, for the same act cannot be right on the part of both. One can, though, conceive of a possible situation in which neither nation is justified.

St. Thomas Aquinas clearly recognized as a justifying cause for war the defense of a nation and based his reasoning on the fact that the welfare of the state was one of the primary obligations of those in authority. In *Summa Theologica* he drew an analogy between the right of a state to punish criminals and the duty of a state to punish external enemies.

> As the case of the commonweal is committed to those in authority, it is their business to watch over the commonweal of the city, kingdom or province subject to them. And just as it is lawful for them to have recourse to the sword in defending that commonweal against internal disturbances, when they punish evil doers, so too it is their business to have recourse to the sword of war in defending the commonweal against external enemies.

St. Augustine likewise justified a war undertaken in defense against external enemies and in punishment of wrongs committed by that state. Suarez, moreover, argued that:

> The power of declaring war is a power of jurisdiction, the exercise of which pertains to punitive justice, which is especially necessary to a state for the purpose of constraining wrongdoers. Wherefore, just as the sovereign prince may punish his own subjects when they offend others, so also may he avenge himself on another state. If the offender is not prepared to give satisfaction, he may be compelled by war to do so.

Since modern war brings in its wake such unhappiness and misery to the whole world, such great destruction of property and, above all, such wholesale slaughter of human beings, all moral theologians are unanimous in holding that, irrespective of a defensive or aggressive war, it requires a *very grave cause.* Consequently only a very grave violation of international order and a very grave injustice to a member of the community of nations would justify war as a punitive act or as a means of restoring injury inflicted on another nation.

Though the cause of the war may be just and sufficiently grave as to justify its declaration, Henry A. Davis contends in *Moral and Pastoral Theology* that the war itself may be unjust when the authority declaring it vitiates its justice by acts of cupidity, by continuing the war beyond the point necessary to

restore order, or to obtain satisfaction for an injustice committed. In other words, it is just as immoral to prolong a war unnecessarily as to begin one without cause; clearly no purpose is accomplished and the only result is needless loss of life.

Reasoning from this principle a good many moralists conclude that a nation would not be justified in continuing a war in which there was no hope of victory, since they contend that a well-grounded hope of victory and of bringing about better conditions is necessary to justify a war. This condition, the Right Reverend John A. Ryan reminds us in his *International Ethics*, was insisted upon by Cajetan and Vittoria. The sovereign authority then would hardly be justified in declaring or continuing a war if their country were to be in a worse condition at the end of the war than it was at its beginning and if no useful purpose whatsoever was to be gained thereby. This in no way conflicts with what has been said previously about the right and duty of a state in some instances to offer token resistance to an unjust aggressor. Obviously the token resistance does serve a useful purpose in that it arouses world opinion against the aggression and may lead to the help of allies or other military powers to oppose it.

The Right Reverend Ryan, however, maintains that this condition is frequently impossible to appraise today and that absolute certainty of victory is not required but merely *solid* reasons, proportionate to the alternative of defeat, for expecting victory. In modern warfare, with the multiplicity of military alliances to consider as well as the possibility of intervention by the major powers, this condition is practically impossible to ascertain.

Monsignor Sheen holds that a war must be good not only in its cause but likewise in its intention and that the only intention which can properly justify war is that of promoting the common good or of avoiding evil. According to him the common good here means not only or exclusively the common good of the individual nation but the common good of the community of nations or of the world. "Today no nation is hermetically sealed," he states in his previously mentioned work, "but rather its order and prosperity is bound up inseparably with other nations. Every sovereign state is part of the world."

St. Thomas Aquinas, in requiring the condition of a right intention, was rather brief in his explanation: "It is necessary

that the belligerents should have a rightful intention, so that they should intend the advancement of good or the avoidance of evil."

The third condition required to justify a war, namely its declaration by a sovereign authority, is one which does not seem of such practical importance today as formerly. In modern war the declaration of war may be almost simultaneous with the first act of war, or the issuance of an ultimatum may be tantamount to a declaration of war. Yet the fulfillment of the condition is required by some moralists and writers of international law. St. Thomas, in explaining this principle, gives as his reason the fact that an individual can obtain redress for wrongs from higher tribunals. Moreover, quoting St. Augustine, St. Thomas says: "The natural order conducive to peace among mortals demands that the power to declare and counsel war should be in the hands of those who hold the supreme authority."

The Constitution of the United States is in agreement with this since it restricts to Congress the right to declare war and even in this case requires a two-third majority of votes. In clarification of the word "sovereign," Rommen states that according to Vittoria, Suarez, and Bellarmine it means that the contestants have no possibility of appeal to a court of arbitration for settlement or for reparation of an injury suffered.

This concept would seem to require an appeal today for a settlement of the dispute to the United Nations, which is the only existing international court, since all moralists require that war be undertaken only as a last resort and after all other means of arbitration have been exhausted. In fact recourse to war is not justified until all peaceful means have been tried and found insufficient to rectify the wrong. The principal pacific means, according to Ryan, are "direct negotiation, diplomatic pressure of various kinds, such as trade embargoes, boycotts, and rupture of normal international intercourse, and mediation and arbitration and judicial settlement."

It must be pointed out that these three conditions which justify a war must be present simultaneously, for it is apparent that the fulfillment of one condition alone, either of the other two being lacking, cannot justify a great evil like war. This is made quite clear by Walter Farrell, a modern theologian of considerable repute, who follows the Thomistic doctrine. In *A Comparison to the Summa,* Farrell writes:

> The brief classic statement on the morality of war demands three conditions for war's justification: It must be declared by competent authority, it must be for a just cause and it must be waged for a right intention. These three must be had simultaneously. . . . When these three conditions are present simultaneously, war is not sinful; it is an act of virtue, a defense of the common good.

From all this it might be concluded that it is comparatively simple to justify some past wars and even some wars of our own day. Such to the writer is not true, since seldom if ever can we view the declaration of war objectively and without prejudice. To apply these conditions to a particlar war in order to determine the justice or injustice of its declaration is not an easy task, because in most cases the evidence is not always present. The propaganda war which precedes the hostilities very often beclouds the issue, as Farrell points out, or the nations concerned have resorted to so many lies and diplomatic subterfuges, cabals and intrigues, that it is virtually impossible to weigh the evidence.

Finally, it appears that a clear-cut and unequivocal declaration of war must be made before the commencement of hostilities. Charles G. Fenwick says that this rule goes far back in international law: "It was one of the oldest and best established rules of international law that a state must not resort to force against an opponent without giving due warning that hostilities are about to commence."

The Institute of International Law, at a meeting in Ghent in 1906, adopted resolutions which urged all nations not only to give due warning before beginning war but also to allow a sufficient delay between the declaration of war and the beginning of hostilities. The Hague Convention in 1907 adopted the resolution not only that a declaration of war should be given but also that neutrals should be notified, permitting, however, a conditional declaration of war or ultimatum. This specified, moreover, that the declaration of war should be accompanied by reasons for the declaration.

From the statement of President Franklin D. Roosevelt in his declaration of war upon Japan, in which he labeled the sudden and unannounced attack upon Pearl Harbor on December 7, 1941, "a day of infamy," it appears that this procedure was still regarded as necessary by the United States. a nation from an open declaration of war.

In these days of easy communications, it is impossible to excuse

The Just Conduct of a War

Of equal importance to the criteria which justify the declaration of war is the principle that the war in its conduct must be waged in a moral manner. On the face of it this statement appears absurd or at least paradoxical. For as Sherman said, "War is Hell," and it would appear that it cannot be waged in a humanitarian or moral manner. Yet nations have long recognized certain rules of warfare and have to a degree at least adhered to them. Whether it was merely because it served their purpose or not, even the Nazis and Japanese in World War II observed many of the rules of land warfare.

Almost every modern war has been followed by a treaty of some sort in which agreements were made with regard to certain rules of warfare, for as Robert H. Jackson has said: "Even the most warlike of peoples have recognized in the name of humanity some limitations on the savagery of warfare." In fact, the War Crimes Trials following World War II, which created a new concept in international law, indicted the principal Nazi leaders for "war crimes—namely violations of the laws or customs of war," as well as for other crimes.

"The object of war," says Thomas Erskine Holland in *Laws of War on Land*, "is to bring about the complete submission of the enemy, as speedily as may be, and with the least possible loss of life and damage to person or property." Even military leaders recognize the fact that war must be conducted, as General Omar Bradley said, "with minimum harm to the nonparticipating civilian populace."

A fundamental principle in the just conduct of a war, long recognized by moralists and international jurists, is that only legitimate military objectives may be attacked and then only in a manner which will safeguard the civilian population. Obviously this prohibits the intentional bombing of civilian noncombatants, prisoners of war, and wounded.

Moral theologians hold that a *direct* attack on civilian noncombatants is never justified. The Very Reverend Francis J. Connell, one of the foremost moralists in America today, states the case in the following manner in *Treasure in the Atom:*

> In waging war a nation must observe certain rules prescribed by the laws of God, or at least accepted by all civilized nations as norms that must be followed if man's fundamental right to life is to be protected and the human race saved from self destruction. One of these rules is that it is never permitted to launch a direct military

attack on noncombatants. A direct attack is one whose only immediate purpose is the death or injury of those who are its object. By noncombatants are meant civilians not engaged in military operations, e.g., housewives, children, elderly persons living at home, those engaged in the preparation or selling of food, doctors, clergymen, etc. A military attack may be lawfully directed only against a military objective, such as a body of troops, a warship, an ammunition plant, a factory making planes for combat, etc.

To those who argue that in modern warfare the entire economy is so geared for war and the entire labor force is so engaged in war production that the nation as a whole may be regarded as a nation of combatants, the Reverend John C. Ford, in *The Morality of Obliteration Bombing*, offers the following in refutation:

Direct attack on the civilian population connot be defended on the ground that the entire civil population of a nation at war has become combatant and therefore guilty and deserving of death. Even with a whole nation in arms, the necessary cooperation, moral and physical, of the generality of men, women and children is not so immediate in time, place or character so as to give them the same status as combatants in the field or ship or in the air.

The use of direct bombing attacks on a nation for the purpose of undermining its morale and so weakening its resistance is likewise condemned by Ford:

It is impossible to make civilian terrorization, or the undermining of civilian morale, an object of bombing without having a direct intent to injure and kill civilians. The principal cause of civilian terror, the principal cause of the loss of morale, is the danger to life and limb, which accompanies the raids. If one intends the end, terror, one cannot escape intending the principal means of obtaining that end, namely the injury and death of civilians.

From all this it would appear, then, that moral theologians will never permit any argument to justify a direct attack on a nonmilitary target. Since war is a conflict of military forces, moralists contend that it can only be justified when it is kept within these bounds. This precludes direct attacks on noncombatants, civilian populations as such, the wounded and prisoners of war as well as terror and obliteration bombing of large cities which are obviously not legitimate military targets. A war is therefore just in its conduct only when it is directed at military targets.

The Morality of Atomic Bombing

Of paramount importance today in a discussion of the morality of war is the morality of atomic bombing. Few

theologians have approached the question directly, though it has been the subject of public comment recently in radio programs, newspaper articles and editorials. The moral issue has been raised in the production of the H-bomb, which makes the question even more involved. Unquestionably the H-bomb is a much more potent force than an ordinary atomic bomb. If used, it is expected that the H-bomb will devastate a much wider area and kill thousands more people.

Connell, in his work previously referred to, discusses rather briefly the morality of an atomic attack:

> Now if we apply these principles to the question that concerns us, we can see that the use of the atom bomb—or for that matter any bomb—with the direct purpose of killing or maiming the civilian population of a city is utterly opposed to the moral law. It might be argued that if atom bombs were used in this manner, so that an entire enemy city, with perhaps hundreds of thousands of civilians were suddenly wiped out, the effect on the morale of the citizens might be such that the war would be brought to a speedy termination. Thus many more lives might be saved than were destroyed in the attack. But this argument presupposes that a bad means may be used for a good end. *A direct attack on noncombatants is always an immoral procedure.* Even in the event that an enemy power against which our nation was waging war made a direct attack on our civilians we would not be justified in retaliating in the same way. Two wrongs will never make a right.

On the face of it this would appear to rule out, at least morally, the use of the atomic bomb. In further discussing its use, though, Connell will permit it if used to attack a legitimate military target directly:

> It would not be wrong, however, to use the atom bomb for a direct attack on a military objective, provided the loss among the noncombatants were not out of proportion to the benefits gained by the destruction of the military objective. In the event that the bomb were used to attack an enemy fleet at sea, it would not be difficult to justify its use. . . . At most, the use of the atom bomb might be permissible, even though thousands of noncombatants were killed, if a military objective of the highest possible value were the target of the attack—for example, the only factory in the enemy country making atom bombs, or an assembly of all the chief military leaders and rulers of the hostile nation.

From this brief discussion it appears that the same moral principle applies to the atomic bomb as applies to any other bomb, namely, that it may be employed only in a direct attack on a legitimate military target and not on civilian noncombatants. This might seem to rule out the use of the atomic bomb, at least from a moral point of view.

To the writer, however, such is not the case. In modern war, particularly in large industrial centers, the civilian population who are engaged in the direct production of war materials can hardly be classified as noncombatants. It also seems obvious that civilian noncombatants who live in the vicinity of a legitimate military target, if they are aware that the target is near, jeopardize their own lives unnecessarily. If sufficient warning were issued and enough time permitted them, it seems that they would be obliged to evacuate the area.

Consequently a nation could, at the outset of a war, issue a warning to the enemy nation, notifying its citizens that certain cities, specified by name were considered legitimate military targets and would at some indefinite date be bombed. Such a warning should also be accompanied by the declaration that the war was not against the people but rather directed against the government. From a military point of view this would be tactically advisable, since it would create confusion and additional problems of transportation and lowered morale for the enemy. From a moral point of view, such a warning would appear to render the attack justifiable.

In reply to this some will argue that the inhabitants of any large industrial city should certainly know that it will be attacked. This may be so, but a warning would leave no doubt in their minds and, at the same time, indicate clearly the intention to bomb only legitimate military objectives as well as show that the war was not being conducted against the people but rather the government and its military forces.

IN conclusion, it appears that in spite of the revolutionary changes that the techniques of war have undergone, war in its moral aspect remains essentially the same. Any changes in its morality have been accidental rather than substantial. War still remains an act of physical force whereby nations attempt to impose their will on other nations. The same moral principles which governed the justice of war in the past are applicable today, and its moral character, good or evil, will be determined today by the same principles of morality that determined it in the past.

To condem all war as immoral, as the pacifist does, is to place a modern nation in an impossible position in society. To deny a modern nation the right to restore international order by means of force is to make it easy prey to international

criminals. To require a nation to await an attack by the enemy before it can be justified in defending itself is to demand that it commit national suicide. The only logical conclusion, then, is that war is not evil in itself and that, as a last resort after all peaceful means have been exhausted, a nation may be justified in waging war to establish order in the world.

As deplorable as the evils of war are, they are by no means the greatest evil that can be visited upon modern society. Freedom, the dignity of man, the right to live in an orderly society, and other lofty ideals of a democratic and Christian way of life are certainly in jeopardy if they cannot be maintained by force of arms against an international aggressor who would inflict misery and suffering worse than death.

Peace, which is a positive rather than a negative condition, is not merely the absence of war. It is the natural, normal, and necessary status of civil society. An act of war gets its moral justification from the fact that it is a means designed to recover that peace. It is extremely important, however, especially in these days of international discord, to emphasize the right of all peoples to peace rather than to war. But war still remains an act of necessity, a last resort against an impending evil, and as such the only means in such an extremity to bring about international order and peace.

Today the United States, as the most powerful nation in the world and the leading proponent of a Christian and moral way of life, is faced with a great dilemma. For the past few years it has witnessed the steady and relentless encroachments of an aggressor nation which admittedly is intent upon dominating the world and suppressing the liberties and freedoms which Americans hold dearer than life itself. To deny our country the right to protect these liberties by force of arms, after submitting its grievances to the world court, is inadmissible. We must conclude, then, that a resort to war, even an atomic one, in order to maintain international peace and order, may be justified. Since the evils of modern war are so great, however, and since it is fraught with so many dangers to the entire civilized world, it can be launched only as a last resort and after all attempts at arbitration and settlement of grievances have been exhausted. War, then, defensively or offensively considered, even in this atomic age, may be morally justifiable.

Air War College

Aircrew Training— Whose Responsibility?

COLONEL LAWSON S. MOSELEY, JR.

DESPITE the superb performance of the Army Air Forces in World War II, its aircrew training program was, on the whole, marked by confusion and inefficiency. During the five years which have elapsed since the end of the war, little if any improvement has been made in this program. It is still confusing and inefficient. Moreover there is a gap in the present program that is wider and far more critical than many realize.

The gap starts about the time an aircrew member, having completed his individual training, leaves the Air Training Command. It widens when he finds that the tactical commands, principally the Strategic Air Command and the Continental Air Command, cannot use him in his specialty because, according to them, he is not ready for their kind of flying, he needs more "seasoning"—which is another way of saying he needs more training. But the tactical commands claim they are too busy to provide this training; hence the young, eager, newly-commissioned pilot, for example, is either plowed back into the Air Training Command as an instructor—a job for which he is generally not well qualified because of his lack of experience—or given a job as, say, a supply officer in Strategic Air Command. The gap begins to close some five or six years later, when, more through personal effort than organized training, the pilot is allowed to crawl into the right seat of a B-29 or B-50. Thus he begins a year or so of further "seasoning," following which the gap is finally closed.

But it takes a lot of time for that gap to close, and we do not have that kind of time left. The gap is costly, and we do not have that much money to waste. The gap takes its toll in terms of interest and initiative on the part of aircrew members, and we need all of those qualities we can get. It is a critical gap that must be filled, and the sooner the USAF fills

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Placing the responsibility for peacetime operational training on the tactical commands does not, however, constitute approval of the present training system. There is much that is wrong with this system, and several major changes are required if it is to succeed in accomplishing the USAF training objective.

The first major deficiency to be corrected, of course, is the previously mentioned lack of an over-all training program. The present program whereby the Air Training Command graduates a "buck" pilot who can do nothing but fly, only to learn that no command can use him, is no program at all. The over-all program must indicate exactly what individual training the trainee will get in the Air Training Command, what operational training he will get in the tactical commands, and what continuation training he will get in later assignments. These various training phases must cover a prescribed period of time, they must be continuous within reasonable limits, and they must collectively add up to the sum of all training required to produce and maintain a fully qualified combat crew member as quickly as possible after his entrance into initial training.

There must be a realistic and economical division of the training curricula of Air Training Command and the tactical commands. The courses of instruction must be in consonance with predetermined job analyses and training standards, and they must be directive in nature. Individual commanders must not be permitted to make unilateral major changes in any part of the program without coordination throughout the entire program and approval by higher authority. There must be adequate, coordinated research into the many training problems which are still unsolved.

Finally there must be realistic and objective inspection and evaluation. No Gestapo stuff, but a method of weighing the internal functioning and the end product of the entire system to ensure that the objective is being accomplished and that corrective measures are quickly instituted where deficiencies are detected. This evaluation must also determine what the status of the Air Force will be one year hence, two years hence, as a result of its present training program.

This program, as outlined, would be initiated and implemented by directives from Headquarters USAF in the form of training standards and flow charts. However the program

could be formulated and carried out effectively only through the mutual agreement, coordination, and cooperation of all training agencies of the Air Force.

Exactly how the tactical commands should be organized to carry out this responsibility is relatively unimportant, although it could be accomplished in any one of several ways: a separate Operational Training Unit could be set up in each separate major command; a unit of each Air Force or wing could be designated a training unit; or the trainees could be fed into the bottom of all units and progress upward as required training is completed. The important factor is to ensure that trainees receive all their training within the predetermined time limits and that provisions are made to leave effective training units behind when the parent organization leaves for combat. The most logical choice appears to be one or more Operational Training Units.

Next the training programs should be drastically revised to meet our training requirements as economically as possible. The responsibility for all individual training should be placed in the Air Training Command. By individual training is meant that which can be accomplished by a "mass production" method and does not require the latest type combat equipment. This would include, then, basic fighter and flexible gunnery, dive and skip bombing, rocketery and other basic tactical maneuvers. No one will question the ability of the Air Training Command to teach the basic phases of these tactical maneuvers in training aircraft. The trainee would then require only transition to latest type combat aircraft before undertaking operational training. We cannot afford the luxury of conducting basic gunnery and bombing instruction in expensive and scarce combat aircraft, nor can we afford large ranges for each tactical wing or Air Force.

Besides, the tactical commands can point with little pride to their accomplishments in gunnery and bombing training. No flexible gunnery training is being conducted anywhere in the Air Force today, and apparently very little research in this field is being undertaken. This is true despite the fact that our flexible gunnery training during World War II was by far our blackest mark, that we nearly lost the air struggle early in the war because of excessive bomber losses to enemy fighters we could not hit, and that our strategic plans for the next five years are based on the B-29 and B-50 as our principal weapons.

In addition to providing basic gunnery and bombing training, it is essential that more training of other types be given by the Air Training Command—more navigation, more night flying, more formation flying, more instrument flying, and more leadership training. The usually accepted one-year pilot training period is pure custom and tradition, rooted to the requirements for training pilots to fly B-18's and P-36's. Surely a higher degree of proficiency is required to fly the fast, heavy, and complicated aircraft of today. Consequently the training period should be related realistically to these changed requirements and adjusted accordingly. It is strange that so many will readily agree to increase time in order to increase the quality of equipment, but so few will admit that this very quality requires comparable quality in the crews who will operate this equipment. The collapse of the German and Japanese Air Forces was largely due to insufficient training of air crews, principally fighter pilots. The USAF must get out of the "numbers racket" and base its plans on the number of "best possible trained crews," whatever that number may be.

A training program such as that just described would be economical, feasible, and adequate for peacetime training, and it certainly would eliminate many of the existing deficiencies.

In Wartime: The Air Training Command

Although there may be arguments for both sides of the question of responsibility for operational training in peacetime, there can be no argument regarding such responsibility in time of war. In wartime all aircrew training, from start to finish must be the responsibility of one command: the Air Training Command. The principal reasons may be found in an analysis of the AAF aircrew training program in World War II.

During the early part of the war aircrew training was the collective responsibility of seven different commands: Air Training Command, Air Transport Command, Troop Carrier Command, First Air Force, Second Air Force, Third Air Force, and Fourth Air Force. Each of these commands was responsible for a certain phase of aircrew training under a hastily conceived and loosely coordinated training program which was directed and supervised by Headquarters, Army Air Forces. Apparently very little analysis was made of this system, either of its various phases or of the quality of its end product. Had such an analysis been made, it would have disclosed the following:

First, there was no plan for training expansion or responsibilities in case of mobilization and no provision for liaison between combat theaters and training agencies or between the training agencies themselves. Duplication of effort, facilities, and requirements was inevitable. No command really knew what was required of it or what other commands were trying to accomplish.

Second, in the early stages of the war the urgency of the situation caused the only trained units available to be committed to combat. This virtually left a vacuum in the tactical commands on which to build a sound training structure. It was late in 1942 before any operational training approaching acceptable standards could be conducted.

