

PRESIDENTIAL AND NATIONAL VOICE CONFERENCING INTEGRATOR (PNVC INTEGRATOR)

Selected Acquisition Report (SAR)



AS OF THE FY 2023 PRESIDENT'S BUDGET
U.S. AIR FORCE

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Program Manager

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Date Assigned: 2 July 2018

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Mission and Description

The Presidential and National Voice Conferencing (PNVC) system is the Advanced Extremely High Frequency (AEHF) satellite communications voice conferencing system that will be used by the President of the United States for worldwide, secure, survivable voice conferencing and will provide improved capability for the user community.

The PNVC Integrator Program activities include program management, system engineering, development, integration, installation, testing, and sustainment of baseband equipment developed under a separate Defense Information Systems Agency (DISA) effort.

NOTE: Some of the Mission and Description information for this program is Controlled Unclassified Information (CUI) and has been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.

Executive Summary

Program Highlights Since Last Report

In CY 2020, the PNVC Integrator program management office (PMO) and support contractor completed initial Contractor Testing and Government Developmental Testing.

In CY 2021, the PMO and support contractor successfully completed Contractor Testing and Government Developmental Testing.

The Milestone Decision Authority (MDA) approved the PNVC Integrator program Milestone B/C on October 8, 2021.

The PNVC Integrator PMO oversaw the National Security Agency's award of the Baseband Interface Group-Airborne variant cryptographic device production contract, which fully delivered in CY 2021. The PNVC Integrator PMO procured the initial Baseband Kit (BBK) units to meet Initial Operational Capability (IOC).

There are no significant software-related issues with this program at this time.

NOTE: Some of this program's highlights are Controlled Unclassified Information (CUI) and have been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.

History of Significant Developments Since Program Initiation

| Date | Significant Development Description |
|---------------------------------|---|
| May 2015 | The Deputy Secretary of Defense assigned the end-to-end PNVC integration effort to the Air Force. Subsequently, SAF/AQ designated the program responsibility to the Air Force Program Executive Officer (AFPEO) for Space (SP). |
| January 2016 | Materiel Development Decision and PNVC Integrator Program established by AFPEO/SP as ACAT III program. |
| December 2017 | On December 12, 2017, Section 1661 of the National Defense Authorization Act (NDAA) for FY 2018 directed that all program elements and funding for the PNVC system be transferred to the PEO with responsibility for the Family of Advanced Beyond Line-of-Sight Terminals program, making the PNVC Integrator more fully responsible for the end-to-end funding and execution of the system. |
| 1 st Quarter FY 2019 | In FY 2019, all funds for the program were formally realigned to the Air Force. |
| December 2018 | On December 1, 2018, program execution responsibility transferred to the AFPEO for Nuclear Command, Control, and Communications (NC3), and although the PNVC system is part of the AN/USQ-225 NC3 Weapon System, the lead MAJCOM for the program remains with the US Space Force, Space Operations Command (USSF/SpOC). |
| March 2019 | Acquisition Strategy updated; AFPEO/NC3 approved updating PNVC Integrator program to ACAT II, and combined Milestone B/C as next acquisition milestone. |
| 1 st Quarter FY 2021 | In FY 2021, funding shifted to the US Space Force with the transfer of all Space Force related appropriations. |
| September 2021 | Milestones B/C conducted, approved and ADM issued by MDA to formally initiate PNVC Integrator program at Milestone C. |
| October 2021 | Original APB approved to baseline the program |
| January 2022 | APB Revision 1 approved; removed an externally controlled milestone, no impact to IOC |

Schedule

Schedule Events

| Events | Current APB | | Current Estimate /Actual |
|---|---------------------|---------------|--------------------------|
| | Objective/Threshold | | |
| PNVC Integrator Materiel Development Decision (MDD) | January 2016 | January 2016 | January 2016 |
| PNVC Acquisition Strategy for PNVC Integrator Contract (PIC) Request for Proposal (RFP) Decision – Acquisition Decision Memorandum (ADM) Signed 1 | March 2019 | March 2019 | March 2019 |
| PNVC Acquisition Strategy for the addition of the Baseband Kit (BBK) 2 | May 2020 | May 20 | May 2020 |
| PNVC Milestone B and C Decision 3 | September 2021 | December 2021 | May 2021 |
| Initial Operational Capability (IOC) Required Assets Available (RAA) 4 | * | * | * |

Schedule Notes

In an Acquisition Decision Memorandum (ADM) dated March 7, 2019, the PNVC Acquisition Strategy was approved; the program was designated an ACAT II, approval was given for the PNVC Integrator Contract (PIC) Request for Proposal (RFP) go-ahead and directed future combined Milestone B/C by Colonel AMANDA G. KATO, USAF, AF Program Executive Officer for NC3 and Director, NC3 Integration Directorate.

An update to the ADM dated May 27, 2020 addressed the acquisition strategy changes to include the Baseband Kit (BBK) from Defense Information Systems and Agency (DISA) to the PNVC Integrator program.

