

DCN: 6663

BRAC Commission

TO: Honorable Samuel Skinner, BRAC  
FROM: George T. Nickolas, USN (Ret.) – Davenport, Iowa

AUG 03 2005

Received

Subject: Rock Island Arsenal Island and related missions

1. This FAX contains a 2 page letter to Mr. Skinner, 8 page article, *The Industrial Base Under Siege*, 1 page “U.S. Military Hits Ammunition Shortages,” 1 page “Unfit defense industry” and my response from the Defense News of July 2005. (17 Pages in all)
2. The enclosures are forwarded to help your consideration. I have a great concern about the future of our Defense of the United States. The more we disarm the closer the point when we have to shift from conventional to atomic responses.
3. A close examination of our sources of supplies for critical war equipment would surprise even the most intelligent member of this and past administration. The last jeep built for the US Military was a “world car” because the drive train and transmission were built in Japan, engine in Germany and the pistons in South America. The optics that were ground for the M1 and M60 tank were obtain from behind the Iron Curtain and ground by East Germans (here on special passports at a company in Melbourne, Florida).
4. Industry will not build facilities to meet mobilization rates. They will only build facilities to cover the proposed contract rates that have a noted future requirement. That is why the Government had to build the ammunition plants during World War II. It took 3 years to build the ammo base needed to invade France. One only has to look at when our troops were in England to get ready for France and look at how long it took to build the plants, produce the ammo, and move it to Europe. Money was provided in June and September 1940, nearly 18 months prior to our entry into World War II, to build the ammo plants and to outfit a 2 million-man army.

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August 2, 2005

Honorable Samuel Skinner  
Base Realignment and  
Closure Commission  
Washington, D.C.

Dear Mr. Skinner:

It is important that you read this letter before you make any decision on the transfer of the TRACOM Rock Island Mission or the expansion of the mission at Picatinny, N.J.

A while back I wrote to Chairman Principi about my thoughts on the current round of BRAC. Of course, I did not discuss the need for the excess capacity at the Arsenal, Depots and Ammunition Plants. I have attached a copy of my White Paper on those items.

I worked for the Army Armament Command when the Command had both production contracting and research and development work. When the mission transferred to Picatinny, the quality of the effort diminished because of the personnel that were available at that facility. What is the advantage of having the small arms, artillery, and other weapons mission at Rock Island? The advantage is the ready availability of production personnel to assist the Research and Development Engineering effort. I can provide you good information on this matter both from personal experience and from industrial leaders.

I recommended that the small arms, artillery, and other weapons mission be reunited under a Weapons Command banner at Rock Island. That way the production engineering staff at Rock Island would be readily available to test some of the concepts. The production people could tell the R&D people not to continue along a project pathway that would not be beneficial.

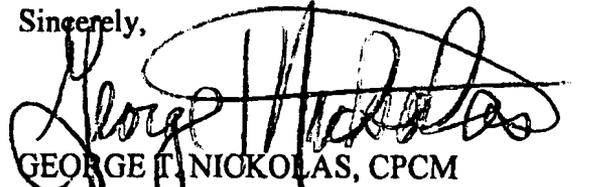
I understand the process better than many at the TACOM Headquarter because I was involved in the R&D effort of future rifles, M203 Grenade Launcher, Vulcan Air Defense Weapon, DIVADS, and many more items. I worked with the DoD Taskforce to Improve Industrial Responsiveness in the early 1980's that was created in response to the Congressman Ichord investigation of the problems with the responsiveness of the industrial base.

It is unfortunate that the Secretaries of the military services and the Secretary of Defense have not learned from Congressman Ichord's study, the TIFIRE effort or from my paper and magazine article, "The Industrial Base Under Siege." I have attached a copy of that article for your review. I am also inclosing my response to an article in the Defense News that supported the BRAC effort in this round.

I talked to a colonel several weeks ago about the ammunition plants. When I had procurement oversight of the plants we had 26 plants (1986), I asked how many we had left and he responded 8 plants. We cannot fight any type of war with that few plants I told him. I asked he was willing to tell the public that we would have to "nuke" the enemy first in any major fight, and he responded no. He further agreed that my assessment was correct. The public of this country will go into orbit if they knew we had destroyed our ability to defend this country with conventional arms.

If you would like to talk to me I have included my telephone numbers above.

Sincerely,



GEORGE T. NICKOLAS, CPCM  
AND FELLOW OF THE National Contract  
Management Association

Enclosures

Dear Editor:

In the June 27, 2005 issue Mr. Barry Blechman, Chairman of the Henry L. Stimson Center wrote, "Base Closing Essential" and contended we needed to get rid of old Depots, etc.

Having been a contracting officer with substantial experience, I must respectfully disagree with his article. Our government has made a needed investment in the arsenals, ammunition plants and depots primarily for quick response and mobilization. Some of the facilities were sized to meet the demands of past wars that have happened. This capacity is always considered excess in times of peace, but is always needed when we are threatened.

Some politicians and their supporters have tried to eliminate this mobilization capability, gambling that the private sector could respond to emergencies by their switching from consumer production to war material production. A review of the production build up for World II and even Korea will demonstrate the folly in this thought process. For example, in May 1952, twenty-three months after North Korea invaded South Korea, the Chief of Staff of the Army notified Congress that the Army was rationing ammunition in Korea. Why? Because production had not reached the levels necessary to replace consumption and almost the entire World War II inventory of certain types of ammunition had been depleted.

During the Vietnam War, many things were modified in the field to better suit the actual need, and the design sent back to the Arsenals to quickly make drawings and an adequate inventory. Thank God for the Arsenals and their responsiveness to field demands and quick turn around time, for this saved many lives of troops in combat.

