THE SPACESHIP AND THE LIFEBOAT: METAPHORS FOR THE 1990s

DETENTE AS FUTURE HISTORY

by

COLONEL J. G. THOMPSON, USA
MR. J. E. TRINNAMAN

The world trends beginning to emerge in the 1960s and '70s are qualitatively new and change fundamentally the traditional concepts of relations among states. There may be, therefore, no proper historical antecedents to the detente developing between the United States and the Soviet Union. Communication, transportation, trade patterns, and mutual dependencies have made the world substantially smaller. Modernization and industrial and commercial development are inexorably drawing the world's people closer. The most telling evidence of fundamental change during this period was the emergence of concern, for the first time in human history, over the survival of the human species.

This concern may take the form of some specific questions: Are nations engaged in the creation of a true global interdependence in which all nations are inevitably linked in common need for support and sustenance? Or are such linkages only the creation of men and nations bent on assuring their own survival, designs that bind us enduringly to no nation, no resource, other than those dictated by the shifting requirements of the marketplace and the maintenance of security?

If there are no proper historical antecedents among which to search for clues to these questions we confront a dilemma, for only through analysis of the rich textures of historical reality can we begin to understand the workings of those conditions and trends that underlie the chronicle of historical events. In this situation, a perspective of the future as history offers a double advantage—the rich suggestiveness of the historical viewpoint, and a means of breaking away from the limits of the surprise-free projection of historical antecedents and current trends. We invent a stream of history, then trace its sinuous course back to the present reality so that we might assess and, if we choose, alter its directions while its banks

Colonel John G. Thompson served throughout World War II in the Mediterranean and European Theaters; during the Korean conflict in combat and general staff positions; and in various operational assignments during several tours in Vietnam. He has been Director of Graduate Studies and Research at the US Army Command and General Staff College, and is currently assigned to the Strategic Studies Institute. He holds a doctorate in English, and is a graduate of the Command and General Staff College, the Armed Forces Staff College, and the Air War College.

Mr. James E. Trinnaman joined the Strategic Studies Institute in 1973. Mr. Trinnaman holds degrees in Political Science and Economics from Hobart College and the John Hopkins University. For nine years he was a research scientist in the American University's Center for Research in Social Systems. He has also worked as a senior staff scientist for Operations Research, Inc., and more recently as an operations research analyst with the US Army Logistics Evaluation Agency.

are yet undefined by men and events. Accordingly, the arguments of this article are cast in the form of a retrospective of the history of the 1970s and '80s from a vantage point in the mid-1990s.[1]

Susanne Langer suggested that it is probably impossible to approach a problem except through the door of metaphor, and looking at the future as history poses such a problem.[2] Also, as George Eliot remarked in *Middlemarch* that, "All of us get our thoughts entangled in metaphor, and act fatally on the strength of them." Since, therefore, we cannot avoid metaphor, we can at least try to lessen the incidence of "fatal entanglements" through explicit recognition of their existence, by the conscious pitting of metaphor against metaphor. The competitive interplay and tension thereby created between and among them may result in perceptions and solutions relatively freer of fossilized metaphors.

The two central metaphors of our time, within whose contrasting perspectives will be played out the main drama of detente over the next 15 to 20 years, and whose competing pressures will largely determine its course into the 1990s, are those of the spaceship (earth) and the lifeboat.[3]

The spaceship metaphor, used first by Kenneth Boulding,[4] suggests that the earth is in process of transition from an open to a closed system. A closed system is one in which all inputs and outputs are linked in some manner, and there is no place outside the system from which one can draw resources, or into which one can deposit wastes. When that happens the earth will be, for all intents and purposes, a spaceship containing limited and unexpandable reservoirs for both extraction and pollution, and in which each and every part must necessarily coexist in an interdependent relationship with every other part. We then have a limited capital stock in reserves, goods, people, organizations, and knowledge, and no way to expand any of these except at the expense of one or more of the others. *Success* in the system will be defined in terms of efficient maintenance of this stock, and *improvement* as any new technique which maintains this stock with lessened throughput—that is, less consumption of resources as inputs or less output in the form of pollution. This definition does not suggest that all parts of the system—people, nations, and so on—are of equal importance, but that all are ultimately bound to all others, and must seek common cause in preserving the system. Although the world has not yet arrived at a closed system, it is approaching that point rapidly and there appears to be no way of slowing or reversing this trend.

The lifeboat metaphor, suggested by Garrett Hardin,[5] also recognizes the growth of many dependencies in the world, but it denies that the achievement and maintenance of a closed spaceship system is even achievable, let alone desirable. This metaphor conceives each nation as a lifeboat with limited carrying capacity, cast on turbulent seas, and surrounded by a diverse array of other lifeboats. About one-third of the world's population lives on relatively spacious, well-stocked lifeboats. The other two-thirds live on poorer and more crowded lifeboats, and some have been spilling excess people overboard for some time. The US lifeboat is among the well-to-do, but there are some signs that it may have already exceeded its capacity, that is, is living on its capital, such as its stored petroleum and coal. It will soon have to live on its income alone. Therefore, the highest ethic is the achievement and maintenance of a state of self-sufficiency and recognition that not all lifeboats may be able to achieve the same. It is imperative that the United States determine its carrying capacity, and to what extent it can use its limited stores to help others to whom its survival is inextricably linked. For the rest, *neither* contemporary morality is appropriate—the Christian ideal of being our brother's keeper, and the Marxist ideal of to each according to his need—both are prescriptions for disaster. We must recognize that the irresponsible population growth of two-thirds of the world is depleting the ecological structure to the point where every life saved today in a foundering lifeboat diminishes the quality of life for all

subsequent generations. The name of the game now is human survival; we must concentrate on improving our own chances and those few others who contribute to the improvement of our chances. The rest must learn to fend for themselves or perish in the sea.

