

## Abstracts from Aerospace Medical Literature

### I Aviation Medicine

1. Pilot arousal during the approach and landing. Roscoe AH: *Av Med Qtrly* 1987;1:31-36

Some 60% of accidents to commercial aircraft occur during the approach and landing and overload and complacency have both been considered as contributory factors. The relationship between arousal, as measured by heart rate, and landing performance is discussed using data from a 14-year study carried out at the Royal Aircraft Establishment, Bedford. Examples are presented where inappropriately low levels of arousal were accompanied by an obvious decrement in performance. It is suggested that the conceptual model of arousal is useful in identifying an important causative factor in some approach and landing accidents.

2. Food irradiation. Marshall E: *Av Med Qtrly* 1988;2:63-68

A food treatment technique which could reduce the increasing number of cases of food poisoning, without producing visible changes in food products, would seem to offer significant advantages throughout the food industry. Airline catering services might therefore be expected to find out irradiation particularly attractive but the process is not without problems.

### II Clinical Aviation Medicine

3. Results of our 15 year study into the biological effects of microwave exposure. Djordjevic Z, Kolak A, Djokovic V et al: *Aviat Space Environ Med* 1983;54(6):539-542

The results obtained during 15 years of clinical and experimental examinations of

biological microwave exposure effects are briefly surveyed. Some important results are reported. Based on their experience, the authors present their attitudes concerning harmful microwave effects on living matter. They consider that microwave effects, either direct or indirect, are the results of hyperthermia. Exposure of the living body to irradiation intensities not causing thermal effects do not induce important pathological alterations in the irradiated organisms. Also, it has been pointed out that the term "injury" is more suitable than the term "microwave sickness" when harmful effects of microwaves to the living organisms are concerned. According to the authors, the term "microwave sickness" is not acceptable as a synonym for professional diseases of persons working with sources of microwave energy, since it refers to the complex of insufficiently defined symptoms of uncertain etiology.

### III Space Medicine

4. Medical support for manned spaceflight. Harding RM: *Av Med Qtrly* 1988;2:43-45

Personnel trained both in primary health care and in research methods should be essential members of the crew of any large spacecraft on a long-term mission. For such missions it is likely that at least one crewman will be a physician trained in surgery and dentistry, and that a second doctor, perhaps an anaesthetist trained in intensive care, will be carried as well. The space colonies of the future will naturally require greater hospital facilities, including those for gynaecology, obstetrics, paediatrics and psychiatry.