Program/Project  Project Manager, Combat Ammunition Systems
The M1122 Load, Assemble, and Pack (LAP) Project continues the long-standing value engineering (VE) collaboration between Project Manager Combat Ammunition Systems; U.S. Army Research, Development, and Engineering Center (ARDEC); and Program Executive Office Ammunition, with the administrative and technical guidance of the ARDEC VE Support Team. By initially observing low rate production, the Integrated Product Team was able to record takt and cycle times, as well as map the physical location of all equipment in the facility. Process and value stream maps were generated in order to identify bottlenecks and non-value added production processes. Subsequent value engineering efforts resulted in improved quality, increased productivity, and reduced overall M1122 LAP costs in production, garnering $66.79 million savings over a four year period for fiscal years 2017 through 2020. This unique collaboration for the M1122 LAP project represents the best in VE, improving the performance readiness of America’s soldiers while achieving savings that the Army can invest for other critical opportunities.

Individual  Mr. Chester Marc Dalangin
Program Manager, Crew Served Weapons
Mr. Marc Dalangin conducted a value engineering (VE) project for the M151 Spotting Scope Upgrade for U.S. Army Snipers. The M151 Spotting Scope was no longer compatible with current weapons and the operational mode it was intended to support. Mr. Dalangin directly interacted with the Army sniper community at Ft. Benning, GA to develop and design a standardized Army MIL-Grid reticle that would meet the community operational requirements. Mr. Dalangin submitted a provisional patent filing for his newly developed MIL-Grid reticle design with the United States Patent and Trademark Office that resulted in a cost avoidance in commercial licensing fees. Instead of replacing the current M151 Spotting Scope, Mr. Dalangin proposed upgrading the spotting scope that would incorporate his newly developed MIL-Grid reticle design as well as other minor upgrades. This VE effort resulted in a cost avoidance of $4.6 million during fiscal years 2017 and 2018, and directly contributed to Army operational readiness by enhancing the Army’s sniper capability for deploying soldiers.

Team  Watervliet Arsenal
Watervliet Arsenal’s mission is to provide manufacturing, engineering, procurement and quality assurance for cannons, mortars, and associated material throughout the acquisition life cycle. The Watervliet Arsenal team used value engineering to address rifling broach longevity and performance. Full bore chrome on rifled M284 barrels is a new capability that required modification of manufacturing processes. Initially, broaches used to cut the required rifling profile had to be sharpened every 1.5 tubes. Stresses on the broach from stronger material caused quality issues. The value engineering Integrated Product Team’s solution was twofold: application of a proprietary coating to the broach sets for increased tool life between re-sharpening and modification to the broach design to improve quality. Implementation of this solution increased the number of tubes being processed between sharpening from 1.5 to 7. The coating increased rifling broach life by approximately 4.5
times. The VE effort significantly decreased chatter, uneven land widths, and profile variations, and resulted in a cost avoidance of $1.26 million during fiscal year 2017.

**Organization** U.S. Army Aviation and Missile Command

The U.S. Army Aviation and Missile Life Cycle Management Command (AMCOM LCMC) value engineering (VE) program for FY 2017 resulted in 98 completed VE proposals with a savings of $216 million over a three year period. Fourteen of the 21 AMCOM LCMC organizational elements participated the VE program and 11 achieved their internal savings goal. Additionally, the AMCOM LCMC VE program successfully completed VE efforts for multiple tenant and off site organizations which resulted in additional savings of $78 million for those organizations. In addition to cost savings, the VE efforts mitigated obsolescence, improved quality, expanded the industrial base, reduced weight, minimized cycle times, developed new repairs, enhanced performance, updated technology, reduced inventories, decreased administrative burden, optimized power consumption, and increased readiness. Taking into account AMCOM, tenant, and off site organizations, AMCOM LCMC achieved fiscal year 2017 savings of $295 million on 112 VE projects.

