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MILITARY COPRODUCTION

U.S. Management of Programs Worldwide

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The Honorable Nicholas Mavroules
Chairman, Subcommittee on Investigations
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

This is an unclassified version of a classified report. In this report, we have limited or deleted information on certain matters discussed in the classified version.

In response to the Subcommittee's request, we reviewed U.S. military coproduction agreements and programs worldwide. Specifically, we examined (1) how the programs are reviewed and approved, (2) how the Departments of Defense (DOD) and State manage the programs to ensure compliance with agreement restrictions on production quantities and third-country sales, and (3) the remedies available to the U.S. government if a foreign country fails to comply with restrictions on production quantities and sales. This review was requested on the basis of our findings in a prior report, U.S.-Korea Coproduction: A Review of the M-16 Rifle Program (GAO/NSIAD-88-117, Apr. 11, 1988). In that review, we found that Korea had exceeded the authorized production quantities and had entered into sales agreements with third parties without prior U.S. government consent.

During this worldwide assignment, we used a case study approach to review direct and indirect management and other controls exercised over the coproduction programs to ensure against unauthorized production and sales of the coproduced items. Our case studies covered six countries—the Federal Republic of Germany, Greece, Italy, Japan, the Republic of Korea, and Switzerland—and included 18 coproduction programs under government-to-government memorandums of understanding (MOU), as well as technical data packages sold under government-to-government letters of offer and acceptance (LOA). We also examined the remedies available to the U.S. government in cases of noncompliance.

Results in Brief

We found that DOD, State, and other U.S. government agencies do not directly manage or monitor coproduction programs to ensure compliance with agreement restrictions on production quantities and third-country sales. Indirect controls are exercised by withholding components from

foreign production and through commercial agreements and licensing channels, but these controls are limited in scope and effectiveness. DOD noted that these programs are established with close friends and allies and that agreements are negotiated on the basis that the participating countries will abide by the agreement provisions.

DOD directives on coproduction and international agreements do not contain specific review and approval procedures or criteria for coproduction agreements, but the cases we examined appeared to have been reasonably coordinated and reviewed. The DOD directive on coproduction is outdated and contains no requirement for the military services or the security assistance organizations to ensure compliance with coproduction agreement restrictions. DOD has not established criteria for deciding when to close out or terminate oversight of mature coproduction programs. Such decisions have been made arbitrarily.

From information made available to us, we determined that unauthorized third-country sales of coproduced equipment occurred in 5 of the 18 programs under MOUs and in numerous programs under LOAs. The State Department, which is responsible for dealing with cases of noncompliance, has taken action on some, but not all, unauthorized sales cases we examined. In practice, a typical response to third-country sales violations is a diplomatic protest, or demarche, issued by the State Department.

Review and Approval Process for Coproduction MOUs

The DOD directives related to coproduction and international agreements specify the DOD offices authorized to negotiate and conclude MOUs but do not clearly specify the procedures and criteria to be applied in the review and approval process. DOD is required to coordinate coproduction MOUs with the State Department. The only written criteria used in the review process is the National Disclosure Policy, which governs the release of classified military information and technology. Nonetheless, in the cases we examined, reasonable review and approval procedures were followed, and the MOUs appeared to have been reviewed by the appropriate offices, including the State Department.

DOD Guidance on Managing Coproduction Programs

Existing DOD coproduction guidance and agreement provisions do not require the military services or the overseas security assistance organizations to monitor or ensure compliance with MOU restrictions on quantities and third-country sales. Generally, in administering the programs, the services focus on ensuring that a foreign country can successfully produce the agreed-upon U.S. military equipment. Only in the case of Stinger missile coproduction agreements is the United States allowed to inventory the missiles produced. The DOD directive on coproduction (2000.9), last updated in 1974, requires semiannual coproduction status reports from the military services, but the reports contain no information on compliance-related activities. The directive needs to be updated as it assigns key coproduction management responsibilities to a DOD organization that no longer exists.

DOD has not established criteria or procedures for closing out or terminating oversight of coproduction programs when the programs are no longer considered active by the responsible project offices.[1] Decisions on closing out programs have been made arbitrarily. In four of the five closed out cases we examined, parts production continued, and in two cases, unauthorized sales had occurred after programs were closed out. There is a need for guidance on closing out mature coproduction programs because programs such as the AIM-9L missile with Germany are near the closeout phase.

Direct Management and Other Controls to Ensure Compliance With Agreements

In the 18 coproduction programs we reviewed that were governed by MOUs, DOD had relied on the foreign countries to report on production quantities and had not verified the information it received. Although DOD also relied on U.S. embassy offices to inform it of noncompliance, these offices were not tasked with and did not consider themselves responsible for oversight or management of coproduction programs to ensure compliance.

Certain limited indirect controls exist to deter overproduction and unauthorized sales. For example, in 4 of the 18 programs we examined, DOD withheld certain critical components from foreign production and was monitoring the quantities purchased from the United States under LOAs. While this provides a control over the quantity of end items produced, it does not ensure against unauthorized sales of end items or parts. Another indirect control is exercised through commercial agreements

[1]While these programs are considered closed out for management purposes, the MOUs have not been terminated and their provisions remain in force.

and the munitions licensing process, which implement the coproduction MOUs, but we found this control to be ineffective in ensuring compliance with MOU restrictions. U.S. firms did not generally verify the quantities of items produced under license, and parts purchased through commercial munitions licensing channels were not monitored for compatibility with MOU quantity restrictions.