The private sector will not out of patriotism build a production base with contingency capacity unless they are paid to keep that production base idle and available. Contractors will remain in the base only as long as they are provided sustaining contracts. Currently, when that is done on a minimum-sustaining rate, it inflates the cost of the products produced. CEO's must to have a return on investment as they answer to shareholders and not to the public.

The Arsenal, Army Ammunition Plants and Depots have standby capability that is needed in emergencies. We have seen this value during the current "war on terror," and in previous wars and emergencies. They have trained people who can begin work immediately without the need of contracts and time consuming negotiations of cost and prices.

During the Clinton Administration, there was extensive consolidation to quickly realize the peace dividend. Now later, at a 2004 House Armed Services Committee's panel overseeing land forces, Richard Palaschak of the Munitions Industrial Base Task Force told Congress that the defense consolidation throughout the 1990's greatly diminished the U.S. industrial base capable of producing ammunition required by the military. Currently there is not enough capacity among American companies to meet the demand. U.S. companies would need financial incentives to make the investments in facilities and equipment to meet the military's needs, he told the committee. This is true not only of ammunition but of many items needed by our military for a conventional war.

Mr. Blechman, the reduction of our arsenals, depots and ammunition plants is false economy, as doing so will ultimately threaten our defense and survival as a Republic. I believe it only leaves us at a point where we have to elevate to a nuclear response or concede defeat. Both of those extremes are unacceptable, as they provide no adequate response to the types of threats we face today.

George T. Nickolas, CPCM (Lifetime Certified Professional Contract Manager and Fellow of the National Contract Management Association) and Author of Industrial Base Under Siege.

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## WHITE PAPER ON ARSENAL, AMMUNITION PLANTS AND DEPOT ACTIVITIES

The government has, over time, made an investment in the arsenals, ammunition plants and depots. This investment was for the purpose of quick response and mobilization. Some of the facilities were sized to meet demands of the anticipated wars that would evolve because of anticipated conflicts. This capacity is needed

The problem that has evolved is that we tend to destroy this mobilization capability to rely on the private sector to respond to emergencies by their switching from consumer production to war material production. It was realized early in the pre-war period of the 1939-41-time period that we had a problem. We attempted to correct this problem. Industry told the Government to give us money and we will do the job. Construction of the Army Ammunition plants began with the appropriations in 1940 in June and September to build the needed ammunition plants for World War II. We had 18 months of system corrections and etc., but the ammo plants were not in production when Japan attacked Pearl Harbor.

The limited production capability delayed our invasion of France until 1944. Conflicts were limited by the production capabilities that were available. The United States built over 100 ammunition facilities by wars end. Many were quickly decommissioned and excessed.

When the Korean War began, we were utilizing World War II stockpiles and bringing back 34 ammunition plants. That process took several months to achieve. In May 1952, twenty-three months after North Korea invaded South Korea, the Chief of Staff of the Army notified Congress that the Army was rationing ammunition in Korea. Why? Because production had not reached the levels necessary to replace consumption and almost the entire World War II inventory of ammunition had been depleted.

The Vietnam War was a little different. By that time we had 26 ammunition plants left, but the staging of troops into Vietnam was to a degree based upon the supply of ammunition and other logistics. We did purchase 500 pound bombs from England and we had some problem with the supply of mortar rounds. The United States had not become dependent upon foreign sources for much of the material needed to fight that war. Many things were

jerry rigged in the field and the design sent back to the Arsenal to build a quick supply. Thank God for the Arsenals and their responsiveness to field demands.

As a Contract Specialist for the U.S. Army Weapons Command during the Vietnam War, I was able to see and be involved in many of these quick response projects. I was also the lead contract specialist on Project Flattop that took a US Navy Seaplane Tender and converted it into a floating depot to repair helicopters off shore in Vietnam.

#### **PROBLEMS OF TOTAL RELIANCE UPON THE PRIVATE SECTOR:**

- a. The contractors will not build a production base with excess capacity that is not used unless they are paid to keep that production base including profit to satisfy stockholders.
- b. Contractors will remain in the base only as long as they are provided contracts.
- c. Contractors need close administration to preclude their taking advantage of the government.
- d. Contracting, even in emergencies like Vietnam, does not always result in additional production in a timely basis. The procurement process, even with the use of Letter Contracts, still requires meeting the statute law on contracting.
- e. The use of sole source contracting still requires justification and approval. This delays production and deliveries.

#### **ADVANTAGES OF THE ARSENALS**

- a. They have the drawings to produce the required item on hand.
- b. They have production facilities available to perform the necessary work.
- c. No contract is required to be negotiated nor letter contract needed.
- d. Work begins when a funding document is provided by the requirements activity.
- e. Lead-time is relatively short and production is limited by equipment that is availability.
- f. Costs can be controlled in the Government Owned and Government Operated facility than in a contract relationship between the contractor and the government in a rush letter contract situation.

## Unfit defense industry

Although recent reports emphasizing the bumbling and inefficient military sound a lot alike, they are alarming, especially after the aborted attempt to rescue the hostages in Iran and a recent disastrous military exercise called "Proud Spirit."

The latest report, released by a special panel of the House Armed Services Committee, charges that the Defense Department has failed to plan for industrial defense preparedness.

Rep. Richard H. Ichord, D-Mo., who headed the panel, said, "In the event of a war, the U.S. defense industry would find it almost impossible to expand its weapons production suddenly and dramatically in the numbers necessary to sustain a prolonged conflict."

If that isn't bad enough, he added, "We are not buying the required ammunition, equipment and weapon systems to fight even a short war." This and other reports indicate the Defense Department is doing little right.

Further, the panel found that government methods in obtaining defense equipment discour

age higher productivity and new capital investment by the private defense industry.

Such reports usually do appear at Pentagon budget time but the concerns of this study are substantiated by an unrelated book written by Jacques S. Gansler, who is currently a vice president for a Washington, D.C. consulting firm and who has Defense Department experience.

