The Aviation Week Program Excellence Award initiative was developed in 2004 in recognition of the need to develop future program leaders who in addition to facing challenges similar to those of the past, will also have to deal with increasing technical, organizational and business complexities. This effort has resulted in improvements in several key areas, but execution challenges remain. Concurrently, the Department of Defense and NASA have expanded focus on professional development for strategic program leaders. This award process is designed to identify best practices in areas of needed improvement and to celebrate performance accomplishments.

The goal of this initiative is to recognize and promote program excellence in terms of performance, leadership capability, and outstanding lessons that can and will be shared broadly within the aerospace and defense community. By taking part in the submission process, nominees agree to be part of this program to share information.

Framework
The criteria for this award are based on the best elements of program/project leadership excellence programs developed by the Strategic Project Leadership Program of the Technological Leadership Institute, the NIST Malcolm Baldrige National Quality Awards, and the NASA/USRA Center for Program/Project Management Research.

The award will examine four critical areas according to the following framework:

- Value Creation
- Organizational Processes
- Adapting to Complexity
- Metrics

For 2014, the evaluation will also include focus within these four categories on utilization of earned value as a more agile/responsive tool; further risk/issue/opportunity management processes to assure teams address risk and capitalize upon opportunity; understanding of integrating export opportunity into program operation; and innovation in business models, processes, teaming approaches and overall execution. The Evaluation Team will determine finalists and winners on the basis of scores in these four categories. The winner(s) will be featured in Aviation Week & Space Technology and at www.AviationWeek.com, as well...
as honored at the annual Aviation Week Aerospace & Defense Programs Conference to be held November 19-20 in Phoenix, Arizona.

Entries will be evaluated on the basis of performance for the previous 36 months.

Nominations are encouraged from commercial aerospace, space (commercial and defense), defense and security sectors and should be made in one category only:

- Sub-System R&D/SDD
- Sub-System Production
- Sub-System Sustainment
- System R&D/SDD
- System Production
- System Sustainment
- Special Projects

In each category and based on meeting a threshold score to be determined by the Evaluation Team, finalists will be chosen on the basis of scoring on Phase 1 and Phase 2 entries and analysis by the Evaluation Team. Aviation Week retains the final responsibility for selection.

The Evaluation Team reserves the right to choose no winners and to name an Overall Winner, if the nominations so warrant, based on the combination of scoring against the criteria, best practices, and game-changing leadership.

2014 Evaluation Team
The Evaluation Team for the 2014 Aviation Week Program Excellence Awards includes:
- Michael Bruno, Deputy Managing Editor-Military, Aviation Week
- Jean Chamberlin, VP Program Management, Boeing Defense, Space & Security
- Ed Hoffman, Chief Knowledge Officer, NASA
- Ron Morey, Sr. Director Fixed Wing Solutions, Rockwell Collins
- Warren Nechtman, VP Program Management & Business Operations, Honeywell Aerospace
- Detra Sarris, Corporate Director of Programs, Northrop Grumman Corp.
- Aaron Shenhar, Founder, Strategic Project Leadership
- Jesse Stewart, Professor of Program Management, Defense Acquisition University
- Jeffrey J. Wilcox, VP Engineering, Lockheed Martin Corp.

Intellectual Property
Note: Individuals outside your company review award submissions. All information submitted should address the program’s management, leadership, and processes, and not any otherwise classified or proprietary topic. Do not include any materials marked Proprietary. All documents will be copied and distributed via the Internet to the aforementioned Evaluation Team and will be considered as public knowledge.

By submitting an entry to the Aviation Week Program Excellence Awards program, you are indicating agreement to participate in outreach efforts to share Lessons Learned/Best Practices in an effort to raise the bar on program leadership across the industry. Entries may be also used for comparative research among programs to draw conclusions and lessons learned across the industry.

Format of Submission
The Program Excellence Awards process involves two phases of evaluation.

