## Nuclear Weapons and Limited War

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SINCE THE DELIVERY OF ATOMIC WEAPONS ON HIROshima and Nagasaki a few days before the termination of WWII, the world has come to recognize the probable use of nuclear weapons in any general war, with a somewhat lesser appreciation of the immediate and long-term effects upon civilization as a whole. It is safe to say that knowledgeable people in every nation rightly construe an all-out nuclear war between the Communist powers and the free world as being destructive beyond real comprehension, a horror to be avoided if at all possible.

There is, however, little widespread knowledge of the application of nuclear firepower in limited war. In limited war relatively small-yield weapons can and should be used selectively in such a manner as to avoid the destruction of the countries or populations involved and still achieve military objectives at nominal cost. As a result of ignorance and in the absence of clear-cut tactical doctrine, the general feeling of horror engendered by the prospect of a world holocaust, which is reasonable, has been applied to any employment of nuclear weapons in limited war, which is unreasonable.

This confused thinking is not confined to the man in the street but is unfortunately shared by many men in scientific, governmental, and military circles. We in the Air Force have been remiss in our failure to explore fully the wide range and flexibility now available to us in the family of weapons and to enunciate clearly our doctrine for tactical application of these weapons in limited war. We cannot afford to lose friendly nations and territories to the USSR, Red China, or their satellites under any circumstances. It certainly would be inexcusable if we were to lose them simply because we failed to capitalize on our great potential strength through a basic lack of understanding or lack of imagination as to how to use the weapons we now have.

The purpose of this article is to demonstrate that not only can the intelligent use of nuclear firepower in limited war give us the greatest possible opportunity to win such wars at minimum cost to us and to the country we may be defending against aggression, but that it is highly probable that without the use of such weapons our chances of winning in many areas are slim indeed.

The teachings of the Communist ideology are well known to all readers, as well as the vast disparity between the pure manpower resources available to Soviet Russia, her satellites, and Red China on the one hand and to the organized free nations of the world on the other. In the application of this manpower in limited wars the Communist hegemony has the advantage of operating on interior lines and of being able to expend a great number of lives and a large commitment of currently obsolescent material without any sensible reduction of its over-all capacity to wage global war.

On the other hand the industrialized nations of the free world, in opposing aggression, must operate on exterior lines in most parts of the world and can ill afford heavy loss of life or heavy commitment of modern equipment without a reduction in the capability to wage global war. It follows, therefore, that if we are to prevent further Communist expansion at the expense

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of friendly or neutral nations we must find an economical method of waging successful limited war.

Classically a limited war might be defined as any armed conflict short of direct combat between the great powers. If we are to avoid generalities and clear up misunderstandings through a trank discussion of specifics, this definition needs further explanation.

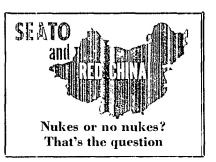
In the first place we must realize that both the USSR and the United States possess ample force to erase any small country as an effective sociological or industrial unit. It would be possible for their air forces to eliminate opposition within and bordering such a country by indiscriminate bombing with nuclear weapons of the sections held by the enemy. Such a defense of an ally obviously would not only be unattractive to that ally but would negate any political advantage to be gained by waging this kind of a limited war.

By extension, there is a very definite upper limit to the destruction of life and property that is consistent with the successful attainment of our objectives. While we cannot specify a general cutoff point at which the tactical advantages of further destruction would be outweighed by the political disadvantages, it is patent that there will be one. The achieving of tactical objectives

with a minimum application of force will be a serious factor in selecting targets and in determining tactics. These considerations are the very ones that have been used in the past as arguments against the employment of nuclear weapons in small wars. The considerations are real, the conclusions that have been drawn are invalid.

Whether armed resistance to Communist aggression by the US and its alles can in effect be limited to local

areas and not spread to global conflict depends not only upon the will of the combatants but upon geography and geopolitics. The nations in the European economy are alike enough in culture and interdependent enough economically (and in a sense politically) that it is difficult to visualize a limited war being fought in that area. But in the Far East a limited war has already been fought in Korea, and in Southeast Asia one has been fought in Indochina. In the Middle East actions taken by the US and Great Britain in Lebanon and Jordan might well have resulted in limited-war situations. In each of these examples neither of the chief antagonists desired global war, and in Korea and Indochina their wish to avoid it was strong enough to have permitted the tactical use of selected nuclear weapons without serious danger of all-out war, with peculiar and direct advantages accuring to the US, her allies, and the free world.