Third, because of honest differences of opinion each command quickly built up its own training system based on the experience and thinking of the individuals in the command. Methods, procedures, techniques, devices, tests, manuals, were developed and used by many different training agencies, in most cases without adequate exchange of information. Not always were they carefully evaluated. They were developed and used, discarded or retained, modified many times over to make training more effective but seldom with a view to prove anything right or wrong. These many unilateral training programs produced aircrew members of varying proficiency.

Fourth, changes in training requirements which could be accommodated and were made by one command often could not be similarly accommodated by another command. This resulted in all commands operating at times beyond capacity and at other times considerably below capacity. Also, because of "blitz" requirements the training period in the Air Training Command was often cut short; hence trainees would arrive at operational commands without the qualifications required for their entrance into further training courses. For the same reason training was often shortened in the operational commands, and personnel were sent to theaters before they were ready for combat.

Fifth, this system greatly complicated personnel accounting and distribution procedures, with a resultant loss of time and efficiency. Quite often a trainee would travel across the United States four or five time before he had completed all of his training and was ready for movement overseas. The complicated accounting procedure also resulted in inevitable large errors

which, in turn, had an adverse effect on training programs through fluctuating and unrealistic requirements.

Sixth, the attempt by Headquarters AAF to formulate, direct, coordinate, supervise, and inspect this vast training program, involving so many agencies, proved disastrous. The result was a flood of directives, letters, memoranda, telegrams, and phone calls from headquarters. These instructions were frequently contradictory, and a commander attempting to comply with all of them would have kept his trainees under instruction twenty-four hours a day.

Finally, this complicated structure was extremely slow in effecting changes in the training program. Matters requiring coordination were often lost in channels of communication for so long that the problem had ceased to exist by the time the solution became available. Changes in training requested by combat units were similarly slow and sometimes never effected.

These major deficiencies were finally realized during the latter part of World War II, and all operational training, with the exception of Air Transport Command, was placed under one command: Continental Air Force. This was a great stride toward solution, since it left only three agencies responsible to Headquarters AAF for training responsibilities. But it was not enough; the conditions described above continued throughout the war, although to a lesser degree.

The correction of these deficiencies lies in the decentralization to the field of the responsibility for aircrew training and the concentration of this responsibility and authority in one command. The only responsibility which would remain in Headquarters USAF would be the determination and direction of realistic training flow charts, the formulation of suitable training standards, and the provision of required equipment. In other words Headquarters USAF would give one command a job to do and the tools with which to do it, and it would hold that command completely responsible for the efficient conduct of the training program. As previously stated, the logical command for this is the Air Training Command.

The argument that such a responsibility is too large for one command cannot be accepted as valid. No responsibility is too large for any command, so long as the principles of organization, delegation of authority and responsibility, span of control, inspection and evaluation, and leadership are effectively employed. If this great responsibility can be assumed as a partial

over-all responsibility of Headquarters USAF, then surely it can be assumed as the one responsibility of a major command.

The argument is further refuted by the trend of aerial warfare. Vastly more efficient and destructive weapons will decrease the number of trained aircrew personnel needed to operate them. The smaller these requirements become, the more easily can the job be done by one command. More important, as the number of these trained crews decreases, the quality must proportionately increase. This maximum quality can be achieved only through one unified, coordinated, and well-equipped command.

Nor will the argument that a major tactical commander needs to train his own troops for warfare bear more than superficial examination. The responsibility of a tactical commander in time of war is to fight, not to train personnel. His recommendations pertaining to training should, of course, be carefully analyzed and followed to the maximum extent possible; but his actual training responsibility must be confined to that required to maintain proficiency, institute new techniques, and provide combat "rest periods."

The argument that in the next war tactical commanders will be able to operate and train with the same personnel and equipment is equally unsound. This argument is presumably based on the lurid assumption that the air war in World War III will be fought defensively within the United States. If we accept such a strategy, we are already defeated and have no need to prepare for war. While the requirement for adequate defense of the United States is admitted and must be provided for, our major air effort must be planned on an offensive scale, undoubtedly from bases outside the United States with scarce facilities for training. An official appraisal of the wartime Combat Crew Training Program stated:

> During the early months of the war, the primary duty of the First and Fourth Air Forces was the air defense of the United States, with training occupying a secondary position. However, the demand for combat crews increased so rapidly that, by the fall of 1943 training had become their major function. The difficulties encountered by these two Air Forces early in the war demonstrated the impracticability of assigning both tactical and training functions to a single organization.

Another distinct advantage of this proposal is that it would place the responsibility for mobilization training planning in one headquarters. We had no mobilization planning before World War II, and we have none today. This is largely due to

the fact that the responsibility for such planning has not been definitely placed in one command but informally delegated to all commands. The result is some feeble unilateral planning by various commands but no one logical, complete plan for one training program.

Along, then, with the decision that the Air Training Command would be responsible for the conduct of operational training during war would also go the complete responsibility for the planning of such training. Upon being furnished a schedule of training requirements, this one command could then proceed to prepare a complete plan for the conduct of all aircrew training. This plan could be appraised and fitted into the over-all Air Force mobilization plan. Today there are eight or ten different wartime training plans which must be evaluated, coordinated, and added up before the over-all requirements and products can be appraised.

Transition from a peacetime to a wartime training structure would present no foreseeable problem. As soon as orders for mobilization were issued, all units then conducting operational training in the various tactical commands would be transferred intact to the Air Training Command. If the operational training were being conducted in combat organizations, then certain groups, wings, or other organizations would be earmarked for transfer. Naturally, certain selected training staff officers from all echelons would be transferred simultaneously. This plan would certainly nullify the argument that the Air Training Command would not have the "know-how" to conduct operational training effectively.

Adoption of this plan, moreover, would free major tactical commands from such planning during peacetime. More important, upon mobilization it would free them from all responsibility for training and permit full-time application to their one mission—combat. If this nation were suddenly attacked, it is difficult to see how the top officers of, say, the Strategic Air Command could possibly give any attention to training requirements when they will be so completely occupied in getting combat units into pre-planned positions for attack, and probably departing for forward positions themselves. On the other hand, all echelons of the Air Training Command would have the one responsibility of seeing that prepared plans for training were promptly initiated and implemented.

Air War College

The Staff Direction of Research and Development

Colonel Victor R. Haugen

BEFORE WORLD WAR I there was little need to think of an organizational structure to administer research and development, because the military forces conducted practically no such work. True, gradual improvement was made in the weapons of the day, but the pace was hardly rapid enough to be called a development program. Upon the advent of the tank and the submarine, however, there began a concerted effort to develop new weapons. Emphasis toward this end increased during the First World War and reached a veritable crescendo during World War II.

When the Second World War ended, this nation had produced the greatest fighting force the world had ever seen. As might be expected of such a ponderous machine, each of its many branches had set up independent agencies to conduct the research and development of interest to it. Duplications and inefficiencies were inevitable, even though worthy efforts were made to coordinate the work of the several agencies. The American habit of relying upon the horn of plenty persisted.

Admittedly, when World War II began, the military did not understand the role and potentiality of science and was not prepared to employ it effectively. Fortunately a few forward-looking scientists did recognize that the system (or lack of system) then existing would waste much of the nation's scientific potential. So to provide a more direct attack on war research, an informal committee of the National Academy of Sciences made recommendations which led to a Presidential Order establishing the National Defense Research Committee in June 1940.

Later it became apparent that more extensive research was required; hence by Executive Order in June 1941 the President established the Office of Scientific Research and Development, placing the NDRC under it, together with the newly created

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Committee on Medical Research. The OSRD charter required it to coordinate and supplement the scientific research work relating to the war. It was because of lack of understanding within the services that this emergency action had to be taken. As a result a large portion of military research and development was removed from military jurisdiction and made the responsibility of a central civilian agency. Thus began a significant trend toward centralized control of research and development.

Although the OSRD was disbanded after the war, its influence continues to be felt. Recently, when the Research and Development Board was asked to prepare plans for mobilizing the nation's scientific manpower in the event of an emergency, it convened an *ad hoc* committee to study the subject. The membership of this Committee on Plans for Mobilizing Science included former members of the NDRC. Their report recommended a return to an emergency type of civilian agency to control the resources of universities and other civilian research establishments, in much the same manner as did the NDRC.

One need not search deeply to uncover the reasons for this trend towards central operational control of military research and development. Economy moves immediately reveal examples of duplication and poor coordination among the programs of the three military departments. These create demands for reforms to improve over-all efficiency. Also many scientists have developed a deep distrust of the ability of military personnel to understand research or to work effectively with scientists. They fear that the military will always try to control research and development by "mass production" methods. Their misgivings, originating in unhappy experiences during the last war, evoke the desire to remain as completely divorced as possible from military control. One must agree that these are impelling motives for demanding improvement in the method of administering military research and development programs. One might question, however, whether a central operating agency is the best means of achieving the desired improvement.

Many deficiencies in the present system have been recognized and numerous corrections have been initiated spontaneously by the military services. Foremost among such measures is the evolution of the Research and Development Board as a self-initiated move to improve effectiveness and eliminate duplication through coordination of the programs of the several departments. The Board has not been in operation long enough

to be considered well-proved; nevertheless significant progress has been made toward the elimination of considerable duplication, the achievement of greater objectivity, and the improvement of over-all planning. Such indications of recent improvement are easily overlooked in a quick appraisal of the administration of military research and development.

Likewise it is apparent to the critical observer that military men are awakening to the true potentialities of science and are becoming cognizant of the relationships of the science-industry-military team. Intelligent employment of science under enlightened policies is now predictable, whereas formerly many despaired of ever achieving mutual understanding. As an example, the Office of Naval Research has pioneered for several years in working effectively with the basic research scientific echelons of the country. Increased military regard for basic science is also evident in the Army's new progressive program to encourage reserve officers to participate in research and development activities. The Air Force indicated its growing interest by convening a civilian panel under Dr. Ridenour and a military panel at the Air University to make searching studies of the Air Force research and development mechanism, with a view to adopting measures for bringing its capabilities into line with its responsibilities in this field. Many of the important recommendations made by these panels already have been implemented.

Ever present in any discussion concerning organized science is the proposal of a National Science Foundation to foster scientific education and fundamental research. All military services recognize the beneficial effects such a program could exert upon our future welfare and staunchly support it. Here again is evidence that the personnel in the military establishment have matured in respect to a true understanding of science.

IT is obviously in the country's best interests that there be some degree of centralized control over the research and development efforts of the Army, Navy, and Air Force. No doubt a number of systems could be suggested for such control, ranging from mere policy guidance to domination of the entire effort by a single agency. The purpose of this paper, therefore, seems reduced to that of examining the nature of possible control systems, identifying the system presently employed,

and searching for the most promising one for continued employment under present-day conditions.

The intention of the National Security Act of 1947 was to create a more closely integrated military establishment than had existed previously but not to merge its parts into one department under a unified command. Instead, the powers of the Secretary of Defense were specifically adjusted so that actually he was able only to coordinate the activities of the three departments of the Army, the Navy, and the Air Force. Within this atmosphere the agency to control military research and development would naturally have to reflect the pervading concept of coordination. The National Security Act Amendments of 1949 reiterated the concept of separately administered departments tied together by the coordinating influence of the Secretary of Defense, except that the Secretary is now empowered to exercise much more authoritative measures of coordination. Here again the agency to control the research and development activities of the three military departments must reflect the concept of control inherent in their relations with the Secretary's Office, the keynote of which seems to be coordination backed by authority.

It is apparent that under the current organization and concept of the Department of Defense, an agency with completely centralized control over all military research and development would not be appropriate. In fact, before such a central operating agency could be established, it would be necessary to introduce a new concept of control throughout the Department of Defense.

Nor, obviously, need consideration be given to a system of no central control by the Secretary of Defense. Except for minor variations, a choice remains of five principal schemes through which control may be exercised.

Scheme 1: *To encourage a conference of department representatives to meet periodically to coordinate their separate research and development objectives, arrive at mutually agreeable budget policies, and seek to unify administrative practices through joint agreement. Each military department would then conduct its own program.*

This scheme is so loosely controlled that it is naive to expect effective results from it. The experience of the Joint Research and Development Board convincingly disproved the practicability of operating by such a system. Department representa-

tives found it impossible to reach agreement on many points of major concern. Moreover the departments did not always feel obligated to comply with decisions of the Board. Some central authority to require compliance with rational decisions was found necessary. When the Research and Development Board was formed, its increased powers overcame many of these deficiencies. Even so, implementation of its decisions depended largely upon the will of each individual department. As a result, before the 1949 Amendments to the National Security Act, this system also suffered occasionally from lack of cooperation. The Board's new directive makes it quite clear, however, that if the services now fail to agree, decisions will be made for them. This should prove to be a most effective spur.

Scheme 2: *To organize a joint committee of department representatives to act as an agency of the Secretary of Defense to coordinate all military research and development programs, budgets, and administrative practices. Each service would conduct its agreed portion of the over-all program, with its agreed share of the budget, employing standardized administrative policies.*

The Research and Development Board is an example of the committe of service representatives acting as an agency of the Secretary. Decentralized systems of this sort encourage initiative in those engaged in research and development work and provide for effective coordination among the member services. Projects are undertaken to satisfy definite needs, and the work is pursued with the care, vigor, and enthusiasm born of authorship. When the using service initiates and conducts its own program in this manner, emphasis will naturally be put on projects of the greatest benefit to that service. This scheme promotes a scientific-military team spirit and maintains the inseparable relationship between military strategy and military research and development. It also observes the basic principle that each echelon must have freedom to execute responsibility delegated to it.

Scheme Two encourages quality in each project undertaken, but it does not ensure that all worthy projects will be initiated or that no overlapping projects will exist. Complete integration of all the departments' efforts into one program is difficult. Consequently the system is not the most economical. Yet although it is obviously desirable to reduce unnecessary dupli-

cation, it is by no means clear how far reduction should go. Duplication is necessarily inherent in competition.

Experience with RDB indicates that the system can be made to operate very effectively. Its operation will undoubtedly improve as the concept of true unification comes to be more universally realized. The success of the new RDB, however, is highly dependent upon the manner in which it is managed. If, as appears to be the intention of the Board's 14 September 1949 directive, the system operates principally through a joint committee, with the chairman empowered to obtain compliance from the departments (but actually acting as a catalyst to keep action going), there is every reason to expect success. By this means shortcomings such as lack of cooperation and failure to reach agreement, which plagued RDB previously, can be overcome, and the advantages of the otherwise decentralized system will remain intact.

If the chairman and his staff succumb to the human tendency to employ authority dictatorially, an entirely different type of operation will emerge. The system is in dangerously delicate balance. If the chairman's power is applied to assure a continuous flow of reasoned action on the part of the Board members, the system is similar to Scheme Two. If, though, his power is applied to set up a dictatorship, the system assumes the characteristics of Scheme Three, outlined below. RDB could destroy itself by unwise use of its new powers.

Scheme 3: *To establish a staff agency as an organic part of the Office of the Secretary of Defense to direct the research and development programs of the three departments, control the apportionment of the budget to each, and establish administrative policies and procedures. Under this scheme each department would conduct whichever portion of the program it is directed to undertake, applying its allotted share of the budget and employing established administrative practices.*

Centralized authority and decentralized responsibility characterizes this scheme, since the staff agency directs all research and development effort. Undoubtedly such a staff agency would have little difficulty making up an apparently integrated program of research and development projects. Certainly it would have the required authority over the departments to do so. But since it would have the responsibility neither of conducting the work it ordered done nor of defending the country with the

weapons developed, there is serious doubt that it could evolve a realistic program.

This scheme makes nominal integration of the program easy, but it threatens to lower the quality of the effort expended to implement the program. Economy would no doubt be improved by eliminating all traces of duplication, but initiative and desire to work would likewise disappear. Guidance would give way to strict control, which would be in grave danger of becoming so inflexible that the program might become sterile. This danger would become much greater if the security of tenure afforded by Civil Service should be allowed to become a shelter for incompetence and mediocrity among the members of such an all-important staff. Inflexibility on the part of the controlling agency would soon drive all of the best scientists away from the military program. Dr. Vannevar Bush stated very succinctly in his *Science, the Endless Frontier,* that "There is nothing more deadly than control of the activities of scientists and engineers by men who do not really understand, but think they do, or at least that they must give others that impression, and the worst control of all is by individuals who have long been immersed in a particular subject and have made it static."

An enormous central staff would be required to implement Scheme Three. Long delays would inevitably meet the myriad requests for work authorization which would have to be transmitted up through the chain of command, be processed by the ponderous staff agency, and go back down through the established channels. It is difficult to see how the military-science team concept could long endure. In spite of the costly overhead, however, it should be possible to show a lower total cost for research and devlopment under this system. Should insufficient savings accrue from elimination of all duplicating effort, the over-all size of the program could be reduced at will.

Scheme 4: *To establish an operating agency as a part of the Office of the Secretary of Defense to conduct all military research and development work. This scheme would prohibit such work being undertaken by the separate departments. The central agency would exercise its own discretion as to the emphasis to be placed on each part of the program.*

This scheme centralizes the authority to decide which work is to be done and the responsibility for carrying out such work. But it separates responsibility for defending the country from responsibility for developing weapons. This violates the funda-

mental that military strategy and military research and development are so completely interdependent that they are, in fact, inseparable. Such a centralized scheme for both programming and conducting research and development would produce a strong tendency to allow the work of the agency to become an end unto itself. It would easily be forgotten that planning and implementing the program are only two of the three essential portions of the task. The third, evaluation of the results, could be done only by the combat force user agencies, which are independent and subordinate to central agency.

Imagination could easily give way to channelized thinking in the planning of the program. The neat and orderly appearance of the program itself could quickly assume greater importance that the merit of the individual items in the program. Favorite programs receiving a disproportionate share of attention could jeopardize the proper balance of emphasis, since those deciding relative priorities would have only a detached interest in the bulk of the projects. For these reasons there would be real danger of the program becoming sterile.

The control exercised by the central agency would naturally tend to be dogmatic, which would introduce the most unfavorable atmosphere possible. This would remove incentive for military personnel to suggest new ideas. Discord between the military departments and the central agency could hardly be avoided. There is little doubt, however, that the central agency could establish a program which would give the appearance of being complete and integrated. Adjustment of the size and composition of the program could be easily accomplished, and there would be no trouble with rival departments claiming primary interest in a single development project.

Perhaps it was because of these apparent advantages that Dr. E. U. Condon, Director of the Bureau of Standards, among others, suggested that during time of war RDB should be converted into an operating agency under full civilian control and placed in charge of all military research and development facilities and programs. Obviously certain advantages can be obtained by such an arrangement. It would be much easier to determine what projects are being conducted by one agency than is the case now with several. Control over the projects would certainly be simpler. Uniform operating procedures and standard specifications would be introduced as a natural consequence of such a central agency assuming control. This would

vastly simplify business and contractual arrangements with industrial concerns. (Of course there is no reason why these same improvements could not be brought about by joint agreement under the present system if the departments were sufficiently cooperative.)

Competition between departments over the services of individual scientists and industrial companies would be eliminated under Scheme Four, and bickering among the departments over which one should be responsible for particular programs would be stopped. Yet it would seem hardly likely that these gains would come as entirely unmixed blessings. Jealousies and misunderstandings are certain to arise between different stations and branches of any such over-all agency. Some duplication would necessarily persist. At present, even different laboratories on a station of one of the departments find it necessary to duplicate certain areas of each other's work.

Military research and development work is now being conducted by and for the Army, Navy, and Air Force in government and industrial facilities located in all parts of the country. This dispersion geographically, functionally, and organizationally is the natural consequence of the current decentralized system. Administration of such a far-flung network of stations, depots, contractors, and testing grounds would be a staggering burden on any new central operating agency. On the other hand construction of new facilities at a central location to replace the existing ones would be wasteful in the extreme, if not impossible in most cases.

Scheme 5: *To establish an operating agency under the Secretary of Defense to conduct a given portion of the program (say, all of research) and set up a staff agency or joint committee to direct or coordinate the remaining part of the program.*

This scheme is the half-way system in which a central operating agency actually performs in its own laboratories or through contract part of the research and development program, while the department conduct the remaining portions under the guidance of another central agency. This is actually not a basic system at all but a mixture of two systems. It was espoused strongly by the Stewart Committee and endorsed by several other scientists. Obviously the Stewart Committee assumed that the military services will be as unprepared to apply science at the start of any future war as they were in 1940. The Committee seems to have ignored the fact that much progress

has been made by the military services toward a true understanding of science and toward an organization properly to apply research and development. The group did not seem to realize that the nature of warfare is changing and that research initiated after a future war starts can have only a minor effect upon its outcome.

Any organization to control a military function in war should, if at all possible, be organized and operating in peacetime. Dr. Theodore von Karman strongly opposed the Committee's proposal on the grounds that the new agency would unnecessarily complicate the channels of coordination and that it perpetuated the unrealistic "hypodermic needle" type of emergency action which, though a necessary evil during the last war, no longer appears necessary. He suggested instead that scientists should assist the research and development agencies of the military establishment to create preparedness in peacetime and prepare for necessary expansion in case of emergency. Dr. von Karman proposed that the main effort of scientists should be to enable the military departments to appreciate their scientific problems, to organize the cooperation of science in peacetime, and to reorganize their own structure so that civilian and military scientists have sufficient influence on decisions and are afforded the possibility of doing undisturbed, systematic scientific work. He envisioned that each service would organize a kind of scientific reserve. These views were shared by other noted scientists.

Admiral Paul F. Lee, former Director of the Office of Naval Research, and Dr. Hugh L. Dryden, Director of Aeronautical Research, National Advisory Committee for Aeronautics, replied to the Committee with the suggestion that there should be one central operating agency, in peace as well as in war, to conduct all basic research for the National Military Establishment. Dr. Lee A. DuBridge, President of California Institute of Technology, led a school of thought favoring the establishing of such a central research agency but placing it under the President or the National Science Foundation (when it is formed), rather than under the Secretary of Defense. So many other views were expressd by other scientists throughout the country that the merits of the original Stewart Committee proposal are lost in the confusion. A few thoughts bearing upon the discussion of this paper can be extracted, however.

The basic idea to create an agency to serve solely as a central

facility for the mobilization of scientists in time of war obviously is outmoded by improvements enabling the military to absorb and utilize effectively the mobilized scientists. Neither does the concept of centralizing some development work while decentralizing other development work any longer appear desirable. There may be merit, though, in the proposal that basic research be handled by one central agency on behalf of all departments, which themselves conduct whatever development work is of interest to them. Were it possible to separate basic research cleanly from the applied research that is organic to all development, this idea might produce an improvement. Certainly since basic research differs from development in that it has no direct connection with strategy, central control over research can be considered seriously. Separation of basic research from development in this manner does, however, introduce a major difficulty in the matter of recruiting competent scientists for the development programs. Scientists of the quality desired normally insist on working under conditions where they can engage from time to time in fundamental investigations of particular interest to them. If an artificial separation exists which would prohibit such activity, it will be impossible to recruit first-class scientists for any but research programs.

FROM the standpoint of perpetuating a strong, vital, and effective program to increase the technological capabilities of this nation's fighting forces, Scheme Two is, by a considerable margin, the most promising. Luckily this is the scheme currently employed. It is unfortunate that full effectiveness of this system has not been obtained in the past because of the lack of whole-hearted cooperation. The country's leaders have exhibited tremendous patience in allowing the military departments to work out their own means of controlling research and development. Regrettably individuals in the military service have all too frequently allowed jealousies, ambitions, and prejudices to interfere with the operation of the system.

