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24 *Pub. Cont. L.J.* 521**LENGTH:** 28907 words**ARTICLE:** THE UNTAPPED POTENTIAL OF THE DEPARTMENT OF DEFENSE'S "OTHER TRANSACTION" AUTHORITY*RICHARD N. KUYATH**

* Mr. Kuyath is Senior Counsel in the Office of General Counsel of Minnesota Mining and Manufacturing Company (3M). He gratefully acknowledges the assistance and materials provided for this article by Richard L. Dunn, ARPA General Counsel. The views expressed in this article are the views of the author and do not reflect the position of 3M.

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I. Introduction

The Department of Defense (DoD) has special authority under *10 U.S.C. § 2371* to enter into what are known as "other transactions." These may be used to fund basic, advanced, and applied research projects. "Other transactions" have the potential for being of tremendous benefit to both the Government and to industry. Because an "other transaction" is not a procurement contract, cooperative agreement, or grant, it is not subject to the laws, regulations, and other requirements governing such traditional contracting [*523] mechanisms. n1 This enormous flexibility allows DoD to issue "other transactions" that permit commercial companies to use their commercial practices almost entirely in performance of DoD-funded research and development (R&D). This authority enables DoD to enter into R&D agreements with commercial companies that refuse or are unable to enter into traditional government cost-reimbursement contracts, grants, or cooperative agreements.

n1 The statutes applicable to procurement contracts are found primarily in Title 41, U.S. Code, and Chapter 137, Title 10, U.S. Code. Grants and cooperative agreements with universities and nonprofit organizations are governed by a number of Office of Management and Budget (OMB) circulars, such as OMB Circular A-110. Few laws or regulations apply to grants or cooperative agreements with profit-making organizations. ADVANCED RESEARCH PROJECTS AGENCY, QUESTIONS AND ANSWERS ABOUT ARPA OTHER TRANSACTIONS 3 (1995) (available from ARPA, 3701 North Fairfax Drive, Arlington, VA 22203-17134). "Other transactions" are not traditional procurement contracts because they are not used to acquire goods or services for the direct benefit of the Federal Government. Therefore, ARPA is not required to include the customary Federal Acquisition Regulation (FAR) and Defense FAR Supplement (DFARS) clauses in "other transactions," but is free to negotiate provisions that make sense for the particular project being supported by each agreement and that are mutually agreeable to both the Government and the performer or consortium of performers. ADVANCED RESEARCH PROJECTS AGENCY, DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS 1 (February 1995).

ARPA interprets *10 U.S.C. § 2371* to mean that "other transactions" are a class of transaction separate from the procurement and financial assistance categories and not subject to the laws and regulations applicable to procurement contracts, grants, and cooperative agreements. ARPA cites in support of this interpretation the fact that Congress has re-enacted *10 U.S.C. § 2371* three times (1991, 1993, and 1994) (making only minor changes) and appropriated millions of dollars for ARPA's use since 1989 (the year ARPA was given "other transaction" authority) with the knowledge of ARPA's interpretation. Therefore, ARPA argues that Congress has ratified ARPA's interpretation of its authority, citing *TVA v. Kinzer*, 142 F. 2d 833, 837 (6th Cir. 1944); and *United States v. Two Tracts of Land*, 456 F. 2d 264 (6th Cir. 1972) cert. den., 409 U.S. 887 (1972). Richard L. Dunn, *Using Other Transactions in Cooperative Government-Industry Relationships to Support the Development and Application of Affordable Technology*, at 5-6 (available from ARPA). The sparse legislative history of the changes made to *10 U.S.C. §§ 2358 and 2371* in 1994 by Section 1301 of the Federal Acquisition Streamlining Act of 1994 (P.L. 103-355, 108 Stat. 3243) supports ARPA's position. It states that the intent of Congress in revising *10 U.S.C. § 2371* and *10 U.S.C. § 2358* was merely to make "technical amendments" in the R&D authorities of DoD. Therefore, Congress arguably intended no change in the manner "other transactions" have been issued by ARPA. See H.R. CONF. REP. No. 103-712, 103d Cong., 2d Sess. 190 (1994).

"Other transactions" offer tremendous potential for reducing DoD's R&D costs n2 and for allowing leading-edge, high-technology commercial companies [*524] to participate in DoD-funded R&D programs in situations where they otherwise would not do so. Use of "other transactions" also offers DoD a way to obtain the latest in state-of-the-art, dual-use technologies. Access to such technologies can be of invaluable assistance to DoD in achieving its goal of preserving the defense industrial base and the technological superiority of United States weapon systems. Expanded use of "other transactions" would also be consistent with one of the purposes of the Federal Acquisition Streamlining Act of 1994, n3 which is to remove barriers preventing commercial companies from participating in the government marketplace. Numerous other advantages to DoD can also result from use of "other transactions." For example, not having to comply with the numerous laws, regulations, and other requirements that apply to standard procurement contracts, grants, and cooperative agreements should enable DoD to enter into "other transactions" more quickly and with less internal paperwork than normally would be the case.

n2 A recent study conducted jointly by Coopers & Lybrand and TASC (The Analytic Sciences Corporation)

on compliance with non-value added DoD regulations and oversight found that such compliance resulted in an 18 percent cost premium on defense contracts. Nearly half of the cost premium is attributable to ten key cost drivers, as follows: (a) MIL-Q-9858A (10 percent); (b) Truth in Negotiations Act (7.5 percent); (c) Cost/Schedule Control System (5.1 percent); (d) Configuration management requirements (4.9 percent); (e) Contract-specific requirements (4.3 percent); (f) DCAA/DCMA interface (3.9 percent); (g) Cost accounting standards (3.8 percent); (h) Material management accounting system (3.4 percent); (i) Engineering drawings (3.3 percent); and (j) Government property administration (2.7 percent). 62 Fed. Cont. Rep. (BNA) No. 22, at 615, 616 (Dec. 19, 1994). *See also Postscript: The Cost of Oversight in Defense Procurement*, 9 NASH AND CIBINIC REPORT P37 (June 1995).

n3 Federal Acquisition Streamlining Act of 1994, Pub. L. No. 103-355, 108 Stat. 3243 (1994).

It appears that the only DoD agency currently utilizing the "other transactions" authority for basic, applied, or advanced research projects is the Advanced Research Projects Agency (ARPA). Use of "other transactions" remains a largely untapped resource. Other DoD agencies appear to be either unaware of this authority or unwilling to use it. Part of the problem may be that "other transactions" are new and different and there are few applicable requirements and guidelines. For this reason, many agencies may be more comfortable issuing traditional cooperative agreements and contracts. Others believe that commercial companies can be given essentially the same flexibility under cooperative agreements as under "other transactions." There are, however, significant legal restrictions that prevent commercial companies from being provided with the same flexibility under a cooperative agreement that they may enjoy under an "other transaction."

ARPA is DoD's equivalent to a corporate R&D organization. ARPA addresses research issues that cut across military department responsibilities or that offer the potential of revolutionary breakthroughs in military capabilities or affordability. n4 ARPA has found that its mission frequently causes it to deal with commercial companies that lack the capabilities or desire to perform government-funded research under standard procurement contracts, grants, or cooperative agreements. n5

n4 Richard L. Dunn, *Using Other Transactions in Cooperative Government-Industry Relationships to Support the Development and Application of Affordable Technology*, *supra* note 1, at 1.

n5 *Id.* at 7, 8.

[*525] From 1989 (when ARPA was given "other transaction" authority) until June 1995, ARPA has entered into nearly 100 "other transactions." A number of these have been funded "other transactions" with single commercial companies such as Gazelle Microcircuits, Cray Research, Intel Corporation, and Boeing. ARPA has also entered into unfunded "other transactions" with Rockwell Corporation, Boeing, and Northrop. However, most of ARPA's "other transactions" have been funded agreements entered into with partnerships or consortia, either already existing or formed specifically to perform an ARPA-funded research program. The funding amounts have varied from less than \$1 million to \$370 million. In nearly all cases, government funding has been less than half and in some cases only a small portion of the total amount of the agreement. n6

n6 *Id.*

Since 1992, Congress has appropriated over \$1 billion for the Technology Reinvestment Project (TRP), a six-agency program to fund research for dual-use, commercial technologies that have military application. The six agencies involved in the TRP (headed by ARPA) are the DoD, the Department of Energy, the Department of Transportation, the National Science Foundation, the National Aeronautics and Space Administration (NASA), and the Department of Commerce. Although many of the TRP funding instruments awarded to date have been cooperative agreements issued by an agency other than ARPA, all of ARPA's TRP funding instruments have been "other transactions." n7 Most of ARPA's "other transactions" awarded to date have been awarded under the TRP.

n7 *Id.* at 5, 6. INSTITUTE FOR DEFENSE ANALYSIS DRAFT STUDY: PARTICIPANT VIEWS OF ARPA OTHER TRANSACTIONS, at 1, 3 (1995) (on file with author).

The TRP consists of eight statutory programs authorized under Title XLII of the Defense Conversion, Reinvestment and Transition Assistance Act of 1992. n8 These include the (1) Defense Dual-Use Critical Technology Partnerships (10 U.S.C. § 2511), (2) Commercial-Military Integration Partnerships (10 U.S.C. § 2512), (3) Regional Technology Alliances Assistance Program (10 U.S.C. § 2513), (4) Defense Advanced Manufacturing Technology Partnerships (10 U.S.C. §

2522), (5) Manufacturing Extension Programs (*10 U.S.C. § 2523*), (6) Defense Dual-Use Assistance Extension Program (*10 U.S.C. § 2524*), (7) Manufacturing Engineering Education Grant Program (*10 U.S.C. § 2196*), and (8) Manufacturing Experts in the Classroom (*10 U.S.C. § 2197*). Several programs expressly authorize use of "other transactions" under *10 U.S.C. § 2371*, e.g., Defense Dual Use Critical Technology Partnerships, Commercial-Military Integration Partnerships, and Defense Dual-Use Assistance Extension Program. The mission of the TRP is to stimulate the transition to a growing, integrated, national industrial capability that provides the most advanced, affordable, military systems and the most competitive commercial products. n9

n8 P.L. 102-484, 106 Stat. 2315, § 4001.

n9 ADVANCED RESEARCH PROJECTS AGENCY, ARPA PROGRAM INFORMATION PACKAGE FOR TECHNOLOGY REINVESTMENT PROJECT FOR FY95 COMPETITION, at 1-1 (1994) (available from ARPA, 3701 North Fairfax Drive, Arlington, VA 22203-1714).

[*526] This article addresses the advantages of and legal restrictions applicable to "other transactions" for commercial companies. Many of the advantages of "other transactions" also apply to traditional government contractors. The article first discusses the origin and evolution of DoD's "other transactions" authority. Next, the article provides an overview of DoD's statutory authority for "other transactions" and addresses how other laws and regulations do or do not apply. To explain how this authority is used, the article then reviews the terms and conditions of the ARPA model "other transaction" for consortia (hereafter the ARPA model "other transaction"). Next, the terms and conditions of the Air Force's model cooperative agreement for consortia for ARPA-funded programs (hereafter the "Air Force model cooperative agreement") are contrasted with the terms and conditions of the ARPA model "other transaction." This article also will summarize the favorable experiences of ARPA and participants in ARPA "other transactions." Finally, legislative changes are recommended to expand use of "other transactions" authority to all government agencies.

II. Origin of DoD's "Other Transaction" Authority

Prior to 1989, DoD interpreted its authority to enter into R&D agreements as limited to procurement contracts and grants. In addition, under DoD policy, grants could be issued only to universities and nonprofit organizations. n10 The requirement to use a standard procurement contract as the R&D agreement with profit-making concerns caused the Defense Advanced Research Projects Agency (DARPA, now ARPA) to miss numerous opportunities to contract with companies that were developing some of the most promising new technologies. For example, DARPA discovered that some of the most promising technical ideas are found in small start-up companies that often are little more than the intellectual property and skills of their principals and a few key employees. DARPA also found that several of the most innovative commercial companies did not have in place the accounting systems that complied with government regulations (e.g., FAR cost principles and Cost Accounting Standards) required to perform cost-reimbursement R&D agreements. Often these companies had neither the capability nor desire to do business with the Government through the procurement process. n11

n10 Memorandum for the Record (Draft) from Richard L. Dunn, ARPA General Counsel, on DoD/DARPA Agreements Authority — Background, at 4-6 (on file with author).

n11 *Id.*

Another problem DARPA encountered was the need to form consortia to address the development of certain technologies, such as high-temperature super-conductors, although such consortia often were not structured as separate legal entities. DARPA issued procurement contracts to consortia for R&D that resulted in awkward and inappropriate contractual relationships. [*527] Procurement contracts require a prime contractor/subcontractor relationship, which is inappropriate for a consortium that is not a separate legal entity. What was needed for consortia was a multiparty agreement under which each consortium member would be equivalent to a co-prime contractor with the Government. n12

n12 *Id.*

DARPA also needed a more flexible type of R&D agreement for commercial companies that did not require use of a "government" accounting system. DARPA experimented with fixed-price procurement contracts with milestone payments, but found they frequently did not work well in R&D. Also, Congress limited by law the use of fixed-price procurement contracts for R&D. n13

n13 *Id.* See also DFARS 235.006(b)(i), which places restrictions on DoD entering into fixed price procurement contracts for R&D, in part due to restrictions in Defense appropriation acts.

DARPA's mission was to provide support and stimulation of research that may be generic and high-risk in nature but was necessary to field first-class military systems ten years in the future. In other cases, DARPA's support resulted in development of commercial products that were adapted to military requirements, such as computers. The United States has maintained a lead in computer technology for both commercial and military applications for nearly thirty years based primarily on DARPA's support and stimulation (arguably, DARPA's greatest success). n14

n14 Memorandum for the Record (Draft) from Richard L. Dunn, *supra* note 10, at 6.

DARPA found that advanced R&D contracts often result in no deliverables, except reports, to the Government. Often, the reports are of little direct value to DoD — the real benefit to DoD is the fact that the R&D has been accomplished and is available to the technical and scientific communities. As a result, a subsequent phase of research can begin or a particular approach can be demonstrated to be of no value. In such situations, DARPA found that the standard procurement contract was poorly suited to function as the R&D agreement. n15

n15 *Id.*

By 1988, Dr. Raymond Colladay, then director of DARPA, concluded that DARPA needed additional flexibility in its approaches to supporting advanced R&D. The House Appropriations Committee had directed that DARPA submit a report to Congress on alternative management systems by early 1989. Among other initiatives suggested in his report, Colladay advocated the creation of a new and flexible R&D agreements authority for DARPA. The report was never sent directly to Congress. However, the biennial review of Defense Agencies required by the Goldwater-Nichols Act n16 was performed during 1989. In October 1989 the Office of the Secretary of Defense (OSD) Study Team issued its report, which recommended that DoD [*528] prepare legislation that would give DARPA authority to enter into innovative contractual agreements. n17

n16 Pub. L. No. 99-433, 100 Stat. 9992 (1986).

n17 Memorandum for the Record (Draft) from Richard L. Dunn, *supra* note 10, at 6-8.

About the same time, a group of retired flag officers and other former government officials lobbied Congress for additional authority for DARPA to enter into innovative contractual agreements so that DARPA could contract with the best and the brightest companies in the research community. This group included individuals well known to the administration and Capitol Hill, who convinced Congress to add appropriate language to the Defense Authorization Bill for FY 1990. On November 29, 1989, DARPA was given two-year test authority to enter into "other transactions." n18 This authority was codified at 10 U.S.C. § 2371. n19 In 1991, DARPA's authority to enter into "other transactions" was made permanent and expanded to cover all DoD. n20 However, section 8113 of Public Law 102-172 stated that, notwithstanding any other provision of law, only DARPA could enter into "other transactions" during FY 1992.

n18 National Defense Authorization Act for FY 1990 and 1991, Pub. L. No. 101-189, § 251, 103 Stat. 1352 (1989).

n19 Memorandum for the Record (Draft) from Richard L. Dunn, *supra* note 10, at 7, 8.

n20 National Defense Authorization Act for FY 1992 and 1993, Pub. L. No. 102-190, § 826(a), 105 Stat. 1290 (1991).

