Offsets in Defense Trade

Eleventh Report to Congress



January 2007

U.S. Department of Commerce
Bureau of Industry and Security

Offsets in Defense Trade

Eleventh Study

Conducted Pursuant to Section 309 of the Defense Production Act of 1950, as Amended

U.S. Department of Commerce

Bureau of Industry and Security

Office of Strategic Industries and Economic Security

January 2007

For more information, please contact the
Office of Strategic Industries and Economic Security at 202-482-4506
www.bis.doc/osies

UNITED STATES DEPARTMENT OF COMMERCE
Assistant Secretary for Export Administration
Washington, D.C. 20230

JAN 24 2007

The Honorable Christopher J. Dodd
Chairman, Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

I am pleased to submit the Bureau of Industry and Security's (BIS) eleventh *Offsets in Defense Trade* report, which is required pursuant to Section 309 of the Defense Production Act of 1950 (50 U.S.C. app. §2099), as amended.

To gather information for this report, BIS used authority under the Defense Production Act to collect data from U.S. firms involved in offset agreements relating to overseas sales of weapon systems or defense-related items. The data that industry provided for this report cover offset transactions and agreements entered into from 1993 through 2005. The cooperation of private industry in this undertaking was noteworthy.

If you would like further information on this report, please contact me or have your staff contact Scott Kamins, Director of BIS's Office of Congressional and Public Affairs, at (202) 482-2721.

Sincerely,

Christopher A. Padilla

Enclosure

UNITED STATES DEPARTMENT OF COMMERCE
Assistant Secretary for Export Administration
Washington, D.C. 20230

JAN 24 2007

The Honorable Richard C. Shelby
Ranking Member, Committee on Banking,
Housing, and Urban Affairs
United States Senate
Washington, DC 20510

Dear Senator Shelby:

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Christopher A. Padilla

Enclosure

UNITED STATES DEPARTMENT OF COMMERCE
Assistant Secretary for Export Administration
Washington, D.C. 20230

JAN 24 2007

The Honorable Barney Frank
Chairman, Committee on Financial Services
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

I am pleased to submit the Bureau of Industry and Security's (BIS) eleventh *Offsets in Defense Trade* report, which is required pursuant to Section 309 of the Defense Production Act of 1950 (50 U.S.C. app. §2099), as amended.

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Christopher A. Padilla

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UNITED STATES DEPARTMENT OF COMMERCE
Assistant Secretary for Export Administration
Washington, D.C. 20230

JAN 24 2007

The Honorable Spencer Bachus
Ranking Member, Committee on Financial Services
United States House of Representatives
Washington, DC 20515

Dear Representative Bachus:

I am pleased to submit the Bureau of Industry and Security's (BIS) eleventh *Offsets in Defense Trade* report, which is required pursuant to Section 309 of the Defense Production Act of 1950 (50 U.S.C. app. §2099), as amended.

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Christopher A. Padilla

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Executive Summary

This is the eleventh annual report on the impact of offsets in defense trade prepared by the U.S. Department of Commerce's Bureau of Industry and Security (BIS), Office of Strategic Industries and Economic Security pursuant to Section 309 of the Defense Production Act of 1950,[1] as amended (DPA). The report analyzes the impact of offsets on the defense preparedness, industrial competitiveness, employment, and trade of the United States.

Offsets in defense trade encompass a range of industrial compensation arrangements required by a foreign government as a condition of purchase of U.S. defense articles and services. This mandatory compensation can take many forms; it can be directly related to the purchased defense system and related services, or it can involve activities or goods unrelated to the defense system. The compensation can be further classified as a Subcontract, Purchase, Co-production, Technology Transfer, Licensed Production, Credit Assistance, Overseas Investment, or Training.

Some have raised concerns about the effects of offsets on the U.S. industrial base, since most offset arrangements involve purchasing, subcontracting, and co-production opportunities for U.S. competitors, as well as transferring technology and know-how. The official U.S. Government policy on offsets in defense trade states that the Government considers offsets to be "economically inefficient and trade distorting," and forbids Government agencies from helping U.S. contractors to fulfill their offset obligations.[2] U.S. prime contractors generally see offsets as a reality of the marketplace for companies competing for international defense sales. Several U.S. prime contractors have informed BIS that offsets are usually necessary in order to make a defense sale.

In order to assess the impact of offsets in defense trade, BIS obtained data from U.S. defense firms involved in defense exports and offsets. These firms report their offset activities to BIS annually[3]. This report covers offset agreements entered into and the offset transactions carried out to fulfill these offset obligations from 1993 through 2005. This report also includes the final report (Appendix H) of the Interagency Team on Offsets in Defense Trade, which is chartered to consult with foreign nations on limiting the adverse effects of offsets in defense procurement.

[1] Codified at 50 U.S.C. app. § 2099 (2000).

[2] Defense Production Act Amendments of 1992 (Pub. L. 102-558, Title I, Part C, §123)

[3] Pursuant to 15 CFR Part 701(1994).

Offset Activity

Offset activities examined in this report involve two distinct business arrangements: 1) the export agreements and the associated offset obligations, and 2) the actual transactions concluded to satisfy the obligations.

Agreements

Total offset activity is measured by the number and value of new offset agreements (imposed offset requirements) entered into between U.S. defense contractors and foreign governments in connection with a U.S. defense-related export.

Offset Agreements 2005: In 2005, U.S. defense contractors reported 25 new offset agreements with 18 countries. These new offset agreements both in number and value were the lowest annual levels reported in the 13-year reporting period. For 2005, new offset agreements totaled only $1.5 billion and were associated with defense export contracts totaling $2.3 billion. The offset requirement equaled 64.8 percent of the value of the defense exports.

In 2005, European nations received offset agreements worth an average of 83.7 percent of the total contract value of defense-related exports to Europe during the year, an increase from 63.9 percent in 2004. In contrast, for non-European nations, the average offset requirement was worth an average of 54.4 percent of the total contract value of defense-related exports to non-European countries in 2005, down sharply from 93.2 percent in 2004.

Offset Agreements 1993-2005: During the 13-year period of 1993-2005, U.S. companies reported entering into 538 offset agreements with 41 countries. Export sales totaled $79.5 billion. Offset agreements related to those export contracts were valued at $56.6 billion, or 71.2 percent of the export contract value, down slightly from 71.4 percent for 1993-2004. Sales of aerospace defense systems (i.e., aircraft, engines, and missiles) were valued at $66.8 billion and accounted for 84 percent of the total export contracts.

During the period of 1993-2005, European countries alone accounted for 65 percent of the value of offset agreements, but less than half (46.9 percent) of the value of related export contracts. European offset demands trended upward throughout the period, although the figure for 2005 was less than that reported in 2000 - 2002.

For the period of 1993-2005, the offset average for non-European countries was 45 percent of contract value. Overall, 66.2 percent of offset agreements entered into with European countries required offsets worth 100 percent or more of the value of the defense systems exported during the period.

Middle Eastern countries and most countries in Asia generally demand lower offset levels than European countries. Of the 252 offset agreements with non-European countries, 169 (67.1 percent) imposed offset percentages of 50 percent or less. Only 40 of the 252 offset agreements (15.9 percent) had percentages of more than 50 percent but less than 100 percent. Forty-one of the 252 (15.5 percent) had offset requirements of 100 percent or more.

From 1993-2005, on a country-by-country basis, Austria led Europe and the rest of the world in terms of its offset requirement percentage. On average, sales of U.S. defense systems to Austria were associated with offset agreements worth 174.2 percent of the value of the defense systems. Austria was followed by the Netherlands, with 118.6 percent. Other countries with offset percentages greater than the value of the defense systems exported were South Africa (116.0 percent), Greece (113.4 percent), Norway (104.8 percent), and Sweden (103.9 percent).

Offset requirement trends are more representative when viewed as a moving, weighted average.[4] A moving average smoothes out the yearly fluctuations in defense system sales and related offset agreements. The weighted world trend in offset percentages rose from 49.3 percent to 102.9 percent between 1993 and 2005. In the same 13-year period that European offset percentages rose by 41.5 percentage points (from 87.1 percent to 133.9 percent), the rest of the world's offset requirements climbed 2½ times, from 27.6 percent to 73.7 percent.

Transactions

Offset transactions represent the fulfillment of past offset agreements.

Offset Transactions 2005: Offset transactions reported by U.S. companies were valued at $4.7 billion in 2005, a slight decline (4.5 percent) from the record $4.9 billion reported in 2004. Indirect transactions, those that are non-defense related, accounted for 61.8 percent of the value of offset transactions, an increase from 46.6 percent from 2004. At the same time, direct transactions accounted for 38.2 percent of the value of offset transactions in 2005, a decline of 15.2 percentage points from 2004.

[4] For this analysis, the value of export contracts and offset agreements is totaled for each successive three-year period, beginning with 1993-1995, followed by 1994-1996, and so forth; then the offset percentage is determined. This leads to eleven three-year observations over the 13-year reporting period (1993-2005).

Offset Transactions 1993-2005: For 1993-2005, U.S. companies reported 8,007 offset transactions in 45 countries. The actual value of the offset transactions from 1993 to 2005 was $37.3 billion. Indirect offsets accounted for 59.5 percent of the total value of transactions and direct offsets made up 39.8 percent of the value. The remainder was unspecified direct or indirect.

Offset transactions that fell into the categories of Purchases, Subcontracts, and Technology Transfers accounted for 77.4 percent of the value of offset transaction activity during 1993-2005. These categories have consistently accounted for the majority of offset activity. Purchases accounted for 37.9 percent of the total value, and subcontracts accounted for 22.9 percent. The value of technology transfer offset transactions was 16.6 percent of the total value.

The majority of offset transactions fell in the manufacturing sectors, Standard Industrial Classification (SIC) 20-39; manufacturing-related transactions accounted for $30.2 billion, or 80.9 percent of all transactions. Service-related transactions (SIC 70-89) accounted for $4.1 billion, or 11 percent of the total. Financial, insurance, and real estate industries (SIC 60-67) totaled $1.5 billion, approximately 4.1 percent of transactions for 1993-2005.

Role of Multipliers

Multipliers are used by foreign offset regimes as both incentives and disincentives to target obligations toward a desired type of offset fulfillment. Prime contractors receive added credit toward a desired obligation above the actual value of the transaction when multipliers are used. In a small number of cases, a negative multiplier is used to discourage certain types of offset fulfillments. In Europe, 85.6 percent of offset transactions have no multiplier. For North and South America, 85.4 percent of transactions have no multiplier involved; for Asia, the figure is 79 percent, and 88.3 percent for the Middle East and Africa.

Some categories of transactions were more likely to include multipliers: 38.6 percent of Overseas Investment transactions, 40.4 percent of Training transactions, and 25.8 percent of Technology Transfer transactions had positive multipliers. However, just 8.2 percent of Subcontracts and 8.5 percent of Purchases – the two largest categories – received multipliers. These two categories together accounted for 71.1 percent of the 8,007 transactions reported over the 13-year period.

Interagency Team on Offsets in Defense Procurement

In December 2003, President Bush signed into law a reauthorization of, and amendments to, the Defense Production Act of 1950 (DPA). Section 7 (c) of P.L. 108-195 amended Section 123 (c) of the DPA by requiring the President to designate a chairman of an interagency team to consult with foreign nations on limiting the adverse effects of offsets in defense procurement without damaging the economy or the defense industrial base of the United States, or United States defense production or defense preparedness. The statute provides that the Interagency Team be comprised of the Secretaries of Commerce, Defense, Labor, and State, and the United States Trade Representative.

P.L. 108-195 requires the interagency team to meet quarterly, and to send to Congress an annual report describing the results of the consultations and meetings. On August 6, 2004, President Bush formally established the interagency team chaired by the Secretary of Defense. Within the Department of Defense, chairmanship has been delegated to the Under Secretary of Defense for Acquisition Technology and Logistics. The interagency team subsequently established a working group to conduct the background research and preparation for the consultations, execute the consultations, analyze the results, and write the annual and final reports, all with oversight and approval by the interagency team.

The final report of the interagency team is presented in Appendix H of this report.

Findings

In 2005, U.S. defense system exports fell to their lowest level ($2.3 billion) of the 13-year period covered by this report[5]. The 2005 figure represents a 54.1 percent drop in export transactions from the value reported in 2004.

Offsets associated with these exports dropped to a 13-year low of $1.4 billion. The average offset percentage for 2005 also fell, falling to 64.8 percent – the second straight annual decline - dropping below the 13-year average of 71.2 percent.

Offset transactions, reflecting past obligation requirement, reached the second highest point since 1993, trailing only the $4.9 billion reported in 2004. The elevated level of transactions is related to offset agreements since 2001. The current decline in offset agreements will have a

[5] Based on the BIS Offsets Database.

downward effect on future offset transactions because transactions normally lag a few years behind the agreement they fulfill.

Multipliers continue to be applied to only a small number of offset transactions. The average multiplier for the 13-year period is 1.181. In 2005, the multiplier was 1.152. This 2005 multiplier means that, as a whole, the total credit value of the transaction is 15.3 percent more than the actual value. Therefore, the total actual value of transactions for 1993-2005 is $37.3 billion, but the credit value is $44.0 billion.

In 2005, direct transactions accounted for 38.2 percent, or $1.8 billion, of the value of transactions for that year. Both the percent and value of direct transactions in 2005 declined from the 2004 levels of 53.4 percent and $2.6 billion, respectively. Indirect transactions, in contrast, accounted for 61.8 percent, or $2.9 billion, of the value of offset transactions, up from 46.6 percent in 2004. From 1993-2005, direct offset transactions (related to defense systems sold) accounted for just 39.8 percent, or $14.9 billion, of the value of all transactions. Indirect offset transactions were valued at 59.5 percent, or $22.2 billion, of the value of all transactions for the 13-year period.

For the purpose of this report, offset data are categorized by global regions. During 1993-2005, European countries and U.S. firms entered into the highest number of offset agreements, had the highest total value of agreements, and typically demanded the highest offset percentages. U.S. firms reported 286 new offset agreements with European countries from 1993-2005, for a total value of $36.8 billion. In 2005, the average European offset percentage climbed to 83.7 percent or an increase of almost 20 percentage points from the 2004 level. This, however, has had minimal effect on the overall average level of offsets demanded. For the 13-year period, the European average was 97 percent, down just 2.1 percentage points from the previous reporting period of 1993-2004. Almost 75 percent of offset agreements with Europe from 1993-2005 feature offset percentages of 100 percent or more.

Whether the drop in offset agreements in 2005 is an anomaly or the beginning of a downward trend cannot be determined based on one-year reporting data. Subsequent years' data will provide the necessary data points to analyze any trend. Nonetheless, the deep decline in both the number and value of new agreements, coupled with the drop in the number of countries participating in defense system offset agreements in 2005, is noteworthy.

Only 13 new offset agreements were signed in 2005 with European countries, 9 fewer than reported in 2004. The value of export contracts signed with European countries also declined,

falling to $804.8 million – the second straight year that such contracts dropped below $1 billion. New agreements with non-European countries also dropped, falling to 12 agreements in 2005 from 18 in the previous year. Although the value of new non-European agreements ($1.5 billion) topped that of European agreements in 2005, that figure still represents a sharp decline from the $4.0 billion in export contracts signed in 2004.

In total, non-European countries had 252 offset agreements from 1993-2005, with export contracts valued at almost $42.3 billion and offset agreements totaling $19.8 billion, or 45 percent. Almost two-thirds of the non-European offset agreements valued at 100 percent or more of the export contract value have occurred since 1998.

When analyzing data on a per country basis, statistics show that the United Kingdom was the largest recipient of offsets for the 13-year period; 17.8 percent, or $3.9 billion, of the total value were indirect transactions. The United Kingdom also led all countries in the value of direct offset transactions received from 1993-2005, with 16.7 percent, or $2.5 billion, of the direct offset total. The second and third-ranked economies or countries are non-European. Taiwan[6] had export contracts valued at over $10.8 billion, with 39 offset agreements worth $2.2 billion total; and the Republic of Korea had $8.7 billion of export contracts and 59 offset agreements of $5.2 billion.

BIS has developed an estimate of employment impacts caused by offsets by using U.S. aerospace-related employment and value added data collected by the U.S. Department of Commerce, Bureau of the Census.

U.S. prime contractors reported an average of $5.1billion in defense export contracts with offset agreements for the 2001-2004 period (this period was chosen for comparison purposes to coincide with the latest available data from the Census Bureau). According to the Census Bureau's Annual Survey of Manufacturers, the average value added per employee for the aerospace product and parts manufacturing industry during 2001-2004 was $162,216. Dividing this figure into the 2001-2004 average defense export sales total results in an average annual total of 31,440 work-years that were maintained by defense exports associated with offset agreements during 2001-2004.[7]

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[6] For the purposes of this report, when "country" is mentioned in the report and Taiwan is included in the discussion, "country" refers to both countries and economies.

[7] This calculation is based on the supposition that this value represents 100 percent U.S. content in all exports, which is not necessarily an accurate assumption.

For 2001-2004, the annual average of $5.1 billion in defense export contracts had a related $4.9 billion in offset commitments. It takes on average almost seven years of offset transactions to fulfill an offset agreement. In order to more accurately assess the impact of offset transactions on work-years, BIS compared the export contract to the prime contractor's offset obligation contractually committed at the time of the sale.

Subcontracting, Purchasing, Co-production, and Licensing offset transactions are most likely to shift production and sales from U.S. suppliers to overseas firms. Other categories of offset transactions (Technology Transfer, Training, Overseas Investment, and Marketing), in the short or long run, can shift sales from U.S. suppliers as well; however, their impact is more difficult to calculate. Therefore, BIS bases its estimate of employment impacts only on Subcontracting, Purchasing, Co-production, and Licensing offset transactions.

These conservative calculations are based on the assumption that the offset obligations entered into during 2001-2004 are made up of nearly the same proportion of offset transaction categories as past offset obligations. Those categories that can be most directly related to employment – Subcontracting, Purchasing, Co-production, and Licensing – accounted for an average of 82 percent of the total value of offset obligations during 2001-2004, or about $1.5 billion. Applying the same value added figure used above ($162,216) leads to the loss of 9,047 work-years annually associated with the offset agreements entered into in 2001-2004.

Based on these calculations, it appears that 2001-2004 defense export sales averaging $5.1 billion annually had a net positive effect on employment in the defense sector during the five-year period (an annual average of 22,393 work years). It should be noted that the 2001-2004 analysis does not include the potential impacts of an additional $691million annually of Technology Transfer, Training, and Overseas Investment transactions.

Purpose of Report

Section 309(b)(1) of the Defense Production Act requires BIS to identify the cumulative effects of offset agreements on "the full range of domestic defense productive capability with special attention paid to the firms serving as lower-tier subcontractors or suppliers;" and "the domestic defense technology base as a consequence of the technology transfers associated with such offset agreements." To measure the effects of offsets on defense productive capability, this analysis compares 2004 offset transactions dealing with transportation equipment to 2004 value added data for this industry, as reported in the Census Bureau's most recent Annual Survey of Manufacturers.

1 Background

1-1 Statutes and Regulations

In 1984, the Congress enacted amendments to the Defense Production Act (DPA), which included the addition of Section 309 addressing offsets in defense trade.[8] Section 309 requires the President to submit an annual report on the impact of offsets on the U.S. defense industrial base to the Congress's then-Committee on Banking, Finance, and Urban Affairs of the House of Representatives[9] and the Committee on Banking, Housing, and Urban Affairs of the Senate.

The Office of Management and Budget was appointed the interagency coordinator for preparing the report for Congress when Section 309 was first put into place. Other agencies involved in the process included the Departments of Commerce, Defense, Labor, State, and the Treasury, and the Office of the U.S. Trade Representative. Section 309 of the DPA was amended in 1992, and the Secretary of Commerce was directed to function as the President's Executive Agent for carrying out the responsibilities set forth in Section 309 of the DPA.[10] See *Appendix A for the text of Section 309*.

Section 309 authorized the Secretary of Commerce to develop and administer the regulations necessary to collect offset data from U.S. defense exporters. The Secretary of Commerce delegated this authority to the Bureau of Industry and Security (BIS). BIS published its first offset regulations in 1994.[11] See *Appendix B for a copy of the regulations*.

Every year, U.S. companies report offset agreement and transaction data for the previous calendar year to BIS. The 1992 amendments to Section 309 of the DPA reduced the offset agreement reporting threshold from $50 million to $5 million for U.S. firms entering into foreign defense sales contracts subject to offset agreements. Firms are also required to report all offset transactions for which they receive offset credits of $250,000 or more. The data elements collected each year from the firms are listed in Section 701.4 of the Department's offset regulations and are attached in Appendix B.

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[8] See Pub. L. 98-265, April 17, 1984, 98 Stat. 149.

[9] Section 309 of the DPA was amended in 2001 to reflect the change in the name of the House committee to the "Committee on Financial Services of the House of Representatives." See 50 U.S.C. app. § 2099(a)(1).

[10] See Pub. L. 102-558, Oct. 28, 1992, 106 Stat. 4198; see also Part IV of Exec. Order No. 12919, 59 Fed. Reg. 29525 (June 3, 1994).

[11] See 59 Fed. Reg. 61796, Dec. 2, 1994, codified at 15 C.F.R. § 701.

1-2 U.S. Government Policy

The U.S. Government policy on offsets in defense trade was developed by an interagency offset team. On April 16, 1990, the President announced a policy on offsets in military exports.[12] In 1992, Congress passed the following provision, which closely reflects the policy announced by the President:[13]

> (a) In General. Recognizing that certain offsets for military exports are economically inefficient and market distorting, and mindful of the need to minimize the adverse effects of offsets in military exports while ensuring that the ability of United States firms to compete for military export sales is not undermined, it is the policy of the Congress that--
>
> (1) no agency of the United States Government shall encourage, enter directly into, or commit United States firms to any offset arrangement in connection with the sale of defense goods or services to foreign governments;
>
> (2) United States Government funds shall not be used to finance offsets in security assistance transactions, except in accordance with policies and procedures that were in existence on March 1, 1992;
>
> (3) nothing in this section shall prevent agencies of the United States Government from fulfilling obligations incurred through international agreements entered into before March 1, 1992; and
>
> (4) the decision whether to engage in offsets, and the responsibility for negotiating and implementing offset arrangements, reside with the companies involved.
>
> (b) Presidential Approval of Exceptions. It is the policy of the Congress that the President may approve an exception to the policy stated in subsection (a) after receiving the recommendation of the National Security Council.
>
> (c) Consultation. It is the policy of the Congress that the President shall designate the Secretary of Defense to lead, in coordination with the Secretary of State, an interagency team to consult with foreign nations on limiting the adverse effects of offsets in defense procurement. The President shall transmit an annual report on the results of these consultations to the Congress as part of the report required under section 309(a) of the DPA.

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[12] See April 16, 1990 statement by Press Secretary Fitzwater on offsets in military exports.

[13] Congress incorporated this policy statement into law with the Defense Production Act Amendments of 1992 (Pub. L. 102-558, Title I, Part C, § 123, 106 Stat. 4198).

Provisions in the Defense Offsets Disclosure Act of 1999[14] supplemented the offset policy:

(1) A fair business environment is necessary to advance international trade, economic stability, and development worldwide; this is beneficial for American workers and businesses, and is in the United States' national interest.
(2) In some cases, mandated offset requirements can cause economic distortions in international defense trade and undermine fairness and competitiveness, and may cause particular harm to small- and medium-sized businesses.
(3) The use of offsets may lead to increasing dependence on foreign suppliers for the production of United States weapons systems.
(4) The offset demands required by some purchasing countries, including some close allies of the United States, equal or exceed the value of the base contract they are intended to offset, mitigating much of the potential economic benefit of the exports.
(5) Offset demands often unduly distort the prices of defense contracts.
(6) In some cases, United States contractors are required to provide indirect offsets which can negatively impact non-defense industrial sectors.
(7) Unilateral efforts by the United States to prohibit offsets may be impractical in the current era of globalization and would severely hinder the competitiveness of the United States defense industry in the global market.

The Defense Offsets Disclosure Act of 1999 continues with the following declaration of policy:

> It is the policy of the United States to monitor the use of offsets in international defense trade, to promote fairness in such trade, and to ensure that foreign participation in the production of United States weapons systems does not harm the economy of the United States.

1-3 Offsets Terminology

Several basic terms are used in discussions of offsets in defense trade. For more definitions and an illustrative example of an offset arrangement, please see the Glossary in Appendix G.

[14] See Pub. L. No. 106-113, Div. B, § 1000(a)(7) 113 Stat. 1536, 1510A-500 to 1501A-505 (1999) (enacting into law Subtitle D of Title XII of Division B of H.R. 3427 (113 Stat. 1501A-500) as introduced on Nov. 17, 1999) (found at 50 U.S.C. App. 2099, Note).

Offsets: Compensation practices required as a condition of purchase in either government-to-government or commercial sales of "defense articles" and/or "defense services" as defined by the Arms Export Control Act (22 U.S.C. § 2751, et seq.) and the International Traffic in Arms Regulations (22 C.F.R. §§ 120-130).

Direct Offsets: Contractual arrangements that involve defense articles and services referenced in the sales agreement for military exports. These transactions are directly related to the defense items or services exported by the defense firm and are usually in the form of co-production, subcontracting, technology transfer, training, production, licensed production, or financing activities.

Co-production: Overseas production based upon government-to-government agreement that permits a foreign government or producer(s) to acquire the technical information to manufacture all or part of a U.S.-origin defense article. Co-production includes government-to-government licensed production, but excludes licensed production based upon direct commercial arrangements by U.S. manufacturers.

Subcontractor Production: Overseas production of a part or component of a U.S.-origin defense article. The subcontract does not necessarily involve license of technical information and is usually a direct commercial arrangement between the defense prime contractor and a foreign producer.

Indirect Offsets: Contractual arrangements that involve defense goods and services unrelated to the defense items or services export referenced in the sales agreement. The kinds of offsets that are considered "indirect" include purchases, investment, training, financing activities, marketing/exporting assistance, and technology transfer.

Purchases: Procurement of off-the-shelf items from the offset recipient. Often, but not always, purchases are indirect by nature. Indirect purchases are similar in definition to countertrade, while direct purchases are analogous to buy-backs.

Overseas Investment: Investment arising from an offset agreement, often taking the form of capital dedicated to establishing an unrelated foreign entity or expanding a subsidiary or joint venture in the foreign country.

Technology Transfer: Transfer of technology that occurs as a result of an offset agreement and that may take the form of research and development conducted abroad, technical assistance provided to the subsidiary or joint venture of overseas investment, or other activities under direct commercial arrangement between the defense prime contractor and a foreign entity.

1-4 Countries and Regions

Countries and country groups actively requiring offsets in conjunction with purchases of U.S. defense systems during the period of 1993-2005, as reported by industry, were divided into four geographic regions: Europe, Africa and the Middle East, North and South America, and Asia. This was done for ease of analysis and in some cases to protect company confidentiality. The countries found in each region are listed in Table 1-1.

Table 1-1: Purchasing Countries and Groups with Offsets Agreements (by Region, 1993-2005)

Europe
Austria
Belgium
Czech Republic
Denmark
EPG – the European Participating Group (Belgium, the Netherlands, Norway)
Finland
France
Germany
Greece
Hungary
Italy
Lithuania
NATO
The Netherlands
Norway
Poland
Portugal
Romania
Slovenia
Spain
Sweden
Switzerland
United Kingdom

Middle East and Africa
Israel
Kuwait
Saudi Arabia
South Africa
Turkey
United Arab Emirates

North and South America
Brazil
Canada
Chile

Asia
Australia
Indonesia
Malaysia
New Zealand
Singapore
Republic of Korea
Taiwan
Thailand

1-5 Scope of Report

This is the eleventh report on Offsets in Defense Trade prepared by the Department of Commerce's Bureau of Industry and Security, Office of Strategic Industries and Economic Security. The report is prepared after analyzing offset data reported to the Department of Commerce by U.S. defense firms, in compliance with regulations established under Section 309 of the DPA.

The eleventh report reviews offset data for the 13-year period from 1993 to 2005. The initial offsets report, issued in 1996, covered the time period from 1993 to 1994; each subsequent offset report added an additional year to the reporting period, with the exception of the eighth report, which added two years. This report was prepared in consultation with the Departments of Defense, State, the Treasury, and Labor; the Office of the U.S. Trade Representative; and the Central Intelligence Agency.

This report begins with an overview of the data collected from U.S. industry for both 2005 alone, and for the period of 1993-2005, followed by an analysis of the effects of offsets on the U.S. defense industrial base. Next, the report presents a statistical analysis of offset agreements entered into for both 2005 alone, and for the 1993-2005 period. This is followed by a similar analysis of offset transaction activity over the same period, including a detailed review of the role of multipliers. Lastly, the report includes a description of the activities of the Interagency Team and Working Group which is chartered to engage in consultations with foreign governments on eliminating adverse effects of offsets in defense trade.

2 Statistical Overview

This chapter provides a general overview of BIS offset data for the years 1993 - 2005, a discussion of offset transactions by type, kind, and industry, the countries involved in offset activity, and a review of some of the terms used to organize the data for analysis. The following data points are used to organize and analyze the information collected:

Offset Agreements	**Offset Transactions**
Year	Year
Country	Country
Defense System	Referenced Defense System
Export Contract Value	Recipient
Offset Agreement Value	Actual Value
Percent Agreement Value to Export Value	Credit Value
	Multiplier (credit value ÷ actual value)
	Type
	Category
	Description
	Industry Involved

2-1 General Overview

Table 2-1 provides a summary of all offset agreement and transaction activity for the 13-year period from 1993 through 2005. Detailed sections on offset agreements and transactions will follow in Chapters 4 and 5, respectively.

In 2005, the total value of offset agreements was $1.5 billion. These agreements were made in conjunction with U.S. defense system exports totaling $2.3 billion in 2005. Eight prime contractors reported that they entered into 25 offset agreements with 18 countries that year. The average offset percentage (offset value ÷ value of exported system) for 2005 was 64.8 percent, down from 87.9 percent in 2004, continuing the downward slope from the high of 124.9 percent recorded in 2003. The average offset agreement for the 13-year period was worth 71.2 percent of the value of the defense systems exported. The upward trend in offset requirements is also evident in Table 2-1. For the time period of 1993-1998, offset agreements totaled 54.7 percent of the value of the defense systems exported; for the time period of 1999-2005, that percentage had grown to 86.6 percent.

The value of offset transactions completed in 2005 fell by approximately 4.5 percent from the 12-year high reported in 2004. The transactions in 2005 totaled $4.7 billion, still significantly higher than the totals recorded before 2004. Prime contractors carried out 611 transactions in 2005 with 30 countries. On average, prime contractors received slightly more than the value of the transactions as credit toward their offset obligation. The recent decline in multipliers, witnessed in recent years, seems to have halted as multipliers rose for the first time in six years. The average multiplier in 2005 was 1.152, still below the average of 1.181 for the 13-year period. The highest multiplier, 1.363, came in 1999. Multipliers are granted on a decreasing level of transactions over time. A declining multiplier indicates that countries demanding offsets have granted lower credit values associated with offset agreements. Multipliers are used to target offset obligations toward a desired type of fulfillment. Multipliers are further discussed in Chapter Five.

Table 2-1 : General Summary of Offset Activity, 1993-2005 ($ millions)						
Offset Agreements						
Year	**Export Value**	**Offset Value**	**% Offset**	**Companies**	**Agreements**	**Countries**
1993	$13,935.0	$4,784.4	34.3%	17	28	16
1994	$4,792.4	$2,048.7	42.7%	18	49	20
1995	$7,529.9	$6,102.6	81.0%	20	47	18
1996	$3,119.7	$2,431.6	77.9%	16	53	19
1997	$5,925.5	$3,825.5	64.6%	15	60	20
1998	$3,029.2	$1,768.2	58.4%	12	41	17
1999	$5,656.6	$3,456.9	61.1%	10	45	11
2000	$6,576.2	$5,704.8	86.7%	10	43	16
2001	$7,017.3	$5,460.9	77.8%	11	34	13
2002	$7,406.2	$6,094.8	82.3%	12	41	17
2003	$7,293.1	$9,110.4	124.9%	11	32	13
2004	$4,927.5	$4,329.7	87.9%	14	40	18
2005	$2,259.9	$1,464.1	64.8%	8	25	18
TOTAL	**$79,468.5**	**$56,582.7**	**71.2%**	**42**	**538**	**41**
Offset Transactions						
Year	**Actual Value**	**Credit Value**	**Multiplier***	**Offset Fulfillers**	**Transactions**	**Countries**
1993	$1,897.9	$2,213.6	1.166	43	444	27
1994	$1,934.9	$2,206.1	1.140	38	566	26
1995	$2,890.5	$3,592.6	1.243	57	711	26
1996	$2,875.8	$3,098.0	1.077	54	634	26
1997	$2,720.6	$3,272.3	1.203	51	578	26
1998	$2,312.2	$2,623.2	1.135	50	582	29
1999	$2,059.7	$2,808.3	1.363	41	513	25
2000	$2,208.2	$2,846.4	1.289	40	627	24
2001	$2,555.8	$3,274.4	1.281	53	617	25
2002	$2,616.0	$3,284.5	1.256	50	729	26
2003	$3,565.5	$4,010.7	1.125	56	689	31
2004	$4,933.1	$5,364.3	1.087	62	706	33
2005	$4,709.6	$5,426.6	1.152	61	611	30
TOTAL	**$37,279.7**	**$44,021.1**	**1.181**	**298**	**8,007**	**45**

Source: BIS Offsets Database.

Note: Due to rounding, totals may not add up exactly.

*Multipliers are used only in a small percentage of the total number of transactions. See Chapter five for further discussion.

2-2 Types of Offset Transactions

Table 2-2 presents offset transaction data by offset type (direct, indirect, or unspecified) and the percent distribution for each year from 1993 to 2005. Table 2-2 also shows the total actual and credit values of the transactions for each year.

The actual value of offset transactions completed during 2005 was $4.7 billion, second only to 2004 in the 1993-2005 period. This is due to the high level of export sales and related offset agreements since 2000. Transactions lag a few years behind the offset agreements that they fulfill.

In 2005, the percentage of offset transaction value attributed to indirect offset transactions rose to 61.8 percent after declining to 46.6 percent in 2004, the second lowest level in the period. Direct transactions correspondingly decreased from 53.4 percent of all offset transactions completed in 2004 to 38.2 percent in 2005. 2004 recorded the second highest percentage for transactions classified as "direct;" 1998 had the highest percentage with 63.6 percent of offset transactions being direct. Percentages recorded in 2005 align more closely with those recorded from 1999-2003 than those recorded in 2004. For the 13-year period of this report, 39.8 percent of offset transactions by value were direct (down from 40.4 percent for 1993-2004), and 59.5 percent were indirect (up from 58.9 percent in 1993-2004).

The multiplier, also shown in Table 2-2, is the percentage difference between the actual value of offset transactions and the credit value.[17] This multiplier means that, for the database as a whole, the total credit value of the transactions is 18.1 percent more than the actual value; this is a slight decrease from 18.5 percent for 1993-2004. In 2005, the multiplier rose to 1.153, temporarily halting the steady drop witnessed since the 1999 level of 1.363. Whether this break is temporary or indicative of a larger trend remains to be seen. The great majority of offset transactions neither include multipliers nor have multipliers that provide a credit value less than the actual value of the transaction. Offset transaction data and multipliers are more fully discussed in Chapter Five.

[17] The credit value is sometimes more than the actual value assigned to transactions; some foreign governments give greater credit as an incentive for certain kinds of offset transactions. This incentive, called a multiplier, varies by country and by the kind of transaction – usually indirect offset transactions (i.e., Purchase, Technology Transfer, and Investment) receive higher credit value than direct offset transactions.

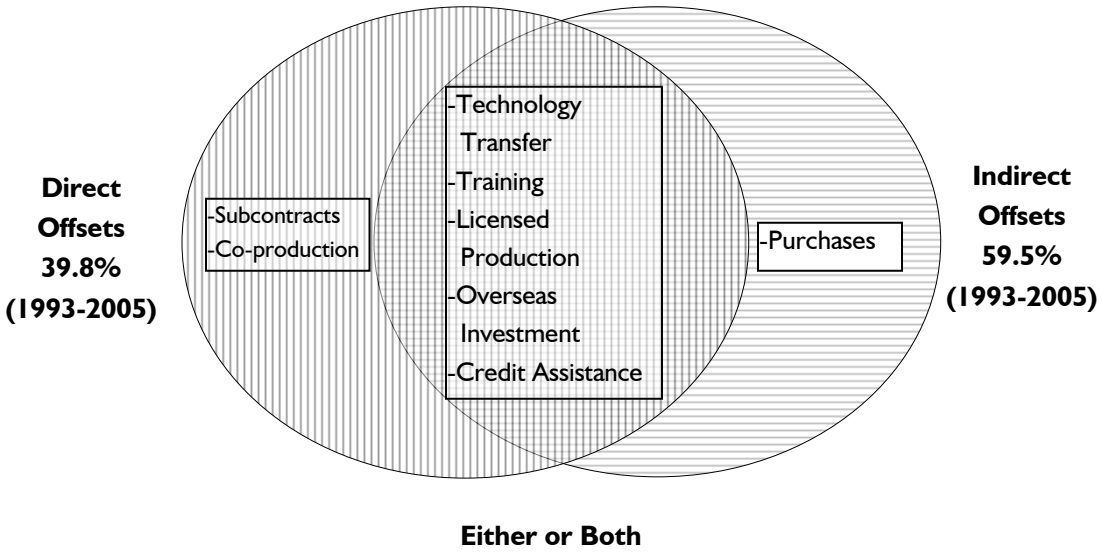
Table 2-2: Offset Transactions by Type, 1993-2005 ($ millions)							
Year	**Total**	**Direct**	**Indirect**	**Unsp.**	**Dir.**	**Ind.**	**Unsp.**
	Actual Value				**% Distribution**		
1993	$1,897.9	$583.6	$1,250.5	$63.9	30.7%	65.9%	3.4%
1994	$1,934.9	$599.8	$1,230.8	$104.3	31.0%	63.6%	5.4%
1995	$2,890.5	$1,108.8	$1,756.8	$24.9	38.4%	60.8%	0.9%
1996	$2,875.8	$1,248.8	$1,625.6	$1.4	43.4%	56.5%	0.0%
1997	$2,720.6	$1,041.7	$1,657.5	$21.4	38.3%	60.9%	0.8%
1998	$2,312.2	$1,469.7	$842.4	$0.1	63.6%	36.4%	0.0%
1999	$2,059.7	$685.2	$1,363.1	$11.4	33.3%	66.2%	0.6%
2000	$2,208.2	$785.6	$1,411.9	$10.6	35.6%	63.9%	0.5%
2001	$2,555.8	$940.9	$1,614.9	NR	36.8%	63.2%	NR
2002	$2,616.0	$941.8	$1,673.0	$1.3	36.0%	63.9%	0.1%
2003	$3,565.5	$1,113.0	$2,447.0	$5.6	31.2%	68.6%	0.2%
2004	$4,933.1	$2,635.2	$2,297.4	$0.5	53.4%	46.6%	0.0%
2005	$4,709.6	$1,797.5	$2,912.1	NR	38.2%	61.8%	0.0%
Total	**$37,277.0**	**$14,850.4**	**$22,180.0**	**$249.1**	**39.8%**	**59.5%**	**0.7%**
	Credit Value				**% Distribution**		
1993	$2,213.6	$684.3	$1,460.6	$68.7	30.9%	66.0%	3.1%
1994	$2,206.1	$774.1	$1,323.2	$108.8	35.1%	60.0%	4.9%
1995	$3,592.6	$1,302.6	$2,250.7	$39.3	36.3%	62.6%	1.1%
1996	$3,098.0	$1,182.0	$1,880.0	$36.0	38.2%	60.7%	1.2%
1997	$3,272.3	$1,183.5	$2,039.1	$49.7	36.2%	62.3%	1.5%
1998	$2,623.2	$1,629.4	$991.3	$2.5	62.1%	37.8%	0.1%
1999	$2,808.3	$1,119.4	$1,618.7	$70.3	39.9%	57.6%	2.5%
2000	$2,846.4	$1,146.4	$1,689.5	$10.6	40.3%	59.4%	0.4%
2001	$3,274.4	$1,292.3	$1,982.1	NR	39.5%	60.5%	NR
2002	$3,284.5	$1,111.2	$2,171.9	$1.3	33.8%	66.1%	0.0%
2003	$4,010.7	$1,215.5	$2,783.2	$12.0	30.3%	69.4%	0.3%
2004	$5,364.3	$2,764.3	$2,599.5	$0.5	51.5%	48.5%	0.0%
2005	$5,426.6	$1,870.9	$3,555.7	NR	34.5%	65.5%	0.0%
Total	**$44,018.4**	**$17,174.9**	**$26,442.6**	**$403.5**	**39.0%**	**60.1%**	**0.9%**

	Multiplier*				**# of Transactions**			
Year	Total	Direct	Indirect	Unsp.	Total	Direct	Indirect	Unsp.
1993	1.166	1.173	1.168	1.076	444	132	308	4
1994	1.140	1.291	1.075	1.043	566	157	404	5
1995	1.243	1.175	1.281	1.579	711	204	505	2
1996	1.077	0.947	1.156	25.714	634	228	404	2
1997	1.203	1.136	1.23	2.326	578	202	372	4
1998	1.135	1.109	1.177	19.538	582	241	340	1
1999	1.363	1.634	1.187	6.152	513	203	305	5
2000	1.289	1.459	1.197	1.000	627	216	409	2
2001	1.281	1.374	1.227	NR	617	224	393	NR
2002	1.256	1.18	1.298	1.000	729	194	534	1
2003	1.125	1.092	1.137	2.151	689	179	506	4
2004	1.087	1.049	1.131	1.000	706	375	330	1
2005	1.153	1.041	1.221	1.000	611	206	405	NR
Total	**1.181**	**1.157**	**1.192**	**1.620**	**8,007**	**2,761**	**5,215**	**31**

Source: BIS Offsets Database.
NR=None Reported
Unsp.=Unspecified Direct or Indirect
Note: Due to rounding, totals may not add up precisely.
* Multipliers are used only in a small percentage of the total number of transactions (see Chapter Five for further discussion).

2-3 Offset Transaction Categories

In addition to classifying offset transactions by type (direct or indirect), offset transactions are identified by various categories, which more specifically describe the nature of the arrangement or exchange. These categories include *Purchases, Subcontracts, Technology Transfers, Credit Assistance, Training, Overseas Investment, Co-production, Licensed Production,* and *Miscellaneous*. The diagram below shows that each category is considered direct, indirect, or could be either one (e.g., Technology Transfer, Training, etc.). Definitions for the categories begin below; Appendix G contains additional relevant offset definitions as well as illustrative examples.



Purchases result in overseas production of goods or services usually for export to the United States. Purchases are always classified as indirect offsets to distinguish them from subcontracts, because the purchases are of items unrelated to the exported defense system. The U.S. exporter may make the purchase, or they can also use brokering and marketing assistance services that result in purchases by a third party. For 1993-2005, Purchases represented 37.9 percent of the actual value of all offset transactions, more than any other category. They made up 63.6 percent of the value of indirect offsets. Aerospace-related offset transactions made up over 57 percent of the value of Purchases during 1993-2005.

Subcontracts result in overseas production of goods or services for use in the production or operation of a U.S. exported defense system subject to an offset agreement. Subcontracts are always classified as direct offsets. During 1993-2005, Subcontracts made up over one-fifth of the actual value of all offset transactions, and over 57 percent of the value of all direct offsets. Over 75 percent of the value of Subcontracts was aerospace-related.

Technology Transfer includes research and development conducted abroad, exchange programs for personnel, data exchanges, integration of machinery and equipment into a recipient's production facility, technical assistance, education and training, manufacturing know-how, and licensing and patent sharing. Technology Transfer is normally accomplished under a commercial arrangement between the U.S. prime contractor and a foreign company. A major subcontractor may also accomplish the Technology Transfer on behalf of the U.S. prime contractor. For 1993-2005, Technology Transfer totaled just under $6.2 billion, up from $4.7 billion for 1993-2004. During the reporting period, 41.6 percent of the value of Technology Transfers was classified as direct offsets and 56.3 percent was indirect offsets; the balance was unspecified. Technology Transfers accounted for approximately 16.6 percent of the actual value of all offset transactions.

Co-production is overseas production based upon a government-to-government agreement that permits a foreign government or producer to acquire the technical information to manufacture all or part of a U.S.-origin defense system. Co-production is always classified as a direct offset. It includes government-to-government licensed production, but excludes licensed production based upon direct commercial arrangements by U.S. manufacturers. During 1993-2005, 77 percent of the value of Co-production reported was aerospace-related.

Co-production accounted for 6.6 percent of the value of offset transactions for 1993-2005, unchanged from 1993-2004. Past Co-production transactions have involved constructing major production facilities in foreign countries (primarily at the expense of the foreign government) for the assembly of entire defense systems, such as aircraft, missiles, or ground systems. Co-production arrangements of this kind generally impose a high cost on the foreign government, including upfront construction and tooling costs and increased unit costs for limited production runs. Some countries negotiate with prime contractors for production or assembly contracts related to future sales to third countries of the defense systems or system components.

Credit Assistance includes direct loans, brokered loans, loan guarantees, assistance in achieving favorable payment terms, credit extensions, and lower interest rates. Credit Assistance transactions accounted for 4.0 percent of the actual value of all transactions for 1993-2005. Credit Assistance is nearly always classified as an indirect offset transaction but can be either direct or indirect. Indirect transactions made up 99.5 percent of the actual value of Credit Assistance for the period.

Overseas Investment includes capital invested to establish or expand a subsidiary or joint venture in the foreign country as well as investments in third-party facilities; the latter received the highest multipliers. Overseas Investments accounted for just 2.8 percent of the actual value of all offset transactions during the period of 1993-2005; 63.3 percent of the value of Overseas Investment transactions was classified as indirect and 29.2 percent as direct.

Training transactions relate to the production, maintenance, or actual use of the exported defense systems or a component thereof. Training transactions, which can be either direct or indirect, may be required in areas such as computers, foreign language skills, engineering capabilities, or management. During the reporting period, direct offset transactions made up 58.8 percent of the value of training transactions; 41.0 percent was indirect. Training accounted for only 2.2 percent of the total value of offset transactions between 1993 and 2005.

Licensed Production is overseas production of a U.S.-origin defense article. Licensed Production differs from Co-production in that it is based on commercial arrangements between a U.S. manufacturer and a foreign entity as opposed to a government-to-government agreement. In addition, Licensed Production virtually always involves a part or component for a defense system, rather than a complete defense system. These transactions can be either direct or indirect. Licensed Production is the smallest among the offset categories, accounting for only 0.7 percent of the total value of offset transactions; 39.8 percent of the Licensed Production transactions (by actual value) were directly related to the defense systems sold.

Table 2-3 presents a summary of offset transactions by category and type for the 13-year reporting period (1993-2005).

Table 2-3: Offset Transactions by Category and Type, 1993-2005								
Transaction Category	**Actual Values in $ millions**				**Percent by Column Total**			
	Total	**Dir.**	**Ind.**	**Unsp.**	**Total**	**Dir.**	**Ind.**	**Unsp.**
Purchase	$14,119.1		$14,119.1		37.9%		63.6%	
Subcontract	$8,540.9	$8,540.9			22.9%	57.5%		
Technology Transfer	$6,190.4	$2,573.5	$3,497.1	$132.2	16.6%	17.3%	15.8%	53.9%
Miscellaneous	$2,352.3	$377.1	$1,965.4	$9.8	6.3%	2.5%	8.9%	4.0%
Co-production	$2,457.9	$2,457.9			6.6%	16.6%	0.0%	
Credit Assistance	$1,489.7	$7.2	$1,482.5		4.0%	0.0%	6.7%	
Overseas Investment	$1,041.9	$304.6	$659.8	$77.5	2.8%	2.1%	3.0%	31.6%
Training	$824.9	$484.7	$338.3	$1.9	2.2%	3.3%	1.5%	0.8%
Licensed Production	$262.7	$104.4	$134.2	$24.0	0.7%	0.7%	0.6%	9.8%
Total	**$37,279.7**	**$14,850.4**	**$22,196.4**	**$245.4**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Transaction Category	**Credit Values in $ millions**				**Percent by Column Total**			
	Total	**Dir.**	**Ind.**	**Unsp.**	**Total**	**Dir.**	**Ind.**	**Unsp.**
Purchase	$15,656.8		$15,656.8		35.6%	0.0%	59.2%	0.0%
Subcontract	$9,462.3	$9,462.3			21.5%	55.1%		
Technology Transfer	$7,381.8	$2,861.0	$4,366.2	$154.6	16.8%	16.7%	16.5%	38.7%
Miscellaneous	$3,486.6	$897.9	$2,516.2	$72.4	7.9%	5.2%	9.5%	18.1%
Co-production	$2,422.9	$2,422.9			5.5%	14.1%		
Credit Assistance	$1,691.9	$72.7	$1,619.2		3.8%	0.4%	6.1%	
Overseas Investment	$2,105.4	$584.4	$1,392.8	$128.2	4.8%	3.4%	5.3%	32.1%
Training	$1,359.6	$752.3	$593.9	$13.4	3.1%	4.4%	2.2%	3.4%
Licensed Production	$453.9	$121.4	$301.2	$31.2	1.0%	0.7%	1.1%	7.8%
Total	**$44,021.2**	**$17,174.9**	**$26,446.4**	**$399.8**	**35.6%**	**0.0%**	**59.2%**	**0.0%**
Transaction Category	**Multiplier***				**# of Transactions**			
	Total	**Dir.**	**Ind.**	**Unsp.**	**Total**	**Dir.**	**Ind.**	**Unsp.**
Purchase	1.109		1.109		3,933		3,933	
Subcontract	1.108	1.108			1,763	1,763		
Technology Transfer	1.192	1.112	1.249	1.169	919	385	520	14
Miscellaneous	1.482	2.381	1.280	7.385	522	104	413	5
Co-production	0.986	0.986			316	316		
Credit Assistance	1.136	10.091	1.092		119	8	111	
Overseas Investment	2.021	1.919	2.111	1.655	132	27	100	5
Training	1.648	1.552	1.756	7.193	265	127	133	5
Licensed Production	1.728	1.162	2.244	1.300	38	27	9	2
Average	**1.181**	**1.157**	**1.191**	**1.629**	**8,007**	**2,757**	**5,219**	**31**

Source: BIS Offsets Database.
Dir.=Direct
Ind.=Indirect
Unsp.=Unspecified Direct or Indirect
Note: Totals are rounded figures.
* Multipliers are used only in a small percentage of the total number of transactions. See Chapter Five for further discussion.

2-4 Industry Classification – SIC Codes

Table 2-4 shows the offset transactions classified by major industrial sector for the 13-year period, 1993-2005. Each industry sector is defined using the Standard Industrial Classification (SIC) system.[16] Forty-four SIC categories are listed, which represent a wide cross section of the U.S. defense industrial base.

Of the various sectors, Transportation Equipment (SIC 37) accounted for more than half – 52.4 percent from 1993-2005– of the actual value of all offset transactions completed during the period. Transportation Equipment made up 59.0 percent of the value of direct offset transactions, 47.7 percent of the value of indirect offset transactions, and 84.7 percent of the value of unspecified offset transactions. Transactions in this sector were composed mostly of aerospace products, including aircraft parts and components, engines and parts, hydraulic subsystems, and guided missiles and components.

Other major industry groups include Electronic/Electrical Equipment (SIC 36) with 13.6 percent of the actual value of all transactions. SIC 36 includes products such as radar, communications equipment, and electronic components, as well as completed avionics equipment and material inputs for avionics such as circuit boards. Combined, transactions falling in SIC 37 and SIC 36 constitute 66 percent of the total value of offset transactions for the 13-year period.

Technical Services & Consulting (SIC 87) made up 4.8 percent of the value of all transactions. Industrial Machinery (SIC 35) and Measuring and Analyzing Instruments (SIC 38) each accounted for 4.4 percent of the actual value of transactions. These three industry groups, along with Transportation Equipment and Electronic/Electrical Equipment, comprised 79.6 percent of the total value of all transactions reported to date.

