

BRIEFING PAPERS[®] SECOND SERIES

PRACTICAL TIGHT-KNIT BRIEFINGS INCLUDING ACTION GUIDELINES ON GOVERNMENT CONTRACT TOPICS

IP RIGHTS UNDER NASA AND DOD “OTHER TRANSACTION” AGREEMENTS— INVENTIONS AND PATENTS

By Daniel J. Kelly*

There are 11 federal agencies authorized by Congress to enter into other transaction agreements (OTAs).¹ In the past six years, the use of OTAs has more than doubled (going from \$1 billion in fiscal year 2012 to \$2.3 billion in fiscal year 2017).² The increases are most assuredly due to U.S. concerns of losing the technology race with countries considered our adversaries and the increased need to take advantage of developing commercial technologies from companies adverse to traditional procurements.³ This BRIEFING PAPER focuses on the treatment of rights to inventions and patents in OTAs used by the Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA). Concerns about the technology race and bringing new commercial technologies to the Government marketplace led Congress to authorize OTAs for NASA in 1958⁴ and DOD in 1989.⁵

DOD and NASA OTAs are unmoored from traditional statutes and regulations governing procurement of contracts, grants, cooperative agreements, and cooperative research and development agreements, including those addressing the allocation of intellectual property (IP) rights.⁶ OTAs are catnip for technology companies lured by the promise of a streamlined contracting process with built-in flexibilities to give them maximum protection of preexisting IP and the benefits of IP produced under the OTA.

After providing background on DOD's and NASA's use of OTAs, this BRIEFING PAPER is organized in two main parts. To provide context, it first describes DOD's and NASA's treatment of patent rights under traditional funding instruments, as prescribed principally by the Bayh-Dole Act or Patent and Trademark Law Amendments Act⁷ and the IP provisions of the National Aeronautics and Space Act of 1958,⁸ and regulations and clauses promulgated thereunder. It then describes and contrasts the treatment of patent rights by DOD and NASA under their OTA authority.

This BRIEFING PAPER finds that both agencies are falling back on traditional

*Daniel J. Kelly is a Partner in the Government Contracts and Export Controls Group of McCarter & English LLP's Boston, MA office. He can be reached by email at dkelly@mccarter.com or by phone at (617) 449-6526.

IN THIS ISSUE:

Background	2
Part I—Patent Rights Under Non-OTAs	3
The Bayh-Dole Act	3
NASA Contracts With Large For-Profit Businesses	8
Restraints Under Bayh-Dole	10
Part II—Patent Rights Under OTAs	10
OTAs Under DOD	10
OTAs Under NASA	17
Summary	22
Guidelines	22



clauses in their OTA policies and forms despite the freedoms offered by the OTA statutes to craft a license agreement governing inventions and patents providing more benefits and fewer risks to new entrants to the federal marketplace. This PAPER is designed to show where flexibility exists under the OTA mechanism and highlight examples and opportunities where the parties, respectively, have diverged and can diverge from traditional terms and conditions governing patent rights to enter into an agreement where the risks and rewards are properly balanced.

Background

DOD

The biggest expenditures using the OTA vehicle have been incurred by DOD, totaling \$5.5 billion in the years 2012 to 2017, and making up two thirds of the OTA spending.⁹ Despite such spending levels, DOD has recently been admonished to step up their use.¹⁰ With the passage of the National Defense Authorization Act for Fiscal Year 2018 (FY 2018 NDAA), Congress instructed DOD to “establish a preference” for using other transactions in “the execution of science and technology and prototyping programs.”¹¹ In writing the legislation, Congress expressed frustration with DOD’s “ongoing lack of awareness and education regarding other transactions, particularly among senior leaders, contracting professionals, and lawyers,” and the need to tolerate “more risk”—“mitigated through various means from oversight to program design and acquisition strategies,” in order to increase the “development and fielding of critical new capabilities.”¹² The John S. McCain National Defense Authorization Act for Fiscal Year 2019, signed by the President on August 13, 2018, instructs DOD to collect data on the use of OTAs so that the Assistant Secretary of Defense for Acquisition can “analyze and leverage the data . . . to update policy and guidance” on the use of OTAs,

and to produce for four years an annual report, beginning on December 31, 2018, on DOD’s use of OTAs, to include “highlights of successes and challenges using the authority, using case examples.”¹³

DOD’s authority is limited to research and prototype projects under 10 U.S.C.A. § 2371 and § 2371b. DOD’s OTA prototype authority permits DOD to issue a follow-on sole source production contract once the prototype project is successfully completed.¹⁴ Leading the way is DOD’s Defense Innovation Unit (Experimental) (DIUx), formed in August 2015 to “accelerate the development, procurement, and integration of commercially-derived disruptive capabilities to regain our technological lead in offensive and defensive capabilities.”¹⁵ Through its Commercial Solutions Opening (CSO) rapid-fire simple contracting vehicle, DIUx issued 48 prototype projects for a total of \$104 million in 2017 alone,¹⁶ and through February 2018, 61 OTA prototype projects totaling \$145 million and averaging 78 days from initial contact to contract execution.¹⁷ For the first time in the history of DOD’s authority under 10 U.S.C.A. § 2371b, it has transitioned at least two prototype projects to production contracts;¹⁸ however, one of those OTAs, an award to REAN Cloud LLC for \$65 million for cloud migration services, was successfully protested on the ground that DOD did not comply with § 2371b’s statutory requirements that the prototype OTA specifically provide for the award of a follow-on production contract and that, prior to the award of such contract, the prototype OTA must be successfully completed.¹⁹

NASA

NASA is the most active agency in executing OTAs (known as Space Act Agreements (SAAs)),²⁰ currently identifying 1204 active SAAs with domestic commercial, state, local government, and nonprofit partners and 748 ac-

Editor: Valerie L. Gross

©2018 Thomson Reuters. All rights reserved.

For authorization to photocopy, please contact the **West’s Copyright Clearance Center** at 222 Rosewood Drive, Danvers, MA 01923, USA (978) 750-8400; fax (978) 646-8600 or **West’s Copyright Services** at 610 Opperman Drive, Eagan, MN 55123, fax (651) 687-7551. Please outline the specific material involved, the number of copies you wish to distribute and the purpose or format of the use.

This publication was created to provide you with accurate and authoritative information concerning the subject matter covered; however, this publication was not necessarily prepared by persons licensed to practice law in a particular jurisdiction. The publisher is not engaged in rendering legal or other professional advice and this publication is not a substitute for the advice of an attorney. If you require legal or other expert advice, you should seek the services of a competent attorney or other professional.

Briefing Papers® (ISSN 0007-0025) is published monthly, except January (two issues) and copyrighted by Thomson Reuters, 610 Opperman Drive, P.O. Box 64526, St. Paul, MN 55164-0526. Customer Service: (800) 328-4880. Periodical Postage paid at St. Paul, MN. POSTMASTER: Send address changes to *Briefing Papers*, 610 Opperman Drive, P.O. Box 64526, St. Paul, MN 55164-0526.

tive international SAAs.²¹ Unlike DOD, NASA's OTA authority is unlimited. NASA's Commercial Crew Development (CCDev) Program initiatives designed to stimulate efforts within the private sector to develop system concepts capabilities leading to commercial human spaceflight services have resulted in \$1.43 billion in SAAs since 2009.²² NASA's CCDev Program was recently favorably cited by the President of the Commercial Spaceflight Federation and member of the White House National Space Council User Advisory Group, noting the DOD's "acquisition system's inability to swiftly take advantage of commercial innovation."²³ Indeed, President Trump's June 2018 announcement and order to the Pentagon to create a U.S. Space Force "separate but equal" to Department of the Air Force was seen as a rebuke to the Air Force's ability to field space systems in a timely manner.²⁴

What Are OTAs?

OTAs are not defined by statute except to say that they are transactions other than contracts, grants, or cooperative agreements.²⁵ They spring not from a universal law or regulation applicable to all federal agencies, but rather from a diverse set of permanent and temporary statutes²⁶ (and limited implementing regulations) unique to 11 federal agencies.²⁷ They are developed primarily based on policy statements and form agreements issued by each of the respective agencies under their authorizing statutes.²⁸

As a result, OTAs are exempt from the principal statute and implementing regulations addressing IP rights in inventions conceived or reduced to practice under DOD and NASA Government-funded or partially Government-funded procurement, research, and assistance vehicles—the Bayh-Dole Act,²⁹ 35 C.F.R. Part 401, Federal Acquisition Regulation (FAR) Subpart 27.3, Defense FAR Supplement (DFARS) Subpart 227.3; NASA FAR Supplement (NFS) Subpart 1827.3; and pertinent sections of Titles 2 and 32 of the Code of Federal Regulations (governing grants and cooperative agreements). One important exception to this rule is the Space Act³⁰ and its implementing regulations, governing, in part rights in inventions for large for-profit businesses under the National Aeronautics and Space Program, whose broad statutory authority extends to OTAs.³¹

Part I—Patent Rights Under Non-OTAs

Part I of this BRIEFING PAPER provides an overview of DOD's and NASA's treatment of patent rights under traditional funding instruments.

The Bayh-Dole Act

Patent rights refer to the Government's rights to "practice" an invention or discovery, that is, or will be, protected by a patent under U.S. law and under corresponding foreign laws. 35 U.S.C.A. § 101 provides for the patentability of "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" (i.e., utility patents). 35 U.S.C.A. § 171 provides for the patentability of "new, original and ornamental design for an article of manufacture" (i.e., design patents).³² 35 U.S.C.A. § 154 provides for a grant of a right to "exclude others from making, using, offering for sale, or selling" a patented invention (or products made by a process which is an invention) "throughout the United States, or importing [the invention] into the United States" for a period of 20 years.³³

The principal statute governing the allocation of rights to inventions subject to patent protection under Government procurements is the Bayh-Dole Act.³⁴ The statute applies to "funding agreements" defined as "any *contract, grant, or cooperative agreement* entered into between any Federal agency. . . and any contractor for the performance of experimental, developmental, or research work funded in whole or in part by the Federal Government."³⁵ Although the statute was originally applicable only to small businesses and nonprofit organizations, it was extended to large for-profit businesses by a Presidential Memorandum in 1983.³⁶ The Bayh-Dole Act in a nutshell permits an entity to retain title to inventions developed with federal funding with the Government receiving an unlimited royalty-free license to practice the invention throughout the world for Government purposes.³⁷

Bayh-Dole specifically provides that individual agencies may provide for different allocation of rights (including keeping the right to title) with respect to entities that are not small businesses and nonprofit organizations; however, Bayh-Dole mandates that all funding agreements include a broad Government purpose license right (in the event the contractor is given title)³⁸ and "march-in rights"³⁹ permitting the Government to request title in the event certain conditions occur (as discussed below).⁴⁰ By means of its own statute,⁴¹ NASA has established a separate rights regime for subject inventions but is bound to include the Bayh-Dole requirements in any "funding agreements" with small businesses and nonprofit organizations⁴² and to include Government purpose license rights and march-in rights in *all* funding agreements when there is a waiver of title.⁴³

The Bayh-Dole Regulations And Clauses

37 C.F.R. Part 401 implements the Bayh-Dole allocation of rights scheme⁴⁴ and provides that it is “applicable to all Federal agencies.”⁴⁵ As made clear in recent amendments effective May 14, 2018,⁴⁶ the regulations apply to all “funding agreements” (defined consistently with the statute)⁴⁷ with “business firms regardless of size” (consistent with Executive Orders 12591⁴⁸ and 12618⁴⁹ (implementing the 1983 Presidential Memorandum) and to “nonprofit organizations” and take precedence over any regulations dealing with ownership of inventions that are inconsistent with them.⁵⁰ With some limited exceptions, the regulations prescribe a standard clause at 37 C.F.R. § 401.14 (Clause 401.14).⁵¹ Presumably, agencies still have the discretion to deviate in their regulations from Bayh-Dole with respect to large for-profit businesses under 35 U.S.C.A. § 210(c), and certain modifications and tailoring under agency regulations, including the FAR, are permitted.⁵² As discussed below, DOD’s clause for large for-profit businesses makes slight modifications to Clause 401.14. NASA, under the Space Act, starts with the premise that the Government will take title to all inventions developed under NASA funding agreements with large for-profit businesses.

FAR Subpart 27.3 governs patent rights under Government contracts. In its policy statements included in FAR 27.302, it references both the Bayh-Dole Act and 37 C.F.R. Part 401. It prescribes the clause at FAR 52.227-11, “Patent Rights—Ownership by the Contractor (MAY 2014),” as its standard clause (with suggestions for some supplementation) in all solicitations and contracts for experimental, developmental, or research work.⁵³ FAR 52.227-11 has not yet been amended to reflect the May 2018 changes to 37 C.F.R. Part 401 and more particularly Clause 401.14.⁵⁴

The DFARS yields to the FAR patent rights clause if the contractor is a small business concern or a nonprofit.⁵⁵ In all other cases, the DFARS prescribes the clause at DFARS 252.227-7038, “Patent Rights—Ownership by the Contractor (Large Business) (JUN 2012).”⁵⁶ Similarly, NASA’s standard patent rights clause for small businesses and nonprofit organizations⁵⁷ largely adopts the clause at FAR 52.227-11 (in accordance with the Bayh-Dole requirements) permitting the contractor to elect title to inventions conceived or first actually reduced to practice in performance of the contractor’s work.⁵⁸ DOD and NASA regulations (addressing small businesses and nonprofit organizations) governing patent rights under grants and cooperative agreements (as defined in Title 2 of the Code of Federal Regula-

tions⁵⁹) provide that they will be subject to the Bayh-Dole statute and regulations.⁶⁰

The Contractor’s Right To Title To Subject Inventions

Bayh-Dole permits a Government funding recipient (a “contractor” under the statute)⁶¹ (with some limited exceptions) to elect to retain title to any “subject inventions,” i.e., inventions “conceived or first actually reduced to practice in the performance of work under a funding agreement.”⁶² The exceptions include a finding by the agency of “exceptional circumstances” where a “restriction or elimination of the right to retain title to any subject invention will better promote the policy or objectives of [the Bayh-Dole Act].”⁶³ These objectives include promoting utilization of inventions, promoting commercialization and public availability, ensuring the Government gets sufficient rights to meet the needs of the Government, and protecting the public against non-use or unreasonable use.⁶⁴ The contractor may appeal such a determination if it can demonstrate that the determination is contrary to policies of Bayh-Dole or constitutes an abuse of discretion.⁶⁵ Bayh-Dole regulations provide for an appeals process to the head of the agency, as well as appeal rights to the U.S. Court of Federal Claims.⁶⁶ When there are “exceptional circumstances” causing the agency head to restrict or eliminate the right of the contractor to retain title, the FAR provides for an alternative clause allowing ownership by the Government.⁶⁷

If the contractor does not elect title, the agency is permitted to allow the inventor to retain rights as decided by the agency and regulations.⁶⁸ In such cases, both Clause 401.14 and the clause at FAR 52.227-11 provide the contractor with a “nonexclusive royalty-free license throughout the world in each subject invention to which the Government retains title,” which is nontransferable (except to successors and affiliates) without the approval of the agency.⁶⁹ Bayh-Dole prohibits an agency from including in a funding agreement a provision requiring the contractor to license background inventions to third parties unless there is a written justification approved by the head of the agency (and an opportunity to challenge the determination in a hearing and appeal any adverse determination).⁷⁰

Bayh-Dole imposes certain licensing restrictions when the contractor retains title. First, it prohibits an exclusive license to use or sell any subject invention in the United States unless the license agreement provides that “any products embodying the subject invention or produced

through the use of the subject invention will be manufactured substantially in the United States.”⁷¹ This “[p]reference for United States industry” may be waived upon a showing that “reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture in the United States” or “domestic manufacture is not commercially feasible.”⁷²

Second, there are special conditions for nonprofit organizations. Nonprofits may not assign rights to the invention in the United States without the Government’s approval.⁷³ Nonprofits, in licensing the inventions, must establish a preference for small business firms.⁷⁴ In this instance, Clause 401.14 and the clause at FAR 52.227-11 provide that the decision is within the discretion of the contractor based on its determination that a small business firm has a marketing plan that is equally likely to bring the invention to practical application as any plan from a large business. The determination is subject to review by the federal agency and the Secretary of Commerce. Finally, nonprofits must share any licensing royalties with the actual inventor and the balance of the royalties must be used “for the support of scientific research or education.”⁷⁵

Preserving A Contractor’s Right To Title

Bayh-Dole sets certain conditions on the ability of the contractor to elect and retain title that must be included in all funding agreements. First, the contractor must disclose each subject invention to the federal agency “within a reasonable time after it becomes known to contractor personnel responsible for the administration of patent matters [(patent administrator)].”⁷⁶ Clause 401.14 and the clause at FAR 52.227-11 impose a two-month deadline.⁷⁷ Each of the clauses require a written report describing the invention with “sufficiently complete. . . technical detail” to convey a “clear understanding. . . of the nature, purpose, operation” and characteristics of the invention.⁷⁸ The disclosure must also identify any publication, sale, or public use of the invention.⁷⁹

