I. Program Overview

| Organization Name/Program Name:          | Honeywell Technology Solutions Inc. (HTSI)       |
|                                         | Air Force Satellite Control Network Contract (SCNC) |
| Program Leader Name/Position/Contact information – E-mail, Phone | Dave Fuino/Program Director                        |
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Program Category

| Program Category | System level Sustainment |

Program Background: What is this program all about? (No more than one page).

- The overarching need for this program
- History of the program
- The product that is created by this program
- Scope of work – original & updated
- Expected deliverables
- Current status of the program

Program Overview: As the prime contractor for the Satellite Control Network Contract (SCNC), HTSI supports the worldwide 30 year old Air Force Satellite Control Network (AFSCN) Remote Tracking Stations (RTS) and communications nodes, providing AFSCN technical support to 240 communication, navigation, missile warning, and meteorological satellites, and other missions for DoD, NASA, and the United Kingdom. The network consists of two communications nodes located at Schreiver Air Force Base, Colorado and Vandenberg Air Force Base, California (CA); 16 telemetry, tracking, and control antennas at eight geographic locations worldwide; a space-vehicle check-out facility at Cape Canaveral Air Station, Florida, and launch facilities at Vandenberg Air Force Base, CA and Cape Canaveral, Florida; and communications connectivity between these locations. These RTS and communication nodes are responsible for over 150,000 satellite contacts per year which are communicated to the “War Fighter” and DoD agencies. The HTSI team manages up to 80 work authorizations/delivery orders running simultaneously, ranging in size from $100,000 to several million dollars each, with an overall program scope of 600 HTSI and subcontract employees.

Supporting the Network: HTSI provides the integration, sustainment, and analysis support necessary to operate this complex network, including:

- Driving end-to-end systems engineering and integration efforts across the network
- Identifying and tracking AFSCN requirements, with expertise in requirements analysis, test and integration, specialty engineering, logistics, design engineering, and software development
- Developing and maintaining thousands of technical documents, including system specifications, systems
planning and requirements documents

- Completing exhaustive engineering and Information Assurance (IA)/cyber studies, which are incorporated into the USAF Program Objective Memorandum Cycle
- Applying advanced modeling, reverse engineering, and simulation capability to address obsolescence issues of a decades-old satellite control network operations
- Developing new RTS capability; Remote Tracking Station Block Change (RBC), and Electronic Scheduling Dissemination 3.0 (ESD 3.0)

The program focus is to provide AFSCN modernization, sustainment and maintenance in a shrinking budget environment through lean management principles and strong leadership. Further leadership challenges require addressing a dynamic commercial environment through managing the supply chain for Commercial-Off-The-Shelf (COTS) equipment, software and firmware.

The Air Force’s Space and Missile Systems Center (SMC) is weathering a 30 percent reduction in its overall budget resulting in reduced funding for modernization, sustainment and maintenance of its legacy space systems, such as the AFSCN. The SCNC in particular must recommend value-based investments to its customer, identify and capitalize on efficiencies, and continually improve the network’s approach in sustainment, maintenance and logistics.

With the increased awareness of cyber threats and the requirement to maintain a secure AFSCN, the program must adapt to minimize vulnerabilities through robust Mission Assurance posture and implementation.

II. **Value Creation = 20 Points**

Note that we have provided a weighting system on this section that indicates importance to the overall A&D enterprise in improving performance.
Value:  
50\% of category score  
What is the long-term value, competitive positioning, advantage, and return created by this program to your:
- Customers – National interests, war fighter
- Company – Strength, bottom line, and shareholders
- Scientific/technical value (particularly for R&D programs)

50\% of category score  
Excellence and Uniqueness:  
What makes this program unique? Why should this program be awarded the Program Excellence Award?

