

SEPTEMBER 1994

The future of wireless comms (USAF School of Aerospace Medicine, Brooks AFB, TX): "Communication during disasters is frequently inadequate. In addition to having competent communication skills, medical responders must have access to adequate, effective, and reliable communications equipment. Wireless communication technologies are rapidly evolving. The medical community needs a basic understanding of existing and emerging technologies to fully exploit these new resources. Wireless communication technologies for disaster response include radio pagers, radios, cellular telephones, satellite communications, and personal communication services."⁴

SEPTEMBER 1969

Hypoxic effects at 8000 feet (University of Aberdeen, Scotland): "Eighty medical students performed two types of vigilance task at a simulated altitude of either 2,000 feet or 8,000 feet. With the easier test (44 subjects) there was no significant difference between performance at 2,000 feet and at 8,000 feet. With the more difficult test (36 subjects), however, the subjects' initial performance was significantly worse ($P \sim 0.015$) for the hypoxic group (correct score 8.22 ± 0.90 , mean \pm S.E.M.) compared with the control group at 2,000 feet (correct score 11.94 ± 1.15). When the subjects had become familiar with the test, the difference between hypoxic and control subjects was not statistically significant ($P > 0.05$). These results support findings of other workers that acute exposure to a simulated altitude of 8,000 feet impairs the learning of a new task."³

Head trauma among airmen (Civil Aeromedical Institute, Federal Aviation Administration, Oklahoma City, OK): "The records of 684,146 active civil airmen were screened to determine the prevalence of a reported history of head trauma and the FAA experience with medical certification of these airmen. Files were also examined for aircraft accidents and for airmen granted exemptions from meeting current medical standards.

"Of 1383 airmen with reported diagnoses of cerebrovascular accidents, disturbance of consciousness and convulsive reactions, 55% of the on conditions were due to trauma.

"The facts desired in the evaluation of these airmen are listed but a complete evaluation and report are rarely received. Despite incomplete data and disagreement on statistical risks of seizures after trauma, dispositions for most of the cases reviewed seemed obvious. Accident investigation data tend to confirm the adequacy of the certification actions. The greatest hazard appears to be unreported history, symptoms, and medication by the airmen and undetected or unreported pathology by examining physicians."¹

SEPTEMBER 1944

Indoctrination to the impact of hypoxia (AAF School of Aviation Medicine, Randolph Field, TX): "In the high-altitude indoctrination program it is necessary to demonstrate to future flyers the need for oxygen. This is a difficult teaching procedure because oxygen deficiency is perhaps the only harmful influence which produces neither pain nor discomfort and in some cases elicits a feeling of euphoria. The most striking demonstration of

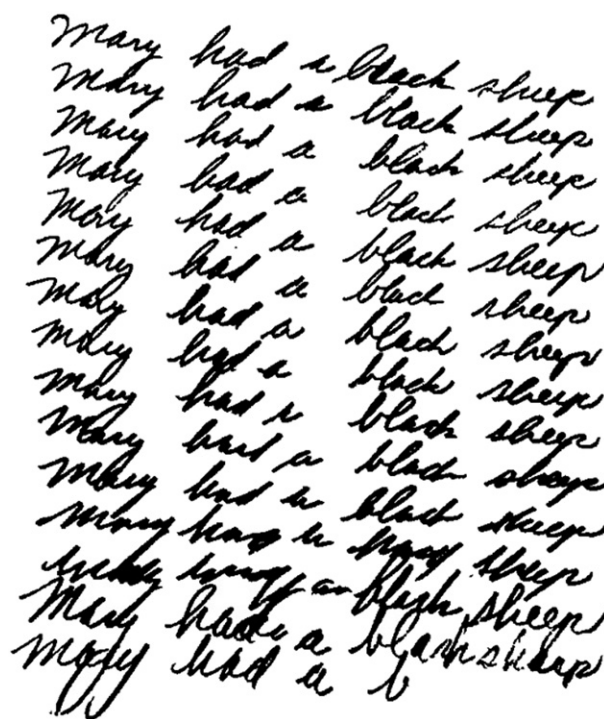


Fig. 1. Sample of writing under anoxia, which continued until illegibility resulted at 35,000 feet.

high-altitude anoxia, and in use at the present time, is to instruct a subject in an altitude chamber indoctrination procedure to write a sentence repeatedly and then to disconnect his oxygen hose. The onset of anoxia is impressively demonstrated by the sudden failure to write [Fig. 1], the ability to understand a command but the inability to respond, and finally by collapse. The demonstration is usually terminated before collapse occurs."²

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