Second, the contractor must elect title in writing within two years after disclosure (or any additional time approved by the agency).⁸⁰ Third, the contractor must file a U.S. patent application and corresponding patent applications in foreign countries in which it retains title.⁸¹ Under Bayh-Dole, the domestic patent application must be filed prior to the expiration of the one-year period referred to in 35 U.S.C.A. § 102(b) during which valid patent protection can be obtained in the United States.⁸² Clause 401.14 and the

clause at FAR 52.227-11 impose an outer limit for filing the domestic application at one year following election of title,⁸³ providing that if a contractor files a provisional application as its initial patent application, it must file a nonprovisional patent application within 10 months of the filing of the provisional application.⁸⁴ Moreover, the contractor must file foreign applications within either 10 months of the first filed patent application (or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order).⁸⁵ Both clauses allow for extensions of time for disclosure, election, and filing at the discretion of the agency;⁸⁶ however, Clause 401.14 (as revised by the May 2018 amendments) authorizes a contractor to request an extension of one year for filing a nonprovisional application after filing a provisional application unless the agency denies the request within 60 days of receipt.⁸⁷

The Impact Of The AIA

Both the election of title and the patent application deadlines in the Bayh-Dole Act refer back to 35 U.S.C.A. § 101(b). While FAR 52.227-11(c)(2) and (c)(3) refer to a “1-year statutory period,” Clause 401.14(c)(2) and (c)(3) (37 C.F.R. § 401.14(c)(2) and(c)(3)), as amended by the 2018 changes, defines the “statutory period” as “the one-year period before the effective filing date of a claimed invention during which exceptions to prior art exist per 35 U.S.C.A. § 102(b), as amended by the Leahy-Smith America Invents Act [(AIA)].”⁸⁸ The AIA converted a “first to invent” system to a “first to file” system for determining patentability of inventions, effective March 16, 2013.⁸⁹ 35 U.S.C.A. § 102 now provides that a person is entitled to a patent *unless the claimed invention was described in a patent application filed before the filing date of the claimed invention.*⁹⁰ Section 102 also prevents a person from obtaining a patent if the claimed invention was “described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.”⁹¹

The AIA retained but severely limited the one-year grace period that an inventor had under the old patent law in which to file a patent application after public disclosure of the invention.⁹² Under the old law, an inventor who had first conceived of an invention had one year after public disclosure of the invention to file a patent application, whether that disclosure was by the inventor or by a third party.⁹³ Under the AIA, however, most public disclosures will now

foreclose the ability to apply for a patent. Specifically, 35 U.S.C.A. § 102(b)(1)(B) limits the grace period to disclosures made directly by the inventor or a person who obtained the subject matter directly or indirectly from the inventor. Any other public disclosure made after the inventor's conception but before the patent application will negate patentability.

With the AIA amendments, the Bayh-Dole statute now permits the agency to shorten the date for election of title to not more than 60 days before the end of the one-year grace period referred to in 35 U.S.C.A. § 102(b).⁹⁴ Moreover, a U.S. patent application must be filed prior to the expiration of the § 102(b) grace period.⁹⁵ However, with the adoption of the first-to-file legislation, these shortened periods may not protect the inventor (and the Government) if the public disclosures are within the grace period but made by a third party including potentially the Government. More fundamentally, the statutory amendments to Bayh-Dole do nothing to protect the contractor inventor and the Government if a rival inventor files a patent application after the contractor inventor conceives of an invention but before the contractor inventor files (barring a public disclosure by the contractor inventor during the grace period).⁹⁶

The AIA therefore mitigates for tight time frames for disclosure, election of title, and filing following conception, not currently advocated in either the Bayh-Dole statute or its implementing regulations. Moreover, although Bayh-Dole authorizes the agency to withhold from public disclosure information disclosing an invention “for a reasonable time in order for [the] patent application to be filed,”⁹⁷ the statute says nothing more to address preserving patentability in a post-AIA world. An OTA, not subject to Bayh-Dole, permits the contracting parties to anticipate and address these problems.

Forfeiture Of Title

If such disclosure and elections of time do not take place within the prescribed period, Bayh-Dole provides that the contractor may forfeit title to the Government.⁹⁸ Clause 401.14 and the clause at FAR 52.227-11 require the contractor to convey to the agency, upon written request, title to any subject invention if the contractor fails to disclose or elect title to the subject invention within the times prescribed by the clause.⁹⁹ If a patent application has already been filed, the Government forfeits the right to elect title if it has not provided notice before the application has been filed.¹⁰⁰ Under the clauses, the consequences for failure to initially

disclose the invention are severe: *the contractor gets no rights*.¹⁰¹ While the current FAR patent rights clause includes a safe harbor provision requiring the Government to act within 60 days after it learns of the failure to disclose in a timely fashion,¹⁰² the safe harbor was removed from Clause 401.14 in the 2018 revisions.¹⁰³ Contractors should be vigilant as the clause at FAR 52.227-11 will undoubtedly be amended to conform to Clause 401.14 (removing these safe harbors) and be included in future contracts or contract modifications.¹⁰⁴

Government License Rights

When the contractor has properly perfected its right to title, the funding agreement must provide that the Government is given “a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or *on behalf of the United States* any subject invention throughout the world.”¹⁰⁵ This license (a “Government purpose” patent license) may be broadened by the agency.¹⁰⁶ Clause 401.14 and the clause at FAR 52.227-11 require the contractor to have executed and delivered all instruments to establish or confirm the rights of the Government to the subject inventions in which the contractor elects title.¹⁰⁷ Further, the clauses require the contractor to obtain written agreements from employees to disclose promptly in writing each subject invention to the patent administrator.¹⁰⁸ Clause 401.14 goes further and requires employees to assign to the contractor the entire right, title, and interest in and to each subject invention made under contract and otherwise to cooperate with the filing of the patent.¹⁰⁹ Bayh-Dole allows the agency to require “periodic reporting on the utilization” of the subject inventions (provided they are treated as proprietary information exempt from the Freedom of Information Act).¹¹⁰ Such requirements are embedded in both Clause 401.14 and the clause at FAR 52.227-11.¹¹¹ All funding agreements must impose an obligation on the contractor to include in any patent application and patent a statement that “the invention was made with Government support and that the Government has certain rights in the invention.”¹¹²

March-In Rights

Bayh-Dole provides for Government “*march-in rights*”—the right to require the contractor (or an assignee or exclusive licensee) to grant a “nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances” and if the contractor refuses, to grant the

license itself.¹¹³ March-in rights may only be exercised by a determination that (1) the contractor is not expected to take “within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use”; (2) “action is necessary to alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee or licensees”; (3) “action is necessary to meet requirements for public use specified by Federal regulations”; or (4) the contractor has breached its obligations under the statute to show a preference for U.S. industry in exclusive licenses given to third parties.¹¹⁴

Bayh-Dole provides that any exercise of march-in rights must be preceded by an administrative appeals procedure established by the agency, followed by a right to appeal any adverse determination by the U.S. Court of Federal Claims.¹¹⁵ No action can be taken until the contractor has exhausted its appeal rights.¹¹⁶ Those procedures are provided for in 37 C.F.R. § 401.6 and referenced in both patent rights clauses.¹¹⁷ The regulation includes (but is not limited to) such procedural safeguards as written notice, a determination by the head of the agency, the opportunity for contracting entity to appear or present a written opposition, a factfinding hearing if there are facts in dispute, and the right to an appeal to an administrative tribunal or the Court of Federal Claims and stay of the decision during appeal.¹¹⁸

No march-in rights have ever been exercised by any agency including DOD and NASA since the Bayh-Dole Act was enacted.¹¹⁹

Government Revocation And Modification Rights

Separate and apart from march-in rights, Clause 401.14 and the clause at FAR 52.227-11 (as permitted in FAR 27.302(i)) permit the agency to revoke or modify a contractor’s license in the event it does not elect title or forfeits title “to the extent necessary to achieve expeditious practical application of the subject invention” where a third party applies for an exclusive license under 37 C.F.R. Part 404.¹²⁰ Part 404 provides for the licensing of Government-owned inventions.¹²¹ Such licenses may be modified or terminated subject to a written notice and 30 days to show cause why the license should not be modified or terminated.¹²² Any adverse decision may be appealed to the agency head and may include a hearing to address a disputed issue of fact.¹²³

DOD Funding Agreements With Large For-Profit Businesses

DFARS Subpart 227.3 requires the use of the clause at

DFARS 252.227-7038 in substitution of the clause at FAR 52.227-11 in solicitations and contracts for experimental, developmental, or research work if the contractor is other than a small business concern or nonprofit organization.¹²⁴ While still operating within the constraints of Bayh-Dole, some notable differences between the two clauses include the following:

- Under the DFARS clause, disclosure of a subject invention is required within two months after the inventor discloses in writing to the patent administrator “or within 6 months after the Contractor first becomes aware that a subject invention has been made, whichever is earlier.”¹²⁵
- Under the DFARS clause, election of title must be made “at the time of disclosure or within 8 months of disclosure, as to those countries (including the United States) in which the Contractor will retain ownership.”¹²⁶
- Unlike the FAR clause, the DFARS clause imposes a presumption in favor of extensions of time for disclosure and election of title “unless there is reason to believe the extension would prejudice the Government’s interests.”¹²⁷
- Under the DFARS clause, the Government has the right to examine records relating to the conception and first reduction to practice of inventions to determine whether any inventions are subject inventions and that the contractor has established and complied with all mandatory procedures.¹²⁸
- Under the DFARS clause, the Government has the right to withhold payment in a reserve not exceeding \$50,000 or 5% of the contract, whichever is less, if the contractor has failed to abide by provisions of the clause.¹²⁹

Subcontracts

FAR 52.227-11 requires the clause to be flowed down to subcontracts (regardless of tier) for experimental, developmental, or research work to be performed by a small business concern or nonprofit organization.¹³⁰ For work to be performed by large for-profit businesses under DOD (and NASA contracts), the FAR directs the Contracting Officer to look to agency procedures.¹³¹ DFARS 252.227-7038 requires the clause to be flowed down to subcontracts (regardless of tier) with large for-profit businesses. For subcontracts

tors that are small businesses or nonprofit organizations, the DFARS clause requires the clause at FAR 52.227-11 to be flowed down.¹³² In both the FAR and DFARS clauses, the mutual obligations of the parties created by each clause create privity between the Government and the subcontractor as to matters covered by the clause.¹³³ Moreover, under the FAR clause, the prime contractor may not substitute itself for the Government in flowing down the clause nor, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.¹³⁴

A Note On SBIR Contracts

15 U.S.C.A. § 638 declares it is the policy of the United States to give assistance to small businesses to undertake research and development to strengthen competition.¹³⁵ 15 U.S.C.A. § 638(g) requires federal agencies to establish small business innovation research programs (SBIRs) by determining suitable categories of projects, issuing solicitations, receiving and evaluating proposals, and selecting awardees for SBIR "funding agreements," which are defined similarly to the definition under Bayh-Dole, only tailored to small businesses.¹³⁶

SBIRs are defined in 15 U.S.C.A. § 638(e)(4) as small business awards by agency research and development effort consisting of three phases (Phases I to III). The first phase, Phase I, is "for determining, insofar as possible, the scientific and technical merit and feasibility of ideas that appear to have commercial potential. . . submitted pursuant to SBIR program solicitations."¹³⁷ The second phase, Phase II, is to "further develop proposals which meet particular program needs, in which awards shall be made based on the scientific and technical merit and feasibility of the proposals, as evidenced by the first phase."¹³⁸ The third phase, Phase III, is not part of the SBIR program but completes or derives from it through the commercial application of the SBIR-funded research or a continuation of the R&D effort through awards from non-SBIR federal or commercial funding sources.¹³⁹

The statute directs the Small Business Administration (SBA) to issue policy directives governing SBIR solicitations and awards, including "retention" by SBIR awardees of rights in data generated in the performance of the all funding awards (including Phases I to III) for a period of "not less than 4 years."¹⁴⁰ No specific mention is made in the statute with regard to rights in inventions. The IP rights sections of the SBA SBIR Policy Directive,¹⁴¹ issued pursuant to the statute, are largely concerned with the protection from

disclosure and nongovernmental use of proprietary data generated during the performance of an SBIR funding agreement.¹⁴² However, with respect to inventions, the SBIR Policy Directive introduces flexibility to the deadline imposed by FAR 52.227-11 for the filing of a domestic patent application. While Clause 401.14 and the clause at FAR 52.227-11 impose an outer deadline of one year following election of title,¹⁴³ the SBIR Policy Guide suggests a statement regarding patents in SBIR solicitations that includes the following:

To the extent authorized by 35 U.S.C. 205, the Government will not make public any information disclosing a Government-supported invention for a minimum 4-year period (that may be extended by subsequent SBIR funding agreements) to allow the awardee a reasonable time to pursue a patent.¹⁴⁴

So long as the public disclosure one-year "statutory deadline" has not kicked in, the Bayh-Dole statute permits such flexibility. This begins to suggest an approach, made more permissible in OTAs, for extending the election of title and patent application deadlines to a more reasonable time period to allow the parties time to fully consider the risks and rewards of keeping the proprietary data surrounding an invention or a trade secret.

NASA Contracts With Large For-Profit Businesses

The Space Act¹⁴⁵ governs property rights in inventions in connection with activities under the National Aeronautics and Space Program. The Space Act extends to "any actual or proposed contract, agreement, understanding, *or other arrangement*, and includes any assignment, substitution of parties, or subcontract executed. . . into thereunder" (defined as "contracts").¹⁴⁶ The definition is broader than the definition of "funding agreement" under Bayh-Dole and captures grants, cooperative agreements, and OTAs.¹⁴⁷ Because of Bayh-Dole, 35 U.S.C.A. § 201(b), its coverage is not extended to funding agreements with nonprofit organizations or small businesses.¹⁴⁸

NASA Retains Title

The Space Act provides that "[a]n invention shall be the exclusive property of the United States if it is made in the performance of any work under any contract of the Administration."¹⁴⁹ Patents resulting from such inventions shall be issued to the United States upon application made by the NASA Administrator unless there is a waiver.¹⁵⁰

Waivers Of Right To Title

NASA may waive all or any parts of the rights of the United States under the Space Act if the “interests of the United States will be served thereby.”¹⁵¹ Each waiver “shall be subject to the reservation by the Administrator of an irrevocable, nonexclusive, nontransferable, royalty-free license for the practice of such invention throughout the world by or on behalf of the United States or any foreign government pursuant to any treaty or agreement with the United States.”¹⁵²

This is the only condition stated in the Space Act governing a waiver. It makes clear that the NASA Administrator has broad discretion, through regulations, to “waive all or any part of the rights of the United States” and any waiver “may be made upon such terms and under such conditions as the Administrator shall determine to be required for the protection of the interests of the United States.”¹⁵³

The NASA Clause

NASA’s standard patent rights clause for large for-profit businesses, NFS 1852.227-70,¹⁵⁴ creates a conclusive presumption that title to inventions conceived or first actually reduced to practice under a NASA contract (“subject inventions”) will vest in NASA unless there is a waiver.¹⁵⁵ The clause provides the contractor with a “nonexclusive royalty-free license. . . filed in any country on a subject invention in which the Government has title and in any resulting patent” that is nontransferable (except to successors and affiliates) without the approval of the agency.¹⁵⁶ Those rights are forfeited if the contractor fails to disclose the invention within the times prescribed by the clause.¹⁵⁷ Like the Bayh-Dole clauses, the clause permits NASA to revoke or modify a contractor’s license in the event it does not elect title or forfeits title if “necessary to achieve expeditious practical application of the subject invention” where a third party applies for an exclusive license under 37 C.F.R. Part 404.¹⁵⁸ Rights to challenge are limited to show cause after a 30-day notice and the right to appeal to the NASA administrator any adverse decision.¹⁵⁹

The clause requires disclosure to the contractor’s patent administrator within six months of actual conception or reduction to practice to assure prompt disclosure.¹⁶⁰ Like the clause at DFARS 252.227-7038, the clause requires disclosure of a subject invention within two months after the inventor discloses in writing to the patent administrator or within six months after the contractor first becomes aware

that a subject invention has been made, whichever is earlier.¹⁶¹ The clause includes both the examination of records and payment withholding provisions in DFARS 252.227-7038.¹⁶²

The clause at NFS 1852.227-70 requires the clause to be flowed down to subcontractors (regardless of tier) with large for-profit businesses. For subcontractors qualifying as small businesses or nonprofit organizations, the clause requires FAR 52.227-11, as modified by NFS 1852.227-11, to be flowed down.¹⁶³

Waivers Under NASA Regulations

Waivers pursuant to the Space Act, 51 U.S.C.A. § 20135(g), are governed by NASA’s Patent Waiver Regulations.¹⁶⁴ The regulations provide for petitions for “advance waivers” (i.e., waivers submitted prior to the execution of the contract or within 30 days after execution)¹⁶⁵ and individual waivers to identified inventions that have been reported to NASA.¹⁶⁶ For advance waivers, there is a *presumption that the request will be granted* unless NASA’s Inventions and Contributions Board finds, inter alia, there are “exceptional circumstances” that will better promote one or more of the following: (1) the “utilization of inventions”; (2) “[e]ncouraging maximum participation of industry”; (3) “free competition and enterprise”; (4) “commercialization and public availability of inventions” made in the United States by U.S. industry and labor; and (5) the Government retains sufficient rights “to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions.”¹⁶⁷ There is also a presumption in favor of granting individual waivers if the request is received within eight months of the first disclosure to NASA (or such longer period as the Board may permit for good cause).¹⁶⁸ The regulations provide the opportunity to request reconsideration of an adverse ruling and an oral hearing before the Board.¹⁶⁹

Under 14 C.F.R. Part 1245, a waiver is accomplished through the issuance of an instrument of waiver.¹⁷⁰ The contracting party has one year from the request for an advanced waiver and one year from the grant of an individual waiver (or a reasonable time thereafter for good cause shown) to file a domestic patent application or the instrument of waiver shall be revoked.¹⁷¹ Foreign applications must be filed within 10 months of the domestic filing (subject to an extension) or six months from the date a license is granted by the Commissioner of Patents and Trademarks to file foreign patent application where such filing has been prohibited by a Secrecy Order.¹⁷²

Government License Rights Under Waiver

To the extent a waiver is granted, the Government is provided “an irrevocable. . . nontransferable, royalty free license for the practice of the invention throughout the world by or on behalf of the United States or any foreign government pursuant to any treaty or agreement with the United States.”¹⁷³ In addition, the Government is entitled to march-in rights as set forth in the Bayh-Dole Act,¹⁷⁴ and the preference for United States industry applies.¹⁷⁵

Restraints Under Bayh-Dole

(1) *No consideration for trade secret protection.* Bayh-Dole (and the Space Act, to the extent a waiver is granted) obligate the contractor to report, elect title, and pursue patent protection (or possibly forfeit rights to the Government) of an “invention” (broadly defined to include an “invention or discovery which is *or may be patentable or otherwise protectable*”) even though the contractor may wish to protect the development as a trade secret. Although a plethora of statutes and regulations provide some confidentiality protections to invention disclosures, provisional and nonprovisional patent applications, and utilization reports required in performance or in consequence of awards, there is no mechanism for negotiating trade secret protection as opposed to patent rights. There may be more flexibility under SBIR contracts.