**Special Apache Helicopter Project Manager’s Office, Apache Production & Fielding Product Office**

In fiscal year 2017, the Apache Production & Fielding Product Office value engineering (VE) team revitalized its dormant program, successfully completing its first VE project since fiscal year 2013 and beginning work on additional projects targeted for completion in fiscal year 2018 and beyond. Innovative approaches, including collaboration with the Corpus Christi Army Depot, resulted in completion of two value engineering initiatives. The team’s efforts resulted in re-use of cockpit doors on the Apache production line and repair of the tail rotor blades, effectively replacing the pitch horn bushing and inboard and outboard pitch bearings. In addition to the monetary savings, the team improved throughput, removed weight, and reduced soldier burden. The two value engineering initiatives resulted in cost savings and avoidance of $7.4 million over a three-year period, representing achievement of 118 percent of their assigned VE goal.

**Special Project Manager, Armored Fighting Vehicles**

The Bradley Fighting Vehicle team implemented the use of Electronic Technical Manuals, versus the Interactive Electronic Technical Manuals, which resulted in cost avoidance of $19 million. The team reduced from 18 to 6 months the overall time of the technical manual development process, including updates, authentication, and release to the field. Stakeholders are now able to understand full process steps across multiple organizations and the time it takes to complete a task by using the enterprise level process map developed as part of the value engineering (VE) project. The Bradley team’s VE project results served as the key documentation that started an Army Enterprise effort towards streamlining log product development.
Special U.S. Army Armament Research, Development, and Engineering Center

Mr. John Hedderich was central to the value engineering (VE) efforts to improve productivity and efficiency in manufacturing and procuring products, the reclaim and reuse of materials previously fielded, the uncovering of less expensive materials to satisfy users’ functional needs while taking advantage of excess, salvaged and low-cost/no-cost items, and refining mission-related activity in theatre. One significant VE effort included research and risk analysis to prove that the DoD stockpile of old softwood ammunition packaging does not contain pests subject to quarantine. The reclaim and reuse of the softwood packaging, without the need for costly and labor intensive heat treatment of the Wood Packaging Material, has broad application across the DoD. Mr. Hedderich’s VE efforts resulted in a total cost savings and avoidance of $67 million during fiscal year 2017.

U.S. Navy

Program/Project Single Coat Paint Systems

The Naval Systems Engineering Directorate’s Single-Coat Paint System value engineering (VE) project will result in a replacement to the only qualified paint system suitable for use in reserve feed tanks on submarines and nuclear powered aircraft carriers. The new paint system accomplishes its function in a single coat compared to the three full coats and two stripe coats currently specified. Use of the Single-Coat Paint System on reserve feed tanks will reduce application time from a nominal 22 days to seven days, resulting in improved shipyard performance and schedule. The new coating system has been demonstrated on six submarines at four naval shipyards. The innovative formula continues to provide equivalent corrosion control performance to the current system. Revisions to coating formulation and requirements updates are underway to allow for broader applications in US Navy ships and private shipyards as a result of this initiative. Transition to Single-Coat Paint Systems will result in cost savings of $150,000 per reserve feed tank.

Individual Mr. Charles Radvansky

Industrial & In-Service Systems Engineer

Mr. Charles Radvansky provided leadership and management of innovation and improvement activities, consistently achieving the value engineering goals of the organization. His leadership drove the completion of over 200 projects across four different organizations and 30 different teams. As the engineering and industrial lead he made noteworthy contributions to affordability initiatives and the reduction of cumbersome work practices. Through the development and deployment of value engineering strategic plans, he led, managed, and mentored others in establishing programs, undertaking projects, and integrating the activities of a diverse set of innovation programs. Mr. Radvansky improved collaboration and integration amongst teams that share common products, planning tools, and portfolios across the Engineering Directorate, the Industrial Operations Directorate, the Naval Warfare Centers, and the Office of Naval Reactors. Mr. Radvansky’s efforts resulted in a cost savings of $200 million in fiscal year 2017.
The Engineering Cumbersome Work Practices Resolution Team is an engineering-led initiative operated jointly with the Industrial Operations Directorate. The team identified and resolved challenges in acquisition, maintenance, sustainment and disposal. They provided the leadership, management, and resolution of 17 value engineering (VE) efforts in fiscal year 2017. Through VE, the team harvests projects and improvement opportunities from the engineering and industrial community, providing effective solutions that reduce cost, improve cycle time, and eliminate obstacles to efficiency and effectiveness. For fiscal year 2017, the annual cost savings exceeded $10 million.

