Industrial Base Mobilization: 
Recommendations for Improvement "Unheeded"

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ABSTRACT

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Industrial Base Mobilization: Recommendations for Improvement "Unheeded"

This paper reviews many of the more significant studies (since 1988) of the viability of the United States Defense Industrial Base. The intent is to determine which recommendations from those studies have not been implemented and why they have not. Over 27% of the findings have not been implemented and approximately another 30% have been barely started. Reasons for "unheeded recommendations" are many but can not be stated with any degree of certainty; most fall within the parameters of Decision Making problems studied at the Industrial College of the Armed Forces.

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INDUSTRIAL BASE MOBILIZATION:
RECOMMENDATIONS FOR IMPROVEMENT "UNHEEDED"

INTRODUCTION

The health of the "Industrial Base" is essential to the health of America.

The "Defense Industrial Base" - some debate the distinction, but for the purpose of this paper, they are interchangeable. It has been and continues to be of concern, particularly as it is a major component of National Security. Given its importance, there have been numerous discussions, debates, and studies -- and CAF research papers -- concerning both the "Industrial Base" and the "Defense Industrial Base."

These studies are generally discussed as having negative conclusions: the "base" is on the decline, the government isn't doing enough to save "critical industries", we need an "industrial policy", "just another study", governments in other countries do more, the capability to mobilize for "the long haul" won't be there when it is needed, etc. Of even more concern is the negative perception held by many that no matter how many studies there have been or how many more there are, the likelihood for significant improvement is low (2).
This paper will:

Determine which of the recommendations from previous studies have not been implemented (by government and industry) and more importantly, the rationale for not implementing them.

Determine the likelihood of implementing these or similar recommendations to improve the Defense Industrial Base as we define the new pillar of reconstitution in the light of the changing world situation and domestic priorities.

DEFINITIONS

Industrial Base, as defined by DoD, is the capacity of industry to produce goods and services that DoD needs to meet its mission requirements (4).

Surge is a term used to refer to the expansion of military production in a peacetime mode, without the declaration of a national emergency.

Mobilization is used to refer to the rapid expansion of military production to meet materiel demands in a war fighting situation (5). A broader definition envisions mobilization as referring to a
broad array of conditions in which national resources would be
applied to address a national crisis, including non-military
situations.

HISTORY

It is generally agreed that an historical perspective provides the
best place from which to start studying a subject. A succinct
treatment of the subject, *Industrial Mobilization: The Relevant
History,* was done in 1983 by Frederick L. Vawter while a Senior Fellow
with the Mobilization Concepts Development Center of the National
Defense University. In light of Mr. Vawter's extensive work and
keeping with the intent of this paper, only a few of the more
significant aspects of industrial Base Mobilization history will be
highlighted here. Its purpose is to acquaint the reader with a
general sense of the "management" of the base and how it has evolved
over time. Most industrial mobilization histories focus primarily on
World War II, its antecedents of World War I, and the period between
those wars (6). The next few pages will highlight items from the
World War II, Korea, Viet Nam, the Cold War, and the Gulf War.
The period between World War I and World War II:

This period provides the first glimpse of what has been, and remains what I consider to be, the most glaring problem in industrial base mobilization -- the lack of defined requirements about what is needed and when. 171.

As a result of this recognized shortcoming, lack of requirements, Congress passed the National Defense Act of 1920, changing the Assistant Secretary of War with "the assurance of adequate progress or of mobilization of material and industrial organizations essential to wartime needs." This Act established the Planning Branch within the Office of the Assistant Secretary of War, the Army Industrial College, and the Army and Navy Munitions Board. 181.

The planning system established by the Act resulted in the first series of Industrial Mobilization Plans (IMP).

World War II:

The most vivid recollections people have about industry efforts in World War II seem to be the large amounts of men and materiel that
were produced. To some, it even seems that that production was the
sole reason the war was won. What is usually overlooked is:

The amount of trial and error needed before those results were
effective.

