

ABSTRACT

Les Championnats Du Monde De Vol a Voile De Marfa (Texas) et la Préparation Médico-Physiologique des Équipes. par G. Stedtfeld et J.P. Crance. Revue de Médecine Aeronautique et Spatiale. No. 36 1970

The World Gliding Championships at Marfa (Texas) and the Medico-Physiologic Preparation of the Teams.

Discussion and analysis, at the Colloque franco-allemand de Fayence, on the medical aspects governing the preparation of the French and German teams for this international contest are outlined.

Medical problems arise from the hot, dry climate of the semidesert region of southwest Texas. Team personnel are exposed to danger from dehydration, hyponatremia, and changes in hydroelectrolytic equilibrium. Such problems are monitored by determining body weight and corrected by a higher fluid intake and salt tablets.

German doctors recommend training to increase bladder capacity and reduce the problems of urination in long flights. Concentrated fruit juice is preferred to tea, coffee, or carbonated beverages as fluid intake, and drinking in-flight is undesirable. The French consider fresh water in-flight necessary to combat rapid dehydration. A fresh water emergency supply is required for possible off-field landings.

A nutritious, protein-rich, breakfast is the most important dietary item, and is consistent with American eating habits. Emotional stress and preoccupation with launch preparations result in a rapid intake of sandwiches and fruit at midday, causing danger of glycemia toward evening. In-flight eating ranges from cake, fruit, and dry food to nothing, regardless of recommendations.

Hypoxia is a danger at the flight levels used. Oxygen is necessary at greater than 4000 m. asl. Based on experience in South Africa, the Germans set 3000 m. asl. as the minimum altitude for oxygen use.

Rattlesnake bites are a hazard in field landings. Crews and pilots are trained in the symptoms, precautions, and the use of snake bite kits.

Good physical form is essential for pilots to withstand the long, tiring flights involving minimum muscle movement. The Germans recommend all forms of exercise, i.e., walking, cycling, swimming, skiing, plus twice-daily sauna treatments to increase resistance to temperature variations.

The team doctors are equipped to monitor body weight, blood pressure, and heart rate, and to handle minor surgery and dressings. More extensive medical facilities are provided on-site and in the contest area. Doctors are responsible for the physical health and morale of team members and need to appreciate hygiene and dietary problems as well as the spirit of soaring.

Translated and abstracted by Erica Scurr.

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