

Stephen Sharp



Now one of three consultant engineers running Airframe Designs GmbH, 42-year-old Stephen Sharp has been working as an independent consultant for 16 years. After ten years with BAe Military Aircraft, working in the Hawk structures, design and qualification team, he decided to leave mainstream permanent employment to expand his experience in the field of strength engineering.

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"Initially, my skills were in the static stress analysis of metallic structures," Stephen explains. "Over the years, I've focused more on fatigue calculations and crack growth analysis. Market forces have played a part, of course, leading to more involvement in damage tolerance, which is essential for all civil and military aeroplanes. This skill tends to justify higher hourly rates too."

The issue of pay for engineers is a bit of a sore point. "As a permanently employed engineer, the levels of pay are seldom commensurate with the levels of expertise," says Stephen. "Professionals of a similar age with similar levels of experience in medicine and law attract far higher salaries. This is an age-old gripe for engineers and doesn't do much to enhance their sense of self-worth and job satisfaction."

Satisfaction is, for Stephen, one of the most important aspects of running a business. "I like having the independence to make my own decisions and steer the destiny of the company," he says. "If I'm not happy with a particular situation, I have a direct influence on it to enable change. There's no danger of becoming bored. While working for many clients over the years, I've met lots of interesting people and broadened my experience considerably. This tends to boost confidence and self-esteem – something you don't often get as a permanent staff member."

Stephen's work has taken him all over the world. "In my time as an independent consultant, I have been lucky to have worked on a number of diverse and interesting structural programmes, ranging from an attack helicopter in South Africa to a tube train project in Doncaster," he says.

M346, photo courtesy of Alenia Aermacchi



"My most enjoyable work was in Milan and Venice, where the local geography was simply stunning. Doncaster came a very close second. I'm currently engaged with a client in Munich, another beautiful part of the world – and what a shame this contract happened to coincide with the World Cup!

"Apart from the Hawk, I've worked on the Airbus A330, A340 and A318, the VC10, the Rooivalk helicopter gunship, Aermacchi's M346 advanced jet trainer, Boeing's 787 'Dream Liner' aircraft, the Fokker NH90 military helicopter, and some rail stock design as well."

Airframe Designs (AFD) was established in 2005 to provide stress analysis services to the aircraft and space industries. Based in Switzerland, with offices in the UK and the Netherlands, it focuses on fatigue and damage tolerance, static analysis and design of composite structures and a full suite of finite element analysis capabilities, including birdstrike, explosion and production simulations. The company also offers bespoke training programmes.

According to Stephen, working with a partner offers many advantages. "When you're not in the most positive frame of mind, and feel like giving up, a business partner can often provide the counterbalance needed," he says. "Rome wasn't built in a day, and if you want to be successful at running a business, you have to persevere. You have to maintain enthusiasm and positive energy, even when things are not going to plan.

"Preparation is a major success factor, and it is worth honing your presentation skills and working hard to identify your unique selling points so that you can convince potential clients that they really do need your services. It's important also to establish a strong foundation for the business – this includes installing a secure server and implementing a quality system."

In April 2006, Airframe Designs achieved ISO9001:2000 certification through PCG's UKAS-accredited quality system scheme, PCG (QS).

"Airframe Designs is a progressive company," says Stephen, "and is not stopping at ISO9001. The aerospace benchmark for quality is AS/EN9100 and AFD intends to achieve certification against that benchmark standard by the end of 2007. PCG should be applauded

Rooivalk – photograph by Howard Thacker – Denel



for recognising the value of ISO9001 certification in a wide range of industry sectors," he says, "and for introducing a purpose-built and cost-effective scheme to help the smallest consultancies compete on a level playing field."

Maintaining a competitive edge is one of the main challenges facing consultancies like Airframe Designs. "Clients continually want to drive down costs and are under the illusion that they can offload work to lower-cost countries and receive a satisfactory product in return," Stephen says. "Sadly, that isn't the case. In my experience, if you pay cheap, you get cheap.

"As a business, we like to be flexible and proactive with clients, responding quickly to unplanned demands and requests. Over the years, we've developed a training capability to complement our consultancy work, and clients find this very attractive. Training engineers offers us the opportunity to meet a lot of potential clients and to get a 'foot in the door' with new clients."

Stephen is unequivocal about having made the right decision in branching out on his own. "I love the buzz that you get when you pull off a successful business deal," he enthuses. "You never get that as a wage slave in a large organisation. I could never go back to

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As a family man, Stephen is keen to ensure that his relationships with his wife and children do not suffer because of his regular commuting to Europe and beyond. "I believe that the UK offers the best education in the world," he says, "and I want our children to have the best, so they live in England with my wife, and I commute as necessary. Having a local office too, is certainly a real luxury.

"There is a big world out there, where a freelancer with suitable skills can earn well whilst enjoying a varied and interesting lifestyle. With a passport and laptop, I can work anywhere. I've encouraged my children to adopt a similar independent attitude too, because I know it will imbue them with greater confidence in later years."

PCG believes that freelancers have a valuable role to play in the UK's economy, generating wealth and employment and offering some of the brightest and best talent around — consultants, advisers, contractors, engineers, specialists, professionals. This profile was originally published in PCG's Freelancing Matters, Issue No 9. Copyright © PCG 2006

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