Phase 1 – Nominees submit, in narrative format, their perspective on why the program excels and identify the teachable lessons in program execution within the past 36 months (beginning January 2011). The focus in this narrative should be how the program has successfully addressed challenging issues or met seemingly difficult requirements. Note that while the technology involved is an aspect of complexity, the technology itself is not being evaluated – the leadership and execution of the program are being evaluated. Limit this narrative to four pages, 12 point Times Roman typeface with 1” margins.

- Include with the narrative a one-page biography of the program leader, including what sets this individual apart as a leader.
• Identify by name a representative of the program customer, and include phone and email information. Customers will be asked for go/no go decision regarding consideration of this program for the Aviation Week Program Excellence Award.
• Phase 1 is due April 1, 2014 to chedden1@cox.net / carole.hedden@aviationweek.com
You must use the tabular format provided to submit your nomination form. You should use 12 pt. Times Roman font to fill in the tables. Submit your document as a PDF file.

Upon completion of Phase 1, narratives will be reviewed for “fit for excellence” and qualified nominees will then be provided with the Phase 2 submission form by no later than April 21. The Phase 2 forms will be due June 30, 2014. Finalists and best practices will be identified by no later than September 7.

Submission and Questions
Questions and submissions should be directed to
Carole Rickard Hedden
Project Leader, Aviation Week Program Excellence Initiative
chedden1@cox.net / carole.hedden@aviationweek.com
505.239.9520

Phase I Submission
Name of Program: Honeywell Avionics Hardware and Software for the Orion Multi Purpose Crew Vehicle (MPCV)

Name of Program Leader: Colin Dorsett
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Glendale, AZ 85308

Name of Customer Representative: John Paulsen
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Colin Dorsett is the Director of the ORION Space program for the Honeywell Defense and Space (D&S) business unit located in Phoenix, Arizona. Colin has business and program management responsibilities for the ORION Multi-Purpose Crew Vehicle platform and related Human Space programs. In his ten years of experience with Honeywell, Colin has held leadership roles of increasing responsibility in program management, business development, and project engineering. Previous to Orion, Colin was responsible for business development and program management in Honeywell’s Commercial Space business.

Prior to joining Honeywell, Colin served in the United States Navy Submarine service where he was responsible for supervising operations of a submarine nuclear propulsion plant. Colin’s leadership skills and attention to detail were rewarded with meritorious service medals and leadership promotions ahead of peer group.

Following his service, Colin earned a Bachelor of Science degree in Nuclear Engineering and a Master’s of Business Administration.

Colin’s leadership strengths include building positive customer relationships, balancing customer’s needs with those of the business, detailed knowledge of the Honeywell Integrated Product Delivery and Support (IPDS) process, and a focus on results.

Specific to EVMS, Colin:
- Empowers EVMS team to bring forward and implement value added EVMS changes
- Challenges team to find and eliminate non value added EVMS activities if within guidelines
- Drove lessons learned capture and implementation between the EFT-1 and EM-1/2 program phases – resulting in a streamlined organization and operating system and improved metrics
The Honeywell Avionics Hardware and Software for the Orion Multi Purpose Crew Vehicle (MPCV) program is a major (~ $1B between 2006 – 2020) subcontract to the Orion MPCV program at Lockheed Martin (LM). The prime contract provides a Crew Module (CM), Service Module (SM) and Launch Abort System (LAS) for NASA’s Exploration System. Honeywell provides Avionics Hardware and Software for the CM and SM.

The period between January 2011 and December 2013 was highly dynamic for the Orion prime contract and consequently the Honeywell subcontract. At the beginning of this period, the program was being separated into two parts: an Exploration Flight Test 1 (EFT-1) demonstration scheduled for launch in 2014 and a series of human rated Exploration Missions (EM-1/EM-2) scheduled for launch commencing 2018. In early 2013, the prime program had an additional significant change, shifting the LM SM responsibility to ESA who will provide a European Service Module (ESM).

