

GLOBALIZED SECURITY: AN ALLIED INDUSTRIAL BASE FOR THE 21ST CENTURY

Lt Col Shannon Sullivan, USAF

During the Cold War, the United States maintained an extensive industrial base in the event of a global war with the Soviet Union. With the Russian threat diminished, and the downward spiral of allied defense budgets, a new industrial base model may be more effective in managing scarce defense resources. The new model would be spread across the allies, rather than centrally focused in the United States, with several prime-integrating contractors at the hub, and supporting or niche specialties along the spokes.

Overall, most experts agreed that managing integrated industrial resources, relaxing trade controls, and cooperating in program development offers an effective method to maintain powerful military capability and a vital allied industrial base.

Over the past decade, powerful events and forces have changed the world. Communist rule in the Union of Soviet Socialist Republics (USSR) collapsed; information technologies brought the world closer, while new types of threats and instabilities pushed it apart. As budgets tighten and military suppliers proliferate, a new model

for an allied defense industrial base is rising, which shares the burden of arms development and production. This paper asks the question: "Should the United States seek a broad allied industrial base?"

METHODOLOGY

A variety of documents, articles, speeches, and books were reviewed to gain an appreciation for the arguments surrounding U.S. defense trade policy. United States government interviews were conducted with individuals in the Departments

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of Defense, State, Justice, and Commerce. Discussions were also held with representatives in the Office of the White House Council of Economic Advisors, Congress, industry, and the academic community. Additionally, interviews were conducted in London with representatives from the United Kingdom (UK) government, industry, and research communities. United Kingdom representatives were singled out because they are on the leading edge of new cooperative trade arrangements with the United States and the European Union (EU).

THE POST-SOVIET INDUSTRIAL BASE

GLOBALIZATION

The Defense Science Board (DSB, 1999) on Globalization and Security defines globalism as, “the integration of the political, economic and cultural activities of geographically and/or nationally separated peoples — is not a discernible event or challenge, is not new, but is accelerating. More importantly, globalization is largely irresistible. Thus, globalization is not a policy option, but a fact to which policy makers must adapt” (p. i). The DSB went on to describe what effects a growing reliance on commercial technology, global availability of military systems, and a declining U.S. lead in dual-use technology has on the defense industrial base (DSB, 1999).

Three trends have developed in the availability and capability of military equipment. First, the weapons arsenals of countries are becoming more sophisticated. Second, nations who cannot afford new equipment are buying older systems and upgrading them with the latest technology.

Third, states can now buy top technologies and integrate them to create superior hybrid systems.

There is a plethora of suppliers of advanced technology around the globe. For instance, India is selling advanced helicopters to Turkey, and antiaircraft missiles, warships, tanks, and fighters to whoever can afford them (Weir, 2000). France is reportedly marketing stealth cruise missiles worldwide and aiding Russia in night vision technology (Flamm, 1999). Israel licensed antiship missiles to Taiwan and South Africa, and they are working with China on a new F-10 Fighter. China and Pakistan are developing the FC-1 Fighter, the K-8 Trainer, and the Al-Khid Battle Tank (Bitzinger, 1999). Russia is not only supplying arms to India; but through their arms sales to China they are indirectly supplying Pakistan too, thereby fueling both sides of an arms race (Durso, 2001).

INDUSTRY CONSOLIDATION

United States. During the Cold War, unlike the industrial complex of pre-World War II America, the military could not afford a ramp-up time, and therefore the defense industrial base required sustained support. The result was a defense industrial complex consisting of laboratories, manufacturing plants, test facilities, and depots spread across the country (Center for Strategic and International Studies [CSIS], 1998). When the Cold War ended, the Department of Defense (DoD) procurement budget plummeted 70 percent and research and development (R&D) dropped 25 percent, causing a contraction in the defense industry. Employment fell from 1,400,000 in 1990 to 878,000 in 1999, and defense firms consolidated from 36 in 1993 to 8 in 1999 (Markusen, 1999).

As mergers progressed, stock prices fell, bond ratings dropped precipitously for many, and debt ratios rose from 12.9 percent in 1993 to 50.4 percent in 1999 (Bovin, 2000). To make matters worse, capacity remained constant. There were “eight lines producing military aircraft, six private yards building large warships, four missile manufactures, and five helicopter companies totally dependent on military purchases” (Sapolsky & Gholz, 1999, p. 193). Additionally, mergers, which the DoD had once encouraged, now became a concern over massive prime contractors monopolizing certain sectors of the defense market.