In the past, DOD has not monitored coproduction occurring through the sale of technical data packages under LOAs, and unauthorized third-country sales of items coproduced under LOAs have been detected. LOAs are covered under separate guidance from coproduction MOUs in the Security Assistance Management Manual. Because a 1985 DOD Inspector General's report disclosed weaknesses in controls over the technical data, DOD issued more restrictive guidelines on such programs and agreements in 1987. These guidelines require production validation clauses[2] in LOAs governing the sale of production technical data packages in which royalty payments to the U.S. government are required.

The State Department is responsible for managing third-country sales of U.S.-origin military items. To control third-country sales of U.S.-coproduced equipment, the State Department requires foreign countries to submit requests for U.S. permission before selling the items. When State receives foreign countries' requests, State reviews the requests and coordinates the responses with DOD and industry.

DOD Efforts to Improve Coproduction Management Guidance

During our review, the Defense Security Assistance Agency revised the Security Assistance Management Manual to provide more specific guidance on MOU provisions, including production validation clauses on a case-by-case basis, management responsibilities, and compliance-related activities and reporting. Production validation provisions have been incorporated into recent draft MOUs. It is unclear at this time whether these provisions will remain in the concluded versions of these agreements.

[2]These clauses provide the United States the right to physically verify quantities of the agreed-upon items or equipment produced by the foreign country.

Unauthorized Sales of Coproduced Items Occurred

From information made available to us, we determined that unauthorized sales of items we identified as being coproduced under both MOUs and LOAs have been detected. Such sales occurred under five programs governed by MOUs and numerous programs governed by LOAs. The details on these sales have been classified by the Departments of State and Defense.

Remedies Available for Cases of Noncompliance

A number of legislative and administrative remedies are available to the U.S. government if a foreign country or company violates an agreement that restricts third-country sales of U.S.-origin military items. Section 3(c) of the Arms Export Control Act provides for the suspension of Foreign Military Sales (FMS) credits for substantial violations of agreements restricting third-country sales. As discussed on pages 21-23, it is unclear whether this section of the act applies to all coproduction agreements. To date, the penalty has not been invoked. State and DOD officials told us they consider the suspension of FMS credits to be too severe a penalty for a violation of third-country sales restrictions. However, DOD noted that this penalty should be considered for use in exceptional circumstances.

In practice, the State Department's most common response to unauthorized third-country sales of U.S. equipment is a diplomatic protest, or demarche, delivered to foreign government officials or agencies. U.S. industry representatives believed that publicity, "blacklisting," and withholding ongoing and future technology transfers from countries and companies would be more effective in deterring future noncompliance with MOUs and licensing agreements. Another option is to suspend DOD purchases from violating countries or companies. These administrative remedies are available to the State Department and DOD, and we found two cases where they have been used.

Additional Efforts to Ensure Compliance Are Needed

We recognize that an elaborate system to ensure compliance with MOU restrictions by all countries would not be cost-effective, practical, or necessary. However, coproduction program managers and other authorized U.S. representatives need to have access to the pertinent production facilities and records and storage sites to periodically verify and/or inventory production quantities. The recent revision to the Security Assistance Management Manual states that such access will be negotiated in MOUs on a case-by-case basis. Such access, if negotiated in MOUs as a general rule and if properly implemented, may improve U.S. government controls. However, from discussions with DOD and military services' attorneys, it was unclear whether the manual's revision

constitutes a formal requirement for the military services and security assistance organizations. To formalize these new requirements, DOD should incorporate them into its Directive 2000.9. DOD commented that it was not aware of any specific differences between the manual and the service regulations but agreed that Directive 2000.9 should be updated.

Reporting Coproduction Agreements to the Congress

The Congress may wish to be apprised of all future coproduction agreements and of the U.S. government monitoring and oversight roles designed in each program to ensure compliance. The latter may be particularly important because DOD maintains flexibility as to whether it incorporates agreement provisions authorizing or requiring U.S. production verifications and/or inventories.

DOD and State currently report most coproduction agreements to the Congress under existing reporting requirements in legislation such as the Arms Export Control Act. Agreements are reported under section 36(b) of the act when they might involve FMS sales of major defense equipment valued at $14 million or more or total sales of $50 million or more. On the other hand, State would report an agreement to the Congress under section 36(c) if a foreign country made it clear that it intends to use commercial munitions channels for coproduction and sales valued at $14 million or more or total sales of $50 million or more. State is also required (section 36(d)) to report commercial licensing agreements, except those with North Atlantic Treaty Organization countries.

Thus, the existing reporting requirements apply for the most part to sales rather than coproduction MOUs. As a result, the law does not require notification of all coproduction MOUs, as some (1) may not involve sales of major defense equipment valued at $14 million or more, (2) may not involve total sales valued at $50 million or more, and (3) may be implemented through commercial licensing agreements with North Atlantic Treaty Organization countries. DOD officials acknowledged that the Congress has not been notified of coproduction MOUs that do not meet the required reporting thresholds. They also stated that it would not be burdensome to notify the Congress of all coproduction MOUs. While the exceptions may be appropriate for notifications of direct sales, they may not be appropriate for notifications of coproduction MOUs, as these agreements can have broader implications than sales of equipment. The notification requirements may also need expansion to accommodate notification of compliance-related controls DOD has designed in the coproduction programs.

