Technical Working Group Meeting
23-24 March 2005

AGENDA

Wednesday, 23 March 2005

8:00am - 8:30am	Sign-In, Coffee

8:30am - 9:00am — *"The Current Status of PSM", Cheryl Jones, US Army TACOM-ARDEC*
Cheryl will update attendees on recent PSM activities, upcoming events, and the status of PSM products. In addition, opportunities for participation will be identified.

9:00am - 9:30am — *"Integration of PSM and Six Sigma to achieve CMMI Level 5", Larry LaBruyere and Michael Kaminsky, Northrop Grumman*
A Six Sigma approach is being used as the basis for achieving CMMI Level 5 within several Northrop Grumman organizations. The Federal Enterprise Solutions (FES) business unit of the Information Technology sector has incorporated both Practical Software and Systems Measurement (PSM) and Six Sigma as the basis for its measurement approach and process improvement effort. This talk describes how the various measurement and process improvement methodologies have been integrated, resulting in an approach that provides the organization with a simple, well defined path to CMMI Level 5.

9:30am - 10:00am — *"Acquisition Measurement and Communications", Bob Ferguson, Software Engineering Institute*
This talk will present a visualization of the developer's (supplier's) role and the buyer's (acquirer's) role in the acquisition process that enables the identification of key measurement opportunities for project, products, and processes for both the suppliers and the acquirers. In addition, various techniques in using the measurement results to improve communications between the various DOD and other external stakeholders will be explored.

10:00am - 10:30am — AM Break

10:30am - 11:00am — *"INCOSE SE Measurement Working Group Update", Rita Creel, Software Engineering Institute, Chris Miller, Systems and Software Consortium, Inc.*
Discussion will include the INCOSE Measurement Working Group operating concept, current activities, and the activity underway to revise the Systems Engineering Measurement Primer. The talk will discuss how the SE Measurement Primer leverages and compliments PSM.

11:00am - 11:30am	**"DoD's Metrics Initiative: Feeding Senior Leadership's Information Needs for Improved Risk Management", Vivian A. Cocca, OSD-NII** DoD is in the process of identifying a set of metrics that will provide DoD's senior leadership with the appropriate information on which decisions will be based. The challenge becomes how to identify what the critical metrics are in relation to what the decision makers need to know. This presentation will provide an overview of that process, with focus on how to discover what the measures and metrics should be at the enterprise level of decision-making.
11:30am - 12:15pm	**"Enterprise Risk Management and Governance", Robert Charette, ITABHI** This talk will describe enterprise risk management and how project measurement and risk management information provide necessary inputs.
12:15pm - 1:15pm	Lunch on your own (cafeteria downstairs)
1:15pm - 2:00pm	**"Understanding Casual Systems", David N. Card, Systems and Software Consortium, Inc.** An effective management process depends on the understanding and manipulation of casual systems. This presentation will introduce a systematic framework for casual analysis and discuss its relevance to high-maturity requirements of the CMM and CMMI.
2:00pm - 2:30pm	**"Matching Software Measurements to Business Goals", Dr. Vic Basili, Fraunhofer Center Maryland and University of Maryland** From 30 years of experience with empirical software engineering and the implementation of software measurement in a variety of organizations, we have identified critical success factors in establishing a software measurement program. The Fraunhofer Center Maryland software measurement service approach addresses these problems by integrating existing methods and approaches and developing a tailored measurement program for each specific customer. This approach will be presented, together with a few example applications.
2:30pm - 3:00pm	**"CBPMO Application of Acquisition WBS", Stephen Hawald, Kevin Mooney and Tawna De La Vega, Robbins-Gioia, LLC** This presentation will describe how the draft Acquisition Work Breakdown Structure (WBS) is being applied within the U.S. Customs and Border Protection Modernization Office (CBPMO) regarding an Enterprise approach.
3:00pm - 3:20pm	PM Break
3:20pm - 3:50pm	**"Security Measurement: Progress Report", John Murdoch, University of York, UK** Over the last year, the Safety and Security TWG has been addressing the measurement of security processes, resulting in a

draft White Paper, issued in November 2004. The key information needs of managers are reviewed and the questions being addressed to the measurement community are identified. The basic challenges of measuring security actions and performance are discussed. Related programs are identified. The presentation reviews the progress of the TWG work, the approach adopted and what remains to be done, with the objective of framing a discussion of the way forward.

3:50pm - 4:15pm   *"Workshop Descriptions"*
Each workshop lead will briefly describe the intent of their workshop.

4:15pm   *Adjourn*

Thursday, 24 March 2005

8:00am - 8:30 am	Sign-in, Coffee

8:30am - 12:00pm   **Concurrent Workshops** *(see details on following pages***)**:
#1 - "Measurement of Security Processes"
Workshop Lead: John Murdoch, UK, Paul Caseley, UK

#2 - "Acquisition Measurement"
Workshop Leads: Rita Creel, Software Engineering Institute, Joe Dean, Tecolote Research, Cheryl Jones, TACOM-ARDEC

#3 - "Leading Indicators for System Engineering Effectiveness"
Workshop Lead: Dave Card, Systems and Software Consortium, Inc.