Europe. Europe was also experiencing consolidation pains as support dried up. For example, from their Cold War high in 1985, the UK were down 35.5 percent, Germany fell 28.4 percent, and France dropped by 16.1 percent in constant currency (Adams, 2000). Even more critical, European overcapacity and redundancy was worse than their American counterparts. In 1993, European industry produced 123 separate weapons systems, compared to 55 in the United States, to include: 16 armored vehicles (3 in the United States), 7 fighters (5 in the United States), and 7 assault rifles (1 in the United States; Bitzinger, 1999).

Two national champions eventually rose from the machinations: British Aerospace (BAe) Systems and European Aeronautic Defense & Space Company (EADS). Together they control about 70 percent of the prime contractor business. With consolidation, however, competition in Europe has also been drastically reduced, and often there is only one prime contractor in key defense sectors (Bialos, 2000).

Transatlantic. With much of the consolidations complete on both continents, industry looked overseas to continue the process of integration and increased market share. Former Rear Admiral, and now Lockheed Martin’s Vice President for International Programs, Rick Kirkland (personal communication, January 10, 2001), described their position: 90 percent of the business base is in government programs, and 23 percent of that work is international, totaling \$288 billion. Lockheed faces three realities: first, sales must increase to increase profits, and the U.S. market is flat; second, many contractors below the prime-level have already merged with Europe; and third, to be competitive a company must be integrated worldwide.

A chief complaint by Europeans in acquiring U.S. defense firms is the restrictive security arrangements imposed by the U.S. government. If a U.S.-based company is conducting sensitive work for the government, a proxy board composed of U.S. citizens whose role is to oversee the management of the company, is created. The European parent has no directors on the board, no access to financial data, and no control of company activities (Adams, 2000, p.18). If the parent adheres to the rules and develops a good reputation with the U.S. government, the proxy board may be downgraded to a Special Security Arrangement (SSA), which then allows

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citizens of the parent company to join in managing the U.S. holding.¹

Finally, governments on both sides of the Atlantic are concerned that consolidations and restrictive trade practices are creating Fortress Europe and Fortress America, in which each develops its own arsenal and defense force. If the fortress walls grow, NATO's existence, as well as U.S. influence in Europe, could be threatened. With a growing dependence on coalition operations, this is a devastating option for both sides. If, conversely, the fortresses could be joined, both would benefit from increased competition and combined resources (Hamre, 1999).

PLAYERS AND LAWS

A number of entities have a vested interest in export controls. The major players are the Departments of State, Department of Defense, Commerce, Congress, the President, and industry. Their advocacy is as diverse as their membership: some

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want a return to Cold War-like controls, others want more far-reaching liberalization; but the majority appears to be somewhere in the middle. Likewise, there

is a variety of legislation that impacts the ability to export technology and promote cooperation, but the primary pieces are the Arms Export Control Act (AECA) and the Security Assistance Act of 2000.

The AECA is a product of the Cold War, having had only minor revisions since the collapse of the Soviet Union. Many of the

procedures date back to the 1970s, when Congress was attempting to regain oversight of foreign policy decisions from the executive branch (Atlantic Council of the United States, 1998). Although the AECA of 1979 expired in 1994, its procedures have been sustained through the International Emergency Economic Powers Act (Adams, 2000). Most experts agree that the AECA is fairly broad and flexible, providing the State Department with some leeway in defining its implementation (DSB, 1999).

The Security Assistance Act (2000) sets into law the requirement that all countries desiring the benefits of the Defense Trade Security Initiative, which will be described later, must sign a binding agreement to revise their export laws to conform to those of the United States. They will also be subject to U.S. third-party transfer requirements, and they will permit the United States to verify the location and end user of any U.S. technology transferred to third parties.

DANGERS OF INDUSTRIAL BASE REFORM

The Department of Defense has embarked on a quest to integrate allied and U.S. industrial bases through export control initiatives and merger promotion. Their reasoning is that closer cooperation will enhance interoperability and capabilities, share development costs, and provide access to foreign technology. Skeptics, however, fear Americans will lose jobs, war-time industrial response will be stifled, and technology will proliferate.