Recommendations

We recommend that the Secretary of Defense take the following actions:

- Update Directive 2000.9 and incorporate management objectives and specific responsibilities for the military services and overseas security assistance organizations related to monitoring for compliance with coproduction agreement restrictions. Since the Defense Security Assistance Agency is currently responsible for coproduction agreements involving fielded U.S. weapons and equipment, it may be the appropriate agency to update the directive.
- Include in the updated directive guidance on provisions to be included in coproduction agreements regarding verification of production quantities reported and/or inventories. In the event that such provisions cannot be negotiated, we recommend that alternative control measures be designed and incorporated in the program.
- Direct the military services to include a section on compliance-related activities in the required semiannual coproduction status reports.
- Establish criteria for deciding when to close out or terminate U.S. oversight of mature coproduction programs.
- Incorporate procedures and guidance on closing out coproduction programs in the updated directive, including considerations for continued spare parts production, some level of oversight, and periodic reviews of mature programs and agreements.

We made two other recommendations that were classified by the Departments of State and Defense.

Matters for Congressional Consideration

The Congress may wish to require DOD and/or the State Department to notify it of all coproduction MOUs, whether implemented by LOAs under FMS procedures or by commercial licensing and/or technical assistance agreements, regardless of the coproducing country or the value of the related sale. Such notifications could include a section on MOU provisions related to compliance, certifying whether or not DOD has negotiated an agreement provision related to production verifications and/or inventories. When an agreement does not contain such a provision, DOD could be required to include in its notification an explanation of how it is otherwise monitoring for compliance.

Agency Comments and Our Evaluation

We obtained official oral comments from the Department of State and written comments from DOD on a draft of the classified version of this report. Because of their classification, DOD's comments are not included as an appendix to this report, but the unclassified points have been

incorporated where appropriate. DOD and State generally agreed with our findings and recommendations. DOD stated that it has taken or is taking action on most of our recommendations. It also noted that it could take 6 months to update DOD Directive 2000.9.

DOD disagreed with our proposals that it notify the Congress of coproduction agreements and include a section in its notifications on compliance-related controls. DOD stated that (1) these proposals would result in a layering of reporting requirements and (2) the Congress is already notified of the most significant coproduction agreements under existing requirements.

We believe that our proposals are important for complete program accountability and management. Although DOD reports many MOUs as a matter of practice, it is under no legal obligation to do so. Therefore, our proposal to notify the Congress of all MOUs does not duplicate existing reporting requirements. We further believe that information on compliance-related controls in the agreements is needed for all such notifications. All government-to-government coproduction agreements are significant, regardless of the dollar values of the related sales, in that they establish or enhance a foreign production capability for U.S.-origin weapons and systems.

Details of our findings and a description of our objectives, scope, and methodology are in appendixes I and II, respectively.

As arranged with your office, we plan no further distribution of this report until 30 days from its issue date. At that time, we will send copies of this report to the Chairmen, House Committee on Foreign Affairs, Senate Committee on Foreign Relations, House and Senate Committees on Appropriations, House Committee on Government Operations, Senate Committee on Governmental Affairs, and House and Senate Committees on Armed Services; the Secretaries of State and Defense; and other interested parties.

This report was prepared under the direction of Joseph E. Kelley, Director, Security and International Relations Issues. Other major contributors are listed in appendix III.

Sincerely yours,

Frank C. Conahan
Assistant Comptroller General

Contents

Abbreviations

DOD	Department of Defense
DSAA	Defense Security Assistance Agency
FMS	Foreign Military Sales
LOA	Letter of Offer and Acceptance
MOU	Memorandum of Understanding
PM/SAS	Bureau of Politico-Military Affairs, Office of Security Assistance and Sales (Department of State)

U.S. Military Coproduction Programs

Since the 1950s, the United States has entered into at least 87 government-to-government memorandums of understanding (MOU) with 19 countries, enabling them to acquire the know-how to produce or assemble all or part of fielded U.S. weapon systems and equipment. According to the Department of Defense (DOD), the agreements are negotiated with close friends and allies on the basis that the participating countries will abide by the agreement provisions. These programs are intended to improve the foreign partners' military readiness by expanding their technical and military support capabilities and to promote standardization of military equipment. The programs are established by MOUs or letters of offer and acceptance (LOA), which are typically signed by representatives of DOD and the foreign government's counterpart agency. These programs are implemented through licensed production arrangements and/or technical data and assistance that are provided through Foreign Military Sales (FMS) and commercial munitions licensing channels.