On February 8, 1994, the Director of Defense Research and Engineering issued a memorandum to the Secretaries of the Military Departments and the Director of ARPA that provided interim guidance for the use of grants, cooperative agreements, and "other transactions." In this memo the director stated that grants, cooperative agreements, and "other transactions," if used appropriately, could be valuable tools to help DoD meet its program goals. The memorandum assigned certain responsibilities of the Secretary of Defense under 10 U.S.C. §§ 2358 and 2371. n21 The memorandum noted that, as amended in 1993, 10 U.S.C. § 2358 authorized the Secretary of Defense and Secretaries of the Military Departments to perform R&D projects by cooperative agreement or "other transaction," as well as by grant or contract. n22 Section 2371 provided additional authority that could be used in conjunction with cooperative agreements and "other transactions." n23 The memorandum also included, as an attachment, the DoD Grant and Agreement Regulations, which

are discussed in section III below.

n21 Memorandum from Anita K. Jones, Director, Defense Research and Engineering, to Secretaries of the Military Departments, and Director, ARPA, Grants, Cooperative Agreements, and Other Transactions (Feb. 8, 1994); *10 U.S.C. § 2358* and *10 U.S.C. § 2371*, amended by National Defense Authorization Act for FY 1994, Pub. L. No. 103-160, § 827, 107 Stat. 1547 (1993).

n22 *10 U.S.C. § 2358* (Supp. 1993).

n23 *10 U.S.C. § 2371* (Supp. 1993).

[*529] Section 1301 of the Federal Acquisition Streamlining Act of 1994 (FASA) n24 consolidated "other transaction" authority into a single section of the Code. As amended, *10 U.S.C. § 2358* now authorizes the Secretary of Defense and the Secretaries of each Military Department to perform R&D projects by contract, cooperative agreement, or grant. n25 Pursuant to section 1301 of FASA, the authority for the Secretary of Defense and the Secretaries of the Military Departments to perform R&D projects through use of "other transactions" is now contained in one statutory provision, *10 U.S.C. § 2371*. n26 Section 1301 of FASA also provides that the authority for the Secretary of Defense and the Secretaries of the Military Departments to perform R&D projects through use of cooperative agreements is now contained in one statutory provision, *10 U.S.C. § 2358*. However, *10 U.S.C. § 2371* provides additional guidance for use of cooperative agreements issued under the authority of *10 U.S.C. § 2358*.

n24 Federal Acquisition Streamlining Act of 1994, Pub. L. No. 103-355, § 1301, 108 Stat. 3243 (1994).

n25 *10 U.S.C. § 2358* (Supp. 1994).

n26 *10 U.S.C. § 2371* (Supp. 1994).

III. DoD Authority to Enter Into "Other Transactions"

A. Statutory Authority

Statutory authority provides that DoD may enter into "other transactions" for basic, applied, and advanced research projects. n27

n27 *10 U.S.C. § 2371* (Supp. 1994). Initially "other transaction" authority was limited to research projects that either relate to weapons systems or are of potential interest to DoD. The Federal Acquisition Streamlining Act removed that possible limitation.

1. When "Other Transactions" Are to Be Used

The statute sets forth certain conditions for use of "other transactions," specifically:

- (1) To the maximum extent practicable, no "other transaction" can provide for R&D which would duplicate R&D being conducted under existing DoD programs;
- (2) To the extent practicable, the funds provided by the Government under the "other transaction" cannot exceed the total amount provided by the non-DoD parties; and
- (3) "Other transactions" can be used only when the use of a standard procurement contract, grant, or cooperative agreement is not feasible or appropriate.

In addition, "other transactions" may include a clause that requires a person or other entity to make payments to the Government as a condition for receiving support. Any such payments may be credited to an account to be used by DoD for additional advanced research projects. n28

n28 *10 U.S.C. § 2371(d)* (Supp. 1994).

[*530] ARPA has issued a memorandum entitled "Draft Guidance for Use of Other Transactions" n29 dated February 1995 (hereafter "ARPA's Guidance") that sets forth its interpretation of its authority to enter into "other transactions." ARPA's Guidance provides that:

ARPA's "other transaction" authority may not be used in situations where the *principal purpose* of the transaction is to acquire goods and services for the direct benefit or use of the acquiring agency. (Some incidental acquisition of property or service is implicitly acceptable.) The authority can apply to transactions whose principal purpose is to *stimulate or support research and development* for an authorized purpose. This is subject to the limitation that it should not be used to sponsor basic research at a single university or non-profit research corporation (since standard grants were used for that purpose when "other transactions" were first made available in 1989). Finally, the authority can be used to enter into transactions which are clearly neither "procurement" nor "assistance," as those terms are customarily used. The type of transactions entered into under this authority is typically characterized by a strong *mutuality of benefit*. Subject to the limitations noted, among the activities for which an "other transaction" could be used, which may be but are not necessarily "support or stimulation" situations, would be advancing the state of the art, demonstrating technology, developing standards, establishing technological capabilities, transferring technology, encouraging collaboration, and fostering exchanges of information.

Authorized or public purposes for which "other transactions" may be used are determined by the Department of Defense's mission as specified in its organic statutes, authorizing and appropriations legislation, by other legislation such as the Technology Transfer Act, or by pertinent Presidential directives and government-wide regulations. n30

n29 ADVANCED RESEARCH PROJECTS AGENCY, DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 1.

n30 *Id.* at 1.

ARPA also has issued explanatory material entitled "Questions and Answers About ARPA Other Transactions," n31 which gives the following guidance regarding how a grants officer should determine whether use of a standard contract, grant, or cooperative agreement is feasible or appropriate:

A determination must be made if the principal purpose of the transaction is the acquisition of goods or services for the direct benefit or use of the Federal Government. If so, a procurement contract should be used (procurement).

Many R&D efforts involve other primary purposes such as advancing the state-of-the-art, demonstrating technology, establishing industrial capabilities, transitioning technology into use and so on. These other purposes may, in many cases, be viewed as involving the Government in providing support or stimulation to accomplish a public purpose other than the acquisition of goods and services for the direct benefit or use of the Federal Government (assistance).

If the primary purpose of the transaction does not seem to fit either procurement or assistance, an "other transaction" should be used.

If the principal purpose of the transaction appears to be in the nature of assistance, but the proposed recipient(s) are not "standard" by 1989 criteria in that (1) a single recipient is not a university or nonprofit organization, or (2) multiple recipients are involved, then an "other transaction" may be used. n32

n31 QUESTIONS AND ANSWERS ABOUT ARPA OTHER TRANSACTIONS (1995), *supra* note 1, at 6.

n32 FAR 35.003(a) states that:

Contracts shall be used only when the principal purpose is the acquisition of supplies or services for the direct benefit of the Federal Government. Grants or cooperative agreements should be used when the principal purpose of the transaction is to stimulate or support research and development for another public purpose.

Id.

[*531] ARPA's Questions and Answers also explain the circumstances under which the use of a standard contract, grant, or cooperative agreement may not be feasible:

Since "other transactions" are not subject to the rules applicable to government contracts and assistance relationships, ARPA is able to enter into agreements based on commercial practices. This has enabled ARPA to enter into agreements with companies which refuse or are unable to enter into government cost-reimbursement research and development contracts. . . . Rather than imposing government cost accounting and auditing practices on these companies, ARPA makes payments based on achievement of technical milestones and accepts commercial audits based on generally accepted accounting principles. The dozens of clauses that are required in a government procurement contract, as well as pages of representations and certifications, are not found in "other transactions." ARPA's "reps and certs" take up one page. There are only two non-negotiable provisions in an ARPA agreement. . . .

The scheme of the (Bayh-Dole) Act was both to promote commercial use of inventions made with government support and to give the government certain rights. The Act has been successful to a degree. However, it failed to accommodate a number of trends that emerged after 1980. These include R&D joint ventures involving government contractors and commercial firms; commercially available technology advancing faster than government supported technology; the end of the Cold War, the shrinking defense market and the need of government-contractors to become more "commercial." In instances where the government wants to enter into R&D relationships with commercial firms or where government contractors want to diversify into civilian product lines the Bayh-Dole allocation of patent rights is no longer adequate in all cases.

The Bayh-Dole Act comes into play when the research is conducted under a government "funding agreement," which is further defined in the statute to be a "contract, grant, or cooperative agreement . . ." Congress has endorsed the view that ARPA's "other transactions" fall outside the scope of the Bayh-Dole Act. n33

n33 QUESTIONS AND ANSWERS ABOUT ARPA OTHER TRANSACTIONS, *supra* note 1, at 3-6.

In support of its position on the Bayh-Dole Act, ARPA relied on the legislative history of two defense authorization acts. First, the conference report of the House and Senate Armed Services Committees on the National Defense Authorization Act for Fiscal Year 1992 stated:

The conferees also recognize that the regulations applicable to the allocation of patent and data rights under the procurement statutes may not be appropriate to partnership arrangements in certain cases. The conferees believe that the option to support partnerships pursuant to section 2371 of title 10, United States Code, provides adequate flexibility for the Defense Department and other partnership participants to agree to allocations of intellectual property rights in a manner that will meet the needs of all parties involved in a transaction. n34

[*532] Additionally, the House Armed Services Committee report on the 1995 National Defense Authorization bill noted:

It is the general policy of the Technology Reinvestment Project (TRP) to negotiate intellectual property rights in "partnerships" so as to optimize the chances of successful commercialization. TRP policy provides that the Federal Government should avoid acquiring rights if that will impede commercialization. Foreign access to technology is scrutinized and, if deemed necessary, restricted. Broad exposure of the technology among partnerships participants is encouraged.

The Advanced Research Projects Agency (ARPA) can fully effectuate these policies because it has great flexibility to tailor patent and other intellectual property rights provisions under its "other transactions" authority. Other TRP agencies are to some degree constrained by their organic statutes; government-wide policies applicable to technology developments supported by contracts, grants, or by cooperative agreements, or by agency policies developed years ago. The committee encourages the other DoD agencies participating in the TRP and the non-DoD agencies cooperating in the TRP to review their policies on intellectual property rights. n35

n34 S. REP. NO. 311, 102d Cong. 676 (1992).

n35 H.R. REP. NO. 499, 103d Cong., 2d Sess. 285 (1994).

2. Reporting Requirements

The statute requires that, not later than sixty days after the end of each fiscal year, the Secretary of Defense submit to the Committees on Armed Services of the Senate and House of Representatives a report on all "other transactions" entered into by DoD during the preceding fiscal year. n36 This report must contain the following information with respect to each such "other transaction":

(1) A general description of the "other transaction," including the technologies for which research is provided for under such transaction.

(2) The potential military and, if any, commercial utility of such technologies.

(3) The reasons for not using a contract or grant to provide support for such research.

(4) The amount of the payments, if any, that were received by the Government during the fiscal year covered by the report pursuant to a clause included in such "other transaction."

(5) The amount of the payments reported under paragraph (4), if any, that were credited to each account established under 10 U.S.C. § 2371(f).

n36 10 U.S.C. § 2371(h) (Supp. 1994).

The requirement to provide the above reports to Congress may be a disincentive for some in DoD to use "other transactions." However, ARPA has not found such requirement to be a disincentive for it to enter into "other transactions."

3. Implementing Regulations

The statute requires DoD to issue implementing regulations for use of "other transactions." n37 Such regulations were issued February 4, 1994, as interim draft guidance in the DoD Grant and Agreement Regulations (DoDGARs). n38 DoD is presently in the process of revising the DoDGARs.

n37 10 U.S.C. § 2371(g) (Supp. 1994).

n38 DoDGARs, DoD 3210.6R (Feb. 4, 1994).

[*533] 4. Cost-Matching

ARPA almost always requires 50 percent cost-matching for "other transactions." The 50 percent cost-matching requirement can be waived if impracticable n39 but, in practice, waivers are difficult to obtain. Such waivers cannot be granted for certain programs such as the Technology Reinvestment Program which by law require 50 percent (or more) cost-matching by nongovernment parties. Thus, the 50 percent cost-matching requirement can be a deterrent to companies participating in government-funded research, particularly if the company is a nonprofit or small business concern and lacks the financial resources to match costs.

n39 DoD Interim Guidance for Military Departments and ARPA on Grants, Cooperative Agreements and Other Transactions, Section 1.E.b (Feb. 8, 1994), *in* Memorandum from Anita K. Jones, *supra* note 21.

5. Special Test Authority

ARPA has special test authority to issue "other transactions" to carry out prototype projects that are "directly relevant to weapons systems." n40 This test authority gives ARPA additional flexibility to issue "other transactions" for prototype projects for weapons systems. Significantly, "other transactions" issued for prototype projects for weapons systems are not subject to the 50 percent cost-matching requirement, or to the requirement to determine that use of a standard procurement contract, grant, or cooperative agreement is not feasible or appropriate. ARPA is required to use competitive procedures, however, "to the maximum extent practicable" when awarding "other transactions" for prototype projects for weapons systems. ARPA's special test authority to issue "other transactions" for prototype projects expires on November 30, 1996. n41 Congress presently is considering extending this test authority through at least the year 2000 or making the

authority permanent. n42

n40 Pub. L. No. 103-160, § 845, 107 Stat. 1721 (1993); *10 U.S.C. § 2371* (note).

n41 *Id.*

n42 Telephone interview with Richard L. Dunn, ARPA General Counsel (June 27, 1995).

The first use of ARPA's special test authority for prototype projects directly relevant to weapons systems was for a project to develop an unmanned air vehicle, TIER II+, that will provide surveillance information to the war fighter. In April 1994, a TIER II+ Joint Program Office was formed with an ARPA Director, Air Force and Navy Deputy Directors, and a small staff from the services. A competitive solicitation was issued jointly by ARPA and the Defense Airborne Reconnaissance Office (DARO) in May 1994. Fourteen proposals were received. The proposals were submitted by teams lead by airframe manufacturers, systems integrators, defense contractors, and commercial firms. Five teams were selected for Phase I awards. Comments to date from industry have been uniformly positive about the flexibility offered by ARPA's special test authority, which allows for a complete override of the procurement system and its numerous laws, regulations, and policies. Some companies clearly premised their approach on a "commercial [*534] style" of contracting, while others made only minor adjustments to their normal business practices. Some defense contractors established new profit centers and new physical locations for their TIER II+ work to receive the full benefits of commercial practices. Substantial reductions in overhead costs have been claimed by some contractor teams. Most teams have reported substantial benefits in subcontracting, such as lowered prices. The full implications of this special test authority have yet to be determined.

n43

n43 Richard L. Dunn, Prototype Projects Under Section 845 of the National Defense Authorization Act, at 6-10 (unpublished manuscript on file with author).

6. Competition

The statute does not expressly require use of competition for award of "other transactions" except for those prototype projects directly relevant to weapons systems. However, nearly all of ARPA's "other transactions" entered into to date have been awarded using competitive procedures. Most of ARPA's "other transactions" have been awarded under the Technology Reinvestment Project, which requires competition by law. Other ARPA "other transactions" have been awarded competitively under ARPA "Broad Agency Announcements," which are published in the Commerce Business Daily and state that they contemplate award of either a procurement contract, grant, cooperative agreement, or "other transaction," depending on the circumstances. Other ARPA "other transactions" have been awarded under ARPA "research announcements," which are used when a procurement contract is considered inappropriate. "Research announcements" are also published in the Commerce Business Daily (CBD) and state that they contemplate the award of a grant, cooperative agreement, or "other transaction."

In *Energy Conversion Devices, Inc.*, n44 the Comptroller General denied a bid protest against ARPA's selection of an offeror for an award of an "other transaction" when there was no showing that the award of a procurement contract was required. In this case, ARPA issued a Broad Agency Announcement (BAA) for proposals to develop and demonstrate cost-effective, large-area, vapor-phase manufacturing technology based on emerging methods of intelligent processing of thin films in three different technical areas. The BAA stated that it "anticipated substantial industrial cost-sharing and program funding via contract or agreements authority as applicable."

n44 *Comp. Gen. B-260514, 1995 U.S. Comp. Gen. LEXIS 399* (June 16, 1995).