Job Loss. As the United States sells products and transfers technology, foreign industry benefits and becomes capable of producing a competitive product indigenously. For instance, Lockheed assisted

the South Koreans with their \$5.2 billion fighter aircraft program in 1991, by creating a local production capability. Now the Koreans can produce their own fighters, and they can also compete against U.S. firms in other markets around the world without the shackles of U.S. third-party transfer requirements (Lumpe, 1999).

Wartime Response. A chief argument against globalizing the defense industrial base among allies is it will jeopardize America's ability to rapidly increase production output during a major war. Conservatives further worry that foreign manufacturing dependency, combined with coalition agreements, will limit U.S. flexibility to implement foreign policy. Defense Analyst, Richard Bitzinger (personal communication, October 19, 2000), states that unilateral capability provides the United States with psychological and physical flexibility, global export clout, and the implied support of the United States in time of crisis.

Technology Transfer. Finally, critics argue that potential commercial or military competitors continue their assault on U.S. technology. Even with effective barriers, it is a challenge to stop the flow, but without those barriers, the loss would be devastating. A major stumbling block in dealing with allies is third-party transfers of technology, because the U.S. perception is that the Europeans lack tight export controls and enforcement capabilities. Jim Durso (personal communication, March 21, 2001), from the National Security News Service, adds that as Eastern European countries are integrated into the EU and NATO, fears of weak governmental control increases. United States officials are also concerned that foreign government ownership in commercial com-

panies, such as the French-controlled EADS, will lead to industrial espionage and proliferation to unfavorable nations (Ashbourne, 2000).

Opponents' further lack confidence in the ability of proxy boards and SSAs to stop the flow of information and technology, because there is little regulators can do to check compliance (Maloof, personal communication, January 12, 2001). BAe recently bought Lockheed's Sanders Division, which does classified work for the government. Skeptics ask how will enforcement agencies verify that when a Sanders employee moves to another part of the company, he does not share what he has learned with his new associates? When faced with layoffs, promotions, bonuses, or moves, will that employee stick to a strict code of silence?

INITIATIVES AND PROGRAMS

To address the concerns of critics, but still take advantage of allied strengths and bolster weaknesses, a number of initiatives have arisen. Four promising programs are the Defense Capabilities Initiative (DCI), the Declaration of Principles, the Defense Trade and Security Initiative (DTSI), and the Joint Strike Fighter (JSF).

DEFENSE CAPABILITIES INITIATIVE AND THE DECLARATION OF PRINCIPLES

The Balkans campaign demonstrated that U.S. capabilities, ranging from tactical communications to target identification, far exceed those of its allies. DCI established a framework of desired capabilities to enhance European forces.

In February 2000, Secretary of Defense William Cohen, and British Minister

of Defense, Geoff Hoon, took another step forward by signing the “Declaration of Principles for Defense Equipment and Industrial Cooperation.” The move was a DoD-sponsored initiative to force the development of a license-free, “Canada-like” exemption with key allies. The five pillars agreed upon are as follows:

1. Congruent and reciprocal industrial security policies and procedures.
2. Congruent and reciprocal export control processes.
3. Cooperative relationships in law enforcement.
4. Close cooperation in intelligence sharing on matters of counterintelligence, economic espionage, and industrial security and export control violations.
5. Willingness to enter into binding agreements establishing reciprocal access to each other’s markets (Adams, 2000).

DEFENSE TRADE AND SECURITY INITIATIVE

From the DCI and Declaration of Principles, the DTSI arose. In May 2000, Secretary Cohen sent Secretary of State (DoS) Albright a letter saying:

I have found that DoD is spending too much effort controlling low-risk items destined for low-risk destinations at the expense of devoting more time to high-risk cases and issues. For example, nearly a third of the export license requests are destined for the UK and Australia, two historical allies

with whom we share the most sensitive information and technology. Under current ITAR [International Traffic in Arms Regulations] rules, my staff is processing these requests with the same approach that they give to export license requests destined for more problematic nations. Clearly, we could free up substantial resources to focus on more sensitive cases if we could agree upon an approach that is appropriate for the lesser risk associated with exports to the UK and Australia of unclassified information and equipment of low sensitivity. (p. 1)

That same month Secretary Albright announced DTSI to the world. DTSI is a compilation of 17 separate initiatives, falling into the categories of export controls, industrial security, intelligence, law enforcement, and trade reciprocity. The most contentious aspect are four new licensing vehicles, which allow industry to self-regulate compliance, once an overarching license has been approved by DoS.² Steve Brosnan, a political military officer in the State Department’s Office of Plans, Policy and Analysis, made the analogy that DoS is working with industry to draw a box around a particular venture. Everything inside the box is industry’s responsibility. If things change, and they have to step outside the box, then they can come back for an amendment to the license. “It pushes more responsibility and planning onto to industry’s shoulders” (S. Brosnan & A. Coletta, personal communication, December 19, 2000).