[16] SIC codes are used because conversion to NAICS has not been fully implemented.

Table 2-4: Offset Transactions by Major Industrial Sector and Offset Type, 1993-2005 (in $ millions)									
2-Digit SIC Code and Description		Total	Direct	Indirect	Unsp.	Total	Direct	Indirect	Unsp.
7	Agriculture	$53.6		$53.6		0.1%		0.2%	
9	Fishing, Hunting, and Preserves	$7.9		$7.9		0.0%		0.0%	
10	Metal Mining	$3.2		$3.2		0.0%		0.0%	
13	Crude Petrol. & Natl. Gas	$21.2		$21.2		0.1%		0.1%	
15	Building Construction	$35.9	$20.8	$15.1		0.1%	0.1%	0.1%	
16	Heavy Construction	$1.5	$1.2	$0.3		0.0%	0.0%	0.0%	
17	Construction - Spec. Trades	$21.2	$1.0	$20.2		0.1%	0.0%	0.1%	
20	Food And Kindred Products	$15.5		$15.5		0.0%		0.1%	
22	Textile Mill Products	$6.4		$6.4		0.0%		0.0%	
23	Apparel & Other Fin Prods	$3.8		$3.8		0.0%		0.0%	
24	Lumber & Wood Products	$0.3		$0.3		0.0%		0.0%	
25	Furniture And Fixtures	$0.3		$0.3		0.0%		0.0%	
26	Paper Mills & Allied Prod	$21.9	$0.9	$21.1		0.1%	0.0%	0.1%	
27	Printing & Publishing	$34.0	$23.9	$10.1		0.1%	0.2%	0.0%	
28	Chemicals & Allied Prod	$442.9	$20.3	$422.7		1.2%	0.1%	1.9%	
29	Petroleum Refining	$3.2		$3.2		0.0%		0.0%	
30	Rubber & Misc Plast Prod	$7.5	$0.7	$6.8		0.0%	0.0%	0.0%	
32	Cut Stone & Stone Prod	$12.9		$12.9		0.0%		0.1%	
33	Primary Metal Industries	$266.3	$9.4	$256.8		0.7%	0.1%	1.2%	
34	Fabricated Metal Products	$1,217.9	$739.5	$478.4		3.3%	5.0%	2.2%	
35	Indl Machinery, Exc Elec	$1,624.8	$157.0	$1,467.2	$0.5	4.4%	1.1%	6.6%	0.2%
36	Electronic/Electrical Equip	$5,073.4	$2,112.2	$2,957.0	$4.2	13.6%	14.2%	13.3%	1.7%
37	Transportation Equipment	$19,547.1	$8,764.7	$10,574.6	$207.8	52.4%	59.0%	47.7%	84.7%
38	Measuring & Analyzing Inst	$1,647.3	$799.2	$848.1		4.4%	5.4%	3.8%	
39	Misc Manuf Industries	$15.2	$0.6	$14.5		0.0%	0.0%	0.1%	
42	Motor Frt & Warehousing	$2.8		$2.8		0.0%		0.0%	
44	Water Transportation	$60.6		$60.6		0.2%		0.3%	
45	Transportation By Air	$70.2	$54.7	$15.5		0.2%	0.4%	0.1%	
47	Transportation Services	$3.5	$0.0	$3.4		0.0%	0.0%	0.0%	
48	Communications	$217.3	$106.1	$111.2		0.6%	0.7%	0.5%	
49	Electric, Gas, & San Serv	$2.5		$2.5		0.0%		0.0%	
61	Non-Depos Credit Inst	$734.3	$10.2	$724.1		2.0%	0.1%	3.3%	
62	Security & Comm Brokers	$131.2	$2.1	$129.1		0.4%	0.0%	0.6%	
67	Holding & Other Invest Off	$666.9	$205.5	$437.8	$23.6	1.8%	1.4%	2.0%	9.6%
70	Hotels & Other Lodging	$0.4		$0.4		0.0%		0.0%	
73	Business Services	$1,410.3	$324.0	$1,078.6	$7.7	3.8%	2.2%	4.9%	3.1%
76	Misc Repair Shops	$8.5	$2.4	$6.1		0.0%	0.0%	0.0%	
80	Health Services	$0.0		$0.0		0.0%		0.0%	
81	Legal Services	$0.1		$0.1		0.0%		0.0%	
82	Educational Services	$769.1	$285.6	$483.6		2.1%	1.9%	2.2%	
87	Technical Servs & Cons	$1,797.1	$569.6	$1,225.9	$1.7	4.8%	3.8%	5.5%	0.7%
89	Misc. Services	$124.7	$39.6	$85.1		0.3%	0.3%	0.4%	
96	Admin of Econ Programs	$12.0		$12.0		0.0%		0.1%	
99	Unclassifiable Establishments	$1,183.1	$599.1	$583.9		3.2%	4.0%	2.6%	
	Total	**$37,279.7**	**$14,850.4**	**$22,183.9**	**$245.4**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: BIS Offsets Database.
Unsp. = Unspecified Direct or Indirect
Note: In some cases, the amounts were too small to show in $ millions

2-5 Countries and Groups

Table 2-5 shows various countries' offset requirements as a percentage of the underlying contract value, calculated from the data reported by U.S prime contractors as well as the offset percentages required by each country's current official offset policy.

The first column, "% Offsets," is an average percentage derived from the BIS Offsets Database for the period covering 1993 to 2005, which is calculated by dividing the offset value by the export value. These 13-year average percentages tend to be lower than the official offset policy percentage. Offset demands have increased significantly over time, so the 13-year average percentage lags behind the actual current offset percentage required by the foreign government.

The second column, "Country %," reflects current offset percentages as required by the government of each individual country. Most countries set a single target percentage offset value; however, a few countries vary the percentage depending on the significance of the individual offset agreement to the local economy. Some countries have formulas which place more emphasis on indirect offset agreements rather than direct, thereby reflecting a country's desire to develop civilian industry rather than the defense sector of the economy. Other countries demand almost entirely direct offsets, reflecting the desire to maintain and enhance their defense sector. Therefore, offset percentages and type depend on the importance of each contract with respect to the economic direction of any given country government.

Regional offset percentages are greater in Europe and North and South America, with demands of 98.8 percent and 97 percent respectively, followed by the Middle East and Africa with 43.2 percent and Asia with 38.8 percent.

Table 2-5: Offset Percentages by Country and Groups 1993-2005
From BIS Offsets Database and Country Policies

EUROPE		
Country, Groups	**% Offsets**	***Country %***
Austria	174.2%	***200%***
Belgium	80.1%	***Case-by-Case***
Czech Republic	W	***100%***
EPG	27.8%	***N/A***
Denmark	100.0%	***100%***
Finland	100.0%	***100%***
France	84.6%	***100%***
Germany	100.0%	***Up to 100%***
Greece	113.4%	***80% to 300%***
Hungary	W	
Italy	93.8%	***Min. 70%***
Lithuania	W	***100%***
NATO	55.8%	***N/A***
The Netherlands	118.6%	***Up to 150%***
Norway	104.8%	***100%***
Poland	W	***100%***
Portugal	27.9%	***100%***
Romania	W	***80%***
Slovenia	W	***100%***
Spain	88.5%	***Up to 100%***
Sweden	103.9%	***100%***
Switzerland	78.9%	***100%***
United Kingdom	83.9%	***100%***
Region Total	98.8%	

NORTH AND SOUTH AMERICA		
Country	**% Offsets**	**Country %**
Brazil	W	***100%***
Canada	97.0%	***100%***
Chile	W	***100%***
Region Total	97.0%	

MIDDLE EAST AND AFRICA		
Country	**% Offsets**	**Country %**
Egypt	N/R	***Case-by-Case***
Israel	48.6%	***50%***
Kuwait	32.7%	***35%***
Saudi Arabia	W	***35%***
South Africa	116.0%	***30%***
Turkey	46.6%	***Min. 50%***
United Arab Emirates	57.1%	***Min. 60%***
Region Total	43.2%	

ASIA		
Country	**% Offsets**	**Country %**
Australia	45.8%	***60%***
Indonesia	N/R	***100%***
Malaysia	37.3%	***100%***
New Zealand	W	***30%***
Philippines	100.0%	***80%-100%***
Singapore	W	***Case-by-Case***
Republic of Korea	60.3%	***30%***
Taiwan	20.0%	***40%***
Thailand	26.6%	***50%***
Region Total	38.8%	

Source: BIS Offsets Database and Country Policy Research.
N/A=Not Applicable
N/R=None Reported
W=Withheld to protect company-proprietary information

3 Impact of Offsets on the U.S. Defense Industrial Base

The Defense Production Act of 1950, as amended, requires that the U.S. Department of Commerce determine the impact of offsets on defense preparedness, industrial competitiveness, employment, and trade of the United States. This chapter discusses the impact of offsets on defense preparedness and employment.

3-1 Defense Preparedness

The revenue generated by export sales, and the exports themselves, are important to U.S. defense prime contractors and to U.S. foreign policy and economic interests. Exports of major defense systems can help defray high overhead costs for the U.S. producer and help maintain production facilities and workforce expertise for current and future U.S. defense needs. The production capabilities and workforce are also available in case they are needed to respond to a national emergency. Exports also provide additional business to many U.S. subcontractors and lower-tier suppliers, promote interoperability of defense systems between the United States and allied countries, and contribute positively to U.S. international trade account balances. Prime contractors believe that they must make their systems more attractive in the sales competition by adding offsets. In fact, nearly all governments other than the United States require offsets as a condition of sale.

When an offset package requires a high proportion of Subcontracting, Co-production, Licensed Production, or Purchases, it can negate many of the economic and industrial base benefits accrued through the export sale. U.S. defense subcontractors and suppliers, and in some cases portions of the prime contractor's business, are displaced by exports that include Subcontract, Co-production, or Licensed Production offsets. Purchases, which are indirect offsets, can displace sales from the commercial manufacturing sectors of the U.S. economy. Over 80 percent of offset transactions reported for the 1993-2005 period fell in the manufacturing sectors of the U.S. economy.

Previous studies and discussions indicate that U.S. prime contractors sometimes develop long-term supplier relationships with overseas subcontractors based on short-term offset

requirements.[17] These new relationships, combined with mandatory offset requirements and obligations, can endanger future business opportunities for U.S. subcontractors and suppliers, with possible negative consequences for the domestic industrial base. Other kinds of offsets can increase research and development spending and capital investment in foreign countries for defense or non-defense industries. They can also help create or enhance current and future competitors for U.S. subcontractors and suppliers, and in some cases prime contractors.

3-2 Employment

Given the variety of defense systems sold, the number of offset transactions carried out, and the limited data available, it is difficult to determine precisely the impact of offset agreements and transactions on employment in the U.S. defense sector. BIS has developed an estimate by using a five-year average of aerospace-related employment and value added data collected by the U.S. Department of Commerce's Bureau of the Census for the 2000-2004 period.[18] Since sales of aerospace defense systems accounted for an average of 76.8 percent of the value of defense exports connected with offset agreements during 2000-2004, this method appears to provide a reliable estimate of the effect that all defense offset agreements have on employment (2004 data is the most recent available for comparison from the Bureau of the Census). This method takes into account work-years maintained because of the export sales as well as the work-years lost through certain kinds of offset transactions carried out in fulfillment of offset agreements.

U.S. prime contractors reported an average of $5.1billion in defense export contracts (Agreements) with offset agreements for the 2001-2004 period. According to the Census Bureau's Annual Survey of Manufacturers, the average yearly value added per employee for the aerospace product and parts manufacturing industry during 2001-2004 was $162,216. Dividing this figure into the 2001-2004 average yearly defense export contract value total results in an average annual total of 31,440 work-years that were maintained by defense exports associated with offset agreements during 2001-2004.[19]

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[17] See GAO report on offset activities, "Defense Trade: U.S. Contractors Employ Diverse Activities to Meet Offset Obligations," December 1998 (GAO/NSIAD-99-35), pp. 4-5.

[18] BIS's offset database uses SIC codes to define industries; in preparing its value added estimates, the Census Department uses the North American Industrial Classification System (NAICS). The SIC definition of the aerospace industry differs slightly from the NAICS definition, but the results are not significantly altered.

[19] This calculation is based on the supposition that this value represents 100 percent U.S. content in all exports, which is not necessarily an accurate assumption.

For 2001-2004, the average annual defense export contracts of $5.1 billion in had a related $4.9 billion in offset commitments. It takes on average almost seven years of offset transactions to fulfill an offset agreement. In order to more accurately assess the impact of offset transactions on work-years, BIS compared the export contract value to the value of the prime contractor's offset obligation contractually committed at the time of the sale.

Subcontracting, Purchasing, Co-production, and Licensing offset transactions are most likely to shift production and sales from U.S. suppliers to overseas firms. Other categories of offset transactions (Technology Transfer, Training, Overseas Investment, and Marketing), in the short or long run, can shift sales from U.S. suppliers as well; however, their impact is more difficult to calculate. Therefore, BIS bases its estimate of employment impacts only on Subcontracting, Purchasing, Co-production, and Licensing offset transactions.

These conservative calculations for employment impact are based on the assumption that the offset obligations entered into during 2001-2004 are made up of nearly the same proportion of offset transaction categories as past offset obligations. Those categories that can be most directly related to employment – Subcontracting, Purchasing, Co-production, and Licensing – accounted for an average of 82 percent of the total value of offset obligations during 2001-2004, or about $1.5 billion. Applying the same value added figure used above ($162,216) leads to the loss of 9,047 work-years annually associated with the offset agreements entered into in 2001-2004.

Based on these calculations, it appears that 2001-2004 defense export sales averaging $5.1 billion annually had a net positive effect on employment in the defense sector during the five-year period (an annual average of 22,393 work years). It should be noted that the 2001-2004 analysis does not include the potential impacts of an additional $691million annually of Technology Transfer, Training, and Overseas Investment transactions.

3-3 Domestic Defense Productive Capability

Section 309(b)(1) of the DPA requires identification of the cumulative effects of offset agreements on "the full range of domestic defense productive capability with special attention paid to the firms serving as lower tier subcontractors or suppliers;" and "the

domestic defense technology base as a consequence of the technology transfers associated with such offset agreements."

To address the effects of offsets on defense productive capability, this analysis compares 2004 offset transactions involving Transportation Equipment Manufacturing (SIC 37) with the 2004 value added data from the industry as reported in the Census Bureau's 2004 Annual Survey of Manufacturers (the most recent data available). *See Table 3-1*. According to the Census Bureau, almost 19 percent of the total value of SIC 37 shipments is aerospace-related shipments. The remainder of SIC 37 includes motor vehicles and motorcycles, shipbuilding and repair, guided missiles and space vehicles, and railroad equipment.[20]

Offset transactions in SIC 37 that were completed during 2004 involved a wide range of activities, from technology transfer and training to components and repair. For 1993-2005, aerospace-related offset transactions in the BIS database made up 83.3 percent of the value of all transactions in SIC 37.

Comparing transactions to value added gives a more accurate picture of the lost current and future opportunities to U.S. companies caused by offset transactions. Value added, in turn, is a measurement of the productive capability of an entire industry, encompassing productivity of labor, efficient capital use, and full production capacity.

Table 3-1: Domestic Defense Productive Capability: Transportation Equipment Offset Transactions and Value Added, 2004

Transactions (% of total)	$3,107,783,632 (63.0%)
Value Added for Industry	$255,974,003,000
Transactions as a % of Industry Value Added	1.21%

Source: BIS Offsets Database.
Value Added data from Bureau of the Census, Annual Survey of Manufacturers.

In 2004, the value of offset transactions in the transportation equipment industry averaged 1.21 percent of the 2004 total value added to the U.S. economy by the transportation industry. While this figure does not translate into a 1.21 percent loss in domestic defense productive capability, it does represent the value added that was gained abroad instead of domestically because of an offset agreement.

[20] See Appendix E for full listing of offset transactions by economic sector (SIC).

To identify the effects of technology transfer on the domestic defense technology base, Table 3-2 compares total 2004 technology transfer transactions for the aerospace manufacturing industry to total 2004 R&D spending for the aerospace manufacturing industry.[21]

Table 3-2: Domestic Defense Technology Base: Technology Transfer Offsets and R&D Spending, 2004	
Aerospace-Related Technology Transfer Transactions	$151,824,846
Aerospace Industry R&D Spending (Federal and Industry)	$13,086,000,000
Technology Transfer Transactions as % of R&D Spending	1.16%

Source: Transactions data from BIS Offsets Database.
Research and development spending from National Science Foundation, Research and Development in Industry: 2004

As seen in Table 3-2, in 2004, aerospace-related offset transactions that involved technology transfer totaled $151.8 million. This value is equivalent to 1.16 percent of total R&D spending for the aerospace industry in 2004. This figure does not mean that domestic firms in this industry lost 1.16 percent of their R&D spending in 2004; rather, the number provides a point of comarison that offset activities provided to foreign companies' technology is equivalent to 1.16 percent of 2004 domestic R&D spending in this industry.

[21] Data collected by the Aerospace Industry Association from U.S. Bureau of the Census data.

4 Offset Agreements, 1993-2005

4-1 Overview

From 1993 to 2005, 42 prime contractors reported entering into 538 offset agreements valued at $56.6 billion. The agreements were signed in connection with defense system exports totaling $79.5 billion to 41 different countries. The value of the offset agreements represented 71.2 percent of the total value of the related export contracts during the entire 13-year period. The average term for completing the offset agreements with specific transactions was 81.5 months, or 6 years and eight months. Sales of aerospace defense systems (i.e., aircraft, engines, and missiles) made up 84 percent of all defense system export contracts, totaling $66.8 billion.

The data for defense export contracts and related offset agreements (including offset percentages) are presented in Chart 4-1. The value of the offset agreements as a percentage of the value of defense export contracts increased an average of 2.5 percentage points per year over the 13-year reporting period. In 2003, offset agreements as a percentage of export contracts (by value) reached the highest point during the 13-year period: 124.9 percent;[22] this ratio declined to 87.9 percent in 2004 and to 64.8 percent in 2005. The lowest percentage was recorded in 1993 at 34.3 percent of the value.[23]

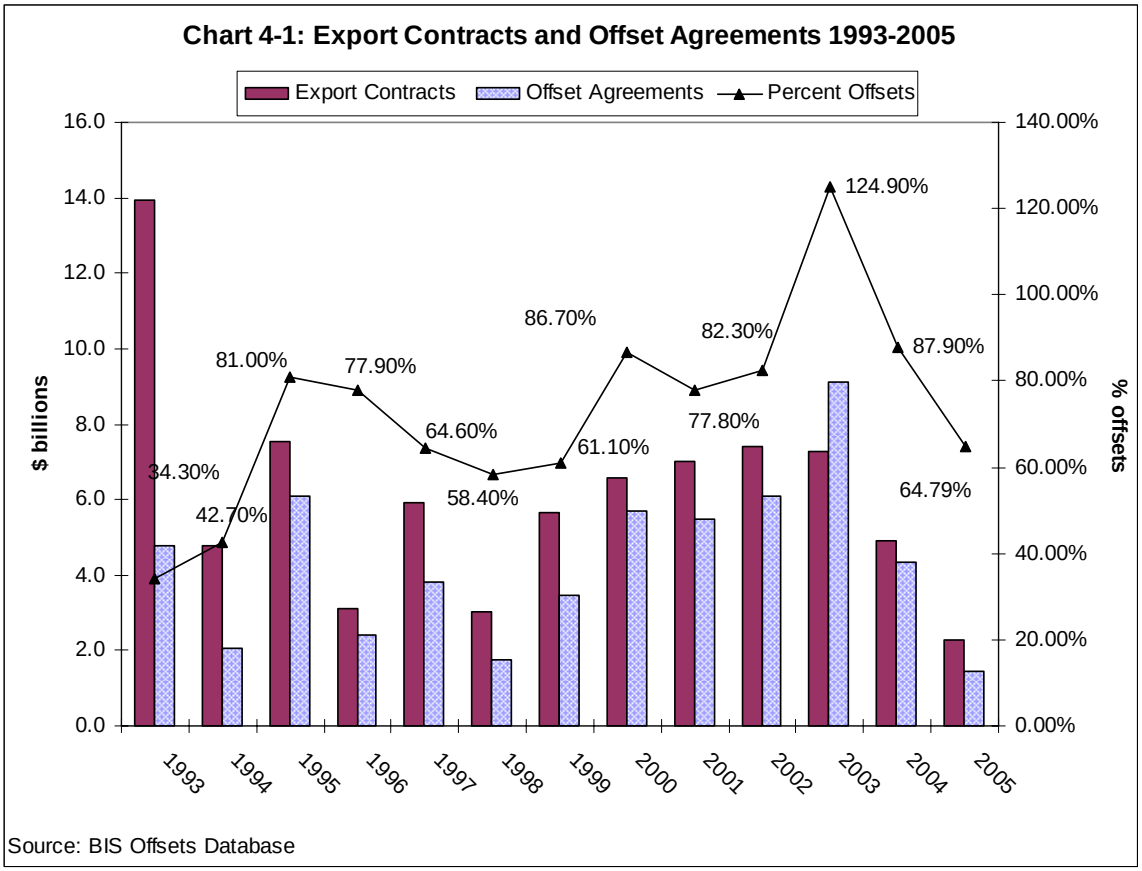
4-2 Concentration of Offset Activity

The data reported by U.S. firms confirm that agreements involving a small number of companies, countries, and defense systems dominated offset agreements between 1993 and 2005. The top five U.S. exporters (of 42 companies reporting data on offsets over the 13-year period, 8 of which reported offsets in 2005) accounted for 80.2 percent of the value of defense export contracts and 82.2 percent of the value of offset agreements. This market concentration reflects industry consolidation, the high costs of developing and manufacturing defense systems, and the small number of firms that have the financial

[22] One large defense system export in 2003 with an offset percentage of more than 170 percent skewed the data for that year. Without this export and its related offset agreement, the average offset percentage for 2003 would fall to 81.3 percent (from 124.9 percent with the sale). This export also affected the average offset percentage for the entire period. With this sale and offset, the average offset percentage for 1993-2005 is 71.2 percent; without it, the percentage is 66.5 percent.

[23] Much like the outlier from 2003 (above footnote), a similar occurrence took place in 1993 when two large exports with low offset percentages skewed the average offset percentage downward.

and productive resources to produce and export them. Each prime contractor coordinated the activities of hundreds, if not thousands, of subcontractors and suppliers that contributed to the systems' production, as well as the work of thousands of employees.



Similarly, offsets and related defense system exports appear to be concentrated among a few purchaser governments or groups. Table 4-1 lists the top 25 governments or groups and their total export contract and offset agreement values for 1993-2005. The top five governments or groups of the total 41 involved in the reported offset activity (United Kingdom, Taiwan, the Republic of Korea, Greece, and Canada) accounted for 53.6 percent of the value of defense systems purchased and 51.6 percent of the value of offset agreements during 1993-2005. With Taiwan removed (and instead including Israel, ranked sixth for defense system exports), the averages for the top five governments drop to 45.3 percent of the defense systems purchased and 51.4 percent of the value of offset agreements. The top 10 governments or groups of the 41 total (United Kingdom, Taiwan, the Republic of Korea, Greece, Canada, Israel, Saudi Arabia, Poland, Australia,

and Turkey) represented 76.5 percent of defense system purchases and 73.9 percent of the offset agreements. Including Italy as part of the top 10 and excluding Taiwan, the value of the defense system purchases and offset agreements would be 66.3 percent and 74.5 percent, respectively. *See footnote 22.*

Table 4-1: Top 25 Governments by Export Contracts (Total, 1993-2005)

Country or Groups	# of Agreements	Export Contracts	Offset Agreements
1. United Kingdom	43	$12,123,201,286	$10,166,492,643
2. Taiwan	39	$10,844,770,700	$2,171,542,030
3. Republic of Korea	59	$8,669,008,808	$5,231,339,429
4. Greece	49	$6,309,342,343	$7,155,872,271
5. Canada	27	$4,621,362,694	$4,482,332,872
6. Israel	47	$4,250,630,606	$2,065,076,626
7. Saudi Arabia	W	$4,091,600,000	$1,427,400,000
8. Poland	W	$3,716,100,000	$6,244,100,000
9. Australia	17	$3,499,462,000	$1,603,885,000
10. Turkey	18	$2,695,043,000	$1,255,350,000
11. Italy	9	$2,680,257,000	$2,515,257,000
12. Switzerland	10	$2,556,712,040	$2,016,712,040
13. The Netherlands	44	$2,006,645,677	$2,379,205,667
14. Spain	25	$1,848,492,588	$1,636,313,004
15. Norway	28	$1,237,901,824	$1,296,801,824
16. NATO	W	$989,749,000	$552,000,000
17. Kuwait	11	$871,353,822	$284,537,066
18. Denmark	33	$800,319,000	$800,329,000
19. France	4	$785,200,000	$664,200,000
20. Malaysia	4	$759,100,000	$283,500,000
21. Thailand	6	$539,729,463	$143,696,539
22. EPG	W	$539,500,000	$150,200,000
23. United Arab Emirates	7	$539,300,000	$308,200,000
24. Portugal	3	$442,061,000	$123,393,000
25. Czech Republic	W	$312,600,000	$62,500,000
Total	492	$77,729,442,851	$55,020,236,011
All Countries	538	$79,468,479,073	$56,582,622,244

Source: BIS Offsets Database.
W=Withheld

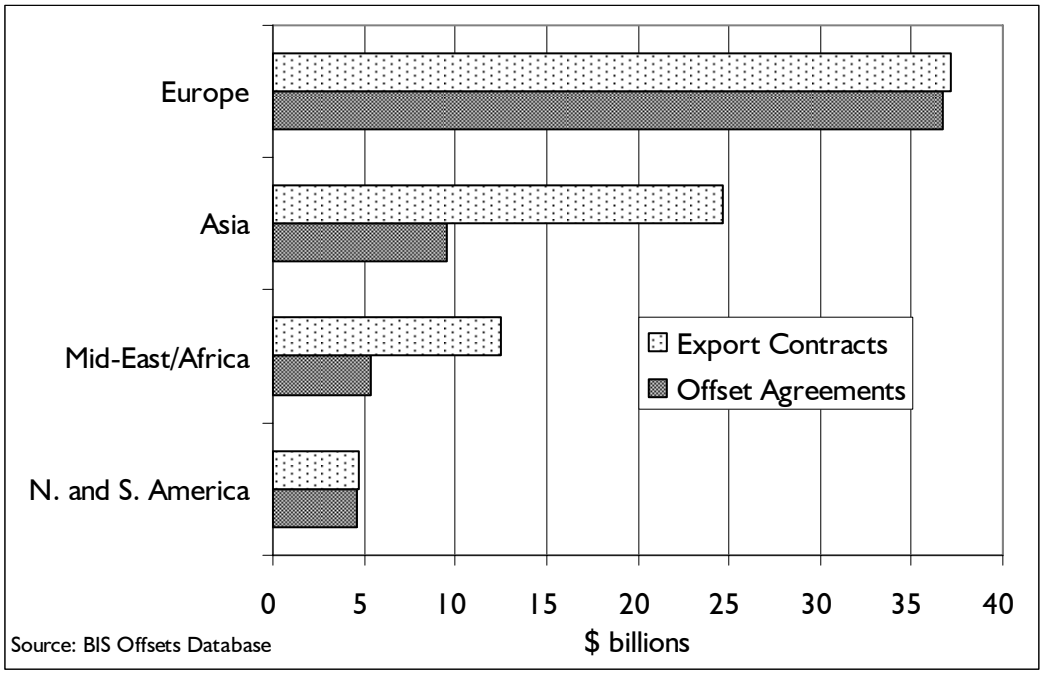
According to data provided by U.S. prime contractors, five out of the top six defense systems exported were aircraft systems. The five aircraft system exports accounted for 40.1 percent of the value of all export contracts and 43.0 percent of the offset

agreements during the reporting period. Nine of the top 10 defense systems were aerospace-related; the top 10 accounted for 55.5 percent of the export contracts and 57.5 percent of the offset agreements during the 13-year period.

4-3 Regional Distributions

Chart 4-2 shows offset agreements and export contracts by region for 1993-2005. European countries accounted for the majority of offset activity and defense system exports, reporting 46.9 percent of the value of U.S. defense export contracts and 65.0 percent of the value of offset agreements. Asian countries ranked second in both categories, with 31.5 percent of related U.S. export contract values and 17.4 percent of the value of offset agreements.

Chart 4-2: Regional Totals of Export Contracts and Offset Agreements, 1993-2005 (in $ billions)



In 1999, 2000, 2003 and 2005, contracts and agreements with the Middle East and Africa increased significantly from the preceding years. In 2003 and again in 2005, the Middle East/Africa share of annual offset defense systems sales and associated agreements exceeded those of Asia.

Participating countries in the Western Hemisphere have consistently played the smallest role, signing only 30 contracts in the 13-year reporting period. In sum, exports of defense systems to North and South America made up 5.9 percent of all defense system exports, at a value of $4.7 billion, and included 8.1 percent of the total offset agreements, at a value of $4.6 billion, between 1993 and 2005.

4-4 Europe vs. the Rest of the World

As mentioned above, Europe alone accounted for roughly 65 percent of total offset agreements (by value), but less than half (46.9 percent) of the value of U.S. defense export contracts during the 13-year period of this report. *See Table 4-2*. During 1993-2005, U.S. firms reported entering into 286 offset agreements with European countries with a total value of $36.8 billion. These offset agreements included offset demands ranging from $2 million to more than $6 billion, with an average of $128.5 million per agreement. The average offset agreement with a European country had a term of just less than 85 months, with the longest at 180 months.

These figures show the impact of the high offset percentages typically demanded by European nations in connection with U.S. defense export sales. Despite annual fluctuations of various degrees, the average offset percentage demanded by the 23 European countries involved in offset activity during the 13-year reporting period was 98.8 percent of the export contract values – a percentage more than double that of any other region. These percentages reached a peak of 153.3 percent in 2003, up from 94.3 percent in 2002. In 2005, the European average offset percentage climbed to 83.7 percent after it dropped to its lowest point in 10 years at 63.9 percent in 2004;[24] however, this had a minimal effect on the overall average level of offsets demanded.

Many European governments require a minimum of 100 percent offsets on purchases of foreign defense systems. Of the 286 offset agreements with Europe during the 13-year period, 190 (66.4 percent) required offsets worth 100 percent of contract value. Another 24 agreements required offsets worth more than 100 percent or more of contract value, including two for which the required offsets were worth at least 200 percent of contract value. In sum, 74.6 percent (by number) of offset agreements with

[24] One large defense system export in 2003 with an offset percentage of more than 170 percent skewed the data for that year. Without this export and its related offset agreement, the average offset percentage for 2003 would fall to 81.3 percent (from 124.9 percent with the sale). This export also affected the average offset percentage for the entire period. With this sale and offset, the average offset percentage for 1993-2005 is 71.2 percent; without it, the percentage is 66.5 percent.

Europe required offsets worth 100 percent or more of contract value during the period of 1993-2005.

Table 4-2: Offset Agreements: Europe vs. Rest of World 1993-2005						
Year	Region	# of Agreements	Export Contracts	Offset Agreements	Percent Offsets	Avg. Duration (months)
1993	Europe	13	$2,975,011,352	$2,328,047,085	78.3%	85.2
	Non-Europe	15	$10,959,987,068	$2,456,381,450	22.4%	84.3
	World	28	$13,934,998,420	$4,784,428,535	34.3%	84.7
1994	Europe	20	$1,508,233,660	$764,829,660	50.7%	87.6
	Non-Europe	29	$3,284,186,291	$1,283,885,998	39.1%	71.2
	World	49	$4,792,419,951	$2,048,715,658	42.7%	77.9
1995	Europe	28	$5,072,223,272	$5,227,714,629	103.1%	103.8
	Non-Europe	19	$2,457,697,200	$874,868,816	35.6%	77.3
	World	47	$7,529,920,472	$6,102,583,445	81.0%	92.6
1996	Europe	36	$2,001,002,040	$2,063,592,040	103.1%	104.4
	Non-Europe	17	$1,118,668,414	$368,032,595	32.9%	65.9
	World	53	$3,119,670,454	$2,431,624,635	77.9%	92.1
1997	Europe	30	$3,760,090,000	$3,065,000,000	81.5%	81.3
	Non-Europe	30	$2,165,379,255	$760,531,633	35.1%	78.4
	World	60	$5,925,469,255	$3,825,531,633	64.6%	79.9
1998	Europe	20	$1,384,538,811	$1,183,174,983	85.5%	83.7
	Non-Europe	21	$1,644,663,336	$584,971,899	35.6%	83.7
	World	41	$3,029,202,147	$1,768,146,882	58.4%	83.7
1999	Europe	22	$3,453,509,184	$2,546,662,710	73.7%	72.3
	Non-Europe	23	$2,203,110,302	$910,226,500	41.3%	80.5
	World	45	$5,656,619,486	$3,456,889,210	61.1%	76.4
2000	Europe	24	$3,892,796,045	$4,324,000,090	111.1%	87.9
	Non-Europe	19	$2,683,417,953	$1,380,814,850	51.5%	66.4
	World	43	$6,576,213,998	$5,704,814,940	86.7%	80.4
2001	Europe	18	$3,972,372,462	$3,808,280,100	95.9%	82.7
	Non-Europe	16	$3,044,924,355	$1,652,574,355	54.3%	77.3
	World	34	$7,017,296,817	$5,460,854,455	77.8%	80.4
2002	Europe	23	$2,168,281,468	$2,045,362,683	94.3%	79.0
	Non-Europe	18	$5,237,949,615	$4,049,449,367	77.3%	92.6
	World	41	$7,406,231,083	$6,094,812,050	82.3%	85.0
2003	Europe	17	$5,322,590,122	$8,159,639,137	153.3%	73.9
	Non-Europe	15	$1,970,463,350	$950,800,350	48.3%	80.7
	World	32	$7,293,053,472	$9,110,439,487	124.9%	77.1
2004	Europe	22	$898,000,000	$574,250,000	63.9%	61.1
	Non-Europe	18	$4,029,513,954	$3,755,441,750	93.2%	73.1
	World	40	$4,927,513,954	$4,329,691,750	87.9%	66.5
2005	Europe	13	$804,842,020	$673,302,020	83.7%	80.2
	Non-Europe	12	$1,455,027,544	$790,827,544	54.4%	79.3
	World	25	$2,259,869,564	$1,464,129,564	64.8%	79.8
Totals	Europe	286	$37,213,490,436	$36,763,855,137	98.8%	*84.9*
	Non-Europe	252	$42,254,988,637	$19,818,807,107	46.9%	77.7
	World	538	$79,468,479,073	$56,582,662,244	71.2%	81.5

Source: BIS Offsets Database.

The 17 countries representing all other regions (i.e., non-European countries) shown in Table 4-2 accounted for 35 percent of offset agreements (by value), but more than half (53.2 percent) the value of reported U.S. defense export contracts. U.S. prime contractors reported that they had entered into 252 offset agreements with non-European countries totaling $19.8 billion from 1993-2005. The non-European countries' average offset requirement for the 13-year reporting period was 46.9 percent of contract value. The average offset agreement for these countries required $78.6 million worth of offsets, which were to be performed in an average term of 77.7 months.

Although Europe still accounts for the preponderance of offset agreements by value, non-European countries' offset requirement percentages are increasing. For the period of 1993-2000, the average offset requirement for non-European countries was worth only 32.5 percent of contract value; for the period of 2001-2005, however, the average offset requirement was worth 71.2 percent of contract value. For 2005 alone, the value of U.S. offset requirements to non-European countries dropped sharply to 54.4 percent from 93.2 percent in 2004.

Middle Eastern countries, as well as many countries in Asia and in the Western Hemisphere, generally demand lower offset levels than European countries. Of the 252 offset agreements with non-European countries, 169 (67.1 percent) had offset percentages of 50 percent or less. Only 83 of the offset agreements (32.9 percent) had percentages of more than 50 percent, and 10 of these had offset requirements in excess of 100 percent.

The data show that over the 13-year period, countries with developed, technically advanced economies typically have demanded higher levels of offsets than other countries. More advanced economies are better able to absorb both direct and indirect offsets of all types. Their infrastructures and trained workforces are better developed, and are more likely, compared to other countries, to have in place a variety of defense and commercial industries among which to distribute offset transactions.

4-5 Are Offset Demands Increasing?

The data show not only that offset demands are increasing over time, but also that more countries outside Europe are demanding higher offset percentages. Chart 4-3 shows that, although historically lower than European demands, offset requirements outside Europe are on an upward trend. Almost 77 percent of the non-European offset agreements valued at 100 percent or more of the export contract value has occurred since 1998; of these 33 agreements with offset requirements of 100 percent or more, 10 were with Canada and another four were with Australia. Moreover, in the last three years, countries entering into offset agreements with U.S. firms for the first time have demanded offsets worth 100 percent or more of contract value, emulating their European counterparts.

Agreements entered into by the Republic of Korea and Australia illustrates the growing trend in non-European offset demands. From 1993 to 1998, the average offset requirement (by value) demanded of U.S. firms by the Republic of Korea was 32.7 percent. In contrast, from 1999 to 2005, that average more than doubled, to 66.3 percent. From 1993 to 1998, offset percentages (by value) demanded by Australia of U.S. firms averaged 34.4 percent. However, Australia's offset requirements rose in 1999-2005 to 61.4 percent.

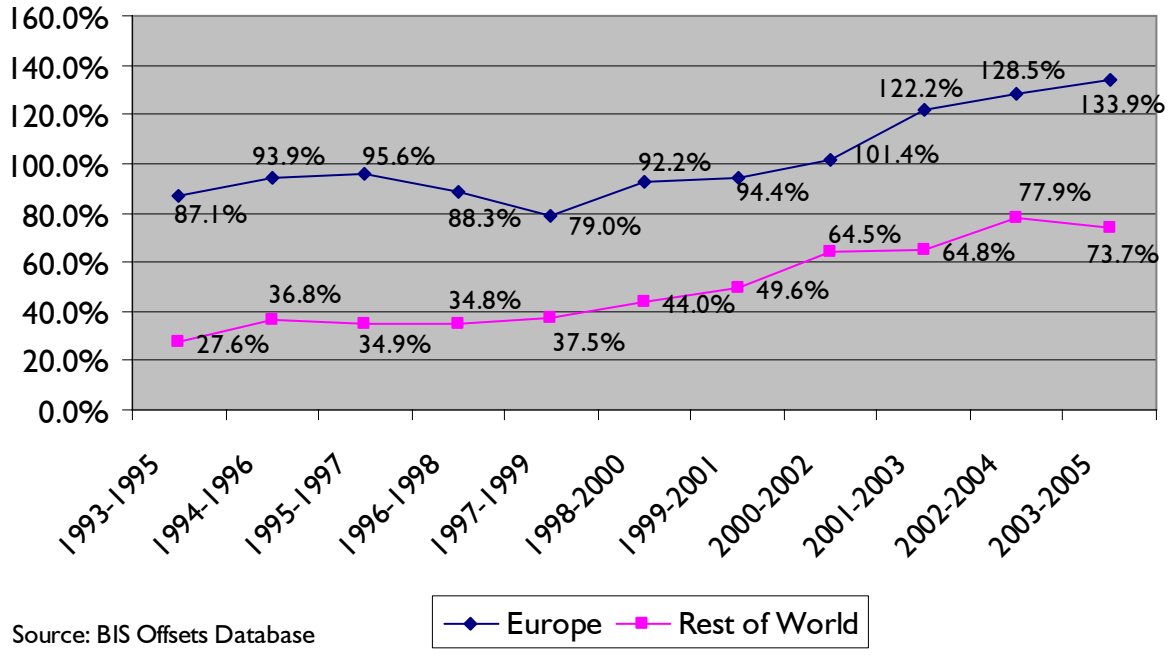
Despite lower offset percentages reported in 2004 and 2005, European offset demands have trended upward over the 13-year period, although more slowly than offset demands in the rest of the world.

The three-year weighted averages in Chart 4-3, show that European offset requirements increased an average of 3.9 percentage points each year in the 13-year period, while non-European demands increased 4.2 percentage points. Offset requirement trends are more representative when viewed as a moving, weighted average because it smoothes the annual fluctuations in defense system sales and related offset agreements. [25] The weighted world trend in offset percentages rose from 49.3 percent to 102.9 percent; the averages for Europe and all other countries are shown in Chart 4-3. In the same 13-year period that European offset percentages rose by 46.8 percentage points (from 87.1

[25] Here, the value of export contracts and offset agreements is totaled for each successive three-year period, beginning with 1993-1995, followed by 1994-1996, and so forth; then the offset percentage is determined. This leads to eleven three-year observations over the 13-year reporting period (1993-2005).

percent to 133.9 percent), the rest of the world more than doubled its offset requirements, from 27.6 percent to 73.7 percent.

Chart 4-3: Percent Offsets for Europe vs. Rest of the World (Weighted Moving Average, 1993-2005)



Source: BIS Offsets Database

In the last decade, shrinking worldwide defense expenditures and the overcrowding in the defense supplier sector have forced defense industries in many nations to consolidate. As sales opportunities narrowed, competition for such sales and related offsets became more intense. Higher-than-normal overhead related to low levels of capacity utilization in defense industries coupled with competitive pressures on prices also have squeezed corporate profits.

At the same time, foreign purchasing governments are under pressure to sustain their indigenous defense companies or to create new ones (defense and commercial) and, accordingly, are demanding more offsets. Significant, but decreasing, public outlays for foreign-made defense systems become even more controversial, leading to higher offset demands to deflect political pressure and increase domestic economic development. In a growing number of cases, foreign governments' defense purchases are being driven by the competitiveness of the offset package offered by U.S. industry rather than the quality and price of the defense system purchased.

5 Offset Transaction Activity, 1993-2005

In order to fulfill the terms of offset agreements, prime contractors engage in a variety of activities (called transactions) over the life of the agreement. For the purpose of analysis, offset transactions are grouped by type (i.e., direct, indirect, and unspecified), and then grouped again into the nine categories described in Chapter 2 (Purchases, Subcontracts, Technology Transfer, Credit Assistance, Training, Overseas Investment, Co-production, Licensed Production, and Miscellaneous).

5-1 Overview

From 1993 to 2005, 42 U.S. defense companies reported 8,007 offset transactions of varying value, category and type with 45 countries totaling $37.3 billion. The value and percentages of offset transactions by type are reflected in Table 5-1.

Table 5-1: Offset Transactions Analysis 1993 - 2005

Offset Transaction Comparisons	
Data Element	**All Transactions**
Total Value	$37,279,689,008
Direct Offsets	$14,850,393,883
Indirect Offsets	$22,183,889,950
Unspecified Offsets	$245,405,175
Percent Distribution	
% Direct Offsets	39.8%
% Indirect Offsets	59.5%
% Unspecified Offsets	0.7%

Source: BIS Offsets Database.

For 2005 alone, U.S. companies reported offset transactions with a total actual value of $4.7 billion, a slight decline of 4.5 percent from the $4.9 billion recorded in 2004. The 2004 figure was the highest annual value reported during the 13-year period. During that year, indirect transactions accounted for 61.8 percent of the value of offset transactions, a sharp increase from the 46.6 percent reported in 2004. At the same time, direct transactions accounted for 38.2 percent of the value of offset transactions in 2005.

Table 5-2 shows the countries receiving the highest value of offset transactions during 1993-2005, along with the actual and credit values and multipliers for the transactions, and the portion of transactions granted multipliers. As shown in Table 5-2, U.S. firms

received a total of $44.0 billion in credit for these transactions toward open offset obligations during the reporting period. The yearly credit value (the value of the obligations plus the multiplier) of offset transactions averaged $2.9 billion.

For the reporting period of 1993 to 2005, the United Kingdom and Israel were the two largest beneficiaries of offset transactions, receiving offset transactions with total actual values of $6.4 billion and $3.9 billion, respectively. The two countries combined accounted for 27.6 percent of the total actual value of offset transactions during the reporting period. At the same time, the United Kingdom and Greece were the two largest credit value recipients accounting for 24.4 percent of the total credit value.

The fifth column in Table 5-2 shows the percentage of the number of each country's transactions with multipliers greater than one – in other words, offset transactions for which the credit value received was greater than the actual value. Poland led, with 73.8 percent of the transactions having multipliers greater than one, followed by Kuwait with 64.3 percent, and the United Arab Emirates with 61.8 percent.

However, such instances with multipliers greater than one are not typical. For all countries, only 11.2 percent of the transactions had a multiplier greater than one. Conversely, almost 88.8 percent of the number of transactions had no multiplier (or had a negative multiplier) applied. For the 25 countries listed in Table 5-2, the overall percentage of transactions with multipliers greater than one was 11.7 percent, slightly higher than the percentage for all countries (11.2 percent).

Table 5-2: Offset Transactions by Countries with Highest Total Actual Value (Total, 1993-2005)				
Country	**Actual Value**	**Credit Value**	**Multiplier**	**% of Transactions with Multiplier > 1**
1. United Kingdom	$6,422,499,960	$6,454,050,604	1.005	0.8%
2. Israel	$3,867,092,706	$4,010,457,878	1.037	5.3%
3. Finland	$3,500,957,518	$3,737,767,114	1.068	20.6%
4. Republic of Korea	$2,584,992,989	$2,900,505,939	1.122	17.2%
5. Poland	$2,367,529,000	$3,061,918,000	1.293	73.8%
6. Italy	$2,216,816,031	$2,236,816,283	1.009	4.7%
7. The Netherlands	$2,084,820,072	$2,422,558,221	1.162	9.0%
8. Greece	$2,007,553,563	$4,288,410,386	2.136	41.1%
9. Australia	$1,546,044,006	$1,598,104,833	1.034	3.5%
10. Canada	$1,435,954,710	$1,408,395,002	0.981	1.4%
11. Switzerland	$1,277,305,950	$1,282,961,331	1.004	1.2%
12. Spain	$1,196,803,333	$1,442,868,701	1.206	26.4%
13. Turkey	$1,009,633,221	$1,071,057,152	1.061	8.5%
14. Taiwan	$996,995,695	$1,913,851,240	1.920	36.9%
15. Norway	$943,605,498	$1,233,919,802	1.308	22.9%
16. Germany	$906,503,157	$906,503,157	1.000	0.0%
17. Denmark	$598,422,649	$677,132,423	1.132	14.1%
18. France	$582,160,577	$990,507,940	1.701	44.4%
19. Belgium	$335,225,267	$356,716,945	1.064	3.2%
20. Malaysia	$294,807,399	$341,629,000	1.159	15.4%
21. Austria	$191,546,702	$215,872,874	1.127	9.5%
22. Sweden	$174,103,176	$202,393,278	1.162	9.1%
23. Kuwait	$109,922,845	$186,549,808	1.697	64.3%
24. United Arab Emirates	$103,857,707	$226,718,263	2.183	61.8%
25. Portugal	$96,753,639	$161,509,639	1.669	31.6%
Total or Average	**$36,851,907,371**	**$43,329,175,813**	**Avg. 1.176**	**Avg. 11.7%**
All Countries	**$37,279,689,008**	**$44,021,104,804**	**Avg. 1.181**	**Avg. 11.2%**

Source: BIS Offsets Database.

5-2 Regional Distributions

The regional distribution of offset transactions mirrors the pattern of offset agreements (see Chart 5-1). As with offset agreements, European countries dominated related offset transactions, receiving 67.3 percent of the actual value of offset transactions during 1993-2005. The region's multiplier was slightly above average (1.192), and the multiplier was

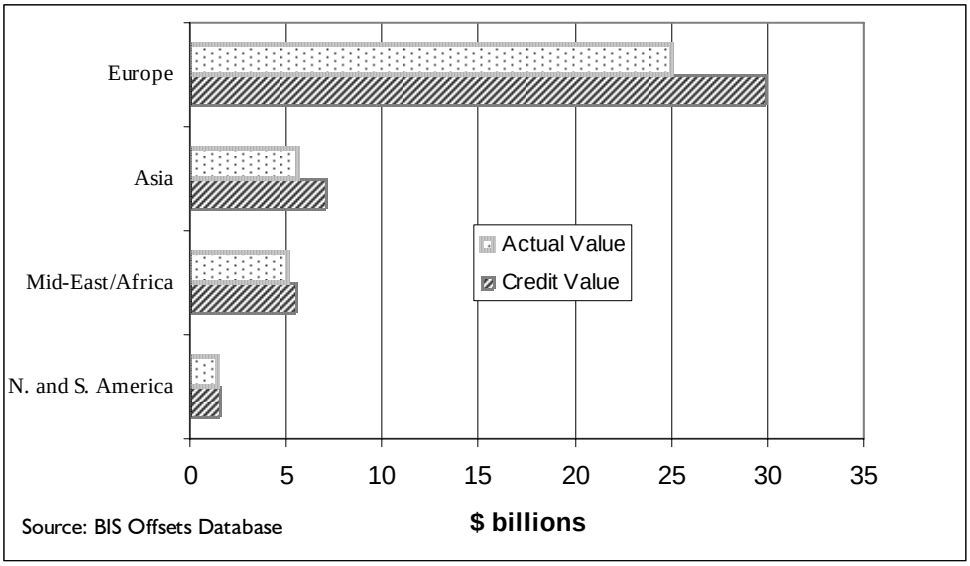
applied to only 12.7 percent of the number of transactions (87.3 percent of transactions had no multiplier or a negative multiplier applied). Adjusting the value to take account of multipliers, European countries accounted for only 67.9 percent of the total credit value applied toward outstanding offset agreements.

Asian countries were ranked second with 15.0 percent of the total actual value of the offset transactions. Asia's larger than average multiplier (1.265) applied to just 18.9 percent of the Asia transactions (81.1 percent of transactions had no multiplier or a negative multiplier applied). Adjusting the value to take account of multipliers, the region accounted for 16.1 percent of the total credited value of offset transactions.

Middle Eastern and African countries together accounted for 13.7 percent of the total actual value of offset transactions and 12.6 percent of the credit value. The multiplier for Middle Eastern and African countries was 1.082, lower than the overall average. Multipliers were applied to 9.3 percent of the region's transactions (90.7 percent of transactions had no multiplier or a negative multiplier applied).

Countries in the Western Hemisphere ranked fourth, with just 4.0 percent of the actual value of transactions and 3.4 percent of the credit value. The multiplier for North and South America was the lowest of the four regions at only 1.012. Approximately 87.5 percent of transactions by number in South America received multipliers, while 12.5 percent had no multipliers. In North America, 1.4 percent of transactions received multipliers (98.6 percent of transactions did not receive multipliers or had negative multipliers).

Chart 5-1 Regional Totals of Offset Transactions
1993-2005



5-3 Role of Multipliers

Multipliers can make it easier for prime contractors to fulfill their offset obligations by allowing for higher offset credit levels than normally granted. However, further inspection of multipliers by region provides a better understanding of how infrequently multipliers are being utilized by purchasing nations to reward prime contractors for certain types of offset transactions. The limited use of multipliers makes it more difficult for prime contractors to fulfill offset obligations. *See Chapter Two, Table 2-1 for annual global utilization of multipliers*.

Over the 13-year reporting period, the usage and value of multipliers have dropped. Table 5-3 highlights the use of multipliers by region as a percentage of the number of all transactions for the 1993-2005 period. In Europe, for example, 85.6 percent of offset transactions by number had no multiplier (multiplier = 1). This is a decrease from the 1993-2004 date range when 85.9 percent of transactions had no multipliers. For North and South America, 85.3 percent of transactions by number had no multiplier involved; for Asia, the figure was 79.0 percent, and 88.3 percent for the Middle East and Africa combined.

Table 5-3: Multipliers by Region, by Number 1993-2005			
	% Multipliers < 1	% Multipliers = 1 (No Multiplier)	% Multipliers > 1
Europe	1.7%	85.6%	12.7%
Mid-East/Africa	2.4%	88.3%	9.3%
Asia	2.1%	79.0%	18.9%
N. and S. America	8.0%	85.3%	6.7%

Source: BIS Offsets Database.

