Automated Systems in the Aviation and Aerospace Industries

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Dmytro Kucherov, and Konstantin Dergachov

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ABSTRACT

The implementation of the aviation tasks, including the preparatory ones, is a difficult, complex task requiring from the aviation personnel a high level of general, technical, and specialist knowledge and a wide range of skills, appropriate to the type of technical tools and systems being at the disposal of the aviation personnel as well as the complexity and difficulty of their tasks. Particular importance is currently attached to the development of training devices used in the basic training and in-service training of the aviation personnel. The authors have referred to the role of simulators in achieving the desired level of specialist competence by flight personnel, including, among others, such issues as aircraft simulators development, and their application in the aviation training; aircraft simulators classification in accordance with current aviation regulations; essential functions performed by aviation simulators; flight simulator is an essential tool for basic and in-service training of the aviation personnel.

INTRODUCTION

The results of the analyses conducted by the Author´s of the material clearly point out to the fact that irrespective of the the type of aviation, the aircraft, and its nationality, or the time period taken into consideration, it is the human being – the pilot, mechanic, air traffic controller – that is the underlying factor of almost 70% of undesirable flight-related events (Kozuba, 2011). Z. Błoszczyński, when considering the relationship between the human factor and the undesirable flight-related events, highlights the inadequacy of the actions taken by operators – pilots and other aviation personnel who closely connected with flights, their organization and safety – to the situation that occurred in a certain phase of

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