ARPA received proposals in the area of thin-film photovoltaics from six different offerors. The protester challenged the award to the winning consortium on the basis that a procurement contract should have been awarded. The Comptroller General noted that the Competition in Contracting Act of 1984 authorizes it to review protests concerning alleged violations of procurement statutes or regulations in the award of procurement contracts and solicitations leading to such awards. n45 The Comptroller General generally does not review [*535] protests regarding the award of cooperative agreements or other nonprocurement instruments because they do not involve award of a "contract." The Comptroller General will, however, review a timely protest that an agency improperly is using a cooperative agreement or other nonprocurement instrument when a procurement contract is required under the Federal Grant and Cooperative Agreement

Act. n46 This GAO review ensures that the agency is not attempting to avoid the requirements of procurement statutes and regulations.

n45 *31 U.S.C. §§ 3551–52* (1988), and *4 C.F.R. § 21.2(a)* (1995).

n46 *31 U.S.C. §§ 6303–08* (1988).

ARPA maintained that the principal purpose of the BAA and the resulting "other transaction" was not to acquire goods and services for the direct benefit and use of the Government. Rather, ARPA's interest was to enhance the state of the art, demonstrate technology, establish industrial capabilities, and otherwise advance national capacity so that the U.S. technological base will be capable of supporting the most advanced military systems in the future. Therefore, the BAA called for a cost-shared, dual-use, multiparty "partnership" arrangement to support technology development, advance the state-of-the-art, demonstrate technology, transfer technology, and otherwise support and stimulate R&D.

The Comptroller General noted that the protester failed to refute ARPA's position that the primary purpose of the BAA was to advance the state of the art by supporting and stimulating R&D. The protester argued that "other transactions" can be used under *10 U.S.C. § 2371* only when the use of a standard contract, grant, or cooperative agreement is not feasible or appropriate and ARPA failed to demonstrate that this test had been met. ARPA responded with the argument that use of an "other transaction" was necessary because the cost-shared, dual-use, multiparty partnership arrangement for the support of technology development could not be accomplished under a procurement contract or traditional cooperative agreement.

The Comptroller General denied the protest because the protester had failed to prove that a procurement contract was required. The agency's choice of which nonprocurement instrument for authority to rely on (*10 U.S.C. § 2371* for "other transactions" or *10 U.S.C. § 2358* for cooperative agreements) is irrelevant in determining whether the Comptroller General will consider the protest. Therefore, whether ARPA had satisfied the statutory prerequisites to entering into an "other transaction" under *10 U.S.C. § 2371* was also irrelevant.

B. Applicability of Other Laws and Regulations

1. Nonapplicability of Federal Regulations and Statutes Covering Standard Procurement Contracts, Grants, and Cooperative Agreements

"Other transactions" are not subject to the Federal Acquisition Regulations (FAR) or the DoD Supplement to the FAR (DFARS). n47 In addition, "other [*536] transactions" are not subject to Federal statutes applicable only to procurement contracts. n48 Thus, "other transactions" do not require compliance with the Truth in Negotiations Act, Cost Accounting Standards, the FAR and DFARS cost principles, government property requirements, and government-unique subcontracting requirements, n49 which are difficult and costly to implement, particularly for commercial companies. In addition, the numerous FAR and DFARS clauses required by law or regulation to be included in procurement contracts are not applicable to "other transactions."

n47 Richard L. Dunn, *Using Other Transactions in Cooperative Government-Industry Relationships to Support the Development and Application of Affordable Technology*, *supra* note 1, at 6.

n48 *Id.*

n49 *Id.*

Similarly, Federal laws and regulations applicable to grants and cooperative agreements are not applicable to "other transactions." n50 Grants and cooperative agreements with profit-making companies to perform R&D are normally cost reimbursement-type agreements, which by agency policy or regulation (not statute) often require that the FAR cost principles be used to determine allowability of costs. n51 Many commercial companies, however, do not have in place the cost accounting systems and strict time-reporting systems needed to comply with such government requirements. Grants and cooperative agreements with profit-making companies also often contain other government-unique requirements imposed by agency policy (not statute), such as OMB Circular A-110 procurement standards, which differ significantly from commercial practices. n52

n50 *Id.*

n51 *Id.* at 3–4. *See, e.g.*, DEPARTMENT OF COMMERCE, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, GENERAL TERMS AND CONDITIONS/ATP-JV19-94, APPLICABLE FEDERAL REGULATIONS, cl. 2.

n52 OMB Circular A-110 is written to be applicable only to grants and cooperative agreements with institutions of higher education, hospitals, and other nonprofit organizations. However, it is often applied under grants and cooperative agreements to profit-making concerns by various government agencies as a matter of policy. For example, the National Institute of Standards and Technology makes OMB Circular A-110 applicable to awards of cooperative agreements to profit-making concerns under the Advanced Technology Program, *15 U.S.C. § 278(n)*. *See* DEPARTMENT OF COMMERCE, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, GENERAL TERMS AND CONDITIONS/ATP-JV19-94, APPLICABLE FEDERAL REGULATIONS, cl. 2.

The Bayh–Dole Act n53 sets forth the Government's policy regarding allocation of patent rights to inventions conceived or first actually reduced to practice under contracts, grants, and cooperative agreements with small business firms and educational and other nonprofit organizations (subject inventions). This patent policy also has been extended to large businesses. n54 The contractor (or recipient, in the case of grants and cooperative agreements) is permitted to retain title to subject inventions and the Government receives a nonexclusive, nontransferable, irrevocable, worldwide, paid-up license to [*537] practice or have practiced subject inventions on behalf of the United States throughout the world.

n53 *35 U.S.C. §§ 200–12* (1980).

n54 Presidential Memorandum (Feb. 18, 1983); Exec. Order No. 12,591, § 1(b)(4) (Apr. 10, 1987).

The legislative history of the statute authorizing "other transactions," n55 however, indicates that the Bayh–Dole Act is not intended to apply. n56 Although DoD therefore has flexibility under "other transactions" to deviate from the general policy of the Bayh–Dole Act, ARPA rarely deviates from the general policy of Bayh–Dole when negotiating "other transactions." To obtain an exemption from the general policy, ARPA requires that companies demonstrate that the general policy is inconsistent with the goals of a particular research project. Moreover, in all cases the "other transaction" must provide for march-in rights to allow the government to license subject inventions for commercial purposes if the title holder fails to take reasonable steps to achieve practical application or other specified conditions occur. n57

n55 *10 U.S.C. § 2371* (Supp. 1991).

n56 H.R. REP. NO. 311, 102d Cong., 1st Sess. (1991), *reprinted* in 1991 U.S.C.C.A.N. 1132.

n57 Dunn, *supra* note 1, at 10.

Statutes of general applicability are applicable to "other transactions." Title VI of the Civil Rights Act of 1964 n58 is the only such statute that applies to "other transactions." Although statutes applicable to every agreement of the United States also apply to "other transactions," n59 there presently is no such statute. Formerly, the clause covering "Officials Not to Benefit" was required to be included in "other transactions" because *41 U.S.C. § 22* required it to be included in every agreement of the United States. n60 However, section 6004 of the Federal Acquisition Streamlining Act of 1994 n61 repealed the requirement at *41 U.S.C. § 22* that "every contract or agreement" is to set forth the condition that certain officials are not to benefit from the award of a contract or agreement. This section of FASA was implemented on December 1, 1994. n62 Therefore, this clause is no longer required in "other transactions."

n58 Civil Rights Act of 1964, Pub. L. No. 88–352, §§ 601–05 (1964).

n59 Dunn, *supra* note 1, at 6.

n60 *41 U.S.C. § 22* (Supp. 1937).

n61 Pub. L. No. 103–355, 108 Stat. 3243 (1994).

n62 Section 6004 was implemented in FAR Case 94–802, *59 Fed. Reg. 61,738* (Dec. 1, 1994).

In addition, most of the numerous certifications required by law or regulation for contracts, grants, and cooperative agreements are not required for "other transactions." ARPA's representations and certifications for "other transactions"

are one page long and cover such matters as discrimination, debarment, drug-free workplaces, and lobbying. The only certification in ARPA's model "other transaction" itself is compliance with the nondiscrimination provisions of Title VI of the Civil Rights Act of 1964. n63

n63 ARPA QUESTIONS AND ANSWERS, *supra* note 1, at 9. *See also* ADVANCED RESEARCH PROJECTS AGENCY, MODEL OTHER TRANSACTION, art. XI (Jan. 6, 1995).

[*538] **2. Special Costs: Independent Research and Development Costs; Bid and Proposal Costs**

The FAR provide that independent research and development (IR&D) effort may be performed by contractors pursuant to cooperative research and development agreements or similar arrangements (e.g., "other transactions") entered into under *10 U.S.C. § 2371*. n64 Moreover, the FAR also provides that IR&D costs incurred by a contractor pursuant to these types of cooperative arrangements should be considered as allowable IR&D costs if the work performed would have been allowed as contractor IR&D had there been no cooperative arrangement. n65

n64 FAR 31.205-18(e).

n65 *Id.*

ARPA, DoD, and the Defense Contract Audit Agency (DCAA) have each issued guidance that allows the use of IR&D effort by recipients of "other transactions" under the TRP to satisfy the contractor's 50 percent or greater cost-matching requirement. n66 The DoD guidance noted that ARPA has issued written questions and answers that state that the costs of IR&D efforts that are relevant to the TRP program may be included as cost-sharing. n67 Accordingly, a contractor may be awarded a TRP "other transaction" based on using IR&D effort as its cost-matching contribution if the IR&D efforts are relevant to the TRP project. The costs of the IR&D effort would be allowed as an indirect cost for its government procurement contracts as long as the work performed would have been allowed as contractor IR&D had there been no "other transaction." n68 This position that IR&D effort can be used to satisfy a cost-matching requirement should be contrasted with the more restrictive position taken by the National Institute of Standards and Technology (NIST). NIST prohibits the use of IR&D funds for cost-matching for cooperative agreements awarded under the Advanced Technology Program (ATP) unless the recipient can prove: (1) it did not recover such funds through allocation of IR&D to government contracts; (2) the IR&D funds originated from the recipient's retained earnings or from some other nongovernment source; and (3) the IR&D project that the IR&D funds support is an essential task in the ATP project and not a peripheral activity. n69 [*539] NIST also does not consider IR&D to be an allowable cost reimbursable under ATP cooperative agreements. n70

n66 DoDGARS 34.2 (a)(2); ADVANCED RESEARCH PROJECTS AGENCY, ARPA PROGRAM INFORMATION PACKAGE FOR TECHNOLOGY REINVESTMENT PROJECT FOCUSED COMPETITION (April 1994), § A.3.4; Memorandum from E. R. Spector, Director, Defense Procurement, to Director, DCAA, and Commander, DCMC, Allowability of IR&D/B&P Costs Under the Technology Reinvestment Project (Aug. 11, 1993); Memorandum from M. Thibault to DCAA Regional Directors, Costs Incurred Under the Technology Reinvestment Project (TRP) (93-PAD-202 (RN)) (Oct. 6, 1993).

n67 Memorandum from E. R. Spector, *supra* note 66.

n68 Memorandum from M. Thibault, *supra* note 66.

n69 NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY, U.S. DEPARTMENT OF COMMERCE, NIST ADVANCED TECHNOLOGY PROGRAM PROPOSAL PREPARATION KIT 22(1994).

n70 *Id.* at 4.

DoD and DCAA also have issued guidance providing that, in order to avoid potential conflicts with Cost Accounting Standard (CAS) 402, "Consistency in Allocating Costs Incurred for the Same Purpose," all costs incurred pursuant to TRP "other transactions" should be accounted for as IR&D, with the funds provided by the Government treated as a credit to the IR&D project to offset IR&D costs. n71 Commentators have stated that while the guidance is specifically limited to TRP agreements, there is no apparent reason that it should not apply to other types of cooperative arrangements covered by FAR 31.205-18(e). n72

n71 Memorandum from M. Thibault, *supra* note 66; Memorandum from E. R. Spector, *supra* note 66.

n72 Roger N. Boyd, T. A. Albertson, *Costs*, in THE 1994 GOVERNMENT CONTRACTS YEAR IN REVIEW CONFERENCE — CONFERENCE BRIEFS (Fed. Pubs. Inc.), at 7-5 and 7-6.

The DoD guidance also notes that FAR currently defines bid and proposal (B&P) costs as costs incurred in preparing, submitting, and supporting bids and proposals on potential government or nongovernment contracts, but does not address proposal costs associated with grants, cooperative agreements, or "other transactions." n73 The DoD guidance goes on to recognize that the definition of B&P cost included in CAS 420, "Accounting for Independent Research & Development Costs and Bid & Proposal Costs," is more expansive, i.e., it includes the cost incurred in preparing, submitting, or supporting any bid or proposal, which effort is neither sponsored by a grant, nor required in the performance of a contract. Therefore, the DoD guidance allows TRP proposal costs to be treated as allowable B&P costs. n74

n73 Memorandum from E. R. Spector, *supra* note 66.

n74 *Id.*

The DoD and DCAA guidance, as well as FAR 31.205-18(e), provide that "other transactions" costs "should" be recorded as IR&D and any revenue received under the "other transactions" treated as a credit to IR&D. This guidance, however, is not mandatory. Contractors should therefore have the option of pricing "other transactions" like a traditional contract instead of an IR&D project (as long as such pricing is consistent with the contractor's established accounting practice) and to include certain indirect costs in the pricing of the "other transaction" that would normally not be allocable to an IR&D project. n75 However, because of the lack of clarity in the regulations on this issue, contractors should enter into an advance agreement with the Government if they want to price an "other transaction" like a contract instead of an IR&D project.

n75 For example, Cost Accounting Standard 420, "Accounting for Independent Research and Development Costs & Bid & Proposal Costs," prohibits general and administrative (G&A) expenses from being allocated to the cost of IR&D projects.

[*540] 3. Cost-Matching Rules

The 50 percent cost-matching requirement for "other transactions" has been mitigated somewhat by the rules issued by ARPA regarding cost-matching, including certain in-kind contributions. ARPA has set forth the following rules with respect to cost-matching under the TRP for the FY95 competition. n76

n76 ADVANCED RESEARCH PROJECTS AGENCY, ARPA PROGRAM INFORMATION PACKAGE FOR TECHNOLOGY REINVESTMENT PROJECT FOR FY95 COMPETITION, § 3.4, at 3-17, 3-20 (1994).

(a) Cost share is classified as either cash or in-kind.

(b) Cash Cost Share

(1) Cash contributions are outlays of funds to support the total project through acquiring material, buying equipment, paying labor (including benefits and direct overhead associated with that labor), and other cash outlays required to perform the statement of work. IR&D funds are considered by TRP to be the proposers' own funds and may be used as a source of cash for TRP projects, even though they remain eligible for reimbursement by the Government. However, the costs of the IR&D efforts must be relevant to the TRP project to be eligible for cost-matching. Cash can be derived from any source of funds within the participant's accounting system. Cash also can be derived from outside sources, such as donations from state or local governments or funds from venture capitalists.

(2) A participant's cash contribution may include revenues from any non-federal source, including non-federal contracts or grants. Profits or fees from a federal contract (other than the TRP project) may also be included. Under certain circumstances, Federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) funds may also count as cash, as described in paragraph (d) below.

(c) In-Kind Cost Share

(1) In-kind contributions are the reasonable value of equipment, materials, or other property used in the performance

of the TRP statement of work. Generally, in-kind contributions are hard to see and value (such as space or use of equipment) and intellectual property (technology transfer activities). In particular, when proposing intellectual property for in-kind cost share, the offeror should consider the following: Is its use central to the project? Is it a real or incidental resource? What is the fair market value of the intellectual property as it is actually used on the project?

(2) Technology transfer activities may be included in a participant's contribution subject to an evaluation of the value of such activities to the partnership and a ceiling on their value of no more than the prior investment in the proprietary technology involved.

(3) The in-kind value of equipment (including software) cannot exceed its fair market value and must be prorated according to the share of its total use dedicated to carrying out the project.

[*541] (4) The in-kind value of space (including land or buildings) cannot exceed its fair rental value and must be prorated according to the share of its total use dedicated to carrying out the project.

(d) Use of SBIR and STTR Funds as Cost Share

(1) A small business participant's cost-sharing contribution in a TRP project may include funds received under a Small Business Innovation Research (SBIR) or Small Business Technology Transfer (STTR) contract. This can be the case whether the SBIR or STTR contract was awarded under the TRP or by some other Government agency. The SBIR or STTR effort must meet one of two tests if its funding is to be counted as cost share. Either: [a] The work to be done (under the SBIR or STTR contract) is clearly identified ("embedded" — see below) in the TRP proposal as part of the overall TRP project and integral to the proposed TRP effort; or [b] If not integral to the TRP proposal, the work to be done under the SBIR or STTR project is clearly related to the work being performed under the TRP agreement and capable of being integrated into that effort.

