



Huntsville Regional Chapter of INCOSE Meeting Minutes

November 17, 2005

1. Rick Leonard, President of HRC INCOSE, welcomed the 18 attendees to this November meeting. He stated that Dr. Willie Fitzpatrick would be the featured speaker tonight, with the presentation topic: A Software Technology Readiness Assessment Process for Minimizing System Acquisition Risk.
2. Rick covered the INCOSE HRC's plans for the next meeting, which he has lined up at the Tokyo Restaurant on west University Drive. Because of the Christmas Holiday, there would be no December membership meeting on Dec. 15, but rather an Officers' meeting on Dec. 8 with all the officers' family members invited, and the best news Rick announced was that the Chapter would pick up the tab for everyone!
3. Rick encouraged everyone to help Walter Hammond with ideas and suggestions for how to produce a high-quality INCOSE HRC Quarterly Journal. Walter also asked anyone with suggestions for articles, starting with the first Fall 2005 Journal, to please provide him with information, preferably in good draft form to minimize his editorial workload.
4. Rick introduced tonight's speaker, Dr. Willie Fitzpatrick, Chief of the Aviation Division, U.S. Army Software Engineering Directorate in Huntsville. Dr. Fitzpatrick has over 30 years experience in the software/systems engineering area. His experience includes development and assessment of automatic control systems, systems engineering, and software engineering on various aviation and missile systems. He is currently Chief of the Aviation Division, in the Software Engineering Directorate of the US Army Research, Development, and Engineering Command's Aviation and Missile Research Development and Engineering Center. A more detailed bio will be posted on our website.
5. Dr. Fitzpatrick began his talk (while Walter Hammond hurriedly, but unsuccessfully tried to get his laptop synched with a portable projector) by covering DoD's latest policies for implementing software Technology Readiness Assessment (TRA). He emphasized that DoD's TRA Deskbook has no detailed maturity assessment criteria for software. There are nine Technology Readiness Level (TRL) metrics for technologies to be implemented or to characterize an existing system—this is similar to NASA's TRL, in fact Walter could find no difference. The big problem is to equate software TRLs to other DoD system element TRLs such as for hardware, operations, mission plan, and intelligence. Plus how to relate software TRLs to software risk. Walter provided the attached chart to illustrate this problem. The solution is to define and use software TRLs consistent with the system TRLs; to perform bought-into Technology Assessment procedures for software (using the software TRLs described in Dr. Fitzpatrick's talk), and to then correlate software TRLs to Risk Assessment.
6. Dr. Fitzpatrick correlated TRAs against Risk Assessment metrics for non-safety and non-security software characteristics, and software risk assessment related to safety and security. He then thoroughly described nine steps in the Software TRA procedure, culminating in making a final software TRL assessment and recommendation, to include a software supportability statement, a suitability statement, material release process, version description document (VDD), and any other documents as appropriate. He answered questions from the audience, left his contact information, and Rick thanked him for an excellent presentation.
7. Rick reminded everyone of the December 8 combined Officers' Meeting/Christmas Party for family members.