The amount of lead time required (the US was deeply involved in
"lend lease" before we became involved in the war directly).

The production rates for all military equipment hit truly
prodigious levels, commensurate with the growth of the defense
share of the GNP from 11 percent in 1941 to 45 percent in 1944,
after which it fell to 39 percent in 1945 (9).

The main message after this period was that good prior planning and a
base: the defense industry are essential to any rapid industrial
mobilization.

The period Following World War II:

For most of us the period immediately following World War II is
pretty vivid, either because we lived through it, we have heard
countless stories from those who did, or we have studied cases illustrating its various aspects, particularly true due to pressure to reduce the military budget after the end of a War. There will be more discussion on this point later in this study.

One significant item concerning the reduction in military budgets at the face of the war's end was the question about the maintenance of industrial and other critical facilities not immediately needed. This is a concern in today's drawdown and budgetary constraints. As one example of the potential significance of this issue, it was estimated that the annual expenditure of $10 million for three years prior to the Korean War would have saved between $250 and $300 million in reconversion costs actually incurred to make factories usable for the Korean War (1951).

Several key legislative actions were passed to directly impact the ability to achieve mobilization readiness. Many of these still exist today. They are:

The Strategic and Critical Materials Stockpiling Act of 1946 provided for the acquisition and maintenance of the strategic stockpile.
The National Security Act of 1947 created the National Security Resources Board (NSRB) charged with the coordination of military, industrial, and civilian mobilization for the entire executive department.

The Armed Forces Procurement Act of 1947 provided the means of protecting and building up an industrial base by excepting contracts from competitive bidding when it was determined that facilities and supplies should be retained in the interests of national defense.

The National Industrial Reserve Act of 1948 authorized the retention of surplus machine tools, manufacturing equipment, and industrial plants required to supply the needs of the armed forces for emergency production.

The Korean War Era

The Korean War changed the major focus of mobilization from strictly responding to military needs for a war to one of establishing...
Military power capable of offsetting Soviet designs of world domination--our Containment Policy. The key document that caused and outlined this fundamental change in attitude was NSC-68. A Report to the National Security Council, dated 14 April 1950. Written at the direction of President Truman, it provided background information and guidance on nuclear weapons policy. President Truman never explicitly approved NSC-68 but it clearly became the intellectual framework for future programs.

Following NSC-68 and the start of the war in Korea, the Defense Production Act of 1950 was enacted. Its stated purpose was to oppose aggression and promote peace, and to develop and maintain whatever military and economic strength necessary to carry out this purpose.

This Act was designed to stimulate expansion of capacity by a broad variety of incentives and assistance, with primary emphasis on expansion of private capacity while minimizing the outlay of Federal funds and restricting incentives to cases within the scope of defense mobilization (11).

The Office of Defense Mobilization (ODM) was created 16 December 1950. The director was authorized "to direct, control, and
coordinate all mobilization activities of the Executive Branch of the Government including but not limited to production, procurement, manpower stabilization and transport activities" (12).

Probably the most important mobilization goals ever set forth were listed in ODM's first quarterly report to the President. They are still critical to the debate over the size, criticality, and supportability of the industrial bases. Two key provisions are:

3. "To develop our basic resources and to expand our industrial capacity so that in the long run we may continue as large a military program as may be necessary and at the same time improve our standard of living -- or in case of all out war so that we may have a powerful industrial base."

4. "Consistent with the above objective, to maintain a healthy and productive civilian economy" (13).

The mobilization base took on an expanded definition with Defense Mobilization Order No. 23, issued by the Director of Defense Mobilization on 23 November 1952:
The mobilization base is that capacity available to permit rapid expansion of production, sufficient to meet military, war supporting, essential civilian, and export requirements in the event of a full-scale war. It includes such elements as essential services, food, raw materials, facilities, production equipment, organization and manpower (14).

