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Intellectual Property and Technical Data in DOD Acquisitions

The Department of Defense (DOD) relies extensively on the organizations that comprise the defense industrial base (DIB). These entities provide the products and services that enable DOD's business operations and warfighting capabilities. In some situations, DOD must also consider the need to obtain intellectual property (IP) and technical data rights in order to operate and maintain the capabilities it acquires. IP rights have grown in importance to DOD as U.S. defense research and development (R&D) spending as a share of global R&D spending has declined—and IP rights are also increasingly important to DIB entities who rely on their portfolios of developed IP to generate profits from their R&D investments. Observers such as the Government Accountability Office (GAO) have said that DOD has not always been consistent in its acquisition and licensing of IP developed at private expense in the past, resulting in “reduced mission readiness and surging sustainment costs” in some instances. In recognition of these trends, Congress has directed DOD to take a number of actions to improve policies and processes for how DOD acquires IP.

Intellectual Property

IP is described broadly as a work or invention that (1) is the product of the human intellect and (2) is protected from certain unauthorized use. Four types of IP protected by federal law are patents, copyrights, trademarks, and trade secrets. These federal laws (and, in some cases, state laws) seek to encourage innovation by providing legal protections for the creation or invention of unique ideas or products. A patent, for example, is a written instrument issued by the U.S. Patent and Trademark Office (see Title 35 of the U.S. Code) that describes an invention and grants the inventor(s) the exclusive right to make, use, import, and sell the invention within the United States for a period of up to 20 years.

Within the context of defense acquisitions, the Bayh-Dole Act of 1980 (P.L. 96-517) governs patent rights for inventions made with federal support. Congress passed the Bayh-Dole Act in part to address concerns about the commercialization of technology developed with public funds. Under Bayh-Dole, a federal contractor may elect to retain the patent rights for a federally funded invention, giving the contractor exclusive rights in the invention during the patent's term. In exchange, the contractor must provide the federal agency with a free government-use license. Although the Bayh-Dole Act only applies to federal contractors that are nonprofit organizations or small businesses, procurement regulations have applied Bayh-Dole's allocation of patent rights to all federal contractors, regardless of size.

IP and Technical Data

A subset of IP issues with particular importance for DOD are *data rights*, an umbrella term for DOD's rights to the technical data, computer software, and computer software documentation developed under DOD contract. *Technical data*, as defined by 10 U.S.C. §3013, includes “information ... of a scientific or technical nature (including computer software documentation) relating to supplies procured by an agency ... and does not include computer software or financial, administrative, cost or pricing, or management data or other information incidental to contract administration.” For DOD applications, technical data is considered to be information describing or related to a contractor-built item needed in order to be able to install, operate, maintain, repair, or replace that item at a later date.

A *right to use* information is separate from *ownership* of that information. In federal contracting, companies generally retain ownership, or *title*, to technical data and convey a *license* to use that data to the federal government. IP rights with respect to technical data generally refers to authorization granted by the contractor for DOD to engage in activities that require accessing or modifying the underlying IP. During the contracting process, DOD program managers must assess a program's future IP-related activities. If IP such as technical data is deemed necessary for the future acquisition, modification, upgrade, or sustainment of the program, DOD must often make trade-offs amongst factors such as negotiating for access to those deliverables and associated licenses, or contracting with the IP holder to perform required work at a later date. 10 U.S.C. §3771 specifies how technical data license rights are established in the DOD contracting process. With some exceptions, those rights depend on who paid for the development of the item in question – the federal government or private entities:

- Where an item or process was developed by a contractor or subcontractor exclusively through federal funding, the United States is granted unlimited rights to “use technical data pertaining to the item or process” or “release or disclose the technical data to persons outside the government or permit the use of the technical data by such persons.” Under the Small Business Act (P.L. 85-536), small businesses retain technical data rights for contracts awarded under the Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (STTR) programs “for a period of not less than 4 years.”
- Where an item or process was developed by a contractor exclusively through private funding, the contractor may restrict DOD from releasing or disclosing associated technical data. Exceptions to this rule are set forth in 10 U.S.C. §3771, and include technical data related to *form*,

fit, or function, referencing the identifying characteristics of a particular system component, and technical data that is necessary for operation, maintenance, installation, or training (known as OMIT) of a government procured item.

