



EXCERPT FROM THE
PROCEEDINGS
OF THE
TWENTY-FIRST ANNUAL
ACQUISITION RESEARCH SYMPOSIUM

**Acquisition Research:
Creating Synergy for Informed Change**

May 8–9, 2024

Published: April 30, 2024

Approved for public release; distribution is unlimited.

Prepared for the Naval Postgraduate School, Monterey, CA 93943.

Disclaimer: The views represented in this report are those of the author and do not reflect the official policy position of the Navy, the Department of Defense, or the federal government.



The research presented in this report was supported by the Acquisition Research Program at the Naval Postgraduate School.

To request defense acquisition research, to become a research sponsor, or to print additional copies of reports, please contact any of the staff listed on the Acquisition Research Program website (www.acquisitionresearch.net).



ACQUISITION RESEARCH PROGRAM
DEPARTMENT OF DEFENSE MANAGEMENT
NAVAL POSTGRADUATE SCHOOL

Partnership Intermediary Agreements: Analysis of Effective Practices in the Air Force Global Strike Command

Allan E. Cameron—is a distinguished and results-driven acquisition professional with over 11 years of expertise in defense procurement, strategic leadership, and policy development. Cameron graduated from the U.S. Air Force Academy with a Bachelor of Science in Economics and earned his Masters of Business Administration from the Naval Postgraduate School. Throughout his career, Cameron has led at the operational, enterprise, and systems contracting levels in the USAF. Most recently, Cameron served as the Deputy Division Chief of Policy at the Global Strike Command Contracting Operating Location for a portfolio valued over \$323 million. Cameron also served as the Lead Agreements Officer and administered an \$85 million Partnership Intermediary Agreement within Global Strike Command for technological development and innovation. [allan.cameron.v@gmail.com]

Dr. Rene G. Rendon—is an Associate Professor at the Naval Postgraduate School, where he teaches graduate defense acquisition and contract management courses. He completed a career as an Acquisition Contracting Officer in the USAF, serving as a Contracting Officer for weapon systems such as the Peacekeeper ICBM, Maverick Missile, and the F-22 Raptor. He also served as a Contracting Squadron Commander and Director of Contracting for the Space Based Infrared Satellite program and the Evolved Expendable Launch Vehicle program. Rendon has published in the Journal of Public Procurement, the Journal of Contract Management, and the Journal of Purchasing and Supply Management. [rgrendon@nps.edu]

Abstract

One challenge for the Department of Defense (DoD) in using innovative approaches to acquisition includes identifying best practices, lessons learned, and successful use cases and disseminating this information to other agencies for adoption. The literature includes successful use cases for Other Transaction Authorities (OTAs), but the use of Partnership Intermediary Agreements (PIAs) is still comparatively limited. The purpose of this research is to discuss effective practices in the use of PIAs within the U.S. Air Force. Specifically, our research focuses on the Air Force's Global Strike Command PIA with the Cyber Innovation Center (CIC) for support and research within the nuclear deterrence and operations domain. In this research, we answer the question, "What are the most effective practices in the use of PIAs that will foster innovation, maximize collaborative outcomes, and achieve considerable return on investment?" We draw from practical applications in the CIC as well as other reports from the literature. Although this research focus is limited to the Air Force's Global Strike Command PIA with the CIC, our findings can still be applied to similar PIAs in the DoD that are focused on acquiring innovative, agile, and more collaborative solutions in a timelier manner.

Introduction

The U.S. Department of Defense (DoD) obligates billions of dollars annually for the procurement of goods and services that are essential for homeland defense. The majority of these procurements are structured using contracts based on the Federal Acquisition Regulation (FAR) and its related supplements; however, some agencies are authorized to use non-FAR instruments as a way of acquiring innovative, agile, and more collaborative solutions in a timelier manner. The use of Partnership Intermediary Agreements (PIAs) is still in its early adoption phase, yet the DoD has already experienced successful acquisition outcomes using these non-FAR instruments. Challenges for the DoD in using these innovative approaches to acquisition include identifying best practices, lessons learned, and successful use cases for its non-FAR contracts and disseminating this information to other agencies for adoption.

