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

Alternative Agreements For Research And Development With NASA

By Keith R. Szeliga*

For many commercial companies, research and development (R&D) efforts involving the U.S. Government evoke fears of an omnipresent, overly intrusive, audit-fixated purchaser bent on levying a host of required non-commercial terms and conditions on the seller. These terms and conditions often include complex cost accounting requirements, broad audit rights, non-customary intellectual property clauses, socioeconomic requirements unrelated to the underlying R&D, and many other burdensome provisions. Traditional Government contractors are equipped to comply with the requirements—but many new and emerging technology companies are not. As a result of the “strings” attached to Government procurement contracts, commercial companies are often reluctant to participate in R&D efforts with the Government. This has the potential to deprive the Government of access to some of the most promising sources of innovation.

The National Aeronautics and Space Administration (NASA), more than any other federal agency, has utilized agreements other than procurement contracts to attract broader participation in R&D, particularly from nontraditional Government contractors. Principal among these non-procurement vehicles are grants and cooperative agreements (Assistance Agreements), cooperative research and development agreements (CRADAs), and Space Act Agreements (SAAs). This BRIEFING PAPER provides an overview of NASA’s alternative vehicles for R&D and highlights their advantages and limitations as compared to procurement contracts.

Procurement Contracts

The Federal Grant and Cooperative Agreement Act of 1977 (FGCAA), as amended,¹ distinguishes between procurement contracts and Assistance Agreements, including grants and cooperative agreements. To prevent the perceived misuse of Assistance Agreements to circumvent competition and other procurement rules, the FCGAA requires NASA to use a procurement contract when its principal purpose is to acquire supplies or services for its direct benefit or use, as opposed to stimulating or supporting R&D for another purpose.²

*Keith Szeliga is a Partner in the Government Contracts, Investigations, and International Trade Group of Sheppard Mullin Richter & Hampton LLP’s Washington, D.C. office. He can be reached by email at kszeliga@sheppardmullin.com or by phone at (202) 747-1927.

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NASA procurement contracts are subject to the Federal Acquisition Regulation (FAR),³ the NASA FAR Supplement (NFS),⁴ and numerous other statutory and regulatory requirements. Examples of the compliance burdens and other unfavorable terms that often deter nontraditional Government contractors from accepting procurement contracts for R&D are described below.

Truth In Negotiations Act

The Truth in Negotiations Act, as amended (TINA),⁵ applies to most contracts for non-commercial items and services valued over \$750,000 (\$2 million for contracts entered into after June 30, 2018), except those awarded based on adequate price competition.⁶ TINA requires full and complete disclosure of all facts that a reasonably prudent buyer or seller would expect to affect price negotiations significantly.⁷ Examples of facts that must be disclosed include vendor quotations, nonrecurring costs, information on changes in production methods and in production or purchasing volume, data supporting projections of business prospects and objectives and related operation costs, unit-cost trends such as those associated with labor efficiency, make-or-buy decisions, estimated resources to attain business goals, and management decisions.⁸ All facts disclosed must be “accurate, complete, and current.”⁹ The failure to meet this requirement constitutes “defective pricing” and can result in a dollar-for-dollar reduction in the contract price, as well as interest and penalties.¹⁰

Cost Accounting Requirements

Most procurement contracts for non-commercial items and services, including R&D, are subject to the FAR Cost Principles, a complex set of rules for analyzing the recovery and allocation of costs under Government contracts. The Cost Principles establish requirements for accounting for direct and indirect costs,¹¹ for determining the allocability,

reasonableness, and allowability of costs,¹² and for segregating unallowable costs from billings.¹³ The Cost Principles make “unallowable,” or impose conditions for allowability, on 46 categories of costs. Some costs, such as interest,¹⁴ bad debts,¹⁵ and alcohol,¹⁶ are expressly unallowable in all cases. Other costs, such as depreciation,¹⁷ compensation for personal services,¹⁸ and travel costs,¹⁹ are allowable subject to various and often complicated restrictions. Where the Cost Principles apply, contractors must remove all unallowable costs from their proposals, billings, and invoices²⁰ and can be assessed penalties for proposing or charging expressly unallowable costs.²¹

Additional and more burdensome requirements apply to contractors that are subject to the Cost Accounting Standards (CAS).²² CAS establishes detailed rules regarding the measurement and allocation of costs under Government contracts, including uniform accounting policies, procedures, and standards. Contractors subject to full CAS coverage must provide a detailed disclosure of actual cost accounting practices and procedures.²³ A failure to disclose accurately such accounting practices and processes, a failure to follow them consistently, or a noncompliance with any of the applicable CAS regulations can result in the payment of damages and interest to the Government.²⁴

The Cost Principles and CAS add cost and create risk for contractors. Implementing a Government contracts compliant cost accounting system is expensive. Additionally, the Cost Principles and CAS cover both direct and indirect costs. It is therefore impossible to limit their application to work performed on a specific Government contract or even on Government contracts generally. Government auditors frequently question costs years after the performance of a contract is complete. Finally, because the application of the Cost Principles and CAS requires judgment, the Government’s interpretation often differs from that of the contractor.

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The potential for disagreements and disputes relating to cost accounting issues is significant.

Audit Rights

Procurement contracts grant the Government broad audit rights. The Comptroller General has the right to audit the contractor's "directly pertinent records involving transactions related to [the] contract or a subcontract. . . and to interview any current employee regarding such transactions."²⁵ For cost-reimbursement, time-and-materials, and other flexibly priced contracts, the Contracting Officer (CO) has the right to audit all records and other evidence sufficient to reflect all costs claimed to have been incurred or anticipated to be incurred "directly or indirectly" in performance of the contract.²⁶ This provision allows the Government to audit records relating to indirect costs, such as general and administrative expenses, overhead, and independent research and development, that are not incurred specifically for Government contracts.²⁷ If the contractor was required to furnish certified cost or pricing data, the CO also has the right to audit records related to the contractor's proposal, negotiations, pricing, and performance.²⁸

Many FAR clauses grant additional audit rights to the Government. Clauses relating to equal opportunity and affirmative action grant broad audit rights to the Office of Federal Contract Compliance Policy (OFCCP).²⁹ The Wage and Hour Division of the Department of Labor has the right to audit contracts subject to the Service Contract Act (SCA).³⁰ The Small Business Administration (SBA) conducts audits to ensure compliance with small business subcontracting requirements.³¹

Socioeconomic Clauses

Procurement contracts include numerous socioeconomic requirements. Examples of the requirements that commercial companies find most problematic are addressed below.