Review and Approval Process

The DOD directives related to coproduction and international agreements specify the DOD offices authorized to negotiate and conclude MOUs but do not clearly specify the procedures and criteria to be applied in the review and approval process. The only written criteria for reviewing MOUs we identified were in the National Disclosure Policy, which governs the release of classified military information and technology. Nonetheless, in the MOUs we examined, reasonable review and approval procedures had been followed, including (1) coordinating with the appropriate DOD and State offices, (2) submitting legal and fiscal memorandums with draft agreements, (3) delegating authority to negotiate and conclude the agreements, (4) providing negotiating guidance, (5) requiring third-country transfer provisions, and (6) ensuring that the programs were in accordance with the National Disclosure Policy or an exception or amendment to it.

DOD Directive 2000.9 on coproduction agreements and programs, last updated in 1974, and Directive 5530.3 (1987) on international agreements include the principal guidance related to coproduction. With respect to review and approval, the latter states that the Under Secretary of Defense for Policy is responsible for controlling negotiation and conclusion of all international agreements of policy significance, including coproduction agreements. The Defense Security Assistance Agency (DSAA) is responsible for coordinating coproduction agreements related to the security assistance program. Directive 2000.9 requires the DOD

General Counsel's legal clearance on proposed agreements and coordination with and semiannual reporting by the cognizant DOD components on the programs to the Assistant Secretary for Installations and Logistics—an office that no longer exists. While the directive assigns clearance and coordination responsibilities, it does not delineate management responsibilities for the services.

Controls to Ensure Compliance With Agreement Restrictions

Both direct and indirect management controls can be exercised over ongoing coproduction programs to ensure compliance with production and third-country sales restrictions in the MOUs. Direct controls, which include verifying production reports from the foreign coproducer and monitoring by U.S. organizations overseas, are generally not employed by DOD or State to ensure compliance. Indirect controls, such as withholding critical components from coproduction and commercial agreements and controls, are limited in scope and effectiveness. In addition, no oversight or controls are exercised over mature coproduction programs that are arbitrarily categorized as closed out even though production continues.

DSAA recently revised coproduction guidance in its Security Assistance Management Manual to address oversight deficiencies we identified in coproduction programs governed by MOUs. The guidance calls for program management responsibilities and continuity, U.S. industry reporting, and U.S. government monitoring for compliance to be established on a case-by-case basis. The DOD directive on coproduction also needs to be updated to formalize the management responsibilities for the services and security assistance organizations.

To date, DOD has performed little oversight of coproduction occurring through the sale of technical data packages under LOAs. In 1987, DSAA issued guidance that provides for more restrictive data release criteria and for spot-checks of production under LOAs in which U.S. government royalties are involved. These revisions may improve DOD controls over the data and production.

Direct U.S. Controls Over Programs Governed by MOUs

Direct controls include program management functions performed by the U.S. military service responsible for the program and overseas monitoring of the programs being performed by U.S. organizations. For the most part, the services manage the programs to ensure that the foreign country can successfully produce the agreed-upon equipment. U.S. government organizations overseas have not been tasked to monitor the

programs for compliance with agreement restrictions and do not consider such monitoring as part of their responsibilities.

Program Management

DOD and State typically do not exercise direct controls over coproduction programs to ensure compliance. Although 15 of the MOUs we examined contain restrictions on production quantities and third-country sales, they do not require or authorize direct U.S. monitoring or oversight. With the exception of recent Stinger agreements, which give the United States the right to inventory missiles produced overseas, DOD guidance and MOU provisions do not include monitoring for compliance with agreement restrictions on production and sales as part of the overall program management objectives or requirements. Although DOD Directive 5530.3 states that DOD policy is to maintain awareness of compliance with international agreements, no mechanism has been established for its implementation in coproduction programs.

In the absence of more specific requirements, the military services generally manage the programs to ensure that the foreign partner is able to produce the fielded U.S. system or equipment successfully. Such management includes providing and coordinating delivery of technical assistance and logistical support, providing engineering changes, and exercising configuration management and control. The Army and Navy also submit semiannual coproduction status reports, which are required by DOD Directive 2000.9. However, the Air Force has not submitted a coproduction status report since 1982. An Air Force official stated that no one had raised concerns about the failure to report. As previously noted, under the 1974 directive, the status reports are to be sent to the Assistant Secretary of Defense for Installations and Logistics, an office that no longer exists. The Army and Navy submit their reports to DSAA.

DOD's management of coproduction programs varies, depending on the level of technical support and hardware transferred through FMS channels, the role of the U.S. contractor in program implementation, and the age of the program. For example, the Navy has played an active role in managing the MK46 MOD5 torpedo program with Japan since the program's inception in 1982. As of June 1988, the Navy was managing 22 FMS cases established for this program's technical support, test equipment, proofing support, and transportation of commercially procured, classified items. A Navy program official stated that oversight will diminish as the program matures and the Japanese firms are able to produce the torpedo successfully.

In other programs, due to their maturity and/or level of U.S. contractor support, DOD management is limited primarily to (1) responding to technical questions, (2) attending program review meetings, (3) receiving production reports and updating program status reports, and (4) exercising configuration controls over the systems. The HAWK missile program with Japan, the DRAGON and TOW 2 missile program with Switzerland, the M-109 self-propelled howitzer program with Korea, and the MOD FLIR night vision equipment program with Germany are implemented primarily by commercial licensing agreements. Under these circumstances, DOD relies on the U.S. contractor for day-to-day program management.

