



InterFAB Expert Talk rethinks the delay indicators

26 April 2021: Flight delays result in costs for airlines and passengers; however, the methodology to assess the cost of one minute of ATFM delay was developed nearly 20 years ago. Airlines and political decision-makers need adequate information on post-ops performance while ANSPs plan their capacity to provide ATC. Wrong information on delay costs leads to wrong allocation of resources. This was the subject of an InterFAB study, presented by Giuseppe Antonio Gangemi, Head of Performance Analysis at ENAV the Italian air navigation service provider (ANSP), at the third InterFAB Expert Talk on 20 April 2021, analysing post-operational data of all flights in Europe between 2012 and 2019. Concerning the ATFM en-route delay, the study identifies an error of aggregation in the calculation of Cost of Delay of 12.9 percent resulting in a difference of 860 million euros compared to official publications such as the Performance Review Report (PRR) and Air Traffic Cost Effectiveness Report (ACE). The reason for this difference is that in official publications an average value of 102 Euro per Minute of ATFM delay, irrespective of the length of the delay, is considered. Post-operational data shows that most of the ATFM delay is less than 30 minutes – hence the usage of the average value is not appropriate.

“Using an average value is a valid approximation for pre-operational decision making, but when assessing the level of performance in the post-operations phase, a more accurate calculation for the cost of delay has to be used to avoid biased calculations”, said Giuseppe Gangemi.

The research has also led to the development of an adjusted delay indicator tested by ENAV during simulated in-flight operations. The basic idea is to adjust the actual ATFM delay incurred by an aircraft with the difference coming out from the comparison of the estimated flight duration and the actual flight duration. Using data for flights operating in BLUE MED skies (airspace of Cyprus, Greece, Italy and Malta) between 2015 to 2020 - which were delayed by less than 15 minutes, approximately 12% of ECAC flights – the analysis found 10% fewer delays. The advantage of this new method is to override the limitation of the current one that considers only delay at the departure but does not consider the overarching objective of a punctual arrival. Much more could be discovered by further investing in this area.

Moderating the Expert Talk, Professor Ibon Galarraga, Metroeconomica at the University of Bilbao, said: *“More than 70 delegates listened and asked questions about this latest work on the cost of delay. Delay is not an easy topic to understand, but delegates took advantage of the forum to discuss ways of improving the calculation of delay.”*

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