United States General Accounting Office

GAO

Report to the Honorable John McCain, U.S. Senate

July 1998

DEFENSE ACQUISITION

Rationale for Imposing Domestic Source Restrictions

DISTRIBUTION STATEMENT A
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19980720 180

GAO/NSIAD-98-191

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United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-279769

July 17, 1998

The Honorable John McCain
United States Senate

Dear Senator McCain:

In response to your request, we reviewed the basis for domestic source restrictions imposed by Department of Defense (DOD) policy and by 10 U.S.C 2534. We did not assess other congressionally imposed restrictions. Specifically, we reviewed DOD's policy for restricting procurement to domestic sources and examined the rationale for the legislative restrictions. As requested, we also identified the suppliers and manufacturing locations for items currently restricted.

Background

There are numerous legislative authorities by which domestic source restrictions are imposed to limit DOD procurement. Under 10 U.S.C. 2534, which contains restrictions on several types of items, the Secretary of Defense is permitted to procure only from manufacturers in the national technology and industrial base.[1] This restriction can be waived when, for example, unreasonable cost or delays would result, items of satisfactory quality are not available, or the limitation would adversely affect a U.S. company. DOD also has the authority to administratively restrict items for reasons of national security and industrial base preservation, including protection of sensitive technologies and products.

The Buy American Act, Trade Agreements Act, and various appropriations legislation, including the Berry Amendment, are other legislative tools for imposing domestic source restrictions. Appendix I describes these legislative authorities.

Results in Brief

National security and industrial base concerns form the basis for domestic source restrictions imposed by DOD and, to the extent known, the basis for those imposed under 10 U.S.C. 2534. DOD guidance specifies the rationale for approving domestic source restrictions. The rationale for congressional restrictions is not always identifiable.

[1]Under 10 U.S.C. 2500(1), Canada is considered part of the national technology and industrial base. The U.S. and Canadian governments have entered into a memorandum of understanding that provides for persuading Canadian firms to voluntarily comply with U.S. government requests for production priority.

In response to changes in defense requirements, DOD has reevaluated domestic source restrictions. With the end of the Cold War, DOD is no longer preparing for large-scale mobilization but is focusing on smaller conflicts that would use readily available defense inventories. At the same time, DOD wants to take advantage of more competitive markets when doing so is consistent with national security needs. In 1995, DOD required the services to provide detailed justification for maintaining the domestic source restrictions covered by DOD policy. DOD eliminated those restrictions it determined were no longer essential to national security. Of those items currently restricted by 10 U.S.C. 2534, all but one were in place at the time of DOD's review. In only one case has DOD performed an industrial base assessment to determine the need for a 10 U.S.C. 2534 restriction.

Criteria for Establishing Domestic Source Restrictions

DOD's Policy

The National Security Act of 1947 and the Defense Production Act of 1950 give DOD the authority to develop plans to fulfill military requirements, maintain the domestic industrial mobilization base, and establish an emergency mobilization preparedness program. With this authority, DOD has imposed agencywide domestic source restrictions in the Defense Federal Acquisition Regulation Supplement. In implementing this authority, federal regulations and DOD guidance recognize the need to restrict competition to domestic sources to address national security concerns. In April, we reported on DOD's criteria and processes for imposing domestic source restrictions.[2]

DOD's handbook for assessing defense industrial capabilities provides guidance for determining when competition needs to be restricted to support national security requirements.[3] This guidance indicates that limitations on foreign sources may be necessary to (1) avoid dependence on a politically unreliable foreign supplier or (2) protect technologies and products that are classified, offer unique war-fighting superiority, or can

[2]DOD's Rationale for Imposing Domestic Source Restrictions (GAO/NSIAD-98-144R, Apr. 10, 1998).

[3]Assessing Defense Industrial Capabilities: A DOD Handbook, the Under Secretary of Defense for Acquisition and Technology, DOD 5000.60-H (Apr. 1996).

enable foreign governments to develop countermeasures that could undermine the effectiveness of U.S. systems.

Defense procurement may also be restricted to meet mobilization base needs. DOD's planning guidance reflects the changes in military missions and requirements that have occurred since the end of the Cold War. DOD's plans no longer involve large-scale mobilization to prepare for global war but instead focus on smaller conflicts that would be fought using readily available defense inventories. To support this strategy, DOD established requirements to surge production of certain items during a crisis and replenish supplies of some items within a specified period of time after a conflict. DOD can restrict procurement to domestic manufacturers and can require suppliers to give priority to its contracts. This helps to ensure control over the supplier and the capability to meet surge and replenishment requirements. These surge and replenishment requirements are limited to munitions, troop support items, and spares.

DOD, along with the individual services and the Defense Logistics Agency, is also authorized to restrict competition to domestic sources for individual procurements.[4] According to the Federal Acquisition Regulation, agencies can restrict procurement (1) for industrial mobilization or to maintain a technical capability, (2) to implement the terms of an international agreement, (3) when required by statute, (4) for national security, and (5) when it is in the public interest, among other reasons.