In most cases we examined, DOD relied on the foreign country to provide it with production reports. For example, the MOD FLIR project office submits its coproduction status reports to the German embassy for updates. DOD has not verified the production reports it received in any of the programs we reviewed. However, in some early programs, such as the M-113 armored personnel carrier with Italy in the 1960s, DOD stationed a representative in the foreign prime contractor's plant for a period of time for surveillance purposes, including monitoring production quantities, quality, and testing.

A U.S. Army liaison officer is currently stationed in Germany to coordinate the Stinger missile program with Germany as the lead nation in a European consortium (Greece, Netherlands, and Turkey). Since production has not yet begun, the liaison officer's production monitoring responsibilities, if any, are unclear. However, the implementing arrangement for this program provides U.S. representatives access to inventory Stinger missiles produced by the consortium. DSAA is currently making necessary arrangements for U.S. inventorying, once production and delivery of up to 75,000 authorized Stinger missiles begin.

No Overseas Monitoring for Compliance by U.S. Government Organizations

DOD officials told us that they generally rely on the foreign governments' integrity to comply with the MOU/LOA restrictions. DOD also relied on U.S. embassy offices to inform it of noncompliance cases. However, our review of 18 programs under MOUs and numerous technical data packages in six countries showed that no embassy office had been tasked to monitor these programs to ensure compliance with MOU production and sales provisions, and they did not consider such oversight their responsibility. These embassy offices included the security assistance organizations, defense attaches, political-military counselors, commercial

attaches, economic attaches/counselors and Customs officials, where applicable.

Indirect Controls Over Programs Governed by MOUs

We examined other potential controls over coproduction programs that might ensure against unauthorized production and third-country sales. For example, withholding certain components from production abroad and commercial agreements and controls could provide for some level of control over production and sales.

Withheld Components Provide Limited Control

In some of the programs we examined, DOD withheld certain critical components from coproduction, because of technology security or industrial base considerations, which indirectly controlled the quantity of end items produced. Without these components, the systems will not operate. While this provides a control over the quantity of end items produced, it does not ensure against unauthorized sales of end items or parts.

In 4 of the 18 programs we reviewed—the AIM-9L programs with Germany and Japan, the PATRIOT program with Japan, and the M-110 howitzer program with Japan—critical components were withheld, and the items could be purchased only through FMS channels. In these cases, we found evidence that the United States was monitoring the purchase and delivery of the components. For example, the U.S. Navy project office received a request from Japan for price and availability data for purchasing additional quantities of the component that had been withheld from Japanese production in the AIM-9L program. Because of the quantity already delivered to date and the quantity restriction in the MOU, the project office responded to Japan's request by stating that an amendment to the MOU quantities would be required before price information could be provided.

In the other 14 programs we reviewed, however, either (1) DOD did not withhold components from foreign production or (2) components not coproduced were purchased and available through U.S. commercial munitions licensing channels without quantities being monitored by the U.S. government for compatibility with MOU limits. For example, no production information or components were withheld in the MOD FLIR program with Germany, the DRAGON Missile program with Switzerland, the HAWK missile program with Japan, or the small caliber ammunition program with Korea (5.56-mm and 7.62-mm rounds). In addition, no production information was withheld from the technical data packages sold

under LOAs in the cases we reviewed in Greece and Korea. Thus, the foreign country could produce the entire item.

Commercial Agreements and Controls Are Limited

In most of the programs we examined that were governed by MOUs, U.S. companies participated in implementing the programs through commercial licensed manufacturing and technical assistance agreements with the involved foreign governments and/or contractors. Commercial agreements are reviewed and approved by State's Office of Munitions Control, which usually coordinates its review with DOD. We found that commercial agreements placed few limits over quantities produced. Also, production quantities reported to U.S. firms for royalty purposes were generally not independently verified by the U.S. firms. Therefore, these commercial agreements and controls did not adequately ensure compliance with MOU restrictions on production and sales.

Of the 15 commercial agreements applicable or available for our review, only 2 contained production quantity restrictions, 10 involved royalty payments based on quantities produced, 10 required the foreign firm to report quantities produced, and 9 had provisions for audits. Generally, the U.S. companies had not verified end item or parts production figures by auditing the programs. Commercial contract audit provisions were invoked in only one program we examined on one occasion in the 1970s.

In many cases, U.S. defense firms involved in coproduction programs maintained an in-country representative for a limited period of time. These representatives' responsibilities focused on either marketing or technical assistance. They were not monitoring for compliance with MOU provisions and in many cases were not informed of MOU provisions and restrictions. According to both Defense and industry representatives, many MOUs are classified by the foreign countries and cannot be released to the U.S. companies.

In most programs we examined, the U.S. contractor's presence in the foreign plant was reduced or ended with the completed delivery of technical assistance. Since the foreign country or firm pays for the contractor's assistance and presence, once the foreign plant is able to produce the equipment successfully, the U.S. contractor's services are generally no longer required. However, in the M-113 armored personnel carrier program with Italy, the U.S. contractor maintained a representative in the Italian prime contractor's plant for about 15 years. In addition, in the M-109 self-propelled howitzer program with Korea, the U.S. contractor performs on-site quality assurance functions, which will presumably

continue throughout the life of the production program. The U.S. company also maintains awareness of end item quantities produced.