The Naval Systems Engineering Directorate established the Technical Warrant Holder Affordability Initiatives requirement in response to the NAVSEA Command Strategic Plan objectives to develop a culture of affordability and ensure on-time delivery of ships and submarines. NAVSEA 05 required technical area experts to self-identify and accomplish affordability initiatives in their assigned areas. Using value engineering, the organization completed 162 technical changes affecting requirements, specifications, standards, design, processes, procedures, tools, controls, or administrative systems. One significant value engineering (VE) effort led to the transition from Grade A shock-qualified switchboards and load centers to commercial switchboards on shock mounts, similar to other in-service surface combatants. This VE effort resulted in cost savings of $6 million per hull. Fiscal year 2017 cost savings for the initial hull are $6 million with an expected $66 million for the 11 ships of the class. For the portfolio of 162 affordability initiatives completed, the fiscal year 2017 cost savings and cost avoidance are $47 million.

Dr. Kirsten Green and Mr. Pranaam Haldipur led a value engineering (VE) effort in response to the need for timely and safe post-welding non-destructive test equipment inspections of 70-30 Copper-Nickel weld joints in piping systems. The VE effort resulted in the selection of Phased Array Ultrasound Test/Time of Flight technology, a low-cost, in-situ and logistically supported solution. The team conducted performance, usability, and effectiveness assessments and developed the necessary technical and performance standards required for fielding. The VE effort allowed for completion of Copper-Nickel piping system weld joint inspections immediately following repairs which reduced schedule delays and eliminated the need for x-ray development, special examiners, and the wait states associated with final adjudication. The cost savings for this VE effort for fiscal year 2017 is over $500,000.

The Submarine Main Storage Battery, a critical safety system for U.S. Nuclear Submarines, serves as a backup power source for many systems and must be able to maintain functional capability in order to meet capacity requirements for unrestricted operations. Through value engineering, the Virginia Class Submarine Battery Replacement Team established a new replacement process for the VIRGINIA Class Submarine Main Storage Battery that ensures the functional capabilities of the battery cells and trays are maintained. This
process, known as the Vertical Tray Installation Process, was developed for increased efficiency and mission readiness. In addition to a reduction in downtime, the team’s efforts resulted in cost avoidance of $4.2 million for fiscal years 2017 through 2022.

**Special Pressure Rescue Module Battery Improvement Team**

The Pressure Rescue Module, part of the Navy’s next generation submarine rescue system, is currently the only platform available for undersea submarine rescue. The Pressure Rescue Module Battery Improvement Team investigated the critical functional requirements for battery capacity and performance. The team’s value engineering effort resulted in procedures that improved battery performance, allowing the platform to meet all performance requirements and continue with no operational restrictions. Critical battery functionality is now sustained for a longer period of time, resulting in a longer battery life and fewer battery changes. The team’s efforts resulted in cost avoidance of $152,000 for fiscal years 2017 through 2022.

**U.S. Air Force**

**Program/Project Air Intercept Missile-120 Advanced Medium Range Air-to-Air Missile**

The Air Intercept Missile - 120 Advanced Medium Range Air-to-Air Missile (AMRAAM) program office, Air Force Life Cycle Management Center, Air Force Materiel Command, Eglin Air Force Base, Florida distinguished themselves in fiscal year 2017 by incorporating Value Engineering Change Proposals as a tool to reduce overall costs for the Air Force’s most advanced all-weather, all-environment medium range air-to-air missile system. During this period, the AMRAAM program office’s actions led to $17.2 million in savings across the Future Years Defense Plan. Specifically, they leveraged government and contractor negotiations for the Value Control Actuation System to successfully reduce replacement system costs. Next, the team implemented a Value Engineering Change Proposal for the Down Converter and Switch Filter Modules resulting in a provision for 50/50 sharing for Lots 24 through 28 with all savings accruing to the government thereafter. The distinctive accomplishments of the AMRAAM team reflect great credit upon themselves and the United States Air Force.