(2) *Arbitrary reporting deadlines with fatal consequences for failure to meet them.* Although there are mechanisms to request extensions, the time limitations on disclosure, election of title, and pursuit of patent application and the potential forfeiture of rights if there is a failure to disclose are in many cases arbitrary and may be either too long (if there is a concern about a rival inventor obtaining patent protection under the AIA first-to-file rule) or too short (if the company does not have the infrastructure or awareness of the reporting requirements or has not coalesced around an IP strategy that may center on trade secret protection vs. patent protection).

(3) *Broad scope of the Government’s rights.* Bayh-Dole and Space Act waivers provide for a license “to practice or have practiced for or on behalf of the United States any subject invention throughout the world.” While that license is generally understood to be a Government purpose license, it does not restrict the Government from allowing competitors to practice the invention to the detriment of the contractor. Such a broad license is inconsistent with data

rights provisions allowing more flexibility to restrict licenses to technical data and computer software developed in whole or in part at Government expense.

(4) *Limitation on nonprofit organizations.* Nonprofits are unnecessarily handicapped by the anti-assignment and royalty-sharing provisions. They serve as disincentives for attracting such institutions to the Government marketplace.

(5) *Preference for U.S. industry in licensing strategy.* The domestic production requirement again may serve as a disincentive for commercial firms that rely on licensees with foreign manufacturing plants to bring technology to the Government marketplace where they will be restricted from manufacturing products based on Government-funded advances in technology in their foreign plants.

(6) *Threat of exercise of march-in rights and revocation of licenses.* Although there is no indication that such rights have ever been exercised, the threat presents an unacceptable risk to many commercial companies.

(7) *Threat of declaration of exceptional circumstances.* The right to title is not guaranteed. Agency discretion to take title under a declaration of exceptional circumstances may prove to be another chilling effect for commercial companies.

Part II—Patent Rights Under OTAs

Part II of this BRIEFING PAPER discusses the treatment of patent rights by DOD and NASA under their OTA authority, including the similarities and differences.

OTAs Under DOD

In 1989, Congress provided DOD with its first other transaction authority, which applied to advanced research projects performed by the Defense Advanced Research Projects Agency (DARPA).¹⁷⁶ Congress believed that DARPA was “miss[ing] out on opportunities to contract with some of the most innovative companies, including small start-ups and large commercial companies, that developed some of the most promising new technologies. . . [which] lacked either the desire or the government-required systems to perform a contract under the government procurement regulations.”¹⁷⁷ DARPA also wanted to take advantage of the use of a consortium of institutions and private companies and believed that a traditional procurement contract was not appropriate for such a vehicle.¹⁷⁸ In 1991, Congress provided DOD with permanent other transaction authority and ex-

panded the authority to use agreements for advanced research projects, previously limited to DARPA, throughout DOD.¹⁷⁹ In 1994, DOD was given temporary authority to use OTAs to obtain prototypes.¹⁸⁰ Section 815 of the FY 2016 NDAA created permanent authority for DOD to use OTAs for prototyping and production purposes.¹⁸¹

Just last year, with the passage of the FY 2018 NDAA, Congress instructed DOD to “establish a preference” for using other transactions in “the execution of science and technology and prototyping programs.”¹⁸² DOD and military agencies now sing the praises of OTAs and their ability to limit barriers to contractor participation and provide a “streamlined and effective means to transition from [research, development, test, and evaluation] to production.”¹⁸³

Basic, Applied, Or Advanced Research Projects

10 U.S.C.A. § 2371 empowers the Secretary of Defense and each military department to “enter into transactions. . . in carrying out basic, applied, and advanced research projects.”¹⁸⁴ It imposes three conditions: (1) no transaction duplicates research already being conducted by DOD; (2) “to the extent. . . practicable,” each party will contribute 50% of the funds; and (3) OTAs may only be used for a research project “when the use of a standard contract, grant, or cooperative agreement for such project is not feasible or appropriate.”¹⁸⁵ It provides no guidance on the allocation of intellectual property rights between the Government and OTA awardees.

The principal vehicle used by DOD in negotiating and structuring OTAs for research projects that do not extend to a prototype is the Technology Investment Agreement (TIA). TIAs are to be used to “foster the best technologies for future defense needs.”¹⁸⁶ TIAs are covered in 32 C.F.R. Parts 21 and 37 (which comprise in part the DOD Grant and Agreement Regulations (DODGARs)). 32 C.F.R. § 37.110 defines TIAs as “*assistance instruments* used to stimulate or support research.”¹⁸⁷ A TIA may be either a kind of cooperative agreement or a type of “assistance transaction other than a grant or cooperative agreement.”¹⁸⁸ TIAs can be entered into under the authority of 10 U.S.C.A. § 2371.¹⁸⁹

Within DOD, there is confusion as to whether DOD is bound to use the TIA in entering into 10 U.S.C.A. § 2371 OTAs.¹⁹⁰ The DOD *Other Transactions Guide for Prototype Projects* provides that TIAs are to be used for OTAs for research under § 2371.¹⁹¹ TIAs are the only vehicle cited on DARPA’s contract management website for use in non-

prototype OTAs.¹⁹² Yet the TIA regulations themselves provide that other “assistance instruments” may be used to support OTAs under 10 U.S.C.A. § 2371.¹⁹³ Moreover, as Richard L. Dunn, the first general counsel to DARPA, has forcefully argued, research and development agreements are neither procurement contracts nor for the purpose of “assistance” (as those terms are used in connection with statutory authority to enter into procurement contracts, grants, and cooperative agreements).¹⁹⁴ That leaves room for the use of negotiated agreements other than assistance agreements like TIAs under 10 U.S.C.A. § 2371.¹⁹⁵ Because of the constraints imposed on IP rights in the TIA regulations, DOD should be mindful that in negotiating OTAs for research projects, it is not bound by the TIA regulatory framework.

Rights To Inventions And Patents Under The TIA Regulations

The TIA regulations address allocation of IP rights. In colloquial terms, they pose the question of what “general approach” should be taken in negotiating “data and patent rights,” and provide as an answer identifying factors that should be taken into consideration. These factors include (1) gaining access to the best technologies; (2) use of technologies in the commercial marketplace; and (3) promoting commercialization of technologies resulting from research.¹⁹⁶ All of these factors militate against giving the Government “excessive rights.”¹⁹⁷ These factors must be balanced against the Government’s need for access to data and inventions for Government purposes “such as a need to develop defense-unique products or processes that the commercial marketplace likely will not address.”¹⁹⁸ The regulations point out that “substantial cost sharing” by recipients requires discretion.¹⁹⁹

With respect to rights in inventions, the TIA regulations suggest using Clause 401.14,²⁰⁰ but allow for negotiating rights “of a different scope. . . when necessary to accomplish program objectives and foster the Government’s interests.”²⁰¹ The regulations suggest using the relative past and present contributions of the parties as a barometer, meaning the “predominant” contributor should benefit more from the patent rights clause.²⁰²

The TIA regulations provide alternatives to a Government purpose license at the time of award: (1) a “priced option for obtaining nonexclusive licenses in the future to inventions that are conceived or reduced to practice under the TIA”;²⁰³ and (2) springing Government license rights following the commercialization of the invention.²⁰⁴ The

regulations also suggest flexible approaches as to when disclosure and the election of title must be made²⁰⁵ and reference the protections in 35 U.S.C.A. § 205 permitting federal agencies to withhold from disclosure to the public information about any invention in which the Government may have an interest “for a reasonable time in order for a patent application to be filed.”²⁰⁶

On the issue of march-in rights, the TIA regulations are fairly inflexible—requiring the use of the Bayh-Dole provision at 37 C.F.R. § 401.14.²⁰⁷ However, the TIA regulations instruct that the march-in provision may be “entirely removed” if, for example, “a recipient is providing most of the funding for a research project, with the Government providing a much smaller share.”²⁰⁸

The TIA regulations retain the domestic manufacturing preference in 37 C.F.R. § 401.14(i) and FAR 52.227-11(g) for exclusive licensees of the technology.²⁰⁹ It adds a stinger that if there is a violation, the Government can require a refund of some or all of the funds paid under the TIA for the development of the transferred technology.²¹⁰ Moreover, it permits the Government to negotiate a domestic manufacture condition for *nonexclusive* licenses “if you judge that nonexclusive licenses for foreign manufacture could effectively preclude the establishment of domestic sources of the technology for defense purposes.”²¹¹

Prototype Projects

10 U.S.C.A. § 2371b empowers DARPA and DOD military departments (and any other official designated by the Secretary of Defense), *under the authority of 10 U.S.C.A. § 2371*, to “carry out prototype projects. . . directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms. . . proposed to be acquired or developed by the Department of Defense, or to improvement of platforms. . . in use by the armed forces.”²¹² The term “prototype projects” is left to be defined by DOD regulations or policy. As with 10 U.S.C.A. § 2371, § 2371b provides no guidance on the allocation of IP rights between the Government and OTA awardees.

10 U.S.C.A. § 2371b borrows the cost-sharing and “feasibility” requirements of § 2371 by including these concepts in four alternate conditions to a prototype award:

(A) There is at least one *nontraditional defense contractor* or nonprofit research institution *participating to a significant extent* in the prototype project.

(B) *All significant participants in the transaction other than*

the Federal Government are small businesses (including small businesses participating in a program described under section 9 of the Small Business Act (15 U.S.C. § 638)) or nontraditional defense contractors.

(C) At least one third of the total cost of the prototype project is to be paid out of funds provided by sources other than other than[sic] the Federal Government.

(D) The senior procurement executive for the agency determines in writing that *exceptional circumstances* justify the use of a transaction that provides for innovative business arrangements or structures *that would not be feasible or appropriate under a contract, or would provide an opportunity to expand the defense supply base in a manner that would not be practical or feasible under a contract.*²¹³

If one or more of the above conditions is met, an OTA under 10 U.S.C.A. § 2371b can be issued.²¹⁴

With respect to condition (A), the term “nontraditional defense contractor” is broadly defined to include “an entity that is not currently performing and has not performed, for at least the one-year period preceding the solicitation of sources by [DOD] for the. . . transaction, any contract or subcontract for [DOD] that is subject to full coverage under the cost accounting standards [CAS] prescribed pursuant to [41 U.S.C. § 1502] and the regulations implementing such section.”²¹⁵ Full coverage under CAS as provided in 48 C.F.R. § 9903.201 applies to contractors that receive a single CAS-covered contract of \$50 million or more or an aggregate of \$50 million in net CAS-covered contracts during the preceding year.²¹⁶ CAS-covered contracts do not include, *inter alia*, contracts with small businesses, contracts whose price is set by law or regulation, commercial item contracts, and firm-fixed-price contracts awarded on the basis of adequate price competition without submission of cost or pricing data.²¹⁷ Prior to the passage of the FY 2016 NDAA, “nontraditional defense contractor” encompassed contractors with contracts in excess of \$500,000.²¹⁸ The FY 2016 NDAA effectively opened the door for thousands of additional companies to participate in prototype OTAs under 10 U.S.C.A. § 2371b.

With respect to condition (B), § 864 of the FY 2018 NDAA²¹⁹ added “small businesses participating in a program described under section 9 of the Small Business Act (15 U.S.C. § 638),” *i.e.*, small businesses participating in the SBIR Program. Yet, as noted above, the SBIR enabling statute²²⁰ provides that it applies to “funding agreements” (defined not to include OTAs).²²¹ This is mirrored in the SBA’s SBIR Policy Directive, which provides for funding agreements in the form of a “contract, grant or cooperative

agreement.”²²² The FY 2018 NDAA did nothing to alter this language. This change effectively means that 10 U.S.C.A. § 2371b OTA prototype contracts can only be included in federally funded SBIR Phase III contracts, which are not part of the SBIR Program, but represent a continuation of SBIR Phase II efforts (i.e., “follow-on” funding).²²³

10 U.S.C.A. § 2371b allows for a sole-source follow-on production contract or transaction to the participants in the OTA. Section 2371b establishes two conditions: (1) competitive procedures were used for the selection of parties for participation in the original transaction, and (2) the participants in the transaction “successfully completed the prototype project provided for in the transaction.”²²⁴ The statute allows for consortium agreements among industry and academic institutions and provides that all individual prototypes awarded under consortium agreements may be OTAs.²²⁵

There are effectively no regulations (including IP rights regulations) governing 10 U.S.C.A. § 2371b OTAs. Although Title 32 of the Code of Federal Regulations still carries regulations that purportedly govern OTAs,²²⁶ they are toothless and out of date. They are not referenced in any OTAs or DOD policy guidelines addressing OTAs. The TIA regulations specifically provide that they do not cover acquisitions for OTA prototype projects.²²⁷

The terms and conditions of OTAs, including those terms governing IP rights, are largely determined by DOD’s *Other Transactions Guide for Prototype Projects* (DOD OTA Prototype Guide), most recently amended in January 2017.²²⁸ The Guide specifically anticipates that OTAs will be unlike traditional procurements, flexible and more akin to commercial contracts. It requires “Agreements Officers” to be warranted DOD Contracting Officers “with a level of responsibility, business acumen and judgment that enables them to operate in this relatively unstructured environment.”²²⁹ It instructs Agreements Officers to “consider the intent and protections provided to each party in typical FAR procedures and clauses, standard commercial business practices typical of that market segment, as well as other OT agreements” but to use judgment to negotiate terms and conditions “that appropriately reflect the risk to be undertaken by the parties on their particular prototype project.”²³⁰

Unlike the statute, the DOD OTA Prototype Guide defines “prototype projects” in a very broad manner:

A prototype project can generally be described as a preliminary pilot, test, evaluation, demonstration, or agile develop-

ment activity used to evaluate the technical or manufacturing feasibility or military utility of a particular technology, process, concept, end items, effect, or other discreet feature. Prototype projects may include systems, subsystems, components, materials, methodology, technology, or processes. By way of illustration, a prototype project may involve: a proof of concept, a pilot; *a novel application of commercial technologies for defense purposes*; *a creation, design, development, demonstration of technical or operational utility*; or *combinations of the foregoing, related to a prototype*. The quantity should generally be limited to that needed to prove technical or manufacturing feasibility or evaluate *military utility*.²³¹

The definition clearly contemplates an OTA prototype agreement where preexisting proprietary technology may be used by the OTA contractor.