The purpose of this research is to discuss effective practices in the use of PIAs within the U.S. Air Force. Specifically, this research focuses on the Air Force's Global Strike Command



PIA with the Cyber Innovation Center (CIC) for support and research within the nuclear deterrence and operations domain. In this research, we answer the question, “What are the most effective practices in the use of PIAs that will foster innovation, maximize collaborative outcomes, and achieve considerable return on investment?” We draw from practical applications in the CIC as well as other reports from relevant acquisition literature. Our research and identified findings will benefit other Air Force PIA initiatives as well as PIAs planned and implemented throughout the DoD.

Background

PIAs are nontraditional procurement instruments established across the federal government. A PIA is authorized and governed by congressional statute that establishes its legal framework. The congressional statutes serve as the legal framework and basis for the government to authorize use of a PIA in public procurement. In establishing a PIA, the primary intent for the government is to drive innovation and foster collaboration with the Partnership Intermediary (PI) through technology transfer, licensing, and data rights (Defense Acquisition University, 2020).

The congressional statutes for PIAs are as follows: 15 U.S.C. § 3715, 15 U.S.C. § 3705, 15 U.S.C. § 3707, and 10 U.S.C. § 4124 (Defense Acquisition University, 2020). Specific to the armed forces and renumbered from 10 U.S.C. § 2368, 10 U.S.C. § 4124 tasks the secretary of each military department to “reengineer management and business processes and adopt best-business and personnel practices at the Centers of the Secretary concerned in connection with the capability requirements of the Centers, so as to serve as recognized leaders in such capabilities throughout the Department of Defense and in the national technology and industrial base” (Centers for Science, Technology, and Engineering Partnership, 2023).

The statute authorizes the use of non-FAR based agreements for defense procurement contracting officers to award within the context of best practices through their respective centers (e.g., designated federal laboratory). Additionally, 10 U.S.C. § 4124 Subsection (f) outlines the “use of partnership intermediaries to promote defense research and education” through a contract, “memorandum of understanding or other transaction with a partnership intermediary to perform services for the Department of Defense that increase the likelihood of success in the conduct of cooperative or joint activities of the Center with industry or academic institutions” (Centers for Science, Technology, and Engineering Partnership, 2023).

The principal intent of the federal statutes within defense procurement is to promote partnerships with academia, nonprofit organizations, and small businesses in order to drive an outcome of enhanced research and development, innovation, technology transfer, and collaboration for a more sustainable and cost-effective defense acquisition ecosystem.

Methodology

This report provides an explanatory and qualitative analysis of publicly available sources, including but not limited to PIAs, congressional statutes, the Institute for Defense Analyses, the Government Accountability Office, the RAND Corporation, the Congressional Research Service and congressional hearings, as well as the current PIA landscape within the defense sector. The analysis blends existing literature, official documents and reports, and studies to draw inferences and conclusions on the most effective uses of the PIA. Additionally, as one of the authors of this study has 11 years of recent and relevant practitioner experience, this study is able to synthesize direct insights acquired from fieldwork with academic analysis.

The research methodology includes a comprehensive examination of current congressional statutes, government reports, legislature subcommittee hearings, and third-party



research institutions. Furthermore, the methodology employs a case study–based approach to the specific success within Air Force Global Strike Command. The analytical techniques employed in the methodology are as follows: policy analysis, content review, and thematic analysis through categorical grouping of relevant and publicly available literature.

Findings and Analysis

The qualitative analysis performs a research-oriented approach on the existing literature, studies, and case-based Global Strike Command PIA to present findings on the most effective practices for the use of PIAs. The intent of the research is to capitalize on nontraditional acquisition practices from a PIA that foster innovation, maximize collaborative outcomes, and achieve considerable return on investment within the Department of the Air Force. The primary findings from the qualitative analysis identified the following most effective practices for the use of PIAs: effective sharing of information, standardized administrative contracting procedures, proximity of location for partnership intermediary, aligned performance evaluation metrics, and lessons learned and after-action reports. These are further discussed in the next section.

Effective Sharing of Information

Effective communication and collaboration are essential for the successful outcome and effectiveness of PIA execution. According to an Institute for Defense Analyses report, effective communication and collaboration between not only the government and the PI but also other PIs increases the likelihood of usable technologies and more intertwined collaboration between multilateral organizations (Peña et al., 2020).

