

CHAPTER 16

INDUSTRIAL CAPABILITIES AND INTERNATIONAL PROGRAMS

The United States defense industry is in a time of transition, marked by downsizing and consolidation following the post-Cold War defense budget drawdown. While some firms in the industry have found it difficult to adjust to the post-Cold War environment, all firms face very real long-term challenges going forward as they must make their adjustments in a very different and dynamic defense environment. The U.S. industrial objective is to ensure a healthy, financially stable, efficient and competitive defense industry that can provide innovative, high quality and affordable defense products to meet national security needs in the 21st century.

DRIVERS OF CHANGE

While there are many factors shaping the defense industry structure, the single greatest influence has been the decline in the defense budget in the post-Cold War environment. Defense procurement spending is down approximately 70 percent since the Cold War high in 1985. The decline has resulted in three major trends:

- The Department's acquisition program plans forecast fewer major new programs with longer intervals between starts and lower production quantities per program;
- Industry has responded with a natural consolidation that concentrates firms horizontally at the prime and sub-tier levels and tends toward relatively more vertical integration of capabilities than in the past;
- A reduction in the Department's direct control over and visibility into the supply chain upstream of the prime contractors as a consequence of having revised DoD's contracting and oversight approach and reduced its program-related acquisition staffs.

Fewer companies are vying for fewer contracts to produce fewer goods and services. As a result, defense firms have reduced excess capacity and workforce levels to better match reduced demand, streamlined processes, increased productivity and revamped supplier relationships. They also have significantly consolidated via mergers and acquisitions—a consolidation that continues today.

Merger and acquisition activity in the defense sector among first tier prime contractors is slowing while activity among second and third tier suppliers is increasing, as these suppliers seek to improve both capabilities and market penetration in response to their customers' supply-chain management approaches and, to some extent, in response to competition from their customers' broader capabilities.

Notwithstanding the significant restructuring and consolidation, at least two or three robust, competitive and technologically superior firms, with a viable supplier chain to support them, compete in most major defense product markets. U.S. defense industrial capabilities are the world's best.

FINANCIAL STABILITY

By and large, U.S. defense firms are financially stable. Obviously, the defense industry has gone through a period of transition. In the aftermath of the significant mergers of the mid-to-late 1990s and a series of company-specific circumstances—problems in specific programs and the like—the industry's stock valuations fell considerably in 1999. The changing financial performance of defense firms reflects, in part, the difficulties the industry had in adjusting to its new environment, including the complex task of absorbing acquired firms, restructuring and rationalizing operations, and the inevitable dislocations and debt burdens. But, as in other industries that have experienced significant merger activity, the defense industry is rising to the challenge, working through these issues, and taking the steps needed to remain competitive and innovative—streamlining operations, sharpening their focus on core markets, focusing on cash flow, and shedding non-core assets.

Thus, while U.S. defense firms face real challenges for the future—recruiting and attracting talented personnel, continuing to streamline and rationalize operations and reduce underutilized capacity, and integrating cutting edge commercial technology—they are on the right track.

EFFICIENCY

Despite extensive industry consolidation, recent DoD-sponsored studies show underutilized capacity (e.g., facilities, equipment and manpower) in the aircraft and satellite industries—at some expense to DoD and the taxpayers. Internal restructuring actions (in contrast to mergers and acquisitions) could allow defense firms to adopt commercial processes and increase the flexibility of their manufacturing lines. These changes could not only produce efficiencies that reduce the costs of products to the DoD, but allow the firms to better leverage opportunities for commercial and military product or business integration. The Department, therefore, encourages defense firms to take appropriate internal restructuring steps to rationalize assets and facilities and streamline operations, thereby lowering overhead costs.

ENSURING COMPETITION

The current defense industrial environment makes maintaining competition for the future more difficult. The Department's approach to maintaining competitive sources in defense markets focuses on three areas that can have an impact. First, merger and acquisition reviews; second, the acquisition process; and third, global industrial linkages.

MERGER AND ACQUISITION REVIEWS

To facilitate vigorous competition in defense markets, the Department of Justice and Federal Trade Commission antitrust enforcement agencies, under the Hart-Scott-Rodino legislation, review proposed mergers and acquisitions in the defense industry to ensure that the transactions do not adversely affect competition and innovation for DoD programs. Since DoD is the principal customer for defense goods and

services, the antitrust agencies rely on DoD to provide an opinion on any transactions that impact its programs.

