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WS-01 Industry Clearinghouse Discussion

Brief Session Summary:
The Clearinghouse provides a forum for industry’s policy owners and practitioners to raise and discuss topics and issues related to Integrated Program Management (IPM), including EVMS, project scheduling, etc. The goal is to identify common issues, gather facts and supporting data, formulate industry positions, and develop recommendations for issue resolution.

Expanded Session Description:
This workshop is part of an ongoing discussion forum hosted by the NDIA IPMD Clearinghouse Working Group. This Working Group will present to the participants the process steps necessary to capture the facts and data to take the issue forward to be vetted within the IPMD and to develop mutually acceptable resolutions along with specific recommendations that can be presented to the IPMD Board for further action. The group consists of a diverse assemblage of contractors that support the defense industry.

Expected Key Takeaways for Participants:
The key takeaways from this session are: (1) to understand the pathways that exist to escalate and resolve issues, and (2) to provide a live forum to share issues and solutions.

Dan Lynch, Raytheon Missile Systems, and Chair, NDIA IPMD

Phone: (520) 794-3413; E-mail: Daniel_L_Lynch@raytheon.com

Mr. Lynch has over 35 years of Earned Value/Program Management experience in the defense industry ranging within the design, development, and production environments with Raytheon, BAE Systems, and RCA Corporation. Within that span, he also spent 10 years working as a self-employed consultant with clients such as CS Solutions, GEC-Marconi, Lockheed-Martin, and the DCMA. Currently, he is the EVMS Focal Point for Raytheon Missile Systems (RMS), a multi-billion dollar annual sales operation with an EVM System that was validated with a perfect score in 2008. His primary interests and focus is on the Implementation, Compliance, and Surveillance of RMS’ EVM System as well as bringing Integrated Program Management disciplines and practices to a wider range of defense efforts.

Mr. Lynch was granted a BA with honors from Rowan University and is currently serving as the Chair within the NDIA-IPMD

Yancy Qualls, Humphreys & Associates

Phone: (817) 781-78506; E-Mail: yancy.qualls@humphreys-assoc.com
Between Bell Helicopter and Lockheed Martin, Yancy Qualls has over 20 years of experience as a full-time scheduler in the Aerospace and Defense industry. Mr. Qualls currently serves as an Engagement Director for Humphreys & Associates. In this capacity he assists others in their effort to manage more effectively – whether through training, mentoring, or system implementation.

Mr. Qualls is a frequent presenter and panelist at national conferences. Mr. Qualls also serves on the Board of Directors for the NDIA IPMD and is the co-lead of their Planning and Scheduling Working Group (PSWG). In addition, Mr. Qualls was a co-writer of the Planning and Scheduling Excellence Guide (PASEG) and the Predictive Measures Guide. Mr. Qualls earned a B.S. in Industrial Engineering from Texas A&M University and an MBA from Texas Christian University. In addition, Mr. Qualls currently holds both the PSP and PMI-SP professional scheduling certifications.

**WS-02 Contracting and Subcontracting for EVM**

**Brief Session Summary:**

A highly interactive workshop allowing attendees to be given an opportunity to express thoughts and opinions regarding how to quantify and capture the what, how, when, and why EVM makes sense on a contact effort, including both traditional waterfall and Agile development programs. Workshop leaders will be considering workshop output for potential incorporation into an ongoing collaborative effort between industry and government for guideline/guidance publication.

**Expanded Session Description:**

This highly interactive workshop will include discussions related to the latest efforts being made in a cooperative effort between the College of Performance Management (CPM), National Defense Industrial Association (NDIA), and the National Contracts Management Association (NCMA) Tysons Chapter to develop standardized language and approaches for contracting for Earned Value Management. This collaboration includes participants from both government and industry. Topics being explored include improving the understanding between Contract Managers, Project Managers, Project Controls Personnel, and Government roles to ensure better EVM contracting and execution. Attendees will be given a voice and opportunity to express thoughts and opinions for potential incorporation into this collaborative effort regarding the what, how, when, and why EVM makes sense on an effort, including both traditional waterfall and Agile development programs. We will discuss methods for exposing, exploring, and potentially removing ambiguity from contract language and even subcontract RFPs from the onset to help reduce potential execution issues. Attendees should expect to be actively engaged in break-out teams discussing various viewpoints and capturing ideas.