The ADM, signed by Col Kato on May 24, 2021, documented the approval of the PNVC Integrator Program combined Milestone B/C event, the actions required to complete Milestone B/C to enter at Milestone C, and the proposed Acquisition Program Baseline (APB) parameters.

*Some event dates are Controlled Unclassified Information (CUI) and have been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.

Significant Schedule Risks

NOTE: This program's Significant Schedule Risks are Controlled Unclassified Information (CUI) and have been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.

Performance

| Performance Characteristics | | | | | |
|----------------------------------|--|-----|--------------------------|------------------|-----------|
| SAR Baseline Production Estimate | Current APB Production Objective/Threshold | | Demonstrated Performance | Current Estimate | Deviation |
| System Test Results | | | | | |
| N/A | N/A | N/A | TBD | N/A | N/A |

Requirements Source

POPC (PNVC Operational Performance Criteria) (Classified) Document

TEMP (Test & Evaluation Master Plan) (CUI) – Approved at DOT&E on August 30, 2021

SEP (System Engineering Plan) (CUI) – Approved by PEO on April 30, 2021

MFP (Materiel Fielding Plan) (CUI) – Approved by PEO on July 26, 2021

Performance Notes

PNVC Integrator program is a test and integration program and has no key performance parameters. In CY 2021, Developmental Test was completed.

Acquisition Budget Estimate

Total Acquisition Cost

| Category | Base Year | Development APB (10/06/2021) | Current APB (4 January 2022) | | Budget Estimate PB 2023 | | Deviation |
|--------------|-------------|---------------------------------|---------------------------------|--------------------|----------------------------|---------------|-----------|
| | | Objective (BY\$) | Objective (BY21\$) | Threshold (BY21\$) | BY21\$ | TY\$ | |
| RDT&E | 2021 | 329.71 | 329.71 | 362.68 | 329.56 | 330.12 | |
| Procurement | 2021 | 59.65 | 59.65 | 65.61 | 45.24 | 47.80 | |
| MILCON | 2021 | 0 | 0 | 0 | 0 | 0 | |
| Acq. O&M | 2021 | 0 | 0 | 0 | 0 | 0 | |
| Total | 2021 | 389.36 | 389.36 | 428.29 | 374.80 | 377.92 | |
| PAUC | 2021 | N/A | N/A | N/A | N/A | N/A | |
| APUC | 2021 | N/A | N/A | N/A | N/A | N/A | |

Total End Item Quantity

| Quantity Category | Current APB Quantity | Current Estimate Quantity |
|-------------------|----------------------|---------------------------|
| Development | 0 | 0 |
| Procurement | 0 | 0 |

Budget Notes:

NOTE: One of this program's Budget Notes is Controlled Unclassified Information (CUI) and has been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.

Risk and Sensitivity Analysis

| Risks and Sensitivity Analysis | |
|--|---|
| Current Procurement Cost (December 2021) | |
| 1. | The current procurement cost provides sufficient resources to execute the program under normal conditions, encountering average levels of technical, schedule, and programmatic risk, and external influence. In particular, it includes the most probable funding and schedule to complete procurement of the Baseband Enclosure IOC Hardware. It includes funding to cover 6.3% overall cost growth to the Baseband Enclosure IOC Hardware beyond current scope identified. |
| Original Baseline Estimate (September 2018) | |
| 1. | A Program Office Estimate was completed in CY 2018 and the Single Best Estimate (SBE) was subsequently approved for the development and production portions of this program. The SBE includes funding for mitigation of potential PNVC Integrator Program risks to integration, test, and installation at the 50 percent confidence level. |
| Revised Original Estimate (N/A) | |
| None | |
| Current Baseline Estimate (October 2021) | |
| 1. | The APB provides sufficient resources to execute the program under normal conditions, encountering average levels of technical, schedule and programmatic risk, and external influence. In particular, it includes the most probable funding and schedule to complete integration of PNVC systems. The estimate includes funding to cover 7.2% overall cost growth to the Integration, Product Support and Material effort beyond current scope identified. |

Unit Cost

Unit Cost Reporting (Nunn McCurdy) is not required for Pre-Milestone B programs in accordance with section 2433, title 10, United States Code.