(2) Unexpended SBIR or STTR funds that remain available at the TRP proposal due date may be counted as cost share in the event the proposal is selected by the TRP. Funds expended after the proposal due date but before the commencement of work under the TRP agreement may be counted as cost share.

(3) Funds expended prior to the FY95 TRP proposal due date will not be considered cash but may be considered as an in-kind contribution to cost share.

(4) TRP requires by statute as a prerequisite to the counting of SBIR or STTR funds as cost share that the small business offering these funds must participate in the TRP project at a level of contribution and participation sufficient to demonstrate a long-term financial commitment to the product or process development that is comparable to the commitment of the other nonfederal participants on the team.

(5) Contributions not allowed as part of cost share include foregone fees and profits on the proposed TRP program; costs previously incurred (e.g., past expenditures to develop technology or intellectual property, but use of previously developed intellectual property may be a valid contribution if it meets the criteria for in-kind contributions), and cost of work done on past or concurrent government contracts.

(e) Additional Cost-Share Rules

Cash cost share counts more than in-kind cost share in competitive selections because it demonstrates greater commitment. In addition, offerors that propose cost-share in excess of 50 percent (or the applicable minimum statutory cost share percentage for the particular TRP program) receive higher marks in competitive selections.

C. Types of "Other Transactions"

"Other transactions" include numerous types of agreements, such as technology agreements with single commercial firms. Other examples of the [*542] types of "other transactions" DoD may enter into include: n77

(1) Bailment agreements involving the lending or borrowing of equipment, typically with a sharing of research or test results.

(2) Parallel or coordinated research agreements involving sponsoring a research project that is related to one or more research projects funded by others and involving an arrangement to share results or to coordinate the research so as to enhance the end result of each project.

(3) Consortia agreements with multiple parties when those parties have agreed to join together to perform research as a consortium.

(4) Joint funding arrangements with others to finance a third party to conduct research.

(5) Reimbursable arrangements that involve DoD providing services (such as transportation services on an experimental space launch vehicle, experimental air vehicle, or experimental undersea vehicle). The user would typically provide one or more of its own experiments to be conducted during a test mission. The amount of reimbursement to DoD could be fixed depending on the extent to which the user's experimental data is to be shared with DoD and the extent to which it supports a DoD program.

n77 Dunn, *supra* note 1, at 7.

IV. ARPA Model "Other Transaction"

A. Overview of the Model

ARPA has drafted a model "other transaction" agreement for use with consortia. n78 It is much simpler and shorter than a standard procurement contract. The ARPA model "other transaction" contains thirteen articles that define the terms and conditions of the agreement as well as five attachments addressing the statement of work, reporting requirements, schedule of payments and payable milestones, funding schedule, and a list of government and consortium representatives. In using this model, ARPA's position was that, as of February 1995, there were only two nonnegotiable provisions: (1) the "Officials Not to Benefit" clause and (2) the "Civil Rights Act" clause. n79 As noted above, both of these clauses previously were required for all "other transaction" agreements. However, the Federal Acquisition Streamlining Act of 1994 repealed the statutory requirement that "every contract or agreement" [*543] set forth the condition that certain officials are not to benefit from the award of a contract or agreement. The "Officials Not to Benefit" clause thus is no longer required by statute in "other transactions." As a result, the Civil Rights Act clause is the only clause required in "other transactions." All other provisions are subject to negotiation. n80

n78 The consortium can be a separate legal entity but most often is merely a team of companies working jointly on the research project. The consortium members enter into a separate consortium agreement among themselves (frequently called "articles of collaboration") under which one representative is chosen to be the lead (the "administrator") with ARPA for administrative and contractual matters and another representative is chosen to be the lead with ARPA for technical matters. The articles of collaboration cover such matters as licensing of foreground intellectual property rights to consortium members, and establishing of a Management Committee to run the consortium.

n79 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 3, 10.

n80 *Id.* at 3.

The "other transaction" is issued by ARPA to the consortium, even when the consortium is not a separate legal entity. ARPA does not require the consortium to be a separate legal entity (e.g., a joint venture or partnership). n81 In these cases, each member of the consortium is viewed as similar to a coprime contractor.

n81 *Id.*

One of the most beneficial aspects of the use of an "other transaction" is that the consortium is paid fixed amounts for accomplishment of payable milestones rather than its actual incurred costs. As a result, commercial companies do not have to establish costly and administratively burdensome accounting systems, which comply with government laws and regulations, for payments to be made.

This benefit cannot be overemphasized because many commercial companies cannot or will not establish the separate accounting systems needed to perform government cost-reimbursement contracts, grants, or cooperative agreements. These companies also find that strict government time reporting requirements, which are mandatory for cost-reimbursement agreements, to be a burdensome and counterproductive requirement for technical personnel. For example, DCAA requires direct charge employees working on government cost reimbursement contracts to follow strict time

reporting requirements, including personally recording their time on the time card on a daily basis in ink. Corrections may only be made by crossing out the incorrect charge and inserting the correct charge. No erasures or white-outs are allowed. All corrections must be initialed by both the employee and the supervisor. In addition, employees and supervisors must sign the time cards, certifying the accuracy of the recorded labor effort. The distribution and collection of time cards are to be adequately controlled. New employees are to be trained in proper time card preparation procedures, and periodic internal reviews are to be performed to ensure compliance with basic controls. The training is to include the penalties associated with the statutes on false claims and false statements and specific responsibility should be placed on an individual or group to perform the training. n82

n82 DEFENSE CONTRACT AUDIT AGENCY, CONT. AUDIT MANUAL PP6.404-4(b), (e) (Jan. 1993).

Another example of burdensome requirements is that to establish valid overhead rates for use in government cost-reimbursement agreements, all of a company's direct charge employees who work in the same department as employees who work on the government cost-reimbursement agreement are [*544] required to follow government time-reporting requirements. Also, even though the effort under a cost-reimbursement agreement may conclude prior to the end of the contractor's fiscal year, the government time-reporting requirements must be followed by such employees for the entire contractor fiscal year to establish valid overhead rates. As a result, technical employees often believe that they must spend too much time complying with the government time-reporting requirements and that such requirements interfere with their research activities.

In contrast, technical employees in commercial companies are often permitted to report time on a daily, weekly, or even monthly basis, depending upon the policy of the company or business unit involved, and to correct errors in time-reporting without supervisory approval. None of the strict government time-reporting requirements apply. Time-reporting in research laboratories of commercial companies generally serves a different purpose than providing a source for billing hours under research contracts. Its purpose is to provide a management tool for determining approximately how much effort is being devoted to individual internal research projects.

The fear of criminal penalties for failure to comply properly with government time-reporting requirements is an additional disincentive for technical employees of commercial companies to work on government cost-reimbursement R&D agreements.

Payments of fixed amounts for accomplishment of payable milestones enable commercial companies to use their own time-reporting and accounting systems and is a significant advantage to them. Payments of fixed amounts for accomplishment of payable milestones also reduce the need for extensive financial reporting and government audits. This is also a significant advantage to commercial companies.

It should be stressed that those commercial companies that have already established accounting systems needed to perform government cost-reimbursement agreements often cannot find business units willing to perform such agreements. Among the many reasons such business units are reluctant to perform government cost-reimbursement agreements are the additional administrative efforts involved, the strict government time-reporting requirements, government-unique subcontracting requirements, and the risk of civil and criminal penalties for failure to comply with laws such as the Truth in Negotiations Act.

Paragraph E of Article III, "Management of the Project," of the ARPA model "other transaction" provides that, as a result of quarterly meetings, annual reviews, or at any time during the term of the "other transaction," research progress or results may indicate that a change to the statement of work and/or payable milestones would be beneficial to program objectives. The Consortium Management Committee is entitled to submit a proposal to change the statement of work and/or payable milestones to the ARPA program manager and ARPA agreements administrator. If the ARPA representatives agree that a change to the statement of work and/or payable milestones would be beneficial, they may be changed by a bilateral modification.

[*545] Paragraph B5 of Article V, "Obligation and Payment," of the ARPA model "other transaction" recognizes that the quarterly accounting of current expenditures made by the consortium is not necessarily intended or required to match the payable milestones until submission of the final report. However, the payable milestones are to be revised during the course of the program to reflect current and revised projected expenditures, provided that the Government's liability to make payments under the "other transaction" remains limited to only those funds obligated under the "other transaction." The flexibility in the ARPA model to adjust the payable milestones and payable amounts is a significant advantage over

the standard procurement contract, which has fixed deliverables that can be administratively burdensome to change.

Government-unique purchasing requirements, such as subcontract approvals, competition, special purchasing files, and cost or price analysis, do not apply to the ARPA model "other transaction." Further, with two exceptions, the flowdown of government terms and conditions does not apply. The two exceptions are that R&D subcontracts must include: (a) flowdown clauses for government patent and data rights; and (b) a flowdown clause to prevent transfer of technology developed under the "other transaction" to foreign firms and institutions without the approval of ARPA. The Buy American Act n83 does not apply. In addition, certifications do not have to be obtained from subcontractors regarding compliance with laws such as the Byrd Amendment n84 or Equal Employment Opportunity. n85 Therefore, commercial purchasing practices can be used almost entirely when issuing subcontracts under the ARPA model "other transaction."

n83 41 U.S.C. §§ 10a-10d (1933).

n84 31 U.S.C. § 1352 (1989).

n85 Exec. Order No. 11,246, 30 Fed. Reg. 12,319-12,935 (1965), amended by Exec. Order No. 11,375, 32 Fed. Reg. 14,303 (1967) and Exec. Order No. 12,086, 43 Fed. Reg. 46,501 (1978).

B. Terms and Conditions of ARPA Model "Other Transaction"

1. Article I: Scope of the Agreement

Article I, "Scope of the Agreement," is considered by ARPA to be a key section of the "other transaction." It corresponds in many ways to the "recitals" section of a commercial contract. Article I describes the research program's "vision statement," which is prepared jointly by the consortium and ARPA representatives. The vision statement must be carefully drafted because it is critical in giving the parties a clear joint understanding of the research program. ARPA's Guidance states that Article I should include a brief statement that describes the technology in question, including the current state of industry R&D efforts and any problems industry has encountered in advancing the technology. Particular attention should be focused on the need for government support of the technology, including any potential for dual use of the technology by both the Government and commercial markets [*546] and its relevance to defense. Article I should define the specific goals and objectives of the research program, including the overall long-term goals of the government and the consortium members. The consortium's responsibilities under the "other transaction," including its total cost-matching contribution, are to be discussed in general terms. n86

n86 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 7.

Article I states that the Government will have continuous involvement with the consortium, and that ARPA and the consortium are bound by a duty of good faith and best research effort in achieving the goals of the consortium. Article I also provides that the agreement is an "other transaction" issued under 10 U.S.C. § 2371 and that it is not a procurement contract, grant, or cooperative agreement for purposes of FAR 31.205-18. Article I also states that the "other transaction" is not intended to be, nor shall it be construed as, a partnership, corporation, or other business organization. Article I also notes that the FAR and DFARS apply only as specifically referenced in the "other transaction."

The consortium agrees to perform "a coordinated research and development program" for a particular effort, but does not guarantee that its research goals will be accomplished. The consortium is only obligated to use its "best research efforts" to achieve the research goals of the consortium. In consideration for this effort, the consortium is to be paid as it accomplishes its agreed-upon "payable milestones." Payable milestones are technical milestones (or some other milestone event) that have been negotiated by ARPA and the consortium and are listed in an attachment. The milestone payment amounts are generally negotiated based upon the estimated cost to accomplish each payable milestone. Since the "other transaction" is a "best effort" agreement, there is no penalty for failing to accomplish a payable milestone event other than not being paid. The key is to negotiate technical milestones that can be met with little risk. In some cases, a payable milestone event may be able to be negotiated for signing the "other transaction," when justified, such as when precontract costs have been incurred.

When the consortium negotiates the payable milestones with ARPA, one issue that should be considered is whether separate payable milestones and payment amounts should be negotiated for each consortium member or for the consortium as a whole. It may be possible to negotiate a combination of both approaches.

The ARPA model "other transaction" is a cost-share agreement under which a total estimated project cost for both the Government and the consortium is specified on the face of the agreement. Article I provides that if either ARPA or the consortium is unable to provide its respective total contribution, the other party may reduce its project funding by a proportional amount. Attachment 2, "Report Requirements," requires the consortium to submit quarterly business status reports, including the status of the contributions [*547] of the consortium participants. This report is to include a quarterly accounting of current expenditures as outlined in the annual program plan. Any major deviations are to be explained along with discussions of the adjustment actions proposed. Therefore, if the consortium fails to contribute its entire cost share, ARPA has the right to reduce its payments accordingly. This possibility should be covered in the consortium agreement so that if one consortium member fails to contribute its cost share, the other members are not penalized.

The ARPA model "other transaction" can be viewed as a form of financial assistance similar to a grant or cooperative agreement. Article I expressly states that the principal purpose of the "other transaction" is for the Government to support and stimulate the consortium to provide its best efforts in advanced research and technology development and not for the acquisition of property or services for the direct benefit or use of the Government.

2. Article II: Term

Article II, "Term," of the ARPA model "other transaction" addresses the continuation of the program for a specified number of months. If all funds are expended before the end of the specified term, the parties have no obligation to continue performance and may elect to cease the development effort. This right is similar to that found under the FAR 52.232-20 "Limitation of Cost" clause for cost-reimbursement procurement contracts.

Unlike a FAR-covered procurement contract under which only the Government may terminate the contract for its convenience, Article II provides that the ARPA model "other transaction" may be terminated for the convenience of ARPA or the consortium by written notice to the other party. This provision is subject to limitations: (a) such written notice must be preceded by consultation between the parties; and (b) a reasonable determination must be made that the project will not produce beneficial results commensurate with the expenditure of resources. In the event of termination, the parties are to negotiate in good faith a reasonable and timely adjustment of all outstanding issues. The Government, however, has no obligation to reimburse the consortium beyond the last completed and paid milestone if the consortium decides to terminate the "other transaction."

The ARPA model contains neither a "Default" clause nor an "Excusable Delays" clause. In the author's experience, ARPA has refused to include an "Excusable Delays" clause during negotiation of the "other transaction." However, such a clause may be unnecessary in the absence of a "Default" clause.

3. Article III: Management of the Project

Pursuant to Article III, "Management of the Project," which may be substantially revised depending on the facts of the "other transaction," n87 the consortium is to be run by a Consortium Management Committee (CMC). The CMC is comprised of one voting representative from each member of the [*548] consortium. Decisions of the CMC may be binding. Further, quarterly technical meetings are held between members of the consortium and the ARPA program manager. All technical decisions are to be made by a majority or consensus vote of the CMC and the ARPA program manager. The following CMC decisions are, however, subject to ARPA approval: (1) changes to the Articles of Collaboration of the consortium that substantially alter the relationship of the parties as originally agreed upon when the "other transaction" was executed; (2) changes to, or elimination of, any ARPA funding allocation to any consortium member as technically and/or financially justified; (3) technical and/or funding revisions to the "other transaction" authority; and (4) admission of additional or replacement consortium members.

n87 *Id.* at 7; *see also* ADVANCED RESEARCH PROJECTS AGENCY, MODEL OTHER TRANSACTION, art. III (Jan. 6, 1995).

ARPA's Guidance provides that when a consortium enters into an "other transaction" with ARPA, its members are required to enter into and submit their "Articles of Collaboration." n88 This document outlines the relative rights and responsibilities of each consortium member. There is no prescribed format for this document nor does ARPA's use of its "other transaction" authority require that a consortium be a specific legal entity such as a partnership or a joint venture "registered" under the National Cooperative Research and Production Act. n89 ARPA's Guidance emphasizes that

consortium members should develop their relationship fully as early in the process as possible, preferably before award. A solid consortium relationship will facilitate negotiations and should ensure that the "other transaction" progresses smoothly. n90

n88 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 3.

n89 15 U.S.C. § 4301 (1984).

n90 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 3.