Restrictions Under 10 U.S.C. 2534

Congress enacts domestic source restrictions using annual DOD appropriation and authorization legislation that reflects a variety of interests. In some cases, Congress cites national security, industrial base preservation, or economic reasons for enacting these restrictions. For example, in fiscal year 1984 DOD restricted anchor chain to domestic production because it was viewed as a mobilization-critical item; at that time, this restriction protected the sole U.S. supplier. Congress enacted a corresponding restriction in the fiscal year 1988 DOD Appropriations Act. The House report on this bill stated that the restriction on anchor chain was "one way to make the Department of Defense aware of congressional concern over our eroding U.S. industrial base." As originally enacted, the provision permitted only the use of U.S. and Canadian sources. The next

[4]The Competition in Contracting Act of 1984 requires that agencies procuring products and services ensure full and open competition through the use of competitive procedures but also provides for protecting the U.S. industrial mobilization base. Section 2304 of 10 U.S.C. allows DOD to restrict individual procurements. The provision is implemented in part 6 of the Federal Acquisition Regulation.

year, the provision was amended to remove Canadian sources. The change was likely prompted by a contract awarded to the Canadian producer in 1988.[5]

Our review disclosed other instances, however, in which the rationale for the legislative restriction was not evident. For example, the legislative history for naval vessel components did not state the rationale for the restriction. In other cases where the original justification is stated, no recent reviews have been completed assessing the continuing need for the restriction. For example, the restriction on buses was enacted in fiscal year 1969 for economic reasons. No analysis of the restriction or the industrial base for buses has been done since then.

For some items, restrictions are based on multiple statutory or regulatory provisions with different conditions or waiver authority. For example, miniature and instrument ball bearings were originally restricted by DOD policy in 1971. In 1988, DOD restricted antifriction bearings for industrial base reasons. In addition, in each fiscal year since 1995, bearings have been restricted in either appropriation or authorization language. In fiscal years 1996 and 1998, ball bearings were restricted in both congressional bills, but with different durations and waiver authority. Moreover, in fiscal year 1996, DOD rescinded its administrative restriction on miniature and instrument ball bearings because the services and the Defense Logistics Agency believed this limitation was no longer needed.

Changing Security Requirements Have Led to Rescission of Some Restrictions

In 1995, in response to changes in military policy and industrial base concerns, DOD initiated actions to eliminate agencywide domestic source restrictions imposed by DOD policy. DOD wanted to take advantage of more competitive global markets when consistent with national security requirements. DOD, the services, and the Defense Logistic Agency reviewed DOD-wide domestic source restrictions imposed by policy decisions and reported the results of these assessments in DOD's February 1997 Annual Industrial Capabilities Report to Congress. As a result of these reviews, DOD rescinded the administrative restrictions that it no longer considered necessary. Rescissions included restrictions for miniature and instrument ball bearings, anchor chain, various ferrous forgings, precision components for mechanical time devices, high-purity silicon, and high-carbon ferrochrome. Miniature and instrument ball bearings and anchor chain continue to be restricted by legislation.

[5]The procurement history of that contract is described in 134 Cong. Rec. H. 1002 (daily edition Mar. 22, 1988).

When reviewing agencywide restrictions, DOD required the services to do detailed justifications and analyses to support retention of the restrictions. DOD retained the restriction for polyacrylonitrile-based carbon fiber, periscope tube forgings, bull gear ring forgings, and ship propulsion shaft forgings. In its review of polyacrylonitrile-based carbon fiber, the Navy conducted a study using the criteria established by DOD and determined that retention of a domestic production capability was required for the nation's long-term security and that rescinding the restriction would seriously jeopardize the ability to retain this capability. DOD also retained the restriction for periscope tube and bull gear ring forgings to prevent foreign access to specifications and manufacturing processes, which could compromise the effectiveness of selected Navy systems. The restriction on ship propulsion shaft forgings was retained due to unsettled conditions among domestic suppliers. Table 1 lists the original date of and current rationale for the DOD-wide policy restrictions that were retained. Appendix II provides detailed information on the origins and rationale for each item currently restricted.

Table 1: Items Currently Restricted by DOD-Wide Regulation

Item name	Original date of restriction	Current rationale for restriction
Polyacrylonitrile-based carbon fibers	1987	Preserve industrial capability
Periscope tube forgings	1984	Protect sensitive data
Bull gear ring forgings	1984	Protect sensitive data
Ship propulsion shaft forgings	1984	Unsettled conditions among suppliers

In its reviews of industrial base capabilities, DOD sometimes includes items that are legislatively restricted. These reviews assess the capability for certain industries but do not generally assess the current relevance of domestic source restrictions. For example, DOD recently assessed the industrial base for chemical weapons antidote injectors to determine if surge requirements could be met. The study looked at the ability of the sole-source supplier to meet requirements but did not assess the need for a domestic source restriction.

While not required to routinely assess legislative restrictions, DOD will do so when directed by Congress. For example, when Congress imposed a restriction on vessel propellers, it also required the Navy to conduct an industrial assessment to determine the need for a restriction. The Navy concluded the restriction was not needed to sustain critical propeller

manufacturing capabilities. DOD officials told us they do not regularly review statutory restrictions unless requested by Congress or when the legislative restriction is rescinded. In those cases, DOD uses the criteria it has established in agency policy guidance. Only for propellers has DOD performed an industrial assessment to determine the need for an item restricted under 10 U.S.C. 2534. Table 2 shows the date and source of restrictions for those items currently covered by 10 U.S.C. 2534.

Table 2: Items Currently Restricted by 10 U.S.C. 2534

Restricted item	Legislative origin of restriction	Years restricted
Buses	Fiscal year 1969 Military Procurement Authorization Act	29
Ball bearings	Fiscal year 1995 DOD Authorization Act[a]	3
Chemical weapons antidote	Fiscal year 1988-89 DOD Authorization Act	10
Anchor and mooring chain	Fiscal year 1988 DOD Appropriations Act[b]	9
Air circuit breakers	Fiscal year 1991 DOD Authorization Act	7
Naval vessel components	Fiscal year 1996 DOD Authorization Act[c]	2
Sonobuoys	Fiscal year 1993 DOD Authorization Act	5
Propellers	Fiscal year 1995 DOD Appropriations Act[d]	3

[a]DOD first restricted miniature and instrument bearings in 1971 and antifriction bearings in 1988.