Gansler's proposed solutions to these defense weaknesses seem reasonable. He suggests better coordination of government policies, integration of civilian and military manufacturing in the same plants, better cooperation with foreign nations and improved planning for a sudden "surge" in weapons demand in an emergency.

Obviously, military readiness and effectiveness need upgrading. And the additional money should, of course, be spent wisely.

With many opinions floating about on how much and where the money should go first, reestablishing priorities will be a challenge but a necessary first step to an efficient military of top quality.

## **U.S. Military Hits Ammunition Shortages**

*By AGENCE FRANCE-PRESSE, WASHINGTON*

The United States cannot keep up with military demand for ammunition which has more than doubled since the war on terrorism and the invasion of Iraq were launched, according to a Congress watchdog report released July 27.

The report said that the amount of small ammunition needed had increased from about 730 million rounds a year to nearly 1.8 billion. For medium caliber ammunition, the rise had gone from 11.7 million rounds to almost 22 million, said the General Accounting Office.

Defense Department purchases of ammunition had reduced after the end of the Cold War and a number of government owned production factories were closed, said the report by the Congress watchdog.

The department has spent more than 90 million dollars on improvements at the remaining three main facilities for small and medium caliber bullets in a bid to boost production.

But supplies of small sized ammunition is lagging behind demand and the United States is now relying on foreign producers, including from Israel, to help meet its needs.

"Unforeseen events such as the terrorist attacks of September 11, 2001 and subsequent military deployments, make predicting future requirements difficult," said the GAO.

"However it is imperative that the warfighter be provided with sufficient ammunition to carry out missions to counter ongoing and emerging threats without amassing wasteful unused stockpiles."

## FOCUSING

# The Industrial Base Under Siege

George T. Nickolas

**O**ne folly of human nature is that the lessons of history are ignored repeatedly, and this is especially true in our free society. Problems confronting our nation in World War II, Korea, and Vietnam were often forgotten by generations that followed. People experiencing problems during the Korean and Vietnam conflicts are often rebuffed by new management when they raise the issues of history repeating itself. Often, attempts to focus on those issues are dismissed with a perfunctory "we will cross that bridge when we come to it."

How can intelligent people so soon forget the facts, or fail to accept the teachings of history? It took the United States of America nearly 4 years to gear up to the war-production levels necessary to win World War II. Only the vast separation of our country from much of the world by two oceans, a geographical accident, spared our nation an actual invasion. Supplies and ammunition the Army, Navy, and Marines needed in World War II were not produced overnight.

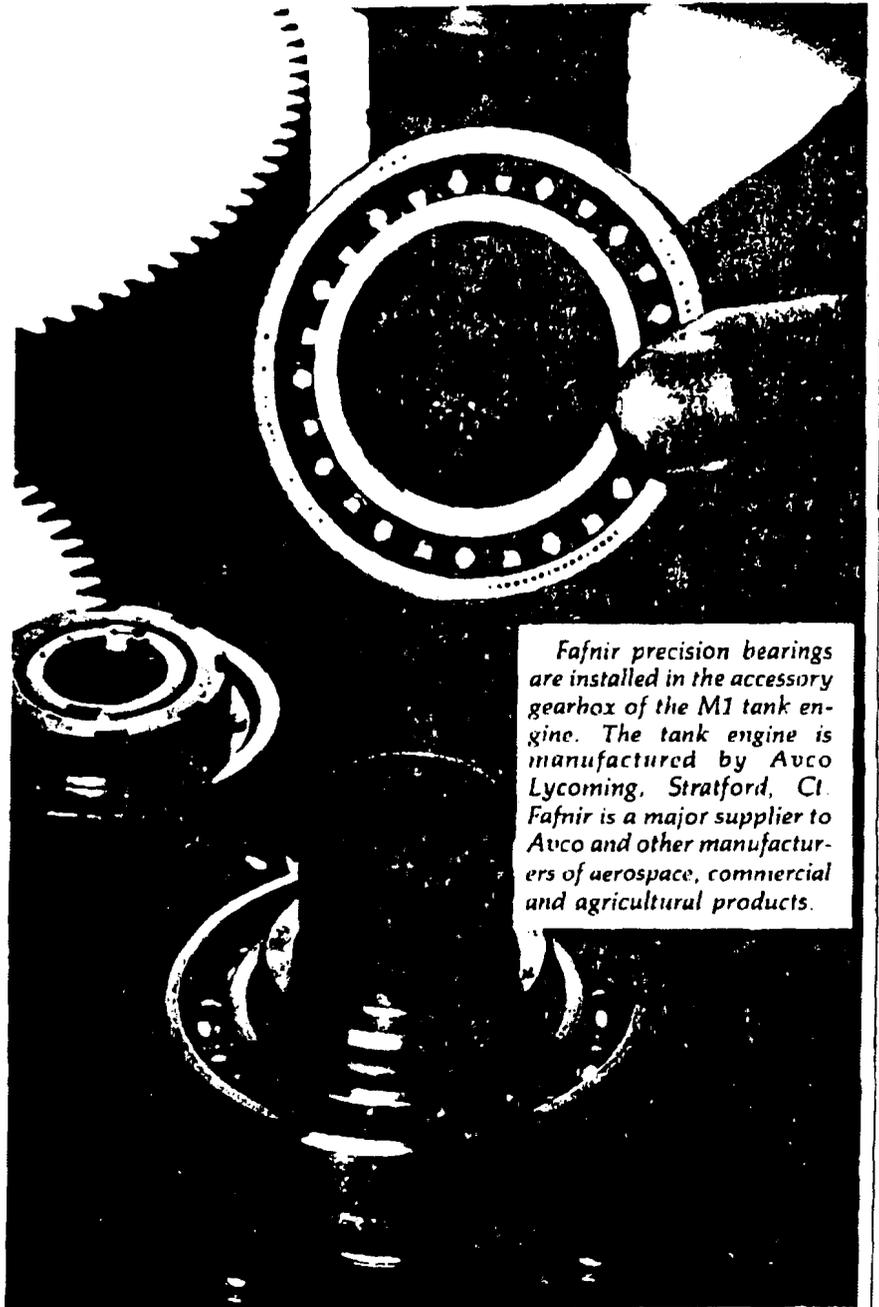
## Planning

The first major effort toward building a war industry began with defense planning in 1939, which was followed with major funding by the Congress in 1940. The primary objective was to produce weapons, planes, tanks, and ammunition for a 2-million-man army. Despite advanced efforts taken by the military before Dec. 7,