In addition to the significant contractual baseline changes, the program has needed to manage within year over year funding challenges driven by continuing resolution, sequestration and the 2013 government shutdown.

The Honeywell consequences / challenges necessitating utilization of earned value as a more agile/responsive tool were as follows:

- Re-Baseline the effort targeted for EFT-1 in latter 2011 / early 2012
- Hold Integrated Baseline Review for EFT-1 effort in mid 2012
- Execute EFT-1 effort through 2013
- Establish deferred EM work scope in Undistributed Budget and prepare major change proposal in 2012
- Negotiate EM effort and establish baseline late 2013 / early 2014
- Propose effort for ESM related Hardware in 2013
- Manage fluctuating headcount demand that peaked at 420 in 2012, dipped to 60 in mid 2013 with transition from EFT-1 to EM-1, with a subsequent ramp up to 120.
- Close management of GFY funding expenditure, including accurate forecasting of risks and mitigations

Program execution remained ongoing in parallel with change / re-baseline. Due to the size of the Honeywell subcontract, monthly reporting has to be concurrent with the prime contract necessitating a Flash Report submitted 10 days after month end with minimal changes to the formal submittal.

The separation of EFT-1 and EM-1/2 into separate efforts had a side benefit of inserting a lessons learned opportunity between the two efforts. In particular, two significant items were addressed – parts availability issues drove significant negative issues on EFT-1 and the Control Account Manager (CAM) structure impacted the monthly EVMs agility.
The foundation of the Honeywell Orion EVMS agility / responsiveness is built on a strong organization EVMS process, tailored with LM to the Orion specific needs.

The EVMS process is maintained by the Honeywell PMO organization within Defense and Space. VP level leadership ensures that a common set of practices are adhered to. The organization includes Director level leadership for Chief of Program Management and Program Management Operating System (PMOS) leaders, and Program Planning and Control (PP&C) teams. These three organizations drive program management excellence, a standard operating system and a strong execution team. The Honeywell PMO organization is also complimented with an EVMS council, standardizing processes for PP&C in an effort to optimize synergy for EVM implementation across programs.

Two Honeywell specific processes complement EVMS in a significant manner: the Honeywell Milestone Reporter (HMR) and the Honeywell Integrated Product Delivery System (IPDS). HMR allows status and tracking of major program milestones. IPDS supports gauging program progress through major phase gates during the program life cycle.

EVMS implementation was closely coordinated with LM at program start-up and refined for continuous improvement over the life of the program. Formal submittal formats were tailored to provide necessary program specific data. Metrics were developed to track items of importance. Lessons learned were incorporated as appropriate. Features incorporated that provide agility / responsiveness include:

- Robust monthly process which provides accurate Flash data 10 days after month end close and full formal submittal 21 days after month end close – facilitates incorporation in prime contractor month end reporting and timely issue resolution
- Online CAM Notebook with access to all program plans and baseline documentation – streamlines CAM analysis and reporting and provides real time access for data analysis and forecasting
- In depth EVM data anomaly detection system employed at lowest level and checks 32 unique categories - Cause, Impact, and Corrective Actions are accomplished for EVM data that is returned as anomalous to ensure program decisions are made on a solid foundation of EVM data
- Monthly ETC based on ACWP and forward work enabling funding opportunities/risk assessment by CAM – provides agility at subcontract and prime contract working within funding restrictions
- Cost integrated IMS enabling what-if scenarios to assess deferral options under funding constraints – indentifies cost / risk of defer / prefer options
- Active SOW / WBS tie out – captures “scope creep” early allowing for timely contractual action
- Accurate staffing demand forecast through ETC linkage with internal Full Time Equivalent (FTE) demand tool – provides sufficient lead time to manage staffing ramp
Value Creation - The ultimate intent of EVMS is to create value for program stakeholders. EVMS must operate in a formal DCMA JSR environment which ensures accurate, reliable data. Orion is a complex program, with significant change and limited funding necessitating agility and responsiveness. Process, tools and knowledge provide the elements of Value Creation. The features previously described provide this value with a focus on delivering accurate month end data, early recognition of emerging issues, managing corrective actions and responding to change in a timely and cost effective manner. The following sections discuss specifics on Organizational Processes, Adapting to Complexity and Metrics.