DoD established, and has utilized for a number of years, a formal and rigorous review process for proposed mergers and acquisitions (reflected in Department of Defense Directive 5000.62). In this process, DoD evaluates: any potential anti-competitive effects of defense mergers and acquisitions (horizontal concentration, vertical integration, conflicts of interest); and the potential efficiencies and cost savings to DoD that such mergers and acquisitions can produce. The approach reflects the reality that evaluating the consequences for DoD of a particular merger can only be done on a case-by-case basis, based on the relevant facts and specific circumstances. There is no one-size-fits-all criterion.

As in the past, each proposed merger should be evaluated on its particular merits in the context of the conditions of the individual market involved, and the changing dynamics of that market's structure. There are no universal truths in this area and, depending on the facts, mergers in some market segments may raise competitive issues while mergers in other market segments may not.

Of course, the significant consolidations in the industry do make DoD's analysis of mergers today that much more complex and difficult. All things being equal, a consolidation from five suppliers to four in a product market raises fewer complex issues than a change from three to two.

In 2000, the Department formally reviewed 28 transactions and opposed none. One company withdrew its filing because of DoD placing conditions on the transaction. Two companies' transactions required consent agreements to ensure that continued competition will be protected (divestitures and/or firewalls to protect proprietary information, agreements not to enforce exclusive teaming arrangements, and divestitures of certain business units).

ACQUISITION PROCESS

DoD must consider this new consolidated industrial environment when making procurement and technology strategy decisions. While market forces often work to ensure credible competitive sources, a number of factors may operate to make firms less likely to remain in or enter defense-specific markets—including limited demand for products and high barriers to market entry. The challenge, then, is to maintain a sufficient number of capable defense industrial sources to meet future national security needs.

In 1999, the Department put in place two policies directed at enhancing DoD acquisition management insight into industry and the competitive effects of DoD buying actions. One focuses on increasing government insight into the subcontractor selection process. The other deals with anti-competitive teaming at either the prime or subcontractor level. Both policies aim to ensure adequate competition and the best value for DoD.

In the acquisition area, the Department is concerned about the implications of the acquisition strategies and decisions on whether there will be sufficient capable and competitive suppliers to compete for major contracts in the future. In other words, DoD is formulating policies that will help ensure acquisition decisions today do not erode industrial capabilities and leave DoD with monopoly suppliers.

Significantly, in July 2000, the Department issued a competition policy which requires the Department to consider the effects of its acquisition strategy and technology and budget plans on future competition. The policy requires improved visibility into cases where competition may be at risk (e.g., where two or fewer competitors exist) and a process to ensure that these cases—which often transcend a single program and apply to a product market—are assessed on a Department-wide basis to determine if DoD action is needed.

The purpose of these policies is not to change source selection decision—awards should still be to the best value firm. Rather, the point is to increase DoD's focus on industry considerations in acquisition and budget strategy setting in an effort to get ahead of the problems.

GLOBAL INDUSTRIAL LINKAGES

Another strategic avenue the Department has taken to meet the challenge of ensuring continued competition in a consolidating marketplace is to broaden potential sources of supply globally and create more opportunities for U.S. firms to compete abroad. Specifically, strengthened U.S. industrial linkages with key coalition partners are important to facilitate interoperability among coalition forces, improve coalition warfighting capabilities, and promote competition in defense markets.

DoD favors a competitive transatlantic industrial model characterized by industrial linkages among multiple firms on both sides of the Atlantic, competing effectively in the large European and U.S. markets, and sharing technology subject to security safeguards. In this model, the U.S. and Europe realize the benefits of competition and interoperability, NATO is strengthened, the large U.S. and European markets are open to transatlantic firms, and proliferation incentives in the third world are significantly decreased.

The unfavorable alternative is one or two pan-European firms and several large U.S. firms that have closed home markets and compete in the third world. A fortress mentality could result in the separate evolution of U.S. and European military technologies, undermine competition and interoperability, and lead to sole-source European firms selected as suppliers for political purposes.