**Expected Key Takeaways for Participants:**
Understanding and communication of EVM-related contracting issues, knowledge of ongoing collaborative industry/government efforts

Lisa Wolf, MBA, PMP, EVP, Booz Allen Hamilton

Phone: (301) 802-0627 Email: wolf_lisa@bah.com

Lisa Wolf is the EVM and CPSR Focal Point for Booz Allen Hamilton. Her wide range of PM and EVM experience has been on myriad projects of varying contract sizes and types.

Lisa has delivered training and keynote addresses on six continents. She is also currently an Adjunct Professor at University of Maryland teaching International Entrepreneurship, and has been a course developer and leader for the American Management Association (AMA). Lisa is also Co-Lead of the Contracts Working Group for the Integrated Program Management Division (IPMD) of the National Defense Industrial Association (NDIA) and Vice President, Communications for the College of Performance Management (CPM). She earned her MBA from The Johns Hopkins University Carey Business School.

Jean Marceau Lohier, CPCM, CFCM, AT&T

Phone: 703-462-3103 Email: jean.lohier@att.com

Jean Marceau Lohier is a Sr. Contracts Manager with AT&T GSI, the President of the Tysons Chapter of the National Contracts Management Association, Co-Lead of the Contracts Working Group for the Integrated Program Management Division (IPMD) of the National Defense Industrial Association (NDIA) and an Instructor Contractor with INL/CAP Training – U.S. Department of State (DoS).

Jean has successfully led, trained, and mentored multiple teams, and has helped establish processes and procedures to ensure compliance with contracts. He has presented at conferences and has published several professional articles, most of them in the Contract Management Magazine. He holds post-bachelor degrees from Georgetown University (GU) in Paralegal Studies and from the University of Virginia (UVA) in Procurement and Contracts Management.

WS-03 Current Trends and Effective Contracting in Today’s Environment

Brief Session Summary:

This session is an interactive session hosted by the National Contract Management Association’s (NCMA’s) Tysons VA Chapter to share lessons learned and best practices in effective contracting and to discuss current trends and the way forward with Federal Government contracts.

Expanded Session Description:
This highly interactive workshop will include discussions in an open forum:

- new regulations and how it affects doing business with the Federal Government
- Small Business concerns
- Lessons Learned within Effective Contracting

This collaboration includes participants with from both government and industry to discuss the government contracts environment and how to be more effective working with contracts and program teams.

**Expected Key Takeaways for Participants:**

Understanding the current environment and how to improve

**Speakers:**

**Christine Wade, Founder and Managing Partner of CaaSus**

Email: cwade@caasusllc.com

Christine Wade is a federal regulatory specialist with nearly 15 years advising and providing solutions to the federal government and government contractors, alike. She is the founder and Managing Partner of CaaSus where she provides outsourced federal compliance expertise via the Compliance as a Service™ model.

A Certified Federal Contracts Manager (CFCM) and Project Management Professional (PMP), Ms. Wade provides federal regulatory, cost accounting, audit and full contract life-cycle support to clients in a variety of industries including aerospace, defense, civilian, healthcare and insurance, pharmaceutical, manufacturing, utilities and advertising. She specializes in detailed knowledge of Federal Acquisition Regulations (FAR) and agency supplements.

Before founding CaaSus, Ms. Wade served government contracting clients through both Big Four firms and regional-based firms. In these roles, she led investment practices, supported Government Contractor Due Diligence activities, drafted policies, procedures and other internal control documentation, provided technical training for industry associations and clients, acted as a liaison with agencies such as DCAA and DCMA, and led system assessment and process re-engineering and remediation efforts. She has led service-oriented teams, managed complex projects and programs, developed and mentored project teams, published technical papers, and developed custom training for clients.

Ms. Wade earned her Bachelor of Arts degree in Government and Foreign Affairs from the University of Virginia.