It is now apparent that the patience of the people is coming to an end and that greater economy is demanded with efficiency. This requires more cooperation from the three military departments than they have exhibited to date, as well as a realization on their part that true unification is now the law

of the land. Should honest cooperation fail to materialize, present trends clearly indicate the consequences—economy will take precedence in the research and development program. Hence, Scheme Three will be adopted.

Putting the Stewart Committee's version of Scheme Five into effect would appear to be merely the forerunner of its later extension into Scheme Four, the single operating agency conducting all military research and development work. Up to the present time, at least among the military, this "Ministry of Supply" system has been strongly opposed. On the other hand however undesirable this scheme appears to be, it does seem preferable to the scheme of centralizing authority in a staff agency while decentralizing operating responsibility to the military departments. At least it should be possible to recruit qualified scientists during the initial phases of its existence. It is also probable that Scheme Three would develop into an inflexible bureaucracy earlier than would Scheme Four.

Because of those forces which destroy individual initiative and imagination, the original consideration of this paper—the establishment of all research and development under the Secretary of Defense, as outlined in Scheme Four—must be rejected.

Air War College

What hopes and fears does the scientific method imply for mankind? I do not think that this is the right way to put the question. Whatever this tool in the hand of man will produce depends entirely on the nature of the goals alive in this mankind. Once these goals exist, the scientific method furnishes means to realize them. Yet it cannot furnish the very goals. The scientific method itself would not have led anywhere, it would not even have been born without a passionate striving for clear understanding.

Perfections of means and confusion of goals seem—in my opinion—to characterize our age. If we desire sincerely and passionately the safety, the welfare and the free development of the talents of all men, we shall not be in want of the means to approach such a state. Even if only a small part of mankind strives for such goals, their superiority will prove itself in the long run.

Albert Einstein
Out of My Later Years
Philosophical Library, 1950

In My Opinion . . .

NATIONAL OBJECTIVES, NATIONAL STRENGTH, AND NATIONAL STRATEGY

In "Air Warfare and Morality" in the Winter issue of the *Quarterly Review,* Major General Orvil Anderson drives home a powerful argument on the strategy of modern war. But on his direct flight to his objective he fails to note some vital features of the terrain over which he speeds.

Too frequently in the course of impassioned exposition the sheer and impeccable logic of the explicit argument seems to carry all before it—until one notes the nature of the implicit assumptions on which the argument rests. It is these implicit assumptions by General Anderson that first invite attention.

Initially one is struck by the clear thesis, on the first page, that the war strategy which a nation adopts is properly at the mercy of the weapons the nation chances to have.

It is clear that when a nation finds itself at war, it must fight with what it has, and make the best use possible of what it has. But when one speaks not of a present war but of preparation for a possible future war, one must depart from this technological determinism. One must inquire whether it is not possible to visualize a strategy which will more fully carry out the national war objectives than that which present weapons permit—and to develop the types of weapons and tactics required to execute that strategy.

This goes to the essence of a familiar philosophical inquiry which is of some interest to a democratic people: Can men exert some voluntary control over their own destiny, or must they submit to the despotism of the mechanisms they have often blindly created? The minimum answer is that they at least can and must try—that the greatest inherent strength of a free nation is its opportunity, if it will, to exert the fullest potential of individual free inquiry in pursuit of ideal rather than preordained solutions.

If this is true, then the search for strategy must first become a search for the ideal objectives which a nation wants to

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The views expressed under the heading **In My Opinion . . .** *are not the official views of the Department of the Air Force or of the Air University.*

achieve through strategy. If the word "ideal" seems rashly optimistic, let us say merely "the objectives," as end enough, for on reflection it does not appear that a strategy born of a fatalistic technological calculus need have any assurance of meeting minimum national objectives at all. A strategy born of weapons says: "You do what we say, whether that gets you what you really want to accomplish or not."

In fact, in any planning, whether in preparation for prospective war or after committal to war, only when its back is to the wall does a nation fashion its strategy wholly on its weapons, and not at all to achieve its objectives. Nor does it, except in a similar case, cease to search for new strategies and new weapons which will more fully attain its whole objective. It always, however, runs the danger of closing its own most promising doors, unwittingly, by premature fixation on a single line of strategy.

Implicit in General Anderson's argument is also the assumption that the whole objective of war—which must guide the formulation of strategy—is the military objective of defeating the enemy. Associated with this is a tacit assumption that the military objective must be the *complete* defeat of the enemy, an assumption, in short, that total war, pushed to the end of total surrender, is inevitable.

This may prove to be so. But the surest way to make it so is to assume it, and to so conduct ourselves in that assumption as to make it, by our own acts, unavoidable. The most cursory consideration of the effect on the world, including this nation, of a war of total involvement and wholesale destruction, should give impetus enough to exploring every potential for limiting the war, by limiting its objectives and the means used to attain them. In short, we must be prepared for the worst, but a strategy for its avoidance is a proper national objective.

This is no place to engage in extended discussion of what ought to be the national objectives. It is sufficient to suggest that our enemy need not be the whole of an enemy nation or its people, unless *we* so elect. That nation's internal way of life, to be consistent with our own professions, is not a concern of ours. Our enemy is solely the external projection of an aggressive despotism. To so define the enemy is to state a basis for limiting our objective, and to suggest means for limiting the depth and the breadth of the struggle.

For to make war on a man's nation, with the object the total defeat of the nation (and thus inevitably of the man as a patriot) is to call forth the deepest reserves of resistance, courage, and cruelty in each man, and unity among men. But to declare war on the man, and to solicit his support or at least neutrality against his own oppressor, is to open an avenue to the heart of the enemy despot's basic capability to wage aggressive war outside his borders. This avenue becomes ripe for exploitation by political and propaganda means, while our military effort is concentrated on cutting off the tentacles of aggression, instead of engaging an entire unified nation.

Obviously, if this should become the American objective in war, our strategy and our weapons must conform completely, otherwise the advantage of adopting objectives which limit the war will be lost.

But even if such an objective should not be adopted, or should be prevented by the indiscriminate violence of initial enemy assault, General Anderson too narrowly limits the objectives remaining available. He writes only of the ultimate military objective. But unless a nation can attain its ultimate objective in extremely short order, are there not interim objectives that must be secured? And even if a nation plans and hopes to attain its ultimate objective with only a brief struggle, must it not make provision to retain lesser intermediate objectives in case the attempt fails?

In short, if an initial offensive aimed directly at the ultimate military goal should not succeed, what must be held as a minimum if the war is to be later carried to a successful conclusion?

IT IS CLEAR that the full industrial and military power of the United States can be mobilized and applied but slowly. It is at least arguable that only this full power will be sufficient against a major opponent whose full scientific and industrial power has been preparing for war for years, and who is fully mobilized at the start of his aggression. Does it not then follow that the first minimum national objective must be to guard against early loss of the war, and to preserve the opportunity to reach full strength, in case initial offensives fail?

Does not such an objective call, among other things, for a strategy which will minimize the destruction of American industrial resources, and the disruption of the economy? Should not our strategy, rather than fatalistically assuming this is

impossible, explore and develop every remotely hopeful means of reaching this objective, while preparing at the same time for possible failure? Does not this reinforce the argument against defeatist acceptance of inevitable total war?

Further, the nation must consider the means of assuring its *will* to continue the war to victory, by guarding against the development of situations which would induce the morale of hopelessness.

General Anderson visualizes an enemy possessing great strength on land. He states categorically that our strategy, based on a strategic air offensive, should avoid the areas of greatest enemy strength.

But it is necessary to consider the possibility that the enemy, if his land strength is not directly opposed by our utmost available force, would use it to attain rapidly *his* objective.

We suffer from a tendency to attribute our views to others. We assume that because we believe in initial destruction of an enemy's industrial potential, the enemy must believe in doing the same to us. But an enemy who studies our psychology might prefer an entirely different course.

He might plan merely to overrun, with his armies, the entire Eurasian world, while holding our bombers at bay as best he could, accepting a certain measure of inevitable losses, prepared for in advance as a totalitarian nation may do. His objective would be simply to present us quickly with a *fait accompli*, irreversible except through sacrifices we would not be prepared to make. He might well withhold his bombers from our soil at this stage, to avoid arousing and uniting us, counting on our apathy and our isolationists to persuade us that the liability of Europe is well lost.

He would count on the hopelessness of our outlook, and his own reassuring promises of trade and "coexistence," to persuade us to a negotiated "peace." For what would be our outlook? Alone in a hostile world, with its resources and their supply routes largely in enemy hands, with its potential democratic leaders liquidated, and with enemy bombers able to reach us from many nearer bases, we would find our initial air hopes frustrated, our initial forces depleted, our homes and factories open to atomic attack as we slowly tried to rearm, and our people harassed, divided and dispirited by sabotage, terror, propaganda, confusing internal counsels, and uncertainty. Would we choose the long, terrifying, uphill sacri-

fice against the entire world, or would we persuade ourselves to "peace in our time?"

This possible enemy strategy becomes doubly dangerous, if our intended strategy and weapons are so narrowly channeled and so clearly revealed that the enemy can plan with confidence to repel or parry our one means of offense, and to move forward on land without opposition. For he can then devote his major inventive and technical effort to air defense, with assurance that its solution equals victory. For the rest of his problems can be solved by sheer manpower.

Must the avoidance of such a predicament, wherein will lie our greatest vulnerability to political-psychological defeat, not be a minimum objective of American national strategy? Must not the preservation of friends and allies, and of footholds for subsequent offensives, be so basic a military objective that we can not afford to devote energies or build strategies toward ultimate objectives until these earlier minimum objectives—lack of which could prematurely lose the war—are assured?

IT APPEARS CLEAR, from every underlying philosophy, assumption and objective examined thus far, that the national interests and objectives of the United States might be best served by a strategy which used atomic weapons to *neutralize* their counterparts out of the war, and thus to limit the war, rather than to *initiate* a type of atomic war which could not help but be in our disfavor. How can we be sure that an agreement not to use atomic weapons could not be made, and kept by both sides in mutual fear of the consequences of their unleashing? The major or at least first obstacle would seem to be our own unwillingness to consider foregoing their first use. It thus becomes necessary to examine next General Anderson's explicit assumption that airplanes armed with atomic weapons constitute the greatest potential means of American technical superiority in war.

What we face, in a totalitarian dictatorship, is a power which can peremptorily force its technical potential and its industrial resources into any desired channel, however narrow, without concern for any disruptions which may ensue. Such a nation, in short, has capacities for concentrating the national effort, in peacetime, to an extent which the United States would be incapable, even if desirous, of doing. It is thus possible for such a nation, though perhaps inferior in total technical and in-

dustrial potential, to match or counter the American peacetime effort in any field in which that nation determines such a matching or countering is necessary.

There is good reason to believe, in view of the surprising speed with which atomic development appears to have proceeded abroad, that such a process has long been under way in that field. There is no reason to suppose that a continued channeling of that effort will not produce results which quantitatively as well as qualitatively will be adequate, considering the greater vulnerability of the unmobilized American industrial economy and the greater enemy knowledge of our targets, to inflict initial damage—psychological and political as well as material—greater than we can inflict.

But there is no reason to suppose one channel—one weapon—necessarily exhausts the enemy capacity to equal our slow peacetime progress. If by our own profession the enemy need not fear our land forces, if by our own choice we fail to develop the full potential of our sea power, and if the nature and employment of the one weapon on which we intend to rely are advertised continuously and widely, can an enemy fail to direct his effort accordingly? Are the technical resources of a major despotism, proved in war and amply mobilized for war, not adequate to solve the air defense problem as well as to develop atomic weapons? The defense of the homeland against wholesale destruction will naturally call forth supreme efforts and sacrifices, as the kamikaze has shown us, and the air defense problem is not insoluble under such circumstances, but merely difficult.

There thus arises the clear possibility that if we rely on a *narrow* field of development the enemy can surpass our peacetime product, when to do so is vital. But the unique technical and industrial abilities of the United States are of precisely the opposite character. Our maximum ability is that which flows from *breadth* of military, technical and industrial skills; it is this alone which no other nation can surpass. It is most reasonable that this is so, for the full diversity and ingenuity of millions of free minds can not be brought to bear with maximum effect on a narrow front. A diversity of areas is required to make fullest use of each special skill, knack, and turn of mind, and to arouse each interest to its keenest.

Thus the United States can not expect to long surpass a totalitarian enemy by a *wide* margin if our efforts are chan-

neled narrowly, but we can maintain a *safe* margin in a majority of areas if we keep our scope wide. We do not run naturally to super-weapons, but we *can* build and operate effectively in large numbers a wide variety of superior weapons. Our talents run to dispersion, while dispersion, when forced on the enemy, thins out unacceptably the product of his inferior total technical potential.

Electronics may be used as an example. We can not say that the enemy can not build and operate successfully a single air defense radar adequate to his need. But we *can* say with assurance that the enemy can not match our total ability, given time, to develop, build and use electronic devices as an intimate and indispensable tool aboard every weapon of air and sea.

Similarly with air weapons. We can not say that the enemy can not build an interceptor superior to every demand we can place upon it. But we can surely say that the enemy can not match our total skill for developing, producing, and operating every variety of air weapon, from the land *and* from the sea.

The lesson is that we must not limit, but must continue to expand, the variety of means by which we prepare to translate the incalculably rich variety of American abilities into military power adequate for all contingencies. For it may be in some unpredictable area of our yet undeveloped strength—some development almost choked off at its birth but which, surviving, the enemy proves unable to counter—from such may flow, on some unimaginable day, the break-through that turns our despair into hope.

THE evils of narrow channelization are many. Not the least is its effect on the human mind. An attractive concept arises. It is objectively substantiable at the time. It is sincerely fostered. It grows. It serves useful purposes. But in the way of the human mind the means often become the end. The helpful concept becomes the expanding empire to be defended. Newer concepts arising to meet new needs become rivals to be destroyed. And ultimately the human mind, bemused by its new master, turns against itself in that master's service. It is in this framework that one is forced to approach General Anderson's discussion of bombing and morality.

With abstract definitions of morality it is useless to tarry.

Let us say that morality, for practical purposes, may be approached as the distilled summation of what human beings, in their compound experience, have observed was sound. Morality in brief is sanity. An immoral act is one which, in general experience, will come to haunt its doer, in ways foreseen or unforeseeable. It does not serve his own ultimate interests; by common acceptance it becomes immoral. We could perhaps go farther, but we do not have to.

General Anderson says that the destruction of non-combatants is not immoral because the soldier and the citizen have become complementary in modern war. This is no new development. What is new is that we have, by our own deliberate act, removed the distinction between them in our own minds. We have done so because this appeared to be to our advantage at the time, because removal of the distinction fitted best the capacities of certain weapons at the time (another case of our weapons controlling us), and because, perhaps most of all, there was no possibility at the time of equivalent retaliation.

These latter conditions are now changed. We can now see that removal of the distinction exposes to destruction the most delicate fabric of our own civilization. But we allow ourselves to be persuaded that we are stuck with it. We persuade ourselves, following a concept that has outlived its usefulness, that we must not only accept the inevitability of this destruction, but must ourselves initiate the action that will ensure it. Thus does the initial error return to haunt, and if unchecked, ultimately to destroy us.

It may be that the indiscriminate destruction of life and of that which gives the American society freedom is inevitable. But the awesome possibilities of atomic destruction, by the very mutuality of their promise to both sides, hold out the potential of their mutual neutralization. In insisting that no such consideration may be entertained, that no moral bar to the universality of the destruction may be raised, are we perhaps not merely backing a concept of war so far outmoded that it can now succeed only by total unscrupulousness of application?

Or are we perhaps still deluding ourselves that *we* can somehow survive? But for each who survives we may wonder how many of our own noncombatants must pay the price of our insistence that this concept alone must be made to prevail,

deliberately, as the pre-calculated fabric of our initial strategy. And it may also be questioned how much of dignity, freedom, and accustomed ways of life will remain to those Americans who do survive, if they should be victors in the holocaust.

Indiscriminate atomic bombing is immoral because it will destroy us, the doers. It will do so through completely freeing the enemy from any barrier to indiscriminate retaliation, and inciting him to it. It will do so because it will unite and infuriate his own people, whom we might otherwise hope to divide. It will do so because it will expose our relatively defenseless allies to a quick reduction to chaos from which their civilizations may never recover. It will do so because freedom can not exist in a world of rubble and poverty. It will do so because it negates the vital principles which distinguish America from the totalitarian society.

We profess above all respect for the dignity of man, the individual. But man the individual in the enemy city, and his women and children, we give never a chance to show their dignity or individuality. They are in the enemy city, so, potential freemen or no, they die. It is not sufficient for us to say that the fault is theirs, that they should get out of the city. That does not absolve us. For this is no case of warning Frenchmen that some bombs might miss the marshalling yards. This is no case of calling the shots on specific targets late in a war all but won.

The time of which we speak is early in the war; we will call no shots. The opposition is strong, the nights are dark, specific targets are not clear, the area of destruction is uncontrollably large. Let us be honest: All cities will be our targets, and all dwellings within them. We can no more expect the enemy to keep all cities continuously evacuated of all but military workers than we can expect to behave similarly ourselves. We know, and therefore we intend, that we shall destroy and maim workers, non-workers, aged, women, children, factories and homes, without discrimination. This we plan, in gross mass destruction, and in planning it we will to look aside from man as man, and to view all in our chosen path as enemies. Our sworn enemies, from the very soul, they in turn become. We violate that most elementary canon of morality: the golden rule. We ask to be excused because our thoughts are non-aggressive. How long has such a course been the spirit of America, the source of American spiritual leadership in the world?

We will this course of action because we have predetermined the end to justify the means. And in this we cut the last barrier that separates us from the totalitarian mind.

To justify the means by the end may perhaps not be immoral per se. All men and societies, when cornered with their backs to the wall, may be forced to such conduct for survival. What *would* be immoral would be the deliberate, calculated adoption of such a concept by an American nation which is not *in extremis*, but merely wishes to avoid expenditure or sacrifice. What would be immoral would be for this nation, secure and detached in its comfort and wealth—and bewitched by a dream of effortless security achieved by a handful of planes and airmen—to buy its continued comfort by the cold-blooded election to destroy without distinction any persons so unfortunate as to live in the cities of an enemy despot.

We can not maintain what General Anderson calls "our position as a champion of the dignity of man and human rights" by coolly planning to destroy men and their rights simply to avoid discomfort or hardship. We can not maintain this position by professions of purity alone. The mind which professes lofty ideals while simultaneously harboring contrary plans is already corroded. We shall be judged by our acts.

In conclusion, indiscriminate bombing is immoral because it is the product of an unhealthy mind. It is insane. It is not sane to avoid the direct armed might of an enemy and to slay instead the potential ally whom the common enemy oppresses. It is not sane to remain bewitched by the concepts of yesteryear, or to trade basic long-run strengths and objectives to retain a little longer the false comfort of security without effort. And from this sowing of schizoid unreality it may be our own homes, our families, and our freedom that will reap the whirlwind. These may be all inevitable, but we can not say so as long as *we* plan to strike the indiscriminate blow whether we are similarly attacked or not.

It has been necessary to disagree with several of General Anderson's assumptions and lines of argument. It is the more pleasant to be able to agree heartily with him that old concepts of strategy are in need of revision to fit new situations. In this category may be included old concepts of air strategy as well as of land and sea strategy. It is not possible to be as sure as he of what the strategy must be, but it is pertinent to suggest directions.

Strategy must be based, not on an oversimplified statement of a single ultimate *military* objective, but on the complete array of *national* objectives, phased in time to ensure that first things are done first, that disasters are secured against, and that post-victory aims of the nation are provided for.

Strategy must be based on the concept that weapons serve, rather than control the national objectives. Strategists must establish requirements for new weapons and applications thereof that will better attain these objectives.

Strategy must be based on the principle, rediscovered by the totalitarians, that military weapons and politico-psychological techniques may be complementary and mutually reinforcing sources of national power. Failure to use them in harmony and integration is loss of strength.

Strategy must be based on the fullest utilization of the unique strengths and skills of the nation and its people. It must protect those strengths from both attack and corrosion. It must also protect our sources of added strength abroad.

In considering the problem of strategy against a totalitarian aggressor one must not be carried away by traditional military thought. It is worthy of consideration whether our ultimate strategic objective may not be best attained by none of the traditional means. Not by occupation, nor by sea blockade, nor by direct air attack to destroy the industrial sources of enemy power. Instead, by politico-psychological attack on the basic insecurity of despotic government, to which attack all our armed forces will be simply co-equal auxilaries, preparing the ground for the political offensive.

This requires reexamination, among other things, of the extent to which the defeat of enemy armed forces may itself, when fully exploited by nonmilitary means, be a grave blow against the waging of an aggressive war unpopular at home. By such techniques, directed at stopping short or cutting off the tentacles of aggression while exploiting the results by political means, it may be possible to limit war and negotiate peace short of annihilation and exhaustion. Such means also clearly better fill our interim objectives of saving our allies, and averting total disaster.

Such a course requires of course the negation of any such objective as total defeat or occupation of the enemy nation as a whole. It requires also that military forces be so employed as not to arouse and unify the enemy people behind their

government, and that they be employed positively to make the war definitely unpopular at home.

In such a potential strategy air power must play a dominant offensive role. In such an offensive the exertion of air power will not be an end in itself but a means to a larger end. The air battle must still be fought, but mass distribution of propaganda to the farthest reaches of the enemy nation, in incredible volumes, might well displace mass bombing. Air blockade and strangulation of inland transport might well be the primary vehicle not only for defeat of enemy air and ground forces but for the ultimate air objective of making the war unpopular at home without arousing popular resentment against the American enemy.

Clearly such lines of strategic thought call for expanded visions of the potential of American air power, for new concepts, tactics, skills, and weapons. They call for a new dash, a new precision, a new daring. They call for getting down to the earthy target instead of detached aloofness in the stratosphere. They invite a new and progressive adaptation to the needs of a groggy world.

They demand, most of all, an end to the fatalism that since everything must inevitably blow up anyway we had better do it first and best. They call for a philosophy of change, of hope, of dynamism to upset the reliance on sterile concepts of mass destruction. Such concepts are as rigid and archaic to the needs of the day as any that battleship admirals and infantry generals ever had. What was good for one war, clung to, loses the next. Today, with its great power over public opinion, only the Air Force itself can take the lead to change our concepts of strategy. The responsibility is great.

The world, progressing willy-nilly, poses this question: Will the Air Force progress with it, and lead it out of its morass, or will the Air Force remain rigidly frozen to a thirty-year-old concept which leads as surely to extinction as did the dinosaur's peculiar direction of growth? Is the Air Force mind still young and inquiring or have its arteries started to harden? This answer the world awaits. Where there is no vision of *new* horizons, the people surely perish.

Washington, D. C. *Lt. Com. Stuart B. Barber, U.S.N.R.**

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*The opinions and assertions herein are the private ones of the writer and are not to be construed as official or as reflecting the views of the Department of the Navy or the Naval service at large.

WHY TWO AIR TRANSPORT ORGANIZATIONS?

HOWEVER effective its initial "retaliatory" attacks may be, the United States could lose World War III if it does not have sufficient airlift to exploit the gains of those attacks. For it is becoming increasingly clear that it will be impossible for us to conduct sustained bombing operations from our continental bases. To be decisive our strategic force will have to be moved to advance bases. This will involve the movement by air of many thousands of Air Force personnel and tons of materiel.