For these reasons, DoD favors pro-competitive, security-enhancing industrial linkages of various types—from mergers and acquisitions to joint ventures covering product lines to other forms of collaboration—between firms in the United States and its coalition partners.

A significant challenge for government is the need to put in place the hardwiring needed for defense industrial linkages. The key impediment to better technology sharing with coalition partners is the export control regime for defense articles, which is in need of updating. Export control reform is a central underpinning of efforts to better fight the wars of the future together with coalition partners. This reform is vital to the NATO Defense Capabilities Initiative, which encourages NATO partners to spend more on defense, to spend more wisely, and to promote industrial linkages.

EXPORT CONTROL REFORM EFFORTS

The President approved and the Secretary of State announced the Defense Trade Security Initiative in May 2000. This purpose of this initiative is to improve security by enhancing NATO's defense capabilities, promote interoperability with U.S. allies and friends, and promote global defense industrial linkages and competition in defense markets in an era of consolidation. These changes are critical to promoting industrial linkages and also serve to enhance security in relation to potential adversaries.

The Defense Trade Security Initiative consists of three elements. First, the U.S. will establish special country exemptions from U.S. export rules for countries that have the most congruent policies in five key areas—export controls, industrial security, intelligence, law enforcement and trade reciprocity—and are willing to improve in parallel with the U.S. This approach will remove the requirement for export licenses for U.S. allies for most unclassified exports, thereby enhancing defense cooperation and technology sharing through a variety of government and industry approaches. As required by the Security Assistance Act of 2000, to issue such exemptions, the U.S. must conclude a legally binding agreement with the government involved that will ensure such exports under the exemption will be used for their intended use, and will not be re-exported to third countries without prior U.S. approval. This approach allows the closest level of collaboration in R&D and other areas in the most effective manner possible.

Second, the U.S. created a broad range of flexible licensing vehicles for use with NATO and other treaty allies. These authorizations are broader in scope than existing ones, allowing a flexibility and creativity that is tailored to individual projects and for longer duration than in the past, thereby increasing the efficiency of the process and reducing the requirements for multiple licenses for the same project. These new licensing mechanisms are available for a wide range of projects, including cooperative government-to-government programs, commercial sales, and private sector joint ventures and cooperative efforts.

Finally, the Department is taking a number of steps to streamline the regulatory process and to add needed resources to ensure the timeliness of U.S. decision making.

This initiative calls attention to the fact that even in an interconnected and globalized world, the U.S. commitment to security cooperation will be maintained with allies while ensuring that export controls will be maximized for problematic destinations and users.

SECURITY OF SUPPLY

Among the consequences of globalization and industrial restructuring are the creation of transnational defense companies, possible loss of certain domestic industrial capabilities and capacities, and increasing acceptance of mutual defense dependence. Reciprocal security of supply systems (that is, reciprocal industrial priorities systems) can provide increased assurance that the Department's non-U.S. defense suppliers will be in a position to provide timely supplies in emergency situations and during peacetime.

The United States has a Defense Priorities and Allocations System based in statute—the Defense Production Act. The statute provides explicit authority for the preferential performance of defense contracts over commercial contracts. The statute also provides authority to provide the same preferential treatment for foreign nation defense orders in the United States when such treatment furthers national defense interests. To date, Canada (via a longstanding bilateral agreement) and the United Kingdom (via individual requests) have benefited significantly more than other allies have from this authority.

Reciprocity considerations have been a topic of discussion within NATO for some time. In February 2000, members of a NATO working group on assurance of supply developed a working paper, proposing agreement on priorities and allocations systems within the alliance. This paper now is being coordinated formally and is projected to be submitted to the Senior Civil Emergency Planning Committee and to the Council of National Armaments Directors at their Spring 2001 meetings. Because of the many nations

involved, the proposed agreement contained in the working paper is rather general and the deliberative process is lengthy.

In lieu of focusing exclusively on negotiation and adoption of a multinational transatlantic agreement, formal bilateral agreements with key allies offer the United States an opportunity to establish faster and stronger government-to-government agreements for reciprocal priorities support. DoD representatives have had informal discussions about such bilateral agreements with United Kingdom, German, French, Dutch, and Swedish government representatives.

