DISCLAIMER

The views, opinions, and/or findings contained in this report are those of the author and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.
FOREWORD

This Periodic Report of the Futures Group of the Strategic Studies Institute presents a review of work completed and in progress, as well as summaries of selected forecasts. This report contains a summary of reviews of Alvin Toffler's book The Third Wave and provides some implications for the Army. Finally, future directions of research, which will include a continuing search for sources of conflict, are noted.

This report was prepared as a contribution to the field of national security research and study. As such, it does not reflect the official view of the US Army War College, the Department of the Army, or the Department of Defense.

ANDREW C. REMSON, JR.
Colonel, CE
Director, Strategic Studies Institute
INTRODUCTION

During this period the Futures Group continued to evaluate the Third World as a source of conflict and began evaluation of several activities and conditions which could also be sources of conflict. In view of the emphasis on the establishment of the Rapid Deployment Joint Task Force and the large number of possible conflicts, it seems appropriate to continue with the consideration of the suitability of the use of force in different kinds of conflicts and where suitable the kind of force required. This consideration or study should lead to the production of papers on suitability of use of force and kinds of force required to cope with possible conflicts identified in papers on sources of conflict.

In addition to the presently produced special reports and periodic reports, the Futures Group has prepared for consideration an outline for a base reference document for long-range planners. The document would be made up of future analyses of regions. Each analysis would be based on the current status and predicted trends in elements of national power. The proposed regions would correspond to those established by the Joint Chiefs of Staff for use in its long-range planning. A tentative selection of elements of national power has been made. Those presently being considered are: Geography, Industrial Capacity, Population, Character, Morale, Quality of Diplomacy, Quality of Government. Once the basic document is produced there would be an ongoing requirement to update the document and it appears that there would be a requirement to produce analyses of areas within the designated areas.

The Futures Group has continued to expand its contacts and in April visited three academic and two governmental agencies concerned with futurist work.
Although authors outside the Futures Group have previously made contributions to the Periodic Report, only members of the Futures Group have so far authored the special reports. Now, however, three papers are being prepared by non-Futures Group members of SSI and one paper by a non-SSI US Army War College faculty member. These papers will be discussed in the Review of Work section of this report. Proposals for future papers by readers of this report would be welcome.
REVIEW OF WORK

Several papers dealing with the future issues of interest to the Army have been prepared during this quarter. The special report, "North-South Issues" by Mr. John Scott, published 15 April 1980, ACN 80006, calls attention to the need to understand the differences that exist between the North and South. If an understanding of different ideologies can be gained, then more effective efforts to reduce North-South tensions can be made.

The paper referred to in the last Periodic Report as "Disparities of National Economies" evolved into "Poverty - A Source of Conflict." This paper by Colonel Joseph Sites, published 30 June 1980, does not suggest that poor countries will start wars to improve their lot, but rather that the instability resulting from poverty invites interference by aggressive nations and it is in this way that poverty can be a source of conflict.

Lieutenant Colonel David S. Jackson, FA, Class of 80, US Army War College, in an Individual Research Project: "Hypermodernization for the Twenty-First Century: The Vital Step Beyond Modernization for the 1980's" proposes that the Army go beyond mere modernization to hypermodernization in order to offset the current force imbalance which has developed relative to the Soviet Union. This paper points out the requirement for long-range planning and states the need to rethink our existing research development and acquisition process with a view to the long range.

Colonel Robert W. Tart, Jr., SSI, has written a special report for the Futures Group entitled "Terrorism in the Future." Colonel Tart observes that terrorism will continue into the future and that it exists because individuals or groups feel that they are being mistreated. Because terrorism is an inexpensive weapon easy to use, the dissatisfied seize on it as a means to
strike back. He compares the linkage of world terrorism to a switchboard which provides a means of communications between groups but does not provide a chain of command capable of unifying the groups. The author further points out that modern transportation and technology have permitted terrorists to operate at great distances with effective weapons. Although he mentions nuclear, chemical and biological weapons, he does not foresee their use in the future as he concludes that terrorists seek many observers, not many victims and with conventional weapons and the mass media they have been successful in this regard. The author concludes that there is an antiterrorist role for the military and suggests that we should begin our efforts to develop the capability to fill this role.