Within Global Strike Command, the PI provides a platform through their collaborative environment located within the Cyber National Park in Shreveport, LA, where the government effectively communicates with both the PI and nontraditional vendors. In these instances, the collaborative environment provides a “brick and mortar” location for both contractors and the government to actively collaborate on ongoing innovative projects under the PIA. In addition to utilization of a collaborative environment, the government has infused the PI into the Science & Technology Department on Barksdale Air Force Base (AFB). By leveraging these capabilities, the PI and the government enhance their overall ability to transfer information as well as effectively communicate through direct contact with continual feedback in real time (Department of the Air Force, 2023).

The key recommendation from the research indicates that prototyping and fielding of technology derived from a PIA must provide continuity between stakeholders through turnover at each stage of the acquisition process to ensure transfer of innovative technological outcomes as well as government usability on future acquisitions resultant in effective cost-savings and return on investment. Through study, practice, and theory, the importance of effective communication between members of both the government and the PI acquisition team is paramount for successful implementation and administration of requirement activities in a PIA.

Standardized Administrative Contracting Procedures

PIAs have often been traditionally underutilized within the DoD due to the lack of both readily available information as well as knowledge on many non-FAR acquisition processes (Dunn, 2022). Within the past decade, the DoD’s increased interest in nontraditional procurement instruments to achieve rapid innovation with effective collaboration has driven the need for simplified and standardized procedures (Vergun, 2021).

From a practitioner’s perspective at Global Strike Command, administrative and contracting procedures can lead to some of the most time-consuming delays for operational



execution under a PIA. For example, Collaborative Project Designs (CPDs) under the Collaborative Project Order (CPO) often have significantly varying specifications relative to their scope and intended outcome. As opposed to similar specifications, typical for Task and Delivery Orders under IDIQ contracts under FAR procedures, the wide breadth of differentiation for CPDs under a CPO can create unfamiliarity when administering contracting procedures. Ultimately, the unfamiliarity can lead to “noise interference” decision-making, miscommunication with acquisition team members, and even delayed award by seasoned government acquisition professionals (Peña et al., 2020).

While the recommendation for a standardized process is not to apply a “one-size fits all” approach, the rationale for streamlining and simplification is to provide a transparent roadmap through the duration of the PIA’s life cycle across the contract life-cycle phases, such as pre-award, award, and post-award, and technology transfer outcomes. In understanding the challenges of DoD policy and human resource activity, the government could achieve a more efficient and effective approach when administering a PIA. By incorporating these recommendations, this article finds that the government would have a higher likelihood to achieve efficient administrative implementation and execution as well as significantly increased cost savings. Furthermore, the recommendation would provide for improved strategic use of resource allocation with an expectation for deployable technological outcomes within the agency (Dunn, 2022).

Proximity of Location for Partnership Intermediary

This research finds that the proximity of a location can be a principal measure in gauging the effectiveness of a PIA. A study performed by the Institute for Defense Analyses surveyed 106 procurement professionals, 48 from 33 DoD entities and 58 from 28 different PIs, who responded to semi-structured interviews as well as provided input based on their expertise of PIAs (Peña et al., 2020). A primary consideration of the study was the efficient and effective use of PIs co-located with their administering DoD entity. In multiple situations, the study concluded that proximity led to enhanced technological outcomes within the collaborative environment by co-locating both DoD employees and their respective PI contractor counterparts.

From a practitioner’s perspective, close proximity has been instrumental in facilitating technology transfers and enhancing collaborative environments between the PI and the government. As examined at the Global Strike Command PIA in Shreveport, LA, the PI is located 17 miles from Barksdale AFB. The CIC serves as the Global Strike Command PI. The CIC is a hub for research and development, prototyping, as well as hosting various Industry Days (Academic Partnership Engagement Experience, 2021). Since the inception of the Global Strike Command PIA, both the PI and the government have reported a significant return on investment to the Air Force. These figures include an annual return of \$4 million as well as \$200 million in indirect cost savings directly attributable to a plethora of sourced technologies derived from the collaborative environment in Shreveport, LA (Department of the Air Force, 2023).

Our research recommends that proximity is one of the driving factors that lead to facilitation of collaborative and more efficient outcomes regarding problem identification, technological methodology and solutions, and overall cost savings (Peña et al., 2020).