Rights To Inventions And Patents Under The DOD OTA Prototype Guide

The DOD OTA Prototype Guide acknowledges that Bayh-Dole does not apply to prototype OTAs, permitting Agreement Officers flexibility to “negotiate terms and conditions different from those typically used in procurement contracts.”²³² Like the IP rights sections in the TIA regulations, the Guide warns about anemic and excessive IP rights provisions. The latter “dissuades firms from doing business with the Government.”²³³ The former must be guarded against especially in cases where a follow-on production contract is intended or likely.²³⁴ In such cases, the Agreements Officer should “assess the impact of restrictions on IP rights, or the failure to obtain necessary IP deliverables (e.g., technical data and computer software), on the Government’s total life cycle cost of the technology, both in costs attributable to royalties from required licenses, and in costs associated with the inability to obtain competition in future production, operation, maintenance, upgrade, and modification of prototype technology.”²³⁵

Despite the DOD OTA Prototype Guide’s celebration of OTA as a “tremendously flexible acquisition tool that creates opportunities to spur innovation among defense contractors” and “attract companies with leading-edge technologies,”²³⁶ the Guide instructs that the initial IP rights position is to follow Bayh-Dole on patent rights (and the FAR and DFARS on data rights).²³⁷ The DOD OTA Prototype Guide concedes that in a competitive commercial marketplace, there may be a reduced need for rights in IP because of the availability of multiple sources. However, it cautions Agreements Officers to plan for maintenance and support of fielded prototype technology when the technology is no lon-

ger supported by the commercial market by negotiating for appropriate *deliverables* and *license rights* to the technology as part of the agreement.²³⁸ Like the TIA regulations,²³⁹ the DOD OTA Prototype Guide contemplates the possibility of springing broader rights to permit commercialization of the technology or if the contractor is no longer able or refuses to perform the OTA.²⁴⁰

Like the TIA regulations, the DOD OTA Prototype Guide provides no sample or model clauses. Rather, it makes soft suggestions as to how the Agreements Officer may deviate from the Bayh-Dole regime.²⁴¹ The Guide suggests that rights to background inventions incorporated in a prototype design be incorporated to address the “Government’s life cycle cost for the technology.”²⁴² It suggests, but does not insist on, march-in rights “in order to encourage further commercialization of the technology.”²⁴³ It notes that the time and manner of disclosures, elections of title, and patent applications can be flexible.²⁴⁴ Unlike the TIA regulations and the NASA guide governing OTA agreements discussed below, the Guide contemplates that a contractor may wish to keep subject inventions trade secrets and views this as permissible “as long as the Government’s interest in the continued use of the technology is protected,” and there is not an “unacceptable risk of a third party patenting the same technology.”²⁴⁵ Where trade secret protection is permitted in lieu of patent protection, the DOD OTA Prototype Guide suggest a “perpetual patent indemnity clause” to mitigate risks.²⁴⁶

These gauzy recommendations leave the Agreements Officer, who by DOD OTA Prototype Guide requirements must be a warranted Contracting Officer (presumably versed only in FAR- and DFARS-based procurements), to sort out the exact language of the clauses. The recommendations to modify the procurement-based patent clauses are generally biased in favor of the Government and not the contractor based on a built-in prejudice that the OTA may likely result in a DFARS-based production contract in which the Government will need greater rights. Moreover, even though one of the options for OTA prototype projects includes cost sharing, there is no admonition (like in the TIA regulations) that the financial participation of the contracting party should result in reduced rights to the Government.

Finally, despite the encouragement built into the statute for small business participation, including small businesses which participate in the SBIR program,²⁴⁷ there is no consideration in the DOD OTA Prototype Guide for protecting proprietary data associated with inventions as stated in

the SBIR Policy Directive. Indeed, Phase II of the SBIR Program is often designed to produce a prototype, yet the DOD OTA Prototype Guide suggests no special protections for small businesses.²⁴⁸

DARPA’s OTA SBIR Prototype Agreement

As noted above, despite the changes to 10 U.S.C.A. § 2371b in the FY 2018 NDAA, the SBIR enabling statute still limits Phase I and Phase II contracts to “funding agreements.”²⁴⁹ Yet, incongruously, DARPA’s website devoted to its SBIR Program provides that OTAs are “an acceptable funding mechanism” for SBIR projects.²⁵⁰ The website notes that “[f]or OTs, the parties are allowed flexibility to negotiate IP since Bayh-Dole does not apply. DARPA normally does not acquire IP rights that will impede commercialization of technology.”²⁵¹ The website includes a sample SBIR OTA for Prototypes template (updated December 2017) (DARPA Template).²⁵² The DARPA Template provides that it is an SBIR Phase II award in the form of an “other transaction pursuant to 10 U.S.C. § 2371b, National Defense Authorization Act for Fiscal Year 2016.”²⁵³

The Patent Rights section largely follows Bayh-Dole’s Clause 401.14 and the clause at FAR 52.227-11, with some notable modifications and omissions.²⁵⁴ As a threshold matter, the section makes no reference to the Bayh-Dole statute or implementing regulations; accordingly, all terms of art, such as “invention” or “subject invention” are either left undefined or defined within the four corners of the form agreement. Moreover, all due process rights built into Bayh-Dole in the event of adverse decisions (e.g., as a result of march-in rights) are not applicable unless specifically articulated in the clause.

Under the DARPA Template, the contractor must disclose the invention within four months (rather than two) after the inventor discloses it in writing to company personnel responsible for patent matters.²⁵⁵ The DARPA Template does not obligate the contractor to elect title; rather, it requires notice within eight months following disclosure of a decision *not to retain title*.²⁵⁶ (The wording is strange and any OTA based on the DARPA Template should be revised to provide a definite date on which title is elected.) That period may be shortened if publication, sale, or public use has initiated the one-year statutory period under 35 U.S.C.A. § 102(b).²⁵⁷ Patent applications must be filed within one year “after election of title” (despite there being no provision for electing title) or prior to the end of the statutory period, whichever is earlier. The contractor may elect foreign patent

applications generally within 10 months of the filing of the initial patent application.²⁵⁸ Requests for extension of time may be granted at DARPA's discretion.²⁵⁹ Similar to the current FAR 52.227-11(d), the Government may request title if the contractor fails to make the proper disclosures and filings on a timely basis, which may only be exercised within 60 days after the Government learns of the failure to disclose (as opposed to no time limitation in the recently amended 37 C.F.R. § 401.14(d)(1)).²⁶⁰ Consistent with 37 C.F.R. § 401.14(d)(2) and FAR 52.227-11(d)(ii), if a patent application has already been filed, even on a timely basis, the Government forfeits the right to elect title if it has not provided notice before the application has been filed.²⁶¹

In all cases where the Government obtains title, the contractor is entitled to retain a nonexclusive, royalty-free license throughout the world in each invention except in cases where the contractor fails to disclose the invention, consistent with the forfeiture provisions in 37 C.F.R. § 401.14(e)(1) and FAR 57.227-11(b)(2).²⁶² Consistent with 37 C.F.R. § 401.14(e) and FAR 52.227-11(b)(2), the DARPA Template prohibits the transfer of such license except with the approval of DARPA (providing that such approval will not be unreasonably withheld).²⁶³ The Government's ability, subject to notice and the ability to show cause, to revoke or modify a domestic license to allow for a third-party license under 37 C.F.R. Part 404 is preserved, but the specific appeal rights referenced in 37 C.F.R. § 401.14(e)(3) and FAR 52.227-11(b)(2)(ii) have been removed.²⁶⁴ The DARPA Template includes the preference for U.S. industry with respect to exclusive licensees (in 37 C.F.R. § 401.14(i); FAR 52.227-11(g)).²⁶⁵ It retains virtually identical march-in rights to those in the Bayh-Dole clauses,²⁶⁶ but refers to no procedures (such as 37 C.F.R. § 401.6) that govern the march-in rights.²⁶⁷ Finally, the DARPA Template requires the contractor to include the patent rights provisions "suitably modified" in all subcontracts of every tier for experimental, developmental, or research work.²⁶⁸

In summary, despite being free from the shackles of Bayh-Dole, the DARPA Template includes all of its provisions that may deter a small business from pursuing the development and prototype production of new technologies helpful to the warfighter. These include the short time frames for disclosure and election of title, the forfeiture threat for failure to timely disclose, the multiple threats (in the form of march-in rights and revocation rights) of the Government taking title, and the broad Government purpose license rights afforded to DOD. Making matters worse, although

the Government retains the right to revoke title, the DARPA Template offers none of the procedural safeguards, including rights to appeal, built in to the Bayh-Dole Act. Finally, there is no consideration for an extended period before patent applications are filed where the Government is obliged to keep confidential proprietary data associated with disclosures to permit the parties to discuss the alternative of trade secret protection.

DOD OTA Consortium Agreements

A common form of agreement used by DOD for prototype OTAs under 10 U.S.C.A. § 2371b is the consortium agreement.²⁶⁹ Under this arrangement,²⁷⁰ the contracting party, a nonprofit consortium management firm (CMF), enters into a consortium agreement or articles of collaboration governing interactions between the members.²⁷¹ Member entities can number in the hundreds and include small start-up technology companies, established commercial technology companies, nonprofit research institutions including universities (all of which will most likely be considered "nontraditional defense contractors," and, in some cases, large defense contractors (which may participate through a cost-sharing mechanism as required by 10 U.S.C.A. § 2371b(d)(1)(D)).²⁷²

The CMF enters into a "master" OTA with a DOD agency. The agency then issues Requests for Project Proposals (RPPs) through the CMF on potential prototype projects to consortium members based on white papers submitted by the members.²⁷³ The Government then evaluates the proposals, makes award selections, and negotiates through the CMF separate OTA project agreements under the terms and conditions of the base OTA.²⁷⁴ Each member awarded a project agreement is considered a direct participant in the transaction and has direct privity of contract with the Government.²⁷⁵ As of September 2017, there were at least 14 existing OTA Consortia within DOD.²⁷⁶

The C5 Consortium OTA

Typical of these agreements is the Agreement between United States Army Contracting Command and the Consortium Management Group, Inc. (CMG) on behalf of the Consortium for Command, Control, and Communications in Cyberspace (C5 Consortium), dated April 20, 2017, (as amended March 22, 2018) (C5 OTA).²⁷⁷ The C5 OTA provides for a 10-year term and a project cost of \$2 billion, pursuant to which the Government and C5 Consortium members will perform "a coordinated research and develop-

ment program to develop prototype Command, Control, and Communications in Cyberspace technologies directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the DOD.”²⁷⁸

Rights to subject inventions are allocated in the following manner under the C5 OTA (and its project agreement progeny). Citing and relying on the Bayh-Dole Act,²⁷⁹ the C5 OTA provides that the project agreement holder (PAH) retains title to each subject invention subject to a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the subject invention throughout the world.²⁸⁰ Like the DARPA Template, the disclosure, election of title, and filing provisions are similar to those found in Clause 401.14 and the clause at FAR 52.227-11 but include some material differences.

CMG, on behalf of the PAH, must disclose the invention within four months (rather than two) after the inventor discloses it in writing to company personnel responsible for patent matters.²⁸¹ Like the DARPA Template, the C5 OTA does not obligate the PAH to elect title; rather, it nonsensically requires notice within nine months following disclosure of a decision *not to retain title*.²⁸² That period may be shortened if publication, sale, or public use has initiated the one-year statutory period under 35 U.S.C.A. § 102(b).²⁸³ Patent applications must be filed within one year “after election of title” (despite there being no provision in the C5 OTA for electing title) or prior to the end of “the statutory period,” whichever is earlier. The PAH may elect foreign patent applications generally within 10 months of the filing of the initial patent application.²⁸⁴ Requests for extension of time will not be unreasonably withheld.²⁸⁵ The Government may request title if the PAH fails to make the proper disclosures and filings on a timely basis, which may be exercised within *three years* from the Government receiving notice (as opposed to no time limitation in the recently amended 37 C.F.R. § 401.14(d)(1) and the 60-day notice requirement in FAR 52.227-11(d) and the DARPA Template). Consistent with 37 C.F.R. § 401.14(d)(2) and FAR 52.227-11(d)(ii), if a patent application has already been filed, even on a timely basis, the Government forfeits the right to elect title if it has not provided notice before the application has been filed.²⁸⁶

In all cases where the Government obtains title, the PAH is entitled to retain a nonexclusive, royalty-free license throughout the world in each invention. One of the harshest

penalties of the Bayh-Dole regulations—the forfeiture of rights for failure to timely disclose in 37 C.F.R. § 401.14(e)(1) and FAR 57.227-11(b)(2)—has been removed. Like the DARPA Template, the Government’s ability, subject to notice, to revoke or modify a domestic license to allow for a third-party license under 37 C.F.R. Part 404 is preserved, but the specific appeal rights referenced in 37 C.F.R. § 401.14(e)(3) and FAR 52.227-11(b)(2)(ii) have been removed. The C5 OTA patent rights clause expands the preference for U.S. industry in 37 C.F.R. § 401.14(i) and FAR 52.227-11(g) to include both the United States and Canada.²⁸⁷ As with the DAPRA Template, it retains virtually identical march-in rights, but unlike prior clauses, refers to no procedures which govern the march-in rights.²⁸⁸ Finally, unlike its cousins discussed above, the C5 OTA patent rights clause states flatly that the PAH and its subcontractors retain all rights to background inventions, with no provision permitting the licensing of such background inventions if the circumstances require.²⁸⁹

VLC OTA Form Project Agreement for Vertical Lift Consortium

The Form OTA Project Agreement for the Vertical Lift Consortium (VLC Form Project Agreement),²⁹⁰ like its cousins, follows the Bayh-Dole blueprint with marginal contractor friendly exceptions but also disturbing procedural omissions. The VLC Form Project Agreement is identical to the C5 OTA regarding retaining title.²⁹¹ However, the Government’s rights are subject to the condition that 50% or more of the cost of the task under which the subject invention was conceived or reduced to practice was funded by the Government.²⁹² Indeed, the definition of “subject invention” includes this condition as well, while “background invention” is defined as any invention that was “conceived, designed, developed, produced, and/or actually reduced to practice outside the scope of work performed under this Agreement.”²⁹³ This leaves a virtual no man’s land for inventions conceived or reduced to practice in connection with work performed under the Agreement where 50% or more of the work was not funded by the Government.

The Project Agreement Awardee (PAA) must disclose the invention within 110 days after the inventor discloses it in writing to company personnel responsible for patent matters.²⁹⁴ The VLC Form Project Agreement includes the same forfeiture provisions in the clause at FAR 52.227-11 and the DARPA Template.²⁹⁵ However, the patent rights clause includes a catch-all provision requiring the Government to provide written notice and afford the PAA a reason-

able time to cure of no less than 60 days in all instances where the Government may gain title by reason of the PAA's failure to act.²⁹⁶

In all cases where the Government obtains title, the PAA is entitled to retain a nonexclusive, royalty-free license throughout the world in each invention. The Government's ability to revoke or modify a domestic license to allow for a third-party license under 37 C.F.R. Part 404 is preserved, but the specific appeal rights referenced in 37 C.F.R. § 401.14(e)(3) and FAR 52.227-11(b)(2)(ii) have been removed.²⁹⁷ As in the C5 OTA patent rights clause, the preference for U.S. industry is expanded to include both the United States and Canada.²⁹⁸ Similarly, the VLC Form Project Agreement retains virtually identical march-in rights, but requires the Government to pursue procedures set forth in 37 C.F.R. § 401.6 in exercising the march-in rights.²⁹⁹ And like the C5 OTA patent rights clause, the VLC Form Project Agreement patent rights clause states flatly that the PAH and its subcontractors retain all rights to background inventions, with no provision permitting the licensing of such background inventions if the circumstances require.³⁰⁰

DIUx Agreements

The Defense Innovation Unit Experimental (DIUx) was established in August 2016 to act as an "interface node between DoD, entrepreneurs, start-up firms, and commercial technology companies in Silicon Valley, California (DIUx West); Boston, Massachusetts (DIUx East); and other U.S. technology hubs to increase DoD access to leading-edge commercial technologies and technical talent."³⁰¹ The DOD Directive empowers DIUx with "all necessary acquisition authorities through a Military Department, DOD contact administration services component, or a federal agency, as appropriate, to further DIUx's mission, as approved by the Deputy Secretary of Defense."³⁰² Relying on 10 U.S.C.A. § 2371b, DIUx created a new contracting process called "Commercial Solutions Opening" (CSO) to execute prototype projects to solve national defense problems. According to the DIUx 2017 Annual Report, its elements include a simple solicitation; a fast track 60- to 90- day award process; negotiable payment milestones, terms and conditions, and IP and data rights; and commercial accounting standards.³⁰³

As described in the DIUx "How-To Guide,"³⁰⁴ the CSO process involves the following steps:

- DIUx posts Areas of Interest (AOIs) on its website

briefly describing problems to be solved or technologies of interest.³⁰⁵

- Vendors may propose solutions directly to DIUx in the form of a short paper or slide deck.³⁰⁶
- DIUx then evaluates the submissions on the basis of relevance, technical merit, business viability, and innovation.³⁰⁷
- Successful submissions lead to a "pitch" by the vendor in person or by video or teleconference.³⁰⁸
- If the pitch is successful, a Request for Prototype Proposal (RPP) is issued together with suggested OTA template with model terms and conditions.³⁰⁹
- The parties work collaboratively in meetings to develop a statement of work, payment milestones, and specialized terms and conditions for the OTA.³¹⁰
- A final recommendation is made that the negotiated proposal meets the statutory requirements for an OTA prototype award and that the price is reasonable.³¹¹
- Once final evaluation is complete, the Agreements Officer negotiates the terms and conditions of the OTA based on the model terms and conditions.³¹²

With regard to IP rights, DIUx states specifically in its "How-To Guide" that it is "open to flexible intellectual property (IP) clauses and weighs the risks and benefits accordingly," given that many of the products may be commercial products adapted for commercial use.³¹³ It further provides in Appendix C, that "[a]ll intellectual property (IP) rights are negotiable and the Government does not plan to own any IP."³¹⁴ Although the author of this BRIEFING PAPER was unable to obtain a publicly available agreement or form agreement, information and belief suggests that the DIUx OTAs are structured in a way where the contractor retains title to all inventions under the OTA and the Government's license rights remain based on a Bayh-Dole construct (including broad Government purpose rights, march-in and revocation rights, and deadlines for disclosure, election of title, and the pursuit of a patent application). There remains great flexibility to adapt these provisions from their standard FAR-based form in a manner favorable to the contractor.