In reviewing European multiplier data further, 12.7 percent of the European transactions (by number) had a multiplier greater than one during the period of this report, and an additional 1.7 percent of transactions with Europe had a multiplier of less than one. Multipliers of less than one mean that prime contractors are only credited a portion of the total actual value of a transaction, and thus that the actual value of contracts will be higher than the credit value. For the 1993-2004 reporting period, 12.6 percent of European offset transactions had a multiplier greater than one.

In Asia, 18.9 percent of offset transactions (by number) had multipliers greater than one during the period of this report, while 2.1 percent of transactions had multipliers of less than one. For the Middle East/Africa, only 9.3 percent of transactions had multipliers greater than one applied, while 2.4 percent of transactions had multipliers of less than one. In North and South America, offset transactions with multipliers exceeding one accounted for 6.7 percent of the number of offset transactions from that region, while those receiving less than full credit (i.e., multiplier was less than one) accounted for 8.0 percent of transactions by number.

Reviewing the value of offset transactions with multipliers further highlights the small role multipliers play in offset transactions. Table 5-4 classifies multiplier usage by region and by whether the multiplier is greater than one, equal to one, or less than one. It should be noted that transactions with multipliers less than one further add to the costs of fulfilling offsets; for certain transactions, countries give less than full credit for offset transactions completed.

For Europe, transactions with a multiplier greater than one accounted for 11.1 percent of the value of all European transactions; the Middle East/Africa, 5.5 percent; Asia, 5.3 percent; and North and South America, 2.2 percent. For Europe, transactions with multipliers of less than one and transactions with no multiplier together accounted for

88.9 percent of the value of transactions. For all other regions, the total topped 90 percent.

Table 5-4: Multipliers by Region, by Dollar Values 1993-2005				
	Value of transactions with multiplier < 1	**Value of transactions with multiplier = 1 (no multiplier)**	**Value of transactions with multiplier > 1**	**Total Value**
Europe	$824,234,206	$21,467,191,703	$2,783,011,310	$25,074,437,219
Percentage	3.3%	85.61%	11.10%	
Middle East/Africa	$77,292,526	$4,760,873,726	$283,585,227	$5,121,751,479
Percentage	1.51%	92.95%	5.54%	
Asia	$269,033,371	$5,021,228,973	$298,055,082	$5,588,317,426
Percentage	4.81%	89.85%	5.33%	
N. and S. America	$105,707,050	$1,356,460,031	$32,941,883	$1,495,108,964
Percentage	7.07%	90.73%	2.20%	

Source: BIS Offsets Database.

Table 5-5 highlights the use of multipliers by category of offset transaction. Purchases and Subcontracts, the two highest categories in terms of the number of offset transactions, have 8.5 percent and 8.2 percent, respectively, of their transactions sharing multipliers greater than one. Eighty-nine percent of Purchase transactions and more than 90 percent of Subcontract transactions have no multiplier applied. At the other extreme, 38.6 percent of Overseas Investment and 40.4 percent of Training transactions had multipliers greater than one.

Table 5-5: Multipliers by Category of Offset, All Countries 1993-2005				
ALL COUNTRIES Offset Category	**Number of Transactions**	**Number & Percent with Multipliers < 1**	**Number & Percent with Multipliers = 1 (no multiplier)**	**Number & Percent with Multipliers > 1**
Co-production	316	2	300	14
		0.6%	94.9%	4.4%
Credit Assistance	119	1	100	18
		0.8%	84.0%	15.1%
Licensed Production	38	2	28	8
		5.3%	73.7%	21.1%
Overseas Investment	132	5	76	51
		3.8%	57.6%	38.6%
Purchases	3933	96	3502	335
		2.4%	89.0%	8.5%
Subcontracts	1763	18	1600	145
		1.0%	90.8%	8.2%
Technology Transfer	919	33	649	237
		3.6%	70.6%	25.8%
Training	265	4	154	107
		1.5%	58.1%	40.4%
Miscellaneous	522	8	395	119
		1.5%	75.7%	22.8%

Source: BIS Offsets Database.

Tables 5-6 and 5-7 review the categories of offset transactions, and the number of transactions and multipliers required by Europe and Asia, respectively. For Europe, Training transactions received the most multipliers greater than one (38.4 percent), while Co-production received the fewest multipliers (5.2 percent) greater than one. Table 5-6 highlights the infrequency of use of multipliers by Europe, even for high value-added transactions such as Technology Transfer (76 percent received no positive multipliers) and Subcontracts (91.2 percent received no positive multipliers).

Table 5-6: Multipliers by Category of Offset, Europe 1993-2005				
EUROPE Offset Category	**Number of Transactions**	**Number & Percent with Multipliers < 1**	**Number & Percent with Multipliers = 1 (no multiplier)**	**Number & Percent with Multipliers > 1**
Co-production	174	2	163	9
		1.1%	93.7%	5.2%
Credit Assistance	98	1	82	15
		1.0%	83.7%	15.3%
Licensed Production	15	1	10	4
		6.7%	66.7%	26.7%
Overseas Investment	73	0	48	25
		0.0%	65.8%	34.2%
Purchases	2868	41	2546	281
		1.4%	88.8%	9.8%
Subcontracts	1138	11	1027	100
		1.0%	90.2%	8.8%
Technology Transfer	526	20	380	126
		3.8%	72.2%	24.0%
Training	112	1	68	43
		0.9%	60.7%	38.4%
Miscellaneous	348	6	261	81
		1.7%	75.0%	23.3%

Source: BIS Offsets Database.

Table 5-7: Multipliers by Category of Offset, Asia 1993-2005				
ASIA Offset Category	**Number of Transactions**	**Number & Percent with Multipliers < 1**	**Number & Percent with Multipliers = 1 (no multiplier)**	**Number & Percent with Multipliers > 1**
Co-production	95	0	91	4
		0.0%	95.8%	4.2%
Credit Assistance	7	0	5	2
		0.0%	71.4%	28.6%
Licensed Production	22	1	17	4
		4.5%	77.3%	18.2%
Overseas Investment	15	1	10	4
		6.7%	66.7%	26.7%
Purchases	226	3	200	23
		1.3%	88.5%	10.2%
Subcontracts	270	3	244	23
		1.1%	90.4%	8.5%
Technology Transfer	316	12	212	92
		3.8%	67.1%	29.1%
Training	102	3	60	39
		2.9%	58.8%	38.2%
Miscellaneous	81	1	54	26
		1.2%	66.7%	32.1%

Source: BIS Offsets Database.

As in Europe, Training transactions in Asia were credited with the highest multiplier at 38.2 percent. Co-production transactions received the fewest multipliers with only 4.2 percent of transactions having multipliers greater than one.

5-4 Offset Transactions by Type

Offset transaction data is better understood when categorized by direct, indirect and unspecified transactions. From 1993-2005, direct offset transactions accounted for 39.8 percent, or $14.9 billion, of the total value of offset transactions, and indirect offset

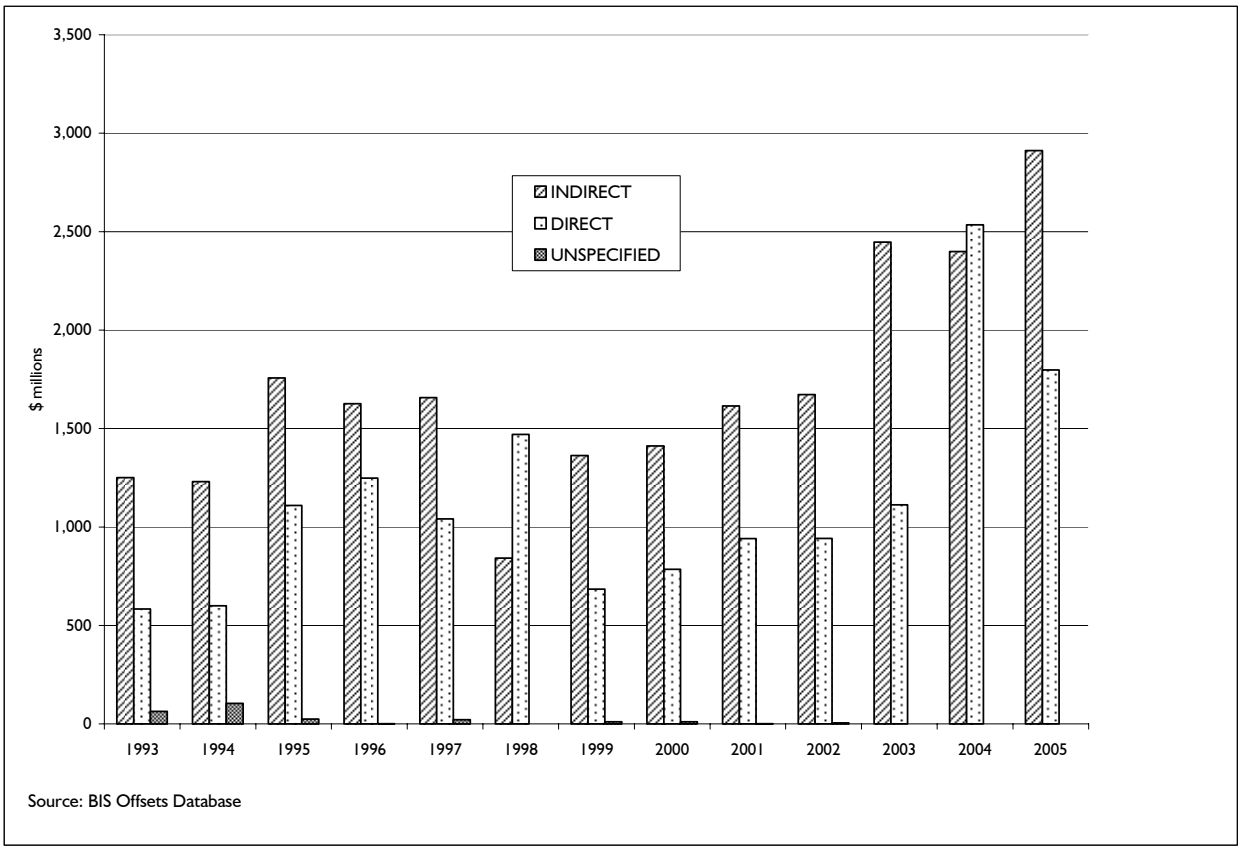
transactions totaled 59.5 percent, or $22.2 billion. The remaining 0.7 percent, or $249.1 million, was categorized as unspecified transactions.

In 2005, direct offset transactions (i.e., related to defense systems sold) accounted for 38.2 percent ($1.8 billion) of the value of all transactions, a decline from the 53.4 percent reported in the previous year. Indirect offsets (i.e., not related to defense systems sold) comprised 61.8 percent ($2.9 billion) of offset transactions, an increase from 46.6 percent in 2004. The mix of direct and indirect offset transactions changes from year to year. However, for 11 out of the 13 years in the reporting period, indirect offsets have accounted for significantly more than half of all offset transactions. Only in 1998 and 2004 did direct offset transactions account for more than indirect offset transactions.

The United Kingdom, the largest purchaser of U.S. defense systems and products, was also the largest recipient of indirect offsets for the 13-year period, with 17.8 percent ($3.9 billion) of the total value of indirect offset transactions. Of these indirect offset transactions required by the United Kingdom, almost 57 percent by value were aerospace-related. The United Kingdom also led all countries in the value of direct offset transactions received from 1993-2005, with 16.7 percent ($2.5 billion) of the direct offset total. Of the direct offset total for the United Kingdom, 81.7 percent of these transactions were aerospace-related.

Calculated on an annual basis, the value of direct offsets ranged from a low of $583.6 million in 1993 to a high of $2.6 billion in 2004, averaging $1.1 billion for 1993-2005. The value of indirect offset transactions was lowest in 1998 at $842.4 million, and highest in 2005 at $2.9 billion. The value for indirect offset transactions for the 1993-2005 reporting period averaged $1.7 billion annually. The distribution of direct and indirect offset transactions for the 13-year period is presented in Chart 5-2.

Chart 5-2: Direct, Indirect, and Unspecified Offset Transactions
1993-2005

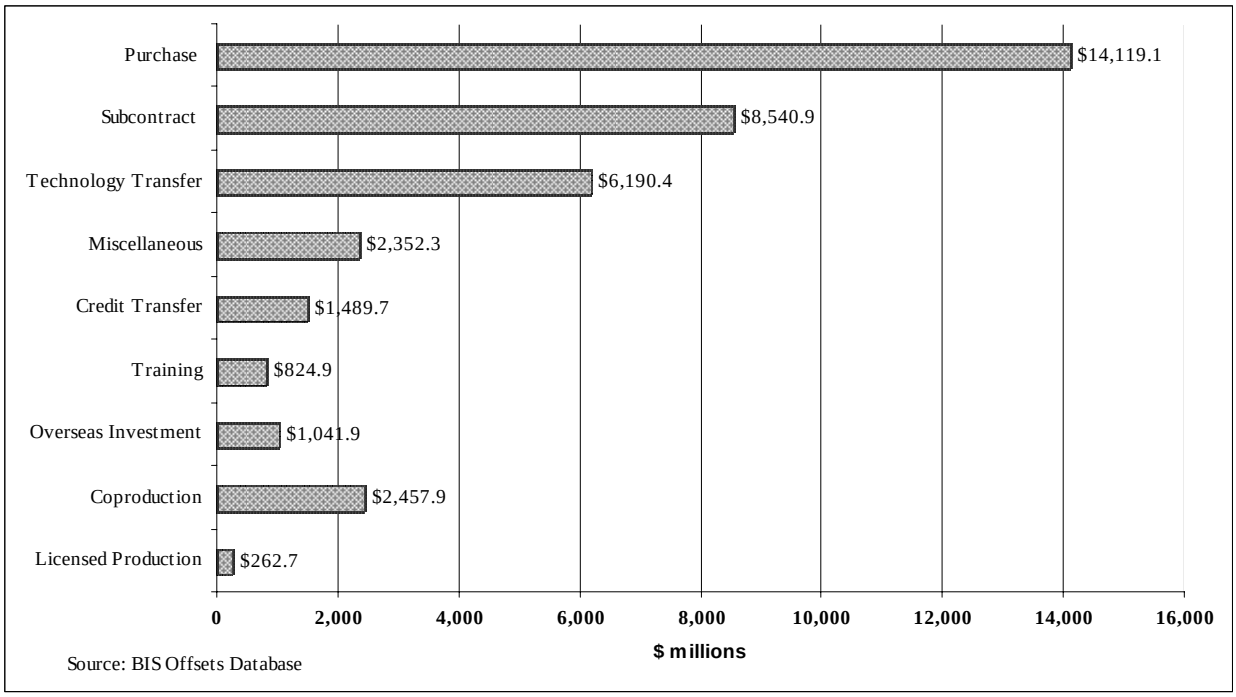


Source: BIS Offsets Database

5-5 Offset Transactions by Category

Another method for evaluating offset transaction activity is by classifying the transactions by category. As in previous offset studies, the categories of Purchases, Subcontracts, and Technology Transfer accounted for the majority of offset activity during 1993-2005; for the 13-year period, they accounted for 77.4 percent of the total value of offset transactions. Purchases accounted for 37.9 percent of the total value, and Subcontracts accounted for 22.9 percent. The value of Technology Transfer offset transactions was 16.6 percent of the total value. Chart 5-3 shows the distribution of offset transactions by category and dollars.

Chart 5-3: Offset Transactions by Category
1993-2005



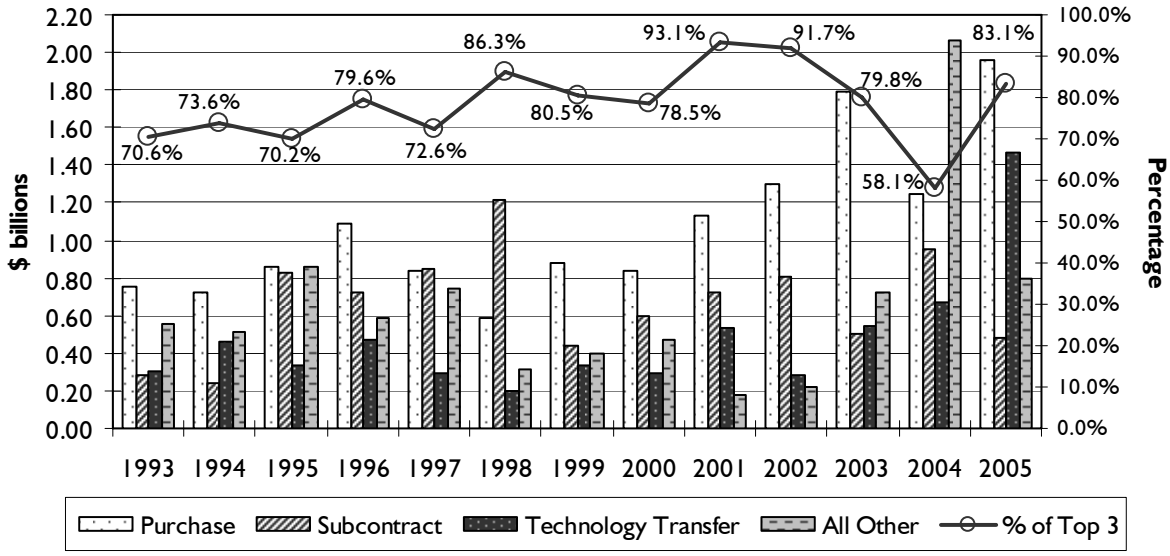
Data showing the percentage of total offset transactions accounted for by Purchases, Subcontracts, and Technology Transfer are shown in Chart 5-4. The dominance of these three categories ranged from 70.6 percent of the total value of transactions in 1993, to 93.1 percent in 2001, and to 58.1 percent in 2004. These three transactions types accounted for 83.1 percent of total transactions in 2005.

Of the 45 countries where offset transactions were carried out during the 13-year period of this report (see Table 2-3), 40 participated in and received the benefit of offset transactions categorized as Purchases, which were all classified as indirect offsets. These Purchases were comprised mostly of manufactured goods and services, including metal castings and forgings, aircraft parts, night vision components, agricultural equipment, software, machined parts, electronic components, and educational and consulting services. The United Kingdom had the most Purchases, with 24.9 percent of the value of all Purchases, followed by Israel with 10.6 percent, and Finland with 6.1 percent. Of all offset transactions categorized as Purchases, more than half were aerospace-related.

During 1993-2005, 34 countries engaged in offset transactions classified as Subcontracts. As discussed earlier, Subcontracts are considered direct offset transactions. The vast

majority of subcontracts involved aerospace-related manufactured parts, components, and services. Aerospace related transactions accounted for the majority of the total value of all Subcontract transactions. The United Kingdom accounted for 26.9 percent of the value of all Subcontracts, followed by Israel with 17.8 percent, and Italy with 7.3 percent of all Subcontracts. Together, these three countries accounted for 52.1 percent of the value of all offset transactions categorized as Subcontracts.

Chart 5-4: Percentage of Total Annual Offset Transactions Accounted for by Top Three Transaction Categories 1993-2005



Source: BIS Offsets Database

* Bar portion measured in dollar value.

* * Line reflects annual percentage of the top three transaction categories.

5-6 Offset Transactions by Category and Type

Another way to examine the effects of offsets on the U.S. defense industrial base is to analyze the distribution of offset transactions by category and by type. Subcontracts, Co-production, and Licensed Production may result in U.S. suppliers being displaced from participation in the manufacture and/or assembly of a U.S. defense system as well as its future maintenance requirements.

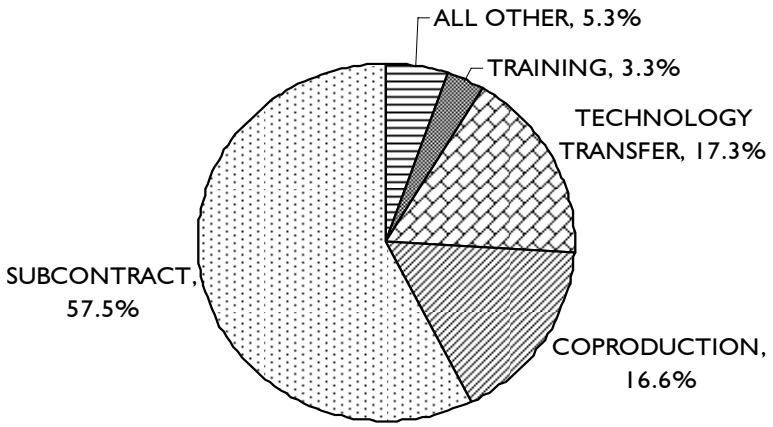
Subcontracts, Co-production, and Licensed Production each involve foreign production of goods or services related to the defense system sold. For 1993-2005, these three categories totaled 74.8 percent of the value of all direct offset transactions. Offset transactions in these three categories totaled $11.1 billion during the 13-year period; subcontracts alone accounted for $8.5 billion.

Similarly, the Purchases category of indirect offsets involved foreign production of goods and services. Purchases totaled $14.1 billion during 1993-2005, or 63.6 percent of the total value of indirect offset transactions. As a result, direct or indirect offset transactions involving overseas production of goods or services totaled $25.2 billion in overseas production – or an average of $1.95 billion per year.

While Technology Transfer, Training, Credit Assistance, and Overseas Investment offset transactions do not directly involve foreign production of goods and services, these offsets can enhance the manufacturing and other abilities of foreign competitors and increase their chance of success in the U.S. and world market. These categories of offset transactions can be either direct or indirect. The value of direct offset transactions for these four categories was $3.4 billion for 1993-2005, 76.4 percent of which was accounted for by Technology Transfer. The value of indirect offset transactions for these four categories in the same time frame was $6.0 billion, with Technology Transfer accounting for 58.3 percent of this total. In sum, Technology Transfers, Training, Credit Assistance, and Overseas Investment contributed 23 percent of the actual value of all direct offset transactions for 1993-2005, and 26.9 percent of the total indirect offset transactions for the same reporting period.

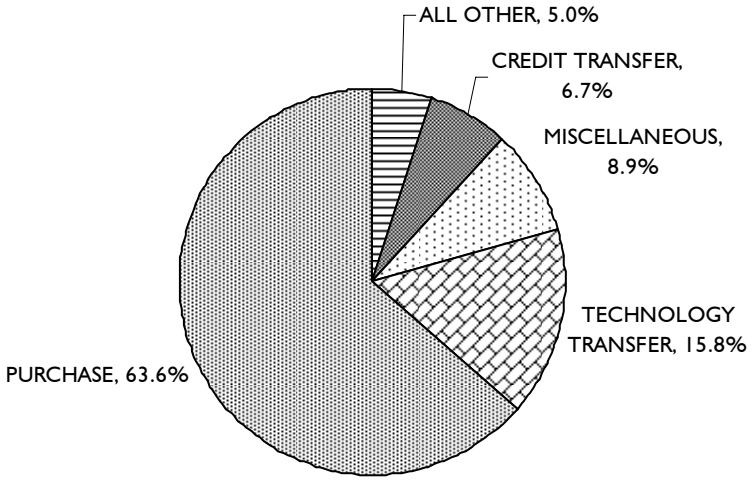
For direct and indirect transactions combined, these four categories accounted for $9.4 billion during 1993-2005, an annual average of $718.1 million. The distribution of offset transactions by category is shown in Charts 5-5 and 5-6.

Chart 5-5: Direct Offset Transactions by Category
1993-2005



Source: BIS Offsets Database

Chart 5-6: Indirect Offset Transactions by Category
1993-2005



Source: BIS Offsets Database

5-7 Offset Transactions by Industrial Sector

Identifying offset transactions by industry sector allows for an even more detailed analysis of the effect of offsets on the U.S. defense industrial base. According to the BIS Offsets Database, during 1993-2005 offset transactions generally fell into a small number of major industries associated with defense production, as shown by the data in Table 5-8. The offset transactions for each industry shown are both direct and indirect. More detailed data by Standard Industrial Classification (SIC) code appear in Appendix E.

Table 5-8: Offset Transactions by Major Industrial Sectors, 1993-2005

SIC	Sector Description	Number of Offset Transactions	Value in Millions	% of Total Value
37	Transportation Equipment	3,646	$19,547.1	52.4%
36	Electronic/Electrical Equipment	1,269	$5,073.4	13.6%
87	Technical Services & Consultants	485	$1,797.1	4.8%
38	Measuring & Analyzing Inst	366	$1,647.3	4.4%
35	Industrial Machinery	684	$1,624.8	4.4%
73	Business Services	396	$1,410.3	3.8%
	Subtotal	6,846	$31,100.0	83.4%
	Total Value -- all Transactions	8,007	$37,279.7	

Source: BIS Offsets Database.

As shown in Table 5-8, offset transactions related to transportation equipment dominated both the value and number of transactions. Transportation equipment transactions accounted for 45.5 percent of the total number of offset transactions, and 52.4 percent of the value of all offset transactions. Between 1993 and 2005, offset transactions related to transportation equipment totaled $19.6 billion. Direct transportation equipment transactions accounted for 58.7 percent, or approximately $8.7 billion, of the total value of direct offsets. Indirect transportation equipment transactions made up 47.6 percent, or roughly $10.6 billion, of the value of all indirect transactions. Transactions in this sector were composed mostly of aerospace products, including aircraft parts and components, jet engines and parts, hydraulic subsystems, and guided missiles and components.

The electronic and electrical equipment sector was a distant second to the transportation equipment sector. Offset transactions in this sector made up 15.9

percent of the number of all transactions, and 13.6 percent of their total value. This sector includes products such as radar, communications equipment, and material inputs for avionics such as circuit boards.[26]

Transactions in the industrial machinery sector accounted for 4.4 percent, or $1.6 billion, of the value of all offset transactions from 1993 to 2005 and 8.5 percent of the number of all offset transactions. Industrial machinery includes capital equipment used in the production of both defense and non-defense items. This includes metal-working machine tools, conveyors, air and gas compressors, textile machinery, mining equipment, off-road vehicles, and welding equipment.

Over the 13-year period, offset transactions have been categorized into a total of 44 industrial sectors, including one labeled "unclassifiable establishments" (SIC 99). The 38 sectors not specifically listed in Table 5-8 accounted for approximately 16.6 percent of the total value of all offset transactions. All but six of these sectors accounted for less than one percent of the total value of offset transactions. The six were Fabricated Metal Products (SIC 34) at 3.3 percent, Unclassifiable Establishments (SIC 99) at 3.2 percent, Educational Services (SIC 82) at 2.1 percent, Non-Depository Credit Institutions (SIC 61) at 2.0 percent, Holding and Other Investment Offices (SIC 67) at 1.8 percent and Chemical and Allied Products (SIC 28) at 1.2 percent. These six sectors accounted for an additional 13.5 percent, or $5.0 billion, of the total value of offset transactions.

Two other sectors contributed between 0.4 and 0.8 percent of the total value of offset transactions. These were Primary Metal Industries (SIC 33) accounting for 0.7 percent, and Communications (SIC 48) at 0.6 percent. Together, these two sectors accounted for 1.3 percent, or $484 million, of the total value offset transactions.

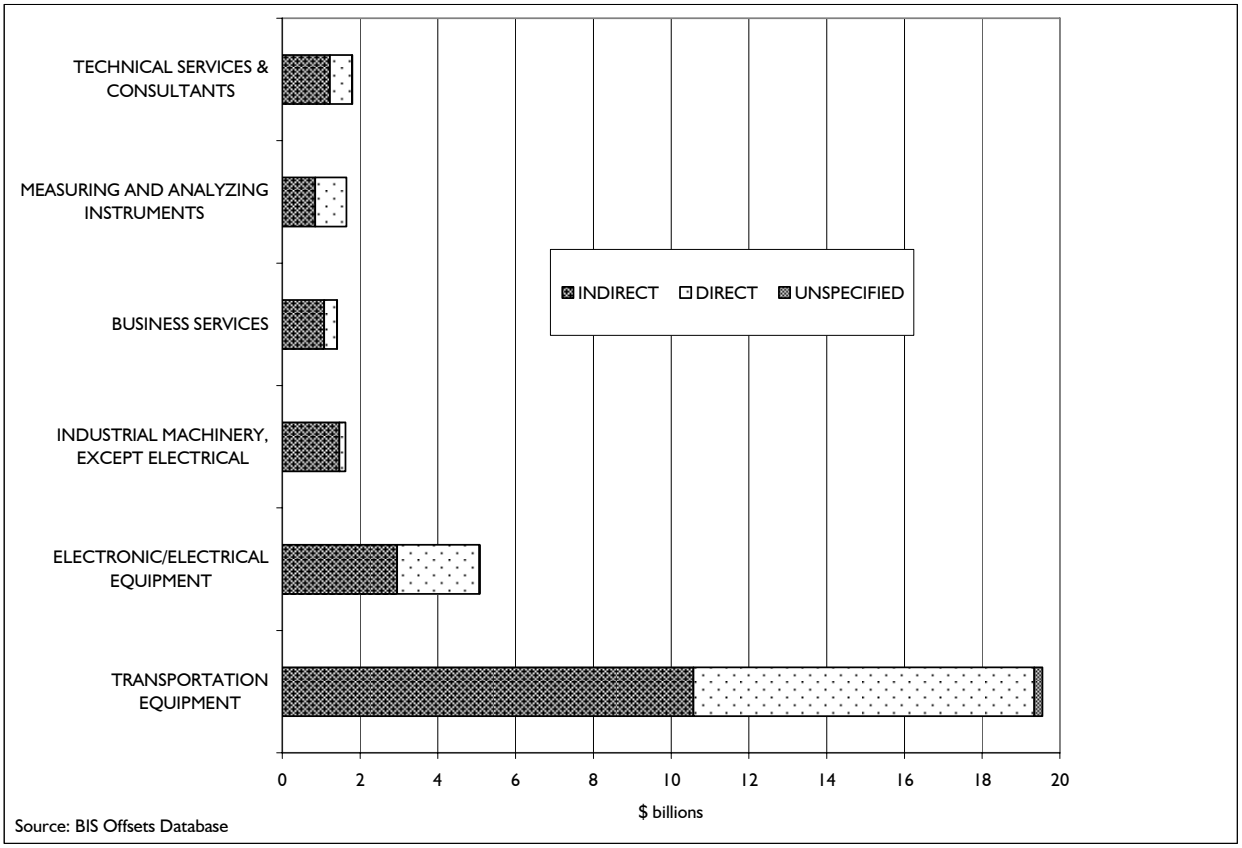
Of the remaining 30 sectors, none totaled more than $132 million over the 13-year period. Together, these sectors totaled $1.23 billion, roughly 3.3 percent of the total value of offset transactions for 1993-2005.

The majority of offset transactions fell in the manufacturing sectors (SIC 20-39); $30.2 billion, or 80.9 percent, of all transactions were manufacturing related. Service-related transactions (SIC 70-89) accounted for $4.1 billion, or 11.0 percent, of the total value of offset transactions. Financial, insurance, and real estate industries (SIC 60-67) totaled

[26] The completed avionics equipment arguably could be part of sector SIC 38 – Measuring and Analyzing Instrumentation, but the appropriate sector could not be determined based on the data provided.

$1.5 billion, approximately 4.1 percent of transactions for 1993-2005. Chart 5-7 shows the top six sectors where offset transactions occurred.

Chart 5-7: Offset Transactions by Industry and Type for Top Six Sectors 1993-2005



6 Background on the Interagency Team on Consultation with Foreign Nations on Limiting the Adverse Effects of Offsets in Defense Procurement

In December 2003, President Bush signed into law a reauthorization of, and amendments to, the Defense Production Act of 1950 (DPA). Section 7 (c) of P.L. 108-195 amended Section 123 (c) of the DPA by recommending that the President designate a chairman of an interagency team to consult with foreign nations on limiting the adverse effects of offsets in defense procurement without damaging the economy or the defense industrial base of the United States, or United States defense production or defense preparedness. The statute provides that the Interagency Team be comprised of the Secretaries of Commerce, Defense, Labor, and State, and the United States Trade Representative. A staff level Interagency Working Group was also established.

The law provides for the interagency team to send an annual report to Congress describing the results of offset consultations. The interagency team's final annual report is presented in Appendix H.

Appendices

Appendix A:
Section 309 of the Defense Production Act of 1950, as amended

DEFENSE PRODUCTION ACT OF 1950, AS AMENDED
(50 U.S.C. App. 2061, et seq.)

Section 309.

(a) Annual Report on Impact of Offsets--

(1) Report Required -- Not later than 18 months after the date of the enactment of the Defense Production Act Amendments of 1984, and annually thereafter, the President shall submit to the Committee on Banking, Finance and Urban Affairs of the House of Representatives and the Committee on Banking, Housing, and Urban Affairs of the Senate, a detailed report on the impact of offsets on the defense preparedness, industrial competitiveness, employment, and trade of the United States.

(2) Duties of the Secretary of Commerce (hereafter in this subsection referred to as 'the Secretary" shall--

(A) prepare the report required by paragraph (1);

(B) consult with the Secretary of Defense, the Secretary of the Treasury, the Secretary of State, and the United States Trade Representative in connection with the preparation of such report; and

(C) function as the President's Executive Agent for carrying out this section.

(b) Interagency Studies and Related Data—

(1) Purpose of Report-- Each report required under subsection (a) shall identify the cumulative effects of offset agreements on—

(A) the full range of domestic defense productive capability (with special attention paid to the firms serving as lower-tier subcontractors or suppliers); and

(B) the domestic defense technology base as a consequence of the technology transfers associated with such offset agreements.

(2) Use of Data--Data developed or compiled by any agency while conducting any interagency study or other independent study or analysis shall be made available to the Secretary to facilitate the execution of the Secretary's responsibilities with respect to trade offset and counter trade policy development.

(c) Notice of Offset Agreements--

(1) In General--If a United States firm enters into a contract for the sale of a weapon system or defense-related item to a foreign country or foreign firm and such contract is subject to an offset agreement exceeding $5,000,000 in value, such firm shall furnish to the official designated in the regulations promulgated pursuant to paragraph (2) information concerning such sale.

(2) Regulations--The information to be furnished under paragraph (1) shall be prescribed in regulations promulgated by the Secretary. Such regulations shall provide protection from pubic disclosure for such information, unless public disclosure is subsequently specifically authorized by the firm furnishing the information.

(d) Contents of Report--

(1) In General--Each report under subsection (a) shall include--

(A) a net assessment of the elements of the industrial base and technology base covered by the report;

(B) recommendations for appropriate remedial action under the authority of this Act, or other law or regulations;

(C) a summary of the findings and recommendations of any interagency studies conducted during the reporting period under subsection (b);

(D) a summary of offset arrangements concluded during the reporting period for which information has been furnished pursuant to subsection (c); and

(E) a summary and analysis of any bilateral and multilateral negotiations relating to the use of offsets completed during the reporting period.

(2) Alternative Findings or Recommendations--Each report required under this section shall include any alternative findings or recommendations offered by any departmental Secretary, agency head, or the United States Trade Representative to the Secretary.

(e) Utilization of Annual Report in Negotiations—

The findings and recommendations of the reports required by subsection (a), and any interagency reports and analyses shall be considered by representatives of the United States during bilateral and multilateral negotiations to minimize the adverse effects of offsets.

Appendix B: U.S. Department of Commerce Regulations Regarding Reporting of Offset Activity

TITLE 15--COMMERCE AND FOREIGN TRADE

CHAPTER VII--BUREAU OF INDUSTRY AND SECURITY, DEPARTMENT OF COMMERCE

PART 701 REPORTING OF OFFSETS AGREEMENTS IN SALES OF WEAPON SYSTEMS OR DEFENSE-RELATED ITEMS TO FOREIGN COUNTRIES OR FOREIGN FIRMS

Sec.

Authority: Title I, sec. 124, Pub. L 102-558, 106 Stat. 4207 (50 U.S.C App. 2099).

Source: 59 FR 61796, Dec. 2, 1994, unless otherwise noted.

Sec. 701.1 Purpose.

The Defense Production Act Amendments of 1992 require the Secretary of Commerce to promulgate regulations for U.S. firms entering into contracts for the sale of defense articles or defense services to foreign countries or foreign firms that are subject to offset agreements exceeding $5,000,000 in value to furnish information regarding such agreements. The Secretary of Commerce has designated the Bureau of Industry and Security as the organization responsible for implementing this provision. The information provided by U.S. firms will be aggregated and used to determine the impact of offset transactions on the defense preparedness, industrial competitiveness, employment, and trade of the United States. Summary reports will be submitted annually to the Congress pursuant Section 309 of the Defense Production Act of 1950, as amended.

Sec. 701.2 Definitions.

(a) Offsets--Compensation practices required as a condition of purchase in either government-to-government or commercial sales of defense articles and/or defense services as defined by the Arms Export Control Act and the International Traffic in Arms Regulations.

(b)Military Export Sales--Exports that are either Foreign Military Sales (FMS) or commercial (direct) sales of defense articles and/or defense services as defined by the Arms Export Control Act and International Traffic in Arms Regulations.

(c) Prime Contractor--A firm that has a sales contract with a foreign entity or with the U.S. Government for military export sales.

(d) United States--Includes the 50 states, the District of Columbia, Puerto Rico, and U.S. territories.

(e) Offset Agreement--Any offset as defined above that the U.S. firm agrees to in order to conclude a military export sales contract. This includes all offsets, whether they are ``best effort'' agreements or are subject to penalty clauses.

(f) Offset Transaction--Any activity for which the U.S. firm claims credit for full or partial fulfillment of the offset agreement. Activities to implement offset agreements may include, but are not limited to, co-production, licensed production, subcontractor production, overseas investment, technology transfer countertrade, barter, counterpurchase, and buy back.

(g) Direct Offset--Contractual arrangements that involve defense articles and services referenced in the sales agreement for military exports.

(h) Indirect Offset--Contractual arrangements that involve defense goods and services unrelated to the exports referenced in the sales agreement.

Sec. 701.3 Applicability and scope.

(a) This rule applies to U.S. firms entering contracts for the sale of defense articles or defense services (as defined in the Arms Export Control Act and International Traffic in Arms Regulations) to a foreign country or foreign firm for which the contract is subject to an offset agreement exceeding $5,000,000 in value.

(b) This rule applies to all offset transactions completed in performance of existing offset commitments since January 1, 1993 for which offset credit of $250,000 or more has been claimed from the foreign representative, and new offset agreements entered into since that time.

Sec. 701.4 Procedures.

(a) To avoid double counting, firms should report only offset transactions for which they are directly responsible for reporting to the foreign customer (i.e., prime contractors should report for their subcontractors if the subcontractors are not a direct party to the offset agreement).

(b) Reports should be delivered to the Offsets Program Manager, U.S. Department of Commerce, Office of Strategic Industries and Economic Security, Bureau of Export Administration, Room 3878, 14th Street and Pennsylvania Avenue, N.W., Washington DC 20230. The first industry reports should be submitted to the Bureau of Export Administration not later than March 15, 1995 and should cover offset transactions completed during the calendar year 1993, as well as information regarding unfulfilled offset agreements. After this initial submission, companies should provide information once yearly not later than June 15 covering the preceding calendar year. All submissions should include a point of contact (name and telephone number) and should be by a company official authorized to provide such information.

(c) Companies may submit this information in computerized spreadsheet/database format (e.g., Lotus 1-2-3, Quattro Pro, dbase IV) using a 3.5 inch 1.44 megabyte diskette, accompanied by a printed copy.

(d) Offset Transaction Reporting.

(1) Reports should include an itemized list of offset transactions completed during the reporting period, including the following data elements (Estimates are acceptable when actual figures are unavailable; estimated figures should be followed by the letter ``E''):

(i) Name of Country--Country of entity purchasing the weapon system, defense item or service subject to offset.

(ii) Name or Description of Weapon system, Defense Item, or Service Subject to Offset.

(iii) Name of Offset Fulfilling Entity--Entity fulfilling offset transaction (including first tier subcontractors).

(iv) Name of Offset Receiving Entity--Entity receiving benefits from offset transaction.

(v) Offset Credit Value--Dollar value credits claimed by fulfilling entity including any intangible factors/multipliers.

(vi) Actual Offset Value--Dollar value of the offset transaction without multipliers/intangible factors.

(vii) Description of Offset Product/Service--Short description of the type of offset (e.g.,

co-production, technology transfer, subcontract activity, training, purchase, cash payment, etc.).

(viii) Broad Industry Category--Broad classification of the industry in which the offset transaction was fulfilled (e.g., aerospace, electronics, chemicals, industrial machinery, textiles, etc.). Firms may request a list of the Standard Industry Classification (SIC) codes to assist in identifying an appropriate industry category. Forward such requests to the Offsets Program Manager, U.S. Department of Commerce, Office of Strategic Industries and Economic Security, Bureau of Export Administration, Room 3878, 14th Street and Pennsylvania Avenue, N.W., Washington, D.C. 20230 or Fax 202-482-5650.

(ix) Direct or Indirect Offset--Specify whether the offset transaction was direct or indirect offset.

(x) Name of Country in Which Offset was Fulfilled--United States, purchasing country, or third country.

(2) Offset transactions of the same type (same fulfilling entity, receiving entity, and offset product/service) completed during the same reporting period may be combined.

(3) Any necessary comments or explanations relating to the above information should be footnoted and supplied on separate sheets attached to the report.

(e) Reporting on Offset Agreements Entered Into. (1) In addition to the itemized list of offset transactions completed during the year as specified above, U.S. firms should provide information regarding new offset agreements entered into during the year, including the following elements:

(i) Name of Country--Country of entity purchasing the weapon system, defense item, or service subject to offset;

(ii) Name or Description of Weapon System, Defense Item, or Service Subject to Offset;

(iii) Names/Titles of Signatories to the Offset Agreement;

(iv) Value of Export Sale Subject to Offset (approximate);

(v) Total Value of the Offset Agreement;

(vi) Term of Offset Agreement (months);

(vii) Description of Performance Measures--(e.g., ``Best Efforts," Liquidated Damages, (describe)).

(2) [Reserved]

Sec. 701.5 Confidentiality.

(a) As provided by Sec. 309(c) of the Defense Production Act of 1950, as amended, BXA shall not publicly disclose the information it receives pursuant to this Part, unless the firm furnishing the information subsequently specifically authorizes public disclosure.

(b) Public disclosure must be authorized in writing by an official of the firm competent to make such an authorization.

(c) Nothing in this provision shall prevent the use of data aggregated from information provided pursuant to this part in the summary report to the Congress described in Sec. 701.1.

Appendix C:
Executive Order 12919,
As Amended

Executive Order 12919 of June 3, 1994

NATIONAL DEFENSE INDUSTRIAL RESOURCES PREPAREDNESS

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Defense Production Act of 1950, as amended (64 Stat. 798; 50 U.S.C. App. 2061, et seq.), and section 301 of title 3, United States Code, and as Commander in Chief of the Armed Forces of the United States, it is hereby ordered as follows:

PART I - PURPOSE, POLICY AND IMPLEMENTATION

Section 101. Purpose. This order delegates authorities and addresses national defense industrial resource policies and programs under the Defense Production Act of 1950, as amended ("the Act"), except for the amendments to Title III of the Act in the Energy Security Act of 1980 and telecommunication authorities under Executive Order No. 12472.

Sec. 102. Policy. The United States must have an industrial and technology base capable of meeting national defense requirements, and capable of contributing to the technological superiority of its defense equipment in peacetime and in times of national emergency. The domestic industrial and technological base is the foundation for national defense preparedness. The authorities provided in the Act shall be used to strengthen this base and to ensure it is capable of responding to all threats to the national security of the United States.

Sec. 103. General Functions. Federal departments and agencies responsible for defense acquisition (or for industrial resources needed to support defense acquisition) shall: (a) Identify requirements for the full spectrum of national security emergencies, including military, industrial, and essential civilian demand; (b) Assess continually the capability of the domestic industrial and technological base to satisfy requirements in peacetime and times of national emergency, specifically evaluating the availability of adequate industrial resource and production sources, including subcontractors and suppliers, materials, skilled labor, and professional and technical personnel; (c) Be prepared, in the event of a potential threat to the security of the United States, to take actions necessary to ensure the availability of adequate industrial resources and production capability, including services and critical technology for national defense requirements; more (d) Improve the efficiency and responsiveness, to defense requirements, of the domestic industrial base; and (e) Foster cooperation between the defense and commercial sectors for research and development and for acquisition of materials, components, and equipment to enhance industrial base efficiency and responsiveness.

Sec. 104. Implementation. (a) The National Security Council is the principal forum for consideration and resolution of national security resource preparedness policy. (b) The Director, Federal Emergency Management Agency ("Director, FEMA") shall: (1) Serve as an advisor to the National Security Council on issues of national security resource preparedness and on the use of the authorities and functions delegated by this order; (2) Provide for the central coordination of the plans and programs incident to authorities and functions delegated under this order, and provide guidance and procedures approved by the Assistant to the President for National Security Affairs to the Federal departments and agencies under this order; (3) Establish procedures, in consultation with Federal departments and agencies assigned functions under this order, to resolve in a timely and effective manner conflicts and issues that may arise in implementing the authorities and functions delegated under this order; and (4) Report to the President periodically concerning all program activities conducted pursuant to this order. (c) The head of every Federal department and agency assigned functions under this order shall ensure that the performance of these functions is consistent with National Security Council policy and guidelines.

PART II - PRIORITIES AND ALLOCATIONS

Sec. 201. Delegations of Priorities and Allocations. (a) The authority of the President conferred by section 101 of the Act to require acceptance and priority performance of contracts or orders (other than contracts of employment) to promote the national defense over performance of any other contracts or orders, and to allocate materials, services, and facilities as deemed necessary or appropriate to promote the national defense, is delegated to the following agency

heads: (1) The Secretary of Agriculture with respect to food resources, food resource facilities, and the domestic distribution of farm equipment and commercial fertilizer; (2) The Secretary of Energy with respect to all forms of energy; (3) The Secretary of Health and Human Services with respect to health resources; (4) The Secretary of Transportation with respect to all forms of civil transportation; more 3 (5) The Secretary of Defense with respect to water resources; and (6) The Secretary of Commerce for all other materials, services, and facilities, including construction materials. (b) The Secretary of Commerce, in consultation with the heads of those departments and agencies specified in subsection 201(a) of this order, shall administer the Defense Priorities and Allocations System ("DPAS") regulations that will be used to implement the authority of the President conferred by section 101 of the Act as delegated to the Secretary of Commerce in subsection 201(a)(6) of this order. The Secretary of Commerce will redelegate to the Secretary of Defense, and the heads of other departments and agencies as appropriate, authority for the priority rating of contracts and orders for all materials, services, and facilities needed in support of programs approved under section 202 of this order. The Secretary of Commerce shall act as appropriate upon Special Priorities Assistance requests in a time frame consistent with the urgency of the need at hand. (c) The Director, FEMA, shall attempt to resolve issues or disagreements on priorities or allocations between Federal departments or agencies in a time frame consistent with the urgency of the issue at hand and, if not resolved, such issues will be referred to the Assistant to the President for National Security Affairs for final determination. (d) The head of each Federal department or agency assigned functions under subsection 201(a) of this order, when necessary, shall make the finding required under subsection 101(b) of the Act. This finding shall be submitted for the President's approval through the Assistant to the President for National Security Affairs. Upon such approval the head of the Federal department or agency that made the finding may use the authority of subsection 101(a) of the Act to control the general distribution of any material (including applicable services) in the civilian market. (e) The Assistant to the President for National Security Affairs is hereby delegated the authority under subsection 101(c)(3) of the Act, and will be assisted by the Director, FEMA, in ensuring the coordinated administration of the Act.

Sec. 202. Determinations. The authority delegated by section 201 of this order may be used only to support programs that have been determined in writing as necessary or appropriate to promote the national defense: (a) By the Secretary of Defense with respect to military production and construction, military assistance to foreign nations, stockpiling, outer space, and directly related activities; (b) By the Secretary of Energy with respect to energy production and construction, distribution and use, and directly related activities; and (c) By the Director, FEMA, with respect to essential civilian needs supporting national defense, including civil defense and continuity of government and directly related activities.

Sec. 203. Maximizing Domestic Energy Supplies. The authority of the President to perform the functions provided by subsection 101(c) of the Act is delegated to the Secretary of Commerce, who shall redelegate to the Secretary of Energy the authority to make the findings described in subsection 101(c)(2)(A) that the materials (including equipment), services, and facilities are critical and essential. The Secretary of Commerce shall make the finding described in subsection 101(c)(2)(A) of the Act that the materials (including equipment), services, or facilities are scarce, and the finding described in subsection 101(c)(2)(B) that it is necessary to use the authority provided by subsection 101(c)(1).

Sec. 204. Chemical and Biological Warfare. The authority of the President conferred by subsection 104(b) of the Act is delegated to the Secretary of Defense. This authority may not be further delegated by the Secretary.

PART III - EXPANSION OF PRODUCTIVE CAPACITY AND SUPPLY

Sec. 301. (a) Financing Institution Guarantees. To expedite or expand production and deliveries or services under government contracts for the procurement of industrial resources or critical technology items essential to the national defense, the head of each Federal department or agency engaged in procurement for the national defense (referred to as "agency head" in this part) and the President and Chairman of the Export-Import Bank of the United States (in cases involving capacity expansion, technological development, or production in foreign countries) are authorized to guarantee in whole or in part any public or private financing institution, subject to provisions of section 301 of the Act. Guarantees shall be made in consultation with the Department of the Treasury as to the terms and conditions thereof. The Director of the Office of Management and Budget ("OMB") shall be informed when such guarantees are to be made. (b) Direct Loan Guarantees. To expedite or expand production and deliveries or services under government contracts for the procurement of industrial resources or critical technology items essential to the national defense, each agency head is authorized to make direct loan guarantees from funds appropriated to their agency for Title III. (c) Fiscal Agent. Each Federal Reserve Bank is designated and authorized to act, on behalf of any guaranteeing agency, as fiscal agent in the making of guarantee contracts and in otherwise carrying out the purposes of section 301 of the Act.

(d) Regulations. The Board of Governors of the Federal Reserve System is authorized, after consultation with heads of guaranteeing departments and agencies, the Secretary of the Treasury, and the Director, OMB, to prescribe regulations governing procedures, forms, rates of interest, and fees for such guarantee contracts.

Sec. 302. Loans. (a) To expedite production and deliveries or services to aid in carrying out government contracts for the procurement of industrial resources or a critical technology item for the national defense, an agency head is authorized, subject to the provisions of section 302 of the Act, to submit to the Secretary of the Treasury or the President and Chairman of the Export- Import Bank of the United States (in cases involving capacity expansion, technological development, or production in foreign countries) applications for loans. more 5 (b) To expedite or expand production and deliveries or services under government contracts for the procurement of industrial resources or critical technology items essential to the national defense, each agency head may make direct loans from funds appropriated to their agency for Title III. (c) After receiving a loan application and determining that financial assistance is not otherwise available on reasonable terms, the Secretary of the Treasury or the President and Chairman of the Export-Import Bank of the United States (in cases involving capacity expansion, technological development, or production in foreign countries) may make loans, subject to provisions of section 302 of the Act.

Sec. 303. Purchase Commitments. (a) In order to carry out the objectives of the Act, and subject to the provisions of section 303 thereof, an agency head is authorized to make provision for purchases of, or commitments to purchase, an industrial resource or a critical technology item for government use or resale. (b) Materials acquired under section 303 of the Act that exceed the needs of the programs under the Act may be transferred to the National Defense Stockpile, if such transfer is determined by the Secretary of Defense as the National Defense Stockpile Manager to be in the public interest.

Sec. 304. Subsidy Payments. In order to ensure the supply of raw or non-processed materials from high-cost sources, an agency head is authorized to make subsidy payments, after consultation with the Secretary of the Treasury and the Director, OMB, and subject to the provisions of section 303(c) of the Act.

Sec. 305. Determinations and Findings. When carrying out the authorities in sections 301 through 303 of this order, an agency head is authorized to make the required determinations, judgments, statements, certifications, and findings, in consultation with the Secretary of Defense, Secretary of Energy or Director, FEMA, as appropriate. The agency head shall provide a copy of the determination, judgment, statement, certification, or finding to the Director, OMB, to the Director, FEMA, and, when appropriate, to the Secretary of the Treasury.