[b]DOD first restricted anchor chain in 1984 and mooring chain in 1986.

[c]One of the covered items, totally enclosed lifeboats, was originally restricted in the fiscal year 1994 Defense Appropriations Act.

[d]A restriction on propulsion systems (to include propellers) originated in the fiscal year 1993 DOD Authorization Act under the Navy Fast Sealift program. A separate restriction originated in the fiscal year 1994 Appropriations Act under the Fast Sealift program for vessel propellers for new contracts and has appeared in every appropriation act since. The fiscal year 1995 DOD Appropriations Act restricted vessel propellers 6 feet or more in diameter; this restriction expired in February 1998.

Appendix III provides a history and current status of the 10 U.SC. 2534 restrictions.

Agency Comments

In commenting on a draft of this report, DOD stated that the report accurately describes its rationale for imposing domestic source restrictions. DOD also provided some technical suggestions, which we have incorporated in the text where appropriate. The Department of Commerce commented that it found the report to be comprehensive and informative regarding the origins and status of the various restrictions imposed by Congress and DOD. The comments from DOD and the Department of Commerce are reprinted in appendixes IV and V, respectively.

Scope and Methodology

To review DOD's basis for determining domestic source restrictions, we examined federal and DOD regulations and guidelines for assessing the defense industrial base. We reviewed relevant documentation and reports and discussed DOD's policy and guidance with officials from the Office of the Secretary of Defense, the Defense Logistics Agency, the Army and Air Force headquarters, the Naval Sea Systems Command, and the Department of Commerce, in Washington, D.C.

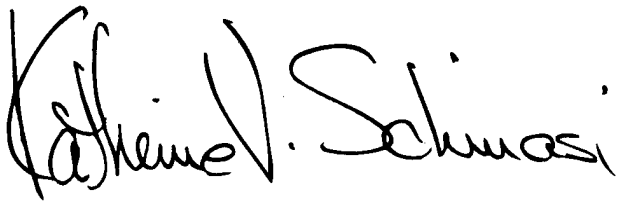
To evaluate the rationale for DOD-imposed and 10 U.S.C. 2534 restrictions, we reviewed legislative and other histories for each restriction and discussed the restrictions with the key buying activities responsible for procuring these items. These activities included the Naval Sea Systems Command, the Naval Air Systems Command, and the Defense Supply Center, Philadelphia. We also collected industrial assessments from the Commerce Department and various industrial analysis offices in the Office of the Secretary of Defense, the services, and the Defense Logistics Agency.

We conducted our review between January and May 1998 in accordance with generally accepted government auditing standards.

We are sending copies of this report to appropriate congressional committees and to the Secretaries of Commerce and Defense. We will also make copies available to other interested parties on request.

Please contact me on (202) 512-4841 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix VI.

Sincerely yours,



Katherine V. Schinasi
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Defense Acquisitions Issues

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Abbreviations

DOD Department of Defense

Additional Restrictions on Purchase of Nondomestic Items

There are several legislatively imposed restrictions in addition to those contained in 10 U.S.C. 2534 on the acquisition of nondomestic items. The major restrictions on acquisition of nondomestic items are found in the Buy American Act, which applies to supplies; annual appropriations act restrictions, which may address a wide variety of products; and the Trade Agreements Act, which restricts nondomestic purchases to selected countries.

Buy American Act

The Buy American Act, 41 U.S.C. (sections 10a to 10d), applies to supply contracts exceeding the micro-purchase threshold ($2,500) and contracts for services that involve the furnishing of supplies when the supply portion of the contract exceeds the micro-purchase threshold. The act is implemented in part 25 of the Federal Acquisition Regulation. The Department of Defense (DOD) has supplemented the Federal Acquisition Regulation implementation in its departmental regulations.

The act establishes a preference for domestic articles, supplies, and materials by requiring that, with certain exceptions, only domestic end products be acquired for public use. The exceptions include

- articles that would be unreasonably expensive if purchased domestically;
- purchases for which the agency head determines that a domestic preference would be inconsistent with the public interest; or
- articles that are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities or are not of a satisfactory quality.

The act also includes an exception for articles, materials, and supplies that are for use outside the United States. For the purpose of applying the preference, DOD will add 50 percent to the price of the nondomestic product, while nondefense agencies add 6 percent if the domestic offer is from a large business and 12 percent if the domestic offer is from a small business.

Appropriations Act Restrictions

Restrictions on DOD's procurement of nondomestic products frequently appear in annual appropriations acts. The DOD Appropriations Act for 1997, for instance, prohibited or restricted the expenditure of funds for such things as anchor and mooring chain, handguns, and consulting contracts. Each appropriations act since 1996 has barred the expenditure of funds appropriated by the act for the acquisition of nondomestic ball and roller

bearings and provided for waivers more restrictive than those included in 10 U.S.C. 2534(d).

These restrictions may be changed annually, omitted in a subsequent year, or enacted as permanent law. For example, until 1995, the DOD appropriations act each year included a restriction (the so-called Berry Amendment) against spending funds appropriated in that act on food, clothing, certain textile products, specialty metals, and hand tools that had not been produced in the United States. In that year, the language of the amendment was changed to provide that it would apply during the "current fiscal year and hereafter" (section 9005, Public Law 102-396). The amendment applies to DOD procurements that exceed the simplified acquisition threshold ($100,000). It provides exceptions for such items as those procured outside the United States in support of combat operations or by vessels in foreign waters. The Berry Amendment is implemented in part 225 of the DOD supplement to the Federal Acquisition Regulation.

