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**ABSTRACT**

<b>Title: HUMAN FACTORS ANALYSIS AND CLASSIFICATION SYSTEM (HFACS) APPLIED TO THE HELIOS 5B-DBY ACCIDENT.</b>	
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<p>Human error continues to be the causal factor in 80-90% of civil and military aviation mishaps, and is present but not causal in another 50-60% of all mishaps. It is therefore the single greatest mishap hazard. It can be said that mishaps are the end result of myriad latent failures or conditions that precede active failures. The goal of a mishap or event investigation is to identify these failures and conditions in order to understand why the mishap occurred and how it might be prevented from happening again.</p> <p>On 14 August 2005, the Helios B737-300 aircraft (registration 5B-DBY), departed Larnaca, at 06:07 h for Prague, via Athens. It impacted hilly terrain at 09:03 h in the vicinity of Athens. The 121 passengers and crew were fatally injured and the aircraft destroyed.</p> <p>The Human Factors Analysis and Classification System (HFACS) is a mishap investigation and data analysis tool and can be used as a primary or secondary tool to investigate active and latent failures in an event/mishap.</p> <p>Based solely on the Hellenic Air Accident Investigation and Aviation Safety Board Report of the Helios accident, the major human factors involved in the accident were identified and classified by using the HFACS.</p> <p>Human factors were identified in all major conditions in the events leading to the Helios accident. Four main tiers of failures/conditions are described:</p> <ul style="list-style-type: none"> <li>• Acts/errors: including Skilled-based errors, judgement and decision-making errors, misperception errors,</li> <li>• Preconditions: including condition of individuals (psycho-behavioural factors, adverse physiological states etc) and personnel factors,</li> <li>• Supervision: contributed to the preconditions including inadequate supervision, inappropriate operations,</li> <li>• Organisational influences: including organisation process and climate.</li> </ul>	
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