(1) *Equal Opportunity and Affirmative Action*—In addition to prohibiting discrimination against certain protected classes, several mandatory FAR clauses require affirmative action plans.³² Such plans require analyzing employment decisions and practices to ensure they do not have a discriminatory impact based on protected class; establishing statistical targets for hiring and promotion; implementing and documenting outreach and recruitment programs; and implementing compliance policies and procedures and doc-

ument notification, posting, recordkeeping, and reporting requirements.³³ These requirements apply to all contractor facilities with 50 or more employees—even if those facilities are not involved in performing Government contracts.³⁴ The clauses also afford the OFCCP broad audit rights.³⁵ Failure to comply with the clauses may result in withholding of payment; contract cancellation, termination, or suspension; and even debarment from Government contracting.³⁶

(2) *Service Contract Labor Standards*—The McNamara-O'Hara Service Contract Act, as amended (SCA),³⁷ and as implemented by the FAR "Service Contract Labor Standards" clause,³⁸ requires contractors to pay prevailing wages and fringe benefits, as set forth in a wage determination issued by the Department of Labor for the locality in which the work is performed.³⁹ Additionally, contractors must create and maintain accurate records regarding hours worked and benefits provided.⁴⁰ The most common risk associated with the SCA is the inadvertent misclassification of employees. The SCA also creates difficulties for contractors that use the same employees to perform both commercial and Government services. As a practical matter, the contractor must either maintain records to show when the employee was performing work for Government or commercial customers or compensate the employee at the often higher Government rate for all work.

(3) *Small Business Subcontracting*—Most contracts valued over \$700,000 require a small business subcontracting plan to maximize the opportunity for various categories of small businesses to serve as subcontractors.⁴¹ Small business subcontracting plans require establishing percentage and dollar value goals for subcontracts to each category of small businesses, tracking subcontract solicitations and awards to measure progress toward those goals, engaging in and tracking outreach efforts to maximize the participation of small businesses, and agreeing to various recordkeeping and reporting obligations.⁴² The failure to make good faith efforts to meet the goals can result in liquidated damages.⁴³

These and other socioeconomic requirements impose a significant compliance burden on contractors and further discourage participation by commercial companies.

Intellectual Property Rights

(1) *Patent Rights*—NASA's standard patent rights clause for small businesses (NFS 1852.227-11, "Patent Rights—Ownership by the Contractor") permits the contractor to elect title to inventions conceived or first actually reduced to

practice in performance of the contractor's work ("subject inventions").⁴⁴ If the contractor elects title, the Government receives a nonexclusive, nontransferable, irrevocable, paid-up, worldwide license to practice the subject invention and to have others practice the subject invention on the Government's behalf.⁴⁵

NASA's standard patent rights clause for large businesses (NFS 1852.227-70, "New Technology—Other than a Small Business Firm or Nonprofit Organization") creates a presumption that title to inventions conceived or first actually reduced to practice under a NASA contract ("subject inventions") will vest in NASA.⁴⁶ NASA can waive title, either at the time of contracting or at the time of disclosure of an invention,⁴⁷ but there is no guarantee that it will do so. In cases where NASA waives title, the contractor can elect title and NASA receives an irrevocable, nonexclusive, nontransferable, royalty-free, worldwide license to practice the invention, or have others practice the invention, for Government purposes.⁴⁸ Where NASA retains title to subject inventions, the contractor and its domestic subsidiaries and affiliates receive a revocable, nonexclusive, royalty-free, worldwide license to practice the subject invention and to grant sublicenses.⁴⁹

NASA's patent rights clauses for both small and large businesses also include certain other requirements that may be problematic for commercial companies. The contractor's failure to disclose subject inventions in a timely manner can cause the contractor to forfeit all of its rights in such inventions.⁵⁰ The contractor cannot grant an exclusive right to use or sell a subject invention in the United States unless products embodying the invention will be manufactured substantially within the United States or a waiver of this requirement has been granted.⁵¹

Finally, none of NASA's standard patent rights clauses allow the contractor to acquire title to or any license rights in subject inventions made by NASA personnel.

(2) *Data Rights*—NASA's standard data rights clause (NFS 1852.227-14, "Rights In Data—General") allows the contractor to retain title to technical data and computer software ("data") and grants the Government license rights that vary in scope depending upon the nature of the data and whether the data was first produced in performance of the contract. The clause and its Alternates provide for the following categories of data and corresponding license rights:

- *Limited rights technical data* are proprietary technical

data pertaining to items, components, or processes developed at private expense, including minor modifications.⁵² Where delivery of limited rights data is required, the Government obtains a license to reproduce and use the data internally, except for manufacture, and is prohibited from disclosing the data to third parties, except for limited purposes agreed to by the parties.⁵³

- *Restricted rights computer software* means proprietary computer software developed at private expense, including minor modifications.⁵⁴ Where delivery of such software is required, the Government obtains a narrow license to use a single copy of the software, to make archival or backup copies, to modify the software, and to disclose the software for use by support service contractors subject to the foregoing restrictions.⁵⁵
- *Unlimited rights technical data and computer software* include data first produced in the performance of the contract and certain other categories of data.⁵⁶ They permit the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly technical data and computer software in any manner and for any purpose, and to authorize others to do the same.⁵⁷

The grant of *unlimited rights* in data first produced in the performance of a Government contract has intuitive appeal, but can impose significant issues for commercial companies.

First, the Government may challenge the contractor's assertion of proprietary rights.⁵⁸ Limited or restricted rights require development at private expense.⁵⁹ Thus, a contractor must create and maintain detailed records that document the source of funding for its development efforts.

Second, to preserve its proprietary rights, a contractor must ensure that development under a Government contract is segregable from development performed at private expense. If a contractor accepts Government funding to develop an aspect of a technology that is not physically and functionally distinct from the portion developed at private expense, there is a risk that the entire technology will be deemed to have been developed with mixed funding, *i.e.*, not "exclusively" at private expense, resulting in a broad grant of unlimited rights.