The truth, of course, does not necessarily inhere in either metaphor; rather, it grows out of the tensions between them. Facile labels, such as "liberal" or "conservative," "internationlist" or "isolationist," fit neither image, for both are grounded in realistic apprehension of the ties that link nations and societies. But the one perspective says, "I must work toward achievement of a true order of international interdependence, because both my survival and my prosperity depend upon it." The other says, "I cannot, even if I would, create or manage an organically interdependent world; wisdom lies in recognition of this truth. It follows, then, that the greatest good lies in securing the well-being of myself and those few others whose destinies are inextricably linked to my own."

These two metaphorical constructs possess distinctly different, dichotomous world views, and the dominance of one would lead to a history increasingly divergent from that created by dominance of the other. However, the real world history into the 1990s is more likely to be dictated from the competitive interplay and tensions between these constructs, rather than from the exclusive operation of one. For this reason, an awareness of the influence of these metaphors has particular relevance to contemporary world problems. Broad national policies for dealing with the most basic economic and political dilemmas of the next quarter century or more are now in process of development and definition. Energy, food, and other critical resource policies and monetary and trade policies all reflect aspects of these metaphors, e.g., an energy policy that says we seek to be forever independent of foreign energy resources after 1985 reflects a "lifeboat" view of the world. Awareness of which metaphor's logic is operating in a given set of policy judgments, and the persuasiveness of the opposing logic, should enhance appreciation of the effects on future events.

To suggest and highlight tensions between these metaphors is our purpose, and the 1995 retrospective our method. Let us now join two metaphorical advocates as they sit comfortably wrapped in the historical certainty of 1995 and argue the merits of their respective constructs from the history of (for them) the past two decades.

* * * * *

LIFEBOAT: Though we may agree on little else today, I suggest it might be useful to begin with a common understanding of the basic nature of detente, its underlying mechanisms. The common ingredient, I think, in all historical examples of detente developing between two nations who would otherwise be hostile toward one another is the imposition of a threat, historically from a third power, that is a more serious problem to them both than either is to the other.

SPACESHIP: I would agree with that. And I would add that the nations engaging in a relationship of detente, recognizing each other as powers in the world, will each have interests, desires, and goals imcompatible with those of the others.

LIFEBOAT: I'll go further. Such incompatibilities exist almost regardless of the form of government and ideology—though in the case of the United States and the Soviet Union, the incompatibilities are reinforced by those differences.

SPACESHIP: What makes this particular example of detente unique is that the "third" power threat was, for the first time in history, not another nation, or group of nations, but a power that the two held in common—the power of strategic nuclear destruction. This power was possessed by both in roughly equal amounts, and either one could conceivably destroy the other, and perhaps the rest of the world as well. The existence of this power, by

the mid-1960s, following the Cuban Missile Crisis, had taken on a life of its own, bigger, more terrible, potentially less controllable than the aggregate of all the rest of the forces each could unleash against the other.

LIFEBOAT: In such circumstances, each power needs to arrive at some working understanding with the other by which he may somehow influence or control the potential effects of that "third power." So there has been general agreement that communications channels are essential, especially in time of crisis, to provide assurance that the actions of one will not put the other in mortal danger of facing the third power alone, to forestall the temptation of preemptive attack, and to assure that one doesn't achieve technological surprises over the other.

SPACESHIP: These, surely, were the primary generational—or operational, if you prefer—elements of detente in the 1970s. By that time, the post-World War II era had drawn to a close and the last of the problems left over from the conclusion of that war were resolved or had entered substantially new phases. The status of Eastern Europe had been stabilized, and the special interests of the Soviet Union recognized by the United States, Western Europe, and the rest of the world. Relations between the People's Republic of China (PRC) and the United States had begun to be normalized. The inordinate worldwide power and influence of the United States began to take on a balance more in keeping with its relative military and economic power and its more narrow, real political interests. The last of the old colonial empires were dismantled, and the bulk of the newly-emerging nations had completed that seemingly necessary second post-independence revolution where more permanent interests and structures take over from those that won independence.

Against the backdrop of these events, there was a growing recognition that new forces and conditions had taken hold in the world which were going to require a substantially-changed focus in world affairs, substantially-changed relations among states, and radically new and broader institutions to manage them. Foremost among these was the sense of a shrinking world, a growing interdependence in which almost any economic, political, military, social, or technological activity, change, or advancement anywhere in the world would have increasingly direct, increasingly profound effects on almost all other parts of the globe.