The AFSCN has been called “the 911” for DoD satellite operations. HTSI’s success at maintaining and improving the network is critical to all users of the network, enabling assured access to space systems, but especially military and NASA users. The network achieves a contact success rate of over 99 percent and network availability is consistently above the customer’s established threshold. HTSI meets the challenges of providing a highly qualified staff to sustain and maintain the global network of communications and computer systems, ground stations, and operations facilities providing 24x7 support for over 170 satellites (DoD, NASA, Civil, Agency, and Academia) and 150,000 contacts per year.

What makes this program unique is the transformation it has achieved. HTSI has managed the program as a unique business, rather than a contract with increased focus, discipline, and the application of lean enterprise principles and tools in an engineering services environment. Our business focus has created tremendous value and laid a foundation for future excellence and learning for other programs. This transformation has engaged all stakeholders; employees, customers, suppliers, and partners in enhancing the performance of the network.

Under the SCNC program, RBC-Hybrid repurposes the existing AFSCN antenna and radome. These components are the most labor and material intensive for a new Remote Tracking Station (RTS).

The hybrid approach upgrades the electronic infrastructure with state-of-the-art electronics needed to operate the system while also improving the cyber security posture. This approach provides full RBC functionality at 50\% implementation time and cost with additional savings in sustainment and maintenance lifecycle cost.

The HTSI team developed project approaches which afforded the customer a flexible solution for the unique characteristics each AFSCN site location presents while delivering a consistent and repeatable technical methodology for each site’s specific integration challenges. Since the first AFSCN delivery, development cycle times have been reduced by as much as 30\% through implementation of production efficiencies. By providing customer value through strong collaboration and proactive technical solutions, HTSI has successfully modernized the AFSCN in a declining DoD budget environment with consistently excellent customer satisfaction for the 99\% availability and contact success rate.
**II. ORGANIZATIONAL PROCESSES/BEST PRACTICES: (HOW DO YOU DO THINGS) = 30 POINTS**

Note that we have provided a weighting system on this section that indicates importance in the evaluation process. For each question, respond with the best practices and unique processes used by your program.

| Strategic Operations 30% of the score | HTSI is very focused on tracking and improving the value of the program to the customer, corporation, business unit and the employees. Over the past three years, the HTSI technical leadership has created an automated “what-if” architecture roadmap to analyze dependencies, programmatic and technical risk, and the skill sets required to maximize the value proposition for the consolidated AFSCN future. HTSI continuously reviews the AFSCN roadmap with the entire stakeholder community to refine, provide updates and collaborate on the network priorities and alignment with future funding. Continuous improvement ideas are a focus at HTSI, where employees are educated on the merits of a lean culture through the Honeywell Operating System (HOS) translating into real-time improvements to mission success. HOS embraces disciplined, structured and lean processes to expose and eliminate waste. The structured process uses rapid problem solving, Kaizen events, Kanban boards and continuous improvement ideas for eliminating the waste in our daily business model. HTSI’s continuous improvement requires a long-term view and support of top management. All levels of HTSI management are actively engaged in creating improved processes both internally and externally with a commitment towards achieving continuous improvements in our workplace. HTSI’s “Red Wall” highlights key metrics and completed milestones across the AFSCN program, drawing attention to our achievements. This multi-faceted management visual provides the key metrics of safety, quality, delivery, finance, people and organizational development. It informs employees and customers of our progress in our lean culture journey. HTSI recognizes and rewards employees for their successful achievements under a Bravo reward system. These recognitions are tracked and measured, encouraging employees to achieve the targeted goals and objectives of the lean culture. |
| Team Leadership 30% of category score | Several processes and practices have been implemented to maximize team collaboration and efficiency. Regular tiered accountability (TA) meetings are a staple of HTSI’s |
**Teaming**
What unique processes and practices have you put in place to maximize team collaboration and efficiency?

**Supply Chain**
With the broader distribution of design, development and production responsibility across the supply chain what unique tools, processes and practices have you put into place to ensure integration of the total supply chain (up/down/across)?

