DEFENSE TRADE

Issues Concerning the Use of Offsets in International Defense Sales

Statement of Katherine V. Schinasi
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Mr. Chairman and Members of the Committee:

I am pleased to be here today to discuss issues surrounding the use of defense offsets on the basis of our work going back almost 15 years.

Views on defense offsets range from beliefs that they are both positive and an unavoidable part of doing business overseas to beliefs that they negatively affect the U.S. industrial base. Defense offsets are often viewed as the key to foreign sales and thus increased business on the prime contractor level. They can also result in reduced unit costs to the U.S. military because of the increased size of production runs. However, the use of a foreign supplier by a U.S. prime contractor as a result of an offset may lead to decreased business opportunities for U.S. suppliers. Additionally, U.S. prime contractors may develop long-term relationships with foreign suppliers, which may lead to the transfer of capability from the U.S. defense industrial base.

As a result of congressional concerns about emerging trends in defense offsets, we have conducted a number of reviews and issued multiple reports. Because of our work in this area, you asked us to provide our observations on offset issues. Specifically, we are providing our observations on (1) what constitutes offsets and how they are used in defense trade, (2) how that use has changed over time, and (3) the quality and extent of information concerning offsets that is currently available.

**Results in Brief**

Defense offsets are the full range of industrial and commercial benefits that firms provide to foreign governments as inducements or conditions for the purchase of military goods and services. They include, for example, coproduction arrangements and subcontracting, technology transfers, in-country procurements, marketing and financial assistance, and joint ventures. Foreign governments use offsets as a means of reducing the financial impact of their purchases, obtaining valuable technology and manufacturing know-how, supporting domestic employment, creating or expanding their defense industries, and making the use of their national funds for foreign purchases more politically palatable.

Over the almost 15-year period we have studied defense offsets, countries buying U.S. defense items have become increasingly sophisticated in their offset demands. These demands have included requiring offsets prior to contract award and increasing the offset value as a percentage of contract value. These demands are often based on developmental goals of the purchasing country and have steadily increased in value so that today these demands often equal and may exceed 100 percent of the value of the transaction. It should be noted however, that purchasing countries often use multipliers as a means of encouraging companies to engage in certain activities to fulfill offset obligations. While the use of such multipliers can lessen the dollar effect of offset demands as a percentage of the related sale, their use underscores the sophistication of countries using offsets as part of an industrial policy. The Department of Defense’s (DOD) current emphasis on engaging in joint

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1 A multiplier is used to increase the value of an offset project when determining offset credit. For example, if a company helped facilitate a $10,000 export of a product with particular importance, the country could offer a multiplier of 5, thereby increasing the amount of offset credit to $50,000.
development programs can be viewed as an avenue for an even more sophisticated offset. The expenditure of public funds by one country to support a another country’s weapon system development program will be offset by access to developing technology that the first country could not have individually afforded and subsequently the opportunity to take part in producing the system and the jobs that production will create.

The current information available on offsets does not provide an adequate basis for evaluating offset practices. Defense exports involving offsets are small relative to the U.S. economy as a whole. As a result, it is difficult to measure effects using national aggregated data. The lack of reliable data on the impact of offsets on the U.S. economy has been a concern for many years, and Congress has on numerous occasions required federal agencies to take steps to define and address offset issues. Most recently, in 1999, Congress established a national commission to report on the extent and nature of offsets in defense trade. Currently, the Department of Commerce reports to Congress on an annual basis on offset agreements, as well as activities that U.S. companies engage in to fulfill offset obligations. The Departments of Defense and State include limited offset information when notifying Congress of large sales of defense items to foreign countries. However, no direct linkage has been made between the information collected on these sales and associated offset agreements and any impact on the U.S. economy.

Historically, the U.S. government has maintained a “hands off” policy toward defense offsets, viewing them as part of the transaction between the contracting parties. Since offsets are one of the many factors contributing to the globalization of the U.S. industrial base, studying offset transactions could provide insights into what is occurring in the industrial base and whether these transactions need to be considered on a policy level by the U.S. government.

