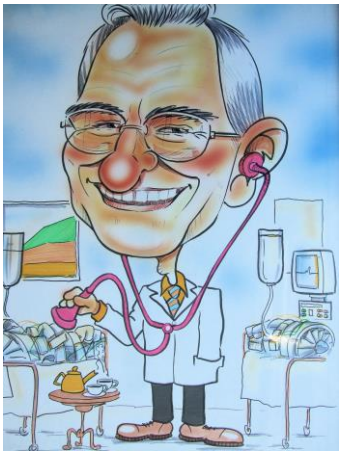
THE D.G.ENG BUGLE

As the festive season approaches, I thought it fitting to consider telling a BUGLE Christmas story. You know, one with silly characters, fairies and a villain in jackboots perhaps. And then it came to me suddenly that an experience I had in my early days in DGEng working on Engine Health Monitoring (EHM) was probably very appropriate. Not quite a Christmas carol; more a 'New Year Good King Wenceslas trip'. Whatever, there was a lot of snow about.

EHM was one of those jobs that was always the poor relation to the large engine projects with respect to funding, support staff and getting essential equipment installed on the engine and airframe. We pinched money (very successfully) from all sorts of places and of necessity teemed up with the airframe boys to use their recording devices to measure our engine and relevant aircraft parameters although we always strove for our own dedicated equipment. (We got it eventually – another story). Our most successful union was with the Air Eng staff in Old War Office where I met with a certain Sqn Ldr Graham Perry. I shall never forget him and we remain firm friends to this day despite the events which I shall relate.



Malcolm (EngRD4) examining some 'fatigued' patients.

Graham relaxing in the place he loves most.

Heaven knows many technical meetings one attends during a career in the government scientific service; it must be thousands. Some you remember with pleasure, for the battles you won. Some you remember with anger, for those you lost. Others you just remember, occasionally with nightmare-like intensity, for the most unusual reasons. One such started innocently enough but ended with a memory to last a lifetime. If I tell you that the Royal Air Force landed me right in it, I know you will not be at all surprised.

We were developing Tornado back in the late 1970s and the new technologies in the aircraft promised to give us a number of headaches in service. One of these was how to account for the engines usage and airframe fatigue consumption. The latter needed to take account of Tornado's swing-wings and RAE had expressed reservations about the proposed three-wing-position counting accelerometer fatigue meter. Something else was needed if long-term airworthiness of Tornado was to be assured and there wasn't much time left to find it.

The German Air Force were already trying something new with their Starfighter fleet, recording flight and engine parameter data and subsequently using it to calculate airframe fatigue indices for individual

aircraft. It also claimed to have a comprehensive EHM system that they were thinking of adopting it for Tornado. Would we like to see it at the GAF base at Memmingen in Bavaria? We certainly would! The arrangements were made and with Air Eng 30 (the RAF's airframe policy think-tank) leading the team. (Yes; they always liked to be in charge!)

Ever mindful of keeping project expenditure to a minimum, the plan was to travel to Memmingen by train from Munich, after a NAMMA meeting where all the British interested parties would be present. Munich Railway Station was the kick-off point, where the UK team (two from Air Eng 30: the Wing Commander and Sqn Ldr Perry and me, from DGEng in St Giles Court) would meet up with our host, a senior civil servant from the Bonn MoD. To spare his blushes I will call him Herr Grossekase, because a big cheese in their organisation he certainly was. The Luftwaffe was pulling out all the stops to impress its UK partners.

We duly met and boarded the train for Memmingen at 6pm on one of the coldest January nights that Munich had experienced for some years. Indeed, it wasn't a train we boarded as much as a series of rectilinear blocks of ice, with chunks chipped out of each carriage-block of ice to enable the doors to be opened. It was snowing hard in the dark and as fast as the warm train melted the ice in contact with it, the snow added another layer on top. This, we thought, is going to be an experience.