Following that tremendous requirement for airlift in a matter of days—if not hours—numerous other requirements will develop. The Army's airborne troops, for example, will have to be deployed and provided with logistic support. The Navy's antisubmarine forces may require airlift for the movement and supply of its personnel. In size and importance the airlift job to be done in the next war will dwarf any in the past. But the ability of the United States Air Force to do such a job, at least in the foreseeable future, is seriously in question.

This is not only a personal opinion. It is the opinion of many who are familiar with this problem. During the past four years, several studies on airlift requirements have been made. Every one of these studies has indicated that in the event of war we will have an initial shortage of from one to three thousand strategic-type transport aircraft. The President's Air Policy Commission confirmed this by stating in its report that "tentative estimates by the Military Establishment show that ATC and MATS at their present size plus the present commercial aircraft would be far short of what will be needed."

In addition to having insufficient transport planes, there is some question as to whether we are making the most effective use of what we have available. This situation promises to be far more serious in a future war than it was in the past. In World War II, for example, we had an abundance of air transport; hence there was little need for massing aircraft. Even so, in such airlift operations as the Hump and the occupation of Japan major conflicts resulted from the fact that two completely independent air transport organizations, with different training, procedures and doctrines, were forced to work together.

In our two principal peacetime airlift operations—Berlin and Swarmer—this same conflict existed. It was, however greatly aggravated by the fact that neither of these transport organi-

zations had sufficient planes to do the job. Hence the pooling of planes from throughout the Air Force was necessary. To carry on the supply of Berlin by air caused us to suspend much of our global air transport as well as call in planes from all over the world to help do the job. If airlift operations like Berlin and Swarmer place such a strain on the USAF, any consideration of what another war would do is somewhat frightening.

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What has been done so far, and what more should be done, to improve this critical situation? Two years ago the Air Transport Command and the Naval Air Transport Service were combined in the newly-established Military Air Transport Service. Two months ago, in a major move designed to increase greatly the training of personnel for airlift duties, General Vandenberg announced that the primary responsibility of MATS would henceforth be the training of a "military airlift force that can be rapidly and efficiently expanded to meet Mobilization Day requirements."

Both of these are steps in the right direction. But the first still leaves us with two air transport organizations, while the second might with benefit have given more consideration to the organizational aspects of military air transportation. Perhaps by more logical organization and efficient management of our available airlift, the shortage of aircraft could be compensated for to an appreciable extent.

Moreover, in addition to the studies referred to above, a number of studies on the reorganization of military air transportation have been made since 1943. These studies generally indicate that greater efficiency, flexibility, and versatility would result from the establishment of a Military Air Transport Command responsible for furnishing all air transportation. For one reason or another very little if any progress appears to have been made along the lines pointed out in these studies. One cannot help but wonder why the Air Force has not taken more vigorous action toward increasing the over-all efficiency of the air transport it has available.

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The problem, although a big one, is by no means insurmountable. There are four basic considerations involved: mission, training, equipment, and organization.

The peacetime mission of all military air transportation, it

seems to me, is to maintain a trained nucleus to handle our mobilization airlift requirements and facilitate rapid expansion. The war mission, particularly during the initial phases, will be to furnish airlift as directed by the Joint Chiefs of Staff. This airlift, as previously stated, may be the deployment or supply of ground, air, or naval forces. Since we must be prepared to develop a maximum effort on any one or all of several airlift operations, it appears that we have but one, and only one, air transportation mission. That mission is to furnish maximum airlift for use by the Joint Chiefs of Staff.

If this is true, we do not have two distinct missions in air transportation as some would have us think. If there is only one mission, why do we have Troop Carrier and MATS divided? The usual answer is that the theater commanders need airlift, and Troop Carrier is available to furnish it. In reality, however, the theater is only an operation under the Joint Chiefs of Staff. With the speed of warfare today, we must view the whole world as one theater of operations, with the Joint Chiefs of Staff as the theater commander, and the World War II theaters as task forces organized to accomplish parts of the over-all mission. In that light, air transportation is obviously being operated for the Joint Chiefs of Staff. The only difference is that they may turn the detailed control over to a theater for a specific period of time or a particular operation.

There is so little disagreement on the second consideration—training—that it is hardly necessary to mention it. We all know that it is normal for Troop Carrier people to say they can do MATS type work but MATS cannot do Troop Carrier work, while the opposite opinion has been strongly expressed by MATS personnel. The fact remains that we can take either MATS or Troop Carrier personnel and do any airlift mission with little additional training. Both use transport aircraft, fly instruments, and move personnel and cargo. MATS would simply—I say "simply" because it is no mystery—practice formation and flying at low speeds so that paratroopers and supplies could be dropped, whereas Troop Carrier would simply brush up a little on their instrument and traffic procedures. Nothing more. The one big training problem is that of producing commanders and staff officers who can see the implications of this total mission and not be swayed by their loyalties to either Troop Carrier or MATS.

The third consideration -- equipment — undoubtedly influ-

enced organizational decisions in the past, and much of the argument for two separate air transportation organizations has been based on World War II experience. Certainly the C-47 of Troop Carrier fame and the C-54 of the Air Transport Command were hardly interchangeable to the extent that they could be pooled on many maximum effort operations. The C-47 could fly transoceanic only on a ferry status, while the C-54 had no ability to drop paratroopers or supplies. Today's equipment, however, is much more interchangeable. As far as payload and range are concerned, the Troop Carrier C-119 (Packet) and C-124 (Globemaster II) can fly the world routes as well as the MATS C-54, while the MATS C-97 (Stratofreighter) can para-drop 26,000 pounds of aerial supply in 12 seconds. These are the aircraft we are now buying for our air transportation fleet. It is evident that although these three types do not have identical characteristics, they can be used quite satisfactorily together on any type of airlift operation.

The discussion above of mission, training, and equipment, however brief, indicates to me that our present organizational concept is not sound. If, as General Eisenhower has said, the decision in any future conflict will be made in the first 60 days, our initial deployment by air transportation may be the deciding factor. If so, it is time to ensure the highest return for each dollar spent on airframe capacity. With the C-124 costing half as much as the B-36, we must do everything possible to hold to a minimum any diversions from our strategic bomber program, whether these be financial or material. For each Heavy Troop Carrier Group organized, we lose the strike capability of 30 B-36's. In view of this, can we afford to operate our air transportation inefficiently?

* * *

To give greater flexibility, versatility, control, and efficiency to our available air transport, it is proposed that the United States Air Force dissolve its present air transport organizations and activate the Military Air Transport Command. This Command, which will consist of T O&E units equipped with C-119, C-124, and C-97 aircraft, will have as its primary peacetime mission that of training a military airlift force capable of rapid and efficient expansion, and as its primary wartime mission that of furnishing air transportation of all kinds for the Joint Chiefs of Staff. The proposed Military Air Transport Command will have equal status with other commands and be

directly under the Chief of Staff of the USAF. It will, however, receive operational direction from the Joint Chiefs of Staff.

It is realized that some will question how airlift will be made available to the theaters after initial deployment has been accomplished. All such requirements must be considered by the Joint Chiefs of Staff, it seems to me; and if they can be justified, whole units could be made available to the theater, permanently or for short periods. Once assigned, complete control of these units would be transferred from the Military Air Transport Command just as Troop Carrier units were transferred from the First Troop Carrier Command during World War II. The Joint Chiefs of Staff can withdraw these units upon completion of the mission or in case of a more urgent requirement elsewhere. It may be contended that such a temporary loan and withdrawal procedure will hamstring commanders. This is not true, since a commander could expect full utilization of his air transport units for the period assigned, unless an emergency or higher priority requirement developed. In such cases who would say that his airlift should not be withdrawn?

A properly organized Military Air Transport Command will put our air transportation on the sound basis required and will ensure maximum effort and minimum confusion on any airlift operation directed by the Joint Chiefs of Staff.

Air Command & Staff School *Lt. Col. Geo. E. Stover*

But in all of our work, through inevitable drudgery, dislocation, and confusion, let us never forget the purpose of our efforts. Along with the patience, modesty, and restraint we must maintain, let us never forget our high challenge. Wherever we are, our frontier is above our heads, and it extends above and over any aggressor who dares break the peace. There are no barriers between us and any enemy, and the hours that separate us are few. Our job is to be ready to meet an aggressor anywhere, at any time, in any strength. It is to be able to fight first and most desperately, all the way from the heart of our own nation to the heart of any enemy nation. Our job is to be able to penetrate and inflict a mortal wound on the aggressor.

—*General Hoyt S. Vandenberg,*
Address to Air War College
16 June 1950

Airman's Reading

War or Peace, by John Foster Dulles (Macmillan, $2.50). pp. 274.

Reviewed by
Professor Quincy Wright

THIS BOOK may be compared with the recent memoirs by Secretaries of State Stimson, Hull, Stettinius, and Byrnes. Dulles has not been Secretary of State but he has had as much experience in international affairs as any of these Secretaries and considerably more than the last two. He served as Secretary of the Hague Peace Conference of 1907, and as counsel to the American Delegation at the Versailles Conference of 1919. In the inter-war years he was engaged as writer, critic, and advisor in the international field. He has participated in such unofficial groups as the New York Council on Foreign Relations, the International Studies Conference, the Commission to Study the Organization of Peace, and the Commission on Just and Durable Peace of the Federal Council of Churches. He has persistently recognized the need that the United States participate actively and intelligently in foreign affairs and that this need be recognized by the public. Since Governor Dewey, before the campaign of 1944, sought his aid in making "bipartisan" foreign policy more effective, Dulles has served in numerous international conferences including the San Francisco Conference, various foreign minister's meetings, and most of the meetings of the United Nations' General Assembly. As a representative of the Republican Party he was looked upon as a potential Secretary of State. Today he is serving in the planning group of the Department of State.

His political position means that his book is less an apology than are the memoirs of Secretaries of State. He is in a position to be critical and yet he has been so much on the inside during the past five years that his criticism is responsible. Furthermore, his point of view is not that of history but of present policy, and particularly policy with reference to American-

Soviet relations. In this volume he states the problem and the policy which has developed, tallies the score of Soviet and American success indicating that on the whole, the Soviet position has gained more than that of the United States, and concludes with recommendations for the future.

In the judgment of this reviewer the book is the best balanced presentation of the cold war problem which has appeared. The first chapter states the problem, perhaps too categorically for a scholarly reader. "War is probable—unless by positive and well directed efforts we fend it off. War is not inevitable, and I do not think that it is imminent. Something can be done about it." The bulk of the book, however, is carefully written with sustaining facts and sufficiently qualified statements.

Dulles' central theory is that the Soviet government does not want war but it fears it may be attacked and is arming for defense. It is not averse to the use of armed force if necessary or expedient, and there is danger that it might mistakenly believe it is about to be attacked or might miscalculate the effects of pushing into neighboring small states. Such circumstances might precipitate war. The Soviet state is, Dulles thinks, distinct from the Communist Party, though the "Politburo" heads them both and is composed of devoted and ruthless men who anticipate that Communism will eventually take over the World. They anticipate, however, that this will take place through internal revolutions which will only occur in each area after capitalism has weakened itself by its internal contradictions and has been weakened by the propaganda, infiltration, and subversion of local communist parties inspired from Moscow. As communists, the members of the Politburo rely primarily on these methods. Dulles notes that their vast successes in Central Europe and China and their lesser successes elsewhere have involved the use of armed force abroad only in Poland and Finland in 1939 when they were faced by Hitler. He emphasizes the important differences between the Nazi theory that war was the necessary means to the aim of racial dominance and the Communist theory that war is a secondary means to be used with extreme caution. The Communists believe they can wait, while the Nazis did not.

As heads, not of the Communist Party but of the Soviet state, the members of the Politburo recognize that the people they govern are ninety per cent non-members of the party, averse to war, and interested in a higher standard of living. The people

might therefore prove resistant to a war of aggression. Consequently, speaking as the head of the Soviet state, Stalin may mean what he says when he insists upon the possibility of peaceful coexistence of the systems of Soviet and capitalist "democracy," even though at the same time, as head of the Communist Party, he insists that eventually communism will take over the world. He may mean that the Soviet state will not engage in military aggression but that the Communist Party will become dominant in one country after another through internal revolution. If peaceful coexistence means only that peace need not be shattered by an international war, there is no inconsistency in these propositions. According to Communist theory, war is likely to be initated by the capitalist countries as a desperate means to stave off internal revolution, and it is against this assumed danger that the Soviet state must protect itself.

In support of this theory, Dulles quotes convincingly from the Soviet bible, Stalin's "Problems of Leninism," of which some eighteen million copies have been printed in thirty-five languages, Stalin, he points out, differs considerably from Marx or Lenin, especially in that his point of view is practical and strategic rather than theoretic and revolutionary. His book is a policy manual of a going concern, not the prognosis of a philosopher, or the propaganda of a revolutionary.

With this view of our "enemy" in the cold war, it is natural that Dulles should always weigh the defensive value of each proposed American policy against the intangible adverse influences which may flow from it. He fears that there has been too much military influence in American foreign policy, more, he thinks than in Soviet foreign policy (p. 235). Details of American policy in regard to Germany, Japanese mandated islands, Latin America, Italian colonies, and the North Atlantic Treaty were, he thinks, unfortunately influenced by the military interest in distant bases. "Who," he asks, "has been helped most by seeming to give our foreign policy a militaristic pattern —the United States or the Soviet Union? We have, perhaps gained some military advantage. But we have paid a high price in moral and psychological disadvantages. Just how high that price is, we can only guess, for only a small part of the cost has been revealed [p. 239]." He hints that a collective defense pact open to all members of the United Nations under Article 51 of the Charter, of the kind proposed by Hamilton Fish Arm-

strong and supported by the Commission to Study the Organization of Peace and the Thomas-Douglas Resolution now before the Senate, might have been preferable to the North Atlantic Pact (p. 205).

Dulles emphasizes the value of the United Nations in settling many dangerous disputes and assisting in gaining independence for a number of dependent territories. He thinks the United Nations should be made universal by keeping the Soviet Union in and agreeing with them to admit the five Soviet satellites and nine non-Soviet states which have been seeking admittance. He is not unfavorable to accepting the Communist government of China if it proves its ability to govern (p. 190).

He looks with favor to a conference to amend the United Nations Charter, especially to moderate the veto, to give organizational decisions, such as admitting new members and selecting a Secretary General, to the General Assembly, and to give greater weight to Assembly resolutions by a system of dual voting, once on the present basis of equality of states and again under a system of weighed vote. With such a system he admits the Soviet weight would be considerably increased, as it should be in view of its weight in the world, perhaps instead of one to nine, as it now is, something like one to three (pp. 190 and 162, where the ratio "one to thirteen" must be an error).

As a lawyer, Dulles believes international law should be strengthened, not only to define more accurately the rights and duties of states, but also to protect individuals directly without the intervention of national legislation (p. 203).

In regard to American policy concerning China, Dulles is critical, pointing to reversals of policy. In 1945 General Marshall was directed to withhold support from the nationalist Chinese government unless it made a coalition with the Communists. In 1948 Secretary of State Marshall advised the Embassy not to support the Nationalists if they came to terms with the Communists (p. 226). Nevertheless, Dulles recognizes that the basic reason for the Communists successes in China were not the faults of American policy but the economic deterioration following China's long war with Japan, destroying confidence in the Nationalist government, and creating conditions favorable for Communist propaganda (p.226).

Dulles is no friend of appeasement. He believes in strengthening the morale of the Western democracies, and at the same time keeping hope alive in the populations behind the Iron

Curtain, though he recognizes the need of better techniques for accomplishing the latter result. His fear of appeasement may possibly blind him to possibilities of conciliation. The policy he urges might tend toward the extremely dangerous situation of a completely bipolarized world. Dulles recognizes the progress the Soviet Union has made in expanding its zone until it includes some seven hundred million persons, while the Western democracies include only about four hundred fifty million. He apparently supports efforts to bring the remaining billion of the world's population to the democratic side by economic and informational policies, though he recognizes the considerable advantages that communist propaganda has in Asia because of the low economic level.

He does not perhaps give adequate consideration to the effect which American policies of this kind may have in provoking effective Soviet counteraction, though he did allude to this danger in considering the policy of the American acquisition of bases in various parts of the world. It may be that American policy would be better forwarded by seeking reliable arrangements with the Soviets to permit the uncommitted or divided countries such as Japan, Korea, Southeast Asia, India, Pakistan, the Middle East, Yugoslavia, Switzerland, Austria, Germany, Sweden, and Finland to sit on the fence. Dulles appears to confuse "neutrality" on issues of principle essential for international peace and security, with "neutrality" in the sense of non-commitment to either of the competing ideological groups (p. 71). It is one thing to refuse to be neutral when the peace of the world community is threatened. It is another thing to refuse to commit oneself to either side while the dispute is still political and ideological. It is possible that world stability would be forwarded if many states committed themselves not to the United States or to the Soviet Union, but to act against aggression from whichever side it came. The difficulties of maintaining such a position in the struggle pursued by propaganda, infiltration, and subversive action can not be denied.

With his emphasis upon the importance of discussion, his demonstration of the influence of world public opinion in the United Nations especially in inducing Soviet withdrawal from Iran and other places, his tendency to place moral above material factors in politics, and his insistence that the direction in which guns are pointed is more important than their

number, it is surprising to find Dulles saying: "There is no illusion greater or more dangerous than that Soviet intentions can be deflected by pursuasion [p.16]." Apparently he here uses the word "intention" in a very long-run sense and the word "persuasion" in the sense of moral argument. The main point of his book is that in the short-run Soviet policy has been influenced by discussion and information, especially of the intentions and policies of others, and that the Soviet leadership considers propaganda a more effective means of forwarding their aims than arms. This interpretation is supported by the broad definition which Dulles gives to the word "power." "Power," he says, "is the key to success in dealing with Soviet leadership. Power, of course, includes not merely military power, but economic power and the intangibles, such as moral judgement and world opininon, which determine what men do and the intensity with which they do it [p 16]." If both sides believe that a conflict of military power would be suicidal in the atomic age, both may be willing to postpone full achievement of long-run objectives unless and until they can be achieved through discussion, information, education, propaganda, infiltration, economic assistance, winning of world public opinion, and other manifestations of power short of armed force. Western democracy and Soviet communism may then coexist for a long time and civilization may adjust itself to the situation.

Not the least interesting part of the book concerns the history and scope of the "bipartisan," or as Secretary Hull preferred to call it the "non-partisan," foreign policy (pp. 121ff). Dulles, who played an important role in the development of this policy, weighs its value in assuring Congressional support to the Executive on treaties and appropriations, and in assuring allies of the continuity of American policy, against certain dangers. It may permit the minority to dictate, may delay decisions, may prevent criticism and adequate publicity, and may make policy too aggressively nationalistic. He, however, concludes that bipartisanship in foreign policy is essential in times of crisis and puts it first in the needs of today (pp. 175ff). A bipartisan policy implies, he insists, full participation by the mincrity party in policy making both in the Department of State and in international conferences, not merely ratification after the policy is made. Among other needs of the day, he lists strengthening the United Nations,

strengthening the Western democracies, rethinking policy in Asia, reduction of the influence of the military in foreign policy, patience in defense without provoking war, and dynamic faith in a civilization of free men. The book is easy to read and maintains a fair balance between optimism and pessimism. The American public needs to understand the complexity of policy, the dangers of oversimplification, and the tortuous course which the pilots of policy must steer between the rocks of weakness and provocativeness, between the pressures of domestic politics and the requirements of a continually changing situation abroad. Mr. Dulles well presents these realities of American foreign policy.

University of Chicago

Soviet Imperialism, Russia's Drive Toward World Domination, by E. Day Carman (Public Affairs Press, $3.25), pp. 175.

Reviewed by
David J. Dallin

MR. CARMAN'S BOOK is a review of a decade of Soviet expansion—achieved and attempted territorial aggrandizement. It is a clear and truthful narrative of the most significant events and trends of our day.

The Soviet expansionist drives of the last decade had two phases. The duration of the first phase was less than a year—from September 1939 to July 1940; the second, which started in 1944 and passed the acute stage in 1946, is still in process.

The five chapters of Mr. Carman's book devoted to the first phase give a systematic review of Soviet acquisition of eastern Poland, the Finnish war, and the incorporation into the Soviet Union of the Baltic states, Bessarabia, and Northern Bukovina. The latter two areas, acquired just before "the stroke of midnight," were the last gains under the Nazi-Soviet pact; the push into these provinces of Rumania coincided with the fall of France and marked the end of close Soviet-German collaboration.

Soviet expansionism was frustrated by the new antagonism between Berlin and Moscow which sprang up in August-September 1940. Although Germany tried to divert Moscow's attention to the East and away from Europe, "plans for

aggrandizement" (the title of one of the chapters of the book) continued to ripen in Moscow. It is interesting to observe the similarity between the anti-British trends in Soviet policy of 1940-41 and those of the postwar era. The Soviet objectives—which were not realized—were Turkey, India, Iran, and certain Chinese provinces.

The second phase started when the war was nearing its end. The author reviews Yalta and Potsdam and the new Soviet drives based on the agreements with the wartime allies. Annexation of a territory in East Prussia, a strip of Czechoslovakia, and half of Sakhalin and the Kurile Islands in the Far East was outright. Unobserved and quietly, the former Chinese area of Tanu-Tuva was incorporated into the Soviet Union during the war, despite solemn promises given to the people of that area that their national independence would not be violated.

More important even than the territorial acquisitions was the extension of the Soviet sphere of influence over new countries in Europe and Asia. The creation of a series of "people's republics" and their subordination to Moscow, the separation of Eastern Germany and its conversion into a satellite, separation of North Korea, "autonomy" for Manchuria and Sinkiang—these were the outstanding events of the postwar years. They turned the warm sympathy of the Western peoples toward Russia into indignation. Mr. Carman mentions these developments briefly; perhaps more facts and comment would have been appropriate.

Along with the successful Russian drives there were a number of frustrated attempts to expand in various parts of the world which occurred in 1945-49. The first and most blatant of these was the case of Turkey. In the first two postwar years it seemed that a military conflict was imminent; the Soviet-Turkish treaty was denounced, territorial demands (in the name of Soviet Georgia and Soviet Armenia) were formulated, and Soviet control over the Dardanelles had been discussed in Yalta. What saved Turkey was, first, the uncompromising Turkish spirit coupled with swift preparations for war, and, second, the Truman Doctrine, implying military supplies for and diplomatic protection of this country.

Soviet attempts to detach territories in Iran in 1946 were likewise frustrated. Unlike Turkey, Iran was occupied during the war, and Soviet authorities in northern Iran encouraged

the creation of an autonomous regime. Strong pressure on the part of Britain and the United States led to the evacuation of Soviet forces from Iran in May 1946. Other Soviet complots in the Near East also failed. An attempt, for instance, to provoke a pro-Soviet movement among the Kurds—a nation living in Turkey and Iran—had to be abandoned.