Contracts

| Contract Data (\$TYM) | | |
|---|--|--------------------|
| Contract Number | FA8218-15-D-0001 | |
| Effort Number | | |
| Modification Number | | |
| Contract Type | Indefinite Delivery Indefinite Quantity (IDIQ), CPFF | |
| Award Date | September 30, 2016 | |
| Definitization Date | September 30, 2016 | |
| Order Number | | |
| CAGE Code/CAGE Legal Name | 7Y193/Raytheon Company | |
| Contract Title | Raytheon, Command Control Switching System (CCSS) | |
| Contract Address | 1001 Boston Post Road E, Marlborough, MA 01752-2377 | |
| Contracts/Effort Price, Quantity, and Performance (\$M) | | |
| Initial Target Price | Current Target Price | |
| 9.8 | 52.5 | |
| Initial Ceiling Price | Current Ceiling Price | |
| N/A | N/A | |
| Contract's EAC | PM's EAC | |
| 52.5 | 52.5 | |
| Initial Quantity | Current Quantity | Delivered Quantity |
| N/A | N/A | N/A |
| BAC | BCWP | ACWP |
| N/A | N/A | N/A |
| BCWS | Cost Variance | Schedule Variance |
| N/A | N/A | N/A |

Contract Notes

The PNVC Integrator Program was authorized to proceed with risk reduction and testing efforts in FY 2016. Since many of the components were developed and maintained using the Raytheon Indefinite Delivery Indefinite Quantity (IDIQ) Cost Plus Fixed Fee Command and Control Switching System (CCSS) contract, the initial PNVC Integrator Program contract efforts were accomplished using Delivery Orders (DOs) on that contract. Although the work on these DOs has been completed, this contract will continue to be used for baseband equipment sustainment. The contract's Procuring Contracting Officer is assigned to another Air Force Materiel Command organization located at Hill Air Force Base (AFB), Utah which is remote from the Program Office located at Hanscom AFB, Massachusetts.

This is the last time this contract will be reported. The final contract value increased from the initial value due to additional DOs and a DO extension.

| Contract Data (\$TYM) | | |
|---|---------------------------------------|--------------------|
| Contract Number | FA8735-20-C-0001/1 | |
| Effort Number | | |
| Modification Number | | |
| Contract Type | CPFF, FFP | |
| Award Date | November 15, 2019 | |
| Definitization Date | | |
| Order Number | | |
| CAGE Code/CAGE Legal Name | 7Y193/Raytheon Company | |
| Contract Title | PNVC Integrator | |
| Contract Address | 7887 Bryan Dairy Rd., Largo, FL 33777 | |
| Contracts/Effort Price, Quantity, and Performance (\$M) | | |
| Initial Target Price | Current Target Price | |
| 45.0 | 108.0 | |
| Initial Ceiling Price | Current Ceiling Price | |
| N/A | N/A | |
| Contract's EAC | PM's EAC | |
| 76.86 | 76.83 | |
| Initial Quantity | Current Quantity | Delivered Quantity |
| N/A | N/A | N/A |
| BAC | BCWP | ACWP |
| N/A | N/A | N/A |
| BCWS | Cost Variance | Schedule Variance |
| N/A | N/A | N/A |

Contract Notes:

The PNVC Integrator Program awarded the PIC in November 2019, which is the first contract issued and managed by the program office directly. This new contract was awarded to Raytheon Co, Largo, FL, as a \$87M cost-plus-fixed-fee contract, which includes a base award and contract options. The increase in Target Price to \$108M is due to the addition of a sixth option year and additional hardware procurement to the contract.

NOTE: This program's Cost and Schedule Variance information is Controlled Unclassified Information (CUI) and has been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.

Technologies and Systems Engineering

Significant Technical Risks

There are no known technical risks with this program at this time.

Deliveries and Expenditures

Deliveries

| Delivered to Date | Planned to Date | Actual to Date | Total Quantity | Percent Delivered |
|---|-----------------|----------------|----------------|-------------------|
| Development | 0 | 0 | 0 | - |
| Production | 0 | 0 | 0 | - |
| Total Program Quantity Delivered | 0 | 0 | 0 | - |

Expended and Appropriate (TY\$M)

Total Acquisition Cost: 377.9

Total Funding Years: 14

Years Appropriated: 9

Percent Years Appropriated: 64.28%

Appropriated to Date: 281.2

Percent Appropriated: 74.4%

NOTE: This program's Expended to Date and Percent Expended values are Controlled Unclassified Information (CUI) and have been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.

Deliveries and Expenditures Notes:

The PNVC Integrator Program has no system deliverables since the PNVC efforts are dependent upon previous component developments and procurements that were accomplished elsewhere. To ensure the end-to-end PNVC system performance meets user requirements, procurement of additional equipment and components below the system level is planned. All other PNVC Integrator program costs are for system-level integration, validation and verification testing, and sustainment only.

Low Rate Initial Production

There is no LRIP for this Program.

Operating and Support Costs

Total Program O&S Cost Compared with Baseline

| | Current APB Objective (BY21\$) | Current APB Threshold (BY21\$) | Current Estimate (BY21\$) | Current Estimate (TY\$) | Deviation |
|-----------------------------------|--------------------------------------|--------------------------------------|---------------------------------|-------------------------------|-----------|
| Total O&S (\$Millions) | 205.58 | 226.14 | 215.04 | 286.58 | N/A |

O&S Cost Breakdown

NOTE: This program's O&S Cost Breakdown is Controlled Unclassified Information (CUI) and has been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation relation to dissemination control.