- Where an item or process was developed by a contractor through a combination of federal and private funding, technical data rights are to be established “as early in the acquisition process as practicable” with the United States granted *government purpose rights* for the use of technical data pertaining to the item or process by default. *Government purpose rights* refers to the right to use, duplicate, or disclose technical data for DOD purposes only, and to have or permit others to do so for DOD purposes only. DOD purposes may include competitive procurement, but do not include the right to permit others to use the data for commercial purposes.

10 U.S.C. §3771 also authorizes the Secretary of Defense to determine that “negotiation of different rights ... would be in the best interest” of DOD. Factors for consideration include “increasing competition and lowering costs by developing and locating alternative sources of supply and manufacture.” Requiring a contractor or subcontractor to “sell or otherwise relinquish” technical data rights to the United States is generally prohibited. Current DOD IP policy emphasizes the need for “early and effective understanding, planning, and communications between the U.S. Government and industry.” DOD has also required each program to have a “robust IP strategy ... throughout the entire product life cycle.”

Considerations for Congress

In the FY2016 National Defense Authorization Act (NDAA), Congress established the Section 813 Panel, a special advisory group of government and industry experts tasked with reviewing technical data rights, restrictions, and regulations. This advisory group published its final report in November 2018. The report identified persistent “tension points of disagreement” between the government and private industry. Each “tension point” is unique, but each generally arises from private entities and DOD approaching IP from diametrically opposite perspectives. A private entity usually sees IP as a capital asset representing significant investments of company time and resources, and a source of its ability to retain market competitiveness and generate future income. IBM, for example, reports earning over \$27 billion in income generated by its IP since 1996. As such, private entities generally want to protect their IP to preserve the future monetary value of this asset. This protection can include control over matters such as who has the right to use the associated technical data. DIB entities may be particularly sensitive to situations where competitors could potentially access their IP.

To aid in incentivizing investment and development of warfighting solutions by the DIB, Congress could direct DOD to increase its protections of private sector IP rights. However, such protection could potentially limit DOD’s rights to the IP and technical data associated with weapon systems developed in whole or in part by private industry. Some implications include “vendor lock,” a situation where the government is effectively forced to continue working

with the sole contractor who can provide or repair a specific part or piece of equipment. Some analysts argue that when DOD does not have IP rights, entities have minimal incentives to respond to government requirements for delivery and performance, and may not be willing to negotiate a fair and reasonable price for affected items. Further implications include issues associated with program upgrades and sustainment costs over the lengthening lifespans of some DOD weapon systems.

DOD has taken some steps to address aspects of these issues, such as reverse-engineering efforts and calling for the creation of government-developed technical data for some types of parts in order to ensure future availability of these components on a cost-effective basis. Other analysts contend that some DIB entities do not work with DOD due to concerns that their IP rights will not be adequately protected, and argue that DOD should prioritize buying or negotiating for access to such IP rights.

Congress, acting in part on the recommendations of the 813 Panel, has mandated changes to DOD’s acquisition and use of IP in recent years, including:

- creating a preference for specially-negotiated licenses for technical data in major weapon systems or subsystems of a major weapon system;
- requiring DOD to establish an IP policy that, in part, encourages customized IP strategies for each system based on factors such as the unique characteristics of the system and its components, and the commercial market;
- establishing an IP Cadre to provide DOD with expert, consistent guidance on acquiring and licensing IP ; and
- creating a pilot program to allow DOD to investigate various mechanisms for IP evaluation and valuation.

A 2021 GAO report suggested that while DOD had implemented these changes, some elements, such as the IP Cadre, had not yet been institutionalized. GAO found that DOD funding and staffing levels for the IP Cadre remain uncertain, and noted that DOD has not yet detailed elements of how the IP Cadre will carry out its responsibilities. GAO also found that DOD currently does not have centralized oversight of acquired or licensed IP and data rights, creating the potential for duplicative purchases; DOD officials have indicated that initial steps have been taken to resolve this capability gap.

Additional Resources

Final Report of the Section 813 Panel, <https://tinyurl.com/Section813Report>

GAO Report *Defense Acquisitions: DOD Should Take Additional Actions to Improve How It Approaches Intellectual Property*, <https://www.gao.gov/products/gao-22-104752>

CRS In Focus IF10986, *Intellectual Property Law: A Brief Introduction*

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