Despite persistent rumors of Moscow's intention to keep it permanently, the Danish island of Bornholm, occupied by a Soviet force after Germany's surrender, had to be evacuated. (The main Soviet fortifications in the western part of the Baltic Sea were then erected on the German island of Rügen.) An attempt to gain control over the Norwegian archipelago of Spitzbergen met with categorical refusal on the part of Oslo and had to be relinquished. As for the Mediterranean, the Soviet government acquired, in negotiations with its allies, a voice in the Tangier zone; it did not, however, make use of its privileges. For a few years it backed an insurrectionist army in Greece; had this war succeeded, the Soviet Union would have acquired an important foothold at the Mediterranean. In the end all Soviet drives toward the southern seas were frustrated, and today Albania, only loosely connected to Russia, is the last Soviet colony, and living on borrowed time.

This balance sheet of postwar Soviet successes and failures reveals an important factor affecting Soviet expansion: only territories which border directly on Russia, which are directly influenced by the nearby Soviet military force and therefore live constantly under political, diplomatic, and military pressure can be converted into satellites; countries and areas separated from Russia by seas or by non-Soviet land masses, succeed in retaining their independence. Yugoslavia, a nation situated far from Russia's borders has seceded from the Soviet empire and has managed for over a year now to maintain her independence even under a Communist regime.

Thus the expansion of the Soviet empire, unlike that of the British Empire, has remained a purely continental affair. The Soviet realm has expanded geopolitically, like an oil spot widening out from the center.

The author remarks pertinently concerning the usual Soviet justification of its territorial acquisitions that Moscow always bases it on historic claims, despite the fact that for over two decades the Soviet government tried to cut the line of tradition

connecting it with Russia's pre-revolutionary regimes. The argument that the aggrandized lands once belonged to the Tsars or constituted a project of Russian foreign policy is "no more valid than would be a Spanish claim to the Low Countries on the ground that they once belonged to Philip II; a French claim to Mexico because Maximilian reigned briefly behind a carapace of French bayonets or a German claim to Milwaukee, Wisconsin, on the ground that the population is of primarily German descent." The author therefore arrives at the conclusion that the expansionist technique of old Russia has been "improved and enlarged by Communist theory. In the concept of territorial expansion, Russianism and Communism are therefore one and the same. The two are synonymous as long as Russia remains the homeland of Marxism-Leninism."

Mr. Carman's intention was not research nor presentation of new historical material; nor did he intend to produce a new theory concerning Soviet foreign policies and expansionism. Rather he intended to give us a condensed review of facts and events of a crucial period in our history. In this task he has succeeded.

New York City

Behind Closed Doors, by Rear Admiral Ellis M. Zacharias, USN (Ret.) (Putnam, $3.75), pp. 365.

Reviewed by
Major Nicholas E. Mitchell

THE author is a recognized specialist in intelligence and interpretative analysis of the ever-changing scene in world politics. He presents a superbly documented answer to the question that hangs heavily in the mind of so many Americans today. He clearly explains the true reason for the startling moves that the U.S.S.R. has been making on today's world chess board of international politics.

Starting with the Yalta Conference, Admiral Zacharias takes the reader through the intricate pattern of recent events. He brings out logical deductions substantiated by factual documentation.

The *raison d'être* of this book and the mechanics of its preparation can be best explained in his own words:

"In the preparation of this book, we made use of all bona fide intelligence sources available to persons no longer in government service. We employed the examination of documents, the interrogation of travelers, discussions with statemen, diplomats, high-ranking officers. We conducted extensive research into so-called secondary sources in the public domain and studies and analyzed newspapers, books, radio intercepts, etc.

"Attracted by our interest in and understanding for their problems, a great variety of foreign sources favored us with their confidence and allowed us access to information of immense value otherwise not easily available to individuals outside of the official intelligence organizations of governments. Among these sources were 237 refugees from behind the iron curtain who submitted to interrogation either by us or by our assistants and contacts, both in the United States and abroad. These refugees represented the cream of a generous crop. Among them were senior officers of the Red Army and Navy, atomic scientists, outstanding economists, diplomats, and officials from virtually every branch of the Soviet bureaucracy.

"In the course of this study, we have amassed what appears to be valuable data on the true state of the world from what we regard as trustworthy sources—data and sources which are available to probably no other private persons in the United States. This book was written to share this information with the American public; we look upon this book as a lengthy intelligence report, with no strings of false security classification attached to it."

A "lengthy intelligence report" is indeed a fitting description of the contents of the book. It is divided into six distinct yet coherent parts.

Part One presents the background of the cold war. An eyewitness account gives a lucid picture of the workings behind the closed doors of a Politburo meeting. A keen analysis of the over-all strategy of world revolution is effectively tied in with Soviet tactics of the moment. The ultimate decision on Stalin's part to make the cold war hot; the vast background of events and attitudes that led to it; the reports of Soviet experts and their suggestions; the intricate workings of the Soviet state are all factual—well presented and explained for the first time.

Parts Two, Three, and Four are an excellent combination of the background descriptions, decisions reached, and the resulting expansionist actions taken by the Soviet government along the vast perimeter of its territory. It presents a clearly logical explanation of important actions against the world's democracies following World War II. All lead to the fateful decision reached by Stalin—that of making the cold war turn hot. These three parts prove the conclusions of Part One.

Part Five shows American reactions and blunders as attempts were made to parry the multi-front thrusts of the Soviets during the cold war. It takes the reader behind the scenes of government in an impartial analysis of the reactions in the White House, and the State and Defense Departments, to Soviet moves.

Part Six is aptly entitled "Balance Sheet of Disaster" and "An Active Program for Peace." There again the outstanding idiosyncrasy the U.S. has of planning a war of tomorrow with the weapons and tactics of a war of yesterday is brought to a forceful focus in the reader's mind. The possible line up, the choosing of sides by smaller powers in the event of an all-out-war between the two giants, is well analyzed. The part the U.N. plays is well dovetailed in the kaleidoscopic panorama of the world crisis. It is shown first as a pawn of the Big Three, then again as an energetic and powerful body, revitalized through sheer desperation in the eleventh hour. The actual Soviet Order of Battle leaves the reader with an indelible mental picture of the true state of national security.

This far the book is unusually well presented, gives solid food for thought, and is definitely worth-while reading for anyone interested in the future welfare of the nation and of the world. The last chapter, however, "An Action Program for Peace," falls short of the over-all high purpose of this book. It becomes an anticlimax for the reason that it does not go far enough into strategic planning. It drops the reader over the precipice of indecision, since all given suggestions of treaties, alliances, isolation of the U.S.S.R., are but tactical moves designed to minimize the risk of a total war between the U.S. and the U.S.S.R.

Throughout the preceding chapters the author underlines the historical inability of the U.S. to plan a concrete post-war policy and forcefully carry it out. The theme of the difference between grand strategy in foreign affairs and tactical maneuvers designed to achieve the aims of such strategy, is ever present throughout the book. Yet the author limits himself with a "10 point program for peace." Each suggested point is merely a tactical move on the part of the U.S. designed to offset similar moves of the U.S.S.R. A strategic plan has not been developed for U.S. democracy.

As the reader progresses through this exposé, he may become enthralled by the breath-taking frankness of admissions and the elimination of the mysterious curtain of secrecy that

normally surrounds the highest echelons of international diplomacy. He is given a keen analysis of the mental process that is the real force behind International Communism. He becomes attuned to the vital issues at stake; he grows open and receptive to any suggestion that will at least point in the direction of permanent peace and survival of the dignity of man. He expects to see a strategic plan for preservation of the four freedoms during his generation, and for all generations to come. But he is left without it.

It seems that the author, having attuned the reader to the present situation, could have planted, if only a seedling, an idea for permanent world stability. Instead, the author falls back to the very thing he so devastatingly criticized, by inference, throughout the preceding chapters—the lack of grand strategy in U.S. foreign policy.

After reading this book, one cannot help but think of questions like: What happens after we isolate the Soviet Union? Anarchy? What of the world economic interdependence? Can we afford to have the immense Eurasian appendix dangling in serene solitude? Surely such a state of affairs cannot last indefinitely. Is the lofty ideology of human dignity in the U.N. the only way open for that mass of humanity to join the democratic world society? Can they understand it? Can they live up to it? What percentage of their population could attend a truly free election and vote with understanding of issues involved, when, for centuries, they never had to think for themselves along the lines of self-government? How easily could they be stampeded again by a ruthless leader? How long can progressing humanity afford indecision and inaction in their respect?

If the book's indirect intent was only to stimulate thought along these lines, then the author attained his objective in admirable fashion. If it actually was to be, as the author states, merely a report of events, denuded of all secrecy with logical summation and limited deductions, then it is the first and only book that fulfills a crying need. When considered in this light, it should be a must on the reading list of every human sufficiently alive to have some interest in the destiny of his nation. The brilliantly condensed documentation and the logical presentation of true facts make it invaluable to the student of both international and national events. One cannot help feeling the need for just one more chapter, however, wherein the author,

who is so well trained in cold logic and objective thinking, could at least present a foundation, no matter how skeletonized, of a grand strategic plan for the survival of democracy.

Air University

A Communist Party in Action. An account of the Organization and Operations in France, by A. Rossi. Translated and edited with an Introduction by Willmoore Kendall (Yale University Press, $4.00), pp. xxiv, 301.

Reviewed by
Professor Henry W. Ehrmann

IN its original French edition Mr. Rossi's book is entitled *Physiology of French Communism.* In addition to being an essay in the natural history of communism the book offers a searching sociological analysis of the international communist movement, a probing psychology of the communist mind (in France and elsewhere), and a richly documented, detailed history of one particular phase of the French Communist Party.

The core of the book, written in 1942, is devoted to the consideration of not more than eighteen months of party history: from the Franco-German armistice in 1940 to the first German reverses in Russia. Yet that period is highly significant, since it permits watching the operations of the party under the impact of two decisive turns of the pary line. The Nazi-Soviet pact had made the French C.P. indifferent to the "imperialist" struggle between Germany and the Western powers, indeed solicitous of collaboration with the occupier of defeated France. The German attack on Soviet Russia turned the Communists into ardent French patriots, architects of a broad national "front" with Churchill and de Gaulle as its saints.

No new book, however well documented, was needed, it is true, to prove that the French and all communist parties are but sections of a "foreign national party," hence that their first allegiance is always to Soviet Russia. What the author succeeds in demonstrating is to what extent the apparent contradictions of communist tactics dissolve themselves when correctly viewed as differing expressions of the struggle for the increase of communist power. Totalitarian propaganda cannot be judged "in

terms of its intellectual content but in terms of effectiveness for demolition purposes" (p. 28). To demolish any possible competitor which might command popular sympathies remains the clear goal of communist activities in any situation. Once one has recognized the constant theme of the party, its strategy, operating as it does from a powerful basis (the Soviet Union), must be considered nothing short of brilliant, even where it has at times to overextend its lines.

Mr. Rossi does not underestimate the importance which the direct support lent by Russia plays in the successes of the Communist movement. But he stresses rightly that such successes cannot solely be explained by the influx of foreign gold and ideologies. For a Frenchman there must be a motivation suggested to him by his own experiences, reasons for dissatisfaction in the society he witnesses daily, before he will support a "foreign national party," and in the process of his support gradually lose the preception of what he is doing. The French Communist Party is ready to make arrows out of any wood that happens to be lying around, appealing successively or simultaneously to social unrest or to outraged national sentiment.

At this point Rossi's book turns into an illuminating description of what is sometimes loosely called French decadence, and what is in truth the inability of any group or set of ideas in modern France to provide the degree of unity needed to keep a nation together. Even more interesting for the American reader becomes the author's case study of what makes people into communists. Instead of indulging in easy generalizations the book investigates carefully communist appeal to the youth, the trade union membership, the rural population, the intellectual. Because of the prestige which intellectuals enjoy among the masses of the French people and because of their training in Cartesian thinking, so different from the irrational content of communist propaganda, the party has at all times faced its greatest challenge when trying to win over the intelligentsia. It has succeeded to an astonishing extent by presenting itself as the heir of the humanist traditions of the French Revolution of 1789 and by promising to the intellectual (as to all others) deliverance from impotent loneliness and fulfillment of dreams of personal power.

More than any other work available in English (with the exception perhaps of *The God that Failed*, New York, 1949, which could be considered as a useful supplement to Mr. Rossi's

volume) the book under review makes clear that world communism in our days cannot be compared with any other political movement. It is truly a militant church, ministering to certain deep-seated needs both of the masses and of their elites. Within captialism it operates, not unlike the early Christian communities, as a society-within-a-society "with its own values, its own hierarchy, its own structure, and its own mores . . . the true communist thinks of himself as already a citizen of another polity, as subordinated to its laws even as he awaits the time when he can impose them unto others" (p. 202). How the party hierarchy is recruited and trained, how the constant supervision of the membership is achieved, how the teachings of the "church" are steadily narrowed down to an ever more sterile dogmatism is illustrated, without any sensationalism, by the text of party instructions, questionnaires, and educational materials.

The most important lesson we might have to draw from all this concerns one of the basic assumptions of our policy in Western Europe. Are we not assuming somewhat too glibly that once we have helped the old continent along on the way to economic recovery, communist strength will recede automatically? But if communism has to be understood as a fighting faith, as a twentieth-century Islam, it cannot be combatted alone by raising the standard of living. It speaks well for the truly scientific methods used by Mr. Rossi that a book written eight years ago, at a moment when the shape of post-war politics was far from being discernible, provides both a correct analysis of the continuing function of communism and a thoughtful prescription of remedy.

Communism is described by Mr. Rossi as "a foreign growth within the body of the nation—a cancer, whose natural function is to destroy healthy tissue and undermine vitality" (p. 242). Yet the author does not believe that a democracy can win the fight for freedom by repaying the totalitarian enemy in its own coin. Such methods might for a moment seem to bring quicker results, but they also contain the risk of installing the enemy permanently in our midst and delivering our souls to him. That the government must see to it that the army, the police, and the courts remain free of Communist control, Mr. Rossi does not deny. But outside of what might be called the critical area of state power, he concludes, "the struggle against communism should have its center of gravity not in the state,

but in the nation itself, that is in its private citizen" (p. 259).

While Professor Kendall and his students at Yale University deserve credit for having made such a profound and provocative book available to the American reader, a word of criticism against the rendition into English cannot be spared. The French original is characterized by the fluency and clarity that distinguished Mr. Rossi's earlier books, especially his *Rise of Italian Fascism* (London 1938). Professor Kendall's translation, evidently in an endeavor to maintain reader interest, abounds in heavy-handed injections of which there is no trace in the original. (When the author simply quotes from a document, his translator makes him say: "I have in my files a leaflet . . ." etc., and that throughout the book.) What Professor Kendall calls "a somewhat abridged English translation" (p. v) becomes time and again a completely re-written version of the original. In a book destined to reach the American general reader, the omission of some of the author's references to the intellectual history of the European labor movement might well be justified. But there are several passages, especially in the important chapter on "The Building of Community" that have all but transformed Mr. Rossi's thoughts in order to present them in the lingo of one particular school of American political scientists.

University of Colorado

The German Catastrophe, by Friedrich Meinecke, translated by Sidney B. Fay (Harvard, $3), pp. 121.

Reviewed by
Major Kenneth F. Gantz

THE GERMAN CATASTROPHE is the professional opinion of the most distinguished of living German historians on what befell his countrymen. And to his professional diagnosis he has added his personal prescription for their return to health. He has been at once scholarly and experienced, and unwise. He has skillfully traced the sources and the tributaries of the disaster he wants his people to comprehend and the free peoples of the world to understand. But the age-alibi is there, leavening the product of his learning and experience—the familiar special pleading that Nazidom was not the real Germany. Somebody else did it!

Eighty-seven-year-old Professor Meinecke saw, as a boy, the political union and Prussianization of Germany under Bismarck. As a young man he saw the industrial and commercial expansion of Germany's industrial revolution. In middle age he saw the ruinous First World War and in old age the disgrace of the Hitler regime. Meanwhile, for forty years, from 1893 until the Nazis forced his resignation, he edited the *Historische Zeitschrift*, the leading journal of German scholars of history, and devoted a lifetime to teaching in various German universities, accumulating a vast knowledge of Prussian history and personal acquaintance with many of Germany's leaders, which he distilled into a profound understanding of national political and social development.

From the beginning, says this man so richly equipped to observe and evaluate the incredible national phenomena of recent Germany, from the beginning, he says, "I regarded Hitler's seizure of power as one of the very greatest misfortunes for Germany." Will anyone, he wonders, "ever fully understand the monstrous experiences which fell to our lot in the twelve years of the Third Reich?"

Those "experiences" proceeded ultimately, he reasons, from what he calls the two waves of our age: one surging up from the middle of the nineteenth century over the traditional culture of the world under the pressure of new masses of population, first toward democracy and then beyond to socialism and a millenium of human happiness, and a second mighty wave of nationalism, also nineteenth century born, that gathered its adherents not from the new industrial proletarian masses but from the newly enriched middle class and drove on to imperialism and international power.

In both Italy and Germany the attempts made at intermingling the nationalist and socialist waves were joined with the idea of giving solidarity to the combination by means of total control over state and individuals, free from any parliamentarian checkreins. The results, says Professor Meinecke, was a monstrous revolution. "A whole world of ideals, hitherto faithfully revered, was eclipsed by this authoritarian control—ideals not only liberal and humanitarian directed toward the individual's freedom and happiness, but also old Christian ideals in so far as they aimed at the welfare of the individual soul." And finally, capping catastrophe with debacle, under its own despotic exponent of this monstrous revolution Germany

(or according to Professor Meinecke, the National Socialist Party), although insufficiently provided with food and raw materials, took up the rash venture to become a world power and touched off the Second World War.

Professor Meinecke studies briefly but clearly the manifestations of the two great nineteenth century waves in the peculiar circumstances of the German nation, tinctured with such national currents as Goethean humanism and Prussian militarism, and their fatal intermingling under the scourge of a modern man of power, which was laid upon bourgeois-nationalist and proletarian-socialist alike. In the two decades before the First World War he finds the Bismarckian policy of blood and iron flourishing into an amoral nationalism heedless of any ethic of traditional morality or justice in international relations—a "prelude to Hitlerism." And, at the same time: "Nietzsche's superman, destroying the old tables of morality, guided like a mysterious seductive beacon an unfortunately not small part of the German youth, guided it forward into a wholly dark future which must be conquered."

Out of the conflict over war aims rose the dominant Fatherland Party in 1917, begotten by the Pan-German spirit of conquest upon the body of bourgeois nationalism. The politically dominant East German landowners and proponents of heavy industry were joined by many middle class elements beset with the vision of *Deutschland über alles* in a political instrument to trample under the more temperate war aims of the parties of the socialist working classes and ultimately preclude any readiness to make peace before the point of collapse. After that collapse in the autumn of 1918 and the attendant November revolution the elements that had joined together in the Fatherland Party, not wanting to admit their illusions about annexations of territory and their postponement of domestic reforms had led to disaster, fostered a stab-in-the-back legend to the effect that victory had been snatched from Germany by revolutionary disruption on the home front.

For Professor Meinecke the Fatherland Party and the stab-in-the-back legend represent the fatal turning point away from the democratic idea in the evolution of the German middle classes. To the bourgeois the Weimar Constitution of 1919 "appeared in the scornful light of the stab-in-the-back legend as the product of disloyalty to the nation, as an unheroic attitude of mind, and as the selfish exploitation of a defeat caused by

the treachery of the masses in their lust for power. Henceforth an open and a secret war was carried on against the Weimar Constitution by those elements which had coalesced in the Fatherland Party in 1917-18."

Against this backdrop came the consequences of defeat: the breaking-up of a giant army into penniless veterans, the shattering of civilian life by the paper money inflation, the forming of secret associations dreaming of a *Putsch* under the inspiration of Mussolini's successful nationalist revolution. Out of this turmoil came Adolf Hitler's enterprise, failing in 1923 but incubating in the ferment of social conditions until the German people were ready for him.

The development of the Germans into the "degenerate new-German people of Hitler's time" and the advent of Hitler to power Professor Meinecke ascribes to a number of circumstances and events. First was the psychological structure of our age, in which the reflective man has yielded to the doing-man, whose intellect sharply concentrates on the utilitarian but whose very suppression of the impulses of the spirit leads to their eruption in "a new one-sidedness that clutches about wildly and intemperately." Parallel was the development of mass Machiavellism, an ethic of national egoism, which gave proper blessing to the shifting of the psychological norm toward the irrational. "Whatever could be calculated and achieved technically, if it brought wealth and power, seemed justified—in fact, even morally justified, if it served the welfare of one's own country. . . . For the German people of the Third Reich there finally came to be no conflict between various ethical laws at all, but only the single law: 'Win power at any price!' " There was also the strong sympathy of the Reichswehr for the Hitler movement that promised a great army to the disinherited remnants of Prussian-German militarism. There was the terrible unemployment to shape despair into readiness for action in the hearts of the discontented. There were fighting aims at hand for the demogogue to stir the blood of his followers: the Versailles treaty, the economic crisis of the late twenties, and the Jewish question. There were the youth movements that associated themselves with the Hitler movement in blind search for ideals and action. Finally there was the chance fact of the old General Hindenburg in the Presidency, sympathetic with the Reichwehr's aspirations and weak in old age, whose illusions of a desperate state of the nation led him to

call Hitler unnecessarily to the Chancellorship.

It is Professor Meinecke's opinion that the "ruinous experiment of the Third Reich" might have been avoided, but since it was not avoided, he puts the question whether there was any aspect of value to it or any ideal worth survival among its offerings to Germans. He can find none: "Hitler . . . has left us only a complete heap of ruins." He does not grant him a championship against Bolshevism, so persistently claimed by Germans for themselves, being convinced that the crusade in the East was a mask for conquest and exploitation and "western democracy was still more hated by [Hitler] than was bolshevism." It was liberalism and democracy that Hitler ardently hated—and the idea associated with Christianity of an independent conscience adhering to moral law.

The odious philosophy and despicable conduct centering in Hitler did not, however, in Professor Meinecke's eyes, proceed basically from the German nature. Nor was the German nature exposed to the Nazi poison, does he believe, long enough to be endowed with its venom. He is convinced the German people can return to a better self from the shameful national character into which they were shaped by a "demonic personality" appearing in a "singular constellation of circumstances." For the Germans this return to a better self is also the road to survival.

Solution to their problem, Professor Meinecke tells his German readers, must begin in their recognition that occupation and rule by external foreign power was preceded by a period of inner foreign rule. So far as the victors try to eradicate National Socialist influences they must try to help them. But he cannot really stomach a second goal of the conquerors of his people, the eradication of German militarism.

> "For in Central Europe no nation without a sound conception of self-defense can in the long run live and maintain itself as a nation."

He can only split a hair to counsel the Germans to blame not themselves for military aggression that brought on them an enforced "radical break" with their military past but their leaders and their own acceptance of their leaders.

> "To be defenseless now does not mean that we shall always be defenseless. It is humiliating enough for us that when we may enjoy the rights of a free nation depends on the decision of foreign powers. Today, however, the anger over our humiliation should be turned primarily against those who are to blame for it, against the overweening pride of those who led us to the abyss, and against the lack of

judgment of those who subjected themselves to this leadership without any inner protest."

He can only exhort his dismembered nation to recall its former unity and strength and to purify its conception of national power as a prelude to winning some semblance of it back. He advises his people to accept the lot of their smaller Germanic neighbors, Sweden, Holland, and Switzerland, also fallen powers in Europe.