In January 1953, the Advisory Committee on Production Equipment, known as the Vaux Committee, released its report on the issues of the machine tool industry. That report has been a cornerstone of the management of the industrial base since that time. It basically established the precedence for "stockpiling" (and the still ongoing debate about what are appropriate levels) and stressed increasing productive capacity -- maintaining it. An extract of the Committee's interim report articulated the policy that became the basis of DoD industrial base planning until the 1970's. It also provided a mobilization rationale and identified some problems that are as important today as they were in 1953:

If an adequate defense position has to be maintained over an extended period of time, as now seems to be the case, and if
this is to be done without prohibitive cost, a larger productive capacity to produce military end items must be created and thereafter maintained in such condition that it can be quickly expanded in the event of an emergency merely by adding manpower and hours of operation (15).

In a situation requiring long-term readiness for war, the creation and maintenance of ample production capacity is not only less costly and more practical than depending chiefly on reserves of military material, it also represents a greater contribution to national security (16).

Maintenance of the base had really begun to be recognized as essential to National Security in 1953. There was widespread acceptance of the principle that capacity was less costly than stockpiling. Unfortunately, little attention had been given to the costs of maintaining this capacity in a condition of readiness if it was to provide benefit in the future.
During this period, we had a very definite policy of "picking winners and losers", an analogy that referred to awarding contracts to companies that the government wanted to survive versus those that they really didn't care if they were competitive or not. A system that the current administration publicly is against, but a system that is nevertheless, informally in effect.

The policy was authorized by the Defense Production Act and was the Priorities and Allocation Program. The existence of the system at M-Day was expected to minimize costly delays in rapid conversion to military production. Some significant points of the PAP are listed here:

The services were directed to identify key end-items for which detailed mobilization planning would be accomplished. This direction resulted in the Preferential Planning List (PPL), a list of military items deemed essential to national survival.

The Industry Preparedness Measures program was aimed at identifying and eliminating mobilization and production bottlenecks prior to the emergency.
The other most significant event during this period was the Force-in-Being concept adopted by the Air Force which was predicated on the assumption that the next war would be a "come as you are war".

The Army was still planning on stockpiling months of supplies while the Air Force went to a few days based on the differences in the anticipated length of the next war.

The Air Force did no mobilization planning from 1958 to 1965.

The combination of this change in Air Force planning and the difference between then and the Army resulted in mixed signals being sent to industry with a corresponding degradation in planning efforts. That degradation is still seen and felt today.

The Viet Nam Era:

Key points in Industrial Base Planning and Mobilization during this time are probably summarized best in Monograph 12 of the 1970 Joint Logistics Review Board's (JLRB) comprehensive examination of logistical support in the Viet Nam era (18).
Without valid, stable requirements it is virtually impossible to plan with industry or maintain the production base in an acceptable state of readiness.

The JLRE noted that not only was a national emergency avoided (there was no declaration of national emergency), but there was also an effort made to use competitive procurement to the maximum extent possible to reduce the cost of the war. These two elements combined effectively to invalidate all the previous planning with industry (1951).

The Assistant Secretary of Defense for Installations and Logistics had noted that studies had revealed unbalanced mobilization planning, outdated planning agreements, inadequate emphasis on the need for planning, and inadequate follow up at the Government (1201).

Organizations other than the JLRE were also doing studies, releasing reports, and generally expressing their concern about defense industrial mobilization problems about this time. The Industry Advisory Council (IAC), which consisted of 24 industry members who met three times a year with the Secretary of Defense and other
prominent officials, and the National Security Industrial Association were among the most prominent.

Unless some mobilization base planning is factored into the cutbacks in defense programs, many essential technical and production capabilities in industry will cease to be available [21].

In November 1970, the Deputy Secretary of Defense chartered a subcommittee of the IAC to study and make recommendations on the base [22].