The predicted shortages of materials, food and energy in particular, require that these shortages be considered as possible sources of conflict. Before considering the use of military force to correct economic problems, the Futures Group thought it would be appropriate to consider economic measures which might be used. Following this approach, Dr. Donald Losman of the US Army War College has written a special report, "Economic Sanctions in the 1990's." The paper states that historically the utility of sanctions has been limited, a trend which will continue and most likely increase. He observes, however, that the use of sanctions will probably continue and whenever they are imposed military and national security implications are likely.
In 1971 Mr. Charles Taylor of the Futures Group prepared a forecast titled "The Impact of Science and Technology on Military Personnel Requirements in the year 2000." This paper has been updated to include new data, discoveries and trends in the forecast. Some significant changes in the past nine years have been the large migration of the US population to the Sunbelt, decline in the number of youth, and the demise of the draft. Mr. Taylor forecasts possible advances in science and technology, creates a scenario of the world and the United States and suggests an organization of the US military establishment which accommodates the environment of the year 2000.

Two reports on geographical areas of special interests are currently being written. Dr. Gabriel Marcella is preparing a paper on the Caribbean and Central America and Dr. Robert Irani on Pakistan and Iran. Both papers will focus on the regions as possible sources of future conflict. It is planned for these papers to be published in July and August respectively.

In his paper "NATO 2000" published 8 January 1980, Colonel Joseph Sites states that the United States' interest in maintaining significant positive influence in Western Europe in the 21st century should be clear. US participation in NATO has assured this in the past and can do so in the future. Analysis of current trends in and policies concerning NATO, however, places the very existence of NATO in the year 2000 in question.

The US concern with the Soviet invasion of Afghanistan and the European, particularly West German desire for a continuation of detente with the Soviet Union, has created a conflict which places some stress on NATO.

The difficult situation in the Middle East in which the US has assumed the leader's role for negotiations emphasizes interests for the US which are not the same for Western Europe. The political realities of Europe permit a much more pragmatic approach to the solution of the Middle East problem than that permitted the United States.
The Iranian hostage problem has also placed a strain on NATO. Many Americans have felt that our Western European Allies should be our Allies in our Iranian problems. Many Europeans feel that they had no influence on pre-revolutionary US-Iranian relations and that their role in the current Iranian problems should be no more than that of other nations interested in the maintenance of diplomatic protocols.

There may be some movement towards the reunification of Germany. This would obviously have a profound effect on NATO. If there had not been two Germanys at the end of World War II, there most likely would have been no NATO. An increase in the cooperation between the two Germanys, more visits, more expenditures of West German funds in East Germany and more concessions by the East, including a new autobahn to connect Hamburg and Berlin are seen by some analysts as evidence of a movement towards reunification. A reunified Germany would not be pleasing to everyone. There is a lingering fear in France which has been expressed many ways. Francois Mauriac, the writer, supposedly said "that I love Germany so much, I am overjoyed that there are two." Commenting on the desired size of the German armed forces, an observer noted that "they should be strong enough to scare the Russians but not so strong that they would frighten the French." We can rest assured that both the French and Russians will watch any development in movement towards the reunification of Germany.

These trends do not bode well for the future of NATO. As has been pointed out by many of our own politicians, our European Allies have the wealth and manpower to defend Western Europe if they were willing to make the effort. The possibility then that the Europeans, concerned with the entanglement in American interests outside of Europe, or doubtful of American support or tired of American leadership, may turn to an European defense alliance cannot be overlooked. As welcome as this may be in some circles it would mean the loss of a principal source of our influence in Europe which is a vital national need.
The following note should be made about the Review of Literature section. The discussion of each topic contains a compilation of thoughts and data from more than one source unless otherwise stated. Those notes which are based primarily on one or two articles contain the appropriate references.

With the publication of the Brandt Report, a great deal of attention has been focused on the Third World. The majority opinion of those who have written on the subject is that there is a strong obligation on the part of the North to expend effort and resources to improve the conditions of the South.

