

Heating the Battle Space: Consequences of Climate Change on Air Operations

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Abstract

Climate change is not a prediction, it is a present-day ground reality. It has been accelerated by man-made reasons primarily by the emission of greenhouse gases and deforestation. This study is focused on the consequences of global warming specifically on air operations. Objectives of the study are to find out the consequences of global warming, particularly on air operations, to identify the measures taken by different stakeholders to address the issues due to global warming, to determine the level of commitment of aviators in adopting the measures to address global warming and potential inputs of technology to mitigate adverse effects of global warming on air operations. The methodology of the study adopted an inductive approach to this exploratory qualitative study and pragmatism was the philosophy. Grounded theory was the strategy and the time horizon was cross-sectional. Data collection and analysis happened to be the technique. Primary data were collected through a sample of aviators operating in tropical regions, selected through purposive sampling. The findings of the study revealed that, disrupted weather patterns, effects on aircraft performance, effects on human performance, sustainability of aircraft and associated equipment, risk of fire hazard and rise of sea level are the most pressing phenomena on air operations due to climatic change. There were two recommendations based on the research outcome namely, to encourage global-level discussions for seeking long-term solutions, continue research on sustainable solutions and develop a combined strategy. Human kind have already joined the vicious cycle of climate change and accelerated it through a variety of activities, essential for modern-day living. Yet there are ways and means to slow down the process of global warming, which require short-term and long-term solutions. Collective effort through genuine collaboration could yield better results than working in isolation.

Keywords: *Air Operations, Global Warming, Climate Change, Sustainable Solutions*