AUGUST 1994

Age-dependent effects of alcohol on flying (VA Medical Center, Palo Alto, CA; Stanford University School of Medicine, Stanford, CA; Decision Systems, Stanford, CA): "This preliminary study examined the acute and 8-hour effects of alcohol at a target peak BAC of 0.08% on pilot performance. Fourteen younger (mean age 27.6 years) and fourteen older (mean age 60.3 years) pilots flew a Frasca 141 simulator in a scenario that included ATC communications and emergencies. Plots were tested during an alcohol and placebo condition at three timepoints, pre-drink, acute intoxication, and 8 h post-drink. Of eight performance measures, two showed statistically significant effects related to alcohol. First, cockpit monitoring was poorer when pilots were intoxicated, with recovery at 8 h. Second, younger pilots made more communication errors under the influence and there was no significant recovery at 8 h. Older pilots made more communication errors than younger pilots, but possibly because of methodological problems, older pilots' communication performance was not significantly impaired by alcohol."[4]

AUGUST 1969

Circadian rhythms in isolation (Max-Planek-Institut für Verhaltensphysiologie, Seewiesen und Erling-Andechs, Germany): "Circadian rhythms of activity, of body temperature and of urine excretion have been measured in human subjects, kept in isolation in an underground bunker, either in constant conditions or exposed to artificial light-dark cycles as Zeitgebers. In constant conditions, free-running rhythms synchronous in all functions have been demonstrated as well as cases with internal desynchronization. Entrainment to an artificial 26.7-hour day resulted in changes of phase-angle differences as to be predicted from oscillation theory, whereas exposure to a 22.7-hour resulted in resynchronization from the Zeitgeber. A group of four subjects showed, in constant conditions, synchronous circadian rhythms during the first 10 days, thereafter desynchronization between one subject and the rest of the group. Shifts of the artificial light-dark cycle by 6 hours were followed by the activity-cycles of the subjects rather immediately; the rhythms of body temperature, however, did not regain their normal phases until several days had elapsed."[1]

Spacesuit control of carbon dioxide (NASA, Houston, TX): "Carbon dioxide washout capability of spacesuit ventilation systems is an important design consideration in spacesuit development and has become an area of increasing concern with the advent of extravehicular activity and the associated greater work demand… The results of these continuing investigations indicate that spacesuit carbon dioxide levels can be maintained within physiological acceptable limits during energy expenditures up to approximately 2000 BTU/hr (500 K Cal.). Efforts to minimize spacesuit carbon dioxide buildup during heavy work are continuing."[3]

AUGUST 1944

Establishment of two awards and the Association Business Manager (AsMA Home Office): "We recommend two propositions for consideration at the next meeting of the Aero Medical Association. The first is the development and the establishment of two annual awards, one to be known as the Theodore C. Lyster Award, and the other to be known as the Raymond F. Longacre Award. General Lyster was the first Chief Surgeon of the Aviation Section of the Signal Corps, U.S. Army, the predecessor of the Army Air Forces. Under his auspices the Flight Surgeon came into being, and the Medical Research Laboratory was established. It was this laboratory which later became the School of Aviation Medicine. This award should be given annually to the person who has contributed most to the advancement of aviation medicine.

"The second award should be given to the person who has contributed most to the advancement of the neuropsychic aspects of Aviation Medicine, including the development of aptitude tests for flying. It should be given in honor of Major Raymond F. Longacre, who first perfected the personality study of the flyer on a sound basis and placed the teaching of neuropsychiatry at the Army School of Aviation Medicine on a proper footing. These awards should carry with them an honorarium of an amount to be determined later. We suggest that the Executive Council be given authority to set up a modus operandi for the proper establishment of these two awards.

"The second proposition we have to offer is the designation of a Business Manager of the Association. We have had a Business Manager of the Convention for the past two years which has resulted in a smoother functioning of the conventions. We have also had a Business Manager of the *Journal*. The Association has now grown to such an extent that a Business Manager is needed for the Association. The necessary amendments to the By-Laws were published in the June *Journal.*"[2]

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