Critics complain that DTSI will provide a conduit for U.S. defense technology to

enter the less restrictive trading environment of the EU, and once there, it will proliferate to rogue nations. SECDEF Cohen (personal communication, May 2000) countered, "The proposal would require legally binding agreements with the UK and Australia on tightening third-party retransfer controls and closure of other gaps. This strengthened retransfer control would extend to UK and Australian end-users for all U.S. Munitions List items, not only items entering the UK and Australia under the proposed exemption. Our proposal would dramatically improve our control of third-party retransfer, further enhancing national security."

Europeans lamented that the initiative fails to address the underlying problem of an antiquated export control system, it seeks to impose U.S. law on the EU, and the United States is conducting bilateral negotiations with the United Kingdom, rather than multi-lateral cooperation with the EU. While some of these accusations may be valid, European compliance with third-party transfers of technology has been intermittent. Edward Levine (personal communication, January 19, 2001), a senior staff on the Senate Foreign Relations Committee adds, "[We] like NATO, but the allies are still working with potential enemies and human rights violators. If Europeans said they will work together on foreign policy, then we will respect differing views and policies."

JOINT STRIKE FIGHTER

Joint programs have long been the recipients of harsh criticism, and perhaps rightly so. For example, the Tornado fighter aircraft was built on compromising everything from requirements to production and expertise. Canada, Belgium,

the Netherlands, the UK, Italy, and West Germany agreed to build a fighter. Eventually, Belgium, the Netherlands, and Canada withdrew, because they saw no reason to spend money on an aircraft that was more expensive than the U.S. alternative and had lost much of its capability due to requirements compromises. When the time came to produce the Tornado, the UK was the logical choice to design and manufacture the airframe and wings, because they had more expertise. Germany, however, contributed more money, so they did the majority of the work (Zahkeim & Weinberger, 2000).

The JSF is attempting to shatter this image.³ Instead of unwilling participants who are pushed together by politicians and bureaucrats, JSF is an economically motivated program led by industry.⁴ A requirement for participation is that all countries must agree to an export control plan, and the contractors involved have tight restrictions on the transfer of technology. The multinational industry teams are in the competition phase, which are led by the Boeing and Lockheed prime contractors. BAe, along with other European firms, are partnered on one or both sides (A. Ashbourne, personal communication, February 22, 1001).

David Oliver, former Rear Admiral and Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics, believes JSF is the type of arrangement that the DoD would like to encourage in the future. The Europeans

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are contributing to the R&D costs, offsets are not a concern, the U.S. becomes the sole integrator of the world's fighter, and interdependence is encouraged in a capitalistic way, instead of being forced together by governments. He adds that the European industrial base is in trouble, because there is not enough local money. The result will be that NATO will become less effective. "You can't fight that countries want [defense] money spent at home, so by encouraging partnerships and mergers, everyone gains" (Oliver, personal communication, December 6, 2000).

RECOMMENDATIONS

The existence of defense-unique industries during the last half-century has conditioned American leaders to think such a "defense industrial base" and the associ-

ated special set of acquisition rules, regulations, standards, and requirement is natural. In fact, the continued segregation of defense and commercial activities pro-

duced by the existing acquisition process will no longer stand up to the altered defense environment and the changing nature of our national industrial base (CSIS, 1998, p. 29).

JOB LOSS

Give capitalism its due. American success is built on free and open competi-

tion. Industry must be allowed to survive on its own merits, not on some subsidized standard that fosters neither competition nor innovation. "The Department of Defense must try to behave like any other commercial buyer: impose few unique contracting regulations, follow best-value criteria, and most of the time accept commercially developed specifications and standards" (CSIS, 1998, p.30).

Sheltering industry behind an export control regime and protectionist politics only serves to make industry less efficient and less effective. Contractors may keep up with their heavily subsidized European counterparts, but who is interested in just keeping up? As the world becomes more integrated, and countries adopt best buying practices, protectionism and subsidies become costly for both governments and companies. An efficient U.S. industry will be ready to gain customers and market share, because other than the few countries with large defense industries to protect, most are looking for the best value.