**People Development**
Among the most important roles of a leader is the identification and development of talent. What unique processes, tools and practices have you put into place to ensure people are developed and given the opportunity to risk, fail, recover and fully contribute. What metrics have you put into place to ensure this effort is effective?

Lean operating systems. The TA is a daily process used for aligning resources, checking progress, identifying, rapidly escalating and resolving problems within a two-hour span. These daily stand-up meetings are a component of the accountability process which, when combined with leadership standard work and visual controls, provides the foundation for sustaining gains, practicing lean behaviors and aligning the organization through daily cross-communication efforts. The TA approach allows effective vertical and horizontal integration of services and customer satisfaction throughout the supply chain.

Strategy deployment is used by all levels of leadership to define and communicate priorities and targets to ensure mission success. HTSI conducts monthly management operational reviews (MOR) which proactively reviews and applies safety, quality, and delivery, cost and people engagement with focus on metrics, system robustness and improvement monitoring. Continuous improvement focus ensures that problems are visible and increase the pace of problem solving.

An Organizational Development (OD) baseline has been set to enhance business operational performance by increasing alignment among various organizations within HTSI and individual development. The recent re-organization focused on strategic planning, communication, leadership development, change management, performance management, coaching, diversity, team building, and talent development aligning to our OD objectives.

Annually HTSI conducts a Positive Employee Relations (PER) survey which is translated into year-over-year metrics leading to the identification of key areas for organizational improvement. The recent survey demonstrated a positive trend in work-life balance and career growth. It also provided feedback for improvement opportunities. The PER achieved 100 percent participation from leadership and 89.6 percent from the total community, reflecting a substantial increase in response from previous surveys.

Organizational Change Management (OCM) is a process that focuses on changes currently in progress, changes that need to be addressed and gaps that hinder closure of such changes. Leadership utilizes a Change and Transition Management Planning tool that communicates desired business results and how change will impact organizational members. Expectations are clearly defined.
and results are measured both qualitatively and quantitatively. Change helps ensure continuity of what really matters and realistic expectations are set. As results are validated, management is able to validate goals with key stakeholders. By driving desired results and behaviors, OCM identifies and satisfies needs that help ensure smoother transitions brought on by change. A rapidly changing work environment is today’s business norm and the better the employees can recognize and adapt will increase their success in meeting the business goals.

**Operations 40% of category score**

**Cycle Time**
Please describe what your program has done to reduce and continue to improve the cycle time required for the phase of life cycle in which you currently are executing (design/develop, produce, sustain). Include in your description the tools, processes and practices used as well as the metrics.

**Efficiencies**
Affordability and breaking the cost curve are among the most important challenges facing all program managers. Describe the areas you have targeted to improve your costs and how you resolved these challenges for each target.

Describe how your program has developed or implemented new and unique tools, processes and practices to reduce cycle time for your program’s specific stage of the lifecycle (design/develop, produce, sustain).

**Planning, Monitoring, and Controlling**
What are the most significant change elements your program dealt with in the past 36 months, and what unique best practices and processes did you implement to make these

Today’s business market demands flexibility and innovative solutions to meet customer commitments, retain high quality talent, and operate in an increasing competitive environment.

Tactical Demand Planning (TDP) has been implemented in the HTSI demand versus supply analysis to regularly assess our skill set requirements against the AFSCN project demands. The structured TDP process looks at the current and future demands and provides a tool to make informed decisions about resource supply needs including outsourcing, hiring and retention. Having an ability to understand the pulse of business is critical to the leadership team in making timely, smart decisions to maximize opportunities and meet corporate goals.