LIFEBOAT: Now you've lost me—or, rather, I think you've become lost in myth. I agree that since World War II the world has been drifting—and I emphasize drifting—into an increasing state of interdependence—more accurately, dependence. And look what it got us: an energy crisis of major proportions, efforts of supplier nations to band together into blocs to put the squeeze on consumer nations, a steady erosion of national sovereignties, a vast growth of national military establishments, and economic piracy on a scale unprecedented in the world's history. Again, this is not interdependence; it is dependence. It is also simple recognition of the fact that we can neither create nor manage some mythical state of global interdependence.

The central issue is this: Our lifeboat capacity is limited, our population growth such that we are rapidly narrowing an already dangerously small safety factor; and our pattern of resource consumption is surely a prescription for disaster. Since we long ago recognized that there are substantial portions of humanity out there that are going to perish and saving them is beyond our capacity, attempting to do so will only further reduce the odds against our own survival. What, then, are our options? We can seek to discriminate, on some basis, as to whom we will try to help. But on what basis? On extremity of need? According to the contribution made to our own ability to survive?

As I think you'll agree, none of this implies isolationism in the old-fashioned sense of the word. Indeed, the continued survival and relative prosperity of Western Europe and Japan substantially enhance our own ability to survive. For that matter, the stability of

the Soviet Union is essential to maintain control over the strategic nuclear and other conventional threats that we pose to one another.

SPACESHIP: True enough, perhaps, but your vision is flat, two-dimensional. Let me sketch a third. Detente between the United States and the USSR was an early manifestation of a much broader pattern of necessity—strategic nuclear weapons must be controlled as a vital national interest of both parties. The whole traditional spectrum of conflict and competition between the two superpowers must be moderated to focus on far more serious dangers—of overpopulation, with its attendant starvation, disease, and chronic inability to undertake the modern developmental process; on the rapidly increasing spread of arms, including nuclear ones; and on growing imbalances in essential raw materials and energy resources.

Obviously, those naive few who expected detente to result in a withering away of all strain and competition in relations between the two superpowers were disappointed. As you know, these conditions continued throughout the 1980s often with great intensity. Nevertheless, the primary thrust of US policy during the late 1970s and '80s, as I see it, was to keep the essence of detente alive, to create an atmosphere of accommodation and cooperation, and gradually to encourage the Soviet Union—and the People's Republic of China, too—into active participation in meeting the challenges faced increasingly by the entire world. Our objective was to promote, however gradually, the idea that all nations, but especially the rich and the powerful, must ultimately find it in their own best interest to participate actively in finding solutions to the world's problems, to take their legitimate places of leadership in a community of nations whose fates are inextricably bound together. Continued US leadership was vital to the world in this process to provide economic vitality, technological impetus, and a modicum of security. In effect, the United States began to act as the flywheel of the world's engine, recognizing its limitations but seeking constantly to provide balance. And I think you'll agree that a USSR perceptibly less paranoid, a less schizoid China, and a less morbid, Hamlet-like United States ultimately emerged.

LIFEBOAT: So we agree to disagree about the fundamental nature of those forces that actually shaped the course of detente through the 1970s and '80s. Perhaps, though, we can narrow the range of our disagreement by a more explicit review of those major trends and conditions that resulted from the pull of these competing forces. What do you consider the relevant trends and how do you see them?

SPACESHIP: In the 1970s and '80s, economic factors emerged as the predominant influence on the relations among nations. The emergence of the Organization of Petroleum Exporting Countries (OPEC) which brought together otherwise disparate nations, and its successful manipulation of the price and quantity of oil available to world markets, was the first of a long series of world economic realignments. With the perception that irreplaceable raw materials, such as fossil fuels and most minerals and metals, were becoming scarce, resource supplier countries with the greatest political, social, religious, and economic differences in other spheres could still collaborate and orchestrate trade policy. While achieving joint control of the supplier side of the market in a particular commodity, these nations found that they could acquire greater relative benefits in trade with resource consumer countries, and that transportation, communication, and trade volumes would continue to grow, ever tightening the grip of real economic interdependence among nations.

From my Spaceship point of view, this created several world advantages. First, it tended to redirect greater proportions of money into the developing areas, greatly facilitating their development efforts, and in that way diversifying and enhancing the world economic system. Second, by giving almost the entire range of developing countries an ever greater stake in the stability of world trade and financial structures, it has tended to

reduce the willingness of states to jeopardize the system by warfare or other acts of international perfidy. Third, it has increasingly forced the industrially developed world—the United States, Japan, and Western Europe—to restrain further economic growth, apply conservationist measures to resource consumption, and redirect technological developments to achieving greater economies and efficiencies—no more built-in obsolescence, systems designed for maximum recycling, and growth built on more efficient economic production, not simply more production. I acknowledge that these developments have had a profound effect on the overall standard of living in the United States over the past two decades, but they have also laid the foundation for an unparalleled world stability.