Third, granting the Government unlimited rights in data may destroy trade secret protection, whether or not the

Government actually disclosed the data to third parties.⁶⁰ Thus, there is a risk that a private contractor will not be able to leverage the full benefit of R&D conducted under Government procurement contracts.

NASA's Alternative R&D Vehicles

While R&D can and does occur as part of procurement contracts, NASA makes use of alternative vehicles by which it can encourage R&D by the private sector, particularly by nontraditional Government contractors that may not be willing to accept procurement contracts. As discussed in the following sections of this BRIEFING PAPER, these alternatives include *grants and cooperative agreements*, *cooperative research and development agreements*, and *Space Act Agreements*.

Grants & Cooperative Agreements

Nature

Grants and cooperative agreements are a form of financial assistance. They are used when the principal purpose of the transaction is to stimulate or support R&D for a public purpose rather than for the direct benefit of NASA.⁶¹ Grants are used when the agency is not expected to have substantial involvement in performance.⁶² Cooperative agreements are used when the agency will play a substantial role in performing (as opposed to merely administering) the agreement.⁶³ The line between a grant and a cooperative agreement is not always clear, but the distinction typically makes little difference because both are subject to most of the same general rules and requirements.

The regulations governing grants and cooperative agreements are set forth in Title 2 of the Code of Federal Regulations. Part 200 of that Title contains the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, which establish rules for grants and cooperative agreements on a Government-wide basis. NASA's supplemental regulations are provided in 2 C.F.R. Part 1800. NASA has also issued a Grant and Cooperative Agreement Manual (GCAM) that provides additional policy guidance.⁶⁴

Advantages

Grants and cooperative agreements issued by NASA do not impose many of the compliance burdens associated with procurement contracts. They are not subject to the FAR, the

NFS, or TINA. Very few socioeconomic and other statutory requirements apply. NASA's grant regulations specifically require compliance with antidiscrimination laws,⁶⁵ the clean air and water statutes,⁶⁶ drug free workplace requirements,⁶⁷ prohibitions on human trafficking,⁶⁸ restrictions on the use of appropriated funds for lobbying activities,⁶⁹ and requirements for reporting subaward and executive compensation information.⁷⁰ However, grants and cooperative agreements do not include the more burdensome requirements relating to affirmative action, prevailing wage determinations, or small business subcontracting. The inapplicability of these and other requirements greatly reduces risk to recipients.

Grants and cooperative agreements also include a more favorable allocation of rights in data than procurement contracts. The Government obtains license rights only in data first produced in performance of the grant or cooperative agreement.⁷¹ The recipient generally is not required to deliver or furnish license rights in preexisting data, as would be required under a procurement contract.⁷² In addition, the Government typically obtains Government purpose rights, rather than unlimited rights, in data first produced in the performance of a grant or cooperative agreement.⁷³ Specifically, the Government receives a royalty-free, nonexclusive, and irrevocable license to use, reproduce, distribute to the public, perform publicly, prepare derivative works, and display publicly the data "for Federal purposes and to have or permit others to do so for Federal purposes only."⁷⁴ The license does not permit the Government to authorize third parties to use the data for commercial purposes, as would be permitted under a procurement contract.

Where a cost-sharing agreement applies, the recipient can apply a restrictive legend that, for an agreed-upon period, narrows the Government's rights in data first produced in performance of the grant or cooperative agreement.⁷⁵ During that time period, the data can be used and disclosed by and on behalf of the Government only for experimental, evaluation, research, and development purposes.⁷⁶ The Government cannot use the data to manufacture or procure competing products or services.

Unlike procurement contracts, grants and cooperative agreements allow recipients to commercialize technology developed by NASA. The Government is required to maintain the confidentiality of proprietary information first produced by NASA in carrying out its responsibilities under a cooperative agreement for a period of five years after development of the information, unless a shorter period has been negotiated.⁷⁷ During that time period, the Government

can only use or disclose such data for Government purposes.⁷⁸ The recipient agrees not to disclose the data to third parties without NASA's prior written approval during the negotiated timeframe,⁷⁹ but the recipient is not prohibited from using the data internally. Thus, during the negotiated time period, the recipient has the exclusive right to use NASA's data to commercialize the technology.

The patent rights clauses included in grants and cooperative agreements with small businesses and large businesses are analogous to the corresponding clauses utilized under procurement contracts, with one notable exception. Small businesses can acquire a patent license in inventions developed by NASA under a grant or cooperative agreement. The standard patent rights clause applicable to such entities provides that NASA must use reasonable efforts to report inventions made by NASA employees "as a consequence of, or which bear a direct relation to, performance of specified NASA activities under the agreement."⁸⁰ Upon the recipient's request, NASA must then use reasonable efforts to negotiate an exclusive, or partially exclusive, revocable license to such inventions, subject to the payment of a royalty to the Government and the Government's retention of a royalty-free right to practice the invention or have the invention practiced by others on behalf of the Government.⁸¹ The patent rights clause applicable to NASA procurement contracts does not include any provision for the contractor to acquire license rights in NASA inventions.

In short, grants and cooperative agreements provide more protection for the recipient's preexisting data, grant the recipient the exclusive right to use data first developed in performance of the agreement for commercial purposes, and permit the recipient to leverage intellectual property developed by NASA personnel.

Limitations

Grants and cooperative agreements, although more favorable than procurement contracts in many respects, do have certain limitations. Rights to subject inventions under NASA grants and cooperative agreements are subject to the same allocation of rights laws, and create the same concerns for commercial entities, as NASA procurement contracts.⁸² Grants and cooperative agreements awarded to commercial entities are subject to the FAR Cost Principles and CAS.⁸³ The Government also obtains broad audit rights. Specifically, the Government has the right to audit records that are "pertinent" to the award and to interview the recipient's personnel.⁸⁴ NASA's audit rights are not limited to "directly"

pertinent records, which may permit NASA the right to audit records relating to indirect costs.

In addition, NASA regulations specifically prohibit the payment of profit or fee in connection with a grant or cooperative agreement.⁸⁵ In fact, many grants and cooperative agreements with commercial entities provide for cost sharing or matching. Different requirements, terms, and conditions apply to such awards.⁸⁶

Summary

Grants and cooperative agreements are subject to fewer socioeconomic requirements and include more favorable intellectual property clauses than procurement contracts. Yet, they include similar cost accounting requirements and audit rights, without providing the opportunity for profit. This combination may cause large commercial entities to question whether grants and cooperative agreements are worth the investment and the risk.