The Cold War Era:

The Cold War Era which actually had its beginnings in the 40’s build up for Korea, began with the “containment” policy and was responsible for alternating “build ups” and “draw-downs” throughout the 50’s, 60’s, and 70’s. In the 80’s, DoD underwent a massive build up, the largest since WW II. A conscious effort was made to rebuild the resource mobilization processes and organization through the Emergency Mobilization Preparedness Board (EMPB), National Security
Decision Directive (NSD) #57, establishment of the National Security Emergency Preparedness Program (NSSEP), and several major mobilization exercises to test capabilities patterned after Nifty Nugget and Proud Spirit.

Industrial Preparedness Planning (IPP) focused on stockpiling end items (Pre-positioned Overseas Movement of CONUS Unit Sets, POMCUS) and repair parts. Surge was generally understood to be the expansion of military production in the absence of a formally declared national emergency.

The Gulf War:

The most significant event during the war, as it pertains to industrial mobilization, was the lapse of the Defense Production Act in October 1990. Although serious shortcomings could have resulted from this lapse of legislative authority, effects were minimized by aggressive action officers and cooperative contractors with the spirit of "patriotic good will".

Early in January 1991, the President issued Executive Order 12742 on "National Security Industrial Responsiveness". It gave National
defense needs first priority on the Nation's production. Although this E.O. supplied the authority normally provided by the Defense Production Act, it had significant legal restrictions.

The lack of firm requirements in both magnitude and timing continued to be a major adverse factor in developing various crisis responses from civil agencies and the contractor community alike. (264)

As a result of the "Cold War" surge, has come to mean the accelerated production, maintenance, and repair of logistics support services to meet contingencies short of a declared national emergency utilizing existing facilities. (251)

The Studies

One problem with reviewing studies and reports is that there appears to be no one central repository for the results. Numerous agencies, Congressional leaders, and special interest groups have all done their own studies over the years. (261). This lack of a central repository is indicative of the lack of a concerted effort by any
agency, whether it be the Department of Defense or the Federal Emergency Management Agency. In one sense and another, the government recommends one or more implementation or follow-up or actions taken to determine effectiveness.

Without question, the one most universally recognized study of the industrial base was completed in June of 1988 by the "Packard Commission" (the President's Blue Ribbon Committee on Defense Management). The commission's report, A Vision for Excellence, recommended sweeping changes to both the management and practice of defense business in the United States. Its first report is the cornerstone of the industrial base reports.

The following reports are also considered significant:

- **Packard Defense Industrial Competitiveness (BIC) Study.** July 1988: Identified actions necessary to prepare DoD to better deal with the dynamics of the global marketplace.

challenges to American industry and its support of national defense.

**The Defense-Industrial and Technology Base, the Defense Science Board (DSB), October 1988:** assessed issues relating to the US industrial and technology base and resulting policy implications.

**Economics, Science, and Innovation: Pace, Competitiveness, October 1988:** worked at the ability of the US to maintain its overall world lead in science and technology development, and in the commercialization of that technology.

A task force of the National Academy of Sciences and Technology (NAT), 1989, reported on an in-depth assessment of the DoD work force and suggested methods for resolving skill and educational shortfalls.


the Gulf War did not address the industrial base for expanded production, that the government appears only to have a loose concept of what it expects from the DIA, and government efforts do not address the problems comprehensively [27].

THE FINDINGS AND RECOMMENDATIONS

General:

Many of the recommendations and issues of the above reports are similar or nearly identical. The Packard, BIC, and DSS reports are the most circulated reports. Although each major study/review is different because of its charter and sponsor, all findings and recommendations can generally be grouped into three broad categories:

1. Industrial and Technology Base issues. These issues include a variety of diverse recommendations concerning the domestic U.S. industrial community. Those recommendations address industrial capability, industrial base information, coordinated R&D planning and execution, and technology development concerns.
6. Acquisition issues. These issues include acquisition policy, defense budgeting and planning, industry relations, the use of commercial items and practices, and ethics and self-governance.