**Crystal Glenn, Program Control Consultant, Century Link, and NCMA Tysons Past Chapter President**
Crystal Glenn has more than ten years’ experience in various career fields, including Finance and Accounting, Contract Administration, Marketing, and Commercial Insurance. Currently, she is a Program Control Consultant at CenturyLink Government Services and previously employed as a Project Control Manager for Science Applications International Corporation (SAIC) and Program Controller for the National Institute of Aerospace (NIA). She has worked on various Government and International programs managing budgets and scheduling of $100M+ with earned value requirements providing various project and financial reporting. She works closely with the program managers, program team members, contracts, program control team, accounting and finance to ensure program requirements are met and overall team collaboration.

Crystal currently serves as Immediate Past President for National Contract Management Association (NCMA) Tysons Corner chapter. She previously served as Treasurer, VP, Mentoring Program, and Chair of Programs for the Tysons and Hampton Roads chapters. Crystal also completed the elite NCMA Inaugural Contract Management Leadership Development Program (CMLDP) as an honor graduate. She is a certified Project Management Professional (PMP) with the Project Management Institute (PMI).

She earned a Bachelor's Degree in Business Administration with an International Business emphasis and a Minor in Accounting from Marist College. Crystal received a Board of Trustees scholarship from Hawaii Pacific University, where she earned a Masters of Business Administration (MBA) with an International Business concentration; and she was the first student at the university to complete the one-year MBA program.

**WS-04 NDIA IPMD Prime Subcontractor Working Group – White Paper**

**Brief Session Summary:**

Join the discussion – Prime and Subcontract Topics of Compliance, Flow downs, Integration and Timing. Help identify new topics for the NDIA Prime Subcontract Working Group to add to their White Paper.

**Expanded Session Description:**

The National Defense Industrial Association Integrated Program Management Division (NDIA-IPMD) Prime/Subcontract Working Group’s (WG) draft White Paper (WP) covers Compliance, Flow downs, Integration and Timing topics of special interest to Prime and Subcontractors. Prime, Subcontractors and other interested folks are invited to join a conversation of their favorite prime/sub topics – explore the good practices put forward by the NDIA-IPMD Prime/Sub WG or identify topics that
should be expanded on and included in the next release. All are welcome to participate and join the discussion.

The working group is being co-chaired by Ms. Caroline Cremisi, Raytheon Missile Systems and Ms. Anna Blachman, Lockheed Martin.

**Expected Key Takeaways for Participants:**

Attendees will (1) be able to add their insights and opinions on the topics covered in the NDIA-IPMD Prime/Sub Contract WG’s White Paper, (2) be allowed to select topics covered in the WP and explore possible solutions with the other participants in the workshop, and (3) help generate the next set of topics, issues and problems for the working group to add to the next release of the white paper.

**Anna Blachman, Lockheed Martin Corporation**
anna.blachman@lmco.com

Ms. Blachman is an experienced financial analyst and program performance professional (EVP), supporting large DoD Programs both directly and more recently as part of the LM-MST EVM Program Performance Management (PPM) Support team, providing guidance and support to programs with EIA-748 compliance requirements in areas of PM/EVM processes, business rhythms, schedule/cost integration, subcontract integration, external reporting, audit & DCMA surveillance and readiness.

Ms. Blachman received a MBA from Carnegie Mellon University, and a Bachelor of Science degree in Accounting from San Diego State University.

**WS-05 GAO’s latest guidance on Cost, Schedule and EVM**

**Brief Session Summary:**

Hear the latest developments in GAO’s guidance and find out how you can contribute to it. We are currently reaching out to government and private industry for guidance updates and lessons learned. Come and participate in the fun.

**Expanded Session Description:**

GAO will discuss updates in the 2016 Schedule Assessment Guide (SAG) and an update on the 2009 Cost Assessment Guide (CAG) that is currently being updated. GAO developed the CAG to establish a consistent methodology that is based on best practices and that can be used across the federal government for developing, managing, and evaluating program cost estimates. The CAG will be updated and revised to ensure the guidance is current. Lastly, GAO is looking for Agile experts and Agile programs – including EVM for Agile programs – to observe. GAO’s Agile
guidance will establish a consistent methodology that is based on best practices across the federal government and aligns with GAO’s principles.

