NOVEMBER 1992

Alcohol and flying (University of Wisconsin-Madison, Madison, WI): "The effects of a low (less than 0.04%) BAC on pilot performance were investigated in a series of four experiments in which pilots flew a light aircraft simulator under alcohol and placebo conditions. The mean BACs of subjects when starting and finishing the test sessions were 0.037% and 0.028%, respectively. Two of the experiments involved demanding flight tasks under instrument meteorological conditions: complicated departure, holding, and approach procedures in one case; and VOR-use intersection problems in the other. The other two experiments involved ILS approaches under turbulence, cross wind, and simulated wind shear conditions that imposed heavy control-task loads on the pilots. Significant alcohol effects were found, but only under the heaviest workload conditions. During posttest interviews 75% of the pilots reported physical and/or mental effects due to alcohol."[4]

Aircraft carrier psychiatry (Medical Department, USS Forrestal, *U.S. Navy):* "A descriptive study was conducted for 150 consecutive patients with a psychiatric diagnosis evaluated over 11 months by the medical staff onboard an aircraft carrier. Patients with sole diagnosis of alcohol abuse or dependence were excluded. Axis II diagnoses, or personality disorders, were more common (N =120) than Axis I diagnoses (N = 46). The most common Axis I diagnoses were adjustment disorder and major depression. Axis II diagnoses were significantly more likely… in sailors less than 23 years of age compared to ship's population. Suicide behavior was demonstrated in 68% (102/150) of the patient population. This study emphasized the requirement for extensive psychiatric training for the clinical aerospace medicine specialists providing operational support to aircraft carrier crews."[1]

NOVEMBER 1967

Stresses of flight (Headquarters Air Force Systems Command, Andrews AFB, MD): "The typical subject averaged 6.5 hours of sleep per night, experienced no difficulty in falling asleep; retired at 2300 hours, and was asleep by 2330 hours. He was fully rested upon awakening at 0600 hours and did not require additional rest periods during the day. Frequently, the sleep pattern was altered during nonduty days by sleeping-in and averaging 8.5 hours of restful sleep. As is typical of most human endeavors, consistent individual variations were apparent in the rest pattern. The range in apparent daily requirements for rest was from a low of 5 hours to 8.5 hours per 94-hour period, and no correlation existed between subjects' age and apparent rest required (P = 0.25)…

"The principal form of relaxation for the participants was viewing television for 2.5 hours per day. Fifty-four per cent reported engaging in sports during some part of the period; however, only two subjects had established a daily exercise program. Those sports most popular were golf, handball, self-monitored exercises, and hunting…

"The type and duration of social evenings enjoyed by the subjects showed a wide individual variation. Ninety-two per cent of these social evenings terminated prior to 2400 hours if a duty day followed, while sixty-two per cent extended into the early morning hours if there followed an off-duty day. There was no evidence to suggest that an entertaining evening contributed to fatigue. There was support for the converse, as illustrated by a higher than average daily evaluation score. The score increased over the average by at least one point when related to social activities…."[2]

NOVEMBER 1942

The death of Liljencrantz: "We are greatly distressed to announce to our readers the untimely death of Eric Liljencrantz. He was killed in a dive bomber accident on November 5, 1942, at Pensacola, Florida, where he was carrying on experimental work.

"Dr. Liljencrantz was both the son and grandson of California physicians. He was born November 6, 1902. He spent two years at Williams College and then two years at Leland Stanford Junior College from which he graduated with a degree of B.A. in 1929. He was an intern at Alameda County Hospital and then spent a year in study at Kiel and Berlin. In 1930, he joined the Department of Radiology at Stanford University. In 1939, he published a Cancer Handbook of the Tumor Clinic of Stanford University School of Medicine. He was assistant professor of Medicine and Chief of Tumor Clinic, Stanford University. In 1938 he organized the Medical Division of the Pacific Division of Pan-American Airways.

"In 1931 Dr. Liljencrantz was made Lieutenant (jg), Medical Reserve, U. S. Naval Reserve. In December, 1933, he was made Lt. Commander and in July, 1938, he was promoted to the grade of Commander. He organized the Medical Specialists Unit No. 6 of Stanford University. On November 1, 1940, he was called to active duty in the Navy and was attached to the Research Division of the Bureau of Medicine and Surgery. He was a diplomate of the National Board of Medical Examiners, a Fellow of the American Medical Association, American College of Radiologists, a Fellow in Aviation Medicine of the Aero Medical Association, a member of the American Association of Industrial Physicians and Surgeons and of the Institute of the Aeronautical Sciences. He was elected at the last meeting of the Aero Medical Association as a member of the Executive Council for a term of three years…

"A man like Eric Liljencrantz is difficult, if not impossible, to replace."[3]

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This column is prepared each month by Walter Dalitsch III, M.D., M.P.H. Most of the articles mentioned here were printed over the years in the official journal of the Aerospace Medical Association. These and other articles are available for download from Mira LibrarySmart via https://submissions.mirasmart.com/asmaarchive/Login.aspx.

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