Offsets Are an Integral but Unregulated Part of International Defense Trade Relationships

Offsets are an unregulated part of defense export sales. U.S. contractors consider offsets an unavoidable cost of doing business overseas. These officials have indicated that if they did not offer offsets, export sales would be reduced and the positive effects of those exports on the U.S. economy and defense industrial base would be lost. These positive effects include both employment in the U.S. defense industry and orders for larger production runs of U.S. weapon systems, thus reducing unit costs to the U.S. military. They have also noted that many offset deals create new and profitable business opportunities for themselves and other U.S. businesses. Critics charge that negative aspects of offset transactions limit or negate the economic and industrial benefits claimed to be associated with defense export sales.

While offsets take many forms, direct offsets generally involve technology transfer, coproduction tied to a weapon sale, and subcontracting for defense-related products, whereas indirect offsets encompass almost any economic activity not related to the defense sale. Offsets may result in the development of long-term supplier relationships. On the one hand, the U.S. prime contractor might have found a less costly supplier; on the other hand, U.S. subcontractors may find reduced business opportunities, resulting in the loss of capability in the U.S. industrial base. U.S. companies also may find that they have contributed to the development of a future competitor. We found that in one instance, a
U.S. subcontractor stated that it was required by a prime contractor to grant a licensing agreement to a foreign company to produce a subsystem. The foreign company subsequently developed a similar subsystem to compete against the U.S. subcontractor. Offset-related technology transfer may also affect national security. Currently, little is known about the effect of offsets on increasing the foreign content in U.S. weapon systems because information linking offsets to foreign content is not collected. We have reported on the details of offset transactions in several reports, most recently in our report Defense Trade: U.S. Contractors Employ Diverse Activities To Meet Offset Obligations (GAO/NSIAD-99-35, Dec. 18, 1998). That report and others are summarized in appendixes to my statement today.

Offset Demands Have Changed Over Time

Over the period that we have been reporting on issues associated with offsets, countries buying U.S. defense items have been increasing their demands for offsets. Countries that prior to the 1990s did not require offsets now require them as a matter of routine policy. In at least one case this policy had been established in law. In some cases, purchasing countries require preapproval of offset projects to ensure that they accomplish their development goals as well as provide the stated economic benefit. We have also found that the nature of the offset demanded varies according to the objectives of the purchasing government and, to an extent, the level of economic development.

Countries are also increasingly sophisticated in their management of offsets to achieve specific regional industrial and employment goals. For example, one country requires that companies distribute offset projects across its various regions. Some countries establish time frames within which an offset must be performed and include penalty clauses for nonperformance within those time frames. An offset activity that is considered valuable or very desirable—the introduction of a new industry or technology transfer—will be encouraged through the use of multipliers. Further, many countries will permit companies to “bank” offset credits to be used to fulfill offset obligations associated with future sales of defense goods in that country. These countries are managing the timing and location of the economic activity prior to committing to purchase a specific defense article. According to one U.S. company official, companies have traded offset credits through industry associations and individual contacts, and one country has established a company to facilitate offset deals.

DOD’s current emphasis on partnering with allied countries in development programs has opened a new avenue for offset activity. In previous offset agreements, the purpose of an offset was to encourage the purchase of foreign defense goods by balancing the expenditure of public funds with a perceived economic benefit. In joint development programs, the balance can be achieved through the promise of access to technology that individually the partnering countries could not have afforded to develop and the opportunity to win part of the production work and the jobs that it will create. This model is most apparent in the Joint Strike Fighter (JSF) program. The JSF program has established a model in which countries become partners at specified contribution levels. While there are financial benefits connected with the contribution—for example, the waiver of nonrecurring aircraft costs—the primary benefit will be access to advanced technology and an advanced tactical aircraft that they could not afford to develop on their own.
However, as we pointed out in our work on JSF program, this type of offset comes with its own unique set of concerns. International participants have significant expectations regarding industrial return on the basis of their contributions. Because the prime contractor, Lockheed Martin, bears the major responsibility for managing partner industrial expectations, it will need to balance its ability to meet program milestones against meeting these expectations, which could be key to securing future sales of the JSF for the company. The need to offset partner contributions through industrial return has been highlighted in several recent news reports on actions being taken by Lockheed Martin and its major commercial partners to ensure that the partner countries share in the work being generated.