Cooperative Research & Development Agreements

Nature

The Federal Technology Transfer Act of 1986, as amended (FTTA),⁸⁷ authorizes federal laboratories to enter into CRADAs and to license technology to third parties.⁸⁸ CRADAs are legislatively defined as distinct from procurement contracts and cooperative agreements.⁸⁹ CRADAs permit federal laboratories to contribute Government personnel, services, facilities, and equipment—but not funding—to a joint effort to develop new technologies.⁹⁰ The non-Government party, often referred to as the Collaborating Party, may provide funds, personnel, services, facilities, equipment, intellectual property, or other resources.⁹¹ The purpose of a CRADA is to support specified R&D efforts that are consistent with the mission of the federal laboratory.⁹²

There are no Government-wide or NASA regulations regarding CRADAs. NASA's guidance for CRADAs is contained in a NASA Policy Directive⁹³ and NASA's CRADA Program Information Package.⁹⁴

The NASA Policy Directive for CRADAs provides the following guidance regarding when the use of a CRADA is appropriate:

Use of a CRADA should be considered when the primary purpose of the activity is to ensure the full use of the results of

NASA's investment in research and development outside the U.S. Government. NASA CRADAs advance the purpose of the FTTA by providing a Collaborating Party access to NASA goods, services, and facilities in a manner that is consistent with NASA mission requirements to support the transfer of NASA technology and commercial technology development.⁹⁵

The CRADA Package includes more detailed policy guidance and sample terms and conditions for CRADAs.

Advantages

Because CRADAs do not involve the expenditure of appropriated funds, they impose very few compliance burdens on the Collaborating Party. CRADAs are not subject to TINA, the FAR Cost Principles, or CAS. There are no financial audit rights. CRADAs are also exempt from most socioeconomic laws and regulations. In fact, NASA's model clauses for CRADAs do not include any socioeconomic provisions.

NASA's model patent rights clause for CRADAs provides substantially more protection for the Collaborating Party's subject inventions than the clauses used in procurement contracts.⁹⁶ The Collaborating Party retains title in, and NASA obtains a Government purpose rights license to, the Collaborating Party's subject inventions, without any requirement for the Collaborating Party to request a waiver.⁹⁷ The Collaborating Party must disclose its subject inventions,⁹⁸ but the failure to do so does not result in any forfeiture of rights. There is no provision for NASA to exercise march-in rights if the Collaborating Party fails to achieve practical application.⁹⁹ Nor is there any preference for domestic industry, meaning the Collaborating Party can grant an exclusive license for the foreign manufacture of products that embody the subject invention.¹⁰⁰

Unlike procurement contracts, CRADAs also allow the Collaborating Party to acquire license rights in NASA's subject inventions. The Collaborating Party receives a non-exclusive, nontransferable, irrevocable, paid-up license to practice (but not to sublicense) NASA's subject inventions.¹⁰¹ The Collaborating Party also has the option to negotiate, for reasonable consideration, an exclusive license to make, use, or sell NASA's subject inventions within the particular field of use specified in the CRADA.¹⁰² The Collaborating Party can even negotiate a license to NASA inventions that were not made under the CRADA but that are directly within the scope of the CRADA work.¹⁰³

CRADAs also grant the Government narrower rights in

the Collaborating Party's data than procurement contracts. Rather than unlimited rights in data first produced in performance of the CRADA ("subject data"), the Government obtains the right to use, duplicate, and disclose such subject data, and have or permit others to do so, for Government purposes only.¹⁰⁴ The Collaborating Party retains the exclusive right to use and disclose subject data for commercial purposes. In addition, NASA is usually permitted to use, disclose, and reproduce the Collaborating Party's preexisting, proprietary data furnished with a restrictive legend only for purposes of performing its obligations under the CRADA.¹⁰⁵ This license is narrower than the limited rights license NASA would receive under a procurement contract, which permits use and disclosure within the Government for most purposes other than manufacturing.¹⁰⁶

The FTTA also allows NASA to limit the disclosure of data first produced in performance of a CRADA by NASA personnel, for a period of up to five years, if such data would be exempt from disclosure under the Freedom of Information Act¹⁰⁷ if obtained from a nonfederal party.¹⁰⁸ The Collaborating Party may request that valuable intellectual property produced during the performance of the CRADA by NASA be appropriately designated for such protection.¹⁰⁹ As in the case of grants and cooperative agreements, this can effectively provide the Collaborating Party with the exclusive right to commercialize technology developed by NASA under a CRADA for a limited time period.

Limitations

The primary limitation of CRADAs is that NASA cannot make any federal funds available to a Collaborating Party.¹¹⁰ In fact, the Collaborating Party is typically required to reimburse NASA's full cost of participation, including facilities, personnel, and other resources.¹¹¹ NASA will consider waiving the reimbursement requirement, in whole or in part, where there is a "clear and demonstrated NASA benefit" to the work.¹¹² The CRADA Package suggests that less than full reimbursement may be appropriate where, for example, the Collaborating Party grants the Government the right to use preexisting, proprietary data for purposes other than performance of the CRADA.¹¹³

In addition, NASA will not enter into a CRADA to provide resources that are reasonably available in the U.S. commercial marketplace from other sources.¹¹⁴ This condition is derived from the U.S. National Space Policy, which directs the Government to "refrain from conducting United States space activities that preclude, discourage, or compete

with U.S. commercial space activities, unless required by national security or public safety.”¹¹⁵

Summary

CRADAs impose a lower compliance burden than any other type of alternative contracting arrangement for R&D. They also provide access to valuable NASA facilities, technologies, and personnel, while limiting the Government’s rights in the Collaborating Party’s intellectual property. However, CRADAs cannot be used to obtain funding or to provide resources that are reasonably available from other sources.

Space Act Agreements

Nature

The National Aeronautics and Space Act of 1958, as amended,¹¹⁶ 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.”¹¹⁷ Other transactions (OTAs), often referred to as Space Act Agreements (SAAs), are legally enforceable agreements other than procurement contracts, grants, cooperative agreements, and CRADAs.