OTAs Under NASA

The Space Act,³¹⁵ passed post-Sputnik³¹⁶ to achieve

technological superiority in space over the Soviet Union, authorizes NASA to “enter into and perform such contracts, leases, cooperative agreements, or *other transactions* as may be necessary in the conduct of its work and on such terms as it may deem appropriate.”³¹⁷ NASA OTAs are referred to as Space Act Agreements (SAAs).³¹⁸ Authority to enter into SAAs is broad; there are no limitations on the type of projects or research.³¹⁹ There are no NASA regulations governing SAAs. Rather they are the subject of policy directives, guidance, and suggested template clauses without the force of law. Principal guidance is set out in the NASA Policy Directive 105.1I (SAA Policy Directive)³²⁰ and the Space Act Agreement Guide (SAA Guide).³²¹

Patent Rights Under NASA's SAA Guide

An SAA is not a procurement contract,³²² and the patent and data rights sections of the FAR and the NFS do not apply.³²³ However, although Bayh-Dole does not apply, NASA's statute governing property rights in inventions, 51 U.S.C.A. § 20135, applies to SAAs in that it covers “any actual or proposed contract, agreement, understanding, or *other arrangement*.”³²⁴ NASA's interpretation is that the title taking provisions in § 20135 only apply if the contracting party is performing work “*for NASA rather than for [its] own benefit*.”³²⁵

The Policy Directive provides for three different OTAs under the authority of the Space Act: Reimbursable, Nonreimbursable, and Funded Agreements. The Policy Directive provides that all agreements must include provisions, *inter alia*, regarding “allocation of intellectual property rights implicated or created under the Agreement.”³²⁶ Reimbursable Agreements are agreements where “NASA's costs associated with the undertaking are reimbursed by the partner (in full or in part).”³²⁷ According to the Policy Directive, “NASA undertakes Reimbursable Agreements when it has unique goods, services, and facilities not being fully utilized to accomplish mission needs, which it can make available to others on a noninterference basis, consistent with the Agency's missions.”³²⁸ Nonreimbursable Agreements “involve NASA and another party in a mutually beneficial activity that furthers the Agency's missions, wherein each party bears the cost of its participation, and there is no exchange of funds between them.”³²⁹ The contributions of each party must be fair and reasonable. Funded Agreements are agreements pursuant to which “appropriated funds are transferred to a domestic partner to accomplish an Agency mission.”³³⁰ Funded Agreements “*may be used only when*

the Agency's objective cannot be accomplished through the use of a procurement contract, grant, or cooperative agreement.”³³¹

The SAA Guide provides guidance on Reimbursable and Nonreimbursable Agreements. The SAA Guide addresses intellectual property rights in four areas: data rights, rights in “raw data” generated under the SAA, invention and patent rights, and the U.S. Government's authorization and consent to the use of third-party patents and copyrights.³³² The appendix sets out sample clauses³³³ addressing each of these areas. The clauses are to provide consistency, but the SAA Guide permits flexibility to modify the clauses to fit particular circumstances.³³⁴ The clauses include four standard clauses governing data rights and clauses governing authorization and consent and patent indemnity.³³⁵

The SAA Guide provides for two clauses, a Short Form Clause and a Long Form Clause, when the contracting party is not performing work under the SAA for NASA but is participating in collaborative activities for its own benefit.³³⁶ A third clause, a Title-Taking Clause, is prescribed where the contracting party is performing work under the SAA “for NASA rather than its own benefit.”³³⁷ As the SAA Guide explains, it is possible but unlikely that such a clause will be used in Nonreimbursable and Reimbursable Agreements but most certainly will be used in Funded Agreements.³³⁸

The SAA Guide provides that the Short Form Clause is to be used in cases of nontechnical SAAs such as those used for strategic alliances, education, public outreach, or community or public affairs events where there is a low probability that an invention will result.³³⁹ However, in the unlikely event that an invention may be conceived or first actually reduced to practice under this type of SAA, the clause provides that title to such inventions remains with the respective parties, and that the parties will negotiate acceptable licenses and other rights associated with joint inventions.³⁴⁰ The SAA Guide provides that the Long Form Clause is to be used when SAAs involve technical activities (e.g., design, engineering, research, development, and experimental activities) where there is a probability that an invention may result by either NASA or the contracting party.³⁴¹ As under the Short Form Clause, the principle that each party keeps rights to its own inventions continues to apply.³⁴² NASA gets no rights to any invention made solely by the contracting party, but may negotiate a license to use the party's “invention for research, experimental, and evaluation purposes.”³⁴³ With regard to inventions by NASA em-

ployees, the SAA Guide provides that “[a]n incentive to commercialize NASA developed technology, NASA will use reasonable efforts to grant the contracting party a license” in accordance with the requirements of 37 C.F.R. Part 404.

As to joint inventions, NASA and the contracting party are joint owners of the invention and may enter into a “Joint Ownership Agreement. . .to address the patent prosecution and commercialization responsibilities and NASA may agree to refrain from exercising its undivided interest in joint inventions in a manner inconsistent with the Partner’s commercial interests.”³⁴⁴ The patent rights clauses in Nonreimbursable and Reimbursable Agreements represent a significant departure from Bayh-Dole and the more restrictive Space Act patent provisions, in that under these agreements, NASA is not even entitled to a Government purpose license.

Funded Agreements

The SAA Guide provides that the Title-Taking Clause applies in instances where a contracting party performs “work of an inventive type. . .for NASA” whether it is funded by NASA or not. In such cases, 51 U.S.C.A. § 20135 applies and title to inventions conceived or reduced to practice by the contracting party exclusively vest in the Government.³⁴⁵ Under the Title-Taking Clause (like its NFS counterpart), the contracting party is granted a revocable, nonexclusive royalty-free license in each patent application or patent in any country on an invention made by the contracting party under the agreement where the Government has title, unless contracting party “fails to disclose the invention” within time limits prescribed by the clause.³⁴⁶ The Title-Taking Clause does not address the mechanism by which NASA obtains title if there is a failure to disclose; nor is there any temporal or other constraint on NASA’s ability to take title if there is a failure to disclose. Further, there is no provision allowing the parties to extend the time periods prescribed in the Title-Taking Clause.³⁴⁷

Disclosure, Notice, And Filing Obligations

The Title-Taking Clause requires the contracting party to establish procedures assuring that inventions made under the Agreement are properly documented and are disclosed to contractor personnel responsible for the administration of the clause within six months of conception and/or first actual reduction to practice, whichever occurs first.³⁴⁸ The contractor must disclose each invention to NASA’s Patent Representative within two months after disclosure by the inven-

tor, or, if earlier, within six months after the contracting party becomes aware that such invention has been made, but in no event before any sale, public use, or publication of the invention known to the contracting party.³⁴⁹ The contracting party must furnish interim reports every 12 months from the date of the Agreement listing the inventions made during the period and certifying that all such inventions have been disclosed and a final report within three months after completion of the work listing all inventions made under the Agreement.³⁵⁰ The clause provides that NASA will withhold such reports and disclosures from public access for a reasonable time (one year is suggested) “to facilitate the allocation and establishment of invention and patent rights.”³⁵¹

The Title-Taking Clause provides no specific obligation on the part of NASA to file a patent application and to do so within a prescribed period of time. The disclosure provisions in both the data rights and patent rights sample clauses³⁵² permit NASA to make public reported inventions within certain narrow time periods. One year is suggested but the parties have discretion to extend that period. The data rights clauses further permit the contracting party to request that proprietary data produced by the contracting party and provided to NASA under the SAA be protected, subject to NASA’s ability to use and disclose for Government purposes.³⁵³ Data first produced by NASA will be protected from public disclosure for a period of up to five years, with the caveat that NASA typically designates the restriction period to be one to two years.³⁵⁴ These provisions provide a starting point—not an end point—for the negotiation of patent and data rights clauses to preserve the confidentiality of data pertaining to inventions disclosed to NASA for a period of time deemed acceptable by the parties to determine whether a patent application will be pursued or the data will be preserved as a trade secret.

Contractor’s Rights When Waiver Is Granted

Under the Title-Taking Clause the contracting party may seek to retain title to inventions it makes under the SAA through a petition for a waiver (under 14 C.F.R. Part 1245, Subpart I). The Guide instructs that “NASA liberally grants waivers to SAA partners for the purpose of commercializing the waived invention.” A presumption for waivers is included in 14 C.F.R. § 1245.104. Advance waivers may be obtained prior to the execution of the agreement or within 30 days after execution. In lieu thereof, a contracting party may request individual waivers of title following the identification and reporting of inventions. As noted above, under 14 C.F.R. Part 1245, the contracting party has one

year from the request for an advanced waiver and one year from the grant of an individual waiver (or a reasonable time thereafter for good cause shown) to file a domestic patent application or the instrument of waiver shall be revoked.³⁵⁵ Foreign applications must be filed within 10 months of the domestic filing (subject to an extension) or six months from the date a license is granted by the Commissioner of Patents and Trademarks to file foreign patent application where such filing has been prohibited by a Secrecy Order.³⁵⁶ The Title-Taking Clause, however, is silent on this important point.

The Title-Taking Clause provides that with respect to any inventions which are subject to a waiver, the Government retains “an irrevocable, royalty-free license to practice the invention throughout the world by the United States or any foreign government under any treaty or agreement with the United States.”³⁵⁷ This is the only condition required under the Space Act provision governing rights in inventions.³⁵⁸ However, the SAA Guide goes further to prescribe conditions and requirements similar to those included in Bayh-Dole and its implementing regulations. March-in rights are specifically provided for in the Title-Taking Clause (which also reference Bayh-Dole regulation 37 C.F.R. § 401.6).³⁵⁹ Moreover, separate and apart from march-in rights, NASA has the right to revoke or modify the license, “if necessary to achieve expeditious practical application of the invention where a third party applies for an exclusive license under 37 C.F.R. Part 404,” and in a foreign country if NASA determines that the contracting party fails to achieve practical application in that country.³⁶⁰ Revocation and modification are subject to 30 days’ written notice to show cause and appeal rights under 14 C.F.R. § 1245.112.³⁶¹ In this way, two of the provisions of Bayh-Dole most odious to commercial companies (although never in fact used) make their way in as a requirement of a NASA SAA even though they are not required by the Space Act.

In addition, the Title-Taking Clause requires the contracting party to produce products embodying inventions or using inventions made under the Agreement that are “manufactured substantially in the United States.”³⁶² This is a significant departure and is *more restrictive* than Bayh-Dole statute and regulations,³⁶³ which limit the domestic preference to exclusive licensees of the funding recipient. The Title-Taking Clause (unlike the Bayh-Dole statute or regulation) provides a definition of “manufactured substantially in the United States” borrowing a portion of the “components” test from FAR 25.101 implementing the Buy American Act,³⁶⁴ which requires acquisition of, inter alia, “manufac-

tured articles, materials, and supplies that have been manufactured in the United States substantially all from articles, materials or supplies mined, produced, or manufactured in the United States”³⁶⁵ (meaning over 50% of product is manufactured in the United States).³⁶⁶ Under the clause, this requirement is met “if the cost to [the contracting party] of components mined, produced, or manufactured in the United States exceeds [50%] of the cost of all components (considering only the product and its components).”³⁶⁷ The definition leaves out the other prong of the Buy American statute and FAR 25.101 that requires the article to be “manufactured in the United States.”³⁶⁸ This omission appears to be inadvertent but will undoubtedly confuse those contracting parties attempting to understand their obligations under the form clause if adopted without change.

Subcontract Flow-Downs

The contracting party is required to flow down the Title-Taking Clause in all subcontracts and other agreements “for performance of experimental, developmental, or research work.”³⁶⁹ The clause provides for privity of contract between the subcontractor and NASA with respect to invention and patent rights.³⁷⁰ It permits the contracting party to acquire by negotiation and mutual agreement rights to an invention made under the SAA by a subcontractor, and in the event of an inability to reach an agreement, request that such rights for the contracting party be included as an additional reservation in a waiver granted pursuant to 14 C.F.R. Part 1245, Subpart 1.³⁷¹ In cases where the subcontractor does not request a waiver of title, NASA will acquire title, however, the contracting party can request a license from NASA consistent with the requirements of 37 C.F.R. Part 404.³⁷²

These provisions are stark in contrast to the clear admonition in the FAR patent rights clause that the prime contractor shall not substitute itself for the Government in flowing down the clause nor, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor’s subject inventions.³⁷³ The relative rights of the prime contractor and different tiered subcontractors vis-à-vis an invention at a lower tier is not addressed in any of the DOD regulations, guidance, and forms governing OTAs. The simple requirement to flow down the clauses does not address the more subtle point of whether and under what terms a higher tier contractor can take rights from a lower tier contractor.

NASA Funded OTA Agreements—An Example

The SAA Guide does not address provisions for Funded Agreements. But NASA provides access to a number of actual SAA Funded Agreements related to NASA's Commercial Crew Program Development initiatives designed to stimulate efforts within the private sector to develop system concepts capabilities leading to commercial human space-flight services.³⁷⁴ Since 2009, NASA has awarded more than \$1.43 billion in SAAs for initiatives called Commercial Crew Development (CCDev) (CCDev1 and CCDev2) and the Commercial Crew Integrated Capability (CCiCap).³⁷⁵

Under Space Exploration Technologies Corp.'s (SpaceX) CCDev2 SSA (the SpaceX SSA),³⁷⁶ NASA has reported that SpaceX received \$75 million for its development efforts.³⁷⁷ The base agreement is a mere 28 pages and incorporates no clauses by reference. Its attachments, setting forth a statement of work in the form of SpaceX's proposal are limited to an additional 21 pages, making the entire agreement 49 pages. Neither the base contract nor the statement of work requires any data deliverables. Rather, it provides for 10 milestones in which designs and prototypes will be developed for crew transportation systems and presented to NASA.

The SpaceX SSA's patent rights clause, like other CCDev Agreements,³⁷⁸ relies on the SAA Guide's Title-Taking Clause, but departs significantly from that clause in key areas providing useful information for negotiations of future agreements.³⁷⁹ The clause includes restrictions on the NASA's license rights and other modifications favorable to the contractor. Departures from the Title-Taking Clause include blanket waivers of title to inventions conceived or first actually reduced to practice under the agreements coupled with restraints on the Government's Government purpose license rights (in lieu of title) of such inventions and the protection of preexisting inventions. However, the SpaceX SSA patent rights clause retains, and in some case, broadens material Government rights (e.g., the march-in clause) and lacks clarity in certain key areas important to any contractor. It is therefore a useful model but not the lodestar for a contractor's approach to negotiations.

Waiver Of Title

The SpaceX patent rights clause builds in to the SSA an express waiver to SpaceX, as permitted in 14 C.F.R. Part 1245, Subpart 1.³⁸⁰ The waiver is of *all rights* to inventions made by SpaceX in the performance of work under this

Agreement with certain limited exceptions is discussed further below.³⁸¹ SpaceX must still comply with the advanced waiver or individual waiver procedures to secure title to the inventions, including the obligation to pursue a domestic patent application within one year of the request for the advance waiver and one year after an individual waiver is granted.³⁸² The parties did not address the deadline for filing the application in the clause nor agree to extend it or make it more flexible.

The SSA makes explicit that NASA will waive all rights to inventions made in advance waivers and individual inventions identified within eight months of first disclosure of the invention or such longer time as may be authorized by NASA.³⁸³ SpaceX's waiver is conditioned on its compliance with the invention disclosure obligations of the SpaceX patent rights clause.³⁸⁴ However, there is no specific provision addressing how title is revoked in such circumstances or any procedures addressing how SpaceX can challenge such an action.