Data Not Available to Evaluate the Need for an Offsets Policy

Based on our work on defense industrial base issues we have concluded that DOD needs to improve its knowledge of the supplier base at the lower tiers to enable it to better understand who its suppliers are and what vulnerabilities may exist. Congress has on numerous occasions attempted to gain increased knowledge about offsets issues and has urged the executive branch to take steps to mitigate the adverse effects of offsets. (See app. 1.) We believe that there is a relationship between offsets and DOD’s supplier base. To properly manage its supplier base and ensure that U.S. technology is protected, DOD needs to understand the uses and effects of offsets.

Evaluating offsets and identifying their effects on industrial sectors or the U.S. economy as a whole is difficult. Although we have identified instances of the impact of offsets on individual companies, we have not quantified the impact of offsets on the overall U.S. economy or on subsectors of the U.S. industry. First, according to officials from large defense firms and an association representing U.S. suppliers, obtaining reliable information on the impact of offsets is difficult because company officials are generally not aware that a particular offset arrangement caused them to lose or gain business. As a result, it is difficult to isolate the effects of offsets from the numerous other factors affecting specific industry sectors. Additionally, technology is transferred overseas for reasons other than to fulfill an offset obligation. In some instances, alliances such as joint ventures may be formed to gain access to the European market without being the result of offsets. Likewise, European companies may gain access to U.S. technology as they gain access to the U.S. market through acquisitions of small and medium-sized U.S. defense companies. Second, defense exports involving offsets are small relative to the U.S. economy as a whole, making it difficult to measure any effects using national aggregated data.

The lack of reliable data on the impact of offsets on the U.S. economy has been a concern for many years, prompting Congress to enact legislation requiring three federal agencies (the Departments of Commerce, Defense, and State) to collect data on offsets. The Defense Production Act of 1950 as amended requires the President to report annually to Congress on the impact of offsets on U.S. defense preparedness, industrial competitiveness, employment, and trade. Commerce prepares the report, and requires companies to annually report

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3 50 U.S.C. App. § 2099.
(1) offset agreements entered into during the previous year that are valued at more than $5 million and are associated with the sales of defense articles or services and (2) completed offset transactions being used to meet existing offset commitments that have a credit value of at least $250,000. The required information includes the name of the country purchasing the defense item or service for which the offset is required, the credit value of the offset, the actual dollar value of the offset, and a description of the type of offset.

The Departments of Defense and State report to Congress on offset information pertaining to individual sales of defense items. The Arms Export Control Act, as amended, requires the President to notify Congress of any agreements to sell defense articles or services over a certain amount. The President delegated this reporting function to the Secretary of Defense for foreign military sales agreements and to the Secretary of State for commercial sales of defense items that require an export license. Beginning in 1994, the law was amended to require that the congressional notification contain a statement of whether or not an offset agreement was associated with the sale and a description of it. This requirement applies to both government-to-government and commercial sales of defense articles.

Congress also legislated that the President develop an offset policy and negotiate with foreign countries to mitigate the adverse effect of offsets. The National Defense Authorization Act for Fiscal Year 1989 directed the President to establish a comprehensive offset policy addressing (1) technology transfer, (2) the application of offset arrangements, and (3) the effects of offset arrangements on specific subsectors of the U.S. industrial base. It also directed that the policy address preventing or ameliorating any serious adverse effects on such subsectors. In 1990 the President issued a policy statement recognizing that certain offsets are economically inefficient and market distorting but reaffirms the U.S. government’s traditional policy of noninvolvement in offset arrangements. The policy statement did not address technology transfer or the effects of offsets on specific subsectors.

In 1992 the Defense Production Act Amendments of 1992 directed the Secretary of Defense to lead an interagency team to consult with foreign nations on limiting the adverse effects of offsets. According to Defense Department officials, the interagency team began to meet in 1999. As of September 1, 2000, the interagency committee had met with representatives of the governments of Canada, France, Great Britain, and the Netherlands and had sent letters to other nations that had memorandums of understanding with the U.S. government requesting meetings to discuss offsets. The committee had also begun to consult with industry.