"We have therefore come into the position of these three peoples, of being like burnt-out craters of great power politics, and yet of feeling within ourselves the appeal to remain brave and capable of self-defense. These three peoples have also given evidence of an inner vitality in their whole cultural life. They do not suffer more, or more severely, than we under the problems of the modern age, when the spontaneous spiritual creative power of the individual has to struggle against the pressure of the masses and the flattening effects of technology. All three in recent generations have given us the most beautiful and peculiarly irreplaceable fruits of their poetry, science, and art. . . . No one of these three nations—Sweden, Holland, Switzerland—has forgotten the days in which it fought its battles. Each honors and loves its former heroes, even when today there is no place for heroism of the same kind. Such an existence as these three peoples live today is more for them than a kind old-age allotment apportioned to aged peasant parents. All the moral forces and energies of man find room for expression. Let us resolve to follow their example."

Therefore the real reestablishment of the German spirit must come about in the inner life, in religion and in culture—in finding the common Christian heritage of all religious groups in "belief in the holy fountain of good; respect for the eternal and the absolute. . . ; and recognition of a moral law derived from the Eternal and far above blood and race"—in intense heightening of inner existence through personal culture along the ways of Goethe's era. The reorganization of German society must give a high place to art, poetry, and science, for through true cultural refinement spiritual contact with the Western world can be restored.

". . . it has always been a fact that a specifically and genuinely German spiritual production has succeeded in having a universal Occidental effect. What is more German than Goethe's *Faust* and how powerfully has it cast its radiance upon the Occident! Whatever springs from the very special spirit of a particular people and is therefore inimitable is likely to make a successful universal appeal. This fact is not limited in its application only to the relation of the German to the Occidental spirit. It also illustrates a fundamental law of the Occidental cultural community in general. We just mention it, but it could be more thoroughly demonstrated than is possible here.

> What is more Italian than Raphael's Madonna della Sedia, and what a magic spell it casts at the same time on every sensitive cultured Occidental person! How deeply are Shakespeare's plays rooted in English soil, and yet how tremendously they have shaken and permeated the whole Occident! In order to exert a universal influence, spiritual possessions of this kind must always blossom forth naturally, uniquely, and organically out of any given folk spirit. They must originate free, spontaneous, purposeless, from the most inner creative impulse. So as soon as there stirs the vain purpose of demonstrating to the rest of the Occident the superiority of one's own folk spirit, imitating the racial madness of the Third Reich, its influence on the Occident is nil and other peoples reject it with scorn."

To my mind a great fault with Professor Meinecke's plea for Germany is his failure to feel German guilt as German guilt. Superficially he accepts disgrace and shame as deserved by his people. But between phrases he works assiduously to exculpate them and push their right to readmission to respectable circles.

But these Nazis—these bad boys who led the neighborhood kids into bad ways—were Germans too, and Germans as a whole accepted them as Germans. Does this man of immense learning—this man eminent among "good" Germans have nothing more to say finally on the score of German national guilt than *the Nazis did it and we were powerless?* Does he expect the weak accomplice to be condoned in his guilt because a stronger criminal than he actually pulled the trigger?

Rome, weakened by the corruptions of empire, fell under the feet of invading barbarians. But the Germans, a people in the vanguard of Western civilization, priding themselves on a *Kultur* of noble poetry and music, of precise learning and exact science, of iron self-discipline and, at the same time, *Gemutlichkeit*, fell of their own accord into a dismorality of morons. Worse than Vandals, who pillaged at the level of their tribal mores, these Germans, these supermenkind of *Kultur*, took after themselves and their brothers in the family of Western nations with the primitive bestiality and strutting, showoff seriousness of nasty children.

Yet I cannot see that Professor Meinecke's title *The German Castastrophe* really means to him more than precisely what it says—the catastrophe that befell the Germans—not the one that they, all Germans, brought upon themselves, and upon all the world. It is hard therefore to believe that Professor Meinecke's learning has brought him wisdom or his long years of living, understanding. As he ponders over the greatest moral

collapse in the history of nations, he is not appalled, he is disgraced—he is not contrite, he is humble—his people are not cast out of the kingdom, they are bowed down before victors.

It will take more than a recital of the noble phrases of Goethe, more than a reprofession of Christian principles to down a stench raised to endure a thousand years. It can take no less than long generations of right national living.

Headquarters, Air Uuiversity

Sykewar: Psychological Warfare Against Germany, D-Day to V-E Day, by Daniel Lerner (George W. Stewart, $6.50), pp. 463.

Reviewed by
Lt. Col. Richard Hirsch, USAR

SYKEWAR is an eminently readable work which fills a special niche in the expanding shelf of books dealing with a little known, but much discussed phase of warfare. Written by Dr. Daniel Lerner of the research staff of the Hoover Institute and Library of War, Revolution and Peace, it describes the means whereby coalition policy was transformed into action against the mind, and morale of the German enemy.

Dr. Lerner has added significant commentary to much of the data which has previously been published in official SHAEF history. His re-statement is especially welcome, since official histories are in short supply and in most cases are not available to the general reader. He makes an honest appraisal of the sykewar effort against Germany, and discusses in detail the making of policy and propaganda, the organization, personnel and personalities, the role of intelligence, and themes, techniques, and media. He admits that most of the estimates of sykewar effectiveness were, in the main, shrewd guesses. He pleads, as have others before and since, for clarification of vital issues on the level of national leadership, so that the United States can survive the competition for loyalties now in progress throughout the world.

There is an interesting foreword by Brigadier General Robert A. McClure, wartime commander of Psychological Warfare Division of SHAEF. With an eye to the future he recommends that all sykewarriors owe allegiance to a common commander

and not to several independent Government agencies as was the case in World War II.

For the reader who wishes to come to grips with the hard facts of what makes sykewar effective against a totalitarian enemy—no unimportant matter in our times—the supplementary essay by Richard H. S. Crossman, M. P., has much to commend itself. Crossman, who has been called the only "natural-born sykewarrior" on the Allied team during World War II, points out that psychological warfare is a weapon of offense, that to be effective it must be combined with actual military or diplomatic maneuver, and that it can never be used as a substitute for one or the other. This of course is small comfort to those who would rely on some magic use of words in order to avoid the hardship of development of basic military strength.

Although *Sykewar* will be of primary usefulness to those who wish to scrutinize the performance of a theater staff division in action against the enemy, the airman and general reader who seeks an answer to the who, why, and how of what makes psychological warfare tick will find valuable clues within its pages.

Few airmen, however, will agree with Dr. Lerner's re-statement of recommendations to the effect that "in future operations Sykewar should control a fleet of its own aircraft." That argument was settled long ago.

Washington, D. C.

BRIEFER COMMENT

Great Mistakes of the War, by Hanson W. Baldwin, pp. 114.

IN this short book, actually the compilation of two magazine articles, Mr. Baldwin advances some arguments as to why it is the United States finds itself in the paradox of having won the victory but lost the peace of the last World War. Mr. Baldwin admittedly limits his scope to large, overall strategic and political mistakes that he claims have had a direct bearing on our relations with the Communist world today, his theme is that our "political immaturity" led us to think in terms of immediate ends rather than in the "attainment of political objectives which win the peace." The book itself is an account of some far-reaching decisions that were based on expediency, and in criticizing them Mr. Baldwin challenges some of our most sacrosanct notions of what won the last war. The Normandy Beachhead, General MacArthur, the term "Unconditional Surrender," and the atomic bomb all reflect,

among others, neglect of the ultimate political consequences of the actions they represent. The results of such shortsightedness are, writes Mr. Baldwin, in great measure responsible for the political fiascos we have faced in Europe and Asia, the recovery of which we are only beginning to consider in earnest. The author does not hesitate to lay the blame where he feels it belongs, with the result that his book is provocative reading.

Harper $1.50

Reprieve from War, A Manual for Realists, by Lionel Gelber, pp. 196.

THIS book attempts to sum up the major issues of our time and fit them into their significant relationships. It traces the smoke of events to the forces that fired the relations between East and West and current conditions in the Western bloc and describes the backfires that must be set and fanned to gain reprieve from war. The basic reality of all politics, says Mr. Gelber, is a ceaseless contest of power, and he proceeds to show how this contest is working out today. In Germany, he indicts our postwar policy on the grounds that in the long run it will benefit the East rather than the West. The debacle of American policy in China he regards as the legacy of historic isolationism. He considers the effect on American and British policies of the reversal of the two countries' roles as world powers. He deals with the thorny questions of Japan and Southeast Asia. He weighs and ponders Britain's prospects, her economic and colonial problems, trends in India and Canada, and the wider meaning of the Palestine episode. He concludes his survey by submitting to the practical test such prospects for peace as world government, the Atlantic federal union, and movements towards European unity and the improvement of the United Nations.

Macmillan $3.00

Italy from Napoleon to Mussolini, by Rene Albrecht-Carrie, pp. 314.

WAS Fascism in Italy inevitable? It is Dr. Albrecht-Carrié's conclusion that, while not inevitable, it was a logical outcome of modern Italian history, a response to a dilemma, a taking over by default, opportunistically conditioned by the interaction of circumstances and personalities. From his preface: "Fascism-Nazism, and the war which they precipitated, were symptoms of a malady far more fundamental than the mere conquest for power of rival nations or groups of nations. The social maladjustments of which the Axis phenomenon was a manifestation were not cured by the war, for, if the military force of the German and Italian nations has been broken, the social dislocations which gave Fascism and Nazism their appeal, and which the war itself served to accentuate, have not been resolved.... In the postwar task of reorganizing the world, of finding a practicable remedy for its political and economic ills, we and the Russians offer incompatible solutions. Our own task is to prove workable a solution that will reconcile the conflict between freedom and organization. In this

attempt, rejecting the totalitarian solution of Russian Communism, we find that the forces and ideas which came to hold power in Germany and in Italy are still alive and in our very midst, however much disguised their presentation and parentage. . . . The purpose of this book is not to offer yet another blueprint for world organization, nor again to be a history in the ordinary sense of the word. It is rather to present an analysis and interpretation of certain forces and developments, the understanding of which is a necessary prerequisite to the organization of the future. Analysis and interpretation will be applied to Italy, used as as an illustration and case study of a wider phenomenon." A readable and worthwhile book.

Columbia University Press $4.25

The Government and Politics of China, by Ch'ien Tuan-sheng, pp. 526.

THIS is an authoritative work written from the inside by a professor of political science at Peking University who has also lectured on the subject at Harvard. Dr. Ch'ien's book deals with the government of China under the dictatorship of the Kuomintang (National Party), whose power has been destroyed by the Communists, but it will facilitate understanding of the Communist regime and Chinese politics. Although Dr. Ch'ien completed its writing in 1948, he thus offers more than history to his readers in 1950. Of particular interest are his studies of the structure of personal power by which Chiang Kai-shek maintained himself for over twenty years, the rise of the Chinese Communists to power, and the working-out of U. S. policy in China. There is also an analysis of the ancient Confucian principles, which are said to have governed more human beings than any other system ever devised.

Harvard University Press $7.50

Korea Today, by George M. McCune, pp. 372.

PROFESSOR McCUNE'S book proceeds from first-hand knowledge of his subject. He was born in Korea and lived there nearly half his life. He worked on Korean problems for the U. S. Government during the war, and as a State Department official in 1944-45 he assisted in shaping decisions at an important time in Korean history. A useful and authoritative background volume for the Korean war, *Korea Today* provides an analysis of the American and Russian military occupations, the efforts of the United Nations to deal with the problem of unification of the country, the political and economic policies followed in the northern and the southern regimes, and an appraisal of the U. S. program of economic and military aid to South Korea. There is an appendix of documents, tables, and bibliography.

Harvard University Press $3.50

East of the Iron Curtain, by Vernon Bartlett, pp. 212.

BRITISH Foreign Correspondent Vernon Bartlett presents an interesting glimpse into the political and social structure of Soviet satellite nations. His book, at

once timely and positive, reveals the delicate interrelationships that exist between over-all Soviet aims and attitudes and the individual nationalism of such satellite nations as Yugoslavia, Czechoslovakia, and Hungary. Though he is principally concerned with the feverish politics of the so-called "iron curtain" countries, he is also concerned with the reaction of the "satellite masses" to the problems of the Soviet brand of World Socialism. The significance of this "human factor" becomes apparent as Bartlett discusses the inherent weaknesses of the Soviet system. Optimistically he states that eventually the "indomitable spirit" of the satellite peoples "will prevent the ultimate success of a political machine designed to convert them into masses." The first hand evidence, gathered during his extensive travels inside "the curtain" supports, he believes, this hope.

Medill McBride & Company $2.75

The United States and Japan, by Edwin O. Reischauer, pp. 357, $4. The United States and the Near East (revised edition), by E. A. Speiser, pp. 283, $3.75.

TWO volumes in the worthwhile "American Foreign Policy Library," edited by Sumner Welles, which now includes similar treatments of Britain, the Caribbean, Russia, the northern republics of South America, China, and Scandinavia. Mr. Reischauer's work, which reads better than most books of its kind, treats as principal subjects the "problem" of Japan, its physical setting, the Japanese character, and the Occupation. Mr. Speiser deals with the geographic and cultural backgrounds of the Near East, recent events, and problems of the present and future. Suggested reading lists are appended to both volumes.

Harvard University Press

Natural Regions of the U. S. S. R., by L. S. Berg (translated from the Russian), pp. 436.

A DETAILED geographical description of the U. S. S. R. by a leading Soviet authority, the President of the All-Union Geographical Society of the U. S. S. R. Confined to physical geography, the work is concentrated on the natural regions and zones of the U. S. S. R., localities of which are described in great detail with reference to their general characteristics, climate, relief, soils, vegetation, and fauna. There are numerous maps and an exhaustive index. The translation has been edited by American specialists in the field.

Macmillan $10

The Aircraft Year Book for 1949, Official Publication of the Aircraft Industries Association of America, pp. 464.

THE thirty-first annual edition of this "encyclopedia" of aviation provides a fact book of characteristics and statistics and surveys the following subjects: the aviation industry, the Department of Defense, the Government and aviation, the airlines, light planes, planes in production, planes in use, engines in production, and new things in the air. There are also a day-by-day chronology of 1949, a chronology of U. S. aviation, biographical briefs, an aviation directory, a list of official

records, and a summary of statistics.

Lincoln Press $6

Annual Review of United Nations Affairs (1949), edited by Clyde Eagleton, pp. 322.

LECTURES and discussions at the Institute for Annual Review of United Nations Affairs established by New York University as part of its program of graduate studies. The lectures are mainly by officials of the U. N. and make up a comprehensive survey of the work of the U. N. during 1948, but the time lag incurred by holding the Institute in the following summer and by the mechanics of publication deprives this volume of other than historical interest for most readers.

New York University Press $5

Miscellaneous suggestions.

Roosevelt in Retrospect, A Profile in History, by John Gunther, pp. 410, Harper, $3.75.—Gunther is back in form after his relapse in his last book, *Behind the Curtain*. A research job by a competent researcher and reporter.

The Grand Alliance, by Winston S. Churchill, pp. 903, Houghton Mifflin, $6.—The third volume of Mr. Churchill's eloquent and moving history of the Second World War brings the story to the climactic days of Pearl Harbor. Of classic importance in the realm of history and the realm of letters.

Decision in Germany, by Gen. Lucius Clay, pp. 522, Doubleday, $4.50.—The account of the first four years of occupation rendered by the man who ran it.

I Was There, by Fleet Admiral William D. Leahy, pp. 527, Whittlesey House, $5.—The personal story of the Chief of Staff to Presidents Roosevelt and Truman based on his notes and diaries made at the time.

Pocket Encyclopedia of Atomic Energy, edited by Frank Gaynor, pp. 203, Philosophical Library (New York), $7.50.—Not pocket size and really a dictionary of concepts and terms in the field of nuclear physics and atomic energy useful for non-specialists.

Supersonic Aerodynamics, A Theoretical Introduction, by Edward R. C. Miles, pp. 255, McGraw-Hill, $4.—A textbook addressed primarily to senior and beginning graduate students in aeronautical engineering. Suitable for readers with some acquaintance with fluid dynamics. Develops in detail the mathematical concepts involved.

A Geography of Europe, by Jean Gottmann, pp. 688, Henry Holt, $5.—The best geography of post-war Europe for the general reader that we have seen. It is written by a Frenchman who has been a member of the Institute for Advanced Study at Princeton University. In addition to the physical description of Europe, he considers post-war problems, cultural, social, and economic matters, and historical causes, organizing some of his treatment by European "regions" rather than nations. Technical terms and statistics are at a minimum. A very useful and readable book.

Foreign Governments, The Dynamics of Politics Abroad, edited by Fritz Morstein Marx, pp. 713, Prentice-Hall, $6.35.—Eight specialists in comparative government present an advanced textbook in the political institutions of Western Europe, Central Europe, Russia, Latin America, and the Orient: traditions and historical influences, electoral pro-

cesses and party systems, administrative systems, control of industry and commerce, social services, and ideological backgrounds.

The Declaration of Independence and What It Means Today, by Edward Dumbauld, pp. 194, University of Oklahoma Press, $3.—A detailed commentary and historical interpretation of its subject. Each passage of the Declaration is treated separately, the reasons for its original inclusion explained, and interpretations through the years, by the Supreme Court, legislative bodies, historians, and others, discussed. Profusely and technically annotated, Dr. Dumbauld's book is for the serious student, but it also provides solid information for anyone who desires a fuller understanding of one of the great documents in world history.

Mathematics You Need, by Hausle, Braverman, Eisner, and Peters, pp. 376, Van Nostrand, $1.96.—A high school text but a workable review and handbook of useful principles and methods of geometry, algebra, and trigonometry for the person who has never learned or has forgotten his higher mathematics but has some need for more than arithmetic.

Books for the Army, by John Jamieson, pp. 335, Columbia University Press, $4.50.—Between 1941 and 1946 more than 225 million books were distributed to American soldiers all over the world. This book tells the story of how that quarter of a billion volumes got to the GI. Done in considerable detail, but worth a look-over by all officers concerned with personnel services.

Survival, The Salvage and Protection of Art in War, by James J. Rorimer and Gilbert Rabin, pp. 291, Abelard Press, $4.—The story of German looting of art and the effort to unearth the loot and preserve it from damage.

An Anatomy of American Politics, by Arthur Bernon Tourtellot, pp. 349, Bobbs Merrill, $3.—Mr. Tourtellot offers an extremely well-written book on a fascinating subject. His three principal concerns are political institutions, political experience, and political methods as they became manifest in American history and as they appear today. The subtitle is "Innovation versus Conservatism," and the author is definitely on the side of the innovators; but his discussion is not textbook analysis or dry as dust theorizing —it is a stimulating discussion of American partisan conflict, liberally enleavened with personalities and events.

The Story of Ernie Pyle, by Lee G. Miller, pp. 439, Viking, $3.95.—Written by Ernie Pyle's closest friend, this is a hero-worshipping biography that admirers of the wartime reporter will like.

My Retreat from Russia, by Vladimir Petrov, pp. 357, Yale University Press, $4.—Petrov, now instructor in Slavic languages and literatures at Yale, gives his first-hand account of the great forced migrations of the war. After six years' imprisonment in Siberia Petrov was released just as Hitler attacked Russia. He made his way with incredible difficulties across Asia to home in the Caucasus, only to learn that there was no home for a former political prisoner in Russia. He resumed his odyssey and retreated with the German armies by sleight-of-hand expediency until he reached Italy and finally the United States. Very good reading.

The Periodical Press

Walter Lippmann, "Breakup of the Two-Power World," Atlantic Monthly, April 1950, pp. 25-30.

MR. LIPPMANN suggests a new global policy for the United States in its struggle with Soviet Russia. His fundamental contention is that, contrary to the general opinion and prophecies of the past few years, the world is not moving toward a simple cleavage into two camps. According to Mr. Lippmann that belief is basically a Soviet article of faith, and, in this one respect at least, the Western World has mistakenly agreed with the Kremlin.

In the past few years, the author maintains, several events have occurred which clearly foreshadow refutation of the polarization of power theory. He mentions six: (1) the American monopoly of the atomic bomb ended sooner than was anticipated; (2) Mao Tse-tung has achieved preeminence in all of continental China by his communist revolution; (3) the British and Dutch empires in southern Asia have collapsed, giving rise to the independent states of India, Pakistan, and Indonesia; (4) chaos and civil war rage in Indo-China, Burma, and Malaya because the prestige and power of France and Great Britain have waned without effective substitution of native power and authority; (5) the defection of Tito from the Soviet bloc is strongly influencing similar trends in Poland, Czechoslovakia, Bulgaria and Hungary; and, (6) Germany is reviving as a European power. All these events indicate a very strong tendency on the part of the lesser power centers to look first to their own national interests. The common denominator of all six is that in each instance either the Soviet Union or the West lost control over a country or region.

It is by no means certain, says Mr. Lippmann, that either antagonist will gain by the other's losses. Russian possession of the atomic bomb has strongly reinforced this point. Since neither great power can offer protection in return for allegiance, the lesser powers will inevitably try to maintain a neutrality which offers them at least some chance of survival.

Mr. Lippmann urges that instead of attempting to contain the Soviet Union by building up a series of alliances which must inevitably disintegrate in the face of our inability to offer elementary protection, we should undermine the orbit of Soviet power by encouraging independence and neutrality. This he believes we can do. Although we can not force Japan, for instance, into alliance with us against the Soviet Union because we can not protect her from Russian atomic bombs, we can very effectively prevent her from joining the Soviet orbit. Russia is equally incapable of protecting Japan from American attack.—*L.B.A.*

John H. Herz, "Idealist Internationalism and the Security Dilemma," World Politics, January 1950, pp. 157-180.

PROFESSOR HERZ has written an excellent article on some of the basic problems of international relations. One of its outstanding virtues is its sound historical perspective.

Security has always been one of the central problems of human relations. Millennia ago it was the dilemma of the clan or tribe. Today it is the dilemma of nations. In general man has reacted in two ways to this dilemma: as a realist or an idealist. The realists are prone to be ultrapragmatic and even to consider desirable the natural tendency of nature, including man, to be influenced and controlled principally by power. They tend to brutalize human relationships, but they have a firm grasp of the facts and realities of human affairs in international relations. The idealists, although more humanitarian than the realists, run in the face of reality. In their blueprints for world peace they do not attempt to correlate the desirable with the possible. When they attempt to apply their theories to concrete situations, they are quickly embittered by the intransigence of mankind, who will not conform to their preconceived patterns. Thus they begin as Utopian idealists and, to overcome opposition in their own country, develop into dictatorial idealists. Finally, bowing before the inevitability of the power factor in international relations and the paramount necessity of national security, they cease to be dictatorial idealists and become merely dictatorial. Classic examples of this cycle are found in the French and Bolshevist revolutions.

Professor Herz envisages uniting the best features of realism and idealism into a synthesis which he calls "Realist Liberalism." The "realist" portion of the system would provide a healthy cognizance of political realities in order to prevent the "liberalism" from being merely visionary. Liberalism would include "all socialism that is not totalitarianism, all conservatism that is not authoritarianism or mere defense of some status quo. It is not pledged to any specific economic theory, nor to any particular theory of the 'best' form of government." His system of international political thought, the author believes, would provide for a clear realization of the "gladiatorial" nature of power politics, thus attempting to achieve only the "*realizable* ideal."