**DISCLAIMER:** The views expressed in this paper are those of the author and do not necessarily reflect the official policy or position of the Department of the Army or Department of Defense.

The loss, to foreign competition, of domestic ball-bearing production is so great that, today, three-fourths of miniature bearings used are of foreign derivation.

Photo courtesy of Tarron



Fafnir precision bearings are installed in the accessory gearbox of the M1 tank engine. The tank engine is manufactured by Avco Lycoming, Stratford, Ct. Fafnir is a major supplier to Avco and other manufacturers of aerospace, commercial and agricultural products.

1941, the quantities of supplies of ammunition needed to fight a major land war in Europe were not in full production until late 1943; moreover, they could not be moved into place for support of the European front until late 1943 and early 1944. Operations in 1942 and 1943 to fight the Japanese in the Pacific were limited. Fighting was island-by-island; the scale of combat was controlled in an effort not to tax existing arsenal production capacities.

### Congressman Ichord's Report

As a member of the House Armed Services Committee, Congressman Richard H. Ichord of Missouri conducted hearings in Washington in 1980 on the state of the defense industrial base. He chaired the Defense Industrial Base Panel of the Armed Services Committee, and his investigations were spurred on by reports published about the sad state of our industrial base. The industrial base of this country is defined as the manufacturing industry producing consumer products, components, castings, forgings, etc., which is important to the mobilization base industry of this country. The mobilization base consists of companies entering into agreements with the government to produce specific defense items if the government declares a state of national emergency or war, and the domestic economy is mobilized for war. The industrial base supports the mobilization planned producers and, more importantly, must expand to meet Department of Defense demands for defending America.

The Defense Industrial Base Panel heard testimony of the Defense Science Board Summer Study Task Force on Industrial Responsiveness, officials of the Department of Defense, leading military logisticians, officials of the Department of Commerce, officers of the American Defense Preparedness Association, and leaders of American industry. Hearings and findings were published Dec. 31, 1980.

### Findings

The committee announced seven major findings.

—The general condition of the defense industrial base has deteriorated and is in danger of further deterioration in the coming years.

—The Department of Defense has neither an ongoing program



At LTV Steel's cold finishing plant in Massillon, Ohio, bars are prepared for shipping. The industry's leading carbon and alloy bar producer, the Bar Division manufactures the widest range of high quality hot-rolled and cold-finished bars.

—Photo courtesy of LTV

*The industrial base is defined as the manufacturing industry producing consumer products, components, castings, forgings—important to the mobilization base.*

nor an adequate plan to address the defense industrial base preparedness issue.

—Department of Defense inaction in enhancing industrial base preparedness, together with the instability within the 5-year defense program, weapons system stretchouts, inadequate budgeting, and inflation, have contributed to the deterioration of the U.S. defense industrial base and, as a consequence, have jeopardized the national security.

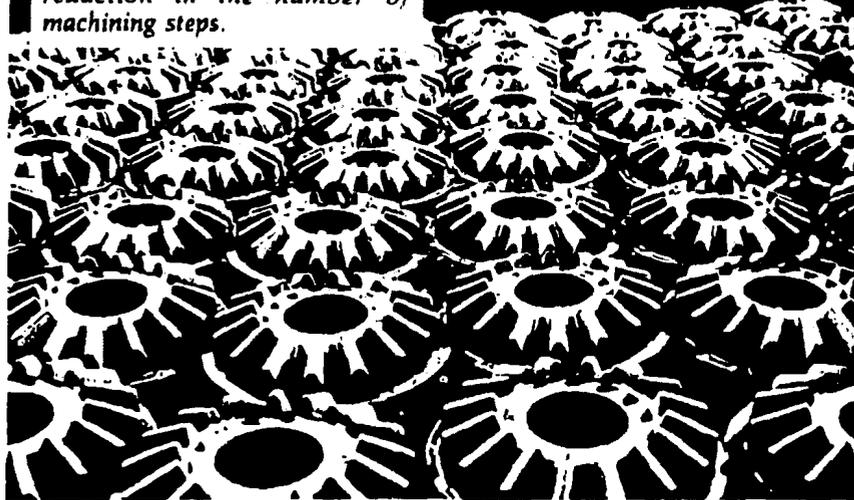
—Shortages of critical materials, combined with a resultant dependence on uncertain foreign

sources for these materials, are endangering the very foundation of our defense capabilities.

—Present policies and procedures for the procurement of goods and services by the Department of Defense are exceedingly inflexible and discourage the use of contracting methods that would promote the best interest of the United States.

■ Mr. Nickolas is chief, Review and Compliance Division, Headquarters, U.S. Army Armament Munitions and Chemical Command, Rock Island, Ill.

*Precision-forged gears are manufactured at Rockwell's highly automated Morristown, Tenn., forging facility. Gear teeth are forged rather than cut, resulting in significant material savings and a reduction in the number of machining steps.*



—Photo courtesy of Rockwell

—Current tax and profit policies appear to discourage capital investment in new technology.