In championing our lean principles as part of the sustainment lifecycle management of software deficiencies and/or enhancements, the HTSI team has successfully executed the migration of the AFSCN software releases from the traditional waterfall methodology to a streamlined agile release plan. This approach has allowed a transition from one mission software release in 2013 to four releases in 2014, providing significant sustainment cost savings resulting in an estimated 50 percent reduction per year to our government customer. These efficiencies have been realized through the instantiation of a single series of government approvals versus the need for a government approval cycle per release. The new release cycle approach allowed for the Remote Block Change (RBC) system to move from four separate baselines into one mission software baseline for the entire network, providing further sustainment cost savings.

HTSI has formed a productive Public-Private Partnership (PPP) with the government to improve the cooperative AFSCN relationship between the government and the
changes. (Examples of change: intellectual property, shortages of critical supplies/raw materials.)

contractor. Utilizing “best-practices” from subcontract management HTSI created a partnership which allowed rapid knowledge transfer of AFSCN software competencies to the government personnel. HTSI has executed both a PPP Partnership Agreement (PA) and an Implementation Agreement (IA) with OO-ALC and our PPP has expanded from the initial two to eight government experts under our PPP umbrella this year.

To be successful in executing the PPP model, HTSI leadership facilitated a cultural change for all government and HTSI personnel. The role reversal with PPP business model makes the government supplier and HTSI the customer in this unique relationship. This unique partnership required a new way of executing the AFSCN mission outside traditional roles and operating outside of their comfort zone, but jointly focused on the program mission, all personnel developed strong working relationships.

At HTSI, our commitment is to continuously strive for best practices and processes that increase customer satisfaction and sustain a high-performing productive workforce.

ADAPTING TO INNOVATION AND COMPLEXITY: (HOW DO YOU DEAL WITH YOUR PROGRAM’S UNIQUE COMPLEXITIES) = 20 POINTS

Identify the Program’s Market Uncertainty level
– How new is your product to your market and users, based on the definitions below. Then describe how you deal and address this specific uncertainty:
  - **Derivative** – an improvement of an existing product/system.
  - **Platform** – a new generation in an existing product line.
  - **New to the Market** – a product or system adopted from another market
  - **New to the World** - breakthrough product, never seen before

Level of Market Uncertainty Level (choose one)
- _____ Derivative
- _____ Platform
- _____ New to Market
- _____ New to the World

HTSI developed and provided the AFSCN with a new, more comprehensive Enterprise Risk Management approach that leverages our higher-quality DoDAF data and modification project planning products at reduced cost and higher quality. Together we created a Mission Assurance framework that integrated our architecture and risk management team with the customer and end user for Business, Program, and Mission Risks.

Identify the Program’s Technological Uncertainty using the

Technological Uncertainty Level (choose one)
- _____ Low Technology
- _____ Medium Technology
- _____ High Technology
- _____ Super High Technology
The customer stated, “I have seen a lot of programs’ DoDAF and this is the best.” This process provided improved real-time access to enterprise data with over 100 trained user accounts, reduced annual planning activities by over $300,000 per year, and identified inefficiencies in the product planning cycle to improve roadmap affordability and prioritize projects for rapid response to funding opportunities.

<table>
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<tr>
<th>System Complexity</th>
<th>Assembly</th>
<th>Sub-System</th>
<th>System</th>
<th>X Array of Systems</th>
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HTSI developed a tailored approach for each location, recognized the unique operational risks and opportunities while accounting for unique environmental, physical and infrastructure constraints at each location. We successfully mitigated environmental concerns at several RBC locations. HTSI used a wide array of measurement tools to track performance and to identify leading performance indicators. This bias for early identification of potential project performance risks led to the consistent on-time or early achievement of virtually all major milestones (“Excellent” cost and schedule ratings.)

Our skilled technicians, logistics engineers, and support personnel communicated across three HTSI functional areas and collaborated with four geographically separated units/contractors (System Program Office, level 1 maintenance provider, user organization, and an Air Logistics Center) to employ proven processes validated by Six Sigma teams and tools.

