

**MAY 1990**

*Sleep quality in NBC gear* (Royal Air Force Institute of Aviation Medicine, Farnborough, Hants, UK): "Performance at a series of tasks was measured, in six male subjects, during the day (0800-2000 hours) and at night (2000-0800 hours). Wearing the NBC assembly did not lead to significant decrements in performance compared with the normal aircrew equipment assembly (AEA). The sleep of six male volunteers was recorded electroencephalographically on two consecutive nights when NBC protective clothing was worn. Sleep was both shortened and disturbed, compared with overnight control sleep. There were some improvements on the second night, suggesting that individuals may adapt to wearing the NBC assembly."<sup>3</sup>

*Familiarity with the physiology and regulations of alcohol* (Psychology Department, University of Wisconsin, Madison): "A national sample of licensed pilots was surveyed... A majority of the 1039 respondents were unaware of the 1985 0.04% BAC rule change... The number of drinks necessary to raise BAC to specific levels was frequently overestimated, and the amount of time necessary for BAC to decay was frequently underestimated. These errors were more pronounced for moderate and heavy drinkers than for abstainers and infrequent drinkers. These results suggest that pilots could have difficulty if they attempt to use the 0.04% BAC value as a guide to safety in their flying activities."<sup>4</sup>

**MAY 1965**

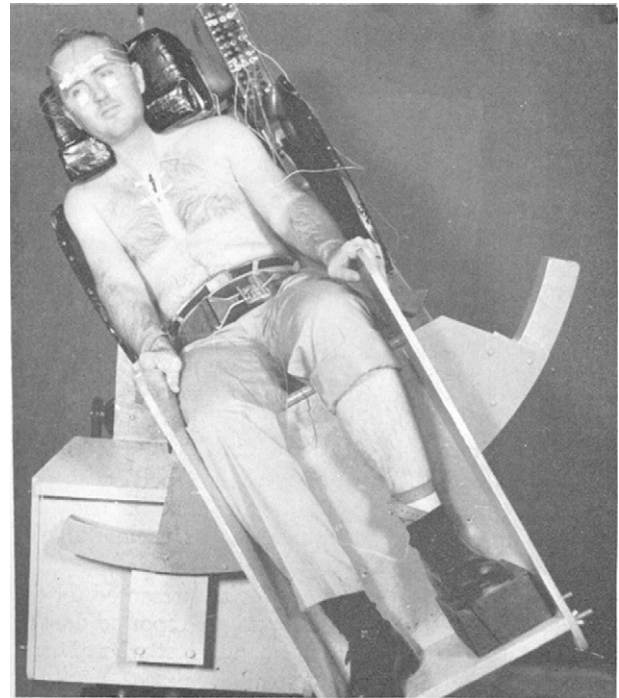
*Curing motion sickness with Coriolis stimulation* (USAF School of Aerospace Medicine, Brooks AFB, TX): "This report presents information of a method of repeated self-induced Coriolis stimulation, using four conditions: chair tilt, head movements in the lateral plane, head movements in both lateral and frontal planes and head movements only in the frontal plane, on the SAM bi-axial stimulator (Fig. 1).

"The subject, an Air Force Academy cadet, senior class, was evaluated for vestibular sensitivity after several incidents of motion sickness during flight training on the T-37 aircraft. Final testing after completion of this programmed self-induced Coriolis stimulation indicated a resistance to motion sickness as determined from general autonomic reactions and data analysis of electronystagmograms.

"The subject has completed his solo-flight training on the T-37 aircraft without any report of motion sickness."<sup>1</sup>

**MAY 1940**

*Routine ECG recommended for pilots* (Fatigue Laboratory, Harvard University, Boston, MA): "A civil airline pilot nearly thirty-four years of age, was referred to the Harvard Fatigue Laboratory for observation on February 18, 1940. He did not have any complaint but was concerned over the fact that a recent electrocardiographic examination disclosed evidence of healed myocardial infarction..."



**Fig. 1.** SAM biaxial stimulator with subject displaying electrodes for nystagmus and ECG.

"His past history...did not yield any evidence of heart disease..."

"The sole evidence for this diagnosis rested in the electrocardiographic findings..."

"It is of great significance that this case establishes a precedent in that the objective findings of a simple laboratory test have been accepted as showing unfitness for flying."<sup>2</sup>

**REFERENCES**

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3. Rogers AS, Stone BM, Spencer MB, Bridges PC. Performance and quality of sleep wearing NBC protective clothing. *Aviat Space Environ Med.* 1990; 61(5):418-423.
4. Ross SM, Ross LE. Pilots' knowledge of blood alcohol levels and the 0.04% blood alcohol concentration rule. *Aviat Space Environ Med.* 1990; 61(5):412-417.

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