—While the condition of the defense industrial base is of vital importance to the national defense and security of the United States, responsibility for the condition of the base is dispersed among the committees for the Congress and within the Executive Branch; this diffusion of responsibility has contributed to a lack of effective, long-range planning for industrial responsiveness and has made it extremely difficult to assess the overall effects of executive and congressional action on the defense industrial base.

#### **What Has Been Accomplished?**

The Department of Defense formed a task force in 1981 to investigate problems associated with the industrial base and industrial preparedness planning. Co-chaired by the Air Force and the Army, this independent group, the DOD Task Force to Improve Industrial Responsiveness (TFIRE), met with Department of Defense personnel and coordinated with industrial leaders and defense contractors. The report, published in March 1982, incorporated suggestions provided by the Headquarters, U.S. Army Armament, Munitions and Chemical Command

*Offshore purchase of forging in the heavy equipment industry has resulted, since 1981, in a 40-percent loss by the U.S. forging industry's domestic market.*

(AMCCOM), Rock Island, Ill. I testified and briefed the committee on two occasions, providing recommended changes in governing regulations to incorporate surge contracting concepts (contract option features to facilitate accelerated production) developed at the AMCCOM headquarters.

The TFIRE recommended revisions to DOD Directive 5000.1 covering major system acquisitions to ensure that formal industrial preparedness planning considerations were incorporated in the acquisition process. Foremost were the achievement of economical

production rates and requisite consideration of industrial base issues at Defense Systems Acquisition Review Council (DSARC) Milestones I and II, significant events in the life cycle of systems being developed. These plans addressed, in part, the second finding of the Ichord Committee.

#### **Instability**

The third finding dealt with instability within the 5-year defense program and covered defense build-up and the increased use of multiyear procurements to stimulate cost savings. The only problem encountered by using multiyear procurement has been the instability within congressional budgets resulting in limited benefits. The fourth finding, which points to a lack of critical materials and the resultant dependency on foreign sources, is under scrutiny. We have not taken steps to make major improvements in the stockpiles or in research and development of substitutes for these critical and rare materials. Finding substitutes requires extra effort by the government to improve our defense posture.

The fifth major finding covering the complexity of procurement policies and procedures of the Department of Defense has been studied. Former Deputy Secretary of Defense Frank Carlucci established a study group of service procurement leaders to examine the issue of simplifying government contracts, the goal being to facilitate government contracting with industry. The initial phase was to review contracts under \$500,000. Since 90 percent of government contracts are under this threshold, contracts in this category provided an excellent vehicle to optimize mutual benefits to the government and contractors. The committee met and several test cases were conducted by the services; in addition, the entire subject is being reviewed in the light of ongoing automation of the contracting process.

I presented a paper entitled "Contracting Without Paper" at the 23rd Space Congress in Cocoa Beach, Fla., in April 1986 about one way the government could simplify contracting and increase competition. The issue of contract types was studied; there is much desire by the Congress and government leaders to shift most government work to fixed-price contract types to limit cost growth, etc. There

is merit in considering fixed-price contracts, but great care must be taken to ensure that costly changes do not evolve to diminish their worth.

#### Taxation

The sixth finding covered taxation and profit structure policies tending to inhibit investment in new technology. Immediately after the president promoted tax changes and implemented the accelerated depreciation allowance for equipment and buildings, there was a downturn in the business level for much of American industry. The real benefits of these changes in depreciation rates allowed under the tax breaks did not materialize due to the relative economic instability that followed.

The defense prime contractor did, however, realize some benefits, and some new equipment was purchased. One major inhibitor of contractor investments in new capital equipment is the roller-coaster tendency of defense budgets. After a time, contractors get leery of conflicting signals emanating from congressional rhetoric and action. Consider, for instance, when the Congress espouses that high expenditures for defense items must be curtailed (as they did in the enactment of the Gramm-Rudman Act). It becomes increasingly difficult for industry to retain confidence in government, thus permitting investing stockholders' funds to modernize and purchase new machinery and machine tooling. There is no reasonable assurance that stockholders will realize a profit.

—The seventh committee finding dealing with the diffusion of responsibility for military efforts resulted in no action. The Congress failed to implement necessary changes in the congressional committee structures overseeing different facets of defense business activities. In fact, the Congress, with the enactment of the Competition in Contracting Act, further impeded efforts to maintain the U.S. industrial base, as I will discuss later. Recently, the Congress established an additional group to review procurement policy, the Procurement Policy Panel of the U.S. House of Representatives. No positive action has originated in the Congress to decelerate the U.S. industrial decline.

#### Industrial Base Erosion

People studying the Ichord Committee Report in depth might ask why its

*A three-month shutdown of old North American Case plants began in late December 1984 to accelerate reduction of product inventories.*



—Photo courtesy of Tenneco

*Farm implement manufacturers, like Case International Harvester, have suffered corporate takeover, plant closings, and even bankruptcy as manufacturing moves to foreign companies.*

first findings were ignored by me. My answer is that this most important finding deserves special consideration. It constitutes what I feel is the heart of this paper and presents the most crucial element of the dilemma confronting the Department of Defense.

The danger cited by Congressman Ichord's Committee that the industrial base has deteriorated and is threatened by further degradation is what some people might argue is a self-fulfilling prophecy. You should note that this phenomenon did not need a seer looking into a crystal ball to get our attention; the foreign car and daily bombarding of our senses by the media have driven this point home. Let's examine factors posing the greatest threat to the American industrial base.

#### Offshore Migration of Production

The farm implement industry suffered dramatically after the 1980 congressional hearings. Farm equipment manufacturers were forced into bankruptcy or lost ailing businesses to corporate takeovers after the downswing in the agricultural economy. A prime example is International Harvester Company which sold its once-thriving farm implement business to J. I. Case Company, a subsidiary of Tenneco. Many of the plants and equipment of Harvester were dismantled or excessed, with only a few plants remaining in production.

