



## The thermal perception of military students in an urban environment

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Outdoor weather conditions constitute one of the basic environmental settings for military operations and have a great impact on the military staff. As a consequence, the meteorological information has always played an important role for combat situations and drills, in terms of measurements and perceived weather. The thermal perception may be influenced by various factors, such as physical state, individual experience with weather, daily mood or immediate tasks, so that the linkages between individual perception and instrumental weather raise specific challenges. Based on systematic surveys, this study investigates the thermal perception of military students exposed to weather in an urban environment (Brașov, Romania). The group of respondents is highly homogenous regarding age (20-22 years old), gender (i.e. equally distribution between males and females), daily routine (i.e. similar programme 24/24), health (i.e. good or excellent) and professional aspirations directly connected to prolonged outdoor exposure. Weekly interviews were conducted simultaneously within a consistent group of military students in order to (1) evaluate the instantaneous thermal perception, (2) identify the factors which bias the perception, particularly the gender, personal weather history and meteorology knowledge, and (3) observe their ability to anticipate very short-term weather changes. Using multi-criteria regression analysis, the relationships between various predictors (e.g. gender or health conditions) were investigated. The outputs were compared to the Physiologically Equivalent Temperature (PET) values at the time of the survey. The results are relevant for an urban environment, and they contribute to enhancing the heat- and cold-mitigation and adaptation measures for military and open-air workers.