It is clear that nuclear weapons cannot be used haphazardly if we are to keep the war limited and avoid undue destruction to the friendly countries we are defending. Certain very clear-cut restrictions must be placed upon their use—restrictions in targets, in yields, and in character of bursts. The objectives of a limited war must be explicitly defined by higher authority and should include a restriction on strikes outside a delimited zone of hostilities. A limited aggression can be effectively countered under such conditions, and we should develop plans and concepts on this basis.

New criteria for the selection of appropriate targets for nuclear weapons in limited war need to be developed. These must admit a new class of targets, categorized as "situation-control" targets. Typical situation control would be the use of nuclear weapons to destroy forest cover and thus to deny the enemy concealment or passage. Another would be the closing of narrow gorges in mountains by causing extensive land slides. The commander on the spot must have the option of expending weapons in the zone of conflict within his allocated stockpile in accordance with his judgment of the situation, at the same time remaining within the explicit policy guidance concerning the acceptable cate-

> gories of targets and methods employment placed upon him by higher authority. Counter-air-force targets would of course be brought under attack within the designated confines of the conflict, but in most instances this would require careful selection of weapons and a high precision in delivery to obviate undue loss of life to the indigenous peoples.

> Figures given for various battles and campaigns indicate even to the

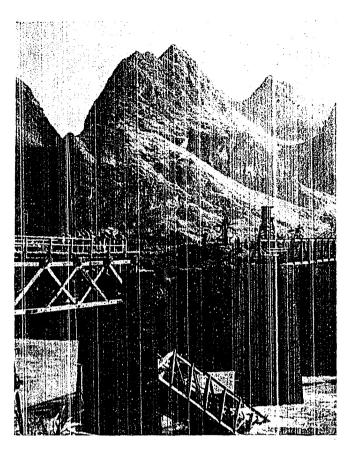
uninitiated the tremendous logistic effort required to support the air operations. The WWII examples were drawn from experience in fighting an all-out war against the Japanese The Korean war required a major effort on the part of the US, and it was a war we did not win.

In any future conflict with the Communist powers we must anticipate that logistics as well as political factors will be considered and that our antagonist will throw the greatest possible load upon the logistics system supporting our activities. It is easy to envision a number of places in the world, perhaps in Southeast Asia, where we would be forced to operate from the equivalent of bare strips. One can readily visualize the tremendous effort simply to supply fuel, oil, bombs, and ammunition if we were to fight such a war as that in Korea or such as any of the major engagements in the war against Japan, utilizing only napalm and high-explosive bombs and ammunition. Competent studies

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In Southeast Asia interdiction targets such as bridges would be rare. Our opponents will take advantage of vegetation. A small A-bomb like the one below will clear an area 8,000 feet in radius



clearly indicate that it would take a period of several days to be able to mount more than a double handful of sorties a day, considering only the provision of fuel. We really compound our logistic requirements if we must provide iron bombs and napalm tanks and jelly.

To be more specific, a single nominal-yield nuclear weapon, airburst, will clear an area of forest about 8,000 feet in radius. To achieve a similar effect with napalm would require 8,000 sorties of F-100 aircraft, each carrying four 120-gallon drop tanks. Not only would 32,000 tanks have to be transported to the operating base but 25 million pounds of napalm would also have to be provided, over and above 8,000 sorties' worth of fuel. In the Ipo Dam campaign the Fifth Fighter Command dropped just under 700 tons of napalm in two days of intensive operations. One atomic bomb of nominal yield with an airburst would have been more effective in destroying cover, would have left no lingering hazard, and, other than animals in the jungle and forest, would have killed only enemy troops.

## **Reds Fight Under Cover**

Nuclear weapons were not available to us WW11 except at the tag end of the war. Nor did our stockpile contain sizeable numbers and varieties of them during the Korean conflict. This situation does not obtain now, nor will it in the future. Furthermore, our assumed superiority over the Communist powers is qualitative, not quantitative. In any future limited conflict we must maximize our effectiveness and minimize the strain upon our economy. This can only be done through the intelligent application of nuclear firepower. That such firepower can be employed with no more—and perhaps with less—inhumanity than there was in wars of the past I hope to demonstrate in the following discussion of targets.

Geographical, geopolitical, economic, and cultural factors affect the likelihood of a Communist-instigated limited war. The geographical area we have chosen for a treatment of targeting considerations in limited war may be a no more likely one than many another. Because of the writer's familiarity with the terrain, and because of its relatively wide variety of land and vegetation forms, Southeast Asia has been selected as a hypothetical example to illustrate the application of nuclear firepower against a variety of situation-control targets. The basic principles would apply to any geographical area.

Communist forces have shown again and again that in both large-scale invasion operations and limited guerrilla activities they take maximum advantage of the concealment offered by forest cover. This was beautifully demonstrated in the war against French Indochina, where the Communists were able to assemble, to move, and to fight under cover so that the French forces were rarely able to see them or to estimate accurately their capabilities.