**Individual Ms. Tracy L. Patrick**

Chief, Combat Systems Branch

Generating $34 million of cost savings through value engineering (VE), Ms. Tracy L. Patrick distinguished herself as Chief, MQ-1 and MQ-9 Combat Systems Branch. Ms. Patrick directed a $3.6 billion enterprise comprised of the cockpit, operations centers, communications system, sensors, payloads, and weapons components of the MQ-1 Predator and MQ-9 Reaper unmanned systems supporting Overseas Contingency Operations. She led multiple quick-reaction teams to correct critical fleet gaps, successfully reducing program schedules by 75 percent and restoring Full-Mission-Capability to an operational site in two weeks. Additionally, Ms. Patrick completed several Special Operations Command-directed requests supporting classified operations. Most notably, Ms. Patrick met an expedited fielding request of a combat-ready Block 30 Ground Control Station. She identified a qualified asset, led negotiations and optimized acquisition
procedures cutting eight months off the fielding timeline in support of the Warfighter. The distinctive VE accomplishments of Ms. Patrick reflect great credit upon herself and the United States Air Force.

Team

Air Force Materiel Command Federal Acquisition Regulation 16.5 High Performance Team

The Federal Acquisition Regulation 16.5 High Performance Team distinguished itself in fiscal year 2017 by utilizing various value engineering tools and methodologies to reduce cycle times and realize over $28.1 million in savings. The team tackled Air Force Materiel Command Contracting’s top initiative to reduce acquisition cycle times for competitive task or delivery orders issued off multiple award indefinite delivery indefinite quantity contracts. The team conducted a value stream mapping event leading to a comprehensive process map and an associated 40-page Guiding Principle document. The document provides a quick-look comparison of formal source selection procedures against competitive ordering procedures by acquisition step, outlines various streamlining methodologies, lists key considerations when selecting and using strategies, and incorporates 11 tailorable templates. Savings for fiscal year 2017 were over 12,750 acquisition days and $28.1 million. The distinctive accomplishments of the Federal Acquisition Regulation 16.5 High Performance Team reflect great credit upon itself and the United States Air Force.

Organization

Air Force Category Management Program Support Office

The Air Force Category Management Program Support Office distinguished itself in fiscal year 2017 by utilizing various value engineering (VE) tools and methodologies to create better processes and tools. Specifically, they implemented the first-ever Air Force Category Management program to include all processes, templates, guides, and analytical tools required for the execution of Category Management throughout the enterprise. The office developed a 14-step Air Force process to guide the implementation and execution of the category management program. In addition, they identified and appointed the first of two Category Managers within the Air Force, as well as the first Air Force Category Management Accountable Official to administer the Category Management program. Their VE efforts resulted in the identification and validation of over $284 million in savings in fiscal year 2017 alone. The distinctive accomplishments of the Air Force Category Management Program Support Office reflect great credit upon itself and the United States Air Force.

Special

Mr. Michael W. Sahlu
Lead Engineer, Detachment 3

Mr. Michael W. Sahlu distinguished himself as Lead Engineer, Detachment 3. Mr. Sahlu saved the Air Force $20.2 million over 7 years by eliminating 1,000 labor-hours for each MQ-9 Reaper Remotely Piloted Aircraft that was produced. Mr. Sahlu’s efforts allowed the fiscal year 2017 production contract for 24 MQ-9s to negotiate $4.4 million off the proposed price and saved another $15.8 million on 86 aircraft budgeted under the FY 2018 Future Years Defense Plan (FYDP). Mr. Sahlu achieved these savings by working with the MQ-9’s manufacturer to find and eliminate unnecessary hours expended to improve composite cosmetics, while still maintaining structural integrity. Through Mr. Sahlu’s
initiative, additional savings can be realized if planned Overseas Contingency Operating funds buy another 39 MQ-9s over the FYDP’s duration with some of the additional savings due to non-conformance reports that will undergo standard repairs versus being adjudicated under a Material Review Board. Finally, Foreign Military Sales and the Army Grey Eagle Program will also benefit from these savings initiatives. The distinctive accomplishments of Mr. Sahlu reflect great credit upon himself and the United States Air Force.