A disdainful reality is that Americans may lose jobs in transition to a more productive model if anti-competitive barriers are dropped, but others will be gained and overcapacity will be reduced. Additionally, the flow of labor is important to the growth of the economy, because it allows workers to migrate into industries where their talents will be most effectively used. If France wants to keep their farmers employed through protectionism and deny those individuals to more productive parts of the economy, it is their right, but it does not make much economic sense.

An open economy also provides additional capital from abroad, lowering domestic interest rates, expanding the nation's stock of capital, and raising the

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productivity of American workers. Japanese investment in U.S. auto plants, for example, has raised the productivity of American autoworkers by providing new plants and equipment and introducing new production techniques...the world's most successful economies also turn out to be those with the lowest trade barriers (CSIS, 1998, pp. 4, 5).

However, the United States is still the big gorilla in buying and selling internationally. If Europeans want access to U.S. markets and products, they must be willing to make concessions in areas such as barriers to trade and limiting subsidization of industry. They must also seek best value rather than what is in the best political and economic interests of the EU.

WARTIME RESPONSE

The DSB (2000) Task Force on Preserving a Healthy and Competitive U.S. Defense Industry concludes, "Thus the defense industrial base is in essence entering a new paradigm, an era of rapid technological change (often commercially driven) smaller production runs and fewer new starts and an increasingly international business base. In this era, new ways of doing business are imperative" (p.7).

The era of relying solely on the U.S. defense industrial base is long past. Rick Kirkland (personal communication, December 7, 2000) points out, "you can't do a major program in the United States with U.S.-only parts." Components for U.S. warfighting systems come from manufacturers across the globe. For example, Turkey is the only manufacturer of a particular component for the F-16 (D. Quinn, personal communication, December 19, 2000). The DSB (1999) concluded that it found associated risks if there was a loss

of suppliers in critical times, but they concluded that they "found none of them new, nor compelling when cast against potential benefits" (p. v).

Support DCI and expand DTSI. The U.S. Commission on National Security in the 21st Century (2000) stated, "Since it cannot bear every burden, the United States must find new ways to join with other capable and like-minded nations. Where America would not act itself, it retains a responsibility as the leading power to help build effective systems of international collaboration. America must therefore overcome its ambivalence about international institutions and about the strength of its partners, questioning them less and encouraging them more" (p. 6).

Likewise Congress, through modifications of the AECA and Security Assistance Act of

2000, must provide the flexibility to negotiate with countries to improve trade while protecting vital technologies.

Sealing U.S. borders will only provide other arms-producing countries with lucrative markets to sell their products and finance new R&D investments. Additionally, diffusing technology is not always as simple as it may first appear. Often technologies and processes are difficult to reverse engineer because potential perpetrators lack the R&D background that first produced the technology. Even if the ideas are obtained, the host country still possesses the original creators, the environment, and the synergy that was essential in developing the capability. Military technology is

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even more unusual, requiring a specialized set of skills. The United States has this group of people, and few others can compare (Reppy, 1999).

Encouraging allies to “level up” on security and end-use restrictions promotes interoperability and closes technology gaps, encourages cohesion with allies, reduces development and production costs, and provides access to foreign technology. David Oliver (personal communication, December 6, 2000) counseled, “The world has changed today. Now we have to be worried about technical breakthroughs in another country.” As technology becomes more global and more commercial, the DoD is losing its edge on solely possessing state-of-the-art systems. The govern-

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ment is slowly realizing that the high tech, dual-technology business means U.S. industry needs access to foreign innovations. The commercial world

has already accepted this shift, and it is thriving as a result (Adams, 2000). In a recent success, two Belgium engineers produced an encryption design that beat out proposals from U.S. and Japanese competitors to enhance computer security in the National Security Agency and other highly classified government organizations (Adams, 2000).

In return for the Europeans following the U.S. lead in export reform, the United States should open multi-lateral discussions with the EU in an honest desire to negotiate, rather than dictate terms. The current

philosophy of ignoring the EU and the Framework Agreement only serve to antagonize member states and build resistance to the U.S. initiative (Zakheim & Weinberger, 2000).⁵

Encourage a hub and spoke model.

