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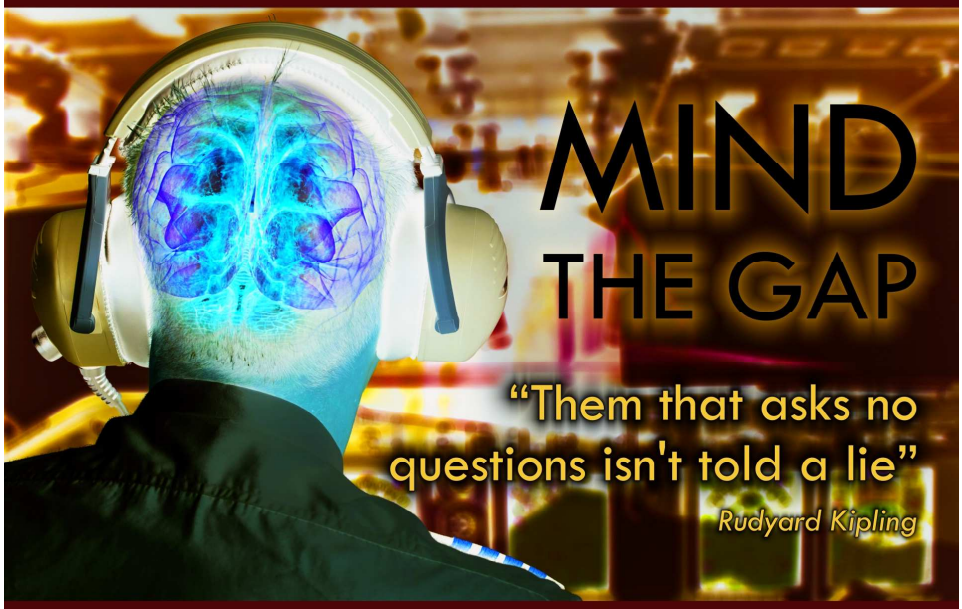
4th European Conference in Aerospace Medicine



How we screen for and prevent health problems in aviation

Date: 05 - 07 September 2014

Location: Bucharest, Romania
Novotel Bucarest City Centre
Paris Room

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The European Society of Aerospace Medicine.

'Fly safe, fly well'

Aeromedical risk assessment.....a case for change.

Aviation is changing. The past few decades have brought de-regulation which has made air travel accessible to all, rather than the preserve of the well off. This has had a number of consequences. There is a relentless rise in flying across the globe, making the skies more crowded, and in turn putting pressure on existing facilities, and making the job of the air traffic controller more challenging. The job of a pilot has changed too. Gone are the glamorous days of the past, replaced by a more routine and often highly stressful work environment. No surprise then,that psycho-social factors, including depression, anxiety, fatigue and substance abuse are becoming more prominent causes of loss of pilot certification. As we look to the future, despite recessions and global financial challenges, the growth of traditional commercial aviation seems set to continue. We are also on the brink of a whole new era of passenger travel, that of space flight. At present we can only speculate about what this will bring for the aeromedical community.

Yet despite all this, commercial aviation has a safety record that is the envy of many other industries, and aviation medicine plays an important part in this safety culture.

'Safety is no accident' as the words at the entrance to Aviation House remind us. The avoidance of accidents has been a key driver for decades, and as aviation doctors we assess the risk of pilot or controller incapacitation over a finite period, usually six or twelve months. We do this using the tools of illness investigation and management, and by applying rules. The rules may be those laid down by regulators or risk management methodologies such as the 1% rule. How robust these rules are when applied to an individual is, at best, debatable. In today's flying environment, a complex system of human, electronic, mechanical and system interaction, how well are we at detecting, let alone preventing, the more subtle aspects of pilot or ATCO performance degradation, or incapacitation?

And these are not the only challenges that we face if we are to maintain our safety record. Medical science advances at an exponential rate, making it difficult to keep up with ever expanding possibilities for investigation and treatment. Add to this the accessibility of information, data, and knowledge on the internet, by computer, tablet or smartphone, then it is perhaps not a surprise that regulatory decisions, often made on the basis of rules which are not keeping pace with the technology, are increasingly being challenged in the courts, particularly in some jurisdictions. We need to work together as an aeromedical community to find ways of being more responsive to the need for up to date knowledge. Perhaps through the creation of a global aviation medical 'well' , along the lines of Wikipedia, that we can all dip into to support our decisions, or replenish with fresh knowledge.

It is then, time to consider how our specialty can continue to make its contribution to safety over the next century of flying, and beyond. To move away from a purely time limited, incapacitation and accident avoidance model, to a wider concept of prevention and the consideration of the psycho-social aspects of an individual's well-being. Not ignoring incapacitation risk, but promoting a working lifetime of safe employment, and optimum performance. It may well mean that we need to 're-engineer' the doctor/pilot/controller relationship, moving towards a partnership with the shared objective of securing a safe and fulfilling aviation related career.

These changes will not happen quickly. We can anticipate suspicion, resentment, opposition and maybe even anger from some quarters. The process should be evolutionary not revolutionary, and we need to work hard over the coming months and years to engage with the wide group of people and organisations who have a stake in the process.

ESAM will use its next European Congress of Aerospace Medicine in Bucharest, 5-7th September 2014, as a springboard for this project. If you are connected with aviation in any way, pilot, ATCO, AME, specialist or rule maker, and would like to hear more, or better still contribute to the change, then you are most welcome to join us. Please see www.esam.aero

Kevin Herbert
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