The Office of Munitions Control at the State Department reviews commercial munitions export license applications and licensed production and technical assistance agreements. According to officials at Munitions Control, they do not review commercial munitions licenses to ensure that quantities of parts or components purchased through this channel comply with authorized production levels specified in government-to-government agreements. They do not maintain copies of the MOUs and are not aware of authorized production levels. It would be difficult to oversee or enforce compliance with the commercial purchases because several vendors may supply parts, licenses frequently contain ambiguous item descriptions, and the correlation between small parts and end items is rarely clear. The officials noted that Munitions Control relies on the integrity of the U.S. companies to submit licenses that reasonably support the coproduction program.

No Criteria/Procedures for Closing Out Programs

A number of mature coproduction programs have been or will be considered closed out by the military services responsible for program management, even though foreign production and sales may continue and the MOUs may remain in force. Several programs administered by the U.S. Army have been categorized in its status reports as closed out. When the U.S. Army closes out mature coproduction programs, project or program officers are no longer responsible for updating status reports or overseeing the programs. DOD directives do not contain criteria for the Army and the other services to determine when to close out the programs or set forth procedures for terminating U.S. program oversight or the agreements or for certifying that production has ceased.

We examined five programs that the Army categorized as closed out in its coproduction status report—the UH-1D helicopter with Germany, the M-60 tank/105-mm ammunition and M-113 armored personnel carrier with Italy, and the AN/PRC-77 tactical radio and ammunition programs with Korea. According to the responsible official at the U.S. Army Security Affairs Command, decisions on closing out programs have been made arbitrarily. For example, the Army closed out the M-113 program after the U.S. embassy cabled that the foreign government reported the last end item produced in 1984. There was no certification or verification that production had ceased, nor was there a provision for periodic review of continued parts production or sales.

In four of the five closed out cases we reviewed, at least parts production continues—two with valid and active commercial licensing agreements (UH-1D helicopter with Germany and M-113 armored personnel carrier with Italy) and two without. In the case of the ammunition program with Korea—closed out in 1983—DSAA's Director determined in 1984 that the ammunition technology was in the public domain and its sale was no longer subject to prior U.S. government approval. In all cases, the MOUs have not been terminated.

Criteria for closing out programs and some level of periodic review of mature programs are needed as coproduction programs involving more modern equipment near closeout. For example, according to the Navy project office, the AIM-9L missile program with Germany and a European consortium is in its last year of end-item production. Project officials are uncertain as to how and when this program will be closed out.

Recent DOD Efforts to Improve Coproduction MOU Guidance

During our review, DSAA revised the Security Assistance Management Manual to incorporate guidance on coproduction agreement provisions, management responsibilities, and oversight functions related to ensuring compliance with MOU provisions. The revised manual provides that, on a case-by-case basis, DOD will negotiate clauses in MOUs authorizing U.S. government production validation and access to production facilities and records and storage sites. In such cases, the manual further provides specific requirements for the responsible military service program office, such as making visits and examining production records. The revision provides for continued lines of responsibility throughout the life of the program, U.S. industry reporting, and overall emphasis on monitoring the programs for compliance.

The revised manual, if properly implemented, may improve these aspects of the agreements and program management in the interim. In our view, production validation/inventory clauses should be negotiated in MOUs as a general rule rather than on a case-by-case basis, recognizing the need for occasional exceptions. In addition, DOD Directive 2000.9 remains outdated and ambiguous with respect to management responsibilities. Moreover, from discussions with DOD and military services' attorneys, it was unclear whether the manual provides the basis for formal implementation through the military services' regulations and by the security assistance organizations overseas. DOD noted that it was not aware of any specific differences between the manual and service-implementing regulations but agreed that DOD Directive 2000.9 needs to be updated.

Technical Data Packages Sold Under LOAs

Another form of coproduction through which overproduction and unauthorized third-country sales of U.S. equipment can occur is implemented through the sale of technical data packages under government-to-government LOAs. Unlike MOUs, LOAs are not considered international agreements under DOD Directive 5530.3; LOAs are covered under separate guidance in the Security Assistance Management Manual. We examined numerous LOAs covering technical data packages sold to Greece and Korea.

Prior to 1987, DOD did not manage or exercise oversight or controls over countries' use or the disposition of technical data packages. In the 1970s and early 1980s, U.S. government-owned technical data were transferred to Greece and Korea under LOAs. In the case of Greece, most of the technical data packages were for production purposes, and very few of the LOAs contained quantity restrictions or provision for royalty payments. DOD did not maintain copies of all the LOAs, but the LOAs we examined contained provisions stating that the data and items produced from the data were for domestic use only. In the case of Korea, the LOAs we examined contained provisions restricting use of the technical data for study, evaluation, maintenance, and in some cases production. According to the U.S. Army, by the early 1980s, Korea had obtained technical data packages enabling it to produce most of the equipment in the U.S. Army inventory.