Disclosure And Reporting Obligations

The SpaceX SSA adopts in whole cloth the disclosure obligations in the Title-Taking Clause. It requires the contracting party to establish procedures assuring that inventions made under the SpaceX SSA are properly documented and are disclosed to contractor personnel responsible for the administration of the clause within six months of conception and/or first actual reduction to practice, whichever occurs first.³⁸⁵ The Title-Taking Clause requires the contractor to disclose each invention to NASA's Patent Representative within two months after disclosure by the inventor, or, if earlier, within six months after the contracting party becomes aware that such invention has been made, but in no event before any sale, public use, or publication of the invention known to the contracting party.³⁸⁶

SpaceX must furnish interim reports every 12 months listing the inventions made during the period and certifying that all such inventions have been disclosed and a final report within three months after completion of the work, listing all inventions made under the SpaceX SSA.³⁸⁷ It provides that NASA will withhold such reports and disclosures from public access for a reasonable time (presumed in this agreement to be two years) "to facilitate the allocation and establishment of invention and patent rights."³⁸⁸

Government Rights And Conditions

The SpaceX patents rights clause provides the Govern-

ment with an irrevocable, royalty-free license for the practice of such inventions throughout the world “by or on behalf of the United States or any foreign government in accordance with any treaty or agreement with the United States.”³⁸⁹ However, it provides that the “Government purpose license” will not be exercised by NASA during the term of the SpaceX SSA for five years following the expiration of the SpaceX SSA or until December 2020, whichever is later.³⁹⁰ The clause includes a minimum rights section giving SpaceX license rights in which the Government acquires title but the section is largely irrelevant as the Government has agreed to waive all rights to title in all inventions made under the SpaceX SSA.³⁹¹

The SpaceX SSA removes the obligation (in the Title-Taking Clause) to produce products embodying inventions or using inventions made under the SpaceX SSA that are “manufactured substantially in the United States.”³⁹² However, it includes the provision allowing SpaceX’s domestic license to be revoked or modified “to the extent necessary to achieve expeditious practical application of such invention pursuant to an application for an exclusive license submitted in accordance with 37 C.F.R. Part 404.”³⁹³ Revocation rights are conditioned on a written notice to show cause and appeal rights under 14 C.F.R. 1245.112.³⁹⁴ Moreover, it *expands* NASA’s march-in rights to include situations in which SpaceX has “achieved practical application of such invention but failed to maintain practical application of such invention in such field of use”; and “discontinued making the benefits of such invention available to the public or to the Federal Government.”³⁹⁵

Subcontractors

As in the Title-Taking Clause in the SSA Guide, SpaceX is required to flow down the Title-Taking Clause in all subcontracts and other agreements “for performance of experimental, developmental, or research work.”³⁹⁶ The clause provides for privity of contract between the subcontractor and NASA with respect to invention and patent rights.³⁹⁷ The clause permits SpaceX to acquire by negotiation and mutual agreement rights to an invention made under the SAA by a subcontractor, and in the event of an inability to reach an agreement, request that such rights for the contracting party be included as an additional reservation in a waiver granted pursuant to 14 C.F.R. Part 1245, Subpart 1.³⁹⁸ In cases where the subcontractor does not request a waiver of title, NASA will acquire title but SpaceX can request a license from NASA consistent with the requirements of 37 C.F.R. Part 404.³⁹⁹

Summary

Bayh-Dole represented a sea change in the way the Government addressed rights in inventions conceived or first actually reduced to practice with Government funding by permitting the contracting party the right to elect title in the invention and pursue a patent application with the Government retaining a Government purpose license. However, for innovators in the tech space, whether they be emerging small businesses or large players in the commercial market, the restraints and risks inherent in a Bayh-Dole-based R&D or prototype agreement with the Government have proven too much of a deterrent for entry. These risks and restraints increase for large for-profit companies interested in doing business with NASA where NASA has a presumptive right to title in subject inventions. Because Bayh-Dole is not applicable to OTAs, the OTA vehicle can, as its promoters within NASA and DOD state, serve as a mechanism for a negotiated agreement more favorable to the contracting party. However, that party must enter into negotiations with eyes wide open. It is very likely that the starting point for both DOD and NASA will be a form agreement with similar if not identical provisions governing rights in inventions to those included in traditional procurement instruments. The negotiation should not end there.

Guidelines

These *Guidelines* serve as touchstones for businesses looking at OTAs as a viable option for bringing and developing their technologies under DOD and NASA funding instruments and, more particularly, addressing concerns about protecting and maximizing rights in subject inventions under those instruments. They are not, however, a substitute for professional representation in any specific situation.

1. Before entering into an OTA, develop an IP rights strategy that recognizes that any inventions conceived or actually reduced to practice under the OTA will require disclosure of proprietary information concerning the invention and include some form of broad license to the Government to use the information and practice the invention. Consider converting a potential subject invention into a background invention before funding commences.

2. Understand that the first draft of a proposed OTA solicitation form agreement (including a form project agreement under a consortium agreement) most likely includes a patent rights clause similar to the Bayh-Dole clause in the FAR,

and the Agreements Officer conducting the negotiations is most comfortable and familiar with the Bayh-Dole provisions. Use the flexibility inherent in OTAs and the DOD's and NASA's strong endorsement of more commercial-like licenses to get the Agreements Officer out of his or her comfort zone.

3. Work with counsel to scrub the form clauses presented in the proposed patent rights clause. Use the information provided in this BRIEFING PAPER to understand the variance and nuances to each of the clauses so you can exploit the flexibility inherent in the OTA process to negotiate a clause that is most advantageous to your company.

4. Go in to the negotiations knowing the precedent DOD and NASA have already established in straying from Bayh-Dole. The guides, templates, and past agreements suggest that the broad Government purpose license can be restricted, delayed, or made contingent on certain events. DOD and NASA are open to longer deadlines for notice, election, and patent applications, dropping the forfeiture provisions for failure to disclose or providing an opportunity to cure. Curtailing the domestic manufacturing requirement for exclusive licensees and permitting the prime to negotiate licenses in subcontractor subject inventions are also positions that DOD and/or NASA have found acceptable.

5. Fight back on the revocation and march-in rights provisions—they are not mandatory. But do not lose sleep if the OTA includes a provision allowing the Government to claw back title. The Government has never acted on these rights. Just make sure the OTA includes the procedural safeguards (such as written notice, an opportunity for a factfinding hearing, and appeal rights) that are mandatory in traditional procurements.

6. Talk with the Agreements Officer about trade secret protection vs. patent protection. It may be in the interest of both parties that a patent not be pursued. Work on extending the deadlines for election of title and filing patent applications and work to make ironclad the confidentiality protections for proprietary data disclosed to the Government associated with the invention. Always be mindful of the dangers in waiting (especially if there has been any form of public use) because of the AIA's first-to-file rule.

7. For NASA OTAs, remember the Space Act (granting title to the Government in subject inventions) still applies. Following the lead of the CCDev OTAs, think about upfront blanket waivers, but do not forget that even with such waivers, the awardee must still comply with the reporting

requirements. Moreover, the Space Act leaves enormous discretion to NASA once a waiver has been made. Agreements Officers are not bound by the Bayh-Dole-like provisions governing waivers in NASA regulations incorporated by reference in the SAA Title-Taking Clause. First, know the waiver provisions (they are not in the clause), and then challenge them in negotiations if they present too much risk.

ENDNOTES:

¹See Vadiie & Garland, "The Federal Government's 'Other Transaction' Authority," 18-5 Briefing Papers 1 (Apr. 2018). This Briefing Paper provides a recent and comprehensive analysis of the origins and use by federal agencies of other transaction authority.

²Bloomberg Government Announcement, "OTA Spending on the Rise" (June 19, 2018), <https://platform.cinchcast.com/ses/eXdvvbAoZOMD6XFNens-BQ~>.

³See Sec'y of Defense, Summary of the 2018 National Defense Strategy of the United States of America, <https://dlbjbzgk95t.cloudfront.net/1003000/1003400/2018-national-defense-strategy-summary.pdf>.

⁴National Aeronautics and Space Act of 1958, Pub. L. No. 85-568, § 203(b)(5), 72 Stat. 426, 430 (1958). NASA's OT authority was made permanent in 1990. National Aeronautics and Space Administration Authorization Act, Fiscal Year 1991, Pub. L. No. 101-611 (1990). See Vadiie & Garland, "The Federal Government's 'Other Transaction' Authority," 18-5 Briefing Papers 1, at 3 (Apr. 2018).

⁵National Defense Authorization Act for Fiscal Years 1990 and 1991, Pub. L. No. 101-189, § 251, 103 Stat. 1352, 1403 (1989). See Vadiie & Garland, "The Federal Government's 'Other Transaction' Authority," 18-5 Briefing Papers 1, at 3 (Apr. 2018).

⁶Vadiie & Garland, "The Federal Government's 'Other Transaction' Authority," 18-5 Briefing Papers 1 (Apr. 2018).

735 U.S.C.A. §§ 200–212.

⁸51 U.S.C.A. § 20135.

⁹Vadiie & Garland, "The Federal Government's 'Other Transaction' Authority," 18-5 Briefing Papers 1 (Apr. 2018) (citing Yeane, BGOV Identifies \$2 Billion "Other Transaction Authority" Market, 109 Fed. Cont. Rep. (BNA) No. 198 (Feb. 21, 2018)).

¹⁰See National Defense Authorization Act for Fiscal Year 2018, Pub. L. No. 115-91, § 867, 131 Stat. 1283, 1495 (2017).

¹¹Pub. L. No. 115-91, § 867.

¹²Nash, "Other Transactions: A Preferred Technique?," 32 Nash & Cibinic Rep. NL ¶ 8 (Feb. 2018) (citing S. Rep. No. 115-125 (2017)).

¹³John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, § 873, 132 Stat. 1632, 1905–06 (Aug. 13, 2018).

¹⁴10 U.S.C.A. § 2371b(f); Oracle Am., Inc., Comp. Gen.

Dec. B-416061, 2018 CPD ¶ 2 (May 31, 2018) (released June 6, 2018).

¹⁵Oracle Am., Inc., Comp. Gen. Dec. B-416061, 2018 CPD ¶ 4 (May 31, 2018) (released June 6, 2018) (citing DOD Directive 5105.85 (establishing DIUx's mission and internal governance council)).

¹⁶Defense Innovative Unit Experimental (DIUx), Annual Report 2017, at 3–4 (2017), <https://diux.mil/download/datasets/1774/DIUx%20Annual%20Report%202017.pdf> [hereinafter DIUx Annual Report 2017].

¹⁷Cassidy, Plitsch & Evans, “DIUx and DoD Other Transaction Prototype Agreements: The Fast Track to DoD Funding,” Inside Government Contracts (Feb. 22, 2018), <http://www.insidegovernmentcontracts.com/2018/02/7476/>.

¹⁸DIUx Annual Report 2017, at 5 (2017).

¹⁹Oracle Am., Inc., Comp. Gen. Dec. B-416061, 2018 CPD ¶ 15 (May 31, 2018) (released June 6, 2018).

²⁰See Vadiée & Garland, “The Federal Government’s ‘Other Transaction’ Authority,” 18-5 Briefing Papers 1, at 6 (Apr. 2018) (citing Gov’t Accountability Office, GAO-16-209, Federal Acquisitions: Use of “Other Transaction” Agreements Limited and Mostly for Research and Development Activities 27 (Jan. 2016) [hereinafter GAO-16-209]).

²¹NASA, Partnerships, NASA Space Act Agreements, <https://www.nasa.gov/partnerships/about.html> (last visited July 9, 2018).

²²NASA, Commercial Crew Program—The Essentials, <https://www.nasa.gov/content/commercial-crew-program-the-essentials/> (last visited July 9, 2018).

²³Klimas, “Speeding Up Space Acquisition ‘Number One Issue,’ White House Adviser Says,” Politico (Jun. 22, 2018, 5:08 AM), https://www.politico.com/amp/story/2018/06/22/space-eric-stallmer-commercial-spaceflight-foundation-664284?twitter_imp=impression=true.

²⁴Magnuson, “Space Force Edict Comes as Leaders Attempt Major Acquisition Reorganization,” National Defense Magazine (June 25, 2018), <http://www.nationaldefensemagazine.org/articles/2018/6/25/space-force-edict-comes-as-leaders-attempt-major-acquisition-reorganization>.

²⁵Bell & Sturgis, “Feature Comment: DOD’s Prototype OTA Guide Offers Insight Into DOD’s Experiment in Regulation-Free Acquisition,” 59 GC ¶ 155 (May 24, 2017); see, e.g., 10 U.S.C.A. § 2371(a).

²⁶Bell & Sturgis, “Feature Comment: DOD’s Prototype OTA Guide Offers Insight Into DOD’s Experiment in Regulation-Free Acquisition,” 59 GC ¶ 155 (May 24, 2017).

²⁷GAO-16-209, at 6.

²⁸GAO-16-209, at 9.

²⁹35 U.S.C.A. §§ 200–212.

³⁰See 51 U.S.C.A. § 20135.

³¹51 U.S.C.A. § 20135(a)(1).

³²35 U.S.C.A. § 171(a).

³³35 U.S.C.A. § 154(a).

³⁴35 U.S.C.A. §§ 200–212.

³⁵35 U.S.C.A. § 201(b) (emphasis added).

³⁶Ronald Reagan, Memorandum on Government Patent Policy, The American Presidency Project (Feb. 18, 1983), <http://www.presidency.ucsb.edu/ws/?pid=40945>; see also Exec. Order No. 12,591, § (1)(b)(4), 52 Fed. Reg. 13,414 (Apr. 10, 1987).

³⁷35 U.S.C.A. § 202.

³⁸35 U.S.C.A. § 202(c)(4).

³⁹35 U.S.C.A. § 203.

⁴⁰35 U.S.C.A. § 210(c).

⁴¹51 U.S.C.A. § 20135.

⁴²35 U.S.C.A. § 210(a)(7).

⁴³See 35 U.S.C.A. § 210(c); see also 2 C.F.R. pt. 1800, app. B, § 1800.908 (NASA clause governing patent rights under grants and cooperative agreements for businesses other than large businesses); 48 C.F.R. § 1827.303(b)(1) (providing for use of the clause at FAR 52.227-11 (“Patent Rights—Ownership by the Contractor”) in contracts with small business firms or nonprofit organizations).

⁴⁴35 U.S.C.A. §§ 202–204.

⁴⁵37 C.F.R. § 401.1(b).

⁴⁶83 Fed. Reg. 15,954 (Apr. 13, 2018) (amending 37 C.F.R. pt. 401).

⁴⁷See 37 C.F.R. § 401.2; see also 35 U.S.C.A. § 201(b).

⁴⁸Exec. Order No. 12,591, 52 Fed. Reg. 13,414 (Apr. 10, 1987).

⁴⁹Exec. Order No. 12,618, 52 Fed. Reg. 48,661 (Dec. 24, 1987).

⁵⁰37 C.F.R. § 401.1(b), (e).

⁵¹“Standard Patent Rights,” 37 C.F.R. § 401.14.

⁵²37 C.F.R. § 401.5(a).

⁵³FAR 27.303(a)(1), (b).

⁵⁴See Kelly & Wulf, “Contractors and Grantees Beware! Safe Harbors Removed in Preserving Patent Ownership Rights Under Bayh-Dole,” M&E Government Contracts & Export Controls Alert (May 30, 2018), <https://www.mccarter.com/Contractors-and-Grantees-Beware-Safe-Harbors-Removed-in-Preserving-Patent-Ownership-Rights-Under-Bayh-Dole-05-30-2018/>.

⁵⁵DFARS 227.303(2).

⁵⁶DFARS 227.303(2).

⁵⁷“Patent Rights—Ownership by the Contractor (APR 2015),” 48 C.F.R. § 1852.227-11.

⁵⁸48 C.F.R. § 1852.227-11.

⁵⁹2 C.F.R. §§ 200.51, 200.24.

⁶⁰See, respectively, 32 C.F.R. pt. 32, app. A & pt. 34, app. A (DOD patent provisions for grants and agreements for institutions of higher learning, hospitals, and other nonprofit organizations and for-profit organizations); 2 C.F.R. § 200.315(c); 2 C.F.R. pt. 1800, app. B, § 1800.908 (NASA clause governing patent rights under grants and cooperative agreements for businesses other than large businesses).