LIFEBOAT: On the contrary, these developments have brought the United States closer to disaster than ever before in history. Failure to reverse this trend in the 1970s, to stop forging chains of economic interdependence, by force if necessary, has imposed an incalculable toll on our national strength. Admittedly, the United States was less affected by these developments than the rest of the Western world, but a 25 percent reduction in the standard of living in this country was a bitter consequence of our unwillingness to act. Western Europe and Japan, whose continued industrial and military potential have been vital to our national security, were left fully exposed to these series of economic shocks, were weakened both economically and militarily, and are now chronically endangered by political movements on both the extreme right and left. And we should have foreseen that participation by the Soviet Union in this increasingly interdependent world was going to be very limited. Because of their relatively abundant resources and their willingness to impose any level of economic controls to force any necessary reduction of domestic standards of living to escape the trap of interdependence, the Soviets have emerged with relatively more strength than the Free World. And China has become an even more extreme case, a country almost totally inner-directed, for all intents and purposes a separate world.

Add to this the economic dilemma posed by the continuing population growth and the chronic inadequacies and maldistributions of world food supplies. Since 1970, the world population has increased from 4 to about 6 billion people, roughly a doubling every 35 years. The developing nations accounted for 80 percent of this growth, while most developed nations succeeded in achieving a level of replacement fertility, if not actual zero population growth. By the year 2000, the entire world will look something like the Netherlands did in 1970: about 400 people per square kilometer of the best suited land and about 19 per square kilometer on all the rest.[6] This issue, perhaps better than any other, proves the necessity of adopting the lifeboat view. Despite our best efforts, there is no way for the United States, Canada, and Australia, the last of the major food exporting nations, to make up the food deficits of the rest of the world. Failure of most developing countries to recognize that their demands upon our agricultural system can be legitimized only by their accepting the concomitant responsibility to bring their population growth under control and to make every effort to feed themselves first has led us all to this dilemma. Instead of playing moral champion by wasting our agricultural reserves in trying to make up the difference between starvation and survival for two-thirds of the rest of the world, and doing it badly at that, the United States should have begun long ago to orchestrate its food distribution in its own narrower national interest. First, we should have built our own reserves to protect against poor crop years; second, used food as an economic weapon to influence commerce in other commodities necessary to us and to our allies; third, when possible, used food to exact political and military concessions from our potential enemies. The rest of the world, those offering no particular commodity or strategic advantage to us, must fend for themselves.

SPACESHIP: Your argument seems

persuasive, but it is based, unfortunately, on a narrow, transitory set of circumstances. Although it is true that the population growth of some nations relative to their real and potential resources appears out of hand, in fact most nations have adopted population growth control measures. Others, including many in South America, Africa, and the Soviet Union, can afford to grow still further, or accept immigration from other areas because of the size of their exploitable resource base. Advancements in agriculture have come more slowly in the past decade. Tropical agriculture has continued to resist the revolution that new technology appeared to offer, and the oceans have proved to be a disappointing source of additional proteins. This is still a transitional period; we are buying time—time for population growths and movements to become more rational, more in line with improvements in agricultural technology. The attempt to use food as an economic weapon in the service of narrow, national interests would be the supreme folly. Food and technology are the two principal products the United States brings to an increasingly interdependent world. Indeed, they are among the primary mechanisms of interdependency. The flow of food and technological innovation from the United States does have a moderating influence on the markets of all other commodities, for the rest of the world can ill-afford to jeopardize the economic well-being of the world's grain storehouse, that small part of the world which continues to provide the margin between a barely adequate diet and starvation for a large percentage of the world's population. If we succeed in orchestrating our food surplus policies correctly, we promote stability in the system—the flywheel effect—and continue to provide the framework within which more stable population growth/food production and distribution can ultimately be built. Our basic security is served best, not by operating as an external force against the world, but by continuing to work within the system, moderating, to the extent of our ability, those divisive forces still in the world.

A natural outgrowth of the development of the spaceship earth system has been the tremendous development of bilateral, multilateral, and world institutions and associations, resembling an untidy patchwork of overlapping and often seemingly contradictory organizational structures among states. Consortia of consumer and supplier countries have come into being, and regional and special interest associations have become both numerous and powerful. Some focus directly on governing monetary and commodity policies; others work more indirectly by coordinating policy, establishing charters, and monitoring the workings of the huge multinational corporations which are the working arm of much of the world's trade; and others promote research and act as channels for technological transfer. At the same time, our understanding of the development process and the pursuit of economic maturity is much more sophisticated. It was popular in the 1960s and '70s to talk in terms of rich versus poor nations, developed versus developing nations, and so on. Today, we are aware of a much broader economic spectrum, more reluctant to lump sizeable groups of nations into simplistic categories which overlook preponderant national differences and different problem sets. Today, we recognize the existence of a score or more of relatively stable, developed, industrial states, and about a score more of rapidly expanding, industrializing nations. Beyond these is a wide spectrum of developing nations with perhaps fewer or more specialized capabilities and potentialities. There is a growing awareness that heavy industrialization and commercial development along classical lines are not appropriate goals for many of these states. Many will have to develop specialized talents, high-technology light industry, tourism, or service-oriented economies. The more fortunate of these will find that, sometime in the 21st century, they will have leap-frogged past the larger, industrialized states directly into the post-industrial world.