NASA’s authority to enter into SAAs is extraordinarily broad. Most agencies have limitations on their OTA authority, such as restrictions on the types of projects and research for which OTAs may be used.¹¹⁸ The Space Act, in contrast does not include any limitations on the types of projects or research for which NASA may use SAAs. Nor are there any regulations governing SAAs. NASA’s guidance regarding SAAs is set forth in a NASA Policy Directive¹¹⁹ and the Space Act Agreement Guide (SAA Guide),¹²⁰ which express NASA policies but do not have the force and effect of law.

SAAs are NASA’s most powerful tool for encouraging nontraditional Government contractors to participate in R&D efforts with NASA. SAAs allow NASA to contribute personnel, funding, services, equipment, expertise, information, and facilities to a wide range of R&D efforts.¹²¹ NASA utilizes SAAs to enter into a wide variety of transactions, including Nonreimbursable SAAs, Reimbursable SAAs, International SAAs, and Funded SAAs.¹²² NASA’s SAA Guide includes more detailed guidance regarding the first three types of SAAs, but references Funded SAAs only in passing.

(1) *Reimbursable SAAs*—Reimbursable and Nonreimbursable SAAs are similar to CRADAs.¹²³ They are used when NASA makes available resources, other than funding, to the Agreement Partner. Unlike CRADAs, however, Reimbursable and Nonreimbursable SAAs are not limited to agreements involving NASA laboratories.

Reimbursable SAAs permit the Agreement Partner to use NASA goods, services, facilities, or equipment to advance the Agreement Partner’s own interests.¹²⁴ The Agreement Partner reimburses NASA, in whole or in part, for the cost of NASA’s participation.¹²⁵ When NASA performs reimbursable work utilizing NASA facilities, the Agreement Partner is typically charged the full cost incurred by NASA in performing the SAA.¹²⁶ NASA may accept less than full reimbursement if it will obtain some additional benefit, such as additional rights in inventions and data.¹²⁷

NASA undertakes Reimbursable SAAs when it has unique goods, services, and facilities that are not being fully utilized to accomplish mission needs and that can be made available to the Agreement Partner, on a noninterference basis, consistent with NASA’s mission.¹²⁸ NASA policy also requires Reimbursable SAAs to meet one or more of the following criteria:

- “Sustains facilities and lowers operational costs for current and future needs of NASA’s missions”;
- “Sustains skills that are currently needed or will be needed in the future to support NASA’s mission”; or
- “Sustains a functional area not adequately funded by NASA programs but needed for present or future support of NASA’s missions.”¹²⁹

(2) *Nonreimbursable SAAs*—Nonreimbursable SAAs involve “NASA and one or more Partners in a mutually beneficial activity that furthers NASA’s mission, where each party bears the cost of its participation, and there is no exchange of funds between the parties.”¹³⁰ Nonreimbursable SAAs are used where NASA and the Agreement Partner are performing activities collaboratively and the end results are of interest to both parties.¹³¹

NASA will not enter into a Nonreimbursable SAAs unless it determines that each party’s contribution is fair and reasonable under the circumstances.¹³² This determination requires a cost estimate of the value of the NASA resources to be contributed to the joint effort.¹³³ NASA typically requires the Agreement Party to estimate the value of its contribution as well.¹³⁴

(3) *International SAAs*—International SAAs are Nonreimbursable or Reimbursable SAAs in which the Agreement Partner is a legal entity not established under a state or federal law of the United States.¹³⁵ NASA uses International SAAs to establish bilateral or multilateral arrangements with foreign commercial, noncommercial, or governmental entities of a foreign sovereign or foreign person.¹³⁶ This BRIEFING PAPER does not address the terms, conditions, and other requirements of International SAAs.

(4) *Funded SAAs*—Funded SAAs involve the payment of appropriated funds to a domestic Agreement Partner to accomplish a NASA mission.¹³⁷ Funded SAAs may be used “only when [NASA’s] objective cannot be accomplished through the use of a procurement contract, grant, or cooperative agreement.”¹³⁸ The SAA Guide addresses Funded SAAs only in passing, stating that “[a]dditional guidance on Funded SAAs is under development and will be provided at a later time.”¹³⁹ No such additional guidance has been published.

Advantages

SAAs are not subject to TINA, CAS, the FAR, or the NSF. Audit rights are uncommon for Reimbursable and Nonreimbursable SAAs because they do not involve the expenditure of appropriated funds. Payments under Funded SAAs are usually based on a fixed price for achieving specified milestones without regard to incurred costs. Accordingly, Funded SAAs typically include a narrow audit rights clause limited to records that “directly pertain to and involve” transactions relating to the SAA. The Government typically does not have the right to audit indirect costs.

In addition, SAAs typically include few, if any, socioeconomic requirements or other collateral obligations. The SAA Guide does not address equal opportunity, affirmative action, human trafficking, the payment of prevailing wages, or small business subcontracting. Nor are these issues generally addressed in Funded SAAs. SAAs also contain very few representations and certifications. These are typically limited to suspension and debarment, compliance with limitations on the use of appropriated funds to influence federal transactions, and the absence of convictions or civil judgments for fraud relating to Government contracts. This contrasts with the numerous representations and certifications that are required in connection with NASA procurement contracts.

SAAs also offer flexibility with respect to the negotiation

of intellectual property rights. This includes both patent rights and rights in technical data and computer software.

The model patent rights clause for SAAs that involve NASA funding or inventive work for the benefit of NASA (rather than the Agreement Partner’s own benefit) is similar to the “New Technology” clause used for procurement contracts.¹⁴⁰ The model clause is more favorable to the Agreement Partner, however, in that it requires NASA, upon request, to use reasonable efforts to negotiate a mutually agreeable license to NASA’s subject inventions.¹⁴¹ NASA has also demonstrated extraordinary flexibility in negotiating modifications to the model clause. For example, NASA frequently agrees not to exercise its Government purpose rights license in the Agreement Partner’s subject inventions until a specified date, thereby providing the Agreement Partner with a period of exclusivity to reap the benefit of its investment. Other potential modifications to the model clause may include, without limitation, delayed disclosure of subject inventions, delayed filing of patent applications (if possible under patent law), and limiting the Government’s license to NASA or a particular program.