12:00pm - 1:00pm   Lunch on your own (cafeteria downstairs)

1:00pm - 5:00pm   **Concurrent Workshops**

#1 - "Measurement of Security Processes" (continuation of morning session)
Workshop Lead: John Murdoch, UK, Paul Caseley, UK

#2 - "Acquisition Measurement" " (continuation of morning session)
Workshop Leads: Rita Creel, Software Engineering Institute, Joe Dean, Tecolote Research, Cheryl Jones, TACOM-ARDEC

     (AM and PM Breaks As Appropriate)

5:00pm   *Adjourn*

Workshop #1: Measurement of Security Processes
Facilitators: John Murdoch and Paul Caseley, UK

Date: **Thursday, 24 March, 2005**
Time: **8:30am - 5:00pm**

Prerequisites
All with experience or interest in the measurement of information security processes are warmly
invited. Those planning to attend are asked to review the *Security Measurement White Paper* v1.0,
available on the PSM website, and provide written comments prior to the workshop.   Awareness of
current security measurement/metrics work in DoD and other sectors would be greatly welcomed.
The White Paper will be reviewed in a presentation on March 23rd, with a framing of the issues now
confronting the security measurement effort.

Materials to Bring
Those with security measurement or management experience are invited to share their experiences of
particular security measures, possibly in the form of draft measurement information specifications.
Please bring proposals or ideas for security-related information needs, measures and/or indicators, if
possible.   In addition, please bring your written critique of or queries about the White Paper.

Discussion
The group will continue work of the February and July 2004 workshops, by peer reviewing major
comments against the *Security Measurement White Paper*, v 1.0. The goal is to recommend
improvements and next steps for an updated draft, to be available for the PSM Users' Conference,
mid-July.   The following specific points will be considered:

1. The scope of security measurement – what level should PSM be looking at: technical,
    process, organization, infrastructure? Is there a need for ROSI indicators – how to roll up
    measures into high level indicators?
2. Can we develop indicators that enable the linking of investment in particular security
    technologies/practices with improvements in security performance?
3. To properly mature measurement proposals, we need case studies and trials – can
    opportunities and participants be identified? What are good strategies for maturing and
    encouraging take-up of security measures?   How should PSM contribute to other related
    programs?
4. What are the few key measures important to security? Can we draw up draft specifications of
    a small set of measures that have been proven in practice?

Goals/Products
The goals of this workshop are:

- to define a plan of action for maturing measurement proposals and their adoption;
- to identify the contribution the PSM project effort can make to other related programs;
- to seek participation in trials, case studies and assessments;
- to assess and draw up recommendations for White Paper v2.0.

Workshop #2: Acquisition Measurement
Facilitators: Rita Creel, SEI, Joe Dean, Tecolote Research, Inc., Cheryl Jones, TACOM-
ARDEC

Date: Thursday, 24 March, 2005
Time: 8:30am - 5:00pm

Prerequisites
Participants should review the workshop materials available on the PSM website, including the acquisition measurement guidance, draft ICM Table, sample measurement specifications, WBS, and updated acquisition cost model. Workshop attendees should have a general understanding of systems acquisition and program office requirements for supporting system acquisitions. An understanding of parametric cost models and statistical analysis methods is desirable.

Materials to Bring
Participants should bring their knowledge of and/or information on program office functions, experiences, and lessons learned in acquisition management. Participants should also bring practical examples of acquisition measures that they have utilized within their organizations. Participants should also bring written comments against the draft materials for this workshop, particularly the acquisition WBS (materials will be posted by 14 March 2005).

Discussion:
This workshop will continue work on acquisition measurement guidance, recommended ICM table and measures, and a cost model for acquisition organizations.

Acquisition Measurement Guidance

Lessons learned are valuable for any organization in order to avoid mistakes made by others. This workshop will leverage the experience of those "Acquisition Warriors" who have "been there and done that." We will discuss the strawman guidance documents and develop additional ideas and inputs to make the guidance as useful as possible.

Acquisition ICM Table and Measures

An Acquisition Organization needs to know how it is doing and what it needs to improve on at any given time in the acquisition process. Of course, measurement is the key to addressing these needs. This workshop will work to evolve an acquisition measurement Information Need - Measurable Concept - Measures (ICM) table. Initial acquisition measurement specifications will be reviewed, and volunteers to develop other sample specifications will be identified.

Acquisition Cost Model

A draft acquisition cost model has been developed by the Air Force Materiel Command to be used by the Air Force Program Offices to estimate their expected resources to implement future Air Force programs. This model is being converted to a generic model so it can become a useful tool for any acquisition organization. At this workshop, the WBS elements that comprise this model will be refined.

Goals/Products
The goals of this workshop are:
- Solicit practical lessons learned and experiences in program office acquisitions.
- Review the draft I-C-M table and identify practical measures for acquisition projects.
- Identify comments and provide inputs to the acquisition WBS.

Workshop #3: Leading Indicators for System Engineering Effectiveness
Facilitator: Dave Card, Systems and Software Consortium, Inc.

Date: **Thursday, 24 March, 2005**
Time: **8:30am - 12:00 noon**

Prerequisites
Participants should be familiar with the PSM measurement process and have a need for more
information on leading indicators of the effectiveness of systems and software engineering. Workshop
attendees should have a general understanding of system and software engineering measures currently
in use across their projects or organization.

Materials to Bring
Attendees should bring examples of system and software engineering measures currently in use
across their projects or organization.

Discussion
More and more projects and organizations are looking for measures of effectiveness to demonstrate
that their projects are progressing technically, as required. These measures generally need to go
beyond the common measures of schedule and cost, to include measures that provide indications of
the effectiveness of systems and software engineering in meeting contractual requirements.

Goals/Products
The goals of this workshop are to document, in a presentation format, some guidance material on
developing measures of effectiveness for projects and organizations. In addition, measures of
effectiveness that may be considered will be identified.