

"Forbidden Factor" **Editorial, Flight International Magazine**

24-30 April 1996.

The International Air Transport Association's Pierre Jeannot has dared to link, in public, the two subjects of safety and culture. The inference is that, beyond straight human error as a factor in some accidents, there may be culturally induced human error. He is right to raise the question, because the subject needs airing and investigation — there having been no proper aviation-specific studies on the subject.

Jeannot raised the subject in a speech on safety and security to an Asia/Pacific Economic Cooperation transportation working group aviation seminar in Canada. It was, perhaps, no accident that his audience happened to come from the fastest aviation-growth area in the world, an area with the statistical potential for rapid accident-growth as well — at least in numbers, if not in rates. His view, however, needs considering by the global aviation industry.

Modern airliner cockpits and control systems, almost invariably, have been developed in the West — in the USA or Europe. It follows that it was Western thinking which went into who should operate a control, how it should be labelled or identified, how it should be operated and how that control should affect the behaviour of the aircraft. Modern display graphics are also Western.

An increasing proportion of the customers are not Western, but they will have had their thinking conditioned by the Western ideas in previous generations of airliners.

Anecdotes are rife in the industry about the dangers of rigid hierarchical societies producing co-pilots who dare not challenge the captains authority whatever the danger; of cultures in which, supposedly, discipline is paramount, making cockpit drills the only answer and leaving the pilots at a loss in non-standard situations, and, finally, of the cockpit incompatibility of cultures where "loss of face" is paramount, putting embedded behaviour at odds with the openness and non-punitive self-criticism required within any organisation with a healthy flight-safety culture.

Until now, inquiries into cultural issues in the flightdeck have been limited to the projection into the cockpit of lessons learned using studies of workers in industrial environments. This transfer of information, which assumes that the lessons learned in one environment can be applied in another, is not scientific.

It is essential, therefore, that a proper study into cultural effects on the flightdeck is commissioned. If it is carefully and completely done it can only do good, either by laying to rest a ghost which has haunted the industry for years, or by demonstrating the true effects of culture on pilots at work. If there are any effects, it is certain that there will be both positive and negative factors: then the positive can be accentuated, and the negative dealt with by adjustments to training or flightdeck design.

Setting up such a study will not be easy. It must be international in content, outlook and subject, and it must not be a study by Westerners of the anecdotal cultural differences between themselves and others.

There is a dangerous assumption that just because the highly developed "Western" world generally has the lowest accident rates, all "Western" methods are automatically the best available. It may just be that the developed, technologically advanced, nations have been flying intensively for a lot longer and have had time to work out routines which suit them. These routines may not be the best for non- Western cultures.

The inquiry could serve to look at embedded practices and assumptions, such as, for example: the fact that the West uses inside-looking-out artificial horizons and the CIS countries use outside-looking-in; and how much of a "cultural" problem is it that most aviators are forced to use a foreign language to operate?

Those are just some of the problems. The biggest one is who is going to be brave enough to start the inquiry?