**Expected Key Takeaways for Participants:**

Are you a cost, EVM, schedule and/or Agile expert? If so, we’d like to hear from you. You can help improve program performance, ensure the accountability, and provide timely information to decision makers.

**Juaná S. Collymore PMP, PSP**

collymorej@gao.gov 202.512.3024

Juaná Collymore is a senior schedule analyst for GAO’s Center for Technology and Engineering since 2012, where she is responsible for evaluating cost processes and performing schedule analyses generated by programs across a myriad of federal agencies. She has over 15 years experience in the fields of schedule estimating and technology auditing and holds certifications as a Project Management Professional (PMP) and Planning and Scheduling Professional (PSP).

Before joining the GAO in November 2012, Juaná provided subject matter expertise in proper scheduling for major federal IT investments as well as managing schedules and project controls for various local major construction projects.

Juaná has a Bachelor of Science degree in Civil Engineering from Howard University and is a March 2017 candidate for a Masters of Cost Estimating and Analysis from the Naval Postgraduate School.

**Jennifer Echard**

echardj@gao.gov 202.512.3875

Jennifer Echard has been a senior cost analyst in GAO’s Center for Technology and Engineering since 2002. At GAO she is involved in performing cost analyses and technology audits on a variety of programs spanning many different agencies. She was a co-author of the GAO Cost Assessment Guide as well as articles in The INTOSAI IT Journal and the Navy Comptroller Magazine. Before joining the GAO, Jennifer was a cost analyst for the Department of the Navy where she developed independent cost estimates for major weapon and automated information systems. Jennifer holds an undergraduate degree in Mathematics from the University of Maryland and a Masters of Cost Estimating from the Naval Postgraduate School. Jennifer is also DAWIA Level-III certified in the field of cost estimating and financial management. She has over 25 years’ experience in the fields of cost estimating and technology auditing.

**WS-06 EVM Research – Past and Future**
**Brief Session Summary:**

The original EV criteria built upon current management theories and best practices. The stability of the EV criteria over the past 50 years confirms the validity these original assumptions. However, over the past 50 years there has been a significant amount of management and team research that could inform improvements and efficiencies in the practice of EV. This session provides an overview of some of those areas and discusses potential areas for future research.

**Expanded Session Description:**

This session provides an overview of the work measurement research of Frank and Lillian Gilbreth that was adapted from its use in a production environment to a set of criteria applicable to a project environment. EV research since then, much of which has focused on the cost and schedule forecasting aspect of EV, will be reviewed. In addition, the session will highlight management research in fields as diverse as accounting, motivation, and cognitive psychology that may provide earned value practitioners with a deeper understanding of the value of EV elements such as the project schedule. Areas where current management research raises questions about certain aspects of the criteria will also be discussed. For example, some project management researchers suggest that applying DoD-type earned value requirements on complex projects may be counterproductive. Since past EV research has typically not evaluated the underlying assumptions of EV or the utility of the rules that have accreted to the criteria, particularly in government applications of EV, it is difficult to provide a data based response to those assertions. Consequently, the session will conclude with recommendations for future EV research.

**Expected Key Takeaways for Participants:**

Management research over the past 50 years provides insight into the practice of EV. Management research also identifies areas where additional research is required.

**Vicki Frahm, Sandia Corporation**  
vlfrahm@sandia.gov  (505)284-6065

Vicki has worked in project management for 35 years. Of these, 30 years has been in the field of EVMS. Vicki is currently the Sandia Corporation Facilities Project Controls and EVMS Lead and site EVMS subject matter expert (SME). In addition, Vicki has worked as EVMS SME at both Boeing and Honeywell, on DoD, DOE, and NASA projects including the International Space Station program and Future Combat Systems (FCS). Vicki holds a PhD in Organization and Management specializing in Project Management.
WS-07 Increasing Government Value of EVM