Sec. 306. Strategic and Critical Materials. (a) The Secretary of the Interior, in consultation with the Secretary of Defense as the National Defense Stockpile Manager and subject to the provisions of section 303 of the Act, is authorized to encourage the exploration, development, and mining of critical and strategic materials and other materials. (b) An agency head is authorized, pursuant to section 303(g) of the Act, to make provision for the development of substitutes for strategic and critical materials, critical components, critical technology items, and other industrial resources to aid the national defense. (c) An agency head is authorized, pursuant to section 303(a)(1)(B) of the Act, to make provisions to encourage the exploration, development, and mining of critical and strategic materials and other materials.

Sec. 307. Government-owned Equipment. An agency head is authorized, pursuant to section 303(e) of the Act, to install additional equipment, facilities, processes, or improvements to facilities owned by the government and to install government-owned equipment in industrial facilities owned by private persons.

Sec. 308. Identification of Shortfalls. Except during periods of national emergency or after a Presidential determination in accordance with sections 301(e)(1)(D)(ii), 302(c)(4)(B), or 303(a)(7)(B) of the Act, no guarantee, loan or other action pursuant to sections 301, 302, and 303 of the Act to correct an industrial shortfall shall be taken unless the shortfall has been identified in the Budget of the United States or amendments thereto.

Sec. 309. Defense Production Act Fund Manager. The Secretary of Defense is designated the Defense Production Act Fund Manager, in accordance with section 304(f) of the Act, and shall carry out the duties specified in that section, in consultation with the agency heads having approved Title III projects and appropriated Title III funds.

Sec. 310. Critical Items List. (a) Pursuant to section 107(b)(1)(A) of the Act, the Secretary of Defense shall identify critical components and critical technology items for each item on the Critical Items List of the Commanders-in-Chief

of the Unified and Specified Commands and other items within the inventory of weapon systems and defense equipment. (b) Each agency head shall take appropriate action to ensure that critical components or critical technology items are available from reliable sources when needed to meet defense requirements during peacetime, graduated mobilization, and national emergency. "Appropriate action" may include restricting contract solicitations to reliable sources, restricting contract solicitations to domestic sources (pursuant to statutory authority), stockpiling critical components, and developing substitutes for critical components or critical technology items.

Sec. 311. Strengthening Domestic Capability. An agency head, in accordance with section 107(a) of the Act, may utilize the authority of Title III of the Act or any other provision of law, in consultation with the Secretary of Defense, to provide appropriate incentives to develop, maintain, modernize, and expand the productive capacities of domestic sources for critical components, critical technology items, and industrial resources essential for the execution of the national security strategy of the United States.

Sec. 312. Modernization of Equipment. An agency head, in accordance with section 108(b) of the Act, may utilize the authority of Title III of the Act to guarantee the purchase or lease of advance manufacturing equipment and any related services with respect to any such equipment for purposes of the Act.

PART IV - IMPACT OF OFFSETS

Sec. 401. Offsets. (a) The responsibilities and authority conferred upon the President by section 309 of the Act with respect to offsets are delegated to the Secretary of Commerce, who shall function as the President's Executive Agent for carrying out this authority. more 7 (b) The Secretary of Commerce shall prepare the annual report required by section 309(a) of the Act in consultation with the Secretaries of Defense, Treasury, Labor, State, the United States Trade Representative, the Arms Control and Disarmament Agency, the Director of Central Intelligence, and the heads of other departments and agencies as required. The heads of Federal departments and agencies shall provide the Secretary of Commerce with such information as may be necessary for the effective performance of this function. (c) The offset report shall be subject to the normal interagency clearance process conducted by the Director, OMB, prior to the report's submission by the President to Congress.

PART V - VOLUNTARY AGREEMENTS AND ADVISORY COMMITTEES

Sec. 501. Appointments. The authority of the President under sections 708(c) and (d) of the Act is delegated to the heads of each Federal department or agency, except that, insofar as that authority relates to section 101 of the Act, it is delegated only to the heads of each Federal department or agency assigned functions under section 201(a) of this order. The authority delegated under this section shall be exercised pursuant to the provisions of section 708 of the Act, and copies and the status of the use of such delegations shall be furnished to the Director, FEMA.

Sec. 502. Advisory Committees. The authority of the President under section 708(d) of the Act and delegated in section 501 of this order (relating to establishment of advisory committees) shall be exercised only after consultation with, and in accordance with, guidelines and procedures established by the Administrator of General Services.

PART VI - EMPLOYMENT OF PERSONNEL

Sec. 601. National Defense Executive Reserve. (a) In accordance with section 710(e) of the Act, there is established in the Executive Branch a National Defense Executive Reserve ("NDER") composed of persons of recognized expertise from various segments of the private sector and from government (except full-time federal employees) for training for employment in executive positions in the Federal Government in the event of an emergency that requires such employment. (b) The head of any department or agency may establish a unit of the NDER in the department or agency and train members of that unit. (c) The head of each department or agency with an NDER unit is authorized to exercise the President's authority to employ civilian personnel in accordance with section 703(a) of the Act when activating all or a part of its NDER unit. The exercise of this authority shall be subject to the provisions of subsections 601(d) and (e) of this order and shall not be redelegated. (d) The head of a department or agency may activate an NDER unit, in whole or in part, upon the written determination that an emergency affecting the national security or defense preparedness of the United States exists and that the activation of the unit is necessary to carry out the emergency program functions of the department or agency. (e) At least 72 hours prior to activating the NDER unit, the head of the department or agency shall notify, in writing, the Assistant to the President for National Security Affairs of the impending activation and provide a copy of the determination required under subsection 601(d) of this order. (f)

The Director, FEMA, shall coordinate the NDER program activities of departments and agencies in establishing units of the Reserve; provide for appropriate guidance for recruitment, training, and activation; and issue necessary rules and guidance in connection with the program. (g) This order suspends any delegated authority, regulation, or other requirement or condition with respect to the activation of any NDER unit, in whole or in part, or appointment of any NDER member that is inconsistent with the authorities delegated herein, provided that the aforesaid suspension applies only as long as sections 703(a) and 710(e) of the Act are in effect.

Sec. 602. Consultants. The head of each department or agency assigned functions under this order is delegated authority under sections 710(b) and (c) of the Act to employ persons of outstanding experience and ability without compensation and to employ experts, consultants, or organizations. The authority delegated by this section shall not be redelegated.

PART VII - LABOR SUPPLY

Sec. 701. Secretary of Labor. The Secretary of Labor, identified in this section as the Secretary, shall: (a) Collect, analyze, and maintain data needed to make a continuing appraisal of the nation's labor requirements and the supply of workers for purposes of national defense. All agencies of the government shall cooperate with the Secretary in furnishing information necessary for this purpose, to the extent permitted by law; (b) In response to requests from the head of a Federal department or agency engaged in the procurement for national defense, consult with and advise that department or agency with respect to (1) the effect of contemplated actions on labor supply and utilization, (2) the relation of labor supply to materials and facilities requirements, and (3) such other matters as will assist in making the exercise of priority and allocations functions consistent with effective utilization and distribution of labor; (c) Formulate plans, programs, and policies for meeting defense and essential civilian labor requirements; (d) Project skill shortages to facilitate meeting defense and essential civilian needs and establish training programs; (e) Determine the occupations and skills critical to meeting the labor requirements of defense and essential civilian activities and, with the assistance of the Secretary of Defense, more 9 the Director of Selective Service, and such other persons as the Director, FEMA, may designate, develop policies regulating the induction and deferment of personnel for the armed services, except for civilian personnel in the reserves; and (f) Administer an effective labor-management relations policy to support the activities and programs under this order with the cooperation of other Federal agencies, including the National Labor Relations Board and the Federal Mediation and Conciliation Service.

PART VIII - DEFENSE INDUSTRIAL BASE INFORMATION AND REPORTS

Sec. 801. Foreign Acquisition of Companies. The Secretary of the Treasury, in cooperation with the Department of State, the Department of Defense, the Department of Commerce, the Department of Energy, the Department of Agriculture, the Attorney General, and the Director of Central Intelligence, shall complete and furnish a report to the President and then to Congress in accordance with the requirements of section 721(k) of the Act concerning foreign efforts to acquire United States companies involved in research, development, or production of critical technologies and industrial espionage activities directed by foreign governments against private U.S. companies.

Sec. 802. Defense Industrial Base Information System. (a) The Secretary of Defense and the heads of other appropriate Federal departments and agencies, as determined by the Secretary of Defense, shall establish an information system on the domestic defense industrial base in accordance with the requirements of section 722 of the Act. (b) In establishing the information system required by subsection (a) of this order, the Secretary of Defense, the Secretary of Commerce, and the heads of other appropriate Federal departments and agencies, as determined by the Secretary of Defense in consultation with the Secretary of Commerce, shall consult with each other for the purposes of performing the duties listed in section 722(d)(1) of the Act. (c) The Secretary of Defense shall convene a task force consisting of the Secretary of Commerce and the Secretary of each military department and the heads of other appropriate Federal departments and agencies, as determined by the Secretary of Defense in consultation with the Secretary of Commerce, to carry out the duties under section 722(d)(2) of the Act. (d) The Secretary of Defense shall report to Congress on a strategic plan for developing a cost- effective, comprehensive information system capable of identifying on a timely, ongoing basis vulnerability in critical components and critical technology items. The plans shall include an assessment of the performance and cost-effectiveness of procedures specified in section 722(b) of the Act. (e) The Secretary of Commerce, acting through the Bureau of the Census, shall consult with the Secretary of Defense and the Director, FEMA, to improve the usefulness of information derived from the Census of Manufacturers in carrying out section 722 of the Act. (f) The Secretary of Defense shall perform an analysis of the production base for not more than two major weapons systems of each military department in establishing the information system under section 722 of the Act. Each analysis shall identify the critical components of each system. (g) The Secretary of Defense, in

consultation with the Secretary of Commerce, and the heads of other Federal departments and agencies as appropriate, shall issue a biennial report on critical components and technology in accordance with section 722(e) of the Act.

PART IX - GENERAL PROVISIONS

Sec. 901. Definitions. In addition to the definitions in section 702 of the Act, the following definitions apply throughout this order: (a) "Civil transportation" includes movement of persons and property by all modes of transportation in interstate, intrastate, or foreign commerce within the United States, its territories and possessions, and the District of Columbia, and, without limitation, related public storage and warehousing, ports, services, equipment and facilities, such as transportation carrier shop and repair facilities. However, "civil transportation" shall not include transportation owned or controlled by the Department of Defense, use of petroleum and gas pipelines, and coal slurry pipelines used only to supply energy production facilities directly. As applied herein, "civil transportation" shall include direction, control, and coordination of civil transportation capacity regardless of ownership. (b) "Energy" means all forms of energy including petroleum, gas (both natural and manufactured), electricity, solid fuels (including all forms of coal, coke, coal chemicals, coal liquification, and coal gasification), and atomic energy, and the production, conservation, use, control, and distribution (including pipelines) of all of these forms of energy. (c) "Farm equipment" means equipment, machinery, and repair parts manufactured for use on farms in connection with the production or preparation for market use of food resources. (d) "Fertilizer" means any product or combination of products that contain one or more of the elements -- nitrogen, phosphorus, and potassium - - for use as a plant nutrient. (e) "Food resources" means all commodities and products, simple, mixed, or compound, or complements to such commodities or products, that are capable of being ingested by either human beings or animals, irrespective of other uses to which such commodities or products may be put, at all stages of processing from the raw commodity to the products thereof in vendible form for human or animal consumption. "Food resources" also means all starches, sugars, vegetable and animal or marine fats and oils, cotton, tobacco, wool, mohair, hemp, flax fiber, and naval stores, but does not mean any such material after it loses its identity as an agricultural commodity or agricultural product. (f) "Food resource facilities" means plants, machinery, vehicles (including on-farm), and other facilities required for the production, processing, distribution, and storage (including more 11 cold storage) of food resources, livestock and poultry feed and seed, and for the domestic distribution of farm equipment and fertilizer (excluding transportation thereof). (g) "Functions" include powers, duties, authority, responsibilities, and discretion. (h) "Head of each Federal department or agency engaged in procurement for the national defense" means the heads of the Departments of Defense, Energy, and Commerce, as well as those departments and agencies listed in Executive Order No. 10789. (i) "Heads of other appropriate Federal departments and agencies" as used in part VIII of this order means the heads of such other Federal agencies and departments that acquire information or need information with respect to making any determination to exercise any authority under the Act. (j) "Health resources" means materials, facilities, health supplies, and equipment (including pharmaceutical, blood collecting and dispensing supplies, biological, surgical textiles, and emergency surgical instruments and supplies) required to prevent the impairment of, improve, or restore the physical and mental health conditions of the population. (k) "Metals and minerals" means all raw materials of mineral origin (excluding energy) including their refining, smelting, or processing, but excluding their fabrication. (l) "Strategic and Critical Materials" means materials (including energy) that (1) would be needed to supply the military, industrial, and essential civilian needs of the United States during a national security emergency, and (2) are not found or produced in the United States in sufficient quantities to meet such need and are vulnerable to the termination or reduction of the availability of the material. (m) "Water resources" means all usable water, from all sources, within the jurisdiction of the United States, which can be managed, controlled, and allocated to meet emergency requirements.

Sec. 902. General. (a) Except as otherwise provided in subsection 902(c) of this order, the authorities vested in the President by title VII of the Act may be exercised and performed by the head of each department and agency in carrying out the delegated authorities under the Act and this order. (b) The authorities which may be exercised and performed pursuant to subsection 902(a) of this order shall include (1) the power to redelegate authorities, and to authorize the successive redelegation of authorities, to departments and agencies, officers, and employees of the government, and (2) the power of subpoena with respect to authorities delegated in parts II, III, and IV of this order, provided that the subpoena power shall be utilized only after the scope and purpose of the investigation, inspection, or inquiry to which the subpoena relates have been defined either by the appropriate officer identified in subsection 902(a) of this order or by such other person or persons as the officer shall designate. (c) Excluded from the authorities delegated by subsection 902(a) of this order are authorities delegated by parts V, VI, and VIII of this order and the authority with respect to fixing compensation under section 703(a) of the Act.

Sec. 903. Authority. All previously issued orders, regulations, rulings, certificates, directives, and other actions relating to any function affected by this order shall remain in effect except as they are inconsistent with this order or are

subsequently amended or revoked under proper authority. Nothing in this order shall affect the validity or force of anything done under previous delegations or other assignment of authority under the Act.

Sec. 904. Effect on other Orders. (a) The following are superseded or revoked: (1) Section 3, Executive Order No. 8248 of September 8, 1939, (4 FR 3864). (2) Executive Order No. 10222 of March 8, 1951 (16 FR 2247). (3) Executive Order No. 10480 of August 14, 1953 (18 FR 4939). (4) Executive Order No. 10647 of November 28, 1955 (20 FR 8769). (5) Executive Order No. 11179 of September 22, 1964 (29 FR 13239). (6) Executive Order No. 11355 of May 26, 1967 (32 FR 7803). (7) Sections 7 and 8, Executive Order No. 11912 of April 13, 1976 (41 FR 15825, 15826-27). (8) Section 3, Executive Order No. 12148 of July 20, 1979 (44 FR 43239, 43241). (9) Executive Order No. 12521 of June 24, 1985 (50 FR 26335). (10) Executive Order No. 12649 of August 11, 1988 (53 FR 30639). (11) Executive Order No. 12773 of September 26, 1991 (56 FR 49387), except that part of the order that amends section 604 of Executive Order 10480. (b) Executive Order No. 10789 of November 14, 1958, is amended by deleting "and in view of the existing national emergency declared by Proclamation No. 2914 of December 16, 1950," as it appears in the first sentence. (c) Executive Order No. 11790, as amended, relating to the Federal Energy Administration Act of 1974, is amended by deleting "Executive Order No. 10480" where it appears in section 4 and substituting this order's number. more 13 (d) Subject to subsection 904(c) of this order, to the extent that any provision of any prior Executive order is inconsistent with the provisions of this order, this order shall control and such prior provision is amended accordingly.

Sec. 905. Judicial Review. This order is not intended to create any right or benefit, substantive or procedural, enforceable at law by a party against the United States, its agencies, its officers, or any person.

Executive Order 13286 of February 28, 2003

Executive Order Amendment of Executive Orders, and Other Actions, in Connection with the Transfer of Certain Functions to the Secretary of Homeland Security

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Homeland Security Act of 2002 (Public Law 107-296) and section 301 of title 3, United States Code, and in order to reflect the transfer of certain functions to, and other responsibilities vested in, the Secretary of Homeland Security, the transfer of certain agencies and agency components to the Department of Homeland Security, and the delegation of appropriate responsibilities to the Secretary of Homeland Security, it is hereby ordered as follows:

Section 1. Executive Order 13276 of November 15, 2002 ("Delegation of Responsibilities Concerning Undocumented Aliens Interdicted or Intercepted in the Caribbean Region"), is amended by: (a) striking "The Attorney General" wherever it appears in section 1 and inserting "The Secretary of Homeland Security" in lieu thereof; and (b) striking "the Attorney General" wherever it appears in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 2. Executive Order 13274 of September 18, 2002 ("Environmental Stewardship and Transportation Infrastructure Project Reviews"), is amended by inserting "Secretary of Homeland Security," after "Secretary of Defense," in section 3(b).

Sec. 3. Executive Order 13271 of July 9, 2002 ("Establishment of the Corporate Fraud Task Force"), is amended by: (a) inserting "(b) the Secretary of Homeland Security;" after "(a) the Secretary of the Treasury;" in section 4; and (b) relettering the subsequent subsections in section 4 appropriately.

Sec. 4. Executive Order 13260 of March 19, 2002 ("Establishing the President's Homeland Security Advisory Council and Senior Advisory Committees for Homeland Security"), is amended by: (a) striking "the Assistant to the President for Homeland Security (Assistant)" in section 1(c) and inserting "the Secretary of Homeland Security (Secretary)" in lieu thereof; (b) striking "the Assistant" wherever it appears in sections 2 and 3 and inserting "the Secretary" in lieu thereof; (c) striking "the Office of Administration" in section 3(d) and inserting "the Department of Homeland Security" in lieu thereof; (d) striking "the Administrator of General Services" in section 4(a) and inserting "the Secretary of Homeland Security" in lieu thereof; and (e) inserting "of General Services" after "Administrator" in section 4(a). Executive Order 13260 of March 19, 2002, is hereby revoked effective as of March 31, 2003.

Sec. 5. Executive Order 13257 of February 13, 2002 ("President's Interagency Task Force to Monitor and Combat Trafficking in Persons"), is amended by: (a) inserting "(v) the Secretary of Homeland Security;" after "(iv) the Secretary of Health and Human Services;" in section 1(b); and (b) renumbering the subsequent subsections in section 1(b) appropriately.

Sec. 6. Executive Order 13254 of January 29, 2002 ("Establishing the USA Freedom Corps"), is amended by striking "Director of the Federal Emergency Management Agency;" in section 3(b)(viii) and inserting "Secretary of Homeland Security;" in lieu thereof.

Sec. 7. Executive Order 13231 of October 16, 2001 ("Critical Infrastructure Protection in the Information Age"), as amended, is further amended to read in its entirety as follows: "Critical Infrastructure Protection in the Information Age By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to ensure protection of information systems for critical infrastructure, including emergency preparedness communications and the physical assets that support such systems, in the information age, it is hereby ordered as follows: Section 1. Policy. The information technology revolution has changed the way business is transacted, government operates, and national defense is conducted. Those three functions now depend on an interdependent network of critical information infrastructures. It is the policy of the United States to protect against disruption of the operation of information systems for critical infrastructure and thereby help to protect the people, economy, essential human and government services, and national security of the United States, and to ensure that any disruptions that occur are infrequent, of minimal duration, and manageable, and cause the least damage possible. The implementation of this policy shall include a voluntary public-private partnership, involving corporate and nongovernmental organizations. Sec. 2. Continuing Authorities. This order does not alter the existing authorities or roles of United States Government departments and agencies. Authorities set forth in 44 U.S.C. chapter 35, and other applicable law, provide senior officials with responsibility for the security of Federal Government information systems. (a) Executive Branch Information Systems Security. The Director of the Office of Management and Budget (OMB) has the responsibility to develop and oversee the implementation of government-wide policies, principles, standards, and guidelines for the security of information systems that support the executive branch departments and agencies, except those noted in section 2(b) of this order. The Director of OMB shall advise the President and the appropriate department or agency head when there is a critical deficiency in the security practices within the purview of this section in an executive branch department or agency. (b) National Security Information Systems. The Secretary of Defense and the Director of Central Intelligence (DCI) shall have responsibility to oversee, develop, and ensure implementation of policies, principles, standards, and guidelines for the security of information systems that support the operations under their respective control. In consultation with the Assistant to the President for National Security Affairs and the affected departments and agencies, the Secretary of Defense and the DCI shall develop policies, principles, standards, and guidelines for the security of national security information systems that support the operations of other executive branch departments and agencies with national security information. (i) Policies, principles, standards, and guidelines developed under this subsection may require more stringent protection than those developed in accordance with section 2(a) of this order. (ii) The Assistant to the President for National Security Affairs shall advise the President and the appropriate department or agency when there is a critical deficiency in the security practices of a department or agency within the purview of this section. (iii) National Security Systems. The National Security Telecommunications and Information Systems Security Committee, as established by and consistent with NSD-42 and chaired by the Department of Defense, shall be designated as the "Committee on National Security Systems." (c) Additional Responsibilities. The heads of executive branch departments and agencies are responsible and accountable for providing and maintaining adequate levels of security for information systems, including emergency preparedness communications systems, for programs under their control. Heads of such departments and agencies shall ensure the development and, within available appropriations, funding of programs that adequately address these mission systems, especially those critical systems that support the national security and other essential government programs. Additionally, security should enable, and not unnecessarily impede, department and agency business operations. Sec. 3. The National Infrastructure Advisory Council. The National Infrastructure Advisory Council (NIAC), established on October 16, 2001, shall provide the President through the Secretary of Homeland Security with advice on the security of information systems for critical infrastructure supporting other sectors of the economy: banking and finance, transportation, energy, manufacturing, and emergency government services. (a) Membership. The NIAC shall be composed of not more than 30 members appointed by the President. The members of the NIAC shall be selected from the private sector, academia, and State and local government. Members of the NIAC shall have expertise relevant to the functions of the NIAC and generally shall be selected from industry Chief Executive Officers (and equivalently ranked leaders of other organizations) with responsibilities for security of information infrastructure supporting the critical sectors of the economy, including banking and finance, transportation, energy, communications, and emergency government services. Members shall not be full-time officials or employees of the executive branch of the Federal Government. The President shall designate a Chair and Vice Chair from among the members of the NIAC.

(b) Functions of the NIAC. The NIAC will meet periodically to: (i) enhance the partnership of the public and private sectors in protecting information systems for critical infrastructures and provide reports on this issue to the Secretary of Homeland Security, as appropriate; (ii) propose and develop ways to encourage private industry to perform periodic risk assessments of critical information and telecommunications systems; (iii) monitor the development of private sector Information Sharing and Analysis Centers (ISACs) and provide recommendations to the President through the Secretary of Homeland Security on how these organizations can best foster improved cooperation among the ISACs, the Department of Homeland Security, and other Federal Government entities; (iv) report to the President through the Secretary of Homeland Security, who shall ensure appropriate coordination with the Assistant to the President for Homeland Security, the Assistant to the President for Economic Policy, and the Assistant to the President for National Security Affairs under the terms of this order; and (v) advise lead agencies with critical infrastructure responsibilities, sector coordinators, the Department of Homeland Security, and the ISACs. (c) Administration of the NIAC. (i) The NIAC may hold hearings, conduct inquiries, and establish subcommittees, as appropriate. (ii) Upon request of the Chair, and to the extent permitted by law, the heads of the executive departments and agencies shall provide the NIAC with information and advice relating to its functions. (iii) Senior Federal Government officials may participate in the meetings of the NIAC, as appropriate. (iv) Members shall serve without compensation for their work on the NIAC. However, members may be reimbursed for travel expenses, including per diem in lieu of subsistence, as authorized by law for persons serving intermittently in Federal Government service (5 U.S.C. 5701-5707). (v) To the extent permitted by law and subject to the availability of appropriations, the Department of Homeland Security shall provide the NIAC with administrative services, staff, and other support services, and such funds as may be necessary for the performance of the NIAC's functions. (d) General Provisions. (i) Insofar as the Federal Advisory Committee Act, as amended (5 U.S.C. App.) (Act), may apply to the NIAC, the functions of the President under that Act, except that of reporting to the Congress, shall be performed by the Department of Homeland Security in accordance with the guidelines and procedures established by the Administrator of General Services. (ii) The NIAC shall terminate on October 15, 2003, unless extended by the President. (iii) Executive Order 13130 of July 14, 1999, was revoked on October 16, 2001. (iv) Nothing in this order shall supersede any requirement made by or under law. Sec. 4. Judicial Review. This order does not create any right or benefit, substantive or procedural, enforceable at law or in equity, against the United States, its departments, agencies, or other entities, its officers or employees, or any other person."

Sec. 8. Executive Order 13228 of October 8, 2001 ("Establishing the Office of Homeland Security and the Homeland Security Council"), as amended, is further amended by: (a) amending section 3(g) to read "(g) Incident Management. Consistent with applicable law, including the statutory functions of the Secretary of Homeland Security, the Assistant to the President for Homeland Security shall be the official primarily responsible for advising and assisting the President in the coordination of domestic incident management activities of all departments and agencies in the event of a terrorist threat, and during and in the aftermath of terrorist attacks, major disasters, or other emergencies, within the United States. Generally, the Assistant to the President for Homeland Security shall serve as the principal point of contact for and to the President with respect to the coordination of such activities. The Assistant to the President for Homeland Security shall coordinate with the Assistant to the President for National Security Affairs, as appropriate."; and (b) inserting ", including the Department of Homeland Security" after "Government departments and agencies" in section 7.

Sec. 9. Executive Order 13223 of September 14, 2001 ("Ordering the Ready Reserve of the Armed Forces to Active Duty and Delegating Certain Authorities to the Secretary of Defense and the Secretary of Transportation"), as amended, is further amended by: (a) striking "the Secretary of Transportation" in the title and wherever it appears in sections 1, 5, 6, and 7, and inserting "the Secretary of Homeland Security" in lieu thereof; and (b) striking "the Department of Transportation" in section 7 and inserting "the Department of Homeland Security" in lieu thereof.

Sec. 10. Executive Order 13212 of May 18, 2001 ("Actions to Expedite Energy-Related Projects"), is amended by inserting "Homeland Security," after "Veterans Affairs," in section 3.

Sec. 11. Executive Order 13165 of August 9, 2000 ("Creation of the White House Task Force on Drug Use in Sports and Authorization for the Director of the Office of National Drug Control Policy to Serve as the United States Government's Representative on the Board of the World Anti-Doping Agency"), is amended by inserting "the Department of Homeland Security," after "the Department of Transportation," in section 2.

Sec. 12. Executive Order 13154 of May 3, 2000 ("Establishing the Kosovo Campaign Medal"), is amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 13. Executive Order 13133 of August 5, 1999 ("Working Group on Unlawful Conduct on the Internet"), is amended by: (a) inserting "(6) The Secretary of Homeland Security." after "(5) The Secretary of Education." in section 3(a); and (b) renumbering the subsequent subsections in section 3(a) appropriately.

Sec. 14. Executive Order 13120 of April 27, 1999 ("Ordering the Selected Reserve and Certain Individual Ready Reserve Members of the Armed Forces to Active Duty"), is amended by striking "the Secretary of Transportation" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 15. Executive Order 13112 of February 3, 1999 ("Invasive Species"), is amended by inserting "the Secretary of Homeland Security," after "Secretary of Transportation," in section 3(a).

Sec. 16. Executive Order 13100 of August 25, 1998 ("President's Council on Food Safety"), is amended by inserting "and Homeland Security," after "Health and Human Services," in section 1(a).

Sec. 17. Executive Order 13076 of February 24, 1998 ("Ordering the Selected Reserve of the Armed Forces to Active Duty"), is amended by striking "the Secretary of Transportation" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 18. Executive Order 13011 of July 16, 1996 ("Federal Information Technology"), as amended, is further amended by: (a) striking "17. Federal Emergency Management Agency;" in section 3(b); and (b) renumbering the subsequent subsections in section 3(b) appropriately.

Sec. 19. Executive Order 12989 of February 13, 1996 ("Economy and Efficiency in Government Procurement through Compliance with Certain Immigration and Naturalization Act Provisions"), is amended by: (a) striking "Naturalization" in the title and inserting "Nationality" in lieu thereof; (b) striking ", the Attorney General" in section 3; (c) inserting "the Secretary of Homeland Security" before "may" in section 3(a); (d) inserting "the Secretary of Homeland Security" before "shall" in section 3(b); (e) inserting "the Attorney General" before "shall" in section 3(c); (f) inserting "Secretary of Homeland Security or the" before "Attorney General" wherever it appears in section 4; (g) striking "The Attorney General's" in section 4(b) and inserting "Such" in lieu thereof; (h) striking "the Attorney General" wherever it appears in the first two sentences of section 5(a) and inserting "the Secretary of Homeland Security and Attorney General" in lieu thereof; (i) striking "the responsibilities of the Attorney General" in section 5(a) and inserting "their respective responsibilities" in lieu thereof; (j) inserting "Secretary of Homeland Security or the" before "Attorney General" wherever in appears in the third sentence of section 5(a); (k) inserting "Secretary of Homeland Security and the" before "Attorney General" in section 6; (l) striking "the Attorney General's" in section 6 and inserting "their respective" in lieu thereof; and (m) inserting "Secretary of Homeland Security, the" before "Attorney General" in section 7.

Sec. 20. Executive Order 12985 of January 11, 1996 ("Establishing the Armed Forces Service Medal"), is amended by striking "the Secretary of Transportation" in section 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 21. Executive Order 12982 of December 8, 1995 ("Ordering the Selected Reserve of the Armed Forces to Active Duty"), is amended by striking "the Secretary of Transportation" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 22. Executive Order 12978 of October 21, 1995 ("Blocking Assets and Prohibiting Transactions with Significant Narcotics Traffickers"), is amended by inserting ", the Secretary of Homeland Security," after "the Attorney General" wherever it appears in sections 1 and 4.

Sec. 23. Executive Order 12977 of October 19, 1995 ("Interagency Security Committee"), is amended by: (a) striking "the Administrator of General Services ("Administrator")" in section 1(a) and inserting "the secretary of Homeland Security ("Secretary")" in lieu thereof; (b) striking "and" after "(16) Central Intelligence Agency;" in section 1(b); (c) inserting "and (18) General Services Administration;" after "(17) Office of Management and Budget;" in section 1(b); (d) striking section 1(c)(2) and redesignating sections 1(c)(3) and 1(c)(4) as sections 1(c)(2) and 1(c)(3), respectively; (e) striking "Administrator" wherever it appears in sections 2, 5(a)(3)(E), 6(a), and 6(c), and inserting "Secretary" in lieu thereof; and (f) striking ", acting by and through the Assistant Commissioner," in section 6(c).

Sec. 24. Executive Order 12919 of June 3, 1994 ("National Defense Industrial Resources Preparedness"), is amended by: (a) striking "The Director, Federal Emergency Management Agency ("Director, FEMA")" in section 104(b) and inserting "The Secretary of Homeland Security ("the Secretary")" in lieu thereof; (b) striking "The Director, FEMA," in sections 201(c) and 601(f) and inserting "The Secretary" in lieu thereof; (c) striking "the Director, FEMA," wherever it appears in sections 201(e), 202(c), 305, 501, 701(e), and 802(e), and inserting "the Secretary" in lieu thereof; and (d) inserting "the Department of Homeland Security," after "Attorney General," in section 801.

Sec. 25. Executive Order 12906 of April 11, 1994 ("Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure"), is amended by: (a) striking "and" in section 7(b)(ii); (b) striking the period at the end of section 7(b)(iii) and inserting "; and" in lieu thereof; and (c) inserting a new section 7(b)(iv) to read "(iv) the national security-related activities of the Department of Homeland Security as determined by the Secretary of Homeland Security.".

Sec. 26. Executive Order 12870 of September 30, 1993 ("Trade Promotion Coordinating Committee"), is amended by: (a) inserting "(j) Department of Homeland Security;" after "(i) Department of the Interior;" in section 1; and (b) relettering the subsequent subsections in section 1 appropriately.

Sec. 27. Executive Order 12835 of January 25, 1993 ("Establishment of the National Economic Council"), is amended by: (a) inserting "(k) Secretary of Homeland Security;" after "(j) Secretary of Energy;" in section 2; and (b) relettering the subsequent subsections in section 2 appropriately.

Sec. 28. Executive Order 12830 of January 9, 1993 ("Establishing the Military Outstanding Volunteer Service Medal"), is amended by striking "the Secretary of Transportation" wherever it appears and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 29. Executive Order 12824 of December 7, 1992 ("Establishing the Transportation Distinguished Service Medal"), is amended by: (a) striking "Transportation" in the title and inserting "Homeland Security" in lieu thereof; and (b) striking "Transportation" wherever it appears and inserting "Homeland Security" in lieu thereof. Sec. 30. Executive Order 12807 of May 24, 1992 ("Interdiction of Illegal Aliens"), is amended by striking "the Attorney General" in section 2(c)(3) and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 31. Executive Order 12793 of March 20, 1992 ("Continuing the Presidential Service Certificate and Presidential Service Badge"), is amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 32. Executive Order 12789 of February 10, 1992 ("Delegation of Reporting Functions Under the Immigration Reform and Control Act of 1986"), is amended by striking "The Attorney General" in section 1 and inserting "The Secretary of Homeland Security" in lieu thereof.

Sec. 33. Executive Order 12788 of January 15, 1992 ("Defense Economic Adjustment Program"), is amended by: (a) inserting "(15) Secretary of Homeland Security;" after "(14) Secretary of Veterans Affairs;" in section 4(a); and (b) renumbering the subsequent subsections in section 4(a) appropriately.

Sec. 34. Executive Order 12777 of October 18, 1991 ("Implementation of Section 311 of the Federal Water Pollution Control Act of October 18, 1972, as Amended, and the Oil Pollution Act of 1990"), is amended by: (a) inserting "and the Secretary of the Department in which the Coast Guard is operating" after "the Secretary of Transportation" in sections 2(b)(2) and 2(d)(2); (b) striking "the Secretary of Transportation" in section 2(e)(2) and wherever it appears in sections 5 and 8 and inserting "the Secretary of the Department in which the Coast Guard is operating" in lieu thereof; and (c) inserting "the Secretary of the Department in which the Coast Guard is operating," after "Agriculture," in section 10(c).

Sec. 35. Executive Order 12743 of January 18, 1991 ("Ordering the Ready Reserve of the Armed Forces to Active Duty"), is amended by: (a) striking "the Department of Transportation" in section 1 and inserting "the Department of Homeland Security" in lieu thereof; and (b) striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 36. Executive Order 12742 of January 8, 1991 ("National Security Industrial Responsiveness"), is amended by: (a) inserting "Homeland Security," after "Transportation," in section 104(a); and (b) striking "the Director of the Federal Emergency Management Agency" in section 104(d) and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 37. Executive Order 12733 of November 13, 1990 ("Authorizing the Extension of the Period of Active Duty of Personnel of the Selected Reserve of the Armed Forces"), is amended by striking "the Secretary of Transportation" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 38. Executive Order 12728 of August 22, 1990 ("Delegating the President's Authority to Suspend any Provision of Law Relating to the Promotion, Retirement, or Separation of Members of the Armed Forces"), is amended by striking "the Secretary of Transportation" in sections 1 and 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 39. Executive Order 12727 of August 27, 1990 ("Ordering the Selected Reserve of the Armed Forces to Active Duty"), is amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 40. Executive Order 12699 ("Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction"), is amended by: (a) striking "Federal Emergency Management Agency (FEMA)" in section 3(d) and inserting "Department of Homeland Security" in lieu thereof; (b) striking "The Director of the Federal Emergency Management Agency" in section 4(a) and inserting "The Secretary of Homeland Security" in lieu thereof; and (c) striking "The Federal Emergency Management Agency" and "The FEMA" in section 5 and inserting "The Department of Homeland Security" in lieu thereof (in both places).

Sec. 41. Executive Order 12657 of November 18, 1988 ("Federal Emergency Management Agency Assistance in Emergency Preparedness Planning at Commercial Nuclear Power Plants"), is amended by: (a) striking "Federal Emergency Management Agency" in the title and inserting "Department of Homeland Security" in lieu thereof; (b) striking "Federal Emergency Management Agency ("FEMA")" in section 1(b) and inserting "Department of Homeland Security ("DHS")" in lieu thereof; (c) striking "FEMA" wherever it appears in sections 1(b), 2(b), 2(c), 3, 4, 5, and 6, and inserting "DHS" in lieu thereof; and (d) striking "the Director of FEMA" in section 2(a) and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 42. Executive Order 12656 of November 18, 1988 ("Assignment of Emergency Preparedness Responsibilities"), as amended, is further amended by: (a) striking "The Director of the Federal Emergency Management Agency" wherever it appears in sections 104(c) and 1702 and inserting "The Secretary of Homeland Security" in lieu thereof; (b) striking "the Director of the Federal Emergency Management Agency" wherever it appears in sections 104(c), 201(15), 301(9), 401(10), 501(4), 501(7), 502(7), 601(3), 701(5), 801(9), 1302(4), 1401(4), 1701, and 1801(b), and inserting "the Secretary of Homeland Security" in lieu thereof; (c) striking "consistent with current National Security Council guidelines and policies" in section 201(15) and inserting "consistent with current Presidential guidelines and policies" in lieu thereof; (d) striking "Secretary" in section 501(9) and inserting "Secretaries" in lieu thereof; (e) inserting "and Homeland Security" after "Labor" in section 501(9); (f) striking "and" after "State" in section 701(6) and inserting a comma in lieu thereof; (g) inserting ", and Homeland Security" after "Defense" in section 701(6); (h) striking "the Director of the Federal Emergency Management Agency," in section 701(6); and (i) striking "Federal Emergency Management Agency" in the title of Part 17 and inserting "Department of Homeland Security" in lieu thereof. Without prejudice to subsections (a) through (i) of this section, all responsibilities assigned to specific Federal officials pursuant to Executive Order 12656 that are substantially the same as any responsibility assigned to, or function transferred to, the Secretary of Homeland Security pursuant to the Homeland Security Act of 2002 (regardless of whether such responsibility or function is expressly required to be carried out through another official of the Department of Homeland Security or not pursuant to such Act), or intended or required to be carried out by an agency or an agency component transferred to the Department of Homeland Security pursuant to such Act, are hereby reassigned to the Secretary of Homeland Security.

Sec. 43. Executive Order 12580 of January 23, 1987 ("Superfund Implementation"), as amended, is further amended by: (a) inserting "Department of Homeland Security," after Department of Energy," in section 1(a)(2); and (b) striking "Federal Emergency Management Agency" in section 1(a)(2).

Sec. 44. Executive Order 12555 of November 15, 1985 ("Protection of Cultural Property"), as amended, is further amended by: (a) striking "the Secretary of the Treasury" in sections 1, 2, and 3, and inserting "the Secretary of

Homeland Security" in lieu thereof; and (b) striking "The Department of the Treasury" in the heading of section 3 and inserting "The Department of Homeland Security" in lieu thereof.

Sec. 45. Executive Order 12501 of January 28, 1985 ("Arctic Research"), is amended by: (a) inserting "(i) Department of Homeland Security;" after "(h) Department of Health and Human Services;" in section 8; and (b) relettering the subsequent subsections in section 8 appropriately.

Sec. 46. Executive Order 12472 of April 3, 1984 ("Assignment of National Security and Emergency Preparedness Telecommunications Functions"), is amended by: (a) inserting "the Homeland Security Council," after "National Security Council," in sections 1(b), 1(e)(4), 1(f)(3), and 2(c)(4); (b) striking "The Secretary of Defense" in section 1(e) and inserting "The Secretary of Homeland Security" in lieu thereof; (c) striking "Federal Emergency Management Agency" in sections 1(e)(3) and 3(j) and inserting "Department of Homeland Security" in lieu thereof; (d) inserting ", in consultation with the Homeland Security Council," after "National Security Council" in section 2(b)(1); (e) inserting ", the Homeland Security Council," after "National Security Council" in sections 2(d) and 2(e); (f) striking "the Director of the Federal Emergency Management Agency" in section 2(d)(1) and inserting "the Secretary of Homeland Security" in lieu thereof; (g) striking "Federal Emergency Management Agency. The Director of the Federal Emergency Management Agency shall:" in section 3(b) and inserting "Department of Homeland Security. The Secretary of Homeland Security shall:" in lieu thereof; and (h) adding at the end of section 3(d) the following new paragraph: "(3) Nothing in this order shall be construed to impair or otherwise affect the authority of the Secretary of Defense with respect to the Department of Defense, including the chain of command for the armed forces of the United States under section 162(b) of title 10, United States Code, and the authority of the Secretary of Defense with respect to the Department of Defense under section 113(b) of that title.".

Sec. 47. Executive Order 12382 of September 13, 1982 ("President's National Security Telecommunications Advisory Committee"), as amended, is further amended by: (a) inserting "through the Secretary of Homeland Security," after "the President," in sections 2(a) and 2(b); (b) striking "and to the Secretary of Defense" in section 2(e) and inserting ", through the Secretary of Homeland Security," in lieu thereof; and (c) striking "the Secretary of Defense" in sections 3(c) and 4(a) and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 48. Executive Order 12341 of January 21, 1982 ("Cuban and Haitian Entrants"), is amended by: (a) striking "The Attorney General" in section 2 and inserting "The Secretary of Homeland Security" in lieu thereof; and (b) striking "the Attorney General" in section 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 49. Executive Order 12208 of April 15, 1980 ("Consultations on the Admission of Refugees"), as amended, is further amended by: (a) striking "the following functions: (a) To" in section 1 101 and inserting "to" in lieu thereof; (b) striking "the Attorney General" in section 1-101(a) and inserting "the Secretary of Homeland Security" in lieu thereof; (c) striking sections 1-101(b) and 1-102; and (d) redesignating sections 1-103 and 1-104 as sections 1-102 and 1-103, respectively.

Sec. 50. Executive Order 12188 of January 2, 1980 ("International Trade Functions"), as amended, is further amended by: (a) inserting "(12) The Secretary of Homeland Security" after "(11) The Secretary of Energy" in section 1-102(b); and (b) renumbering the subsequent subsections in section 1 102(b) appropriately.

Sec. 51. Executive Order 12160 of September 26, 1979 ("Providing for Enhancement and Coordination of Federal Consumer Programs"), as amended, is further amended by: (a) inserting "(m) Department of Homeland Security." after "(l) Department of the Treasury." in section 1-102; (b) striking "(s) Federal Emergency Management Agency." in section 1-102; and (c) relettering the subsequent subsections in section 1-102 appropriately.

Sec. 52. Executive Order 12148 of July 20, 1979 ("Federal Emergency Management"), as amended, is further amended by: (a) striking "the Federal Emergency Management Agency" whenever it appears and inserting "the Department of Homeland Security" in lieu thereof; and (b) striking "the Director of the Federal Emergency Management Agency" wherever it appears and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 53. Executive Order 12146 of July 18, 1979 ("Management of Federal Legal Resources"), as amended, is further amended by: (a) striking "15" in section 1-101 and inserting "16" in lieu thereof; (b) inserting "(n) The Department of Homeland Security." after "(m) The Department of the Treasury." in section 1-102; and (c) relettering the subsequent subsections in section 1-102 appropriately.

Sec. 54. Executive Order 12002 of July 7, 1977 ("Administration of Export Controls"), as amended, is further amended by inserting ", the Secretary of Homeland Security," after "The Secretary of Energy" in section 3.

Sec. 55. Executive Order 11965 of January 19, 1977 ("Establishing the Humanitarian Service Medal"), is amended by striking "the Secretary of Transportation" wherever it appears in sections 1, 2, and 4, and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 56. Executive Order 11926 of July 19, 1976 ("The Vice Presidential Service Badge"), is amended by striking "the Secretary of Transportation" in section 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 57. Executive Order 11858 of May 7, 1975 ("Foreign Investment in the United States"), as amended, is further amended by: (a) inserting "(8) The Secretary of Homeland Security." after "(7) The Attorney General." in section 1(a); and (b) redesignating subsection (8) as subsection (9) in section 1(a).

Sec. 58. Executive Order 11800 of August 17, 1974 ("Delegating Certain Authority Vested in the President by the Aviation Career Incentive Act of 1974"), as amended, is further amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 59. Executive Order 11645 of February 8, 1972 ("Authority of the Secretary of Transportation to Prescribe Certain Regulations Relating to Coast Guard Housing"), is amended by striking "the Secretary of Transportation" in the title and in sections 1 and 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 60. Executive Order 11623 of October 12, 1971 ("Delegating to the Director of Selective Service Authority to Issue Rules and Regulations under the Military Selective Service Act"), as amended, is further amended by: (a) striking "the Secretary of Transportation" in section 2(a) and inserting "the Secretary of Homeland Security" in lieu thereof; and (b) striking "the Department of Transportation" in section 2(a) and inserting "the Department of Homeland Security" in lieu thereof.

Sec. 61. Executive Order 11448 of January 16, 1969 ("Establishing the Meritorious Service Medal"), as amended, is further amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 62. Executive Order 11446 of January 16, 1969 ("Authorizing the Acceptance of Service Medals and Ribbons from Multilateral Organizations Other Than the United Nations"), is amended by striking "the Secretary of Transportation" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 63. Executive Order 11438 of December 3, 1968 ("Prescribing Procedures Governing Interdepartmental Cash Awards to the Members of the Armed Forces"), as amended, is further amended by: (a) striking "the Secretary of Transportation" in sections 1 and 2 and inserting "the Secretary of Homeland Security" in lieu thereof; and (b) striking "the Department of Transportation" wherever it appears in sections 2 and 4 and inserting "the Department of Homeland Security" in lieu thereof.

Sec. 64. Executive Order 11366 of August 4, 1967 ("Assigning Authority to Order Certain Persons in the Ready Reserve to Active Duty"), is amended by striking "The Secretary of Transportation" in sections 2 and 3(b) and inserting "The Secretary of Homeland Security" in lieu thereof.

Sec. 65. Executive Order 11239 of July 31, 1965 ("Enforcement of the Convention for Safety of Life at Sea, 1960"), as amended, is further amended, without prejudice to section 1-106 of Executive Order 12234 of September 3, 1980 ("Enforcement of the Convention for the Safety of Life at Sea"), by: (a) striking "the Secretary of Transportation" in sections 1, 3, and 4, and inserting "the Secretary of Homeland Security" in lieu thereof; and (b) striking "The Secretary of Transportation" in sections 2 and 3 and inserting "The Secretary of Homeland Security" in lieu thereof.

Sec. 66. Executive Order 11231 of July 8, 1965 ("Establishing the Vietnam Service Medal"), as amended, is further amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 67. Executive Order 11190 of December 29, 1964 ("Providing for the Screening of the Ready Reserve of the Armed Forces"), as amended, is further amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 68. Executive Order 11139 of January 7, 1964 ("Authorizing Acceptance of the United Nations Medal and Service Ribbon"), is amended by striking "the Secretary of the Treasury" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 69. Executive Order 11079 of January 25, 1963 ("Providing for the Prescribing of Regulations under which Members of the Armed Forces and Others May Accept Fellowships, Scholarships or Grants"), as amended, is further amended by striking "the Secretary of Transportation" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 70. Executive Order 11046 of August 24, 1962 ("Authorizing Award of the Bronze Star Medal"), as amended, is further amended by striking "the Secretary of Transportation" in section 1 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 71. Executive Order 11016 of April 25, 1962 ("Authorizing Award of the Purple Heart"), as amended, is further amended by striking "the Secretary of Transportation" in sections 1 and 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 72. Executive Order 10977 of December 4, 1961 ("Establishing the Armed Forces Expeditionary Medal"), as amended, is further amended by striking "the Secretary of Transportation" in section 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 73. Executive Order 10789 of November 14, 1958 ("Authorizing Agencies of the Government To Exercise Certain Contracting Authority in Connection With National-Defense Functions and Prescribing Regulations Governing the Exercise of Such Authority"), as amended, is further amended by: (a) striking "The Federal Emergency Management Agency" in paragraph 21 and inserting "Department of Homeland Security" in lieu thereof; and (b) inserting at the end thereof the following new Part: "Part III -- Coordination with Other Authorities 25. After March 1, 2003, no executive department or agency shall exercise authority granted under paragraph 1A of this order with respect to any matter that has been, or could be, designated by the Secretary of Homeland Security as a qualified anti-terrorism technology as defined in section 865 of the Homeland Security Act of 2002, unless-- (a) in the case of the Department of Defense, the Secretary of Defense has, after consideration of the authority provided under subtitle G of title VIII of the Homeland Security Act of 2002, determined that the exercise of authority under this order is necessary for the timely and effective conduct of United States military or intelligence activities; and (b) in the case of any other executive department or agency that has authority under this order, (i) the Secretary of Homeland Security has advised whether the use of the authority provided under subtitle G of title VIII of the Homeland Security Act of 2002 would be appropriate, and (ii) the Director of the Office and Management and Budget has approved the exercise of authority under this order.".

Sec. 74. Executive Order 10694 of January 10, 1957 ("Authorizing the Secretaries of the Army, Navy, and Air Force to Issue Citations in the Name of the President of the United States to Military and Naval Units for Outstanding Performance in Action"), is amended by adding at the end thereof the following new section: "5. The Secretary of the Department in which the Coast Guard is operating may exercise the same authority with respect to the Coast Guard under this order as the Secretary of the Navy may exercise with respect to the Navy and the Marine Corps under this order.".

Sec. 75. Executive Order 10637 of September 16, 1955 ("Delegating to the Secretary of the Treasury Certain Functions of the President Relating to the United States Coast Guard"), is amended by: (a) striking "The Secretary of the Treasury" in sections 1 and 2 and inserting "The Secretary of Homeland Security" in lieu thereof; (b) striking "the Secretary of the Treasury" in the title and in subsections 1(j), 1(k), and 5, and inserting "the Secretary of Homeland Security" in lieu thereof; and (c) striking subsection 1(r) and redesignating subsection 1(s) as subsection 1(r).

Sec. 76. Executive Order 10631 of August 17, 1955 ("Code of Conduct for Members of the Armed Forces of the United States"), as amended, is further amended by: striking "the Secretary of Transportation" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 77. Executive Order 10554 of August 18, 1954 ("Delegating the Authority of the President to Prescribe Regulations Authorizing Occasions Upon Which the Uniform May Be Worn by Persons Who Have Served Honorably in the Armed Forces in Time of War"), is amended by striking "the Secretary of the Treasury" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 78. Executive Order 10499 of November 4, 1953 ("Delegating Functions Conferred Upon the President by Section 8 of the Uniformed Services Contingency Option Act of 1953"), as amended, is further amended by striking "the Treasury" in sections 1 and 2 and inserting "Homeland Security" in lieu thereof.

Sec. 79. Executive Order 10448 of April 22, 1953 ("Authorizing the National Defense Medal"), as amended, is further amended by striking "the Secretary of Transportation" in sections 1 and 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 80. Executive Order 10271 of July 7, 1951 ("Delegating the Authority of the President to Order Members and Units of Reserve Components of the Armed Forces into Active Federal service"), is amended by striking "the Secretary of the Treasury" and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 81. Executive Order 10179 of November 8, 1950 ("Establishing the Korean Service Medal"), as amended, is further amended by striking "the Secretary of the Treasury" in sections 1 and 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 82. Executive Order 10163 of September 25, 1950 ("The Armed Forces Reserve Medal"), as amended, is further amended by striking "the Secretary of the Treasury" in sections 2 and 7 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 83. Executive Order 10113 of February 24, 1950 ("Delegating the Authority of the President to Prescribe Clothing Allowances, and Cash Allowances in lieu thereof, for Enlisted Men in the Armed Forces"), as amended, is further amended by striking "the Secretary of the Treasury" in sections 1 and 2 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 84. Executive Order 4601 of March 1, 1927 ("Distinguished Flying Cross"), as amended, is further amended by: (a) striking "The Secretary of War, the Secretary of the Navy," in sections 2 and 12 and inserting "The Secretary of Defense" in lieu thereof; and (b) striking "the Secretary of the Treasury" in sections 2 and 12 and inserting "the Secretary of Homeland Security" in lieu thereof.