Third World Economic Development

A new book by Herman Kahn, World Economic Development: 1979 and Beyond, contains a prescription, of sorts, for how the developing countries can grow and prosper. This is a projection of the future in the sense that the prescription, or variants of it, could be followed and could, therefore, describe the course of Third World economic development over the next few decades.

Fundamentally, the case to be made is that economic development is "feasible," a case which Kahn believes is persuasive. If feasible, then it is desirable and moral to attempt this development. The Club-of-Rome pessimism and, generally, the limits-to-growth movements are dutifully scolded as not being founded in "objective facts or analyses."

The author makes clear his sympathy for the less fortunate of the earth while proposing that the key to development is to adopt a "futurology" ideology. In everyday terms, this comes down to telling oneself that we can

do it, so let's do it. This ideology is to contain an affinity to Western capitalism and to tradition, hierarchy, and individuality as well. The developed nations primary role, or nonrole, is to be benign neglect. The developed West interferes too much in trying to do good. It is best to be understanding, give only judicious aid, and follow one's commercial interests in dealing with the LDC's.

Developed--less developed consultation and cooperation are encouraged in the form of meetings and works which emphasize the development of growth scenarios. Such proposals are intended to depoliticize discussions and to separate political issues from development issues by focusing on the importance of increasing GNP and GNP per capita rather than on worldwide North-South issues or internal income distribution.

While Kahn should be given credit for going into more detail about international cooperation for development than others writing on the same subject, we must doubt whether he is doing much more than exhorting people to do something many of them do not want to do. In other words, such prescriptions must be persuasive to people less inclined to accept them (the LDC's) than people who are already convinced (the developed world). Consequently, the between-the-lines optimism about less conflict in the future is misleading. Kahn's fall-back position toward the LDC's of, "if you don't like it, lump it," is itself a prescription for conflicts and an overestimation of the North's economic clout.

In the future as in the past the habit of assigning categorical names to areas, economies or political parties often serves a simplifying and useful purpose; at the same time such simplifications can create problems.
Fascism in the Future of the Third World

Another book of interest to students of the future is James Joes, *Fascism in the Contemporary World: Ideology, Evaluation, Resurgence* which contains within it the pejorative term Fascist. Pejorative or not, the report indicates that the world will have to deal with Fascism. Fascist regimes have come from diverse situations, but almost always as a solution to economic frustration and political instability. Today, what we call authoritarian and totalitarian governments are more often than not Fascist. If they are, and if they and others will be inclined toward Fascism in the future, then there are advantages in recognizing those countries as falling into the more precise category. This is especially true of our perceptions of Third World countries. Our expectations about their future might be more accurate--or at least have a better frame of reference--than what we see today.

First, the obvious models we have--Nazi Germany and Mussolini's Italy--can be instructive but they are also misleading. For example, racism is not inherent to Fascism. Nor is Fascism exclusively a dictatorship of the right or a dictatorship of right-wing elements in a national economy. Rather a fascist regime can be extreme left as well as right. Fascism is recognizable in Peru as well as Argentina. Indeed, were it not for the absence of religious elements in the State, today's Soviet Union could fit the Fascist model quite well.

The telling characteristics of modern Fascism are "single-party states, hierarchal associations, centralized and bureaucratized developmental and modernizing economies, the orchestration of mass 'consensus,'" the prevalence

---

of 'charismatic leaders,' a promotion of a military style of life, closed autocratic systems, exacerbated nationalism, control of information and communications media, commitment of a vast expansion of military capabilities, and an insistence on the restoration of 'lost territories' to the nation."
The last item has obvious implications for international security.

Fascism in the Third World is and probably will be the result of three factors. First, the pressures of modernizing include a breakdown of traditional institutions, a nationalistic furor, and impatience about economic development, all favoring a strong state. Second, many fascist ideas are similar to traditional "norms and practices" as with the forms of authority (nondemocratic). Third, both by design of fascist rulers and through circumstances, "today's Third World reproduces many of the political and social maladies of yesterday's Europe and can, therefore, be expected to reproduce some of Europe's 'remedies.'"

