

STEM Ambassador Profile

Name: Lee Betts

Job title: Aircraft Avionics Technician

Organisation: No1 School of Technical Training Royal Air Force Cosford



What motivated you to become an engineer?

I have always been interested in electronics so when I left school at 16 I became apprentice for a company that manufactured transformers (not robots in disguise). Two years into the apprenticeship, the company was bought out and I was made redundant. After completing agency work for about a year, I decided I needed to get back into a career that I enjoyed and had a passion for. After looking at a number of options, I felt that the Royal Air Force could offer me an interesting and exciting career in electronics, a subject I really enjoyed.

Tell us a bit about your job.

My main role is to repair and maintain aircraft avionic systems; these include flight systems, communication systems and RADARs. In my 13 years in the RAF I have had many different jobs from maintaining sidewinder missiles to teaching the next generation of RAF engineers. My current job is to teach RAF engineer junior managers their roles and responsibility as supervisors within the military air environment. This includes health and safety, risk management, theory of supervision and much more.

Why have you volunteered to become a STEM Ambassador?

I became a STEM Ambassador to share my experience with young people and to demonstrate the varied and exciting careers that they could be a part of using science technology, engineering and mathematics (STEM). I also believe in planting the STEM seed in the minds of the next generation in order to maintain the high level of abilities UK personnel currently provide.

What projects have you been involved in as an Ambassador?

Engineering Education Scheme (EES)



For 2009/10 RAF Cosford has sponsored 3 teams in the EES: this is where we mentor teams of students through a 5 month genuine engineering project. The students have to produce a model, a project report outlining the processes they went through to get to the end result and also have to present their findings to a panel of judges from industry. I have managed the EES project for RAF Cosford for 4 years now and together with my team of engineers, have guided 7 teams through the unique experience that EES offers. It is inspirational to witness the students solve the engineering problem each and every time with their ingenuity and enthusiasm.

Glider workshop

Enginuity, the National Design and Technology Education Centre at the Ironbridge Gorge Museums, held a glider workshop where 170 students worked in teams to build and test home-made gliders. The students worked in groups to create 9 giant gliders with a wingspan of 10ft or more using simple materials such as willow, hazel, string and plastic sheeting. They were supported by a team of STEM Ambassadors from RAF Cosford who offered advice and aeronautical expertise, as well as adding real-life relevance to the activity. The energy and drive of the children was an inspiration to all involved with the event as the children learnt new skills such as engineering design and team work. The activity was a great success: not only did everyone involved have fun, but I feel it helped change student attitudes making them more positive toward STEM subjects. From a professional perspective I feel this is a really exciting and engaging workshop and will be looking forward to running a similar event celebrating the 70th anniversary of the Battle of Britain in 2010.



How has your work as an Ambassador benefited you as an individual?

I have met like minded people from all walks of life and industry who are committed to helping the development of our youth through engaging STEM activities. I have greatly improved my presentational skills and have increased my overall confidence especially working with young people.

How has your work as an Ambassador benefited your company/employer?

RAF Cosford engineering staff trains the next generation of aircraft engineers to prepare them for the various stages of their careers. The STEM Ambassador scheme allows our staff to develop as instructors by improving their communication and coaching skills whilst giving something back to the local community.

The head of the Aeronautical Training Wing at RAF Cosford has recognised the opportunity and benefits of the STEM programme and with his support we have created a unique STEM Ambassador network at RAF Cosford. The RAF Cosford STEM network recruits and trains new ambassadors to be able to deliver the different STEM workshops/activities that RAF Cosford undertake. This network currently has 30 STEM Ambassadors and we expect to reach our target of 50 by the end of 2010.