LIFEBOAT: My lifeboat view may be somewhat less grandiose and globe-girdling, but it suggests that all this development of a patchwork quilt of international organizations

and associations is but the further institutionalization of a growing interdependence already allowed to proceed entirely too far. Most of these associations were created to bring pressure on the United States and our industrially developed Western allies. Far from rationalizing and accommodating world trade to the benefit of all, you have merely participated passively in the development of those instruments designed for our economic destruction, more vulnerable than ever to every political or economic whim which captures someone's fancy. I don't wish the rest of the world ill. It would be desirable for all nations to develop their full economic potential in harmonious ways. But the dictates of simple human survival suggest that the United States must first look out for itself and those whose political, economic and military strengths are inextricably linked to its own. Fortunately, the whole ball game has not yet been given away. I see an opportunity of regaining a large measure of our economic independence by exercising our capacity to exploit the riches of the oceans and seabeds.

Through the 1970s and '80s, nations with direct access to the oceans continued to extend their sovereign limits generally to the edge of the continental slope. The series of international ocean conferences through this period succeeded in maintaining the right of innocent passage through these waters, but acknowledged the right of these states to control and exploit the resources contained there. The United States, the Soviet Union, Western Europe, and Japan emerged as foremost in the development of the new technologies for exploitation of these resources. Seabed minerals and metals mining and oil extraction are now common, and the processing of sea water for both minerals and fresh water has made great advances. Exploitation of ocean currents and wave and tidal action for the generation of electricity is now under way. Most developing nations are acquiring access to these resources through the chartering of corporations from the developed countries for the exploitation of particular geographic areas. By the 1990s however, the technology which would permit access to the far more vast, central ocean depths began to emerge. Once again controversy developed among states as to the proper division of the wealth and responsibilities of deep-sea exploitation. Many have argued that the profits should be used principally on behalf of the still developing nations, the less well-endowed states, regardless of their proximity to the oceans. The United States should not squander its technological edge in this area in the name of some amorphous ideological concept such as interdependence. This may very well be the last opportunity for the United States and its allies to recapture their economic independence, to free themselves from the continuing burden of maintaining the balance. The United States must attain self-sufficiency in all important minerals, metals, and energy, and our unhampered exploitation of the central oceans and seabeds offers us this opportunity.

SPACESHIP: To approach exploitation of the oceans and seabed in this manner is to miss three critical opportunities and to encourage the most divisive forces still present in the system between the interests of powerful and wealthy nations on the one hand, and the still-developing ones on the other. First, by encouraging full participation by all states in the exploitation of the oceans and seabeds and the benefits to be derived from them, we encourage acceptance of interdependence and the conviction that we must work together to survive and prosper. Second, these riches can be used as the vehicle for the economic development of countries without the requisite internal resources. This process is essential for easing latent frictions created by the growing divisions between the increasingly prosperous countries, the relatively less prosperous, and the seemingly perpetually poor. Third, a fully cooperative program of exploitation is a further inducement to the Soviet Union to become a full and participating member of this increasingly closed system. The same inducements can be offered China as an alternative to continued isolation.

This is not to suggest that the transition

will be easy. It will require an immense augmentation of bureaucratic machinery of national governments and numerous new regional and international organizations to coordinate policy, allocate resources, and manage the necessary monetary systems. So I must agree with you that exploitation of the oceans poses what might very well be a final and unique opportunity to the United States, but it is one of being able to offer the world the most powerful added inducement to reconciliation to and accommodation with an inevitably interdependent world.

LIFEBOAT: One of the most striking aspects of the history of the late 1970s and the decade of the '80s was the absence of prolonged, large-scale military conflict—this in spite of an enormous proliferation of military force around the world. How do you view this seeming paradox?

SPACESHIP: Proliferation is the proper word for what's happened. First, there was the continued dominant nuclear position of the two superpowers. A rough strategic parity persisted in spite of continuing qualitative and quantitative increases on both sides. But it is interesting to note that the term, "parity," was a progressively less accurate term. Perhaps a better description of the Soviet position now is Walter Laqueur's term, NDMS—Non-Decisive Military Superiority.[7]

Then there was the proliferation of nuclear arms. Thirty-five nations were members of the club by 1990, though none had yet attained the status of a true superpower—that is, possessing global delivery systems and credible second-strike capabilities and, on the non-nuclear plane, the capability to project military power on a global scale. Purely in nuclear terms, China had come close to achieving superpower status by 1990, but her capability continued to be focused almost exclusively on the Soviet Union.

Perhaps the most significant developments, however, were in the growth and diffusion of conventional military power. In part, this process stemmed from strong economic and political nationalism among the rapidly developing nations, and the resultant growth of national military establishments. Pathetically, perhaps, military force increases were an accurate gauge of the character and extent of economic progress during the period.

Of equal importance, however, were the truly revolutionary impacts of changes in military technology. Easy distinctions between nuclear and non-nuclear in the continuum of military force had disappeared. Precision guidance, coupled with sophisticated battlefield surveillance, target acquisition, and data handling devices and techniques, widened the range of military force options, enabled their application with surgical precision, and provided a capability to engage selected targets with nearly 100 percent effectiveness. Although such developments initially added weight to the defense, the advantage turned out to be short lived—even illusory—in the technological seesaw, for it was based on an assumption that the defender's delivery means would be relatively less vulnerable to attack than those of the attacker, while the attacker's very movement would expose him to detection and, thus, destruction. Although movement on the battlefield did, indeed, become almost prohibitively expensive, it gradually became clear that the primary issue was not *movement*, but *presence* on the battlefield. By the mid-eighties, military technology was such that both defender and attacker shared a common vulnerability, a common inability to avoid detection of mobile forces or adequately protect fixed or semi-fixed installations.