In 1999 Congress passed the Defense Offsets Disclosure Act of 1999, which expressed the sense of Congress that (1) the executive branch should try to establish reasonable, business-friendly standards for the use of offsets with foreign counterparts for use in international business transactions and that (2) the U.S. government should raise offset issues in

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5 Pub L. 103-236.
6 Pub. L. 100-456 § 825.
7 Congress incorporated this policy statement into statute with the Defense Production Act Amendments of 1992, Pub. L. 102-558 § 123.
8 Pub. L. 102-558 § 123.
discussions with other industrialized nations and should enter into discussions through multilateral forums to establish standards for the use of offsets in international defense trade. That act also established the National Commission on the Use of Offsets in Defense Trade. As we reported in May of last year, the Commission’s final report and recommendations are still pending. An interim report was published in February 2001, based on the last Commission meeting held in December 2000. Since the change of administrations in 2001, the President has not appointed new executive branch members. Consequently, the Commission has ceased activity and has not issued its final report.

CONCLUSIONS

Offsets are an element in international defense trade, the nature and importance of which have changed over time. Despite the many congressional attempts to force the development of information that would enable an accurate evaluation of the role—both positive and negative—played by offsets, this information has not been developed. The same would appear true for the many times Congress has urged action to address the perceived adverse effects of offsets. The last action—establishing the National Commission on Offsets in Defense Trade—appeared to be a culmination of many prior efforts. However, because of circumstances the Commission never achieved its purpose. The Committee may want to consider reinvigorating that process and combining it with a specific direction to the executive branch to enter into multilateral talks, particularly with our closest allies, to discuss how offsets may result in market distortions and to determine whether steps can be taken to mitigate the adverse effects while protecting the interests of all involved.

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Mr. Chairman, this concludes my statement. I would be happy to respond to any questions that you or members of the Committee may have.

This statement is based on the results of our work on offsets (see app. 2) and related issues (see app. 3) from our reports issued from April 1990 through May 2004, and therefore agency comments were not requested. All of the reviews were done according to generally accepted government auditing standards.

Contacts and Acknowledgments
For future questions regarding this testimony, please contact Katherine Schinasi, (202) 512-4841. Individuals making key contributions to this testimony include Thomas Denomme, Paula Haurilesko, and Lillian Slodkowski.

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<td>1986 Defense Production Act Amendments of 1986 (Pub. L. 99-441)</td>
<td>Requires the President’s annual report be a “detailed” study that includes (1) summaries of interagency studies on the effects of offsets, (2) the long- and short-term effects of offsets, and (3) the direct and indirect effects on lower-tier defense subcontractors and non-defense industry sectors.</td>
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<td>1988 National Defense Authorization Act, Fiscal Year 1989 (Pub. L. 100-456)</td>
<td>Requires firms entering into a defense contract subject to an offset arrangement exceeding $50 million to notify the Secretary of Defense of the proposed sale.</td>
<td>(1) Requires the President to establish a comprehensive offset policy that addresses the effect of offsets on specific subsectors of the industrial base and how to prevent or ameliorate any serious adverse effects on those subsectors. (2) Directed the President to enter into negotiations with foreign countries to limit the adverse effect of offsets on the defense industrial base. Requires the President to report to Congress every year for four years (1989-92) on the status of negotiations. (3) Required a report by March 15, 1990, discussing actions the United States could take in reaction to offsets, such as requiring an offset or other equivalent advantage when buying goods from a country that requires U.S. firms to offer offsets.</td>
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<td>1992 Defense Production Act Amendments of 1992 (Pub. L. 102-558)</td>
<td>(1) Designated the Secretary of Commerce to prepare the annual report on offsets, and required the report to address the cumulative effect of offset agreements on domestic defense productive capability, especially the lower-tier subcontractors or suppliers, and the effect on the defense technology base of technology transfers that occur to fulfill offset agreements.</td>
<td>Required the President to (1) designate the Secretary of Defense to lead an interagency team to consult with foreign nations on limiting the adverse effects of offsets in defense procurement and (2) report annually on the results of the consultations.</td>
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<td>1994 Foreign Relations Authorization Act, Fiscal Years 1994 and 1995 (Pub. L. 103-236)</td>
<td>Amended sections 36(b) and (c) of the Arms Export Control Act to require that notifications to Congress of impending sales of defense goods indicate whether any offset agreement is proposed in connection with the sale and required a description of the offset agreement proposed.</td>
<td>(1) Directed the United States government to enter into discussions through multilateral forums to establish standards for the use of offsets in international defense trade. (2) Required the National Commission on the Use of Offsets in Defense Trade to submit an analysis of proposals for unilateral, bilateral, or multilateral measures to reduce the detrimental effect of offsets and to identify the appropriate agencies to monitor the use of offsets.</td>
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<td>1999 Defense Offsets Disclosure Act of 1999 (Pub. L. 106-113, App. G)</td>
<td>Established a National Commission on the Use of Offsets in Defense Trade. Required a report within 12 months on (1) the collateral impact of offsets on industry sectors unrelated to the item sold, (2) the role of offsets with respect to U.S. competitiveness in international trade, and (3) the impact on national security of technology transferred to fulfill offset obligations.</td>
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<td>2003 Department of Defense Appropriations Act, 2004 (Pub. L. 108-87)</td>
<td>Requires the Secretary of Defense to report to Congress by March 1, 2005, on the effect of offset arrangements on specific subsectors of the U.S. industrial base; what actions have been taken to prevent or mitigate any serious adverse effects, and the extent to which offsets and other arrangements have provided for technology transfer that would significantly and adversely affect the national technology and industrial base.</td>
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Source: GAO analysis.
GAO Reports on Defense Offsets, 1990-2003