A 1985 DOD Inspector General report pointed out the weaknesses in the controls over the data packages. In March 1987, DSAA issued new guidance in the Security Assistance Management Manual. The new guidance requires LOA provisions that more clearly restrict the use of the technical data packages, restricts the release of complete data packages for study and maintenance, and provides for verifying quantities produced on a spot-check basis by the security assistance organizations in the recipient countries in which U.S. government royalties are being charged. At the time of our review, DOD had not validated or verified foreign production under the LOAs issued since March 1987.

Foreign Government Controls

In all the countries we visited except Korea, U.S. embassy officials believed that direct U.S. government monitoring for compliance with restrictive coproduction agreement provisions is not necessary for a number of reasons. For example, in Greece, U.S. embassy officials told us that, because of the low level of technology involved in the technical data packages sold under LOAs, continuous or on-site monitoring would not be worthwhile. In Germany, Japan, Switzerland, and Italy, several

officials pointed out that these countries have strict arms export laws, policy, and enforcement and that government agency representatives oversee or maintain a presence in their defense contractors' plants. Therefore, the U.S. embassy officials maintained that U.S. interests are protected. We did not evaluate the effectiveness of the foreign governments' arms export laws, controls, or enforcement or their compatibility with those of the United States.

Controls Over Third-Country Sales

The State Department's Office of Security Assistance and Sales, Bureau of Politico-Military Affairs (PM/SAS), is responsible for receiving and responding to foreign countries' requests for permission to sell U.S.-origin military equipment, including coproduced U.S. equipment. According to State, when considering sales requests, the same criteria are applied as those used in examining direct sales from the United States. In addition, PM/SAS is responsible for investigating and coordinating actions on cases in which unauthorized third-country sales of U.S.-origin military equipment have been detected and brought to its attention. In some cases, countries requested authorization from State prior to selling U.S.-origin equipment. In other cases, they did not request authorization. Details on these matters have been classified by the Department of State.

Remedies Available for Unauthorized Sales

The Arms Export Control Act provides for the suspension of FMS credits or guarantees if a foreign country is found to have substantially violated third-country sales restrictions in any agreement entered into under the act. It is unclear whether this remedy applies to all government-to-government coproduction MOUs. Regardless of its technical application, this penalty is considered by State and DOD officials as too severe, the United States has not invoked the remedy, and it would not apply to violating countries that do not receive credits. In practice, a typical response to third-country sales violations is a diplomatic protest, or demarche, issued by the State Department. Alternative administrative remedies are available to the U.S. government and are viewed by some U.S. industry representatives to be more effective in deterring future cases of noncompliance with agreement restrictions on third-country sales.

Arms Export Control Act

Section 3(a) of the Arms Export Control Act provides that no defense articles shall be sold or leased by the U.S. government unless certain conditions are met. Section 3(c) of the act states that no FMS credits or

guarantees may be provided to a foreign country if it substantially violates "any agreement" entered into under the act, which includes third-party sales restrictions on U.S. defense items or services. Although the remedies are drafted more broadly than the eligibility requirements, it is unclear whether section 3(c) applies to a violation of any government-to-government coproduction agreement.

Officials from State maintain that the penalty would apply in cases of substantial violations of third-country sales restrictions in a coproduction MOU, regardless of whether it is implemented by a U.S. government LOA or by a commercial licensing/technical assistance agreement. On the other hand, DOD maintains that section 3(c) sanctions would not apply to a third-party sales violation of a government-to-government coproduction agreement unless an FMS purchaser transferred items it purchased or leased from the U.S. government to a third party without prior U.S. consent. DOD argues that because the act does not require specific restrictions in a coproduction MOU governing foreign manufacture of U.S.-origin weapons, the section 3(c) sanctions are not triggered by an MOU violation.

According to DSAA's General Counsel, the section 3(c) penalty would apply to unauthorized transfers of U.S. equipment manufactured abroad only if it were produced from a technical data package sold by the U.S. government under an LOA that contained the appropriate restrictions. These restrictions would include those either against manufacture for third-party transfers or against any manufacture whatsoever. This official further noted that when State decided to report to the Congress a violation by Korea in 1984, State applied DOD's interpretation of section 3. In that case, Korea made unauthorized sales of equipment produced from technical data packages sold by the U.S. government under LOAs. According to the DSAA General Counsel, these LOAs contained no restrictions on transfers of foreign-made items under the technical data packages but provided that the data could be used only for study and evaluation purposes by the purchaser.

State/DOD Views on Section 3(C)

Regardless of whether section 3(c) generally applies to violations of third-country sales restrictions in coproduction MOUs, State and DOD officials believe that the penalty is too severe for such violations. However, DOD commented that it could envision situations in which such action should be considered and would be appropriate. DOD and State officials noted that the United States has been unwilling to impose such a serious penalty for what are often considered even more serious violations, such

as offensive use of U.S. equipment. One official pointed out that in one such case, the Congress also decided against withholding FMS credits from the violating country. DOD and State officials added that withholding FMS credits and guarantees as a penalty would not apply to violating countries that do not receive FMS credits.

General Practice and Administrative Remedies Available

In practice, in cases of unauthorized third-country sales, State's PM/SAS usually requests that the U.S. embassies in either or both the selling and receiving countries deliver a demarche to the foreign government(s) to prevent prospective sales. According to State, if (1) a demarche is delivered but does not prevent an unauthorized transfer and (2) a substantial violation may have occurred, then State notifies the Congress and considers terminating U.S. credits and guarantees if applicable to the violating country. However, we found no cases in which credits or guarantees had been terminated on these grounds.