ARPA's Guidance states that the Articles of Collaboration should address, at a minimum, the management structure of the consortium, the method of disbursing government payments to consortium members, the process for resolution of disputes between consortium members, the possibility of termination of the consortium, and the ownership of intellectual property created under the "other transaction." n91

n91 *Id.*

There are no particular requirements as to who signs an "other transaction" on behalf of the consortium. It may, for example, be executed by all the consortium members individually or merely signed by a single member who is authorized to do so by the Articles of Collaboration or some other agreement among consortium members. n92

n92 *Id.* at 5.

4. Article IV: Agreement Administration

Under Article IV, "Agreement Administration," one representative of the consortium is appointed to be the consortium administrator and is to be the [*549] consortium's representative to ARPA for administrative and contractual matters. Another representative of the consortium is appointed to be the consortium's representative to ARPA for technical matters. ARPA makes payment to the consortium administrator for payable milestones. The consortium administrator is responsible for paying each member of the consortium its respective share.

5. Article V: Obligation and Payment

Under Article V, "Obligation and Payment," the consortium must maintain an established accounting system that complies with generally accepted accounting principles. Article V also provides that because the consortium is only a conduit, it cannot incur nor allocate any indirect costs of its own to the consortium member cost directly incurred pursuant to the "other transaction." In addition, the consortium and each member thereof are responsible for maintaining adequate records to account for government funds. The Government has the right to examine or audit the consortium's relevant financial records for a period not to exceed three years after expiration of the term of the "other transaction." Commercial companies should ensure their record retention policies comply with this requirement.

Article V provides for quarterly payments for payable milestone that have been accomplished, although more frequent payments can be negotiated when circumstances warrant. It is important that the payable milestones be carefully designed to provide an adequate supply of funding during the program.

ARPA's Guidance provides that payments under an "other transaction" will generally be based upon particular instances of technical progress or other "payable milestones" as determined by the parties. n93 As each milestone is reached, the consortium or an identified consortium member is required to provide a report or other evidence of accomplishment of that milestone to the ARPA program manager for review and validation. The ARPA program manager is to provide notice of milestone acceptance to the ARPA agreements administrator (the Contracting Officer), who will approve the invoice and process payment for the assigned value of that milestone. Payment will not be made unless a payable milestone has been successfully completed.

n93 *Id.* at 8.

6. Article VI: Disputes

Under Article VI, "Disputes," disputes are to be resolved by negotiation and mutual agreement. n94 If negotiation does not resolve the problem, the aggrieved party may request a joint decision of the ARPA Deputy Director for Management and the Representative of the Consortium Management Committee. The joint decision is final unless it is timely appealed to the ARPA director whose decision is not subject to further administrative review and, to the extent permitted by law, is final and binding.

n94 *Id.*

[*550] ARPA's Guidance describes Article VI as a standard "Disputes" clause that is preferred by ARPA in all "other transactions." n95 Although the language of this clause is negotiable, a consortium will be required by ARPA to demonstrate a compelling reason for using a different dispute resolution method. Federal Government policy does not, however, allow ARPA to agree to binding third-party arbitration. n96

n95 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 8.

n96 *Id.*

ARPA's Guidance suggests that the Disputes clause may contain the following paragraph:

Limitation of Damages: Claims for damages of any nature whatsoever pursued under this Agreement shall be limited to direct damages only up to the aggregate amount of ARPA funding disbursed as of the time the dispute arises. In no event shall ARPA be liable for claims for consequential, punitive, special and incidental damages, claims for lost profits, or other indirect damages. ARPA agrees that there is no joint and several liability within the Consortium. The Consortium disclaims any liability for consequential, indirect, or special damages, except when such damages are caused by willful misconduct of the Consortium Managerial personnel. n97

Companies should ensure that similar language is negotiated in the ARPA model "other transaction." Also, because the ARPA director's decision is final and binding to the extent permitted by law, it also may be advisable to seek a provision to the "Disputes" article to provide that such decision is subject to the Wunderlich Act, n98 which precludes contract clauses from preventing judicial review of agency decisions on disputes. The Contract Disputes Act of 1978, n99 which is applicable to FAR-covered procurement contracts, does not apply to disputes arising under the "other transaction."

n97 *Id.* at 14.

n98 41 U.S.C. §§ 321-22 (1954).

n99 41 U.S.C. §§ 601-13 (1978).

7. Article VII: Patent Rights

The Patent Rights clause set forth in Article VII of the ARPA model is similar to the standard FAR 52.227-12 "Patent Rights-Retention by the Contractor" clause and contains provisions relating to "Preference for United States Industry" and Government "March-In Rights" n100 similar to corresponding provisions of that clause. The consortium retains title to any inventions conceived or first actually reduced to practice under the "other transaction" and ARPA receives a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States such inventions made under the "other transaction" throughout the world. The consortium may elect to provide full or partial rights that it has retained to consortium members or other parties. n101 If the consortium is not a legal [*551] entity, it may be desirable to revise the term "consortium" to read "consortium participant" in the Patent Rights clause.

n100 The Government's march-in rights with respect to subject inventions made under a contract, grant, or cooperative agreement have not been exercised in any reported instance. RALPH C. NASH AND STEVEN L. SCHOONER, THE GOVERNMENT CONTRACTS REFERENCE BOOK 254 (1992).

n101 ADVANCED RESEARCH PROJECTS AGENCY, MODEL OTHER TRANSACTION, art. VII, P B, Allocation of Principal Rights (Jan. 6, 1995).

ARPA's Guidance provides that ARPA initially requires the inclusion of a standard Patent Rights clause, based on the Bayh-Dole Act, in all "other transactions." n102 The Guidance further notes, however, that individual situations may warrant exceptions to the standard allocation of rights. Such exceptions are open to negotiation by the parties upon a detailed explanation of need by the consortium. Moreover, the language of the standard Patent Rights clause should not be altered; instead, any exceptions to the provisions of the clause should be added to the end of the clause or in a side agreement. n103

n102 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 9.

n103 *Id.*

ARPA's Guidance also notes that the Bayh-Dole Act and ARPA's standard Patent Rights clause allow the consortium to retain title to patentable inventions subject to a so-called government-purpose license — a nonexclusive, nontransferable, irrevocable, paid-up license to ARPA to practice the invention or have it practiced on behalf of the United States throughout the world — and "march-in rights," which allow the Government to require that an invention be made available to a third party if the inventor does not reduce it to practical application in a reasonable time. ARPA's Guidance states that a consortium may request limitations on these rights. However, ARPA will not agree to any limitation unless the consortium can present a compelling business justification, in the specific context contemplated by the "other transaction" and in terms of the goals of the specific research project, for the necessity of the requested limitation. ARPA has granted concessions based on such a compelling justification in areas including delaying the effective date of the government-purpose license and specifically defining what are the reasonable efforts toward practical application that preclude exercise of march-in rights. n104

n104 *Id.*

Significantly, the ARPA Patent Rights clause does not contain paragraph (g) of the FAR 52.227-12, Patent Rights clause, which provides that the subcontractor shall retain all rights provided for the prime contractor in the clause and the prime contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions. Language similar to paragraph (g) has been interpreted as prohibiting grant-backs to the prime contractor of even a nonexclusive license in the subcontractor's subject inventions. n105 The Department of Commerce, which [*552] is responsible for issuing patent rights regulations to federal agencies to implement the Bayh-Dole Act, n106 takes the position that paragraph (g) of FAR 52.227-12 places the same restriction on prime contractors. This means that under FAR-covered prime contracts containing the FAR Patent Rights clause, the prime contractor cannot obtain in the subcontract itself any rights in an R&D subcontractor's subject inventions. To obtain such rights, the prime contractor must either (1) enter into a separate licensing agreement with the subcontractor with separate consideration given for such rights or (2) obtain an exceptional circumstance determination from the agency pursuant to 35 U.S.C. § 202(a)(ii) permitting the prime contractor to obtain rights in subcontractor subject inventions in the subcontract itself. n107

n105 RAWICZ AND NASH, PATENTS AND TECHNICAL DATA 220, 221 (1983). It is government policy that contractors shall not use their ability to award subcontracts as economic leverage to acquire rights for themselves in inventions resulting from subcontracts. FAR 27.304-4(c). This policy has been criticized as possibly jeopardizing the contractor's future business if it has disclosed its technology to a subcontractor. Harrison, *Patent Policy Effects on a Company's Licensing Program*, 7 AM. PAT. L.J. 65 (1979). DFARS C-204.3 states that Contractor Purchasing System Review (CPSR) teams should ensure that this policy is followed by reviewing the prime contractor's patent clause flowed down in subcontracts to make sure that the prime contractor does not require greater rights from the subcontractor than the Government requires from the prime contractor.

n106 35 U.S.C. § 206 (1980).

n107 In one negotiation for a cooperative agreement, the Air Force took the position that an exceptional circumstance determination can only be issued where the prime contractor is seeking title to subcontractor subject inventions, citing 35 U.S.C. § 202(a)(ii), which refers only to title. However, the Comptroller General, the Department of Commerce, and the Department of Energy take the position that license rights can be equivalent to title and, therefore, an exceptional circumstance determination can be issued to permit prime contractors to be given license rights in subcontractor subject inventions. See GEN. ACCT. OFF., REP. NO. GAO/RCED-84-26, at 7 (Feb. 28, 1984).

If a restriction similar to paragraph (g) of FAR 52.227-12 were included in the "other transaction," it would be inconsistent with the goals of both the Government and the consortium, i.e., for the consortium members to develop new technologies and intellectual property rights to strengthen and broaden the United States technological and industrial bases and to make the consortium members more competitive in the world marketplace. A restriction similar to paragraph (g) of FAR 52.227-12 would result in the consortium members being required to negotiate separate licensing agreements with their subcontractors — with no guarantee that they would be successful in such negotiations. It would be inequitable to saddle the consortium members, which are obligated to share costs under the program, with the specter of future license negotiations and the potential inability to practice the technology they helped to pay to develop if they are unsuccessful in their licensing negotiations.

One statutory provision arguably may be interpreted as limiting the issuance of an exceptional circumstance determination to cases where the prime contractor seeks to obtain title to its subcontractor's subject inventions. n108 [*553] However, the General Accounting Office and the Department of Commerce take the position that license rights can be equivalent to title and, therefore, an exceptional circumstance determination can be issued to permit prime contractors to receive license rights in subcontractor subject inventions. n109

n108 35 U.S.C. § 202 (a)(ii) (1980).

n109 GEN. ACCT. OFF., REP. NO. GAO/RCED-84-26, at 7.

A comparison of FAR 52.227-12 with Article VII of the ARPA Model "other transaction" indicates some potentially favorable changes for contractors. Article VII replaces the term "Government" with "ARPA" in several places. For example, paragraph B of Article VII provides in part that "with respect to any subject invention in which the Consortium retains title, *ARPA* shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or practice on behalf of the United States the subject invention throughout the world." Arguably, only ARPA is given the paid-up license because the license is nontransferable to other agencies of the Government. The term "Government" has also been replaced by "ARPA" in paragraph D, "Conditions When the Government May Obtain Title," of Article VII. However, the paragraph D title still includes the term "Government." In addition, paragraph E1 of Article VII provides that "the Consortium shall retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title . . ." Also, in paragraph F the term "Government" has not been changed to "ARPA" in all places. For example, paragraph F1 of Article VII provides in part that "the Consortium agrees to execute or have executed and promptly deliver to ARPA all instruments necessary to (i) establish or confirm the rights the *Government* has throughout the world in those subject inventions to which the Consortium elects to retain title, and (ii) convey title to *ARPA* when requested under paragraph D . . ." Also, in paragraph B, ARPA is given the right to practice or practice *on behalf of the United States* the subject invention. It is unclear whether a substantive change is intended to narrow the Government's rights to that of only one agency (ARPA). If such a change is intended, Article VII needs to be revised to be more explicit in this regard and to eliminate inconsistent language. Finally, the signature page of the "other transaction" indicates that the "other transaction" is with the "United States of America," represented by ARPA, and is signed in the same manner. Therefore, any inconsistency here with respect to Article VII should also be clarified. ARPA's position is that no substantive change was intended in the rights granted to the Government under Article VII. n110

n110 Telephone interview with Richard L. Dunn, ARPA General Counsel (July 27, 1995). A more detailed comparison of the differences between the ARPA "Patent Rights" clause and the FAR 52.227-12 clause is beyond the scope of this article. Thus, consortium members should undertake this review to determine if they wish to request that the ARPA clause be modified to include certain language from the FAR 52.227-12 clause.

The ARPA model "other transaction" does not contain an "authorization and consent" clause such as the clause found at FAR 52.227-1 (Alternate 1). [*554] ARPA takes the position that it cannot legally include such a clause in an "other transaction" because the research work is not being performed "for" the Government. However, at least one agency, i.e., the Department of Energy, has taken a different position as its regulations prescribe an authorization and consent clause for use in DOE cooperative agreements. n111

n111 41 C.F.R. §§ 9-9.100, 9-9.102 (1979).

8. Article VIII: Data Rights

The ARPA model "other transaction" includes a special "Data Rights" clause in Article VIII. This clause is generally much easier to comply with and more equitable to contractors than DoD's proposed DFARS technical data and computer software regulations and clauses for FAR-covered contracts, n112 which are planned to be issued as final regulations in 1995. n113 The ARPA "Data Rights" clause must be flowed down to all subcontracts for experimental, developmental, or research work.

n112 59 *Fed. Reg.* 31,584 (1994).

n113 Some of the administrative burdens found in the proposed DFARS technical data and computer software regulations and clauses include (1) giving the Government written notice whenever the company is about to enter into a DoD contract that would require the delivery of technical data or computer software that the contractor intends to deliver with less than unlimited rights, (2) giving an additional notice during contract performance if the contractor determines that it will deliver any additional technical data or computer software with less than unlimited rights, (3) reaching an agreement with the Contracting Officer to list in the contract all technical data and computer software to be delivered with less than unlimited rights, and (4) establishing and maintaining written procedures to ensure that restrictive markings are used only when authorized by the DFARS 252.227-7013 "Rights in Technical Data — Noncommercial Items" clause and the DFARS 252.227-7014 "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation" clause. *See also* 36 GOV'T CONTRACTOR 15 (Apr. 13, 1994); K. D. Powell, *Proposed DFARS Revisions on the Treatment of Computer Software: A Partial Success*, CONT. MGMT. (Mar. 1995); and J. E. Schwartz, *The Acquisition of Technical Data Rights by the Government*, 23 *PUB. CONT. L. J.* 518.

The ARPA "Data Rights" clause provides that because the "other transaction" involves mixed Government-contractor funding, the Government obtains government-purpose rights (GPR) in data delivered under the "other transaction." "Government-purpose rights" are defined as the rights to use, duplicate, or disclose data, in whole or in part and in any manner, for government purposes only, and to have or permit others to do so for government purposes only. "Data" are defined to mean recorded information, regardless of form or method of recording, which includes but is not limited to, technical data, software, trade secrets, and mask works. The term does not include financial, administrative, cost, pricing, or management information and does not include subject inventions.

ARPA's Guidance states that Article VIII, "Data Rights," addresses the allocation among the parties of intellectual property rights other than patent rights." n114 Furthermore, the rights granted to, or retained by, the Government [*555] in this provision are negotiable between ARPA and the consortium and will vary greatly depending upon the type of data anticipated and the requirements of the parties. At a minimum, the Government will retain the rights to all data generated under the "other transaction" that are minimally necessary to make meaningful the patent rights allocated to the Government in Article VII. In most cases, the Government's rights in data are to include rights to use, duplicate, or disclose data, in whole or in part and in any manner, for government purposes only, and to have or permit others to do so for government purposes only.

n114 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 9.

The ARPA "Data Rights" clause does not appear to expressly limit the Government's rights to include only data "generated under" the "other transaction," even though ARPA's Guidance on "other transactions" states that is what is intended. The clause should be so modified in negotiations.

The ARPA "Data Rights" clause does not contain a time limit on GPR in data. This is in contrast to the proposed DFARS 252.227-7013, "Rights in Technical Data — Noncommercial Items," and DFARS 252.227-7014, "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation," clauses. Those clauses provide that the Government automatically obtains GPR in technical data and computer software developed with mixed funding under the contract for five years after execution of the contract. After the time period expires, the Government obtains unlimited rights in such data and software. The proposed DFARS provides, however, that the period can be extended by negotiation.