Because of its close ties with the United States, a priorities agreement with the United Kingdom Ministry of Defence appears to offer both more immediate potential benefits and a greater probability of success. Therefore, DoD and United Kingdom representatives are engaged in preliminary discussions about the feasibility of negotiating a formal bilateral agreement that would commit each nation to establish and maintain a priorities system (applicable in both peacetime and emergency/war) and to provide each other with access to its own systems.

SMALL BUSINESS EFFORTS

Small businesses are critical to the industrial base that supports DoD mission requirements and an important element in the economic fabric of the United States. They bring innovation to both the defense and commercial marketplaces. Additionally, small businesses are widely recognized as an economic engine to create jobs and ensure that a greater number of the Nation's citizens receive benefits from defense procurement spending.

DoD awards over 21 percent of total U.S. business awards to domestic small business concerns. In addition, DoD continues to exceed the statutory 5 percent goal for awards to small disadvantaged business (SDB) concerns and is making steady progress toward achievement of the 5 percent goal for awards to Women-Owned Small Businesses.

SMALL BUSINESS INNOVATIVE RESEARCH (SBIR) AND SMALL BUSINESS TECHNOLOGY TRANSFER (STTR) PROGRAMS

DoD's SBIR and STTR programs harness the innovative talents of the nation's small technology companies for U.S. military and economic strength. The technology developed from these programs has resulted in operational and cost improvements for DoD systems.

DoD's SBIR program funds early-stage R&D projects at small technology companies—projects that serve a DoD need and have the potential for commercialization in private sector and/or military markets. The program, funded at approximately \$560 million in FY 2000, encourages scientific and technical innovation in areas specifically identified by DoD components.

STTR is similar to SBIR, but funds cooperative R&D projects involving a small business and a research institution (i.e., university, federally-funded R&D center, or nonprofit research institution). The STTR creates, for the first time, an effective vehicle for moving ideas from U.S. research institutions to the market, where they can benefit both private sector and military customers. DoD's STTR program is funded at \$31 million in FY 2000.

MENTOR-PROTÉGÉ PROGRAM

The Department's Mentor-Protégé Program encourages DoD major defense prime contractors to work in tandem with small disadvantaged business firms and other eligible protégés to develop their business and technical capabilities. The ultimate goal is to enhance the potential contributions of protégés, thus allowing them to compete more effectively for defense-related work. Through the means of direct reimbursement of costs and credit agreements, mentors set the cooperative stage leading to the positive growth of protégés through contracting, subcontracting, increased revenues, and additional employees. The mentoring process usually encompasses a three-year period.

A successful mentor-protégé relationship depends upon the unqualified commitment and demonstrated understanding of both parties. The protégé's core competencies and capabilities are examined in the light of the mentor's strength, vitality, and expectations for the protégé. Outcomes vary, but they frequently include improvements to management practices, training coupled with practical assistance, specialized certifications, as well as in-depth exposure to financial management and project cost control.

Over 200 mentors and protégés have actively engaged in mutual support. Special recognition occurs annually with the presentation of the Nunn-Perry awards, named after former Senator Sam Nunn, who introduced the enabling mentor-protégé legislation in 1992 and former Secretary of Defense William Perry, who fully pioneered the strategy for the growth and the DoD benefits to be derived from the program.

In 2000, the following teams were the recipients of Nunn-Perry awards: Boeing (Mesa)-Technology Management (San Diego); Computer Sciences Raytheon (Florida)-Data Voice (Palm Bay); Lockheed Martin (Orlando)-T.J. Technologies (Ann Arbor); Northrop Grumman (Huntsville)-Ensor (St. Petersburg); Advanced Resources Technologies (Alexandria)-Triumph Technologies (Alexandria); Boeing (St. Louis)-Manufacturing Technology (Fort Walton Beach); Greenhorn & O'Mara (Greenbelt)-Utility Automation 2000 (Huntsville); Lockheed Martin (Dallas)-Tecnico (Chesapeake); Northrop Grumman (Dallas)-Mandaree Enterprises (Mandaree); The IT Group (Alpharetta)-Deerinwater Environmental (Norman); Science Applications International (Oak Ridge)-American Technologies (Oak Ridge); and Raytheon (Dallas)-RS Information Systems (McLean).