Some possible implications of Fascism in the Third World have national security implications as well. Fascism and internationalism are not compatible. The "Balkanization" of Africa could become permanent, movements for African unity notwithstanding. Communist (Fascist) states such as Cuba and Yugoslavia probably will continue to remain, and become increasingly independent of Moscow. World economic interdependence will be impeded as a goal and as a "natural" product of open trading. And especially when things are bad at home and nationalist forces need to be rekindled, wars will be made to "regain" lost territory or other rights seen as belonging to the nation. Finally, as a logical corollary, military spending and capabilities will increase and nuclear weapons proliferation will be attractive to the fascist state.
Patent Protection for Organisms

The Supreme Court decision to grant protection to General Electric Co. for an organism that eats oil opened the door to what could be called a new frontier for research and industry. The decision provides the commercial incentive necessary in a capitalist system for the expenditure of research funds. In this case the research will be focused on creating new life forms, a process whose ultimate products defy imagination. The unknown and unforeseeable of this process causes great concern to those who oppose the Supreme Court decision. This decision, of course, had no effect in other countries who would have and will follow their own interests as they best can.

The initial patents will probably deal with the production of insulin. These will be followed closely with patents to produce interferon for cancer treatment. Later products could be used in increasing the world's food and mineral production. Also, current estimates indicate that the new processes could be used in replacing petroleum as a base material for many plastics.

The implications for the military, which are clearly apparent even in the first patents, need to be considered.
The Third Wave

A futures book which has received widespread publicity is Alvin Toffler's The Third Wave. The publicity and readership are sufficient to make this book a significant contribution to futurist literature, whatever its particular merits. It has received mixed reviews and a summary of three reviews follows.

"Postindustrial Man,"3 "Wiped Out by the Future,"4 and "The Shape of Things to Come"5 are book reviewers' column titles for Toffler's new book.6 Two of these three reviewers were quite critical of Toffler's book; a third wrote a most favorable review.

Langdon Winner of the Times believes Toffler's book "contains the same kind of titillating but slipshod analysis, the same way of playing fast and loose with history and current events as his 1970 book, Future Shock.7 Winner criticizes Toffler's dash through the first wave, the agricultural revolution 10,000 years ago that put civilization on a firm footing to the


second wave, the industrial revolution which 300 years ago brought attention in material production and social structure, to the new and third wave of change that is crashing down on civilization without taking time to consider and analyze what happened between these events that have brought the world to where it is today. Toffler, writes Winner, then with brash claims flings the reader into the third wave of change, a global revolution. Evidence for these claims "is considerably less than systematic or convincing," writes Winner. Toffler's methods of documentation Winner believes are faulty and questionable since it is "personal anecdotes, fragmentary data, and corporate opinion put together in a colorful, fast-moving pastiche." Winner also criticizes Toffler for creating new terms, "a string of neologisms, . . . with such dizzying frequency that the reader soon learns to distrust them." Finally, Winner concludes that Toffler's use of the auxiliary verb "will" conceals Toffler's "not-so-subtle form of advocacy." Toffler, Winner suggests, is a sociological popularizer.

Frank Trippett, a senior writer and essayist on the staff of Time magazine, is inclined to agree with Winner. "Toffler," he writes, "appears to be conveniently putting Third Wave labels on many of the changes engendered by the industrial civilization he [Toffler] assiduously decries." Futurists, Trippett believes, "suffer a peculiar state of mind that might be called present shock," e.g., changes in society that an ordinary observer might consider "the culmination of or product of the past." Trippett believes that the futurist [Toffler], as his unnamed example, although Trippett assigns this to all futurists imagines that the changes are "being mobilized by other influences--namely, by something out there in the void of the future."

13
The Third Wave recapitulates only those social and political changes familiar to every attentive news reader and "is loaded with stale news." Trippett astutely points out ambiguities in Toffler's Third Wave such as who are the advocates of the second wave or the third wave civilization in contention today, and the inconsistencies even from one page to the next. Trippett goes on to criticize the new words Toffler invents: "practopia," "de-massified," "de-marketized," "infosphere," "mechanomaniac," and numerous others. Trippett, additionally, points out Toffler's imprecision in his excessive use of descriptive adjectives, often contradictory of the same subject, which tend to confuse the careful reader. Trippett concludes that Toffler's "highly improbable future can be shrugged off as par for the futurist course."

