STRESS MANAGEMENT IN AIR TRANSPORT OPERATIONS:
BEYOND ALCOHOL AND DRUGS

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ABSTRACT

In occupations where lives depend on the maintenance of a consistently high level of performance on the part of the operator, the use of alcohol and drugs as tools for stress management must give rise to concern. There is, however, evidence to suggest that non-pharmacological approaches can be effective in providing the operator with a safe means of controlling stress. One such method, Autogenic Training, is noted, together with a discussion of some of the practical aspects involved with setting up an Autogenic Training course in the air transport industry and the results which may be expected.

STRESS

The semantic jungle

Any extensive work on "stress" must inevitably involve setting forth into the semantic jungle surrounding the word itself; this in turn leading to similar hazardous expeditions with motivation and fatigue. Such an adventure, however, is beyond the scope of this short paper, and in any case has been bravely undertaken elsewhere (Murrell 1978). For the purpose of this paper a stressor may simply be defined as an event or situation which induces stress. It may be seen as a pressure being applied to an individual. The extent to which this pressure and the resulting stress has adverse results, such as dissatisfaction, reduced work effectiveness, behavioural changes or health damage.-- one might say the extent to which the human system becomes unable to cope and begins to break down -- depends on the individual's response; on his adaptive capability. Neither will this paper attempt to discuss the chemical anatomy of stress which has also been covered elsewhere (Carruthers 1977, etc.).
Stress in industry

More than a century ago people were writing of "the stresses of modern living". At that time aviation was confined to balloons, so we must be cautious in identifying stress with aviation, or any other particular industry or occupation for that matter. Or even with the nature of modern society.

Nevertheless, the aviation industry does involve a cocktail of stressors which is unique when combined with a critical need for a high level of human performance. Those in the industry responsible for safety and efficiency are often reminded of the problem when trying to explain dramatic accidents resulting from less than optimum human performance. But profound discussion of human performance in accident investigation reports is regrettably rare, as illustrated in the use of the term "pilot error" as a common manner in which to close the investigation file.

Several areas in the aviation industry are unremarkable in terms of occupational stress. Aircraft manufacturing is really little different in this respect from other manufacturing industries, except, perhaps, that work levels peak with new projects, then fall with staff redundancy following. Management stress in an airline is probably no more severe than in, say, an insurance company (though management stress itself may be something of a mythical factor). But other branches of the industry can be seen as rather more individual.

Air Traffic Control has been the source of numerous industrial stress studies (Hopkin 1982) and while the problem appears from recent research to be somewhat less severe than was thought earlier, it nevertheless merits attention. ATC officers are engaged in a very critical activity in which, in spite of a generally high degree of automation, small human errors can have catastrophic consequences. A high level of vigilance is required continuously and a momentary weakening of this vigilance can bring disaster. Furthermore, air traffic control is normally a round-the-clock activity involving