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<tr>
<th>Pace and Urgency</th>
<th>Regular Timing</th>
<th>Fast/Competitive</th>
<th>X Time Critical</th>
<th>Blitz</th>
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In 2011 HTSI implemented a disciplined, repeatable, quick-turn sustainment Software Maintenance Action (SWMA) solution to reduce the growing cyber threat risk to the AFSCN.
legacy space systems. The SWMA process creates artifacts, tests and fields non-specification impacting software iterations to remediate cyber vulnerabilities identified by Notices to Airman (NOTAMS), Security Technical Implementation Guides (STIGS) and COTS software “patches” on a repeating 30/60/90 day cycle. Dissemination to the AFSCN community is accomplished through a secure intranet portal resulting in immediate availability to all users. The SWMA process provides the government a low cost, repeatable methodology to reduce the cyber threat risk on AFSCN legacy mission systems.

V. METRICS (HOW DO YOU MEASURE PROGRAM’S PERFORMANCE) = 30 POINTS

Note 1: We are not looking for $ results, but the relative percentage achieved. In particular indicate what specific metrics and data you are using that drive the program beyond standard measures of schedule, budget, and performance, and which have contributed to your program’s focus and its success.)

Note 2: We have provided a weighting system on this section that indicates importance to the overall A&D enterprise in improving performance. Those with lower weighting are not unimportant; however, they have become “given” practices that all teams should be using.

40% of category score
Customer/Performance - How do you measure the impact of your program on your customer and your customer’s satisfaction? Include a description of unique/new metrics, as well as numerical evidence (normally a percentage or rate). Focus on the unique metrics developed to provide an efficient way to effectively communicate this information to your customers and within your organization beyond your program team.

HTSI actively solicits customer feedback regarding all actions and initiatives under the AFSCN Program. Using this feedback enabled HTSI to transform quarterly AFSCN Program Management Reviews from backward-looking discussions of lessons learned into forward looking, innovative forums for the strategic direction of activities to efficiently modify and maintain the network. This two-way brainstorming approach has flowed down to improve our integrated process teams assigned to both our line and staff organizations.

HTSI continues on a positive slope for Contractor Performance Assessment Report (CPAR) by listening to voice of customer feedback. HTSI continually implements CPAR self-assessment improvements and uses the government contracting officer’s feedback to gauge the value-add benefits of these incremental process changes. HTSI has experienced over a 46 percent gain in CPAR score through executing these improvements.

20% of category score
Team - How do you measure and assess the impact of your program on your team development and employee satisfaction?

Mr. Dave Fuino, HTSI’s program director, performs monthly sessions called “Afternoon Breaks with Dave.” These employee-focused sessions share information on our OD, HOS initiatives and employee relations. In this neutral environment, Dave engaged employees within an open communication style and captured key barriers which may be hindering the program. Mr. Fuino routinely reaches out to the
employees in a *town hall* forum to not only keep him better informed on the program challenges, but to also enhance employee satisfaction. From our employee feedback, the HTSI OD issues were analyzed, assessed, measured and summarized into action plans focused on team development and employee satisfaction. From these action plans, an HTSI X-Matrix has helped create a focus on achieving portfolio-centric workforce planning and deploying a talent management system.

There are more than 40 unique award fee metrics that HTSI measures to track the program’s progress. These metrics describe specific criteria and procedures used to assess performance across technical, cost and program management specific criteria which, in turn, determine the amount of award fee earned on our largest contract vehicle. Program management provides continuous feedback to the government on each of these metrics throughout the award fee period and collaborates on improving the metric to identify the performance value-add, i.e. as AFSCN network availability and contact success rate which consistently exceeds 99 percent for both metrics. The effective use of these metrics has created a profound impact on our business. As HTSI moves closer to achieving important goals, the day-to-day workloads have become more manageable, and the staff is now accountable for metrics that matter. By having a solid measurement system in place, HTSI will be able to gain greater predictability in future performance, have the ability to select suppliers based on the effect of their input to processes, and decisions will be data-driven rather than opinion-driven.