Sec. 85. Designation as a Defense Agency of the United States. I hereby designate the Department of Homeland Security as a defense agency of the United States for the purposes of chapter 17 of title 35 of the United States Code.

Sec. 86. Exception from the Provisions of the Government Employees Training Act. Those elements of the Department of Homeland Security that are supervised by the Under Secretary of Homeland Security for Information Analysis and Infrastructure Protection through the Department's Assistant Secretary for Information Analysis are, pursuant to section 4102(b)(1) of title 5, United States Code, and in the public interest, excepted from the following provisions of the Government Employees Training Act as codified in title 5: sections 4103(a)(1), 4108, 4115, 4117, and 4118, and that part of 4109(a) that provides "under the regulations prescribed under section 4118(a)(8) of this title and".

Sec. 87. Functions of Certain Officials in the Coast Guard. The Commandant and the Assistant Commandant for Intelligence of the Coast Guard each shall be considered a "Senior Official of the Intelligence Community" for purposes of Executive Order 12333 of December 4, 1981, and all other relevant authorities.

Sec. 88. Order of Succession. Subject to the provisions of subsection (b) of this section, the officers named in subsection (a) of this section, in the order listed, shall act as, and perform the functions and duties of, the office of Secretary of Homeland Security ("Secretary") during any period in which the Secretary has died, resigned, or otherwise become unable to perform the functions and duties of the office of Secretary. (a) Order of Succession. (i) Deputy Secretary of Homeland Security; (ii) Under Secretary for Border and Transportation Security; (iii) Under Secretary for Emergency Preparedness and Response; (iv) Under Secretary for Information Analysis and Infrastructure Protection; (v) Under Secretary for Management; (vi) Under Secretary for Science and Technology; (vii) General Counsel; and (viii)

Assistant Secretaries in the Department in the order of their date of appointment as such. (b) Exceptions. (i) No individual who is serving in an office listed in subsection (a) in an acting capacity shall act as Secretary pursuant to this section. (ii) Notwithstanding the provisions of this section, the President retains discretion, to the extent permitted by the Federal Vacancies Reform Act of 1998, 5 U.S.C. 3345 et seq., to depart from this order in designating an acting Secretary.

Sec. 89. Savings Provision. Except as otherwise specifically provided above or in Executive Order 13284 of January 23, 2003 ("Amendment of Executive Orders, and Other Actions, in Connection With the Establishment of the Department of Homeland Security"), references in any prior Executive Order relating to an agency or an agency component that is transferred to the Department of Homeland Security ("the Department"), or relating to a function that is transferred to the Secretary of Homeland Security, shall be deemed to refer, as appropriate, to the Department or its officers, employees, agents, organizational units, or functions.

Sec. 90. Nothing in this order shall be construed to impair or otherwise affect the authority of the Secretary of Defense with respect to the Department of Defense, including the chain of command for the armed forces of the United States under section 162(b) of title 10, United States Code, and the authority of the Secretary of Defense with respect to the Department of Defense under section 113(b) of that title.

Sec. 91. Nothing in this order shall be construed to limit or restrict the authorities of the Central Intelligence Agency and the Director of Central Intelligence pursuant to the National Security Act of 1947 and the CIA Act of 1949.

Sec. 92. This order shall become effective on March 1, 2003.

Sec. 93. This order does not create any right or benefit, substantive or procedural, enforceable at law or in equity, against the United States, its departments, agencies, or other entities, its officers or employees, or any other person.

Appendix D:
Defense Production Act Reauthorization of 2003 (Pub. L. 108-195)

Defense Production Act Reauthorization of 2003 (Pub. L. 108-195)

SEC. 7. REPORT ON IMPACT OF OFFSETS ON DOMESTIC CONTRACTORS AND LOWER TIER SUBCONTRACTORS.

(a) **EXAMINATION OF IMPACT REQUIRED**.--

(1) **IN GENERAL**.--As part of the annual report required under section 309(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2099(a)), the Secretary of Commerce (in this section referred to as the ``Secretary'') shall--

(A) detail the number of foreign contracts involving domestic contractors that use offsets, industrial participation agreements, or similar arrangements during the preceding 5-year period;
(B) calculate the aggregate, median, and mean values of the contracts and the offsets, industrial participation agreements, and similar arrangements during the preceding 5-year period; and
(C) describe the impact of international or foreign sales of United States defense products and related offsets, industrial participation agreements, and similar arrangements on domestic prime contractors and, to the extent practicable, the first 3 tiers of domestic contractors and subcontractors during the preceding 5-year period in terms of domestic employment, including any job losses, on an annual basis.

(2) **USE OF INTERNAL DOCUMENTS**.--To the extent that the Department of Commerce is already in possession of relevant data, the Department shall use internal documents or existing departmental records to carry out paragraph (1).

(3) **INFORMATION FROM NON-FEDERAL ENTITIES**.--

(A) **EXISTING INFORMATION**.--In carrying out paragraph (1), the Secretary shall only require a non-Federal entity to provide information that is available through the existing data collection and reporting systems of that non-Federal entity.
(B) **FORMAT**.--The Secretary may require a non-Federal entity to provide information to the Secretary in the same form that is already provided to a foreign government in fulfilling an offset arrangement, industrial participation agreement, or similar arrangement.

(b) **REPORT**.--

(1) **IN GENERAL**.--Before the end of the 8-month period beginning on the date of

enactment of this Act, the Secretary shall submit to Congress a report containing the findings and conclusions of the Secretary with regard to the examination made pursuant to subsection (a).

(2) **COPIES OF REPORT**.--The Secretary shall also transmit copies of the report prepared under paragraph (1) to the United States Trade Representative and the interagency team established pursuant to section 123(c) of the Defense Production Act Amendments of 1992 (50 U.S.C. App. 2099 note).

(c) **RESPONSIBILITIES REGARDING CONSULTATION WITH FOREIGN NATIONS**.--Section 123(c) of the Defense Production Act Amendments of 1992 (50 U.S.C. App. 2099 note) is amended to read as follows:

``(c) **NEGOTIATIONS**.--

``(1) **INTERAGENCY TEAM**.--

``(A) **IN GENERAL**.--It is the policy of Congress that the President shall designate a chairman of an interagency team comprised of the Secretary of Commerce, Secretary of Defense, United States Trade Representative, Secretary of Labor, and Secretary of State to consult with foreign nations on limiting the adverse effects of offsets in defense procurement without damaging the economy or the defense industrial base of the United States or United States defense production or defense preparedness.

``(B) **MEETINGS**.--The President shall direct the interagency team to meet on a quarterly basis.

``(C) **REPORTS**.--The President shall direct the interagency team to submit to Congress an annual report, to be included as part of the report required under section 309(a) of the Defense Production Act of 1950 (50 U.S.C. App. 2099(a)), that describes the results of the consultations of the interagency team under subparagraph (A) and the meetings of the interagency team under subparagraph (B).

``(2) **RECOMMENDATIONS FOR MODIFICATIONS**.--The interagency team shall submit to the President any recommendations for modifications of any existing or proposed memorandum of understanding between officials acting on behalf of the United States and 1 or more foreign countries (or any instrumentality of a foreign country) relating to--

``(A) research, development, or production of defense equipment; or

``(B) the reciprocal procurement of defense items.".

Appendix E:
Offset Transactions by Economic Sector

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)			Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
			Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
07		Agriculture Services		$53,637,954		$53,637,954		$69,091,954		$69,091,954
	07	Agriculture		$53,595,954		$53,595,954		$68,668,954		$68,668,954
	721	Crop Planting And Cultivating		$42,000		$42,000		$423,000		$423,000
09		Fishing, Hunting, And Preserves		$7,908,000		$7,908,000		$13,051,000		$13,051,000
	0921	Fish Hatcheries And Preserves		$7,908,000		$7,908,000		$13,051,000		$13,051,000
10		Metal Mining		$3,244,000		$3,244,000		$3,244,000		$3,244,000
	1081	Metal Mining Services		$3,244,000		$3,244,000		$3,244,000		$3,244,000
13		Oil And Gas Extraction		$19,638,000		$19,638,000		$66,887,000		$66,887,000
	13	Oil And Gas Extraction		$2,178,000		$2,178,000		$49,427,000		$49,427,000
	1311	Crude Petroleum & Natural Gas		$17,460,000		$17,460,000		$17,460,000		$17,460,000
15		Building Construction	$20,840,446	$15,089,359		$35,929,805	$33,580,446	$15,541,359		$49,121,805
	15	Building Construction	$12,222,000	$7,800,000		$20,022,000	$24,962,000	$7,800,000		$32,762,000
	1521	General Contractors, Family Houses		$870,000		$870,000		$1,322,000		$1,322,000
	154	General Building Contractors-Nonresidential	$8,021,446			$8,021,446	$8,021,446			$8,021,446
	1541	General Contractors, Industrial Buildings	$597,000	$6,419,359		$7,016,359	$597,000	$6,419,359		$7,016,359
16		Heavy Construction	$1,217,000	$259,867		$1,476,867	$259,867	$259,867		$519,734
	16	Heavy Construction		$259,867		$259,867		$259,867		$259,867
	1611	Highway Construction	$1,217,000			$1,217,000	$14,706,000			$14,706,000
17		Construction Special Trade Contractors	$1,011,000	$20,163,542		$21,174,542	$41,338,084	$62,512,626		$103,850,710
	1711	Mechanical Contractors	$1,011,000			$1,011,000	$1,011,000			$1,011,000
	1731	Electrical Work		$16,289,542		$16,289,542		$16,289,542		$16,289,542
	1761	Roofing, Siding, & Sheet Metal Work		$3,874,000		$3,874,000		$3,874,000		$3,874,000
20		Food And Kindred Products		$15,466,000		$15,466,000		$15,665,000		$15,665,000
	20	Food And Kindred Products		$9,556,000		$9,556,000		$9,556,000		$9,556,000
	2033	Canned Fruits And Vegetables		$2,145,000		$2,145,000		$2,144,000		$2,144,000
	2079	Shortening And Oils		$1,068,000		$1,068,000		$1,268,000		$1,268,000
	2084	Wine, Brandy, And Brandy Spirits		$2,697,000		$2,697,000		$2,697,000		$2,697,000
22		Textile Mill Products		$6,362,020		$6,362,020		$6,363,020		$6,363,020
	22	Textile Mill Products		$6,067,000		$6,067,000		$6,068,000		$6,068,000
	2211	Broadwoven Fabric Mills, Cotton		$295,020		$295,020		$295,020		$295,020
23		Apparel & Other Finished Products		$3,813,418		$3,813,418		$3,813,418		$3,813,418
	23	Apparel & Other Finished		$3,813,418		$3,813,418		$3,813,418		$3,813,418

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)		Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
24	Lumber And Wood Products, Exc. Furniture		$592,108		$592,108		$592,108		$592,108
2441	Fabricated Metal Products		$338,417		$338,417		$338,417		$338,417
252	Office Furniture		$253,691		$253,691		$253,691		$253,691
26	Paper Mills & Allied Products	$850,000	$21,089,000		$21,939,000	$850,000	$30,234,000		$31,084,000
26	Paper Mills & Allied Products	$850,000			$850,000	$850,000			$850,000
2621	Paper Mills		$7,819,000		$7,819,000		$16,964,000		$16,964,000
2655	Fiber Cans, Tubes, Drums, Etc.		$289,000		$289,000		$289,000		$289,000
2671	Packaging Paper		$5,981,000		$5,981,000		$5,981,000		$5,981,000
2672	Coated And Laminated Paper		$7,000,000		$7,000,000		$7,000,000		$7,000,000
27	Printing & Publishing	$23,911,008	$10,059,800		$33,970,808	$23,886,624	$10,059,800		$33,946,424
2741	Technical Publications	$23,911,008	$10,059,800		$33,970,808	$23,886,624	$10,059,800		$33,946,424
28	Chemicals And Allied Products	$20,255,000	$422,683,187		$442,938,187	$25,835,000	$692,203,297		$718,038,297
28	Chemicals And Allied Products	$14,675,000	$356,695,566		$371,370,566	$14,675,000	$623,831,566		$638,506,566
281	Industrial Inorganic Chemicals		$11,727,202		$11,727,202		$11,727,202		$11,727,202
2819	Industrial Inorganic Chemicals		$604,890		$604,890				$0
282	Plastics		$3,863,000		$3,863,000		$3,863,000		$3,863,000
2834	Pharmaceutical Preparations		$3,181,000		$3,181,000		$6,170,000		$6,170,000
2851	Paints, Varnishes And Llied Products		$5,000,000		$5,000,000		$5,000,000		$5,000,000
286	Industrial Organic Chemicals		$18,822,246		$18,822,246		$18,822,246		$18,822,246
2865	Cyclic Organic,		$2,470,000		$2,470,000		$2,470,000		$2,470,000
289	Miscellanious Chemical Products		$6,411,578		$6,411,578		$6,411,578		$6,411,578
2892	Explosives	$5,580,000	$2,438,447		$8,018,447	$11,160,000	$2,438,447		$13,598,447
2895	Carbon Black		$8,600,000		$8,600,000		$8,600,000		$8,600,000
2899	Chemicals And Preparations,		$2,869,258		$2,869,258		$2,869,258		$2,869,258
29	Petroleum Refining		$3,160,000		$3,160,000		$3,160,000		$3,160,000
2911	Petroleum Refining		$3,160,000		$3,160,000		$3,160,000		$3,160,000
30	Rubber And Miscellaneous Plastics Products	$679,096	$6,774,849		$7,453,945	$679,096	$6,774,849		$7,453,945
30	Rubber And Miscellaneous Plastics Products	$679,096	$2,464,547		$3,143,643	$679,096	$2,464,547		$3,143,643
3053	Gaskets, Packing, And Sealing Devices		$2,947,734		$2,947,734		$2,947,734		$2,947,734
3089	Plastics Products, Nec		$1,362,568		$1,362,568		$1,362,568		$1,362,568

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)		Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
32	Cut Stone & Stone Products		$12,885,000		$12,885,000		$12,844,000		$12,844,000
3229	Roofing, Siding, And Insulation Materials		$506,000		$506,000		$479,000		$479,000
3241	Cement, Hydraulic		$1,035,000		$1,035,000		$1,021,000		$1,021,000
3264	Porcelain Electrical Supplies		$9,710,000		$9,710,000		$9,710,000		$9,710,000
3281	Cut Stone And Stone Products		$1,164,000		$1,164,000		$1,164,000		$1,164,000
3291	Abrasive Products		$470,000		$470,000		$470,000		$470,000
33	Primary Metal Industries	$9,429,477	$256,840,980		$266,270,457	$14,329,477	$261,682,450		$276,011,927
33	Primary Metal Industries	$318,477	$106,518,304		$106,836,781	$318,477	$106,520,304		$106,838,781
3312	Steel Blast Furnaces And Mills		$33,770,750		$33,770,750		$34,447,220		$34,447,220
3315	Steel Wiredrawing		$1,091,000		$1,091,000		$1,091,000		$1,091,000
3316	Cold-Rolled Steel Sheet, Strip And Bars		$2,368,000		$2,368,000		$1,539,000		$1,539,000
332	Iron And Steel Foundries		$21,915,823		$21,915,823		$21,874,823		$21,874,823
3324	Investment Castings		$165,000		$165,000		$5,197,000		$5,197,000
3325	Steel Foundries, Nec		$310,000		$310,000		$310,000		$310,000
3334	Primary Aluminum	$4,203,000	$33,880,858		$38,083,858	$4,203,000	$33,880,858		$38,083,858
3339	Primary Metal, Exc. Alum. &	$3,688,000	$11,373,000		$15,061,000	$3,688,000	$11,374,000		$15,062,000
3341	Secondary Smelting And Refining Of Nonferrous		$5,375,543		$5,375,543		$5,375,543		$5,375,543
3351	Copper Drawing And Extruding		$4,735,000		$4,735,000		$4,735,000		$4,735,000
3357	Drawing And Insulating Of Nonferrous Wire		$558,000		$558,000		$558,000		$558,000
336	Nonferrous Foundries		$301,408		$301,408		$301,408		$301,408
3366	Copper Foundries		$121,500		$121,500		$121,500		$121,500
3369	Nonferrous Foundries, Except Alluminum & Copper		$840,492		$840,492		$840,492		$840,492
3399	Primary Metal Products, Nec	$1,220,000	$33,516,302		$34,736,302	$6,120,000	$33,516,302		$39,636,302
34	Fabricated Metal Products	$739,487,274	$478,438,292		$1,217,925,566	$779,882,505	$483,270,878		$1,263,153,383
34	Fabricated Metal Products	$39,849,708	$177,234,034		$217,083,742	$39,849,708	$181,267,034		$221,116,742
3411	Fabricated Structural Metal	$432,000			$432,000	$432,000			$432,000
3423	Hand And Edge Tools	$270,201			$270,201	$270,201			$270,201
3429	Hardware, Nec		$565,923		$565,923		$1,071,173		$1,071,173
3433	Heating Equipment, Except Electric And Warm Air		$680,000		$680,000		$680,000		$680,000
3441	Fabricated Structural Metal		$12,319,000		$12,319,000		$12,319,000		$12,319,000

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)		Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
3443	Fabricated Plate Work (Boiler Shops)	$27,374,184	$25,024,073		$52,398,257	$27,374,184	$25,367,073		$52,741,257
3444	Sheet Metal Work		$6,571,000		$6,571,000		$6,571,000		$6,571,000
3451	Screw Machine Parts		$4,472,676		$4,472,676		$4,472,676		$4,472,676
3452	Industrial Fasteners		$3,114,160		$3,114,160		$3,114,160		$3,114,160
346	Metal Forgings And Stampings		$2,139,700		$2,139,700		$1,881,700		$1,881,700
3462	Iron And Steel Forgings	$7,000,000	$10,843,856		$17,843,856	$7,000,000	$10,843,856		$17,843,856
3463	Nonferrous Forgings	$13,578,210	$130,556,159		$144,134,369	$13,578,210	$130,556,159		$144,134,369
3465	Automotive Stampings		$1,320,000		$1,320,000		$1,320,000		$1,320,000
3469	Metal Stampings, Nec		$601,881		$601,881		$601,881		$601,881
3471	Electroplating, Plating, Etc.		$378,000		$378,000		$378,000		$378,000
3479	Coating, Engraving, & Allied		$3,177,333		$3,177,333		$3,177,333		$3,177,333
348	Ordnance And Accessories	$636,576,926	$17,071,503		$653,648,429	$677,001,926	$17,071,503		$694,073,429
3483	Ammunition, Except For Small Arms	$255,562	$15,106,200		$15,361,762	$255,562	$15,106,200		$15,361,762
3489	Ordnance And Accessories, Nec	$6,564,782	$41,636,734		$48,201,516	$6,535,013	$41,846,070		$48,381,083
349	Valves		$1,722,000		$1,722,000		$1,722,000		$1,722,000
3491	Industrial Valves	$2,190,000			$2,190,000	$2,190,000			$2,190,000
3499	Machined Parts, Not Specified	$5,395,701	$23,904,060		$29,299,761	$5,395,701	$23,904,060		$29,299,761
35	Industrial Machinery	$157,021,975	$1,467,742,819	$500,000	$1,625,264,794	$195,118,940	$1,764,836,689	$500,000	$1,960,455,629
35	Industrial Machinery	$83,646,632	$464,743,014		$548,389,646	$118,497,180	$480,820,294		$599,317,474
351	Engines And Turbines		$1,411,000		$1,411,000		$1,411,000		$1,411,000
3511	Hydraulic Generator Components		$11,843,000		$11,843,000		$11,843,000		$11,843,000
3519	Internal Combustion Engines		$77,359,022		$77,359,022		$98,061,022		$98,061,022
3523	Farm Machinery And Equipment	$392,000	$4,298,000		$4,690,000	$2,940,000	$4,516,000		$7,456,000
3531	Constuction Machinery	$4,691,000	$16,206,211	$500,000	$21,397,211	$4,691,000	$42,446,211	$500,000	$47,637,211
3532	Mining Machinery		$14,199,000		$14,199,000		$17,009,000		$17,009,000
3533	Oil And Gas Field Machinery And Equipment		$3,000,000		$3,000,000		$3,000,000		$3,000,000
3535	Conveyors And Conveying Eqmt.		$3,544,954		$3,544,954		$3,544,954		$3,544,954
3537	Industrial Trucks, Tractors, Etc.		$41,270,596		$41,270,596		$58,456,596		$58,456,596
354	Metalworking Machinery And Equipment	$6,843,857	$66,220,871		$73,064,728	$6,843,857	$66,220,874		$73,064,731
3541	Metal Cutting Machine Tools	$3,466,867	$174,237,580		$177,704,447	$3,473,257	$191,419,770		$194,893,027
3542	Metal Forming Machine Tools	$1,349,917	$43,608,374		$44,958,291	$1,349,917	$44,313,374		$45,663,291

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)		Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
3544	Special Dies & Tools, Die Sets, Jigs & Fixtures	$20,671,000	$15,359,963		$36,030,963	$20,671,000	$15,359,963		$36,030,963
3545	Metal Cutting Tools &		$4,966,041		$4,966,041		$4,966,041		$4,966,041
3547	Rolling Mill Machinery And Equipment		$3,037,136		$3,037,136		$3,037,136		$3,037,136
3548	Welding Equipment		$25,913,000		$25,913,000		$40,225,000		$40,225,000
3549	Metalworking Machinery, Nec		$4,089,949		$4,089,949		$4,089,949		$4,089,949
3552	Textile Machinery		$93,946,568		$93,946,568		$93,946,568		$93,946,568
3553	Woodworking Machinery		$605,000		$605,000		$1,885,000		$1,885,000
3554	Paper Industries Machinery		$25,158,000		$25,158,000		$26,240,000		$26,240,000
3555	Printing Trades Machinery		$7,830,000		$7,830,000		$8,039,000		$8,039,000
3559	Special Industry Machinery, Nec	$1,466,000	$11,924,521		$13,390,521	$1,466,000	$35,244,581		$36,710,581
356	General Industrial Machinery And Equipment	$12,655,264	$12,371,170		$25,026,434	$12,655,264	$12,371,170		$25,026,434
3561	Pumps And Pumping Equipment		$5,124,245		$5,124,245		$5,124,245		$5,124,245
3562	Ball And Roller Bearings	$1,340,000	$447,000		$1,787,000	$1,340,000	$448,000		$1,788,000
3563	Air And Gas Compressors		$52,350,737		$52,350,737		$52,350,737		$52,350,737
3564	Industrial Fans And Blowers		$1,076,734		$1,076,734		$1,076,734		$1,076,734
3565	Packaging Machinery		$190,000		$190,000		$190,000		$190,000
3566	Speed Changers And Gears		$402,000		$402,000		$402,000		$402,000
3567	Industrial Furnaces & Ovens		$35,208,000		$35,208,000		$35,340,000		$35,340,000
3568	Mechanical Power Transmission Equipment		$368,494		$368,494		$368,494		$368,494
3569	General Industrial Machinery,		$27,117,031		$27,117,031		$113,280,031		$113,280,031
357	Computer And Office Equipment	$15,323,177	$79,463,733		$94,786,910	$16,454,177	$99,806,183		$116,260,360
3571	Electronic Computers	$889,909	$18,134,684		$19,024,593	$1,418,909	$24,806,684		$26,225,593
3572	Computer Peripheral Equipment	$1,935,946			$1,935,946	$967,973			$967,973
3575	Computer Peripheral Equipment		$3,175,275		$3,175,275		$3,175,275		$3,175,275
3577	Computer Peripheral Equipment		$24,502,118		$24,502,118		$25,850,118		$25,850,118
358	Refrigeration And Service Industry Machinery	$2,350,406	$7,631,512		$9,981,918	$2,350,406	$7,631,512		$9,981,918
3585	Air-Conditioning And Warm Air Heating Equipment		$45,537,727		$45,537,727		$80,439,614		$80,439,614
3589	Service Industry Machinery		$6,092,000		$6,092,000		$10,817,000		$10,817,000

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)			Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
			Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
	359	Misc. Industrial And Commercial Machinery		$2,902,331		$2,902,331		$2,902,331		$2,902,331
	3593	Fluid Power Cylinders And Actuators		$1,768,228		$1,768,228		$1,768,228		$1,768,228
	3594	Fluid Power Pumps And Motors		$2,400,000		$2,400,000		$2,400,000		$2,400,000
	3599	Industrial Machinery And Equipment, Nec		$26,708,000		$26,708,000		$28,193,000		$28,193,000
36	Electronic/Electrical Equipment		$2,112,192,246	$2,961,185,749	$4,228,800	$5,077,606,795	$2,291,431,159	$3,292,574,093	$7,978,800	$5,591,984,052
	36	Electronic/Electrical Equipment	$737,871,866	$544,531,893		$1,282,403,759	$788,814,579	$630,883,350		$1,419,697,929
	361	Electric Transmission & Distr. Eqmt.	$18,900,000			$18,900,000	$18,900,000			$18,900,000
	3612	Power Distribution Transformers		$1,209,000		$1,209,000		$1,209,000		$1,209,000
	3613	Switchgear And Switchboard Apparatus		$3,311,793		$3,311,793		$3,561,963		$3,561,963
	362	Electrical Industrial Apparatus	$450,042	$678,483		$1,128,525	$450,042	$678,483		$1,128,525
	3621	Electric Motors And Generators		$27,700,712		$27,700,712		$27,700,712		$27,700,712
	3625	Relays And Industrial Controls		$1,727,000		$1,727,000		$1,727,000		$1,727,000
	3629	Electrical Industrial Apparatus, Nec		$1,499,129		$1,499,129		$2,998,258		$2,998,258
	363	Household Appliance Stores		$4,743,046		$4,743,046		$4,838,000		$4,838,000
	3632	Household Refrigerators		$10,002,000		$10,002,000		$12,670,000		$12,670,000
	3639	Household Appliances, Nec		$22,000,000		$22,000,000		$22,000,000		$22,000,000
	364	Electrical Lighting & Wiring Eqmt.		$833,000		$833,000		$833,000		$833,000
	3641	Electric Lamp Bulbs And Tubes		$921,000		$921,000		$800,000		$800,000
	3643	Contacts, Electrical		$4,501,314		$4,501,314		$4,501,314		$4,501,314
	3644	Noncurrent-Carrying Wiring Devices		$1,800,000		$1,800,000		$1,800,000		$1,800,000
	3648	Lighting Equipment, N.E.C.	$1,750,000	$3,200,000		$4,950,000	$1,750,000	$3,200,000		$4,950,000
	3651	Household Audio And Video Equipmen, And Audio		$6,959,925		$6,959,925		$6,959,925		$6,959,925
	366	Telecommunications Equipment	$28,070,486	$219,893,450	$4,228,800	$252,192,736	$66,918,486	$283,893,450	$4,228,800	$355,040,736
	3661	Telephone And Telegraph Apparatus		$16,398,644		$16,398,644		$16,423,046		$16,423,046
	3663	Radio And Television Broadcasting Equipment	$23,481,621	$64,463,557		$87,945,178	$42,221,621	$64,648,657		$106,870,278

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)		Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
3669	Communications Equipment, Not Elsewhere Classified		$11,865,277		$11,865,277		$11,865,277		$11,865,277
367	Electronic Components	$1,195,885,540	$1,696,193,414		$2,892,078,954	$1,247,129,740	$1,841,689,711		$3,088,819,451
3671	Electron Tubes		$18,845,045		$18,845,045		$20,147,246		$20,147,246
3672	Printed Circuit Boards	$1,168,000	$92,632,028		$93,800,028	$1,168,000	$108,253,629		$109,421,629
3674	Semiconductors And Related Devices	$3,991,000	$39,111,511		$43,102,511	$3,991,000	$39,111,511		$43,102,511
3677	Electronic Coils, Transformers, & Other Inductors		$644,925		$644,925		$644,925		$644,925
3678	Electronic Connectors		$930,000		$930,000		$930,000		$930,000
3679	Electronic Components, Nec	$50,255,109	$128,304,995	$0	$178,560,104	$65,568,109	$139,881,995	$3,750,000	$209,200,104
369	Batteries, Not Specified By Type	$4,426,168	$914,000		$5,340,168	$8,577,168	$914,000		$9,491,168
3691	Storage Batteries		$872,172		$872,172		$872,172		$872,172
3694	Electrical Equip For Internal Combustion Engines		$2,952,291		$2,952,291		$2,992,291		$2,992,291
3699	Electrical Equipment & Supplies, Nec	$45,942,414	$31,546,145		$77,488,559	$45,942,414	$33,945,178		$79,887,592
37	Transportation Equipment	$8,764,696,729	$10,782,391,594	$207,751,375	$19,754,839,698	$10,334,080,435	$12,562,089,721	$283,408,521	$23,179,578,677
37	Transportation Equipment	$320,224,192	$432,000,698		$752,224,890	$329,917,359	$502,390,908		$832,308,267
371	Motor Vehicles And Motor Vehicle Equipment	$20,022,568	$1,038,728,405		$1,058,750,973	$20,022,568	$1,158,485,405		$1,178,507,973
3711	Motor Vehicles And Passenger Car Bodies	$35,893,086	$430,875,844		$466,768,930	$35,893,086	$504,964,844		$540,857,930
3713	Truck And Bus Bodies		$740,837		$740,837		$740,837		$740,837
3714	Motor Vehicle Parts And Accessories	$4,034,000	$304,407,680		$308,441,680	$4,034,000	$306,682,680		$310,716,680
3715	Truck Trailers	$15,830,322	$26,868,572		$42,698,894	$15,830,322	$37,351,560		$53,181,882
372	Aircraft And Parts	$4,940,728,541	$4,576,814,512	$206,422,375	$9,723,965,428	$6,160,312,020	$5,747,551,997	$282,079,521	$12,189,943,538
3721	Aircraft	$318,591,264	$264,625,161		$583,216,425	$353,647,801	$333,652,853		$687,300,654
3724	Aircraft Engines And Engine	$687,484,898	$428,496,581	$1,329,000	$1,117,310,479	$797,536,856	$483,964,781	$1,329,000	$1,282,830,637
3728	Aircraft Parts And Auxiliary Equipment, Nec	$2,207,581,776	$2,309,691,441		$4,517,273,217	$2,385,816,515	$2,421,477,965		$4,807,294,480
3731	Ship Building And Repairing	$41,869,215	$722,173,650		$764,042,865	$54,528,215	$771,562,678		$826,090,893
3743	Railroad Equipment		$35,092,901		$35,092,901		$35,092,901		$35,092,901
3759	Auxiliary Equipment	$5,093,561	$68,353,141		$73,446,702	$5,093,561	$68,353,141		$73,446,702

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)		Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
376	Guided Missiles And Space Vehicles And Parts	$37,346,160	$50,935,454		$88,281,614	$37,676,160	$88,885,454		$126,561,614
3761	Guided Missile & Space Vehicles	$53,879,222	$10,882,581		$64,761,803	$53,879,222	$10,882,581		$64,761,803
3764	Guided Missile And Space Vehicle Propulsion Units		$13,414,855		$13,414,855		$16,209,855		$16,209,855
3769	Guided Missle And Space Vehicle Parts, Nec	$9,509,344	$3,763,281		$13,272,625	$8,414,170	$3,763,281		$12,177,451
3795	Tanks And Tank Components	$55,435,000	$64,526,000		$119,961,000	$60,305,000	$70,076,000		$130,381,000
3799	Transportation Equipment, Nec	$11,173,580			$11,173,580	$11,173,580			$11,173,580
38	Measuring, Analyzing, And Controlling Instruments;	$799,153,907	$848,132,950		$1,647,286,857	$1,010,585,910	$1,108,379,198		$2,118,965,108
38	Measuring, Analyzing, And Controlling Instruments;	$9,800,000	$71,643,514		$81,443,514	$9,800,000	$71,710,284		$81,510,284
381	Search, Detection, Navigation, Guidance,	$12,363,495	$27,053,581		$39,417,076	$33,225,424	$27,053,581		$60,279,005
3812	Search, Detection Navigation, Guidance Instruments	$695,902,841	$525,360,359		$1,221,263,200	$782,088,486	$737,900,895		$1,519,989,381
382	Laboratory Apparatus And Analytical, Optical,		$5,424,536		$5,424,536		$40,424,536		$40,424,536
3823	Instruments For Display, Measure, And Control		$846,000		$846,000		$846,000		$846,000
3825	Instruments For Measuring And Testing Electrical	$25,270,658	$1,140,955		$26,411,613	$121,126,658	$1,140,955		$122,267,613
3826	Laboratory Analytical Instruments		$8,900,000		$8,900,000		$8,900,000		$8,900,000
3827	Optical Instruments And Lenses	$30,951,397	$79,225,340		$110,176,737	$37,951,397	$79,072,340		$117,023,737
3829	Measuring And Controlling Devices, Nec	$323,516	$2,312,842		$2,636,358	$1,851,945	$2,312,842		$4,164,787
384	Medical Instruments And Equipment	$17,966,000	$86,424,495		$104,390,495	$17,966,000	$97,790,437		$115,756,437
3841	Surgical Instruments		$1,467,000		$1,467,000		$1,607,000		$1,607,000
3842	Orthopedic, Prosthetic, And Surgical Appliances		$2,573,000		$2,573,000		$3,859,000		$3,859,000
3844	X-Ray Apparatus And Tubes		$28,400,000		$28,400,000		$28,400,000		$28,400,000
3861	Photographic Equipment And Supplies	$6,576,000	$1,457,273		$8,033,273	$6,576,000	$1,457,273		$8,033,273
3873	Watches, Clocks, Timing		$5,904,055		$5,904,055		$5,904,055		$5,904,055

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)	Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
	Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
39 Printing & Publishing	$645,807	$14,511,968		$15,157,775	$645,807	$14,511,968		$15,157,775
399 Miscellaneous Manufacturing Industries		$9,394,768		$9,394,768		$9,394,768		$9,394,768
3944 Games, Toys, Children's		$4,500,000		$4,500,000		$4,500,000		$4,500,000
3999 Manufacturing Industries, Nec	$645,807	$617,200		$1,263,007	$645,807	$617,200		$1,263,007
42 Motor Freight And Warehousing		$2,771,000		$2,771,000		$2,771,000		$2,771,000
422 Public Warehousing And Storage		$2,771,000		$2,771,000		$2,771,000		$2,771,000
44 Water Transportation		$60,608,237		$60,608,237		$68,768,237		$68,768,237
444 Water Transportation Of Freight, Nec		$35,000,000		$35,000,000		$35,000,000		$35,000,000
4412 Ocean Frieght Shipping		$25,608,237		$25,608,237		$33,768,237		$33,768,237
45 Transportation By Air	$54,746,189	$15,472,875		$70,219,064	$54,746,189	$29,492,875		$84,239,064
4512 Arrangement Of Passenger Transportation	$54,746,189	$593,175		$55,339,364	$54,746,189	$593,175		$55,339,364
4581 Airports, Flying Fields, And Airport Terminal Serv		$14,879,700		$14,879,700		$28,899,700		$28,899,700
47 Transportation Services	$29,284	$3,445,637		$3,474,921	$29,284	$3,445,637		$3,474,921
47 Transportation Services		$277,832		$277,832		$277,832		$277,832
472 Tourist Transportation Services		$2,500,000		$2,500,000		$2,500,000		$2,500,000
4724 Travel Agencies	$29,284			$29,284	$29,284			$29,284
4731 Arrangement Of Transportation Of Freight & Cargo		$667,805		$667,805		$667,805		$667,805
48 Communications	$106,115,601	$111,179,552		$217,295,153	$143,669,783	$120,979,552		$264,649,335
48 Communications		$61,696,787		$61,696,787		$61,696,787		$61,696,787
481 Telephone Communications		$17,607,000		$17,607,000		$27,407,000		$27,407,000
4812 Radiotelephone Communications	$91,957,145	$5,435,600		$97,392,745	$79,954,327	$5,435,600		$85,389,927
4813 Telephone Communications, Except Radio Type	$5,425,238	$1,902,501		$7,327,739	$5,425,238	$1,902,501		$7,327,739
4899 Satellite Communications	$8,733,218	$24,537,664		$33,270,882	$58,290,218	$24,537,664		$82,827,882
49 Power Generation		$2,496,688		$2,496,688		$2,496,688		$2,496,688
49 Power Generation		$11,488		$11,488		$11,488		$11,488
493 Combination Electric And Gas And Other Utilities		$1,699,200		$1,699,200		$1,699,200		$1,699,200
4941 Water Supply		$786,000		$786,000		$786,000		$786,000

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)		Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
		Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
61	Credit Extension	$10,212,427	$724,058,959		$734,271,386	$77,029,235	$818,998,497		$896,027,732
61	Credit Extension	$10,212,427	$706,075,001		$716,287,428	$77,029,235	$801,014,539		$878,043,774
615	Business Credit Institutions		$17,983,958		$17,983,958		$17,983,958		$17,983,958
62	Security Brokers, Dealer, Exchanges And Services	$2,099,136	$129,108,465		$131,207,601	$2,099,136	$156,227,857		$158,326,993
62	Security Brokers, Dealer, Exchanges And Services	$2,099,136	$82,587,051		$84,686,187	$2,099,136	$102,306,443		$104,405,579
6282	Financial Advice, Investment		$46,521,414		$46,521,414		$53,921,414		$53,921,414
67	Holding & Other Investment Offices	$205,506,544	$461,400,228	$23,556,000	$690,462,772	$226,951,544	$820,937,414	$74,261,000	$1,122,149,958
67	Holding & Other Investment Offices	$8,300,000	$296,379,185	$19,843,000	$324,522,185	$8,300,000	$545,650,513	$39,687,000	$593,637,513
679	Investment Operations	$194,481,544	$134,007,504	$3,713,000	$332,202,048	$213,301,544	$238,599,362	$34,574,000	$486,474,906
6794	Patent Owners And Lessors	$2,725,000	$2,500,000		$5,225,000	$5,350,000	$2,500,000		$7,850,000
6799	Venture Capital		$28,513,539		$28,513,539		$34,187,539		$34,187,539
70	Hotels, Rooming Houses, Camps, And Other Lodging Places		$403,485		$403,485		$403,485		$403,485
7011	Hotels And Motels		$403,485		$403,485		$403,485		$403,485
73	Business Services	$324,011,079	$1,086,319,381	$7,715,000	$1,418,045,460	$388,563,231	$1,338,109,070	$32,000,000	$1,758,672,301
73	Business Services	$7,087,599	$456,087,349		$463,174,948	$11,799,649	$463,582,029		$475,381,678
731	Advertising		$28,005,488		$28,005,488		$35,684,121		$35,684,121
7319	Advertising, Nec		$450,000		$450,000		$450,000		$450,000
734	Services To Dwellings And Other Buildings		$1,386,000		$1,386,000		$1,386,000		$1,386,000
7359	Equipment Rental And Leasing, Nec	$2,919,207	$572,000		$3,491,207	$2,919,207	$1,272,000		$4,191,207
7361	Employment Agencies		$7,500,000		$7,500,000		$7,500,000		$7,500,000
737	Software And Data Processing	$161,122,888	$310,146,739		$471,269,627	$190,939,990	$490,505,287		$681,445,277
7371	Computer Programming Services	$58,106,491	$113,841,892		$171,948,383	$58,106,491	$113,804,892		$171,911,383
7372	Prepackaged Software	$16,700,000	$31,752,823		$48,452,823	$1,400,000	$37,221,573		$38,621,573
7373	Computer Integrated Systems Design	$19,811,793	$56,546,315		$76,358,108	$32,948,793	$72,819,315		$105,768,108
7374	Computer Prossing And Data Preparation		$3,064,522		$3,064,522		$3,064,522		$3,064,522
7376	Computer Facilities Manamgement Services	$32,374,829	$871,000		$33,245,829	$32,374,829	$7,742,000		$40,116,829

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)			Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
			Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
	7378	Computer Maintenance And		$5,336,608		$5,336,608		$5,336,608		$5,336,608
	7379	Computer Related Services, Nec	$16,626,640	$31,077,355		$47,703,995	$34,812,640	$31,077,355		$65,889,995
	7389	Business Services, Nec	$9,261,632	$39,681,290	$7,715,000	$56,657,922	$23,261,632	$66,663,368	$32,000,000	$121,925,000
76	Miscellaneous Repair Shops		$2,372,336	$6,112,893		$8,485,229	$2,372,336	$6,112,893		$8,485,229
	76	Miscellaneous Repair Shops	$22,336	$2,336		$24,672	$22,336	$2,336		$24,672
	769	Misc. Repair Shops And Related Services		$691,270		$691,270		$691,270		$691,270
	7699	Repair Shops And Services, Nec	$2,350,000	$5,419,287		$7,769,287	$2,350,000	$5,419,287		$7,769,287
80	Health Services			$28,000		$28,000		$282,000		$282,000
	8099	Health And Allied Services, Nec		$28,000		$28,000		$282,000		$282,000
81	Legal Services			$75,000		$75,000		$75,000		$75,000
	8111	Legal Services		$75,000		$75,000		$3,125,000		$3,125,000
82	Educational Services		$285,576,491	$483,569,473		$769,145,964	$297,633,520	$619,925,216		$917,558,736
	82	Educational Services	$250,664,520	$217,927,891		$468,592,411	$261,524,359	$292,724,946		$554,249,305
	8221	Colleges, Universities, And Professional Schools	$500,000	$169,148,155		$169,648,155	$500,000	$228,148,135		$228,648,135
	8249	Vocational Schools, Nec	$5,800,000	$3,500,000		$9,300,000	$5,800,000	$3,500,000		$9,300,000
	829	School And Educational Services, Nec		$4,000,000		$4,000,000		$4,000,000		$4,000,000
	8299	Schools And Educational Services, Nec	$28,611,971	$88,993,427		$117,605,398	$29,809,161	$91,552,135		$121,361,296
87	Technical Services & Consultants		$569,579,424	$1,227,538,810	$1,654,000	$1,798,772,234	$646,837,828	$1,600,919,334	$1,654,000	$2,249,411,162
	87	Technical Services &	$80,974,631	$253,680,661		$334,655,292	$108,286,631	$387,652,347		$495,938,978
	871	Engineering And Architectural Services	$60,817,284	$25,848,543		$86,665,827	$63,028,806	$25,848,543		$88,877,349
	8711	Engineering Services	$332,654,827	$438,668,490		$771,323,317	$368,863,459	$542,652,850		$911,516,309
	8712	Nuclear Engineering Services		$4,448,527		$4,448,527		$4,448,527		$4,448,527
	872	Accounting, Auditing, And Bookkeeping Services		$3,067,000		$3,067,000		$3,067,000		$3,067,000
	873	Research, Development, And Testing Services	$8,456,705	$36,393,509		$44,850,214	$8,456,705	$67,915,509		$76,372,214
	8731	Commercial Research, Physical Science	$180,000	$22,825,000		$23,005,000	$910,000	$28,715,000		$29,625,000
	8732	Commercial Economic, Sociological & Ed Research		$21,716,000		$21,716,000		$21,716,000		$21,716,000

SIC Broad Economic Sectors 2-Digit SIC economic Sector 2-4 Digit Industry Detailed Sector (Available Data)			Actual Value of Offset Transactions 1993-2005 by Detailed Economic Sector				Credit Value of Offset Transactions 1993-2005 by Detailed Economic Sector			
			Direct	Indirect	Unspecified	Total	Direct	Indirect	Unspecified	Total
	8733	Noncommercial Research Organizations		$1,000,000		$1,000,000		$1,000,000		$1,000,000
	8734	Testing Laboratories		$18,540,963		$18,540,963		$18,540,963		$18,540,963
	874	Management And Public Relations Services		$810,500	$330,000	$1,140,500		$810,500	$330,000	$1,140,500
	8741	Management Services	$14,378,832	$20,208,479		$34,587,311	$14,531,082	$39,141,679		$53,672,761
	8742	Management Consulting	$67,656,546	$295,034,763	$1,324,000	$364,015,309	$78,300,546	$374,114,041	$1,324,000	$453,738,587
	8743	Public Relations Services		$62,500,000		$62,500,000		$62,500,000		$62,500,000
	8744	Facilities Support Management Services	$4,460,599	$9,180,000		$13,640,599	$4,460,599	$9,180,000		$13,640,599
	8748	Business Consulting, Nec		$13,616,375		$13,616,375		$13,616,375		$13,616,375
89	Miscellaneous Services		$39,618,818	$85,099,606		$124,718,424	$39,584,818	$85,099,606		$124,684,424
	89	Miscellaneous Services	$39,618,818	$85,099,606		$124,718,424	$39,584,818	$85,099,606		$124,684,424
96	Administration Of Economic Programs			$12,000,000		$12,000,000		$12,000,000		$12,000,000
	9621	Regulation & Admin Of Transporation Programs		$12,000,000		$12,000,000		$12,000,000		$12,000,000
99	Undetermined		$599,135,589	$583,936,380		$1,183,071,969	$568,715,383	$697,262,546		$1,265,977,929
	99	Undetermined	$569,559,182	$508,000,495		$1,077,559,677	$549,637,726	$609,340,661		$1,158,978,387
	9999	Not Classifiable	$29,576,407	$75,935,885		$105,512,292	$19,077,657	$87,921,885		$106,999,542
Source: BIS Offsets Database										

Appendix F:
Country Offset Policies

Note: The official country policies contained in this appendix have been confirmed through communications with in-country U.S. embassies' staff. Countries not listed in this appendix indicated that they have no official policy (i.e., Germany) or have not responded to BIS's/U.S. embassies' request for offset policy information.