Aligned Performance Evaluation Metrics

Our findings indicate that continuous measurement, tracking, and analysis of the performance of a PIA is critical for optimization of efficiency and effectiveness. By tracking the progress and performance of individual projects (e.g., CPDs), the government and the PI can develop a structured collaborative environment. Key stakeholders for meetings at regular intervals consist of acquisitions team program managers, finance officers, and contracting



officers as well as their PI counterparts, which enhances the timelines, effectiveness, progress, and overall performance of the PIA (Peña et al., 2020).

Performance evaluation and compliance are key components for measuring the success of a PIA. While many project designs of a PIA might not lead to a readily deployable end product, the technology derived through the duration of the CPD should be monitored for defense uses, modifications, and progress of development (Peña et al., 2020). CPDs experience a high propensity of variability and degree of change. As many project designs do not directly correlate to a specific solution, project designs can lead to alternative and nontraditional solutions for an executed problem statement. In the Global Strike Command PIA, the government and the PI have maintained continual awareness within the program and acquisition team, which led to effectively maintaining schedule, milestones, and performance accountability on individual projects with high returns on investment.

Our research recommends that the government acquisitions teams (especially the agreements/contracting officer) must maintain awareness and knowledge of tracking and reporting metrics of specific CPDs in conjunction with the PI. Furthermore, the team should monitor and collaborate on the PI's monthly and quarterly financial compliance statements, performance-oriented outcome meetings, and end-state technology transfer summarization meetings. By understanding the operational necessity, performance evaluation becomes more manageable and less labor-intensive.

Lessons Learned and After-Action Reports

Lastly, our research finds that both lessons learned and after-action reports are essential post-award requirements necessary to gauge the effectiveness and outcome of the PIA as well as refine future project design implementation and practices for use. By detailing thorough after-action reports and lessons learned on outcomes of associated project designs, the government team can make more informed decisions when constructing future CPD problem statements.

Non-traditional contractors have provided the Global Strike Command PIA with multiple, varied solutions to problem statements, and the PIA has significantly benefited from employing these after-action reports and lessons learned as advanced market and concept research for future acquisitions. One of the first project design sprints hosted by the Global Strike Command PIA was the Emergency Aircrew Response (EAR) Readiness, which partnered with the Air Force Nuclear Weapons Center (AFNWC) and AFWERX. The PI under the Global Strike Command PIA, CIC, led a Challenge Day that selected three finalists out of 47 total submissions for an EARs solution on legacy mass aircrew alerting systems across Barksdale AFB. Of the three finalists selected to participate in prototyping the developed technologies, the PI provided detailed analysis on the lessons learned, which led to more efficient practices being implemented on future CPDs at Global Strike Command. The outcome of the project design sprint contributed to the indirect cost savings to the government of \$200 million (Department of the Air Force, 2023). Furthermore, the outcome led to direct, non-traditional contractor engagement with primary defense contractors on large-scale weapon system acquisitions, specifically at Hanscom AFB.

It is recommended that the government and the PI establish after-action reports, metrics, and deliverables to evaluate the success of PIAs. The Air Force and other military departments would benefit from an after-action report that includes milestones, outcomes, data/licensing rights, and deliverables. This report would provide a tangible indication of the estimated return on investment less the cost of the PI-sourced contractor as well as the award amount to the sourced contractor for any follow-on programs. Lastly, the report could provide enhanced awareness of technologies not readily available within the defense industry.



Conclusion

The transformative environment of the modern defense procurement landscape leads to a pressing need for the ability to harness innovation in order to safeguard national security interests while maintaining technological relevance within the Department of the Air Force. Within this context, the Department of the Air Force is increasingly recognizing the importance of nontraditional tools such as PIAs within its collaborative acquisition framework. As the research highlights, these nontraditional procurement instruments have proven both effective and efficient in creating links between the DoD as well as the advancement of technology from the private sector.