- ⁶¹35 U.S.C.A. § 201(c).
- ⁶²35 U.S.C.A. §§ 201(e), 202(a); 37 C.F.R. § 401.14(b); FAR 52.227-11(b).
- ⁶³35 U.S.C.A. § 202(a); 37 C.F.R. § 401.3(a)(2); FAR 27.302.
- ⁶⁴35 U.S.C.A. § 200.
- ⁶⁵37 C.F.R. § 401.4.
- ⁶⁶37 C.F.R. § 401.4.
- ⁶⁷See FAR 27.303(e)(1)(ii); “Patent Rights—Ownership by the Government (DEC 2007),” FAR 52.227-13.
- ⁶⁸35 U.S.C.A. § 202(d).
- ⁶⁹37 C.F.R. § 401.14(e); FAR 52.227-11(b)(2).
- ⁷⁰35 U.S.C.A. § 202(f).
- ⁷¹35 U.S.C.A. § 204; 37 C.F.R. § 401.14(i); FAR 52.227-11(g).
- ⁷²35 U.S.C.A. § 204; 37 C.F.R. § 401.14(i); FAR 52.227-11(g).
- ⁷³35 U.S.C.A. § 202(c)(7)(A); 37 C.F.R. § 401.14(k)(1); 52.227-11(i)(1).
- ⁷⁴35 U.S.C.A. § 202(c)(7)(D); 37 C.F.R. § 401.14(k)(4); FAR 52.227-11(i)(4)–(5).
- ⁷⁵35 U.S.C.A. § 202(c)(7)(B)–(C); 37 C.F.R. § 401.14(k)(2)–(3); FAR 52.227-11(i)(2)–(3).
- ⁷⁶35 U.S.C.A. § 202(c)(1).
- ⁷⁷37 C.F.R. § 401.14(c)(1); FAR 52.227-11(c)(1).
- ⁷⁸37 C.F.R. § 401.14(c)(1); FAR 52.227-11(c)(1).
- ⁷⁹37 C.F.R. § 401.14(c)(1); FAR 52.227-11(c)(1).
- ⁸⁰35 U.S.C.A. § 202(c)(2); 37 C.F.R. § 401.14(c)(2); FAR 52.227-11(c)(2).
- ⁸¹35 U.S.C.A. § 202(c)(3); 37 C.F.R. § 401.14(c)(3); FAR 52.227-11(c)(3).
- ⁸²35 U.S.C.A. § 202(c)(3).
- ⁸³37 C.F.R. § 401.14(c)(3); FAR 52.227-11(c)(3).
- ⁸⁴35 U.S.C.A. § 202(c)(3); 37 C.F.R. § 401.14(c)(3); FAR 52.227-11(c)(3).
- ⁸⁵37 C.F.R. § 401.14(c)(3); FAR 52.227-11(c)(3).
- ⁸⁶See 37 C.F.R. § 401.14(c)(5); FAR 52.227-11(c)(4).
- ⁸⁷37 C.F.R. § 401.14(c)(5).
- ⁸⁸37 C.F.R. § 401.14(a)(7).
- ⁸⁹Pub. L. No. 112-29, 125 Stat. 284 (2011).
- ⁹⁰See 35 U.S.C.A. § 102(a)(2), (d).
- ⁹¹35 U.S.C.A. § 102(a)(1).
- ⁹²Compare 35 U.S.C.A. § 101(b) (2013), with 35 U.S.C.A. § 101(b) (2018).
- ⁹³Compare 35 U.S.C.A. § 101(b) (2013), with 35 U.S.C.A. § 101(b) (2018).
- ⁹⁴35 U.S.C.A. § 202(c)(2); 37 C.F.R. § 401.14(c)(2); FAR 52.227-11(c)(2).
- ⁹⁵35 U.S.C.A. § 202(c)(3).
- ⁹⁶See Felder & Hunnicutt, “Where AIA Meets Bayh-Dole Act: Beware the Ticking Clock,” Law360 (Oct. 29, 2013 2:24 PM), <https://www.law360.com/articles/484096/were-aia-meets-bayh-dole-act-beware-the-ticking-clock>.
- ⁹⁷35 U.S.C.A. § 205.
- ⁹⁸35 U.S.C.A. § 202(c)(1), (2).
- ⁹⁹37 C.F.R. § 401.14(d)(1); FAR 52.227-11(d)(1)(i).
- ¹⁰⁰37 C.F.R. § 401.14(d)(2); FAR 52.227-11(d)(1)(ii).
- ¹⁰¹37 C.F.R. § 401.14(e)(1); FAR 52.227-11(b)(2)(i).
- ¹⁰²FAR 52.227-11(d)(1)(i).
- ¹⁰³37 C.F.R. § 401.14(d)(1).
- ¹⁰⁴See Kelly & Wulf, “Contractors and Grantees Beware! Safe Harbors Removed in Preserving Patent Ownership Rights Under Bayh-Dole,” M&E Government Contracts & Export Controls Alert (May 30, 2018), <https://www.mccarter.com/Contractors-and-Grantees-Beware-Safe-Harbors-Removed-in-Preserving-Patent-Ownership-Rights-Under-Bayh-Dole-05-30-2018/>.
- ¹⁰⁵35 U.S.C.A. § 202(c)(4); 37 C.F.R. § 401.14(b); FAR 52.227-11(d)(2) (emphasis added).
- ¹⁰⁶35 U.S.C.A. § 202(c)(4); 37 C.F.R. § 401.14(b); FAR 52.227-11(d)(2).
- ¹⁰⁷37 C.F.R. § 401.14(f)(1); FAR 52.227-11(e)(1).
- ¹⁰⁸37 C.F.R. § 401.14(f)(2); FAR 52.227-11(e)(2).
- ¹⁰⁹37 C.F.R. § 401.14(f)(2) (as amended).
- ¹¹⁰35 U.S.C.A. § 202(c)(5).
- ¹¹¹37 C.F.R. § 401.14(h); FAR 52.227-11(f).
- ¹¹²35 U.S.C.A. § 202(c)(6); 37 C.F.R. § 401.14(f)(4); FAR 52.227-11(e)(4).
- ¹¹³35 U.S.C.A. § 203(a).
- ¹¹⁴35 U.S.C.A. § 203(a); 37 C.F.R. § 401.14(j); FAR 52.227-11(h).
- ¹¹⁵35 U.S.C.A. § 203(b).
- ¹¹⁶35 U.S.C.A. § 203(b).
- ¹¹⁷37 C.F.R. § 401.14(j); FAR 52.227-11(h).
- ¹¹⁸See 35 U.S.C.A. § 203(b).
- ¹¹⁹Thomas, Cong. Research Serv. R44597, March-In Rights Under the Bayh-Dole Act 8 (Aug. 22, 2016), <https://fas.org/sgp/crs/misc/R44597.pdf>.
- ¹²⁰37 C.F.R. § 401.14(e)(2); FAR 52.227-11(b)(2)(ii).
- ¹²¹37 C.F.R. § 404.10.
- ¹²²37 C.F.R. § 404.10.
- ¹²³37 C.F.R. § 404.11.
- ¹²⁴DFARS 227.303.
- ¹²⁵“Patent Rights—Ownership by the Contractor (Large Business) (JUN 2012),” DFARS 252.227-7038(c)(1)(i).
- ¹²⁶DFARS 252.227-7038(c)(2).
- ¹²⁷DFARS 252.227-7038(c)(4).
- ¹²⁸DFARS 252.227-7038(j).

- ¹²⁹DFARS 252.227-7038(k).
- ¹³⁰FAR 52.227-11(k)(1).
- ¹³¹FAR 27.303(d); FAR 52.227-11(k)(2).
- ¹³²DFARS 252.227-7038(l).
- ¹³³FAR 52.227-11(k)(4); DFARS 252.227-7038(l)(2)(ii).
- ¹³⁴FAR 52.227-11(k)(3)–(4).
- ¹³⁵15 U.S.C.A. § 638(a).
- ¹³⁶15 U.S.C.A. § 638(e)(3).
- ¹³⁷15 U.S.C.A. § 638(e)(4)(A); SBA, Office of Investment and Innovation, Small Business Innovation Research (SBIR) Program, Policy Directive, § 4(a) (Updated: Feb.24, 2014), https://www.sbir.gov/sites/default/files/sbir_pd_wit_h_1-8-14_amendments_2-24-14.pdf [hereinafter SBIR Policy Directive].
- ¹³⁸15 U.S.C.A. § 638(e)(4)(B); SBIR Policy Directive, § 4(b).
- ¹³⁹15 U.S.C.A. § 638(e)(4)(C); SBIR Policy Directive, § 4(c).
- ¹⁴⁰15 U.S.C.A. § 638(j)(2)(A).
- ¹⁴¹SBIR Policy Directive.
- ¹⁴²SBIR Policy Directive, § 8(b)(2).
- ¹⁴³37 C.F.R. § 401.14(c)(3); FAR 52.227-11(c)(3).
- ¹⁴⁴SBIR Policy Directive, app. I, “Instructions for SBIR Program Solicitation Preparation,” § 5(d)(v).
- ¹⁴⁵See 51 U.S.C.A. § 20135 (codified in part).
- ¹⁴⁶51 U.S.C.A. § 20135(a)(1) (emphasis added).
- ¹⁴⁷51 U.S.C.A. § 20135(a)(1).
- ¹⁴⁸See 35 U.S.C.A. § 200–212.
- ¹⁴⁹51 U.S.C.A. § 20135(b)(1).
- ¹⁵⁰51 U.S.C.A. § 20135(b)(2).
- ¹⁵¹51 U.S.C.A. § 20135(g).
- ¹⁵²51 U.S.C.A. § 20135(g).
- ¹⁵³51 U.S.C.A. § 20135(g).
- ¹⁵⁴“New Technology (APR 2015),” 48 C.F.R. § 1852.227-70(b).
- ¹⁵⁵48 C.F.R. § 1852.227-70(b).
- ¹⁵⁶48 C.F.R. § 1852.227-70(d)(1); see 14 C.F.R. § 1245.108(a).
- ¹⁵⁷48 C.F.R. § 1852.227-70(d)(1).
- ¹⁵⁸48 C.F.R. § 1852.227-70(d)(2); 14 C.F.R. § 1245.108(b).
- ¹⁵⁹48 C.F.R. § 1852.227-70(d)(3); 14 C.F.R. § 1245.108(c).
- ¹⁶⁰48 C.F.R. § 1852.227-70(e).
- ¹⁶¹48 C.F.R. § 1852.227-70(e)(2).
- ¹⁶²48 C.F.R. § 1852.227-70(f), (g).
- ¹⁶³48 C.F.R. § 1852.227-70(h).
- ¹⁶⁴14 C.F.R. pt. 1245.
- ¹⁶⁵14 C.F.R. § 1245.104.
- ¹⁶⁶14 C.F.R. § 1245.105; see also 48 C.F.R. § 1852.227-70(b)(3).
- ¹⁶⁷14 C.F.R. § 1245.104.
- ¹⁶⁸14 C.F.R. § 1245.105.
- ¹⁶⁹14 C.F.R. § 1245.112.
- ¹⁷⁰14 C.F.R. § 1245.115(c).
- ¹⁷¹14 C.F.R. § 1245.109(a).
- ¹⁷²14 C.F.R. § 1245.109(b).
- ¹⁷³48 C.F.R. § 1852.227-70(c); 14 C.F.R. § 1245.107.
- ¹⁷⁴35 U.S.C.A. §§ 203, 210; see also 14 C.F.R. § 1245.107.
- ¹⁷⁵48 C.F.R. § 1852.227-70(i).
- ¹⁷⁶FY 1990 & 1991 NDAA, Pub. L. No. 101-189, § 251, 103 Stat. 1352, 1403 (1989) (codified at 10 U.S.C.A. § 2371). See generally Halchin, Cong. Research Serv. RL34760, Other Transaction (OT) Authority 8–16 (July 15, 2011), <https://fas.org/sgp/crs/misc/RL34760.pdf> (for legislative developments through the date of the report).
- ¹⁷⁷Sumption, “Other Transactions: Meeting the Department of Defense’s Objectives,” 28 Pub. Cont. L.J. 365, 381–82 (1999).
- ¹⁷⁸Sumption, “Other Transactions: Meeting the Department of Defense’s Objectives,” 28 Pub. Cont. L.J. 365, 381–82 (1999).
- ¹⁷⁹FY 1992 & 1993 NDAA, Pub. L. No. 102–190, § 826, 105 Stat. 1290, 1442 (1991).
- ¹⁸⁰FY 1994 NDAA, Pub. L. No. 103-160, § 845, 107 Stat. 1547, 1721 (1993).
- ¹⁸¹FY 2016 NDAA, Pub. L. No. 114-92, § 815, 129 Stat. 726, 893 (2015) (codified at 10 U.S.C.A. § 2371b).
- ¹⁸²FY 2018 NDAA, Pub. L. No. 115-91, § 867, 131 Stat. 1283, 1495 (2017) (“Preference for the Use of Other Transactions and Experimental Authority”).
- ¹⁸³See Headquarters U.S. Air Force, Everything you always wanted to know about Other Transaction Authority* But were afraid to ask, <http://acqnotes.com/wp-content/uploads/2014/09/OTA-Overview-July-2016-FINAL.pdf>; see also DOD, Other Transactions Guide for Prototype Projects § C1.5 (Jan. 2017) (Version 1.2.0), [https://www.acq.osd.mil/dpap/cpic/cp/docs/OTA_Guide%20\(17%20Jan%202017\)%20DPAP%20signature%20FINAL.pdf](https://www.acq.osd.mil/dpap/cpic/cp/docs/OTA_Guide%20(17%20Jan%202017)%20DPAP%20signature%20FINAL.pdf) [hereinafter OTA Prototype Guide].
- ¹⁸⁴10 U.S.C.A. § 2371(a).
- ¹⁸⁵10 U.S.C.A. § 2371(e).
- ¹⁸⁶32 C.F.R. § 37.115.
- ¹⁸⁷32 C.F.R. § 37.110 (emphasis added).
- ¹⁸⁸32 C.F.R. § 37.110.
- ¹⁸⁹32 C.F.R. § 37.105.
- ¹⁹⁰Dunn, “Other Transaction Agreements: What Applies?,” 32 Nash & Cibinic Rep. NL ¶ 22 (May 2018); Dunn,

“Feature Comment: Appropriate Contractual Instruments for R&D,” 59 GC ¶ 202 (July 12, 2017); Dunn, “10 U.S.C. § 2371 ‘Other Transactions’: Beyond TIAs,” Strategic Institute Innovation in Government Contracting (July 31, 2017), <http://www.strategicinstitute.org/other-transactions/10-u-s-c-2371-transactions-beyond-tias/>.

¹⁹¹OTA Prototype Guide § C1.1.3.

¹⁹²See DARPA, Contract Management, <https://www.darpa.mil/work-with-us/contract-management>.

¹⁹³32 C.F.R. § 37.105.

¹⁹⁴See Dunn, “Other Transaction Agreements: What Applies?,” 32 Nash & Cibinic Rep. NL ¶ 22 (May 2018); Dunn, “Feature Comment: Appropriate Contractual Instruments for R&D,” 59 GC ¶ 202 (July 12, 2017); Dunn, “10 U.S.C. § 2371 ‘Other Transactions’: Beyond TIAs,” Strategic Institute Innovation in Government Contracting (July 31, 2017), <http://www.strategicinstitute.org/other-transactions/10-u-s-c-2371-transactions-beyond-tias/>.

¹⁹⁵Dunn, “Other Transaction Agreements: What Applies?,” 32 Nash & Cibinic Rep. NL ¶ 22 (May 2018); Dunn, “Feature Comment: Appropriate Contractual Instruments for R&D,” 59 GC ¶ 202 (July 12, 2017); Dunn, “10 U.S.C. § 2371 ‘Other Transactions’: Beyond TIAs,” Strategic Institute Innovation in Government Contracting (July 31, 2017), <http://www.strategicinstitute.org/other-transactions/10-u-s-c-2371-transactions-beyond-tias/>.

¹⁹⁶32 C.F.R. § 37.205(g).

¹⁹⁷32 C.F.R. § 37.840(b)(1).

¹⁹⁸32 C.F.R. § 37.840(b)(2).

¹⁹⁹32 C.F.R. § 37.840(b).

²⁰⁰32 C.F.R. § 37.860(c) (referencing 37 C.F.R. § 401.14).

²⁰¹32 C.F.R. § 37.860(d).

²⁰²32 C.F.R. § 37.860(d)(1).

²⁰³32 C.F.R. § 37.860(d)(2).

²⁰⁴32 C.F.R. § 37.860(d)(3)(iii).

²⁰⁵32 C.F.R. § 37.860(d)(3).

²⁰⁶32 C.F.R. § 37.870.

²⁰⁷32 C.F.R. § 37.865.

²⁰⁸32 C.F.R. § 37.865.

²⁰⁹32 C.F.R. § 37.875.

²¹⁰32 C.F.R. § 37.875(b)(2)(ii).

²¹¹32 C.F.R. § 37.875(c).

²¹²10 U.S.C.A. § 2371b(a)(1).

²¹³10 U.S.C.A. § 2371b(d)(1)(A)–(D) (emphasis added).

²¹⁴10 U.S.C.A. § 2371(d)(1).

²¹⁵10 U.S.C.A. § 2302(9).

²¹⁶48 C.F.R. § 9903.201-2.

²¹⁷48 C.F.R. § 9903.201-1(b).

²¹⁸FY 2015 NDAA, Pub. L. No. 113-291, § 232, 128 Stat. 3292, 3334 (2014).

²¹⁹FY 2018 NDAA, Pub. L. No. 115-91, § 864, 131 Stat. 1283, 1493 (2017).

²²⁰15 U.S.C.A. § 638.

²²¹15 U.S.C.A. § 638(e)(3).

²²²SBIR Policy Directive, § 7(g).

²²³15 U.S.C.A. § 638(e)(4); President Signs 2018 NDAA, Including Positive SBIR/STTR Provisions, Small Business Technology Council (Nov. 16, 2017), <http://sbtc.org/2018-ndaa-includes-positive-sbir-sttr-provisions/>.

²²⁴10 U.S.C.A. § 2371b(f)(2); see Oracle Am., Inc., Comp. Gen. Dec. B-416061, 2018 CPD ¶ 3 (May 31, 2018) (released June 6, 2018).

²²⁵10 U.S.C.A. § 2371b(f)(1).

²²⁶32 C.F.R. pt. 3.

²²⁷32 C.F.R. § 37.105.

²²⁸OTA Prototype Guide § C1.1.4.

²²⁹OTA Prototype Guide § C1.3.2.

²³⁰OTA Prototype Guide § C2.1.1.3.

²³¹OTA Prototype Guide § C1.6 (emphasis added).

