



INCOSE Spotlight on Duncan Kemp

Interviewed by Sandy Young,
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Name: Duncan Kemp, CEng FIET
Titles/Organizations: Chief Systems
Engineer and Specialist Fellow for
Systems Engineering, United Kingdom
Ministry of Defence

Place of Birth: Edinburgh, Scotland, UK
Current Residence: Wiltshire, UK

Domain: Defence, Information Services and Rail

Studied in college: Computer Science

Year joined INCOSE: 2001

Role(s) in INCOSE: INCOSE UK Board Member, UK Academic Director, SE Vision 2025

Team, Transportation Working Group Co-chair 2009-2012, presented papers at 12 International Symposiums, including three best papers

Years in systems engineering: 25

1. Why did you become a systems engineer?

I am a second generation systems engineer, so I started to learn about systems engineering as a very young child. My father taught the Royal Air Force's Aerosystems course in the 1960s. Early in my career I found I had an aptitude for systems engineering, which led me to drift towards more and more challenging systems roles.

2. You wrote an award-winning paper on systems engineering leadership styles. What characteristics of systems engineering leadership work best in the sectors you have worked in?

There are two key lessons for me:

First, you need to match your style to the situation. Getting a group of scared people out of a burning building requires a very different approach to delivering a major equipment programme. Escaping a fire requires quick, early and confident decisions, while programmes often require well informed decisions to be made at the last possible moment.

Second, you need to bring people with you by gaining consensus that we need to do something first, and only then collaborate to develop the solution. As engineers we often try to do this the wrong way around, developing the solution and then trying to convincing people to follow it.

3. If you weren't a systems engineer, what would you do?

I'd be an executive chef. I love cooking, and like to perfect a specific recipe. Currently I am working on my barbeque skills. My homemade smoked brisket and pulled pork are very popular at the moment.

4. What project or accomplishment are you most proud of in your systems engineer career?

I was involved in helping deliver some force protection equipment to UK forces. The operational feedback was that it saved lives. I have also worked to improve systems engineering into the UK rail industry, helping to deliver billions of pounds of savings. Very different contributions, but both making clear differences to people's lives.

5. How has INCOSE benefitted you?

Systems engineering can be quite a lonely profession. We often work as individuals or in small teams. Coming to an INCOSE event is amazing. I get a chance to meet like-minded people, who are facing similar challenges to me. My INCOSE friends are also incredibly helpful at work. I have often asked for help on a particular challenge – and had suggestions back within 24 hours.