In Southeast Asia standard interdiction targets, including roads, bridges, railways, and rivers, will be few in number and low in value. In most cases the Communists will have the advantage of nearby vegetation cover for concealment. They have repeatedly demon-

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strated the capability to move under cover while minimizing their use of standard transportation routes and facilities. Air targets of the standard communicationscenter type will play a relatively minor role in Air Force limited-war operations in Southeast Asia.

The basic Air Forces operational problem in most limited-war tactical situations will be that of weapons delivery against an enemy who can almost always operate under vegetation cover of such density and extensiveness that detection and precision bombing are almost impossible. In addition to vegetation cover, areas of eroded limestone, karst areas, provide earth cover in the form of caves and extremely rugged terrain. Detection by aerial reconnaissance can generally be avoided by enemy forces. Air Force preplanning, in the sense of standard lists of fixed targets against an enemy in this environment, is next to impossible. Since standard communications-center and interdiction targetstargets that can be preplanned-will play a relatively minor role in limited war in Southeast Asia, this study is addressed to the special problem of "situation-control" targets.

The major targeting consideration will be that of providing for the delivery of nuclear weapons on areas involving enemy assembly, movement, and actual combat, where in most every situation he will be afforded the advantage of concealment. Very little targeting will be possible in terms of preplanning against fixed or pinpoint locations. Targets will usually be discernible and locatable only in terms of general areas in a fluid situation, even where pinpoint objectives are involved. Area saturation of such situation-control targets will be the rule, pinpoint or precision being required only in terms of safeguarding friendly troops and indigenous personnel.

Such targets will require continuing action on a combat necessity basis, where timeliness in weapons delivery is of overriding importance. Nuclear weapons are a critical requirement against such situation-control targets where political considerations permit their use. Timeliness requirements will usually be of such a nature and urgency that the proper or maximum degree of situation control can be effected only if the local commander can use nuclear weapons at his own discretion, as modified and controlled by the ground rules prescribed by competent authority.

Target analysis reveals that Southeast Asia presents generally eight categories of situation-control targets. The eight situations have been described as:

- rain forest
- valley route (rain, deciduous, or bamboo forest)

- mangrove forest
- bamboo grove
- karst area
- mountain defile
- close-contact siege or redoubt
- beach or amphibious landing

Within the above categories an almost infinite number of individual target situations can be visualized in terms of specific situation-control targets and opportunities for weapons application. Nuclear weapons against such targets will usually produce the double effect of (1) disrupting enemy assembly, movement, or battle activities; and (2) clearing away jungle or forest concealment, thus ensuring increased effectiveness from continued nuclear attacks against enemy positions.

In the wide variety of limited-war situations that night confront the US and its allies, no single weapon or weapon system can meet the full range of requirements. We must, in conjunction with our allies, maintain a broad range of capabilities in conventional and nuclear weapons. This is essential for both the deterrent value and combat flexibility.

By the same token, we must not deprive ourselves of the unique advantages offered by imaginative employment of nuclear weapons. We have been quite clear and firm in expressing our determination to use nuclear weapons in total war. Now we need to speak out with equal clarity in affirming that we can and will use nuclear weapons in limited war when such weapons best serve our broad interests and meet the demands of the tactical military situation.

## Man-to-Man Combat Suicide

We must achieve, through education and through the development of clear-cut, logical tactical doctrine, a general acceptance by the US of the requirement for the use of nuclear weapons in limited war. This country cannot afford the tremendous outlay in dollars, resources, and men needed to defeat aggression by manto-man combat on the ground, supported only by highexplosive bombs and rockets, napalm, and machinecannon fire delivered from the air.

We have successfully deterred war with the Soviet empire by convincing its leaders that we shall not hesitate to employ all nuclear weapons at our disposal if such employment is necessary to prevent the enslavement of the free world. I believe we can prevent future limited aggression by the Soviets or their satellites if they become equally convinced that we can and will employ nuclear firepower from the outset. US  $\mathcal{F}MC$ 

## The Ultimate Weapon

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WHILE STATIONED AT MARINE CORPS BASE, Camp Pendleton, California, I had occasion to supervise a detail of naval personnel from San Diego who were firing the .45 cal pistol familarization course. As the first days shooting extended through the noon hour we chowed down on "C" rations. One

of the younger seamen, whose expansive waistline identified him as the member of a well-fed ship, after eating half of a can of cold ham and limas peered up at man and remarked:

"Sir, you Marines are wasting your time learning how to shoot the enemy. Why don't you just invite them over to lunch?"

\$15.00 to Capt James W. Hanker