²³²OTA Prototype Guide § C2.3.1.1.

²³³OTA Prototype Guide § C2.3.1.3.

²³⁴OTA Prototype Guide § C2.3.1.3.

²³⁵OTA Prototype Guide § C2.3.1.3.

²³⁶OTA Prototype Guide, Foreword, at i.

²³⁷OTA Prototype Guide §§ C2.3.1.4, C2.3.2–C2.3.3.

²³⁸OTA Prototype Guide § C2.3.1.7.

²³⁹32 C.F.R. § 37.860(d)(3)(iii).

²⁴⁰OTA Prototype Guide § C2.3.1.9.

²⁴¹See OTA Prototype Guide §§ C2.3.2 (“Rights in Inventions and Patents”) & C2.3.3 (Rights in Technical Data and Computer Software)..

²⁴²OTA Prototype Guide § C2.3.2.2.2.

²⁴³OTA Prototype Guide § C2.3.2.2.3.

²⁴⁴OTA Prototype Guide § C2.3.2.2.4.

²⁴⁵OTA Prototype Guide § C2.3.2.2.5.

²⁴⁶OTA Prototype Guide § C2.3.2.2.6.3.

²⁴⁷10 U.S.C.A. § 2371b(d)(1)(D).

²⁴⁸See OTA Prototype Guide.

²⁴⁹15 U.S.C.A. § 638(e)(3).

²⁵⁰See DARPA, How To Participate in DARPA’s SBIR and STTR Programs, <https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program>.

²⁵¹DARPA, How To Participate in DARPA’s SBIR and STTR Programs, <https://www.darpa.mil/work-with-us/for-small-businesses/participate-sbir-sttr-program> (emphasis added).

²⁵²TEMPLATE—SBIR Fixed Approach with a Nontraditional Defense Contractor—No Resource Contribution, Other Transaction for Prototype Agreement (Updated as of

Dec. 2017), https://www.darpa.mil/attachments/SBIR_Sample_OT_for_Prototypes_12-2017.pdf [hereinafter *TEMPLATE*].

²⁵³*TEMPLATE*, art. I, ¶ B.1.

²⁵⁴*TEMPLATE*, art. VI, Patent Rights.

²⁵⁵*TEMPLATE*, art. VI, ¶ B.1.

²⁵⁶*TEMPLATE*, art. VI, ¶ B.2.

²⁵⁷*TEMPLATE*, art. VI, ¶ B.2.

²⁵⁸*TEMPLATE*, art. VI, ¶ B.3.

²⁵⁹*TEMPLATE*, art. VI, ¶ B.5.

²⁶⁰*TEMPLATE*, art. VI, ¶ C.1.

²⁶¹*TEMPLATE*, art. VI, ¶ C.2.

²⁶²*TEMPLATE*, art. VI, ¶ D.1.

²⁶³*TEMPLATE*, art. VI, ¶ D.1

²⁶⁴*TEMPLATE*, art. VI, ¶ D.2–D.3.

²⁶⁵*TEMPLATE*, art. VI, ¶ H.

²⁶⁶37 C.F.R. § 401.14(j); FAR 52.227-11(h).

²⁶⁷*TEMPLATE* art. VI, ¶ I.

²⁶⁸*TEMPLATE*, art. VI, ¶ F.

²⁶⁹Vadiec & Garland, “The Federal Government’s ‘Other Transaction’ Authority,” 18-5 Briefing Papers 1, at 7 (Apr. 2018).

²⁷⁰10 U.S.C.A. § 2371b(f).

²⁷¹See, e.g., Consortium Member Agreement between Sensors, Communications and Electronics Consortium (SCEC) and Members Concerning Support of the U.S. Army Communications-Electronics Research, Development and Engineering Center, Night Vision and Electronics Sensors Directorate (NVESD) (CERDEC) and its research, development, and follow-on production efforts under an Other Transaction Agreement for Prototyping (W909MY-18-0-001) as established between the SCEC and CERDEC (effective date Feb. 20, 2018, amended June 20, 2018), available at https://www.sossecinc.com/clientuploads/SCEC%20Actions/SCEC_CMA_ammended_June_20_2018_final.pdf; Medical CBRN Defense Consortium Articles of Collaboration (effective date March 14, 2016), available at http://www.medcbrn.org/docs/MCDC_AOC.pdf.

²⁷²See e.g., Consortium Management Group, About C5, <https://cmgcorp.org/c5/> (last visited July 9, 2018) (which includes a list of members and technology focus areas of the Consortium for Command, Control, and Communications in Cyberspace).

²⁷³See, e.g., Agreement between United States Army Contracting Command and the Consortium Management Group, Inc. (“CMG”) on behalf of the Consortium for Command, Control, and Communications in Cyberspace, Agreement No. W15QKN-17-9-5555, dated Apr.20, 2017, as amended (Amendment No. P00033, dated Mar. 22, 2018), art. 1, ¶ E, <https://cmgcorp.org/wp-content/uploads/2017/02/C5-OTA-W15QKN-17-9-5555.pdf> [hereinafter C5 OTA No. W15QKN-17-9-5555].

²⁷⁴See, e.g., C5 OTA No. W15QKN-17-9-5555, art. 1,

¶ E; Form Base Vertical Lift Consortium (VLC) Project Agreement between Advanced Technology International and “Project Agreement Awardee Name” under VLC Other Transaction Agreement (OTA), No. W15QKN-16-9-1001 and 10 U.S.C.A. § 2371b, FY 2016 NDAA, § 815, P.L. 114-92, art I, http://www.verticalliftconsortium.org/docs/VLC_BaseProjectAgreement_July2016.pdf [hereinafter VLC OTA Project Agreement].

²⁷⁵See, e.g., C5 OTA No. W15QKN-17-9-5555, art. I.

²⁷⁶See W?den, Existing DOD OTA Consortia, <https://www.woden.one/woden-blog/2017/9/11/existing-dod-ota-consortia>.

²⁷⁷C5 OTA No. W15QKN-17-9-5555.

²⁷⁸C5 OTA No. W15QKN-17-9-5555, art. I, ¶¶ A, D.

²⁷⁹35 U.S.C.A. § 202.

²⁸⁰C5 OTA No. W15QKN-17-9-5555, art. X.

²⁸¹C5 OTA No. W15QKN-17-9-5555, art. X, ¶ C(1).

²⁸²C5 OTA No. W15QKN-17-9-5555, art. X, ¶ C(2).

²⁸³C5 OTA No. W15QKN-17-9-5555, art. X, ¶ C(2).

²⁸⁴C5 OTA No. W15QKN-17-9-5555, art. X, ¶ C(3).

²⁸⁵C5 OTA No. W15QKN-17-9-5555, art. X, ¶ C(4).

²⁸⁶C5 OTA No. W15QKN-17-9-5555, art. X, ¶ D.

²⁸⁷C5 OTA No. W15QKN-17-9-5555, art. X, ¶ I.

²⁸⁸C5 OTA No. W15QKN-17-9-5555, art. X, ¶ K.

²⁸⁹C5 OTA No. W15QKN-17-9-5555, art. X, ¶ L.

²⁹⁰See VLC OTA Project Agreement, art. I.

²⁹¹VLC OTA Project Agreement, art. X, ¶ B.

²⁹²VLC OTA Project Agreement, art. X, ¶ B.

²⁹³VLC OTA Project Agreement, art. X, ¶ A.

²⁹⁴VLC OTA Project Agreement, art. X, ¶ C(1).

²⁹⁵VLC OTA Project Agreement, art. X, ¶ D(1).

²⁹⁶VLC OTA Project Agreement, art. X, ¶ K.

²⁹⁷VLC OTA Project Agreement, art. X, ¶ E(2)–(3).

²⁹⁸VLC OTA Project Agreement, art. X, ¶ I.

²⁹⁹VLC OTA Project Agreement, art. X, ¶ K.

³⁰⁰VLC OTA Project Agreement, art. X, ¶ L.

³⁰¹DOD Directive 5105.85, Defense Innovation Unit Experimental (DIUx) § 1.2(a) (July 5, 2016).

³⁰²DOD Dir. 5105.85, § 4(f).

³⁰³DIUx Annual Report 2017, at 3.

³⁰⁴DIUx Commercial Solutions Opening, How-To Guide (version 1.0) (Nov. 30, 2016) [hereinafter *DIUx Guide*].

³⁰⁵DIUx Guide 10.

³⁰⁶DIUx Guide 11.

³⁰⁷DIUx Guide 11.

³⁰⁸DIUx Guide 12.

³⁰⁹DIUx Guide 12.

- ³¹⁰DIUx Guide 13–14.
- ³¹¹DIUx Guide 14.
- ³¹²DIUx Guide 14.
- ³¹³DIUx Guide 9.
- ³¹⁴DIUx Guide app. C, § 1.2.
- ³¹⁵51 U.S.C.A. § 10101–71302.
- ³¹⁶Parrish, “Comment: Commercializing Space: Intellectual Property Concerns With Space Act Agreements,” 78 *J. Air L. & Com.* 651, 654 (2013).
- ³¹⁷51 U.S.C.A. § 20113(e) (emphasis added).
- ³¹⁸NASA, Policy Directive 1050.1I, Authority To Enter Into Space Agreements (Effective Date: Dec.23, 2008; last revised Sept. 29, 2017) [hereinafter SAA Policy Directive].
- ³¹⁹See Szeliga, “Alternative Agreements for Research and Development with NASA,” 18-4 Briefing Papers 1 (Mar. 2018).
- ³²⁰See SAA Policy Directive.
- ³²¹NASA Advisory Implementing Instruction 1050-1D, Space Act Agreements Guide (rev. Sept. 29, 2017) [hereinafter SAA Guide].
- ³²²SAA Guide, B-43.
- ³²³FAR pt. 27 & 48 C.F.R. pt. 1827; SAA Guide, B-43; see Exploration Partners, LLC, Comp. Gen. Dec. B-298804, 2006 CPD ¶ 201 (Dec. 19, 2006).
- ³²⁴51 U.S.C.A. § 20135(a)(1) (emphasis added).
- ³²⁵SAA Guide, B-42 (emphasis added).
- ³²⁶SAA Policy Directive, 2, attach. A, at 4–5.
- ³²⁷SAA Policy Directive, 2, attach. A, at 4–5.
- ³²⁸SAA Policy Directive, 2, attach. A, at 4–5.
- ³²⁹SAA Policy Directive, 2, attach. A, at 4–5.
- ³³⁰SAA Policy Directive, 2, attach. A, at 4–5.
- ³³¹SAA Policy Directive, 2, attach. A, at 4–5 (emphasis added); see also SAA Guide, B-16.
- ³³²SAA Guide, B-34.
- ³³³See SAA Guide, B-72.
- ³³⁴SAA Guide, B-34.
- ³³⁵SAA Guide, B-72–92.
- ³³⁶SAA Guide, B-42, § 2.2.10.3.
- ³³⁷SAA Guide, B-42.
- ³³⁸See SAA Guide, B-45.
- ³³⁹SAA Guide, B-43–44.
- ³⁴⁰SAA Guide, B-84, § 2.2.10.3.2.
- ³⁴¹SAA Guide, B-44.
- ³⁴²SAA Guide, B-44.
- ³⁴³SAA Guide, B-44.
- ³⁴⁴SAA Guide, B-44–45.
- ³⁴⁵SAA Guide, B-45, § 2.2.10.3.3.
- ³⁴⁶SAA Guide, B-88, § 2.2.10.3.3(D)(1).
- ³⁴⁷See SAA Guide, B-89, § 2.2.10.3.3(E).
- ³⁴⁸SAA Guide, B-89, § 2.2.10.3.3(E)(1).
- ³⁴⁹SAA Guide, B-89, § 2.2.10.3.3(E)(2).
- ³⁵⁰SAA Guide, B-89, § 2.2.10.3.3(E)(3).
- ³⁵¹SAA Guide, B-89, § 2.2.10.3.3(E)(5).
- ³⁵²See e.g., SAA Guide, B-74, § 2.2.10.1.1(E); SAA Guide, B-76, § 2.2.10.1.2(E); SAA Guide, B-89, § 2.2.10.3.3(E)(5); SAA Guide, B-90, § 2.2.10.3.2(F).
- ³⁵³SAA Guide, B-73 § 2.2.10.1.1(B); SAA Guide, B-75, § 2.2.10.1.2(B).
- ³⁵⁴SAA Guide, B-73, § 2.2.10.1.1(C); SAA Guide, B-75, § 2.2.10.1.2(C).
- ³⁵⁵14 C.F.R. § 1245.109(a).
- ³⁵⁶14 C.F.R. § 1245.109(b).
- ³⁵⁷SAA Guide, B-88, § 2.2.10.3.3(c).
- ³⁵⁸51 U.S.C. § 20135.
- ³⁵⁹SAA Guide, B-91, § 2.2.10.3.3(I).
- ³⁶⁰SAA Guide, B-88, § 2.2.10.3.3(D)(2).
- ³⁶¹SAA Guide, B-88, § 2.2.10.3.3(D)(3).
- ³⁶²SAA Guide, B-91, § 2.2.10.3.3(H).
- ³⁶³See 35 U.S.C.A. § 204; 37 C.F.R. § 401.14(i); FAR 52.227-11(g).
- ³⁶⁴Codified at 41 U.S.C.A. ch. 83.
- ³⁶⁵41 U.S.C.A. § 8303(a)(1).
- ³⁶⁶41 U.S.C.A. § 8303(a)(2).
- ³⁶⁷SAA Guide, B-87, § 2.2.10.3.3(A)(7).
- ³⁶⁸41 U.S.C.A. § 8303(a)(2).
- ³⁶⁹SAA Guide, B-90 § 2.2.10.3.3(G)(1)(a).
- ³⁷⁰SAA Guide, B-90, § 2.2.10.3.3(G)(1)(b).
- ³⁷¹SAA Guide, B-90, § 2.2.10.3.3(G)(5).
- ³⁷²SAA Guide, B-90, § 2.2.10.3.3(G)(5).
- ³⁷³FAR 52.227-11(k)(3)–(4).
- ³⁷⁴See NASA, Commercial Crew Program—The Essentials, <https://www.nasa.gov/content/commercial-crew-program-the-essentials/> (last visited July 9, 2018).
- ³⁷⁵See NASA, Commercial Crew Program—The Essentials (addressing the development of three fully integrated systems by Boeing, Sierra Nevada Corp., and Space Exploration Technologies Corp.)
- ³⁷⁶Space Exploration Technologies Corp. Commercial Crew Development Round 2 (CCDev2) Space Act Agreement,), Space Act Agreement No. NK11MS046 (Apr. 18, 2011), https://www.nasa.gov/sites/default/files/files/CCDev2_SpaceX_508.pdf [hereinafter SpaceX SSA].
- ³⁷⁷See NASA, Commercial Crew Program—The Essentials.
- ³⁷⁸Parrish, Commercializing Space, 78 *J. Air L. & Com.* at 677–82 (providing a summary of changes to earlier Commercial Orbital Transportation Services and CCDev SAAs).

Other exemplars can be found at https://www.nasa.gov/offices/c3po/partners/space_act_agreements.html.

³⁷⁹See SpaceX SSA, art. 13.

³⁸⁰SpaceX SSA, art. 13(B)(3)(b).

³⁸¹SpaceX SSA, art. 13(B)(3)(b).

³⁸²14 C.F.R. § 1245.109(a).

³⁸³14 C.F.R. § 1245.105.

³⁸⁴SpaceX SSA, art. 13(D)(1).

³⁸⁵Compare SAA Guide, B-89, § 2.2.10.3.3(E)(1), with SpaceX SSA, art. 13(E)(1).

³⁸⁶Compare SAA Guide, B-89, § 2.2.10.3.3(E)(2), with SpaceX SSA, art. 13(E)(2).

³⁸⁷Compare SAA Guide, B-89, § 2.2.10.3.3(E)(3), with SpaceX SSA, art. 13(E)(3).

³⁸⁸Compare SAA Guide, B-89, § 2.2.10.3.3(E)(5), with SpaceX SSA, art. 13(E)(5).

³⁸⁹SpaceX SSA, art. 13(c).

³⁹⁰SpaceX SSA, art. 13(c).

³⁹¹SpaceX SSA, art. 13(D).

³⁹²SpaceX SSA, art. 13(H).

³⁹³SpaceX SSA, art. 13(D)(2).

³⁹⁴SpaceX SSA, art. 13(D)(3).

³⁹⁵SpaceX SSA, art. 13(H).

³⁹⁶Compare SAA Guide, B-90, § 2.2.10.3.3(G)(1)(a), with SpaceX SSA, art. 13(G)(1)(a).

³⁹⁷Compare SAA Guide, B-90, § 2.2.10.3.3(G)(1)(b), with SpaceX SSA, art. 13(G)(1)(b).

³⁹⁸Compare SAA Guide, B-90, § 2.2.10.3.3(G)(5), with SpaceX SSA, art. 13(G)(4)(a).

³⁹⁹Compare SAA Guide, B-90, § 2.2.10.3.3(G)(5), with SpaceX SSA, art. 13(G)(4)(b).

NOTES:

BRIEFING PAPERS