Especially praiseworthy is Professor Herz' sound historical exposition of the balance of power principle in channeling and controlling power politics in the past. The consequences of the present-day polarization of power that is vitiating the balance of power are disturbing. Professor Herz points out that the present situation can lead only to world hegemony by one or the other of the power agglomerates or "recede into diffusion and disintegration." The latter possibility is held by Mr. Walter Lippmann to be in progress at the present time.*—*L.B.A.*

Emanuel Sarkisyanz, "Communism and the Asiatic Mind," The Yale Review, Spring 1950, pp. 491-510.

IN THE ISLAMIC, HINDU, AND LAMAIST RELIGIONS the author finds far more elements akin to Communism than to democracy. In Confucianism, too, he discovers "elements which make it responsive to the Communist ideology." The Communists have capitalized on this appeal. From the issuance of the Manifesto to the Orient in 1917 until 1927 they exercised tremendous influence among Asia's people. Working through the different oriental nationalities within the U.S.S.R., they seized every opportunity

*See foregoing review of "Breakup of the Two-Power World," **Atlantic Monthly**, April 1950.

to undermine the relations between the nations of the West and the peoples, subject or otherwise, in the East. But in 1927 when the U.S.S.R. decided to concentrate on "Socialism in One Country," her influence began to decline in the East. It was no longer possible for her to pose effectively as the champion of oriental faiths, because of religious persecutions within her own boundaries. The rise of nationalism in Asia also has weakened her moral leadership among the former subject peoples. It is the author's conclusion that although the national prestige of the Soviet Union has not been diminished in Asia, the ideological appeal of communism definitely is not what it was two or more decades ago.

Gale W. McGee, "Using the Past to Move Forward," The American Scholar, Spring 1950, pp. 204-210.

THIS SURVEY was conceived as a rebuttal to Professor Lawrence Sears' article, "American Foreign Policy and Its Consequences: Walking Backward into the Future," which appeared in the Autumn, 1949, issue of the same publication, but Dr. McGee has extended his original purpose to produce "a positive statement in behalf" of United States foreign policy. The result merits approval.

Dr. McGee surveys the problems confronting the United States as a result of the changes in the family of nations wrought by World War II. Foremost is the unresolved conflict between the United States and the Soviet Union. As early as Yalta, said Secretary of State Byrnes, President Roosevelt "had come to doubt the feasibility of continued cooperation." But in the postwar period the American nation still gave multiplied evidences of a desire to continue cooperation. Among the examples were (1) cutting the strength of the armed forces from twelve millions to little more than a million, (2) offering a forty-year military alliance and a tender of Marshall Plan aid to the U.S.S.R., and (3) proposing international inspection of U.S. atomic energy development. In the face of these actions, Dr. McGee wonders why the Russians should have felt "insecure"—a condition described by Professor Sears as the result of confused American foreign policy.

The author's analysis of Soviet intentions contains nothing new, but such repetitions can not be made too often. Citing Alexander Kerensky, he urges the American people to distinguish between Soviet strategy and tactics: The strategy never changes, but tactics are varied to fit the particular situation. Diverse tactical positions are intended to obscure and to confuse, but Dr. McGee notes at least one opposite result—"the recognition by our diplomats of the folly of attaching any importance to Soviet declarations of a desire for peace or of a wish to return to the wartime policy of cooperation."

Hanson W. Baldwin, "Strategy for Two Atomic Worlds," Foreign Affairs, April 1950, pp. 386-97.

THE NAKED REALITY of the atomic armament race, Mr. Hanson Baldwin insists, finds the American people "in a mood, part fatalistic, part complacent." Remaining quite vulnerable to the existing threat of Soviet military might, the undefended cities, undispersed industry, and concen-

trated populace of the United States bear ample testimony to the fact that "the lessons of the past have been ignored as well as the threats of the future." The horror of Hiroshima and the spectre of a future atomic war have become topics for disinteresting headlines rather than for strong resolution in facing the realities of a shrinking world already engaged in a just-short-of-shooting war.

The U.S. fighting services, of necessity, have made some adjustment to the realities of a globe in which two powers possess A-Bombs. The demoralization of over-rapid demobilization after the last war was finally overcome, but it has been replaced by sharp problems of "unification." The American lead in atomic weapons provides no justification for delaying the creation of an effective and rapid mobilization scheme or for reducing the handicaps of political competition among the respective military branches. The reduction of America's armed strength, quantitatively and particularly qualitatively with regard to war-effectiveness, is a perilous picture in the somber light of Russia's military efforts.

The author believes that the atomic bomb and the long-range bomber have created a "kind of Maginot Line in the American mind." Contiguous Soviet expansion into Western Europe may have been prevented in the first years of the cold war by the diplomatic use of American air power, but this concept is now obsolete—"it died the day we signed the Atlantic Pact, and the Russian atomic explosion was the nail in its coffin." Granting the necessary existence of a bombardment force-in-being for instant and devastating retaliation attack in the event of hostilities, the United States is now obligated to assist Western Europe in institutionalizing *the* vital essential for realistic security—air superiority. Russia's atomic air power also provides the assumption that precise bombing with conventional explosives may be the only economic technique for strategic aerial action.

In a new military policy Mr. Baldwin recommends: (1) the reconstruction of our tactical air power, particularly for air-land functions both within the U.S. and the Atlantic Pact military organizations; (2) the gradual reconstruction of small but highly-trained and well-equipped ground forces for mobile defense, emphasizing air support, fire power, and armor; (3) the maintenance of overwhelming naval superiority of the Western Powers; and (4) the buttressing of the American home front by decentralizing our industry, making blueprint for disaster planning and passive civilian defense, and increasing the efficiency of our intelligence services.—*E.M.E.*

Vernon Bartlett, "The Revolt Against the Giants: I. USSR: The Fallen Idol," United Nations World Magazine, April 1950, pp. 11-14; and G. A. Borgese, "The Revolt Against the Giants: II. USA: Eagle or Ostrich?" ibid., May 1950, pp. 15-18.

THESE TWO ARTICLES examine one of the vital questions of our day: What is happening to turn much of the world against both the communism of the Soviets and the free enterprise of the United States? The violent political and moral revulsion against the implacable dogmatism of the Soviets and the growing misunderstanding and fear of the United States

in its new role of world leader bid fair to plunge the world into further confusion.

Vernon Bartlett, veteran diplomatic correspondent of the London *News Chronicle*, leads off with a discussion of the appeals the Communist revolution of 1917 made to the intellectuals and the proletariat of all nations. However, he says, after the death of Lenin in 1924 the early promise of Communism in Russia began to disappear—"the rot had set in." The process of disillusionment went on in the Thirties but the Depression turned many other persons toward communism in the United States and Europe. The Spanish Civil War marked the high point of international liberalism; but the brains behind the Loyalist cause were Communists, and their conduct in the later years of that strife shattered many dreams of the world's liberals. The Ribbentrop-Molotov Pact of 1939 marked the beginning of the end; and the Soviet aggressions against Poland and Finland were unforgivable in the eyes of those who had, up to that time, been sympathetic to the Communist ideals.

From that date on it was clear that Soviet Russia had become "an imperialist power, interested in talking about equality only because it was useful as propaganda." Hitler's attack on Russia gave the globe its last chance of "one world," but the distrusts on both sides were too great to be overcome, even in the united fight against Germany and Japan. "We asked too much of human nature when we expected the people of any one country to live for years on end at a pitch of revolutionary exaltation. It is because the Russian Revolution aroused such wide hopes that its corruption and decay cause today such deep bitterness."

Professor Borgese, a pre-war leader of Italian thought and now a member of the faculty of the University of Chicago, begins his article with the statement: "The basic dilemma the U.S. proposes to Europe is 'either capitalism or communism.' The fact is however, that the alternative has no commanding authority on the European mind." The European, Borgese says, thinks that classical communism and classical capitalism "are romantic bygones, both to a greater or lesser degree, reactionary urges."

Were the dilemma stated as either freedom or tyranny, it would have more pertinence for the Europe of today. The enduring difficulty is the insistence of American statesmanship and propaganda upon identification of political freedom with free enterprise. According to Borgese, there is no shred of evidence, past or present, to support this identification. The Americans are making a purely economic interpretation of history when they support it, and that is nothing more than a modern-day development of the Marxism the United States so violently opposes.

Europe does not enjoy being the vortex of this conflict between the Soviet interpretation of history and the American one. Western Union emphasizes to Europe its position in the middle of the fight. "The transatlantic ally [of the United States] is cynical or desperate enough to condense this picture into a scenario where America does the killing and Europe does the dying." It is essential, if the United States is to turn distrust into support that American policy clearly state the alternatives as "freedom vs. tyranny," and not as "capitalism vs. communism." Europe will not long rally to a cause which denominates socialism and liberalism as akin to communism. As much as the Europeans hate

and oppose Soviet Communism, Europe is already shying away from the United States because of this confusion in American policy. If Europe "could think of her survival and revival in terms of world union, her motion might hasten the day for the faith and will of America, which are far from extinct, to break through this crust of anger and fear into creative leadership.

These articles state the problem cogently. Professor Borgese comes closer to suggesting a remedy, since his thesis is one on which the United States can take action. The Soviets appear determined to destroy any remaining vestiges of the "intellectual communism" of the Twenties and Thirties. And the appeal of communism to the working classes of the world no longer outweighs the knowledge of labor camps, deportations, and the continued low standard of living under the glorious Communist revolution. Europe will not embrace Communism willingly. But will it accept American leadership of the sort that is being offered? These articles say, "No."—*H.P.G.*

"Whither American Power?" American Perspective, Winter 1950, pp. 5-43.

Six Essays make up this symposium in a mid-century evaluation of the sources and directions of American power. The fact that, of all the nations of the free world, the United States has reached a pinnacle of power that makes it at once the envy and the hope of modern civilization forms their common basis.

Hans J. Morgenthau, political scientist at the University of Chicago, opens the discussion with "The Pathology of Power." He asserts that great national power is a challenge to friend and to foe. American power, he says, is now considered in Western Europe, with the threat of Soviet aggression close by, as the lesser of two evils. In Asia, not so. There American power is looked upon as the greater danger. America, therefore, must learn to explain its intentions and shape its power wisely to win friends and keep them everywhere in the world.

"The American Alternatives," by Mulford Q. Sibley, political scientist at the University of Minnesota, points out that two possible developments may come in the next generation. Either there will be a consolidation of the world in a system of two imperialisms, with a balance of power between the United States and the U.S.S.R. for twenty years, or there may come a military conflict between the two great power centers, with a probable American victory in the end. The first is more likely, he says, although it might give way to the second, with an increasing improbability of victory for the American side.

Jean-Marie Domenach, Editor of *L'Esprit* (Paris), who writes on "American Power: A French View," sees a gloomy future for American power if American policy continues to support reactionary elements in Europe and elsewhere in its effort to counter Communism. "Today, everywhere outside the United States, *the American supported Western bourgeois is being outclassed by the Soviet partisans.*" M. Domenach supplies the italics for emphasis. The people of Europe do not associate tangible realities with American ideology, and America continues to support "parties" made up of classes on the decline in the social and political life of the many countries in the show of Communism. Only by

seeking the support of the healthy elements of a free world and associating them with its efforts to combat Communism can the United States hope to maintain its powerful position and exert its strength for good.

George Catlin, one of England's leading political theorists who is well acquainted with the United States, writes "American Power: A British View." He poses a paradox at the outset. The cardinal weaknesses in American power are twofold: Americans are too democratic and not democratic enough. "America," he says, "must have a positive policy of ideas, with something of the flame of the secular Islam." What is needed, he believes, is a restatement of Jeffersonianism to rally the free world to the cause of human rights and freedom. Ideas and not dollars alone are necessary to achieve this. Even in the face of terrible dangers men and nations can not be bought. They must be enlisted in the fight because they believe in the ideals which America professes.

In "American Power: The Domestic Sources," the historian, Richard Hofstadter, of Columbia University, examines the change which has taken place in the principles and operations of nineteenth-century American democracy. Most of those principles, he finds, have been undermined by the developments of the three score years since 1890. Looking ahead, he sees a "kind of interim period of grace which may give the liberal intelligence of our time its last opportunity to find a way out of the 20th century crisis."

Hajo Holborn, Yale historian, concludes the symposium with an essay on "Power and the Free Society." He makes a historical comparison between the United States of today and Rome after the conquest of Greece and the annihilation of Carthage just short of 2200 years ago. Where Rome eventually failed, Holborn believes that the United States may succeed if it has the strength and the vision to carry out two supreme political tasks. These are, first, to secure the continued existence of a free society in the United States itself and, second, to build a world where free societies can live in peace. However he adds, "We have not shown a great capacity to distinguish between the ends and means of a free society." Until we can develop this ability, the likelihood of America's survival as a power remains unpredictable.

As in all symposia, the individual papers vary in aptness and clarity. However these six articles read as an entity provide challenging material for one who seeks to answer the question posed by the title. American power, the symposium seems to say, is a recognized fact. It places a tremendous responsibility upon the United States in a time when the future of mankind is in the balance. Can America use this newly acquired power for the good of all who believe in the dignity and worth of the individual? The six essayists provide some answers to this perplexing question. But mainly they set the scene for further discussion.—*H.P.G.*

Asher Lee, "Planning Western Air Power," The Nineteenth Century and After, April 1950, pp. 235-240.

MR. LEE leans heavily on the experiences of World War II. Two lessons from this war which he emphasizes are the requirement for air superiority in the conduct of military operations and the desirability of all-around training rather than specialized training. He fails, however, to relate those

lessons to our present-day problem. He does not discuss them in the light of mass destructive weapons, a part of Western air power.

In treating with strategy for war with the Soviet Union, Mr. Lee recognizes the vastly superior land forces of the Red Army on the European continent. In the face of this superiority he feels Western strategy must concentrate on immobilizing Red Army movements by rail and road. Western nations must slow up the Red Army's blitzkrieg on the Rhine. He emphasizes that all air squadrons must join in the job of immobilizing enemy movements. Whether or not the containment of the Red Army on the Rhine will satisfy the national objectives of Western nations, he does not discuss.

Mr. Lee also pleads for service unity. He feels that integration of Army, Navy, and Air Forces will strengthen the military forces of the Western nations and assist the planning of Western air power.

Readers who are expecting a discussion of air power in terms of latest weapons will be disappointed. Mr. Lee is more concerned with lessons of World War II than with the application of these lessons to our present problems.—*D.W.S.*

Lt. Col. W. R. Kintner, "Political Limitations of Air Power," U.S. Naval Institute Proceedings, March 1950, pp. 249-55.

Colonel Kintner founds his argument upon the limited assumption that the atomic bomb is a substitute for rather than one instrument of air power. He contends that American foreign policy has seriously "cut the heart" out of its fundamental military goal—the prevention of the outbreak of an atomic war—by underwriting American statecraft with the "immoral" and "indiscriminate" destructive potentialities of atomic air power should World War III become an unhappy reality.

One objective contribution of this article is the author's thesis that the United States "cannot risk a military policy which will drive potential allies into neutrality or hostility." While it can safely be assumed that air power cannot precisely serve as a substitute for all forms of military power, the diplomatic implications of American air power involve delicate political questions regarding the retention of military allies and the influencing of potential enemies. Foremost among these questions today is the implementation of the North Atlantic Pact to achieve a common defense-in-being for each and all of the signatory nations, as well as a realistic likelihood of victory should this coalition be tested. Equally as important from a political point of view, the implementation of the Atlantic Pact must inspire a moral confidence in Western Europe for the military effectiveness of the actual defense scheme. Believing that the advocates of air power primarily favor a "superblitz" of an aggressor's heartland, the author argues that this strategy, if predominant, provides Western Europe with an impossible price for American support—it must either become involved in the "terrible destruction" of an atomic war between East and West, or it must bear the brunt of a Red Army assault which atomic air power cannot stem alone.

Unfortunately the subjective nature of this article fails to narrow areas of controversy or to broaden areas of agreement among diverse schools of strategic thought. Unilateral disarmament or adherence to the "rules"

of restricted warfare by the United States and its allies will neither further the cause of peace nor provide a sound basis for the prosecution of an admittedly distasteful war. Peace at any cost, as well as peace through strength alone, is morally unscrupulous, politically inconsistent, and could perhaps be suicidal.—E. M. E.

"The Hydrogen Bomb," Scientific American, March 1950, pp. 11-15, April 1950, pp. 18-23, May 1950, pp. 11-15.

THESE ARE THE FIRST THREE of a series of articles in the *Scientific American* discussing the physical, strategic, and moral aspects of the hydrogen bomb. In the first article Louis N. Ridenour, Dean of the Graduate College of the University of Illinois, discusses the nature of the decision to proceed with the bomb and also provides a general introduction to the physical and strategic problems. The second article by Hans A. Bethe, chief of the theoretical physics division at the Los Alamos Scientific Laboratory from 1943 to 1946 and now Professor of Physics at Cornell University, provides a technical analysis of the weapon and proposes a first step toward its control. In the third article Robert F. Bacher, a member of the Atomic Energy Commission from 1946 to 1949 and now Professor of Physics at the California Institute of Technology, considers whether the hydrogen bomb can possibly improve our military security.

From the standpoint of its military effectiveness if used by the United States, there seems to be little reason to attach such great significance to the hydrogen bomb. Dean Ridenour examines the relative destructive force of the atomic fission bomb and of the hydrogen fusion bomb and considers the relative neutron cost of each. He then considers potential targets and concludes that there are only two good hydrogen bomb targets in the USSR. There are many such targets in the United States. Russia could probably deliver hydrogen bombs to targets in the United States easier than we could get even the simpler atomic fission bomb to targets in the USSR. In proceeding with hydrogen bomb research the United States is attempting to produce a weapon uniquely suitable for destroying the great cities around which our own economy and civilization are built.

The average citizen is so ill informed that he thinks the hydrogen bomb can save the United States from attack. The tragedy is that the hydrogen bomb will not save us and is not even a very good addition to our military potential, yet, according to Dean Ridenour, the decision to pro-

There is no adequate basis for concluding that Russia will be far behind ceed with its development was probably unavoidable.
the United States in research on the hydrogen bomb. The basic principles for its development are generally known to physicists; they have been freely published in Europe and are there the subject of general discussion. There are instances in which the American policy of secrecy has resulted in depriving our own citizens of information on the hydrogen bomb after this same information was general knowledge in Europe. Professor Bacher holds that this is contrary to the principles of a democracy. Decisions made on an authoritarian basis without the concurrence of an enlightened public opinion have been a fatal weakness of totalitarian governments.

The basic purpose of this series of articles is to clarify the hydrogen bomb discussion in order to permit a sound analysis of the problems. The

articles present a plea against deriving any false hopes that the United States can counter the Russian production of the atomic fission bomb by the development here of a hydrogen fusion bomb. Such false hopes could detract attention from the currently vital problem of national security, namely, the development of better means of delivering bombs. With the atomic fission bomb already available, the solution of the delivery problem by the United States is vastly more important than exactly what kind of bombs would be carried if they could be delivered.—*C.M.T.*

F. O. Miksche, "The Atlantic Pact and Germany," Military Review, March 1950, pp. 23-28.

IF MADE A LIVING PARTNER of the West rather than retained as a "neutral," Germany, Mr. Miksche submits, is the key for realistically achieving the basic objective of the Atlantic Pact—namely, security for Western Europe. Today, as most serious students realize, the Atlantic Pact is only a statement of worthwhile intentions far removed from actually providing the means of safeguarding its signatory nations from the might of the Red Army. Only by considering the rearming of Germany in the name of French defense would a Soviet invasion of France and the aerial bombardment of Britain appear improbable of attaining decisive results to policy makers in the Politburo. This noted military analyst rests his case on the ground that Stalin is aware that the defense of Western Europe is virtually impossible without including Germany and that Western strategy is resting upon the shifting sands provided by the Communist "fifth columns" within signatory nations of the Atlantic Pact.

Based on the military premise that the Soviet Army poses the most serious threat to the security of Western Europe, Miksche's thesis discounts any faith in a high degree of mechanization as well as in strategic air power for preventing the Red Army from reaching the English Channel and the Pyrenees. He submits that armed and "Atlanticized," Germany possesses an importance for continental defense far surpassing its historic liabilities. Wealthy in manpower and productive resources, Western Germany represents the most important base for stemming an invasion from the East, one which is already largely immunized against internal Communist defection.

Like Winston Churchill, Mr. Miksche is not unmindful of the fact that German rearmament appears to be a mixed blessing. He cogently insists that the traditional estrangement between France and Germany (similar in intensity to the historic Franco-British animosity diplomatically dissolved in 1904) has little justification in reality today. Matters of military defense and economic welfare, as well as the fostering of disorderly domestic conduct by the adherents of the Kremlin line, are no longer dissimilar problems presenting themselves for individual solution to the nations of Western Europe. Integrating military strength under the Atlantic plan with the establishment of the closest union between the principal Western European nations—England, France, and Germany—provides the only means by which a restoration of the balance of power in Europe, and, in turn, the realization of the objective of the Atlantic Pact, is possible of attainment.—*E. M. E.*

Carl J. Friedrich, "Military Government and Dictatorship," The Annals of the American Academy of Political and Social Science, January 1950, pp. 1-7.

THE PROBLEMS of American military government have aroused little interest between wars. By 1941 the experience of earlier wars was largely forgotten and war plans had no adequate military government annexes. The experiences of General Winfield Scott at Mexico City might well have served as a precedent for many of the procedures rediscovered under stress of combat conditions during World War II. Professor Friedrich's article is an introduction to a series of twenty papers dealing with military government during and after World War II. These papers are published in the hope that they will be a contribution toward the much-needed clarification of the issues military government presents. Contributors to the volume have been chosen for the special points of view which they brought to their work as military government officers or advisors, for their special experiences during the war, and for their continuing interest.

Professor Friedrich analyzes, in the introductory paper, the contrasts between totalitarian dictatorship and the military government of constitutional democracies. The role of coercion is so considerable in any occupation regime that military government has appeared to be more akin to dictatorship than to democracy. The difference is essentially one of the inherent dynamisms animating the two systems. A totalitarian dictatorship moves toward ever tighter and more comprehensive controls, with steady intensification of terroristic police activities. The military government of constitutional democracies continually relaxes these controls as it moves toward the establishment of a constitutional system. The constitutional dictator who is a military governor is appointed by a constitutional government he does not control; the exercise of his powers is expressly defined; and since he is subject to recall, his term may be said to be subject to a specified time limit. In the democratic and constitutional tradition, military government is the effort to help people achieve constitutional freedom by combating and defeating those who would deny this freedom to them. To do this by the temporary and strictly defined use of military force is the essence of constitutional dictatorship.—*C. M. T.*

Nathaniel Peffer, "China in the Long Haul," Harper's Magazine, April 1950, pp. 76-83.

NATHANIEL PEFFER, Professor of International Relations at Columbia University, attempts to determine how the Communists will come out in China. He asks three questions: (1) Can the Communists solve the age-long economic and political problems of China? (2) Can they make their communism palatable to the Chinese people? And (3) if these things can be done, will the Communists then make China a satellite of Russia?

In analyzing the first problem Mr. Peffer ascribes the fundamental difficulty to "too many people for the sustenance yielded by the land" and thinks that the Communists may possibly find a way out: first by introducing China to better fertilizers, insecticides, breeding stock, and seed; and second by industrialization of China. In respect to this second

half of the solution Mr. Peffer does not go into the difficult matter of how industrialization will produce more food, being content to assume that a large outlay of capital goods and the manufacture of non-eatable products will somehow solve the problem of "too many people," even though the process will admittedly increase the mouths to be fed.