In this heavy equipment industry, the Caterpillar Tractor Company has increased the level of offshore purchases of components by 400 percent since 1981. Management indicates it has done so to survive as a healthy company in today's competitive world market. Caterpillar is the largest single customer of the forging industry in this country; Caterpillar's purchase of forgings from foreign companies has resulted in incalculable damage to the forging base of this country and has sent shockwaves through the labor force. The effect of this policy of offshore purchase is a 40-percent loss by the U.S. forging industry in its domestic market since 1981 and a down-sizing of capacity.

Another source of concern and detriment to our industrial base is the loss of domestic ball-bearing production. Foreign competition garnered a



AM General has designed a state-of-the-art vehicle assembly plant to produce 55,000 Hummers during five years.

Photo courtesy of LTV

*The plants, production equipment, supporting equipment, and subcontractors have vanished from the American scene but, more tragic, is the loss of production expertise.*

substantial share of the U.S. ball-bearing market, which runs the gamut of bearings from the huge swivels for mounting construction cranes to the miniature roller bearings for computer disk drives. Today, three-fourths of the miniature bearings utilized by domestic firms for production of equipment, or for replacement parts, are of foreign derivation.

#### Foreign Competition

The problem of foreign competition becomes more alarming with the projection that, by mid-1986, only 10 percent of the employees of General Electric's consumer electronics products line will be engaged in domestic manufacturing. This decline is startling when we consider that 60 percent of General Electric employees were working in this same area in mid-1984.

The Schwinn Bicycle Company, another good example of American

companies taking action, could adversely impact the long-range interest of the country. It ceased domestic production of bicycles and turned to design, distribution, and merchandising.

Ten years ago, the United States industrial base produced 90 percent of all power shovels used by the mining industry in the United States. Today, only about 10 percent are made in this country. The equipment, skills, and facilities are being dismantled and moved offshore.

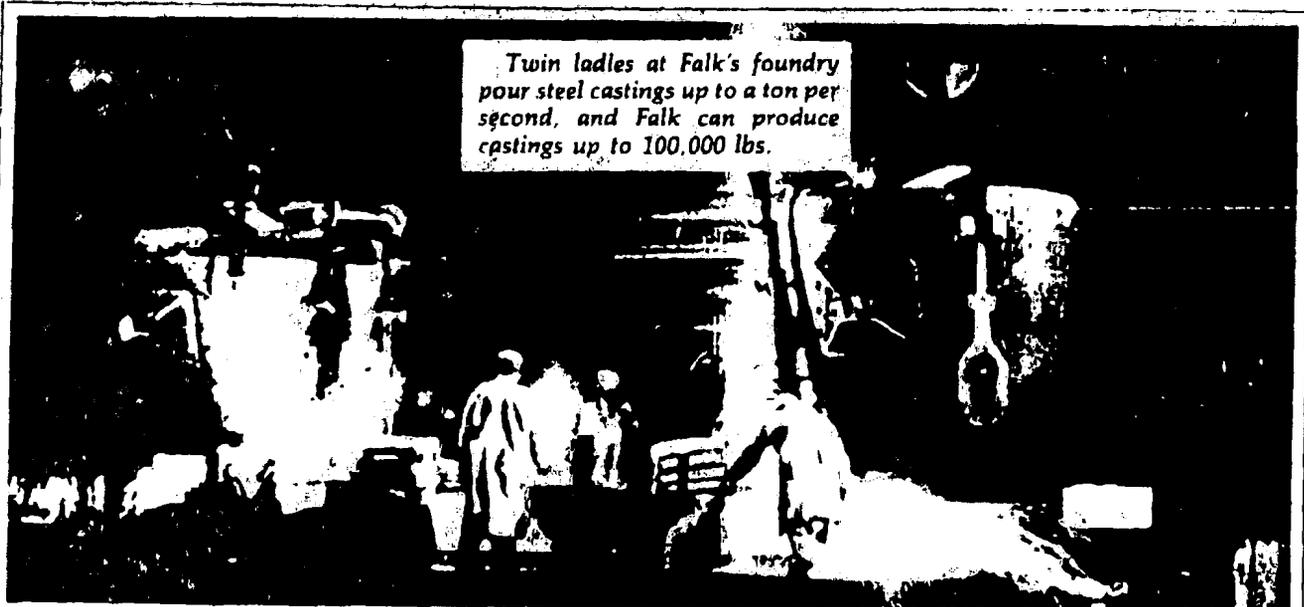
Similar statistics are applicable to calculators, cameras, hi-fi equipment, motorcycles, watches, video-recorders, machine tools, robots, typewriters, copy machines, semiconductors, and fiberoptics. The plants, production equipment, supporting equipment, and the subcontractors have vanished from the American scene. Nevertheless, what should be of greater concern is the loss of production expertise.

#### Brain Drain

Several years ago, Great Britain was lamenting its "brain drain." The exodus of the brightest young engineers, scientists, and creative individuals for parts of the world offering better opportunities and higher pay created serious hardships. Today, the United States is exporting the opportunities needed to develop production and design engineers, and the situations permitting the United States to maintain a level of creativity is unparalleled in the history of mankind. Without a production base to support engineers and scientists and a corresponding exposure to day-to-day operations within that production base, these professionals will lose the expertise to develop hardware or software to compete in foreign markets. Most U.S. advances are due to ongoing production processes and not from academic experiments in college laboratories.

#### Examples of Our Loss

A prime example of the loss of electronics expertise is the situation Intel Corporation encountered when attempting to build a computer chip assembly line in Arizona. It found no experts available to set up the assembly line at the new factory and had to import this skill from one of its plants in Malaysia. It is incomprehensible how we would set up a foreign source for the production of items for American



Twin ladles at Falk's foundry pour steel castings up to a ton per second, and Falk can produce castings up to 100,000 lbs.