Trade Agreements Act

The Trade Agreements Act (19 U.S.C., sections 2501 to 2582), applies to procurements subject to the Agreement on Government Procurement as amended by the Uruguay Round Agreements Act (Public Law 103-465) and other trade agreements. The act prohibits the acquisition of products from nondesignated countries, except in limited circumstances, and provides an exemption from the application of Buy American Act restrictions to products from designated countries that are valued above a threshold determined by the U.S. Trade Representative. Through other trade agreements, the exemption also applies (with different thresholds) to Israeli end products offered in procurements by certain nondefense agencies and to identified products offered by Mexico or Canada, in implementation of the North American Free Trade Agreement Implementation Act (Public Law 103-282).

Rationale For DOD-Imposed Restrictions

The Defense Acquisition Regulation Supplement, subpart 225.71, contains DOD's administrative domestic source restrictions.[1] In 1996, DOD rescinded a variety of restrictions but, to protect national security and the defense industrial base, retained the restrictions on polyacrylonitrile-based carbon fiber, periscope tube forgings, ring forgings for bull gears, and forgings for ship propulsion shafts. The Department of Commerce played a role in assessing the strength of the industrial base for producers of the three forging items.

Polyacrylonitrile-Based Carbon Fiber

Polyacrylonitrile-based carbon fiber is a component of advanced composite materials used in aircraft.

Original Source of Restriction: The restriction on polyacrylonitrile-based carbon fiber was originally imposed in the fiscal year 1988 DOD Appropriations Act. The act required that 50 percent of DOD's purchases of this item come from domestic sources by 1992. The restriction was established to maintain a U.S. industry in advanced technology material composites.

Current Source of Restriction: There has been no legislative restriction on polyacrylonitrile-based carbon fiber since the fiscal year 1991 DOD Appropriations Act. Instead, DOD has maintained this restriction by administrative action.

Item Suppliers: Polyacrylonitrile-based carbon fiber is made by two domestic companies, Amoco Performance Products, Inc., headquartered in Alpharetta, Georgia, and Fiberite Holding, Inc., headquartered in Tempe, Arizona.

Recent Studies: In the 1996 review of agencywide domestic source restrictions, DOD concluded that the restriction on polyacrylonitrile-based carbon fiber should be retained. The Army and the Air Force supported the removal of the restriction, but the Navy believed that polyacrylonitrile-based carbon fiber was a critical technology for meeting current and future operational requirements of carrier-based aviation and other mission-critical systems. In justifying the restriction, DOD reported that polyacrylonitrile-based carbon fiber is increasingly important to achieving weapon system performance advantages necessary for military superiority. According to DOD, there is little advantage to rescinding the

[1]In addition to these agencywide restrictions, DOD components can limit competition on a procurement-by-procurement basis using guidance in the Federal Acquisition Regulation.

restriction, while retaining it could sustain domestic suppliers. DOD also concluded that the issue should be reexamined in 3 years.

Periscope Tube Forgings

Periscope tube forgings are uniquely customized. The periscope has thin walls (less than an inch) and a narrow diameter (about 7 inches) along its 40-foot length. The Navy is virtually the only market for periscope tube forgings.

Original Source of Restriction: In 1984, DOD initiated the forging procurement restriction in response to the serious deterioration of the domestic forging sector and a rapid increase in imports. The restriction targeted those forgings with the highest import penetration levels, primarily ferrous forgings used in Army and Navy applications. The restriction covered about 20 percent of forgings used by the military.

Current Source of Restriction: In 1996, DOD rescinded many of the forging restrictions listed in the Defense Federal Acquisition Regulation Supplement but decided to retain the restrictions for periscope tube forgings.

Item Suppliers: Periscope tubes are produced by National Forge Company in Irvine, Pennsylvania, and by Jorgensen Forge Corporation in Seattle, Washington.

Recent Studies: In late 1995, the Department of Commerce conducted a review of the industrial base for periscope tube forgings. It concluded that, if restrictions were removed, physical capabilities would remain, but the small margin of know-how and experience in this sector would be placed in jeopardy and possibly lost. The Department of Commerce noted, however, that no foreign company was identified that could make periscope tubes.

In early 1996, the Naval Sea Systems Command reported that retention of the restriction on periscope tubes is required to ensure U.S. superiority with respect to submarine visual systems. The periscope is the primary early warning and visual system employed by the submarine. To allow insight into the manufacturing process or specifications could adversely affect U.S. superiority in this area, posing a threat to U.S. war-fighting capability.

Ring Forgings for Bull Gears (Greater Than 120 Inches in Diameter)

Gear suppliers use large, seamless, rolled ring forgings to manufacture bull gears used in Navy systems. About 75 percent of the value of a bull gear comes from its ring forging.

Original Source of Restriction: In 1984, DOD initiated the forging procurement restriction in response to the serious deterioration of the domestic forging sector and the rapid increase in imports. The restriction targeted those forgings with the highest import penetration levels, primarily ferrous forgings used in Army and Navy applications. The restriction covered about 20 percent of forgings used by the military.

Current Source of Restriction: In 1996, DOD rescinded many of the forging restrictions listed in the Defense Federal Acquisition Regulation Supplement but decided to retain the restrictions for ring forgings for bull gears.

Item Suppliers: Standard Steel Division of Freedom Forge Corporation in Burnham, Pennsylvania, is the key supplier of large ring forgings for bull gears. Three other companies have the capability to make large ring forgings—Ladish Company Incorporated in Cudahy, Wisconsin; Scot Forge Company in Spring Grove, Illinois; and Lehigh Heavy Forge Company in Bethlehem, Pennsylvania.

