Paper ID: 74419
interactive

IAF SYMPOSIUM ON INTEGRATED APPLICATIONS (B5)
Late breaking abstracts (LBA)

Author: Mr. Elias Montanari
European Union Agency for the Space Programme (EUSPA), Czech Republic, elia.montanari@gmail.com

Mrs. Olivia Nunez
SESAR Joint Undertaking, Belgium, olivia.nunez@sesarju.eu
Mr. Ruben FLOHR
Belgium, ruben.flohr@sesarju.eu

SATELLITE-BASED AIR TRAFFIC MANAGEMENT (ATM) SYSTEMS' IMPACT ON CO2 EMISSIONS

Abstract

This research studies the impact of the implementation of satellite-based air-ground communication systems in the aviation industry on the reduction of CO2 emissions by overcoming several flight inefficiencies. As the skies become busier, their traffic management requires continuous improvements, thus the implementation of services Satellite-based air traffic management (ATM) systems is imperative to reduce the environmental footprint made by the aviation industry. Satellite based ATM is meant to improve controller-pilot communication, pinpoint the aircraft in space and time and to calculate the safest, most efficient flight plans resulting in flight-path optimization, delays reduction and lower CO2 emissions. Single European Sky ATM Research (SESAR) program is meant to deliver such benefits to air travel as the skies continue to fill with an ever-increasing range of users, satellite-based ATM services will provide an essential part of the safe and efficient digital communication infrastructure contributing to the actions taken to curb climate change.