It has been supposed that the precise application of force in measured amounts would result in minimum damage to other than military targets. But the supposition failed to take into account the increasingly urban character of the world's population. By 1990, more than 50 percent of the earth's six billion people were to be found in urban, industrialized environments. Much of Western Europe had become a vast, urban sprawl, and Eastern Europe and the western portions of the USSR only less so. The intermixture of population, industrial, and military targets made real discrimination in targeting progressively more difficult.

For these reasons, war became an

increasingly costly enterprise—shorter, but infinitely more intense, with winners increasingly likely to lose that which they sought to gain in the very process of winning.

These developments also raised the ante for those major powers who sought to project conventional military power about the globe. Not only did they have to contend with stronger national military capabilities in every region of the world, but the vulnerability of fixed and semi-fixed bases, of all forms of surface and air transport, and, to a significant extent, even undersea craft, contributed to a decline in the credibility of major power military forces. But, throughout the period, the central reality remained: the consequences of any action which might unleash nuclear war between East and West were potentially so disastrous that superpower military capabilities inevitably became, rather than rational instruments of military offense, twin fields of force within whose polarizing influence all other forms and levels of conflict were necessarily played. In this context, military conflict, at whatever level and in whatever form, was played on a global stage in the decade of the 1980s. Strategic military interdependence, in this broad sense, became a reality.

Such interdependencies were, moreover, reinforced by a host of economic and political linkages. Modern arms, without which successful war could not be waged in the late 1970s and '80s, continued to be produced by a relative handful of industrialized nations. Their availability to rich and poor alike was subject to the political as well as economic strategies of supplier and supplied. And, even without such constraints, economic interdependencies, whether intraregional or interregional in scope, resulted in the direct and indirect involvement of many governments and supranational agencies in potential conflicts. Never in history had so many pressures, from so many quarters, been arrayed in restraint of military adventurism. War went corporate in the 1980s.

LIFEBOAT: I'd agree that war went corporate, that the direct exercise of military force could no longer be considered the sole and private concern of the primary combatants. To a degree, of course, this has always been true. But these new corporate linkages, far from being reflections of a true state of interdependence, stemmed from increasingly desperate attempts to enhance national positions, national securities. The erosion of our capacity to defend national interests had profound effects on military alliances. Western Europe became much less dependent on the United States for continental defense. By the latter part of the 1980s, the United States had withdrawn the last of its continental-based land forces from NATO, and the focus of joint US-Western European operations shifted to defense of the North Atlantic and Mediterranean areas. Japan was also increasingly capable of attending to its own defense. The Southeast Asia Treaty Organization had become essentially an economic coordination association, generally less important than the patchwork of regional and special interest organizations and bilateral agreements which emerged. The Central Treaty Organization was replaced by a similar patchwork of agreements between and among the United States, Iran, Saudi Arabia, and Pakistan. By contrast, the Warsaw Pact continued as the Soviet vehicle to maintain control over Eastern Europe, while China exercised a proponderant influence over the continental states of Southeast Asia.

SPACESHIP: You seem to regard these developments as evidence of vast and unsettling change—even of chaos. I view them, however, with relative equanimity. Such shifts in alliances and spheres of influence, together with the rise of numerous new power centers, have actually resulted in giving many more nations a vested interest in the new international system. It has tended to promote stability, acceptance of policy restraint, and a desire to seek accommodation and cooperation. On balance, I believe increased commerce among nations and the wide variety of international institutional structures that have emerged over the past two decades are strong enough to absorb occasional shocks and readjustments. I say

this in full awareness that the military environment of the 1990s is potentially far more explosive than it was in the 1970s, and that it takes fewer and fewer disaffected or disenfranchised people to impose serious strains on the system.

LIFEBOAT: You've touched the heart of the military problem. Such linkages as you have described are forged, as you yourself suggested, in the name of national "vested interests"—that is, to reinforce national security and well-being. Militarily and economically, this is definitely not the voyage of the good spaceship earth, but the righting and bailing out of a number of national lifeboats adrift in stormy seas. While it's true that the use of military force in warfighting roles has declined, its use in positive diplomatic roles—of deterrence, provision of varied options, hedge against uncertainty, and psychological instrument—has actually grown over the past 20 years. The very avoidance of its direct, functional use attests to its utility.

SPACESHIP: But you're forgetting that the utility of military force in these "positive diplomatic roles" depends on perceptions of its credible use in the basic function for which it was designed—to destroy people and things. To the extent that you've eroded its ability to perform that function—even if that erosion is a paradoxical result of its very efficiency—you've also eroded its real value as a political instrument. So I would simply suggest that the perceived utility of modern military force—however lethal, however widely diffused—has been generally declining. At the same time, its diffusion has resulted in a rough military balance within the community of nations. This process did not, of itself, contribute significantly to the creation of an interdependent world community, but it did serve to buy some desperately needed time. Even in the early 1970s, the rudiments of a world community structure were beginning to become visible. Because we were able to defer the physical shocks and economic chaos of large-scale military conflict for a little longer, however costly to the world's economic and psychic well-being, by 1990 the structure of that community was becoming increasingly clear and its existence a growing reality.