Special Colonel William Patrick  
System Program Manager, B-2 Division  
Col William Patrick distinguished himself as the Program Manager for the B-2 Weapon System and B-2 Programmed Depot Maintenance program. Col Patrick led the effort to implement a variety of changes based on function analysis and lean initiatives. His combined value engineering and lean efforts reduced depot maintenance requirements and depot flow days, and realigned modification activities, culminating in $66.9 million in savings. These savings are expected to continue at a projected rate of $22.3 million annually through the FYDP and until aircraft retirement. Specifically, Col Patrick increased the B-2 aircraft Programmed Depot Maintenance induction interval by two years. He also reduced Programmed Depot Maintenance flow days by 252 days and reduced the B-2 overhaul average from 2.5 aircraft to two aircraft annually, increasing B-2 aircraft availability. The distinctive accomplishments of Col Patrick reflect great credit upon himself and the United States Air Force.

Special Colonel Christopher B. Athearn  
Senior Materiel Leader, Long Range Systems Division  
Colonel Christopher B. Athearn distinguished himself as the Senior Materiel Leader for the Joint Air to Surface Standoff Missile Extended Range program via utilization of Value Engineering Change Proposals. Colonel Athearn led the effort to redesign the missile motor lube system and provided for an alternate manufacturing method of stamping hydro-form. He also spearheaded the replacement of the DS-101 doubler and cover from stainless steel to stamped out aluminum and molded plastic. In addition, his initiatives accumulated savings on a bundled-parts acquisition with the Long Range Anti-ship Missile program and the Joint Air-to-Surface Standoff Missile Foreign Military Sales programs. Colonel Athearn also realized cost savings through continuance of the JASSM warranty and transitioning the program to Contractor Logistics. Finally, his procurement negotiations drove $11.9 million in savings on Lots 11 and 12 and $13.9 million in savings on Lots 13 and 14. The Value Engineering Change Proposals generated savings of $52.3 million. The distinctive accomplishments of Colonel Athearn reflect great credit upon himself and the United States Air Force.

Defense Logistics Agency  
Program/Project DLA Aviation, Aviation Engineering Flaps Project  
DLA Aviation’s Aviation Engineering Flaps Project is an outstanding example of Value Management’s key role in garnering savings. The value engineering effort initially resulted in competitively sourced B-52 flap components. The success of the B-52 flap component VE effort was expanded to include additional airframes. The Aviation Engineering Flaps
Project used data now owned by the Government for competitive procurement and strategic sourcing. These efforts resulted in newly expanded competition for 252 national stock numbers managed by DLA Aviation. In fiscal year 2017, the Flap Projects resulted in savings of over $8.6 million.

**Individual**  
**Mr. Donald O’Flaherty**  
**Equipment Specialist, DLA Land and Maritime, Value Management and Engineering Division**

As a key member of the DLA Land and Maritime, Should Cost program, Mr. Donald O’Flaherty expertly addressed Supply Chain submissions on excessively high contractor quotes through value analysis on competitively procured items, code and part number buys, and first time buys. His value engineering efforts resulted in supplying the Contracting Officers with intrinsic value cost estimates, to include material, labor, testing, overhead, and other indirect costs related to contractor quotes. In addition to providing value analysis, he formalized a process for Should Cost reviews, establishing criteria and offering assistance integral to the development of a Standard Operating Plan. For fiscal year 2017, the Should Cost program reviewed 1,355 national stock number quote submittals, resulting in $16.6 million in total savings. Mr. O’Flaherty processed 930 claims that resulted in $8.7 million in savings.

**Team**  
**DLA Aviation, Source Approval Request Team**

The DLA Aviation, Source Approval Request Team plays a pivotal role in the acquisition process, performing technical and quality reviews on items procured through corporate, strategic, and long-term contract initiatives. In fiscal year 2017, the Source Approval Request Team received, reviewed, and were responsible for approval of 275 source approval request packages from prospective suppliers seeking to do business with DLA Aviation. The value engineering efforts of the team resulted in a 41.8 percent approval rate, to include approvals through collaboration with Engineering Support Activities. For fiscal year 2017, the team had an average processing time of nine days for internally approved packages and realized $3.6 million in direct and indirect cost savings.