Jerry Pournelle, who writes frequently about science, technology and the future, lauds Toffler's Third Wave, but with some reservations and admits immediately that he has written the same things in his own works. Pournelle recognizes the flaws, imprecision, and advocacy in The Third Wave and attempts to decipher through them Toffler's logic. He states that

The basic theme of the Third Wave is simply stated. Although human history is incredibly rich, and man has lived under a bewildering variety of civilizations and cultures, one may discern two major stages in the past: a "First Wave" civilization which grew out of the agricultural revolution; and a "Second Wave" which sprang up as a consequence of what historians call the Industrial Revolution. . . . the Second Wave itself, although in power just at present, is dying, and will be replaced by a "Third Wave" civilization. The death throes of the Second Wave and the birth struggle of the Third Wave have created our present discontents.

This, writes Pournelle, "sounds as if Toffler has stolen Marx's stages of historical growth, collapsed the slave and feudal periods into one, and given the results new names. . . ." Although Pournelle favors Toffler's Third Wave he believes Toffler's final flaw was "he offers a menu of changes--particularly changes in political structure--but says little about what to do
tomorrow. . . ." Pournelle concludes that "this book, flawed as it may be, is a magnificent piece of work" and anyone concerned with the future ought to read it; "it remains for someone else to tell us what to do next Wednesday."

The preceding three reviews were summarized to provide a perspective for consideration of The Third Wave implications for the Army which follow.

The predictions of change in ways of doing business based on communication and decentralized computer systems offer interesting possibilities for the Army. If such systems could be developed for the Army, headquarters at all levels could be greatly decentralized presenting less lucrative targets. In fact they would be located much further to the rear than currently required and there would be a greater capacity for one element to assume the command and control functions of another if it became necessary. In peacetime it would appear that many military functions could be decentralized paralleling the predictions for civilian activities.

Mr. Toffler's suggestion of the challenge of power elites in both capitalist and socialist societies is filled with implications for the military. If the challenges do take place, even in moderate form, in socialist countries, one could expect violent governmental reaction which would result in creating great instabilities. Within our own society a demand for radical changes to our legislative procedures could create serious confrontations.

Perhaps the greatest implications are those which would result from a change in the life-styles, goals and relations of people. Significant changes in these areas would require the reconsideration of what constitutes national security and what role the Army should play. Of utmost concern would be
the nature of the manpower available to man the Army. Leaders with different priorities, and soldiers with different ethics would make a very different Army from that which has been historically known.

Manning the Army 2000

Recent events have caused serious consideration on how we should man the forces now. The following subsection reviews the current literature on manning the forces, points out additional problems for the last decade of this century and suggests some actions which should be taken.

Martin Anderson has suggested in an article early in the year that the call to begin only registration for a military draft is a weak and dangerous response since it would signal to the USSR that the United States does not consider their actions serious enough to reinstate a full draft. Additionally, he thinks that registration would provide a false sense of security to the American people as well as to abrogate their freedom. Anderson's premise is that it is the availability of a large and well trained reserve that is needed to maintain readiness in the event of a sudden threat to our national security, not a military draft. He suggests that the draft, in any form, would be worthless since it would take several months to contact, induct, and train new recruits; whereas, the reserve could be called into service in a matter of days. Anderson recommends: 1) bringing the active forces up to full combat capability with improved equipment; 2) arming the reserves and National Guard with comparable weapons and equipment; 3) taking steps to

---

encourage more reserve signups and reenlistments; 4) instituting an effective program of lateral entry into the active and reserve forces to provide a pool of mature and talented men and women between the ages of the late 20's to age 50 and, in special cases, up to age 65, and 5) assuring that the military does not become isolated from the rest of society. Anderson does not suggest how all this can be done.