We talked to U.S. industry representatives about the use of demarches as a means of preventing unauthorized sales. We also explored alternative measures that might more effectively deter future unauthorized sales. U.S. industry officials believed that diplomatic protests do not effectively deter foreign producers from future unauthorized sales. Some suggested that terminating or delaying implementation of ongoing or future licensing/technical assistance agreements for a specified period of time would more effectively deter future cases of noncompliance. Others suggested withholding needed U.S. parts or components from the violating company or country and "blacklisting" the violating foreign companies from U.S. contracts or licenses. Some representatives believed that public denunciation of the violating country or company would be more effective than diplomatic protests.

These and other administrative remedies are already available to the U.S. government for responding to cases of unauthorized third-country sales. We found two cases in which such remedies had been threatened or employed. The United States temporarily withdrew U.S. classified technical data from a foreign firm that was thought to be involved in a compromise of U.S. technical data on a weapon system. The United States further withheld a follow-on transfer of classified technical data from the involved country for about one year, until the country agreed to further security assurances. In the other case, DOD placed a temporary hold action on at least one contract that was to be implemented under an LOA with the violating company.

Objectives, Scope, and Methodology

We conducted our review at the Departments of State and Defense in Washington, D.C. We also met with officials and examined records at U.S. Army and Navy security assistance headquarters and a number of system (Naval Air and Sea Systems Commands) and commodity commands in Warren, Michigan (Army's Tank-Automotive Command); Redstone Arsenal, Alabama (Army's Missile Command); Rock Island, Illinois (Army's Armament, Munitions, and Chemical Command); and the Army Center for Night Vision and Electro Optics at Fort Belvoir, Virginia, and queried officials at Fort Monmouth, New Jersey (Army's Communications-Electronics Command), and St. Louis, Missouri (Army's Aviation Systems Command).

We also performed work at the U.S. embassies in the Federal Republic of Germany, Greece, Italy, Japan, the Republic of Korea, and Switzerland. We obtained information from U.S. and foreign defense industry representatives and from foreign government officials in all the countries we visited except the Republic of Korea.

Our selection of coproduction programs was not based on a random or statistical sampling. We selected cases to test management controls to ensure compliance based on a number of factors: (1) a range of North Atlantic Treaty Organization and other countries, (2) a range of types and technological levels of sophistication in the weapons/equipment being coproduced, (3) programs varying in maturity—from those in the early stages of implementation to those which are considered closed out, (4) programs managed by a range of Army and Navy commodity and system commands, and (5) a range of involved U.S. contractors. We did not select Air Force programs for examination because the Air Force's active programs were multilateral without a lead nation, and its bilateral programs were not active.

The coproduction agreements and programs that we reviewed are listed in table II.1.

Table II.1: Government-To-Government Coproduction Agreements

Country	Program (MOU)
Germany	MOD FLIR (forward looking infrared modules) AIM-9L air-to-air missile Stinger missile UH-1D helicopter
Italy	M-109G self-propelled howitzer/155-mm, M107 HE ammunition M-60 tank/105-mm ammunition M-113 armored personnel carrier
Japan	HAWK surface-to-air missile AIM-9L air-to-air missile MK 46 MOD5 torpedo M-110 self-propelled howitzer PATRIOT missile system
Korea	M-109 self-propelled howitzer AN/PRC-77 tactical radio 5.56-mm, 7.62-mm, M-60 machine-gun ammunition
Switzerland	DRAGON missile TOW 2 missile M-109 self-propelled howitzer
	Program (technical data package)
Greece	155-mm artillery ammunition (including M107 HE) 105-mm ammunition 20-mm and 90-mm ammunition 175-mm projectile 81-mm mortar 8-inch projectile 90-mm recoilless rifle 106-mm ammunition Fuzes (various) Grenades
Korea	155-mm, M549 RAP Projectile M18A1 antipersonnel mine 105-mm cartridges Fuzes (various) 105-mm howitzer M110 howitzer 155-mm howitzer (M114A1) 155-mm, M198 towed howitzer 20-mm, 30-mm, 40-mm, and 90-mm ammunition 106-mm recoilless rifle (M40A1) 60-mm and 81-mm mortars 81-mm cartridge 8-inch projectile 90-mm recoilless rifle 4.2-inch cartridge 50-caliber ammunition Explosives (various) Mines (various)

Our work was performed from September 1987 to August 1988 in accordance with generally accepted government auditing standards.

According to DOD officials, coproduction programs under MOUs and LOAs comprise a limited share of the total universe of foreign production of U.S. military equipment. They noted that commercial licensing arrangements conducted without umbrella MOUs or LOAs are more widespread and involve less U.S. government oversight than arrangements under MOUs or LOAs. We recognize that MOUs and LOAs are not the only channels through which foreign production of U.S. military equipment occurs. However, these agreements involve foreign government commitments and obligations related to the restrictive provisions. Although they are subject to many of the same legal limitations, company-to-company agreements differ from those under MOUs and LOAs in that they are strictly commercial transactions resulting from arms-length commercial negotiations.

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