7. Education and knowledge. This area is concerned with the support of national defense provided by the U.S. educational and R&D systems. It includes recommendations addressing the issues of workforce skill and preparedness and the level and coordination of U.S. R&D efforts. (18).

To evaluate the report findings, recommendations, and actions taken, personnel in OSD, the Logistics Management Institute (LMI), and the National Defense University (NDU) were interviewed and the General Accounting Office assessment of the Packard Commission implementation was reviewed.

In definitions below were used in developing the summary chart on the following page:

- Implemented (I). The review showed that the lead agency(ies) have taken the recommended action.
- Partial (P). Some action has been taken by the lead agency. The complete intent of the recommendation has not been achieved.

- Unneeded (U). No action has been taken at all or the recommended action has been delayed or postponed.

### Recommendation Summary (by report)

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The recommendations can also be grouped into the broad general areas of focus:
a. Organizational changes: Creating a new agency or study unit, redefining areas of responsibility, etc.

b. Policy changes: Creating new policies, eliminating or revising existing policies and regulations.

c. Information processing: Analyzing existing data and making appropriate recommendations, creating new data bases to collect information on the industry base, improving information flow among industry, congress, and the executive.

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These recommendations and groupings are representative of the other reports as well. The next section will list the unneeded recommendations summarized above followed by the current status. The LMI report lists all recommendations and status.

ORGANIZATION CHANGES:

- Establish a permanent Cabinet-level mechanism to determine industrial and technology base capabilities, compare them with national security objectives, and develop national policy initiatives to remove the difference between industrial and technology base capabilities and national security objectives.

There are no current initiatives to develop a Cabinet-level mechanism for determining industrial and technology base capabilities.

- The Joint Requirements and Management Board (JRMB) should be co-chaired by the USD(A) and the Vice Chairman of the JCS and should play an active and important role in all joint programs and in appropriate Service programs by defining weapons requirements, selecting programs for development, and
providing thereby an early trade off between costs and performance.

DOE has restructured a DMS in the form of the DAS. However, the DAS's functions and responsibilities do not really reflect those envisioned by the Packard Commission. The major problem is perceived to be a disconnect between decision-making and programmatic responsibilities.

WILLOW CHANGES:

6. Reverse the deterioration of the maritime segment of the industrial base to ensure the credibility of our conventional deterrent.

No actions in progress.

6. Start Defense planning with a comprehensive statement of national security objectives and priorities, based on recommendations of the National Security Council (NSC).

The status of the recommendation is unclear to most observers.
While DoD feels it receives its guidance in the form of budget levels, many people feel that this is not the sort of comprehensive guidance intended by the Packard Commission.

The President should select a particular military program and the associated budget level, which would be binding on all elements of the Administration. DoD would then develop a 5-year defense plan and a 2-year defense budget conforming to the President's determination.

The President has not yet provided any binding military program that is substantively different from past guidance.

The President should issue provisional 5-year budget levels to DoD. These budget levels would reflect competing demands on the Federal budget and projected gross national product and revenues and would come from the recommendations of the NSC and the OMB.

DoD has always received 5-year guidance from OMB, but it is not clear that the outyear guidance has changed substantially as a result of the Packard Commission recommendations.
DoD should present the budget to Congress on the basis of national strategy and operational concepts rather than systems.

DoD has not pursued an operationally oriented budget because Congress has not changed its approach to one that would allow such a budget.

Expand the use of multi-year procurement for high-priority systems.

Congress has established guidelines for programs eligible for multi-year procurement and has been reluctant to relax those standards.

Raise the priority of using life-cycle costs as a basic evaluation technique in acquisition programs. Assess DoD's progress in applying this concept.