Brief Session Summary: The Joint Space Cost Council (JSCC) conducted a survey of Government program managers across the Space Community (NRO, NASA and SMC), asking them to rate the value of a series of EVM deliverables and management practices and processes, and provide comments to explain their ratings. The JSCC convened an EVM Expert Working Group, representing Government and Industry, to review the survey data, make recommendations to consider proposing updates to Government policy and implementation practices for increasing Government value of EVM. The JSCC EVM Expert Working Group also analyzed the touch points between the Government value survey and Industry EVM cost drivers survey results. This workshop will share the results of the JSCC EVM Expert Working Group recommendations and engage in a discussion on opportunities for making EVM even more affordable without sacrificing value as a management tool for program success.

Ivan Bembers, bembersi@nro.mil

Ivan Bembers is the Director of the National Reconnaissance Office (NRO), Earned Value Management Center of Excellence (ECE). As the EVM Focal Point, he leads the independent surveillance organizations and heads efforts and initiatives to research best practices in EVM and scheduling, as well as collaboration across the Intelligence Community, Department of Defense and Civil agencies for EVM.

Michelle Jones, jones_michelle@bah.com, 571-304-8861

Michelle Jones supports the NRO ECE as a contractor lead for EVM and Cost Estimating. She has led research initiatives including forecasting through the EAC Maturity Model, and EVM Tool assessment. Ms. Jones has been with Booz Allen Hamilton since 2002.

Jeff Traczyk, itraczyk@nro.mil

Jeff Traczyk has over 25 years’ experience in program management associated with information technologies, including operational and system architecture design techniques, business case development and acquisition support. He supports a US Government agency, through Mantech, to monitor the application of earned value management systems (EVMS) used on major system acquisition programs.

Ed Knox, eknox@tecolote.com

Ed Knox supports the NRO ECE as a master scheduler and tool development lead. Mr. Knox led initiatives such as EVMS Evaluation Review Finding Risk of Recurrence, developed the Schedule Wizard too, and built the analytics behind the Better EVMS Implementation Survey Phase I and Phase II, and the Control Account Size Benchmarking Study.
WS-08 Two New EVM Cost-Risk Tools

**Brief Session Summary:** This Workshop will describe and present demonstrations of two new EVM Cost-Risk Tools, the Integrated Cost-Risk Model (ICRM) and the EVM Trend Tool (EVMTT). The ICRM integrates EVM performance factor-based IEAC development and quantitative Risk Register result cost impacts as a total distribution of possible EAC results and the EVMTT uses BAC growth to generate end months and end month BAC projections.

**Expanded Session Description:** Integrating the cost estimating, EVM analysis and technical risk management disciplines to realize comprehensive cost-risk management has proven elusive. Cost estimator products incorporate cost-risk but are developed to support early budget requirements, advancement past major milestones and annual updates, not more frequent program cost management. Technical risk management teams develop qualitative assessments of risks more frequently for use by program managers in their Risk Register that can affect costs but lack the input from actual cost disciplines to add defensible cost quantification. EVM analyst products offer the potential to finally enable integrated cost-risk management since their cost analysis occurs on a schedule in synch with the technical risk management teams and, with recently developed advanced ICRM and EVMTT EVM cost-risk tools, can be utilized by the technical risk management teams to credibly quantify Risk Register impacts to cost. Both cost estimating and EVM cost disciplines can work with technical risk management teams to enable effective integrated cost-risk management. This Workshop will describe the process of how integrated cost-risk management can be realized through the cooperation of the cost estimating, EVM analysis and technical risk management disciplines in implementing these advanced EVM cost-risk tools.

**Expected Key Takeaways for Participants:** Takeaways for Workshop participants will be first, the awareness that these two new EVM cost-risk tools exist; second, they are both operable by EVM analysts; third, they enable EVM analysts to become an indispensable key participant in the cost-risk management process; fourth, the resulting cost-risk management process will be an enhancement to technical Risk Management Team by providing credible cost-risk quantification; and fifth, cost estimators can improve their cost estimate cost-risk projections through getting monthly feedback on the realization of actual cost-risk impacts.