GAO found that the final report and recommendations of the National Commission on the Use of Offsets was still pending although its mandated reporting date was October 2001. The Commission had issued an interim report in February 2001 calling for additional work on the issues raised. However, the last Commission meeting was held December 4, 2000, and no further activity had occurred. The 2001 change in presidential administrations resulted in vacancies in the five executive branch positions on the Commission, which were never filled.


GAO found that the use of Department of Energy laboratories’ intellectual property and services to satisfy defense contractors’ offset requirements has been limited. GAO identified 14 instances from as early as 1995, all at one laboratory, where the laboratory’s intellectual property and services were involved in offset projects. The 14 instances, valued at about $200 million, involved 4 intellectual property licenses and 10 service arrangements through which laboratory personnel performed training, workshops, and other services for various foreign countries. In addition to the 14 offset projects, we were informed by three other laboratories of other offers to use the laboratories’ intellectual property and services of laboratory personnel to meet potential offset requirements. These offers did not result in specific projects because the weapon system sales did not take place.


GAO provided a statement for the record to the National Commission on the Use of Offsets that summarized its work on defense offsets. GAO commented that views on the effects of offsets were divided between those that saw them as damaging to the U.S. industrial base and those that believed them an unavoidable part of doing business overseas. GAO also pointed out that demands for offsets had increased over time and that data to quantify the impact of offsets were not available.


GAO determined that three federal agencies—the Departments of Commerce, Defense, and State—are required by law to report to Congress on defense offsets, although other federal agencies may collect related data. The Department of Commerce was the primary agency collecting data on offsets and is required to submit an annual report to Congress. GAO also found that federal agencies generally had not coordinated defense offset data collection.
efforts. This lack of coordination might not be significant because (1) the type of data being collected by each of the reporting agencies differs or (2) the time period for reporting to Congress differs. However, federal agencies were coordinating on reporting and some policy issues.


GAO examined over 100 offset transactions of six major U.S. defense contractors to determine the types of activities in which U.S. contractors engage to fulfill offset obligations. GAO found that companies had undertaken a variety of activities to satisfy offset requirements, such as coproduction and subcontracting related to defense items, technology transfers, in-country procurements, marketing assistance, financial assistance, and investments or joint ventures. Coproduction tied to a weapon sale, subcontracting for defense-related products, and technology transferred were transactions commonly found in the arrangements reviewed. The long-term supplier relationships that develop through these activities might have resulted in reduced business opportunities for some U.S. firms. Nonetheless, the value of the export sale, in the transactions examined, greatly exceeded the amount of work placed overseas.


GAO reviewed the status of the State Department’s efforts to issue regulations implementing the Feingold Amendment (Pub. L. 103-236, section 733, Apr. 30, 1994, 22 U.S.C. § 2779a). The Feingold Amendment prohibits U.S. contractors from making incentive payments to a U.S. company or individual to induce or persuade the contractors to buy goods or services from a foreign country that has an offset agreement with the contractor. At the time of this report, the amendment applied only to the sale of defense articles or services sold under the Arms Export Control Act, not commercial sales. GAO also found that the State Department had made little progress in developing the needed regulations.