LIFEBOAT: I must say that your rhetoric is more compelling than your evidence. What we really had in the late 1970s and '80s were simply more and more sovereign nations on the world scene, all exercising their sovereign right to be pathetically, even fatally inept in their domestic and international calculations. So I am far less sanguine regarding the whole drift of these events. Increasing economic interdependence and the network of ties among states have severely reduced our capacity to take independent action around the world in our own economic interest. And a major actor, the Soviet Union, remains at least partially outside the system, less susceptible to its influences, and with much greater capacity to manipulate the system to its own advantage. I am not at all convinced that the development of the international system you describe will be so attractive to the Soviet Union as to encourage full participation in it. The opportunities for mischief as an outsider are simply too great. I do believe, however, that parity in nuclear arms, so expensively achieved and barely maintained, has been the principal motive force behind the exercise of mutual restraint in avoidance of direct confrontations. So, while we witnessed, in the 1970s and '80s, radical changes in the growth and diffusion of military power and in the character of its political uses, it is by no means becoming, as you have hinted, an anachronism. Mankind has not yet devised a practical substitute for it.

History has served to remind us time and again of the force of this reality, as events and conditions, political or technological, upset existing military equations. Consider the headlines in this morning's newspapers—that the Soviet Union has developed, and may in fact be in process of deploying, a relatively cheap and highly effective radiant energy defense system against nuclear or conventional attack. Your cherished balances and parities that have endured so long seem about to go glimmering. A new phase in the

strategic arms race appears imminent, since these weapons promise something close to invulnerability to attack by currently-deployed offensive nuclear systems. It is not difficult to postulate a remarkably uniform state of mutual defense capability among the major powers developing within the course of the next five to ten years. But this, of course, is current history, and we're dealing with history only to 1990. I mention it, however, to point up the extraordinarily rapid pace of technological change over the past two decades. The surprises were many; and this breakthrough, or one having similar consequences, might well have occurred at any time over the past 20 years, rather than, as it turned out, in 1995.

SPACESHIP: Surely, the impact of technology has been enormous. But of even greater significance, I think, has been the growth in our ability to control and direct technology and its social consequences. In the 1980s and '90s, for the first time, man began to gain some control over the political choices that his burgeoning technologies presented him, and to begin to foresee the social consequences of his choices. In short, he began to acquire the tools to control his own social destiny, however crude.

LIFEBOAT: Perhaps crude is the word. We didn't seem to do very well in foreseeing the consequences of military technologies, nor in curbing their proliferation when we did. Budgetary problems, particularly in the Western world, contributed to this state of affairs. Within the United States, because of domestic problems and a lingering weariness of the burdens of being a superpower in an ungrateful world, we experienced strong pressures for reduced defense budgets, particularly in the mid and late 1970s. Increased personnel and acquisition costs, combined with extremely rapid advances in technology, resulted in early obsolescence and consequent increases in rates of required acquisition. But these requirements ran counter to equally urgent requirements for the maximization of available combat power.

Soviet defense budgets continued to grow at a constant yearly rate of approximately 3 percent. The military spending gap did, indeed, widen during the late 1970s and early '80s, and it wasn't until 1985 that congressional concern over the introduction of several new weapons in the Soviet arsenal resulted in some closing of the gap, particularly in terms of research and development expenditures. It is noteworthy that the Soviet attitudes toward detente actually followed quite closely the ups and downs of perceived differentials in US and Soviet capabilities.

SPACESHIP: Yet, it was no small thing that all this madness actually did buy us time—time to let those forces making for interdependence forge links strong enough to hold despite the absence of the military club to enforce mutual respect and support; time, in short, to create a substitute for military force. But I must reluctantly conclude that that time had not yet come in 1990.

LIFEBOAT: I can't resist observing that your conclusion is realistic and your hope forlorn. Consider, for example, the one major mode of violence that has experienced a sharp rise in frequency, intensity, and militarily effective employment in recent years: urban guerrilla warfare/political terrorism.

In face of greatly increased social stresses incident to rapid economic and technological change and the increasingly urban character of developing nations, societies not only generated the political and social discontent which lead to violence, but also developed increased vulnerabilities to the use of guerrilla tactics and terrorism. Societies learned to cope with these tendencies only at the expense of political freedoms. In the authoritarian socialist world this caused little outward stress, but the strains were visible within the Western democracies and the more vulnerable nations of South America, Asia, and Africa. Their response, predictably, was the imposition of greater social controls, expanded police forces, and increasing intrusions on individual liberties.

