

A Full Re-study of Our National Defense Needed

By HANSON W. BALDWIN

The most important news last week—and not only last week, but the most important news since the Industrial Revolution—was not the collapse of Japan, not the end of the war, but the first use of atomic energy in history.

In a fraction of a second the atomic bomb that dropped on Hiroshima altered our traditional economic, political and military values. It capped a revolution in the technique of war that started in the first World War—with the development of gas, the tank and the plane—a revolution that now has swept many of our military ideas and instruments into the limbo of the past, and that forces immediate reconsideration of our entire national defense problem.

In stating the problem that now confronts us it is essential to avoid over-simplification or exaggeration. Atomic fission, although by far the greatest development of the war, is only one of many technological advances, each so startling as to warrant the description as "revolutionary." The bombs that were dropped on Hiroshima and Nagasaki were the first in history—and hence, surprise added immeasurably to their effects. Terrible damage was done to both cities but neither was completely destroyed. The radius of destruction of the atomic bomb—tremendous though it is—has a limit, and that radius seems to be somewhat cushioned and confined, or at least restricted, by hills and mountains. Bomb shelters very deep within the earth might withstand the blast.

A Re-Evaluation Necessary

The atomic bomb alone—as it is today—is not the sole agent, although it certainly is the principal one, that compels a complete re-evaluation of the principles and organizational procedures upon which our whole system of national defense is founded. There are other factors that also are compelling.

(1) The potential, rather than the present, military effectiveness of atomic fission. The bombs now used probably are a crude beginning, and we already have been told that future bombs will be far more destructive and powerful. As against this factor, however, must be set the certainty that surprise will not again be as great as at Hiroshima, and that defensive measures of some sort—even if only dispersion—will be the fundamental objective of every power.

(2) Rocket propulsion. The German V-2 stratosphere rockets, which bombarded London, could not be intercepted by any means now known. They traveled far faster than sound, and arced sixty to seventy miles into the air. The Germans were developing a transatlantic rocket when they surrendered, and in time, perhaps with the aid of atomic energy engines, transatlantic rockets will be developed. These rockets so far are inaccurate, but science has it within its present power to correct that inaccuracy. It does not yet have it within its power to stop the rockets, once launched. Other rocket developments have, in themselves, changed the art of war.

(3) Electronics. Radio and radar have made it possible for man to "see" far beyond his visual range, and to pull hidden "strings" that actuate planes, tanks, ships and so on by remote control. The science of navigation has been revolutionized by radar, and attack on a target, as for instance by a radar-

Technological Revision of Entire Set-Up Necessitated by Atomic, Other Weapons

controlled glide bomb, can be accurately accomplished by a man miles from the scene.

(4) Aerodynamics. The great development of the plane has made conventional terrain barriers—and even seas—of far less strategic importance than formerly. The jet engine, still encountering metallurgical and other difficulties in this country, opens a whole new science of reaction propulsion and introduces problems such as compressibility which, when solved, will enable planes to travel far faster than sound.

(5) Marine engineering. At the end of the war the Germans had developed a new type U-boat with a new chemical engine and streamlined hull which, equipped with the Schnorkel air intake tube, could remain under water at periscope depth for weeks continuously and had the phenomenal under water speed of twenty-one knots or faster.

Offensive Triumphs Again

These are only some of the developments that have so profoundly altered the art of war that familiar concepts and implements and tactics—new and radical though they seemed one or two years ago—now are obsolescent.

A trend that began in the first World War now has come to a climax—the offensive has triumphed over the defensive, perhaps not an ultimate triumph, but a smashing and conclusive one at least for the foreseeable future. Long-range rockets with atomic warheads now can span oceans and demolish cities overnight, and there is no present known way of preventing this.

But, lest the development of the rocket and the atomic bomb be oversimplified and classed as the ultimate victory of air power, it should at once be said that this is not true. It is rather the triumph of "push-button" war. Gen. H. H. Arnold has said that this may be the last war of the pilots, and that probably is true. For obviously there will be far less reason for the gigantic bomber tomorrow than there was yesterday. Pilotless planes and long range rockets, with atomic warheads, can do the mass bombardment hitherto accomplished only by gigantic fleets of giant bombers—probably the most expensive instruments of war known to man.