Military Exports: Offset Demands Continue to Grow (GAO/NSIAD-96-65, Apr. 12, 1996)

GAO examined the experience of 9 U.S. companies with 10 countries in Asia, Europe, and the Middle East in 76 offset agreements. GAO found that, over a 10-year period, demands for offsets in foreign military procurement had increased in terms of requiring more technology transfer, higher offset percentages, and higher local content. Countries that previously did not require offsets now require them as a matter of policy, and many countries were now focused on longer-term offset deals to pursue industrial policy goals. Also, the type of offset project required varied according to each country’s industrial and economic development needs. For example, countries with developed economies encouraged offsets related to the defense or aerospace industries; whereas, countries with

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1 The Defense Offsets Disclosure Act of 1999 (Pub. L. 106-113, App. G § 1246) expanded the prohibition to include items licensed under the Arms Export Control Act, i.e., commercial sales.
less industrialized economies generally pursued indirect offsets to help create profitable businesses and build their country’s infrastructure.


GAO examined offset transactions associated with weapon sales to countries that received grants or loans from the U.S. Foreign Military Financing Program. At the time of this review, four countries—Egypt, Greece, Israel, and Turkey—were the largest recipients of Foreign Military Financing Program funds. GAO found that all four countries were obtaining offsets in purchases funded by the Program. Thus, these countries benefited from the Program by (1) using U.S. funds to purchase weapon systems and (2) developing their industrial bases through offset requirements, such as technology transfer and directed subcontracting. At the time this report was issued, U.S. laws, regulations, and policies did not preclude offsets when purchasers were using Foreign Military Financing Program funds.  


GAO examined the implementation of the National Defense Authorization Act, Fiscal Year 1989 (Pub. L. 100-456), which (1) directed the President to establish a comprehensive offset policy and enter into negotiations with foreign governments about limiting the adverse effects of offsets and (2) required U.S. industry to notify the Secretary of Defense of offset arrangements exceeding $50 million. GAO found that the President’s April 1990 policy statement on offsets did not specifically discuss technology transfers and the effects of offsets on U.S. industrial base subsectors, as required by the law. Additionally, the President directed that an interagency team consult—not negotiate—with foreign nations. Finally, at the time of the report, the Department of Defense had not developed regulations, in accordance with the law, requiring U.S. industry notification.


GAO reviewed (1) the administration’s 1988 report to the Congress, *Offsets in Military Exports*, and (2) proposed amendments to the Defense Production Act of 1950, under Senate bill 1379. GAO found that the results of the methodology used to prepare the defense preparedness and employment sections of the 1988 report were of limited value because, although they provided an assessment of the overall impact of offsets on U.S. industry, they did not identify the effect on more specific industry sectors critical to defense. Additionally, the use of differing assumptions in applying that methodology to the sections on defense preparedness and employment made the analyses of the two sections inconsistent and

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3 The Defense Federal Acquisition Regulation Supplement partially addressed this in 1994 when it precluded U.S. companies from recovering offset-related costs if the sale was financed with nonrepayable foreign military financing grants.
appeared contradictory. Regarding Senate bill 1379 as well as the Defense Production Act itself, GAO stated the need to better provide for disclosing significant differing agency views in the annual report.⁴

⁴ Senate bill 1379 was not passed, although similar language on offsets was included in the Defense Production Act Amendments of 1992 (Pub. L. 102-558).
GAO Reports on Issues Related to Defense Offsets, 1994-2004


GAO reported that subcontract awards for the Joint Strike Fighter (JSF) had been made to 16 foreign countries. These included the eight partner countries and France, Germany, India, Israel, Poland, Russia, Spain, and Switzerland. However, the majority of subcontracts were with U.S. firms. The second major recipient of subcontract dollars on the JSF program was the United Kingdom. GAO also reported that the Buy American Act and the Preference for Domestic Specialty Metals clause implementing the Berry Amendment apply to the purchase of manufactured end products and that only one of the JSF prime contractors was under contract in the current phase of the program to deliver manufactured end products. GAO found that the information maintained by the JSF program office, while greater than required, was not sufficient to provide a complete picture of the supplier base.