Recent Studies: In late 1995, the Department of Commerce conducted a review of the industrial base for large-diameter seamless rolled rings. According to the Department of Commerce, if the restriction were removed, physical know-how capabilities would very likely remain. Domestic firms use the same facilities to make other products, and they are very competitive in quality, price, and delivery. However, the Department of Commerce concluded that some technical skills and know-how specifically related to ring forgings for bull gears could be lost because subsidies foreign companies receive from their governments result in unfair competition.

In early 1996, a Naval Sea Systems Command report stated that restrictions on ring forgings for bull gears were necessary because the manufacturer of these forgings requires information related to naval nuclear propulsion, which is not releasable to foreign countries.

Forgings for Ship Propulsion Shafts

Forgings for ship propulsion shafts are specialized because they can be over 70 feet long and finished to one-thousandth of an inch. The strength and torque requirements for the military are far more stringent than for commercial shafts since the military has requirements for speed, agility, strength, and the ability to withstand attack in combat.

Original Source of Restriction: In 1984, DOD initiated the forging procurement restriction in response to the serious deterioration of the domestic forging sector and a rapid increase in imports. The restriction targeted those forgings with the highest import penetration levels, primarily ferrous forgings used in Army and Navy applications. The restriction covered about 20 percent of the forgings used by the military.

Current Source of Restriction: In 1996, DOD rescinded many of the forging restrictions listed in the Defense Federal Acquisition Regulation Supplement but decided to retain the restrictions for ship propulsion shafts.

Item Suppliers: Erie Forge and Steel Company in Erie, Pennsylvania; Jorgensen Forge Corporation in Seattle, Washington; and Lehigh Heavy Forge Corporation in Bethlehem, Pennsylvania, produce ship propulsion shafts for the Navy.

Recent Studies: In late 1995, the Department of Commerce reviewed the industrial base for ship propulsion shafts. It reported that, if the restriction were removed, domestic capabilities would be jeopardized and probably lost. According to the Department of Commerce, one manufacturer would go out of business and another would exit the product line. Although domestic producers are competitive in quality and price, the Department of Commerce asserted that subsidized foreign companies would be attracted to this market.

In early 1996, a Naval Sea Systems Command report stated that, if ship propulsion shaft restrictions were removed, the health of the Navy's shipbuilding industry would not be endangered. Adequate industrial capacity would be expected to remain in the ship propulsion shaft segment of the forging industry, with or without the restriction. The report did note that removing the restriction could cause significant risk associated with the continued viability of the suppliers and their ability and willingness to continue to provide timely and affordable products should their business base decline.

In August 1996, the Deputy Under Secretary of Defense, Industrial Affairs and Installations, deferred the final decision on the restriction for 1 year due to unsettled conditions affecting the Navy's domestic suppliers. As of June 1998, a final determination had not yet been made.

Rationale for 10 U.S.C. 2534-Imposed Restrictions

This appendix reviews the background and rationale for legislative restrictions currently imposed through 10 U.S.C. 2534.

Buses

Multipassenger vehicles or buses are used to transport military personnel.

Original Source of Restriction: The lease, rental, or other acquisition of buses was first restricted by the Military Procurement Authorization Act for 1969 (Public Law 90-500, section 404). During House Committee on Armed Services consideration of the amendment that included this provision, there was discussion that leasing arrangements with Japanese companies were not economical in light of then-current Buy American Act and balance-of-payment concerns.

Current Source of Restriction: The substance of the restriction has remained largely unchanged since 1969. The placement of the restriction in the U.S. Code has been changed on numerous occasions and, as of the fiscal year 1993 National Defense Authorization Act (Public Law 102-484), the restriction is now in 10 U.S.C. 2534. Under this restriction, DOD may not procure any bus unless the manufacturer is a member of the national technology and industrial base.

Item Suppliers: DOD is required to lease all of its buses from the General Services Administration, to the extent that the General Services Administration can fulfill the requirement. The General Services Administration currently procures buses from Bluebird Body Company in Fort Valley, Georgia, and Thomas Bus Company in High Point, North Carolina.

Recent Studies: DOD officials responsible for assessing the industrial base had no knowledge of recent market or industrial base analyses for buses.

Chemical Weapons Antidote Contained in Automatic Injectors and Components

Chemical weapons antidote injectors are military-unique items designed so that soldiers can rapidly administer them through clothing upon exposure to nerve agents. The antidotes, autoinjectors, and manufacturing processes must be approved by the U.S. Food and Drug Administration.

Original Source of Restriction: This restriction was first enacted by Congress in the National Defense Authorization Act for Fiscal Years 1988-89 (Public Law 100-80, section 124). The legislative history provides no indication of the intended purpose of the restriction.

Current Source of Restriction: The current language governing this limitation comes from the National Defense Authorization Act for Fiscal Year 1995 (Public Law 103-337, section 814) and has been codified in 10 U.S.C. 2534. The language restricts the purchase of chemical weapons antidotes contained in automatic injectors, or components for such injectors, to those manufacturers that are part of the national technology and industrial base and meet other requirements.

Item Suppliers: Meridian Medical Technologies in St. Louis, Missouri, is the only supplier of autoinjectors approved by the Food and Drug Administration. Meridian also assembles the kits used by military field personnel that contain the autoinjectors and antidote.