**Organization**  
**DLA Aviation, Engineering and Technology Division**

The DLA Aviation, Engineering and Technology Division initiated 738 and completed a total of 1,043 value engineering projects in fiscal year 2017. The organization’s efforts focused on increasing competition for supply contracts through reverse engineering and other negotiated price reductions based on results achieved by applying the value engineering methodology. The organization realized benefits from collaborative partnerships with its customers to improve value engineering (VE) participation and increase value in its products and services. Most of the 1,043 VE projects completed involved partnerships with Army, Navy, and Air Force. The Engineering and Technology Division’s efforts led to reduced procurement prices and fiscal year savings of $129.5 million, representing 3.1 percent of the DLA Aviation materiel obligation authority for FY17.
Special DLA Land and Maritime, Reverse and Sustaining Engineering
The DLA Land and Maritime, Reverse and Sustaining Engineering team has the difficult task of improving the supply availability of hard-to-get national stock numbers for multiple weapon systems. Through value analysis, the team focuses on offering alternative solutions of support, keeping items active within the Supply Chain and for Warfighter support. The team’s focus on strategic engagement led to a partnership with Tank Automotive Research and Development Command and a memorandum of understanding with Navy Keyport engineering facility. The Reverse and Sustaining Engineering team has a strong focus in developing engineering specifications needed to manufacture the item and development of technical data packages that would be used in place of restricted drawings thus making items more competitive. In fiscal year 2017 the team generated savings of $10 million.

Defense Threat Reduction Agency

Special DTRA Ground-Based Prompt Diagnostics Test Team
The DTRA-led Hyper Critical Reaction Time History Test and Evaluation Series, conducted at the White Sands Missile Range, innovatively leveraged the Fast Burst Reactor, which simulates the neutron and gamma radiation environment produced by a fission weapon, to produce a surrogate runaway “exponential” nuclear chain reaction and prompt emissions characteristic of a nuclear explosion. Through the use of value engineering, DTRA was able to test, evaluate, and ultimately validate the Ground-based Prompt Diagnostics Sensor system RTH sensor suite. The DTRA Prompt Diagnostics Test Team implemented strong interdisciplinary techniques coupled with a broad cadre of experts from cross-government and International partners to analyze the functions of the test process both pre and post engineering improvements, resulting in refined simulation methods, test and evaluation planning, and effective test and evaluation execution which influences future efforts in these areas. These engineering disciplines provided opportunities for cost optimization by coordinating activity with other DTRA offices as well as outside organizations to provide improved testing techniques for prototypes, and by encouraging interdisciplinary cooperation for broader engineering design improvements, and cost savings for future efforts. Through this collaboration the test series garnered cost savings or cost avoidances of $1.4 million per organization in direct costs, with additional savings on interagency travel costs and development of the Stockpile Stewardship Program’s analytical code used to model the effects of the Fast Burst Reactor.

Missile Defense Agency

Program/Project Terminal High Altitude Area Defense Ground Components Product Office
The Terminal High Altitude Area Defense (THAAD), Ground Components Product Office demonstrated outstanding achievement in fiscal year 2017 through the management of two software-related value engineering (VE) efforts. Using VE, this product office assessed the hardware and software maintenance functions of a deployment analysis and planning exercise tool. The office saved $2.56 million through fiscal year 2022 by utilizing the U.S. Army Aviation Missile Research, Development, and Engineering Software Engineering Directorate for depot sustainment support of this tool.
Another effort involved improving and upgrading hardware and software items for the Launcher and Fire Control & Communications components. THAAD’s Ground Components Product Office collaborated with the THAAD Systems Engineering Directorate and utilized VE in order to safely and effectively transition all hardware and software ground components to a single configuration while reducing software maintenance costs. This effort resulted in savings of $7.36 million through fiscal year 2022. Total FY17 efforts of the THAAD Ground Components Product Office resulted in $9.92 million in net six-year VE savings.

