INTELLECTUAL PROPERTY

(This section must be signed)

Individuals **outside your company**, including the companies listed above and other third parties, potentially including your competitors and others in your industry, may receive and/or review award submissions. All information submitted should address the program's management, leadership, and processes in a manner that you are comfortable sharing with third parties freely and without restriction, and may not include any classified or proprietary information or materials. Do not include any materials marked Confidential or Proprietary or bearing any similar legend. All responses and other submissions, whether in whole or in part ("Submissions"), shall be deemed not to be confidential, proprietary, and/or nonpublic information of any sort for any purpose.

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Thank you for participating,

Gregory Hamilton
President
Aviation Week Network

Acknowledged, agreed, and submitted by

Jonathan Mejias
Nominee's Signature

02 June 2023
Date

Nominee's Name (please print): Jonathan Mejias

Title (please print): HFGCS Project Engineer

Company (please print): Collins Aerospace

NOMINATION FORM

Name of Program: High Frequency Global Communications System (HFGCS)

Name of Program Leader: Jared Faul

Phone Number: 972.705.0043

Email: jared.faul@collins.com

Postal Address: 3200 E Renner Rd., Richardson, Tx 75082

☒ Customer Approved

- Date: 09 May 2023
- Customer Contact (name/title/organization/phone): Mark Grant/ Chief, HF Global Comm Branch/ 405.734.2300

☐ Supplier Approved (if named in this nomination form)

- Date: N/A
- Supplier Contact (name/title/organization/phone): N/A

PLEASE REFER TO PROGRAM EXCELLENCE DIRECTIONS AS YOU COMPLETE THIS FORM.

EXECUTIVE SUMMARY: Make the Case for Excellence
Value: 10 points
Use 12 pt. Times Roman typeface.

What is the vision for this program/project? What unique characteristics and properties qualify this program for consideration?

[LIMIT YOUR NARRATIVE TO THIS PAGE.]

Since the 1995 Indefinite Delivery/Indefinite Quantity (IDIQ) contract award, the High Frequency Ground Communications System (HFGCS) program continues to serve as a critical element of reliable communications for the United States (US) military operations. Through years of collaboration with the United States Air Force (USAF) System Program Office (SPO), the Collins HFGCS team has developed reliable, practical, and cost-effective system capabilities that meet the evolving operational requirements of the Warfighter – a system designed, developed, and maintained to provide reliable HF communications capable of operating in harshly contested environments.

The unified vision for the SPO and HFGCS teams is for the continuous upgrade, modernization, and expansion of the radio and control equipment in support of strategic military command and control communications, all while providing cost effective solutions, executing to an agile mindset, developing cutting edge quality products, and meeting schedule and cost commitments. The importance of this vision is carried across all facets of the program for flawless execution meeting of Technical Performance Metrics (TPM), subcontracts management, system uptime and mean time between repairs (MTBR), earned value management (EVM), and 24/7/365 field services support.

In support of this vision, Collins has worked extensively with the Government to provide sustainment and modernization of the HFGCS. Together we introduced lights out operation and operator colocation at the Andrews Network Control Station (NCS) and improved system resiliency with the installation of the Grand Forks NCS. We brought revolutionary new features online such as HF Email, Web Call, scanning receiver capability, the System Health Status Tool, and time of day broadcast presets. We assisted with onboarding new user communities from the Navy, Air Force Space Command, and the White House Communications Agency (WHCA). Throughout the entirety, Collins has demonstrated a consistent track record of exemplary performance and partnership with the Government. We have produced consistent and unparalleled system availability of greater than 99.5%, ensuring uninterrupted mission execution.

Since 1933, High Frequency communications has been a core competency of Collins. Through our experience as the HFGCS prime contractor since its inception in 1995, we have gained a deep understanding of, and appreciation for, the criticality of the missions that HFGCS undertakes. Our intimate knowledge of the US Department of Defense (US DoD) HF domain, the HFGCS system and its concept of operations (CONOPS), and the technology behind the system uniquely qualifies Collins as the Subject Matter Experts (SME) for HFGCS. The Collins Communications Control and Management System (CCMS) Software allows us to operate, maintain, and manage the HFGCS with 100% interoperability.

Collins is uniquely positioned to modernize, operate, maintain, and manage the HFGCS system. Collins has the capability and capacity to execute all integration, installation, upgrade, and modernization efforts and field 100% interoperable internet protocol (IP)-enabled software-defined radios. With the recent transition to the new IDIQ contract, Collins will continue using the current CCMS Software, Systems Integration Lab (SIL), people, and processes to support our Warfighter missions.