Recent Studies: DOD performed assessments in April 1996 and November 1997 to determine if there were sufficient industrial capabilities to meet DOD requirements. The studies found that, although peacetime requirements are low, autoinjectors must be available quickly and in large quantities in the event of a military contingency. Meridian is limited by a 4-month lead time for obtaining required autoinjector components and drugs. Assembly and sterility testing take approximately 7 weeks. Therefore, even if components are available, Meridian cannot ship completed products until the eighth week of a contingency. DOD has awarded a contract to maintain production capabilities for autoinjectors. Since stocking components does not eliminate all shortfalls in meeting contingency requirements, the Defense Logistics Agency is discussing with Meridian an additional requirement to stock finished goods to further alleviate shortfalls. According to one Defense Logistics Agency official, the agency would like to have other suppliers of autoinjectors. Currently, one foreign firm has the capability to produce one type of autoinjector, but this firm is not approved by the Food and Drug Administration.

Air Circuit Breakers

Shock-hardened circuit breakers are used across all classes of nuclear- and nonnuclear powered ships and provide electric power continuity and fault protection, imperative to ensure the reliability and safety of critical ship systems. Depending on the size and type, a naval vessel will have two or three large air circuit breakers and hundreds to thousands of smaller circuit breakers (generally not restricted to domestic procurement).

Original Source of Restriction: This provision was first enacted in the fiscal year 1991 National Defense Authorization Act (Public Law 101-510, section 1421). Discussions in favor of the amendment noted that a British

firm was dumping air circuit breakers on the U.S. market and that these actions placed domestic producers at risk.

Current Source of Restriction: Procurement of air circuit breakers is currently restricted under 10 U.S.C. 2534 to manufacturers that are part of the national technology and industrial base.

Item Suppliers: SPD Technologies, Inc., in Philadelphia, Pennsylvania, and Eaton Corporation's Cutler-Hammer/Westinghouse Division, in Beaver, Pennsylvania, are the suppliers of shock-hardened circuit breakers. According to Navy personnel, SPD is the current supplier of large air circuit breakers for naval use, and holds a great deal of proprietary data on their manufacture.

Recent Studies: In 1994, the Navy issued a report at the direction of the House Appropriations Defense Subcommittee concerning actions necessary for ensuring that a production capability for a full line of shipboard, shock-hardened circuit breakers will exist in the future. The Navy noted that for many types of circuit breakers, there is only one supplier, and no alternative source. In order to foster long-term competition, the Navy gave all potential offerors time to develop a competitive posture and qualify their circuit breakers for future applications. This study assessed the state of the industry but did not review the need for the restriction. There is potentially some desire on the part of the Navy to use a more common, marine-based type of circuit breaker. These circuit breakers would be less sensitive because the shock resistance would be built into their casing.

Welded Shipboard Anchor and Mooring Chain

Shipboard anchor chain is submerged only periodically and spends most of the time in the ship's chain locker. Mooring chain is part of a permanent naval facility and is intended for long-term submergence between overhauls. These different requirements have implications for the grade of material required.

In 1983, the Navy changed its specifications from forged Di-Lok chain with high-strength reliability, durability, and identical links to welded anchor and mooring chain. This change opened the Navy's chain procurement to competition because many manufacturers were capable of meeting the new product specification for welded chain.

Original Source of Restriction: In 1984, DOD administratively imposed a restriction on anchor chain 4 inches or less in diameter. In 1986, DOD decided to include mooring chain in this restriction. Congress enacted a corresponding restriction in the fiscal year 1988 DOD Appropriations Act (Public Law 100-202, section 8125). The fiscal year 1989 DOD Appropriations Act (Public Law 100-463, section 8089) restricted the acquisition of anchor and mooring chain (4 inches or less in diameter) to U.S. sources, eliminating items manufactured in Canada from competition. In 1996, DOD rescinded its administrative restriction on anchor chain.

Current Source of Restriction: Anchor and mooring chain is currently restricted in 10 U.S.C. 2534 to manufacturers in the national technology and industrial base, which includes Canada. The fiscal year 1998 DOD Appropriations Act (Public Law 105-56, section 8016) also restricts the purchase of anchor and mooring chain 4 inches or less in diameter. The chain must be manufactured in the United States and the aggregate cost of domestic components used to produce the chains must exceed the aggregate cost of components from foreign sources.

Item Suppliers: Baldt, Inc., in Chester, Pennsylvania, and Lister Chain and Forge, Inc. in Blaine, Washington, are suppliers of anchor and mooring chain.[1]

Recent Studies: In 1995, the Navy conducted a study of the two U.S. manufacturers of anchor and mooring chain. This study noted that the continued decline in overall Navy orders could adversely affect both manufacturers' viability. DOD did not determine if the anchor and mooring chain production capability was critical to DOD requirements. In fiscal year 1996, DOD rescinded its self-imposed restriction for anchor chain (although the legislative restriction stayed in place).

Vessel Propellers

Used to move a ship, vessel propellers are devices that consist of a central hub with radiating blades.

Original Source of Restriction: A restriction on propulsion system components (to include propellers) originated in the fiscal year 1993 National Defense Authorization Act under the Navy Fast Sealift program (Pubic Law 102-484, section 1022). A separate restriction originated in the

[1]In November 1997, Baldt, Inc. filed a protest with us concerning the award of a contract to Lister Chain and Forge, Inc. The protest focused on Lister's compliance with domestic manufacturing requirements contained in the fiscal year 1998 DOD Appropriations Act. We denied the protest. (Baldt, Inc., B-278648, Feb. 23, 1998, 98-1 CPD61.)

fiscal year 1994 DOD Appropriations Act (Public Law 103-139) under the Fast Sealift program for vessel propellers for new contracts and has appeared in every appropriations act since.

A restriction on procurement of vessel propellers 6 feet in diameter or more was first enacted in the fiscal year 1995 DOD Appropriations Act (Public Law 103-335, section 8115). The restriction required the propeller manufacturers to use castings that were poured and finished in the United States. Debate in favor of the provision noted concerns for preserving the defense industrial base and saving American jobs. The restriction was later codified at 10 U.S.C. 2534 by the fiscal year 1996 National Defense Authorization Act (Public Law 104-106, section 806).