Richard Bitzinger’s (personal communication, October 15, 2000) vision of the defense industry of the future is a global hub and spoke arrangement, where the defense powerhouses at the hub retain the highest levels of technology and systems integration capability. The spokes are those countries that fill manufacturing and support roles, supply subcontracting expertise, and innovating in niche areas. The defense industrial base is thereby globalized, and more efficient operations are realized. “Nations become more productive through the division of labor, technological progress, investment in physical and human capital, and the reduction of inefficiencies” (Griswold, 2000, p. 3).

Most European companies and countries that desire to stay in the defense business should be encouraged to select a few technologies in which they can compete. Rick Kirkland (personal communication, January 10, 2001) gives the example of the Russian swizzle nozzle. The Russians had developed a device to channel aircraft thrust in various directions to provide a vertical take off and landing capability. The system was so reliable that Lockheed’s Skunk Works bought a license to build the nozzle for their JSF contestant.

From a warfighter perspective, General Gregory S. Martin, commander of U.S. Air Forces Europe and Allied Air Forces Northern Europe, supported industrial teamwork by insisting that NATO must develop weapons together. Compatibility between nations and cost sharing should

be driving countries toward closer cooperation, “such an alliance-wide system would especially benefit newer NATO members, such as the Czech Republic, Hungary and Poland, which all have little money to modernize its forces” (McEntee, 2000, p. 11).

TECHNOLOGY TRANSFER

Reassess merger requirements. “Foreign capital, technology, manufacturing processes, and commercial diversity are good for the U.S. economy,” stated White House economist, Menzi Chinn (personal communication, November 14, 2000). Additionally, foreign-owned firms realize that to have access to U.S. markets, they are expected to use U.S. workers for production for U.S. and overseas markets (DSC, 1999). Instead of resisting this beneficial inevitability, the U.S. government must begin serious discussions with its European counterparts on how to deal with transatlantic prime contractor mergers in preparation for their impending occurrence.

Third-party transfers should always be a concern, but current assessments agree that security arrangements have produced a better level of technology control than U.S. wholly owned companies (DSC, 1999). It is unreasonable to demand that a foreign company buy a U.S. firm but have no direct control of its operations. Special Security Arrangements, while not the optimum for business, provide a compromise that allows the United States to protect its technology while ensuring that business will prosper.

Dr. Keith Hayward (personal communication, February 21, 2001), Head of Economic and Political Affairs for the Society of British Aerospace Companies, further

suggested that even if technologies flow to a foreign company, the legal restrictions between the U.S. prime contractor and its European subcontractor are so tight that the subcontractor can only use that technology when working with the prime on future projects.

Support joint ventures. The United States is offering to share cost, technology, and capability of the next generation Joint Surveillance Target Attack Radar System (Joint STARS) with its NATO allies, but the French and UK are each developing their own capability. Germany, Italy, and the Netherlands joined the French team; Canada, Denmark, Luxembourg, and Norway have linked with the United States; and the UK is going it alone (Wolfe, 2000). What a waste!

A major decision facing Pentagon leadership is what to do with three different fighter aircraft

programs: the F/A-18E/F, the F-22, and the JSF. To cut the JSF program would not only be devastating to the American military, but it would be an

enormous embarrassment to the United States, and it would cast grave doubt on its credibility in conducting joint programs (C. Vyvyan, personal communication, February 23, 2001). In addition, the decision would cripple the U.S. aircraft industry, whose hopes for future fighter sales are predominantly riding on one aircraft.

Without the JSF, the only competition for the Eurofighter, Rafale, and Gripen would be an upgraded F-16, which

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although good, would probably have difficulty overcoming European resentment and protectionism. Hopefully, reformers will have the foresight to not only view the defense ramifications of their decisions, but also will appreciate the economic and foreign policy issues at stake as well.

Increase DoD multinational cooperation. The National Security Commission (2000) recommends, “Adapt U.S. alliances and other regional mechanisms to a new era in which America’s partners seek greater autonomy and responsibility. The cornerstone of America’s regional policies must be the maintenance and enhancement of existing U.S. alliances and friendships. By strengthening relations with allies and friends, the United States extends both its influence and the zone of peace and stability” (p. 11).

The DoD must realize that as globalized security changes and broadens, so must its affiliations. European security, for better or worse, is migrating toward the EU. The DoD should establish direct interaction with the EU to discuss items of mutual interest like export policy and security (Zakheim & Weinberger, 2000). The more integrated the DoD can become in the allied security and economic apparatus, the more effective it will be in influencing and implementing policy.

