

Leadership Through Systems Engineering

Aerospace | Commercial | Defense | Health Care | Manufacturing | Academia

Karl Koenig, *Engineering Leadership, Who's the Professional?*

Abstract: The interdisciplinary nature of systems engineering gives us a unique position to lead the projects on which we work. We have the tools to tie together the skills that specialists bring to the project and construct an integrated plan for a project or an integrated solution to a problem. Over the years, I've tried different approaches at different times to communicate that capability to co-workers and managers.

That thought gelled further when I received John Thomas' letter defining a systems engineering professional that came with my CSEP recertification in 2011, which talked about the expectations of a professional engineer. It described the leadership traits of the CSEP in the same terms that I enjoy about our practice – breaking down barriers, focusing on the outcome, collaborating with stakeholders, understanding relationships, taking responsibility, having depth and breadth of knowledge, and continually developing. These traits are essential not only for the CSEP, but also for the systems engineer who aspires to be CSEP or develop his career in any other capacity. Using John's points as an outline to organize my thoughts, I would like to pass on some insights gained in my work in the Navy and in industry and challenge our members to exercise leadership in their projects.

Author: Karl Koenig graduated from the US Naval Academy with a degree in Aero Engineering and followed with a master's degree in Aero Systems Engineering from the University of West Florida in Pensacola. He served 11 years in the Navy in a variety of aircraft maintenance positions, and 15 years in the Navy Reserve performing a range of Naval Aviation engineering support tasks. Karl worked 7 years for BDM Corporation as a test engineer and 22 years for Boeing as a test engineer, aircraft structural designer, system integrator, and project lead engineer. He also earned a master's in business from Webster University and currently holds CSEP certification from INCOSE. He is currently a contract engineer with Yoh Engineering Services.