The ARPA clause also does not address the Government's rights to data that are generated entirely at private expense that are delivered under the "other transaction." If such data will be delivered under the "other transaction," the clause should be modified to identify what rights the Government receives in such data.

In consideration for government funding, the consortium agrees that it intends to reduce to practical application items, components, and processes developed under the "other transaction." An unusual section pertaining to government march-in rights is also included in the ARPA "Data Rights" clause. If the Government exercises its march-in rights to subject inventions, the consortium agrees, upon written request from the Government, to deliver, at no additional cost to the Government, all data necessary to achieve practical application within sixty days from the date of the written request. The Government obtains "unlimited rights" in such data. The term "unlimited rights" is defined to mean rights to use, duplicate, or disclose data, in whole or in part, in any manner and for any purposes whatsoever, and to have or permit others to do so.

Under the ARPA "Data Rights" clause, the consortium also agrees that, with respect to data necessary to achieve practical application, ARPA has the right to require the consortium to deliver all such data to ARPA in accordance with its reasonable directions if ARPA determines that such action is necessary: (1) because the consortium or assignee has not taken [*556] effective steps, consistent with the intent of the "other transaction," to achieve practical application of the technology developed during the performance of the "other transaction"; (2) to alleviate health or safety needs that are not reasonably satisfied by the consortium, assignee, or their licensees; or (3) to meet requirements for public use that are not reasonably satisfied by the consortium, assignee, or licensees. n115 The consortium further agrees to retain and maintain in good condition for a negotiated number of years after completion or termination of the "other transaction" all data necessary to achieve practical application.

n115 ADVANCED RESEARCH PROJECTS AGENCY, MODEL OTHER TRANSACTION, art. VIII, P2B, Data Rights Clause (Jan. 6, 1995).

The ARPA "Data Rights" clause does not contain either the restrictions set forth in paragraph (k) of the proposed DFARS 252.227-7013 clause "Rights in Technical Data — Noncommercial Items" or in paragraph (k) of the proposed DFARS 252.227-7014 clause, "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation" for procurement contracts. Paragraph (k) of these clauses obligates the prime contractor to flow these clauses down in its subcontracts, without alteration, except to identify the parties. It further prohibits any other clause from being used to enlarge or diminish the rights of the Government, prime contractor, or a higher-tier subcontractor in a subcontractor's technical data, computer software, or computer software documentation. The prime contractor and higher-tier subcontractors are also prohibited from using their power to award contracts as economic leverage to obtain rights in technical data, computer software, or computer software documentation from their subcontractors. There are no such restrictions in the FAR 52.227-14, "Rights in Data — General," clause applicable to civilian agency procurement contracts.

Paragraph (k) in both proposed DFARS 252.227-7013 and 252.227-7014 pose a problem similar to that discussed above with respect to paragraph (k) of the FAR 52.227-12 Patent Rights clause, i.e., the prime contractor is prohibited from obtaining rights in intellectual property developed by its subcontractors unless it negotiates separate licensing agreements with separate consideration given for such rights.

9. Article IX: Foreign Access to Technology

The ARPA model "other transaction" contains a "Foreign Access to Technology" clause that restricts access by foreign firms or institutions to important technology developments made under the "other transaction." This clause is to be flowed down in all subcontracts for experimental, developmental, or research work. The clause implements ARPA's policy (a statutory requirement for some programs such as the Technology Reinvestment Project) that the principal economic benefit of ARPA research efforts must be to the United States economy. n116 The controls established by this clause are in [*557] addition to those imposed by the International Traffic in Arms Regulations, n117 the DoD Industrial Security Regulation, n118 and the Department of Commerce Export Regulations. n119 Significantly, transfers by the consortium of technology developed under the "other transaction" to a foreign firm or institution are subject to ARPA approval and may be prohibited if there are adverse consequences to the national security interests or economic vitality of the United States.

n116 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 10.

n117 22 C.F.R. Part 121 et seq.

n118 DoD 5220.22-R.

n119 15 C.F.R. Part 770.

Technology is broadly defined to include discoveries, innovations, know-how, and inventions, whether patentable or not, including computer software, recognized under United States law as intellectual creations to which rights of ownership accrue, including, but not limited to, patents, trade secrets, mask works, and copyrights developed under the "other transaction."

Transfers include the sale of a company and sales or licensing of technology. Transfers do not include: (1) sales of products or components, (2) licenses of software or documentation related to sales of products or components, (3) transfers to foreign subsidiaries of the consortium members for purposes related to the "other transaction," or (4) transfers which provide access to technology to foreign entities which are approved sources of supply or sources for the conduct of research under the "other transaction," provided that such transfers shall be limited to those necessary to allow the foreign entity to perform its approved role under the "other transaction."

Transfers to foreign firms or institutions are prohibited for a negotiated time period, such as three years after expiration of the "other transaction." If the transfer of technology to a foreign firm or institution is not approved by ARPA during the period the restrictions on transfer are in effect, the consortium must (1) refund to ARPA funds paid for the development of the technology and (2) negotiate a license with the Government to the technology under reasonable terms.

ARPA's Guidance states that Article IX, "Foreign Access to Technology," describes restrictions to be imposed during the term of the "other transaction" and for a reasonable time thereafter on foreign access to research findings and technology developments that arise under the "other transaction." n120 Although the standard "Foreign Access to Technology" clause is preferred, the provisions of this clause are open to negotiation. The consortium will be required to present a compelling case that any proposed change will retain most of the manufacturing capability and know-how associated with the developed technology in the United States. Any existing licensing agreements that the consortium members may have with foreign entities or other arrangements for foreign access to consortium members' technologies [*558] can be addressed in a provision added to the end of the clause or in a side agreement. Finally, ARPA's preferred method for addressing industry's concerns is to negotiate advance approval within the terms of the clause for any planned foreign access.

n120 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 10.

The restrictions on transfer of technology in the "Foreign Access to Technology" clause can be a severe burden on companies that customarily license their technology to obtain royalties. Such restrictions also may conflict with pre-existing licensing agreements with foreign entities. In addition, restrictions on transfer of technology can impose a significant burden on global companies that share technology with their foreign subsidiaries or that subcontract the manufacture of certain components of their products outside the United States for cost-competitive reasons when transfer of the technology to the foreign subcontractor is required. The restrictions can be even a more difficult problem for foreign companies that are members of the consortium.

Another potential problem with the clause is that global companies may have technical personnel from their foreign subsidiaries working on an exchange basis on an unrelated research project in the same United States laboratory with those United States technical employees who are working on the "other transaction." In such a situation, there is a high risk that technology will be disclosed by the United States employees to their foreign colleagues through normal exchanges of information among technical personnel. One approach to the problem is to require the employees of the foreign subsidiary working in the United States laboratory to sign a nondisclosure agreement prohibiting them from disclosing the technology to other employees of the foreign subsidiary until the restrictions in the "Foreign Access to Technology" clause expire.

Depending on the technology involved and other circumstances, the restrictions in the "Foreign Access to Technology" clause can make such a clause the most onerous provision in the ARPA model "other transaction." Fortunately, under appropriate circumstances, ARPA is willing to negotiate a side letter that grants advance approval for certain transfers of technology to be made to certain foreign entities. ARPA is apparently most concerned with establishing a manufacturing capability in the United States for such technology and preventing manufacturing know-how from being transferred outside the United States.

After award, companies should establish internal procedures to ensure compliance with the "Foreign Access to Technology" clause. Appropriate technical, managerial, and legal personnel in the company should be made aware of the restrictions and periodic reminders should be issued to them as long as the restrictions are in effect (usually four to six years).

10. Article X: Officials Not to Benefit

Prior to enactment of the Federal Acquisition Streamlining Act of 1994 (FASA), the "Officials Not to Benefit" clause was required by statute to be [*559] included in all "other transactions." n121 It provides that no member of Congress shall be admitted to any share or part of the "other transaction" agreement or to any benefit arising from it. However, the clause does not apply to the "other transaction" to the extent that the "other transaction" is made with a corporation for the corporation's general benefit. As mentioned above, section 6004 of FASA repealed the requirement, and therefore, Article X is no longer required in "other transactions."

n121 41 U.S.C. § 22 (Supp. 1937).

11. Article XI: Civil Rights Act

The only socioeconomic clause included in the ARPA model "other transaction" is Article XI, "Civil Rights Act." This clause requires each consortium member to comply with Title VI of the Civil Rights Act of 1964 relating to nondiscrimination in federally assisted programs and to provide a certification to that effect. There is no requirement that the "Civil Rights Act" clause be flowed down to subcontractors.

12. Article XII: Order of Precedence

The Order of Precedence clause provides that in the event of any inconsistency between the terms of the "other transaction" and language set forth in the consortium's Articles of Collaboration, the inconsistency shall be resolved by giving preference in the following order: (1) the "other transaction," (2) attachments to the "other transaction," and (3) the consortium's Articles of Collaboration.

13. Article XIII: Execution

The merger clause provides that the "other transaction" constitutes the entire agreement of the parties and supersedes all prior and contemporaneous agreements, understandings, negotiations, and discussions among the parties, whether oral or written, with respect to the subject matter of the "other transaction." The clause also provides that the "other transaction" may be revised only by written consent of the Consortium Management Committee (CMC) and the ARPA agreements administrator. The latter is the term used by ARPA for the Contracting Officer for "other transactions."

14. Other Considerations

Absent from the ARPA model "other transaction" are two of the most common provisions in standard FAR-covered procurement contracts. First, the ARPA model "other transaction" includes no "Default" clause. Second, the ARPA model "other transaction" does not contain a unilateral "Changes" clause.

Attachment 1, "Statement of Work," to the ARPA model "other transaction" provides a detailed explanation of what the consortium is expected to do under the research project. Depending on the nature of the project, the statement of work may be written in terms of the problem to be solved, the technical approach, or the specific tasks to be accomplished. n122 The amount [*560] of detail and specificity in the statement of work need not approach that normally found in a Government procurement specification or contract, but it needs to be as complete and thorough as the situation will allow and should clearly state the tasks and ultimate output. Finally, in many situations, the consortium's proposal may be incorporated by reference. n123

n122 ARPA DRAFT GUIDANCE FOR USE OF OTHER TRANSACTIONS, *supra* note 1, at 11.

n123 *Id.*

The ARPA model "other transaction" contains a provision for "Report Requirements" (Attachment 2), under which required reports may be either "delivered or otherwise made available" to the Government. This approach allows ARPA to have access to relevant documents and deliverables without unnecessarily creating "agency records" containing proprietary data of the consortium members n124 that may be subject to requests for release under the Freedom of Information Act. n125 ARPA also uses other approaches in place of delivery of proprietary data to keep the ARPA program manager and ARPA agreements administrator informed of research progress, such as meetings, briefings, and delivery of summary reports. n126

n124 *Id.* at 4.

n125 5 *U.S.C.* § 552 (1977).

n126 Richard L. Dunn, *Cooperative Government-Industry Relationships to Develop and Commercialize Technology*, at 16 (unpublished manuscript on file with author).

Significantly, ARPA interprets its "other transaction" authority as authorizing an interagency transfer of funds for purposes related to research and development. Therefore, other agencies may transfer funds to ARPA for funding R&D under an ARPA "other transaction." It is ARPA's interpretation of DoD's "other transaction" authority that interagency funding actions using this authority are not subject to the constraints of Economy Act n127 transactions. n128

n127 31 *U.S.C.* § 1535 (1982).

n128 QUESTIONS AND ANSWERS ABOUT ARPA OTHER TRANSACTIONS, *supra* note 1, at 9. See FAR 17.501-.503 and 6.002 for guidance on compliance with the Economy Act for procurement contracts. Section 1074 of the Federal Acquisition Streamlining Act (Pub. L. No. 103-355, 108 Stat. 3243) places additional restrictions on interagency purchases for procurement contracts.

V. Air Force's Model Cooperative Agreement for ARPA-Funded Programs

A. General

It is common for an ARPA-funded research program to be transferred from ARPA to another agency for negotiation, award, and administration of the contract or agreement. A significant number of transfers are to the Air Force. The Air Force has drafted a model cooperative agreement (dated October 14, 1994) to be issued under the authority of 10 *U.S.C.* § 2371 (now 10 *U.S.C.* § 2358) and the DoDGARs for ARPA-funded research programs with consortia (hereafter the "Air Force model cooperative agreement").

[*561] In some instances, a research program transferred from ARPA to another agency may be problematic if the research program was proposed by the commercial company on the assumption that an ARPA "other transaction" would be awarded, thus permitting the use of commercial practices. The commercial company may find that, instead, a cooperative agreement or FAR-covered procurement contract is awarded with substantially different requirements. Such requirements in the cooperative agreement or contract are often not priced in the proposal nor are they able to be easily satisfied by the commercial company.

The Air Force model cooperative agreement contains terms similar to the ARPA model "other transaction." The DoDGARs permit the cooperative agreement to be streamlined to provide nearly the same flexibility to commercial companies as the ARPA model "other transaction." However, there are some significant differences, as discussed below.

It has been the author's experience that many grants officers in the Air Force are willing to streamline the Air Force model cooperative agreement requirements to the extent permitted by law and regulations. However, others in the Air Force will not. Part of the problem appears to be the fear of being second-guessed. In addition, some individuals appear unconvinced that streamlining the agreement requirements to permit contractors to use their commercial practices will result in benefits to the Government.

B. Comparison of the ARPA Model "Other Transaction" to the Air Force Model Cooperative Agreement

1. DoDGARs

The Air Force model cooperative agreement incorporates the DoDGARs by reference while the ARPA model "other transaction" makes no reference to the DoDGARs. Under the Air Force model cooperative agreement, the DoDGARs take precedence over the cooperative agreement in the event of a conflict between the two. This may cause interpretation problems. In the author's experience, the Air Force has been unwilling in negotiations to delete the DoDGARs or change the order of precedence, but has been willing to list only those sections of the DoDGARs that are applicable to eliminate interpretation problems. Parties to the agreement should ensure that only those sections of the DoDGARs that are applicable are listed.

2. Preaward Costs

The Air Force model cooperative agreement includes Article 4, "Recognition of Preaward Costs," which recognizes preaward costs as being allowable. Although such a clause is not included in the ARPA model "other transaction," ARPA has been willing to add such a clause when appropriate.

3. Termination Clauses

The Air Force model cooperative agreement includes a termination for convenience clause (Article 6B) that is similar to the termination for convenience clause in the ARPA model "other transaction." Unlike ARPA's termination clause, the Air Force's clause arguably converts the fixed-price milestone payment agreement into a cost-reimbursement type agreement for [*562] cost recovery if a termination occurs. This potentially could lead to cost recovery problems for a commercial company if it does not have adequate cost records to support a termination claim.

Unlike the ARPA model "other transaction," the Air Force model cooperative agreement includes a termination for default clause (Article 6A), although apparently no financial penalty results from a termination for default. If the cooperative agreement is terminated for default, the consortium's members are paid the Government's share of the actual costs incurred by the consortium's members under the agreement. As such, a termination for default of the cooperative agreement is treated similarly to a termination for default of a cost-reimbursement contract under FAR 52.249-6, "Termination (Cost Reimbursement)." There is, however, a potential problem with the default clause as written in that it imposes joint liability on the consortium members if one member defaults. For example, a termination for default of the cooperative agreement could cause problems to the nondefaulting consortium members with respect to the award of future contracts in which past performance is an evaluation factor.

There is no "Excusable Delays" clause in the Air Force model cooperative agreement. Thus, a company would be well advised to seek the inclusion of such a clause. The Air Force generally has been willing to include such a clause when requested by the consortium.

4. Additional Effort

Article 8, "Additional Effort," of the Air Force model cooperative agreement permits the Government to exercise prenegotiated periods of additional effort unilaterally. It may be advisable to negotiate this clause as a bilateral right. In contrast to Article 8 of the Air Force model cooperative agreement, Article II, "Term," of the ARPA model "other transaction" provides that the parties may extend by mutual agreement the term of the "other transaction" if funding availability and research opportunities reasonably warrant.

5. Title to Property

Article 14, "Title to Property," of the Air Force model cooperative agreement provides that title to all real or nonexpendable tangible personal property purchased by the consortium or consortium members with government funds under the agreement is vested in the Government. In addition, any such purchases require the prior approval of the Air Force grants officer.