Although current legislation and regulations allow DoD to consider factors other than cost in awarding contracts, these provisions are not as widely used as they might be (about 20
percent of contracts awarded in FY86 were based on technical competence as well as price. The Air Force is establishing a program for evaluating contractor past performance and factoring that performance into considerations for current awards; this program could eventually be applied throughout DoD. An interesting note is that, on the basis of the Packard Commission recommendation to review directives and eliminate unnecessary ones, DoD eliminated its old Contractor Performance Evaluation System.

c. Ensure that procurement policies and the competition advocacy process base competition principally on total quality and good business practices, not just on competition for lowest costs.

See status for recommendation just above.

c. Federal law and DoD regulations should provide for substantially increased use of commercial-style competition, relying on inherent market forces instead of government intervention. To be truly effective, such competition should emphasize quality and established performance as well as price, particularly for R&D and for professional services.
little has been done to reform the acquisition process itself so that commercial competition and award process may be used more regularly.

- Vigorously pursue efforts to increase use of commercial manufacturing process and product specifications.
  Comprehensively identify barriers to integrated manufacturing of commercial and military products and examine alternative practices that might facilitate such integration.

The National Defense Stockpile is trying to use commercially oriented purchasing specifications and standards. Related initiatives emphasize using commercial items as much as possible, but none of the current efforts are taking a comprehensive look at how to integrate commercial and Government manufacturing.

- Recognize the delicate and necessary balance between the Government's requirement for data and the benefit to the nation that comes from protecting the private sector's proprietary rights.
DoD does not particularly care about industry's ability to commercialize technology. Therefore, the issue of data rights becomes one of whether or not acquiring data rights is necessary for DoD to economically retain unrestricted access to technology.

- Provide seed money for an instrumented factory program for industries where there are large numbers of companies and significant non-defense applications.

DoD has not budgeted funds for research facilities since the 1960's, and the physical plants are deteriorating. Of $1 billion in FY90 R&D funds, Congress has earmarked $130 million for investment in Federal, industry, and university research facilities. While this supports the noted objective, DoD feels that it is inappropriate to use R&D funds for facility capital investment.

INFORMATION CHANGES:

- Establish a substantial analytic capability within the legislative branch dedicated exclusively to objective analysis
of the impact of existing and proposed reorganization of the U.S. manufacturing base and its ability to compete internationally.

DoD cannot implement this recommendation alone. While DoD is developing this analytic capability, Congress must show interest in developing its own capability.

Reasons for Between Reommendations:

The recommendations indicate that despite the number of the stature of the group (or Commission), there are no simple answers to this complex issue of the "industrial base." All of the recommendations are relatively broad (mostly by design) requiring participation and cooperation from more than one agency, and will take time to implement and monitor (to determine their effectiveness).

The previous charts indicate that acquisition policy (and procedures) is generally regarded as the area needing the most improvement (64% of all recommendations are in this area). It is also probably the most complex, requires the most cooperation between the Executive and the Legislative branches, and has the most direct impact on industry procedures.
Reasons for not implementing the recommendations ("unheeded") will be discussed on the following pages and can be grouped into five general areas:

- Lack of Review
- Lack of Accountability
- Lack of Specifics
- Lack of Communication
- Lack of Vision

Lack of Review:

As discussed earlier in this paper, there is no one office charged with the responsibility for receiving, analyzing, and evaluating the many and varied studies of and recommendations made concerning the industrial base. This lack of a focal point is indicative of the perceived general lack of concern over the National Competitiveness.
and doubt on over who is really responsible for the flushing out industrial base. In general, the reports have not been studied with any sort of systemic approach, specifically with the intent of determining which recommendations are in fact viable, prioritizing those that are, and assigning responsibility for action. Although this paper did not intend to make new recommendations of its own, the proper emphasis would be shown if the focal point for the industrial base was in the National Security Council (NSC) which cuts across agency lines.