**Individual**

**Mr. Mark Murphy**  
**Systems Engineer, Ground Components Product Office**

Mr. Mark Murphy demonstrated outstanding achievement in value engineering (VE) for fiscal year 2017, providing technical collaboration and innovation on four fiscal year 2017 VE efforts in support of the Terminal High Altitude Area Defense (THAAD) Project Office and the Missile Defense Agency VE Programs. Mr. Murphy’s knowledge and use of the VE methodology enhanced modifications of the THAAD Launcher’s Missile Round Pallet into an improved configuration called the Missile Round Pallet-Transportable. This pallet modification provides the ability to transport twice the amount of Missile Rounds during scheduled missions and improves logistical capabilities during any transportation mode. Mr. Murphy also provided guidance by recommending that the program incorporate existing under-utilized resources to aid in the pallet modification effort. The overall result is life cycle savings of labor, fuel, and resources, as well as improved Warfighter readiness. Mr. Murphy was instrumental in this effort to find a new and innovative way to secure and transport THAAD Missile Rounds. These efforts achieved $5.89 million in net six-year VE savings and provided additional benefits throughout the life cycle of the THAAD Weapon System.

**Team**

**Terminal High Altitude Area Defense Systems Engineering Directorate Value Engineering Team**

The Terminal High Altitude Area Defense (THAAD) Systems Engineering Directorate (THS) Value Engineering (VE) Team applied innovation through value engineering to assess and utilize existing resources in order to reduce program costs, logistics requirements, and schedule impacts and to ensure the quality and availability of a robust program that will effectively and efficiently maintain capabilities. The THAAD THS VE team used the methodology to determine alternatives for maintaining the software portion of future sustainment activities. The team successfully transitioned future THAAD Weapon System software sustainment activities from the THAAD Weapon System prime integrator to a proven Government software developer that could perform the same tasks at a reduced cost. The team’s efforts resulted in $2.07 million in savings through fiscal year 2022 and produced improved processes for system software development, sustainment, and modifications throughout the life cycle of the THAAD System.

**Organization**

**Terminal High Altitude Area Defense Project Office**

The Terminal High Altitude Area Defense (THAAD) Project Office has demonstrated outstanding achievement in value engineering (VE) for fiscal year 2017. THAAD utilizes its integrated teams and cross-organizational collaborations to apply VE expertise in order
to identify potential VE initiatives, maximize benefits, increase quality and reliability of components, and increase performance capabilities of the overall THAAD Weapon System. A notable achievement for fiscal year 2017 was the program development of the Radar Training Device (RTD). The RTD is used to train the Warfighter by replicating the size and external physical characteristics of the Army/Navy Transportable Radar, which is a major component of the THAAD Weapon System. The THAAD Project Office utilized the VE methodology to develop a collaborative effort among several Government programs to deliver a viable RTD to the Warfighter, while simultaneously minimizing high development costs. The resultant savings from this effort totaled $17.93 million for fiscal year 2017. For total efforts in fiscal year 2017, THAAD achieved more than $48.11 million in net six-year VE savings, surpassing its fiscal year 2017 goal by 728 percent.

Special Terminal High Altitude Area Defense Logistics Support Value Engineering Team

The efforts of the Terminal High Altitude Area Defense (THAAD) Logistics Support Value Engineering (VE) Team resulted in the completion of two VE Proposals for fiscal year 2017. This team recognized the benefits of and promoted value engineering to maximize developmental efforts while minimizing development and acquisition costs. One effort analyzed alternatives to optimizing the handling and storage processes for the THAAD Missile Round. Another effort focused on ensuring consistent and effective training of new equipment for the THAAD Weapon System that would meet all Army and Warfighter requirements. Both efforts guarantee improved logistical capabilities and sustainment activities at the lowest effective costs to the program. The THAAD Logistics Support VE Team will continue to collaborate with the prime integrator, subcontractors, suppliers, and government agencies to achieve maximum performance capabilities for components while reducing costs. The total savings for the two efforts totaled $4.9 million for fiscal year 2017.

Special Terminal High Altitude Area Defense Missile Production Value Engineering Team

The Terminal High Altitude Area Defense (THAAD) Missile Production Value Engineering (VE) Team also contributed to both the THAAD and the Missile Defense Agency fiscal year 2017 VE programs by using value engineering to achieve desired function at the lowest effective cost. Specifically, the team analyzed the THAAD Missile Round production processes in order to improve process efficiencies. The team’s analysis determined that certain verification processes could be streamlined while maintaining quality control of the production process and addressing production and test requirements. The team’s incorporation of the methodology in fiscal year 2017 generated alternatives that maintained performance, reliability, and quality, and enhanced customer satisfaction. The team realized over $3.4 million in savings through fiscal year 2022.