Furthermore, allies should be invited to participate in strategic planning exercises, such as the Quadrennial Defense Review to assist the DoD in mapping its improvements and capabilities with that of NATO.

CONCLUSION

The Commission on National Security (2000) concluded, “Continuing trade liberalization remains a key to global economic advance, particularly for those regions, countries, and selected economic sectors in advanced countries, including the United States, whose trade remains shackled by protectionist policies. Bilateral and regional approaches (in addition to the global system represented by the WTO) should be encouraged” (p. 11).

There is no disagreement that the world has experienced tremendous change in the past decade as a result of the acceleration of globalism. The movement is inexorably forward toward a more integrated international society. It is time for America to adopt a broad allied defense industrial base model, and take the next step in leading this society to a more prosperous and safer future.



Lieutenant Colonel Shannon Sullivan, USAF, is a national defense fellow at the Atlantic Council of the United States. He has a background in space operations, test and evaluation, and acquisition. Sullivan has commanded the 46th Test Squadron, Detachment 1, and directed the Command and Control Unified Battlespace Environment (CUBE). He holds a B.S. in mechanical engineering, an M.B.A in business, and an M.A. in airpower art and science. (E-mail address: shannon.sullivan@pentagon.af.mil)

ENDNOTES

1. U.S. companies have been reluctant to seek European acquisitions. U.S. industrialists claim that European government resistance, large debt, and restrictive labor laws deters them from merging. In addition, access to one country does not necessarily provide access to the entire European market, whereas the purchase of a U.S. company provides a window to all of the U.S. market (J. L. Johnson, personal communication, November 27, 2000).

2. The first vehicle is the Major Program License, which provides for “a range of export activities between a single registered U.S. exporter and a foreign company or government including integration, co-development, or production.” JSF could fall under this license, if the winning prime contractor chooses to apply.

DoS defines the second option, the Major Program License, as a “comprehensive authorization for all aspects of a transaction for a foreign government’s purchase of a U.S. major weapons system for the life of the project.” Again, this license only applies to NATO, Japan, and Australia. Lockheed Martin might consider a Program License if they are selected to supply F-16s to Poland.

Third is the Global Project Authorization, which allows “a U.S. exporter to carry out broad range of activities associated with a cooperative govern-

ment-to-government program or DOD-MOD [Ministry of Defense] MOU [Memorandum of Understanding].” This license allows the U.S. government, through an MOU, to set the basic parameters of the program with any country, not just NATO. Cooperative programs could include, “research, development, production, test, and evaluation of defense systems, subsystems, or technologies.”

The fourth authorization covers “tech data needed to explore possible opportunities for acquisition, joint ventures, mergers, teaming arrangements.” Though U.S. and foreign contractors must still seek permission to discuss joint ventures, they are no longer hamstrung by the requirement to delineate the details of each overture prior to beginning discussions. (United States Defense Trade Security Initiative Fact Sheets 1–4, 2001).

3. Arguably, the Multi-National Fighter Program, which designed and produced the F-16, is a triumph in international cooperation. JSF takes another leap forward in allowing industry to take the lead in determining how countries will participate.
4. The UK leads a host of participating countries by contributing 8 percent of the EMD budget or \$25 billion. This “Level One” status allows the UK to have a significant impact on the capabilities of the aircraft, to

include placing 10 individuals on program office technical teams, and a seat on the source selection board. Italy, Turkey, and the Netherlands may sign on at “Level Two” status for \$1.2 billion, which places five of their countrymen on the technical team of their choice. Denmark, Norway, Germany, Japan, Switzerland, Greece, Canada, New Zealand, Finland, and others are considering joining the team as well, and most prospective partners have already

contributed funds (Schneider, 2001).

5. France, Germany, Italy, Spain, Sweden, and the UK signed a Letter of Intent (LOI) in 1998. Under the Framework Agreement that replaced the LOI, the signatories have agreed to collaborate on export destinations by project, and require no licenses for exporting equipment and intelligence

between the countries (Zakheim & Weinberger, 2000).