Bertram Gross, Distinguished Professor of Public Policy in Hunter College's urban affairs department, expresses his views in an article in The Nation. Gross believes that registration of young American men is unconstitutional because it discriminates against younger and older men as well as against women. Additionally, he thinks that the draft registration "heightens the perception of a national emergency . . . while distracting attention from inflation and stagnation." It is a "cover-up for rebuilding a cold-war militarism to protect the marginal interests of American-based transnational complexes abroad . . . ." Gross claims that the military logic is that "volunteers cost more money and draftees always come cheaper" and that the volunteer Army "might not be sufficiently reliable" as a Rapid Deployment Force. He advocates the following means for use by an anti-draft movement: "lobbying, litigation, legislation, nonregistration, and, above all, non-violent civil obedience." The American Civil Liberties Union, the National Emergency Civil Liberties Committee, the Women Strike for Peace, as well as private lawyers are preparing now to follow these means through. Gross is encouraging youths, their families and friends also to join in this

nonviolent civil obedience by delaying tactics, by litigation, and by organized discontent. He believes that the President ought to pursue a "Detente II that would be multilateral instead of bilateral and offer a firmer basis for arms control and disarmament."

Juan Cameron points out in an article in April 1980 that only a draft, not just registration, can remedy the problems of quantity and quality of the military. The volunteer force has proved to be "precariously acceptable at best and disastrous at worst." Additionally, he observes that the declining birthrate in the 1960's means that in order to maintain present forces which are now below the authorized level and the ready reserve which has already declined to one-third of its 1973 level. Volunteer recruits are "increasingly difficult to train because of low capacity and poor education and the private sector is draining away capable military manpower." Cameron insists that the need to revive registration and the draft "seems clear cut and urgent to meet the long-shot chance of mobilization."

Some significant problems and their implications follow. Compulsory conscription has always been divisive in the US society, especially in peacetime. Registration in peacetime, even though more acceptable, still will evoke criticism and muster objectors. The prospects for organized opposition to Selective Service registration will probably be a reality during the summer and into the fall of 1980, and possibly on into 1981. Various estimates have

indicated that there will be from an insignificant number of nonregistrants to a substantial number. The Army believes that there will be about 80,000 noncompliants, and the Selective Service expects about 600,000 or 15 percent of the first 4 million eligible youths. The actual number of noncompliants might fall somewhere in between these two estimates. The legal costs involved in prosecuting nonregistrants will be substantial. Other legal actions anticipated which, in all likelihood, will delay the initial registration, concern the constitutionality of a male-only registration. The US Supreme Court could justify the sex-based registration, throw out the registration of males only, or, in effect, order the inclusion of the registratin of women. A draft registration of women would strengthen the case for ratification of the Equal Rights Amendment. Likewise, the constitutionality of discrimination against both younger and older males could very well be decided for a registration irrespective of age. Still another important legal aspect is the situation involving conscientious objection on religious, moral, or political grounds.

Presently, there are few indications of a national crisis in the foreseeable future that would move the registration to a mobilization draft status except, of course, a massive Soviet invasion deeper into the Persian Gulf area or into Yugoslavia (and they are problematic). The essential value of registration will be to provide essential data of available manpower for the Army. Also, it could increase the influx of new volunteer enlistees into the Air Force, Navy, Marines, Reserves, and National Guard. An additional problem related to the manning of the Army is the current disproportionate racial distribution in the Army. American blacks make up almost 33 percent of the Army today and the Senate Armed Services Committee believes that
they would bear an inordinate burden of defending the nation and the brunt of casualties in any future war and suggests that this be corrected. These are but a few of the manning problems facing the Army today and there are probably many more problems involving the quality and quantity of manning the Army. Many combinations of solutions will have to be found and tried to achieve the most effective before a serious crisis arises.

As registration data becomes available over the next several years, Army analysts and planners will be able to project with greater reliability a variety of Army force structure models. Consideration of demographic data currently indicates that the number of 18 and 24 year olds will begin to wane and will continue to dwindle to the year 2000. Planners and policymakers in 1980 might very well have to consider the possible reorganization of the military establishment to assure a strong national security posture. It behooves Army analysts and planners to consider today who will fight in the Army 2000.