NASA’s model patent rights clause for SAAs in which the Agreement Partner does not receive funding from NASA or undertake inventive work for the benefit of NASA—which is true in most Reimbursable and Nonreimbursable Agreements—is even more advantageous to the Agreement Partner. NASA does not acquire title to or even license rights in the Agreement Partner’s subject inventions.¹⁴²

SAAs also include more favorable data rights terms than most NASA procurement contracts. NASA’s model data right clause for Reimbursable and Nonreimbursable Agreements where the exchange of proprietary data is expected provides for the same allocation of rights as NASA’s sample CRADA clause.¹⁴³ NASA receives Government purpose rights (rather than unlimited rights) in the Agreement Partner’s subject data, and NASA is only permitted to use preexisting, proprietary data for the purpose of performing its obligations under the Agreement (rather than receiving limited or restricted rights in such data).¹⁴⁴

There is no sample clause for Funded SAAs, but the allocation of rights is typically similar. NASA generally accepts very limited rights in preexisting proprietary data furnished with a restrictive legend. To the extent such data is provided, NASA often obtains only a license to use the data to evaluate performance during the term of the SAA. NASA usually obtains a Government purpose rights license

in subject data, but has agreed to except narrower rights. For example, NASA has agreed to delay the onset of Government purpose rights until the SAA has expired and to limit the use and disclosure of subject data during the term of the SAA to the evaluation of the Agreement Partner's performance. This allows for a period of exclusivity during which NASA cannot use the subject data to procure competing products or services.

It is also common for SAAs to include provisions, similar to CRADAs, that limit the dissemination of data first produced by NASA in performance of the SAA.¹⁴⁵ In fact, some SAAs have prohibited NASA from using its own subject data for any purpose other than performing its obligations under the SAA.

The terms and conditions of SAAs are often more favorable to Agreement Partners than procurement contracts in other respects as well. SAAs typically do not include a unilateral changes clause, meaning that any changes to the work or the terms and conditions are subject to the mutual agreement. SAAs often include broad disclaimers of warranty. For example, it is not uncommon for Funded SAAs to provide that services are furnished "as is" with no express or implied warranties of any type.

Limitations

The only apparent limitation on NASA's use of SAAs is the availability of appropriated funds. NASA can enter into SAAs for any type of project that furthers the Agency's mission. NASA can use SAAs to stimulate research for a public purpose (like grants and cooperative agreements), to share NASA resources (like CRADAs), and to procure supplies and services for the direct benefit of NASA (like procurement contracts). SAAs can provide for the reimbursement of NASA's costs or the payment of a fee to the Agreement Partners. NASA can include in SAAs whatever terms and conditions it deems appropriate. The only mandatory provision is the patent rights clause required to be included in Funded SAAs.

NASA has imposed certain limitations on SAAs as a matter of policy. NASA will not use Reimbursable SAAs to make available resources that are reasonably available in the U.S. commercial marketplace.¹⁴⁶ In addition, NASA policy allows the use of Funded SAAs "only when the Agency's objectives cannot be accomplished through the use of a procurement contract, grant, or cooperative agreement."¹⁴⁷ Nevertheless, NASA has virtually unfettered

discretion in applying these policies and determining when to enter into a SAA.

Summary

SAAs impose few compliance obligations and offer extraordinary flexibility in the negotiation of intellectual property rights. Unlike other types of alternative arrangements for R&D, SAAs also allow the Agreement Partner to earn a fee. This makes SAAs the most powerful instrument for encouraging nontraditional Government contractors to engage in R&D activities with NASA.

Guidelines

These *Guidelines* highlight the advantages and limitations of alternative agreements (other than procurement contracts) for R&D efforts involving NASA. They are not, however, a substitute for professional representation in any specific situation.

1. NASA procurement contracts for R&D services impose numerous socioeconomic requirements, compliance burdens, and non-customary intellectual property terms.

2. Grants, cooperative agreements, CRADAs, and SAAs allow contractors to participate in NASA R&D efforts without the vast array of burdensome terms and conditions typically included in procurement contracts.

3. Grants and cooperative agreements allow NASA to stimulate and support research for a public purpose other than the direct benefit of NASA.

4. Grants are used when NASA's contribution is limited to funding; cooperative agreements are used when NASA participates jointly in the R&D effort.

5. Grants and cooperative agreements impose a lower compliance burden and offer more favorable intellectual property terms than procurement contracts, but often require cost sharing and never permit the recipient to earn a fee.

6. CRADAs allow NASA laboratories to contribute personnel, services, facilities, and equipment to joint efforts to develop new technologies

7. CRADAs impose a lower compliance burden and offer more favorable intellectual property terms than procurement contracts, grants, and cooperative agreements, but often require reimbursement of NASA's cost and never permit NASA to provide funding.

8. SAAs allow NASA to stimulate research for a public purpose (like grants and cooperative agreements), to share NASA resources (like CRADAs), and to procure supplies and services for the direct benefit of NASA (like procurement contracts).

9. SAAs impose the same low compliance burden as CRADAs and offer a similar degree of flexibility in the negotiation of intellectual property rights.

10. Unlike CRADAs, SAAs can be used to fund private R&D efforts and can allow the Agreement Partner to earn a fee for its work.

ENDNOTES:

¹31 U.S.C.A. §§ 6301–6308.

²31 U.S.C.A. § 6303; see also FAR 35.002(a).

³48 C.F.R. ch. 1.

⁴48 C.F.R. ch. 18.

⁵10 U.S.C.A. § 2306a; 41 U.S.C.A. §§ 3501–3509 (renamed “Truthful Cost or Pricing Data” statute).

⁶10 U.S.C.A. § 2306a(a)(1), (b)(1); 41 U.S.C.A. §§ 3502(a), 3503(a); FAR 15.403-4(a)(1); FAR 15.403-1(b); see National Defense Authorization Act for Fiscal Year 2018, Pub. L. No. 115-91, § 811, 131 Stat. 1283, 1459 (Dec. 12, 2017) (increasing the threshold for the submission of certified cost or pricing data).

⁷10 U.S.C.A. § 2306a(a), (h)(1); 41 U.S.C.A. §§ 3501(a)(2), 3502.

⁸FAR 2.101 (definition of “Cost or pricing data”).

⁹10 U.S.C.A. § 2306a(a)(2); 41 U.S.C.A. § 3502(b); FAR 15.403-4(b)(2).

¹⁰10 U.S.C.A. § 2306a(e), (f); 41 U.S.C.A. §§ 3506, 3507; FAR 15.407-1.

¹¹FAR 31.202; FAR 31.203.

¹²FAR 31.201-2; FAR 31.201-3; FAR 31.201-4.

