

Abstract:

This diploma thesis deals with impact of stress on performance of military pilots of supersonic aircrafts. The theoretical part is based on definition of the term stress, his relating theories, the strategies of coping with stress and possible methods of objectivization of mental workload. This part also provides an overview of stress occuring during flight activity and specifics of the job of military pilot. The research is based on theoretical models and previous researches and the aim is to analyze the hypothesis about the dependence of stress on performance of the military pilot. This correlation was empirically verified by experimental study conducted in tactical flight simulator designed for a training on supersonic airplanes. The mental workload was investigated by physiological data and psychological questionnaires. The results are showing the most stressful and most difficult situations that appeared during tactical combat mission. There was a significant correlation between personality, resting heart rate and the effectivity of the performance.

Key words:

Stress, Military pilots, Performance, Mental workload, Heart rate