Current Source of Restriction: The restriction in 10 U.S.C. 2534 expired in February 1998. Vessel propellers are currently restricted if funded through the fiscal year 1998 DOD Appropriations Act, title V, National Defense Sealift Fund (Public Law 105-56). None of the funds provided in that section can be used for new contract awards for procurement of components, to include propellers, unless they are manufactured in the United States.

Item Suppliers: Suppliers of propellers are Bird Johnson, Walpole, Massachusetts; Bird Johnson, Pascagoula, Mississippi; Lockheed-Martin Energy Systems, Oak Ridge, Tennessee; Stone Marine, Iberville, Canada; United Defense, Minneapolis, Minnesota; and the Naval Foundry and Propeller Center, Philadelphia, Pennsylvania.

Recent Studies: In an August 1994 report to Congress on propellers over 12 feet in diameter, the Navy concluded that the industrial base was in a fragile state due to the Navy's downsizing and the lack of commercial shipbuilding. The report also concluded that all propeller manufacture work has historically been done domestically. In a July 1996 report to Congress, the Navy assessed the industrial base for propellers 6 feet in diameter or more. The report concluded that it was not necessary to statutorily protect the domestic industrial base for large propellers. It stated that there has been little historical interest by foreign manufacturers to enter the U.S. market, and restrictive language artificially constrains competition and may result in propellers that are more costly to the Navy. The report also concluded that the constraint on competition may also remove incentives for companies to modernize and develop new technology. According to the report, the combination of U.S. Navy and

commercial shipbuilding work should sustain U.S. propeller manufacturers.

Various Marine Application Vessel Components

10 U.S.C. 2534(a)(3)(B) includes a limitation on procurement of the following items to the extent they are unique to marine applications:

totally enclosed lifeboats - Safety of Life at Sea-qualified system consisting of a standard lifeboat with a fiberglass encapsulated shell, lowered by a winch and davit system to allow emergency passenger disembarkment;
gyrocompass - a navigational device used to determine a ship's position relative to the north-south axis of the earth;
electronic navigation chart system - an electronically stored data package that shows maps and charts for various waterways on the surface of the earth;
steering control systems - an automated or actuated system that allows remote ability to throw power from a ship's bridge to its rudder for directional control;
pumps - any one of numerous devices used to move fuel, water, or other fluids throughout a naval vessel; and
propulsion and machinery systems - computerized sensor controls that transfer critical operating data from propulsion and machinery systems to shipboard monitoring systems.

Original Source of Restriction: Totally enclosed lifeboats were first restricted in the House version of the fiscal year 1994 DOD Appropriations Act (Public Law 103-139, section 8124). The restriction originally called for the lifeboats and associated davits and winches to use at least 75 percent domestic parts and 100 percent U.S. labor for assembly. The subsequent conference report reduced the domestic content level to 50 percent domestic parts and labor. The legislative history does not elaborate on the rationale for the restriction.

The remaining marine-unique items were first proposed as part of the House version of the fiscal year 1996 National Defense Authorization Act (Public Law 104-106, section 806). The items were deleted from the Senate version of that bill but were later reinstated during conference.

Current Source of Restriction: The totally enclosed lifeboat restriction was again included in the fiscal year 1995 DOD Appropriations Act (Public Law 103-335, section 8093). It was codified into 10 U.S.C. 2534 by the fiscal year 1996 National Defense Authorization Act (Public Law 104-106,

section 806). The original domestic content portion of the restriction was dropped as a result of this codification.

The remaining marine-unique items are still restricted under 10 U.S.C. 2534. Some of the these items (pumps and propulsion system components, engines, reduction gears, and propellers) are also restricted to U.S. sources by a provision in the annual appropriations act applicable to new contracts entered into for Fast Sealift ships (Public Law 105-56, Title V, National Defense Sealift Fund).

Item Suppliers: Suppliers for each of the items are as follows:

totally enclosed lifeboats - Schat Harding, Inc. in New Iberia, Louisiana;
gyrocompasses - Sperry Marine in Harvey, Louisiana, and Rentorn, Washington;
electronic navigation chart systems - no current suppliers;
steering controls - Sperry Marine in Harvey, Louisiana, and Charlottesville, Virginia, and C.S. Controls in Orange, California, and Houma, Louisiana;
pumps - at least 15 suppliers of pumps for naval vessels, located in 11 different states; and
propulsion and machinery control systems - at least 6 suppliers of propulsion and machinery control systems for naval vessels, located in 6 different states.

Recent Studies: Other than the study mentioned under the propeller section of this appendix, DOD officials responsible for assessing the industrial base had no knowledge of recent market or industrial base analyses for any of the other marine-unique items found in 10 U.S.C. 2534.

Ball Bearings and Roller Bearings

Antifriction bearings are essential in any metal product with moving parts and, therefore, are necessary for manufacturing defense products varying from motor vehicles to high-accuracy gyroscopes for missile guidance systems.

Original Source of Restriction: DOD has an extensive history of administratively limiting bearing procurement. In 1971, DOD imposed a restriction on miniature and instrument bearings. In August 1988, the Office of the Secretary of Defense issued an interim rule that DOD components may procure only antifriction bearings, components of such bearings, or items containing antifriction bearings produced in the United States or Canada. In April 1989, the interim rule was revised and adopted

as a final rule. DOD removed the restriction on miniature and instrument bearings in fiscal year 1996; these bearings are still restricted under the broader antifriction bearing limitation.