REFERENCES

- Atlantic Council of the United States. (1998). *Third party arms transfers: Requirements for the 21st century* (p. 11). Washington DC: Author.
- Adams, G. (2000, Fall). The transatlantic defense market and fortress America: Obstacles and opportunities. (Final draft paper). Washington, DC: Institute for Security Studies, Western European Union Chaillot.
- Ashbourne, A. (2000). *Opening the U.S. defence market*. Centre for European Reform, 6. Retrieved November 17, 2000 from <http://www.cer.org.uk/n5publicatio/cerwp8.pdf>.
- Bialos, J. P. (2000, December). Re-inventing defense export controls: A national security imperative. (Address). Washington, DC: Practicing Law Institute.
- Bitzinger, R.A. (1999). Globalization in the post-Cold War defense industry: Challenges and opportunities. In A. R. Markusen & S. S. Costigan (Eds.), *Arming the future: A defense industry for the 21st century* (pp. 320, 323). New York: The Council on Foreign Relations Press.
- Bovin, D. (2000, February 7). The consolidation of the defense industry. (Address). Washington, DC: Defense Science Board.
- Center for Strategic and International Studies. (1998, March). Defense restructuring and the future of the U.S. defense industrial base. (A report of the CSIS senior policy panel on the U.S. defense industrial base). Washington, DC: Author.
- Defense Science Board. (1999, December). *Task force on globalization and security*. (Final Report, iv). Washington, DC: Defense Science Board, Office of the Under Secretary of Defense for Acquisition and Technology.
- Defense Science Board. (2000, November). *Preserving a healthy and competitive U.S. defense industry to ensure our future national security*. (Final Briefing, p. 7). Washington, DC: Author.
- Department of State. (2001). *States defense trade security initiative fact sheet 1-4*, (pp.1-4). Washington DC: Author.
- Flamm, K. (1999). Redesigning the defense industrial base. In A. R. Markusen & S. S. Costigan (Eds.), *Arming the future: A defense industry for the 21st century* (p.232). New

- York: The Council on Foreign Relations Press.
- Griswold, D. T. (2000, April). *WTO report card: America's economic stake in oen trade*. (Paper, p. 3). Washington, DC: CATO Institute.
- Hamre, J. J. (1999, November). U.S.-Japan defense industry cooperation in an era of globalization. (Address) Tokyo: Keidanren Defense Production Committee. *Defense Link*, 2-3. Retrieved September 21, 2000, from <http://www.defenselink.mil/speeches/1999/s19991126-depsecdef.html>.
- Lumpe, L. (1999). A framework for limiting the negative consequences of surplus U.S. arms production and trading. In A. R. Markusen & S. S. Costigan (eds.), *Arming the future: A defense Iindustry for the 21st century* (p. 289). New York: The Council on Foreign Relations Press.
- McEntee, M. (2000, December 1). General says NATO needs shared arms. *European Stars and Stripes*, p. 1.
- Markusen, A. R. (1999). *Arming the Future: A Defense Industry for the 21st Century*. New York: The Council on Foreign Relations Press.
- Reppy, J. (1999). Dual-use technology: Back to the future? In A. R. Markusen & S. S. Costigan (eds.), *Arming the future: A defense industry for the 21st century* (pp. 277-278). New York: The Council on Foreign Relations Press.
- Sapolsky, H. M. & Gholz, E. (1999). Private arsenals: America's post-Cold War burden. In A. R. Markusen & S. S. Costigan (Eds.), *Arming the future: A defense industry for the 21st century* (p.193). New York: The Council on Foreign Relations Press.
- Schneider, G. (2001, March 11). Allies enlisted to pay for jet. *The Washington Post*, p. A19.
- Security Assistance Act of 2000. (2000). Public Law 106-280, 106th Congress, H.R. 4919.
- United States Commission on National Security/21st Century. (2000, April 15). *Seeking a national strategy: A concert for preserving security and promoting freedom*. (Report, pp. 6, 11). Washington, DC: Author.
- Weir, F. (2000, November 29). Can Russia deliver on arms sales? *The Christian Science Monitor*. Retrieved April 16, 2002 from <http://www.csmonitor.com/durable/2000/11/29/fp6s1-csm.shtml>.
- Wolfe, F. (2000, November 30). Air Force wants European collaboration on radar development. *Defense Daily*, pp. 5, 16, 43.
- Zakheim, D. S., & Weinberger, S. (2000). Toward a fortress Europe? (Paper, pp. 5, 16). Washington, DC: Center for Strategic and International Studies.