CRUISING THROUGH THE SKIES WITH CONFIDENCE - HOW REAL-TIME BIG DATA EXPLOITATION LEADS TO OPTIMIZED OPERATIONS FOR THE AVIATION INDUSTRY

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ABSTRACT

Commercial airspace is busier every year with over 36 million flights operated worldwide annually and the explosion of Remotely-Piloted Airborne Systems (RPAS). Air travel is projected to double or even triple by 2025. Congestion in the air traffic network not only affects airlines, but also national air navigation service providers and regulators. As a result a big data revolution is taking place in the aviation industry. According to Forbes, annual data generation in aviation should reach 98 million terabytes by 2026. This paper will explain how real-time sensor information generated by aircraft, weather data, traffic surveillance information, safety reports, flight plans, noise and pollution measurements are being harnessed to dramatically improve the operations of aviation industry professionals.