Ball and roller bearings were first legislatively restricted in the fiscal year 1995 National Defense Authorization Act as part of the general amendment to 10 U.S.C. 2534 (Public Law 103-337, section 814).

DOD appropriations acts also placed restrictions on the procurement of ball and roller bearings. The fiscal year 1996 DOD Appropriations Act barred the expenditure of funds for nondomestic items (Public Law 104-61, section 8099).

Current Source of Restriction: The antifriction bearing restriction is codified in 10 U.S.C. 2534 but expires on October 1, 2000. A restriction is also in place in the fiscal year 1998 DOD Appropriations Act (Public Law 105-56, section 8073), which requires all waivers to the restriction to be signed at the secretarial level.

Item Suppliers: DOD purchased bearings from 159 domestic and 5 British companies in fiscal year 1997. The domestic companies are located throughout the United States.

Recent Studies: Prior to DOD's August 1988 imposition of the antifriction bearing restriction, DOD's Joint Logistics Commanders conducted a 1986 industrial base study of bearings, and in July 1988 the Commerce Department completed an investigation of the effects of antifriction bearings imports on national security. The 1986 study concluded that the U.S. bearing industry had eroded and that failure to halt this erosion would result in a domestic bearings industry that is unable to meet industrial surge and mobilization requirements. The 1988 restriction was intended to protect and strengthen the domestic industrial base for an industry that was described as critical to national defense. In February 1993, the Department of Commerce reported that the restriction had a positive impact on the industry. Commerce also reported that eliminating the restriction would have a detrimental impact on the defense superprecision bearings sector. In 1997, a Commerce, Defense Logistics Agency, and industry forum reported that the U.S. bearing industry had improved its competitiveness over the last decade.

Sonobuoys

A sonobuoy is an electronic sensor dropped by Navy antisubmarine warfare aircraft into the ocean. These sensors provide the data required for naval aircrews to detect, localize, and destroy submerged submarines.

Original Source of Restriction: This prohibition was first enacted in the fiscal year 1993 National Defense Authorization Act (Public Law 102-484, section 833) as an amendment to 10 U.S.C. 2534. It originated in the Senate authorization bill (S. 3114). The pertinent Senate committee report indicates there was some concern that, while DOD made it a policy to solicit from U.S. and Canadian suppliers, the Canadian government had recently awarded a sole-source contract to a Canadian firm. The Committee was "concerned that . . . U.S. manufacturers are not being treated in an equitable manner" and "believes that the principle of reciprocity should prevail in such procurement." The language has not changed since it was enacted.

Current Source of Restriction: Currently codified in 10 U.S.C. 2534(e), this restriction is unlike others. Procurement is restricted only if the foreign sonobuoy manufacturer comes from a country that does not allow U.S. sonobuoy manufacturers to compete on an equal basis.

Item Suppliers: The Navy procures sonobuoys from Raytheon Systems Corporation in Fort Wayne, Indiana; Spartron Corporation in Jackson, Mississippi; and Hermes Electronics, Inc. in Nova Scotia, Canada

Recent Studies: In fiscal year 1998, the Naval Air Systems Command conducted an assessment of the sonobuoy industrial base. The legislative restriction on sonobuoys was not reviewed. This assessment concluded that the industrial base can support current and projected Navy sonobuoy needs. However, it also concluded that planned procurement may not support two U.S. suppliers. In addition, the assessment stated that past competition between vendors has kept sonobuoy costs down and quality up.

Comments From the Department of Defense

ACQUISITION AND TECHNOLOGY

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

June 11, 1998

DP/FC

Ms. Katherine V. Schinasi,
Associate Director
Defense Acquisition Issues
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Ms. Schinasi:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE ACQUISITION: Rationale for Imposing Domestic Source Restrictions", dated May 15, 1998 (GAO Code 707337/OSD Case 1619). In general, DoD believes that the draft report describes accurately the Department's rationale for imposing domestic source restrictions.

DoD appreciates the opportunity to comment on the GAO draft report.

Sincerely,

Eleanor Spector

Eleanor R. Spector
Director, Defense Procurement

Comments From the Department of Commerce

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

JUN 23 1998

Ms. Katherine V. Schinasi
Associate Director, Defense Acquisitions Issues
U.S. General Accounting Office
Washington, D.C. 20548

Dear Ms. Schinasi:

Thank you for providing us with an opportunity to comment on your draft report to Senator John McCain titled "Defense Acquisition--Rationale for Imposing Domestic Source Restrictions." Overall, we found the report to be comprehensive and informative regarding the origins and status of the various domestic source restrictions imposed by Congress and the Department of Defense (DOD).

We appreciate the General Accounting Office's (GAO) mention of the Department of Commerce, Bureau of Export Administration's analytic input to the DOD source restriction review process. Careful analysis is required before any decision is made to remove, or add, a domestic source restriction. The Department of Commerce is always pleased to assist DOD in that review process.

Considering the amount of negative publicity U.S. source restrictions receive from foreign defense ministries, we were surprised by the limited number of restrictions currently in force. As a suggested follow-up to the report, it would be useful if the GAO could provide an estimate on the dollar value these domestic source restrictions potentially preclude from foreign sources. This information would be useful to us as we prepare our annual report on offsets in defense trade, allowing us to compare your estimate against the defense trade-related offsets U.S. companies are required to provide foreign governments.

In addition, it may be worthwhile for the GAO or Congress to initiate a study of the procurement restrictions (other than offsets) that foreign governments impose which limit the ability of American industry to compete in the world defense market.

Thank you again for the opportunity to review this report. If your staff needs additional information, they may contact Dawnielle Battle in the Bureau of Export Administration's Office of Administration at (202) 482-0637.

Sincerely,

William M. Daley

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