Joint Strike Fighter Acquisition: Cooperative Program Needs Greater Oversight to Ensure Goals are Met (GAO-03-775, July 21, 2003)

GAO found that the JSF program faces management challenges that are made more difficult because of international participation. The Department of Defense (DOD) expects to benefit from partners’ financial contributions and access to foreign industrial capabilities, while partner countries expect to benefit from access to advanced U.S. technology and industrial return through contracts for their defense companies. Because the prime contractor bears the responsibility for managing partners’ industrial expectations, it will be forced to balance its ability to meet program milestones against meeting those expectations, which could be the key to securing future sales of the JSF for the company. While steps have been taken to position the program for success, additional attention on the part of DOD and the program office could help minimize the risks associated with implementing the international program. DOD and the program office need to maintain a significant knowledge base to enable adequate oversight that can ensure that the program is carried out to the satisfaction of both the United States and the international partners.


GAO surveyed four large U.S. contractors, reviewed four weapon system programs, and studied three foreign-owned U.S. companies to determine (1) what types of

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1 GAO also testified on this issue before the Subcommittee on National Security, Emerging Threats, and International Relations, House Committee on Government Reform. See Joint Strike Fighter Acquisition: Managing Competing Pressures Is Critical to Achieving Program Goals (GAO-03-1012T, July 21, 2003).
alliances U.S. and European defense companies are establishing and the reasons for forming alliances; (2) why companies prefer certain types of alliances over others, and (3) whether U.S. laws, regulations, policies, and practices influence a company’s decision to form an alliance or the type of alliance chosen. GAO found that U.S. and European companies created teams, joint ventures, and subsidiaries and sometimes merged with or acquired another company to access and increase their competitiveness in another country’s market. Large U.S. companies preferred to engage in flexible alliances, such as teaming, whenever possible to increase company capabilities without forming permanent relationships, and access unique technology needed to meet military requirements. Companies that wanted to satisfy European governments’ desire for greater industrial participation formed joint ventures in which companies shared risk, decision making, work, and technology. Subsidiaries were not a favored approach for U.S. companies because in the fragmented European market a subsidiary in one country had no impact on market access in another country. However, European acquisitions of small and medium-sized U.S. defense companies were common because they provided access to the U.S. market, which is the world’s largest. The companies reviewed did not consider the U.S. legal and regulatory environment to be a major impediment to forming an alliance or to be a principal determinant of the type of alliance chosen.

**Defense Trade: Department of Defense Savings From Export Sales are Difficult to Capture (GAO/NSIAD-99-191, Sept. 17, 1999)**

GAO reviewed the sales of five major weapon systems—The Hellfire Missile, Advanced Medium Range Air-to-Air Missile (AMRAAM), High Mobility Multipurpose Wheeled Vehicle (HMMWV), Black Hawk Helicopter, and Aegis Weapon System—to determine whether DOD is maximizing the cost benefits of export sales. DOD saved at least $342 million on its purchases of the five systems because either the department or its contractors also exported the systems to foreign governments. However, the full impact of contractor direct sales on the price of weapon systems could not be assessed because sufficient information was not available. Nonetheless, DOD could have realized greater savings had it (1) combined purchases for foreign governments with purchases for the U.S. military; (2) negotiated prices for export sales without giving up U.S. system price reductions; (3) required the contractor to perform work in the most economical manner, even if offset agreements were affected; or (4) ensured that the export prices always included a proportionate share of the sustaining engineering and program management costs.


GAO reviewed (1) DOD’s reported trends on contracts performed outside the United States, (2) DOD’s use of foreign subcontract information, and (3) the completeness and accuracy of how DOD collects and manages its data. From fiscal year 1987 through fiscal year 1997, DOD’s prime contract awards outside the United States remained about 5.5 percent of total DOD contract awards. These contracts tended to be concentrated in countries such as Germany, Italy, Japan, South Korea, and the
United Kingdom and in sectors such as services, fuel, and construction. DOD’s Office of Foreign Contracting and industrial base offices each collect and use foreign subcontract data but do not exchange data with one another. Additionally, the Office of Foreign Contracting, which is responsible for collecting foreign subcontract information from prime contractors and first-tier subcontractors, had no process or procedures to systematically ensure that contractors were complying with the foreign subcontract reporting requirement. Furthermore, the office lacked standards and procedures for managing its database, which had caused numerous data entry errors that compromised the database’s usefulness.