All of the participants in the Mentor-Protégé Program benefit from the strategic alliances, exposure in exploring new markets together, and developing new partnerships. Together, they strengthen the readiness capability of the Department.

WOMEN-OWNED SMALL BUSINESS (WOSB) PROGRAM

The DoD WOSB Program is a proactive effort composed of legislative and regulatory initiatives, implementation of best practices, training, technical assistance, outreach, and development of interagency initiatives. The Department is seeking legislative authority to expand the DoD Mentor-Protégé Program to include WOSB concerns as eligible protégés. This would create incentives for large DoD prime contractors to provide business and technical assistance to WOSB concerns. The following best practices implemented by DoD activities have been identified: proactive solicitation of WOSB concerns; expanded utilization of WOSB concerns in purchase card transactions; effective utilization of 8(a) and HUBZone programs to achieve the WOSB goal; and advocating teaming and partnering between large business concerns and

WOSB concerns. In addition, DoD activities have launched a series of outreach, training, and technical assistance initiatives for WOSB concerns.

The DoD is actively engaged in federal-wide efforts to achieve the 5 percent goal of awards to WOSBs. The Department is represented on the Interagency Committee for Women's Business Enterprise, the Small Business Administration Women's Business Advocates Working Group, and the Women-Owned Business Initiatives Task Force.

COMPREHENSIVE SMALL BUSINESS SUBCONTRACTING PLAN TEST PROGRAM

The DoD Comprehensive Small Business Subcontracting Plan Test Program authorizes the negotiation, administration, and reporting of subcontracting plans on a plant, division, or company-wide basis. The purpose of the test is to determine whether comprehensive subcontracting plans will result in increased subcontracting opportunities for small and small disadvantaged businesses while reducing the administrative burdens on contractors.

Eligible contractors include large businesses that performed under at least three DoD contracts during the preceding fiscal year, valued in the aggregate of \$5 million or more. Participants must have achieved an SDB subcontracting rate of 5 percent or more, or submit a detailed plan with milestones leading to a 5 percent SDB subcontracting rate.

WORKING WITH OTHER NATIONS—INTERNATIONAL PROGRAMS SUPPORT DOD'S TRANSFORMATION

Across the full range of military operations, U.S. forces often fight or work alongside the military forces of other nations. Coalitions have historically been the preferred means for U.S. forces to confront regional or global security issues—sharing the resource burden and increasing political legitimacy. Deploying forces in coalitions places a premium on interoperability—ensuring U.S. systems and practices are compatible with allies and other coalition partners. Improvements to coalition interoperability in C4ISR systems, weapons, logistics, doctrine and training, in the long term, yields efficiencies in operations that reduce sustainment costs and improve force protection. International armaments cooperation, in its many forms, supports the U.S. and coalition warfighter by enhancing interoperability, stretching declining defense budgets, and broadening available defense industrial capabilities.

DOD'S INTERNATIONAL ARMAMENTS COOPERATION POLICY

Armaments cooperation continues to be a key element of DoD's acquisition and technology efforts to field the most capable force possible. Prior experience shows that successful cooperative efforts require that DoD engage with potential partners in discussions at the earliest practicable stage to identify common mission problems, and to arrive jointly at acceptable mission performance requirements to balance cost, meet coalition military capability needs, and assure interoperability. Armaments cooperation programs have added greatly to the operational capability of the U.S. and its allies over the past decade and have facilitated deeper cooperation in other areas.

Many defense system programs will remain national. However, cooperation with allies must be the choice for those systems that require interoperability in coalition operations—for example, in areas such as air

defense, communications, intelligence, logistics, chemical/biological defense, and information security. Using no new resources, the Department has formed an Interoperability Directorate to provide an interoperability focus and strategic vision to existing and planned programs, network architectures, and requirements generation, across the entire Department.

The need for such a focus has been made obvious by significant interoperability gaps in coalition air to ground radar assets, communications gear, precision guided munitions, and other capabilities in recent coalition operations. These gaps have forced the U.S. to shoulder a disproportionate burden and have often degraded overall mission effectiveness. While it is not the sole responsibility of the U.S. to close these gaps, the situation has brought attention to the need for closer cooperation. Armaments cooperation is one of many complementary methods for improving coalition capabilities.