In the author's experience, the Air Force has been unwilling to revise this clause to permit the consortium or its members to obtain title. The Air Force's position is that DoDGARs 34.2(a)(9), "Property Management Standards," prohibits the consortium or its members from obtaining title to nonexpendable tangible personal property purchased with government funds. As a result, if the consortium members intend to purchase tangible personal property under the cooperative agreement with government funds, they will have to establish mechanisms to track such property so that it can be accounted for as government property when performance under the cooperative agreement is complete. This can be an administrative burden and [*563] expensive for commercial companies. In addition, the requirement for prior approval to make such purchases means that all subcontracts issued for nonexpendable tangible personal property require

the prior approval of the grants officer. This also can be administratively burdensome and costly, thereby leading to delays in the research program.

The only practical solution for a commercial company that cannot easily comply is to purchase all nonexpendable tangible personal property under the cooperative agreement as part of its cost share. If this is done, the commercial company will obtain title to such property and not have to establish government property tracking systems.

In contrast to the Air Force model cooperative agreement, the ARPA model "other transaction" does not include a clause specifying which party has title to tangible personal property purchased under the "other transaction." ARPA has, however, been willing, under appropriate circumstances, to include a clause which provides that the consortium member that purchases such property obtains title.

6. Cost Principles

The Air Force model cooperative agreement includes Article 15, "Cost Principles," which contains two options for inclusion in the resulting cooperative agreement. The Air Force's preference is to incorporate the FAR and DFARS cost principles into the cooperative agreement. However, the instructions in Article 15 provide that if compliance with these cost principles would require changes to the consortium members' established cost accounting systems, the cooperative agreement may instead include a provision that the costs incurred under the cooperative agreement are allowable to the extent they would be incurred by a reasonable and prudent person and are consistent with the governing congressional authorizations and appropriations. This test, however, can be a Catch-22 for commercial companies that have already established accounting systems to comply with the FAR and DFARS cost principles, but find compliance with them to be administratively burdensome and costly.

If the consortium and the Air Force negotiate payable milestones, there should be no need to incorporate the FAR and DFARS cost principles. GAAP should apply as it does in the ARPA model "other transaction." In some cooperative agreements negotiated with payable milestones, the Air Force has been willing to rely only on GAAP, particularly when all of the consortium members are commercial companies. However, in other cooperative agreements the Air Force has required that all of the consortium members comply with the FAR and DFARS cost principles, even when one is a commercial company. If the FAR and DFARS cost principles must be used, a more reasonable approach would be to require those consortium members that are traditional government contractors to comply with the FAR and DFARS cost principles and to permit commercial companies to comply with GAAP. This was done in a cooperative agreement with payable milestones [*564] awarded to 3M by the National Science Foundation under the Technology Reinvestment Project.

7. Financial Management Systems

Article 16, "Standards for Financial Management Systems," of the Air Force model cooperative agreement includes two options for inclusion in the resulting agreement. The Air Force's preferred option is for the consortium members to establish and maintain financial management systems that comply with DoDGARs 34.2(a)(3), which requires that the standards in Attachment F to OMB Circular A-110 n129 apply. However, if compliance with DoDGARs 34.2(a)(3) would require changes to the consortium members' established accounting systems, the consortium members are permitted to comply with GAAP. The ARPA model "other transaction" contains no comparable provision.

n129 OMB Circular A-110 (July 30, 1976), *41 Fed. Reg. 32,016 (1976)*.

8. Payment

Three options for payment methods, one of which is to be used in the resulting agreement, are included in Article 19, "Payment," of the Air Force model cooperative agreement. These options are listed in order of the Air Force's preference: cost reimbursement; payable milestones, which is the payment method used in the ARPA model "other transaction"; and advance payments, which can be used only in exceptional circumstances. In the author's experience, the Air Force has been willing to negotiate payable milestones if requested by the consortium. The Air Force also has been willing to negotiate as a payable milestone the signing of the cooperative agreement, when warranted by precontract costs or other circumstances.

9. Patent Issues

a. Infringement

Under Article 23, "Patent Infringement," of the Air Force model cooperative agreement, the consortium agrees not to hold the United States Government responsible for patent infringement cases that may arise under research projects conducted under the cooperative agreement. Significantly, the clause provides that the consortium shall indemnify the Government against all claims for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark, or copyright arising under the cooperative agreement. The clause also provides that the consortium shall hold the Government harmless from any resulting liabilities and losses. Although Article 23 states that it is mandatory for every agreement, it cites no authority.

Article 23 totally reverses the risk allocation for patent infringement found in FAR-covered R&D procurement contracts. In such contracts, the Government includes FAR 52.227-1, "Authorization and Consent (Alternate I)," under which the contractor is given authorization and consent by the Government to use any United States patent in performance of the contract [*565] research. By statute, the patent owner cannot sue the contractor for damages or obtain an injunction to halt contract research performance. n130 The patent owner's only recourse is to sue the Government in the United States Court of Federal Claims to obtain reasonable compensation for use of the patent. The contractor assumes no liability for patent infringement. In contrast to FAR 52.227-1, Article 23 places the entire risk for patent infringement on the consortium. In cases where the consortium is not a legal entity, Article 23 places joint and several liability on the consortium members for patent infringement. In contrast to Article 23 in the cooperative agreement, the ARPA model "other transaction" does not include any patent indemnity clause.

n130 28 U.S.C. § 1498(a) (1948).

Taking the same position as ARPA with respect to "other transactions," the Air Force will not include an "Authorization and Consent" clause in its cooperative agreements. The Air Force (like ARPA) believes such a clause cannot be legally included in financial assistance agreements because the research is not being performed "for" the Government. This is contrary to DOE's position with respect to DOE cooperative agreements cited above. n131

n131 41 C.F.R. §§ 9-9.100, 9-9.102 (1979).

b. Patent Rights

The Air Force model cooperative agreement includes an Article 24, "Inventions," which incorporates by reference the clause entitled "Rights to Inventions Made by Nonprofit Organizations and Small Business Concerns," n132 with appropriate changes for consortium members that are large business concerns. Article 24 implements the Bayh-Dole Act, n133 under which the recipient retains title and the Government receives a nonexclusive, nontransferable, irrevocable, worldwide, paid-up license to practice or have practiced on behalf of the United States any invention conceived or first actually reduced to practice by the recipient in the performance of work under the cooperative agreement.

n132 37 C.F.R. § 401.14.

n133 Bayh-Dole Act, 35 U.S.C. §§ 200-12 (1980).

The "Inventions" clause (37 C.F.R. § 401.14) contains a paragraph similar to FAR 52.227-12(g), which prohibits the consortium members from including in their R&D subcontracts a clause that grants them rights in subcontractor subject inventions. Instead, the consortium members must negotiate separate licensing agreements with separate consideration with their R&D subcontractors to obtain rights in subcontractor subject inventions. Another alternative is for the consortium members to request that the Air Force issue an exceptional circumstance determination which would permit the consortium members to obtain rights in subcontractor subject inventions in the subcontracts themselves. n134 Either alternative is burdensome and time-consuming.

n134 *See supra* note 107.

[*566] The ARPA model "other transaction" does not contain the above restriction. However, the Air Force must include the so-called inventions clause (37 C.F.R. § 401.14) in its cooperative agreements under applicable regulations to comply with the Bayh-Dole Act, the President's Statement on Government Patent Policy, n135 and section 1(b)(4) of Executive Order 12,591. n136 This is one legal difference between "other transactions," which are not subject to the Bayh-Dole Act, n137 and cooperative agreements.

n135 President's Statement on Government Patent Policy (Feb. 18, 1983), *reprinted in* RAWICZ, PATENTS, TECHNICAL DATA AND COMPUTER SOFTWARE, SOURCE MATERIALS 1-83 (1993).

n136 Exec. No. Order 12, 591 (Apr. 10, 1987), *reprinted in* RAWICZ, PATENTS, TECHNICAL DATA AND COMPUTER SOFTWARE, SOURCE MATERIALS 2-15 (1993).

n137 H.R. REP. No. 311, 102d Cong., 1st Sess. (1991), *reprinted at* 1991 U.S.C.C.A.N. 1132.

10. Data Rights

Article 25, "Data Rights," provides that ownership rights to technical data and computer software generated under the agreement vested in the consortium. Under Article 25, the consortium grants the Government a nonexclusive, nontransferable, royalty-free, fully paid-up license to use, duplicate, or disclose for Government purposes any technical data or computer software made or developed under the cooperative agreement. Unlike the data rights clause in the ARPA model "other transaction," Article 25 does not limit the Government's rights to technical data or computer software delivered under the cooperative agreement. In the author's experience, the Air Force has been unwilling to modify Article 25.

n138 DoDGARS 37.13(h)(2).

Because the cooperative agreement in Article 2 incorporates the DoDGARS, the DoDGARS' definition of "government purposes" n138 is applicable to Article 25. The DoDGARS defines "government purpose" as being "any activity in which the United States Government is a party, but a license for government purposes does not include the right to use, or have or permit others to use, modify, reproduce, release, or disclose technical data or computer software for commercial purposes." n139 Like the ARPA model "other transaction," the Air Force's government-purpose rights in technical data and computer software do not expire and become unlimited rights after a certain time period. Therefore, the ARPA and Air Force data clauses are much more advantageous to contractors than the proposed DFARS clauses 252.227-7013, "Rights in Technical Data — Noncommercial Items," and 252.227-7014, "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation," which contain a five-year limit on government-purpose rights.

n139 *Id.*

Article 25 provides that the consortium is responsible for affixing appropriate markings on all data delivered under the cooperative agreement and that the Government shall have unlimited rights in all data delivered without [*567] markings. The data rights clause in the ARPA model "other transaction" does not address the latter issue.

Article 25 does not include the restrictions of paragraph (k), discussed above, on the prime contractor obtaining rights in subcontractors' technical data and computer software, in the proposed DFARS clauses 252.227-7013, "Rights in Technical Data — Noncommercial Items" and 252.227-7014, "Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation" for procurement contracts.

Article 25 also does not address what rights the Government receives in technical data or computer software that is delivered under the cooperative agreement that was developed entirely at private expense. If such data or software are to be delivered under the cooperative agreement, the clause should be modified to specify what rights the Government will receive in such data or software.

A provision similar to the following should be negotiated to be added to the Air Force "Data Rights" clause in accordance with DoDGARS 37.12(h)(4):

Prior to releasing data or technical data with restrictive markings to third parties, the Government shall require such third parties to agree in writing to use the data and technical data only for Government purposes and to make no further release or disclosure of the data or technical data without the prior written permission of the consortium participant which is the owner and licensor of such data and technical data.

In cases in which the consortium is not a separate legal entity, it may be advisable to modify Article 25 to provide that ownership vests in the consortium member (not the consortium) that generates the technical data or computer software. Also, the term "consortium" should be revised to read "consortium member" where appropriate elsewhere in Article 25.

Although Article 25 does not expressly state that it must be flowed down to subcontractors, the Air Force requires the

clause to be flowed down to all subcontractors that will perform experimental, developmental, or research work.

11. Foreign Access to Technology

Since the Air Force model cooperative agreement is for ARPA-funded programs, it includes the ARPA "Foreign Access to Technology" clause as Article 26. The Air Force follows ARPA's practice of negotiating a side letter granting advance approvals for transfer to foreign entities of technology generated under the cooperative agreement. If a difficult issue arises with respect to the clause, the Air Force may consult with ARPA to assist in resolution of the conflict.

12. Limitation of Liability

The Air Force model cooperative agreement includes Article 32, "Limitation of Liability," which includes indemnities in favor of the Government and imposes joint and several liability on the consortium members. The cooperative agreement states that Article 32 is mandatory in every award, but cites no authority.

[*568] Under Article 32, the consortium and consortium members agree to indemnify the Government, its employees and agents, against any liability or loss for any claim made by an employee or agent of the recipient, or persons claiming through them, for death, injury, loss, or damage to their person or property arising in connection with the agreement. The consortium and consortium members also agree to indemnify the Government for any claim made by any person or other entity for personal injury or death, or for property damage or loss, arising in any way from the agreement, including without limitation the later use, sale or other distribution of research and technical developments, whether by resulting products or otherwise, whether made or developed under the agreement, or whether contributed by either party pursuant to the agreement, except as provided under the Federal Torts Claim Act or other federal law where sovereign immunity has been waived.

In contrast to the Air Force's approach, no indemnity clauses are found in ARPA's model "other transaction." Furthermore, paragraph C, "Limitation of Damages," of the "Disputes" clause in the ARPA model "other transaction" reflects a fundamentally different policy regarding limiting each party's liabilities than the position in the Air Force model cooperative agreement. Under the "Limitation of Damages" clause, claims of any nature whatsoever pursued under the "other transaction" are limited to direct damages only up to the aggregate amount of ARPA funding disbursed at the time the dispute arises. Neither ARPA nor the consortium is liable for consequential, indirect, or special damages, except when the damages are caused by the willful misconduct of the consortium managerial personnel. Further, ARPA agrees that there is no joint and several liability within the consortium. In contrast, the Air Force model cooperative agreement places broad liabilities and indemnities (and joint and several liability) on the consortium such as patent infringement (Article 23) and other indemnities (Article 32).

In addition, the Air Force's indemnity clauses should be contrasted with the Government's approach to liabilities to third parties under FAR-covered cost reimbursement contracts. FAR-covered cost reimbursement contracts are required to include the FAR 52.228-7 "Insurance-Liability to Third Persons" clause, which provides that the Government shall indemnify the contractor from claims by third persons (including employees of the contractor) for death, bodily injury, or loss or damage to property arising out of performance of the contract, to the extent the claim is not covered by insurance or otherwise. The Government's indemnity obligations are subject to the availability of appropriated funds at the time a contingency occurs.

The Air Force has been willing in some negotiations to delete its indemnity clauses and substitute in their place a clause similar to Article C, "Limitation of Damages," of ARPA's Disputes clause.

13. Procurement Standards

Article 34, "Procurement Standards," of the Air Force cooperative agreement requires the consortium and consortium members to comply with federal statutes, executive orders, regulations, and other legal requirements [*569] applicable to subcontracts entered into under the cooperative agreement. Because of the vagueness of this clause, it is advisable to request the grants officer provide a list of the applicable statutes, executive orders, regulations, and other legal requirements.

DoDGARs 34.2(a)(11) states that grants officers may use Attachment O (procurement standards) to OMB Circular A-110 n140 as guidance and need not specifically incorporate its provisions into cooperative agreements. DoDGARs 34.2(b) also states that cooperative agreements that are awarded to commercial organizations pursuant to *10 U.S.C. § 2371* (now *10 U.S.C. § 2358*) may incorporate different administrative requirements than those provided for in 34.2(a).

n140 OMB Circular A-110 (July 30, 1976), *41 Fed. Reg. 32,016 (1976)*.

Attachment O to OMB Circular A-110 n141 includes government procurement standards for subcontracting. If Attachment O is made applicable to the cooperative agreement, commercial companies will have to establish special procedures in their purchasing departments that differ significantly from their normal commercial practices. Most commercial companies will find such special procedures to be administratively burdensome and costly to implement. For example, Attachment O requires that subcontracts be placed on a competitive basis to the maximum extent practicable. This is contrary to the standard practice of many commercial companies, which have found it to be more economical and beneficial in the long run to establish long-term contractual relationships with proven suppliers. Attachment O also requires advance approval by the Government of all proposed sole source subcontracts and all proposed subcontracts when only one bid is received if the aggregate expenditure is expected to exceed \$5,000.

n141 *Id.*

In addition, subcontracts are required to include certain special flowdown terms and conditions, such as: termination for convenience; equal employment opportunity (over \$10,000); audit by the contractor, the federal sponsoring agency and the Comptroller General of the United States (over \$10,000); and compliance with the Clean Air Act of 1970 and the Federal Water Pollution Control Act (over \$100,000). Moreover, some form of price or cost analysis must be made in connection with every procurement action. Finally, special procurement records and files must be established and maintained for purchases over \$10,000. The Air Force has required Attachment O to apply to some cooperative agreements but not to others, depending on who is negotiating for the Air Force.

