

FABEC XMAN measures reduce environmental impact by cutting airport holding and fuel consumption

17 May 2022 – Functional Airspace Block Europe Central (FABEC) in cooperation with FAB UK/IRL is reducing holding times and fuel consumption for flights arriving at London airports. Since 11th April 2022, Extended Arrival Management XMAN procedures between London and Brest area control centres (ACC) have improved flight efficiency, lowered environmental impact, and improved safety as a result of reduced stack holding.

During a four-week evaluation period in March, 151 flights were given an XMAN slowdown from Brest to London to reduce the time that would otherwise be spent in the holding stack. As a result of receiving minimum speed instructions more than 180 nautical miles from their final destination, airspace users saved a total of 118 mins holding time and flew 431 less nautical miles. The fuel benefit based on arrivals into London Heathrow and London Gatwick amounted to 6.6 tonnes, saving 21.1 tonnes of carbon dioxide emissions over the trial period. Following the successful evaluation, the procedure has been adopted permanently by UK air navigation service provider NATS and DSNA in France. As the months of March and April usually have less traffic, the benefits realised during the busier summer months will even be higher.

FABEC members already deploy XMAN procedures to improve flight efficiency for arrivals at Frankfurt, Munich, Paris and Zurich airports by using operational links to exchange information between adjacent area control centres. In addition to improving environmental performance, the measures optimise traffic flow and reduce congestion around busy airports.

A FABEC spokesperson said: “Expanding cross-border arrival management between Brest and London is among many FABEC activities which aim to reduce aviation’s environmental footprint and support the European Green Deal. It is also an important step towards the European Commission’s Pilot Common Project⁽¹⁾ which mandates extended arrival management procedures at 24 airports from January 2024.”

Results of March 2022 evaluation analysing 151 flights

Airport	Reduction in Holding (mins)	Fuel Saving (T)	CO2 Saving (T)	Distance Saving (NM)
EGKK	47.7	2.2	6.9	174.9
EGLL	70.0	4.5	14.2	256.4
Total	117.6	6.6	21.1	431.3

Source: NATS

The airspace of the six FABEC States of Belgium, France, Germany, Luxembourg, the Netherlands and Switzerland is one of the busiest and most complex in the world. The majority of the major European airports, major civil airways and military training areas are located in this area. FABEC airspace covers 1.7 million km² and handles about 55% of European air traffic. Winner of the ATM 2020 Research, Innovation and Environment Award.

⁽¹⁾European Commission Pilot Common Project

<https://skybrary.aero/articles/regulation-7162014-establishment-pilot-common-project-supporting-atm-master-plan>

For further information please contact:

Roland Beran, FABEC: +49 171 2139896

www.fabec.eu