A newly-disturbing note is that within the past several years we've seen the public

disclosure of evidence that urban guerrilla warfare has been employed by one state against others—possibly for the first time in history on a comparable scale and for clearly rational ends. I refer to the outbreak of a virulent and as yet unidentified cattle disease in the major beef-producing Western nations last year that virtually eliminated them from the international beef-exporting markets this year. The benefits, to certain nations, are clear. A number of similar, seemingly inexplicable disasters have occurred in other major Western countries. But, so far, no counteractions—which demand confirmation, not mere suspicion—have been taken. All of this suggests that where violence in one form is frustrated it will find other outlets; and that where vulnerabilities exist they will be exploited.

SPACESHIP: As we wind down this discussion, it occurs to me that our areas of agreement are at least as important as those on which we disagree. Let me tick off a few of the more important:

- First, I think we agree that the past two decades of detente have been useful—even essential—in terms of defining and limiting military competition between the United States and the Soviet Union. From time to time, it has also permitted accommodation and cooperation in other areas of competition which might otherwise have gotten out of hand.
- It was vital that the United States recover quickly in the 1970s from its sense of loss of direction resulting from the Vietnam experience and the series of economic shocks that began with the oil crisis. But, in the late 1970s and '80s we did begin to build and have since further developed a sense of world role, and of moral, political, economic, and technological leadership.
- We also share the belief that it is imperative to make long-range planning an ever more integral part of our policymaking system. As the world becomes smaller, more closely linked in mutual dependencies, and more vulnerable to rapidly developing chains of events, it becomes essential to foresee the long-range consequences of policies, actions, and inactions.
- I think we also share a sense of urgency about the 1990s, that many of the unresolved problems of the '80s are only now reaching major, and often crisis, proportions. Witness our population and food/resources imbalances, the bitter race to control the resources of the oceans and seabeds, and the rapid growth and diffusion of military power around the globe. Solutions are harder to come by, more difficult and costly to implement; therefore, we can no longer afford to avoid decisions by pursuing multiple and frequently contradictory policies and programs.

LIFEBOAT: I can subscribe to those points. It is, however, the areas of disagreement that are critical to this discussion.

While you view the creation and growth of interdependencies among the states of the world as inevitable, and mostly desirable in the creation of a closed system, I see in them a series of lopsided dependencies which increasingly impose constraints on pursuit of our own survival. I doubt that your ever-more-closely-linked and organically coherent world system is attainable, and even if it were, whether it could ever be managed so as to avoid continuing chaos. We must focus principally on our own need and those of the few others in the world whose survival is linked inextricably to our own.

We also differ on our views of the future of detente. You see it as a process in which we are continuing to buy time until the Soviet Union and China see that it is in their own best interests to accept participation, in terms both of benefits and responsibilities, in the growth of an interdependent world. However, I see detente as limited to the necessary control of our mutual destructive capability, especially in strategic nuclear weapons but also in the new weapons systems that have been developed and are now being acquired by both sides. We must, at all costs, avoid the creation of national dependencies beyond those essential to survival and well-being, for so long as the Soviet Union remains largely outside your interdependent world system, it can perpetually manipulate that system to the detriment of all those entangled in it—and that includes the United States.

While you see the history of detente to date as having forged ever-stronger links between the Soviet Union and the world system, I see that the Soviets have abused detente and taken advantage of our myopia to gain access to our technology and buy time to construct an immense, modern industrial and military power. Detente has been useful to the extent that it has reduced the chances of direct confrontation and avoided mutual destruction. But the price may ultimately be proven to be too high if in that process we also create fatal vulnerabilities.

* * * * *

THE "spaceship" and the "lifeboat": these two views of the future as history have been both too general and too specific. The course of history into the 1990s is going to be dictated by competitive tensions between these two metaphorical constructs, and the dominance of one will lead to a history increasingly divergent from that which would be created by dominance of the other. Our understanding of these metaphors—to perceive which is operational in a given set of policy judgments—is essential in developing coherent strategy for survival in the increasingly troubled waters, or space, on our course into the future.

NOTES

1. This paper stems from a USAWC Strategic Studies Institute project on prospects for the future to the year 1990, short title Forecast 90. The authors are indebted to COL J. G. Pappageorge, COL M. D. Munger, and Dr. Jessie A. Miller whose contributions to Forecast 90 were used in preparation of this article. The authors, however, accept sole responsibility for the assertions and projections in the article.

2. Susanne K. Langer, *Philosophy in a New Key* (Cambridge: Harvard University Press, 1942).

3. While we attempted to reflect the basic concepts of the spaceship and lifeboat metaphors, as articulated by Kenneth Boulding and Garrett Hardin, we did assume some license in their interpretation and use.

4. Kenneth E. Boulding, "The Economics of the Coming Spaceship Earth," in *Environmental Quality in a Growing Economy*, ed. Henry Jarrett (Baltimore: Johns Hopkins Press, 1966), pp. 3-14.

5. Garrett Hardin, "Living on a Lifeboat," *BioScience*, 24, 10 (October 1974), 561-68.

6. Isaac Asimov, "Let's Suppose . . . A Tale for the Year 3550 A.D.," *The UNESCO Courier* (July-August 1974), 64-65; Ansley J. Coale, "The History of the Human Population," *Scientific American*, 231, 3 (September 1974), 41-51.

7. Walter Laqueur, "The Next Ten Years, A Review of History Yet to Be Written," *Harper's Magazine* (December 1974), 68-76.