A year later, the defense industrial base is getting more attention, but the decline and the problems continue.

The Lifeline Is Still in Danger

BY F. CLIFTON BERRY, JR.

MERICAN industry today is unable to expand its production to meet wartime mobilization needs in less than eighteen months. It is not possible to surge the output of even the most important weapons and war materials much faster than that. The nation has been dependent for years on foreign sources of raw materials. Now it is becoming dependent for critical manufactured goods as well, including some high-technology products that are essential to defense production."

That is the gist of the problem as summarized by the Air Force Association and the USNI Military Database in "Lifeline in Danger," their September 1988 assessment of the US defense industrial base. Contractors are leaving defense industry by the thousands. Even in peacetime, the domestic industrial base cannot meet defense needs. The Pentagon does not know how reliant its prime contractors are on foreign sources or the extent to which they count on the same limited domestic sources for surge production.

Among the reasons why the problem developed were the instability of defense funding, an incredible tangle of confusing legislation, poorly structured—and sometimes conflicting—incentives and disincentives, an adversarial relationship between government and industry, and general neglect of the industrial base.

A year after the report was published, the lifeline is still in danger. The defense industrial base continues to decline. The only encouraging news is that the problem now has high visibility in both houses of Congress and that the Pentagon is giving it more serious attention than it once did.

"Lifeline in Danger" called for a Presidential Commission to lead the recovery. No commission has been named, but a bill introduced by Sen. Alan J. Dixon (D-Ill.) would establish an Industrial Capabilities Committee appointed by the President to "assure a realistic assessment of the demands to be placed upon industry by national defense plans and industry's capabilities to fulfill those expectations."

Already established in the Pentagon is a new office headed by Richard E. Donnelly, Assistant



Deputy Under Secretary of Defense for Manufacturing and Industrial Programs. Mr. Donnelly and his small staff of career civil servants and military officers constitute the focal point for industrial base matters. A key part of Mr. Donnelly's operation is the Office of Industrial Base Assessment (OIBA).

OIBA, headed by John E. Du-Breuil, is leading the effort to gather crucial information. It is not waiting for legislation or more studies before beginning work. The current concentration is on critical foreign vulnerabilities. Examples of US reliance on foreign sources range from the commonplace to the exotic. They include quartz fibers, semiconductors, bearings, fasteners, precision optics, and machine tools. Also on the list is an essential ingredient for the atropine Syrettes issued to troops for use in case of nerve-gas attack. Belladonna, an essential ingredient in the compound, comes from a sole foreign source: Bulgaria.

The Defense Industrial Network

OIBA's major means of data collection is the Defense Industrial Network (DINET). Other data-collection actions include reviewing subcontractors' reports of foreign purchases, reviewing the production bases' analyses of the armed services, and developing a Joint Industrial Mobilization Planning Process (JIMPP) under the leadership of the Joint Staff.

Mr. Donnelly told Congress that "we have done fairly well at identifying problems; not so well at determining which are the most serious problems or [at] developing solutions." Thus the need to collect data, tie existing data sources together, and use available data more effectively so that comparisons and policy analyses are built on credible data foundations.

DoD has invested about \$1.4 million in DINET since 1985. A basic operating capability had been built, and DINET was functioning on a modest basis. According to Mr. DuBreuil, DoD is applying resources to DINET and other data-collection activities at a rate that is prudent and consistent with development of the information base.

One might assume that all the requisite information must already exist in government databases somewhere. It doesn't. Information is fragmented, in different formats for different purposes in different departments, or just plain unavailable. The information may be in contractors' files, and to extract data raises issues of cost and proprietary rights.

DINET now has the capabilities to identify alternate sources, perform facility-impact assessments, provide corporate profiles, and identify major suppliers for about 3,000 weapon systems.

Gaps in the Net

Major suppliers can be identified, but not the subcontractors at lower tiers. The OIBA staff has exercised the system to identify subcontractors for critical components at increasingly lower tiers.

In early 1989, for example, OIBA tracked specialty glass used in several important weapon systems. Beginning with the special glass in the target acquisition designation system/pilot night-vision system (TADS/PNVS) of the AH-64 Apache attack helicopter, OIBA staff tracked the supply to its source.

The search led from the AH-64 prime contractor (McDonnell Douglas) to the TADS/PNVS subcontractor, Martin Marietta, then through a series of subcontractors. After working down through seven or eight tiers of subcontractors, the searchers found the source of special glass for the TADS/PNVS: the Schott Co. in Pennsylvania.

They also learned that Schott is the sole supplier for all systems that use precision glass. All primes and major subcontractors get their glass from Schott. Another surprise: Schott, a lower-tier subcontractor with no direct relationship to DoD, had not been identified as a defense contractor.

The DINET database obviously needs to go beyond defense contractors. The defense industrial base is not an isolated component of the national economy; it is simply part of the national industrial base.

Other Sources, Other Data

SOCRATES is an information system maintained by the Defense Intelligence Agency. It tracks capabilities around in the world in the critical military technologies. The Pentagon recommends merging DINET and SOCRATES into a single comprehensive industrial datamanagement system. So far, that has not happened. However, the basic staff work has been done to make it happen when the funds become available and the necessary directives are issued.

Another effort was started by the Army. Called the Army/Census Bureau survey, it was intended to obtain information on US manufacturers' ability to expand production capacity and assess foreign dependency. It was supposed to provide

statistically valid information and to be linked with DINET. The survey was stillborn for several reasons, among them industry opposition (manufacturers regarded it as burdensome, costly, and possibly redundant) and the Army budget squeeze. According to the General Accounting Office, a decision on whether to try again has been postponed until 1992.