Other efforts have recently been taken to overcome political and legal barriers to effective cooperation. The Department has initiated bilateral negotiations with the United Kingdom and Australia to improve cooperation in areas such as the harmonization of military requirements, export control policies, security, and cross-border defense-industry mergers. Talks with other allies are scheduled to examine appropriate levels of cooperation in these and other areas.

The Department is engaged in various multilateral fora, which are focused on improving governmental and industrial cooperation between U.S. allies and likely coalition partners. NATO's Defense Capabilities Initiative was initiated at the 1999 NATO Summit to exercise many specific areas where the Alliance would benefit from closer cooperation. Combined with other military-to-military engagement activities, these programs go beyond seeking the physical interoperability of systems. They pursue, as well, interoperability in the areas of tactics, techniques, and procedures. By promoting common thinking, the Department increases the potential for developing common requirements.

Cooperative international defense programs are adapting the lessons learned from successful international commercial alliances as well. DoD is adapting commercial practices and establishing a new international armaments cooperation model by which governments establish the military requirements and business rules, but the industries involved establish the best international teams of their own choosing to competitively bid on the work. The objective is to create more balanced partnerships, ones which guarantee each individual member's independence while recognizing cooperative partners' interdependence, and to take full advantage of the efficiencies of the market.

Some of the more notable success stories in international industrial cooperation include the F-16 Falcon and its mid-life upgrade, the AV-8 Harrier, the T-45 training aircraft, the CFM-56 engine, and the continuing cooperative efforts under the NATO Airborne Warning and Control System program. The Department is working with allies in Europe and Asia to explore other cooperative efforts, including the Medium Extended Air Defense System, Multifunctional Information Distribution System, Joint Strike Fighter, Theater Ballistic Missile Defense, and NATO Allied Ground Surveillance efforts.

The Military Departments' International Cooperative Research and Development programs continue to promote the sharing of military technology among Allies, as well as the development of common equipment. Frequently, these research and development investments provide the cooperative linkage required to leverage the direction of independent national development programs and enhance military

capabilities. It is important to recognize that these efforts often enhance the joint capabilities of U.S. forces, as well.

The DoD Coalition Warfare Program, a new-start program for FY 2001, is a defense-wide effort to assist the CINCs, Services, and agencies in inserting coalition-enabling solutions into existing and planned joint U.S. programs. This program strictly leverages DoD and matching foreign investments in areas critical to coalition operations. The Coalition Warfare Program focuses not only on short-term interoperability-enhancing solutions, but also on early identification of coalition solutions to long-term interoperability issues (architectures, coalition requirements, etc.) with a broad range of potential coalition partners.

The Foreign Comparative Testing program also enhances international defense cooperation. This program, which evaluates foreign non-developmental items for DoD use, has included 21 foreign countries as active participants. The Services and the United States Special Operations Command have procured over \$5 billion worth of foreign equipment as a direct result of successful equipment evaluations. By purchasing foreign non-developmental items, DoD has reduced initial procurement costs, saved operations and maintenance costs, and avoided spending excess research, development, test, and evaluation funds while providing earlier fielding of world-class equipment to U.S. warfighters.

As DoD takes greater advantage of the opportunities in international defense cooperation and commerce, it continues to address the risks of the proliferation of weapons of mass destruction and advanced tactical systems. DoD has worked to ensure that the Services and agencies understand the nature and importance of the February 1995 Conventional Arms Transfer policy and take its tenets fully into account when pursuing cooperative international defense programs and sales. As a result, both economic security and national security interests are pursued and protected.

The Department has taken numerous steps to improve the effectiveness and efficiency of international cooperation. DoD has developed a new *International Armaments Cooperation Handbook* to provide a compendium of current policy, key processes, and points of contact for use by persons working on cooperation issues in the Department. The Defense Acquisition University continues to evolve its international cooperation curricula to meet the DoD acquisition and policy staffs' needs. Also, other information technology tools are being developed to aid the DoD staff in efficiently and effectively negotiating international agreements.