Australia	
Title of Policy:	Australia Industry Involvement (AII) Programme
Agency Handling	Department of Defence, Defense Material Organization
Part of Procurement Decision	Yes, for military procurement
Offset Sector	Defense
Minimum Value of Contract	Civilian – A$10 million (US $7.5 million); Defense – A$5 million (US $3.75 million)
Minimum Offset Required (%)	Maximized local content where cost effective
Term	7 years unless otherwise defined in agreement
Multipliers	None in policy
Penalties	Penalties negotiated in each agreement, but generally more than 10% of contract value
Focus	Long-term partnerships with an emphasis on operational requirements, life support systems and research and development – all defense-related
Direct vs. Indirect	Both
Eligible Offset Activities	Subcontract, R&D, tech transfer, training and skills transfer, export sales, infrastructure, venture capital
Web site	http://www.defence.gov.au/dmo/id/aii/manual_inclannexes_5Feb00_contactsremoved.pdf

Austria	
Title of Policy:	Offset Guidelines
Agency Handling	Federal Ministry of Economic Affairs
Part of Procurement Decision	Yes
Offset Sector	Defense
Minimum Value of Contract	10 million Austrian Schillings, ~726,000€
Minimum Offset Required (%)	100% (maximum of 200%)
Term	Usually equal to the contract term
Multipliers	Negotiable on a case-by-case basis; mainly 3-10
Penalties	Negotiable on a case-by-case basis, but usually 3%-7%
Focus	High technology projects, investments and R & D
Direct vs. Indirect	Both
Eligible Offset Activities	Direct investment, R&D, technology transfer, subcontracting
Web site	Federal Procurement http://www.bbg.gv.at (in German only)

Belgium	
Title of Policy:	Industrial Benefit in the Field of Defense Procurement ("industrial offset")
Agency Handling	Ministry of Economics Affairs, Directorate Economic Relations, Defense and Technology Office; Federal Public Service Economy
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	Generally 11€ million, practically 2.5€ million
Minimum Offset Required (%)	100% (no extra points in bidding process for over 100%)
Term	Pledges should be closed within two years after supply, but can be negotiated
Multipliers	Only for acquisition above the 11€ million threshold
Penalties	At least 10% of non-fulfilled industrial benefit
Focus	High technology, create new or additional business flow
Direct vs. Indirect	Both
Eligible Offset Activities	(No tech transfer or investment) Co-production, R&D cooperation
Web site	Ministry of Economic Affairs: http://mineco.fgov.be (Select English, Market Regulation, Industry, Industrial offsets for defense procurements)

Brazil	
Title of Policy:	Commercial, Industrial, and Technological Compensation Policy (MoD policy)
Agency Handling	Defense Industry Military Committee, Ministry of Defense officially, but offsets imposed directly by the three military branches
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	US $5 million
Minimum Offset Required (%)	Goal of 100%, however less is acceptable; 10% direct, 60% indirect
Term	Equal to the contract term, which is usually 5 years
Multipliers	No mention of multipliers in policy, but general range of 2-10
Penalties	No firm policy
Focus	Develop and sustain defense industry; increase self-sufficiency in technology and aerospace sectors
Direct vs. Indirect	Both
Eligible Offset Activities	Co-production, Subcontracts, Purchase, Investments, Training, Technology Transfer
Web site	http://www.defesa.govbr

Canada	
Title of Policy:	Industrial & Regional Benefits Policy (IRB)
Agency Handling	Industry Canada under the Ministry of Industry
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	Discretionary for contracts over C $2 million (US $1.7 million); C $100M required (US $84 million)
Minimum Offset Required (%)	100%
Term	From release of Letter of Interest or RFP to the end of the export contract
Multipliers	None in policy
Penalties	Liquidated damages are applied for non-compliance
Focus	Investment in the high-tech sectors of the economy
Direct vs. Indirect	Both
Eligible Offset Activities	Both major and non-major Crown projects. See: http://strategis.ic.ca/epic/internet/inad-ad.nsf/en/ad03662e/html
Web site	www.irb-rir.gc.ca

Chile	
Title of Policy:	
Agency Handling	Pro Industry Committee, Chilean Corporation for Economic Development (CORFO)
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	US $5 million
Minimum Offset Required (%)	100%
Term	Equal to that of the contract
Multipliers	No formula
Penalties	Imposed by negotiation
Focus	Information and communication technologies; Biotechnology; Electronic Industry; Metal-mechanics Industry
Direct vs. Indirect	Both
Eligible Offset Activities	Include Direct Investment; Technology Transfer; Licensing; Training;; Access to New Markets
Web site	CORFO: http://www.corfo.cl

Czech Republic	
Title of Policy:	Programs for Industrial Cooperation, the Government Decree, January 5, 2005
Agency Handling	Offset Commission, Ministry of Industry and Trade
Part of Procurement Decision	Not always
Offset Sector	Civilian and Defense
Minimum Value of Contract	CZK 500 million
Minimum Offset Required (%)	100%
Term	10 years
Multipliers	Not used
Penalties	Generally 5-10% if export contract value; negotiated beforehand
Focus	Cooperation in new technologies, transfer of new technologies
Direct vs. Indirect	Both, but minimum 20% direct
Eligible Offset Activities	Export support, new export areas, direct investments, technology transfer, new forms of cooperation, old cooperation (within 1-2 years) can also be claimed
Web site	http://www.mpo.cz/en/industry-and-construction/offset-programmes/

Denmark	
Title of Policy:	Industrial Cooperation Program (ICP)
Agency Handling	National Agency for Enterprise and Construction (NAEC), under the Ministry of Economic and Business Affairs
Part of Procurement Decision	Yes
Offset Sector	Defense
Minimum Value of Contract	25 million DKK or 3.3€ million
Minimum Offset Required (%)	100% (30% within first two years; over-commitment during this period reduces overall obligation)
Term	At least 30% fulfilled in four years
Multipliers	Not normally considered but will be available for relevant R&D and high technology transfers on a case-by-case basis
Penalties	If 30% is not fulfilled in four years, supplier must pay the amount missing to fulfill the 30% to the NAEC. Supplier will be excluded from future biddings until obligation is fulfilled.
Focus	Enhance technological level, market access and cooperation with foreign suppliers of defense material
Direct vs. Indirect	Both
Eligible Offset Activities	Direct procurement of Danish products, technology transfers, investments, collaborative/joint ventures, strategic alliances, subcontracting
Web site	http://www.naec.dk/ICC

Finland	
Title of Policy:	Policy on Industrial Participation
Agency Handling	Finish Committee on Industrial Participation, Ministry of Trade and Industry
Part of Procurement Decision	Yes
Offset Sector	Defense
Minimum Value of Contract	10€ million
Minimum Offset Required (%)	100%
Term	To be negotiated
Multipliers	0.3-3 for exports of Finnish products; tech transfer multipliers are negotiated
Penalties	To be negotiated
Focus	Participation of domestic defense industry, technology, export, internationalization of exports
Direct vs. Indirect	Both
Eligible Offset Activities	Subcontract, exports and internationalization of SMEs, technology transfer, co-production
Web site	Offset Guidelines: http://www.ktm.fi (Select English, Promotion of Export, Industrial Participation)

France	
Title of Policy:	No formal counter trade and offset policy
Agency Handling	Société d'Echanges Industriels et Internationaux (SEII) manages indirect offset obligations and programs with foreign companies on behalf of the French DGA (MoD)
Part of Procurement Decision	-
Offset Sector	Civilian and Defense (though mainly Defense)
Minimum Value of Contract	No minimum value
Minimum Offset Required (%)	Negotiable
Term	Negotiable
Multipliers	Favor transactions with small and medium-sized industrial companies
Penalties	N/A
Focus	-
Direct vs. Indirect	Both
Eligible Offset Activities	Technology transfer, investments, marketing support, purchases
Web site	N/A

Greece	
Title of Policy:	Policy of Offsets Benefits (OB)
Agency Handling	Hellenic Ministry of National Defense/General Armaments Directorate (GAD), Division of Offsets (DO)
Part of Procurement Decision	Yes
Offset Sector	Defense
Minimum Value of Contract	10€ million
Minimum Offset Required (%)	80% (often exceeds this, average is understood to be around 120%)
Term	Same as period of procurement contract
Multipliers	Very complex, depends on value of offset & recipient, up to 12 (expected to drop to the 1-9 range)
Penalties	10% of unfulfilled benefits
Focus	Upgrade production and technology infrastructure, reinforce armed forces, reduce procurement costs
Direct vs. Indirect	Direct
Eligible Offset Activities	Required: local subcontracting, purchase and/or co-production; Other options: direct investment, material/services to armed forces directly, others defined in specific agreement (training and technical support do not count)
Web site	Hellenic Defense Contracts Bulletin 2002 (Part 1): http://www.mod.gr/ENGLISH/newver/BULLETIN1.rtf

Hungary	
Title of Policy:	Government Decree No. 228/2004 (VII.31) Section 75.
Agency Handling	Ministry of Economics and Transportation
Part of Procurement Decision	Yes
Offset Sector	Defense
Minimum Value of Contract	HUF 1 billion (about US $4.9 million)
Minimum Offset Required (%)	100%
Term	Negotiable, but generally one year longer than contract term
Multipliers	1-2.5 for preferential activities, investment areas and export products
Penalties	Bank guarantee to be opened for 6% of the contracted value
Focus	Investment as 30% min. of offset value; areas of focus: electronics, IT, telecommunications, nanotechnology, biotechnology, environmental protection, renewable energy, defense industry
Direct vs. Indirect	Both; direct preferred
Eligible Offset Activities	Investment, technology transfer, subcontract, purchase
Web site	http://www.gkm.gov.hu

India	
Title of Policy:	Defense Procurement Procedures (DPP-2005)
Agency Handling	Defense Offset Facilitation Authority (DOFA), Ministry of Defense
Part of Procurement Decision	Yes
Offset Sector	Defense (could soon include Civilian)
Minimum Value of Contract	US $70 million
Minimum Offset Required (%)	30%
Term	Same as contract
Multipliers	None
Penalties	5% of the underperformance; possible disqualification from participation in future contracts
Focus	To establish long-term relationships between foreign and Indian firms
Direct vs. Indirect	Both, but must be in the defense industry
Eligible Offset Activities	Includes co-development, co-production, joint ventures and technology transfers
Web site	http://testsite24.nic.in/dpm/welcome.html

Israel*	
Title of Policy:	Industrial Cooperation (Industrial Cooperation Program – ICP)
Agency Handling	Industrial Cooperation Authority (ICA), Ministry of Trade and Industry
Part of Procurement Decision	Yes (Tenders Law Regulations require ICP)
Offset Sector	Civilian and Defense
Minimum Value of Contract	US $500,000
Minimum Offset Required (%)	35%
Term	Length of time of the contract, may be extended
Multipliers	1-1.5 times, dependent upon type of offset
Penalties	No liquidated damages clause
Focus	Development of close, long-term working relationships
Direct vs. Indirect	No distinction
Eligible Offset Activities	Subcontract (preferred), purchase, direct investment, R&D
Web site	Industrial Cooperation Authority: http://www.moit.gov.il/ **Israel is revising its offset policy*

Italy	
Title of Policy:	Not codified
Agency Handling	National Armament Directorate, Ministry of Defense
Part of Procurement Decision	Armed Services
Offset Sector	Defense
Minimum Value of Contract	5€ million (about $6.6m) unless the seller's country has obligations with the Italian industry
Minimum Offset Required (%)	100% target, but no less than 70%
Term	-
Multipliers	Negotiable, maximum of 3
Penalties	Maximum penalty of 10%
Focus	Provide export opportunities for Italian defense companies
Direct vs. Indirect	Both
Eligible Offset Activities	Export of Italian military products
Web site	None

Lithuania	
Title of Policy:	The Procedure of compensation when purchasing arms, ammunition, explosives and other military purpose goods (Res. 918, 15 JUL 2003); The Rules of Compensation When Purchasing Arms, Ammunition, Explosives or Other Military Purpose Goods and the Statute of the Commission on Compensation Matters When Purchasing Arms, Ammunition, Explosives or Other Military Purpose Goods (Ministry of Economy Order No.4-355, 22 SEP 2003)
Agency Handling	Ministry of Economy
Part of Procurement Decision	Yes
Offset Sector	Defense
Minimum Value of Contract	LTL 5 million (approx. US $1.9 million)
Minimum Offset Required (%)	100% (negotiable)
Term	10 years (minimum of 50% completed in 5 years)
Multipliers	Not entirely clear
Penalties	Variable
Focus	National security and protection of certain defense-related domestic industries
Direct vs. Indirect	Both
Eligible Offset Activities	Priority given to manufacturing of arms, development of high technologies
Web site	http://www.ukmin.lt/en/industry/compensation

Malaysia	
Title of Policy:	Countertrade Programs
Agency Handling	Defense Industry Division, Ministry of Defense (lead agency)
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense (mainly Defense)
Minimum Value of Contract	US $10 million
Minimum Offset Required (%)	Negotiable
Term	Generally within the period of the contract term
Multipliers	None except for foreign direct investments and high end technology transfers
Penalties	8% of contract value
Focus	Maximize local content, create employment and improve technological base to build sustainable defense industry capacity
Direct vs. Indirect	Both
Eligible Offset Activities	Technology transfer, investment, purchase of commodities or manufactured goods approved by the government
Web site	None

The Netherlands	
Title of Policy:	Industrial Participation and Offsets
Agency Handling	Ministry of Economic Affairs – Commissariat for Military Production (CMP)
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	5€ million
Minimum Offset Required (%)	100%
Term	Generally 5-7 years from date agreement is in effect, but not to exceed 10
Multipliers	Negotiable
Penalties	Negotiated percentage of late portion, must still fulfill obligation
Focus	Technological innovation, marketing support for innovative products
Direct vs. Indirect	Both
Eligible Offset Activities	Co-production, licensed production, technology transfer of equal technological level to procurement,
Web site	Limited information available on: http://www.cmp.ez.nl Use the left-hand navigation to view the English-language page, not the icon in the top, right-hand corner

Romania	
Title of Policy:	Offsetting Special Technique Procurements
Agency Handling	Agency for Offsetting Special Technique Procurements (Offset Agency)
Part of Procurement Decision	Compulsory for national security procurements, but not always a criterion for procurement decisions
Offset Sector	Defense
Minimum Value of Contract	3€ million
Minimum Offset Required (%)	80%
Term	Maximum of two years after the procurement contract completion
Multipliers	Usually between 1.2 and 1.9, though up to 5 is possible (e.g. technology transfer with export for more than five years)
Penalties	10% (non-liquidating) of the delayed offset obligation + 10% (liquidating) of the remaining offset obligation Performance Bond
Focus	Defense, Aerospace
Direct vs. Indirect	Both (minimum 25% direct offset and/or in the field of defense, public order, national security, and aerospace)
Eligible Offset Activities	Focus on export of indigenous products related to the in-country investment; subject to the Offset Agency's approval
Web site	N/A

Slovenia	
Title of Policy:	Slovenian Offset Guidelines
Agency Handling	Offset Commission; Offset Working Group; proposals submitted to MoD Basic Acquisition and Equipping Agency (BAEA)
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	100 million SIT (approx. US $500,000)
Minimum Offset Required (%)	100% (there are indications that this has been relaxed)
Term	1-5 years from contract date
Multipliers	Generally up to 7
Penalties	Not specified in guidelines
Focus	Creating new employment opportunities is the primary goal, through long-term economic ties and capital investment, high technology, and investment in R&D
Direct vs. Indirect	Both
Eligible Offset Activities	Flexible
Web site	N/A

South Africa	
Title of Policy:	Defense Industrial Participation (DIP); National Industrial Participation (NIP)
Agency Handling	DIP: Armscor, answerable to Minister of Defense NIP: Department of Trade and Industry
Part of Procurement Decision	No, since the foreign supplier only has to indicate at the time to later comply with DIP requirement
Offset Sector	Civilian and Defense (separate policies and handling agencies)
Minimum Value of Contract	US $2 million (defense); US $10 (national)
Minimum Offset Required (%)	Contract value US $2-10 million =50% (DIP obligation); US $10 million+ = 50% (DIP obligation) + 30% (NIP obligation)
Term	Negotiable
Multipliers	Awarded for R&D, investment, and targeting companies of Historically Disadvantaged Individuals
Penalties	5% of unfulfilled portion of the obligation
Focus	Create market opportunity; fast track investments; foster collaboration in technology development and transfer
Direct vs. Indirect	Both
Eligible Offset Activities	Technology transfer, investment, purchase, capacity building, etc.
Web site	DIP: http://www.armscor.co.za/DIS/WhatIsDIP.asp IPP: http://www.dti.gov.za/offerings/offering.asp?offeringid=127

Spain	
Title of Policy:	Policy of Armament and Material Agency
Agency Handling	Ministry of Defense - General Direction of Armaments and Material (DGAM); Industrial Cooperation Agency of Spain (ISDEFE)
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	N/A
Minimum Offset Required (%)	100%, but may vary
Term	Within term of supply contract
Multipliers	Generally not used (between 2 and 5 when used)
Penalties	Negotiated individually, usually 5-10%
Focus	Technology similar to product purchased, improve armed forces and defense-related industry, increase research and development, increase employment
Direct vs. Indirect	Both
Eligible Offset Activities	Direct purchases, cooperative agreements, licensed technologies, training services to armed forces
Web site	N/A

Sweden	
Title of Policy:	Industrial Participation Program
Agency Handling	Defence Material Administration (FMV)
Part of Procurement Decision	Yes
Offset Sector	Defense
Minimum Value of Contract	SKR100 million (approx. US $15million)
Minimum Offset Required (%)	100%
Term	Within timeframe of procurement program
Multipliers	Sum of all multipliers greater than one shall be limited to a maximum of 10% of the IP commitment
Penalties	5% of the unfulfilled requirement for each milestone goal
Focus	Gain know-how, promote exports, internationalization of domestic defense industry; priority areas set by Swedish Government
Direct vs. Indirect	Both
Eligible Offset Activities	Co-production, licensed production, subcontracts, tech and evaluation, research, technology transfer, marketing and financial assistance, investments and joint ventures
Web site	Swedish Defence Materiel Administration: http://www.fmv.se Select English

Switzerland	
Title of Policy:	Swiss Offset Policy
Agency Handling	Armasuisse (part of the Federal Department of Defense, Civil Protection and Sports – DDPS)
Part of Procurement Decision	Yes
Offset Sector	Defense and Civilian
Minimum Value of Contract	Sfr 20 million (US $17 million) and on a case-by-case basis
Minimum Offset Required (%)	100%
Term	No later than 3 years after completion of the defense contract
Multipliers	Maximum of 2-3
Penalties	Penalties are levied but not excessive
Focus	Swiss manufacturing industries and technology transfer and cooperation with universities.
Direct vs. Indirect	Both but direct is preferred
Eligible Offset Activities	Co-production, cooperation and technology transfer with universities, export assistance/purchase, international marketing
Web site	http://www.ar.admin.ch/internet/armasuisse/en/home.html

Taiwan	
Title of Policy:	Industrial Cooperation Program (ICP)
Agency Handling	Ministry of Economic Affairs (MOEA)
Part of Procurement Decision	No
Offset Sector	Military (Civilian procurement follows guidelines "in principle")
Minimum Value of Contract	Defense: NDT$500 million (US $15 million); Civilian: NDT US $50 million (US $1.5 million)
Minimum Offset Required (%)	40%
Term	Not stipulated
Multipliers	1-10
Penalties	3-5% of procurement contract
Focus	Upgrade industries and industrial infrastructure, stimulation for domestic investment, introduce high-tech and critical technologies, support export growth
Direct vs. Indirect	Both
Eligible Offset Activities	Local procurement, technology transfer, training, R&D, international marketing, local investment
Web site	http://www.cica.com.tw Select English

Turkey	
Title of Policy:	Directive on Offset Implementations in Defense Procurement Transactions
Agency Handling	Undersecretariat for Defense Industries (SSM)
Part of Procurement Decision	Yes
Offset Sector	Defense and Civilian
Minimum Value of Contract	US $5 million
Minimum Offset Required (%)	50% of import contract value
Term	Maximum 2 years more than period of procurement agreement
Multipliers	1-6, specific breakdown in the Directive
Penalties	One tenth of the result of multiplying the percentage unfulfilled by the monetary value of the unfulfilled portion
Focus	Increase Turkish defense exports, compensate deficit of balance of payments, strengthen defense industrial infrastructure, expanded investment and R&D cooperation
Direct vs. Indirect	Both
Eligible Offset Activities	Exports, technology transfer, R&D, training, investments, co-production, technical cooperation
Web site	http://www.ssm.gov.tr

United Arab Emirates	
Title of Policy:	Government Policy of Diversification, Offsets Program
Agency Handling	UAE Offsets Group (UOG)
Part of Procurement Decision	Yes
Offset Sector	Civilian and Defense
Minimum Value of Contract	US $10 million
Minimum Offset Required (%)	60% (negotiated with UOG or lump sum payments paid to UOG)
Term	7 years, with milestones at years 3, 5 and 7
Multipliers	Yes but unpublished
Penalties	8.5% of unfulfilled offset obligation at each milestone
Focus	Sustainable growth and security of economic environment
Direct vs. Indirect	Indirect
Eligible Offset Activities	Profitable joint ventures with local partners only
Web site	http://www.uaeoffsets.org (Select Guidelines or Terms)

United Kingdom	
Title of Policy:	Industrial Participation Policy
Agency Handling	Industrial Participation Unit, Defense Export Services Organization, MoD
Part of Procurement Decision	No
Offset Sector	Defense
Minimum Value of Contract	£10 million ($17.2 million); £50 million for French and German companies in conformity with bilateral agreements ("reciprocal waiver agreements")
Minimum Offset Required (%)	No minimum established (100% target)
Term	Over period of procurement contract
Multipliers	No multipliers for IP credit
Penalties	None, however strict enforcement of IP program
Focus	Competitive and leading-edge domestic industry and added overseas business
Direct vs. Indirect	Both
Eligible Offset Activities	Must be defense related: Technology transfers, R&D, Marketing Assistance, Subcontracts, Purchases
Web site	http://www.deso.mod.uk/ip.htm

Appendix G:
Glossary and Offset Example

GLOSSARY AND OFFSET EXAMPLE

Actual Value of Offset Transactions: The market value of the offset transaction measured in U.S. dollars.

Best efforts clauses: With a "best efforts" clause, there is no penalty for non-fulfillment of the contract; the firm is judged to be acting in good faith to meet its obligations. However, firms' reputations can be jeopardized if offset obligations are not fulfilled as stated in the contract; non-fulfillment would likely result in the U.S. defense firm being excluded from future procurements by that purchasing government.

Co-production: Overseas production based upon government-to-government agreement that permits a foreign government or producer(s) to acquire the technical information to manufacture all or part of a U.S. origin defense article. Co-production includes government-to-government licensed production, but excludes licensed production based upon direct commercial arrangements by U.S. manufacturers.

Credit Value of Offset Transactions: The value credited for the offset transaction by application of a multiplier or other method. The credit value may be greater than or equal to the actual value of the offset.

Direct Offsets: Offset transactions that are directly related to the defense items or services exported by the defense firm. These are usually in the form of co-production, subcontracting, training, production, licensed production, or possibly technology transfer or financing activities.

Indirect Offsets: Offset transactions that are not directly related to the defense items or services exported by the defense firm. The kinds of offsets that are considered "indirect" include purchases, investment, training, financing activities, marketing/exporting assistance, and technology transfer.

Investment: Investment arising from the offset agreement, taking the form of capital invested to establish or expand a subsidiary or joint venture in the foreign country.

Licensed Production: Overseas production of a U.S.-origin defense article based upon transfer of technical information under direct commercial arrangements between a U.S. manufacturer and a foreign government or producer.

Liquidated damages: If a firm fails to fulfill all required offsets by the stipulated deadline, it must pay a percentage (usually 5-20 percent) of the total value of the export contract. The percentage for liquidated damages is specified in the contract.

Marketing: Marketing assistance to foreign companies in either defense or unrelated industries. In some cases, countries require marketing in addition to the offsets. Also encompasses export assistance.

Multiplier: A factor applied to the actual value of certain offset transactions to calculate the credit value earned. Foreign governments use multipliers to provide firms with incentives to offer offsets in targeted areas of economic growth. When a multiplier is applied to the off-the-shelf price of a more desirable service or product offered as an offset, the defense firm receives a higher credit value toward fulfilling an offset obligation.

Example: A foreign government interested in a specific technology may offer a multiplier of "six" for offset transactions providing access to that technology. A U.S. defense company with a 120 percent offset obligation from a $1 million sale of defense systems ordinarily would be required to provide technology transfer through an offset equaling $1.2 million. With a multiplier of six, however, the U.S. company could offer only $200,000 (actual value) in technology transfer and earn $1.2 million in credit value, fulfilling its entire offset obligation under the agreement.

Non-performance penalties: Firms must pay a prearranged percent (2-10 percent) of all obligations not fulfilled within the allotted time.

Offset Agreement: Contract specifying the percentage of the total sale to be offset, the forms of industrial compensation required, the duration of the agreement, and penalty clauses, if any.

Offset Fulfiller: The company that provides the offset compensation, which is usually the defense firm who signed the offset agreement. However, there are times when the obligation is not related to the defense firm's specialty and therefore is contracted out. For example, if marketing is a component of the offset requirement, the defense firm may hire a marketing company to satisfy the obligation. The marketing firm would then be the "offset fulfiller."

Offset Recipients: Foreign firms that receive the benefits of offset transactions from defense firms. For example, a U.S. company sells a defense item to a foreign country, with an offset obligation requiring that components worth 50 percent of the export contract be built in the foreign country. The foreign companies manufacturing these components would be the "offset recipients."

Offset Transaction: Any activity for which the defense prime contractor claims credit in fulfillment of the offset agreement. For the purpose of analysis, BIS divides offset transactions into nine different categories. These are also the required categories for the offset reporting requirement.

Offsets: Industrial compensation practices required as a condition of purchase in sales of defense articles and/or defense services.

Other: Any other form of offset required or offered by a defense company/foreign government.

Penalties: Measures used to motivate defense firms to fulfill their offset obligation within the timeframe allotted by the contract.

Purchases: Procurement of off-the-shelf items from the offset recipient. Often, but not always, purchases are indirect by nature. Indirect purchases are similar in definition to countertrade, while direct purchases are analogous to buy-backs.

Subcontractor Production: Overseas production of a part or component of a U.S.-origin defense article. The subcontract does not necessarily involve license of technical information and is usually a direct commercial arrangement between the defense prime contractor and a foreign producer.

Technology Transfer: Transfer of technology that occurs as a result of an offset agreement and that may take the form of research and development conducted abroad, technical assistance provided to the subsidiary or joint venture of overseas investment, or other activities under direct commercial arrangement between the defense prime contractor and a foreign entity.

Training: Generally includes training related to the production or maintenance of the exported defense item. Training may be required in unrelated areas, such as computer training, foreign language skills, or engineering capabilities.

OFFSET EXAMPLE

This example is for illustrative purposes only and in no way represents an actual offset agreement. The fictitious nation of Atlantis purchased ten KS-340 jet fighters from a U.S. defense firm, PJD Inc. (PJD), for a total of $500 million with a 100 percent offset. In other words, the offset agreement obligated PJD to fulfill offsets equal to the value of the contract, or $500 million. The government of Atlantis decided what would be required of PJD in order to fulfill its offset obligation, which would include both direct and indirect compensation. The government also assigned the credit value for each category.

Direct Offsets (i.e., related to the production of the export item, the KS-340 jet fighter)

Technology Transfer: The technology transfer requirement was assigned 36 percent of the total offset obligation. PJD agreed to transfer all the necessary technology and know-how to Atlantis firms in order to repair and maintain the jet fighters. The Atlantis government deemed this capability to be vital to national security and, therefore, gave a multiplier of six. As a result, the transfer of technology actually worth $30 million was given a credit value of $180 million.

Co-production: Atlantis firms manufactured some components of the KS-340 jet fighters, totaling $220 million, which accounted for 44 percent of the offset obligation.

Indirect Offsets (i.e., not related to the production of the export item, the KS-340 jet fighter)
Purchase: PJD purchased marble statues from Atlantis manufacturers for eventual resale. These purchases accounted for 7 percent of the offset obligation, or $35 million.

Financing Activities: PJD made investments in non-defense related industries in Atlantis; this accounted for 4 percent of the offset obligation, or $20 million.

Technology Transfer: PJD provided submarine technology to Atlantis firms, which accounted for 6 percent of the offset obligation, or $30 million.

Marketing: Commercial assistance was provided for Atlantis fisheries to market their fish in the United States, which fulfilled the remaining 3 percent, or $15 million of the offset obligation. In this example, the Atlantis fisheries are *offset recipients* because they received marketing services for their product. PJD hired an American advertising firm, the *offset fulfiller*, to market the Atlantis fish.

The duration of the offset agreement was 10 years with a three-year grace period. A timetable was created by the Atlantis government outlining which obligations should be fulfilled, to what extent, and when. If PJD did not meet the deadlines given, the company was required to pay the Atlantis government 5 percent of the unfulfilled offset amount in liquidated damages. For example, if after 10 years, only 98.5 percent of the offset obligation of $500 million was fulfilled, PJD would be required to pay liquidated damages in the amount of 5 percent of the 1.5 percent unfulfilled portion of the offset obligation, or $375,000.

Appendix H:
Interagency Team Final Report on Consultation with Foreign Nations on Limiting the Adverse Effects of Offsets in Defense Procurement

REPORT OF THE INTERAGENCY TEAM ON CONSULTATION WITH FOREIGN NATIONS ON LIMITING THE ADVERSE EFFECTS OF OFFSETS IN DEFENSE PROCUREMENT

INTERAGENCY TEAM:

Department of Defense: Chair

Department of Commerce

Department of Labor

Department of State

United States Trade Representative

DECEMBER 2006

NOTICE:

THE VIEWS AND OPINIONS CONTAINED IN THIS REPORT ARE THOSE OF THE DOMESTIC AND FOREIGN ENTITIES CONSULTED. THE FINDINGS AND RECOMMENDATIONS ARE THOSE OF THE INTERAGENCY TEAM. NOTHING CONTAINED HEREIN SHOULD BE CONSTRUED AS AN OFFICIAL UNITED STATES GOVERNMENT POSITION, POLICY, OR DECISION, UNLESS SO DESIGNATED BY OTHER OFFICIAL U.S. GOVERNEMT DOCUMENTATION.

Report of the Interagency Team on Consultation with Foreign Nations on Limiting the Adverse Effects of Offsets in Defense Procurement

DECEMBER 2006

Executive Summary

This is the third annual and the final report of the interagency team established by Congress and the President to consult with foreign nations on limiting the adverse effects of offsets in defense procurement.

MANDATE, PURPOSE, AND PRACTICE OF INTERAGENCY TEAM

In December 2003, President Bush signed into law a reauthorization of, and amendments to, the Defense Production Act of 1950 (DPA). Section 7 (c) of P.L. 108-195 amended Section 123 (c) of the DPA, which required the President to designate a chairman of an interagency team to consult with foreign nations on limiting the adverse effects of offsets in defense procurement without damaging the economy, defense industrial base, defense production, or defense preparedness of the United States. The statute further provided that the team be comprised of the Secretaries of Commerce, Defense, Labor, and State, and the U.S. Trade Representative.

P.L. 108-195 requires the interagency team to meet quarterly, and to send to Congress an annual report describing the results of the consultations and meetings. On August 6, 2004, President Bush formally established the interagency team chaired by the Secretary of Defense. Within the Department of Defense, chairmanship was delegated to the Under Secretary of Defense for Acquisition Technology and Logistics. The interagency team subsequently established a working group to conduct the background research and prepare for the consultations, execute the consultations, analyze the results, and write the annual and final reports, all with oversight and approval by the interagency team.

PREPARATION FOR CONSULTATIONS WITH FOREIGN NATIONS

In preparation for the foreign consultations, the interagency team and working group identified and consulted with domestic entities affected by offsets: U.S. defense prime contractors, subcontractors (or first-tier suppliers or small and medium enterprises) to the prime contractors, labor representatives and industry advisors from the U.S. Trade Representative (USTR)- and Department of Commerce (DOC)-administered Industry Trade Advisory Committees (ITACs).

The consultations were designed to allow the various domestic entities to inform the interagency team of their views regarding offsets in defense trade and to make suggestions on what specific issues should be raised when consulting with U.S. trading partners.

The organizations that participated in the domestic consultations are shown in Table ES-1.

Table ES-1. Domestic Entities Consulted

Category	Entity
U.S. defense prime contractors	Aerospace Industries Association
	American Shipbuilding Association
	Defense Industry Offset Association
	National Defense Industrial Association
U.S. defense subcontractors	U.S. Business and Industrial Council
U.S. labor organizations	American Federation of Labor and Congress of Industrial Organizations
	International Association of Machinists & Aerospace Workers
	International Union, United Automobile, Aerospace and Agricultural Implement Workers of America
DOC/USTR-ITACs[a]	ITAC–1, Aerospace Equipment
	ITAC–4, Consumer Goods
	ITAC–6, Energy & Energy Services

[a] ITACs included representatives from defense prime and subcontractors.

CONSULTATIONS WITH FOREIGN NATIONS

During domestic consultations, the domestic entities were also asked to recommend foreign entities for consultation. Based on those recommendations and its own deliberations, the interagency team selected the following countries for consultation: Canada, Denmark, France, Germany, India, Italy, the Netherlands, Republic of Korea, Spain, Sweden, and the United Kingdom.

These countries were selected primarily because their governments require high levels of offsets or industrial compensation when purchasing defense systems and services from U.S. defense contractors. Department of Commerce data for 1993–2004 show that these countries, with the exception of India, which is new to offsets, account for approximately 50 percent of all offset agreements (by value). Eight of the 11 countries are in Europe; Europe accounts for slightly more than 65 percent of all offset agreements (by value).

The nations consulted were divided into four categories, as Table ES-2 shows.

Table ES-2. Categories of Nations Consulted

Category	Number of nations	Demanders or providers of offsets
1. Nations that execute offsets without a national policy, that is, on a customary basis	2	Demanders and providers
2. Nations that execute offsets under transparent, flexible and transnational-oriented policies	1	Demander and provider
	3	Primarily demanders
3. Nations that execute offsets based on less flexible and more nationalistic-oriented policies	4	Primarily demanders
4. Nations that execute offsets under national statute which results in an inflexible and nationalistic offsets policy	1	Primarily a demander

INTERAGENCY TEAM FINDINGS

The interagency team and working group analyzed all the statements made by domestic and foreign entities during consultations and other information collected during 2 years of consultations. From these consultations, it was clear that the United States is not alone in its concerns about the use of offsets in defense trade. Other nations, which also are major "providers of offsets," expressed concerns about the adverse effects of offsets on their sales of defense weapons systems. These provider nations expressed interest in a multinational dialogue to address their concerns. From both providers and "demanders" of offsets, most nations agree with the United States' view that there is a real cost to offsets. The following describes these key findings in more detail.

General Findings

1. Most nations purchasing defense systems demand offsets.

2. Offsets are persistent and increasing.

3. Offsets in their many forms may never be completely eliminated.

4. Most national offset policies are executive branch policies, usually not found in law. They range from the explicit to the customary.
   The ministries of defense in the consulted countries are concerned that offsets unduly increase the purchase price of weapons systems.

5. Many nations believe that the United States has a de facto offsets policy; most foreign systems that it purchases are produced in the United States. Many nations note that offsets are necessary to mitigate U.S. domestic preferences.

6. Some countries believe that the United States is enforcing its export control regime in a protectionist manner.

7. U.S. domestic entities' perceptions on offsets are both positive and negative, depending on whether work is gained or lost as a result of a successful defense sale and its associated offset.

Findings: Adverse Effects

1. Direct offsets reduce the near-term benefits of the sale by reducing the amount of domestic work supported in the United States.

2. Offsets are not free; estimates indicate that they increase the price of defense equipment by as much as 15 to 30 percent.

3. Certain types of offsets distort the ability of the provider to fulfill the offset requirement in accordance with best business practices:

   a. Those demanded solely for political reasons.

   b. Those that attempt to turn offsets into a type of foreign aid or economic assistance program.

4. Defense-related indirect offsets may create business incentives for prime contractors to place future defense work in foreign countries that would otherwise be performed by U.S. domestic subcontractors.

5. Certain offset provisions are perceived to be particularly adverse by U.S. industry, including the following:

    a. Short timeframes to meet offset milestones

    b. Excessive, non-liquidating penalties (as an incentive to meet milestones)

    c. Required bank guarantees to pay penalties

    d. Restrictions on the use of multipliers

    e. Directed subcontracts.

6. Offsets can decrease competition and innovation when prime contractors are directed to use specific foreign subcontractors without regard for their competitiveness and best value.

Findings: Other Effects

There are other effects of offsets, which demonstrate why the United States Government should not unilaterally preclude offsets:

1. U.S. prime contractors view offsets as a necessary part of doing business and, accordingly, execute offsets as a profit-making enterprise.

2. Offsets are perceived by the U.S. aerospace industry and others as giving U.S. defense prime contractors a competitive advantage in opening foreign defense markets and winning foreign competitions.

3. Industry stated that those offsets that allow U.S. prime contractors and foreign subcontractors to team based on competition and best value may increase global defense industry competition by encouraging prime and subcontractors to be innovative and responsive to customer needs.

4. Industry also stated that requirements to fulfill offsets can lead prime contractors to discover innovative, reliable, and cost-effective foreign subcontractors that they would not have found on their own.

5. Industry stated that offsets are usually necessary to make a defense sale, which may provide benefits, including the following:

    a. Defense sales often keep U.S. production lines open for defense systems not being procured or procured in uneconomic volumes by the Department of Defense.

    b. Defense sales introduce economies of scale, which often reduce weapon system unit costs for all purchasers over the long term.

c. Defense sales often support additional work, at both prime and subcontractors, for exports of portions of the defense system that are not subject to mandatory offsets.

d. Defense sales promote interoperability with U.S. and coalition partner forces for weapon systems using common parts, components, and support systems.

6. To the extent that offsets make it politically feasible for foreign governments to spend money on defense purchases, offsets help:

   a. Maintain defense funding for our allies and partners

   b. Increase net sales to U.S. industry and exports for the United States

   c. Provide military capability and promote interoperability.

INTERAGENCY TEAM RECOMMENDATIONS

Based on its findings and collective judgment, the interagency team recommends that:

1. The United States should continue to consult and dialogue with nations and international organizations involved with offsets. The goal of these consultations and dialogues should remain the same, utilizing the existing Department of Defense-led interagency approach. The consultations and dialogues should include all potentially affected national ministries and departments, and always include the ministries or departments of defense.

2. Nations demanding offsets should be encouraged to give contractors maximum flexibility in fulfilling offset requirements so they can make sound business decisions.

3. More international cooperative projects should be encouraged because they do not require offsets among the partnering nations. Participation of national contractors should be based on competition and best value.

STRATEGIES FOR LIMITING THE ADVERSE EFFECTS OF OFFSETS

Recognizing that the United States must be cautious about taking any action that could possibly damage its economy, defense industrial base, defense production, or defense preparedness, the interagency team proposes several strategies for limiting the adverse effects of offsets. These strategies are presented and discussed in Chapter six of the attached report.

Contents

Figures

Tables

Chapter 1
Background and Introduction

ORIGINS OF OFFSETS

The origins of offsets can be traced back to shortly after the end of World War II. David Mowery, professor of economics at the Haas School of Business at Berkeley and a former member of the National Commission on the Use of Offsets in Defense Trade, believes that the demand for offsets resulted to a large degree from U.S. military production and co-production arrangements in Europe and Japan beginning in the early 1950s. According to Professor Mowery, the U.S. government's goals were twofold: (1) encourage the acquisition of American (and therefore interoperable) weapons systems by our allies and (2) support their reconstruction efforts. Over time, this approach led to increasing demands from allied and other governments for targeted investment and support from the United States for specific economic and industrial objectives (military and otherwise) in return for acquiring American equipment.

Professor Mowery's views are supported by those of Jurgen Brauer, professor of economics at Augusta State University, who has done extensive analysis on the impact of offsets. He also believes that the beginnings of offsets can be found in the immediate postwar period, and specifically links them to the formation of NATO. Professor Brauer's view is that the desire to make interoperability a major component of the Atlantic Alliance was a key factor in the United States' decision to enter into these types of production and co-production arrangements.

OFFSET LITERATURE: ACADEMIC VIEWS

A significant body of academic writing exists on the impact of defense trade offsets.[1] While there is not a consensus among scholars on the pros and cons of offsets, they are generally regarded as trade-distorting and economically illiberal and inefficient. Additionally, the use of offsets in defense trade is widely—if grudgingly—accepted as necessary. Offsets have become a de facto standard operating procedure for nations seeking to purchase defense equipment. In other words, offsets are unlikely to abate in the foreseeable future, but they are likely to continue to increase in number and value. Moreover, while offsets may be effective and beneficial in some cases, a frequently expressed assessment is that they are largely ineffective over the long term and have minimal lasting positive impact on a nation's economic development or military capability.

[1] See Appendix A for more details.

Finally, some scholars note that offsets demanded by European countries are to some degree a response to U.S. domestic preferences. As long as the United States maintains laws and policies that limit the ability of European defense firms to do business in the United States, European offset demands will continue undiminished.

OFFSET LEGISLATION AND REPORTING REQUIREMENTS

The foundation for a significant proportion of offset legislation is the Defense Production Act (DPA) of 1950.[2] According to the Senate report on the Defense Production Reauthorization Act of 2003, the original DPA "authorizes the President to prioritize and allocate contracts with private industry for the purpose of promoting the national defense" and "provides the Government the legal authority to guarantee financing for the recapitalization of private industry consistent with national security requirements." DPA amendments in 1984, 1986, 1992 and 2003 required the executive branch to study and report on the impacts of offsets on domestic prime contractors and subcontractors.

The amount of legislation addressing offsets increased significantly as the number of offset arrangements and their size, as a percentage of the defense sale, also increased. This increase in legislation began in the mid-1980s, and then surged significantly in the early 1990s.

In 1992, Congress passed a provision to the U.S. Government policy on military offsets stating that certain offsets for military exports are economically inefficient and market distorting. The provision further forbids any U.S. Government agency from encouraging, entering directly into, or committing U.S. firms to any offset arrangement. It also states that engaging in and fulfilling offsets is the responsibility of the firms involved.

In 1992, Congress shifted responsibility for preparing the annual offset report from the Office of Management and Budget to the Department of Commerce. Two years later, the "Feingold Amendment" to the Arms Export Control Act mandated that the Departments of State and Defense notify Congress of proposed offset agreements connected to the sale of defense equipment. In 1999, Congress directed President Clinton to form the National Commission on the Use of Offsets in Defense Trade and tasked it to produce a report on the impact of offsets on defense industrial base, international trade competitiveness, and technology transfers as they relate to national security. The commission was also required to prepare an analysis of measures to reduce the negative impact of offsets. The commission, which last met in December 2000, submitted an interim report in January 2001.[3] The interim report became the final report, as the Commission was disbanded.

[2] Appendix B provides a history of offset legislation.

[3] See Appendix C for an executive summary of that report.

In 2003 Congress passed and President Bush signed into law a reauthorization of, and amendments to, the DPA of 1950. Section 7 (c) of P.L. 108-195 amended Section 123 (c) of the DPA, which required the president to establish an interagency team (IaT) to consult with foreign nations on limiting the adverse effects of offsets in defense procurement without damaging the economy or the defense industrial base of the United States, or its defense production or defense preparedness. The statute provided that the IaT be comprised of the Secretaries of Commerce, Defense, Labor and State, and the United States Trade Representative; the president appoint a chair of the IaT; and the IaT report to the Congress on its consultations.

President Bush designated the Secretary of Defense as the chair of the IaT, who delegated that responsibility to the Under Secretary of Defense for Acquisition, Technology and Logistics. In turn, the Under Secretary established an interagency working group (IaWG), chaired by the Director, International Cooperation, to conduct the consultations on behalf of the team, which took on the role of a high-level steering group.[4]

GOALS OF THIS REPORT

Given the increasing use of offsets and scrutiny accorded their potentially adverse effects, the IaT directed the IaWG to consult with a select group of nations to determine why they engage in offsets; how they engage in offsets; if they consider offsets to be a problem; and, if they do, how do they would propose to limit the adverse effects of offsets. The IaT specifically stated in its terms of reference[5] that the goals of this effort were as follows:

1. Establish a plan of work to fulfill the requirements of the statute.
2. Identify and define meaning of “effects” of offsets in defense procurement.
3. Identify potential strategies for limiting “adverse effects.”
4. Identify foreign nations and other parties, both domestic and foreign, for consultation.
5. Develop methods and objectives of consultation.
6. Develop schedule for and engage in consultations.
7. Submit a final annual report to Congress describing meetings and the results of consultations.
8. Submit to the president any recommendations that may result from these consultations.

[4] Appendix D shows the IaT and IaWG members.

[5] Appendix E presents the IaT’s Terms of Reference.

This report describes how the IaT addressed each of these goals.

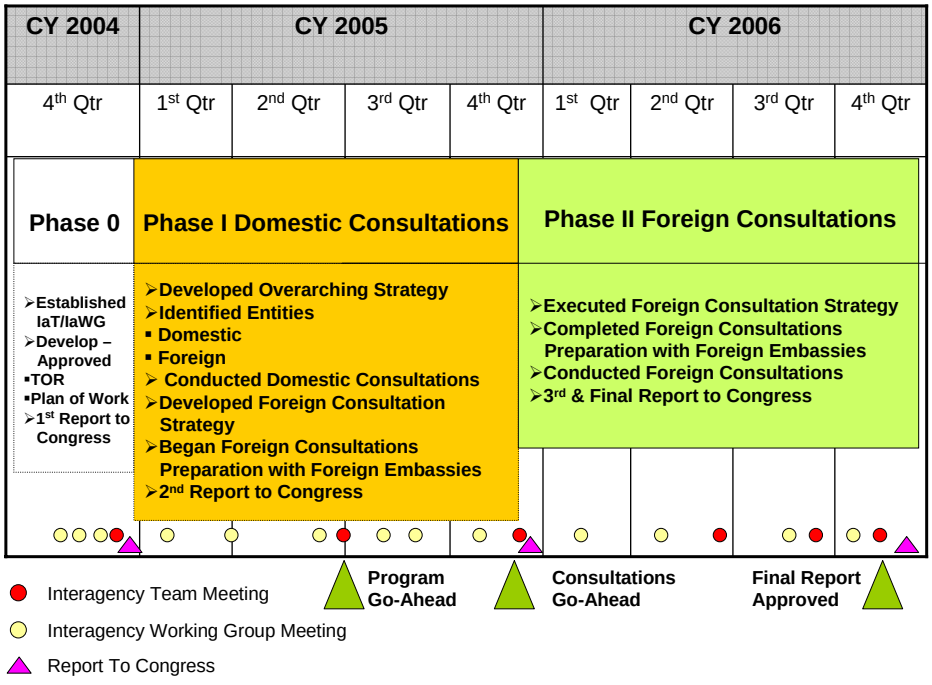
Chapter 2
Scope and Strategy for Executing the Foreign Consultations

In preparing for the foreign consultations, the IaT and IaWG reviewed the statute, developed and analyzed its terms of reference (TOR), and researched U.S. domestic industry views regarding offsets. The IaT's first order of business was to create a study plan and timeline to guide the execution of the consultations and the annual reports to Congress. Next, it developed discussion questions for the domestic consultations. These consultations would help the IaT establish an "offsets baseline." They also helped the IaT craft the foreign consultation discussion questions, identify countries to consult, and lay the groundwork for the foreign consultations. These activities are captured in the plan of work.

ESTABLISH A PLAN OF WORK TO FULFILL THE REQUIREMENTS OF THE STATUTE

Figure 2-1 shows the IaT's plan of work.

Figure 2-1. Plan of Work Consultation with Foreign Nations



Phase 0 began in August 2004, when the President formally established the IaT. During this phase, the IaT focused on establishing and organizing the IaWG, developing and agreeing upon the TOR, and preparing the plan of work.

Phase I included the development of the overarching strategy, and domestic and foreign entity discussion questions; the execution of the domestic consultations; and the preparation for the foreign consultations. The domestic consultations took precedence during this phase because they were needed to establish the offsets baseline for the foreign consultations and select the countries for consultation.

Phase II concentrated on the execution of the foreign consultations, analysis of those consultations, and development of this report to Congress "… on limiting the adverse effects of offsets in defense procurement without damaging the economy or the defense industrial base of the United States, or United States defense production or defense preparedness."[1]

IDENTIFY DOMESTIC AND FOREIGN ENTITIES FOR CONSULTATION

In this step, the IaT directed the IaWG to identify and consult with representatives from the following:

1. U.S. defense prime contractors
2. U.S. defense subcontractors (or 1st tier suppliers or small medium enterprises [SMEs])
3. U.S. labor organizations
4. Industry Trade Advisory Committees (ITACs).

Table 2-1 lists the domestic entities that were identified for consultation based on the above guidance.

[1] Section 7 (c) of P.L. 108-195 as amended Section 123 (c) of the Defense Production Act.

Table 2-1. Domestic Entities Identified for Consultation

Category	Entity
U.S. defense prime contractors	Aerospace Industries Association
	American Shipbuilding Association
	Defense Industry Offset Association
	National Defense Industrial Association
U.S. defense subcontractors/ 1st tier suppliers/SMEs	General Aviation Manufacturers Association
	Small Manufacturers Association of California
	U.S. Business and Industrial Council
U.S. labor organizations	American Federation of Labor and Congress of Industrial Organizations
	International Association of Machinists & Aerospace Workers
	International Union, United Automobile, Aerospace and Agricultural Implement Workers of America
	Seafarers International Union of North America
DOC/USTR–ITACs	ITAC–1, Aerospace Equipment
	ITAC–3, Chemical, Pharmaceutical, Health/Science Products & Services
	ITAC–4, Consumer Goods
	ITAC–6, Energy & Energy Services

Based on the results of the domestic consultations, the IaT used the following criteria when selecting foreign nations to consult:

1. Nations that both provide and demand offsets
2. Nations that primarily demand offsets
    a. Usually smaller countries with niche defense industries that seek to fill the role of subcontractors to prime contractors
    b. Countries with unique offset programs in terms of their goals, flexibility, and attainability
3. Nations primarily from Europe since 65 percent of total offset demands come from this region[2]
4. Nations from the Middle East and Asia that were either new to offsets or known for unique offsets policies and transactions.

[2] Table 4-2. Offset Agreements: Europe vs. Rest of World 1993–2004, Offsets in Defense Trade, Tenth Study, Conducted Under Section 309 of the Defense Production Act of 1950, as Amended, U.S. Department of Commerce, Bureau of Industry and Security, December 2005.

Table 2-2 lists the countries that were identified for consultation based on the above criteria. It also provides additional information on each country's offset programs.

Table 2-2. Countries Consulted and the Criteria for Their Selection

Country	Governance of offset program	Government assistance	Goal of offset program	Unique features of offset program
Providers and demanders of offsets				
France	Custom	Yes	Maintain self-sufficiency in arms	N/A
Germany	Custom	No	N/A	Parliament decides if there will be an offset
Italy	Policy	Yes, if asked	Promote Italian defense industry global competitiveness	Offset clause in or side letter to direct commercial sale procurement contract
Sweden	Policy	No	Increase export potential of defense industry, test facilities, and research agencies	N/A
United Kingdom	Policy	No	Maintain competitiveness of UK arms industry	N/A
Primarily demanders of offsets				
Canada	Policy	Yes	Promote regional development and competitiveness of defense industry	Public domain policy by which Canada provides opportunities for foreign bidders and Canadian industries to team during the pre-requests for proposals phase Requires offset package from both domestic and foreign bidders
Denmark	Law	Yes	Build long-term relationships between Danish defense industry and foreign prime contractors	Penalties
India	Policy	No	Promote global competitiveness of Indian defense industry	Unknown
Korea, Republic of	Policy	Yes–offset guidelines call for 'aggressive and voluntary participation of the concerned organizations'	Obtain state of the art technology, and attain global recognition for depot maintenance work	Rigorous offset process, monitoring and penalties
Netherlands	Policy	Yes	Maintain global competitiveness of its 1st class niche defense industry	Offset policy pays special attention to SMEs
Spain	Policy	Yes	Leverage technology and research and development as a means to build national capabilities	Policy for internal use only

DEVELOP METHODS AND OBJECTIVES OF CONSULTATION

Before any consultations occurred, the IaT forwarded the discussion questions[3] to the domestic and foreign consultation authorities. The IaT's assessment of the domestic consultations considered the implications of limiting the adverse effects of offsets, and the legal, policy, and political ramifications for both the United States and its foreign partners. A secondary consideration was whether U.S. domestic preferences influenced the use of offsets by foreign nations, and if so, what was their bearing on the ability of the United States to limit the adverse effects of offsets.

As a result of the analysis of the domestic consultations, the IaT directed the IaWG to undertake the following:

1. Ensure the foreign discussion questions included specific offset findings that emerged from the domestic consultations.

2. Develop a foreign consultation strategy that would simplify the analysis by focusing on two sets of foreign "consultees:"

    a. Nations that both provide and demand offsets.

    b. Nations that demand offsets, but do not normally provide offsets because they do not sell significant quantities of defense equipment:

        i) Demanding nations deemed to have unique offset programs in terms of their goals, flexibility, and attainability.

        ii) Demanding nations new to offsets or in the process of developing their offset policy.

In developing a strategy for the foreign consultations, the IaT was mindful of the legislative direction: "… to consult with foreign nations on limiting the adverse effects of offsets in defense procurement without damaging the economy or the defense industrial base of the United States or United States defense production or defense preparedness." To fulfill this mandate and incorporate guidance gleaned from the domestic consultations, the foreign consultations were structured to obtain the following information:

1. Why countries require purchase-related offsets.

2. What each country considers as the beneficial and adverse effects of offsets, and whether the benefits outweigh the negative effects.

[3] See Appendix F for U.S. prime contractors' discussion questions; Appendix G for U.S. subcontractors' discussion questions; Appendix H for U.S. labor discussion questions; Appendix I for U.S. ITAC discussion questions; and Appendix J for foreign consultations discussion questions.

3. The effect of offset requirements on the transfer of technology to a country.

4. Whether any country had performed a comprehensive cost-benefit analysis of the effects of offsets, and what were the results of the analysis.

5. Each country's experiences in purchasing defense products and services from both U.S. and non-U.S. manufacturers.

6. Whether a country's defense offset policy changed as a result of European Union membership.

7. What steps each country would be willing to take separately, or in concert with the United States, other nations, or international organizations, to limit, reduce, or eliminate the adverse effects of offsets in national procurement and economic strategies.

For those countries that both provided and demanded offsets, the IaT sought to determine whether their governments and defense contractors had concerns about the adverse affects of offsets. It further sought to learn the following from the offset-providing countries:

1. The adverse effects of sales-related offsets on national industries, subcontractors, and workers.

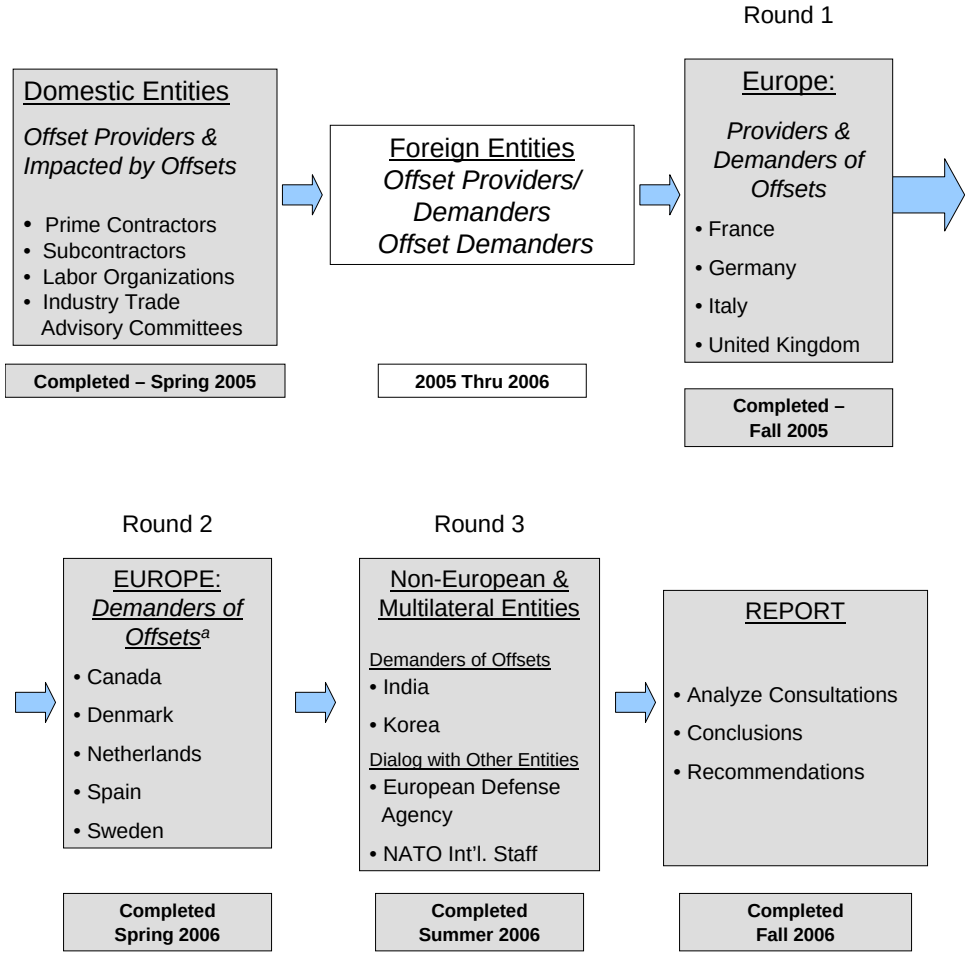
2. The other effects of offsets.

3. The effects of offsets on the transfer of technology from their country.

DEVELOP SCHEDULE AND ENGAGE IN CONSULTATIONS

Figure 2-2 shows the schedule for completing the consultations and preparing this final report to Congress by December 2006.

Figure 2-2. Consultations and Report Development



[a] These countries are primarily demanders of offsets, but they have niche industries that sometimes provide offsets.

Chapter 3
U.S. Domestic Entities Perspectives Regarding the Use of Offsets in Defense Procurement

All statements, recommendations, and expressions presented in this chapter reflect the views of representatives from domestic entities that participated in consultations with the IaWG. They do not necessarily represent the views of the IaT.