**U.S.-Japan Fighter Aircraft: Agreement on F-2 Production (GAO/NSIAD-97-76, Feb. 11, 1997)**

This report examined issues relating to the F-2 fighter aircraft program—known as the FS-X program during the development phase—such as (1) the proportion of production work that will be done in the United States, (2) the status of technology transfers from Japan to the United States and whether these technologies are of interest to U.S. government and industry, and (3) the program’s potential contributions to Japan’s future aerospace industry. Under the F-2 production agreements, signed on July 30, 1996, U.S. industry was expected to receive about 40-percent workshare, based on estimated production costs and a constant exchange rate of 110 yen/dollar. The U.S. workshare was to be monitored through verifying that Japan has awarded contracts to U.S. companies, although the value of the contracts would not be tracked. Transfers of technology from Japan to the United States were generally in accordance with the development agreements, although U.S. access to some technologies has been limited because of disagreements over whether these technologies are derived from U.S. technical data—to which the United States is entitled to free and automatic access—or Japanese indigenous technologies—for which U.S. companies would have to pay a licensing fee to use. The United States conducted several technology visits to explore the potential benefits of F-2 technologies but found that some technologies were too costly to produce or not advanced enough to be of interest. However, officials at one company indicated that tooling techniques from the F-2 program were being applied to the Joint Advanced Strike Technology program. DOD officials believed that the F-2 program would significantly enhance Japan’s systems integration capability but would not provide significant new capability in engine production.

**Export Controls: Sensitive Machine Tool Exports to China (GAO/NSIAD-97-4, Nov. 19, 1996)**

In September 1994, the Department of Commerce approved an export of machine tools to China. The machine tools were to be used to produce parts for commercial aircraft that would be built in China under a contract with McDonnell Douglas but were subsequently diverted to a Chinese facility in Nanchang engaged in military production. GAO reviewed (1) the military and civil applications of the equipment and whether these military applications were important to China’s military modernization plans and (2) the process for approving the export licenses and how
the process addressed the risks associated with the export, and determined whether
export control license conditions were violated and what the U.S. government’s
response was. GAO found that, although the equipment was not state-of-the-art, it had
military and civil applications, and China needed machine tools to upgrade both its
military and civil aircraft production capabilities. The Commerce Department had
approved the export, subject to conditions to mitigate the risk of diversion. The
movement of the machine tools to Nanchang violated key conditions in the
Commerce export licenses. However, before it could be misused, the diverted
equipment was relocated to a facility associated with the McDonnell Douglas aircraft
project. Commerce’s enforcement office did not formally investigate the export
control violations until 6 months after the violations were first reported, and the
Justice Department was overseeing a criminal investigation at the time of the report.

Asian Aeronautics: Technology Acquisition Drives Industry Development
(GAO/NSIAD-94-140, May 4, 1994)

GAO reviewed (1) the approaches that selected Asian nations used to develop their
aeronautics industries, (2) the level of aeronautics development that each country
had achieved, and (3) the implications of this development for the U.S. aeronautics
industry. China, Japan, Indonesia, and Taiwan appeared intent on developing their
own aeronautics industries by acquiring technologies developed in the West and
improving them over time. These countries were developing their aeronautics
industries using (1) strong government support; (2) the importation of technologies;
(3) a strong emphasis on applied research rather than basic research; and (4) direct,
synergistic links between military and civil aeronautics projects. The Asian countries
reviewed often required technology to be transferred as a condition of purchasing
Western equipment. These transfers can occur through such activities as
subcontracting, licensed production, and codevelopment. The four countries differed
in the level of aeronautics development, with Japan being the most advanced and
China the slowest to develop, and each could be expected to continue to develop at
varying rates because of differences in their political and economic environments. It
appeared unlikely that Asian aeronautics companies would compete directly with
U.S. aircraft builders in the immediate future, but some industry observers believed
that in the long term, cooperative aeronautics technology transfers to Asia could help
to create a new competitor for the U.S. aeronautics industry.
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