Unit of Accountability

The next logical step in getting something done is to assign responsibility for the action and then tracking and reporting progress. In the majority of the recommendations, more than one agency or office is involved with the corrective actions needed. A lead agency has to be named, and held accountable (to the focal point), for satisfactory (effective and timely) response. Currently the lead agency is only assigned in some cases (Packard Commission) and in others left to the reader’s imagination. This lack of defined specific accountability lends itself to the old saying “it’s
not my fault" or "They are obviously talking about someone else. My area is straight."

Lack_of_Specifics:

One type of specifics was mentioned under the Lack of Accountability heading above. Of even more importance is the lack of specifics for the recommended corrective action. Generally, a lot of time and effort is expended on these studies. This time and effort should not be wasted in causing the agencies responsible to reinvent the wheel (leaving the agency to re-research the "problem" to develop the solution). Even if there were an "Office of Review" in the NSC, the lack of specifics in the recommendations would still make implementation difficult.

Lack_of_Communication:

Lack of Communication is an easy finger to point. In today's society, it is used as a contributing, if not the major factor, in every problem we have. In this case, it is easy to see that the
Lack of communication between the branches of the government, between Cabi,ntes, among industries and among all of them contributes
to the lack of understanding of the problems and the solutions.
Communication has been noted as a greater challenge than the looming
Japanese superiority on the Economic Community because communication
breakdown prohibits an effective and efficient response (30).

Lack of Vision

It has been manifested in the raging discussions and heated arguments
about whether or not we as a nation have an "industrial policy.
Although the Executive currently claims that "the Free Market is
the only policy that will be articulated while he is in office,
think that it is clear that that is really insufficient. Even
without "picking winners and losers", a long-term strategic vision
of what kind of industrial base is envisioned for this country to
remain economically competitive internationally is needed. This
'vision" would provide the basis for correcting the other
shortcomings identified in the studies.
The *Lifeline_Acrlift* and the *Reengineering_Defense* reports approach the problem in the same basic nature as the other reports but focus their recommendations more as guidelines that can be used for solid improvements. In today's economic and political uncertainty, chances for significant change in the near future is not likely. We are too focused on the election, the lack of a 'well defined enemy', and the 'America first' syndromes. This is also reflected in the responses of the respondents to the Ernst and Young survey displayed an overall lack of faith in the prospects for change for most of the 14 major policy issues listed in their survey (30).

No study will ever be completely implemented simply because of the complex nature of the problem(s). It will take a significant event in a lot of people's lives before a coherent plan to improve and maintain the Industrial Base is developed and implemented.

2. Ibid., pp. 25-27.

3. US Department of Defense, *Report of the Secretary of Defense to the President and the Congress*, January 1991, pp. 131-34. On 2 Aug. 1990, in a speech before the Aspen Institute, President Bush revealed the essential elements of his new national security strategy for the 1990's. The four foundations on which the National Security Strategy of the United States are Strategic Deterrence and Defense, Forward Presence, Crisis Response, and Reconstitution. The President explained reconstitution as follows: "Our strategy will guard against a major reversal in Soviet intentions by incorporating into our planning the concept of reconstitution of our forces. By the mid-'90s, the time it would take the Soviets to return to the levels of confrontation that marked the depths of the Cold War will be sufficient to allow us to rely not solely on existing forces -- but to generate wholly new forces. This readiness to rebuild -- made
explicit in our defense policy -- will be an important element in our ability to deter aggression.


6. I.b.i., p. 5.


13. Campbell, Economics of Mobilization and War, p. 5.


16. Ibid., pp. 5-7.


20. American Federation of Labor, Industrial Mobilization into the Limited War, op. cit., Sect. VII.


29. Ibid., pp. 3-5-3-11. Table 3-1 summarizes the recommendations of the Packard Commission, the BIC, and the DSB. Appendix A lists the recommendations of all of the studies they reviewed.

30. Ernst and Young, The Defense Industry: Key Issues for the 1990s, October 1, 1989, pp. 6-7.

31. Ibid., pp. 25-27.
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