DOMESTIC ENTITIES CONSULTED

In order to develop a focused foreign consultation strategy, the IaT determined that consultations should be executed first with domestic entities: the IaT and IaWG needed to understand how offsets affected their constituencies. To obtain this information, the IaWG met with the following domestic entities: defense prime contractors, subcontractors or 1st tier suppliers or SMEs, labor representatives and industry advisors from the Department of Commerce- and USTR-administered ITACs. The organizations invited to participate in these domestic consultations are shown in Table 3-1.

Table 3-1. Domestic Entities Invited to Participate

Category	Entity	Participated
U.S. defense prime contractors	Aerospace Industries Association	Yes
	American Shipbuilding Association	Yes
	Defense Industry Offset Association	Yes
	National Defense Industrial Association	Yes
U.S. defense subcontractors/ 1st tier suppliers/ SMEs	General Aviation Manufacturers Association	No
	Small Manufacturers Association of California	No
	U.S. Business and Industrial Council	Yes
U.S. labor organizations	American Federation of Labor and Congress of Industrial Organizations	Yes
	International Association of Machinists & Aerospace Workers	Yes
	International Union, United Automobile, Aerospace and Agricultural Implement Workers of America	Yes
	Seafarers International Union of North America	No
DOC/USTR–ITACs	ITAC–1, Aerospace Equipment	Yes
	ITAC–3, Chemical, Pharmaceutical, Health/Science Products & Services	No
	ITAC–4, Consumer Goods	Yes
	ITAC–6, Energy & Energy Services	Yes

The meetings were designed to solicit views from the domestic entities regarding offsets in defense trade and to obtain suggestions on what issues should be raised when consulting with U.S. trading partners.

RATIONALE FOR EXECUTING OFFSETS

Defense Prime Contractors

According to the prime contractors, purchasing countries engage in either direct[1] or indirect[2] offsets to foster what they believe to be economic benefit for their countries. The purchasing country often rationalizes that it accomplishes two primary goals with offsets:

1. Enhances national security

2. Promotes economic and socioeconomic development.

The countries further require companies selling weapons systems to agree to an offset package or national industrial participation as part of a weapons system purchase. According to U.S. defense prime contractors, more than 90 percent of all international defense sales require an offset or industrial participation.

Table 3-2 lists the most frequent economic and political reasons for offset requirements, and why countries engage in offsets.

Table 3-2. Economic and Political Reasons for Offsets

Economic reasons	Political reasons
Avoid the effect of oligopolistic[a] distortions to achieve cost reductions	Subsidize interest groups
Technology transfers and subsequent diffusion into the economy to stimulate economic growth	Justification to tax payers
Support for infant industry to enable it to achieve international competitiveness	Security of supply of military equipment
Access to the market of the seller country	Reduce adverse impact on the balance of payments
Employment and regional development	Justification to workers and voters—overcome protectionist sentiment

Sources: Domestic and Foreign Entities Consultations, and *The Economics of Offsets: Defence Procurement and Countertrade,* Martin, S., ed., 1996, Amsterdam.

[a] A market situation in which each of a limited number of producers is strong enough to influence the market, but not strong enough to disregard the reaction of its competitors.

[1] "Direct Offsets: Contractual arrangements that involve defense articles and services referenced in the sales agreement for military exports. These transactions are directly related to the defense items or services exported by the defense firm and are usually in the form of coproduction, subcontracting, technology transfer, training, production, licensed production, or financing activities." Offsets in Defense Trade, Tenth Study, U.S. Department of Commerce, Bureau of Industry and Security, December 2005.

[2] "Indirect Offsets: Contractual arrangements that involve defense goods and services unrelated to the defense items or services export referenced in the sales agreement. The kinds of offsets that are considered "indirect" include purchases, investment, training, financing activities, marketing/exporting assistance, and technology transfer." Ibid.

The U.S. aerospace and defense industry, one of the few remaining net exporters of goods and services[3] and wanting to maintain that position in the U.S. economy, willingly agrees to participate in offsets or industrial participation so it can continue to win foreign contracts. U.S. prime contractors are recognized worldwide for their solid performance as reliable defense sales and offsets partners, which gives them a distinct advantage vis-à-vis other defense sales competitors. To maintain this advantage, U.S. prime contractors have developed unique expertise in fulfilling offset requirements. Thus, U.S. contractors see offsets as a means for sustaining their competitiveness.

In addition, weapons systems sales to foreign customers account for a significant portion of overall revenues and contribute significantly to the health and continued viability of the U.S. defense industry. Industry stated that offsets often provide a vehicle for the introduction of new U.S. products and services to the foreign marketplace. Industry also noted that offsets are used to produce commercial and infrastructure development in emerging countries that lack a robust defense industry capable of fully using or absorbing direct offsets. Thus, indirect offsets have been used to introduce needed marketing assistance, financial assistance and investment, and joint ventures to foreign countries.[4]

The net result, according to U.S. defense prime contractors, is that foreign sales, even when they include offsets, are beneficial to the United States, both in terms of maintaining defense technological superiority and jobs. By selling to foreign customers, the U.S. defense prime contractors stated that they accomplish the following:

1. Keeps weapons systems production lines open during lulls in U.S. production or long after Department of Defense procurements have been completed

2. Sustains a science and engineering workforce primed and ready to develop the advanced technology needed for the next generation of weapons systems.

Defense acquisitions are generally a highly visible use of large amounts of national funds both in the United States and abroad. Defense sales in an environment of global competition provide a means for keeping more people employed in both countries while promoting materiel and operational interoperability. Thus, defense sales have become a means for supporting coalition operations and employing local citizens who otherwise would be unemployed. Defense sales are part of the global economy, which enhance the security of both the providing and procuring nations.

[3] "The U.S. aerospace industry generated a record $170 billion in sales during 2005 – up 9.2 percent from last year's $156 billion. … Sales of military aircraft, engines, parts, and services increased 7 percent, or $3.3 billion, to a record $50 billion in 2005." *Aerospace Industries Association 2005 Year-End Review and 2006 Forecast—An Analysis*, David H. Napier, Director, Aerospace Research Center.

[4] See Appendix K for more details and GAO/NSIAD-96-65: "Military Exports: Offset Demands Continue to Grow," 12 April 1996.

Defense Subcontractors (or 1st Tier Suppliers or SMEs)

According to defense subcontractors, offsets are entrenched because U.S. prime contractors employ them to win foreign sales, and, as a result, they may be affected adversely when prime contractors respond to foreign arms purchasers' requests for proposals, which require offsets. Clearly, U.S. subcontractors do not like offsets nor are they convinced that U.S. prime contractors must execute them to win foreign sales.

Subcontractors are particularly concerned about direct offsets because they require the use of either a competitive or directed foreign supplier, which may result in decreased immediate- and long-term business opportunities for them. The problem is compounded for the subcontractors because they are rarely brought into offset discussions by the prime contractors until the deal is all but sealed. Thus, in their view, they are usually being told how they will participate or be affected by the offset. The subcontractors further characterize the problem, as summarized below:

1. If the foreign subcontractor is competitive, the production services of the U.S. subcontractor will be not needed for this contract. Additionally, offsets leading to the transfer of capability from the U.S. defense industrial base could result in future competition from contractors in nations with less expensive workforces. (Note: Directed foreign subcontractors are often not cost effective because many are subsidized by the foreign government or state-owned.)

2. Offsets, which identify or develop competitive foreign subcontractors, clearly enhance U.S. prime contractor competitiveness in the global defense marketplace, but usually at the expense of U.S. subcontractor competitiveness.

3. Some participation by foreign subcontractors in weapons production and sales with U.S. prime contractors may cause U.S. subcontractors to lose market share, and possibly force them out of business.

U.S. subcontractors usually see themselves as the loser when defense procurements require offset agreements. They would prefer that offsets be eliminated. They participate in offsets only because they have no choice—there is no alternative in the current environment.

Labor

Labor's view is not substantially different from that of U.S. subcontractors. However, labor is equally concerned with indirect as well as direct offsets. It believes that both types of offsets are detrimental to the U.S. workforce, primarily because indirect offsets also result in "direct," that is highly skilled production, job loss.

The offset problem for labor is fourfold:

1. Unions have little, if any, input into the offset decision-making process and the resulting offset package.

2. A lack of transparency by U.S. prime contractors, particularly in regard to indirect offsets, results in labor not knowing the full impact of the offsets.

3. The lack of transparency further results in labor not knowing whether lay-offs are related to offsets or some other economic phenomenon.

4. Offsets often hit lower tier suppliers, which may not be unionized.

Even though U.S. labor participates in offsets because, in some cases, they preserve and may even increase jobs in the short term, the underlying fear remains that the short-term gain will only forestall, but not stop, the long-term loss. Such long-term loss, in their view, will result in the outsourcing of an entire assembly line or business with the attendant loss of skilled and efficient U.S. labor.

To enhance its ability to participate in offset discussions and negotiations, labor believes that the United States should develop a rational offset policy that addresses both corporate and labor concerns.

Industry Trade Advisory Committees

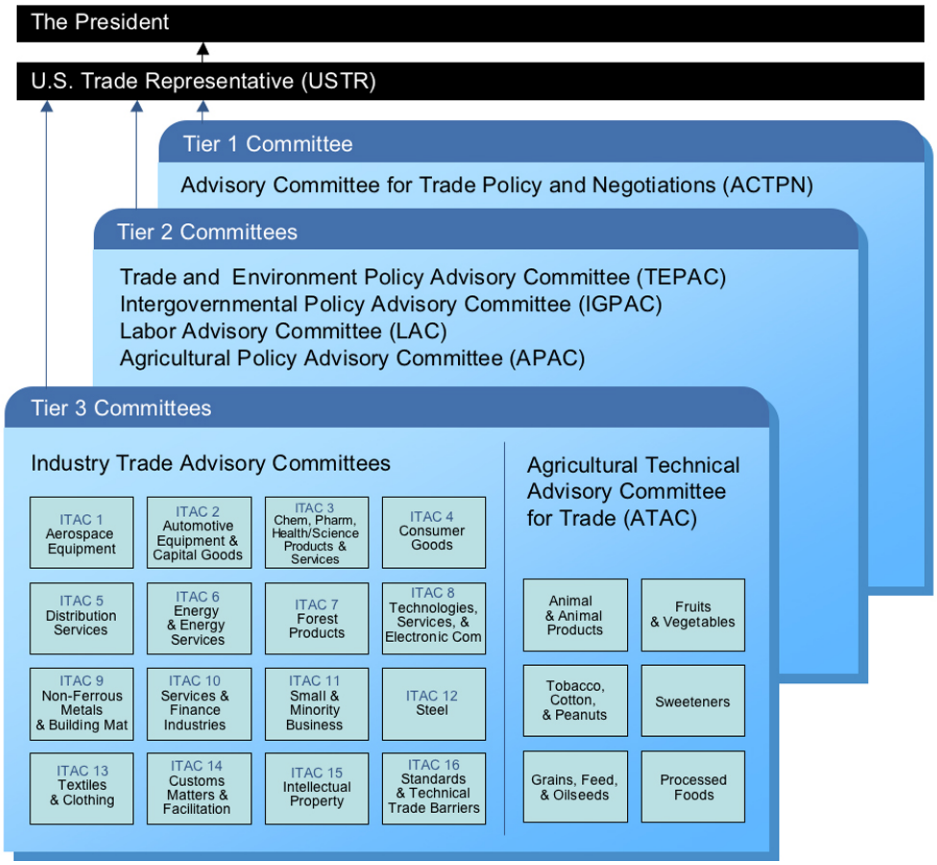
Congress established the trade advisory committee system in Section 135 of the Trade Act of 1974[5] as a way to institutionalize domestic input into U.S. trade negotiations from interested parties outside the federal government. The trade advisory committee system plays an important role in and has made valuable contributions to U.S. trade policy. The committees constitute unique forums for candid discussions of sensitive trade topics. As a result, the IaT decided that it was appropriate for the IaWG to consult with selected ITACs regarding offsets before embarking on consultations with foreign nations.

The structure of the trade advisory committee system consists of three tiers: the top tier by law provides “overall policy advice,” the second tier provides “general policy advice,” and the third tier provides “technical advice and information.”

As background for interagency consultations with foreign nations on limiting the adverse effects of offsets, the IaT decided the IaWG should consult with the third tier: ITACs 1, 3, 4 and 6. Figure 3-1 shows the structure of those committees.

[5] P. L. No. 93-618, 88 Stat. 1996, codified at 19 U.S.C. § 2155.

Figure 3-1. Industry Trade Advisory Committee Structure



The consultations with the ITACs included a cross-sector of the defense industry and produced the following:

1. ITAC prime contractor members see offsets as beneficial particularly in opening new markets for their goods and services. U.S. prime contractors are better at developing, winning, and executing offsets than their foreign competitors.

2. ITAC subcontractors see offsets as a double-edged sword. On the one hand, they gain market access to the foreign commercial sector, but on the other hand, they can end up training qualified foreign subcontractors that will compete with them in the future.

3. Both U.S. prime contractors and subcontractors work hard to maintain good working relationships with foreign governments on the status and execution of offsets.

The ITACs recognized and stated the following:

1. A connection exists between foreign nations' offset demands and U.S. domestic preferences.

2. Offsets, just like U.S. domestic preferences, are not solely economic issues, but also socioeconomic and sociopolitical.

The ITACs opined, therefore, that the United States cannot expect to negotiate offsets limits or eliminate them altogether without being willing to negotiate its domestic preference provisions.

ORGANIZATION AND PROCESS FOR EXECUTING OFFSETS

U.S. defense industry's "know how" and reliability in the execution of offsets sustains its technological dominance and contributes to its distinct advantage over foreign competitors in the consummation of defense sales. To ensure this competitive advantage, U.S. defense companies retain a workforce with superior technological skills, but they also employ professionals with superior offset package development, negotiation and implementation skills. U.S. subcontractors and labor do not possess similar advantages. However, depending on the nature of the offset venture, U.S. prime contractors will assist domestic subcontractors in developing and negotiating offset packages.

DOMESTIC ENTITIES STATEMENTS

General

The general domestic entities statements are summarized below:

1. More than 90 percent of countries require offsets or industrial participation as part of international defense purchases.

2. Most international defense procurements require mandatory offsets or industrial participation, primarily because they reach or exceed the procuring country's automatic threshold that triggers an offset. In some cases, however, offsets are required for procurements below the threshold for political reasons.

3. Offsets are persistent and growing.

4. The prime contractor typically reports all transactions undertaken to meet offset requirements to the foreign government, which accounts for 70 to 100 percent of the offsets reported, although the amount directly fulfilled by the prime contactor varies significantly. The remaining portion (if any) of the offset is reported and fulfilled by defense and non-defense subcontractors from the United States and abroad.

5. Defense production market and labor share would be strengthened if they were defined and negotiated via a rational United States offsets strategy, which would include changes to domestic preference legislation.

6. Some U.S. domestic entities do not want the Department of Defense to buy any defense equipment or systems from non-U.S. sources.

Adverse Effects of Offsets

The adverse effects of offsets include the following:

1. Direct offsets reduce the near-term benefits by reducing the amount of domestic work created.

2. Defense-related indirect offsets may create business incentives for prime contractors to place defense work in foreign countries that would otherwise be performed by domestic subcontractors.

3. Offsets are not free; they increase the price of defense equipment.

4. Certain offset provisions are perceived to be particularly onerous by U.S. industry, such as excessive, non-liquidating penalties; required bank guarantees; short timeframes to meet offset obligations; restrictions on the use of multipliers; and directed subcontracts with foreign subcontractors.

5. Some foreign governments view offsets as a form of economic aid or development to be gained through defense purchases.

6. U.S. firms do not always receive offset credits when buying European and other foreign defense equipment, parts, and components.

Other Effects of Offsets

U.S. defense industry noted that there are other effects of offsets, which demonstrate why the United States should not unilaterally preclude offsets:

1. Industry stated that offsets may give U.S. defense prime contractors a competitive advantage in opening foreign defense markets and winning foreign competitions. They believe they are in the best position to move work globally to meet offset demands, and they have a reputation for meeting their offset commitments.

2. Industry stated that the requirement to fulfill offsets can lead prime contractors to discover innovative, reliable, and cost-effective foreign subcontractors that they may not have found on their own. Although prime contractors would ideally locate these subcontractors during their normal search for business partners, the cost associated with creating new supply relationships can often lead prime contractors to limit their search.

3. Industry stated that offsets are usually necessary to make a defense sale. The sale may then provide additional benefits, such as the following:

a. Defense sales often keep U.S. production lines open for defense systems not being procured or procured in uneconomic volumes by the Department of Defense.

b. Foreign sales introduce economies of scale, and therefore, sales that are consummated as a result of a competitive offset package, may reduce weapon system unit costs for all purchasers in the long term.

c. Defense sales often maintain employee work-years, both at the prime contractor and subcontractors, for exports of portions of the defense system that are not subject to mandatory offsets.

d. Defense sales promote interoperability with U.S. and coalition partner forces for weapon systems using common parts, components, and support systems.

ROLE FOR U.S. GOVERNMENT IN OFFSETS

The domestic entities believe that the United States should adopt the following role in offsets:

1. Consider more international cooperative programs as an incentive to reduce or eliminate offsets.[6]

2. Develop an offset policy for purchases of foreign systems, parts, and components to counter foreign offset demands.

3. Negotiate enforceable guidelines at the multinational level to control the use and adverse effects of mandatory offsets.

4. Regulate the use of offsets: some domestic entities opined that the United States should tighten or eliminate waivers to the Buy American Act[7] and other domestic preferences. Such action, it is argued, would convince at least some of our trading partners of the folly of their increasingly onerous offset demands, which could lead both sides to negotiate the reduction, if not elimination, of all types of domestic preferences to include offsets.

5. Provide incentives to foreign companies and countries that do not engage in offsets.

6. Not take any action that would unilaterally restrict U.S. companies from participating in offset transactions because it would restrict their business opportunities.

[6] International cooperative programs are partnering agreements that do not include offsets found in buyer-seller relationships.

[7] Sections 10 (a-d) of Title 41 of the United States Code.

DIFFERENCES BETWEEN DOD'S IMPLEMENTATION OF RESTRICTIONS ON FOREIGN PARTICIPATION AND FOREIGN COUNTRIES' OFFSET REQUIREMENTS

When domestic entities were asked for their position on this issue, they responded with the following:

1. U.S. domestic preferences are not contractual requirements with performance periods and penalties for non-performance as found with offset agreements.

2. The United States does not require indirect offsets when procuring foreign weapon systems, parts, or components.

3. The Buy American Act is a specific U.S. domestic preference law, which creates price preferences that favor "domestic end products" from American companies for government contracts for raw materials mined or produced in the United States, and for manufactured products in which:

    a. The cost of U.S. components exceeds 50 percent of the cost of all components of the item; and

    b. The product is manufactured in the United States or in countries that have signed reciprocal procurement agreements with the Department of Defense.

Chapter 4
Foreign Entities Perspectives Regarding the Use of Offsets in Defense Procurement

All statements, recommendations, and expressions presented in this chapter reflect the views of representatives from foreign entities that participated in consultations with the IaWG. They do not necessarily represent the views of the IaT. Although the team exerted every effort to consult with the appropriate foreign government officials, it cannot guarantee that the views expressed represent uniform national positions.

FOREIGN ENTITIES CONSULTED

Based on the domestic consultations, the IaT approved the IaWG to consult with representatives from the following countries: Canada, Denmark, France, Germany, India, Italy, the Netherlands, Republic of Korea, Spain, Sweden, and the United Kingdom. France, Germany, Italy, and the United Kingdom were included because they are major providers as well as demanders of offsets. Canada, Denmark, Korea, the Netherlands, Spain, and Sweden were selected because they are primarily demanders of offsets. The perception that Canada, Denmark, the Netherlands, and Korea have unique ways for executing offsets influenced their selection. India was chosen because it is just commencing an offset program. Regional considerations were also a factor. The working group divided the nations consulted into four categories, as shown in Table 4-1.

Table 4-1. Categories of Nations Consulted

Category	Number of nations	Demanders or providers of offsets
1. Nations that execute offsets without a national policy, that is, on a customary basis	2	Demanders and providers
2. Nations that execute offsets under transparent, flexible, and transnational-oriented policies	1	Demander and provider
	3	Primarily demanders
3. Nations that execute offsets based on less flexible and more nationalistic-oriented policies	4	Primarily demanders
4. Nations that execute offsets under national statute which results in Inflexible and nationalistic offsets policy	1	Primarily a demander

Foreign Consultations Category 1: Nations that Execute Offsets without a National Policy, that is, on a Customary Basis

Demanders of Offsets

These nations have no official policy. They have no law, regulation, or directive that governs offsets (or industrial participation) in conjunction with defense equipment procurement contracts. However, for procurements of "selected defense equipment," they have an expectation that, when a bid is submitted, it will include an offset package or that part of the work will be performed in-country.

The customary demand for offsets in these nations is driven either by members of the legislature or by the corporate leaders of the nations defense companies. Accordingly, offset obligations are not consummated to meet any "official" government offset requirement, but are executed ad hoc to meet political or industrial requirements.

Even without an official offset policy, one of the two countries in this category maintains an office that works with foreign providers of offsets to assist them in determining the right offset package to submit with their bids. Such an arrangement suggests an unofficial governmental sanction of offsets.

Providers of Offsets

Even though these nations have no official policy, their industry must satisfy offsets demands as providers of defense equipment and services. When selling defense equipment, their industry finds that it usually has to develop an offset package as part of the sale. For this reason, the same country cited above maintains an office to assist its industry with the provision of offsets.

Their Policy in a Nutshell

These countries have no formal official policy. They execute offsets on a relatively ad hoc basis; nonetheless, astute foreign suppliers usually can determine when an offset will be required even though they may not know the amount and parameters of the offset. These nations tend to execute offsets for industrial-economic and sociopolitical reasons.

Table 4-2. Category 1: Countries Offsets Requirements

Generic offset requirements	Country-specific offset requirements
Part of procurement decision	Yes and no
Threshold	Approximately $30 million
Amount	70 to 130% of procurement contract
Direct or indirect offset	Both
Multipliers	No explicit policy
Credits	No
Penalties	No explicit policy
Bank guarantees	No explicit policy
Time frame	No explicit policy

LIMITING THE ADVERSE EFFECTS OF OFFSETS

These countries indicated that offsets have adverse effects, are counterproductive for economically sound defense procurements, and should be eliminated over the long term. They support attempts within the European Union (EU) to limit the adverse effects of offsets. In addition, they would welcome efforts to work with the U.S. government (and the governments of other major suppliers of defense equipment) in bilateral and multilateral settings toward limiting the adverse effects of offsets.

They also noted the following during the consultations:

- The execution of more cooperative projects could be the best way to reduce the use of offsets, and thereby limit their adverse effects.
- Most countries believe they need offsets to gain market access.
- The U.S. defense market is perceived to be closed to foreign competition.

These nations answered certain discussion questions regarding the adverse effects of offsets as follows:

How do you see defense offset policy evolving within the EU framework?

1. These nations have always pursued—bilaterally and multilaterally—the abandonment of offset arrangements because they believe they are counterproductive for economically sound defense procurements. As a result, they will continue to work with allies and other EU nations to limit the adverse effects of all compensation arrangements to include the even greater objective of banning all offset practices in international defense trade.

2. They are encouraged that the European Defence Agency (EDA) has included the issue of offsets in its current efforts to create an "Intergovernmental Regime on Defense Procurement."

What steps would you suggest to take on your own or in concert with the United States, other nations, or international organizations to limit, reduce, or eliminate the adverse effects of offsets in national procurement or economic strategies?

1. These nations noted that the legitimate requirement of every nation is free and open competitive access to armament resources in a market unhindered by offsets or domestic preferences. In this respect, they believe that the NATO Alliance is the place where trust should be built guaranteeing each member this free access in the same way that Article 5 of the Treaty guarantees "… that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all …"

2. These nations expressed a willingness to cooperate with all bilateral and multilateral efforts to limit, reduce, or eliminate offset requirements.

3. They believe that mutually unrestricted and free access to defense equipment markets would greatly enhance the chances for limiting or abandoning offset requirements.

4. These nations hope that the interagency team's consultations will continue and lead the way, bilaterally or multilaterally, toward limiting or eliminating the adverse effects of offsets and domestic preferences.

Foreign Consultations Category 2: Nations that Execute Offsets under Transparent, Flexible, and Transnational-Oriented Policies

DEMANDERS OF OFFSETS

These countries demand offsets, or industrial participation, because the market for defense equipment and services is governed by national security and domestic preferences when countries procure their defense articles and services.

The goal of these countries as demanders of offsets is to ensure that their high quality, niche technology defense firms maintain competitiveness through access to global markets. To do this, their offset policies focus on direct offsets, which enable them to demonstrate the capabilities of their workforce and the quality of their products. Their goal is to make their defense firms indispensable subcontractors to larger European and U.S. prime contractors. In this way, their competitiveness in the global defense market can be sustained (and, in their view, that of the prime contractors they support). They also consider offsets as a means for providing the technology transfer (sometimes in both directions) necessary for subcontractors to sustain long-term supplier relationships with foreign defense prime

contractors. As a result, their secondary goal for demanding offsets is to promote the cross Atlantic "two-way-street" in defense procurement, while limiting the adverse effects of U.S. domestic preferences.

PROVIDER OF OFFSETS

These countries, some of which seek to maintain a level of self-sufficiency in arms production, also provide offsets to increase the sales of the defense systems they produce. These sales provide resources for continuing to research, develop, and produce some of their own weapons systems. This goal, as a result, requires their domestic defense-related contractors to become very good at the provision of offsets.

THEIR POLICY IN A NUTSHELL

These countries noted that their official and transparent offset policies help foreign and domestic (prime and sub) contractors develop mutually acceptable offsets. Their manifold goals include the following:

- Promoting long-term industrial and, in some cases, socioeconomic development.
- Not dictating the terms of offset requirements.
- Providing offset methods, means, and evaluation criteria, which enable foreign suppliers to propose approaches for consummating the offsets.
- Allowing a healthy mix of direct and indirect offsets as negotiated between the nation's offset entity and the foreign supplier.
- Allowing the easy swapping of offset credits between nations demanding offsets.
- Supporting the ability of foreign suppliers to win the procurement on the strength of its procurement contract.
- Fostering the identification of new products and services to fulfill offset requirements.
- Generating new business and new business partners.

Table 4-3. Category 2: Countries Offsets Requirements

Generic offset requirements	Country-specific offset requirements
Part of procurement decision	Majority, yes
Threshold	$2 million to $85 million
Amount	100% of procurement contract
Direct or indirect offset	Both
Multipliers	0 to 3
Credits	Yes and no
Penalties	0 to 5%
Bank guarantees	No
Time frame	Variable according to the need of the offset

LIMITING THE ADVERSE EFFECTS OF OFFSETS

Ideally, these nations would like defense procurement regimes that currently demand offsets or domestic preferences to be unencumbered by all offsets or preferences. However, unilaterally dispensing with their offset policies would leave their industries at a disadvantage in comparison with other competitors. They noted, for example, that the domestic preferences of the United States and another mentioned nation do not promote an open competitive global defense market, nor the limitation or diminution of offsets. If they took unilateral action, their industries would continue to face barriers (offsets or domestic preferences) in other countries, while having to operate in an international, free and open, competitive marketplace at home.

Some of these nations even noted that offsets have made their defense industries more, not less, competitive, and, in particular, able to become subcontractors to U.S. prime contractors. As a result, the current worldwide “managed” defense marketplace offers no incentive for them to give up or limit offsets.

These nations also stated that offsets and domestic preferences, if they are to remain the rule, should be developed and implemented as a matter of policy, not legislation. It is easier to negotiate and change policy than it is to change laws. One of these nations further stated that the United States should avail itself of a reasonable offset program such as those used by these nations.

These nations answered certain discussion questions regarding the adverse effects of offsets as follows:

Why are purchase-related offsets required by your government in the procurement of defense products and services?

> This nation’s policies apply equally and without prejudice to both domestic and foreign suppliers.

How do you see defense offset policy evolving within the EU framework?

This nation's defense industry is part of the European Defence Industry Association and works with other member nations within the frameworks of EU and EDA to limit the adverse effects of offsets and domestic preferences. Even so, it is clear that each nation's industry, as private enterprises, must abide by the rules governing the global defense market. Defense industries are governed by financial rules and practices, which are influenced by national governments, not solely free market forces or constraints.

What steps would you suggest to take on your own, or in concert with the United States, other national or international organizations to limit, reduce, or eliminate the adverse effects of offsets in your procurement and economic strategy?

1. The responses varied considerably:

    a. One nation supports free and open markets and minimal intervention in the marketplace. It is working in bilateral, regional, and multilateral forums to reduce the use of offsets by expanding commitments in international agreements for free and open market access.

    b. Another nation believes the international community must address the full range of domestic preference provisions that foster inefficient procurement strategies that serve as barriers to companies seeking to participate in international procurement opportunities. This nation's industrial participation practices, in its view, has a very limited impact on the global defense market when compared to the domestic preference programs of the United States. Those programs include the Buy American Act, Berry Amendment, Byrnes-Tollefson Amendment, and small business set-aside programs.

    c. Another nation has always been opposed to offsets. It considers offsets as a necessary evil as long as the global defense market is not truly free and open. In Europe, various efforts to improve defense market conditions are underway, and if the United States abandons all buy-America restrictions and applies a transparent "level playing field" procurement policy, this nation would cooperate in eliminating its offset programs.

    d. At least one of the nation's in this category noted that it is difficult, or even impossible, to imagine offsets, in all their many and various forms, disappearing altogether.

2. These nations further noted that efforts to ensure countries adopt practical, pragmatic, reasonable, realistic, and achievable offset policies, which are interpreted flexibly, would be a significantly beneficial goal for every nation confronted with offsets and domestic preferences.

3. Most small and medium (subcontractor) enterprises in Europe would apparently prefer an internationally agreed upon offset policy that includes a model Offset Obligation Contract that was developed, negotiated, and established through the World Trade Organization.

Foreign Consultations Category 3: Nations that Execute Offsets Based on Less Flexible and More Nationalistic-Oriented Policies

DEMANDER OF OFFSETS

These nations have official internal offsets policies (usually not public). Their primary objective, by means of direct[1] (preferred) and indirect offsets, is to gain technology and know-how that will provide opportunities for their defense industry to export defense products and services. Their goals are to make their defense industries competitive with foreign prime contractors.

As a result, these nations' offsets are customarily highly focused, and negotiated on a case-by-case basis without regard to any strategic plan. Their offsets are often designed to provide for the ingress of desirable high and dual-use technologies. Thus, these nations, when evaluating a bid, first scrutinize the contractor's proposal and then focus on its proposed offset agreement to determine how well it meets their offset goal of acquiring technology.

Direct offsets are the first choice of these nations, particularly those that will allow their industry to become proficient and self-sufficient in providing logistics and other services (such as maintenance) support for acquired defense systems. They seek to develop their industry to compete as high-quality, life-cycle support entities in the global defense marketplace. Defense-related indirect offsets are also acceptable when they develop the ability of their defense industry to compete globally.

PROVIDER OF OFFSETS

Although these nations' defense industry provides offsets, they currently do so to a much lesser extent than those demanded by their governments. The common goal is for their defense industry to become self-sufficient when providing offsets; they currently let each defense firm decide whether to compete for sales that involve offsets, and expect each firm to take the lead in developing, negotiating, and fulfilling the requirements of the offset agreement. Still, these nations support

[1] Some nations even assign a specific national subcontractor with which the foreign offset provider must work.

their defense industry's provision of offsets; some provide significant assistance, while others provide limited assistance.

Ultimately, these nations want their defense industries to become completely self-sufficient competitors in the global marketplace. This objective may be the reason why most of these nations do not have comprehensive "national" offset strategies; they expect their industry—whether, private, public, or government-owned—to fill this void in their own interest. Nonetheless, when their industry becomes increasingly competitive, these nations are concerned about the transfer of technology to third countries through the offsets.

THEIR POLICY IN A NUTSHELL

These nations view offsets as an important means of strengthening their defense industry because they make them more competitive. Their offsets goals are to ensure that their defense industry:

- Maintains the weapons systems they procure in a proper state of readiness
- Attains self-sufficiency in its capability to upgrade procured weapons systems
- Obtains high technologies to provide other nations with overhaul, life extension, testing, defense-related software, and quality assurance services
- Becomes increasingly able to compete in the global defense market
- Gains access to foreign markets either on a competitive or cooperative basis.

Table 4-4. Category 3: Countries Offsets Requirements

Generic offset requirements	Country-specific offset requirements
Part of procurement decision	Majority, yes
Threshold	$1 million to $70 million
Amount	30 to 100% procurement contract
Direct or indirect offset	Both[a]
Multipliers	1 to 3; but in exceptional high technology, as high as 6
Credits	Yes (limited time frame for use) and no
Penalties	Not defined, 10% (plus in some cases, 10% per year increase in value of offset requirement)
Bank guarantees	Not defined, yes
Time frame	Not defined, 7 years

[a] One nation noted that it also accepts "semi-direct" offsets. These offsets are identical to direct offsets except that the benefit or profit from the offset is not realized until the demanding nation's company participating in the offset consummates export sales of the item produced.

These nations do not consider offsets as a major problem or as necessarily having adverse effects in the global defense marketplace. In their view, they are not asking so much for offsets as they are for equitability or a level playing field:

- One nation wants a reciprocal and an equitable defense relationship with the United States, as well as with other major producers in the global defense marketplace. Such relationships are more important than any offset package.
- One nation aims for self-sufficiency in its ability to maintain and upgrade procured weapons systems.
- These nations seek access to foreign markets either competitively or cooperatively.

Working with the United States is difficult due in part to its domestic preference laws. These nations see U.S. domestic preference laws serving the same role as offsets, even though they are not called offsets. As a result, they levy offsets as a form of reciprocity and a means to level the defense procurement playing field; they further consider the results of offsets as important national assets.

These nations are fully aware that the EU would like to, at the least, limit offsets within the EU, which puts these member nations at odds with evolving EU policy. They also have differing opinions regarding talks to limit or minimize offsets. One nation stated opposition to multilateral talks, while another noted that it would be appropriate to work within the EU first and then with the United States to limit the adverse effects of offsets, or to eliminate them. These nations agree that replacing offsets with an intra-Europe and trans-Atlantic defense cooperation regime would be viewed as a positive step.

These nations answered specific discussion questions as indicated below.

How do you see offset policy evolving within the EU framework?

> The offset practice will end in the EU when it has an integrated European Industrial Base comprised of European-wide multinational groupings (such as European Aeronautic Defence and Space Company, Finmeccanica, and British Aerospace Systems), which makes the offset practice obsolete because of an inability to distinguish between national and foreign industries.

What steps would you suggest to take on your own, or in concert with the United States, other nations, or international organizations to limit, reduce, or eliminate the adverse effects of offsets in national procurement and economic strategies?

These nations recommend holding in-depth transatlantic dialogue on the issue of offsets and similar practices, with a goal of limiting the adverse effects of offsets and domestic preferences on the global defense market.

Foreign Consultations Category 4: Nation that Executes Offsets under National Statute which Results in Inflexible and Nationalistic Offsets Policies

DEMANDER OF OFFSETS

Law and policy provide the framework for using defense procurement as a means to promote the development and competitiveness of this nation's defense-related, enterprises, which include enhancing technological capabilities; participating in cooperative research, development, and acquisition programs; and gaining access to foreign markets as preferred subcontractors to global defense prime contractors.

This nation's highly structured and inflexible offsets laws and policies make it difficult for bidders to provide offsets that meet the goals and objectives of those policies. The nation requires an execution plan to be submitted that demonstrates the foreign bidder will conclude offsets:

- With designated defense-related enterprises
- For a certain percentage of the amount of the defense procurement contract
- Within a very limited number of years after the signing of the contract.

PROVIDER OF OFFSETS

This nation is not a major provider of offsets, but its industry bids on some foreign defense procurements. When this happens, the nation's industry usually gets offset assistance from its government including the ability to exchange offsets credits accrued by the government when it purchases defense systems from other nations for which its industry must now provide offsets. If a swap or credit is agreed upon, the government will assist its offset-providing enterprise and the foreign purchaser conclude agreements regarding the mutual swapping or crediting of offsets.

THEIR POLICY IN A NUTSHELL

This nation recognizes that offsets distort free competition. As a result, its policy for sustaining its offsets program consists of the following:

- Ensure in the short term that its industry:
  - Is accorded a level playing field regarding the use of offsets as long as other countries continue to reciprocate
  - Can leverage offsets to achieve the above benefits
- Provide in the long-term the means for eliminating offsets and foster a global defense market based solely on free market competitive forces.

Table 4-5. Category 4: Countries Offsets Requirements

Generic offset requirements	Country-specific offset requirements
Part of procurement decision	Yes–for most procurements
Threshold	$4 million to $18 million
Amount	100% procurement contract
Direct or indirect offset	Both
Multipliers	Case-by-case
Credits	Yes
Penalties	Yes, but not defined
Bank guarantees	Yes, 30% of procurement contract
Time frame	30% of offset must be completed within 2 years of signing the procurement contract

LIMITING THE ADVERSE EFFECTS OF OFFSETS

This nation asserts that its rigid demands regarding offsets are partly a result of a long-term goal to free the global defense market of offsets or other similar restrictions so it can function on a purely competitive basis. With its rigid offset laws and policies, the nation seeks to make the point that offsets and domestic preferences distort free competition but, given no recourse, they are a necessary reciprocal evil.

This nation answered certain discussion questions regarding the adverse effects of offsets in this way.

Why are purchase-related offsets required by your government in the procurement of defense products and services?

This nation will retain offsets as long as defense procurement procedures are restricted and competition in the global defense marketplace is subject

to an uneven playing field. Thus, this government will maintain its industrial participation programs as long as other countries maintain their offset requirements or similar restrictions.

How do you see defense offset policy evolving within the EU framework?

This nation is working with the EU toward a transparent defense-related procurement procedure that focuses on a harmonized and transparent global defense market on a level playing field.

What steps would you suggest to take on your own, or in concert with the United States, other nations, or international organizations to limit, reduce, or eliminate the adverse effects of offsets in your procurement and economic strategy?

This nation will work constantly and consistently within the EU, and in other international forums, to harmonize defense procurement procedures, develop transparent offset policies, and create the needed level playing field in the defense marketplace.

Table 4-6 summarizes the offset requirements for the four categories of countries.

Table 4-6. Summary of Offsets Requirements by Category of Countries

	Category 1: Customary	Category 2: Flexible policy	Category 3: Inflexible policy	Category 4: Law
Lower threshold	$30M	$85M	$6M	$4M
Part of procurement decision	Yes and no	Yes	Yes	Yes
Amount (percent of procurement contract)	70 to 130	100	30 to more than 100	100
Direct offsets	Yes	Yes	Yes	Yes
Indirect offsets	Yes	Yes	Yes	Yes
Semi-direct offsets	No	No	No; 1 nation yes	No
Multipliers	No policy	No, negotiated	1 to 6, but in most cases not greater than 3	Case-by-case
Credits	No	Yes and no	Yes, use within 5 years and no	Yes
Penalties	No policy	Approximately 5%	10% (plus in some cases, 10% per year increase in value of offset requirement)	Yes
Bank guarantee	No policy	No	Yes	Yes
Time frame	No policy	Variable, generally longer than Category 3	Not defined, 7 years	30% complete within 2 years of award

Dialogue with International Organizations

European Defence Agency

Members of the IaWG also met with several officials from EDA in September 2006. Those officials indicated that, even though offsets are market distorting, they are here to stay and should be harmonized. Currently, offsets are unregulated. The recently published "Codes of Conduct in Defense Procurement" and "Best Practice in the Supply Chain" (among EU member states participating in the EDA) do not address offsets. EDA realizes that this is a serious omission, which it intends to rectify. In partial response, EDA has issued a request for proposal to conduct a study of offsets. After this study is completed (projected for April 2007), EDA intends to amend either one or both of the above codes, and to work with the European Commission to develop legislation regarding offsets and to publish a European Directive on Defense Procurement that addresses the use of offsets within the European Union.

North Atlantic Treaty Organization

Members of the interagency working group also consulted with representatives from the NATO International Staff in September 2006. NATO, which initiated an annual conference on offsets in 2005, has the ability to bring key offset players together from both sides of the Atlantic. The NATO International Staff agreed that ad hoc dialogue among major offset-providing nations should be conducted in addition to the broad dialogues that typically occur in conferences.

Foreign Entities Consulted Statements

The following sections capture the results of the consultations with foreign entities.

Potential Adverse Effects of Offsets

1. Offsets undercut the capabilities of domestic subcontractor and lower tier suppliers.

2. Offsets result in higher than necessary weapon systems costs, make procurements prohibitive, lead to the procurements of "second-best" defense equipment, and, thereby, undermine interoperability.

3. Offsets result in technology transfers to demanding nations.

4. Direct offsets are often of no economic value because they establish a production line for which there is no work after the initial production run. Such a facility is not competitive, and often will not receive any future repair or upgrade work.

5. Offsets lead to increased program risk because of unreasonable requirements by nations demanding offsets, including non-liquidating offset performance penalties, and short time frames for offset execution and completion.

6. New entrants to the world of defense purchases consider offset requirements as a form of economic aid and development.

7. U.S. domestic preferences prevent European defense industry from competing equally for U.S. defense procurements.

OTHER EFFECTS OF OFFSETS -- FOREIGN ENTITIES STATED THAT:

1. Compliance with offsets enables companies to compete for and win foreign defense contracts.

2. Offsets provide a vehicle for gaining access to foreign markets, and even allow some offset providers to identify and team with a subsidiary company in the offset-demanding country that increases the prime contractor's (offset provider's) capacity or competitiveness worldwide.

3. Offsets help garner national political support for the money being spent on defense procurement.

4. Indirect offsets may result in development of a sector or enterprise that increases the demanding government's tax revenue.

5. Offsets facilitate technology transfers.

OFFSETS: OTHER EFFECTS VS. ADVERSE EFFECTS

The consensus of the nations consulted was that it is very hard to determine whether the benefits or adverse effects of offsets are more dominant. Offsets and other defense procurement domestic preferences are decades old phenomena and they show no sign of diminishing unless nations agree to change their domestic preference legislation and policies. Based on the consultations with foreign entities, the following positions emerged:

1. An evaluation whether an offset is beneficial is only possible on a case-by-case basis.

2. Every nation would like to see offsets eliminated, but no nation can take unilateral action without placing its defense industry in an adverse position in the global marketplace.

3. Foreign entities stated that, whether the beneficial effects of offsets outweigh the adverse effects or not is immaterial when the defense industries of offset-providing nations lose contracts and jobs.

4. The benefits of offsets outweigh their adverse effects when prime contractors find a foreign supplier able to satisfy their requirements beyond the particular offset-related transaction and deliver benefits to other programs and the company's overall competitiveness.

5. Most subcontractors are of the opinion that:

    a. Offsets have few real benefits and pose risks to them as suppliers.

    b. The purchasing price must bear the cost of providing offsets.

    c. The penalty burden of offsets, including requirements for performance bank guarantees, is beyond the bank credit capabilities of most subcontractors.

    d. Subcontractors have little knowledge of or voice in the offset decisions of foreign prime contractors.

OFFSETS EFFECT ON TECHNOLOGY AND PRODUCTION TRANSFER

This section summarizes the results from the consultations on the effects of offsets on technology and production transfer.

TECHNOLOGY TRANSFER

Direct Offsets

1. The threat of involuntary transfer of critical technology abroad is substantial.

2. For most prime contractors, the technology transferred through offsets is not leading edge; that technology is also governed by national export control regimes.

3. Small and medium enterprises, including subcontractors and lower tier suppliers, with specific technology capabilities have a high risk of transferring their core technologies.

4. Direct offsets may lead to the creation of foreign competitors that eventually could result in the loss of contracts and jobs in the offset-providing country.

5. Direct offsets sometimes involve technology transfers to third parties, which increases the risk of inadvertent or undesired technology transfer.

Indirect Offsets

1. The use of indirect offsets lowers the likelihood of involuntary and undesired transfers of technology.

2. Indirect offsets create foreign competitors that contribute to the loss of contracts and jobs in the offset-providing country.

3. Indirect offsets may involve third parties that results in a cumbersome, and administratively and economically challenging export and re-export process.

PRODUCTION/PRODUCTION TECHNOLOGY TRANSFER

Direct Offsets

1. The threat from direct offsets of the involuntary transfer of production technological knowledge abroad is substantial.

2. Direct offsets increase the risk to subcontractors and lower tier suppliers that their core production capabilities will be transferred.

3. Direct offsets create foreign competitors that contribute to the loss of contracts and jobs in the offset-providing country.

Indirect Offsets

1. Indirect offsets create foreign competitors that contribute to the loss of contracts and jobs in the offset-providing country.

2. Indirect offsets may involve third parties that result in a cumbersome, and administratively and economically challenging product and production know how export and re-export process.

OFFSET REQUIREMENTS TRENDS: IMPOSED UPON DEFENSE INDUSTRY

1. Offsets are resulting in the increased use of adverse terms and conditions, including the following:

    a. Short time frames

    b. Bank guarantees provided upfront upon signature of the offset agreement

    c. Large and non-liquidating penalties

    d. Reduction in the ability to use multipliers

    e. Increase in the possibility of unwanted technology transfer, to include dual-use technologies.

2. Some offsets require the use of directed sources of supply that results in the "demanders" own defense industry manufacturing the product. This can result in direct job loss by subcontractors of the offset-providing country.

Offset Requirements of Prime Concern

The offset requirements that are of primary concern call for the transfer of offset-related technology that:

1. Goes beyond the local industry's capacity to absorb or use

2. May result in the transfer of the technology to third-party countries, particularly those that are not traditional allies

3. Could cost the seller nations' subcontractor jobs, but also bankrupt the subcontractor, particularly when the transfer involves subcontractor core technology.

Evolving European Union Offset Policy

1. EDA is working to formulate a European Defence Industrial and Technological Base (DITB), which should obviate EU nations demanding offsets from other EU members.

2. The ability and will to evolve a common offset policy within the EU appears to have stagnated, principally because defense contracts are essentially exempt from the "fair competition" rules of engagement. Most EU members (and others outside of the EU) do not have "open" defense markets because of national interests. EU members normally prefer indigenous supply and penalize external suppliers by requiring an offset. In the view of many within industry, this attitude is likely to continue for the foreseeable future.

Steps to Limit, Reduce, or Eliminate the Adverse Effects of Offsets

The nations consulted find it difficult, or even impossible, to imagine offsets disappearing in all their many and various forms. Most governments spending their nation's resources on defense products need to demonstrate politically that they are receiving economic benefit from those expenditures beyond the acquisition of defense hardware. However, persuading a purchaser that its interests could be better served by allowing flexibility in how offsets are delivered would be a major and beneficial step forward. Those nations whose authorities demonstrate flexibility in the implementation of offset policies almost inevitably gain demonstrably greater and longer term economic benefits than when policies are rigidly and inflexibly enforced. Efforts to ensure that nations adopt practical, pragmatic, reasonable, realistic, and achievable offset policies, and interpret them flexibly, would be a beneficial goal for all concerned.

The following concepts and activities should be pursued:

1. Europe, through efforts initiated under the Letter of Intent and EDA framework,[2] should develop the mutual trust required to lower or eliminate the hurdles that give rise to offsets and impede the emergence of the DITB.

2. The European Union should:

    a. Certify EU defense companies at the European level that would be allowed to freely exchange defense technology, services, and goods in a "common space," which would guarantee EU nations "security of supply."

    a. Guarantee a harmonization of offset regimes centered on the necessity to optimize the use of local capacities and minimize the risks affecting the security of supply.

3. IaT, along with its European consultation partners, especially France, Germany, Italy and the United Kingdom, should take the lead to work and consult with offset demanding nations for the following purposes:

    a. Limiting the adverse effects of offsets

    b. Developing mutually agreed upon and unrestricted access to defense markets.

4. Designate the NATO Alliance as the foundation that guarantees all members free access to other members' defense markets and the ability to compete for member defense contracts in the same way that Article 5 of the Treaty guarantees the support of all if one is attacked.

5. Develop, possibly through the World Trade Organization, an internationally agreed-upon model for an Offset Obligation Contract, which would set the offset value baseline, one that has the flexibility to take into account the value of the contract and the capacity of the supplier.

6. Improve European defense industry access to the U.S. defense market, which would help to stem, if not eliminate, the tide of offset and domestic preference disputes between Europe and the United States.

7. Trans-Atlantic military and civilian agencies should join together to limit the adverse effects of offsets with the ultimate goal of eliminating them.

[2] In 1998 six major arms producing countries in Europe (France, Germany, Italy, Spain, Sweden, and the United Kingdom) signed a Letter of Intent aimed at facilitating cross-border restructuring of their defence industries. A Framework Agreement instituting this restructuring was signed in July 2000.

8. Since demanding nations offset requirements are sometimes codified in legislation, the governments concerned about offsets should be the focus of discussions to limit the adverse effects of offsets. Only governments, not industry, have the necessary leverage to press demanding nations' governments to limit the adverse effects of offsets.

9. Europe and the United States should jointly plan, develop, coordinate, program, and execute more trans-Atlantic cooperative research, development and acquisition programs. Full participation in cooperative programs would reduce the need for, and the ability and willingness of, nations to demand offsets in conjunction with sales. Cooperative projects bring all participants together in such a way that offsets become unnecessary. For cooperative projects to be effective, however, they should:

    a. Have flexible work-share arrangements

    b. Allow contractors, not governments, to determine how to divide the work to produce the most effective way to develop and acquire products.

10. The U.S. Defense Acquisition University should continue to train European nations on working with and within the Department of Defense procurement system and in trans-Atlantic cooperative programs.

Chapter 5
Interagency Team Findings

Based on all the information gathered during 2 years of consultations, the interagency team developed the following findings, which served as the foundation for the team's recommendations in the following chapter. From these consultations, it was clear that the United States is not alone in its concerns about the use of offsets in defense trade. Other nations, which also are major providers of offsets, expressed concerns about the adverse effects of offsets on their sales of defense weapons systems. These provider nations expressed interest in a multinational dialogue to address their concerns. From both providers and demanders of offsets, most nations agree with the United States' view that there is a real cost to offsets. The following describes these key findings in more detail.

GENERAL FINDINGS

1. Most nations purchasing defense systems demand offsets.

2. Offsets are persistent and increasing.

3. Offsets in their many forms may never be completely eliminated.

4. Most national offset policies are executive branch policies, usually not found in law. They range from the explicit to the customary.

5. The ministries of defense in the consulted countries are concerned that offsets unduly increase the purchase price of weapons systems.

6. Many nations believe that the United States has a de facto offsets policy; most foreign systems that it purchases are produced in the United States.

7. Many nations note that offsets are necessary to mitigate U.S. domestic preferences.

8. Some countries believe that the United States is enforcing its export control regime in a protectionist manner.

9. U.S. domestic entities' perceptions on offsets are both positive and negative, depending on whether work is gained or lost as a result of a successful defense sale and its associated offset.

FINDINGS: ADVERSE EFFECTS

1. Direct offsets reduce the near-term benefits of the sale by reducing the amount of domestic work supported in the United States.

2. Offsets are not free; estimates indicate that they increase the price of defense equipment significantly. One country, not one consulted by the working group, allegedly paid 20 to 30 percent in "overcosts" along with the offsets tied to its military procurements.[1] Another country that was consulted indicated that offsets were a legitimate cost of doing business; further research indicated that this country increased the price of the weapons system to be purchased by as much as 14.4 percent unless its ministry of defense covered that cost with export credit guarantees. Most of the consulted countries recognize that they are paying a premium and they responded in the following ways:

   a. Three nations noted they did not have a problem paying the premium

   b. Two nations were undecided about the worth of paying the premium

   c. Three nations were against paying the premium

   d. Three nations did not respond.

3. Certain types of offsets distort the ability of the provider to fulfill the offset requirement in accordance with best business practices:

   a. Those demanded solely for political reasons

   b. Those that attempt to turn offsets into a type of foreign aid or economic assistance program.