**Presenter’s Name and Bio:** David R. Graham; dgmogul1@verizon.net; 703-489-6048

Mr. David R. Graham started his cost analysis career at the Space and Missile Systems Organization (SAMSO – now the Space and Missile Systems Center (SMC)) in El Segundo, CA in 1979. David worked as an Earned Value Management (EVM) Systems and Cost Performance Report (CPR) analyst at SAMSO/SMC and then as an EVM Review Director moving to Washington, DC where led over 50 EVM
Systems reviews at major Air Force contractor locations across the country. David then in 1987 joined the Pentagon-based Air Force Cost Analysis Agency (AFCAA) as a cost estimator in a Cost Supervisory Analyst position.

Mr. Graham returned to SMC in 1991 to become a Cost Supervisory Analyst on the SMC cost staff managing/doing Air Force-level independent cost estimates and moving into the Acquisition Development Directorate at SMC as their Cost-Risk Policy Analyst and then, in 1999, returned to the DC area as a Program Financial Analyst for the Secretary of the Air Force’s Acquisition Program Management staff.

In 2001, David left the federal government and joined the engineering staff of The Aerospace Corporation supporting the newly formed Intelligence Community (IC) CAIG doing independent cost estimates on NRO and NSA programs. David then reentered the federal government at the newly formed NASA Headquarters Cost Analysis Division developing the Continuous Cost-Risk Management (CCRM) system for NASA project acquisitions.

In 2008, David went back to AFCAA by accepting a position with their SMC Operating Location in El Segundo, CA and retired from Federal Service in Dec 2010.

In Jan 2012, David joined the faculty staff of the Defense Acquisition University (DAU) as an Intermittent Professor of Earned Value Management (EVM); in Oct 2013 began working as an Independent Contractor for two computer course design companies supporting DAU, then at the SMC University teaching schedule analysis and then at Galorath Federal Systems applying EVM Cost-Risk models on SMC programs.

**WS-09 Embrace the Ghosts of Projects Past**

**Brief Session Summary:**

This session will discuss best practices, propose some new practices, and certainly will generate lively discussion as to participants’ methods for capturing project history and corporate memory.

**Expanded Session Description:**

Explore practical methods to mine past project data, spot trends and tendencies, and apply those to project forecasting and risk assessment.

Develop a set of tangible inputs, developed from your project history, that can be utilized as a resource when developing future project plans.

This session will discuss best practices, propose some new practices, and certainly will generate lively discussion as to participants’ methods for capturing project history and corporate memory.
**Expected Key Takeaways for Participants:**

1. Understanding of existing methods for mining past projects of predictive data.
2. Collaborate to develop and discuss new possible new methods.
3. Understanding what peers are doing today and what they wish to do in the future.

**Thomas R Polen**

602 791 5167 ; thomaspolen@deltek.com

Tom Polen, Solution Engineer at Deltek has scoped, designed, developed, and implemented scheduling and earned value management systems in the telecommunications, transportation, insurance, and defense industries for 18 years. Tom’s overall vision is to help the field of project management to focus on analysis, rather than the development of data and information used to support analysis.

**WS-10 Bayesian Reasoning for Quantitative Integration of EVM and Risk**

**Brief Session Summary:**

The realism and efficacy of EVM can be fundamentally enhanced by integrating EVM and best practices in risk analysis. This session presents Bayesian approaches for quantitative integration of EVM and risk in both cost and schedule dimensions. Best practices in schedule and cost risk analyses are incorporated into intuitive Bayesian frameworks that allow systematic update of prior EAC in light of new performance data. Numerical illustrations are presented to highlight the advantages of Bayesian approaches.

**Expanded Session Description:**

This session presents Bayesian approaches for quantitative integration of EVM and risk of on-going projects in both cost and schedule dimensions. Bayesian inference has unique advantages for combining objective and subjective uncertainties in diverse formats and from various sources. In this session, powerful properties of Bayesian inference are incorporated into the standard practices of EVM in a quantitative and systematic way.