Our research identified several tenets that are integral to optimizing the use of PIAs. By emphasizing effective information-sharing, the Air Force Global Strike Command is able to use that transparency to ensure all stakeholders are synchronized in both their objectives and efforts outlined in the requirements of the PIA. Standardized administrative contracting procedures derive the need for consistency, efficiency, and predictability in PIA execution. Standardizing the procedures not only streamlines the process but also ensures trust in and understanding of both the government and the PI. Additionally, the study emphasized the key importance of maintaining strategic proximity between both PIs and their supported government counterparts. By ensuring a geographically accessible PI, the real-time collaboration led to a more organic and immediate exchange of ideas and solutions for various projects under the PIA. Furthermore, the performance evaluation metrics finding displayed the efficiency, success rate, and outcome of a collaborative and results-oriented approach in line with the key defense objectives of the overall acquisition project. Potentially one of the most engaging findings is the emphasis on Lessons Learned and After-Action Reports, which might seem readily apparent. However, underscoring the importance of these findings within the Department of the Air Force, lessons learned and after-action reports provide a tool for continual feedback improvement as well as analyzing past actions to refine future strategies for the PIA or follow-on acquisition. By employing these iterative and reflective tools, the government team can either replicate or eliminate processes from specific projects within the PIA.

Our research's primary limitation of the findings is that the Global Strike Command PIA was the primary case study utilized for analysis from a practitioner perspective. While analyzed in conjunction with existing literature, the categorical findings were restricted to the primary case study. The research's contribution is to highlight existing best practices from a practitioner's perspective intertwined with qualitatively relevant research literature. Future research could incorporate interviews and perspectives from agreements officers, program managers, and PIs on alternative PIAs in different MAJCOMs across the Air Force.

References

- Academic Partnership Engagement Experience. (2021, July). *What are Partnership Intermediary Agreements (PIAs) and how can they help small businesses and academia innovate and commercialize technology*. <https://apex-innovates.org/news/blog/what-are-partnership-intermediaries-agreements-pias-and-how-can-they-help-small>
- Air Force Global Strike Command. (2020, May). *Collaborative environment drives rapid solutions for global strike, warfighters*. <https://www.afgsc.af.mil/News/Article-Display/Article/2191971/collaborative-environment-drives-rapid-solutions-for-global-strike-warfighters/>
- Centers for Science, Technology, and Engineering Partnership, 10 U.S.C. § 4124 (2023). <https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title10-section4124&num=0&edition=prelim>



- Defense Acquisition University. (2020). *Contracting cone: Partnership Intermediary Agreement (15 U.S.C. § 3715)*. <https://aaf.dau.edu/aaf/contracting-cone/rd-agreements/pia/>
- Department of the Air Force. (n.d.). *Department of the Air Force technology transfer and transition: Partnership Intermediary Agreements (PIAs)*. Retrieved July 4, 2023, from <https://www.aft3.af.mil/PIAs/PIAs-List/>
- Department of the Air Force. (2023). *Department of the Air Force technology transfer and transition: Annual report 2022 (AFRL-2023-0887)*. [https://media.defense.gov/2023/Feb/24/2003167320/-1/-1/0/DAFT3-FY22_ANNUALREPORT-FINAL_AFR-2023-0887%20\(1\).PDF](https://media.defense.gov/2023/Feb/24/2003167320/-1/-1/0/DAFT3-FY22_ANNUALREPORT-FINAL_AFR-2023-0887%20(1).PDF)
- Dunn, R. (2022). *The other transactions & partnership intermediary connection*. Strategic Institute. <https://strategicinstitute.org/other-transactions/ot-pia-connection/>
- GAO. (2017, July). *Military acquisitions: DoD is taking steps to address challenges faced by certain companies (GAO-17-644)*. <https://www.gao.gov/assets/690/686525.pdf>
- GAO. (2020, October). *Army modernization: Army should improve use of alternative agreements and approaches by enhancing oversight and communication of lessons learned (GAO-21-8)*. <https://www.gao.gov/assets/gao-21-8.pdf>
- Peña, V., Mandelbaum, J., Babou, T. F., & Cavanaugh, C. P. (2020). *Opportunities to advance Department of Defense technology transfer with Partnership Intermediary Agreements*. Institute for Defense Analyses. <http://www.jstoFr.org/stable/resrep36528>
- Vergun, D. (2021, October). *Investments in technology crucial to staying ahead, innovation unit director says*. DoD. <https://www.defense.gov/News/News-Stories/Article/Article/2818899/investments-in-technology-crucial-to-staying-ahead-innovation-unit-director-says/>





ACQUISITION RESEARCH PROGRAM
DEPARTMENT OF DEFENSE MANAGEMENT
NAVAL POSTGRADUATE SCHOOL
555 DYER ROAD, INGERSOLL HALL
MONTEREY, CA 93943

WWW.ACQUISITIONRESEARCH.NET