4. Defense-related indirect offsets may create business incentives for prime contractors to place future defense work in foreign countries that would otherwise be performed by U.S. domestic subcontractors.

5. Certain offset provisions are perceived to be particularly adverse by U.S. industry, including the following:

   a. Short time frames to meet offset milestones

   b. Excessive, non-liquidating penalties (as an incentive to meet milestones)

   c. Required bank guarantees to pay penalties

[1] Martin, S., ed., 1996. *The Economics of Offsets: Defence Procurement and Countertrade*, p. 25, Amsterdam.

d. Restrictions on the use of multipliers

e. Directed subcontracts.

6. Offsets can decrease competition and innovation when prime contractors are directed to use specific foreign subcontractors without regard for their competitiveness and best value.

FINDINGS: OTHER EFFECTS

There are other effects of offsets, which demonstrate why the United States Government should not unilaterally preclude offsets:

1. U.S. prime contractors view offsets as a necessary part of doing business and, accordingly, execute offsets as a profit-making enterprise.

2. Offsets are perceived by the U.S. aerospace industry and others as giving U.S. defense prime contractors a competitive advantage in opening foreign defense markets and winning foreign competitions.

3. Industry stated that those offsets that allow U.S. prime contractors and foreign subcontractors to team based on competition and best value may increase global defense industry competition by encouraging prime and subcontractors to be innovative and responsive to customer needs.

4. Industry also stated that requirements to fulfill offsets can lead prime contractors to discover innovative, reliable, and cost-effective foreign subcontractors that they would not have found on their own.

5. Industry stated that offsets are usually necessary to make a defense sale, which may provide benefits, including the following:

   a. Defense sales often keep U.S. production lines open for defense systems not being procured or procured in uneconomic volumes by the Department of Defense.

   b. Defense sales introduce economies of scale, which often reduce weapon system unit costs for all purchasers over the long term.

   c. Defense sales often support additional work, at both prime and subcontractors, for exports of portions of the defense system that are not subject to mandatory offsets.

   d. Defense sales promote interoperability with U.S. and coalition partner forces for those weapon systems using common parts, components, and support systems.

6. To the extent that offsets make it politically feasible for foreign governments to spend money on defense purchases, offsets help:

    a. Maintain defense funding for our allies and partners

    b. Increase net sales to U.S. industry and exports for the United States

    c. Provide military capability and promote interoperability.

Chapter 6
Interagency Team Recommendations

As the result of the consultations over the past 2 years with domestic and foreign entities, the interagency team developed a variety of findings about the adverse and other effects of offsets. Based on those findings and the collective judgment of the interagency team, the following recommendations are proffered along with strategies for implementing them.

RECOMMENDATIONS

1. The United States should continue to consult and dialogue with nations and international organizations involved with offsets. The goal of these consultations and dialogues should remain the same, utilizing the existing Department of Defense-led interagency approach. All consultations and dialogues should include all potentially affected national ministries and departments, and always include the ministries or departments of defense.

2. Nations demanding offsets should be encouraged to give contractors maximum flexibility in fulfilling offset requirements so they can make sound business decisions.

3. More international cooperative projects should be encouraged because they do not require offsets among the partnering nations. Participation of national contractors should be based on competition and best value.

STRATEGIES FOR LIMITING ADVERSE EFFECTS OF OFFSETS

The interagency team also proposes the following strategies for limiting the adverse effects of offsets, while recognizing that the United States must be cautious about taking any action that could possibly damage its economy, defense industrial base, defense production, or defense preparedness.

1. The United States should encourage and promote multilateral dialogue with and within selected defense and trade forums and organizations for the following purposes:

    a. Promote global understanding of how the different types and the adverse effects of offsets, including indirect defense and non-defense related offsets, affect the defense industrial base and market place.

b. Develop a global, uniform defense offset policy, with model offset agreements, to guide the execution of defense offsets.

2. The United States should encourage and promote bilateral and multilateral dialogue with other major offset-providing nations and then with major offset-demanding nations to:

   a. Harmonize approaches and limit the adverse effects of offsets

   b. Give contractors maximum flexibility in fulfilling offset requirements using sound business practices.

   These dialogues should include the affected national ministries or departments of defense.

3. The Unites States should develop a national strategy for encouraging and promoting more international cooperative projects because they eliminate the need for participants to invoke offsets. Participation of partnering nations should be based upon equitability of benefits, while participation of contractors from partnering nations should be based on competition and best value.

Appendix A
The Impact of Defense Trade Offsets: Academic Views

Professor Jurgen Brauer, Augusta State University, and Professor J. Paul Dunne, University of the West of England (United Kingdom), ***Arms Trade Offsets and Development,*** **June 2005**

- Current research suggests that offset agreements politically justify foreign procurement, especially in emerging democracies, than they demonstrate economic benefit.

- Few countries have carried out even a single formal and independent offset-contract audit to determine to what degree offset contracts demonstrate economic benefit.

- Overall, no evidence exists that general economic development goals are ever achieved via offsets.

- There is no compelling evidence that offsets create new, let alone sustainable jobs.

- Evidence suggests that offsets do not advance countries' long-term economic or military goals. It is clear that offsets do not result in arms acquisition cost reductions, that offsets do not stimulate broad-based civilian economic development and that neither substantial nor sustainable job creation occurs, even within the military sector.

- Regarding technology transfer, only limited technology transfer into the military sector occurs, often over decades and at high cost. Little if any successful technology transfer into the civilian sector has been observed. Whatever technology is transferred is quickly outpaced by global technology advances, especially the United States.

Dr. Sam Perlo-Freeman, Middlesex University (United Kingdom), ***Offsets and the Development of the Brazilian Arms Industry,*** **September 2002**

- Offsets are widely seen as failing to deliver their economic promises; indeed they distort trade and add costs. In Brazil, offsets related to licensed production, co-production and technology transfer have been pursued not for direct economic benefit, but to develop Brazil's arms industry to fulfill a certain view of Brazil's place in the world. Indirectly, the arms industry

development has been used to also develop Brazil's civilian industrial infrastructure.

- Overall, the arms industry in Brazil has proved costly, has been difficult to maintain as commercially viable, and cannot realistically hope to attain full independence in arms development and production. Nonetheless, strategic use of offsets has brought technological benefits on to both military and civilian enterprises, especially in the aeronautics sector.

Professor Björn Hagelin, Uppsala University (Sweden), *Nordic Offset Policies: Changes and Challenges*, from "Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets," 2004

- The question remains: are offsets beneficial? Unfortunately, national conclusions as to net gains are not always comparable and often controversial. The many ways to arrange and calculate offset requirements—such as complicated IP arrangements, multipliers, saved offsets, accepting offsets together with export credits and government loan guarantees as part of an export order, etc.—complicate evaluations as well as comparisons.

Björn Hagelin, Pieter Wezeman, Siemon Wezeman, and Nicholas Chipperfield, Stockholm International Peace Research Institute (Sweden), *SIPRI Yearbook: International Arms Trade*, 2002

- Arms supplying companies criticize the increasing use of offsets because (a) they distort the competitive market and (b) companies are not equally able to offer offsets. Nevertheless, companies realize that they must provide offsets in order to compete for contracts.

- With regard to the United States, European nations demand offsets as compensation for, or as a punitive response to lack of European access to the U.S. defense market. The European Defense Industries Group (EDIG) proposes that Europe develop a policy similar to U.S. domestic preferences. Europe should exclude non-European companies from bidding for work unless either: (*a*) reciprocal access to markets has been agreed to; or (*b)* the technology, goods and/or services are not available or affordable within Europe. Until these conditions are met, European nations should sustain offset requirements when buying from the United States.

Professors Stefan Markowski and Peter Hall, University of New South Wales at the Australian Defense Force Academy, *The Defense Industry in Poland: An Offsets-based Revival?*, from "Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets," 2004

- It remains to be seen whether direct offsets provide the basis for a sustained recovery of [the Polish defense industry]. Indirect offsets are more promising… Poland's and other developing countries experience demonstrates that investments in defense-related industry are difficult to sustain because export opportunities are limited and domestic demand is small.

Professor Ann Markusen, University of Minnesota, *The Arms Trade as Illiberal Trade*, November 2002

- Offsets reveal the failings of a system that is both illiberal and one in which security concerns are subordinate to commercial aspirations. In the present environment, most nations and firms participating in or tolerating offsets are uncertain as to whether they gain or lose from them in the aggregate and are, in any case, skeptical that the growth in their use can be reversed. I argue that the damage from these forms of illiberal arms trade practices, in tandem with lax security oversight, is under-estimated, severe and increasing.

- The complexity of gains and losses, initiatives and responses, mean that even large companies and government agencies are uncertain whether they are gaining or losing by engaging in offsets and partnerships.

- There is substantial evidence that offsets as a trade-distorting practice are increasingly important in international arms trade and that this trend will continue.

- Countries would be less apt to opt to import weaponry from abroad, even if superior, if they could not extract economic activity and know-how in return for patronizing another nation's industry.

- Although it is difficult to separate offsets impacts from other adversities in the 1990s, they have contributed to the disappearance of 50% of the supplier base in the United States.

- It is, in my view, impossible to determine with any certainty whether prime contractors secure or lose sales as a result of offsets. To the extent that offsets redistribute component production and outsourcing to 'second best' producers in other countries or build their own future competition, they enhance trade-distorting international patterns of production. Disproportionate growth in parts imports suggests that this is a significant phenomenon.

- The impact of offsets in [non-defense] sectors is almost impossible to gauge. As a rough approximation, we could speculate that because indirect offsets

are actually larger than direct offsets, they contribute as much or more to resource misallocation as do direct offsets, at least in the U.S. case.

- When offsets take the form of technology transfers, they improve the recipient firms' competitiveness and rarely result in technology transfer back to the United States.

- To the extent that offsets multiply the possibilities for leakage of leading edge weapons and the technology for producing them, they undermine national and world security.

- The negative security consequences of offsets arrangements–arms proliferation and a quickening of pressures for new arms research and development–have economic consequences in the longer run.

- One sobering outcome of the illiberal nature of the arms trade is the tendency for countries to spend more on military equipment than they would in the absence of the ability to buy domestic and to extract offsets on imported systems.

- The shorttermism [*sic*] driving firms to accept offsets that could cut into their future expertise is spreading to the American services as well, driving them to relax vigilance on potentially proliferating arms sales in order to be able to fund today's weapons programs.

- Offsets are growing in significance and do indeed produce distortions in the structure of firms, industries and the composition of national spending for both buyer and seller countries.

- Policies of international organizations and national governments are contradictory and ineffective, permitting the spread of offset arrangements geographically and towards indirect and novel forms of barter.

- A major impediment to American leadership on offsets is its own domestic preference practices, which for all practical purposes renders the home market the exclusive domain of American prime contractors. To our allies and buyer nations, demanding the cessation of offsets without opening up our domestic market is a nonstarter. Offsets as a policy issue and subject of international negotiations cannot meaningfully be approached without a reconsideration of the de facto domestic content practice.

Dr. Jocelyn Mawdsley, Université Libre de Bruxelles (Belgium), and Michael Brzoska, Director of Research, Bonn International Center for Conversion (Germany), *Comparing British and German Offset Strategies*, from "Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets," 2004

- Direct offsets can, as the German example demonstrates, help to build up a domestic arms production base. However, even in the German case, it should not be overlooked that the strong areas of industry are less those that benefited from technology transfers, such as aerospace, than those that had links to civilian activities…

- The analysis of the longer term effects of offsets is even more sobering when the main customers benefiting from earlier German technology transfers are considered. Few of these continued producing in quantity after the end of the immediate offset arrangements. In some cases, technology transfers resulted in commercial disasters… In others, production was discontinued because of lack of customers.

- [Offsets] remain an obligation many participants in the trade would shed if they were not faced with strong partners insisting on them. However… some cope better than others with this situation. The German industry and government…have made much out of offsets, both on the import and export side. The British industry and government…would rather get rid of them altogether.

Gillian McEwan, University of Port Elizabeth (South Africa), *Defence Offsets and the South African Aerospace Industry*, 2002

- International experience has shown time and again that a peace dividend cannot be achieved by spending money on arms. There are very few examples, if one, where offsets have been successful in developing countries.

Professor David Mowery, University of California, Berkeley, *Offsets in Commercial and Military Aerospace: An Overview*, from "Trends and Challenges in Aerospace Offsets," 1999

- Offsets resemble other forms of "countertrade," and they are similarly inefficient and trade-distorting from an economic perspective. By substituting various forms of barter for monetary transactions, they reduce the efficiency of markets and distort trade flows.

- Overall, it is difficult to make a credible case that offsets in both military and commercial aerospace account for any but a small fraction of the sharp declines in aerospace employment since the 1980s. Indeed, the available evidence suggests that indirect offsets now play a more prominent role in military exports, which makes it even more difficult to establish a connection between these provisions and employment losses in

U.S. aerospace. Moreover, the effects of offset-related technology transfer on the fortunes of U.S. prime contractors in military and commercial airframes, avionics, or engines are very difficult to identify. Although little or no quantitative evidence has been collected on this issue, anecdotal evidence suggests that the negative consequences of offsets and similar transactions may be greatest among the U.S. firms that supply the prime contractors.

- Technology transfer *has* expanded the capacity and manufacturing capabilities of non-U.S. aerospace industries. However, if we take into account that, particularly in Western Europe, there was an aerospace industry that began the post-World War II period at a high-level of technological capability, it is not clear that the offset transactions, per se, have had a major effect on building up the prime contractor tier of non-U.S. aerospace industries. Still, it remains difficult to trace the impact of these technology transfer agreements for long periods of time. Certainly the generic capabilities, such as production capacity, tooling, and the maintenance of a skilled work force, have been strengthened by some of these agreements. Nevertheless, entry to the prime contractor tier, especially in the commercial sector, remains difficult. The trend in the industry has been the exit of prime contractors, not entry.

- The employment consequences of military and civil offsets are minuscule by comparison with those resulting from these enormous shifts in government procurement.

- A large and apparently growing fraction of the offsets associated with military export sales are indirect offsets, which involve transactions affecting industries other than aerospace. Obviously, the employment effects of these arrangements are both more diffuse and even more difficult to trace.

- The data requirements for the necessary counterfactual model of trade flows are forbidding and prevent a true accounting of the employment effects of offsets. But these effects are likely to be quite small.

- A key analytical issue is whether U.S. firms could succeed in making substantial international sales without employing offsets. Answering this counterfactual is very difficult. However, it is clear that, absent some level of offsets, foreign sales are not likely to be made.

- It is important to note that foreign sellers of weapons systems to the U.S. military services have to meet a number of performance requirements whose effects closely resemble those of offsets. U.S. domestic preference requirements are commonly inserted into appropriations for major weapons systems by Congress, which handicap foreign bidders for contracts

within such programs. These provisions are no less trade-distorting than the offset requirements of other nations.

- A sensible federal policy toward the domestic employment consequences of offsets should be part of a portfolio of federal programs to facilitate adjustment by workers to broader trends of intensified global competition and expanded foreign trade, rather than designing adjustment policies that attempt to deal with the specific (and unidentifiable) employment consequences of offsets.

Elizabeth Sköns, Stockholm International Peace Research Institute (Sweden), *Evaluating Defense Offsets: the Experience in Finland and Sweden*, from "Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets," 2004

- In 1999…the national audit organization in Finland conducted an audit of the [F/A-18] offset agreement [between Finland and McDonnell Douglas]. …The audit found that…after 6 years of the 10-year offset period, 88 percent of the total offset commitments had been fulfilled, involving around 600 offset projects. However, it was emphasized that the basic question as regards fulfillment was whether these transactions would have occurred anyway, i.e., without the offset obligations.… In fact, in none of the 600 offset projects was it possible to establish with certainty what positive effect the supplier had had on the initiation of the deal. Furthermore, it was evident that some of the projects accepted as offsets would have occurred without the offset arrangement. The evaluation also identified a number of problems concerning the reliability of the fulfillment statistics…

- The offset goals [of the F/A-18 deal], the audit concluded, had not been satisfactorily achieved. The number of new job opportunities created as a result of offsets was found to be extremely limited and the export share of small and medium-sized firms was small despite coefficients assigned to promote them. [Finally, the audit concluded] that it is questionable whether the benefits of the offsets were greater than their costs.

- It is relatively easy to monitor formal fulfillment of offset work in terms of contracts signed, but it is difficult to establish whether these transactions are the results of the offset arrangements. Thus, statistics on offset fulfillment should be regarded with a great deal of caution.

- Both countries faced major difficulties in the implementation of indirect offsets… Indirect military offsets [did not] attract much interest among Swedish defense companies, primarily because they thought that they would have achieved the same contracts even without the offsets. In contrast, direct military offsets were relatively easy to implement and monitor in the Swedish case. The main problem with these is that they are difficult to sustain beyond the duration of the arms import program.

Professor Wally Struys, Royal Military Academy of Brussels, *Offsets in Belgium: between Scylla and Charybdis?*, from "Arms Trade and Economic Development: Theory, Policy, and Cases in Arms Trade Offsets," 2004

- Offsets are antithetical to free trade, they alter the nature of sales by including terms unrelated to prices and performance, introduce market rigidities, cause growing state intervention, and create distortions in world economy and trade… Moreover, offsets cause perverse production effects. For example, they finance a costly infrastructure for short production runs.

- For several decades, Belgium used offsets as a means to maintain its defense industry and to improve its technical quality. Offsets strengthened Belgian defense firms in the short-run, but inhibited international cooperation and made them vulnerable to international structural changes in the industry. As a result, offsets are at least partly responsible for the current weakness of Belgium's defense industry… On balance, offsets have been negative for the country.

Professor Travis Taylor, University of Richmond, *An Empirical Evaluation of Offset Arrangements*, 2001

- Since 1984, the Saudi government has used offsets to support an economic development program. The program targets high value-added manufactures like petrochemicals, telecommunications equipment, and aircraft parts and systems. For example, the Boeing International Technology Group (BITG) set up five high technology joint ventures. The most prominent of these companies is Advanced Electronics Co. (AEC). The government touts AEC as an exemplary offset startup firm. Upon closer inspection, however, the successes of AEC and other joint ventures appear to be more of an exception than the rule. The Saudi Economic Survey reports that between 1984 and 1996, U.S., British, and French defense contractors incurred a total of $4.4 billion of offset obligations. By 1997, the contractors had fulfilled only 10 percent of the obligations.

Doctor Charles Wessner, Board on Science, Technology, and Economic Policy, National Research Council, *Offsets: a Strategic Tool*, presented in a statement to the House Armed Services Committee, July 2004

- Offsets may not be desirable, but they are a fact of life.

- Offsets are also a symptom of a broader challenge mounted by foreign governments determined to support their aerospace industries—both their commercial and defense components—by whatever means possible.

- Offset practitioners see themselves as responsible for making the sales that keep aerospace jobs in the U.S., and keep U.S. production lines hot. They argue that we have production capabilities that we would not have without the sales generated through offsets.

- Some jobs are retained and maintained through sales facilitated by offsets. Basically, the industry argues that more jobs are retained than are lost through offsets-facilitated exports. On the other hand, the workers who make planes and the parts for planes are understandably concerned about the impact of offsets on their current and future work. There are also concerns about transfer of U.S. technology, the erosion of the U.S. supplier base, particularly at the second- and third-tier levels, and the increased dependence on foreign suppliers for U.S. defense products.

- Offsets are not responsible in themselves for the really large employment losses in this industry. The post-Cold War downsizing, the downturn in the commercial aircraft industry, and the applications of new technologies, such as CAD/CAM, and new IT-based procedures account for much of the employment loss.

- Offsets can and do cost jobs in some companies, and would appear to be reducing the capacity of the manufacturing base of the aerospace industry.

- Increasing use of offsets directly undercuts the precepts of free trade and comparative advantage.

- Offsets themselves are neither good nor bad, but there are good and bad offsets. If done well, they can keep U.S. production lines hot and help retain U.S. jobs and U.S. technological leadership. If done badly, they can cost jobs, disrupt other sectors of the economy, and transfer technologies that have been developed in part with taxpayer dollars.

- International agreements to limit offsets and other current practices in the trade area are necessarily long-term undertakings. Negotiations are likely to be most effective when accompanied by coherent national measures to support the U.S. industry. Unilateral measures are unlikely to succeed, and may have perverse effects. Measures curbing the use of offsets by U.S. firms could harm the prospects for U.S. sales and employment.

- The reality is that there are increasing demands on U.S. firms for offsets. We basically have three choices:

  - The first is that we stay with the status quo, leaving private U.S. competitors to deal with the demands of foreign governments and subsidized competitors.

  - The second is to seek bilateral arrangements at the government level and/or seek multilateral solutions. These are unlikely to succeed, particularly in the absence of other policy initiatives.

  - The third, and most promising, is to concentrate on domestic measures to strengthen the industry, thus enhancing its competitiveness and providing leverage to work on bilateral understandings.

- The real challenge in aerospace offsets is the need to recognize the challenge other countries' aerospace policies pose for U.S. industry and to develop cost-effective public-private partnerships to retain and refurbish the design and manufacturing expertise necessary for the U.S. to remain a major supplier.

Dr. Tim Williams and Professor Roger Maull, University of Exeter (United Kingdom), and Professors Bruce Ellis and Mike Gregory, University of Cambridge (United Kingdom), *Offset Strategies in the Global Aerospace Sector,* 2001

- The mismatch between the offset obligations of prime contractors and their supply chain's perception of offset requirements is a potential problem that needs to be addressed urgently for four reasons. Firstly, an escalating burden of outstanding offset obligations carried by prime contractors is a potential limit on their capability to win future business and, therefore, a threat to the long run health of the UK manufacturing base. Efficient disbursement of offset obligations may minimize this threat. Secondly, direct offset will transfer some UK manufacturing capabilities abroad and the earliest involvement of the supply chain is likely in some cases to reduce the transfer of systems integration and higher value-added capabilities in favor of lower value activities. Thirdly, offset requirements are beginning to include deadlines, time penalties, and contractual liabilities that may force sub-optimal, hasty solutions. The earliest involvement of suppliers may promote more desirable solutions. Fourthly, direct offset will cost UK manufacturing jobs.

Appendix B
Offset Legislation History

What follows is a list of offset-focused amendments and legislation beginning in the mid-1980s. The list is not exhaustive, but nevertheless, demonstrates an increasing level of Congressional attention being paid over the last two decades to the effects of offsets as their number, value, and impact have increased.

1984 (All years are calendar, not fiscal)—Defense Production Act of 1950, as amended. Required the President to submit annually "a detailed report on the impact of offsets on the defense preparedness, industrial competitiveness, employment, and trade of the United States." The President assigned the lead role for preparing this report to the Office of Management and Budget, which in turn headed up an interagency team.

1986—Defense Production Act of 1950, as amended. Expanded on the 1984 report requirement, and "requires that each such report be based on requisite interagency studies designed to progressively capture: (1) the long-term as well as the short-term effects of offsets (particularly the effects resulting from technology transfer associated with offset agreements); and (2) the direct and indirect effects of offsets on lower tier defense subcontractors and on non-defense industry sectors which may be adversely affected by offsets."

1988—National Defense Authorization Act. Required firms to report offset agreements over $50 million to the Secretary of Defense. (This amount was later lowered to $5 million.) It also required the President to "establish a comprehensive offset policy" and "enter into negotiations with foreign governments to limit the adverse effect of offsets."

1992—Defense Production Act of 1950, as amended. Shifted responsibility for preparing the annual offset report from OMB to Commerce. It also required that the Secretary of Defense lead an interagency team to consult with foreign nations on limiting the adverse effects of offsets.

1992—Public Law 102-558, Declaration of Offset Policy. Recognizes that "certain" offsets for military exports are economically inefficient, market distorting and that the U.S. government should attempt to minimize the adverse effects of offsets while ensuring the ability of U.S. industry to compete for military export sales. Therefore, it is the policy of Congress that "no agency of the United States Government shall encourage, enter directly into, or commit United States firms to any offset arrangement in connection with the sale of defense goods or services to foreign governments …"

1994—Arms Export Control Act, as amended. The "Feingold Amendment," as it was widely called, prohibited incentive payments to American companies in support of offset arrangements, particularly indirect offset. It also amended the Arms Export Control Act to require DoD and State to notify Congress of proposed offset agreements connected to the sale of defense equipment.

1999—Defense Offsets Disclosure Act. This legislation, once again drafted by Senator Feingold, created the National Commission on the Use of Offsets in Defense Trade. The Commission was tasked to produce a report on the impact of offsets on non-defense industries, international trade competitiveness, and technology transfers as they relate to national security. It was also required to prepare an analysis of measures to reduce the negative impact of offsets. The Act also stated that the U.S. government should begin multilateral talks to develop common international offset standards to limit their adverse effects.

The Congress also noted with respect to offsets that fair trade and a fair business environment is necessary to advance international trade, economic stability, and development worldwide. Such fair trade is beneficial for American workers and businesses, and is in the United States national interest. Thus, it is the policy of the United States to monitor the use of offsets in international defense trade, to promote fairness in such trade.

2003—Defense Production Act of 1950, as amended. Required that the President establish an Interagency Team chaired by the Secretary of Defense to report to Congress on largely the same topics on which the Commission established by the 1999 Defense Offsets Disclosure Act was assigned to report

50 USC § 2099--Annual report on impact of offsets. An annual report is submitted annually to the Committee on Financial Services of the House of Representatives and the Committee on Banking, Housing, and Urban Affairs of the Senate, on the impact of offsets on the defense preparedness, industrial competitiveness, employment, and trade of the United States. This report is to be submitted in consultation with the Secretary of Defense, the Secretary of the Treasury, the Secretary of State, and the United States Trade Representative. Interagency studies and related data should be considered by the Secretary of Commerce during the development of the annual report. The findings and recommendations of such reports and interagency studies must be considered by representatives of the United States during bilateral and multilateral negotiations to minimize the adverse effects of offsets."

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Appendix C
Executive Summary: Status Report of the Presidential Commission on Offsets in International Trade

This is a status report of the Presidential Commission on Offsets in International Trade, established by the Defense Offsets Disclosure Act of 1999 and Executive Order 13177. "Offsets" are conditions that a foreign government often negotiates with a U.S. company seeking to export a major defense or commercial system to its country, under which the country's firms (i) participate in the production of the system and/or its subsystems, or (ii) obtain other technological or economic benefits from the U.S. exporter. Foreign governments frequently negotiate offsets in connection with the import of U.S. aerospace systems (e.g., military or commercial aircraft), and sometimes in connection with the import of U.S. goods and services in other high-tech industries, such as power generation, telecommunications, and electronics.

Purpose of the Commission: Review and report on the extent and impact of offsets, and on possible proposals to reduce any of their detrimental effects. The Commission's purpose, as provided by statute and executive order, is to review and report to Congress and the President on the extent and nature of offsets in international trade, and their impact on the U.S. economy and national security. The Commission is further required to develop proposals to reduce any of their detrimental effects.

This status report discusses potential findings and recommendations of the Commission, based on (i) its initial meeting on 4 December 2000, (ii) the views of Commission members and staff expressed in the meeting and in subsequent communications, (iii) previous academic and governmental studies of offsets, and (iv) the results of the Commission staff's study of a representative sample of 50 defense offset transactions. This report also discusses issues which warrant further Commission work in its future deliberations, including some items specifically cited in the statute and executive order. The Commission's final report and recommendations will be transmitted to the Congress and the President by October 2001, as required by law.

Extent of offsets in defense trade: U.S. exporters of defense systems complete approximately $3 billion per year in defense offset transactions with other nations. The main types of defense offset transactions are the counter-purchase of goods from the offset-receiving nation; subcontracts provided to companies in the offset-receiving nation for items used in the defense system being exported; and direct transfer or licensing of technology to firms in the

offset-receiving nation. The dollar value of defense offset agreements relative to defense exports has remained stable over time; however, anecdotal evidence suggests that offset demands may have grown qualitatively as the receiving countries increasingly require specific results rather than best efforts from the U.S. exporters, and seek greater technology transfer. From 1993–1998, 89 percent of defense offsets (measured by value) were associated with the export of aerospace goods or services by a U.S. firm, and most defense offsets were associated with exports to developed nations.

Extent of offsets in commercial (i.e., non-defense) trade: Less is known about the extent of commercial offsets, in part because there exists no government requirement for the reporting of commercial offsets comparable to that for defense offsets. Based on Commission staff interviews with industry and government officials who are knowledgeable about commercial offsets, it appears that in aerospace and other high-tech industries, the extent of commercial offsets relative to exports, while significant in some areas, may be less than that for defense offsets. It is possible that the absolute amount of offsets, when aggregated across these industries, could be significant.

Other countries' reasons for seeking offsets: Bring jobs, technology, and production experience to their domestic firms, and generate domestic political support for major import purchases. Based on recent North Atlantic Treaty Organization (NATO) and General Accounting Office (GAO) studies, the principal reasons other nations seek offsets include the desire to bring jobs, technology, and production experience to their domestic firms, in order to create and/or maintain a domestic defense technology and industrial base, and to reduce dependence on foreign suppliers. In addition to these economic motives, an important political motivation, consistently articulated by European defense ministry officials in a recent NATO study, is to "keep the Parliament contented which, in turn, requires that public opinion be willing to support the expenditure of public funds to buy weapons and equipment from abroad … [O]ffsets are presented to show a longer term gain to the national economy, national defence and the Alliance…"

Impact of offsets on U.S. jobs: The Commission staff study found that defense offsets supplant a significant amount of work/jobs that would go to U.S. firms if export sales occurred without offsets. To assess some of the economic effects of offsets, the Commission staff conducted a study of a representative sample of 50 defense offset transactions completed by major U.S. exporters from 1993–1998, representing 12 percent of the value of all defense offset transactions during this time period. The study found that direct offset transactions[1] during these six years resulted in the loss of $2.3 billion in work ($0.4 billion per year), or 25,300 work-years (4,200 per year), that would have gone to U.S. firms and their workers if the export sales had been made without

[1] For definitions of "direct" and "indirect" offsets, see section 1(F) of the report. The estimated job loss also does not include losses resulting from commercial offsets.

offsets. Two-thirds of the lost work was borne by suppliers to the U.S. exporters.[2] Of the total estimated lost jobs, those in the aerospace industry amount to about 0.5 percent of total employment in the U.S. aerospace industry and 1.2 percent of employment in the U.S. defense aerospace industry—not an insignificant amount for one of the United States' largest industries.

However, industry estimates and other evidence suggest that offsets do facilitate exports, suggesting the need for the Commission to develop policies to reduce offsets' adverse effects without hurting export sales and jobs associated with them. Under some potential remedies for offsets, such as a unilateral decision by U.S. firms not to enter into offset agreements, the jobs lost from reduced defense export sales—estimated by the staff study at 85,800 work-years annually for this potential remedy[3]—would likely exceed the jobs gained from the reduction in defense offsets. These estimates underscore the need for the Commission to develop creative policies to reduce jobs lost through offsets in ways that do not inadvertently cause additional job losses. Possible approaches are discussed in the final section of the report.

Impact of offsets on economic competitiveness: The staff study found offsets, in a number of cases, transfer technology to foreign firms which improves their competitiveness, and rarely result in technology transfer back to the United States. Specifically, the study found that offsets tend to transfer older, established technologies to foreign firms, which, nevertheless, often improves these firms' competitiveness. 32 percent of offset transactions studied resulted in the transfer of U.S. technology to foreign firms; 65 percent of the technologies transferred were moderately or very important in reducing the foreign firm's costs or increasing its quality; and 29 percent of the technologies transferred were moderately or very important in enabling the foreign firm to compete in world markets. The technology flow is primarily one-way—only 4 percent of offset transactions resulted in the transfer of technology from foreign firms back to the United States.

[2] This result is based on information obtained from the U.S. exporters: the staff did not survey the suppliers themselves.

[3] Commission members Markusen and Butienbarger note that this number is speculative and based on estimates provided by the aerospace companies surveyed. They raise serious questions regarding the staff study's "findings" with respect to the impact of offsets on jobs and sales. They note that since much of the impact falls on suppliers, it is not adequate to survey just the largest companies engaged in offset negotiations. They note further that none of these companies is in a position to know with any accuracy just how many jobs are displaced, whether in suppliers or in other American companies, due to indirect offsets, nor whether or not, in reality, buyers would not have bought U.S. equipment if offsets had not been offered. Finally, they note that American defense aerospace products are the best in the world, and while we have competitors, there are good reasons to believe that many buyers would still buy American even if their efforts to extract offsets are not successful. A full discussion of this issue is contained in section V1(C) of the report.

<u>The impact of offsets on national security</u>: Offsets may have positive or negative effects. On one hand, offsets may strengthen U.S. national security by (i) increasing the capabilities of defense firms in allied nations, thereby strengthening our joint defense capabilities; and (ii) facilitating exports of U.S. defense systems, thereby helping to maintain the economic viability of U.S. defense firms and the defense systems they develop. On the other hand, offsets may harm national security by (i) increasing the capabilities of foreign defense firms, which in turn may increase the proliferation of weapons and technology to nations hostile to the United States; and (ii) depriving capable U.S. defense firms and their workers of business in favor of foreign firms, thereby eroding the U.S. supplier base, allowing the skills of essential U.S. defense workers to atrophy, and increasing U.S. dependence on foreign suppliers. Commission and staff work highlighted certain factors bearing on these national security effects, but further analysis of this issue is warranted.

<u>Future agenda for the Commission</u>: Further study of the extent/impact of offsets, and potential recommendations to reduce offsets or shift them toward more benign activities. This section is preliminary in nature and intended to serve only as a starting point for future Commission deliberations and not as an endorsement of a particular agenda or policy approach. Commission members and staff have yet to consider in detail the merits of the possible recommendations below.

Areas for additional Commission study and deliberation include: (i) the effect of offsets on suppliers to the U.S. exporters, (ii) the economic effects of indirect offsets, (iii) the extent of commercial offsets, (iv) the extent and impact of offsets on industries other than aerospace, and (v) other issues identified in the statute and executive order.

Potential policy issues for Commission consideration include (i) review of existing U.S. government policy on offsets and (ii) review of possible levers that the U.S. government might use to persuade other countries to reduce their offset demands or shift the types of offsets they request toward more benign activities.

Potential Commission recommendations include that the U.S. government (i) seek a multilateral agreement with its trading partners to reduce or prohibit the use of offsets in defense trade; (ii) work cooperatively with other countries to shift their offset demands away from defense production which supplants U.S. work and jobs, and toward activities that could serve their economic and political needs, but with benign or even positive effects for the United States; and (iii) increase foreign firms' involvement in the research and development stages of new defense systems, in order to reduce their governments subsequent demand for offsets.

Next steps: The Commission will continue to study the extent and impact of offsets, and develop concrete policy recommendations, in furtherance of its mandate to develop a final report and recommendations for consideration by Congress and the President.

Appendix D
Interagency Team and Working Group Members as of November 2006

Department	Principal	Working group member
Commerce	Mr. Christopher A. Padilla Deputy Assistant Secretary of Commerce for Export Administration	Mr. Daniel O. Hill Director, Office of Strategic Industries and Economic Security Bureau of Industry and Security
Defense (Chair)	Honorable Mr. Kenneth J. Kreig Under Secretary of Defense (Acquisition, Technology, and Logistics)	Mr. Alfred G. Volkman Director, International Cooperation
Labor	Honorable Mr. Steven Law Deputy Secretary of Labor	Ms. Maureen Pettis International Economist
State	Mr. Christopher Moore Deputy Assistant Secretary Trade Policy and Programs	Ms. Rachel Schneller Economic Officer—WTO Accessions, Government Procurement
United States Trade Representative	Ms. Dorothy Dwoskin Assistant U.S. Trade Representative (WTO and Multilateral Affairs)	Ms. Dawn Schackleford Director, International Procurement

Appendix E
Terms of Reference: Interagency Team and Working Group for Consultation with Foreign Nations on Limiting the Adverse Effects of Offsets in Defense Procurement

INTRODUCTION

In December 2003, President Bush signed into law a reauthorization of, and amendments to, the Defense Production Act of 1950 (DPA). Section 7 (c) of P.L. 108-195 amended Section 123 (c) of the DPA by requiring the President to designate a chairman of an interagency team to consult with foreign nations on limiting the adverse effects of offsets in defense procurement without damaging the economy or the defense industrial base of the United States, or United States defense production or defense preparedness. The statute provides that the team will be comprised of the Secretaries of Commerce, Defense, Labor, and State, and the United States Trade Representative.

The law requires the interagency team to meet quarterly, and to send to Congress an annual report describing the results of the consultations and meetings. The report is to be included as part of the annual assessment to Congress of offsets in defense trade that is prepared by the Department of Commerce's Bureau of Industry and Security. On August 6, 2004, President Bush formally established an interagency committee (hereafter referred to as the interagency team, as in the statute) chaired by the Secretary of Defense. Within the Department of Defense, chairmanship has been delegated to the Under Secretary of Defense for Acquisition Technology and Logistics.

On September 15, 2004 the Acting Under Secretary of Defense (Acquisition, Technology & Logistics) activated a working group to support the consultation process of the interagency team.

COMPOSITION OF THE INTERAGENCY TEAM AND WORKING GROUP

Department	Principal	Working group member
Commerce	Assistant Secretary for Export Administration	Director, Office of Strategic Industries and Economic Security
Defense	Under Secretary of Defense (Acquisition, Technology and Logistics)	Director, International Cooperation
Labor	Deputy Secretary of Labor	Senior International Economist
State	Principal Deputy Assistant Secretary for Economic and Business Affairs	Economic/Commercial Officer, Office of Multilateral Trade Affairs, Bureau of Economic and Business Affairs
United States Trade Representative	Assistant U.S. Trade Representative (WTO and Multilateral Affairs)	Director, International Procurement

OPERATION OF THE INTERAGENCY TEAM AND WORKING GROUP

1. The Department of Defense will chair the interagency team and working group.

1. The Department of Defense will provide administrative support to the interagency team and working group.

2. The interagency team will meet quarterly; the working group will meet as often as the chairman deems necessary.

3. A quorum for a meeting of the interagency team or working group will be three of the five members.

4. The interagency team and working group will operate by consensus, but dissenting views of a principal may be presented in the annual report.

5. The interagency team will provide an annual report to Congress describing the results of meetings and consultations.

6. The Department of Commerce principal will ensure that the report is included in their annual assessment to Congress on offsets in defense trade.

GOALS

1. Establish a plan of work to fulfill the requirements of the statute.
2. Identify and define meaning of "effects" of offsets in defense procurement.
3. Identify potential strategies for limiting "adverse effects."
4. Identify foreign nations and other parties, both domestic and foreign, for consultation.
5. Develop methods and objectives of consultation.
6. Develop schedule for and engage in consultations.
7. Provide annual report to Congress describing meetings and the results of consultations.
8. Submit to the President any recommendations that may result from these consultations.

Appendix F
Discussion Questions: U.S. Defense Prime Contractors

1. What percentage (by both number of sales and sales volume) of your total international defense sales involves offset requirements/agreements, industrial participation, or similar arrangements?

2. With which countries have you executed offset agreements? (Please list them.)

3. With which countries, if any, have you consummated defense sales without the requirement for offsets, industrial participation, or similar arrangements?

4. In a typical agreement, what percentage of your offset obligations is fulfilled by:

   a. U.S. defense subcontractors?

   b. Foreign defense subcontractors?

   c. U.S. non-defense subcontractors?

   d. Foreign non-defense subcontractors?

   e. Your firm (the prime contractor) itself?

5. What are the beneficial effects of participating in offset agreements? (elaborate/explain)

6. What are the adverse effects of participating in offset agreements? (elaborate/explain) What guidance or incentives would you suggest be made to U.S. policy, practices, regulations or strategies to reduce these adverse effects?

7. Do the beneficial effects of offsets outweigh the adverse effects? Or vice versa? (explain)

8. What kinds of offsets requirements are the most burdensome and why?

   a. To your company?

   b. To your subcontractors?

9. Would there be an impact if you decided not to participate in offsets? Yes; No. Explain:

10. Assuming all other things are equal (price, quality, etc), when selling a weapon system to a foreign country, what is your priority in choosing a subcontractor? (Check as many as apply):

    a. _____ U.S. subcontractor; explain:

    b. _____ A subcontractor in the foreign country procuring the weapon system; explain:

    c. _____ A subcontractor in another country, with which you have an unrelated defense offset obligation; explain:

11. In fulfillment of offset agreements, can you as prime contractor or your U.S. subcontractors set up operations in purchasing countries, or must your firm select a foreign subcontractor from a list provided by the foreign government?

12. Should:

    a. U.S. commercial trade deficits be addressed in trade agreements, offset agreements and other international agreements with foreign countries concerned with U.S. military trade surpluses? Yes; No. Explain:

    b. The U.S. government play an active role in helping U.S. firms negotiate offset agreements? Yes; No. Explain:

    c. The U.S. ban offsets for specific sectors of the U.S. industrial base? Yes; No. If yes, list which sectors and why? If no, explain:

13. What differences do you see between the Department of Defense's implementation of restrictions on foreign participation in DoD contracts and foreign countries' offset (sometimes called "industrial participation") requirements?

Appendix G
Discussion Questions: U.S. Defense Sub-Contractors

1. Has your firm had any experience with offsets in defense trade? Yes; No. (elaborate/explain)

2. What are the benefits of participating in offset agreements? (elaborate/explain)

3. What are the adverse effects of participating in offset agreements? (elaborate/explain)

4. Are you aware of any instances where your firm:

    a. was displaced as a supplier in favor of a subcontractor in another country because of an offset agreement, or

    b. negatively affected in any other way by a defense offset agreement (whether or not you were a party to the offset agreement)? Elaborate

    c. If your answer is yes to a) or b)—what incentives or guidance would you suggest be made to U.S. government offset regulations, policies, practices, or strategies to eliminate or reduce these negative outcomes?

5. How does your firm as a subcontractor receive notice of its obligation to satisfy offset commitments entered into by the prime contractor? How is the level of your participation calculated? Explain

6. Do you have any flexibility in accepting or not accepting offset commitments from a U.S. prime contractor? If you decided not to accept the offset commitment, what would the prime contractor do? Which kinds of offsets requirements are most burdensome to you? Elaborate/explain

7. Upon receiving notice of your offset commitment, do you have any flexibility in how you fulfill it (e.g., direct or indirect offsets, purchasing or technology transfers, etc.)

8. Can you as a subcontractor set up your own operations in purchasing countries in fulfillment of the offsets, instead of entering into a licensed production/technology transfer arrangement with a subcontractor in the purchasing country?

9. Did the offset agreements and transactions you have been involved with foster relationships with foreign firms? If so, please describe the positive and negative aspect of these relationships.

10. Assuming all other things are equal (price, quality, etc), when selling a weapon system to a foreign country, what factors determine if the prime contractor will choose:

    a. a U.S. subcontractor: (elaborate)

    b. a subcontractor in the foreign country procuring the weapon system: (elaborate)

    c. a subcontractor in another country, with which the prime contractor has an unrelated defense offset obligation (elaborate)

11. Should:

    a. language be included in future trade agreements or other international agreements with foreign nations which address offsets in defense procurement? Yes; No. Explain:

    b. U.S. commercial trade deficits be addressed in trade agreements, offset agreements and other international agreements with foreign countries concerned with U.S. military trade surpluses? Yes; No. Explain:

    c. Should the U.S. Government play an active role in helping U.S. firms negotiate offset agreements? Yes; No. Explain:

    d. Should the U.S. ban offsets for specific sectors of the U.S. industrial base? Yes; No. Should the U.S. ban your sector? Yes; No. If yes, list which sectors and/or particularly explain

12. What differences do you see between the Department of Defense's implementation of restrictions on foreign participation in DoD contracts and foreign countries' offset (sometimes called "industrial participation") requirements?

Appendix H
Discussion Questions: Labor Organizations

1. Have your members had any experience with offsets in defense trade?

2. Have your members benefited from offset agreements? If so, how?

3. Have your members been adversely effected by offset agreements? If so, how?

4. What incentives or guidance would you suggest be made to the regulations, policies or strategies to eliminate the adverse effects of offset agreements?

5. Do the beneficial effects of offsets outweigh the adverse effects? Or vice versa? elaborate

6. What kinds of offsets requirements are most burdensome to your members?

7. How are your members notified of their employers' defense sales and related offset commitments? Did your members' employers describe the potential employment implications (elaborate on the positive and/or negative effects)?

8. Do the labor unions have any input into offset agreements prior to the prime contractor signing the agreement? If yes, how does this happen? If no, why not?

9. Upon receiving notice of their employers' offset commitments, do your members have any input into how the commitment is met (e.g., direct or indirect offsets, purchasing or technology transfers, etc.)?

10. Did the employers' offset agreements and transactions foster relationships with foreign firms? If so, please describe the positive and negative aspect of these relationships.

11. Assuming all other things are equal (price, quality, etc), when selling a weapon system to a foreign country, what factors determine if the prime contractor will choose:

    a. a U.S. subcontractor: (elaborate)

    b. a subcontractor in the foreign country procuring the weapon system: (elaborate)

    c. a subcontractor in another country, with which the prime contractor has an unrelated defense offset obligation: (elaborate)

12. Should:

    a. language be included in future trade agreements or other international agreements with foreign nations which address offsets in defense procurement? Yes___; No___. Explain:

    b. U.S. commercial trade deficits be addressed in trade agreements, offset agreements and other international agreements with foreign countries concerned with U.S. military trade surpluses? Yes ___; No ___. Explain:

    c. Should the U.S. Government play an active role in helping U.S. firms negotiate offset agreements? Yes ___; No___. Explain:

    d. Should the U.S. ban offsets for specific sectors of the U.S. industrial base? Yes ___; No ___.
    If yes, list which sectors and why? If no, explain.

13. What differences do you see between the Department of Defense's implementation of restriction on foreign participation in DoD contracts and foreign countries' offset (sometimes called "industrial participation") requirements?

Appendix I
Discussion Questions: U.S. Industry Trade Advisory Committees

1. What percentage (by both number of sales and sales volume) of your total international defense sales involves offset requirements/agreements, industrial participation, or similar arrangements?

2. With which countries have you executed offset agreements?

3. With which countries, if any, have you consummated defense sales without the requirement for offsets, industrial participation, or similar arrangements?

4. In a typical agreement, what percentage of your offset obligations is fulfilled by:

   a. U.S. defense subcontractors?

   b. Foreign defense subcontractors?

   c. U.S. non-defense subcontractors?

   d. Foreign non-defense subcontractors?

   e. Your firm (the prime contractor) itself?

5. What are the beneficial effects of participating in offset agreements?

6. What are the adverse effects of participating in offset agreements? What guidance or incentives would you suggest be made to U.S. policy, practices, regulations, or strategies to reduce these adverse effects?

7. Do the beneficial effects of offsets outweigh the adverse effects? Or vice versa?

8. What kinds of offsets requirements are the most burdensome and why?

   a. To your company?

   b. To your subcontractors?

9. Would there be an impact if you decided not to participate in offsets?

10. Assuming all other things are equal (price, quality, etc.), when selling a weapon system to a foreign country, what is your priority in choosing a subcontractor? Check as many as apply and explain:

    a. _____ a U.S. subcontractor; explain:

    b. _____ a subcontractor in the foreign country procuring the weapon system; explain:

    c. _____ a subcontractor in another country, with which you have an unrelated defense offset obligation; explain:

11. In fulfillment of offset agreements, can you as prime contractor or your U.S. subcontractors set up operations in purchasing countries, or must your firm select a foreign subcontractor from a list provided by the foreign government?

12. Should:

    a. U.S. commercial trade deficits be addressed in trade agreements, offset agreements, and other international agreements with foreign countries concerned with U.S. military trade surpluses?

    b. The U.S. government play an active role in helping U.S. firms negotiate offset agreements?

    c. The U.S. ban offsets for specific sectors of the U.S. industrial base? List which sectors and why?

13. What differences do you see between the Department of Defense's implementation of restrictions on foreign participation in DoD contracts and foreign countries' offset (sometimes called "industrial participation") requirements?

Appendix J
Discussion Questions: Foreign Entities Consulted

1. What type of assistance do you provide your defense industry in the negotiation of offset agreements, or in the financing or completion of offset transactions?

2. What are the beneficial effects, if any of sales-related offsets upon your national industries, subcontractors and workers? What are the adverse effects?

3. What is the effect of offset requirements on transfer of technology and/or production from your nation?

4. Have you done any comprehensive cost/benefit analysis study of the effects of offsets in defense procurement?

5. Do the beneficial effects on sales-related offset requirements outweigh the adverse effects of sales-related offset requirements?

6. What types of trends do you see in offset requirements imposed upon your defense industry?

7. Are there any offset requirements that you see as a prime concern?

8. How do you see offset policy evolving within the EU framework?

9. What steps would you suggest to take on your own, or in concert with the U.S., other nations or international organizations to limit, reduce, or eliminate the adverse effects of offsets in national procurement/economic strategies?

Appendix K
Offset Transactions Include Business Development Activities

U.S. contractors also undertook a wide variety of activities that could be labeled business development and are similar to those performed by an economic development ministry. [1]

MARKETING ASSISTANCE

Marketing assistance is defined as a U.S. contractor helping foreign companies penetrate and develop U.S. and/or non-U.S. markets by analyzing the market for the exporter's product or assisting the exporter in responding to a request for proposals. To help in this area, a U.S. contractor often pays brokers or consultants a fee to provide such services. For example, a U.S. defense contractor paid a U.S. broker to coordinate the transfer of oil and gas refining technology from a European oil company to an Indian oil company. The deal provided the opportunity for the European company to penetrate a new market. In another case, a U.S. contractor helped an Asian defense company that was performing modification work for the U.S. Air Force in that region. Similarly, a U.S. contractor paid a U.S. firm for helping a European company develop a competitive proposal for a U.S. military contract. One final example of marketing assistance involved a U.S. contractor funding a European organization's U.S. operations. The European organization promoted products in the United States, made by its country's small-sized, high technology businesses. The U.S. contractor received credit for the initial financial support, and it will receive credit for all future sales made to U.S. buyers by the small European companies.

FINANCIAL ASSISTANCE

Financial assistance is defined as providing funds to a foreign company in the country where the offset obligation exists to facilitate an export. Financial assistance can be in the form of incentive payments and success or service fees.[2] For example, a U.S. defense contractor paid a foreign bank a service fee to provide financing assistance to a European shipbuilding company so it could manufacture container ships. The funds were used to complete the manufacturing of

[1] GAO/NSIAD-99-35: Defense Trade: U.S. Contractors Employ Diverse Activities to Meet Offset Obligations, 18 December 1998, pp 7–9.

[2] In 1994, Congress passed the Feingold Amendment prohibiting incentive payments to induce U.S. persons or companies to purchase foreign goods or services to satisfy offset agreements (section 733 of P.L. 103-236). These transactions do not fall within the coverage of the Feingold Amendment.

two vessels sold to a U.S. shipping company. Another example involved a European automotive parts manufacturer, a subsidiary of a U.S. automotive company, which acquired 100 percent of a foreign automotive component company that was going out of business. A U.S. defense contractor provided funds to the foreign company to help defray the acquisition cost. The U.S. contractor received an offset credit for assisting with the expenses. In another case, a contractor sponsored and underwrote a portion of the expenses for a European orchestra concert tour and industry export trade promotion show held in the United States.

INVESTMENTS AND JOINT VENTURES

Investments and joint ventures are occasionally used to satisfy offset obligations. An investment or joint venture occurs when a U.S. contractor serves as a facilitator to bring parties together, provides start-up costs to develop a new entity, or makes an equity investment in the foreign country. For example, a U.S. defense contractor and a European defense company negotiated a teaming agreement. Jointly, the team will develop an upgraded weapon system that will generate worldwide sales. The U.S. contractor, in turn, will receive an offset credit for its involvement in the venture. In another case, a U.S. contractor and a European software manufacturer established a joint development program to build software links between a systems integrator and the software architecture.

OTHER ACTIVITIES

A few activities did not clearly fit into any of the other categories. For example, U.S. contractors may generate potential offset credits through activities that occur prior to contract award; a process called “banking.” In one case, a successful contractor used banked offset credits to help satisfy its offset obligation. In another case, a successful contractor bought the unsuccessful contractor’s banked offset credits.


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