¹³FAR 31.201-6.

¹⁴FAR 31.205-20.

¹⁵FAR 31.205-3.

¹⁶FAR 31.205-51.

¹⁷FAR 31.205-11.

¹⁸FAR 31.205-6.

¹⁹FAR 31.205-46.

²⁰FAR 31.201-6(a).

²¹FAR 52.242-3.

²²CAS applies, in part, to any contractor that has received at least one CAS-covered contract valued at \$7.5 million or more and, in full, to contractors with \$50 million or more in CAS-covered contracts. 48 C.F.R. §§ 9903.201-

1(b)(7), 9903.201-2. Certain types of contracts, such as those for commercial items and fixed-price contracts awarded on the basis of adequate price competition, are exempt from CAS coverage. 48 C.F.R. § 9903.201-2(b).

²³See 48 C.F.R. § 9903.202-1.

²⁴FAR 52.230-2; FAR 52.230-6.

²⁵FAR 52.215-2(d).

²⁶FAR 52.215-2(b).

²⁷FAR 52.215-2(b).

²⁸FAR 52.215-2(c).

²⁹See, e.g., FAR 52.222-26(c)(9).

³⁰FAR 52.222-41(i).

³¹See FAR 19.707; FAR 52.219-8; FAR 52.219-9.

³²See FAR 52.222-26, “Equal Opportunity”; FAR 52.222-35, “Equal Opportunity for Veterans”; and FAR 52.222-36, “Equal Opportunity for Workers with Disabilities.”

³³See generally 41 C.F.R. §§ 60-2.10 et seq.; 41 C.F.R. §§ 60-741.40 et seq.; 41 C.F.R. §§ 60-300.40 et seq.

³⁴41 C.F.R. § 60-2.1(b); 41 C.F.R. § 60-741.40(b)(1); 41 C.F.R. § 60-300.40(a).

³⁵FAR 52.222-26(c)(9); 41 C.F.R. § 60-300.81; 41 C.F.R. § 60-741.81.

³⁶FAR 52.222-26(c)(10); 41 C.F.R. § 60-300.66; 41 C.F.R. § 60-741.66.

³⁷41 U.S.C.A. §§ 6701–6707.

³⁸FAR 52.222-41.

³⁹FAR 52.222-41(c), (d).

⁴⁰FAR 52.222-41(i).

⁴¹FAR 19.708(b).

⁴²FAR 52.219-9.

⁴³FAR 52.219-16.

⁴⁴48 C.F.R. § 1852.227-11(b)(1); see FAR 52.227-11.

⁴⁵48 C.F.R. § 1852.227-11(d)(2).

⁴⁶48 C.F.R. § 1852.227-70(b)(1), (b)(2).

⁴⁷48 C.F.R. § 1852.227-70(b)(3).

⁴⁸48 C.F.R. § 1852.227-70(c)(1)(i).

⁴⁹48 C.F.R. § 1852.227-70(d)(1).

⁵⁰48 C.F.R. § 1852.227-11(b)(2)(i), (c)(1); 48 C.F.R. § 1852.227-70(d)(1), (e)(2).

⁵¹48 C.F.R. § 1852.227-11(g); 48 C.F.R. § 1852.227-70(i).

⁵²48 C.F.R. § 1852.227-14(a); see FAR 52.227-14.

⁵³48 C.F.R. § 1852.227-14(g)(3) (Alternate II).

⁵⁴48 C.F.R. § 1852.227-14(a).

⁵⁵48 C.F.R. § 1852.227-14(g)(4) (Alternate III).

⁵⁶48 C.F.R. § 1852.227-14(b)(1).

⁵⁷48 C.F.R. § 1852.227-14(a).