DIRECTIONS

- **Do not exceed 10 pages in responding to the following four descriptions**.
  - Allocate these 10 pages as you deem appropriate, but it is important that you respond to all four sections.
- DO NOT REMOVE THE GUIDANCE PROVIDED FOR EACH SECTION.
- Use 12 pt. Times Roman typeface throughout.
- Include graphics and photos if appropriate; do not change margins.

VALUE CREATION

Value: 15 points

Please respond to the following prompt:

- **Clearly define the value of this program/project for the corporation; quantify appropriately**

The HFGCS program is critical to Collins Aerospace and supports our long-standing tradition leading industry HF communication systems with our unrivaled implementation pedigree, proven track record in delivery of new capability, and a unique alignment to both airborne and ground nuclear command, control, and communications (NC3) operations. With the widespread adoption of modernized HF, Collins foresees future possibilities in air-ground networking and has been active in research and development of mesh networking protocols. Collins is actively exploring and adopting new ways of doing business in the Digital Engineering Environment. DevSecOps, OpenShift Container (OSC) architectures, and agile development methodologies are helping Collins accelerate the delivery of new capabilities to the warfighter. Improvements at the Collins facility in Richardson, Texas is bringing new secure lab spaces and conference rooms to support the substantial growth within the NC3 domain space. No matter the future requirement, Collins stands ready to support the HFGCS mission.

- **Clearly define the value of this program/project to your customer**

Collins' performance on the current and past HFGCS support contracts has been outstanding, as evidenced by our consistently high CPAR ratings. These clearly reflect our continued ability to support the acquisition, upgrade, modification, and sustainment of this complex global network at the highest standards of excellence. The partnership between Collins and the Government has resulted in recent identification of several areas of savings – both in cost and schedule. Collins continually seeks to proactively identify ways in which HFGCS can operate more efficiently. As we continue to work together, we are motivated by our keen understanding of how important sustained HFGCS mission readiness is to the US DoD.

- **Clearly define the value of this program/project to members of your team; quantify if possible**

The HFGCS team has been responsible for the program design, development, integration, logistics support, and depot maintenance since the inception of the HFGCS program in 1995. Located in Richardson, Texas, Collins houses a nearly 4000 square foot SIL, 2000 square foot spares depot, and employs more than 25 full-time engineers and technicians to support the HFGCS contract – all with requisite security clearances necessary to gain access to each site. The Collins team possesses over 200 years of collective experience working with the HFGCS user community to deliver superior technical

support, sustainment, modernization, and industry-leading HF communications and network domain knowledge.

The work we do to help shape the future of aviation and defense may be complex, but the values that unite us as a company are not. Simply put, our values reflect who we are and what we commit to – as individuals and as part of a larger, Collins Aerospace and Raytheon Technologies culture.

- Trust
- Respect
- Accountability
- Collaboration
- Innovation

We trust each other to do the right thing and to keep our word. We welcome and respect each other's backgrounds and perspectives. We hold each other accountable. We work together to tackle big challenges. And we bring our creativity and ingenuity forward in a spirit of innovation.

➢ **Clearly define the contribution of this program/project to the greater good (society, security, etc.)**

With the ever-increasing threat of Satellite Communications (SATCOM) unavailability from potential adversaries, the Collins HF radio reemerges as both back-up and augmentation to threatened US space-based beyond line-of-sight (BLOS) strategic communication systems. Collins Aerospace provides a comprehensive and reliable back-up HF infrastructure that allows critical and reliable communication between the US and allied Warfighters. The system allows for the HF stations to provide air/ground command and control radio communications between several ground entities and US military air vehicles and ships. The system is also capable of allied military and other platform communication in accordance with established agreements and international protocols as deemed appropriate. The system provides service to all DoD authorized users on a traffic precedence/priority basis. Some of the general services provided by the HFGCS are:

- Phone patch and message relay services
- Automatic link establishment (ALE)
- Data support
- Emergency Assistance
- Voice and Data Broadcasts
- Email connectivity (NIPRNet and SIPRNet)

ORGANIZATIONAL BEST PRACTICES AND TEAM LEADERSHIP

Value: 35 points
Use 12 pt. Times Roman typeface

Please respond to the following prompts:

➢ ***15 points:*** **Describe the innovative tools and systems used by your team, how they contributed to performance and why**

Collins has aided the Government in exploring new technologies and mission concepts by authoring 30+ Weapons System Assessment (WSA) and Preliminary Systems Engineering (PSE) studies since 2016. These technical reports have been instrumental in obsolescence management and advancing the technical roadmap. Through some of these studies, Collins has brought value by developing an in-house transmit

matrix test script to identify failed cross points, implementing RT-2200A narrowband drivers, and upgrading to Windows Server 2019 OS without any added cost to the Government.