The first part of the session characterizes unique challenges in quantitative integration of EVM and risk and outlines Bayesian reasoning as an integrative analytical framework. The second part of the session covers pragmatic Bayesian models that integrate actual performance data from EVM and best practices in quantitative schedule and cost risk analyses. Numerical illustrations are presented to demonstrate how uncertainties in project baselines and actual performance data of
an ongoing project are integrated, quantified, and visualized as continuous updates of project performance as well as early indicators of project outcomes.

Both practitioners and researchers would find this session insightful, educational, and yet, pragmatic. In particular, the illustrative Bayesian models would provide crucial experience of challenging the boundaries of deterministic approaches prevailing in the conventional EVM standards and practices.

**Expected Key Takeaways for Participants:**

Participants in this session will learn:

- Challenges in quantitative integration of EVM and risk;
- Powerful properties of Bayesian reasoning;
- How Bayesian reasoning is incorporated into EVM standards and practices;
- Bayesian approaches for integration of EVM and cost risks;
- Bayesian approaches for probabilistic schedule and cost forecasting; and
- Insights into Bayesian reasoning for the realism of EVM.

Byung-Cheol Kim, byungcheol.kim@gmail.com, 740-249-3712

Byung-Cheol Kim earned his Ph.D. degree in civil engineering at Texas A&M University, TX. He served as an Assistant Professor at Ohio University from 2008 to 2015. He also has seven years industry experience at Samsung C&T Corporation, Seoul, Korea, as a project engineer, construction manager, contract administrator, and performance control analyst, mostly in a $300 million heavy-highway bridge project.

Dr. Kim has published one book on project management and more than a dozen research articles in top quality management journals such as IEEE Transactions on Engineering Management, ASCE Journal of Construction Engineering and Management, ASCE Journal of Management in Engineering, the Engineering Economist, and the Encyclopedia of Chemical Processing. His current research interests include innovative project control, risk visualization, forecasting, non-simulation risk modeling, Kalman filter forecasting, Bayesian decision making, and risk-based EVM systems.

Dr. Kim is a registered Professional Engineer in Ohio, a registered Structural Engineer in South Korea, a Project Management Professional, and a Leadership in Energy & Environmental Design Green Associate (LEED GA).

**WS-11 Effective Root Cause Analysis**

**Brief Session Summary:**
Effective variance analyses (VARs) provide thorough, coherent explanations of what caused the variance; and corrective actions that correspond to the analysis of the variance. The most effective explanation of the variance, that is, the root cause analysis, combines the power of four different, yet related, techniques. The objective of this workshop is to demonstrate, using real project data, how our proposed root cause analysis process can generate more effective variance analysis.

**Expanded Session Description:**

Lack of effective root cause analysis is a persistent weakness of the variance analysis process. Many times our VARs describe the symptoms, but fail to adequately drill down to explain the root cause of the variance. Furthermore, the corrective action is often not logically tied to the explanation of root cause, doesn’t identify who is responsible, nor describes how the corrective action that is to be implemented. Finally, there doesn’t seem to have a consistent, repeatable process in place that addresses how root cause analysis is to be accomplished across the project organization.

The purpose of this workshop is to describe a root cause analysis process that combines four related techniques that are typically used individually. Systematically employing all four together, as a disciplined, repeatable practice provides powerful insight into root cause analysis. The four techniques presented in this workshop include:

1. The ‘5 Whys’ process as the basic logic technique,
2. Employed in the context of an Ishikawa Diagram (aka, fishbone diagram),
3. With logic validated using “If-Then” logic or “Meta-Language” (predicate logic) statements,
4. Conducted in the context of a brainstorming session

**Expected Key Takeaways for Participants:**

This workshop will present a different, and perhaps new, technique to conduct root cause analysis to generate more effective variance analyses. This technique can, and has been used, in identifying root cause(s) for cost and schedule variances as well as corrective action requests (CARs).