- ⁵⁸48 C.F.R. § 1852.227-14(e).
- ⁵⁹48 C.F.R. § 1852.227-14(a).
- ⁶⁰L-3 Commc'ns Westwood Corp. v. Robichaux, 2008 WL 577560 (E.D. La. Feb. 29, 2008).
- ⁶¹31 U.S.C.A. §§ 6304, 6305; see also FAR 35.003(a); NASA Grant and Cooperative Agreement Manual (GCAM) 3-4 (Rev. Dec. 4, 2017), available at https://prod.nais.nasa.gov/pub/pub_library/srba/.
- ⁶²31 U.S.C.A. § 6304(2); GCAM 4-5.
- ⁶³31 U.S.C.A. § 6305(2); GCAM 4-5.
- ⁶⁴Available at https://prod.nais.nasa.gov/pub/pub_library/srba/.
- ⁶⁵2 C.F.R. pt. 1800, app. B, § 1800.911 (requiring compliance with Title VI of the Civil Rights Act of 1964, 42 U.S.C.A. §§ 2000d et seq., Title IX of the Education Amendments of 1972, 20 U.S.C.A. § 1681 et seq., § 504 of the Rehabilitation Act of 1973, 29 U.S.C.A. § 794, and the Age Discrimination Act of 1975, 42 U.S.C.A. §§ 6101 et seq.).
- ⁶⁶2 C.F.R. pt. 1800, app. B, § 1800.912 (incorporating the Clean Air Act, 42 U.S.C.A. §§ 7401 et seq., and the Federal Water Pollution Control Act, 33 U.S.C.A. §§ 1251 et seq.).
- ⁶⁷2 C.F.R. § 182.
- ⁶⁸2 C.F.R. § 175.
- ⁶⁹2 C.F.R. pt. 1800, app. A.
- ⁷⁰2 C.F.R. pt. 170.
- ⁷¹2 C.F.R. pt. 1800, app. B, § 1800.909(b).
- ⁷²2 C.F.R. pt. 1800, app. B, § 1800.909(c).
- ⁷³2 C.F.R. pt. 1800, app. B, § 1800.909(b).
- ⁷⁴2 C.F.R. pt. 1800, app. B, § 1800.909(b).
- ⁷⁵2 C.F.R. pt. 1800, app. B, § 1800.909(d).
- ⁷⁶2 C.F.R. pt. 1800, app. B, § 1800.909(d).
- ⁷⁷2 C.F.R. pt. 1800, app. B, § 1800.909(e).
- ⁷⁸2 C.F.R. pt. 1800, app. B, § 1800.909(e).
- ⁷⁹2 C.F.R. pt. 1800, app. B, § 1800.909(e).
- ⁸⁰2 C.F.R. pt. 1800, app. B, § 1800.908(g).
- ⁸¹2 C.F.R. pt. 1800, app. B, § 1800.908(g).
- ⁸²2 C.F.R. pt. 1800, app. B, § 1800.923 (requiring the use of a “New Technology” clause similar to 48 C.F.R. § 1852.227-70 in grants to commercial firms other than small businesses).
- ⁸³2 C.F.R. pt. 1800, app. B, § 1800.901 (Alternate 1).
- ⁸⁴2 C.F.R. § 200.336.
- ⁸⁵2 C.F.R. § 1800.400.
- ⁸⁶See 14 C.F.R. pt. 1274.
- ⁸⁷15 U.S.C.A. § 3710a.
- ⁸⁸15 U.S.C.A. § 3710a(a).
- ⁸⁹15 U.S.C.A. § 3710a(d)(1).
- ⁹⁰15 U.S.C.A. § 3710a(d)(1).
- ⁹¹15 U.S.C.A. § 3710a(d)(1).
- ⁹²15 U.S.C.A. § 3710a(d)(1).
- ⁹³NASA Policy Directive (NPD) 1050.2, Authority to Enter into Cooperative Research and Development Agreements (Sept. 12, 2013).
- ⁹⁴NASA Advisory Implementing Instruction (NAII) 1050-2, Cooperative Research and Development Program Information Package (Sept. 17, 2013).
- ⁹⁵NPD 1050.2, at ¶ 1(c); see also NPD 1050.2, at ¶ 1(d); NAII 1050-2, at 10.
- ⁹⁶Compare NAII 1050-2, at 88-95 with 48 C.F.R. § 1852.227-11 and 48 C.F.R. § 1852.227-70.
- ⁹⁷NAII 1050-2, at 89-90, 93.
- ⁹⁸NAII 1050-2, at 89-90.
- ⁹⁹NAII 1050-2, 89-95.
- ¹⁰⁰NAII 1050-2, 89-95.
- ¹⁰¹NAII 1050-2, at 93.
- ¹⁰²NAII 1050-2, at 93-94.
- ¹⁰³NAII 1050-2, at 44, 95.
- ¹⁰⁴NAII 1050-2, at 80-81.
- ¹⁰⁵NAII 1050-2, at 85-86.
- ¹⁰⁶NFS 1852.227-14(g)(3) (Alternate II).
- ¹⁰⁷5 U.S.C.A. § 552.
- ¹⁰⁸15 U.S.C.A. § 3710a(c)(7)(B).
- ¹⁰⁹NAII 1050-2, at 82.
- ¹¹⁰15 U.S.C.A. § 3710a(d)(1).
- ¹¹¹NPD 1050.2, ¶ 1(e); see also NAII 1050-2, at 25.
- ¹¹²NPD 1050.2, ¶ 1(e); see also NAII 1050-2, at 25.
- ¹¹³NAII 1050-2, at 25.
- ¹¹⁴NAII 1050-2, at 24.
- ¹¹⁵National Space Policy of the United States, Commercial Space Guidelines 10 (June 28, 2010), available at https://www.nasa.gov/sites/default/files/national_space_policy_6-28-10.pdf; see also NAII 1050-2, at 24.
- ¹¹⁶51 U.S.C.A. ch. 201.
- ¹¹⁷51 U.S.C.A. § 20113(e) (emphasis added).
- ¹¹⁸For example, for the Department of Defense to use an OTA for an R&D project, the recipient generally must to the extent practicable fund half the project, the work must not duplicate any other ongoing research, and there must be a determination that traditional contracts, grants, and cooperative agreements are not feasible or appropriate. See 10 U.S.C.A. § 2371(e).
- ¹¹⁹NPD 1050.1I, Authority to Enter into Space Act Agreements (Rev. Sept. 29, 2017)
- ¹²⁰NAII 1050-1C, Space Act Agreements Guide (Rev. Aug. 11, 2014).
- ¹²¹NPD 1050.1I, ¶ 1(a).
- ¹²²NPD 1050.1I, Attachment A.

¹²³In fact, NASA guidance provides that SAAs may be used instead of CRADAs to accomplish the objectives of the FTTA. See NPD 1050.2, ¶ 1(d).

¹²⁴NPD 1050.1I, Attachment A, ¶ A.1; NAI 1050-1C, at 13.

¹²⁵NPD 1050.1I, Attachment A, ¶ A.1; NAI 1050-1C, at 13.

¹²⁶NAI 1050-1C, at 14.

¹²⁷NAI 1050-1C, at 14.

¹²⁸NPD 1050.1I, Attachment A, ¶ A.1; NAI 1050-1C, at 13.

¹²⁹NAI 1050-1C at 15.

¹³⁰NAI 1050-1C, at 12; see NPD 1050.1I, Attachment A, ¶ A.2

¹³¹NAI 1050-1C, at 12.

¹³²NPD 1050.1I, Attachment A, ¶ A.2; NAI 1050-1C, at 12-13.

¹³³NPD 1050.1I, Attachment A, ¶ A.1; NAI 1050-1C, at 12-13.

¹³⁴NAI 1050-1C, at 13.

¹³⁵NPD 1050.1I, Attachment A, ¶ A.4; NAI 1050-1C, at 16.

¹³⁶NPD 1050.1I, Attachment A, ¶ A.4; NAI 1050-1C, at 16.

¹³⁷NPD 1050.1I, Attachment A, ¶ A.3; NAI 1050-1C, at 17.

¹³⁸NPD 1050.1I, Attachment A, ¶ A.3; see also NAI 1050-1C, at 17.

¹³⁹NAI 1050-1C, at 17.

¹⁴⁰Compare 48 C.F.R. § 1852.227-70 with NAI 1050-1C, at 86–91.

¹⁴¹NAI 1050-1C, at 88.

¹⁴²NAI 1050-1C, at 84.

¹⁴³Compare NAI 1050-1C, at 74–79 with NAI 1050-2, at 80-87.

¹⁴⁴NAI 1050-1C, at 77–78,

¹⁴⁵NAI 1050-1C, at 73, 75–76.

¹⁴⁶NAI 1050-1C, at 13-14.

¹⁴⁷NPD 1050.1I, Attachment A, ¶ A.3

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BRIEFING PAPERS