Who will fight in the Army of 2000? In all likelihood, if today's trends continue the Army of 2000 will be manned by men and women at ages from 18 to 55, with the bulk at 30 to 50 years of age and mostly males. More enlisted service members will be black (and possibly Hispanic) by 1990 with fewer numbers being white. One factor which may influence this is that traditionally blacks have had a 1.3 to 1 career reenlistment ratio over whites. The Army, especially, will continue to appeal to Americans from the lower socioeconomic strata of society, perpetuating the social misbalance of the Army community when compared to the American society as a whole. Middle socioeconomic-class white Americans will continue to be less attracted to the Army than they will be to the Air Force and the Navy. (Unless solutions to change this situation are found, the problem of Army manning during the Vietnam war, when the Army was more heavily weighted with draftees from the lower socioeconomic class.
where blacks are more prevalent, will remain unresolved.) American white accessions to the Army probably will continue to come from the least educated, unemployed, and culturally deprived segments of the society.

Education and trainability bring up another related problem. Technological advances relating to weapon systems and ancillary equipment are moving into Army operations at a rapid rate today which likely will increase over the next two decades. Active Army forces will have to be sufficiently educated to be capable of absorbing the training necessary to operate these systems. Today those who can be trained too often leave the Army for higher pay related work in American industry. Unless solutions are found, the same will be true for the Army of 2000. The basic source of the solutions to both these problems, training and retention, is economics. The Army cannot compete for manpower without the money to pay for quality services.

There must be other answers in addition to being able to pay the cost which would probably achieve a well educated, trainable force as well as one that is a balanced community. Anderson's suggestion of depending on a reserve and National Guard force might indirectly solve some of the problems. However, these forces will be facing some of the same problems in addition to special problems of their own such as call-up and show rate. Also, technology is moving too fast and will be too costly to permit providing the reserve and National Guard with weapons and equipment comparable to the active Army. Perhaps the Army should study and analyze what its manpower competitors (business and industry) are doing (besides offering higher pay) and what their work/career environments, management programs, and their employee relationships offer to make these civilian occupations more attractive. This
might determine in what ways the Army can offer similar inducements. For example, most employees of an industrial firm are not required to move away from their home base to a new location every two years or so. Often an employee might never make a change in location. Although Army tours are more stable than they were, there are still frequent moves which are considered disruptive by many families. The Army should analyze the possible benefits that could be achieved if persons in selected jobs remain in them at one location for long periods or even the entire period of career service. Consideration could be given to assigning personnel to a specific unit with the expectation of serving in that unit throughout the major portion of one's career. The unit could have both stateside and overseas elements and other changes could be made in order to attain the advantages of a "home" unit.

Industry is constantly searching for and experimenting with new management methods and programs in order to improve the overall functioning and efficiency of their firm. One such management scheme is participative management. In what ways might this tool be beneficial to the Army? Would young recruits consider a career in the Army less ominous and more rewarding if they knew they had a say in its operation? Yet another example, industries are now providing an assortment of counseling programs to employees. Counseling is private and confidential and the employee has no fear of reprisal. Industry's overall objective for the betterment of employees which results in improved operations is also the Army's objective. Industry's management and administration of counseling should be analyzed to find possible benefits for the Army. A thorough study across the broad spectrum of industry and innovative industrial management might reveal where the differences are and very well could improve the Army environment.

22
In the year 2000 we can expect that the Army will be technology-intensive. It should require fewer personnel but this benefit to the Army is offset by the requirement for highly qualified personnel. To obtain and retain these soldiers the Army will have to compete with industry and the rest of American society. The opportunity to serve one's country, an ideological inducement peculiar to the armed forces, is not sufficiently attractive in peacetime now, nor will it be so in 2000 to offset some of the disadvantages of military service. The Army then must begin now to analyze what it is that makes industry or other work areas more attractive and attempt to borrow and implement those ideas which can be made compatible with military requirements. At the same time the Army could commence programs which stress the military's unique opportunities for satisfaction of and pride in service, comradship, sense of belonging, and a feeling of security—the knowledge that the individual is going to be taken care of by his bosses.
FUTURE DIRECTIONS

The preparation of a base reference document for long-range planning will require a great deal of effort by the Futures Group. However, we intend to continue to identify sources of conflict and analyze possible courses of action. Papers on Indonesia, Japan, India-Pakistan, South Africa and inflation are planned.
This periodic report of the Futures Group of the Strategic Studies Institute presents a review of work completed and in progress as well as summaries of selected forecasts. This report contains a summary of reviews of Alvin Toffler's book The Third Wave and provides some implications for the Army. Future directions of research are also noted.