**Dr. William Chadick, MCR, LLC**

Email: wgchadick@gmail.com; Phone: 719-330-0188

For over 40 years Dr. Bill Chadick has operated in a variety of industries: education, telecommunications hardware and software projects, logistics management, military command and control systems, and crisis management systems. He has special expertise in developing and implementing processes in project management, earned value management, risk assessment/disaster recovery/business contingency operations, and Six Sigma process improvement. Dr. Chadick has significant
experience in planning and supervising programs that require integration of hardware, software, and operational infrastructure systems; and the logistical deployment of platforms and systems. He is an experienced educator in academic and corporate environments focusing on project risk management, earned value management, and quality management.

**Henry B. (Buddy) Everage, MCR Federal, LLC**

Email: beverage@mcri.com; Phone: 202-507-4372

Henry B. (Buddy) Everage, a PMI certified Project Management Professional (PMP), with over thirty years of experience is the Technical Director for the Civil Programs Division of MCR Federal, LLC. In this role he provides support services to Federal Government agencies and the contractors providing products to those agencies in all areas related to integrated program management with an emphasis on the design, implementation, maintenance and training of earned value management (EVM) systems. Mr. Everage represents MCR as a member of the Board of Directors for the National Defense Industrial Association’s (NDIA) Integrated Program Management Division (IPMD) and the College of Performance Management (CPM). Mr. Everage is also an active participant in the Department of Energy (DOE) sponsored Energy Facility Contractor Group (EFCOG) Project Delivery Working Group (PDMG) and the PDMG’s EVM Task Group.

**WS-12 PARCA: EVM Reporting – Situational Tailoring**

**Brief Session Summary:**

Performance Assessments and Root Cause Analyses (PARCA) in the Office of the Assistant Secretary of Defense for Acquisition is the Department of Defense focal point for all policy, guidance, and competency for Earned Value Management (EVM).

EVM and reporting requirements are tailorable where it makes sense for the program. In this workshop participants will discuss program scenarios and how the IPMR can be tailored to provide reliable data when EVM requirements are waived or deviated.

**Expanded Session Description:**

Performance Assessments and Root Cause Analyses (PARCA) in the Office of the Assistant Secretary of Defense for Acquisition is the Department of Defense (DoD) focal point for all policy, guidance, and competency relating to EVM. To facilitate consistent EVM implementation across the Department, PARCA is responsible for the development and communication of DoD EVM policy, guidance and interpretation, and for managing the EVM Central Repository as the authoritative source of EVM data for the Department.
Within DoD, EVM promotes an environment where contract execution data is shared between project personnel and government oversight staff and where emerging problems are identified and acted upon as early as possible. The Integrated Program Management Report (IPMR) provides a vehicle for providing integrated, timely contract status that is trustworthy for trend analysis and decision making. DoD leadership supports tailoring of EVM and reporting requirements where it makes sense for the program. The IPMR should always be carefully tailored to meet the needs of each individual program and should reflect how the contractor is managing the contract’s performance. In this workshop participants will discuss different program scenarios and how the IPMR can be tailored to provide reliable data when EVM requirements are waived or deviated.

**Expected Key Takeaways for Participants:**

- Participants will learn about the DFARS deviation and waiver processes and their impact on EVM requirements and reporting
- Participants will learn about the Integrated Program Management Report (IPMR) requirements
- Participants will learn about tailoring options for EVM Reporting with the IPMR

**John S. McGregor, Deputy Director for Earned Value Management PARCA**

E-mail: john.s.mcgregor2.civ@mail.mil  Phone (703)697-7727

Mr. John S. McGregor is the Deputy Director for Earned Value Management in the Performance Assessments and Root Cause Analyses organization in the Office of the Assistant Secretary of Defense for Acquisition.

During his nearly thirty year career, Mr. McGregor has held various military, contractor, and DoD civilian positions including mission support, program analysis and oversight throughout the entire DoD Acquisition Lifecycle, and policy development. His responsibilities have ranged from air vehicle maintenance and aircraft deployments to budget functions for ship operations programs, to planning, tracking, and control of performance data for major acquisition programs.

Mr. McGregor has established a track record of superior performance and leadership resulting in streamlined operations with increased efficiency and effectiveness.

Additional Speakers: David Nelson and Karen Kostelnik