The introduction of the atomic bomb and companion developments in other fields therefore have changed completely our concept of air power, just as it has even more profoundly modified our concept of land armies and surface navies.

This does not necessarily mean that armed planes and surface forces henceforth will be useless—although it does mean that war fundamentally has become a battle between opposing factories and laboratories—a direct struggle to break the enemy's home front. It may mean that the total character of war, which we hitherto had thought had approached its ulti-

mate, will be even more total, and that all civilians may have to become soldiers.

It certainly means—change. Pilotless planes may well be useful for specialized purposes—precision bombing, reconnaissance, and most particularly as transports for airborne armies. Ships still will need surface warships for protection and submarines still will ply the under waters, as long as ships ply the seas at all. Land armies still will be needed to follow up, to occupy, to root out "subterranean man" from his caves and caverns, and to organize and govern.

But sea power, land power, air power must profoundly change in character and concept, for the first line of defense tomorrow will be the directors of "push-button war"—the men who fling gigantic missiles across the seas. Behind them as a second "boardman" wave, will come shorter-range more accurately controlled missiles, piloted planes, radar-controlled glide bombs and so on. Behind them may fly the airborne land armies—small but highly trained—to mop up and to occupy. But as far as we now can see—and at the moment the range of our military vision is veiled—conventional armies, navies and air forces as we now know them are obsolescent.

All these considerations cast grave doubts on what is known of the plans for our post-war national defense organization. Giant warships, mass armies, peacetime conscription and tremendous bomber fleets have lost some of their military meaning. Advanced bases, too, have less importance; transoceanic missiles can by-pass them. Terrain barriers and seas have smaller meaning; the very basis of some of our strategic assumptions of the past must be challenged.

New System Vitrally Needed

We must try to think in broad new terms, by yardsticks hitherto beyond the reach of man.

There will be grave danger, however, of resistance to this process. There will be demands for conventional planning; there will be strenuous efforts by the Army and the Navy—and the air forces of both services—to cling to the outmoded and the outworn; there will be the traditional military reluctance to depart from time-tested tactics and techniques. And there is danger that this resistance will hamper what must now have A-1 military priority—the development of a new and modern national defense system.

The great post-war military problems that confronted us before the atomic bomb was dropped still

are with us—the unified single department of defense; basic peacetime military training; size and composition of Army and Navy; functions of ground, sea and air forces; research and development and production. They still are problems, but they must be completely recast in the light of the technological revolution in war.

That reconsideration cannot be left to the armed services themselves, unless biased and uncoordinated planning—in no sense commensurate with the advance in warfare—is to result. Research—intensive research, to learn, for instance, how to control (if that be possible), and how to defend against, the atomic bomb—is vital for the security of the country and of the world. It must be coordinated research. But research must be conducted a study into the effects of the technological revolution upon all our national defense policies.

National Commission Urged

This is a big job for big minds, but it is the most important military job—perhaps the most important job—of the immediate post-war period. It should be undertaken by the leading citizens of the nation, organized in a commission, appointed by the President and/or the Congress. This commission should have technical advisers from the military services and other branches of Government, but it should be civilian in composition, impartial, objective and judicial.

It should have full access to the facts of the technological revolution in war. Its comprehensive studies should embrace all aspects of our post-war national defense problem and should correlate defense policies with foreign policies. Such a job is pressing and the creation of such a commission—or some other form of fact-finding body—one of the imperatives of the immediate future.

For such a study—made in the full light of the explosion at Hiroshima heard 'round the world—will do more than save us billions in defense costs and in wasted effort.

The secret of the atomic bomb will not always be ours alone. The Germans were ahead of us in pure research; our mass production in development and applied research, beat them. After V-E Day in Europe, a German cargo submarine, bound for Japan, which surrendered to our forces in the Atlantic, was found to have (among other things) a cargo of uranium aboard, and the meaning of that is clear, for U-235, the terrible explosive of the atomic bomb, is derived from uranium. The Russians also have able scientists. We shall not always have the atomic bomb to ourselves.

Such a re-study of our entire national defense program, therefore, is essential for the security of the nation, and to an efficient, modernized and economic national defense.



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