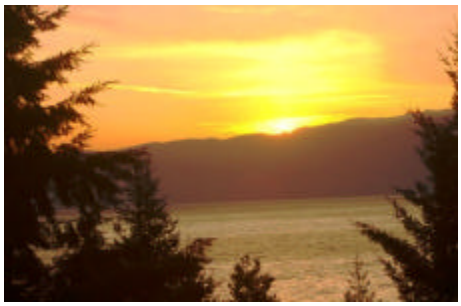
Musings from Macedonia

Taxi to T5, flight to Budapest, change for Skopje and arrive at Alexander the Great Airport to be confronted by five medics clad from head to toe in white bio-hazard suits, like a scene from an apocalyptic “B” movie. We have something of a language barrier as they want me to sign a form written in Macedonian and it all looked like Greek to me. But I deduce that they think that I might have pig flu, and after persuading them that I don’t have a curly tail, they let me into the airport. “Great” is something of a misnomer, but I assume that it refers to the man, not the airport. Eventually a coach arrives, taking us on a magical mystery tour of the Balkans. I check into the hotel some thirteen hours after leaving home, calculating that I could have reached the Bund in central Shanghai in less time!



I’m in Ohrid for the 3rd Conference on Ammonia Refrigeration Technology. Despite the recession, delegates from over twenty nations as far away as New Zealand, Japan and Armenia have come together to discuss ammonia refrigeration. The great benefit of such an inaccessible location is that the F – Gas lobby didn’t turn up, allowing the conference to be both business like and relaxed at the same time – a perfect combination.

I try to calculate how much HFC we will have to displace with ammonia to neutralise the carbon footprint of the conference. I flew by scheduled flights which would have flown even if I’d stayed at home, so do I calculate the additional carbon from my extra payload, or simply divide the carbon emissions for the flight by the number of passengers? I look around the conference, some of the delegates could weigh twice as much as me, but it would be rude to ask, so I give up and concentrate on the presentations instead. Suddenly the thermodynamics of ammonia seem simple by comparison.

Topics included:

- Low Charge Technology – particularly the use of micro-channel heat exchangers
- Heat Pump Applications - particularly the revelation that due to the increase in pressure ratings, it is now possible to raise steam using an ammonia heat pump

- Absorption machines – reminding us of the versatility of ammonia – no other refrigerant can be used in both vapour compression and heat driven cycles
- Hermetic compressors – a breakthrough for small and air conditioning applications

Presentations on ammonia blends included R723 – offering improved oil solubility - and my paper on ECP717 – arguing that my ammonia / ethane blend has advantages over ammonia for below minus 33°c applications. I received both applause and genuine interest – demonstrating that ammonia engineers are far more open minded than some sections of our industry.

Ammonia is the grandfather of refrigerants – the only natural refrigerant to have withstood the onslaught from halocarbons throughout the CFC era, and its practitioners are the patricians of our industry. In fact the best argument for an HFC ban is that it would hand over a large section of our industry to a group of people far more competent to run it than the present incumbents.

The conference excursion was to a lakeside archaeological complex and monastery. I also managed to squeeze in an extended lunch break to explore Ohrid. Like a pearl, Ohrid hides its charms behind a façade of communist architecture, but the old town is a real gem, medieval castle, byzantine cathedrals, roman amphitheatre, and lakeside bistros selling beers for 70p. This side of the EU frontier it would be crawling with tourists and the beers would cost £7; you should visit before capitalism spoils it!

I exited the Balkans via Tirana, which has direct flights to London. An uneventful journey until I reach the Albanian frontier and have to change taxis. Albanian drivers appear to trust in Allah rather than the Highway Code, making the journey through the mountains rather more exciting than was absolutely necessary. I won't need to visit Alton Towers this year!

Nicholas Cox writes a weekly blog for the RAC website, please see:
http://www.cnplus.co.uk/building-services/rac