At 6.15pm, bang on time, the train gave a toot and pulled out of Munich main railway station. We were impressed; in Britain at that time, such weather conditions would have been seized upon by British Rail as a reason to postpone departure until, ooh, about the following July. Not only did the train leave on time, it accelerated at a fair old clip and headed into the Bavarian night, for a journey advertised as an hour and ten minutes. "Say what you like about the Germans" we thought quietly to ourselves in Herr Grossekase's presence, "their trains always run on time." We settled down to a long technical conversation about engine and airframe fatigue consumption, the difficulties of measuring it and the consequence to NATO air power if, for example, all the wings on the British, German and Italian Tornado fleets all decided to fall off, unpredicted, at the same time. Only one of us, Air Eng 30's Squadron Leader Graham Perry, kept an eye on his watch and on the journey's progress.

At 7.25pm, the scheduled arrival time at Memmingen, the train started to slow down and lights appeared through the thick ice encrusting the windows. "We're here!" said the Squadron Leader and grabbed his suitcase from the rack and disappeared into the train corridor. We all followed, as the train braked to a halt. Squadron Leader Perry opened the main train door, threw out his suitcase and followed it. As did his Wing Commander, Herr Grossekase from the Bonn MoD and me. All of us, into a snowdrift about three feet deep. In less than the three seconds it took us to realise that this wasn't Memmingen at all, the red signal down the track turned green, the train gave a toot and started off with increasing noise as the carriages accelerated past us. As the last one thundered by, the Wing Commander turned to his Squadron Leader in the developing silence and said "A nine for leadership and a one for judgement, I think" – which was a reference to the gradings used in the officers' annual confidential reporting system at the time.

It was bitterly cold. We had climbed out of a warm train and jumped into a snow drift, miles from heaven-knows-where, in the middle of Bavaria. We were at a railway halt, a small collection of buildings some miles short of Memmingen. We could only reach them by throwing our suitcases through the snow and walking in the compressed track they had made. Fortunately, one of the railway huts had inside it an old field telephone and Herr Grossekase was soon handle-turning away

and making contact with some far-off and very bemused employee of the Bundesbahn. We strained to hear the conversation, but none of us were German speakers. We understood enough, however, to decipher the gist of it: this lunatic RAF officer had contrived to deposit this high-powered government delegation, bound for Memmingen, into a snow drift in the middle of nowhere and could the Bundesbahn please devise a quick solution to the problem, preferably before frostbite and/or hypothermia set in and caused an international incident?
The Deutsche Bundesbahn came up trumps and sent a shunting locomotive. And it was in (and 'on' - Squadron Leader Perry remembers the lack of room in the cab and having to clutch the outside, but "it served me right" he says) this old engine that we completed our journey. Thus, in and on a shunting engine, the high-powered international delegation of airframe and engine health monitoring experts eventually arrived at Memmingen station, frozen stiff, to be met by all the top brass from the nearby Luftwaffe base. If the German officers wondered why their important visitors had arrived that way, rather than in the very comfortable train from Munich that had arrived about an hour earlier (and only ten minutes late, in such *terrible* conditions), they were far too polite to ask.

There is a post-script to this story. Some six years later, Wing Commander Graham Perry (yes, the RAF is a *forgiving* Service) left the air force and went into industry, joining Scicon the IT firm owned by BP. He was assigned to a project on his very first day, a contract for MoD(PE) to develop a prototype system to keep track of low-cycle fatigue consumption on the modular Adour engine. "There's a project meeting today down in St Giles' Court," said his new boss, "you might as well come to it". Getting out of the lift and walking down to the meeting room, Perry asked his new boss who the client was. "Malcolm Hurry" he was told, but by that time it was already too late and he was through the door. I think his new boss was somewhat taken aback by my reaction, his esteemed MoD(PE) cool customer, to his new team member. I am afraid my jaw dropped and I pointed a gnarled finger at him and uttered a strangulated cry: "It's 'im! The Train!"

Graham is an accomplished author and raconteur and broadcast this tale on BBC Radio 4 in their Home Truths *series. (You see; these boys can laugh at themselves). He still flies and wrote his amusing and successful book* Flying People *(published by* kea *in Scotland), to celebrate us folk in the aviation business for the safer flying for everyone that we have brought about in our working lifetime. My grateful thanks to Graham for penning the vast majority of this story.*

I trust that you have enjoyed this wicked pantomime story and that you will dig a little deeper to tell us about **your** great adventures wearing the DGEng hat. I wish you the compliments of the season and a very Happy & Prosperous New Year – despite the current economic gloom.

Malcolm

Your compiler in chief,