Organizational Processes – In order to manage the EVMS process on Orion and meet the tight timing on monthly reporting, an Orion specific Business Rhythm Calendar was developed which provides the day-by-day specific task elements necessary for completion of the monthly submittal cycle. The calendar facilitates coordination between Control Account Managers (CAMs), PP&C, and Program Management to review and implement baseline changes, status work that has been performed in the month, review of costs incurred in the month, assess the cost of the work remaining, and reevaluate program risk, opportunities, and known conditions of the program. This Calendar was recognized internally as a “best-practice” and implemented across the organization. Lower level meetings are held to gather and integrate data, with a weekly Business Rhythms meeting to review and resolve issues at the program level. Month end review sessions include the LM customer in order to more effectively communicate cost / schedule issues and corrective actions.

Adapting to Complexity – The size and complexity of the Orion program creates an EVMS challenge in regard to the magnitude of the data and the effort necessary to process it. Two key lessons learned in adapting to complexity are: simplify the organization and utilize tools to manage the data. The Orion CAM structure has gone through two “downsizings” over the life of the program. Fewer, more experienced Control Account Managers have proven to be more adept than a larger, more cumbersome structure. Tools have reduced the workload and increased information accuracy. These tools include the previously mentioned Online CAM Notebook with access to all program plans and baseline documentation, and the in depth EVM data anomaly detection system employed at the lowest level which checks 32 unique categories. The Business Rhythm Calendar organizes the monthly process in a disciplined manner. Also, including the customer in key process steps improves communication and shortens time to close actions.
Metrics – The Orion program uses EVM metrics to assess what has been completed on the program, assess the schedule and cost of the remaining effort, and to validate data integrity. Baseline Execution Index (BEI) coupled with Schedule Performance Index (SPI) and Cost Performance Index (CPI) are vital program metrics indicative of past performance for schedule and cost. Critical to EVMS agility are the predictive based metrics used to manage go forward program execution. These metrics enable program stakeholders to be proactive in achieving a milestone or mitigating the impact of a missed milestone. Forward looking metrics utilized on the Orion program include: late start / late finish schedule metrics, Schedule Risk Assessment (SRA), 14 point assessment for IMS health, and Critical Path Management (CPM). To Complete Performance Index (TCPI) and Independent Estimate at Complete (IEAC) are cost related forward looking metrics used. Also, the program team forecasts forward completion of HMR milestones with corrective actions where late completion is anticipated.

Several metrics were developed to meet the specific needs of the Orion program. These include metrics for forecast accuracy of expenditures, billings and headcount which provide a feedback loop on forecast performance items important for prime contractor funding management. Lessons learned driven by the magnitude of the Orion procurement effort led to development of three key program specific metrics: Requisitions generated, purchase orders placed, and delivery forecast on time to need. These metrics provide forward insight into the health of the procurement effort.

In summary, Orion is a large, complex program operating in a dynamic environment with constant change. An agile, responsive EVMS system is critical to effective management of the program. This agility and responsiveness is not derived by reducing the time tested EVMS principles, but rather by supplementing a solid EVMS process with program specific processes, organizational structure, tools and metrics. A process that is well mapped out (Business Rhythm Calendar), streamlined (fewer CAMS), forward looking (look ahead processes and metrics) and supplemented with a robust toolset can manage complexity while maintaining agility. In addition, incorporating lessons learned as part of a continuous improvement process ensures agility and responsiveness over the life of the program.