Richard Donnelly says the DI-NET system currently serves seventy users in thirteen DoD organizations. It is being expanded as resources permit and as the necessary compatibility of data from different sources can be achieved. GAO estimates that getting DINET to full capability would cost between \$7 million and \$29 million. To date, only \$1.4 million has been committed.

The Defense Production Act

In the Senate, Senator Dixon has led the effort to renew the Defense Production Act (which was to have expired on September 30, 1989) and to provide the administration with the tools to revitalize the defense industrial base. Other key legislators, such as Sen. Jeff Bingaman (D-N. M.), and Sen. Donald Riegle (D-Mich.), have taken action to gather information and illuminate the issues. The Defense Production Act falls under the purview of the Senate and House banking committees, not that of the armed services committees.

The Defense Production Act (DPA) is the basic authority for industrial preparedness planning. It was passed during the Korean War, when Presidential authority was required to remobilize after the post-World-War-II dismantling of the defense industrial base. Over the years, the DPA has been amended to reflect changing conditions.

Title I authorizes the President to order priority performance and allocate materials to promote national defense. It was used in 1988 to assign high priority to rebuilding the burned-down factory in Nevada that had supplied fifty percent of domestic capacity for ammonium perchlorate, an essential ingredient in rocket-motor propellant. As a consequence of the Title I priority, the plant will begin producing ammonium perchlorate within one

year, rather than the two to three years such a construction contract would normally require.

Air Force Systems Command is the DoD executive agent for Title III, which authorizes the President to make purchases, purchase guarantees, loans, and loan guarantees in order to expand national defenserelated productive capacity and supply. Senator Dixon recently cited a prime example of using Title III as it was intended. High-purity quartz fiber is an important ingredient in complex electronics. The sole source for the quartz fiber was France. The French contractor was providing fiber slowly, causing delays in critical DoD programs. By using the purchase-guarantee provisions of Title III, the Defense Department was able to encourage a US firm, Fiber Materials of Columbus, Ohio, to begin production. Now DoD has a domestic source for the critical high-purity quartz fiber. Furthermore, Fiber Materials is delivering on time and is an effective competitor for the French supplier.

Title VII contains general authorities useful to industrial preparedness. A new provision, added in 1988, gives the President authority to block mergers, acquisitions, or takeovers of US firms by foreign entities if he determines the acquisition would threaten or impair US national security.

Congress and DPA

A House subcommittee of the Banking Committee has been considering a bill offered by Rep. Mary Rose Oakar (D-Ohio). It would require that within five years, all DoD purchases be made from domestic sources. The intent is to preserve the domestic industrial base and remove US dependence on foreign sources. DoD does not support the bill, contending that its provisions will not strengthen and may weaken the US industrial base.

The Senate Banking Committee has before it Senator Dixon's bill to extend the Defense Production Act through 1993 and to strengthen substantially the three remaining operative titles. His legislation would create a revolving fund to provide stable funding for Title III projects. It would also look to the stockpiling of critical components that the US buys from foreign sources because

it lacks materials or because domestic production is not economical. It recommends provisions to encourage investment by defense contractors in modern production facilities and processes. The Dixon bill would expand antitrust defenses now available in Title VII to encourage industry-sponsored joint ventures for the production and development of products.

Although the Defense Production Act was due to expire on September 30 of this year, cooperation between House and Senate banking committees resulted in an extension of its life to June 30, 1990. The purpose: to permit extensive hearings on defense industrial base issues, especially in the Senate. As a result of the extension, more congressional attention will be given to those issues this winter than ever before.



The Adversarial Relationship

The Defense Management Review, published in July by Secretary of Defense Richard Cheney, recognizes that the government-industry relationship needs work. Deputy Secretary of Defense Donald Atwood was struck by what he found when he moved into the Pentagon.

He said the confrontational atmosphere between Congress, DoD,

and the defense contractors contributed to the erosion of the industrial base. He said, "The extent of the mistrust... is shocking. I have never seen anything like it."

He and Secretary Cheney believe that the confrontational atmosphere is "completely unnecessary and, more importantly, it wastes scarce resources that could be used in other, more productive endeavors."

To overcome the confrontational atmosphere, Cheney, Atwood, and their colleagues are trying multiple approaches. The new Defense Manufacturing Board, for example, provides a nonadversarial means of communication and cooperation. John Betti, the new Under Secretary of Defense for Acquisition, will head a regulatory relief task force. It will conduct a thorough review of regulations from the ground up in an attempt to reduce the grief involved in doing business with DoD.

Secretary Cheney hopes to turn DoD into a "world-class customer," setting high DoD and industry goals for quality, reliability, and management improvement. That means raising DoD's internal operations to a higher quality level, while at the same time requiring contractors to make their own improvements.

Areas for improvement include acquisition streamlining by cutting system requirements to basic needs and eliminating costly, complex, and unneeded specifications. Given a high priority for achieving world-class customer status is DoD's Total Quality Management program.

Finally, as stressed by Christopher Galvin of Motorola (Chairman of the Quality Committee of the Defense Manufacturing Board), "Congress itself may have to commit to reform legislation on a fast-track basis," and set high quality goals for itself. Galvin advocates changing Congress's role from "constructive operations management" (diplomatic language for micromanagement) to that of a "kind of board of directors for the Department of Defense."

F. Clifton Berry, Jr., is a former Editor in Chief of AIR FORCE Magazine. He saw USAF service in the Berlin Airlift, 1948–49. Later, he was a paratrooper and an officer in the 82d Airborne Division. He commanded airborne and infantry units in the US and Korea and saw Vietnam combat as operations officer of a light infantry brigade. His most recent article for AIR FORCE Magazine, "New Tools for Mission Planners," appeared in the August '89 issue.