To promote and maintain the high quality of development that has come to be expected of the CCMS Software, Collins has developed the HFGCS C/C++ Coding Standard that defines Software Engineering requirements for code formatting, comments, naming conventions, and constructs by following the Collins Aerospace Secure Software Development Guidelines. The HFGCS Peer Review Process sets requirements and establishes mandatory entry criteria for software code reviews. All code modifications are thoroughly unit tested, using a peer-reviewed unit test procedure. The integrated CCMS Software product is tested against a peer-reviewed integration test procedure. Collins maintains a change request (CR) repository for issue tracking to identify and correct defects as they are identified. A comprehensive list of CRs is delivered to the Government quarterly in the Risk Management Status Report under the Contractor Depot Maintenance (CDM) delivery order.

- ***10 points:*** **Define the unique practices and process you used to develop, lead, and manage people?**

Collins' integrates both formal and informal mentoring approaches by allowing mentors the ability to sign up and identify time frames and topics for which they can support mentees, and for mentees' access to a database of mentors to find an organic connection with the right mentor.

There are three types of mentoring approaches that exist within Collins Aerospace. Micro mentorship is a short-term mentoring and/or knowledge sharing with panel discussions to assist in the speed of the mentorship. Precision mentoring is focused on mentoring for a specific reason or skill to be acquired. Lastly, reverse mentorship involves an executive and/or upper-level leaders who is open to receiving mentorship regarding a topic by an early to mid-career professional.

The Collins Aerospace mentoring framework includes a total of four steps. Step one includes reflecting before the connection, which focuses on reflecting on and identifying the mentees' focus areas. Step two focuses on establishing the connection which allows the mentor and/or mentee to collaborate and create an organized approach for mentorship. Step three concentrates on growing the connection by leveraging the mentorship resources available to maximize the outcome. Lastly, step four emphasizes an effectiveness assessment of the mentoring connection and whether it has been a mutually beneficial experience for those involved. Adjustments are made on an as-needed basis to maximize the relationship and make the experience more fruitful for all parties involved.

- ***10 points:*** **How did you leverage skills and technologies of your suppliers?**

As the prime system integrator, Collins has successfully identified, researched, procured, and integrated equipment from other suppliers into the system since the start of the program. Collins has subcontract support and repair agreements in place with numerous major vendors. These agreements allow Collins to secure competitive pricing which benefits the Government. These agreements also ensure repairs are completed quickly, guaranteeing system availability. Collins' successful record demonstrates our ability to perform the important function of selecting and managing qualified subcontractors. Collins also recognizes that other suppliers can develop and provide innovative products that could enhance future HFGCS configurations. To ensure a best value to the HFGCS community, Collins will continue to seek prospective partners that produce the most cutting-edge innovations.

DEALING WITH PROGRAM COMPLEXITY
(VOLATILITY, UNCERTAINTY, COMPLEXITY, AMBIGUITY, or VUCA)
Value: 25 points
Use 12 pt. Times Roman typeface

Please respond to the following prompts:

- ***10 points:*** **Describe UNIQUE areas of VUCA faced by your program and why. (Please avoid the issues surrounding Covid-19 pandemic, which was faced by all programs.)**

Since 1998, Collins has an annual support contract to support the HFGCS (a DoD network of HF ground radio stations). The Collins HFGCS support team continues to demonstrate extraordinary customer service. In two separate instances in 2022, an HFGCS Air Force site had equipment failures that immediately caused their sites to become non-operational. In both cases, Collins immediately flew an emergency technician to their location the same day that the failure occurred, and the site was up and running within hours.

Like many DoD industry programs, the HFGCS team has experienced its fair share of Volatility, Uncertainty, Complexity, and Ambiguity (VUCA) throughout its tenure. Our program and customer leadership have been on the forefront of identifying, mitigating, and/or overcoming numerous unforeseen challenges. By partnering with our DoD counterparts, the HFGCS team has been able to execute flawlessly over the years – receiving Contractor Performance Assessment Reporting (CPAR) ratings of Very Good in both Quality and Management and recognized by our customer as providing best-in-class customer service. CPAR ratings such as these contributed to the selection of Collins as the sole source provider for a new IDIQ contract awarded in 2022.

- ***15 points:*** **Explain how your team responded to these challenges. What changes did you make, what were the results?**

Recently, one of the customer sites went down overnight and Collins was made aware in the morning. By early afternoon, Collins had authorization from the customer to travel for the emergency repair. The Collins technician went to the lab in Richardson, Texas to obtain the necessary spare parts and tested them in the lab to ensure a successful repair at Grand Forks. The technician immediately flew to Fargo, North Dakota with the parts in hand, and from there drove 90 minutes in inclement weather straight to the base at Grand Forks, arriving just after midnight. Within a couple hours, the repair was complete, and the site was back up and running.