INTERNATIONAL COOPERATIVE OPPORTUNITY GROUP (ICOG) DEVELOPMENTS

The Department is examining the potential for international collaboration on upcoming major systems acquisitions. As part of this examination, the Armaments Cooperation Steering Committee (ACSC), the senior armaments cooperation policy and oversight body within DoD, is implementing a disciplined process for identifying new opportunities for international cooperation. A major ACSC initiative deals with the formation of International Cooperative Opportunity Groups (ICOGs) to identify and recommend specific new opportunities for armaments cooperation.

ICOGs are looking at areas of common need and seek to establish early communication with allies to create opportunities earlier in the acquisition process. The ICOG process identified programs as candidates for potential cooperation based on several factors: the degree of requirements commonality; the extent to

which the technologies, strategies, and budgets of the potential partners are complementary; the potential for international industrial teaming; and the perceived benefits and risks associated with undertaking such a program. Key topics at the recent Cooperation Day III annual meeting included mechanisms to better organize national/collective efforts to identify interoperability requirements; and to ensure appropriate national/collective investments in building and testing interoperable systems.

ENVIRONMENTAL COOPERATION WITH OTHER NATIONS’ MILITARY FORCES

The U.S. military developed a comprehensive and robust environmental program over the past 28 years that addresses all aspects of environment, safety, occupational health, pest management, fire and emergency services, and explosives safety. Further, the Department’s experience and knowledge in defense-related environmental issues can provide a useful engagement tool for combatant commanders in developing theater engagement plans and shaping their theaters.

MILITARY-TO-MILITARY ENVIRONMENTAL COOPERATION

Military-to-military environmental activities support U.S. foreign and defense policy objectives by shaping the international environment through cooperative engagement. Through bilateral and multilateral associations, DoD can help interested militaries obtain the necessary tools to understand, prioritize, and meet military environmental security needs. DoD environmental engagement reinforces efforts by militaries in newly democratic societies to adjust to such concepts as civilian oversight, public accountability, openness, and cooperation with civilian agencies. These activities, which support Secretary of Defense commitments and State Department regional strategies, are consistent with defense requirements identified in the National Security Strategy and Commander in Chief Theater Engagement Plans.

DoD conducts bilateral/multilateral environmental cooperation with Argentina, Australia, Canada, Chile, China, Czech Republic, El Salvador, Estonia, Finland, Germany, Georgia, Israel, Italy, Latvia, Lithuania, Jordan, Mongolia, Norway, Philippines, Russia, Slovenia, Sweden, South Africa, South Korea, Thailand, Turkmenistan, United Arab Emirates, United Kingdom, and Vietnam. DoD is discussing cooperation with Kazakhstan. In addition to promoting stability through engagement, DoD gains useful information from these exchanges in support of the Department’s environmental responsibilities as it takes advantage of the perspectives that other nations offer. In today’s environment of combined operations, the sharing of operational environment, safety, and occupational issues with U.S. allies protects U.S. military, as well as its allies’ militaries, and host-nation local nationals.

ARCTIC MILITARY ENVIRONMENTAL COOPERATION

DoD also engages in agreements such as the Arctic Military Environmental Cooperation (AMEC) Program, a trilateral forum for dialogue and joint activities among United States, Russian, and Norwegian military officials to address critical environmental concerns in the Arctic. One of the main objectives of AMEC is to develop technologies for the Russian military to address its radioactive and non-radioactive waste challenges in the fragile Arctic ecosystem. DoD, together with the Department of Energy and the Environmental Protection Agency, will leverage U.S. expertise in environmental techniques to address

radioactive and chemical waste associated with nuclear submarines. More importantly, this unique effort is helping to build trust and understanding among the three militaries.

CONCLUSION

The Department of Defense must ensure that it can access, utilize and maintain the best industrial resources available—defense and commercial, domestic and international—to obtain the lowest cost, highest performing products. Accordingly, the Department is reviewing merger and acquisition transactions to determine the effects on DoD programs and advising the appropriate antitrust agency; identifying and addressing industrial capabilities and competition concerns; and encouraging international industrial, armament and environmental cooperation. DoD is doing this in a manner consistent with sound business practices and the overall political, economic and national security goals of the United States.