



Study Success, Learn from Failure



We are always looking to improve the quality of information in **CROSSTALK**. We rely upon articles that we run through a technical and editorial review process. This has served us well, but is no substitute for a view from the senior leadership upon whom we all depend for vision and direction. Reader surveys of the past have shown us that the vision and direction of senior leaders is highly desired. In fact, over the last year one of the top 10 articles as measured by our Web hits was from Dr. Patricia Sanders, the director of test, systems engineering, and evaluation for the Department of Defense.

With that vision in mind, I approached Brig. Gen. Michael Mushala. His gracious response resulted in interviews with Maj. Gen. Claude M. Bolton Jr., Office of the Assistant Secretary of the Air Force for Acquisition, Washington, D.C.; Thomas C. Brandt, Associate Director at the Software Engineering Institute Carnegie Mellon University; and Ronald D. Dubbs, F-22 Weapon Systems Chief Engineer, Wright-Patterson Air Force Base, Ohio. The result of these interviews begins on page 4.

What stood out at each of these interviews was the outstanding job that the F-22 program has done with its software. The F-22's productivity numbers were impressive. Those numbers impressed Dr. Dave Cook of Draper Laboratories, who serves on the STSC consulting staff and acted as **CROSSTALK**'s technical advisor on these interviews. The work on the F-22 was done with a geographically and organizationally disperse community of software developers. In addition, F-22 technical and managerial prowess is articulated in detail by a recently completed SEI risk mitigation intervention that Maj. Gen. (Ret.) Brandt shared with **CROSSTALK**. Brandt was lavish in his praise of the F-22 leadership.

Can everyone's software be as successful as an F-22 program? The laws of statistics may challenge us on this, but I believe we need to study success and learn from failure. I also had my eyes opened to the wealth of information that the F-22 has to offer. Clearly the F-22 did a lot of things right. A case study of the process, methods, tools, and environment would yield significant material for study and a broader range of future application. However, the people doing the work often do not have time to report on their work and frequently are too close to their work to understand the significance of what they have accomplished. The **CROSSTALK** staff looks forward to doing more of this kind of information gathering and to reach deeper into the valuable lessons learned.

CROSSTALK brings several special elements to readers in this issue, in addition to the aforementioned interviews: an article on page 12 by Beverly Moody, the Avionics Software Block Lead for the F-22; and a special pullout—an F-22 Raptor poster—created by graphic artist Mark Driscoll of Salt Lake City, Utah.

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