



Improved forecasting of disruption due to convection within the London TMA airspace

P. Maisey (1) and K. Brown (2)

(1) UK Met Office, Exeter, United Kingdom, (2) UK Met Office, Exeter, United Kingdom

The London Terminal Manoeuvring Area (LTMA) is one of the busiest airspace sectors in the world. Management of the airspace includes arrivals and departures from the five main London airports (Heathrow, Gatwick, London City, Stansted and Luton).

Deep convection presents a significant hazard to aviation within the LTMA, resulting in increased workload for air traffic controllers and potential delays to air travellers. NATS is responsible for managing the airspace and the Met Office has provided a dedicated forecast of the risk of deep convection within the LTMA since summer 2012.

In this study, cases from the first season of operation were used to identify situations in which deep convection was correlated with significant disruption to LTMA operations. Analysis of the case studies was also used to identify the meteorological and air traffic management conditions in which disruptive events were under-forecast or over-forecast.

Results are presented on the benefits of using high-resolution model outputs of convective activity over the region of interest in combination with knowledge of air traffic movements to identify disruptive events, enabling better guidance to be provided to the user.