In contrast, ARPA's model "other transaction" permits contractors to use their commercial purchasing practices when issuing subcontracts. Neither Attachment O to OMB Circular A-110 nor any similar requirement applies to the ARPA model "other transaction." Therefore, the ARPA model "other transaction" contains no requirements for advance approval of the award of subcontracts, subcontract competition, or establishing special purchasing [*570] files. There are no flowdown terms and conditions for subcontracts issued under the ARPA model "other transaction," except for R&D subcontracts. R&D subcontracts issued under the ARPA model "other transaction" must include the ARPA patent and data rights clauses and the "Foreign Access to Technology" clause.

14. Certifications

Article 35, "Certification," of the Air Force model cooperative agreement includes certain certifications that are required by law or regulation for DoD cooperative agreements. They include drug-free workplace; n142 debarment, suspension, and other responsibility matters; n143 lobbying; n144 Nondiscrimination on the Basis of Handicap in Programs Conducted by DoD; n145 and Nondiscrimination in Federally Assisted Programs of the DoD — Effectuation of Title IV of the Civil Rights Act of 1964. n146

n142 32 C.F.R. part 25.

n143 *Id.*

n144 32 C.F.R. part 28.

n145 32 C.F.R. Part 56.9(b).

n146 32 C.F.R. Part 195.6.

All the certifications (except for drug-free workplace n147) must be flowed down by law or regulation to subcontracts over certain dollar thresholds. This is another legal difference between cooperative agreements and "other transactions," in that "other transactions" do not require any certifications to be obtained from subcontractors.

n147 OFFICE OF MANAGEMENT AND BUDGET, "Government-Wide Requirements for Drug-Free Workplace Act," Final Rule, May 25, 1990, ques. 4, (CCH P99,205).

Commercial companies must establish special procedures in their purchasing departments to obtain certifications required by law or regulation from subcontractors under cooperative agreements. This will be true even for those cooperative agreements when the Air Force has agreed to not make Attachment O to OMB Circular A-110 applicable to the cooperative agreement. Although this may seem like a small issue, it can be a costly and burdensome requirement to

administer in commercial companies.

15. Significant Distinctions Between the Air Force Model Cooperative Agreement and the ARPA Model "Other Transaction"

In summary, there are three legal requirements that are mandated by law or regulation to be included in the Air Force model cooperative agreement but are not required in an "other transaction":

(1) The statutory requirements of the Bayh-Dole Act. The most significant requirement of the Act is that the Government obtain a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the Government any invention conceived or first actually reduced to practice by the contractor under the cooperative agreement for which the contractor elects to retain title. Another significant requirement is that the contractor must disclose each such invention to the Government within a reasonable period of time after the contractor becomes aware of the invention. [*571] A contractor's failure to provide timely disclosure may result in reversion of title to the invention to the Government. Also, if the contractor decides not to elect to obtain title to the invention or fails to elect title to such invention in a timely manner, it must convey title to the invention to the Government upon the Government's written request. This issue is discussed in paragraph 17 of Section VI below.

(2) The requirement in 37 C.F.R. § 401.3 that the Invention Clause in 37 C.F.R. § 401.14 be included in the cooperative agreement to implement the policy of the Bayh-Dole Act. Paragraph (g) of that clause contains the restriction that the prime contractor cannot obtain in any R&D subcontract any rights in an R&D subcontractor's subject inventions in the subcontract itself. The only alternatives are for the consortium members to: (a) request that an exceptional circumstance determination be issued by the agency permitting the consortium members to obtain such rights in their R&D subcontracts; or (b) enter into separate licensing agreements with their R&D subcontractors, with separate consideration given for such rights. n148

n148 Another government R&D program that is not subject to the restriction on prime contractors obtaining rights in their subcontractor subject inventions set forth in paragraph (g) of FAR 52.227-12 and paragraph (g) 37 C.F.R. § 401.14 is the National Institute of Standards and Technology's Advanced Technology Program (ATP), 15 U.S.C. § 278(n). The ATP is designed to assist United States businesses to develop and commercialize new technologies to make them more competitive in the world marketplace. The ATP has a separate patent statute that states that the Government may, but is not required to, retain a nonexclusive, nontransferable, irrevocable, paid-up license for government purposes in subject inventions made by contractors and subcontractors. Therefore, the ATP is not subject to the Bayh-Dole Act. However, the ATP patent clause included in ATP cooperative agreements provides that the Government obtains such government-purpose license rights. *See* NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY, GENERAL TERMS AND CONDITIONS/ATP-JV/9-94, cl. 13b, Patent Rights.

(3) The requirement to flow down to subcontractors certain certifications required by law or regulation for subcontracts over certain dollar thresholds issued under the Air Force model cooperative agreement.

VI. Experience of Participants and ARPA with "Other Transactions"

A. Participants' Experience

ARPA's use of "other transactions" has been questioned by some congressional staff members and government procurement officials since ARPA first received authority to issue them in 1989. n149 A review of ARPA's use of "other transactions" currently is being conducted by the General Accounting Office. ARPA itself tasked the Institute for Defense Analysis (IDA) to perform an independent, critical review of its use of "other transactions." IDA contacted companies that have been awarded ARPA "other transactions" [*572] and obtained their comments. A draft report of the IDA study found the following opinions regarding ARPA "other transactions." n150

n149 INSTITUTE FOR DEFENSE ANALYSIS, DRAFT REPORT: PARTICIPANT VIEWS OF ARPA "OTHER TRANSACTIONS" (1995).

n150 *Id.* at 1-20.

(1) Some companies would not have participated in the government R&D program but for the availability of the "other

transaction" and its flexibility. The reasons cited for this position included the rigidity of mandated intellectual property sharing and protection in standard contracts, grants, and cooperative agreements; the intrusiveness and complexity of required government accounting systems in standard contracts, grants, and cooperative agreements; and the requirements imposed on supplier/subcontractor relationships in standard contracts, grants, and cooperative agreements.

(2) The "other transaction" is an excellent way to fund research efforts when the parties do not know in advance what the results will be. The approach allows the participants to concentrate on doing R&D, not on program administration.

(3) Flexibility was cited by most companies as the key element of effectiveness of the "other transaction." Participants expressed the opinion that management by a steering committee allows changes of scope and technical direction to be made easily and fosters free and open sharing of ideas, "like a commercial program." The "other transaction" gives the flexibility to restructure the R&D easily, e.g., to make "mid-course corrections." The statement of work can be easily altered as needed as the research progresses and as the results of the research suggest new avenues for investigation. The flexibility of the ARPA program manager and Contracting Officer made changing the schedule in response to changing research needs easy. Time was spent on technical work and not on reports that added no value to the project.

(4) Efficiency is increased through use of an "other transaction." If the consortium works well together, the members can develop resources at a much faster pace.

(5) It is much easier to deal with subcontractors/suppliers under an "other transaction," which encourages the formation or use of long-standing relationships.

(6) Getting a new consortium started is often difficult. Use of a consortium may lead to initial delays, poor administration, and diminished effectiveness in meeting program goals. Creating a consortium can be a time-consuming process for which time should be allocated at the beginning. Some early delays were caused by a lack of understanding by participants regarding how to set up a consortium but careful, deliberate planning of intercompany communications facilitates the process. Care and time must be spent early in resolving difficult issues, such as negotiating the intellectual property rights of consortium participants. The selection of appropriate participants and leader of the consortium is critical.

[*573] (7) Contract administration in the FAR sense does not exist in "other transactions," only "project administration" is required. Changes can be made without the rigid procedural requirements typical of FAR-covered contracts. The improvement in contract administration was noted regardless whether the consortium program administrator was a consortium member, an "outside" contractor, or a university.

(8) Savings in overhead costs were attributed to reduced reporting requirements. In addition, some subcontractors and suppliers charged lower rates because the FAR rules did not apply.

(9) Companies without CAS-based accounting systems were able to participate in "other transactions," while organizations with CAS-based accounting systems could use them if they desired.

(10) Reporting requirements were generally described as minimal, but sufficient. Reporting could be tailored to the needs of the project and the participants.

(11) There were generally lower project costs than would exist under a standard contract, grant, or cooperative agreement. There also was generally higher researcher productivity.

(12) Consortia are an excellent way to bring together the right mix of capabilities and participants. However, to maximize effectiveness, team-building must precede planning and executing the research effort.

(13) Finding the right leader for the consortium is critical. Sometimes the leader should be a consortium participant. In other cases, it should be an independent entity such as a university or government laboratory.

(14) Milestone payments enhance flexibility because, unlike fixed deliverables, they are easy to change according to the terms of the "other transaction" as the research agenda evolves. The existence of milestones themselves can be a powerful stimulus to keep the research work on track. Moreover, they are more compatible with the use of best engineering judgment than are fixed deliverables.

(15) The "Foreign Access to Technology" clause was generally not an issue. Some concerns were raised among participants about foreign employees of consortium members and foreign students at participating universities. However, generally provisions in the clause permitting waivers to be granted when needed during performance of an "other

transaction" were invoked without difficulty.

(16) The flexibility allowed under an "other transaction" with respect to intellectual property rights permits sharing of such rights in the manner deemed best appropriate by the participants. Only an "other transaction" offers this flexibility, which allows research projects and participants that otherwise would not have been possible.

(17) The patent clauses included in standard contracts, grants, and cooperative agreements subject to the Bayh-Dole Act require the inventor company to file a patent to obtain title to an invention conceived or first actually reduced to practice under such contract, grant, or cooperative agreement, or, if [*574] the inventor company does not elect to do so or fails to elect to do so in a timely manner, to convey title to such invention to the Government upon the latter's written request. The inventor company does not have the option of seeking only trade secret protection on such an invention (see, e.g., FAR 52.227-12, paragraphs (d)(1) and (d)(2); and 37 C.F.R. § 414.14, paragraph (d)(1)). In contrast, the patent clause in an "other transaction" can be modified under appropriate circumstances to permit trade secret protection as an option for the inventor company. The availability under "other transactions" of trade secret protection instead of mandatory patents allowed some companies to participate that would not have otherwise under the standard patent clauses.

(18) Within the consortium itself, the problem of intellectual property rights may be a difficult issue at first but the problem generally evaporates in most cases as a sense of trust emerges among consortium members.

(19) With respect to the potential for waste, fraud, and abuse under an "other transaction," no participant saw any significantly greater risk than under a procurement contract. Some perceived less risk because there are fewer complex rules to follow. The consortium organization also was regarded as a favorable factor because the participants police each other. In addition, the cost share limits the risk of waste because part of any money wasted is viewed as belonging to the participants. The use of milestone payments also limited risk by basing payments and reporting on technical progress made, not costs incurred.

(20) Some participants viewed cost-sharing as a test of commitment. They expressed the opinion that a cost-sharing requirement eliminates those who just "do government contracts." However, other participants expressed the opinion that cost-sharing can be difficult for small businesses and not-for-profit organizations, where money for cost-sharing is often hard to obtain. This problem may call for additional flexibility in allowing in-kind cost share. Smaller businesses, in particular, would like relief from the 50/50 cost-sharing requirements, including more flexibility in allowing non-cash cost share.

(21) Cost-sharing should be adjusted for risk (including market risk). Cost share ratios lower than 50/50 for consortia may be appropriate in higher risk projects. Some projects should require no cost-sharing.

The IDA draft study proposed the following tentative conclusions regarding ARPA's use of "other transactions." First, "other transactions" are an excellent way to perform government-funded research despite the steep learning curve associated with team building in consortia. Second, much of the research work done under "other transactions" could not have been accomplished under any other funding instrument.

B. ARPA's Experiences

ARPA has issued written "Questions and Answers" regarding "other transactions," which cite substantial benefits to ARPA. n151 Use of "other transactions" [*575] has allowed ARPA to: n152

- (1) Deal with strictly commercial firms that could not or would not accept a standard cost-reimbursement R&D contract.
- (2) Support consortia with diverse or even competing participants without requiring either: (a) a prime/subcontractor relationship which may be inappropriate, or, (b) the parties to form a nonprofit research corporation.
- (3) Enter into cost-sharing collaborative relationships where industry shares costs with IR&D, making IR&D efforts more relevant.
- (4) Avoid costs associated with loading of funding through a prime contractor to a subcontractor.
- (5) Avoid government procurement requirements (and similar requirements applicable to the financial assistance system) that may not add value to the project and stifle innovation.

- (6) Encourage collaborations among defense contractors and commercial firms to their mutual advantage.
- (7) Develop innovative methods of competition without regard to procurement laws.

n151 QUESTIONS & ANSWERS ABOUT ARPA OTHER TRANSACTIONS, *supra* note 1, at 7-8.

n152 *Id.*

VII. Recommended Legislative Changes

Both the DoD and industry participants have benefited from ARPA's use of "other transactions," as the IDA study demonstrates. However, certain barriers exist that prevent the Government and industry from making full use of "other transactions." The following legislative changes should be made:

(1) All government agencies should be given authority similar to that of DoD to issue "other transactions" for funding basic, advanced, and applied research projects. n153

(2) Cost-sharing up to 50 percent by nongovernment entities should be required only when appropriate for the project involved. Much greater flexibility should be given with respect to cost-sharing. Cost-sharing should be adjusted for risk, including market risk. Cost-sharing ratios lower than 50 percent for nongovernment entities should be used in higher risk projects. Some projects may involve sufficient risk (i.e., a high-risk research project with an initially small market for sales, such as development of batteries to power electric cars) that no cost-sharing should be required. Cost-sharing should be broadly defined to include in-kind cost share such as IR&D.

(3) All government agencies should also be given permanent authority similar to ARPA's test authority to issue "other transactions" to carry out prototype projects of interest to the agency involved. "Other transactions" for "prototype projects" should not be subject to any cost-sharing requirement [*576] or the requirement to determine that use of a standard procurement contract, grant, or cooperative agreement is not feasible or appropriate. The government agency should be required to use competitive procedures to the maximum extent practicable when awarding "other transactions" for prototype projects.

(4) All government agencies should be given authority to issue "other transactions" in the Small Business Innovation Research Program. n154 Since such "other transactions" will be issued to small businesses, they should not be subject to any cost-sharing requirement or the requirement to determine that the use of a standard procurement contract, grant, or cooperative agreement is not feasible or appropriate.

(5) The law giving all government agencies the authority to enter into "other transactions" should expressly state that "other transactions" are not subject to the Bayh-Dole Act's policies regarding allocation of patent rights to inventions.

n153 Certain agencies other than DoD already have separate authority to enter into "other transactions," such as NASA under 42 U.S.C. § 2473(c)(5). The Department of Transportation has authority to issue "other transactions" under the Technology Reinvestment Project pursuant to Pub. L. No. 103-331, 108 Stat. 2493, § 329A (Supp. 1994).

n154 Federal agencies with a budget for "extramural" R&D of more than \$100 million are required to expend an increasing percentage (starting at 1.25% in FY1992) of their annual R&D budgets on SBIR contracts. These contracts are issued in two phases. Phase I is for up to \$100,000 to demonstrate the feasibility of the innovation, and Phase II is for up to \$750,000 for development of the innovation. *See* Small Business Innovation Development Act of 1982, Pub. L. 97-219, *as amended* by the Small Business Research and Development Enhancement Act, Pub. L. No. 102-546, 106 Stat. 4249, 15 U.S.C. § 631-656 (1992 Supp.).

VIII. Conclusion

An intangible but important benefit that results from use of the DoD "other transaction" authority is the fact that both the Government and the contractor can enter into negotiations without being encumbered by the many laws, regulations, and agency policies that apply to traditional contracts, grants, and cooperative agreements. As a result, "other transactions" offer both parties the maximum flexibility to experiment with new streamlined contracting alternatives. In addition, use of "other transactions" can assist the Government in overcoming a culture of excessive documentation and control.

The intent of DoD's "other transactions" statute is to stimulate development of technology with potential for both military and commercial application and to help remove barriers to integrating the defense and civilian sectors of the nation's technological and industrial bases. The use of "other transactions" should be strongly encouraged within DoD. All DoD agencies should follow ARPA's lead in developing innovative contracting methods to streamline the contracting process. DoD's greater use of "other transactions" will encourage more of the country's most innovative commercial companies to participate in DoD-funded R&D programs, which will greatly assist DoD in its efforts to preserve and broaden the United States technological and [*577] industrial bases by increasing the use of dual-use technologies and commercial products. Moreover, Congress should expand the authority to issue "other transactions" to all government agencies so that they may receive the same benefits that "other transactions" offer DoD.