Last year, a similar repair was performed at another customer site, again getting the site up and running in less than 24 hours from the incident occurring. All instances resulted in high ratings for support, customer service, and sustainment of the Collins brand – helping the warfighter continue executing the mission.

METRICS
Value: 15 points
Use 12 pt. Times Roman typeface

Please respond to the following prompts, where predictive metrics indicate items that provide a view of how yesterday's actions and today's actions will affect the future timeline, cost, or other requirement.

Provide charts/graphs that illustrate performance to these metrics:

➢ **What are your predictive metrics?**

The HFGCS Program follows strict DoD Earned Value Management System (EVMS) processes as the basis for the customer to assess EVMS compliance to industry standards. HFGCS provides program management support for contract–level program management requirements to include but not limited to:

- Cost and schedule control and status
- Monthly status report
- Task order level technical interchange meetings
- Teleconferences with the Government HFGCS SPO
- Customer interface
- Contract oversight/management support

This allows full transparency and continued collaboration between the HFGCS program and SPO in tracking cost and schedule performance.

The HFGCS team measures system performance against a critical program requirement of 99.5% uptime. System uptime is critical for our warfighters to execute their missions accordingly. Uptime preserves the long-lasting relationship with the SPO. Within the last 36 months, the HFGCS has well exceeded the uptime requirements. These performance results are a testament of the quality product provided to the warfighter.

➢ **How did you perform against these metrics?**

Customer evaluation of contractor performance is handled via the CPAR process. Comments are gathered from both parties to provide a balanced view of actual program performance. This process allows source selection officials to look beyond any provided contractor references. Historical CPAR performance is critical information for the future source selection process. The reports contain relevant information regarding the contractor's performance on past contracts.

The HFGCS team prides itself on their extraordinary performance on their contracts for quality, schedule, cost control, management, subcontracting and regulatory compliance. Since the inception of the sole source IDIQ contract in 1995, the team has consistently received high praise from the customer through annual CPAR scores.

➢ 1**How do your predictive metrics drive action toward program excellence? Please provide examples.**

Through the CPAR process, the HFGCS customer can provide ratings against the Collins team for quality, schedule, cost control, management, small business subcontracting and regulatory compliance. These program performance evaluations contain both government and contractor inputs to provide a balance view of overall performance.

The report includes Collins' record of conforming to customer requirements and quality standards; stable forecasting and cost control; schedules commitments, including the administrative aspects of performance; behavior and commitment to overall customer satisfaction; reporting into databases; integrity and business ethics; and business-like concern for the interest of the customer.

During the Unified Capabilities/Audio Communications Functionality (UC/ACF) Station Fielding effort, Collins discovered a solution to a pre-existing non-functional T-1 line at a customer site. The contractor

spent three extra days on-station to debug the solution and successfully restored Defense Switched Network (DSN) Global Access numbers.

During multiple UC/ACF installation efforts, Collins Aerospace went above and beyond expected effort to maintain adherence to planned scheduled timelines. The Contractors team worked nights/weekends during the Sigonella installation to make up for a five-day delay due to flooding on the island. The Contractor demonstrated flexibility by accommodating unscheduled downtimes during installations (due to uncontrolled real-world events) while still maintaining schedule.

Collins Aerospace demonstrated cost control when developing the schedule for the LPH-89 effort. The schedule was examined and compressed to implement cost-saving measures. The LPH-89 schedule merged a software install into an existing CDM effort, resulting in a no-additional-cost endeavor. Collins Aerospace began utilizing a commercial shipper to move goods to-from Military Airlift Command (MAC) flight port of origins, resulting in minimized Government coordination and expenditures.

Collins Aerospace continued to support bi-weekly meetings with the Government to help with coordination on current contractual activities and fielding performance efforts. These meetings have improved understanding and coordination on programmatic efforts. The Government program managers and engineers benefited from the contractor taking the time to discuss each contracted effort.

Configuration Management, Human Systems Integration and Systems Engineering contractual requirements were met to the Government's satisfaction. Systems and workplace safety and National Fire Protection Association directives and regulations were all met with no known violations or concerns. There were no reported safety mishaps during the reporting period. Contractor assisted with Government compliance documentation requests.

Collins Aerospace continues their long tradition of program excellence in support to the HFGCS mission. The company continues to excel in program execution. Collins proactive management and excellent working relationship with the HFGCS is poised to succeed for years to come.