On the second problem Mr Peffer is cautiously doubtful, since the Chinese have never "been given to dogmas, to rigid, abstract systems of thought."

And on the third problem, Mr. Peffer thinks there "has been a ludicrous amount of sensational melodrama," but believes that "much will depend upon how Russia acts." The thing to do, it seems, is to wait and see. —*W. A. H.*

John F. Cady, "Challenge in Southeast Asia," Far Eastern Survey, 8 February 1950, pp. 21-27.

PROFESSOR CADY of Ohio University, former chief of the State Department's research branch for south Asia, deals with the exceedingly complex problem of southeast Asia, where American policy is attempting to find means of halting the spread of Soviet-Communist influence. "The present threat to southeast Asia," he says, "has two aspects, one of them Chinese and the other Communist." The first one is of long standing, expressed today in strong anti-Chinese feelings shared by the politically articulate elements of every country in the area. This aspect could be used to oppose the southward extension of control by China, except for the importance of the other aspect. Communist propaganda and skill in political manipulation tend to neutralize the effects of anti-Chinese feelings and to focus attention upon revolution as the means of correcting social injustices, economic distress, and the "imperialism" of the Western powers. In consequence the ulterior Soviet desire to wreck the economies of non-Communist countries, both in the Western world and in the East, actually overshadows the Chinese threat, forcing the United States and allies to embark upon active participation in the economic and political life of southeast Asia.

Mr. Cady thinks there are five special conclusions relevant to the solution of the problem: (1) the Indo-China controversy should be worked out by negotiation; (2) the demands for radical economic and social reforms should be recognized as having a genuine basis in local grievances; (3) an American-sponsored program to revive commerce and production should be undertaken as a counter-measure to Soviet disruptive tactics; (4) an appeal should be made to the Communist regime in China for Chinese participation in developing mutually advantageous commercial relations; and (5) Western peoples should make a greater effort to learn the realities of the situation in the Orient.—*W. A. H.*

Periodical Press reviews are by Col. D. W. Saunders of the Air Command and Staff School faculty and by Mr. Littleton B. Atkinson, Dr. Eugene M. Emme, Dr. Hilton P. Goss, Dr. Woodford A. Heflin, Dr. R. Earl McClendon, Mr. Robert W. Schmidt, and Dr. Charles M. Thomas all of the Documentary Research Division, Air University Library.

AIR ANTHOLOGY

PAGES FROM A DIARY *

From the interviews and the squadron histories, from the source materials of One Damned Island after Another, *the daily life of the Seventh Air Force comes through the anecdotal style of its combat history.*

*Noumea, New Caledonia**
August, 1942

"To the boys flying the Solomons circuit, weather was the worst foe of all. Massive fronts, turbulent and unpredictable, would roll across the Coral Sea without warning, blotting out sky and water. These huge, black tumbleweeds of the air sometimes blacked out whole island chains. You were crazy if you tried to fly into them and you couldn't always fly around or over them. We tried every dodge possible, but sometimes it was no go.

"You'd try to climb over a front and maybe you'd get up to 20,000 feet and still the clouds would be piling up around you. Or you'd go down to sea level and try to hop the waves. But after you'd pushed in under the overcast for a little way your plane would start bobbing and twisting and you'd better damned well get out while you were able!

"You might try skirting the edges and fly a couple of hundred miles off course to get around the front, only to find that it stretched out beyond your range. The Japs never stopped us from making a mission, but the weather often did.

"In those storm heads a B-17 would be blown around like a leaf," he said. "A bomber, flying at 18,000 feet would be caught in a sudden down-draft and come out seconds later at

*Title, place names, and dates have been added by the Editor for presentation of the selections out of context in diary form.

2,000 feet, going like the devil and 180 degrees off course. We lost more planes to storms than to Zeroes."

Espiritu Santu
September, 1942

The *Blue Goose* had been asking for it. Conspicuous because of its brilliant blue paint job, it had always drawn more than its share of enemy fire and the skill and daring of the pilot and crew could not offset this self-imposed disadvantage indefinitely.

On the first run over the target, Lieutenant Joseph Todd's bombs failed to release, and Lieutenant Waskowitz turned for another run. As he came in over the target the second time, a direct hit from Jap ack-ack tore a wing from the B-17 and the *Blue Goose* fluttered into the sea, the entire crew lost.

It was a hard blow for the men of the 11th, for there were so few of them fighting it out together on these far Pacific islands that they all knew each other well and warmly. Also, the crew of the *Blue Goose* had stamped their presence on the consciousness of the other airmen on the very day of their arrival.

This crew had arrived at Santo while the pioneers were laboring under maddening hardships to keep planes in the air. The food was rough Army staples with no extras; the few tents were leaky; the flies and mosquitoes were unafraid and carnivorous. There wasn't even an imitation of a civilized community within hundreds of miles. Onto this bedraggled island stepped this brash new crew, and surveying the shabby tents bordering a tropical jungle, quipped: "Where's the USO?"

Funafuti
21 April 1943

It was a beautiful night on Funafuti. The moon was full. There were very few mosquitoes. Everything was dreamy and quiet. Then, at 3:30 in the morning, the warning siren sounded. At first softly, then in bleating rasps—the same siren that was to go with the Seventh Bomber Command through the Gilberts, the Marshalls and the Marianas.

The Japs were coming!

The moonlight was no longer a thing of beauty but something to fear. In it, the white stone church of the London

Missionary Society stood out like a radiant diamond, a bri liant aiming point for enemy bombardiers.

The airmen kept clear of the church, diving under anythin that offered shelter. There were a number of holes near th Bomber Command area, dug by the natives to plant cocoanu trees. They measured about five feet across, were about thre feet deep, and made adequate foxholes. There weren't nearl enough of them, and the rolling, diving men quickly fille them to overflowing, piling on top of each other like footba players on a line plunge. The natives chose the church, a plac which had always meant salvation to them.

Then the Japs struck. Their first run damaged the runwa and part of the command area, but it wasn't too severe.

* * * * *

The Japs roared away and brutally took their time as the rendezvoused and prepared for a second run. It was abou twenty minutes before they struck again.

This time, they were dead on the target. The native: clustered together in the church, were certain to be killed. . soldier, risking his life, darted from his place of safety an at the point of a gun drove them out into the cocoanut grove: He had just dispersed them when a bomb smashed into th church.

Many of the airmen had left their impromptu foxholes afte the first attack to help the wounded, and were caught in th clear when the second run started. Again they dove for th cocoanut tree holes, sprawling over each other. Three men i a foxhole near the one occupied by Captain McIlvaine wer wounded; McIlvaine was hit and Major Charles W. Marsalek who shared his shallow shelter, was fatally wounded.

Marsalek, an Intelligence Officer and former newspaperman had been a Navy officer during the last World War. He wa older than most of the men on Funafuti and so was one o the last to reach even the sketchy haven of a makeshift foxhole He jumped on top of McIlvaine just as a bomb exploded nearby McIlvaine felt the body of the man above him quiver spasmo dically.

As the planes passed out of sight, Marsalek said quietly "This feels like it, boys," and lapsed into unconsciousness He died next day while being flown to Samoa—a bomb frag ment embedded in his back.

In one foxhole, medical technicians found a dead man whose body showed no wounds; he had died from a heart attack. Many men suffered broken ear drums as a result of the concussion.

The Japs hung around for several hours, making perhaps five runs in all before finally quitting the target and heading for home, presumably Tarawa.

During the raid, men had sought any place that suggested safety. Six airmen, including Lieutenant John Schroeder, bombardier for Captain Leslie Scholar, crowded under the body of an old abandoned automobile. Lieutenant Ralph Ortiz, another bombardier (who was killed the following winter over Maloelap), hid at the end of a coral jetty being built out into the ocean. He couldn't swim and as the tide came in he had the choice of risking the Japs or drowning. The Japs went away by the time the water had reached his waist.

There were incidents of comedy. Captain McIlvaine, who had been sleeping in his shorts when the raid started, lost his clothes and ran around in his underwear until someone dug up an outfit for him. Others lost shoes and personal possessions.

The next morning, surveying the wreckage, General Hale asked a sergeant if he could help him in working on one of the planes. Without bothering to look down, the man answered, "You're damned tootin' you can. Get up here and help clear these guns." The General did.

The Marshalls
February, 1944

One Jap pushed off from Mille in a fishing boat and gave himself up to men on an American destroyer. While the Nip was tossing about in the little craft, an A-24, to show our good intentions, dropped him a packet of food.

On board the destroyer the Jap denied he had surrendered because of the leaflets. He declared that he was an intelligent man and had made up his mind on that score before the leaflets were dropped.

"Did you get the food we dropped you?" he was asked.

"Oh, yes," he answered. "And does that salmon stuff stink!"

"He says it stinks!" exclaimed one G.I. in an awed voice. "And that's the stuff we—uh—requisitioned for a change from those damned K rations! And here we've been thinking it was a special treat!"

The Marianas
Summer, 1944

"Water has had the highest priority. For the length of this long battle we have been waiting for rain. The dust has piled up in the roads and the wells and cisterns are running dry.

"Finally the rains came. For a couple of early morning hours the thirsty earth sucked in the water and a cool breeze blew across the plateau.

"Then, in the middle of the heaviest rain, the first two watering wagons seen on this island came up the road, flooding the mud that was already two inches deep.

"We don't know where they got the water. Here we haven't even been able to take showers or wash clothes. Still, they completed their watering project in the midst of a heavy rain.

"There is something grand about War!"

Saipan
August, 1944

Ingenuity, a sense of humor and a good knowledge of soldier psychology solved many problems. One of the most amusing had to do with the job of flooring tents of a Seventh AF squadron.

Captain Thomas E. Smith, squadron commanding officer, had managed to cadge a load of lumber for this purpose. Ordering the men to put in the floors, he knew, would bring on a siege of grumbling.

So he had the lumber unloaded at the edge of the area and atop the planks he put a sign: "Government Property."

Night came, and nights can be very dark in the Pacific.

Came the dawn and not a scrap of lumber remained. Even the "Government Property" sign was missing.

From the tents came sounds of sawing and hammering. The men were joyfully putting floors in their tents!

Over Iwo Jima
December, 1944

"I had just loosed my bombs when three flak bursts hit us," said Lieutenant Robert Bemiss, bombardier. "Our hydraulic system was knocked out, the gas lines punctured, and forty electric plugs were cut—making gun turrets and electric flying suits useless. Gas streamed out the fuel lines. One spark would have been the end of all of us on the plane.

"Overhead Jap fighters were dropping phosphorus bombs. One engine was knocked out and the supercharger on another was severely damaged but, fortunately for us, it didn't quit.

"All of us were working frantically plugging the fuel line leaks with pencils, whittled plugs from the tail section bannister, handkerchiefs and anything loose that would fit.

"But it was like trying to plug a sieve. Five hundred gallons of gasoline swamped the plane. Corporal Lyle E. Leber passed out from the fumes. Back in the tail gunner's position, Corporal Ralph King was drenched with gasoline but managed to breathe through the shrapnel holes in his plexiglass.

"Jap planes followed us for half an hour, but not knowing our condition, failed to attack. If they had, it would have been tough, for, with the plane flooded with gasoline, fear of sparks would have kept us from firing.

"We finally limped back and cranked down the landing gear by hand. Because we had no brakes, King attached two parachutes to his guns. Then, as we hit the runway, he yanked the ripcords.

"The jolt yanked out the guns and knocked King unconscious but it stopped the plane before we went off the strip."

Mindanao
March, 1945

The bombardier, Lieutenant James E. Smith, who cleared the *I'll Get By* when it was at the top of its loop, came down in a tree. He freed himself from his parachute, slid to the ground and found himself in the middle of a swamp where the vines, trees, logs and tangled undergrowth were so thick that he could never see more than five or six feet ahead of him. As he started to pick his way through the massed undergrowth, he heard a loud, raucous noise above him and, looking up, saw a bird about the size of a buzzard with a vivid red head. Smith saw more of the birds in trees around him; they did not follow him but they cried out loudly every time he took a step so that he was pursued through the jungle by their betraying voices.

Smith's worst ordeal was the leeches which hooked onto his face from the underside of leaves as he pushed through the jungle. He picked them out of the wound on his face caused when he struck a stanchion on the way out of the plane, but

there were so many of them, and they clung so tenaciously to the bleeding wound, that he finally gave up and let the things stay.

Smith wandered vaguely in the direction where the Intelligence officer who had briefed the mission in Angaur told the crew there was a guerilla Army headquarters. Two hours had passed when he heard something else moving through the jungle near him.

Risking capture, Smith called out "Hello!" A man staggered into view and Smith saw, with tremendous relief, that it was Staff Sergeant Foster Derr, nose gunner, who had gone out the forward hatch door after telling the pilot the plane was on fire. Derr had landed somewhere in the jungle and was wandering around hopelessly lost when, miraculously, his erratic path had crossed Smith's. They continued north together until it grew dark and then sat with their backs against the base of a tree. They spent a wakeful night fighting off clouds of mosquitoes and trying to close their ears and minds to the weird jungle noises. When they were most drowsy, they would be jerked awake by a shrill wail which sounded like the cry of a lost child. (Later, they were told the sound came from jungle frogs.) Several times during the night they thought they heard voices and people moving near them.

Anxious to put an end to the longest night of their lives, Smith and Derr started north again in the first grey light of dawn. They were hungry and their bodies were covered with insect bites. Their hands, torn and bleeding from clawing their way through the jungles, became infected and swollen. All that day, the men moved slowly north; their only food a single bite of a red jungle fruit about the size of an apple—which was promptly spat out because it was so bitter.

At dusk, Smith and Derr came upon a river and lay down on its bank to wait out the night. In the morning, they set out again, following the dark brown water as it moved slowly northward.

Sometime around noon, Derr, who had been walking ahead of Smith to protect his cut face from the tree branches, stopped and pointed ahead wordlessly. On the top of a hill which commanded the area Smith saw a small shack with a dozen men sitting around it. Smith and Derr crouched on the river bank trying to decide whether to approach the men or turn back into the jungle.

Suddenly something moved behind them and Smith, turning quickly, pulled out his .45. It was a small boy who stood on the river bank smiling at the two men. Completely disregarding Smith's gun, the boy walked up to him and said, "You wait here." Then he trotted up the hill toward the men sitting around the shack.

Smith and Derr wanted to run but knew they wouldn't last five minutes before they were found. Resigned to whatever was going to happen to them next, they stood close together on the river bank and watched the men come running down the hill with their rifles ready. As the men got closer, Smith and Derr saw that they wore floppy hats, ragged pants, torn shirts and had no shoes. Then, as the men came to within thirty yards of them, Derr grabbed Smith's arm and pointed at the gun carried by a man running a little ahead of the others.

It was an American Army rifle.

What followed is perhaps the most fantastic single incident of the extraordinary saga of the crew of the *I'll Get By*. Smith told the story later, repeating it over and over again in detail as though trying to make himself believe it really could have happened to two American airmen, trapped and lost deep in Japanese territory two hundred miles from the nearest Allied base at Leyte and four hundred miles across the sea from Angaur.

"One little guy came up ahead of the rest and looked us over," Smith said. "I noticed he was wearing homemade Sergeant's stripes. He had started to take my gun when his eyes fell on the Lieutenant's bars on my flight jacket. He stepped back from me and shouted something over his shoulder in Tagalog.

"The damnedest thing happened then. Those ragged little guys swung into line on the river bank. It happened quickly and effortlessly. One moment they were just milling around watching us; the next they were standing rigidly in a line so straight you could have swung a transit line down their top chest buttons—if they had had any buttons.

"Then this incredible little squad leader, who had been facing his men and watching them sternly, did an about face, shouted another order and there—in that God-forsaken jungle—those ragged, barefooted little men snapped to and presented arms."

Over Kyushu
10 June 1945

"You guys aren't going to believe me."

Stone had shot down two Zekes when he heard Captain Wolfe call out 50 enemy fighters. He climbed for altitude. But his induction system had been damaged on takeoff and he couldn't develop full power in the rarefied air. It was no go up there, but Stone saw a lone George far below that looked ripe for picking.

He was maneuvering to the attack when he discovered 25 Japs streaking down on his tail. There was nothing to do but run for it. Stone nosed down and went from 28,000 feet to the deck in one long screaming dive.

He pulled out ten feet off the bushes and streaked across country with two Japs on his tail, the rest of the pack strung out behind. Most of the time, the belly of his Thunderbolt was less than three feet off the ground. The two leading Japs were within 300 feet of his tail. Tracers whipped around Stone but he hadn't been hit.

A low hummock had appeared before him and Stone nosed up to hurdle it. Then he was flashing past startled Jap faces on the runway of Nittagahara Air Field. A twin-engine Betty just leaving the Jap strip loomed squarely in Stone's path.

He swerved left to avoid the Betty and at that moment became the 318th's fifth ace.

The blast of Stone's prop wash caught the two Japs behind him. They crashed together and, still together, plunged into the Betty.

"There was a hell of an explosion," Stone said. "The last time I looked back at the runway, it was covered with chunks of burning airplanes."

Editor's Notes . . .

THE FLYING SAUCERS are real and they are piloted by non-Earth men and the Air Force knows they are real, no matter about its public assertions to the contrary—says Frank Scully in his just published *Behind the Flying Saucers* (Henry Holt, $2.75). Mr. Scully says not only have many observations of the saucers in flight been authentic but four saucers have been found, three in the United States and one in the Sahara. Three of the saucers are in possession of the Air Force, he claims, which has dismantled them for examination. All contained bodies of men about forty inches tall, which dissection by the Air Force revealed to be in all respects but height perfectly normal human beings. The space saucers evidently travel at tremendous speeds along the magnetic lines of force existing around and between solar and stellar bodies such as Earth, Sun, and Venus. A round trip from Venus, the most likely home for the saucers, would require, he estimates, no more than forty-two minutes. The ships themselves are characterized as half a thousand years in advance of our science by their use of magnetic force, their instruments and controls, their food, and the materials of which they are made. Mr. Scully, who is a journalist writing for *Variety*, the journal of vaudeville, claims his information comes from prominent scientists, particularly one eminent in the field of magnetics, who have actually seen and worked on the saucers but who must remain anonymous for fear of Government persecution. For the meticulous reader his testament is therefore reduced a grade to hearsay.

The mass of ordered testimony that Mr. Scully has put together is, however, prevocative; in fact, it is fascinating. There is nothing scientifically really incredible about his statements concerning the saucers except one. All else *could* be true, anonymous witnesses or not. But the separate evolution on two planets of two species of men exactly alike is not credible. It is so far advanced toward the limit of probability as to be for all human belief, impossible. Men have not evolved exactly alike, even anatomically, on Earth. But, to say it again, this is a reporter's personal testament.

THE CONTRIBUTORS

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The QUARTERLY REVIEW offers a prize of twenty-five dollars for the best GUEST EDITORIAL submitted for each issue. Entries will be judged by the Editor and the Editorial Board, whose judgment of quality and suitability for publication will be final. Right to reject all entries is reserved. Closing dates for receipt of submissions are 1 December, 1 March, 1 June, and 1 September. All entries are considered offered for general publication in the REVIEW (non-winners used entire or in part will be awarded a year's subscription). Topics of timely concern to the Air Force or closely related to air power should be treated from a firm point of view in 800 to 1000 words. Mark entries for PRIZE EDITORIAL CONTEST.

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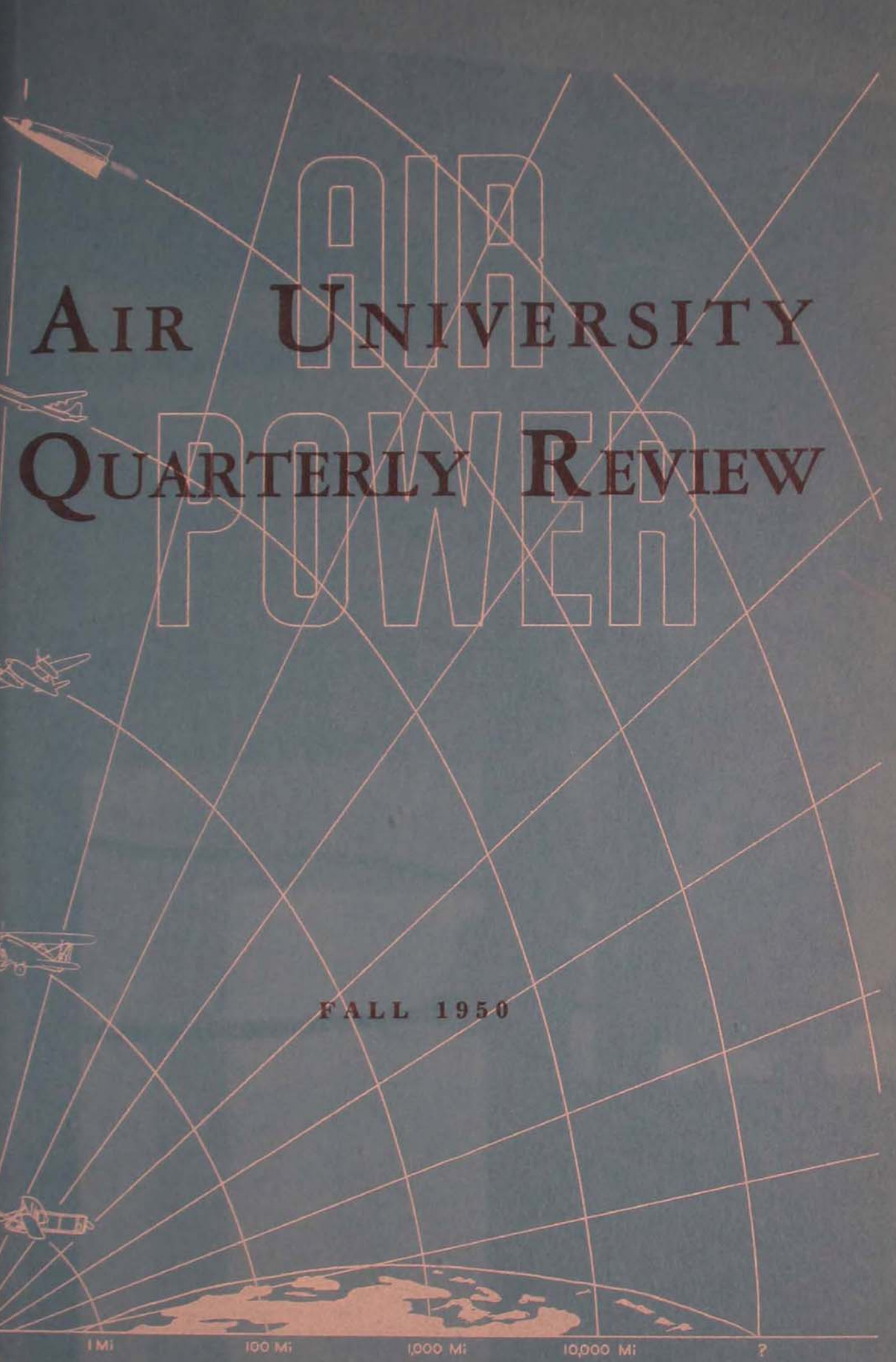

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