—Photo courtesy of Sundstrand

industry and, within a few years, lose this expertise to rebuild production capability at home.

Another loss of American industrial know-how is in audio technology. Today, no American company produces reasonably priced compact disk players, a rage in the consumer market. Japanese industrial firms are gaining this major market and soon may dominate the optical-disk computer memory market because of the similarity of the technologies.

#### Production Equipment Tragedy

American firms that have been traditional customers of the U.S. machinery manufacturers are buying equipment and machine tools from foreign sources. Accordingly, many reduced production capacity and sought to improve overall efficiency of remaining operations in a desperate attempt to remain competitive. Corporate survival impels maintaining profitability to satisfy stockholders. Many chief operating officers are concerned with the Congress' thinking on investment tax credit, or lengthening of depreciation schedules that would further dissipate demand for new production equipment and plunge the machine-tool and equipment businesses into deeper recession.

The ultimate result is the new "American tragedy" being written by companies electing to manufacture products overseas and the consequential erosion caused by remaining domestic producers buying foreign production equipment.

*It's difficult for industry to retain confidence in government. Investing stockholders' funds to modernize and purchase new machinery and machine tooling gets risky unless profits can be realized.*

#### Congressional Influence

Before April 1, 1985, the U.S. procurement activities could obtain competition from several producers and fulfill requirements of procurement law and regulations. This competitive process could draw from several American and Canadian firms. Advantages of competition normally are lower prices. However, the drawback was that, if the government conducted negotiations with the private sector, a Determination and Findings was required to justify that other-than-formal advertised procurement methods could be employed.

The law of the land was changed with the enactment of the Competition in Contracting Act (CICA). Now, government offices could solicit sealed bids that would be opened to the public; or, the government could competitively negotiate where prices would not be disclosed or discussions held with prospective contractors after proposals were received. Whenever government contracting officers want to restrict competition to one offeror or to just a few offerors, approval must be obtained to permit that restriction. The result is that all procurements not restricted must be by full and open competition.

What this means is that anyone or any company in the Free World could participate in the procurement. Under existing law, of course, the "Buy American" considerations would apply to foreign sources; but, many companies in low-cost areas of the world became competitive in spite of the "Buy American" formulation. Countries covered under the Trade Agreements Act of 1979, or having Memoranda of Understanding with the United States, were in a more favorable position because of the provisions of the law and agreements with the United States.

#### Government Subsidies

Some foreign companies engaging in this fierce competition have the benefit of modern production equipment; also, the further advantage of being subsidized by their respective governments. A recent report from one

American small-arms, ammunition-producing firm indicated one foreign company was willing to put stockpiles of components in the contractor's U.S. plant; and, the contractor did not have to pay for the inventory of components until they were actually utilized in the manufacture of end-items. This deferral of payment eliminated the need to borrow to purchase these materials and maintain company-owned inventories needed for the production of components and end-items, thus providing further competitive advantage. It is impossible for American supply sources to compete with that type of arrangement. In fact, American stockholders would not stand for that type of mismanagement by corporate officers. A different strategy must be developed to enable American manufacturers increased participation in government procurements while still meeting national defense objectives.

A substantial number of congressional members voting for the Competition in Contracting Act apparently did not comprehend its full ramifications. That is not to imply, however, it was their intention to fuel overtly the fire of foreign competition, which the act had inadvertently kindled.

#### Critical Ramifications to America

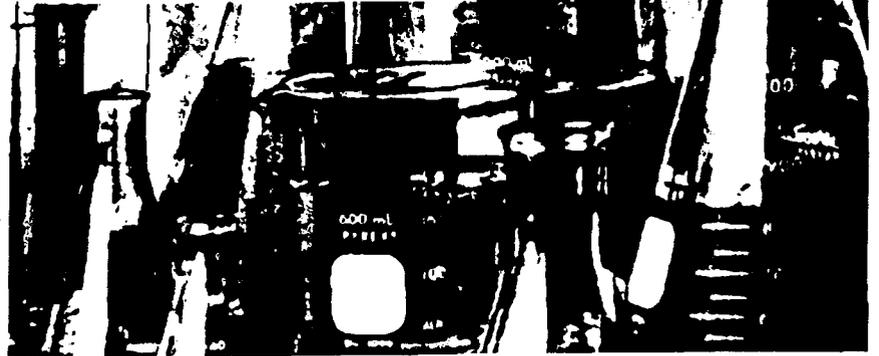
The disastrous loss of the capability to manufacture ball bearings, electronic components, large forgings, computer chips, etc., could have a major impact on U.S. security. Lessons learned from the build-up before World War II are as vital now as they were nearly a half-century ago. That era's warning signs and sufficient time may not be available in a future crisis.

Maintenance of a strong industrial base is essential to the defense of this country and to its economic well being and that of its citizens. Unchecked foreign dependency could lower the standard of living. We are experiencing these effects as evidenced by the increased number of unemployed workers and the changing complexion of the employment market. Service-sector jobs that remain or are created tend to be lower paying; consequently, income does not support the level of consumption enjoyed by U.S. workers in recent decades.

#### Legislative Remedies

It is imperative that the Congress take the offensive to enact legislation

*As we become more dependent on other nations for raw and rare materials, our ability to manufacture becomes increasingly related to the politics of those supplying the necessary minerals and chemicals.*



—Photo courtesy of FMC

*A different strategy must be developed to enable American manufacturers increased participation in government procurements while still meeting national defense initiatives.*

enabling the Department of Defense to restrict procurements to the United States industrial base—without the need to prepare cumbersome documentation permitting other than "full and open competition." Domestic set-aside policies should be adopted to restrict competition to producers in the United States and, perhaps, Canada. If an agreement exists with a foreign country through a memorandum of understanding executed by the United States, then a case-by-case determination should be made; the contracting officer could permit foreign competition, allowing competition only by firms in those countries that have executed these memoranda.

From the information gathered regarding the purpose of CICA, it is obvious that the original intent was to increase the number of competitive procurements but not necessarily increase foreign participation in U.S. Government procurements. Nevertheless, as most government procurement offices might attest, there has been an increase in foreign contractors submitting proposals and winning government contracts. This loss and corresponding loss to American industry in other markets accelerate degradation of the industrial base and constitute a serious long-term defense problem.

#### Advertising

Another law that must be reviewed is 15 USC 637(c) governing how long procurements must be advertised in the *Commerce Business Daily* before solicitations can be issued by procurement activities. Lengthy publication periods of synopses afford more foreign sources the opportunity to bid on U.S. Government contracts. As I mentioned, even countries that do not have memoranda of understanding are free to compete. Despite the application of the "Buy American" principle, many of these foreign industries, often subsidized by their governments, succeed as low offerors. Reducing the time required before release of a solicitation to 5 working days after synopsis, rather than the present 15 days, would ameliorate this problem. Congressional protective legislation would provide a vehicle to revive America's production base.

### Contractual Remedies

We need to quantify the foreign dependency that has crept into our defense procurement systems. All future Department of Defense contracts should incorporate a clause requiring contractors to specify the origins of the components, parts, raw materials, etc., that are going into the product. This clause should contain a requirement to identify not only items the contractor is purchasing that are of foreign origin, but also provide a subcontractor "flowdown" provision. Data thus obtained would be furnished via the prime contractor to the government for analysis so that measures could be taken to rebuild essential industries when the facts so warrant. If the contractor neglects to provide the data or fails to provide complete data, the contract should include a notice that the contractor would be subject to at least a \$5,000 fine with the possibility of a 2-year debarment from future procurements.

### Recommendations

I recommend that the secretary of defense seek legislation to limit procurements for weapons, ammunition, and other war materiel to sources of supply within the United States. There should be a full and open competitive atmosphere, eliminating current requirements for preparation of justifications and approvals. The secretary of defense should draft and incorporate

into the Defense Supplement to the Federal Acquisition Regulation a foreign content clause to include, in all government contracts, purchase orders, delivery orders, etc., as outlined in the preceding section. This clause would require that contractors provide foreign content information to the contracting officer who would, in turn, forward this data for review and analysis to the appropriate office at the secretary-of-defense level.

Second, all government engineering activities and potential contractors should seek substitutes for critical or rare materials used in our weaponry, and approval for using these substitutes should be encouraged. It is essential that these substitutes be ready to meet any potential crisis, military or economic.

### Fresh Thinking

Finally, and most urgently, we need to inject fresh thinking into the depreciation allowance methods used for tax and accounting purposes to allow total depreciation in the year of purchase for production equipment bought and manufactured in the United States. Because companies producing offshore are allowed foreign tax credit against U.S. taxes owed, our country loses another round due to foreign production. Therefore, an additional amount equal to a 10 percent investment tax credit should be allowed for these production enhancing

measures. Although this is a radical departure from current tax and accounting practices, initial losses in tax revenues would be more than offset by higher corporate gross revenues from their production and sales and improved employment statistics. This revision is necessary to stimulate productivity and employment within the production equipment and tooling industry of America, which affects the industrial base and the corporate tax base.

### Closing Thought

Economic models and theories developed by social scientists, demonstrating that it is immaterial where goods are manufactured, are invalid in the context of current foreign competition. It may be axiomatic to the principles of economics that only the efficient companies and those able to make a profit should survive, but this philosophy is irrelevant when the existence of our nation is at stake. We must protect and maintain certain industries. If the United States of America cannot manufacture needed equipment, weapons, and munitions when its welfare is threatened, we could cease to be a free country.

The Congress must take positive steps to reindustrialize America so that its citizens continue to enjoy jobs that will maintain a standard of living and quality of life second to none. ■

## Natick RD&E Center Hotline

In an effort to serve the user community better, the U.S. Army Natick Research, Development and Engineering Center, Natick Mass., has established a user hotline, Autovon 256-5341.

Natick Center is the Army proponent for food, clothing, shelters, and air-drop systems. The hotline is located in the Operational Forces Interface Group, Directorate for Engineering Programs Management, whose personnel will monitor calls and reply to the caller.

Army Issue and Supply personnel are encouraged to use the hotline to report, discuss, or resolve problems encountered with centrally procured and issued food, clothing, individual equipment, aerial delivery equipment, tentage and rigid wall shelters. ■

## Spare Parts Hotline Numbers

**ARMY**  
AUTOVON: 977-7431  
Commercial: (717) 782-7431  
FTS: 589-7431

**NAVY**  
AUTOVON: 430-2864  
Commercial: (717) 739-2864

**AIR FORCE**  
Zero overpricing member.  
Customer liaison office.  
Local base supply office.

**MARINE CORPS**  
AUTOVON: 460-8488/7/8  
Commercial: (912) 439-8488

## Minefield Recon And Detector System

The Troop Support Command's Belvoir RD&E Center has awarded contracts for prototypes of a highly mobile, remotely controlled minefield reconnaissance and detector system (MIRADOR). It will be a multisensor system to detect metallic and non-metallic mines, on and off roads, and will be used by forward- and rear-area units to locate enemy minefields. It will be employed in high-risk areas as a self-propelled system remotely operated from a parent vehicle, or mounted on a remotely controlled tactical vehicle. ■

"Let us have faith that right makes might, and in that faith let us to the end dare to do our duty as we understand it."

—Abraham Lincoln

